



May 27, 2024

Sent Via Email (samuel@kirwinlaw.ca)

Samuel J. Kirwin

THE LAW OFFICE OF SAMUEL KIRWIN
PROFESSIONAL CORPORATION
472 Ridout Street North
London, ON N6A 2P7

Thomas Sanderson

Direct Line: 519.593.2432
tsanderson@millerthomson.com

File No. 0190638.0001

Dear Mr. Kirwin:

**Re: Cory Kittel v. The Corporation of the Township of Wilmot (the “Township”)
Court of the Drainage Referee File No.: CV-23-00001662-0000 (Kitchener)**

Thank you for your correspondence of April 15 and May 3, 2024.

I address your requests as follows:

- A. **Supplementary Disclosure:** Following review of your request, the Township has concluded that it can disclose the additional 12 documents listed on the attached Schedule A. I will notify Referee Wright of this supplementary disclosure.
- B. **Privileged Documents:** The attached Schedule B sets out the documents withheld on the basis of privilege. I confirm that our application of solicitor-client and litigation privilege has considered the content of communications and the relevant case law, including those cases previously mentioned by you.
- C. **Tab 61:** I attach a PDF copy.
- D. **Request for Productions:** I address your further requests as follows:
 1. **Request(s) for Proposal (“RFP”) for engineer:** There was no RFP for this project.
 2. **Contract between Township and engineer:** Engineer and Township staff confirm that there is no written contract between the Township and Engineer. The Staff Report recommending appointment is at tab 18 of the Township Productions. The Minutes recording the resulting Council resolution approving the Engineer are attached as tab 1 of Schedule A.

3. **Correspondence between Mr. Kittel and the Drainage Superintendent prior to the petition:** See Headway tabs 6, 10, and 11, and Township tab 7. After his search, John Kuntze has confirmed to the Township that he does not have other correspondence with Mr. Kittel.
4. **Minutes from Council meeting of July 12, 2021, and in-camera meeting of July 26, 2023:** The former minutes are attached as tab 1 of Schedule A. In the latter minutes, the relevant item is subject to solicitor-client privilege.
5. **Notes from the on-site meeting:** Headway notes are at Headway tabs 31 and 33 (the latter having been misdescribed in the index). The Drainage Superintendent attended those meetings on behalf of the Township, and does not have notes.
6. **Information which the Engineer used or could have used to determine the area requiring drainage, including (a) topographical information, (b) surveys from the Region of Waterloo's GIS database, and (c) location and elevation contours of any regulated floodplain and wetlands regulated by the conservation authority:** The Drain Report drawings include topographical information, provincial elevation data, contours and regulated wetlands. The Engineer did not use Regional GIS survey data, and the floodplain is not shown.

Do not hesitate to contact me with any questions or concerns.

Sincerely,

MILLER THOMSON LLP

Per: 

Thomas Sanderson

TS/ajp



SCHEDULE "A"
SUPPLEMENTARY PRODUCTIONS

No.	Date	Document
268	2021-07-12	Council Meeting Minutes
269	2023-03-03	Email from Stephen Brickman to John Kuntze
270	2023-05-24	Email from Chad Curtis to Stephen Brickman, John Kuntze and Jeff Bunn
271	2023-05-31	Email from John Kuntze to Chad Curtis, Stephen Brickman, Jeff Molenhuis and Adam Hall
272	2023-06-08	Letter from Landowners to Mayor and Councilors of Township of Wilmot
273	2023-06-16	Email from Jeff Molenhuis to John Kuntze, Jeff Bunn, Patrick Kelly, Chad Curtis and Stephen Brickman
274	2023-06-16	Letter from Ken Heintz to Mayor and Councilors of Township of Wilmot
275	2023-06-26	Report from Patrick Kelly and Chad Curtis to Council
276	2023-06-26	Submission of Cory Kittel – Cost / Benefit Analysis
277	2023-06-26	Submission of Cory Kittel – Explanation
278	2023-06-26	Report from Patrick Kelly and Chad Curtis to Council
279	2023-08-16	Notice of Sitting of Court of Revision

Schedule "B"

Withheld Documents – Township of Wilmot

Number	Date	Type	Author	Recipient(s)	Privilege Type
1.	2023-04-24	email	Stephen Brickman	Paul Courey	Solicitor-client ("S-C"), Lit.
2.	2023-05-24	email	Chad Curtis	John Kuntze, Stephen Brickman, Jeff Bunn and Patrick Kelly	Litigation ("Lit.")
3.	2023-05-26	email	Chad Curtis	Stephen Brickman, John Kuntze, Patrick Kelly and Jeff Bunn	Lit.
4.	2023-05-26	email	John Kuntze	Stephen Brickman, Chad Curtis, Patrick Kelly and Jeff Bunn	Lit.
5.	2023-05-26	email	John Kuntze	Chad Curtis, Stephen Brickman, Patrick Kelly and Jeff Bunn	Lit.
6.	2023-05-26	email	Stephen Brickman	Chad Curtis, John Kuntze, Patrick Kelly and Jeff Bunn	Lit.
7.	2023-05-29	email	John Kuntze	Chad Curtis, Stephen Brickman, Jeff Bunn and Patrick Kelly	Lit.
8.	2023-05-29	email	Paul Courey	Stephen Brickman, Emma Jackson, John Kuntze and Chad Curtis	Solicitor-client ("S-C"), Lit.
9.	2023-05-29	email	Stephen Brickman	Chad Curtis, Patrick Kelly, Jeff Bunn and John Kuntze	Lit.
10.	2023-05-29	email	Chad Curtis	Stephen Brickman, Patrick Kelly, Jeff Bunn and John Kuntze	Lit.
11.	2023-05-29	email	Stephen Brickman	Chad Curtis and John Kuntze	Lit.
12.	2023-06-05	email	John Kuntze	Stephen Brickman and Chad Curtis	Lit.
13.	2023-06-13	email	Stephen Brickman	Curtis MacIntyre, Chad Curtis and John Kuntze	Lit.
14.	2023-06-13	email	Chad Curtis	Jeff Bunn and Patrick Kelly	Lit.
15.	2023-06-15	email	John Kuntze	Jeff Bunn, Jeff Molenhuis, Patrick Kelly, Chad Curtis and Stephen Brickman	Lit.

16.	2023-06-15	email	Chad Curtis	Stephen Brickman, Curtis MacIntyre and John Kuntze	Lit.
17.	2023-06-15	email	Chad Curtis	Stephen Brickman and David Potts	S-C, Lit.
18.	2023-06-16	email	John Kuntze	Jeff Molenhuis, Jeff Bunn, Patrick Kelly, Chad Curtis and Stephen Brickman	Lit.
19.	2023-06-16	email	Chad Curtis	John Kuntze, Jeff Molenhuis, Jeff Bunn, Patrick Kelly and Stephen Brickman	Lit.
20.	2023-06-16	email	Chad Curtis	John Kuntze, Jeff Molenhuis, Jeff Bunn, Patrick Kelly, Stephen Brickman and Curtis MacIntyre	Lit.
21.	2023-06-16	email	Chad Curtis	John Kuntze, Jeff Molenhuis, Jeff Bunn, Patrick Kelly, Stephen Brickman and Curtis MacIntyre	Lit.
22.	2023-06-16	email	Paul Courey	Chad Curtis and CLPC General	S-C, Lit.
23.	2023-06-16	email	Patrick Kelly	Chad Curtis and Jeff Bunn	Lit.
24.	2023-06-16	email	Chad Curtis	Stephen Brickman, Curtis MacIntyre and John Kuntze	Lit.
25.	2023-06-16	email	Chad Curtis	mail@coureylaw.com	S-C, Lit.
26.	2023-06-16	email	Chad Curtis	Paul Courey	S-C, Lit.
27.	2023-06-20	email	Stephen Brickman	Chad Curtis, John Kuntze and Jeff Bunn	Lit.
28.	2023-06-20	email	Chad Curtis	Stephen Brickman, John Kuntze, Jeff Bunn and aharron	Lit.
29.	2023-06-20	email	Chad Curtis	Amy Harron, Stephen Brickman, John Kuntze and Jeff Bunn	Lit.
30.	2023-06-20	email	David Potts	Stephen Brickman, Chris Macleod and David Potts	S-C, Lit.
31.	2023-06-21	email	Paul Courey	Chad Curtis, Patrick Kelly, Stephen Brickman, John Kuntze and Emma Jackson	S-C, Lit.
32.	2023-06-21	email	Chris Macleod	Stephen Brickman and David Potts	S-C, Lit.
33.	2023-06-26	email	John Kuntze	Chad Curtis, Paul Courey, Jeff Bunn and Stephen Brickman	Lit.

34.	2023-06-26	email	John Kuntze	Chad Curtis, Paul Courey and Stephen Brickman	Lit.
35.	2023-06-26	email	John Kuntze	Paul Courey, Chad Curtis and Stephen Brickman	Lit.
36.	2023-06-26	email	Stephen Brickman	John Kuntze, Chad Curtis, Paul Courey and Jeff Bunn	Lit.
37.	2023-06-26	email	Chad Curtis	Stephen Brickman, John Kuntze, Paul Courey and Jeff Bunn	Lit.
38.	2023-06-26	email	Chad Curtis	Jeff Bunn and Patrick Kelly	S-C, Lit.
39.	2023-06-26	email	Chad Curtis	Council, Jeff Molenhuis, Jeff Bunn, Sharon Chambers and Patrick Kelly	S-C, Lit.
40.	2023-06-26	report	Township of Wilmot	Council	Lit.
41.	2023-06-26	email	Paul Courey	John Kuntze, Stephen Brickman and Chad Curtis	S-C, Lit.
42.	2023-06-26	email	Stephen Brickman	Paul Courey, John Kuntze and Chad Curtis	S-C, Lit.
43.	2023-06-26	email	John Kuntze	Paul Courey, Stephen Brickman and Chad Curtis	S-C, Lit.
44.	2023-06-26	email	Patrick Kelly	Chad Curtis and Jeff Bunn	S-C, Lit.
45.	2023-06-26	email	Paul Courey	Chad Curtis, John Kuntze, Jeff Bunn and Emma Jackson	S-C, Lit.
46.	2023-06-26	email	Paul Courey	Stephen Brickman, Chad Curtis, Jeff Bunn, John Kuntze and Emma Jackson	S-C, Lit.
47.	2023-06-26	memo	Paul Courey	Wilmot Township Council	S-C, Lit.
48.	2023-06-26	email	John Kuntze	Paul Courey, Chad Curtis and Stephen Brickman	Lit.
49.	2023-06-27	email	Stephen Brickman	John Kuntze and Chad Curtis	Lit.
50.	2023-06-27	email	Paul Courey	Chad Curtis, John Kuntze, Stephen Brickman and Emma Jackson	S-C, Lit.
51.	2023-06-28	email	Chad Curtis	Stephen Brickman, John Kuntze and aharron	Lit.

52.	2023-07-26	in-camera minutes	Jeff Bunn	N/A	S-C
53.	2023-07-31	email	David Potts	Stephen Brickman, Chris Macleod and David Potts	S-C, Lit.
54.	2023-08-08	email	Stephen Brickman	Chad Curtis, John Kuntze and Paul Courey	Lit.
55.	2023-08-08	email	Stephen Brickman	Chad Curtis	Lit.
56.	2023-08-08	email	Chad Curtis	Stephen Brickman	Lit.
57.	2023-08-08	email	Stephen Brickman	Chad Curtis, Paul Courey and John Kuntze	S-C, Lit.
58.	2023-08-08	email	Chad Curtis	Stephen Brickman, Paul Courey and John Kuntze	Lit.
59.	2023-08-08	email	Stephen Brickman	Chad Curtis	Lit.
60.	2023-08-08	email	Paul Courey	Chad Curtis, Stephen Brickman and John Kuntze	S-C, Lit.
61.	2023-08-08	email	Chad Curtis	Paul Courey, Stephen Brickman and John Kuntze	S-C, Lit.
62.	2023-08-08	email	Paul Courey	Chad Curtis, Stephen Brickman and John Kuntze	S-C, Lit.
63.	2023-08-08	email	Chad Curtis	Paul Courey, Stephen Brickman and John Kuntze	Lit.
64.	2023-08-08	email	Chad Curtis	Paul Courey, Stephen Brickman and John Kuntze	S-C, Lit.
65.	2023-08-08	email	Chad Curtis	Paul Courey, Stephen Brickman and John Kuntze	Lit.
66.	2023-08-08	email	Chad Curtis	Paul Courey, John Kuntze, Stephen Brickman, Jeff Bunn and Patrick Kelly	Lit.
67.	2023-08-08	email	Chad Curtis	Stephen Brickman, John Kuntze and Paul Courey	Lit.
68.	2023-08-08	email	Paul Courey	Chad Curtis, John Kuntze, Stephen Brickman, Jeff Bunn and Patrick Kelly	S-C, Lit.

69.	2023-08-08	email	Paul Courey	Chad Curtis, Stephen Brickman and John Kuntze	S-C, Lit.
70.	2023-08-14	email	Chad Curtis	John Kuntze and Stephen Brickman	Lit.
71.	2023-08-14	email	Stephen Brickman	Chad Curtis and John Kuntze	Lit.
72.	2023-08-14	email	Chad Curtis	Stephen Brickman and John Kuntze	Lit.
73.	2023-08-14	email	Paul Courey	Chad Curtis, Stephen Brickman and John Kuntze	S-C, Lit.
74.	2023-08-14	email	Paul Courey	Chad Curtis, John Kuntze and Stephen Brickman	S-C, Lit.
75.	2023-08-14	email	Chad Curtis	Paul Courey, Stephen Brickman and John Kuntze	S-C, Lit.
76.	2023-08-14	email	Chad Curtis	Paul Courey, Stephen Brickman and John Kuntze	S-C, Lit.
77.	2023-08-17	email	Chad Curtis	Stephen Brickman, John Kuntze and Adam Hall	Lit.
78.	2023-08-17	email	Stephen Brickman	Chad Curtis, John Kuntze and Adam Hall	Lit.
79.	2023-08-17	email	Chad Curtis	Stephen Brickman, John Kuntze and Adam Hall	Lit.
80.	2023-08-17	email	Stephen Brickman	Chad Curtis, John Kuntze and Adam Hall	Lit.
81.	2023-08-17	email	Paul Courey	Chad Curtis, Stephen Brickman, John Kuntze and Emma Jackson	S-C, Lit.
82.	2023-08-18	email	Chad Curtis	John Kuntze	Lit.
83.	2023-08-18	email	Stephen Brickman	Chad Curtis, Paul Courey, John Kuntze and Emma Jackson	S-C, Lit.
84.	2023-08-18	email	Stephen Brickman	Paul Courey, Chad Curtis, John Kuntze and Emma Jackson	S-C, Lit.
85.	2023-08-18	email	Chad Curtis	Stephen Brickman	Lit.
86.	2023-08-18	email	Stephen Brickman	Chad Curtis	Lit.
87.	2023-08-18	email	Chad Curtis	Stephen Brickman	Lit.

88.	2023-08-18	email	Paul Courey	Chad Curtis, Stephen Brickman, John Kuntze and Emma Jackson	S-C, Lit.
89.	2023-08-18	email	Chad Curtis	Paul Courey, Stephen Brickman, John Kuntze and Emma Jackson	S-C, Lit.
90.	2023-08-18	email	Paul Courey	Chad Curtis, Stephen Brickman, John Kuntze and Emma Jackson	S-C, Lit.
91.	2023-08-18	email	Paul Courey	Stephen Brickman, Chad Curtis, John Kuntze and Emma Jackson	S-C, Lit.
92.	2023-08-18	email	Stephen Brickman	Paul Courey, Chad Curtis, John Kuntze and Emma Jackson	S-C, Lit.
93.	2023-08-18	email	Chad Curtis	Paul Courey, John Kuntze, Stephen Brickman and aharron	S-C, Lit.
94.	2023-08-18	email	Paul Courey	Chad Curtis, Stephen Brickman, John Kuntze and Emma Jackson	S-C, Lit.
95.	2023-08-18	email	Paul Courey	Stephen Brickman, Chad Curtis, John Kuntze and Emma Jackson	S-C, Lit.
96.	2023-08-21	email	Chad Curtis	John Kuntze	Lit.
97.	2023-08-21	email	Chad Curtis	John Kuntze	Lit.
98.	2023-08-21	email	John Kuntze	Chad Curtis	S-C, Lit.
99.	2023-08-21	email	John Kuntze	Chad Curtis	S-C, Lit.
100.	2023-08-23	email	Chad Curtis	Amy Harron, Paul Courey, Stephen Brickman and John Kuntze	Lit.
101.	2023-08-24	email	Paul Courey	Chad Curtis, John Kuntze and Sheri Clark	S-C, Lit.
102.	2023-08-24	email	Chad Curtis	Paul Courey, John Kuntze and Sheri Clark	S-C, Lit.
103.	2023-08-24	email	Paul Courey	Chad Curtis, John Kuntze and Sheri Clark	S-C, Lit.
104.	2023-08-24	email	Chad Curtis	Paul Courey, John Kuntze and Sheri Clark	S-C, Lit.
105.	2023-08-28	email	Jeff Bunn	Chad Curtis	S-C, Lit.
106.	2023-09-06	email	Chad Curtis	Stephen Brickman	Lit.
107.	2023-09-06	email	Stephen Brickman	Chad Curtis	Lit.

108.	2023-09-06	email	Stephen Brickman	Chad Curtis, Paul J. Courey, John Kuntze and Emma Jackson	Lit.
109.	2023-09-06	email	Chad Curtis	Stephen Brickman, Paul J. Courey, John Kuntze and Emma Jackson	Lit.
110.	2023-09-06	email	Stephen Brickman	Chad Curtis	Lit.
111.	2023-09-06	email	Paul Courey	Chad Curtis, Stephen Brickman, John Kuntze and Sheri Clark	S-C, Lit.
112.	2023-09-06	email	Stephen Brickman	Paul Courey, Chad Curtis, John Kuntze and Sheri Clark	S-C, Lit.
113.	2023-09-06	email	Paul Courey	Stephen Brickman, Chad Curtis, John Kuntze and Sheri Clark	S-C, Lit.
114.	2023-09-06	email	Chad Curtis	Paul Courey, John Kuntze and Stephen Brickman	S-C, Lit.
115.	2023-09-08	email	Chad Curtis	John Kuntze	Lit.
116.	2023-09-08	email	Paul Courey	Chad Curtis, John Kuntze, Stephen Brickman and Sheri Clark	S-C, Lit.



**Bamberg Creek, Jananna, and
Koch-Leis Municipal Drains
2023**

April 28, 2023

Prepared for:



Kitchener, Ontario
April 28, 2023

To the Mayor and Members of Council:

Re: Bamberg Creek, Jananna, and Koch-Leis Municipal Drains 2023
Township of Wilmot
Our Reference No. WLMT-002

Headway Engineering is pleased to provide its report for the **Bamberg Creek, Jananna, and Koch-Leis Municipal Drains 2023** in the Township of Wilmot.

The preparation of this report was authorized by resolutions of the Council of the Township of Wilmot on July 12, 2021, per Section 4(1) of the Drainage Act.

The primary objective of this report is to establish a new Municipal Drain designed to today's standards of drainage for an area requiring drainage. The report recommends the construction of a new closed municipal drain from two locations on the North Part of Lot 10, Concession 3, Block B and extending downstream to its outlet into the Koch-Leis Drain and the Bamberg Creek. Improvements are required to portions of the Koch-Leis Drain, and the Bamberg Creek.

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

Municipal Lands	\$32,649
Privately Owned Agricultural – Grantable	\$430,251
Total Estimated Assessments	\$462,900

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	PROJECT AUTHORIZATION	1
3.0	DRAINAGE HISTORY	1
4.0	PUBLIC MEETINGS AND ENGAGEMENTS.....	2
5.0	FINDINGS	3
6.0	DESIGN CONSIDERATIONS	4
7.0	ENVIRONMENTAL CONSIDERATIONS AND PERMITTING	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	9
15.0	ASSESSMENT	9
16.0	GRANT ELIGIBILITY.....	10
17.0	MAINTENANCE	10

SCHEDULES

SCHEDULE A – ALLOWANCES

SCHEDULE B – ESTIMATED CONSTRUCTION COSTS

SCHEDULE C – ASSESSMENT FOR 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 Wilmot has appointed Headway Engineering to investigate a petition for a new municipal drainage works. The project services parts of Lots 9 to 12 in Concessions 3 Block B, in the Township of Wilmot, and parts of Lots 6 to 8 in Concession 2, Eastern Division, and part of Lot 8, Concession 3, Eastern Division in the Township of Wellesley.

The liable drainage area comprises of approximately 221 hectares, and land uses within the watershed include agriculture, bush lands, and roads.

The attached Plans, Profiles and Details; Drawing Numbers 1 to 6, show and describe in detail the location and extent of the work to be completed and the lands which are affected.

2.0 PROJECT AUTHORIZATION

Authority to prepare this report was obtained by resolutions of the Council of the Township of Wilmot at its July 12, 2021 Council Meeting to appoint Headway Engineering to prepare an Engineer’s Report under Section 4 of the Drainage Act. The area requiring drainage is part of Lot 10, Concession 3, Block B. The petition is valid in accordance with Section 4(1)(a) of the Drainage Act.

3.0 MUNICIPAL DRAINAGE HISTORY

3.1 Koch-Leis Drain (1950)

The Koch-Leis Drain was originally constructed under the authority of a report prepared by Graham Reid & Associates, dated November 15, 1950. This 1950 report provided for the construction of the entire Koch-Leis Drain as an open ditch.

The following table summarizes the maintenance activities on the Koch-Leis Drain, per Township records:

Year	Location	Description
1985 (Summer)	Gerber Road, downstream to Bamberg Creek	Ditch cleanout
2010 (Fall)	Bamberg Creek	Beaver, and beaver dam removals
2012 (Spring)	Sta. 0+000 to Sta. 0+374 (approx.)	Ditch cleanout
2018 (Spring)	Sta. 0+000 to Sta. 0+620 (approx.), and spot locations upstream	Ditch cleanout and brushing, spot cleanouts.
2021 (Fall)	Sta. 0+000 to Sta. 0+374 (approx.)	Ditch cleanout and brushing



4.0 PUBLIC MEETINGS AND ENGAGEMENTS

4.1 On-Site Meeting

Per Section 9(1) of the Drainage Act, an on-site meeting was held on September 22, 2021 to address the Section 4 Petition. Persons in attendance were:

Stephen Brickman, P.Eng.	Headway Engineering
Adam Hall	Headway Engineering
John Kuntze, P.Eng.	Township of Wilmot, Drainage Superintendent
Josh Graham, C.E.T.	Region of Waterloo
Ken Renner	Region of Waterloo

Landowners included:

Lucy Gawron	Walter Krupnik	Wayne & Irene Schneider
Ron McCormick	Christine Gawron	

4.2 Public Information Meeting No. 1

A Public Information Meeting was held on September 29, 2022. Persons in attendance were:

Stephen Brickman, P.Eng.	Headway Engineering
Adam Hall	Headway Engineering
John Kuntze, P.Eng.	Township of Wilmot, Drainage Superintendent

Landowners included:

Cory Kittel	Wayne & Irene Schneider	Walter Krupnik
Lucy Gawron	Ken & Cathy Heintz	Justin Miller
Chris & Keith Turner	Ron McCormick	Theresa Gawron (Virtually)

The information supplied included details on the proposed construction of two pipe drainage systems identified as the East and West Branches, and improvements to Bamberg Creek.

This meeting provided a review of the design of the proposed drainage system, the estimated costs of the project, and the proposed assessments.

Subsequent to the meeting, improvements were requested to the lower end of the Koch-Leis Drain. Given the frequent need for cleanouts (three cleanouts in 10 years at the lower end), and the newly proposed improvements to Bamberg Creek, additional grade is available to the Koch-Leis Drain.

4.3 Public Information Meeting No. 2 (Koch-Leis Drain Improvements)

A second Public Information Meeting was held on November 24, 2022. Persons in attendance were:

Stephen Brickman, P.Eng.	Headway Engineering
Adam Hall	Headway Engineering
John Kuntze, P.Eng.	Township of Wilmot, Drainage Superintendent
Garth Noecker	Township of Wellesley, Drainage Superintendent
Ken Renner	Region of Waterloo

Landowners included:

Lucy Gawron	Wayne & Irene Schneider	Walter Krupnik
Jeff Cressman	Dave and Eva Cressman	Ken & Cathy Heintz
Chris Gawron	Keith Turner	Peter Schneider



The information supplied essentially included the same details as presented at the Public Information Meeting No. 1, but with improved grade at the lower end of the Koch-Leis Drain.

This meeting provided a review of the design of the proposed drainage system, the estimated costs of the project, and the proposed assessments.

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 General Findings:

- The watershed was established through the analysis of tile drainage maps, previous engineers' reports for surrounding systems, field investigations, surveys, and data analysis of the Southwestern Ontario Orthophotographic Project (SWOOP). The drainage area liable for assessment comprises of approximately 221 hectares.
- Land uses within the drainage area are as follows:
 - Agricultural: 180.4 hectares (82%)
 - Bush: 37.5 hectares (17%)
 - Roads: 3.1 hectares (1%)
- The Ontario Ministry of Agriculture, Food and Rural Affairs' Agricultural Information Atlas describes the soil types within the watershed and along the route of the drain as follows:
 - Silt Loam (approximately 24%)
 - Silty Clay Loam (approximately 31%)
 - Sandy Loam (approximately 45%).
- Lands north of Gerber Road, and immediately south of Gerber Road are noted to be sandy with above average properties for infiltration.

5.2 Existing Drainage System:

- The Koch-Leis Drain has a very flat grade for approximately 300m at its outlet. The previous drainage report indicates that the Koch-Leis Drain was constructed with more grade.
- The outlet for the entire system is Bamberg Creek.
- Bamberg Creek shows signs of artificial improvements in its history, such as straightening, and additional depth at the time the Koch-Leis Drain was originally constructed (1950).

5.3 Outlet:

- The outlet for the system is Bamberg Creek approaching Berlett's Road, where the natural watercourse begins to take on more grade.



5.4 Other noted issues:

- The north part of Lot 10, Concession 3, Block B has been recently systematically tiled toward the Koch-Leis Drain. The north side of the property is not systematically tiled, as conditions improve for drainage.
- Eastern portions of Lot 10, Concession 3, Block B have been tiled toward the Koch-Leis Drain, where those lands would naturally drain south toward Bamberg Creek. The south-east portion of the property could not be drained toward the Koch-Leis Drain, and requires a legal outlet.
- Surface flows along the upper alignment of the East Branch and West Branch are causing reduced usability of the surrounding lands.
- Areas within the drainage area are likely to be tiled in the future.
- Tile outlets into Bamberg Creek do not have sufficient depth for today's standards of drainage.
- Bamberg Creek is prone to beaver activity. The municipality currently has limited ability to complete any maintenance on Bamberg Creek.
- Current topographic data indicates that portions of the Koch-Leis Drain watershed, as noted in the 1950 report, are incorrect.

5.5 Environmental Condition:

- Portions of the proposed drainage system pass through components of the Provincially Significant Sunfish Lake Laurel Creek Wetland Complex.

6.0 DESIGN CONSIDERATIONS

The proposed tile drainage system is sized using the Drainage Coefficient method contained in the OMAFRA 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.

The tile drains are to be installed along an alignment which approximately follows the natural flow paths.

Headway Engineering investigated a design option which relied on the use of the existing private drain for the lower portion of the West Branch as a municipal drain. This design option resulted in minimal cost savings while providing for smaller infrastructure. A single pipe system sized to today's standards is the most feasible option.

Pipe materials were selected based on location and intended land uses adjacent to the drainage system.

Surface water inlets have been placed purposefully to receive surface flow and allow for subsurface connections. Likewise, the elevation of the pipe systems are designed to provide for subsurface tile connections at, and between surface water inlets.



Works in Bamberg Creek have been designed to provide for sufficient outlet for the Koch-Leis Drain, and the East Branch. The proposed works also provide opportunity for improved tile drainage for workable areas adjacent to, or near works proposed in Bamberg Creek.

7.0 ENVIRONMENTAL CONSIDERATIONS AND PERMITTING

7.1 Department of Fisheries and Oceans (DFO)

The work proposed under this report consists of the new construction of a closed drainage system, and improvements to existing open watercourses. Headway Engineering submitted a Request for Review by DFO on April 12, 2022. DFO contacted Headway Engineering for additional discussion, and upon DFO's completion of their review, DFO provided the following correspondence, dated June 27, 2022:

"... the [Fish and Fish Habitat Protection] Program is of the view that your proposal will not require an authorization under the Fisheries Act, or the Species at Risk Act."

