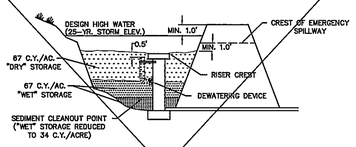
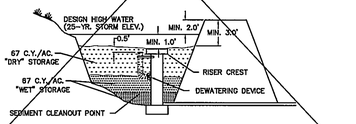
NO.	TITLE	KEY	SYMBOL	NO.	TITLE	KEY	SYMBOL
3.01	SAFETY FENCE	SAF		3.20	ROCK CHECK DAMS	CD	
3.02	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE	CE		3.21	LEVEL SPREADER	LS	
3.03	CONSTRUCTION ROAD STABILIZATION	CRS		3.22	VEGETATIVE STREAMBANK STABILIZATION	VSS	
3.04	STRAW BALE BARRIER	STB		3.23	STRUCTURAL STREAMBANK STABILIZATION	SSS	
3.05	SILT FENCE	SF		3.24	TEMPORARY VEHICULAR STREAM CROSSING	VSC	
3.06	BRUSH BARRIER	BB		3.25	UTILITY STREAM CROSSING	USC	
3.07	STORM DRAIN INLET PROTECTION	IP		3.26	DEWATERING STRUCTURE	DS	
3.08	CULVERT INLET PROTECTION	CIP		3.27	TURBIDITY CURTAIN	TC	
3.09	TEMPORARY DIVERSION DIKE	DD		3.28	SUBSURFACE DRAIN	SD	
3.10	TEMPORARY FILL DIVERSION	FD		3.29	SURFACE ROUGHENING	SR	
3.11	TEMPORARY RIGHT-OF-WAY DIVERSION	RWD		3.30	TOPSOILING	TO	
3.12	DIVERSION	DV		3.31	TEMPORARY SEEDING	TS	
3.13	TEMPORARY SEDIMENT TRAP	ST		3.32	PERMANENT SEEDING	PS	
3.14	TEMPORARY SEDIMENT BASIN	SB		3.33	SODDING	SO	
3.15	TEMPORARY SLOPE DRAIN	TSD		3.34	BERMUDA GRASS AND ZOYSIAURASS ESTABLISHMENT	BE ZE	B OR Z
3.16	PAVED FLUME	PF		3.35	MULCHING	MU	
3.17	STORMWATER CONVEYANCE CHANNEL	SCC		3.36	SOIL STABILIZATION BLANKETS AND MATTING	B M	TREATMENT 1 TREATMENT 2
3.18	OUTLET PROTECTION	OP		3.37	TREES, SHRUBS, VINES AND GROUND COVERS	VEG	
3.19	RIPRAP	RR		3.38	TREE PRESERVATION AND PROTECTION	TP	
				3.39	DUST CONTROL	DC	

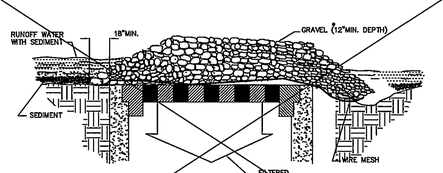
SEDIMENT BASIN SCHEMATIC ELEVATIONS



DESIGN ELEVATIONS WITH EMERGENCY SPILLWAY



DESIGN ELEVATIONS WITHOUT EMERGENCY SPILLWAY (RISER PASSES 25-YR. EVENT)



SPECIFIC APPLICATION

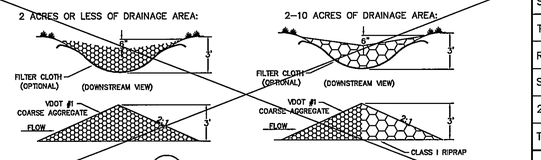
This method of inlet protection is applicable where heavy concentrated flows are expected, but not where ponding around the structure might cause excessive inconvenience or damage to adjacent structures and unprotected areas.

* Gravel shall be VDOT #3, #357 or #5 coarse aggregate.

