



Single Family Residential Erosion/Sediment Control Standards



Revised August 2024

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Introduction

This booklet contains standard plans and procedures sufficient for typical residential land disturbing activities, though it is not intended to address all circumstances.

All projects that will involve land disturbing activities (e.g. clearing, grading or grubbing) must provide erosion and sediment control measures to prevent the concentration of stormwater runoff and the transport of sediment from the site to storm drains, surface waters, wetlands, adjacent properties, and roadways. Roadways are conduits for stormwater and it is important to keep them sediment and debris free. The primary goal is perimeter control with best management practices (BMPs) being utilized to prevent erosion and minimize off-site sediment impact.

The Permit Holder is responsible for ensuring that adequate BMPs are in place and functioning as designed until the site is stabilized.

When making the determination if lot-to-lot protection is necessary always keep in mind the intent of the standard; and that is **to prevent erosion and minimize sediment from leaving the site**. Failure to do so may result in damage to adjacent property and/or to the storm drain system, and possibly contribute to sediment and pollutants entering surface waters. If any questions or concerns arise, please contact Greenville County's Land Development Division (LDD) at 864-467-4610.

NOTE: IF THIS PARCEL CONTAINS A FRESHWATER WETLAND OR A CREEK THIS HANDBOOK IS NOT ACCEPTABLE FOR LAND DISTURBANCE PERMITTING. PLEASE VISIT THE LDD OFFICE TO OBTAIN A PERMIT FOR THIS SITE. IF WETLANDS ARE FOUND ON THIS SITE DURING OUR INSPECTIONS, AND THE APPROPRIATE PERMITS HAVE NOT BEEN OBTAINED, VIOLATIONS AND FINES WILL APPLY.



RESIDENTIAL EROSION AND SEDIMENT CONTROL REQUIREMENTS

In order to comply with the requirements imposed by the National Pollutant Discharge Elimination System (NPDES) Permit issued to Greenville County by the South Carolina Department of Environmental Services (SCDES) and the Environmental Protection Agency (EPA), Greenville County has adopted a comprehensive Stormwater Ordinance to manage certain pollutants generated from construction sites.

LDD is responsible for the coordination and oversight of all stormwater related activities as outlined in the Stormwater Ordinance by the issuance of Land Disturbance (Grading) Permits. All land disturbing activities that result in a change in the natural cover or topography must utilize BMPs to prevent violations of the Federal Clean Water Act. All land disturbing activities are subject to permitting requirements.

Residential permitting will fall into one of the categories below:

- ▶ If the lot is part of a subdivision platted after 2003, land disturbing activity may be covered under an active permit for that subdivision. All construction activity must comply with erosion control plans for individual lots as shown on the subdivision's storm water management and sediment control plan. BMPs must be installed and maintained as outlined in this booklet. Failure to install or maintain such measures will result in a Stop Work Order and Notice of Violation. If the site continues to produce off-site impacts a Land Disturbance (Grading) permit may be required. LDD reserves the right to require a licensed design professional to oversee the project. Fines of up to \$7,500.00/ violation/day may be imposed if the site becomes a habitual offender.
- ▶ For individual lots not located within a permitted subdivision and **disturbing more than 5,000 ft but less than 1 acre** the LDD will allow the building permit to act in the place of a separate Land Disturbance (Grading) Permit; therefore, a separate Land Disturbance (Grading) Permit is not required. However, BMPs must be installed and maintained as outlined in this booklet. Failure to install or maintain such measures will result in a Stop Work Order and Notice of Violation. If the site continues to produce off-site impacts a Land Disturbance (Grading) permit may be required. LDD reserves the right to require a licensed design professional to oversee the project. Fines of up to \$7,500.00/violation/day may be imposed if the site becomes a habitual offender.

Residential lots disturbing 1 acre of land or more and not part of a larger common plan of development will be required to obtain a Land Disturbance (Grading) Permit, as well as submit a Notice of Intent (NOI) and any applicable fees to South Carolina Department of Environmental Services (SCDES) for coverage under the Construction General Permit. LDD reserves the right to require a licensed design professional to oversee the project.

OWNER/PERMIT HOLDER/CONTRACTOR RESPONSIBILITIES

1. The Permit Holder is responsible for the correct installation and on-going maintenance of all lot specific erosion and sediment control devices.
2. Periodic inspections of the site shall be conducted as necessary to ensure that erosion and sediment control measures are functioning as designed. In addition to periodic inspections, state law and the Greenville County Stormwater Ordinance requires that a inspection be conducted within 24 hours after the end of a rain event greater than or equal to ½" . Any problems noted during these inspections shall be corrected immediately.
3. Once construction has commenced, the Permit Holder is responsible for inlet protection on their lots, as well as curb inlets along the street. It is critical that sediment not be allowed to invade the stormwater system.
4. The Permit Holder is responsible for the installation, maintenance, and upkeep of stabilized construction entrance. A stabilized construction entrance is an area of aggregate underlain with geo textile material located at any point where traffic will be entering/exiting the construction site. The purpose of the stabilized construction entrance is to reduce or eliminate sediment and/or debris being tracked onto roadways. If sediment and/or debris migrates into the roadway the contractor shall take immediate steps to have it removed. Instruction and illustration details on stabilized construction entrances can be found on pages 12 and 13 of this booklet.
5. The Permit Holder is responsible for the actions of all sub-contractors and delivery personnel at the worksite as they relate to stormwater and erosion control. Establishing appropriate places for staging and the storage of building materials and paint is required. A wash out area is needed for "wet" construction materials (e.g. paint and concrete).
6. The Permit Holder is responsible for all off-site impacts. These impacts include, but are not limited to mud, dirt, debris, and trash leaving the site by means of wind, water, humans, or machinery. Should any off-site impacts occur, the Permit Holder is responsible for mitigating the situation immediately.
7. Erosion and sediment control measures must remain in place and properly maintained throughout the construction period. The site must be vegetated or otherwise stabilized before the measures can be removed.