7.2 Ministry of Natural Resources and Forestry (MNR) and the Ministry of Environment, Conservation and Parks (MECP)

Headway Engineering completed a review of the Natural Heritage Information Centre mapping for Species at Risk in Ontario. Provincial Species at Risk requiring special consideration were not found in the working area.

In response to a public inquiry, the MECP reached out to Headway Engineering to request information, mainly relating to Eastern Meadowlark. Special provisions to locate (if present) the species within the work area have been prepared by Headway Engineering and approved by the MECP.

7.3 Grand River Conservation Authority (GRCA)

The GRCA provided correspondence dated October 21, 2021, which states the following:

"... our [GRCA] comments on works under the Drainage Act are advisory, and will not require a GRCA permit."

The correspondence also states the following:

"... we [GRCA] wish to stay involved as the study process moves forward."

The GRCA has been included on the circulation list for this report and has been notified of all public engagements. Additionally, Headway Engineering has forwarded design drawings to the GRCA on January 20, 2023, for comment, and held a virtual meeting with GRCA staff on February 3, 2023.

8.0 RECOMMENDATIONS

Headway Engineering recommends the following:

- A new municipal drainage system be installed from the outlet into Bamberg Creek in Lot 9, Concession 3, Block B, and extending upstream to the property line separating Lots 9 and 10, in the same concession. This Branch shall be known as the East Branch of the Jannana Municipal Drain.



- A new municipal drainage system be installed from the outlet into the Koch-Leis Drain in Lot 10, Concession 3, Block B, and extending upstream to the south road limit of Gerber Road, in the same concession. This Branch shall be known as the West Branch of the Jannana Municipal Drain.
- Improvements be made to the Koch-Leis Drain from its outlet into Bamberg Creek in Lot 10, Concession 3, Block B and extending upstream to the outlet of the West Branch.
- Improvements be made to Bamberg Creek from the outlet of the East Branch, and extending downstream to a sufficient outlet on the Schneider property (Roll No. 9-153).
- The proposed tile drainage system includes the installation of approximately 1,358m of 200mm to 450mm diameter pipes and is designed to convey flows at a design standard of 25mm per 24-hour period. The proposed improvements to the open channels consists of approximately 1,201m of cleanout.
- The proposed drainage system shall be constructed at an elevation adequate to drain the surrounding subsurface lands.
- This improved drainage system shall be known as the **Bamberg Creek, Jananna and Koch-Leis Municipal Drains 2023**. The Jananna Municipal Drain shall include the **East Branch**, and the **West Branch**. The Koch-Leis Drain will continue with the same identification.
- The watershed for the Koch-Leis Drain be updated per the most current topographic information, and the maintenance assessment be altered accordingly.
- Headway Engineering also recommends that the watersheds of the surrounding municipal drains be updated when those drainage systems are revisited in the future.

9.0 SUMMARY OF PROPOSED WORKS

The proposed work consists of:

1. The installation of approximately 1,358m of 200mm to 450mm diameter concrete field tile and HDPE pipe.
2. The installation of four concrete catch basins and one junction box, and
3. The improvement of approximately 1,201m of open channels.

10.0 WORKING AREA AND ACCESS

Access to the working area shall be as designated on the plans. In locations where access is not shown on the plans then access shall be designated by the Landowners.

10.1 Closed Drains (East and West Branches)

The working area shall be an average width of 25m for construction purposes, and an average width of 10m for maintenance purposes along the alignment of the proposed drain.

10.2 Open Drains (Bamberg Creek and Koch-Leis Municipal Drains)

The working area shall be an average width of 10m for construction and maintenance purposes along the working side of the open drain.



11.0 SCHEDULES

Four schedules are attached and form part of this report.

11.1 Schedule A – Schedule of Allowances

Following Sections 29, 30, and 33 of the Drainage Act, allowances are provided to 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

Per Sections 29, 30, and 33 of the Drainage Act, Allowances payable to Landowners are described below.

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 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 (Maintenance Corridor)	\$60,000/Ha	25%	\$15,000/Ha
Wooded (Maintenance Corridor)	\$15,000/Ha	25%	\$3,750/Ha
Watercourse (Land Taken)	\$15,000/Ha	100%	\$15,000/Ha



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, are primarily calculated to compensate landowners for crop 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
Wooded	\$3,000/Ha

12.1 Allowances for Loss of Access (Section 33)

An allowance may be provided to a Landowner if the establishment of a municipal drain causes the loss of access to a portion of the property. A Loss of Access allowance is calculated as the lesser of the following calculations:

- The cost of constructing a suitable bridge or crossing
- The value of the land which is severed from the rest of the property by the establishment of a municipal drain.

Five Loss of Access allowances are provided in this report, all of which resulted with the value of the land severed as the lesser of the above calculations.

Total Allowances, under Sections 29, 30, and 33 of the Drainage Act are \$167,400. Allowances payable to Landowners are shown in Schedule A.

Allowances will be deducted from the total assessments in accordance with Section 62(3) of the Drainage Act.

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.

Part A – Bamberg Creek Drain	\$ 44,400
Part B – Jananna – East Branch	\$ 60,300
Part C – Jananna – West Branch	\$ 50,100
Part D – Koch-Leis Drain	\$ 9,800
Part E – Provisional Items	\$ 16,200
Total Estimated Construction Costs	\$ 180,800



14.0 SUMMARY OF ESTIMATED PROJECT COSTS

The total estimated project costs are as follows:

Allowances under Sections 29, 30, 33 of the Drainage Act (Refer to Schedule A)	\$ 167,400
Total Estimated Construction Costs (Refer to Schedule B)	\$ 180,800
Public engagements, survey, design and drafting, preparation of preliminary cost estimates and assessments, preparation of drainage report, consideration of report	\$ 70,300
Agency Consultations and Approvals	\$ 1,200
Tendering, supervision, and inspection of construction, as-recorded drawing preparation	\$ 22,900
Contingencies, Interest and net H.S.T.	\$ 20,300
TOTAL ESTIMATED PROJECT COSTS	
BAMBERG CREEK, JANANNA, AND KOCH-LEIS MUNICIPAL DRAINS 2023	\$ 462,900

The estimated cost of the work in the Township of Wilmot is \$462,900.

The above costs are estimates only. The final costs of construction, engineering and administration cannot be determined until the project 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 principals 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 liable 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)

15.3.1 Assessment of Costs for Crossing Considerations

The Special Benefit instrument of assessment is used to separate the benefit portion of the crossing considerations from the remaining costs of the project. Crossing considerations include the Loss of Access allowances.

16.0 GRANT ELIGIBILITY

The Province provides grants toward assessments to eligible properties for drainage improvements which meet specified criteria. The provision of these grants for activities under the Drainage Act is known as 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 Municipality to make application for this grant upon certification of completion. The Municipality will then deduct the grant from the assessments.

16.1 Allowance for Loss of Access

Following policy number 2.4 e) of the ADIP policies, no grant will be paid on an allowance for loss of access except when the cost of providing a crossing exceeds the value of the land losing access. As noted under Heading 12.1 of this report, all Loss of Access allowances were calculated based on the value of the land losing access. The Loss of Access allowances qualify for ADIP grants.

17.0 MAINTENANCE

After completion, the Bamberg Creek, Jananna, and Koch-Leis Municipal Drains shall be maintained by the Township of Wilmot and the Township of Wellesley for those portions of the drainage systems which are located in their respective municipalities, at the expense of all the lands and roads assessed in accordance with the attached Schedule D – Assessment for Maintenance, and in the same relative proportions until such time as the assessment is changed under the Drainage Act, except for the portions of the drainage works on municipal right-of-ways. These portions shall be maintained at the expense of the road authority having jurisdiction over the road.



Schedule A

Allowances

Schedule of Allowances

Bamberg Creek, Jananna, and Koch-Leis Municipal Drains 2023

Bamberg Creek Drain	Property Details				Drainage Act Allowances			
	Part			Roll	Right of Way	Damages	Loss of Access	Total Allowances
	Lot	Concession	Landowner	Number	(Sec. 29)	(Sec. 30)	(Sec. 33)	
	9	3 Block B	Oleg & Elena Borissova	9-151	\$ 1,020.00	\$ 1,020.00	\$ 1,000.00	\$ 3,040.00
	9	3 Block B	Cory & Kirby Kittel	9-165	\$ 270.00	\$ 270.00		\$ 540.00
	10	3 Block B	Peter & Dagmar Schneider	9-153	\$ 2,310.00	\$ 1,720.00		\$ 4,030.00
	10	3 Block B	Peter & Barbara Wurtele	9-153-01	\$ 1,230.00	\$ 1,080.00	\$ 34,800.00	\$ 37,110.00
	10	3 Block B	David & Sherri Homanchuk	9-154	\$ 3,420.00	\$ 3,190.00	\$ 39,600.00	\$ 46,210.00
	Total Allowances							
	Bamberg Creek Drain				\$ 8,250.00	\$ 7,280.00	\$ 75,400.00	\$ 90,930.00

Jananna - East Branch	Property Details				Drainage Act Allowances			
	Part			Roll	Right of Way	Damages	Loss of Access	Total Allowances
	Lot	Concession	Landowner	Number	(Sec. 29)	(Sec. 30)	(Sec. 33)	
	9	3 Block B	Cory & Kirby Kittel	9-165	\$ 3,270.00	\$ 3,770.00		\$ 7,040.00
	10	3 Block B	Jananna Corp.	9-164	\$ 5,750.00	\$ 5,750.00		\$ 11,500.00
	Total Allowances							
	Jananna - East Branch				\$ 9,020.00	\$ 9,520.00	\$ -	\$ 18,540.00

Jananna - West Branch	Property Details				Drainage Act Allowances			
	Part			Roll	Right of Way	Damages	Loss of Access	Total Allowances
	Lot	Concession	Landowner	Number	(Sec. 29)	(Sec. 30)	(Sec. 33)	
	10	3 Block B	Jananna Corp.	9-164	\$ 11,400.00	\$ 11,400.00		\$ 22,800.00
	Total Allowances							
	Jananna - West Branch				\$ 11,400.00	\$ 11,400.00	\$ -	\$ 22,800.00

Koch-Leis Drain	Property Details				Drainage Act Allowances			
	Part			Roll	Right of Way	Damages	Loss of Access	
	Lot	Concession	Landowner	Number	(Sec. 29)	(Sec. 30)	(Sec. 33)	Total Allowances
	10	3 Block B	Peter & Dagmar Schneider	9-153	\$ 2,810.00	\$ 530.00	\$ 8,700.00	\$ 12,040.00
10	3 Block B	David & Sherri Homanchuk	9-154	\$ 2,810.00	\$ 1,120.00		\$ 3,930.00	
10	3 Block B	Jananna Corp.	9-164	\$ 2,660.00	\$ -	\$ 16,500.00	\$ 19,160.00	
Total Allowances Koch-Leis Drain					\$ 8,280.00	\$ 1,650.00	\$ 25,200.00	\$ 35,130.00
					Right of Way (Sec. 29)	Damages (Sec. 30)	Loss of Access (Sec. 33)	Total Allowances
Total Allowances Bamberg Creek, Jananna, and Koch-Leis Municipal Drains 2023					\$ 36,950.00	\$ 29,850.00	\$ 100,600.00	\$ 167,400.00



Schedule B

Estimated Construction Costs

Schedule of Estimated Construction Costs

We have made an estimate of the cost of the proposed work which is outlined in detail as follows:

Part A - Bamberg Creek Drain

Description	Estimated Quantity	\$/Unit	Total
1) Clearing, brushing and mulching	l.s.		\$ 20,000.00
2) Open ditch excavation (approx. 400m ³) including cleanout through concrete bridge at Sta. 0+539	650 m	\$ 20.00	\$ 13,000.00
3) Levelling of excavated material	650 m	\$ 6.00	\$ 3,900.00
4) Seeding of disturbed side slopes	2000 m ²	\$ 1.25	\$ 2,500.00
5) Supply and place rip-rap erosion protection at Sta. 0+000 to transition Bamberg Creek existing grade to proposed streambed (approx. 10m length)	l.s.		\$ 5,000.00

Total Estimated Construction Costs

Part A - Bamberg Creek Drain **\$ 44,400.00**

Part B - Jananna - East Branch

Description	Estimated Quantity	\$/Unit	Total
1) Supply 200mm diameter concrete field tile	288 m	\$ 20.00	\$ 5,760.00
Installation (Sta. 0+310 to Sta. 0+598)	288 m	\$ 32.00	\$ 9,216.00
2) Supply 400mm diameter concrete field tile	304 m	\$ 35.00	\$ 10,640.00
Installation (Sta. 0+006 to Sta. 0+310)	304 m	\$ 36.00	\$ 10,944.00
3) Supply 450mm diameter HDPE outlet pipe (CSA B182.8) complete with rodent grate	6 m	\$ 120.00	\$ 720.00

Description	Estimated Quantity	\$/Unit	Total
4) Installation of 450mm diameter outlet pipe complete with quarry stone rip-rap protection and geotextile filter material (50m ²)	I.s.		\$ 9,020.00
5) Supply and install 600mm X 600mm concrete catchbasin at Sta. 0+598 (inline type)	1 ea.	\$ 2,500.00	\$ 2,500.00
6) Supply and install 600mm X 600mm concrete catchbasin offset 21m east of Sta. 0+270 including connection to the main drain with 300mm diameter pipe	1 ea.	\$ 4,500.00	\$ 4,500.00
7) Supply and install 900mm X 1200mm concrete junction box at Sta. 0+310 (inline type)	1 ea.	\$ 3,000.00	\$ 3,000.00
6) Supply and install 900mm X 1200mm concrete ditch inlet catch basin at Sta. 0+218 (inline type)	1 ea.	\$ 4,000.00	\$ 4,000.00
Total Estimated Construction Costs Part B - Jananna - East Branch			\$ 60,300.00

Part C - Jananna - West Branch

Description	Estimated Quantity	\$/Unit	Total
1) Supply 200mm diameter concrete field tile Installation (Sta. 0+450 to Sta. 0+760)	310 m 310 m	\$ 20.00 \$ 32.00	\$ 6,200.00 \$ 9,920.00
2) Supply 250mm diameter concrete field tile Installation (Sta. 0+006 to Sta. 0+450)	444 m 444 m	\$ 25.00 \$ 34.00	\$ 11,100.00 \$ 15,096.00
3) Supply 250mm diameter HDPE outlet pipe (CSA B182.8) complete with rodent grate	6 m	\$ 120.00	\$ 720.00
4) Installation of 250mm diameter outlet pipe complete with quarry stone rip-rap protection and geotextile filter material (30m ²)	I.s.		\$ 7,064.00
Total Estimated Construction Costs Part C - Jananna - West Branch			\$ 50,100.00

Part D - Koch-Leis Drain

Description	Estimated Quantity	\$/Unit	Total
1) Clearing, brushing and mulching	I.s.		\$ 2,025.00
2) Open ditch cleanout	275 m	\$ 20.00	\$ 5,500.00
3) Levelling of excavated material	275 m	\$ 6.00	\$ 1,650.00
4) Seeding of disturbed side slopes	500 m2	\$ 1.25	\$ 625.00

Total Estimated Construction Costs

Part D - Koch-Leis Drain **\$ 9,800.00**

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 (text or email) 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

Description	Estimated Quantity	\$/Unit	Total
250mm diameter pipe	75 m	\$ 40.00	\$ 3,000.00
400mm diameter pipe	150 m	\$ 50.00	\$ 7,500.00

- 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
250mm diameter pipe	25 m	\$ 30.00	\$ 750.00
400mm diameter pipe	50 m	\$ 40.00	\$ 2,000.00

Description	Estimated Quantity	\$/Unit	Total
3) Wheel machine lift outs due to stony conditions	3 ea.	\$ 300.00	\$ 900.00
4) Tile connections:			
Description	Estimated Quantity*	\$/Unit	Total
100mm diameter	10 ea.	\$ 90.00	\$ 900.00
150mm diameter	5 ea.	\$ 100.00	\$ 500.00
200mm diameter	5 ea.	\$ 130.00	\$ 650.00

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

Total Estimated Construction Costs

Part E - Provisional Items

\$ 16,200.00

Summary of Estimated Construction Costs

Part A - Bamberg Creek Drain	\$ 44,400.00
Part B - Jananna - East Branch	\$ 60,300.00
Part C - Jananna - West Branch	\$ 50,100.00
Part D - Koch-Leis Drain	\$ 9,800.00
Part E - Provisional Items	\$ 16,200.00

Total Estimated Construction Costs

\$ 180,800.00

Total Estimated Materials	\$ 35,140.00
Total Estimated Labour and Equipment	\$ 145,660.00

Total Estimated Construction Costs

**Bamberg Creek, Jananna, and Koch-Leis Municipal Drains
2023**

\$ 180,800.00



Schedule C

Assessment for Construction

**Schedule of Assessment for Construction
Bamberg Creek, Jananna, and Koch-Leis Municipal Drains 2023**

	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)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense	
Bamberg Creek Drain	Township of Wilmot												
	9	3 Block B	Oleg & Elena Borissova	9-151	8.54	\$ 5,503.00	\$ 2,354.00		\$ 7,857.00	\$ 2,619.00	\$ 3,040.00	\$ 2,198.00	
	9	3 Block B	Cory & Kirby Kittel	9-165	13.84	\$ 18,241.00	\$ 4,374.00		\$ 22,615.00	\$ 7,538.00	\$ 540.00	\$ 14,537.00	
	10	3 Block B	Peter & Dagmar Schneider	9-153	9.3	\$ 12,500.00	\$ 1,933.00		\$ 14,433.00	\$ 4,811.00	\$ 4,030.00	\$ 5,592.00	
	10	3 Block B	Peter & Barbara Wurtele	9-153-01	0.89	\$ 12,811.00	\$ 182.00	\$ 32,020.00	\$ 45,013.00	\$ 15,004.00	\$ 37,110.00	-\$ (7,101.00)	
	10	3 Block B	David & Sherri Homanchuk	9-154	3.7	\$ 26,336.00	\$ 962.00	\$ 36,440.00	\$ 63,738.00	\$ 21,246.00	\$ 46,210.00	-\$ (3,718.00)	
	10	3 Block B	Jananna Corp.	9-164	45.3	\$ 10,649.00	\$ 11,040.00		\$ 21,689.00	\$ 7,230.00	\$ -	\$ 14,459.00	
	11	3 Block B	Kenneth & Catherine Heintz	9-156	6.2	\$ -	\$ 1,030.00		\$ 1,030.00	\$ 343.00	\$ -	\$ 687.00	
	11	3 Block B	Roadside Farm Inc.	9-163	42.8	\$ -	\$ 8,864.00		\$ 8,864.00	\$ 2,955.00	\$ -	\$ 5,909.00	
	12	3 Block B	David & Eva Cressman	9-160	3.1	\$ -	\$ 684.00		\$ 684.00	\$ 228.00	\$ -	\$ 456.00	
	Total Assessments on Lands						\$ 86,040.00	\$ 31,423.00	\$ 68,460.00	\$ 185,923.00	\$ 61,974.00	\$ 90,930.00	\$ 33,019.00
	Gerber Road		Region of Waterloo				\$ -	\$ 4,364.00		\$ 4,364.00			\$ 4,364.00
	Total Assessments on Roads						\$ -	\$ 4,364.00	\$ -	\$ 4,364.00			\$ 4,364.00
	Total Assessments Main Open Township of Wilmot						\$ 86,040.00	\$ 35,787.00	\$ 68,460.00	\$ 190,287.00	\$ 61,974.00	\$ 90,930.00	\$ 37,383.00
	Township of Wellesley												
	6	2 East	Natalee Ridgeway	1-007-00	7.98	\$ -	\$ 1,571.00		\$ 1,571.00	\$ 524.00	\$ -	\$ 1,047.00	
	6	2 East	Ronald & Rosemary McCormick	1-007-01	5.79	\$ -	\$ 1,140.00		\$ 1,140.00	\$ 380.00	\$ -	\$ 760.00	
	7	2 East	Ladislaus & Laurretta Bauer	1-008-02	8.45	\$ -	\$ 848.00		\$ 848.00	\$ 283.00	\$ -	\$ 565.00	
	7	2 East	264171 Holdings Ltd.	1-008	25.45	\$ -	\$ 2,757.00		\$ 2,757.00	\$ 919.00	\$ -	\$ 1,838.00	
7	2 East	Jeffrey Furtado & Paige Stewart	1-008-01	4.5	\$ -	\$ 99.00		\$ 99.00	\$ 33.00	\$ -	\$ 66.00		
8	2 East	Robert & Anne Jantzi	1-009	25	\$ -	\$ 4,759.00		\$ 4,759.00	\$ 1,586.00	\$ -	\$ 3,173.00		
8	3 East	Bamway Industries Inc.	1-027	6.9	\$ -	\$ 1,006.00		\$ 1,006.00	\$ 335.00	\$ -	\$ 671.00		
8	3 East	Jammon & Elvina Bauman	1-026	6.3	\$ -	\$ 933.00		\$ 933.00	\$ 311.00	\$ -	\$ 622.00		
Total Assessments on Lands						\$ -	\$ 13,113.00	\$ -	\$ 13,113.00	\$ 4,371.00	\$ -	\$ 8,742.00	
Total Assessments Township of Wellesley						\$ -	\$ 13,113.00	\$ -	\$ 13,113.00	\$ 4,371.00	\$ -	\$ 8,742.00	
Total Assessments Bamberg Creek Drain						\$ 86,040.00	\$ 48,900.00	\$ 68,460.00	\$ 203,400.00	\$ 66,345.00	\$ 90,930.00	\$ 46,125.00	

	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)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense	
Jananna - East Branch	Township of Wilmot												
	9	3 Block B	Cory & Kirby Kittel	9-165	13.84	\$ 9,278.00	\$ 17,478.00		\$ 26,756.00	\$ 8,919.00	\$ 7,040.00	\$ 10,797.00	
	10	3 Block B	Jananna Corp.	9-164	5.88	\$ 52,342.00	\$ 8,957.00		\$ 61,299.00	\$ 20,433.00	\$ 11,500.00	\$ 29,366.00	
	Total Assessments on Lands					\$ 61,620.00	\$ 26,435.00	\$ -	\$ 88,055.00	\$ 29,352.00	\$ 18,540.00	\$ 40,163.00	
	Gerber Road Region of Waterloo					1.04	\$ -	\$ 7,205.00		\$ 7,205.00			\$ 7,205.00
	Total Assessments on Roads					\$ -	\$ 7,205.00	\$ -	\$ 7,205.00				\$ 7,205.00
	Total Assessments Main Closed Township of Wilmot					\$ 61,620.00	\$ 33,640.00	\$ -	\$ 95,260.00	\$ 29,352.00	\$ 18,540.00	\$ 47,368.00	
	Township of Wellesley												
	6	2 East	Natalee Ridgeway	1-007-00	7.98	\$ -	\$ 5,529.00		\$ 5,529.00	\$ 1,843.00	\$ -	\$ 3,686.00	
	6	2 East	Ronald & Rosemary McCormick	1-007-01	5.79	\$ -	\$ 4,011.00		\$ 4,011.00	\$ 1,337.00	\$ -	\$ 2,674.00	
	Total Assessments on Lands					\$ -	\$ 9,540.00	\$ -	\$ 9,540.00	\$ 3,180.00	\$ -	\$ 6,360.00	
	Total Assessments Main Closed Township of Wellesley					\$ -	\$ 9,540.00	\$ -	\$ 9,540.00	\$ 3,180.00	\$ -	\$ 6,360.00	
	Total Assessments Jananna - East Branch					\$ 61,620.00	\$ 43,180.00	\$ -	\$ 104,800.00	\$ 32,532.00	\$ 18,540.00	\$ 53,728.00	

	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)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense	
Jananna - West Branch	Township of Wilmot												
	10	3 Block B	Jananna Corp.	9-164	9.34	\$ 51,156.00	\$ 6,344.00		\$ 57,500.00	\$ 19,167.00	\$ 22,800.00	\$ 15,533.00	
	Total Assessments on Lands					\$ 51,156.00	\$ 6,344.00	\$ -	\$ 57,500.00	\$ 19,167.00	\$ 22,800.00	\$ 15,533.00	
	Gerber Road Region of Waterloo					0.87	\$ 9,624.00	\$ 10,631.00		\$ 20,255.00			\$ 20,255.00
	Total Assessments on Roads					\$ 9,624.00	\$ 10,631.00	\$ -	\$ 20,255.00			\$ 20,255.00	
	Total Assessments Branch Township of Wilmot					\$ 60,780.00	\$ 16,975.00	\$ -	\$ 77,755.00	\$ 19,167.00	\$ 22,800.00	\$ 35,788.00	
	Township of Wellesley												
	7	1-008-02	Ladislaus & Laurretta Bauer	1-008-02	8.45	\$ -	\$ 9,395.00		\$ 9,395.00	\$ 3,132.00	\$ -	\$ 6,263.00	
	7	1-008	264171 Holdings Ltd.	1-008	6.26	\$ -	\$ 7,650.00		\$ 7,650.00	\$ 2,550.00	\$ -	\$ 5,100.00	
	Total Assessments on Lands					\$ -	\$ 17,045.00	\$ -	\$ 17,045.00	\$ 5,682.00	\$ -	\$ 11,363.00	
Total Assessments Township of Wellesley					\$ -	\$ 17,045.00	\$ -	\$ 17,045.00	\$ 5,682.00	\$ -	\$ 11,363.00		
Total Assessments Jananna - West Branch					\$ 60,780.00	\$ 34,020.00	\$ -	\$ 94,800.00	\$ 24,849.00	\$ 22,800.00	\$ 47,151.00		

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)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
Township of Wilmot											
10	3 Block B	Peter & Dagmar Schneider	9-153	6.3	\$ 6,317.00	\$ 272.00	\$ 10,800.00	\$ 17,389.00	\$ 5,796.00	\$ 12,040.00	-\$ 447.00
10	3 Block B	David & Sherri Homanchuk	9-154	1.7	\$ 8,509.00	\$ 4.00		\$ 8,513.00	\$ 2,838.00	\$ 3,930.00	\$ 1,745.00
10	3 Block B	Jananna Corp.	9-164	28.7	\$ 3,494.00	\$ 1,850.00	\$ 20,520.00	\$ 25,864.00	\$ 8,621.00	\$ 19,160.00	-\$ 1,917.00
11	3 Block B	Kenneth & Catherine Heintz	9-156	6.2	\$ -	\$ 202.00		\$ 202.00	\$ 67.00	\$ -	\$ 135.00
11	3 Block B	Roadside Farm Inc.	9-163	42.8	\$ -	\$ 3,158.00		\$ 3,158.00	\$ 1,053.00	\$ -	\$ 2,105.00
12	3 Block B	David & Eva Cressman	9-160	3.1	\$ -	\$ 244.00		\$ 244.00	\$ 81.00	\$ -	\$ 163.00
Total Assessments on Lands					\$ 18,320.00	\$ 5,730.00	\$ 31,320.00	\$ 55,370.00	\$ 18,456.00	\$ 35,130.00	\$ 1,784.00
Gerber Road				Region of Waterloo	2.1	\$ -	\$ 825.00	\$ 825.00			\$ 825.00
Total Assessments on Roads					\$ -	\$ 825.00	\$ -	\$ 825.00			\$ 825.00
Total Assessments Branch Township of Wilmot					\$ 18,320.00	\$ 6,555.00	\$ 31,320.00	\$ 56,195.00	\$ 18,456.00	\$ 35,130.00	\$ 2,609.00
Township of Wellesley											
7	2 East	Ladislaus & Laurretta Bauer	1-008-02	8.45	\$ -	\$ 302.00		\$ 302.00	\$ 101.00	\$ -	\$ 201.00
7	2 East	264171 Holdings Ltd.	1-008	25.45	\$ -	\$ 982.00		\$ 982.00	\$ 327.00	\$ -	\$ 655.00
7	2 East	Jeffrey Furtado & Paige Stewart	1-008-01	4.5	\$ -	\$ 35.00		\$ 35.00	\$ 12.00	\$ -	\$ 23.00
8	2 East	Robert & Anne Jantzi	1-009	25	\$ -	\$ 1,696.00		\$ 1,696.00	\$ 565.00	\$ -	\$ 1,131.00
8	3 East	Bamway Industries Inc.	1-027	6.9	\$ -	\$ 358.00		\$ 358.00	\$ 119.00	\$ -	\$ 239.00
8	3 East	Jammon & Elvina Bauman	1-026	6.3	\$ -	\$ 332.00		\$ 332.00	\$ 111.00	\$ -	\$ 221.00
Total Assessments on Lands					\$ -	\$ 3,705.00	\$ -	\$ 3,705.00	\$ 1,235.00	\$ -	\$ 2,470.00
Total Assessments Township of Wellesley					\$ -	\$ 3,705.00	\$ -	\$ 3,705.00	\$ 1,235.00	\$ -	\$ 2,470.00
Total Assessments Koch-Leis Drain					\$ 18,320.00	\$ 10,260.00	\$ 31,320.00	\$ 59,900.00	\$ 19,691.00	\$ 35,130.00	\$ 5,079.00

	Drainage Act Instruments of Assessment				For Information		
	Benefit (Sec. 22)	Outlet Liability (Sec. 23)	Special Benefit (Sec. 24)	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
Total Assessments Bamberg Creek, Jananna, and Koch-Leis Municipal Drains 2023	\$ 226,760.00	\$ 136,360.00	\$ 99,780.00	\$ 462,900.00	\$ 143,417.00	\$ 167,400.00	\$ 152,083.00

Notes:

- 1 All Lands may be eligible for ADIP Grants.
- 2 The Special Benefit Assessment (Sec. 24) is the benefit portion of the crossing considerations.
- 3 The Net Estimated Expense is the Total Assessment less gov't grants and allowances (if applicable).

