

EROSION & SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION
The purpose of this project is to construct and install three new sewer manholes with appropriate connecting lines and laterals.

ADJACENT AREAS AND EXISTING SITE CONDITIONS
The proposed site is located on approximately 0.57 acres that is located north of Piedmont Street between Riverland Road and Arbor Avenue and south of the Roanoke river, Roanoke, VA. The site is currently vacant and flat.

SOILS
Soils found at this site are common to the area. Speedwell-Urban land complex consist of 40% Speedwell, 35% Urban and 25% other soil. Erosion potential is slight.

CRITICAL EROSION AREAS
1. No potential critical erosion areas.

EROSION AND SEDIMENT CONTROL MEASURES
Unless otherwise indicated, all vegetative and structural erosion and sediment control practices shall be constructed and maintained according to minimum standards and specifications of the handbook. The minimum standards of the VESCR shall be adhered to unless otherwise waived or approved by a variance.

STRUCTURAL PRACTICES

1. Silt Fence (Section 3.05) Temporary silt fences will be installed as indicated on the site plan.

2. Temporary Seeding (Section 3.31) Temporary seeding will be placed on all disturbed Temporary seeding will immediately aid in the reduction of dust and sediment. Temporary seeding will be Annual Ryegrass (100 #/ac), Feb 16 - April 30, German Millet (60 #/ac), May 1 - Aug. 31.

3. Permanent Seeding (Section 3.32) After final grading permanent seeding will be employed to reduce erosion and sediment yield. Seeding Specifications: Permanent seeding will be Kentucky Bluegrass, blended to contain 4 or more varieties, with no one variety exceeding 30%. The seeding will be applied at 140 lb. per acre. On slopes 2:1 or greater a mixture of Crown Vetch (50%), Perennial Ryegrass (40%), and Redtop (10%) will be used. All seeding, with required associated practices, will be in accordance with all applicable sections of the Virginia Erosion and Sediment Control

MANAGEMENT

1. Construction should be sequenced so that grading operations can begin and end as quickly as possible.

2. Erosion and Sediment control devices shall be installed as the first step of construction.

3. Areas which are not to be disturbed shall be clearly marked by flags, signs, etc.

4. The grading contractor shall be responsible for the installation and maintenance of all erosion and sediment control practices. Inspections are to be made periodically and after every significant rainfall.

5. After achieving adequate stabilization, the temporary E&S controls will be cleaned up and removed.

PERMANENT STABILIZATION
All areas disturbed by construction shall be stabilized with permanent seeding immediately following finish grading. Seeding shall be done with Kentucky 31 Tall Fescue according to Std. & Spec. 3.32.

PERMANENT SEEDING, of the handbook. Erosion control blankets will be installed over fill slopes which have been brought to final grade and have been seeded to protect the slopes from rill and gully erosion and to allow seed to germinate properly. Mulch (straw or fiber) will be used on relatively flat areas. In all seeding operations, seed, fertilizer and lime will be applied prior to mulching.

MAINTENANCE
In general, all erosion and sediment control measures will be checked daily and after each significant rainfall. Any items not found in accordance with the Virginia Erosion and Sediment Control Handbook will be immediately replaced and/or repaired. The following items will be checked in particular:

