

# How to Install a Silt Fence

## What You'll Need

- Roll of string
- Wooden fence stakes
- Hammer
- Silt fence
- Shovel
- Compactor

The **silt fence** is an ideal way to prevent erosion. The fencing is made with a synthetic mesh that allows water to filter through, but prevents soil or other materials from passing through. If you want to install a silt fence so that it will prevent contamination and erosion, follow the steps outlined below.

## Step 1: Fence Line

Lay out your silt fence by placing stakes at each corner, and pulling a piece of string tight between the stakes. Posts should be placed 10 to 20 feet apart, depending on the application. In general, spacing the silt fence stakes around 12 to 16 feet is a good number to work with. Once your fence line has been laid, distribute the stakes around the perimeter so that you can ascertain you have the correct number available.

## Step 2: Trenching

To work properly, silt fencing needs to be partially buried. This prevents water from running under the fence, and helps anchor the fence is a great deal of force is applied to it, as may happen during heavy rains. Dig the trench 12 to 24 inches wide, and 8 to 12 inches deep. If you cross tree roots, it is okay to work around the roots instead of cutting through them. The trench should be fairly uniform, but it does not have to be exact.

## Step 3: Fence Stakes

Used a 2 to 5 pound sledgehammer to drive in the stakes. For construction fence, make sure the stakes are spaced uniformly for the sake of visual aesthetics, and drive each one at least 12 inches into the ground at the bottom of the trench.

## Step 4: Attach the Silt Fence

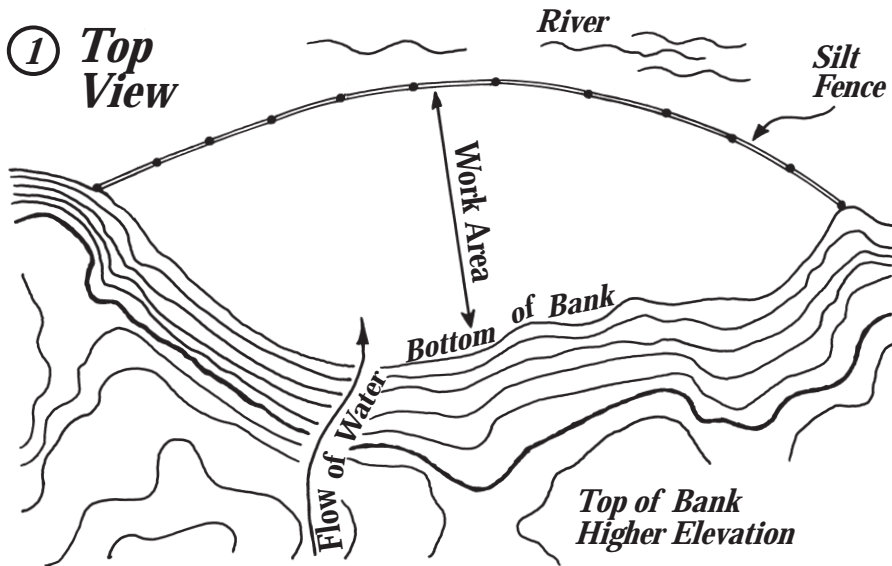
Roll out the silt fence one section at a time to prevent wind from causing inconveniences. Place the fences on the side of the stakes facing where water flow will come from, and allow the first 8 to 12 inches of fence material to fold away from the fence, in the same direction. Attach the fence to the stakes using a heavy duty staple gun, and apply 3 to 5 staples per stake. Make sure that the bottom flap is pointed up the hill, or in the direction where water will come from, and that it is smoothed out flat against the bottom of the trench.

## Step 5: Backfill and Compaction

Fill the trench in front of the stakes. Begin by filling 3 to 6 inches in the bottom of the trench, to hold the flap in place. With that done, fill the hole with all of the soil you removed. It is not necessary to fill behind the stakes, but you can do so if there is excess dirt to be used, or if the ground is especially soft or wet. For best results, use a compactor, a flat square of metal on a straight wooden handle, and tamp the area you just filled. If available, a mechanical compactor can be used instead.

