

**TOWNSHIP OF SOUTH FRONTENAC  
COMMITTEE OF THE WHOLE MEETING  
AGENDA**

TIME: 7:00 PM,  
DATE: Tuesday, November 24, 2015  
PLACE: Council Chambers.

1. Call to Order
2. Declaration of pecuniary interest and the general nature thereof
3. Scheduled Closed Session - n/a
4. Delegations
  - (a) Anne Marie Young and Joe Gallivan, re: Community Improvement Program 3 - 4
  - (b) Alistair Lamb, re: Funding requests for Share the Roads workshop. 5 - 6
  - (c) Michelle Foxtan, re: Hartington Subdivision 7 - 29
  - (d) Wade Leonard, re: Hartington Subdivision
5. Reports Requiring Action
  - (a) Lindsay Mills, Planner, re: Hartington Subdivision - Draft Plan 30 - 55
  - (b) Brian Gass, Chief Building Official, re: Septic Reinspection Options 56 - 60
  - (c) Louise Fragnito, Treasurer, re: 2016 Budget Update 61
  - (d) Mark Segsworth, Public Works Manager, re: Operation and Maintenance of the Sydenham Water System 62 - 63
  - (e) Wayne Orr, Chief Administrative Officer, re: Peer Review Policy 64 - 65
  - (f) Wayne Orr, Chief Administrative Officer, re: Rural Economic Development (RED) Grant 66 - 67
6. Reports for Information
  - (a) Mark Segsworth, Public Works Manager, re: Winter Driving Education 68
7. Rise & Report
  - (a) Rideau Valley Conservation Authority
  - (b) Cataraqui Region Conservation Authority
  - (c) Quinte Region Conservation Authority

(d) Portland Heritage

8. Information Items

(a) Ruth Gutlekin, 4023 Boyce Rd, re: Hartington Revised Plan of Subdivision 69 - 70

(b) Brian Ward, re: Applewood By-law Appeal and Motion 71 - 72

(c) Ontario Energy Board - New Ontario Electricity Support Program 73 - 74

(d) Matt Rennie, re: Permit #F-166-11 Loughborough Lake - Johnson Point 75 - 92

(e) Santa Claus Parades - Reminder 93

(f) Buck Lake Community receives National Philanthropy Day Award 94

9. Notice of Motions

10. Announcements

11. Question of clarity (from the public on outcome of agenda items)

12. Closed Session (if requested)

13. Adjournment





# Bicycle-Friendly Communities Workshop



[Share the Road](#) staff, Justin Jones, will host a one-day workshop to help South Frontenac and Greater Napanee plan for more bicycle-friendly communities. Share the Road is a provincial cycling advocacy organization working to build a bicycle-friendly Ontario. They work in partnership with municipal, provincial and federal governments, the business community, road safety organizations and other non-profits to:

- Enhance access for bicyclists on roads and trails
- Improve safety for all bicyclists
- Educate citizens on the value and importance of safe bicycling for healthy lifestyles and healthy communities.

## Workshop Outcomes:

- Detailed report from Share the Road summarizing workshop discussions, community analysis and short term work plan for each community
- Increased collaboration between groups working to promote cycling
- A clear work plan to build a more bicycle-friendly community

## Alignment with Strategic Plan:

- Positioning South Frontenac as a vibrant “destination of choice”
- Supporting efforts to build vibrant hamlets that are friendly to residents of all ages
- Making decisions consistent with quality rural/small-urban lifestyles

## Workshop Outline:

**Infrastructure Tour:** Justin Jones has completed an infrastructure tour of South Frontenac by Bicycle with several local representatives from the South Frontenac Rides committee of council and input from Mark Segsworth.

**Visioning:** Attendees will explore medium and short term goals for cycling in South Frontenac. This facilitated session is based on the Five E’s framework of the Bicycle Friendly Communities program and will see participants collaborate to identify priority actions to build a more bicycle friendly community in 5 years. The Five E’s are: Engineering, Education, Encouragement, Enforcement and Evaluation & Planning.

**Working Lunch:** When looking at the most Bicycle Friendly Communities in North America, it’s not the big cities like New York or San Francisco that are making the biggest strides. It’s the smaller communities – places under 100,000 residents – that are making the most rapid changes when it comes to creating safer roads for all road users. As part of this session, participants will hear inspirational stories

# Bicycle-Friendly Communities Workshop



from communities similar to South Frontenac and Napanee and learn how cycling and active transportation can help create a thriving community.

- Silo Smasher:** This session will help to identify the ways in which stakeholders in South Frontenac and Napanee can work together to achieve their shared goal of building bicycle friendly communities.
- Complete Streets:** This design exercise will draw on our learning's from the infrastructure tour. Participants will share their impressions of cycling in their communities, identify priority areas for improvements and explore the trade-offs that occur when planning for Complete Streets.
- World Cafe:** This evening session will take place in each community to introduce residents to three key actions or topics identified during the workshop. This session will be facilitated by Share the Road staff with assistance from South Frontenac Rides and Napanee Rides & Strides and allows from community feedback on the work plan.

## **Attendance at the Workshop:**

- County of Frontenac representatives from recreation, planning and economic development
- Eastern Region representative from Ministry of Culture, Tourism and Sport
- South Frontenac Rides committee members

## **Costs and Contributions:**

- Total Cost \$4100 plus HST
- KFL&A Public Health will contribute \$2000
- The remainder is to be split by South Frontenac and Greater Napanee
- South Frontenac Rides will contribute \$500 raised from public donations

## **Request from Council:**

- \$500 towards the cost of the workshop
- Invite Councillors and staff representatives from Public Works and Planning to attend the workshop

**From:** Michelle Foxton [<mailto:foxton@personainternet.com>]

**Sent:** November-09-15 5:43 PM

**To:** Ron Vandewal <[rvandewal@southfrontenac.net](mailto:rvandewal@southfrontenac.net)>; [councillorrevill@gmail.com](mailto:councillorrevill@gmail.com);  
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**Cc:** Joe Gallivan <[jgallivan@frontenacounty.ca](mailto:jgallivan@frontenacounty.ca)>; Labarge Charlie <[charlie.labarge@gmail.com](mailto:charlie.labarge@gmail.com)>; John Lesperance <[lesperance2@hotmail.com](mailto:lesperance2@hotmail.com)>; Mr. Leonard Wade <[wadel@personainternet.com](mailto:wadel@personainternet.com)>

**Subject:** Proposed Hartington Subdivision

Dear Mayor, Councillors, Mr. Orr and Mr. Mills,

We wish to confirm receipt of correspondence from the proponent's hydrogeologist, ASC Environmental, dated October 29, 2015, a copy of which is attached hereto. We further wish to confirm receipt of information obtained under a *Freedom of Information Act* request to the Township, pertaining to the former gas station at 5598 Hwy 38, Hartington, ON, in particular the Specialized Onsite Services Inc. Report dated September 28, 2015, a partial copy of which is attached hereto. We confirm this report contains 41 pages, although due to email size restrictions we are including the first 15 pages of the said report. The full report can be obtained from Township staff.

Due to the information contained in the attached documents, we have forwarded same to our consultant, McIntosh Perry, for their review and further comments. They anticipate additional time to complete same. In this regard, we have requested notification from Mr. Orr and Mr. Mills as to when this matter is next scheduled to be placed on the Council and/or Committee of the Whole agendas, and we trust sufficient time will be permitted for us to obtain further comments from McIntosh Perry.

In addition, we have been advised by the County planner, Mr. Gallivan, that the proponent has made revisions to his subdivision application at the County level. We confirm we have not received a copy of these materials at this time, although Mr. Gallivan has indicated these materials will be made available to the community in the near future.

We look forward to presenting the community's response to the amended application and attached materials at the appropriate time.

Yours truly,

Michelle Foxton, Charlie Labarge, John Lesperance and Wade Leonard

P.O. Box 130  
Hartington, ON  
K0H 1W0  
613-372-0887



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Via: email

October 29, 2015

File: ASC-095 116l

Mr. Terry Grant  
T. Grant Custom Homes  
946 Woodbine Road  
Kingston, ON K7P 2X5

Subject: Hydrogeological Study and Terrain Analyses –  
Response to Technical Comments from McIntosh Perry  
Proposed 13 Lot Subdivision, Hamlet of Hartington, Ontario

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Dear Mr. Grant:

We present our comments on the technical review from McIntosh Perry regarding the above captioned property. We reviewed the following documents:

*Review Technical Support Documentation - Hartington Subdivision, Part Lot 7, Concession 7, Township of South Frontenac, County of Frontenac (MP File No. OCP-15-0397), prepared for Ms. Michelle Foxton, Mr. Charlie Larbache and Mr. John Lesperance, prepared by McIntosh Perry, dated September 1, 2015.*

*Review of McIntosh Perry Letter Dated September 1, 2015 Review Technical Support Documentation - Hartington Subdivision Part Lot 7, Concession 7, Township of South Frontenac, County of Frontenac (MP File No. OCP-15-0397), prepared for County of Frontenac, prepared by Malroz Engineering, dated September 24, 2015.*

We offer the following comments in order of McIntosh Perry Technical Review:

## **1.0 Comments**

### **1)**

Pumping tests were undertaken in March 2013. Four (4) test wells were pumped simultaneously on March 19 and another four (4) on March 21, 2013. Three of the eight test wells (TW01, TW02, TW03) are located in the proposed 13 Lot subdivision and test well (TW04) is located immediately south of the proposed development. These wells are representative of the expected water supply available for the proposed 13 lots.

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**491 O'Connor Drive, Kingston, ON  
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(613) 634 - 5596**

October 29, 2015

Precipitation the month preceding the March, 2013 pumping tests primarily consisted of snow fall. Referencing the Hartington Station approximately 30 mm of rain fall occurred the month preceding the pumping tests and approximately 47 cm of snowfall. At the time of the pumping tests, snow cover was still observed on the ground and sheet flow was also noted in areas over the frozen ground surface. We acknowledge that the March, 2013 pumping tests are not representative of typical summer low supply seasonal conditions. We note that the pumping tests were conducted to stress these wells to assess performance during early seasonal conditions.

Test wells TW01 and TW03 were pumped at rates varying from 20 litres per minute up to 60 litres per minute during the March, 2013 pumping tests generating approximately 25,000 litres of water. This is equivalent to approximately 14 Lots (14 times the daily requirement for a 3 plus one bedroom residence). Test wells TW02 and TW04 were pumped two days later generating approximately 42,000 litres of water; equivalent to 23 Lots (23 times the daily requirement). The pumping tests demonstrated that sufficient quantity of water is available to support residential development within the Hamlet.

Approximately 134 mm of precipitation (rain) was recorded at the Hartington Station the month preceding the summer pumping tests in 2014. McIntosh Perry identified 156 mm of precipitation the month preceding the summer pumping tests. It should be noted that approximately 46 mm of the rainfall was recorded on one day.

Based on our infiltration calculation for annual precipitation, approximately 20% is available to the aquifer. If we take 20% of the monthly rainfall prior to summer 2014 testing (134 mm) then we have approximately 27 mm of precipitation infiltrating the ground, or 27 L/m<sup>2</sup>, which when multiplied by the proposed site area of 11 Ha, gives us approximately 3,036,000 L of precipitation infiltrating the ground surface the month prior to testing.

The average aquifer thickness of test wells TW01, TW03, TW09 and TW10 is 27.4 m in summer 2014. This multiplied by the site area (11 Ha) and then multiplied by the porosity of limestone which Freeze and Cherry report up to 0.2 gives 6.0258 x 10<sup>8</sup> litres available in the aquifer. If we use a conservative porosity of limestone (0.1), we have approximately 301,290,000 litres available in the aquifer for pumping. The contribution from precipitation the month preceding the summer pumping tests in 2014 is approximately 1% of the total amount of water available in the aquifer. This clearly is not a significant contribution to the aquifer prior to the summer pumping tests.



October 29, 2015

MOECC D-5-5, Section 4.3.1 Pump Test Procedure requires the pumping test must begin with a static water level and must be performed at a fixed rate ( $\pm 5\%$ ) for a minimum period of six hours. The minimum duration of six continuous hours incorporates safety factors with respect to seasonal variables.

The pumping tests conducted on test wells TW02 and TW10 during August and September 2014 were undertaken following consultation and recommendation by Malroz Engineering and Quinte Conservation Authority to assess water supply during seasonal summer-like conditions. These wells were pumped for periods of 6 hours at rates of 20 litres per minute to account for seasonal variables in accordance with MOECC D-5-5. Results of the pumping tests clearly demonstrated water supply sufficient to support seasonal peak demand conditions. We are of the opinion that the test well pumping tests conducted in August and September 2014 represent stressed conditions.

Referencing McIntosh Perry Technical Review, they acknowledge that “the pumping test conducted for test well TW02 demonstrates that it has an adequate yield”.

Also the additional work conducted to date clearly supports long term water supply assessment in accordance MOECC D-5-5 procedure.

## 2)

McIntosh Perry acknowledges that test well (TW02) demonstrates adequate yield to support residential development.

We concur with Malroz; the Precambrian granite is not intended for use as a water supply aquifer in the evaluation of the development.

## 3)

The MOECC Procedure D-5-5, requires a minimum of a 6 hour pumping test and that at least one water sample is to be collected in the last hour of the test. We concur with Malroz that collection of a second sample is at the discretion of the consultant. During pumping tests, samples were collected following measuring raw water to be free of chlorine residual. Second and or final water samples from the eleven wells analysed were typically targeted for collection in the last hour of the pumping tests.

We concur with Malroz that the water quality data generated to date from the test wells sampled and, the recommendation that each new well be evaluated, are adequate for characterizing the raw water quality.



October 29, 2015

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**4)**

Based on our field groundwater monitoring information to date and monitoring of adjacent residential wells, groundwater flow gradient in the area is primarily to the south. Neighbouring residents to the east and north east along Boyce Road and near Highway 38 in the vicinity of the gasoline retail outlet demonstrate a north to northeast/east component of groundwater flow; away from the proposed subdivision. The gasoline retail outlet in question was renovated in 2013, including removal of underground storage tanks, upgrading to double walled tanks and replacing fuel distribution piping. We understand the site was certified by the Technical Standards and Safety Authority indicating the retail outlet is in compliance with Provincial regulatory environmental approvals.

Residential neighbours north, south and east of the retail operation have been present for over 20 to 50 years. During our hydrogeological study, neighbours were solicited to participate in the hydrogeological study. We typically received concerns regarding potential hydrogen sulphide odours in the water supply. No concerns were raised by adjacent residents regarding petroleum hydrocarbon odours in the water supply, clearly indicating the adjacent retail fuel outlet is not a concern.

On this basis, and taking into account recent upgrades (2013) to the gasoline retail store and demonstrated groundwater flow gradient away from the proposed subdivision we are of the opinion that concerns to water supply quality from the retail outlet are not warranted.

McIntosh Perry identified the walking trail (former K&P railway) located east of the proposed subdivision as a potential concern to future development.

We understand the walking trail (former rail line) has been in use for recreational purposes in some form since the late 1980s. The trail was officially opened in August, 2012. The former rail bed is over 100 years old and ceased operation in 1983 and tracks removed circa 1986. Referencing the County of Frontenac K&P Trail Implementation Plan 2009, a residential survey was taken to gauge environmental, economic and general concerns regarding proposed upgrades to the trail. Reviewing the responses from existing residents adjacent to the trail, no environmental concerns were identified regarding potential impairment of water quality to wells resulting from the former rail bed. This is further supported from our residential survey conducted in support of the hydrogeological study, where no concerns were identified regarding water quality issues resulting from the former rail bed.



October 29, 2015

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**5)**

Quinte Conservation in discussion with Malroz indicated that a Provincial Groundwater Monitoring Network well is located in the vicinity of Hartington. Mr. Mark Boone, Hydrogeologist with Quinte Conservation confirmed as a part of the water quality evaluation program in the area, that water analyzed for radionuclide did not identify concerns. On this basis we are satisfied that radionuclides in the water supply are not a concern for future development.

**6)**

We have reviewed the nitrate-nitrite concentrations for the eleven (11) test wells sampled for the full 45 hectare property. Five of the eleven sampled test wells are located in the northern portion of the property proposed for development. Nitrate-nitrite results ranged from 0.1 mg/l to 4.21 mg/l with the majority of the results falling into two ranges (0.1 – 0.75 mg/l and 1.5 – 3.0 mg/l) with one result of 4.21 mg/l (TW-10); confirming nitrate-nitrite variability. We believe the nitrate concentration detected at TW-10 is an outlier and not representative of background concentrations at the property. We concur that the result represents a conservative approach, we do not concur that it is representative of current background concentrations based on the results of the sampling program from the 11 sampled wells.

Thirteen (13) lots are proposed within the Hamlet, with the remainder of the property being vacant for the foreseeable future. On this basis and utilizing the full 45 hectare property for nitrate dilution, the anticipated nitrate loading for the proposed 13 lots at the south downgradient boundary would be well below the 10 mg/l criteria (MOE Procedure D-5-4).

When further development is proposed clearly further terrain assessment will be required to determine the size and layout of future lots outside of the Hamlet designated area.

**7)**

The hydrogeological work and additional confirmatory studies undertaken in preparation and support of the hydrogeological report(s) for the subject property did not use information or field data related to well hydrofracturing. Hydrofracturing is not proposed as part of the proposed subdivision development.



October 29, 2015

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**8)**

We concur with Malroz and McIntosh Perry that based on the site sensitivity and water quality a higher level of investigation was required to fully assess the proposed subdivision. We have advanced additional wells, conducted additional field work and developed an analytic model to assess the impact of the proposed subdivision on the water quantity demonstrating a higher level of investigation clearly exceeding the minimum requirements of MOECC D-5-5.

Further, we have committed to having each additional well installed at the site evaluated by a qualified hydrogeologist who is licensed by the Ontario Association of Professional Geoscientists or Professional Engineers of Ontario.

We concur with Malroz that the additional work undertaken to date has exceeded the minimum requirements in the MOECC D-5-5 Procedure clearly demonstrating long term water supply of the proposed 13 Lot subdivision development in the north portion of the property.

## **2.0 Closure**

ASC Environmental (ASC) was retained by *Terry Grant Construction* to prepare comments in preparation for residential development at the subject property located in the Hamlet of Hartington, Geographic Township of Portland, Ontario.

Hydrogeological work conducted to date including advancing additional wells, conducting additional field work and developing an analytical model has demonstrated long term water supply sufficient to support 47 lots on the full 45 hectare property. Clearly the property has been sufficiently characterized to support the impact on the long term water supply from the proposed 13 Lot development in the north portion of the property.

The findings reported in this document are based on the tasks completed by ASC under the mutually agreed scope of work. Professional judgement, experience with similar investigations, and available data collected within the scope of work form the basis for our comments. ASC has prepared this document using information understood to be factual and correct, and shall not be responsible for conditions arising from information or facts that were inaccurate, concealed, or not fully disclosed at the time of our work.



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File: ASC-095 1161  
T. Grant Custom Homes  
Response to Technical Comments  
Hydrogeological Study and Terrain Analyses  
Proposed 13 Lot Subdivision, Hartington, ON

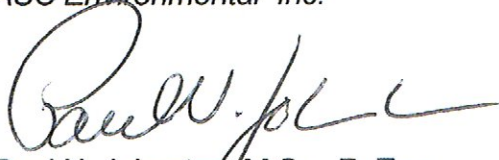
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We thank you for the opportunity to work with you on this project, and trust that this information meets your satisfaction. If you have questions or concerns regarding this document please contact the undersigned.

Yours truly,

ASC Environmental Inc.



Paul N. Johnston, M.Sc., P. Eng.  
Project Manager



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SEPTEMBER 28, 2015

ENVIRONMENTAL CONTRACTING SERVICES INC.  
C/O TOWNSHIP OF SOUTH FRONTENAC  
P.O. BOX 100  
SYDENHAM, ONTARIO  
K0H 2T0

**RE: SOIL AND GROUND WATER ASSESSMENT REPORT - 5598 KING'S HIGHWAY 38,  
HARTINGTON, ON**

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### 1.0 INTRODUCTION

The purpose of this letter is to provide a summary of the site assessment work conducted by Specialized Onsite Services [SOS] between July 2 and 8, 2015 at a property located at 5598 King's Highway 38, Hartington, Ontario [the "Site"]. As part of the investigation conducted at the subject Site, a limited subsurface drilling program was performed on the property.

### 2.0 SITE DESCRIPTION

The subject property is a commercial property owned by the Township of South Frontenac. The property is currently a vacant lot but formerly had one, two storey building constructed on it with several additions attached. The building formerly operated as a convenience store and gas bar. Two gasoline pumps were formerly located to the south of the building fronting Highway 38. Fuel for the pumps was provided by two underground fuel storage tanks [UFST] formerly buried to the east of the pumps. The site is bounded by a commercial property to the south, South Frontenac Township Fire Hall to the east, King's Highway 38 to the west and Holleford Road to the north.

### 3.0 APPLICABLE SITE CONDITION STANDARDS

Soil standards for use at the Site were selected from the Ministry of Environment (MOE) document entitled "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*" (April 2011).

The following site-specific information was used to select the applicable standards for the Site:

- The Site is an environmentally sensitive area as defined by Section 41 of O. Reg. 153/04 given that;
  - > The Site is a shallow soil property as there is less than 2 m of overburden material covering a competent bedrock layer;
- The water supply for the property is provided by the local ground water aquifer through a drilled supply well;
- The land use at the Site is commercial;
- Soils encountered during the assessment process consisted of brown silt overlying shale and bedrock. A grain size analysis was not performed.

Based on the above information, the applicable site condition standards for use at this Site are the coarse textured soil and commercial/ community property use values provided in Table 6: Generic Site Condition Standards for Shallow Soils in a Potable Ground Water Condition presented in the MOE document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 2011). In this report these standards will be referred to as "Table 6 SCS".