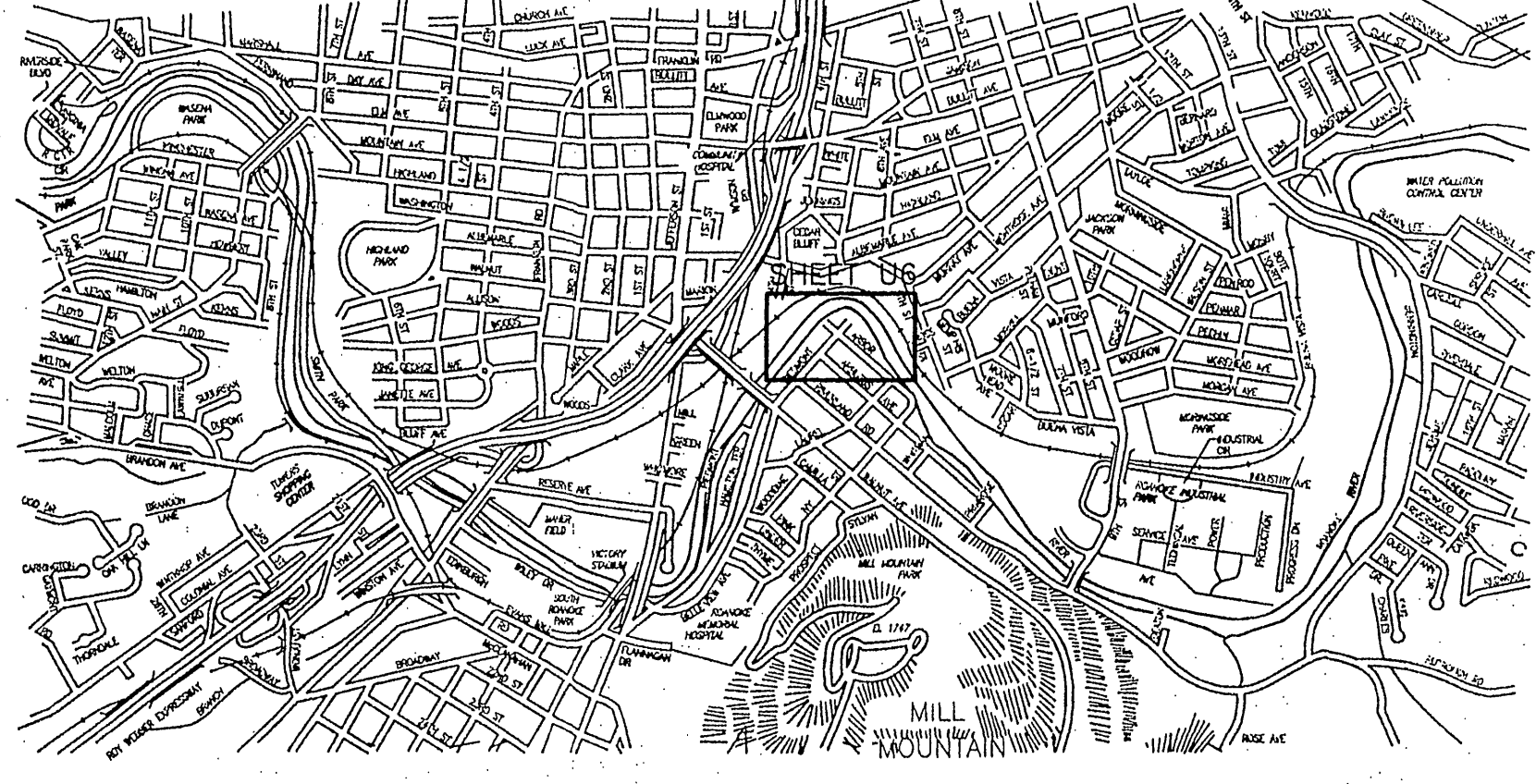
1. The silt fence barrier will be checked regularly for undermining or deterioration of the fabric. Sediment shall be removed when the level of sediment deposition reaches half way to the top of the barrier.
2. The seeded areas will be checked regularly to ensure that a good stand is maintained. Areas should be fertilized and re-seeded as needed.
- GENERAL
The erosion and sediment control measures shown on the construction plans are the minimum measures required. Due to construction phasing and other considerations all measures can not be shown. The owner, through his contractor, will employ whatever measures which may be required to assure that sediment laden runoff does not leave the site.

All materials and measures employed for erosion and sediment control will be in accordance with the Virginia Erosion and Sediment Control Handbook, latest edition.

If, during construction, additional Erosion and Sediment Control measures are deemed necessary, they shall be installed as directed by the Owner, Engineer or County agent.

This project is to be constructed consistent with the 1992 Virginia Erosion And Sediment Control Regulations.

