

EROSION CONTROL FOR HOME BUILDERS



For every acre under construction, about a dump truck and a half of soil washes into a nearby lake or stream unless the builder uses erosion controls. Problems caused by this sediment include:

- Silt fence to trap sediment on the downslope sides of the lot;
- Placing soil piles away from any roads or waterways;
- Diversions on upslope side and around stockpiles;
- Stone/rock access drive used by all vehicles to limit tracking of mud onto streets

Taxes

Cleaning up sediment in streets, sewers and ditches adds extra costs to local government budgets.

Lower property values

Neighboring property values are damaged when a lake or stream fills with sediment. Shallow areas encourage weed growth and create boating hazards.

Nuisance growth of weeds and algae

Sediment carries fertilizers that fuel algae and weed growth.

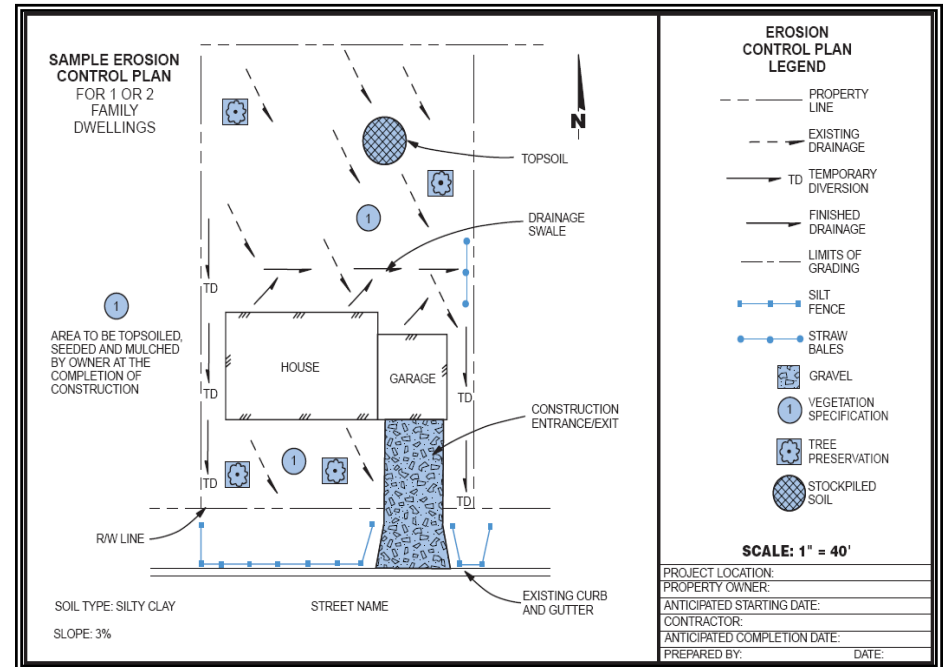
Dredging

The expense of dredging sediment from lakes, harbors and navigation channels is paid for by taxpayers.

Controlling Erosion is Easy

Erosion control is important even for home sites of an acre or less. The materials needed are easy to find and relatively inexpensive –silt fence, stakes, gravel, plastic tubes, and grass seed. Putting these materials to use is a straightforward process. Only a few controls are needed on most sites:

- Preserving existing trees and grass where possible to prevent erosion;
- Revegetating the site as soon as possible;



Silt Fence is a sediment control structure, made of geotextile fabric that restricts the movement of disturbed soil.

Access Drive is a gravelled area located where vehicles enter and leave a land disturbance site. Access Drive provides an area where mud can be removed from vehicle tires before entering a public road. The motion of the vehicle as it moves over the gravel construction material dislodges the caked mud.

WHY CONTROL? By controlling erosion, home builders help keep our lakes and streams clean.

EROSION CONTROL PRACTICES FOR HOME SITES

Silt Fence

- Install within 24 hours of land disturbance.
- Install on downslope sides of site parallel to contour of the land.
- Extended ends upslope enough to allow water to pond behind fence.
- Bury eight inches of fabric in trench.
- Stretch the fabric tight, placing the support stakes on the downslope side.
- Backfill the trench and compact the soil.
- All soil stockpiles must have silt fence place around them to prevent soil erosion.
- Leave no gaps. Overlap sections of silt fence, or twist ends of silt fence together.
- Inspect and repair once a week and after every ½ -inch rain.
- Remove sediment if deposits reach half the fence height.

Access Drive

- Install an access drive using two-to three- inch aggregate prior to placing the first floor decking on foundation.
- Lay stone six inches deep and at least seven feet wide from the foundation to the street (or 50 feet if less).
- Use to prevent tracking mud onto the road by all vehicles.
- Maintain throughout construction.
- In clay soils, use of geotextile under the stone is recommended.

Preserving Existing Vegetation

- Wherever possible, preserve existing trees, shrubs, and other vegetation.

Revegetation

- Seed, sod or mulch bare soil as soon as possible. Vegetation is the most effective way to control erosion.

Sediment Cleanup

- By the end of each work day, sweep or scrape up soil tracked onto the road.
- By the end of the next work day after a storm, clean up soil washed off-site.

Sewer Inlet Protection

- Protect on-site storm sewer inlets with straw bales, silt fences or equivalent measures.
- Inspect, repair and remove sediment deposits after every storm.

Silt Fences

Cross Sections of Trenches for Silt Fences

4" V-trench Filter Fabric

4" Filter Fabric

How to Install a Silt Fence

1. Excavate a 4" x 4" trench along the contour.
2. Stake the silt fence on downslope side of trench. Extended 8" of fabric into the trench.
3. When joints are necessary, overlap ends for the distance between two stakes.
4. Backfill and compact the excavated soil.

Flow

Flow

Flow

Flow

Sources: North Carolina Erosion and Sediment Control Planning and Design Manual, 1988.

Access Drive

How to Install an Access Drive

Hard surface road

6" minimum depth

7'

50' or distance to foundation

1. Install as soon as possible after start of grading.
2. Use two-to-three-inch aggregate stone.
3. Drive must be at least seven feet wide and 50 feet long or the distance to the foundation, whichever is less.
4. Replace as needed to maintain six-inch depth.