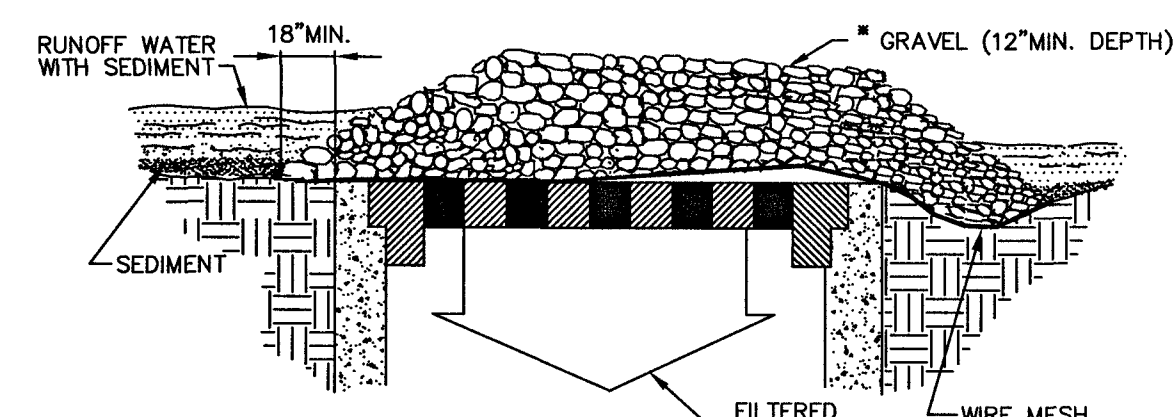
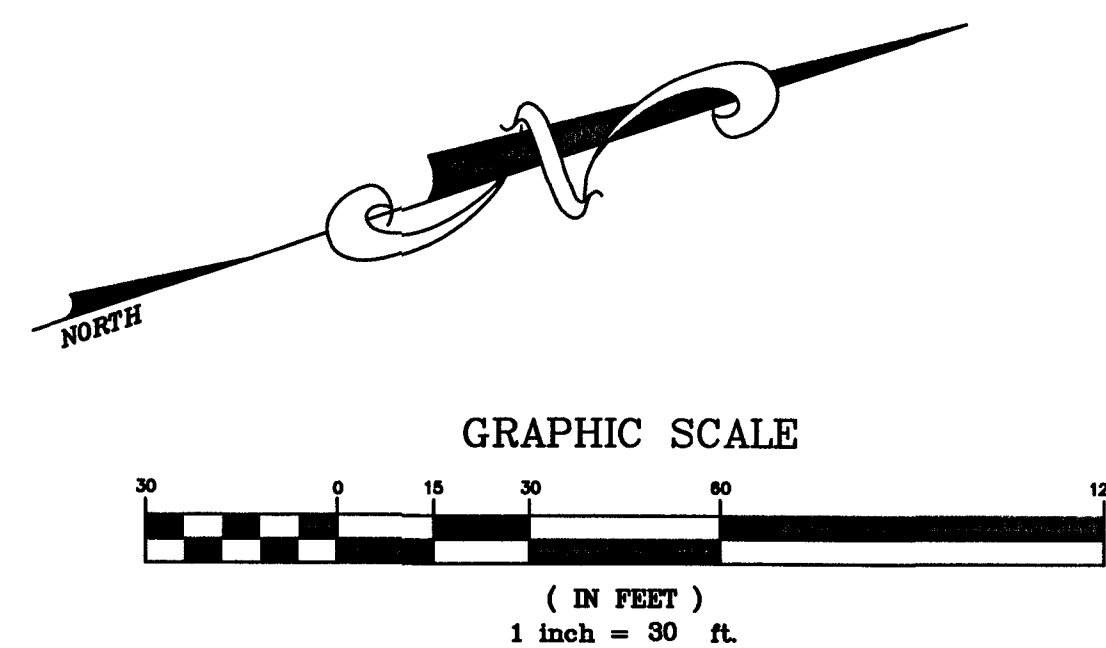


ESC PHASE 2 SEQUENCE OF CONSTRUCTION

1. MAJOR SITE GRADING & INSTALLATION OF STORM DRAINAGE, SANITARY AND WATERLINE PIPING SHALL BE COMPLETED.
2. AS STORM DRAIN PIPING IS CONSTRUCTED, INSTALL INLET PROTECTION WHERE NOTED ON PLANS.
3. AS SITE IS GRADED, INSTALL BLANKET AND MATTING ON ALL SLOPES 3:1 OR GREATER.
4. ALL DENUDED AREAS SHALL BE SEEDED AND STABILIZED AS NOTED ON THE PLANS.
5. INSTALL ROADWAY CURBING AND BASE.
6. AFTER TEMPORARY STABILIZATION IS ACHIEVED, MODIFICATIONS SHALL BE MADE TO CONVERT SEDIMENT BASIN TO STORMWATER MANAGEMENT AREA.
7. AFTER FINAL STABILIZATION IS ACHIEVED, SEDIMENT FOREBAYS AND GABION CAGE WEIRS SHALL BE CONSTRUCTED IN STORMWATER MANAGEMENT AREA.
8. SILT FENCES AND INLET PROTECTION MAY BE REMOVED.
9. REMOVE CONSTRUCTION ENTRANCE AND COMPLETE PAVING OF THE ROADWAY.
10. ROANOKE COUNTY INSPECTION AND APPROVAL REQUIRED PRIOR TO REMOVAL OF ANY ESC MEASURES.
11. REFER TO SHEET C03 FOR PHASE I ESC PLAN.

