



**THE CORPORATION OF THE TOWNSHIP OF WAINFLEET
REGULAR MEETING OF COUNCIL AGENDA
JANUARY 20, 2026 – 6:00 P.M.
COUNCIL CHAMBERS**

*(Time adjusted for this meeting only
Regular business to resume at 6:30 p.m.)*

C01/26

- 1. Call to Order**
- 2. Closed Meeting**
 - a) Item under Section 239(2)(e) of the Municipal Act, 2001, litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board – 1 item (legal update)
 - b) Minutes of the Closed Meetings of Council held December 9, 2025
- 3. Rise & Report**
- 4. National Anthem**
- 5. Land Acknowledgement Statement**
- 6. Disclosures of Interest and the General Nature Thereof**
- 7. Presentations**
- 8. Mayor’s Announcements & Remarks**
- 9. Councillor’s Announcements & Remarks**
- 10. Adoption of Previous Council Minutes**
 - a) Minutes of the Regular Meeting of Council held December 9, 2025
- 11. Public Meeting**
- 12. Delegations**
 - a) Lesley Rigg, President, Brock University Re: Update on Brock University’s Strategic Plan
 - b) Bob Gale, Regional Chair Re: Meet and Greet with Council

13. Consent Agenda

a) Drainage Staff Reports

- i. DSR-001/2026 Re: Shafley Road Drain and Collver Drain Engineering Report Update

b) Public Works Staff Reports

- i. PWSR-001/2026 Re: Single Axle Dump Truck Plow/Sander Combo Purchase
- ii. PWSR-002/2026 Re: Cemetery Truck Replacement
- iii. PWSR-003/2026 Re: Operations Truck Replacement

14. Staff Reports & Recommendations

a) Community and Development Services Staff Reports

- ii. Memorandum Re: Partial Closure and Conveyance of Bessey Road Allowance

b) Planning Staff Reports

- i. PSR-001/2026 Re: Zoning By-law Amendment File No. Z07/2025W 40562 Forks Road, Wainfleet

15. Review of Correspondence

- a) Correspondence Item C-012 Re: Proposed Wainfleet Senior of the Year Award

16. By-laws

- a) By-law No. 001-2026 being a by-law pursuant to the provisions of Section 34 of the Planning Act, R.S.O. 1990 to amend Zoning By-law No. 034-2014 of the Corporation of the Township of Wainfleet with respect to those lands forming Concession 5, Part Lots 4 & 5 in the Township of Wainfleet and known municipally as 40562 Forks Road.
- b) By-law No. 002-2026 being a by-law to authorize the stopping up and closing a portion of the road allowance known municipally as Bessey Road and the conveyance of part of the said road allowance between lots 3 & 4, Concession 1 described as parts 1 and 2 on reference plan 59r-18493 in the Township of Wainfleet, Regional Municipality of Niagara.

17. Notices of Motion

18. By-law to Confirm the Proceedings of Council

- a) By-law No. 003-2026 being a by-law to adopt, ratify and confirm the proceedings of the Council of the Corporation of the Township of Wainfleet at its Regular Meeting of Council held January 20, 2026.

19. Adjournment



**THE CORPORATION OF THE TOWNSHIP OF WAINFLEET
REGULAR MEETING OF COUNCIL MINUTES**

C20/25
DECEMBER 9, 2025
6:00 P.M.
COUNCIL CHAMBERS

PRESENT: B. Grant Mayor
J. Anderson Councillor
T. Gilmore Councillor
J. MacLellan Councillor
S. Van Vliet Councillor

STAFF PRESENT: M. Luey Chief Administrative Officer
M. Alcock Fire Chief/CEMC
A. Chrastina Clerk
L. Earl Manager of Community & Development Services
C. Hart Manager of Financial Planning/Deputy Treasurer
S. Ivins Planner
M. Jemison Drainage Superintendent
R. Nan Manager of Operations
D. Scott Planning Technician

1. Call to Order

Mayor Grant called the meeting to order at 5:58 p.m.

15. Closed Meeting

Resolution No. C-2025-171

Moved by Councillor MacLellan

Seconded by Councillor Gilmore

“**THAT** Council now move into closed session to discuss:

- a) Item under Section 239(2)(a) of the Municipal Act, 2001, the security of the property of the municipality or local board– 1 item (a security matter)”

CARRIED

16. Rise & Report

The Clerk reported that Council met in closed session pursuant to exemptions under Section 239 of the Municipal Act to receive information respecting a security matter.

2. National Anthem

3. Land Acknowledgement Statement

Mayor Grant acknowledged that the land on which we gather is the traditional territory of the Anishinaabeg and Haudenosaunee Peoples, acknowledging the One Bowl and Spoon Treaty.

4. Disclosures of Interest

Councillor Van Vliet declared an interest in the PSR-010/2025 (Zoning By-law Amendment Z06/2025W).

5. Presentations

Mayor Grant presented the 2025 Mayor's Greeting Card contest winners with an appreciation plaque. The winners were Ruby Den Bak (79EL) and Silas Den Bak (80EL).

6. Mayor's Announcements & Remarks

Mayor Grant provided the following remarks:

- Please note that these meeting proceedings are being broadcast live, recorded and made available through the Township website and youtube.com.
- I'd like to extend a special thank you to our volunteer fire service, whose annual recognition evening last week was interrupted by two separate calls for emergency response. This is an amazing demonstration of the level of dedication our firefighters bring to the job and a great example of why we, as residents, can sleep better at night knowing our Department is on the job. Thank you to the Chiefs, Officers and all firefighters for a job well done!
- Please note that our municipal office will close early on Tuesday December 23rd for the holidays and will reopen on Friday January 2, 2026.
- Our next regular meeting of Council is Tuesday January 20, 2026 at 6:30pm

7. Councillor's Announcements & Remarks

Councillor Gilmore advised that he will be away for the January 20, 2026 meeting.

8. Adoption of Previous Council Minutes

Resolution No. C-2025-172

Moved by Councillor Van Vliet

Seconded by Councillor Gilmore

“**THAT** the minutes of the regular meeting of Council held November 18, 2025 and the special meetings of Council held November 24 and 26, 2025 be adopted as circulated.”

CARRIED

9. Public Meeting

a) Zoning By-law Amendment Z07/2025W

Mayor Grant called the Public Meeting to order at 6:41 p.m. and advised that the purpose of the Public Meeting is to provide information about the proposed

amendment and provide opportunity for public input.

The Planner provided an information report outlining application details, progress and comments received.

The applicant did not provide any comments regarding the application.

There were no comments or questions received from members of Council.

There were no public comments received.

The Planner provided information regarding next steps and appeal rights.

The Public Meeting was adjourned at 6:46 p.m.

10. Delegations

None.

11. Consent Agenda

None.

12. Staff Reports & Recommendations

a) Administrative Staff Reports

- i. Memorandum Re: Support for the Adoption of a Code of Conduct for Human Trafficking Prevention

Resolution No. C-2025-173

Moved by Councillor MacLellan

Seconded by Councillor Van Vliet

“**THAT** Council formally endorse the Code of Conduct for the Prevention of Human Trafficking in the Niagara Region, developed by TOES Niagara and Brock University and actively support other Niagara region municipalities in their adoption of a Human Trafficking Prevention Code of Conduct.”

CARRIED

- ii. ASR-025/2025 Re: 2022-2026 Advisory Committee Dissolution

Resolution No. C-2025-174

Moved by Councillor Gilmore

Seconded by Councillor MacLellan

“**THAT** Administrative Staff Report ASR-025/2025 respecting 2022-2026 Advisory Committee Dissolution be received; and

THAT Council approve the dissolution all non-statutory Advisory Committees in August 2026, with the option to present end of term reports as outlined in this report.”

CARRIED

- iii. ASR-026/2025 Re: 2026 Consolidated Budget Report

Resolution No. C-2025-175

Moved by Councillor MacLellan

Seconded by Councillor Gilmore

“**THAT** ASR-026-2025 – 2026 Consolidated Budget Report be received; and

THAT the 2026 operating levy budget, as outlined in Appendix A, with a net levy budget of \$6,937,968 (an increase of \$185,619) be approved; and

THAT the 2026 infrastructure levy budget, as outlined in Appendix A, with a levy budget of \$1,815,489 (an increase of \$193,504) be approved; and

THAT the 2026 capital levy budget, as outlined in Appendix A, with a levy budget of \$1,494,349 (an increase of \$193,504) be approved; and

THAT the 2026 capital budget, as outlined in Appendix B, with a total capital commitment and recommended funding of \$6,107,576 be approved; and

THAT the 2026 consolidated budget, with an overall levy increase of 5.92%, less estimated assessment growth of 0.94%, for a net levy increase of 4.98% be approved.”

CARRIED

b) Fire Staff Reports

- i. FSR-005/2025 Re: Community Risk Assessment

Resolution No. C-2025-176

Moved by Councillor MacLellan

Seconded by Councillor Anderson

“**THAT** Fire Staff Report FSR-005/2025, respecting the Community Risk Assessment, be received for information.”

CARRIED

c) Planning Staff Reports

- i. PSR-010/2025 Re: Zoning By-law Amendment File No. Z06/2025W
43237 Pettit Road, Wainfleet

Councillor Van Vliet left the dais.

Resolution No. C-2025-177

Moved by Councillor MacLellan
Seconded by Councillor Gilmore

“THAT Planning Staff Report PSR-010/2025 be received; and

THAT Zoning By-law Amendment File No. Z06/2025W for the lands known municipally as 43237 Pettit Road be approved for the reasons outlined in this report; and

THAT the application be deemed to be consistent with the Provincial Planning Statement (2024) and conform with the Niagara Official Plan and Township of Wainfleet Official Plan; and

THAT the Zoning By-law Amendment attached as Appendix “C” be adopted.”

CARRIED

Councillor Van Vliet returned to the dais.

d) **Public Works Staff Reports**

- i. PWSR-024/2025 Re: Non-Eligible Sources Recycling Collection

Resolution No. C-2025-178

Moved by Councillor MacLellan
Seconded by Councillor Gilmore

“THAT PWSR 024/2025 be received; and

THAT Council direct the Manager of Operations to begin an internal recycling program and have staff deliver the recycled material to the Niagara Region’s drop-off depots as long as they are made available, or a specified recycling facility if the Niagara Region depots cease to operate.”

CARRIED

17. Correspondence

- a) Correspondence Item C-217 Re: Marshville Heritage Society request for fee reduction

Resolution No. C-2025-179

Moved by Councillor Anderson
Seconded by Councillor Gilmore

“**THAT** Correspondence item C217 from the Marshville Heritage Society respecting a request for fee reduction be received and supported.”

CARRIED

18. By-laws

- a) By-law No. 036-2025 being a by-law to provide for drainage works in the Township of Wainfleet in the Region of Niagara. (Ellsworth Drain third and final reading)

Resolution No. C-2025-180

Moved by Councillor MacLellan

Seconded by Councillor Van Vliet

“**THAT** By-law No. 036-2025 being a by-law to provide for drainage works in the Township of Wainfleet in the Region of Niagara be read a third time and finally enacted this 9th day of December, 2025.”

CARRIED

- b) By-law No. 046-2025 being a by-law pursuant to the provisions of Section 34 of the Planning Act, R.S.O. 1990 to amend Zoning By-law No. 034-2014 of the Corporation of the Township of Wainfleet with respect to those lands forming Concession 4, Part Lot 31 in the Township of Wainfleet and known municipally as 43237 Pettit Road.

Resolution No. C-2025-181

Moved by Councillor MacLellan

Seconded by Councillor Gilmore

“**THAT** By-law No. 046-2025 being a by-law pursuant to the provisions of Section 34 of the Planning Act, R.S.O. 1990 to amend Zoning By-law No. 034-2014 of the Corporation of the Township of Wainfleet with respect to those lands forming Concession 4, Part Lot 31 in the Township of Wainfleet and known municipally as 43237 Pettit Road be read and passed this 9th day of December, 2025.”

CARRIED

19. Notices of Motion

None.

20. Closed Meeting

Resolution No. C-2025-182

Moved by Councillor Anderson

Seconded by Councillor Gilmore

“**THAT** Council now move into closed session to discuss:

a) Item under Section 239(2)(c) of the Municipal Act, 2001, a proposed or pending acquisition or disposition of land by the municipality or local board– 1 item (an acquisition of land matter)

b) Minutes of the Closed Meeting of Council held November 18, 2025.”

CARRIED

21. Rise & Report

The Clerk reported that Council met in closed session pursuant to exemptions under Section 239 of the Municipal Act to receive information respecting an acquisition of land matter. Further, Council adopted previous closed session minutes.

22. By-law to Confirm the Proceedings of Council

Resolution No. C-2025-183

Moved by Councillor MacLellan
Seconded by Councillor Gilmore

“**THAT** By-law No. 047-2025 being a by-law to adopt, ratify and confirm the proceedings of the Council of the Corporation of the Township of Wainfleet at its Special Meetings of Council held November 24, 2025 and November 26, 2025 and its Regular Meeting of Council held December 9, 2025 be read and passed this 9th day of December, 2025.”

CARRIED

23. Adjournment

There being no further business, the meeting was adjourned at 7:35 p.m.

B. Grant, MAYOR

A. Chrastina, CLERK

**SCHEDULE “B” TO BY-LAW NO. 023-2023 TOWNSHIP OF WAINFLEET
DELEGATION REQUEST FORM**

Please fill out and return no later than 4:30 p.m. on the Tuesday prior to the meeting you wish to appear. Completed forms are to be submitted to the Clerks Department and can be dropped off or emailed to achrastina@wainfleet.ca

If you are speaking to an item listed on the agenda, the deadline for submission is 12:00 p.m. on the day of the scheduled meeting.

Date of Meeting:



Name: Lesley Rigg, President, Brock University	
Address: 1812 Sir Isaac Brock Way, St. Catharines, L2S 3A1	
Telephone: April Jeffs 905-658-7890	E-mail: ajeffer@brocku.ca

Subject Matter to be Discussed:	Provide an update about Brock’s Strategic Plan
Action Requested:	Receive for information

Have you previously spoken on this issue? Yes No

If an individual has previously appeared as a delegation, a further delegation from the

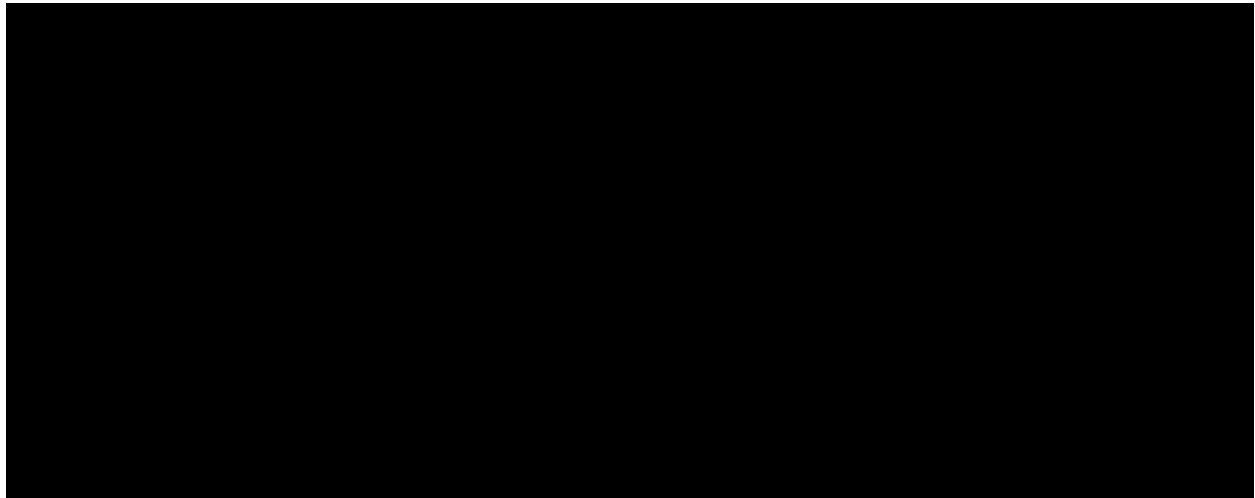
same individual on the same topic will not be permitted, unless there is significant new information to be brought forward.

Do you have material for distribution at the meeting? Yes No If yes, specify:

Do you have a copy of your notes/presentation to attach? Yes No If yes, specify: We will have a powerpoint presentation that we will submit prior to the meeting

Delegations are required to provide the Clerk's Department presentation materials for publication in Council's agenda package.

I have read and understand the Delegation Protocol attached to this form and understand that the information contained on this form, including any attachments, will become public documents and listed on Township meeting agendas and posted to the Township's website.



Signature Date : November 5, 2025 (April Jeffs)

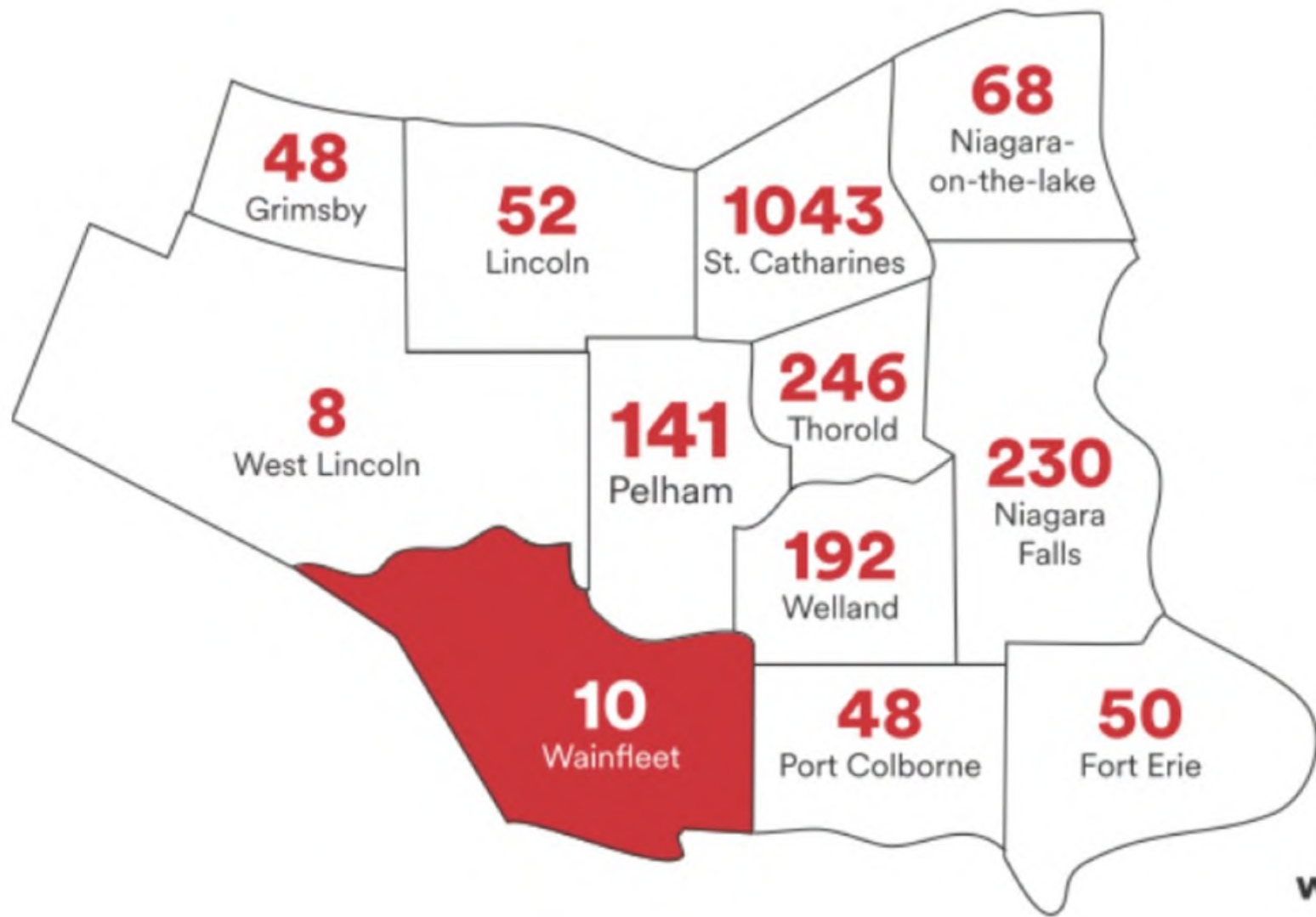
SCHEDULE "C" TO BY-LAW NO. 023-2023 TOWNSHIP OF WAINFLEET DELEGATION PROTOCOL

The purpose of the delegation process is to allow interested parties to make their views known to Council. Council values and welcomes input, comments, and constructive suggestions. Since Council generally has to consider a large number of issues and concerns at any given time, the following protocol is observed:

1. 1) Upon your arrival at the meeting, please identify yourself to the Clerk.
2. 2) When called upon by the Chair the delegation (speaker) should proceed immediately to the podium at the front of the Council Chambers.
3. 3) Speakers are asked to keep their remarks as brief as reasonably possible. Comments when stated in a clear, concise and factual manner are very much







2,136
Total number of
Brock employees
who live in the
Niagara region

2,806
Total number of
full time
Brock employees


10
Total number of
Brock employees
who live in **Wainfleet**



\$1.3 billion

economic impact in Niagara

— AND —

\$2.4 billion

Contributed to Ontario's
economic landscape*

*BASED ON THE 2019-20 ACADEMIC YEAR



More than

125,000

Brock alumni



Dwight teBrake Chartered Accountant

A strong supporter of co-op education, consistently hiring Bachelor of Accounting and Bachelor of Business Administration students since 2017. For the upcoming January–April 2026 work term, two co-op students will join the team as Junior Staff Accountants.

“Dwight couldn’t be better. He is very understanding of personal situations, appreciative of his employees, and an excellent mentor. His interpersonal skills with clients are outstanding, and he is always happy to help whenever I have questions or need support in my career.”

Brock University Co-op Student
Dwight teBrake Chartered Accountant



100%

of Brock programs offer
Experiential Education

Ontario Agra Piping & Supplies Inc

They hired their first co-op student for the January–April 2026 work term. The student will be working as an Accounting Clerk, marking the beginning of a valuable relationship with co-op education.

Transforming people, reimagining the future

Institutional Strategic Plan • 2025-2030



24 focus groups



19 one-on-one interviews



2 surveys internal & external

2,000+ total consultations

80+

Board Members & Senators

370+

students

500+

participated in the alumni survey

150+

community partners

450+

staff & admin

150+

faculty, instructors & librarians

PURPOSE STATEMENT

Why we exist

Transforming people, reimagining the future.
Through curiosity, creativity, and courage.

GUIDING PRINCIPLES

**+ Champion
one
another**

We are stronger together.

**+ Break
down
barriers**

Access unlocks potential.

**+ Lead
by
example**

Our actions matter.

**+ Learn
through
curiosity**

We quest for knowledge.

Strategic directions



Shape tomorrow
through research,
discovery
and knowledge



Build
sustainable
futures



Realize
you
matter



Bring the world
to Brock, and
Brock to the
world



Brock
University

Thank you



SCHEDULE "B" TO BY-LAW NO. 023-2023

TOWNSHIP OF WAINFLEET

DELEGATION REQUEST FORM

Please fill out and return no later than 4:30 p.m. on the Tuesday prior to the meeting you wish to appear. Completed forms are to be submitted to the Clerks Department and can be dropped off or emailed to achrastina@wainfleet.ca

If you are speaking to an item listed on the agenda, the deadline for submission is 12:00 p.m. on the day of the scheduled meeting.

Name:	
Address:	
Telephone:	E-mail:

Date of Meeting: _____

Subject Matter to be Discussed:	
Action Requested:	

Have you previously spoken on this issue? Yes No

If an individual has previously appeared as a delegation, a further delegation from the same individual on the same topic will not be permitted, unless there is significant new information to be brought forward.

Do you have material for distribution at the meeting? Yes No

If yes, specify:

Do you have a copy of your notes/presentation to attach? Yes No

If yes, specify:

Delegations are required to provide the Clerk's Department presentation materials for publication in Council's agenda package.

- I have read and understand the Delegation Protocol attached to this form and understand that the information contained on this form, including any attachments, will become public documents and listed on Township meeting agendas and posted to the Township's website.

Signature

Date

TO: Mayor Grant & Members of Council

FROM: Mark Jemison, Drainage Superintendent

DATE OF MEETING: January 20, 2026

SUBJECT: **Shafley Road Drain and Collver Drain Engineering Report Update**

RECOMMENDATION(S):

THAT Drainage Staff Report DSR-001/2026 respecting the Shafley Road Drain and Collver Drain Reports be received; and

THAT Staff be directed to advance the Shafley Road Drain and Collver Drain Reports for Consideration at the February 12, 2026, Council Meeting as per the timelines outlined in Section 41, Chapter D. 17 of the *Drainage Act* R.S.O. 1990.

EXECUTIVE SUMMARY:

The purpose of this report is to provide Council with an update on the Engineer's Report and requisite actions arising from the Meeting to Consider.

BACKGROUND:

The site meeting with impacted property owners was held on November 20, 2019. Numerous stakeholder meetings were held to discuss the project including October 19, 2022, November 3, 2023 and July 9, 2025. The project faced delays due to the province-wide legal dispute concerning railway cost responsibility and the Drainage Act.

The final reports were filed with the Township on January 9, 2026. The Meeting to Consider provides property owners with an opportunity to ask questions of the engineer or express any concerns over the Engineer's Report related to design or any gross errors.

OPTIONS/DISCUSSION:

1. Staff be directed to advance the Shafley Road Drain and Collver Drain Engineer's Report for Consideration at the October 2, 2025, Council Meeting as per the timelines outlined in Section 41, Chapter D. 17 of the *Drainage Act* R.S.O. 1990 (Recommended).
2. Do not move forward with the Engineer's Report (Not recommended).

FINANCIAL CONSIDERATIONS:

The engineer has estimated the Township’s share of costs at \$383,784 out of a total project cost of \$1,928,267. In the 2026 capital budget, the Township allocated \$72,000 for the Collver Drain and \$280,880 for the Shafley Road Drain, a total of \$352,880. Staff are therefore requesting that the 2026 capital budget project PW.1 be increased by \$30,904 and be funded through the Infrastructure Reserve. The majority of the Township work will be completed adjacent to Smith Road, including the installation of 71m of 1200mm diameter culverts to protect Smith Road.

OTHERS CONSULTED:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Chief Administrative Officer | <input checked="" type="checkbox"/> Finance |
| <input checked="" type="checkbox"/> Clerks | <input checked="" type="checkbox"/> Communications |
| <input checked="" type="checkbox"/> Community & Development Services | <input checked="" type="checkbox"/> Operations |
| <input checked="" type="checkbox"/> Fire | <input type="checkbox"/> Other: |

ATTACHMENTS:

- 1) Appendix A – Collver Drain Report – Headway Engineering
- 2) Appendix B – Shafley Road Drain Report – Headway Engineering

Respectfully submitted by,

Approved by,

Mark Jemison
Drainage Superintendent

Mallory Luey
Chief Administrative Officer

APPENDIX "A"

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Collver Municipal Drain

December 18, 2025

Prepared for:



Headway Engineering
23-500 Fairway Road South
Suite 308
Kitchener, Ontario N2C 1X3
226 243 6614
www.headwayeng.ca

Kitchener, Ontario

December 18, 2025

To the Mayor and Members of Council:

**Re: Collver Municipal Drain
Township of Wainfleet
Our Reference No. WNFLT-001**

Headway Engineering is pleased to provide its report for the **Collver Municipal Drain** in the Township of Wainfleet.

The preparation of this report was authorized by resolutions of the Council of the Township of Wainfleet in September 2019 and on July 13, 2021, July 29, 2025, and September 9, 2025, under Sections 78 and 4 of the Drainage Act.

The primary objective of this report is to improve the existing Collver Municipal Drain by upgrading it to today's standards of drainage. The proposed work includes the enclosure of an open ditch, the installation of a pump system, and the replacement of a significant length of Regional Road culvert, as well as the replacement of several access culverts.

A summary of the assessments for this project are as follows:

Municipal Lands	\$	810,504
Railway Companies	\$	5,510
Privately Owned Non-Agricultural	\$	28,166
Privately Owned Agricultural (Grantable)	\$	551,820
Privately Owned Agricultural (Non-Grantable)	\$	318,000
Total Estimated Assessments	\$	1,714,000

Yours truly,

Stephen Brickman, P.Eng.
Project Engineer and Manager



Adam Hall
Project Coordinator
HEADWAY ENGINEERING

SB/





CONTENTS

1.0	INTRODUCTION AND LOCATION	1
2.0	AUTHORIZATION.....	1
3.0	DRAINAGE HISTORY	2
4.0	MEETINGS AND PUBLIC ENGAGEMENTS	2
5.0	FINDINGS.....	3
6.0	DESIGN CONSIDERATIONS.....	5
7.0	ENVIRONMENTAL CONSIDERATIONS	8
8.0	RECOMMENDATIONS.....	8
9.0	SUMMARY OF PROPOSED WORKS.....	9
10.0	WORKING AREA AND ACCESS.....	9
11.0	SCHEDULES	10
12.0	ALLOWANCES	11
13.0	ESTIMATED CONSTRUCTION COSTS	12
14.0	SUMMARY OF ESTIMATED PROJECT COSTS.....	12
15.0	ASSESSMENT	12
16.0	GRANT ELIGIBILITY	14
17.0	MAINTENANCE	14

SCHEDULES

SCHEDULE A - ALLOWANCES

SCHEDULE B - ESTIMATED CONSTRUCTION COSTS

SCHEDULE C - ASSESSMENT FOR ESTIMATED CONSTRUCTION

SCHEDULE D - ASSESSMENT FOR FUTURE MAINTENANCE

SPECIFICATIONS FOR THE CONSTRUCTION OF MUNICIPAL DRAINAGE WORKS

1.0 INTRODUCTION AND LOCATION

The Council of the Township of Wainfleet has appointed Headway Engineering to investigate a request for improvements to the Collver Municipal Drain, along with two petitions for new drainage works that outlet to the Collver Municipal Drain.

The project services parts of Lots 38 to 40, Concessions 5, parts of Lots 36 to 42, Concession 6, and parts of Lots 38 to 41 Concession 7 in the Township of Wainfleet, Niagara Region.

The Drainage Area comprises of approximately 396 hectares, and land uses within the watershed consist mainly of agricultural lands, with significant areas of woodlots, roads and residential.

The attached Plans, Profiles, and Details; Drawing Numbers 1 to 11, and Specifications form part of this report. They show and describe in detail the location and extent of the work to be completed and the lands and roads which are affected.

2.0 AUTHORIZATION

Authority to prepare this report originates from several Council actions under the Drainage Act. These include the initial 2019 Section 78 appointment, the 2021 transition of the Engineer under Section 8(2), and the acceptance of two new petitions under Section 4 in 2025. Details are summarized in Table 1.

Date	Council Action	Drainage Act Section	Description
September, 2019	Initial Appointment	Section 78	Council appointed Deitrich Engineering Limited to prepare an Engineer's Report for improvements to the Collver Municipal Drain.
July 13, 2021	Appointment Transition	Section 8(2)	Council Transitioned its appointment of the Engineer from Dietrich Engineering to Headway Engineering.
July 29, 2025	Petition Accepted	Section 4	First petition for new drainage works (Part Lot 37, Concession 6) was accepted by Council.
September 9, 2025	Petition Accepted	Section 4	Second petition for new drainage works (Part Lot 40, Concession 5) was accepted by Council.

Table 1 - Council Actions Authorizing the Preparation of the Report

In accordance with Section 4 of the Drainage Act, the Areas Requiring Drainage associated with the two petitions comprise parts of Lots 36 and 37, Concession 6, and part of Lot 40, Concession 5. The lands requiring drainage in Concession 6 presently have a legal outlet into the Shafley Municipal Drain;



however, that outlet is insufficient. Given the proximity of planned works in the Collver Municipal Drain, the most practical outlet for these lands is now into the Collver Municipal Drain. The lands identified in Concession 5 require a continued legal outlet into the Collver Municipal Drain. Each petition is valid in accordance with Section 4(1)(a) and (b) of the Drainage Act.

3.0 DRAINAGE HISTORY

The historical records for the Collver Municipal Drain include several engineering reports and a significant road-related reconstruction. The earliest report, completed by George Ross in 1894, authorized the initial construction of the drain. A subsequent report by Ross and Scott in 1926 suggests that repairs were carried out, however detailed records are not available.

Sometime prior to the 1963 Engineer’s Report, major works occurred along Wellandport Road (Regional Road 4), including the widening of the road and the relocation of the drain from the west side to the east side of the road allowance. These works are described in Clarke’s 1963 report but no other record has been made available.

The table below summarizes all documented historical works identified to date.

Date	Event / Report	Notes (Based on Available Records)
1894	George Ross – Drainage Act Report	First documented construction of the Collver Municipal Drain.
1926	Ross and Scott – Drainage Act Report	Referenced as the last known repair prior to 1963.
Prior to 1963	Regional Road 4 Road Widening and Relocation Works	The 1963 report references a “recent widening” of County Road 22 and the relocation of the drain along the east side of the road.
November 1963	C.J. Clarke, P. Eng. – Drainage Act Report	Clarke indicates earlier road works and identifies that the relocated/existing roadworks section is in good condition, but the remaining upstream sections (on private property) were obstructed and needed repair.

Table 2 - Summary of Engineering Reports and Road-Related Works

4.0 MEETINGS AND PUBLIC ENGAGEMENTS

A series of technical, stakeholder, and statutory meetings have been held throughout the development of this report. These engagements involved landowners, municipal staff, regulatory authorities, the railway, and the Region. The meetings occurred as design options were refined, new information became available, and petitions were submitted. The key meetings are summarized in Table 3.

Meeting Date	Meeting Description	Summary
November 20, 2019	On-Site Meeting (Section 9(1) of the Drainage Act)	Preliminary plan circulated; meeting held to investigate the request for improvements.
October 19, 2022	Stakeholders Meeting 1	Review of options and alignments for the proposed drainage systems, including preliminary design considerations and associated cost distributions.
June 28, 2023	Canadian Pacific Railway	Meeting held to review the proposed design, the required rail crossings, and associated costs. Early



		coordination involved confirming whether CP or CN was the responsible authority; CP ultimately confirmed jurisdiction. CP claimed that they would not participate financially. The meeting concluded with CP's position noted and the process moved forward through later stakeholder discussions.
November 3, 2023	Stakeholders Meeting 2	The project status and possible next steps were reviewed. Pump options had been discussed previously, and at this meeting the proponent and Township confirmed that this was the direction to pursue.
January 9, 2025	Stakeholders Meeting 3	Several pump configurations—including a large single pump and a two-pump arrangement—had been examined. The preferred option (a single large pump) was presented with updated design details, revised draft costs, and proposed assessment distributions.
March 25, 2025	Niagara Region	The meeting provided a review of the existing infrastructure, proposed alignment, design standard and assessment for the Collver Drain (Open) along Regional Road 4.
July 9, 2025	Public Information Meeting	The meeting provided a review of the proposed design, estimated costs, and the proposed assessments, among other information. All meeting materials were posted online following the meeting, and all parties invited to attend the meeting were provided with access instructions to the meeting materials.
October 23, 2025	Petitioner/On-Site Meeting (Section 9(1) of the Drainage Act)	The petition and the landowner's needs were reviewed. Various options were discussed, including alternative outlets, additional depth, and a potential private pump approach.
November 7, 2025	Department of Fisheries and Oceans (DFO)	Headway Engineering met with DFO to review the proposed works and discuss how the project complies with the Fisheries Act and the Species at Risk Act. The proposal was presented and explained.
November 19, 2025	Niagara Region	Meeting held to determine whether the Region required any additional downstream ditch enclosure along the Collver Municipal Drain.

Table 3 - Summary of Meetings and Engagements.

5.0 FINDINGS

Based on the information collected during field investigations, surveys, public engagements, and review of documentation, the following summarizes Headway Engineering's findings:

5.1 Watershed Condition (Hydrology):

- The watershed was established through the analysis of tile drainage maps, previous engineers' reports for the Collver Drain and surrounding drainage systems, field investigations, surveys and data analysis of the LiDAR derived digital data from Land Information Ontario. The drainage area comprises of approximately 396 hectares
- Approximate proportions of land uses within the watershed are as follows:



- Agricultural: 64.9%
- Woodlot: 28.7%
- Roads: 5.1%
- Residential: 1.3%
- The Ontario Ministry of Agriculture, Food and Agribusiness's (OMAFRA's) Agricultural Information Atlas describes the soil types within the watershed and along the routes of the drains as loamy phase.

5.2 Existing Drainage System:

- The Collver Municipal Drain was originally constructed in 1894 (131 years ago). It was subsequently repaired in 1926 (99 years ago), modified along the roadside as part of road works shortly before 1963, and the upper section was reconstructed in 1963 (62 years ago). Therefore, the *newest* section of the Collver Drain is about 62 years old.
- The drainage system is relatively flat throughout. The previous report notes extended sections at grades as low as about 0.048%.
- The Collver Drain is not of sufficient depth to provide adequate drainage for lands within the watershed.
- Many of the existing culverts are in poor states of repair or configuration and are of insufficient size and depth to convey flows from upstream lands at today's standards of drainage.
- Of special note is the culvert from Sta 0+358 to 0+567 within the Wellandport Road (Regional Road 4) road allowance. The culvert appears to have been installed in lieu of land acquisition. The culvert is in a poor configuration and condition, with a notable 'belly' through much of its length.
- The lands on Lots 36 and 37, Concession 6 are presently assessed into the Shafley Municipal Drain. Their existing outlet, for the portions located north of the railway, is provided through a pipe beneath the railway on Branch 'A' of the Shafley Drain.

5.3 Outlet:

- The outlet for the Collver Municipal Drain is the Big Forks Drain on the east side of Regional Road 4, Lot 39, Concession 5.
- The Big Forks Drain is of adequate depth to provide sufficient outlet for the Collver Municipal Drain. Likewise, no construction works are proposed in the Big Forks Drain under this report.

5.4 Other Noted Observations:

- The existing open ditch on the Hihojo Ltd. properties (Roll No. 12-195 and Roll No. 12-186) and Kevin and Vanessa Devries property (Roll No. 12-185-01) follows an irregular alignment, creating challenges for farming operations.



- Waters occasionally top the ditch banks on the Hihojo Ltd. properties (Roll No. 12-195 and 12-186) and Kevin and Vanessa Devries Property (Roll No. 12-185-01).
- In general, the lands located north of the former railway in Concession 5 have a very planar, yet pitted topography—overall flat with numerous local depressions. South of the former railway, the lands fall naturally toward the Big Forks Drain. Directing drainage from the northernmost areas toward this southern outlet, given the overall flatness, would require substantial depth as the system approaches the crest where the lands begin to fall toward the Big Forks Drain.
- Additional systematic tiling within the watershed is likely. For some lands, the capital cost of achieving a gravity outlet may make private pumping a more practical option.

5.5 Environmental Findings:

- The Department of Fisheries and Oceans (DFO) has classified the Collver Municipal Drain as “F Class”, according to the OMAFA Agricultural Information Atlas, indicating an intermittently flowing watercourse with low fish habitat value.

6.0 DESIGN CONSIDERATIONS

6.1 Design Concepts Considered

Several design concepts were evaluated over the course of the design process. These options were developed in response to project needs, Landowner and Stakeholder direction, railway and Niagara Region considerations, petitions received and Township input. The major alternatives considered are summarized below.

6.1.1 Gravity Based (no pumping)

The first concept was a gravity-based reconstruction following the existing drainage pattern, using current alignments and providing gravity outlets throughout. This option essentially modernized the existing system to current standards. Gravity drainage remains preferable where feasible, as it avoids operation costs associated with pumping.

Under this concept:

- The Collver Drain crossing under the railway required significant deepening.
- The neighbouring Shafley Drain project would require two deeper and larger railway crossings.
- Railway requirements were reviewed at the June 28, 2023 meeting. The railway confirmed that the improved works could proceed provided safety and construction standards were met and the costs were borne by the drainage project (not the railway company). At the time, a province-wide legal dispute concerning railway cost responsibility was ongoing. Given the uncertainty, stakeholders discussed whether to wait for the outcome of the court case or proceed along an alternate path. At the Stakeholder Meeting No. 2 (November 3, 2023), the proponent and the Township indicated a preference to move forward and look at alternate concepts including pumping.



6.1.2 Pump Based

Several pump configurations were evaluated:

1. Pump for Collver Drain plus an additional pump for the Shafley Drain
2. A single pump for the Collver Drain with no additional pumps for the Shafley Drain.
3. Expansion of the Collver watershed area (including lands draining through the proposed Homan Branch).

Pump-based concepts offered several advantages:

- Reduced downstream excavation requirements.
- Improved and more maintainable pipe grades.
- Reduced pipe sizes.

These considerations led to the preferred pump arrangement incorporated in the proposed works (Collver & Shafley Municipal Drains).

6.1.3 Regional Road Realignment Options

At the Onsite Meeting held in 2019, Niagara Region noted that the existing enclosure crossing and then re-crossing the regional road required reconfiguration, and the costs would be borne appropriately. During the design process, the Region asked whether costs could be reduced by retaining more of the existing alignment or reducing enclosure. The options were examined, however the reductions in enclosure were minimal, and the costs were negligible.

6.1.4 Heeg Property Options

Upon receiving the Heeg petition, several outlet options were examined for the property (Roll No. 13-026):

1. Deepening the ditch along the Regional Road to obtain a gravity outlet.
2. Two alternative alignments to Wolf Creek as potential gravity outlets.
3. A pumped outlet to the Collver Drain. OMAFA was consulted regarding the grant eligibility of the pump. Since the pump is effectively similar to a lateral drain, the pump cannot be eligible for the Agriculture Drainage Infrastructure Program (ADIP) grant program.

Deepening the drain along the Regional Road would result in substantial additional costs, a significant portion of which would be assessed to the Heeg property. While Niagara Region may benefit from additional enclosure, much of the associated cost must still be assigned to the Heeg property.

Based on practicality and feasibility, the most appropriate option for the Heeg property (Roll No. 13-026) is a new outlet to the Collver Drain using a private pump.



6.2 Open Ditch Work:

The open ditch works have been designed to provide adequate depth for sufficient outlets to existing private tile drains, the proposed ditch enclosure, and improved tile drainage for workable areas adjacent to and upstream of the municipal drain. Where reasonable depth could be achieved, gravity drainage has been accommodated; however, given the local topography, some localized areas may not have enough elevation difference for a gravity outlet and may require pumping.

Provisions have been made in the proposed works to allow for the repair of areas of ditch that have experienced bank failure, erosion or slumping.

6.3 Culverts:

Access crossing culverts have been designed using a minimum event standard of a 5-year rainfall event, while the road culvert along Regional Road 4 was designed using a minimum event standard of a 10-year rainfall event.

6.4 Closed Drain Work:

The tile drainage systems were sized using the Drainage Coefficient method included in the OMAFA Publication 29 – ‘Drainage Guide for Ontario’. The Drainage Coefficient describes a depth of water to be conveyed by the drainage works per a 24-hour period and is expressed in millimeters per 24 hours. The drainage coefficient design standard used for the works proposed in this report is 25mm per 24-hour period.

6.5 Pump System

A pump system has been incorporated into the design to provide a sufficient outlet for the proposed closed drain where gravity drainage is not practical. The pump selection and detailed design were completed by a pump manufacturer with extensive experience in agricultural drainage pumping systems. The pump system was designed to meet the same outlet design standard as the gravity system (25 mm per 24-hour drainage coefficient).

Design considerations also included:

- Required lift and total dynamic head needed to provide a sufficient outlet.
- Available electrical service at the proposed location.
- Use of a Variable Frequency Drive (VFD) to reduce mechanical stress.
- Debris and sediment management appropriate for a closed pipe system.
- Tank sizing to provide adequate drawdown time and reduce pump cycling.

6.6 Wetlands

The drainage system is designed to function collaboratively with the natural drainage features of the nearby wetlands. The design does not include any measures intended to alter or lower wetland water levels, and no changes have been introduced that increase this capability.



7.0 ENVIRONMENTAL CONSIDERATIONS

7.1 Department of Fisheries and Oceans (DFO)

The DFO has reviewed the Request for Review package sent to them on February 21, 2025, and considered in their review information presented during discussions and meetings that were held between Headway Engineering staff and DFO personnel on November 7, 2025.

7.2 Niagara Peninsula Region Conservation Authority (NPRCA)

The NPRCA has been included on the circulation list for this report and has been invited to all public engagements. Additionally, a permit application was submitted to the NPRCA on October 8, 2025.

7.3 Ministry of Natural Resources (MNR)

Headway Engineering completed a review of the Natural Heritage Information Centre mapping for Species at Risk in Ontario. NHIC mapping indicates the potential presence of Provincial Species at Risk within approximately one kilometer of the work area. Their occurrence within the project footprint is unlikely, as the preferred habitats for the identified species do not correspond with the conditions present at the work location and are instead associated with areas farther removed.

8.0 RECOMMENDATIONS

Headway Engineering recommends the following:

1. Collver Drain (Open)
 - Approximately 735 metres be cleaned out and/or deepened to improve outlet conditions for private farm tile and municipal systems within the watershed, where gravity drainage is achievable.
 - The replacement of three access culvert crossings.
 - The installation of 209 metres of corrugated steel road culvert including road restoration.
2. Collver Dain (Closed)
 - Approximately 2,170 metres of the Collver Drain (Open) be enclosed
 - The closed drainage system includes the installation of approximately 2,000 metres of 300mm to 1200mm diameter concrete field tile and HDPE pipe and the installation of five concrete catch basins
 - The installation of a pump system to facilitate the enclosure, maintain manageable drainage grades, and avoid excessive outlet depth.
3. Homan Branch
 - The tile drainage system includes the installation of approximately 434 metres of 300mm to 400mm diameter concrete field tile and the installation of one catch basin
4. Heeg Branch



- The drainage system includes the installation of approximately 25 metres of 300mm HDPE pipe and the installation of one concrete catch basin
5. New maintenance schedules be provided for the Collver Drain (Open), Collver Drain (Closed), Homan Branch, Heeg Branch and for the proposed culverts along the Collver Drain (Open).
 6. The improved drainage system be known as the **Collver Municipal Drain**.
 7. Headway Engineering also recommends the watersheds of the surrounding municipal drainage systems be updated when those drainage works require improvement in the future.

9.0 SUMMARY OF PROPOSED WORKS

The proposed work consists of:

1. The cleanout and/or deepening of approximately 735 metres of open ditch on the Collver Drain (Open).
2. The installation of three access culvert crossings, and the installation of 209 metres of corrugated metal culvert along Regional Road 4 on the Collver Drain (Open).
3. The enclosure of approximately 2,170 metres of Collver Drain (Closed).
4. The installation of a 500mm diameter – 50 horsepower pump on the Collver Drain (Closed).
5. The installation of approximately 2,000 metres of 300mm to 1200mm diameter concrete field tile and HDPE pipe and five inline concrete catch basins on the Collver Drain (Closed).
6. The installation of approximately 434 metres of 300mm to 400mm diameter concrete field tile and one inline concrete catch basin on the Homan Branch.
7. The installation of approximately 25 metres of 300mm HDPE pipe and one inline concrete catch basin on the Heeg Branch.

10.0 WORKING AREA AND ACCESS

Access to the working area shall be designated by the Landowners.

The working area shall be in accordance with the following average widths. The working width may be used for construction purposes including spreading or transporting excavated soil and supplying construction materials to the site.

Drain Segment and Station Range	Property Roll No.	Working side	Average Working Width for Construction	Average Working Width for Future Maintenance
Collver Drain (Open)				
0+031 to 0+358	12-118-02, 12-119	East	12m	10m
0+358 to 0+567	Regional Road 4	Centered	12m	10m
0+567 to 0+959	12-198, 13-998	East	12m	10m



0+959 to 1+010	Regional Road 4	Centered	12m	10m
1+010 to 1+065	12-195	East	12m	10m
Collver Drain (Closed)				
0+000 to 2+000	12-195, 12-186, 12-185-01 and Unopened Road Allowance	Centred	25m	10m
Existing Ditch Alignment (to be enclosed)	12-195, 12-186, 12-185-01	North and South	10m (both sides)	N.A.
Homan Branch				
0+000 to 0+434	Unopened Road Allowances, 12- 183-01 and 12-184	Centred	25m	10m
Heeg Branch				
0+000 to 0+020	Regional Road 4	Centred	12m	10m

Table 4 - Summary of Working Area Descriptions

11.0 SCHEDULES

Four schedules are attached and form part of this report.

11.1 Schedule A – Schedule of Allowances

In accordance with Sections 29 and 30 of the Drainage Act, allowances are provided to affected Landowners for Right-of-Way, Damages to Lands and Crops and Loss of Access. Schedule A contains a table of the applicable allowances to Landowners.

11.2 Schedule B – Schedule of Estimated Construction Costs

An itemized cost estimate of the proposed construction work is included in detail in Schedule B.

11.3 Schedule C – Schedule of Assessment for Construction

Schedule C provides details of the distribution of the total estimated costs of the construction of the municipal drain.

11.4 Schedule D – Schedule of Assessment for Maintenance

Schedule D provides details of the distribution of future maintenance costs for the municipal drain. Maintenance assessments are expressed as a percentage of the total maintenance. Lands located upstream of the maintenance shall be determined by the Drainage Superintendent and assessed according to this schedule.



12.0 ALLOWANCES

In accordance with Sections 29 and 30 of the Drainage Act, Allowances payable to Landowners are calculated using the following methodology.

12.1 Allowances for Right-of-Way (Section 29)

The Right-of-Way allowance compensates the lands for the right to enter onto the land at various times for the purpose of inspecting the drainage system and conducting maintenance activities.

The land value used for the Right-of-Way calculation is adjusted for closed drainage systems Collver Dain (Closed) to account for the continued use of the land after the construction.

The values used for calculating allowances for Right-of-Way are as follows:

Land Use	Land Value	Adjustment Factor for Drainage Act Right-of-Way	Adjusted Land Value for Drainage Act Right-of-Way Allowance
Agricultural Working Side of Ditch and Tile Drain	\$50,000/Ha	25%	\$12,500/Ha
Agricultural Additional Top Width	\$50,000/Ha	100%	\$50,000/Ha
Woodlot Working Side of Ditch	\$15,000/Ha	25%	\$3,750/Ha
Residential	\$120,000/Ha	25%	\$30,000/Ha

Table 5 - Land Values and Right-of-Way Allowances

12.2 Allowances for Damages to Lands and Crops (Section 30)

Allowances for Damages to Lands and Crops under Section 30 of the Drainage Act, were primarily calculated to compensate landowners for crop losses, bush losses and land damages due to the construction and operation of the drain, including access to the working area.

Area values used for calculating allowances for Damages are as follows:

Land Use	Damage Value
Agricultural	\$6,000/Ha
Woodlot	\$3,000/Ha.
Residential	\$12,000/Ha.

Table 6 - Standard Land Damage Values

Allowances payable to Landowners entitled thereto are as shown in Schedule A.

Total Allowances, under Sections 29, and 30 of the Drainage Act:

Collver Municipal Drain: \$ 79,750



13.0 ESTIMATED CONSTRUCTION COSTS

Headway Engineering has made an estimate of the cost of the proposed construction work. A detailed description of the estimated construction costs can be found in Schedule B of this report.

A) Collver Drain (Open)	\$	643,100
B) Collver Drain (Closed)	\$	557,310
C) Homan Branch	\$	40,500
D) Heeg Branch	\$	19,200
E) Provisional Items	\$	63,500
Total Estimated Construction Costs	\$	1,323,610

14.0 SUMMARY OF ESTIMATED PROJECT COSTS

The total estimated project costs are as follows:

Allowances under Sections 29 and 30 of the Drainage Act (Refer to Schedule A)	\$	79,750
Total Estimated Construction Costs (Refer to Schedule B)	\$	1,323,610
Meetings, survey, design, preparation of preliminary cost estimates, preparation of final drainage report, consideration of report	\$	136,800
Sub-Contractor – Pump Manufacturer Technical Consultation	\$	5,800
Consultation with Environmental Agencies and Permitting Fees	\$	5,500
Preparation of contract documents, contract administration, supervision, inspection of construction, and preparation of as recorded records	\$	74,100
Contingencies, Interest and net H.S.T.	\$	88,440
TOTAL ESTIMATED PROJECT COSTS – COLLVER MUNICIPAL DRAIN	\$	1,714,000

The estimated cost of the work in the Township of Wainfleet is \$1,714,000.

The above costs are estimates only. The final costs of construction, engineering and administration cannot be determined until construction is completed.

The above cost estimate does not include costs associated with defending the drainage report should appeals be filed with the Court of Revision, Drainage Tribunal and/or Drainage Referee. Should additional costs be incurred, unless otherwise directed, the additional costs would be distributed in a pro-rata fashion over the assessments contained in Schedule C and as may be varied under the Drainage Act.

15.0 ASSESSMENT

Headway Engineering assesses the cost of this work against the Lands and Roads as shown in Schedule C - Assessment for Construction.



Assessments were determined using the principles included in the 'Drainage Assessment Revisited' paper prepared by E.P. Dries and H.H. Todgham. These principles of assessment are recognized to be fair and equitable for determining cost distributions among those affected.

15.1 Benefit (Section 22)

Benefit assessment is applied to those properties receiving a benefit as defined in Section 1 of the Drainage Act which is extracted below:

Benefit means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair, or maintenance of a drainage works such as will result in a higher market value or increased crop production or improved appearance or better control of surface or sub-surface water, or any other advantages relating to the betterment of lands, roads, buildings or other structures.

Typically, properties which have direct, or near direct access to the proposed drain receive Benefit as defined above.

15.2 Outlet Liability (Section 23)

Outlet Liability is distributed to all properties within the watershed area on an adjusted area basis. The areas are adjusted to accurately reflect equivalent run-off rates relative to other lands and roads within the watershed. Due to development, roads have been assessed higher Outlet Liability rates relative to agricultural lands.

15.3 Special Benefit (Section 24)

The Special Benefit instrument of assessment was used to assess the increased costs of the pump system, enclosing the open ditch and installing a new tile drainage system to the properties who requested that the open ditch be enclosed. This assessment instrument was also used to separate the benefit portion of the new access culvert crossings from the remaining costs of the new crossings.

15.4 Special Assessment (Section 26)

Special Assessments apply to public utilities and roads which directly cause increased costs to the construction of a drainage works due to the existence and operation of the public utility or road.

Construction costs which are required solely because of the existence of Regional Road 4 are fully assessed to the road authority having jurisdiction over the road. The Special Assessment is calculated based on the actual costs of the proposed work, plus an allowance for administration, interest and Net HST as described below.



Road Name	Estimated Construction Costs	Plus, Estimated Administration Costs	Less Equivalent Drain Costs (Fixed)	Plus Estimated Interest, and Net HST	Estimated Special Assessment
Regional Road 4 (Collver Drain (Open))	\$435,950	\$138,090	\$10,550	\$23,910	\$587,400
Regional Road 4 (Heeg Branch)	\$11,900	\$5,395	\$1,045	\$605	\$16,855

Table 7 - Estimated Special Assessment Calculations.

Whether or not the Region of Niagara elects to do the work through Regional Road 4 they shall be assessed the actual increased costs to the drainage works due to the construction and operation of the above noted sections of the Collver Drain (Open) as a Special Assessment in addition to any benefit and outlet liability assessments.

If any additional work is required to construct or maintain the drainage works due to the existence of buried utilities, roads, railways, or if utilities require relocation or repair, then the extra costs incurred shall be borne by the utility, road or railway involved in accordance with the provisions of Section 26 of the Drainage Act.

16.0 GRANT ELIGIBILITY

The Province provides grants towards assessment to eligible properties for drainage improvements which meet the specific criteria. The provision of these grants for activities under the Drainage Act is called the *Agricultural Drainage Infrastructure Program (ADIP)*.

A grant may be available for assessments to privately owned parcels of land which are used for agricultural purposes and eligible for the Farm Property Class Tax rate. Section 88 of the Drainage Act directs the Township to make application for this grant upon certification of completion. The Township will then deduct the grant from the assessments.

16.1 Municipal Drain Enclosure (Non-Grantable)

Following Policy No. 2.3.f) of the ADIP policies, we have determined that the costs of enclosing the existing municipal drain (Collver Drain (Closed)) is not eligible for ADIP grants. The costs of the municipal drain enclosure have been assessed using Special Benefit, Section 24 of the Drainage Act. The Special Benefit Assessment shall be proratable.

17.0 MAINTENANCE

After completion, this drain shall be maintained by the Township of Wainfleet at the expense of all the lands and roads assessed in the attached Schedule D - Assessment for Future Maintenance, and in the same relative proportions until such time as the assessment is changed under the Drainage Act, except for those portions of the drainage works crossing municipal or rail right-of-ways and the Regional Road Culvert from Sta. 0+358 to 0+567 Collver Drain (Open). These portions of the drain shall be maintained at the expense of the road authority having jurisdiction over said road.



Culvert sizes for the private crossings not being replaced under this report have been included in the drawing set for reference. Landowners and railway agencies are recommended to use these details when undertaking future replacements.



Schedule A

Schedule of Allowances

Schedule of Allowances Collver Municipal Drain

Collver Drain (Open)	Property Details				Drairage Act Allowances		
	Part			Roll	Right of Way	Damages	Total
	Lot	Con.	Landowner	Number	(Sec. 29)	(Sec. 30)	Allowances
	Pt. 39	5	Hihojo Ltd.	12-118-02	\$ 1,660	\$ 680	\$ 2,340
	Pt. 39	5	R. & L. Reid	12-119	\$ 1,280	\$ 880	\$ 2,160
	Pt. 39	5	W., M., & B. Jongsma	12-198-20	\$ -	\$ 3,340	\$ 3,340
	Pt. 39	5	K. & V. Devries	12-198	\$ 4,340	\$ 4,910	\$ 9,250
	Pt. 39	6	Hihojo Ltd.	12-195	\$ 810	\$ 470	\$ 1,280
	Pt. 39	6	C. Ferguson & V. McGaw	12-197	\$ -	\$ 7,160	\$ 7,160
	Total Allowances						
	Collver Drain (Open)				\$ 8,090	\$ 17,440	\$ 25,530

Collver Drain (Closed)	Property Details				Drairage Act Allowances		
	Part			Roll	Right of Way	Damages	Total
	Lot	Con.	Landowner	Number	(Sec. 29)	(Sec. 30)	Allowances
	Pt. 37	6	W. Dobrucki	12-182	\$ -	\$ 750	\$ 750
	Pt. 38	6	K. & V. Devries	12-185-01	\$ 2,690	\$ 10,910	\$ 13,600
	Pt. 38	6	Hihojo Ltd.	12-186	\$ 2,580	\$ 5,650	\$ 8,230
	Pt. 38	6	K. Devries	12-187	\$ -	\$ 2,430	\$ 2,430
	Pt. 38	6	G. & M. Lambert	12-188	\$ -	\$ 1,210	\$ 1,210
	Pt. 39	6	Hihojo Ltd.	12-195	\$ 5,130	\$ 11,530	\$ 16,660
	Total Allowances						
	Collver Drain (Closed)				\$ 10,400	\$ 32,480	\$ 42,880

Homan Branch	Property Details				Drairage Act Allowances		
	Part			Roll	Right of Way	Damages	Total
	Lot	Con.	Landowner	Number	(Sec. 29)	(Sec. 30)	Allowances
	Pt. 36	6	Hihojo Ltd.	12-179-15	\$ -	\$ 500	\$ 500
	Pt. 37	6	D. & A. Homan	12-184	\$ 2,540	\$ 3,050	\$ 5,590
	Pt. 37	6	Hihojo Ltd.	12-183-01	\$ 1,580	\$ 3,170	\$ 4,750
	Total Allowances						
	Homan Branch				\$ 4,120	\$ 6,720	\$ 10,840

Heeg Branch	Property Details				Draianage Act Allowances		
	Part			Roll	Right of Way	Damages	Total
	Lot	Con.	Landowner	Number	(Sec. 29)	(Sec. 30)	Allowances
	Pt. 40	5	Heegview Farms Ltd.	13-026	\$ -	\$ 500	\$ 500
	Total Allowances						
	Heeg Branch				\$ -	\$ 500	\$ 500

	Right of Way (Sec. 29)	Damages (Sec. 30)	Total Allowances
Total Allowances			
Collver Municipal Drain	\$ 22,610	\$ 57,140	\$ 79,750



Schedule B

Schedule of Estimated Construction Costs

Schedule of Estimated Construction Costs

An estimate of the cost of the proposed work has been completed, which is outlined in detail as follows.

