



EROSION & SEDIMENT CONTROL NARRATIVE

Project Description:
This project is located off Keagy Road in Roanoke, Virginia. This project consists of the construction of sanitary sewer system.

Existing Site Conditions:
The site is relatively sloping with some moderate brush and trees. The entire site drains into an existing drainage system located near the western border of the property.

Adjacent Areas:
This site is bordered by Keagy road on west.

Off-site areas:
No off-site borrow or fill sites are expected to be associated with this project.

Soils:
Soils information is based on an inspection of sheet number 5 of the soil survey of Roanoke County and the cities of Roanoke and Salem, Virginia, issued in 1997 and has not been field verified. The majority of the onsite soils fall into the Shottower-Urban land complex, 4 to 15 percent slopes (41C) category with high erosion potential and moderate permeability. Typical sequence, depth and composition layers in the soils are as follows:

Surface layer:	0 to 10 inches, dark brown loam
Subsurface layer:	10 to 18 inches, dark yellowish brown loam
Subsoil:	18 to 24 inches, yellowish red clay loam
	24 to 34 inches, dark red clay loam that has yellowish red mottles
	34 to 62 inches, red clay that has light yellowish brown mottles

Critical Areas:
There are no specific critical areas for concern with this project. However, the contractor shall take special care to establish permanent stabilization on all steep slopes.

General Standards:
All erosion and sediment control practices and procedures shall be in accordance with the latest edition of the Virginia Erosion and Sediment Control Handbook.

Erosion and Sediment Control Measures:
Standard and Specification 3.02 - Construction Entrances (CE)
A temporary construction entrance shall be installed where the construction access road leaves existing pavement. During wet weather conditions, drivers of construction vehicles will be required to wash their wheels before entering the street. When construction vehicles must enter disturbed areas, the tires of the vehicle shall be manually cleaned prior to leaving the site, if necessary.

Standard and Specification 3.05 - Silt Fence (SF)
Silt Fence shall be installed at the lower edge of disturbed areas as shown on the plan. Two types of silt fence are shown on the plans in accordance with VDOT standards. The taller fence is specified as silt fence, "SF". A shorter fence is specified as filter barrier, "FB".

Standard and Specification 3.07 - Inlet Protection (IP)
Inlet Protection shall be installed to minimize the amount of sediment laden runoff from entering the storm drain system.

Standard and Specification 3.32 - Permanent Seeding (PS)
Permanent Seeding shall be installed on all disturbed areas of the site not otherwise stabilized.

Standard and Specification 3.36 - Soil Stabilization Blankets and Matting (B/M)
Soil Stabilization Blankets and Matting shall be added to all 2:1 slopes created and disturbed during construction of sanitary sewer line.

Maintenance:
All erosion and sediment control measures shall be inspected bi-weekly and after every runoff producing rainfall. A log of dates and inspections shall be kept. Any deficiencies that are found shall be corrected immediately. Accumulated sediment at trapping measures shall be routinely removed.

All ditches, swales, and natural watercourses downstream of this project shall be field inspected during and after construction by the RLD to ensure compliance with DCR's MS-18. If erosion or scour is occurring the developer shall be responsible for all corrective measures.

Erosion and sediment control measures shall be maintained until after all disturbed areas have been permanently stabilized and then temporary measures properly removed.

Construction Sequence

- Contractor's Certified Responsible Land Disturber shall be named at and attend the pre-construction meeting and provide a copy of his RLD Certificate thereof.
- Install Construction Entrance, silt fence and inlet protection as the first step in the construction process.
- Areas to be cut and filled are to be cleared and graded in phases. This phasing will be done to minimize the length of time areas are subject to erosion. All perimeter erosion and sediment control measures shall be installed prior to beginning grading operations in the affected areas.
- Temporary erosion and sediment control measures shall be removed after those affected areas have been brought to final grade and permanently stabilized with improvements or established vegetation.

Contractor shall pay particular attention to the following MINIMUM STANDARDS:

MS-1: Though TS / PS labels are shown generically on the plans, the contractor shall seed all areas not indicated to be otherwise stabilized with permanent seed mixture within 7 days of reaching final grade or with temporary seed mixture any area yet to reach final grade but that is not proposed to be actively involved in the work within 30 days. These seed mixtures and application specifications are shown herein. The contractor shall honor the clearing and grading limits shown on the plan.

