Committee of Adjustment Application to Planning Department

Complete Application

A complete Committee of Adjustment application consists of the following:

1. A properly completed and signed application form (signature must on original version);
2. Supporting information adequate to illustrate your proposal as listed in **Section H** of this application form (plans are required in paper copy and digital PDF format);
3. Written authorization from all registered owners of the subject lands where the applicant is not the owner as per Section N; and,
4. Cash, debit or cheque payable to Norfolk County in the amount set out in the Norfolk County User Fees By-Law.
   Planning application development fees are not required with the submission of your completed and signed development application. Your planning application fee will be determined by the planner when your application has been verified and deemed complete. Prepayments will not be accepted.
5. Completed applications are to be mailed to the attention of **Secretary Treasurer – Committee of Adjustment:** 185 Robinson Street, Suite 200, Simcoe, ON N3Y 5L6 or email your application committee.of.adjustment@norfolkcounty.ca. Make sure submissions are clearly labelled including address, name, and application type. Failure to do so may impact the timing of your application.

The above listed items are required to ensure that your application is given full consideration. An incomplete or improperly prepared application will not be accepted and may result in delays during the processing of the application. This application must be typed or printed in ink and completed in full.

Please review all of the important information summarised below.

Before your Application is Submitted

A pre-consultation meeting is not usually required for Committee of Adjustment applications; however, discussion with Planning Department staff prior to the submission of an application is **strongly encouraged**. The purpose of communicating with a planner **before** you submit your application is: to review your proposal / application, to discuss potential issues; and to determine the required supporting information and materials to be submitted with your application before it can be considered complete by staff. You might find it helpful to retain the services of an independent professional (such as a registered professional planner) to help you with your application. Information about the Official Plan and Zoning By-law can be found on the County website: www.norfolkcounty.ca/planning

After Your Application is Submitted

Once your payment has been received and the application submitted, in order for your application to be deemed complete all of the components noted above are required.

Incomplete applications will be identified and returned to the applicant. The *Planning Act* permits up to 30 days to review and deem an application complete.

Once your application has been deemed complete by the Planning Department, it is then circulated to public agencies and County departments for review and comment. A sign is also provided that is required to be posted on the subject lands that summarizes the application and identifies the committee meeting date. The comments received from members of the community will be included in the planning report and will inform any recommendations in relation to the application.

If the subject lands are located in an area that is regulated by either the Long Point Region Conservation Authority or by the Grand River Conservation Authority an additional fee will be required if review by the applicable agency is deemed necessary. A separate cheque payable to the Long Point Region Conservation Authority or the Grand River Conservation Authority is required in accordance with their fee schedule at the same time your application is submitted.

Additional studies required as part of the complete application shall be at the sole expense of the applicant. In some instances peer reviews may be necessary to review particular studies and that the cost shall be at the expense of the applicant. The company to complete the peer review shall be selected by the County.

If the application is withdrawn prior to the circulation to commenting agencies, the entire original fee will be refunded. If withdrawn after the circulation to agencies, half the original fee will be refunded. No refund is available after the public meeting and/or approval of application.

Notification Sign Requirements

Planning Department staff may post a notification sign on your property in advance of the public meeting on your behalf. Please keep this sign posted until you have received a notice in the mail indicating that the Secretary Treasurer received no appeals. However, it is the applicant's responsibly to ensure that the sign is correctly posted within the statutory timeframes, according to the *Planning Act*. Failure to post a sign in advance of the public meeting in accordance with statutory requirements will impact the timing of your application at the Committee of Adjustment meeting. Applicants are responsible for removal of the sign following the appeal period. The signs are recyclable and can be placed in your blue box.

Contact Us

For additional information or assistance in completing this application, please contact a planner at 519-426-5870 ext. 1842 or Committee.of.Adjustment@NorfolkCounty.ca

For Office Use Only:

File Number	BNPL2023371	Application Fee	4952.00
Related File Number	BNPL2023372-373	Conservation Authority Fee	N/A
Pre-consultation Meeting	March 2 2022	Well & Septic Info Provided	N/A
Application Submitted	Nov.22.2023	Planner	Hanne Yager
Complete Application		Public Notice Sign	

Check the type of planning application(s) you are submitting.

- ☒ Consent/Severance/Boundary Adjustment
- ☐ Surplus Farm Dwelling Severance and Zoning By-law Amendment
- ☐ Minor Variance
- ☐ Easement/Right-of-Way

Property Assessment Roll Number: 331054202010200

A. Applicant Information

Name of Owner 499919 Ontario Ltd. c/o Alan DeGroote

It is the responsibility of the owner or applicant to notify the planner of any changes in ownership within 30 days of such a change.

Address 923 NORFOLK CTY RD 21

Town and Postal Code Courtland,Ontario N0J 1E0

Phone Number 519-875-3251

Cell Number 519-842-0640

Email degrootea2@gmail.com

Name of Applicant same as owner

Address

Town and Postal Code

Phone Number

Cell Number

Email

Name of Agent Mary Elder of Elder Plans Inc.

Address 32 Miller Cres

Town and Postal Code Simcoe, ON N3Y 4R1

Phone Number

Cell Number 519-429-4933

Email Elderplans2018@gmail.com

Please specify to whom all communications should be sent. Unless otherwise directed, all correspondence and notices in respect of this application will be forwarded to the owner and agent noted above.

☒ Owner ☒ Agent ☐ Applicant

Names and addresses of any holder of any mortgagees, charges or other encumbrances on the subject lands:

B. Location, Legal Description and Property Information

1. Legal Description (include Geographic Township, Concession Number, Lot Number, Block Number and Urban Area or Hamlet):

   NWAL CON 14 PT LOT 13

   Municipal Civic Address: none assigned but west of 975 NORFOLK CTY RD 21

   Present Official Plan Designation(s): Hamlet

   Present Zoning: Hamlet Residential

2. Is there a special provision or site specific zone on the subject lands?

   ☒ Yes ☐ No If yes, please specify:

   through By-law 29-Z-2023 14.1044 permitted 2,200 sq m lot sizes

3. Present use of the subject lands:

   vacant agricultural fields uses for growing crops

4. Please describe **all existing** buildings or structures on the subject lands and whether they are to be retained, demolished or removed. If retaining the buildings or structures, please describe the type of buildings or structures, and illustrate the setback, in metric units, from front, rear and side lot lines, ground floor area, gross floor area, lot coverage, number of storeys, width, length, and height on your attached sketch which must be included with your application:

5. If an addition to an existing building is being proposed, please explain what it will be used for (for example a bedroom, kitchen, or bathroom). If new fixtures are proposed, please describe.

6. Please describe **all proposed** buildings or structures/additions on the subject lands. Describe the type of buildings or structures/additions, and illustrate the setback, in metric units, from front, rear and side lot lines, ground floor area, gross floor area, lot coverage, number of storeys, width, length, and height on your attached sketch which must be included with your application:
   one single detached dwelling with garage is proposed meeting all zoning provisions,
   exact details to be decided by new lot owner.

7. Are any existing buildings on the subject lands designated under the *Ontario Heritage Act* as being architecturally and/or historically significant? Yes ☐ No ☒

   If yes, identify and provide details of the building:

8. If known, the length of time the existing uses have continued on the subject lands:
   over 20 years

9. Existing use of abutting properties:
   residential to west and south, restaurant at the corner, agricultural uses to north and west

10. Are there any easements or restrictive covenants affecting the subject lands?

    ☐ Yes ☒ No If yes, describe the easement or restrictive covenant and its effect:

C. Purpose of Development Application

Note: Please complete all that apply. **Failure to complete this section will result in an incomplete application.**

1. Site Information (Please refer to Zoning By-law to confirm permitted dimensions)

	Existing	Permitted	Provision	Proposed	Deficiency
Lot frontage	109.95 m	30m	5.7.2 b)	36.65 m	
Lot depth	about 625.00 m			min 58.39 m	
Lot width	about 580 m			36.09 m	
Lot area	32.19 ha	2,200 sq m	14.1044	2,200 sq m	
Lot coverage				undetermined	
Front yard		6 m	5.7.2 c)	15 m	
Rear yard		9 m	5.7.2 f)	31.2 m min	
Height		11 m	5.7.2g)	11 m or less	
Left Interior side yard		1.2 m	5.72. e)	min 1.2 m	
Right Interior side yard		1.2 m	5.7.2 e)	min 1.2 m	
Exterior side yard (corner lot)		6 m	5.7.2 d)	min 6 m	
Parking Spaces (number)	0	2	4.9 a)	2	
Aisle width					
Stall size					
Loading Spaces					
Other					

2. Please explain why it is not possible to comply with the provision(s) of the Zoning By-law:

3. **Consent/Severance/Boundary Adjustment**: Description of land intended to be severed in metric units:

Frontage: 36.65 m PARCEL A

Depth: 58.47

Width: 36.65 m at frontage, 39.10 m at rear

Lot Area: 0.22 ha

Present Use: vacant land, in cash crop production

Proposed Use: hamlet residential

Proposed final lot size (if boundary adjustment):

If a boundary adjustment, identify the assessment roll number and property owner of the lands to which the parcel will be added:

Description of land intended to be retained in metric units:

Frontage: 73.30 m

Depth: about 683 m

Width: about 580 m

Lot Area: 31.97 ha

Present Use: cash crop production

Proposed Use: cash crops continue on lands outside hamlet

Buildings on retained land: none

4. **Easement/Right-of-Way:** Description of proposed right-of-way/easement in metric units:

Frontage:

Depth:

Width: ______________________________

Area: ______________________________

Proposed Use: ______________________________

5. **Surplus Farm Dwelling Severances Only:** List all properties in Norfolk County, which are owned and farmed by the applicant and involved in the farm operation

Owners Name: ______________________________

Roll Number: ______________________________

Total Acreage: ______________________________

Workable Acreage: ______________________________

Existing Farm Type: (for example: corn, orchard, livestock) ______________________________

Dwelling Present?: ☐ Yes ☐ No If yes, year dwelling built ______________________________

Date of Land Purchase: ______________________________

Owners Name: ______________________________

Roll Number: ______________________________

Total Acreage: ______________________________

Workable Acreage: ______________________________

Existing Farm Type: (for example: corn, orchard, livestock) ______________________________

Dwelling Present?: ☐ Yes ☐ No If yes, year dwelling built ______________________________

Date of Land Purchase: ______________________________

Owners Name: ______________________________

Roll Number: ______________________________

Total Acreage: ______________________________

Workable Acreage: ______________________________

Existing Farm Type: (for example: corn, orchard, livestock) ______________________________

Dwelling Present?: ☐ Yes ☐ No If yes, year dwelling built ______________________________

Date of Land Purchase: ______________________________

Owners Name: _____

Roll Number: _____

Total Acreage: _____

Workable Acreage: _____

Existing Farm Type: (for example: corn, orchard, livestock) _____

Dwelling Present?: ☐ Yes ☐ No If yes, year dwelling built _____

Date of Land Purchase: _____

Owners Name: _____

Roll Number: _____

Total Acreage: _____

Workable Acreage: _____

Existing Farm Type: (for example: corn, orchard, livestock) _____

Dwelling Present?: ☐ Yes ☐ No If yes, year dwelling built _____

Date of Land Purchase: _____

Note: If additional space is needed please attach a separate sheet.

D. All Applications: Previous Use of the Property

1. Has there been an industrial or commercial use on the subject lands or adjacent lands? ☐ Yes ☒ No ☐ Unknown
   If yes, specify the uses (for example: gas station, or petroleum storage):
   _____
   _____
   _____

2. Is there reason to believe the subject lands may have been contaminated by former uses on the site or adjacent sites? ☐ Yes ☒ No ☐ Unknown

3. Provide the information you used to determine the answers to the above questions:
   owner's knowledge
   _____
   _____

4. If you answered yes to any of the above questions in Section D, a previous use inventory showing all known former uses of the subject lands, or if appropriate, the adjacent lands, is needed. Is the previous use inventory attached? ☐ Yes ☐ No

E. All Applications: Provincial Policy

1. Is the requested amendment consistent with the provincial policy statements issued under subsection 3(1) of the *Planning Act, R.S.O. 1990, c. P. 13*? ☒ Yes ☐ No

   If no, please explain:

   _____

   _____

2. It is owner's responsibility to be aware of and comply with all relevant federal or provincial legislation, municipal by-laws or other agency approvals, including the Endangered Species Act, 2007. Have the subject lands been screened to ensure that development or site alteration will not have any impact on the habitat for endangered or threatened species further to the provincial policy statement subsection 2.1.7? ☒ Yes ☐ No

   If no, please explain:

   _____

   _____

3. Have the subject lands been screened to ensure that development or site alteration will not have any impact on source water protection? ☒ Yes ☐ No

   If no, please explain:

   _____

   _____

   Note: If in an area of source water Wellhead Protection Area (WHPA) A, B or C please attach relevant information and approved mitigation measures from the Risk Manager Official.

4. All Applications: Are any of the following uses or features on the subject lands or within 500 metres of the subject lands, unless otherwise specified? Please check boxes, if applicable.

Livestock facility or stockyard (submit MDS Calculation with application)

☐ On the subject lands or ☐ within 500 meters – distance _____

Wooded area

☐ On the subject lands or ☐ within 500 meters – distance _____

Municipal Landfill

☐ On the subject lands or ☐ within 500 meters – distance _____

Sewage treatment plant or waste stabilization plant

☐ On the subject lands or ☐ within 500 meters – distance _____

Provincially significant wetland (class 1, 2 or 3) or other environmental feature

☐ On the subject lands or ☐ within 500 meters – distance _____

Floodplain

☐ On the subject lands or ☐ within 500 meters – distance _____

Rehabilitated mine site

☐ On the subject lands or ☐ within 500 meters – distance _____

Non-operating mine site within one kilometre

☐ On the subject lands or ☐ within 500 meters – distance _____

Active mine site within one kilometre

☐ On the subject lands or ☐ within 500 meters – distance _____

Industrial or commercial use (specify the use(s))

☐ On the subject lands or ☐ within 500 meters – distance _____

Active railway line

☐ On the subject lands or ☐ within 500 meters – distance _____

Seasonal wetness of lands

☐ On the subject lands or ☐ within 500 meters – distance _____

Erosion

☐ On the subject lands or ☐ within 500 meters – distance _____

Abandoned gas wells

☐ On the subject lands or ☐ within 500 meters – distance _____

F. All Applications: Servicing and Access

1. Indicate what services are available or proposed:

Water Supply

- ☐ Municipal piped water
- ☒ Individual wells
- ☐ Communal wells
- ☐ Other (describe below)

Sewage Treatment

- ☐ Municipal sewers
- ☒ Septic tank and tile bed in good working order
- ☐ Communal system
- ☐ Other (describe below)

Storm Drainage

- ☐ Storm sewers
- ☐ Open ditches
- ☒ Other (describe below)

infiltration is proposed

2. Existing or proposed access to subject lands:

- ☒ Municipal road
- ☐ Provincial highway
- ☐ Unopened road
- ☐ Other (describe below)

Name of road/street:

Norfolk County Road 21

G. All Applications: Other Information

1. Does the application involve a local business? ☐ Yes ☒ No

If yes, how many people are employed on the subject lands?

2. Is there any other information that you think may be useful in the review of this application? If so, explain below or attach on a separate page.

H. Supporting Material to be submitted by Applicant

In order for your application to be considered complete, folded hard copies (number of paper copies as directed by the planner) and an **electronic version (PDF) of the site plan drawings, additional plans, studies and reports** will be required, including but not limited to the following details:

1. Concept/Layout Plan
2. All measurements in metric
3. Existing and proposed easements and right of ways
4. Parking space totals – required and proposed
5. All dimensions of the subject lands
6. Dimensions and setbacks of all buildings and structures
7. Location and setbacks of septic system and well from all existing and proposed lot lines, and all existing and proposed structures
8. Names of adjacent streets
9. Natural features, watercourses and trees

In addition, the following additional plans, studies and reports, including but not limited to, **may** also be required as part of the complete application submission:

☐ On-Site Sewage Disposal System Evaluation Form (to verify location and condition)

☐ Environmental Impact Study

☐ Geotechnical Study / Hydrogeological Review

☐ Minimum Distance Separation Schedule

☐ Record of Site Condition

Your development approval might also be dependent on Ministry of Environment Conservation and Parks, Ministry of Transportation or other relevant federal or provincial legislation, municipal by-laws or other agency approvals.

All final plans must include the owner's signature as well as the engineer's signature and seal.

I. Transfers, Easements and Postponement of Interest

The owner acknowledges and agrees that if required it is their solicitor's responsibility on behalf of the owner for the registration of all transfer(s) of land to the County, and/or transfer(s) of easement in favour of the County and/or utilities. Also, the owner further acknowledges and agrees that it is their solicitor's responsibility on behalf of the owner for the registration of postponements of any charges in favour of the County.

Permission to Enter Subject Lands

Permission is hereby granted to Norfolk County officers, employees or agents, to enter the premises subject to this application for the purposes of making inspections associated with this application, during normal and reasonable working hours.

Freedom of Information

For the purposes of the *Municipal Freedom of Information and Protection of Privacy Act*, I authorize and consent to the use by or the disclosure to any person or public body any information that is collected under the authority of the *Planning Act, R.S.O. 1990, c. P. 13* for the purposes of processing this application.

Alan DeGroote — NOV. 15, 2023

Owner/Applicant/Agent Signature — Date

J. Owner's Authorization

If the applicant/agent is not the registered owner of the lands that is the subject of this application, the owner must complete the authorization set out below.

I/We Alan DeGroote am/are the registered owner(s) of the lands that is the subject of this application.

I/We authorize Mary Elder, Elder Plans Inc. to make this application on my/our behalf and to provide any of my/our personal information necessary for the processing of this application. Moreover, this shall be your good and sufficient authorization for so doing.

Alan DeGroote — NOV. 15, 2023

Owner — Date

_____ — _____

Owner — Date

Note:** **If property is owned by an Ontario Ltd. Corporation, Articles of Incorporation are required to be attached to the application.

