EROSION CONTROL NARRATIVE AND SEQUENCE OF EVENTS

PROJECT DESCRIPTION:
CONSTRUCTION ACTIVITIES FOR THIS PROJECT INCLUDE THE CONSTRUCTION OF A SEWAGE PUMP STATION, 17,758 LINEAR FEET OF 6" DIAMETER FORCE MAIN, A ALONG WITH THE EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS PLAN. THE AREA OF LAND DISTURBANCE IS APPROXIMATELY XXX ACRES, WITH NO WETLAND IMPACTS.

EXISTING SITE CONDITIONS
THE SITE INCLUDES THE NEW PRINCE GEORGE NORTH ELEMENTARY SCHOOL SITE AND GENERALLY ALONG THE NORTHERN SIDE OF OLD STAGE ROAD FROM THE HIGH SCHOOL SITE TO SEBERA ROAD, AND THENCE ALONG THE SOUTHERN SIDE OF SEBERA ROAD TO PRINCE GEORGE DRIVE. THE PUMP STATION SITE IS INCLUDED WITHIN THE DISTURBED ELEMENTARY SCHOOL SITE. THE FORCE MAIN WILL BE ALONG EXISTING AND PROPOSED UTILITY EASEMENTS VIRGINIA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAYS. THE EXISTING EASEMENTS AND RIGHT-OF-WAYS ARE MOSTLY CLEAR. TREE CLEARING IS REQUIRED FOR WOODED AREAS ALONG SEBERA ROAD AND SCATTERED TREES ALONG OLD STAGE ROAD. TOPOGRAPHY INCLUDES SLOPES UNDER 5% ALONG THE CORRIDOR. LATERAL SLOPES IN CUT OR FILL AREAS ARE EQUAL OR LESS THAN 1:3. THE PROPOSED FORCE MAIN ROUTE CROSSES A TRIBUTARY OF BLACKWATER SWAMP AND ADJACENT WETLANDS ALONG SEBERA ROAD.

ADJACENT AREAS
AREAS ADJACENT TO THE PROJECT SITE OR CORRIDOR INCLUDE THE BALANCE OF THE PRINCE GEORGE NORTH ELEMENTARY SCHOOL SITE, AND VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) MAINTAINED ROADS. ALONG THE OLD STAGE AND SEBERA ROAD CORRIDORS ADJACENT AREAS INCLUDE RURAL AND RESIDENTIAL PROPERTIES. NON-TIDAL WETLAND AREAS EXIST ADJACENT TO THE PROPOSED FORCE MAIN ROUTE ALONG SEBERA ROAD.

CRITICAL AREAS
THERE IS A STREAM CROSSING AND NON-TIDAL WETLANDS WITHIN THE FORCE MAIN CORRIDOR ALONG SEBERA ROAD. THE PROPOSED FORCE MAIN SHALL BE INSTALLED BY TRENCHLESS CONSTRUCTION METHODS WITHIN THESE AREAS. TREE PRESERVATION AREAS EXIST ON THE SCHOOL SITE AND ALONG THE PROPOSED FORCE MAIN ALIGNMENT. CARE MUST BE TAKEN BY THE CONTRACTOR TO AVOID DISTURBANCE OF THESE AREAS. IF NO TREE PRESERVATION BOUNDARY MARKING EXISTS AT THE TIME OF CONSTRUCTION, THE CONTRACTOR SHALL MARK THE TREE BOUNDARY WITH YELLOW AND BLACK TAPE OR ORANGE SAFETY FENCING PER THE PLANS PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITIES. THE CONTRACTOR SHALL AVOID DRIVING HEAVY EQUIPMENT WITHIN THE DRIPLINES OF PROTECTED TREES TO PREVENT ROOT DAMAGE AND SOIL COMPACTION. WORK IN EXISTING VDOT MAINTAINED ROADSIDE DITCHES WILL REQUIRE RESTORATION TO A CROSS-SECTION SUBJECT TO APPROVAL BY VDOT. WORK IN CUT OR FILL SLOPES ALONG COURTHOUSE ROAD MAY REQUIRE ADDITIONAL EROSION AND SEDIMENT CONTROLS AT THE DIRECTION OF VDOT TO STABILIZE THE SLOPES UNTIL PERMANENT VEGETATION IS ESTABLISHED.

