



## Pre-Submission Consultation Meeting Minutes

**Date:** March 2, 2022

**Description of Proposal:** Zoning Amendment to facilitate the creation of approximately 3 lots in the hamlet of Andy's Corner

**Property Location:** 3719 Highway 59

**Roll Number:** 54202010200 & 54201004900

As a result of the information shared at the pre-consultation meeting dated March 2, 2022, the following applications and qualified professional documents / reports are required as part of the development review process.

Please note that various fees are associated with each application and there are also costs for qualified professionals retained to complete various documents / reports. All requirements identified are minimum and determined as of the date of the pre-consultation meeting with the information available at that time. As the proposal proceeds and more information is made available, additional applications, studies, reports, etc. may be required.

This summary including checklists, comments and requests are applicable for a period of one (1) year from the date of meeting. If an application is not received within that time frame, a subsequent pre-consultation meeting may be required due to changes in policies and technical requirements.

<b>Before you submit your application, please contact the assigned Planner to confirm submission requirements and the applicable fee.</b>
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### Attendance List

Proponent	Mary Elder, Agent Allan DeGroote, Owner
Community Development – Planning and Agreement	Jennifer Catarino, Senior Planner (Chair)
Community Development – Building and Zoning	Devon Staley, Building Inspector
Environment & Infrastructure Services –Development Engineering	Stephen Gradish, Development Technologist
Community Services – Fire	Katie Ballantyne, Community Safety Officer
Corporate Support Services – Realty Services	Kelly Darbishire, Specialist, Realty Services

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## Proposal Summary

The portion of these two farm parcels that border on the north side of Norfolk County Road 21 are within the Hamlet of Andy's Corners and are proposed to be rezoned to a Hamel Residential zone. Then 2 lots with a total area of about 0.66 ha are to be severed from the property know as roll number 54202010200. A hydrogeological study will support the proposed lot size. Lastly a hamlet residential lot of about 0.4 ha would be severed from the farm parcel know by roll number 54201004900 on the west side of Highway 59. This vision will result in 3 new single detached dwellings on residential lots within the hamlet boundary.



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**List of Application Requirements**

**Planning Department**

<b>Planning application(s) required to proceed</b>		<b>Required</b>
Official Plan Amendment Application Choose an item.		
Zoning By-law Amendment Application Choose an item.		X
Site Plan Application Choose an item.		
Draft Plan of Subdivision Application		
Draft Plan of Condominium Application		
Consent / Severance Application		X
Minor Variance Application		
Removal of Holding Application		
Temporary Use By-Law Application		
Other - <a href="#">Click here to enter text.</a>		
<b>Planning requirements for a complete application</b> The items below are to be submitted as part of the identified Planning Application(s). ** electronic/PDF copies of all plans, studies and reports are required**	<b>Required at OPA/ Zoning Stage</b>	<b>Required at Site Plan Stage</b>
Proposed Site Plan / Drawing	X	
Planning Impact Analysis Report / Justification Report	X	
Environmental Impact Study Choose an item.		
Agricultural Impact Assessment Report		
Archaeological Assessment		
Dust, Noise and/or Vibration Study		
MOE D-Series Guidelines Analysis		
Landscaping Plan		
Elevation Plan		
Photometrics (Lighting) Plan		
Minimum Distance Separation Schedule	X if livestock in close proximity	
Hydrogeological Study	X	
Topographical Survey Drawing		
<b>Additional Planning requirements</b>		<b>Required</b>
Development Agreement		
Parkland Dedication/Cash-in-lieu of Parkland		X



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\*the list of requirements is based on the information submitted and as presented for this specific pre-consultation meeting. Any changes to a proposal may necessitate changes to Planning Department submission requirements.

\*Community Development fees, applications, and helpful resources can be found can be found by visiting <https://www.norfolkcounty.ca/government/planning/>

### **Planning Comments**

[see Appendix A for additional comments]

The subject lands are designated “Hamlet” and “Agricultural” by the Norfolk County Official Plan and zoned Agricultural (A) by Zoning By-law 1-Z-2014. To facilitate the proposed severances within the Hamlet, a zoning by-law amendment to change the zoning from A to Hamlet Residential (RH) is required.

Staff are supportive of the proposed amendment, however, encourage the applicant to consider smaller lots that are more consistent with the existing lot fabric in Andy’s Corners if supported by the Hydrogeological Report.

A number of Official Plan policies support the development of residential lots or units within Hamlets and ought to be considered when preparing the planning justification report, including, but not limited to:

- Section 2.2.3 Maintaining and Enhancing the Rural and Small Town Character;
- Section 2.2.4 Maintaining a High Quality of Life
- Section 2.2.6 A Well Governed, Well Planned and Sustainable County
- Section 5.3.1 Residential Intensification (subsection c))
- Section 6.6 Hamlet Areas
- Section 7.2 Agricultural Designation (retained land)
- Section 7.5 Hamlet Designation
- Section 9.6.2 Zoning By-law Amendments
- Section 9.6.3.2 General Consent to Sever Land Policies

Planning staff prefer if the zoning amendment was approved by Council before the severance applications were presented to the Committee of Adjustment.

### **Assigned Planner:**

Jennifer Catarino  
Senior Planner  
Extension 8013  
[Jennifer.Catarino@norfolkcounty.ca](mailto:Jennifer.Catarino@norfolkcounty.ca)

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### Agreements

A recommended condition of your planning application approval **could be** to enter into a development agreement with the County that will be registered on title to the subject lands, at the Owner's expense.

The additional requirements for a development agreement could include, but are not limited to the following:

- Engineering drawing review
- Engineer's schedule of costs for the works
- Clearance letter and supporting documentation to support condition clearance
- User fees and performance securities
- Current property identification number (PIN printout) (can be obtained by visiting <https://help.onland.ca/en/home/>)
- Owner's commercial general liability insurance to be obtained and kept in force during the terms of the agreement
- Postponement of interest. If there are mortgagees / charges on your property identifier, your legal representative will be required to obtain a postponement from your bank or financial institution to the terms outlined in your development agreement
- Transfers and / or transfer easements along with registered reference plan

Annette Helmig  
Agreement and Development Coordinator  
Extension 8053  
[Annette.Helmig@norfolkcounty.ca](mailto:Annette.Helmig@norfolkcounty.ca)

### Development Engineering

#### Development Engineering – 3719 Highway 59, Andy's Corners – Lot Creation

Development Engineering requirements to proceed The below requirements are to be submitted as part of the Formal Development Planning application.	Required at OPA/ Zoning Stage	Required at Severance Stage	Potentially Required (See Notes Section)
<b>General Requirements</b>			
Concept Plan	X	X	
Area Rough Grading Plan			X <sup>14</sup>
Lot Grading Plan	X	X <sup>10</sup>	
Siltation and Erosion Control Plan	X	X <sup>10</sup>	
General Plan of Services	X	X <sup>10</sup>	

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Utility Plan			X
Geotechnical Report			X <sup>15</sup>
Functional Servicing Report	X <sup>6</sup>	X	
<b>Storm Water Servicing Requirements – Section 7.0 and Section 8 Norfolk County Design Criteria and ISMP Section 4.0</b>			
Storm Water Management Design Report (including calculations)	X <sup>7</sup>	X <sup>11</sup>	
Storm Water Drainage Plan	X	X	
Storm Sewer Design Sheet			
Establish/Confirm Legal and Adequate Outlet	X	X <sup>12</sup>	
<b>Transportation Requirements – Section 6.0 Norfolk County Design Criteria, ISMP Section 5.0, Section 6.0 and Appendix J</b>			
Traffic Impact Study	X <sup>8</sup>	X	
Improvements to Existing Roads & Sidewalk (urbanization, pavement structure, widening sidewalk replacement, upgrades, extension and accessibility)	X <sup>9</sup>	X <sup>13</sup>	

**General Notes:**

1. All reports and drawings are to be signed and stamped by a Professional Engineer (P.Eng.);
2. All recommendations from the reports are to be implemented into the design at the applicant's expense.
3. Securities may be required depending on the final decision on process for creating lots. If securities are required, then they are due at time of registration.

**Required at Zoning Stage Notes:**

4. A Draft and/or Concept Plan is required
5. The following reports/studies will be required at time of Draft Plan (or Zoning Amendment) Submission:
  - a. Concept Plan;
  - b. General Plan of Services ( including location of onsite wells and septic systems)
  - c. Functional Servicing Report (as per Norfolk County Design Criteria);
  - d. Storm Water Management Report;
  - e. Traffic Impact Study (as per ISMP Appendix J – TIS Guidelines);
6. A Functional Servicing Report / Brief is to be completed. This report will identify the proposed Water and Wastewater designs and confirm they are adequate for the proposal.

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7. Stormwater Management Report is to be completed as per Norfolk County Design Criteria Section 7.
8. As per Norfolk County's Integrated Sustainable Master Plan (ISMP) – Appendix J: Traffic Impact Study (TIS) Guidelines, a Traffic Impact Study should be required with every planning application. However, as this development is small in nature, with creation of only a few lots, Development Engineering requests that you complete a Traffic Impact Brief. Hence, as per Norfolk County's ISMP Appendix J - TIS Guidelines, a Traffic Impact Brief can be prepared based on the following sections of the Appendix J - TIS Guidelines:
  - a. Section A1.3 – Existing Conditions;
  - b. Section A1.4 – Study Area;
  - c. Section A1.5 – Development Land Use Type & Site Plan;
  - d. Analysis:
    - i. Sightlines;
    - ii. Conclusions and Recommendations.
9. A site triangle will be required on the North-East Corner of the Intersection of Highway 59 and Norfolk County Road 21.

### Required at Severances:

10. Lot Grading Plan, Siltation and Erosion Control Plan, and General Plan of Services (Domestic well and Septic system locations) drawing can be shown on one engineering plan as long as it's legible for review.
11. Stormwater Management Report / Brief – This report will provide an explanation of how Stormwater is being handled on site and where the appropriate outlet is.
12. Establish / Confirm Legal and Adequate outlet. As mentioned at the meeting Development Engineering is concerned whether the current agricultural lands within the hamlet boundary have a legal and adequate outlet for stormwater. Confirmation of where the Storm water outlets will be required.
13. As mentioned at the Pre-Con meeting there are a number of concerns with driveway design and location in proximity to the intersection. New driveways must be designed to Norfolk County standards. Distance from Intersection to conform with Latest version of the TAC manual or approved equivalent.

### Potentially Required:

14. Area Rough Grading Plan is required where earth cuts and fills are in excess of 0.5m.
15. Geotechnical Report will be required if any infiltration measures are proposed.

Stephen Gradish  
Development Technologist  
Extension 8015  
[Stephen.Gradish@norfolkcounty.ca](mailto:Stephen.Gradish@norfolkcounty.ca)

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### Building

#### Zoning Administrator:

#### Property 3719 Highway 59

**-3 residential lots in the AGR zone, but in the hamlet OP, to be zoned to RH**

-no site sketch or dimensions of lots, lots to meet the RH zone provisions, comments will be given further through the Committee of Adjustments comment requests, when planning applications are made

Roxanne Lambrecht  
Zoning Administrator  
Extension 1839  
[Roxanne.Lambrecht@norfolkcounty.ca](mailto:Roxanne.Lambrecht@norfolkcounty.ca)

#### Building Inspector:

3719 Highway 59

The proposed construction is considered a Group C- Residential as defined by the Ontario Building Code (OBC). You will need to retain the services of a qualified individual with BCIN Small Buildings/Building Services, an Architect and/or a Professional Engineer to complete the design documentation for this application.

#### Items for Building Permit

+ Single Dwelling Unit

#### What do I need to apply?

##### Completed Forms

1. Building Permit Application Form
2. Schedule 1: Designer Information
3. Property Owner Consent Form, if application is not completed by the property owner,
4. Applicable Law Checklist and supporting documents.
5. Lot grading form or exemption request.
6. Water, storm sewer, sanitary sewer connection permit (where required)
7. Energy Efficiency Design Summary (EEDS form)
8. Residential Mechanical Ventilation Design Summary form

##### Required Documents

9. Plot Plan (link to plot plan sample)
  - o Property lines and lot dimension,
  - o Location of dwelling and all other structures on the lot,
  - o Location of all steps and landing,
  - o Distance from dwelling to property lines
  - o Parking spots with dimensions
10. Lot grading plan
1. Drawings of the dwelling unit:
  - o Floor plans,
  - o Elevations,
  - o Cross sections of exterior wall from footing to roof.
2. Roof truss layout (where required)
3. Engineered floor system layout (where required)
4. Engineered beam details (i.e. Parallam, Micro-lam) (where required)

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5. Heat loss calculations
6. Ventilation duct design
  - o Heat Recovery Ventilator (HRV) duct sizing and layout,
  - o Exhaust fan duct sizing and layout.
7. Septic application (where required) This is a separate application, see septic

### Fees

8. Building Permit fee
9. Plumbing fee
10. Occupancy fee
11. Water/storm/sanitary connection fees (where applicable)
12. Civic address (where applicable)
13. Development changes (where applicable)

### + Septic - Do I need a septic permit?

A building permit is required to install a new septic system, repair or replace any part of the septic system. Norfolk County does not keep records on well locations.

Septic Permit is required if the daily design flow is 10,000 litres/day or below for the whole site.

### What do I need to apply?

#### Completed Forms

11. Building Permit Application Form
12. Schedule 1: Designer Information
14. Schedule 2: Sewage System Installer Information

#### Required Documents

15. Septic system design (link to form)
16. Percolation time ('T' time) report from a licensed testing agency

### Fees

17. Septic Permit fee

Currently, all permits can be applied for by email to [permits@norfolkcounty.ca](mailto:permits@norfolkcounty.ca). Our Permit Coordinators will review your application and provide in writing any item which may be missing from the application and a cost break down for the permit fees and payment options. Please refer to our website for current forms, and fees. <https://www.norfolkcounty.ca/business/building/> If you have any questions on the building permit process or plans required, please contact the Building Department at [permits@norfolkcounty.ca](mailto:permits@norfolkcounty.ca)

Devon Staley  
Building Inspector  
Extension 8108  
[Devon.staley@norfolkcounty.ca](mailto:Devon.staley@norfolkcounty.ca)

### Fire Department

Norfolk County Fire Department does not have any concerns with this proposal at this time.

Katie Ballantyne  
Community Safety Officer  
Extension 2423  
[Katie.ballantyne@norfolkcounty.ca](mailto:Katie.ballantyne@norfolkcounty.ca)



## **Appendix A: Summary of Applicable Planning Legislation, Policy and Zoning**

Following is a summary of key items related to the proposal as presented; noting these documents are meant to be read in their entirety with relevant policies to be applied in each situation. This is not an exhaustive list and only in response to the information submitted for the pre-consultation. This feedback is subject to change pending full submission of a development application and any changes or additional information provided therein.

### **Provincial Policy Statement, 2020**

<https://www.ontario.ca/page/provincial-policy-statement-2020>

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### **Norfolk County Official Plan**

<https://www.norfolkcounty.ca/government/planning/official-plan/>

Section 9.6.1 outlines requirements in relation to requests to amend the Official Plan.

Section 9.6.2 outlines requirements in relation to requests to amend the Zoning By-law.

Click here to enter text.

**It is the responsibility of the proponent to review and ensure relevant Official Plan policies are addressed in any future development application.**

### **Norfolk County Zoning By-Law 1-Z-2014**

<https://www.norfolkcounty.ca/government/planning/new-zoning-by-law/>

Click here to enter text.

The provisions of the Norfolk County Zoning By-Law shall apply to all lands within the boundaries of Norfolk County. No land, building or structure shall be used, erected or altered in whole or in part except in conformity with the provisions of this By-Law. No land, building or structure shall be used or occupied except for uses that are specifically identified in the By-Law as permitted uses by the relevant zoning category.

**It is the responsibility of the proponent to review and ensure relevant Zoning By-law provisions are addressed in any future development application**

# MEMO

TO: Norfolk County Planners

FROM: Mary Elder, Elder Plans Inc. and Allan DeGroote

DATE: January 10, 2022

RE **Request for a pre-consultation for 3719 Highway 59**

Roll number: 54202010200 and 54201004900

Owner: Allan DeGroote

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A brief description of the proposal for the pre-consultation;

1. What is being proposed and what is your vision?

The portion of these two farm parcels that border on the north side of Norfolk County Road 21 are within the Hamlet of Andy's Corners and are proposed to be rezoned to a Hamlet Residential zone. Then 2 lots with a total area of about 0.66 ha are to be severed from the property known as roll number 54202010200. A hydrogeological study will support the proposed lot size. Lastly a hamlet residential lot of about 0.4 ha would be severed from the farm parcel known by roll number 54201004900 on the west side of Highway 59. This vision will result in 3 new single detached dwellings on residential lots within the hamlet boundary.

2. Location, type of use, rebuild, renovation, etc.

The two farm parcels are

- The farm property east of Highway 59 is legally described as NWAL CON 14 PT LOT 13 and is 79.54 ac in size. These lands are currently used in agricultural crop production.
- The farm property west of Highway 59 is legally described as NWAL CON 14 PT LOT 12 and is 37.7 ac in size. These lands are farmed and also have a single detached dwelling on them. The subject lands for the proposed severance currently are a lawn and access driveway for the dwelling. Access will have to be changed to County Road 21.

3. History (what exists today, historical uses)

These lands have been used for agriculture for many years but also been designated as part of the Hamlet before the 2004 Norfolk County Official Plan was approved.

4. Designation and zoning being proposed

The Hamlet designation will stay the same. The Agricultural Zone will be amended to Hamlet Residential to implement the Official Plan designation.

5. Servicing (how will the development be serviced)

Private on-site potable water wells and private on-site septic systems are proposed.

6. Approximate number of vehicle trips to and from the site per day

Possibly 2 from each of the three proposed lots.

7. Number of units

Three separate single detached dwellings on separate lots. Details of the layout have not been drawn up yet as we await the recommendations of the hydrogeological report and then have survey sketches prepared.

8. Number of parking spaces

As required by the Zoning By-law, 2 per single detached dwelling

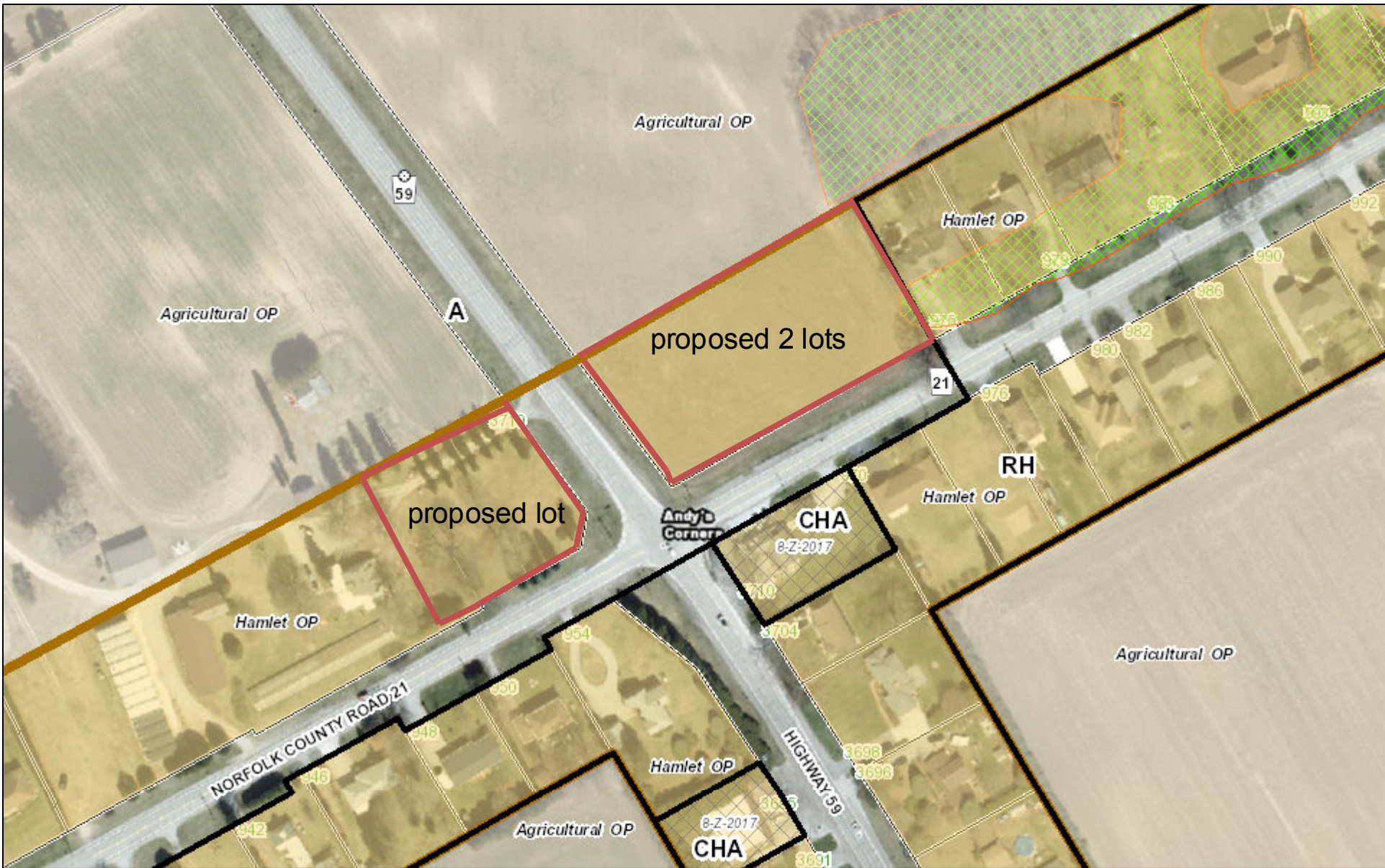
9. Phasing, if applicable

The two lots to the east probably will be applied for first.

