EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION: THIS PROJECT CONSISTS OF THE CONSTRUCTION OF A SINGLE FAMILY RESIDENTIAL SUBDIVISION LOCATED ON SANDY RIDGE ROAD. APPROXIMATELY 25.8 AC. OF LAND DISTURBANCE WILL OCCUR DURING THE CONSTRUCTION OF THIS SUBDIVISION. THE LAND DISTURBANCE WILL INCLUDE CUT AND FILL GRADING ACTIVITIES, AND CLEARING. POST-DEVELOPED, THE SITE WILL CONSIST OF APPROXIMATELY 14% IMPERVIOUS SURFACES.

EXISTING SITE CONDITIONS: THE SITE IS LOCATED ON THE NORTH SIDE OF SANDY RIDGE ROAD, AND IS MOSTLY WOODED. A PORTION OF THE SITE WAS ONCE USED AS A MINING AREA, SO THE SLOPES VERY FROM 1.0% TO APPROXIMATELY 50%. CRITICAL SLOPES ARE OUTLINED ON SHEETS C2.2–C2.3 FOR THE BENEFIT OF THE CONTRACTORS AND MACHINE OPERATORS. LIMITS OF CLEARING WILL BE STAKED BY A SURVEY TEAM TO PROTECT AREAS THAT ARE NOT TO BE DISTURBED WITH THIS SECTION.

ADJACENT AREAS: THE SITE IS SURROUNDED BY SINGLE FAMILY RESIDENCES TO THE EAST AND WEST, SANDY RIDGE ROAD ON THE SOUTH, AND BAILEY'S CREEK TO THE NORTH. NO ADJACENT AREAS WILL BE IMPACTED BY THE CONSTRUCTION OF THIS PHASE.

OFFSITE AREAS: THERE ARE NO OFFSITE AREAS.

SOILS: SHEET C4.1 SHOWS THE LIMITS OF THE SOIL TYPES PRESENT ON THIS SITE. THE SOIL TYPES ARE LABELED BY UNIT SYMBOLS THAT CORRESPOND WITH THE TABLE ON THE LEFT SIDE OF THE SHEET. THE EROSION FACTORS ARE LISTED THERE AS WELL. STEEPLY SLOPED AREAS NEAR WATERS OF THE U.S. AND WETLANDS CONSIST OF HIGHLY ERODIBLE SOILS.

CRITICAL AREAS: RPA, WETLANDS AND WATERS OF THE US ARE LABELED ON SHEETS C2.2, C2.3, C4.0 AND C4.1. AREAS OF STEEP SLOPES HAVE BEEN OUTLINED ON SHEETS C2.2–C2.3 FOR THE BENEFIT OF THE CONTRACTORS AND MACHINE OPERATORS.

EROSION AND SEDIMENT CONTROL MEASURES: TEMPORARY SEDIMENT BASINS, PERIMETER SILT FENCE, DIVERSION DITCHES AND INLET PROTECTION INSTALLED ON THE PROPOSED STRUCTURES WILL SERVE AS THE PRIMARY EROSION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PROCESS. TEMPORARY AND PERMANENT SEEDING WILL ALSO BE USED AS NEEDED. SEEDING SHALL BE DONE IN ACCORDANCE WITH TABLES ON SHEET C4.3.

PERMANENT STABILIZATION: ALL DENUDED AND UNGRAVELLED AREAS SHALL BE SEEDED IN ACCORDANCE WITH STATE REGULATIONS. OUTLET PROTECTION AND EC–2 MATTING AT CRITICAL OUTFALLS WILL ALSO SERVE AS PERMANENT STABILIZATION.