#### 4.0 EXCAVATION AND SOIL SAMPLING ACTIVITIES

The UFST's located on the subject Site were exhumed from the ground on January 28, 2015. Verification soil samples were collected by SOS representatives from the excavation area following removal of the tanks. A total of five [5] samples were collected and analyzed for petroleum hydrocarbon [PHC] fractions F1 to F4 and benzene, toluene, ethylbenzene and xylene constituents [BTEX]. From the samples collected, three had elevated PHC fractions F1 and F2 as well toluene, ethylbenzene and xylene detections that exceeded the applicable Table 6 SCS.

Additional information regarding the tank removal and associated confirmatory sampling can be found in the SOS report entitled "*Investigation and Verification Soil Sampling – Underground Fuel Storage Tank Removal – 5598 Highway 38, Hartington, Ontario*" and dated February 9, 2015.

In order to remove the petroleum hydrocarbon contamination identified in the soils at the former UFST location, excavation of the soils was required. Excavation activities at the site commenced February 23, 2015. Preliminary work focused on removing the impacted soils from the former UFST tank bed down to the competent bedrock layer below. Additional hydrocarbon contamination was identified in the fractured bedrock layers around the perimeter of the excavated area. In order to access the contamination, the clean overburden above the bedrock layer was removed and a hydraulic ram was employed to break apart the fractured bedrock layers. The excavation area was then extended north, east and west following the hydrocarbon contamination in the subsurface. Significant hydrocarbon odours were noted in the soils being excavated. Excavation activities at the Site continued until March 4, 2015.

Due to the expanse of the excavation area, representatives from the Township of South Frontenac suspended further excavation activities in order to demolish the building and garage to the north of the excavation. The excavation area at this time was approximately 14.80 m by 9.50 m with a maximum vertical depth of 3.60 m. The hydrocarbon contamination was predominantly located within the subsurface from approximately 3.0 m to 3.60 m below the ground surface, within the fractured shale/bedrock layers. The excavation area was subsequently backfilled by the Township of South Frontenac in order to proceed with the demolition activities.

Excavation activities at the site to remove the hydrocarbon contaminated soil and rock layers resumed May 21, 2015 following demolition of the structures. The south excavation sidewall of the preliminary dig was extended south, west and east. During the excavation process, water began infiltrating the area, mainly from the backfill placed in the former excavation area to the north. Noticeable hydrocarbon odours were noted in the water. A temporary dam was constructed using the overburden material to impede the water flow in order to carry on with remedial excavation activities.

Soil excavation activities continued through to June 2, 2015. The south, east and west sidewalls of the former excavation area were extended to remove the hydrocarbon contamination detected [ref. Figure 3]. The east sidewall was excavated up to the east property limit. The south sidewall was

extended by approximately 5.50 m south and the west sidewall was extended another 4.30 m. The soil and fractured bedrock was removed to the competent bedrock layer at an approximate depth of 3.60 m.

As part of site activities completed on June 2, 2015, two test pits were constructed on the north elevation of the property to assess impacts to the subsurface. The test pits were excavated using the high hoe excavator equipped with a hydraulic ram in order to break through the shale layers. Both test pit locations were approximately 1.50 m by 2.0 m in size with a vertical depth of 1.50 m and 2.80 m respectively. Significant hydrocarbon odours were detectable by olfactory in the second test pit at approximately 1.20 m depth. Test pit locations are illustrated in Figure 3.

Throughout the excavation process conducted on-site, interim soil samples were collected for field screening purposes in order to direct the site work. Samples were placed into Ziploc™ bags and allowed to reach ambient air temperature. The head space of each bagged sample was then screened for volatile organic compounds [VOC's] using a Photovac 2020 Pro Plus Photo-ionization Detector [PID] equipped with a 10.6 electron-volt lamp calibrated against isobutylene span gas of a known concentration. Select VOC field screening results are provided in Table 1 below.

Based on field screening activities and/or olfactory and visual observations made during the assessment process, verification soil samples were collected. Samples were collected on four separate occasions. Two samples ["E-1" and "N-1"] were collected March 2, 2015. One sample ["West-1"] was taken on May 27 from the southwest corner of the excavation and another sample ["TP-N"] was collected on June 2 from the second test pit location. Seven soil samples ["W-1", "W-2", "S-1", "S-2", "S-3", "E-1" and "E-2"] were collected on June 3, 2015. The samples collected were submitted to Caduceon Environmental Laboratories [Caduceon] for PHC fractions F1 to F4 and BTEX analysis. Samples collected from the excavation area were taken from the south, east and west sidewalls at an approximate depth of 3 m. No samples were collected from the floor of the excavation as the area was excavated to the competent bedrock layer. Sample locations are illustrated in Figure 2 and 3.

Following assessment activities completed on June 3, 2015, the excavation area proceeded to be backfilled by a contractor working for the Township (Environmentall) following direction from representatives of the Township of South Frontenac.

#### 4.1 ANALYTICAL FINDINGS

The laboratory Certificates of Analyses [Caduceon Report #'s B15-04227, B15-04228, B15-12464 and B15-13040] for the samples collected by SOS representatives are enclosed herein. Laboratory results for the PHC and BTEX analysis are summarized in Table 1 below to provide comparative analysis against the MOE Table 6 site condition standards. Results above the laboratory detection limits are in bold text and those above the MOE Table 6 SCS are underlined and in bold text. As seen, one or more of the PHC fractions and BTEX parameters were reported by the laboratory in each of the samples analyzed except in the "S-1" sample. From the detections reported, five samples ["E-1", "N-1", "West-1", "TP-N", "W-2" and "E-1"] had PHC fractions F1 or F2 and/or xylene and toluene detections that exceeded the applicable Table 6 SCS. The "West-1" sample location was excavated following site activities completed the week of May 25, 2015.

**Table 1: Verification Soil Sampling Analysis**

SAMPLE ID	SAMPLE DATE	VOC HEADSPACE CONC. (ppm)	PHC F1 (C <sub>6</sub> -C <sub>10</sub> )	PHC F2 (C <sub>10</sub> -C <sub>16</sub> )	PHC F3 (C <sub>16</sub> -C <sub>34</sub> )	PHC F4 (C <sub>34</sub> -C <sub>50</sub> )	B	T	E	X
MDL			10	5	10	10	0.02	0.05	0.05	0.10
MOE TABLE 6 STANDARDS [COARSE GRAIN; COMMERCIAL]			55	230	1700	3300	0.32	6.4	1.1	26
E-1	15-MAR-02	47.8	50	<u>364</u>	70	<20 <sup>1</sup>	0.03	0.2	0.10	0.09
N-1	15-MAR-02	713.0	<u>750</u>	153	30	<20 <sup>1</sup>	<0.09	2.19	<u>5.03</u>	<u>36.95</u>
WEST-1	15-MAY-27	1,387.0	<u>1010</u>	190	<60 <sup>1</sup>	<60 <sup>1</sup>	<2	<2	<u>3.33</u>	<u>17.98</u>
TP-N	15-JUN-02	-	<u>90</u>	<u>1970</u>	250	<20	<2	<2	<2	0.21
W-1	15-JUN-03	-	20	87	100	20	<0.09	<0.09	0.1	0.4
W-2	15-JUN-03	-	<u>170</u>	43	10	<10	<0.8	<0.8	<u>9.8</u>	16.5
S-1	15-JUN-03	-	<10	<5	<10	<10	<0.02	<0.05	<0.05	<0.17
S-2	15-JUN-03	-	<10	<5	10	<10	<0.02	<0.05	<0.05	<0.17
S-3	15-JUN-03	-	<10	<5	10	<10	<0.02	<0.05	<0.05	<0.17
E-1	15-JUN-03	-	<u>180</u>	122	160	30	<0.6	<0.6	<u>2.4</u>	14.6
E-2	15-JUN-03	-	40	222	290	70	<<0.3	0.3	0.3	2.0

MDL – LABORATORY METHOD DETECTION LIMIT

BTEX – BENZENE, TOLUENE, ETHYL BENZENE AND XYLENES (M-, P-, O-)

NDP – QUALITATIVELY DESCRIBED BY LABORATORY AS HAVING “NO DISTINCT PATTERN”

1 – ELEVATED MDL DUE TO SAMPLE MATRIX

PHC – PETROLEUM HYDROCARBONS

UNITS - ALL UNITS ARE REPORTED IN µg/g

VOC – VOLATILE ORGANIC COMPOUND

## 5.0 EXCAVATION WATER SAMPLING AND RECOVERY

As discussed in Section 4.0, water began infiltrating the excavated area during site excavation activities conducted on May 21, 2015. The water was predominantly draining out of the backfill placed in the former excavation area to the north. Noticeable hydrocarbon odours were evident in the water upon inspection. In order to continue excavation activities at the site, a temporary dam was constructed using the overburden material. A water sample was then collected from the pooling water by partially submerging a laboratory supplied bottle and vials into the water surface and allowing the water to enter the containers under no force. The sample, identified as “Excavation”, was submitted to Caduceon for PHC and BTEX analysis.

The laboratory Certificate of Analysis [Caduceon Report #B15-11514] is enclosed herein and summarized in Table 2 below to provide comparative analysis against the applicable Table 6 SCS. As seen, elevated PHC fractions F1 and F2 as well as BTEX constituents were reported by the laboratory. The PHC, benzene, ethylbenzene and xylene detections exceeded the applicable Table 6 SCS.

On May 22, 2015, a liquid waste hauler was retained to dewater the excavation area and remove the hydrocarbon impacts detected. Approximately 6,500 L of hydrocarbon impacted water was recovered and transferred to an MOE licensed facility for disposal.

No additional groundwater samples were collected during excavation activities conducted at the Site as the area dried out as the excavation work progressed.

**Table 2: Excavation Water Sampling Analysis**

SAMPLE ID	SAMPLE DATE	PHC F1 (C <sub>6</sub> -C <sub>10</sub> )	PHC F2 (C <sub>10</sub> -C <sub>16</sub> )	PHC F3 (C <sub>16</sub> -C <sub>34</sub> )	PHC F4 (C <sub>34</sub> -C <sub>50</sub> )	B	T	E	X
MDL		50	50	400	400	0.5	0.5	0.5	1.5
MOE TABLE 6 STANDARDS WATER (ALL TYPES OF PROPERTY USE)		420	150	500	500	0.5	24	2.4	72
EXCAVATION	15-MAY-21	<u>2110</u>	<u>1580</u>	<400	<400	<u>3.2</u>	<u>10.6</u>	<u>24.6</u>	<u>306.9</u>

MDL – LABORATORY METHOD DETECTION LIMIT  
BTEX – BENZENE, TOLUENE, ETHYL BENZENE AND XYLENES (MP-, O-)  
PHC – PETROLEUM HYDROCARBONS  
UNITS - ALL UNITS ARE REPORTED IN µg/g for soil samples and in µg/L for groundwater samples

## 6.0 BOREHOLE AND GROUND WATER MONITORING WELL INSTALLATION

As part of assessment activities conducted at the subject Site, a limited subsurface drilling program was instituted to assess the quality of groundwater on-site. Dedicated Environmental Services Inc. [Dedicated] was retained by SOS on behalf of the Client to provide well contractor services for the subsurface investigation. The work was completed using a track mounted drill rig equipped with continuous flight augers and down-the-hole hammer system.

A total of seven [7] boreholes were constructed on the subject property. Two [2] boreholes were constructed along the west side of the property, adjacent Highway 38. Two [2] were constructed along the east property line and one [1] was installed on the north property limit adjacent Holleford Road. One [1] was constructed near southern edge of the property and one [1] was constructed in the backfill placed in the original excavation area. Borehole [BH] locations are illustrated in Figure 4.

Boreholes were advanced into the subsurface to a vertical depth of between 4.57 m [15.0 ft] and 6.55 m [21.5 ft] respectively. A shallow layer of soil was identified across the study area between 0.46 m and 0.90 m in depth which consisted primarily of brown silt with stones. Underlying the soil layer was shale rock. The shale transitioned to fractured bedrock between 1.20 m and 1.80 m respectively. Evidence of a shallow water table was encountered in boreholes “BH-1” through “BH-6” between 2.90 m and 4.23 m. Olfactory evidence of hydrocarbon contamination was noted in the “BH-4” location during construction.

Groundwater monitoring wells [MW’s] were installed at all seven [7] borehole locations. The wells were installed to allow for hydrogeologic and ground water quality information to be obtained from the ground water table. The monitoring wells were installed using 50 mm [2 in.] diameter PVC well materials and No. 10 slot well screen. A sand pack was extended above the screened portion of the well to allow for settling of the sand and/or expansion of the bentonite seal and to permit regular monitoring of the ground water table. Each monitoring well was extended above the ground surface using solid PVC riser except at “BH-1” and “BH-2” which were terminated just below grade. The top of the wells were sealed with a plastic well cap and protected by either a flush mount case or steel stick-up housing. Monitoring well installation details are provided herein and locations are illustrated in Figure 4.

Details concerning borehole construction and MW installation are provided in the Borehole Logs section in the Enclosures of this report.

## 7.0 MONITORING WELL SAMPLING AND ANALYSIS

SOS attended the site on July 6<sup>th</sup> and 8<sup>th</sup>, 2015 to collect groundwater samples from the monitoring well network. Prior to sample collection, each MW was purged using a dedicated purge line equipped with a Waterra™ type foot valve. Approximately three [3] well volumes of water were removed from each well or until the well went dry three times. Purging is required in order to collect a sample that is representative of the ground water in the surrounding aquifer.

Following purging, ground water samples were collected from “MW 2” through “MW 7” on July 6, 2015. No sample could be collected from “MW-1” due to the slow recharge rate of the water column within the well. As a result, SOS returned to the Site on July 8, 2015 to sample “MW-1”. Samples were collected using a new, disposable plastic bailer. The contents within each bailer was emptied directly into laboratory supplied bottle and vials. The samples collected were hand delivered to Caduceon for PHC and BTEX analysis.

The laboratory Certificates of Analyses [Caduceon Report #B15-16510 and B15-17028] for the ground water samples collected by SOS are enclosed herein. Results for the PHC F1-F4 and BTEX analysis are summarized in Table 3 below to provide comparative analysis against the applicable MOE Table 6 SCS. Analytical results in bold text are above laboratory detection limits and results that are underlined and in bold text are at or above the applicable standards. As seen, one or more of the PHC fractions and BTEX parameters were reported by the laboratory in three of the samples submitted [“MW-2”, “MW-4” and “MW-7”]. From the detections reported, the PHC fractions F2 and F3, benzene and ethylbenzene detections for “MW-2 and the benzene detections in the “MW-4” sample exceeded the applicable Table 6 SCS.

## 7.1 POTABLE WATER WELL SAMPLING AND ANALYSIS

As part of assessment activities conducted, groundwater samples were collected from the potable water wells servicing the subject Site and the adjacent property to the east [South Frontenac Township Fire Hall]. On January 28, 2015, one water sample [“F.H. –SW”] was collected from the drilled supply on the adjacent property and on July 8, 2015, one sample [“Supply Well”] was taken from the drilled supply well on the subject Site. Samples were collected directly from the wellhead using a new, disposable plastic bailer. The bailers were emptied directly into laboratory supplied containers and hand delivered to Caduceon under formal Chain of Custody document for PHC and BTEX analysis. No visual or olfactory evidence of hydrocarbon contamination was noted in either of the samples during collection.

The laboratory Certificates of Analyses [Caduceon Report #B15-02045 and B15-17028] for the samples collected by SOS are provided herein and summarized in Table 3 below. As seen, no detectable concentrations of PHC or BTEX constituents were reported by the laboratory in the potable ground water samples submitted.

**Table 3: Monitoring Well and Potable Water Sampling Analysis**

SAMPLE ID	SAMPLE DATE	PHC F1 (C <sub>6</sub> -C <sub>10</sub> )	PHC F2 (C <sub>10</sub> -C <sub>16</sub> )	PHC F3 (C <sub>16</sub> -C <sub>34</sub> )	PHC F4 (C <sub>34</sub> -C <sub>50</sub> )	B	T	E	X
MDL		50	50	400	400	0.5	0.5	0.5	1.5
MOE TABLE 6 STANDARDS WATER (ALL TYPES OF PROPERTY USE)		420	150	500	500	0.5	24	2.4	72
MW-2	15-JUL-6	80	440	700	<400	13.4	3.2	10.1	69.6
MW-3	15-JUL-6	<50	<50	<400	<400	<0.5	<0.5	<0.5	<1.5
MW-4	15-JUL-6	100	<50	<400	<400	1.0	0.6	<0.5	4.5
MW-5	15-JUL-6	<50	<50	<400	<400	<0.5	<0.5	<0.5	<1.5
MW-6	15-JUL-6	<50	<50	<400	<400	<0.5	<0.5	<0.5	<1.5
MW-7	15-JUL-6	<50	<50	<400	<400	<0.5	<0.5	0.8	3
MW-1	15-JUL-8	<50	<50	<400	<400	<0.5	<0.5	<0.5	<1.5
F.H. - SW	15-JAN-28	<50	<50	<400	<400	<0.5	<0.5	<0.5	<1.5
SUPPLY WELL	15-JUL-8	<50	<50	<400	<400	<0.5	<0.5	<0.5	<1.5

MDL – LABORATORY METHOD DETECTION LIMIT  
BTEX – BENZENE, TOLUENE, ETHYL BENZENE AND XYLENES (MP-, O-, M,P,O-)  
PHC – PETROLEUM HYDROCARBONS  
UNITS – ALL UNITS ARE REPORTED IN µg/g for soil samples and in µg/L for groundwater samples

8.0 GROUND WATER FLOW DIRECTION

On July 30, 2015, a non-geodetic survey was conducted of the monitoring well network by SOS representatives. An arbitrary benchmark was established of 100 metres above sea level [“ASL”] at the top of casing [“TOC”] of MW-7. The survey was completed by recording the relative elevation of the TOC for each of the monitoring wells on-site.

Prior to sampling of the monitoring well network on July 6, 2015, the static water level was measured and recorded from the TOC at each MW location. The relative survey and static water level measurements were used to determine the relative ground water level in each MW [ref. to Table 4]. Relative ground water elevations were used to interpret the direction of the ground water flow across the study area. The ground water flow in the shallow ground water aquifer on July 6, 2015 was relatively flat, however, there was a general water flow to the northeast and south [refer to Figure 5].

**TABLE 4: RELATIVE SURVEY ELEVATIONS AND GROUND WATER ELEVATION DATA**

Monitoring Well Location	Date	Survey Elevation	Static Water Level	Relative Groundwater Elevation
MW-1	15-July-30	99.860	2.84	97.020
MW-2	15-July-30	99.865	2.42	97.445
MW-3	15-July-30	100.482	3.53	96.952
MW-4	15-July-30	100.527	3.57	96.957
MW-5	15-July-30	100.421	3.43	96.991
MW-6	15-July-30	100.222	3.28	96.942
MW-7	15-July-30	100.00	3.01	96.990

SURVEY ELEVATIONS ARE REFERENCED TO AN ARBITRARY BENCHMARK ELEVATION OF 100.00M ABOVE SEA LEVEL (ASL) ESTABLISHED AT MW-7

9.0 DISCUSSION

Based on-site investigations performed to date and analytical testing of soils and ground water collected during the assessment process conducted at the Site, petroleum hydrocarbon contamination was found within the subsurface soils and ground water at 5598 King’s Highway 38, Hartington, Ontario. The contamination was found to extend out laterally from the former underground fuel storage tanks to the north, south, east and west. Hydrocarbon contamination was identified in the fractured bedrock layers at 3.0 metres below ground surface and extended to the competent bedrock layer at approximately 3.65 m depth respectively.

Verification soil samples collected from the excavation extents identified elevated levels of PHC and BTEX contamination that exceeded the applicable Table 6 Site Condition Standard provided in the MOE document “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*”. From the seven ground water samples collected from the monitoring well network on the subject property, two had elevated PHC and BTEX detections that exceeded the applicable Table 6 SCS.

10.0 CONCLUSIONS AND RECOMMENDATIONS

Petroleum hydrocarbon contamination remains in subsurface soils and fractured bedrock layers around the north, east and west extents of the former excavated area. In addition, hydrocarbon impacts were identified in the subsurface soil/rock on the north elevation of the property adjacent Holleford Road. In order to address the hydrocarbon contamination identified on the subject Site, it is recommended that excavation of the impacted soils/rock be undertaken and the contaminated materials be transported off-site for disposal. Following the excavation activities, verification soil samples should be collected to confirm removal of the contamination.

Ground water samples collected from the monitoring well network on-site identified PHC and BTEX contamination at two locations which exceeded the applicable MOE Table 6 Site Condition Standard. Based on verification water samples collected, it is recommended that additional samples be collected from the monitoring well network in order to monitor the contamination identified within the shallow groundwater table.


11.0 DISCLAIMER

The statements made in this report are based solely on the information obtained to date as part of the above referenced investigation. SOS has used its professional judgement in assessing this information and formulating its conclusions and or recommendations. New information may result

in a change of this conclusion. It is SOS' intention to perform tasks with respect to the due diligence of the profession. No other warranty, or representation, expressed or implied, as to the accuracy of the information or recommendations is included or intended in this report. The results of this investigation should in no way be construed as a warranty that the subject property is free from any and all other contamination.

SOS disclaims any liability or responsibility to any person or party, other than the party to whom this report is addressed, for any loss, damage, expense, fine, or penalty which may arise or result from the use of any information or conclusions contained in this report. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the sole responsibility of the third party.

