

INFORMATION PACKAGE FOR A SEWAGE SYSTEM APPLICATION

On-site sewage systems are regulated by the Ontario Building Code, O. Reg. 332/12 made under the Ontario Building Code Act, S.O. 1992, c. 23 provided that:

- The total daily design sanitary sewage flow does not exceed 10,000 litres per day; and
- The on-site sewage system and all building(s) the sewage system services are located on the same parcel of land.

This information package is meant to be used for guidance only when completing the application for a sewage system permit. Be advised that the Building Code Act and the Ontario Building Code supersede any discrepancies with this document.

**NO PERSON SHALL CONSTRUCT, REPAIR, ALTER, INSTALL OR PERFORM ANY WORK ON A SEWAGE SYSTEM
UNLESS A BUILDING PERMIT HAS BEEN ISSUED**

CLASSES OF SEWAGE SYSTEMS

- CLASS 1** A sewage system that is used for the disposal of human body waste (no added water). A permit is not required for the construction of a Class 1 sewage system. Examples include: earth pit privy (outhouse), composting toilet (no overflow), and privy vault.
- CLASS 2** A sewage system that is used for the disposal of greywater from a sink, tub, shower, or laundry units. Also commonly known as a *leaching pit*. A permit is required for the construction of a Class 2 sewage system.
- CLASS 3** A sewage system that is used for the disposal of human body wastes from another type of sewage system, such as overflow waste from a composting toilet. Also commonly known as a *cesspool*. A permit is required for the construction of a Class 3 sewage system.
- CLASS 4** A sewage system that is used for the disposal of domestic sewage. The system includes a treatment unit and leaching bed (e.g. septic tank and filter bed). A permit is required for the construction of a Class 4 sewage system.
- CLASS 5** A sewage system that is used for the disposal of domestic sewage. The system includes a holding tank for the retention of sewage and must be emptied by a licensed sewage hauler. A permit is required for the construction of a Class 5 sewage system.

How to Complete the Application Form

A. Project Information

This section must be completed in its entirety. An agent authorized by the owner to act on their behalf must attach a written letter of authorization to the application form or the owner must sign the last page of the application form. Property descriptions may be located on transfer deeds, surveys or tax bills. A copy of either the transfer deed or tax bill must accompany the application in order to confirm the property description and provide proof of ownership.

B. Purpose of Application

For a sewage system, the purpose will typically be either *new construction* or *alteration/repair*. Select the appropriate box, describe the proposed and current uses of buildings and describe the nature of the work in the box provided.

For example:

- check *new construction* for the installation of a new sewage system
- proposed use of building – residential
- current use of building – vacant lot
- description of proposed work – install new sewage system to service a proposed dwelling

C. Applicant

The applicant is the individual making application for the sewage system permit. This individual could be the property owner, builder, relative, installer, etc. If the applicant is not the property owner, a letter of authorization must accompany the application or the property owner must sign the last page of the application.

D. Owner

This section must list the owner's information. The address listed here must be the mailing address NOT the property address; in some cases, it may be the same.

E. Builder

If the builder is known, provide their information here. If this information is not provided, the builder will not be able to access the sewage system permit information.

F. Tarrion Warranty Corporation

This section must be completed in its entirety.

G. Required Schedules

Schedules are already attached and will be completed later in the application.

H. Completeness and compliance with applicable law

This section must be completed in its entirety.

Applicable Law:

Before a permit for a sewage system will be issued, applicable law (Act, regulation, or by-law) must be complied with.

Examples include:

- Municipal zoning By-law
- Conservation Authority
- Planning Act

I. Declaration of Applicant

This section must be completed in its entirety.

Schedule 1: Designer Information

The Schedule 1 must be completed in its entirety. This section refers to the designer of the sewage system, not the building. If a property owner is submitting their own design, the design work is exempt from registration and qualification on the basis that a property owner is entitled to design their own sewage system, under O. Reg. 332/12, Div. C, Part 3. If the installer of the sewage system is providing the design for their own installation, the installer would be listed as an “other designer”.

Schedule 2: Sewage System Installer Information

The Schedule 2 must be completed in its entirety and should be completed by a Qualified Sewage System Installer. The signature of the property owner or agent is required in order to authorize the work.

If the property owner is installing their own sewage system, then only sections A, B, and E need to be completed. Under section B, the middle box (“no”) is selected because the property owner is not engaged in the *business* of constructing... sewage systems.

Directions to the Property

This section must be completed for every application. Provide detailed directions to the property.