STORMWATER RUNOFF CONSIDERATIONS: THE DEVELOPMENT OF THIS SITE WILL RESULT IN AN INCREASE IN THE PEAK RATE OF RUNOFF. AN ANALYSIS OF EACH OF THE OUTFALLS WAS CONDUCTED. ONE SWM BASIN HAS BEEN DESIGNED TO PROTECT DOWNSTREAM AREAS FOR EROSION. A PLUNGE POOL AND LEVEL SPREADER HAVE BEEN DESIGNED IN AREA WHERE THERE IS NO DEFINED CHANNEL TO OUTFALL INTO. THE DITCHES AND STREAMS USED AS OUTFALL POINTS ARE CONSISTENT FROM THE OUTFALL POINT TO THE WETLANDS ASSOCIATED WITH BAILEY'S CREEK. DURING CONSTRUCTION, INCREASED RUNOFF WILL BE MANAGED THROUGH THE USE OF SEDIMENT BASINS..

CALCULATIONS: ALL STORM SEWER AND MS–19 ANALYSIS CALCULATIONS HAVE BEEN SUBMITTED TO COUNTY AND STATE OFFICIALS FOR REVIEW.

EROSION CONTROL SEQUENCE OF EVENTS

1. NOTIFY DIANE COOK IN THE DEPT. OF INSPECTIONS & CODE COMPLIANCE AT (804) 722–8673 FOR A PRE–CONSTRUCTION MEETING AND ON–SITE VISIT ONE WEEK PRIOR TO BEGINNING CONSTRUCTION.
2. INSTALL CONSTRUCTION ENTRANCE, TEMPORARY SEDIMENT BASINS, DIVERSION DITCHES, AND SILT FENCE AS PER PLANS. STABILIZE SEDIMENT BASINS. AND DITCHES WITH VEGETATION AND MULCH PER MS–1.
3. BEGIN CLEARING AND GRUBBING OPERATIONS. STABILIZE THE SITE WITH VEGETATION AND STRAW MULCH ACCORDING TO STATE REGULATIONS.
4. ROUGH GRADE SITE AND INSTALL STORM SEWER AS PER PLAN. FOR OUTFALLS, INSTALL APPROXIMATELY 34 LF OF STRUCTURE 10, 40 LF OF STRUCTURE 40B, 56 LF OF STRUCTURE 52 AND 188 LF OF STRUCTURE 56 SO THAT ALL STORM WATER DRAINS INTO SEDIMENT BASINS DURING CONSTRUCTION. INSTALL UTILITIES.
5. IMMEDIATELY AFTER PLACING BASE STONE AND INSTALLATION OF CURB & GUTTER, INSTALL INLET PROTECTION AS PER PLAN.
6. FINE GRADE SITE AS PER PLANS. SEED DENUDED AREAS AS SOON AS POSSIBLE AND MULCH ALL DISTURBED AREAS. SEEDING AND MULCHING SHALL BE PER VIRGINIA REGULATION 4VAC50–30–40 MS–3 AND EROSION CONTROL GENERAL NOTE 11. INSTALL PAVEMENT.
7. ONCE SITE IS STABILIZED, CONVERT SEDIMENT BASIN 1 INTO PERMANENT BASIN BY REMOVING THE SEDIMENT BASIN STRUCTURE AND INSTALLING THE PERMANENT BASIN OUTFALL STRUCTURE. FILL TEMPORARY BASIN TO ACHIEVE THE PERMANENT BASIN GRADING AS PER PLAN. COMPLETELY FLUSH ALL STORM SEWER STRUCTURES TO REMOVE ANY ACCUMULATED SEDIMENT, FILL AND STABILIZE SEDIMENT BASINS 2, 3, AND 4 AND COMPLETE INSTALLATION OF OUTFALLS.
8. CONTINUING MAINTENANCE PRACTICES SHALL BE PERFORMED TO ENSURE PROTECTION OF DOWNSTREAM PROPERTIES.
9. NO EROSION CONTROL DEVICE SHALL BE REMOVED UNTIL AN ADEQUATE STAND OF GRASS HAS BEEN OBTAINED. EC MEASURES SHALL BE REMOVED IN ACCORDANCE WITH VIRGINIA REGULATION 4VAC50–30–40 MS–18.