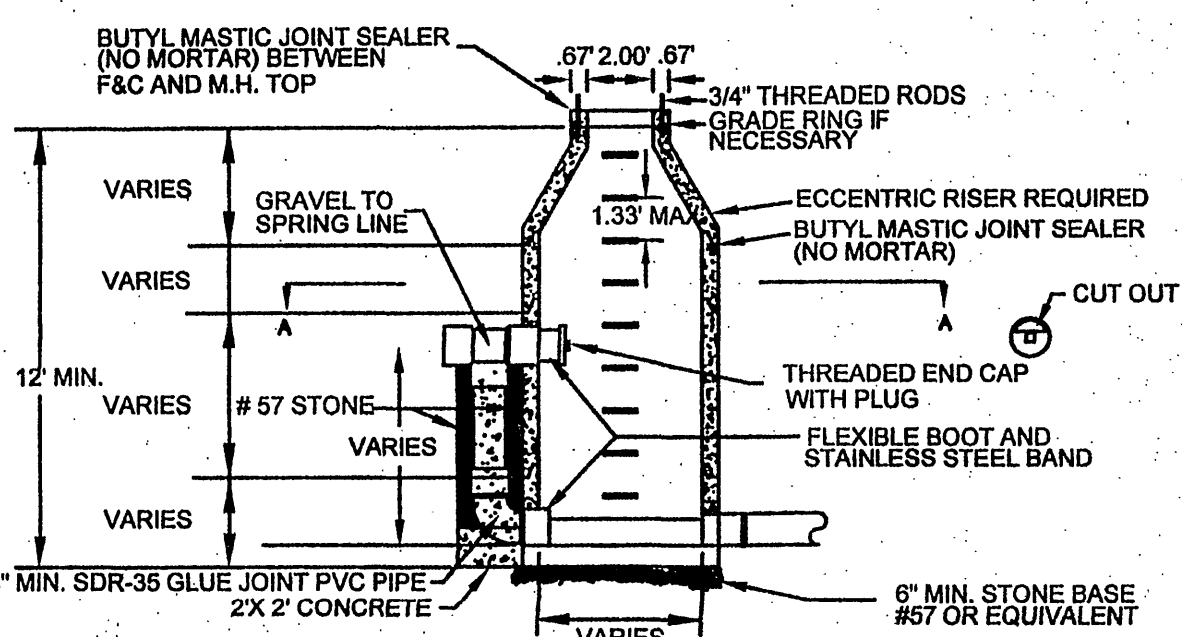
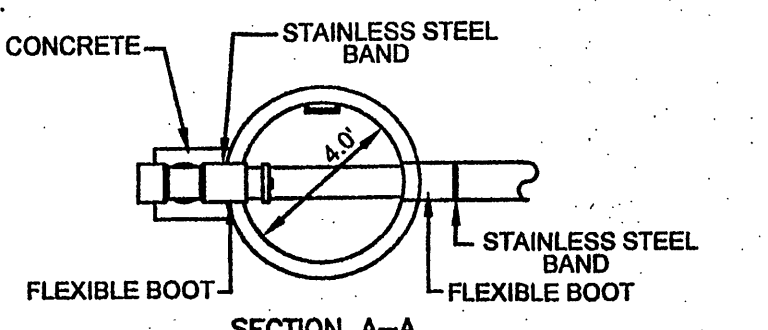
SHEET LAYOUT



