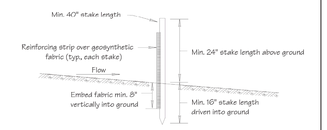
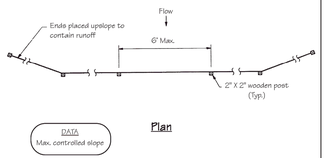
Standard Detail & Specifications

Silt Fence



Section



DATA
Max. controlled slope

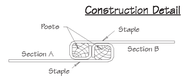
Plan

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SF	DE-ESC-3.1.2.1 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Silt Fence

Construction Detail



Method for joining continuous sections

Top

Construction Notes:

1. Geosynthetic fabric to be fastened securely to fence posts with wire ties or staples.
2. When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
3. Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.

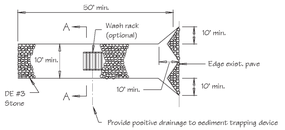
Materials:

1. Stakes: Steel (either T or U) or 2" x 2" hardwood
2. Geosynthetic Fabric: Type GD-I
3. Reinforcing strip: Wooden lath or plastic strip

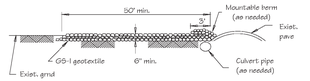
Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SF	DE-ESC-3.1.2.1 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

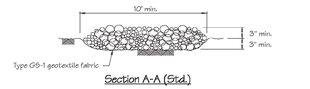
Stabilized Construction Entrance



Plan



Profile

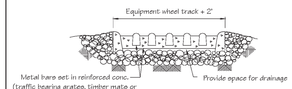


Section A-A (Std.)

Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	SCE	DE-ESC-3.4.7 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Stabilized Construction Entrance



Section A-A (Opt.)

Construction Notes:

1. Stone size - Use DE #3 stone.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than size (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Geotextile - Type GS-I; placed over the entire area prior to placing of stone.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Vehicle wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Inspection - Periodic inspection and needed maintenance shall be provided after each rain.

Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	SCE	DE-ESC-3.4.7 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Construction Site Pollution Prevention

Notes:

The Construction Site Pollution Prevention Plan includes the following elements:

1. **Material Inventory**

   Document the storage and use of the following materials:

   a. Concrete
   b. Detergents
   c. Paints (enamel and latex)
   d. Cleaning solvents
   e. Pesticides
   f. Wood scraps
   g. Fertilizers
   h. Petroleum based products

2. **Good housekeeping practices**
   a. Store only enough product required to do the job.
   b. Store all materials in a neat, orderly manner in their original labeled containers and covered.
   c. Do not mix different substances.
   d. When possible, use all of a product prior to disposal of the container.
   e. Manufacturers' instructions for disposal should be strictly adhered to.
   f. Designate someone to inspect all BMPs daily.
3. **Waste management practices**
   a. Collect and store all waste materials in securely lidded dumpsters in a location that does not drain to a waterbody.
   b. Salvage and/or recycle waste materials whenever possible.
   c. The dumpsters shall be emptied a minimum of twice per week, or more if necessary. The licensed trash hauler is responsible for cleaning out dumpsters.

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		DE-ESC-3.6.1 Sheet 2 of 4 Effective July 2023

Standard Detail & Specifications

Construction Site Pollution Prevention

Notes (cont.)

   d. Dispose of all trash in accordance with all applicable Delaware laws.
   e. Littering is strictly prohibited. Trash cans should be placed at all lunch spots and recycle bins should be placed near the construction trailer.
   f. If fertilizer bags can not be stored in a weather-proof location, they should be kept on a pallet and covered with plastic sheeting which is overlapped and anchored.
4. **Equipment maintenance practices**
   a. If possible, equipment should be taken to off-site commercial facilities for washing and maintenance.
   b. If performed on-site, wash vehicles with high-pressure water spray without detergents in an area contained by an impervious berm.
   c. Use drip pans for all equipment maintenance.
   d. Inspect equipment for leaks on a daily basis.
   e. Direct washout from concrete trucks into a temporary pit for hardening and proper disposal.
   f. Equip fuel nozzles with automatic shut-off valves.
   g. Dispose of all used products such as oil, antifreeze, solvents and tires in accordance with manufacturers' recommendations and local, state and federal laws and regulations.
5. **Spill prevention practices**
   a. Identify potential spill areas and contain them in covered areas with no connection to the storm drain system.
   b. Post warning signs in hazardous material storage areas.
   c. Perform preventive maintenance on all tanks, valves, pumps, pipes and other equipment as necessary.
   d. Prioritize low or non-toxic substances for use.

