

SECTION 329600 SOIL EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.1 DESCRIPTION

Soil Erosion and Sediment Control shall include implementation and maintenance of soil erosion and sediment control devices and construction procedures, as shown on the plans or as directed by the Engineer, which will reduce and prevent soil losses and associated damages from sedimentation during construction of this project.

All work will be in conformance with the contract documents and Standards for Soil Erosion and Sediment Control in New Jersey revised and adopted December 2013, and the latest revisions thereof.

A. Related Sections include the following:

1. Division 01 Section, "Construction Waste Management"

PART 2 - PRODUCTS

2.1 MATERIALS

Silt Fence shall be geotextile fabric buried at least 6 inches deep extending 2 feet above ground securely fastened to posts by metal fasteners (nails or staples). The fabric shall resist tearing away from the post and shall incorporate a drawstring in the top portion of the fence for added strength.

Hay bales shall consist of timothy, redtop or native grasses bound together with nylon or wire.

Stabilize hay bales with two rebar, steel pickets or two 2"x2" wood stake anchors (length = 1.5' to 2.0') as may be required or as directed by the Owner. Contractor shall embed anchors a depth of 4" or as applicable with site conditions to stabilize hay bales. Stone aggregate shall be 1½ - 2" in diameter.

All other materials shall be as shown and called for on the plans as "Soil Erosion and Sediment Control Plans & Details".

PART 3 - EXECUTION

3.1 CONSTRUCTION WASTE MANAGEMENT

- A. The contractor, subcontractors, and their personnel shall follow the procedures and practices for waste separation, collection and transport as defined in the contractor's "Waste Management Plan" as required by Division 01 Section "Construction Waste Management.

3.2 CONSTRUCTION

Seventy-Two (72) hours prior to any soil disturbance, the contractor shall notify the Burlington County SCD.

Contact Information: Somerset Union Soil Conservation District
306 Milltown Road
Bridgewater, NJ 08807
Phone: 908-526-2701
Fax: 908-575-3977

The certified soil erosion and sediment control plans must be kept at the construction site at all times. The SCD and NJDEP make random site inspections to ensure soil erosion and sediment control compliance. The Contractor must allow the SCD and/or NJDEP representatives access to all the construction site areas. If the inspection reveals a violation of the soil erosion and sediment control standards, a notification will be issued by the SCD and/or NJDEP detailing the site deficiencies or violation(s). Upon receipt of the letter, the contractor will have 5 working days to remediate that violation or the SCD and/or the Owner may suspend any work, issues fines or other penalties until the deficiencies are corrected. A temporary certificate of occupancy can only be issued after the SCD issues a temporary report of compliance. The project is not completed until the SCD issues a complete report of compliance. This is issued when permanent stabilization has been established (usually after one complete growing season) and all details on the certified soil erosion and sediment control plans are properly installed.

The work of soil erosion and sediment controls shall include, but not be limited to the following:

1. All soil erosion and sediment control practices on this project shall be constructed in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey" or as approved for this project.
2. The smallest practicable area of land shall be exposed at any one time during the project and, whenever feasible, natural vegetation shall be retained and protected. Stripping of vegetation, grading or other soil disturbance shall be completed in a manner which will minimize soil erosion.
3. A schedule of construction operations shall be submitted to the Engineer for his approval including staging areas, stockpile areas and disturbance outside the limits of work. All erosion control devices shall be inspected and maintained periodically.
4. All soil erosion and sediment control devices shall be in place prior to any major soil disturbances or installed and removed in their proper sequence to allow for further operations on the site.
5. All sediment control structures shall be checked and maintained on a regular basis and basins shall be cleaned periodically when storage capacity is affected by siltation.
6. During construction, any additional control measures as deemed necessary to

prevent erosion or control sediment beyond those measures shown on the approved plans shall be installed or employed at the direction of the Engineer.

