Madison County Government
Building & Zoning Department

Administrator Chris Doucleff
Madison County Administration Building
157 N. Main Street Suite 254 · Edwardsville, IL 62025-1964
Phone (618) 692-7040 ext. 4468
E-Mail zoning@co.madison.il.us

Kurt Prenzler, CPA
County Board Chairman

Erosion and Sediment Control Residential Application

Permit Number: _____

Contractor: _____	Property Owner: _____
Address: _____	Address: _____
City/State/Zip: _____	City/State/Zip: _____
Phone: _____	Phone: _____
E-mail: _____	E-mail: _____
Subdivision Name: _____	Site Address: _____
Lot Number: _____	City/Township: _____
Zoning: _____	Parcel Number(s): _____
	Location: _____

Description of proposed development: _____
_____

Size of Site (Acres or S.F.): _____

Total Proposed Square Footage of Impervious Surface: _____

Total Proposed Square Footage of Land Disturbing Activity: _____
(i.e., clearing, grading, stripping, excavation, fill etc.)

Is any portion of the land disturbing activity within 25 feet of a river, lake, pond, stream, sinkhole, or wetland? _____

Zoning Classification: _____

Brief Description of Proposed Sediment and Erosion Control System: _____
_____

_____	_____
Signature	Date

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Erosion and Sediment Control Permit- Residential Permit Rules and Inspection Requirements

THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES AND INSPECTION PROCEDURES MUST BE FOLLOWED FOR RESIDENTIAL PERMITS:

Erosion and Sediment Control Measures:

1. Erosion and Sediment Control measures must be installed prior to the initial grading or clearing activity. All subsequent grading activities including rough and final grading also may not proceed unless erosion control measures have been installed.
2. All property lines adjacent to an improved tract of land, where water sheet flows off of the property, and all property lines adjacent to a street, must be seeded and mulched immediately after the initial grading or clearing. Temporary vegetation shall be established using the seeding rates in the attached brochure. The width of the seeding/mulching must be at least eight feet in width. Temporary vegetation must be established in these areas as soon as the seasonal weather permits. If cut and fill operations occur during a season not favorable for immediate establishment of permanent ground cover, a fast germinating annual such as rye grasses or sudan grasses shall be utilized to retard erosion. Where existing vegetation is not disturbed in sufficient width to prevent the release of sediment from the site, then temporary seeding and mulching will not be required in these locations (provided, however, that siltation control structures continue to be provided in locations where stormwater flows leave the site – See #3)
3. Siltation fences or straw bales must be properly installed in all areas where water sheet flows from the lot onto another piece of property or to a natural drainage way.
4. In areas where erosion siltation fencing or straw bales are not adequate due to the volume of rain water running through the location, other erosion control devices such as earth ridge diversion berms must be used.
5. Siltation and Erosion Control devices shall be installed following the attached diagrams
6. A temporary rocked driveway must be installed for vehicles entering and leaving the site. The rocked drive must be a minimum of 4 inches deep. All delivery and work vehicles must utilize the rocked area to avoid dirt and mud being tracked onto the street.
7. When dirt or mud has washed onto the street, it is the applicants responsibility to immediately remove the dirt.
8. Erosion Control measures must be maintained. All building inspections will include an inspection of the erosion and sediment control measures. If the measures are not properly installed, or are not functioning, the building inspection will be denied. Continued failure to comply with these restrictions may result in a stop work order being placed on the construction activity.
9. When clearing and/or grading operations are completed or suspended for more than 30 days, all necessary precautions shall be taken to retain soil materials on site. Protective measures may be required by the Building & Zoning Administrator such as permanent seeding, periodic wetting, mulching, or other suitable means.
10. Temporary siltation control measures (structural) shall not be removed until permanent final vegetation is established at a sufficient density to provide erosion control on the site.
11. All lots shall be seeded and mulched at the minimum permanent rates defined below or sodded before an occupancy permit is issued except that a temporary occupancy permit may be issued by the Madison County Building & Zoning Department in cases of undue hardship because of unfavorable ground conditions. Permanent seeding rates: Tall Fescue- 6.9 lbs. per 1000 square feet; Smooth Brome- 4.6 lbs. per 1000 S.F.; Combined: Tall Fescue 3.4 lbs. per 1000 S.F. – and Smooth Brome – 2.3 lbs. per 1000 S.F.
12. Additional siltation control may be required as deemed necessary by the County of Madison.

