



Planning & Zoning Department
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PRIVY INFORMATION

Applications for privies do not require a plumber. The fee for a privy permit is \$200.00 and a separate \$30.00 payment for recording the agreement with the Register of Deeds.

Privies are permitted in all unincorporated municipalities in Marquette County provided that a permit has been obtained and they are installed in a manner that meets the Marquette County Sanitary Ordinance. The following pages will help guide you through the selection, permitting, construction and care processes of your new privy.

I. Privy Construction Type

There are two types of privies utilized in Marquette County. Each have their own advantages and disadvantages

A. Pit Privy

This type of privy consists of an excavated hole with a building constructed over it

1. Advantages
 - a. No tanks to purchase
 - b. Virtually unnecessary to ever pump out
2. Disadvantages
 - a. Must hire a soil tester to do a single auger boring
 - b. Soil test must show 3 feet of separation from bottom of pit to groundwater or seasonal saturation level
 - c. Hole may cave in

A. Vault Privy

This type of privy consists of placing a tank in the ground and constructing a building over it

1. Advantages
 - a. Can use on high groundwater sites
 - b. Easy to install
2. Disadvantages
 - a. Must be pumped out when full
 - b. Must purchase a minimum of 200 gallon watertight tank

II. **Permitting Process**

- A. A completed Marquette County Sanitary Permit application must be submitted to the Marquette County Zoning Office prior to construction.
- B. A completed Maintenance Agreement must be signed and attached to the permit application. This document is filed with the deed in the Marquette County Registrar of Deeds.
- C. Unless otherwise specified, a Privy Permit will expire 2 years from the date of issuance.
- D. If the installation of a privy is to remedy a violation, the deadlines for the violation correction must be followed instead of the standard 2 year expiration.
- E. Upon completion of the privy, you must contact the zoning office and provide access for them to ensure that the new privy complies with the ordinance requirements.

III. **Construction**

A. Site Requirements

- 1. A pit privy will not be installed on soils that do not have at least 3 feet of suitable soil below the bottom of the system.
- 2. Soil conditions shall be verified by a Certified Soil Tester.
- 3. Where these conditions cannot be met, a vault-constructed privy must be used.

B. Location

- 1. Privies shall be located a minimum horizontal distance of:
 - a. 10 feet from a dwelling.
 - b. 50 feet from navigable water and watercourses.
 - c. 10-50 feet from property lines depending on Zoning District
 - d. 50 feet from water supply wells.
 - e. 63-110 from the centerline of road depending on road class

C. Construction Requirements for **Vault Privy Only**

- 1. Vault must be a minimum capacity of 200 gallons and cannot be constructed of metal.
- 2. The vault must be watertight and inaccessible to rodents and insects
- 3. Foundation must be of concrete or cement block (Note: walls should extend 6 inches above ground and 12 inches below)
- 4. An exterior vermin tight access opening for cleaning of the vault should be provided.
- 5. A pit of sufficient length and width must be excavated to accommodate the vault and to allow casting or setting of the vault.
- 6. The depth of the pit shall be such that the vault will extend at least 4 inches above the ground surface.

D. Suggestions for **Vault Privy Only**

- 1. Tanks to be used as privy vaults are generally purchased as a unit from a home improvement, farm supply, or other similar store. They are commonly sold as fertilizer tanks. Regardless of the selection, the vault must be completely closed and watertight to prevent any seepage of sewage to the soil or ground surface. The vault lid or floor slab must be able to accommodate the weight of users.
- 2. A vault capacity of 6 cubic feet per person is normally adequate for one year.

