

To: SUPERSEDED BY <u>EI 06-004</u> EFFECTIVE 9/7/06		New York State Department of Transportation ENGINEERING INSTRUCTION	EI 04-023
Title: REVISIONS TO STANDARD SPECIFICATIONS FOR §713-07 ROLLED EROSION CONTROL PRODUCTS AND SOIL STABILIZERS			
Distribution: ☒ Manufacturers (18) ☒ Local Govt. (31) ☒ Agencies (32) ☐ Surveyors (33) ☒ Consultants (34) ☒ Contractors (39) ☐ _____ ()		Approved:  P.J. Clark, P.E. Deputy Chief Engineer, Design <u>05/26/04</u> Date	

ADMINISTRATIVE INFORMATION:

- This Engineering Instruction (EI) is effective beginning with projects scheduled for the letting of January 13, 2005.
- This EI does not supersede any other EIs.

PURPOSE:

This Engineering Instruction issues revised §713-07 ROLLED EROSION CONTROL PRODUCTS AND SOIL STABILIZERS of the Standard Specifications.

TECHNICAL INFORMATION:

The specifications for Class I, II, and III Rolled Erosion Control Products reflect current industry terminology, provide clarification of the specifications, and reflect a change in the procedures that manufacturers of Rolled Erosion Control Products must follow in order for products to be included on the Department's Approved List.

Manufacturers of Class IV-Types A and B Stabilizers shall supply test information to the Landscape Architecture Bureau verifying that their products meet or exceed the requirements of §713-07. In addition, the manufacturers of Class IV-Type B products will only appear on the Department's Approved List after the manufacturer has provided the New York State Department of Environmental Conservation (DEC) the required information in the current joint New York State Department of Transportation/Department of Environmental Conservation Memorandum of Understanding for Dust Palliatives/Soil Stabilizers, and has met DEC's approval.

There are no anticipated additional costs associated with the implementation of this EI.

This EI changes the requirements for Class III Rolled Erosion Control Products by allowing inclusion of supplemental degradable natural fiber components.

TRANSMITTED SPECIFICATIONS:

This EI transmits revised specifications for §713-07 ROLLED EROSION CONTROL PRODUCTS AND SOIL STABILIZERS. This replaces 2002 Standard Specifications §713-07.

BACKGROUND:

The revisions of §713-07 ROLLED EROSION CONTROL PRODUCTS AND SOIL STABILIZERS result from conformity in national testing and terminology. The Department is switching to AASHTO's National Transportation Product Evaluation Program (NTPEP) testing. This program provides a better and more universally approved test for Rolled Erosion Control Products.

CONTACT:

Direct questions regarding this Engineering Instruction to Gary Glath in the Landscape Architecture Bureau at 518/457-4460 (e-mail: gglath@dot.state.ny.us).

Make the following changes to the Standard Specifications of January 2, 2002.
Page 7-150, under §713-07 Jute Mesh or Other Approved Erosion Control Materials.

Delete “§ 713-07” in its entirety and *replace* it with the following:

§ 713-07 – ROLLED EROSION CONTROL PRODUCTS AND SOIL STABILIZERS

SCOPE. This specification covers the material requirements for Rolled Erosion Control Products and Soil Stabilizers.

MATERIAL REQUIREMENTS

Class I (Short-Term) Light-duty, organic, or synthetic erosion control products.

Type A. Products for use where the slopes do not exceed 1:4. No minimum shear stress is required. The product shall be capable of withstanding moderate foot traffic without tearing or puncturing.

Type B. Products for use on slopes 1:3 and flatter. No minimum shear stress is required.

Type C. Products for use on slopes 1:3 or flatter, or in channels. Products shall have the ability to protect soil from hydraulically induced shear stresses under bench scale conditions for at least 70 Pa at 13 mm soil loss.

Class II (Intermediate) Erosion-control products.

Type A. Jute-Mesh. For use on slopes 1:2 or flatter. Jute-mesh shall be of a uniform, open, plain weave of undyed and unbleached, single-jute yarn. Jute-mesh shall be woven as follows:

- Approximately 55 warp ends per meter width.
- Approximately 37 weft ends per linear meter.
- Mass of jute mesh shall average 0.5 ($\pm$ 5%) kilogram per square meter

Type B. Organic or nonorganic products for use on slopes 1:2 or flatter, or in channels. Products shall have the ability to protect soil from hydraulically induced shear stresses under bench scale conditions for at least 95 Pa at 13 mm soil loss.

Type C. Products made entirely of organic materials. For use on slopes 1:2 or flatter, or in channels. Only 100% organic materials are allowed. Products shall have the ability to protect soil from hydraulically induced shear stresses under bench scale conditions for at least 95 Pa at 13 mm soil loss.

Class III (Permanent Nondegradable synthetic products [fibers, filaments, or nettings] which may be supplemented with degradable natural fiber components).

Type A. Products for use on slopes 1:2 or flatter, or in channels. Products shall have the ability to protect soil from hydraulically induced shear stresses under bench scale conditions for at least 95 Pa at 13 mm soil loss.

Type B. Products for slopes 1:2 or flatter, or in channels. Products have the ability to protect soil from hydraulically induced shear stresses under bench scale conditions for at least 170 Pa at 13 mm soil loss.

Type C. Products for slopes 1:1 or flatter, or in channels. Products shall have the ability to protect soil from hydraulically induced shear stresses under bench scale conditions for at least 240 Pa at 13 mm soil loss.

Type D. Products for slope 1:1 or flatter, or in channels. Products shall have the ability to protect soil from hydraulically induced shear stresses under bench scale conditions for at least 380 Pa at 13 mm soil loss.

Class IV Soil Stabilizers. Soil stabilizers are short-term duration, erosion control products. When used alone, they shall be used on slopes 1:2 or flatter. They shall not be used in channels.

Type A. A cementitious soil binder which is added to wood cellulose fiber mulch, a Flexible Growth Medium(FGM), or a Bonded Fiber Matrix(BFM). Intended to form a thick, heavy-bodied crust or mat-like barrier that controls water-, and wind-induced erosion. Type A products may be used alone and are approved for use with Class III, Types A, B, and C rolled erosion control products where those products are used on slope applications.

Type B. A polyacrylamide (PAM) and calcium solution intended to reduce the erodibility of bare soils during construction activities or to enhance the performance of mulching on permanent slopes. Soil stabilizer, Type B, shall bond soil particles and shall effectively increase the soil particle size to 1.0 mm or larger. Soil stabilizers, Type B shall reduce the movement of soil through chemical bonding, increase the particle size thus making silt fence more effective, and increase the water absorption of the soil.

BASIS OF ACCEPTANCE. Acceptance of this material shall be in accordance with procedural directives of the Department.