ESC LEGEND

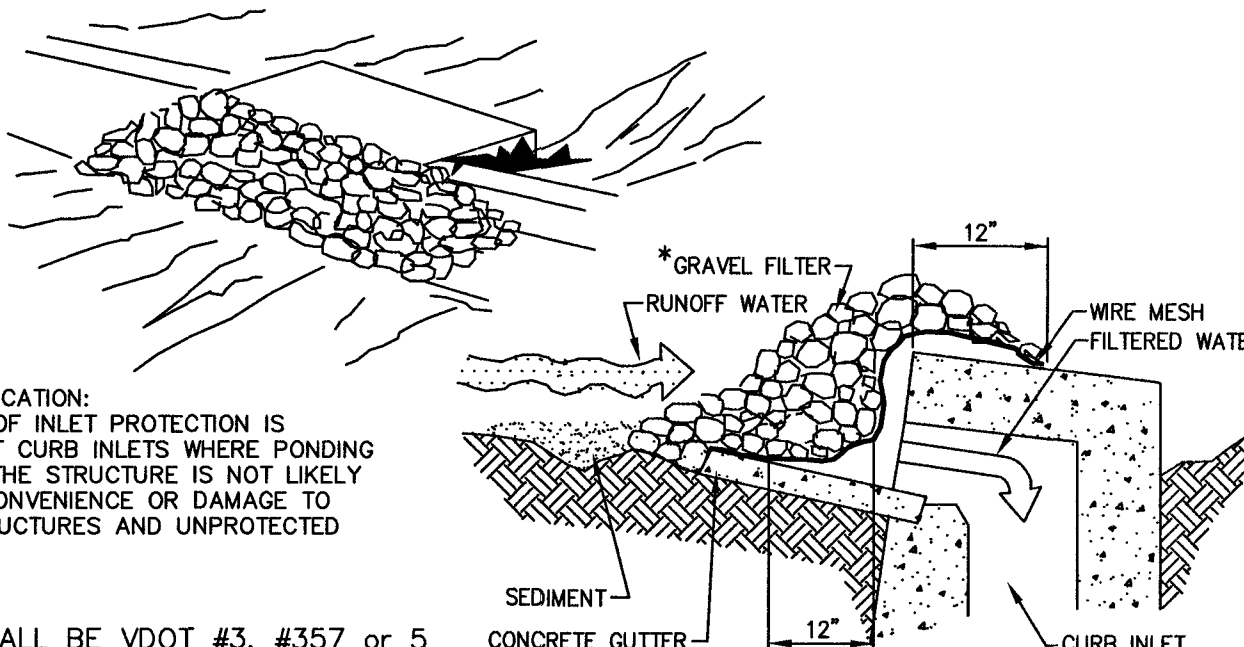
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	3.20	ROCK CHECK DAMS	CD
3.05	SILT FENCE	SF	3.30	TOPSOILING	TO
3.07	STORM DRAIN INLET PROTECTION	IP	3.31	TEMPORARY SEEDING	TS
3.08	CULVERT INLET PROTECTION	CIP	3.32	PERMANENT SEEDING	PS
3.09	TEMPORARY DIVERSION DIKE	DD	3.35	MULCHING	MU
3.14	TEMPORARY SEDIMENT BASIN	SB	3.36	SOIL STABILIZATION BLANKETS & MATTING	B/M
3.18	OUTLET PROTECTION	OP			



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



SPECIFIC APPLICATION:
THIS METHOD OF INLET PROTECTION 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 COARSE AGGREGATE.

IP GRAVEL CURB INLET SEDIMENT FILTER

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

LIMING REQUIREMENTS FOR TEMPORARY SITES

BH TEST	RECOMMENDED APPLICATION 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