Part A - Collver Drain (Open)

Description	Estimated Quantity	\$/Unit	Total
1) Clearing, brushing and mulching	l.s.		\$ 10,040.00
2) Open ditch excavation including cleanout through existing culverts (Sta. 0+031 to Sta. 0+358, Sta. 0+567 to Sta. 0+960, Sta. 1+010 to Sta. 1+065)	735 m	\$ 20.00	\$ 14,700.00
3) Load excavated material (Note Part B - Item 14c) (approx. 2300m3)	735 m	\$ 15.00	\$ 11,025.00
4) Hydro seed disturbed side slopes	2100 m2	\$ 4.00	\$ 8,400.00
5) Supply 1-1600mm diameter, corrugated steel pipe laneway culvert (Hihojo Culv), 2.8mm thickness, 125x25mm corrugations, type II aluminized coating. Installation of 1600mm diameter culvert at Sta. 0+112 complete with quarry stone rip-rap protection and geotextile material (25m2) including remove and dispose of existing culvert offsite	25 m	\$ 1,000.00	\$ 25,000.00
	l.s.		\$ 10,000.00
6) Supply 1-1600mm diameter, corrugated steel pipe laneway culvert (DeVries Culv), 2.8mm thickness, 125x25mm corrugations, type II aluminized coating. Installation of 1600mm diameter culvert at Sta. 0+775 complete with quarry stone rip-rap protection and geotextile material (25m2) including remove and dispose of existing culvert offsite	12 m	\$ 1,000.00	\$ 12,000.00
	l.s.		\$ 8,000.00

Description	Estimated Quantity	\$/Unit	Total
7) Supply 1-1600mm diameter, corrugated steel pipe laneway culvert (Ferguson, McGaw Culv), 2.8mm thickness, 125x25mm corrugations, type II aluminized coating. Installation of 1600mm diameter culvert at Sta. 0+987 complete with quarry stone rip-rap protection and geotextile material (25m2) including remove and dispose of existing culvert offsite	50 m	\$ 1,000.00	\$ 50,000.00
	l.s.		\$ 35,000.00
8) Supply and install 1600mm diameter corrugated steel 45 degree bend, Sta. 0+964	l.s.		\$ 3,000.00
9) Erosion and sediment control	l.s.		\$ 5,000.00
10) Traffic Control	l.s.		<u>\$ 14,985.00</u>
Sub-Total - Non-Special Assessment			<u>\$ 207,150.00</u>
11) Work on the Niagara Region Road Allowance (Road Pipe), (Sta. 0+710 to Sta. 0+738)			
<hr/>			
a) Supply 1-1600mm diameter, corrugated steel road culvert, 2.8mm thickness, 125x25mm corrugations, type II aluminized coating. Installation of 1600mm diameter culvert at Sta. 0+358 to 0+569 complete with quarry stone rip-rap protection and geotextile material (35m2)	209 m	\$ 1,000.00	\$ 209,000.00
	209 m	\$ 800.00	\$ 167,200.00
b) Supply and install 1600mm diameter corrugated steel 15 degree bend, Sta. 0+378	l.s.		\$ 3,500.00
c) Hold hydro pole	1 ea.	\$ 5,000.00	\$ 5,000.00

Description	Estimated Quantity	\$/Unit	Total
d) Road Restoration including: Supply and Place 150mm thickness of Granular 'A' (50m ² x 0.15m thickness)	20 t	\$ 60.00	\$ 1,200.00
Supply and place 100mm thickness (50mm HL8 and 50mm HL4) asphalt (40m ² x 0.1m thickness)	10 t	\$ 500.00	\$ 5,000.00
e) Grout existing culvert (approx. 238m ³)	I.s.		\$ 40,000.00
f) Traffic Control	I.s.		\$ 5,050.00

Sub-Total - Work on the Niagara Region Road Allowance (Special Assessment)

\$ 435,950.00

**Total Estimated Construction Costs
Part A - Collver Drain (Open)**

\$ 643,100.00

Part B - Collver Drain (Closed)

Description	Estimated Quantity	\$/Unit	Total
1) Additional stripping width 10 metres (Sta. 0+018 to Sta. 0+831)	813 m	\$ 12.50	\$ 10,162.50
2) Tile installation at additional depth	I.s.		\$ 9,990.00
3) Supply 750mm HDPE pipe (CSA B182.8)	6 m	\$ 175.00	\$ 1,050.00
Installation (Sta. 0+018 to 0+024)	6 m	\$ 125.00	\$ 750.00
4) Supply 750mm diameter concrete field tile	807 m	\$ 107.00	\$ 86,349.00
Installation (Sta. 0+024 to Sta. 0+831)	807 m	\$ 50.00	\$ 40,350.00
5) Supply 675mm diameter concrete field tile	369 m	\$ 85.00	\$ 31,365.00
Installation (Sta. 0+831 to Sta. 1+200)	369 m	\$ 47.00	\$ 17,343.00
6) Supply 525mm diameter concrete field tile	381 m	\$ 50.00	\$ 19,050.00
Installation (Sta. 1+200 to Sta. 1+581)	381 m	\$ 45.00	\$ 17,145.00
7) Supply 450mm diameter concrete field tile	201 m	\$ 40.00	\$ 8,040.00
Installation (Sta. 1+581 to Sta. 1+782)	201 m	\$ 40.00	\$ 8,040.00

Description	Estimated Quantity	\$/Unit	Total
8) Supply 300mm diameter concrete field tile	218 m	\$ 25.00	\$ 5,450.00
Installation (Sta. 1+782 to Sta. 2+000)	218 m	\$ 33.00	\$ 7,194.00
9) Supply and install 1200mm x 1200mm inline concrete catch basin at Sta. 0+831	1 ea.	\$ 7,000.00	\$ 7,000.00
10) Supply and install 900mm X 1200mm inline concrete catch basin at Sta. 0+616, 1+200 and 1+581	3 ea.	\$ 5,000.00	\$ 15,000.00
11) Supply and install 600mm X 600mm inline concrete catch basin at Sta. 2+000	1 ea.	\$ 3,021.50	\$ 3,021.50
12) Supply and delivery of 500mm pump capable of pumping 9,750 GPM @ 3.8m TDH with 50HP, 900RPM, 3PH, 575V motor, including VFD 3HP out with load and line reactors	l.s.		\$ 106,600.00
Install complete pump station with 2200mm x 6m well, 1200mm x 18m HDPE reservoir pipe, pump well top frame, pump house, float system and 6m of 500mm dia. Discharge pipe and backwater gate	l.s.		\$ 74,700.00
13) Pump chamber excavation			\$ 10,075.00
14) Filling in existing ditch including:			
a) Cleanout existing ditch of all available topsoil and stockpile - material to be spread over backfilled ditch	2170 m	\$ 7.00	\$ 15,190.00
b) Move excess fill from tile installation (moving material only - this item excludes final placement of fill)	785 m3	\$ 3.00	\$ 2,355.00
c) Supply fill (total estimated additional fill required: approx. 4,600m3 from Shafley excavation, additional 595m3)	5195 m3	\$ 8.00	\$ 41,560.00
d) Placement of fill to backfill existing ditch (approx. 8310m3)	2170 m	\$ 5.00	\$ 10,850.00

Description	Estimated Quantity	\$/Unit	Total
e) Fine grade topsoil on enclosed ditch and pipe installation	2170 m	\$ 4.00	\$ 8,680.00

Total Estimated Construction Costs

Part B - Collver Drain (Closed)

\$ 557,310.00

Part C - Homan Branch

Description	Estimated Quantity	\$/Unit	Total
1) Additional topsoil stripping (6m width)	434 m	\$ 6.00	\$ 2,604.00
2) Supply 400mm diameter concrete field tile	231 m	\$ 35.00	\$ 8,085.00
Installation (Sta. 0+000 to Sta. 0+231)	231 m	\$ 50.00	\$ 11,550.00
3) Supply 300mm diameter concrete field tile	203 m	\$ 25.00	\$ 5,075.00
Installation (Sta. 0+231 to Sta. 0+434)	203 m	\$ 50.00	\$ 10,150.00
4) Supply and install 600mm x 600mm concrete catch basin Sta. 0+434	1 ea.	\$3,036.00	\$ 3,036.00

Total Estimated Construction Costs

Part C - Homan Branch

\$ 40,500.00

Part D - Heeg Branch

Description	Estimated Quantity	\$/Unit	Total
1) Supply 300mm diameter HDPE Pipe (CSA B182.6) outlet pipe complete with rodent grate	6 m	\$ 50.00	\$ 300.00
Installation of 300mm diameter HDPE outlet pipe complete with quarry stone rip-rap protection and geotextile filter material (15m ²) (Sta. 0+000 to Sta. 0+006)	l.s.		\$ 4,000.00
2) Supply 300mm HDPE pipe (CSA B182.8)	19 m	\$ 50.00	\$ 950.00
Installation (Sta. 0+006 to 0+020)	19 m	\$ 250.00	\$ 4,750.00
3) Supply and install 600mm x 600mm concrete catch basin Sta. 0+025	1 ea.	\$3,000.00	\$ 3,000.00

Description	Estimated Quantity	\$/Unit	Total
4) Road Restoration including: Supply and Place 150mm thickness of Granular 'A' (50m ² x 0.15m thickness)	20 t	\$ 60.00	\$ 1,200.00
Supply and place 100mm thickness (50mm HL8 and 50mm HL4) asphalt (40m ² x 0.1m thickness)	10 t	\$ 500.00	\$ 5,000.00

Total Estimated Construction Costs

Part D - Heeg Branch **\$ 19,200.00**

Part E - Provisional Items

A Provisional Item is an item that may or may not be required as a part of the Contract. The decision as to whether a Provisional Item will form part of the Contract will be at the discretion of the engineer at time of construction. Payment for Provisional Items will only be made for work authorized in writing by the Engineer. Payment for work performed under a Provisional Item shall be based on the Unit Price bid in the Scope of Work below.

- 1) Additional costs associated with installation of tile drain on 19mm diameter crushed clear stone bedding. This includes the supply and placement of all stone, and additional labour and equipment required for installation in accordance with the Typical Pipe Installation on wrapped Stone Bedding Detail.

Description	Estimated Quantity	\$/Unit	Total
300mm diameter pipe	25 m	\$ 65.00	\$ 1,625.00
450mm diameter pipe	25 m	\$ 65.00	\$ 1,625.00
600mm diameter pipe	40 m	\$ 70.00	\$ 2,800.00
675mm diameter pipe	40 m	\$ 70.00	\$ 2,800.00
750mm diameter pipe	100 m	\$ 70.00	\$ 7,000.00

- 2) Additional costs associated with installation of tile drain on 19mm diameter crushed clear stone bedding. This includes the supply and placement of all stone, and additional labour and equipment required for installation in accordance with the Typical Pipe Installation on Stone Bedding Detail (un-wrapped bedding).

Description	Estimated Quantity	\$/Unit	Total
300mm diameter pipe	50 m	\$ 40.00	\$ 2,000.00
450mm diameter pipe	50 m	\$ 40.00	\$ 2,000.00
600mm diameter pipe	90 m	\$ 45.00	\$ 4,050.00
675mm diameter pipe	90 m	\$ 50.00	\$ 4,500.00
750mm diameter pipe	200 m	\$ 50.00	\$ 10,000.00

3) Wheel machine lift outs due to stony conditions 15 ea. \$ 300.00 \$ 4,500.00

4) Tile connections:

Description	Estimated	\$/Unit	Total
100mm diameter	40 ea.	\$ 90.00	\$ 3,600.00
150mm diameter	20 ea.	\$ 100.00	\$ 2,000.00

*The Contractor shall be paid for the actual quantity of tile connections at the above fixed unit prices.

5) Quarry stone rip-rap including geotextile filter material 150 t \$ 100.00 \$ 15,000.00

Total Estimated Construction Costs

Part E - Provisional Items \$ 63,500.00

Summary of Estimated Construction Costs

Part A - Collver Drain (Open) \$ 643,100.00
 Part B - Collver Drain (Closed) \$ 557,310.00
 Part C - Homan Branch \$ 40,500.00
 Part D - Heeg Branch \$ 19,200.00
 Part E - Provisional Items \$ 63,500.00

Total Estimated Construction Costs \$ 1,323,610.00

Total Estimated Materials \$ 568,314.00
 Total Estimated Labour and Equipment \$ 755,296.00

Total Estimated Construction Costs

COLLVER MUNICIPAL DRAIN \$ 1,323,610.00



Schedule C

Schedule of Estimated Assessment for Construction

**Schedule of Estimated Assessment for Construction
Collver Municipal Drain**

Property Details						Drainage Act Instruments of Assessment				For Information		
Part Lot	Concession	Landowner	Roll Number	Approx. Ha. Affected	Benefit (Sec. 22)	Outlet Liability (Sec. 23)	Special Benefit (Sec. 24)	Special Assessment (Sec. 26)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
Pt. 38	5	K. & V. Devries	12-185	2.10	\$ -	\$ 326			\$ 326	\$ 109	\$ -	\$ 217
Pt. 38	5	Hihojo Ltd.	12-186	4.96	\$ -	\$ 770			\$ 770	\$ 257	\$ -	\$ 513
Pt. 39	5	Hihojo Ltd.	12-118-02	0.40	\$ -	\$ 4	\$ 23,760		\$ 23,764	\$ 7,921	\$ 2,340	\$ 13,503
Pt. 39	5	R. & L. Reid	12-119	1.50	\$ 2,785	\$ 2			\$ 2,787	\$ 929	\$ 2,160	\$ 302
Pt. 39	5	W., M., & B. Jongsma	12-198-20	0.47	\$ -	\$ 225	\$ 3,500		\$ 3,725	*	\$ 3,340	\$ 385
Pt. 39	5	K. & V. Devries	12-198	19.20	\$ 32,780	\$ 2,080	\$ 14,760		\$ 49,620	\$ 16,540	\$ 9,250	\$ 23,830
Pt. 40	5	M. & A. Van Soelen	13-027	0.18	\$ -	\$ 54			\$ 54	*	\$ -	\$ 54
Pt. 40	5	Heegview Farms Ltd.	13-026	16.50	\$ 6,228	\$ 1,517			\$ 7,745	\$ 2,582	\$ -	\$ 5,163
Pt. 40	5	G. & A. Graszat	13-026-01	1.80	\$ -	\$ 17			\$ 17	*	\$ -	\$ 17
Pt. 40	5	M. & A. Van Soelen	13-026-02	1.00	\$ -	\$ 10			\$ 10	*	\$ -	\$ 10
Pt. 36	6	Hihojo Ltd.	12-179-15	11.00	\$ -	\$ 329			\$ 329	\$ 110	\$ -	\$ 219
Pt. 37	6	D. & A. Homan	12-184	14.60	\$ -	\$ 1,238			\$ 1,238	\$ 413	\$ -	\$ 825
Pt. 37	6	Hihojo Ltd.	12-183-01	10.40	\$ -	\$ 939			\$ 939	\$ 313	\$ -	\$ 626
Pt. 37	6	W. Dobrucki	12-182	21.93	\$ -	\$ 2,009			\$ 2,009	\$ 670	\$ -	\$ 1,339
Pt. 38	6	K. & V. Devries	12-185-01	30.60	\$ -	\$ 4,046			\$ 4,046	\$ 1,349	\$ -	\$ 2,697
Pt. 38	6	Hihojo Ltd.	12-186	9.60	\$ -	\$ 1,473			\$ 1,473	\$ 491	\$ -	\$ 982
Pt. 38	6	K. Devries	12-187	19.40	\$ -	\$ 3,112			\$ 3,112	\$ 1,037	\$ -	\$ 2,075
Pt. 38	6	G. & M. Lambert	12-188	0.40	\$ -	\$ 307			\$ 307	*	\$ -	\$ 307
Pt. 38	6	W. & J. Struyk	12-187-20	0.40	\$ -	\$ 307			\$ 307	*	\$ -	\$ 307
Pt. 38	6	J. & P. DeBoer	12-187-01	0.40	\$ -	\$ 307			\$ 307	*	\$ -	\$ 307
Pt. 39	6	Hihojo Ltd.	12-195	18.40	\$ 34,546	\$ 3,322			\$ 37,868	\$ 12,623	\$ 1,280	\$ 23,965
Pt. 39	6	C. Ferguson & V. McGaw	12-197	0.09	\$ -	\$ 76	\$ 10,384		\$ 10,460	*	\$ 7,160	\$ 3,300
Pt. 39	6	A. Pedro & A. St. Jean	12-196	0.40	\$ -	\$ 361			\$ 361	*	\$ -	\$ 361
Pt. 39	6	M. Mansoor & Z. Shaikh	12-194-03	4.10	\$ -	\$ 162			\$ 162	*	\$ -	\$ 162
Pt. 39	6	C. Ellens & M. Janssens-Ellens	12-194-02	4.10	\$ -	\$ 162			\$ 162	\$ 54	\$ -	\$ 108
Pt. 39	6	L. Yan & D. Jin	12-194	4.10	\$ -	\$ 162			\$ 162	\$ 54	\$ -	\$ 108
Pt. 39	6	T. Singhm, J. Sidhu and P. Grewal	12-194-01	4.10	\$ -	\$ 162			\$ 162	*	\$ -	\$ 162
Pt. 39	6	D. Wilfong & C. Macaulay	12-193	0.15	\$ -	\$ 91			\$ 91	*	\$ -	\$ 91
Pt. 39	6	D. Fansolato & M. Lum	12-194-05	4.50	\$ -	\$ 170			\$ 170	*	\$ -	\$ 170
Pt. 39	6	K. & K. Watts	12-191	9.00	\$ -	\$ 251			\$ 251	*	\$ -	\$ 251
Pt. 39	6	C. & K. Snip	12-194-04	4.60	\$ -	\$ 722			\$ 722	*	\$ -	\$ 722
Pt. 39	6	J. Usher & J. Kinnear	12-194-06	3.76	\$ -	\$ 1,040			\$ 1,040	*	\$ -	\$ 1,040
Pt. 39	6	J. & K. Davis	12-192-01	0.69	\$ -	\$ 101			\$ 101	*	\$ -	\$ 101
Pt. 39	6	C. & E. Sharpen	12-189	0.24	\$ -	\$ 97			\$ 97	*	\$ -	\$ 97
Pt. 39	6	N. Vandervelde & E. Jansen	12-190	0.41	\$ -	\$ 146			\$ 146	*	\$ -	\$ 146
Pt. 39	6	Township of Wainfleet	12-192	0.38	\$ -	\$ 141			\$ 141	*	\$ -	\$ 141

	Property Details					Drainage Act Instruments of Assessment					For Information		
	Part Lot	Concession	Landowner	Roll Number	Approx. Ha. Affected	Benefit (Sec. 22)	Outlet Liability (Sec. 23)	Special Benefit (Sec. 24)	Special Assessment (Sec. 26)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
Collver Drain (Open)	Pt. 39	6	C. & B. Matthews	12-192-02	0.42	\$ -	\$ 148			\$ 148	*	\$ -	\$ 148
	Pt. 40	6	Givens Farms Ltd.	13-028	58.20	\$ -	\$ 3,658			\$ 3,658	\$ 1,219	\$ -	\$ 2,439
	Pt. 40	6	J. & N. Bouffard	13-028-10	0.40	\$ -	\$ 144			\$ 144	\$ 48	\$ -	\$ 96
	Pt. 41	6	Givens Farms Ltd.	13-030	2.70	\$ -	\$ 78			\$ 78	\$ 26	\$ -	\$ 52
	Pt. 41	6	G. & J. Pennings	13-029	28.20	\$ -	\$ 5,398			\$ 5,398	\$ 1,799	\$ -	\$ 3,599
	Pt. 41	6	B. & A. Evers	13-029-01	0.40	\$ -	\$ 144			\$ 144	*	\$ -	\$ 144
	Pt. 42	6	1149959 Ontario Inc.	13-035	4.85	\$ -	\$ 1,092			\$ 1,092	\$ 364	\$ -	\$ 728
	Pt. 42	6	E. & L. Cramp	13-035-20	0.50	\$ -	\$ 235			\$ 235	*	\$ -	\$ 235
	Pt. 38	7	R. & C. Snippe	12-255	4.30	\$ -	\$ 343			\$ 343	*	\$ -	\$ 343
	Pt. 38	7	C. Lavigne & L. Babin	12-254	12.60	\$ -	\$ 1,535			\$ 1,535	\$ 512	\$ -	\$ 1,023
	Pt. 39	7	T. & H. Oosterhof	12-267	19.40	\$ -	\$ 1,300			\$ 1,300	\$ 433	\$ -	\$ 867
	Pt. 39	7	J. & M. Reichheld	12-265	0.84	\$ -	\$ 15			\$ 15	\$ 5	\$ -	\$ 10
	Pt. 39	7	P. Hessels	12-266-10	1.53	\$ -	\$ 235			\$ 235	\$ 78	\$ -	\$ 157
	Pt. 40	7	T. & H. Oosterhof	13-067	13.10	\$ -	\$ 908			\$ 908	*	\$ -	\$ 908
	Pt. 40	7	Stefani Properties Inc.	13-068	2.96	\$ -	\$ 274			\$ 274	\$ 91	\$ -	\$ 183
	Pt. 41	7	R. & C. Alders	13-082-01	1.00	\$ -	\$ 46			\$ 46	*	\$ -	\$ 46
	Total Assessments on Lands						\$ 76,339	\$ 41,791	\$ 52,404	\$ -	\$ 170,534	\$ 50,027	\$ 25,530
Wellandport Road (Regional Road 4)		Niagara Region			8.40	\$ 41,877	\$ 10,483	\$ 65,136	\$ 587,400	\$ 704,896			\$ 704,896
Zion Road		Township of Wainfleet			2.60	\$ -	\$ 2,347			\$ 2,347			\$ 2,347
Shafley Road North		Township of Wainfleet			0.70	\$ -	\$ 632			\$ 632			\$ 632
Willford Road		Township of Wainfleet			0.50	\$ -	\$ 238			\$ 238			\$ 238
Canada Southern Railway Company		13-998			3.40	\$ 2,414	\$ 2,762			\$ 5,176			\$ 5,176
Concession 6 Road		Township of Wainfleet			3.10	\$ -	\$ 4,477			\$ 4,477			\$ 4,477
Total Assessments on Roads						\$ 44,291	\$ 20,939	\$ 65,136	\$ 587,400	\$ 717,766			\$ 717,766
Total Assessments Collver Drain (Open)						\$ 120,630	\$ 62,730	\$ 117,540	\$ 587,400	\$ 888,300	\$ 50,027	\$ 25,530	\$ 787,220

	Property Details				Drainage Act Instruments of Assessment				For Information				
	Part Lot	Concession	Landowner	Roll Number	Approx. Ha. Affected	Benefit (Sec. 22)	Outlet Liability (Sec. 23)	Special Benefit (Sec. 24)	Special Assessment (Sec. 26)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
	Pt. 36	6	Hihojo Ltd.	12-179-15	10.16	\$ -	\$ 871	\$ 20,452		\$ 21,323	\$ 7,108	\$ -	\$ 14,215
	Pt. 37	6	D. & A. Homan	12-184	12.95	\$ -	\$ 1,111	\$ 30,640		\$ 31,751	\$ 10,584	\$ -	\$ 21,167
	Pt. 37	6	Hihojo Ltd.	12-183-01	9.42	\$ -	\$ 808	\$ 23,497		\$ 24,305	\$ 8,102	\$ -	\$ 16,203
	Pt. 37	6	W. Dobrucki	12-182	21.93	\$ 7,381	\$ 5,099			\$ 12,480	\$ 4,160	\$ 750	\$ 7,570
	Pt. 38	6	K. & V. Devries	12-185-01	28.10	\$ 20,970	\$ 4,264	\$ 105,810		\$ 131,044	\$ 43,681	\$ 13,600	\$ 73,763
	Pt. 38	6	K. & V. Devries (Non-Grantable)	12-185-01				\$ 83,760		\$ 83,760	*		\$ 83,760
	Pt. 38	6	Hihojo Ltd.	12-186	7.00	\$ 12,772	\$ 461	\$ 14,637		\$ 27,870	\$ 9,290	\$ 8,230	\$ 10,350
	Pt. 38	6	Hihojo Ltd. (Non-Grantable)	12-186				\$ 82,660		\$ 82,660	*		\$ 82,660
	Pt. 38	6	K. Devries	12-187	19.40	\$ 12,996	\$ 5,632			\$ 18,628	\$ 6,209	\$ 2,430	\$ 9,989
	Pt. 38	6	G. & M. Lambert	12-188	0.40	\$ 1,306	\$ 645			\$ 1,951	*	\$ 1,210	\$ 741
	Pt. 38	6	W. & J. Struyk	12-187-20	0.40	\$ -	\$ 625			\$ 625	*	\$ -	\$ 625
	Pt. 38	6	J. & P. DeBoer	12-187-01	0.40	\$ -	\$ 555			\$ 555	*	\$ -	\$ 555
	Pt. 39	6	Hihojo Ltd.	12-195	14.90	\$ 24,658	\$ 607	\$ 35,129		\$ 60,394	\$ 20,131	\$ 16,660	\$ 23,603
	Pt. 39	6	Hihojo Ltd. (Non-Grantable)	12-195				\$ 151,580		\$ 151,580	*		\$ 151,580
	Pt. 39	6	M. Mansoor & Z. Shaikh	12-194-03	4.10	\$ -	\$ 61			\$ 61	*	\$ -	\$ 61
	Pt. 39	6	C. Ellens & M. Janssens-Ellens	12-194-02	4.10	\$ -	\$ 57			\$ 57	\$ 19	\$ -	\$ 38
	Pt. 39	6	L. Yan & D. Jin	12-194	4.10	\$ -	\$ 53			\$ 53	\$ 18	\$ -	\$ 35
	Pt. 39	6	T. Singhm, J. Sidhu and P. Grewal	12-194-01	4.10	\$ -	\$ 67			\$ 67	*	\$ -	\$ 67
	Pt. 39	6	D. Wilfong & C. Macaulay	12-193	0.15	\$ -	\$ 21			\$ 21	*	\$ -	\$ 21
	Pt. 39	6	D. Fansolato & M. Lum	12-194-05	4.50	\$ -	\$ 102			\$ 102	*	\$ -	\$ 102
	Pt. 39	6	K. & K. Watts	12-191	9.00	\$ -	\$ 397			\$ 397	*	\$ -	\$ 397
	Pt. 39	6	C. & K. Snip	12-194-04	4.60	\$ -	\$ 1,143			\$ 1,143	*	\$ -	\$ 1,143
	Pt. 39	6	J. Usher & J. Kinnear	12-194-06	3.76	\$ -	\$ 1,646			\$ 1,646	*	\$ -	\$ 1,646
	Pt. 39	6	J. & K. Davis	12-192-01	0.69	\$ -	\$ 160			\$ 160	*	\$ -	\$ 160
	Pt. 39	6	C. & E. Sharpen	12-189	0.24	\$ -	\$ 176			\$ 176	*	\$ -	\$ 176
	Pt. 39	6	N. Vandervelde & E. Jansen	12-190	0.41	\$ -	\$ 265			\$ 265	*	\$ -	\$ 265
	Pt. 39	6	Township of Wainfleet	12-192	0.38	\$ -	\$ 223			\$ 223	*	\$ -	\$ 223
	Pt. 39	6	C. & B. Matthews	12-192-02	0.42	\$ -	\$ 234			\$ 234	*	\$ -	\$ 234
	Pt. 40	6	Givens Farms Ltd.	13-028	1.20	\$ -	\$ 343			\$ 343	\$ 114	\$ -	\$ 229
	Pt. 38	7	R. & C. Snippe	12-255	4.30	\$ -	\$ 376			\$ 376	*	\$ -	\$ 376
	Pt. 38	7	C. Lavigne & L. Babin	12-254	12.60	\$ -	\$ 2,777			\$ 2,777	\$ 926	\$ -	\$ 1,851
	Pt. 39	7	T. & H. Oosterhof	12-267	19.40	\$ -	\$ 2,386			\$ 2,386	\$ 795	\$ -	\$ 1,591
	Pt. 39	7	J. & M. Reichheld	12-265	0.84	\$ -	\$ 27			\$ 27	\$ 9	\$ -	\$ 18
	Pt. 39	7	P. Hessels	12-266-10	1.53	\$ -	\$ 425			\$ 425	\$ 142	\$ -	\$ 283
	Pt. 40	7	T. & H. Oosterhof	13-067	0.15	\$ -	\$ 5			\$ 5	*	\$ -	\$ 5
	Total Assessments on Lands					\$ 80,083	\$ 31,622	\$ 548,165	\$ -	\$ 659,870	\$ 111,288	\$ 42,880	\$ 505,702

Collver Drain (Closed)

Collver Drain (Closed)	Property Details					Drainage Act Instruments of Assessment				For Information			
	Part Lot	Concession	Landowner	Roll Number	Approx. Ha. Affected	Benefit (Sec. 22)	Outlet Liability (Sec. 23)	Special Benefit (Sec. 24)	Special Assessment (Sec. 26)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
	Wellandport Road (Regional Road 4)		Niagara Region		0.30	\$ -	\$ 786			\$ 786			\$ 786
Zion Road		Township of Wainfleet		2.60	\$ 11,537	\$ 3,283	\$ 55,220		\$ 70,040			\$ 70,040	
Concession 6 Road		Township of Wainfleet		1.40	\$ 1,830	\$ 4,574			\$ 6,404			\$ 6,404	
Total Assessments on Roads					\$ 13,367	\$ 8,643	\$ 55,220	\$ -	\$ 77,230			\$ 77,230	
Total Assessments Collver Drain (Closed)					\$ 93,450	\$ 40,265	\$ 603,385	\$ -	\$ 737,100	\$ 111,288	\$ 42,880	\$ 582,932	

Homan Branch	Property Details					Drainage Act Instruments of Assessment				For Information			
	Part Lot	Concession	Landowner	Roll Number	Approx. Ha. Affected	Benefit (Sec. 22)	Outlet Liability (Sec. 23)	Special Benefit (Sec. 24)	Special Assessment (Sec. 26)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
	Pt. 36	6	Hihojo Ltd.	12-179-15	10.16	\$ 9,128	\$ 9,599			\$ 18,727	\$ 6,242	\$ 500	\$ 11,985
Pt. 37	6	D. & A. Homan	12-184	12.95	\$ 16,378	\$ 9,281			\$ 25,659	\$ 8,553	\$ 5,590	\$ 11,516	
Pt. 37	6	Hihojo Ltd.	12-183-01	9.42	\$ 11,944	\$ 2,670			\$ 14,614	\$ 4,871	\$ 4,750	\$ 4,993	
Total Assessments Homan Branch					\$ 37,450	\$ 21,550	\$ -	\$ -	\$ 59,000	\$ 19,666	\$ 10,840	\$ 28,494	

Heeg Branch	Property Details					Drainage Act Instruments of Assessment				For Information			
	Part Lot	Concession	Landowner	Roll Number	Approx. Ha. Affected	Benefit (Sec. 22)	Outlet Liability (Sec. 23)	Special Benefit (Sec. 24)	Special Assessment (Sec. 26)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
	Pt. 40	5	Heegview Farms Ltd.	13-026	16.50	\$ 5,022	\$ 3,853			\$ 8,875	\$ 2,958	\$ 500	\$ 5,417
Pt 40	5	G. & A. Graszat	13-026-01	1.80	\$ -	\$ 44			\$ 44	*	\$ -	\$ 44.00	
Pt 40	5	M. & A. Van Soelen	13-026-02	1.00	\$ -	\$ 24			\$ 24	*	\$ -	\$ 24.00	
Total Assessments on Lands					\$ 5,022	\$ 3,921	\$ -	\$ -	\$ 8,943	\$ 2,958	\$ 500	\$ 5,417	
Wellandport Road (Regional Road 4)		Niagara Region		0.75	\$ 2,738	\$ 730		\$ 16,855	\$ 20,323			\$ 20,323	
Canada Southern Railway Company				0.55	\$ -	\$ 334			\$ 334			\$ 334	
Total Assessments on Roads					\$ 2,738	\$ 1,064	\$ -	\$ 16,855	\$ 20,657			\$ 20,657	
Total Assessments Heeg Branch					\$ 7,760	\$ 4,985	\$ -	\$ 16,855	\$ 29,600	\$ 2,958	\$ 500	\$ 26,074	

					Drainage Act Instruments of Assessment				For Information			
					Benefit (Sec. 22)	Outlet Liability (Sec. 23)	Special Benefit (Sec. 24)	Special Assessment (Sec. 26)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
Total Assessments Collver Municipal Drain					\$ 259,290	\$ 129,530	\$ 720,925	\$ 604,255	\$ 1,714,000	\$ 183,939	\$ 79,750	\$ 1,424,720

**Schedule of Estimated Assessment for Construction
Collver Municipal Drain**

Property Details						Summary of Assessment					For Information		
Part Lot	Concession	Landowner	Roll Number	Approx. Ha. Affected	Collver Drain (Open)	Collver Drain (Closed)	Homan Branch	Heeg Branch	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense	
Pt. 38	5	K. & V. Devries	12-185	2.10	\$ 326	\$ -	\$ -	\$ -	\$ 326	\$ 109	\$ -	\$ 217	
Pt. 38	5	Hihojo Ltd.	12-186	4.96	\$ 770	\$ -	\$ -	\$ -	\$ 770	\$ 257	\$ -	\$ 513	
Pt. 39	5	Hihojo Ltd.	12-118-02	0.40	\$ 23,764	\$ -	\$ -	\$ -	\$ 23,764	\$ 7,921	\$ 2,340	\$ 13,503	
Pt. 39	5	R. & L. Reid	12-119	1.50	\$ 2,787	\$ -	\$ -	\$ -	\$ 2,787	\$ 929	\$ 2,160	\$ 302	
Pt. 39	5	W., M., & B. Jongsma	12-198-20	0.47	\$ 3,725	\$ -	\$ -	\$ -	\$ 3,725	*	\$ 3,340	\$ 385	
Pt. 39	5	K. & V. Devries	12-198	19.20	\$ 49,620	\$ -	\$ -	\$ -	\$ 49,620	\$ 16,540	\$ 9,250	\$ 23,830	
Pt. 40	5	M. & A. Van Soelen	13-027	0.18	\$ 54	\$ -	\$ -	\$ -	\$ 54	*	\$ -	\$ 54	
Pt. 40	5	Heegview Farms Ltd.	13-026	16.50	\$ 7,745	\$ -	\$ -	\$ 8,875	\$ 16,620	\$ 5,540	\$ 500	\$ 10,580	
Pt 40	5	G. & A. Graszat	13-026-01	1.00	\$ 17	\$ -	\$ -	\$ 44	\$ 61	*	\$ -	\$ 61	
Pt 40	5	M. & A. Van Soelen	13-026-02	1.00	\$ 10	\$ -	\$ -	\$ 24	\$ 34	*	\$ -	\$ 34	
Pt. 36	6	Hihojo Ltd.	12-179-15	11.00	\$ 329	\$ 21,323	\$ 18,727	\$ -	\$ 40,379	\$ 13,460	\$ 500	\$ 26,419	
Pt. 37	6	D. & A. Homan	12-184	14.60	\$ 1,238	\$ 31,751	\$ 25,659	\$ -	\$ 58,648	\$ 19,549	\$ 5,590	\$ 33,509	
Pt. 37	6	Hihojo Ltd.	12-183-01	10.40	\$ 939	\$ 24,305	\$ 14,614	\$ -	\$ 39,858	\$ 13,286	\$ 4,750	\$ 21,822	
Pt. 37	6	W. Dobrucki	12-182	21.93	\$ 2,009	\$ 12,480	\$ -	\$ -	\$ 14,489	\$ 4,830	\$ 750	\$ 8,909	
Pt. 38	6	K. & V. Devries	12-185-01	30.60	\$ 4,046	\$ 131,044	\$ -	\$ -	\$ 135,090	\$ 45,030	\$ 13,600	\$ 76,460	
Pt. 38	6	K. & V. Devries (Non-Grantable)	12-185-01			\$ 83,760		\$ -	\$ 83,760	*	\$ -	\$ 83,760	
Pt. 38	6	Hihojo Ltd.	12-186	9.60	\$ 1,473	\$ 27,870	\$ -	\$ -	\$ 29,343	\$ 9,781	\$ 8,230	\$ 11,332	
Pt. 38	6	Hihojo Ltd. (Non-Grantable)	12-186			\$ 82,660		\$ -	\$ 82,660	*		\$ 82,660	
Pt. 38	6	K. Devries	12-187	19.40	\$ 3,112	\$ 18,628	\$ -	\$ -	\$ 21,740	\$ 7,247	\$ 2,430	\$ 12,063	
Pt. 38	6	G. & M. Lambert	12-188	0.40	\$ 307	\$ 1,951	\$ -	\$ -	\$ 2,258	*	\$ 1,210	\$ 1,048	
Pt. 38	6	W. & J. Struyk	12-187-20	0.40	\$ 307	\$ 625	\$ -	\$ -	\$ 932	*	\$ -	\$ 932	
Pt. 38	6	J. & P. DeBoer	12-187-01	0.40	\$ 307	\$ 555	\$ -	\$ -	\$ 862	*	\$ -	\$ 862	
Pt. 39	6	Hihojo Ltd.	12-195	18.40	\$ 37,868	\$ 60,394	\$ -	\$ -	\$ 98,262	\$ 32,754	\$ -	\$ 65,508	
Pt. 39	6	Hihojo Ltd. (Non-Grantable)	12-195			\$ 151,580		\$ -	\$ 151,580	*	\$ 17,940	\$ 133,640	
Pt. 39	6	C. Ferguson & V. McGaw	12-197	0.09	\$ 10,460	\$ -	\$ -	\$ -	\$ 10,460	*	\$ 7,160	\$ 3,300	
Pt. 39	6	A. Pedro & A. St. Jean	12-196	0.40	\$ 361	\$ -	\$ -	\$ -	\$ 361	*	\$ -	\$ 361	
Pt. 39	6	M. Mansoor & Z. Shaikh	12-194-03	4.10	\$ 162	\$ 61	\$ -	\$ -	\$ 223	*	\$ -	\$ 223	
Pt. 39	6	C. Ellens& M. Janssens-Ellens	12-194-02	4.10	\$ 162	\$ 57	\$ -	\$ -	\$ 219	\$ 73	\$ -	\$ 146	
Pt. 39	6	L. Yan & D. Jin	12-194	4.10	\$ 162	\$ 53	\$ -	\$ -	\$ 215	\$ 72	\$ -	\$ 143	
Pt. 39	6	T. Singhm, J. Sidhu and P. Grewal	12-194-01	4.10	\$ 162	\$ 67	\$ -	\$ -	\$ 229	*	\$ -	\$ 229	
Pt. 39	6	D. Wilfong & C. Macaulay	12-193	0.15	\$ 91	\$ 21	\$ -	\$ -	\$ 112	*	\$ -	\$ 112	
Pt. 39	6	D. Fansolato & M. Lum	12-194-05	4.50	\$ 170	\$ 102	\$ -	\$ -	\$ 272	*	\$ -	\$ 272	

Part Lot	Concession	Landowner	Roll Number	Approx. Ha. Affected	Collver Drain (Open)	Collver Drain (Closed)	Homan Branch	Heeg Branch	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
Pt. 39	6	K. & K. Watts	12-191	9.00	\$ 251	\$ 397	\$ -	\$ -	\$ 648	*	\$ -	\$ 648
Pt. 39	6	C. & K. Snip	12-194-04	4.60	\$ 722	\$ 1,143	\$ -	\$ -	\$ 1,865	*	\$ -	\$ 1,865
Pt. 39	6	J. Usher & J. Kinneer	12-194-06	3.76	\$ 1,040	\$ 1,646	\$ -	\$ -	\$ 2,686	*	\$ -	\$ 2,686
Pt. 39	6	J. & K. Davis	12-192-01	0.69	\$ 101	\$ 160	\$ -	\$ -	\$ 261	*	\$ -	\$ 261
Pt. 39	6	C. & E. Sharpen	12-189	0.24	\$ 97	\$ 176	\$ -	\$ -	\$ 273	*	\$ -	\$ 273
Pt. 39	6	N. Vandervelde & E. Jansen	12-190	0.41	\$ 146	\$ 265	\$ -	\$ -	\$ 411	*	\$ -	\$ 411
Pt. 39	6	Township of Wainfleet	12-192	0.38	\$ 141	\$ 223	\$ -	\$ -	\$ 364	*	\$ -	\$ 364
Pt. 39	6	C. & B. Matthews	12-192-02	0.42	\$ 148	\$ 234	\$ -	\$ -	\$ 382	*	\$ -	\$ 382
Pt. 40	6	Givens Farms Ltd.	13-028	58.20	\$ 3,658	\$ 343	\$ -	\$ -	\$ 4,001	\$ 1,334	\$ -	\$ 2,667
Pt. 40	6	J. & N. Bouffard	13-028-10	0.40	\$ 144	\$ -	\$ -	\$ -	\$ 144	\$ 48	\$ -	\$ 96
Pt. 41	6	Givens Farms Ltd.	13-030	2.70	\$ 78	\$ -	\$ -	\$ -	\$ 78	\$ 26	\$ -	\$ 52
Pt. 41	6	G. & J. Pennings	13-029	28.20	\$ 5,398	\$ -	\$ -	\$ -	\$ 5,398	\$ 1,799	\$ -	\$ 3,599
Pt. 41	6	B. & A. Evers	13-029-01	0.40	\$ 144.00	\$ -	\$ -	\$ -	\$ 144.00	*	\$ -	\$ 144.00
Pt. 42	6	1149959 Ontario Inc.	13-035	4.85	\$ 1,092	\$ -	\$ -	\$ -	\$ 1,092	\$ 364	\$ -	\$ 728
Pt. 42	6	E. & L. Cramp	13-035-20	0.50	\$ 235	\$ -	\$ -	\$ -	\$ 235	*	\$ -	\$ 235
Pt. 38	7	R. & C. Snippe	12-255	4.30	\$ 343	\$ 376	\$ -	\$ -	\$ 719	*	\$ -	\$ 719
Pt. 38	7	C. Lavigne & L. Babin	12-254	12.60	\$ 1,535	\$ 2,777	\$ -	\$ -	\$ 4,312	\$ 1,437	\$ -	\$ 2,875
Pt. 39	7	T. & H. Oosterhof	12-267	19.40	\$ 1,300	\$ 2,386	\$ -	\$ -	\$ 3,686	\$ 1,229	\$ -	\$ 2,457
Pt. 39	7	J. & M. Reichheld	12-265	0.84	\$ 15	\$ 27	\$ -	\$ -	\$ 42	\$ 14	\$ -	\$ 28
Pt. 39	7	P. Hessels	12-266-10	1.53	\$ 235	\$ 425	\$ -	\$ -	\$ 660	\$ 220	\$ -	\$ 440
Pt. 40	7	T. & H. Oosterhof	13-067	13.10	\$ 908	\$ 5	\$ -	\$ -	\$ 913	*	\$ -	\$ 913
Pt. 40	7	Stefani Properties Inc.	13-068	2.96	\$ 274	\$ -	\$ -	\$ -	\$ 274	\$ 91	\$ -	\$ 183
Pt. 41	7	R. & C. Alders	13-082-01	1.00	\$ 46	\$ -	\$ -	\$ -	\$ 46	*	\$ -	\$ 46
Total Assessments on Lands					\$ 170,534	\$ 659,870	\$ 59,000	\$ 8,943	\$ 898,347	\$ 183,940	\$ 79,750	\$ 634,657
Wellandport Road (Regional Road 4)		Niagara Region		8.40	\$ 704,896	\$ 786		\$ 20,323	\$ 726,005			\$ 726,005
Zion Road		Township of Wainfleet		2.60	\$ 2,347	\$ 70,040		\$ -	\$ 72,387			\$ 72,387
Shafley Road North		Township of Wainfleet		0.70	\$ 632	\$ -		\$ -	\$ 632			\$ 632
Willford Road		Township of Wainfleet		0.50	\$ 238	\$ -		\$ -	\$ 238			\$ 238
Canada Southern Railway Company				3.40	\$ 5,176	\$ -		\$ 334	\$ 5,510			\$ 5,510
Concession 6 Road		Township of Wainfleet		3.10	\$ 4,477	\$ 6,404		\$ -	\$ 10,881			\$ 10,881
Total Assessments on Roads					\$ 717,766	\$ 77,230	\$ -	\$ 20,657	\$ 815,653			\$ 815,653
Total Assessments Collver Municipal Drain					\$ 888,300	\$ 737,100	\$ 59,000	\$ 29,600	\$ 1,714,000	\$ 183,940	\$ 79,750	\$ 1,450,310

- Notes:
- 1 '*' Denotes Lands not eligible for ADIP Grants.
 - 2 The Special Benefit Assessment (Sec. 24) has been used to separate the benefit portion of culvert crossings, the pump system, and the ditch enclosure from the normal benefit assessments.
 - 3 The Special Assessments (Sec. 26) shall be a non-proratable assessment. All other assessments are proratable.
 - 4 The Net Estimated Expense is the Total Assessment less gov't grants and allowances (if applicable).



Schedule D

Schedule of Assessment for Future Maintenance

**Schedule of Assessment for Future Maintenance
Collver Municipal Drain**

Property Details						Proportion of Maintenance Assessment						
						Open Ditches & Closed Pipes				Municipal Drain Crossings and Pump		
Part Lot	Concession	Landowner	Roll Number	Approx. Ha. Affected	Collver Drain (Open)	Collver Drain (Closed)	Homan Branch	Heeg Branch	Sta. 0+114	Sta. 0+771	Sta. 0+996	Pump Sta. 1+065
Pt. 38	5	K. & V. Devries	12-185	2.10	0.54%				0.22%	0.24%		
Pt. 38	5	Hihojo Ltd.	12-186	4.96	1.27%				0.53%	0.58%		
Pt. 39	5	Hihojo Ltd.	12-118-02	0.40	0.01%				60.04%			
Pt. 39	5	R. & L. Reid	12-119	1.50	0.01%				0.02%			
Pt. 39	5	W., M., & B. Jongsma	* 12-198-20	0.47	0.37%				0.25%			
Pt. 39	5	K. & V. Devries	12-198	19.20	3.43%				2.05%	60.00%		
Pt. 40	5	M. & A. Van Soelen	* 13-027	0.18	0.09%				0.10%			
Pt. 40	5	Heegview Farms Ltd.	13-026	16.50	0.72%			67.97%	0.49%			
Pt. 40	5	G. & A. Graszat	* 13-026-01	1.80	0.03%			1.24%				
Pt. 40	5	M. & A. Van Soelen	* 13-026-02	1.00	0.02%			0.69%				
Pt. 36	6	Hihojo Ltd.	12-179-15	11.00	0.54%	1.59%	31.23%		0.29%	0.32%	0.17%	
Pt. 37	6	D. & A. Homan	12-184	14.60	2.04%	7.98%	39.81%		1.45%	1.58%	0.85%	
Pt. 37	6	Hihojo Ltd.	12-183-01	10.40	1.55%	6.10%	28.96%		1.11%	1.21%	0.65%	
Pt. 37	6	W. Dobrucki	12-182	21.93	1.58%	3.11%			0.56%	0.62%	0.33%	1.84%
Pt. 38	6	K. & V. Devries	12-185-01	30.60	6.65%	11.68%			2.39%	2.61%	1.40%	24.19%
Pt. 38	6	Hihojo Ltd.	12-186	9.60	2.43%	3.26%			0.87%	0.95%	0.51%	6.76%
Pt. 38	6	K. Devries	12-187	19.40	5.13%	10.11%			1.84%	2.01%	1.08%	20.95%
Pt. 38	6	G. & M. Lambert	* 12-188	0.40	0.51%	1.00%			0.18%	0.20%	0.11%	0.59%
Pt. 38	6	W. & J. Struyk	* 12-187-20	0.40	0.51%	1.00%			0.18%	0.20%	0.11%	0.59%
Pt. 38	6	J. & P. DeBoer	* 12-187-01	0.40	0.51%	1.00%			0.18%	0.20%	0.11%	0.59%
Pt. 39	6	Hihojo Ltd.	12-195	18.40	5.47%	8.74%			1.96%	2.14%	1.15%	18.10%
Pt. 39	6	C. Ferguson & V. McGaw	* 12-197	0.09	0.12%				0.05%	0.05%	11.00%	
Pt. 39	6	A. Pedro & A. St. Jean	* 12-196	0.40	0.59%				0.21%	0.23%	0.13%	
Pt. 39	6	M. Mansoor & Z. Shaikh	* 12-194-03	4.10	0.27%	0.53%			0.10%	0.11%	0.06%	0.31%
Pt. 39	6	C. Ellens & M. Janssens-Ellens	12-194-02	4.10	0.27%	0.53%			0.10%	0.11%	0.06%	0.31%
Pt. 39	6	L. Yan & D. Jin	12-194	4.10	0.27%	0.53%			0.10%	0.11%	0.06%	0.31%

Property Details							Proportion of Maintenance Assessment					
							Open Ditches & Closed Pipes			Crossings and Pump		
Part Lot	Concession	Landowner	Roll Number	Approx. Ha. Affected	Collver Drain (Open)	Collver Drain (Closed)	Homan Branch	Heeg Branch	Sta. 0+114	Sta. 0+771	Sta. 0+996	Pump Sta. 1+065
Pt. 39	6	T. Singhm, J. Sidhu and P. Grewal	* 12-194-01	4.10	0.27%	0.53%			0.10%	0.11%	0.06%	0.31%
Pt. 39	6	D. Wilfong & C. Macaulay	* 12-193	0.15	0.15%	0.30%			0.05%	0.06%	0.03%	0.18%
Pt. 39	6	D. Fansolato & M. Lum	* 12-194-05	4.50	0.28%	0.55%			0.10%	0.11%	0.06%	0.33%
Pt. 39	6	K. & K. Watts	* 12-191	9.00	0.41%	0.81%			0.15%	0.16%	0.09%	0.48%
Pt. 39	6	C. & K. Snip	* 12-194-04	4.60	1.19%	2.35%			0.43%	0.47%	0.25%	1.39%
Pt. 39	6	J. Usher & J. Kinnear	* 12-194-06	3.76	1.71%	3.38%			0.61%	0.67%	0.36%	2.00%
Pt. 39	6	J. & K. Davis	* 12-192-01	0.69	0.17%	0.33%			0.06%	0.07%	0.04%	0.19%
Pt. 39	6	C. & E. Sharpen	* 12-189	0.24	0.16%	0.32%			0.06%	0.06%	0.03%	0.19%
Pt. 39	6	N. Vandervelde & E. Jansen	* 12-190	0.41	0.24%	0.47%			0.09%	0.09%	0.05%	0.28%
Pt. 39	6	Township of Wainfleet	* 12-192	0.38	0.23%	0.46%			0.08%	0.09%	0.05%	0.27%
Pt. 39	6	C. & B. Matthews	* 12-192-02	0.42	0.24%	0.48%			0.09%	0.10%	0.05%	0.29%
Pt. 40	6	Givens Farms Ltd.	13-028	58.20	6.03%	0.70%			2.16%	2.36%	1.27%	0.42%
Pt. 40	6	J. & N. Bouffard	13-028-10	0.40	0.24%	0.29%			0.08%	0.09%	0.05%	0.17%
Pt. 41	6	Givens Farms Ltd.	13-030	2.70	0.13%	0.00%			0.05%	0.05%	0.03%	0.08%
Pt. 41	6	G. & J. Pennings	13-029	28.20	8.89%	3.40%			3.18%	3.48%	1.87%	2.01%
Pt. 41	6	B. & A. Evers	* 13-029-01	0.40	0.24%	0.29%			0.08%	0.09%	0.05%	0.17%
Pt. 42	6	1149959 Ontario Inc.	13-035	4.85	1.80%	0.88%			0.64%	0.70%	0.38%	0.52%
Pt. 42	6	E. & L. Cramp	* 13-035-20	0.50	0.39%	0.59%			0.14%	0.15%	0.08%	0.35%
Pt. 38	7	R. & C. Snippe	* 12-255	4.30	0.56%	1.11%			0.20%	0.22%	0.12%	0.66%
Pt. 38	7	C. Lavigne & L. Babin	12-254	12.60	2.53%	4.98%			0.91%	0.99%	0.53%	2.95%
Pt. 39	7	T. & H. Oosterhof	12-267	19.40	2.14%	4.22%			0.77%	0.84%	0.45%	2.50%
Pt. 39	7	J. & M. Reichheld	12-265	0.84	0.03%	0.05%			0.01%	0.01%	0.00%	0.03%
Pt. 39	7	P. Hessels	12-266-10	1.53	0.39%	0.76%			0.14%	0.15%	0.08%	0.45%
Pt. 40	7	T. & H. Oosterhof	* 13-067	13.10	1.67%	0.01%			0.60%	0.66%	0.35%	
Pt. 40	7	Stefani Properties Inc.	13-068	2.96	0.45%				0.16%	0.18%	0.10%	
Pt. 41	7	R. & C. Alders	* 13-082-01	1.00	0.07%				0.03%	0.03%	0.02%	
Total Assessments on Lands					65.51%	84.40%	100.00%	69.90%	86.21%	85.41%	24.21%	90.76%

Collver Municipal Drain	Property Details			Proportion of Maintenance Assessment							
				Open Ditches & Closed Pipes				Crossings and Pump			
	Road Name	Authority	Approx. Ha. Affected	Collver Drain (Open)	Collver Drain (Closed)	Homan Branch	Heeg Branch	Sta. 0+114	Sta. 0+771	Sta. 0+996	Pump Sta. 1+065
	Wellandport Road (Regional Road 4)	Niagara Region	8.40	17.27%	1.41%		20.64%	7.16%	7.81%	73.21%	0.83%
	Zion Road	Township of Wainfleet	2.60	3.87%	7.62%			1.39%	1.51%	0.81%	4.51%
	Shafley Road North	Township of Wainfleet	0.70	1.04%				0.37%	0.41%	0.22%	
	Willford Road	Township of Wainfleet	0.50	0.39%				0.43%			
	Canada Southern Railway Company		3.40	4.55%			9.46%	1.81%	1.98%		
	Concession 6 Road	Township of Wainfleet	3.10	7.37%	6.57%			2.64%	2.88%	1.55%	3.89%
	Total Assessments on Roads			34.49%	15.60%	0.00%	30.10%	13.79%	14.59%	75.79%	9.23%
	Total Assessments Collver Municipal Drain			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

- Notes:
- 1 '*' Denotes Lands not eligible for ADIP Grants.
 - 2 All maintenance activities crossing road or rail right-of-ways, and from Sta. 0+358 to Sta. 0+567 shall be completed at the expense of the road authority having jurisdiction over the road.
 - 3 Lands located upstream of the maintenance shall be determined by the Drainage Superintendent.



Specifications for the Construction of Municipal Drainage Works

DIVISION A – General Conditions
DIVISION B – Specification for Open Drains
DIVISION C – Specifications for Tile Drains
DIVISION H – Special Provisions



DIVISION A

General Conditions



CONTENTS

A.1.	SCOPE.....	1
A.2.	TENDERS.....	1
A.3.	EXAMINATIONS OF SITE, DRAWINGS, AND SPECIFICATIONS.....	1
A.4.	PAYMENT	2
A.5.	CONTRACTOR’S LIABILITY INSURANCE	2
A.6.	LOSSES DUE TO ACTS OF NATURE, ETC.....	2
A.7.	COMMENCEMENT AND COMPLETION OF WORK.....	2
A.8.	WORKING AREA AND ACCESS.....	3
A.9.	SUB-CONTRACTORS	3
A.10.	PERMITS, NOTICES, LAWS AND RULES.....	3
A.11.	RAILWAYS, HIGHWAYS, AND UTILITIES	3
A.12.	ERRORS AND UNUSUAL CONDITIONS.....	3
A.13.	ALTERATIONS AND ADDITIONS.....	3
A.14.	SUPERVISION	4
A.15.	FIELD MEETINGS.....	4
A.16.	PERIODIC AND FINAL INSPECTIONS.....	4
A.17.	ACCEPTANCE BY THE MUNICIPALITY	4
A.18.	WARRANTY.....	4
A.19.	TERMINATION OF CONTRACT BY THE MUNICIPALITY	4
A.20.	TESTS.....	5
A.21.	POLLUTION	5
A.22.	SPECIES AND RISK.....	5
A.23.	ROAD CROSSINGS.....	5
A.23.1.	ROAD OCCUPANCY PERMIT	5
A.23.2.	ROAD CLOSURE REQUEST AND CONSTRUCTION NOTIFICATION	6
A.23.3.	TRAFFIC CONTROL.....	6
A.23.4.	WEATHER.....	6
A.23.5.	EQUIPMENT	6
A.24.	LANEWAYS.....	6



A.25.	FENCES	7
A.26.	LIVESTOCK	7
A.27.	STANDING CROPS.....	7
A.28.	SURPLUS GRAVEL	7
A.29.	IRON BARS	7
A.30.	RIP-RAP	7
A.31.	CLEARING, GRUBBING AND BRUSHING	8
A.32.	RESTORATION OF LAWNS	8



DIVISION A – GENERAL CONDITIONS

A.1. Scope

The work to be done under this contract consists of supplying all labour, equipment and materials to construct the drainage work as outlined in the Scope of Work, Drawings, General Conditions and other Specifications.

A.2. Tenders

Tenders are to be submitted on a lump sum basis for the complete works or a portion thereof, as instructed by the Municipality. The Scope of Work must be completed and submitted with the Form of Tender and Agreement. A certified cheque is required as Tender Security, payable to the Treasurer of the Municipality.

All certified cheques, except that of the bidder to whom the work is awarded will be returned within ten (10) days after the tender closing. The certified cheque of the bidder to whom the work is awarded will be retained as Contract Security and returned when the Municipality receives a Completion Certificate for the work.

A certified cheque is not required if the Contractor provides an alternate form of Contract Security such as a Performance Bond for 100% of the amount of the Tender or other satisfactory security, if required/permitted by the Municipality. A Performance Bond may also be required to insure maintenance of the work for a period of one (1) year after the date of the Completion Certificate.

A.3. Examinations of Site, Drawings, and Specifications

The Tenderer must examine the premises and site to compare them with the Drawings and Specifications in order to satisfy himself of the existing conditions and extent of the work to be done before submission of his Tender. No allowance shall subsequently be made on behalf of the Contractor by reason of any error on his part. Any estimates of quantities shown or indicated on the Drawings, or elsewhere are provided for the convenience of the Tenderer. Any use made of these quantities by the Tenderer in calculating his Tender shall be done at his own risk. The Tenderer for his own protection should check these quantities for accuracy.

The standard specifications (Divisions B through G) shall be considered complementary and where a project is controlled under one of the Divisions, the remaining Divisions will apply for miscellaneous works.

In case of any inconsistency or conflict between the Drawings and Specifications, the following order of precedence shall apply:

- Direction of the Engineer
- Special Provisions (Division H)
- Scope of Work
- Contract Drawings
- Standard Specifications (Divisions B through G)
- General Conditions (Division A)



A.4. Payment

Progress payments equal to 87±% of the value of work completed and materials incorporated in the work will be made to the Contractor monthly. An additional ten per cent (10±%) will be paid 60 days after the final acceptance by the Engineer, and three per cent (3±%) of the Contract price may be reserved by the Municipality as a maintenance holdback for a one (1) year period from the date of the Completion Certificate. A greater percentage of the Contract price may be reserved by the Municipality for the same one (1) year period if in the opinion of the Engineer, particular conditions of the Contract requires such greater holdback.

After the completion of the work, any part of this reserve may be used to correct defects developed within that time from faulty workmanship and materials, provided that notice shall first be given to the Contractor and that he may promptly make good such defects.

A.5. Contractor's Liability Insurance

Prior to commencement of any work, the Contractor shall file with the Municipality evidence of compliance with all Municipality insurance requirements (Liability Insurance, WSIB, etc.) for no less than the minimum amounts as stated in the Purchasing Procedures of the Municipality. All insurance coverage shall remain in force for the entire contract period including the warranty period which expires one year after the date of the Completion Certificate.

The following are to be named as co-insured:

- Successful Contractor
- Sub-Contractor
- Municipality
- Headway Engineering

A.6. Losses Due to Acts of Nature, Etc.

All damage, loss, expense and delay incurred or experienced by the Contractor in the performance of the work, by reason of unanticipated difficulties, bad weather, strikes, acts of nature, or other mischances shall be borne by the Contractor and shall not be the subject of a claim for additional compensation.

A.7. Commencement and Completion of Work

The work must commence as specified in the Form of Tender and Agreement. If conditions are unsuitable due to poor weather, the Contractor may be required, at the discretion of the Engineer to postpone or halt work until conditions become acceptable and shall not be subject of a claim for additional compensation.

The Contractor shall give the Engineer a minimum of 48 hours notice before commencement of work. The Contractor shall then arrange a meeting to be held on the site with Contractor, Engineer, and affected Landowners to review in detail the construction scheduling and other details of the work.

If the Contractor leaves the job site for a period of time after initiation of work, he shall give the Engineer and the Municipality a minimum of 24 hours notice prior to returning to the project. If any work is commenced without notice to the Engineer, the Contractor shall be fully responsible for all such work undertaken prior to such notification.



The work must proceed in such a manner as to ensure its completion at the earliest possible date and within the time limit set out in the Form of Tender and Agreement.

A.8. Working Area and Access

Where any part of the drain is on a road allowance, the road allowance shall be the working area. For all other areas, the working area available to the Contractor to construct the drain is specified in the Special Provisions (Division H).

Should the specified widths become inadequate due to unusual conditions, the Contractor shall notify the Engineer immediately. Where the Contractor exceeds the specified working widths without authorization, he shall be held responsible for the costs of all additional damages.

If access off an adjacent road allowance is not possible, each Landowner on whose property the drainage works is to be constructed, shall designate access to and from the working area. The Contractor shall not enter any other lands without permission of the Landowner and he shall compensate the Landowner for damage caused by such entry.

A.9. Sub-Contractors

The Contractor shall not sublet the whole or part of this Contract without the approval of the Engineer.