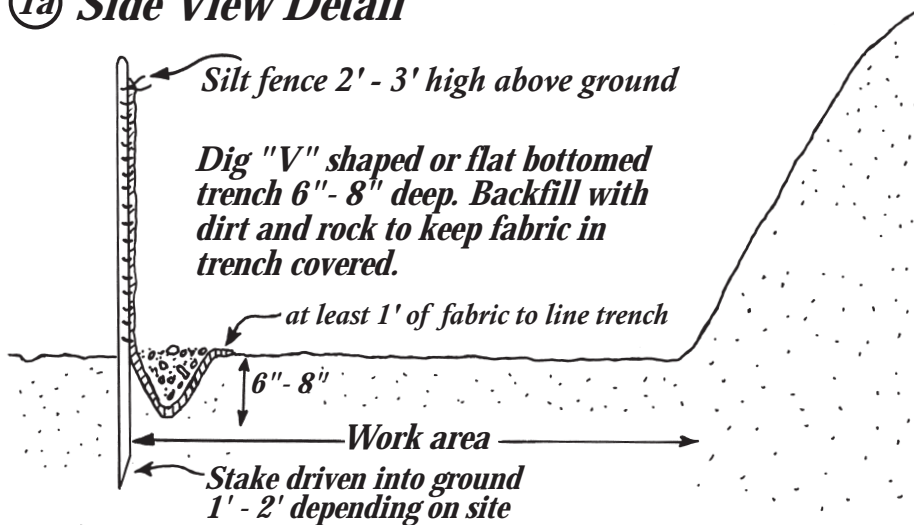
# Silt Fence Installation Step-by-Step

## ① Top View



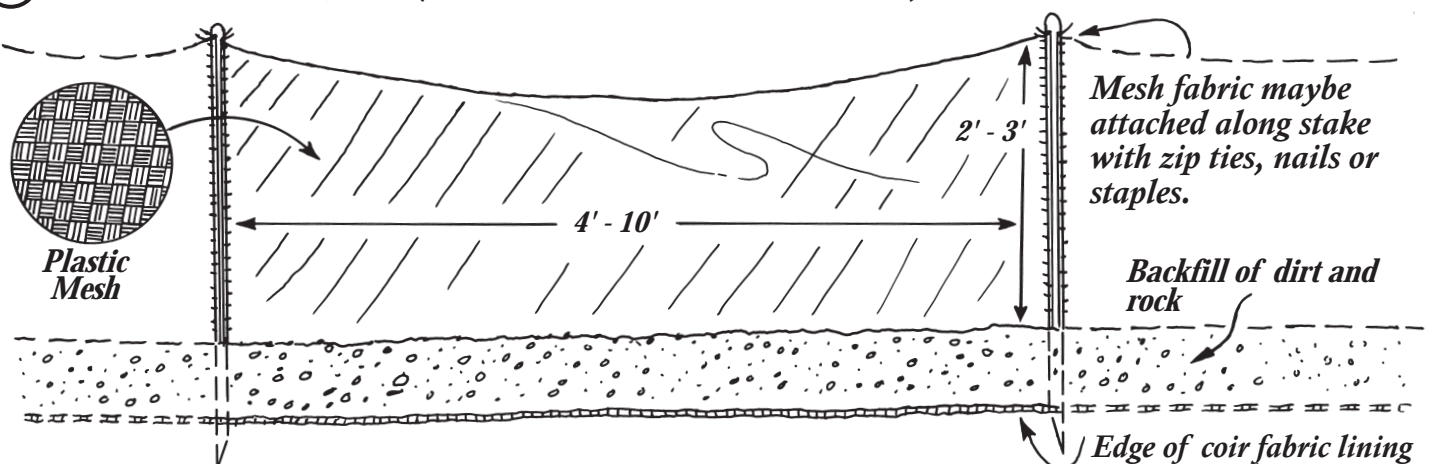
Prepare a stormwater pollution prevention plan. Set up silt fences according to terrain, soil and run-off consideration. Prevent soil migration by decreasing soil exposure, steep unvegetated slopes and construction time. Revegetate as soon as possible in the SAME SEASON.

## ①a Side View Detail



Monitor integrity of installed silt fence and remove sediment before it reaches 1/3 the height of the silt fence. It is especially important to monitor during and after rain and break-up events.

## ①b Front View Detail (One Section of Silt Fence)



Leave silt fence in place until vegetation is established and sediment is stabilized.

## **Silt (Sediment) Fence Installation**

When installing a silt fence, first choose the appropriate place to set up a silt fence by considering site terrain and slope, water flow and projected soil disturbance during construction.

**Set** the silt fence perpendicular to the slope of the land, curving the fence inward towards slope.

**Place** the silt fence spaced away from the toe-of-slope, leaving enough room to accumulate sediment and to perform work.

**Dig** a six to eight-inch trench (either V shaped or flat-bottomed) directly up-slope or upstream of the silt fence. On the downstream edge, drive in wood stakes, rebar or steel stakes at least 1 foot down into the sediment. The stakes or rebar should be long enough to accommodate the trench depth and height of the silt fence fabric.

**Run** a continuous length of fabric along the inside of the stakes and secure with nails, staples or zip ties allowing at least 1 foot to line the trench. Extend termination points uphill one full panel length.

**Use** continuous fabric piece for the silt fence. If one is unavailable and a joint is necessary, overlap the fabric at least the width of one stake spacing and secure in place using a wooden lath, staples, zip ties or nails.

**Cover** the trench with backfilled and compacted soil, gravel or rock.

**Maintain** the fence by checking the fabric for damage, failure of fence to withhold sediment, and damage to posts. Install additional back-up silt fence if needed.