Respectfully submitted by,  
*SPECIALIZED ONSITE SERVICES INC.*



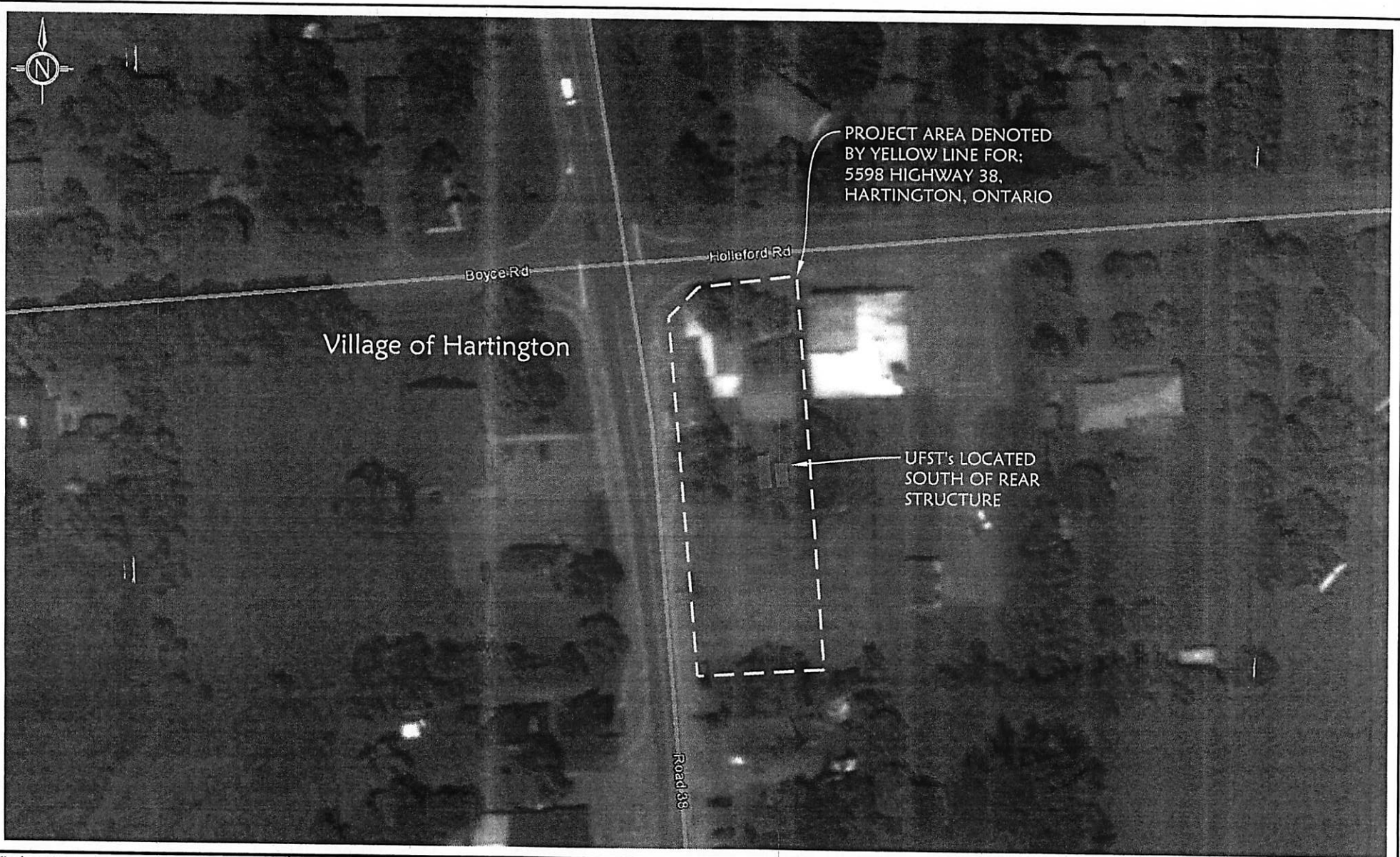
Cam Monk  
*President*



Derek Maat, M.A.Sc., P. Eng., QP  
*Environmental Engineer*

*Enclosures: Figures  
Borehole Logs  
Laboratory Certificates of Analysis  
Site Photo's*

FIGURES



Project No. 1501-140

Scale: N.T.S. Drawn By: H.W.B.

Date: February 3, 2015

**S.O.S** Specialized Onsite Services Inc.

One Resource, Multiple Results  
info@soservices.ca

Project: 5598 Highway 38, Hartington, Ontario

Title: AERIAL VIEW OF SITE

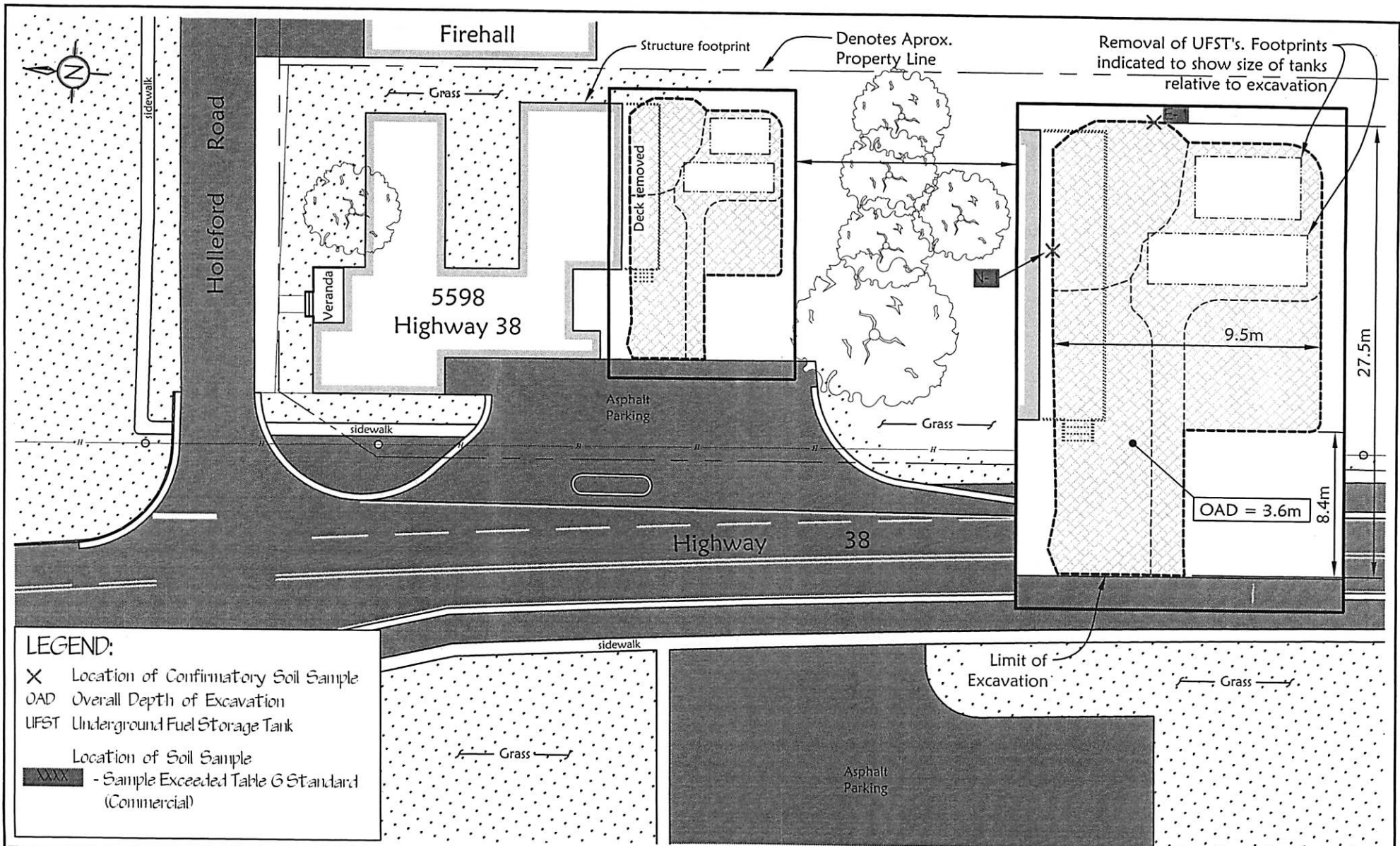
Source: Google Earth, Digital Global Imagery 2015

Drawing No.

**FIG 1**

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**LEGEND:**

X Location of Confirmatory Soil Sample

OAD Overall Depth of Excavation

UFST Underground Fuel Storage Tank

Location of Soil Sample

XXXX - Sample Exceeded Table G Standard (Commercial)

Project No. **1501-140**

Scale: **N.T.S.** Drawn By: **H.W.B.**

Date: **September 28, 2015**

**S.O.S.** Specialized Onsite Services Inc.

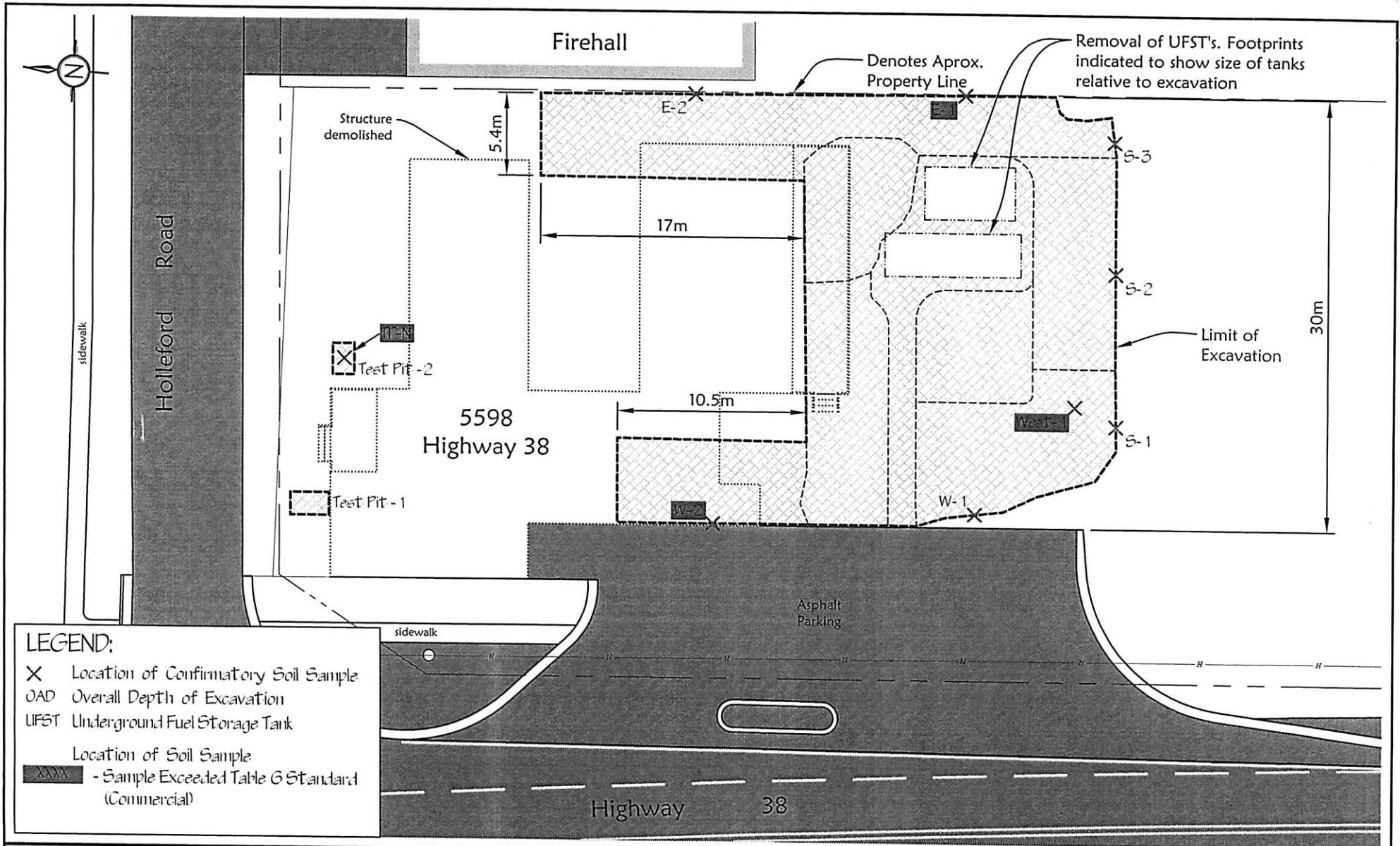
One Resource, Multiple Results  
info@soservices.ca

Project: **5598 Highway 38, Hartington, Ontario**

Title: **CONFIRMATORY SOIL SAMPLE LOCATION PLAN - MAR. 4, 2015**

Drawing No. **FIG 26** of 94

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Project No. **1501-140**

Scale: **N.T.S.** Drawn By: **H.W.B.**

Date: **September 28, 2015**

**S.O.S.** Specialized Onsite Services Inc.

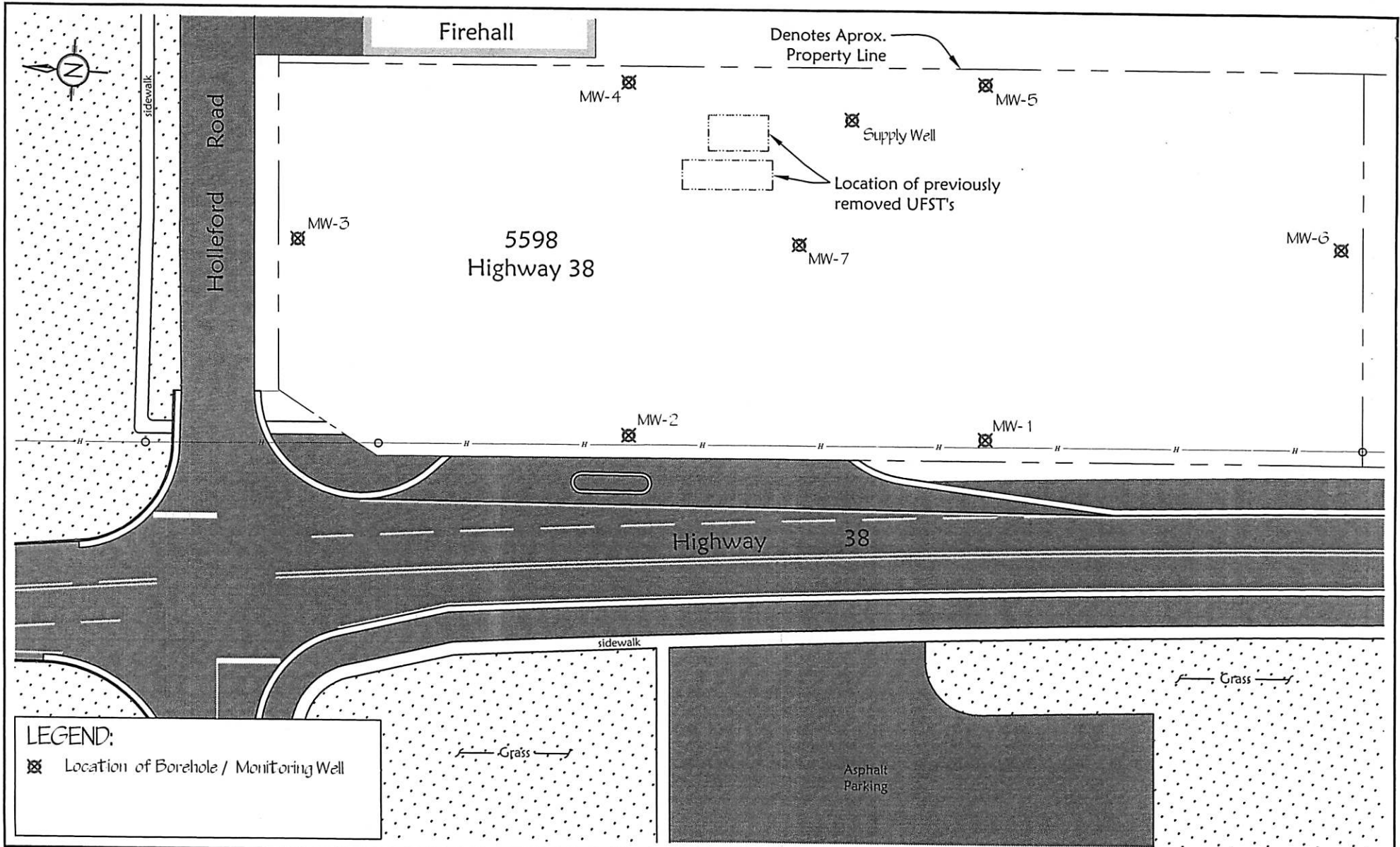
One Resource, Multiple Results  
info@soservices.ca

Project: **5598 Highway 38, Hartington, Ontario**

Title: **CONFIRMATORY SOIL SAMPLE LOCATION PLAN - MAR. 4, 2015**

Drawing No.: **FIG 3**

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**LEGEND:**  
 X Location of Borehole / Monitoring Well

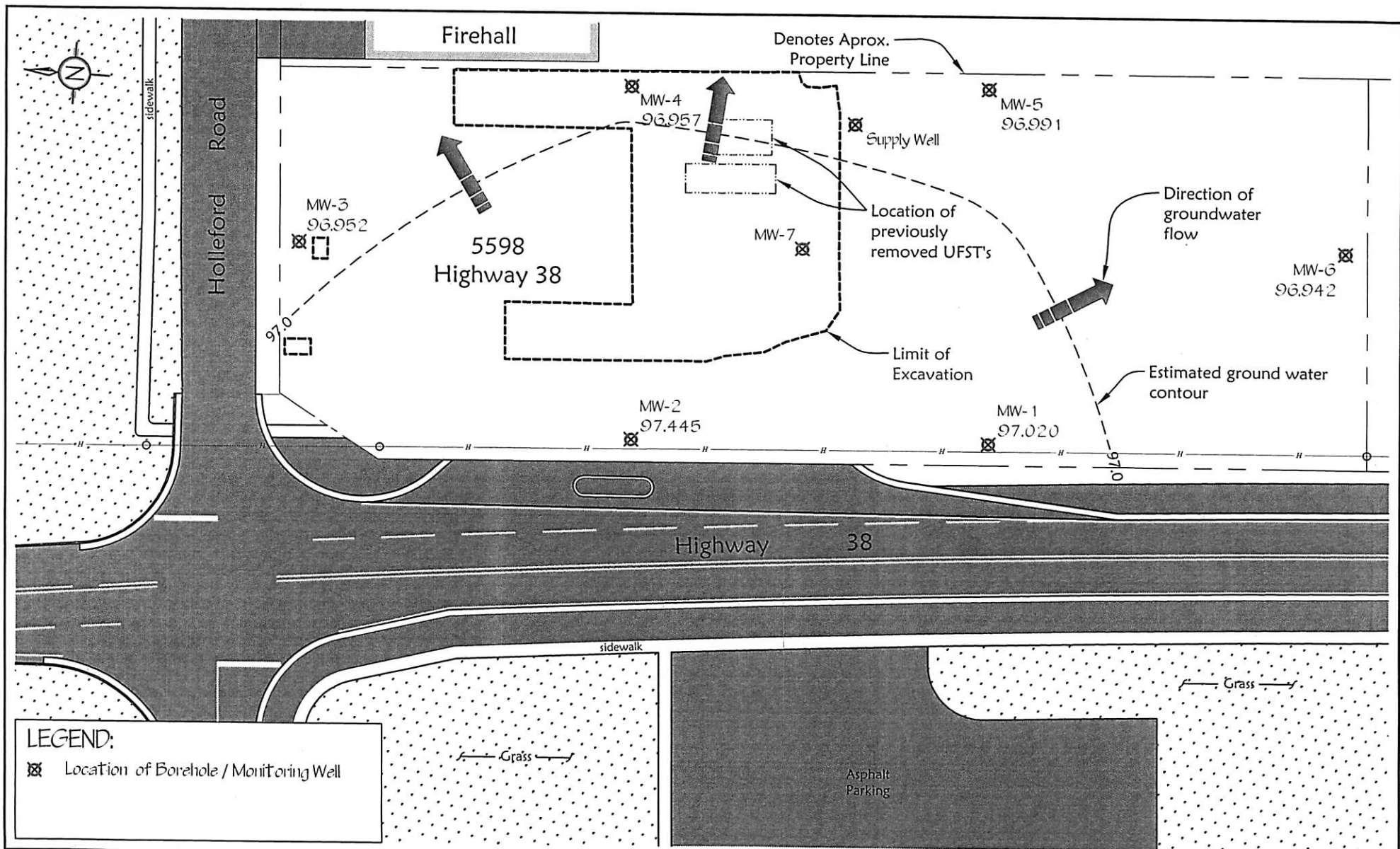
Project No. 1501-140  
 Scale: N.T.S.  
 Date: September 28, 2015

**S.O.S.** Specialized Onsite Services Inc.  
 One Resource, Multiple Results  
 info@soservices.ca

Project: 5598 Highway 38, Hartington, Ontario  
 Title: BOREHOLE / MONITORING WELL LOCATION PLAN

Drawing No. **FIG 4**  
 Page 28 of 94

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**LEGEND:**  
 ☒ Location of Borehole / Monitoring Well

Project No. 1501-140  
 Scale: N.T.S. Drawn By: H.W.B.  
 Date: September 28, 2015

**S.O.S.** Specialized Onsite Services Inc.  
 One Resource, Multiple Results  
 info@soservices.ca

Project: 5598 Highway 38, Hartington, Ontario  
 Title: GROUND WATER ELEVATIONS  
 JULY 6, 2015

Drawing No. **FIG 5**  
 Page 29 of 94

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**PLANNING REPORT:**

**Township of South Frontenac  
Prepared for Committee of the Whole**

**Planning Department**

**Agenda Date: November 24, 2015**

**County File No. 10T-2013/002**

**Date of Report: November 18, 2015**

**Subject: Draft Plan Conditions for Plan of Subdivision, Part of Lot 7,  
Concession VII, Portland District, Township of South  
Frontenac: 1278804 Ontario Inc. (Terry Grant)**

**SUMMARY OF THE RECOMMENDATION**

The recommendation is that the Committee receive for information the Planning report dated November 18, 2015, containing a preliminary list of draft plan conditions for a proposed thirteen lot plan of subdivision by 1278804 Ontario Inc. (Terry Grant) in the Hamlet of Hartington.

