

Planning Justification Report/Agricultural Assessment

In Support of an Application for Draft Plan of Subdivision and ZBA

1370 King Street

Hamlet of Manchester

Township of Scugog

Date: March 2021

Prepared for: O'Connor Bros. Corp.

Prepared by: Clark Consulting Services

CCS Project No.: No. 4291

1. INTRODUCTION

Clark Consulting Services (CCS) was retained to provide a Planning Justification and Agricultural Assessment Report in support of an application for a Draft Plan of Subdivision and zoning by-law amendment for lands located in the Hamlet of Manchester, Scugog.

The subject lands (2.973ha) were severed from a larger Agricultural parcel through consent LD1000/2018 in August 2018. The lands are currently vacant. A Pre-consultation meeting was held on June 12, 2019 with the Region of Durham Planning and Health, Township of Scugog Planning and Clark Consulting Services in attendance. The Record of Pre-Consultation is Attachment A to this report.

2. PROPOSAL

The lands subject to both applications are located at 1370 King Street in the Hamlet of Manchester, Part Lot 13, Concession 4, Registered Plan 40R-30293, please see *Figure 1- Location Map* and are 2.973 ha in size.

Figure 2- Draft Plan of Subdivision illustrates the proposed lot configuration. The proposed subdivision consists of 9 residential lots for single family detached dwellings. The proposed lots will have frontage on King Street.

Lot sizes meet the zoning provisions of the Township of Scugog Hamlet Residential zoning ranging from 3100m² to just over 4000m². The lots will be serviced by private wells and private septic systems as municipal servicing is not available at this location.

3 PLANNING POLICY REVIEW

The following policy has been reviewed in relation to the proposed draft plan of subdivision:

3.1 PROVINCIAL POLICY STATEMENT

The Provincial Policy Statement was updated and came into effect May 1, 2020 as a document to guide development within the Province.

The Policy for Settlement Areas is outlined in Section 1.1.3. Policy contained in section 1.1.4 addressed development in rural areas mandating that rural settlement areas are to be the focus of growth and development and their vitality and regeneration shall be promoted. Policy 1.1.4.3 states that: *..when directing development in rural settlement areas in accordance with policy 1.1.3, planning authorities shall give consideration to rural characteristics, the scale of development and the provision of appropriate service levels.*

The proposed draft plan of subdivision is within the designated Hamlet of Manchester, it is designed based on appropriate servicing levels and is at a density and scale that is similar to surrounding residential uses located in the Hamlet of Manchester.

CCS concludes that the proposed Draft Plan of Subdivision is consistent with the Provincial Policy Statement.

3.2 GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE

The current Growth Plan came into effect on May 16, 2019 with Amendment 1 (2020) approved and in effect on August 28, 2020. Growth is to be allocated to fully serviced areas, however limited growth is permitted in settlement areas that are not serviced by existing or planned municipal water and wastewater systems. Municipalities are directed to establish a hierarchy of settlement areas.

Section 2.2.9 provides policy for Rural Areas. 2.2.9.6 directs new multiple lots or units for residential development to settlement areas.

The proposed draft plan of subdivision is located within a designated settlement areas and servicing the proposed lots with private well and septic has been assessed. A Hydrogeological Assessment has been completed and concluded that the 9 proposed lots can be serviced through private servicing. The Hydrogeological Assessment is Attachment B to this report.

CCS concludes that the proposed Draft Plan of Subdivision conforms to policy contained in the Growth Plan.

3.3 GREENBELT PLAN (2017)



The Greenbelt Plan was approved by the Provincial Government in 2017. The Greenbelt is a cornerstone of the Greater Golden Horseshoe Growth Plan. The subject lands are designated Protected Countryside Area- Hamlet. Settlement Area policy is contained in section 3.4 with specific Hamlet policy contained in section 3.4.4.

Limited growth is permitted through infill and intensification of Hamlets subject to appropriate water and sewage services. The proposed draft plan of subdivision is serviceable, please see Attachment B- Hydrogeological Assessment.

Based upon this review, we conclude that the proposed Draft Plan of Subdivision conforms to relevant policy contained in the Greenbelt Plan.

3.4 OFFICIAL PLAN OF THE REGION OF DURHAM

The Durham Region Official Plan (Approved November 24, 1993, Date of Consolidation May 26, 2020) designates the subject lands as Greenbelt Protected Countryside- Hamlet on Schedule 'A', Map A1 (Figure 3).

Section 9B contains policy related to Rural Settlements. 9B.1.3 states that:

Hamlets shall be the predominant location for residential and social, commercial and employment development serving the needs of the surrounding area.

Policy 9B.2.3 states that:

Hamlets shall be developed in harmony with surrounding uses and may consist of the following:

- a) Predominantly single-detached housing, as well as community facilities, in accordance with relevant provisions of Section 4 and 5 of this Plan;*
- b) Employment uses, in accordance with relevant policies in Sub-Sections 8C and 9B of this Plan;*
- c) Commercial uses that meet the immediate needs of the residents of the hamlets and the surrounding area*

The proposal is for 9 lots to contain 9 single family residential uses.

Policy 9B.2.4 states that:

In considering Hamlet development, the following principles shall serve to guide the preservation, cultural attributes and historic heritage of the community:

- a) Simplicity of form*
- b) Predominance of residential uses;*
- c) Larger lots that accommodate private services;*
- d) Almost exclusively single detached dwelling form*
- e) Few facilities and view and vistas of the countryside*



The proposed draft plan of subdivision meets these principles. The lots will contain single family dwelling on larger lots to accommodate private services in a residential hamlet containing similar built form.

Policy contained in Section 9B.2.6 relates to servicing:

Development within hamlets shall be individually serviced with private drilled wells and private sewage disposal systems where groundwater quantity and quality permits, and in compliance with the standards of the Region and the Ministry of the Environment, Conservation and Parks.

The proposed draft plan of subdivision meets this policy as it will be serviced by individual private drilled wells and private sewage disposal in compliance with regional and municipal standards. Please see Attachment F- Functional Servicing Report for further information.

CCS concludes that the proposed Draft Plan of Subdivision complies with relevant policy contained within the Regional Official Plan.

3.5 TOWNSHIP OF SCUGOG OFFICIAL PLAN (2011)

The Township of Scugog Official Plan designates the subject lands as a Hamlet on Schedule 'A', Rural Area Land Use (*Figure 3*). The Boundary is delineated in Schedule H-5 of the official plan (*Figure 4*).

Section 5.3 provides guidelines for the Hamlet designation. Hamlets are to provide transition between Port Perry Urban Area and the surrounding agricultural and rural landscapes.

The following Development policies are applicable:

5.3.3 General Development Policies

- b) Residential development shall occur generally by plan of subdivision.
- c) In addition to the requirements of the Planning Act, an application for approval of a draft plan of subdivision within a Hamlet shall be accompanied by:
 - i) A current hydrogeological report, based on test wells on the subject site, addressing existing conditions and the potential impact of the proposed subdivision on the available water supply in terms of quantity, quality and sustainable yield for both the proposed and existing wells. The report shall also assess the potential impact of proposed private wastewater systems on the groundwater supply in terms of bacterial and chemical parameters, as determined by the Durham Region Health Department and the Ministry of the Environment; **please see Attachment B- Hydrogeological Assessment.**
 - ii) A lot servicing plan, indicating the proposed location of all structures, drilled wells and the subsurface wastewater system envelopes, including a 100 percent replacement area for each in ground conventional Class 4 sewage disposal system; **please see Attachment F- Functional Servicing Report.**
 - iv) A report of the results of a soil sampling program that adequately represents the geology of the subdivision; and, **please see Attachment B- Hydrogeological Assessment.**



v) An existing and final grading plan indicating elevations and lot drainage patterns. **Please see Attachment F to this report.**

f) The minimum lot size in a Hamlet shall not be less than that required for the safe and efficient operation of private individual water and wastewater services on the site. **Please see Attachment B and F to this report.**

g) New development shall be designed to maintain the historic rural character of the Hamlet areas. The built form and building materials should reflect this character. The Township may use Site Plan Control within the Hamlet areas to ensure that new development is compatible with the existing community. **Site Plan control will be a condition of Draft Plan of Subdivision.**

The subject property is designated as having High Aquifer Vulnerability, please see Figure 5 -Excerpt of Schedule F of the OP. Section 6.13.2 outlines that High Aquifer Vulnerability refers to the susceptibility of the groundwater aquifer to contamination from both human and natural sources. **The potential impacts of the proposed draft plan have been assessed to ensure that the proposed development does not contaminate the groundwater aquifer. Please see Attachment B.**

The Hydrogeological Assessment will be reviewed in greater detail in section 4.1 of this report.

CCS concludes that the proposed Draft Plan of Subdivision conforms to the relevant policy set out in the Township of Scugog Official Plan.

3.6 TOWNSHIP OF SCUGOG ZONING BY-LAW

The Township of Scugog adopted Zoning By-law 14-14 in March of 2014. Zoning By-law 14-14 Schedule 'C' Map 6 (Figure 6) identifies the lands as Future Development.

Section 14.2 outlines the intentions of the Future Development (FD) Zone. It states that the permitted uses of the land should remain as they legally existed on the date of the passing of the by-law. The Lot Area, Frontage, required Yards and Setbacks shall be those that legally existed as of the date of the passing of the By-law.

A zoning by-law amendment to the Zoning By-law 14-14 is being submitted concurrently to permit the proposed single family residential land use of the subject lands. The subject lands will be rezoned to Hamlet Residential (HR) as a condition of Draft Plan of Subdivision. Minimum Standards to Rural Residential zones are outlined in Table 8.3 of the Zoning By-law. The lots are at an adequate size to meet the HR zoning provisions with over 30 m of frontage and lot areas exceeding 2800m². There is ample room for the building envelope, a drilled well and individual septic system.



The proposed draft plan of subdivision meets minimum Hamlet Residential zone standards as set out in the zoning bylaw. A zoning bylaw amendment will be required as a condition of draft plan of subdivision.

4 SUPPORTING TECHNICAL STUDIES

As identified through the pre-consultation meeting supporting studies were required for submission with the Draft Plan of Subdivision Application. This section provides conclusion/recommendations from each of the supporting study. The studies are submitted as attachments to this report.

The Region of Durham requested the following:

- Hydrogeological Study prepared by Thomas Grace
- Site Screening Questionnaire prepared by GHD
- Archaeological Assessment-Stage 1 and 2 prepared by Northeastern Archaeological Associates Ltd.
- Proposed Residential Driveways Review prepared by Asurza Engineers

The Township requested the following:

- Functional Servicing Study and Stormwater Management Brief, Dobri Engineering Ltd.
- Preliminary Grading Plan, Dobri Engineering Ltd.
- Landscape Plan, Baskerfield and Associates

Township staff acknowledged that the servicing, grading and drainage plans will be finalized as part of the detailed engineering submission as conditions of draft plan approval. A Fill Management Plan was not required as part of the application, but will be a draft plan condition that will be required prior to registration.

In support of the proposed zoning by-law amendment a Proposed Zoning Schedule and Proposed Zoning By-law are Attachment I and J to this report.

4.1 HYDROGEOLOGICAL REPORT

Based on the hydrogeological and soils assessment conducted, the proposed development is considered suitable for private servicing for the proposed nine (9) lot residential development. Negligible interference or impact to the groundwater resources or the natural environment is anticipated as a result of the proposed development.