10. Significant features (environmental, heritage, etc.

None.

# MAP NORFOLK - Community Web Map



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

## Zones 1-Z-2014



Zero



Zone with Holding Provision



## Special Provisions



## Site Plan Control



## Lakeshore Erosion Prone Areas

## Community Boundaries



Urban Area Boundary



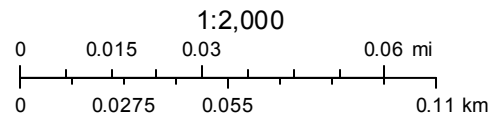
Hamlet Area Boundary



Resort Area Boundary



### Site Specific Policy Area



Queen's Printer for Ontario  
Norfolk GIS



**DEGROOTE SEVERANCES**

**ANDY'S CORNERS**

**NORFOLK COUNTY**

**FUNCTIONAL SERVICING REPORT**

**CJDL**  
Consulting Engineers

22047  
25 May 2023

25 May 2023

## **DEGROOTE SEVERANCES**

ANDY'S CORNERS

NORFOLK COUNTY

## **FUNCTIONAL SERVICING REPORT**

### **1.0 Introduction**

This Functional Servicing Report has been prepared to support the DeGroote Severance application submitted to permit the creation of three (3) new residential dwelling lots on Concession 13 in the hamlet of Andy's Corners, Norfolk County, ON.

The subject land is legally described as Part of Lot 13 Concession 14, in Norfolk County. The subject lands have 110m of frontage along the 13<sup>th</sup> Concession Road with an area of 0.66ha. The subject land to be severed is owned by Allan DeGroote and is comprised of entirely agricultural land. The proposed three (3) lots to be severed front Concession 13 at the intersection of Highway 59 and will be within the designated settlement area of Andy's Corners. The subject lands are currently zoned Agricultural (A) however a zoning by-law amendment will be filed along side this report to request the zoning be changed to Hamlet Residential (RH) to facilitate this development.

A topographic survey of the proposed severances was completed by Kim Husted Land Surveying Ltd. as part of this application. Surveyed ground elevations are shown on the drawing included with this submission.

### **2.0 Sanitary Servicing**

There are no sanitary sewers locally available in the hamlet of Andy's Corners. It is proposed that each of the severed lots will be serviced with onsite subsurface sewage disposal systems. Each lot has an area of approximately 0.22ha which provides sufficient area to support private septic systems including a full reserve area and private wells. See attached supporting report by Wilson Associates dated 27 Jan 2022.

A typical 4-bedroom home requires an area of 200m<sup>2</sup> for a standard design flow of 2000L/day. It is understood that Norfolk County also requires a full reserve area on each of the proposed lot. The proposed lots provide sufficient area to for a 200m<sup>2</sup> septic system with a full reserve area provided.

The grading plan will allow for gravity sewage flows from all above ground floors. Basement sanitary flows will require pumping. Septic system design requirements, including length of distribution tile etc., shall conform to the latest amendments of the Ontario Building Code based on proposed occupancy. Individual lot soils analysis shall be submitted to Norfolk County and a certificate of approval obtained for each septic system, prior to installing any pipe.



### **3.0 Water Supply**

A review of the MECP (MOEE)'s well records for all wells located within a 250m radius of the proposed development indicate that well depths vary from 7.3m to 12.8m below ground.

Flow rates ranged from 9 to 114 L/min with an average of 46.3 L/min. This average yield significantly exceeds maximum water demands of a typical 4 bedroom home, specified by MECP at 18 litres/min.

Therefore, it is anticipated that wells installed on the proposed severances will provide sufficient water supply to meet the typical domestic water demands.

### **4.0 Stormwater Management**

The proposed severances are located within the Hamlet of Andy's Corners. There is no known stormwater outlet for this site. Currently the stormwater runoff collects in low points causing minor ponding along the roadside ditches before dissipating over time through infiltration.

The site is currently completely used for agricultural purposes. A runoff coefficient of 0.4 was used to describe the predevelopment conditions to reflect the crop growth. In post development, the site will be mainly grass/sod with a small portion of the site to be covered in hard surfaces and buildings, resulting in a weighted C value of 0.28 (per Norfolk County Design Criteria) can be applied to the site. Theoretically, this means there will be less runoff in post development conditions than there was prior to development. The use of the drywell catchbasins will further reduce the ponding to levels lower than existing predevelopment conditions.

Lot grading shall be designed to ensure existing overland flow to the existing swales and ditches is maintained. Since there is no legal outlet for the proposed severances, infiltration methods will be utilised to manage stormwater flows. Run-off will be directed to infiltration catchbasins, located at various low points on the proposed site. These catchbasins have been designed to provide SWM storage to reduce the level of ponding during large storm events, while providing additional opportunity for infiltration in the native silty sand.

A report was completed by Wilson Associates, dated 27 Jan 2022, to support the use of infiltration methods on site to manage stormwater runoff. This report will be included with this submission. Site grading will be designed to ensure that the infiltration methods utilized will provide acceptable levels of stormwater management to within the proposed severances.

### **5.0 Erosion and Sedimentation Control/Construction Practices**

Topsoil stripping and bulk grading will be completed as the project develops. Silt fence will be placed at surface run-off locations and across drainage courses. As development progresses, silt fence (with straw bales, if required) will be placed across all drainage swales at 100 m maximum intervals, including catchbasins and piped outlets and/or as directed on site.

Topsoil piles will be located for suitable access, but will be removed as far as practical from drainage courses and the stormwater management area. Topsoil stockpiles will be shaped to allow for easy maintenance (mowing) by the Developer.

All silt will be removed as accumulated and/or as directed by the Engineer on site. Catchbasins will be cleaned by the Contractor during construction to remove any silt which may accumulate.

All finished earth surfaces will be topsoiled and seeded. Areas susceptible to erosion will be protected by sod, staked sod, riprap and/or cable concrete as conditions warrant. The Contractor will be required to return within the guaranteed maintenance period to remedy any areas of erosion which develop.

## **6.0 Electrical and Utilities**

It is anticipated that Hydro One, Execulink/Bell, and Enbridge Gas will have adequate capacity available on Concession 13 for connection/extension of utilities to service the proposed severances. Contact with the various utility companies will be initiated following submission of the consent application.

All of which is respectfully submitted,

A handwritten signature in black ink, appearing to read "Andrew Gilvesy". The signature is written in a cursive, flowing style.

Andrew Gilvesy, P. Eng.

AG/zdr

## **APPENDIX 'A'**

Dwg. 1 DeGroote Severances (CJDL, 24 May 2023)

## DeGroote Severances - Andy's Corners ON



Cyril J. Demeyere Limited  
P.O. Box 606, 261 Broadway  
Tillsonburg, Ontario, N4G 4J1  
Tel: 519-688-1000  
866-302-9886  
Fax: 519-842-3235  
cjdle@oxford.net

22047

25-May-23

### PRE-DEVELOPMENT FLOW CALCULATIONS

TRIBUTARY AREA = 1.64 [Acres] 0.66 Ha  
RUNOFF COEF. = 0.40

PREDEVELOPMENT RUNOFF COEF. = 0.40

$Q = 0.0028 \cdot C \cdot I \cdot A$

$TC = (3.26 \cdot (1.1 - I^0.5) \cdot C) \cdot (L)^{1/2} / Sw^{1/3}$

WATERSHED LENGTH 130 m

WATERSHED SLOPE 0.92% %

Item	Area (Ha)	C Value
Gravel	0.00	0.70
Crop/unimprove	0.66	0.40
Sod	0.00	0.20
Building	0.00	0.90
Asph/Conc	0.00	0.90
Total	0.66	0.4000

### Predevelopment Flows - 1 in 5 Year Storm Event

#### Rainfall Intensity

Intensity =  $a(t+b)^{-c}$  mm/hr

a = 583.017

b = 3.007

c = 0.703

Intensity = 19.332

Time of Concentration  $TC = (3.26 \cdot (1.1 - 1.0 \cdot C) \cdot (105)^{1/2}) / 1.6^{1/3} =$

124.17 min

Predevelopment Flow  $Q_{pre} = 0.0028 \cdot C \cdot I \cdot A =$

14 l/s

#### NORFOLK COUNTY DESIGN CRITERIA

Intensity Factors	2 year	5 year	10 year	25 year	50 year	100 year
a:	529.711	583.017	670.324	721.533	766.038	801.041
b:	4.501	3.007	3.007	2.253	1.898	1.501
c:	0.745	0.703	0.698	0.679	0.668	0.657

### Predevelopment Flows - 1 in 10 Year Storm Event

#### Rainfall Intensity

Intensity =  $a(t+b)^{-c}$  mm/hr

a = 670.324

b = 3.007

c = 0.698

Intensity = 22.772

Time of Concentration  $TC = (3.26 \cdot (1.1 - 1.0 \cdot C) \cdot (126.31)^{1/2}) / 1.25^{1/3} =$

124.17 min

Predevelopment Flow  $Q_{pre} = 0.0028 \cdot C \cdot I \cdot A =$

17 l/s

#### NORFOLK COUNTY DESIGN CRITERIA

Intensity Factors	2 year	5 year	10 year	25 year	50 year	100 year
a:	529.711	583.017	670.324	721.533	766.038	801.041
b:	4.501	3.007	3.007	2.253	1.898	1.501
c:	0.745	0.703	0.698	0.679	0.668	0.657

### Predevelopment Flows - 1 in 100 Year Storm Event

#### Rainfall Intensity

Intensity =  $a(t+b)^{-c}$  mm/hr

a = 801.041

b = 1.501

c = 0.657

Intensity = 36.972

Time of Concentration  $TC = (3.26 \cdot (1.1 - 1.25 \cdot C) \cdot (126.31)^{1/2}) / 1.25^{1/3} =$

106.43 min

Predevelopment Flow  $Q_{pre} = 0.0028 \cdot C \cdot I \cdot A =$

34 l/s

#### NORFOLK COUNTY DESIGN CRITERIA

Intensity Factors	2 year	5 year	10 year	25 year	50 year	100 year
a:	529.711	583.017	670.324	721.533	766.038	801.041
b:	4.501	3.007	3.007	2.253	1.898	1.501
c:	0.745	0.703	0.698	0.679	0.668	0.657

### STORAGE REQUIREMENTS

### Infiltration Rate

Per Wilson Associate = 58 mm / hr

Hydrogeological report 23 October 2019

Total Area of infiltration (All drywell areas only) = m<sup>2</sup> Number of Drywells = 8

Area of 1 drywell = 3.24

Rate of infiltration = 0.19 m<sup>3</sup>/hr

## DeGroote Severances - Andy's Corners ON



Cyril J. Demeyere Limited  
P.O. Box 606, 261 Broadway  
Tillsonburg, Ontario, N4G 4J1  
Tel: 519-688-1000  
866-302-9886  
Fax: 519-842-3235  
cjdleag@oxford.net

22047

25-May-23

### POST-DEVELOPMENT FLOW CALCULATIONS

TRIBUTARY AREA = 1.64 [Acres] 0.66 Ha  
RUNOFF COEF. = 0.28

PREDEVELOPMENT RUNOFF COEF. = 0.28

$Q = 0.0028 \cdot C \cdot I \cdot A$

$TC = (3.26 \cdot (1.1 - I^0.5) \cdot C)^{1/2} / Sw^{1/3}$

WATERSHED LENGTH 81 m

WATERSHED SLOPE 1.80 %

Item	Area (Ha)	C Value
Gravel	0.00	0.70
Crop/unimprove	0.00	0.40
Sod	0.54	0.15
Building	0.08	0.90
Asph/Conc	0.04	0.90
Total	0.66	0.2845

### Post Development Flows - 1 in 5 Year Storm Event

#### Rainfall Intensity

Intensity =  $a(t+b)^{-c}$  mm/hr

a = 583.017

b = 3.007

c = 0.703

Intensity = 23.855

Time of Concentration  $TC = (3.26 \cdot (1.1 - 1.0 \cdot C)^{1/2}) / 1.6^{1/3} =$

91.30 min

Predevelopment Flow  $Q_{pre} = 0.0028 \cdot C \cdot I \cdot A =$

13 l/s

#### NORFOLK COUNTY DESIGN CRITERIA

Intensity Factors	2 year	5 year	10 year	25 year	50 year	100 year
a:	529.711	583.017	670.324	721.533	766.038	801.041
b:	4.501	3.007	3.007	2.253	1.898	1.501
c:	0.745	0.703	0.698	0.679	0.668	0.657

### Post Development Flows - 1 in 10 Year Storm Event

#### Rainfall Intensity

Intensity =  $a(t+b)^{-c}$  mm/hr

a = 670.324

b = 3.007

c = 0.698

Intensity = 28.058

Time of Concentration  $TC = (3.26 \cdot (1.1 - 1.0 \cdot C)^{1/2}) / 1.25^{1/3} =$

91.30 min

Predevelopment Flow  $Q_{pre} = 0.0028 \cdot C \cdot I \cdot A =$

15 l/s

#### NORFOLK COUNTY DESIGN CRITERIA

Intensity Factors	2 year	5 year	10 year	25 year	50 year	100 year
a:	529.711	583.017	670.324	721.533	766.038	801.041
b:	4.501	3.007	3.007	2.253	1.898	1.501
c:	0.745	0.703	0.698	0.679	0.668	0.657

### Post Development Flows - 1 in 100 Year Storm Event

#### Rainfall Intensity

Intensity =  $a(t+b)^{-c}$  mm/hr

a = 801.041

b = 1.501

c = 0.657

Intensity = 43.309

Time of Concentration  $TC = (3.26 \cdot (1.1 - 1.25 \cdot C)^{1/2}) / 1.25^{1/3} =$

83.33 min

Predevelopment Flow  $Q_{pre} = 0.0028 \cdot C \cdot I \cdot A =$

29 l/s

#### NORFOLK COUNTY DESIGN CRITERIA

Intensity Factors	2 year	5 year	10 year	25 year	50 year	100 year
a:	529.711	583.017	670.324	721.533	766.038	801.041
b:	4.501	3.007	3.007	2.253	1.898	1.501
c:	0.745	0.703	0.698	0.679	0.668	0.657

### STORAGE REQUIREMENTS

### Infiltration Rate

Per Wilson Associate = 58 mm / hr

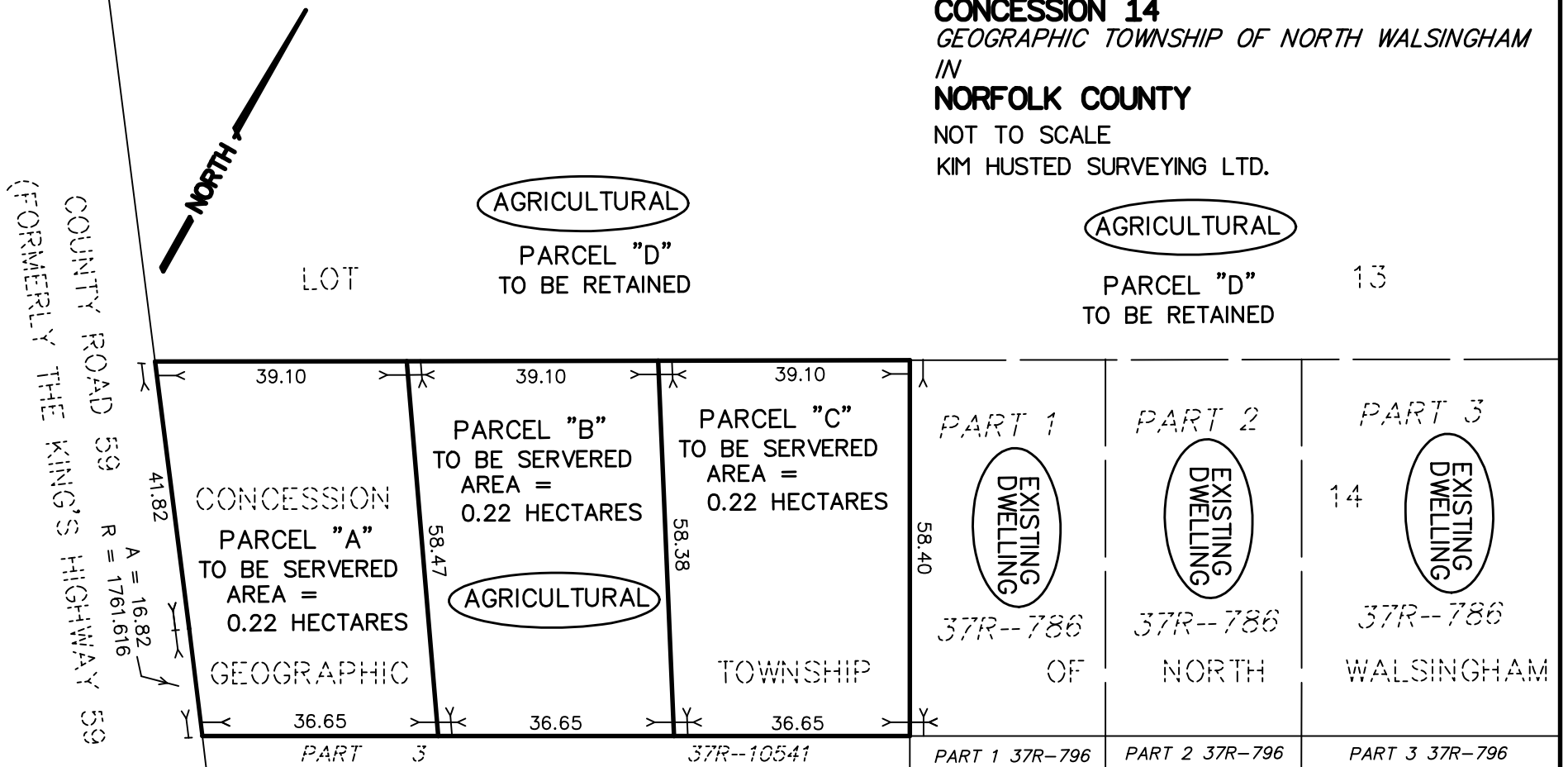
Hydrogeological report 23 October 2019

Total Area of infiltration (All drywell areas only) = m<sup>2</sup> Number of Drywells = 8

Area of 1 drywell = 3.24

Rate of infiltration = 0.19 m<sup>3</sup>/hr

SKETCH FOR PROPOSED SEVERENCE  
**PART OF LOT 13**  
**CONCESSION 14**  
GEOGRAPHIC TOWNSHIP OF NORTH WALSHINGHAM  
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

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**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





**DEGROOTE SEVERANCES**

**ANDY'S CORNERS**

**NORFOLK COUNTY**

**FUNCTIONAL SERVICING REPORT**

**CJDL**  
Consulting Engineers

22047  
19 June 2023

19 June 2023

## **DEGROOTE SEVERANCES**

ANDY'S CORNERS

NORFOLK COUNTY

## **FUNCTIONAL SERVICING REPORT**

### **1.0 Introduction**

This Functional Servicing Report has been prepared to support the DeGroote Severance application submitted to permit the creation of three (3) new residential dwelling lots on Concession 13 in the hamlet of Andy's Corners, Norfolk County, ON.

The subject land is legally described as Part of Lot 13 Concession 14, in Norfolk County. The subject lands have 110m of frontage along the 13<sup>th</sup> Concession Road with an area of 0.66ha. The subject land to be severed is owned by Allan DeGroote and is comprised of entirely agricultural land. The proposed three (3) lots to be severed front Concession 13 at the intersection of Highway 59 and will be within the designated settlement area of Andy's Corners. The subject lands are currently zoned Agricultural (A) however a zoning by-law amendment will be filed along side this report to request the zoning be changed to Hamlet Residential (RH) to facilitate this development.