SUMMARY OF QUANTITIES

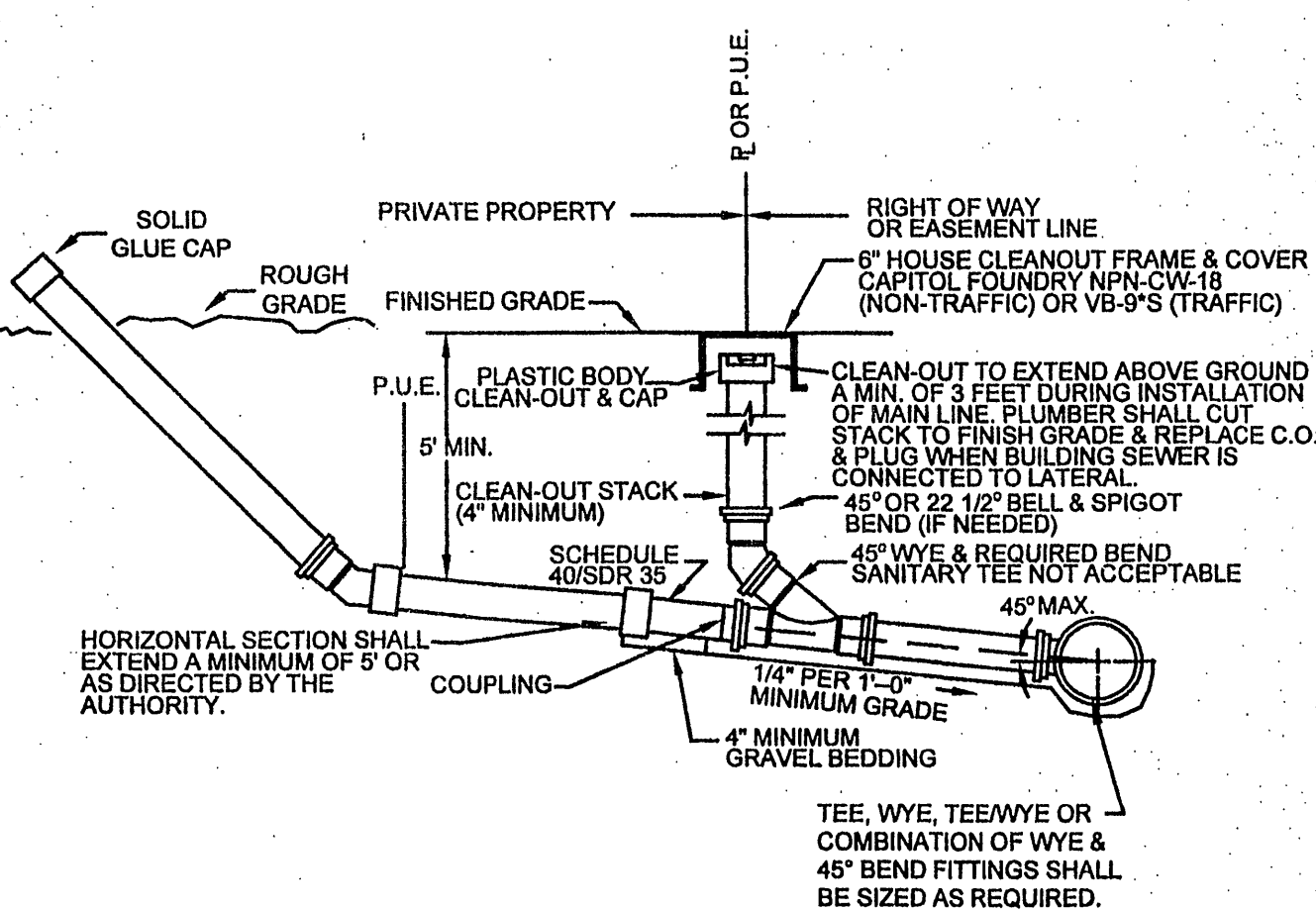
NO:	ITEM	UNIT	QUANTITY/ESTIMATED
1	MOBILIZATION	EA	1
2	SERVICE CONNECTIONS (4")	LF	80
3	4' DIA. MANHOLE	VLF	18
4	8" SANITARY SEWER	LF	750
5	ROCK EXCAVATION	CY	10
6	AS BUILT DRAWINGS	EA	1
7			
8			
9			
10			
11			
12			
13			
14			
PROJECT NUMBER 6573			

- NOTES:
1. ALL MANHOLE FRAMES AND COVERS SHALL BE EAST JORDAN IRON WORKS, INC. WATERTIGHT MANHOLE FRAME MODEL #10452, WATERTIGHT COVER MODEL #10453 AND BOLT-DOWN MANHOLE COVER MODEL #10454 OR APPROVED EQUAL BOLT-DOWN MODEL TO BE USED IN AREAS SUBJECT TO FLOODING OR AS DIRECTED BY THE AUTHORITY.
2. STEPS TO BE VERTICALLY ALIGNED.
3. THE FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE.
4. TOP INVERT LINE SHALL NOT ENTER THROUGH RISER CONES SECTION OR JOINT.
5. GROUT ANNULAR SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE.