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		DE-ESC-3.6.1 Sheet 3 of 4 Effective July 2023

Standard Detail & Specifications

Construction Site Pollution Prevention

Notes (cont.)

   e. Prominently post contact information for reporting spills through the DNREC 24-Hour Toll Free Number.
6. **Education**
   a. Include Best Management Practices (BMPs) for construction site pollution control as part of regular progress meetings.
   b. Information regarding waste management, equipment maintenance and spill prevention should be prominently posted in the construction trailer.

CONTACT INFORMATION

DNREC 24-Hour Toll Free Number	**800-662-8802**
DNREC Solid & Hazardous Waste Management Section	**302-739-9403**

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		DE-ESC-3.6.1 Sheet 4 of 4 Effective July 2023

Standard Detail & Specifications

Construction Site Pollution Prevention

Delaware NPDES Discharge Permit
General Permit for Discharge of Stormwater from Construction Activities

((Project Name))

((NOI Permit Number))

((Agency Plan Approval ID))

((Contact Name & Number for Additional Site Information))

((Contact Name & Number to Obtain Copy of Approved Plan))

If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, call the DNREC Spill Notification 24 HR Hotline at

1-800-662-8802

Example Construction General Permit (CGP) Signage

NOTES:
1. Minimum sign size 2' x 2'
2. Minimum text size 1"
3. Sign must be posted at a safe, publicly accessible location close to construction site
4. Sign must be visible from the public road nearest the active construction site
5. Signs posted within a DelDOT or other public road right-of-way (ROW) must be in accordance with all local and/or State requirements in regards to safety, location, orientation, etc.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.6.1 Sheet 1 of 4 Effective July 2023

Standard Detail & Specifications

Vegetative Stabilization

TEMPORARY SEEDING BY RATES, DEPTHS AND DATES

Mix #	Species[4]	Seeding Rate	Optimum Seeding Dates [1] (1= Optimum Planting Period, X = Acceptable Planting Period)								Planting Depth[7]
			Coastal Plain			Piedmont			All		
	Certified Seed	lb/Ac[2]	lb/1000 sq.ft.	3/1-6/30	7/1-8/14	8/15-10/31	3/1-7/15	8/1-10/31	>1% & <8%	10/1-3/1	
1	Barley	125	4	O	A	O	O	A	O		1-2 inches 2-3" sandy soils
2	Oats	125	4	O	A	A	O	A	A		1-2 inches 2-3" sandy soils
3	Rye	125	4	O	A	O	O	A	O	A	1-2 inches 2-3" sandy soils
4	Perennial Ryegrass	125	4	O	A	O	O	A	O		0.5 inches 1-2" sandy soils
5	Annual Ryegrass	125	4	O	A	O	O	A	O	A	0.5 inches 1-2" sandy soils
6	Winter Wheat	125	4	O	A	O	O	A	O	A	1-2 inches 2-3" sandy soils
7	Foxtail Millet	30 PLS	0.7		O			O			0.5 inches 1-2" sandy soils
8	Pearl Millet	30 PLS	0.5		O			O			0.5 inches 1-2" sandy soils

1. Winter seeding requires 3 tons per acre of straw mulch for proper stabilization.
2. May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3. Applicable on slopes 3:1 or less.
4. Fifty pounds per acre of Annual Lespedeza may be added to 1/2 the seeding rate of any of the above species.
5. Use varieties currently recommended for Delaware. Contact a County Extension Office for information.
6. Warm season grasses such as Millet or Weeping Lovegrass may be used between 5/1 and 9/1 if desired. Seed at 3-5 lbs. per acre. Good on low fertility and acid areas. Seed after frost through summer at a depth of 0.5".

