TOMPKINS COUNTY HEALTH DEPARTMENT
Your Partner for a Healthy Community
Inclusion Through Diversity

Details and Specifications #3
Septic Tank

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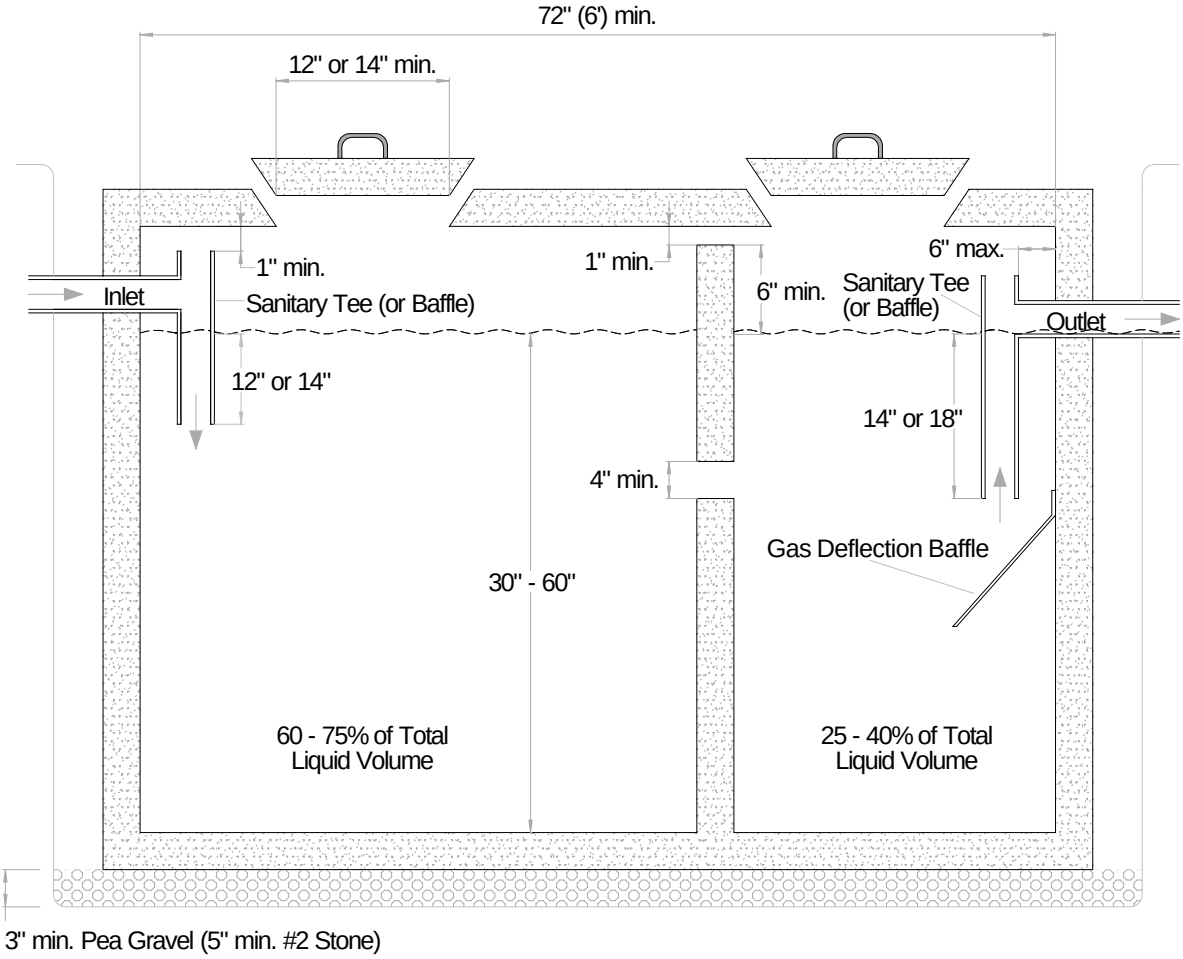
Dual compartment septic tank in cross section:



