

SECTION 31 25 13

EROSION CONTROL

PART 1 GENERAL

1.1 SUMMARY

- A. Provide all labor, material, equipment, and services required to complete the work specified in this section, and as shown on the drawings.
- B. The work of this section includes but is not necessarily limited to:
 - 1. Provide and install erosion and sedimentation controls as shown on the Drawings, as specified herein, and as required to minimize erosion at the Site.
 - 2. Provide Work to control erosion and sedimentation as required by the Maine Department of Environmental Protection standards, the Cumberland County Soil & Conservation District Standards, the U.S. Environmental Protection Agency, and the City of Portland, Maine standards.
 - 3. Temporary seeding and mulching as required for disturbed areas including stockpiles.
- C. Related Work is specified in other sections include, but are not necessarily limited to, the following:
 - 1. Section 31 02 00 – Development Permits
 - 2. Section 31 02 10 – Subsurface Investigations
 - 3. Section 31 10 00 – Site Preparation
 - 4. Section 31 20 00 – Earthwork
 - 5. Section 33 31 00 – Sanitary Sewer System
 - 6. Section 33 41 00 – Storm Drainage
 - 7. Section 32 11 23 – Aggregate Base Courses
 - 8. Section 32 12 16 – Pavement, Walks & Curbs

1.2 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Product Data: Submit product data for the following items:
 - 1. Silt fence.
 - 2. Erosion control blanket.
 - 3. Geotextile fabric.
 - 4. Filter sock.

1.3 QUALITY ASSURANCE

- A. Comply with the requirements of Section 01 40 00 – Quality Requirements.
- B. Documents affecting Work of this Section include, but are not necessarily limited to; the Conditions of the Contract, General Conditions, Supplementary Conditions, Addenda, and all Sections of Division 1 are hereby made a part of this Section.
- C. Coordinate Work with that of other trades affecting or affected by Work of this Section. Cooperate with such trades to assure the steady progress of the Work.

- D. All Work shall comply with the requirements of the applicable Maine Department of Environmental Protection standards, the Cumberland County Soil & Conservation District Standards, U.S. Environmental Protection Agency NPDES Permit requirements, the City of Portland, Maine Standards, to minimize adverse environmental impacts. Reference is made to the Erosion and Sedimentation Control Report and Plan included in the Plan set for this project. Strict adherence to the Specifications and Plans is required in order to prevent adverse downstream impacts.
- E. All Work shall comply with the conditions of the enclosed permits.
- F. Work shall be accomplished in accordance with regulations of local, county and state agencies and national or utility company standards as they apply.
- G. The Contractor shall protect structures, utilities, sidewalks, pavements, property monuments, monitoring wells, and other facilities from damages caused by settlement, lateral movement, undermining, washout, and other hazards created from earthwork operation.
- H. The Contractor shall bear all cost associated with correcting any Work that does not meet the requirements of this Section or any damaged items due to construction activities. These costs include any professional services required for inspection of repairs or replacements.
- I. Paved surfaces: Do not operate equipment on paved surfaces. Paved surfaces outside the limits of Work which become damaged shall be repaved by the Contractor.
- J. Contractor shall be responsible for notifying all affected utility companies and Dig Safe before starting work.
- K. Field Measurements:
 - 1. Verify that survey horizontal and vertical control reference points are present and correct as indicated. Protect these points from disturbance during the course of the Work, or correctly re-establish as necessary.
- L. The Contractor shall pay all fines issued to the Owner as a result of poor erosion control practices by the Contractor.

1.4 PRE-INSTALLATION MEETINGS

- A. Section 01 31 00 – Project Management and Coordination: Pre-installation conferences.
- B. Convene minimum one week prior to commencing work of this section.

PART 2 PRODUCTS

2.1 EROSION AND SEDIMENTATION CONTROLS

- A. Silt Fence: Material shall comply with MDOT 656.02 and shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0 to 120 degrees F. Post spacing shall not exceed 8 feet.
- B. Mulch: Hay or Straw Mulches that are dry and free from undesirable seeds and coarse materials. Application rate must be 2 bales (70-90 lbs.) per 1,000 square feet or 1.5 to 2 tons (90-100 bales) per acre to cover 75 to 90% of the ground surface.

- C. Mulch Binder: May be emulsified asphalt, or approved equivalent.
- D. Erosion Control Blanket: Wheat, straw and coconut fiber woven blanket, with photo-degradable netting on both sides; North American Green SC 150 or approved equivalent.
- E. Temporary Seeding: Conservation Mix of 100% perennial rye grass.
- F. Sod:
 - 1. Grown from certified seed of adapted varieties to produce high quality sod free of any serious thatch, weeds, insects, diseases, and other pest problems.
 - 2. Between one and three years old.
 - 3. Cut with a 1/2-inch to 1-inch layer of soil.
- G. Rip Rap: Sound, hard angular shape, well graded, stone without shale seams, structural defects or foreign substances, with thickness greater than one third its length and a minimum specific gravity of 2.5. At least 50% of the stone shall be greater than the D50 size in accordance with MDOT Section 703.26.
- H. Geotextile Fabric: Woven polypropylene erosion control fabric; Mirafi 700X or approved equivalent.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 73 00 - Execution: Verification of existing conditions before starting work.

3.2 SITE STABILIZATION

- A. Install all erosion and sedimentation controls in conformance with Erosion & Sedimentation Control Plan.
- B. Incorporate erosion control devices indicated on the Drawings into the Project at the earliest practicable time prior to grubbing, stripping, or other construction operations.
- C. Construct, stabilize and activate erosion controls before site disturbance within tributary areas of those controls.
- D. Stockpile and waste pile heights shall not exceed 35 feet. Slope stockpile sides at 2: 1 or flatter.
- E. Stabilize diversion channels, sediment traps, and stockpiles immediately.

3.3 FIELD QUALITY CONTROL

- A. Comply with Section 01 40 00 - Quality Requirements.
- B. Comply with Section 01 73 00 - Execution Requirements.
- C. Inspect erosion control devices on a weekly basis and after each rain event. Make necessary repairs to ensure erosion and sediment controls are in good working order.

3.4 MAINTENANCE AND CLEANING

- A. Comply with Section 01 73 00 - Execution Requirements: Requirements for cleaning.
- B. When sediment accumulation in sedimentation structures has reached a point one-third depth of sediment structure or device, remove and dispose of sediment.
- C. Do not damage structure or device during cleaning operations.
- D. Do not permit sediment to erode into construction or site areas or natural waterways.
- E. Clean channels when depth of sediment reaches approximately one half channel depth.

3.5 PROTECTION

- A. Section 01 73 00 - Execution Requirements: Requirements for protecting finished Work.

END OF SECTION