4.2 SITE SCREENING QUESTIONNAIRE

A Site Screening Questionnaire was submitted in support of the consent application approved in 2018 to sever the Hamlet portion of the site from the Agricultural parcel, please see Attachment C to this report. The report concluded that the property has a low level of concern from an environmental assessment perspective and is suitable for residential development. CCS



acknowledges that this report is from 2018 but as there has been no change of use on this vacant parcel of land the conclusions remain relevant.

4.3 ARCHAEOLOGICAL STAGE 1 AND 2

A Stage 1 and 2 Archaeological Assessment was conducted on October 30 2018 in support of the original consent approved to sever the subject lands from the agricultural parcel, please see Attachment D to this report. This report concluded that as no archaeological material, structural remains, or cultural heritage resources of any kind were found during the Stage 2 Archaeological Assessment the subject property is considered to have no cultural value or interest and no further archaeological assessment of the property is recommended. The Archaeological Assessment has been entered into the Ontario Public Register of Archaeological Reports without technical review. The Ministry letter is included with the report In Attachment D.

4.4 REVIEW OF DRIVEWAY ACCESS

Asurza Engineers conducted a review of the proposed residential driveways locations; please see Attachment E to this report. Asurza reviewed driveway access due to the singular configuration of the T type un-signalized intersection of King Street and Rose Street. Sight lines were reviewed and driveway locations were identified. The report concluded that there were no concerns identified under the sight lines review, however preferred locations for driveways were noted. Lots 8 and 9 will access off of Rose Street and driveways will be located on the most westerly portion of each lot and all driveways should be located at least 20m away from the intersection.

4.5 FUNCTIONAL SERVICING STUDY & STORMWATER MANAGEMENT BRIEF

Dobri Engineering Ltd. prepared a Functional Servicing Study and Stormwater Management Brief in support of the proposed development, please see Attachment F to this report. Soak-away pits and infiltration trenches will promote stormwater infiltration on site providing infiltration up 518.3 cu.m per lot exceeding the calculated increase of 512 cu.m per lot. The construction of the soak away pit and infiltration trench on each lot will also achieve the necessary nitrate concentration levels to permit the proposed 9 lot residential development. Please see Attachment F to the report.

4.6, PRELIMINARY GRADING PLAN & STREET TREE PLANTING PLAN

The preliminary Grading Plan was prepared by Dobri Engineering Ltd. and is Attachment G to this report. The Street Tree Planting plan was prepared by Baskerfield and Associates Landscape Engineers and is Attachment H to this report.

5. PLANNING OPINION/CONCLUSIONS

This report has reviewed the planning policy framework in consideration of development of 9 single family lots. Based on the above assessment, it is our conclusion that the proposed Draft Plan of Subdivision and proposed zoning by-law amendment applications are consistent with the PPS and



comply with all the relevant planning policy and provisions. All technical studies completed have supported the proposed development at this location. CCS submits that the proposed development represents sound land use planning and we respectfully conclude that the Draft Plan of Subdivision application and Zoning By-law Amendment application be recommended for Approval.

Sincerely,



Bob Clark, P.Eng., P.Ag., MCIP, RPP, OLE
Principal Planner

FIGURES

- Figure 1 - Location Map
- Figure 2 - Draft Plan of Subdivision
- Figure 3 - Excerpt from Durham Region Official Plan
- Figure 4 - Excerpt from Township of Scugog Official Plan, Schedule A
- Figure 5 - Excerpt from Township of Scugog Official Plan, Schedule F
- Figure 6 - Excerpt from Township of Scugog Zoning By-law 14-14 Schedule C-Map 6

Attachments

- Attachment A- Record of Pre-Consultation
- Attachment B- Hydrogeological Assessment (Under Separate Cover)
- Attachment C- Site Screening Questionnaire (Under Separate Cover)
- Attachment D- Archaeological Assessment-Stage 1 and 2 (Under Separate Cover)
- Attachment E- Proposed Residential Driveway Review
- Attachment F- Functional Servicing Study & Stormwater Management Brief
- Attachment G- Preliminary Grading Plan
- Attachment H- Street Tree Planting Plan
- Attachment I- Proposed Zoning Schedule
- Attachment J- Proposed Zoning By-law

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Figure 1 - Location Map
1698409 Ontario Limited
Registered Plan 40R-30293
Hamlet of Manchester, Township of Scugog



Legend

 Subject Lands

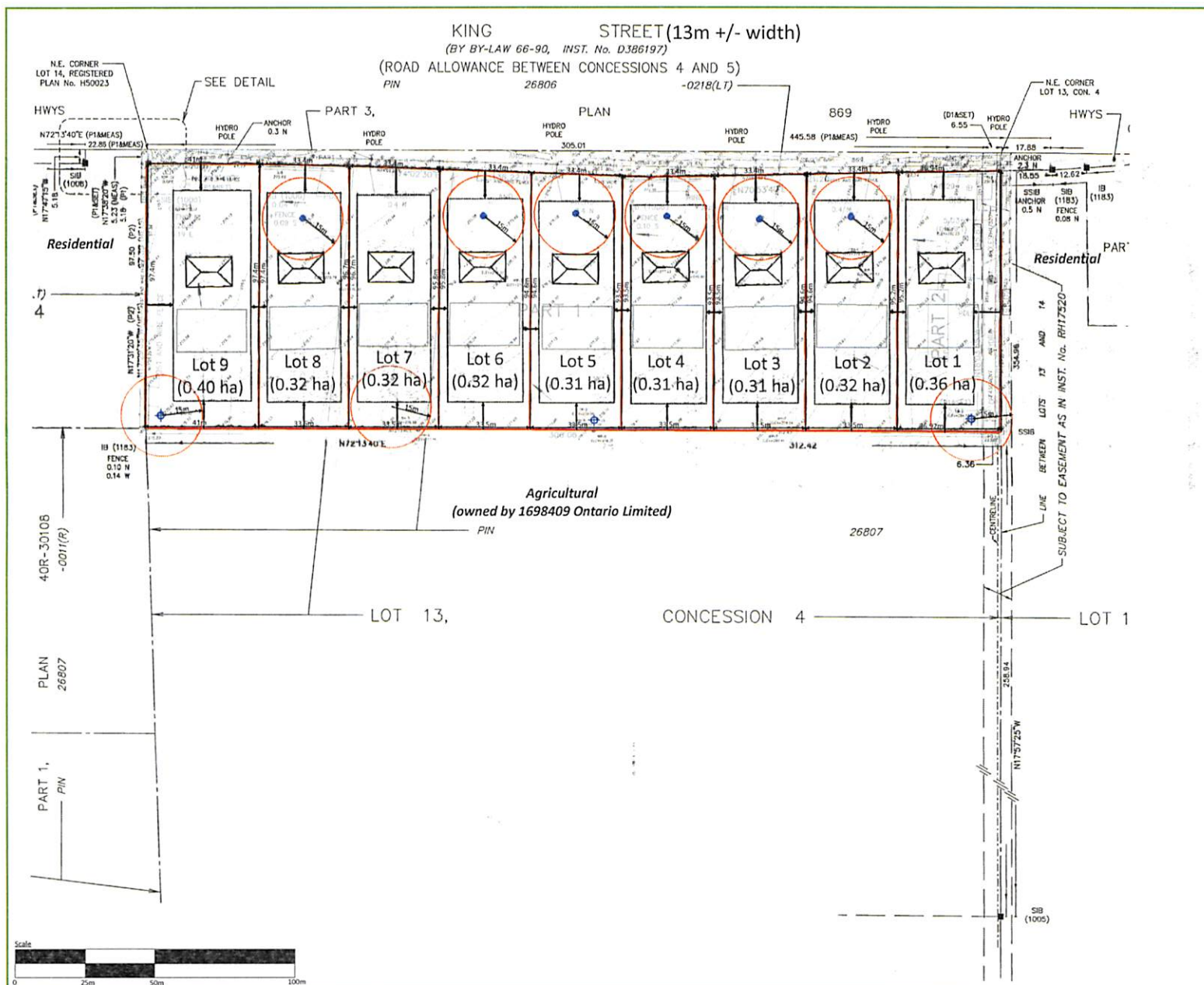


Figure 2 - Draft Plan of Subdivision
1370 King Street, Manchester
Part of Lot 13, Concession 4
Township of Scugog, Region of Durham

Land Use	Units	Area (ha)	Percent(%)
Residential Lots 1 - 9	9	2.97	100
TOTALS	9		100%

- Legend**
- Proposed Lots to be Severed
 - Proposed Building Envelopes
 - + Existing Drilled Wells
 - Proposed Drilled Wells
 - 15 Metre Setback from Well
 - Proposed Dwelling (186 m²)
 - Proposed Sewage System

- Additional Information**
(Under Section 51(17) of the Planning Act, RSO 1990)
The Planning Act requires a draft plan showing:
- (a) the boundaries of the lands certified by an OLS - as shown
 - (b) the location, widths and names of proposed and existing highways-as shown
 - (c) the lands are to be used for residential purposes
 - (d) the existing land use of the adjacent lands are as shown on the plan
 - (e) the approximate dimensions and layout of lots are as shown
 - (f) water supply is to be provided by individual wells - as shown
 - (g) the soils are calcareous clay, calcareous grey loam and sandy loam till
 - (h) contours are as illustrated
 - (i) Municipal services include a full range of services excluding water and sewage services
 - (j) Part 2 of this plan is a hydro easement (Instrument No. RH17520).

Surveyor's Certificate
I certify that the boundaries of the land to be subdivided are correctly shown.

Date _____ Gerald G. Hickson, Ontario Land Surveyor
Coe Fisher Cameron

Owner's Certificate
I authorize Clark Consulting Services to prepare and submit this Draft Plan for approval.

Date _____ Sean O'Connor (1698409 Ontario Limited)

Draft Plan Prepared By: Clark Consulting Services
Survey & Topography Prepared By: Coe Fisher Cameron
Private Servicing Layout Concept Prepared By: Grace & Associates Inc.



