# Erosion & Sediment Control Guidelines

This handout contains details sufficient for typical residential building construction; it is for reference purposes it and is not intended to address all circumstances. The primary objective is perimeter control with Best Management Practices (BMPs) being utilized to prevent erosion and minimize sediment from leaving the site.

The Contractor is responsible for ensuring that adequate BMPs are in place and functioning until the construction project is brought to a close. When applying these practices and procedures to your project keep in mind the intent; and that is; "to prevent erosion and minimize sediment from leaving the site." Failure to do so can result in damage to adjacent property, damage to the community drainage system, and contribute to the polluting of the lake. Please Reference the ACC Handbook for additional information and requirements.

## INSPECTIONS

The Compliance Officer and or Public Works Representative will normally inspect erosion and sediment control measures in conjunction with routine inspections. Inspections will ensure that proper placement and installation of erosion and sediment control measures are in place. Standard items to be checked are, protection of adjacent lots, grading/excavating and stockpiles are stabilized.

As noted in the ACC Handbook, Section 4.02, the Compliance Officer will determine if erosion control is needed and will approve the type of erosion control to be used. Approved erosion control barriers are silt fencing, wattles, straw bales, sediment logs, organic or synthetic matting such as “Curlex” or “Recyclex”. Other types not listed may be approved by the Compliance Officer.

## CONTRACTORS RESPONSIBILITIES

1. The Contractor is responsible for the on-going maintenance of all lot specific erosion and sediment control devices.
2. Periodic inspection shall be whatever is deemed necessary to ensure that erosion and sediment control measures are functioning as designed.
3. Once construction has commenced, the contractor is responsible for the maintenance of erosion and sediment control measures protecting culvert or drainage ditch area. It is critical that sediment not be allowed to invade drainage system.
4. During the entire construction process the contractor is responsible to ensure that mud, dirt, rocks and other debris are not allowed to erode onto the road, nor tracked onto the roads by construction vehicles. Should any mud or other debris find its way to the road, the contractor shall take immediate steps to have it removed.
5. A Temporary Construction Entrance is optional but may be deemed necessary when applicable by Compliance Officer. A Temporary Construction Entrance provides a place for parking vehicles off street and a spot where material can be off-loaded. The intent of temporary construction entrance is to provide a stable surface for parking vehicles where mud and other debris is not likely to be tracked onto the street. Proper maintenance of the area is required until such time as a permanent driveway can be put in place.

## BEST MANAGEMENT PRACTICES

BMP's -Examples include but are not limited to sediment fences, construction entrances, straw mat, seed and mulch. Details for the installation and maintenance of several of these BMPs are provided within this handout. On the illustration, on Page 3, one will notice that this single-family residential lot that is under construction has silt fence, a gravel construction entrance, and erosion control matting installed.

## INSTALLATION SEQUENCING of BMPs

1. Ensure that the BMP's are in place and functioning for area along the street frontage.
2. Protection of adjacent lots-Install BMP's along the common lot line of adjacent sodded or seeded lots.
3. Grading/Excavating-Install BMP's prior to any grading or excavating activities, where practical.
4. Stabilize Stockpiles-Install BMP's to stabilize stockpiles to prevent sediment from reaching the street or neighboring properties.
5. Backfill-Complete installation of all BMP's per the specified design, i.e. design example or other engineered design.
6. Temporary construction entrance-Optional (see detail)
7. Maintenance-The builder is responsible for maintaining and repairing all BMP's as needed throughout construction.
8. Final grading-BMP's may be removed to complete final grading and seeding of lot. If re-vegetation of the lot is delayed, the contractor is required to maintain BMP's until restoration or re-vegetation can occur.

