

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS FOR THE CONSTRUCTION OF A KENNEL AND OFFICE FACILITY FOR SAINT FRANCIS SERVICE DOGS. PARKING IS PROVIDED ON-SITE ALONG WITH ALL NECESSARY SITE AMENITIES. ACCESS TO THE SITE WILL BE FROM THE INTERNAL DRIVE AISLE ADJACENT TO THE EXISTING BRICK BUILDING IN THE MIDDLE OF THE SITE. SITE ACCESS IS FROM A PRIVATE ACCESS EASEMENT FROM ENON DRIVE. LIMITS OF DISTURBANCE IS 3.15A AC.

EXISTING SITE CONDITIONS: THE EXISTING SITE CONSISTS OF MULTIPLE BARN BUILDINGS, EXISTING BRICK OFFICE BUILDING, EXISTING ASPHALT DRIVEWAY, ON-SITE POND, AND ON-SITE CREEK. THE EXISTING HIGH POINT OF THE PROPERTY IS JUST EAST OF THE EXISTING BARN BUILDING WITH THE PROPERTY SLOPING IN ALL DIRECTIONS FROM THIS POINT. SLOPES ON-SITE RANGE FROM 0-25% WITH THE MAJORITY OF THE PROPERTY AS VACANT FIELD. A PORTION OF THE PROPERTY IS WOODED WITH THE MAJORITY OF THIS AREA AROUND THE DRAINAGE CHANNELS ON-SITE. THE DRAINAGE FOR THE SITE EXISTS THE PROPERTY AT THE SOUTHERN PROPERTY LINE.

ADJACENT PROPERTY: THE PROPERTY IS BOUNDED TO THE SOUTH BY SINGLE FAMILY RESIDENCES. TO THE EAST IS COMMERCIAL DEVELOPMENT INCLUDING CAMPING WORLD, TO THE WEST ARE SINGLE FAMILY RESIDENCES AND BUCKLAND MILL RIGHT OF WAY. ACCESS TO THE SITE IS FROM ENON DRIVE THROUGH A PRIVATE ACCESS EASEMENT TO THE NORTH IS THE RIGHT OF WAY OF INTERSTATE 81.

OFF-SITE AREAS: NO OFF-SITE IMPACTS ARE ASSOCIATED WITH THIS PROJECT.

SOILS: SOIL INFORMATION IS AVAILABLE ON THE RESIDUAL SOILS THAT IS SUGGESTED IN THE "SOIL SURVEY OF ROANOKE COUNTY AND THE CITIES OF ROANOKE AND SALEM, VIRGINIA" AS PREPARED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE. THIS SURVEY IDENTIFIES THE ORIGINAL SOIL MATERIAL IS ESTIMATED TO BE A 49B, 49C, AND 49D - TUMBLING LOAM WITH SLOPES FROM 2 TO 25 AS DEFINED BY THE SOILS INFORMATION.

CRITICAL EROSION AREAS: CRITICAL AREAS FOR THIS PROJECT INCLUDE THE FILL SLOPES ON THE PROPERTY AND ANY CONSTRUCTION AROUND THE EXISTING CREEK INCLUDING THE PROPOSED STORMWATER MANAGEMENT FACILITY. SILT FENCE TO PROTECT THE EX. CHANNEL AND BLANKET MATTING FOR ANY SLOPES 3:1 OR GREATER.

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 "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION" (YESCH). THE MINIMUM STANDARDS OF THE YESCH SHALL BE ADHERED TO UNLESS OTHERWISE DIRECTED BY THE LOCAL PROGRAM ADMINISTRATOR.

STRUCTURAL

CONSTRUCTION ENTRANCE-STD. 3.02.....A STONE PAD, LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS TO THE CONSTRUCTION SITE, TO REDUCE THE SOIL TRANSPORTED ONTO PUBLIC ROADS AND OTHER PAVED AREAS.