Figure 3 - Region of Durham Official Plan
 1698409 Ontario Limited
 Registered Plan 40R-30293
 Hamlet of Manchester, Township of Scugog

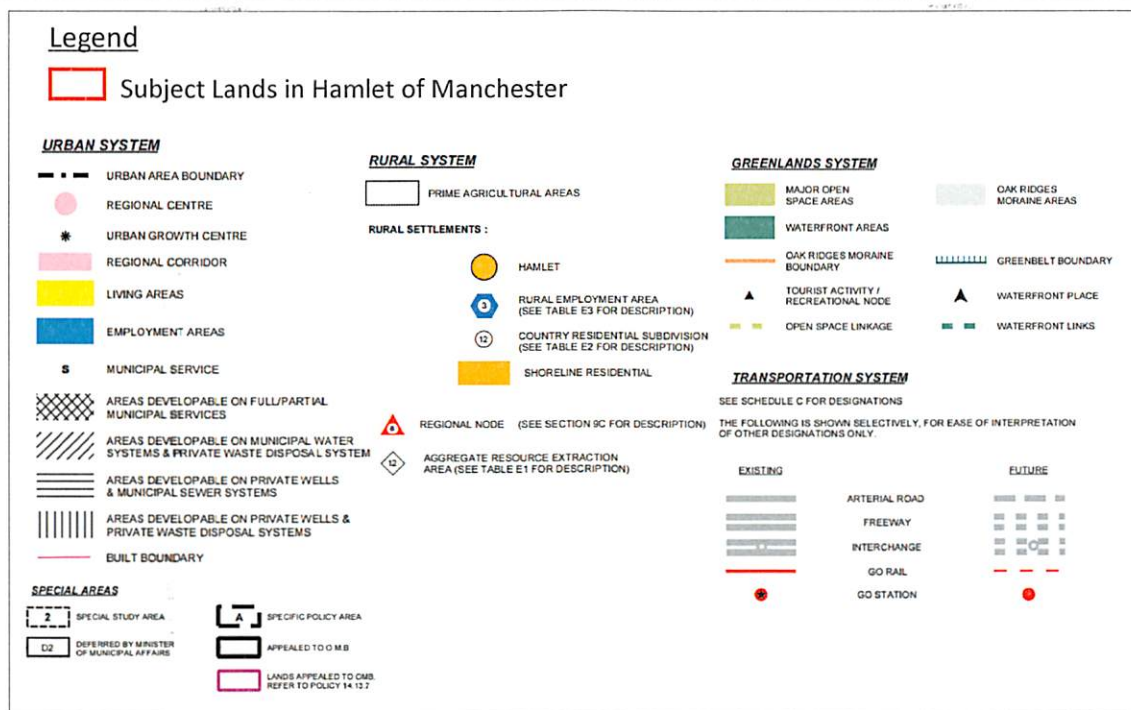
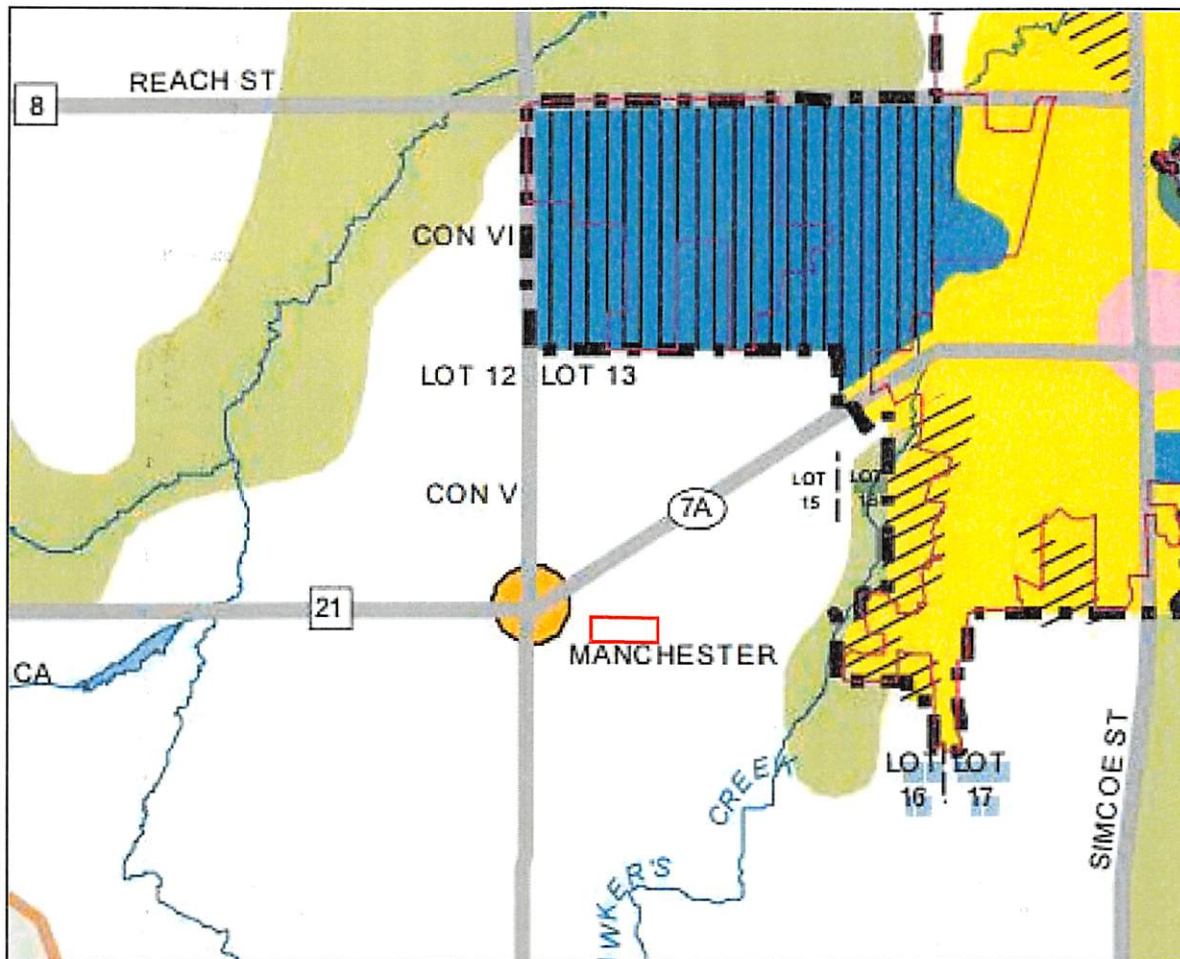


Figure 4 - Excerpt from the Township of Scugog Official Plan, Schedule 'A' Rural Area and Land Use
 1698409 Ontario Limited
 Registered Plan 40R-30293
 Hamlet of Manchester, Township of Scugog

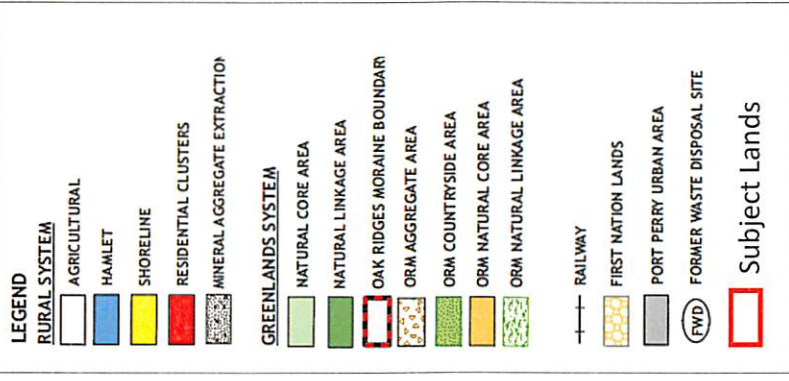
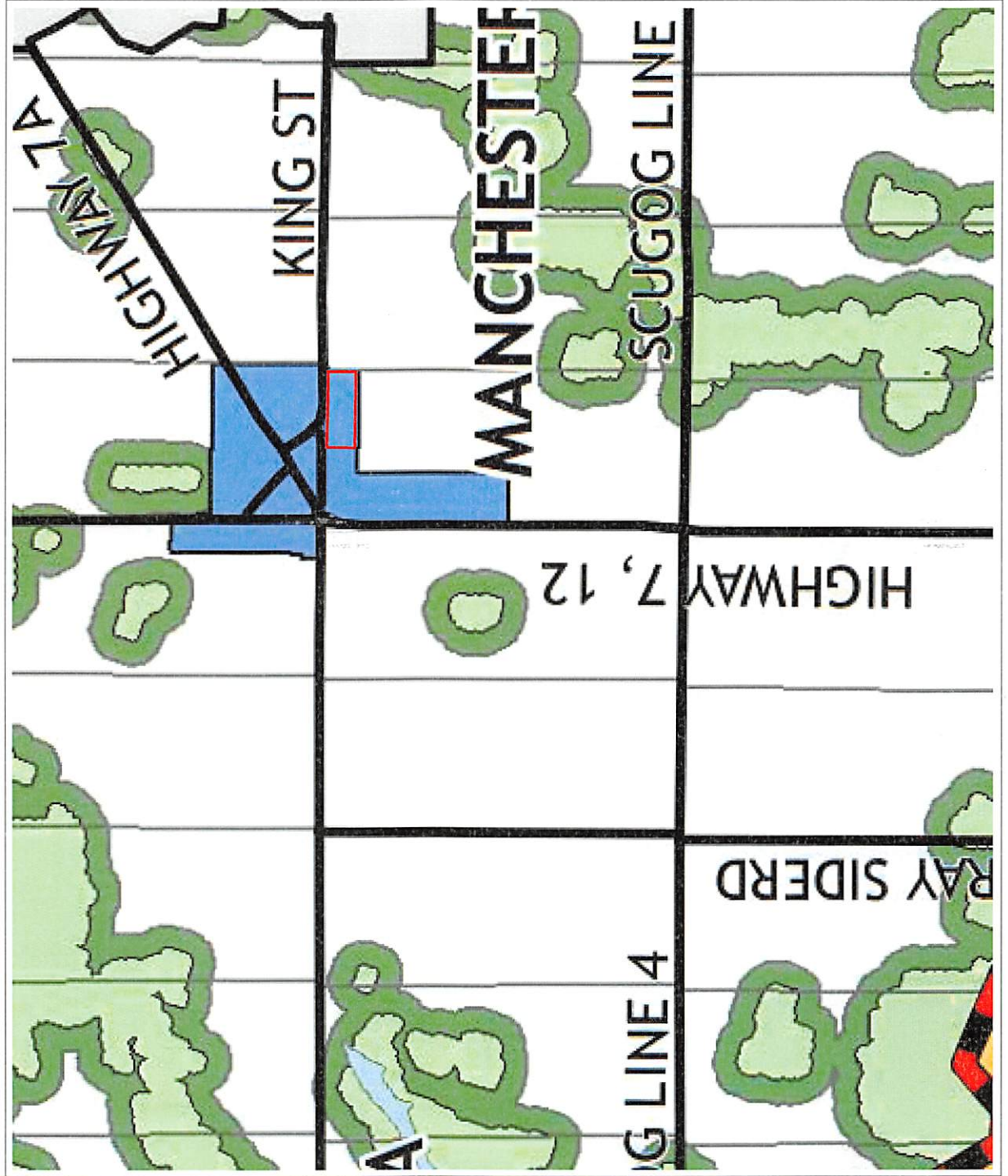
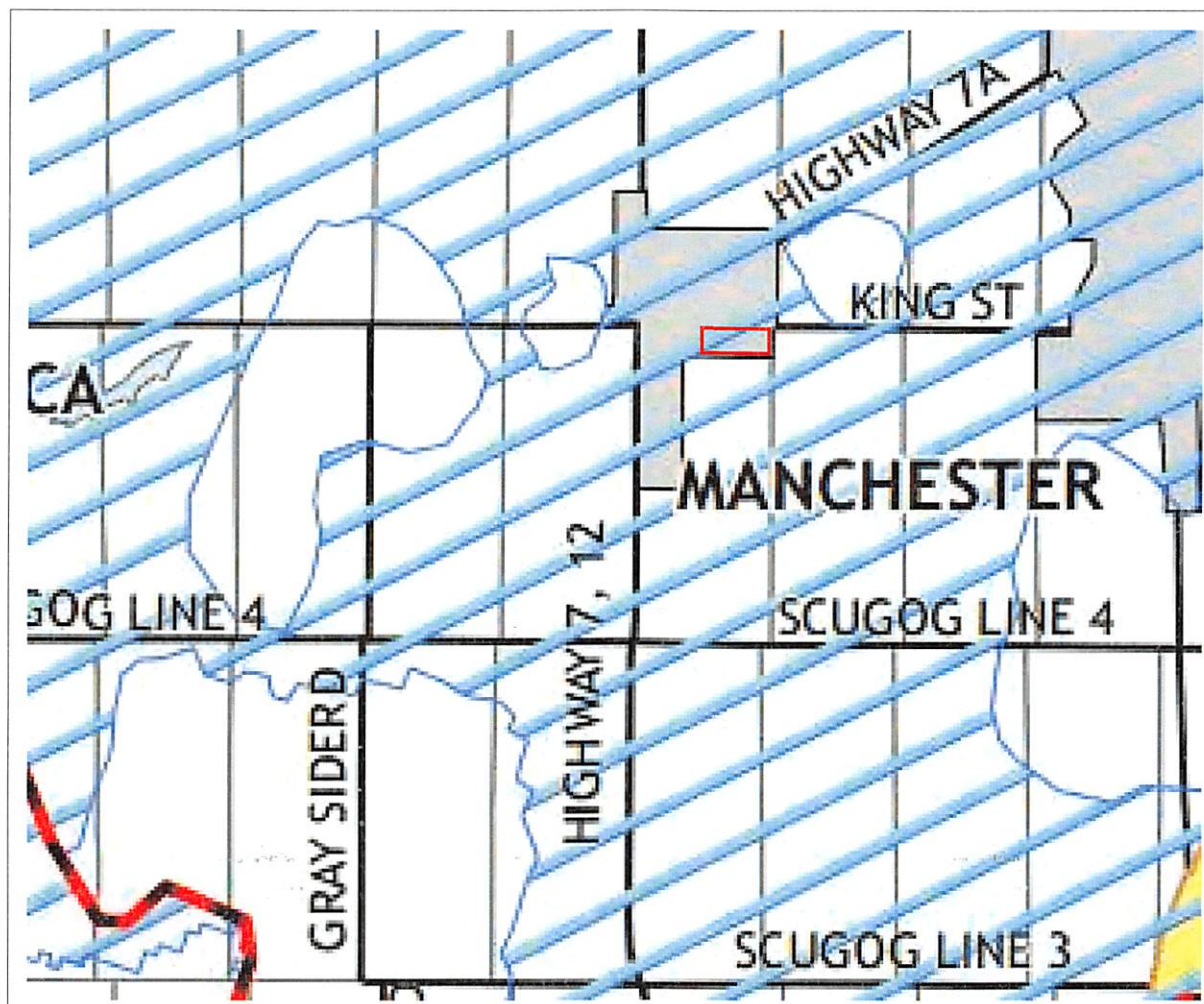