3. Pre-Cast Vaults- Prefabricated reinforced concrete septic tanks are available commercially which may be utilized as sanitary privy vaults. The outside dimensions of the tank are available from the manufacturer to determine the size of the excavation needed. This is an option if you plan to have a traditional septic system installed at a later date and wish to possibly reuse the tank.
 4. Excavation
 - a. Care must be taken to ensure that the bottom of the pit is level prior to setting the vault. A 6-inch layer of sand should be spread evenly on the pit bottom before installing the vault.
 - b. In areas with high groundwater tables, a perimeter drain may have to be installed around the base of the vault to prevent the vault from floating when empty. This drain should be located 5 feet from the privy vault and extend around the perimeter of the vault. The drain tile must outlet at an elevation lower than the drain area.
 5. When a pre-cast vault is utilized, it may be necessary to knock holes in the vault cover to allow the installation of the privy risers, urinal drains, and vent pipes. Many manufacturers can make provisions for the installation of the risers, vent stacks, and clean-outs in the process of forming the tank lid.
 6. Prefabricated risers of stainless steel or porcelain are available, the bases of which are designed to be attached to the concrete floor slab. Whatever material is used, it must be non-absorbent.
- E. Construction Requirements for **Pit Privy Only**
1. The privy must be installed in the immediate area where the soil test was completed
 2. The bottom of the pit must terminate at least 3 feet above the seasonal saturation level or limiting factor as determined by the soil tester.
 3. Wood Crib Linings are permitted to shore up sides of pit.
- F. Construction Requirements For **All Privies**
1. The vault must be inaccessible to rodents and insects
 2. A concrete or masonry foundation on which the privy housing can be erected;
 3. A privy housing structure which affords privacy and shelter, and is fly-tight. The enclosing walls and roof must have no openings or cracks which are not sealed or screened;
 4. A tight-fitting door which is equipped with a self-closing device;
 5. Vents, windows, or openings which are completely screened
 6. A vertical pipe or enclosed moisture-proof vent duct which extends from the privy vault to a point above the roof peak and is screened at the outlet and capped to divert precipitation;
 7. The privy door must be of durable construction, tight fitting, and equipped with a self-closing device.
- G. Construction Recommendations for **All Privies**
1. An earth mound around the privy base to divert surface water away from the vault;

2. Seat risers extending directly from the concrete base, or floor slab, and constructed of impervious material;
3. Comfortable seats with tight-fitting lids which completely cover the privy seat hole when not in use;
4. A properly sloped roof of impervious material, with an overhang to prevent ponding of water and leakage into the structure;
5. Adequate illumination of the privy interior from natural or artificial sources;
6. User privacy, through the installation of privacy partitions around the structure or by use of inside door latches.
7. The privy should be provided with cross ventilation equal to two square feet of #16 mesh screened opening for each seat.
8. Seats

The seat may or may not be hinged, but must cover the top of the riser completely and fit tightly around the edges. The privy seat hole may be an oval shape and should begin approximately 2 ½ inches from the front of the riser seat. The normal hole dimensions are 10 inches long and 8 inches wide measured through the center of the oval hole.

The seat may be constructed with 1 x 4-inch number 1 tongue and groove flooring or from 2 inch x 10 inch dressed boards which are free of knots and holes. Other materials, if used, must be smooth finished and durable. Cleats should be installed on the underside of the seat to provide additional support.

A separate seat may be provided with a smaller opening for the use by young children. This seat need not be permanently attached to the riser but may be placed on top of the standard seat when needed.

9. Lids

The privy seat may be covered by a hinged lid. The lid should be self-closing to ensure that the seat hole is covered when not in use. The seat hole must be completely covered by the lid and it should project one-half inch beyond the seat at the front, or else incorporate a handle to allow opening of the lid for use.

The lid may be constructed of 1 x 4-inch number 1 tongue and groove flooring with cleats on the upper side. If other materials are used to construct the lid, they must be durable, light of weight, and smooth finished.

The constructed lid should be attached to a hinge cleat affixed to the seat with 3-inch strap hinges.

Allow one-fourth inch clearance between the hinge cleat and the back of the lid. A board should then be ailed to the top of the hinge cleat so that the lid will be

self-closing. The board should project far enough forward to prevent the lid from standing open when the seat is not in use.

The use of standard water closet seats is not recommended. These seats and lids are not tight-fitting and would allow vermin and insects access to the vault interior.