BEST MANAGEMENT PRACTICES (BMPs)

Inlet Protection - Ensure that the BMPs are in place and functioning for both area inlets and curb inlets along the street frontage.

Protection of Adjacent Lots - Install BMPs along the common lot line of adjacent undisturbed lots.

Temporary Construction Entrance - Prior to any delivery of material or construction of any kind, a stabilized construction entrance shall be installed.

Grading/Excavation - Install all BMPs prior to excavation, where practical.

Stabilized Stockpiles - Install BMPs to stabilize stockpiles to prevent off- site impacts.

Backfill - Complete installations of all BMPs per the specified design.

Maintenance - The Permit Holder is responsible for maintaining and repairing all BMPs as necessary to ensure no off-site impacts occur.

Final Grading - BMPs may be removed in order to complete final grading and stabilization. BMPs must be maintained until 70% of the disturbed area is stabilized.

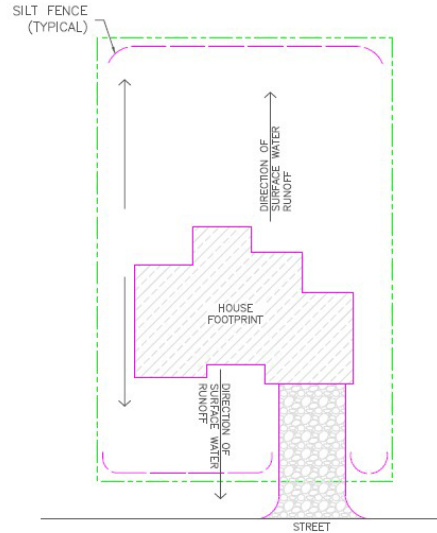


INSPECTION


1. For permitted projects, LDD personnel will check erosion and sediment control measures with routine inspections within the subdivision. Inspections will ensure the proper placement and that the erosion and sediment control measures are functioning as intended.
2. The Building Codes Inspector will also review the site during the course of scheduled inspections. If BMPs are not maintained the inspector will report all violations to the LDD Inspection staff. The LDD Inspector may issue a Stop Work Order and a Notice of Violation.
3. Minor corrections to erosion and sediment control measures must be completed within 24 hours. If corrections are not completed within that time frame, a Stop Work Order will be posted and a Notice of Violation issued. A fee will be assessed to release the stop work order and fines not to exceed \$7,500.00/violation/day may be assessed if the site or the builder/contractor becomes a habitual offender.



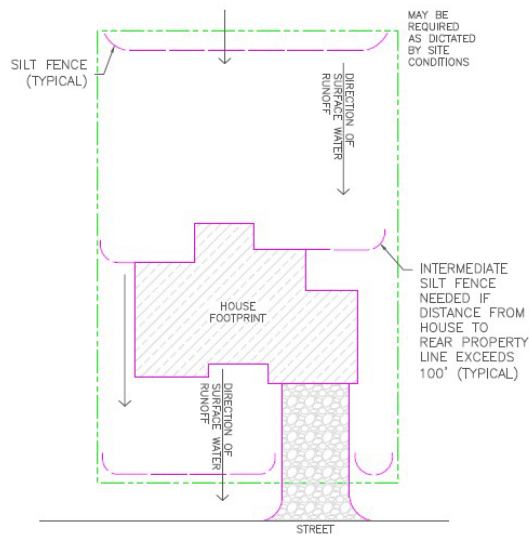
SINGLE FAMILY LOT EROSION CONTROL PLAN - TYPE A



- SILT FENCE
- GRAVEL CONSTRUCTION ENTRANCE
- ← DIRECTION OF SURFACE WATER RUNOFF
- - - PROPERTY LINE

	Greenville County Storm Water Management
	SINGLE FAMILY LOT EROSION CONTROL PLAN - TYPE A
STANDARD DRAWING NO.	RC-08A
APPROVED BY:	<u>August 2024</u> DATE
GREENVILLE COUNTY STORM WATER MANAGEMENT	

SINGLE FAMILY LOT EROSION CONTROL PLAN - TYPE B



- SILT FENCE
- GRAVEL CONSTRUCTION ENTRANCE
- ← DIRECTION OF SURFACE WATER RUNOFF
- - - PROPERTY LINE



Greenville County
Storm Water Management

SINGLE FAMILY LOT EROSION
CONTROL PLAN - TYPE B

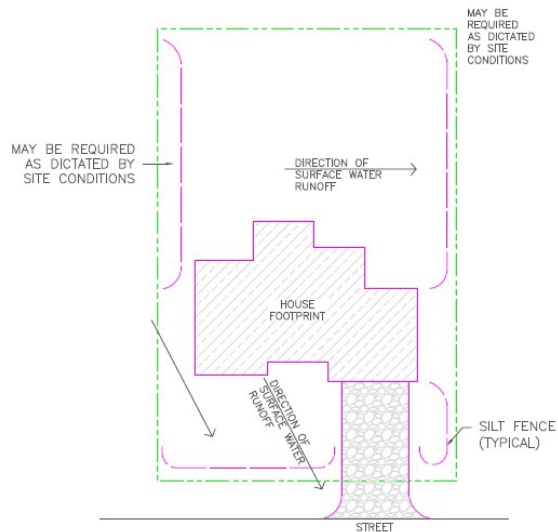
STANDARD DRAWING NO.