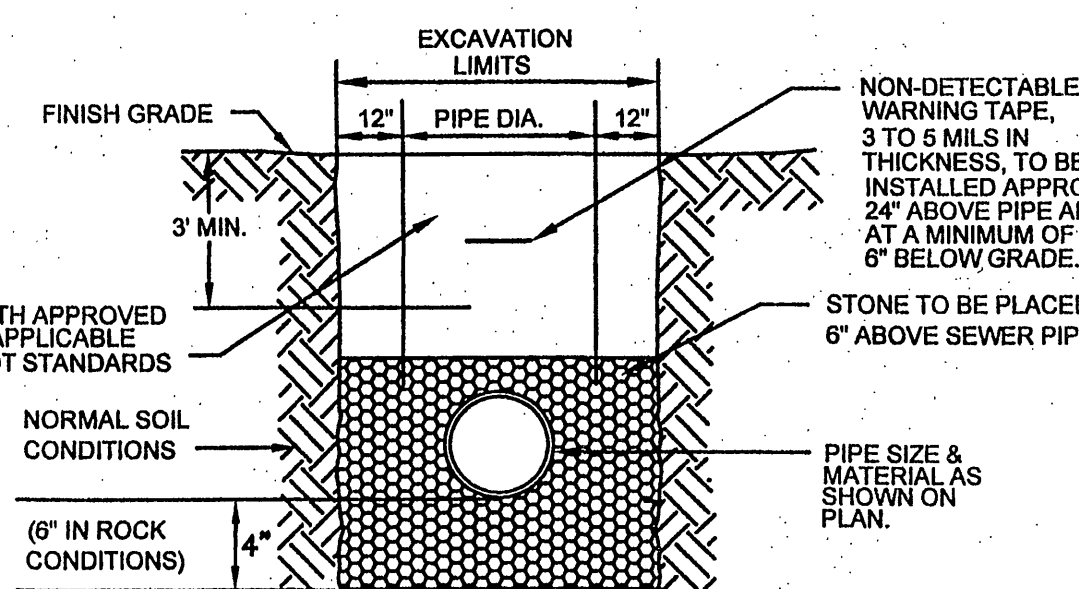
WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		
REVISION DATE	DESCRIPTION	BY
07/01/04	OUTSIDE DROP MANHOLE (FOR USE WITH PVC PIPE)	S-03

- GENERAL NOTES:
1. TRAFFIC BEARING BOX REQUIRED IN TRAFFIC AREAS.
2. ALL PIPE AND FITTINGS SHALL BE OF SIMILAR MATERIAL.
3. ALL PIPE SHALL BE OF SAME SIZE.
4. NO BENDS ARE ALLOWED IN THE LATERAL FROM THE MAIN TO THE CLEANOUT STACK WYE. (EXCEPT AS NOTED)
5. ALL MAIN LINE TAPS ON ACTIVE MAINS WILL BE PERFORMED BY WESTERN VIRGINIA WATER AUTHORITY.
6. PIPING BEHIND CLEANOUT TO BE INSTALLED PER BOCA CODE.
7. MINIMUM LATERAL SIZE:
4" FOR RESIDENTIAL SERVICE
6" FOR NON-RESIDENTIAL SERVICE
8. MINIMUM COVER FOR ALL SEWER LATERALS SHALL BE THREE(3) FEET.
9. PROPERTY OWNER RESPONSIBLE FOR INSTALLING CLEANOUT ON PROPERTY LINE WHEN MAINTENANCE OCCURS.