A.10. Permits, Notices, Laws and Rules

The Contractor shall obtain and pay for all necessary permits or licenses required for the execution of the work (but this shall not include MTO encroachment permits, County Road permits permanent easement or rights of servitude). The Contractor shall give all necessary notices and pay for all fees required by law and comply with all laws, ordinances, rules and regulations relating to the work and to the preservation of the public's health and safety.

A.11. Railways, Highways, and Utilities

A minimum of 72 hours' notice to the Railway or Highways, exclusive of Saturdays, Sundays, and Statutory Holidays, is required by the Contractor prior to any work activities on or affecting the applicable property. In the case of affected Utilities, a minimum of 48 hours' notice to the utility owner is required.

A.12. Errors and Unusual Conditions

The Contractor shall notify the Engineer immediately of any error or unusual conditions which may be found. Any attempt by the Contractor to correct the error on his own shall be done at his own risk. Any additional cost incurred by the Contractor to remedy the wrong decision on his part shall be borne by the Contractor. The Engineer shall make the alterations necessary to correct errors or to adjust for unusual conditions during which time it will be the Contractor's responsibility to keep his men and equipment gainfully employed elsewhere on the project.

The Contract amount shall be adjusted in accordance with a fair evaluation of the work added or deleted.

A.13. Alterations and Additions

The Engineer shall have the power to make alterations in the work shown or described in the Drawings and Specifications and the Contractor shall proceed to make such changes without causing delay. In



every such case, the price agreed to be paid for the work under the Contract shall be increased or decreased as the case may require according to a fair and reasonable evaluation of the work added or deleted. The valuation shall be determined as a result of negotiations between the Contractor and the Engineer, but in all cases the Engineer shall maintain the final responsibility for the decision. Such alterations and variations shall in no way render the Contract void. No claims for a variation or alteration in the increased or decreased price shall be valid unless done in pursuance of an order from the Engineer and notice of such claims made in writing before commencement of such work. In no such case shall the Contractor commence work which he considers to be extra before receiving the Engineer's approval.

A.14. Supervision

The Contractor shall give the work his constant supervision and shall keep a competent foreman in charge at the site.

A.15. Field Meetings

At the discretion of the Engineer, a field meeting with the Contractor or his representative, the Engineer and with those others that the Engineer deems to be affected, shall be held at the location and time specified by the Engineer.

A.16. Periodic and Final Inspections

Periodic inspections by the Engineer will be made during the performance of the work. If ordered by the Engineer, the Contractor shall expose the drain as needed to facilitate inspection by the Engineer.

Final inspection by the Engineer will be made within twenty (20) days after he has received notice from the Contractor that the work is complete.

A.17. Acceptance By the Municipality

Before any work shall be accepted by the Municipality, the Contractor shall correct all deficiencies identified by the Engineer and the Contractor shall leave the site neat and presentable.

A.18. Warranty

The Contractor shall repair and make good any damages or faults in the drain that may appear within one (1) year after its completion (as dated on the Completion Certificate) as the result of the imperfect or defective work done or materials furnished if certified by the Engineer as being due to one or both of these causes; but nothing herein contained shall be construed as in any way restricting or limiting the liability of the Contractor under the laws of the Country, Province or Locality in which the work is being done. Neither the Completion Certificate nor any payment there under, nor any provision in the Contract Documents shall relieve the Contractor from his responsibility.

A.19. Termination of Contract By The Municipality

If the Contractor should be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he should refuse or fail to supply enough properly skilled workmen or proper materials after having received seven (7) days notice in writing from the Engineer to supply additional workmen or materials to commence or complete the works, or if he should fail to make prompt payment to Sub-Contractors, or for material, or labour, or persistently disregards laws, ordinances, or the instruction of the Engineer,



or otherwise be guilty of a substantial violation of the provisions of the Contract, then the Municipality, upon the certificate of the Engineer that sufficient cause exists to justify such action, may without prejudice to any other right or remedy, by giving the Contractor written notice, terminate the employment of the Contractor and take possession of the premises, and of all materials, tools and appliances thereon, and may finish the work by whatever method the Engineer may deem expedient but without delay or expense. In such a case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract price will exceed the expense of finishing the work including compensation to the Engineer for his additional services and including the other damages of every name and nature, such excess shall be paid by the Contractor. If such expense will exceed such unpaid balance, the Contractor shall pay the difference to the Municipality. The expense incurred by the Municipality, as herein provided, shall be certified by the Engineer.

If the Contract is terminated by the Municipality due to the Contractor's failure to properly commence the works, the Contractor shall forfeit the certified cheque bid deposit and furthermore shall pay to the Municipality an amount to cover the increased costs, if any, associated with a new Tender for the Contract being terminated.

If any unpaid balance and the certified cheque do not match the monies owed by the Contractor upon termination of the Contract, the Municipality may also charge such expense against any money which may thereafter be due to the Contractor from the Municipality.

A.20. Tests

The cost for the testing of materials supplied to the job by the Contractor shall be borne by the Contractor. The Engineer reserves the right to subject any lengths of any tile or pipe to a competent testing laboratory to ensure the adequacy of the tile or pipe. If any tile supplied by the Contractor is determined to be inadequate to meet the applicable A.S.T.M. standards, the Contractor shall bear full responsibility to remove and/or replace all such inadequate tile in the Contract with tile capable of meeting the A.S.T.M. Standards.

A.21. Pollution

The Contractor shall keep their equipment in good repair. The Contractor shall refuel or repair equipment away from open water.

If polluted material from construction materials or equipment is caused to flow into the drain, the Contractor shall immediately notify the Ministry of the Environment, and proceed with the Ministry's protocols in place to address the situation.

A.22. Species and Risk

If a Contractor encounters a known Species at Risk as designated by the MNR or DFO, the Contractor shall notify the Engineer immediately and follow the Ministry's guidelines to deal with the species.

A.23. Road Crossings

This specification applies to all road crossings (Municipality, County, Regional, or Highway) where no specific detail is provided on the drawings or in the standard specifications. This specification in no way limits the Road Authority's regulations governing the construction of drains on their Road Allowance.

A.23.1. Road Occupancy Permit



Where applicable, the Contractor must submit an application for a road occupancy permit to the Road Authority and allow a minimum of five (5) working days for its review and issuance.

A.23.2. Road Closure Request and Construction Notification

The Contractor shall submit written notification of construction and request for road closure (if applicable) to the Road Authority and the Engineer for review and approval a minimum of five (5) working days prior to proceeding with any work on the road allowance. The Contractor shall be responsible for notifying all applicable emergency services, schools, etc. of the road closure or construction taking place.

A.23.3. Traffic Control

The Contractor shall supply flagmen, and warning signs and ensure that detour routes are adequately signed in accordance with no less than the minimum standards as set out in the Ontario Traffic Manual's Book 7.

A.23.4. Weather

No construction shall take place during inclement weather or periods of poor visibility.

A.23.5. Equipment

No construction material and/or equipment is to be left within three (3) metres of the travelled portion of the road overnight or during periods of inclement weather.

If not stated on the drawings, the road crossing shall be constructed by open cut method. Backfill from the top of the cover material over the subsurface pipe or culvert to the under side of the road base shall be Granular "B". The backfill shall be placed in lifts not exceeding 300mm in thickness and each lift shall be thoroughly compacted to 98% Standard Proctor. Granular "B" road base for County Roads and Highways shall be placed to a 450mm thickness and Granular "A" shall be placed to a thickness of 200mm. Granular road base materials shall be thoroughly compacted to 100% Standard Proctor.

Where the road surface is paved, the Contractor shall be responsible for placing HL-8 Hot Mix Asphalt patch at a thickness of 50mm or of the same thickness as the existing pavement structure. The asphalt patch shall be flush with the existing roadway on each side and without overlap.

Excavated material from the trench beyond 1.25 metres from the travelled portion or beyond the outside edge of the gravel shoulder may be used as backfill in the trench in the case of covered drains. The material shall be compacted in lifts not exceeding 300mm.

A.24. Laneways

All pipes crossing laneways shall be backfilled with material that is clean, free of foreign material or frozen particles and readily tamped or compacted in place unless otherwise specified. Laneway culverts on open ditch projects shall be backfilled with material that is not easily erodible. All backfill material shall be thoroughly compacted as directed by the Engineer.

Culverts shall be bedded with a minimum of 300mm of granular material. Granular material shall be placed simultaneously on each side of the culvert in lifts not exceeding 150mm in thickness and compacted to 95% Standard Proctor Density. Culverts shall be installed a minimum of 10% of the



culvert diameter below design grade with a minimum of 450mm of cover over the pipe unless otherwise noted on the Drawings.

The backfill over culverts and subsurface pipes at all existing laneways that have granular surfaces on open ditch and closed drainage projects shall be surfaced with a minimum of 300mm of Granular “B” material and 150mm of Granular “A” material. All backfill shall be thoroughly compacted as directed by the Engineer. All granular material shall be placed to the full width of the travelled portion.

Any settling of backfilled material shall be repaired by or at the expense of the Contractor during the warranty period of the project and as soon as required.

A.25. Fences

No earth is to be placed against fences and all fences removed by the Contractor shall be replaced by him in as good a condition as found. Where practical the Contractor shall take down existing fences in good condition at the nearest anchor post and roll it back rather than cutting the fence and attempting to patch it. The replacement of the fences shall be done to the satisfaction of the Engineer. Any fences found in such poor condition where the fence is not salvageable, shall be noted and verified with the Engineer prior to commencement of work.

Fences damaged beyond repair by the Contractor’s negligence shall be replaced with new materials, similar to those materials of the existing fence, at the Contractor’s expense. The replacement of the fences shall be done to the satisfaction of the Landowner and the Engineer.

Any fences paralleling an open ditch that are not line fences that hinder the proper working of the excavating machinery, shall be removed and rebuilt by the Landowner at his own expense.

The Contractor shall not leave fences open when he is not at work in the immediate vicinity.

A.26. Livestock

The Contractor shall provide each landowner with 48 hours notice prior to removing any fences along fields which could possibly contain livestock. Thereafter, the Landowner shall be responsible to keep all livestock clear of the construction areas until further notified. The Contractor shall be held responsible for loss or injury to livestock or damage caused by livestock where the Contractor failed to notify the Landowner, or through negligence or carelessness on the part of the Contractor.

A.27. Standing Crops

The Contractor shall be responsible for damages to standing crops which are ready to be harvested or salvaged along the course of the drain and access routes if the Contractor has failed to notify the Landowners 48 hours prior to commencement of the work on that portion of the drain.

A.28. Surplus Gravel

If as a result of any work, gravel or crushed stone is required and not all the gravel or crushed stone is used, the Contractor shall haul away such surplus material.

A.29. Iron Bars

The Contractor is responsible for the cost of an Ontario Land Surveyor to replace any iron bars that are altered or destroyed during the course of the construction.

A.30. Rip-Rap



Rip-rap shall be quarry stone rip-rap material and shall be the sizes specified in the Special Provisions. Broken concrete shall not be used as rip-rap unless otherwise specified.

A.31. Clearing, Grubbing and Brushing

This specification applies to all brushing where no specific detail is provided on the drawings or in the Special Provisions.

The Contractor shall clear, brush and stump trees from within the working area that interfere with the installation of the drainage system.

All trees, limbs and brush less than 150mm in diameter shall be mulched. Trees greater than 150mm in diameter shall be cut and neatly stacked in piles designated by the Landowners.

A.32. Restoration of Lawns

This specification applies to all lawn restoration where no specific detail is provided on the drawings or in the Special Provisions and no allowance for damages has been provided under Section 30 of the Drainage Act RSO 1990 to the affected property.

The Contractor shall supply “high quality grass seed” and the seed shall be broadcast by means of an approved mechanical spreader. All areas on which seed is to be placed shall be loose at the time of broadcast to a depth of 25mm. Seed and fertilizer shall be spread in accordance with the supplier’s recommendations unless otherwise directed by the Engineer. Thereafter it will be the responsibility of the Landowner to maintain the area in a manner so as to promote growth

END OF DIVISION



DIVISION B

Specifications for Open Drains



CONTENTS

B.1.	ALIGNMENT	1
B.2.	PROFILE	1
B.3.	EXCAVATION	1
B.4.	EXCAVATED MATERIAL.....	1
B.5.	EXCAVATION AT EXISTING BRIDGE AND CULVERT SITES	2
B.6.	PIPE CULVERTS.....	2
B.7.	RIP-RAP PROTECTION FOR CULVERTS	2
B.8.	CLEARING, GRUBBING AND MULCHING	2
B.9.	TRIBUTARY TILE OUTLETS.....	3
B.10.	SEEDING	3
B.11.	HYDRO SEEDING.....	3
B.12.	HAND SEEDING	3
B.13.	COMPLETION	3



DIVISION B – SPECIFICATIONS FOR OPEN DRAINS

B.1. Alignment

The drain shall be constructed in a straight line and shall follow the course of the present drain or water run unless noted on the drawings. Where there are unnecessary bends or irregularities on the existing course of the drain, the Contractor shall contact the Engineer before commencing work to verify the manner in which such irregularities or bends may be removed from the drain. All curves shall be made with a minimum radius of fifteen (15) metres from the centre line of the drain.

B.2. Profile

The Profile Drawing shows the depth of cuts from the top of the bank to the final invert of the ditch in metres and decimals of a metre, and also the approximate depth of excavated material from the bottom of the existing ditch to the final invert of the ditch. These cuts are established for the convenience of the Contractor; however, bench marks (established along the course of the drain) will govern the final elevation of the drain. The location and elevation of the bench marks are given on the Profile Drawing. Accurate grade control must be maintained by the Contractor during ditch excavation.

B.3. Excavation

The bottom width and the side slopes of the ditch shall be those shown on the drawings. If the channel cross-section is not specified it shall be a one metre bottom width with 1.5(h):1(v) side slopes. At locations along the drain where the cross section dimensions change, there shall be a transitional length of not less than 10:1 (five metre length to 0.5 metre width differential). Where the width of the bottom of the existing ditch is sufficient to construct the design width, then construction shall proceed without disturbing the existing banks.

Where existing side slopes become unstable, the Contractor shall immediately notify the Engineer. Alternative methods of construction and/or methods of protection will then be determined prior to continuing work.

Where an existing drain is being relocated or where a new drain is being constructed, the Contractor shall strip the topsoil for the full width of the drain, including the location of the spoil pile. Upon completion of levelling, the topsoil shall be spread to an even depth across the full width of the spoil.

An approved hydraulic excavator shall be used to carry out the excavation of the open ditch unless otherwise directed by the Engineer.

B.4. Excavated Material

Excavated material shall be placed on the low side of the drain or opposite trees and fences. The Contractor shall contact all Landowners before proceeding with the work to verify the location to place and level the excavated material.

No excavated material shall be placed in tributary drains, depressions, or low areas which direct water behind the spoil bank. The excavated material shall be placed and levelled to a maximum depth of 200 mm, unless instructed otherwise and commence a minimum of one (1) metre from the top of the bank. The edge of the spoil bank away from the ditch shall be feathered down to the existing ground; the edge of the spoil bank nearest the ditch shall have a maximum slope of 2(h):1(v). The material shall be levelled such that it may be cultivated with ordinary farm equipment without causing undue



hardship to the farm machinery and farm personnel. No excavated material shall cover any logs, brush, etc. of any kind.

Any stones or boulders which exceed 300mm in diameter shall be removed and disposed of in a location specified by the Landowner.

Where it is necessary to straighten any unnecessary bends or irregularities in the alignment of the ditch or to relocate any portion or all of an existing ditch, the excavated material from the new cut shall be used for backfilling the original ditch. Regardless of the distance between the new ditch and the old ditch, no extra compensation will be allowed for this work and must be included in the Contractor's lump sum price for the open work.

B.5. Excavation at Existing Bridge and Culvert Sites

The Contractor shall excavate the drain to the full specified depth under all bridges and to the full width of the structure. Temporary bridges may be carefully removed and left on the bank of the drain but shall be replaced by the Contractor when the excavation is complete. Permanent bridges must, if at all possible, be left intact. All necessary care and precautions shall be taken to protect the structure. The Contractor shall notify the Landowner if excavation will expose the footings or otherwise compromise the structural integrity of the structure.

The Contractor shall clean through all pipe culverts to the grade and width specified on the profile.

B.6. Pipe Culverts

All pipe culverts shall be installed in accordance with the standard detail drawings. If couplers are required, five corrugation couplers shall be used for up to and including 1200mm diameter pipes and 10 corrugation couplers for greater than 1200mm diameter pipes.

When an existing crossing is being replaced, the Contractor may backfill the new culvert with the existing native material that is free of large rocks and stones. The Contractor is responsible for any damage to a culvert pipe that is a result of rocks or stones in the backfill.

B.7. Rip-Rap Protection For Culverts

Quarry stone rip-rap shall be used as end treatment for new culverts and placed on geotextile filter material (Mirafi 160N or approved equal). The rip-rap shall be adequately keyed in along the bottom of the slope, and shall extend to the top of the pipe or as directed on the drawings. The maximum slope for rip-rap shall be 1(h):1(v) or as directed by the Engineer.

The Contractor shall be responsible for any defects or damages that may develop in the rip-rap or the earth behind the rip-rap that the Engineer deems to have been fully or partially caused by faulty workmanship or materials.

B.8. Clearing, Grubbing and Mulching

Prior to excavation, all trees, scrub, fallen timber and debris shall be removed from the side slopes of the ditch and for such a distance on the working side so as to eliminate any interference with the construction of the drain or the spreading of the spoil. The side slopes shall be neatly cut and cleared flush with the slope whether or not they are affected directly by the excavation. With the exception of large stumps causing damage to the drain, the side slopes shall not be grubbed. All other cleared areas shall be grubbed and the stumps put into piles for disposal by the Landowner.



All trees or limbs 150mm or larger, that is necessary to remove, shall be cut, trimmed and neatly stacked in the working width for the use or disposal by the Landowner. Brush and limbs less than 150mm in diameter shall be mulched. Clearing, grubbing and mulching shall be carried out as a separate operation from the excavation of the ditch, and shall not be completed simultaneously at the same location.

B.9. Tributary Tile Outlets

All tile outlets in existing ditches shall be marked by the Landowner prior to excavation. The Contractor shall guard against damaging the outlets of tributary drains. Any tile drain outlets that were marked or noted on the drawings and are subsequently damaged by the Contractor shall be repaired by the Contractor at his expense. The Landowner shall be responsible for repairs to damaged tile outlets that were not marked.

B.10. Seeding

The side slopes where disturbed shall be seeded using an approved grass seed mixture. The grass seed shall be applied the same day as the excavation of the open ditch.

Grass seed shall be fresh, clean and new crop seed, meeting the requirements of the MTO and composed of the following varieties mixed in the proportion by weight as follows:

- 55% Creeping Red Fescue
- 40% Perennial Rye Grass
- 5% White Clover

Grass seed shall be applied at the rate of 100 kg/ha.

B.11. Hydro Seeding

The areas specified in the contract document shall be hydro seeded and mulched upon completion of construction in accordance with O.P.S.S. 572.

B.12. Hand Seeding

Placement of the seed shall be of means of an approved mechanical spreader.

B.13. Completion

At the time of completion and final inspection, all work in the Contract shall have the full dimensions and cross-sections specified without any allowance for caving of banks or sediment in the ditch bottom.

END OF DIVISION



DIVISION C

Specifications for Tile Drains



CONTENTS

C.1.	PIPE MATERIALS	1
C.2.	ALIGNMENT	1
C.3.	PROFILE	1
C.4.	EXCAVATION	2
C.5.	INSTALLATION	2
C.6.	TRENCH CROSSINGS	3
C.7.	OUTLET PROTECTION	3
C.8.	CATCH BASINS AND JUNCTION BOXES	3
C.9.	TRIBUTARY DRAINS.....	4
C.10.	CLEARING, GRUBBING AND MULCHING	5
C.11.	ROADS AND LANEWAY SUB-SURFACE CROSSINGS	5
C.12.	FILLING IN EXISTING DITCHES.....	5
C.13.	CONSTRUCTION OF GRASSED WATERWAYS	5
C.14.	UNSTABLE SOIL	5
C.15.	ROCKS.....	5
C.16.	BROKEN OR DAMAGED TILE	6
C.17.	RECOMMENDED PRACTICE FOR CONSTRUCTION OF SUB-SURFACE DRAINAGE SYSTEMS.....	6



DIVISION C – SPECIFICATIONS FOR TILE DRAINS

C.1. Pipe Materials

Concrete Tile

Concrete drain tile shall conform to the requirements of the most recent A.S.T.M. specification for Heavy-Duty Extra Quality drain tile. All tile with diameters less than 600mm shall have a pipe strength of 1500D. All tile with diameters 600mm or larger shall have a pipe strength of 2000D.

All tile furnished shall be subject to the approval of the Engineer. All rejected tile are to be immediately removed from the site.

High Density Polyethylene (HDPE) Pipe

All HDPE pipe shall be dual-wall corrugated drainage pipe with a smooth inner wall. HDPE pipe shall have a minimum stiffness of 320 kPa at 5% deflection.

Unless otherwise noted, all sealed HDPE pipe shall have a water tight gasketed bell and spigot joining system meeting the minimum requirements of CSA B182.8. Perforated HDPE pipe shall have a soil tight joining system, and shall be enveloped in non-woven geotextile filter sock.

C.2. Alignment

The Contractor shall contact the Engineer to establish the course of the drain. Where an existing drain is to be removed and replaced by the new drain, or where the new drain is to be installed parallel to an existing drain, the Contractor shall locate the existing drain (including repairing damaged tile caused by locating) at intervals along the course of the drain. The costs of locating shall be included in the tender price.

The drain shall run in as straight a line as possible throughout its length, except that at intersections of other watercourses or at sharp corners, it shall run on a curve of at least 15 metres radius. The new tile drain shall be constructed at an offset from and parallel with any ditch or defined watercourse in order that fresh backfill in the trench will not be eroded by the flow of surface water.

The Contractor shall exercise care not to disturb any existing tile drain or drains which parallel the course of the new drain, particularly where the new and existing tile act together to provide the necessary capacity. Where any such existing drain is disturbed or damaged, the Contractor shall perform the necessary repair at his expense.

C.3. Profile

Benchmarks have been established along the course of the drain which are to govern the elevations of the drain. The location and elevations of the benchmarks are shown on the drawings. Tile is to be installed to the elevation and grade shown on the profiles. Accurate grade control must be maintained by the Contractor at all times.

When installing a drain towards a fixed point such as a bore pipe, the Contractor shall uncover the pipe and confirm the elevation a sufficient distance away from the pipe in order to allow for any necessary minor grade adjustments to be made.



C.4. Excavation

Wheel machine

Unless otherwise specified, all trenching shall be carried out with a wheel machine approved by the Engineer. The wheel machine shall shape the bottom of the trench to conform to the outside diameter of the pipe. The minimum trench width shall be equal to the outside diameter of the pipe plus 100mm on each side of the pipe, unless otherwise specified. The maximum trench width shall be equal to the outside diameter of the pipe plus 300mm on each side of the pipe, unless otherwise specified.

Scalping

Where the depths of cuts in isolated areas along the course of the drain as shown on the profile exceed the capability of the Contractor's wheel machine, he shall lower the surface grade in order that the wheel machine may trench to the correct depth. Topsoil is to be stripped over a sufficient width that no subsoil will be deposited on top of the topsoil. Subsoil will then be removed to the required depth and piled separately. Upon completion, the topsoil will then be replaced to an even depth over the disturbed area. The cost for this work shall be included in his tender price.

Excavator

Where the use of an excavator is used in-lieu of a wheel machine, the topsoil shall be stripped and replaced in accordance with Item C.4.2. All tile shall be installed on 19mm clear crushed stone bedding placed to a minimum depth of 150mm which has been shaped to conform to the bottom of the pipe. The Contractor shall include the costs of this work in his tender price.

C.5. Installation

Concrete Tile

The tile is to be laid with close joints and in regular grade and alignment in accordance with the drawings. The tiles are to be bevelled, if necessary to ensure close joints. The inside of the tile is to be kept clear when laid. The sides of the tile are to be supported by partial filling of the trench (blinding) prior to inspection by the Engineer. No tile shall be backfilled until inspected by the Engineer unless otherwise permitted by the Engineer. The tile shall be backfilled such that a sufficient mound of backfill is placed over the trench to ensure that no depression remains after settling occurs in the backfill.

Where a tile connects to a catch basin or similar structure, the Contractor shall include in his tender price for the supply and placement of compacted Granular 'A' bedding or 19mm clear crushed stone under areas backfilled from the underside of the pipe to undisturbed soil. Where a tile drain passes through a bore pit, the Contractor shall include in his tender price for the supply and placement of compacted Granular 'A' bedding or 19mm clear crushed stone from the underside of the pipe down to undisturbed soil with the limits of the bore pit.

The Contractor shall supply and wrap all concrete tile joints with Mirafi 160N geotextile filter material as part of this contract. The width of the filter material should be:

- 300mm wide for tile sizes 150mm diameter to 350mm diameter.
- 400mm wide for tile sizes 400mm diameter to 750mm diameter.
- 500mm wide for tile sizes larger than 750mm diameter.

The filter material shall completely cover the tile joint and shall have a minimum overlap of 300mm. The type of filter material shall be.



HDPE Pipe

HDPE pipe shall be installed using compacted Granular 'A' bedding or 19mm clear crushed stone bedding from 150mm below the pipe to 300mm above the pipe. All granular material shall be compacted using a suitable mechanical vibratory compactor. Granular bedding and backfill shall be placed in lifts not exceeding 300mm and compacted to at least 95% Standard Proctor Maximum Dry Density (SPMDD).

Where a pipe connects to a catch basin or similar structure, the Contractor shall include in his tender price for the supply and placement of compacted Granular 'A' bedding or 19mm clear crushed stone under areas backfilled from the underside of the pipe to undisturbed soil. Where a pipe passes through a bore pit, the Contractor shall include in his tender price for the supply and placement of compacted Granular 'A' bedding or 19mm clear crushed stone from the underside of the pipe down to undisturbed soil with the limits of the bore pit.

As determined by the Engineer, unsuitable backfill material must be hauled off-site by the Contractor and Granular "B" shall be used as replacement backfill material.

C.6. Trench Crossings

The Contractor shall not cross the backfilled trench with any construction equipment or vehicles, except by one designated crossing location on each property. The Contractor shall ensure that the bedding and backfill material at this designated crossing location is properly placed and compacted so as to adequately support the equipment and vehicles that may cross the trench. The Contractor may undertake any other approved work to ensure the integrity of the tile at the crossing location. The Contractor shall ensure that no equipment or vehicles travel along the length of the trench. The Contractor shall be responsible for any damage to the new tile caused by the construction of the drain.

C.7. Outlet Protection

A tile drain outlet into a ditch shall be either HDPE pipe or corrugated steel pipe and shall include a hinged grate for rodent protection. The maximum spacing between bars on the rodent grate shall be 40mm. All corrugated steel outlet pipes shall be bevelled at the end to generally conform to the slope of the ditch bank.

Quarry stone rock rip-rap protection and geotextile filter material (Mirafi 160N), shall be installed around the outlet pipe and extended downstream a minimum distance of three metres, unless otherwise specified. The protection shall extend to the top of the backfilled trench and below the pipe to 300 mm under the streambed. The protection shall also extend 600mm into undisturbed soil on either side of the backfilled trench. In some locations, rip-rap may be required on the bank opposite the outlet.

Where the outlet occurs at the upper end of an open ditch, the rip-rap protection will extend all around the end of the ditch and to a point 800mm downstream on either side. Where heavy overflow is likely to occur, sufficient additional rip-rap and filter material shall be placed as directed by the Engineer to prevent the water cutting around the protection.

C.8. Catch Basins and Junction Boxes

Unless otherwise noted, catch basins shall be in accordance with OPSD 705.010 and 705.030. The catch basin grate shall be a "Birdcage" type substantial steel grate, removable for cleaning and shall be inset into a recess provided around the top of the structure. The grate shall be fastened to the catch basin with bolts into the concrete. Spacing of bars on grates for use on 600mmX600mm



structures shall be 65mm centre to centre. Spacing of bars on grates for use on structures larger than 600mmX600mm shall be 90mm.

All catch basins shall be backfilled with compacted Granular 'A' or 19mm clear crushed stone placed to a minimum width of 300mm on all sides. If settling occurs after construction, the Contractor shall supply and place sufficient granular material to maintain the backfill level flush with adjacent ground. The riser sections of the catch basin shall be wrapped with filter cloth.

Quarry stone rip-rap protection shall be placed around all catch basins and shall extend a minimum distance of one (1) metre away from the outer edge of each side of the catch basin, and shall be placed so that the finished surface of the rip-rap is flush with the existing ground.

If there are no existing drains to be connected to the catch basin at the top end of the drain, a plugged tile shall be placed in the upstream wall with the same elevations as the outlet tile.

Junction boxes shall have a minimum cover over the lid of 450mm.

The Contractor shall include in his tender price for the construction of a berm behind all ditch inlet structures. The berm shall be constructed of compacted clay keyed 300mm into undisturbed soil. The top of the spill way of the earth berm shall be the same elevation as the high wall of the ditch inlet catch basin. The earth berm shall be covered with 100mm depth of topsoil and seeded with an approved green seed mixture. The Contractor shall also include for regrading, shaping and seeding of road ditches for a maximum of 15 metres each way from all catch basins.

The Contractor shall clean all catch basin sumps after completion of the drain installation. Catch basin markers shall be placed beside each catch basin.

C.9. Tributary Drains

Any tributary tile encountered in the course of the drain is to be carefully taken up by the Contractor and placed clear of the excavated earth. If the tributary drains encountered are clean or reasonably clean, they shall be connected into the new drain in accordance with the typical tile drain connection detail. Tributary tile drain connections into the new drain shall be made using high density polyethylene agricultural drain tubing installed on and backfilled with 19mm clear crushed stone. All tile drain connections into the new drain shall be either a cored hole with an insert coupler or a manufactured tee.

Where the existing drains are full of sediment, the decision to connect the tributary drain to the new drain shall be left to the Engineer. The Contractor shall be paid for each tributary drain connection as outlined in the Form of Tender and Agreement.

The Contractor shall be responsible for all tributary tile connections for a period of one year from the date of the Completion Certificate. After construction, any missed tile connections required to be made into the new drain shall be paid at the same rate as defined in the Form of Tender and Agreement. The Contractor will have the option to make any subsequent tile connections or have the Municipality make the required connections and have the cost of which deducted from the holdback.

Where an open ditch is being replaced by a new tile drain, existing tile outlets entering the ditch from the side opposite the new drain shall be extended to the new drain.

Where the Contractor is required to connect an existing tile which is not encountered in the course of the drain, the cost of such work shall constitute an extra to the contract.



C.10. Clearing, Grubbing and Mulching

The Contractor shall clear, brush and stump trees from within the working area.

All trees or limbs 150mm or larger, that is necessary to remove, shall be cut, trimmed and neatly stacked in the working width for the use or disposal by the Landowner. Brush and limbs less than 150mm in diameter shall be mulched.

Clearing, grubbing and mulching shall be carried out as a separate operation from installing the drain, and shall not be completed simultaneously at the same location.

C.11. Roads and Laneway Sub-Surface Crossings

All roads and laneway crossings may be made with an open cut. The Contractor may use original ground as backfill to within 600mm of finished grade only if adequate compaction and if the use of the original ground backfill has been approved beforehand by the Engineer.

C.12. Filling In Existing Ditches

The Contractor shall backfill the ditch sufficiently for traversing by farm equipment. If sufficient material is available on-site to fill in the existing ditch, the topsoil shall be stripped and the subsoil shall be bulldozed into the ditch and the topsoil shall then be spread over the backfilled waterway. The Contractor shall ensure sufficient compaction of the backfill and if required, repair excess settlement up to the end of the warranty period.

C.13. Construction of Grassed Waterways

Where the Contractor is required to construct a grassed waterway, the existing waterway shall be filled in, regraded, shaped and a seed bed prepared prior to applying the grass seed. The grass seed shall be fresh, clean and new crop seed, meeting the requirements of the MTO.

- 55% Creeping Red Fescue
- 15% Perennial Rye Grass
- 27% Kentucky Bluegrass
- 3% White Clover

Grass seed shall be applied at the rate of 100 kg/ha.

C.14. Unstable Soil

The Contractor shall immediately contact the Engineer if unstable soil is encountered. The Engineer shall, after consultation with the Contractor, determine the action necessary and a price for additions or deletions shall be agreed upon prior to further drain installation.

C.15. Rocks

The Contractor shall immediately contact the Engineer if boulders of sufficient size and number are encountered such that the Contractor cannot continue trenching with a wheel machine. The Engineer shall determine the action necessary and a price for additions or deletions shall be agreed upon prior to further drain installation.



If only scattered large stone or boulders are removed on any project, the Contractor shall either excavate a hole to bury same adjacent to the drain, or he shall haul the stones or boulders to a location designated by the Landowner.

C.16. Broken or Damaged Tile

The Contractor shall remove and dispose of all broken (existing or new), damaged or excess tile off site.

C.17. Recommended Practice For Construction of Sub-Surface Drainage Systems

Drainage Guide for Ontario, Ministry of Agriculture, Food and Rural Affairs, Publication 29 and its amendments, dealing with the construction of Subsurface Drainage Systems, shall be the guide to all methods and materials to be used in the construction of tile drains except where superseded by other Specifications of the Contract.

END OF DIVISION



SPECIAL PROVISIONS

Collver Municipal Drain



CONTENTS

1.0	GENERAL	1
2.0	UTILITIES	1
3.0	WORKING AREA AND ACCESS	1
4.0	CLEARING BRUSHING AND MULCHING	2
5.0	EROSION AND SEDIMENT CONTROL	3
6.0	TOPSOIL STRIPPING	3
7.0	OPEN DITCH EXCAVATION	3
8.0	EXCAVATED MATERIAL	3
9.0	PIPE AND INSTALLATION	3
10.0	EXISTING DRAINS/TILE CONNECTIONS	4
11.0	CATCH BASINS	4
12.0	SEEDING	5
13.0	DRIVEWAY RESTORATIONS	5
14.0	BANK REPAIR	5
15.0	ROAD WORKS/CROSSING	5



Special Provisions means special directions containing requirements particular to the work not adequately provided for by the standard or supplemental specifications. Special provisions shall take precedence and govern over any standard or supplemental specification.

1.0 GENERAL

The Contractor shall notify the Landowner, the Drainage Superintendent, the Road authorities and the Engineer 48 hours prior to construction.

The Contractor shall arrange a pre-construction meeting and shall invite the Landowners on whose property work will take place, the Engineer, the Drainage Superintendent and road authority for the Region of Niagara.

The Contractor shall verify the location of the new drainage systems with the Engineer and Landowners prior to construction.

The Contractor shall check and verify all dimensions and elevations and report any discrepancies to the Engineer prior to proceeding with the work.

The Contractor shall be responsible for settlement within the warranty period.

The Contractor shall notify all emergency services and local district school boards of any road closures.

Detour routes and plans shall be provided to all relevant local authorities in accordance with their respective notification protocols (if applicable).

The Contractor shall be responsible to arrange all traffic control signals, signs and devices that are required for safe and proper traffic management during the installation of the drainage system. The Contractor shall contact the road authorities for specific local procedures, guidelines, and timelines. Traffic control shall meet the standards of Book 7 of the Ontario Traffic Manual.

2.0 UTILITIES

All utilities shall be located and uncovered in the affected areas by the Contractor prior to construction.

The locations and elevations of all utilities shown on the drawings are approximate locations. Actual locations and elevations of all utilities must be verified by the Contractor prior to construction.

The Contractor shall arrange to have a representative of the utility owner on site during construction if it is a requirement by the utility owner.

3.0 WORKING AREA AND ACCESS

Access to the working area shall be designated by the Landowners where no access route is defined.

The working area shall be in accordance with the following average widths. The working width may be used for construction purposes including spreading or transporting excavated soil and supplying construction materials to the site.



Drain Segment and Station Range	Property Roll No.	Working side	Average Working Width for Construction	Average Working Width for Future Maintenance
Collver Drain (Open)				
0+031 to 0+358	12-118-02, 12-119	East	12m	10m
0+358 to 0+567	Regional Road 4	Centered	12m	10m
0+567 to 0+959	12-198, 13-998	East	12m	10m
0+959 to 1+010	Regional Road 4	Centered	12m	10m
1+010 to 1+065	12-195	East	12m	10m
Collver Drain (Closed)				
0+000 to 2+000	12-195, 12-186, 12-185-01 and Unopened Road Allowance	Centred	25m	10m
Existing Ditch Alignment (to be enclosed)	12-195, 12-186, 12-185-01	North and South	10m (both sides)	N.A.
Homan Branch				
0+000 to 0+434	Unopened Road Allowances, 12-183-01 and 12-184	Centred	25m	10m
Heeg Branch				
0+000 to 0+020	Regional Road 4	Centred	12m	10m

4.0 CLEARING BRUSHING AND MULCHING

The Contractor shall clear, brush and mulch trees from within the working area that interfere with the construction of the drainage system. The Contractor shall not clear all trees within the working area unless the full working width in a specific section is required for the installation of the drain and unless the Engineer has authorized the full clearing of the trees.

Clearing and brushing shall be done prior to the construction of the drain.

Trees and branches greater than 150mm in diameter shall be cut into lengths no greater than four metres and placed in nearby stacks designated by the Landowner.

Trees removed from road right-of-ways shall be mulched or disposed of offsite by the Contractor.



5.0 EROSION AND SEDIMENT CONTROL

The Contractor shall provide adequate erosion and sediment control for the duration of the construction including monitoring and maintenance of the control measures put in place. The Contractor shall inspect the erosion and sediment control measures regularly, and specifically before predicted rainfall events, and after rainfall events.

6.0 TOPSOIL STRIPPING

The contractor shall strip topsoil from the side slopes and streambed of the ditches prior to the ditch cleanouts/excavations. The topsoil shall later be spread back on the side slopes of the disturbed ditches.

For the construction of Branch 'A', the Contractor shall strip the topsoil for a width equal to the top width of the trench where the drain is installed by means of an approved hydraulic excavator (due to poor soil conditions). Where the drain is to be installed by means of an approved wheel trencher, the Contractor shall strip the topsoil for a minimum of four metres, centred on the trench.

The Contractor shall stockpile the topsoil and later spread it over the backfilled trench. The Contractor shall ensure that the topsoiled trench is left in a condition that the Landowner can perform final restoration using nothing more than farm equipment.

7.0 OPEN DITCH EXCAVATION

An approved hydraulic excavator shall be used to carry out the excavation of the open ditches. The Collver Drain (Open) shall have a 900mm bottom width. All bottom widths shall be parabolic in shape. The side slopes shall be a 1.5H:1V or flatter for all open ditch works.

8.0 EXCAVATED MATERIAL

Excavated material shall from the Collver Drain (Open) shall be hauled to the Collver Drain (Closed) for the ditch enclosure as noted in the attached drawing set.

9.0 PIPE AND INSTALLATION

9.1 Concrete Field Tile

An approved wheel trencher shall be used to install the concrete field tile whenever possible.

All concrete tile shall be Heavy-Duty Extra Quality Concrete Drain Tile 2000D.

Concrete field tile installed by means of a wheel machine shall be backfilled using suitable native material. The backfill shall not be compacted but a sufficient mound shall be left over the trench by the Contractor to allow for settlement flush with adjacent lands.

Concrete field tile installed by means of an approved hydraulic excavator shall be installed using 19mm crushed stone bedding from a minimum of 150mm below the pipe to the springline of the pipe. Suitable native material shall be used as backfill from the springline to the underside of the topsoil.

The Contractor shall supply and wrap all concrete joints with geotextile filter material. The width of the filter material shall be 400mm wide with 400mm overlap.



The filter material shall completely cover the tile joint.

The Contractor shall be responsible for all trench settlement within the warranty period.

9.2 High Density Polyethylene Pipe (HDPE)

All HDPE pipe shall be CSA B182.8 with soil tight (couplers) jointing systems.

All HDPE pipe shall be installed using 19mm crushed stone bedding (or approved equivalent) from a minimum of 150mm below the pipe to 150mm above the pipe. Suitable native material shall be used as backfill from 150mm above the pipe to the underside of the topsoil.

The Contractor shall be responsible for all trench settlement within the warranty period.

9.3 Poor Soil Conditions

The Contractor shall submit a unit price for installation of the pipe per the detail on wrapped crushed stone bedding as a provisional item. The provisional amount for installation on wrapped crushed stone bedding shall include the supply and installation of all additional labour, equipment and materials required for the installation of the pipe by this method.

If poor soil conditions are encountered, the Contractor shall install the pipe in accordance with the detail for wrapped crushed stone bedding and shall be entitled to the provisional tender amount, in addition to the tendered standard installation price. The Contractor shall be paid for the actual lengths installed in this condition.

10.0 EXISTING DRAINS/TILE CONNECTIONS

The Contractor shall locate the existing drains prior to the installation of the new drainage systems.

The Contractor shall make all tributary tile drain connections.

The Contractor shall be responsible for all tile connections for a period of one year after the issuance of the completion certificate. Tile connections required to be made within this warranty period shall be made at the expense of the Contractor. After construction, the Contractor will be given the option to make any subsequent tile connections or have the County make said connections and have the costs of which deducted from the holdback.

The Contractor shall supply all necessary materials to complete the connections of the existing drains to the new drain. The type of materials used to make the tributary drain connections shall be verified with the engineer.

All existing drains cut off during the installation of the new drainage system that will be connected to the new drainage system shall be flagged or marked by the Contractor prior to the connection being made.

11.0 CATCH BASINS

All catch basins shall be precast concrete catch basins and shall have a 300mm sump.

All catch basin grates shall be fastened to the new catch basin and shall be hot dipped galvanized bird cage grates. Catch basin marker signs shall be erected at all catch basins.

All existing catch basins that are to be removed shall be disposed of offsite by the Contractor.



The catch basin grate elevations shall be set to the satisfaction of the Engineer. Lifts shall be placed by the Contractor on all catch basins if necessary to achieve the desired elevation when field setting the structures.

All catch basins shall be installed using 19mm crushed stone bedding from 150mm below the structure to 150mm above the top of the highest pipe entering or exiting the structure. Structures on private property shall be backfilled using approved native material up to the underside of the topsoil layer. All backfill material shall be placed and thoroughly compacted evenly around each structure in lifts not exceeding 300mm to minimize settlement around the structures.

The Contractor shall be responsible for all settlement around catch basins. Should the area around the catch basin settle after construction, the Contractor shall be responsible for providing additional rip-rap required so that the top of the rip-rap is flush with the surrounding ground.

The Contractor shall place quarry stone rip-rap material around all sides of the catch basins and shall be placed on geotextile filter material in accordance with the attached set of drawing plans.

All holes for catch basin pipe connections to be cored by the manufacturer. All pipes entering or exiting a catch basin or shall be installed such that the face of the pipe is flush with the inside wall of the structure.

The Contractor shall be responsible to repair or reapply mortar for all mortared connections into any catch basin for a period of one year after the completion certificate has been issued.

12.0 SEEDING

Any areas disturbed shall be hydroseeded with an approved grass seed mixture (OPS 803 – Standard Roadside Mix).

All seed shall be applied using the manufacturer’s application instructions and recommendations.

13.0 DRIVEWAY RESTORATIONS

The Contractor shall use approved native material to backfill the trench to 150mm from finished grade. Should the material not be suitable for reuse as backfill, as determined by the engineer, the Contractor shall supply and place approved Granular material as backfill material. Unusable native material shall be hauled offsite by the Contractor.

Granular ‘A’ shall be used as the 150mm finished surface course.

14.0 BANK REPAIR

In areas where high levels of erosion have occurred, the Contractor shall reshape the sideslopes and the banks to match the “Typical Proposed Drain Section” detail included in the drawing set, as directed by the Engineer. The Contractor shall then place geo-textile filter material and stone riprap for long term bank stabilization as required by the Engineer.

15.0 ROAD WORKS/CROSSING

15.1 Notice

The Contractor shall notify the Engineer and road authority a minimum of 48 hours prior to the scheduled road crossing.



The Contractor shall notify all emergency services and local district school boards of the road closure.

Detour routes and plans shall be provided to all relevant local authorities in accordance with their respective notification protocols.

15.2 Traffic Control

The Contractor shall be responsible to arrange all traffic control signals, signs and devices that are required for safe and proper traffic management during the installation of the drainage system. The Contractor shall contact the road authority for specific local procedures, guidelines, and timelines. Traffic control shall meet the standards of Book 7 of the Ontario Traffic Manual.

15.3 Pipe Installation

The Contractor shall install the proposed 1800mm diameter CSP culvert by means of the open cut method in accordance with the attached set of drawing plans, using OPSD specifications where noted.

15.4 Road Restoration

The Contractor shall remove and dispose of offsite, all excavated material unsuitable for use as backfill.

The Contractor shall grade the road ditches to the ditch. Any areas disturbed within the Road Right-of-Way shall be topsoiled and hydroseeded with an approved grass seed mixture (OPS 803 – Standard Roadside Mix).

The Contractor shall review and comply with Niagara Region Construction Encroachment & Reinstatement Specifications, including milling asphalt 600 mm beyond saw-cut limits. Refer to: <https://www.niagararegion.ca/living/roads/permits/construction-encroachment-specifications.aspx>

COLLVER MUNICIPAL DRAIN

Watershed Plan

NOTES:

- THIS MAP WAS CREATED USING NIAGARA REGION GEOGRAPHIC INFORMATION SYSTEM DIGITAL DATA. THIS MAP IS A SECONDARY PRODUCT WHICH HAS NOT BEEN VERIFIED BY NIAGARA REGION.
- THE CONTOURS WERE CREATED USING IMAGERY DERIVED DIGITAL DATA (2015) FROM LAND INFORMATION ONTARIO.

BENCHMARK DESCRIPTIONS

- BENCHMARK No. 1** ELEV.=176.47
TOP SOUTHWEST CORNER OF UTILITY PEDESTAL 3m EAST OF STA. 0+043 (COLLVER OPEN)
- BENCHMARK No. 2** ELEV.=177.02
TOP CENTER OF CONCRETE RETAINING WALL ON DOWNSTREAM END OF 900mmØ CSP CULVERT 24m SOUTH OF STA. 0+840 (COLLVER CLOSED)

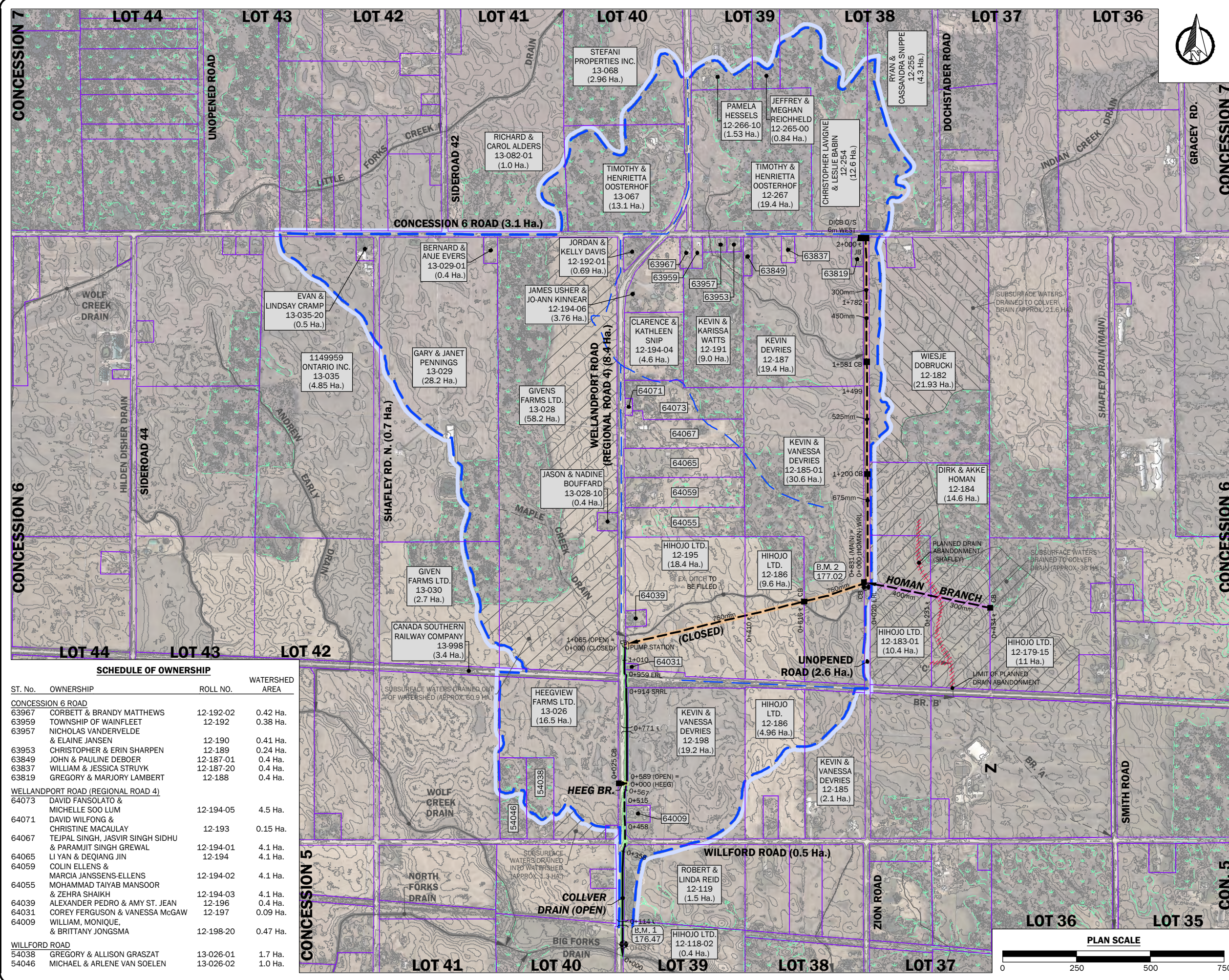
LEGEND

- LOT/CONCESSION LINE
 - PROPERTY LINE
 - MAJOR WATERSHED BOUNDARY
 - MINOR WATERSHED BOUNDARY
 - WETLAND LIMIT
 - BENCHMARK LOCATION
 - B.M. 1 123.45
 - BENCHMARK No.
 - BENCHMARK ELEVATION
 - LANDOWNER NAME(S)
 - ASSESSMENT ROLL No. (ABBREVIATED)
 - AREA WITHIN WATERSHED
- EXISTING FEATURES:**
- DRAIN NAME** OPEN DRAIN WITH CROSSING AND FLOW DIRECTION
 - DRAIN NAME** CLOSED DRAIN WITH CATCH BASIN, MANHOLE AND FLOW DIRECTION
 - OVERLAND FLOW PATH
- PROPOSED FEATURES:**
- DRAIN NAME** OPEN DRAIN WITH CROSSING AND FLOW DIRECTION
 - DRAIN NAME** CLOSED DRAIN WITH CATCH BASIN, MANHOLE AND FLOW DIRECTION

6	REPORT SUBMISSION	25-12-18
5	PUBLIC INFORMATION MEETING	25-07-09
4	PETITIONER MEETING	25-01-09
3	CP RAILWAY SUBMISSION	23-05-31
2	PETITIONER MEETING	22-10-19
1	ON-SITE MEETING	19-11-20
No.	REVISION	DATE (YY-MM-DD)



DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 1 OF 11
DATE: 2025-12-18		REFERENCE No. WNFLT-001	



SCHEDULE OF OWNERSHIP

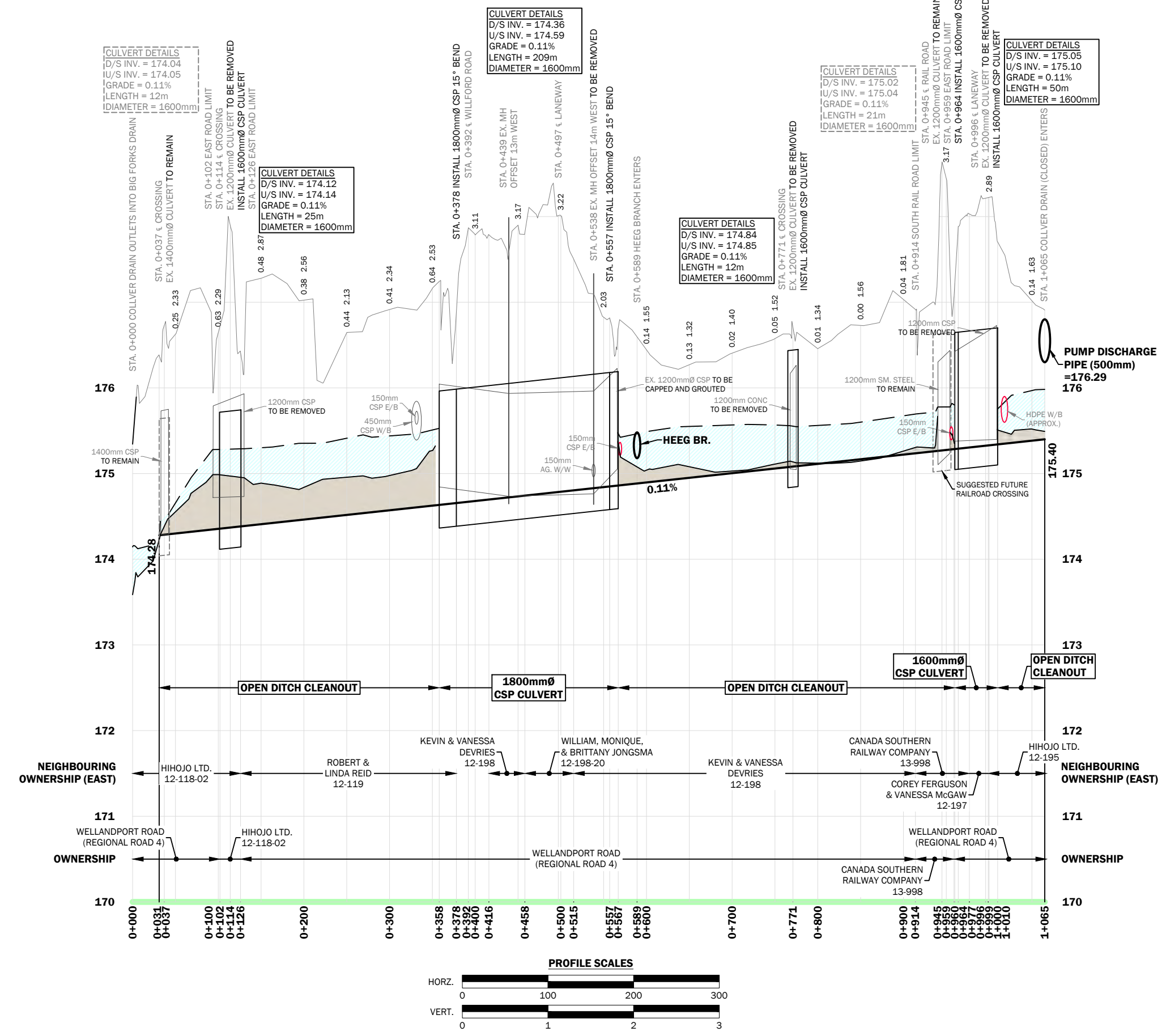
ST. No.	OWNERSHIP	ROLL NO.	WATERSHED AREA
CONCESSION 6 ROAD			
63967	CORBETT & BRANDY MATTHEWS	12-192-02	0.42 Ha.
63959	TOWNSHIP OF WAINFLEET	12-192	0.38 Ha.
63957	NICHOLAS VANDERVELDE & ELAINE JANSEN	12-190	0.41 Ha.
63953	CHRISTOPHER & ERIN SHARPEN	12-189	0.24 Ha.
63849	JOHN & PAULINE DEBOER	12-187-01	0.4 Ha.
63837	WILLIAM & JESSICA STRUYK	12-187-20	0.4 Ha.
63819	GREGORY & MARJORY LAMBERT	12-188	0.4 Ha.
WELLANDPORT ROAD (REGIONAL ROAD 4)			
64073	DAVID FANSOLATO & MICHELLE SOO LUM	12-194-05	4.5 Ha.
64071	DAVID WILFONG & CHRISTINE MACAULAY	12-193	0.15 Ha.
64067	TEJPAL SINGH, JASVIR SINGH SIDHU & PARAMJIT SINGH GREWAL	12-194-01	4.1 Ha.
64065	LI YAN & DEQIANG JIN	12-194	4.1 Ha.
64059	COLIN ELLENS & MARCIA JANSSENS-ELLENS	12-194-02	4.1 Ha.
64055	MOHAMMAD TAIYAB MANSOOR & ZEHRRA SHAIKH	12-194-03	4.1 Ha.
64039	ALEXANDER PEDRO & AMY ST. JEAN	12-196	0.4 Ha.
64031	COREY FERGUSON & VANESSA McGAW	12-197	0.09 Ha.
64009	WILLIAM, MONIQUE, & BRITTANY JONGSMA	12-198-20	0.47 Ha.
WILLFORD ROAD			
54038	GREGORY & ALLISON GRASZAT	13-026-01	1.7 Ha.
54046	MICHAEL & ARLENE VAN SOELEN	13-026-02	1.0 Ha.

