

moisture and nutrient holding/supplying capacity for desired plant growth. Washing and blowing may be a problem during construction. Shrink-swell potential is low.

Loamy. Generally slight limitations -- Care should be exercised during construction to ensure that the surface soil is not covered by less desirable material. Shrink-swell potential is moderate in loamy soils if the clay particles are dominantly made up of montmorillonite or other smectite minerals; shrink-swell potential of all other loamy soils is low.

Clayey. Severe limitations -- Soil is sticky when wet, hard when dry, difficult to work when used for lawns, shrubs, and gardens. The soils crack when dry, swell when wet. Clayey soils have a high shrink-swell potential if the clay particles are dominantly made up of montmorillonite or other smectite minerals; otherwise, shrink-swell potential is moderate. Special planning and design are required for foundations.

Organic. Severe limitations -- Soil is dominated by non-mineral, organic materials that are subject to subsidence when drained.

#### Permeability (See discussion and definitions on pages 4 and 5.)

Permeability refers to the rate of water or air movement through the most restrictive layer in the soil, including bedrock, if present, and may be considered as internal drainage of the soil. Laterals for septic systems may be located below restrictive layers in some soils. Final design of septic systems should be based on detailed studies of permeability and of seasonally high water tables. Such investigation is an important factor in deciding between a septic tank system or a community sewage system. Soil percolation tests may be required before making final plans.

Rapid. Soils are generally not finer than loams to sandy loams throughout the profile. Slight limitations in use for septic tank absorption fields, or foundations and basement construction. Moderate limitations for lawns and shrubs.

Moderate. Slight limitations for all uses. Soils are generally light silty clay loam (i.e., on the coarse side of the silty clay loam category), light clay loam, or light sandy clay loam with prismatic to granular or blocky structure, and have no severe restrictive layers. Weakly cemented sandy material is included here. Organic soil layers also tend to have moderate permeability.

Slow. Severe limitations for septic tank systems. Soils generally would be on the fine side of the loamy group, such as heavy silty clay loam to heavy sandy clay loam and clay. Strongly cemented sandy soil material has slow permeability, as does impermeable or slowly permeable bedrock. Such soils would be structureless (massive) or have platy, weakly expressed blocky, or weakly expressed prismatic structure. The cost of modification or size of filter field necessary would generally be prohibitive. Limitations would be moderate for foundations and for lawns, shrubs, and gardens.