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## MEMO

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**DATE** May 1, 2026 **PROJECT NO.** 3114-7873  
**RE** 11179 Derry Road Sanitary Servicing Assessment

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**TO** Lakhvir Randhawa  
**FROM** Kyle Wetherall, B.Sc. – C.F. Crozier & Associates  
**CC** Rob Russell, MCIP, RPP – Robert Russell Planning Consultants Inc.

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### 1.0 Introduction

C.F. Crozier & Associates (Crozier) has been retained by Century 21 Realty Inc. (Client) to complete a sanitary servicing assessment for the proposed commercial redevelopment located at 11179 Derry Road in the Town of Milton (Site). The purpose of this letter is to support the Zoning By-Law Amendment (ZBA) application for the proposed commercial redevelopment of the Site. The opinions in this letter are based on the information provided to date and a Site visit completed by Crozier on April 29, 2026.

### 2.0 Site Description

The Site covers an area of approximately 0.37 ha and currently consists of an existing two-story dwelling. The property, located in the Derry Green Secondary plan neighbourhood, is bounded by future business park lands to the west and north, a residential property to the east, and Derry Road West to the south. The Site is currently serviced by a private onsite sewage system and water supply well. The Region of Halton has proposed an expansion of the municipal sanitary sewer along Derry Road; however, construction timelines are unknown. Therefore, the Site will continue to be serviced by an onsite sewage system.

The Site is proposed to be converted into an office building under a ZBA application. No additions or modifications to the existing structure are proposed.

Crozier was retained to complete an assessment of the sanitary servicing requirements for the proposed Site redevelopment, including inspection and evaluation of the existing infrastructure to determine regulatory compliance and suitability for the proposed occupancy.

### 3.0 Soil Conditions

At the time of this assessment, detailed geotechnical or hydrogeological investigations have not been completed. However, based on review of local and regional soils and groundwater studies, the Ministry of the Environment, Conservation and Parks (MECP) Well Records database, and Crozier's general experience with properties in the neighboring area, a shallow layer of topsoil overlying layers of sandy clay to silty clay may be encountered. For the purposes of this

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The material in this memo reflects best judgment in light of the information available at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. C.F. Crozier & Associates Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

review, a conservative T-time estimate of 50 min/cm has been considered for sewage system sizing. However, we recommend that test pits be completed to confirm site specific soil and groundwater conditions. The result of this investigation will confirm the findings outlined within this letter and support the detailed design phase.

#### 4.0 Sanitary Sewage Flows

As noted above, the proposed redevelopment will consist of repurposing the existing dwelling as an office. Based on discussions with the Client, 50% (100 m<sup>2</sup>) of the total floor area will be used as office space and meeting rooms and the remainder of the building will be allocated to storage and other uses. The total daily design sanitary sewage flow for the proposed redevelopment was calculated in accordance with information provided by the Client and Table 8.2.1.3.B of the Ontario Building Code (OBC), based on occupancy for the building as described below:

**Table 1: Total Daily Design Sanitary Sewage Flow**

Description	Area (m <sup>2</sup> )	Unit	Unit Flow (L/day)	Number of Units	Total Flow (L/day)
Office <sup>(1)</sup>	100 <sup>(2)</sup>	Per employee per 8-hr shift; or	75	10	750
		Per each 9.3 m <sup>2</sup> floor space	75	11	<b>825</b>
Total Daily Sanitary Sewage Flow:					825
<b>Total Design Daily Sanitary Sewage Flow:</b>					<b>825</b>

- (1) Where multiple calculations of sanitary sewage volume are permitted, the calculation resulting in the highest flow shall be used in determining the daily design sanitary sewage flow.  
 (2) Office floor space is estimated as 50% of the floor area; the remaining floor space is allocated to storage, washrooms, break room, etc.

Based on the results outlined in Table 1, the total daily design sanitary sewage flow is 825 L/day.

#### 5.0 Existing Sewage System Assessment

The existing sewage system is considered the preferred method of servicing the proposed redevelopment. The date of installation of the existing sewage system is unknown. At the time of this assessment, a copy of the building permit or design drawings/information were not available for review and consideration. The size and location of the sewage system components were determined in the field by Crozier, as discussed below.

##### 5.1 Condition Assessment

Crozier staff visited the Site on April 29, 2026 to complete a surficial and intrusive investigation of the existing sewage system to confirm component sizing and assess the condition of the sewage works. The results of the investigation include the following:

- The location of the tank was identified upon arrival and the exterior tank width and length were measured using a probe from surface. After opening up the access lid above the tank inlet, a liquid level measuring device was used to confirm the tank depth.