PLAN SCALE



COLLVER MUNICIPAL DRAIN

Main Drain (Open) Profile



BENCHMARK DESCRIPTIONS

BENCHMARK No. 1	ELEV.=176.47
TOP SOUTHWEST CORNER OF UTILITY PEDESTAL 3m EAST OF STA. 0+043 (COLLVER OPEN)	
BENCHMARK No. 2	ELEV.=177.02
TOP CENTER OF CONCRETE RETAINING WALL ON DOWNSTREAM END OF 900mmØ CSP CULVERT 24m SOUTH OF STA. 0+840 (COLLVER CLOSED)	



6	REPORT SUBMISSION	25-12-18
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4	PETITIONER MEETING	25-01-09
3	CP RAILWAY SUBMISSION	23-05-31
2	PETITIONER MEETING	22-10-19
1	ON-SITE MEETING	19-11-20
No.	REVISION	DATE (YY-MM-DD)



DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 2 OF 11
DATE: 2025-12-18		REFERENCE No. WNFLT-001	

COLLVER MUNICIPAL DRAIN

Main Drain (Closed) Profile
(Sta. 0+000 to Sta. 1+200)

PUMP STATION DETAILS:

HYDRAULIC REQUIREMENTS
 FLOW RATE : 9,750 gpm
 TOTAL DYNAMIC HEAD: 3.8m
 TYPE: AXIAL FLOW

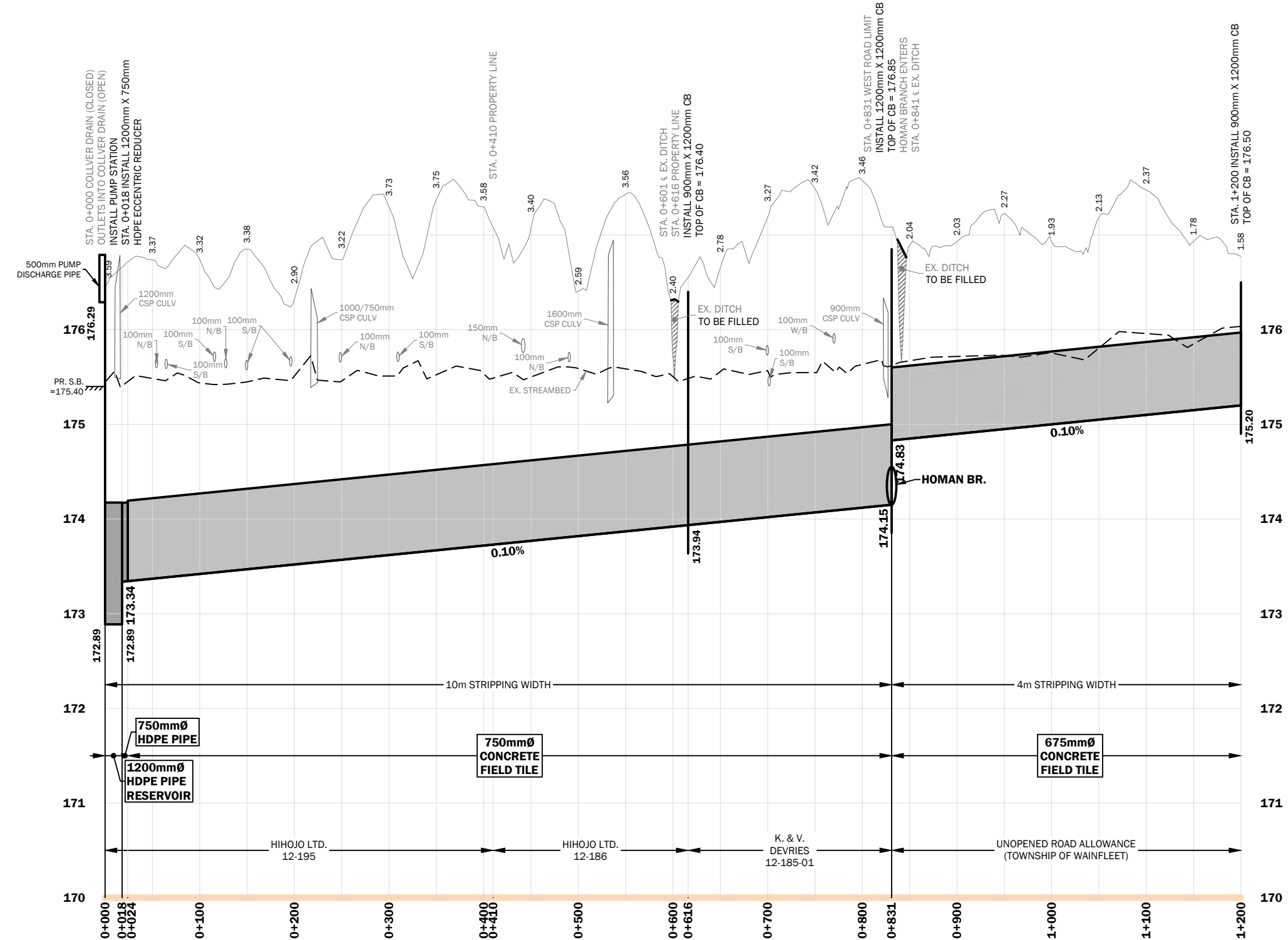
MOTOR AND ELECTRICAL
 POWER: 50 hp
 SPEED: 900 rpm
 VOLTAGE: 575 v
 PHASE: 3 PHASE
 VARIABLE FREQUENCY DRIVE: YES
 - 3 PHASE INPUT AND OUTPUT
 - LINE LOAD REACTORS

SYSTEM INTEGRATION & COMPONENTS
 PUMP STATION: 2200mmØ X 6m VERTICAL CSP
 RESERVOIR: 1200mmØ X 1.8m LENGTH HDPE WITH END CAP
 DISCHARGE : 500mmØ X 9.5m THICKNESS STEEL PIPE
 BACKWATER GATE: FLAP VALVE
 ACCESSORIES: FLOAT CONTROL SYSTEM, PUMP WELL TOP FRAME, PUMP HOUSE ENCLOSURE
 WIRING: PRE-INSTALLED

BENCHMARK DESCRIPTIONS

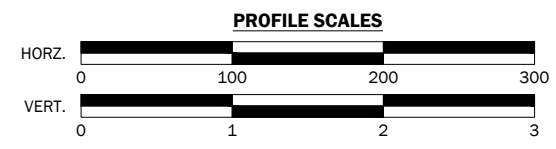
BENCHMARK No. 1 **ELEV.=176.47**
 TOP SOUTHWEST CORNER OF UTILITY PEDESTAL 3m EAST OF STA. 0+043 (COLLVER OPEN)

BENCHMARK No. 2 **ELEV.=177.02**
 TOP CENTER OF CONCRETE RETAINING WALL ON DOWNSTREAM END OF 900mmØ CSP CULVERT 24m SOUTH OF STA. 0+840 (COLLVER CLOSED)



SCHEDULE OF PIPE MATERIALS

MATERIAL	DIAMETER (mm)	STATION RANGE	LENGTH (m)
1. HIGH DENSITY POLYETHYLENE PIPE (RESERVOIR)	1200	0+000 - 0+018	18
2. HIGH DENSITY POLYETHYLENE PIPE	750	0+018 - 0+024	6
3. CONCRETE FIELD TILE	750	0+024 - 0+831	807
4. CONCRETE FIELD TILE	675	0+831 - 1+200	369



6	REPORT SUBMISSION	25-12-18
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3	CP RAILWAY SUBMISSION	23-05-31
2	PETITIONER MEETING	22-10-19
1	ON-SITE MEETING	19-11-20
No.	REVISION	DATE (YY-MM-DD)

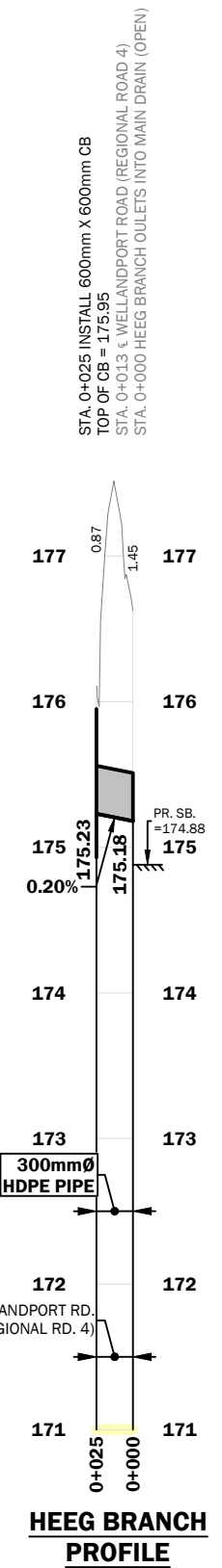
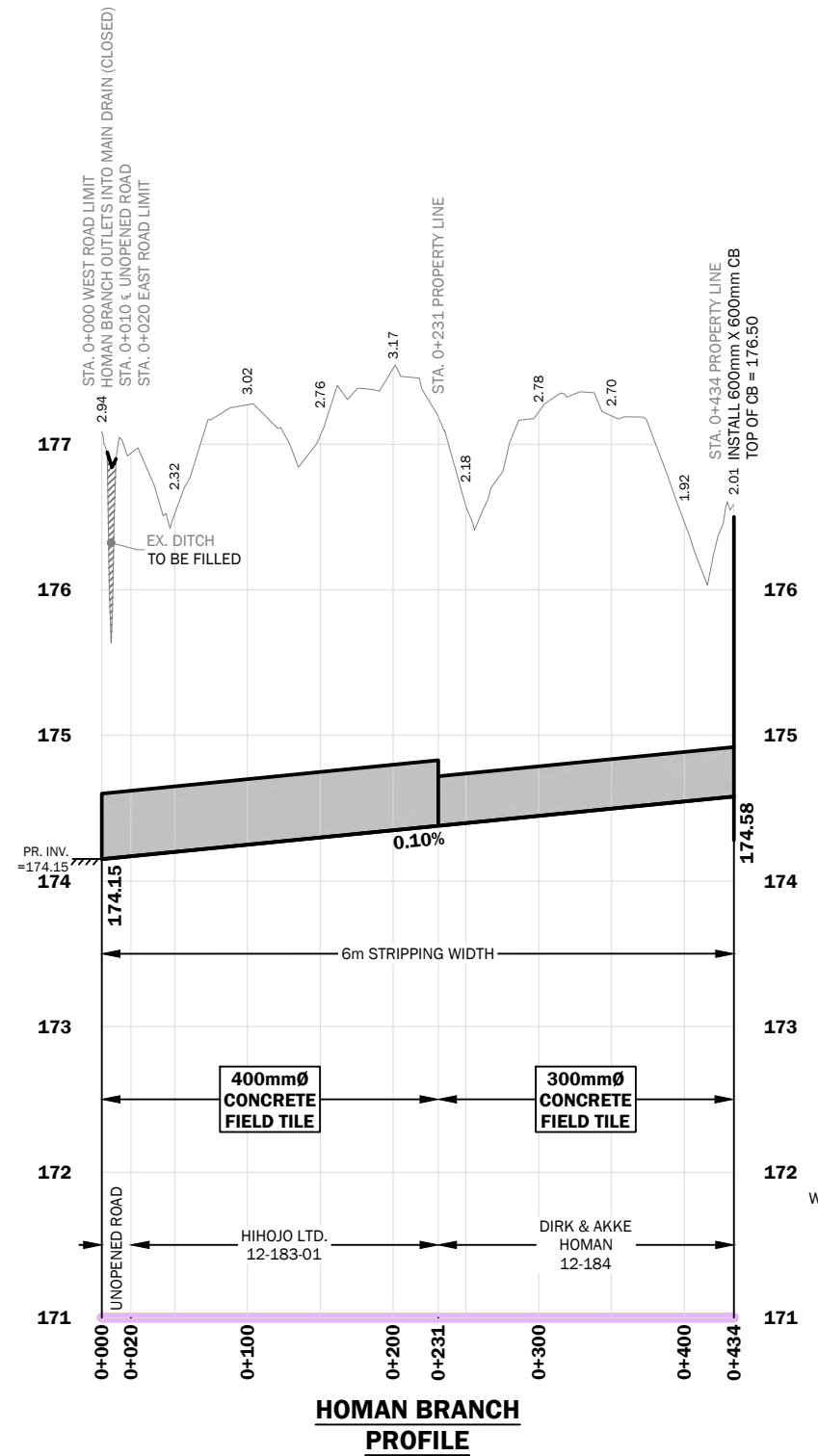
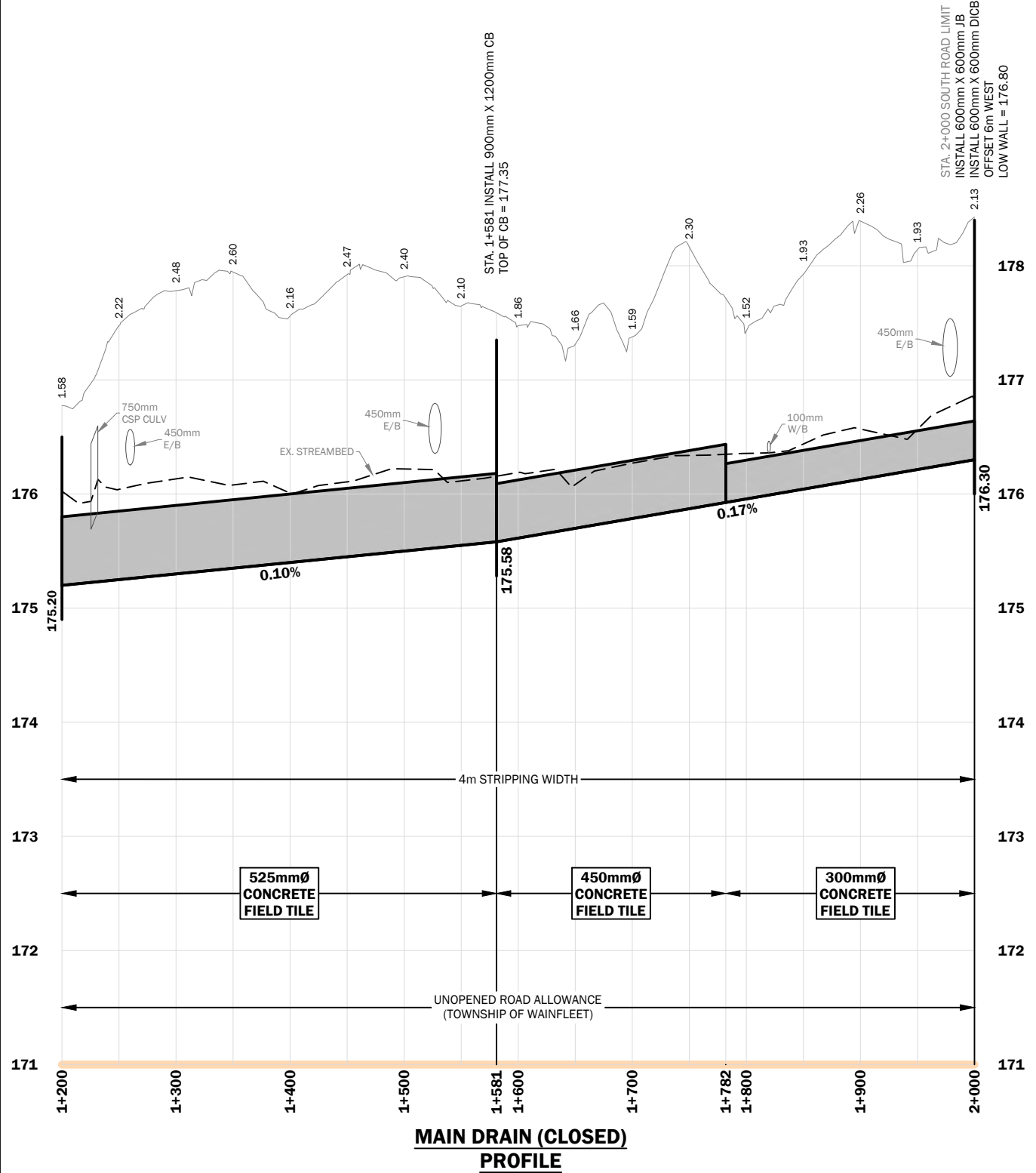


DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 3 OF 11
DATE: 2025-12-18		REFERENCE No. WNFLT-001	

COLLVER MUNICIPAL DRAIN

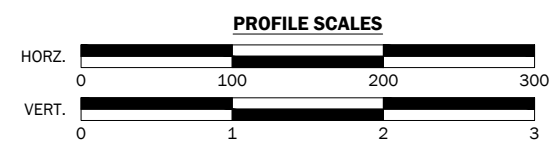
Main Drain (Closed) Profile
(Sta. 1+200 to Sta. 2+000),
Homan Br. & Heeg Br. Profiles

BENCHMARK DESCRIPTIONS
BENCHMARK No. 1 ELEV.=176.47
 TOP SOUTHWEST CORNER OF UTILITY PEDESTAL 3m EAST OF STA. 0+043
 (COLLVER OPEN)
BENCHMARK No. 2 ELEV.=177.02
 TOP CENTER OF CONCRETE RETAINING WALL ON DOWNSTREAM END OF 900mmØ
 CSP CULVERT 24m SOUTH OF STA. 0+840 (COLLVER CLOSED)



SCHEDULE OF PIPE MATERIALS (MAIN DRAIN)

MATERIAL	DIAMETER (mm)	STATION RANGE	LENGTH (m)
1. CONCRETE FIELD TILE	525	1+200 - 1+581	381
2. CONCRETE FIELD TILE	450	1+581 - 1+782	201
3. CONCRETE FIELD TILE	300	1+782 - 2+000	218



SCHEDULE OF PIPE MATERIALS (HOMAN BR.)

MATERIAL	DIAMETER (mm)	STATION RANGE	LENGTH (m)
1. CONCRETE FIELD TILE	400	0+000 - 0+231	231
2. CONCRETE FIELD TILE	300	0+231 - 0+434	203

SCHEDULE OF PIPE MATERIALS (HEEG BR.)

MATERIAL	DIAMETER (mm)	STATION RANGE	LENGTH (m)
1. HIGH DENSITY POLYETHYLENE PIPE	300	0+000 - 0+025	25



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1	ON-SITE MEETING	19-11-20
No.	REVISION	DATE (YY-MM-DD)

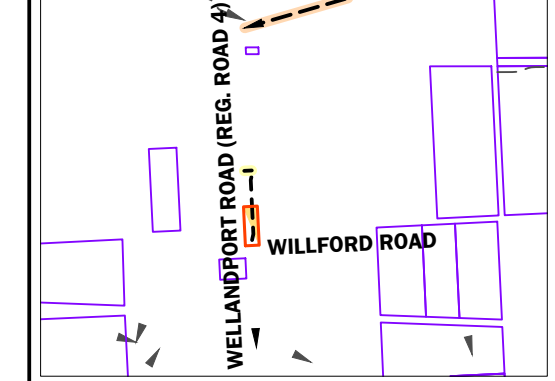


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DATE: 2025-12-18		REFERENCE No. WNFLT-001	

COLLVER MUNICIPAL DRAIN

Plan & Profile
(Sta. 0+340 to Sta. 0+470)

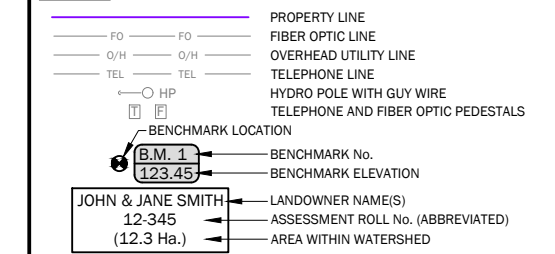
KEY PLAN



NOTES:

1. THIS MAP WAS CREATED USING NIAGARA REGION GEOGRAPHIC INFORMATION SYSTEM DIGITAL DATA. THIS MAP IS A SECONDARY PRODUCT WHICH HAS NOT BEEN VERIFIED BY NIAGARA REGION.
2. THE CONTOURS WERE CREATED USING IMAGERY DERIVED DIGITAL DATA (2015) FROM LAND INFORMATION ONTARIO.
3. CONTRACTOR TO REVIEW AND COMPLY WITH NIAGARA REGION CONSTRUCTION ENCROACHMENT & REINSTATEMENT SPECIFICATIONS, INCLUDING MILLING ASPHALT 600mm BEYOND SAW-CUT LIMITS. REFER TO: <https://www.niagararegion.ca/living/roads/permits/construction-encroachment-specifications.aspx>

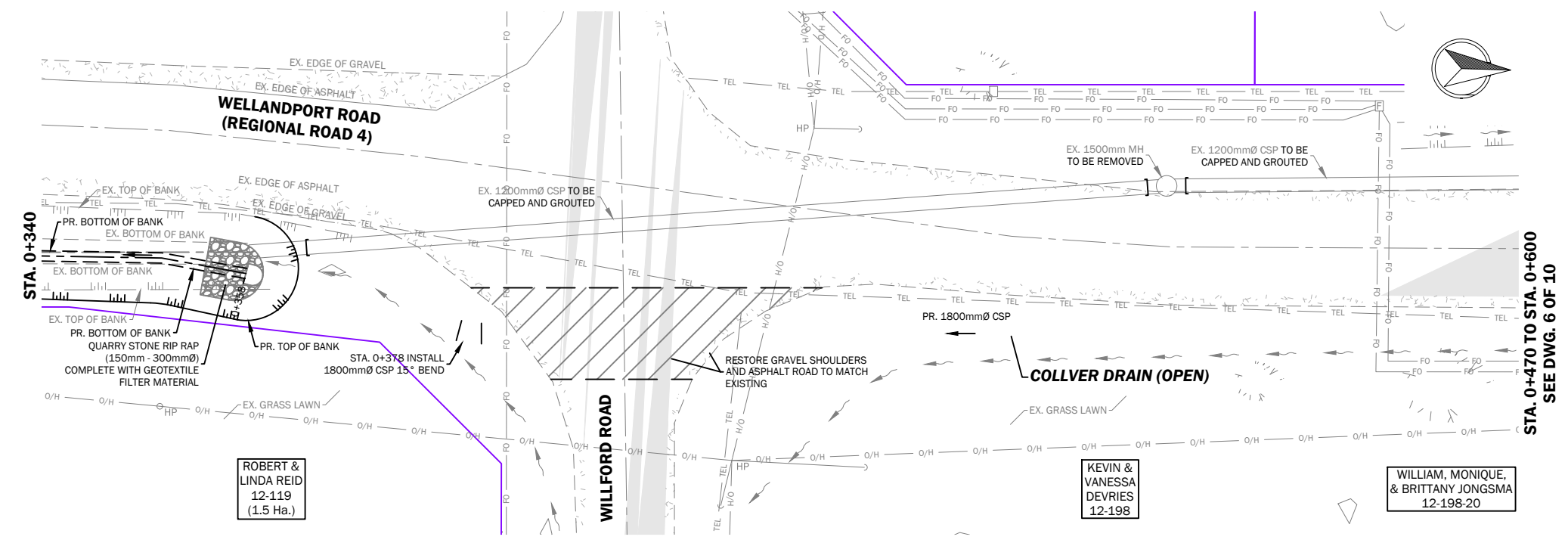
LEGEND



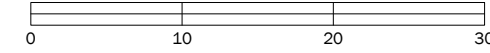
6	REPORT SUBMISSION	25-12-18
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3	CP RAILWAY SUBMISSION	23-05-31
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No.	REVISION	DATE (YY-MM-DD)



DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 5 OF 11
DATE: 2025-12-18		REFERENCE No. WNFLT-001	

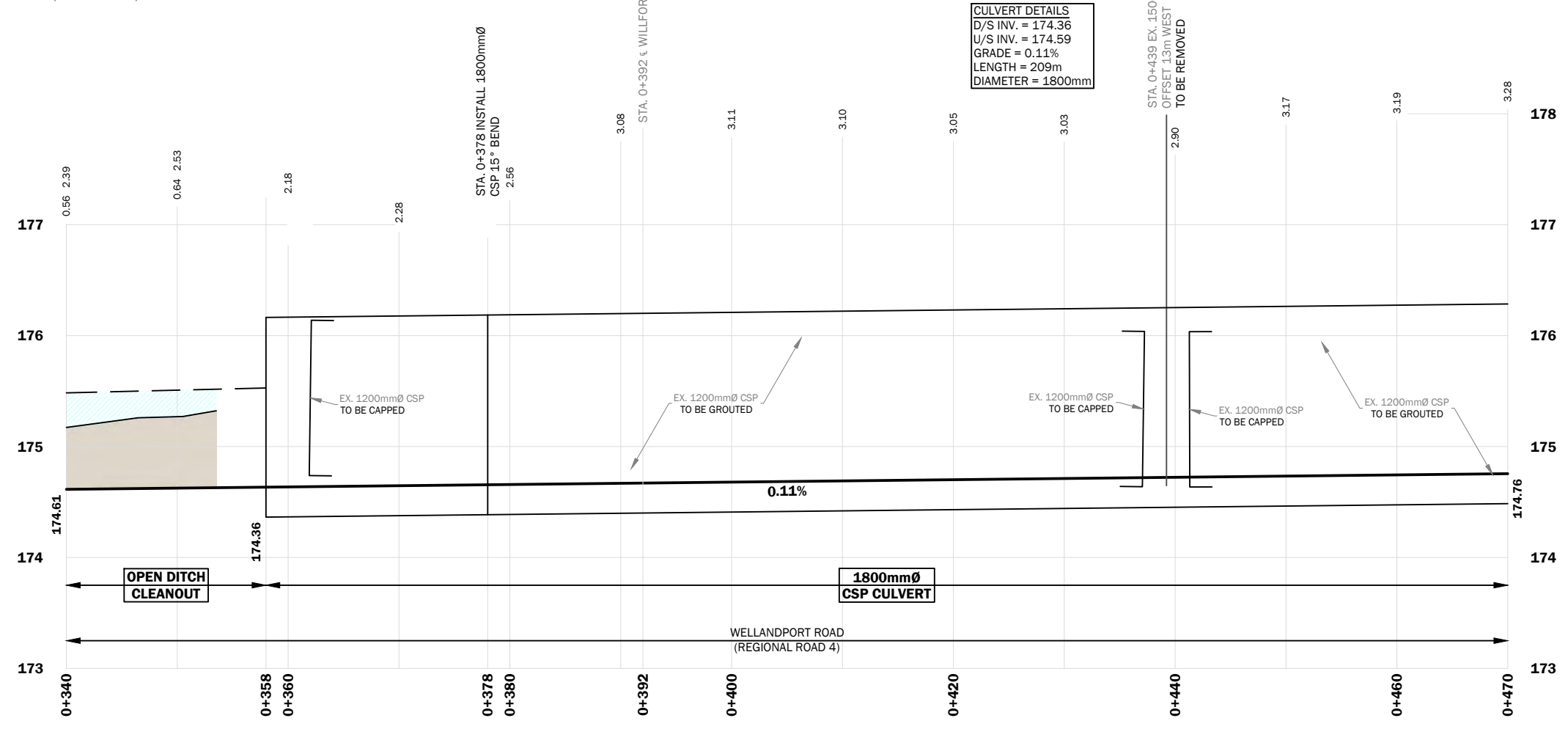


PLAN SCALE

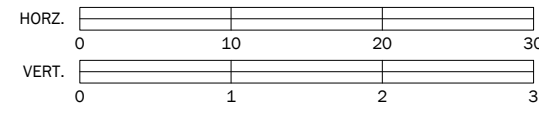


BENCHMARK DESCRIPTIONS

- BENCHMARK No. 1** ELEV.=176.47
TOP SOUTHWEST CORNER OF UTILITY PEDESTAL 3m EAST OF STA. 0+043 (COLLVER OPEN)
- BENCHMARK No. 2** ELEV.=177.02
TOP CENTER OF CONCRETE RETAINING WALL ON DOWNSTREAM END OF 900mmØ CSP CULVERT 24m SOUTH OF STA. 0+840 (COLLVER CLOSED)

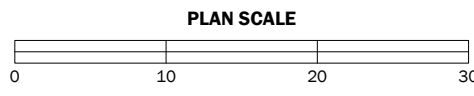
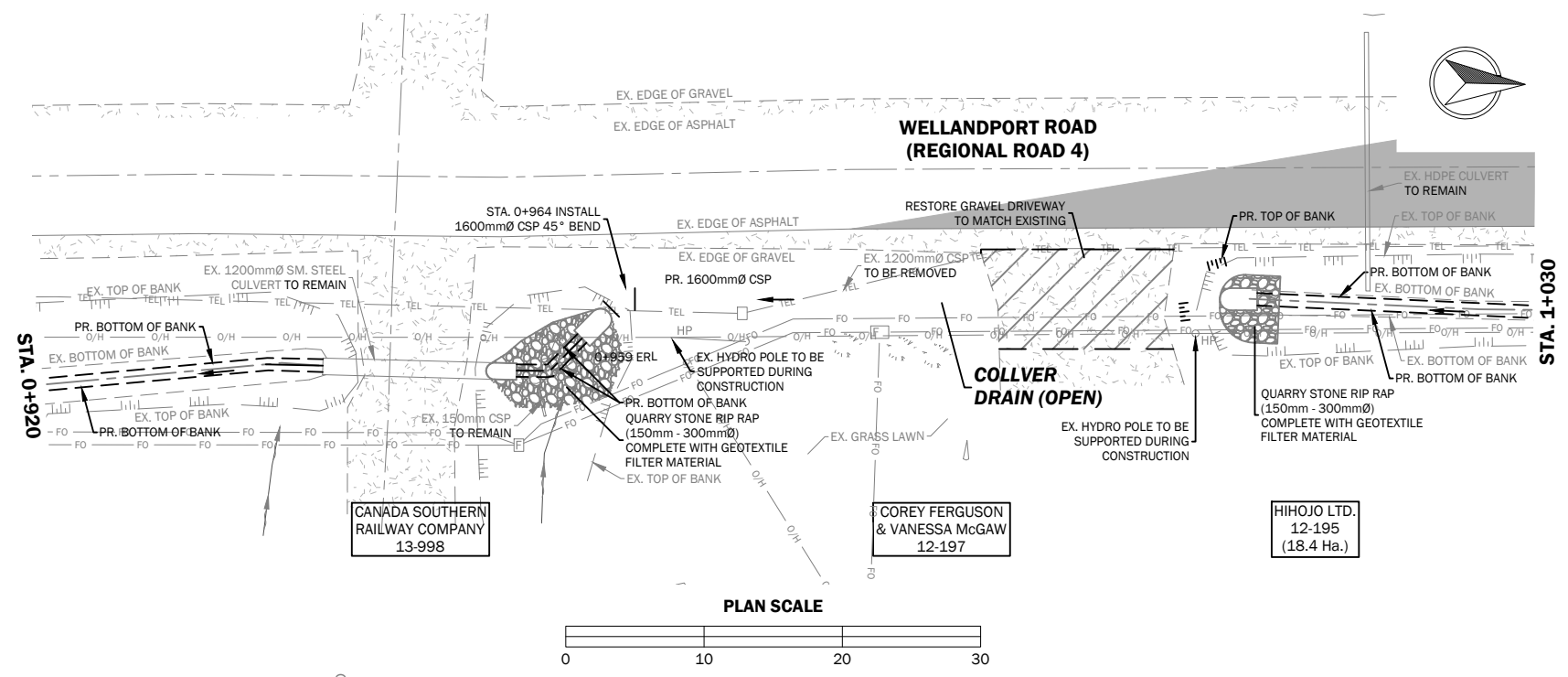


PROFILE SCALES

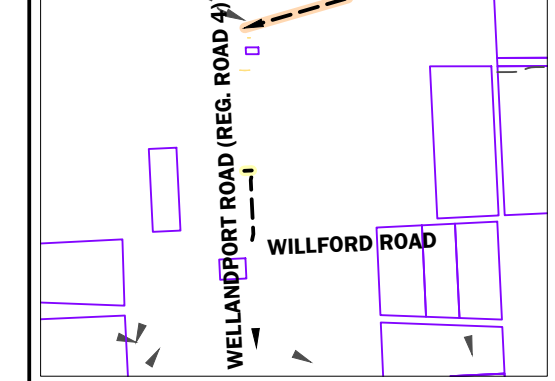


COLLVER MUNICIPAL DRAIN

Plan & Profile
(Sta. 0+920 to Sta. 1+030)

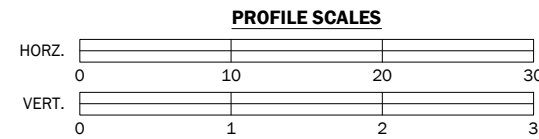
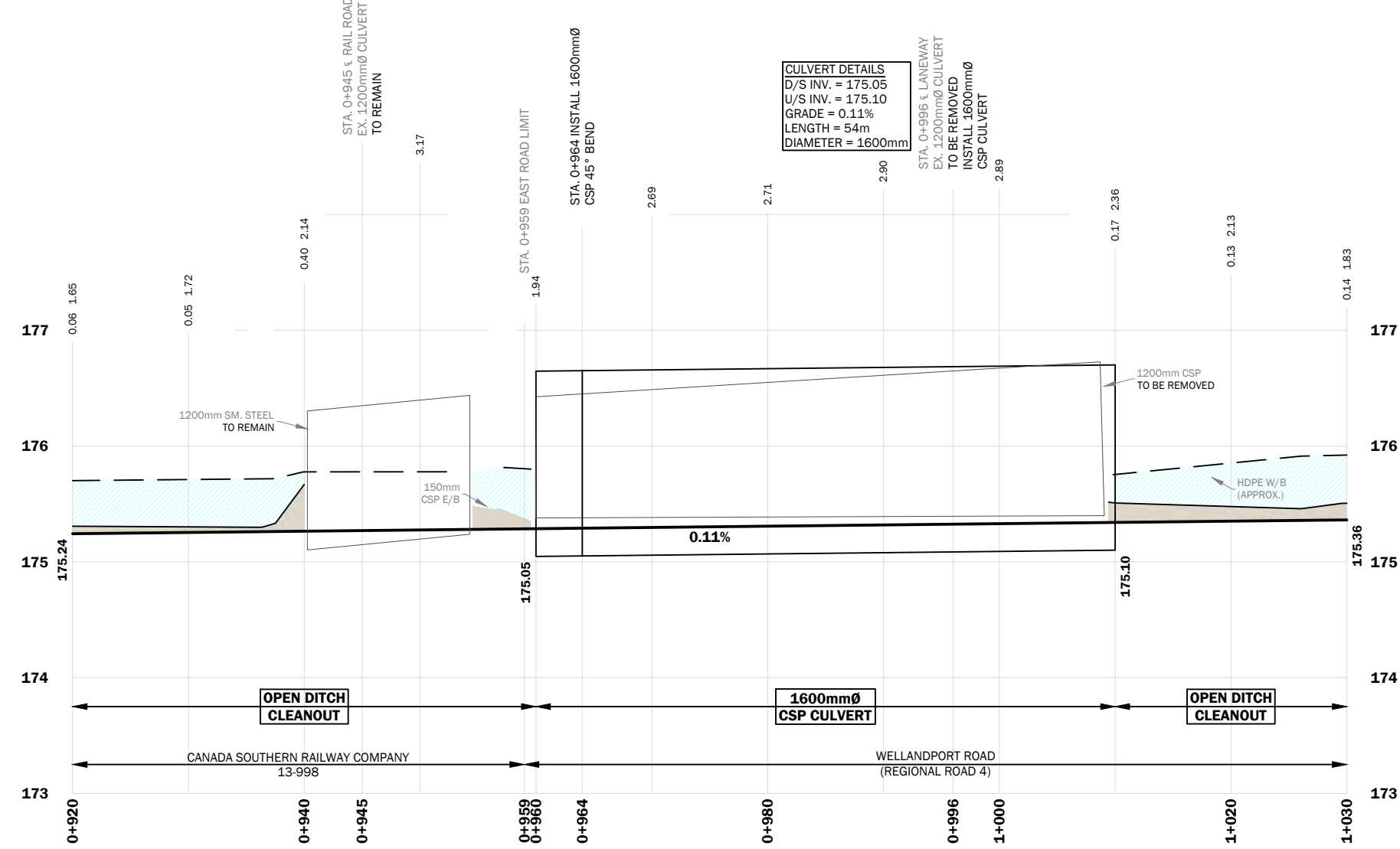


KEY PLAN



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CULVERT DETAILS
D/S INV. = 175.05
U/S INV. = 175.10
GRADE = 0.11%
LENGTH = 54m
DIAMETER = 1600mm

LEGEND

- FO ——— FO ——— PROPERTY LINE
- O/H ——— O/H ——— FIBER OPTIC LINE
- TEL ——— TEL ——— OVERHEAD UTILITY LINE
- HP ——— HP ——— TELEPHONE LINE
- HP ——— HP ——— HYDRO POLE WITH GUY WIRE
- TEL ——— TEL ——— TELEPHONE AND FIBER OPTIC PEDESTALS
- FV ——— FV ——— FIBER OPTIC VAULT
- ——— BENCHMARK LOCATION
- B.M. 1 ——— BENCHMARK No.
- 123.45 ——— BENCHMARK ELEVATION
- JOHN & JANE SMITH ——— LANDOWNER NAME(S)
- 12-345 ——— ASSESSMENT ROLL No. (ABBREVIATED)
- (12.3 Ha.) ——— AREA WITHIN WATERSHED



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1	ON-SITE MEETING	19-11-20
No.	REVISION	DATE (YY-MM-DD)



DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 7 OF 11
DATE: 2025-12-18		REFERENCE No. WNFLT-001	

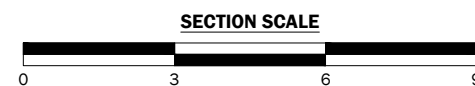
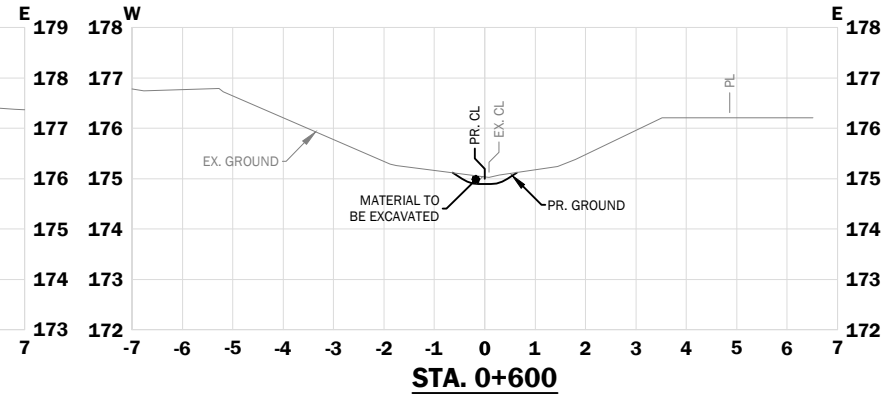
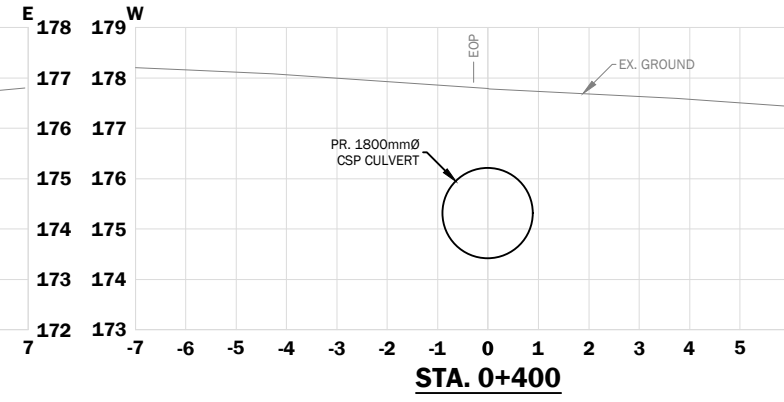
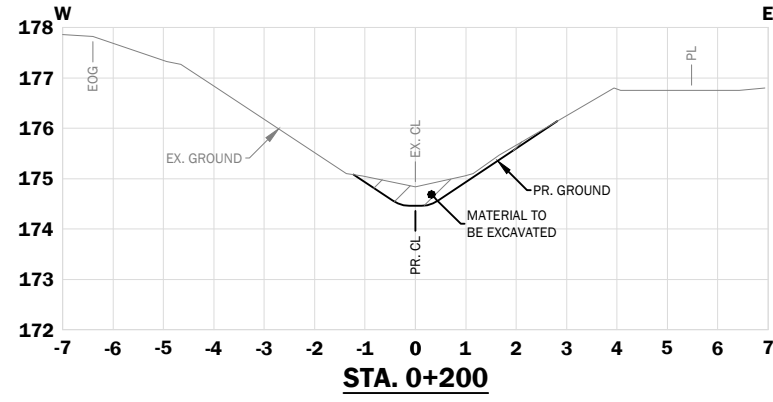
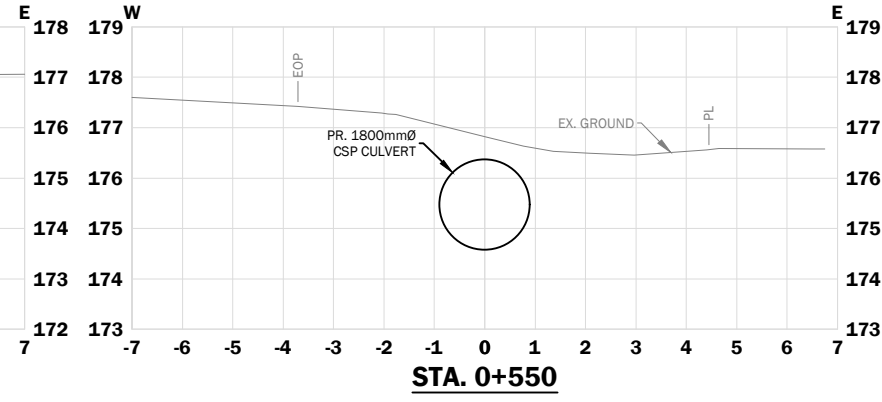
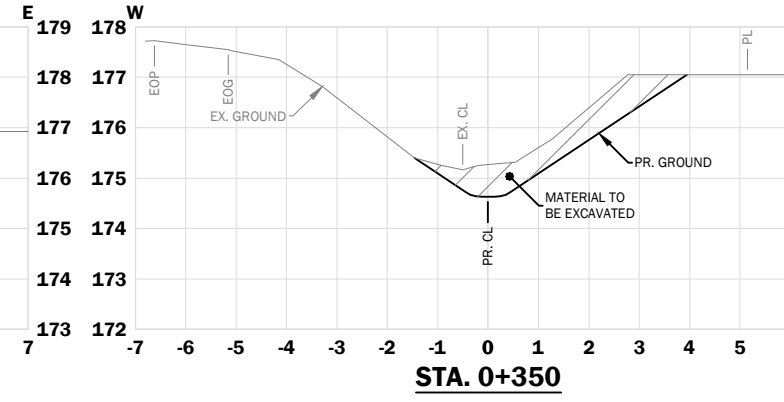
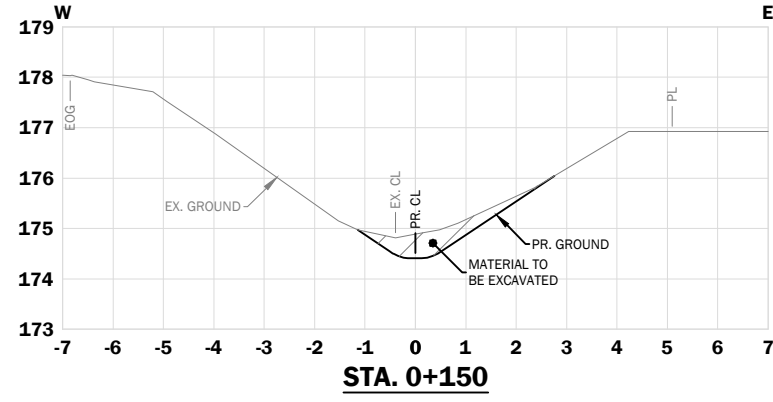
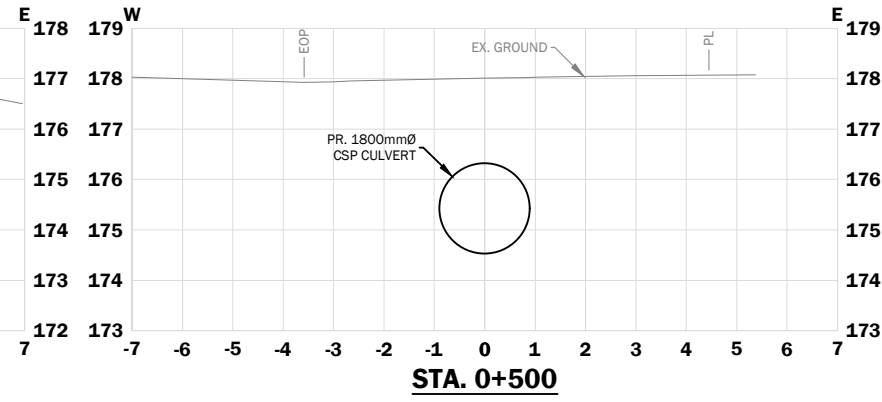
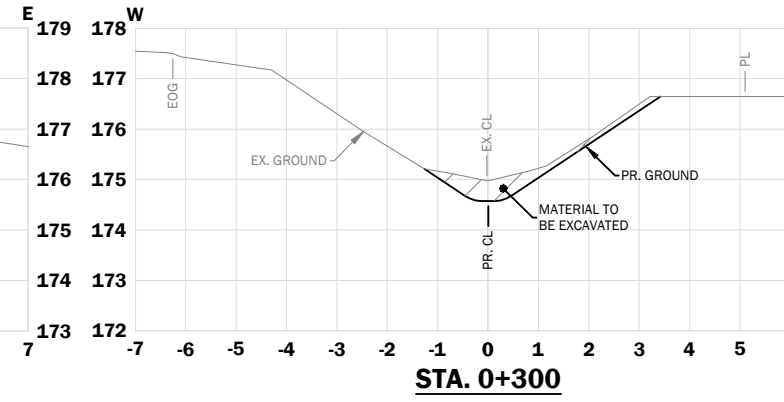
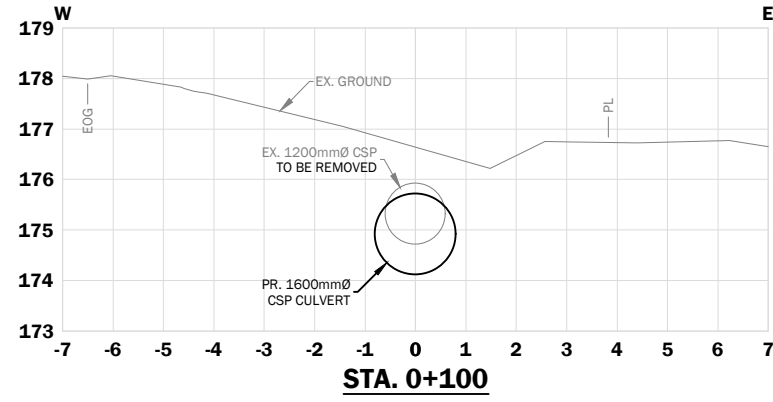
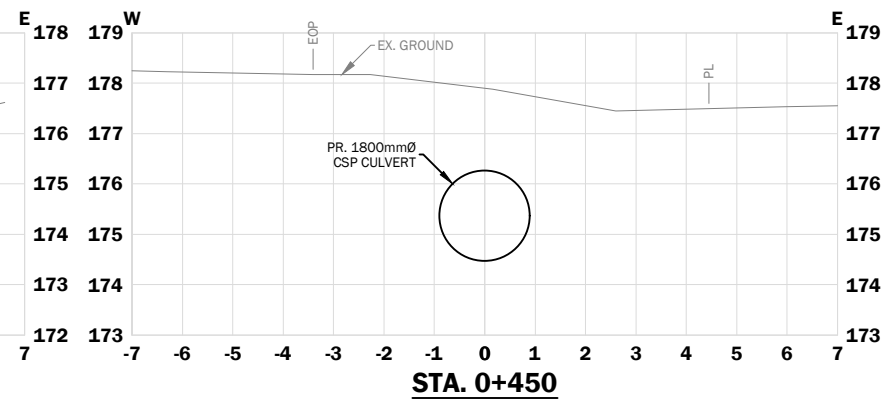
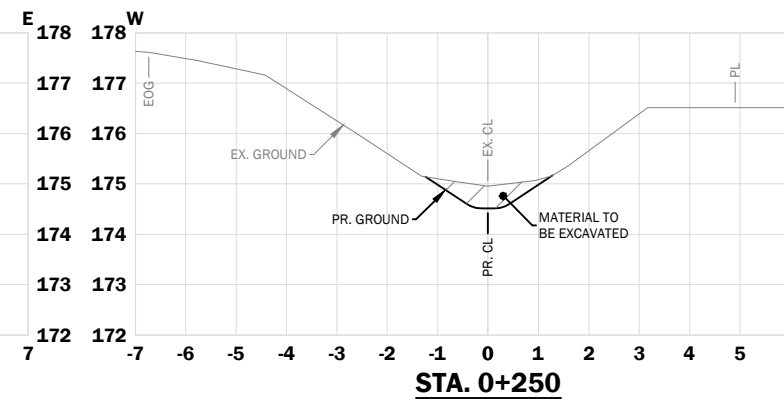
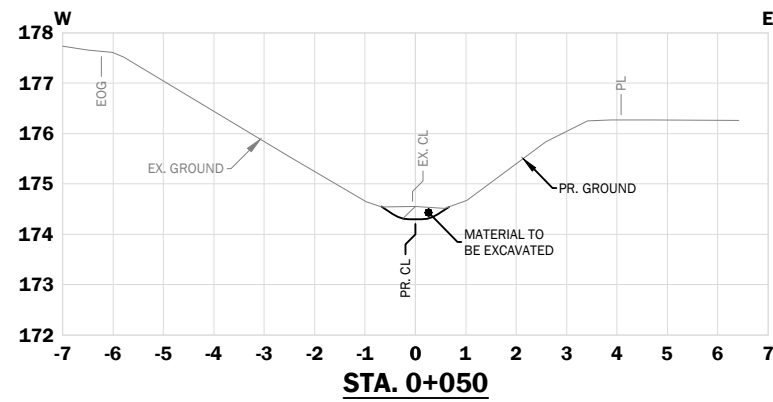
COLLVER MUNICIPAL DRAIN

Sections - Collver Drain (Open)
(Sta. 0+050 to Sta. 0+600)

BENCHMARK DESCRIPTIONS

BENCHMARK No. 1 ELEV.=176.47
TOP SOUTHWEST CORNER OF UTILITY PEDESTAL 3m EAST OF STA. 0+043
(COLLVER OPEN)

BENCHMARK No. 2 ELEV.=177.02
TOP CENTER OF CONCRETE RETAINING WALL ON DOWNSTREAM END OF 900mmØ
CSP CULVERT 24m SOUTH OF STA. 0+840 (COLLVER CLOSED)



6	REPORT SUBMISSION	25-12-18
5	PUBLIC INFORMATION MEETING	25-07-09
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DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 8 OF 11
DATE: 2025-12-18		REFERENCE No. WNFLT-001	

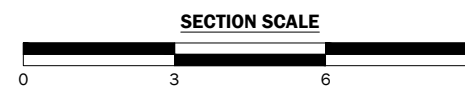
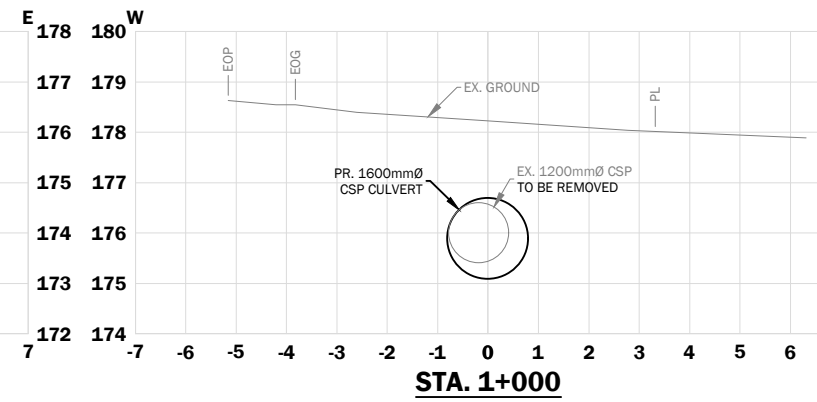
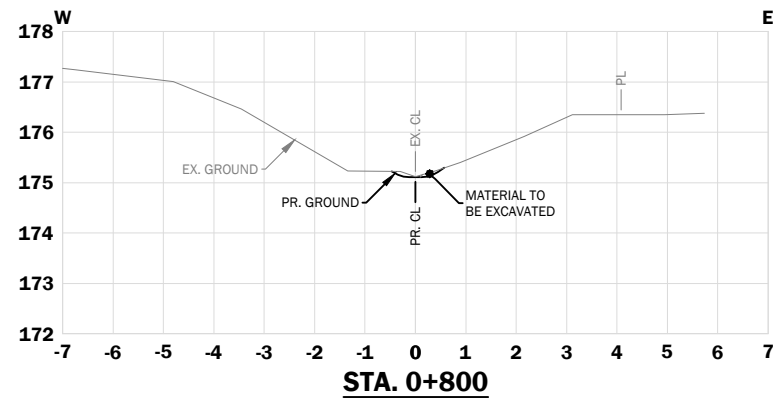
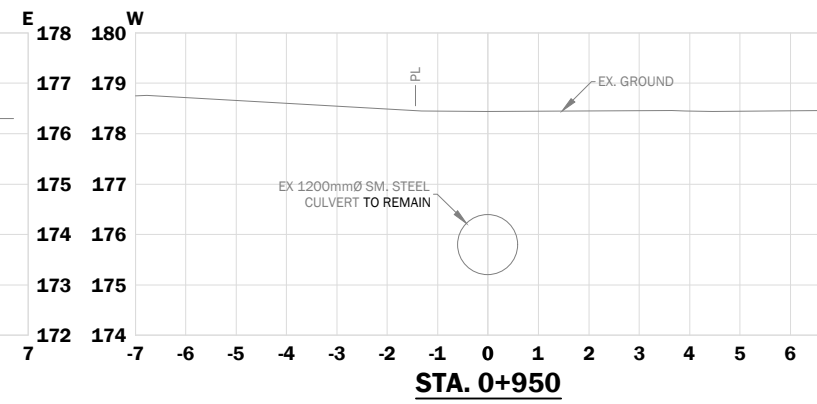
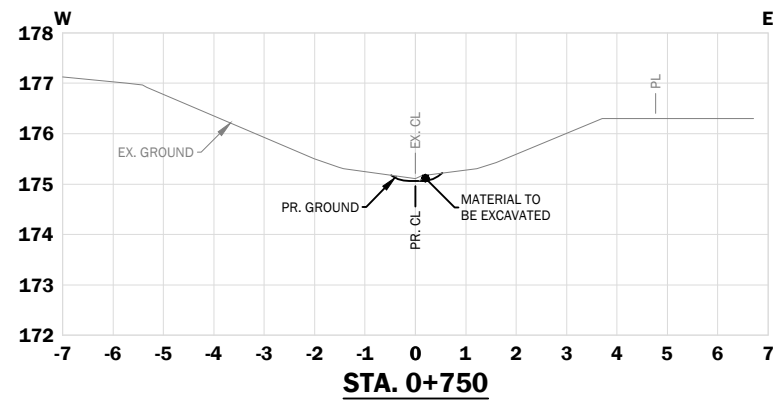
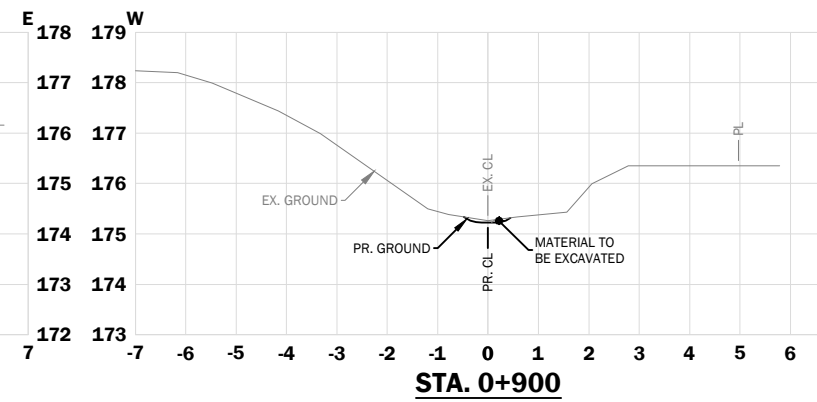
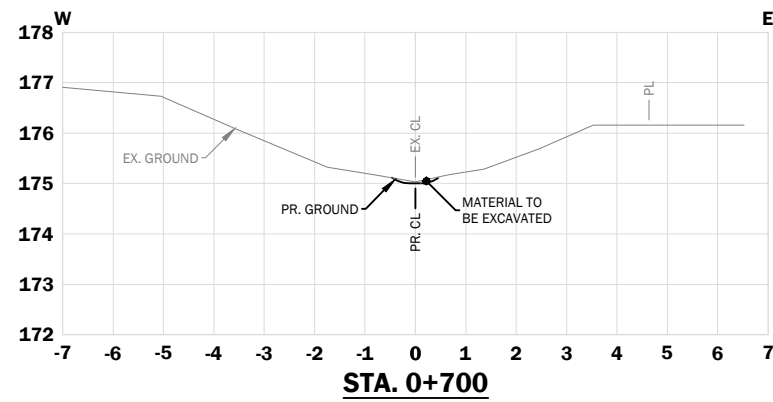
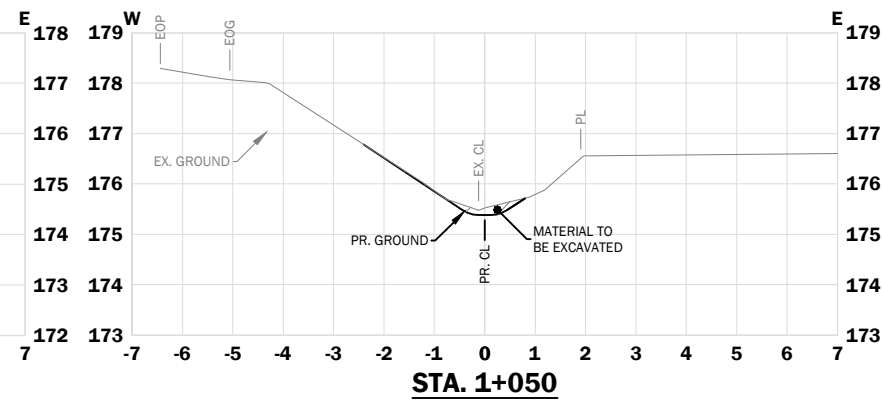
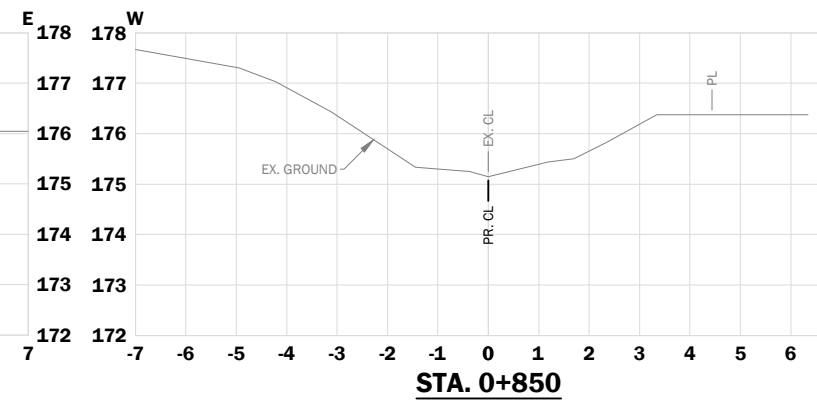
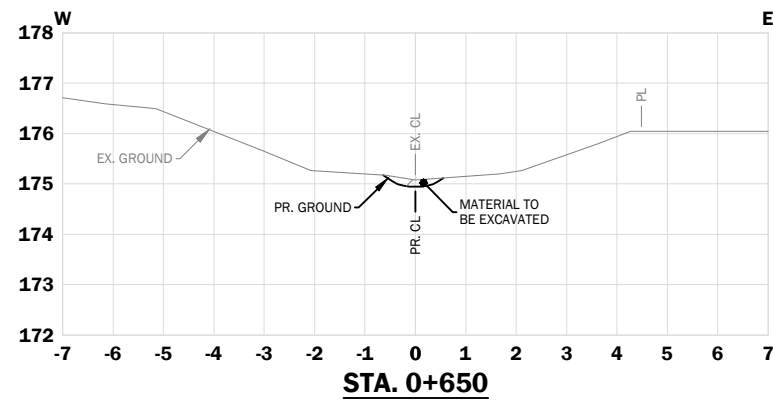
COLLVER MUNICIPAL DRAIN

Sections - Collver Drain (Open)
(Sta. 0+650 to Sta. 1+050)

BENCHMARK DESCRIPTIONS

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TOP SOUTHWEST CORNER OF UTILITY PEDESTAL 3m EAST OF STA. 0+043
(COLLVER OPEN)

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TOP CENTER OF CONCRETE RETAINING WALL ON DOWNSTREAM END OF 900mmØ
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DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 9 OF 11
DATE: 2025-12-18		REFERENCE No. WNFLT-001	

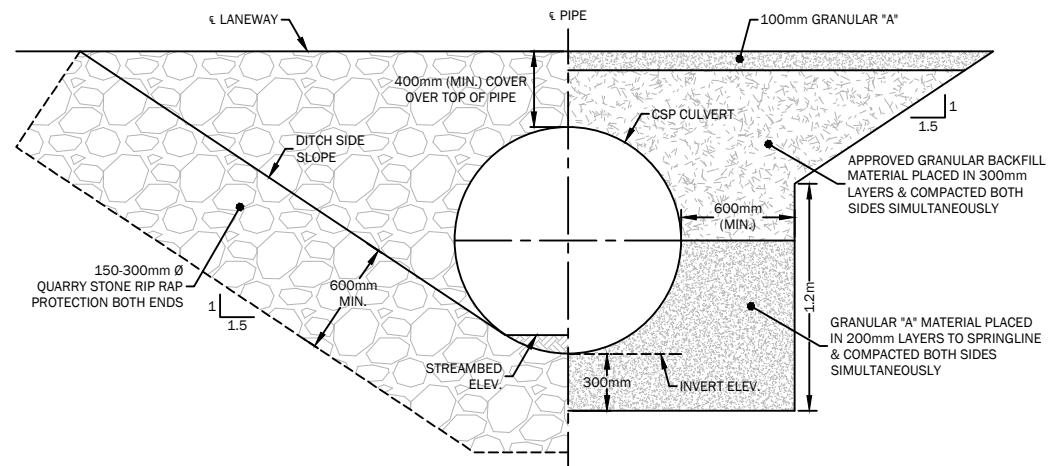
COLLVER MUNICIPAL DRAIN

Details

BENCHMARK DESCRIPTIONS

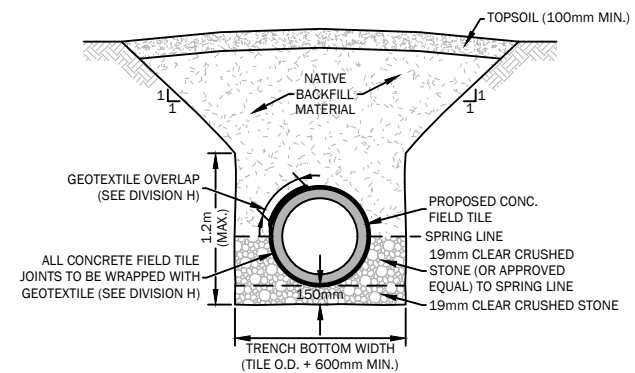
BENCHMARK No. 1 **ELEV.=176.47**
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(COLLVER OPEN)

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TOP CENTER OF CONCRETE RETAINING WALL ON DOWNSTREAM END OF 900mmØ
CSP CULVERT 24m SOUTH OF STA. 0+840 (COLLVER CLOSED)



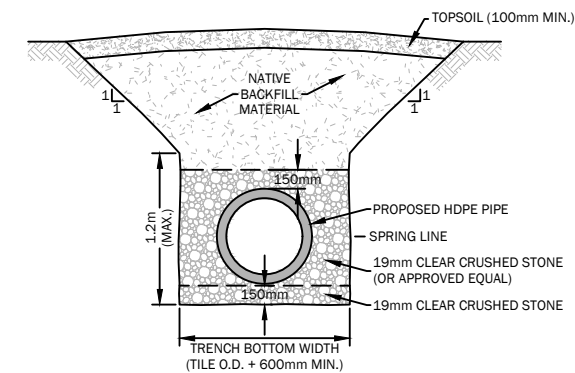
HALF ELEVATION

HALF SECTION



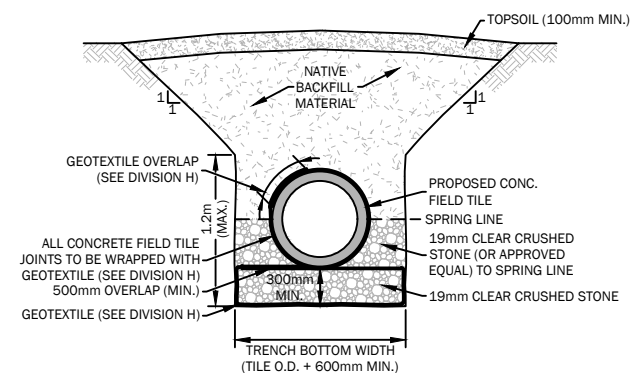
TYPICAL CONCRETE TILE INSTALLATION ON STONE BEDDING DETAIL

N.T.S.



