

SOIL TEXTURE CLASSIFICATION MATRIX

Soil Type	Type of System	Minimum Requirements	Intent
>60 – 100% heavy clay	- holding tank - package sewage treatment plant to aboveground field - peat system - pressurized sand treatment mound - sand filter - modified aboveground total area field	- NO SUBSURFACE SYSTEMS 80% clay – sand treatment mound – pressure distribution 70% clay – minimum 150 yd³ stone (2538 sq. ft.) minimum 200 yd³ sand 60% clay – minimum 250 yd³ stone (2538 sq. ft.) minimum 100 yd³ sand (effluent must be pumped to the distribution box or laterals) - perforated distribution pipe must be equally distributed over the total area of the field - loamy top soil to be used as final cover material (based on 330 gal/day – 3 bedroom home)	- to provide alternative systems in heavy clay soils as subsurface systems have insufficient evapotranspiration and absorption qualities - field sizing shall increase per each additional bedroom - Note: modified aboveground total area fields may be an alternative to sand treatment mounds
40 – 60% clay	- modified total area (MTA) - modified trenches - stone (MTS) - chamber (MTC) - holding tank - package sewage treatment plant to a modified field - peat system - pressurized sand treatment mound - sand filter - modified aboveground total area field	- MTA - 190 yd³ stone (1941 sq. ft.) - 72 yd³ sand (high quality, clean, graded sand) - maximum depth 12" - MTS - maximum depth 24" - minimum amount of stone under pipe is 14" (using - 24/36" bucket) - length of trench in tables for 0.17 app. rate - 555' for 24" W x 18" H - 431' for 36" W x 18" H - MTC - maximum depth 12" - minimum amount of chamber 555' EQ 36/ARC 24 - loamy material to be used as cover (based on 330 gal/day – 3 bedroom home)	- to allow for shallow depth subsurface system installations in clay soils - to minimize the depth of the subsurface system to allow for adequate evapotranspiration and infiltration in these types of soils - to use application rate of 0.17 - high quality, clean, graded sand with less than 5% No. 200 and must pass the jar test for fines
<40% clay <85% sand	traditional subsurface systems	- minimum requirements as set out in regulation - application rates vary from 0.18 - 0.60 - loamy material to be used as cover	Note: the base of all fields must be 3.25 feet above the bedrock or high water table
85 - 100% sand	- holding tank - modified subsurface systems - lined trenches - stone - chamber - lined total area field - pressurized sand treatment mound - peat system - package plant to modified aboveground field	- application rate 0.60 - the base of fields must be 3.25 feet above bedrock or high water table - all systems must be pressurized - lined trenches (stone) - 12" minimum layer of loamy material - lined trenches (chamber) - 12" minimum layer of loamy material on bottom and sides - lined total area field - 12" minimum layer of loamy material - minimum of 110 yard³ of stone (1100 sq. ft.) - loamy material to be used as cover - saturated zones - sand treatment mounds – pressurized	- to provide alternative systems in coarse grained soils - to protect ground water sources - to slow the percolation rate and to facilitate treatment, lined trenches and total area fields are to be used - to provide alternate system in saturated soil conditions