

Mark Wedemeyer, Director

Memorandum

To: MBIA, Review Agencies and the General Public

From: Raghavenderrao Badami, PE, Assistant Director, Inspections and Per

Subject: Erosion and Sediment Control and Site Inspections – Updates

Date: September 14, 2022

Background

The Anne Arundel Soil Conservation District (AASCD) approves all erosion and sediment control plans (E&S plan) in the county. The Department of Inspections and Permits (I&P) inspectors inspect sites for compliance with the approved plans.

Purpose

I&P understands that no single guidance document or manual can cover each and every site situation regarding E&S design. Designers and plan reviewers are reminded that every site is unique and that no single E&S BMP (Best Management Practice) will suit every possible circumstance. Designers are encouraged to exercise best professional judgement when selecting BMP's, taking into account not just grading and drainage area, but site challenges, unique characteristics (e.g. proximity to sensitive environmental buffers, features, slopes), site soil characteristics/properties, slopes, installation and maintenance logistics, and any other factors that would influence the efficacy of any particular BMP.

The purpose of this memo is to provide the below updates and guidance to all involved in the design, review of E&S plans, Site construction, inspections and enforcement.

1. Heavy Duty Silt Fence

I&P Staff received several inquiries from contractors regarding the use of Heavy Duty Silt Fence sediment and erosion control BMP in the County. Heavy Duty Silt Fence received provisional approval¹ from Maryland Department of Environment (MDE) for use as an additional tool to utilize in the E&S plans. Based on this, this heavy duty silt fence may be used² in the county and considered as a substitute for Super Silt Fence (SSF), where SSF would typically be specified.

¹ Provisional approval letter can be found at https://acfenvironmental.com/wp-content/uploads/2015/09/Maryland-Approval-Letter.pdf

² Allowing the use of this product is not an endorsement of the product and I&P assumes no responsibility for the performance of the product.

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As with any practice, proper installation per the manufacturer's instructions as well as thorough and robust inspection and maintenance protocols are critical to the BMP's performance.

Details and specifications of heavy duty stilt fence shall be provided on E&S plans and shall meet³ or exceed the following:

- MD Grab Tensile Strength (ASTM D 4632)
- TD Grab Tensile strength (ASTM D 4632)
- Ultraviolet Light 5 Retained Strength (ASTM 4355)
- Equivalent Sieve Opening (ASTM D 4751)
- Permittivity (ASTM D 4491)
- Mullen Burst (ASTM D 3786)
- Puncture Strength (ASTM D 6241)

2. E&S Plans- Adaptive Measures

Over the last couple of months, I&P inspectors and supervisors have been handling site enforcement matters on sites that created a source of offsite sediment deposition. These sites especially have challenging slopes, among other unique site characteristics. It is a violation of County Code to create a source of offsite erosion or sediment deposition.

Design engineers shall include adaptive measures as a part of the design, E&S plans, to address site characteristics including site slopes, runoff velocities, etc. during the plan review stage. For example, the design engineer could use these measures as a part of the design, E&S plan. One tool I&P staff found helpful is to bring up the reinforced silt fence/SSF up at the stabilized construction entrance, placing hardwood shredded mulch- 1 ft. deep and 3 feet wide measured from the RSF/SSF up the slope; the design engineer shall also consider the placement additional layers/tiers of RSF/SSF across the slope with measures such as hardwood mulching, hay bales, stone, etc. upstream and downstream of the RSF/SSF, as necessary to prevent site causing offsite erosion or deposition of sediment.

It is understood that no single technique or tool may address each and every site situation. I&P looks to designers to adapt E&S measures, techniques, BMPs to proactively address challenging sites (in terms of slope, soils, site sequencing, practical considerations, logistics, etc.).

I&P inspectors and supervisors will bring up site unique characteristics and challenges at the preconstruction meeting prior to site clearing, but these should be addressed as a part of the design, E&S plans. The design engineer shall ensure that the design addresses site issues and is practical and workable to contain silt and erosion on the property.

3. Site Clearing – Wet Weather Event

At least 48 hours before commencing work under a grading permit and approved plans, a permittee shall notify the Department of the intended date of commencement. Work may not commence until the

³ These are the minimum standards to be met – additional details, specification may be required by AASCD, I&P during plan review, site inspections.

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permittee or responsible personnel have met on the site with a representative of the Department to review the approved plans.

In the event of wet weather, an inspector may require additional sediment protection and stabilization, including but not limited to, hardwood mulching as authorized by § 16-3-204(d) (5) of the County Code. Even in the absence of an inspector requiring additional sediment protection and stabilization measures, permittees and contractors are encouraged to understand their site's characteristics and implement additional measures, as necessary to prevent offsite erosion or deposition of sediment.

Upon request, the permittee/contractor shall provide contractor's daily monitoring logs to the inspector on a periodic basis and specifically the next day after a rainfall event that results in runoff.

To help with site enforcement and not having to stabilize sites after clearing, I&P requires that the below note shall be added to the grading permit plans:

"The permittee or contractor shall not commence with clearing or any earth disturbance activities on the site during or before predicted wet weather events. Once site work begins, clearing and grubbing activities shall be for the installation and stabilization of the perimeter erosion controls only. "

Enforcement Actions

The Department intends to strictly enforce any violations of § 16-5-101(11) of the County Code which prohibits creating a source of offsite erosion or sediment deposition. Additionally, in an effort to prevent environmental damage to the Chesapeake Bay and its tributaries, the Department shall prioritize enforcement actions on sites that discharge directly to non-tidal or tidal waters. It is the policy of the County to utilize all enforcement measures available to achieve compliance.

All enforcement decisions shall consider the gravity of the violation, any willfulness or negligence involved in the violation, and the environmental impact of the violation.

Timing

This memo is effective immediately. This office has coordinated with AASCD regarding this guidance and I&P appreciates the collaborative effort.