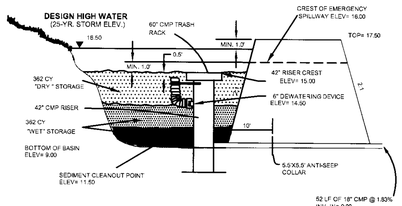
NOTE: ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLAN ARE TO BE CONSTRUCTED, MAINTAINED AND REMOVED IN ACCORDANCE WITH THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATION 4VAC50–30

EROSION CONTROL GENERAL NOTES

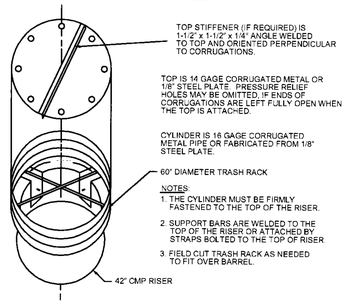
1. CONTACT THE PRINCE GEORGE DEPT. OF INSPECTIONS & CODE COMPLIANCE AT (804) 722–8673 PRIOR TO COMMENCING ANY LAND DISTURBANCE ACTIVITIES ON THE SITE.
2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE PRINCE GEORGE COUNTY ORDINANCE INCLUDING THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC50–30 EROSION AND SEDIMENT CONTROL REGULATIONS.
3. NOTIFY DIANE COOK AT 804–722–8673 ONE WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
5. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
6. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF–SITE BOR–ROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMEN–TATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
8. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEA–SURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
9. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
10. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES DAILY AND AFTER EACH RUNOFF–PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CON–TROL DEVICES SHALL BE MADE IMMEDIATELY.
11. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THA MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THEN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE LEFT DORMANT FOR MORE THAN ONE YEAR.
12. THE CONTRACTOR IS RESPONSIBLE FOR DAILY REMOVAL OF SEDIMENT THAT HAS BEEN TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOILS WHICH MAY PRESENT A HEALTH HAZARD, TRAFFIC SAFETY PROBLEM, OR HARM ANIMAL OR PLANT LIFE.

TEMPORARY SEDIMENT BASIN 3

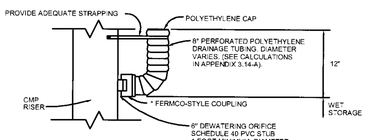
SEDIMENT BASIN 3 SCHEMATIC ELEVATIONS



DESIGN ELEVATIONS WITH EMERGENCY SPILLWAY



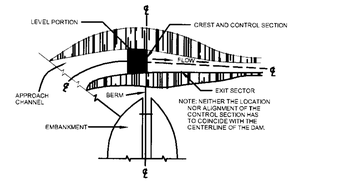
TRASH RACK DETAIL
N.T.S.



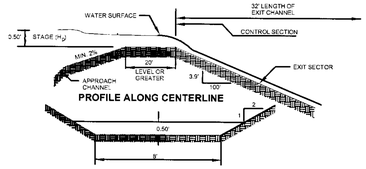
RECOMMENDED DEWATERING SYSTEM FOR SEDIMENT BASINS
NO SCALE

NOTE: WITH CONCRETE RISER, USE PVC SCHEDULE 40 STUB FOR DEWATERING ORIFICE.
* DRAINAGE TUBING SHALL COMPLY WITH ASTM F667 AND AASHTO M294

EXCAVATED EARTH SPILLWAY

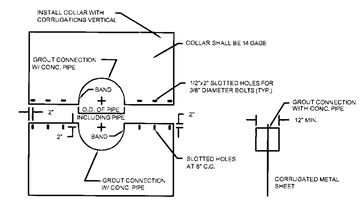


PLAN VIEW



PROFILE ALONG CENTERLINE

CROSS-SECTION AT CONTROL SECTION



ELEVATION OF UNASSEMBLED COLLAR **END SECTION**

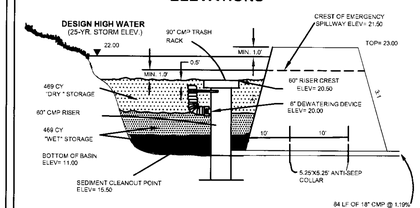
NOTES FOR COLLAR:

1. UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR TAGGING TO IDENTIFY MATCHING PAIRS.
2. THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF INSTALLATION.