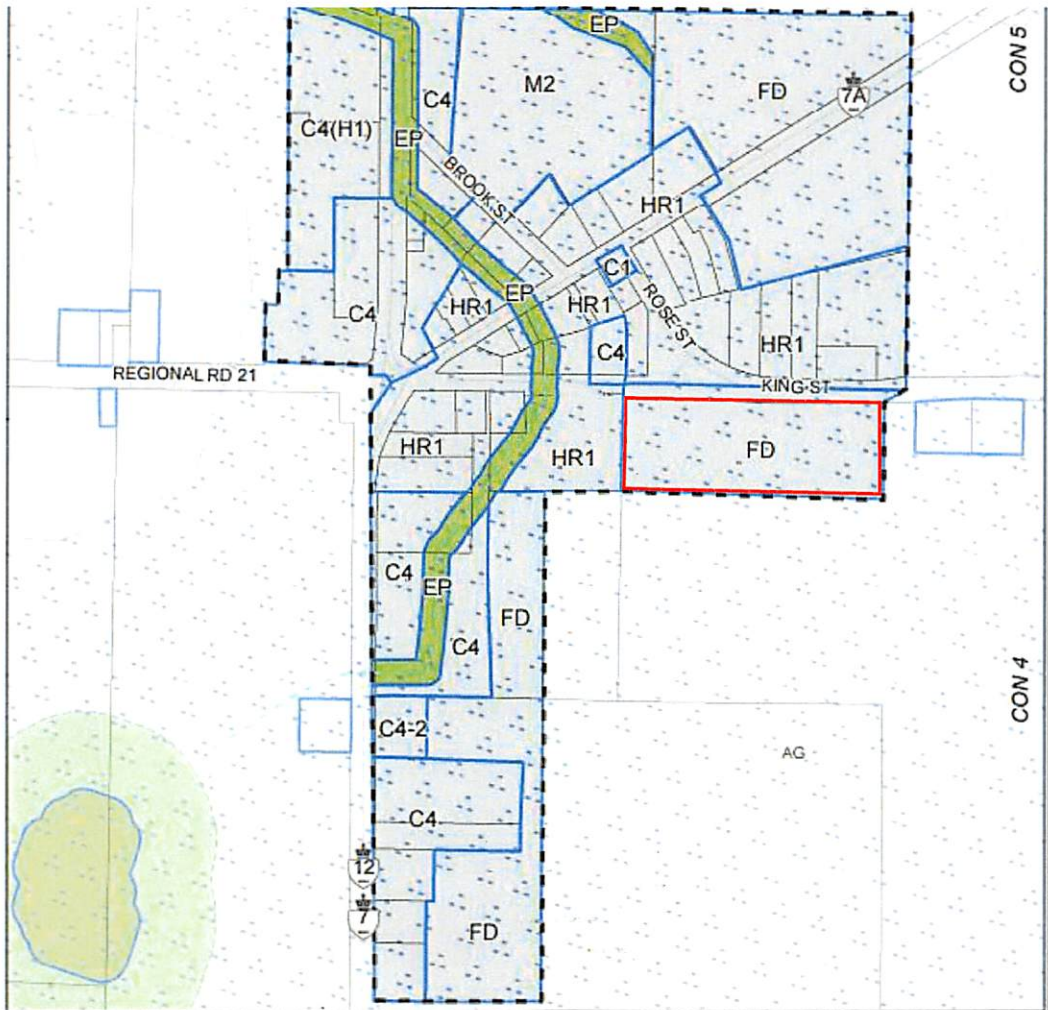
Figure 5 - Scugog Official Plan - High Aquifer Vulnerability
 (Schedule F - High Aquifer Vulnerability Areas, Wellhead Protection Areas)
 1698409 Ontario Limited
 Registered Plan 40R-30293
 Hamlet of Manchester, Township of Scugog



LEGEND

- WELLHEAD PROTECTION AREA
- HIGH AQUIFER VULNERABILITY AREA
- OAK RIDGES MORAINES BOUNDARY
- Subject Lands

Figure 6 - Excerpt from Township of Scugog Zoning By-Law 14-14 (Schedule C-Map 6)
 1698409 Ontario Limited
 Registered Plan 40R-30293
 Hamlet of Manchester, Township of Scugog



Legend

- Hamlet Boundary
- Zone Boundary
- Overlay Areas**
- High Aquifer Vulnerability
- Subject Lands**

Zones

- EP Environmental Protection
- HR1 Hamlet Residential - Private Service
- C1 Neighbourhood Commercial
- C4 Highway Commercial
- M2 General Industrial
- FD Future Development

Attachment A

Record of Pre-Consultation



The Regional
Municipality
of Durham

Planning and Economic
Development Department

Planning Division

605 ROSSLAND RD. E.
4TH FLOOR
PO BOX 623
WHITBY ON L1N 6A3
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905-668-7711
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Email: planning@durham.ca

www.durham.ca

Brian Bridgeman, MCIP, RPP
Commissioner of Planning
and Economic Development

Via Email Only

June 14, 2019

Mr. Jaqueline Mann, MCIP, RPP
Senior Planner
Clark Consulting Services
52 John Street Port Hope, ON L1A 2Z2

Dear Ms. Mann:

Re: Record of Pre-consultation for a proposed Residential Subdivision

Proponent: Clark Consulting Services

Property Location: 1370 King Street
Hamlet of Manchester
Township of Scugog

In accordance with By-law 2-2008 of the Regional Municipality of Durham, this letter is to confirm that a pre-consultation meeting was conducted in accordance with the provisions of this By-law.

Pre-consultation Date: Wednesday, June 12, 2019

Parties in Attendance:

Jaqueline Mann - Clark Consulting Services, Senior Planner
Kevin Heritage – Township of Scugog, Director of Planning
Lesley Kennedy - Region of Durham, Health Inspector
Lori Riviere-Doersam - Region of Durham, Principal Planner

Site Location/Description:

The subject site is located at 1370 King Street in the Hamlet of Manchester. It is legally described as Part Lot 13, Concession 4.

Purpose of the Amendment Application:

The purpose of the applicant's proposal is to permit a 9 lot subdivision on a 2.9 ha parcel.

Regional Official Plan Designation: Hamlet

"Service Excellence
for our Communities"

If this information is required in an accessible format, please contact Planning Reception at 1-800-372-1102, extension 2551.

Township of Scugog Official Plan: Hamlet

Township of Scugog Zoning: Future Development

Is the proposal in Conformity with the ROP: Yes

Conformity Details:

Hamlets shall be the predominant location for residential development in the rural area. In considering Hamlet development, the following principals shall serve to guide the preservation, cultural attributes and historic heritage of the community:

- Simplicity of form;
- Predominance of residential uses;
- Larger lots that accommodate private services;
- Almost exclusively single detached dwelling form;
- Few facilities; and
- Views and vistas of the countryside.

With the exception of limited infilling, development within a Hamlet shall proceed by plan of subdivision. Hamlet development shall only be permitted to proceed if the required technical studies conclude that the development on individual private services is sustainable.

The Region will circulate the subdivision application to the Township and various agencies for review. The Region also requests that the Township provide Notice for a Complete Application and hold the statutory public meeting.

Information/Studies Required:

The Regional Planning and Economic Development Department will require the following information to be submitted to support the proposed subdivision application:

- Application Forms (20 copies)
- Proposed Draft Plan (30 copies) - The draft subdivision plan should illustrate the proposed lots and include a land use summary table.
- A Planning Rational/Justification Report (6 copies) - Address conformity with relevant Provincial Plans and Policies and Regional Official Plan policies, including the Provincial Policy Statement, and the Greenbelt Plan.

- A Record of Site Condition Compliant Phase One Environmental Site Assessment (ESA) Report or a Site-Screening Questionnaire completed and signed by a Qualified Person (6 copies) - if a Phase One ESA is submitted, the Region's Reliance Letter and Certificate of Insurance forms are required.
- Archaeological Assessment (6 copies) - At a minimum, a Stage 1 Archaeological Assessment is required to assess the archaeological potential of the subject site.
- Hydrogeological Report (10 copies) - The hydrogeological study should look at water quantity and quality for the proposed development and address the Province's D-5-4 and D-5-5 Guidelines. Any proposed development is required to comply with the Region's Drilled Well Policy to ensure no adverse effects on surrounding properties. Additionally, the study must address the requirements of the Region's Lot Sizing Policy and the Ontario Drinking Water Standards. This report will be subject to peer review at the proponent's expense.
- Lot Servicing Plan (9 copies)
- Soil Sampling Program (9 copies)
- Existing/Final Grading Plan (8 copies)
- Abbreviated Storm Water Management Plan (9 copies)
- Fill Management Plan (8 copies)
- Sediment/Erosion Plan (8 copies)
- Landscaping Plan (8 copies)
- Site Access Letter (8 copies)
- A CD or USB flash drive with an electronic copy of all studies (in pdf form) should also be submitted with the application.