K. Declaration

I, Mary Elder of Norfolk County

solemnly declare that:

all of the above statements and the statements contained in all of the exhibits transmitted herewith are true and I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of *The Canada Evidence Act*.

Declared before me at:

_____ _____

Owner/Applicant/Agent Signature

In _____

This _____ day of _____

A.D., 20____

_____

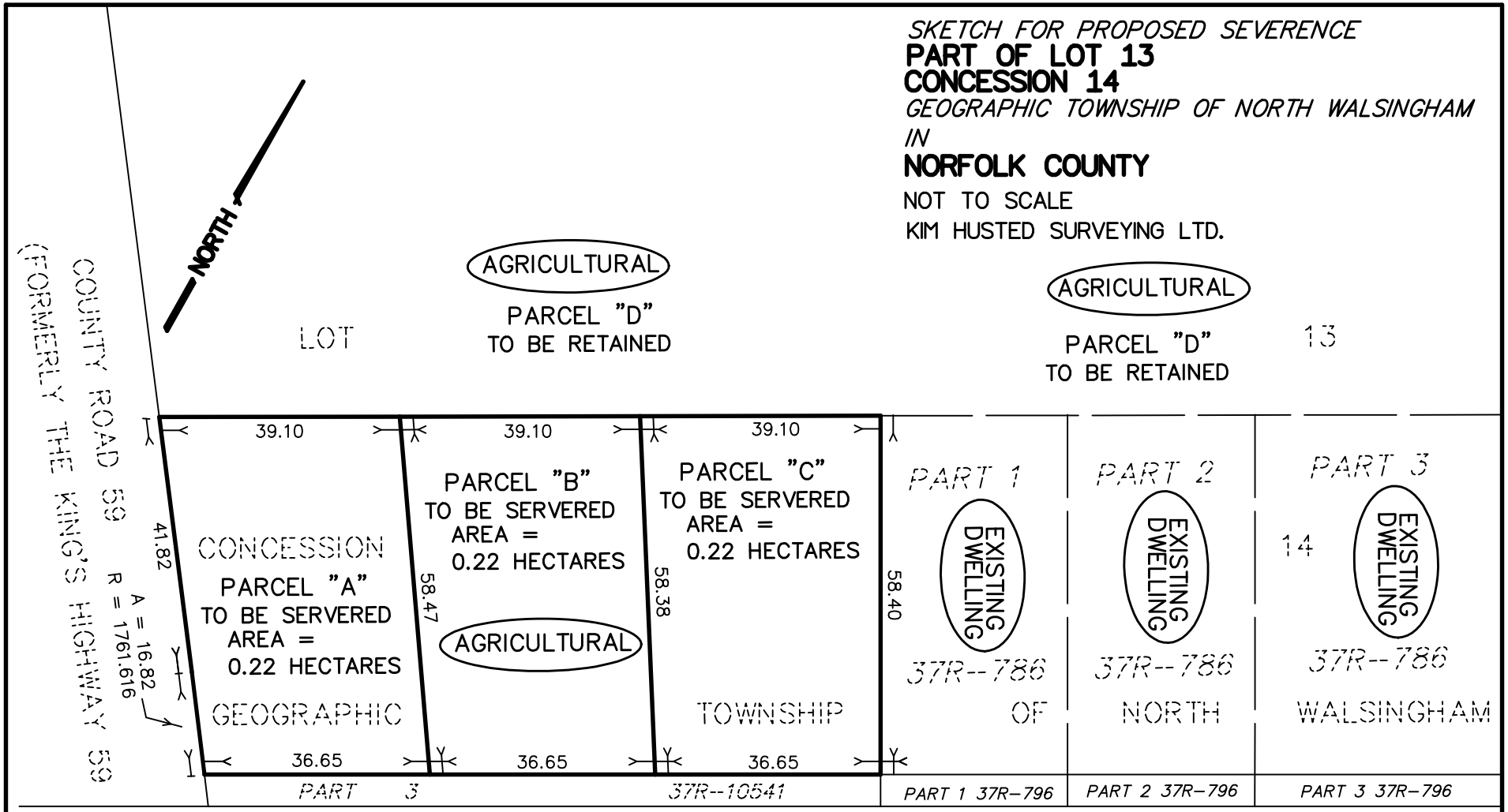
A Commissioner, etc.

SKETCH FOR PROPOSED SEVERENCE

PART OF LOT 13
CONCESSION 14
GEOGRAPHIC TOWNSHIP OF NORTH WALSINGHAM
IN
NORFOLK COUNTY

NOT TO SCALE

KIM HUSTED SURVEYING LTD.



COUNTY ROAD 21 (VARIOUS WIDTHS AS WIDENED)

ROAD ALLOWANCE BETWEEN CONCESSIONS 13 AND 14 KNOWN AS 13th CONCESSION ROAD

CAUTION

- THIS IS NOT A PLAN OF SURVEY OR SURVEYOR'S REPORT AND SHALL NOT BE USED FOR TRANSACTION OR FINANCING PURPOSES

"THIS IS NOT AN ORIGINAL COPY UNLESS EMBOSSED WITH SEAL"

KIM HUSTED SURVEYING LTD.
ONTARIO LAND SURVEYOR
30 HARVEY STREET, TILLSONBURG ONTARIO, N4G 3J8
PHONE:519-842-3638 FAX: 519-842-3639

PROJECT: 21-17618

F.R. Berry & Associates
TRANSPORTATION PLANNING CONSULTANTS

660 Inverness Avenue
London, Ontario N6H 5R4
Tel: (519) 474 2527 Toll Free: 1 888 665 9192 Email: fyberry@rogers.com

May 2, 2022

Our Ref. **2217**

Elder Plans Inc.
32 Miller Crescent
Simcoe ON
N3Y 4R1

Attn. Ms. M. Elder

Dear Ms. Elder:

RE: PROPOSED RESIDENTIAL DEVELOPMENT
NORFOLK COUNTY ROAD 21 AT COUNTY ROAD 59
TRAFFIC IMPACT ASSESSMENT

At your request, I have assessed the potential traffic impact of four single family residential lots proposed in the hamlet of Andy's Corners at the intersection of Norfolk County Roads 59 and 21. The location of the site is shown in **Figure 1**. The four lots will have frontage on CR 21, one located to the west of CR 59 and three located to the east. A concept plan is shown in **Figure 2**. I understand that, while the concept plan shows two lots east of CR 59, a previously completed hydrogeological study supports the development of three lots.

My assessment follows the County's Traffic Impact Study Guidelines. I note that in the Pre-Submission Consultation Meeting Minutes (March 2, 2022), County staff have recognized that the proposed development will generate a small amount of traffic and thus would only require a Traffic Impact Brief, identifying the proposed development, the study area and existing conditions and an assessment of available sight distances.

The hamlet of Andy's Corners includes approximately 45 single family homes fronting on either CR 21 or CR 59. There are two commercial establishments, a drive-in restaurant on the south-east corner of the intersection, and a sportswear outlet on the west side of CR 59 south of the intersection. The DeGroote Family farm is located in the north-west quadrant of the intersection with accesses from both CR 59 and CR 21.

County Road 59 is the primary access to Long Point Provincial Park and carries a significant volume of traffic in the summer months. County Road 21 provides access to

small communities such as Wyecombe and Glen Meyer and a number of farm properties. Both roads are constructed as two lane paved rural highways. In the hamlet of Andy's Corners, the speed limit on County Road 59 is reduced to 60km/h. The intersection of CR 59 and CR 21 is controlled by stop signs on the CR 21 approaches. All approaches are single shared lanes with the exception of CR 59 northbound which has a short right turn lane along the frontage of the restaurant.

Based on data contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual, four single family lots will generate about three vehicle trips in the morning peak hour and about four vehicle trips in the afternoon peak hour. These volumes would have no significant impact on the operation of either CR 21 or CR 59.

County Road 21 is on a level grade and has a tangent alignment. Sight distances to the east and west are unrestricted. For a design speed of 100km/h, consistent with the posted speed limit of 80km/h on CR 21, Minimum Stopping Sight Distance (MSSD) as recommended in the MTO Geometric Design Manual, is 185 metres. This distance is available in both directions at each of the proposed accesses to the development.

Driveways to the proposed two lots immediately to the east and west of the intersection with County Road 59 should be located as far from the intersection as possible to maximise safety and reduce the risk of conflict with through vehicles stopped at the intersection.

In summary, vehicle trips generated by the proposed four lot development will have no significant impact on traffic operation and safety on either County Road 21 or County Road 59. Sight distance is not an issue. Driveways to the two lots immediately east and west of the intersection should be located as far from the intersection as possible.

Very truly yours
F. R. Berry & Associates

Frank R. Berry, P.Eng
Principal

REGISTERED PROFESSIONAL ENGINEER
F. R. BERRY
PROVINCE OF ONTARIO

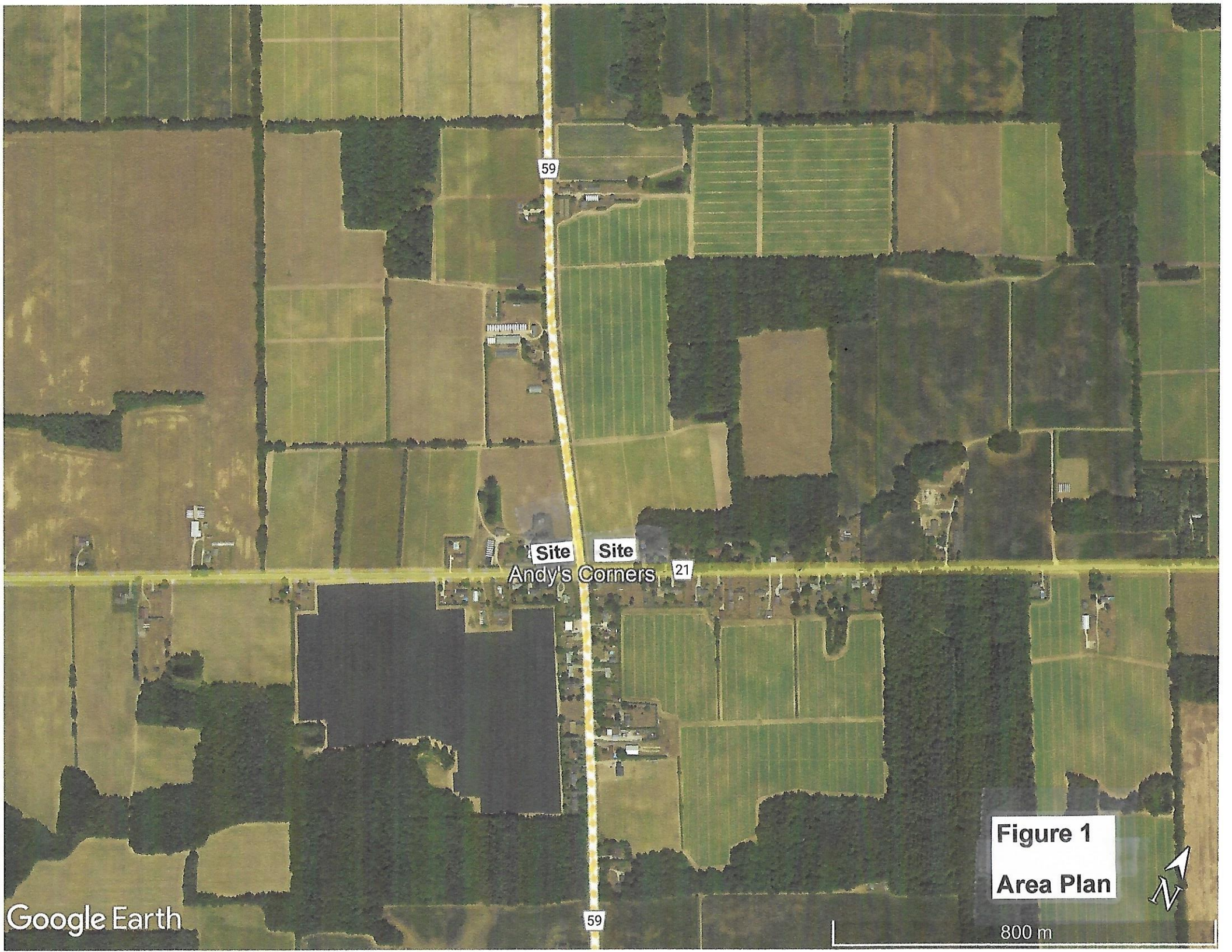
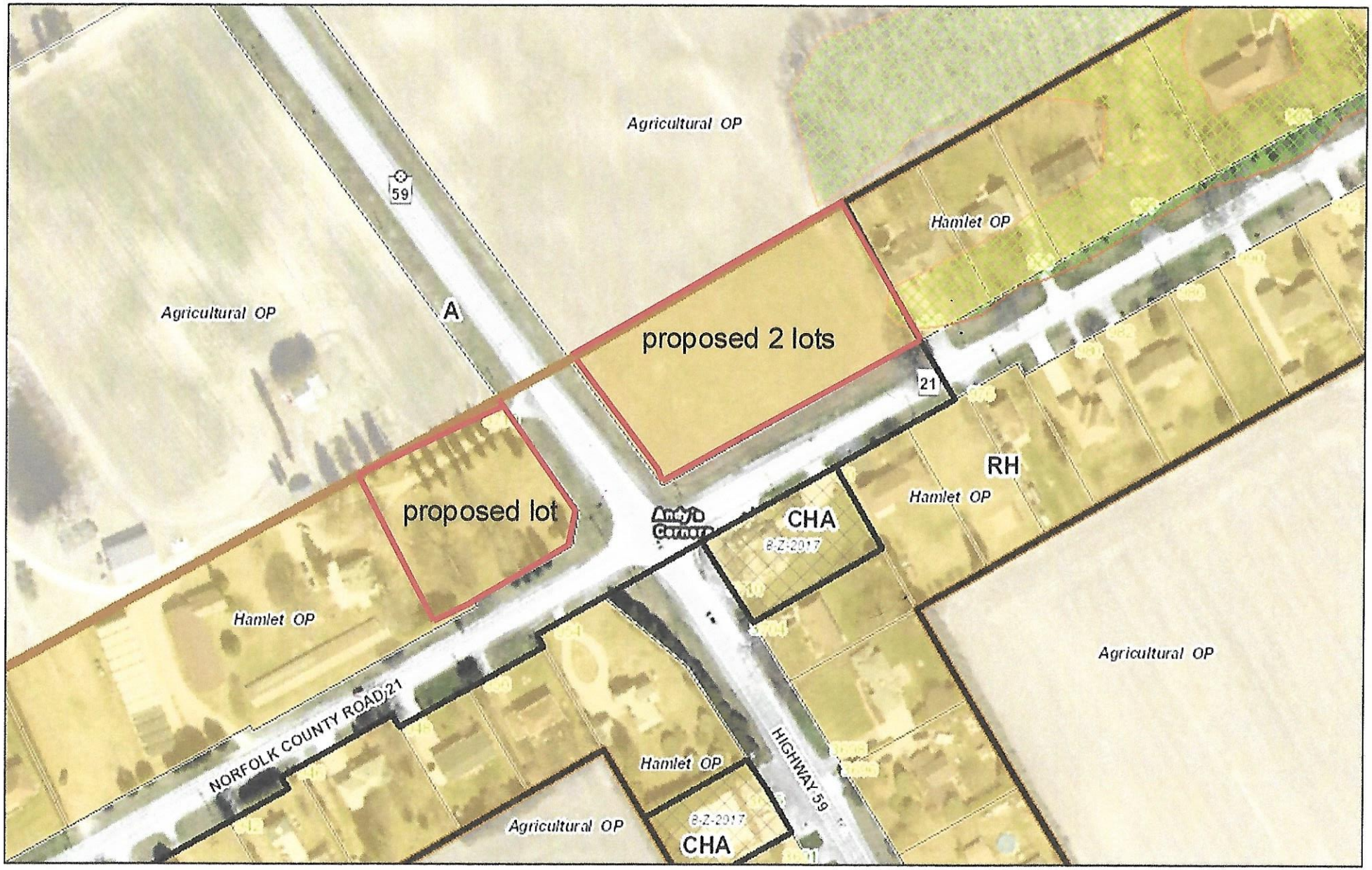


Figure 1

Area Plan

MAP NORFOLK - Community Web Map



1/10/2022, 5:11:20 PM

1:2,000

0 0.015 0.03 0.06 mi

0 0.0275 0.055 0.11 km

Zones 1-Z-2014

- Zone
- Zone with Holding Provision
- Special Provisions
- Site Plan Control
- Lakeshore Erosion Prone Areas

Community Boundaries

- Urban Area Boundary
- Hamlet Area Boundary
- Resort Area Boundary
- Site Specific Policy Area

Figure 2

Concept Plan

Ian D. Wilson Associates Ltd.
since 1974

Tel: 519.233.3500
Fax: 519.233.3501

P. O. Box 299
Clinton, Ontario
N0M 1L0

Wilson Associates

Consulting Hydrogeologists

January 27, 2022
Revised April 27, 2022

Mr. Alan DeGroote
923 Norfolk County Road 21
Courtland, ON
N0J 1E0

Dear Mr. DeGroote:

Re: Hydrogeological Assessment - Proposed Residential Lots
Norfolk County Road 21 at Highway 59, Andy's Corners

It is proposed to create three residential lots by severance from the existing 32.2ha parcel of land located at the northeast corner of the intersection of Norfolk County Road 21 at Highway 59. The proposed lots are planned to be situated within the ±0.67ha area between the existing residential lot at 975 Norfolk County Road 21 and Highway 59. A ±0.30ha lot is also being considered for the area northwest of the corner of the intersection of Norfolk County Road 21 at Highway 59, at the southeast corner of the parcel at 3719 Highway 59. The attached map shows the location of the site(s).

It is proposed to service the lots with individual water wells and individual subsurface sewage disposal systems.

