

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 645 – EROSION CONTROL

The purpose of this Supplemental Specification is to:

- *Update erosion control requirements.*
- *Add Erosion Control Plans to list of items to furnish for SWPPP (1.2.1, 11/07/18)*
- *Update construction dates for allowable area of exposed, unstabilized soil (3.1.5, 11/07/18)*

Replace 1.1 with the following:

1.1 Erosion Control Products. This work shall consist of furnishing and placing hay mulch, bark mulch, “Rolled Erosion Control Products” (RECP), Hydraulic Erosion Control Products (HECP) or other material to provide soil stabilization and/or erosion control on slopes or in channels/ditches at locations shown on the plans or where ordered.

1.1.1 Temporary Slope Matting Type A (Not Currently Used)

1.1.2 Temporary Slope Matting Type B (Wildlife Friendly) shall be a biodegradable RECP specified for protection of slopes of 3:1 or flatter. These products shall maintain their functional integrity for a minimum of 3 months and then biodegrade.

1.1.3 Temporary Slope Matting Type C (Not Currently Used)

1.1.4 Temporary Slope Matting Type D (Wildlife Friendly) shall be a biodegradable RECP specified for protection of slopes of 2:1 or flatter. These products shall maintain their functional integrity for a minimum of 12 months and then biodegrade.

1.1.5 Permanent Channel Matting Type A shall be a RECP specified for protection of vegetated channels/ditches with a slope profile of 5% or less. These products are considered to be permanent and shall be non-degradable.

1.1.6 Permanent Channel Matting Type B (Not Currently Used)

1.1.7 Temporary Channel Matting Type A (Wildlife Friendly) shall be an extended term RECP specified for protection of vegetated channels/ditches with a slope profile of 3% or less. These products are considered temporary and shall have a functional longevity of 24 months.

1.1.8 Temporary Channel Matting Type B shall be a long term RECP specified for protection of vegetated channels/ditches with a slope profile of 3% to 5%. These products are considered temporary and shall have a functional longevity of 36 months.

1.1.9 Stabilized Mulch Matrix (SMM) shall be a moderate term HECP, specified for temporary erosion control on slopes of 3:1 or flatter. These products shall have a functional longevity of at least 3 months.

1.1.10 Bonded Fiber Matrix (BFM) shall be an extended term HECP, specified for temporary erosion control on slopes of 2:1 or flatter. These products shall have a functional longevity of at least 6 months.

1.1.11 Fiber Reinforced Matrix (FRM) shall be a long term HECP, specified for temporary erosion control on slopes of 2:1 or flatter. These products shall have a functional longevity of at least 12 months.

Amend 1.2.1 to read:

1.2.1 The Department will furnish the following data to the Contractor:

- Specific reproducible plan sheets and cross-sections of the project, as requested.
- Drainage calculations and plans (drainage area size and characteristics; runoff volume; type, size, and slope of pipes; invert elevations; and outlet velocities), as available.
- Geotechnical Report including soil boring logs, soil types, and test pit data, as available.
- Permits and certifications obtained for the project.
- A list of environmental commitments.
- A copy of the NHDOT's Notice of Intent application.
- A copy of the NHDOT's Acknowledgement letter from EPA.
- Documentation of permit eligibility related to federally listed threatened and endangered species.
- NHDES Wetlands Permit "Plan of Record".
- Erosion Control Plans

Add to 2.1:

2.1.4 Hydraulic Erosion Control Products (HECP) shall be temporary, biodegradable, pre-packaged fibrous mulch products mixed with water and applied as a slurry in conjunction, with, or without Turf Establishment without Mulch (Item 646.2). Hydraulic Erosion Control Products (HECP) selected for use shall be from those listed on the Qualified Products List.

Amend 3.1.5 to read:

3.1.5 For the construction period from October 15th through May 1st the area of exposed, unstabilized soil shall be limited to one acre. The allowable area of exposed soil may be increased provided a winter construction plan shows adequate provisions to control erosion and sediment, provided the additional area of disturbance is necessary to meet the Contractors Critical Path Method schedule (CPM), and the Contractor can demonstrate there are adequate resources available (equipment & manpower) to respond to multiple events simultaneously and is reviewed and approved by the Department.

Add to 3.3:

3.3.6 Hydraulic Erosion Control Products (HECP).

3.3.6.1 The Contractor shall only use personnel or subcontractors trained in the use of the product.

3.3.6.2 Hydraulic Erosion Control Products (HECP) shall be mixed and applied in accordance with the manufacturer's specifications.

3.3.6.3 Apply HECPs to the soil surface from at least two opposing directions, to achieve an even coverage of all exposed soil surfaces. Do not apply either BFM or SMM within 24 hours of a predicted rain event, or under saturated soil conditions. FRM does not require a cure time and is effective immediately; and FRM may be applied immediately before, during, or after a “typical” rainfall event. Avoid installing FRM during high intensity rainfall events.

3.3.6.4 Inspection and Maintenance: Reapplication will be required if the HECP treated soils are disturbed or turbidity or water quality testing shows the need for an additional application within the functional longevity of the product.

Add to 4.1:

4.1.2 Hydraulic Erosion Control Products (HECP) will be measured by the pound based upon the delivery slips and tags furnished to the Engineer, but not to exceed the rate specified or ordered. If reapplication is required due to damage caused by the Contractor’s negligence or inappropriate installation, retreated areas will not be measured for payment.

Amend 5.1 to read:

5.1 The accepted quantities of erosion control work will be paid for at the Contract unit price, complete in place.

Replace the Pay Items with the following:

Pay items and units:

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| 645.11 | Mulch | Acre |
| 645.111 | Mulch | Square Yard |
| 645.12 | Temporary Mulch | Acre |
| 645.15__ | Bark Mulch __in. Deep | Square Yard |
| 645.3 | Erosion Stone | Ton |
| 645.42 | Temporary Slope Matting Type B (Wildlife Friendly) | Square Yard |
| 645.44 | Temporary Slope Matting Type D (Wildlife Friendly) | Square Yard |
| 645.45 | Permanent Channel Matting Type A | Square Yard |
| 645.471 | Temporary Channel Matting Type A (Wildlife Friendly) | Square Yard |
| 645.472 | Temporary Channel Matting Type B | Square Yard |
| 645.48 | Erosion Control Mix | Cubic Yard |
| 645.51 | Hay Bales for Temporary Erosion Control | Each |
| 645.52 | Ryegrass for Temporary Erosion Control | Pound |
| 645.531 | Silt Fence | Linear Foot |
| 645.532 | Silt Fence with Support Fence | Linear Foot |
| 645.611 | Bonded Fiber Matrix | Pound |
| 645.612 | Fiber Reinforced Matrix | Pound |
| 645.613 | Stabilized Mulch Matrix | Pound |
| 645.7 | Storm Water Pollution Prevention Plan | Unit |
| 645.71 | Monitoring SWPPP and Erosion and Sediment Controls | Hour |