

1 Make this section a part of the Standard Specifications:

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3 **"SECTION 663 - EROSION CONTROL MATTING**

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5 **663.01 Description.** This section describes furnishing and installing an erosion
6 control matting on cut and fill slope faces, including drainage swales, as shown
7 on the contract documents.

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9 **663.02 Materials.**

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11 **(A) General.** The erosion control matting shall be a multi-layered
12 geosynthetic netting specifically designed for erosion control as a long-
13 term installation. The erosion control matting shall provide erosion
14 protection for at least 36 months during vegetation establishment. The
15 matting shall allow grass or other natural ground cover to grow and take
16 root through the matting. The internal matrix material color shall be green
17 or brown and the outer net material shall be black.

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19 **(B) Physical Properties.** The erosion control matting shall have the
20 following minimum physical properties;

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22 **(1)** Materials shall be manufactured from polyethylene,
23 polypropylene, polyolefin or nylon.

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25 **(2)** Thickness of the erosion control matting shall be 0.30 inches
26 minimum according to ASTM D 5199.

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28 **(3) Ultraviolet stability** . – ASTM D 4355 (tensile strength
29 retained after 1000 hours) 80%.

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31 **(4) Porosity** (calculation based upon weight, thickness and
32 specific gravity) minimum 95%.

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34 **(5) Resiliency** (thickness retained after 3 cycles of a 100 psi
35 load for 60 seconds followed by 60 seconds without load-thickness
36 measured 30 minutes after load removed by ASTM D 1777) 75%
37 minimum.

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39 **(6) Tensile strength** – ASTM D 5305, 2-inch Strip Test, 95 x 95
40 lbs/foot minimum.

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42 **(7) Elongation** – ASTM D 5305, 2-inch Strip Test, 70% x 70%
43 maximum,

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45 **(C) Brochures and Manufacturer's Certification.** The manufacturer
46 of the erosion control matting shall submit brochures and certifications

stating the quality of the material meet the intended use on the project. The certification shall clearly show the product number or other similar control number, which match the markings on the product delivered to the site. The manufacturer shall furnish certified test reports with each shipment attesting that the erosion control matting meets the requirements of the specification for material physical properties. Samples of the erosion control matting shall also be submitted to the Engineer.

663.03 Construction.

(A) General. Place erosion control matting on cut and fill slope faces, including drainage swales, as shown on contract documents.

(B) Installation.

(1) Installation Plan. Submit an installation plan prior to any work on the slope.

(2) Site Preparation. Grade and compact the slope face properly. Remove all materials such as rocks and vegetation that would interfere with the soil and the erosion control matting.

(3) Anchor Trenches. Anchor trenches shall be as recommended by the manufacturer. The trenches shall be a minimum of eight inches deep and eight inches wide before placing the erosion control matting. Backfill and compact trenches properly to the original requirements of the slope.

(4) Planting. Install the erosion control matting prior to hydro-mulching to retain good seed distribution and avoid disturbance of the hydro-mulching by work crews. Hydro-mulching may be done before mat placement; however, the disturbed areas must be corrected by re-hydro-mulching at no cost to the State.

(5) Placement. Place the erosion control matting according to the manufacturer's recommendations. The matting roll ends shall be overlapped a minimum of 18 inches. The adjacent edges of the matting shall be overlapped a minimum of 3 inches.

(6) Anchoring. Anchor the erosion control matting at overlaps with 12-inch x 2-inch x 12-inch 8G metal staples. The distribution of the staples shall be a minimum of two per square yard and spaced as recommended by the matting manufacturer. The Engineer will not allow wood anchors, such as pegs or stakes of any kind. Alternate anchoring methods may be allowed if approved by the matting manufacturer and accepted by the Engineer:

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94 For installation in rock area, anchor matting according to the
95 manufacturer's recommendations.
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97 **(7) Repairs.** Correct tears and holes in the erosion control
98 matting with a minimum of 3-foot overlap in each direction of the
99 damage. Re-hydromulch the repaired area if ordered by the
100 Engineer. Repair and/or replace the damaged or defective erosion
101 control matting at no additional cost to the State.
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103 **663.04 Measurement.** The Engineer will not measure erosion control
104 matting for payment.
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106 **663.05 Payment.** The Engineer will not pay for the accepted erosion
107 control matting separately and will consider the cost for erosion control matting
108 as included in the contract price for hydro-mulch seeding.”
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113 **END OF SECTION 663**