RC-08B

APPROVED BY:
GREENVILLE COUNTY STORM WATER MANAGEMENT

August 2024
DATE

SINGLE FAMILY LOT EROSION CONTROL PLAN - TYPE C



- SILT FENCE
- GRAVEL CONSTRUCTION ENTRANCE
- ← DIRECTION OF SURFACE WATER RUNOFF
- - - PROPERTY LINE



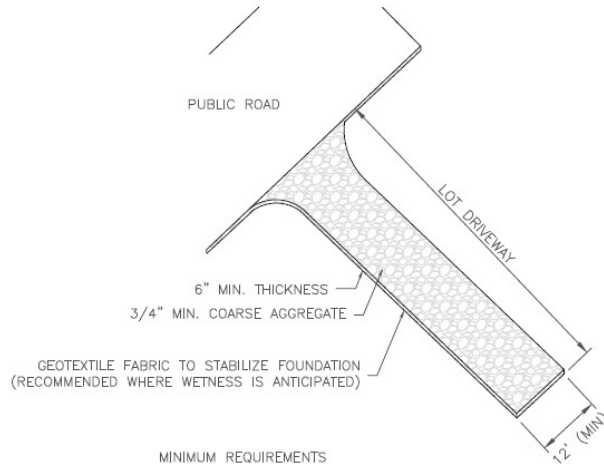
Greenville County
Storm Water Management

SINGLE FAMILY LOT EROSION
CONTROL PLAN - TYPE C

STANDARD DRAWING NO. RC-08C

APPROVED BY: _____ August 2024
GREENVILLE COUNTY STORM WATER MANAGEMENT DATE

SINGLE FAMILY LOT CONSTRUCTION ENTRANCE



MINIMUM REQUIREMENTS

1. AGGREGATE SIZE: 3/4" OR LARGER MINIMUM,
1.5" OR LARGER IS PREFERRED
2. PAD DESIGN –
THICKNESS: 6" MINIMUM
WIDTH: 12' MINIMUM
LENGTH: LOT DRIVEWAY
3. GEOTEXTILE FABRIC – AN UNDERLINER OF
WOVEN GEOTEXTILE FABRIC MAY BE USED IN
WET CONDITIONS TO PROVIDE STABILITY



Greenville County
Storm Water Management

**SINGLE FAMILY LOT
CONSTRUCTION ENTRANCE**

STANDARD DRAWING NO. **SC-06B**

APPROVED BY: GREENVILLE COUNTY STORM WATER MANAGEMENT August 2024
DATE

SC-06 CONSTRUCTION ENTRANCE

GOOD - 1.5" - 3" stone is preferred over #57 stone



WRONG - no filter fabric under stone and maintenance overdue



SC-03A SILT FENCE

GOOD - steel posts at 6' spacing



Install OK but sediment storage quickly full, needs better upstream BMPs



SC-03 DOUBLE ROW SILT FENCE

GOOD - double row silt fence should be spaced 3-5 feet apart

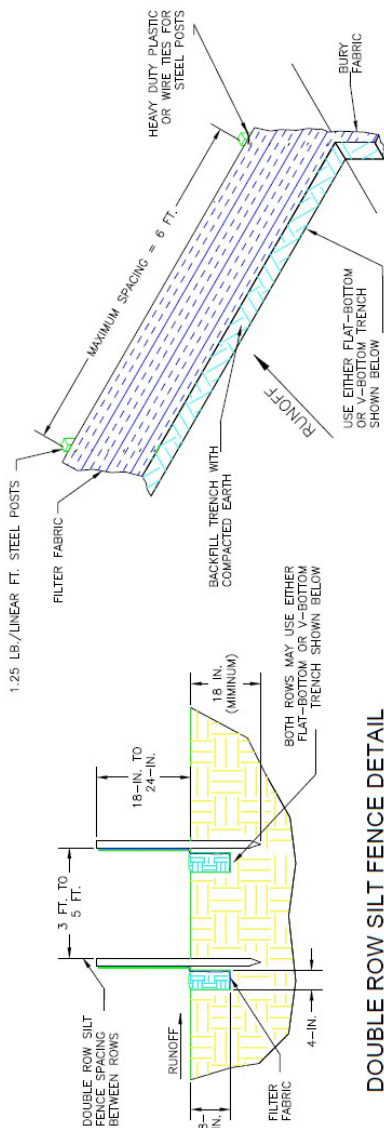


WRONG - fabric not trenched in, double rows are too close



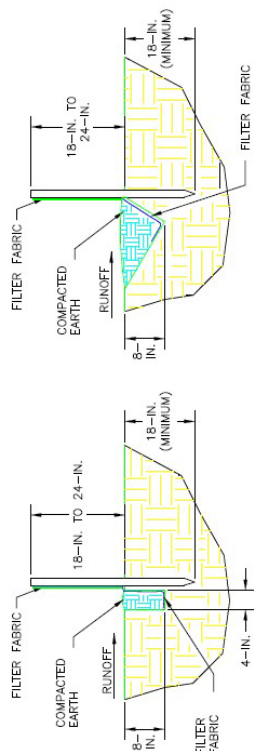
SPECIFICATIONS FOR SEDIMENT FENCE FABRIC

Physical Property	Minimum Requirement
Filtering Efficiency	80%
Tensile Strength	90 pounds/linear inch
Ultraviolet Stability	70%



DOUBLE ROW SILT FENCE DETAIL

SILT FENCE INSTALLATION



FLAT BOTTOM TRENCH DETAIL

V-SHAPED TRENCH DETAIL

 Greenville County Storm Water Management	SILT FENCE	SC-03A	STANDARD DRAWING NO. APPROVED BY: <u>SPRUEY, 2018</u> GREENVILLE COUNTY STORM WATER MANAGEMENT DATE
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SEDIMENT FENCE - Minimum Requirements and Installation

Overland Slope Length - Maximum of 100'. Flare ends of fence uphill to temporarily impound water.

Spacing of support posts - Drive posts at least 18" into the ground on the downslope side of the trench. Space posts a maximum of 6' on center. Attach a continuous length of fabric to upslope side of fence posts. Minimize the number of joints. Avoid joints at low points in the fence line. Overlap, do not abut, ends of fabric.

