



Public Health
Prevent. Promote. Protect.

Fairfield Department of Health
Environmental Division

Sewage Treatment Design Guidance

The following items must be included in all HSTS design plans:

Site visit

- The designer/installer must visit the site of the proposed system prior to submitting a design.
- The proposed soil absorption component shall be staked, flagged, or painted on-site to show it will fit in the space and for protection of the location.
- Replacement area must be staked, flagged, painted on-site to show it will fit on the site

System Information

- Name and address of owner
- Township
- Designer name and contact information
- Type of System
- Household Sewage Treatment System (HSTS), or
- Small Flow On-Site Sewage Treatment System (SFOSTS)
- Daily design flow in gallons per day

Materials and System Components

- Tank type – size, brand, model, distributor
- Dosing tank (if applicable) – size, pump size (HP and GPM), brand, distributor
- Distribution materials – distribution piping, diversion mechanisms, and distribution material (NOTE: If using a distribution box instead of drop boxes, design must show observation ports on each leach line)
- If designing only: construction and installation notes for the system installer including manufacturer installation instructions if applicable.

Soil Absorption Type and Material

- Leach fields
- Leaching trench product
- Trench description – number of lines, length, width, and depth
- Amount and depth of topsoil to be placed over entire leach field (if applicable)
- Mounds
- Absorption area – width, length, aggregate depth, and sand fill depth
- Slope – side slope ratio, width of upslope, downslope, and end slope
- Supply drawing of top of mound and side view of mound
- Other system types
 - Include all information appropriate for that system

- **Note for designers interpreting soil reports:** FDH follows 18" VSD for septic tank effluent and 6" VSD for pretreatment units in a perched seasonal water table.

Drainage

- Perimeter Drain – depth of drain around leach field, gravel size, depth of gravel, distance from leach field (6 feet on upper side, 8 feet on all other sides)
- Interceptor Drain – depth of drain, gravel size, gravel depth (usually to top of ground)
- Engineered Drainage – Follow OAC 3701-26-16 Appendix A III
- Include, soil type, drain depth, drain spacing, lowered water table depth, gravel size, gravel depth

Site Drawing

The site drawing must include the following:

- Must be drawn to scale
- Proposed location of STS devices (tanks) and soil absorption component (leaching) as staked/flagged on the lot
- Replacement area for secondary system
- Approximate location of soil test hole(s)
- All STS devices and components including but not limited to: cleanout, pipe, pipe angles, tank(s), distribution device(s), soil absorption layout, drainage, control panel, alarm(s), inspection ports
- Surface Features including but not limited to: disturbed areas, drainage features, wooded areas, and hardscapes
- North arrow
- Location of the following items demonstrating that all required isolation distances are met:
 - 10-foot isolation distance for all STS components: utility service line, roadway or road surface, driveway or other hardscape, property line or right-of-way, properly sealed well, any building or other structure, areas with recorded easements, intermittent streams, swales, geothermal horizontal closed loop systems, irrigation lines, GWRS
 - 50-foot isolation distance for soil absorption component: any water supply source, any surface water impoundment, lake, river, wetland, perennial stream, road cut-banks, or stream cut-banks, vertical open and closed loop geothermal heating and/or cooling system
- Ground surface elevations