## MAINTENANCE of BMPs

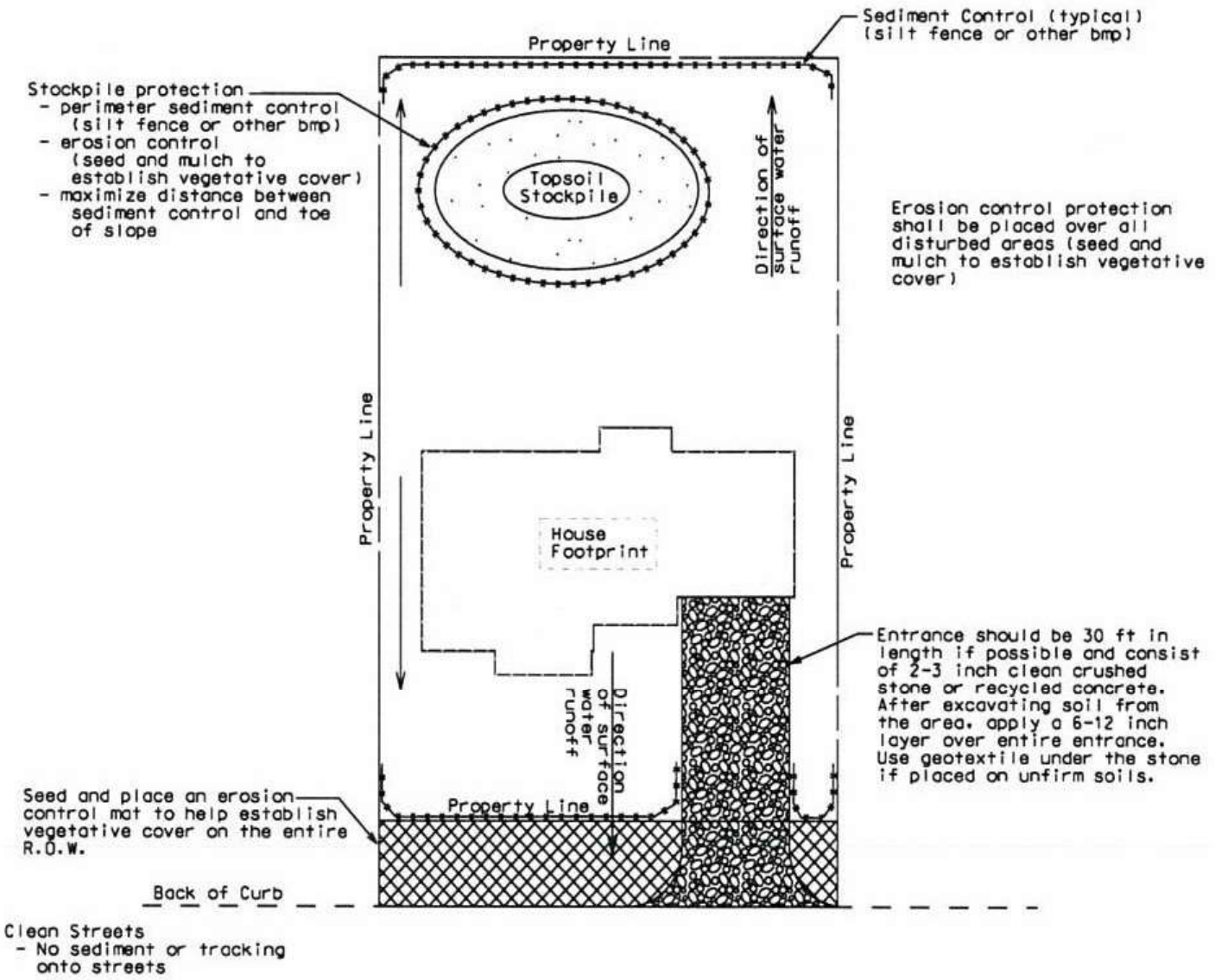
1. Inspect BMP's at least once a week and after each 1/2" or greater rainfall. Make needed repairs immediately.
2. Should the fabric of the sediment fence collapse, tear, decompose or become ineffective, replace promptly.
3. Remove the sediment deposits as necessary provide adequate storage volume for the next rain and to reduce pressure on the fence. Take care to avoid damaging or undermining the fence during cleanout.
4. If the utilities are installed after BMP's have been put in place, the permit holder is responsible for control of erosion and sediment during their installation.

## EROSION CONTROL MATTING

When installing erosion control matting be sure to follow manufacturer specific installation guideleines.

1. Before installing erosion control matting the seedbed shall be inspected to ensure it has been properly complacted and fine graded to remove existing rills.
2. It shall be free of obstructions, such as tree roots, projections such as stones and or other foreign objects.
3. After the area has been properly shaped, seeded, fertilized and comppacted then roll out the product.
4. The product shall be rolled out flat, even and smooth without strecting the material then acnhored to the subgrade.

If surface water flowage easement feature present then seed and mulch for establishment of permanent vegetation.




X—X—X—X—X— Sediment Control (silt fence, compost socks, wattles, or other similar bmps)
Note: Additional rows of sediment control may be needed on steeper slopes to break-up slope length. Place controls on the contour. When installing on the contour, the base of each end of silt fence should be at the same elevation as the top of the center of the fence in order to impound water.

Gravel construction entrance
Note: Install the entrance immediately following the placement of footing and foundation structures.

