This Memorandum notifies the users of the Materials Division Manual of Instructions that Sections 204.20, 205, and 207.02 regarding geotextile sampling and testing have been revised in order to update language and update current sampling and testing procedures.

The revised section is included below.

The Manual of Instructions may be accessed chapter by chapter by using the link below:

Sec 204.20 Landscape Materials (Roadside Development) and Geotextiles

(f) Filter Cloth Fabric - Geotextiles

This section covers geotextiles used for silt fence, riprap bedding, drainage fabric, and subgrade and embankment stabilization, as specified in VDOT Road and Bridge Specification 245.03, (a) through (d). Each lot of filter cloth fabric geotextile shall be sampled at the source Supplier by a VDOT Materials Division Quality Assurance (QA) Section Industrial Inspector or a VDOT Materials Representative (Industrial Inspector) and the sample submitted to the VDOT Central Office Laboratory for testing. If there is no evidence of test when the material arrives at the project, it shall be sampled at the project.

In addition, the Manufacturer or Supplier shall certify that the material contains ultraviolet ray-inhibitors and stabilizers, since this test would take too long to determine. Also the Manufacturer shall certify the burst strength of the material being furnished, where applicable. the following material test results as VDOT does not perform these tests:

- Silt Fence – ultraviolet stability
- Riprap Bedding – apparent opening size, ultraviolet stability, puncture strength
- Drainage Fabric – apparent opening size
- Subgrade Stabilization Fabric – apparent opening size, tear strength, puncture strength
- Embankment Stabilization Fabric – apparent opening size, tear strength, puncture strength

In addition, for silt fence geotextile, the Supplier shall be responsible for having each lot of material it stocks, tested for filtering efficiency, flow rate, and grab strength. These results shall be from a Geosynthetic Accreditation Institute (GAI)-accredited laboratory, which in addition is specifically certified by GAI on tests ASTM D5141 (Flow Rate and Filtering Efficiency) and D4632 (Grab Strength). Manufacturer test results on its own lots shall not be used; Supplier lots shall be a maximum of 250,000 square feet as described below.

This certifications should be presented to the VDOT Industrial Inspector before sampling and testing of the material for approval. The VDOT Materials QA Section industrial inspector will maintain the documentation and will not place state seals, stamps, or decals on materials that do not have the appropriate documentation.

A visual inspection should be made of the stockpile Supplier’s lot of geotextile to see that the fabric-geotextile is uniform in composition, packaging and free of obvious defects resulting from shipment or storage. All rolls should have roll and style numbers as identifiers. Rolls not meeting visual inspection requirements shall be removed from the lot.

The fabric producer or provider (consignee) Supplier should have a shipping document containing all roll numbers for the materials being evaluated. A copy of this shipping document and the manufacturer’s certifications regarding ultraviolet ray-inhibitors, stabilizers, and or burst strength should of material test results described above shall be given to the Industrial Inspector and a lot number assigned to this grouping of rolls. The Industrial Inspector should label these shipping document sheets with the assigned lot numbers and retain them as part of the material's his permanent documentation. A sample of the fabric-geotextile, at least 10 linear feet (5 meters) and full width of the roll is then taken at random by the Industrial Inspector. Pertinent information on the fabric-geotextile is then recorded on a TL-10 and is submitted with the sample to the VDOT Central Office Materials Division for testing. Lot size shall be no greater than 250,000 square feet (25,000-
square meters) per sample. Two or more samples should be taken if quantity of material exceeds this criterion as outlined and a separate TL-10 written for each sample. The number of samples collected shall be in accordance with Table 3 of ASTM D4354, Standard Practice for Sampling of Geosynthetics for Testing. (This is one (1) sample for up to 200 rolls, two (2) samples for 201 to 500 rolls, three (3) samples for 501 to 1,000 rolls, and four (4) samples for 1001 or more rolls.) A separate sample shall be taken for each lot and a separate TL-10 written for each sample.

Acceptable lots of material, those that meet the VDOT specification requirements, shall be sealed, stamped, or decal labeled by the Industrial Inspector.

Failing Lots of material may be retested once, if requested by the Supplier. Sampling for retests shall be done in accordance with ASTM D4354 D4759, Standard Practice for Determining the Specification Conformance of Geosynthetics. (The number of rolls to be sampled and tested shall be the cube root of the total number of rolls in the lot.) This shall be interpreted to mean the same number of samples as initially collected per lot shall be again collected, and that the average of the original and resampled results must meet the VDOT specification requirements. Otherwise the lot shall be considered failing. For silt fence, in the event the Supplier results pass and the VDOT results fail for filtering efficiency, flow rate, or grab strength, the cause of the difference shall be investigated and a determination made by the VDOT Central Office Soils Lab Program Manager as to the adequacy of the material.

The Industrial Inspector shall notify Suppliers of failing lots. The Suppliers shall then be required to remove that material from consideration for use on VDOT state projects or state purchases.

The Industrial Inspector shall issue a TL-109 when geotextiles are being shipped to VDOT state projects, or for material from Suppliers participating in the VDOT Materials Quality Assurance Program, the material paperwork shall be stamped with the certification stamp. The Industrial Inspector shall issue a Physical Release when geotextiles are sold or transferred to subconsignees or other providers contracting to the state VDOT. To facilitate this documentation, the distributor should Supplier shall notify the Industrial Inspector of shipment of material to other distributors, Suppliers in regions of the state where the material may ultimately be purchased by the Department VDOT.

No material shall be used on a state VDOT project if the material does not carry the state seal, stamp, or a decal of approval. The Industrial Inspector shall be contacted in the event that there is no evidence of testing and approval on geotextiles at the project.

No special packaging is required. Samples shall be marked, in accordance with Sec. 203 of this MOI, using Form TL-10, as outlined in Sec. 800 of this MOI. Length and width measurements as well as lot number, manufacturer, brand name and style shall be shown on the TL-10. Laboratory tests of filter cloth fabric geotextiles shall be reported on Form TL-47, as outlined in Sec. 800.
SECTION 205 SUMMARY OF MINIMUM ACCEPTANCE SAMPLING REQUIREMENTS

Under Section 205, the table of Minimum Acceptance Sampling Requirements, Item 20

| (f) Filter Cloth Fabric Geotextiles... | One piece 10 ft. (3 m) x full width submitted to VDOT Central Office Laboratory, together with Manufacturer’s certification ultraviolet ray inhibitors and stabilizers, and burst strength, where applicable required Manufacturer’s and Supplier’s certifications | At source or job-site Supplier. | No packaging necessary. | (f) Filter Cloth Fabric Geotextiles |

Sec. 207.02 Materials for General or Routine Consideration

(21) Filter Cloth, Fabric, Silt Fence and Other Geotextiles. (Up to 3 rolls of material may be accepted on Contractor’s certification that materials were tested for a previous project.)

cy: Commissioner Virginia Transportation Research Council
Chief Engineer Virginia Ready-Mixed Concrete Association
Chief of Operations Precast Concrete Association of Virginia
Division Administrators Virginia Transportation Construction Alliance
Residency Administrators Virginia Dept. of Minority Business Enterprise
District Materials Engineers Federal Highway Administration
District Construction Engineers American Concrete Paving Association
District Maintenance Engineers NE Chapter, Southern Region
Areas Construction Engineers Old Dominion Highway Contractors Association
Virginia Asphalt Association