Fees

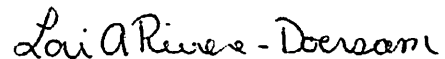
- Region of Durham's Subdivision Fee - \$5,500 (certified cheque/money order);
- Health Department Fee – \$384/lot
- Township of Scugog Subdivision Fee - \$14,750
- Township of Scugog Zoning Fee - \$6,950

We recommended the fee amounts be confirmed at the time of submission of the applications.

In accordance with our procedures, please advise whether you concur with the above-noted information and study requirements within seven (7) days of receiving this Record of Pre-Consultation. Should you not agree with the above-noted requirements, another pre-consultation meeting may be requested.

Please contact me at (905) 668-4113, ext. 2572, if you have any questions.

Yours truly,

A handwritten signature in cursive script that reads "Lori A Riviere - Doersam".

Lori Riviere-Doersam, MCIP, RPP
Principal Planner

cc: Kevin Heritage, Township of Scugog
Lesley Kennedy, Regional Health

Attachment B

**Hydrogeological Report
(Under Separate Cover)**

Attachment C

**Attachment C- Site Screening Questionnaire
(Under Separate Cover)**

Attachment D

**Stage 1 and 2 Archaeological Assessment
(Under Separate Cover)**

Attachment E

Proposed Residential Driveways Review

September 16, 2019

Mr. Sean O'Connor
O'Connor Land & Cattle Co.
750 Rossland Rd E
Ajax, ON
L1Z 1T1

Reference: Manchester Residential Sites, Scugog
Proposed Residential Driveways Review
Project N° 2111-19

Dear Mr. O'Connor,

Based on the information received, it is understood that a subdivision is planned next to King Street in the Township of Manchester, Scugog. The site is to include a total of nine (9) single family residential lots (See enclosed concept plan).

King Street is a collector road that shows a rural cross-section with granular shoulders and ditches on both side of the road; King Street becomes Rose Street. King Street bends to change its classification to a local road, this portion of King Street is a dead-end link of approximately 280 m. King Street and Rose Street form a "T" type unsignalized intersection (See Figure 1). Due to the singular configuration of these road sections and the location of the proposed subdivision, our company has been retained to review and to provide recommendations regarding to the location of driveways for each lot.

From the traffic and safety point of view, sight lines are to be reviewed. In general, driveways provide physical transition between the site and the abutting roadway. Driveways should be located and designated to minimize impacts on traffic while providing safe entry and exit from the served development. In

order to provide a safe entry and exit, adequate sight distance is to be provided. Sight distance is the distance needed by a driver on a roadway, or a driver exiting a driveway or street, to verify that the road is clear and avoid conflicts with other vehicles. Sight lines must be kept free of objects which might interfere with the ability of the driver to see incoming vehicles.



Figure 1: Site Location

In order to review and measure sight lines, a site visit was performed on August 30, 2019. During the site visit, we notice the adjacent road vertical alignment is basically flat but the horizontal alignment goes from tangent to curve.

According the Geometric Design Guide for Canadian Roads, better known as the TAC Manual, the sight distance from departure (same as the stop control) along the roadway should be measured from the height of the turning vehicle driver's eye of 1.05 m to the top of the approaching vehicle 1.3 m above the pavement.

Sight distance was reviewed based on the design speed of the roadways. When the road vertical or horizontal curve does not constrain the design speed, as general practice has been determined the following design speed:

- For low posted speeds of 60 km/h or less, increase 10 km/h the posted speed.
- For high posted speeds of 70 km/h or greater, increase 20 km/h the posted speed.

As the posted speed of King Street is 50 km/h, it was determined the road design speed of 60 km/h; therefore, the minimum sight required distance is 130 m.

Sight distance was measured in the field for all the proposed lots. It was identified that Lot 1 to Lot 6 exceed substantially the minimum 130 m required sight lines; therefore, driveways can be located at any location within each lot.

The sight line for Lot 7 exceed substantially the required sight lines from the lot to the east; however, to west of the Lot 7, the sight lines is limited almost to the minimum (140 m); this is due to the horizontal curve of the adjacent road. Given that the Lot 7 is in close proximity to the adjacent intersection, it is suggested the proposed driveway be located to most eastern location of the lot (see below sketch).



Figure 2: Suggested Location of Driveway for Lot 7

The Lot 8 and Lot 9 are located next to the link that function as local road, this section of King Street is a dead-end road. It is expected that vehicles leaving Lot 8 and Lot 9 make right turns only from driveways and left turns only from the road into the driveways for access. For right turns, there is sufficient sight distance and no issue is reported.

Analyzing operations for left turns from the adjacent road into Lot 8 and Lot 9, it is expected conflicts are virtually null. This short link is not considered to have enough traffic to have a car waiting on the adjacent road to find a gap in the traffic stream to make a left turn into the lots (Lot 8 and Lot 9), the left turns will basically be with no stopping; however, the worst case scenario assumes a vehicle waiting for a gap to make a left turn into the lots while another vehicle is turning from the intersection into the shorth road link (see sketch for worst case scenario).

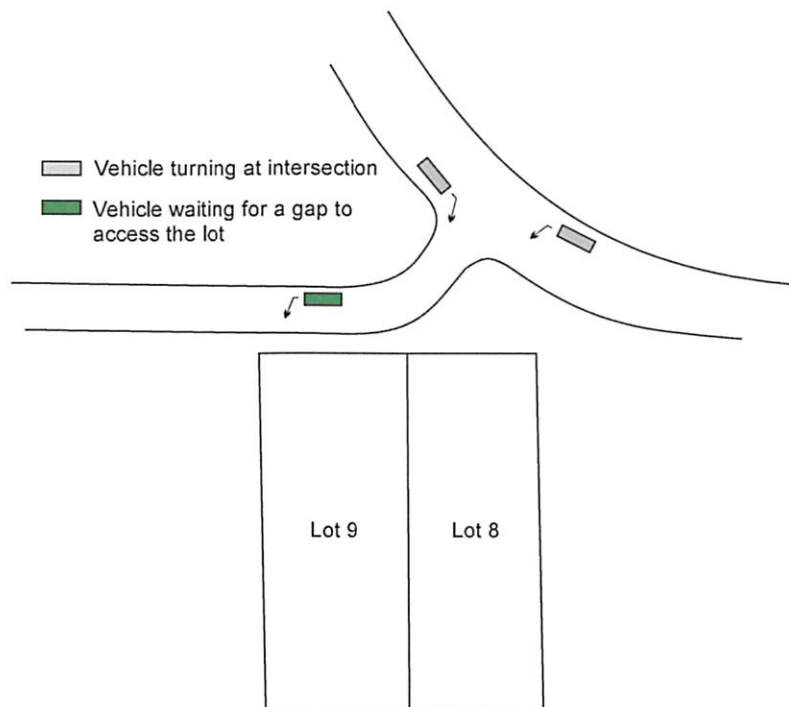


Figure 3: Sketch for worst case scenario

The turning speed for vehicles at the intersection will be 15 or 20 km/h; the stopping sight distance is applicable for this case. A stopping sight distance is the distance required for a vehicle to stop before strike a vehicle in its path. The stopping sight distance for a 20 km/h speed is 20 m. Based on this review, the driveways should be 20 m away from the intersection to comply with this requirement. Placement of the driveways for Lot 8 and Lot 9 to the most western location of the lots should be considered.



Figure 4: Suggested Location of Driveway for Lot 8 and Lot 9

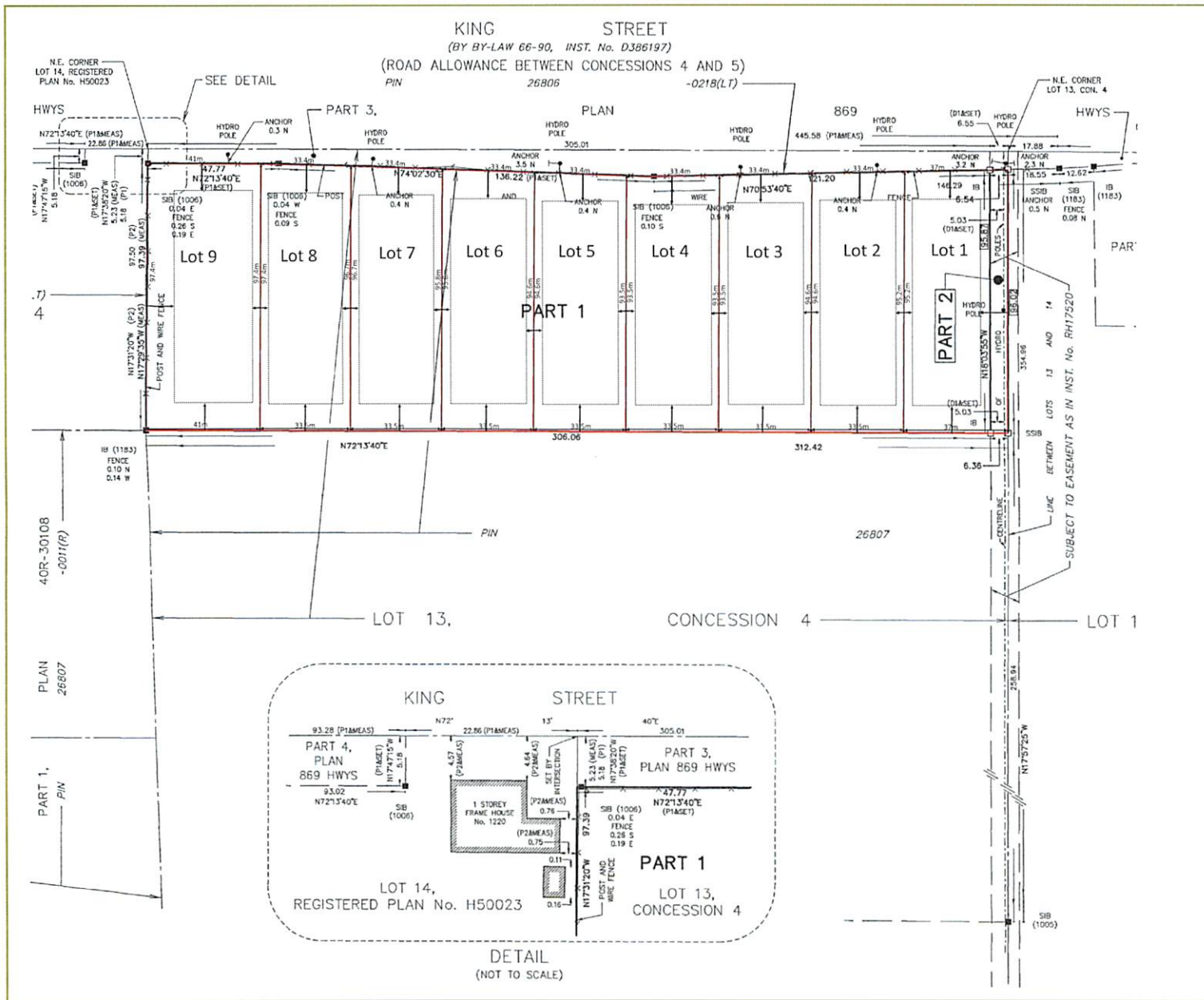


From this analysis, it is concluded that no concerns were identified under the sight lines review; however, options as noted here should be considered for location of driveways.