**PURPOSE OF THE REPORT**

The purpose of this report is to bring to the Committee a revised plan of subdivision proposed in the Hamlet of Hartington. The plan has been changed from its original layout brought forward in July, 2015 and now proposes thirteen(13) residential lots to be created instead of forty-seven (47) lots as was first proposed. A public meeting was held on July 7, 2015 on the original application as required by the Planning Act. This report includes a location map attachment, a lot layout plan, 3D images and two reports supporting the development. Preliminary draft plan conditions are also attached.

**BACKGROUND**

Earlier in the year an application was brought to Council for a forty-seven (47) lot residential plan of subdivision in the Hamlet of Hartington, Portland District. An associated zoning by-law amendment was also presented for the new proposed residential uses. **Attachment #1** shows the location of the subject land partially within the Hamlet of Hartington.

The County of Frontenac is the authority for final approval of subdivisions. The Planning Act requires that a public meeting be held on these types of applications and the County requested that the Township hold the public meeting on the subdivision as required under the Act. Accordingly, this public meeting was held on July 7, 2015.

Feedback received from the public meeting indicated that there were concerns with developing the entire subdivision at the density proposed. The public comments focused on five major concerns namely:

- water quality and quantity – *hydrog study was not done properly*
- drainage and flooding – *Pleasant Valley Drain already overflows*
- effect on nearby farming – *abutting farm could not expand*
- lot frontages and aesthetics – *too many lots, wartime houses*
- most of the development is outside the hamlet designation – *should only be in the hamlet*

Following from the concerns expressed above, the developer has now reduced the scale of the subdivision from forty-seven lots to thirteen lots – all within the hamlet designation. The discussion below concerning the revised plan now appears to address most of these concerns.

Comparing the revised plan with the former plan – the development would maintain the originally proposed layout in the north portion of the property with a new internal road (accessed from Boyce Road) on which all lots would front. The lot frontages are proposed to be 46 metres as was originally proposed. The two parkland blocks have been removed

along with the stormwater management block. Stormwater would now be directed away from the thirteen lots by way of ditches directing flow south through a right-of-way to the Pleasant Valley Municipal Drain. All lots would be a minimum of 0.8 hectares (2 ac.) in size and would have 46 metres (151 ft.) of frontage. Cash-in-lieu of parkland is now proposed. The revised plan is shown on **Attachment #2** and **Attachment #3** is a three dimensional rendering of the final development indicating how it would fit within the existing community.

It should be noted that the subdivision application has now been revised to develop a thirteen lot subdivision. The layout is designed to accommodate a future stage of development on the remainder of the existing acreage to the south, however, if and when this proposal comes forward it would constitute a new subdivision application requiring the normal full process for approval including a new public meeting.

## **DISCUSSION**

The following is a review of all information received on the proposal and the Planning Department's comments noted in bold type.

### General

The area to be developed is 11 hectares (27 ac.) in size. The majority of the land may be characterized as being mainly flat having been tilled for crops in the past. The K&P Trail abuts the full eastern boundary from north to south and along this boundary are mature stands of trees that form a canopy over the trail. A farm exists on the abutting land to the west. The area to be developed is located fully within the Settlement Areas designation (Hartington) of the Official Plan.

**The location of the subject land generally appears to be well suited to accommodate residential development within the Settlement Area Designation where the Official Plan prefers development to occur.**

Access to the subdivision would be by way of an entrance onto Boyce Road at the north of the development. A single new road would connect through the development providing the frontages for the lots and their direct access. The new road would be constructed to Township standards, with a turning bulb at its southern extent and would be dedicated to the Township.

**From a Planning perspective this is an appropriate layout for a residential subdivision in that traffic can be directed through an existing collector road to a nearby arterial road (Road 38) minimizing traffic volumes on the local roads. This layout scenario proposes development on a fully maintained public road properly constructed to provide efficient road maintenance .**

As noted above, a Township-maintained drainage ditch referred to as the "Pleasant Valley Municipal Drain System" is aligned east to west through the property to the south of the development. This passageway channels stormwater from neighbouring properties and directs it to a wetland approximately 5.5 kilometres to the west of the subject land. The drain must remain undeveloped and accessible to the Township for purposes of periodic maintenance. Accordingly, the developer has proposed that stormwater be directed through ditches southerly to this drain to accommodate runoff.

**This scenario appears to be logical in that it ties in the stormwater management of the subdivision with the already established Pleasant Valley Drain. It should be noted that there are legal matters associated with tying in new properties with the municipal drain. These will need to be addressed prior to final approval of the subdivision.**

All the proposed lots would be a minimum of 0.8 hectares (2 ac.) in size and all would have a frontage on the new road of a minimum of 46 metres (151 ft.).

**The proposed sizes are supported by the hydrogeological study and terrain analysis (peer-reviewed) which determined the allowable density of the development and the configuration of the lots would allow for appropriate building envelopes.**

### Provincial Policy Statement

The Provincial Policy Statement of 2014 provides policy direction from the province on matters of provincial interest related to land use planning and development. The PPS provides that efficient land use and development patterns support sustainability by promoting strong, livable, healthy and resilient communities etc.

Section 1.1 of the PPS says that developments should avoid land use patterns that prevent the efficient expansion of settlement areas in those areas which are adjacent to or are close to settlement areas. Also, developments should have patterns that are cost-effective and built to standards that minimize land consumption and servicing costs.

**The proposed development appears to be consistent with the direction of the Provincial Policy Statement in terms of its location and, as outlined above, the development pattern/layout is efficient and cost effective for maintenance, servicing and emergency response. It would not require expansion of the Hartington Settlement Area designation.**

### Official Plan

Referring to Attachment #1 hereto, the site is located where it can be accessed from a fully maintained public road and is in proximity to other residential development in the hamlet. As mentioned, it is fully within the 'Settlement Areas' designation boundary of Hartington. It is Council's intention that the majority of new growth in the municipality will be directed to existing settlement areas where it can be supported by appropriate servicing. Single detached dwellings located on lots developed through a plan of subdivision are envisaged as the preferred method of development.

The subdivision proposes thirteen residential lots all serviced by private water and septic systems and fronting onto a road to be constructed to Township standards and to be assumed by the municipality as a public road. In addition the subject land is in a location where similar residential development has occurred and, despite an existing farm operation and a barn located to the west, there appear to be no incompatibility issues.

**In this regard, the subdivision seems well located and is near existing commercial uses in and near the village. It is also compatible with adjacent established residences and proposes recreation opportunities for the community linked with the existing K&P Trail. Consequently, the subdivision's location appears to be fully in accordance with the intent of the Official Plan.**

### Zoning

The FoTenn consultant would zone the land to a special Residential Zone (R-28) to permit the residential use of the lands and to recognize the frontages as proposed at only 46 metres.

**Planning staff generally agree to this zoning scenario for the reason that the Comprehensive Zoning By-law reserves the Residential (R) Zoning strictly for plans of subdivision lots and the minimum lot size of 0.8 hectares (2 ac.) is specified in this zone category.**

The Planning Department can support the reduction of the normally required minimum lot frontages from 76 metres to a lesser frontage. This support is for two reasons:

(1) The Official Plan, in section 7.2 (d), specifies that the minimum lot area and lot frontages of the plan of subdivision may be reduced if it is demonstrated through the subdivision process that reductions to these minimums can be justified based on good planning principles. Accordingly, a hydrogeological study and terrain analysis was undertaken to support the plan and it determined that there is enough water to accommodate the proposed density with the proper separation between septic fields and wells.

(2) The Official Plan policies relating to the land within the boundaries of the Settlement Areas designation do not suggest any minimum frontage requirement – presumably to allow increased densities here. From a planning perspective of course,

this does not warrant that inappropriately small frontages are to be contemplated but the Official Plan is a guide and it does provide flexibility in this regard.

Further Planning rationale is provided by FoTenn consultants in a letter, dated October 9, 2015, attached hereto as **Attachment #4**.

#### Technical Studies

Various studies were prepared and submitted in support of the original forty-seven lot development proposal and are still applicable. These studies consist of:

- a planning justification report,
- a Stage 1 and Stage 2 archaeological assessment,
- a hydrogeology study, servicing options & terrain analysis,
- a preliminary stormwater management report,
- a traffic impact review,
- an environmental impact assessment.

Malroz Engineering Incorporated, under contract with the County of Frontenac, undertook a peer review of the hydrogeology a terrain analysis report and advised that all of their concerns have been addressed. Quinte Conservation also peer reviewed the report and agreed with its findings generally but recommended that a separate hydrogeological evaluation be performed on each residential well when it is installed.

However, in addition to the above reviews, the firm of McIntosh Perry was retained to undertake a further hydrogeological review of the development on behalf of the Hartington community. This review looked at the original hydrogeological report and outlined eight items of potential concern and concluded that additional investigation is required to support the development as proposed.

In response, by letter dated October 29, 2015, ASC Environmental provided a response to the comments from McIntosh Perry. Some of the findings of note from ASC are as follows.

Five of the original eleven test wells for the hydrogeological testing are located within the area of the thirteen lot development. The ASC review states “The pumping tests conducted on test wells TW02 and TW10 during August and September 2014 were undertaken following consultation and recommendation by Malroz Engineering and Quinte Conservation Authority to assess water supply during seasonal summer-like conditions. These wells were pumped for periods of 6 hours at rates of 20 litres per minute to account for seasonal variables in accordance with MOECC D-5-5. Results of the pumping tests clearly demonstrated water supply sufficient to support seasonal peak demand conditions. We are of the opinion that the test well pumping tests conducted in August and September, 2014 represent stressed conditions.”

ASC further concludes that they agree with Malroz and McIntosh Perry that a higher level of investigation was warranted and, accordingly, they have advanced test wells, conducted additional field work and developed an analytic model to assess impacts demonstrating a level of investigation exceeding the minimum requirements on the MOECC D-5-5.

ASC is committed to having each well installed at the site evaluated by a qualified hydrogeologist. They concur with Malroz that all of the above work exceeds all ministry requirements and demonstrates long term water supply for the proposed thirteen lot subdivision to be developed in the north portion of the property. They also acknowledge that when further development is proposed, clearly, further terrain assessment will be required. A copy of the ASC, October 29, 2015 assessment is attached as **Attachment #5**.

#### Agency Comments

The Planning Department’s comments are outlined above. However, Planning also wishes to make note of a concern for the stand of mature trees forming a canopy of shade along the K&P Trail on the east boundary of the subject land. Although it appears that the trees are located wholly on the Trail lands, the importance of maintaining these trees as an amenity for the trail-users and to enhance the general appeal of the subdivision lands should be emphasized and controls should be put in place to ensure the trees are

conserved. Accordingly, Planning is recommending that a fence to demarcate the rear boundary of the lots abutting the trail be constructed to ensure that the boundary of the trail land is known and thereby to help protect the trees. Also, Planning will require a walkway link from the subdivision directly to the K&P Trail to provide formal pedestrian access to and from this amenity.

Public Works appears to be generally supportive of the subdivision layout and finds the access areas to the subdivision to be acceptable. Public Works and Planning are recommending that the new road be paved with asphalt and that a sidewalk also be required from north to south on one side of the new road given that the development is within the hamlet designation - an urban setting. It is also required that services be installed underground within the road allowance of the new road.

#### Public Comment

One of the concerns from the public that was not addressed in the discussion above is the concern over the effect on adjacent farming operations. The concern is that, with this residential development any new well must be at least 1000 feet away from existing barns. The concern is that abutting farms would not be able to expand in the future.

The hydrogeological report took the existence of the farm use into consideration during testing on the eleven wells drilled. The report (peer-reviewed) still came back with a positive recommendation.

The concern that the abutting farmer would not be permitted to further develop farm buildings on his site is well-founded because the Minimum Distance Separation Formula (MDS 2) would apply to prevent or severely limit any new farm facilities for animals from locating near these new residences.

As a further note on Minimum Distance Separation, in terms of building near the existing barn on the abutting property to the west, the Ontario Ministry of Agriculture, Food and Rural Affairs' Guidelines explain that, when any residential development is proposed within an area designated Settlement Areas, the MDS calculation need not apply. This is the case in the subject development as it is located in the Hartington Settlement Area. Additionally, the OMAFRA Guidelines provide that, if there are already four or more residences located closer to the livestock facility than the new proposed residences, then again, the MDS calculation is overruled and would no longer apply.

Planning has included a condition in the attached draft plan conditions requiring that the final subdivision agreement include a clause notifying all prospective purchasers of the lots that a farm operates nearby and that odours may be experienced.

#### RECOMMENDATION

It is recommended that the Committee receive the Planning report dated November 11, 2015 for information and review and consider the following list of proposed draft plan conditions.

- A. That Council receive the Planning Report, dated November ??, 2015, (note: this is a future report) and approve the following list of recommended conditions as representing the Township of South Frontenac's **'Conditions of Draft Plan Approval'** for the thirteen lot Plan of Subdivision by Terry Grant;
  1. That this conditional approval applies to the draft plan of proposed subdivision dated September 18, 2015 prepared and certified by Forefront Engineering Inc., and Smith & Smith Surveyors, comprising a total of thirteen residential lots, two blocks and a new street.
  2. That the owners of the subject land enter into a subdivision agreement with the Township of South Frontenac, prepared to the satisfaction of the municipality, to be registered on title of the subject land.
  3. That the road allowance included in this draft plan shall be identified as Street 'A' and shall be constructed to Township standards for new public roads with paved asphalt surfacing and that the road be dedicated as a public highway.

4. That the new internal road identified as 'Street 'A' be named to the satisfaction of the municipality.
5. That Boyce Road be upgraded at the entrance to the subdivision to the Township's satisfaction to facilitate ingress and egress.
6. That Centralized Community Mail Boxes be installed at a location on the road allowance of Street 'A' near the entrance to the development at Boyce Road along the west side of the road allowance of the new road and to the satisfaction of the Township and in accordance with Canada Post specifications.
7. That a 0.3 metre reserve be identified by survey along Lot 13 where the lot abuts the road allowance of Boyce Road and at the south end of Street 'A' and around the circumference of the turning bulb at the south end of Street 'A' to be held in trust by the municipality for the purpose of denying additional access onto Boyce Road and the undeveloped lands to the south.
8. That the Owner install a 1.5 metre wide concrete sidewalk along the east side of the new road allowance from the northern limit of Street 'A' (i.e., from Boyce Road), to the southern limit of Lot 7.
9. That a 1.5 metre high black continuous chain link fence be installed along the rear lot lines of Lots 7 to 13 abutting the K&P Trail to protect the existing mature stand of trees on the trail lands.
10. That the owner convey up to five percent of the land included in the plan to the municipality for park purposes. Alternatively, the municipality may require cash-in-lieu for all or a portion of the conveyance.
11. That prior to final approval, the County of Frontenac is to be advised by the municipality that this proposed subdivision conforms to the Zoning By-law in effect of the Township of South Frontenac including that the zoning is satisfactory to Quinte Conservation Authority.
12. That all conditions outlined in the letters dated June 2, 2015 from Quinte Conservation Authority to the County of Frontenac, be addressed to the satisfaction of the municipality as they apply to the thirteen lot development.
13. That the recommendations outlined in the letter dated December 12, 2014 from KFL&A Public Health to Terry Grant Construction 1278804 Ontario Inc., be addressed to the satisfaction of the municipality for the thirteen lot development.
14. That, prior to final approval, a Final Stormwater Management Report and detailed engineering drawings addressing grading, drainage and stormwater management be submitted to the satisfaction of the Township and Quinte Conservation Authority for the thirteen lot development. The site drainage, design, construction and maintenance shall be in accordance with the recommendations contained in the final Stormwater Management Report, with all final designs incorporated into the subdivision agreement.
15. That all legal matters associated with tying the stormwater from the development into the Pleasant Valley Municipal Drain system be resolved to the satisfaction of the Township.
16. That all requirements and recommendations specified in the Hydrogeological Study, Servicing Options and Terrain Analyses Report, dated October 31, 2013, from ASC Environmental, updated by covering letter dated October 7, 2015 from ASC Environmental, and all associated drawings be complied with for the thirteen lot development.

17. That the recommendations of the Natural Heritage Report, dated August 27, 2013 from Ecological Services, be complied with for as they apply to the thirteen lot development.
  18. That all entrances to the lots including entrance culverts be located and constructed to the satisfaction of the Township.
  19. That all servicing including Bell, Hydro etc. be installed underground.
  20. That all recommendations of the Archaeological Assessment (Stage 1 & 2) Reports, dated September 16, 2013 by Archeworks Inc. be implemented to the satisfaction of the Township for the thirteen lot development.
  21. That, prior to final approval, street lighting shall be installed to the satisfaction of the municipality including lighting at the turning bulb at the south end of the development and at the entrance to the development at Boyce Road such lighting to also illuminate the mail boxes to be located there.
  22. That the Subdivision Agreement include text to the satisfaction of the Township, which text shall be registered on the title of all lots, that all Agreements of Purchase and Sale include provisions advising that a farming operation exists to the west and that adverse effects may be experienced.
  23. That, prior to final approval, a 3.0 metres wide walkway be constructed along the south lot line of Lot 7 from the south end Street 'A' to the K&P Trail to provide access from the subdivision to the Trail, such walkway to be constructed to the satisfaction of the Township, to be paved with asphalt and to include a 1.2 metre high continuous black coloured chain link fence along the full length of the walkway on both the north and south sides
  24. That, prior to final approval, the municipality shall be satisfied that all servicing issues are resolved such as road, sidewalk and walkway construction.
  25. That prior to final plan approval, the Owner shall submit a Landscape Plan which provides for one tree to be planted by the Owner in the front yard of each of the lots (Lots 1-13) as well as a planting area or screening buffer of trees along the side yard of Lot 13 where it abuts the road allowance of Boyce Road all of a type, size and location as specified in the Township's Site Plan Guidelines.
  26. That, prior to final approval, a six foot high board fence be installed along the north side lot line of Lot 1 to provide a measure of privacy in the rear yards of the existing residential lots on Boyce Road.
  27. That the owner agree in writing to satisfy all the requirements, financial and otherwise of the municipality concerning the provision/upgrading of roads, installation of services and drainage, in accordance with the municipality's standards and procedures.
- B.** That the Planning Report dated November ??, 2015, including attachments, be forwarded to the County of Frontenac as representing the Township's conditions of draft plan approval for the thirteen lot Hartington Plan of Subdivision.

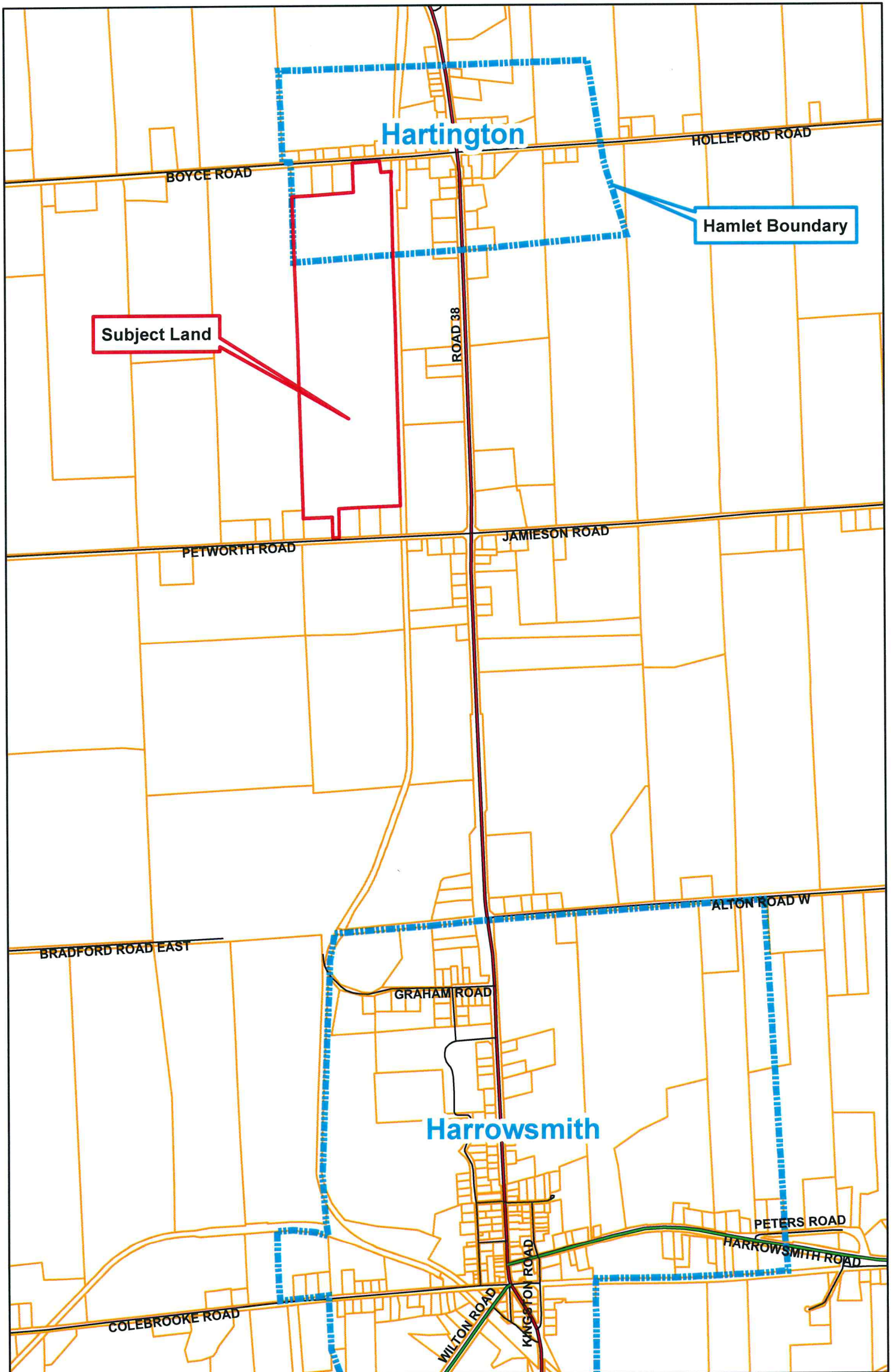
**Submitted/approved by:** Lindsay Mills      **Prepared by:** Lindsay Mills,