Trench - Dig trench at least 4" wide and 8" deep along the fence alignment. Bottom 1' of fence must be buried a minimum of 8" deep lapping 4" toward the upslope side and covered by compacted backfill.

Impounded water height - Depth of impounded water should not exceed 1.5' at any point along fence. Do not place silt fence in areas of concentrated flow.

Sediment depth – Sediment must be removed when it reaches approximately 1/3 height of the fence.

Support posts - 1.25 lbs/linear foot steel. Steel posts should have projections for fastening fabric.

Support wire – Support wire fence (14-gauge with 6" mesh) is necessary if contributing slope is greater than 3%. Fasten support wire fence to upslope side of posts, extending 6" into trench.

Synthetic geotextile fabric - Conforming to specifications in Table 1 and containing ultraviolet light inhibitors and stabilizers. Maximum design life of 6 months. Attach fabric to steel posts using heavy-duty plastic or wire ties that are evenly spaced. Affix ties no less than 4 places spaced a maximum of 6" apart.

Maintenance - Inspect silt fence weekly and after each rainfall event of 1/2" or greater. Make necessary repairs immediately. Should the fabric of the silt fence collapse, tear, decompose or become ineffective, replace promptly.
Removal – Silt fence should be removed within 30 days after final stabilization is achieved. Disturbed areas resulting from fence removal should be permanently stabilized.

NOTE: IF BMPS ARE DAMAGED WHEN THE UTILITIES ARE INSTALLED THE PERMIT HOLDER IS RESPONSIBLE FOR SEDIMENT AND EROSION CONTROL AS WELL AS THE REPAIR OR RE-INSTALLATION OF THE DAMAGED BMPS.

ALWAYS INSTALL SILT FENCE PER MANUFACTURER'S INSTRUCTIONS

PERIMETER CONTROL FOR SMALL SITES

Sediment tubes – Sediment tubes can be used in place of a silt fence around the perimeter of relatively flat small sites (less than 1 disturbed acre) and individual single lots.

Overland slope length – The maximum length to the Perimeter Control is 100 ft.

Sediment Tube Material – Pre-installed tube diameter should be 18" to 24". 30 lbs/ft for 18" and 4 lbs/ft for 24". 10' minimum in length. Materials must be certified 100% weed free. When curled excelsior wood fiber is used, 80% of the fiber materials are a minimum of four (4) inches in length. When washed shredded recycled rubber particles are used, a minimum of 98% of metal is removed. Materials are enclosed by a tubular, flexible outer netting treated with ultraviolet stabilizers.

Do not use straw, curled excelsior wood, or natural coconut rolled erosion control products (RECPs) that are rolled up to create a sediment tube for ditch checks device. Do not use straw bales, natural pine needles, leaf mulch, and or grass clippings.

Table 1: Minimum Performance Requirements for Sediment Tubes

Property	Value
Pre-installed Tube Diameter	18.0-inch minimum 24.0-inch minimum
Mass Per Unit Length	3.0 lbs/ft +/- 10% minimum for 18-in diameter, 4.0 lbs/ft +/- 10% minimum for 24-in diameter
Length Per Tube	10-ft minimum

Height – Sediment tubes for Perimeter Control shall be 7" above the ground.

Trench – Dig a small U-shaped trench to a depth that is 20% of the perimeter control diameter/height. Lay the Perimeter Control flat in the U-shaped trench and compact the upstream Perimeter Control soil interface with soil.

Staking Post – Install Perimeter Control using 4' wooden posts (3/4 inch x 3/4 inch) or steel posts (1.25 lbs/ linear foot).

Spacing – Space stakes on 6-foot centers and drive them into the ground to a depth of 2 feet.

Maintenance – Inspect Perimeter Control weekly and after each rainfall event that produces 1/2-inches or greater. Check and repair, when necessary, where runoff has eroded a channel beneath the Perimeter Control, or where the Perimeter Control has sagged, undercut, or collapsed by overtopping.

Remove – Remove Perimeter Control within 30 days after final stabilization is achieved. Gather and dispose Perimeter Control in trash. Backfill all trenches, depressions, or other ground disturbances caused by the removal of Perimeter Control and then permanently stabilize disturbed areas.

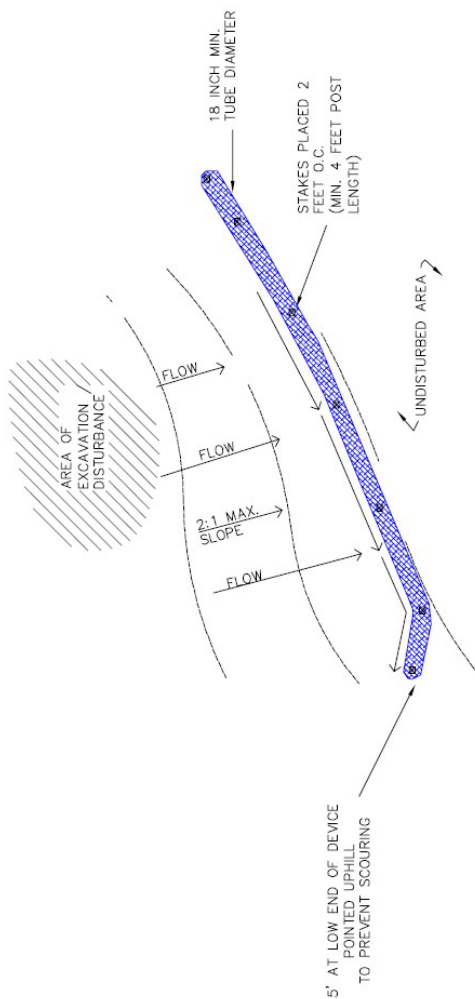
SC-12 PERIMETER CONTROL FOR SMALL SITES

GOOD - non-weighted sediment tubes staked in place



Blue Sediment Tube: Good - weighted sediment tube
Hay Bales: Wrong - should not be used in place of sediment tubes