A topographic survey of the proposed severances was completed by Kim Husted Land Surveying Ltd. as part of this application. Surveyed ground elevations are shown on the drawing included with this submission.

### **2.0 Sanitary Servicing**

There are no sanitary sewers locally available in the hamlet of Andy's Corners. It is proposed that each of the severed lots will be serviced with onsite subsurface sewage disposal systems. Each lot has an area of approximately 0.22ha which provides sufficient area to support private septic systems including a full reserve area and private wells. See attached supporting report by Wilson Associates dated 27 Jan 2022.

A typical 4-bedroom home requires an area of 200m<sup>2</sup> for a standard design flow of 2000L/day. It is understood that Norfolk County also requires a full reserve area on each of the proposed lot. The proposed lots provide sufficient area to for a 200m<sup>2</sup> septic system with a full reserve area provided.

The grading plan will allow for gravity sewage flows from all above ground floors. Basement sanitary flows will require pumping. Septic system design requirements, including length of distribution tile etc., shall conform to the latest amendments of the Ontario Building Code based on proposed occupancy. Individual lot soils analysis shall be submitted to Norfolk County and a certificate of approval obtained for each septic system, prior to installing any pipe.

### **3.0 Water Supply**

A review of the MECP (MOEE)'s well records for all wells located within a 250m radius of the proposed development indicate that well depths vary from 7.3m to 12.8m below ground.

Flow rates ranged from 9 to 114 L/min with an average of 46.3 L/min. This average yield significantly exceeds maximum water demands of a typical 4 bedroom home, specified by MECP at 18 litres/min.

Therefore, it is anticipated that wells installed on the proposed severances will provide sufficient water supply to meet the typical domestic water demands.

### **4.0 Stormwater Management**

The proposed severances are located within the Hamlet of Andy's Corners. There is no known stormwater outlet for this site. Currently the stormwater runoff collects in low points causing minor ponding along the roadside ditches before dissipating over time through infiltration.

The site is currently completely used for agricultural purposes. A runoff coefficient of 0.4 was used to describe the predevelopment conditions to reflect the crop growth. In post development, the site will be mainly grass/sod with a small portion of the site to be covered in hard surfaces and buildings, resulting in a weighted C value of 0.28 (per Norfolk County Design Criteria) can be applied to the site. Theoretically, this means there will be less runoff in post development conditions than there was prior to development. The use of the drywell catchbasins will further reduce the ponding to levels lower than existing predevelopment conditions.

Lot grading shall be designed to ensure existing overland flow to the existing swales and ditches is maintained. Since there is no legal outlet for the proposed severances, infiltration methods will be utilised to manage stormwater flows. Run-off will be directed to infiltration catchbasins, located at various low points on the proposed site. These catchbasins have been designed to provide SWM storage to reduce the level of ponding during large storm events, while providing additional opportunity for infiltration in the native silty sand.

A report was completed by Wilson Associates, dated 27 Jan 2022, to support the use of infiltration methods on site to manage stormwater runoff. This report will be included with this submission. Site grading will be designed to ensure that the infiltration methods utilized will provide acceptable levels of stormwater management to within the proposed severances.

### **5.0 Erosion and Sedimentation Control/Construction Practices**

Topsoil stripping and bulk grading will be completed as the project develops. Silt fence will be placed at surface run-off locations and across drainage courses. As development progresses, silt fence (with straw bales, if required) will be placed across all drainage swales at 100 m maximum intervals, including catchbasins and piped outlets and/or as directed on site.

Topsoil piles will be located for suitable access, but will be removed as far as practical from drainage courses and the stormwater management area. Topsoil stockpiles will be shaped to allow for easy maintenance (mowing) by the Developer.

All silt will be removed as accumulated and/or as directed by the Engineer on site. Catchbasins will be cleaned by the Contractor during construction to remove any silt which may accumulate.

All finished earth surfaces will be topsoiled and seeded. Areas susceptible to erosion will be protected by sod, staked sod, riprap and/or cable concrete as conditions warrant. The Contractor will be required to return within the guaranteed maintenance period to remedy any areas of erosion which develop.

## 6.0 Electrical and Utilities

It is anticipated that Hydro One, Execulink/Bell, and Enbridge Gas will have adequate capacity available on Concession 13 for connection/extension of utilities to service the proposed severances. Contact with the various utility companies will be initiated following submission of the consent application.

AG/zdr



All of which is respectfully submitted,

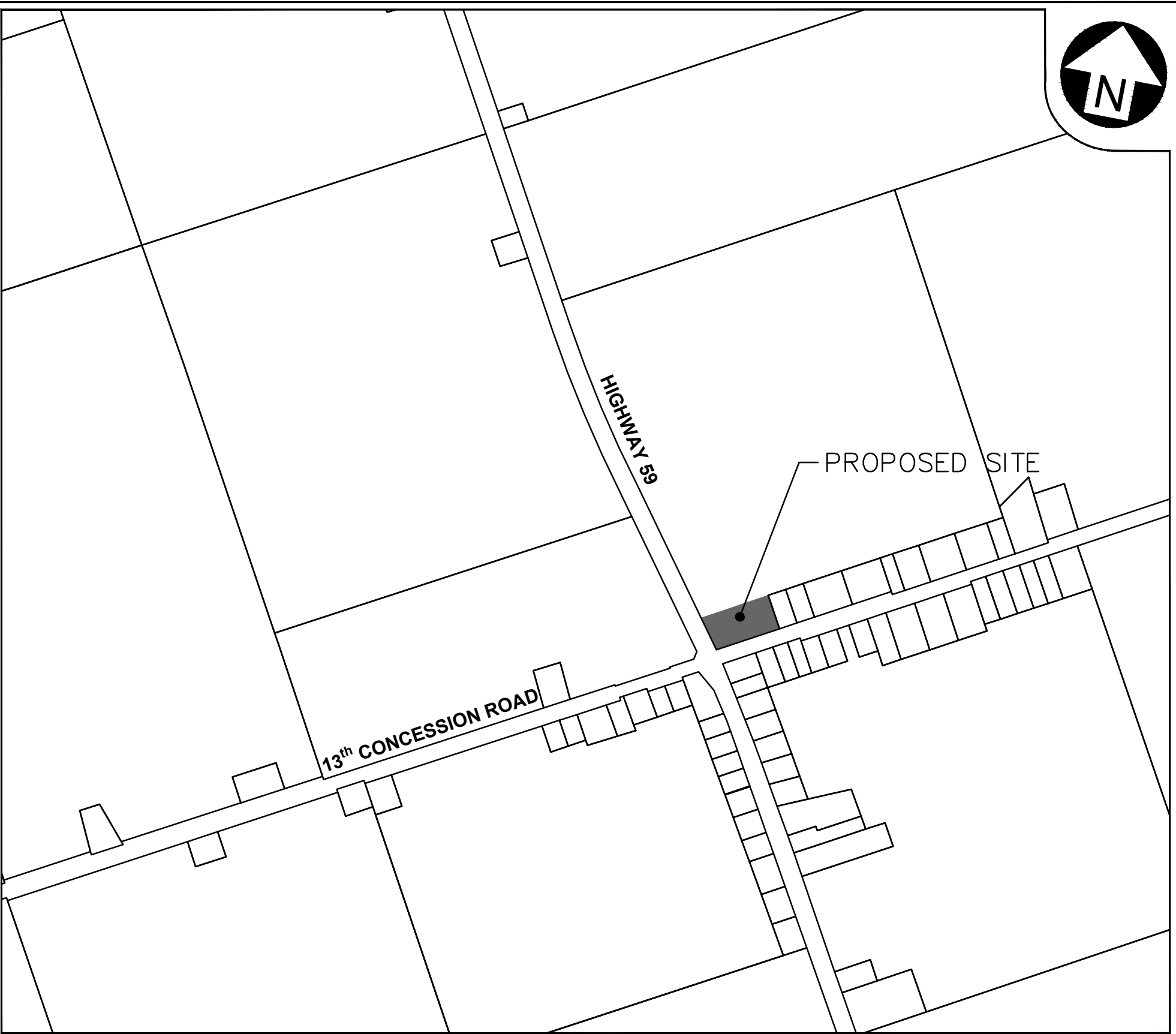
A handwritten signature in black ink, appearing to read "Andrew Gilvesy".

Andrew Gilvesy, P. Eng.

## **APPENDIX 'A'**

Dwg. 1 DeGroote Severances (CJDL, 19 June 2023)

I:\ACAD Projects\2022\22047\04 - Layouts\22047\_COVER PAGE.dwg, 5/25/2023 3:45:39 PM, CJD LPC3



KEY PLAN  
SCALE: 1:7500

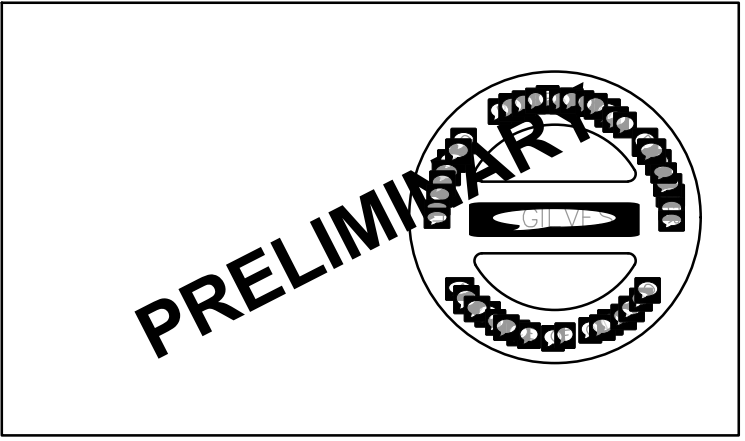
# DEGROOTE SEVERANCES

NORFOLK COUNTY  
PHASE 1 - RP 41-M-???

ALLAN DEGROOTE

LIST OF DRAWINGS	
DWG	DESCRIPTION
1.	COVER SHEET - GENERAL PLAN
2.	GRADING PLAN

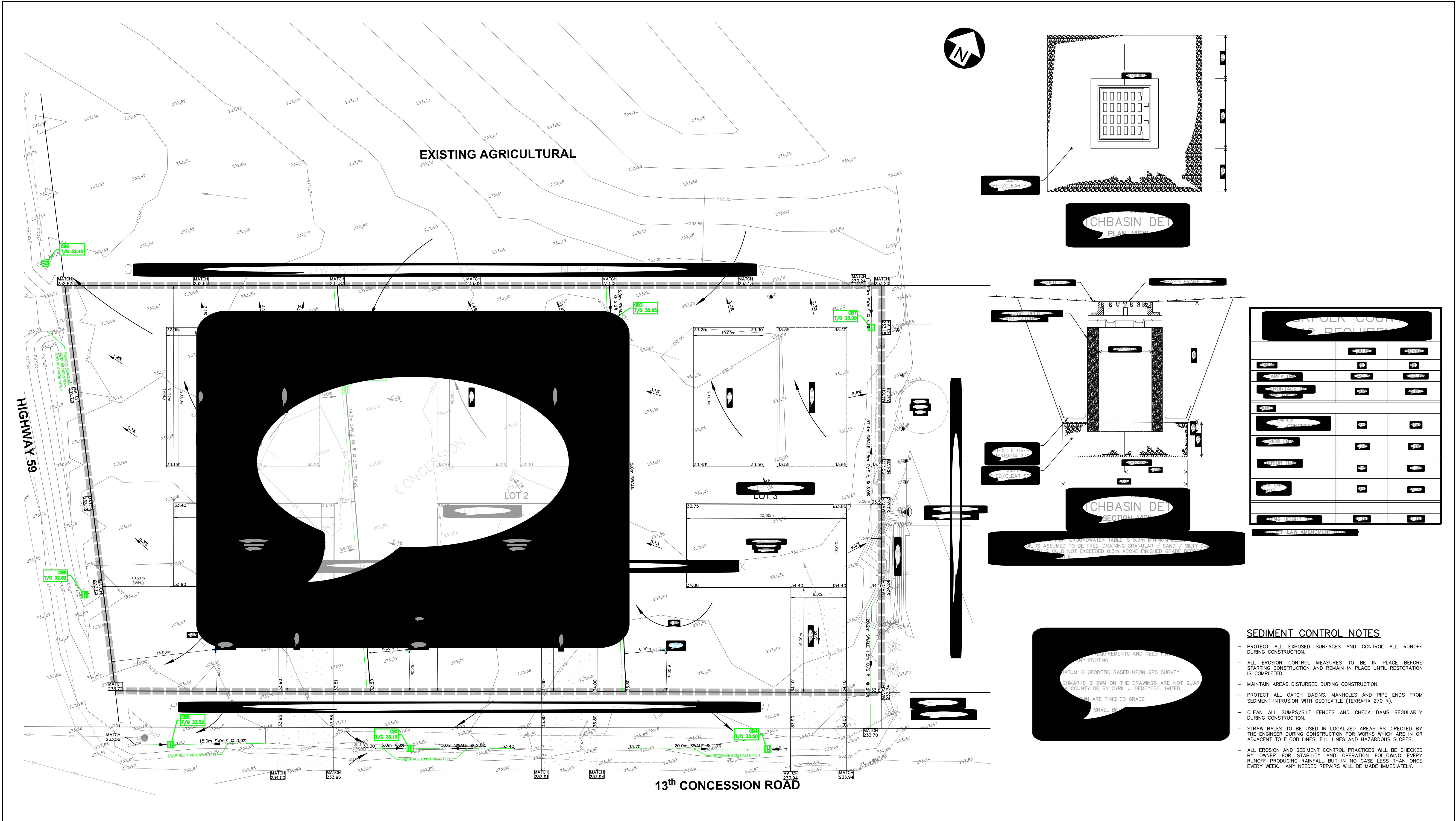
REVISIONS			
No.	REVISION	DATE	BY



**CJDL**  
Consulting Engineers

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Tillsonburg, Ontario, N4G 4H8  
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866-302-9886  
Fax: 519-842-3235  
cjd@cjdlang.com





LEGEND				STAMP:				METRIC H. SCALE 1:250				NORFOLK COUNTY			
DESIGN BY: TTA				PROJECT NO. 22047				DESIGN BY: TTA				DEGROOTE SEVERANCES			
DRAWN BY: AK				SURVEY BY: HUSTED				DRAWN BY: AK				37R-XXXX			
CHECKED BY: AG				DATE: 24 MAY 2023				CHECKED BY: AG				ALLAN DEGROOTE			
DRAWING NO.				92				GRADING PLAN							

January 27, 2022

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

# Wilson Associates

Consulting Hydrogeologists

Dear Mr. DeGroote:

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

It is proposed to create two 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  $\pm 0.67$ ha area between the existing residential lot at 975 Norfolk County Road 21 and Highway 59. A  $\pm 0.30$ ha 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 12.8m deep, 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<sub>3</sub>, 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 Health 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 holes 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 <sup>-3</sup>	8
TP2 S2	1.4	7	22	71	0	8x10 <sup>-5</sup>	20
TP4 S3	0.5	0	20	80	0	2x10 <sup>-3</sup>	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**

<u>Depth (m)</u>	<u>Material</u>
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**

<u>Depth (m)</u>	<u>Material</u>
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**

<u>Depth (m)</u>	<u>Material</u>
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**

<u>Depth (m)</u>	<u>Material</u>
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<sup>2</sup>/day (i.e. 160m<sup>2</sup> for a standard 3-bedroom home with a design sewage flow of 1,600L/day, or 200m<sup>2</sup> 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<sup>2</sup> in area, sufficient area is available for a 160m<sup>2</sup> or 200m<sup>2</sup> primary sewage disposal area, 160m<sup>2</sup> or 200m<sup>2</sup> 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 = 2.22x10<sup>6</sup>L/yr)

$C_P$  = Nitrate content of shallow groundwater (3.95mg/L assumed, see above)

Therefore:

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

$$Q_S = 4.48 \times 10^5 \text{ L/year}$$

$$\text{Number of Lots} = 4.48 \times 10^5 \text{ L/yr} \div 1,000 \text{ L/day/lot} \div 365 \text{ days/yr} = 1.2 \text{ Lots}$$

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, two 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 slightly smaller than the eastern proposed lots (i.e. each ±0.34ha), 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 two 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. The 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  $\geq 0.30$ ha lot, which addresses the potential sewage impact of the two 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 =  $3.65 \times 10^5$  L/year/lot)

$C_S$  = Nitrate content of sewage (20mg/L using a treatment system)

$Q_P$  = Infiltration (332mm/year x 0.30ha lot x 10,000L/mm/ha =  $9.96 \times 10^5$  L/yr)

$C_P$  = Nitrate content of groundwater (3.95mg/L)

Therefore:

$$(3.65 \times 10^5 \text{ L/year/lot} + 9.96 \times 10^5 \text{ L/yr}) \times C_T = (3.65 \times 10^5 \text{ L/year/lot} \times 20 \text{ mg/L}) + (9.96 \times 10^5 \text{ L/yr} \times 3.95 \text{ mg/L})$$

$$C_T = 8.3 \text{ mg/L}$$

At 8.3mg/L nitrate, the sewage impact will be less than the maximum acceptable level of 10mg/L nitrate, and therefore the two 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 Health 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<sup>2</sup>/day (i.e. 160m<sup>2</sup> for a standard 3-bedroom home with a design sewage flow of 1,600L/day, or 200m<sup>2</sup> for a standard 4-bedroom home with a design sewage flow of 2,000L/day). Sufficient area is available for a 160m<sup>2</sup> or 200m<sup>2</sup> primary sewage disposal area, 160m<sup>2</sup> or 200m<sup>2</sup> 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 two 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.

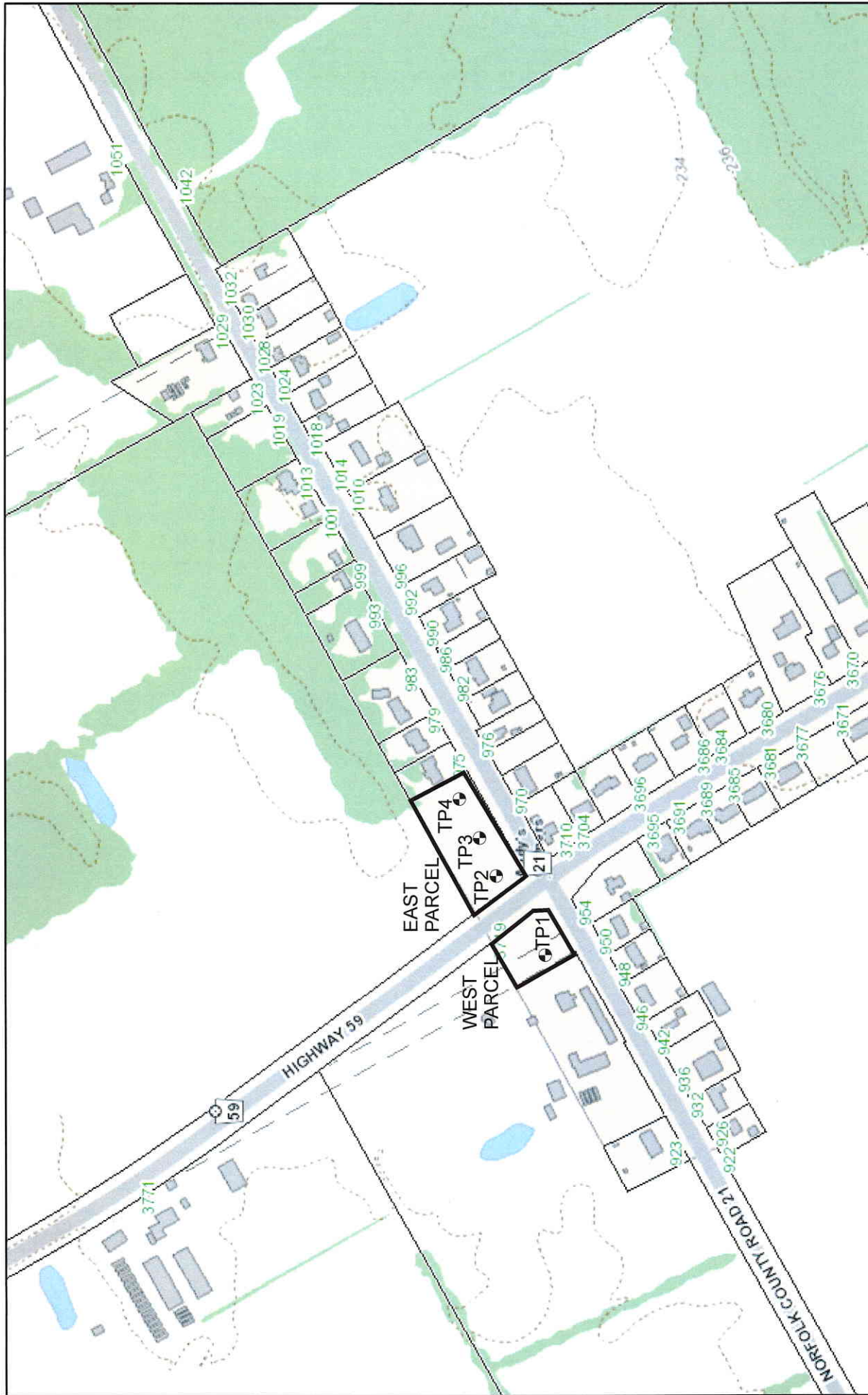
Should there be any questions regarding the above information and discussion, please do not hesitate to contact this office.

