

SEWAGE SYSTEMS SEPTIC

Septic Permit Package

A step by step guide for
making a septic permit
application



Norfolk County Building Department
Community Development Division
norfolkcounty.ca



Septic System Permit Application Permit Package / Worksheets

A septic permit is required to install a new septic system, repair or replace any part of the septic system. The daily design flow needs to be 10,000 litres/day or below for the whole site.

Sewage Works is required if the daily design flow exceed 10,000 litres/day for the whole site. An Environmental Compliance Certificate (ECA) is required from the Ministry of Environment, Conservation and Parks (MECP) for a sewage works. [Environmental Compliance Approval process can be found online.](#)

Ministry of Environment, Park and Conservation keep [well records.](#)

NEW CONSTRUCTION AND FULL SYSTEM REPLACEMENTS

A COMPLETE SEPTIC SYSTEM APPLICATION INCLUDES:

Completed Forms

- Application to Construct or Demolish
- Schedule 1: Designers Information signed by system designer.
- Schedule 2: Septic System Installers Information signed by the applicant.
- Applicant Authorization Form if applicant is not the property owner.

Required Documents

- Septic work sheets, plot plan and system cross section.
- Percolation time ('T' time) from a licensed soil testing agency
- Building Material Evaluation Commission (BMEC) or CAN/ BNQ "Onsite Residential Wastewater Treatment Technologies" approvals (if applicable)

Fees

- Septic Permit Fee

BUILDING ADDITIONS, RENOVATIONS AND CONSTRUCTION THAT AFFECT THE SEWAGE DISPOSAL SYSTEM

Renovations to existing buildings may reduce the performance level of the sewage system in the following situations

- The number of bedrooms in a dwelling are increased,
- If the proposed construction exceeds 15% of the gross area of the dwelling unit,
- New plumbing fixtures are added to the dwelling, or
- If the addition, expansion, alteration or change proposed encroaches on the sewage system or any of its components.

If any of the above apply, applicants must submit a completed septic application to Norfolk County Building Department for approval to renovate.

Worksheet A: Dwellings - Daily Design Flow Calculations (Q)

A) Residential Occupancy		(Q) Litres	Total
Number of Bedrooms	1 Bedroom	750	
	2 Bedrooms	1100	
	3 Bedrooms	1600	
	4 Bedrooms	2000	
	5 Bedrooms	2500	
Subtotal (A)			

B) Plus Additional Flow for:			
Note: Use the largest additional flow calculation to determine Daily Design Flow (Q). If none apply Subtotal (B) is zero.			
	Quantity	(Q) Litres	Total
Either	Each bedroom over 5	500	
Or	Floor space for each 10m ² over 200m ² up to 400m ²	100	
	Floor space for each 10m ² over 400m ² up to 600m ²	75	
	Floor space for each 10m ² over 600m ²	50	
Or	Each Fixture Unit over 20 fixture Units (Total of Worksheet B - 20 = Quantity)	50	
Subtotal (B)			
Subtotal A+B=Daily Design Flow (Q)			

Worksheet B: Dwellings Fixture Unit Count

Fixtures	Units	How Many?	Total
Bath group (toilet, sink, tub or shower) with flush tank	6.0	X	=
Bathtub only(with or without shower)	1.5	X	=
Shower stall	1.5	X	=
Wash basin / Lavatory (1.5 inch trap)	1.5	X	=
Water closet (toilet) tank operated	4.0	X	=
Bidet	1.0	X	=
Dishwasher	1.0	X	=
Floor Drain (3 inch trap)	3.0	X	=
Sink (with/without garbage grinder, domestic and other small type single, double or 2 single with a common trap)	1.5	X	=
Domestic washing machine	1.5	X	=
Combination sink and laundry tray single or double (installed on 1.5 inch trap)	1.5	X	=
Other:			
Total Number of Fixture Units:			

1. Refer to Ontario Building Code Division B Table 7.4.9.3 for a complete listing of fixture types and units.
2. Where the laundry waste is not more than 20% of the total daily design flow, it may discharge to the sewage system. OBC 8.1.3.1(2)
3. Sump pumps are not to be connected to the sewage system. Connection to sewage system may lead to a hydraulic failure of the system.

Worksheet C: Other occupancies types

Camp for the Housing of Workers	Number of Employees	(Q) Litres	Total
Note: building size, number of bedrooms and fixture count are not required for a Camp for the Housing of Workers		250	
Daily Design Flow (Q)			

Other Occupancy Daily Design Flow Calculation (Q)

To calculate the daily design flow for occupancies, please refer to Ontario Building Code Division B – Part 8 Table 8.2.1.3.B

Establishment	Operator Example: number of seats, per floor area, number of employees/students	Volume Litres	Total
Daily Design Flow (Q)			

Work Sheet D: Septic Tank Size

Minimum septic tank size permitted by the Ontario Building Code is 3600 litres.