**Schedule of Assessment for Construction
Bamberg Creek, Jananna, and Koch-Leis Municipal Drains 2023**

Property Details				Assessment Summary					For Information		
				Bamberg Creek Drain	Jananna - East Branch	Jananna - West Branch	Koch-Leis Drain	Total Assessment	Less Gov't Grant	Less Allowances	Net Estimated Expense
Part Lot	Concession	Landowner	Roll Number								
Township of Wilmot											
9	3 Block B	Oleg & Elena Borissova	9-151	\$ 7,857.00	\$	\$	\$	\$ 7,857.00	\$ 2,619.00	\$ 3,040.00	\$ 2,198.00
9	3 Block B	Cory & Kirby Kittel	9-165	\$ 22,615.00	\$ 26,756.00	\$	\$	\$ 49,371.00	\$ 16,457.00	\$ 7,580.00	\$ 25,334.00
10	3 Block B	Peter & Dagmar Schneider	9-153	\$ 14,433.00	\$ -	\$ -	\$ 17,389.00	\$ 31,822.00	\$ 10,607.00	\$ 16,070.00	\$ 5,145.00
10	3 Block B	Peter & Barbara Wurtele	9-153-01	\$ 45,013.00	\$ -	\$ -	\$ -	\$ 45,013.00	\$ 15,004.00	\$ 37,110.00	-\$ (7,101.00)
10	3 Block B	David & Sherri Homanchuk	9-154	\$ 63,738.00	\$ -	\$ -	\$ 8,513.00	\$ 72,251.00	\$ 24,084.00	\$ 50,140.00	-\$ (1,973.00)
10	3 Block B	Jananna Corp.	9-164	\$ 21,689.00	\$ 61,299.00	\$ 57,500.00	\$ 25,864.00	\$ 166,352.00	\$ 55,451.00	\$ 53,460.00	\$ 57,441.00
11	3 Block B	Kenneth & Catherine Heintz	9-156	\$ 1,030.00	\$ -	\$ -	\$ 202.00	\$ 1,232.00	\$ 411.00	\$ -	\$ 821.00
11	3 Block B	Roadside Farm Inc.	9-163	\$ 8,864.00	\$	\$	\$ 3,158.00	\$ 12,022.00	\$ 4,007.00	\$	\$ 8,015.00
12	3 Block B	David & Eva Cressman	9-160	\$ 684.00	\$ -	\$ -	\$ 244.00	\$ 928.00	\$ 309.00	\$ -	\$ 619.00
Total Assessments on Lands				\$ 185,923.00	\$ 88,055.00	\$ 57,500.00	\$ 55,370.00	\$ 386,848.00	\$ 128,949.00	\$ 167,400.00	\$ 90,499.00
Gerber Road		Region of Waterloo		\$ 4,364.00	\$ 7,205.00	\$ 20,255.00	\$ 825.00	\$ 32,649.00			\$ 32,649.00
Total Assessments on Roads				\$ 4,364.00	\$ 7,205.00	\$ 20,255.00	\$ 825.00	\$ 32,649.00			\$ 32,649.00
Total Assessments Township of Wilmot				\$ 190,287.00	\$ 95,260.00	\$ 77,755.00	\$ 56,195.00	\$ 419,497.00	\$ 128,949.00	\$ 167,400.00	\$ 123,148.00
Township of Wellesley											
6	2 East	Natalee Ridgeway	1-007-00	\$ 1,571.00	\$ 5,529.00	\$ -	\$ -	\$ 7,100.00	\$ 2,367.00		\$ 4,733.00
6	2 East	Ronald & Rosemary McCormick	1-007-01	\$ 1,140.00	\$ 4,011.00	\$ -	\$ -	\$ 5,151.00	\$ 1,717.00		\$ 3,434.00
7	2 East	Ladislaus & Laurretta Bauer	1-008-02	\$ 848.00	\$ -	\$ 9,395.00	\$ 302.00	\$ 10,545.00	\$ 3,515.00		\$ 7,030.00
7	2 East	264171 Holdings Ltd.	1-008	\$ 2,757.00	\$ -	\$ 7,650.00	\$ 982.00	\$ 11,389.00	\$ 3,796.00		\$ 7,593.00
7	2 East	Jeffrey Furtado & Paige Stewart	1-008-01	\$ 99.00	\$	\$	\$ 35.00	\$ 134.00	\$ 45.00		\$ 89.00
8	2 East	Robert & Anne Jantzi	1-009	\$ 4,759.00	\$ -	\$ -	\$ 1,696.00	\$ 6,455.00	\$ 2,152.00		\$ 4,303.00
8	3 East	Bamway Industries Inc.	1-027	\$ 1,006.00	\$ -	\$ -	\$ 358.00	\$ 1,364.00	\$ 455.00		\$ 909.00
8	3 East	Jammon & Elvina Bauman	1-026	\$ 933.00	\$	\$	\$ 332.00	\$ 1,265.00	\$ 422.00		\$ 843.00
Total Assessments on Lands				\$ 13,113.00	\$ 9,540.00	\$ 17,045.00	\$ 3,705.00	\$ 43,403.00	\$ 14,469.00	\$ -	\$ 28,934.00
Total Assessments Township of Wellesley				\$ 13,113.00	\$ 9,540.00	\$ 17,045.00	\$ 3,705.00	\$ 43,403.00	\$ 14,469.00	\$	\$ 28,934.00
Total Assessments Bamberg Creek, Jananna, and Koch-Leis Municipal Drains 2023				\$ 203,400.00	\$ 104,800.00	\$ 94,800.00	\$ 59,900.00	\$ 462,900.00	\$ 143,418.00	\$ 167,400.00	\$ 152,082.00

Notes:

- 1 All Lands may be eligible for ADIP Grants.
- 2 The Net Estimated Expense is the Total Assessment less gov't grants and allowances (if applicable).



Schedule D

Assessment for Future Maintenance

**Schedule of Assessment for Future Maintenance
Bamberg Creek, Jananna, and Koch-Leis Municipal Drains 2023**

Property Details				Interval			
				0+000 to 0+287		0+287 to 0+650	
Part Lot	Concession	Landowner	Roll Number	Approx. Hectares Affected	Portion of Maintenance Assessment	Approx. Hectares Affected	Portion of Maintenance Assessment
Township of Wilmot							
9	3 Block B	Oleg & Elena Borissova	9-151	2.00	8.9%	8.54	4.0%
9	3 Block B	Cory & Kirby Kittel	9-165	13.84	32.1%	13.84	5.2%
10	3 Block B	Peter & Dagmar Schneider	9-153			9.30	8.2%
10	3 Block B	Peter & Barbara Wurtele	9-153-01			0.89	3.4%
10	3 Block B	David & Sherri Homanchuk	9-154	1.00	9.5%	3.70	4.8%
10	3 Block B	Jananna Corp.	9-164	5.88	14.7%	45.30	21.5%
11	3 Block B	Kenneth & Catherine Heintz	9-156			6.20	2.2%
11	3 Block B	Roadside Farm Inc.	9-163			42.80	18.8%
12	3 Block B	David & Eva Cressman	9-160			3.10	1.4%
Total Assessments on Lands				22.72	65.2%	133.67	69.6%
Gerber Road		Region of Waterloo		1.04	15.0%	3.14	5.2%
Total Assessments on Roads				1.04	15.0%	3.14	5.2%
Total Assessments Township of Wilmot				23.76	80.2%	136.81	74.7%
Township of Wellesley							
6	2 East	Natalee Ridgeway	1-007-00	7.98	11.5%	7.98	1.9%
6	2 East	Ronald & Rosemary McCormick	1-007-01	5.79	8.3%	5.79	1.4%
7	2 East	Ladislaus & Laurretta Bauer	1-008-02			8.45	1.8%
7	2 East	264171 Holdings Ltd.	1-008			25.45	5.8%
7	2 East	Jeffrey Furtado & Paige Stewart	1-008-01			4.50	0.2%
8	2 East	Robert & Anne Jantzi	1-009			25.00	10.1%
8	3 East	Bamway Industries Inc.	1-027			6.90	2.1%
8	3 East	Jammon & Elvina Bauman	1-026			6.30	2.0%
Total Assessments on Lands				13.77	19.8%	84.58	25.2%
Total Assessments Township of Wellesley				13.77	19.8%	84.58	25.2%
Total Assessments Bamberg Creek Drain				37.53	100.0%	221.39	100.0%

Bamberg Creek Drain

Jananna - East Branch	Property Details				Interval			
					0+000 to 0+218		0+218 to 0+598	
	Part Lot	Concession	Landowner	Roll Number	Approx. Hectares Affected	Portion of Maintenance Assessment	Approx. Hectares Affected	Portion of Maintenance Assessment
Township of Wilmot								
9	3 Block B	Cory & Kirby Kittel	9-165	13.84	43.3%	0.68	36.8%	
10	3 Block B	Jananna Corp.	9-164	5.88	16.9%	1.50	63.2%	
Total Assessments on Lands					19.72	60.2%	2.18	100.0%
Gerber Road		Region of Waterloo		1.04	17.1%			
Total Assessments on Roads					1.04	17.1%		
Total Assessments Main Closed Township of Wilmot					20.76	77.3%	2.18	100.0%
Township of Wellesley								
6	2 East	Natalee Ridgeway	1-007-00	7.98	13.1%			
6	2 East	Ronald & Rosemary McCormick	1-007-01	5.79	9.5%			
Total Assessments on Lands					7.98	22.7%		
Total Assessments Township of Wellesley					7.98	22.7%		
Total Assessments Jananna - East Branch					28.74	100.0%	2.18	100.0%

	Property Details				Interval		
					0+000 to 0+760		
	Part Lot	Concession	Landowner	Roll Number	Approx. Hectares Affected	Portion of Maintenance Assessment	
Jananna - West Branch	Township of Wilmot						
	10	3 Block B	Jananna Corp.	9-164	9.34	42.6%	
	Total Assessments on Lands				9.34	42.6%	
	Gerber Road				Region of Waterloo	0.87	22.0%
	Total Assessments on Roads				0.87	22.0%	
	Total Assessments Township of Wilmot				10.21	64.7%	
	7	2 East	Ladislaus & Laurretta Bauer	1-008-02	8.45	19.5%	
	7	2 East	264171 Holdings Ltd.	1-008	6.26	15.9%	
	Total Assessments on Lands				8.45	35.3%	
	Total Assessments Township of Wellesley				8.45	35.3%	
	Total Assessments Jananna - West Branch				18.66	100.0%	

Koch-Leis Drain	Property Details				Interval				
					0+000 to 0+551		0+551 to Gerber Road		Township of Wellesley
	Part Lot	Concession	Landowner	Roll Number	Approx. Hectares Affected	Portion of Maintenance Assessment	Approx. Hectares Affected	Portion of Maintenance Assessment	Approx. Hectares Affected
Township of Wilmot									
10	3 Block B	Peter & Dagmar Schneider	9-153	6.30	7.3%				
10	3 Block B	David & Sherri Homanchuk	9-154	1.70	4.5%				
10	3 Block B	Jananna Corp.	9-164	28.70	22.1%	0.50	0.70%		
11	3 Block B	Kenneth & Catherine Heintz	9-156	6.20	2.9%				
11	3 Block B	Roadside Farm Inc.	9-163	42.80	25.1%	25.00	39.5%		
12	3 Block B	David & Eva Cressman	9-160	3.10	1.9%	3.10	3.7%		
Total Assessments on Lands				88.80	63.9%	28.60	44.0%		
Gerber Road		Region of Waterloo		2.10	6.6%	1.23	7.4%		
Total Assessments on Roads				2.10	6.6%	1.23	7.4%	0.00	0.0%
Total Assessments Township of Wilmot				90.90	70.5%	29.83	51.4%	0.00	0.0%
7	2 East	Ladislaus & Laurretta Bauer	1-008-02	8.45	2.4%				
7	2 East	264171 Holdings Ltd.	1-008	25.45	7.8%	18.69	11.3%	18.69	23.8%
7	2 East	Jeffrey Furtado & Paige Stewart	1-008-01	4.50	0.3%	4.50	0.5%	4.50	1.1%
8	2 East	Robert & Anne Jantzi	1-009	25.00	13.5%	25.00	26.1%	25.00	54.0%
8	3 East	Bamway Industries Inc.	1-027	6.90	2.9%	6.90	5.5%	6.90	10.9%
8	3 East	Jammon & Elvina Bauman	1-026	6.30	2.6%	6.30	5.1%	6.30	10.2%
Total Assessments on Lands				76.60	29.5%	61.39	48.6%	61.39	100.0%
Total Assessments Township of Wellesley				76.60	29.5%	61.39	48.6%	61.39	100.0%
Total Assessments Koch-Leis Drain				167.50	100.0%	91.22	100.0%	61.39	100.0%

Notes:

- 1 All Lands may be eligible for ADIP Grants.
- 2 All maintenance activities on road right-of-ways shall be completed at the expense of the the road authority having jurisdiction over the road.
- 3 Lands located upstream of the maintenance shall be determined by the the Drainage Superintendent.



Specifications for the Construction of Municipal Drainage Works

DIVISION A – General Conditions
DIVISION B – Specifications 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 45 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

**Bamberg Creek, Jananna, and
Koch-Leis Municipal Drains 2023**



CONTENTS

1.0	GENERAL	1
2.0	UTILITIES	1
3.0	WORKING AREA AND ACCESS.....	1
4.0	CLEARING BRUSHING AND MULCHING	1
5.0	PIPE AND INSTALLATION	2
6.0	TOPSOIL STRIPPING AND FINE GRADING.....	3
7.0	EXCAVATED MATERIAL.....	3
8.0	SEEDING	3
9.0	OUTLET STRUCTURE.....	3
10.0	EXISTING DRAINS/TILE CONNECTIONS	3
11.0	CATCHBASINS AND JUNCTION BOXES	4
12.0	ROAD WORKS	4
13.0	RIP-RAP	4
14.0	EROSION AND SEDIMENT CONTROL.....	5
15.0	ENDAGERED SPECIES ACT AND THE EASTERN MEADOWLARK	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, 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 must maintain access to all driveways along the route of the drain as well as always maintain access for all emergency vehicles during the construction.

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.

3.1 Closed Portion

The average working width for construction purposes shall be 25 metres along the alignment of the proposed drain.

3.2 Open Portion

The working area shall be an average working width of 12 metres for construction purposes along the working side.

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 PIPE AND INSTALLATION

5.1 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.

Where the drain is to be installed by means of an approved wheel trencher, the Contractor shall strip the topsoil for the specified width centred on the proposed drain. Where the drain is to be installed by means of an approved hydraulic excavator (due to poor soil conditions), the Contractor shall strip the topsoil for a width equal to the top width of the trench, or the specified width, whichever is greater. The Contractor shall stockpile the topsoil and later spread it over the backfilled trench. The Contractor shall ensure that the top soiled trench is left in a condition such that the landowner can perform final restoration using nothing more than farm equipment. The Contractor will not attempt to place frozen topsoil over the backfilled trench.

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:

- 300mm wide with 300mm overlap for tile sizes up to 350mm diameter.
- 400mm wide with 400mm overlap for tile size 400mm diameter.

The filter material shall completely cover the tile joint.

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

5.2 High Density Polyethylene Pipe (HDPE)

All HDPE pipe shall be CSA B182.8 with gasketed watertight 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.



5.3 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.

6.0 TOPSOIL STRIPPING AND FINE GRADING

The Contractor shall strip the topsoil along the alignment of the tile drain to a width of four metres. 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 EXCAVATED MATERIAL

The excavated material from the ditch cleanout shall be spread on the working side to a maximum depth of 200mm in accordance with the typical open ditch cleanout detail included in the drawing set.

8.0 SEEDING

The Contractor shall supply and spread an approved seed mixture (OPS 803 – Lowland Mix) over the disturbed areas.

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

9.0 OUTLET STRUCTURE

The Contractor shall place riprap in the streambed and up the sideslope of Bamberg Creek in accordance with the typical outlet detail included in the drawing set.

10.0 EXISTING DRAINS/TILE CONNECTIONS

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 Municipality 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 CATCHBASINS AND JUNCTION BOXES

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

All catchbasin grates shall be fastened to the new catchbasin and shall be hot dipped galvanized bird cage grates. Catchbasin marker signs shall be erected at all catchbasins.

All existing catchbasins that are to be removed shall be disposed of off-site by the Contractor.

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

All catchbasins 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 within the road allowances shall have 300mm minimum of Granular 'B' backfill around all sides up to the underside of the topsoil layer. 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 catchbasins. Should the area around the catchbasin 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 catchbasin for a width of one metre and shall be placed on geotextile filter material.

All holes for catchbasin pipe connections to be cored by the manufacturer. All pipes entering or exiting a catchbasin 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 catchbasin for a period of one year after the completion certificate has been issued.

12.0 ROAD WORKS

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 Region of Waterloo for specific local procedures, guidelines, and timelines. Traffic control shall meet the standards of Book 7 of the Ontario Traffic Manual.

The Contractor shall grade the road ditches to the new catchbasin. Any disturbed area within the Municipal Right-of-Way during construction shall be topsoiled and seeded with an approved grass seed mixture.

13.0 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.



14.0 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.

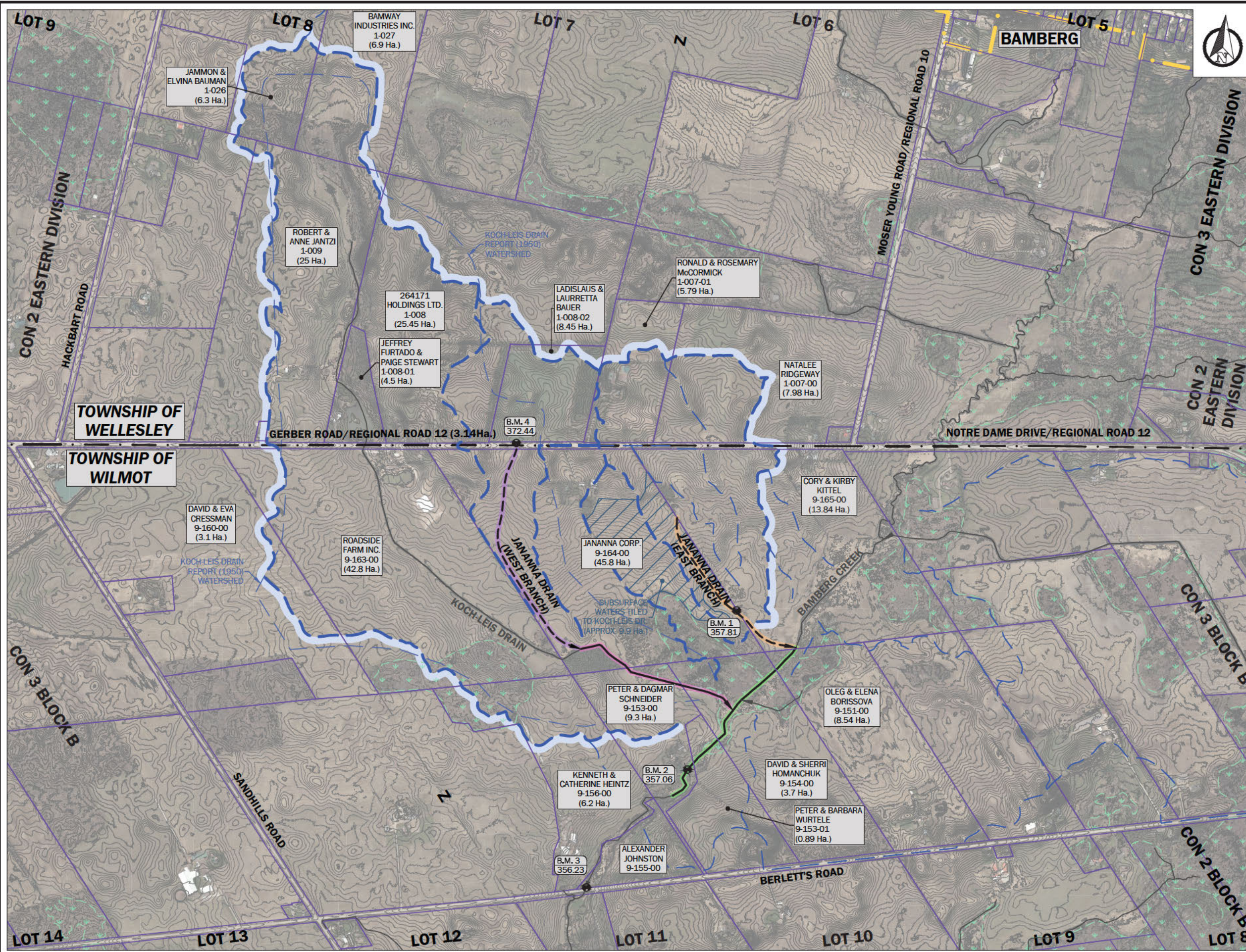
15.0 ENDANGERED SPECIES ACT AND THE EASTERN MEADOWLARK

The Contractor shall review species information made available by the Ministry of Environment, Conservation & Parks (MECP) prior to the start of construction to identify the species should any be observed on site.

The Contractor shall designate a staff member to inspect the daily working area for the species, and their nests prior to the start of any work activities each day. The Contractor shall complete the following daily log of inspections.

Eastern Meadowlark – Daily Inspection Log				
Date	Daily Work Area (Sta. x+xxx to Sta. y+yyy)	Number of Sightings	Comments	Staff Signature

Should an Eastern Meadowlark or its nest be encountered, the Contractor shall immediately flag the location, obtain GPS coordinates of nesting site flags, and notify the Contractor Administrator, and the Site Foreman. The Contractor shall ensure that construction activities are modified to not cause harm to the species, or its nest. The Contract Administrator shall notify the MECP.



WARD 2
JANANNA MUNICIPAL DRAIN
 Watershed Plan

NOTES:
 1. AERIAL PHOTOGRAPHY PROVIDED BY WILMOT TOWNSHIP.
 2. CONTOURS GENERATED USING 2018 LIDAR DERIVED DATASET REPRESENTING BARE-EARTH TERRAIN FROM LAND INFORMATION ONTARIO.

BENCHMARK DESCRIPTIONS

BENCHMARK No. 1 ELEV.=357.81
 NAIL IN NORTH FACE OF FENCE POST 5m EAST OF STA. 0+234 (JANANNA EAST BR.)

BENCHMARK No. 2 ELEV.=357.06
 TOP CENTRE UPSTREAM END OF CONCRETE BRIDGE AT STA. 0+537 (BAMBERG)

BENCHMARK No. 3 ELEV.=356.23
 TOP CENTRE UPSTREAM END OF CONCRETE BOX CULVERT AT STA. 1+125 (BAMBERG)

BENCHMARK No. 4 ELEV.=372.44
 TOP CENTRE UPSTREAM END OF 450mmØ H.D.P.E. SURFACE CULVERT AT STA. 0+780 (JANANNA WEST BR.)

LEGEND

- LOT/CONCESSION LINE
- PROPERTY LINE
- URBAN BOUNDARY
- TOWNSHIP BOUNDARY
- MAJOR WATERSHED BOUNDARY
- MINOR WATERSHED BOUNDARY
- WETLAND LIMIT

BENCHMARK LOCATION

B.M. 1 123.45
 BENCHMARK No.
 BENCHMARK ELEVATION

JOHN & JANE SMITH 12-345 (12.3 Ha.)
 LANDOWNER NAME(S)
 ASSESSMENT ROLL No. (ABBREVIATED)
 APPROX. AREA AFFECTED

EXISTING FEATURES:

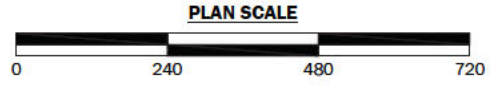
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- DRAIN NAME --- CLOSED DRAIN WITH CATCH BASIN, MANHOLE AND FLOW DIRECTION
- OVERLAND FLOW PATH

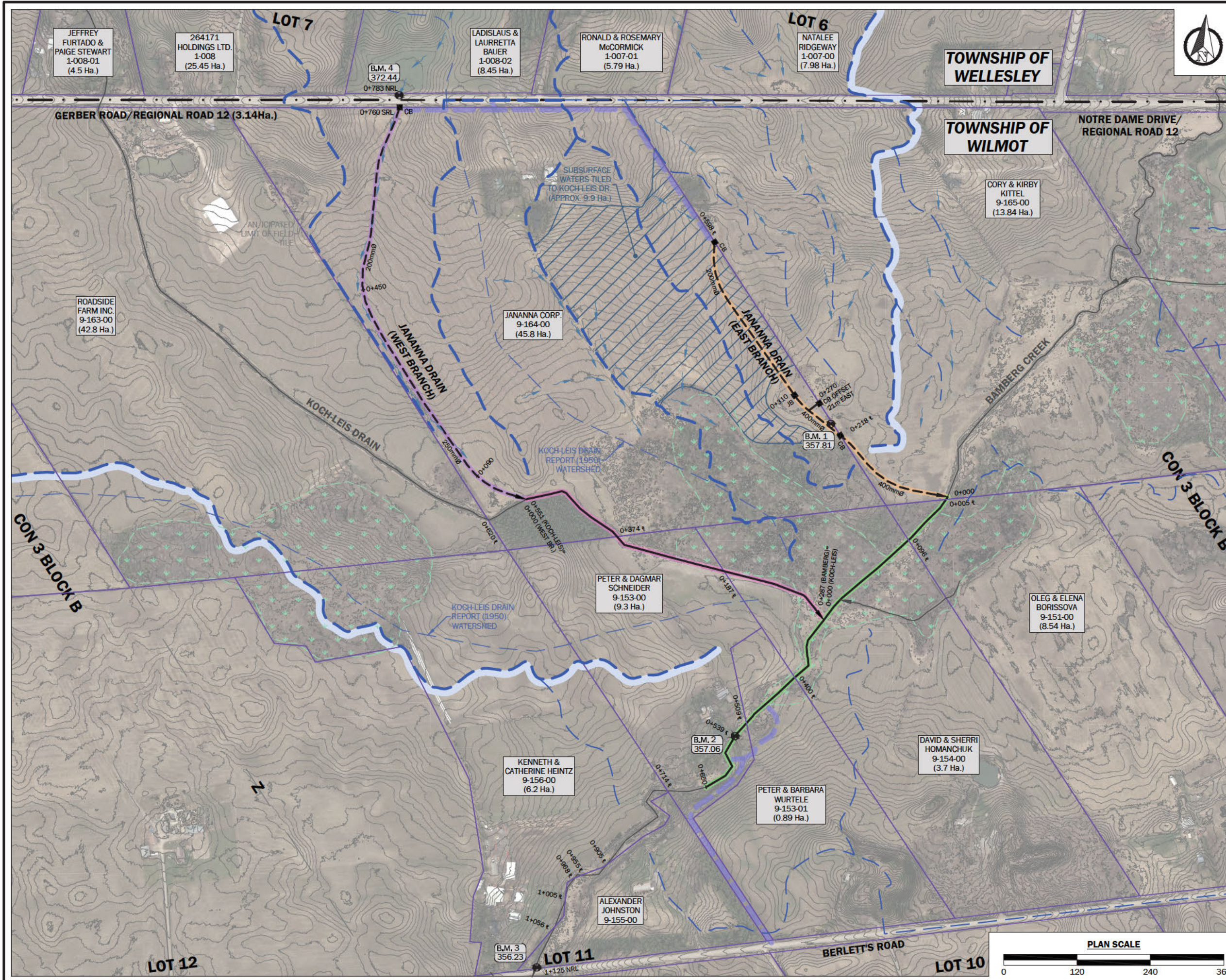
PROPOSED FEATURES:

- DRAIN NAME --- OPEN DRAIN WITH CROSSING AND FLOW DIRECTION
- DRAIN NAME --- CLOSED DRAIN WITH CATCH BASIN, MANHOLE AND FLOW DIRECTION

4	REPORT SUBMISSION	23-04-28
3	KOCH-LEIS INFORMATION MTG.	22-11-24
2	INFORMATION MEETING	22-09-29
1	ON-SITE MEETING	21-09-22
No.	REVISION	DATE (YY-MM-DD)

DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.
DATE: 2023-04-28	REFERENCE No. WLMT-002	DRAWING No. 1 OF 6





NOTES:
 1. AERIAL PHOTOGRAPHY PROVIDED BY WILMOT TOWNSHIP.
 2. CONTOURS GENERATED USING 2018 LIDAR DERIVED DATASET REPRESENTING BARE-EARTH TERRAIN FROM LAND INFORMATION ONTARIO.

