



Revisions:

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Sheet Name:  
Grading, Erosion  
& Sediment Control  
Details

### SILT FENCE INSTALLATION

**PLAN SYMBOL**  
SF

**FLAT-BOTTOM TRENCH DETAIL**

**V-SHAPED TRENCH DETAIL**

**South Carolina Department of Health and Environmental Control**  
**SILT FENCE**  
STANDARD DRAWING NO. SC-03 PAGE 1 of 2  
NOT TO SCALE

### SILT FENCE - GENERAL NOTES

- The silt fence shall be constructed on a minimum 4% slope. Silt fence should not be used on a slope greater than 0.5:1.
- Use a sheet of 100-foot roll of silt fence to the full length of the silt fence.
- Maximum slope shall be 1:1 (horizontal to vertical).
- Silt fence shall be installed by one of the following options:
  - Use a support post with both ends fastened to the post, with a 1-foot minimum overlap.
  - Overlap silt fence by installing the support post to which the new roll of silt fence is attached. Attach roll to new roll with heavy-duty plastic ties or.
  - Overlap silt fence by installing the support post to the next support post.
- Install the silt fence perpendicular to the direction of the stormwater flow and place the silt fence the proper distance from the toe of slope to provide sediment storage and control for maintenance and removal.
- Install silt fence fabric (12-inches) every 50-100 feet, dependent on slope, along all fence that is installed with slope and where concentrated flows are expected or are documented along the proposed/installed silt fence.

**SILT FENCE - POST REQUIREMENTS**

- Silt fence posts must be 48-inch long steel posts that meet, at a minimum, the following physical characteristics:
  - Composed of a high strength steel with a minimum yield strength of 50,000 psi.
  - Include a standard 7/8" section with a nominal face width of 1.30-inches and a nominal 7/8" length of 1.40-inches.
  - Have a minimum weight of 1.25 lbs per foot (1.85).
- Posts shall be equipped with projections to aid in fastening of filter fabric.
- Steel posts may need to have a metal soil stabilization plate welded near the bottom when installed along steep slopes or installed in loose soils. The plate should have a minimum cross section of 17-square inches and be composed of 1/2-inch steel, at a minimum. The metal soil stabilization plate should be completely buried.
- Install posts to a minimum of 24-inches. A minimum height of 1- to 2-inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
- Post spacing shall be at a maximum of 6-feet on center.

**SILT FENCE - FABRIC REQUIREMENTS**

- Silt fence must be composed of woven geotextile filter fabric that consists of the following requirements:
  - Composed of fibers consisting of long chain synthetic polymers of at least 80% by weight of polypropylene, polyethylene, or polyesters that are formed into a mesh such that the filaments or yarns retain dimensional stability relative to each other.
  - Free of any defects or flaws that significantly affect its physical properties after installation.
  - Have a minimum width of 30-inches.
- Use only fabric approved on SC DOT's Qualified Products Listing (QPL), Approval Sheet #24, meeting the requirements of the most current edition of the SC DOT Standard Specifications for Highway Construction.
- 12-inches of fabric should be placed within excavated trench and used in when the trench is backfilled.
- Filter fabric shall be purchased in continuous rolls and cut to the length of the barrier to avoid joints.
- Filter fabric shall be installed at a minimum of 24-inches above the ground.

**SILT FENCE - INSPECTION & MAINTENANCE**

- The key to functional silt fence is weekly inspections, routine maintenance, and regular sediment removal.
- Regular inspections of silt fence shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation.
- Attention to sediment accumulations along the silt fence is extremely important. Accumulated sediment should be continuously monitored and removed when necessary.
- Remove accumulated sediment when it reaches 1/3 the height of the silt fence.
- Removed sediment shall be placed in stockpile storage areas or stored temporarily on-site. Stabilize the removed sediment after it is relocated.
- Check for areas where stormwater runoff has eroded a channel beneath the silt fence, or where the fence has sagged or collapsed due to runoff overflowing the silt fence. Install chain-link fence and/or install silt fence, as necessary.
- Check for areas where stormwater runoff has eroded a channel beneath the silt fence, or where the fence has sagged or collapsed due to runoff overflowing the silt fence. Install chain-link fence and/or install silt fence, as necessary.
- Silt fence should be removed within 30 days after final stabilization is achieved and once it is removed, the resulting disturbed area shall be permanently stabilized.