A 2,700 L working capacity is estimated based on the measurements. The tank is located 2 m from the dwelling and 42 m from the onsite well.

- An in-ground absorption trench leaching bed comprised of four (4) runs spaced 1.5 to 1.8 m, each approximately 18 m for a total of 72 m of distribution piping was identified using a probe from surface followed by several spot excavations. The bed is located approximately 3.5 m from the northeast property boundary, 14.1 m from the southeast property line, 9.5 m from the dwelling and 48 m from the onsite well. A surficial inspection of the entire area of the bed revealed no evidence of vulnerability or failure. No standing water was observed in the excavations, and the pipe and surrounding stone showed no signs of biomat accumulation. Overall, the bed appeared to be in good condition and working order.

The location of the system on the Site is provided on the Site Layout figure appended to this letter.

## 5.2 Capacity Assessment

The following capacity assessment of the existing sewage system includes an analysis of the septic tank and leaching bed compared to the required capacity as determined in accordance with the sewage system design flow identified in Section 3.0 and the requirements of the current version of the OBC. This analysis was completed based on the observations and findings from Crozier's site assessment outlined in Section 4.1.

Septic tank capacity is assessed in Table 2 below. According to OBC Sentence 8.2.2.3.(1), the minimum working capacity of a septic tank shall be the greater of 3,600 L or three times the daily design sanitary sewage flow for non-residential occupancies.

**Table 2: Septic Tank Size Capacity Assessment**

Measurements from Site (m)			Total Daily Design Flow (L/day)	Estimated Volume of Existing Septic Tank (L)	Required Septic Tank Size (L)	Capacity Assessment Notes
L	W	D				
1.9	0.8	1.8	825	2,700	3,600	Insufficient

The leaching bed appears to have been constructed as conventional in-ground absorption trenches. The capacity of the bed is assessed in Table 3 below. According to OBC Sentence 8.7.3.1.(2), the total minimum length of absorption trenches required is determined by the formula  $QT/200$  where Q is the total daily design sanitary sewage flow and T is the percolation rate of the underlying soils. A T-time of 50 min/cm has been assigned for assessment purposes as outlined in Section 2.0 above.

**Table 3: Absorption Trench Bed Capacity Assessment**

Design Sewage Flow (Q)	T-time (min/cm)	Length of Distribution Pipe Required (m)	Estimated Length of Existing Distribution Pipe (m)	Capacity Assessment Notes
		$QT/200$	Length of runs * number of runs	
825	50	207	72	Insufficient

It is Crozier's opinion that based on the available information and assumptions provided, the sewage system does not have sufficient capacity to conform to the requirements in Part 8 of the OBC. Any sewage system requirements for the proposed building change of use will be confirmed through the change of use permit.

## 6.0 Proposed Sewage System

As noted above, it is assumed that the existing sewage system does not have sufficient capacity to service the proposed development until further review and investigation is completed. Given the design flow and the available area to the southeast of the existing leaching bed, an expansion of the existing sewage system is proposed.

The existing septic tank is estimated to have a working capacity of 2,700 L. For the proposed daily design flow of 825 L/day, a minimum 3,600 L tank is required. Therefore, a new 3,600 L septic tank is proposed.

The existing absorption trench leaching bed is assumed to be comprised of four (4) runs of 18 m for a total of 72 m of distribution pipe and footprint of 18 m x 7.4 m. For the proposed daily design sewage flow of 825 L/day, an additional 135 m are required per Sentence 8.7.3.1.(2) of the OBC. The installation of eight (8) additional runs of 18 m to the existing leaching bed is proposed, increasing the total pipe length to 216 m and footprint to 18 m x 15.6 m (281 m<sup>2</sup> total). To ensure the leaching bed is compliant with all aspects of Subsection 8.7.3 of the OBC, an intrusive evaluation of the existing leaching bed should be completed prior to detailed design and building permit application. This investigation should include observing the condition of the header pipe, advancing test pit(s) to confirm the soil and groundwater conditions, and confirm the presence or absence of fill material beneath the trenches.

Should the investigation conclude that the existing trenches are not suitable for expansion, alternative servicing options such as a conventional filter bed or a new absorption trench system may be considered as viable alternatives that comply with OBC 8.7.3 and service the Site.

As indicated previously, the Region of Halton has proposed an expansion of the municipal sewer along Derry Road however construction timelines are unknown. OBC 8.8.1 outlines the acceptable circumstances for the installation of a Class 5 sewage system, otherwise known as a holding tank for the retention of hauled sewage to be removed and disposed of offsite. According to 8.8.1.2.(1)(d), an acceptable use of a Class 5 system would be as an interim measure until municipal sewers are available. Further confirmation with the Town of Milton and the Region of Halton would be required to determine the feasibility of this sanitary servicing approach for the Site.