Sincerely;

A handwritten signature in black ink, appearing to be 'M. Asurza', with a horizontal line extending from the end of the signature.

Martin Asurza, M.Eng, P.Eng.
Senior Transportation Engineer



DRAFT PLAN OF SUBDIVISION

1370 King Street, Manchester

Part of Lot 13, Concession 4

Township of Scugog, Region of Durham

Land Use

	Units	Area (ha)	Percent(%)
Residential Lots 1 - 9	9	2.973	100
TOTALS	9	2.973	100%

Additional Information

- (Under Section 51(17) of the Planning Act, RSO 1990)
The Planning Act requires a draft plan showing:
- the boundaries of the lands certified by an OLS-as shown
 - the location, widths and names of proposed and existing highways-as shown
 - the applicant does not have any interest in any adjacent lands
 - the lands are to be used for residential purposes
 - the existing land use of the adjacent lands as shown on the plan
 - the approximate dimensions and layout of lots as shown
 - the natural and artificial features are illustrated on the plan
 - water supply is to be provided by individual wells
 - the soils are silty sand till with gravel over till
 - contours are as illustrated
 - Municipal services include a full range of services excluding water and sewage services
 - there are no restrictive covenants on the property.

Surveyor's Certificate

I certify that the boundaries of the land to be subdivided are correctly shown.

Date _____ Gerald G. Hickson, Ontario Land Surveyor
Coe Fisher Cameron

Owner's Certificate

I authorize Clark Consulting Services to prepare and submit this Draft Plan for approval.

Date _____ Sean O'Connor

Draft Plan Prepared By: Clark Consulting Services
Survey Prepared By: Coe Fisher Cameron



Attachment F

Functional Servicing Study & Stormwater Management Brief

**FUNCTIONAL SERVICING STUDY &
STORMWATER MANAGEMENT BRIEF
O'CONNOR RESIDENTIAL SUBDIVISION
PART LOT 13, CONCESSION 4
GEOGRAPHIC TOWNSHIP OF REACH
TOWNSHIP OF SCUGOG
REGION OF DURHAM, ONTARIO**

Dobri Engineering Ltd.
PO Box 441
Port Hope, Ontario
L1A 3Z3
Phone No. 905-885-2881
E-mail dobrieng@bellnet.ca

FEBRUARY 15, 2021

INTRODUCTION

Mr. Sean O'Connor of O'Connor Bros. Corp (referred to as O'Connor) is proposing to develop Part Lot 13, Concession 4 in the Geographical Township of Reach, Township of Scugog for an 9 lot residential subdivision. The property fronts onto King Street in Manchester. The property is a total 2.97 hectares in area. The lots will range in size from 0.31 to 0.40 ha.

Dobri Engineering Ltd. has been retained to complete a Functional Servicing Study (FSR) and Stormwater Management Brief for the proposed development.

SANITARY SYSTEM/DISPOSAL

A sanitary infrastructure system for the area does not exist. The development will require the design and construction of individual residential private sewage systems. The sewage systems must be designed and constructed by qualified individuals in accordance with the Ontario Building Code (OBC). The sewage system would be approved through the Site Plan and Building Permit Application. The system would need to also comply with the requirements of approval authorities, meeting all their related specifications and standards.

A Hydrogeological Study was completed by Grace & Associates. Based on their findings and typical building dimensions, a preliminary plan with a building footprint and sewage system area have been illustrated.

WATER SYSTEM/SUPPLY

A water infrastructure system for the area does not exist. The development will require the individual residential private water supply via drilled wells. The individual wells will need to be drilled by licensed contractors in accordance with Ministry of the Environment, Conservation and Parks (MOECP), and meet all appropriate drinking water parameters.

A Hydrogeological Study was completed by Grace & Associates. The report discusses the domestic water requirements. The preliminary plan illustrates a location for the well with appropriate setbacks from the sewage system. Three (3) test wells are currently present on the property and will be used to service Lot 1, Lot 5 and Lot 9.

STORMWATER MANAGEMENT BRIEF

The report will address the necessary stormwater infiltration required to allow the 9 lot development.

Design Criteria:

1. Hydrogeological Study completed by Grace & Associates Inc.
2. Port Perry rainfall data from OBC (for information only).
3. Government of Canada Climate Data, Burketon McLaughlin, Ontario (nearest station).
4. MTO IDF Data.
5. Credit Valley Conservation and Toronto and Region Conservation - Low-Impact Development Stormwater Management Planning and Design Guide.
6. The Stormwater Management Planning and Design Manual, March 2003, prepared by the Ministry of the Environment.

The Ontario Building Code (OBC) tabulates climatic data for design purposes. The historic rainfall in Port Perry is noted at 97mm over a 24-hr period (1/50 yr) and 25mm for a 15 minute rainfall event. The annual precipitation is 850mm, with 720mm being rainfall.

MTO IDF Data notes the 24hr 100-yr storm rainfall **125.2mm**.

Hydrogeological Study

The Hydrogeological Study estimated the percolation rate of the native soils at 25-35 min/cm. The soils infiltration rate is estimated at 20 mm/hr for design purposes.

The yearly rainfall for Port Perry is 720mm. The Hydrogeological Study estimated the yearly infiltration at 240mm. The study included nitrate calculations for the sewage works in support of the 9 residential lots. It targeted a rainfall infiltration of 400mm for the development.

Using an average 0.32ha lot area, the estimated yearly rainfall infiltration for the lot is 768 cu.m (3200x0.240). The targeted infiltration volume is 1280 cu.m (3200x0.400) per lot. An additional 512 cu.m of rainfall is to be captured on each of the 9 lots.

Government of Canada Climatic Data

A copy of the climatic data for Burketon McLaughlin Station is included in the Appendix. The annual rainfall for Burketon is 787.9mm, which exceeds the annual rainfall of 720mm (by 9%) in Port Perry.

The rainfall events are summarized in the following table.

MONTH	DAYS WITH RAINFALL			
	$\geq 0.2\text{mm}$	$\geq 5\text{mm}$	$\geq 10\text{mm}$	$\geq 25\text{mm}$
January	3.8	1.3	0.67	0.24
February	3.7	1.4	0.71	0.05
March	5.4	2.1	1.1	0.14
April	10.8	4.4	2.2	0.25
May	12.8	6.4	3.3	0.38
June	12.3	5.6	3	0.65
July	11.2	4.3	2.4	0.52
August	11.9	5.3	3.2	0.09
September	12.6	5.9	3.3	0.95
October	13.5	5.5	3	0.33
November	10.4	5.2	2.7	0.5
December	5.6	2.4	1.2	0.05
TOTAL	113.8	49.8	26.8	5

Runoff from Building roof (200 sq.m)

Construct a 3.0m x 7.0m x 0.6m deep infiltration trench. The surface area of the trench bottom will be 21sq.m. (Note: the dimension can be changed if necessary, but the area must be 21 sq.m or greater). At a stone void ratio of 40%, the trench will store 5.04 cu.m of stormwater runoff. This is equivalent to capturing all the runoff on the building roof area during a 25mm rainfall event ($200 \times 0.025 = 5.0$).

Using the trench bottom surface area only, the native soils will infiltrate 0.42 cu.m/hr ($21.0 \times 0.02 = 0.42$) of stormwater runoff. The total runoff from the building roof during the 100-yr, 24 hr rainfall event is 25.0 cu.m. Over the 24 hr period, the soils will infiltrate 10.08cu.m of stormwater and the trench will store 5.04 cu.m of stormwater. A total of 15.12 cu.m of stormwater can be captured by the infiltration trench.

Runoff from the Front Yard (Estimated minimum area of 600sq.m)

Construct a 3.0m x 12.5m x 0.3m deep infiltration trench. The surface area of the trench bottom will be 37.5sq.m. (Note: the dimension can be changed if necessary, but the area must be 37.5 sq.m or greater). At a stone void ratio of 40%, the trench will store 4.50 cu.m of stormwater runoff. This is equivalent to capturing all the runoff on the front yard area during a 25mm rainfall event ($600 \times 0.025 \times 0.30 = 4.5$).

Using the trench bottom surface area only, the native soils will infiltrate 0.75 cu.m/hr ($37.5.0 \times 0.02 = 0.75$) of stormwater runoff. The total runoff from the front yard during the 100-yr, 24 hr rainfall event is 22.5 cu.m. Over the 24 hr period, the soils will infiltrate 18 cu.m of stormwater and the trench will store 4.5 cu.m of stormwater. A total of 22.4 cu.m of stormwater can be captured by the infiltration trench.

The proposed infiltration trenches will capture the following rainfall based on the Burketon McLaughlin Station.

Rainfall	No. of Events	Avg. Rainfall	Rainfall Captured
$\leq 0.2\text{mm}$			
$>0.2\text{mm} \ \& \ \leq 5\text{mm}$	64	2.6	166.4
$>5\text{mm} \ \& \ \leq 10\text{mm}$	23	7.5	172.5
$>10\text{mm} \ \& \ \leq 25$	21.8	17.5	381.5
TOTAL RAINFALL CAPTURED			720.4

Note: Adjust Rainfall Capture to 90% of volume for Port Perry 648mm (720.4×0.90).

The proposed Soak-Away pit will capture 648 mm of rainfall on the building roof area of 200 sq.m., or a potential 129.6 cu.m of stormwater runoff ($200 \times 648 = 129.6$). The proposed Infiltration Trench will capture 648 mm of rainfall on the front yard area of 600 sq.m., or a potential 388.8 cu.m of stormwater runoff ($600 \times 648 = 388.8$). Each lot can capture an additional 518.4 cu.m of stormwater runoff, which exceeds the targeted additional rainfall infiltration volume of 512 cu.m.

Water Balance

The yearly infiltration is estimated at 240mm on the site, under existing site conditions. This equates to a yearly total volume of 7,128 cu.m over the entire 2.97 ha area.

The proposed soak-away pits will capture surface runoff from the building roof area. Using a building roof area of 200 sq.m., each lot will capture 129.6 cu.m of runoff, or 1,166 cu.m for the entire development.

The proposed lot infiltration trenches will also capture surface runoff. Each lot can potentially capture 388.8 cu.m of surface runoff, or 3,499 cu.m for the entire site.

The development will potentially increase the infiltration volume by 4,665 cu.m, or 65% of the present infiltration volume.

Phosphorous Loading

Hutchinson Environmental Science Ltd. prepared the Phosphorous Budget Tool in Support of Sustainable Development for the Lake Simcoe Watershed. The subject property is outside the Lake Simcoe Region Conservation Authority (LSRCA) and the Phosphorous Budget Tool is not applicable. The property is within the Nonquon River Watershed, part of the Kawartha Region Conservation Authority (KRCA).