**South Carolina Department of Health and Environmental Control**  
**SILT FENCE**  
STANDARD DRAWING NO. SC-03 PAGE 2 of 2  
GENERAL NOTES  
NOT TO SCALE

### DOUBLE ROW SILT FENCE DETAIL

**SILT FENCE - DOUBLE ROW NOTE**

When a double row of Silt Fence is called for on the Plans, the two rows shall have a minimum spacing of 3 feet and a maximum spacing of 5 feet.

**South Carolina Department of Health and Environmental Control**  
**SILT FENCE**  
STANDARD DRAWING NO. SC-03 PAGE 2 of 2  
GENERAL NOTES  
NOT TO SCALE

### CONSTRUCTION ENTRANCE

**South Carolina Department of Health and Environmental Control**  
**CONSTRUCTION ENTRANCE**  
STANDARD DRAWING NO. SC-06 PAGE 1 of 2  
NOT TO SCALE

SPECIFICATION	SIZE
ROCK PAD THICKNESS	6 INCHES
ROCK PAD WIDTH	24 FEET
ROCK PAD LENGTH	100 FEET
ROCK PAD STONE SIZE	D = 2-3 INCHES

### CONSTRUCTION ENTRANCE - GENERAL NOTES

- Stabilized construction entrances should be used at all points where traffic will egress/ingress a construction site onto a public road or any impervious surfaces, such as parking lots.
- Install a non-woven geotextile fabric prior to placing any stone.
- Install a culvert pipe across the entrance when needed to provide positive drainage.
- The entrance shall consist of 2-inch to 3-inch D50 stone placed at a minimum depth of 6-inches.
- Minimum dimensions of the entrance shall be 24-feet wide by 100-feet long, and may be modified as necessary to accommodate site constraints.
- The edges of the entrance shall be tapered out towards the road to prevent tracking of the edges of the entrance.
- Divert all surface runoff and drainage from the stone pad to a sediment trap or basin or other sediment trapping structure.
- Limestone may not be used for the stone pad.

**CONSTR. ENTRANCE - INSPECTION & MAINTENANCE**

- The key to functional construction entrances is weekly inspections, routine maintenance, and regular sediment removal.
- Regular inspections of construction entrances shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation.
- During regular inspections, check for mud and sediment buildup and promptly inspect frequencies may need to be more frequent during long periods of wet weather.
- Reshape the stone pad as necessary for drainage and runoff control.
- Wash or replace stones as needed and as approved by the inspector. The stone in the entrance should be washed or replaced when the entrance is reduced to the amount of material required for the entrance. Frequent washing will extend the useful life of stone.
- Immediately remove mud and sediment build-up or washed out adjacent impervious surfaces by brushing or sweeping. Washing should only be used when the water can be discharged to a sediment trap or basin.
- During maintenance activities, any broken pavement should be repaired immediately.
- Construction entrances should be removed after the site has reached final stabilization. Permanent vegetation should replace areas from which construction entrances have been removed, unless area will be converted to an impervious surface to save post-construction.

**South Carolina Department of Health and Environmental Control**  
**CONSTRUCTION ENTRANCE**  
STANDARD DRAWING NO. SC-06 PAGE 2 of 2  
GENERAL NOTES  
NOT TO SCALE

### TEMPORARY STOCKPILE

**South Carolina Department of Health and Environmental Control**  
**TEMPORARY STOCKPILE**  
STANDARD DRAWING NO. SC-15 PAGE 1 of 1  
NOT TO SCALE

**NOTES:**

- SILT FENCE TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE, OR IF STOCKPILE AREA IS LOCATED ON/NEAR A SLOPE THE SILT FENCE IS TO EXTEND ALONG CONTOURS OF THE DOWN-GRADIENT AREA.
- IF STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, TEMPORARY STABILIZATION MEASURES MUST BE IMPLEMENTED.
- SILT FENCE SHALL BE MAINTAINED UNTIL STOCKPILE AREA HAS EITHER BEEN REMOVED OR PERMANENTLY STABILIZED.
- THE KEY TO FUNCTIONAL TEMPORARY STOCKPILE AREAS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.
- WITHIN SEVEN CALENDAR DAYS, TEMPORARY STABILIZATION MEASURES SHALL BE COMPLETED ON TOPSOIL STOCKPILES. THE BURIAL OF ANY CELLULOSE DEBRIS WILL BE PLANNED. THE REMOVAL OF SOIL OR WASH FROM THE PROPOSED SITE WILL NEED TO BE TAKEN TO A PERMITTED LANDFILL OR ANOTHER PERMITTED SITE WITH A WILD LAND DISTURBANCE PERMIT. THE ASSOCIATED SITE WOULD ALSO BE REQUIRED TO PROVIDE THE APPROPRIATE EROSION AND SEDIMENT CONTROL NECESSARY TO RETAIN SEDIMENT CONTROL NECESSARY TO RETAIN SEDIMENT ON SITE (WITHIN THE LIMITS OF DISTURBANCE PERMITTED).