**IAN D. WILSON ASSOCIATES LIMITED**



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





1/27/2022, 1:34:23 PM

Land Parcels

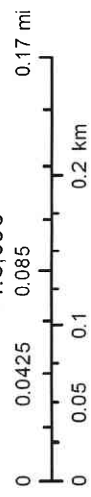
Plan Lines

DraftPlan

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

ALAN DEGROOTE, ANDY'S CORNERS

1:5,000

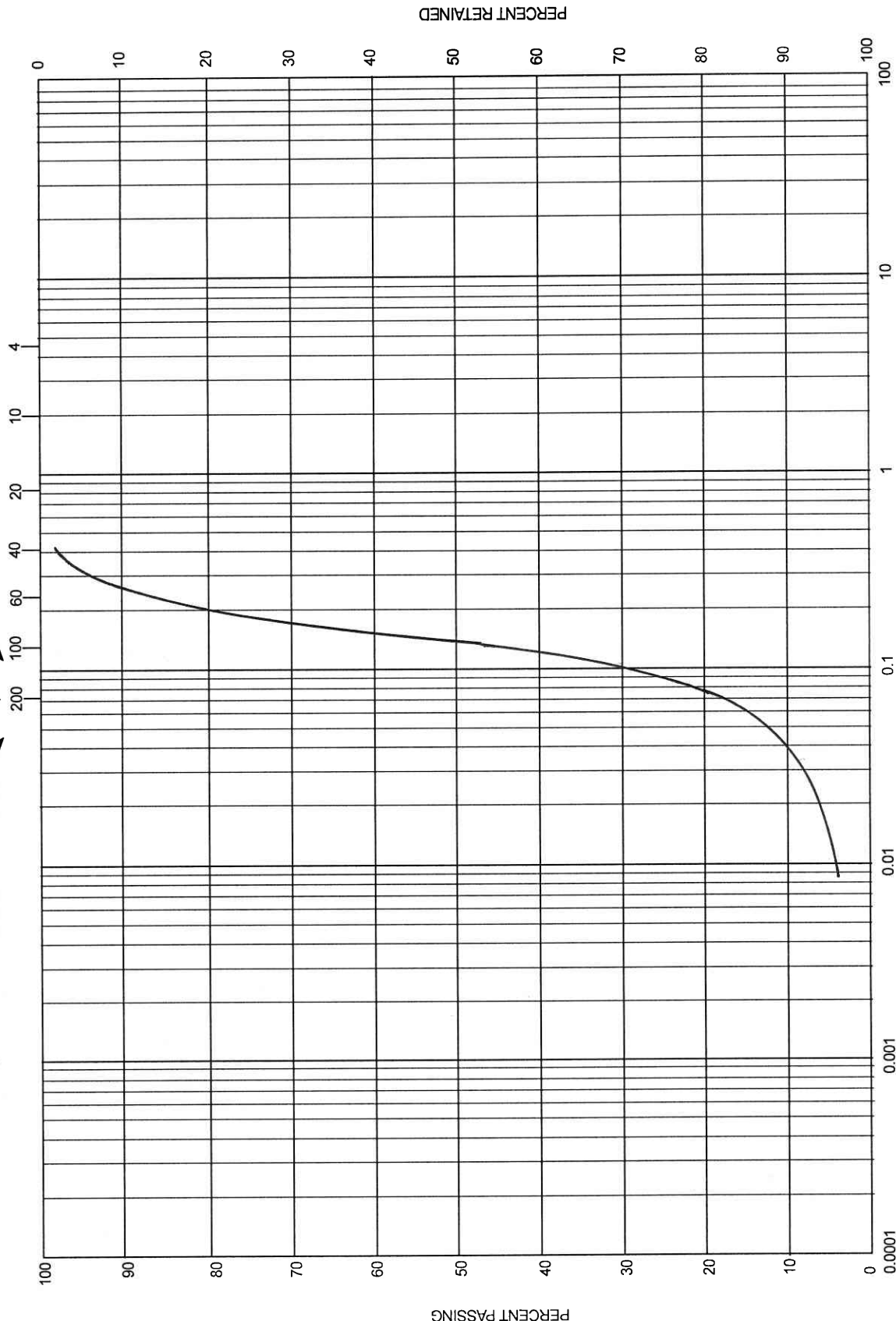


Norfolk GIS

# GRAIN SIZE DISTRIBUTION CHART

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

HYDROMETER ANALYSIS ← → SIEVE NUMBER (US STANDARD SIEVE SIZES)



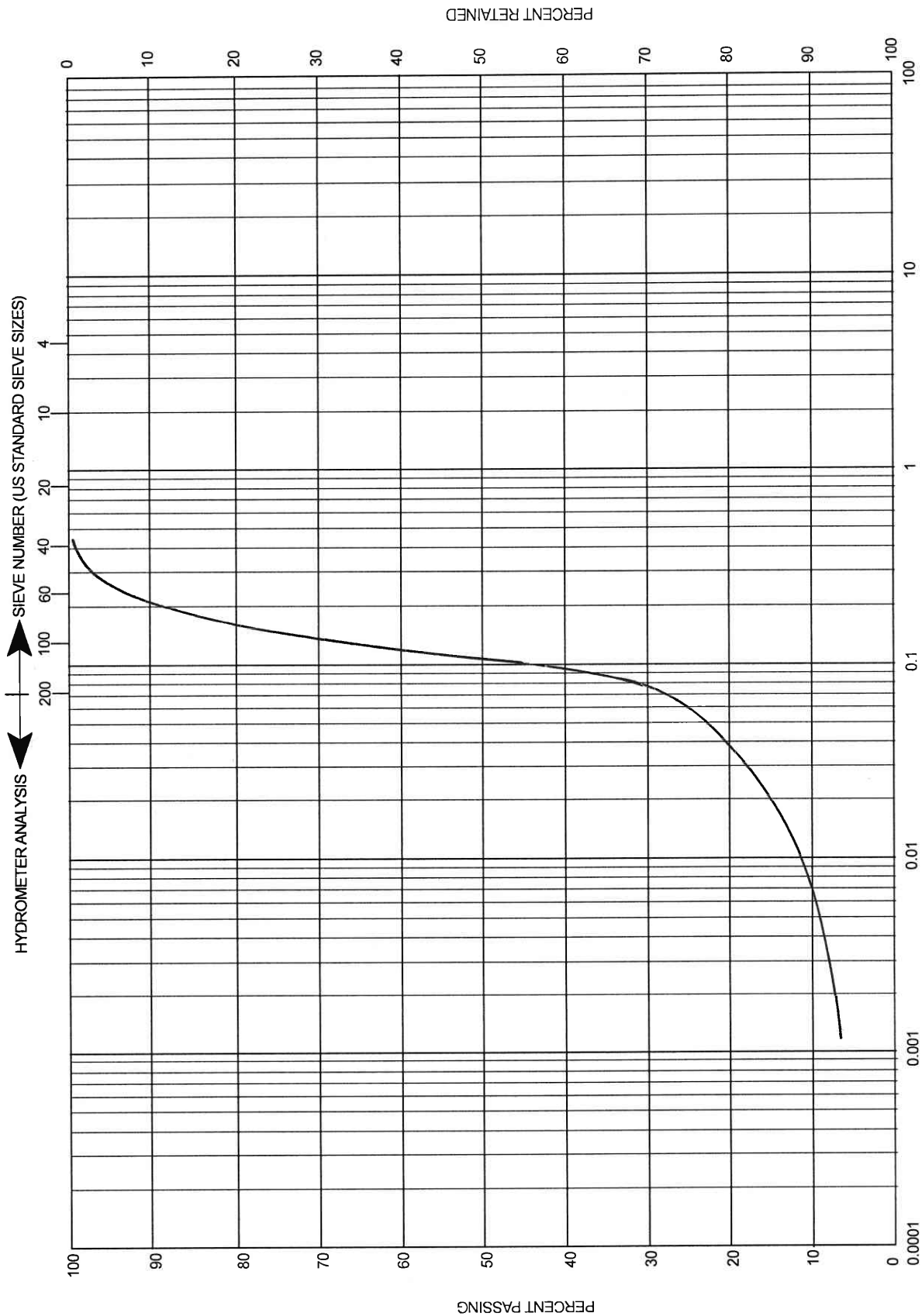
GRAIN SIZE IN MILLIMETRES

CLAY SIZE	SILT SIZE	SAND SIZE	GRAVEL SIZE	COBBLE SIZE

IAN D. WILSON ASSOCIATES LIMITED

# GRAIN SIZE DISTRIBUTION CHART

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



CLAY SIZE	SILT SIZE	SAND SIZE	GRAVEL SIZE	COBBLE SIZE

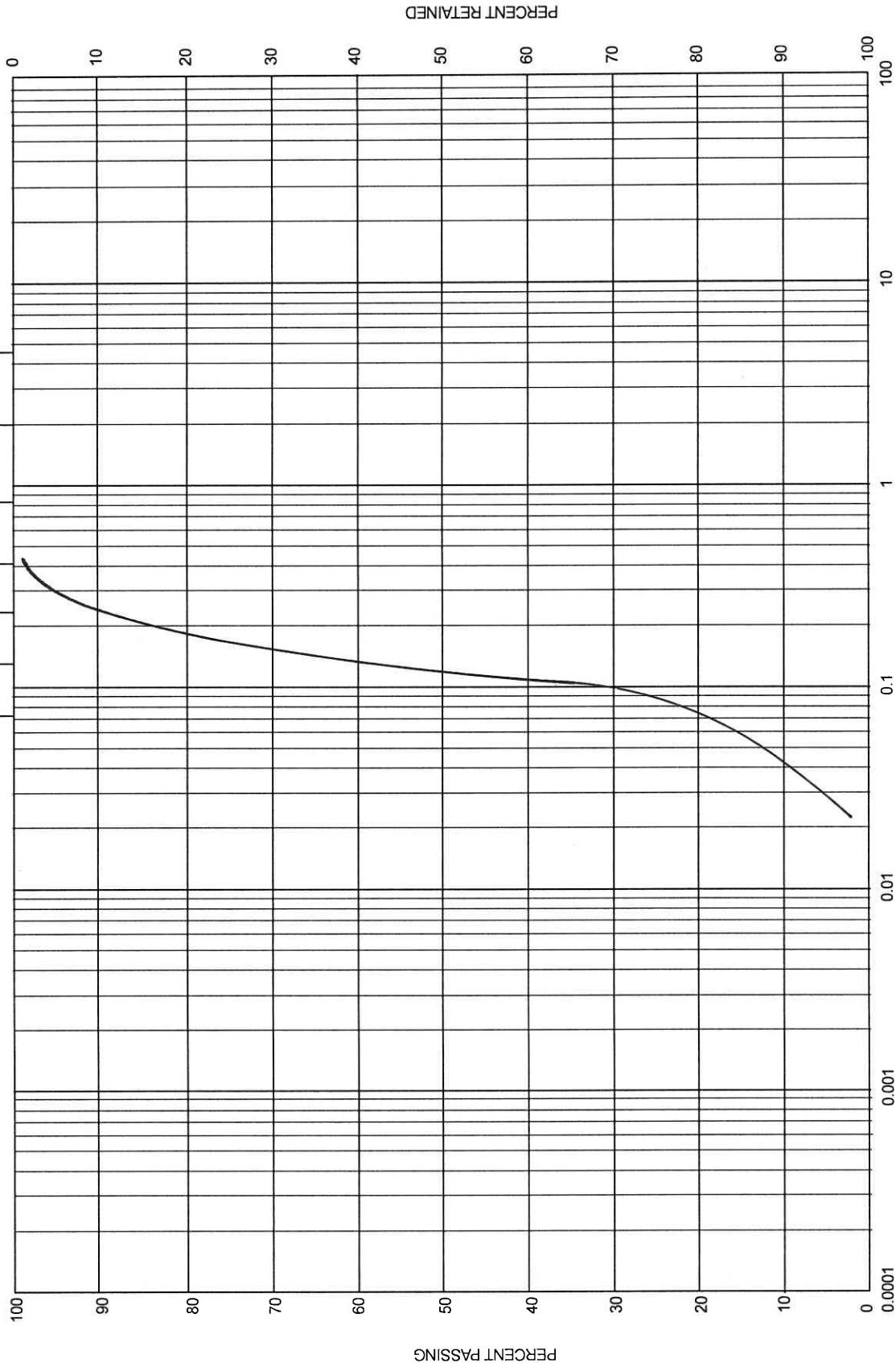
IAN D. WILSON ASSOCIATES LIMITED



# GRAIN SIZE DISTRIBUTION CHART

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

HYDROMETER ANALYSIS ← → SIEVE NUMBER (US STANDARD SIEVE SIZES)



GRAIN SIZE IN MILLIMETRES		GRAVEL SIZE		COBBLE SIZE
CLAY SIZE	SILT SIZE	SAND SIZE		



Site Location: DEGROOTE

**Attention: Geoff Rether**

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

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

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C175389**

**Received: 2021/11/24, 17:51**

Sample Matrix: Water  
# Samples Received: 1

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
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 NOM 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 CaCO <sub>3</sub> )	mg/L	230	1.0	7738795
Calculated TDS	mg/L	320	1.0	7738785
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	2.3	1.0	7738795
Cation Sum	me/L	5.66	N/A	7738799
Hardness (CaCO <sub>3</sub> )	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 (SO <sub>4</sub> )	mg/L	8.5	1.0	7715581
Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	230	1.0	7750800
Dissolved Chloride (Cl <sup>-</sup> )	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**

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
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.				



BUREAU  
VERITAS

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			



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 CaCO <sub>3</sub> )		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/NH <sub>4</sub>	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



**BUREAU  
VERITAS**

Bureau Veritas Job #: C1Z5389

Report Date: 2022/01/11

Ian D Wilson Associates Ltd

Site Location: DEGROOTE

Sampler Initials: GR

### GENERAL COMMENTS

Results relate only to the items tested.

BUREAU  
VERITAS

Bureau Veritas Job #: C1Z5389

Report Date: 2022/01/11

Ian D Wilson Associates Ltd

Site Location: DEGROOTE

Sampler Initials: GR

## 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



**BUREAU  
VERITAS**

Bureau Veritas Job #: C1Z5389

Report Date: 2022/01/11

Ian D Wilson Associates Ltd

Site Location: DEGROOTE

Sampler Initials: GR

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7758297	N_R	Spiked Blank	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
			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

BUREAU  
VERITAS

Bureau Veritas Job #: C1Z5389

Report Date: 2022/01/11

Ian D Wilson Associates Ltd

Site Location: DEGROOTE

Sampler Initials: GR

## QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7758297	N_R	Method Blank	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
			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	





**BUREAU  
VERITAS**

Bureau Veritas Job #: C1Z5389

Report Date: 2022/01/11

Ian D Wilson Associates Ltd

Site Location: DEGROOTE

Sampler Initials: GR

### QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7758297	N_R	RPD	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	
			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  $\leq 2 \times \text{RDL}$ ).

(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



BUREAU  
VERITAS

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*  


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

*J. Tharmini*

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.



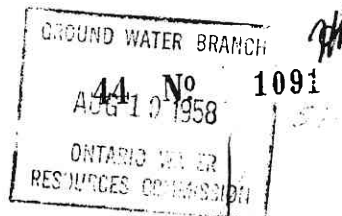
UTM 1 7 2 5 3 3 1 4 5 E

9 R 4 7 3 4 2 7 5 N

Elev.	9	R							
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Basin 2+3               

**The Water-well Drillers Act, 1954**  
**Department of Mines**



58-10

# Water-Well Record

County or Territorial District Norfolk 40 I/15 E Township, Village, Town or City Northampton

Village, Town or City).....  
Address *RR # 1 Courtland*.....

Date completed 11/1/77  
(day) (month) (year)

### Pipe and Casing Record

## Pumping Test

Casing diameter(s) <u>1 1/4 in.</u>	Static level <u>15'</u>
Length(s) <u>15'</u>	Pumping rate <u>600 gph</u>
Type of screen <u>Wagner</u>	Pumping level <u>Washed, Direct</u>
Length of screen <u>6 ft.</u>	Duration of test <u>3 min</u>

## Well Log

### Water Record

[illegible]

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

Team

Is water clear or cloudy? Clear

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

Drilling firm Lamer H. Weaver

Address ..... 1332 Tillman Ave. ....

Tiftonburg, Ont.

Name of Driller .....

Address ..... 8 .....

Licence Number...1170.....

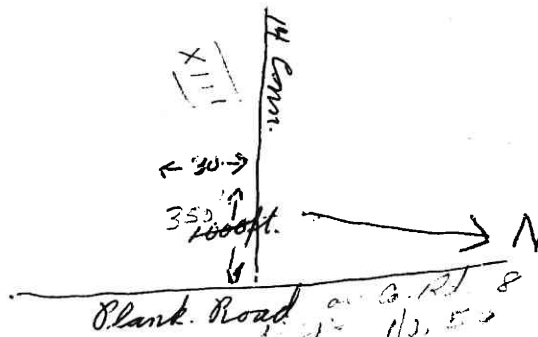
I certify that the foregoing  
statements of fact are true.

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.



UTM 17 2 533 2 15 E  
5 R 4734250 N  
Elev. 5 R 0768



The Ontario Water Resources Commission Act

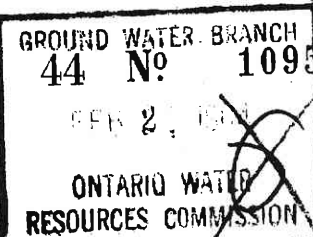
# WATER WELL RECORD

Basin 23 NORFOLK  
County or District

Township, Village, Town or City W. WASHINGTON

Date completed 15 JAN 1944  
(day month year)

ESS. COWRTLAND ONT RRH1



## Casing and Screen Record

Inside diameter of casing 2 inch  
Total length of casing 474' Slot 16 Johnsen  
Type of screen H  
Length of screen 34 FT  
Depth to top of screen 2 INCH  
Diameter of finished hole 2 INCH

## Pumping Test

Static level 18 FT  
Test-pumping rate 2 GPM 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 GPM G.P.M.  
with pump setting of 4 feet below ground surface

## Well Log

### Overburden and Bedrock Record

TOP FILL  
LOAM  
GRAVEL + CLAY  
FINE WHITE SAND  
CLAY  
LIGHT GREY SAND

From ft.

To ft.

Depth(s) at which water(s) found

Kind of water (fresh, salty, sulphur)

0' 2"  
2' 8"  
8' 14"  
14' 22"  
22' 25"  
25' 38'

38 FT FRESH

## Water Record

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

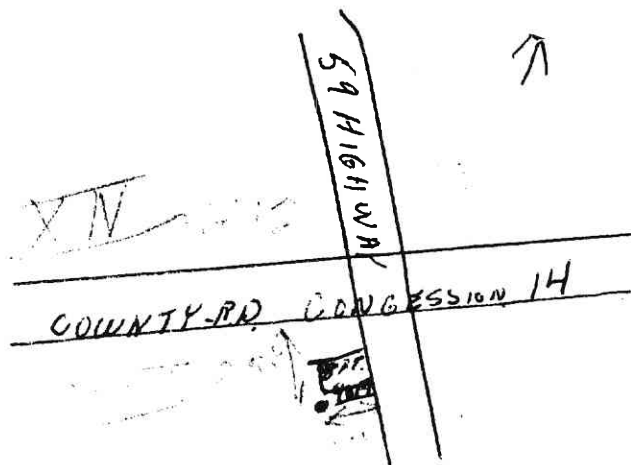
Name of Driller or Borer CARL STROME

Address LANGTON ONT

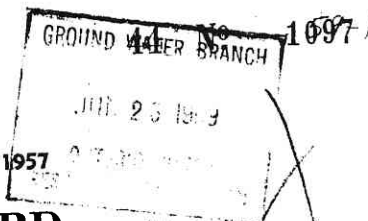
Date Jan 15/44  
Carl Strome (J. S.T.)  
(Signature of Licensed Drilling or Boring Contractor)

## Location of Well

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







The Ontario Water Resources Commission Act, 1957

# WATER WELL RECORD

County or District Norfolk 401/15E Township, Village, Town or City North Walsingham

completed 27 May 1959  
(day) (month) (year)  
ess RR #1 Eastland Delhi

### Casing and Screen Record

Inside diameter of casing  $1\frac{1}{4}$  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  $1\frac{1}{4}$ "

### 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 **C.P.M.**  
with pumping level of —

## Well Log

## Water Record

[illegible]

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

House

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

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

Drilling Firm James H. Weaver & Son

Address 1332 Tillman Ave  
Tillmanburg Ont.

