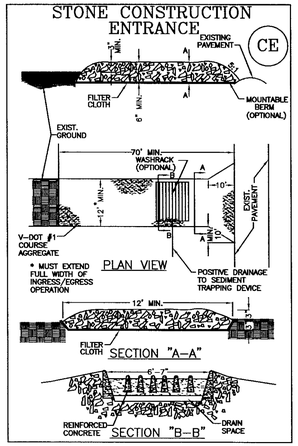
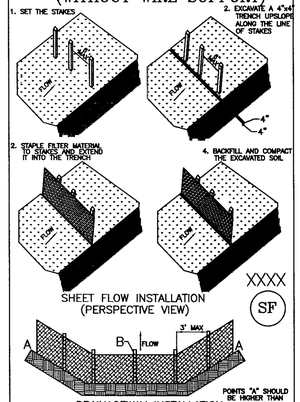
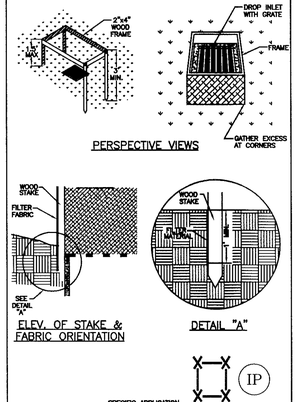
STONE CONSTRUCTION ENTRANCE (CE)



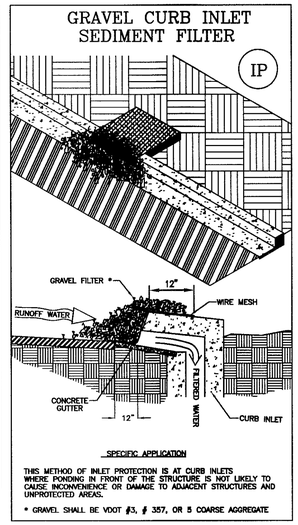
CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



SILT FENCE DROP INLET PROTECTION



GRAVEL CURB INLET SEDIMENT FILTER



EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATION AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION 1992.

MANAGEMENT STRATEGIES & SEQUENCE OF EROSION CONTROL MEASURES

THE FOLLOWING SEQUENCE OF EVENTS AND EROSION CONTROL MEASURES SHALL BE INCORPORATED INTO THE CONSTRUCTION SCHEDULE FOR THIS PROJECT AND SHALL APPLY TO ALL CONSTRUCTION ACTIVITIES WITHIN THE PROJECT LIMITS:

1. TEMPORARY CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT THE LOCATION SHOWN ON THE PLANS AS A FIRST STEP MEASURE BEFORE CONSTRUCTION COMMENCES. THIS ENTRANCE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK" STD. & SPEC. 3.02.
2. TEMPORARY SEDIMENT TRAPS AND EROSION CONTROL STONE ARE TO BE PLACED DURING CLEARING AND GRUBBING.
3. ALL STORM WATER MANAGEMENT FACILITIES INCLUDING EROSION CONTROL STONE ARE TO BE INSTALLED AND MADE OPERATIONAL WITHIN 15 DAYS FOLLOWING THE START OF CLEARING OPERATIONS INCLUDING APPROVED SEDIMENT BASINS.
4. THE CONTRACTOR SHALL COMPLETE DRAINAGE FACILITIES WITHIN THIRTY (30) DAYS FOLLOWING COMPLETION OF ROUGH GRADING AT ANY POINT WITHIN THE PROJECT.
5. ALL UNPAVED AREAS AND/OR AREAS DISTURBED BY CONSTRUCTION SHALL BE TOP SOILED AND SEEDED.
6. ALL UNPAVED AREAS WHICH ARE NOT DESIGNATED FOR PAVING, UTILITY OR STRUCTURAL USES SHALL NOT BE EXPOSED FOR LONGER THAN 15 DAYS. VEGETAL COVER SHALL BE ESTABLISHED AS FOLLOWS:

SEED	220#/ACRE KENTUCKY 31 TALL FESCUE
TOPSOIL	4" THICK
LIME	4000#/ACRE
FERTILIZER	1000#/10/10/10 ACRE
MULCH	2000#/ACRE

7. HYDROSEEDING MAY BE USED IN PLACE OF MULCHING ON AREAS OTHER THAN DITCH BANKS.
8. TOPSOIL SHALL BE IN ACCORDANCE WITH V.D.O.T. SPEC. 3.30.
9. SEDIMENT TRAPS ARE TO BE INSTALLED AT THE PERIMETER OF ALL DROP INLETS AND CATCH BASINS.

MAINTENANCE

IN GENERAL, ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED AFTER EACH RAINFALL OR WEEKLY, WHICHEVER IS MOST FREQUENT, AND SHOULD BE CLEANED AND REPAIRED ACCORDING TO THE FOLLOWING SCHEDULE:

1. THE SEDIMENT TRAPS WILL BE CHECKED REGULARLY FOR SEDIMENT CLEAN OUT.
2. SILT FENCE WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION.
3. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
4. ALL TEMPORARY EROSION AND SEDIMENT MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED.