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Erosion and Sediment Control Permit
Rules and Inspection Requirements

Inspections: Notify the Madison County Building & Zoning Department 48 hours prior to the commencement of grading and/ or prior to the commencement of construction.

Inspections of all erosion control measures must occur.

The permittee shall notify the Building and Zoning Inspector within two (2) working days of the completion of the construction stages specified below:

1. Upon completion of installation of the erosion and sediment control measures prior to proceeding with any other earth disturbance or grading,
2. After stripping and clearing,
3. After rough grading,
4. After final grading,
5. After seeding or sodding, and
6. After final stabilization and landscaping, prior to removal of sediment controls.

Please provide the building permit number when notifying the Building Inspector of the completion of each task above.

Expiration of Permit: Every Soil and Erosion Control Permit shall expire and become null and void if the work authorized by such permit has not been commenced within one hundred and eighty (180) days, or if not completed by a date which shall be specified in the permit; except that the Building & Zoning Administrator may, if the permittee presents satisfactory evidence that unusual difficulties have prevented work being commenced or completed within specified time limits, grant a reasonable extension of time if written application is made before the expiration date of the permit.

Certification:

I have read the above rules and inspection requirements and agree to abide by them, as well as any other requirement of the Madison County Soil Erosion and Sediment Control Ordinance.

_____ _____

Applicant Date

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Soil and Erosion Control Site Plan

Include the following Information:

1. North Arrow
2. Dimensions of Lot
3. Footprint of House
4. Location and Name of Street(s)
5. Area where vegetation will be stripped
6. Location and Description of Erosion Control Measures
7. Draw arrows indicating where water runs off of the property
8. Location of temporary rock drive way
9. Indicate adjoining Land Uses

Approved by: _____

Date: _____

Erosion and Sediment Control Diagrams, Examples, and Brochures

MADISON COUNTY SOIL AND WATER CONSERVATION DISTRICT

EROSION CONTROL FOR HOME BUILDERS

SOIL EROSION IS A SERIOUS AND EXPENSIVE PROBLEM IN MADISON COUNTY

Soil erosion and sedimentation go hand-in-hand. Both are serious problems to lot owners and the community in general. Erosion removes topsoil and creates gullies greatly increasing the cost of establishing grass.

Lot owners can have a significant effect on the water quality of our community

Sediment that leaves a construction site clogs roads, fills culverts, storm sewers, road ditches and chokes vegetation. Sediment also pollutes streams, rivers and lakes. It spoils wildlife and fish habitat. Sediment is expensive to remove once it has settled in the bottom of a lake.

HOW MUCH SOIL EROSION OCCURS FROM A BUILDING LOT?

The following information provides some low cost, practical methods that a lot owner can use to minimize the erosion and resulting sedimentation that results from the development of a parcel of land.

It is not uncommon for building lots to experience over 15 tons of soil loss to erosion during the home building phase.

In our area, a moderately sloping lot that has been stripped of vegetation and left bare from March through October while building in going on, can expect to lose about 5 to 15 tons of soil due to erosion. The soils we have in Madison County are high in clay and silt content. They erode very easily. When soils erode, the silt portion of the soil settles out in roads, ditches, ponds and lakes. The clay particles stay in suspension and can cause a body of water to appear brown and muddy.

This valuable top soil, when in place is the foundation for the lawn and other plantings. When eroded this sediment is now a serious pollutant.

The first rule of erosion control is to keep the time the lot is void of vegetation to a minimum. Insist that your builder only disturb the least amount of area as possible at any given time.