### SEDIMENT TUBE INLET PROTECTION

**South Carolina Department of Health and Environmental Control**  
**Type A SEDIMENT TUBE INLET PROTECTION**  
STANDARD DRAWING NO. SC-07A PAGE 1 of 2  
NOT TO SCALE

SPECIFICATION	SIZE
ROCK PAD THICKNESS	6 INCHES
ROCK PAD WIDTH	24 FEET
ROCK PAD LENGTH	100 FEET
ROCK PAD STONE SIZE	D = 2-3 INCHES

### TYPE A - SEDIMENT TUBE INLET PROTECTION

**GENERAL NOTES**

- Sediment tubes are elongated tubes of compacted geotextiles, curled excelsior wood, natural coconut fiber, or hardwood mulch. Straw, pine needles, and leaf mulch-filled sediment tubes are not permitted.
- The outer netting of the sediment tube should consist of seamless, high-density polyethylene photodegradable material treated with ultraviolet stabilizers or a seamless, high-density polyethylene non-degradable material.
- Sediment tube diameters shall range from 18-inches to 24-inches. Sediment tubes with smaller diameters are prohibited when used as inlet protection.
- Curled excelsior wood, or natural coconut products that are rolled up to create a sediment tube are not allowed.
- Sediment tubes should be stored using wooden oak stakes (2-inch x 2-inch) or steel posts (standard "U" or "T" sections with a minimum weight of 1.25 pounds per foot) at a minimum of 48-inches in length placed on 2-foot centers.
- Install all sediment tubes to ensure that no gaps exist between the soil and the bottom of the tube. Manufacturer's recommendations should always be consulted before installation.
- The ends of adjacent sediment tubes should be overlapped 6-inches to prevent flow and sediment from passing through the field joint.
- Sediment tubes should not be stacked on top of one another.
- Each sediment tube should be installed in a trench with a depth equal to 1/5 the diameter of the sediment tube.
- Install stakes at a diagonal facing incoming runoff.

**INSPECTION & MAINTENANCE**

- The key to functional inlet protection is weekly inspections, routine maintenance, and regular sediment removal.
- Regular inspections of sediment tube inlet protection shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation.
- Attention to sediment accumulations in front of the sediment tube is extremely important. Accumulated sediment should be continuously monitored and removed when necessary.
- Remove accumulated sediment when it reaches 1/3 the height of the inlet protection, sediment shall be removed when it fills approximately 1/3 the depth of the sump.
- Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
- Large debris, trash, and leaves should be removed from in front of tubes when found.
- Inlet protection structures should be removed after the disturbed area is permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Stabilize all bare areas immediately.

**South Carolina Department of Health and Environmental Control**  
**Type A SEDIMENT TUBE INLET PROTECTION**  
STANDARD DRAWING NO. SC-07A PAGE 2 of 2  
NOT TO SCALE

### CONCRETE WASHOUT

**South Carolina Department of Health and Environmental Control**  
**CONCRETE WASHOUT**  
STANDARD DRAWING NO. RC-07 PAGE 1 of 1  
NOT TO SCALE

**NOTES:**

- ACTUAL LAYOUT DETERMINED IN FIELD.
- INSTALL CONCRETE WASHOUT SIGN (24"x24", MINIMUM) WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
- TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.
- CLEAN OUT CONCRETE WASHOUT AREA WHEN SOAK FULL.
- THE KEY TO FUNCTIONAL CONCRETE WASHOUTS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR CLEAN OUT.
- PROVIDE IMPERMEABLE LINER.
- SILT FENCE SHALL BE INSTALLED AROUND PERIMETER OF CONCRETE WASHOUT AREA EXCEPT FOR THE SIDE UTILIZED FOR ACCESSING THE WASHOUT.
- A ROCK CONSTRUCTION ENTRANCE MAY BE NECESSARY ALONG ONE SIDE OF THE WASHOUT TO PROVIDE VEHICLE ACCESS.

4 NIS

5 NIS

2 NIS

3 NIS

1 NIS