Direction of surface water runoff

Erosion control mat and vegetation

Waste containment
Note: Indicate where wastes will be contained on-site (construction debris, concrete washout, sanitary waste, paint and other chemicals or indicate that you will use regional/development structures)

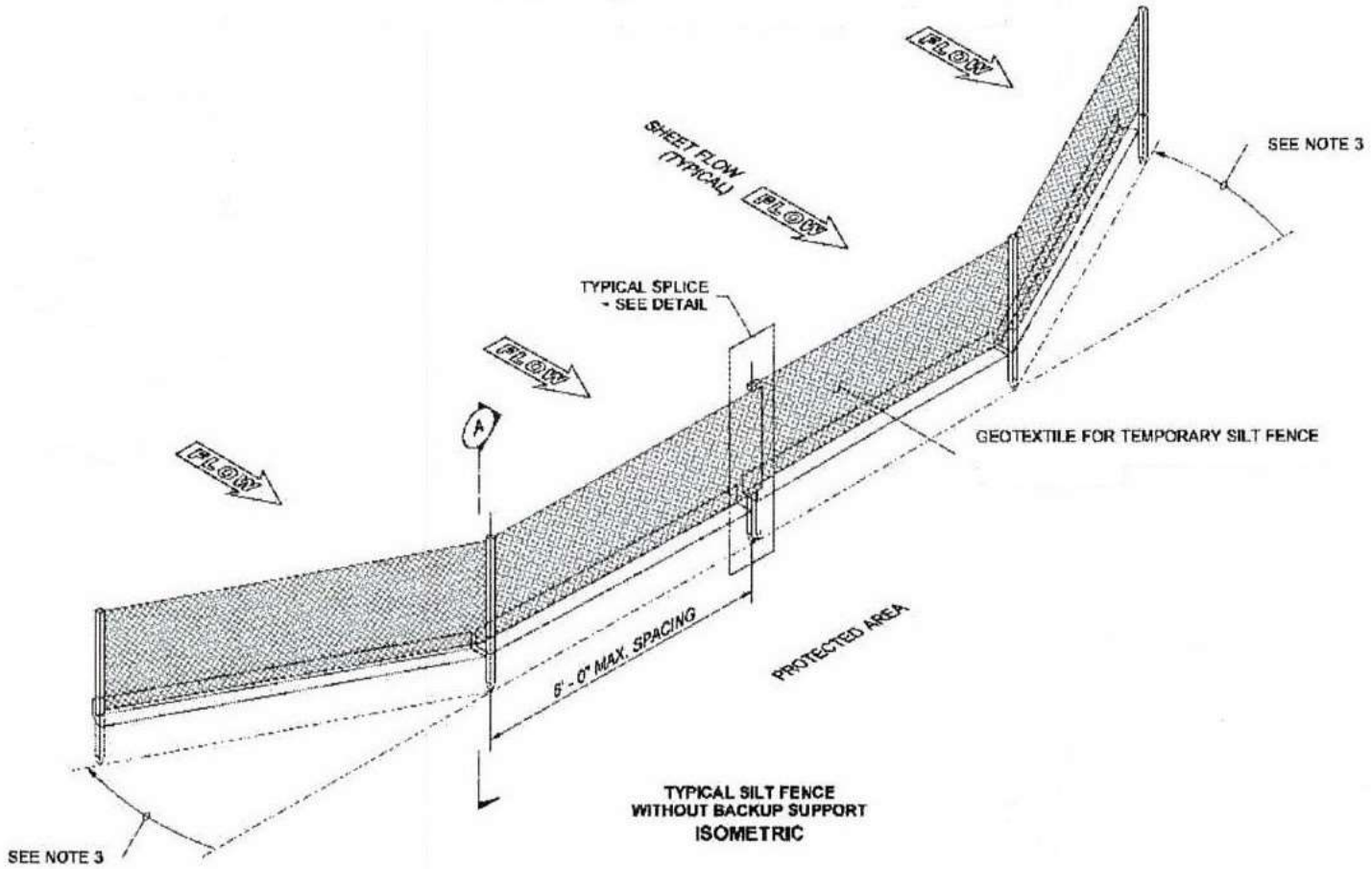
Final Stabilization and Soil Quality Restoration
It is recommended that post construction soils have a minimum of 5% organic matter and 40% soil pore space. This can be achieved by incorporating a minimum of 2 inches of organic material such as compost while tilling to a minimum depth of 12 inches.

## SILT FENCE

Silt fence shall be installed before any earth removal or excavation takes place.

