



Iowa Department of Transportation

**SPECIAL PROVISIONS
FOR
COMPOST FILTER TUBE**

Polk County
ESP-006-4(152)--2S-77

Effective date
October 20, 2009

THE STANDARD SPECIFICATIONS, SERIES OF 2009, ARE AMENDED BY THE FOLLOWING ADDITIONS AND MODIFICATIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

091001.01 DESCRIPTION

This section shall include the furnishing of materials, installation, construction, maintenance, and removal of compost filter tubes at locations shown in the contract documents. The Contractor shall be responsible for accomplishing the required construction work on this project in such a manner as to effectively minimize and control the water pollution which might be caused by soil erosion from the project. It is intended that these features be maintained in appropriate functional condition from initial construction stages to final completion of project.

091001.02 MATERIAL

A. PLASTIC NETTING

Fiberglass mesh or plastic netting (polypropylene) meeting the following requirements:

1. Color: Black or green, with UV additives
2. Mesh size: approximately 0.6 inches x 0.7 inches
3. Weight (mass): approximately 9 pounds per 1,000 square feet
4. Width: 48 inches minimum

B. COMPOST

Composted organics used for erosion and sediment control shall be derived from a well-decomposed source of organic matter. The compost shall be produced using an aerobic composting process meeting Code of Federal Regulations (CFR) 503 for time, temperature, and heavy metal concentrations. The compost shall contain no visible admixture of refuse or other physical contaminants nor any material toxic to plant growth. Non-composted products will not be accepted. All compost must comply with all local, state, and federal regulations. Test methods for the items below should follow U.S. Composting Council TMECC guidelines for laboratory procedures. Compost shall meet following additional specifications:

1. Particle Size:

Sieve Size	Percent Passing
2"	100
1"	90-100
5/8"	70-100
1/4"	0-30

2. Unvegetated Compost Filter Tube:

- a. Organic Matter Content: Minimum organic matter shall be 30% (dry weight basis) as determined by loss on ignition
- b. Moisture Content: Moisture content shall be less than 60% and the product shall be loose and friable, not dusty
- c. pH: 6.0 to 8.0
- d. Physical Contaminants: Less than 1% (dry weight basis)

3. Vegetated Compost Filter Tube: Shall meet the following additional requirements:

- a. Soluble Salt: Not greater than 5 mmhos/cm
- b. Stability: Less than 8 mg CO₂-C/g OM/day
- c. Growth Screening: 90% emergence

C. COMPOST FILTER TUBE

Compost filter tube material shall be a continuous, tubular mesh netting that can be easily filled with composted organics and meet the following:

1. **Flow Rates:** AASHTO M 288-96
2. **Strength:** The strength of the material shall be sufficient to prevent tearing, ripping, or other significant damage throughout the intended period of use.

3. **Biodegradability:** When specified, the tube shall be made of natural materials that are biodegradable. Product shall begin to break down in approximately six months.

091001.03 CONSTRUCTION

Pneumatically fill mesh filter tube of size and length indicated on the plans or as directed by the Engineer. Place Compost Filter Tube (CFT) as shown on the plans or as directed by the Engineer.

The Contractor shall be responsible to perform cleaning during installation of work and upon completion of work.

1. Remove from the site all excess materials, debris, and equipment.
2. Hose down and/or broom clean all paved surfaces.
3. Repair any damage resulting from erosion control operations.

091001.04 METHOD OF MEASUREMENT

The Engineer shall measure the linear feet of compost filter tube installed.

091001.05 BASIS OF PAYMENT

Payment per linear foot of compost filter tube installed shall be full compensation for all labor, equipment, and materials necessary to furnish and install compost filter tube, including mesh tube, compost, and stakes.