NOTES:

1. REMOVE SEDIMENT FROM THE UPSLOPE SIDE OF THE FILTER SOCK WHEN ACCUMULATION HAS REACHED $\frac{1}{2}$ OF EFFECTIVE HEIGHT OF FILTER SOCK
2. SLOPES GREATER THAN 5% MAY REQUIRE ADDITIONAL STABILIZATION PRACTICES
3. SEDIMENT TUBE MAY BE SEEDED AT THE TIME OF INSTALLATION

SEDIMENT TUBE FOR PERIMETER CONTROL

 Greenville County Storm Water Management	SEDIMENT TUBE FOR PERIMETER CONTROL OF SMALL SITES
STANDARD DRAWING NO. SC-12	APPROVED BY: _____ DATE: January 2018 GREENVILLE COUNTY STORM WATER MANAGEMENT

SC-04 ROCK DITCH CHECK

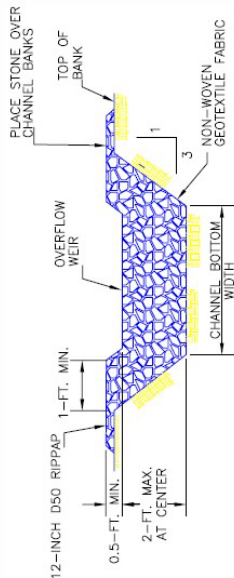
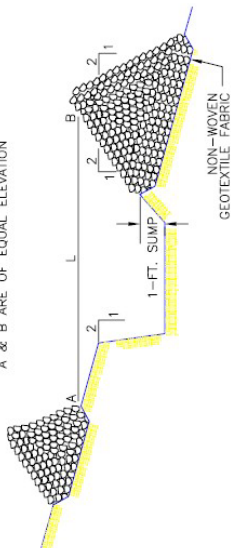
GOOD - filter fabric under stone and washed stone on upstream face



WRONG - too large and incorrect stone, water has eroded around

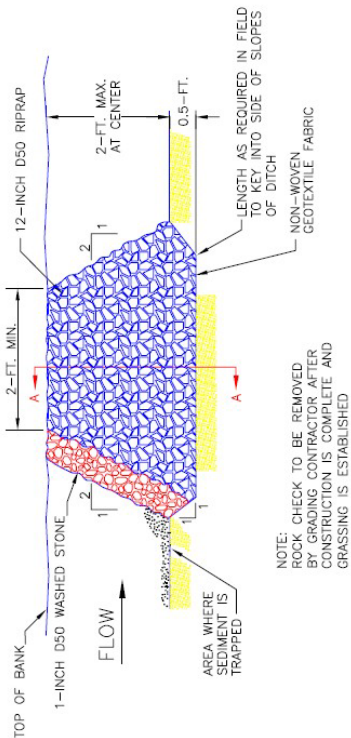


L = THE DISTANCE SUCH THAT POINTS A & B ARE OF EQUAL ELEVATION



SPACING BETWEEN DITCH CHECK

CROSS SECTION A-A THRU STONE DITCH CHECK



TYPICAL DITCH CHECK SECTION



Greenville County
Storm Water Management

ROCK DITCH CHECK

STANDARD DRAWING NO. SC-04

APPROVED BY: JUNE 14, 2018 DATE
GREENVILLE COUNTY STORM WATER MANAGEMENT

INSTALLATION:

1. FILTER FABRIC IS USED FOR INLET PROTECTION WHEN STORM WATER FLOWS ARE RELATIVELY SMALL (1.0 CFS OR LESS) WITH LOW VELOCITIES. WHERE THE INLET DRAINS AN AREA THAT HAS GRADES NO GREATER THAN 5% AND THE IMMEDIATE DRAINAGE AREA AROUND THE INLET (6 FOOT RADIUS) HAS GRADES LESS THAN 12%, USE IN AREAS RECEIVING CONCENTRATED FLOW IS NOT ACCEPTABLE. THIS PRACTICE CANNOT BE USED WHERE DITCHES ARE PAVED. A TRENCH WILL BE EXCAVATED 6 INCHES WIDE AND 6 INCHES DEEP AROUND THE OUTER PERIMETER OF THE STAKES UNLESS FABRIC IS PNEUMATICALLY INSTALLED.
2. FILTER FABRIC WILL CONFORM TO THE STORM DRAIN INLET PROTECTION SPECIFICATION. FILTER FABRIC WILL EXTEND A MINIMUM OF 12 INCHES INTO THE TRENCH. THE TRENCH WILL BE BACKFILLED WITH SOIL OR CRUSHED STONE AND COMPACTED OVER THE FILTER FABRIC UNLESS FABRIC IS PNEUMATICALLY INSTALLED.
3. USE STEEL POSTS WITH A MINIMUM POST LENGTH OF 5 FEET CONSISTING OF STANDARD "X" SECTIONS WITH A WEIGHT OF 1.25 POUNDS PER FOOT (LBS). THE HEIGHT OF THE FILTER BARRIER ABOVE GROUND WILL BE A MINIMUM OF 24 INCHES. POSTS SHALL BE SPACED AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 2 FEET APART AND DRIVEN INTO THE GROUND A MINIMUM OF 24 INCHES. ATTACH FABRIC TO POSTS USING ONLY HEAVY DUTY PLASTIC TIES. ATTACH AT LEAST 4 EVENLY SPACED TIES IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC.
4. FILTER FABRIC SHOULD BE IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE PROTECTED AREA TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER FABRIC SHOULD BE WRAPPED TOGETHER ONLY AT A SUPPORT POST WITH BOTH ENDS SECURELY FASTENED TO THE POST WITH A MINIMUM 6 INCH OVERLAP.