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 1 of 4

Effective February 2019

Standard Detail & Specifications

Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES

Mix No.	Seeding Mixtures / Certified Seed[4]	Seeding Rate[2] lb/Ac	lb/1000 sq.ft.	Optimum Seeding Dates [1] (1= Optimum Planting Period, X = Acceptable Planting Period) Coastal Plain 3/1-6/30	Coastal Plain 7/1-8/15	Coastal Plain 8/16-10/31	Piedmont 3/1-7/15	Piedmont 8/1-10/31	All 10/1-3/1	Remarks
	Well Drained Soils									
1	Tall Fescue	150	3.5	O	A	O	O	A	O	Add 100 lbs./ac Winter Rye
	Weeping Lovegrass	10	0.23							
2	Switchgrass	30	0.69	A	O	A	A	O	A	Add 100 lbs./ac Winter Rye
	Sheep Fescue	30	0.69							
	Common Lespedeza[5] Inoculated	15	0.35							
3	Tall Fescue (Turf-type) or Sheep Fescue/Tall Fescue or Perennial Ryegrass	50	1.15	O	A	O	O	A	O	Add 100 lbs./ac Winter Rye
		50	1.15							
		50	1.15							
	Zelva Fescue	15	0.34							
4	Strong Creeping Red Fescue	100	2.3	O	A	O	O	A	O	Add 100 lbs./ac Winter Rye
	Kentucky Bluegrass	15	0.35							
	Perennial Ryegrass or Redtop	15	0.35							
		5	0.11							
	Ladino White Clover[6]	3	0.07							
5	Switchgrass[3] or Coastal Panicgrass	10	0.23		O			O		Native warm-season mixture. Tolerant of low fertility soils. Use Redtop for increased drought tolerance.
	Big Bluestem	10	0.23							
	Little Bluestem	5	0.11							Poor shade tolerance. N fertilizer discouraged - weeds
	Indian Grass	5	0.1							
6	Tall Fescue (turf-type) Blend of 3 cultivars	150	3.5		Managed filter strip for nutrient uptake.					
7	Switchgrass[3] or Panicgrass (Blend) Perennial Ryegrass	100	2.3	O	A	O	O	A	O	Three species mix. Kentucky Bluegrass, Tall Fescue,
		20	0.46							
8	Big Bluestem[3] Indian Grass[3] Little Bluestem[3] Creeping Red Fescue Sand Lovegrass Partridge Pea Bush Clover Wild Indigo Showy Tick-Trefoil	10	0.23	O	A		O	A		All species are native. Indian Grass and Bluestem have fluffy seeds. Plant with a specialized native seed drill. Creeping Red Fescue will provide erosion protection while the warm season grasses get established.
		10	0.23							
		8	0.18							
		30	0.69							
		5	0.11							
		3	0.07							
		3	0.07							
		2	0.05							

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 2 of 4

Effective February 2019

Standard Detail & Specifications

Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES (cont.)

Mix No.	Seeding Mixtures / Certified Seed[4]	Seeding Rate[2] lb/Ac	lb/1000 sq.ft.	Optimum Seeding Dates [1] (1= Optimum Planting Period, X = Acceptable Planting Period) Coastal Plain 3/1-6/30	Coastal Plain 7/1-8/15	Coastal Plain 8/16-10/31	Piedmont 3/1-7/15	Piedmont 8/1-10/31	All 10/1-3/1	Remarks
	Poorly Drained Soils									
9	Redtop	5	0.11	O	A	O	O	A	O	Add 100 lbs./ac Winter Rye
	Creeping Bentgrass	35	0.8							
	Sheep Fescue	30	0.69							
	Rough Bluegrass	45	1.0							
10	Reed Canarygrass	10	0.23	A		O	A		O	Good erosion control, wildlife cover and wetland revegetation.
	Residential Lawns									
11	Tall Fescue	100	2.3	O	A	O	O	A	O	High value, high maintenance, light traffic, irrigation necessary. Well drained soils, full sun.
	Perennial Ryegrass	25	0.57							
	Kentucky Bluegrass Blend	30	0.69							
12	Tall Fescue	100	2.3	O	A	O	O	A	O	Moderate value, low maintenance, traffic tolerant.
	Perennial Ryegrass	25	0.57							
	Creeping Red Fescue	25	0.57							
13	Creeping Red Fescue	50	1.15	O	A	O	O	A	O	Shade tolerant, moderate traffic tolerance, moderate maintenance.
	Chewings Fescue	30	0.7							
	Kentucky Bluegrass	20	0.4							
14	Creeping Red Fescue	50	1.15	O	A	O	O	A	O	Shade tolerant, moisture tolerant.
	Rough Bluegrass or Chewings Fescue	90	2.1							
15	K-31 Tall Fescue	150	3.5	O	A	O	O	A	O	Monoculture, but performs well alone in lawns. Discouraged.

