5.2 Construction Entrance Stabilization

Description

Construction entrance stabilization provides a non-erodible surface where vehicles access a construction site and reduces the amount of mud tracked off-site by construction traffic. It is typically a temporary pad of stone aggregate underlain with geotextile, but specialized manufactured mats or "shaker racks" may also be used.

Use Criteria

Use construction entrance stabilization at all points where traffic enters or exits a construction site to or from a right-of-way, street, parking lot, or other public or private paved surface. Maintain construction entrance stabilization until the site is stabilized or the entrance is replaced with a permanent roadway.

Restrict vehicle site access to the stabilized construction entrance by blocking all other access points or bypasses.

Construction entrance stabilization will not prevent all track out. Limit the accumulation of mud on the tires of outgoing vehicles with heavy use area stabilization (Chapter 5.3) and other efforts to minimize traffic on muddy areas.

Use street sweepers to remove any mud tracked past the stabilized entrance onto paved surfaces. Scheduling frequent sweepings is recommended for public thoroughfares. A wheel wash is recommended when these controls do not adequately prevent track out. See Chapter 4.6 – Vehicle Trackout Control.

Capture all non-recycled wash water from wheel washes or other construction entrance maintenance and direct it to a sediment pond.

Design Criteria

Design and maintain the practice for stability under applied loads from all vehicles intending to use the facility for the anticipated construction duration.

For entrances with standard equipment loads and traffic volume, see the practice specification that follows.

Stormwater Pollution Prevention Plan

Include plans and specifications in a Stormwater Pollution Prevention Plan (SWP3) that describe the requirements for applying the practice to achieve its intended purpose. As a minimum, include the following in the SWP3.

- □ Indicate the location of the stabilized construction entrance.
- □ Include detailed drawings and specifications for the practice.
- □ Convey that a stabilized construction entrance is to be installed prior to construction and maintained throughout.

Inspection and Maintenance

See the practice specification that follows.

References

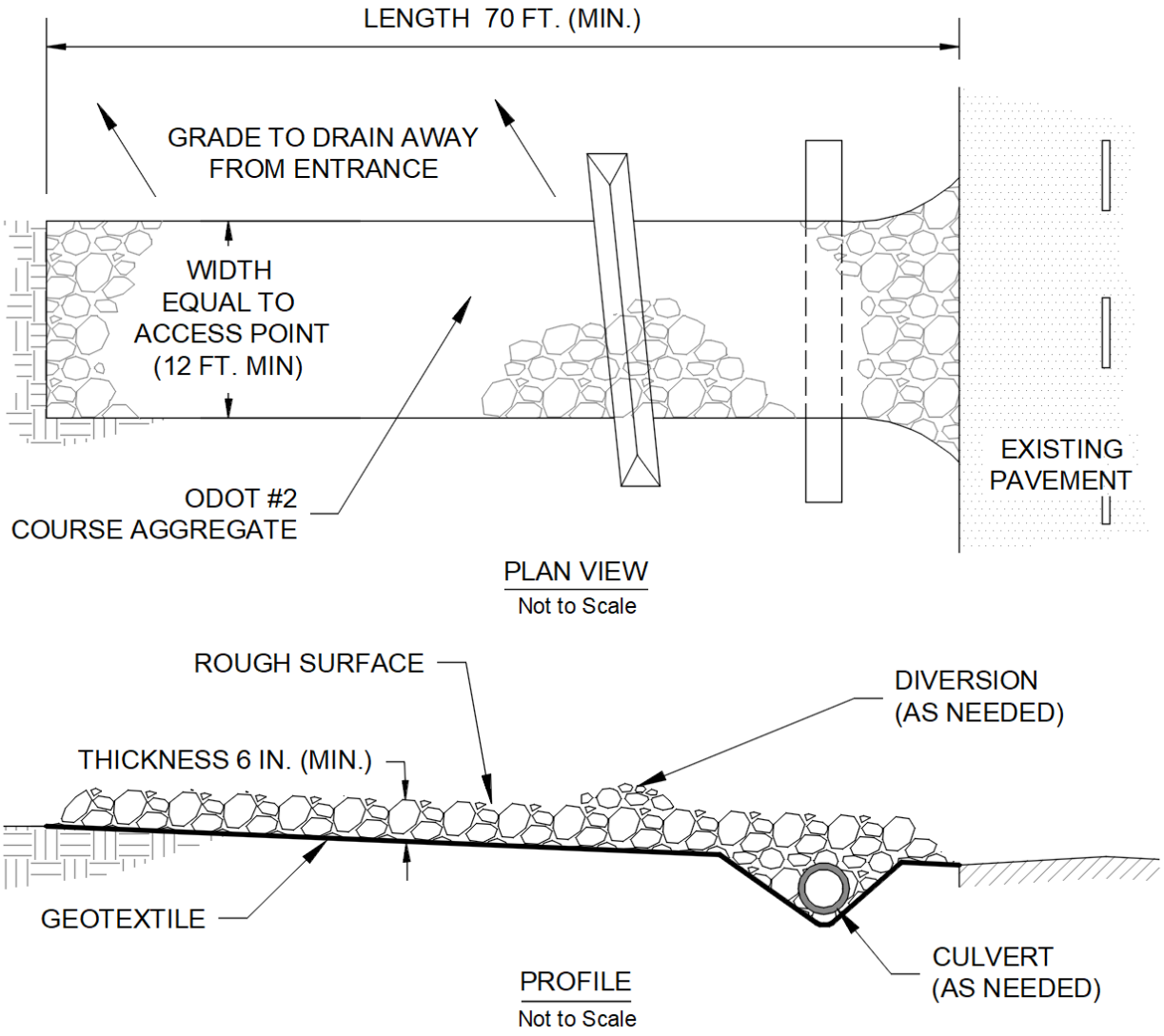
Minnesota. Minnesota Stormwater Manual. Accessed March 24, 2025. https://stormwater.pca.state.mn.us/index.php/Sediment_control_practices_-_Vehicle_tracking_BMPs

