

SECTION 02370 – SEDIMENT AND EROSION CONTROL

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. The General Provision of the contract, including the General Provisions for Construction Projects (2016), Special Provisions, and General Requirements of the Specifications, apply to the work specified in this section.

1.02 SUMMARY

- A. All erosion and sediment control measures shall comply with the State Department of Health regulations.
- B. The Contractor shall ensure that erosion and sediment control measures are implemented and maintained as necessary and in accordance with the Best Management Practices (BMP) Plan.

1.03 DESCRIPTION

- A. Furnish all labor, materials and equipment necessary for the installation and maintenance of the construction sediment and erosion control measures.

1.04 RELATED SECTIONS

- A. Section 01561 – CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

1.05 SUBMITTALS

- A. Submit in accordance with Section 01300 - SUBMITTALS.
- B. Product Data: Submit product data for drain inlet sediment filter, silt barrier and other erosion control materials used for this Project.

PART 2 – PRODUCTS

2.01 MATERIAL

- A. Drain Inlet Sediment Filter:
 - 1. Sediment Filter: Dandy Products, Inc. – Dandy Sack or accepted equivalent.
 - 2. The sediment filter shall have lifting straps to allow removal of the unit and manual inspection of the storm water system.

3. The sediment filter shall utilize a monofilament fabric that is manufactured in the U.S.A. with the following characteristics:

PROPERTY	TEST METHOD	UNITS	TEST RESULTS
Grab Tensile Strength	ASTM D 4632	lbs	450 x 300
Grab Tensile Elongation	ASTM D 4632	%	40 x 25
Mullen Burst Strength	ASTM D 4833	lbs	130
Puncture Strength	ASTM D 3786	psi	600
Trapezoid Tear Strength	ASTM D 4533	lbs	165 x 150
% Open Area (POA)	COE – 22125-86	%	28
Apparent Opening Size	ASTM D 4751	US Std Sieve	30
Permittivity	ASTM D 4491	sec	3.5
Permeability	ASTM D 4491	sm/sec	0.25
Water Flow Rate	ASTM D 4491	gal/min/ft ²	250
Ultraviolet Resistance	ASTM D 4355	%	70

B. Silt Barrier:

1. Silt Barrier: EnviroTech BioSolutions – BioSock, or approved equal.
2. Composite Filter Media: Sanitized, mature compost with no identifiable feedstock constituents or offensive odors meeting all local, state, and Federal quality requirements. Biosolids compost shall meet the Standards for Class A Biosolids outlined in 40 Code of Federal Regulations (CFR) Part 503.

Compost used for filtration shall meet the following parameters:

Parameter	Unit	Value
pH:		6 - 8
Moisture Content:	%, wet weight	30 - 60
Organic Matter:	%, dry weight	25 - 65
Particle Size:	% passing mesh size, dry weight	2 in. = 100% 0.375 in. = 10 – 30%
Stability (CO ₂ Rate):	Mg CO ₂ -C per gram of organic matter per day	< 8
Physical Contaminants (Manmade Inerts):	%, dry weight	< 1

3. Roll: Silt barrier shall utilize an outer layer of filtration mesh, and an inner layer of containment netting. All layers shall collectively enclose the compost filtration media. Silt barrier shall be 12” nominal diameters or as indicated on the Drawings.
4. Wood Anchor Stakes: Wood anchor stakes shall have a nominal classification of ¾” by ¾” and a minimum length of 24 inches.

Contractor shall not use rebar or other metal rods

PART 3 – EXECUTION

3.01 CONSTRUCTION

- A. Prior to starting any construction, the Contractor shall install the sediment control measures at the construction limits as indicated on the plans and per manufacturer's specifications to prevent silt and debris from leaving the Project site.
- B. Drain Inlet Sediment Filter:
 - 1. Install sediment filter underneath the grate. Ensure that the grate remains in place and ensure that the sediment filter is not damaged.
- C. Silt Barrier:
 - 1. Overlap: Where multiple sections of silt barriers are required to form a continuous run, the sections shall have a minimum overlap of 12 inches.

3.02 MAINTENANCE

- A. Sediment control measures shall be inspected immediately after each rainfall as required by State requirements.
- B. Remove all accumulated sediment and debris from vicinity of the drain inlet sediment filter after each storm event.
- C. After each storm event and at regular intervals, look into the drain inlet sediment filter. If the unit is more than 1/3 full of accumulated sediment, the unit must be emptied.
- D. To empty the unit, use the lifting straps to lift the unit out of the inlet and remove the grate. Transport the unit to an appropriate location for removal of the contents. Holding the dumping straps on the outside at the bottom of the unit, turn the unit upside down, emptying the contents. Reinstall unit as above.
- E. Silt barriers shall be inspected for depth of sediment, tears and breaches. Any deficiencies shall be repaired immediately.
- F. Sediment deposits on a silt barrier shall be removed after each storm event and/or when deposits reach approximately 2/3 the height of the barrier or when the sediments limit or prevent the flow of water through the silt barrier.

- G. Any sediment deposits remaining in place after the silt barrier is no longer required shall be removed and properly disposed of off-site.
- H. Should the any portion of the drain inlet sediment filter or silt barrier decompose or become ineffective prior to the end of the expected usable life and the measure is still necessary, the sediment filter shall be replaced promptly at no additional cost to the State.
- I. Upon completion of the Project the Contractor shall remove all sediment control measures from the Site.

3.03 CONFORMANCE

- A. Failure to conform to the above requirements and regulations will be cause for temporary or permanent suspension of operations. If operations are suspended due to the Contractor's failure to conform, the Contractor shall maintain the Project during the period of suspension at no cost to the State.

PART 4 - MEASUREMENT AND PAYMENT

4.01 BASIS FOR MEASUREMENT AND PAYMENT

Work under this section will not be measured nor paid for separately, but shall be considered incidental to and included in the prices bid for the various items of work in this project.

END OF SECTION