Separation Requirements:

SEPARATION DISTANCES FROM ONSITE WASTEWATER TREATMENT SYSTEM COMPONENTS (IN FEET)				
System Component	Well or Suction Line (b) (c)	Stream, Lake, Watercourse or Wetland (a)	Dwelling	Property Line
Septic Tank/Pump Chamber	50’	50’	10’	10’

(a) Mean high water mark.
(b) Closest part of any treatment system must be 10’ from any water service line, 20’ from any drainage ditch.
(c) The listed water well separation distance increases by 50% whenever aquifer water enters the water well at less than fifty feet below grade. If this cannot be achieved, then the greatest increase shall be provided with such additional measures as needed to prevent contamination.

Details and Specifications #3 Septic Tank

General information:

1. Septic tank capacities shall be based upon the number of household bedrooms. An expansion attic shall be considered as an additional bedroom.

2. Septic tank covers shall always be accessible. Where manholes are more than 12 inches below final grade, an extension collar shall be provided over each opening. Extension collars shall not be brought flush with the ground surface unless the cover can be locked to prevent tampering. Driveways or other facilities shall not be constructed above septic tanks unless specially designed and reinforced to safely carry the load imposed.

Design and Installation:

General Requirements. The following applies to all septic tanks regardless of material:

1. Tanks must be watertight, constructed of durable material, and not subject to excessive corrosion, decay, frost damage, or cracking. When installed, the top of all tanks shall be able to support at least 300 pounds per square foot (psf).

2. Tanks shall have inlet and outlet baffles, sanitary tees or other devices to prevent the passage of floating solids and to minimize disturbance of settled sludge and floating scum by sewage entering and leaving the tank. Outlet designs with gas deflection baffles are strongly recommended in all tanks. Inlet and outlet baffles shall extend a minimum of 12 inches and 14 inches respectively, below the liquid level in tanks with a liquid depth of less than 40 inches, and 16 and 18 inches respectively, in tanks with a liquid depth of 40 inches or greater. The distance between the outlet baffle and the outlet shall not exceed six inches. Baffles shall be constructed of a durable material not subject to corrosion, decay or cracking.

3. Tanks shall be placed on at least a three-inch bed of sand or pea gravel (for plastic tanks call the TCHD for further instructions prior to installation) . This will provide for proper leveling and bearing. Additional instructions provided by the manufacturer shall also be followed.

4. Garbage grinders. An additional 250 gallons of capacity and seven square feet of surface area is required when a garbage grinder can reasonably be expected at the time of construction or in the future. A gas deflection baffle or other acceptable outlet modification, and a dual compartment tank or two tanks in series must also be provided.

Multi-compartment tanks or tanks in series:

1. Dual compartments are recommended for all tanks and shall be required on all tanks with an interior length of ten feet or more ***(Dual compartment or tanks in series shall be required when the treatment system is a sandfilter or a mound, or when a garbage grinder is present)***.
2. The first compartment or tank (inlet side) shall account for 60 - 75% of the required total design volume.
3. Tanks in series shall have a minimum drop in elevation of two (2) inches between the inverts of the inlet and outlet pipes within each tank. The tanks should be connected by a single pipe with a minimum diameter of four (4) inches and a minimum slope of 1/32 inch per foot.

Septic Tank Certification and Water Tightness Testing:

There are two (2) established methods used for determining septic tank water tightness:

1. Vacuum testing - seal the empty tank and apply a vacuum to four (4) inches (100 mm) of mercury. The tank is approved if 90% of vacuum is held for two (2) minutes.
2. Water pressure testing (filling with water), which is recommended to be done onsite after installation. ASTM Standard C-1227 are established standards and recommendations for construction and water tightness testing of concrete septic tanks.

*Whenever septic tanks are to be abandoned, the tanks shall be removed or pumped out and refilled with soil to prevent future cave-ins.