SILT FENCE-STD. 3.05.....A TEMPORARY BARRIER CONSTRUCTED ALONG THE PERIMETER OF THE DISTURBED AREA AS REQUIRED TO INTERCEPT AND DETAIN SEDIMENT.

INLET PROTECTION-STD. 3.07.....A SEDIMENT FILTER TO PREVENT SEDIMENT FROM ENTERING, ACCUMULATING IN AND BEING TRANSFERRED INTO AN INLET AND ASSOCIATED DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF A DISTURBED PROJECT AREA.

OUTLET PROTECTION-STD. 3.18.....INSTALLATION OF RIPRAP CHANNEL SECTIONS BELOW STORM DRAIN OULETS TO REDUCE EROSION AND UNDER-CUTTING FROM SCOURING AT OULETS AND TO REDUCE FLOW VELOCITIES BEFORE ENTERING RECEIVING CHANNELS.

TEMPORARY SEDIMENT TRAP-STD. 3.13.....A SMALL PONDING AREA FORMED BY CONSTRUCTING AN EARTHEN EMBANKMENT WITH A STONE OUTLET ACROSS A DRAINAGE SWALE TO DETAIN SEDIMENT LADEN RUNOFF FROM SMALL DISTURBED AREAS FOR ENOUGH TIME TO ALLOW MOST OF THE SUSPENDED SOLIDS TO SETTLE OUT. MAXIMUM EFFECTIVE LIFE IS 18 MONTHS.

STORMWATER CONVEYANCE CHANNEL-STD. 3.17.....CONSTRUCT CHANNEL IN ACCORDANCE WITH SPECIFICATION TO CONVEY CONCENTRATED RUNOFF FROM THE PIPE OUTLET TO THE SEDIMENT TRAP.

ROCK CHECK DAMS-STD. 3.20.....INSTALL RIPRAP IN ACCORDANCE WITH SPECIFICATIONS TO REDUCE VELOCITY & SEDIMENT CONVEYED BY THE STORMWATER CONVEYANCE CHANNEL TO THE SEDIMENT TRAP.

VEGETATIVE

TOPSOILING-STD. 3.30.....METHODS OF PRESERVING AND USING THE SURFACE LAYER OF UNDISTURBED SOIL, OFTEN ENRICHED IN ORGANIC MATTER, IN ORDER TO OBTAIN A MORE DESIRABLE PLANTING AND GROWTH MEDIUM.

TEMPORARY SEEDING-STD. 3.31.....ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR PERIODS OF 30 DAYS TO 1-YEAR BY SEEDING WITH AN APPROPRIATE RAPIDLY GROWING SEED MIXTURE.

PERMANENT SEEDING-STD. 3.32.....ESTABLISHMENT OF A VEGETATIVE COVER BY PLANTING SEED ON ALL FINAL GRADED AREAS THAT WILL NOT RECEIVE AN IMPERVIOUS COVER OR RECEIVE TOPSOIL MATERIAL TO PROVIDE A STABILIZED SITE AFTER THE PROJECT IS COMPLETE.

MULCHING-3.35.....MULCH SHALL BE APPLIED TO ALL TEMPORARY AND PERMANENT SEEDING OPERATIONS TO PROMOTE THE GROWTH OF VEGETATION AND TO PROTECT THE SOIL SURFACE FROM RAINDROP IMPACTS.

SOIL STABILIZATION BLANKETS & MATTING-3.36.....THE INSTALLATION OF A PROTECTIVE BLANKET UTILIZING SOIL STABILIZATION ON A PREPARED PLANTING OF A STEEP SLOPE OR CHANNEL.

MANAGEMENT STRATEGIES:

A) CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.

B) SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING.

C) THE LOCAL PROGRAM ADMINISTRATOR RESERVES THE RIGHT TO ADD TO, DELETE OR OTHERWISE CHANGE THE EROSION CONTROL MEASURES AS DEEMED NECESSARY DUE TO ACTUAL FIELD CONDITIONS BY WRITTEN NOTIFICATION TO THE CONTRACTOR.

