

SECTION 323 – EROSION CONTROL MATTING

323.01 DESCRIPTION

This item shall consist of the placement of erosion control matting and turf reinforcement to prevent erosion for various spillways, slopes, and ditches located on the design plans or as directed in the field. Use of this material does not relieve the Contractor from soil preparation and seeding requirements as detailed in other specification sections.

323.02 REFERENCE STANDARDS

MCDPS	Water Resources – Turf Reinforcement Detail
M-NCPPC	Section 101 – Clearing and Grubbing Section 705 – Seeding and Sodding for Turf Areas Section 723 – Landscape Soil (Topsoil)
MSHA	Section 709 – Soil Stabilization Matting

323.03 DEFINITIONS

Not applicable.

323.04 MATERIALS

- A. Requests for substitutions of material products specified shall be accompanied by complete product data documenting materials and performance and must be approved by the M-NCPPC Construction Manager. Channel applications shall comply with MCDPS Water Resources Section requirements for Turf Reinforcement.
- B. Straw Blankets: Agricultural straw stitched into mats between two natural fiber nets (S150BN by North American Green or approved equal). Materials may be used on slopes and shall provide effective protection for one year.
- C. Coir Matting: Machine-spun bristle twines woven into erosion control blankets (weight 780 g/m²) (BioD-Mat70 by RoLanka International or approved equal). Materials may be used on slopes and channels where velocities will not exceed 12 fps and shall provide effective protection for four to six years.
- D. Coir-Synthetic Turf Reinforcement Matting: Machine-spun bristle twines woven into erosion control blankets (weight 780 g/m²) (BioND-TRM by RoLanka International or approved equal). Materials may be used on slopes and channels where velocities will not exceed 18 fps and shall provide permanent effective protection.
- E. Turf Reinforcement Matting using Enkamat: Three-dimensional geomatrix of heavy nylon monofilaments fused at their intersections (Enkamat 7010 by Colond or approved equal). All Enkamat installations shall be soil-filled prior to stabilization. Materials may be used on slopes and channels where velocities will not exceed 12 fps and shall provide permanent

effective protection.

- F. Erosion Control Blankets using Curlex: Interlocking curled excelsior wood fibers stitched together with biodegradable thread (Curlex NetFree by American Excelsior Company or approved equal). Materials may be used on 3:1 slope where shear stress will not exceed 1 lb./sf and shall provide temporary protection until vegetation is established.
- G. Fasteners: No metal stakes can be used for securing any mat. Wooden stakes or biodegrading stakes (Greenstake or approved equal) shall be used.

323.05 SUBMITTALS

Submit all manufacturer's information including installation instructions. Provide a sample of the material.

323.06 QUALITY ASSURANCE

Installation and materials must meet all MCDPS requirements.

323.07 CONSTRUCTION

- A. All materials shall be installed per manufacturer's specifications and MCDPS requirements. All materials shall be properly secured and shingled in sections according to actual flow path of surface water. In addition, construction shall also meet all requirements of MSHA Section 709.
- B. The soil for permanent matting shall be prepared as required in M-NCPPC Section 705- Seeding and Sodding for Turf Areas, Section 723 – Landscape Soil, and Section 101 – Clearing and Grubbing.
- C. Overlap matting with the upslope portion on top. Overlap edges at least two (2) inches and ends at least six (6) inches.

323.08 MEASUREMENT AND PAYMENT

Payment will be full compensation for all material, labor, equipment, tools, and incidental items necessary to complete the work. Measurement and payment shall be made on a unit rate per square yard basis as shown in the bid proposal for erosion control matting installation or on a lump sum basis as shown in the bid form.