MADISON COUNTY SOIL
AND WATER
CONSERVATION
DISTRICT

P.O. Box 482
7205 Marine Road
Edwardsville, IL. 62025

Phone: 618-656-5166
Fax 618-656-5187

DOWNSPOUT EXTENDERS

As soon as gutters and downspouts are in place, extensions of the downspouts should be installed. These should extend to a grass or paved area in order to minimize erosion. They can be removed once the lawn is established.

WHERE TO GET HELP

Minimizing soil erosion is much more cost effective then catching sediment as the soil washes off of a building site.

Keeping soil on construction sites is vastly cheaper than cleaning up the sediment caused by soil erosion. When sediment is allowed to run off construction sites the community bears the burden of cleaning up the choked streams, culverts, ditches, lakes and ponds.

The methods covered here have proved to be effective in many communities throughout Illinois.

Controlling soil erosion is one of the most positive environmental actions a homeowner can do

For more information about erosion control methods and sediment pollution control methods for building sites contact::

The Madison County Soil and Water Conservation District or the
U.S. Department of Agriculture, Natural Resources Conservation Service
7205 Marine Road
Edwardsville, IL. 62025

phone 656-5166

TEMPORARY SEEDING AND MULCHING

The most cost effective method to control erosion is to quickly establish a temporary seeding with an adequate mulch.

Vegetative methods of erosion control are the least expensive and usually the most effective. Establishing grass protects the soil from the impact of falling rain and holds the soil in place. Temporary seeding and mulch provide a quick cover to control erosion before the final grading and landscaping has occurred.

SEEDING

An adequate seed bed should be prepared first by raking or roto-tiling.

Here are some good mixtures to establish a temporary seeding.

Species	Rate per 1000 sq. ft.	Seeding Dates
Oats	3 pounds	Early Spring – July 1
Cereal Rye	3 pounds	Early Spring - Oct. 15
Wheat	3 pounds	Early Spring – Oct. 15
Perennial Ryegrass	6 pounds	Early Spring – Oct. 15

Mulch provides immediate erosion control and should be applied any time during the year.

MULCHING

The seed should also be applied with an adequate cover of mulch. The mulch acts as an Immediate barrier to protect the soil as the grass is getting established. It is the single most important measure a lot owner should do to control erosion.

Straw is the most widely used mulch. It should be applied at a rate of about 90 pounds per 1000 square feet. Straw can be applied by hand or applied mechanically by use of a straw blower.

The straw must be anchored by one of the following methods:

- Mulch anchoring tool such as a crimper or disc
- Plastic mulch netting, properly stapled in place.
- Liquid mulch binder
- As an alternative to these, water can be applied to keep the mulch in place

Another type of mulch are erosion control blankets. These are prefabricated rolls of natural or synthetic fiber material that is sandwiched between permanent or degradable netting. Strips of the blanket are rolled down the hill and anchored to the soil with degradable staples.

SEDIMENT CONTROL BY USE OF SILT FENCE

Silt fences are a type of sediment filter. They are installed around the perimeter of a construction site and around the inlets to storm sewers. Their purpose is to remove sediment from the runoff water leaving the site. When installed properly they can remove about 40% of the silt from the water. Silt fences are a mesh fabric that allows water to pass through it but retains some of the silt.

Here are some of the factors that go into a successful installation:

Silt fences can be effective as a sediment retention device.

- The lower end of the mesh fiber should be trenched into the ground about 8 inches.
- Wooden stakes should support the fence and should be installed every 5 feet.
- They should not be used where water will concentrate into a gully.
- Silt fence should be installed prior to soil disturbance.

STRAW BALES AS A METHOD TO CATCH SEDIMENT

As a last resort, straw bales can be installed to catch some sediment from a construction site. Straw bales are not effective methods and frequently fail. However, if properly installed and maintained, they can offer some sediment retention for a limited time.

Here are some tips to properly install straw bales.

A row of straw bales if installed properly, can trap a small amount of sediment. They should be used as a last resort only.