attachments

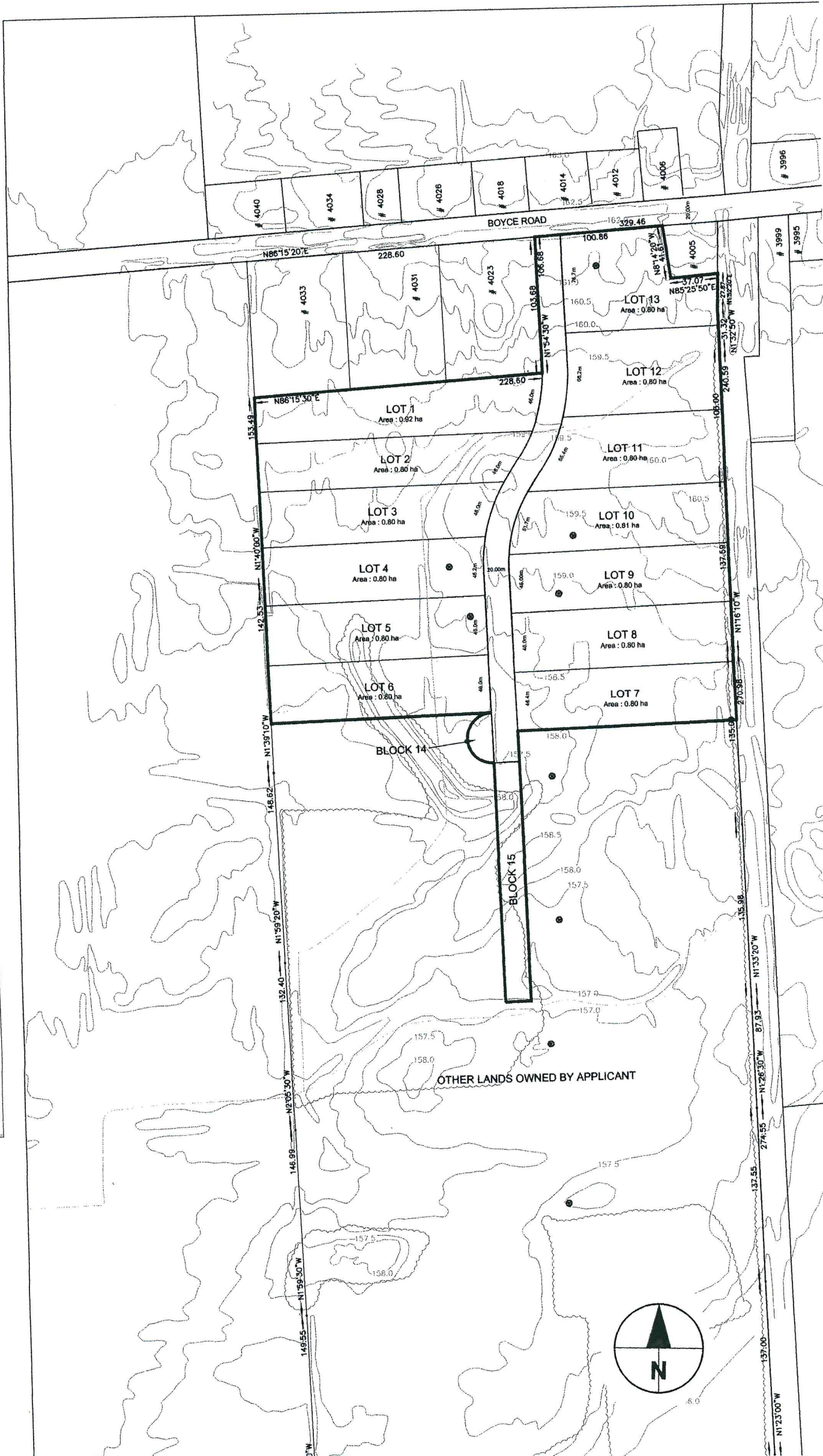
HartingtonDraftPlanConditionsToCofW



# Attachment #1



# ATTACHMENT #2



K7P 0L8

RED UNDER ANNING ACT

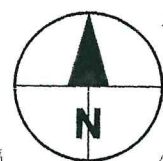
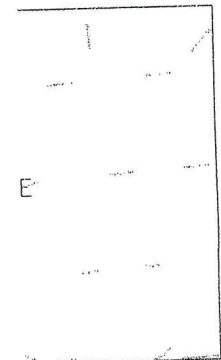
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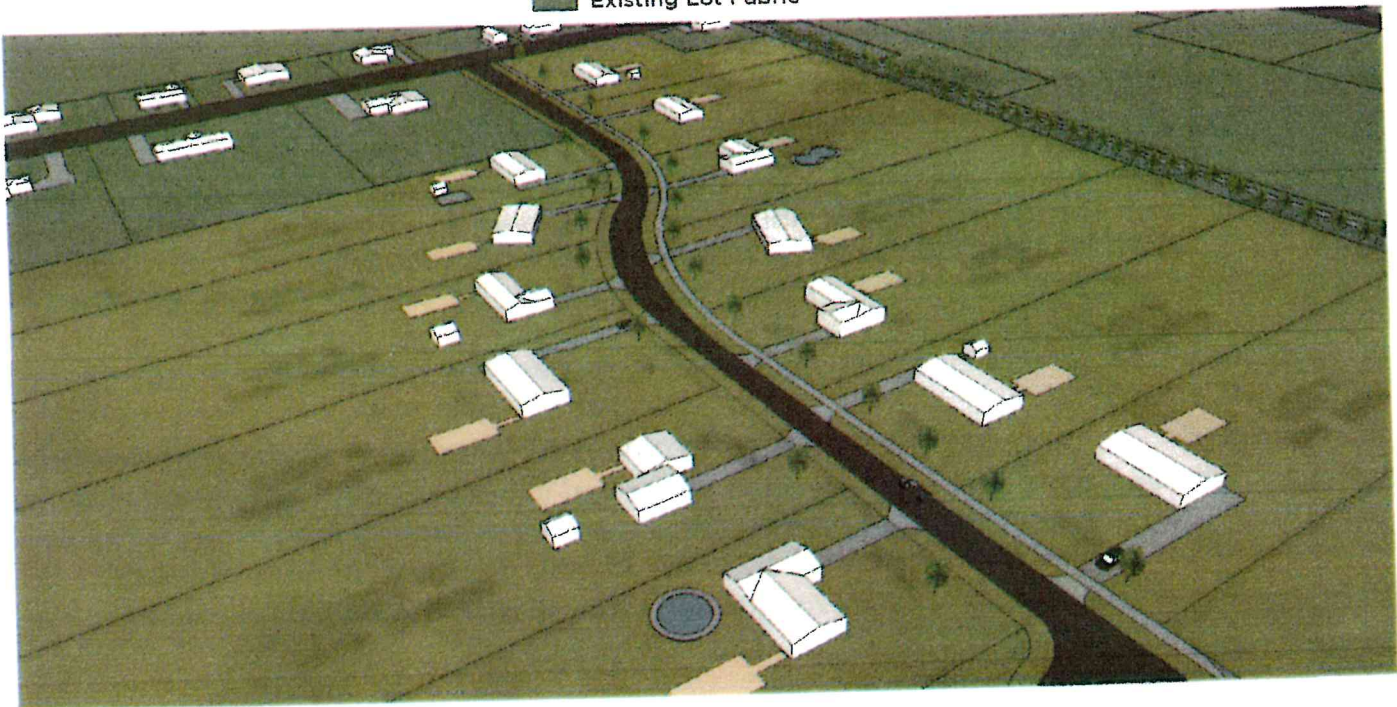


# FOTENN

## ATTACHMENT #3



- Proposed Lot Fabric
- Existing Lot Fabric



- Proposed Lot Fabric
- Existing Lot Fabric

**ATTACHMENT #4**

The Woolen Mill  
 6 Cataraqui St, Suite 108  
 Kingston, ON K7K 1Z7  
 613.542.5454  
 fotenn.com

October 9, 2015

**Joe Gallivan**

Director of Planning and Economic Development  
 County of Frontenac  
 2069 Battersea Road  
 Glenburnie, ON K0H 1S0

Re: Application for Draft Plan of Subdivision and Zoning By-law Amendment  
 Planning Brief  
 Part of Lot 7, Concession 7, Portland District, Township of South Frontenac  
 File Nos.: 10T-2013/002 and Z-15/03

Dear Mr. Gallivan,

The following submission is being provided to advise the County of revisions made to the proposed residential subdivision in Hartington. The original application sought to create 50 new blocks, including 47 residential lots, two parkland blocks and one stormwater management block. This letter is intended to supplement the original planning rationale, dated June 11, 2015, which was submitted in support of the development applications.

Feedback received during the Statutory Public Meeting and through written correspondence indicates there are concerns with developing the entire subdivision, due to the fact that the property is located partly within a settlement area and partly within the rural area. Concerns were also raised regarding water quality and quantity.

The applicant has thoughtfully considered this feedback from the community and has reduced the subdivision to 13 residential lots, all of which will be located within the existing hamlet boundary. The remainder of the lands will not be part of the subdivision application and will remain rural. When the applicant pursues the development of the southern portion of the property in the future, the planning process will trigger further consultation with the County and Township Council, staff and the Public.

**OVERVIEW OF REVISED DESIGN**

As seen in Figure 1 below, the revised plan now includes 13 residential lots, a road and the remainder of the lands are not part of the Plan of Subdivision. The two parkland blocks originally proposed have been removed along with the stormwater management block. Stormwater will be directed away from the 13 lots by enhanced ditches. The proposed new road will terminate at the end of lots 6 and 7. The right-of-way will continue south for stormwater management purposes, providing a direct connection from the proposed roadside ditches to the existing Pleasant Valley Municipal Drain. Cash-in-lieu of parkland will be provided instead of the originally proposed parkland blocks.

## TECHNICAL CONSIDERATIONS

### Hydrogeology

ASC Environmental has reviewed the revised draft plan and has provided an updated analysis for the proposed 13 residential lots. Based on MOE guidelines, a minimum of 3 test wells is required for sites up to 15 hectares (the reduced development area is approximately 11 hectares in size of the 45 hectare property). Currently, five drilled wells are present in the area proposed for development and a sixth well is immediately south and adjacent to the now Lot 7. On this basis, sufficient wells are in place to address the hydrogeological conditions for the proposed Hamlet development.

### Water Supply

Pumping tests were conducted on the test wells in 2013 and 2014. Water supply has been assessed during spring and summer conditions with pumping test results from the 5 existing wells confirming sufficient water supply to support development of the 13 proposed lots within the Hamlet. Based on the hydrogeological work completed to date (and confirmatory peer reviews), ASC is of the opinion that the well driller's pumping tests for the remaining 8 lots will be sufficient to assess potential well yield to confirm long term viability of each lot.

### Water Quality

Existing groundwater chemistry data from the test wells identified that treatment for common aesthetic parameters and health related parameters may be necessary in the Hamlet portion of the property. Bacteriological parameters are not a concern. During individual lot development, disinfection is recommended as a minimum to ensure safe drinking water for domestic consumption purposes and retaining a water treatment specialist to confirm treatment options for the identified aesthetic and health related parameters that may require treatment.

### Interference

Water levels were measured in test wells and observation wells in the northern portion of the property during pumping tests conducted in March 2013, August 2014 and September 2014. The results indicated a positive response during all three test times and exceeded the requirements of MOE's guidelines.

Based on these results ASC is of the opinion that the hydrogeological analysis conducted to date and the evaluation of new wells by a qualified hydrogeologist is sufficient to adequately characterize long term water supply of the proposed 13 lot residential development.

### Stormwater Management

As noted above, stormwater is proposed to be managed through enhanced ditches. Rear ditches will be provided along the east and west property lines to capture runoff from the rear portions of the proposed lots. The proposed roadside ditches would still capture runoff from the roadway, driveways, roofs, and front portions of the proposed lots. These roadside ditches would be extended northerly to Boyce Road to accommodate any future road drainage works envisioned there. The existing low lying area adjacent to the rail trail in the northeast corner of the site will still be drained through a ditch along a side lot line to the proposed roadside ditch. At the south limit of the road, a linear enhanced ditch will be extended southerly to the Pleasant Valley Drain. This lot-slope, grass lined, flat bottom ditch will be designed to provide stormwater quantity and quality control for the 13 lot development. Side and rear ditches as well as



lot grading would be detailed on the engineering drawings and in the subdivision agreement.

A final Stormwater Management report will be completed with detailed design.

### **Environmental Impact Statement**

An Environmental Impact Assessment was prepared by Ecological Services dated August 27, 2013. This report assessed the natural features on the property to determine significance in accordance with provincial and municipal legislation. The work included site visits and analysis of aerial photography. Conclusions of the assessment include:

- No threatened or endangered species within the subject property
- Bobolinks observed on adjacent properties, however they are known to be tolerant of nearby human activity and the proposed subdivision will not constitute a negative impact to this species
- There are no wetlands within 120 metres of the proposed development area
- There are no areas of natural and scientific interest within 120 metres of the proposed development area
- There are no valleylands within 120 metres of the proposed development area
- Existing woodland is not of significant size, habitat, proximity to a significant natural heritage feature, linkage, groundwater discharge area, or diversity to be considered significant in the context of provincial or municipal regulations. The subject property does not contain any significant woodlands.
- There are no significant wildlife habitat present within the proposed development area

The findings of the previously prepared Environmental Impact Assessment are not impacted by the revised draft plan of subdivision.

### **Traffic Impact Review**

A Traffic Impact Review was completed by AECOM on September 2, 2015. Trip generation rates from the ITE Trip Generation Manual (9<sup>th</sup> Edition) were used to estimate the number of trips generated by the development. Traffic Counts along Road 38 were also utilized in their findings including turning movements. AECOM's traffic counts were consistent with the counts provided by the Township.

The additional traffic generated by the residential development represents less than 10% of the total traffic along Road 38. With such low volumes of new traffic, no impact to the existing traffic operations is expected. It was also determined that there should be sufficient gaps in the traffic along Road 38 such that northbound left turning vehicles on Road 38 will be able to access Boyce Road with little delay.

### **Comments from Quinte Conservation**

Quinte Conservation has accepted the development subject to two conditions:

- 1) Any new development on the subject land should demonstrate that post-development flows do not exceed pre-development levels for design storms from the 5-year to 100-year events. In addition, the Level 2 (normal) water quality protection storage criteria set out in the Ministry of the Environment Stormwater



Management Planning and Design Manual (2003) should be utilized for this application. Please note, staff have reviewed a covering letter provided by Forefront Engineering Inc. (dated August 10, 2015) and agree with the conceptual stormwater management design. We suggest however, that the Municipality consider the need for an easement over all drainage features (including rear lot swales) with access from Municipal property. Please contact Christine McClure, Water Resources Technologist at 613-968-3434 x 130 for further information regarding stormwater management comments.

- 2) Quinte Conservation suggests that a hydrogeological study be conducted which includes a baseline survey and evaluation of potential impacts on groundwater. We recommend that the consultant utilize the guidelines set forth in the Ministry of Environment (MOE) document titled '216905 D-5-5 Private Wells: Water Supply Assessment (1996)' and, '216904 D-5-4 Individual On-Site Sewage Systems: Water Quality Impact Risk Assessment (1996)'. Please note, staff have been in discussion with the consulting hydrogeologist and the Municipality's peer review agent. Please contact Mark Boone, Hydrogeologist at 613-968-3434 x 120 for further information regarding the hydrogeological comments.

### PLANNING CONSIDERATIONS

The subject property is regulated by the Township of South Frontenac Comprehensive Zoning By-Law. It is currently zoned within the "RU" Rural Zone which permits a range of uses including agricultural and related uses, single-detached dwellings, and other uses which are considered compatible with rural areas. There is a small area of "Environmentally Sensitive Lands Overlay" on the west side of property which requires an Environmental Impact Assessment with any development application (completed with the initial application). The existing and surrounding zoning is shown in Figure 2 below.

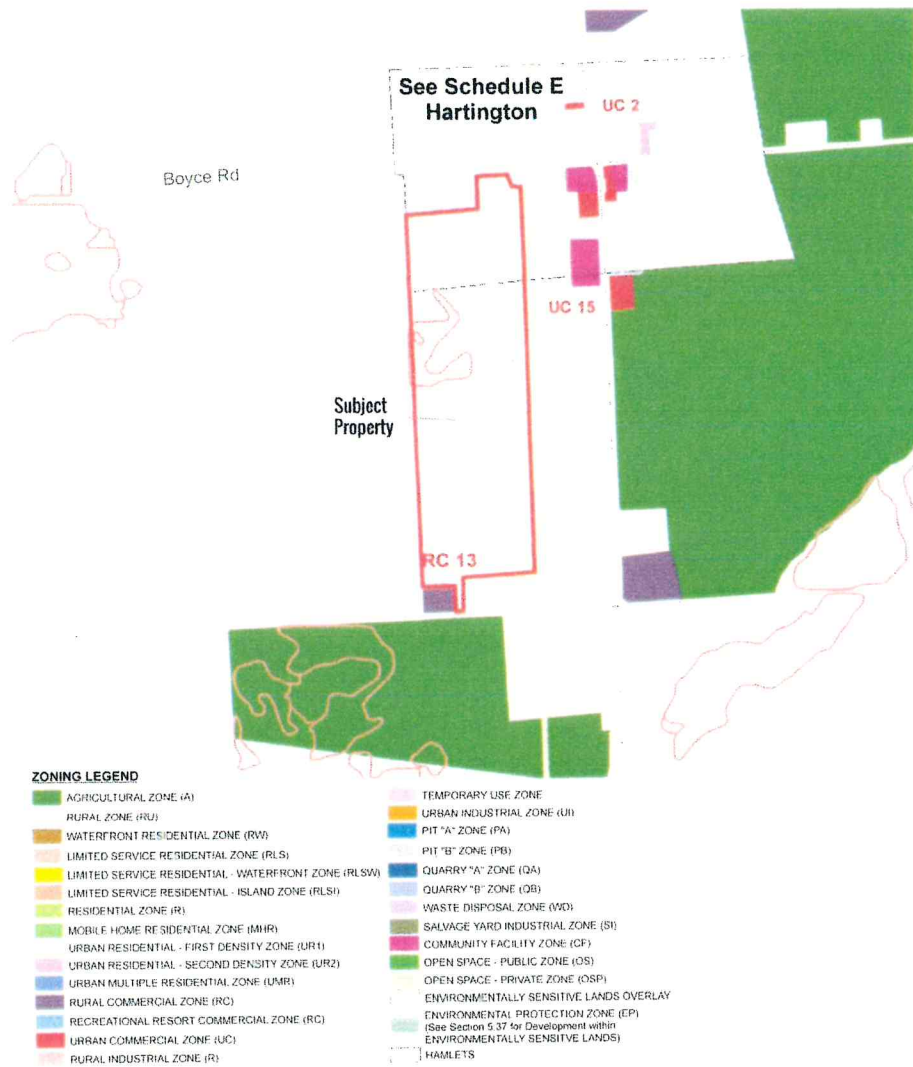


Figure 2: Current Zoning

We are proposing that the 13 residential lots be zoned a site specific Residential "R-28" zone which is an established zone within the Township. The remainder of the lands would be zoned the existing 'RU' Rural Zone (Figure 3). The table below provides a comparison between the parent Residential zone and the amendments necessary for the site specific zone.

Parent R Zone	Provided	Relief Necessary
Minimum Lot Area: 8,000 m <sup>2</sup>	0.80 hectares (8,000 m <sup>2</sup> )	No
Minimum Lot Frontage: 76 m	46 m	Yes - Request reduction to a minimum of 46 m frontage.

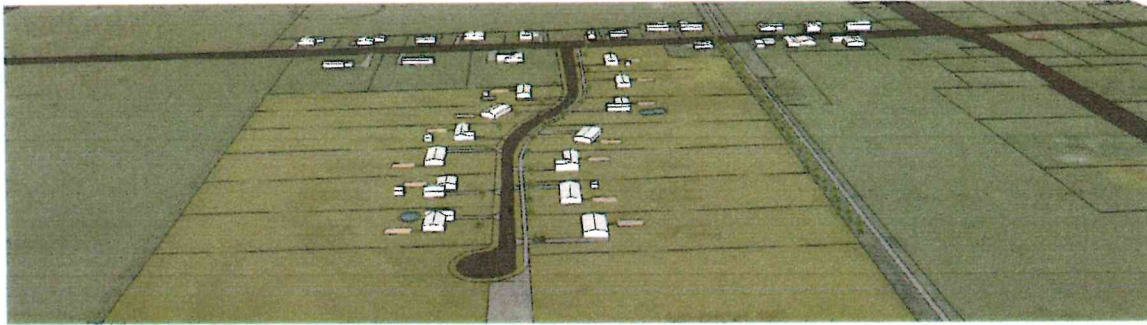
# FOTENN

Minimum Yard Requirements Front Yard: 20 m Rear Yard: 10 m Int. Side Yard: 6 m Ext. Side Yard: 10 m	Development will meet these requirements.	No relief requested.
Gross Floor Area (min): 89 sq. m	Development will meet these requirements.	No relief requested.
Maximum Building Height: 11 m	Development will meet these requirements.	No relief requested.
Maximum Lot Coverage: 20%	Development will meet these requirements.	No relief requested.

### Frontage Reduction

The Draft Plan provides 0.8 hectare lots with a minimum lot frontage of 46 metres. Overall, the draft plan is consistent with the general intent of the Official Plan and as such, we believe the relief requested for the zoning amendment is justified. Proposed residential lots will be located on private services and at 0.8 hectares (2 acres), each lot has sufficient space to meet the required setbacks for well and septic systems, including a back-up tile bed. Lots will also contain sufficient space for those wishing to have accessory buildings or accessory uses such as a swimming pool.