Site and Design Information

This section must be completed in its entirety.

Water Supply – complete details

State number of Fixture Units – complete details and calculations as appropriate
(see chart below)

All fixtures must be accounted for, including rough-ins.

Fixture Unit Type	Fixture Unit Volume
Water Closets (Toilets)	X4
Kitchen Sink (A double sink to one trap is counted as 1)	X1.5
Wash Basin (e.g. bathroom sink)	X1.5
Bathtub and/or Shower	X1.5
Dishwasher – separately plumbed	X1.0
Dishwasher – plumbed through kitchen sink	X 0
Clothes Washing Machine	X1.5
Single or Double Laundry Tub	X1.5
Floor Drains – 2” trap	X2.0
Floor Drains – 3” trap	X3.0

Total Number of bedrooms: All bedrooms on the property including the dwelling unit (main floor, upper stories, and basement) and sleeping cabins/lofts.

Finished Area: The total amount of finished area on the property, including the primary dwelling and all outbuildings including sleeping cabin(s), garage loft, sunroom, etc.

Note: the area of the finished basement is excluded.

Total Fixture Units: The number calculated above.

Total Design Sanitary Sewage Flow: The total design sanitary sewage flow is referred to as “Q” in the formulas used below.

Table 8.2.1.3.A. Residential Occupancy	Volume (Litres)
Boarding houses	
a: Per person,	
i) with meals and laundry facilities, or	200
ii) without meal or laundry facilities, and	150
b: Per non-resident staff per 8 hour shift	40
Boarding School - per person	300
Dwellings	
a) 1 bedroom dwelling	750
b) 2 bedroom dwelling	1100
c) 3 bedroom dwelling	1600
d) 4 bedroom dwelling	2000
e) 5 bedroom dwelling	2500
f) Additional flow for ⁽²⁾	
i) each bedroom over 5	500
ii) (A) each 10 m ² (or part of it) over 200 m ² up to 400 m ²	100
(B) each 10 m ² (or part of it) over 400 m ² up to 600 m ² , and	75
(C) each 10 m ² (or part of it) over 600 m ² , or	50
iii) each fixture unit over 20 fixture units	50
Hotels and Motels (excluding bars and restaurants)	
a) Regular, per room	250
b) Resort hotel, cottage, per person	500
c) Self service laundry, add per machine	2500
Work Camp/Construction Camp, semi-permanent per worker	250
Column 1	2

Notes for Table 8.2.1.3.A:

1. The occupant load shall be calculated using Subsection 3.1.17.
2. Where multiple calculations of sewage volume is permitted the calculation resulting the highest flow shall be used in determining the design daily sanitary sewage flow.
3. Total finished area, excluding the area of the finished basement.

For all other occupancies, the total daily design flow rate shall be at least the value as stated in Column 2 from Table 8.2.1.3.B of the Ontario Building Code.

Soils

This section must be completed in its entirety.

Two test holes, 1.8 metres deep, provides the method by which you can observe the subsoil profile and ground water conditions in the proposed location of the leaching bed. The test holes must be open and available for inspection purposes. Ensure the test holes are protected for safety reasons.

Depth to Bedrock: Distance from original grade to bedrock (if encountered).

Depth to high ground water table: Distance from original grade to high water table (if encountered).

Percolation Rate: The percolation rate ("T") means the average time in minutes that is required for water to drop one centimetre during a percolation test onsite or as determined by soils analysis.

Approximate Relationship to Soil Types To Permeability and Percolation Time			
Soil Type	Coefficient of Permeability K- cm/sec.	Percolation Time T- mins/cm.	Comment
G.W. - Well graded gravels, gravel-sand mixtures, little or fines.	10^4	< 1	very permeable unacceptable
G.P. - Poorly graded gravels, gravel-sand mixtures, little or no fines.	10^4	< 1	very permeable unacceptable
G.M. - Silty gravels, gravel sand silt mixtures.	$10^2 - 10^4$	4 - 12	Permeable to medium permeable depending on amount of silt.
G.C. - Clayey gravels, gravel-sand-clay mixtures.	$10^4 - 10^4$	12 - 50	Important to estimate amount of silt and clay
S.W. - Well graded sands, gravelly sands little or no fines.	$10^4 - 10^4$	2 - 12	medium permeability
S.P. - Poorly graded sands gravelly sand, little or no fines.	$10^4 - 10^3$	2 - 8	medium permeability
S.M. - Silty sands, sand, sand-silty mixtures.	$10^3 - 10^5$	8 - 20 permeability	medium to low
S.C. - Clayey sands, sand-clay mixtures.	$10^4 - 10^6$	12 - 50	medium to low permeability (depends on amount of clay)
M.L. - Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, clayey silts with slight plasticity	$10^5 - 10^6$	20 - 50	medium to low permeability
C.L. - Inorganic clays of low to medium plasticity, gravelly clays, sandy clay, lean clays	10^5 and less	over 50	unacceptable
O.L. - Organic silts, organic silty clays of low plasticity; liquid limit less than 50	10^5 and less	20 - over 50	acceptable depends on clay content.