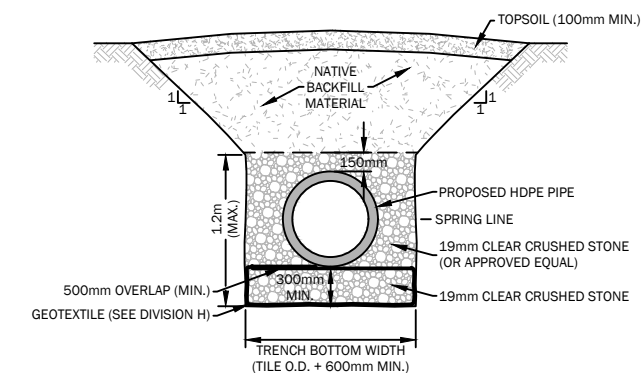
TYPICAL HDPE PIPE INSTALLATION ON STONE BEDDING DETAIL

N.T.S.



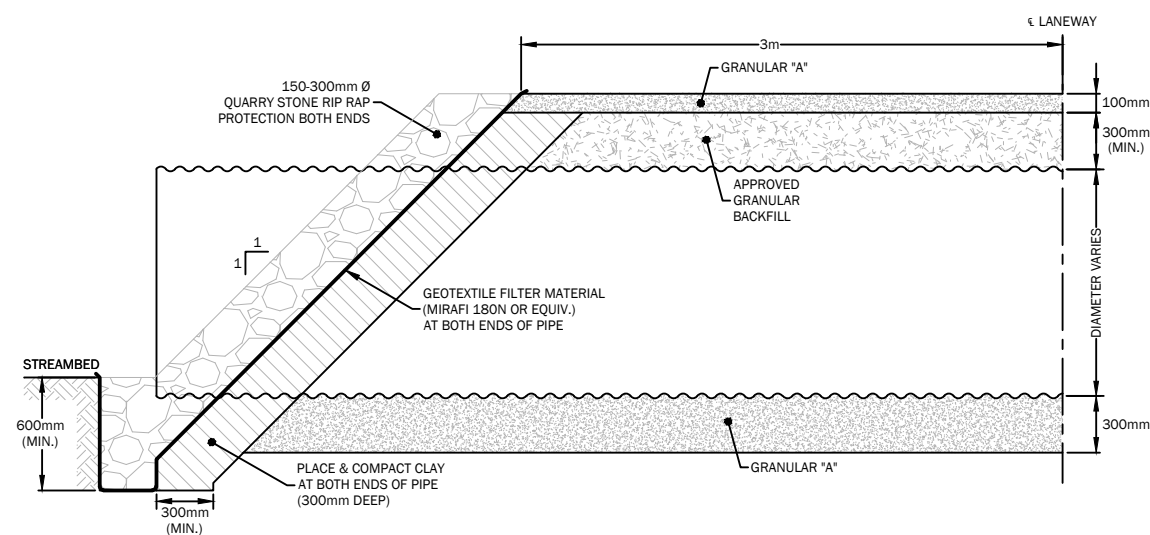
TYPICAL CONCR. TILE INSTALLATION ON WRAPPED STONE BEDDING DETAIL (PROVISIONAL ITEM)

N.T.S.



TYPICAL HDPE PIPE INSTALLATION ON WRAPPED STONE BEDDING DETAIL (PROVISIONAL ITEM)

N.T.S.



HALF LONGITUDINAL SECTION

PROPOSED CULVERTS

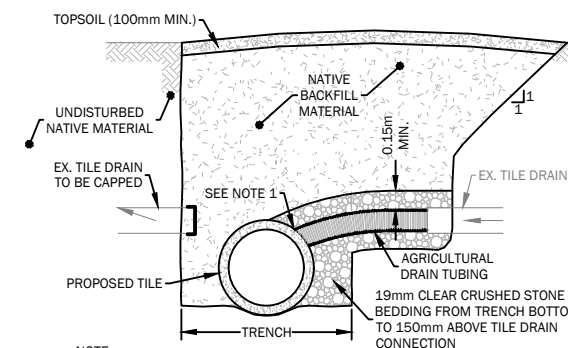
STATION	DIAMETER	LENGTH	INVERT	STREAMBED	CORRUGATIONS	THICKNESS
0+114	1600mm	25m	U.S.E. = 174.14 D.S.E. = 174.12	U.S.E. = 174.38 D.S.E. = 174.36	125mm X 25mm	2.80mm
0+771	1600mm	12m	U.S.E. = 174.85 D.S.E. = 174.84	U.S.E. = 175.09 D.S.E. = 175.08	125mm X 25mm	2.80mm
0+996	1600mm	50m	U.S.E. = 175.10 D.S.E. = 175.05	U.S.E. = 175.34 D.S.E. = 175.29	125mm X 25mm	2.80mm

SUGGESTED CULVERTS

0+037	1600mm	12m	U.S.E. = 174.05 D.S.E. = 174.04	U.S.E. = 174.29 D.S.E. = 174.28	125mm X 25mm	2.80mm
0+945	1600mm	21m	U.S.E. = 175.04 D.S.E. = 175.02	U.S.E. = 175.28 D.S.E. = 175.26	125mm X 25mm	2.80mm

TYPICAL LANEWAY CULVERT DETAIL

N.T.S.



NOTE:

- ALL TILE CONNECTIONS TO BE EITHER A CORED HOLE WITH AN INSERT COUPLER, OR A MANUFACTURED TEE.
- CLEAR CRUSHED STONE BEDDING NOT REQUIRED IF DUAL WALL H.D.P.E. PIPE IS USED FOR THE CONNECTION.

TYPICAL TILE CONNECTION DETAIL

N.T.S.



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2	PETITIONER MEETING	22-10-19
1	ON-SITE MEETING	19-11-20
No.	REVISION	DATE (YY-MM-DD)



DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING OF 10 OF 11
DATE: 2025-12-18		REFERENCE No. WNFLT-001	

COLLVER MUNICIPAL DRAIN

Pump Details

PUMP STATION DETAILS:

HYDRAULIC REQUIREMENTS
 FLOW RATE : 9,750 gpm
 TOTAL DYNAMIC HEAD: 3.8m
 TYPE: AXIAL FLOW

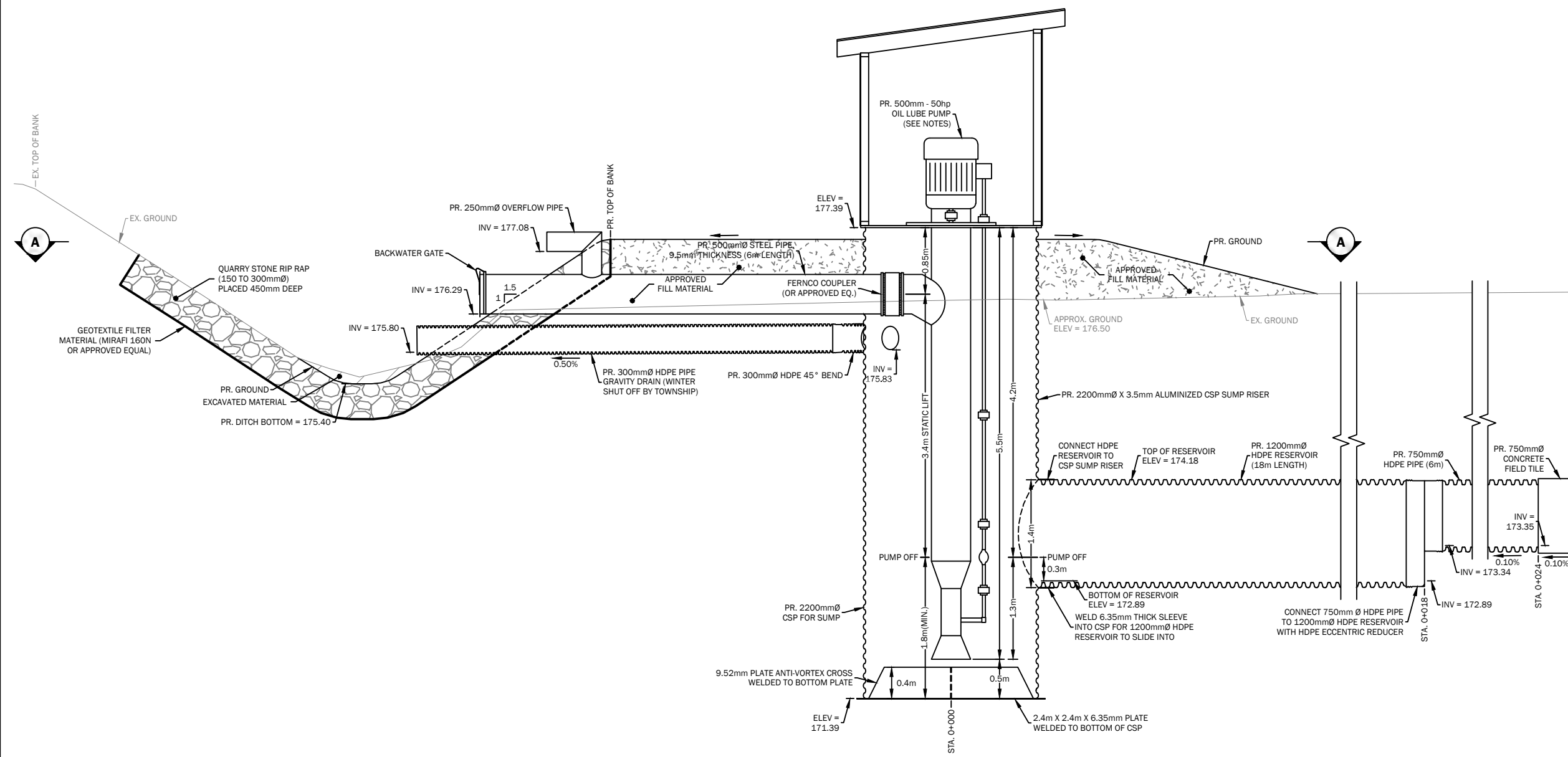
MOTOR AND ELECTRICAL
 POWER: 50 hp
 SPEED: 900 rpm
 VOLTAGE: 575 v
 PHASE: 3 PHASE
 VARIABLE FREQUENCY DRIVE: YES
 - 3 PHASE INPUT AND OUTPUT
 - LINE LOAD REACTORS

SYSTEM INTEGRATION & COMPONENTS
 PUMP STATION: 2200mmØ X 6m VERTICAL CSP
 RESERVOIR: 1200mmØ X 1.8m LENGTH HDPE WITH END CAP
 DISCHARGE : 500mmØ X 9.5mm THICKNESS STEEL PIPE
 BACKWATER GATE: FLAP VALVE
 ACCESSORIES: FLOAT CONTROL SYSTEM, PUMP WELL TOP FRAME, PUMP HOUSE ENCLOSURE
 WIRING: PRE-INSTALLED

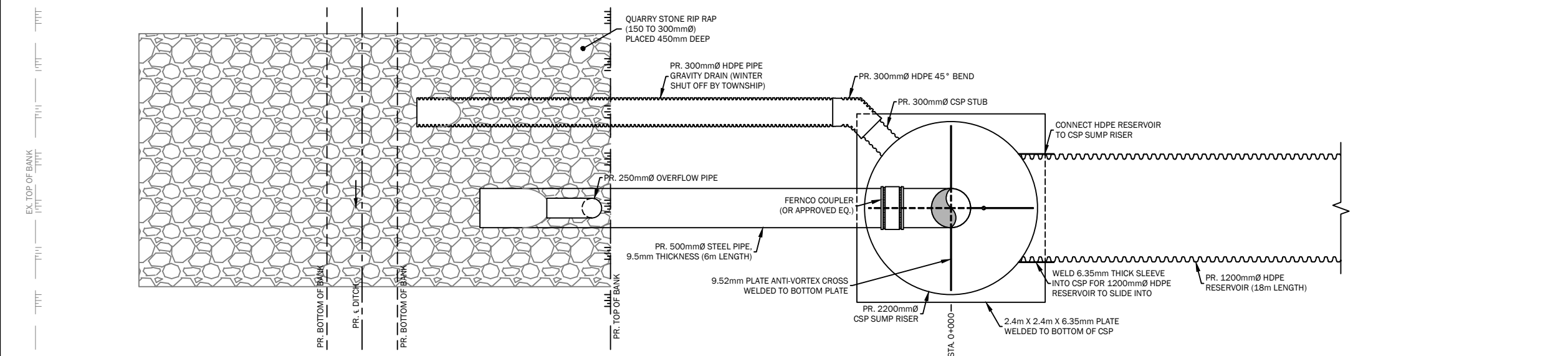
BENCHMARK DESCRIPTIONS

BENCHMARK No. 1 **ELEV.=176.47**
 TOP SOUTHWEST CORNER OF UTILITY PEDESTAL 3m EAST OF STA. 0+043
 (COLLVER OPEN)

BENCHMARK No. 2 **ELEV.=177.02**
 TOP CENTER OF CONCRETE RETAINING WALL ON DOWNSTREAM END OF 900mmØ
 CSP CULVERT 24m SOUTH OF STA. 0+840 (COLLVER CLOSED)



PUMP HOUSE OUTLET DETAIL
N.T.S.



SECTION A-A
N.T.S.

6	REPORT SUBMISSION	25-12-18
5	PUBLIC INFORMATION MEETING	25-07-09
4	PETITIONER MEETING	25-01-09
3	CP RAILWAY SUBMISSION	23-05-31
2	PETITIONER MEETING	22-10-19
1	ON-SITE MEETING	19-11-20
No.	REVISION	DATE (YY-MM-DD)



DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING OF 11
DATE: 2025-12-18		REFERENCE No. WNFLT-001	

APPENDIX "B"

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Shafley Municipal Drain

December 18, 2025

Prepared for:



Headway Engineering
23-500 Fairway Road South
Suite 308
Kitchener, Ontario N2C 1X3
226 243 6614
www.headwayeng.ca

Kitchener, Ontario

December 18, 2025

To the Mayor and Members of Council:

**Re: Shafley Municipal Drain
Township of Wainfleet
Our Reference No. WNFLT-002**

Headway Engineering is pleased to provide its report for the **Shafley Municipal Drain** in the Township of Wainfleet.

The preparation of this report was authorized by a resolution of the Council of the Township of Wainfleet on September 10, 2019, and July 13, 2021 per Section 78 of the Drainage Act.

The primary objective of this report is to improve the Shafley Municipal Drain by increasing depth for tile drainage where practical, replace existing access culverts and extending culverts where needed for road safety.

A summary of the assessments for this project are as follows:

Municipal Lands	\$299,302
Privately Owned Non-Agricultural	\$ 63,527
Privately Owned Agricultural	\$263,771
Total Estimated Assessments	\$626,600

Yours truly,

Stephen Brickman, P.Eng.
Project Engineer and Manager



Adam Hall
Project Coordinator
HEADWAY ENGINEERING

SB/





CONTENTS

1.0	INTRODUCTION AND LOCATION	1
2.0	AUTHORIZATION.....	1
3.0	DRAINAGE HISTORY	1
4.0	MEETINGS AND PUBLIC ENGAGEMENTS	1
5.0	FINDINGS.....	2
6.0	DESIGN CONSIDERATIONS.....	4
7.0	ENVIRONMENTAL CONSIDERATIONS	5
8.0	RECOMMENDATIONS.....	5
9.0	SUMMARY OF PROPOSED WORKS.....	6
10.0	WORKING AREA AND ACCESS.....	6
11.0	SCHEDULES	7
12.0	ALLOWANCES	7
13.0	ESTIMATED CONSTRUCTION COSTS	8
14.0	SUMMARY OF ESTIMATED PROJECT COSTS.....	8
15.0	ASSESSMENT	9
16.0	GRANT ELIGIBILITY	10
17.0	ABANDONMENT OF EXISTING MUNICIPAL DRAINS	10
18.0	MAINTENANCE	11

SCHEDULES

SCHEDULE A - ALLOWANCES

SCHEDULE B - ESTIMATED CONSTRUCTION COSTS

SCHEDULE C - ASSESSMENT FOR ESTIMATED CONSTRUCTION

SCHEDULE D - ASSESSMENT FOR FUTURE MAINTENANCE

SPECIFICATIONS FOR THE CONSTRUCTION OF MUNICIPAL DRAINAGE WORKS

1.0 INTRODUCTION AND LOCATION

The Council of the Township of Wainfleet has appointed Headway Engineering to investigate a request for improvements to the Shafley Municipal Drain.

The project services parts of Lots 35 and 36, Concessions 5, parts of Lots 34 to 38, Concession 6, and parts of Lot 36, Concession 7 in the Township of Wainfleet, Niagara Region.

The drainage area is approximately 276.7 hectares. Land use within the watershed is predominantly agricultural, with smaller portions consisting of woodlots, roads, and residential properties.

The attached Plans, Profiles, and Details; Drawing Numbers 1 to 7, and Specifications form part of this report. They show and describe in detail the location and extent of the work to be completed and the lands and roads which are affected.

2.0 AUTHORIZATION

Authority to prepare a report was first obtained by a resolution of the Township of Wainfleet Council at its September 10, 2019, meeting to appoint Dietrich Engineering Limited to prepare an Engineer's Report under Section 78 of the Drainage Act.

Authority to prepare this report was granted by a resolution of the Township of Wainfleet Council on July 13, 2021. At that meeting, Council transitioned its appointment of the Engineer to Headway Engineering in accordance with Section 8(2) of the Drainage Act

3.0 DRAINAGE HISTORY

The historical records for the Shafley Municipal Drain include two engineering reports. The latest report completed by J. R. Spriet, P. Eng, prepared in 1989, mentions the last reconstruction of the Shafley Drain prior to the 1989 report was completed by C. J. Clarke, P. Eng. in 1961. No records are available for the report authorizing the original construction of the Shafley Drain.

The table below summarizes all documented drainage reports.

Date	Report Author	Notes (Based on Available Records)
December 1961	C.J. Clarke, P. Eng.	The 1961 report provided for the reconstruction of the open drain.
April 1989	J. R. Spriet, P. Eng	The 1989 report references excavation of approximately 1,836m of the open drain, the construction of three closed tile drainage systems, Branch 'A', 'B' and 'C' and the installation of a pump station on Branch 'A'

Table 1 - Summary of Engineering Reports

4.0 MEETINGS AND PUBLIC ENGAGEMENTS

A series of technical, stakeholder, and statutory meetings have been held throughout the development of this report. These engagements involved landowners, municipal staff, regulatory authorities, and



railway representatives. The meetings occurred as design options were refined and new information became available. The key meetings are summarized in Table 2.

Meeting Date	Meeting Description	Summary
November 20, 2019	On-Site Meeting (Section 9(1) of the Drainage Act)	Preliminary plan circulated; meeting held to investigate the request for improvements.
October 19, 2022	Stakeholders Meeting 1	Review of options and alignments for the proposed drainage systems, including preliminary design considerations and associated cost distributions.
June 28, 2023	Canadian Pacific Railway	Meeting held to review the proposed design, the required rail crossings, and associated costs. Early coordination involved confirming whether CP or CN was the responsible authority; CP ultimately confirmed jurisdiction. CP claimed that they would not participate financially. The meeting concluded with CP's position noted and the process moved forward through later stakeholder discussions.
November 3, 2023	Stakeholders Meeting 2	The project status and possible next steps were reviewed. Pump options had been discussed previously, and at this meeting the proponent and Township confirmed that this was the direction to pursue.
January 9, 2025	Stakeholders Meeting 3	The meeting provided a review of options and alignments for Branch 'A' of the Shafley Drain. Headway Engineering presented the option to drain subsurface water to the Collver Drain.
July 9, 2025	Public Information Meeting	The meeting provided a review of the proposed design, estimated costs, and the proposed assessments, among other information. All meeting materials were posted online following the meeting, and all parties invited to attend the meeting were provided with access instructions to the meeting materials.
July 22, 2025	Stakeholder Meeting 4	Meeting held with several landowners and the Drainage Superintendent to review road safety concerns near the lower end of the Shafley Drain.
November 7, 2025	Department of Fisheries and Oceans (DFO)	Headway Engineering met with DFO to review the proposed works and discuss how the project complies with the Fisheries Act and the Species at Risk Act. The proposal was presented and explained.

Table 2 – Summary of Meetings and Engagements.

5.0 FINDINGS

Based on the information collected during field investigations, surveys, public engagements, and review of documentation, the following summarizes Headway Engineering's findings:

5.1 Watershed Condition (Hydrology):

- The watershed was established through the analysis of tile drainage maps, previous engineers' reports for the Shafley Drain and surrounding drainage systems, field



investigations, surveys and data analysis of the LiDAR derived digital data from Land Information Ontario. The drainage area comprises of approximately 276.7 hectares

- Approximate proportions of land uses within the watershed are as follows:
 - Agricultural: 74%
 - Woodlot: 19%
 - Roads: 5%
 - Residential: 2%
- The Ontario Ministry of Agriculture, Food and Agribusiness's (OMAFRA's) Agricultural Information Atlas describes the soil types within the watershed and along the routes of the drains as loamy phase.

5.2 Existing Drainage System:

- The age of the original drainage system is unknown; however, it was last altered 1989.
- The existing drainage system consists of a main drain and three branch drains
 - The main drain is comprised of approximately 3,098 metres of open ditch.
 - Branch 'A' is a closed drainage system of approximately 1,400 metres in length with pipe diameters ranging from 300mm to 400mm.
 - Branch 'A' also includes a 300mm diameter, 7.5 horsepower pump.
 - Branch 'B' is a closed drainage system of approximately 288 metres in length and consists of 200mm diameter pipe.
 - Branch 'C' is a closed drainage system of approximately 75 metres in length and consists of 200mm diameter pipe.

5.3 Outlet:

- The outlet for the Shafley Municipal Drain is the Big Forks Drain on the west side of Smith Road, Lot 36, Concession 5.
- The Big Forks Drain is of adequate depth to provide sufficient outlet for the Shafley Municipal Drain. Likewise, no construction works are proposed in the Big Forks Drain under this report.

5.4 Other Noted Observations:

- The existing drainage system has very flat grades, increasing the need for frequent maintenance.
- The drain is not of sufficient depth to provide drainage at today's standards for lands within the watershed.
- Additional systematic tiling within the watershed is likely. For some lands, the capital cost of achieving a gravity outlet may make private pumping a more practical option.



- Portions of the Smith Road alongside the Shafley Drain, located downstream of Wilford Road have been reported to exhibit signs of instability.
- Some of the existing culverts are in poor states of repair and are of insufficient size and depth to convey runoff from upstream lands at today's standards of drainage.

5.5 Environmental Findings:

- The Department of Fisheries and Oceans (DFO) has classified Shafley Road Drain (Open) as "F Class", according to the OMAFA Agricultural Information Atlas, indicating an intermittently flowing watercourse with low fish habitat value.

6.0 DESIGN CONSIDERATIONS

6.1 Design Concepts Considered

Several design concepts were evaluated over the course of the design process. These options were developed in response to project needs, Landowner and Stakeholder direction, railway and Township input. The major alternatives considered are summarized below.

6.1.1 Maintain the Existing Configuration, with Upgrades

The initial concept retained the general configuration of the existing system. This option involved deepening the entire Shafley Municipal Drain, including replacement and deepening of the Canadian Pacific (CP) Rail culvert. Branch 'A' would also be deepened and upsized, which would require a new railway crossing and a larger pump installation at the lower end of Branch 'A'.

Railway requirements were reviewed at the June 28, 2023 meeting. The railway confirmed that the improved works could proceed provided safety and construction standards were met and the costs were borne by the drainage project (not the railway company). At the time, a province-wide legal dispute concerning railway cost responsibility was ongoing. Given the uncertainty, stakeholders discussed whether to wait for the outcome of the court case or proceed along an alternate path. At the Stakeholder Meeting No. 2 (November 3, 2023), the proponent and the Township indicated a preference to move forward and look at alternate concepts.

6.1.2 Deepening (Without CP Rail Culvert Replacement)

Recognizing that coordination with CP Rail for two rail crossings would be unpractical, a revised concept was developed that minimized work at the rail crossings. Under this option, the Shafley Drain would still be deepened, though to a lesser extent than in the initial concept. The Homan lands' subsurface waters north of the railway would be redirected east to drain into the Shafley Drain (rather than to the south through the rail corridor), requiring a pump installation adjacent to Smith Road.

6.1.3 Outlet to the Collver Drain (Preferred Option)

The third concept investigated involved directing sub-surface drainage from the Homan lands north of the CP Rail corridor westward to the proposed improvements on the Collver Drain. This eliminated the need for both a CP Rail culvert replacement and a pump along Smith Road. This option was determined to be the preferred approach.



6.2 Open Ditch Work:

The open ditch works have been designed to provide adequate depth for sufficient outlets to existing private tile drains, and improved tile drainage for workable areas adjacent to and upstream of the municipal drain. Where reasonable depth could be achieved, gravity drainage has been accommodated; however, given the local topography, some localized areas may not have enough elevation difference for a gravity outlet and may require private pumping.

Provisions have been made in the proposed works to allow for the repair of areas of ditch that have experienced bank failure, erosion or slumping.

6.3 Culverts:

Access crossing culverts have been designed using a minimum event standard of a 5-year rainfall event, while the road culverts were designed using a minimum event standard of a 10-year rainfall event.

6.4 Wetlands

The drainage system is designed to function collaboratively with the natural drainage features of the nearby wetlands. The design does not include any measures intended to alter or lower wetland water levels, and no changes have been introduced that increase this capability.

7.0 ENVIRONMENTAL CONSIDERATIONS

7.1 Department of Fisheries and Oceans (DFO)

The DFO has reviewed the Request for Review package sent to them on February 21, 2025, and considered in their review information presented during discussions and meetings that were held between Headway Engineering staff and DFO personnel on November 7, 2025.

7.2 Niagara Peninsula Region Conservation Authority (NPRCA)

The NPRCA has been included on the circulation list for this report and has been invited to all public engagements. Additionally, a permit application was submitted to the NPRCA on October 8, 2025.

7.3 Ministry of Natural Resources (MNR)

Headway Engineering completed a review of the Natural Heritage Information Centre mapping for Species at Risk in Ontario. NHIC mapping indicates the potential presence of Provincial Species at Risk within approximately one kilometer of the work area. Their occurrence within the project footprint is unlikely, as the preferred habitats for the identified species do not correspond with the conditions present at the work location and are instead associated with areas farther removed.

8.0 RECOMMENDATIONS

Headway Engineering recommends the following:

1. Approximately 2,995 metres be cleaned out and/or deepened to provide sufficient outlets for existing private farm tiling systems within the watershed,
2. The installation of three access culverts, two road culverts, and two culvert extensions.



3. Bank repair or bank reinforcement as required.
4. New maintenance schedules be provided for the Shafley Drain (Open) and the proposed culverts along the drain.
5. The existing length of Branch 'A' north of the railway and Branch 'C' of the Shafley Drain on the Dirk and Akke Homan (Roll No. 12-184) and Hihojo Ltd. property (Roll. No. 12-183-01) shall be abandoned.
6. The improved drainage system be known as the **Shafley Municipal Drain**.
7. Headway Engineering also recommends the watersheds of the surrounding municipal drainage systems be updated when those drainage works require improvement in the future.

9.0 SUMMARY OF PROPOSED WORKS

The proposed work consists of:

1. The cleanout and/or deepening of approximately 2,995 metres of open ditch on the Shafley Drain.
2. The installation of three access culverts.
3. The installation of two road culverts.
4. The installation of two culvert extensions.
5. Bank repair and reinforcement (provisional).

10.0 WORKING AREA AND ACCESS

Access to the working area shall be designated by the Landowners.

The working area shall be in accordance with the following average widths. The working width may be used for construction purposes including transporting excavated soil and supplying construction materials and equipment to the site.

Drain Segment and Station Range	Property Roll No.	Working side	Average Working Width for Construction	Average Working Width for Future Maintenance
0+020 to 1+048	12-179, 12-079-01, 12-178	West	12m	10m
1+062 to 1+495	12-177	East	12m	10m
1+523 to 1+730	12-176	East	12m	10m
1+730 to 1+922	Smith Road	West	6m	6m
1+937 to 2+162	12-179-15, 12-180-01	West	12m	10m
2+162 to 2+202	Smith Road	East	6m	6m



2+202 to 2+959	12-180	West	12m	10m
2+973 to 3+095	12-172	East	12m	10m

Table 3 - Summary of Working Area Descriptions

11.0 SCHEDULES

Four schedules are attached and form part of this report.

11.1 Schedule A – Schedule of Allowances

In accordance with Sections 29 and 30 of the Drainage Act, allowances are provided to affected Landowners for Right-of-Way, Damages to Lands and Crops and Loss of Access. Schedule A contains a table of the applicable allowances to Landowners.

11.2 Schedule B – Schedule of Estimated Construction Costs

An itemized cost estimate of the proposed construction work is included in detail in Schedule B.

11.3 Schedule C – Schedule of Assessment for Construction

Schedule C provides details of the distribution of the total estimated costs of the construction of the municipal drain.

11.4 Schedule D – Schedule of Assessment for Maintenance

Schedule D provides details of the distribution of future maintenance costs for the municipal drain. Maintenance assessments are expressed as a percentage of the total maintenance. Lands located upstream of the maintenance shall be determined by the Drainage Superintendent and assessed according to this schedule.

12.0 ALLOWANCES

In accordance with Sections 29 and 30 of the Drainage Act, Allowances payable to Landowners are calculated using the following methodology.

12.1 Allowances for Right-of-Way (Section 29)

The Right-of-Way allowance compensates the lands for the right to enter onto the land at various times for the purpose of inspecting the drainage system and conducting maintenance activities.

The values used for calculating allowances for Right-of-Way are as follows:

Land Use	Land Value	Adjustment Factor for Drainage Act Right-of-Way	Adjusted Land Value for Drainage Act Right-of-Way Allowance
Agricultural Working Side of Ditch	\$50,000/Ha	25%	\$12,500/Ha
Agricultural Additional Top Width	\$50,000/Ha	100%	\$50,000/Ha



Woodlot Working Side of Ditch	\$15,000/Ha	25%	\$3,750/Ha
Woodlot Additional Top Width	\$15,000/Ha	100%	\$15,000/Ha

Table 4 - Land Values and Right-of-Way Allowances

12.2 Allowances for Damages to Lands and Crops (Section 30)

Allowances for Damages to Lands and Crops under Section 30 of the Drainage Act, were primarily calculated to compensate landowners for crop losses, bush losses and land damages due to the construction and operation of the drain, including access to the working area.

Area values used for calculating allowances for Damages are as follows:

Land Use	Damage Value
Agricultural	\$6,000/Ha
Woodlot	\$3,000/Ha.

Table 5 - Standard Land Damage Values

Allowances payable to Landowners entitled thereto are as shown in Schedule A.

Total Allowances, under Sections 29, and 30 of the Drainage Act;

Shafley Municipal Drain: \$ 60,720

13.0 ESTIMATED CONSTRUCTION COSTS

Headway Engineering has made an estimate of the cost of the proposed construction work. A detailed description of the estimated construction costs can be found in Schedule B of this report.

A) Shafley Drain	\$ 388,240
B) Provisional Items	\$ 25,000
Total Estimated Construction Costs	<u>\$ 413,240</u>

14.0 SUMMARY OF ESTIMATED PROJECT COSTS

The total estimated project costs are as follows:

Allowances under Sections 29 and 30 of the Drainage Act (Refer to Schedule A)	\$ 60,720
Total Estimated Construction Costs (Refer to Schedule B)	\$ 413,240
Meetings, survey, design, preparation of preliminary cost estimates, preparation of final drainage report, consideration of report	\$ 75,900
Consultation with Environmental Agencies and Permitting Fees	\$ 2,500



Preparation of contract documents, contract administration, supervision, and inspection of construction	\$ 36,700
Contingencies, Interest and net H.S.T.	\$ 37,540
TOTAL ESTIMATED PROJECT COSTS – SHAFLEY MUNICIPAL DRAIN	\$626,600

The estimated cost of the work in the Township of Wainfleet is \$ 626,600.

The above costs are estimates only. The final costs of construction, engineering and administration cannot be determined until construction is completed.

The above cost estimate does not include costs associated with defending the drainage report should appeals be filed with the Court of Revision, Drainage Tribunal and/or Drainage Referee. Should additional costs be incurred, unless otherwise directed, the additional costs would be distributed in a pro-rata fashion over the assessments contained in Schedule C and as may be varied under the Drainage Act.

15.0 ASSESSMENT

Headway Engineering assesses the cost of this work against the Lands and Roads as shown in Schedule C - Assessment for Construction.

Assessments were determined using the principles included in the 'Drainage Assessment Revisited' paper prepared by E.P. Dries and H.H. Todgham. These principles of assessment are recognized to be fair and equitable for determining cost distributions among those affected.

15.1 Benefit (Section 22)

Benefit assessment is applied to those properties receiving a benefit as defined in Section 1 of the Drainage Act which is extracted below:

Benefit means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair, or maintenance of a drainage works such as will result in a higher market value or increased crop production or improved appearance or better control of surface or sub-surface water, or any other advantages relating to the betterment of lands, roads, buildings or other structures.

Typically, properties which have direct, or near direct access to the proposed drain receive Benefit as defined above.

15.2 Outlet Liability (Section 23)

Outlet Liability is distributed to all properties within the watershed area on an adjusted area basis. The areas are adjusted to accurately reflect equivalent run-off rates relative to other lands and roads within the watershed. Due to development, roads have been assessed higher Outlet Liability rates relative to agricultural lands.

15.3 Special Benefit (Section 24)

The Special Benefit instrument of assessment was used to separate the benefit portion of the new culvert crossings from the remaining costs of the new crossings.



15.4 Special Assessment (Section 26)

Special Assessments apply to public utilities and roads which directly cause increased costs to the construction of a drainage works due to the existence and operation of the public utility or road.

Construction costs which are required solely because of the existence of Smith Road are fully assessed to the road authority having jurisdiction over the road. The Special Assessment is calculated based on the actual costs of the proposed work, plus an allowance for administration, interest and Net HST as described below.

Road Name	Estimated Construction Costs	Plus, Estimated Administration Costs	Less Equivalent Drain Costs (Fixed)	Plus, Estimated Interest, and Net HST	Estimated Special Assessment
Smith Road 1+930	\$29,500	\$6,700	\$800	\$1,300	\$36,700
Smith Road 2+967	\$24,800	\$6,410	\$900	\$1,190	\$31,500

Table 6 - Estimated Special Assessment Calculations.

Whether or not the Township of Wainfleet elects to do the work along Smith Road they shall be assessed the actual increased costs to the drainage works due to the construction and operation of the above-mentioned sections of the Shafley Municipal Drain as a Special Assessment in addition to any benefit and outlet liability assessments.

If any additional work is required to construct or maintain the drainage works due to the existence of buried utilities, roads, railways, or if utilities require relocation or repair, then the extra costs incurred shall be borne by the utility, road or railway involved in accordance with the provisions of Section 26 of the Drainage Act.

16.0 GRANT ELIGIBILITY

The Province of Ontario provides grants towards assessments to eligible properties for drainage improvements which meet specified criteria. The provision of these grants for activities under the Drainage Act is called the Agriculture Drainage Infrastructure Program (ADIP).

A grant may be available for assessments to privately owned parcels of land which are used for agricultural purposes and eligible for Farm Property Class Tax rate. Section 88 of the Drainage Act directs the Municipality to make application for this grant upon certification of completion. The Municipality will then deduct the grant from the assessments.

Grant values provided by the Province of Ontario are for one-third (1/3) of the total assessment for eligible properties.

17.0 ABANDONMENT OF EXISTING MUNICIPAL DRAINS

In accordance with Section 19 of the Drainage Act, the existing municipal tile drainage system for Branch 'A' north of the railway and Branch 'C', constructed under the authority of a report prepared in 1989, shall be abandoned.



18.0 MAINTENANCE

After completion, this drain shall be maintained by the Township of Wainfleet at the expense of all the lands and roads assessed in the attached Schedule D - Assessment for Future Maintenance, and in the same relative proportions until such time as the assessment is changed under the Drainage Act, except for those portions of the drainage works crossing municipal or rail right-of-ways. These portions of the drain shall be maintained at the expense of the road authority having jurisdiction over said road. Culvert sizes for the private crossings not being replaced under this report have been included in the drawing set for reference. Landowners and railway agencies are recommended to use these details when undertaking future replacements.



Schedule A

Schedule of Allowances

Schedule of Allowances Shafley Municipal Drain

	Property Details				Drairage Act Allowances			
	Part Lot	Con.	Landowner	Roll Number	Right of Way (Sec. 29)	Damages (Sec. 30)	Total Allowances	
Shafley Municipal Drain	Pt. 35	5	R. & L. Marr	12-177	\$ 7,580	\$ 3,120	\$ 10,700	
	Pt. 36	5	Vision Farms Ltd.	12-079	\$ 7,830	\$ 4,220	\$ 12,050	
	Pt. 36	5	D. & A. Homan	12-079-01	\$ 3,410	\$ 2,170	\$ 5,580	
	Pt. 36	5	J. & J. Homan	12-178	\$ 110	\$ 500	\$ 610	
	Pt. 35	6	D. & M. Vander Meer	12-176	\$ 2,590	\$ 2,490	\$ 5,080	
	Pt. 35	6	Vander Meer Farms Ltd.	12-172	\$ 2,140	\$ 880	\$ 3,020	
	Pt. 35	6	A. Amanali & N. Merchant	12-174	\$ -	\$ 1,010	\$ 1,010	
	Pt. 35	6	K. & T. Vis	12-175	\$ -	\$ 870	\$ 870	
	Pt. 35	6	J. & E. Vanamerongen	12-173-50	\$ -	\$ 670	\$ 670	
	Pt. 36	6	Hijojo Ltd.	12-179-15	\$ 2,240	\$ 920	\$ 3,160	
	Pt. 36	6	K. Perron	12-180-01	\$ 2,180	\$ 1,990	\$ 4,170	
	Pt. 36	6	Y. Hessels	12-180	\$ 9,230	\$ 4,570	\$ 13,800	
	Total Allowances							
	Shafley Municipal Drain					\$ 37,310	\$ 23,410	\$ 60,720



Schedule B

Schedule of Estimated Construction Costs

Schedule of Estimated Construction Costs

An estimate of the cost of the proposed work has been completed, which is outlined in detail as follows:

Part A - Shafley Municipal Drain

Description	Estimated Quantity	\$/Unit	Total
1) Clearing, brushing and mulching	l.s.		\$ 40,000.00
2) Open ditch excavation (approx. 4,600m3)	2995 m	\$ 20.00	\$ 59,900.00
3) Hydro seed disturbed side slopes	7500 m2	\$ 4.00	\$ 30,000.00
4) Supply 1-1600mm diameter, corrugated steel pipe laneway culvert (Homan Crossing), 2.8mm thickness, 125x25mm corrugations, aluminized Type II coating	45 m	\$ 1,000.00	\$ 45,000.00
Installation of 1600mm diameter culvert at Sta. 0+606 complete with quarry stone rip-rap protection and geotextile material (25m2) including remove and dispose of existing culvert offsite and connection of 375mm road pipe.	l.s.		\$ 22,500.00
5) Supply 1-900mm diameter, corrugated steel pipe laneway culvert (Perron Crossing), 2.0mm thickness, 68x13mm corrugations, aluminized Type II coating	12 m	\$ 450.00	\$ 5,400.00
Installation of 900mm diameter culvert at Sta. 2+189 complete with quarry stone rip-rap protection and geotextile material (20m2) including remove and dispose of existing culvert offsite	l.s.		\$ 7,000.00
6) Supply 1-900mm diameter, corrugated steel pipe laneway culvert (Hessels Crossing), 2.0mm thickness, 68x13mm corrugations, aluminized Type II coating	12 m	\$ 450.00	\$ 5,400.00
Installation of 900mm diameter culvert at Sta. 2+460 complete with quarry stone rip-rap protection and geotextile material (20m2) including remove and dispose of existing culvert offsite	l.s.		\$ 7,000.00
7) Erosion and sediment control	l.s.		\$ 5,000.00

<u>Description</u>	<u>Estimated Quantity</u>	<u>\$/Unit</u>	<u>Total</u>
8) Supply 1-1200mm diameter, corrugated steel pipe culvert, 2.8mm thickness, 125x25mm corrugations, aluminized Type II coating Installation of 1200mm diameter culvert including connections to existing culverts Sta. 0+020 to Sta. 0+046 and Sta. 0+100 to Sta.0+145 complete with quarry stone rip-rap protection and geotextile material (25m2)	71 m	\$ 800.00	\$ 56,800.00
	I.s.		\$ 35,000.00
9) Traffic Control	I.s.		<u>\$ 14,940.00</u>
Sub-Total - Work on the Township of Wainfleet Road Allowance (Non-Special Assessment)			<u>\$ 333,940.00</u>
<hr/>			
10) Work on the Township of Wainfleet Road Allowance (Smith Road Crossing), (Sta. 1+922 to Sta. 1+937)			
<hr/>			
a) Supply 1-1200mm diameter, corrugated steel pipe road culvert, 2.8mm thickness, 125x25mm corrugations, aluminized Type II coating Installation of 1200mm diameter culvert at Sta. 2+966 complete with quarry stone rip-rap protection and geotextile material (xxm2) including remove and dispose of existing culvert offsite	16 m	\$ 800.00	\$ 12,800.00
	I.s.		\$ 10,000.00
b) Road Restoration including: Supply and Place 150mm thickness of Granular 'A' (50m2 x 0.15m thickness)	20 t	\$ 60.00	\$ 1,200.00
HL8 and 50mm HL4) asphalt (40m2 x 0.1m thickness)	10 t	\$ 500.00	\$ 5,000.00
c) Traffic Control	I.s.		\$ 500.00
Sub-Total - Work on the Township of Wainfleet Road Allowance (Smith Road - Special Assessment)			<u>\$ 29,500.00</u>

Description	Estimated Quantity	\$/Unit	Total
10) Work on the Township of Wainfleet Road Allowance (Smith Road Crossing), (Sta. 2+960 to Sta. 2+974)			
a) Supply 1-900mm diameter, corrugated steel pipe road culvert, 2.0mm thickness, 68x13mm corrugations, aluminized Type II coating	18 m	\$ 450.00	\$ 8,100.00
Installation of 900mm diameter culvert at Sta. 2+967 complete with quarry stone rip-rap protection and geotextile material (xxm2) including remove and dispose of existing culvert offsite	I.s.		\$ 10,000.00
b) Road Restoration including:			
Supply and Place 150mm thickness of Granular 'A' (50m2 x 0.15m thickness)	20 t	\$ 60.00	\$ 1,200.00
Supply and place 100mm thickness (50mm HL8 and 50mm HL4) asphalt (40m2 x 0.1m thickness)	10 t	\$ 500.00	\$ 5,000.00
c) Traffic Control	I.s.		\$ 500.00
Sub-Total - Work on the Township of Wainfleet Road Allowance (Smith Road - Special Assessment)			\$ 24,800.00

Total Estimated Construction Costs

Part A - Shafley Municipal Drain **\$ 388,240.00**

Part B - Provisional Items

A Provisional Item is an item that may or may not be required as a part of the Contract. The decision as to whether a Provisional Item will form part of the Contract will be at the discretion of the engineer at time of construction. Payment for Provisional Items will only be made for work authorized in writing by the Engineer. Payment for work performed under a Provisional Item shall be based on the Unit Price bid in the Scope of Work below.

1) Quarry stone rip-rap including geotextile filter material	250 t	\$ 100.00	\$ 25,000.00
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Total Estimated Construction Costs

Part B - Provisional Items **\$ 25,000.00**

Summary of Estimated Construction Costs

Part A - Shafley Municipal Drain	\$	388,240.00
Part B - Provisional Items	\$	<u>25,000.00</u>

Total Estimated Construction Costs **\$** **413,240.00**

Total Estimated Materials	\$	133,500.00
Total Estimated Labour and Equipment	\$	<u>279,740.00</u>

Total Estimated Construction Costs
SHAFLEY MUNICIPAL DRAIN **\$** **413,240.00**



Schedule C

Schedule of Assessment for Construction

**Schedule of Assessment for Construction
Shafley Municipal Drain**

Property Details						Drainage Act Instruments of Assessment				For Information		
Part Lot	Concession	Landowner	Roll Number	Approx. Ha. Affected	Benefit (Sec. 22)	Outlet Liability (Sec. 23)	Special Benefit (Sec. 24)	Special Assessment (Sec. 26)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
Pt. 34	5	S. Scheel & K. Comfort	12-167	0.7	\$ -	\$ 32			\$ 32	*	\$ -	\$ 32
Pt .34	5	R. & L. Marr	12-167-02	2.5	\$ -	\$ 121			\$ 121	*	\$ -	\$ 121
Pt. 35	5	Hihojo Ltd.	12-077	0.3	\$ -	\$ 57			\$ 57	\$ 19	\$ -	\$ 38
Pt. 35	5	2027479 Ontario Ltd.	12-077-01	8.7	\$ -	\$ 1,366			\$ 1,366	\$ 455	\$ -	\$ 911
Pt. 35	5	L. & L. Dumlao	12-078	0.9	\$ -	\$ 355			\$ 355.00	*	\$ -	\$ 355
Pt. 35	5	R. & L. Marr	12-177	17.7	\$ 24,731	\$ 3,673			\$ 28,404	*	\$ 10,700	\$ 17,704
Pt. 36	5	Vision Farms Ltd.	12-079	5.0	\$ 25,162	\$ 504	\$ 4,580		\$ 30,246	\$ 10,082	\$ 12,050	\$ 8,114
Pt. 36	5	D. & A. Homan	12-079-01	8.1	\$ 6,641	\$ 251	\$ 13,740		\$ 20,632	\$ 6,877	\$ 5,580	\$ 8,175
Pt. 36	5	J. & J. Homan	12-178	27.9	\$ 7,793	\$ 11,677			\$ 19,470	\$ 6,490	\$ 610	\$ 12,370
Pt. 37	5	J. Homan	12-178-01	0.8	\$ -	\$ 269			\$ 269	\$ 90	\$ -	\$ 179
Pt. 37	5	Hihojo Ltd.	12-183	8.4	\$ -	\$ 2,435			\$ 2,435	\$ 812	\$ -	\$ 1,623
Pt. 34	6	A. & C. Otten	12-168	20.6	\$ -	\$ 9,975			\$ 9,975	\$ 3,325	\$ -	\$ 6,650
Pt. 34	6	L. Ireland	12-168-01	5.9	\$ -	\$ 1,250			\$ 1,250	*	\$ -	\$ 1,250
Pt. 34	6	N. & E. Gill	12-169	3.7	\$ -	\$ 933			\$ 933	\$ 311	\$ -	\$ 622
Pt. 35	6	D. & M. Vander Meer	12-176	10.3	\$ 22,733	\$ 5,494			\$ 28,227	\$ 9,409	\$ 5,080	\$ 13,738
Pt. 35	6	Vander Meer Farms Ltd.	12-172	30.0	\$ 23,895	\$ 26,947			\$ 50,842	\$ 16,947	\$ 3,020	\$ 30,875
Pt. 35	6	R. Anderson	12-171	20.5	\$ -	\$ 16,785			\$ 16,785	\$ 5,595	\$ -	\$ 11,190
Pt. 35	6	A. Amanali & N. Merchant	12-174	0.7	\$ 949	\$ 704			\$ 1,653	*	\$ 1,010	\$ 643
Pt. 35	6	K. & T. Vis	12-175	0.3	\$ 641	\$ 401			\$ 1,042	*	\$ 870	\$ 172
Pt. 35	6	J. & E. Vanamerongen	12-173-50	1.3	\$ 296	\$ 1,028			\$ 1,324	*	\$ 670	\$ 654
Pt. 35	6	R. Vangeel	12-172-02	0.4	\$ -	\$ 542			\$ 542	*	\$ -	\$ 542
Pt. 36	6	N. Masi & A. Stephanie	12-179-05	1.4	\$ -	\$ 907			\$ 907	*	\$ -	\$ 907
Pt. 36	6	Hihojo Ltd.	12-179-15	19.1	\$ 8,957	\$ 4,717			\$ 13,674	\$ 4,558	\$ 3,160	\$ 5,956
Pt. 36	6	R. & L. Gerrys	12-179	0.7	\$ -	\$ 635			\$ 635	*	\$ -	\$ 635
Pt. 36	6	K. Perron	12-180-01	1.9	\$ 422	\$ 858	\$ 10,500		\$ 11,780	*	\$ 4,170	\$ 7,610
Pt. 36	6	T. & Y. Hessels	12-181	15.8	\$ 8,488	\$ 7,319			\$ 15,807	\$ 5,269	\$ -	\$ 10,538
Pt. 36	6	Y. Hessels	12-180	12.3	\$ 30,237	\$ 8,023	\$ 10,500		\$ 48,760	\$ 16,253	\$ 13,800	\$ 18,707
Pt. 37	6	D. & A. Homan	12-184	20.2	\$ -	\$ 1,553			\$ 1,553	\$ 518	\$ -	\$ 1,035
Pt. 37	6	Hihojo Ltd.	12-183-01	10.4	\$ -	\$ 865			\$ 865.00	\$ 288.00	\$ -	\$ 577.00
Pt. 37	6	W. Dobrucki	12-182	8.5	\$ -	\$ 907			\$ 907	\$ 302	\$ -	\$ 605
Pt. 36	7	D. & L. Mann	12-229	1.0	\$ -	\$ 968			\$ 968	\$ 323	\$ -	\$ 645
Total Assessments on Lands					\$ 160,945	\$ 111,551	\$ 39,320	\$ -	\$ 311,816	\$ 87,923	\$ 60,720	\$ 163,173

Shafley Municipal Drain	Property Details				Drainage Act Instruments of Assessment				For Information			
	Road Name	Road Authority	Roll Number	Approx. Ha. Affected	Benefit (Sec. 22)	Outlet Liability (Sec. 23)	Special Benefit (Sec. 24)	Special Assessment (Sec. 26)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
	Zion Road	Township of Wainfleet		0.8	\$ -	\$ 1,331			\$ 1,331			\$ 1,331
	Smith Road	Township of Wainfleet		5.2	\$ 34,203	\$ 13,106	\$ 160,860	\$ 68,200	\$ 276,369			\$ 276,369
	Marr Road	Township of Wainfleet		1.0	\$ -	\$ 4,032			\$ 4,032			\$ 4,032
	Gracey Road	Township of Wainfleet		0.1	\$ -	\$ 252			\$ 252			\$ 252
	Willford Road	Township of Wainfleet		1.3	\$ 6,487	\$ 3,460			\$ 9,947			\$ 9,947
	Canada Southern Railway Company		13-998	4.2	\$ 4,897	\$ 10,585			\$ 15,482			\$ 15,482
	Concession 6 Road	Township of Wainfleet		0.8	\$ 838	\$ 6,533			\$ 7,371			\$ 7,371
	Total Assessments on Roads				\$ 46,425	\$ 39,299	\$ 160,860	\$ 68,200	\$ 314,784			\$ 314,784
	Total Assessments Shafley Municipal Drain				\$ 207,370	\$ 150,850	\$ 200,180	\$ 68,200	\$ 626,600	\$ 87,923	\$ 60,720	\$ 477,957

- Notes:
- 1 '*' Denotes Lands not eligible for ADIP Grants.
 - 2 The Special Benefit Assessment (Sec. 24) has been used to separate the benefit portion of culvert crossings from the normal benefit assessment.
 - 3 The Special Assessments (Sec. 26) shall be a non-proratable assessment. All other assessments are proratable.
 - 4 The Net Estimated Expense is the Total Assessment less gov't grants and allowances (if applicable).



Schedule D

Schedule of Assessment for Future Maintenance

Schedule of Assessment for Future Maintenance Shafley Municipal Drain

Shafley Municipal Drain	Property Details					Proportion of Maintenance Assessment			
						Open Ditch	Municipal Drain Crossings		
	Part Lot	Con.	Landowner	Roll Number		Shafley Drain (Open)	Sta. 0+606	Sta. 2+189	Sta. 2+460
	Pt. 34	5	S. Scheel & K. Comfort	12-167	*	0.02%	0.003%		
	Pt. 34	5	R. & L. Marr	12-167-02	*	0.08%	0.01%		
	Pt. 35	5	Hihojo Ltd.	12-077		0.04%	0.01%		
	Pt. 35	5	2027479 Ontario Ltd.	12-077-01		0.91%	0.06%		
	Pt. 35	5	L. & L. Dumlao	12-078		0.24%	0.05%		
	Pt. 35	5	R. & L. Marr	12-177	*	2.43%	0.50%		
	Pt. 36	5	Vision Farms Ltd.	12-079		0.33%	5.56%		
	Pt. 36	5	D. & A. Homan	12-079-01		0.17%	16.73%		
	Pt. 36	5	J. & J. Homan	12-178		7.74%	1.69%		
	Pt. 37	5	J. Homan	12-178-01		0.18%	0.04%		
	Pt. 37	5	Hihojo Ltd.	12-183		1.61%	0.35%		
	Pt. 34	6	A. & C. Otten	12-168		6.61%	1.04%		
	Pt. 34	6	L. Ireland	12-168-01	*	0.83%	0.29%		
	Pt. 34	6	N. & E. Gill	12-169		0.62%	1.08%		
	Pt. 35	6	D. & M. Vander Meer	12-176		3.64%	0.52%		
	Pt. 35	6	Vander Meer Farms Ltd.	12-172		17.86%	1.79%	11.30%	12.42%
	Pt. 35	6	R. Anderson	12-171		11.13%	0.94%	5.94%	8.65%
	Pt. 35	6	A. Amanali & N. Merchant	12-174	*	0.47%	0.06%		
	Pt. 35	6	K. & T. Vis	12-175	*	0.27%	0.03%		

Shafley Municipal Drain	Property Details					Proportion of Maintenance Assessment			
	Part Lot	Con.	Landowner	Roll Number	*	Open Ditch	Municipal Drain Crossings		
						Shafley Drain (Open)	Sta. 0+606	Sta. 2+189	Sta. 2+460
	Pt. 35	6	J. & E. Vanamerongen	12-173-50	*	0.68%	0.08%		
	Pt. 35	6	R. Vangeel	12-172-02	*	0.36%	0.03%	0.17%	0.23%
	Pt. 36	6	N. Masi & A. Stephanie	12-179-05	*	0.60%	0.09%		
	Pt. 36	6	Hihojo Ltd.	12-179-15		3.13%	0.59%		
	Pt. 36	6	R. & L. Gerrys	12-179	*	0.42%	0.05%		
	Pt. 36	6	K. Perron	12-180-01	*	0.57%	0.06%	70.00%	
	Pt. 36	6	T. & Y. Hessels	12-181		4.85%	0.47%	4.80%	
	Pt. 36	6	Y. Hessels	12-180		5.32%	0.45%	2.86%	75.09%
	Pt. 37	6	D. & A. Homan	12-184		1.03%	0.38%		
	Pt. 37	6	Hihojo Ltd.	12-183-01		0.57%	0.25%		
	Pt. 37	6	W. Dobrucki	12-182		0.60%	0.12%		
	Pt. 36	7	D. & L. Mann	12-229		0.64%	0.05%	0.29%	0.40%
	Total Assessments on Lands					73.95%	33.39%	95.37%	96.80%
	Zion Road		Township of Wainfleet			0.88%	0.19%		
	Smith Road		Township of Wainfleet			8.69%	64.20%	2.58%	0.41%
	Marr Road		Township of Wainfleet			2.67%	0.38%		
	Gracey Road		Township of Wainfleet			0.17%	0.01%	0.08%	0.10%
	Willford Road		Township of Wainfleet			2.29%	0.50%		
	Canada Southern Railway Company					7.02%	1.01%		
	Concession 6 Road		Township of Wainfleet			4.33%	0.31%	1.97%	2.68%
	Total Assessments on Roads					26.05%	66.61%	4.63%	3.20%
	Total Assessments Shafley Municipal Drain					100.00%	100.00%	100.00%	100.00%



Specifications for the Construction of Municipal Drainage Works

DIVISION A – General Conditions

DIVISION B – Specification for Open Drains

DIVISION H – Special Provisions



DIVISION A

General Conditions



CONTENTS

A.1.	SCOPE.....	1
A.2.	TENDERS.....	1
A.3.	EXAMINATIONS OF SITE, DRAWINGS, AND SPECIFICATIONS.....	1
A.4.	PAYMENT	2
A.5.	CONTRACTOR’S LIABILITY INSURANCE	2
A.6.	LOSSES DUE TO ACTS OF NATURE, ETC.....	2
A.7.	COMMENCEMENT AND COMPLETION OF WORK.....	2
A.8.	WORKING AREA AND ACCESS.....	3
A.9.	SUB-CONTRACTORS	3
A.10.	PERMITS, NOTICES, LAWS AND RULES.....	3
A.11.	RAILWAYS, HIGHWAYS, AND UTILITIES	3
A.12.	ERRORS AND UNUSUAL CONDITIONS.....	3
A.13.	ALTERATIONS AND ADDITIONS.....	3
A.14.	SUPERVISION	4
A.15.	FIELD MEETINGS.....	4
A.16.	PERIODIC AND FINAL INSPECTIONS.....	4
A.17.	ACCEPTANCE BY THE MUNICIPALITY	4
A.18.	WARRANTY.....	4
A.19.	TERMINATION OF CONTRACT BY THE MUNICIPALITY	4
A.20.	TESTS.....	5
A.21.	POLLUTION	5
A.22.	SPECIES AND RISK.....	5
A.23.	ROAD CROSSINGS.....	5
A.23.1.	ROAD OCCUPANCY PERMIT	5
A.23.2.	ROAD CLOSURE REQUEST AND CONSTRUCTION NOTIFICATION	6
A.23.3.	TRAFFIC CONTROL.....	6
A.23.4.	WEATHER.....	6
A.23.5.	EQUIPMENT	6
A.24.	LANEWAYS.....	6



A.25.	FENCES	7
A.26.	LIVESTOCK	7
A.27.	STANDING CROPS.....	7
A.28.	SURPLUS GRAVEL	7
A.29.	IRON BARS	7
A.30.	RIP-RAP	7
A.31.	CLEARING, GRUBBING AND BRUSHING	8
A.32.	RESTORATION OF LAWNS	8



DIVISION A – GENERAL CONDITIONS

A.1. Scope

The work to be done under this contract consists of supplying all labour, equipment and materials to construct the drainage work as outlined in the Scope of Work, Drawings, General Conditions and other Specifications.

A.2. Tenders

Tenders are to be submitted on a lump sum basis for the complete works or a portion thereof, as instructed by the Municipality. The Scope of Work must be completed and submitted with the Form of Tender and Agreement. A certified cheque is required as Tender Security, payable to the Treasurer of the Municipality.

All certified cheques, except that of the bidder to whom the work is awarded will be returned within ten (10) days after the tender closing. The certified cheque of the bidder to whom the work is awarded will be retained as Contract Security and returned when the Municipality receives a Completion Certificate for the work.

A certified cheque is not required if the Contractor provides an alternate form of Contract Security such as a Performance Bond for 100% of the amount of the Tender or other satisfactory security, if required/permitted by the Municipality. A Performance Bond may also be required to insure maintenance of the work for a period of one (1) year after the date of the Completion Certificate.

A.3. Examinations of Site, Drawings, and Specifications

The Tenderer must examine the premises and site to compare them with the Drawings and Specifications in order to satisfy himself of the existing conditions and extent of the work to be done before submission of his Tender. No allowance shall subsequently be made on behalf of the Contractor by reason of any error on his part. Any estimates of quantities shown or indicated on the Drawings, or elsewhere are provided for the convenience of the Tenderer. Any use made of these quantities by the Tenderer in calculating his Tender shall be done at his own risk. The Tenderer for his own protection should check these quantities for accuracy.

The standard specifications (Divisions B through G) shall be considered complementary and where a project is controlled under one of the Divisions, the remaining Divisions will apply for miscellaneous works.

In case of any inconsistency or conflict between the Drawings and Specifications, the following order of precedence shall apply:

- Direction of the Engineer
- Special Provisions (Division H)
- Scope of Work
- Contract Drawings
- Standard Specifications (Divisions B through G)
- General Conditions (Division A)



A.4. Payment

Progress payments equal to 87±% of the value of work completed and materials incorporated in the work will be made to the Contractor monthly. An additional ten per cent (10±%) will be paid 60 days after the final acceptance by the Engineer, and three per cent (3±%) of the Contract price may be reserved by the Municipality as a maintenance holdback for a one (1) year period from the date of the Completion Certificate. A greater percentage of the Contract price may be reserved by the Municipality for the same one (1) year period if in the opinion of the Engineer, particular conditions of the Contract requires such greater holdback.

After the completion of the work, any part of this reserve may be used to correct defects developed within that time from faulty workmanship and materials, provided that notice shall first be given to the Contractor and that he may promptly make good such defects.