By providing sufficiently sized lots on a municipal road and by maintaining all other provisions of the Residential 'R' zone, the subdivision will achieve a scale and character similar to that of the surrounding hamlet. The images below provide a sense of the how the proposed subdivision will appropriately integrate with surrounding uses. It is important to note how much smaller the existing residential lots, but that the character is maintained with these small lots by providing a similar frontage to the existing lots.



As seen in the images above, the frontages proposed are consistent with the general character of the area. They are also consistent with other decisions made in the Township to reduce frontage within the hamlet areas. Some examples include:

- R-10 - Lyons Landing, 55 m
- R-11 - Bedford District, 60 m
- R-18 - Gilbert, 30 m
- R-21 - Deer Creek Phase 2, 35 m
- R-25 & R-26 - Valleyview Estates, 25 m
- R-27 - Ouellette, 50 m
- R-28 - Willowbrook Estates, 52 m

In summary, the only provision requiring relief is the lot frontage, which is proposed to be reduced from 76 metres to 46 metres. The reduction will not disrupt the functionality of the subdivision nor will it result in a lot fabric that is out of character with the surrounding area.

The site specific zoning text will read:

**R-29 (Part of Lot 7, Concession 7, Township of Portland)**

Notwithstanding anything in this by-law to the contrary, the lands zoned Special Residential (R-X) shall be used only in accordance with the following:

- i. The minimum lot frontage shall be 46 m (150.9 ft).
- ii. All other provisions of this by-law shall apply.

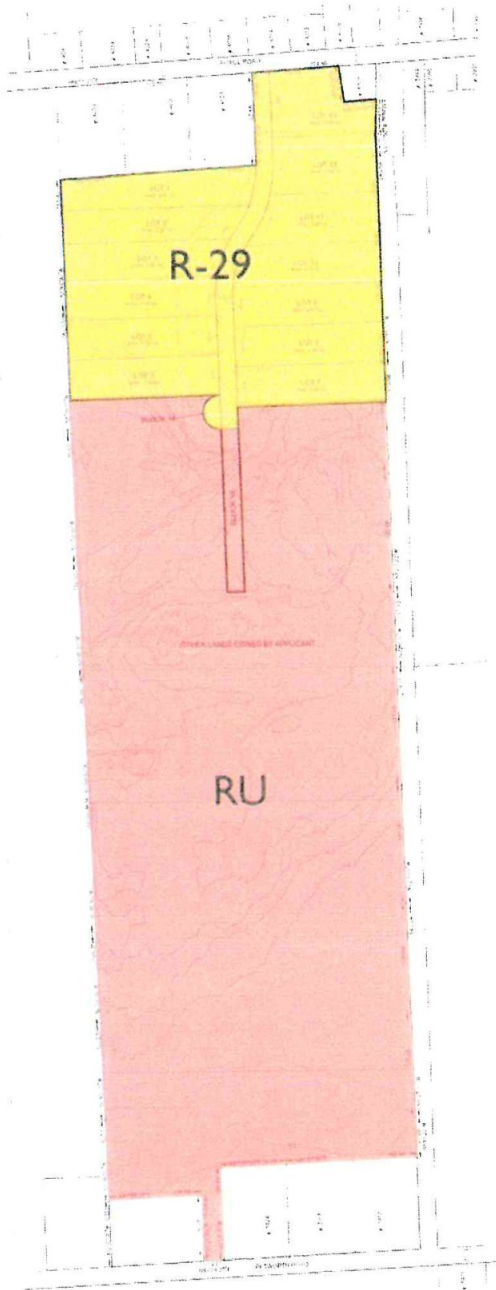


Figure 3: Proposed Zoning

**CONCLUSIONS**

As a result of comments received from the public, the applicant has significantly reduced the scale of the proposed subdivision. The original proposal, which included 47 residential lots, two parkland blocks and one stormwater management block has been reduced to 13 residential lots all located within the settlement area of Hartington. Lands located outside of the hamlet area will remain as rural and will be subject to an additional planning process when the owner proposes future development options for the lands.

Should you require any additional information, please do not hesitate to contact me at 613-542-5454 extension 221.

Sincerely,



Mike Keene, RPP MCIP  
*Manager Policy + Development*  
**FOTENN** Consultants Inc.

**ATTACHMENT #5**

Via: email

October 29, 2015

File: ASC-095 1161

Mr. Terry Grant  
 T. Grant Custom Homes  
 946 Woodbine Road  
 Kingston, ON K7P 2X5

Subject: Hydrogeological Study and Terrain Analyses –  
 Response to Technical Comments from McIntosh Perry  
 Proposed 13 Lot Subdivision, Hamlet of Hartington, Ontario

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 Dear Mr. Grant:

We present our comments on the technical review from McIntosh Perry regarding the above captioned property. We reviewed the following documents:

*Review Technical Support Documentation - Hartington Subdivision, Part Lot 7, Concession 7, Township of South Frontenac, County of Frontenac (MP File No. OCP-15-0397), prepared for Ms. Michelle Foxtan, Mr. Charlie Larbidge and Mr. John Lesperance, prepared by McIntosh Perry, dated September 1, 2015.*

*Review of McIntosh Perry Letter Dated September 1, 2015 Review Technical Support Documentation - Hartington Subdivision Part Lot 7, Concession 7, Township of South Frontenac, County of Frontenac (MP File No. OCP-15-0397), prepared for County of Frontenac, prepared by Malroz Engineering, dated September 24, 2015.*

We offer the following comments in order of McIntosh Perry Technical Review:

**1.0 Comments**

1)

Pumping tests were undertaken in March 2013. Four (4) test wells were pumped simultaneously on March 19 and another four (4) on March 21, 2013. Three of the eight test wells (TW01, TW02, TW03) are located in the proposed 13 Lot subdivision and test well (TW04) is located immediately south of the proposed development. These wells are representative of the expected water supply available for the proposed 13 lots.

---

491 O'Connor Drive, Kingston, ON  
 K7P 1J9  
 (613) 634 - 5596

October 29, 2015

Precipitation the month preceding the March, 2013 pumping tests primarily consisted of snow fall. Referencing the Hartington Station approximately 30 mm of rain fall occurred the month preceding the pumping tests and approximately 47 cm of snowfall. At the time of the pumping tests, snow cover was still observed on the ground and sheet flow was also noted in areas over the frozen ground surface. We acknowledge that the March, 2013 pumping tests are not representative of typical summer low supply seasonal conditions. We note that the pumping tests were conducted to stress these wells to assess performance during early seasonal conditions.

Test wells TW01 and TW03 were pumped at rates varying from 20 litres per minute up to 60 litres per minute during the March, 2013 pumping tests generating approximately 25,000 litres of water. This is equivalent to approximately 14 Lots (14 times the daily requirement for a 3 plus one bedroom residence). Test wells TW02 and TW04 were pumped two days later generating approximately 42,000 litres of water; equivalent to 23 Lots (23 times the daily requirement). The pumping tests demonstrated that sufficient quantity of water is available to support residential development within the Hamlet.

Approximately 134 mm of precipitation (rain) was recorded at the Hartington Station the month preceding the summer pumping tests in 2014. McIntosh Perry identified 156 mm of precipitation the month preceding the summer pumping tests. It should be noted that approximately 46 mm of the rainfall was recorded on one day.

Based on our infiltration calculation for annual precipitation, approximately 20% is available to the aquifer. If we take 20% of the monthly rainfall prior to summer 2014 testing (134 mm) then we have approximately 27 mm of precipitation infiltrating the ground, or 27 L/m<sup>2</sup>, which when multiplied by the proposed site area of 11 Ha, gives us approximately 3,036,000 L of precipitation infiltrating the ground surface the month prior to testing.

The average aquifer thickness of test wells TW01, TW03, TW09 and TW10 is 27.4 m in summer 2014. This multiplied by the site area (11 Ha) and then multiplied by the porosity of limestone which Freeze and Cherry report up to 0.2 gives  $6.0258 \times 10^8$  litres available in the aquifer. If we use a conservative porosity of limestone (0.1), we have approximately 301,290,000 litres available in the aquifer for pumping. The contribution from precipitation the month preceding the summer pumping tests in 2014 is approximately 1% of the total amount of water available in the aquifer. This clearly is not a significant contribution to the aquifer prior to the summer pumping tests.



491 O'Connor Drive, Kingston, ON  
K7P 1J9  
(613) 634 - 5596

October 29, 2015

MOECC D-5-5, Section 4.3.1 Pump Test Procedure requires the pumping test must begin with a static water level and must be performed at a fixed rate ( $\pm 5\%$ ) for a minimum period of six hours. The minimum duration of six continuous hours incorporates safety factors with respect to seasonal variables.

The pumping tests conducted on test wells TW02 and TW10 during August and September 2014 were undertaken following consultation and recommendation by Malroz Engineering and Quinte Conservation Authority to assess water supply during seasonal summer-like conditions. These wells were pumped for periods of 6 hours at rates of 20 litres per minute to account for seasonal variables in accordance with MOECC D-5-5. Results of the pumping tests clearly demonstrated water supply sufficient to support seasonal peak demand conditions. We are of the opinion that the test well pumping tests conducted in August and September 2014 represent stressed conditions.

Referencing McIntosh Perry Technical Review, they acknowledge that "the pumping test conducted for test well TW02 demonstrates that it has an adequate yield".

Also the additional work conducted to date clearly supports long term water supply assessment in accordance MOECC D-5-5 procedure.

2)

McIntosh Perry acknowledges that test well (TW02) demonstrates adequate yield to support residential development.

We concur with Malroz; the Precambrian granite is not intended for use as a water supply aquifer in the evaluation of the development.

3)

The MOECC Procedure D-5-5, requires a minimum of a 6 hour pumping test and that at least one water sample is to be collected in the last hour of the test. We concur with Malroz that collection of a second sample is at the discretion of the consultant. During pumping tests, samples were collected following measuring raw water to be free of chlorine residual. Second and or final water samples from the eleven wells analysed were typically targeted for collection in the last hour of the pumping tests.

We concur with Malroz that the water quality data generated to date from the test wells sampled and, the recommendation that each new well be evaluated, are adequate for characterizing the raw water quality.



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4)

Based on our field groundwater monitoring information to date and monitoring of adjacent residential wells, groundwater flow gradient in the area is primarily to the south. Neighbouring residents to the east and north east along Boyce Road and near Highway 38 in the vicinity of the gasoline retail outlet demonstrate a north to northeast/east component of groundwater flow; away from the proposed subdivision. The gasoline retail outlet in question was renovated in 2013, including removal of underground storage tanks, upgrading to double walled tanks and replacing fuel distribution piping. We understand the site was certified by the Technical Standards and Safety Authority indicating the retail outlet is in compliance with Provincial regulatory environmental approvals.

Residential neighbours north, south and east of the retail operation have been present for over 20 to 50 years. During our hydrogeological study, neighbours were solicited to participate in the hydrogeological study. We typically received concerns regarding potential hydrogen sulphide odours in the water supply. No concerns were raised by adjacent residents regarding petroleum hydrocarbon odours in the water supply, clearly indicating the adjacent retail fuel outlet is not a concern.

On this basis, and taking into account recent upgrades (2013) to the gasoline retail store and demonstrated groundwater flow gradient away from the proposed subdivision we are of the opinion that concerns to water supply quality from the retail outlet are not warranted.

McIntosh Perry identified the walking trail (former K&P railway) located east of the proposed subdivision as a potential concern to future development.

We understand the walking trail (former rail line) has been in use for recreational purposes in some form since the late 1980s. The trail was officially opened in August, 2012. The former rail bed is over 100 years old and ceased operation in 1983 and tracks removed circa 1986. Referencing the County of Frontenac K&P Trail Implementation Plan 2009, a residential survey was taken to gauge environmental, economic and general concerns regarding proposed upgrades to the trail. Reviewing the responses from existing residents adjacent to the trail, no environmental concerns were identified regarding potential impairment of water quality to wells resulting from the former rail bed. This is further supported from our residential survey conducted in support of the hydrogeological study, where no concerns were identified regarding water quality issues resulting from the former rail bed.



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5)

Quinte Conservation in discussion with Malroz indicated that a Provincial Groundwater Monitoring Network well is located in the vicinity of Hartington. Mr. Mark Boone, Hydrogeologist with Quinte Conservation confirmed as a part of the water quality evaluation program in the area, that water analyzed for radionuclide did not identify concerns. On this basis we are satisfied that radionuclides in the water supply are not a concern for future development.

6)

We have reviewed the nitrate-nitrite concentrations for the eleven (11) test wells sampled for the full 45 hectare property. Five of the eleven sampled test wells are located in the northern portion of the property proposed for development. Nitrate-nitrite results ranged from 0.1 mg/l to 4.21 mg/l with the majority of the results falling into two ranges (0.1 – 0.75 mg/l and 1.5 – 3.0 mg/l) with one result of 4.21 mg/l (TW-10); confirming nitrate-nitrite variability. We believe the nitrate concentration detected at TW-10 is an outlier and not representative of background concentrations at the property. We concur that the result represents a conservative approach, we do not concur that it is representative of current background concentrations based on the results of the sampling program from the 11 sampled wells.

Thirteen (13) lots are proposed within the Hamlet, with the remainder of the property being vacant for the foreseeable future. On this basis and utilizing the full 45 hectare property for nitrate dilution, the anticipated nitrate loading for the proposed 13 lots at the south downgradient boundary would be well below the 10 mg/l criteria (MOE Procedure D-5-4).

When further development is proposed clearly further terrain assessment will be required to determine the size and layout of future lots outside of the Hamlet designated area.

7)

The hydrogeological work and additional confirmatory studies undertaken in preparation and support of the hydrogeological report(s) for the subject property did not use information or field data related to well hydrofracturing. Hydrofracturing is not proposed as part of the proposed subdivision development.



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**8)**

We concur with Malroz and McIntosh Perry that based on the site sensitivity and water quality a higher level of investigation was required to fully assess the proposed subdivision. We have advanced additional wells, conducted additional field work and developed an analytic model to assess the impact of the proposed subdivision on the water quantity demonstrating a higher level of investigation clearly exceeding the minimum requirements of MOECC D-5-5.

Further, we have committed to having each additional well installed at the site evaluated by a qualified hydrogeologist who is licensed by the Ontario Association of Professional Geoscientists or Professional Engineers of Ontario.

We concur with Malroz that the additional work undertaken to date has exceeded the minimum requirements in the MOECC D-5-5 Procedure clearly demonstrating long term water supply of the proposed 13 Lot subdivision development in the north portion of the property.

## 2.0 Closure

ASC Environmental (ASC) was retained by *Terry Grant Construction* to prepare comments in preparation for residential development at the subject property located in the Hamlet of Hartington, Geographic Township of Portland, Ontario.

Hydrogeological work conducted to date including advancing additional wells, conducting additional field work and developing an analytical model has demonstrated long term water supply sufficient to support 47 lots on the full 45 hectare property. Clearly the property has been sufficiently characterized to support the impact on the long term water supply from the proposed 13 Lot development in the north portion of the property.

The findings reported in this document are based on the tasks completed by ASC under the mutually agreed scope of work. Professional judgement, experience with similar investigations, and available data collected within the scope of work form the basis for our comments. ASC has prepared this document using information understood to be factual and correct, and shall not be responsible for conditions arising from information or facts that were inaccurate, concealed, or not fully disclosed at the time of our work.



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File: ASC-095 1161  
T. Grant Custom Homes  
Response to Technical Comments  
Hydrogeological Study and Terrain Analyses  
Proposed 13 Lot Subdivision, Hartington, ON

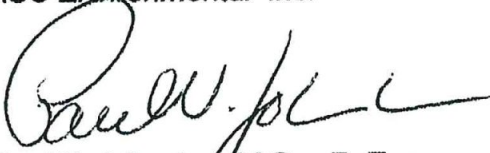
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We thank you for the opportunity to work with you on this project, and trust that this information meets your satisfaction. If you have questions or concerns regarding this document please contact the undersigned.

Yours truly,

ASC Environmental Inc.



Paul N. Johnston, M.Sc., P. Eng.  
Project Manager



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## STAFF REPORT BUILDING DEPARTMENT

**PREPARED FOR COW:**                      **November 18, 2015**

**AGENDA DATE:**                         **November 24, 2015**

**SUBJECT:**

A Discretionary “Septic” Re-Inspection Program

**RECOMMENDATION:**

That Council receive the report for information and provide further direction

**BACKGROUND:**

At the September 15, 2015 Council meeting the following resolution was passed;

“THAT Council endorses the recommendation of the Corporate Services Committee and direct staff to investigate the feasibility and implications of Septic re-Inspection options and to report back to the Committee of the Whole”

Staff research indicates that there are two pieces of provincial legislation that empower a local municipality to pass a by-law that could require a form of a “septic re-inspection” program; the Ontario’s Building Code Act, and the Municipal Act. Below is an overview of the size and scope such a program could entail in South Frontenac, followed by a brief explanation of the authority each of the provincial Acts that have been noted above.

Volume – According to MPAC records there are approximately 11,200 properties that are developed, of that the Health Unit estimates there are over 10,000 sewage treatment, class 4 and class 5 systems in the municipality. Active septic re-inspection programs around the province are currently reporting a deficiency rate, meaning systems requiring some form of maintenance or repair of between 2 to 4 percent. Therefore it would be reasonable to assume after investigating 11,200 plus systems, repair orders would likely range between, 225 to 450 units.

Review of Applicable Provincial Legislation

OPTION 1

The Building Code Act (BCA) and the Ontario Building Code (OBC) regulate the design, construction, renovation and *maintenance* of sewage treatment systems, that are wholly on the property they service (hence the term “on-site sewage systems”) and have a design capacity of less than 10,000 litres a day.

Enforcement of the on-site sewage system provisions, mostly contained in Part 8 of the OBC is normally the responsibility of the municipality, unless, as in our case, the municipality has entered into an agreement with the local Health Unit, termed as the “*principal authority*”, to administer and enforce this part of the code. The MOE governs on-site sewage systems larger than described above and, as such are beyond the reach of the Health Unit’s authority. Therefore this report is limited to the smaller systems regulated by the OBC.

On-site sewage systems are not just “septic systems” alone, they also include;

- Chemical/Composting Toilet and Privy systems (Class 1)



## STAFF REPORT BUILDING DEPARTMENT

- Grey Water Systems (Class 2)
- Cesspools (Class 3)
- Leaching bed systems, including “septic” (Class 4)
- Holding Tanks (Class 5)

Recently, the OBC was amended to establish and govern Sewage System Maintenance Inspection Programs (SSMIP) to ***all*** types of on-site sewage systems, not just “septic systems”, by the *principal authority*. The regulations provide guidance respecting the establishment of both mandatory and ***discretionary*** SSMIPs.

Within the context of the regulations, a “*mandatory*” program means a re-inspection program of on-site sewage systems, in targeted locations, mainly the Lake Simcoe Watershed and also well head or water intake zones around public water supply sources. Principle Authorities are required by the province to undertake mandatory programs in these areas. In South Frontenac this applies to a small regulated zone around the Sydenham water system intake. A “*discretionary*” program means a municipality may expand the same mandatory program to properties beyond the zones described above, with the passage of a municipal by-law.

- Section 7.1 of the BCA provides a municipality the ability to pass a by-law to institute a *discretionary* SSMIP. The context and format of the maintenance inspection program remains regulated by the OBC. For example; Inspections of all types on-site sewage systems would have to confirm compliance with the various provisions of section 8.9 of the OBC, as applicable to the type of system (classes 1 to 5 noted above) installed, not just septic tanks;
- Inspections have to be done by qualified Building Inspectors, registered with the Ministry of Housing, or the principal authority may appoint “maintenance inspectors” however, they cannot issue any orders, and must be supervised by an inspector. Alternatively, a Third Party Certificate may be accepted if permitted by a by-law passed by Council;
- Third Party Certificates must be in a format, and contain information prescribed by the Ministry of Housing;
- To protect property owners from conflict of interest matters, The Code requires that the persons (septic pumpers/haulers) completing the Third Party Certificate must be qualified and registered with the Ministry of Housing, or be an Engineer, or Architect, and cannot have a previous involvement in the design or installation of the septic system in question. They also cannot be associated with the business that may be hired to conduct any repairs or replacement of the septic system being reviewed.

In other words, a municipality cannot establish its own format of a program, for example a by-law mandating a program for “*pumping of septic tanks*” cannot be passed under the authority of the Building Code Act.

During the course of our research, the Ministry of Municipal Affairs and Housing has conveyed two vital pieces of information important to this discussion;

- There is a common public misperception that the province will expand the mandatory maintenance re-inspection program to include all areas, beyond the source water protection zones for public drinking water sources, to protect lakes and private wells. We have been advised that the ministry currently has no plans or direction from the government to initiate the studies and public consultations normally associated with Building Code Act changes. Changes that would be required to expand the program.
- Since the township has opted to appoint the Health Unit as the principal authority for administration of on-site sewage systems our municipal staff



## STAFF REPORT BUILDING DEPARTMENT

could not administer any part of such a program. However, notwithstanding this matter the undersigned has attempted to provide some insight on such a program;

Program Implementation involves:

- A by-law to authorize the program and any collectable fees (if council desires to recover associated costs)
- Public notice and education, including education on topics such as preventative maintenance tips, like what chemicals to not put in your septic.
- Creating a database as a result of reviewing existing septic permit files. This database would identify and prioritize which existing systems would be inspected first. Experience indicates that the greater the density of development that relies on on-site sewage treatment (i.e. Hamlets and Villages), the greater the chances of private well contamination. Therefore, hamlet properties instead of rural, or waterfront properties would likely be the locations inspected first.
- Allocation of monies for “start-up” to cover initial operational costs, until fees (if implemented) could begin to generate revenue.

Inspection Cycle:

Given the regiment of a maintenance inspection program that captures the prescriptive requirements of the code and based on other programs in the province; two dedicated inspectors, are able to conduct 300 inspections in one given year, subject to the geographic size of the municipality and seasonal weather.