EROSION AND SEDIMENT CONTROL MEASURES:
TO PRIMARILY INCLUDE THE FOLLOWING:

1. SILT FENCE AS INDICATED ON THE PLAN TO PROTECT RUNOFF ONTO ADJACENT PROPERTIES AND WETLAND AREAS.
2. CULVERT INLET PROTECTION TO PREVENT SILTATION OF CULVERTS AND TO PREVENT THE TRANSPORTATION OF SEDIMENTS ALONG THE ROADSIDE DITCHES TO ADJACENT PROPERTIES.
3. DROP INLET PROTECTION TO PREVENT SILTATION OF STORM WATER PIPES.

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. THESE MINIMUMS WILL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

PERMANENT STABILIZATION:
PERMANENT STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN SEVEN (7) DAYS AFTER COMPLETION OF CONSTRUCTION IS COMPLETED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DISTURBED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN THIRTY (30) DAYS. DISTURBED CUT OR FILL SLOPES ALONG THE CONSTRUCTION CORRIDOR MAY REQUIRE EROSION CONTROL FABRIC TO STABILIZE THE SLOPES UNTIL VEGETATION IS ESTABLISHED. THE CONTRACTOR SHALL APPLY EROSION CONTROL FABRIC AT THE DESCRETION OF THE COUNTY ENVIRONMENTAL INSPECTOR/ENGINEER OR VIRGINIA DEPARTMENT OF TRANSPORTATION INSPECTOR/ENGINEER.

THE SEQUENCE OF EROSION AND SEDIMENT CONTROL AND CONSTRUCTION ACTIVITIES IS LISTED BELOW.

1. A PRECONSTRUCTION CONFERENCE IS MANDATORY BEFORE ANY FURTHER WORK IS STARTED. THE CONTRACTOR SHALL ARRANGE FOR A PRECONSTRUCTION MEETING WITH THE OWNER, ENGINEER, VDOT, AND COUNTY ENVIRONMENTAL ENGINEER. ONE (1) WEEKS NOTICE IS REQUIRED PRIOR TO THE MEETING.
2. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS PER THE PLANS, SPECIFICATIONS, AND VPDES STORM WATER PLAN.
3. PERFORM CONSTRUCTION PER THE PLANS AND SPECIFICATIONS.
4. PROVIDE TEMPORARY PAVEMENT OF OPEN CUT ROADS AND DRIVEWAYS EACH DAY PER THE PLANS AND SPECIFICATIONS.
5. REGRADE DISTURBED AREAS EACH DAY PER THE PLANS AND SPECIFICATIONS.
6. PROVIDE TEMPORARY SEEDING PER THE PLAN AND SPECIFICATIONS.
7. PROVIDE FINAL GRADING PER THE PLANS AND SPECIFICATIONS.
8. PROVIDE PERMANENT SEEDING AND MULCHING PER THE PLANS AND SPECIFICATIONS.
9. PROVIDE PERMANENT PAVEMENT AND PAVEMENT OVERLAY OF OPEN CUT ROADS AND DRIVEWAYS PER THE PLANS AND SPECIFICATIONS.
10. UPON STABILIZATION OF DISTURBED AND RESEEDED AREAS AND APPROVAL OF THE ENVIRONMENTAL INSPECTOR/ENGINEER, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

MAINTENANCE OF EROSION AND SEDIMENT CONTROLS:
ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED CONTINUOUSLY AND ESPECIALLY AFTER EACH SIGNIFICANT STORM TO LOCATE DAMAGES AND CONDUCT MAINTENENCE OPERATIONS.

SEEDING NOTES

1. ALL STABILIZATION/ SEEDING WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENTATION CONTROL HANDBOOK, AS WELL AS THE ACCOMPANYING SEEDING SCHEDULE.
2. ANY DISTURBED AREA NOT PAVED, SODDED, OR BUILT UPON, WILL HAVE A MINIMUM OF 80% VEGETATIVE COVER PRIOR TO FINAL INSPECTION, AND IN THE OPINION OF THE COUNTY INSPECTOR WILL BE MATURE ENOUGH TO CONTROL SOIL EROSION SATISFACTORILY AND SURVIVE SEVERE WEATHER CONDITIONS.
3. STREAM DIVERSION AREAS, WATERWAYS, BANKS AND RELATED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER WORK IN WATERCOURSE IS COMPLETED.
4. WINTERIZATION – ANY DISTURBED AREA NOT PAVED, SODDED OR BUILT UPON BY NOVEMBER 15 IS TO BE SEEDED AND MULCHED ON THAT DATE UNLESS WAIVED BY THE OWNER OR ONE OF HIS/HER AGENTS.
5. ALL TEMPORARY EARTH BERMS, DIVERSIONS, AND SILT DAMS ARE TO BE MULCHED AND SEEDED FOR VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL STOCKPILES, ON SITE AS WELL AS SOIL (INTENTIONALLY) TRANSPORTED FROM THE PROJECT SITE.