A.5. Contractor's Liability Insurance

Prior to commencement of any work, the Contractor shall file with the Municipality evidence of compliance with all Municipality insurance requirements (Liability Insurance, WSIB, etc.) for no less than the minimum amounts as stated in the Purchasing Procedures of the Municipality. All insurance coverage shall remain in force for the entire contract period including the warranty period which expires one year after the date of the Completion Certificate.

The following are to be named as co-insured:

- Successful Contractor
- Sub-Contractor
- Municipality
- Headway Engineering

A.6. Losses Due to Acts of Nature, Etc.

All damage, loss, expense and delay incurred or experienced by the Contractor in the performance of the work, by reason of unanticipated difficulties, bad weather, strikes, acts of nature, or other mischances shall be borne by the Contractor and shall not be the subject of a claim for additional compensation.

A.7. Commencement and Completion of Work

The work must commence as specified in the Form of Tender and Agreement. If conditions are unsuitable due to poor weather, the Contractor may be required, at the discretion of the Engineer to postpone or halt work until conditions become acceptable and shall not be subject of a claim for additional compensation.

The Contractor shall give the Engineer a minimum of 48 hours notice before commencement of work. The Contractor shall then arrange a meeting to be held on the site with Contractor, Engineer, and affected Landowners to review in detail the construction scheduling and other details of the work.

If the Contractor leaves the job site for a period of time after initiation of work, he shall give the Engineer and the Municipality a minimum of 24 hours notice prior to returning to the project. If any work is commenced without notice to the Engineer, the Contractor shall be fully responsible for all such work undertaken prior to such notification.



The work must proceed in such a manner as to ensure its completion at the earliest possible date and within the time limit set out in the Form of Tender and Agreement.

A.8. Working Area and Access

Where any part of the drain is on a road allowance, the road allowance shall be the working area. For all other areas, the working area available to the Contractor to construct the drain is specified in the Special Provisions (Division H).

Should the specified widths become inadequate due to unusual conditions, the Contractor shall notify the Engineer immediately. Where the Contractor exceeds the specified working widths without authorization, he shall be held responsible for the costs of all additional damages.

If access off an adjacent road allowance is not possible, each Landowner on whose property the drainage works is to be constructed, shall designate access to and from the working area. The Contractor shall not enter any other lands without permission of the Landowner and he shall compensate the Landowner for damage caused by such entry.

A.9. Sub-Contractors

The Contractor shall not sublet the whole or part of this Contract without the approval of the Engineer.

A.10. Permits, Notices, Laws and Rules

The Contractor shall obtain and pay for all necessary permits or licenses required for the execution of the work (but this shall not include MTO encroachment permits, County Road permits permanent easement or rights of servitude). The Contractor shall give all necessary notices and pay for all fees required by law and comply with all laws, ordinances, rules and regulations relating to the work and to the preservation of the public's health and safety.

A.11. Railways, Highways, and Utilities

A minimum of 72 hours' notice to the Railway or Highways, exclusive of Saturdays, Sundays, and Statutory Holidays, is required by the Contractor prior to any work activities on or affecting the applicable property. In the case of affected Utilities, a minimum of 48 hours' notice to the utility owner is required.

A.12. Errors and Unusual Conditions

The Contractor shall notify the Engineer immediately of any error or unusual conditions which may be found. Any attempt by the Contractor to correct the error on his own shall be done at his own risk. Any additional cost incurred by the Contractor to remedy the wrong decision on his part shall be borne by the Contractor. The Engineer shall make the alterations necessary to correct errors or to adjust for unusual conditions during which time it will be the Contractor's responsibility to keep his men and equipment gainfully employed elsewhere on the project.

The Contract amount shall be adjusted in accordance with a fair evaluation of the work added or deleted.

A.13. Alterations and Additions

The Engineer shall have the power to make alterations in the work shown or described in the Drawings and Specifications and the Contractor shall proceed to make such changes without causing delay. In



every such case, the price agreed to be paid for the work under the Contract shall be increased or decreased as the case may require according to a fair and reasonable evaluation of the work added or deleted. The valuation shall be determined as a result of negotiations between the Contractor and the Engineer, but in all cases the Engineer shall maintain the final responsibility for the decision. Such alterations and variations shall in no way render the Contract void. No claims for a variation or alteration in the increased or decreased price shall be valid unless done in pursuance of an order from the Engineer and notice of such claims made in writing before commencement of such work. In no such case shall the Contractor commence work which he considers to be extra before receiving the Engineer's approval.

A.14. Supervision

The Contractor shall give the work his constant supervision and shall keep a competent foreman in charge at the site.

A.15. Field Meetings

At the discretion of the Engineer, a field meeting with the Contractor or his representative, the Engineer and with those others that the Engineer deems to be affected, shall be held at the location and time specified by the Engineer.

A.16. Periodic and Final Inspections

Periodic inspections by the Engineer will be made during the performance of the work. If ordered by the Engineer, the Contractor shall expose the drain as needed to facilitate inspection by the Engineer.

Final inspection by the Engineer will be made within twenty (20) days after he has received notice from the Contractor that the work is complete.

A.17. Acceptance By the Municipality

Before any work shall be accepted by the Municipality, the Contractor shall correct all deficiencies identified by the Engineer and the Contractor shall leave the site neat and presentable.

A.18. Warranty

The Contractor shall repair and make good any damages or faults in the drain that may appear within one (1) year after its completion (as dated on the Completion Certificate) as the result of the imperfect or defective work done or materials furnished if certified by the Engineer as being due to one or both of these causes; but nothing herein contained shall be construed as in any way restricting or limiting the liability of the Contractor under the laws of the Country, Province or Locality in which the work is being done. Neither the Completion Certificate nor any payment there under, nor any provision in the Contract Documents shall relieve the Contractor from his responsibility.

A.19. Termination of Contract By The Municipality

If the Contractor should be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he should refuse or fail to supply enough properly skilled workmen or proper materials after having received seven (7) days notice in writing from the Engineer to supply additional workmen or materials to commence or complete the works, or if he should fail to make prompt payment to Sub-Contractors, or for material, or labour, or persistently disregards laws, ordinances, or the instruction of the Engineer,



or otherwise be guilty of a substantial violation of the provisions of the Contract, then the Municipality, upon the certificate of the Engineer that sufficient cause exists to justify such action, may without prejudice to any other right or remedy, by giving the Contractor written notice, terminate the employment of the Contractor and take possession of the premises, and of all materials, tools and appliances thereon, and may finish the work by whatever method the Engineer may deem expedient but without delay or expense. In such a case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract price will exceed the expense of finishing the work including compensation to the Engineer for his additional services and including the other damages of every name and nature, such excess shall be paid by the Contractor. If such expense will exceed such unpaid balance, the Contractor shall pay the difference to the Municipality. The expense incurred by the Municipality, as herein provided, shall be certified by the Engineer.

If the Contract is terminated by the Municipality due to the Contractor's failure to properly commence the works, the Contractor shall forfeit the certified cheque bid deposit and furthermore shall pay to the Municipality an amount to cover the increased costs, if any, associated with a new Tender for the Contract being terminated.

If any unpaid balance and the certified cheque do not match the monies owed by the Contractor upon termination of the Contract, the Municipality may also charge such expense against any money which may thereafter be due to the Contractor from the Municipality.

A.20. Tests

The cost for the testing of materials supplied to the job by the Contractor shall be borne by the Contractor. The Engineer reserves the right to subject any lengths of any tile or pipe to a competent testing laboratory to ensure the adequacy of the tile or pipe. If any tile supplied by the Contractor is determined to be inadequate to meet the applicable A.S.T.M. standards, the Contractor shall bear full responsibility to remove and/or replace all such inadequate tile in the Contract with tile capable of meeting the A.S.T.M. Standards.

A.21. Pollution

The Contractor shall keep their equipment in good repair. The Contractor shall refuel or repair equipment away from open water.

If polluted material from construction materials or equipment is caused to flow into the drain, the Contractor shall immediately notify the Ministry of the Environment, and proceed with the Ministry's protocols in place to address the situation.

A.22. Species and Risk

If a Contractor encounters a known Species at Risk as designated by the MNR or DFO, the Contractor shall notify the Engineer immediately and follow the Ministry's guidelines to deal with the species.

A.23. Road Crossings

This specification applies to all road crossings (Municipality, County, Regional, or Highway) where no specific detail is provided on the drawings or in the standard specifications. This specification in no way limits the Road Authority's regulations governing the construction of drains on their Road Allowance.

A.23.1. Road Occupancy Permit



Where applicable, the Contractor must submit an application for a road occupancy permit to the Road Authority and allow a minimum of five (5) working days for its review and issuance.

A.23.2. Road Closure Request and Construction Notification

The Contractor shall submit written notification of construction and request for road closure (if applicable) to the Road Authority and the Engineer for review and approval a minimum of five (5) working days prior to proceeding with any work on the road allowance. The Contractor shall be responsible for notifying all applicable emergency services, schools, etc. of the road closure or construction taking place.

A.23.3. Traffic Control

The Contractor shall supply flagmen, and warning signs and ensure that detour routes are adequately signed in accordance with no less than the minimum standards as set out in the Ontario Traffic Manual's Book 7.

A.23.4. Weather

No construction shall take place during inclement weather or periods of poor visibility.

A.23.5. Equipment

No construction material and/or equipment is to be left within three (3) metres of the travelled portion of the road overnight or during periods of inclement weather.

If not stated on the drawings, the road crossing shall be constructed by open cut method. Backfill from the top of the cover material over the subsurface pipe or culvert to the under side of the road base shall be Granular "B". The backfill shall be placed in lifts not exceeding 300mm in thickness and each lift shall be thoroughly compacted to 98% Standard Proctor. Granular "B" road base for County Roads and Highways shall be placed to a 450mm thickness and Granular "A" shall be placed to a thickness of 200mm. Granular road base materials shall be thoroughly compacted to 100% Standard Proctor.

Where the road surface is paved, the Contractor shall be responsible for placing HL-8 Hot Mix Asphalt patch at a thickness of 50mm or of the same thickness as the existing pavement structure. The asphalt patch shall be flush with the existing roadway on each side and without overlap.

Excavated material from the trench beyond 1.25 metres from the travelled portion or beyond the outside edge of the gravel shoulder may be used as backfill in the trench in the case of covered drains. The material shall be compacted in lifts not exceeding 300mm.

A.24. Laneways

All pipes crossing laneways shall be backfilled with material that is clean, free of foreign material or frozen particles and readily tamped or compacted in place unless otherwise specified. Laneway culverts on open ditch projects shall be backfilled with material that is not easily erodible. All backfill material shall be thoroughly compacted as directed by the Engineer.

Culverts shall be bedded with a minimum of 300mm of granular material. Granular material shall be placed simultaneously on each side of the culvert in lifts not exceeding 150mm in thickness and compacted to 95% Standard Proctor Density. Culverts shall be installed a minimum of 10% of the



culvert diameter below design grade with a minimum of 450mm of cover over the pipe unless otherwise noted on the Drawings.

The backfill over culverts and subsurface pipes at all existing laneways that have granular surfaces on open ditch and closed drainage projects shall be surfaced with a minimum of 300mm of Granular “B” material and 150mm of Granular “A” material. All backfill shall be thoroughly compacted as directed by the Engineer. All granular material shall be placed to the full width of the travelled portion.

Any settling of backfilled material shall be repaired by or at the expense of the Contractor during the warranty period of the project and as soon as required.

A.25. Fences

No earth is to be placed against fences and all fences removed by the Contractor shall be replaced by him in as good a condition as found. Where practical the Contractor shall take down existing fences in good condition at the nearest anchor post and roll it back rather than cutting the fence and attempting to patch it. The replacement of the fences shall be done to the satisfaction of the Engineer. Any fences found in such poor condition where the fence is not salvageable, shall be noted and verified with the Engineer prior to commencement of work.

Fences damaged beyond repair by the Contractor’s negligence shall be replaced with new materials, similar to those materials of the existing fence, at the Contractor’s expense. The replacement of the fences shall be done to the satisfaction of the Landowner and the Engineer.

Any fences paralleling an open ditch that are not line fences that hinder the proper working of the excavating machinery, shall be removed and rebuilt by the Landowner at his own expense.

The Contractor shall not leave fences open when he is not at work in the immediate vicinity.

A.26. Livestock

The Contractor shall provide each landowner with 48 hours notice prior to removing any fences along fields which could possibly contain livestock. Thereafter, the Landowner shall be responsible to keep all livestock clear of the construction areas until further notified. The Contractor shall be held responsible for loss or injury to livestock or damage caused by livestock where the Contractor failed to notify the Landowner, or through negligence or carelessness on the part of the Contractor.

A.27. Standing Crops

The Contractor shall be responsible for damages to standing crops which are ready to be harvested or salvaged along the course of the drain and access routes if the Contractor has failed to notify the Landowners 48 hours prior to commencement of the work on that portion of the drain.

A.28. Surplus Gravel

If as a result of any work, gravel or crushed stone is required and not all the gravel or crushed stone is used, the Contractor shall haul away such surplus material.

A.29. Iron Bars

The Contractor is responsible for the cost of an Ontario Land Surveyor to replace any iron bars that are altered or destroyed during the course of the construction.

A.30. Rip-Rap



Rip-rap shall be quarry stone rip-rap material and shall be the sizes specified in the Special Provisions. Broken concrete shall not be used as rip-rap unless otherwise specified.

A.31. Clearing, Grubbing and Brushing

This specification applies to all brushing where no specific detail is provided on the drawings or in the Special Provisions.

The Contractor shall clear, brush and stump trees from within the working area that interfere with the installation of the drainage system.

All trees, limbs and brush less than 150mm in diameter shall be mulched. Trees greater than 150mm in diameter shall be cut and neatly stacked in piles designated by the Landowners.

A.32. Restoration of Lawns

This specification applies to all lawn restoration where no specific detail is provided on the drawings or in the Special Provisions and no allowance for damages has been provided under Section 30 of the Drainage Act RSO 1990 to the affected property.

The Contractor shall supply “high quality grass seed” and the seed shall be broadcast by means of an approved mechanical spreader. All areas on which seed is to be placed shall be loose at the time of broadcast to a depth of 25mm. Seed and fertilizer shall be spread in accordance with the supplier’s recommendations unless otherwise directed by the Engineer. Thereafter it will be the responsibility of the Landowner to maintain the area in a manner so as to promote growth

END OF DIVISION



DIVISION B

Specifications for Open Drains



CONTENTS

B.1.	ALIGNMENT	1
B.2.	PROFILE	1
B.3.	EXCAVATION	1
B.4.	EXCAVATED MATERIAL.....	1
B.5.	EXCAVATION AT EXISTING BRIDGE AND CULVERT SITES	2
B.6.	PIPE CULVERTS.....	2
B.7.	RIP-RAP PROTECTION FOR CULVERTS	2
B.8.	CLEARING, GRUBBING AND MULCHING	2
B.9.	TRIBUTARY TILE OUTLETS.....	3
B.10.	SEEDING	3
B.11.	HYDRO SEEDING.....	3
B.12.	HAND SEEDING	3
B.13.	COMPLETION	3



DIVISION B – SPECIFICATIONS FOR OPEN DRAINS

B.1. Alignment

The drain shall be constructed in a straight line and shall follow the course of the present drain or water run unless noted on the drawings. Where there are unnecessary bends or irregularities on the existing course of the drain, the Contractor shall contact the Engineer before commencing work to verify the manner in which such irregularities or bends may be removed from the drain. All curves shall be made with a minimum radius of fifteen (15) metres from the centre line of the drain.

B.2. Profile

The Profile Drawing shows the depth of cuts from the top of the bank to the final invert of the ditch in metres and decimals of a metre, and also the approximate depth of excavated material from the bottom of the existing ditch to the final invert of the ditch. These cuts are established for the convenience of the Contractor; however, bench marks (established along the course of the drain) will govern the final elevation of the drain. The location and elevation of the bench marks are given on the Profile Drawing. Accurate grade control must be maintained by the Contractor during ditch excavation.

B.3. Excavation

The bottom width and the side slopes of the ditch shall be those shown on the drawings. If the channel cross-section is not specified it shall be a one metre bottom width with 1.5(h):1(v) side slopes. At locations along the drain where the cross section dimensions change, there shall be a transitional length of not less than 10:1 (five metre length to 0.5 metre width differential). Where the width of the bottom of the existing ditch is sufficient to construct the design width, then construction shall proceed without disturbing the existing banks.

Where existing side slopes become unstable, the Contractor shall immediately notify the Engineer. Alternative methods of construction and/or methods of protection will then be determined prior to continuing work.

Where an existing drain is being relocated or where a new drain is being constructed, the Contractor shall strip the topsoil for the full width of the drain, including the location of the spoil pile. Upon completion of levelling, the topsoil shall be spread to an even depth across the full width of the spoil.

An approved hydraulic excavator shall be used to carry out the excavation of the open ditch unless otherwise directed by the Engineer.

B.4. Excavated Material

Excavated material shall be placed on the low side of the drain or opposite trees and fences. The Contractor shall contact all Landowners before proceeding with the work to verify the location to place and level the excavated material.

No excavated material shall be placed in tributary drains, depressions, or low areas which direct water behind the spoil bank. The excavated material shall be placed and levelled to a maximum depth of 200 mm, unless instructed otherwise and commence a minimum of one (1) metre from the top of the bank. The edge of the spoil bank away from the ditch shall be feathered down to the existing ground; the edge of the spoil bank nearest the ditch shall have a maximum slope of 2(h):1(v). The material shall be levelled such that it may be cultivated with ordinary farm equipment without causing undue



hardship to the farm machinery and farm personnel. No excavated material shall cover any logs, brush, etc. of any kind.

Any stones or boulders which exceed 300mm in diameter shall be removed and disposed of in a location specified by the Landowner.

Where it is necessary to straighten any unnecessary bends or irregularities in the alignment of the ditch or to relocate any portion or all of an existing ditch, the excavated material from the new cut shall be used for backfilling the original ditch. Regardless of the distance between the new ditch and the old ditch, no extra compensation will be allowed for this work and must be included in the Contractor's lump sum price for the open work.

B.5. Excavation at Existing Bridge and Culvert Sites

The Contractor shall excavate the drain to the full specified depth under all bridges and to the full width of the structure. Temporary bridges may be carefully removed and left on the bank of the drain but shall be replaced by the Contractor when the excavation is complete. Permanent bridges must, if at all possible, be left intact. All necessary care and precautions shall be taken to protect the structure. The Contractor shall notify the Landowner if excavation will expose the footings or otherwise compromise the structural integrity of the structure.

The Contractor shall clean through all pipe culverts to the grade and width specified on the profile.

B.6. Pipe Culverts

All pipe culverts shall be installed in accordance with the standard detail drawings. If couplers are required, five corrugation couplers shall be used for up to and including 1200mm diameter pipes and 10 corrugation couplers for greater than 1200mm diameter pipes.

When an existing crossing is being replaced, the Contractor may backfill the new culvert with the existing native material that is free of large rocks and stones. The Contractor is responsible for any damage to a culvert pipe that is a result of rocks or stones in the backfill.

B.7. Rip-Rap Protection For Culverts

Quarry stone rip-rap shall be used as end treatment for new culverts and placed on geotextile filter material (Mirafi 160N or approved equal). The rip-rap shall be adequately keyed in along the bottom of the slope, and shall extend to the top of the pipe or as directed on the drawings. The maximum slope for rip-rap shall be 1(h):1(v) or as directed by the Engineer.

The Contractor shall be responsible for any defects or damages that may develop in the rip-rap or the earth behind the rip-rap that the Engineer deems to have been fully or partially caused by faulty workmanship or materials.

B.8. Clearing, Grubbing and Mulching

Prior to excavation, all trees, scrub, fallen timber and debris shall be removed from the side slopes of the ditch and for such a distance on the working side so as to eliminate any interference with the construction of the drain or the spreading of the spoil. The side slopes shall be neatly cut and cleared flush with the slope whether or not they are affected directly by the excavation. With the exception of large stumps causing damage to the drain, the side slopes shall not be grubbed. All other cleared areas shall be grubbed and the stumps put into piles for disposal by the Landowner.



All trees or limbs 150mm or larger, that is necessary to remove, shall be cut, trimmed and neatly stacked in the working width for the use or disposal by the Landowner. Brush and limbs less than 150mm in diameter shall be mulched. Clearing, grubbing and mulching shall be carried out as a separate operation from the excavation of the ditch, and shall not be completed simultaneously at the same location.

B.9. Tributary Tile Outlets

All tile outlets in existing ditches shall be marked by the Landowner prior to excavation. The Contractor shall guard against damaging the outlets of tributary drains. Any tile drain outlets that were marked or noted on the drawings and are subsequently damaged by the Contractor shall be repaired by the Contractor at his expense. The Landowner shall be responsible for repairs to damaged tile outlets that were not marked.

B.10. Seeding

The side slopes where disturbed shall be seeded using an approved grass seed mixture. The grass seed shall be applied the same day as the excavation of the open ditch.

Grass seed shall be fresh, clean and new crop seed, meeting the requirements of the MTO and composed of the following varieties mixed in the proportion by weight as follows:

- 55% Creeping Red Fescue
- 40% Perennial Rye Grass
- 5% White Clover

Grass seed shall be applied at the rate of 100 kg/ha.

B.11. Hydro Seeding

The areas specified in the contract document shall be hydro seeded and mulched upon completion of construction in accordance with O.P.S.S. 572.

B.12. Hand Seeding

Placement of the seed shall be of means of an approved mechanical spreader.

B.13. Completion

At the time of completion and final inspection, all work in the Contract shall have the full dimensions and cross-sections specified without any allowance for caving of banks or sediment in the ditch bottom.

END OF DIVISION



SPECIAL PROVISIONS

Shafley Municipal Drain



CONTENTS

1.0	GENERAL	1
2.0	UTILITIES	1
3.0	WORKING AREA AND ACCESS	1
4.0	CLEARING BRUSHING AND MULCHING	2
5.0	OPEN DITCH EXCAVATION	2
6.0	EXCAVATED MATERIAL	2
7.0	SEEDING	2
8.0	CULVERT INSTALLATIONS	2
9.0	BANK REPAIR	2
10.0	ROAD CROSSINGS	3
11.0	RIP-RAP	3
12.0	EROSION AND SEDIMENT CONTROL	3



Special Provisions means special directions containing requirements particular to the work not adequately provided for by the standard or supplemental specifications. Special provisions shall take precedence and govern over any standard or supplemental specification.

1.0 GENERAL

The Contractor shall notify the Landowner, the Drainage Superintendent, and the Engineer 48 hours prior to construction.

The Contractor shall arrange a pre-construction meeting and shall invite the Landowners on whose property work will take place, and the Engineer, and the Drainage Superintendent.

The Contractor shall verify the location of the new drainage system with the Engineer and Landowner prior to construction.

The Contractor shall check and verify all dimensions and elevations and report any discrepancies to the Engineer prior to proceeding with the work.

The Contractor shall be responsible for settlement within the warranty period.

2.0 UTILITIES

All utilities shall be located and uncovered in the affected areas by the Contractor prior to construction.

The locations and elevations of all utilities shown on the drawings are approximate locations. Actual locations and elevations of all utilities must be verified by the Contractor prior to construction.

The Contractor shall arrange to have a representative of the utility owner on site during construction if it is a requirement by the utility owner.

3.0 WORKING AREA AND ACCESS

Access to the working area shall be designated by the Landowner.

The working area shall be in accordance with the following average widths.

Drain Segment and Station Range	Property Roll No.	Working side	Average Working Width for Construction	Average Working Width for Future Maintenance
0+020 to 1+048	12-179, 12-079-01, 12-178	West	12m	10m
1+062 to 1+495	12-177	East	12m	10m
1+523 to 1+730	12-176	East	12m	10m
1+730 to 1+922	Smith Road	West	6m	6m
1+937 to 2+162	12-179-15, 12-180-01	West	12m	10m



2+162 to 2+202	Smith Road	East	6m	6m
2+202 to 2+959	12-180	West	12m	10m
2+973 to 3+095	12-172	East	12m	10m

4.0 CLEARING BRUSHING AND MULCHING

The Contractor shall clear, brush and mulch trees from within the working area that interfere with the construction of the drainage system. The Contractor shall not clear all trees within the working area unless the full working width in a specific section is required for the installation of the drain and unless the Engineer has authorized the full clearing of the trees.

All trees, limbs, and brush less than 150mm in diameter shall be mulched/chipped. Clearing and brushing shall be done prior to the construction of the drain. Trees and branches greater than 150mm in diameter shall be cut into lengths no greater than four metres and placed in nearby stacks designated by the Landowner. Trees removed from road right-of-ways shall be mulched or disposed of offsite by the Contractor.

5.0 OPEN DITCH EXCAVATION

An approved hydraulic excavator shall be used to carry out the excavation of the open ditch. The open ditch shall have a 900mm bottom width and shall be parabolic in shape. The side slopes shall be a 1.5H:1V or flatter.

6.0 EXCAVATED MATERIAL

The excavated material from the ditch cleanout shall be hauled and used for the construction of the ditch enclosure on the Collver Municipal Drain.

7.0 SEEDING

The Contractor shall supply and hydroseed an approved seed mixture (OPS 803 – Lowland Mix), complete with a bonded fibre matrix mulch over the disturbed areas.

All seed shall be applied using the manufacturer's application recommendations.

8.0 CULVERT INSTALLATIONS

The Contractor shall install the culverts in accordance with the attached details.

9.0 BANK REPAIR

In areas where high levels of erosion have occurred, the Contractor shall reshape the banks to match typical bank side slopes. The Contractor shall then place geo-textile filter material and stone riprap for long term bank stabilization.



10.0 ROAD CROSSINGS

10.1 Notice

The Contractor shall notify the Engineer and the Township of Wainfleet a minimum of 48 hours prior to the scheduled road crossing.

The Contractor shall notify all emergency services and local district school boards of the road enclosure.

Detour routes and plans shall be provided to all relevant local authorities in accordance with their respective notification protocols.

10.2 Traffic Control

The Contractor shall be responsible to arrange all traffic control signals, signs and devices that are required for safe and proper traffic management during the installation of the drainage system. The Contractor shall contact Huron County for specific local procedures, guidelines, and timelines. Traffic control shall meet the standards of Book 7 of the Ontario Traffic Manual.

10.3 Road Restoration

The Contractor shall remove and dispose of offsite, all excavated material unsuitable for use as backfill.

The Contractor shall grade the road ditches to the ditch. Any areas disturbed within the Road Right-of-Way shall be topsoiled and hydroseeded with an approved grass seed mixture (OPS 803 – Standard Roadside Mix).

11.0 RIP-RAP

All stone rip-rap material shall be quarry stone 150mm to 300mm diameter and placed to a depth of 300mm, unless otherwise noted. All rip-rap material shall be placed on geo-textile filter material.

12.0 EROSION AND SEDIMENT CONTROL

The Contractor shall provide adequate erosion and sediment control for the duration of construction including monitoring and maintenance of the control measures put in place. The Contractor shall inspect the erosion and sediment control measures regularly, and specifically before predicted rainfall events, and after rainfall events.

SHAFLEY MUNICIPAL DRAIN

Watershed Plan

NOTES:

- THIS MAP WAS CREATED USING NIAGARA REGION GEOGRAPHIC INFORMATION SYSTEM DIGITAL DATA. THIS MAP IS A SECONDARY PRODUCT WHICH HAS NOT BEEN VERIFIED BY NIAGARA REGION.
- THE CONTOURS WERE CREATED USING IMAGERY DERIVED DIGITAL DATA (2015) FROM LAND INFORMATION ONTARIO.

BENCHMARK DESCRIPTIONS

- BENCHMARK No. 1** ELEV.=175.38
TOP CENTER UPSTREAM END OF CSPA CULVERT 8m EAST OF STA. 0+000 (MAIN)
- BENCHMARK No. 2** ELEV.=175.93
TOP CENTER UPSTREAM END OF 1200mmØ CSP CULVERT AT STA. 0+615 (MAIN)
- BENCHMARK No. 3** ELEV.=177.96
NAIL IN WEST FACE OF 1200mmØ TREE 15m EAST OF STA. 0+832 (MAIN)
- BENCHMARK No. 4** ELEV.=176.33
TOP CENTER DOWNSTREAM END OF 1200mmØ CSP CULVERT AT STA. 1+497 (MAIN)
- BENCHMARK No. 5** ELEV.=176.26
TOP CENTER UPSTREAM END OF 1200mmØ CSP CULVERT AT STA. 1+518 (MAIN)
- BENCHMARK No. 6** ELEV.=176.65
TOP CENTER UPSTREAM END OF 750mmØ CSP CULVERT AT STA. 2+194 (MAIN)

LEGEND

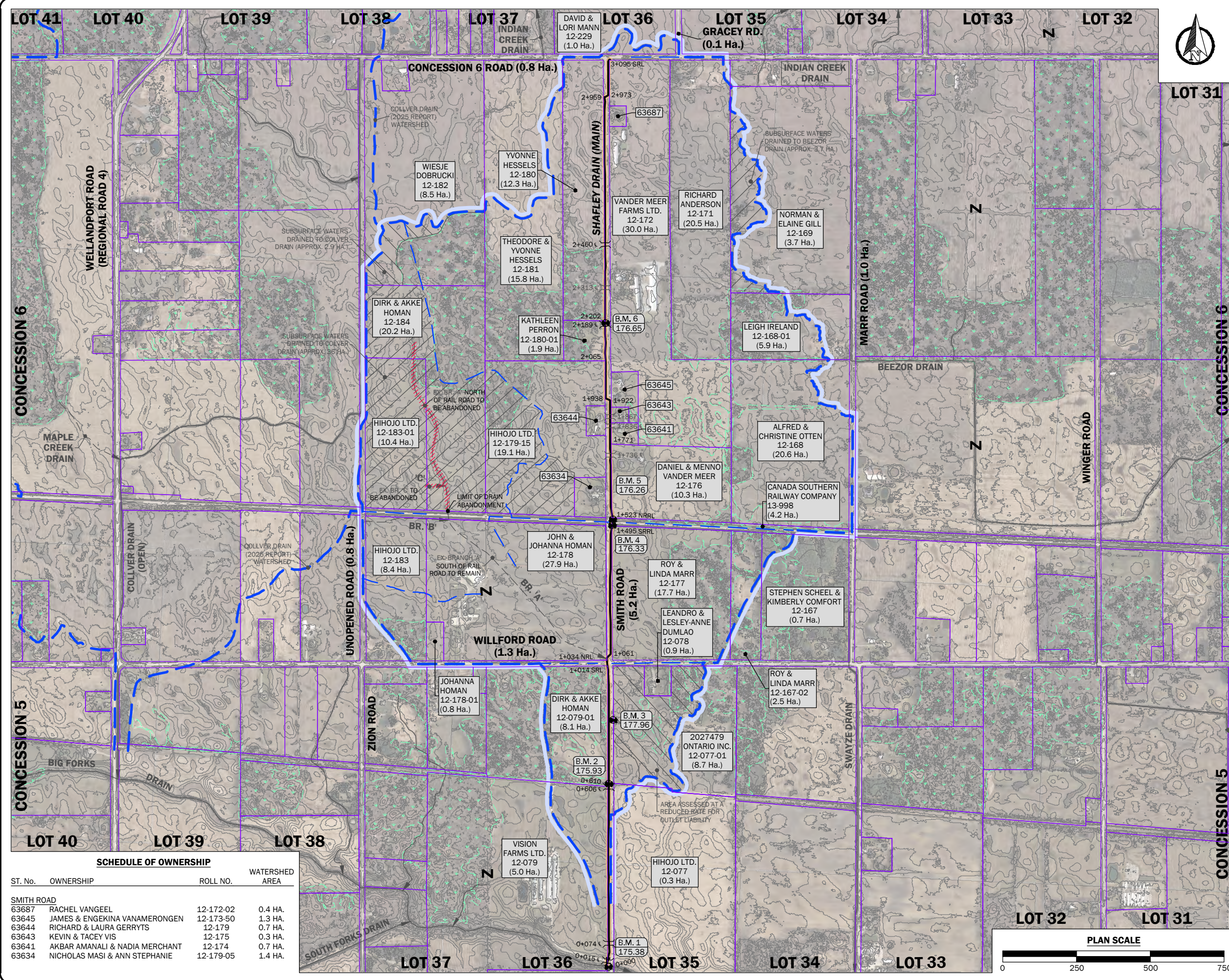
- LOT/CONCESSION LINE
- PROPERTY LINE
- MAJOR WATERSHED BOUNDARY
- MINOR WATERSHED BOUNDARY
- WETLAND LIMIT
- BENCHMARK LOCATION
- B.M. 1 (123.45) - BENCHMARK No.
- B.M. 1 (123.45) - BENCHMARK ELEVATION
- JOHN & JANE SMITH (12-345) - LANDOWNER NAME(S)
- JOHN & JANE SMITH (12-345) - ASSESSMENT ROLL No. (ABBREVIATED)
- JOHN & JANE SMITH (12-345) - AREA WITHIN WATERSHED

- EXISTING FEATURES:**
- DRAIN NAME** (with arrow) - OPEN DRAIN WITH CROSSING AND FLOW DIRECTION
 - DRAIN NAME** (with catch basin symbol) - CLOSED DRAIN WITH CATCH BASIN, MANHOLE AND FLOW DIRECTION
 - DRAIN NAME** (with arrow) - OVERLAND FLOW PATH
- PROPOSED FEATURES:**
- DRAIN NAME** (with arrow) - OPEN DRAIN WITH CROSSING AND FLOW DIRECTION

6	REPORT SUBMISSION	25-12-18
5	PUBLIC INFORMATION MEETING	25-07-09
4	PETITIONER MEETING	25-01-09
3	CP RAILWAY SUBMISSION	23-05-31
2	PETITIONER MEETING	22-10-19
1	ON-SITE MEETING	19-11-20
No.	REVISION	DATE (YY-MM-DD)

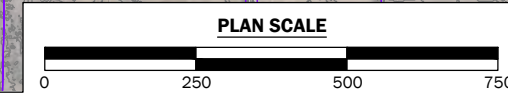


DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 1 OF 7
DATE: 2025-12-18		REFERENCE No. WNFLT-002	



SCHEDULE OF OWNERSHIP

ST. No.	OWNERSHIP	ROLL NO.	WATERSHED AREA
SMITH ROAD			
63687	RACHEL VANHEEL	12-172-02	0.4 HA.
63645	JAMES & ENGEKINA VANAMERONGEN	12-173-50	1.3 HA.
63644	RICHARD & LAURA GERRYTS	12-179	0.7 HA.
63643	KEVIN & TACEY VIS	12-175	0.3 HA.
63641	AKBAR AMANALI & NADIA MERCHANT	12-174	0.7 HA.
63634	NICHOLAS MASI & ANN STEPHANIE	12-179-05	1.4 HA.



SHAFLEY MUNICIPAL DRAIN

Main Drain (Open) Profile
(Sta. 0+000 to Sta. 1+523)

CULVERT DETAILS
D/S INV. = 173.12
U/S INV. = 173.50
GRADE = 1.43%
LENGTH = 26m
DIAMETER = 1200mm

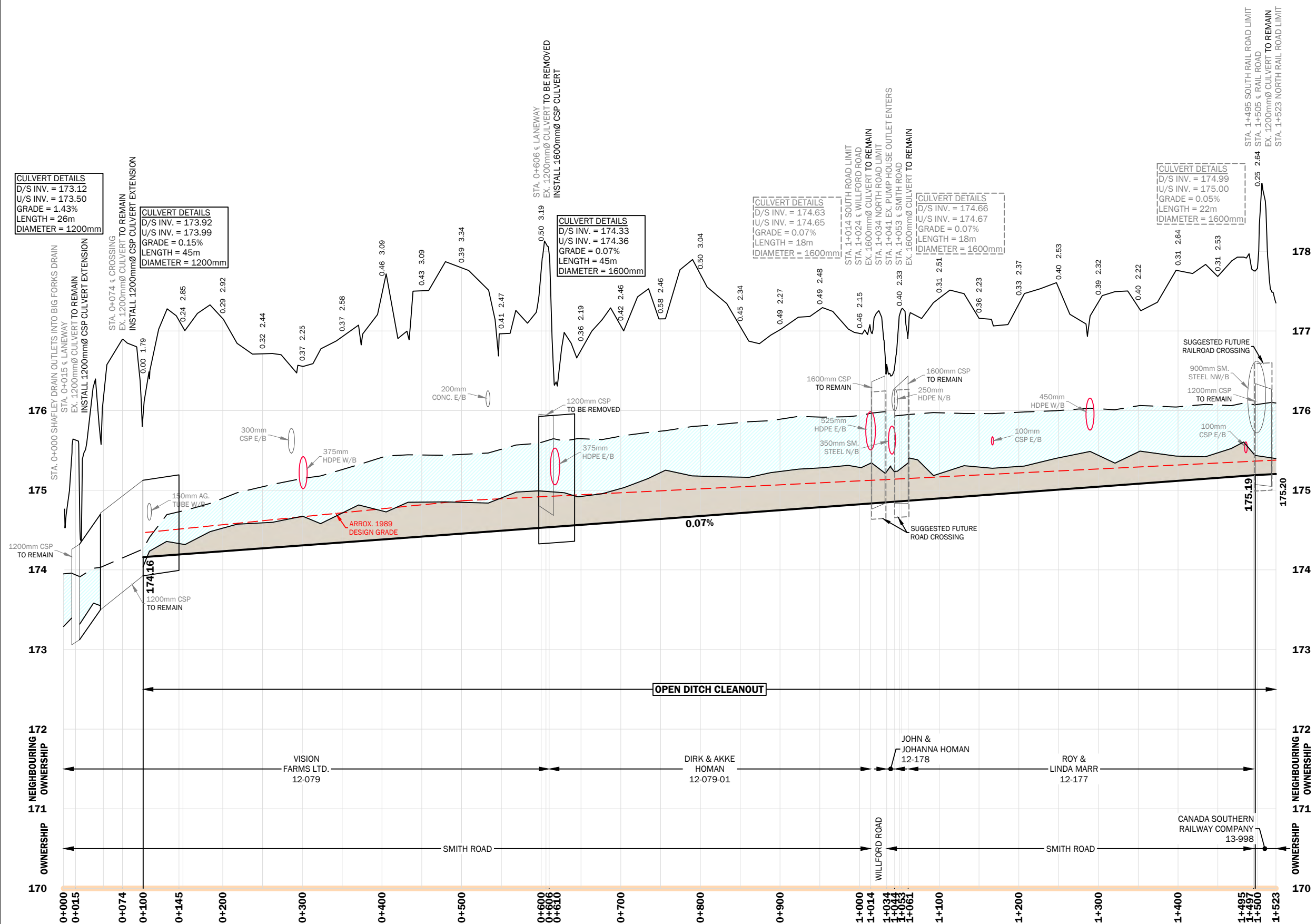
CULVERT DETAILS
D/S INV. = 173.92
U/S INV. = 173.99
GRADE = 0.15%
LENGTH = 45m
DIAMETER = 1200mm

CULVERT DETAILS
D/S INV. = 174.33
U/S INV. = 174.36
GRADE = 0.07%
LENGTH = 45m
DIAMETER = 1600mm

CULVERT DETAILS
D/S INV. = 174.63
U/S INV. = 174.65
GRADE = 0.07%
LENGTH = 18m
DIAMETER = 1600mm

CULVERT DETAILS
D/S INV. = 174.66
U/S INV. = 174.67
GRADE = 0.07%
LENGTH = 18m
DIAMETER = 1600mm

CULVERT DETAILS
D/S INV. = 174.99
U/S INV. = 175.00
GRADE = 0.05%
LENGTH = 22m
DIAMETER = 1600mm

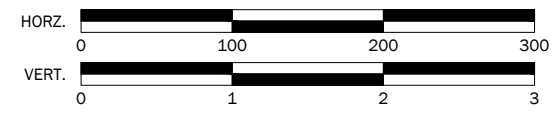


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OPEN DITCH CLEANOUT

PROFILE SCALES



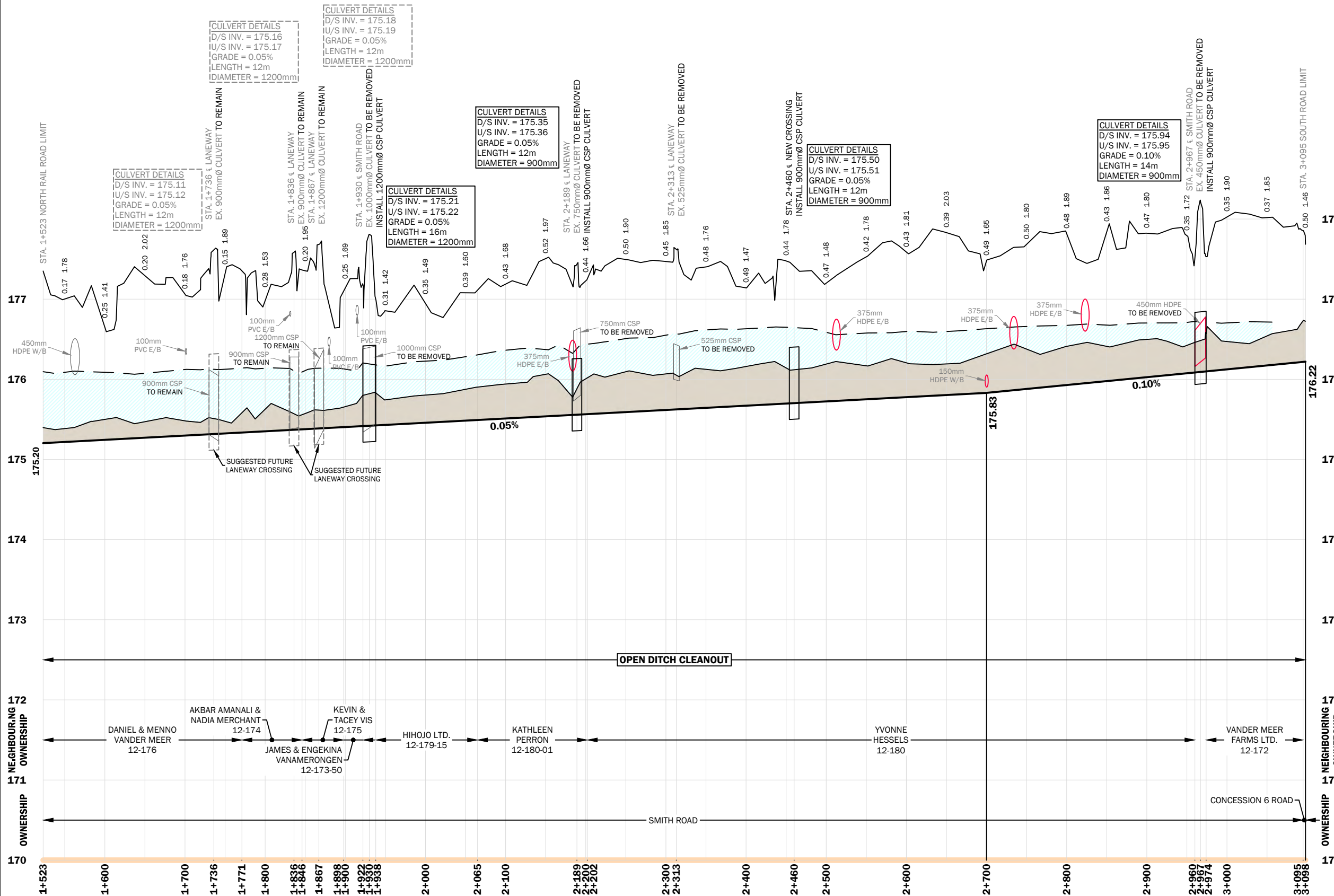
6	REPORT SUBMISSION	25-12-18
5	PUBLIC INFORMATION MEETING	25-07-09
4	PETITIONER MEETING	25-01-09
3	CP RAILWAY SUBMISSION	23-05-31
2	PETITIONER MEETING	22-10-19
1	ON-SITE MEETING	19-11-20
No.	REVISION	DATE (YY-MM-DD)



DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 2 OF 7
DATE: 2025-12-18		REFERENCE No. WNFLT-002	

SHAFLEY MUNICIPAL DRAIN

Main Drain (Open) Profile
(Sta. 1+523 to Sta. 3+098)



BENCHMARK DESCRIPTIONS

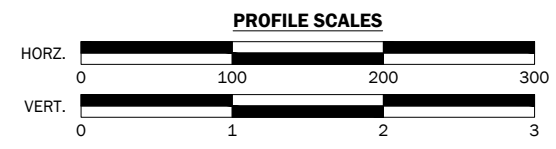
BENCHMARK No. 1	ELEV.=175.38
TOP CENTER UPSTREAM END OF CSPA CULVERT 8m EAST OF STA. 0+000 (MAIN)	
BENCHMARK No. 2	ELEV.=175.93
TOP CENTER UPSTREAM END OF 1200mmØ CSP CULVERT AT STA. 0+615 (MAIN)	
BENCHMARK No. 3	ELEV.=177.96
NAIL IN WEST FACE OF 1200mmØ TREE 15m EAST OF STA. 0+832 (MAIN)	
BENCHMARK No. 4	ELEV.=176.33
TOP CENTER DOWNSTREAM END OF 1200mmØ CSP CULVERT AT STA. 1+497 (MAIN)	
BENCHMARK No. 5	ELEV.=176.26
TOP CENTER UPSTREAM END OF 1200mmØ CSP CULVERT AT STA. 1+518 (MAIN)	
BENCHMARK No. 6	ELEV.=176.65
TOP CENTER UPSTREAM END OF 750mmØ CSP CULVERT AT STA. 2+194 (MAIN)	



6	REPORT SUBMISSION	25-12-18
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No.	REVISION	DATE (YY-MM-DD)



DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 3 OF 7
DATE: 2025-12-18		REFERENCE No. WNFLT-002	

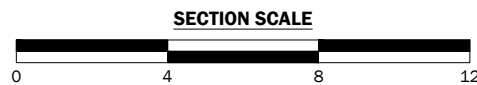
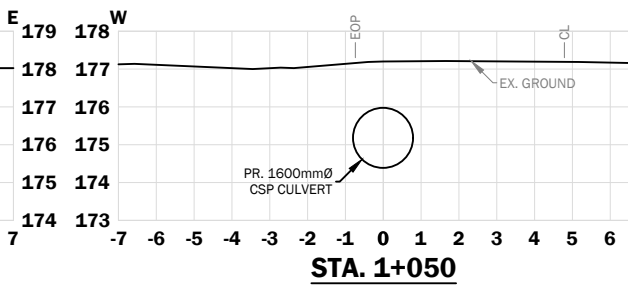
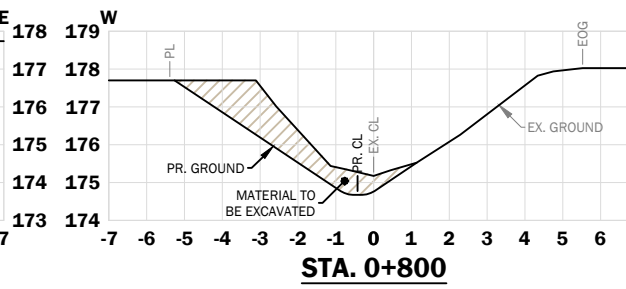
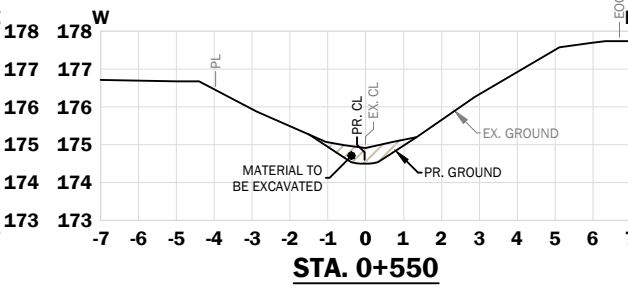
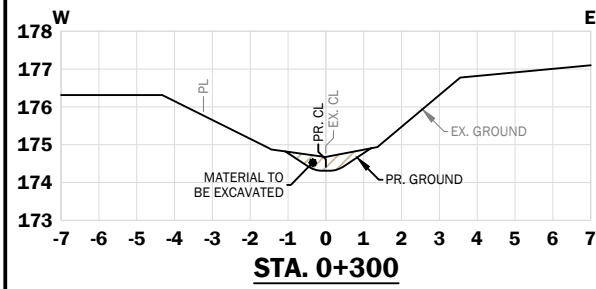
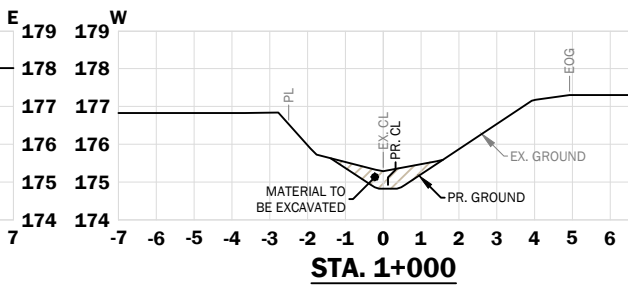
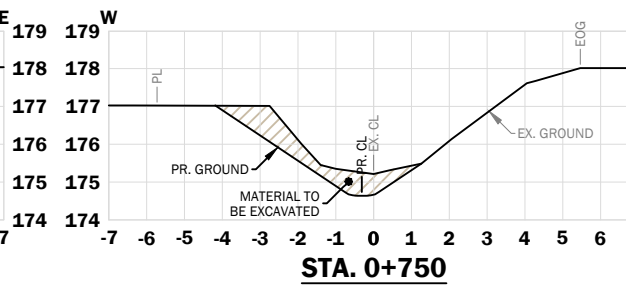
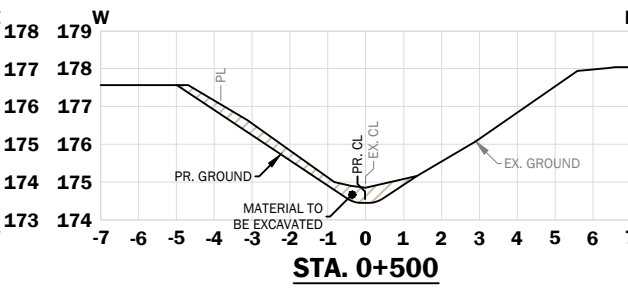
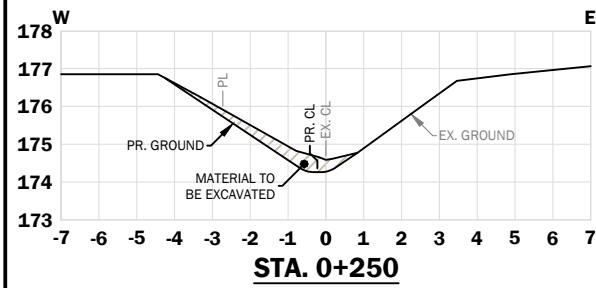
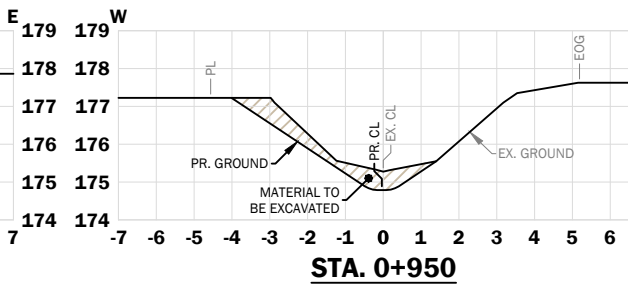
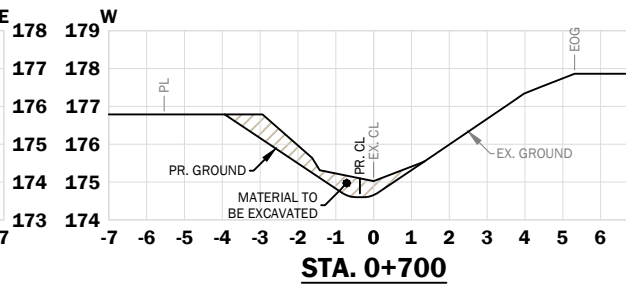
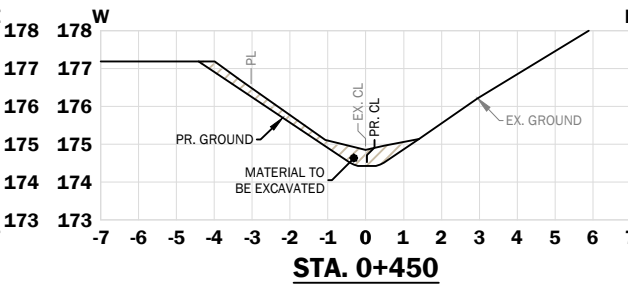
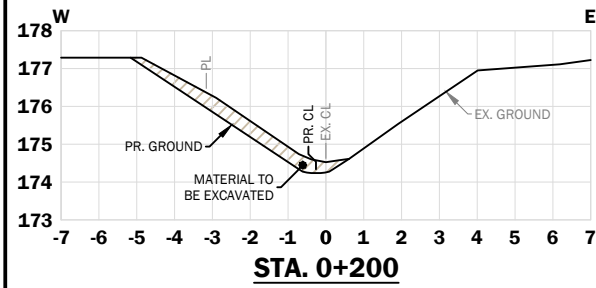
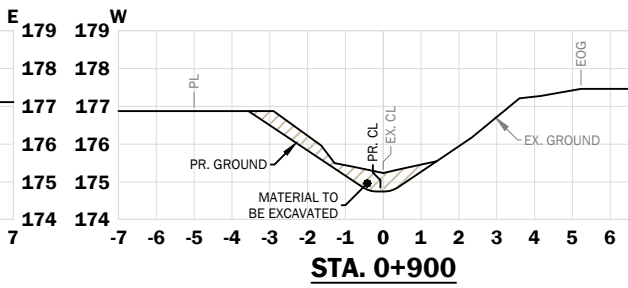
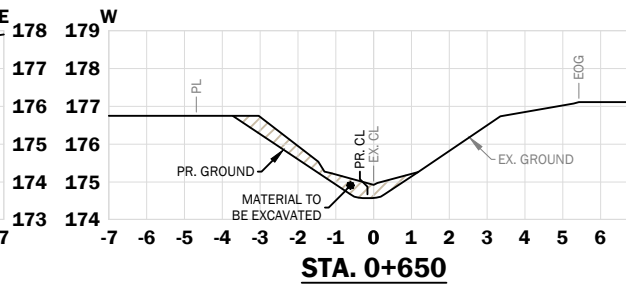
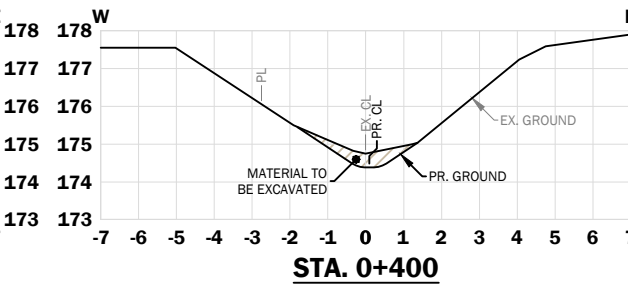
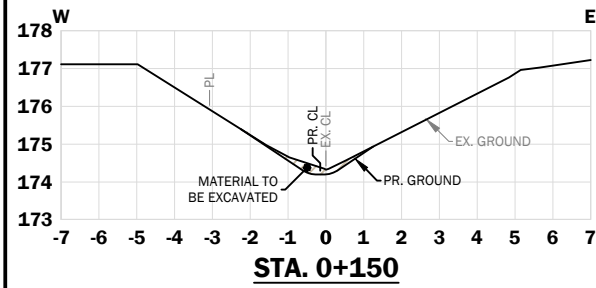
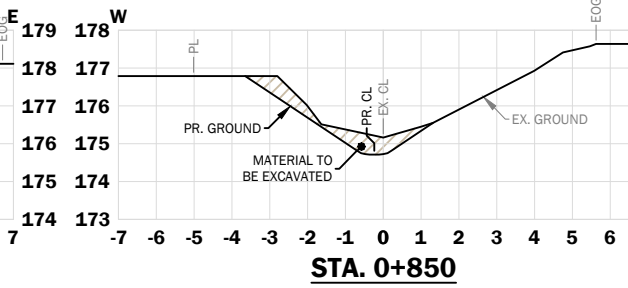
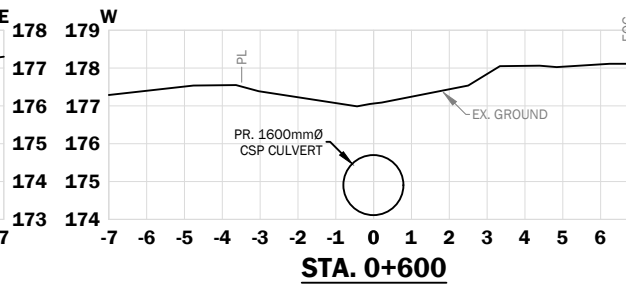
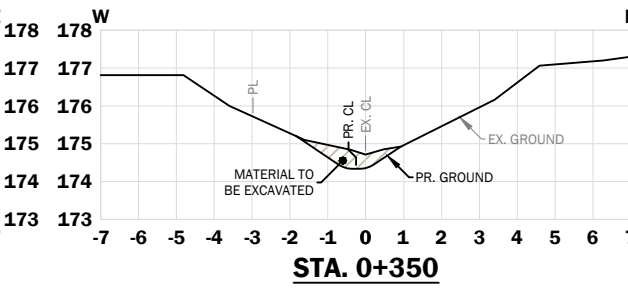
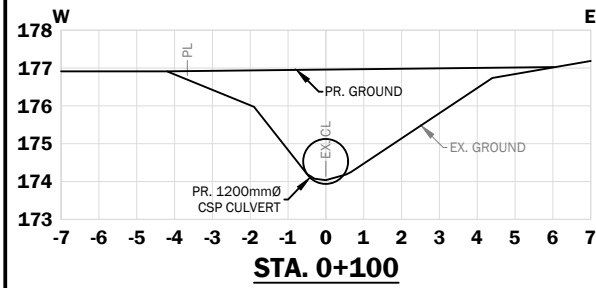


SHAFLEY MUNICIPAL DRAIN

Sections - Main Drain (Open)
(Sta. 0+100 to Sta. 1+050)

BENCHMARK DESCRIPTIONS

- BENCHMARK No. 1** ELEV.=175.38
TOP CENTER UPSTREAM END OF CSPA CULVERT 8m EAST OF STA. 0+000 (MAIN)
- BENCHMARK No. 2** ELEV.=175.93
TOP CENTER UPSTREAM END OF 1200mmØ CSP CULVERT AT STA. 0+615 (MAIN)
- BENCHMARK No. 3** ELEV.=177.96
NAIL IN WEST FACE OF 1200mmØ TREE 15m EAST OF STA. 0+832 (MAIN)
- BENCHMARK No. 4** ELEV.=176.33
TOP CENTER DOWNSTREAM END OF 1200mmØ CSP CULVERT AT STA. 1+497 (MAIN)
- BENCHMARK No. 5** ELEV.=176.26
TOP CENTER UPSTREAM END OF 1200mmØ CSP CULVERT AT STA. 1+518 (MAIN)
- BENCHMARK No. 6** ELEV.=176.65
TOP CENTER UPSTREAM END OF 750mmØ CSP CULVERT AT STA. 2+194 (MAIN)