Refer to the Proposed Sewage System Layout figure appended to this letter regarding the location, layout, orientation and size of the proposed sewage system. As shown, an appropriately sized sewage system designed in accordance with Part 8 of the OBC can be accommodated on the Site. Prior to detailed design and building permit application, the floor space for the office should be confirmed and a copy of the approved building permit for the existing system should be obtained and reviewed.

## 7.0 Conclusions and Recommendations

Based on the foregoing, the following conclusions and recommendations are provided:

- The total daily design sewage flow for the proposed building use is 825 L/day. The building is currently serviced with an onsite sewage system consisting of a septic tank and an absorption trench leaching bed. An assessment of the existing sewage system was completed to determine if the sewage system is compliant with the OBC and can service the proposed building use.
- The existing 2,700 L septic tank meets current OBC setbacks to the building and onsite well, however it is assumed that it does not have sufficient capacity for the proposed redevelopment. Requirements will be confirmed for the change of use permit, however a new 3,600 L septic tank is proposed.
- The existing absorption trench leaching bed appears to be in good condition and working order and meets current OBC setbacks to the property lines, building and the onsite well, however it is assumed that it does not have sufficient capacity for the proposed redevelopment. Requirements will be confirmed for the change of use permit, however the installation of eight (8) additional 18 m runs for a total of 216 m of distribution pipe are proposed.
- It is recommended that a copy of the approved building permit for the existing sewage system is obtained from the Town of Milton to verify and confirm the findings within this letter.
- A detailed intrusive investigation of the existing septic tank and leaching bed are recommended to ensure they are compliant with all aspects of Article 8.2.2.3 and Subsection 8.7.3 of the OBC prior to advancing to detailed design and building permit application.

Sincerely,

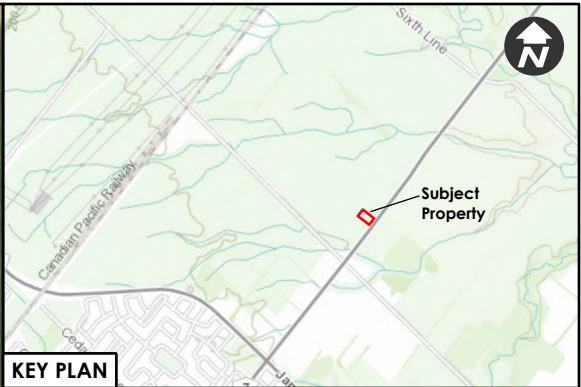
**C.F. CROZIER & ASSOCIATES INC.**



Kyle Wetherall, B.Sc.  
Specialist, Private Service, Land Development  
KW/

Encl. Figure 1: Site Layout  
Figure 2: Proposed Sewage System Layout

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KEY PLAN

LEGEND

- WELL
- 15 METRE WELL SETBACK
- PROPERTY BOUNDARY
- EXISTING SEPTIC TANK
- EXISTING LEACHING BED

Well ID Unknown

2m

9.5m

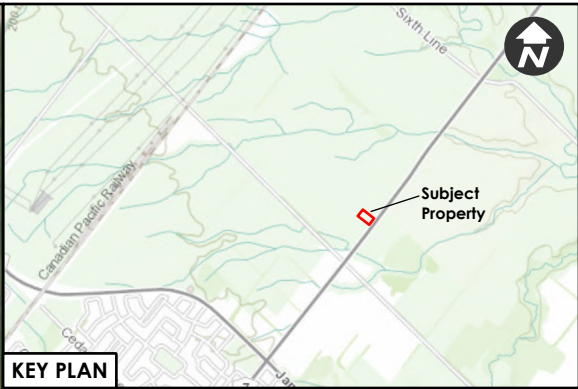
3.5m

14.1m



11179 DERRY ROAD W  
SITE LAYOUT

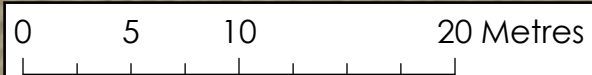




KEY PLAN

**LEGEND**

- WELL
- 15 METRE WELL SETBACK
- PROPERTY BOUNDARY
- PROPOSED LEACHING BED
- PROPOSED SEPTIC TANK



**11179 DERRY ROAD W**  
 PROPOSED SEWAGE SYSTEM  
 LAYOUT



BASE MAP SOURCE: Peel Region, Town of Oakville, Microsoft, Vantor, Town of Milton, Region of Peel, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, AAFC, NRCan