M.H. - Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	10^6 and less	over 50	unacceptable
C.H. - Inorganic clays of medium to high plasticity, organic silts	10^7 and less	over 50	unacceptable
O.H. - Organic clays of medium to high plasticity-organic silt; liquid limit over 50	10^6 and less	over 50	unacceptable

Proposed Sewage System Design

This section must be completed in its entirety.

There are two critical pieces of information that must be known in order to design a sewage system.

- The daily design sanitary sewage flow, “Q” as calculated above, and
- the percolation rate, “T”

For more information regarding sewage system design refer to Peterborough Public Health’s guidance document for the appropriate Class of sewage system to be installed.

Note: The inspector will not design a sewage system. The owner, agent, installer, design consultant or engineer must propose the design.

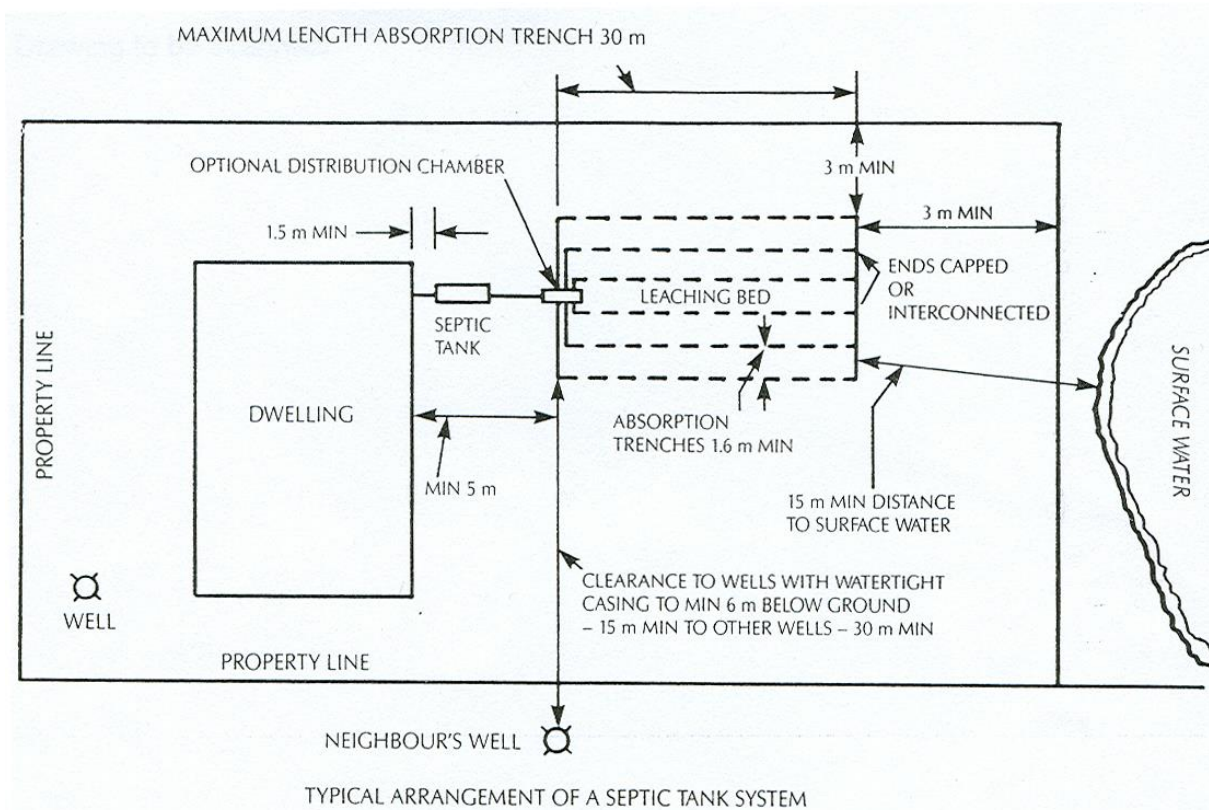
Sewage System Site Plan

Provide a site plan for the proposed sewage system design. This may be drawn in the space provided or attached with the application separately.