MS-2: The contractor shall stabilize with TS and protect from erosion, with any applicable method, all stockpiles and any on-site or off-site borrow or spoil areas, as applicable. Approval of this plan does not cover off-site borrow or spoil areas. Prior to commencing land disturbing activities in areas other than indicated on these plans (including but not limited to, off-site borrow or waste areas), the contractor shall submit a Supplementary Erosion Control Plan for review and approval by the Plan Approving Authority.

NOT APPLICABLE; no TS needed for this project.

MS-3: Where TS/PS are not applicable provide other means of stabilization (CRS, etc.) within 7 days of reaching final grade or within 30 days where the area is yet to reach final grade but is not proposed to be actively involved in the work.

MS-4: All soil erosion and sediment control measures shall be placed in advance of the work they are intended to protect.

MS-5: Earthen controls and structures shall be stabilized immediately upon installation.

NOT APPLICABLE; no earthen controls or structures are proposed on this project.

MS-6: Where a sediment trap (<3 acres of drainage) or sediment basin (>3 acres of drainage) are indicated calculations shown are based on outlined drainage areas. Contractor shall honor indicated drainage divides and conform to volumes, details, etc. provided on plans.

NOT APPLICABLE; no sediment traps or basins are proposed for this project.

MS-7: Care has been taken in design to minimize drainage over slopes and provide a suitable protective stabilization method. Contractor shall protect slope areas during and after construction from concentrated runoff and the erosion effects of wind and rain. Stabilize as soon as practicable to minimize erosion.

NOT APPLICABLE; no drainage are proposed over slopes.

MS-8: Where concentrated runoff has been routed down slopes care has been taken to design an adequate channel or drain. Contractor shall install these measures along with their stabilization as soon as practical to protect slope.

NOT APPLICABLE; no channels or drains are proposed over slopes.

MS-9: NOT APPLICABLE; seepage through slopes is not anticipated to be encountered on this project.

MS-10: Inlet or culvert inlet protection is proposed for the inlets of all storm sewers or culverts on-site. RLD shall insure proper installation and assure adequate sizing based on drainage area of each inlet.

NOT APPLICABLE; no culverts or storm sewer are proposed in this project and no culvert or storm sewer inlets are adjacent to the project.

MS-11: RLD shall verify that adequate channel linings and proper outlet protection is in place prior to operation of storm sewer system.

NOT APPLICABLE; no storm sewer system proposed.

MS-12: When working in and around a live watercourse, the contractor shall take great care to minimize impact on the stream. Assure that proper permits from DEQ / COE are in hand prior to commencing such work.

Live watercourse protection and permits are NOT APPLICABLE; no live watercourses exist within or adjacent to this project.

MS-13: Where more than 2 trips in 6 months are expected across a live watercourse obtain the necessary permit and install a temporary stream crossing.

Stream crossing is NOT APPLICABLE; no live watercourses exist within or adjacent to this project.

Regulations pertaining to live watercourses are NOT APPLICABLE; no live watercourses exist within or adjacent to this project.

MS-14: The bed and banks of disturbed watercourses must be stabilized immediately.

Live watercourse bed and bank stabilization are NOT APPLICABLE; no live watercourses exist within or adjacent to this project.

MS-15: Regarding utility installations, no more than 500 LF of trench may be open at a given time. Excavated material shall be placed on uphill side of trench. Effluent of any dewatering system used must be filtered. Trenches shall be properly backfilled and compacted per detail and specs. Completed installation shall be re-stabilized immediately.

MS-17: The contractor shall provide adequate means of cleaning mud from trucks and / or other equipment prior to entering public streets. It is the contractor's responsibility to insure that the streets are in a clean, mud and dust free condition at all times.

MS-18: See Maintenance under ESC Narrative for removal of temporary measure.

MS-19: Increases in stormwater volume, velocity, and peak runoff have been addressed in the plan per calculations submitted for review. Responsible Land Disturber shall pay particular attention to off-site areas contributing runoff to the site and off-site locations receiving runoff from this project. All ditches, swales, and natural watercourses downstream of this project shall be field inspected during and after construction by the RLD to ensure compliance with DCR's MS-18. If erosion or scour is occurring the developer shall be responsible for all corrective measures.

NO.	DATE	DESCRIPTION
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2		
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4		
5		

DATE: March 14, 2006

SCALE: 1" = 30'

COMMISSION NO: 05-195

SHEET 3 OF 4