D) ALL FILL AND CUT SLOPES SHALL BE SEED WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE.

E) ONLY AFTER INSPECTION AND APPROVAL FROM THE LOCAL PROGRAM ADMINISTRATOR MAY ITEMS BE REMOVED FOLLOWING THE STABILIZATION OF THE CONTRIBUTING AREAS.

INSPECTIONS:

THE GENERAL CONTRACTOR SHALL INSPECT DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED, AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND THE AREA OF CONSTRUCTION VEHICLE ACCESS AT LEAST EVERY FOURTEEN (14) CALENDAR DAYS, AND WITHIN 48 HOURS OF THE END OF A STORM EVENT PRODUCING 1/2" OR GREATER OF PRECIPITATION. WHERE AREAS HAVE BEEN FINALLY OR TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS (SITE IS COVERED WITH SNOW, ICE, OR FROZEN GROUND EXISTS) SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH.

A) INSPECT DISTURBED AREAS AND AREAS OF MATERIALS STORAGE THAT ARE EXPOSED TO PRECIPITATION FOR EVIDENCE OF, OR THE POTENTIAL FOR SEDIMENT ENTERING THE STORM DRAIN SYSTEM. INSPECT E&S CONTROLS IN ACCORDANCE WITH REQUIREMENTS STATED HEREIN, AND INSPECT POINTS OF STORM DRAIN DISCHARGE FOR EXCESSIVE SEDIMENTATION. CORRECT SITE CONTROLS AS REQUIRED TO REDUCE SEDIMENTATION OF STORM DRAINS, CULVERTS, AND RECEIVING CHANNELS.

B) IF CONTROLS OR SEDIMENT PREVENTION AREAS ARE FOUND TO BE IN NEED OF REPAIR OR MODIFICATION, THE GENERAL CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES OR MODIFICATIONS TO EXISTING MEASURES AS REQUIRED. ANY ADDITIONAL MEASURES OR MODIFICATIONS TO EXISTING MEASURES SHALL BE RECORDED AS FIELD REVISIONS TO THESE PLANS. IN THE EVENT THAT ADDITIONAL CONTROLS ARE FOUND TO BE REQUIRED, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THESE CONTROLS BEFORE THE NEXT ANTICIPATED STORM EVENT. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICAL, THEY SHALL BE IMPLEMENTED AS SOON AS PRACTICAL.

C) A REPORT SUMMARIZING THE SCOPE OF INSPECTIONS, NAME OF INSPECTOR, INSPECTOR'S QUALIFICATIONS, DATES OF INSPECTIONS, MAJOR OBSERVATIONS PERTAINING TO THE IMPLEMENTATION OF THESE EROSION CONTROL PLANS, AND ACTIONS TAKEN SHALL BE MADE AND RETAINED AS A PART OF THESE PLANS. MAJOR OBSERVATIONS OF THESE REPORTS SHALL INCLUDE: THE LOCATIONS OF EXCESSIVE SEDIMENTATION FROM THE SITE; LOCATIONS OF CONTROLS IN NEED OF REPAIR; LOCATIONS OF FAILED OR INADEQUATE CONTROLS; AND LOCATIONS WHERE ADDITIONAL CONTROLS ARE NEEDED.

STORMWATER MANAGEMENT:

STORMWATER MANAGEMENT WILL BE HANDLED BY A ON-SITE POND THAT WILL PROVIDE OVER-DETENTION AS REQUIRED BY ROANOKE COUNTY. STORMWATER QUALITY IS NOT REQUIRED DUE TO THE PROPOSED IMPROVEMENTS AND FUTURE BUILDOUT BEING LESS THAN 16% FOR THE OVERALL PROPERTY.