Licence Number.....173.....

Name of Driller: JAMES H. WEAVER

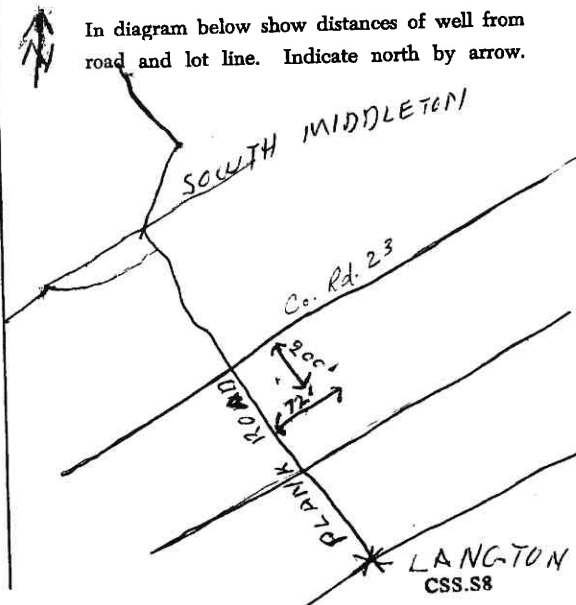
Address ..... *St. Louis* .....

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.

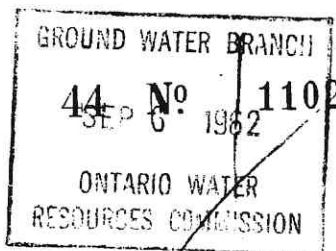


**CSS.S8**



UTM 12 533360 E

62-16

51 114764385 N

The Ontario Water Resources Commission Act

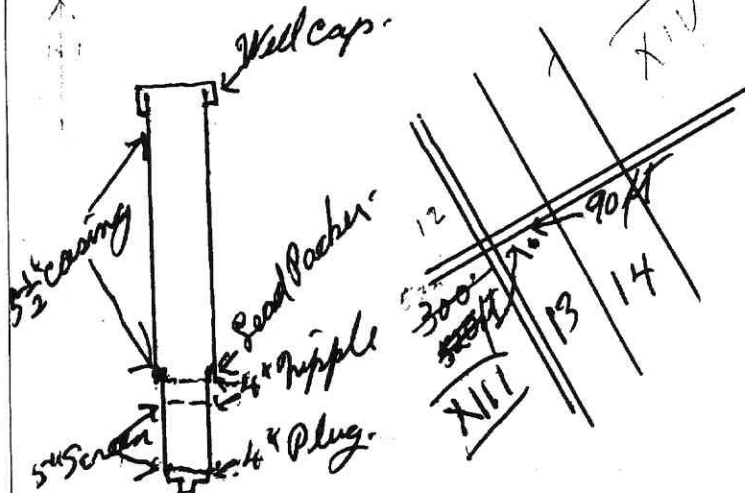
Elev. 3 20765**WATER WELL RECORD**Basin 23 NorfolkTownship, Village, Town or City N. WalsinghamCon. 13 13Date completed 1 Aug. 1962  
(day month year)Owner [REDACTED]  
(print in block letters)Address R.R.1, Delhi**Casing and Screen Record****Pumping Test**

Inside diameter of casing 5"  
Total length of casing 36'  
Type of screen Johnson # 10  
Length of screen 5'  
Depth to top of screen 35'  
Diameter of finished hole Screen 4"

Static level 20'  
Test-pumping rate 10 G.P.M.  
Pumping level 30'  
Duration of test pumping 2 Hrs.  
Water clear or cloudy at end of test Clear  
Recommended pumping rate 10 G.P.M.  
8" from bottom of Screen  
with pump setting of feet below ground surface

**Well Log****Water Record****Overburden and Bedrock Record**From  
ft.To  
ft.Depth(s) at  
which water(s)  
foundKind of water  
(fresh, salty,  
sulphur)Dry Sand03232-40FreshYellow Water Sand3240**GUARANTEE OF WELL VOID; If Casing cut off below ground level.**

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

DomesticIs well on upland, in valley, or on hillside? UplandDrilling or Boring Firm Gordon Warren99 Vienna Rd.,Address Tillsonburg.Licence Number 561Name of Driller or Borer H. Cole,Address R.R.3, TillsonburgDate 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 12 533100 E

62-22

GROUND WATER BRANCH

44 No 1128

FEB 4 1963

ONTARIO WATER  
RESOURCES COMMISSION5 4 4 3 4 3 5 0 N

The Ontario Water Resources Commission Act

Elev. 5 2 0 7 6 5

## WATER WELL RECORD

401/15E

Basin 23 norfolk

County or District

Township, Village, Town or City

North WatlingtonCon. 14Lot 12

Date completed

15

(day)

Oct.

month

1962

year

ess. Courtland RR#1

## Casing and Screen Record

Inside diameter of casing 1 1/4 in.  
 Total length of casing 22 ft.  
 Type of screen 2 in. Weaver Filter  
 Length of screen 6 ft.  
 Depth to top of screen 26 ft.  
 Diameter of finished hole 1 1/4 in.

## Pumping Test

Static level 13 ft.  
 Test-pumping rate 500 gph ~~G.P.M.~~  
 Pumping level 26 ft.  
 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 8 ft. feet below ground surface

## Well Log

## Water Record

## Overburden and Bedrock Record

Open well  
Gravel fill  
Brown quick sand  
Brown water sand

From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
<u>0</u>	<u>12</u>		
<u>12</u>	<u>17</u>	<u>13 ft.</u>	<u>Fresh</u>
<u>17</u>	<u>27</u>		
<u>27</u>	<u>34</u>		

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

1 house + Tobacco Farm

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

Level

Drilling or Boring Firm

James H. Weaver & SonAddress 332 Tillson Ave.Tillsonburg Ont.Licence Number 664

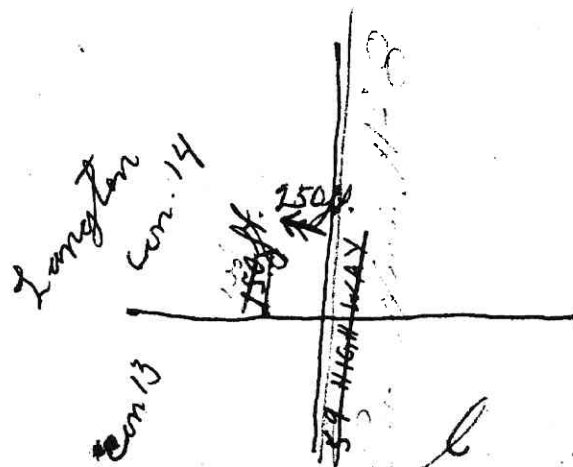
Name of Driller or Borer

Same James H. WeaverAddress SameDate Oct. 15/62James H. Weaver

(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

JTM

1172 533360

Con XIV

CODED



4402204

40I/15 7

5R 47344901

lev. 5R 0765

The Ontario Water Resources Commission Act

# WATER WELL RECORD

Loc. 23

County or District NorfolkTownship, Village, Town or City N. NaltinghamCon. XIVLot 13Date completed 10 June 1968  
(day month year)

ess

R.R. # 1 Delhi

## Casing and Screen Record

Inside diameter of casing 1"  
 Total length of casing 22'  
 Type of screen 1 1/2" sand point  
 Length of screen 4'  
 Depth to top of screen 22'  
 Diameter of finished hole 1"

## Pumping Test

Static level 10'  
 Test-pumping rate 10 G.P.M.  
 Pumping level direct  
 Duration of test pumping 1 hr.  
 Water clear or cloudy at end of test clear  
 Recommended pumping rate 8 G.P.M.  
 with pump setting of direct feet below ground surface

## 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)
<u>Top soil</u>	<u>0</u>	<u>1</u>		
<u>brown sand</u>	<u>1</u>	<u>10</u>		
<u>water sand</u>	<u>10</u>	<u>26</u>	<u>10-26'</u>	<u>F</u>

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

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

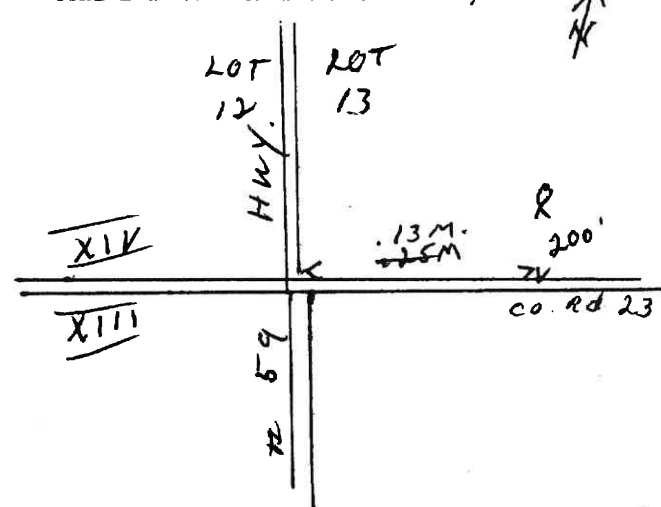
Drilling or Boring Firm

L. Hodgson & SonsAddress Glen MeyerLicence Number 3147Name of Driller or Borer L. HodgsonAddress sameDate Oct. 4/68Lewis Hodgson

(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

OWRC COPY

CSS 8\*





Ontario

MINISTRY OF THE ENVIRONMENT  
The Ontario Water Resources Act

## WATER WELL RECORD

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

11

4403594

MUNICIPALITY 44005

CON. 02

113

COUNTY OR DISTRICT

North Walsingham

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

CON., BLOCK, TRACT, SURVEY, ETC.

13

LOT

012

DATE COMPLETED

02

MO. 01

76

4403594 17

533202

4734258

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	dry	0	14
yellow	clay	stones	hard	14	26
yellow	sand	wood	Water sand	26	31
(8" Gravel pack)					

WRC

P.8

31

32

41

## WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
10-15	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
15-20	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
20-25	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
25-30	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
30-35	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL

51

## CASING &amp; OPEN HOLE RECORD

DEPTH - FEET	WALL THICKNESS INCHES
10-15	1 <input type="checkbox"/> STEEL 2 <input checked="" type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE
15-20	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE
20-25	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE
25-30	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE

SCREEN

SIZE OF OPENING (SLOT NO.)

010

MATERIAL AND TYPE

Johnson Stainless

DEPTH TO TOP OF SCREEN

0026

## PLUGGING &amp; SEALING RECORD

DEPTH SET AT - FEET	TO	MATERIAL AND TYPE	(CEMENT GROUT, LEAD PACKER, ETC.)
10-15	14-17		
18-21	22-25		
26-29	30-33		

71

PUMPING TEST

PUMPING TEST METHOD	1 <input checked="" type="checkbox"/> PUMP 2 <input type="checkbox"/> BAILEY	DURATION OF PUMPING	1-14 HOURS 00:20 15-18 HOURS 02 19-18 MINS 40
STATIC LEVEL	19-21 FEET 016	WATER LEVEL END OF PUMPING	22-24 FEET 016
IF FLOWING, GIVE RATE	38-41 GPM +1	PUMP INTAKE SET AT	42 FEET
RECOMMENDED PUMP TYPE	1 <input checked="" type="checkbox"/> SHALLOW 2 <input type="checkbox"/> DEEP	RECOMMENDED PUMP SETTING	43-45 FEET 0010 +5
		RECOMMENDED PUMPING RATE	46-49 GPM

FINAL STATUS OF WELL

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

WATER USE

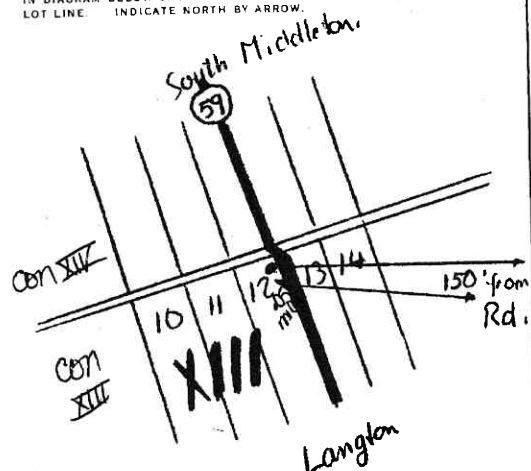
1 ☒ DOMESTIC 5 ☐ COMMERCIAL  
2 ☐ STOCK 6 ☐ MUNICIPAL  
3 ☐ IRRIGATION 7 ☐ PUBLIC SUPPLY  
4 ☐ INDUSTRIAL 8 ☐ COOLING OR AIR CONDITIONING  
9 ☐ OTHER 9 ☐ NOT USED

METHOD OF DRILLING

1 ☒ CABLE TOOL 6 ☐ BORING  
2 ☐ ROTARY (CONVENTIONAL) 7 ☐ DIAMOND  
3 ☐ ROTARY (PREVENTIVE) 8 ☐ JETTING  
4 ☐ ROTARY (AIR) 9 ☐ DRIVING  
5 ☐ AIR PERCUSSION

## LOCATION OF WELL 3334

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



DRILLER'S REMARKS:

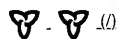
NAME OF WELL CONTRACTOR	WARREN WATER WELLS	LICENCE NUMBER	5413
ADDRESS	R127 Tillsonburg		
NAME OF DRILLER OR BORER	Gus Holzheu	LICENCE NUMBER	5413
SIGNATURE OF CONTRACTOR	J. J. Holzheu		
SUBMISSION DATE	DAY _____ MO. _____ YR. _____		

DATA SOURCE	1	CONTRACTOR	5413	DATE RECEIVED	800176
DATE OF INSPECTION	INSPECTOR				
REMARKS:	P. K. WI				

MINISTRY OF THE ENVIRONMENT COPY

FORM 7 MOE 07-091

Follow the [COVID-19 restrictions and public health measures \(https://covid-19.ontario.ca/public-health-measures\)](https://covid-19.ontario.ca/public-health-measures) and [book your appointment to get vaccinated \(https://covid-19.ontario.ca/book-vaccine/\)](https://covid-19.ontario.ca/book-vaccine/).



Français(/fr/page/registre-de-puits)

Menu

fr(/fr/page/registre-de-puits)

## 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 \(https://data.ontario.ca/dataset/well-records\)](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 WALSHINGHAM 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 (<http://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

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Tag#: A290001

Measurements recorded in: ☐ Metric ☐ Imperial

Address of Well Location (Street Number/Name)  
946 COUNTY ROAD 21  
County/District/Municipality  
NORFOLK  
City/Town/Village  
ANDYSCOMERS  
Province  
ONTARIO  
Postal Code  
N0E1G0  
UTM Coordinates Zone Easting Northing  
NAD 83 11 53 2 11 54 7345 11  
Municipal Plan and Sublot Number

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)			
General Colour	Most Common Material	Other Materials	General Description
Black	TO (S02)		
Yellow	SAND		
Brown	SAND		
Brown	SAND		FINE

Annular Space			Results of Well Yield Testing			
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)	After test of well yield, water was:			
0' 19'	QUICKGROUT	1.40611000	<input checked="" type="checkbox"/> Clear and sand free			
			<input type="checkbox"/> Other, specify			
			If pumping discontinued, give reason:			
			Pump intake set at (m/ft)			
			Pumping rate (l/min / GPM)			
			Duration of pumping			
			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)			
			Well production (l/min / GPM)			
			Disinfected?			

Method of Construction				Well Use										
<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Diamond	<input type="checkbox"/> Public	<input type="checkbox"/> Commercial	<input type="checkbox"/> Not used										
<input checked="" type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Jetting	<input checked="" type="checkbox"/> Domestic	<input type="checkbox"/> Municipal	<input type="checkbox"/> Dewatering										
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Drilling	<input type="checkbox"/> Livestock	<input type="checkbox"/> Test Hole	<input type="checkbox"/> Monitoring										
<input type="checkbox"/> Boring	<input type="checkbox"/> Digging	<input type="checkbox"/> Irrigation	<input type="checkbox"/> Cooling & Air Conditioning											
<input type="checkbox"/> Air percussion														
<input type="checkbox"/> Other, specify														

Construction Record - Casing				Status of Well			
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)	<input checked="" type="checkbox"/> Water Supply			
114	PVC	188	0' 22'	<input type="checkbox"/> Replacement Well			
				<input type="checkbox"/> Test Hole			
				<input type="checkbox"/> Recharge Well			
				<input type="checkbox"/> Dewatering Well			
				<input type="checkbox"/> Observation and/or Monitoring Hole			
				<input type="checkbox"/> Alteration (Construction)			
				<input type="checkbox"/> Abandoned, Insufficient Supply			
				<input type="checkbox"/> Abandoned, Poor Water Quality			
				<input type="checkbox"/> Abandoned, other, specify			
				<input type="checkbox"/> Other, specify			

Construction Record - Screen				Map of Well Location			
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	Please provide a map below following instructions on the back.			
151C	STAINLESS	10	21 25'				

Water Details		Hole Diameter	
Water found at Depth	Kind of Water: <input checked="" type="checkbox"/> Fresh <input type="checkbox"/> Untested	Depth (m/ft)	Diameter (cm/in)
15' (m/ft)	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0 25 6"	
Water found at Depth	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested		
(m/ft)	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify		
Water found at Depth	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested		
(m/ft)	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify		

Well Contractor and Well Technician Information			
Business Name of Well Contractor	Well Contractor's Licence No.		
Dave Vanhesselt Drilling	76 27		
Business Address (Street Number/Name)	Municipality		
15 20th Rd	Norfolk		
Province	Postal Code	Business E-mail Address	
ON	N7Y 2S5	dave.vanhesselt@drilling.ca	
Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)		
519 708 3162	Vanhessa Dave		
Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted	
3373	[Signature]	20200406	

## J. 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.

## K. 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.

## L. 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 Be. Shoote

Owner/Applicant Signature

June 16, 2023

Date

## M. Owner's Authorization

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

I/We 499919 ontario Ltd. am/are the registered owner(s) of the lands that is the subject of this application.

