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Trench Width for Soil Absorption Systems Without Filter Material

In accordance with [Title 124 - Rules and Regulations for the Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems](#) trenches must not be less than 18 inches or more than 36 inches wide for pipe laterals and no more than five feet wide for chambers. For soil absorptions systems where filter material is not used, any trench wider than 36 inches for pipes and five feet for chambers will be considered a bed and have the required square footage of the soil absorption area or drainfield trench increased by the appropriate absorption bed multiplication factor listed in the following table (Table 14.1 of Title 124).

Soil Absorption Bed Multiplication Factor

Width of Bed (feet)	Multiplier
> 3 to 10	1.25
> 10 to 15	1.33
> 15 to 20	1.50
> 20	*Unacceptable

Note: The maximum width of a bed is limited to 20 feet

Calculating Effective Width of a Soil Absorption System Trench

- Pipe Wrapped with Filter Fabric
 - The effective width of the trench for a system using pipe wrapped with filter fabric specifically designed for use without filter material shall be 75 percent of the outside perimeter of the pipe for up to a 12-inch diameter pipe.
 - A [construction permit](#), as outlined in Chapter 3 of Title 124, is required when using pipe larger than 12 inches in diameter.
 - The effective width calculation does not apply when filter material is used in the trench.

- Plastic Chambers
 - The effective width of the trench for a system using gravelless chambers with at least six inches of slotted sidewall, specifically designed for use without filter

- material, may be up to 1.5 times the bottom width of the chamber measured as the distance between the inside edges of the base flanges of the chamber.
 - The effective width of the trench must not exceed five feet for design purposes.
 - The effective width calculation does not apply when filter material is used in the trench.
- Bundled Expanded Polystyrene
 - The effective width of the trench for a system using bundled expanded polystyrene synthetic aggregate contained in high-strength polyethylene netting in cylinders 9 to 12 inches in diameter specifically designed for use without filter material may be up to 1.5 times the maximum external width of the synthetic aggregate bundle.
 - The trench may contain multiple bundles, but at least one bundle length in the trench must include perforated distribution pipe.
 - The effective width of the trench must not exceed five feet for design purposes.
 - The effective width calculation does not apply when filter material is used in the trench.