

Silt fences are a sediment-trapping practice utilizing a geotextile fence, topography and sometimes vegetation to cause sediment deposition. Silt fence reduces runoff's ability to transport sediment by ponding runoff and dissipating small rills of concentrated flow into uniform sheet flow. Silt fence is used to prevent sediment-laden sheet runoff from entering into downstream creeks and sewer systems.

Silt fences are used where runoff occurs as sheet flow or where flow through small rills can be converted to sheet flow. Major factors in its use are slope, slope length, and the amount of drainage area from which the fence will capture runoff. Silt fence cannot effectively treat flows in gullies, ditches or channels. For concentrated flow conditions see specifications for temporary diversions, sediment traps and sediment basins.

## ODNR Rainwater and Land Development Manual Specifications:

- Silt fence shall be constructed before upslope land disturbance begins.
- Silt fence shall be placed on the contour of the site. It shall not be used across swales, drainage ways or concentrated flows.
- To prevent water ponded by the silt fence from flowing around the ends, each end shall be constructed upslope so that the ends are at a higher elevation.
- Where possible, silt fence shall be placed on flattest area available.
- Where possible, vegetation shall be preserved for 5 ft. upslope from the silt fence. If vegetation is removed, it shall be reestablished within seven days.
- The height of the silt fence shall be 16 in. above original ground surface.
- The silt fence shall be placed in a uniform trench cut a minimum of 6 in. deep with at least 8 in. of geo-textile fabric buried below the original grade.
- Stakes shall be placed on the down slope side of the fence and be spaced no greater than ten feet apart.
- Seams between sections of silt fence shall be overlapped with the end stakes of each section wrapped together before driving into the ground.
- **Maintenance-** Silt fence shall allow runoff to pass only as a diffuse flow through the geo-textile. If runoff overtops silt fence, flows under or around the ends, or in any way becomes a concentrated flow, the layout shall be changed, accumulated sediment shall be removed, or other practices shall be installed.



Although the initial silt fence was overtaken by sediment flow, the contractor installed additional fences to retain further erosion.

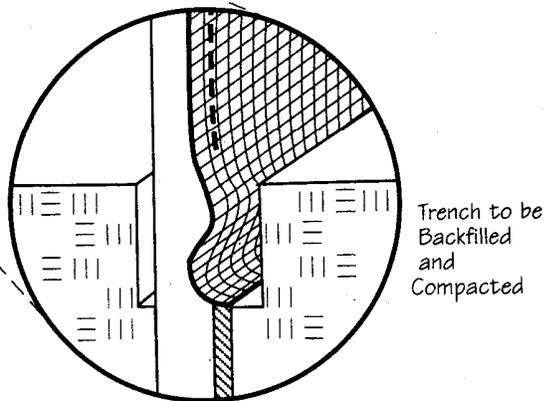
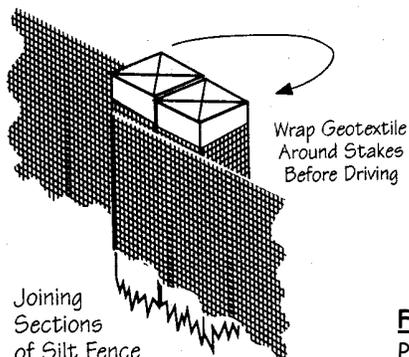
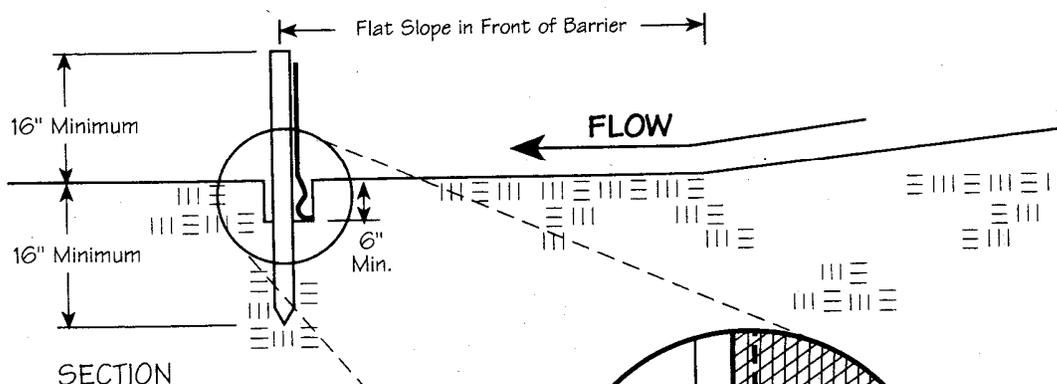
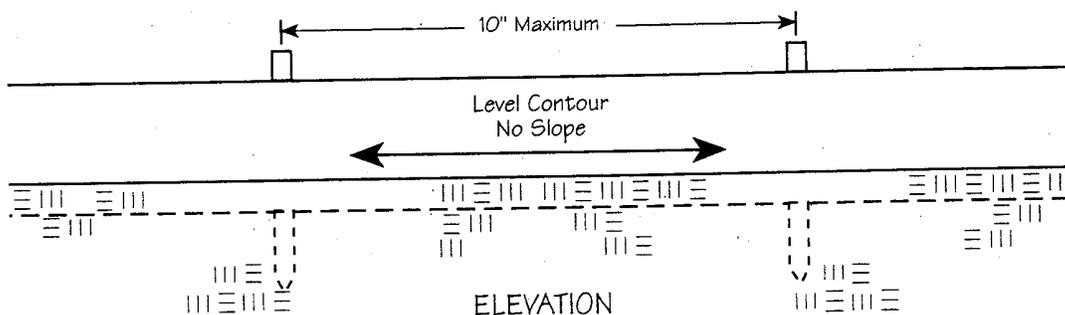


The silt fence installed in this photograph is ineffective because its proximity to the slope does not allow enough area for ponding. In this case, temporary seeding and straw mulching is the recommended BMP.



The silt fence in this picture is completely useless because it has not been properly trenched in nor backfilled.

## Specifications for Silt Fence



**Fence Posts**—the length shall be a minimum of 32 inches. Wood Posts shall be 2-by-2 inches hardwood of sound quality. The maximum spacing between posts shall be 10 ft.

**Silt Fence Fabric** shall be ODOT Type C Geotextile Fabric