The proposed development will incorporate LID measures on each lot. The construction of Soak-away pits to capture runoff from the building roof area, and Infiltration trenches to capture runoff from the lot are proposed. The Phosphorous Budget Tool estimates that Soak Away Pits and infiltration trenches remove 60% and 87% of TSS respectively. As such, the LID measures will remove phosphorous.

Conclusions

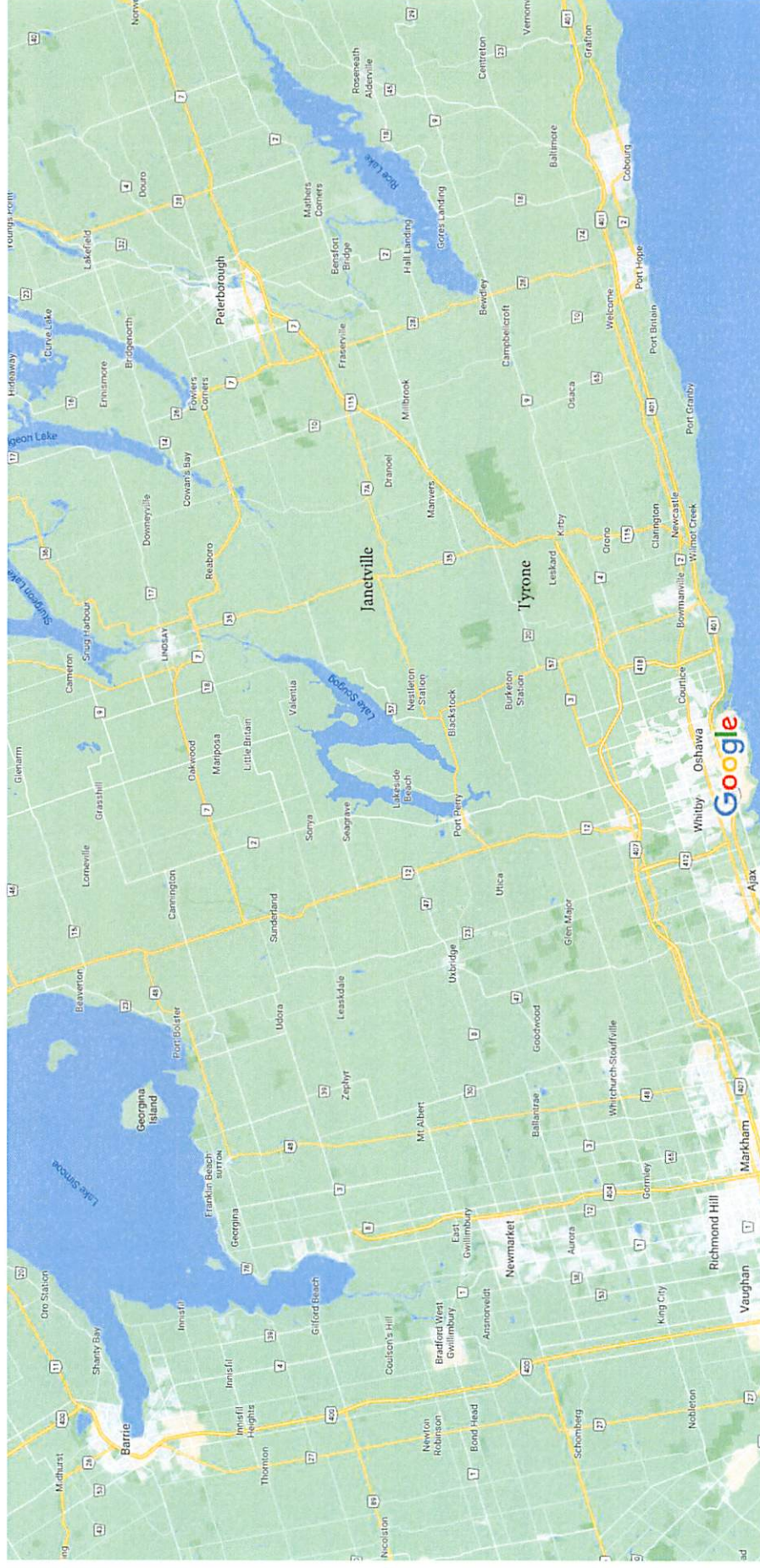
The soak-away pit (3m x 7m x 0.6m) and infiltration trench (3m x 12.5m x 0.3m) described above will promote stormwater infiltration. The additional 518.4 cu.m of infiltration will exceed the targeted increase of 512 cu.m. per lot. The construction of the soak-away pit and infiltration trench on each lot will achieve the necessary nitrate concentrations levels to permit the proposed 9 lot residential development.

Prepared by:

Bruno Dobri
Dobri Engineering Ltd.
205 Peter Street
PO Box 441
Port Hope, Ontario
L1A 3Z3



APPENDIX



Map data ©2020 Google

Climate Station

Climate Normals 1981-2010 Station Data

Metadata including Station Name, Province, Latitude, Longitude, Elevation, Climate ID, WMO ID, TC ID

STATION_NAME	PROVINCE	LATITUDE	LONGITUDE	ELEVATION	CLIMATE_ID	WMO_ID	TC_ID
BURKETON MCLAUGHLIN	ON	44°02'00.000"	78°48'00.000"	312.4 m	6151042		

Legend

A = WMO "3 and 5 rule" (i.e. no more than 3 consecutive and no more than 5 total missing for either temperature or precipitation)

B = At least 25 years

C = At least 20 years

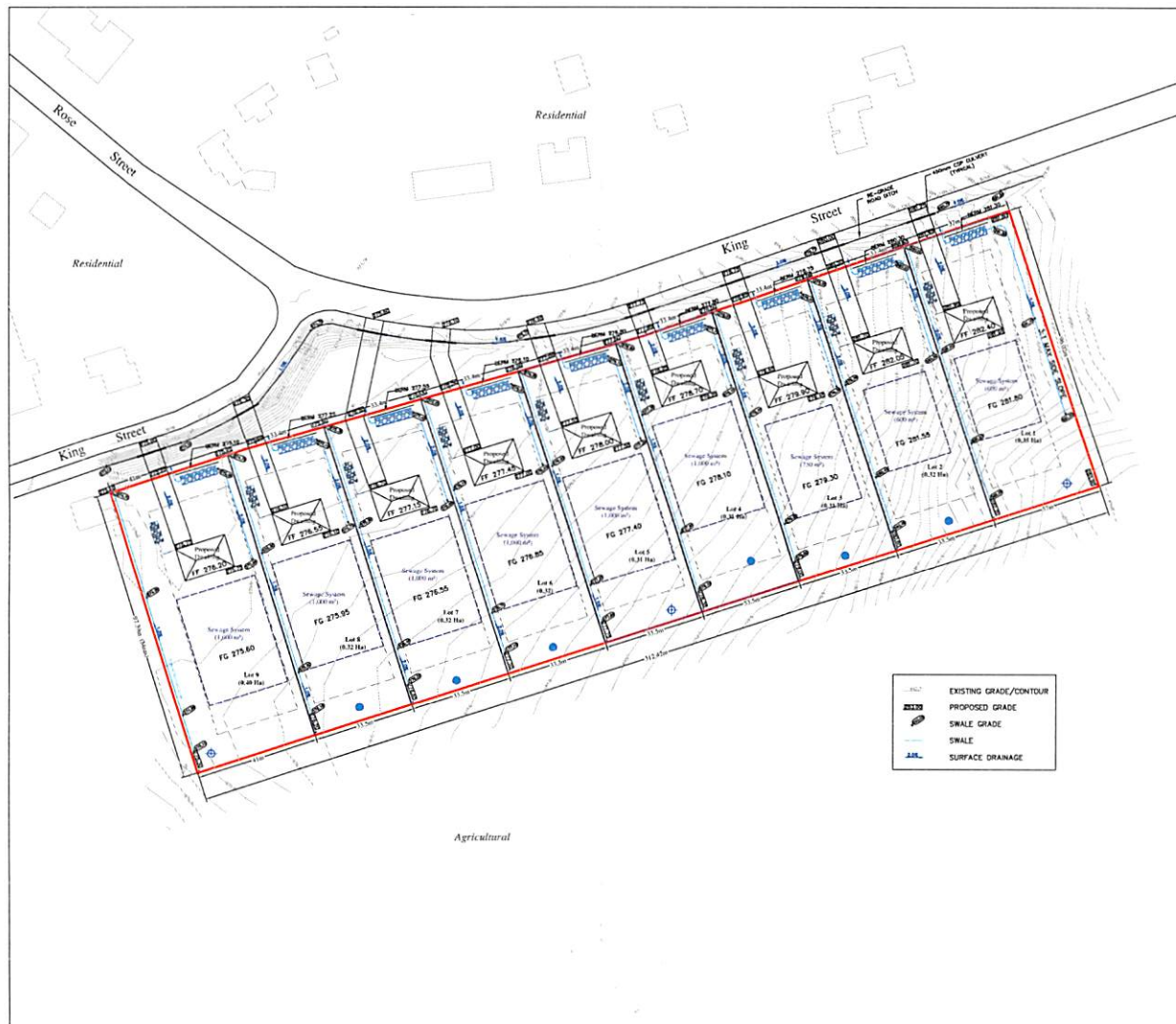
D = At least 15 years

1981 to 2010 Canadian Climate Normals station data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Code
Precipitation														
Rainfall (mm)	23.1	21.5	30.6	65.7	88.3	93.3	72.8	96.7	100.2	83.7	78.4	33.6	787.9	C
Precipitation (mm)	60.7	48.5	50.7	70.4	88.3	93.3	72.8	96.7	100.2	84.6	89.6	64.7	920.6	C
Days with Rainfall														
>= 0.2 mm	3.8	3.7	5.4	10.8	12.8	12.3	11.2	11.9	12.6	13.5	10.4	5.6	113.8	C
>= 5 mm	1.3	1.4	2.1	4.4	6.4	5.6	4.3	5.3	5.9	5.5	5.2	2.4	49.8	C
>= 10 mm	0.67	0.71	1.1	2.2	3.3	3	2.4	3.2	3.3	3	2.7	1.2	26.8	C
>= 25 mm	0.24	0.05	0.14	0.25	0.38	0.65	0.52	0.9	0.95	0.33	0.5	0.05	5	C
Days with Precipitation														
>= 0.2 mm	13.6	10.5	10.7	12	12.8	12.3	11.2	11.9	12.6	13.6	13.2	13	147.4	C
>= 5 mm	4	3.4	3.4	4.8	6.4	5.6	4.3	5.3	5.9	5.5	6.2	4.3	59.1	C
>= 10 mm	1.3	1.3	1.6	2.3	3.3	3	2.4	3.2	3.3	3.1	2.8	2	29.5	C
>= 25 mm	0.24	0.05	0.14	0.3	0.38	0.65	0.52	0.9	0.95	0.33	0.5	0.1	5.1	C

Attachment G

Preliminary Grading Plan

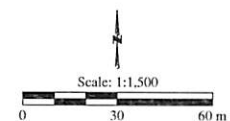


FSR RESIDENTIAL SUBDIVISION

Part Lot 13, Concession 4
Geographic Township of Reach
Township of Scugog
Regional Municipality of Durham, Ontario

