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GUIDE TO APPLYING FOR A PERMIT ONSITE SEWAGE SYSTEM

The following information is provided to assist you when submitting an application for a building permit. Included are several standardized forms which must be completed. We have attempted to describe the information required on the various forms and other documents or technical information which may be required in support of the application.

The best way to expedite your application is to provide accurate and complete information. Incomplete applications will not be accepted or held in the building department.

APPLICATION FOR A PERMIT TO CONSTRUCT OR DEMOLISH

- A) Provides information on the proposed project. If the property does not already have a building or unit number then one must be obtained by contacting the township's public works department at this office. Remember to include your estimated value for this project. Area of work refers to size of property.
- B) Is used to describe the type of permit you are applying for. Check off the appropriate box and also describe the scope of the project.
- C) This information pertains to the individual or corporation submitting the application. If the applicant is not the owner a letter of authorization must be provided. The letter of authorization must be specific to the type of permit being applied for.
- D) Must be completed if the applicant is anyone other than the owner.
- E) Provides information on the Builder (Building Contractor).
- F) In general, a new home which is designed to be used on a year round basis and is going to be sold as a new home, or is constructed in its entirety by a contractor for the owner must be registered with the O.N.H.W.P or Tarion Warranty Corporation. Reference should be made to the O.N.H.W.P. Act for clarification of details. Section F must be completed whether the home is being registered or not.

- G) i. **Designer Information** became effective January 1, 2006. **Schedule 1 Designer Information** must be completed and included with this application. For most applications, the installer will be the designer. The Designer (installer) shall complete Sections A) and B), and C). Section D relates to the role of the designer usually responsible for the design and attachments. The only person exempt from this Section is the homeowner if the homeowner is also the installer. A licensed installer is exempt from registration but shall complete Section D and include all required BCIN numbers.
- ii. **Schedule 2, Sewage System Installer Information** must be completed with this application.
- H) i. Your project must be complete and in the correct form by the owner or authorized agent, all fields have been completed on the application and all required schedules attached. Payment of all applicable fees must accompany the application.
- ii. Requires you to include **Plans and Specifications, as follows**. Schedules 3A, 3B, and 3C which are attached to the application must be completed and submitted with the application. A site plan must also be prepared and submitted.

SCHEDULE 3 (A) Soil and Water Table Information must also be completed to assess the design requirements for the sewage system. The form shall be completed by the designer. Percolation rates used in design may be obtained from Approximate Soil Percolation Rates "T" (Appendix A). Soil Type, groundwater and bedrock levels will determine raised height of system, contact area and mantle requirements

SCHEDULE 3 (B) Design Criteria shall be completed to determine Total Daily Design Flow. See Ontario Building Code for design requirements, or for reference purposes we have provided the applicant with a Design Chart attached. This section must be completed to determine the minimum size of system required.

SCHEDULE 3 (C) Proposal to Construct Sewage System details the proposed system for installation based on specifications obtained from **Schedule 3 (A) and (B)**. Schedule 3 (C) has been provided to aid the designer, licensed installer, or homeowner installer to quickly calculate the size of the system to be installed. The form must be completed, with all appropriate boxes checked and all applicable data provided.

THE SITE PLAN is the most important part of the application. The *SITE PLAN* provides an aerial view of the property. This could be a survey or a drawing as long as it is accurate and to scale. The site plan must be large enough and clear enough to be legible but shall not exceed a paper size of 11" x 17". The site plan must include all of the following:

1. Show the entire property including dimensioned property lines.
2. Show the location and size of all existing and proposed structures on the property.
3. Show the location and size of all proposed and existing sewage systems and its components, (tanks, pump chambers) including test-pits and benchmarks.
4. Show direction of flow (surface and groundwater) and grading alterations.
5. Show the distances from the proposed sewage systems components to all property lines, structures and wells, including wells on adjacent properties.
6. Show and identify all roads, rights-of-way and neighboring properties.
7. Indicate north on the site plan.
8. Include distances to all utilities, including overhead wires.

CROSS SECTION ~ of disposal area (leaching bed). The way in which the disposal area is constructed can be best shown on a cross sectional drawing. Width, depth and the materials used to construct the disposal area is important information and is required to make an approval.

- iii. Documents establishing compliance with applicable law. A complete list may be found in the & iv. Ontario Building Code.
- l) **Declaration of Applicant** as outlined previously. If the person signing the application is not the owner, the application must be accompanied by a letter signed by the owner authorizing the person to act on their behalf for that purpose.

A list of Sewage System Permit fees has been included on the bottom of Schedule 4C for your information. The fee will be determined and entered by building department staff.

NOTE: If installer “Z” designed the sewage system, installer “Z” is the only one who can construct it. If an owner changes installers and wishes installer “Q” to install the system, installer “Q” will be required to provide a replacement application, design and additional fees.

The Approval Process

The approval process generally consists of a screening of the application for completeness, a site inspection, technical review and issuance of approval. These steps are outlined below.

A screening of the application will determine if all information has been provided. This is **not** a technical review. Incomplete applications will be returned. If all information has been provided a site inspection will be required. It is the applicant/owner's responsibility to request the inspection when the site is ready. The location of the proposed sewage system components should be clearly marked out on site. Test holes must be excavated at the proposed site. They will be 1' metre in depth or to rock. The property lines should be clearly marked.

A technical review of the application will be carried out within five business days of the receipt of a completed application and the completion of the on site inspection.

The inspection combined with the technical review will assess the;

- i) application's compliance with the Ontario Building Code,
- ii) adequacy of the submitted detailed design documentation and other supporting information,
- iii) conformance of the design to the principles of sound engineering, and the adequacy of controls and maintenance features provided to facilitate the proper operation of the sewage system.