Notes:

1. Maximize detention of storm water by placing fence as far away from toe of slope as possible with- out encroaching on sensitive areas or outside of the clearing boundaries.
2. Install silt fencing along contours.
3. Install the ends of the silt fence to point slightly up-slope to prevent sediment from flowing around the ends of the fence.
4. Perform necessary maintenance.
   Note: See Section A and Splice Detail on Page 5

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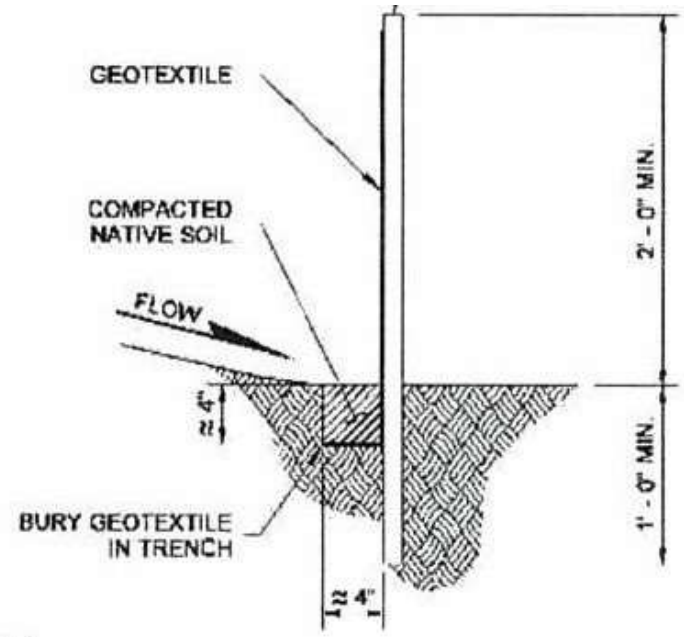


**NOTE**

DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENTRATING FLOWS.

**SECTION (A)**

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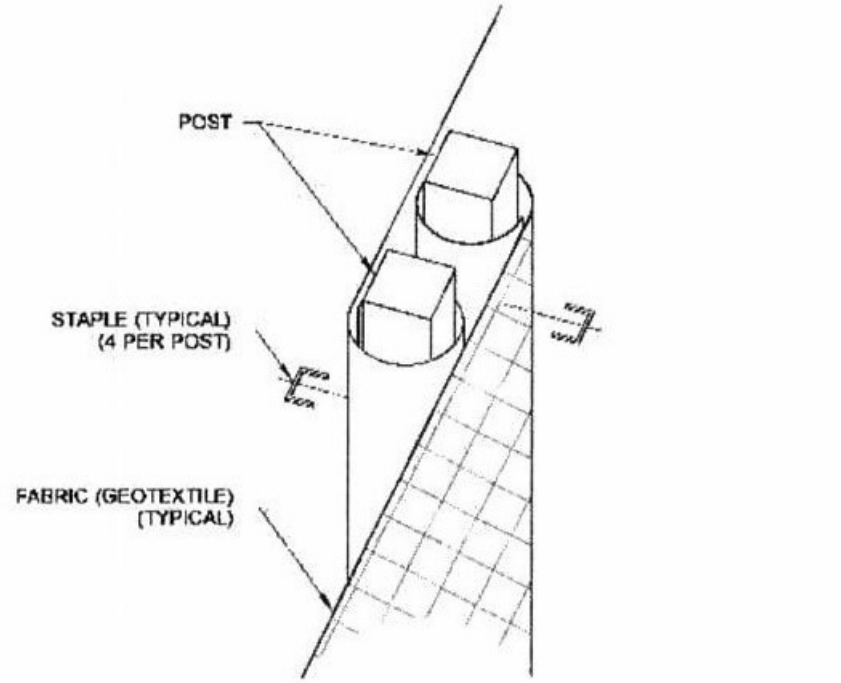


SPLICED FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP. JOINING SECTIONS SHALL NOT BE PLACED IN LOW SPOTS OR IN SUMP LOCATIONS

**SPLICE DETAIL**

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## TEMPORARY GRAVEL CONSTRUCTION ENTRANCES

Installation: The area of the entrance should be cleared of all vegetation, roots and other objectionable material. The gravel shall be placed to the specified dimensions. Ant drainage facilities required because of washing should be constructed according to the specifications on the plan. If wash rocks are used, they should be installed according to manufacturer's specifications.

1. Aggregate: 2" to 3" crushed stone or recycled concrete
2. Filter Fabric: Geotextile fabric shall be installed beneath the entire construction entrance.
3. Entrance Dimensions: The aggregate layer must be at least 6" to 12" inches thick. It must extend the full width of the vehicular ingress and egress area, a minimum of 12' wide. The length of the entrance must be to the foundation or at least 30 feet.
4. Washing: If conditions on the site are such that most of the mud is not removed from the vehicle tires by contact with the gravel, then the tires must be washed before vehicle enter public road. Wash water must be carried away from the entrance to a settling area to remove sediment.
5. Maintenance: The entrance shall be maintained in a condition which will prevent tracking or flow of mud onto public right of way. This may require periodic top dressing of stone, as conditions demand, and repair and or clean out of any structures used to trap sediment. All materials spilled, dropped and washed or tracked from vehicles onto roadway or into storm drains must be removed immediately.