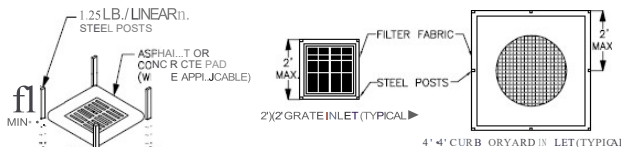
131. LOW GROUND LEVEL FOR ADDITIONAL STABILITY.

INSPECTION AND MAINTENANCE:

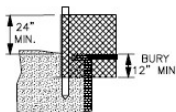
1. IF THE FABRIC BECOMES CLOGGED, IT WILL BE REPLACED.
2. IF THE FABRIC BECOMES CLOGGED, IT WILL BE REPLACED.

STORM WATER CARE NOT TO WALK OR UNDERCUT FABRIC WHEN REMOVING SEDIMENT.

4. STORM DRAIN INLET PROTECTION STRUCTURES CAN BE REMOVED ONLY AFTER THE CIRCUMFERENCE OF THE INLET IS APPROPRIATELY STABILIZED BY OTHER MEANS TO STABILIZE BARE AREAS AROUND THE INLET.



POST INSTALLATION DETAIL



FILTER FABRIC BURIAL DETAIL TYPE A

LOWE LOW HILL FILTERS
(FILTER FABRIC INLET PROTECTION)

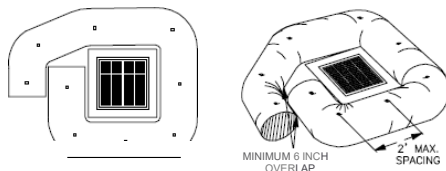
FILTER FABRIC INSTALLATION DETAIL

INSTALLATION:

1. INSTALL SEDIMENT TUBES BY LAYING THEM FLAT ON THE GROUND. CONSTRUCT A SMALL TRENCH TO A DEPTH THAT IS 20% OF THE SEDIMENT TUBE DIAMETER. LAY THE SEDIMENT TUBE IN THE TRENCH AND COMPACT THE DOWNSTREAM SEDIMENT TUBE SOIL INTERFACE. INSTALL ALL SEDIMENT TUBES SO NO GAPS EXIST BETWEEN THE SOIL AND THE BOTTOM OF THE SEDIMENT TUBE. LAP THE ENDS OF ADJACENT SEDIMENT TUBES A MINIMUM OF 6 INCHES TO PREVENT FLOW AND SEDIMENT FROM PASSING THROUGH THE FIELD JOINT. NEVER STACK SEDIMENT TUBES ON TOP OF ONE ANOTHER.
2. SHOULD SEDIMENT TUBE BE DAMAGED DURING INSTALLATION, PLACE A STAKE ON BOTH ENDS OF THE DAMAGED AREA. TERMINATE THE TUBE AT THE STAKE AND INSTALL A NEW TUBE IN THE SAME LOCATION.
3. INSTALL SEDIMENT TUBES USING WOODEN STAKES (MINIMUM 4 FEET IN LENGTH, MINIMUM MEASURED DIMENSION 2" x 2") OR STEEL POSTS (STANDARD "X" SECTIONS WITH A MINIMUM WEIGHT OF 1.25 POUNDS PER FOOT, MINIMUM 5 FEET IN LENGTH, NO KICK PLATE OR PAINTING REQUIRED) PLACED ON MAXIMUM 2-FOOT CENTERS. INSTALL THE STAKES ON THE DOWNSTREAM END OF THE SEDIMENT TUBE. DRIVE THE STAKES INTO THE GROUND TO A MINIMUM DEPTH OF 2 FEET OR TO THE MAXIMUM EXTENT PRACTICABLE.

INSPECTION AND MAINTENANCE:

1. INSPECT SEDIMENT TUBES AFTER INSTALLATION FOR GAPS UNDER THE SEDIMENT TUBES AND FOR GAPS BETWEEN THE JOINTS OF ADJACENT ENDS OF SEDIMENT TUBES. REPAIR RILLS, GULLIES, AND ALL UNDERCUTTING NEAR SEDIMENT TUBES. SEDIMENT TUBES WILL ALSO BE INSPECTED EVERY 7 DAYS AND INSPECTIONS ARE RECOMMENDED AFTER EACH STORM WITH OVER 0.5 INCHES OF RAINFALL.
2. REMOVE ALL SEDIMENT TUBES FROM THE SITE WHEN THE FUNCTIONAL LONGEVITY IS EXCEEDED AS DETERMINED BY THE ENGINEER INSPECTOR, OR MANUFACTURER'S REPRESENTATIVE.
3. DISPOSE OF SEDIMENT TUBES IN REGULAR MEANS AS NON-HAZARDOUS, INERT MATERIAL.



LOW CENTERS

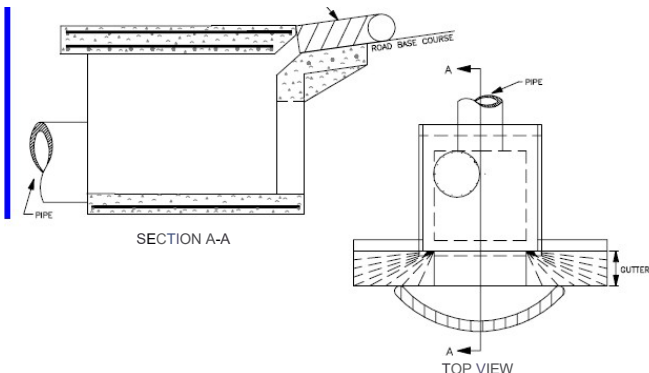
(SEDIMENT TUBE INLET PROTECTION)