EROSION–SILTATION CONTROL COST ESTIMATE

ALL COSTS GIVEN ARE COMPLETE IN PLACE

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
TEMPORARY FILL DIVERSION	EA	1	750	750
SILT FENCE	LF	600	3.50	2,100
INLET PROTECTION	EA	2	60	120
TEMPORARY DIVERSION DIKE	LF			
TEMPORARY FILL DIVERSION	LF			
SEDIMENT TRAP	EA			
CHECK DAM	EA	3	110	330
PERMANENT SEEDING	1000 SF	41	100	4,100
OUTLET PROTECTION	EA			
SEDIMENT BASIN	EA			
SEDIMENT TRAP	EA			
SUB–TOTAL				$ 7,400
10% CONTINGENCY				$ 740
TOTAL PROJECT COST				$ 8,140

VIRGINIA UNIFORM CODING SYSTEM

for Erosion and Sediment Control Practices

★ Indicates normal applicability of a specific practice to one or more of the seven control categories.

NO.	TITLE	KEY	SYMBOL	DESCRIPTION	A	B	C	D	E	F	G
3.01	SAFETY FENCE	(SAF)			*						
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	(CE)				*				*	
3.03	CONSTRUCTION ROAD STABILIZATION	(CR)								*	
3.04	STRAW BALE BARRIER	(SB)				*		*	*		
3.05	SILT FENCE	(SF)				*		*	*		
3.06	BRUSH BARRIER	(BB)				*		*			
3.07	STORM DRAIN INLET PROTECTION	(IP)							*		
3.08	CULVERT INLET PROTECTION	(CIP)							*		
3.09	TEMPORARY DIVERSION DIKE	(DD)				*		*			
3.10	TEMPORARY PIPE DIVERSION	(PD)						*			
3.11	TEMPORARY RIGHT-OF-WAY DIVERSION	(RWD)						*			
3.12	DIVERSION	(DV)						*			
3.13	TEMPORARY SEDIMENT TRAP	(ST)				*		*			
3.14	TEMPORARY SEDIMENT BASIN	(SB)				*		*			
3.15	TEMPORARY SLOPE DRAIN	(SD)						*		*	
3.16	PAVED FLUME	(PF)						*			*
3.17	STORMWATER CONVEYANCE CHANNEL	(SCC)								*	*
3.18	OUTLET PROTECTION	(OP)								*	*
3.19	RIPRAP	(RR)						*	*	*	*

RECOMMENDED PLAN SYMBOLS

Existing Contour — Limit of Grading — Proposed Contour — Storm Sewer — Drainage Divide — Direction of Surface Drainage

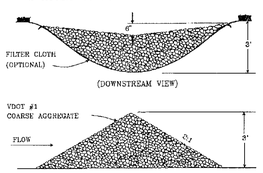
and Sediment Control Handbook

July 1992

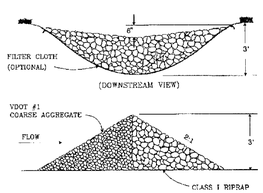
NO.	TITLE	KEY	SYMBOL	DESCRIPTION	A	B	C	D	E	F	G
3.20	ROCK CHECK DAMS	(CD)								*	*
3.21	LEVEL SPREADER	(LS)				*				*	
3.22	VEGETATIVE STREAMBANK STABILIZATION	(VSS)								*	*
3.23	NON-VEGETATIVE STREAMBANK STABILIZATION	(NSS)								*	*
3.24	TEMPORARY VEHICULAR STREAM CROSSING	(SC)								*	
3.25	UTILITY STREAM CROSSING	(USC)								*	
3.26	DEWATERING STRUCTURE	(DS)							*	*	
3.27	TURBIDITY CURTAIN	(TC)				*		*	*		*
3.28	SURFACE ROUGHENING	(SR)				*				*	*
3.29	SURFACE ROUGHENING	(SR)				*			*	*	*
3.30	TOPSOILING	(TO)									*
3.31	TEMPORARY SEEDING	(TS)								*	
3.32	PERMANENT SEEDING	(PS)									*
3.33	SODDING	(SO)							*		*
3.34	RETROFITTING/MASS & ZONING AGAINST ESTABLISHMENT	(RZ) (MZ)									*
3.35	MULCHING	(MU)								*	*
3.36	SOD STABILIZATION, BLANKETS & MATTING	(SM) (BM)								*	*
3.37	TREES, SHRUBS, VINES AND GROUND COVERS	(VEG)									*
3.38	TREE PRESERVATION AND PROTECTION	(TP)									*
3.39	DUST CONTROL	(DC)								*	