I/We authorize Mary Elder of 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 Be. Shoote

Owner

June 16, 2023

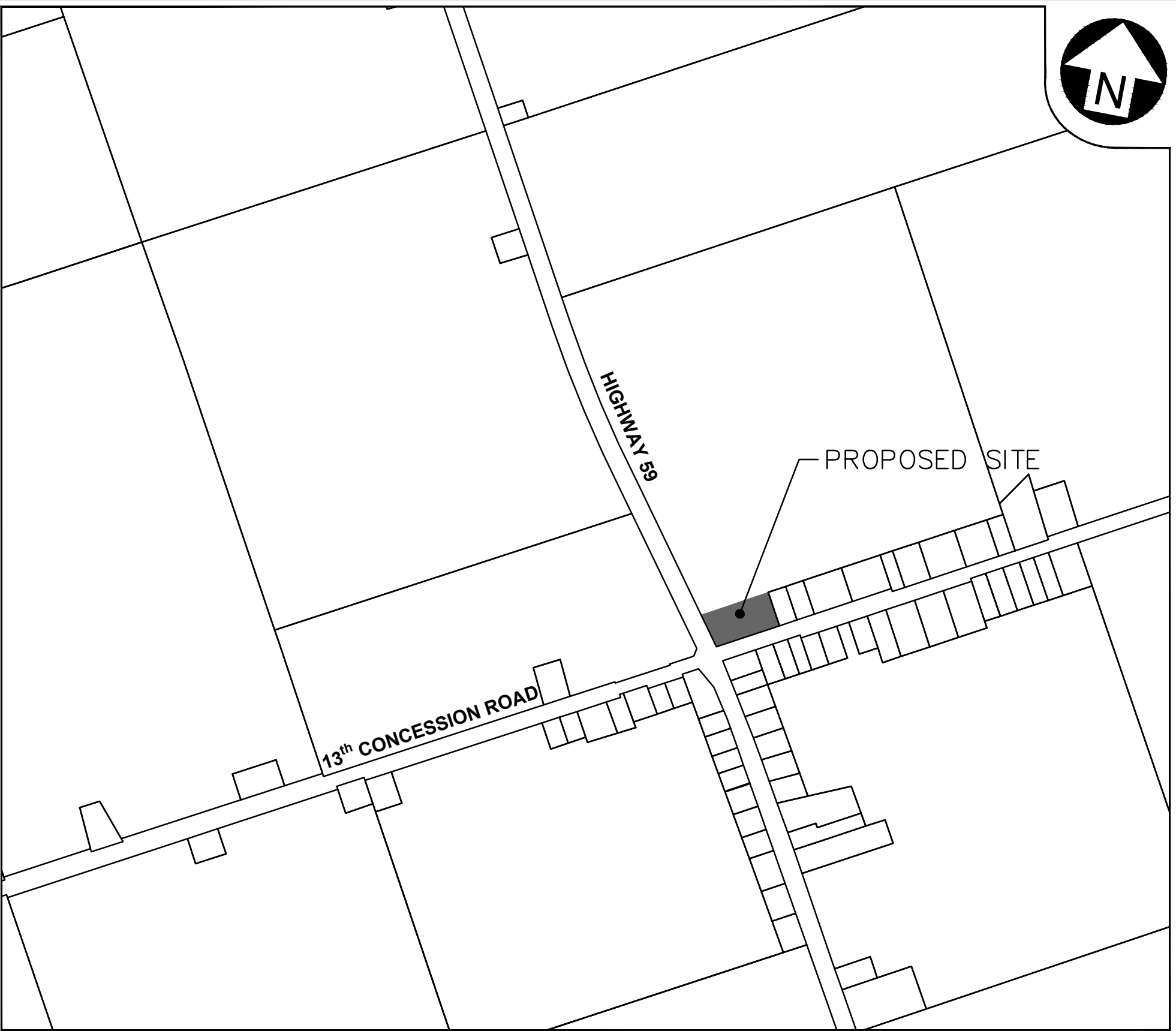
Date

Owner  
I have authority to bind  
the Corporation.

Date



I:\ACAD Projects\2022\22047\04-LAYOUTS\22047\_COVER PAGE.dwg, 6/19/2023 10:49:54 AM, CJD/PC35

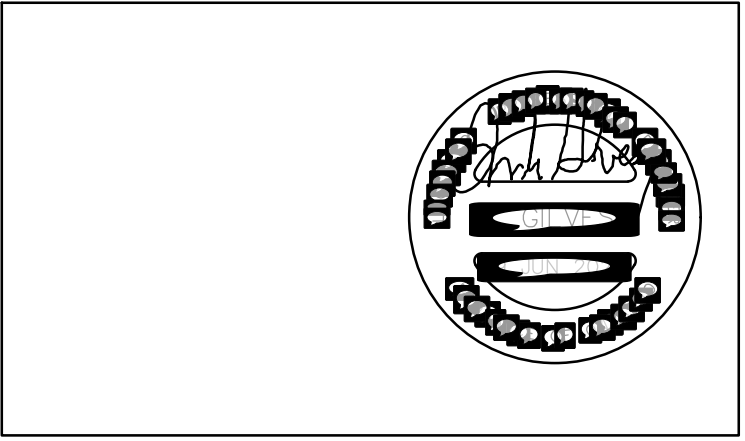


# DEGROOTE SEVERANCES

NORFOLK COUNTY  
PHASE 1 - RP 41-M-???  
ALLAN DEGROOTE

LIST OF DRAWINGS	
DWG	DESCRIPTION
1.	COVER SHEET - GENERAL PLAN
2.	GRADING PLAN

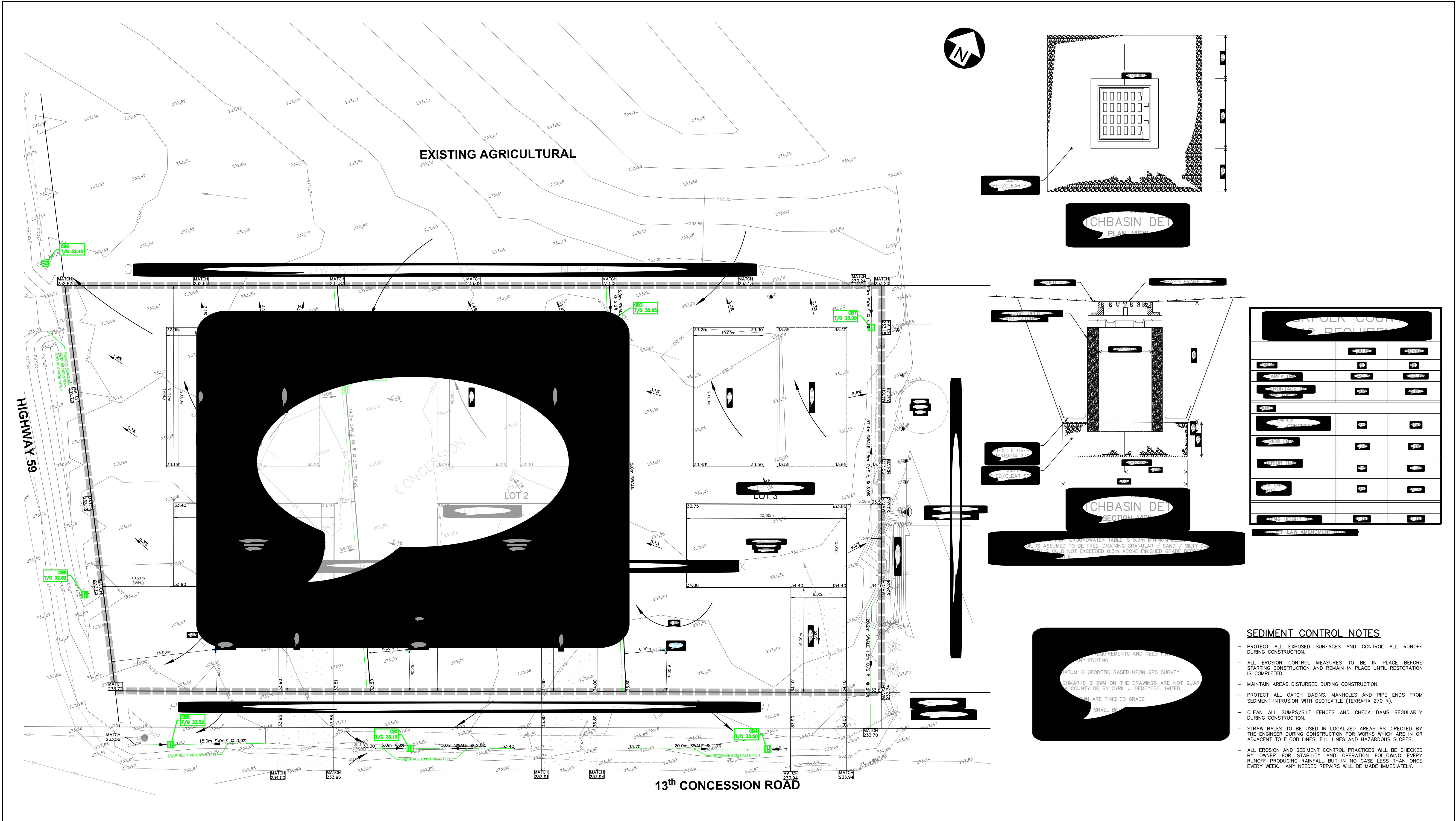
REVISIONS			
No.	REVISION	DATE	BY



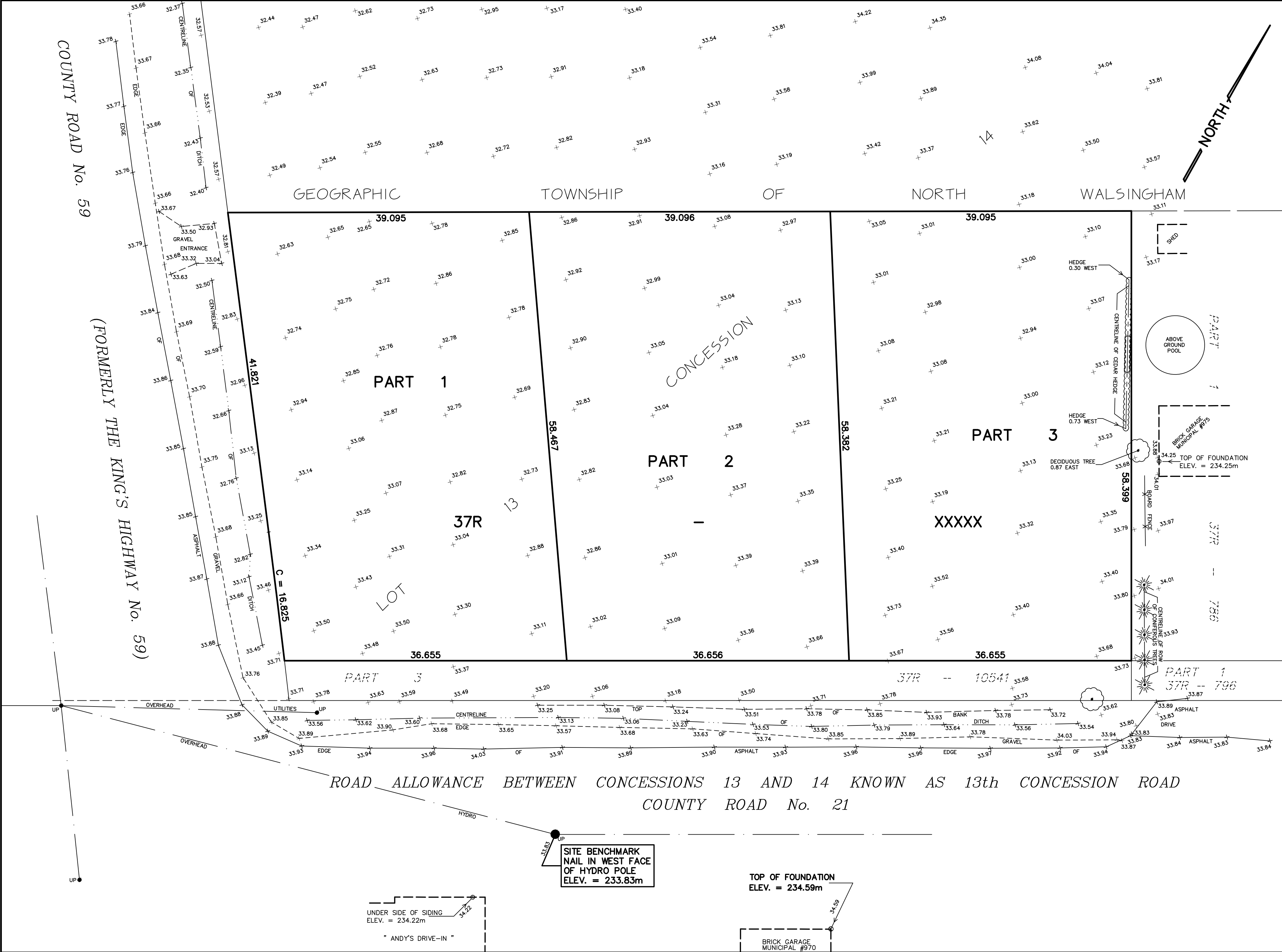
**CJDL**  
Consulting Engineers

Cyril J. Demeyere Limited  
P.O. Box 460, 261 Broadway  
Tillsonburg, Ontario, N4G 4H8  
Tel: 519-688-1000  
866-302-9886  
Fax: 519-842-3235  
cjdl@cjdlang.com





LEGEND				STAMP:				METRIC H. SCALE 1:250				NORFOLK COUNTY			
PROPOSED GROUND ELEVATIONS				PROPOSED SURFACE DRAINAGE, EXISTING DITCH/SWALE				PROPOSED DRYWELL CATCH BASIN				DEGROOTE SEVERANCES			
EXISTING GROUND ELEVATIONS				TOE OF SLOPE, TOP OF BANK				CONIFEROUS, DECIDUOUS TREE				37R-XXXX			
LOT NUMBER				FENCE				SHRUB				ALLAN DEGROOTE			
DAYLIGHT BASEMENT, WALKOUT				APPROXIMATE LIMIT OF ENG. FILL				EDGE OF BUSH/DRIP LINE				GRADING PLAN			
MAJOR FLOW				TOP OF ENGINEERED FILL				METRIC CONTOUR ELEVATIONS IN METRES (HUSTED SURVEY)							
ORIGINAL ELEVATIONS (MAY NOT BE VALID NOW)				UNDERSIDE OF ENGINEERED FILL											
ELEVATIONS AFTER EARTH GRADING															



TOPOGRAPHIC SURVEY  
FOR: 499919 ONTARIO LTD. (AL DEGROOTE)

SCALE 1:300  
METRIC DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

CAUTION

- THIS IS NOT A PLAN OF SURVEY OR SURVEYOR'S REPORT AND SHALL NOT BE USED FOR TRANSACTION OR FINANCING PURPOSES
- DO NOT CONVEY FROM THIS PLAN
- ELEVATION OF EXISTING GROUND WATER TABLE AND SOIL CONDITIONS NOT DETERMINED

- NOTES
- (1) - PROPERTY DIMENSIONS ARE AS SHOWN ON DEPOSITED PLAN 37R-
  - (2) - SITE BENCHMARK SPIKE SET IN WEST FACE OF HYDRO POLE LOCATED ON THE SOUTH SIDE OF COUNTY ROAD No. 21, OPPOSITE OF THE SUBJECT LANDS HAVING A GEODETIC ELEVATION OF 233.83 metres
    - ADD 200.00m TO ELEVATIONS SHOWN HERON TO OBTAIN GEODETIC DATUM
    - ELEVATIONS ARE REFERRED TO CANADIAN GEODETIC DATUM, CGVD 1928 VERTICAL DATUM
  - (3) - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ELEVATION OF THE UPPER LIMIT OF THE GROUND WATER TABLE, SOIL BEARING CAPACITY AND THE ELEVATION OF THE UNDER SIDE OF FOOTING PRIOR TO EXCAVATION.
  - (4) - SEPTIC SYSTEM TO BE DESIGNED BY OTHERS ELEVATIONS TO BE REVISED WHERE REQUIRED.
  - (5) - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SITE BENCH MARK PRIOR TO EXCAVATION
  - (6) - THE TOPOGRAPHIC SURVEY WAS COMPLETED FROM FIELD WORK COMPLETED ON THE 17th DAY OF OCTOBER, 2022

- NOTES
- DENOTES CONIFEROUS TREE
  - DENOTES DECIDUOUS TREE
  - UP DENOTES UTILITY POLE

PROPERTY DESCRIPTION:  
PART OF LOT 13, CONCESSION 14  
GEOGRAPHIC TOWNSHIP OF NORTH WALSHINGHAM  
NORFOLK COUNTY  
PART 1, 2 & 3, PLAN 37R-

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

NOVEMBER 4, 2022

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KIM HUSTED SURVEYING LTD. ONTARIO LAND SURVEYOR 30 HARVEY STREET, TILLSONBURG ONTARIO, N4G 3J8 PHONE: 519-842-3638 FAX: 519-842-3639			
PROJECT: 21-17618TOPO	1234567 ONTARIO INC. KIM HUSTED	REF: FILE	DWG: WLP CKD: XXX



# 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.

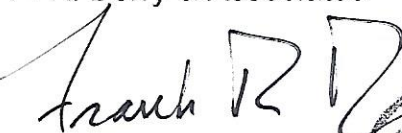
Based on data contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual, four single family lots will generate about three vehicle trips in the morning peak hour and about four vehicle trips in the afternoon peak hour. These volumes would have no significant impact on the operation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





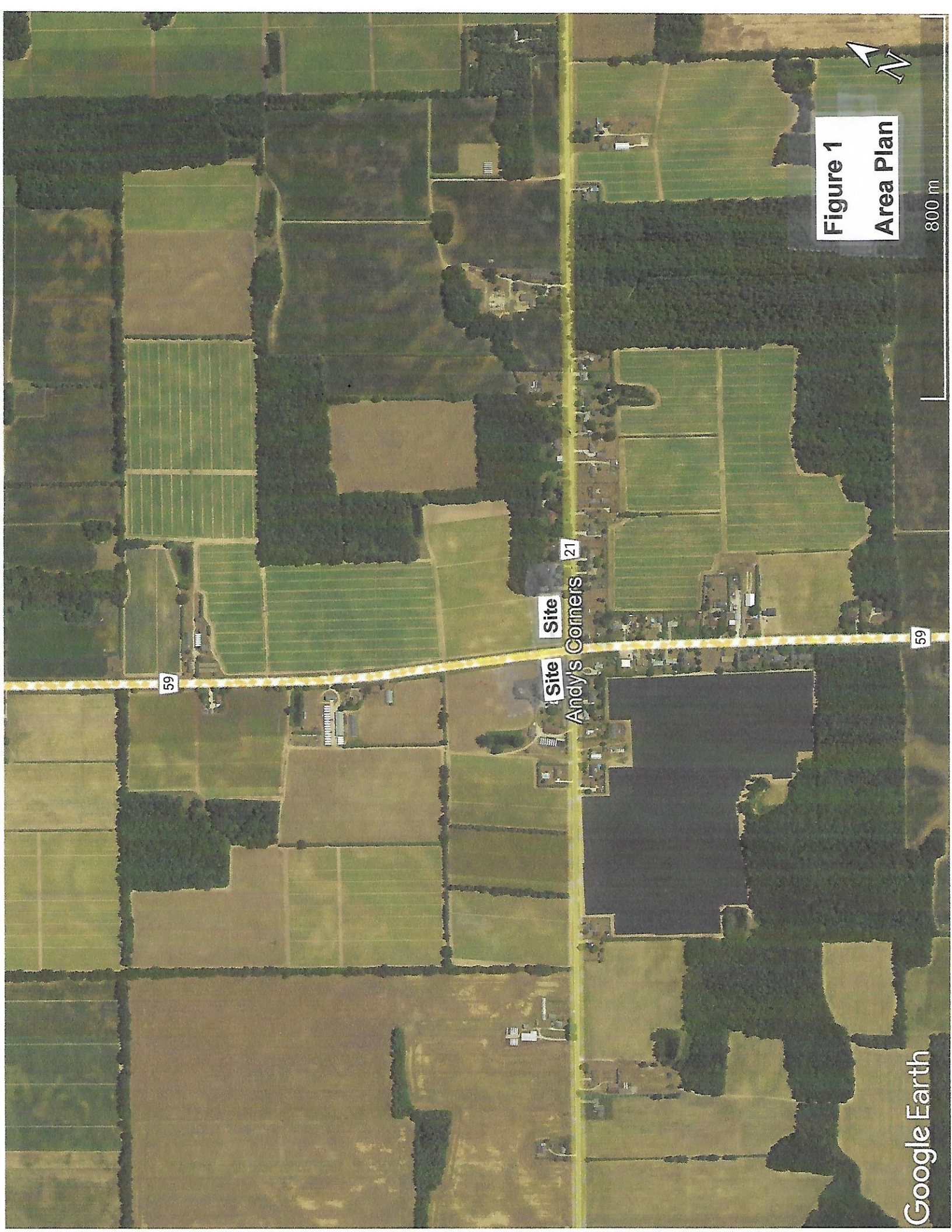





Figure 1  
Area Plan

800 m



This aerial map illustrates a proposed subdivision in Norfolk County, Massachusetts. The map features a road intersection with Highway 59 and Norfolk County Road 21. Two specific lots are highlighted in red and labeled: "proposed 2 lots" and "proposed lot". The surrounding land is categorized into various zones, including "Agricultural OP", "Hamlet OP", "RH", and "CHA". A "21" marker is visible on the road, and a "59" marker is present near the intersection. The map also shows a "21" marker on the road and a "59" marker near the intersection.

Zones 1-Z-2014  
Zone  
Zone with  
Special P

 Site Plan Control  
 Lakeshore Erosion Prone Areas  
**Community Boundaries**  
 Urban Area Boundary

Hamlet Area Boundary  
Resort Area Boundary  
Site Specific Policy Area

## Concept Plan



## 1.0 Introduction

The purpose of this report is to provide planning rationale for a zoning amendment for lands located within the hamlet of Andy's Corners and with roll number 54202010200.

The subject lands are located in the north-east corner of the intersection of County Road 59 and County Road 21. In the Norfolk County Official Plan, they are designated Hamlet. These lands are zoned "Agricultural" in the Norfolk County Zoning By-Law 1-Z-2014.