Occupancy type	Daily Design Flow (Q)	Minimum tank size (L)
Residential Occupancy house, apartment, camp for housing of workers		x 2 =
All Other Occupancies		x 3 =

Worksheet E: Leaching Bed Calculations (Class 4)

Part 1: Complete All	
Type of leaching bed (select one) <input type="checkbox"/> A. Absorption trench <input type="checkbox"/> B. Filter Bed <input type="checkbox"/> C. Shallow Buried Trench <input type="checkbox"/> D. Advance Treatment System <input type="checkbox"/> E. Type A Dispersal Bed <input type="checkbox"/> F. Type B Dispersal Bed	
Percolation rate of native soil (T): _____	
Name of licensed testing agency: _____	
<input type="checkbox"/> In ground system <input type="checkbox"/> Raised Bed system	Height raised above original grade (metres)
Mantel (if applicable) <input type="checkbox"/> Imported <input type="checkbox"/> Native Soil Q/loading rate = _____ m ² Configured as: _____ m X _____ m	

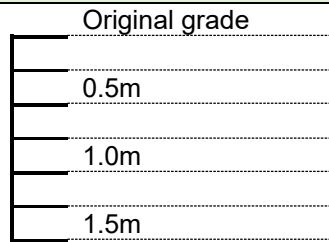
Part 2: Complete One of A, B, C, D, E, F									
<input type="checkbox"/> A. Absorption Trench									
Total length of distribution pipe	Conventional $(Q \times T) \div 200 =$ _____ m Type I leaching chambers $(Q \times T) \div 200 =$ _____ m Type II leaching chambers $(Q \times T) \div 300 =$ _____ m Configured as: _____ runs of _____ m Total: _____ m								
<input type="checkbox"/> B. Filter Bed									
Effective Area If $Q \leq 3000$ litres per day use $Q \div 75$ If $Q > 3000$ litres per day use $Q \div 50$ Level II-IV treatment units, use $Q \div 100$ Distribution Pipe Contact Area = $(Q \times T) \div 850$ Mantel (see Part 1)	Effective area: _____ (Q) \div _____ (75, 50, or 100) = _____ m ² Configured as: _____ m x _____ m Number of beds _____ Number of runs: _____ Spacing of runs: _____ m Contact Area: $(\text{_____ (Q)} \times \text{_____ (T)}) \div 850 =$ _____ m ²								
<input type="checkbox"/> C. Shallow Buried Trench									
<table border="1"> <tr> <th>Percolation time (T) of soil in minutes:</th> <th>Length of distribution pipe (metres)</th> </tr> <tr> <td>$1 < T \leq 20$</td> <td>$Q \div 75$ metres</td> </tr> <tr> <td>$20 < T \leq 50$</td> <td>$Q \div 50$ metres</td> </tr> <tr> <td>$50 < T < 125$</td> <td>$Q \div 30$ metres</td> </tr> </table>	Percolation time (T) of soil in minutes:	Length of distribution pipe (metres)	$1 < T \leq 20$	$Q \div 75$ metres	$20 < T \leq 50$	$Q \div 50$ metres	$50 < T < 125$	$Q \div 30$ metres	$(L) =$ _____ (Q) \div _____ (75, 50, 30) = _____ m Configured as: _____ runs of _____ m Total: _____ m
Percolation time (T) of soil in minutes:	Length of distribution pipe (metres)								
$1 < T \leq 20$	$Q \div 75$ metres								
$20 < T \leq 50$	$Q \div 50$ metres								
$50 < T < 125$	$Q \div 30$ metres								
<input type="checkbox"/> D. Advance Treatment System									
Provided BMEC or CAN/BNQ approval, and manufacturer's system design documentation.									
<input type="checkbox"/> E. Type A Dispersal Bed									
Stone Layer If $Q \leq 3000$ litres per day, use $Q \div 75$ If $Q > 3000$ litres per day, use $Q \div 50$ Sand Layer $1 < T \leq 15$ use $(Q \times T) \div 850$ $T > 15$ use $(Q \times T) \div 400$	Stone Layer = _____ (Q) \div _____ (75 or 50) = _____ m ² Sand Layer = $(\text{_____ (Q)} \times \text{_____ (T)}) \div (850 \text{ or } 400) =$ _____ m ²								
<input type="checkbox"/> F. Type B Dispersal Bed									
Area = $(Q \times T) \div 400$ Linear Loading Rate (LLR) $T < 24$ minutes, use 50 L/min $T \geq 24$ minutes, use 40 L/min	Area = $(\text{_____ (Q)} \times \text{_____ (T)}) \div 400 =$ _____ m ² Pump chamber capacity = _____ L Length $(Q \div \text{LLR}) =$ _____ m Bed configuration = _____ m x _____ m = _____ m ² Number of Beds = _____								
Distribution Pipe	Configured as: _____ runs of _____ m Total: _____ m								