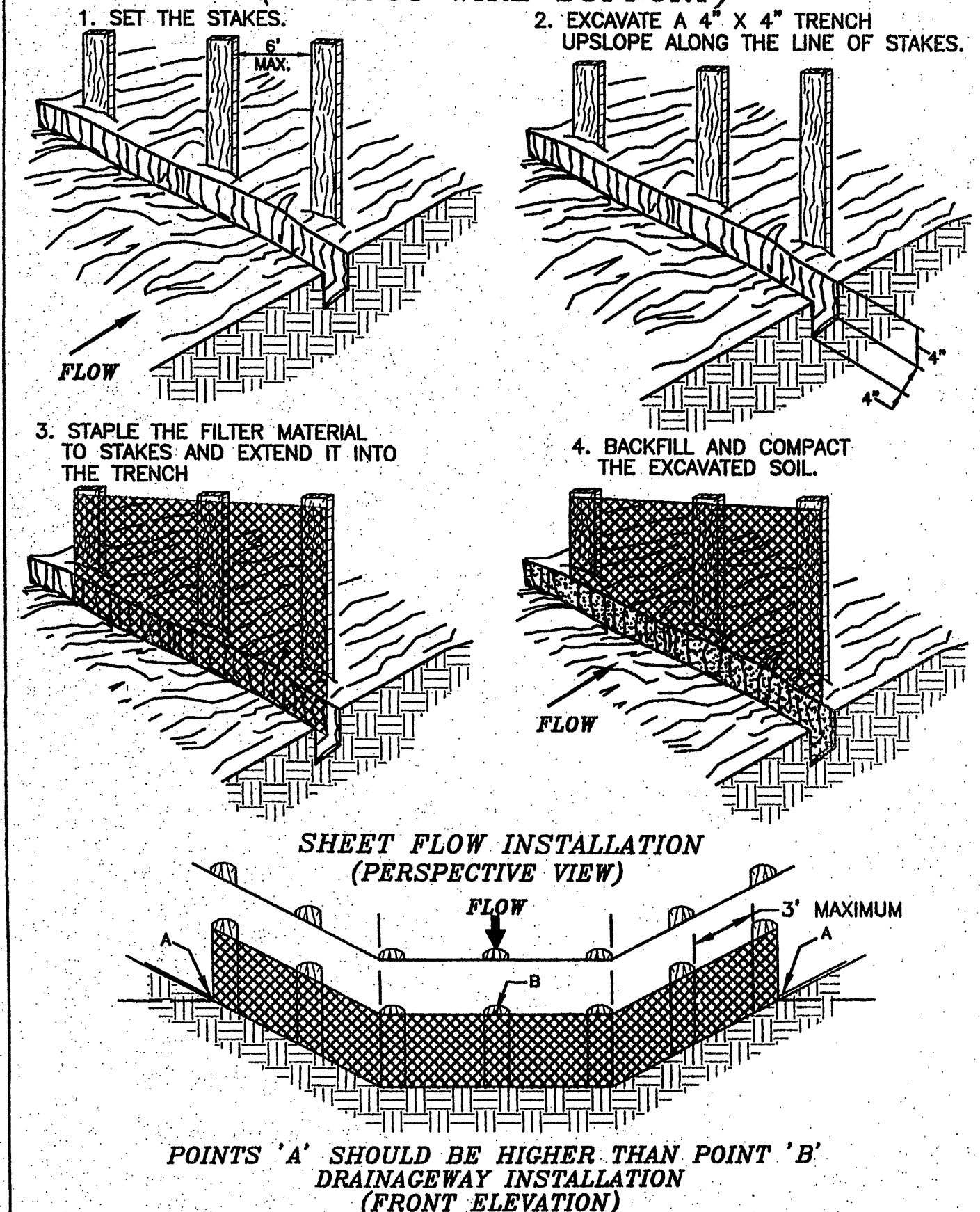
WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		
REVISION DATE	DESCRIPTION	BY
07/01/04	SANITARY SEWER LATERAL	S-08

- NOTES:
1. BEDDING, HAUNCHING AND INITIAL BACKFILL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
2. ALL PVC PIPE SHALL BE BEDDED IN COMPACTED VDOT #57 OR #68 STONE.
3. IN AREAS NOT SUBJECT TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 6" LIFTS FROM BOTTOM OF TRENCH TO 1" ABOVE THE PIPE AND THE REMAINING SHALL BE PLACED IN 10" LIFTS AND SHALL BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.
4. ALL SEWER LINE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL. BEDDING REQUIREMENTS FOR DUCTILE SEWER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.
5. ALL EXCAVATIONS SHALL COMPLY WITH OSHA TECHNICAL MANUAL, CHAPTER 2, TITLED "EXCAVATIONS: HAZARD RECOGNITION IN TRENCHING AND SHORING."



WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		
REVISION DATE	DESCRIPTION	BY
07/01/04	BEDDING AND BACKFILL OUTSIDE OF PAVED AREAS	S-30
08/01/06		

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)

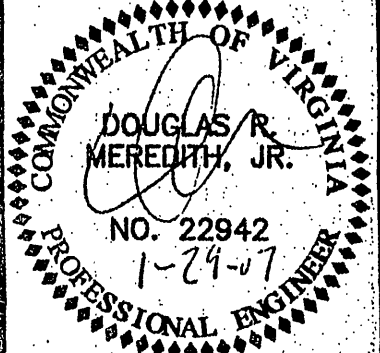


102 Albemarle Ave
Roanoke, Virginia
24018
www.lmwpc.com
ph: 540.345.0675
fax: 540.342.4456
lmweng@lmwpc.com

Engineering
Architecture
Surveying
Landscape Design

ROANOKE RIVER FLOOD REDUCTION UTILITY
RELOCATION PROJECT
RIVERVIEW BOULEVARD SANITARY SEWER
CITY OF ROANOKE, VIRGINIA

MCP	BY
COMMENTS PER CITY OF ROANOKE	DESCRIPTION
2 01/16/07	DATE
1 09/05/06	NO.



Designed By	DRM
Drawn By	MCP
Checked By	DRM
Approved By	DRM
Submitted By	DRM
Drawing	3161 U2 SS.dwg
Date	12/19/05
Scale	NONE
Commission No.	3161