At 300 inspections a year, to complete a full cycle of inspections, it could take as long as 37 years (11,200/300) to cover the whole Township. By comparison, in source water protection areas, the mandatory programs have a 5 year re-inspection cycle mandated under the BCA. This is an example of perhaps why the province has no plans to expand the mandatory program beyond protection zones around public water supplies. We are advised that to complete one inspection cycle in five years, the Health Unit anticipates a substantial increase in staffing resources.

Associated Costs:

- The costs of the program would ultimately be governed by what the Health Unit would charge the municipality, they have been kind enough to provide an initial “rough” estimate of \$1,200,000 to complete one cycle of inspections of all systems.
- Council would need to decide if some, all, or none of these costs would be recovered in the form of a fee charged back to the property owners.
- Council may also need to consider creating a loan program for property owners that could not afford to repair or replace a system, within the time allotted by an Unsafe Order issued.

### OPTION 2

The Municipal Act, provides the authority to license businesses in the Township. Specifically such licensing is contemplated by the Municipal Act, 2001, s.11 (spheres of jurisdiction). The Act notes “*septic tank business*” as a matter falling under the sphere of Business Licensing. For the purpose of s.11 the Act defines “*septic tank business*” as meaning persons who carry on the business of providing septic tank cleaning and pumping services.



## STAFF REPORT BUILDING DEPARTMENT

However, a “*Licensing By-law*” passed under this Act could not make property owners pump out their systems. Pumping of the tank is clearly a maintenance function, and “maintenance” of a septic system is governed under the Building Code Act, as noted above.

Central Frontenac is currently looking at the possibility of utilizing this authority to pass a by-law requiring that septic tanks pumpers and haulers be licensed to operate within their Township boundaries.

With that, these licensed haulers/pumpers would be required to report back to the municipality the results of pump outs performed by utilizing a standardized form to collect data on the septic systems pumped. The idea being that, the municipality in collaboration with the Health Unit could begin to build a meaningful data base on the conditions of existing systems.

The Central Frontenac model contemplates a targeted, septic re-inspection follow-up with the “non-reported” properties after the first full cycle is completed.

Challenges remain with regard to how to ensure records are received, who assess non-reported, who has control of the information collected and for what purposes it can be used. Staffing to administer a licensing program would also have to be accessed and resourced.

Program Implementation involves:

- A by- to authorize the program and any collectable fees (if council desires to recover associated costs) charged to pumper/haulers.
- Creating a database and operational procedures for both staff and pumpers/haulers.
- Public notice and education, the education component would inform residents of the new requirement to file with the township a pump out report.
- Allocating resources to cover operational costs.

Inspection Cycle:

- Central Frontenac anticipates that approximately 800 units a year will have to get pumped to achieve one cycle in 5 years. In order to achieve a similar 5 year cycle, 2000 plus units in South Frontenac would have to be pumped each year. Please note that since the program relies on voluntary participation by the property owners to have their tanks pumped, the time table above is an estimation to demonstrate the scope and magnitude of such a program.
- After this first cycle is complete, a discretionary maintenance inspection program under the Building Code Act may be more reasonable and feasible to implement. A discretionary program could then concentrate on non-reported properties as opposed to spending resources on properties where systems are likely being properly maintained, as evident by property owners proactively having their systems pumped.
- Properties with holding tanks that are pumped out many times a year need to be considered. The condition of holding tanks could be included in the program, but to require pumpers/haulers to submit full reports each time would be excessive.

Associated Costs:

Costs /Revenues will need to be assessed for the following:

- Ongoing and annual cost to Township to launch and maintain education/communications in support of the re-inspection program,
- Ongoing and annual cost to Township to support record-keeping,



## STAFF REPORT BUILDING DEPARTMENT

- Annual cost to the Township to update and issue licenses
- Additional cost to the property owner associated with having information collected by the pumper/hauler is believed to be low or minimal but would be established by the pumpers/haulers.
- Annual cost to pumpers/haulers to participate in training programs to comply with the new bylaw?
- Annual revenue to the Township from licenses charged to the pumpers/haulers?
- Council may also need to consider creating a loan program to property owners that could not afford to repair or replace a system, within the time allotted by an Unsafe Order issued.
- The associated costs and workload of Public Health staff for reviewing and responding to information contained from a data base with 10,000 pump out reports.

### **CONSULTATION:**

This report has been prepared in part with the input and assistance of:

- The Ministry of Municipal Affairs and Housing,
- The Ministry of Environment,
- KFL&A Public Health Unit,
- Township of Central Frontenac; and,
- Several CBO's from municipalities around Lake Simcoe Watershed where mandatory programs are already underway.

This report provides information to Council for its consideration of a septic re-inspection program.

### **FINANCIAL IMPACT:**

None at this time

**Submitted and Prepared by:**  
Brian Gass, Chief Building Official

**Approved by:**  
Wayne Orr, CAO



## STAFF REPORT TREASURY DEPARTMENT

**Prepared for Council:**     **November 19<sup>th</sup>, 2015**

**Agenda Date:**             **November 24<sup>th</sup>, 2015**

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**SUBJECT:**

2016 Budget Update

**RECOMMENDATION:**

That Council provide direction on the noted changes prior to staff bringing forward the revised budget to the December 1<sup>st</sup> Council meeting for approval.

**BACKGROUND:**

At the Committee of the Whole meeting on Saturday, November 14<sup>th</sup>, the 2016 Capital and Operating budgets were presented and reviewed in detail. The presented budget kept the taxpayer impact at 2% based on the average phased-in residential property.

Council was generally supportive of the overall variances that were highlighted and provided specific direction in amending the draft budget as follows:

That the following items remain in the Capital budget but be put on hold pending a follow up report to, and approval from, Council in early 2016:

○ Radio Communications	300,000
○ Baler	160,000
○ Playground Equipment (Bowes)	36,000
○ Storrington Center	20,000
○ Fermoy Hall	30,000
○ Glendower Stairs	40,000

That funding be found to establish a SCBA equipment reserve with an initial amount of \$40,000 going into the reserve for 2016

Additional information and other updates have been processed within the draft budget that allow for the establishment of the SCBA reserve. The changes include:

• Ontario Municipal Partnership Fund (OMPF) increase	15,700
• Increase in government grants for student funding	11,000
• MPAC FINAL 2016 assessment figures: impact	6,900
• Other Expense reductions that will be implemented	6,300

The adjusted budget now represents \$28,061,653 in reserve transfers, operating and capital expenditures and results in a total amount to be raised from taxation of \$16,534,642.

The impact of all these adjustments aligns with Council's direction and amounts to a 2.00% or \$26.22 impact on the average phased-in residential property.

**Submitted/approved by:**  
**Louise Fragnito, Treasurer**

**Prepared by:**  
**Louise Fragnito, Treasurer**



## STAFF REPORT PUBLIC WORKS DEPARTMENT

**PREPARED FOR COW:** November 16, 2015

**AGENDA DATE:** November 24, 2015

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**SUBJECT:**

Operation and Maintenance of the Sydenham Water System

**RECOMMENDATION:**

THAT the Township of South Frontenac enter into a contract with Utilities Kingston to extend the Operation and Maintenance of the Sydenham Water System until December 31, 2016.

AND that the Mayor and CAO be authorized to sign this contract on behalf of the Township of South Frontenac.

**BACKGROUND:**

The Township of South Frontenac issued an RFP for the operation of the Sydenham Waterworks in August 2005. Utilities Kingston was selected as the preferred submission, approved by Council and entered into an agreement for an initial term for the period April 1, 2006 to March 31, 2009.

Council subsequently extended this arrangement until such time as the THM issue was resolved and Utilities Kingston would be in a better position to re-evaluate any changes to their original proposal. A proposal dated April 19, 2012 was received from Utilities Kingston for the Sydenham Water Treatment Plant and Water Distribution services. Council entered into a contract with Utilities Kingston for this purpose for the period ending December 31, 2014.

The previous proposal did not contain a clause extending the agreement beyond the term of December 31, 2014. Last year, Council approved an extension of this agreement until December 31, 2015.

Unfortunately, staff have not had the opportunity over the previous year to engage in wholesome discussions for a longer term arrangement with Utilities Kingston.

Discussions took place recently with staff of Utilities Kingston with a view to extend this service for one more year.

The Core Services covered by the proposal are:

- Valve and Hydrant Maintenance Program
- Water Plant Operations
- Distribution System Operations
- Preventative Maintenance Program
- Annual Maintenance and Reporting
- System Capacity and Unallocated Reserve Differentials

There is value in continuing with the current operator. The service that Utilities Kingston provides has been very responsive to our needs. It is proposed that the Public Services Committee will address the issue of a long term arrangement for the Operation and Maintenance of the Sydenham Water System.



## STAFF REPORT PUBLIC WORKS DEPARTMENT

### FINANCIAL/STAFFING IMPLICATIONS:

	2012	2013	2014 (2%)	2015	2016
Operational and maintenance	87,006	87,006	88,746	98,572	99,990
Sampling	6,370	6,370	6,497	5,814,	5,975
Annual Chemicals and Testing (including third party vendors and are subject to price increases)	12,708			9,721	10,778
<b>TOTAL</b>				<b>114,107</b>	<b>116,743</b>

The 2016 fees represent just over a 2% increase over those in 2015. Sufficient funds have been proposed in the 2016 Operating Budget for this expense.

#### Submitted/approved by:

Mark Segsworth, P. Eng.  
Public Works Manager



## STAFF REPORT CLERKS DEPARTMENT

**PREPARED FOR COW:** November 17, 2015

**AGENDA DATE:** November 24, 2015

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**SUBJECT:**

Peer Reviews – Revised Policy

**RECOMMENDATION:**

That Council confirm the direction on the proposed peer review policy.

**BACKGROUND:**

On September 1, 2015 Council deferred a notice of motion requiring mandatory peer reviews based on staff's recommendation.

Council provided staff 60 days to respond to Council on a framework that would be workable that avoids duplication with the County's peer review process and was not so broad as to be applicable to all technical studies

A framework for the policy on mandatory reviews was brought forward to the October 27 Committee of the Whole meeting. Council expressed second thought on the need for mandatory reviews and sent the issue back to staff to revise the policy to reflect that peer reviews may be required.

The attached policy is for Council's review prior to bringing it forward for adoption.

**ATTACHMENT:**

- Peer review policy

**Submitted/approved by:**  
**Wayne Orr, CAO**



## **Planning Policy: Requirements for Peer Reviews**

The Township of South Frontenac may require a peer review for the following:

Any **environmental study** in support of a proposed:

- Plan of subdivision
- Plan of condominium
- Recreational resort development
- Multi-unit residential or institutional development
- New aggregate extraction or aggregate expansion
- Any development in proximity to the Sydenham Lake IPZ

Any **hydrogeological study** is support of:

- Multi-unit residential or institutional development
- New aggregate extraction or aggregate expansion

**Note:** for Plans of Subdivision or Condominium the County of Frontenac undertakes a peer review of any hydrogeological study

Any **Lake Impact Assessment** in support of:

- Plan of subdivision
- Plan of condominium
- Recreational resort development
- Multi-unit residential or institutional development

The Township of South Frontenac will often require a peer review for the following:

Any **Noise and Dust Study** in support of:

- New aggregate extraction or aggregate expansion

Any **Traffic Study** in support of:

- Plan of subdivision
- Plan of condominium
- Recreational resort development
- Multi-unit residential or institutional development
- New aggregate extraction or aggregate expansion

### **Notes:**

- The Township reserves the right to require a peer review of any study submitted for any type of development if Council has reason to believe the review is warranted.
- All costs associated with peer reviews are born by the owner/developer.
- All developers are to be made aware of this policy as soon as possible but by no later than five business days after receipt of formal application.

ADOPTED BY COUNCIL: \_\_\_\_\_



## STAFF REPORT CLERKS DEPARTMENT

**PREPARED FOR COW:**                      **November 17, 2015**

**AGENDA DATE:**                            **November 24, 2015**

**SUBJECT:**

Rural Economic Development (RED) Grant

**RECOMMENDATION:**

OPEN

**BACKGROUND:**

The Rural Economic Development (RED) program provides cost-shared funding support (in this case up to 50% for municipalities) for projects that will strengthen rural Ontario. With the support of the RED program, rural communities, organizations and businesses are better positioned to create jobs and attract investment. According to the RED guidelines collaboration is important and the guidelines further state that projects involving local partnerships strengthen rural Ontario by providing benefits to more than one community and improving overall competitiveness.

Recently County Council directed County staff to apply to the RED program by leveraging the funds allocated for advancing economic development in the Frontenacs and using the work compiled for the Economic Development Charter and Implementation Plan.

County staff is proposing to lever the aforementioned funds in an application that would include projects identified for each of the four Townships and which fall within the themes identified in the Charter: Trips & Trails (accommodation), Food and Beverage and Rural Lifestyle.

County staff are committed to working closely with both Township staff and economic development committees to determine the projects to be included in the application. Contributions, cash and/or in-kind, from the townships supported by resolutions from Township Councils will lend more strength to the application.

Other agencies such as Frontenac CFDC and Regional Tourism Organizations will be approached for support as well.

Should the application be successful it is anticipated it would be June 2016 before an agreement would be signed and the timeframe for implementation could be spread over a 3 year period.

County staff will do the leg work and write the application which is expected to be submitted for the first RED deadline of January 15, 2016.

From a South Frontenac perspective no work has been done to identify projects. Ideas that have been bounced around include:

- Further enhancing Centennial Park as a destination event venue leveraging its proximity to the trail network, Kingston, the 401 and as the gateway to Central and North
- Build on efforts of Frontenac Rides to promote South Frontenac as a cycling and scenic destination



## STAFF REPORT CLERKS DEPARTMENT

- Opportunities to improve farm gate sales and the potential for a permanent market stall
- Promoting South Frontenac as a family focused rural lifestyle: close to all you need... but still away from it all

Further ideas may be generated by the County's community development committee that includes 4 people from South Frontenac (including Deputy Mayor McDougall)

Partnering with the rest of the Frontenacs is the best chance of leveraging grant money and accessing the County's share as well. The Township needs to take a role in deciding what its priorities are within the established framework. Ultimately Council will be asked for motions of support.

From a financial point of view RED grants look for contributions over the term of the grant which can stretch out over 3 years. Our current capacity for contributions is in the range of \$5,000 – 8,000, relatively modest and manageable and within existing budget lines.

**Submitted/approved by:  
Wayne Orr, CAO**



## INFORMATION REPORT PUBLIC WORKS DEPARTMENT

**PREPARED FOR COW:** November 17, 2015

**AGENDA DATE:** November 24, 2015

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**SUBJECT:**

Winter Driving Education

**RECOMMENDATION:**

For information only.

**BACKGROUND:**

Staff of the OPP and South Frontenac Public Works meet on a fairly regular basis to discuss issues to improve safety on our public roads.

With winter fast approaching, we feel there is an opportunity to promote safe winter driving to reduce collisions.

On Wednesday, November 25, 2015 there will be an outdoor assembly in the Loughborough Public School parking lot for Grades 11 and 12. Although this has been coordinated through Sydenham High School, the messages are for the Public as a whole.

Educational material and equipment from the OPP, South Frontenac Fire & Rescue, EMS and Public Works will be on display from 11:15 a.m. to 12:15 p.m. Local Media have been invited.

In addition, a contest will be initiated aimed at students to design an "Emotionally Intelligent Sign". One such type of signage will be on display on the 25<sup>th</sup>.

**Submitted/approved by:**

**Mark Segsworth, P. Eng.  
Public Works Manager**

**From:** Ruth Gültekin [<mailto:ruth.gultekin@hotmail.com>]

**Sent:** November-17-15 4:02 PM

**To:** [councillorrevill@gmail.com](mailto:councillorrevill@gmail.com); [john.mcdougall@xplornet.ca](mailto:john.mcdougall@xplornet.ca); [elbe@web.ca](mailto:elbe@web.ca); Ron Vandewal <[rvandewal@southfrontenac.net](mailto:rvandewal@southfrontenac.net)>; [patbarr1@aol.com](mailto:patbarr1@aol.com); [markschjerning@outlook.com](mailto:markschjerning@outlook.com); [robinsonw@bell.net](mailto:robinsonw@bell.net); [councillornroberts@gmail.com](mailto:councillornroberts@gmail.com); [sfcron.sleeth@gmail.com](mailto:sfcron.sleeth@gmail.com)

**Cc:** Lindsay Mills <[lmills@southfrontenac.net](mailto:lmills@southfrontenac.net)>; Wayne Orr <[worr@southfrontenac.net](mailto:worr@southfrontenac.net)>; [pyoung@frontenacounty.ca](mailto:pyoung@frontenacounty.ca); [jgallivan@frontenacounty.ca](mailto:jgallivan@frontenacounty.ca); UMUT GULTEKIN <[umutgultekin@hotmail.com](mailto:umutgultekin@hotmail.com)>

**Subject:** Township of Frontenac/Hartington Revised Plan of Subdivision

Councillors, once again, I am writing to express my concerns regarding the proposed plan of subdivision within the Township of South Frontenac in Frontenac County. I just have just recently learned that the proposed subdivision is to be placed on the Township's Committee of the Whole Agenda for Tuesday, November 24, 2015. It is my understanding that the Township planner, Mr. Mills, will be putting forth a further report on the proposed subdivision at that meeting. In this regard, I am concerned that the proponent, Terry Grant, has submitted a formal, revised plan of subdivision to the County of Frontenac for his previously introduced 13 lot residential subdivision.

Councillors, I still have very grave concerns about this proposed plan of subdivision. Although Mr. Grant has reduced the number of building lots from 47 to 13, at least for the time being, he has maintained the reduced lot frontages of 45 meters (105 feet). Furthermore, neither Mr. Grant, nor his Consultants, Fotenn and ASC Environmental Inc., have addressed the residents' concerns. More particularly, neither Mr. Grant nor his Consultants have addressed the very real concerns related to the quantity and quality of groundwater within the proposed subdivision location.

Evidence put forth by McIntosh Perry suggested that some of the groundwater results obtained by ASC Environmental Inc. are questionable. More particularly, advancement of some of the test wells may have included hydro-fracturing to achieve suitable water quantity and 2/12 test wells or 17% of the test wells installed had to be decommissioned due to poor water quality. Although ASC suggests that they did not use information or field data related to well hydro-fracturing in their assessment, it appears that they have likely used hydro-fracturing in their well development. It is unknown to what extent hydro-fracturing has influenced the results obtained from neighbouring wells. Also, one test well utilized by ASC for pumping tests, intersects groundwater from both the upper and the lower aquifers (i.e. upper limestone bedrock as well as the lower granite bedrock). Therefore, the water yield from this well has skewed the overall results of their hydrogeological study.

Admittedly, the hydrogeology of the area proposed for the residential subdivision is *very* sensitive and both ASC and Malroz Engineering acknowledge that there is interference between internal wells, some of significant proportions, as well as off-site wells. Moreover, the performance of the nitrate-nitrite attenuation assessment performed by ASC is also suspect. ASC stated that they "believe" the nitrate concentration of 4.21 mg/L in TW10 to be an outlier and therefore is not representative of the background concentrations at the property. However, ASC provides no justification for their *belief*. ASC goes on to say that they

have utilized the full 45 hectare property in their nitrate dilution calculation because it is currently vacant. McIntosh Perry suggests using the spatial area for the 13 northernmost lots (1 to 6 and 41 to 47; 10.72 ha) and the 4.21 mg/L detected nitrate-nitrite concentration in the assessment. On that basis, McIntosh Perry calculates a lot density of 7-8 lots (7.7) for this portion based on nitrate dilution.

Given all of the information presented to you, it is evident that the highly sensitive aquifer is unable to support 13 additional households, without negatively affecting the water quality and quantity of the neighbouring residents. Based on the existing concentrations of nitrate in groundwater in the area of the proposed subdivision, the additional nutrient loading from 13 additional private sanitary waste streams will most certainly degrade the existing quality of water. Based on the water yields of 1 ½ GPM to 10 GPM with the average around 3 to 4 GPM, it is evident that many if not most of the water wells will be unable to sustain a household without some level of hydro-fracturing.

To that effect, I implore Council to reject Mr. Grant's proposal in its present form. As mentioned previously I support development. However, I support sustainable development...development that meets the needs of the community, not simply the developer....development that respects the existing official plans and zoning by-laws. Council's development decisions need to be made from a long term cumulative impact point of view not simply for now. Council owes it to its constituents to maintain zoning controls that mitigate land use conflicts, minimize the impact of development on traditional rural activities and place environmental and social concerns ahead of residential growth. The community is counting on you to ask Mr. Grant to do more, the community is counting on you to force Mr. Grant to do better.

As always, warmest regards,

Ruth L. Gultekin, B.Sc., EP  
4023 Boyce Road  
Hartington, ON K0H 1W0  
(613) 372-5689

**From:** Brian Ward  
**Sent:** Monday, November 16, 2015 1:42 PM  
**To:** Ron Sleeth; Ross Sutherland  
**Cc:** Nona Mariotti; Matthew Rennie  
**Subject:** Applewood Bylaw Appeal and Motion

Hello Ron and Ross

Thanks to you to both of you for email responses to my previous email.

Nona and the concerned residents met on Sunday afternoon to discuss the Appeal of the bylaw.

We consider it very unfortunate that the meeting with the Township officials was cancelled on Wednesday. Nona will be requesting a meeting with Lindsay Mills and the Township lawyer Mr. Fleming. We consider it very important to hear from them to understand why the Township chose to implement the bylaw in the form it was done in September 2015. We ask that you encourage the Township officials to agree to the meeting request. We have no desire to delay the process but to see the issues addressed.

Our concerns are with how the zoning bylaw was applied to the draft condominium design and how the zoning bylaw was modified to suit the development. Many of our concerns and others are identified and confirmed in the Notice of Motion submitted by Magenta.

The primary issue is with the 14 lots that abut the wetland:

In 2014 the design and the draft approval of the condominium plan was based on the the 14 lots being designated Limited Service Residential (LSR). The lots were designed to meet set back, frontage and area requirements of the LSR zoning designation. The submission to Council dated August 26, 2014 for Council meeting September 2, 2014 indicates that LSR for these lots.