To support the development proposal, a hydrogeological study was conducted involving the following:

- Exploratory test pits were completed within the proposed lot areas to collect representative soil samples for percolation rate analyses and to identify shallow groundwater conditions.
- Sewage system development density assessment under current Ministry of the Environment, Conservation and Parks (MECP) Procedure D-5-4 "Technical Guideline For Individual On-Site Sewage Systems : Water Quality Impact Risk Assessment", commonly known as the "nitrate guideline".
- A review of water well records to provide comment regarding aquifer conditions and groundwater supply potential.
- Collection of a sample of potable water from the existing water source at 3719 Highway 59 to confirm drinking water quality.

At your request, the above hydrogeologic investigative requirements were addressed through a test pit and groundwater sampling program conducted November 24, 2021 and a subsequent background hydrogeologic analysis. This report provides a summary of background hydrogeologic information, groundwater availability, upper aquifer water quality, the results of the soils suitability study and comment regarding sewage impact potential.

SITE SETTING, GEOLOGY AND HYDROGEOLOGY

The proposed lots are located within the north-central portion of the Community of Andy's Corners, at the intersection of Norfolk County Road 21 and Highway 59. The subject lands are cleared and are in active agricultural use east of Highway 59, and a residential yard and minor agricultural land west of Highway 59. The lands exhibit an overall flat relief, with a slight surface slope to the west or northwest. Lands to the east, south and southwest are occupied by residential lots. Lands to the north are in agricultural use, and lands to the west are used for farm buildings.

No surface water bodies are located on or in the close vicinity of the site, the closest being Venison Creek, located about 2km to the west, and Deer Creek, located about 2km to the south.

The site is located within the Norfolk Sand Plain physiographic region of southern Ontario. According to the Ontario Geological Survey Map 2473 "Quaternary Geology of the Tillsonburg Area", the upper overburden in the vicinity of the site consists of glaciolacustrine shallow water deposits of sand. Local well records indicate that the upper sands range from 6.7m to more than 12.8deep, although the majority of local wells are completed in these sands to a depth of less than about 10m. Although all local reported wells are shallow, the overburden is regionally indicated to be approximately 80m deep, with the lower overburden typically consisting of fine-grained deposits.

The bedrock beneath the site consists of limestone and dolostone of the Dundee Formation.

The majority of local groundwater supplies are obtained from the granular deposits of the upper 6m to 12m of the overburden. The lower overburden typically provides little to no potential for groundwater supply due to its fine-grained character, and the bedrock is less often utilized due to the expense of deep drilling and the potential of obtaining aesthetically poor-quality water.

Shallow groundwater on the site will follow local drainage patterns, with a possibly very slight gradient to the west or south.

WELL POTENTIAL ANALYSIS

To establish well yield and basic water quality probabilities, up-to-date MECP records for water wells located within approximately 250 metres of the proposed lots were reviewed. Records for well abandonments, geotechnical or environmental monitoring wells are not included in the summary. The MECP water well record database contains the records for only 11 water wells within the review area, however many wells in the area will be shallow sandpoint wells, which often are unreported to the MECP. The water well records used in the preparation of the review are attached. The following summarizes the reported well record information within the review area.

Number of wells: 11
Drilled Construction: 4
Dug/Bored Construction: 0
Sandpoint Construction: 7
Unknown Construction: 0
Completed in Overburden: 11 (100%)
Completed in Bedrock: 0

The following summarizes the reported well performance data.

	Maximum	Minimum	Average
Well Depth (m)	12.8	7.3	9.6
Test Rate (L/min)	114	9	47.3
Test Period (Hours)	2.6	1	1.6

Reported Water Quality:
Fresh: 11 or 100% (no objectionable tastes or odours)
Sulphurous: none
Mineralized/Saline: none
Quality Not Reported: none
Dry Well: none

The average reported well within about 250 metres of the proposed lots is of sandpoint construction, completed in the upper overburden sand aquifer to a depth of 9.6 metres and yields 47 litres of fresh-quality water per minute over an average period of 1.6 hours. This average yield significantly exceeds the maximum water demand of a normal four bedroom home specified by the MECP (i.e. 18L/min without inline storage). Overall groundwater conditions are favourable for domestic water requirements.

It should be noted that the above summary and analysis is based solely on information contained in the MECP water well record database as reported by drilling contractors and is not subject to quality control, however the overall analytical summary is favourable.

WATER QUALITY

To identify probable potable groundwater quality at the proposed lots, a sample of untreated groundwater was collected from the water supply well at the existing on-site house at 3719 Highway 59 on November 24, 2021, and submitted to Bureau Veritas Laboratories for bacteriological and general chemistry analysis. The well supplying the house is indicated to be a 10.4m deep sandpoint well (MECP water well record No. 44-1128, copy attached). The sample was collected in laboratory-supplied bottles, stored in an ice-packed cooler and submitted to the laboratory under chain of custody. The laboratory analytical report is attached.

The laboratory reported that the water from the on-site well contained no detectable Total Coliform, E.Coli bacteria or background bacteria.

The water from the on-site well is slightly alkaline, with a pH value of 8.02. The water from the well is moderately hard, with a hardness value of 200 mg/L as $CaCO_3$, which is typical of groundwater in the region.

The sodium content of the water from the on-site well at 39mg/L is well below the aesthetic Ontario Drinking Water Quality Standard of 200mg/L. However, the sodium content of the water slightly exceeds the level at which the Ontario Drinking Water Quality Standards recommend that the local Medical Officer of Heath should be notified (20mg/L) so that physicians for persons on sodium-restricted diets can be advised. The sodium content of the water from the on-site well is not uncommon for groundwater in the region.

All other chemical parameters were at acceptable levels under the Ontario Drinking Water Quality Standards.

SOILS INVESTIGATION

Test Pits:

Four exploratory test pits were excavated using a backhoe within the proposed lots (one pit west of Highway 59, three east of Highway 59) on November 24, 2021. The test pits were completed to depth of 1.52m to 1.65m, the soil profile was logged in each pit and representative soil samples were collected from each identified soil horizon for subsequent classification, analysis and storage. The attached diagram shows the approximate test pit locations. The following table provides a summary of the analytical results for representative soil samples.

Table 1 : Summary of Soil Analytical Data

Test Pit/ Sample	Depth (m)	Grain-Size Distribution				"k" (cm/sec)	T-Time (min/cm)
		Clay %	Silt %	Sand %	Gravel %		
TP1 S1	0.7	0	19	81	0	$2x10^{-3}$	8
TP2 S2	1.4	7	22	71	0	$8x10^{-5}$	20
TP4 S3	0.5	0	20	80	0	$2x10^{-3}$	8

Note: The above coefficient of permeability ("k" values) and T-time (percolation rates) are estimates based on field observation, laboratory grain-size analysis, experience with similar soils and guidelines of the Ontario Building Code.

In summary, the soil profile at the test pits consisted of fine sand with some silt (Unified Soil Classification Type "SP"), which exhibits a percolation rate in the range of 8 minutes/cm, overlying a fine sand with some silt and clay (Unified Soil Classification Type "SM"), which exhibits a percolation rate in the range of 20 minutes/cm.

The grain-size analysis curves are attached. The following provides a summary of the test pit logs:

TEST PIT 1

Depth (m)	Material
0 - 0.63	FILL - disturbed mixture of topsoil and sand
0.63 - 1.40	red-brown, loose, dry fine SAND with some silt (estimated T-time 8 min/cm)
1.40 - 1.65	grey-brown, compact, dry to wet SAND with some silt and traces of clay (estimated T-time 20 min/cm)

TEST PIT 2

Depth (m)	Material
0 - 0.25	dark brown TOPSOIL
0.25 - 1.22	red-brown, loose, dry fine SAND with some silt (estimated T-time 8 min/cm)
1.22 - 1.52	grey-brown, compact, dry to wet SAND with some silt and traces of clay (estimated T-time 20 min/cm)

TEST PIT 3

Depth (m)	Material
0 - 0.25	dark brown TOPSOIL
0.25 - 1.22	red-brown, loose, dry fine SAND with some silt (estimated T-time 8 min/cm)
1.22 - 1.65	grey-brown, compact, dry to wet SAND with some silt and traces of clay (estimated T-time 20 min/cm)

TEST PIT 4

Depth (m)	Material
0 - 0.22	dark brown TOPSOIL
0.22 - 1.37	red-brown, loose, dry fine SAND with some silt (estimated T-time 8 min/cm)
1.37 - 1.65	grey-brown, compact, dry to wet SAND with some silt and traces of clay (estimated T-time 20 min/cm)

Shallow Groundwater Conditions:

Emergent groundwater was observed in each test pit, at depths of 1.5m in Test Pit 1, 1.4m in Test Pit 2, 1.2m in Test Pit 3, and 1.3m in Test Pit 4.

Septic System Design:

Under the Ontario Building Code, for a Class 4 sewage disposal system to operate effectively, the leaching bed must be located in soil with a percolation rate (T-time) of between 1 and 50 minutes per centimetre and the base of the absorption trenches must be situated at least 0.9m above the high ground water table, bedrock or a soil with a permeability of greater than 50 minutes per centimetre. To achieve a normal, in-ground installation, the high groundwater table, rock or soil with a permeability of greater than 50 min/cm must be situated at least 1.5 to 1.8 metres below grade.

Due to slightly elevated watertable conditions, for preliminary design purposes, it is recommended that the bases of tile trenches should be set no lower than 0.3m below current grade. For preliminary design purposes, it is recommended that a native soil design percolation rate of 20min/cm is assumed.

A standard fill-based sewage disposal system will require a contact area based on a loading rate of 10L/m^2/day (i.e. 160m^2 for a standard 3-bedroom home with a design sewage flow of 1,600L/day, or 200m^2 for a standard 4-bedroom home with a design sewage flow of 2,000L/day).

It is understood that the County typically requires that a full sewage system reserve area be utilized in lot design. As the proposed lots will each be in excess of 3,000m^2 in area, sufficient area is available for a 160m^2 or 200m^2 primary sewage disposal area, 160m^2 or 200m^2 reserve sewage disposal area. Lot design will need to address setbacks to the house envelope and any on-site and nearby sandpoint wells (30m).

SEWAGE SYSTEM IMPACT ASSESSMENT

Under the current MECP "Technical Guideline For Individual On-Site Sewage Systems : Water Quality Impact Risk Assessment" (Procedure D-5-4, also known as the "nitrate guideline"), each proposed development of five lots or greater utilizing individual on-site sewage systems requires an assessment of groundwater impact potential. The purpose of the assessment is to ensure that the discharge from the individual on-site sewage systems will have a minimal effect on groundwater and the present or potential use of adjacent properties. The assessment involves a three-step process, with the need to advance to the next step dependant on the requirements of the previous step. Where the background nitrate content of shallow groundwater exceeds 10 mg/L, additional development cannot normally be supported.

The water sample collected from the on-site well at had a nitrate content of 3.95mg/L, and this background nitrate content is assumed in the calculation below for the subject lands.

Under Step 1 of the guideline, for developments where the lot size for each private residence within the development is one hectare or larger (with no lots being less than 0.8ha in area), the risk that the limits imposed by the guideline may be exceeded is considered acceptable with no additional hydrogeologic assessment. Step 1 of the guideline is not applicable.

Step 2 of the guideline is applicable where groundwater resources can be confidently demonstrated to be hydraulically isolated from potential sewage pathways. As the primary water supply aquifer is the upper sands, groundwater resources are not hydraulically isolated from potential sewage pathways, and Step 2 of the guideline does not apply.

Under Step 3 of the guideline, a mass-balance calculation is used to determine the minimum size of the proposed lots. Under the current MECP guideline only infiltrating precipitation and the volume of water contained in the sewage may be considered as dilutants for the nitrate contained in septic effluent. To establish the infiltration rate, the percentage of the local water surplus which may infiltrate is calculated using the Rational Method approach. According to the soil evaluation, the soil profile consists of sand (infiltration factor 40%), the overall relief is flat (infiltration factor 30%) and the cover is cleared (infiltration factor 10%), all resulting in an infiltration factor of 80%. According to the 2009 Long Point Region, Kettle Creek and Catfish Creek Integrated Water Budget Final Report, the water surplus for the area is in the range of 415mm per year (Venison Creek sub-watershed, precipitation 980mm/year, evapotranspiration 565mm/year). As such, the annual infiltration rate will be 332mm (80% of 415mm), representing 34% of average annual precipitation in the sub-watershed.

The following mass-balance formula is used to calculate the maximum density of the proposed lots east of Highway 58 (total area of parcel = 0.67ha) under the MECP guideline:

$$Q_T C_T = Q_S C_S + Q_P C_P$$

Where:

Q_T = Sum of Q_S and Q_P
C_T = Nitrate concentration (10mg/L, maximum permitted under the guideline)
Q_S = Volume of sewage (1000 L/day/lot, per MECP guideline)
C_S = Nitrate content of sewage (40 mg/L)
Q_P = Infiltration (332mm/year x ±0.67ha x 10,000L/mm/ha = 2.22×10^6L/yr)
C_P = Nitrate content of shallow groundwater (3.95mg/L assumed, see above)

Therefore:

$(Q_S + 2.22 \times 10^6 \text{L/yr}) \times 10\text{mg/L} = (Q_S \times 40\text{mg/L}) + (2.22 \times 10^6 \text{L/yr} \times 3.95\text{mg/L})$
$Q_S = 4.48 \times 10^5$L/year

Number of Lots = 4.48×10^5L/yr ÷ 1,000 L/day/lot ÷ 365 days/yr = 1.2 Lots

Based on the MECP-specified daily volume of sewage for the purposes of the Procedure D-5-4 assessment, and an infiltration rate of 332mm/year, the maximum number of lots on the east parcel (±0.67ha total) under the MECP guideline is 1.2 using conventional sewage disposal systems. As such, three lots are not supportable on the east parcel using conventional sewage disposal systems using the above inputs.

As the potentially proposed ±0.30ha west parcel (west of Highway 59) is smaller than the viable lots size east of Highway 59 using conventional sewage disposal systems (i.e. 0.67ha ÷ 1.2 = 0.56ha lots), it will also not be supportable using a conventional sewage disposal system.

The above assessment approach, conducted in accordance with MECP guidelines, does not consider sewage dilution by groundwater flow-through nor does it consider denitrification processes in the subsurface. As such, the assessment will over-estimate the actual degree of groundwater impact of the proposed lots, this considered a safety factor.

For the three eastern lots (and the potential western lot) to be viable under the guideline, the lots will be required to utilize an individual subsurface sewage disposal system equipped with tertiary treatment capable of nitrate reduction. The use of such systems is not contemplated for this purpose (or any other purpose) in the MECP guidelines due to the age of the guidelines (*ca.* 1996), however nitrate reducing treatment systems are now commonly used in the Province under CAN/BNQ 3680-600 Certified Treatment Technologies for total nitrogen reduction. Such systems (N-I rated) are commonly capable of a nitrate reduction in the order of 50%, or 20mg/L. The above mass-balance formula is revised to determine the sewage impact of using nitrate-reduction technology on each pf the ≥0.22ha lots, which addresses the potential sewage impact of the three eastern lots and the one possible western lot.

$$Q_T C_T = Q_S C_S + Q_P C_P$$

Where:

Q_T = Sum of Q_S and Q_P
C_T = Nitrate Impact
Q_S = Volume of sewage (1,000 L/day/lot = 3.65×10^5L/year/lot)
C_S = Nitrate content of sewage (20mg/L using a treatment system)
Q_P = Infiltration (332mm/year x 0.22ha lot x 10,000L/mm/ha = 7.304×10^5L/yr)
C_P = Nitrate content of groundwater (3.95mg/L)

Therefore:

$(3.65 \times 10^5\text{L/year/lot} + 7.304 \times 10^5\text{L/yr}) \times C_T = (3.65 \times 10^5\text{L/year/lot} \times 20\text{mg/L}) + (7.304 \times 10^5\text{L/yr} \times 3.95\text{mg/L})$
$C_T = 9.3\text{mg/L}$

At 9.3mg/L nitrate, the sewage impact will be less than the maximum acceptable level of 10mg/L nitrate, and therefore the three eastern and one possible western lot are viable using sewage systems equipped with nitrate reduction technology.

Based on the above, the sewage systems on the proposed lots will be required to utilize nitrate reduction technology capable of an average nitrate reduction of at least 50% (i.e. 20mg/L nitrate). Commercially-available sewage treatment systems (meeting CAN/BNQ 3680-600 Certified Treatment Technologies for total nitrogen reduction) are typically demonstrated to be capable of a nitrate reduction of 50% (or 20mg/L nitrate), and are capable of higher rates of reduction with additional treatment measures. Municipal support and long-term maintenance agreements for individual sewage treatment units are required.

CONCLUSIONS AND RECOMMENDATIONS

1. The average reported well within about 250 metres of the proposed lots is of sandpoint construction, completed in the upper overburden sand aquifer to a depth of 9.6 metres and yields 47 litres of fresh-quality water per minute over an average period of 1.6 hours. This average yield significantly exceeds the maximum water demand of a normal four bedroom home specified by the MECP (i.e. 18L/min without inline storage). Overall groundwater conditions are favourable for domestic water requirements.

2. The quality of water from the on-site well was acceptable. The sodium content of the water from the on-site well at 39mg/L is well below the aesthetic Ontario Drinking Water Quality Standard of 200mg/L. However, the sodium content of the water slightly exceeds the level at which the Ontario Drinking Water Quality Standards recommend that the local Medical Officer of Heath should be notified (20mg/L) so that physicians for persons on sodium-restricted diets can be advised. The sodium content of the water from the on-site well is not uncommon for groundwater in the region.

3. Due to slightly elevated watertable conditions, for preliminary design purposes, it is recommended that the bases of tile trenches should be set no lower than 0.3m below current grade. For preliminary design purposes, it is recommended that a native soil design percolation rate of 20min/cm is assumed.

