

**TYPICAL NEW HOME CHARACTERISTICS AND PRIVATE CLASS 4 SEPTIC SYSTEM ENVELOPE**

This assessment has been completed to demonstrate that each lot is a sufficient size to allow for the construction of a conventional (filter bed) septic system. This plan is not for building permit approval. A site specific site/waste/grading plan is required for final home design and location.

This plan provides assumed typical building characteristics and is provided for land division approvals only. The plan is not meant to limit the proposed building size or characteristics to the assumed values. It is also not meant to necessarily limit the type of treatment system to specified alternatives.

Conventional systems are indicated for lot sizing only. A level 4 treatment system with Type A treatment bed is recommended for the severed lot.

**TYPICAL NEW HOME CHARACTERISTICS**

Design is based on 4 bedroom home with total living area = 300 m<sup>2</sup>, total fixture count ~ 30, design daily sewage flow = 3000 L/day.

**SOIL T-TIME DETERMINATION** – Design T-time of 35 min/cm, based on sample gradation conducted by LDS Consultants Inc.

**SEPTIC SYSTEM SIZING - Filter Bed Design**

Septic Design Load = 3000 L/day  
Min. Loading Area, loading rate of 8 L/m<sup>2</sup> /day = 375 m<sup>2</sup>  
For design purposes, bed size is 16.0 m x 23.4 m in size

Septic Tank = 2Q = 6000 L  
Recommend standard 1500 gallon concrete tank.

**Septic System Setbacks, as per Ontario Building Code**

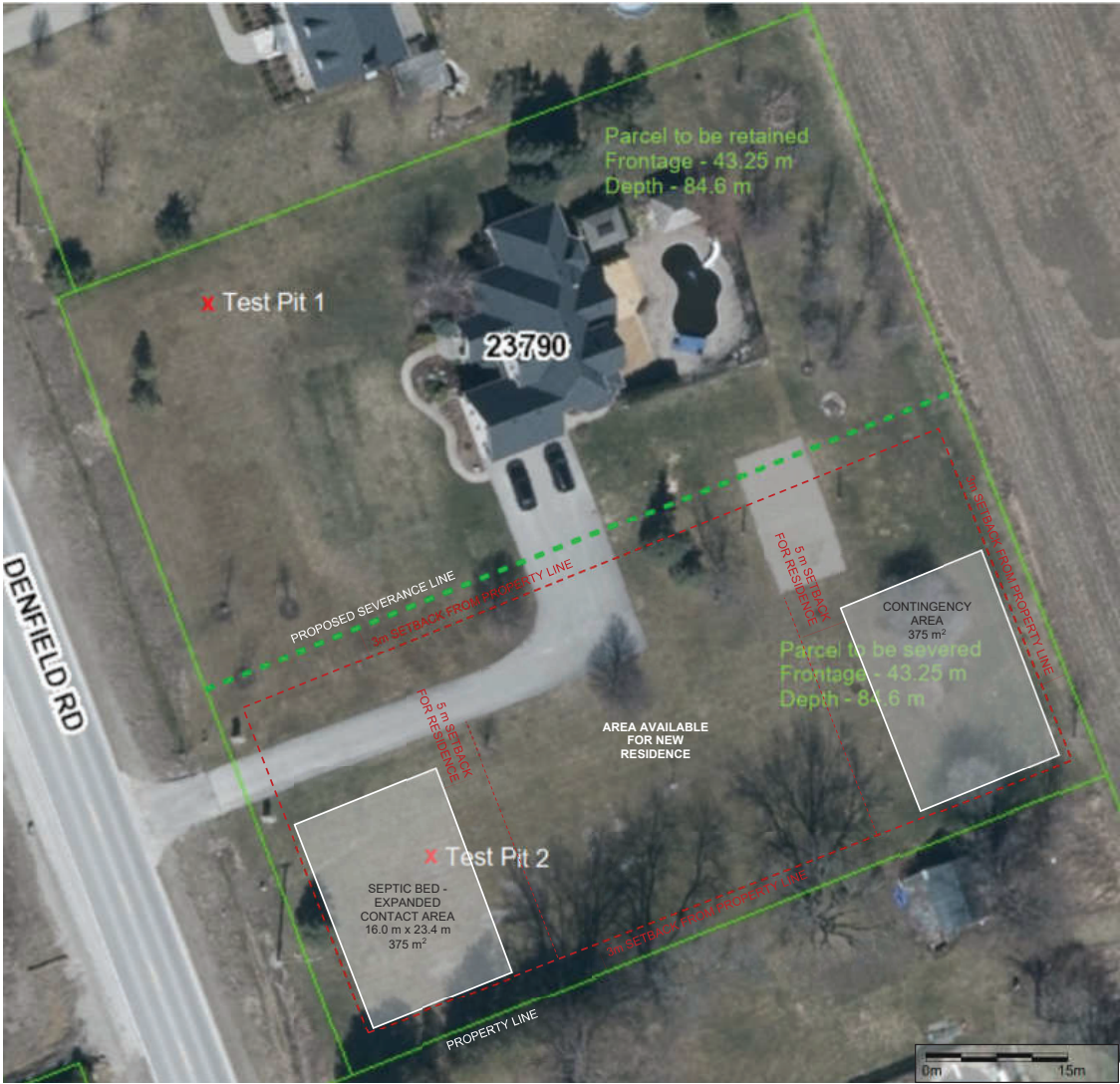
- Septic system to property line, 3 m
- Septic system to residence, 5 m
- Septic system to cased well, 15 m
- Septic tank to residence, 1.5 m

**NITRATE IMPACT ASSESSMENT**  
(as per MECP D-5-4 Guideline)

Maximum allowable nitrate conc. at boundary = 10 mg/L  
Assume background nitrate concentration of 1.2 mg/L, as per Environmental Canada Study,  
Annual Precipitation – 1011.5 mm/year;  
Evapotranspiration – 569.3 mm/year;  
Infiltration factor 0.7;  
Severed parcel size = 3299 m<sup>2</sup>

Nitrate conc. for conventional septic – 9.93 mg/L  
Nitrate conc. for Level 4 septic – 7.22 mg/L

Level 4 treatment system with a Type A treatment bed is recommended for the severed lot.



**SOURCE:**  
Middlesex County Mapping, Online aerial Imagery

**LDS**

**PROJECT NAME**

Proposed Lot Severance

**PROJECT LOCATION**

23790 Denfield Road,  
Denfield, Ontario

**DRAWING NAME**

Conceptual Servicing Plan

**SCALE**

As Shown

**PROJECT NO.**

GE-00725

**DATE**

June 2022

**DRAWING NO.**

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