CONSTRUCTION SEQUENCING NOTES:

PHASE 1:

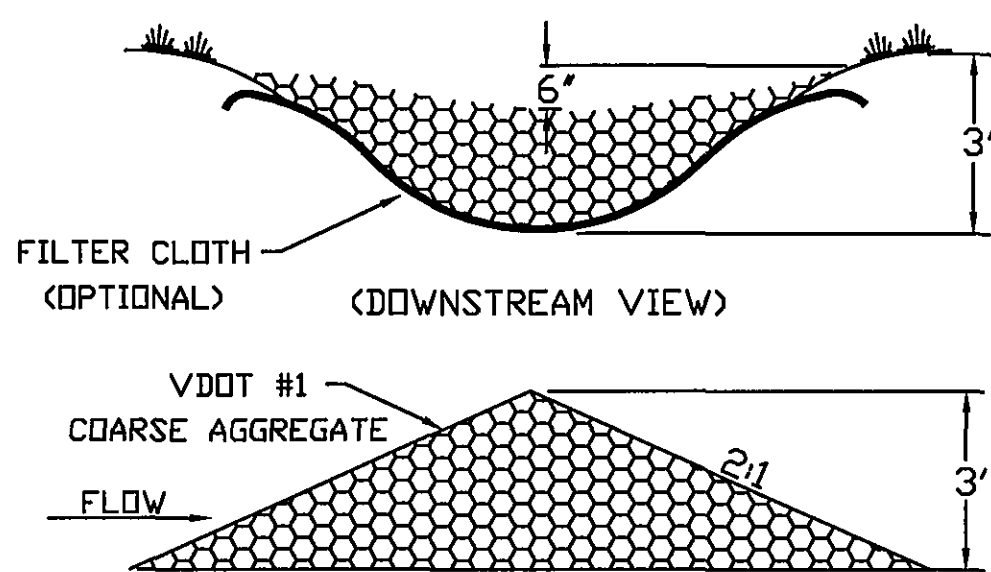
1. THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS A FIRST STEP.
2. SILT FENCE TO BE INSTALLED ALONG THE NORTHERN AND SOUTHERN PROPERTY LINES.
3. SEDIMENT TRAP SHALL BE INSTALLED PRIOR TO ANY GRADING.
4. THE EXISTING ASPHALT DRIVEWAY SHALL BE UTILIZED FOR CONTRACTORS TO ACCESS THE SITE. THIS SHALL REMAIN IN PLACE UNTIL MAJOR GRADING OPERATIONS HAVE TAKEN PLACE.

PHASE 2:

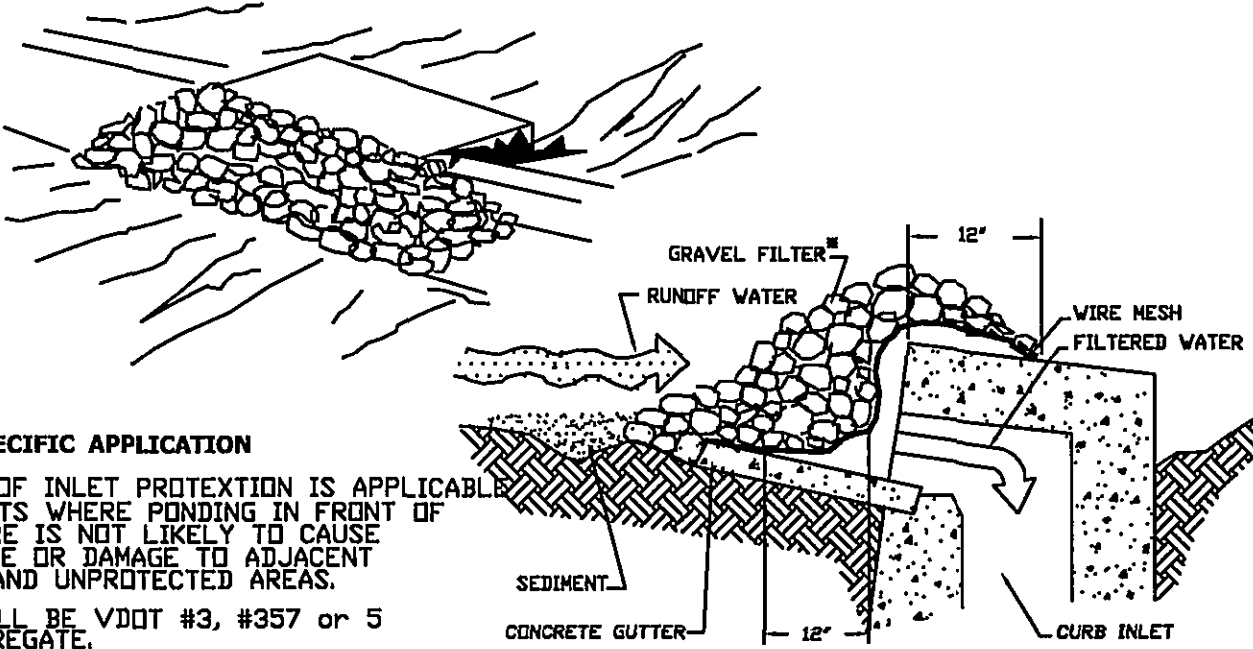
1. TOPSOIL SHALL BE STRIPPED AND STOCKPILED AND SEEDDED AND SURROUNDED BY SILT FENCE.
2. MAJOR GRADING OPERATIONS SHALL BE PERFORMED AT THIS TIME. IMMEDIATELY AFTER OVERLOT GRADING, THE CONTRACTOR SHALL APPLY THE STONE BASE FOR THE PROPOSED DRIVEWAY TO ENSURE A PASSABLE ROUTE FOR THE CONTRACTORS AND TO MINIMIZE THE POTENTIAL FOR ANY "TRACKING" OF MATERIAL.
3. TEMPORARY SEEDING MUST BE PROVIDED FOR ALL DISTURBED AREAS THAT WILL REMAIN DORMANT FOR MORE THAN 30 DAYS. PERMANENT SEEDING, MULCHING, AND BLANKET MATTING TO BE PROVIDED FOR ALL APPLICABLE AREAS AS SOON AS POSSIBLE AFTER FINAL GRADE IS ACHIEVED.
4. ALL UTILITIES FOR THE SITE SHALL BE INSTALLED AT THIS TIME AND AREAS SEEDDED AFTER COMPLETION OF INSTALLATION.
5. INLET PROTECTION AND OUTLET PROTECTION SHALL BE PROVIDED IMMEDIATELY AFTER STORM DRAIN INSTALLATION AND STORMWATER MANAGEMENT STRUCTURES INSTALLATION.
6. PAVEMENT, CURBING, ETC. SHALL BE INSTALLED AT THIS TIME.
7. TOPSOIL AND SEEDING SHALL BE APPLIED TO LANDSCAPE AREAS AND STORMWATER MANAGEMENT FACILITY AS NECESSARY.
8. AT THE TIME OF CONVERSION FROM A SEDIMENT TRAP TO PERMANENT S.W.M. FACILITY, THE SEDIMENT TRAP SHALL BE FILTERED DURING DE-WATERING PER VA ESC MANUAL.
9. WHEN THE ENTIRE SITE IS STABILIZED, INLET PROTECTION CAN BE REMOVED AFTER ROANOKE COUNTY APPROVAL ALONG WITH SILT FENCE AND THE CONSTRUCTION ENTRANCE ONCE THE SITE IS STABILIZED.

*NOTE: ROANOKE COUNTY INSPECTION AND APPROVAL IS REQUIRED PRIOR TO THE REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.