4. A standard fill-based sewage disposal system will require a contact area based on a loading rate of 10L/m^2/day (i.e. 160m^2 for a standard 3-bedroom home with a design sewage flow of 1,600L/day, or 200m^2 for a standard 4-bedroom home with a design sewage flow of 2,000L/day). Sufficient area is available for a 160m^2 or 200m^2 primary sewage disposal area, 160m^2 or 200m^2 reserve sewage disposal area. Lot design will need to address setbacks to the house envelope and any on-site and nearby sandpoint wells (30m).

5. Under MECP Procedure D-5-4, for the three eastern and one possible western lots to be viable, the lots will each be required to utilize an individual subsurface sewage disposal system equipped with tertiary treatment capable of nitrate reduction.

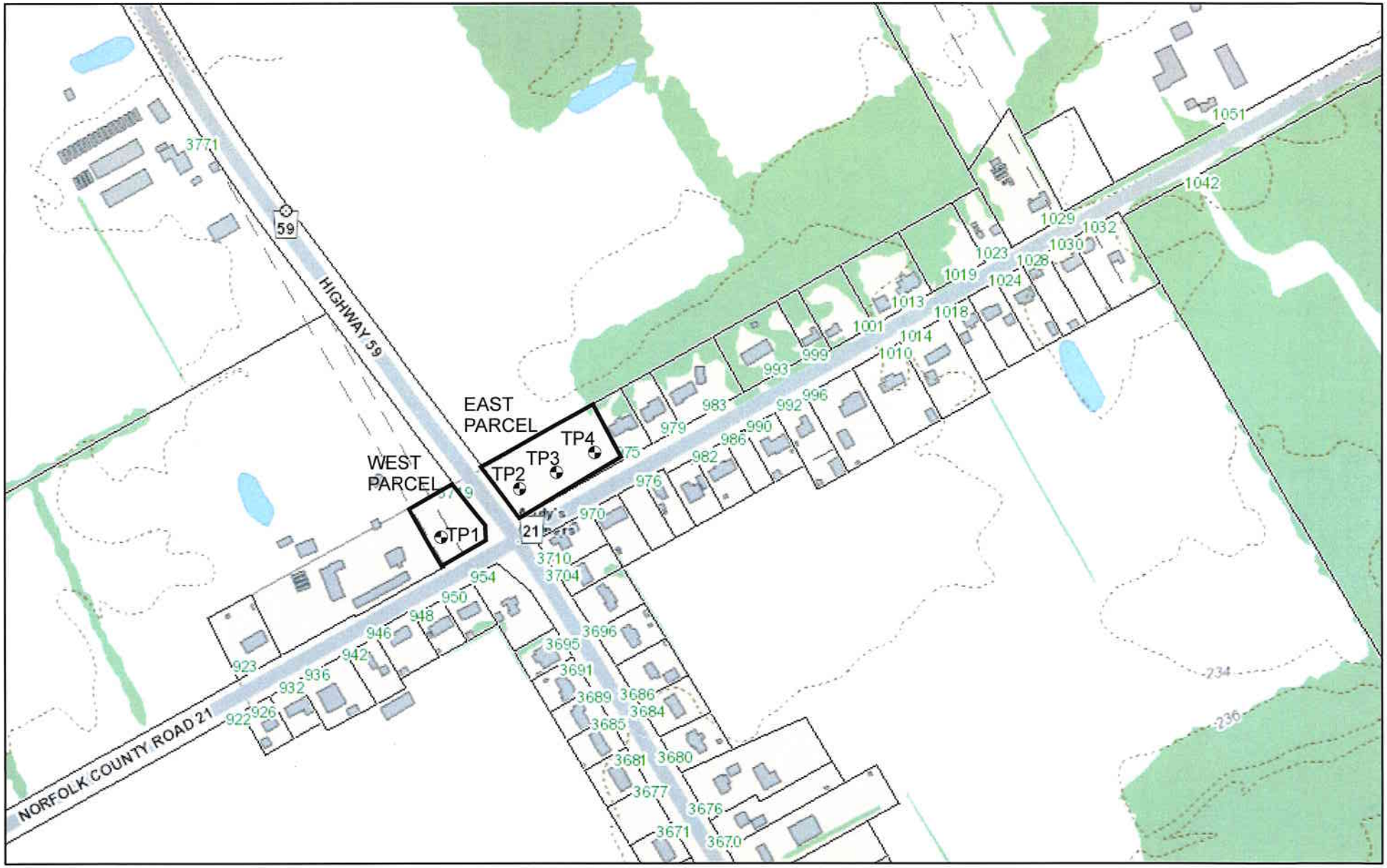
6. Based on the findings of the preceding analysis, development of the subject lands as residential lots serviced by private sewage disposal systems is considered viable, subject to the conclusions, limitations and recommendations outlined in this report.

Should there be any questions regarding the above information and discussion, please do not hesitate to contact this office.

IAN D. WILSON ASSOCIATES LIMITED

Geoffrey Rether, B.Sc., P.Geo.

PROFESSIONAL GEOSCIENTIST
GEOFFREY B. RETHER
PRACTISING MEMBER
0426
ONTARIO



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Land Parcels

Plan Lines

DraftPlan

APPROXIMATE LAYOUT OF PROPOSED EAST AND WEST LOT AREAS AND TEST PIT LOCATIONS

ALAN DEGROOTE, ANDY'S CORNERS

1:5,000

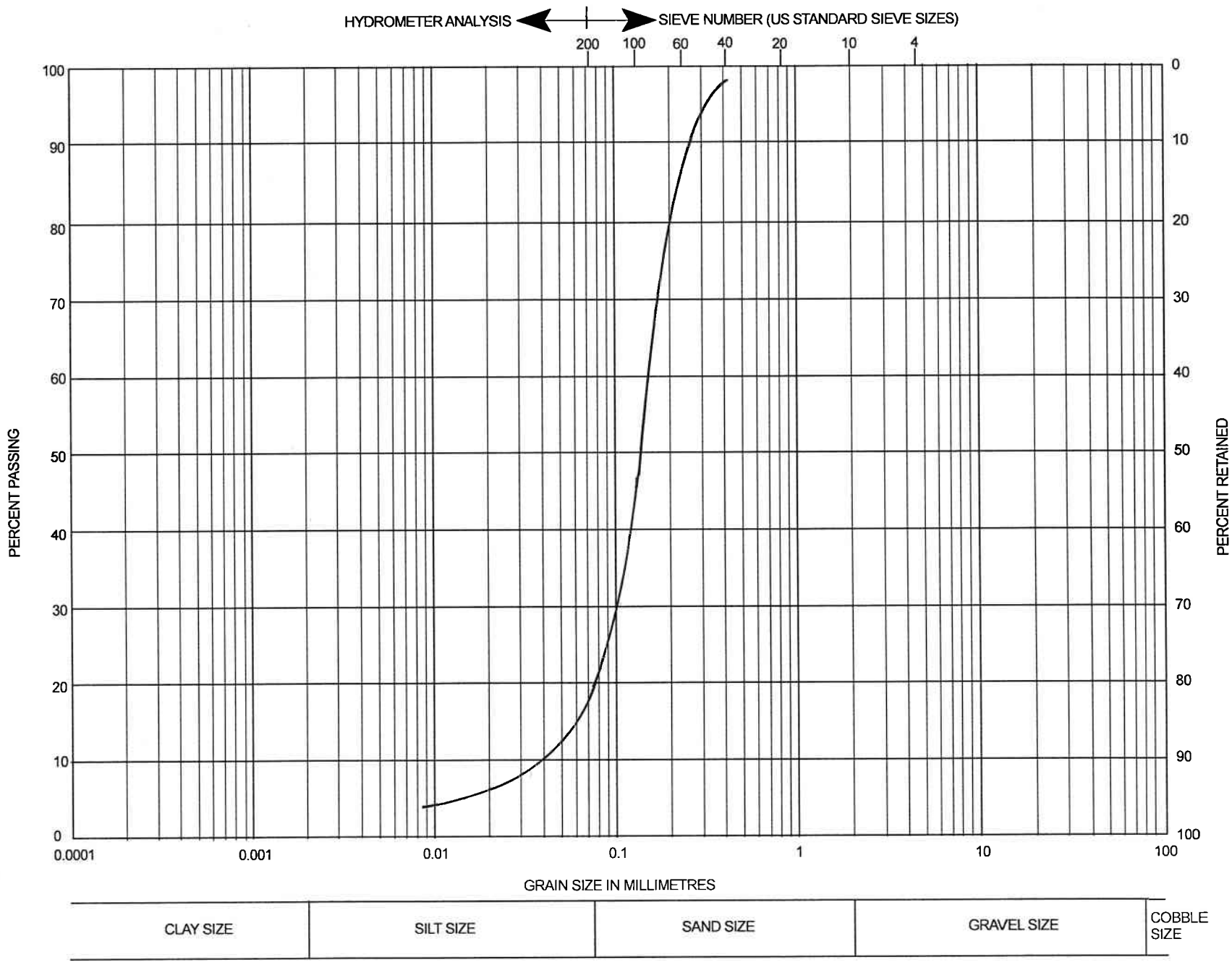
0 0.0425 0.085 0.17 mi

0 0.05 0.1 0.2 km

Norfolk GIS

GRAIN SIZE DISTRIBUTION CHART

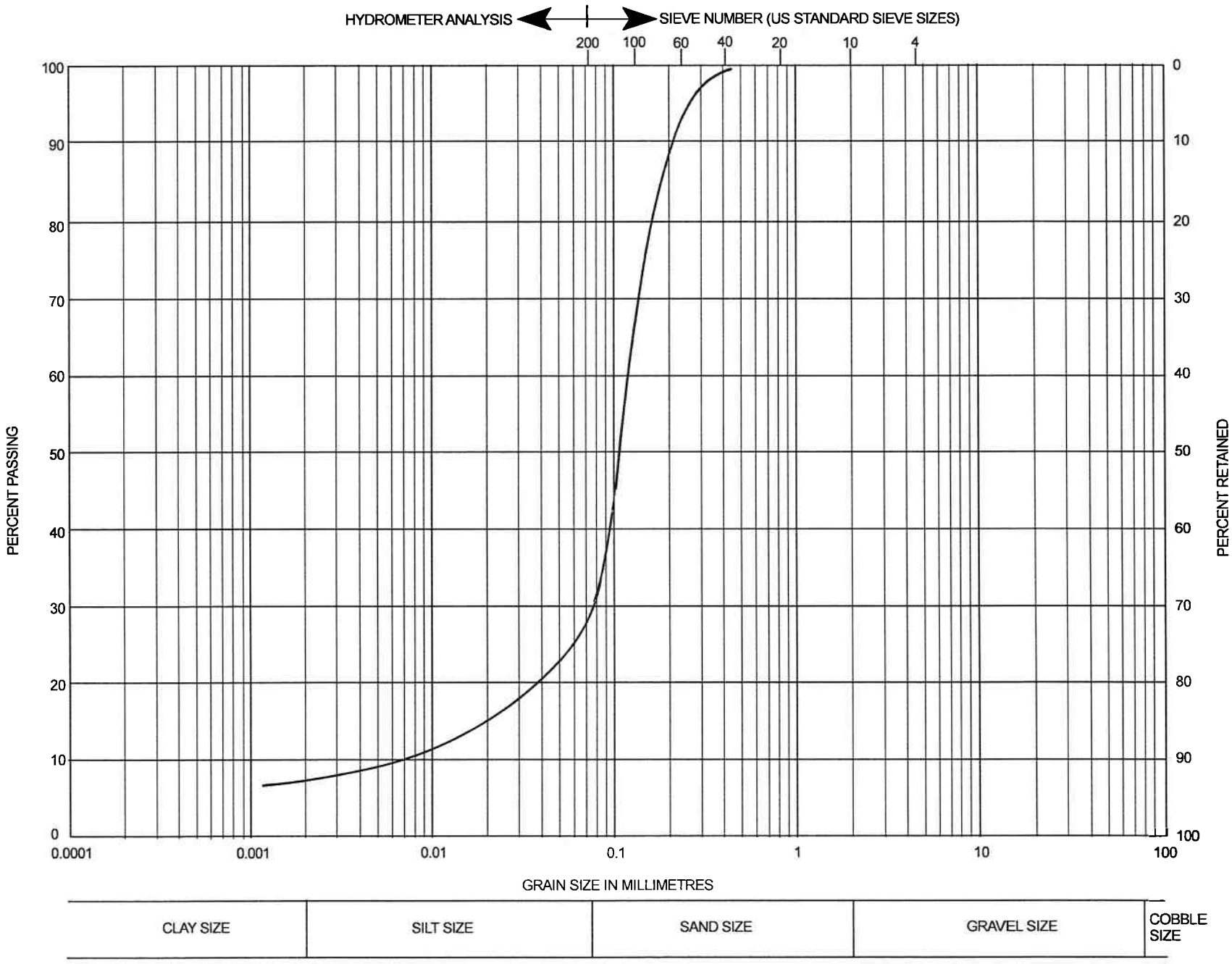
PROJECT / SAMPLE Alan DeGroote - Test Pit 1, Sample 1



IAN D. WILSON ASSOCIATES LIMITED

GRAIN SIZE DISTRIBUTION CHART

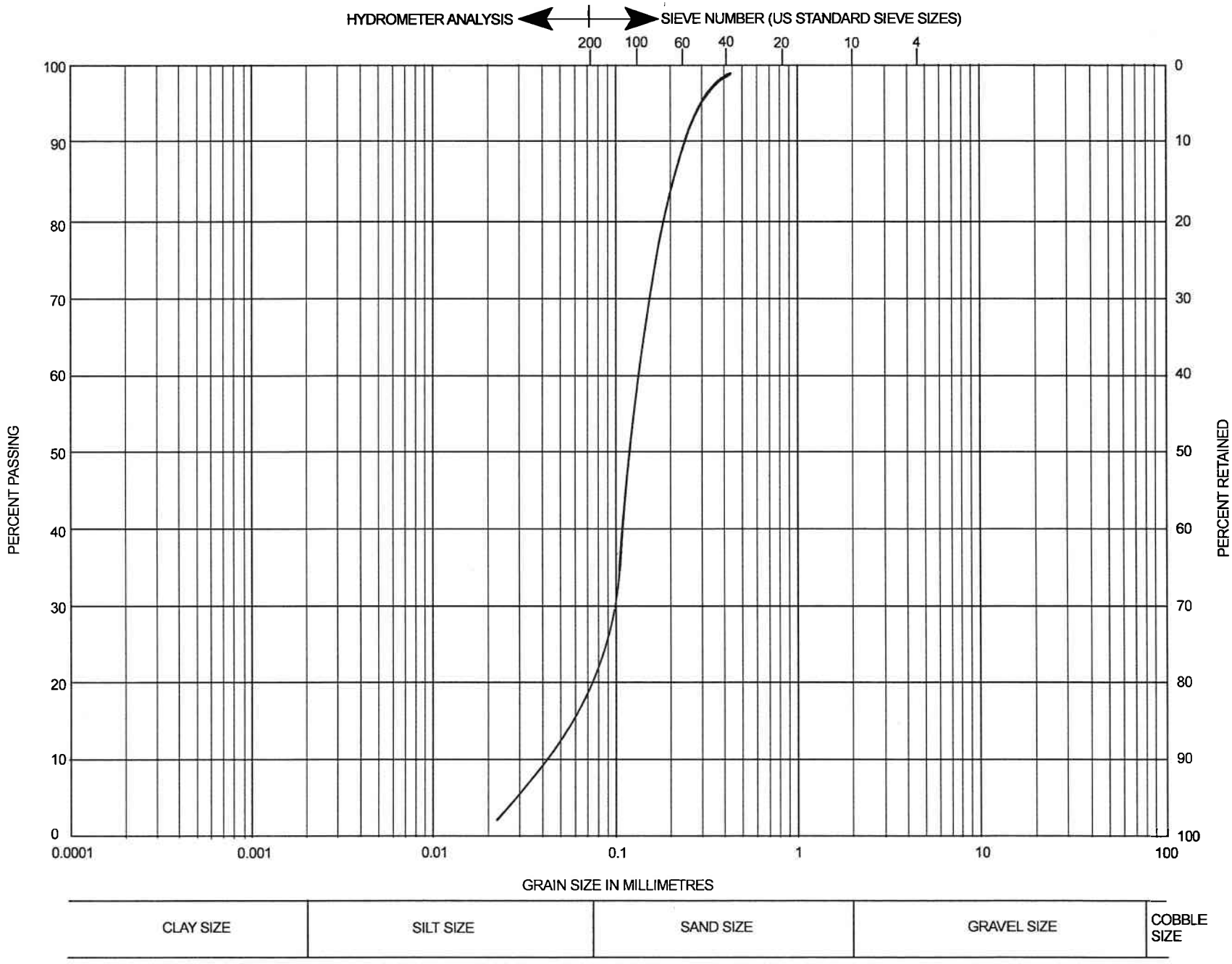
PROJECT / SAMPLE **Alan DeGroote - Test Pit 2, Sample 2**



IAN D. WILSON ASSOCIATES LIMITED

GRAIN SIZE DISTRIBUTION CHART

PROJECT / SAMPLE **Alan DeGroote - Test Pit 4, Sample 3**



IAN D. WILSON ASSOCIATES LIMITED

Site Location: DEGROOTE

Attention: Geoff Rether

Ian D Wilson Associates Ltd
PO Box 299
76722 Airport Rd
Clinton, ON
CANADA N0M 1L0

Report Date: 2022/01/11
Report #: R6957658
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1Z5389
Received: 2021/11/24, 17:51