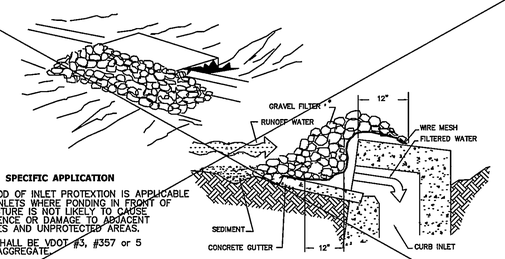
(IP) GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER

TEMPORARY SEDIMENT TRAP DATA

STRUCTURE	DRAINAGE AREA (ACRES)	STORAGE (C.Y.) REQ'D	STORAGE (C.Y.) DESIGN	WEIR LENGTH (FT.)	WEIR HEIGHT (FT.)	BERM HEIGHT (FT.)	TRAP WIDTH (FT.)	TRAP LENGTH (FT.)	TRAP DEPTH (FT.)
1	1.1	147	226	6	1	2	60	100	1



(CD) ROCK CHECK DAM

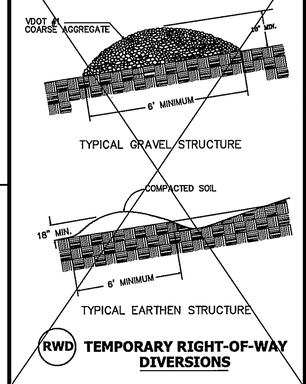


SPECIFIC APPLICATION

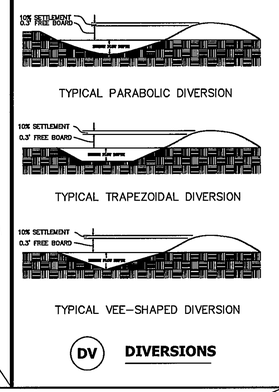
THIS METHOD OF INLET PROTEXTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 or 5 COURSE AGGREGATE.

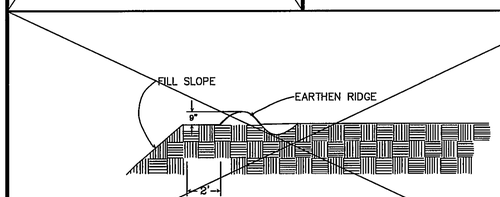
(IP) GRAVEL CURB INLET SEDIMENT FILTER



(RWD) TEMPORARY RIGHT-OF-WAY DIVERSIONS



(DV) DIVERSIONS



(FD) TEMPORARY FILL DIVERSION

EROSION & SEDIMENT CONTROL COST ESTIMATE

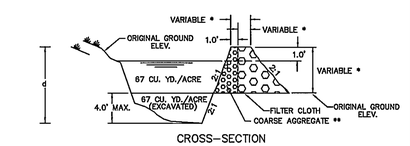
ALL COSTS GIVEN ARE COMPLETE IN PLACE

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
CONSTRUCTION ENTRANCE	EA	1	$ 1,250	$ 1,250
SILT FENCE	LF	1200	3.00	3,600
CULVERT INLET PROTECTION	EA	1	250	250
TEMPORARY DIVERSION DIKE	LF			
TEMPORARY FILL DIVERSION	LF			
SEDIMENT TRAP	EA	1	1,000	1,000
CHECK DAM	EA			
SEEDING & MULCHING	1000 SF	25	50.00	1,250
OUTLET PROTECTION	EA	2	250	500
SEDIMENT BASIN	EA			
TEMP. SEEDING	1000 SF			
ROW DIVERSION	LF			
SUB-TOTAL				$ 8,550
25% CONTINGENCY (APPROX.)				$ 2,138
TOTAL PROJECT COST				$ 10,688