Site Plan Requirements:

- existing and proposed well location(s) and depth of casing;
- neighbouring existing and proposed well location(s) and depth of casing;
- property lines, including dimensions;
- detailed sewage system diagram, dimensions and layout of the leaching bed;
- setbacks from the sewage system to:
 - wells and reservoirs (cisterns)
 - property lines
 - structures (buildings, decks, porches, pools, sheds, etc.)
 - surface water sources (lakes, rivers, streams, ponds, springs)
 - drainage courses
- driveways, right-of-ways, easements, and utility corridors

Typical Arrangement of a Septic Tank System:



NOTES:

1. The above layout is suitable for a leaching bed using normal construction methods.
2. Location of tank and leaching bed to be on lower ground than adjacent wells or springs, if possible.
3. Internal plumbing and main drainage outlet should be designed with a view to connecting to possible future sanitary sewers.
4. Roof water, surface water, discharge from footing drains, etc. must be excluded from entry to septic tank.
5. Leaching beds NOT to be located in swampy ground or in ground liable to flooding.
6. See the Regulation regarding details for the siting of the septic tank and tile bed.

Sewage system components must meet the minimum horizontal clearance distances as outlined in the tables below.

<p>Table 8.2.1.6.A. (O. Reg. 332/12) Forming part of Sentence 8.2.1.6.(1)</p> <p><u>Minimum Clearances for Treatment Units:</u></p> <table> <tr><td>Structure</td><td>1.5m</td></tr> <tr><td>Well</td><td>15 m</td></tr> <tr><td>Lake</td><td>15 m</td></tr> <tr><td>Pond</td><td>15 m</td></tr> <tr><td>Reservoir</td><td>15 m</td></tr> <tr><td>River</td><td>15 m</td></tr> <tr><td>Spring water</td><td>15 m</td></tr> <tr><td>Stream</td><td>15 m</td></tr> <tr><td>Property Line</td><td>3.0 m</td></tr> </table>	Structure	1.5m	Well	15 m	Lake	15 m	Pond	15 m	Reservoir	15 m	River	15 m	Spring water	15 m	Stream	15 m	Property Line	3.0 m	<p>Table 8.2.1.6.B. (O. Reg. 332/12) Forming part of Sentence 8.2.1.6.(2)</p> <p><u>Minimum Clearances for Distribution Piping:</u></p> <table> <tr><td>Structure</td><td>5 m</td></tr> <tr><td>Well with a watertight casing to a depth of 6m:</td><td>15 m</td></tr> <tr><td>Any other Well</td><td>30 m</td></tr> <tr><td>Lake</td><td>15 m</td></tr> <tr><td>Pond</td><td>15 m</td></tr> <tr><td>Reservoir</td><td>15 m</td></tr> <tr><td>River</td><td>15 m</td></tr> <tr><td>A spring not used as a source of potable water:</td><td>15 m</td></tr> <tr><td>Stream</td><td>15 m</td></tr> <tr><td>Property Line</td><td>3 m</td></tr> </table>	Structure	5 m	Well with a watertight casing to a depth of 6m:	15 m	Any other Well	30 m	Lake	15 m	Pond	15 m	Reservoir	15 m	River	15 m	A spring not used as a source of potable water:	15 m	Stream	15 m	Property Line	3 m
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TABLE 8.2.1.5.
Forming Part of Sentence 8.2.1.5.(1)

Clearance Distances for Class 1, 2, and 3 Sewage Systems:				
	Minimum horizontal distance in metres from a well with watertight casing to a depth of at least 6m.	Minimum horizontal distance in metres from a spring used as a source of potable water or well other than well with a watertight casing of at least 6m.	Minimum horizontal distance in metres from a lake, river, pond, stream, reservoir, or a spring not used as a source of potable water.	Minimum horizontal distance in metres from a Property Line.
Earth Pit Privy	15	30	15	3
Privy Vault Pail Privy	10	15	10	3
Grey water System	10	15	15	3
Cesspool	30	60	15	3

Declaration Page

The property owner and/or agent must sign the final page of the application. If only the applicant's signature appears, a letter of authorization must be attached to the application, as previously mentioned.

Other Notes

- Incomplete applications will be returned to the applicant.
- Payment must be made at time of application.