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity	1	N/A	2021/11/29	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2022/01/10	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	1	N/A	2021/11/29	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	1	N/A	2021/11/29	CAM SOP-00414	SM 23 2510 m
Dissolved Organic Carbon (DOC) (1)	1	N/A	2021/11/29	CAM SOP-00446	SM 23 5310 B m
Hardness (calculated as CaCO3)	1	N/A	2022/01/11	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Metals by ICPMS	1	N/A	2021/11/30	CAM SOP-00447	EPA 6020B m
Ion Balance (% Difference)	1	N/A	2022/01/11		
Anion and Cation Sum	1	N/A	2022/01/11		
Total Coliforms, (CFU/100mL)	1	N/A	2022/01/11	CAM SOP-00552	MOE LSB E3371
E.coli, (CFU/100mL)	1	N/A	2021/11/24	CAM SOP-00552	MOE LSB E3371
Total Ammonia-N	1	N/A	2021/11/30	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (2)	1	N/A	2021/11/29	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2021/12/23	2021/11/29	CAM SOP-00413	SM 4500H+ B m
Orthophosphate	1	N/A	2021/11/29	CAM SOP-00461	EPA 365.1 m
Sat. pH and Langelier Index (@ 20C)	1	N/A	2022/01/11		Auto Calc
Sat. pH and Langelier Index (@ 4C)	1	N/A	2022/01/11		Auto Calc
Sulphate by Automated Colourimetry	1	N/A	2021/11/29	CAM SOP-00464	EPA 375.4 m
Total Dissolved Solids (TDS calc)	1	N/A	2022/01/11		Auto Calc

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Site Location: DEGROOTE

Attention: Geoff Rether
Ian D Wilson Associates Ltd
PO Box 299
76722 Airport Rd
Clinton, ON
CANADA N0M 1L0

Report Date: 2022/01/11
Report #: R6957658
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1Z5389
Received: 2021/11/24, 17:51

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

Encryption Key

Zunaira Allem
Project Manager Assistant
11 Jan 2022 16:53:19

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Zunaira Allem, Project Manager Assistant
Email: Zunaira.Allem@bureauveritas.com
Phone# (905) 817-5700

==========

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Job #: C1Z5389
Report Date: 2022/01/11

Ian D Wilson Associates Ltd
Site Location: DEGROOTE
Sampler Initials: GR

RCAP - COMPREHENSIVE (WATER)

Bureau Veritas ID		RJZ888		
Sampling Date		2021/11/24 09:00		
	UNITS	3719	RDL	QC Batch
Calculated Parameters				
Anion Sum	me/L	6.02	N/A	7738799
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	230	1.0	7738795
Calculated TDS	mg/L	320	1.0	7738785
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.3	1.0	7738795
Cation Sum	me/L	5.66	N/A	7738799
Hardness (CaCO3)	mg/L	200	1.0	7738445
Ion Balance (% Difference)	%	3.09	N/A	7738798
Langelier Index (@ 20C)	N/A	0.729		7738796
Langelier Index (@ 4C)	N/A	0.480		7738797
Saturation pH (@ 20C)	N/A	7.29		7738796
Saturation pH (@ 4C)	N/A	7.54		7738797
Inorganics				
Total Ammonia-N	mg/L	ND	0.050	7752528
Conductivity	umho/cm	560	1.0	7750876
Dissolved Organic Carbon	mg/L	0.73	0.40	7743915
Orthophosphate (P)	mg/L	ND	0.010	7715596
pH	pH	8.02		7750888
Dissolved Sulphate (SO4)	mg/L	8.5	1.0	7715581
Alkalinity (Total as CaCO3)	mg/L	230	1.0	7750800
Dissolved Chloride (Cl-)	mg/L	33	1.0	7715823
Nitrite (N)	mg/L	ND	0.010	7728354
Nitrate (N)	mg/L	3.95	0.10	7728354
p-Alkalinity	mg/L	ND	1.0	7750800
Nitrate + Nitrite (N)	mg/L	3.95	0.10	7728354
Metals				
Dissolved Aluminum (Al)	ug/L	ND	4.9	7758297
Dissolved Antimony (Sb)	ug/L	ND	0.50	7758297
Dissolved Arsenic (As)	ug/L	ND	1.0	7758297
Dissolved Barium (Ba)	ug/L	17	2.0	7758297
Dissolved Beryllium (Be)	ug/L	ND	0.40	7758297
Dissolved Bismuth (Bi)	ug/L	ND	1.0	7758297
Dissolved Boron (B)	ug/L	30	10	7758297
Dissolved Cadmium (Cd)	ug/L	ND	0.090	7758297

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

RCAP - COMPREHENSIVE (WATER)

Bureau Veritas ID		RJZ888		
Sampling Date		2021/11/24 09:00		
	UNITS	3719	RDL	QC Batch
Dissolved Calcium (Ca)	ug/L	59000	200	7758297
Dissolved Chromium (Cr)	ug/L	ND	5.0	7758297
Dissolved Cobalt (Co)	ug/L	ND	0.50	7758297
Dissolved Copper (Cu)	ug/L	1.7	0.90	7758297
Dissolved Iron (Fe)	ug/L	ND	100	7758297
Dissolved Lead (Pb)	ug/L	ND	0.50	7758297
Dissolved Magnesium (Mg)	ug/L	12000	50	7758297
Dissolved Manganese (Mn)	ug/L	ND	2.0	7758297
Dissolved Molybdenum (Mo)	ug/L	ND	0.50	7758297
Dissolved Nickel (Ni)	ug/L	ND	1.0	7758297
Dissolved Phosphorus (P)	ug/L	ND	100	7758297
Dissolved Potassium (K)	ug/L	840	200	7758297
Dissolved Selenium (Se)	ug/L	ND	2.0	7758297
Dissolved Silicon (Si)	ug/L	5300	50	7758297
Dissolved Silver (Ag)	ug/L	ND	0.090	7758297
Dissolved Sodium (Na)	ug/L	39000	100	7758297
Dissolved Strontium (Sr)	ug/L	140	1.0	7758297
Dissolved Thallium (Tl)	ug/L	ND	0.050	7758297
Dissolved Titanium (Ti)	ug/L	ND	5.0	7758297
Dissolved Uranium (U)	ug/L	0.14	0.10	7758297
Dissolved Vanadium (V)	ug/L	ND	0.50	7758297
Dissolved Zinc (Zn)	ug/L	36	5.0	7758297

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.

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Bureau Veritas Job #: C1Z5389
Report Date: 2022/01/11

Ian D Wilson Associates Ltd
Site Location: DEGROOTE
Sampler Initials: GR

MICROBIOLOGY (WATER)

Bureau Veritas ID		RJZ888	
Sampling Date		2021/11/24 09:00	
	UNITS	3719	QC Batch
Microbiological			
Background	CFU/100mL	0	7775621
Total Coliforms	CFU/100mL	0	7775621
Escherichia coli	CFU/100mL	0	7775570
QC Batch = Quality Control Batch			

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Bureau Veritas Job #: C1Z5389
Report Date: 2022/01/11

Ian D Wilson Associates Ltd
Site Location: DEGROOTE
Sampler Initials: GR

TEST SUMMARY

Bureau Veritas ID: RJZ888
Sample ID: 3719
Matrix: Water

Collected: 2021/11/24
Shipped:
Received: 2021/11/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	7750800	N/A	2021/11/29	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	7738795	N/A	2022/01/10	Automated Statchk
Chloride by Automated Colourimetry	KONE	7715823	N/A	2021/11/29	Alina Dobreanu
Conductivity	AT	7750876	N/A	2021/11/29	Surinder Rai
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7743915	N/A	2021/11/29	Julianna Castiglione
Hardness (calculated as CaCO3)		7738445	N/A	2022/01/11	Automated Statchk
Dissolved Metals by ICPMS	ICP/MS	7758297	N/A	2021/11/30	Nan Raykha
Ion Balance (% Difference)	CALC	7738798	N/A	2022/01/11	Automated Statchk
Anion and Cation Sum	CALC	7738799	N/A	2022/01/11	Automated Statchk
Total Coliforms, (CFU/100mL)	PL	7775621	N/A	2022/01/11	Tharmini Sivalingam
E.coli, (CFU/100mL)	PL	7775570	N/A	2021/11/24	Tharmini Sivalingam
Total Ammonia-N	LACH/NH4	7752528	N/A	2021/11/30	Viorica Rotaru
Nitrate & Nitrite as Nitrogen in Water	LACH	7728354	N/A	2021/11/29	Chandra Nandlal
pH	AT	7750888	2021/11/29	2021/11/29	Surinder Rai
Orthophosphate	KONE	7715596	N/A	2021/11/29	Avneet Kour Sudan
Sat. pH and Langelier Index (@ 20C)	CALC	7738796	N/A	2022/01/11	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	7738797	N/A	2022/01/11	Automated Statchk
Sulphate by Automated Colourimetry	KONE	7715581	N/A	2021/11/29	Avneet Kour Sudan
Total Dissolved Solids (TDS calc)	CALC	7738785	N/A	2022/01/11	Automated Statchk

Bureau Veritas ID: RJZ888 Dup
Sample ID: 3719
Matrix: Water

Collected: 2021/11/24
Shipped:
Received: 2021/11/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Organic Carbon (DOC)	TOCV/NDIR	7743915	N/A	2021/11/29	Julianna Castiglione

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GENERAL COMMENTS

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7715581	AKD	Matrix Spike	Dissolved Sulphate (SO4)	2021/11/29		103	%	75 - 125
7715581	AKD	Spiked Blank	Dissolved Sulphate (SO4)	2021/11/29		108	%	80 - 120
7715581	AKD	Method Blank	Dissolved Sulphate (SO4)	2021/11/29	ND, RDL=1.0		mg/L	
7715581	AKD	RPD	Dissolved Sulphate (SO4)	2021/11/29	0.76		%	20
7715596	AKD	Matrix Spike	Orthophosphate (P)	2021/11/29		120	%	75 - 125
7715596	AKD	Spiked Blank	Orthophosphate (P)	2021/11/29		101	%	80 - 120
7715596	AKD	Method Blank	Orthophosphate (P)	2021/11/29	ND, RDL=0.010		mg/L	
7715596	AKD	RPD	Orthophosphate (P)	2021/11/29	NC		%	25
7715823	ADB	Matrix Spike	Dissolved Chloride (Cl-)	2021/11/29		NC	%	80 - 120
7715823	ADB	Spiked Blank	Dissolved Chloride (Cl-)	2021/11/29		103	%	80 - 120
7715823	ADB	Method Blank	Dissolved Chloride (Cl-)	2021/11/29	ND, RDL=1.0		mg/L	
7715823	ADB	RPD	Dissolved Chloride (Cl-)	2021/11/29	0.28		%	20
7728354	C_N	Matrix Spike	Nitrite (N)	2021/11/29		103	%	80 - 120
			Nitrate (N)	2021/11/29		103	%	80 - 120
7728354	C_N	Spiked Blank	Nitrite (N)	2021/11/29		104	%	80 - 120
			Nitrate (N)	2021/11/29		103	%	80 - 120
7728354	C_N	Method Blank	Nitrite (N)	2021/11/29	ND, RDL=0.010		mg/L	
			Nitrate (N)	2021/11/29	ND, RDL=0.10		mg/L	
7728354	C_N	RPD	Nitrite (N)	2021/11/29	NC		%	20
			Nitrate (N)	2021/11/29	NC		%	20
7743915	JUC	Matrix Spike [RJZ888-02]	Dissolved Organic Carbon	2021/11/29		97	%	80 - 120
7743915	JUC	Spiked Blank	Dissolved Organic Carbon	2021/11/29		96	%	80 - 120
7743915	JUC	Method Blank	Dissolved Organic Carbon	2021/11/29	ND, RDL=0.40		mg/L	
7743915	JUC	RPD [RJZ888-02]	Dissolved Organic Carbon	2021/11/29	6.1		%	20
7750800	SAU	Spiked Blank	Alkalinity (Total as CaCO3)	2021/11/29		91	%	85 - 115
			p-Alkalinity	2021/11/29		91	%	85 - 115
7750800	SAU	Method Blank	Alkalinity (Total as CaCO3)	2021/11/29	ND, RDL=1.0		mg/L	
			p-Alkalinity	2021/11/29	ND, RDL=1.0		mg/L	
7750800	SAU	RPD	Alkalinity (Total as CaCO3)	2021/11/29	1.5		%	20
7750876	SAU	Spiked Blank	Conductivity	2021/11/29		101	%	85 - 115
7750876	SAU	Method Blank	Conductivity	2021/11/29	ND, RDL=1.0		umho/cm	
7750876	SAU	RPD	Conductivity	2021/11/29	0.32		%	25
7750888	SAU	Spiked Blank	pH	2021/11/29		102	%	98 - 103
7750888	SAU	RPD	pH	2021/11/29	1.7		%	N/A
7752528	VRO	Matrix Spike	Total Ammonia-N	2021/11/30		94	%	75 - 125
7752528	VRO	Spiked Blank	Total Ammonia-N	2021/11/30		99	%	80 - 120
7752528	VRO	Method Blank	Total Ammonia-N	2021/11/30	ND, RDL=0.050		mg/L	
7752528	VRO	RPD	Total Ammonia-N	2021/11/30	NC		%	20
7758297	N_R	Matrix Spike	Dissolved Aluminum (Al)	2021/11/30		96	%	80 - 120
			Dissolved Antimony (Sb)	2021/11/30		111	%	80 - 120
			Dissolved Arsenic (As)	2021/11/30		99	%	80 - 120
			Dissolved Barium (Ba)	2021/11/30		100	%	80 - 120
			Dissolved Beryllium (Be)	2021/11/30		92	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Bismuth (Bi)	2021/11/30		85	%	80 - 120
			Dissolved Boron (B)	2021/11/30		91	%	80 - 120
			Dissolved Cadmium (Cd)	2021/11/30		99	%	80 - 120
			Dissolved Calcium (Ca)	2021/11/30		115	%	80 - 120
			Dissolved Chromium (Cr)	2021/11/30		91	%	80 - 120
			Dissolved Cobalt (Co)	2021/11/30		92	%	80 - 120
			Dissolved Copper (Cu)	2021/11/30		92	%	80 - 120
			Dissolved Iron (Fe)	2021/11/30		96	%	80 - 120
			Dissolved Lead (Pb)	2021/11/30		87	%	80 - 120
			Dissolved Magnesium (Mg)	2021/11/30		76 (1)	%	80 - 120
			Dissolved Manganese (Mn)	2021/11/30		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/11/30		111	%	80 - 120
			Dissolved Nickel (Ni)	2021/11/30		86	%	80 - 120
			Dissolved Phosphorus (P)	2021/11/30		105	%	80 - 120
			Dissolved Potassium (K)	2021/11/30		98	%	80 - 120
			Dissolved Selenium (Se)	2021/11/30		95	%	80 - 120
			Dissolved Silicon (Si)	2021/11/30		98	%	80 - 120
			Dissolved Silver (Ag)	2021/11/30		66 (2)	%	80 - 120
			Dissolved Sodium (Na)	2021/11/30		59 (1)	%	80 - 120
			Dissolved Strontium (Sr)	2021/11/30		98	%	80 - 120
			Dissolved Thallium (Tl)	2021/11/30		90	%	80 - 120
			Dissolved Titanium (Ti)	2021/11/30		100	%	80 - 120
			Dissolved Uranium (U)	2021/11/30		92	%	80 - 120
			Dissolved Vanadium (V)	2021/11/30		99	%	80 - 120
			Dissolved Zinc (Zn)	2021/11/30		87	%	80 - 120
7758297	N_R	Spiked Blank	Dissolved Aluminum (Al)	2021/11/30		95	%	80 - 120
			Dissolved Antimony (Sb)	2021/11/30		105	%	80 - 120
			Dissolved Arsenic (As)	2021/11/30		98	%	80 - 120
			Dissolved Barium (Ba)	2021/11/30		99	%	80 - 120
			Dissolved Beryllium (Be)	2021/11/30		99	%	80 - 120
			Dissolved Bismuth (Bi)	2021/11/30		95	%	80 - 120
			Dissolved Boron (B)	2021/11/30		98	%	80 - 120
			Dissolved Cadmium (Cd)	2021/11/30		98	%	80 - 120
			Dissolved Calcium (Ca)	2021/11/30		92	%	80 - 120
			Dissolved Chromium (Cr)	2021/11/30		91	%	80 - 120
			Dissolved Cobalt (Co)	2021/11/30		93	%	80 - 120
			Dissolved Copper (Cu)	2021/11/30		95	%	80 - 120
			Dissolved Iron (Fe)	2021/11/30		97	%	80 - 120
			Dissolved Lead (Pb)	2021/11/30		95	%	80 - 120
			Dissolved Magnesium (Mg)	2021/11/30		97	%	80 - 120
			Dissolved Manganese (Mn)	2021/11/30		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2021/11/30		100	%	80 - 120
			Dissolved Nickel (Ni)	2021/11/30		91	%	80 - 120
			Dissolved Phosphorus (P)	2021/11/30		117	%	80 - 120
			Dissolved Potassium (K)	2021/11/30		98	%	80 - 120
			Dissolved Selenium (Se)	2021/11/30		95	%	80 - 120
			Dissolved Silicon (Si)	2021/11/30		95	%	80 - 120
			Dissolved Silver (Ag)	2021/11/30		98	%	80 - 120
			Dissolved Sodium (Na)	2021/11/30		95	%	80 - 120
			Dissolved Strontium (Sr)	2021/11/30		102	%	80 - 120
			Dissolved Thallium (Tl)	2021/11/30		98	%	80 - 120
			Dissolved Titanium (Ti)	2021/11/30		97	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Uranium (U)	2021/11/30		94	%	80 - 120
			Dissolved Vanadium (V)	2021/11/30		96	%	80 - 120
			Dissolved Zinc (Zn)	2021/11/30		95	%	80 - 120
7758297	N_R	Method Blank	Dissolved Aluminum (Al)	2021/11/30	ND, RDL=4.9		ug/L	
			Dissolved Antimony (Sb)	2021/11/30	ND, RDL=0.50		ug/L	
			Dissolved Arsenic (As)	2021/11/30	ND, RDL=1.0		ug/L	
			Dissolved Barium (Ba)	2021/11/30	ND, RDL=2.0		ug/L	
			Dissolved Beryllium (Be)	2021/11/30	ND, RDL=0.40		ug/L	
			Dissolved Bismuth (Bi)	2021/11/30	ND, RDL=1.0		ug/L	
			Dissolved Boron (B)	2021/11/30	ND, RDL=10		ug/L	
			Dissolved Cadmium (Cd)	2021/11/30	ND, RDL=0.090		ug/L	
			Dissolved Calcium (Ca)	2021/11/30	ND, RDL=200		ug/L	
			Dissolved Chromium (Cr)	2021/11/30	ND, RDL=5.0		ug/L	
			Dissolved Cobalt (Co)	2021/11/30	ND, RDL=0.50		ug/L	
			Dissolved Copper (Cu)	2021/11/30	ND, RDL=0.90		ug/L	
			Dissolved Iron (Fe)	2021/11/30	ND, RDL=100		ug/L	
			Dissolved Lead (Pb)	2021/11/30	ND, RDL=0.50		ug/L	
			Dissolved Magnesium (Mg)	2021/11/30	ND, RDL=50		ug/L	
			Dissolved Manganese (Mn)	2021/11/30	ND, RDL=2.0		ug/L	
			Dissolved Molybdenum (Mo)	2021/11/30	ND, RDL=0.50		ug/L	
			Dissolved Nickel (Ni)	2021/11/30	ND, RDL=1.0		ug/L	
			Dissolved Phosphorus (P)	2021/11/30	ND, RDL=100		ug/L	
			Dissolved Potassium (K)	2021/11/30	ND, RDL=200		ug/L	
			Dissolved Selenium (Se)	2021/11/30	ND, RDL=2.0		ug/L	
			Dissolved Silicon (Si)	2021/11/30	ND, RDL=50		ug/L	
			Dissolved Silver (Ag)	2021/11/30	ND, RDL=0.090		ug/L	
			Dissolved Sodium (Na)	2021/11/30	ND, RDL=100		ug/L	
			Dissolved Strontium (Sr)	2021/11/30	ND, RDL=1.0		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Thallium (Tl)	2021/11/30	ND, RDL=0.050		ug/L	
			Dissolved Titanium (Ti)	2021/11/30	ND, RDL=5.0		ug/L	
			Dissolved Uranium (U)	2021/11/30	ND, RDL=0.10		ug/L	
			Dissolved Vanadium (V)	2021/11/30	ND, RDL=0.50		ug/L	
			Dissolved Zinc (Zn)	2021/11/30	ND, RDL=5.0		ug/L	
7758297	N_R	RPD	Dissolved Antimony (Sb)	2021/11/30	NC		%	20
			Dissolved Arsenic (As)	2021/11/30	2.9		%	20
			Dissolved Barium (Ba)	2021/11/30	0.38		%	20
			Dissolved Beryllium (Be)	2021/11/30	NC		%	20
			Dissolved Boron (B)	2021/11/30	2.9		%	20
			Dissolved Cadmium (Cd)	2021/11/30	NC		%	20
			Dissolved Chromium (Cr)	2021/11/30	NC		%	20
			Dissolved Cobalt (Co)	2021/11/30	NC		%	20
			Dissolved Copper (Cu)	2021/11/30	9.0		%	20
			Dissolved Lead (Pb)	2021/11/30	NC		%	20
			Dissolved Molybdenum (Mo)	2021/11/30	8.9		%	20
			Dissolved Nickel (Ni)	2021/11/30	14		%	20
			Dissolved Selenium (Se)	2021/11/30	NC		%	20
			Dissolved Silver (Ag)	2021/11/30	NC		%	20
			Dissolved Sodium (Na)	2021/11/30	2.2		%	20
			Dissolved Thallium (Tl)	2021/11/30	NC		%	20
			Dissolved Uranium (U)	2021/11/30	3.7		%	20
			Dissolved Vanadium (V)	2021/11/30	NC		%	20
			Dissolved Zinc (Zn)	2021/11/30	NC		%	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) Matrix spike exceeds acceptance limits. Probable matrix interference