As the Magenta submission identifies in Paragraph #7 in September 2015 "The Township chose to rezone 14 lots abutting the wetland as Limited Service Waterfront Residential (LSWR) even though the Township's original intention was to rezone those lots .....as Limited Service Residential (LSR)"

So that the development would comply with the zoning bylaw for LSWR a number of modifications or exceptions were approved including the following:

Lot frontage on a Private lane was reduced from 76 to 50 metres.

Lot Frontage on a Wetland was reduced from 91 to 50 metres.

Setback from a Wetland was increased from 30 to 40 metres.

Front yard Setback was reduced from 30 to 15 metres.

Also, it was necessary for a side lot to be deemed a Front Yard achieve compliance with the RLSW zoning.

If the LSR zoning had been utilized as had been planned and on which the development design was based these reductions in the criteria would not have been required. This sets a very poor precedent.

As well the Notice of Motion by Magenta has rightfully noted that an important bylaw requirement has been overlooked and therefore would require the bylaw to be amended again to maintain consistency and compliance.

The LSR zone requires a minimum lot size of 8000 square metres while the LSWR requires a minimum lot size of 10,000 square metres. Many of the lots in the development plan for Applewood are only 8100 square metres.

Another point that has not been addressed is that we understand that the LSRW zoning requires that a communal dock shall be less than 60 metres from the closest residential zoning and this is not the case.

In conclusion the zoning bylaw has modified in a significant manner to fit the development design when the development is expected to meet the zoning requirements. A very serious precedent. Since the development was designed to meet the LSR zoning the 14 lots should be zoned LSR.

Brian



Ontario Energy Board

# NEW ONTARIO ELECTRICITY SUPPORT PROGRAM

With the Ontario Electricity Support Program (OESP), low-income households can receive a credit on each electricity bill.

The amount of the credit will depend on how many people live in your house and your combined household income. Find out if you are eligible and how to apply.

**THERE'S HELP**

**FOR LOW-INCOME HOUSEHOLDS**

Visit [OntarioElectricitySupport.ca](https://OntarioElectricitySupport.ca) 1-855-831-8151





Commission de l'énergie de l'Ontario

# NOUVEAU PROGRAMME ONTARIEN D'AIDE RELATIVE AUX FRAIS D'ÉLECTRICITÉ

Grâce au Programme ontarien d'aide relative aux frais d'électricité (POAFE), les ménages à faible revenu peuvent présenter une demande d'admissibilité à un crédit afin de réduire leur facture d'électricité.

Le montant du crédit dépendra selon le nombre de personnes habitant dans la maison et le revenu combiné du ménage. Découvrez si vous êtes admissibles et comment effectuer une demande.

**DE L'AIDE EST OFFERTE**

**AUX MÉNAGES À FAIBLE REVENU**

Visitez le site [AideElectriciteOntario.ca](http://AideElectriciteOntario.ca) 1 855 831-8151



Dear Mr. Schmidt,

Re: Permit #F-166-11-Lough Lk - For Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses Ontario Regulation 148/06

I am writing to you on behalf of a group of residents, copied below, who are living on Loughborough Lake and are concerned about ensuring environmentally responsible development on the Lake. We wish to express our concern with the actions of the developer, Magenta, regarding adherence to the terms of the Permit #F-166-11-Lough-LK, as issued by the CRCA for a development known as Applewood. We are specifically concerned about a communal dock and a walking bridge which have been built. We raise these issues with you in support of the CCRA's mandate and our responsibility to protect our Lake.

Our key concerns with the dock are as follows:

1. The "sample" dock that was shown on the developer's application was about 120 feet long. The CRCA's permit noted that this dock could be used for small boats.

The actual communal dock which has been built is about 66% longer, approaching nearly 200 feet.

We appreciate that the CRCA cannot regulate the size of boats to be used. It is reasonable to speculate that developer's intent is to have a more active dock than was implied by the application, in terms of the number of boats and/or the size of the boats, and than was anticipated by the CRCA when it issued the permit.

We are concerned that excessive water traffic, in terms of number and size of boats, will disturb the lake bottom, negatively impact water quality and the overall environment.

2. The CRCA permit approved construction of a dock in no less than 39 inches of water.

We are perplexed with the initial granting of the permit when the water levels in the area where the dock was to be constructed are naturally less than a foot deep, only 25% of the required depth.

We can only assume that the CRCA did not do a site inspection in advance of approval, and perhaps relied on the developer to present accurate information regarding water depth where construction was being considered.

3. An aerial view of the completed dock indicates that extending from the shoreline, the water level has been manipulated around the area of the dock. (Please see the attached document.)

Near the dock, the water level is about 29 inches at most, getting shallower at certain points further out into the water where the lake bottom has piled up, and then returning to the natural level of about 10 to 11 inches. In short, near the dock the water level is unnaturally "deep", followed by excessively shallowness, and then returning to natural levels.

This can only be the result of the lake bottom being displaced out from the dock. Residents suspect dredging may have been involved, as opposed to a "blow out" or other method, as they could clearly hear the sound of a compressor running for an extended period of days.

Furthermore, dredging equipment was observed at the nearby public docking area. However, the piling up of lake bottom material further out from shore suggests a blow-out method.

Whatever the method employed, it's clear some action was taken to alter the bottom of the lake and in turn the water level, and the level achieved still falls far short of the depth required by your permit, as noted above.

Our concerns with the walking bridge are as follows:

4. The developer's application states that "the width between the railings would be 48 inches, which would not allow motorized vehicles such as 4-wheelers to cross."

We are deeply concerned, given the precedent set with the dock in relation to the CRCA's permit, that the developer has not adhered to its own application in the construction of the walking bridge, and that it has indeed been constructed to allow ATVs.

In support of our concerns related to the dock and the walking bridge, real estate advertisements for the Applewood condo units offer package deals on ATVs and boats (not likely canoes or other such small vessels, as were presumably envisioned by the CRCA).

We should also like to revisit a concern raised by a member of our group with CRCA's biologist, Mr. Tom Beaubiah, several weeks ago.

We had reason to believe that dredging might be taking place with fill being put in wetlands. Mr. Beaubiah followed up with a site visit, advising that fill was not being put in wetlands, but was indeed being put in an area where no development is permitted. He told our fellow member that the developer would be required to remove the fill.

Would you kindly inquire within CRCA on our behalf to determine whether the developer was indeed issued a directive to responsibly relocate the fill, and provide us with confirmation that he has done so?

We note that the CRCA's own vision statement and four key goals from its 2020 Strategic Plan which we strongly endorse, as reflected in our stated concerns regarding the actual development by Magenta and the CRCA's permit:

*"Our vision is that the natural environment of the Cataraqui Region Conservation Authority watersheds will be conserved, that degraded natural resources will be restored, that our regional diversity will be valued by the watershed residents, and that the public will understand the role that everyone needs to play in resource management and resource enjoyment.*

*Goal A: To conserve CRCA's water resources, including the safeguarding, management and restoration of rivers, lakes and streams, and to work cooperatively with our partners to protect the water cycle.*

*Goal B: To implement policies that will protect life and property from natural hazards such as flooding and erosion.*

*Goal C: To conserve woodlands, wetlands and natural habitat.*

*Goal D: To facilitate protection of natural resources in order to conserve, restore, develop or manage them."*

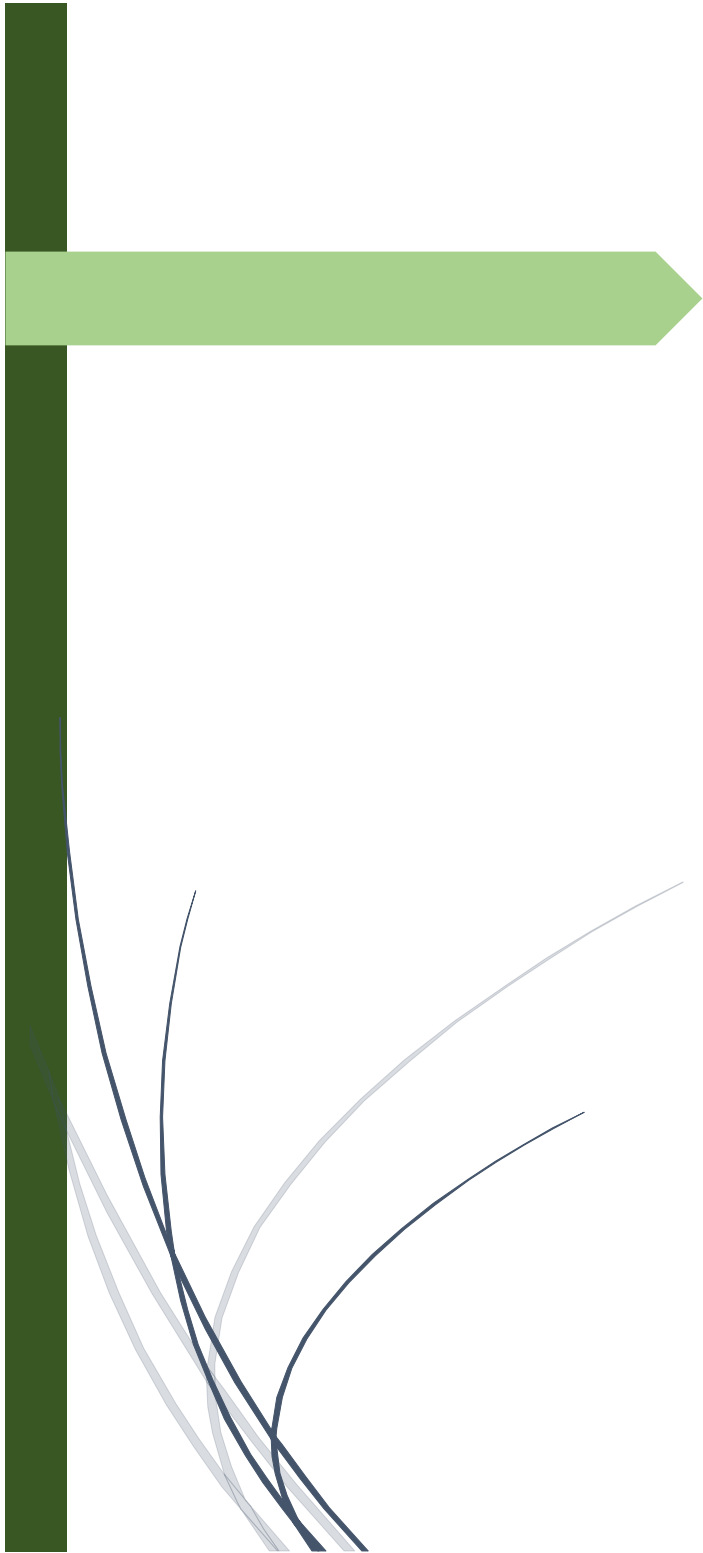
In summary, we believe that Magenta has been cavalier in relation to the permit issued by CRCA, and ask for your prompt investigation of our concerns. With the weather getting colder, the lake will soon freeze up, compromising investigation of the water levels around the dock in particular.

On behalf of our group, I am requesting an acknowledgement of my letter by Friday, November 27, 2015. I would greatly appreciate at least an interim response to our concerns by that date, with a timeline on a more fulsome response.

We thank you for your attention to this letter, and appreciate the continuing efforts of the Board and staff of the CRCA as trustees for the environment.

Sincerely,

Matt Rennie



# Applewood Communal Dock Depth Measurements

Loughborough Lake, Township of South Frontenac, Ontario

## Background

Concerned Loughborough Lake residents have noticed that a massive communal dock is located in very shallow water surrounded by provincially significant wetlands. Upon further investigation the dock permit stated the following:

***“The docking facility (floating) must be placed/ located such that there is a **minimum of 1m of water depth (substrate to bottom of floatation) at all times”** Cataraqui Region Conservation Authority Permit File: F-166/11-Lough Lk***

Please Refer to Appendix C attached and/or the following link which has the full version of the Permit and other planning documentation for the Applewood Plan of Condominium.

[https://drive.google.com/folderview?id=0B7nz\\_0h07u1uOUVibHRNZDZ4Wms&usp=sharing](https://drive.google.com/folderview?id=0B7nz_0h07u1uOUVibHRNZDZ4Wms&usp=sharing)

Looking at aerial views of the dock on the Frontenac County Interactive Map it appears as though the water beside the dock is deeper than the surrounding water. A site inspection of the dock was made by canoe and depth measurements were made on Oct 24, 2015.

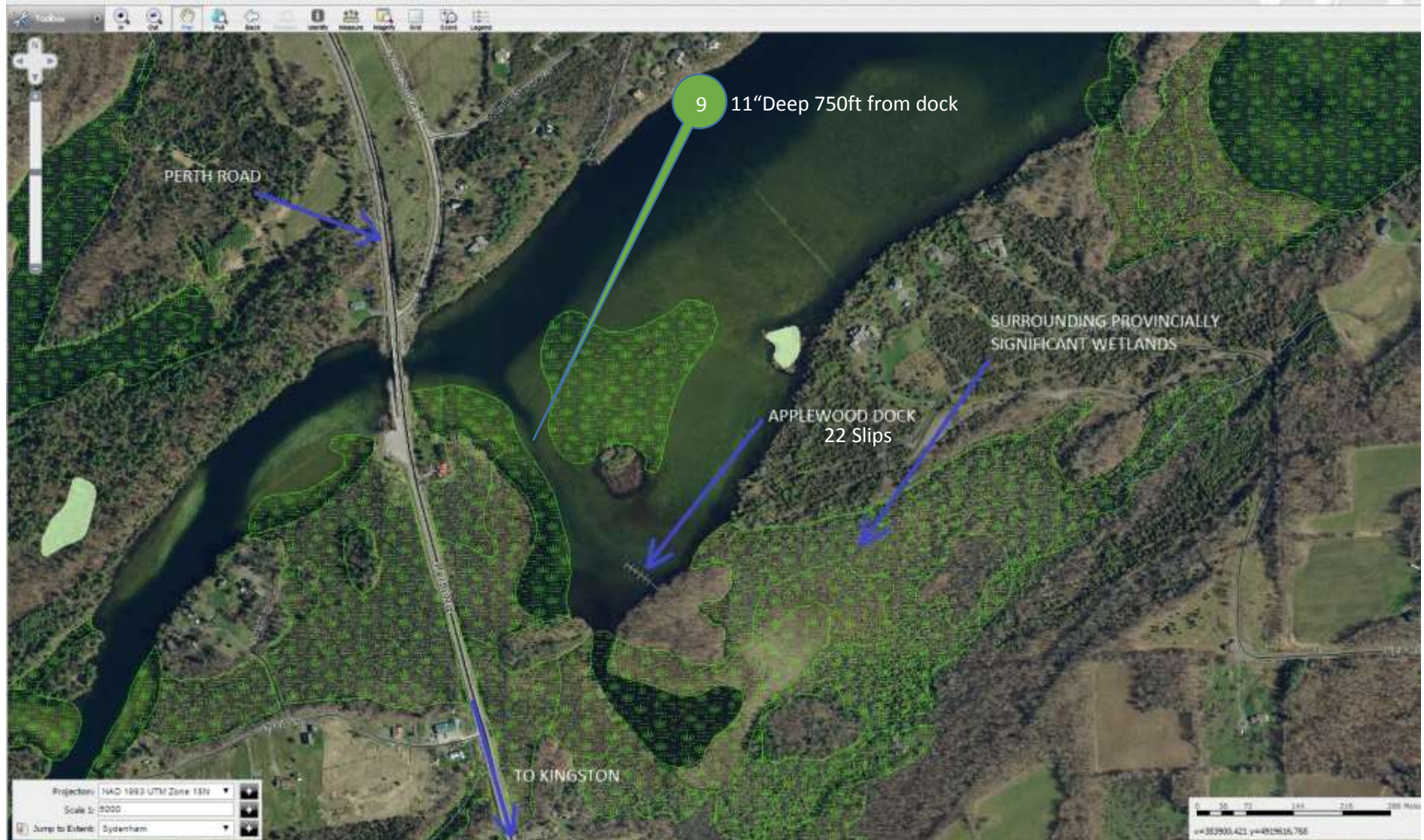


Figure 1. Location - Loughborough Lake, South Frontenac Township (North of Kingston, Ontario)

## Methodology

A meter stick marked with inches and centimeters was utilized to obtain water depths at the positions shown below. It was inserted into the water and a measurement was taken when it was observed that the end of the stick had disturbed the sediment at the bottom of the lake bed. A pole marked in large legible foot increments was then used for photographs at the same positions. **See Measurement photos below P. 6-14**



Figure 2. Applewood Subdivision 22 Slip Dock - 200ft long dock in 1ft of water

## Depths

Required Depth from *substrate to bottom of floatation at all times is 1m (39 inches)*

Location	Actual Depth
1	26" (Man Made)
2	24" (Man Made)
3	29" (Man Made)
4	23" (Man Made)
5	15" (Natural)
6	10" (Natural)
7	11" (Natural)
8	13" (Natural)
9 (750ft away from dock)	11" (Natural)



Figure 3. Applewood Communal Dock Depth Measurements Location #6

## Conclusion

The natural depth of the water where the dock is installed is far less than the minimum 1m (39") required and therefore the dock is in contravention of Permit # F-166/11-Lough Lk. Refer to Appendix C below.

### APPENDIX "C"

#### TO PERMIT F-166/11-Lough Lk

The following conditions form part of the above-referenced permit application:

- Per the verbal conversation regarding the docking, it is understood that the preference for docking is to minimize the near shore disturbance. A single finger dock limits the disturbance parallel to the shore and is preferred. Secondary options would be to have a single finger extending from shore with a "T" or "L" shaped configuration. The use of two fingers with two access points from shore would be the least preferred. All options are feasible and will be pursued in order of preference depending upon specific site conditions and Transport Canada navigable waterways protection act considerations.
- The docking facility (floating) must be placed/located such that there is a minimum of 1 m of water depth (substrate to bottom of floatation) at all times.
- No docking slips are to be located where depths are less than 1m, measures are to be incorporated to discourage the use of portions of the dock where water depths are less than 1m (e.g. the span from shore to the first dock slip).
- Where the dock must span areas less than 1m in depth, alternative support mechanisms (e.g. posts, cribs) are to be used to ensure adequate clearance between the dock and the substrate. If cribs are used they are to be no greater than 6'x6', spaced min 6ft apart placed no closer than 6ft from shore, and no greater than 15m<sup>2</sup> of the bottom substrate occupied.
- It is recognized that due to water depth issues, the dock facility may be a combination of means of support. While the support mechanisms (post or crib and floating) may vary and the orientation of the main finger (single, "T", "L", or double) will depend on other potential approval processes, the size of the individual components (finger width, slip finger length, slip width/length) of the proposed structure will not change.
- A single access channel is to be marked in accordance with navigational standards to ensure a single approach/departure route for all vessels using the dock facility.
- Proposals to dredge or remove aquatic weeds will not likely be reviewed favourably.
- Any development should have consideration for the Endangered Species Act due to its location within a wetland environment.

  
Signature

Nov 8, 2011  
Date

O.Reg.148/06 - Appendix C  
To Permit # F-166/11-Lough Lk  
Page: 1 of 1  
Date: NOV 8, 2011

Position 1. 26" Deep



Position 2. 24" Deep



Position 3. 29" Deep



Position 4. 23" Deep



Position 5. 15" Deep



Position 6. 10" Deep



Position 7. 11" Deep



Position 8. 13" Deep



Position 9. 11" Deep



# REMINDERS

## Sydenham Santa Claus Parade

Join the Loughborough District Volunteer Firefighters for the Sydenham Santa Claus Parade on Saturday, November 28, 2015 at 10:00 am.

If you wish to participate in the parade arrive at the Sydenham Firehall - 4233 Stagecoach Rd at 9:30 am to get organized.

A great way to kick off the holiday season!



## Harrowsmith Santa Claus Parade

The Harrowsmith Christmas Parade and Open House will be held Saturday, December 5<sup>th</sup>, @ 10:00 am.

Enjoy the parade as it travels through Harrowsmith and then visit the Social and Athletic Club at 4401 Colebrooke Rd for free hotdogs, hot chocolate, homemade treats and a visit with Santa.

The parade and open house is sponsored by Harrowsmith Social and Athletic Club.

# BUCK LAKE COMMUNITY

## RECEIVES NATIONAL PHILANTHROPY DAY AWARD

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November 12 marked a special day for the Buck Lake Boatilla and the Buck Lake community. Kingston's City Hall honoured the community for its 11 years of support in sending kids with physical disabilities to Easter Seals Camp Merrywood.

Annette Paul, President, of the Association of Fund Raising Professionals, Easter Seals Ontario, Southeastern Region stated "the National Philanthropy Day Awards were created to recognize people, organizations, institutions and corporations that have made an enduring and impactful commitment to our community through the generosity of their time and talent and in support of causes and issues that affect many of our citizens. Our admirable and worthy nominees were named and touted because they embody the true spirit of giving, and through their philanthropy, contribute to making our communities and society a better place. Nominated by Easter Seals Ontario, South Eastern Region, it is our pleasure to give the Award for Outstanding Corporation/Organization 100 Employees/Members and Over to the Buck Lake community."

"It was my pleasure to nominate the Buck Lake community for this award" observed Krista LeClair Development Officer for Easter Seals Ontario. "The Buck Lake community has fundraised for the last 11 years. The organization committee was originally the local Community Watch but they transitioned in to the Buck Lake Boatilla fully in support of sending kids to Camp Merrywood. The Buck Lake community donates 100% of all funds raised to the Easter Seals 'Send a Kid to Camp' program, giving kids with physical disabilities the opportunity to boat, swim and fish at the fully accessible Camp Merrywood on the Big Rideau. Since its inception the annual Buck Lake Boatilla has raised over \$162,000 for Easter Seals Ontario and has sent 63 kids to Merrywood".

The Boatilla Committee would like to thank all local and extended members of the Buck Lake community for your support of the Buck Lake Boatilla over the years. You have truly gone above and beyond in supporting our cause and by doing so have made our community a better place and ensured a better life for kids with physical disabilities.