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 - BENCHMARK No. 4** **ELEV.=372.44**
 TOP CENTRE UPSTREAM END OF 450mmØ H.D.P.E. SURFACE CULVERT AT STA. 0+780 (JANANNA WEST BR.)

LEGEND

- LOT/CONCESSION LINE
- PROPERTY LINE
- TOWNSHIP BOUNDARY
- MAJOR WATERSHED BOUNDARY
- MINOR WATERSHED BOUNDARY
- WETLAND LIMIT
- CONSTRUCTION/MAINTENANCE ACCESS

BENCHMARK LOCATION

- ⊙ B.M. 1 123.45
- ← BENCHMARK No.
- ← BENCHMARK ELEVATION

JOHN & JANE SMITH 12-345 (12.3 Ha.)

- ← LANDOWNER NAME(S)
- ← ASSESSMENT ROLL No. (ABBREVIATED)
- ← APPROX. AREA AFFECTED

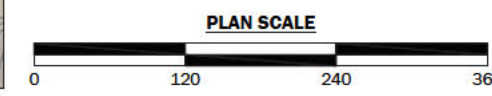
EXISTING FEATURES:

- ← 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

	4	REPORT SUBMISSION	23-04-28
	3	KOCH-LEIS INFORMATION MTG.	22-11-24
	2	INFORMATION MEETING	22-09-29
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No.	REVISION	DATE	(YY-MM-DD)



JANANNA MUNICIPAL DRAIN

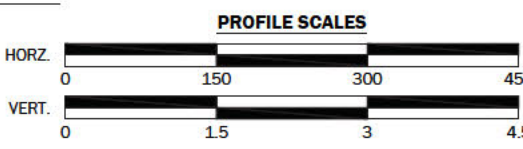
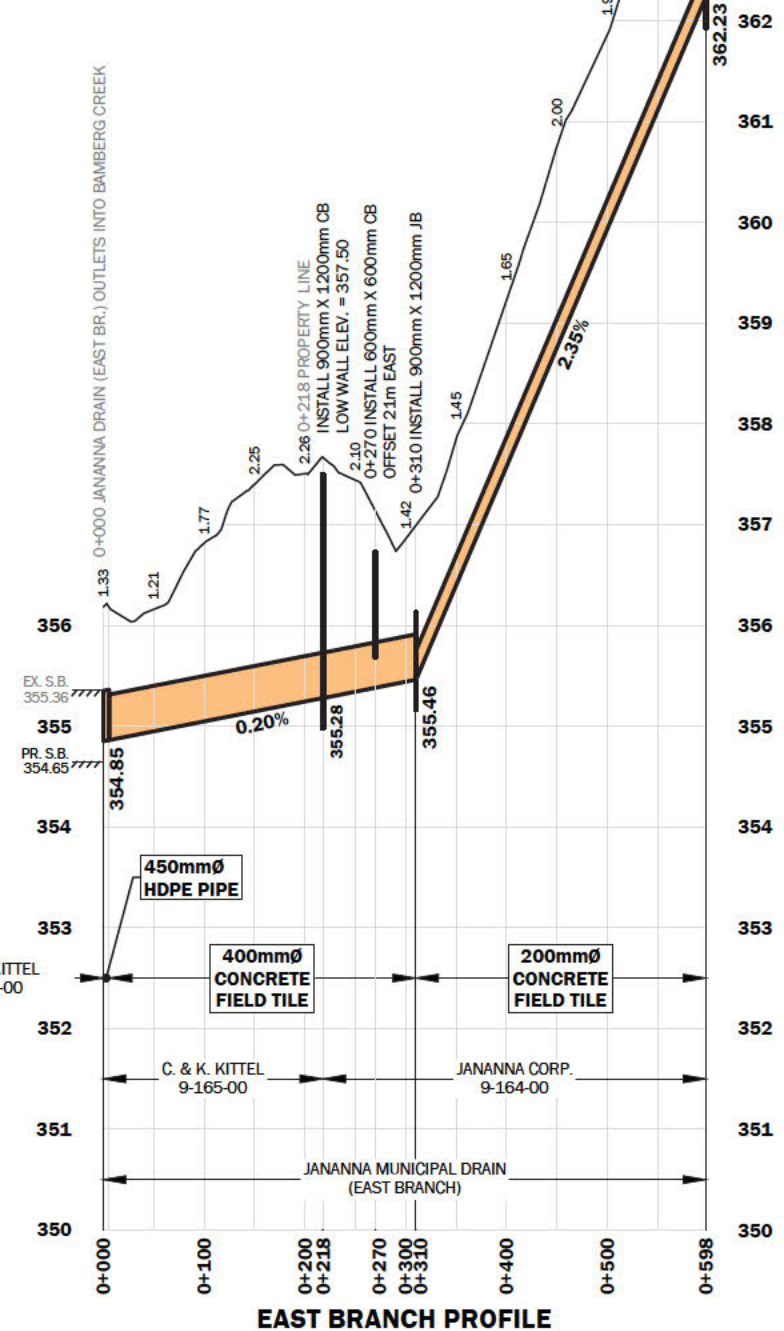
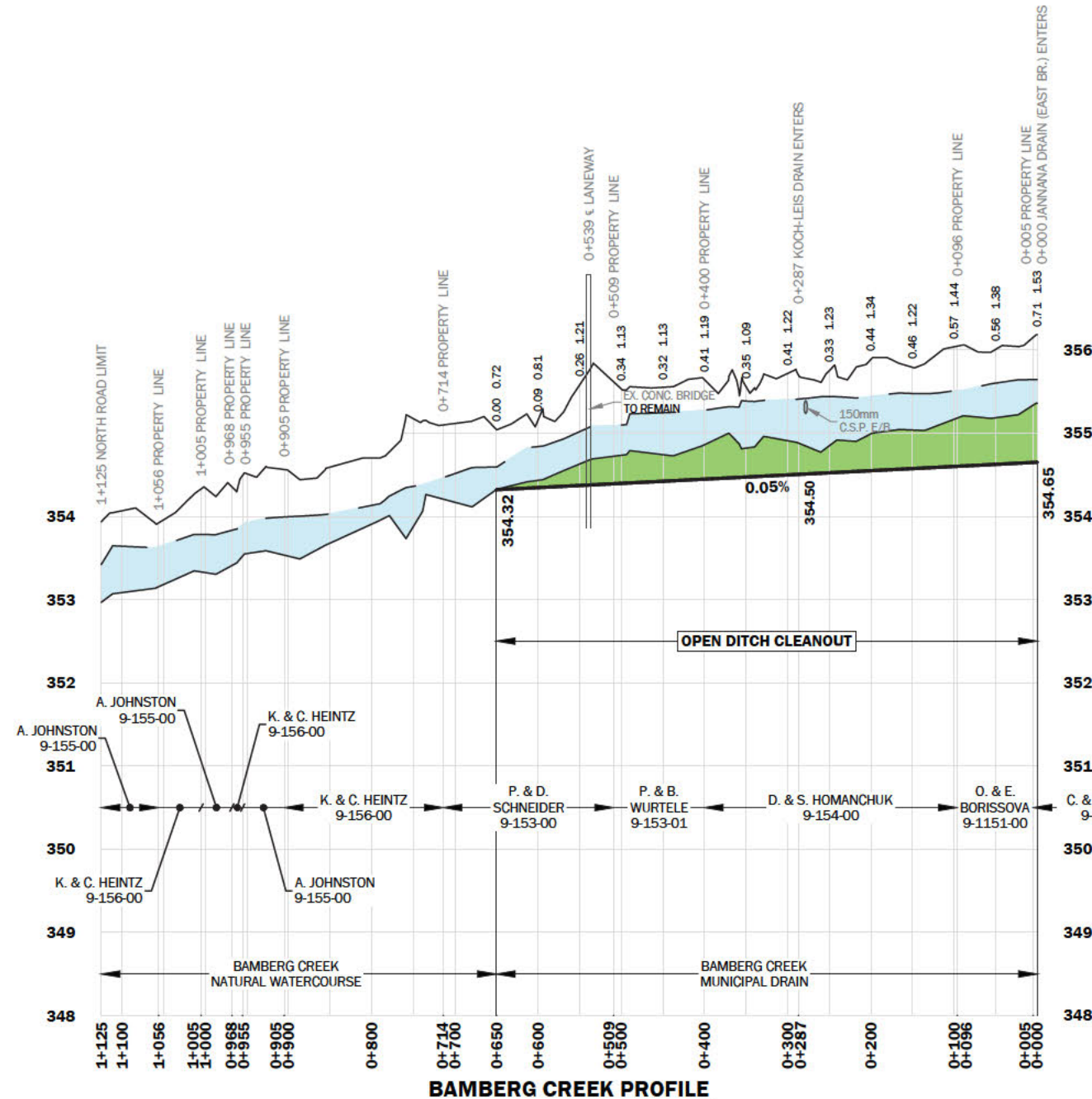
Bamberg Creek and East Branch Profiles

BENCHMARK DESCRIPTIONS

BENCHMARK No. 1 NAIL IN NORTH FACE OF FENCE POST 5m EAST OF STA. 0+234 (JANANNA EAST BR.)	ELEV.=357.81
BENCHMARK No. 2 TOP CENTRE UPSTREAM END OF CONCRETE BRIDGE AT STA. 0+537 (BAMBERG)	ELEV.=357.06
BENCHMARK No. 3 TOP CENTRE UPSTREAM END OF CONCRETE BOX CULVERT AT STA. 1+125 (BAMBERG)	ELEV.=356.23
BENCHMARK No. 4 TOP CENTRE UPSTREAM END OF 450mmØ H.D.P.E. SURFACE CULVERT AT STA. 0+780 (JANANNA WEST BR.)	ELEV.=372.44

SCHEDULE OF PIPE MATERIALS

MATERIAL	DIAMETER (mm)	STATION RANGE	LENGTH (m)
1. HIGH DENSITY POLYETHYLENE OUTLET PIPE	450	0+000 - 0+006	6
2. CONCRETE FIELD TILE	400	0+006 - 0+310	304
3. CONCRETE FIELD TILE	200	0+310 - 0+598	288



No.	REVISION	DATE (YY-MM-DD)
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1	ON-SITE MEETING	21-09-22



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DATE: 2023-04-28	REFERENCE No. WLMT-002	DRAWING No. 3 OF 6

JANANNA MUNICIPAL DRAIN

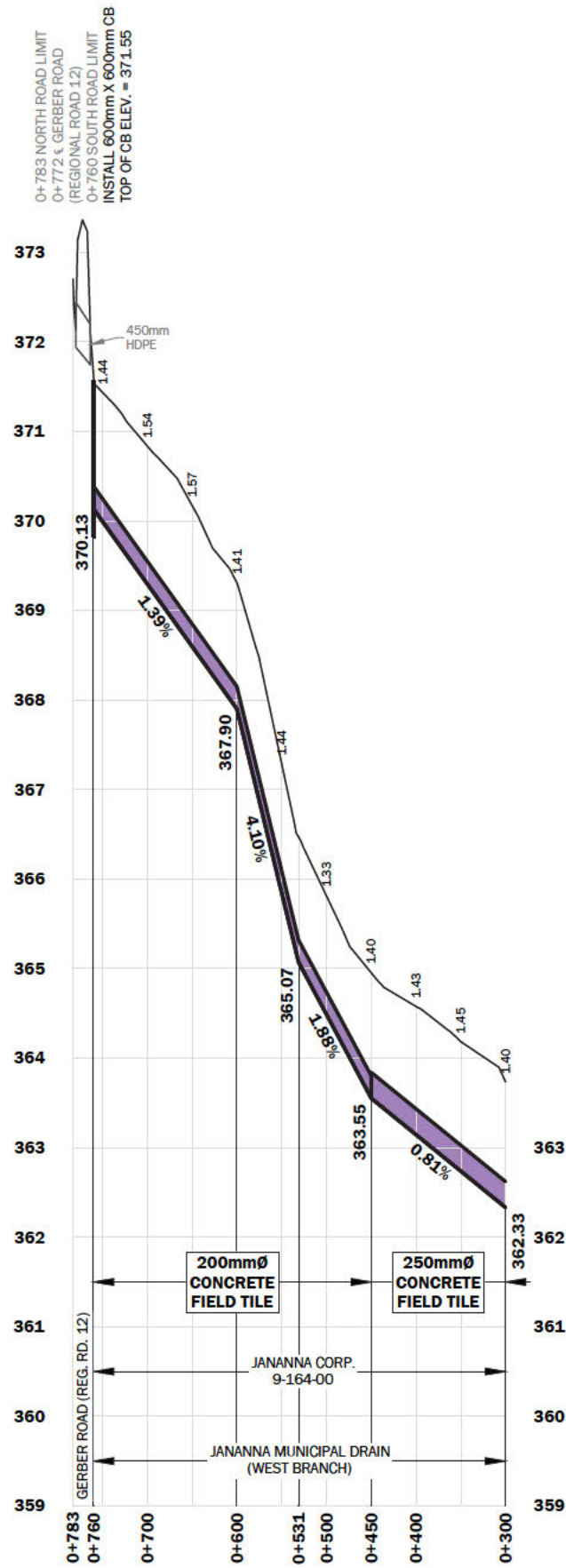
West Branch and Koch-Leis Drain Profiles

BENCHMARK DESCRIPTIONS

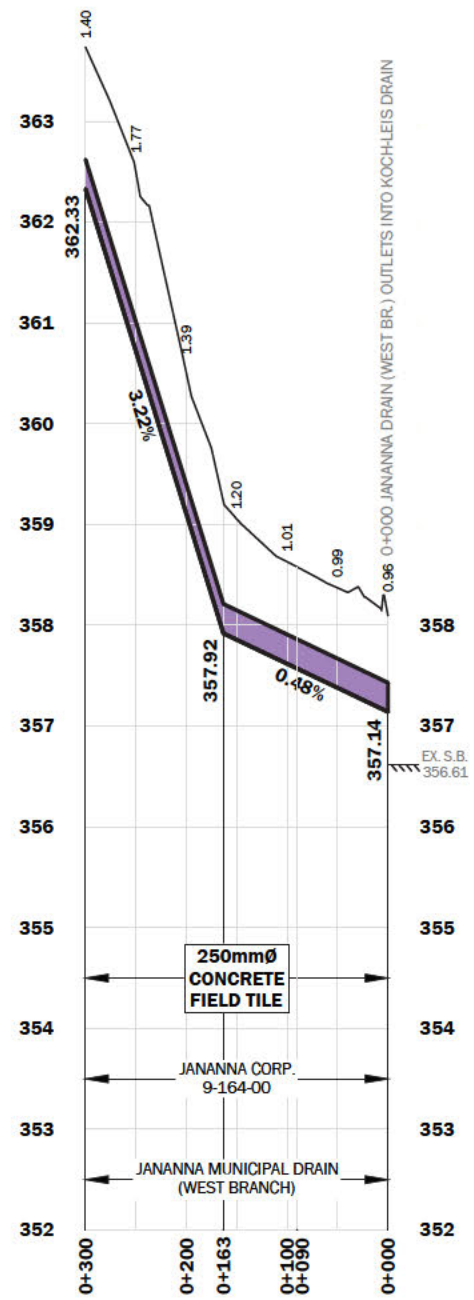
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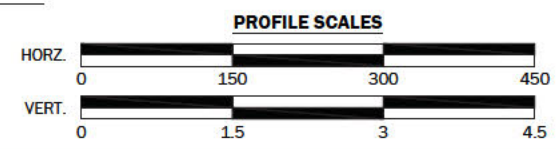
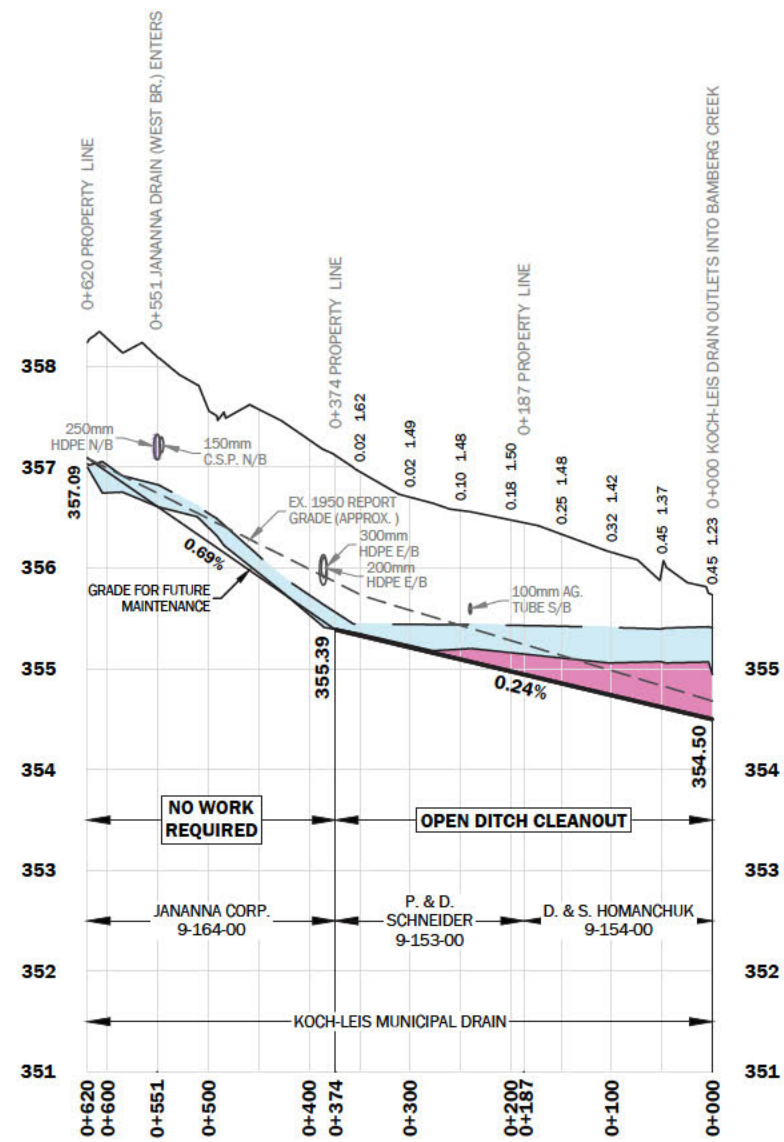
MATERIAL	DIAMETER (mm)	STATION RANGE	LENGTH (m)
1. HIGH DENSITY POLYETHYLENE OUTLET PIPE	250	0+000 - 0+006	6
2. CONCRETE FIELD TILE	250	0+006 - 0+450	444
3. CONCRETE FIELD TILE	200	0+450 - 0+760	310



WEST BRANCH PROFILE



KOCH-LEIS DRAIN PROFILE



No.	REVISION	DATE (YY-MM-DD)
4	REPORT SUBMISSION	23-04-28
3	KOCH-LEIS INFORMATION MTG.	22-11-24
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1	ON-SITE MEETING	21-09-22



DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.
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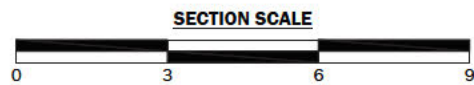
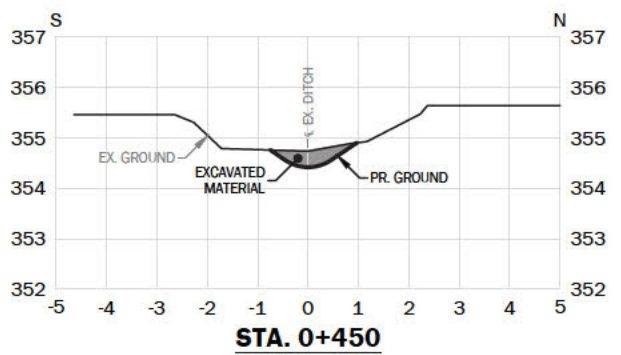
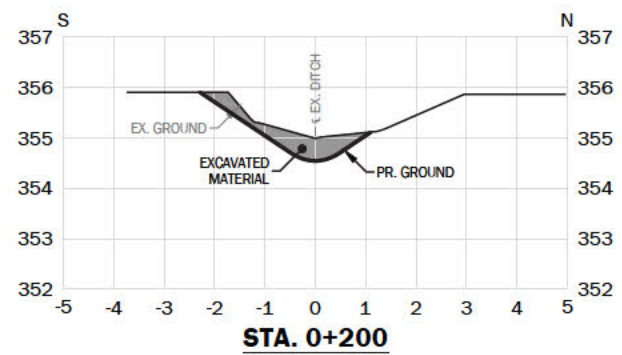
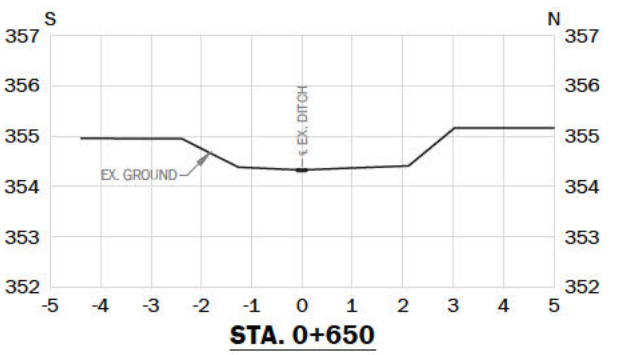
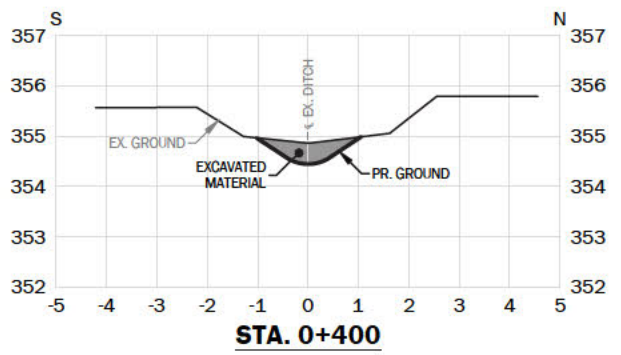
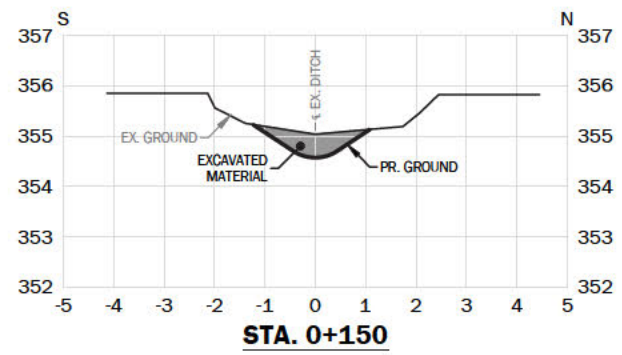
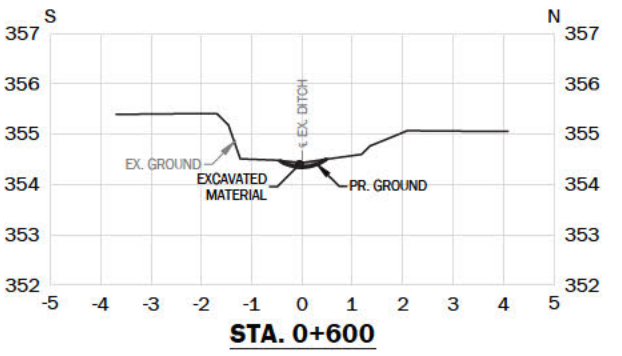
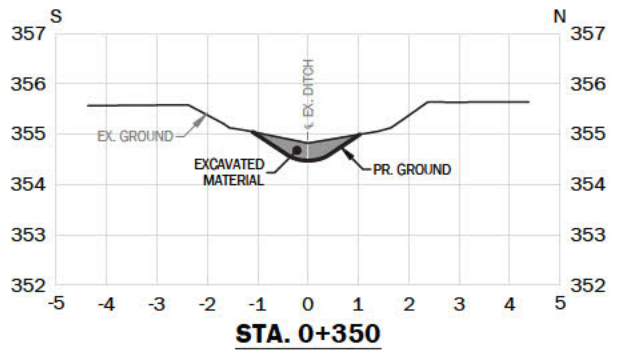
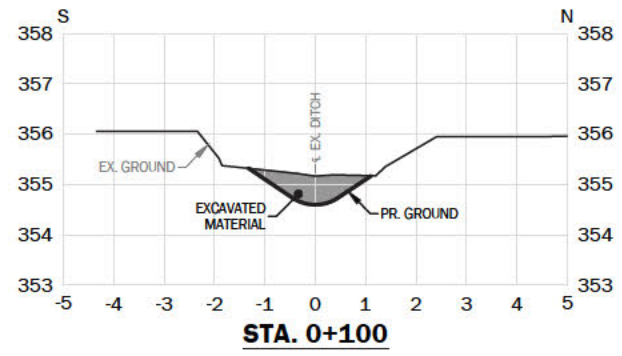
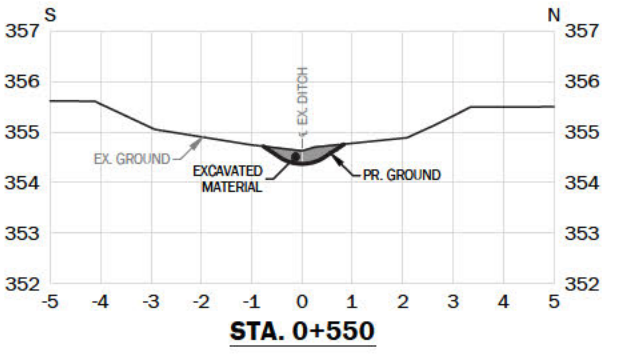
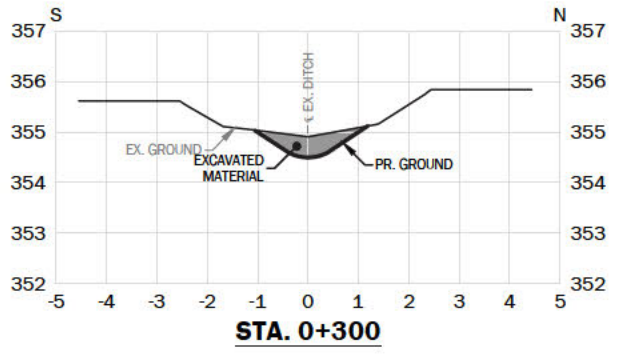
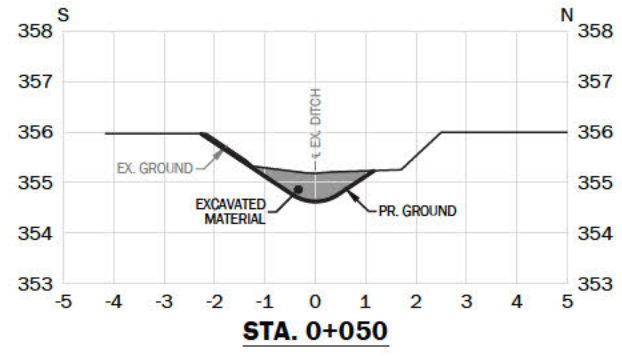
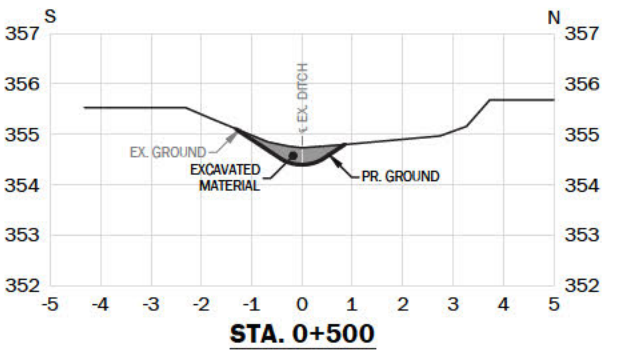
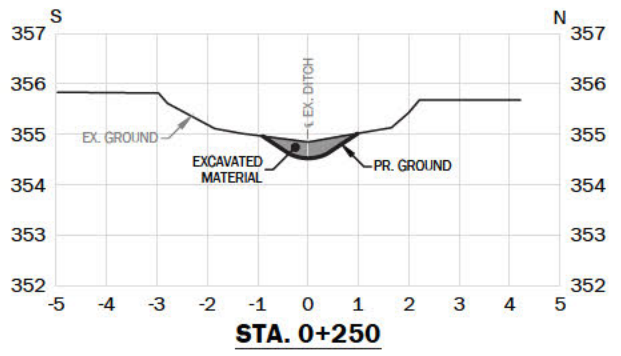
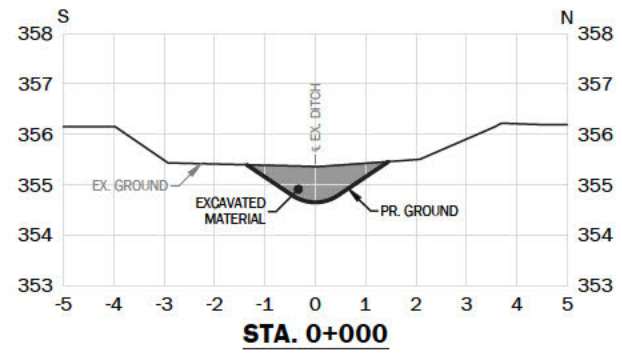
BENCHMARK DESCRIPTIONS

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(JANANNA EAST BR.)