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Bureau Veritas Job #: C1Z5389
Report Date: 2022/01/11

Ian D Wilson Associates Ltd
Site Location: DEGROOTE
Sampler Initials: GR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Tharmini Sivalingam, Manager, Food Microbiology Laboratory

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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UTM 17 Z 533145 E
19 R 4734275 N
Elev. 19 R 0765
Basin 23

ONTARIO

The Water-well Drillers Act, 1954
Department of Mines

GROUND WATER BRANCH
AUG 19 1958
ONTARIO WATER RESOURCES COMMISSION

44 No 1091

58-10

Water-Well Record

40 I/15 E

County or Territorial District Norfolk Township, Village, Town or City North Walsingham

[redacted] Village, Town or City

Address RR#1 Courtland

Date completed [redacted] (day) (month) (year)

Pipe and Casing Record

Casing diameter(s) 1¼ in.
Length(s) 15'
Type of screen Weaver
Length of screen 6 ft.

Pumping Test

Static level 15'
Pumping rate 600 gph
Pumping level Nearly Direct
Duration of test good

Well Log

Overburden and Bedrock Record	From ft.	To ft.
Top soil	0	1'
Yellow Sand	1'	15'
Fine muddy gravel	15'	21'
Course gravel water sand	21'	27'

Water Record

Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
15'	Nil	Fresh

For what purpose(s) is the water to be used?
Farm
Is water clear or cloudy? Clear
Is well on upland, in valley, or on hillside? upland

Drilling firm James H. Weaver
Address 332 Tilbury Ave.
Tillsonburg Ont.

Name of Driller
Address Same

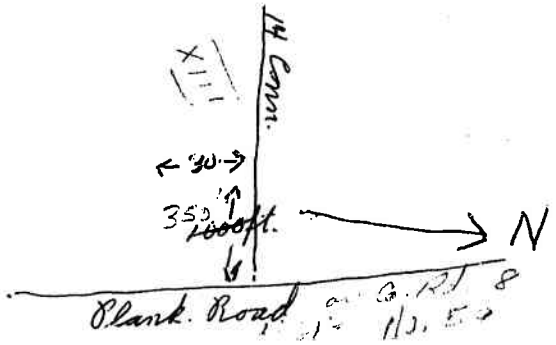
Licence Number 1170

I certify that the foregoing statements of fact are true.

Date 22 April James H. Weaver
Signature of Licensee

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Form 5

CSS 58

UTM | 17 | Z | 533215 | E
| 5 | R | 4734250 | N

Elev. | 5 | R | 01768 | 2

Basin | 23 | 401/15E

County or District NORFOLK Township, Village, Town or City TP. WALSINGHAM

Lot 12 Date completed 15 (day) JAN (month) 1964 (year)

[redacted] ess. COURTLAND ONT RR#1

GROUND WATER BRANCH
44 No 1095
FEB 2, 1964
ONTARIO WATER RESOURCES COMMISSION

64-8

The Ontario Water Resources Commission Act

WATER WELL RECORD

Casing and Screen Record

Inside diameter of casing: 2 inch

Total length of casing: 4½' Slot 16 Johnson screen.

Type of screen: H.

Length of screen: 34 FT

Depth to top of screen: 2 INCH

Diameter of finished hole:

Pumping Test

Static level: 18 FT

Test-pumping rate: 2 GAL G.P.M.

Pumping level: PUMPING DIRECT

Duration of test pumping: 2 HRS

Water clear or cloudy at end of test: CLEAR.

Recommended pumping rate: 2 GAL. G.P.M.

with pump setting of 4 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
TOP FILL	0'	2"	38 FT	FRESH
LOAM	2"	8"		
GRAVEL + CLAY	8"	14"		
FINE WHITE SAND	14"	22"		
CLAY	22"	25"		
LIGHT GREY SAND	25"	38'		

For what purpose(s) is the water to be used? DOMESTIC

Is well on upland, in valley, or on hillside? UPLAND

Drilling or Boring Firm CARL STROME

Address LANGTON ONT

Licence Number 1263

Name of Driller or Borer CARL STROME

Address LANGTON ONT

Date Jan 15/64

Carl Strome (J.S.T.

(Signature of Licensed Drilling or Boring Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.

Form 7 10M-62-1152

CSS.S8

OWRC COPY

UTM 17 533285 E
5R 4734300 N
Elev. 5R 07165
Basin 23

GROUND WATER BRANCH
JUL 23 1959
1697

The Ontario Water Resources Commission Act, 1957

WATER WELL RECORD

401/15E

County or District Norfolk Township, Village, Town or City North Waltringham

[redacted] completed 27 (day) May (month) 1959 (year)

ess RR#1 Courtland Delhi

Casing and Screen Record

Inside diameter of casing 1¼ in.
Total length of casing 22'
Type of screen 2" Weaver Filter
Length of screen 4'
Depth to top of screen 21'
Diameter of finished hole 1¼"

Pumping Test

Static level 9'
Test-pumping rate 500 gph G.P.M.
Pumping level N.D.
Duration of test pumping 1 hr
Water clear or cloudy at end of test clear
Recommended pumping rate 500 gph G.P.M.
with pumping level of —

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
Top Soil	0	1½ 18"	9'	Nil	Fresh
Yellow Sand	18" 1½	9'			
Brown water Sand	9'	12'			
Hard gravel with stone	12'	18'			
Gray Water sand	18'	25'			

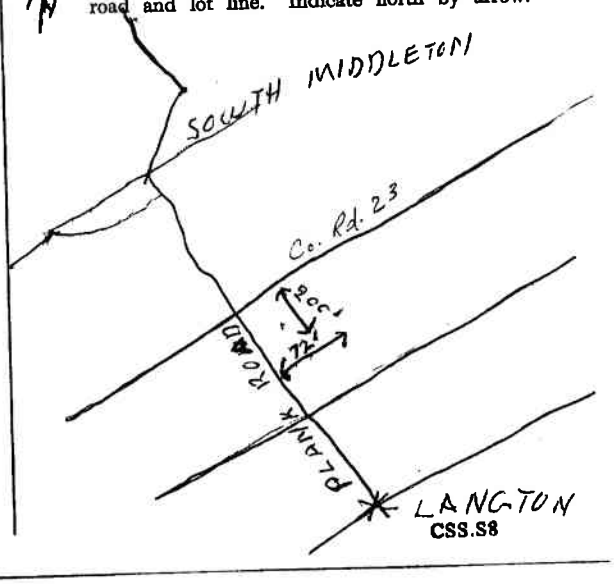
Water Record

For what purpose(s) is the water to be used?
House
Is well on upland, in valley, or on hillside? Level

Drilling Firm James H. Weaver & Son
Address 332 Tillson Ave
Tillsonburg Ont.
Licence Number 173
Name of Driller James H. Weaver
Address Same
Date 27 May 1959
James H. Weaver
(Signature of Licensed Drilling Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.S8

Form 5
15M-58-4149

60-2

GROUND WATER BRANCH 44 No. 1100

UTM | 17 | Z | 5 3 3 3 2 5 | E
| 5 | R | 4 7 3 4 3 7 0 | N
Elev. | 5 | R | 0 7 6 5 |
Basin | 23 | XIII |

The Ontario Water Resources Commission Act, 1957

WATER WELL RECORD

Lot 13 40I/15E

County or District NORFOLK. Township, Village, Town or City N. WALSINGHAM

Con. 13 Lot 13 Date completed 31 (day) Aug (month) 1960 (year)

Owner [redacted] (print in block letters) Address R.R.1, COURTLAND

Casing and Screen Record

Inside diameter of casing 5"
Total length of casing 24
Type of screen Cook. # 8.
Length of screen 9ft.
Depth to top of screen 22
Diameter of finished hole Screen # 3 7/8"

Pumping Test

Static level 40
Test-pumping rate 5 G.P.M.
Pumping level 20
Duration of test pumping 2 hrs.
Water clear or cloudy at end of test Clear.
Recommended pumping rate 5 G.P.M.
with pumping level of 20

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
Yellow Sand.	0	20	20-30	20	Fresh.
Water Sand.	20	30			

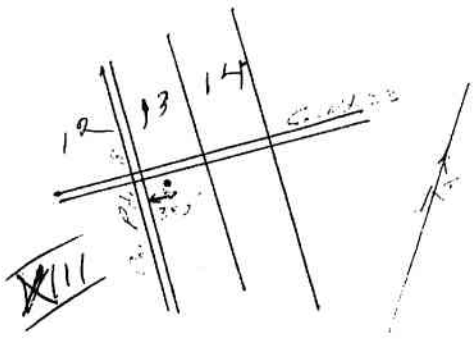
For what purpose(s) is the water to be used?
Domestic

Is well on upland, in valley, or on hillside?
Upland.

Drilling Firm Gordon Warren
Address 99 Vienna Rd. Tillsonburg.
Licence Number 434.
Name of Driller Gus Holzheu
Address 28 London St. Tillsonburg.
Date
Gordon Warren
(Signature of Licensed Drilling Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



20ft S. of N.
240ft. E. of W.

Form 8

CSS.S8

UTM ~~12~~ 5 3 3 3 6 0 E

~~5X~~ R 4 7 6 4 3 8 5 N

Elev. ~~3F~~ R 2 0 7 6 5

Basin 2 3

62-16

40I/15E

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District: Norfolk   Township, Village, Town or City: N. Walsingham

Con. 13 [redacted] Lot 13   Date completed: 1 (day) Aug. (month) 1962 (year)

Owner [redacted] (print in block letters)   Address: R.R.1, Delhi

Casing and Screen Record [redacted] **Pumping Test**

Casing and Screen Record		Pumping Test	
Inside diameter of casing	5"	Static level	20'
Total length of casing	36'	Test-pumping rate	10 G.P.M.
Type of screen	Johnson # 10	Pumping level	30'
Length of screen	5'	Duration of test pumping	2 Hrs.
Depth to top of screen	35'	Water clear or cloudy at end of test	Clear
Diameter of finished hole	Screen 4"	Recommended pumping rate	10 G.P.M.
		with pump setting of ... feet below ground surface	8" from bottom of Screen

Well Log / **Water Record**

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
Dry Sand	0	32	32-40	Fresh
Yellow Water Sand	32	40		

GUARANTEE OF WELL VOID; If Casing cut off below ground level.

For what purpose(s) is the water to be used? Domestic

Is well on upland, in valley, or on hillside? Upland

Drilling or Boring Firm: Gordon Warren

Address: 99 Vienna Rd., Tillsonburg.

Licence Number: 561

Name of Driller or Borer: H. Cole.

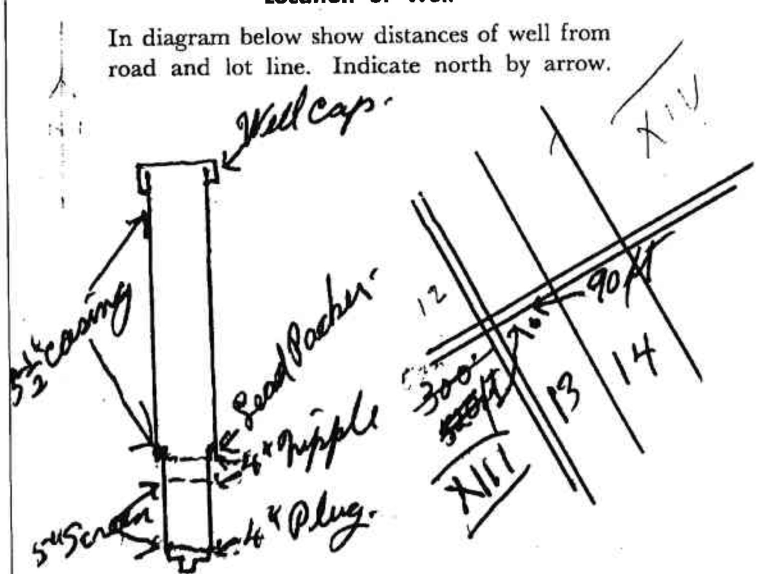
Address: R.R.3, Tillsonburg

Date

Gordon Warren
(Signature of Licensed Drilling or Boring Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Form 7 5M-61-3852

OWRC COPY

CSS.S8

UTM XII Z 5 3 3 3 0 0 E
5 R 4 7 3 4 3 3 5 N
Elev. 5 R 0 7 6 5

62-17

GROUND WATER BRANCH
44 No. 1103
62-3

The Ontario Water Resources Commission Act

WATER WELL RECORD

Basin 2 3
County ~~or District~~ NORFOLK. 40Z/15E Township, ~~Village~~, ~~Town or City~~ NORTH WALSINGHAM
Con ~~13~~ 1 Lot 13 Date completed 28 (day) Sept. month 1962 year)

[redacted] ress.....