2 ACRES OR LESS OF DRAINAGE AREA

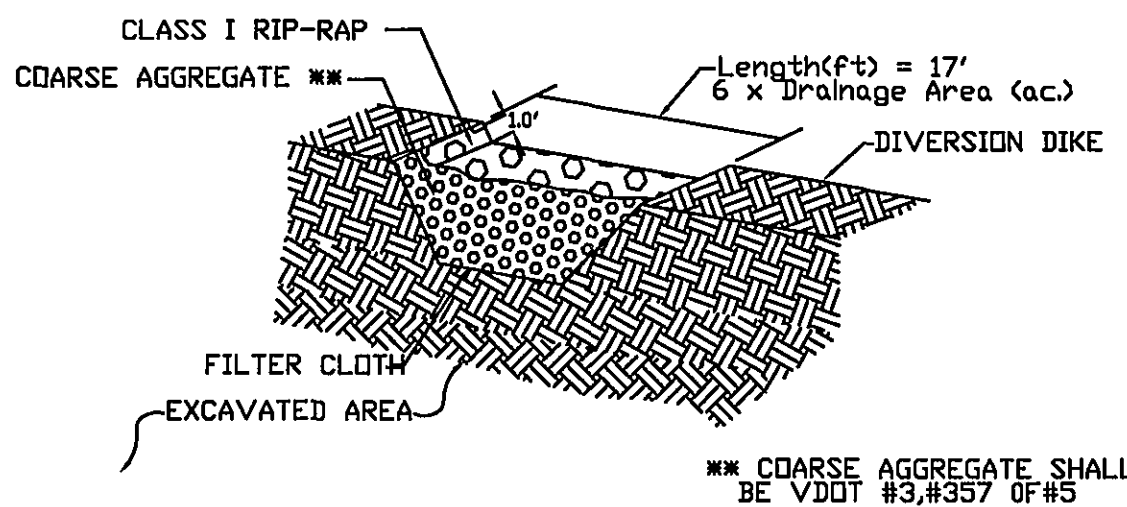


CD ROCK CHECK DAM



IP GRAVEL CURB INLET SEDIMENT FILTER

* SEE PLATE 313-1

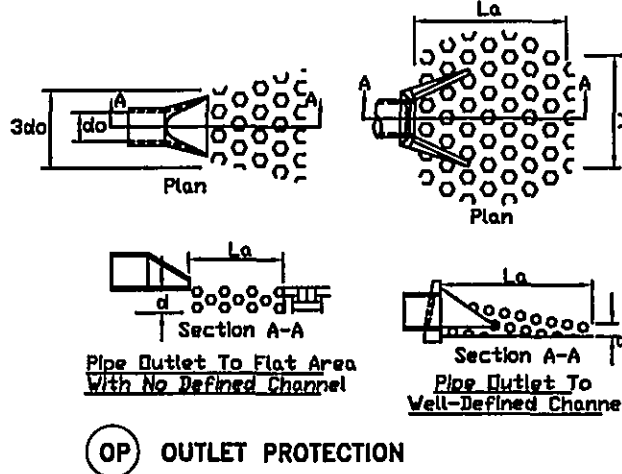


NOTE:
FOR AREAS LESS THAN 3.0 ACRES, FOR AREAS LARGER THAN 3.0 ACRES A SEDIMENT BASIN IS REQUIRED. SEE DETAIL THIS SHEET.

ST SEDIMENT TRAP

TEMPORARY SEDIMENT TRAP DATA

STRUCTURE	DRAINAGE AREA (ACRES)	STORAGE (C.Y.) REQ'D	DESIGN	WEIR LENGTH (F.T.)	WEIR HEIGHT (F.T.)	BERM HEIGHT (F.T.)	TRAP WIDTH (F.T.)	TRAP LENGTH (F.T.)	TRAP DEPTH (F.T.)
1	2.79	374	567	17	2	2	33	175	4



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 136d and 136e.
3. d = 1.5 times the maximum stone diameter, but not less than 6".