1. When hydroseeding is the chosen method of application, the total rate of seed should be increased by 25%.
2. Winter seeding requires 3 tons per acre of straw mulch. Planting dates listed above are average for Delaware. These dates may require adjustment to reflect local conditions.
3. Test weight, germination, the minimum purity and minimum germination percentages recommended by the Delaware Department of Agriculture. The maximum % of weed seeds shall be in accordance with Section 1, Chapter 24, Title 3 of the Delaware Code.
4. Cool season species may be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
5. All leguminous seed must be inoculated.
6. Warm season grass mix and Reed Canary Grass cannot be mowed more than 4 times per year.
7. Warm season grasses require a soil temperature of at least 50 degrees in order to germinate, and will remain dormant until then.

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 3 of 4

Effective February 2019

Standard Detail & Specifications

Vegetative Stabilization

Construction Notes:

1. Site Preparation
   a. Prior to seeding, install needed erosion and sediment control practices such as diversions, grade stabilization structures, berms, dikes, grassed waterways, and sediment basins.
   b. Final grading and shaping is not necessary for temporary seedings.
2. Seedbed Preparation

   It is important to prepare a good seedbed to insure the success of establishing vegetation. The seedbed should be well prepared, loose, uniform, and free of large clods, rocks, and other objectionable material. The soil surface should not be compacted or crusted.
3. Soil Amendments
   a. Lime - Apply liming materials based on the recommendations of a **soil test** in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply dolomitic limestone at the rate of 1 to 2 tons per acre. Apply limestone uniformly and incorporate into the top 4 to 6 inches of soil.
   b. Fertilizer - Apply fertilizer based on the recommendations of a **soil test** in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply a formulation of 10-10-10 at the rate of 600 pounds per acre. Apply fertilizer uniformly and incorporate into the top 4 to 6 inches of soils.
4. Seeding
   a. For **temporary stabilization**, select a mixture from **Sheet 1 .** For a **permanent stabilization**, select a mixture from **Sheet 2** or **Sheet 3** depending on the conditions. Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.
   b. Apply seed uniformly with a broadcast seeder, drill, cultipacker seeder or hydroseeder. All seed will be applied at the recommended rate and planting depth.
   c. Seed that has been broadcast should be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used the seed and fertilizer is mixed, they will be mixed on site and the seeding shall be done immediately and without interruption.
5. Mulching

   All mulching shall be done in accordance with detail **DE-ESC-3.4.5**

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 4 of 4

Effective February 2019

TAX MAP #	1-34-12.00-419.05
STATE	DELAWARE
COUNTY	SUSSEX
HUNDRED	BALTIMORE
TOWN	MILLVILLE
SUBDIVISION	- - -
LOT	OUTPARCEL C
DEED REF.	- - -
PLAT REF.	311/74, 313/75
DRAWN BY	MCS / CP
DATE	01/30/2024
REVISED	- - -
SCALE	1" = 20'
SURVEY #	DE - 06601

FINAL SITE / GRADING PLAN

OUTPARCEL C
SOUTHERN LANDING

FOR
MICHAEL & KATHLEEN CUMMINGS

CEDAR DRIVE, MILLVILLE, DE 19967

TRUE NORTH
LAND SURVEYING
35322 BAYARD ROAD
FRANKFORD, DE 19945
302 - 539 - 2488