Casing and Screen Record

Inside diameter of casing 5"
Total length of casing 32' 8"
Type of screen Johnson 6 slot.
Length of screen 4'
Depth to top of screen 38'
Diameter of finished hole 5"

Pumping Test

Static level 13' from top
Test-pumping rate 7 gal. G.P.M.
Pumping level 15' from top.
Duration of test pumping 1 hour.
Water clear or cloudy at end of test clear.
Recommended pumping rate 7 gal. G.P.M.
with pump setting of 30' feet below ground surface

Well Log

Overburden and Bedrock Record	From ft	To ft	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
DUG WELL	0	1/2		
DRY SAND	1/2	32'		
WATER SAND	32'	42'	32'	fresh

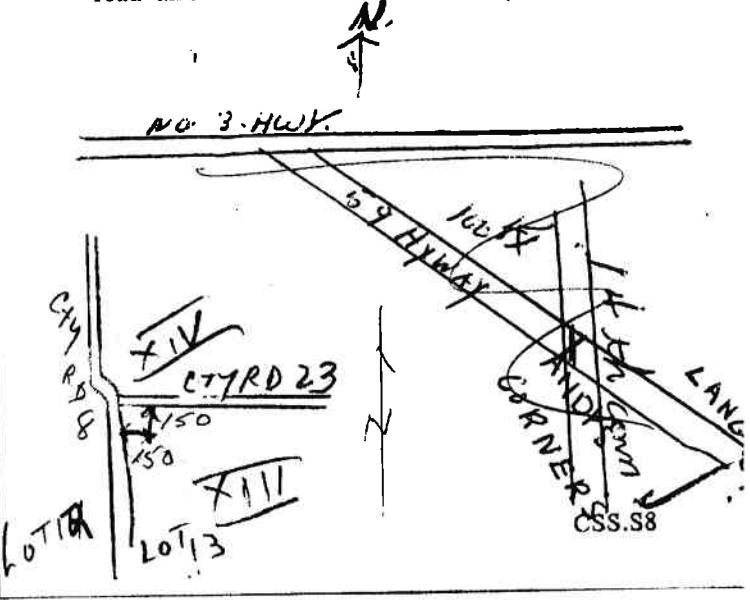
For what purpose(s) is the water to be used? House. COFFEE SHOP.
Is well on upland, in valley, or on hillside? upland.
Drilling or Boring Firm Walter Burwell.
Address RR4 Tillsonburg.
Licence Number 517.
Name of Driller or Borer
Address
Date NOV 21/62
Walter Burwell
(Signature of Licensed Drilling or Boring Contractor)

Form 7 10M-62-1152

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



UTM 17 Z 5 3 3 1 0 0 E
5 4 4 3 4 3 5 0 N

62-22

GROUND WATER BRANCH
44 No 1128
FEB 4 [illegible]
ONTARIO WATER RESOURCES COMMISSION

The Ontario Water Resources Commission Act

Elev. 5 2 0 7 6 5

WATER WELL RECORD

Basin 2 3 Norfolk 40I/15E

County or District Norfolk Township, Village, Town or City North Walsingham

Con. 14 Lot 12 Date completed 15 (day) Oct. (month) 1962 (year)

[redacted] ess Courtland RR#1

Casing and Screen Record

Inside diameter of casing 1¼ in.
Total length of casing 22 ft.
Type of screen 2 in. Weaver Filter
Length of screen 6 ft.
Depth to top of screen 28 ft.
Diameter of finished hole 1¼ in.

Pumping Test

Static level 13 ft.
Test-pumping rate 500 gph ~~G.P.M.~~
Pumping level Nil.
Duration of test pumping 1 hr.
Water clear or cloudy at end of test clear
Recommended pumping rate 500 gph ~~G.P.M.~~
with pump setting of 5 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
Open well	0	12		
Gravel fill	12	17	13 ft.	Fresh
Brown quick sand	17	27		
Brown water sand	27	34		

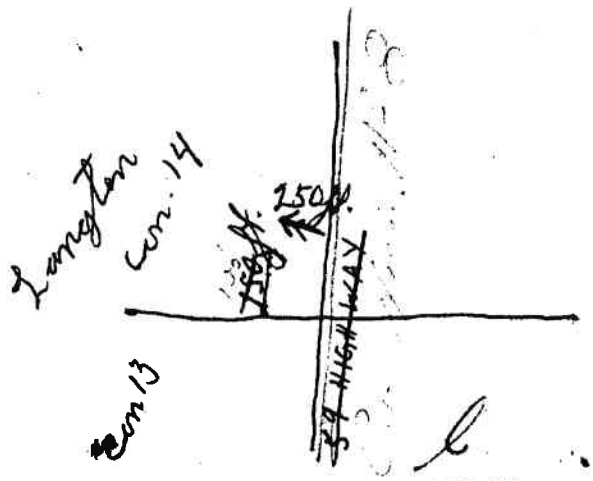
For what purpose(s) is the water to be used?
2 houses + Tobacco Farm
Is well on upland, in valley, or on hillside? Level
Drilling or Boring Firm
James F. Weaver & Son
Address 332 Tilson Ave.
Tillsonburg Ont.
Licence Number 664
Name of Driller or Borer Same James F. Weaver
Address Same
Date Oct. 15/62
James F. Weaver
(Signature of Licensed Drilling or Boring Contractor)

Form 7 10M-62-1152

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.S8

UTM 1/7 Z 533360 E
Con XIV
CODED Lot 13
4402294
3 9

40I/15E 7

N 5 R 4734490 N
lev. 5 R 00765
Basin 23

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Norfolk Township, Village, Town or City N. Walsingham
Con. XIV Lot 13 Date completed 10 (day) June (month) 1968 (year)
[redacted]ess RR. #1 Delhi

Casing and Screen Record		Pumping Test	
Inside diameter of casing	1"	Static level	10'
Total length of casing	22'	Test-pumping rate	10 G.P.M.
Type of screen	1¼" sand point	Pumping level	direct
Length of screen	4'	Duration of test pumping	1 hr
Depth to top of screen	22'	Water clear or cloudy at end of test	clear
Diameter of finished hole	1"	Recommended pumping rate	8 G.P.M.
		with pump setting of	direct feet below ground surface

Well Log: Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
Top soil	0	1		
brown sand	1	10		
water sand	10	24	10-26'	F

For what purpose(s) is the water to be used? D.

Is well on upland, in valley, or on hillside?

Drilling or Boring Firm L. Hodgson & Sons

Address Glen Meyer

Licence Number 3147

Name of Driller or Borer L. Hodgson

Address same

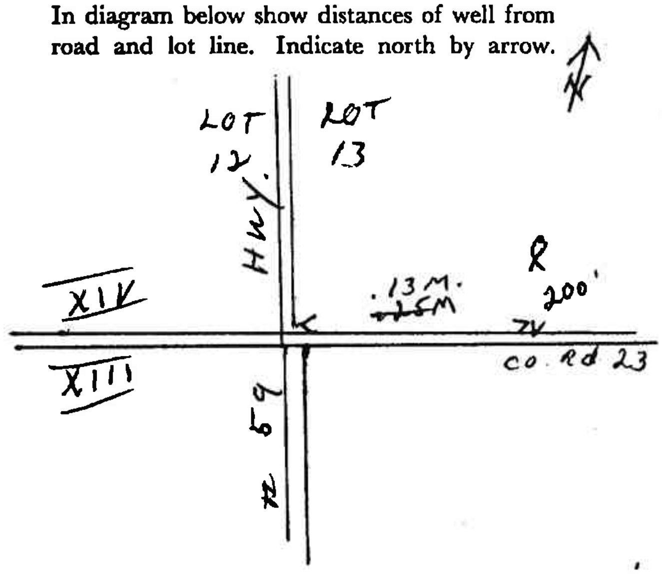
Date Oct. 4/68

Lewis Hodgson
(Signature of Licensed Drilling or Boring Contractor)

Form 7
OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS 58

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

Ontario

40-1/15e

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 4403594 | MUNICIP 44005 | CON. CON | 13

COUNTY OR DISTRICT: Norfolk | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: North Walsingham | CON., BLOCK, TRACT, SURVEY, ETC.: 13 | LOT: 012

[redacted] Hwy 59 Langton | DATE COMPLETED: DA 02 MO 01 YR 76

RC | ELEVATION | BASIN CODE

4403594 17 533202 4754258 5 765 5 23 JUN 17, 1977 279

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	TO
yellow	sand	stones	clay	0	14
yellow	clay	stones	hard	14	26
yellow	sand	wood	Water sand	26	31

(8" Gravel pack)

WTC P.8

31 | 001H528112 | 0026505112 | 0031528

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0026	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
31	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	TO
4	1 ☐ STEEL 2 ☒ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE		-4	26
4				0026
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.) 010 | DIAMETER 4 1/2 INCHES | LENGTH 05 FEET

MATERIAL AND TYPE: Johnson Stainless | DEPTH TO TOP OF SCREEN 0026 FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ PUMP 2 ☐ BAILER | PUMPING RATE: 0020 GPM | DURATION OF PUMPING: 02 HOURS 40 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☒ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
016 FEET	— FEET		016 FEET	016 FEET	016 FEET	016 FEET

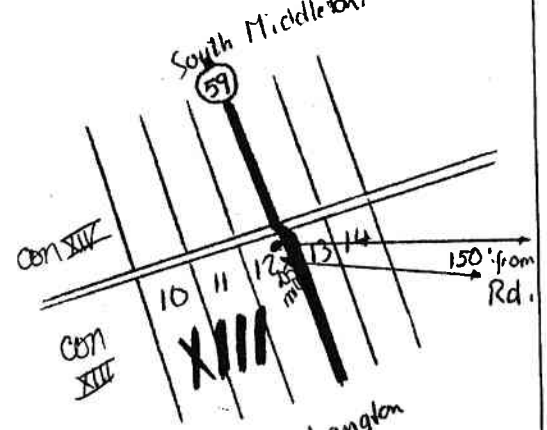
IF FLOWING, GIVE RATE: — GPM | PUMP INTAKE SET AT: +1 FEET | WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING: — FEET | RECOMMENDED PUMPING RATE: 0010 GPM

— GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL 3334

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL 1: 1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE 01: 1 ☒ DOMESTIC 2 ☒ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED 0 ☐ OTHER

METHOD OF DRILLING 1: 1 ☒ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: WARREN WATER WELLS | LICENCE NUMBER: 5413

ADDRESS: R.R.7 Tillsonburg

NAME OF DRILLER OR BORER: Gus Holzhey | LICENCE NUMBER: 5413

SIGNATURE OF CONTRACTOR: [signature] | SUBMISSION DATE: DAY — MO. — YR. —

OFFICE USE ONLY

DATA SOURCE 1 | CONTRACTOR 5413 | DATE RECEIVED 300176

DATE OF INSPECTION | INSPECTOR

REMARKS: OSS.88 | P KP WI

MINISTRY OF THE ENVIRONMENT COPY

FORM 7 MOE 07-091

Map: Well records

This map allows you to search and view well record information from reported wells in Ontario.

Full dataset is available in the Open Data catalogue (https://data.ontario.ca/dataset/well-records).

Go Back to Map ()

Well ID

Well ID Number: 7182672
Well Audit Number: *Z48999*
Well Tag Number: *A043827*
This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	1010 ROAD 21
Township	NORTH WALSINGHAM TOWNSHIP
Lot	013
Concession	CON 13
County/District/Municipality	NORFOLK
City/Town/Village	ANDY'S CORNERS
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 17 Easting: 533548.00 Northing: 4734760.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SAND		DRY	0 m	4.9 m
BRWN	SAND		MSND	4.9 m	6.4 m
BRWN	SAND	CLAY	SOFT	6.4 m	7 m
BRWN	SAND		FSND	7 m	8.5 m
BRWN	SAND	SILT	FSND	8.5 m	9.4 m
GREY	CLAY	SILT	SOFT	9.4 m	9.8 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	4 m	BENTONITE SLURRY	

4 m	6 m	NATIVE SAND

Method of Construction & Well Use

Method of Construction	Well Use
Cable Tool	
	Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
13 cm	STEEL	0.6 m	7 m

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
12.1 cm	STEEL	7 m	8.5 m

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 6540

Results of Well Yield Testing

After test of well yield, water was	CLEAR
If pumping discontinued, give reason	
Pump intake set at	7 m
Pumping Rate	38 LPM
Duration of Pumping	1 h:45 m
Final water level	5.6 m
If flowing give rate	
Recommended pump depth	6 m
Recommended pump rate	38 LPM
Well Production	
Disinfected?	Y

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	2.7 m		
1	5.2 m	1	4.3 m
2	5.4 m	2	3.7 m
3	5.5 m	3	3.5 m
4	5.5 m	4	3.4 m
5	5.5 m	5	3.3 m
10	5.6 m	10	2.7 m
15	5.6 m	15	2.7 m

20	5.6 m	20	2.7 m
25	5.6 m	25	2.7 m
30	5.6 m	30	2.7 m
40	5.6 m	40	2.7 m
45		45	
50	5.6 m	50	2.7 m
60	5.6 m	60	2.7 m

Water Details

Water Found at Depth	Kind
4 m	Fresh

Hole Diameter

Depth From	Depth To	Diameter
0 m	6 m	21.9 cm

Audit Number: Z48999

Date Well Completed: July 25, 2006

Date Well Record Received by MOE: May 24, 2012

Related

How to use a Ministry of the Environment map (/page/how-use-ministry-environment-map#wells)

Technical documentation: Metadata record (https://data.ontario.ca/dataset/well-records/resource/3031344e-e3f2-48d5-888c-c1deadfd2f77)

Updated: October 18, 2021
Published: March 20, 2014

Ontario — Ministry of the Environment, Conservation and Parks

Measurements recorded in: ☐ Metric ☐ Imperial

Well Tag No. (Place Sticker and/or Print Below): Tag#:A290001

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
946 COUNTY ROAD 21		11	13
County/District/Municipality	**City/Town/Village**	**Province**	**Postal Code**
NORFOLK	ANDYS CORNERS	Ontario	N0E1X0
UTM Coordinates Zone / Easting / Northing	**Municipal Plan and Sublot Number**	**Other**	
NAD 83 17 530114 4734511			

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
BLACK	TOPSOIL			0	1
YELLOW	SAND			1	6
BROWN	SAND			6	15
BROWN	SAND		FINE	15	25

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0'	15'	QUICK GROUT	1.40 BAGS

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☐ Air percussion
☐ Other, specify ____

Well Use

☐ Public ☐ Commercial ☐ Not used
☑ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, specify ____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
1¼	PVC	188	0'	22'

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To
1¼	STAINLESS	10	21	25'

Status of Well

☑ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, specify ____
☐ Other, specify ____

Water Details

Water found at Depth	Kind of Water	Hole Diameter Depth From	Depth To	Diameter (cm/in)
15' (m/ft) ☐ Gas	☑ Fresh ☐ Untested ☐ Other, specify ____	0	25	6"
(m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify ____			
(m/ft) ☐ Gas	Kind of Water: ☐ Fresh ☐ Untested ☐ Other, specify ____			

Results of Well Yield Testing

After test of well yield, water was:
☑ Clear and sand free
☐ Other, specify ____

If pumping discontinued, give reason: ____

Pump intake set at (m/ft) ____

Pumping rate (l/min / GPM): 25 GPM

Duration of pumping: ____ hrs + ____ min

Final water level end of pumping (m/ft) ____

If flowing give rate (l/min / GPM) ____

Recommended pump depth (m/ft) ____

Recommended pump rate (l/min / GPM): 25 GPM

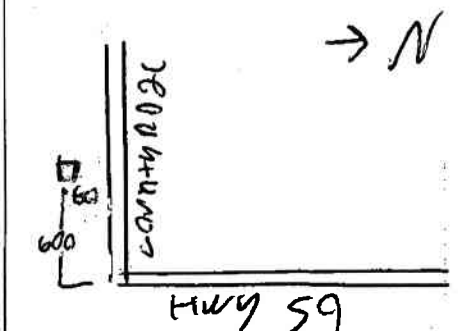
Well production (l/min / GPM): 25 GPM

Disinfected? ☑ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments: ____

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
DAVE VANNESSE DRILLING	7627
Business Address (Street Number/Name)	**Municipality**
15 DOTTS RD	NORTON
Province	**Postal Code**
ONT	N3Y 2S5
Business E-mail Address	
DAVEVANNESSEDRILLING@GMAIL.COM	
Bus. Telephone No. (inc. area code)	**Name of Well Technician (Last Name, First Name)**
519-778-3162	VANNESSE, DAVE
Well Technician's Licence No.	**Signature of Technician and/or Contractor**
3173	[signature]

Well owner's information package delivered	Date Package Delivered	Date Work Completed	Date Submitted
☑ Yes ☐ No	2020 06 04	2020 06 04	2020 06 04

Ministry Use Only

Audit No. Z331871

Received MAR 30 2021

0506E (2018/12) **Ministry's Copy**

Office of the General Manager
Community Development Division
185 Robinson Street, Suite 200, Simcoe, Ontario, N3Y 5L6
Phone: 519-426-5870 x1348
Email: brandon.sloan@norfolkcounty.ca
www.norfolkcounty.ca

July 19, 2022

Dear Mary Elder, Elder Plans Inc.

Re: Norfolk County Road 21 (Roll #: 54202010200) – Consent to Sever Policy

---

After a review of the General Consent to Sever Land Policies contained in Official Plan section 9.6.3.2 a), Planning staff acknowledge that the preferred method of land division is through plans of subdivision. There may be merit in the proposal to create four (4) lots (three (3) severed and one (1) retained) at the north-east corner of Highway 59 and County Road 21 located within the Hamlet land use designation. The proposed lots will not require a new public road, the expansion of municipal services nor is it anticipated that a matter in the public interest that cannot be addressed through consent will arise.

If it is demonstrated that the criteria of Official Plan section 9.6.3.2 c) can be achieved through consent, a plan of subdivision will not be required to facilitate the severances. A development agreement may be applied as a condition of consent to address municipal requirements.

Thank you,

Brandon Sloan, BES, MCIP, RPP
General Manager, Community Development Division

FOR MINISTRY USE ONLY

ONTARIO CORPORATION NUMBER

499919

1.

Ministry of Consumer and Commercial Relations
Ontario

CERTIFICATE

THIS IS TO CERTIFY THAT THESE ARTICLES ARE EFFECTIVE ON

DECEMBER 16, 1981

CONTROLLER OF RECORDS
COMPANIES SERVICES BRANCH

Trans Code	Line No.	Stat	Comp Type	Method Incorp.
A	0	0	A	3
18	20	28	29	30

Share	Notice Req'd	Jurisdiction
S	N	ONTARIO
31	32	33 — 47

Form 1
Business
Corporations
Act

ARTICLES OF INCORPORATION

1. *THE NAME OF THE CORPORATION IS*

499919 ONTARIO LTD.

2. *THE ADDRESS OF THE HEAD OFFICE IS*

R.R. #1
(Street & Number or R.R. Number & if Multi-Office Building give Room No.)