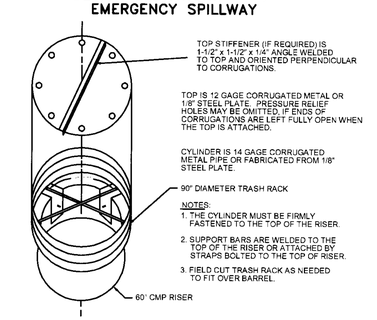
CORRUGATED METAL ANTI-SEEP COLLAR DETAIL
NO SCALE

TEMPORARY SEDIMENT BASIN 4

SEDIMENT BASIN 4 SCHEMATIC ELEVATIONS



DESIGN ELEVATIONS WITH EMERGENCY SPILLWAY



TRASH RACK DETAIL
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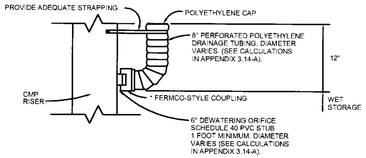
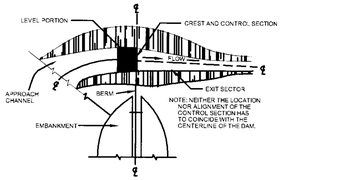


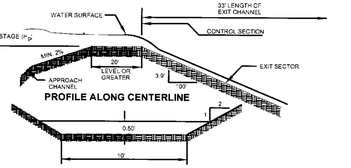
RECOMMENDED DEWATERING SYSTEM FOR SEDIMENT BASINS
NO SCALE

NOTE: WITH CONCRETE RISER, USE PVC SCHEDULE 40 STUB FOR DEWATERING ORIFICE.
* DRAINAGE TUBING SHALL COMPLY WITH ASTM F667 AND AASHTO M294

EXCAVATED EARTH SPILLWAY

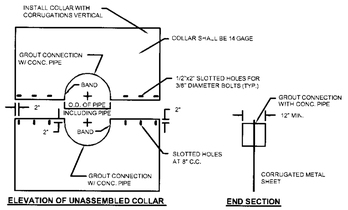


PLAN VIEW



PROFILE ALONG CENTERLINE

CROSS-SECTION AT CONTROL SECTION



ELEVATION OF UNASSEMBLED COLLAR **END SECTION**

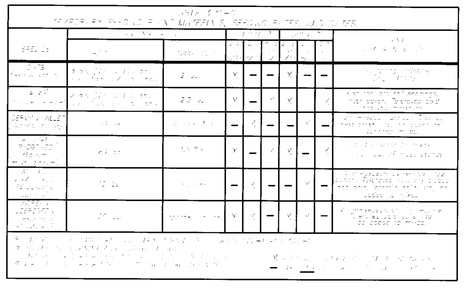
NOTES FOR COLLAR:

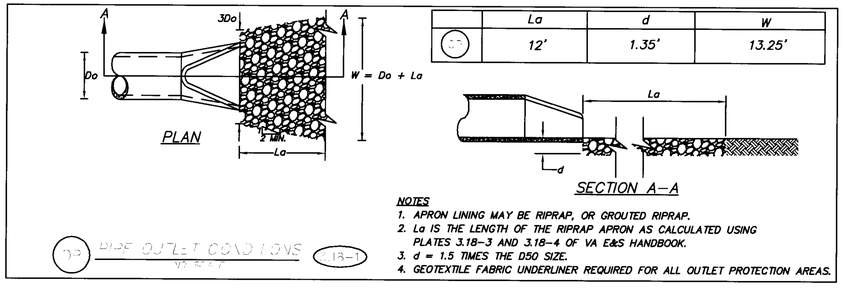
1. UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR TAGGING TO IDENTIFY MATCHING PAIRS.
2. THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF INSTALLATION.