Worksheet F: Cross Sectional Drawings

Subsoil Investigation – Test pit

1. Soil sample to be taken at a depth of
2. Test pit to be a minimum 0.9m

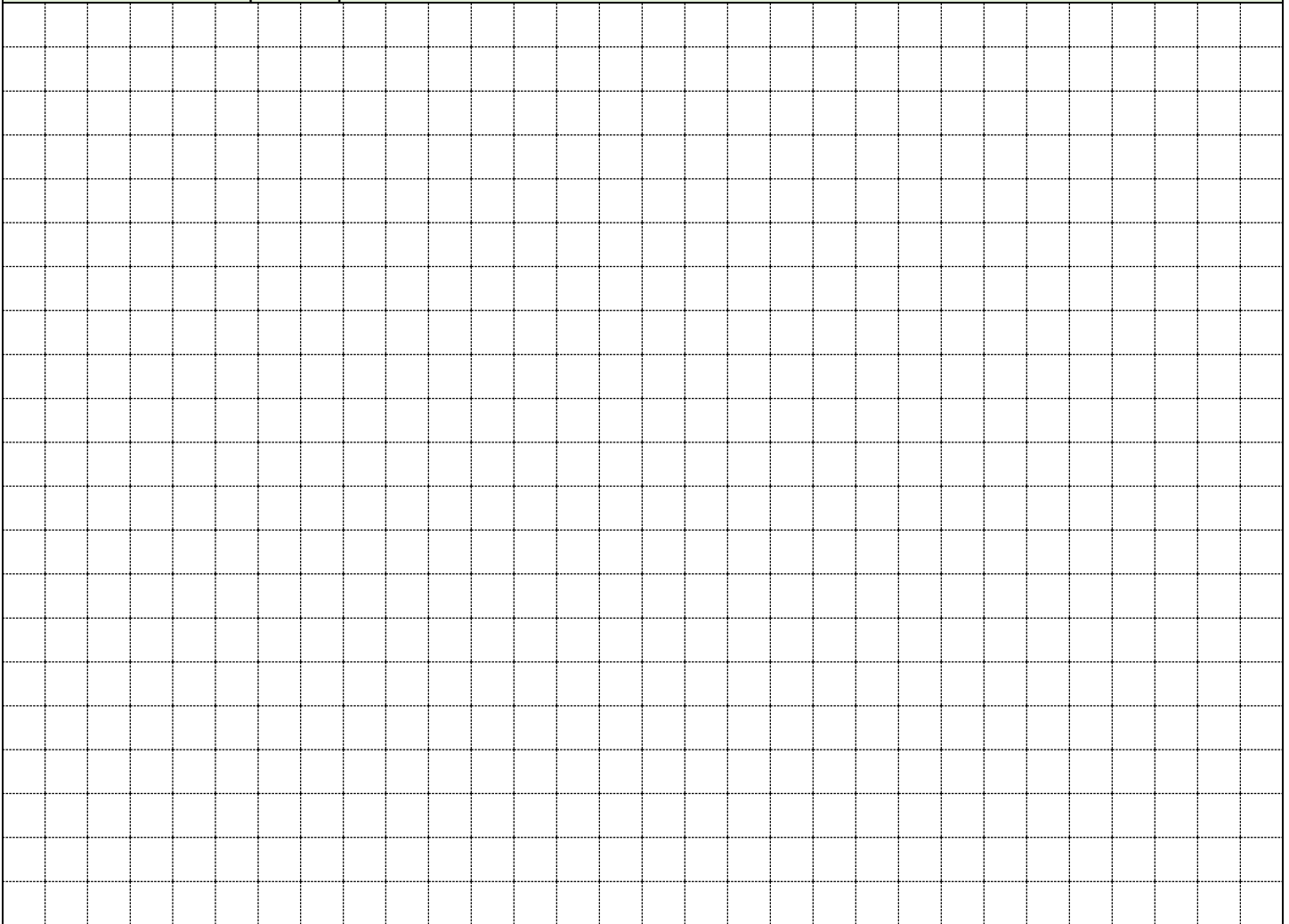
Indicate level of rock and ground water level below original grade.



Soil and subgrade investigation. Indicate soil types

Cross sectional drawings are required for all septic systems

1. Location of existing grade.
2. Measurements to each component, distances to water table
3. Label each septic component.



Worksheet G: Septic Plot Plan

Please provide the following information on this work sheet:

1. Location of sewage system and its components (e.g. tank, leaching bed, pump chamber)
2. Location of all buildings, pools and wells on the property and neighbouring properties
3. Locate and show minimum clearances for treatment units and distribution piping of items. Ontario Building Code, Division B, Table 8.2.1.6.A. and 8.2.1.6.B.
4. Location of property lines, easements, and utility corridors.

A large grid of dotted lines for drawing a septic plot plan. The grid consists of 20 columns and 30 rows of small squares, providing a space for the user to draw and label the septic system components and property boundaries.