
**SECTION 02000
EROSION CONTROL SYSTEMS**

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Requirements for construction and maintenance of erosion and sedimentation systems control and their components.
- B. Requirements for location and extent of the components of erosion and sedimentation systems.

1.2 MEASUREMENT AND PAYMENT

- A. Unit Prices:
 - 1. No payment will be made for erosion control systems under this Section. Include cost in applicable erosion control measures.
 - 2. Refer to Section 01270 – Measurement and Payment for unit price procedures.
- B. Stipulated Price (Lump Sum):
 - 1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

1.3 REFERENCES

- A. CFTS – City of Friendswood Technical Specifications.
- B. CFCO – City of Friendswood Code of Ordinances.
- C. EPA – Environmental Protection Agency.
- D. TCEQ – Texas Commission on Environmental Quality.

PART II: PRODUCTS – NOT USED

PART III: EXECUTION

3.1 GENERAL

- A. No clearing and grubbing or rough cutting, other than as specifically directed by the Project Manager to allow soil testing and surveying, shall be permitted until erosion and sedimentation control systems are in place.
- B. All equipment and vehicles used on the construction site shall be prohibited by the Contractor from maneuvering on areas outside of dedicated rights-of-way, easements or areas of construction.
- C. Damages caused by construction traffic to erosion and sedimentation control systems shall be repaired immediately.
- D. Conduct all construction operation under this Contract in conformance with the erosion control practices described in this Technical Specification.

- 3.2 EROSION AND SEDIMENTATION CONTROL SYSTEMS REQUIRED FOR CONSTRUCTION OF WATER, SEWER AND DRAINAGE IMPROVEMENTS
- A. Storm Sewers
 - 1. Inlet protection barriers shall be constructed prior to commencing work, using either a non-woven geotextile filter fabric silt fence or a straw bale silt fence.
 - 2. Inlet protection barriers shall be constructed prior to commencing work immediately around each completed or partially completed storm manhole or inlet.
 - 3. Contractor shall not leave any storm manhole or inlet unprotected overnight.
 - B. Sanitary Sewers
 - 1. Under no circumstances shall unfiltered runoff enter the existing sanitary sewer system during construction.
 - 2. Water and sediment removed from any parts of a partially constructed or unaccepted sanitary sewer system shall not be discharged directly into the storm sewer system, unprotected swales or unprotected ditches.
 - 3. Water and sediment shall be discharged into the storm sewer system upstream of inlet protection barriers.
 - C. Water Distribution System
 - 1. Water used to blow off the system shall be directed to nearby inlets upstream of inlet protection barriers.
 - 2. Water used to blow off the system shall not be directed to existing unprotected swales or unprotected ditches.
 - D. Place silt fences on downstream side of construction site when shown on the Drawings or when directed by the Project Manager.
 - E. Compact top layer of any stockpiled excavated material that is to be left on site overnight.
 - F. Trash pumps shall not discharge directly to any unprotected swale, unprotected ditch or unprotected low lying area.
 - G. Trash pumps shall discharge upstream of inlet protection barriers or silt fences.
 - H. The Contractor and the Project Manager shall inspect the erosion and sedimentation control system after each rain, daily during periods of prolonged rainfall and at a minimum of once a week regardless of weather.
 - I. When damage to sediment control system is discovered, the Contractor shall immediately repair and/or replace damaged components of the system.
 - J. The Contractor shall remove sediment deposits when the sediment has accumulated to one-half (1/2) the height of any area along any silt fence.
 - K. Cast and spread sediment deposits within the limits of the construction site as directed by the Project Manager.

3.3 EROSION AND SEDIMENTATION CONTROL SYSTEMS REQUIRED FOR CONSTRUCTION OF PAVING IMPROVEMENTS

- A. Inlet protection barriers shall either be constructed by the paving contractor, or if inlet protection barriers are already in place, the paving contractor shall accept them for maintenance prior to commencing any other construction activities.
- B. Place silt fences on downstream side of construction site when shown on the Drawings or when directed by the Project Manager.
- C. Compact top layer of any stockpiled excavated material that is to be left on site overnight.
- D. Trash pumps shall not discharge directly to any unprotected swale, unprotected ditch or unprotected low-lying area.
- E. Trash pumps shall discharge upstream of inlet protection barriers or silt fences.
- F. Before concrete pavement is placed and curb is completed, all previously constructed inlet protection barriers may be adjusted by the paving contractor.
- G. Storm manholes and inlets shall not be left overnight without inlet protection barriers before placement of concrete pavement and curb is completed.
- H. After placement and curing of the concrete curb, silt fences shall be placed behind the curb.
- I. Remove inlet protection barriers only after construction of the silt fences behind the curb or other protective measures are in place.
- J. The Contractor shall not leave any portion of any street unprotected overnight.
- K. The Contractor and the Project Manager shall inspect the erosion and sedimentation control system after each rain, daily during prolonged periods of rainfall and at a minimum of once a week regardless of the weather.
- L. When damage to sediment control system is discovered, the Contractor shall immediately repair and/or replace damaged components of the system.
- M. The Contractor shall remove sediment deposits when the sediment has accumulated to one-half (1/2) the height of any area along any silt fence.
- N. Cast and spread sediment deposits within the limits of the construction site as directed by the Project Manager.

3.4 MAINTENANCE

- A. The following applies only when a Storm Water Pollution Prevention Program (SWPPP) has been implemented by the Contractor:
 - 1. Unless otherwise directed by the Project Manager, the Contractor shall be responsible for maintenance of the erosion and sedimentation control system until final acceptance of the or until the paving contractor receives notice to proceed.

- 2. The Project Manager shall walk through the project with the paving contractor and the Design Professional, and together the three (3) parties will observe each component of the erosion and sedimentation control system and agree that either:
 - a. Each component in the system is acceptable and the paving contractor shall assume maintenance responsibilities or,
 - b. List repairs the Contractor must make to each component that is not acceptable before the paving contractor shall assume maintenance responsibilities.
- 3. When the paving contractor receives notice to proceed, the Contractor is then responsible for maintaining the existing erosion and sedimentation control system provided that either:
 - a. There are no repairs required by the Contractor or,
 - b. Repairs to the system have been completed by the Contractor.
- 4. The paving contractor shall dispose of any component of the system constructed by the Contractor that is not reused in a manner consistent with the purpose of the system.
- 5. The paving contractor shall continue maintenance of the erosion and sedimentation control system after final acceptance by the City if so directed by the Project Manager and if included in the bid proposal and unit price description.
- 6. The paving contractor shall dispose of the system the Contractor has constructed, when so directed, by the Project Manager.
- B. When a PPP has not been implemented by the WSD (Water, Sewer and/or Drainage) Contractor, the paving Contractor shall be responsible for constructing and maintaining all components required by the PPP.

3.5 DUST CONTROL

- A. Control dust dispersed and movement on construction sites and roads to prevent exposure of soil surfaces, to reduce on and offsite damage, to prevent health hazards, and to improve traffic safety.
- B. Control dust dispersal and movement by utilizing one or more of the following methods:
 - 1. Mulches bound with chemical binders such as Curasol, Terratack, or equal.
 - 2. Temporary vegetative cover.
 - 3. Spray-on adhesives on mineral soils not under traffic loads.
 - 4. Tillage to roughen surface and bring clods to the surface.
 - 5. Sprinkling with water to keep top layer moist.
- C. Dust control methods shall be implemented immediately whenever dust can be observed blowing on or off the project site.

END OF SECTION