**SPL-10, HYDRAULIC EROSION CONTROL STABILIZATION**

Version Date: 3/22/2019 Revision Date: XX/XX/XXXX by XXX

1. Description:

The work covered by this special provision includes applying a spray applied bonded fiber matrix that is reviewed and approved by the city or as directed by the Engineer. Furnishing and mixing fertilizer, lime, and grass seed in the matrix is included with this provision.

1. Materials and Construction Methods:

Materials shall include soil stabilizing blend/tackifiers, fiber, seed, lime, fertilizer, and all incidental materials necessary to install the bonded fiber matrix in accordance with the details, plans, and the requirements of the manufacturer. Seed bed preparation shall follow manufacturer’s recommendations.

Bonded fiber matrix is composed of long strand fibers held together by crosslinked hydro-colloid bonding agents that upon drying, become insoluble and non-dispersible. Materials listed or used for hydro-mulching applications are not acceptable. Organic and mineral bonding agents such as dry polyacrylamides, starch, guar, and plantago mixed with fibers are not permitted.

Use bonded fiber matrix components pre-packaged by the Manufacturer to assure material performance and compliance with the following typical values when applied at a rate of 3500 lbs/acre.

 Fiber by Weight: 85%

 Bonding Agent/Crosslinked

 Hydro-Colloid Polymer Tackifiers: 10%

 Moisture Content: 12%

 Organic Matter: 90% min.

 pH Range (3% Slurry in water): 4.8 +/- 2

Color: Colored to contrast application area, shall be non-staining

 Mass Per Unit Area: ASTM D-6566 11.5 oz/sq. yd.

 Thickness: ASTM D-6525 0.10 in. min.

 Ground Cover: ASTM D-6567 99%

 Water Holding Capacity: 1000%

 Cover Factor (6 in/hr event): ECTC Test Method #2 0.10 max.

 % Effectiveness: ECTC Test Method #2 90% min.

Cure Time: ECTC Test Method #2 98% Effective 48 hrs after apply

Vegetation Establishment ECTC Test Method #4 350% min.

**Seeding Mix and Fertilizer:**

Tall Fescue (turf-type such as Gregstone or FalconIV)    **60%**

Kobe Lespedeza (or Partridge Pea)                                          **15%**

Durana white clover                                                                **15%**

Perennial Ryegrass                                                          **5%**

Temporary Seed (Browntop Millet [June-August] or Rye grain [November-February]) **5%**.

If March-May or late August –October, use 65% tall fescue seed and no temporary seed)

Apply seed at a rate of 4# - 5# per 1000 square feet. Amend soil according to soil test results for fescue turf.

Apply lime and fertilizer per soil tests.

1. Measurement:

Hydraulic Erosion Control Stabilization will be measured and paid in square yards as measured along the surface of the ground, over which the bonded fiber matrix has been acceptably placed.

1. Submittal:

Prior to start of work on this item, submit a proposed seed mix, including the source and content of the seed mix, to the engineer and city of Charlotte project manager for review. No work shall be performed until the Engineer and Project manager approves this seed mix.

1. Basis of Payment:

The quantity of “Hydraulic Erosion Control Stabilization”, measured as provided above, will be paid for at the contract unit price bid per square yard for “Hydraulic Erosion Control Stabilization”. Such payment will be full compensation for all work covered by this special provision, including but not limited to furnishing, delivering, and installing the bonded fiber matrix in accordance with the plans, details, and manufacturer’s specifications; and all tools, labor, equipment, and incidental materials necessary to install the bonded fiber matrix. There will be no separate measurement or payment for seedbed preparation, furnishing and applying fertilizer, lime, grass seed, or other materials and labor necessary for satisfactory placement of this item.

 Payment will be made under:

HYDRAULIC EROSION CONTROL STABILIZATION SY