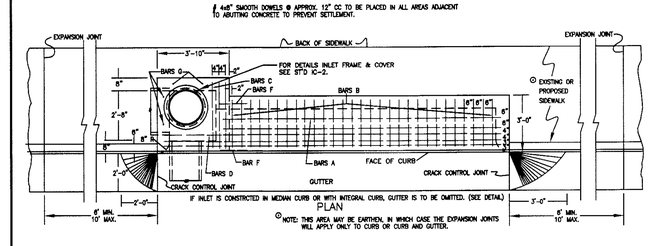
ROCK CHECK DAM

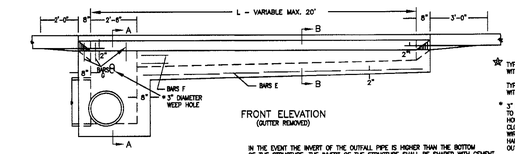
2 ACRES OR LESS OF DRAINAGE AREA:



2–10 ACRES OF DRAINAGE AREA:







NOTES: STANDARD INLETS MAY BE CONSTRUCTED WITH CONCRETE BLOCK IN ACCORDANCE WITH THE DETAILS SHOWN ON STANDARD DRAWING DI-MB.

★ TYPE A NOSE DETAIL SHALL BE USED WITH CG-3 & CG-7 STANDARDS.
TYPE B NOSE DETAIL SHALL BE USED WITH CG-2 & CG-8 STANDARDS.

* 3" DIAMETER WEEPHOLE TO BE LOCATED TO DRAIN SUBBASE MATERIAL. WEEP HOLE WITH 13"x13" PLASTIC HARDWARE CLOTH 1/4" MESH OR GALVANIZED STEEL WIRE DIA. 0.03 INCH, NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO OUTSIDE OF STRUCTURE.

IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OF PONDING OF WATER IN THE STRUCTURE. THE COST FOR INVERT SHAPING SHALL BE INCLUDING IN THE PRICE BID FOR THE DROP INLET STRUCTURE.

THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACUTAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.

WHEN SPECIFIED ON PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD PLAN IS-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE PRICE BID FOR THE DROP INLET COMPLETE.

LENGTH OF SLOT (L) WILL IN EVERY CASE, BE SHOWN ON PLANS.

WHEN INLET IS USED IN 4'-0" MEDIAN, BACK ON INLET IS TO BE SHAPED TO CONFORM WITH PROPOSED CURB.

THIS ITEM MAY BE PRECAST OR CAST IN PLACE.

STANDARD CURB DROP INLET (DI–3A)

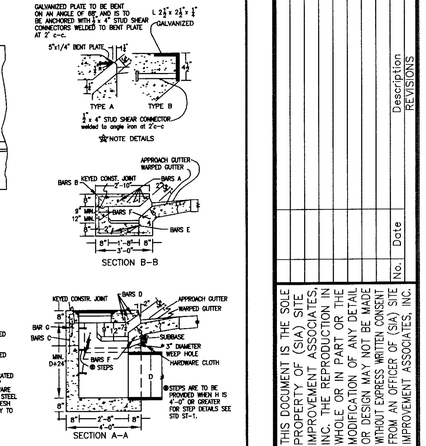


TABLE 3.32-C
SITE SPECIFIC SEEDING MIXTURES FOR APPALACHIAN/MOUNTAIN AREA

	Total Lbs. Per Acre
Minimum Care Lawn	
- Commercial or Residential	200-250 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	90-100%
- Improved Perennial Ryegrass *	0-10%
- Kentucky Bluegrass	0-10%
High-Maintenance Lawn	
Minimum of three (3) up to five (5) varieties of bluegrass from approved list for use in Virginia.	125 lbs.
General Slope (3:1 or less)	
- Kentucky 31 Fescue	128 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop **	20 lbs.
	150 lbs.
Low-Maintenance Slope (Steeper than 3:1)	
- Kentucky 31 Fescue	108 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop **	20 lbs.
- Crownvetch ***	20 lbs.
	150 lbs.

* Perennial Ryegrass will germinate faster and at lower soil temperatures than fescue, thereby providing cover and erosion resistance for seedbed.

** Use seasonal nurse crop in accordance with seeding dates as stated below:
March, April through May 15th ..... Annual Rye
May 16th through August 15th ..... Foxtail Millet
August 16th through September, October ..... Annual Rye
November through February ..... Winter Rye

*** If Flatpea is used, increase to 30 lbs./acre. All legume seed must be properly inoculated. Weeping Lovegrass may also be included in any slope or low-maintenance mixture during warmer seeding periods; add 10-20 lbs/acre in mixes.

No.	Date	Description
		REVISIONS

SITE IMPROVEMENT ASSOCIATES, INC.
Civil Engineers & Site Contractors
168 Business Park Drive, Suite 100
Virginia Beach, Va. 23462
PHONE # (757) 671-9000 FAX (757) 671-9288

SIA

COMMONWEALTH OF VIRGINIA
C. CARTER MCCONNELL, JR.
NO. 031417
PROFESSIONAL ENGINEER
10-17-05

EROSION AND SEDIMENT CONTROL DETAILS FOR PETERS CREEK APARTMENTS PHASE III

HOLLINS MAGISTERIAL DISTRICT
ROANOKE COUNTY, VIRGINIA

JOB #	05184
DWG FILE:	01–COVER
DATE:	07–24–05
SCALE:	AS SHOWN
SHEET NUMBER	9 OF 11