BENCHMARK No. 2 **ELEV.=357.06**
TOP CENTRE UPSTREAM END OF CONCRETE BRIDGE AT STA. 0+537
(BAMBERG)

BENCHMARK No. 3 **ELEV.=356.23**
TOP CENTRE UPSTREAM END OF CONCRETE BOX CULVERT AT
STA. 1+125 (BAMBERG)

BENCHMARK No. 4 **ELEV.=372.44**
TOP CENTRE UPSTREAM END OF 450mmØ H.D.P.E. SURFACE
CULVERT AT STA. 0+780 (JANANNA WEST BR.)



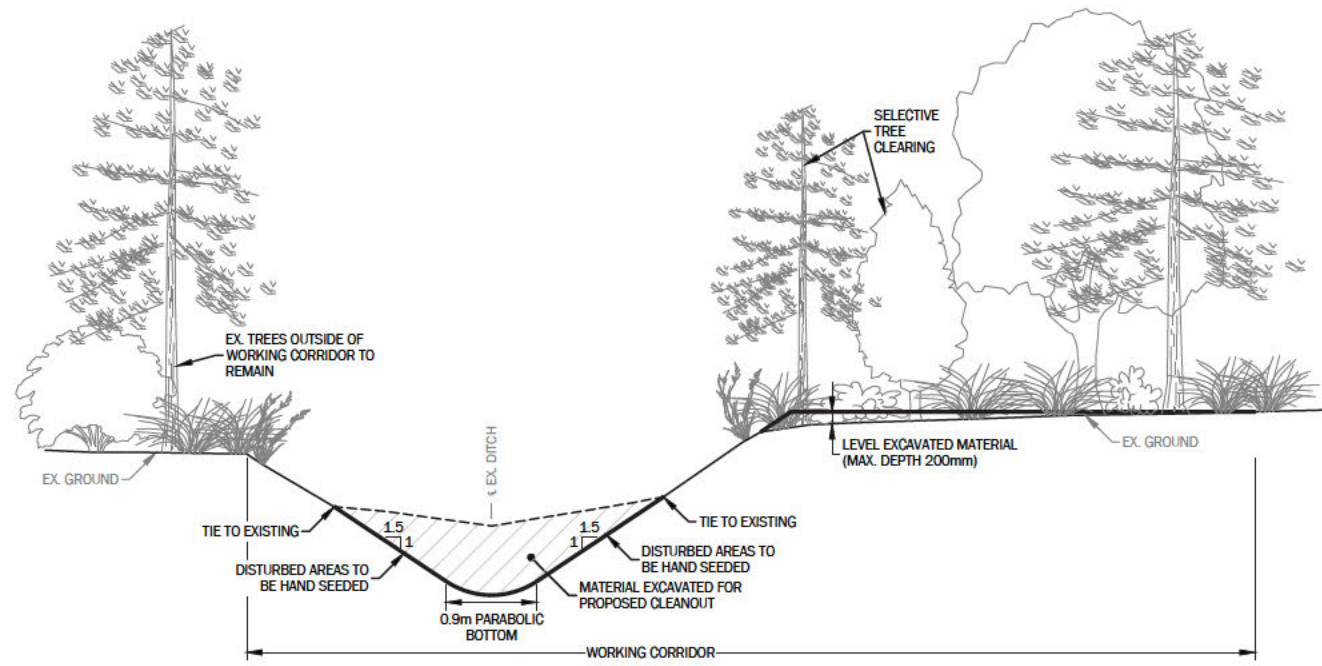
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3	KOCH-LEIS INFORMATION MTG.	22-11-24
2	INFORMATION MEETING	22-09-29
1	ON-SITE MEETING	21-09-22
No.	REVISION	DATE (YY-MM-DD)



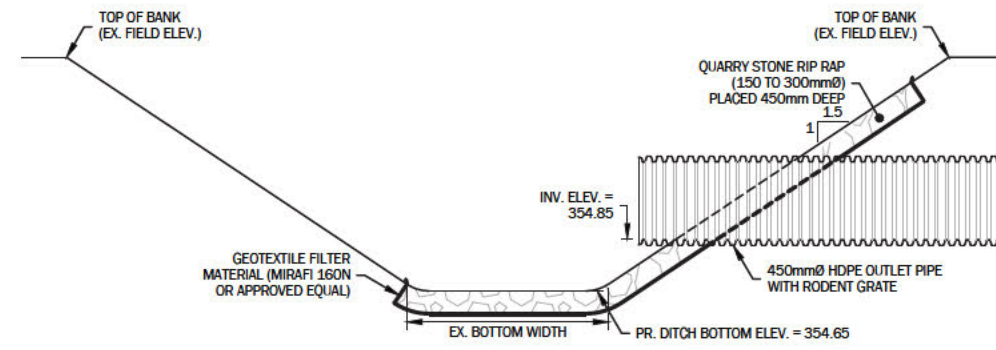
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DATE: 2023-04-28	REFERENCE No. WLMT-002	DRAWING No. 5 OF 6

BENCHMARK DESCRIPTIONS

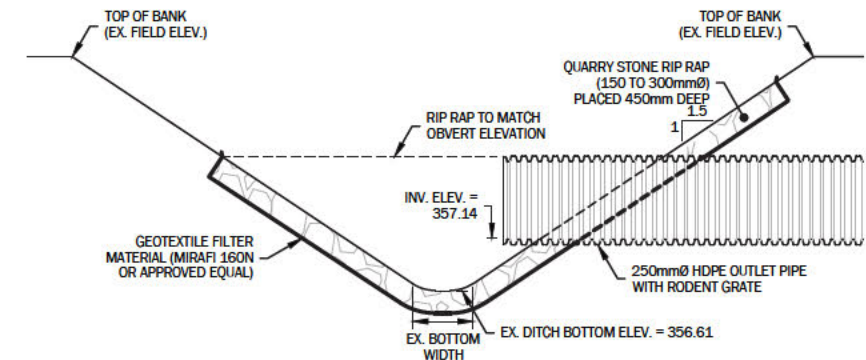
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- BENCHMARK No. 2** **ELEV.=357.06**
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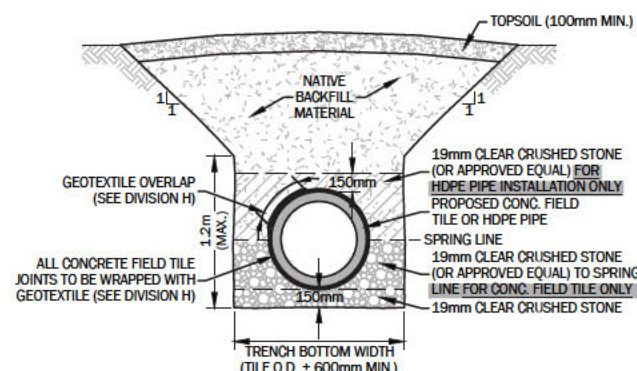
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N.T.S.



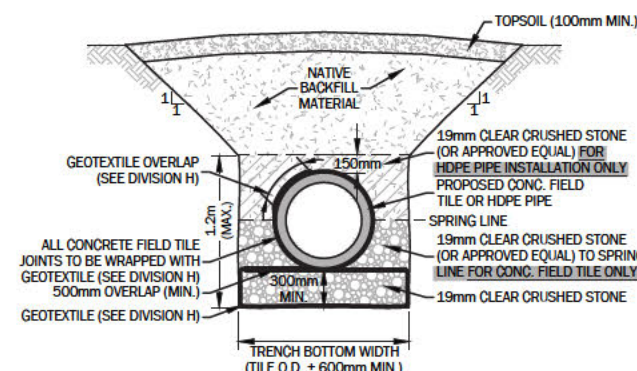
EAST BRANCH OUTLET DETAIL
N.T.S.



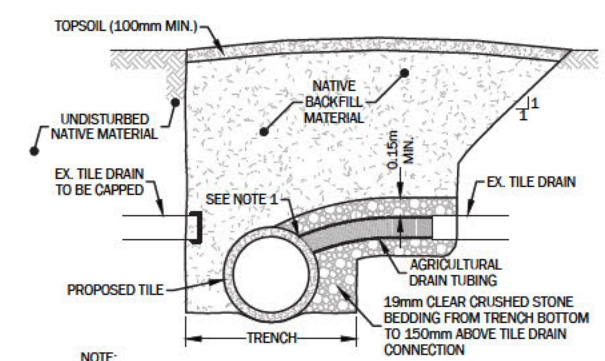
WEST BRANCH OUTLET DETAIL
N.T.S.



TYPICAL PIPE INSTALLATION ON STONE BEDDING DETAIL
N.T.S.



TYPICAL PIPE INSTALLATION ON WRAPPED STONE BEDDING DETAIL (PROVISIONAL ITEM)
N.T.S.



- NOTE:**
1. ALL TILE CONNECTIONS TO BE EITHER A CORED HOLE WITH AN INSERT COUPLER, OR A MANUFACTURED TEE.
 2. CLEAR CRUSHED STONE BEDDING NOT REQUIRED IF DUAL WALL HDPE PIPE IS USED FOR THE CONNECTION.

TYPICAL TILE CONNECTION DETAIL
N.T.S.



4	REPORT SUBMISSION	23-04-28
3	KOCH-LEIS INFORMATION MTG.	22-11-24
2	INFORMATION MEETING	22-09-29
1	ON-SITE MEETING	21-09-22
No.	REVISION	DATE (YY-MM-DD)



DRAWN BY: R.U.	DESIGNED BY: A.H.	CHECKED BY: S.B.
DATE: 2023-04-28	REFERENCE No. WLMT-002	DRAWING No. 6 OF 6



Council Meeting Minutes

Monday, July 12, 2021

Council Meeting

Electronic Online Participation

7:00 P.M.

Members Present: Mayor L. Armstrong, Councillors A. Hallman, C. Gordijk, B. Fisher, J. Gerber and J. Pfenning

Staff Present: Acting Chief Administrative Officer / Director of Parks, Facilities and Recreation S. Jackson, Director of Information and Legislative Services D. Mittelholtz, Director of Public Works J. Molenhuis, Director of Development Services H. O’Krafka, Director of Corporate Services / Treasurer P. Kelly, Fire Chief R. Leeson, Director / Curator Castle Kilbride T. Loch, Manager of Information and Legislative Services / Deputy Clerk T. Murray

1. MOTION TO CONVENE INTO CLOSED MEETING (IF NECESSARY)

2. MOTION TO RECONVENE IN OPEN MEETING (IF NECESSARY)

3. MOMENT OF SILENCE

4. LAND ACKNOWLEDGEMENT

5.1 Councillor B. Fisher read the Land Acknowledgement.

5. ADDITIONS TO THE AGENDA

5.1 Consent Agenda – Item 11.4 Report PW 2021-015 Guide Rail Program – Award of Contract

Resolution No. 2021-144

Moved by: Councillor J. Pfenning Seconded by: Councillor C. Gordijk

THAT Item 11.4 be added to the agenda under CONSENT as Report PW 2021-015 Guide Rail Program – Award of Contract.

This information is available in accessible formats upon request

CARRIED.

6. DISCLOSURE OF PECUNIARY INTEREST UNDER THE MUNICIPAL CONFLICT OF INTEREST ACT

None disclosed.

7. MINUTES OF PREVIOUS MEETINGS

7.1 Council Meetings Minutes Monday June 28, 2021, and July 5, 2021

Resolution No. 2021-145

Moved by: Councillor A. Hallman Seconded by: Councillor C. Gordijk

THAT the minutes of the following meetings be adopted as presented:

Regular Council Meeting June 28, 2021, and Special Council Meeting July 5, 2021.

CARRIED. AS AMENDED.

Mayor L. Armstrong advised that staff received Councillor A. Hallman's written statement from the July 5, 2021, Special Council Meeting after the Council Agenda Package was released and that the minutes will be amended to include that statement.

8. PUBLIC MEETINGS

9. PRESENTATIONS

9.1 Mike Schout Wetlands

Phil Holst

9.1.1 REPORT DS 2021-24

Mike Schout Wetland Preserve

Approvals Update

Resolution No. 2021-146

Moved by: Councillor C. Gordijk Seconded by: Councillor A. Hallman

THAT Report DS 2021-24 be received for information.

CARRIED.

The Director of Development Services outlined the report and introduced Phil Holst.

Mr. Holst provided an update on the Wetland Preserve, advising that on or about August 9th a permit from the Grand River Conservation Authority (GRCA) is expected to continue works. Currently, site preparation is being done for seeding in October, at which time approximately 30 acres of the 50 acres should be seeded with pollinator plants, with the lower section being wet meadow plantings. This past spring 4200 seedlings were planted by GRCA.

Mr. Holst advised that they will be inviting some of the local volunteer groups to assist with tree planting and educational tours.

It was also advised that installs of nesting platforms for blue herons, turtle nesting mounds, snake hibernaculum, and various birdhouses will be completed to promote an increase in the amount of wildlife.

Mr. Holst advised Council that it is not often that a project of this size and scale in a subdivision is proposed. He stated this project is very unique and has the potential to serve as inspiration for other communities.

Mr. Holst explained that deep water is considered to be 2 meters in depth, as this allows for the needs of wildlife for hibernation.

The Acting CAO advised that staff can investigate potential pollination planting on Township properties.

10. DELEGATIONS

11. CONSENT AGENDA

11.1 REPORT NO. ILS 2021-28

Noise By-law Exemptions

The Community Players (TCP)

11.2 REPORT NO. ILS 2021-27

Appointment of Drainage Engineer

1184 Gerber Road, N ½ Lot 10, Concession 3B

Township of Wilmot

11.3 REPORT NO. ILS 2021-29

Acceptance of Petition Drain and Appointment of Engineer

Derek Bruyn

2043 Bean Road, N ½ 30, Concession 3A

Township of Wilmot

11.4 REPORT NO. PW 2021.015

Guide Rail Program – Award of Contract

Resolution No. 2021-147

Moved by: Councillor J. Gerber

Seconded by: Councillor B. Fisher

THAT Report Nos. ILS 2021-28, ILS 2021-27, ILS 2021-29 and PW 2021-.015 be approved.

CARRIED.

12. REPORTS

12.1 INFORMATION AND LEGISLATIVE SERVICES

12.1.1 REPORT NO. ILS 2021-30

Proposed Procedural By-law

Resolution No. 2021-148

Moved by: Councillor J. Pfenning

Seconded by: Councillor C. Gordijk

THAT Report No. ILS 2021-30 be endorsed.

CARRIED. AS AMENDED.

The Director of Information and Legislative Services outlined the report.

The Director of Information and Legislative Services confirmed that Item 8.12, subsection A, can be changed to read the Chair shall determine by order of hand raised and administer the speaking order of Council.

The Director of Information and Legislative Services advised that staff have been having conversations on how to make these changes easily accessed and understood on the website and that the Land Acknowledgement will be posted in a more accessible location on the website.

The Acting CAO advised that one of the directions that came from the Special Council Meeting of July 5th was the community engagement improvements and noted that staff will be looking at when a public information centre may be a more appropriate in terms of hearing feedback from the public.

The Director of Information and Legislative Services advised that delegations do not propose recommendations to Council, rather they go through a member of Council to bring that forward or at the discretion of the Chair. It was also noted that staff work with delegations to assist them in navigating the rules of the By-law.

The Acting CAO confirmed that the solicitor did a thorough review of the By-law.

12.1.2 REPORT NO. ILS 2021-12

Records Retention

Resolution No. 2021-149

Moved by: Councillor J. Gerber

Seconded by: Councillor A. Hallman

THAT Council By-law 2021-37, a By-law to provide a schedule of retention periods for the records of the Township of Wilmot be approved and to repeal By-law No. 92-54.

CARRIED.

The Manager of Information and Legislative Services outlined the report.

The Acting CAO advised that the information being tracked through the 80x50 program will include additional tracking from the Sustainability Committee and the Director of Corporate Services advised that there is a third party tool that also tracks all data and records.

12.2 CORPORATE SERVICES

12.2.1 REPORT NO. COR 2021-026

Development Charges Update Study

Resolution No. 2021-150**Moved by: Councillor C. Gordijk****Seconded by: Councillor B. Fisher**

THAT the Development Charges Background Study, prepared by Watson & Associates Economists Ltd., as amended, be approved; and further,

THAT Council deems that no further public meeting is required; and

THAT the 2021 Development Charges by-law be approved, with an effective date of August 31, 2021.

CARRIED.

The Director of Corporate Services outlined the report.

The Acting CAO advised that the Region is currently going through a planning exercise of Library services and that an update is expected in early Fall.

12.3 PUBLIC WORKS AND ENGINEERING**12.3.1 REPORT NO. PW 2021-014****Wilmot-Waterloo Boundary Road Maintenance Agreement****Resolution No. 2021-151****Moved by: Councillor J. Pfenning****Seconded by: Councillor B. Fisher**

THAT Council approve and enter into an agreement with the City of Waterloo for the maintenance, repair and capital services for Wilmot Line; and further,

THAT the Mayor and Clerk be authorized to execute the attached Boundary Road Agreement between the City of Waterloo and the Township of Wilmot.

CARRIED.

The Director of Public Works and Engineering outlined the report.

The Director of Public Works and Engineering noted that there is an obligation to consult with various Indigenous Communities and other community partners.

The Director of Public Works and Engineering explained that an environmental assessment consists of a study and a report that looks at options for upgrades to consider for any given project.

12.4 DEVELOPMENT SERVICES

12.4.1 REPORT NO. DS 2021-023

Aggregate Zoning Status Review

Resolution No. 2021-152

Moved by: Councillor J. Pfenning Seconded by: Councillor J. Gerber

That is be deferred.

THAT Report DS 2021-023 be received for information.

DEFERRED.

Mayor L. Armstrong asked that Council consider deferring the report to allow for staff to complete a fuller public consultation process.

13. CORRESPONDENCE

13.1 Grand River Conservation Authority - Environmental Registry Posting 019-2986: Regulatory proposal (phase1) under the Conservation Authorities Act

13.2 Township of Wilmot – Annual Ombuds Report

Resolution No. 2021-153

Moved by: Councillor B. Fisher Seconded by: Councillor C. Gordijk

THAT Correspondence Item No. 13.1 and 13.2 be received for information.

CARRIED.

14. BY-LAWS

14.1 By-law No. 2021-36 Procedural By-law

14.2 By-law No. 2021-37 Schedule of Records Retention**14.3 By-law No. 2021-38 Development Charges Amending By-law
Resolution No. 2021-154****Moved by: Councillor C. Gordijk Seconded by: Councillor J. Pfenning**

THAT By-law Nos. 2021-36, 2021-37 and 2021-38 be read a first, second and third time and finally passed in Open Council.

CARRIED. AS AMENDED.

15. NOTICE OF MOTIONS**16. ANNOUNCEMENTS**

16.1 Councillor J. Pfenning noted that July 18 to 24, 2021 is National Drowning Prevention Week and noted that everyone needs to be water smart all year round and that both the Life Saving Society and Township staff have information that can help.

16.2 Councillor A. Hallman asked that everyone continue to support local small business.

16.3 Councillor C. Gordijk noted that Thursday July 15, 2021, is the Annual Fundraiser held by Warren Bechtold.

16.4 Councillor C. Gordijk noted that The Community Players are presenting 5 shows in New Hamburg and are looking for volunteers and to contact them at operations@thecommunityplayers.com

17. BUSINESS ARISING FROM CLOSED SESSION**18. CONFIRMATORY BY-LAW****18.1 By-law No. 2021-39****Resolution No. 2021-155****Moved by: Councillor J. Pfenning Seconded by: Councillor A. Hallman**

THAT By-law No. 2021-39 to Confirm the Proceedings of Council at its Meeting held on July 12, 2021 be introduced, read a first, second, and third time and finally passed in Open Council.

CARRIED.

19. ADJOURNMENT (8:19 PM)

Resolution No. 2021-156

Moved by: Councillor J. Gerber

Seconded by: Councillor B. Fisher

THAT we do now adjourn to meet again at the call of the Mayor.

CARRIED.

Jeff Bunn

From: Stephen Brickman <stephen.brickman@headwayeng.ca>
Sent: March 3, 2023 2:38 PM
To: John Kuntze
Subject: Gawron Follow up
Attachments: WLMT-002 - Jananna Drain - NHIC Data.xlsx

I lost you on the phone there. Attached is the NHIC reports from the MNRF. We've added the highlighting, and added a couple comments, but the raw data is still there. None of the Endangered Species have ever been observed.

Stephen Brickman, P.Eng

Project Manager/Engineer | Headway Engineering

headwayeng.ca

P: 226 243 6614, Ext. 1

E: Stephen.Brickman@headwayeng.ca

Jeff Bunn

From: Chad Curtis
Sent: May 24, 2023 10:06 AM
To: Stephen Brickman; John Kuntze
Cc: Jeff Bunn
Subject: Updated COR 2023-38 Report
Attachments: Bamberg Creek, Jananna, and Koch-Leis Municipal Drains - COR-2023-38.docx

Hello John and Stephen,

Just got off the phone with John regarding COR 2023-38 Report. He had some recommendations for the recommendation.

Let me know what you think.

Best,



Chad Curtis (he/him)

Deputy Clerk

Information and Legislative Services | Township of Wilmot | 519-556-0038

Wilmot.ca | [Twitter](#) | [Facebook](#) | [LinkedIn](#) | [YouTube](#)

My work day may look different than your work day. Please do not feel obligated to respond out of your normal working hours.

Jeff Bunn

From: John Kuntze <jkuntze@ksmart.ca>
Sent: May 31, 2023 9:58 AM
To: Chad Curtis; Stephen Brickman; Jeff Molenhuis
Cc: Adam Hall
Subject: RE: Bamberg Creek, Jananna, and Koch-Leis Drains - Report Filing

CAUTION: This email originated from outside of the organization. Do not click links or open any attachments unless you recognize the sender and know the content is safe.

Hi Chad

I will let you and Stephen discuss the mailing of the reports further.
Here are a few of my thoughts.

You should check all Wilmot roll numbers in the current assessment roll to ensure that there are no changes in ownership or mailing addresses.

I recall that Cory told me that he had his address updated for the assessment roll.

In any event you should use the address suggested by Stephen as Cory did tell me that is his correct mailing address now.

With respect to the Wellesley owners, the Act does state that the Wellesley Clerk should mail the reports.

I have noted that in most cases the Clerk of the initiating municipality will mail all the reports especially if there are not a large number of owners in the other municipality.

If you decide to mail the reports for Wellesley you should have Wellesley Township check their assessment roll for the current owners and mailing addresses in Wellesley Township. I recall recent discussion that there may be a change of ownership on one of the parcels in Wellesley Township.

You could forward Stephen's spreadsheet to Wellesley and ask them to update the information.

When you do the above you could also initiate discussion about Wellesley needing to appoint a member to the Court of Revision.

Stephen had also indicated when he filed the report that he was providing 6 copies of the report for Wellesley Township.

If you want, I can easily deliver these 6 reports to Wellesley Township for you.

John

From: Chad Curtis <chad.curtis@wilmot.ca>
Sent: Wednesday, May 31, 2023 9:34 AM
To: Stephen Brickman <stephen.brickman@headwayeng.ca>; Jeff Molenhuis <jeff.molenhuis@wilmot.ca>
Cc: Adam Hall <adam.hall@headwayeng.ca>; John Kuntze <jkuntze@ksmart.ca>
Subject: RE: Bamberg Creek, Jananna, and Koch-Leis Drains - Report Filing

Hello Stephen,

Thanks for this.

I'm available at 1:30 p.m. Talk to you then.

Best,

chad

From: Stephen Brickman <stephen.brickman@headwayeng.ca>
Sent: Wednesday, May 31, 2023 9:32 AM
To: Chad Curtis <chad.curtis@wilmot.ca>; Jeff Molenhuis <jeff.molenhuis@wilmot.ca>
Cc: Adam Hall <adam.hall@headwayeng.ca>; John Kuntze (jkuntze@ksmart.ca) <jkuntze@ksmart.ca>
Subject: RE: Bamberg Creek, Jananna, and Koch-Leis Drains - Report Filing

CAUTION: This email originated from outside of the organization. Do not click links or open any attachments unless you recognize the sender and know the content is safe.

Hey Chad,

Please find attached the ownership and mailing information that has been received from Wilmot & Wellesley. We compiled it into one doc. The only thing we added is that Cory has asked for his mailing address to be changed to 1010 Gerber Road. So there's two address there for him – his address that was on file at the township, and the new one that he shared with me after the public meeting.

I could do a call around 1:30 this afternoon if that works for you.

s.b.

From: Chad Curtis <chad.curtis@wilmot.ca>
Sent: Wednesday, May 31, 2023 9:10 AM
To: Stephen Brickman <stephen.brickman@headwayeng.ca>; Jeff Molenhuis <jeff.molenhuis@wilmot.ca>
Cc: Adam Hall <adam.hall@headwayeng.ca>; John Kuntze (jkuntze@ksmart.ca) <jkuntze@ksmart.ca>
Subject: RE: Bamberg Creek, Jananna, and Koch-Leis Drains - Report Filing

Hello Stephen,

I'm looking to send out the Notice of the Meeting to Consider the Report at some point today. I was wondering if you had a list of the addresses of the people that I need to distribute the Notice and the Engineer's Report. I have the suggest distribution list, but no addresses or contacts for these residents.

I also have some questions about Wellesley's participation in this. Perhaps we could have a brief phone conversation to get our ducks in a row for Wellesley.

Any assistance would be greatly appreciated.

Best,

Chad

From: Stephen Brickman <stephen.brickman@headwayeng.ca>
Sent: Monday, May 8, 2023 8:20 AM
To: Jeff Molenhuis <jeff.molenhuis@wilmot.ca>; Chad Curtis <chad.curtis@wilmot.ca>

Cc: Adam Hall <adam.hall@headwayeng.ca>; John Kuntze (jkuntze@ksmart.ca) <jkuntze@ksmart.ca>

Subject: Bamberg Creek, Jananna, and Koch-Leis Drains - Report Filing

CAUTION: This email originated from outside of the organization. Do not click links or open any attachments unless you recognize the sender and know the content is safe.

Hi Jeff & Chad,

Please find attached a pdf copy of the report for the above noted municipal drain. We've also included a document containing the suggested distribution of the paper copies of the report (delivered either last Friday, or today).