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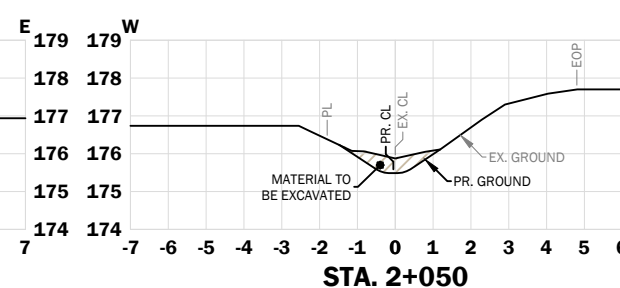
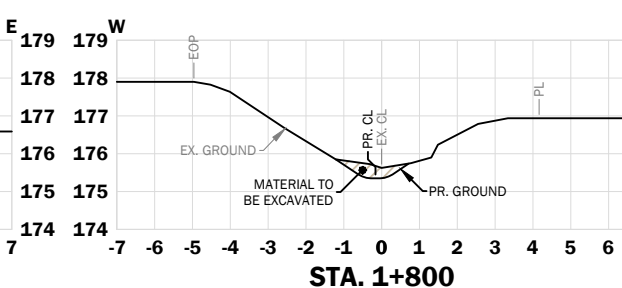
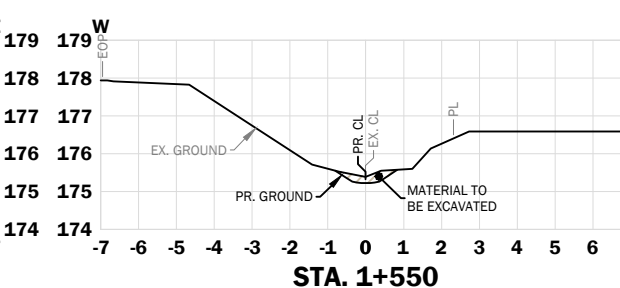
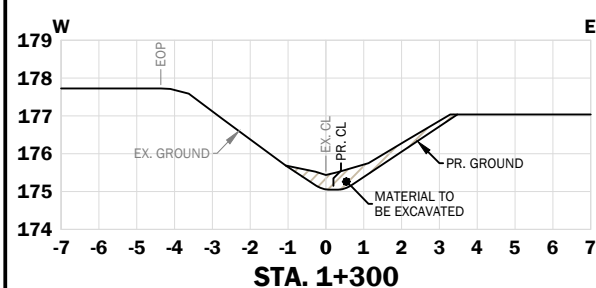
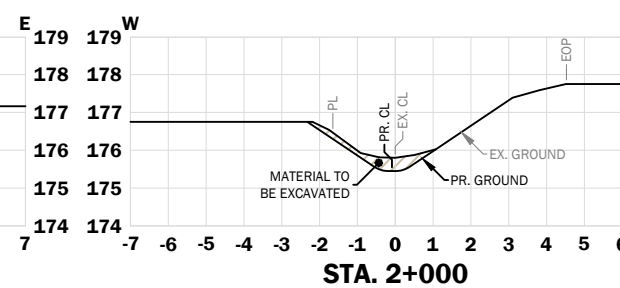
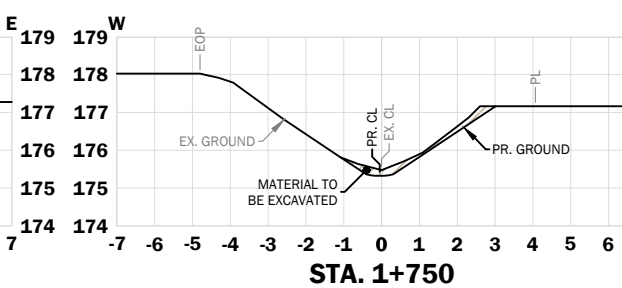
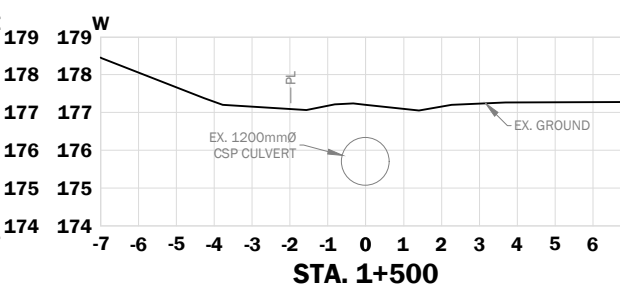
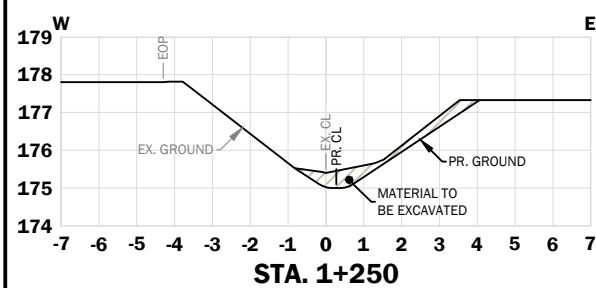
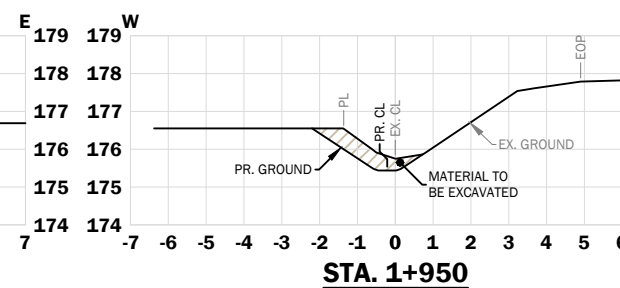
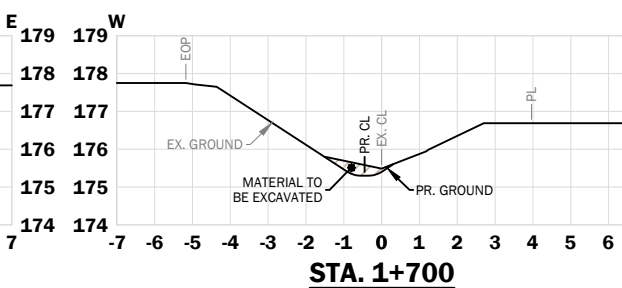
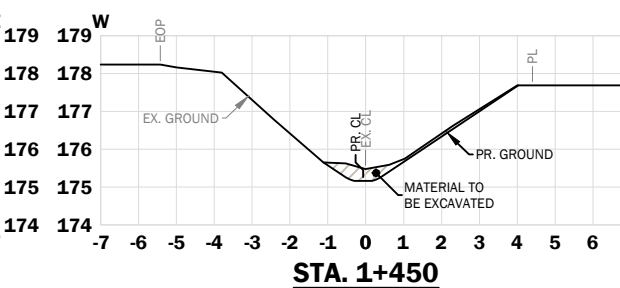
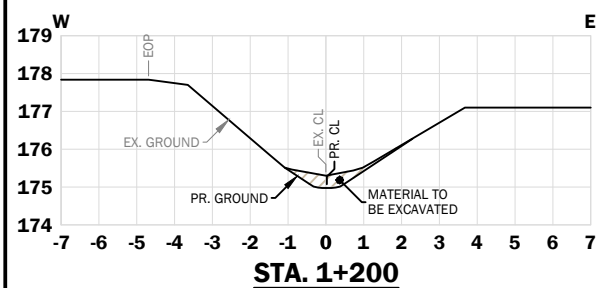
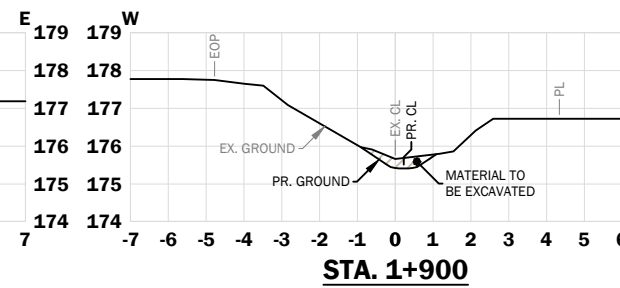
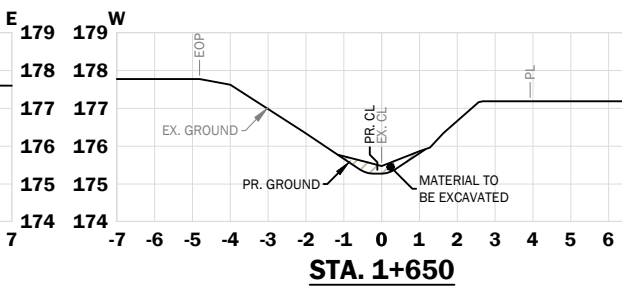
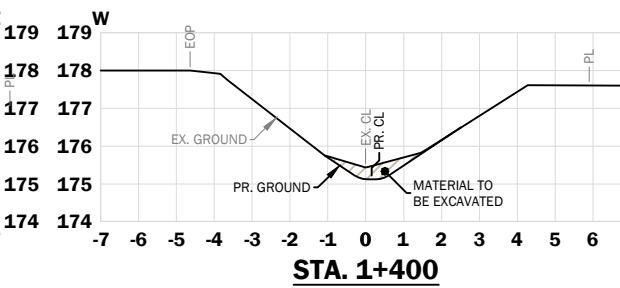
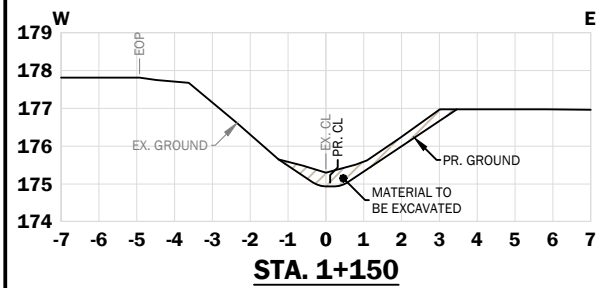
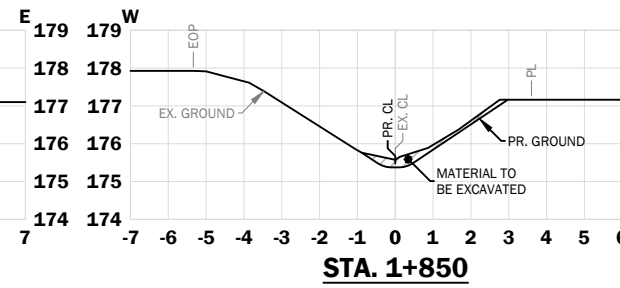
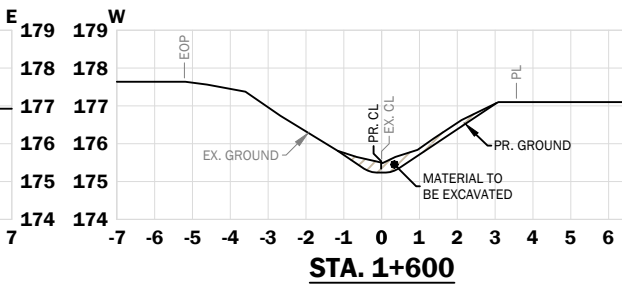
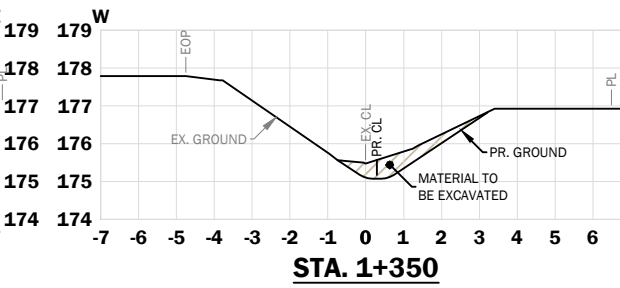
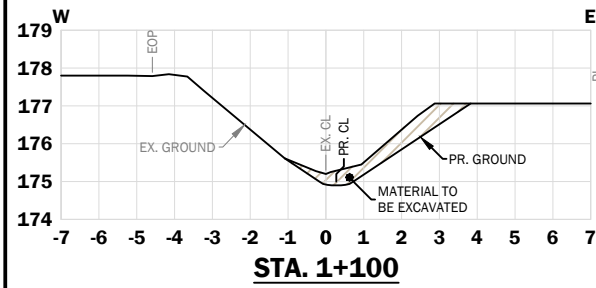
DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 4 OF 7
DATE: 2025-12-18		REFERENCE No. WNFLT-002	

SHAFLEY MUNICIPAL DRAIN

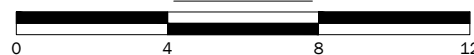
Sections - Main Drain (Open)
(Sta. 1+100 to Sta. 2+050)

BENCHMARK DESCRIPTIONS

BENCHMARK No. 1	ELEV.=175.38
TOP CENTER UPSTREAM END OF CSPA CULVERT 8m EAST OF STA. 0+000 (MAIN)	
BENCHMARK No. 2	ELEV.=175.93
TOP CENTER UPSTREAM END OF 1200mmØ CSP CULVERT AT STA. 0+615 (MAIN)	
BENCHMARK No. 3	ELEV.=177.96
NAIL IN WEST FACE OF 1200mmØ TREE 15m EAST OF STA. 0+832 (MAIN)	
BENCHMARK No. 4	ELEV.=176.33
TOP CENTER DOWNSTREAM END OF 1200mmØ CSP CULVERT AT STA. 1+497 (MAIN)	
BENCHMARK No. 5	ELEV.=176.26
TOP CENTER UPSTREAM END OF 1200mmØ CSP CULVERT AT STA. 1+518 (MAIN)	
BENCHMARK No. 6	ELEV.=176.65
TOP CENTER UPSTREAM END OF 750mmØ CSP CULVERT AT STA. 2+194 (MAIN)	



SECTION SCALE



6	REPORT SUBMISSION	25-12-18
5	PUBLIC INFORMATION MEETING	25-07-09
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1	ON-SITE MEETING	19-11-20
No.	REVISION	DATE (YY-MM-DD)



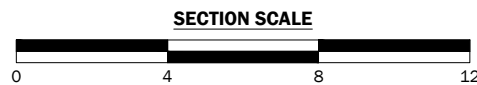
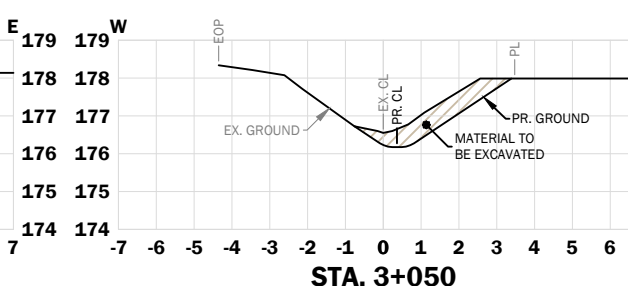
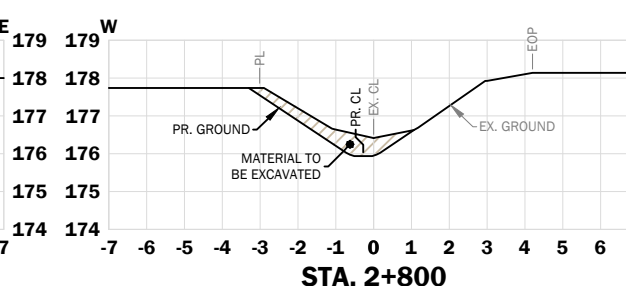
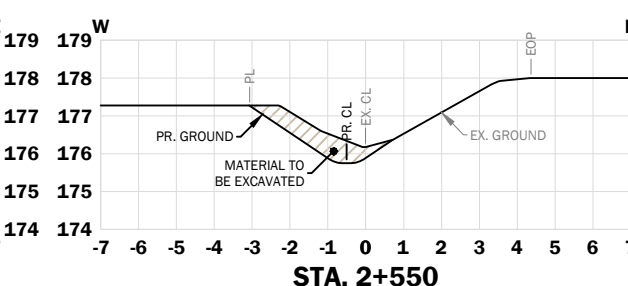
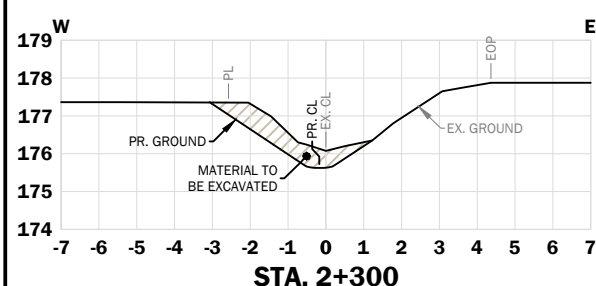
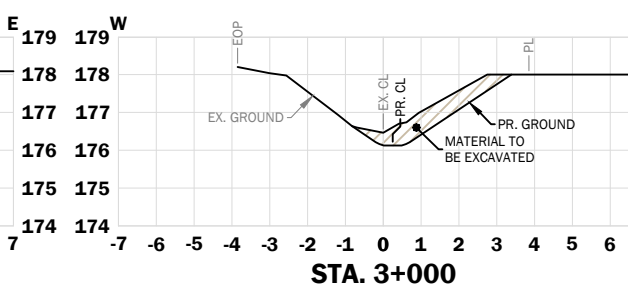
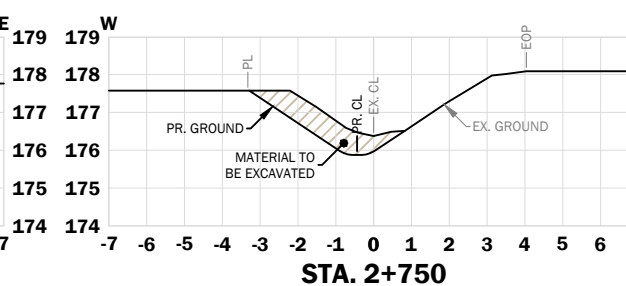
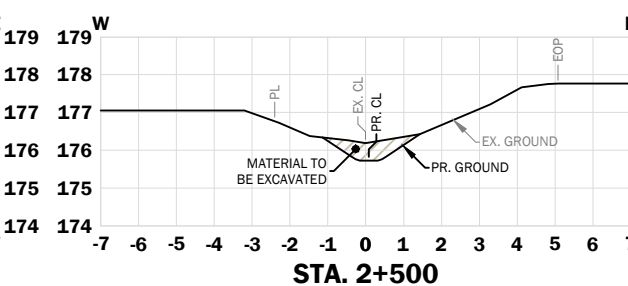
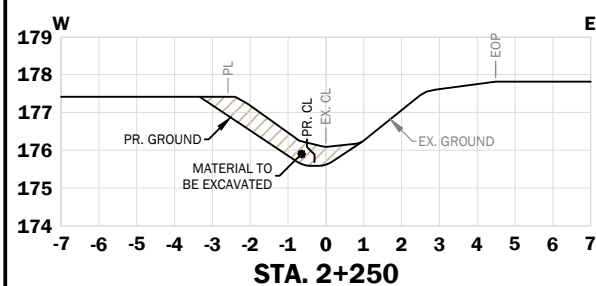
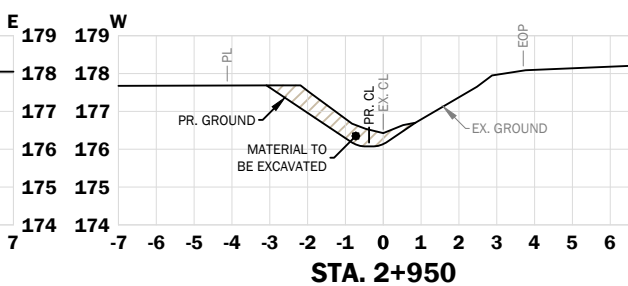
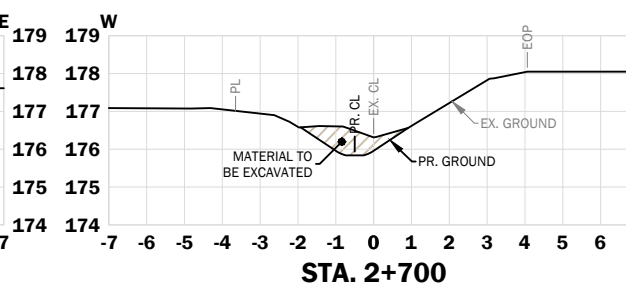
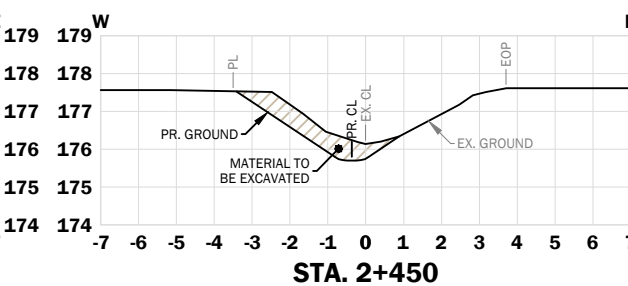
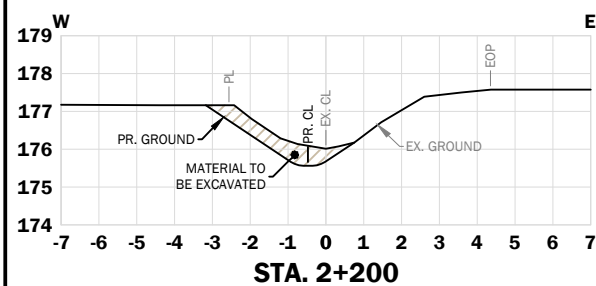
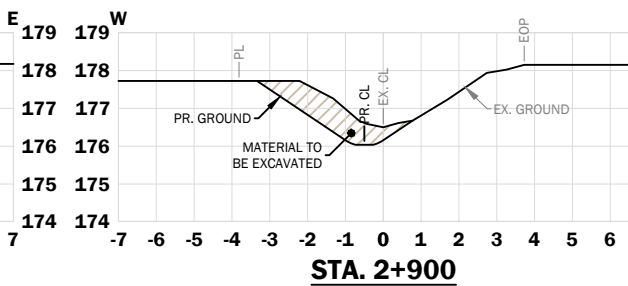
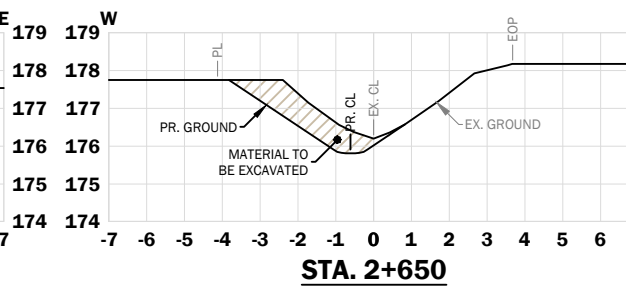
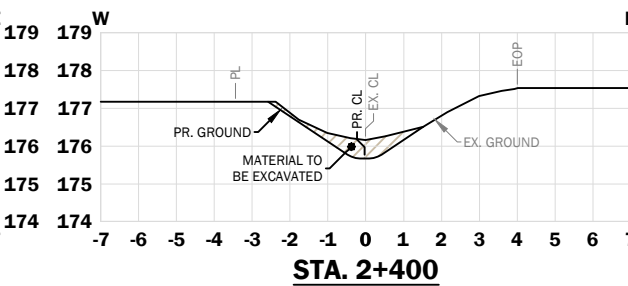
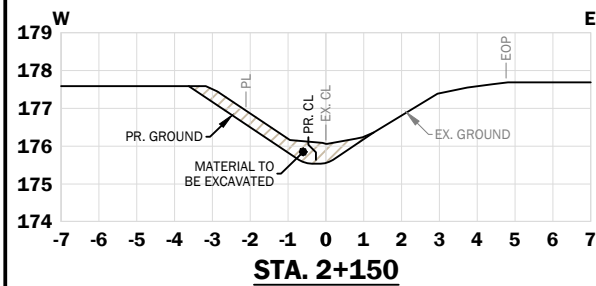
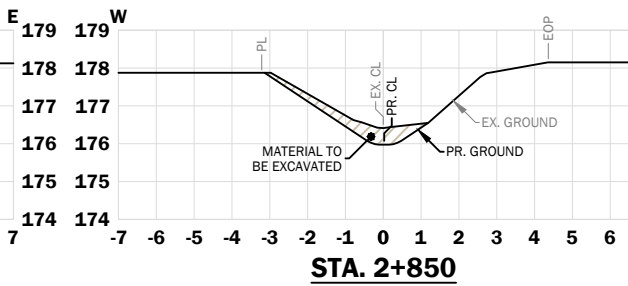
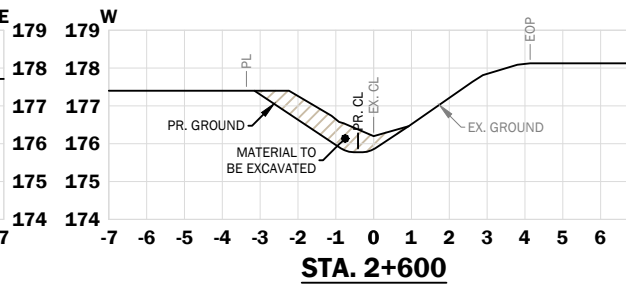
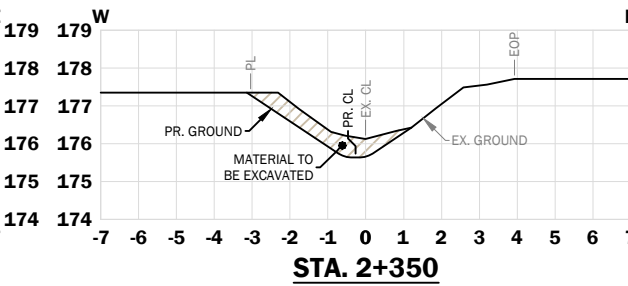
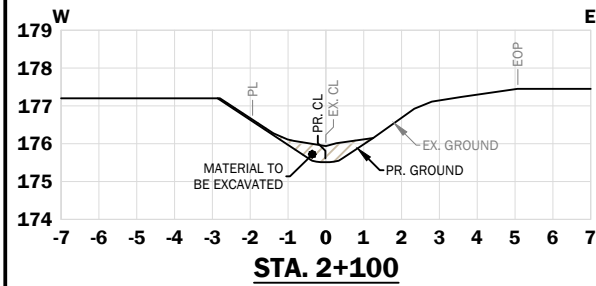
DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 5 OF 7
DATE: 2025-12-18		REFERENCE No. WNFLT-002	

SHAFLEY MUNICIPAL DRAIN

Sections - Main Drain (Open)
(Sta. 2+100 to Sta. 3+050)

BENCHMARK DESCRIPTIONS

BENCHMARK No. 1 TOP CENTER UPSTREAM END OF CSPA CULVERT 8m EAST OF STA. 0+000 (MAIN)	ELEV.=175.38
BENCHMARK No. 2 TOP CENTER UPSTREAM END OF 1200mmØ CSP CULVERT AT STA. 0+615 (MAIN)	ELEV.=175.93
BENCHMARK No. 3 NAIL IN WEST FACE OF 1200mmØ TREE 15m EAST OF STA. 0+832 (MAIN)	ELEV.=177.96
BENCHMARK No. 4 TOP CENTER DOWNSTREAM END OF 1200mmØ CSP CULVERT AT STA. 1+497 (MAIN)	ELEV.=176.33
BENCHMARK No. 5 TOP CENTER UPSTREAM END OF 1200mmØ CSP CULVERT AT STA. 1+518 (MAIN)	ELEV.=176.26
BENCHMARK No. 6 TOP CENTER UPSTREAM END OF 750mmØ CSP CULVERT AT STA. 2+194 (MAIN)	ELEV.=176.65



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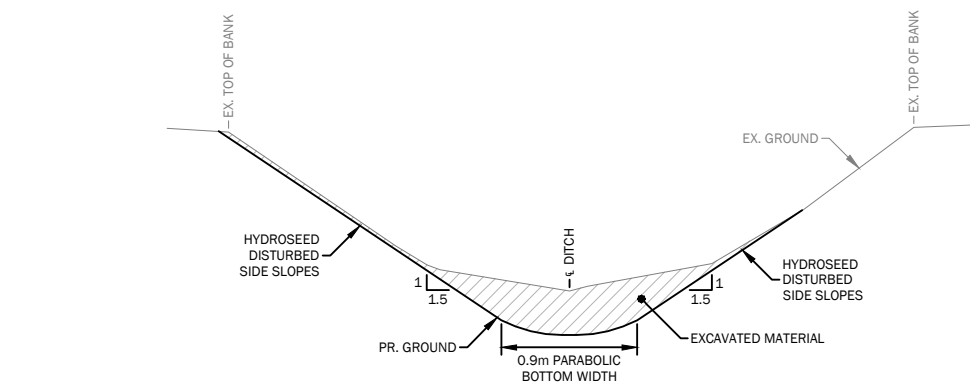
DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 6 OF 7
DATE: 2025-12-18		REFERENCE No. WNFLT-002	

SHAFLEY MUNICIPAL DRAIN

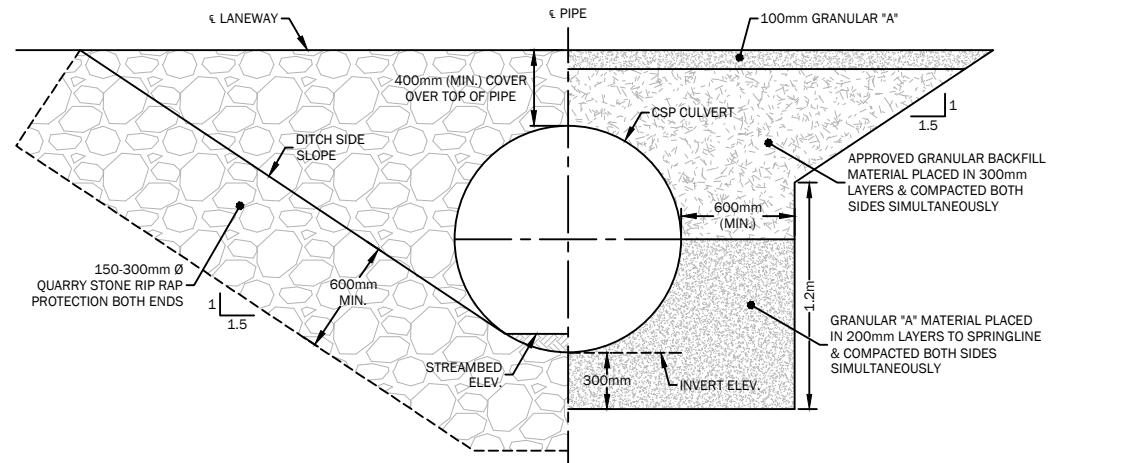
Details

BENCHMARK DESCRIPTIONS

BENCHMARK No. 1	ELEV.=175.38
TOP CENTER UPSTREAM END OF CSPA CULVERT 8m EAST OF STA. 0+000 (MAIN)	
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TOP CENTER UPSTREAM END OF 1200mmØ CSP CULVERT AT STA. 1+518 (MAIN)	
BENCHMARK No. 6	ELEV.=176.65
TOP CENTER UPSTREAM END OF 750mmØ CSP CULVERT AT STA. 2+194 (MAIN)	

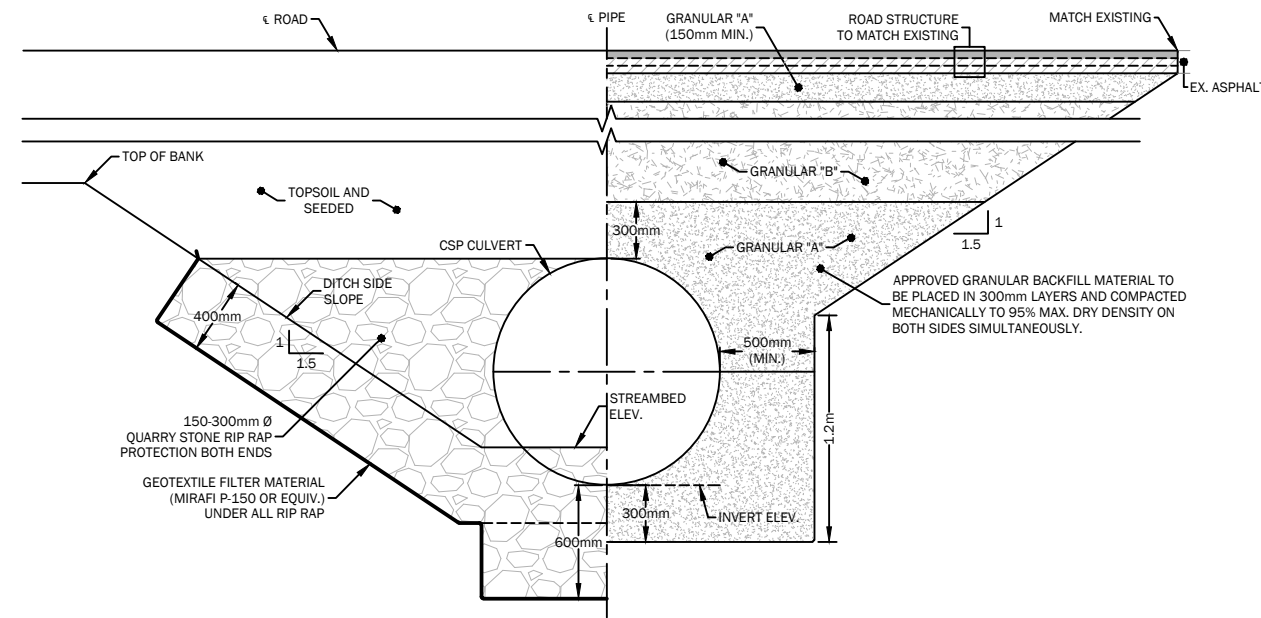


TYPICAL DITCH CROSS SECTION
N.T.S.



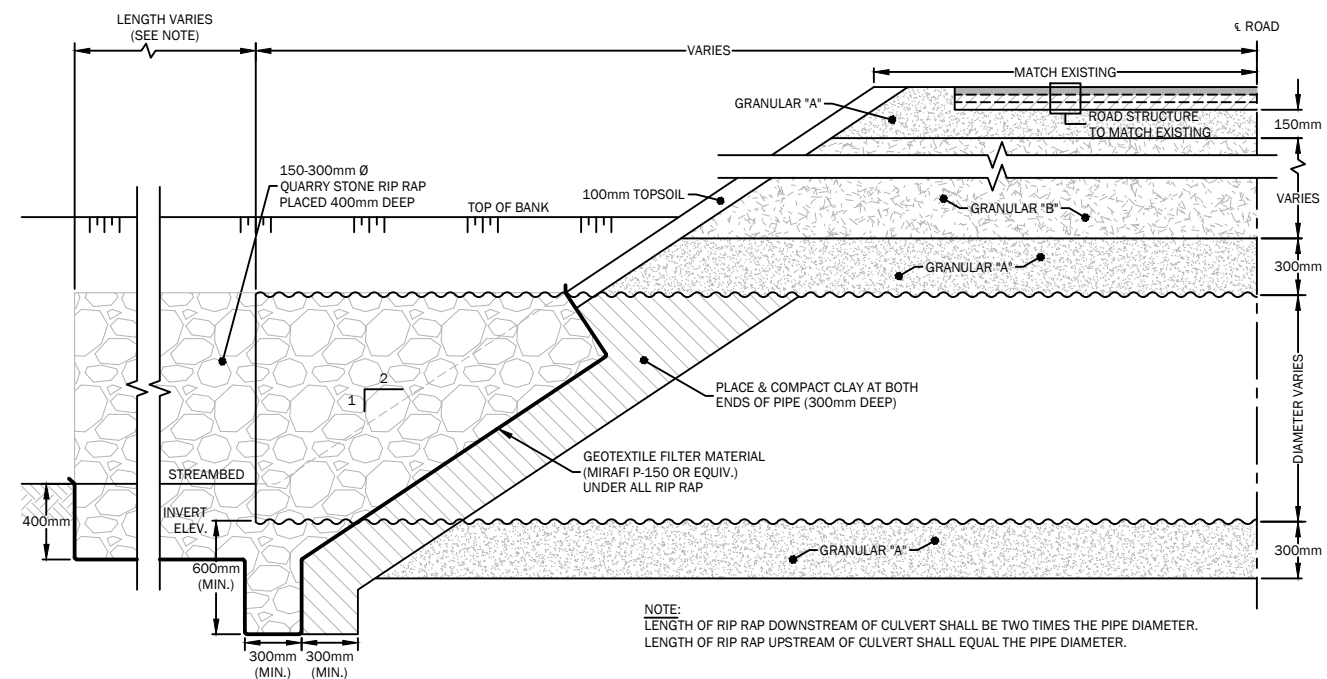
HALF ELEVATION

HALF SECTION



HALF ELEVATION

HALF SECTION



HALF LONGITUDINAL SECTION

PROPOSED CULVERTS

STATION	DIAMETER	LENGTH	INVERT	STREAMBED	CORRUGATIONS	THICKNESS
1+930	1200mm	16m	U.S.E. = 175.22 D.S.E. = 175.21	U.S.E. = 175.42 D.S.E. = 175.41	125mm X 25mm	2.80mm
2+967	900mm	14m	U.S.E. = 175.95 D.S.E. = 175.94	U.S.E. = 176.10 D.S.E. = 176.09	68mm X 13mm	2.00mm

SUGGESTED FUTURE CULVERTS

1+024	1600mm	18m	U.S.E. = 174.65 D.S.E. = 174.63	U.S.E. = 174.85 D.S.E. = 174.83	125mm X 25mm	2.80mm
1+053	1600mm	18m	U.S.E. = 174.67 D.S.E. = 174.66	U.S.E. = 174.87 D.S.E. = 174.86	125mm X 25mm	2.80mm
1+505	1600mm	22m	U.S.E. = 175.00 D.S.E. = 174.99	U.S.E. = 175.20 D.S.E. = 175.19	125mm X 25mm	2.80mm

TYPICAL ASPHALT ROAD CULVERT DETAIL
N.T.S.

PROPOSED CULVERTS

STATION	DIAMETER	LENGTH	INVERT	STREAMBED	CORRUGATIONS	THICKNESS
0+015	1200mm	26m	U.S.E. = 173.50 D.S.E. = 173.12	U.S.E. = 174.70 D.S.E. = 174.32	125mm X 25mm	2.80mm
0+074	1200mm	45m	U.S.E. = 173.99 D.S.E. = 173.92	U.S.E. = 174.19 D.S.E. = 174.16	125mm X 25mm	2.80mm
0+606	1600mm	45m	U.S.E. = 174.36 D.S.E. = 174.33	U.S.E. = 174.56 D.S.E. = 174.53	125mm X 25mm	2.80mm
2+189	900mm	12m	U.S.E. = 175.36 D.S.E. = 175.35	U.S.E. = 175.56 D.S.E. = 175.55	68mm X 13mm	2.00mm
2+460	900mm	12m	U.S.E. = 175.51 D.S.E. = 175.50	U.S.E. = 175.71 D.S.E. = 175.70	68mm X 13mm	2.00mm

SUGGESTED FUTURE CULVERTS

1+736	1200mm	12m	U.S.E. = 175.12 D.S.E. = 175.11	U.S.E. = 175.32 D.S.E. = 175.31	125mm X 25mm	2.80mm
1+836	1200mm	12m	U.S.E. = 175.17 D.S.E. = 175.16	U.S.E. = 175.37 D.S.E. = 175.36	125mm X 25mm	2.80mm
1+867	1200mm	12m	U.S.E. = 175.19 D.S.E. = 175.18	U.S.E. = 175.39 D.S.E. = 175.38	125mm X 25mm	2.80mm

TYPICAL LANEWAY CULVERT DETAIL
N.T.S.



6	REPORT SUBMISSION	25-12-18
5	PUBLIC INFORMATION MEETING	25-07-09
4	PETITIONER MEETING	25-01-09
3	CP RAILWAY SUBMISSION	23-05-31
2	PETITIONER MEETING	22-10-19
1	ON-SITE MEETING	19-11-20
No.	REVISION	DATE (YY-MM-DD)



DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.	DRAWING 7 OF 7
DATE: 2025-12-18		REFERENCE No. WNFLT-002	

TO: Mayor Grant & Members of Council
FROM: Richard Nan, Manager of Operations
DATE OF MEETING: January 20, 2026
SUBJECT: **Single Axle Dump Truck Plow/Sander Combo Purchase**

RECOMMENDATION(S):

THAT Public Works Staff Report PWSR 001/2026 respecting Single Axle Dump Truck Plow/Sander Combo Purchase be received; and

THAT Council Direct the Manager of Operations to purchase the Single Axle Dump Truck Plow/Sander combo from Viking Cives

EXECUTIVE SUMMARY:

Staff reviewed the various options for this purchase and decided to utilize the Canoe Procurement option to receive quotes from the various suppliers authorized under the program.

Staff reviewed the components of the quotes to the listed requirements requested and found that there were several differences and recommended the purchase from Viking Cives.

BACKGROUND:

The 2026 Capital Budget included the purchase of a Single Axle Dump Truck Plow/Sander Combo under project PW.5.

Staff reviewed the various options of preparing a fulsome tender package or utilizing the National Canoe procurement option to see if the Township can attain higher savings.

Under the Canoe procurement staff found 2 suppliers that would be able to meet the majority of the requirements for the single axle Dump Truck with Plow/Sander combination.

The current truck is a 2012 International single axle dump truck with a Viking plow, Viking sander box and has an AMI shouldering attachment. Staff prepared specifications for its replacement to ensure the Township can utilize the shoulder attachment as well as our current GPS and Spreader control manufacturer.

During our investigation, staff were able to contact two suppliers of combination dump truck boxes and plow attachments that were also capable of mounting the AMI Shouldering attachment. Staff inquired as to the possibility of introducing foreign-made truck chassis,

such as Volvo or other European trucks that would meet Ontario emission standards, such as Scania, MAN, and DAF.

DAF trucks are a subsidiary of Paccar Inc and utilize Kenworth or Peterbilt, which do not provide the type of chassis the Township is considering.

Staff made numerous attempts to contact the remaining European suppliers without a response.

Staff received canoe bid quotations from Viking Cives Ltd and Everest Equipment, which is a subsidiary of the Alamo Group of companies.

Viking Cives quoted an International Chassis with all the attachments meeting the specifications provided. The bid price is contingent on a few factors, including paying for the chassis when it arrives at their manufacturing facility, as well as any unforeseen price increase due to exchange rate increase and material increase due to tariff/trade wars. Additionally, we would be required to pay for the chassis on arrival or add an additional \$15,000 to the price to cover the cost on interest and storage.

The bids for complete truck assembly are:

Company	Quoted price
Viking Cives	\$364,580 plus tax
Alamo Group	\$403,661 plus tax

OPTIONS/DISCUSSION:

1. **THAT** Council Direct the Manager of Operations to purchase the Single Axle Dump Truck Plow/Sander combo from Viking Cives. (Recommended)
2. **THAT** Council Direct the Manager of Operations to purchase the Single Axle Dump Truck Plow/Sander combo from Alamo Group

FINANCIAL CONSIDERATIONS:

The 2026 capital budget had allocated \$380,000 for the replacement of the single axle dump truck with plow and sander under capital project PW.5. The quoted cost of \$364,580 is within the set budget and should any significant price increases be incurred due to on-going trade wars/tariffs/exchange rates, Council will be made aware.

OTHERS CONSULTED:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Chief Administrative Officer | <input checked="" type="checkbox"/> Finance |
| <input checked="" type="checkbox"/> Clerks | <input checked="" type="checkbox"/> Communications |
| <input checked="" type="checkbox"/> Community & Dev. Services | <input checked="" type="checkbox"/> Operations |
| <input checked="" type="checkbox"/> Fire | <input type="checkbox"/> Other: |

ATTACHMENTS:

None.

Respectfully submitted by,

Approved by,

Richard Nan
Manager of Operations

Mallory Luey
Chief Administrative Officer

TO: Mayor Grant & Members of Council
FROM: Richard Nan, Manager of Operations
DATE OF MEETING: January 20, 2026
SUBJECT: Cemetery Truck Replacement

RECOMMENDATION(S):

THAT; PWSR 002/2026 be received; and

THAT; Council direct the Manager of Operations to award the purchase of the Cemetery Truck chassis to Niagara Motors and the box to be purchased from Eloquip Manufacturing.

EXECUTIVE SUMMARY:

During deliberations of the capital budget, staff presented project C.3 that will replace the current 2014 GMC Sierra 3500 Crew Dual 4x4. The current truck has reached the end of its service life and was scheduled for replacement in 2026.

Council approved \$115,000 to be allocated for the replacement. Staff solicited separate quotes for the purchase of the aluminium box to be attached to this chassis. Staff followed the procurement policy and received 2 quotes for the replacement, and below is the result of the quotation process.

BACKGROUND:

The cemetery section of the operations department manages and maintains 7 active cemeteries and an additional 3 inactive cemeteries. The total area maintained is approximately 31.5 acres, and regular maintenance includes laneway maintenance, internments, grass mowing and trimming, as well as placement of markers and monuments.

The 2026 capital budget, approved by Council, included the replacement of the current Cemetery 2014 GMC Sierra 3500 Crew Dual 4x4 under capital project C.3. The truck had reached its service life and was scheduled for replacement in 2026. The current aluminium box serviced the previous 2 chassis and is 20 years old and has reached its end of service life.

Staff followed the municipal procurement policy and prepared specifications for the replacement truck and received two quotations during the process. Below are the results of the two quotations that met the specifications requested for the chassis. Staff solicited three separate quotes for the purchase of the aluminium box to be attached to the chassis. Only one quote was received from Eloquip Manufacturing for \$29,034 plus tax.

Company	Submitted Quotation
Niagara Motors	\$77,000.00
Brock Ford	\$83,154.44

OPTIONS/DISCUSSION:

- 1) Council direct the Manager of Operations to award the purchase of the Cemetery Truck to Niagara Motors and the box to be purchased from Eloquip Manufacturing. (Recommended)
- 2) Council direct the Manager of Operations to award the purchase of the Cemetery Truck to an alternate bidder.

FINANCIAL CONSIDERATIONS:

The 2026 approved capital budget included \$115,000 for the replacement of the Cemetery Truck under project C.3. The total estimated as per this report is \$106,034 which is within the budget allocated.

OTHERS CONSULTED:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Chief Administrative Officer | <input checked="" type="checkbox"/> Finance |
| <input checked="" type="checkbox"/> Clerks | <input checked="" type="checkbox"/> Communications |
| <input checked="" type="checkbox"/> Community & Dev. Services | <input checked="" type="checkbox"/> Operations |
| <input checked="" type="checkbox"/> Fire | <input type="checkbox"/> Other: |

ATTACHMENTS:

None.

Respectfully submitted by,

Approved by,

Richard Nan
Manager of Operations

Mallory Luey
Chief Administrative Officer

TO: Mayor Grant & Members of Council
FROM: Richard Nan, Manager of Operations
DATE OF MEETING: January 20, 2026
SUBJECT: **Operations Truck Replacement**

RECOMMENDATION(S):

THAT; PWSR 003/2026 be received; and

THAT; Council direct the Manager of Operations to award the purchase of the Operations Truck to Niagara Motors.

EXECUTIVE SUMMARY:

During deliberations of the capital budget, staff presented project PW.5 that included replacement of the current 2016 Dodge Ram 1500 Crew 4x4. The truck has reached the end of its service life and was scheduled for replacement in 2026. It currently has over 200,000 kilometres.

The approved project included \$58,000 to be allocated for the replacement. Staff followed the procurement policy and received two quotes for the replacement, and below is the result of the quotation process.

BACKGROUND:

The Operations section maintains 272 kilometres in the road network. This vehicle is utilized on a daily basis, from winter and summer road patrols to various other functions in the daily operation of the department.

The 2026 capital budget, approved by council, included the replacement of the current operations 2016 Dodge Ram 1500 Crew 4x4 under project PW.5. The truck had reached the end of its service life and was scheduled for replacement in 2026.

Staff followed the municipal procurement policy and prepared specifications for the replacement truck and received 2 quotations during the process. Below are the results of the 2 quotations that met the specification requested.

Company	Submitted Quotation
Niagara Motors	\$55,250.03
Brock Ford	\$80,975.53

OPTIONS/DISCUSSION:

- 1) Council direct the Manager of Operations to award the purchase of the Operations Truck to Niagara Motors. (Recommended)
- 2) Council direct the Manager of Operations to award the purchase of the Operations Truck to an alternate bidder.

FINANCIAL CONSIDERATIONS:

The 2026 approved capital budget included \$58,000 for the replacement of the Operations Truck under capital project PW.5. The quoted amount of \$55,250.03 is within this budget.

OTHERS CONSULTED:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Chief Administrative Officer | <input checked="" type="checkbox"/> Finance |
| <input checked="" type="checkbox"/> Clerks | <input checked="" type="checkbox"/> Communications |
| <input checked="" type="checkbox"/> Community & Dev. Services | <input checked="" type="checkbox"/> Operations |
| <input checked="" type="checkbox"/> Fire | <input type="checkbox"/> Other: |

ATTACHMENTS:

None.

Respectfully submitted by,

Approved by,

 Richard Nan
 Manager of Operations

 Mallory Luey
 Chief Administrative Officer

Memo

To: Mayor Grant & Members of Council

From: Lindsay Earl, Manager of Community & Development Services

Date: January 20, 2026

Re: By-law 002-2026 Partial Closure and Conveyance of Bessey Road Allowance

The Township of Wainfleet has received an application from Tom Rankin respecting Township-owned road allowance lands located south of Lakeshore Road. The subject lands have been subject to a long-standing agreement with the Township permitting their use as a private driveway. This agreement is scheduled to expire in January 2026. In order to permanently address access and land tenure associated with the driveway, an application was submitted to close and convey the applicable portion of the road allowance.



The subject portion of the road allowance does not provide access to Lake Erie, as the lands terminate at a cliff that is not accessible and poses a safety concern. As such, the lands do not function as, nor are they suitable for, public access to the waterfront.

As part of the Township's Land Disposal Policy, the proposed closure and conveyance was circulated to adjacent landowners and relevant agencies and utilities. Through this circulation process, an encroachment was identified involving a portion of a retaining wall associated with the abutting property to the west, municipally known as 10401 Lakeshore Road and owned by Linda and Brian Morrison. Township staff worked with the affected landowners to resolve the encroachment. The Morrisons have since executed a waiver of their right to purchase, conditional upon the retaining wall remaining with their property. To facilitate this resolution, Part 2 has been identified for conveyance to Linda and Brian Morrison and will be transferred and merged in title with 10401 Lakeshore Road for nominal consideration in the amount of Two Dollars (\$2.00), allowing for the legal transfer of the encroaching lands.

Hydro One was circulated as part of the review process and has requested that an easement be provided over Part 1 to protect existing infrastructure. This easement will be granted at the time of registration of the conveyance documents.

Part 1 of the subject road allowance has been identified for conveyance to the abutting lands municipally known as 10399 Lakeshore Road, owned by Rankin Construction Inc. Upon conveyance, Part 1 will be merged in title with the abutting property. The purchase offer for Part 1 is Seventy-Five Thousand Dollars (\$75,000.00), as outlined in the Agreement of Purchase and Sale.

A Public Notice of Council's intent to consider the partial road closure and conveyance was provided on the Township's website, which was posted on December 23, 2025. As of the date of writing this Memo, no public comments have been received.

No development is proposed or anticipated as a result of the road allowance closure and conveyance. The lands are intended to formalize existing access arrangements only and will not facilitate new development or intensification.

Planning Considerations

From a public interest perspective, the subject road allowance is not required for current or future transportation purposes and does not provide functional public access to Lake Erie due to the steep and hazardous nature of the cliff at its terminus. Retaining the lands in public ownership does not provide a public benefit and presents ongoing safety concerns associated with potential unauthorized access.

The proposed closure and conveyance will resolve a long-standing private access arrangement, address an existing encroachment in an orderly and transparent manner, and clarify land ownership boundaries, thereby reducing future risk and liability to the Township. The conveyance will result in the lands being consolidated with the abutting properties, ensuring appropriate long-term maintenance and stewardship.

The proposal does not introduce any land use planning impacts, does not facilitate new development, and does not compromise public access, municipal infrastructure, or utility interests. The closure and conveyance are consistent with good planning principles, represent orderly land management, and are in the broader public interest.

The proposed closure and conveyance does not impact any travelled or opened public roadway and have followed the process outlined in the Township's Land Disposal Policy, including circulation and notification requirements. No outstanding concerns remain.

Accordingly, staff recommend that Council authorize the closure and conveyance of the subject portions of the road allowance as described, approve the sale of Part 1 to Rankin Construction Inc. and Part 2 to Linda and Brian Morrison under the terms outlined above, and enact the attached draft by-law to give effect to the closure and conveyance.

Attachments:

- Plan 59R-18493
- Draft By-law to Close and Convey Part of Bessey Road Allowance

OTHERS CONSULTED:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Chief Administrative Officer | <input type="checkbox"/> Finance |
| <input checked="" type="checkbox"/> Clerks | <input checked="" type="checkbox"/> Communications |
| <input checked="" type="checkbox"/> Community & Dev. Services | <input type="checkbox"/> Operations |
| <input type="checkbox"/> Fire | <input type="checkbox"/> Other: |

SCHEDULE			
PART	ROAD ALLOWANCE	CONCESSION	AREA
1	PART OF THE ROAD ALLOWANCE BETWEEN LOTS 3 AND 4	CONCESSION 1	3,472m ²
2			25m ²

PLAN 59R-18493

Received and deposited

December 19th, 2025

Sylvie Guenette

Representative for the
Land Registrar for the
Land Titles Division of
Niagara South (No.59)

PLAN OF SURVEY OF
PART OF THE ROAD ALLOWANCE
BETWEEN LOTS 3 AND 4
CONCESSION 1
IN THE
TOWNSHIP OF WAINFLEET
REGIONAL MUNICIPALITY OF NIAGARA
SCALE 1 : 400

0 5 10 20 40 METRES
DONALD G. CHAMBERS
ONTARIO LAND SURVEYOR

THE INTENDED PLOT SIZE OF THIS PLAN IS 645mm IN WIDTH BY 605mm IN HEIGHT WHEN PLOTTED AT A SCALE OF 1:400

METRIC NOTE
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

BEARING NOTE
BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B BY REAL TIME NETWORK (RTN) OBSERVATIONS, UTM ZONE 17, NAD83 (CSRS) (2010)
FOR BEARING COMPARISONS, A ROTATION OF 1°03'40" COUNTERCLOCKWISE WAS APPLIED TO BEARINGS ON P1, AND A ROTATION OF 1°20'50" COUNTERCLOCKWISE WAS APPLIED TO BEARINGS ON P2.

DISTANCE NOTE
DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999801.

OBSERVED REFERENCE POINTS (ORPs): UTM ZONE 17, NAD 83 (CSRS) (2010). CO-ORDINATES TO URBAN ACCURACY PER SEC. 14 (2) OF O.REG. 216/10

POINT ID	NORTHING	EASTING
ORP A	4748747.90	639180.93
ORP B	4748626.16	639219.24

CO-ORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

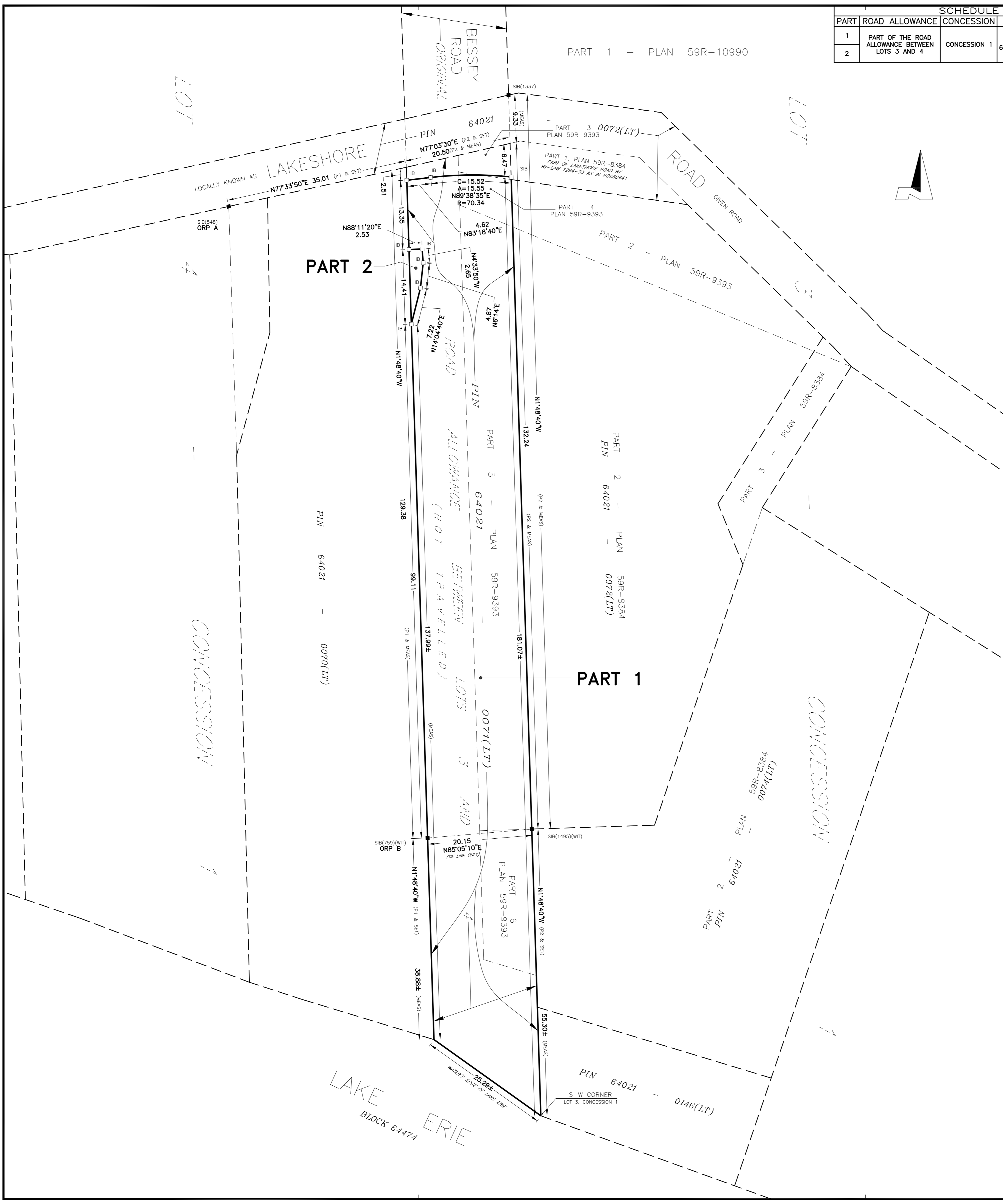
LEGEND

■	DENOTES	SURVEY MONUMENT FOUND
□		SURVEY MONUMENT SET
SIB		STANDARD IRON BAR
SSIB		SHORT STANDARD IRON BAR
IB		IRON BAR
CP		CONCRETE PIN
RIB		ROUND IRON BAR
IP		IRON PIPE
MEAS		MEASURED
WIT		WITNESS
OU		ORIGIN UNKNOWN
N/S/E/W		NORTH/SOUTH/EAST/WEST
PIN		PROPERTY IDENTIFICATION NUMBER
P1		PLAN OF SURVEY BY C. J. CLARKE NIAGARA LIMITED DATED SEPTEMBER 10, 1987; FILE 65-91
P2		PLAN 59R-9393
548		C. A. GRASSIE, O.L.S.
759		C. J. CLARKE, O.L.S.
1495		P. D. REITSMA, O.L.S.

SURVEYOR'S CERTIFICATE
I CERTIFY THAT:
1) THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM;
2) THE SURVEY WAS COMPLETED ON THE 9th DAY OF DECEMBER, 2025.
DEC. 10, 2025
DATE

THIS PLAN OF SURVEY RELATES TO A.O.L.S. PLAN SUBMISSION FORM V-118835
CHAMBERS AND ASSOCIATES SURVEYING LTD
12 THOROLD ROAD EAST
WELLAND ONTARIO
L3C 3T2
(905) 735-7841
(905) 735-7844
www.cas1-surveying.com

DRAWN BY: DHT MSCAD: 89038-4_MS DWG: 89038-4_RP FILE NO: 89-38-4



THE CORPORATION OF THE TOWNSHIP OF WAINFLEET

BY-LAW NO. 0XX-2026

BEING A BY-LAW TO AUTHORIZE THE STOPPING UP AND CLOSING A PORTION OF THE ROAD ALLOWANCE KNOWN MUNICIPALLY AS BESSEY ROAD AND THE CONVEYANCE OF PART OF THE SAID ROAD ALLOWANCE BETWEEN LOTS 3 & 4, CONCESSION 1 DESCRIBED AS PARTS 1 AND 2 ON REFERENCE PLAN 59R-18493 IN THE TOWNSHIP OF WAINLFEET, REGIONAL MUNICIPALITY OF NIAGARA.

WHEREAS pursuant to the Municipal Act, 2001, S.O. 2001, c. 25, as amended, the Council of every municipality in the Province of Ontario has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other act;

AND WHEREAS Section 27(1) of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, provides that a municipality may pass by-laws in respect of a highway only if it has jurisdiction over the highway; **AND WHEREAS** Section 28(1) of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, provides that a municipality has jurisdiction over all highways over which it had jurisdiction or joint jurisdiction on December 31, 2002;

AND WHEREAS Section 34 of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, provides that a municipality may pass a by-law to permanently close highways under its jurisdiction; **AND WHEREAS** the Corporation of the Township of Wainfleet has established a Land Disposal Policy for the sale of land owned by the municipality;

AND WHEREAS the Corporation of the Township of Wainfleet is the registered owner of the Road Allowance between Lots 3 & 4, Concession 1, described as Parts 1 and 2 on reference plan 59R-18493, in the Township of Wainfleet, Regional Municipality of Niagara, being a portion of the road allowance known municipally as Bessey Road Allowance;

AND WHEREAS Tom Rankin made application to the Corporation of the Township of Wainfleet in accordance with the Land Disposal Policy for the closure and sale of the lands Part of the Road Allowance between Lots 3 & 4, Concession 1, described as Parts 1 and 2 on reference plan 59R-18493, in the Township of Wainfleet, Regional Municipality of Niagara, being a portion of road allowance known municipally as Bessey Road Allowance;

AND WHEREAS the Council of the Corporation of the Township of Wainfleet deems it necessary to stop up and close a portion of the Road Allowance between Lots 3 & 4 Concession 1, described as Parts 1 and 2 on reference plan 59R-18493, in the Township of Wainfleet, Regional Municipality of Niagara, known municipally as Bessey Road Allowance;

AND WHEREAS the Council of the Corporation of the Township of Wainfleet has determined that the portion of the said road allowance lands are to be surplus to the needs of the municipality and has satisfied all other requirements of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, and the Township of Wainfleet's Land Disposal Policy governing the closing and sale of municipal road allowances;

AND WHEREAS the Council of the Corporation of the Township of Wainfleet deems it necessary and expedient to convey the said closed road allowance lands to abutting property owners as lands surplus to the needs of the municipality;

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWNSHIP OF WAINFLEET HEREBY ENACTS AS FOLLOWS:

1. THAT the lands in Part of the Road Allowance between Lots 3 & 4, Concession 1, described as Parts 1 and 2 on reference plan 59R-18493, being a portion of the road allowance known municipally as Bessey Road be hereby stopped up and closed.
2. THAT this Council does hereby declare the lands in Part of the Road Allowance between Lots 3 & 4, Concession 1, described as Parts 1 and 2 on reference plan 59R-18493, being a portion of the road allowance known municipally as Moore Road North to be surplus to the needs of the municipality.
3. THAT this Council authorizes the sale and conveyance of the lands described as Part 1 on reference plan 59R-18493 to the abutting easterly property owners Rankin Engineering Inc. for a total consideration of Seventy-Five Thousand Dollars (\$75,000.00) exclusive of HST.
4. THAT this Council authorizes the sale and conveyance of the lands described as Part 2 on reference plan 59R-18493 to the abutting westerly property owners Brian and Linda Morrison for a total consideration of Two Dollars (\$2.00) exclusive of HST.
5. THAT the Mayor and the Clerk are hereby authorized and directed to prepare and execute an Agreement of Purchase and Sale with the said abutting property owners and to execute all necessary documents to effect the closure and conveyance of said lands.
6. THAT authorization is granted to legal counsel for the Corporation of the Township of Wainfleet to make any necessary revisions to the legal description of the road allowance to effect the registration of this By-law on title.
6. This by-law shall come into force and take effect on the date of its final passing.