Courtland, Ontario — N0J 1E0
(Name of Municipality or Post Office) (Postal Code)

Township of Norfolk *in the* Regional Municipality Haldimand-Norfolk
(Name of Municipality, Geographical Township) (County, District, Regional Municipality)

3. *THE NUMBER OF DIRECTORS IS* Two (2)

4. *THE FIRST DIRECTOR(S) IS/ARE*

NAME IN FULL, INCLUDING ALL GIVEN NAMES	RESIDENCE ADDRESS, GIVING STREET & NO. OR R.R. NO. & MUNICIPALITY OR POST OFFICE AND POSTAL CODE
Willy Julien Degroote	R.R. #1, Courtland, Ontario N0J 1E0
Mary Magdelene Degroote	R.R.#1, Courtland, Ontario N0J 1E0

DIRECTORS' REGISTER

Corporation: 499919 ONTARIO LTD.

NAME AND ADDRESS	DATE BECAME A DIRECTOR	DATE CEASED TO BE A DIRECTOR
DeGroote, W.J.	Dec 17/81	May 1/06
DeGroote, M.M.	Dec 17/81	May 1/06
roote, Alan	Apr 7/86	
DeGroote, Ann Marie	May 1/06	May 1/09

MAP A

CONTEXT MAP

Geographic Township of NORTH WALSINGHAM

BNPL2023271
BNPL2023272
BNPL2023273

Legend

- Subject Lands
- Lands Owned
- 2020 Air Photo

12/14/2023

N

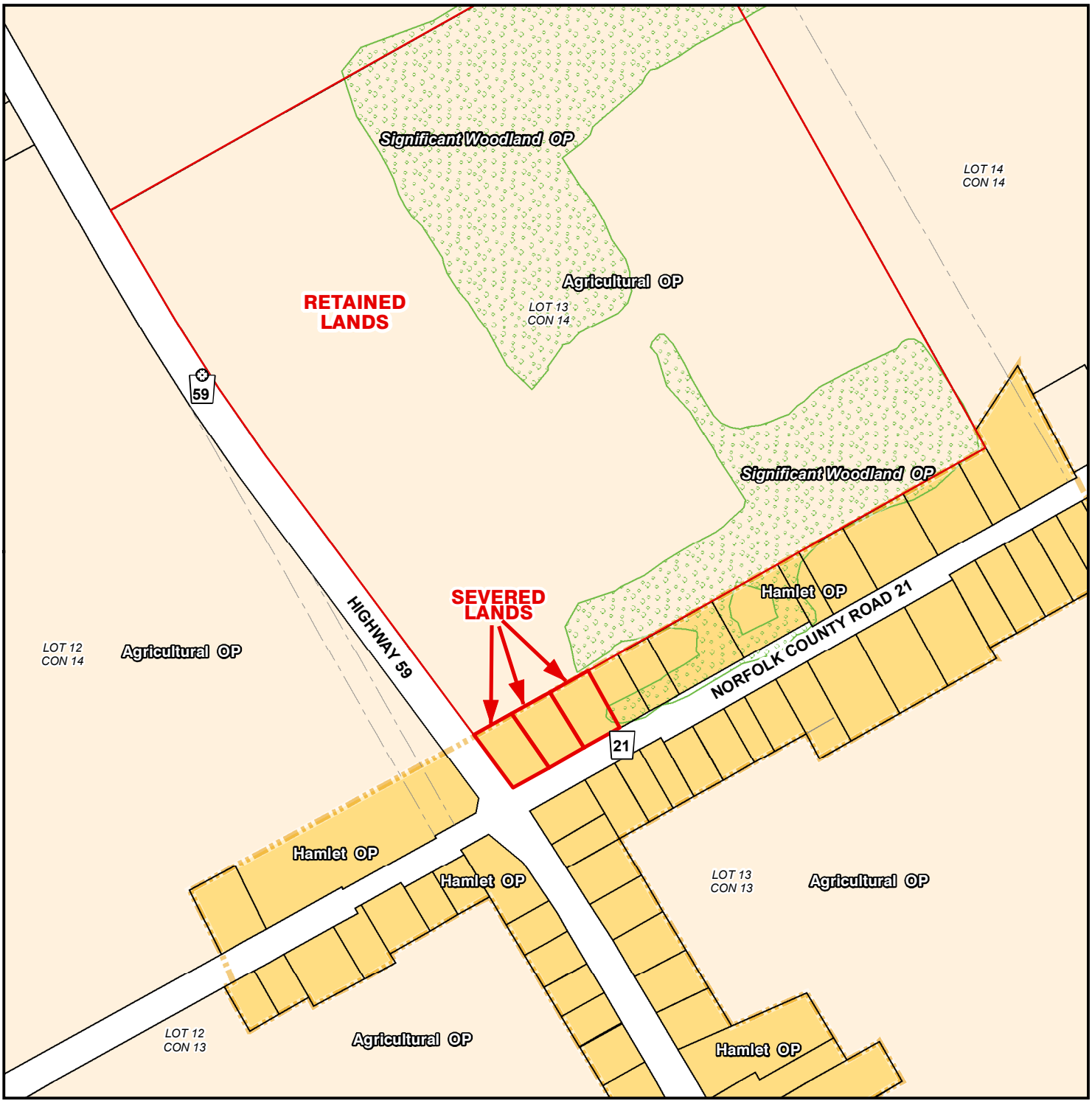
60 30 0 60 120 180 240
Meters

MAP B

OFFICIAL PLAN MAP

Geographic Township of NORTH WALSINGHAM

BNPL2023371
BNPL2023372
BNPL2023373



Legend

- Subject Lands
- Lands Owned

Official Plan Designations

- Agricultural
- Hamlet
- Hamlet Area Boundary
- Significant Woodland

12/14/2023

N

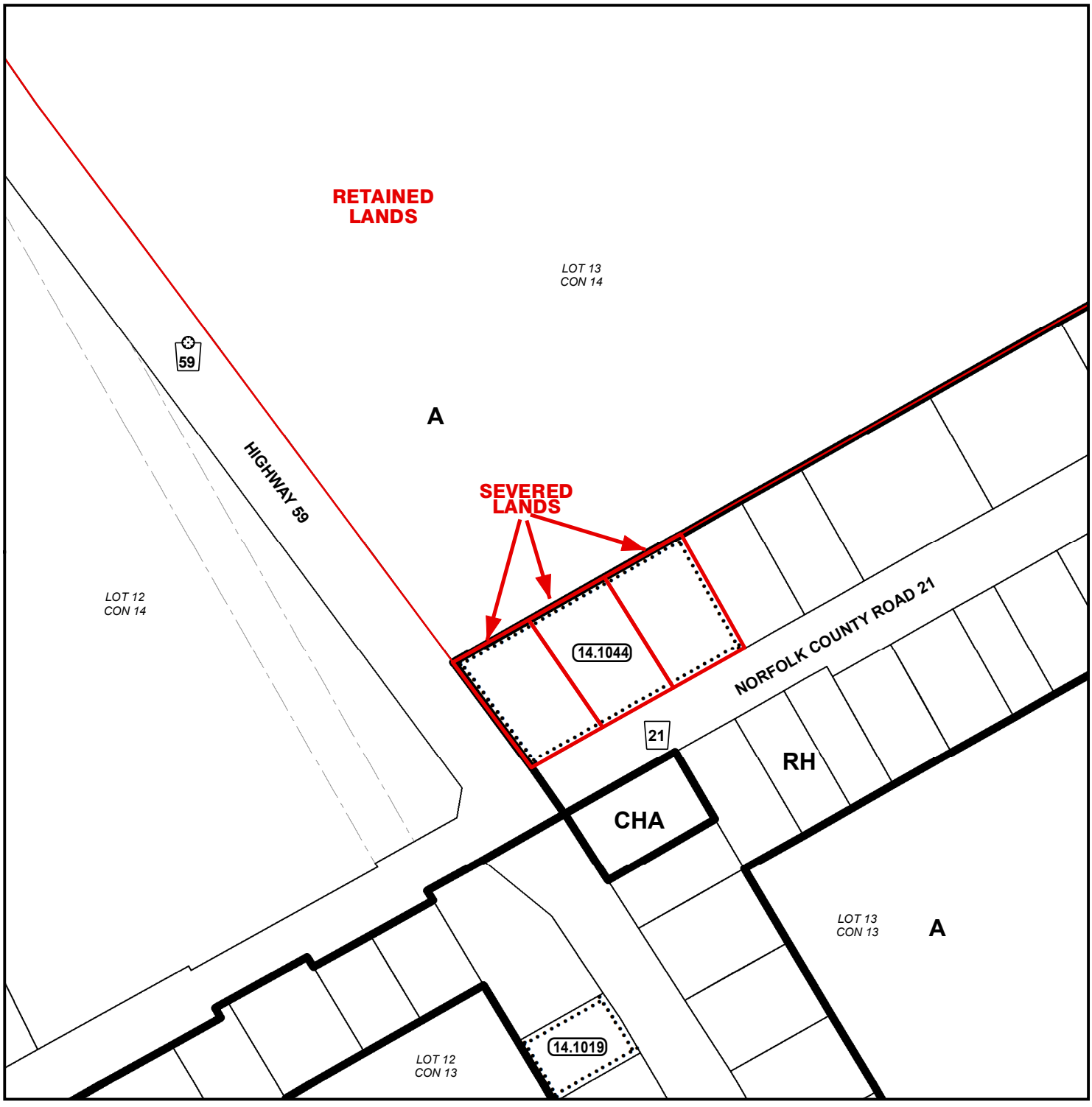
40 20 0 40 80 120 160 Meters

MAP C

ZONING BY-LAW MAP

Geographic Township of NORTH WALSINGHAM

BNPL2023271
BNPL2023272
BNPL2023273



ZONING BY-LAW 1-Z-2014

12/15/2023

LEGEND

- Subject Lands
- Lands Owned

(H) - Holding

A - Agricultural Zone

CHA - Hamlet Commercial Zone

RH - Hamlet Residential Zone

N

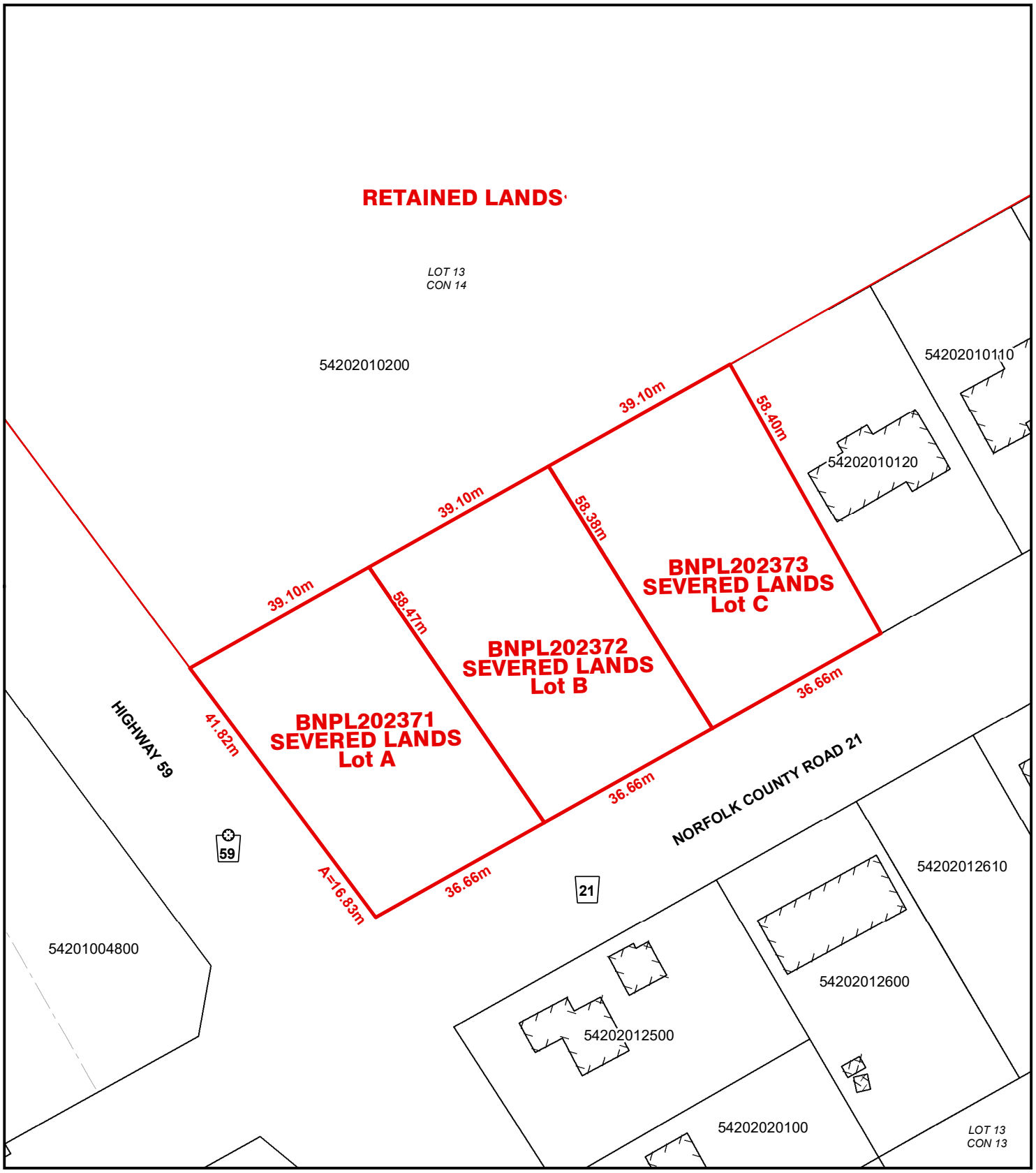
20 10 0 20 40 60 80 Meters

MAP D

CONCEPTUAL PLAN

Geographic Township of NORTH WALSINGHAM

BNPL2023371
BNPL2023372
BNPL2023373



Legend

- Subject Lands
- Lands Owned

12/15/2023

N

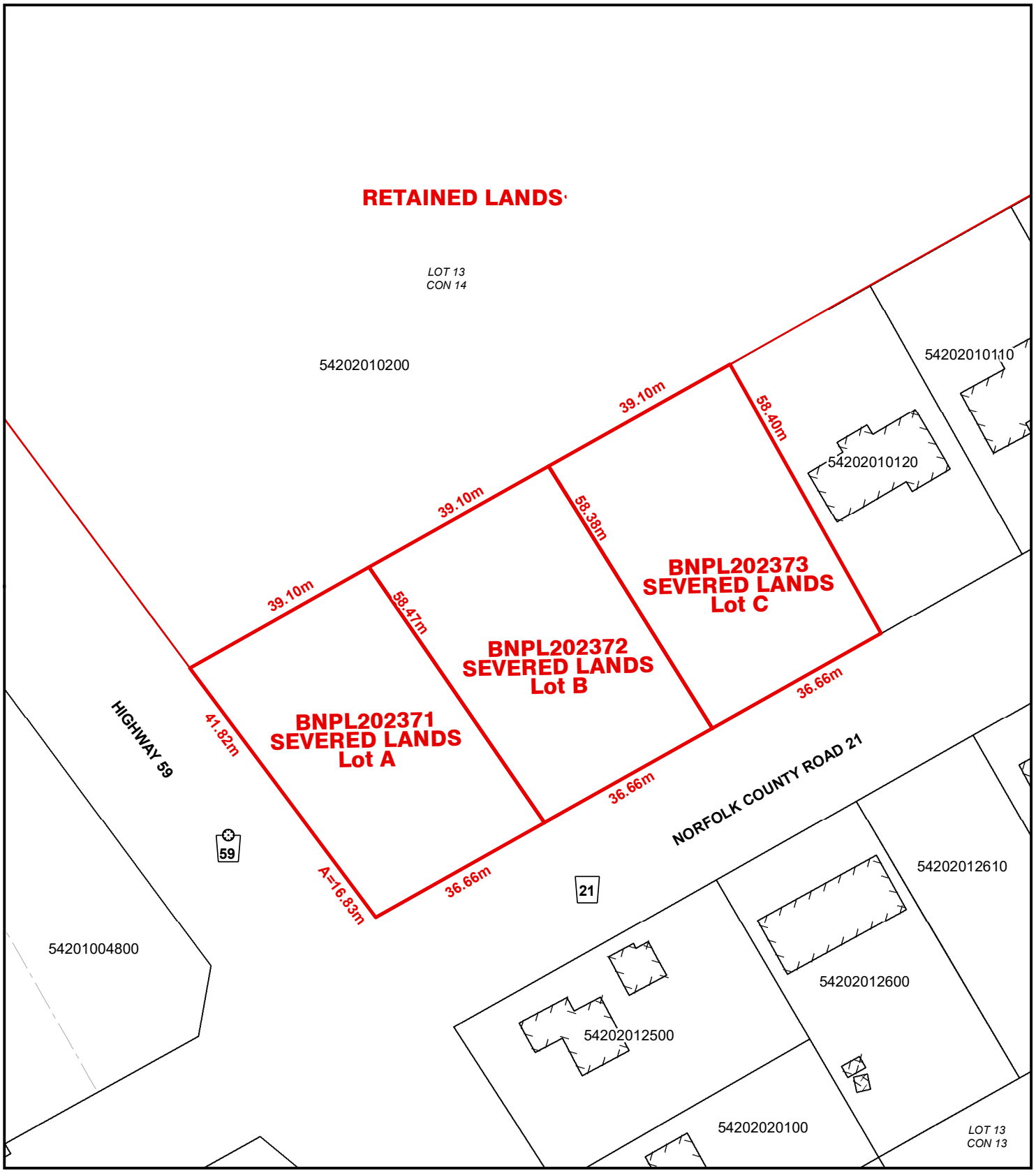
8.5 4.25 0 8.5 17 25.5 34 Meters

LOCATION OF LANDS AFFECTED

CONCEPTUAL PLAN

Geographic Township of NORTH WALSINGHAM

BNPL2023371
BNPL2023372
BNPL2023373



Legend

Subject Lands

Lands Owned

12/15/2023

N

8.5 4.25 0 8.5 17 25.5 34 Meters