To get things started, we've suggested a schedule for processing the report into a by-law, but it's definitely open for discussion. The below schedule highlights in yellow the **Council Meetings** which are scheduled on the Twp calendar. If the Clerk/Council opt to schedule a Special Council, then the below schedule needs to be adjusted.

May 5 – Headway to deliver paper copies of report to Wilmot

May 29 – **Council Meeting** - Wilmot Council to instruct the Clerk to send notice of the meeting to consider the report (including notice of the Consideration and a copy of the report)

June 2 – Deadline for Clerk to send notice of consideration (and report) to landowners assessed

June 12 – **Council Meeting** to Consider the report

Between June 23 and July 4 – Clerk to send a copy of the provisional by-law, and a notice of the Court of Revision to Assessed Landowners

July 14 – Deadline for Appeals to the Court of Revision

July 24 – **Council Meeting** for Court of Revision (CoR) – Note: the CoR will need to include one member from Wellesley Township. **Special note – I am on vacation this week – we can talk about handling the CoR closer to the date, but I cannot do it in person. I can probably handle remote.**

August 2nd to August 13 (the precise date is 40 days after the provisional by law is actually circulated) – Deadline to Appeal to Tribunal under Section 48 (Design/engineering related appeals)

August 14 – Deadline to Appeal to Tribunal under Section 54 (Assessment/Cost Sharing appeals only)

If the CoR date gets shuffled around, then the schedule will have to be adjusted beginning after the June 12 Council Meeting to consider the report. Typically, we put in when the Third Reading could take place, but I consider it a certainty that there will be a Tribunal Hearing, and therefore, projecting that far doesn't make sense at this time.

Like I mentioned before, the above schedule is for discussion. If you have any questions, please let us know.

Thanks everybody! Take Care.

Stephen Brickman, P.Eng

Project Manager/Engineer | Headway Engineering

headwayeng.ca

P: 226 243 6614, Ext. 1

E: Stephen.Brickman@headwayeng.ca

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Letter to the Mayor and Councillors of Wilmot Township June 8th, 2023

We the undersigned wish to strongly protest the proposal to put in a drainage system on the Jananna lands which would flow into Bamberg Creek and thus transform this natural area into an ecological disaster.

It should be understood that most of the landowners have not been given proper notice of the various meetings to date, especially the farmer who works the majority of the acreage in the area.

Of the 17 landowners involved, only the single petitioner is claiming any benefit to this project.

The Drainage Act specifically requires that "owners that represent at least 60% of the land in the area" be party to any petition for drainage, and that "the owners have made a decision that the drain will be of benefit to them and that the probable cost will be lower than the anticipated benefit". Neither of these requirements have been followed.

No new acreage will be opened up. No crops are currently being adversely affected. The Jananna lands are already extensively tiled. Any cost/benefit analysis just on a strictly financial basis points to a failure on benefit and an unnecessary cost. There would also be perpetual maintenance costs.

Importantly this area has been designated for many years as a Provincially Significant Wetland. Ongoing annual declarations are made by landowners promising "not to undertake any activities that degrade, destroy or result in the loss of the natural heritage feature". This project would destroy the Bamberg Creek PSW and make it a drainage ditch.

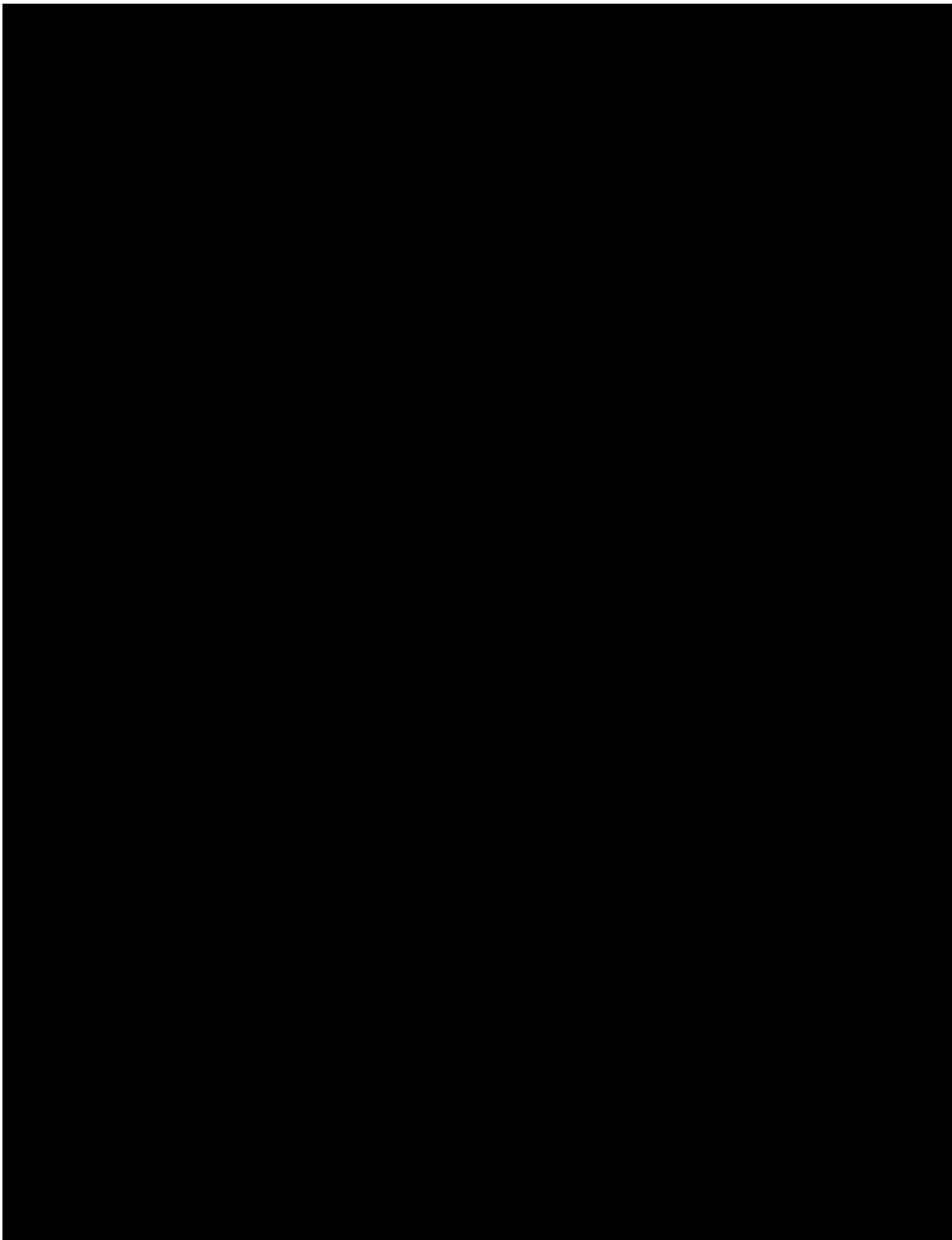
This beautiful area has also welcomed the hikers of the Avon Trail Association. A new bridge over the creek was just recently built by volunteers at their expense and dedicated in 2020.

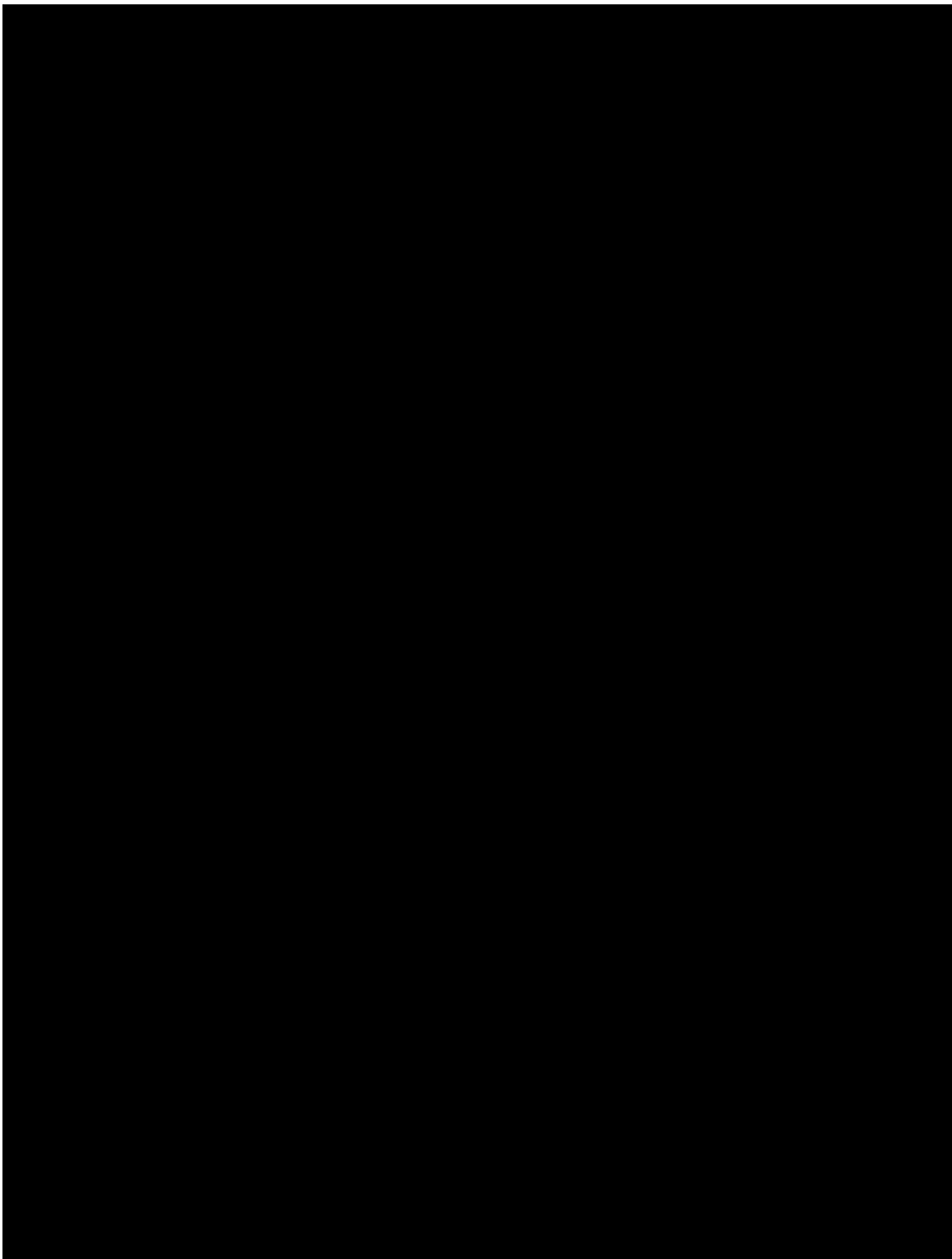
We urgently request that the members of Council and the Mayor come to the site in the next few days for an escorted trip to see for themselves that the land is good as it is. An invitation to you will be made.

This drain proposal does not meet the requirement that the petition must be signed by the majority of the owners in the area requiring drainage or by owners that represent at least 60% of the lands in this area. The cost/benefit requirement is not met. We are asking Council to reject the petition.

SIGNED: 







Jeff Bunn, CMO

Manager of Legislative Services / Municipal Clerk
Legislative Services | Township of Wilmot | [519-556-0040](tel:519-556-0040)

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My work day may look different than your work day. Please do not feel obligated to respond out of your normal working hours

From: Kris Wilkinson <kris.wilkinson@wilmot.ca>
Sent: Wednesday, June 14, 2023 12:05:41 PM
To: Jeff Bunn <jeff.bunn@wilmot.ca>
Subject: Fwd: Next Steps - Jananna Drain

Hi Jeff,

We should connect at some point. Could we get our legal counsel to give an opinion on the validity of section 4.1(a) - the vast majority of assessed land owners are up in arms.

Just want to make sure we do the right thing.

Enjoy the email chain.

Cheers,



Kris Wilkinson

Councillor Ward 2
Township of Wilmot | 519-807-4173

[Wilmot.ca](#) | [Twitter](#) | [Facebo8ok](#) | [LinkedIn](#) | [YouTube](#)

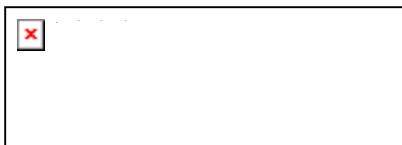
My work day may look different than your work day. Please do not feel obligated to respond out of your normal working hours

From: David Marshall <dmarshall@marshallzehr.com>
Sent: Tuesday, June 13, 2023 8:56:59 PM
To: Cory Kittel [REDACTED]
Cc: Kris Wilkinson <kris.wilkinson@wilmot.ca>
Subject: Re: Next Steps

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This case law item is very compelling and from 1986. Clearly stated and supports 4 (1) a of the drainage act.

Dave



David Marshall CIM
Co-Founder

T 519 342 1000 X 221
C 519 589 9261

marshallzehr.com | email

Broker
MarshallZehr Group Inc. | Mortgage Administration #11955 | Mortgage Brokerage #12453

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On Jun 13, 2023, at 10:52 AM, Cory Kittel [REDACTED] wrote:

Dave is 100% correct in all of this. This is a clear cut case. It's simple, clear and undeniable.

All the examples I'm providing are pulled directly out of the "Guide for Engineers Working under the Drainage Act". This is the de facto bible that the Engineers work from to help them do their job. With a discovery such as this the Township's mandate is prescribed based on the wording in the Drainage Act and on the signed petition itself.

The case law found in the "Guide for Engineers Working under the Drainage Act" contains many many more examples such as this.....

+++

Westendorp v. Elizabethtown (Town), 1986

The best definition of the area requiring drainage that I was able to research appeared in a letter dated November 29, 1929, to the Clerk of the Township of West Williams from Drainage Referee George F. Henderson:

"It is not necessary that there should be a majority of the petition of all those whom the engineer finds to be eventually interested in the drainage work. What you need is in first place a reasonably well defined drainage area, that is, a section of land requiring drainage, and it is this territory which should be described in the area. It is of course not proper to pick out just enough lots to enable a majority, but there should be what I generally speak of as an irregularly shaped saucer with reasonably well defined banks around it. This might be all on one lot, although that is of course a rare case, but the point is that once you have that low lying section of land requiring drainage, it is a majority of the owners in that section that you need for a petition, no matter how many others the Engineer may bring in..."

+++

Cory
[REDACTED]

On Mon, Jun 12, 2023 at 10:50 PM David Marshall <dmarshall@marshallzehr.com> wrote:

All this is extremely compelling and none of us needs to be an engineer or lawyer to interpret what the act says here. It is crystal clear and in plain English.

The point that Cory has made with respect to the "false majority" as clearly explained in his email is in my opinion the most compelling point of all. I don't understand how it could be interpreted any other way than to support our case. The Act is crystal clear.

I am also incredibly thankful that it is clearly outlined how the Township is not responsible for the costs associated with the engineering report. I absolutely don't point any blame at the township or the current council who has inherited this mess.

Now for the less significant but still important arguments.

I would also add that I own three farms and they all have wet areas and even wetlands. Most of the neighbours that I know also have wet areas and/or wetlands on their properties. Imagine if everyone that had a wet area in their farm utilized the drainage Act to have their wetland area drained. That is beyond ridiculous. Every farmer would be bankrupt in trying to pay a portion of the costs to fix each farm.

The GRCA clearly outline PSW areas and I think it is horrible to destroy these protected areas. When I bought my farms I accepted them the way they were. I didn't think to convert bogs and marshes and flood plains into farm fields. They are beautiful and should be protected. My wife and I signed our PSW forms today for one of our farms agreeing to protect 10.26 acres on just one of our farms. It is the right thing to do. I don't want a drainage ditch and concrete pipes!

I look at the cost/benefit here in this example. You have an estimated \$500k in cost to do the work as outlined. You don't gain any additional farmland. Clearly the crops are growing fine. However....

You might make the argument that the estimated 1 acre affected area was deemed to not be farmable. Well that 1 acre at the absolute most would be worth about \$35,000. That would assume a 100 acre piece of farmland was worth \$3.5 mm which is likely too high and not realistic.

Based on this the cost benefit would be \$500k cost to \$35 k benefit.

What other methodology could be used? Land rental of 1 acre per year would be no more than \$300.

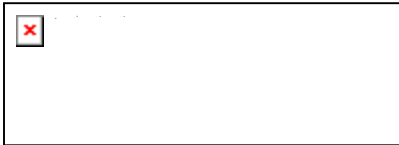
You could base the cost on a reduced yield but again that number is in the hundreds of dollars per year.

I am not sure how else to evaluate the "benefit". It would certainly be very hard to establish a benefit to the 17 neighbours that somehow exceeded \$500k. Impossible.

For the above reasons and any other reasons commented on in other letters sent by our group I believe Wilmot can decline this application in good conscience and knowing they are working within the written word and spirit of the Drainage Act.

Sincerely,

Dave Marshall



David Marshall CIM
Co-Founder

T 519 342 1000 X 221
C 519 589 9261

marshallzehr.com | [email](#)

Broker
MarshallZehr Group Inc. | Mortgage Administration #11955 | Mortgage Brokerage #12453

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On Jun 12, 2023, at 9:21 PM, Cory Kittel [REDACTED] wrote:

Hey Kris,

Further to this information, this is a snippet pulled from the actual official petition document signed by the petitioners...you can see it for yourself in the copy I sent you.

"After the meeting to consider the final report, if the petition does not comply with section 4, the project is terminated and the original petitioners are responsible for the costs in shares proportional to their assessment in the engineer's report. Drainage Act, R.S.O. 1990, c. D. 17 s. 43."

Their petition does not comply with section 4 as I stated and provided clear evidence earlier. Let's all chat tomorrow at 1pm.

Cory



On Fri, Jun 9, 2023 at 2:15 AM Cory Kittel <corykittel@gmail.com> wrote:

Just one other thing, I've attached the original petition here. It clearly shows the "area requiring drainage" encompasses two properties...there is no question.

<image.png>

Cory

On Fri, Jun 9, 2023 at 2:03 AM Cory Kittel [REDACTED] wrote:

Hey Kris,

You have to review what I've included below, it's a pretty big deal and you have to talk with Tim Brook at OMAFRA, he's a wealth of information on this subject and is open for any phone calls or emails. I have included him on this thread.

If the original petition is invalid, there should be no path forward for this project. In the Engineer's report he used this part of the Drainage Act to qualify the validity of the petition...

<image.png>

Here's the problem, the Engineer got the '*area requiring drainage*' wrong. He wrongfully assumed the water stops at the petitioner's fence line and therefore "*the area requiring drainage*" magically stops at the fence line. It does not. He picked out a portion of what is in fact a larger distinct basin requiring drainage. You can't do that, it creates a false majority. The lands in the area requiring drainage include two properties – the Jananna property and my own.

This is the drainage basin map courtesy of the GRCA. Any historical satellite imagery will show you the same thing.

<image.png>

Only one of these properties signed the petition, which means that they do not have a majority.

To better understand this you have to read this case law example which is in *Section 4.6 of Publication 852, A Guide for Engineers Working under the Drainage Act*.

<image.png>

This simple illustrated example is also in Section 4.6 of Publication 852, A Guide for Engineers Working under the Drainage Act.

<image.png>

In this case the petition is invalid because the number of owners on the petition is not greater than 50%. I believe this spells it out.

Cory

[REDACTED]

On Wed, May 31, 2023 at 3:58 PM Kris Wilkinson <kris.wilkinson@wilmot.ca> wrote:

Hi Cory,

I can chat with Tim from OMAFRA sure. If you want to set it up that's fine or I can reschedule out direct.

With regards to the application, based on the report it appears to be valid so the township is at risk. Its also a failure to act that could make the township liable for damages.

Let's chat again over the next few weeks.

Cheers,

Kris Wilkinson

Councillor Ward 2

Township of Wilmot | 519-807-4173

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From: Cory Kittel [REDACTED]
Sent: Monday, 29 May, 2023, 11:31 am
To: Kris Wilkinson <kris.wilkinson@wilmot.ca>
Cc: David Marshall <dmarshall@marshallzehr.com>
Subject: Re: Next Steps

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Hey Kris,

It looks like the clerk got this point wrong...

- If there is no appeal the cost of the Engineer's Report (\$70,300) would have to be paid from the Township general levy.

I reached out to him about this and this is what he sent me... *Section 43 of the Drainage Act notes that if the petition is determined to not be valid at the conclusion of the **meeting to consider the Report**, then the original petitioners are liable for the cost of the Engineer's Report which the municipality can collect from the petitioners as outlined in Section 43.*

This is what I've been saying about misinformation and where the sources of information have been coming from. Everyone has their own agenda and we appear to be playing by different rule books.

Even on the ontario.ca website for '[Drainage Act appeals](#)' is says appealing at the Ontario Drainage Tribunal does not require a lawyer. It's when things get to the Drainage Referee, a lawyer might be advisable. I think the risk to the Township for a 'No' answer is being overplayed. I think further exploration and alternate sources of information are suggested. Could I recommend an information session with Tim Brooks at OMAFRA? This is part of his job responsibilities.

Cory

On Sun, May 28, 2023 at 10:30 PM Kris Wilkinson <kris.wilkinson@wilmot.ca> wrote:

Hi Cory,

Thank you for having us out to speak on Friday. I have more information for you after reviewing the staff report for consideration tomorrow night May 29 and reading the drainage report.

Please review the next steps.

After the next public meeting then there would be one more consideration of the report before proceeding and moving to a court of revision. Again, I must reiterate that the Drainage Act is driving this process and the township is put into a tough spot if there is denial and then appeal of the application.

This is the current options in front of us:

On July 12, 2021, Council appointed Headway Engineering to prepare an Engineer's Report

under Section 4 of the Drainage Act. In the Report, the Engineer outlined the history of the

Bamberg Creek, Jananna, and Koch-Leis Municipal Drains

On May 5, 2023, Stephen Brickman, P. Eng., Headway Engineering filed with the Township

Clerk the Bamberg Creek, Jananna and Koch-Leis Municipal Drain Report dated April 28,

2023.

REPORT:

By accepting the Engineer's Report, the Township Clerk will schedule a meeting for

Consideration of the Report, which is scheduled to take in place in June or July, 2023.

At the Consideration of Report meeting, Council can receive a presentation on the report from

the Engineer and receive comments, questions, and other input from affected landowners,

agencies and utilities. At the conclusion of the meeting, Council must provide the opportunity

for property owners to add or remove their name from the petition and then confirm with the

Engineer if the petition submitted remains valid under Section 4 of the Act.

At this stage, Council may decide to:

1. Provisionally adopt the Engineer's Report

- Provisionally adopting the Report by providing first and second reading to a provisional by-law would signal Council's intent to proceed with the Engineer's Report and initiates the appeal process, if necessary, under the Act.

2. Refer the report back to the Engineer

- if there appears to be errors in the report or Council believes the report should be reconsidered for any other reason, Council may refer the report back to the Engineer.

- The Township's Drainage Superintendent and Township staff advise that the Engineer's Report is in general conformity with the Drainage Act.

3. Take no action on the Engineer's Report

- Any petitioner could appeal to the Drainage Tribunal the decision of Council to not proceed with the report under the Drainage Act.

- If there is no appeal the cost of the Engineer's Report (\$70,300) would have to be paid from the Township general levy.

- Under Section 79 of the Drainage Act the Township would be liable for any damage claim by an affected landowner due to failure to properly maintain an existing municipal drain

Call Me if you have any questions.

Cheers,

<image001.png>

Kris Wilkinson

Councillor Ward 2

Township of Wilmot | 519-807-4173

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June 16, 2023

To the Mayor and Councilors of Wilmot Township,

I am writing this letter in objection to the petition for the proposed drainage works for the Bamberg Creek, Jananna and Koch-Leis Drain.

My name is Ken Heintz and I live at [REDACTED]. I farm and work all of the land around the Bamberg Creek [REDACTED] of the petitioner's farm. I am very familiar with that portion of the creek and the Koch-Leis drain. I've lived here for over 30 years and the Bamberg Creek has never changed. There is no silt build-up because it runs too quickly.

In 2012 and again in 2018, the petitioner requested that the Koch-Leis drain be cleaned out and the creek be dug to correct the flow of water in the creek. The dirt removed from the creek was piled on the south side of the creek bank both times. It created a swale making the land behind the swale unworkable. There was about 20 acres that all surface drain to the Koch-Leis drain. This makes common sense to the engineer to trap water into someone else's field and make it unworkable? I had to install tiles into the field so that the flooded land I was working could be farmed. Both of those years, the flow of water was being impeded by beavers that had built a dam further down the creek.

Prior to starting this petition there was another beaver dam creating the same issue. The petitioners saw the beaver dam in the creek and instead of having it removed, started this petition to dig the Koch-Leis drain and Bamberg Creek. The beavers have been removed. The creek flows fine and there are no drainage issues.

The west branch of the Jananna drain runs from Gerber Road to the Koch-Leis drain and into Bamberg Creek draining water from the area on the north side of Gerber Road. This area is pure sand and does not hold water. Also, the entire north side of the Jananna land is all sand. They hired a drainage contractor to systematically tile their farm. He drained the south side but did not put tiles in the north because it's pure sand, doesn't hold water and doesn't need tiling. So, installing a concrete sealed tile makes absolutely no sense when you don't have a water problem.

The east branch of the Jananna drain flows into [REDACTED] pond. The southeast back corner of the Jananna farm is not drained into the systematic tile and needs to go across [REDACTED] land. Instead of this extensive proposal by the engineers, a 6" plastic perforated tile would be ample to drain the two acres. There is 3' of drop in the creek with is plenty of depth for a 6" plastic tile. The Bamberg Creek does not need to be dug.

I think this proposal is a complete waste of money. There are many alternatives that should be explored that would cost a fraction of the amount of this proposal.



CORPORATE SERVICES *Staff Report*

REPORT NO: COR-2023-43

TO: Council

SUBMITTED BY: Patrick Kelly, Director of Corporate Services/Treasurer

PREPARED BY: Chad Curtis, Deputy Clerk

REVIEWED BY: Sharon Chambers, CAO
Patrick Kelly, Director of Corporate Services/Treasurer
Jeff Bunn, Manager of Legislative Services/Clerk

DATE: June 26, 2023

SUBJECT: Bamberg Creek, Jananna, and Koch-Leis Municipal Drain

RECOMMENDATION:

THAT the Engineer's Report dated April 28, 2023, for the Bamberg Creek, Jananna, and Koch-Leis Municipal Drain for construction of a new closed municipal drain from two locations on the North Part of Lot 10, Concession 3, Block B and extending downstream to its outlet into the Koch-Leis Drain and the Bamberg Creek be considered in accordance with Section 42 of the Drainage Act; and

THAT the by-law 2023-XX, as attached to this agenda, be given first and second reading to provisionally adopt the Report if the Report if the petition remains valid after consideration of the Report; and

THAT the date for the Court of Revision be scheduled for August 16, 2023, if By-law 2023-XX, as attached to this agenda, is provisionally adopted, with the following two members of Council appointed: Councillor _____ and Councillor _____

SUMMARY:

This report outlines the Bamberg Creek, Jananna, and Koch-Leis Municipal Drains Report for Council consideration and recommends that the Report be provisionally adopted and the Court of Revision be scheduled for August 16, 2023.

BACKGROUND:

On July 12, 2021, Council appointed Headway Engineering to prepare an Engineer's Report under Section 4 of the Drainage Act. In the Report, the Engineer outlined the history of the Bamberg Creek, Jananna, and Koch-Leis Municipal Drains.

On May 5, 2023, Stephen Brickman, P. Eng., Headway Engineering filed with the Township Clerk the Bamberg Creek, Jananna, and Koch-Leis Municipal Drains.

On May 29, 2023, the Council of the Township of Wilmot directed the Clerk to schedule a Meeting to Consider the Report.

REPORT:

Pursuant to the requirements of the Drainage Act, notice of this meeting and copies of the Engineer's Report (attached) were forwarded to the assessed lands and roads, as well as any affected public agencies, as required.

The Drainage Engineer will be attending the council meeting to present the Engineer's Report. Assessed landowners and all other affected parties will be given the opportunity to ask questions and voice any concerns relating to the Report. The Drainage Engineer will respond to any questions that may arise from delegations and/or Council. At the conclusion of the meeting, there will be an opportunity for affected owners to add or withdraw their names from the petition.

As per the Drainage Act, if the Section 4 request is confirmed and the petition remains valid at the conclusion of the meeting, Council may proceed by giving first and second reading to By-law 2023-XX, as attached to this agenda, to provisionally adopt the report. Council then sets a date for the Court of Revision and appoints two members to the Court of Revision. As the Bamberg Creek, Jananna, and Koch-Leis Municipal Drains crosses the municipal border into the Township of Wellesley, a Councillor from Wellesley must be appointed to the Court of Revision.