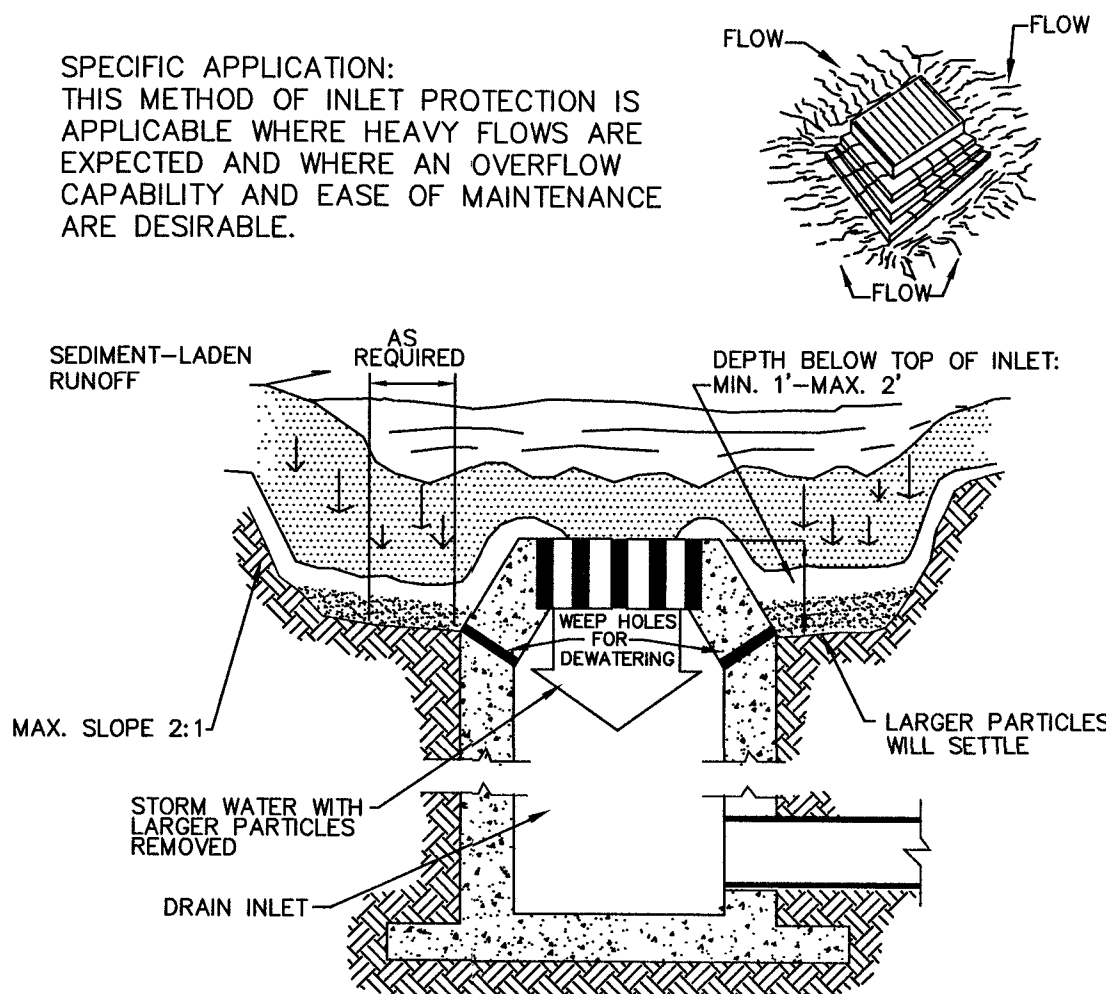
ACCEPTABLE TEMPORARY SEEDING PLANT MATERIAL
QUICK REFERENCE FOR ALL REGIONS*

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

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, SEEDED. MAXIMUM SEEDING DEPTH SHALL BE 1/4 INCH.	

PS PERMANENT SEEDING MIXTURE



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.

SEDIMENT-LADEN RUNOFF
AS REQUIRED
DEPTH BELOW TOP OF INLET: MIN. 1'-MAX. 2'
WEED HOLES FOR DEWATERING
LARGER PARTICLES WILL SETTLE
MAX. SLOPE 2:1
STORM WATER WITH LARGER PARTICLES REMOVED
DRAIN INLET

IP EXCAVATED DROP INLET SEDIMENT TRAP

New River Valley
Richmond
Roanoke
Shenandoah Valley

RESIDENTIAL LAND DEVELOPMENT ENGINEERING
SITE DEVELOPMENT ENGINEERING
LAND USE PLANNING & ZONING
LANDSCAPE ARCHITECTURE
LAND SURVEYING
ARCHITECTURE
STRUCTURAL ENGINEERING
TRANSPORTATION ENGINEERING
ENVIRONMENTAL & SOIL SCIENCE
WETLAND DELINEATIONS & STREAM EVALUATIONS

Balzer and Associates, Inc.
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Roanoke, VA 24018
540-772-9580
FAX 540-772-8050

COMMONWEALTH OF VIRGINIA
Lic. No. 047338
10/15/13
PROFESSIONAL ENGINEER

FAIRWAYS at HANGING ROCK
SECTION 4
PHASE II ESC PLAN
CATAWBA DISTRICT
ROANOKE COUNTY, VIRGINIA

DRAWN BY CFB
DESIGNED BY CFB
CHECKED BY BTC
DATE 8/16/2013
SCALE 1" = 100'
REVISIONS:
9/18/2013
9/23/2013
10/15/2013

SHEET NO.
C06
JOB NO. R0500377.04