CORRUGATED METAL ANTI-SEEP COLLAR DETAIL
NO SCALE

MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES:

- SILT FENCE; INSPECT AFTER EACH RAINFALL EVENT. REMOVE SEDIMENT FROM SILT FENCE WHEN IT REACHES ONE–HALF THE HEIGHT OF THE BARRIER. REPAIR ANY TORN FENCE PROMPTLY.
- SEDIMENT BASIN; INSPECT AFTER EACH RAIN. REMOVE SEDIMENT FROM THE TRAP/BASIN WHEN IT REACHES ONE–HALF THE DESIGN VOLUME OF THE WET STORAGE (THIS LEVEL SHOULD BE MARKED OR PAINTED ON THE STRUCTURE).
- CONSTRUCTION ENTRANCE; TOPDRESS WITH ADDITIONAL STONE OR WASH AND REWORK EXISTING STONE AS NEEDED TO PREVENT MUD FROM BEING TRACKED OFF THE SITE. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- INLET PROTECTION; INSPECT AFTER EACH RAIN. REMOVE SEDIMENT WHEN IT ACCUMULATES TO ONE–HALF THE DESIGN DEPTH OF THE TRAP.
- EROSION BLANKET OR MAT; INSPECT AFTER EACH RAIN FOR EROSION OR UNDERMINING. REPAIR ANY DISLOCATION OR FAILURE IMMEDIATELY AND REINSTALL THE MATERIAL.





	La	d	W
	12'	1.35'	13.25'

NOTES

1. *APRON LINING MAY BE RIPRAP, OR GROUTED RIPRAP.*
2. *La IS THE LENGTH OF THE RIPRAP APRON AS CALCULATED USING PLATES 3.18–3 AND 3.18–4 OF VA E&S HANDBOOK.*
3. *d = 1.5 TIMES THE D50 SIZE.*
4. *GEOTEXTILE FABRIC UNDERLINER REQUIRED FOR ALL OUTLET PROTECTION AREAS.*

(13) PIPE OUTLET CONDITIONS (18-1)

TABLE 3.32-D

SITE SPECIFIC SEEDING MIXTURES FOR COASTAL PLAIN AREA

	Total Lbs. Per Acre
Minimum Care Lawn	
- Commercial or Residential	
- Kentucky 31 or Turf-Type Tall Fescue	175-200 lbs.
or	
- Common Bermudagrass **	75 lbs.
High-Maintenance Lawn	
- Kentucky 31 or Turf-Type Tall Fescue	200-250 lbs.
or	
- Hybrid Bermudagrass (seed) **	40 lbs. (unhulled)
or	30 lbs. (hulled)
- Hybrid Bermudagrass (by other vegetative establishment method, see Std. & Spec. 3.34)	
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 Tall Fescue	93-108 lbs.
- Common Bermudagrass **	0-15 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop *	20 lbs.
- Sericea Lespedeza **	20 lbs.
	150 lbs.

* Use seasonal nurse crop in accordance with seeding dates as stated below:

February, March through April ..... Annual Rye
May 1st through August ..... Foxtail Millet
September, October through November 15th ..... Annual Rye
November 16th through January ..... Winter Rye

** May through October, use hulled seed. All other seeding periods, use unhulled seed. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.

COMMONWEALTH OF VIRGINIA
KATHLEEN N. HALPAUS
Lic. No. 45244
5/6/10
PROFESSIONAL ENGINEER

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TRI-CITIES OFFICE
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DATE	COUNTY COMMENTS
5-6-10	

REVISION DESCRIPTION

Site Development | Residential | Infrastructure | Technology

YOUR VISION ACHIEVED THROUGH OURS.

DATE	23 DEC 2009
DRAWN BY	R. ROBBINS
DESIGNED BY	K. HALPAUS
CHECKED BY	D. JOHNSON
SCALE	NONE

TIMMONS GROUP

THE MEADOWS AT PRINCE GEORGE - SECTION 6

BLAND DISTRICT - PRINCE GEORGE COUNTY - VIRGINIA

EROSION CONTROL NOTES & DETAILS

JOB NO. 28124

SHEET NO. C4.3

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