Staff, in consultation with the Drainage Engineer and staff from the Township of Wellesley, will propose a Court of Revision date to be held on August 16, 2023.

ALIGNMENT WITH THE TOWNSHIP OF WILMOT STRATEGIC PLAN:

Goal 6, Ensure availability and sustainable management of water and sanitation for all:

- Target 6.5 – Implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- Target 6.6 – Protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

FINANCIAL CONSIDERATIONS:

If the municipal drainage works proceed pursuant to the Drainage Act, all affected property owners would be assessed in accordance with the assessment schedule. Upon completion of the project, Council will be required to approved the Drain Levy By-law, at which time staff will process billing to assessed properties and submit funding applications to OMAFRA for eligible properties.

ATTACHMENTS:

Bamberg Creek, Jananna, and Koch-Leis Municipal Drains 2023 – Engineer’s Report
By-law 2023-XX

Cost / Benefit Analysis

Jananna / Bamberg Creek /
Koch-Leis Municipal Drains

Introduction

After careful review of the Engineer's Report, there is very little detail and little to no evidence or justification as to why the work is necessary and even if there is a problem worth fixing.

No business case is present, no ROI provided to the landowners, no payback period calculated. In a scenario when Township residents are unwillingly being forced to pay for this, shouldn't those basic things be even more critical? Where is the accounting and accountability?

Payback Period

Calculating the financial feasibility of this entire project is actually quite simple. Let's look at this from Jananna's point of view since they are the one requesting this work.

Jananna currently rent their land and make \$300/acre (they don't farm it themselves). This is the top rental rate in this part of Wilmot for systematically tiled fields, which we already established they have. Farmers want multi-year agreements if paying this price. Installing new drains will not bump up this rate because their fields are already tiled so the proposed work will have no impact on their per acre rate, they are already at the top tier. Plus the proposed drainage work is all redundant anyway. Rent will rise naturally through inflation, market demand etc., not because of the proposed drainage work.

We also know the renter is farming all their farmland. **The proposed work will not create any new land to farm.** For the sake of argument though, let's say they unlock one extra acre. That would bring in only an extra \$300 per year in rent revenue.

Their **proposed cost for this project is \$57,441**. Earning an extra \$300/yr, **it would take Jananna over 190 years just to pay back the cost of this project.**

Cost / Benefit

You have an estimated close to \$500k to do the work as outlined. You don't gain any additional farmland. Clearly the crops are growing. However....

You might make the argument that the estimated 1 acre affected area was deemed to not be farmable. Well that 1 acre at the absolute most would be worth about \$35,000. That would assume a 100 acre piece of farmland was worth \$3.5 mm which is likely too high and not realistic.

Based on this the cost benefit would be \$460k+ cost to \$35k benefit.

What other methodology could be used? Land rental of 1 acre per year would be no more than \$300.

You could base the cost on a reduced yield but again that number is in the hundreds of dollars per year.

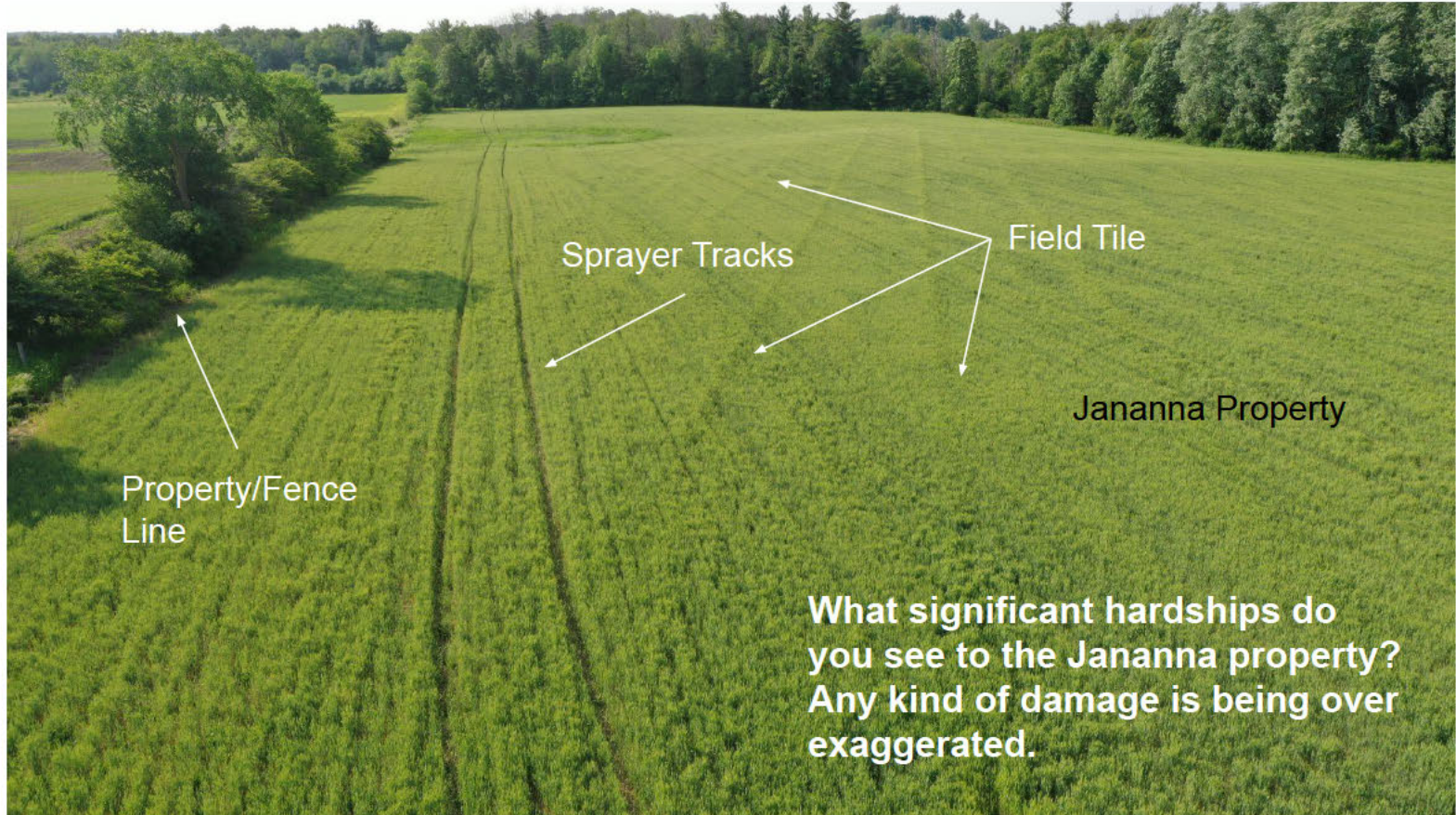
How else do you evaluate the "benefit"? It would certainly be very hard to establish a benefit to the 17 neighbours that somehow exceeded \$500k. Impossible.

This is the low area South East on the petitioner side after a very wet Spring

Photo taken May 25, 2023



East Side of Field - Property Line Pointing South - Photo Taken June 20, 2023



The other major problem is that the entire plan is over-engineered. What justification is there that requires a solution of peak performance standards? Is this what we need **16" industrial sized concrete** tiles for when less expensive options will work just as good? All this money will be spent and these massive oversized tiles will sit in the ground bone dry.



After consulting with three independent drainage contractors, all have suggested this project is over-engineered.

Comparables

The project is grossly overestimated because there is no rationale or evidence of the need or return. The costs **HAVE** to come down. There is no justification. Written estimates for comparable work from drainage professionals using drainage systems and solutions that can be found in 99% of systematic farm drainage systems today show this. The estimates are coming in at a third (1/3) of the Engineer's construction costs. For example...

8" Tile @ 288m in length	Material	Installation	Total
Engineer's Report	\$5,760 (concrete)	\$9,216	\$14,976
Comparables	\$2,551 (HDPE)	\$993	\$3,544

16" Tile @ 304m in length	Material	Installation	Total
Engineer's Report	\$10,640 (concrete)	\$10,944	\$21,584
Comparables	\$7,585 (HDPE)	\$1,667	\$9,252

Since landowners are the ones being asked to pay for this, we demand more cost-effective options.

JOB ESTIMATE

NAME: [REDACTED] PHONE: [REDACTED]
 ADDRESS: [REDACTED] [REDACTED]
 STARTING DATE: [REDACTED] NO. OF ACRES TO BE DRAINED: [REDACTED]

A job worth doing is worth doing right.

QUANTITY	SIZE	DESCRIPTION	AMOUNT
16,000	4"	5/16" pipe @ .67 + install @ .24	12,600.00
1,025	6"	5/16" pipe @ 1.50 + " " @ .30	1,925.00
100	8"	" " @ 2.20 + " " @ 1.05	325.00
200	10"	" " @ 4.20 + " " @ 1.15	1,020.00
700	12"	5/16" pipe @ 5.70 + " " @ 1.25	4,865.00
1	12"	outlet pipe @ 210.00	210.00
2	10"	T's @ 65.00	130.00
37	-	connections @ 45.00	1,665.00
1	6"	1/4" tile @ 175.00	175.00
1	10"	catchbasin @ 500.00	500.00
6.5	4"	4" pipe @ 112.00 (galvanized 1/2" thick)	728.00
10,000	6"	1/16" pipe @ 1.80 (for drain system and outlet)	18,000.00
1	-	m.s. and setup @	1,000.00
		Subtotal	25,003.00

Footage required per acre:
 20 R = 2000
 40 R = 1470
 45 R = 1100
 50 R = 900
 60 R = 750
 80 R = 500

CUSTOMER: [REDACTED]
 ESTIMATED BY: [REDACTED] DATE: Jan 9/23

THIS CONTRACT IS VOID IF ANY PART OF THE DRAINAGE SYSTEM IS BASED ON THE ENGINEER'S DESIGN AND THE MATERIALS WHICH MAY BE DELIVERED TO THE CUSTOMER WITHOUT THE ENGINEER'S APPROVAL. THE CUSTOMER'S ACCEPTANCE OF THE WORK AND SERVICE IS FINAL.

The Drainage Act

According to **Section 40** of the Drainage Act, the engineer could have determined that the drainage works are impractical and the process could have ended there, but they chose not to do that for whatever reason. How has this project been determined to be practical and financially feasible in any way?

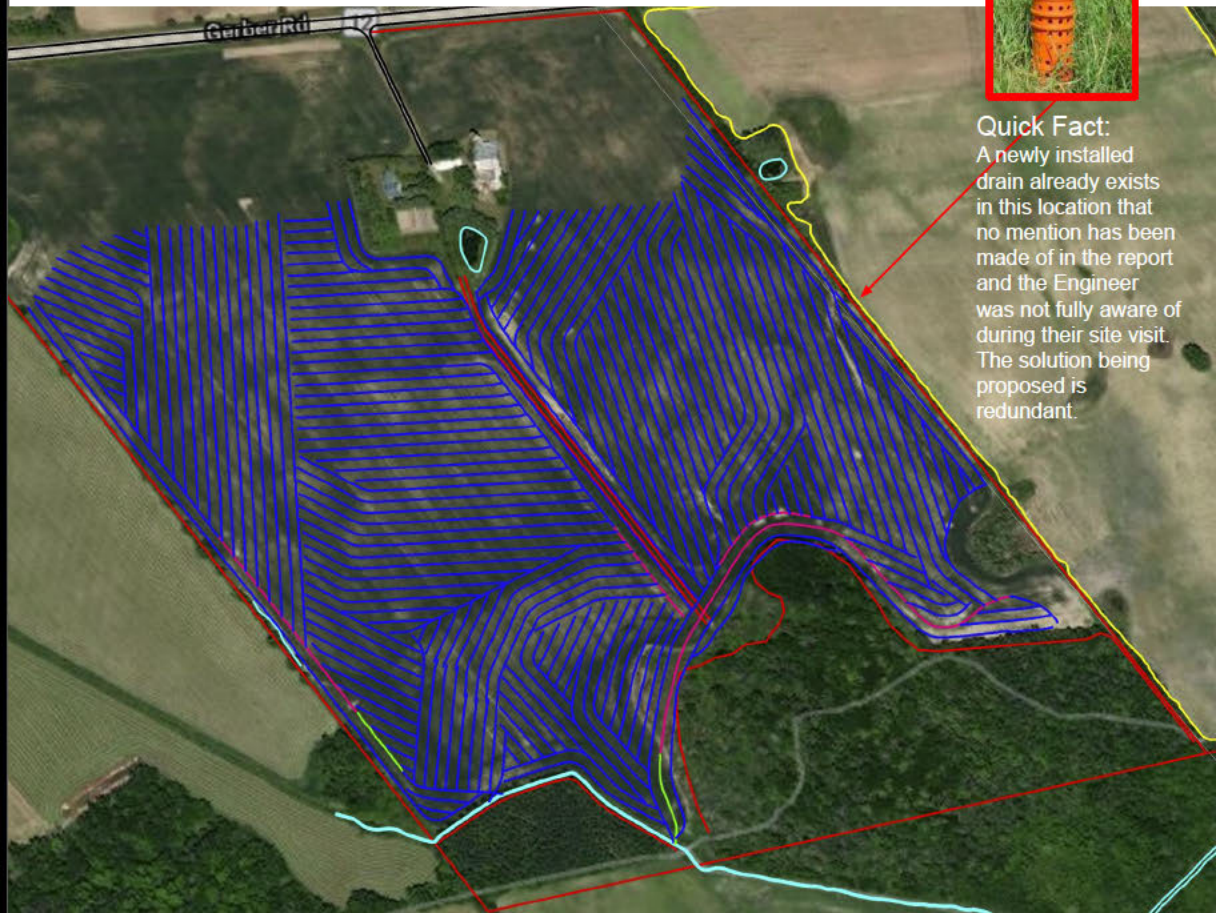
In **Section 32** the engineer had this option.. where, in the opinion of the engineer, the cost of continuing a drainage works to a sufficient outlet or the cost of constructing or improving a drainage works with sufficient capacity to carry off the water will exceed the amount of injury likely to be caused to low-lying lands along the course of or below the termination of the drainage works, instead of continuing the works to such an outlet, or making it of such capacity, the engineer may include in the estimate of cost a sufficient sum to compensate the owners of such low-lying lands for any injuries they may sustain from the drainage works, and in the report the engineer shall determine the amount to be paid to the owners of such low-lying lands in respect of such injuries.

Also in **Section 48 (1)(a)** The basis for an appeal and for a project to be halted is when the benefits to be derived from the drainage works are not commensurate with the estimated cost thereof. What benefits have been derived and proven?

Where did the numbers come from?

If people are being forced to pay for this, don't they have the right to know where the numbers came from? No insight has been provided to-date what the benefit and liability assessment numbers are based on. They could have been pulled from thin air for all we know.

A \$460,000+ investment of unwilling landowner and taxpayer dollars into an ALREADY systematic drainage system that looks like this, that only one person wants, where no flooding exists, no farmland reclaimed and no financial benefit or guarantee of any benefit has been proven, is reckless and unethical.



Quick Fact:
A newly installed drain already exists in this location that no mention has been made of in the report and the Engineer was not fully aware of during their site visit. The solution being proposed is redundant.

Examples of where this money could be put to better use and who's impacted

This project is not something to take lightly. It's impacting real people and families in a very negative way, and for what? No one will see any good from it. It's a terrible thing to do to people who are...

- Farmers trying to fix 'actual' drainage problems
- Businesses and farmers who could invest this money in way better things
- Young families trying saving up for their kids education
- Fixed income seniors who are just trying to get by

“(petitioner) must realize that their own concerns may not be those of their neighbours and that the proposal should be viewed for the ‘common economic good’ of the broader ‘watershed community’ ”

omafra.gov.on.ca/english/engineer/facts/88-051.htm

**“Just Because We Can
Doesn't Mean We Should”**

An Explanation:
The Invalid Petition for the
Jananna, Bamberg Creek and
Koch-Leis Municipal Drains

The Drainage Act provides a procedure whereby the municipality may, with a **valid petition of landowners** in the **"area requiring drainage"**, provide a legal outlet for surface and subsurface waters not attainable under common law.

- Duties of the landowner under the Drainage Act guide, OMAFRA

SIDE NOTES: The wording is very important here. The keywords to pay attention to are **“valid petition”** and **“area requiring drainage”**.

The signed petition forms the basis of Jananna, Bamberg Creek and Koch-Leis Municipal Drains. If the petition is deemed to be invalid, there is no path forward for these projects. The Engineer in his report said...

“The petition is valid in accordance with Section 4(1)(a) of the Drainage Act.”

Let's take a closer look at Section 4(1)(a).

Drainage Act, R.S.O. 1990, c. D.17

Petition

4 (1) A petition for the drainage by means of a drainage works of an area requiring drainage as described in the petition may be filed with the clerk of the local municipality in which the area is situate by,

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

SIDE NOTES: This basically says the majority of landowners in the 'area requiring drainage' have to be on the petition for it to be valid. Since Jananna are the only ones on the petition, the Engineer is saying that the 'area requiring drainage' falls exclusively on the Jananna property... but here's the problem...

The '*area requiring drainage*' **does not** fall exclusively on the Jananna property. The Engineer got the area requiring drainage wrong. He wrongfully assumed the water stops at the petitioner's fence line and therefore the area requiring drainage magically stops at the fence line. It does not.

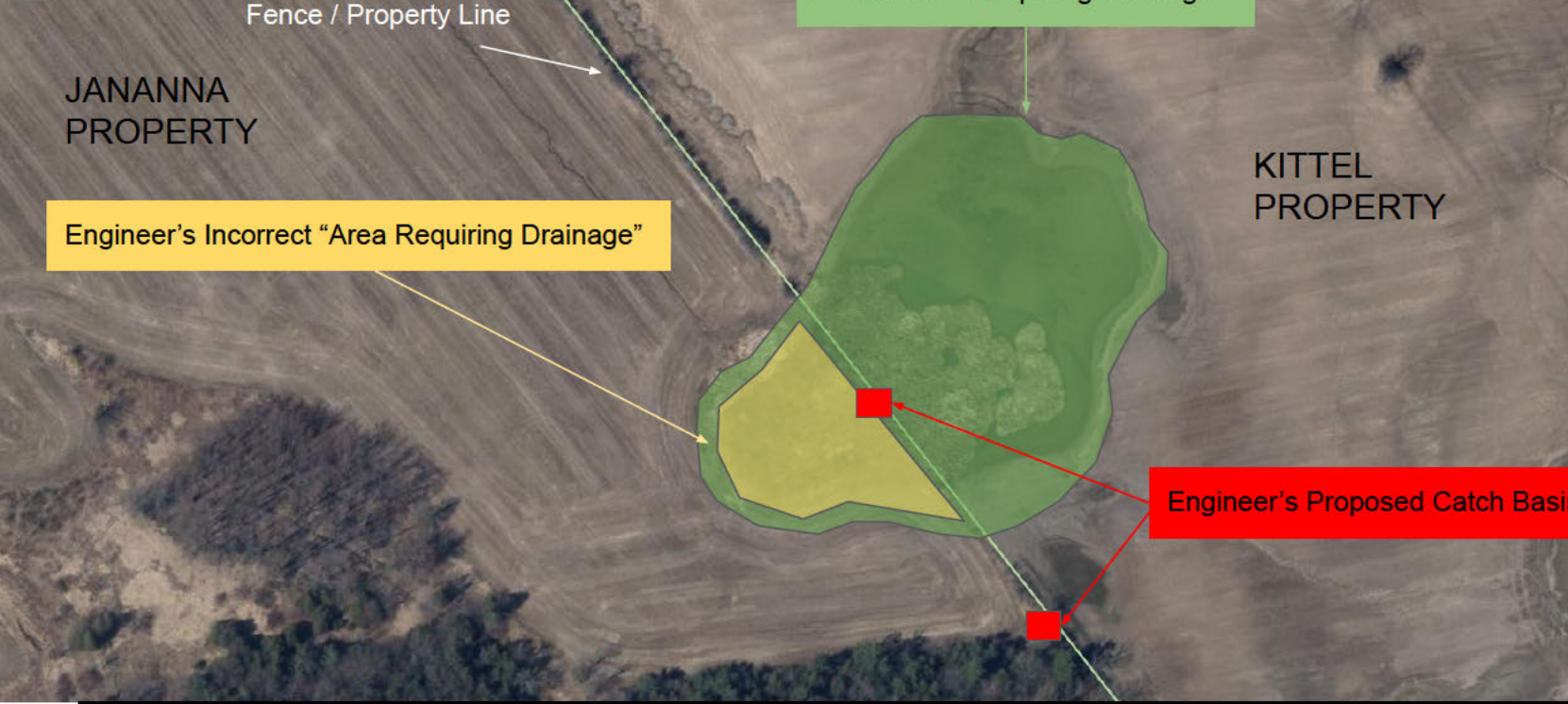
He picked out only a portion of what is in fact a larger distinct basin requiring drainage to satisfy the request of the petitioner. You can't do that, it creates a false majority. The lands in the area requiring drainage include two properties – the Jananna property and the Kittel property, therefore both Jananna and Kittel need to be on the petition for it to be valid. Kittel is not on the petition, was never asked to be on the petition and was not even properly notified about the required on-site meeting.



1022 Gerber Rd, Wilmot X Q

Show search results for 1022 G...

Print, Home, Refresh, and other navigation icons



Layer List

- Assessment Parcels (M)
- Ownership Parcels (Te)
- Survey Points
- Wellhead Protection S
- Municipal Boundaries
- 2022 Aerial Imagery
- 2020 Aerial Imagery
- 2019 Aerial Imagery
- 2018 Aerial Imagery
- 2017 Aerial imagery
- 2016 Aerial Imagery
- 2015 Aerial Imagery
- 2014 Aerial Imagery
- 2012 Aerial Imagery
- 2010 Aerial Imagery
- 2009 Aerial Imagery

SIDE NOTES: Only one of these properties signed the petition, therefore there is no majority.



Layers

Legend

Draw

Find

Print

1010 Gerber Road Wilmot

- Wetland (GRCA)
- Lake Erie Flood (GRCA)
- Lake Erie Shoreline Reach (GRCA)
- Lake Erie Dynamic Beach (GRCA)
- Lake Erie Erosion (GRCA)

Land Base

Hydrology

Drainage

- Watercourse (GRCA)
- Waterbody (GRCA)
- Great Lakes (GRCA)
- Average Annual Runoff (GRCA)

Floodplain

Watershed

Hydrogeology

Water Quality

Source Water Protection

Monitoring Sites

Biology and Ecology

Infrastructure

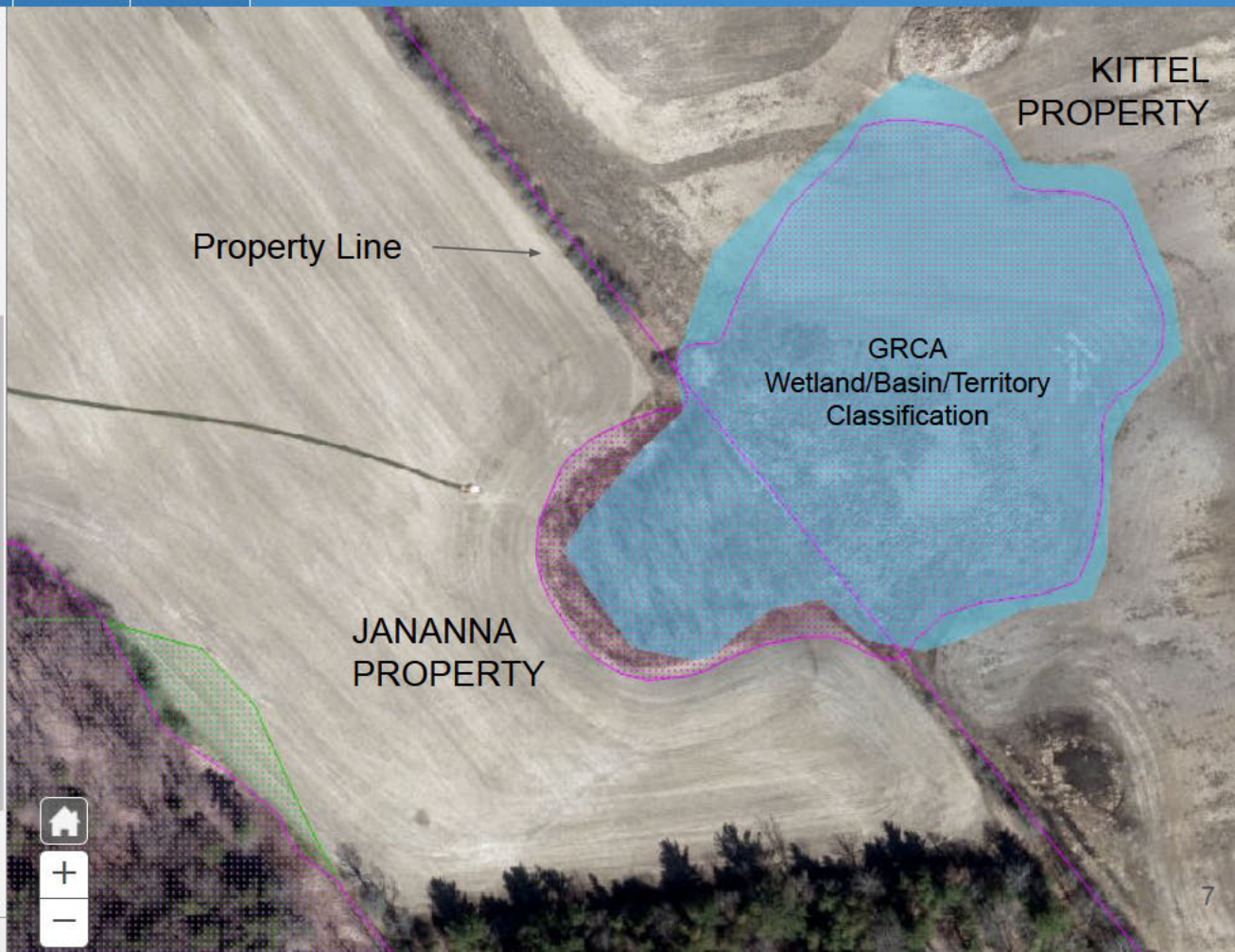
Property

Watershed Imagery

2020 Ortho (ON)

2015 Ortho (ON)

2010 Ortho (ON)



Property Line

KITTEL
PROPERTY

GRCA
Wetland/Basin/Territory
Classification

JANANNA
PROPERTY



Themes





SIDE NOTES: You can even see on the submitted petition photo, the area requiring drainage falls on two properties

Jananna Side - photo taken May 25, 2023



For the part of the proposed Jananna Drain East Branch running North, the same thing applies...