GENERAL EROSION AND SEDIMENT CONTROL NOTES

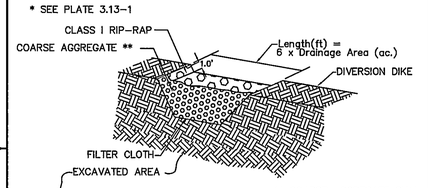
1. ALL SOIL EROSION & SEDIMENT CONTROL MEASURES SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
2. THE APPROVING AUTHORITY MAY ADD TO, DELETE, RELOCATE, CHANGE, OR OTHERWISE MODIFY CERTAIN EROSION AND SEDIMENT CONTROL MEASURES WHERE FIELD CONDITIONS ARE ENCOUNTERED THAT WARRANT SUCH MODIFICATIONS.
3. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLAN SHALL BE PLACED IN ADVANCE OF THE WORK BEING PERFORMED, AS FAR AS PRACTICAL.
4. IN NO CASE DURING CONSTRUCTION SHALL WATER RUNOFF BE DIVERTED OR ALLOWED TO FLOW TO LOCATIONS WHERE ADEQUATE PROTECTION HAS NOT BEEN PROVIDED.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LEAVE THE SITE ADEQUATELY PROTECTED AGAINST EROSION, SEDIMENTATION, OR ANY DAMAGE TO ANY ADJACENT PROPERTY AT THE END OF EACH DAY'S WORK.
6. FOR THE EROSION CONTROL KEY SYMBOLS SHOWN ON THE PLANS, REFER TO THE VIRGINIA UNIFORM CODING SYSTEM FOR EROSION AND SEDIMENT CONTROL PRACTICES CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. THESE SYMBOLS AND KEYS ARE TO BE UTILIZED ON ALL EROSION CONTROL PLANS SUBMITTED TO ROANOKE COUNTY.
7. THE LOCATION OF ALL OFF-SITE FILL OR BORROW AREAS ASSOCIATED WITH THE CONSTRUCTION PROJECT WILL BE PROVIDED TO ROANOKE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT. AN EROSION CONTROL PLAN OR MEASURES MAY BE REQUIRED FOR THIS AREA.
8. THIS SHEET MAY NOT BE MODIFIED EXCEPT FOR TABLES

TOTAL DISTURBED AREA = 1.8 AC.= 76,000 SQ. FT.



CROSS-SECTION

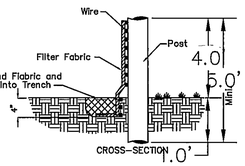
* SEE PLATE 3.13-1

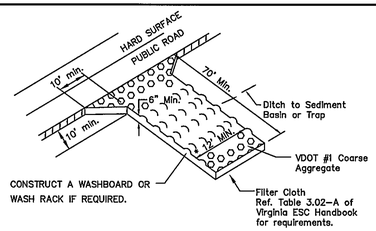


** COARSE AGGREGATE SHALL BE VDOT #3,#357 OF#5

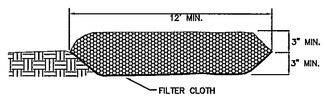
NOTE;
FOR AREAS LESS THAN 3.0 ACRES. FOR AREAS LARGER THAN 3.0 ACRES A SEDIMENT BASIN IS REQUIRED. SEE DETAIL THIS SHEET.

(ST) SEDIMENT TRAP

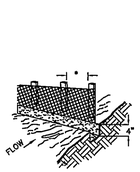




* MUST EXTEND FULL WIDTH OF INGRESS & EGRESS OPERATION.



(CE) TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



* 10' IF WIRE IS USED. 6' IF WIRE IS NOT USED.

(SF) CONSTRUCTION OF A SILT FENCE

DEFINITION - THE ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS BY SEEDING SITH APPROPRIATE RAPIDLY GROWNG ANNUAL PLANTS.

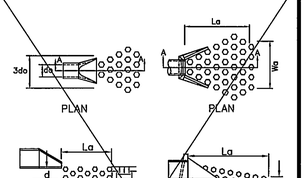
LIMING REQUIREMENTS FOR TEMPORARY SITES

RECOMMENDED APPLICATION pH TEST	OF AGRICULTURAL LIMESTONE
BELOW 4.2	3 TONS PER ACRE
4.2 TO 5.2	2 TONS PER ACRE
5.2 TO 6	1 TON PER ACRE

ACCEPTABLE TEMPORARY SEEDING PLANT MATERIAL " QUICK REFERENCE FOR ALL REGIONS"