- The bales should be placed in a single row, with the ends tightly butted together.
- The row of bales should extend upslope far enough so the trapped sedi ment laden water cannot flow around the ends of the barrier.
- The barrier should be trenched into the ground about 4 inches to prevent water from running under the bales.
- The row of bales should be backfilled with soil to further prevent water from running under or around the row of bales.

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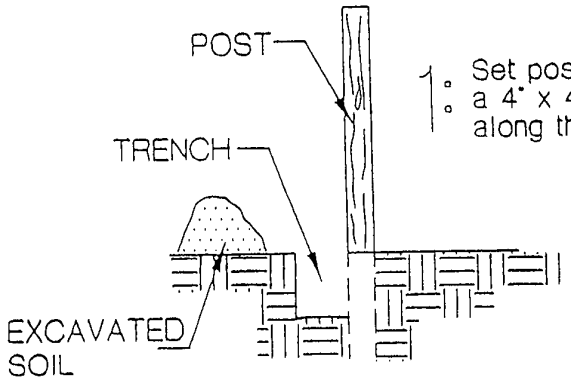
phone 656-5166

Synthetic Filter Barriers

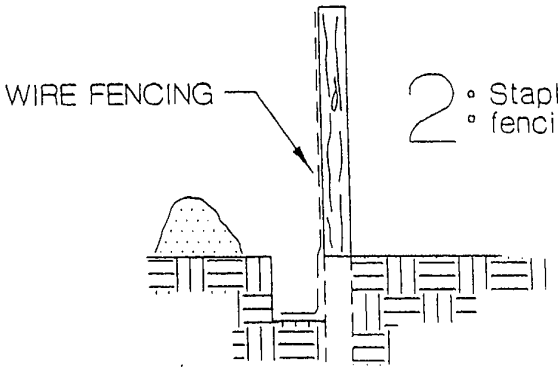
For Urban Development Sites

Maintenance:

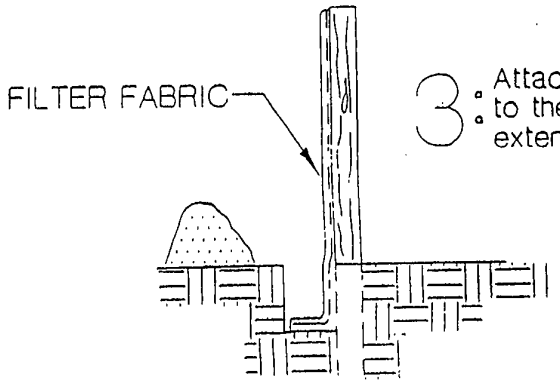
1. Filter barriers shall be inspected immediately after each rainfall and at least daily during periods of prolonged rainfall. Any required repairs shall be made immediately.
2. Should the fabric decompose of become ineffective prior to the end of the expected usable life and the barrier still be necessary, the fabric shall be replaced immediately.
3. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.
4. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required, shall be addressed to conform with the existing grade, prepared and seeded.



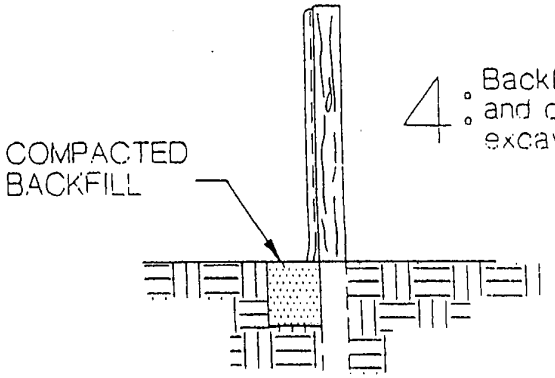
1. Set posts and excavate a 4" x 4" trench upslope along the line of posts.



2. Staple the wire mesh fencing to each post.



3. Attach the filter fabric to the wire fencing and extend it into the trench.



4. Backfill the trench and compact the excavated soil.