Find address or place



JANANNA
PROPERTY

Engineer's Incorrect "Area Requiring Drainage"

Actual "Area Requiring Drainage"



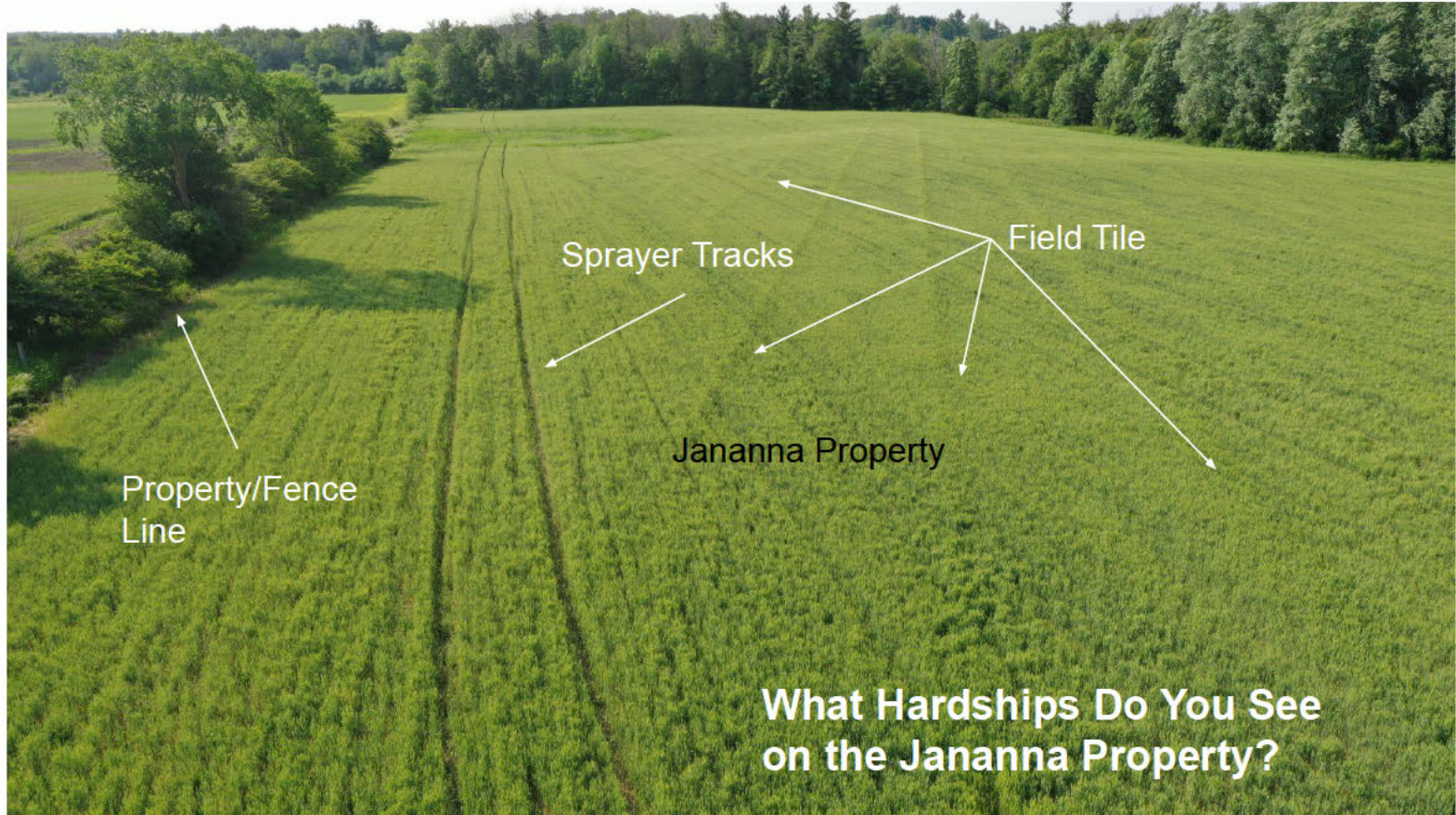
Quick Fact:
A newly installed drain already exists in this location that no mention has been made of in the report and the Engineer was not aware of during their site visit. The solution being proposed is redundant.

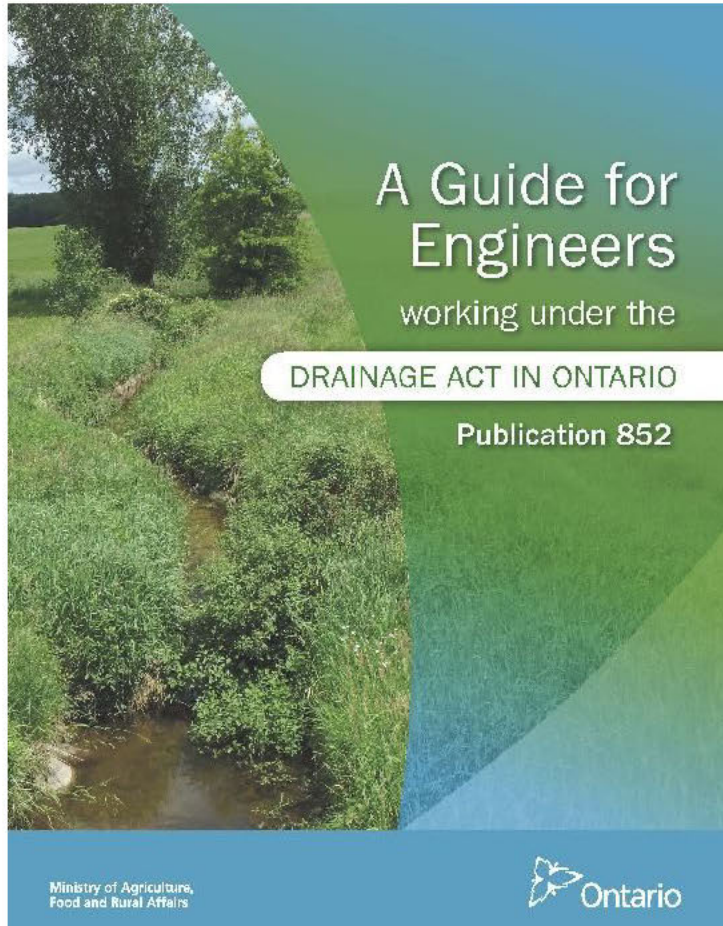
KITTEL
PROPERTY

Engineer's Proposed Catch Basin

SIDE NOTES: All the catch basins are being placed on or near the property line which clearly indicates the 'area requiring drainage' is on both properties.

East Side of Jananna Field - Property Line Pointing South - Photo Taken June 20, 2023





To better understand this you have to read the precedent setting exemplary case law examples found in *Section 4.7 of Publication 852, A Guide for Engineers Working under the Drainage Act*. These examples are provided to help the Engineer better understand the law and how to determine the ‘areas requiring drainage’.

Jones v. Derby (Town), 1986

You cannot adjust the irregular “shaped saucer with reasonably well defined banks around it” just because a landowner indicates his desire for drainage, without first ascertaining where those well defined banks are located on the ground. In his zeal to accept the Petitioner’s version of the area requiring drainage [the engineer] has not formed the proper independent judgment when making his assessment.

I am of the view that it is the intention of the present Drainage Act, that lands not described in the petition as requiring drainage that are subsequently found to require drainage by the engineer in his report to have similar physical features so as to form one area requiring drainage with those lands described in the petition as requiring drainage, are as well, to be included when the requirements of Sec. 4(a) or (b) are being considered, otherwise the lands described in the report by the engineer in accordance with Sec. 8-1(a) would not be fairly described. Failure to do so would not afford the intended protection for those who did not sign the petition.

Westendorp v. Elizabethtown (Town), 1986

The best definition of the area requiring drainage that I was able to research appeared in a letter dated November 29, 1929, to the Clerk of the Township of West Williams from Drainage Referee George F. Henderson:

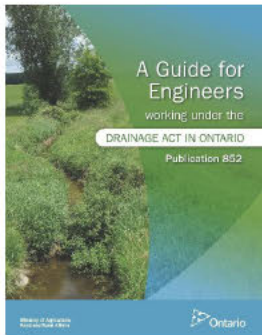
“It is not necessary that there should be a majority of the petition of all those whom the engineer finds to be eventually interested in the drainage work. What you need is in first place a reasonably well defined drainage area, that is, a section of land requiring drainage, and it is this territory which should be described in the area. It is of course not proper to pick out just enough lots to enable a majority, but there should be what I generally speak of as an irregularly shaped saucer with reasonably well defined banks around it. This might be all on one lot, although that is of course a rare case, but the point is that once you have that low lying section of land requiring drainage, it is a majority of the owners in that section that you need for a petition, no matter how many others the Engineer may bring in...”

Duane vs. Township of Finch, Referee G. Henderson, 1908

“Since that amendment, it is no longer necessary that the petition should be signed by a majority of the owners whose lands are found to be benefited by the engineer who makes the report, but it is still necessary, as it always was necessary, that the petition should describe a real drainage area, which should bear some reasonable proportion to the size and extent of the drainage scheme...”

It is the intention of the Act that the township council should pass judgement upon the sufficiency of the area described in the petition, and should see to it that the area is therein fairly described. When a township council does really and fairly exercise judgement upon such a matter, I think I should be loath to review their exercise of judgement... What I would wish to point out very plainly is that it is not proper to pick out any portion or portion of what is in fact a distinct basin requiring drainage. Subject to the discretion of the township council, the majority, are to rule, but they must constitute a real majority, and in no case should the council permit the provisions of the Act to be abused by allowing a real minority to impose upon an actual majority.

The full decisions can be found on www.canlii.org/en/on/ondr as well as other referee decisions just like these.



Also found in Section 4.6 of Publication 852, A Guide for Engineers Working under the Drainage Act, this simple illustrated example to determine validity.

In order for a petition to be valid, it must contain signatures from the majority in number of owners in the area requiring drainage.

To determine the validity of the petition, evaluate the percentage of owners (Section 4(1)(a)) (Figure A4-A), as follows:

- Count the total number of properties and road jurisdictions (if applicable) with the area requiring drainage (A).
- Count the number of properties and road jurisdictions within the area requiring drainage who have properly signed the petition (B)
- Calculate the percentage of owners and road jurisdictions who have properly signed the petition ($C=B/A \times 100\%$).
- A petition is valid when the percentage (C) is **greater than 50%**

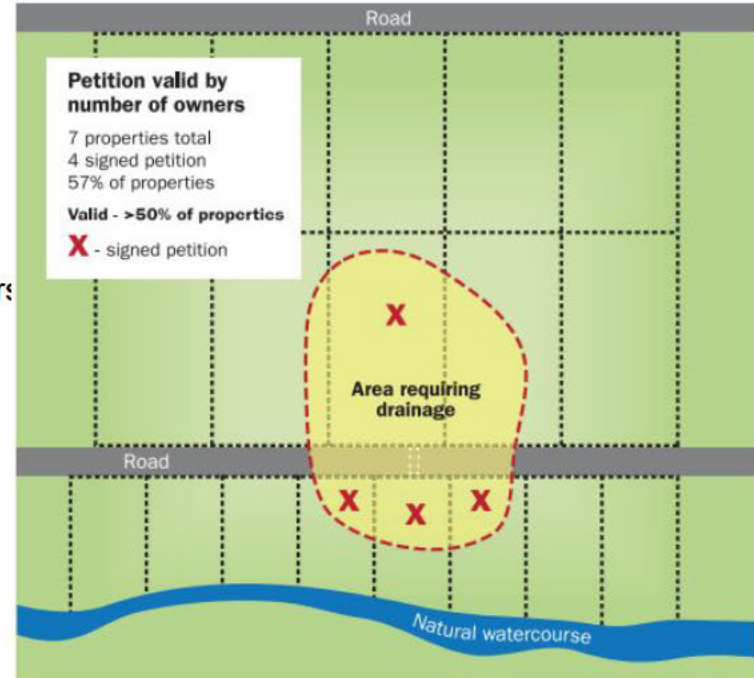


Figure A4-4. Determining the validity of a petition by percentage of owners.

To determine the **validity of the Jananna petition**, evaluate the percentage of owners (Section 4(1)(a)), as follows:

- Count the total number of properties and road jurisdictions (if applicable) with the area requiring drainage **(2)**
- Count the number of properties and road jurisdictions within the area requiring drainage who have properly signed the petition **(1)**
- Calculate the percentage of owners and road jurisdictions who have properly signed the petition **($1/2 \times 100\% = 50\%$)**.
- The petition is **invalid** because the percentage is **not greater than 50%**

So Now What?

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

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

The original petition form lays it out. The petitioners (Jananna) signed the petition accepting financial responsibility if the petition were not to comply with section 4. It does not comply with section 4.

Chad Curtis, Deputy Clerk, Wilmot Township, also provided this...

"Section 43 of the *Drainage Act* notes that if the petition is determined to not be valid at the conclusion of the **meeting to consider the Report**, then the original petitioners are liable for the cost of the Engineer's Report which the municipality can collect from the petitioners as outlined in Section 43."

Property Owners Signing The Petition Page of

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

Number Property Description
1 N1/2 Lot 10, Concession 3B

Ward or Geographic Township
Wilmot

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

Ownership
 Sole Ownership

Owner Name (Last, First Middle Initial)

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

Owner Name (Last, First Middle Initial)

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

Name of Signing Officer (Last, First Middle Initial)
K. CURTIS

Name of Corporation
Jananna Corp

Position Title
President

Number Property Description

Ward or Geographic Township

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

Ownership
 Sole Ownership

Owner Name (Last, First Name) (Type/Print)

Signature

Date (yyyy/mm/dd)
2011/09/26

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

Owner Name (Last, First Name) (Type/Print)

Signature

Date (yyyy/mm/dd)

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

Name of Signing Officer (Last, First Name) (Type/Print)

Signature

Name of Corporation

I have the authority to bind the Corporation.
Date (yyyy/mm/dd)

Position Title

Check here if additional sheets are attached

Clerk Initial

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

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

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

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

© 2011

For anyone wondering about Petition Section 4(1)(d) in the Drainage Act...

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

This is the clarification and communication received from OMAFRA...

Section 4(1) A petition for the drainage by means of a drainage works of an area requiring drainage as described in the petition may be filed with the clerk of the local municipality in which the area is situate by,

4. *where a drainage works is required for the drainage of lands used for agricultural purposes, **the Director***

From the definitions

"Director" means the director appointed for the purposes of this Act;

I believe that the following statement has similar meaning to Section 4(1) d from the Drainage Act.

Where a drainage works is required for the drainage of lands used for agricultural purposes, a petition for the drainage by means of a drainage works of an area requiring drainage as described in the petition may be filed with the clerk of the local municipality in which the area is situate by the Director.

*Currently the Director appointed for the purposes under this Act is the **Director** of the **Environmental Management Branch**.*

I am not aware of an instance (in the history of the Drainage Act) when the Director has signed a petition in accordance with Section 4 (d).

*There would have to be **very compelling** evidence/reasoning for the Director to sign a petition under Section 4 (d).*

I hope the above information has clarified your understanding of Section 4(1) (d) of the Drainage Act.

Andy Kester

Ontario Ministry of Agriculture Food and Rural Affairs

519-835-6074

Additional Legal Matters

In the Engineer's Report there are additional works being proposed that are noticeably absent from the proposed works found in the original petition filed April 26, 2021. These additional areas requiring drainage added by the Engineer without authority include:

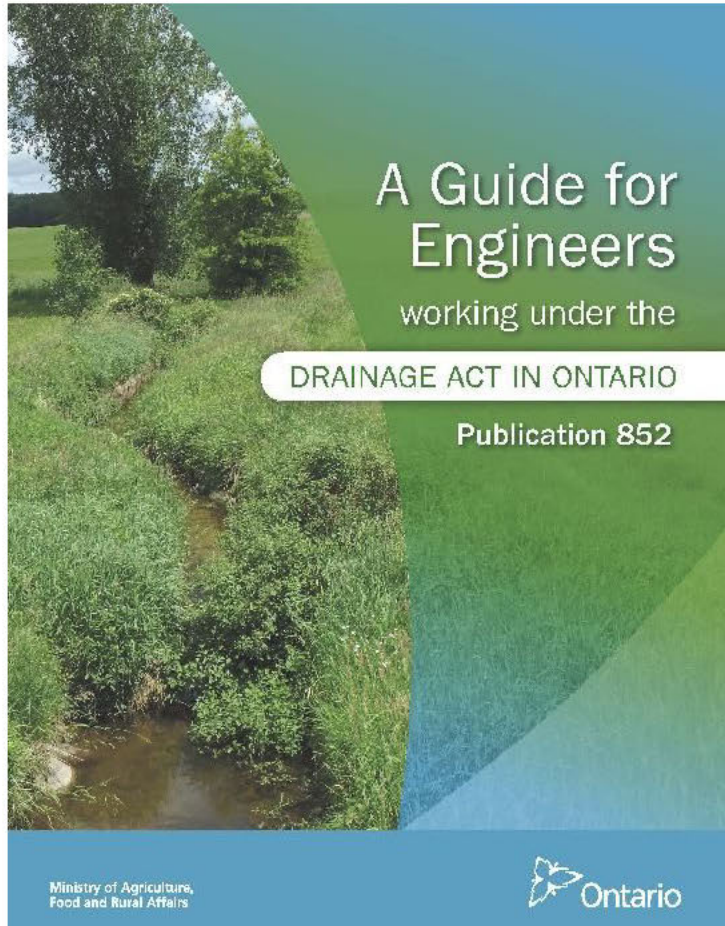
Jananna - West Branch Drain

Koch-Leis Drain

Bamberg Creek Drain

“The Drainage Act does not authorize a municipality to pass a by-law for the construction of a drainage system which differs substantially in size and cost from the drain petitioned for because such a by-law is in effect based upon no petition at all.”

- Referee S. Clunis



To better understand this you have to read the precedent setting exemplary case law examples found in *Section 4.7 of Publication 852, A Guide for Engineers Working under the Drainage Act*. These examples are provided to help the Engineer better understand the law.

Township of South Easthope vs. Township of East Zorra, 1944

The engineer in the course of doing his work thought the drainage area should be enlarged, and properly reported that fact to the council; the council thereupon instructed the clerk to add to the petition that had already been signed certain lands that were not in the drainage area as described in the petition when it was signed, and having made this unauthorized alteration in the petition they proceeded to again instruct the engineer to report on the enlarged scheme. That was all absolutely unwarranted. They had spoiled the only petition they had, and the engineer was proceeding really without any authority, just as the council was. This is a matter that goes to the basis of the whole proceeding, and the whole proceeding falls to pieces.

McKeen vs Township of East Williams, Referee S. Clunis, 1966

It follows that, in my opinion, the size, the costs, the value of the scheme and its purpose differs so materially from the work contemplated by the petition that it bears little relationship to that petition.

...the Act does not authorize a municipality to pass a by-law for the construction of a **drainage system** which differs substantially in size and cost from the drain petitioned for because such a by-law is in effect based upon no petition at all

...it seems to me to be a necessary corollary of this principle that if a sufficiently signed petition which describes a drainage area is filed, it is not to be taken as authority to proceed with any drainage work that may seem desirable in the general area of which the petitioning area is only a part.

These definitions and the criteria laid out above form the **key democratic components** of this process. The information provided clearly lays out both the word and spirit of the law as it pertains to this matter. We have received some excellent advice and coaching along the way and we are also thankful for the Council members who have invested their time, used their abilities to hear us out and to look at the facts prior to the Meeting to Consider.

The facts now speak for themselves.

We respectfully request that council decline this application and close this matter. We believe Wilmot can decline this application in good conscience and knowing they are working within the written word and spirit of the Drainage Act.

- ALL Non-Petitioner Members of the Watershed Community

Petition Against Jananna Municipal Drain

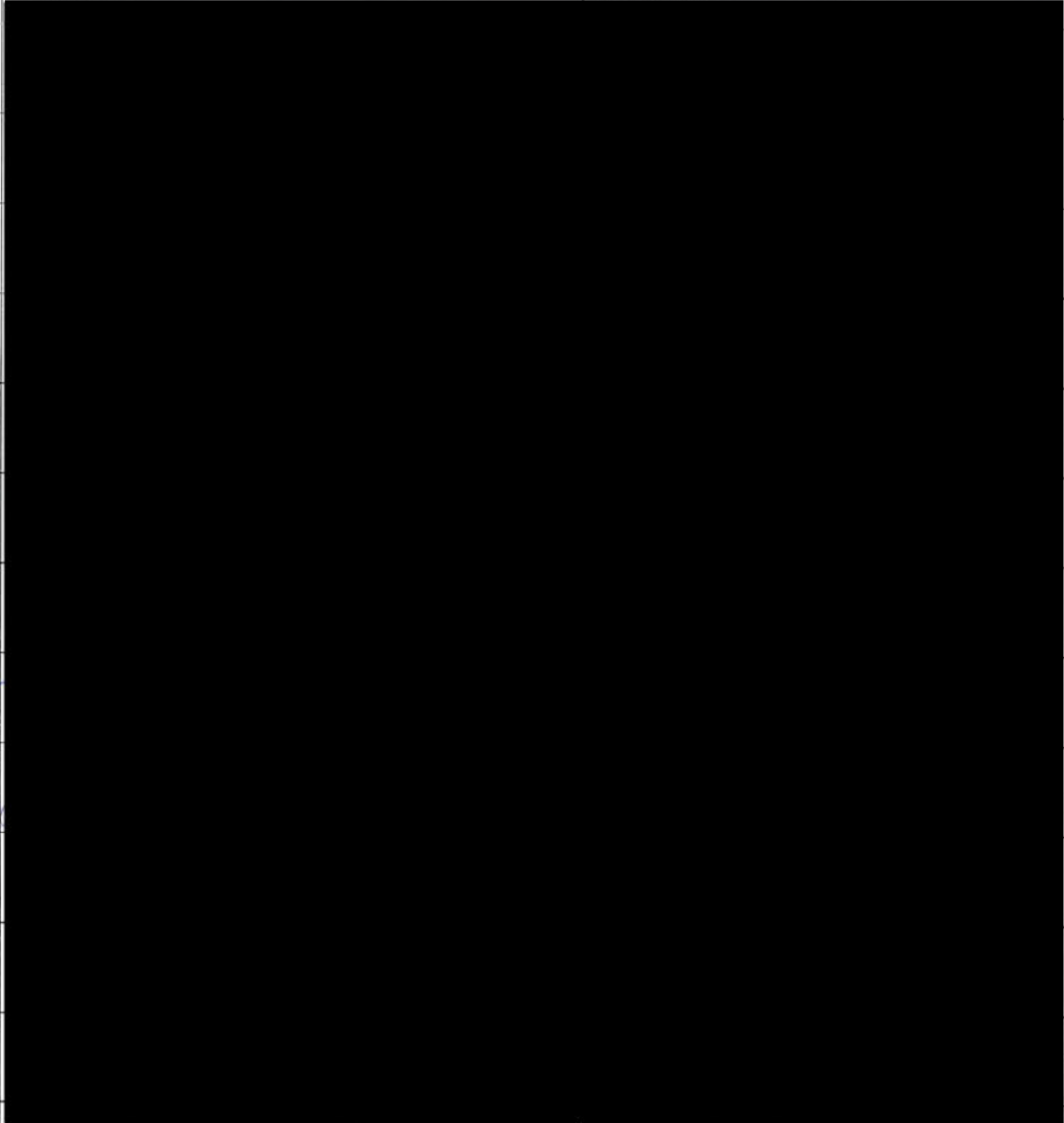
The undersigned shows collective opposition of the Jananna Municipal Drain project based on the following...

We do not see the need for such a project

We do not see the benefit individually or collectively of this project

We do not want to participate in the cost involved with this project

Printed Name	Signature	Address	Date
Ken Heintz			Jan 21/23
Cathy Heintz			Jan 21/23
Peter Schneider			Jan 21/23
Dagmar Schneider			Jan 21/23
Oleg Borisso			Jan 21/23
Cory Kittel			Jan 21/23
Ladislav Bauer			Jan 21/23
Kirby Kittel			Jan 21/23
Elena Borissova			Jan 24/23
Jeff Cressman			Jan 26/23

Printed Name	Signature	Address	Date
JUSTIN MILLER			01/30/23
Natalee Miller			01/30/23
PETER WURTELE			01/31/23
BARBARA WURTELE			01/31/23
JEFF FURTADO			02/01/23
Paige Furtado			02/01/23
BRON MUSA			02/03/23
Haley Musa			02/03/23
STERRI HOMANCHUK			02/04/23
DAVE HOMANCHUK			02/04/23
DAVID CRESSMAN			02/06/23
EVA CRESSMAN			02/06/23



CORPORATE SERVICES *Staff Report*

REPORT NO: [Report Number]

TO: Council

SUBMITTED BY: Patrick Kelly, Director of Corporate Services/Treasurer

PREPARED BY: Chad Curtis, Deputy Clerk

REVIEWED BY: Sharon Chambers, CAO
Patrick Kelly, Director of Corporate Services/Treasurer
Jeff Bunn, Manager of Legislative Services/Clerk

DATE: June 26, 2023

SUBJECT: Bamberg Creek, Jananna, and Koch-Leis Municipal Drain

RECOMMENDATION:

THAT the Engineer's Report dated April 28, 2023, for the Bamberg Creek, Jananna, and Koch-Leis Municipal Drain for construction of a new closed municipal drain from two locations on the North Part of Lot 10, Concession 3, Block B and extending downstream to its outlet into the Koch-Leis Drain and the Bamberg Creek be considered in accordance with Section 42 of the Drainage Act; and

THAT the by-law 2023-XX, as attached to this agenda, be given first and second reading to provisionally adopt the Report if the Report is referred back to the Engineer and the petition remains valid after consideration of the Report; and

THAT the date for the Court of Revision be scheduled for August 28, 2023, if By-law 2023-XX, as attached to this agenda, is provisionally adopted, with the following two members of Council

SUMMARY:

This report outlines the Bamberg Creek, Jananna, and Koch-Leis Municipal Drains Report for Council consideration and recommends that the Report be provisionally adopted and the Court of Revision be scheduled for XXX XX, 2023.

BACKGROUND:

On July 12, 2021, Council appointed Headway Engineering to prepare an Engineer's Report under Section 4 of the Drainage Act. In the Report, the Engineer outlined the history of the Bamberg Creek, Jananna, and Koch-Leis Municipal Drains.

On May 5, 2023, Stephen Brickman, P. Eng., Headway Engineering filed with the Township Clerk the Bamberg Creek, Jananna, and Koch-Leis Municipal Drains.

On May 29, 2023, the Council of the Township of Wilmot directed the Clerk to schedule a Meeting to Consider the Report.

REPORT:

Pursuant to the requirements of the Drainage Act, notice of this meeting and copies of the Engineer's Report (attached) were forwarded to the assessed lands and roads, as well as any affected public agencies, as required.

The Drainage Engineer will be attending the council meeting to present the Engineer's Report. Assessed landowners and all other affected parties will be given the opportunity to ask questions and voice any concerns relating to the Report. The Drainage Engineer will respond to any questions that may arise from delegations and/or Council. At the conclusion of the meeting, there will be an opportunity for affected owners to add or withdraw their names from the petition.

As per the Drainage Act, if the Section 4 request is confirmed and the petition remains valid at the conclusion of the meeting, Council may proceed by giving first and second reading to By-law 2023-XX, as attached to this agenda, to provisionally adopt the report. Council then sets a date for the Court of Revision and appoints two members to the Court of Revision. As the Bamberg Creek, Jananna, and Koch-Leis Municipal Drains crosses the municipal border into the Township of Wellesley, a Councillor from Wellesley must be appointed to the Court of Revision.

Staff, in consultation with the Drainage Engineer and staff from the Township of Wellesley, will propose a Court of Revision date to likely be held in July or August 2023.

ALIGNMENT WITH THE TOWNSHIP OF WILMOT STRATEGIC PLAN:

Goal 6, Ensure availability and sustainable management of water and sanitation for all:

- Target 6.5 – Implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- Target 6.6 – Protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

FINANCIAL CONSIDERATIONS:

If the municipal drainage works proceed pursuant to the Drainage Act, all affected property owners would be assessed in accordance with the assessment schedule. Upon completion of the project, Council will be required to approved the Drain Levy By-law, at which time staff will process billing to assessed properties and submit funding applications to OMAFRA for eligible properties.

ATTACHMENTS:

Bamberg Creek, Jananna, and Koch-Leis Municipal Drains 2023 – Engineer’s Report
By-law 2023-XX

DRAFT

Chad Curtis, Deputy Clerk
519-556-0038
chad.curtis@wilmot.ca

To:
Property Owner

Re: Bamberg Creek, Jananna, and Koch-Leis Municipal Drains

(Designation of drainage works)

Take notice that your property is assessed for the construction and improvement of the above mentioned drainage works under section 4 of the *Drainage Act*. Attached is a provisional by-law exclusive of the engineer's report. Details of your assessment are contained in the engineer's report dated 2023/04/28, which has been previously sent to you or is available at the municipal office.

Date (yyyy/mm/dd)

An owner of land assessed for the drainage works may appeal to the Court of Revision on any of the following grounds:

- Any land or road has been assessed an amount that is too high or too low;
- Any land or road that should have been assessed has not been assessed; and/or
- Due consideration has not been given to the use being made of the land.

Pursuant to section 52(1) of the *Drainage Act*, objections or appeals to the assessment must be forwarded in writing, to the attention of the undersigned, at least ten (10) days prior to the date of the Court of Revision.

The Court of Revision will take place:

Date (yyyy/mm/dd)	Time	Location
<u>2023/08/16</u>	<u>5:30 P.M</u>	<u>60 Snyder's Road West</u>

Name of Clerk (Last Name, First Name)
Curtis, Chad; Deputy Clerk

Name of Municipality
Township of Wilmot

Signature of Clerk	Date (yyyy/mm/dd) <u>2023/07/26</u>
--------------------	--

Right of Appeal – Any owner of land or public utility affected by the above mentioned drainage works may appeal to the Referee regarding legal issues or the Agriculture, Food and Rural Affairs Appeal Tribunal regarding technical issues within forty (40) days of the sending of this notice. *Drainage Act*, R.S.O. 1990, c. D.17, subs. 47(1) and 48(1).

