



SECTION 01570

EROSION PREVENTION AND SEDIMENT CONTROL

PART 1. GENERAL

1.1 DESCRIPTION

- A. This work shall consist of erosion prevention and sediment control on all cut and fill operations, excavation, backfill, or other construction activities within the limits of the construction site, within any temporary or permanent easements, and within any borrow site used during the period of construction. The protection of these sites shall continue throughout the construction period. During flood seasons, protect the sites by diverting stormwater, sandbagging, pumping water, and any other means appropriate to restrain flooding of project site and equipment. Minimize erosion by phasing disturbances and/or by utilizing straw, mulch, and other stabilizers where possible. During dry weather, sprinkle the sites with water, surfactants and/or other means as necessary to provide dust control.
- B. The temporary pollution control provisions contained herein shall be coordinated with the permanent erosion prevention and sediment control features, to ensure economical, effective, and continuous erosion prevention and sediment control throughout the construction and post-construction periods.
- C. CONTRACTOR is responsible for ensuring that construction means and methods are performed in a manner that utilizes best management practices in conformance with all applicable environmental laws, regulations, and any and all approved permits, such as the NPDES Storm Water Construction Permit and the City of Knoxville Site Development Permit.
- D. CONTRACTOR is responsible for installation, inspections, and maintenance of any and all required erosion prevention and sediment control for PROJECT. For projects covered under TDEC's *General NPDES Permit for Discharges of Storm Water Associated with Construction Activities* (i.e., projects greater than one acre and/or part of the Pace 10 or Century II water Programs), the following specific requirements apply:
 - Certification for sediment and erosion control inspectors must be included in the on-site Storm Water Pollution Prevention Plan (SWPPP). Therefore, CONTRACTOR will include copies of the certifications for sediment and erosion control inspectors in the submittal package, in accordance with requirements in Section 2.5.8.1 of TDEC's *General NPDES Permit for Discharges of Storm Water Associated with Construction Activities*.
 - KUB will provide a copy of PROJECT SWPPP or SWPPP as submitted for approval for CONTRACTOR to review. CONTRACTOR will review and then sign on to PROJECT's Notice of Intent (NOI). Signature indicates that CONTRACTOR

understands and will adhere to the erosion prevention and sediment control requirements outlined in the SWPPP.

- CONTRACTOR will be solely responsible for payment of any fines or penalties from any regulatory agency enforcement due to a notice of non-compliance for storm water discharges.
- E. CONTRACTOR shall submit completed TDEC erosion and sediment control inspection forms to KUB. All completed forms for the given month must be submitted electronically by the fifth day of the following month. Forms will be submitted by e-mail to ErosionControl@kub.org. Completed inspection forms shall be submitted in Adobe pdf format.

CONTRACTOR must be current and up to date with the TDEC erosion and sediment control inspection forms submittals to OWNER prior to submitting any given monthly Application for Payment. OWNER may at OWNERs sole discretion suspend processing an Application for Payment until up to date TDEC erosion and sediment control inspection forms submittals are correctly filled out and received by OWNER.

PART 2. PRODUCTS

- 2.1 **TEMPORARY BERMS:** These berms are used temporarily at the top or base of newly constructed slopes to prevent excessive erosion until permanent controls are installed or slopes stabilized.
- 2.2 **TEMPORARY SLOPE DRAINS:** A temporary slope drain is a facility consisting of stone gutters, fiber mats, plastic sheets, concrete or asphalt gutters, half round pipe, metal pipe, plastic pipe, sod, or other material that may be used to carry water down slopes to reduce erosion.
- 2.3 **SEDIMENT STRUCTURES:** Sediment basins, ponds, and traps are prepared storage areas constructed to trap and store sediment from erodible areas in order to protect properties and stream channels below the construction areas from excessive siltation.
- 2.4 **CHECK DAMS:** Check dams are barriers composed of large stones, sand bags, or other noncorrodible materials placed across or partially crossing a natural or constructed drainway.
- 2.5 **TEMPORARY SEEDING AND MULCHING:** Temporary seeding and mulching is measures consisting of seeding, mulching, fertilizing, and matting utilized to reduce erosion. All cut and fill slopes including waste sites and borrow pits shall be seeded when and where necessary to eliminate erosion.
- 2.6 **TEMPORARY SILT FENCES:** Silt fences are temporary sediment barriers consisting of a filter fabric stretched across and attached to supporting posts and entrenched. The silt fence is constructed of synthetic filter fabric, posts, and depending upon the strength of the

fabric used, wire fence for support. The filter barrier is constructed of stakes and burlap or synthetic filter fabric in accordance with TDEC specifications SF-1 through SF-8.

PART 3. EXECUTION

3.1 PROJECT REVIEW: It is the responsibility of CONTRACTOR to follow the SWPPP developed by the design engineer and approved by the applicable regulatory agencies. If at any time OWNER deems it necessary or if CONTRACTOR observes problems during site inspections, CONTRACTOR shall provide additional erosion prevention and sediment control devices and mark changes on the applicable SWPPP. The site shall be provided with maximum protection from erosion at all times.

3.2 CONSTRUCTION REQUIREMENTS

- A. In the event of conflict between these requirements and pollution control laws, rules or regulations, or other Federal, State, or Local agencies, the more restrictive laws, rules, or regulations shall apply.
- B. In streets and other paved areas, remove excavated material from the site as construction progresses to prevent any erosion of this material.
- C. In other areas, place the excavated material so as not to block any drainage areas. Replace excavated material in the trench immediately after work has been completed and approved by OWNER.
- D. Dispose of all excavated materials that cannot be re-used in accordance with all applicable laws and regulations and with Section 02321, paragraph 3.13.
- E. Retain natural vegetation whenever feasible.
- F. Restore and cover exposed areas subject to erosion as quickly as possible by means of seeding and mulching. Where earth-disturbing activities have ceased permanently or will not be resumed for a period exceeding 14 days, stabilization measures must be implemented as soon as possible, but in no case later than 14 days after earth-disturbing activities have ceased. Use diversion ditches or other methods as appropriate to prevent storm water from running over the exposed area until seeding is established as specified. Fiber matting or other stabilizing materials may be necessary as required by OWNER.
- G. Take particular care along streams and drainage ditches so that fallen trees, debris, and excavated material will not adversely affect the streamflow. Exercise care to minimize the destruction of streambanks. Wherever the streambanks are affected by construction, reduce the slope of the streambanks to provide a suitable condition for vegetative protection. Minimize land exposure in terms of area and time.
- H. Take care during the placing of concrete, hauling of materials, etc., to keep vehicles from creating a severe erosion problem. Proper scheduling of operations and prompt repair of ruts created during this operation is necessary.

- I. When working in TDOT R.O.W., CONTRACTOR should notify TDOT of erosion prevention and sediment control intentions to eliminate watershed and sediment diversions onto roadway.

3.3 CONSTRUCTION OF STRUCTURES

- A. The most up-to-date Best Management Practices (BMPs) from TDEC and the City of Knoxville should be followed, as appropriate.

- 3.4 MAINTENANCE: The temporary erosion prevention and sediment control features installed by CONTRACTOR shall be acceptably maintained by CONTRACTOR until no longer needed or permanent erosion prevention and sediment control methods are installed. The temporary erosion prevention and sediment control materials shall be moved and become the property of CONTRACTOR.

- 3.5 EROSION PREVENTION AND SEDIMENT CONTROL OUTSIDE PROJECT AREA: Temporary pollution control shall include construction work outside the project area where such work is necessary as a result of construction such as borrow pit operations, haul roads, and equipment storage sites.

END OF SECTION