Greenville County

Storm Water Management

INLET FILTER TYPE A

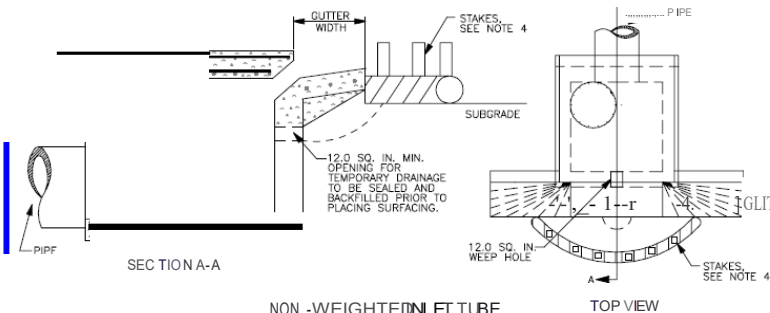
07A



SECTION A-A

TOP VIEW

WEIGHTED INLET TUBE



SECTION A-A

TOP VIEW

NON-WEIGHTED INLET TUBE

NOTES:

1. DRAWING SHOWS TYPE 16 CATCH BASIN.
2. NON-WEIGHTED TUBES WILL BE INSTALLED IMMEDIATELY AFTER GRADING AND CONSTRUCTION OF CATCH BASIN BOX. SEDIMENT TUBE WILL BE MAINTAINED DURING SUBGRADE AND BASE PREPARATION UNTIL BASE COURSE IS PLACED. THEY ARE APPLICABLE FOR CATCH BASIN TYPES 1, 16, 17 AND 18 WITH DRAINAGE AREAS LESS THAN 1 ACRE.
3. INLET TUBES MAY BE TEMPORARILY MOVED DURING CONSTRUCTION AS NEEDED.
4. NON-WEIGHTED SEDIMENT TUBES WILL BE STAKED DOWN WITH 3/4 INCH X 3/4 INCH WOODEN STAKES (MINIMUM DIMENSION 3/4 INCH X 3/4 INCH, MAXIMUM DIMENSION 2 INCHES X 2 INCHES) OR 1/2 INCH X 1/2 INCH STEEL POSTS A MINIMUM OF 3 FEET IN LENGTH PLACED ON 2 FOOT CENTERS. THE STAKES WILL BE DRIVEN INTO THE GROUND A MINIMUM OF 2 FEET OR TO THE MAXIMUM EXTENT PRACTICABLE. INSTALL NON-WEIGHTED INLET TUBES SO THE TOP OF THE TUBE IS BELOW THE TOP OF THE INSTALLED CURB LINE TO ENSURE THAT ALL OVERFLOW OR OVERTOPPING WATER HAS THE ABILITY TO ENTER THE INLET UNOBSTRUCTED.
5. AFTER ROAD BASE COURSE IS PLACED, WEIGHTED INLET TUBES WILL BE PLACED FOR THE UNDERLYING SURFACE AND THE TUBE.
6. DO NOT COMPLETELY BLOCK INLETS WITH INLET TUBES. INSTALL WEIGHTED INLET TUBES IN SUCH A MANNER THAT ALL OVERFLOW CAN ENTER THE INLET UNOBSTRUCTED. TO AVOID POSSIBLE FLOODING, 2 OR 3 CONCRETE CINDER BLOCKS MAY BE PLACED BETWEEN THE WEIGHTED INLET TUBE AND THE INLET.
7. FOR WEEP HOLE APPLICATIONS, BOTH WEIGHTED AND NON-WEIGHTED INLET TUBES ARE APPLICABLE.
8. ALL WEIGHTED TYPE INLET STRUCTURE FILTERS ARE APPLICABLE AS TYPE E INLET STRUCTURE FILTERS.
9. REPLACE INLET TUBES DURING INSTALLATION AS DIRECTED BY THE ENGINEER, INSPECTOR, OR MANUFACTURER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
10. ALL TYPE F INLET FILTERS WILL BE INSPECTED EVERY 7 CALENDAR DAYS.

Greenville County
Storm Water Management

INLET FILTER TYPE F

SC-07F

APPROVED BY: _____ DATE: January, 2018

SC-14 CONCRETE WASHOUT

GOOD install but full and needs maintenance



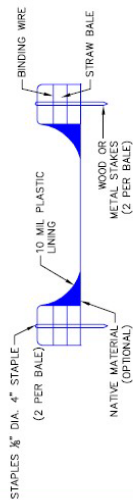
WRONG - plastic liner is poorly secured



EXCAVATED PIT CONCRETE WASHOUT

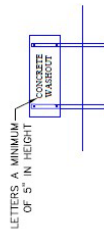


NOT TO SCALE
TYPE "ABOVE GRADE"
WITH STRAW BALES



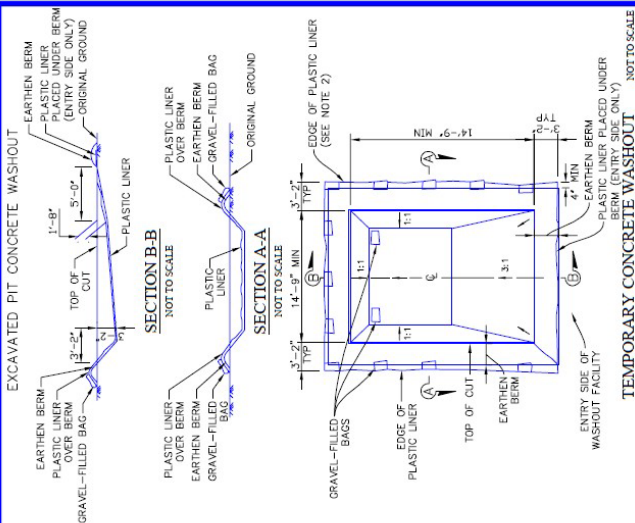
SECTION B-B
NOT TO SCALE

NOT TO SCALE



CONCRETE WASHOUT SIGN DETAIL

NOT TO SCALE



TEMPORARY CONCRETE WASHOUT
BERM (ENTRY SIDE ONLY) NOT TO SCALE

[illegible]Greenville County
Storm Water Management

CONCRETE WASHOUT DETAIL

SC-14

APPROVED BY:

DATE
JANUARY, 2018

- NOTES:
1. ACTUAL LAYOUT DETERMINED IN FIELD.
 2. INSTALL CONCRETE WASHOUT SIGN (24"x24" MINIMUM) WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
 3. TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.
 4. CLEAN OUT CONCRETE WASHOUT AREA WHEN 50% FULL.

