

# TANK DEPOT



Polyethylene septic tanks offer several advantages over concrete. Lower cost and vastly easier and less expensive installation are chief among the several benefits realized with plastic septic tanks. Instead of an expensive rented hoist/ lift that is typically required for concrete, polyethylene septic tanks can be lifted by two or three workers and hauled to an installation site in the back of most any pickup truck. Special care should be taken when selecting an installation site to insure any state and county regulations are adhered to including obtaining appropriate permits, setbacks and inspections.

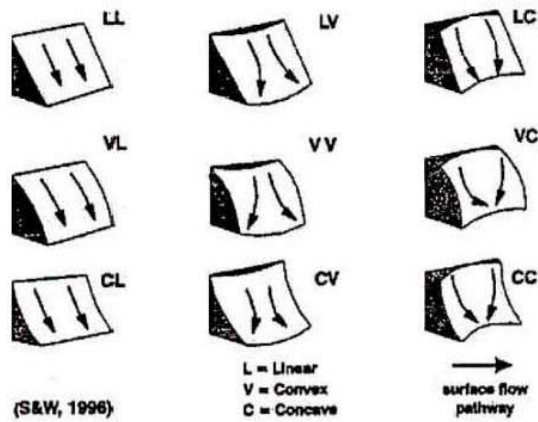
To begin an onsite system installation, an important step is the site survey. The installer must assess the proposed site in terms of its existing environmental conditions- geology, prior to land use, slopes, swales, wetlands, areas of potential flooding, landscape, vegetation/roots, water wells, utilities, lot lines, site improvements/structures, etc. Close attention ought be paid to current runoff and water shed conditions need to be assessed, so that the septic system will properly function without ground water infiltration. Landscape positions, landforms, sloping terrain, structures and paved surfaces affect surface and subsurface drainage patterns that can in turn affect system location. It is essential to avoid areas where water runoff from any of these features is directed. Landscape features that pool surface water and subsurface flows such as swales, depressions and/or floodplains must also be avoided. Failure to do so will void manufacturer's warranties.

A good approach to selecting tank/system location is to focus on landscape position. The underlying bedrock often controls landscapes, which are modified by a variety of naturally occurring forces. In particular, ridgelines are narrow areas that typically have limited soil depth, but often provide good surface and subsurface drainage. Shoulder slopes and back slopes are convex slopes where erosion is common. Side slopes are often steep and erosion is active. Foot slopes and depressions are concave areas of soil accumulation; however, depressions usually have very poor drainage. The better draining soils are found on the summits, ridgelines, lower side slopes and the high side of foot slopes. Toe slopes and bottomlands have significantly deeper soils, but have extremely poor subsurface drainage, and therefore, must be avoided. Failure to do so will void the warranty. Ideally, the septic tank should be located approximately 20-25 feet from the house or building and 100 feet from drinking wells (or as dictated by local building codes), situated on high ground, well away from any naturally occurring drainage, in order to keep ground water from entering the fresh excavation. In addition, if located in clay soil or a sloped site, a curtain drain or berm may be necessary to direct excess ground water away from the tank excavation. (Note that the tank must be installed parallel to any slope). The goal of surveying is to identify and correctly locate the treatment system components. All components need to be placed by physical location as well as the correct elevation. In establishing elevations, remember that even though water runs downhill and gravity distribution is being used, there must be enough drop in the system to move the waste/effluent between the system parts. Be sure to take into account the 2 to 3 inch drop from the inlet pipe to the outlet pipe inside the septic tank.

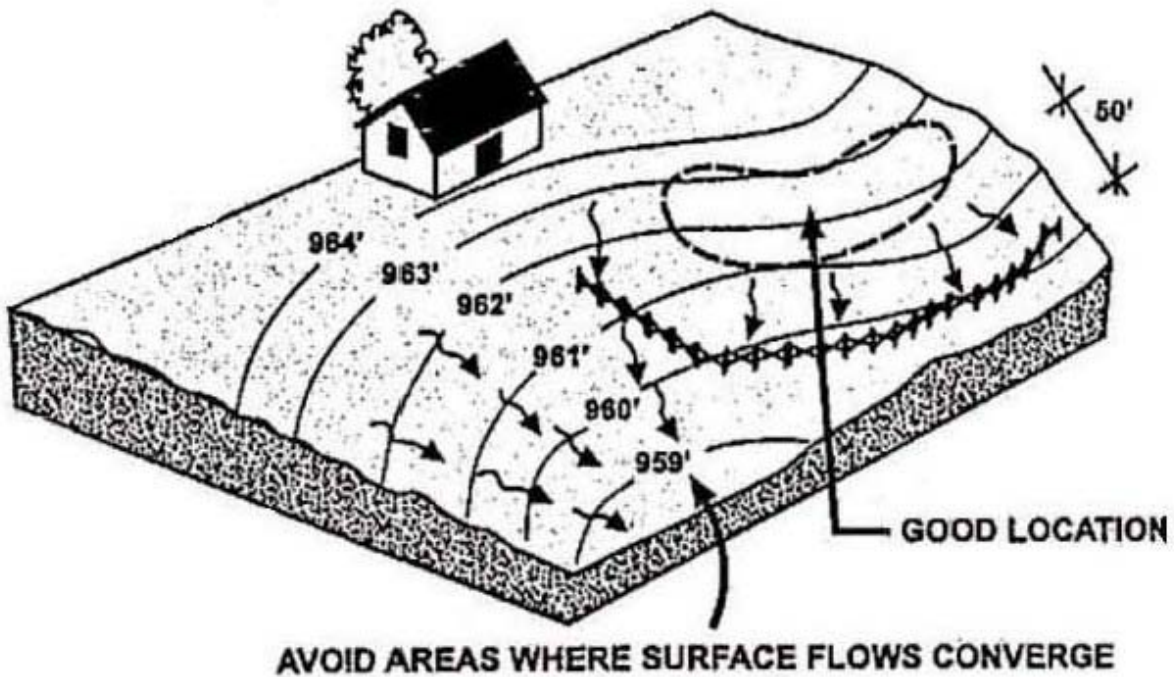
Poly septic tanks aren't suggested for use in sites known to be subject to extremely high ground water tables, excessive runoff areas or where the grade dictates that the tank is at the lowest point on the site i.e. where the entire surrounding area drains to the tank, even if the tank is properly mounded. Failure to do so will void the warranty.

*(Information courtesy of Snyder Industries)*

**Slope Shape** - Slope shape is described in two directions: up and down slope (perpendicular to the contour), and across slope (along the horizontal contour); e.g., *linear*, *convex*, or *LV*.



**Hillslope - Profile Position (Hillslope Position in PDP)** - Two-dimensional descriptions of parts of line segments (slope position) along a transect that runs up and down the slope; e.g., *backslope* or *BS*. This is best applied to transects or points, not areas.



Landscape Position	Tank Site Potential	Comments
LC VC CC	Poor	Converging flows could overload the tank with ground water
LV VV CV	Fair	Could still overload the tank during MAJOR rain storms
LL VL CL	Best	Parallel flow across the septic tank provides the best site potential