LEGEND

- Property Boundary
- Proposed Lot
- Infiltration Trench
- Soak-away Pit
- Proposed 186 m² dwelling
- Sewage System (Prime + Reserve)
- Existing Drilled Well
- Proposed Drilled Well

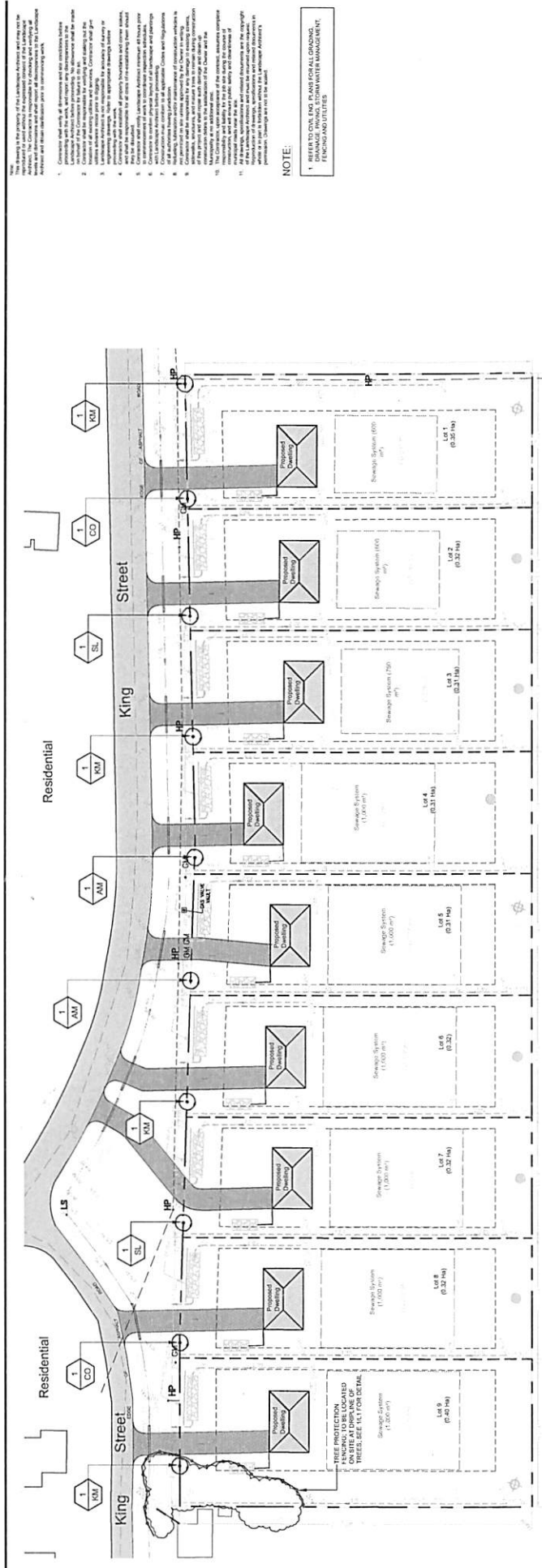


Aerial Photograph source: Esri, DigitalGlobe, and the GIS User Community, dated August 23, 2016.
Property boundary and lot dimensions obtained from Cor Fisher Cameron, OLS Lot Grading Plan, dated December 5, 2019, Reference # 18-17-050-01.
Proposed Sewerage obtained from Clark Consulting Services Draft Plan of Subdivision, dated February 2020.

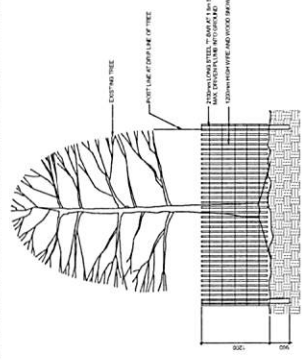
TITLE	
PRELIMINARY GRADING PLAN	
CLIENT	
O'Connor Bros. Corp.	
 GRACE & ASSOCIATES INC. Geological & Environmental Consultants	
DRAWN	FIGURE NO.
R15-635	1
DATE	
December, 2020	

Attachment H

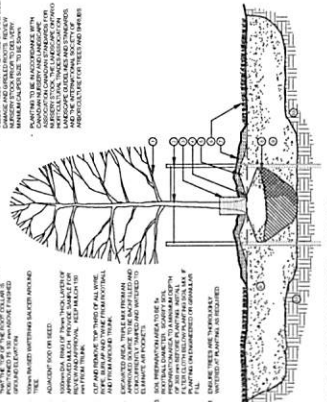
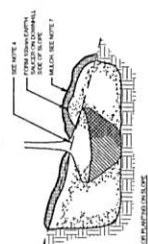
Street Tree Planting Plan



PLANT LIST



1 TREE PROTECTION FENCING DETAIL



DECIDUOUS TREE PLANTING

No.	Issued / Revision	Date
1.	Preliminary	8-Feb-11, 2021

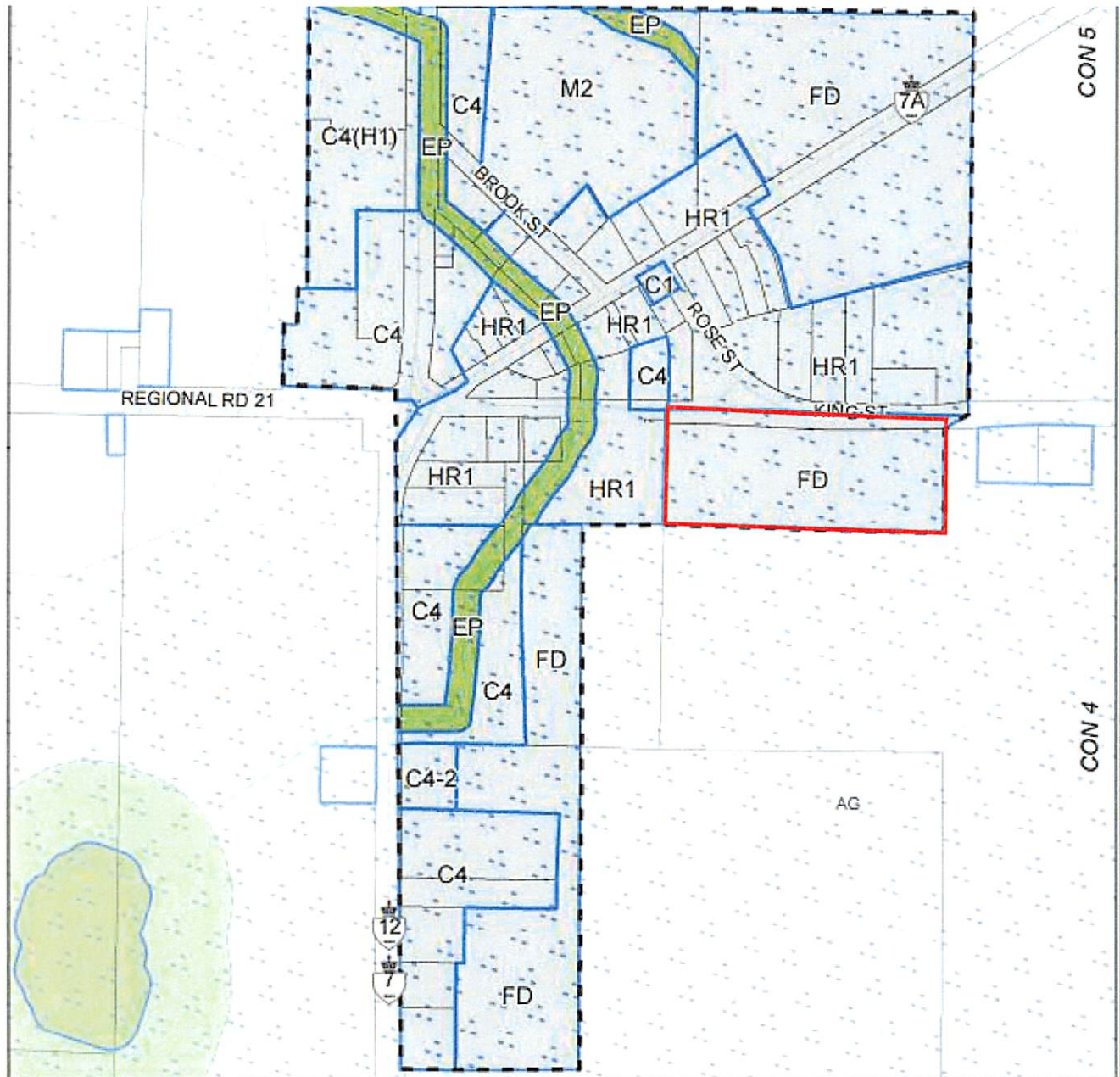
Manchester Subdivision

Year	1500
Month	February 2021
City	NYC
State	HEB
Page No.	16, 37

Attachment I

Proposed Zoning Schedule

Zoning By-law Amendment Schedule
O'Connor Bros. Corp.
Part Lot 13, Concession 4, 1370 King Street
Hamlet of Manchester, Township of Scugog



 Subject Lands

Proposed ZBA

Future Development (FD) Zone to Hamlet Residential One (Hr1) Zone



CLARK
CONSULTING SERVICES

Attachment J

Proposed Zoning By-law

THE CORPORATION OF THE TOWNSHIP OF SCUGOG
ZONING BY-LAW NUMBER XX-21

**BEING A BY-LAW TO BE PASSED PURSUANT TO THE
PROVISIONS OF SECTION 34 OF THE PLANNING ACT,
R.S.O. 1990, TO AMEND ZONING
BY-LAW 14-14 WITH RESPECT TO PART OF LOT 13,
CONCESSION 4, (1370 King Street, Manchester)
(ROLL # 001.000.41585), WARD 1**

WHEREAS the owners of lands located in Part of Lot 13, Concession 4 (13751 Highway 12/7), Ward 1, made an application to the Township of Scugog (Zoning By-law Amendment Application Z/XX/2021) to amend Zoning By-law 14-14;

AND WHEREAS the Council of the Corporation of the Township of Scugog held a public meeting (insert date) under Section 34 of the *Planning Act* with respect to this matter and has considered the application following that public meeting;

AND WHEREAS Council deems that adequate public notice has been given and no further public meeting is required;

AND WHEREAS the matters hereinafter set forth are in conformity with the policies and designations contained in the Official Plans of the Region of Durham and the Township of Scugog as are currently in force and effect.

**NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE
TOWNSHIP OF SCUGOG HEREBY AMENDS ZONING BY-LAW 14-14 AS
FOLLOWS:**

1. THAT Schedule C, Map 6 to Zoning By-law 14-14 is hereby amended as follows:
 - 1.1 Part of Lot 13, Concession 4 (1370 king Street, Manchester), Township of Scugog, Regional Municipality of Durham, more particularly shown on Schedule "A" attached hereto, is changed from "**Future Development (FD) Zone**" to "**Hamlet Residential 1 (HR1) Zone**".
2. THAT in all other respects the provisions of Zoning By-law 14-14 as amended, shall continue to apply.
3. THAT Schedule "A" attached hereto is hereby declared to form part of this By-law.

This By-law shall come into force in accordance with Section 34 of the *Planning Act*.

READ a First, Second and Third time and finally passed this xxth day of xxxxx, 2021.

MAYOR, Roberta A. Drew

CLERK, John Paul Newman