OUTLET PROTECTION DATA:

OUTLET PROTECTION #1- EC-1, CLASS 1 RIP RAP
EC-1 CLASS 1 RIP RAP
LENGTH OF APRON=10'
WIDTH OF APRON=6'
MIN. STONE SIZE=6"

OUTLET PROTECTION #2- EC-1, CLASS 1 RIP RAP
EC-1 CLASS 1 RIP RAP
LENGTH OF APRON=10'
WIDTH OF APRON=6'
MIN. STONE SIZE=6"

TYPE A

15 OCTOBER TO 1 FEBRUARY
K-31 FESCUE @ 5 LB / 1000 SF
BOXY WINTER RYE @ 1/2 LB / 1000 SF

1 FEBRUARY TO 1 JUNE
K-31 FESCUE @ 5 LB / 1000 SF
ANNUAL RYE @ 1/2 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

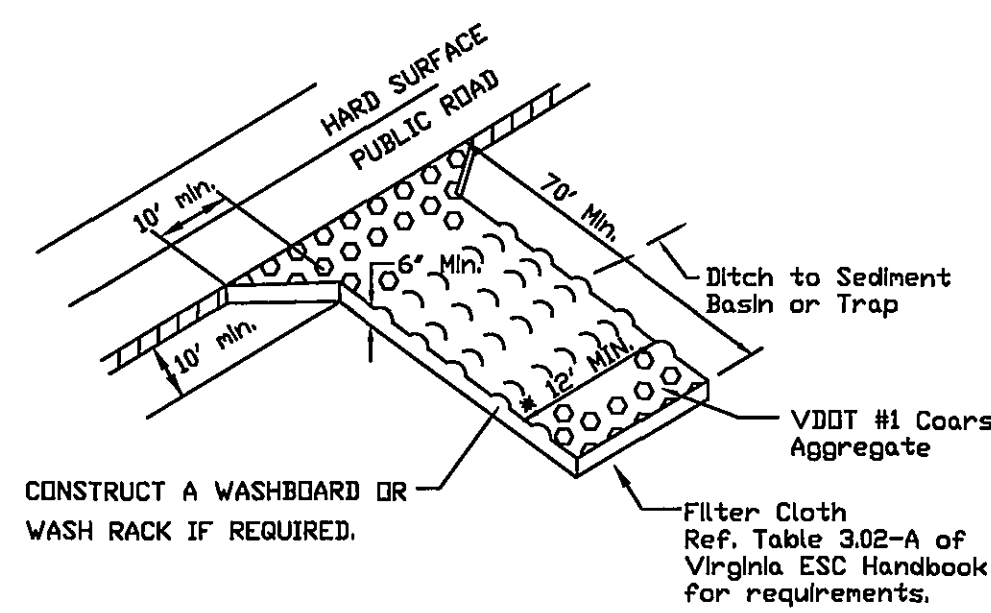
MULCH: IF REQUIRED, SHALL BE USED OVER ALL SEEDDED AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE VIRGINIA SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

SOIL CONDITIONS:
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, FRABLE, SEEDBED. MAXIMUM SEEDING DEPTH SHALL BE 1/4 INCH.

PS

PERMANENT SEEDING MIXTURE



CE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

EROSION & SEDIMENT CONTROL BONDING COST ESTIMATE

ALL COSTS GIVEN ARE COMPLETE IN PLACE

DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
CONSTRUCTION ENTRANCE	EA	1	\$ 1,500	\$ 1,500
SILT FENCE	LF	1176	4.00	4,704
INLET PROTECTION	EA	2	100.00	200
ROCK CK. DAM	EA	6	25.00	150
BLANKET MATTING	S.Y.	100	2.00	200
SEDIMENT TRAP	EA	1	1,500	1,500
DITCH LINING (EC-2) (SCC)	LF.	275	3.00	825
PERMANENT SEEDING	1000 SF	50	20.00	1,000
OUTLET PROTECTION	EA	2	150.00	300
TEMP. SEEDING	1000 SF	50	15.00	750
SUB-TOTAL				\$ 11,129.00
25% CONTINGENCY				\$ 2,782.00
TOTAL PROJECT COST				\$ 13,911.00

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 = 3.15 AC. = 137,214 SQ. FT.