Where the Inspector determines that the design is unsatisfactory for any reason, the designer will be advised of the non-compliance and an amended application will be required.

Issuance of the Permit

You will receive;

- i) **receipt** for the fees,
- ii) a **copy of the schedules** with any **conditions** or changes,
- iii) a list of required inspections,
- iv) a **business card with your permit number** on it. Please provide the building permit number when requesting inspections.
- v) your **building permit**. The permit and schedules, drawings etc. with the attached review notes must be kept on the project site and available to the building inspector during construction. **The building permit must be posted at the project site so that it is visible.**

Prior to construction, **review the proposal for any conditions or amendments to the application submitted.**

INSPECTION REQUIREMENTS

It is up to you to notify us when your project is ready for any of the inspections listed.

- 1) **Subgrade or Basal Inspection** prior to installation may be a Condition of Approval, review the approval.
- 2) Prior to the request for inspection provide
 - 1) “as-built drawing” of installation
 - 2) grain size analysis and weight bills for filter media.

Substantial Completion inspection is required when the septic system is substantially complete, before backfilling of bed and tank.

- 3) **Final Grading Inspection.** When construction of the sewage system is complete, a final grading inspection may be required. This inspection will be requested on the inspection report provided during the substantial completion inspection.

IMPORTANT – NO SEWAGE SYSTEM SHALL BE PUT INTO USE UNTIL A FINAL INSPECTION HAS BEEN PASSED.

If you have any questions please contact us at:

Phone: 705-765-3156

Fax: 705-765-3197 or

E-Mail: bldg@muskokalakes.ca

APPENDIX “A”

THE CHARTS BELOW ARE FOR GUIDANCE PURPOSES ONLY

You Should Always Refer To The Ontario Building Code For Current Regulations

TOTAL DAILY DESIGN FLOW RATES FOR RESIDENTIAL OCCUPANCY “Q” (Litres/Day)		Example of how to determine daily design flow rate:
Dwellings: a) 1 bedroom dwelling b) 2 bedroom dwelling c) 3 bedroom dwelling d) 4 bedroom dwelling e) 5 bedroom dwelling f) Additional flow for g) each bedroom over 5 h) each 10m ² (or part thereof) over 200m ² - 400m ² , or i) 400m ² - 600m ² j) 600m ² + k) each fixture unit over 20 fixture units	750 1100 1600 2000 2500 500 100 75 50 50	Using a 4 bedroom, 235m ² home with 22 fixture units. From Chart on left: 4 bedroom home > 200m ² or > 20 fixture units = 2,000ℓ/day additional 35m ² = 400ℓ/day (additional 2 fixture units = 100ℓ/day) ☛ Q (total daily design flow rate) = 2,400 litres/day If, as in the example above, there is a choice in arriving at the flow rate (e.g., fixture units vs. floor area) use the <u>one</u> calculation that provides the greatest daily flow rate value.

APPROXIMATE SOIL PERCOLATION RATES “T”

The following are estimated typical ranges of “T” times. Actual “T” times may vary significantly due to on-site soil conditions.

Soil Type ☛	Clean Med - Course Sand			Silty Gravelly Sands		Silty Sands Sandy Silts		Sandy Silty Clays			Silty Clays		Clay
“T” (min/cm) ☛	1	3	6	8	10	16	20	25	29	33	38	44	50+

SIZING FORMULAS FOR COMPONENTS OF SEPTIC SYSTEMS BASED ON TOTAL DAILY DESIGN FLOW RATES

Class 4 Filter Bed (surface area of filter medium in square metres)	If daily flow rate is < 3,000ℓ/day ÷ 75 If daily flow rate is > 3,000ℓ/day ÷ 50 Minimum area of filter medium = 10m ² Maximum area of filter medium = 50m ²	Example using the total flow rate from above: Flow rate = 2,400ℓ/day (which is < 3,000ℓ/day) ☛ A (area of bed) = 2,400 ÷ 75 = 32m ² Under max. allowed area → 1 bed = 32m ²
Class 4 Trench Bed (total length of distribution pipe in metres)	Formula for conventional beds without secondary treatment units: L = QT ÷ 200 where: L is total length of pipe Q is total daily design flow rate T is soil percolation rate Minimum length of tile = 40 metres	Example using the total flow rate from above: Q = 2,400ℓ/day (flow rate from above) T = 6 min/cm (if using “ <u>typical</u> ” med-course sand) L (total length of distribution pipe) = QT ÷ 200 ☛ L = (2,400 x 6 ÷ 200) = 72 metres
Septic Tank (litres)	Tank(s) must have a <u>minimum</u> working capacity of 2 X’s the daily design flow rate. Minimum tank size = 3,600 litres	Example using the total flow rate from above of 2,400 litres/day then the minimum tank size would be: ☛ Total Working Capacity 2 x 2,400 = 4,800 litres

CLEARANCE DISTANCES FOR COMPONENTS OF SEWAGE SYSTEMS (metres)

⇒ If the bed is raised, add 2 metres for every 1 metre of rise	Wells (with 6 m casing)	Wells (not 6 m casing)	Springs Potable	Springs Not Potable	Surface Water (lake, river, etc.)	Property Lines	Dwellings Structures
Class 4 Distribution Pipe	15	30	30	30	15	3	5
Class 4 Septic Tank	15	15	15	15	15	3	1.5
Class 5 Holding Tank	15	30	30	15		3	1.5
Class 1 Privy	15	30	30	30	15	3	
Class 2 Grey-Water Pit	15	30	30	15	15	3	