This report includes a review of the Provincial Policy Statement 2020, Norfolk County Official Plan and Norfolk County Zoning By-Law 1-Z-2014.

## 2.0 Site description and neighbouring land uses

The subject lands are part of a 32.19 ha agricultural parcel. About 0.66 ha are within the hamlet boundary. Hamlet residential uses are located to the east, south and southwest. A restaurant is also located directly south of the subject lands at the intersection. The main farm parcel with farm buildings is located to the west across Highway 59.

## 3.0 Development Proposal

A zoning by-law amendment to change the zoning from Agriculture (A) to Hamlet Residential (RH) is proposed in order to facilitate the development of three hamlet residential lots fronting on County Road 21. Based on the attached hydrogeological report, permission to have lots of a minimum 0.22 ha size is being proposed. It is expected that other RH zone provisions can be met as the new owners of the lots design their dwellings.

## 4.0 Policy Review

### 4.1 Provincial Policy Statement (2020)

The Provincial Policy Statement guides land uses planning for the entire province and the policies are to be read in their entirety. Decisions regarding land use planning matters are to be consistent with the Provincial Policy Statement. The Provincial Policy Statement focuses growth and development within urban and rural settlement areas while supporting the viability of rural areas. The following is a review of pertinent policies for this development proposal.

Provincial Policy Statement	Comments
1.1.3.1 Settlement areas shall be the focus of growth and development.	This proposal is located in a designated hamlet settlement area.
1.1.4.1 Healthy, integrated and viable rural areas should be supported by: c) accommodating an appropriate range and mix of housing in rural settlement areas;	The proposal will add single detached dwellings to a rural settlement area. This density is considered appropriate hamlet development.
1.1.4.2 In rural areas, rural settlement areas shall be the focus of growth and development and their vitality and regeneration shall be promoted.	This proposal will add to the vitality of the rural settlement area where growth and development is to be focused.



1.6.6.4 Where municipal sewage services and municipal water services or private communal sewage services and private communal water services are not available, planned or feasible, individual on-site sewage services and individual on-site water services may be used provided that site conditions are suitable for the long-term provision of such services with no negative impacts. In settlement areas, individual on-site sewage services and individual on-site water services may be used for infilling and minor rounding out of existing development	Municipal services are not available, planned or feasible. A hydrogeological report has been submitted which indicates individual on-site water services and individual on-site sewage services can be accommodated in the native soils and on 0.22 ha lots. No negative impacts are anticipated.
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As the subject lands are in a designated hamlet settlement area and private on-site servicing can be provided, the proposed hamlet development is consistent with Provincial Policy.

## 4.2 Norfolk County Official Plan

The County Official Plan contains policy in Section 2 to achieve the vision, "Norfolk County strives to balance a commitment to the land and emerging opportunities for growth and development."

Norfolk County Official Plan	Comments
<b>Section 2.2.3</b> Maintaining and Enhancing the Rural and Small Town Character	By adding 3 lots with single detached dwellings to existing Hamlet development, the rural, small town character of Andy's Corners is enhanced and maintained.
<b>Section 2.2.4</b> Maintaining a High Quality of Life Provide for a variety of housing forms, tenures and levels of affordability through development, redevelopment, intensification and infilling projects  Ensure the provision of appropriate privately owned water and waste water systems.	This development proposal adds additional single detached housing to an established Hamlet.  A hydrogeological study has been completed which indicates private water and waste water systems can be accommodated.
<b>Section 5.3.1 Residential Intensification</b> subsection c) Infilling and redevelopment are encouraged within the Courtland Urban Area and in the Hamlet Areas subject to the ability to provide adequate water and waste water services.	A hydrogeological study has been completed which indicates adequate private water and waste water services can be accommodated.
<b>Section 6.6 Hamlet Areas</b> The County will promote limited growth in Hamlet Areas and support their rural	Three additional dwelling units will provide for limited growth within the area designated for the hamlet of Andy's

<p>character and evolving role as service and residential centres to the agricultural community in recognition of changing social and economic conditions. Limited growth will be permitted provided that the growth is within the Hamlet Area boundary designated on Schedule “B” to this Plan, will not be detrimental to the rural character of the surrounding agricultural and/or resource area, will not have adverse environmental or human health consequences, and will not have a negative impact on the County’s financial sustainability. Growth in the Hamlets will be carefully monitored.</p>	<p>Corners and support its rural character. The small businesses may benefit from the additional population. The proposed development is not expected to have adverse environmental or human health consequences or a negative impact on the County financial stability. In fact, the applicable development charges should have a small positive impact.</p>
<p><b>Section 7.2 Agricultural Designation</b> (retained land) The primary use of land shall be for the growing of crops . . .</p>	<p>The retained lands from this proposal are designated for agricultural uses. They are currently used for cash crop production and that use will continue</p>
<p><b>Section 7.5 Hamlet Designation</b> 7.5.1 a) Low density residential dwellings on lots suitably sized to accommodate private servicing systems shall be the main permitted use</p>	<p>The proposed development consists of low density residential dwellings on lots sized to accommodate private servicing. This is consistent with the main permitted use set out in the Official Plan.</p>
<p>Section 7.5.2 b) <b>Designation of a Hamlet Area</b> does not mean that the Hamlet Area is suitable for further development. The following criteria shall be addressed in the review of development applications within designated Hamlet Area boundaries: i) availability of potable water; ii) a servicing feasibility study has been completed in accordance with the Ministry of the Environment and Climate Change guidelines which demonstrates that the proposal’s impact on ground and surface water will be within acceptable limits; iii) the proposed servicing will be appropriate for the proposed densities and land uses; iv) the pattern of new development will be a logical extension of the existing built-up area; v) the available community facilities, such as community centres, schools, convenience commercial, recreation or cultural facilities can accommodate the proposed development;</p>	<p>The proposal meets the following criteria:</p> <ul style="list-style-type: none"> <li>i) Potable water is available;</li> <li>ii) The impact on ground and surface water is within acceptable limits as set out in the supporting studies;</li> <li>iii) On-site private servicing is appropriate according to Official Plan policy and the hydrogeological study;</li> <li>iv) The three new lots completes the row of existing lots on the north side of County Road 21 and Highway 59;</li> <li>v) Community facilities located in nearby Hamlets or Urban Areas should be able to accommodate the small increase in population;</li> <li>vi) There are no Provincially Significant Features of Hazard Lands on the subject lands;</li> </ul>

<p>vi) the area of the proposed development shall not be permitted in Provincially Significant Features or Hazard Lands, identified on Schedules “B” of this Plan;</p> <p>vii) the area of the proposed development shall not be permitted in or on adjacent land to the Natural Heritage Features identified on Schedule “C” . . . .</p> <p>viii) the area of the proposed development shall not be located within, and will not have a negative impact on, a Natural Resource Area identified on Schedule “J” to this Plan . . . . .</p>	<p>vii) There are no Natural Heritage Features on or adjacent to the subject lands;</p> <p>viii) There are no Natural Resources Areas on or adjacent to the subject lands.</p>
<p><b>Section 9.6.2 Zoning By-law Amendments</b></p> <p>Applications for Zoning By-law amendments shall be evaluated based on the same or similar criteria as those outlined for Official Plan amendments in Section 9.6.1.</p> <p>Section 9.6.1 - The County shall consider the following criteria when reviewing applications to amend this Plan:</p> <p>i) the manner in which the proposed amendment conforms to prevailing Provincial policy and regulations;</p> <p>ii) the manner in which the proposed amendment conforms to the Strategic Plan prepared in support on this Plan;</p> <p>iii) the manner in which the proposed amendment conforms to the Goals and Objectives, and policies of this Plan;</p> <p>iv) the impacts of the proposed amendment on the provision of and demand for municipal services, infrastructure and facilities;</p> <p>v) the adequacy of the proposed servicing solution with respect to the servicing policies of this Plan;</p> <p>vi) the impact of the proposed amendment on surrounding land uses, the transportation system, municipal services and community amenities and services;</p> <p>vii) the impact of the proposed amendment on the community structure and nature of the Urban Areas and/or Hamlet Areas;</p> <p>viii) the impact of the proposed amendment on cultural heritage resources and/or Natural Heritage Features;</p>	<p>The proposed zoning amendment changing the Agricultural Zone to Hamlet Residential is:</p> <p>i) Consistent with the Provincial Policy and regulations as detailed in section 4.1 of this report;</p> <p>ii) The proposed development conforms to several strategic plan objectives, but particularly to “maintaining and enhancing the rural and small town character”. More details are in the first part of section 4.2 of this report;</p> <p>iii) Again, see section 4.2 for detailed comments on how the proposed zoning amendment conforms to the Goals and Objectives of the Plan;</p> <p>iv) Private on-site services are proposed and the hydrogeological study supports this. The traffic study indicates the existing transportation infrastructure can accommodate the projected minor increase in traffic. The increased demands on other municipal services, infrastructure and facilities is also expected to be minor;</p> <p>v) Private on-site servicing is permitted in hamlets;</p>

<p>ix) the impact on agricultural uses and land;  x) the impact of the proposed amendment on the financial sustainability of the County; and  xi) any other information determined by the County, in consultation with the appropriate agencies, to be relevant and applicable.</p>	<p>vi) The proposed zoning amendment will enable 3 additional dwelling units within the hamlet designation and permit agricultural uses to continue on the retained lands. The transportation study indicates the roads will not be overly impacted. Municipal services and community amenities should be able to absorb the additional use;</p> <p>vii) The zoning amendment will implement the Hamlet designation and strengthen the hamlet area and community structure;</p> <p>viii) There will be no impact on cultural heritage resources or any Natural Heritage Features;</p> <p>ix) Land designated for agricultural uses will continue in that use. Only lands currently designated for Hamlet use and currently used to produce crops will be lost to production;</p> <p>x) There should be no negative impact on the County financial situation. The Development Charges should have a small positive impact;</p> <p>xi) No other information was requested.</p>
<p><b>Section 9.6.3.2 General Consent to Sever Land Policies</b>  c) If a plan of subdivision is not deemed necessary, regard shall be had to the other policies within this Plan and to the following criteria when considering an application for consent:  i) consents shall only be granted when the land fronts onto an existing, assumed public road that is maintained on a year-round basis;  ii) consents shall have the effect of infilling in existing areas and not extending existing development;</p>	<p>We have been provided a letter from the General Manager, Community Development Division, that a plan of subdivision is not necessary as long as the criteria are met:</p> <p>i) The land fronts on County Road 21 which is an existing, assumed public road that is maintained on a year-round basis;</p> <p>ii) The proposed lots fill in the remaining area between Highway 59 and the row of existing residential lots on the north side of County Road 21.</p>

<p>iii) creation of the lot does not compromise the long-term use of the remaining land or retained parcel;</p> <p>iv) consents may be considered for large parcels, where future development of the large parcels is to proceed by plan of subdivision.</p>	<p>iii) The south side is already fully developed;</p> <p>The retained parcel will continue to be utilized for the production of agricultural cash crops. This use will not be compromised;</p> <p>iv) Not applicable to this situation.</p>
<p>e) A hydrogeological study to confirm soil conditions and suitability for potential future private services may be required where the retained or severed parcel(s) is(are) sufficiently large to accommodate subsequent lots</p>	<p>Based on the attached hydrogeological report lot sizes of 0.22 ha are proposed.</p>

The proposed zoning amendment implements the Official Plan designation. All Official Plan policies are met with the development of these residential lots.

## 4.3 Norfolk County Zoning By-Law 1-Z-2014

The Norfolk County Zoning By-law regulates the use of lands, the frontage and depth of a parcel of land, the proportion of land occupied by a building or structure, the erection, use, height, bulk, size, floor area, spacing and location of building and structures, and the provision of parking facilities.

Norfolk County Zoning By-Law	Comments
Site is currently zoned "A"	The proposed Zoning amendment would change the zone to RH.
Staff are supportive of the proposed amendment, however, encourage the applicant to consider smaller lots that are more consistent with the existing lot fabric in Andy's Corners if supported by the Hydrogeological Report.	During pre-consultation, staff provided this guidance and as a result of the hydrogeological study, smaller lots of a similar size to the existing lots, are proposed.
5.7.2 a) minimum lot area: 0.4 hectares	Based on the attached hydrogeological report lot sizes of 0.22 ha are proposed.
5.7.2. Zone Provisions except a)	It is expected that the new owners of the lots will be able to design the dwelling units to meet the zone provisions.

It is reasonable to anticipate that all zone provisions, except minimum lot size, can be met. The hydrogeological report supports the provision of private on-site water and waste water services on 0.22 ha lots. For these reasons the zoning amendment should be supported.

## 5.0 Review Summary

The proposed area for the three new lots is within the designated Andy's Corners Hamlet. The proposal is consistent with Provincial Policy and the Norfolk County Official Plan. Changing the zoning to Hamlet

Residential will implement the Official Plan. Except for lots size, all provisions of the Zoning By-law can be met or exceeded. Based on the submitted Hydrogeological Report, a reduced lot size of 0.22 ha is able to accommodate individual on-site septic services and individual on-site water services. With the above in mind, this application should be supported. It is good planning and is in the public's interest.

Applications for consent are proposed to follow approval of the zoning amendment.

**Respectfully submitted,**

**Mary Elder MCIP RPP**

## Planning Department Development Application Form

### Complete Application

A complete development application consists of the following:

1. A properly completed and signed application form (signature must be original in planners file);
2. Supporting information adequate to illustrate your proposal as indicated in **Section H** of this application form (plans are required in paper copy and digital PDF format);
3. Written authorization from the registered owner 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 user fees By-Law.

The above information is 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.

### Pre-Submission Consultation “Pre-consultation”:

A pre-consultation meeting with staff is required for all applications; however, minor applications may be exempted depending on the nature of the proposal, with approval from the Director of Planning or delegate. The purpose of a pre-consultation meeting is to provide the applicant with an opportunity to present the proposed application, discuss potential issues, and for the County and Agency staff to identify the required information and materials to be submitted with the application in order for it to be considered complete. The applicant has the opportunity to make revisions to the application prior to submission, without the additional costs of recirculation fees. It may be necessary to seek the assistance of independent professional help (for example, a planning consultant or engineer) for complex applications. If a pre-consultation meeting has been held to discuss your development, please **include a copy of the Pre-consultation minutes with your application** as part of the submission package. It should be noted that **pre-consultation minutes are valid for one year after the meeting date.**

### Development Application Process

Once an application has been deemed complete by a planner, it will be circulated to public agencies and County departments for review and comments. Notice of the application is also provided to adjacent land owners. The comments received assist the planner with the review and recommendation/approval of your application. The time involved in processing an application varies depending upon its complexity and its



acceptability to the other agencies and is subject to statutory *Planning Act* decision timeframes.

An additional fee will be required if a review by the Long Point Region Conservation Authority or by the Grand River Conservation Authority is deemed necessary by planning staff and/or by the Authority. 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. It should also be noted that 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. If your drawings are required to be recirculated there will be an additional fee. Also, please note that if your engineering drawings require more than three reviews due to revisions by the owner or failure to revise your engineering drawings as requested, an additional fee will be charged. No refund is available after the public meeting and/or after approval of application.

### **Notification Sign Requirements**

For the purpose of public notification and in order for staff to locate your lands for appropriate applications (zoning, subdivision, condominium or official plan) you will be given a sign to indicate the intent and purpose of your development application. It is your responsibility to:

1. Post one sign per frontage in a conspicuous location on the subject lands;
2. Ensure one sign is posted at the front of the subject lands at least three feet above ground level, not on a tree;
3. Notify the Planner when the sign is in place in order to avoid processing delays; and
4. Maintain the sign until the development application is finalized and thereafter removed.

### **Contact Us**

For additional information or assistance in completing this application, please contact a planner at 519-426-5870 or 519-875-4485 extension 1842 or [planning@norfolkcounty.ca](mailto:planning@norfolkcounty.ca). Please submit the completed application and fees to the attention of the Planning Department at 185 Robinson Street, Suite 200, Simcoe, ON N3Y 5L6.

**For Office Use Only:**

File Number	_____	Public Notice Sign	_____
Related File Number	_____	Application Fee	_____
Pre-consultation Meeting	_____	Conservation Authority Fee	_____
Application Submitted	_____	Well & Septic Info Provided	_____
Complete Application	_____	Planner	_____

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

- ☐ Official Plan Amendment
- ☐ Zoning By-Law Amendment
- ☐ Temporary Use By-law
- ☐ Draft Plan of Subdivision/Vacant Land Condominium
- ☐ Condominium Exemption
- ☐ Site Plan Application
- ☐ Extension of a Temporary Use By-law
- ☐ Part Lot Control
- ☐ Cash-in-Lieu of Parking
- ☐ Renewable Energy Project or Radio Communication Tower

Please summarize the desired end result of this application (for example: a special zoning provision on the subject lands to include additional use(s), changing the zone and/or official plan designation of the subject lands, creating a certain number of lots, or similar)

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**Property Assessment Roll Number:** \_\_\_\_\_

## A. Applicant Information

**Name of Owner** \_\_\_\_\_

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 \_\_\_\_\_

Town and Postal Code \_\_\_\_\_

Phone Number \_\_\_\_\_

Cell Number \_\_\_\_\_

Email \_\_\_\_\_

**Name of Applicant** \_\_\_\_\_

Address \_\_\_\_\_

Town and Postal Code \_\_\_\_\_

Phone Number \_\_\_\_\_

Cell Number \_\_\_\_\_

Email \_\_\_\_\_

**Name of Agent** \_\_\_\_\_

Address \_\_\_\_\_

Town and Postal Code \_\_\_\_\_

Phone Number \_\_\_\_\_

Cell Number \_\_\_\_\_

Email \_\_\_\_\_

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 both 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):

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Municipal Civic Address: \_\_\_\_\_

Present Official Plan Designation(s): \_\_\_\_\_

Present Zoning: \_\_\_\_\_

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

☐ Yes ☐ No If yes, please specify corresponding number:

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3. Present use of the subject lands:

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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:

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

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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:

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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:

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

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9. Existing use of abutting properties:

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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:

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### C. Purpose of Development Application

**Note: Please complete all that apply.**

1. Please explain what you propose to do on the subject lands/premises which makes this development application necessary:

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

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3. Does the requested amendment alter all or any part of the boundary of an area of settlement in the municipality or implement a new area of settlement in the municipality? ☐ Yes ☐ No If yes, describe its effect:

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4. Does the requested amendment remove the subject land from an area of employment? ☐ Yes ☐ No If yes, describe its effect:

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5. Does the requested amendment alter, replace, or delete a policy of the Official Plan?  
☐ Yes ☐ No If yes, identify the policy, and also include a proposed text of the policy amendment (if additional space is required, please attach a separate sheet):

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6. Description of land intended to be severed in metric units:

Frontage: \_\_\_\_\_

Depth: \_\_\_\_\_

Width: \_\_\_\_\_

Lot Area: \_\_\_\_\_

Present Use: \_\_\_\_\_

Proposed Use: \_\_\_\_\_

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: \_\_\_\_\_

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Description of land intended to be retained in metric units:

Frontage: \_\_\_\_\_

Depth: \_\_\_\_\_

Width: \_\_\_\_\_

Lot Area: \_\_\_\_\_

Present Use: \_\_\_\_\_

Proposed Use: \_\_\_\_\_

Buildings on retained land: \_\_\_\_\_

7. Description of proposed right-of-way/easement:

Frontage: \_\_\_\_\_

Depth: \_\_\_\_\_

Width: \_\_\_\_\_

Area: \_\_\_\_\_

Proposed use: \_\_\_\_\_

8. Name of person(s), if known, to whom lands or interest in lands to be transferred, leased or charged (if known):

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**9. Site Information****Zoning****Proposed**

Please indicate unit of measurement, for example: m, m<sup>2</sup> or %

Lot frontage	_____	_____
Lot depth	_____	_____
Lot width	_____	_____
Lot area	_____	_____
Lot coverage	_____	_____
Front yard	_____	_____
Rear yard	_____	_____
Left Interior side yard	_____	_____
Right Interior side yard	_____	_____
Exterior side yard (corner lot)	_____	_____
Landscaped open space	_____	_____
Entrance access width	_____	_____
Exit access width	_____	_____
Size of fencing or screening	_____	_____
Type of fencing	_____	_____

**10. Building Size**

Number of storeys	_____	_____
Building height	_____	_____
Total ground floor area	_____	_____
Total gross floor area	_____	_____
Total useable floor area	_____	_____

**11. Off Street Parking and Loading Facilities**

Number of off street parking spaces	_____	_____
Number of visitor parking spaces	_____	_____
Number of accessible parking spaces	_____	_____
Number of off street loading facilities	_____	_____

12. Residential (if applicable)

Number of buildings existing: \_\_\_\_\_

Number of buildings proposed: \_\_\_\_\_

Is this a conversion or addition to an existing building? ☐ Yes ☐ No

If yes, describe: \_\_\_\_\_

Type	Number of Units	Floor Area per Unit in m2
Single Detached	_____	_____
Semi-Detached	_____	_____
Duplex	_____	_____
Triplex	_____	_____
Four-plex	_____	_____
Street Townhouse	_____	_____
Stacked Townhouse	_____	_____
Apartment - Bachelor	_____	_____
Apartment - One bedroom	_____	_____
Apartment - Two bedroom	_____	_____
Apartment - Three bedroom	_____	_____

Other facilities provided (for example: play facilities, underground parking, games room, or swimming pool):

13. Commercial/Industrial Uses (if applicable)

Number of buildings existing: \_\_\_\_\_

Number of buildings proposed: \_\_\_\_\_

Is this a conversion or addition to an existing building? ☐ Yes ☐ No

If yes, describe:

\_\_\_\_\_

Indicate the gross floor area by the type of use (for example: office, retail, or storage):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Seating Capacity (for assembly halls or similar): \_\_\_\_\_

Total number of fixed seats: \_\_\_\_\_

Describe the type of business(es) proposed: \_\_\_\_\_

Total number of staff proposed initially: \_\_\_\_\_

Total number of staff proposed in five years: \_\_\_\_\_

Maximum number of staff on the largest shift: \_\_\_\_\_

Is open storage required: ☐ Yes ☐ No

Is a residential use proposed as part of, or accessory to commercial/industrial use?