PLANTING DATES	SPECIES	RATE (LBS/ACRE)
SEPT. 1 - FEB. 15	50/50 MIX OF ANNUAL RYEGRASS & WINTER RYE	50 -. 100
FEB. 16 - APR. 30	ANNUAL RYEGRASS	60 - 100
MAY 1 - AUG. 31	GERMAN MILLET	50

(TS) TEMPORARY SEEDING



PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL

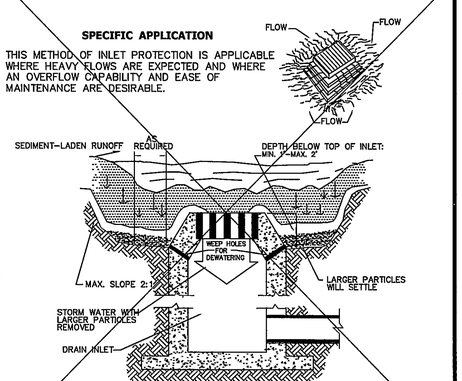
PIPE OUTLET TO WELL-DRAINED CHANNEL

NOTES
1. APRON LINING MAY BE RIP-RAP, GROUTED RIP-RAP, OR CONCRETE.
2. La IS THE LENGTH OF THE RIP-RAP APRON AS CALCULATED USING PLATES 1.36d AND 1.36e.
3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 6".

(OP) OUTLET PROTECTION

SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPABILITY AND EASE OF MAINTENANCE ARE DESIRABLE.



(IP) EXCAVATED DROP INLET SEDIMENT TRAP

TYPE A	TYPE B (SLOPES 3:1 OR STEEPER)
15 OCTOBER TO 1 FEBRUARY K-31 FESCUE @ 5 LB / 1000 SF BORZY WINTER RYE @ 1/2 LB / 1000 SF	15 MARCH TO 1 MAY CROWN VETCH @ 1/2 LB / 1000 SF PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF RED TOP @ 1/8 LB / 1000 SF
1 FEBRUARY TO 1 JUNE K-31 FESCUE @ 5 LB / 1000 SF ANNUAL RYE @ 1/2 LB / 1000 SF	15 AUGUST TO 1 OCTOBER CROWN VETCH @ 1/2 LB / 1000 SF PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF RED TOP @ 1/8 LB / 1000 SF
1 JUNE TO 1 SEPTEMBER K-31 FESCUE @ 5 LB / 1000 SF GERMAN MILLET @ 1/2 LB / 1000 SF	
1 SEPTEMBER TO 15 OCTOBER K-31 FESCUE @ 5 LB / 1000 SF ANNUAL RYE @ 1/2 LB / 1000 SF	

LIME: 140 LB / 1000 SF PULVERIZED AGRICULTURAL LIMESTONE

FERTILIZER: 5-20-10 @ 25 LB / 1000 SF
38-0-0 @ 7 LB / 1000 SF

MULCH: IF REQUIRED, SHALL BE USED OVER ALL SEEDED AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 1.75 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

SOIL CONDITIONING: INCORPORATION OF LIME AND FERTILIZER, SELECTION OF CERTIFIED SEED, MULCHING, MAINTENANCE OF NEW SEEDLINGS, AND RESEEDING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE VIRGINIA SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. ADDITIONAL SEEDING TO BE PERFORMED AS REQUIRED BY THE INSPECTOR.

SEED APPLICATION: APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRIABLE, SEEDBED. MAXIMUM SEEDING DEPTH SHALL BE 1/4 INCH.

(PS) PERMANENT SEEDING MIXTURE

Department of Community Development

NO.	REVISIONS	DATE
1	Engr. & Inspec.	10-27-93
2	Engr. & Inspec.	01-25-94
3	Community Development	02-16-98
4		
5		
6		

DATE: 11/02/93
SCALE: NO SCALE
DRAWING BY: SAU,MTB
DESIGNED BY: T:\GIS\Special Projects\RCGIS_2008_0019_SP
APPROVED BY: GWS,III

COUNTY OF ROANOKE, VA

Erosion & Sediment Control Details

SHEET 6 OF 9