EC-03 SEEDING/STABILIZATION

GOOD - even coverage



WRONG - poor coverage



Final Stabilization

Final Stabilization is defined that all land-disturbing activities at the construction site have been completed and that on all areas not covered by permanent structures, either

- 1 A uniform (e.g., evenly distributed, without large bare areas) permanent vegetative cover with a density of 70 percent has been established, or
- 2 Equivalent permanent stabilization measures (such as the use of landscaping mulch, riprap, pavement, and gravel) have been implemented to provide effective cover for exposed portions of the construction site not stabilized with permanent vegetation.

Acceptance of Permanent Seeding

Before acceptance, a uniform perennial vegetative cover with a density of 70% of each square yard of the seeded area is required. A well developed root system must be established to sufficiently survive dry periods and winter weather and be capable of reestablishment in the spring.

Seeding Dates

Perform seeding during the periods and at the rates specified in the seeding tables. Do not use temporary cover by seeding or permanent seeding for projects when:

- ◆ The ground is frozen and/or when the 10-day forecasted low temperature remains below 35 degrees Fahrenheit;
- ◆ The ground is excessively wet; or
- ◆ The ground is excessively dry (periods of drought) unless watering is specified.
- ◆ During periods of adverse conditions, use temporary cover by mulch.

Seedbed Preparation

- ◆ Ensure that the areas receiving permanent seeding are uniform and conform to the finished grade of the Project.
- ◆ Perform minor shaping and evening of uneven and rough areas outside of the graded area in order to provide for more effective erosion control and for ease of subsequent mowing operations.
- ◆ Loosen the seedbed (including cut slopes) to a minimum depth of three (3) inches before initiating permanent seeding and temporary seeding.
- ◆ An acceptable method of preparing the seedbed on slopes is vertically tracking the seedbed up and seedbed up and down the slope with proper equipment.
- ◆ Remove stones larger than two and one-half (2½) inches in any dimension, large dirt clods, roots, or other debris brought to the surface.
- ◆ Use compost if good seedbed material is not located on site or results of the soil test show the seedbed is excessively nutrient deficient to the extent of requiring costly fertilizer additions and or have excessively low pH values (lower than 5.0).
- ◆ Consider the use of mechanical seed drills to perform permanent seeding on areas where temporary seeding or temporary cover by mulch was previously utilized.

Permanent Seeding Installation

Following the preparation of the seedbed, perform permanent seeding per the seeding Tables and apply an appropriate Mulch within 5 working days and/or prior to a rainfall event that compacts the prepared seedbed. If a rain event occurs that compacts or erodes the seedbed prior to performing permanent seeding, the seedbed must be re-prepared prior to conducting permanent seeding. Add fertilizer and lime as required by a soil test.

Sod

Initiate Sod applications within 7 calendar days where land disturbing activities have permanently ceased on the Project. Initiate Sod applications measures as soon as practicable for areas where initiating Sod applications within 7 days is infeasible (e.g., where snow cover, frozen ground, or drought conditions preclude stabilization). Use Sod on slopes less than 2H:1V.

Acceptance of Sod

Acceptance is contingent on establishing a satisfactory stand of perennial grass. Sod application areas are acceptable when all requirements including maintenance are met and a healthy, evenly colored, viable stand of grass is established. A satisfactory stand of grass must have a root system that is sufficient to survive dry periods and winter weather and is capable of re-establishing in the spring.

Sod

Do not use sodding on slopes steeper than 2H:1V, and if sodding is mowed, do not place on slopes greater than 3H:1V. Install Warm Season Sod between March 1st and September 1st. Install Cool Season Sod anytime during the year as long as the soil is not frozen.

Do not place Sod on:

- ◆ Soil that is frozen and/or when the 10-day forecasted low temperature remains below 35 degrees Fahrenheit;
- ◆ Soil that is excessively wet;
- ◆ Soil that is excessively dry (periods of heat or drought) unless watering is specified;
- ◆ Soil that is composed of compacted clay; and
- ◆ Soil that has been treated with pesticides.

Sod Bed Preparation

- ◆ Ensure the Sod bed is uniform and conforms to the finished grade of the Project.
- ◆ Loosen the Sod Bed to a minimum depth of 3 inches before placing Sod.
- ◆ Furnish and place topsoil or compost in the Sod Bed in areas where the existing Sod Bed has little or no topsoil,
- ◆ Sod when Sod Bed is moist. Moisten dry Sod Beds before sod is laid.

Sod Material

Provide Sod with living, well-established growth, with a dense root mat of predominant grass Specified. Provide vigorous, well rooted, healthy turf, free from disease, insect pests, weeds, other grasses, stones, and any other harmful or detrimental materials.

Sod Installations

Ensure Sod is not installed until the end of the project or when final stabilization is achieved on adjacent areas of the project that drain or discharge to the Sod application.

Amendments

Lime

Agricultural Granular Lime

Use agricultural grade, standard ground limestone for all permanent seeding applications and Sodding applications.

Applying Granular Lime

A soil analysis is recommended prior to application. Apply at a rate within $\pm 10\%$ of weight recommendation of soil analysis. Do not apply more than 2,500 lbs/acre of in a single application.

Fast Acting Lime

Use fast acting liquid and/or dry forms of lime for all temporary seeding and permanent seeding applications.



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Greenville County Land Development Division
301 University Ridge, Suite S-3300
Greenville, SC 29601
Phone: 864.467.4610
www.greenvillecounty.org/land_development