BY-LAW READ AND PASSED THIS 20TH DAY OF JANUARY, 2026

B. Grant, MAYOR

A. Chrastina, CLERK

TO: Mayor Grant & Members of Council

FROM: Sarah Ivins, Planner

DATE OF MEETING: January 20, 2026

SUBJECT: **Zoning By-law Amendment File No. Z07/2025W
40562 Forks Road, Wainfleet**

RECOMMENDATION(S):

THAT Planning Staff Report PSR-001/2026 be received; and

THAT Zoning By-law Amendment File No. Z07/2025W for the lands known municipally as 40562 Forks Road be approved for the reasons outlined in this report; and

THAT the application be deemed to be consistent with the Provincial Planning Statement (2024) and conform with the Niagara Official Plan and the Township of Wainfleet Official Plan; and

THAT the Zoning By-law Amendment attached as Appendix “C” be adopted.

EXECUTIVE SUMMARY:

The purpose of this report is to provide Council with a recommendation regarding a zoning by-law amendment application filed by Joyce Sonneveld on behalf of Peter & Frances Vedder for lands known municipally as 40562 Forks Road.

The proposed zoning by-law amendment is needed to comply with Provincial, Regional and Township planning policies regarding the disposal of a surplus farm dwelling application, where the retained lands are to be rezoned to “Agricultural Purposes Only” to prohibit the construction of a dwelling in perpetuity. The application also seeks to permit a maximum accessory building lot coverage of 5.2% for Part 1 and to permit a minimum lot area of 35.77 hectares for Part 2.

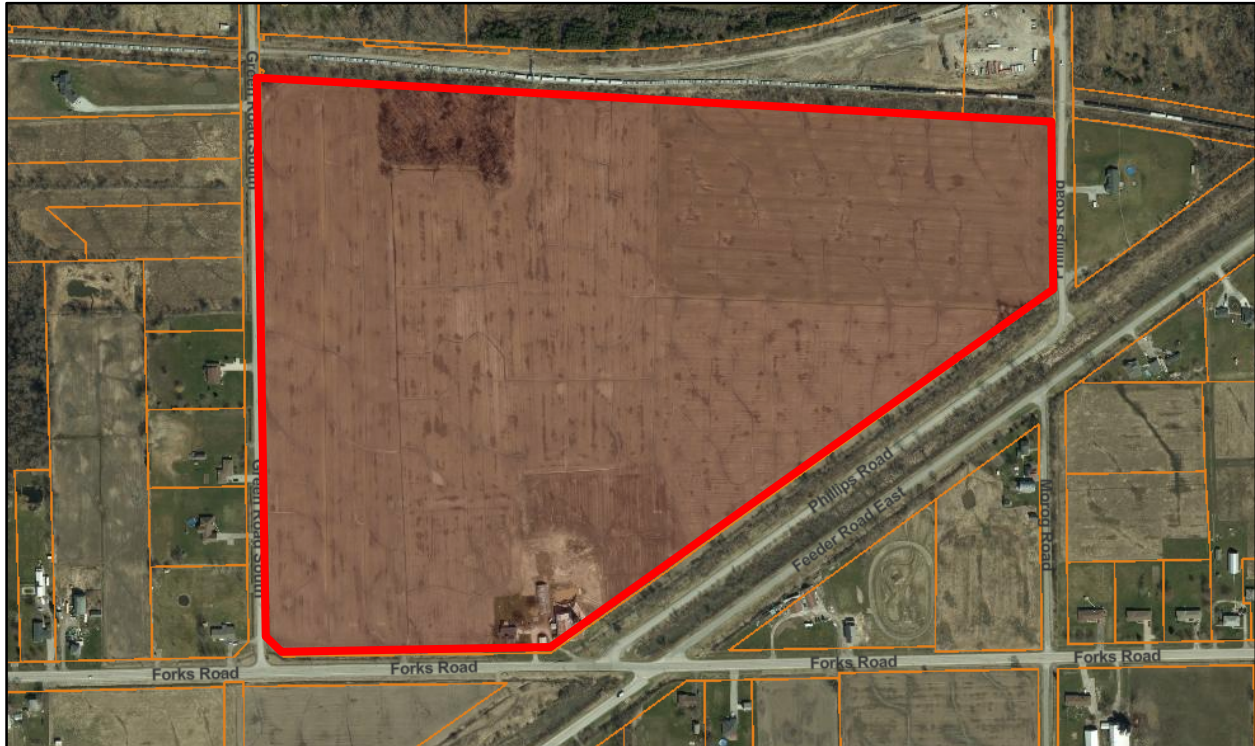
The Committee of Adjustment conditionally granted the surplus farm dwelling consent application on December 17, 2025 and a public meeting for the zoning by-law amendment was held on December 9, 2025.

BACKGROUND:

The subject property is located on the north side of Forks Road, between Green Road South and Phillips Road, and is known municipally as 40562 Forks Road. The subject

property contains a single detached dwelling and several agricultural and accessory buildings, as presented in Figure 1.

Figure 1 – Subject Property

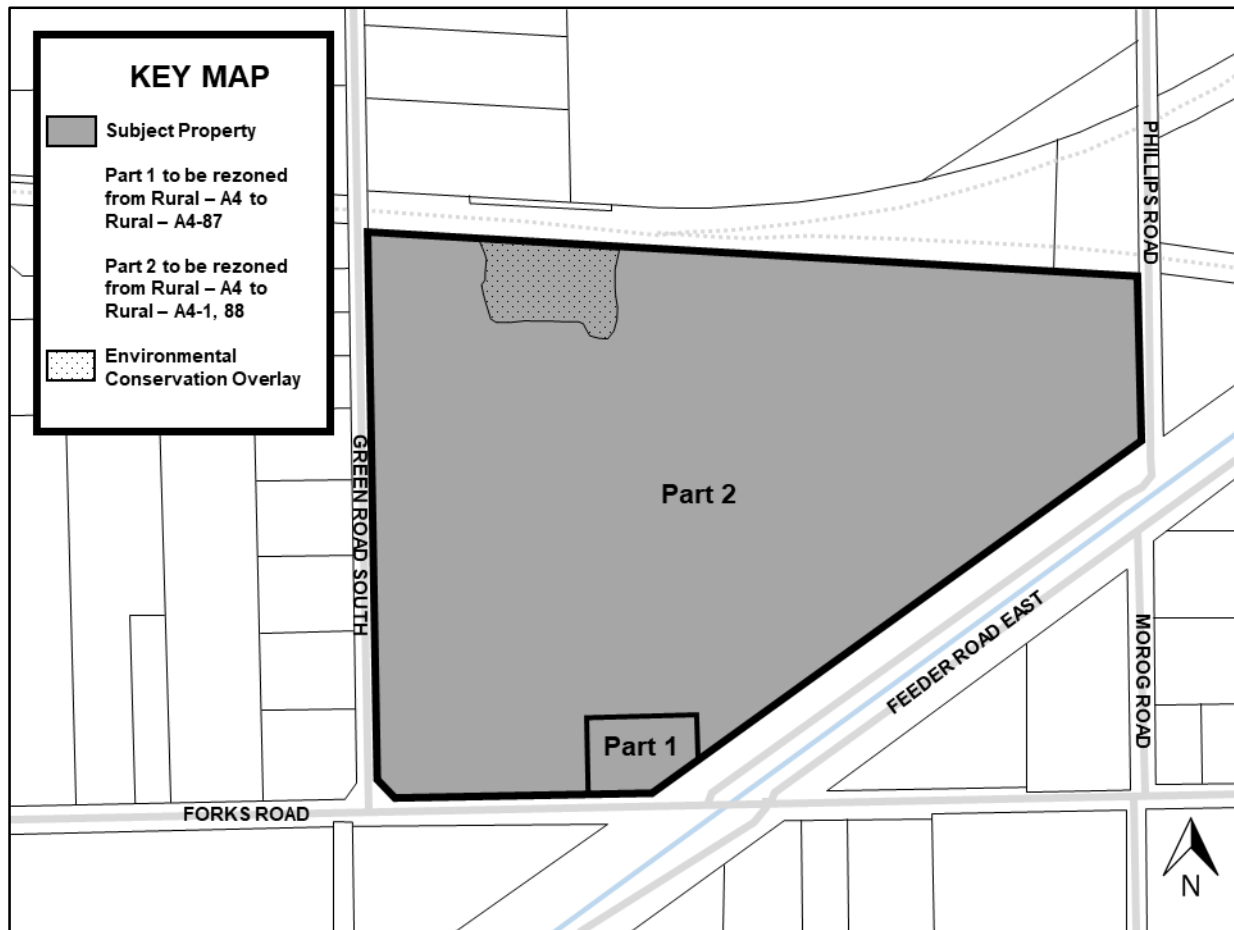


The subject property is 36.62 hectares in size and is currently being used for residential and agricultural purposes. The surrounding land uses include residential and agricultural.

The subject property was the subject of a consent (severance) application, File No. B09/2025W, which was provisionally approved by the Committee of Adjustment at their December 17, 2025 hearing. Application was made for the consent to sever Part 1 (0.85 hectares) as a surplus farm dwelling and to retain Part 2 (35.77 hectares) for continued agricultural use. The consent sketch is attached as Appendix "A". One of the conditions of approval for the consent application is the approval of this zoning by-law amendment application.

The subject property is currently zoned Rural – A4 with an Environmental Conservation Overlay under Zoning By-law 034-2014. With reference to the zoning by-law amendment map provided below in Figure 2, Part 1 is proposed to be rezoned to a site-specific Rural – A4-87 zone to permit a maximum accessory building lot coverage of 5.2% and Part 2 is proposed to be rezoned to a site-specific Rural – A4-1,88 zone to prohibit dwellings and permit a minimum lot area of 35.77 hectares, while maintaining the existing Environmental Conservation Overlay.

Figure 2 – Zoning By-law Amendment Map



A pre-consultation meeting was held on August 14, 2025, with representatives from Niagara Region, Niagara Peninsula Conservation Authority and Township staff. The pre-consultation meeting identified several requirements for a complete application, and the following documents were submitted in support of the consent and zoning by-law amendment applications:

- Consent Sketch prepared by Chambers & Associates Surveying Ltd. (dated October 20, 2025);
- Septic Inspection Form & Report prepared by Noort Septic (dated October 10, 2025);
- Surplus Farm Dwelling Bona Fide Farmer Information Sheet prepared by Joyce Sonneveld (dated October 27, 2025).

A public meeting regarding this application was held on December 17, 2025, and an information report was presented to Council. The draft minutes of the public meeting are attached as Appendix “B”.

OPTIONS/DISCUSSION:**Planning Act, R.S.O. 1990, c.P.13**

Section 2 of the *Planning Act* addresses matters of Provincial interest and requires local planning authorities to have regard to, among other matters:

- a) the protection of ecological systems, including natural areas, features and functions;
- b) the protection of the agricultural resources of the Province;
- c) the conservation and management of natural resources and the mineral resource base;
- d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest;
- e) the supply, efficient use and conservation of energy and water;
- f) the adequate provision and efficient use of communication, transportation, sewage and water services and waste management systems;
- g) the minimization of waste;
- h) the orderly development of safe and healthy communities;
- h.1) the accessibility for persons with disabilities to all facilities, services and matters to which this Act applies;
- i) the adequate provision and distribution of educational, health, social, cultural and recreational facilities;
- j) the adequate provision of a full range of housing, including affordable housing;
- k) the adequate provision of employment opportunities;
- l) the protection of the financial and economic well-being of the Province and its municipalities;
- m) the coordination of planning activities of public bodies;
- n) the resolution of planning conflicts involving public and private interests;
- o) the protection of public health and safety;
- p) the appropriate location of growth and development;
- q) the promotion of development that is designed to be sustainable, to support public transit and to be oriented to pedestrians;
- r) the promotion of built form that,
 - i. is well-designed,
 - ii. encourages a sense of place, and
 - iii. provides for public spaces that are of high quality, safe, accessible, attractive and vibrant;
- (s) the mitigation of greenhouse gas emissions and adaptation to a changing climate. 1994, c. 23, s. 5; 1996, c. 4, s. 2; 2001, c. 32, s. 31 (1); 2006, c. 23, s. 3; 2011, c. 6, Sched. 2, s. 1; 2015, c. 26, s. 12; 2017, c. 10, Sched. 4, s. 11 (1); 2017, c. 23, Sched. 5, s. 80.

The proposed zoning by-law amendment would allow for the severance of a surplus farm dwelling and ensure that the remnant agricultural parcel will be used for agricultural purposes only.

Considering the requested zoning provisions and the surrounding land uses, Planning staff are of the opinion that the proposed zoning by-law amendment maintains the Provincial interest described under Section 2 of the *Planning Act*.

Provincial Planning Statement, 2024

The Provincial Planning Statement (PPS) provides overall policy direction on matters of provincial interest relating to land use planning and development. The PPS provides for appropriate development while protecting resources of provincial interest, public health and safety and the quality of the natural and built environment. Any decision on planning matters shall be consistent with the policies of the PPS.

The PPS designates the subject lands as being within a Prime Agricultural Area, and as such, the lands shall be protected for agricultural uses. Policy 4.3.3.1 c) permits lot creation for a residence surplus to an agricultural operation, provided the planning authority ensures that new dwellings and additional residential units are prohibited on any remnant parcel of farmland created by the severance. The proposed zoning by-law amendment will prohibit dwellings on the retained lands (Part 2 – farm parcel), fulfilling the requirements of this policy.

Section 3.5 of the PPS provides guidance regarding land use compatibility between major facilities (such as airports and railways) and sensitive land uses, such as residential. Policies state that major facilities and sensitive land uses shall be planned to avoid, or if avoidance is not possible, minimize and mitigate potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety and to ensure the long-term operational and economic viability of major facilities. The subject property is located adjacent to an active railway, located along the northern property line. Typically, land use compatibility studies, such as a noise impact study, would be required, but given that the surplus farm dwelling is existing and located over 500m from the railway and that the zoning by-law amendment proposes to rezone the remnant farm lands to prohibit dwellings, assessment of impacts from the railway was not required.

Section 4.1 of the PPS provides guidance with respect to natural heritage and states that natural heritage features and areas shall be protected for the long term. The subject property is impacted by natural heritage features, such as Significant Woodlands and other wetlands. The proposed zoning by-law amendment has no impact on these features, and as such, there are no concerns.

Section 4.6 of the PPS provides direction for the conservation of significant cultural heritage and archaeological resources. Development and site alteration are not permitted on lands containing archaeological resources or areas of archaeological potential unless archaeological resources have been conserved. Based on the Ministry of Citizenship and Multiculturalism's Criteria for Evaluating Archaeological Potential, the subject property exhibits potential for the discovery of archaeological resources and would typically require the completion of a Stage 1 & 2 Archaeological Assessment. However, since there are no proposed ground disturbances and the change in zoning would not impact any archaeological resources, an archaeological assessment was not required for the zoning by-law amendment application. Staff note that, should any future Planning Act applications be required, an archaeological assessment may be required.

The proposed zoning by-law amendment is consistent with the PPS.

Niagara Official Plan, 2022

As of March 31, 2025, the Niagara Region became an upper-tier municipality without planning authority. This means that Niagara Region is no longer responsible for setting long-term planning policies through an official plan and will no longer be the approval authority for the Township's Official Plan and amendments to it. However, the existing Niagara Official Plan (NOP) is now deemed to be part of the Township's Official Plan and development proposals must conform to the policies of the NOP. Through a Planning Service Agreement with the Township, Niagara Region will continue to provide planning support to the Township for matters such as land use compatibility, archaeological potential, site condition, gas and petroleum resources, natural heritage, urban design and water protection screening matters. Niagara Region will also continue to comment on Planning Act applications as it relates to Regional infrastructure and waste collection.

The subject property is designated as Prime Agricultural Area in the NOP. Prime Agricultural Areas are to be protected for the long-term for agricultural uses, agricultural-related uses and on-farm diversified uses. Lot creation is prohibited; however, the disposal of a surplus farm dwelling as a result of a farm consolidation is permitted, subject to several criteria. One criterion is that the retained farm parcel shall be zoned to preclude its use for residential purposes. The proposed zoning by-law amendment will prohibit dwellings on the retained lands (Part 2 – farm parcel), fulfilling the requirements of this policy.

The subject property is impacted by the NOP's Natural Environment System (NES), consisting of Other Wetlands. NOP policy 3.1.5.7.1 requires the completion of an Environmental Impact Study (EIS) when development or site alteration is proposed within 120m of this feature. However, the proposed zoning by-law amendment does not impact this feature, and as such, an EIS was not required.

Similar to the policies of the PPS, Section 4.2 of the NOP requires major facilities (including railways) and sensitive land uses to be planned and developed to avoid, or if avoidance is not possible, to minimize and mitigate impacts. Given that the surplus farm dwelling is existing, is located over 500m away, and that the remnant farm parcel will be rezoned to prohibit dwellings, an assessment of impacts from the railway was not required.

Similar to the policies of the PPS, Section 6.4 of the NOP typically requires the completion of a Stage 1 & 2 Archaeological Assessment on lands containing archaeological resources or areas of archaeological potential. The subject property is mapped as an area of archaeological potential in Schedule K of the NOP. However, since there are no proposed ground disturbances and the change in zoning would not impact any archaeological resources, an archaeological assessment was not required for the zoning by-law amendment application.

The proposed zoning by-law amendment conforms with the NOP.

Niagara Peninsula Conservation Authority Regulated Lands

The Niagara Peninsula Conservation Authority (NPCA) is responsible for the review of planning applications that have environmental impacts on natural environmental hazards and/or natural heritage features such as valleylands and wetlands.

The NPCA's Regulation Mapping shows that the subject property is impacted by potential unevaluated wetlands along the northern portion of Part 2. The proposed zoning by-law amendment has no impact on these features, and as such, NPCA staff had no concerns and did not require formal circulation of the application.

The proposed zoning by-law amendment is consistent with the NPCA's policies for the Administration of Ontario Regulation 155/06 and the Planning Act.

Township of Wainfleet Official Plan, 2016

The subject property is designated as Rural Area and Environmental Conservation Area in the Township's Official Plan (OP). Permitted uses within the Rural Area designation include agricultural uses and accessory agricultural activities, one single detached dwelling and secondary suite, group homes, agri-tourism uses un-related to agriculture, value added production uses, value added support uses, forestry, conservation of plants and wildlife, nurseries, animal kennels, farm equipment sales and service, existing institutional uses, linear infrastructure and wells for natural gas extraction. Permitted secondary uses include home occupation, home industry, bed and breakfasts, help-house, garden suites, agri-tourism uses related to agriculture and value-added marketing uses.

Policy 3.1.4.3 c) permits a severance for a surplus farm residence as a result of a farm consolidation. While the Agricultural Area severance policies (3.1.3.4) require that the remnant farm parcel be rezoned to prohibit dwellings in perpetuity, the Rural Area policies do not contain this requirement.

The Environmental Conservation Area designation is due to the presence of Significant Woodlands on a portion of the subject property. The subject property is also adjacent to a Provincially Significant Wetland (PSW) located on the north side of the rail line. Policies typically require the completion of an Environmental Impact Study (EIS) when development and/or site alteration are proposed within 120m of a PSW and within 50m of Significant Woodlands. The proposed zoning by-law amendment does not impact these features, and as such, an EIS was not required, and there are no concerns with respect to this feature.

Section 6.5 of the Township OP requires all proposed development within 500m of an active railway right-of-way to undertake a noise impact study and shall ensure that appropriate safety measures, such as setbacks, berms and security fencing, are provided. The zoning by-law amendment will prohibit dwellings on Part 2, and as such, there are no concerns with respect to impacts from the railway.

The proposed zoning by-law amendment conforms with the OP.

Township of Wainfleet Zoning By-law 034-2014

The subject property is zoned Rural – A4 with an Environmental Conservation Overlay in the Township Zoning By-law. Permitted uses within the Rural – A4 zone include agricultural use, intensive animal operation, single detached dwelling, one farm help-house, kennel, conservation uses, greenhouse, group home, cannabis production facility and garden suite. Permitted accessory uses include accessory agricultural activities, secondary suite, value-added production and marketing uses, home occupation, home industry, agri-tourism uses related to agriculture and a bed and breakfast.

The following zoning provisions apply to lots for a single detached dwelling, accessory building and an agricultural use in the Rural – A4 zone:

Single Detached Dwelling as a principal use on a lot

	Required	Part 1	Comments
Min. Lot Area	1 ha	0.85ha	Does not comply
Min. Lot Frontage	46m	67.22m	Complies
Max. Lot Coverage	10%	7.1%	Complies
Min. Front Yard	15m or as existing, whichever is less	As existing	Complies
Min. Exterior Side Yard	15m	Greater	Complies
Min. Interior Side Yard	3m	16.5m	Complies
Min. Rear Yard	15m	Greater	Complies
Max. Height	12m	As existing	Complies

Accessory Building

	Required	Part 1	Comments
Max. Lot Coverage	4%	5.2%	Does not comply
Min. Front Yard	12m	As existing	Legal non-conforming
Min. Exterior Side Yard	12m	As existing	Legal non-conforming
Min. Interior Side Yard	2m	Greater	Complies
Min. Rear Yard	2m	9.3m	Complies
Max. Height	8m	As existing	Complies

Note: The encroaching barn will be demolished as a condition of the consent application.

Agricultural Use

	Required	Part 2	Comments
Min. Lot Area	40 ha	35.77ha	Does not comply
Min. Lot Frontage	180m	208.59m	Complies
Max. Lot Coverage	10%	N/a	No structures to be retained on Part 2.
Min. Front Yard	15m		
Min. Exterior Side Yard	15m		
Min. Interior Side Yard	15m		
Min. Rear Yard	15m		
Max. Height	N/R		

The surplus farm dwelling parcel (Part 1) has less lot area than the minimum required and exceeds the maximum accessory building lot coverage in the Zoning By-law. The proposed zoning by-law amendment application proposes a site specific A4-87 zone to permit a maximum accessory building lot coverage of 5.2%. Staff have also included a minimum lot area of 0.85 hectares within the site specific A4-87 zone. Staff are of the opinion that the reduced lot area is appropriate as it minimizes the amount of land taken out of agricultural production and is still a sufficient size for private servicing and that the increase in accessory building lot coverage is appropriate given that the structures are existing and provide storage for the surplus farm dwelling. The existing barn on Part 1 is to be demolished and has not been included in the accessory building lot coverage calculation.

The remnant agricultural parcel (Part 2) has less lot area than the minimum required in the Zoning By-law. In addition to prohibiting dwellings on Part 2 to address Provincial and Regional policy requirements for a surplus farm dwelling severance, the zoning by-law amendment application proposes a site specific A4-88 zone to permit a minimum lot area of 35.77 hectares. Staff are of the opinion that the reduced lot area is appropriate given the context of the subject lands and will allow for the continued cultivation of the farm lands.

FINANCIAL CONSIDERATIONS:

None.

OTHERS CONSULTED:

Public Meeting

A statutory public meeting was held on December 9, 2025. Notice of the public meeting was mailed to landowners within 120m of the subject lands on November 17, 2025 and a public notice sign was posted on the subject lands. The notice, along with the application materials, were also posted on the Township’s website.

There were no public comments made at the public meeting and no written public comments received. A copy of the draft public meeting minutes are attached as Appendix “B”.

Township Department & Agency Comments

On November 17, 2025 a request for comments was circulated to Township Departments and external agencies requiring review of the proposed application.

The Township Building, By-law, Drainage and Operations Departments noted no concerns. No other agency comments were received.

Report Reviewed By:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Chief Administrative Officer | <input checked="" type="checkbox"/> Finance |
| <input checked="" type="checkbox"/> Clerks | <input checked="" type="checkbox"/> Communications |
| <input checked="" type="checkbox"/> Community & Development Services | <input checked="" type="checkbox"/> Operations |
| <input checked="" type="checkbox"/> Fire | <input type="checkbox"/> Other: |

CONCLUSION:

The Planning Department has reviewed the application for zoning by-law amendment, File No. Z07/2025W, for the lands known municipally as 40562 Forks Road. It is the opinion of staff that the application is consistent with Provincial policy and conforms with Regional and Township planning policy. As such, staff recommend that the application be approved.

ATTACHMENTS:

- 1) Appendix "A" – Consent Sketch for File No. B09/2025W
- 2) Appendix "B" – Draft Minutes of the Public Meeting held on December 9, 2025
- 3) Appendix "C" – Zoning By-law Amendment

Respectfully submitted by,

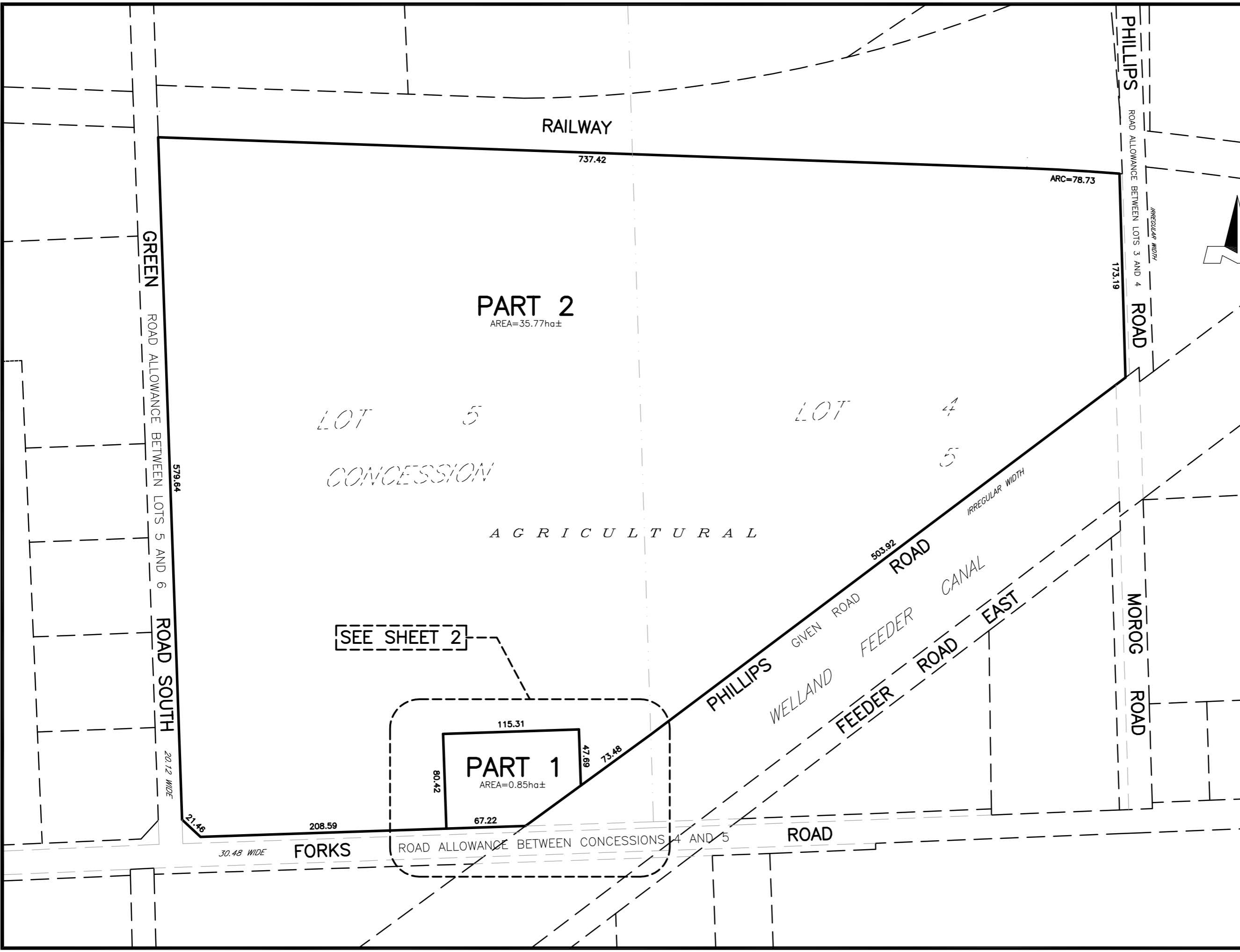
Approved by,

Sarah Ivins
Planner

Mallory Luey
Chief Administrative Officer

APPENDIX "A"

Consent Sketch for File No. B09/2025W



SKETCH
 PREPARED FOR CONSENT APPLICATION
 PART OF LOTS 4 AND 5
 CONCESSION 5
 IN THE
TOWNSHIP OF WAINFLEET
 REGIONAL MUNICIPALITY OF NIAGARA
 SCALE 1 : 3,000 (METRIC)

NOTE: THIS SKETCH IS PREPARED FROM COMPILED AND CALCULATED INFORMATION, NOT FROM AN ACTUAL SURVEY.
 DO NOT SCALE FROM THIS DRAWING.
 ALL MEASUREMENTS ARE +/- MEASUREMENTS.

"THIS IS NOT AN ORIGINAL COPY UNLESS EMBOSSED WITH SEAL"

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OCT. 20, 2025 *Don Chambers*
 DATE DONALD G. CHAMBERS, B. Sc., O.L.S.

CHAMBERS AND ASSOCIATES SURVEYING LTD
 12 THOROLD ROAD EAST (905) 735-7841 / 735-7844
 WELLAND ONTARIO FAX (905) 735-7333
 L3C 3T2 www.casl-surveying.com

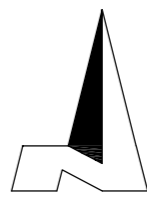
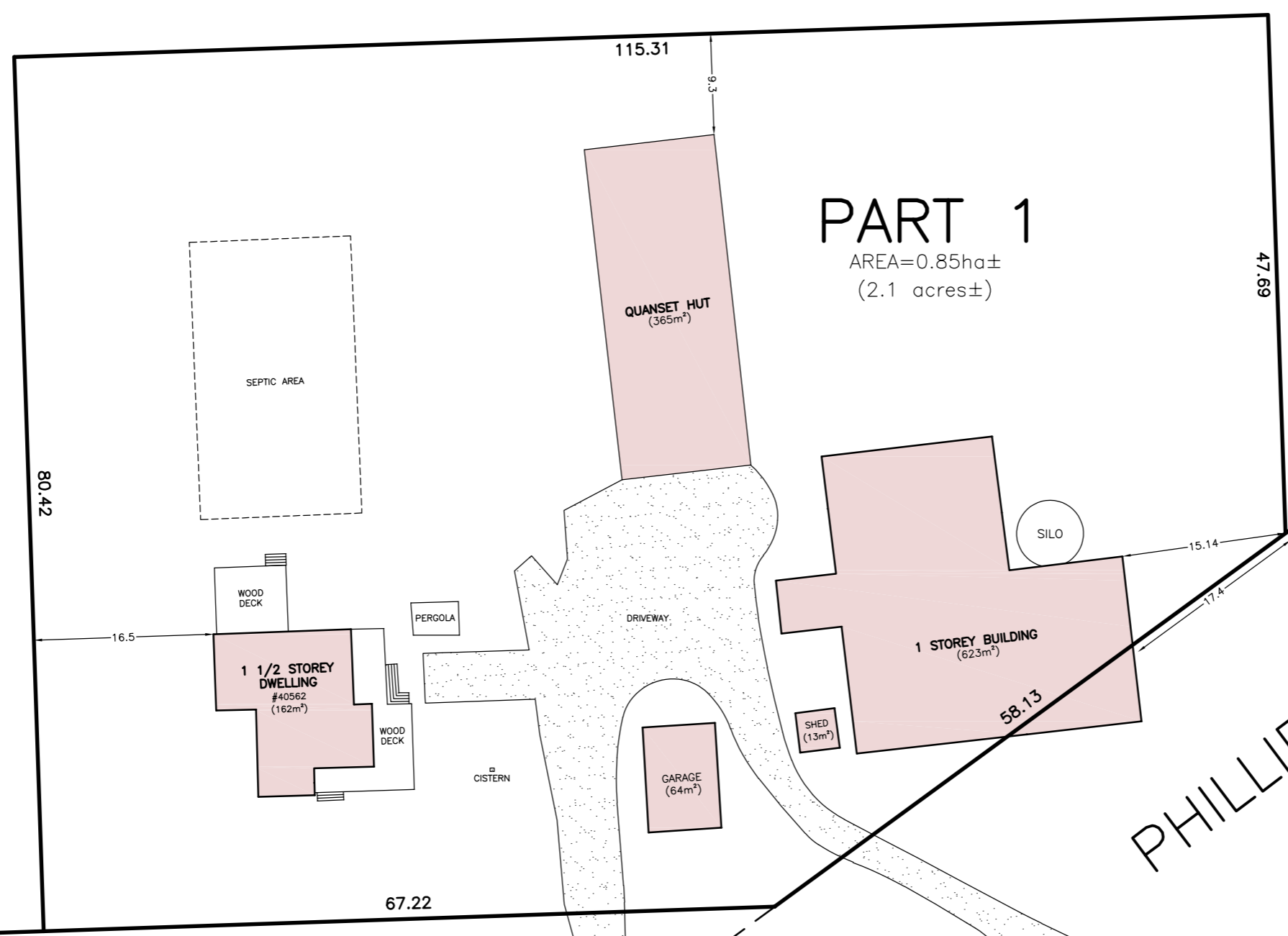
DWG **88131-2_SEV** FILE **88-131-2**

PART 2

AREA=35.77ha±

PART 1

AREA=0.85ha±
(2.1 acres±)



PHILLIPS
GIVEN ROAD

30.48 WIDE FORKS ROAD ALLOWANCE BETWEEN CONCESSIONS 4 AND 5 ROAD

SKETCH
PREPARED FOR CONSENT APPLICATION
PART OF LOTS 4 AND 5
CONCESSION 5
IN THE
TOWNSHIP OF WAINFLEET
REGIONAL MUNICIPALITY OF NIAGARA
SCALE 1 : 500 (METRIC)

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OCT. 20, 2025 DATE *Don Chambers*
DONALD G. CHAMBERS, B. Sc., O.L.S.

CHAMBERS AND ASSOCIATES SURVEYING LTD
12 THOROLD ROAD EAST WELLAND ONTARIO, L3C 3T2 (905) 735-7841 / 735-7844 www.cosl-surveying.com
DWG 88131-2_SEV FILE 88-131-2

APPENDIX "B"

December 9, 2025 Draft Public Meeting Minutes

11. Public Meeting

a) Zoning By-law Amendment Z07/2025W

Mayor Grant called the Public Meeting to order at 6:41 p.m. and advised that the purpose of the Public Meeting is to provide information about the proposed amendment and provide opportunity for public input.

The Planner provided an information report outlining application details, progress and comments received.

The applicant did not provide any comments regarding the application.

There were no comments or questions received from members of Council.

There were no public comments received.

The Planner provided information regarding next steps and appeal rights.

The Public Meeting was adjourned at 6:46 p.m.

APPENDIX "C"

CORPORATION OF THE TOWNSHIP OF WAINFLEET BY-LAW NO. 0XX-2026

Being a by-law pursuant to the provisions of Section 34 of the Planning Act, R.S.O. 1990 to amend Zoning By-law No. 034-2014 of the Corporation of the Township of Wainfleet with respect to those lands forming Concession 5, Part Lots 4 & 5 in the Township of Wainfleet and known municipally as 40562 Forks Road.

WHEREAS the Corporation of the Township of Wainfleet has reviewed Zoning By-law No. 034-2014 and deems it advisable to amend same:

NOW THEREFORE the Council of the Corporation of the Township of Wainfleet **HEREBY ENACTS AS FOLLOWS:**

THAT Map 9 of Zoning By-law No. 034-2014, as amended, is hereby further amended by changing the zoning of Part 1 of the subject property from Rural – A4 to Rural – A4-87, as shown on Schedule "A" attached hereto.

THAT Table 8 of Section 6.4 entitled "Lot and Building and Structure Exceptions" is hereby further amended by adding the following text under the A4 section:

Zone	#	By-Law #	Address	Description of Special Provision
A4	87	0XX-2026	Con. 5, Pt. Lots 4 & 5	Minimum Lot Area: 0.85 ha Maximum Accessory Building Lot Coverage: 5.2%

THAT Map 9 of Zoning By-law No. 034-2014, as amended, is hereby further amended by changing the zoning of Part 2 of the subject property from Rural – A4 to Rural – A4-1,88, as shown on Schedule "A" attached hereto.

THAT Table 7 of Section 6.3 entitled "Permitted Use Exceptions" is hereby further amended by adding the following text under the heading A4-1:

Zone	#	By-law #	Address	Additional Permitted Uses	Sole Permitted Uses	Excluded Uses
A4	1	0XX-2026	Con. 5, Pt. Lots 4 & 5			Dwellings

THAT Table 8 of Section 6.4 entitled "Lot and Building and Structure Exceptions" is hereby further amended by adding the following text under the A2 section:

Zone	#	By-Law #	Address	Description of Special Provision
A4	88	0XX-2026	Con. 5, Pt. Lots 4 & 5	Minimum Lot Area: 35.77 ha

THAT pursuant to Section 34(17) of the Planning Act, as amended, no further public meeting is required.

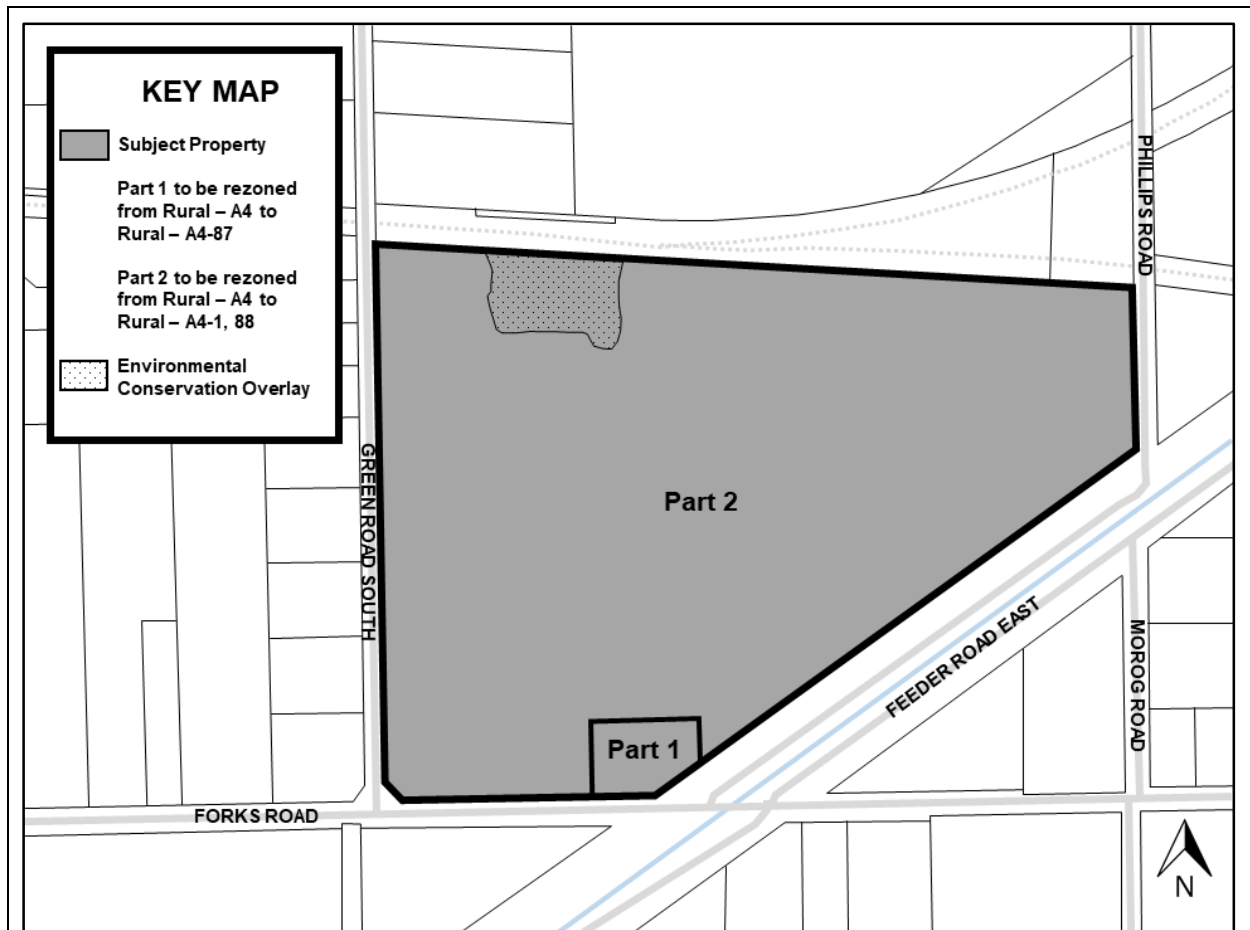
THAT this By-law shall come into force, take effect and be passed on the final reading hereof subject to the provisions of Section 34 of the Planning Act.

BY-LAW READ AND PASSED THIS 20TH DAY OF JANUARY, 2026.

B. Grant, MAYOR

A. Chrastina, CLERK

SCHEDULE A TO BY-LAW 0XX-2026



TOWNSHIP OF WAINFLEET

Purpose & Effect of By-law No. 0XX-2026:

This by-law affects lands described as Concession 5, Part Lots 4 & 5 in the Township of Wainfleet and known municipally as 40562 Forks Road. This by-law has been enacted to rezone Part 1 of the lands to a Rural – A4-87 zone and Part 2 to a Rural – A4-1,88 zone while maintaining the existing Environmental Conservation Overlay. Exception 87 permits a maximum accessory building lot coverage of 5.2% and a minimum lot size of 0.85 ha. Exception 1 prohibits dwellings and exception 88 permits a minimum lot area of 35.77ha.

File No. Z07/2025W (Vedder)

THIS IS SCHEDULE “A” TO BY-LAW NO. 0XX-2026.
 PASSED THIS 20TH DAY OF JANUARY, 2026.

MAYOR

CLERK

Received January 13, 2026
C-2026-012

Allison Stapleton, Chair
Wainfleet Age-Friendly Advisory Committee

Date: January 13, 2026

To: Mayor Brian Grant and Members of Council
c/o: Amber Chrastina, Clerk

Township of Wainfleet
31940 Highway 3, P.O. Box 40
Wainfleet, ON L0S 1V0

Subject: Proposal for 2026 Wainfleet Senior of the Year Award

Mayor Grant and Members of Council,

On behalf of the Senior Advisory Committee, I am writing to propose the inaugural **Wainfleet Senior of the Year Award for 2026**. This initiative aligns with the World Health Organization's (WHO) "Active Ageing" framework, which recognizes senior volunteerism as essential to community health and social vitality.

The Proposal

Our goal is to formally recognize an individual aged 60+ who has significantly enriched the Wainfleet community through volunteer service.

- Nomination Period: February 1 – March 31, 2026.
- Accessibility: Digital forms will be hosted on the Township's Age-Friendly webpage; physical copies will be available at the Senior Centre and Library.
- Selection Process: The Age-Friendly Advisory Committee will review applications and determine a recipient via majority vote based on established eligibility criteria (attached).
- Recognition: To celebrate Seniors Month in June, the recipient will be honored at the June 10 Senior Centre Luncheon, followed by a formal certificate presentation at the June 16 Council Meeting.

Requested Township Support

To ensure the success of this initiative, we request the following administrative assistance:

1. Communications: Posting award details and the nomination form to the Age-Friendly webpage and sharing the call for nominations on Township social media channels.
2. Recognition: Printing an official certificate of recognition for the June presentation.

The Age-Friendly Advisory Committee has confirmed that both the Senior Centre and Library are prepared to support this initiative as distribution and promotion hubs.

We look forward to your support in celebrating the vital contributions of our senior residents.

Sincerely,

Allison Stapleton

Allison Stapleton, Chair

Age-Friendly Advisory Committee

2026 Wainfleet Senior of the Year Award

The Township of Wainfleet, Age-Friendly Advisory Committee and the Wainfleet Senior Centre have partnered to **recognize one senior** with the 2026 **Wainfleet Senior of the Year Award**. See eligibility criteria below.

Nominations can be picked up and submitted from February 1, 2026 to March 31, 2026. To coincide with Senior's Month, the award will be presented at the June Town Council Meeting. The recipient will also be recognized at the Senior Centre June luncheon. The Nomination forms are available at and can be returned to Wainfleet Town Hall, The Wainfleet Senior's Centre & the Wainfleet Library attention to the Wainfleet Age-Friendly Advisory Committee.

Nominations open

The call for nominations for the Township of Wainfleet Senior of the Year Award open from **February 1, 2026 – March 31, 2026**

Important Dates

February 1, 2026: *Nominations open*

March 31, 2026: *Deadline for nominations*

June 16, 2026 *Award Presentation at Wainfleet Town Council Meeting*

June 10, 2026 *Celebration at Wainfleet Senior Centre Luncheon*

Eligibility criteria

To be eligible for the **2026 Wainfleet Senior of the Year Award**, the senior must meet these criteria:

- Be 60 years or older
- Has contributed to the enrichment of the social, cultural or civic life of the Wainfleet community
- Has made this commitment without thought of personal or financial gain
- Is not a previous recipient of the award
- A resident of Wainfleet

Additional Nomination Eligibility Criteria

- All information must be verifiable
- Submissions must include:
 - Reason for the nomination; including background and related information
 - Volunteering information
 - The special work or service
 - The positive impact this volunteering has had on the Wainfleet community
 - Who has benefited from these efforts

Nomination form can be picked up and returned to:

Wainfleet Town Hall, attention Wainfleet Age-Friendly Advisory Committee 31940 Hwy 3, Wainfleet, **Wainfleet Seniors Centre** located at the Friendship Room in the Wainfleet Arena on Mondays & Wednesdays from 12 pm – 4 pm and the **Wainfleet Library** 31909 Park St, Wainfleet.

Completed forms can also be mailed to Wainfleet Town Hall 31940 Highway #3 PO Box 40 Wainfleet, ON L0S 1V0 Attn: Wainfleet Age-Friendly Advisory Committee

You cannot nominate:

- Yourself
- Someone who has passed away
- Someone who currently holds political office
- An individual cannot be nominated for achievement related to a current or past political elected position

2026 Wainfleet Senior of the Year Award Nomination Form

Nomination form can be returned to **Wainfleet Town Hall, attention Wainfleet Age-Friendly Advisory Committee** 31940 Hwy 3, Wainfleet, **Wainfleet Seniors Centre** located at the Friendship Room in the Wainfleet Arena on Mondays & Wednesdays from 12 pm – 4 pm and the **Wainfleet Library** 31909 Park St, Wainfleet.

Name of Nominee:

First: _____ **Last:** _____

Phone number: _____ **Email:** _____

Reason for nomination: _____

Special work or services: _____

Who has benefited from these services? _____

(Attach additional information if required)

Name of Nominator: _____

Phone Number: _____

Email address: _____

**CORPORATION OF THE
TOWNSHIP OF WAINFLEET
BY-LAW NO. 001-2026**

Being a by-law pursuant to the provisions of Section 34 of the Planning Act, R.S.O. 1990 to amend Zoning By-law No. 034-2014 of the Corporation of the Township of Wainfleet with respect to those lands forming Concession 5, Part Lots 4 & 5 in the Township of Wainfleet and known municipally as 40562 Forks Road.

WHEREAS the Corporation of the Township of Wainfleet has reviewed Zoning By-law No. 034-2014 and deems it advisable to amend same:

NOW THEREFORE the Council of the Corporation of the Township of Wainfleet **HEREBY ENACTS AS FOLLOWS:**

THAT Map 9 of Zoning By-law No. 034-2014, as amended, is hereby further amended by changing the zoning of Part 1 of the subject property from Rural – A4 to Rural – A4-87, as shown on Schedule “A” attached hereto.

THAT Table 8 of Section 6.4 entitled “Lot and Building and Structure Exceptions” is hereby further amended by adding the following text under the A4 section:

Zone	#	By-Law #	Address	Description of Special Provision
A4	87	001-2026	Con. 5, Pt. Lots 4 & 5	Minimum Lot Area: 0.85 ha Maximum Accessory Building Lot Coverage: 5.2%

THAT Map 9 of Zoning By-law No. 034-2014, as amended, is hereby further amended by changing the zoning of Part 2 of the subject property from Rural – A4 to Rural – A4-1,88, as shown on Schedule “A” attached hereto.

THAT Table 7 of Section 6.3 entitled “Permitted Use Exceptions” is hereby further amended by adding the following text under the heading A4-1:

Zone	#	By-law #	Address	Additional Permitted Uses	Sole Permitted Uses	Excluded Uses
A4	1	001-2026	Con. 5, Pt. Lots 4 & 5			Dwellings

THAT Table 8 of Section 6.4 entitled “Lot and Building and Structure Exceptions” is hereby further amended by adding the following text under the A2 section:

Zone	#	By-Law #	Address	Description of Special Provision
A4	88	001-2026	Con. 5, Pt. Lots 4 & 5	Minimum Lot Area: 35.77 ha

THAT pursuant to Section 34(17) of the Planning Act, as amended, no further public meeting is required.

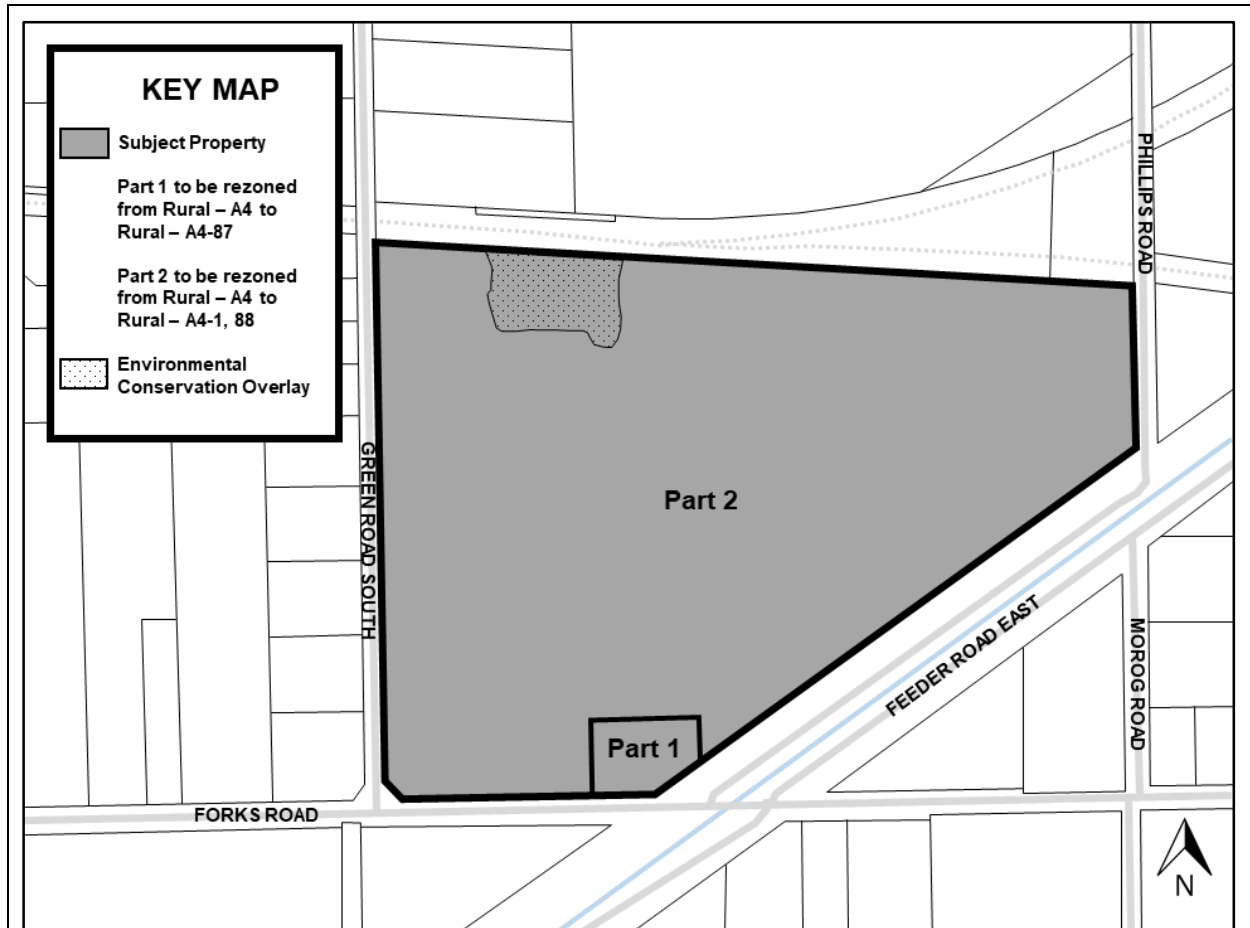
THAT this By-law shall come into force, take effect and be passed on the final reading hereof subject to the provisions of Section 34 of the Planning Act.

BY-LAW READ AND PASSED THIS 20TH DAY OF JANUARY, 2026.

B. Grant, MAYOR

A. Chrastina, CLERK

SCHEDULE A TO BY-LAW 001-2026



TOWNSHIP OF WAINFLEET

Purpose & Effect of By-law No. 001-2026:
 This by-law affects lands described as Concession 5, Part Lots 4 & 5 in the Township of Wainfleet and known municipally as 40562 Forks Road. This by-law has been enacted to rezone Part 1 of the lands to a Rural – A4-87 zone and Part 2 to a Rural – A4-1,88 zone while maintaining the existing Environmental Conservation Overlay. Exception 87 permits a maximum accessory building lot coverage of 5.2% and a minimum lot size of 0.85 ha. Exception 1 prohibits dwellings and exception 88 permits a minimum lot area of 35.77ha.

File No. Z07/2025W (Vedder)

THIS IS SCHEDULE “A” TO BY-LAW NO. 001-2026.
 PASSED THIS 20TH DAY OF JANUARY, 2026.

MAYOR

CLERK

THE CORPORATION OF THE TOWNSHIP OF WAINFLEET

BY-LAW NO. 002-2026

BEING A BY-LAW TO AUTHORIZE THE STOPPING UP AND CLOSING A PORTION OF THE ROAD ALLOWANCE KNOWN MUNICIPALLY AS BESSEY ROAD AND THE CONVEYANCE OF PART OF THE SAID ROAD ALLOWANCE BETWEEN LOTS 3 & 4, CONCESSION 1 DESCRIBED AS PARTS 1 AND 2 ON REFERENCE PLAN 59R-18493 IN THE TOWNSHIP OF WAINLFEET, REGIONAL MUNICIPALITY OF NIAGARA.

WHEREAS pursuant to the Municipal Act, 2001, S.O. 2001, c. 25, as amended, the Council of every municipality in the Province of Ontario has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other act;

AND WHEREAS Section 27(1) of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, provides that a municipality may pass by-laws in respect of a highway only if it has jurisdiction over the highway; **AND WHEREAS** Section 28(1) of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, provides that a municipality has jurisdiction over all highways over which it had jurisdiction or joint jurisdiction on December 31, 2002;

AND WHEREAS Section 34 of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, provides that a municipality may pass a by-law to permanently close highways under its jurisdiction; **AND WHEREAS** the Corporation of the Township of Wainfleet has established a Land Disposal Policy for the sale of land owned by the municipality;

AND WHEREAS the Corporation of the Township of Wainfleet is the registered owner of the Road Allowance between Lots 3 & 4, Concession 1, described as Parts 1 and 2 on reference plan 59R-18493, in the Township of Wainfleet, Regional Municipality of Niagara, being a portion of the road allowance known municipally as Bessey Road Allowance;

AND WHEREAS Tom Rankin made application to the Corporation of the Township of Wainfleet in accordance with the Land Disposal Policy for the closure and sale of the lands Part of the Road Allowance between Lots 3 & 4, Concession 1, described as Parts 1 and 2 on reference plan 59R-18493, in the Township of Wainfleet, Regional Municipality of Niagara, being a portion of road allowance known municipally as Bessey Road Allowance;

AND WHEREAS the Council of the Corporation of the Township of Wainfleet deems it necessary to stop up and close a portion of the Road Allowance between Lots 3 & 4 Concession 1, described as Parts 1 and 2 on reference plan 59R-18493, in the Township of Wainfleet, Regional Municipality of Niagara, known municipally as Bessey Road Allowance;

AND WHEREAS the Council of the Corporation of the Township of Wainfleet has determined that the portion of the said road allowance lands are to be surplus to the needs of the municipality and has satisfied all other requirements of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, and the Township of Wainfleet's Land Disposal Policy governing the closing and sale of municipal road allowances;

AND WHEREAS the Council of the Corporation of the Township of Wainfleet deems it necessary and expedient to convey the said closed road allowance lands to abutting property owners as lands surplus to the needs of the municipality;

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWNSHIP OF WAINFLEET HEREBY ENACTS AS FOLLOWS:

1. THAT the lands in Part of the Road Allowance between Lots 3 & 4, Concession 1, described as Parts 1 and 2 on reference plan 59R-18493, being a portion of the road allowance known municipally as Bessey Road be hereby stopped up and closed.
2. THAT this Council does hereby declare the lands in Part of the Road Allowance between Lots 3 & 4, Concession 1, described as Parts 1 and 2 on reference plan 59R-18493, being a portion of the road allowance known municipally as Moore Road North to be surplus to the needs of the municipality.
3. THAT this Council authorizes the sale and conveyance of the lands described as Part 1 on reference plan 59R-18493 to the abutting easterly property owners Rankin Engineering Inc. for a total consideration of Seventy-Five Thousand Dollars (\$75,000.00) exclusive of HST.
4. THAT this Council authorizes the sale and conveyance of the lands described as Part 2 on reference plan 59R-18493 to the abutting westerly property owners Brian and Linda Morrison for a total consideration of Two Dollars (\$2.00) exclusive of HST.
5. THAT the Mayor and the Clerk are hereby authorized and directed to prepare and execute an Agreement of Purchase and Sale with the said abutting property owners and to execute all necessary documents to effect the closure and conveyance of said lands.
6. THAT authorization is granted to legal counsel for the Corporation of the Township of Wainfleet to make any necessary revisions to the legal description of the road allowance to effect the registration of this By-law on title.
6. This by-law shall come into force and take effect on the date of its final passing.

BY-LAW READ AND PASSED THIS 20TH DAY OF JANUARY, 2026

B. Grant, MAYOR

A. Chrastina, CLERK

THE CORPORATION OF THE TOWNSHIP OF WAINFLEET

BY-LAW NO. 003-2026

Being a by-law to adopt, ratify and confirm the proceedings of the Council of the Corporation of the Township of Wainfleet at its Regular Meeting of Council held January 20, 2026

WHEREAS Subsection 5 (1) of the *Municipal Act, 2001*, S.O. 2001, Chapter M.25, as amended, provides that the powers of a municipal corporation are to be exercised by its Council;

AND WHEREAS section 5 (3) of the *Municipal Act 2001*, S.O. 2001, Chapter M.25, as amended, provides that, except if otherwise authorized, the powers of Council shall be exercised by by-law;

AND WHEREAS it is deemed desirable and expedient that the actions of the Council as herein set forth be adopted, ratified and confirmed by by-law;

NOW THEREFORE the Council of the Corporation of the Township of Wainfleet **HEREBY ENACTS AS FOLLOWS:**

1. (a) The actions of the Council at its Regular Meeting of Council held January 20, 2026, including all resolutions or motions approved, are hereby adopted, ratified and confirmed as if they were expressly embodied in this by-law.
 - (b) The above-mentioned actions shall not include:
 - (i) any actions required by law to be taken by resolution, or
 - (ii) any actions for which prior Ontario Municipal Board approval is required, until such approval is obtained.
2. The Mayor and proper officials of the Corporation of the Township of Wainfleet are hereby authorized and directed to do all things necessary to give effect to the above-mentioned actions and to obtain approvals where required.
3. Unless otherwise provided, the Mayor and Clerk are hereby authorized and directed to execute and the Clerk to affix the seal of the corporation of the Township of Wainfleet to all documents necessary to give effect to the above-mentioned actions.
4. This by-law shall come into force on the day upon which it is passed.

BY-LAW READ AND PASSED THIS 20TH DAY OF JANUARY, 2026

B. Grant, MAYOR

A. Chrastina, CLERK