New Jersey. 2014, Revised 2017. The Standards for Soil Erosion and Sediment Control in New Jersey. Published by the New Jersey Department of Agriculture - State Soil Conservation Committee.

Ohio. 2023. Construction and Material Specification. Department of Transportation. Columbus, OH.

US EPA. 2021. Stormwater Best Management Practice, Construction Track-Out Controls. EPA-832-F-21-028DD.

Practice Specification
Construction Entrance Stabilization



Scope

Furnish all materials, labor, and equipment necessary for constructing construction entrance stabilization in accordance with the construction drawings and these specifications.

Timing

The stabilized construction entrance shall be installed as soon as practicable and before major grading activities commence. It shall remain in place and functional until all disturbed areas are stabilized or replaced with a permanent roadway.

Materials

1. Stone aggregate shall meet the gradation requirements for #2 (1.5 - 2.5 inch) coarse aggregate in Table 703.01 of the current Ohio Department of Transportation (ODOT) Construction and Material Specification (CMS) Specification 703, or equivalent. Poorly graded aggregate develops an abrasive surface and is preferred.
2. Geotextile shall be polymeric fibers formed into a woven or non-woven fabric that meets the current ODOT CMS specification 712.09 for Type D: Subgrade-Base Separation or Stabilization, or equivalent.
3. Abrasive manufactured mats may be used as an alternative. They must be installed to the same dimensions as stone stabilization and in accordance with the manufacturer's specifications, including allowable loads, anchoring, and connections.

Installation

1. Remove and stockpile all topsoil. Lay geotextile over the entire subgrade prior to placing the stone layer.
2. The construction entrance shall be not less than 70 feet long (30 feet on an individual residence lot less than 1 acre) and not less than the full width of the ingress or egress point with a minimum width of 12 feet.
3. The stone layer shall be a minimum of 6 inches thick (at least 10 inches is recommended for heavy use). The stone surface should be above the adjoining ground surface to prevent run-on.
4. The stone surface should be rough or abrasive, do not compact or roll the surface smooth.
5. Divert stormwater from up-slope areas away from the entrance. Construct a water bar or mountable berm where necessary to prevent runoff from flowing down the length of the construction entrance. Construct a culvert under the stone where necessary to prevent surface water from flowing across the entrance. Convey sediment-laden runoff to sediment control practices.

Maintenance and Removal

1. Periodically top dress with additional stone or reworking existing stone to maintain abrasiveness.
2. Routinely remove mud from the aggregate surface. This may be accomplished with a street sweeper, broom attachment, or raking the stone.
3. Do NOT wash the entrance unless the wash water can be contained, collected, and treated before disposal.
4. Remove and properly dispose of all aggregate and geotextile at the end of use.