☐ Yes ☐ No If yes please describe:

\_\_\_\_\_  
\_\_\_\_\_

#### 14. Institutional (if applicable)

Describe the type of use proposed: \_\_\_\_\_

Seating capacity (if applicable): \_\_\_\_\_

Number of beds (if applicable): \_\_\_\_\_

Total number of staff proposed initially: \_\_\_\_\_

Total number of staff proposed in five years: \_\_\_\_\_

Maximum number of staff on the largest shift: \_\_\_\_\_

Indicate the gross floor area by the type of use (for example: office, retail, or storage):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### 15. Describe Recreational or Other Use(s) (if applicable)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### **D. 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):

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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:

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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. 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:

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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:

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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:

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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. 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. Servicing and Access

1. Indicate what services are available or proposed:

Water Supply

☐ Municipal piped water

☐ Communal wells

☐ Individual wells

☐ Other (describe below)

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Sewage Treatment

☐ Municipal sewers

☐ Communal system

☐ Septic tank and tile bed in good working order

☐ Other (describe below)

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Storm Drainage

☐ Storm sewers

☐ Open ditches

☐ Other (describe below)

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2. Existing or proposed access to subject lands:

☐ Municipal road

☐ Provincial highway

☐ Unopened road

☐ Other (describe below)

Name of road/street: \_\_\_\_\_

## G. Other Information

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

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

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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 properly named 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. Key map
4. Scale, legend and north arrow
5. Legal description and municipal address
6. Development name
7. Drawing title, number, original date and revision dates
8. Owner's name, address and telephone number
9. Engineer's name, address and telephone number
10. Professional engineer's stamp
11. Existing and proposed easements and right of ways
12. Zoning compliance table – required versus proposed
13. Parking space totals – required and proposed
14. All entrances to parking areas marked with directional arrows
15. Loading spaces, facilities and routes (for commercial developments)
16. All dimensions of the subject lands
17. Dimensions and setbacks of all buildings and structures
18. Location and setbacks of septic system and well from all existing and proposed lot lines, and all existing and proposed structures
19. Gross, ground and useable floor area
20. Lot coverage
21. Floor area ratio
22. Building entrances, building type, height, grades and extent of overhangs
23. Names, dimensions and location of adjacent streets including daylighting triangles
24. Driveways, curbs, drop curbs, pavement markings, widths, radii and traffic directional signs
25. All exterior stairways and ramps with dimensions and setbacks
26. Retaining walls including materials proposed
27. Fire access and routes
28. Location, dimensions and number of parking spaces (including visitor and accessible) and drive aisles
29. Location of mechanical room, and other building services (e.g. A/C, HRV)
30. Refuse disposal and storage areas including any related screening (if indoors, need notation on site plan)
31. Winter snow storage location

32. Landscape areas with dimensions
33. Natural features, watercourses and trees
34. Fire hydrants and utilities location
35. Fencing, screening and buffering – size, type and location
36. All hard surface materials
37. Light standards and wall mounted lights (plus a note on the site plan that all outdoor lighting is to be dark sky compliant)
38. Business signs (make sure they are not in sight lines)
39. Sidewalks and walkways with dimensions
40. Pedestrian access routes into site and around site
41. Bicycle parking
42. Architectural elevations of all building sides
43. All other requirements as per the pre-consultation meeting

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:

- ☐ Zoning Deficiency Form
- ☐ On-Site Sewage Disposal System Evaluation Form (to verify location and condition)
- ☐ Architectural Plan
- ☐ Buildings Elevation Plan
- ☐ Cut and Fill Plan
- ☐ Erosion and Sediment Control Plan
- ☐ Grading and Drainage Control Plan (around perimeter and within site) (existing and proposed)
- ☐ Landscape Plan
- ☐ Photometric (Lighting) Plan
- ☐ Plan and Profile Drawings
- ☐ Site Servicing Plan
- ☐ Storm water Management Plan
- ☐ Street Sign and Traffic Plan
- ☐ Street Tree Planting Plan
- ☐ Tree Preservation Plan
- ☐ Archaeological Assessment
- ☐ Environmental Impact Study

- ☐ Functional Servicing Report
- ☐ Geotechnical Study / Hydrogeological Review
- ☐ Minimum Distance Separation Schedule
- ☐ Noise or Vibration Study
- ☐ Record of Site Condition
- ☐ Storm water Management Report
- ☐ Traffic Impact Study – please contact the Planner to verify the scope required

Site Plan applications will require the following supporting materials:

1. Two (2) complete sets of the site plan drawings folded to 8½ x 11 and an electronic version in PDF format
2. Letter requesting that the Holding be removed (if applicable)
3. A cost estimate prepared by the applicant's engineer
4. An estimate for Parkland dedication by a certified land appraiser
5. Property Identification Number (PIN) printout

Standard condominium exemptions will require the following supporting materials:

- ☐ Plan of standard condominium (2 paper copies and 1 electronic copy)
- ☐ Draft condominium declaration
- ☐ Property Identification Number (PIN) printout

Your development approval might also be dependent on Ministry of Environment and Climate Change, 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. Development Agreements**

A development agreement may be required prior to approval for site plan, subdivision and condominium applications. Should this be necessary for your development, you will be contacted by the agreement administrator with further details of the requirements including but not limited to insurance coverage, professional liability for your engineer, additional fees and securities.

## J. 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.

## K. 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.

## L. 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 Be. Shoote

Owner/Applicant Signature

June 16, 2023

Date

## M. Owner's Authorization

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

I/We 499919 ontario Ltd. am/are the registered owner(s) of the lands that is the subject of this application.

I/We authorize Mary Elder of 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 Be. Shoote

Owner

June 16, 2023

Date

I have authority to bind the corporation.

Owner

Date

**N. 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:

Hannelore Yager

Mary Elder

Owner/Applicant Signature

In Norfolk County

This 24<sup>th</sup> day of July

A.D., 2023.

Hannelore Yager  
A Commissioner, etc.

Hannelore Tenley Yager, a  
Commissioner, etc., Province of Ontario,  
for the Corporation of Norfolk County.  
Expires November 21, 2025.

**N. 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:

Hannelore Yager

Mary Elder

Owner/Applicant Signature

In Norfolk County

This 24<sup>th</sup> day of July

A.D., 2023.

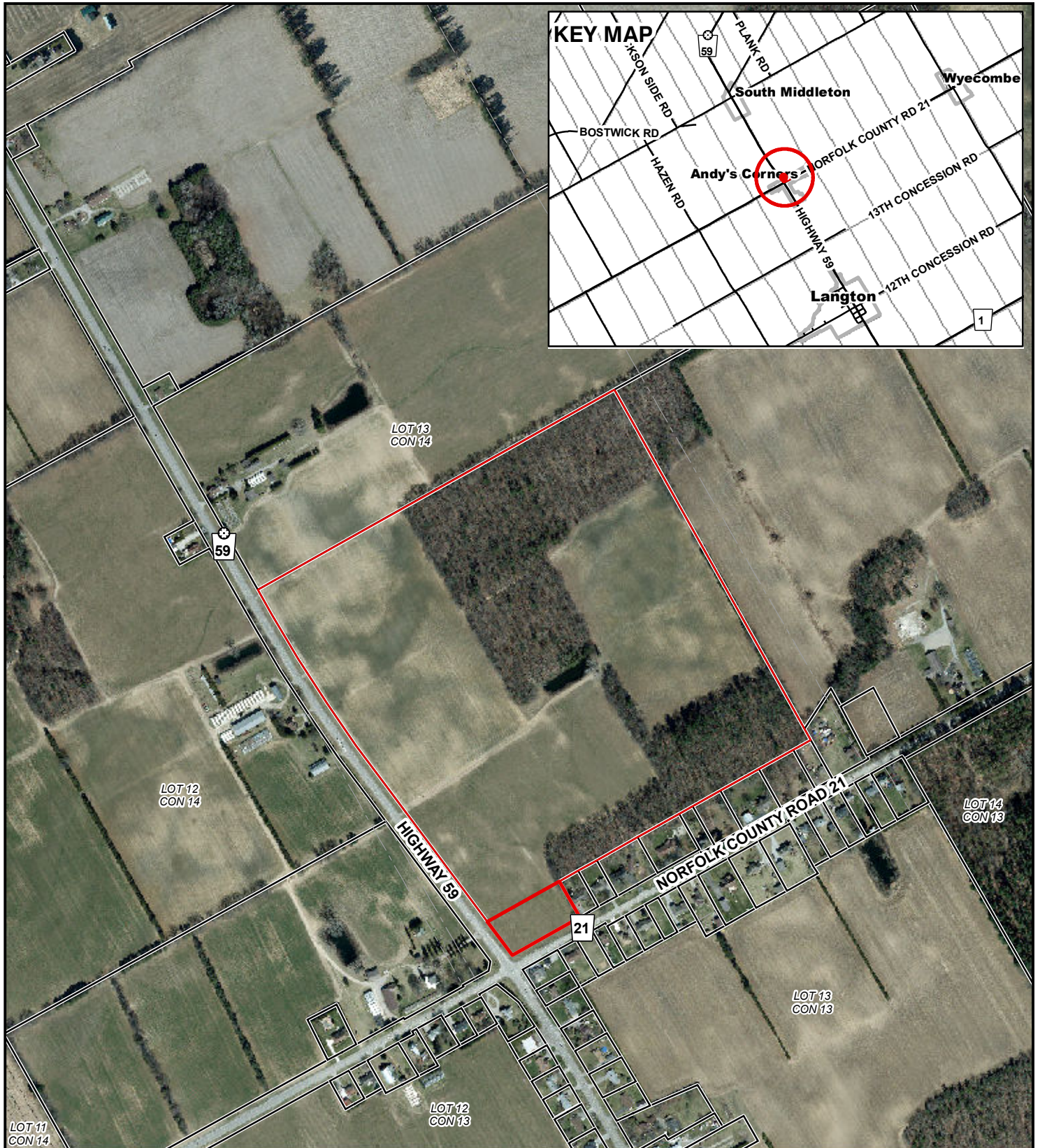
Hannelore Yager  
A Commissioner, etc.

Hannelore Tenley Yager, a  
Commissioner, etc., Province of Ontario,  
for the Corporation of Norfolk County.  
Expires November 21, 2025.





**MAP A**  
**CONTEXT MAP**  
Geographic Township of NORTH WALSINGHAM

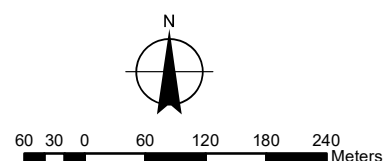
ZNPL2023237



**Legend**

-  Subject Lands
-  Lands Owned
- 2020 Air Photo

8/3/2023







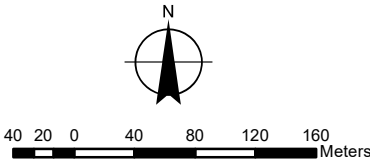
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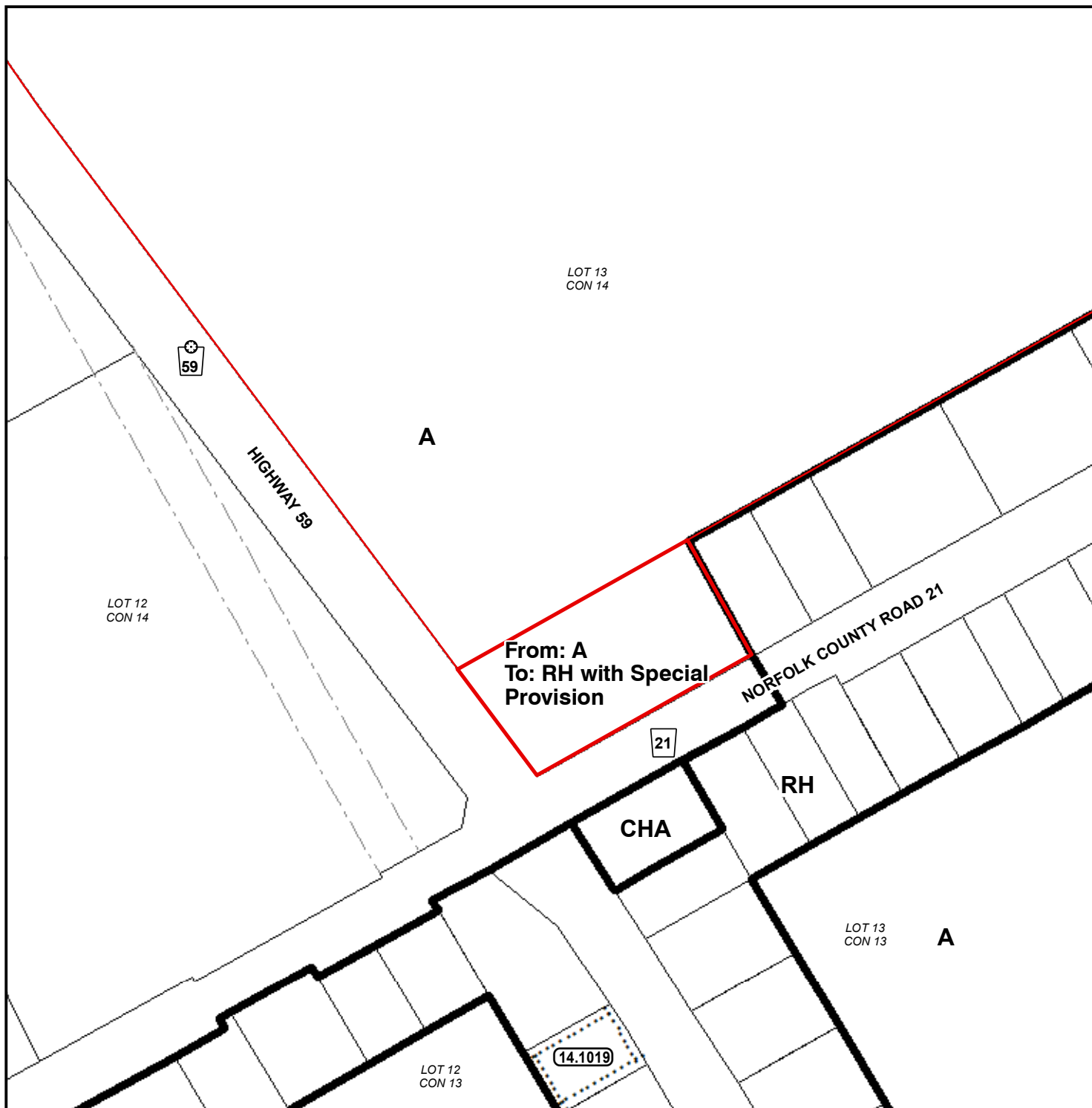
- Subject Lands
- Lands Owned

**Official Plan Designations**

- Agricultural
- Hamlet
- Hamlet Area Boundary
- Significant Woodland

8/3/2023





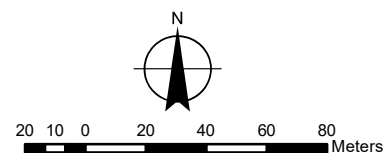
**LEGEND**

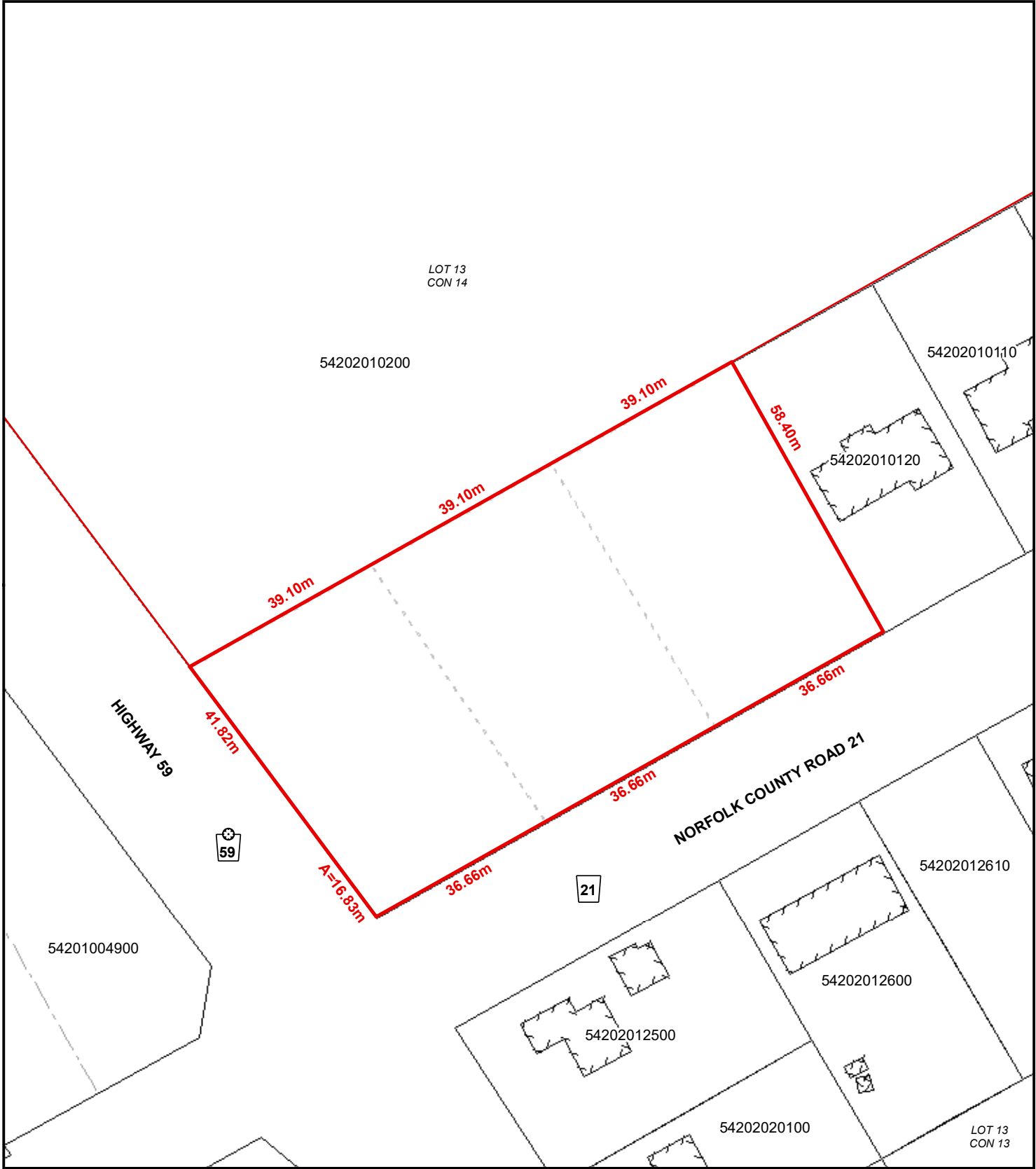
- Subject Lands
- Lands Owned

ZONING BY-LAW 1-Z-2014

8/3/2023

- (H) - Holding
- A - Agricultural Zone
- CHA - Hamlet Commercial Zone
- RH - Hamlet Residential Zone





Legend

- Subject Lands
- Lands Owned

8/3/2023

N

8 4 0 8 16 24 32

Meters