7. After completion of construction, soil and sediment controls shall be left in place until all disturbed areas are stabilized.
8. Disturbed areas shall be maintained in a rough graded condition and temporarily seeded and/or mulched until proper weather conditions exist for the establishment or permanent vegetative cover.
9. All areas disturbed by grading on which permanent or semi-permanent seeding or temporary seeding have not been made and all slopes with a grade steeper than 4:1 shall be treated by mulching. The mulch shall be applied at a rate of 2 - 2 1/2 tons per acre of equivalent measure, according to State standards.
10. All areas disturbed by grading including soil stockpiles which will not be used or constructed upon for a period greater than 30 days shall be temporarily seeded and protected as required.
11. All areas disturbed by grading which will not be constructed upon within six months are to be stabilized with a permanent type seeding and fertilizing.
12. All disturbed areas shall be treated with a minimum of 4" of topsoil or as indicated on the plans, limed and fertilized prior to both temporary and permanent seeding as indicated on plans and in conformance with charts and tables as set forth in the "Standards for Soil Erosion and Sediment Control in New Jersey".
13. A crushed stone wheel cleaning "Tracking Pad" is to be installed at all site exits using 2- 1/2 inch stone to a length of at least 50 feet, if required by the soil erosion inspector. All driveways must exhibit this item in the drive during construction.
14. All paved roadways must be kept clean at all times. Do not use a fire or garden hose to clean roads unless runoff is directed to a proper sediment basin.
15. All Storm drainage inlets are to be protected by temporary filter devices, as indicated on the plans, to prevent the entry of sediment carried by run-off water until vegetation and/or paving is established as planned.
16. Whenever well points, pumps or other dewatering methods are used, care shall be taken to provide for the elimination of erosion and entrapment of sediment at the outfall of said dewatering.
17. All drainage swales shall be parabolic in shape unless otherwise noted and shall conform to SCS design standards.
18. Drainage swales and other structures shall be located in the field so as to retain as much of the original vegetation as possible, especially large trees.

19. The Contractor shall be responsible to contact and obtain approval from the Soil Conservation District for staging/stockpiling areas over 5,000 square feet.
20. The Contractor must confine all phases of construction work within the permanent and temporary construction easements.
21. The Contractor shall be responsible to secure his own ingress and egress to the construction site. If construction driveways are required, they shall be provided in accordance with the detail. They shall be the width of opening shown on the plans or as required by the Soil Conservation District, a minimum of 50 feet in length and a minimum of one foot deep.
22. The Contractor will strictly adhere to all plans, specifications and details approved by the Soil Conservation District.
23. All erosion and sediment control practices shall be in place prior to any grading operations and installation of proposed structure or utilities.
24. To provide suitable conditions for growth and vegetation and to prevent the acidifying of drainage water in those areas underlain with acid formation having a pH below 4.0 the following requirements shall be met:
 - a. Grading shall be such that a minimum of acid formation shall be exposed.
 - b. All exposed material shall be covered with a minimum of one foot on non-acid (pH minimum 5.0) soil suitable for plant growth plus 5" of topsoil.
25. Seeded Dates: See construction plans.
26. Mulch material shall be unrotted salt hay or small grain straw applied at a rate of at least 2.0 Tons per acre, 90 pounds per 1000 square feet. In no case shall more than five days elapse between seeding and mulching, or by hydroseeding as per the manufacturer's specifications.
27. All damage incurred by erosion shall be rectified immediately by the contractor.
28. All plan revisions must be submitted to the district for proper review.
29. Maximum side slopes shall not exceed 3:1 unless approved by the district.
30. All dewatering operations shall discharge into an approved sediment basin.
31. The district must be notified, in writing, for the sale of any portion of the project or for the sale of any building lots. New Owner's name(s), addresses, and phone numbers shall be provided to the district.

All soil erosion and sediment control devices shall be installed prior to any major soil

disturbance, or in their proper sequence, and maintained until permanent protection is established. During the length of the entire project, the Contractor shall be responsible for maintaining all soil erosion and sediment control devices in an efficient workable condition.

Hay bales shall be replaced as they become filled with silt. Stone at the construction entrances shall be re-spread as existing stone becomes dirty and covered with silt.

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