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

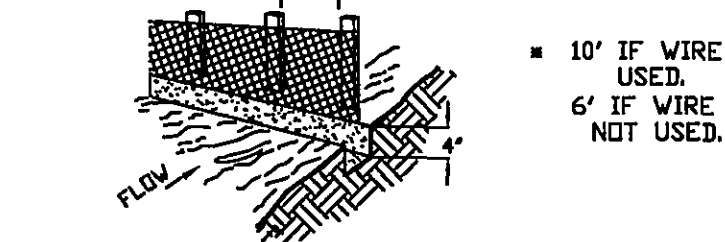
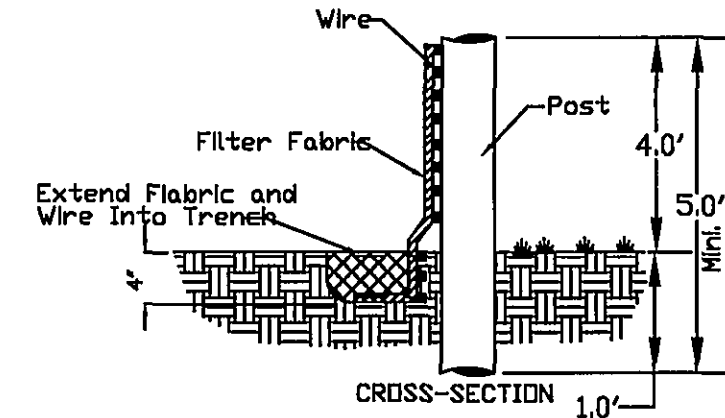
LIMING REQUIREMENTS FOR TEMPORARY SITES

pH 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

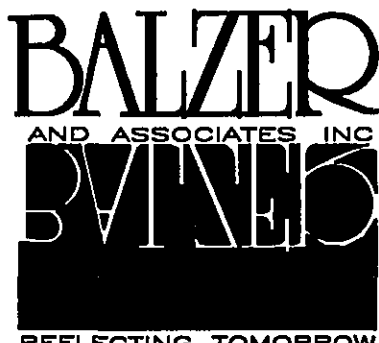
ACCEPTABLE TEMPORARY SEEDING PLANT MATERIAL - QUICK REFERENCE FOR ALL REGIONS*

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



SF CONSTRUCTION OF A SILT FENCE



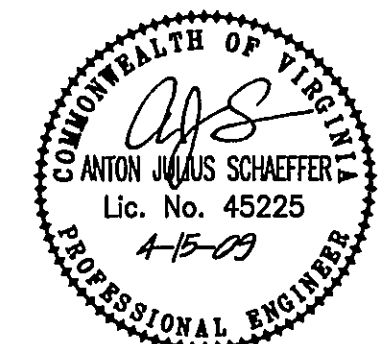
www.balzer.cc

Chesterfield
Henrico
New River Valley
Roanoke
Shenandoah Valley

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

Balzer and Associates, Inc.

1208 Corporate Circle
Roanoke, VA 24018
540-772-9580
FAX 540-772-8050



SAINT FRANCIS SERVICE DOGS
ESC NOTES AND DETAILS
HOLLINS
ROANOKE COUNTY, VIRGINIA

DRAWN BY BTC

DESIGNED BY BTC

CHECKED BY SMH

DATE 2-6-09

SCALE N/A

REVISIONS:

3-6-09

3-27-09

4-15-09

SHEET NO.

C-6

JOB NO. R0500037.00