10. Design of the Privy Structure

- a. The privy structure should be constructed of substantial material and be of sound design. The housing may be constructed of concrete blocks, but is more often composed of wood or metal siding around a wood frame.
- b. The privy structure should afford reasonable privacy to the occupants.
- c. The privy structure should be framed with not less than 2 x 4-inch boards. The wood frame to floor junction must be tight to prevent the access of vermin, and be well secured to support the structure.
- d. Privy structures are still a favorite target for vandalism on Halloween.
- e. The vent pipe serving the privy vault must extend through the roof and preferably 2 feet above the peak of the roof. The vent stack must be at least 4 inches in diameter. Vent flashing should be installed where the vent pipe passes through the roof. The top of the vent pipe should be equipped with a proper cap to divert precipitation and be screened to prevent vermin access.
- f. The roof serving the structure should have an adequate slope, preferably a minimum of 1 to 4, to permit proper drainage and should be sized to provide at least a 12-inch overhang on all sides to divert water away from the privy structure and surrounding mound. If a pitched roof is used, a ridge beam of not less than 2 x 4-inch should be installed. Composition roofing or shingles on solid sheathing, or metal roofing on open sheathing, may be used. To allow better illumination in the privy structure, high light transmission translucent fiberglass sheets may be used as roofing.
- g. Windows or vents should be installed to allow adequate ventilation of the privy structure. Ventilation is often provided by omitting the wall siding immediately beneath the roof soffit and just above the floor slab. These areas are then screened. The screening must have not less than 16 meshes to the inch.
- h. Hardware cloth with 4 meshes to the inch is often installed over the 16 mesh screening to provide support and to prevent damage to the vent screening. Alternatively, screened windows may be provided, taking care to ensure privacy.
- i. The walls of the privy housing may be constructed of wood, sheet metal, or fiberglass siding. The resultant structure must be completely enclosed and all joints must be sealed.

- j. The door must open outward, and may be screened if additional ventilation is needed.
- k. Where electricity is reasonably available, artificial lighting should be provided.
- l. Receptacles for toilet paper must be installed convenient to each privy seat.
- m. Where electricity is available, an exhaust fan can be installed in the vault vent pipe. This will greatly reduce privy odors. The fan can be wired to turn on with the light switch or can be controlled by a timer.
- n. Painting the building is a necessary part of the construction for wood buildings. The exterior of the privy housing, if of wood construction, should receive at least two coats of paint to prevent weathering. Wood or other absorbent materials in the privy interior should be painted or covered with moisture-resistant material to enhance cleaning.
- o. Some of the earth removed during excavation for the privy vault should be used for mounding around the floor slab. The mound should be thoroughly tamped and should extend out a distance of 2 feet from the floor slab before tapering off to the original ground surface.

IV. MAINTENANCE

Without routine maintenance, properly constructed and located privies will soon become insanitary.

The following measures are necessary to maintain a sanitary privy and prolong its life:

- A. The vault must be kept fly-tight by keeping the seat lid closed. Ensure that the hinges are in good condition and the lid is tight-fitting.
- B. Fill in any openings to the vault visible from the outside of the structure. Check for burrows in the surrounding earth mound.
- C. Seal completely any openings or cracks in the privy wall structure.
- D. Repair any torn or loose screening at the privy vents or door
- E. Ensure that the door remains tight-fitting and that the self-closing device is operational.
- F. Keep the privy seat, the floor, and the grounds adjacent to the building clean.
- G. Provide a waste receptacle for the deposit of articles not to be thrown into the vault.
- H. Replace the toilet paper when needed
- I. If flies get into the vault or housing, spray an insecticide into the vault and in and around the building, or suspend a no-pest strip. Repeat applications at necessary intervals.
- J. Paint the interior and exterior of the building as needed.
- K. To prevent mosquito or fly breeding, suspend a no-pest strip into the privy vault during warm weather.
- L. If excessive odors develop, add a deodorant such as chlorinated lime, pine oil, or activated carbon to the vault.
- M. Removal of Accumulated Waste
 - 1. When the vault is filled within 18 inches of the floor slab, it is then necessary to remove the accumulated waste from the vault.

2. Arrangements should be made with a permitted wastewater management business (septic tank servicer) to remove and dispose of the accumulated waste when the vault is full.

N. Disposition of Abandoned Privies

1. Obviously all the care and expense of building a new sanitary privy will become a total loss from a public health viewpoint if any existing, improperly constructed privies are allowed to remain on the property. Tear down the structures to be abandoned and use what materials you can to construct the new privy building. All wastes should then be removed from the old pit by a permitted wastewater management business (septic tank cleaner). Finally, fill the pit with earth, mounding the fill to allow for settling.