TABLE 3.31-C (FROM THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 1992) TEMPORARY SEEDING PLANT MATERIALS, SEEDING RATES, AND DATES

	NOT LESS THAN 50 LBS)					
SECALE CEREALE)	2 BU. (UP TO 110 LBS, NOT LESS THAN 50 LBS)	2.5 LBS	X	–	X	USE LATE FALL SEEDINGS. WINTER COVER. TOLERATES COLD AND LOW MOISTURE.
GERMAN MILLET (SETARIA ITALICA)	50 LBS	APPROX. 1 LB	–	X	–	WARM-SEASON ANNUAL. DIES AT FIRST FROST. MAY BE ADDED TO SUMMER MIXES.
ANNUAL RYEGRASS[C] (LOLIUM MULTI-FLORUM)	60 LBS	1.5 LBS	X	–	X	MAY BE ADDED IN MIXES. WILL MOW OUT OF MOST STANDS.
WEEPING LOVEGRASS (ERAGROSTIS CURVULA)	15 LBS	5.5 OZS	–	X	–	WARM-SEASON PERENNIAL. MAY BUNCH. TOLERATES HOT, DRY SLOPES ANC ACID, INFERTILE SOILS. MAY BE ADDED TO MIXES.
KOREAN LESPEDEZA[C] (LESPEDEZA STIPULACCA)	25 LBS	APPROX. 1.5 LBS	X	X	–	WARM SEASON ANNUAL LEGUME. TOLERATES ACID SOILS. MAY BE ADDED TO MIXES.

[C] MAY BE USED AS A COVER CROP WITH SPRING SEEDING
[d] MAY BE USED AS A COVER CROP WITH FALL SEEDING
X MAY BE PLANTED BETWEEN THESE DATES
– MAY NOT BE PLANTED BETWEEN THESE DATES

LIME, FERTILIZER, AND MULCH RATE SCHEDULE

I. LIME

COASTAL PLAIN : 2 TONS / ACRE PULVERIZED AGRICULTURAL GRADE LIMESTONE (90 LBS/1000 SQ.FT.)

NOTE : AN AGRICULTURAL GRADE OF LIMESTONE SHOULD ALWAYS BE USED.

II. FERTILIZER

– MIXED GRASSES AND LEGUMES : 1000 LBS/ACRE 10-20-10 OR EQUIVALENT NUTRIENTS (23 LBS/1000 SQ.FT.)
– LEGUME STANDS ONLY : 1000 LBS/ACRE 5-20-10 (23 LBS/1000 SQ.FT.) IS PREFERRED; HOWEVER, 1000 LBS/ACRE OF 10-20-10 OR EQUIVALENT MAY BE USED.
– GRASS STANDS ONLY : 1000LBS/ACRE 10-20-10 OR EQUIVALENT NUTRIENTS, (23 LBS/1000 SQ.FT.)

FERTILIZATION: COOL SEASON GRASSES SHOULD BEGIN TO BE FERTILIZED 90 DAYS AFTER PLANTING TO ENSURE PROPER STAND AND DENSITY. WARM SEASON FERTILIZATION SHOULD BEGIN AT 30 DAYS AFTER PLANTING.

– COOL SEASON GRASSES

4 LBS NITROGEN (N)
1 LB PHOSPHORUS (P) PER 1000 SQ.FT. PER YEAR
2 LBS POTASH (K)

SEVENTY-FIVE PERCENT OF THE TOTAL REQUIREMENTS SHOULD BE APPLIED BETWEEN SEPTEMBER 1 AND DECEMBER 31ST. THE BALANCE SHOULD BE APPLIED DURING THE REMAINDER OF THE YEAR. MORE THAN 1 LB OF SOLUBLE NITROGEN PER 1000 SQ.FT. SHOULD NOT BE APPLIED AT ANY ONE TIME.

– WARM SEASON GRASSES

APPLY 4-5 LBS NITROGEN (N) BETWEEN MAY 1 AND AUGUST 15TH PER 1000 SQ.FT. PER YEAR.
PHOSPHORUS (P) AND POTASH (K) SHOULD ONLY BE APPLIED ACCORDING TO SOIL TEST.

NOTE : THE USE OF SLOW-RELEASE FERTILIZER FORMULATIONS FOR MAINTENANCE OF TURF IS ENCOURAGED TO REDUCE THE NUMBER OF APPLICATIONS AND THE IMPACT ON GROUNDWATER.

III. MULCH

ORGANIC MULCH MATERIALS AND APPLICATION RATES

MULCH	MULCHING RATES		NOTES
	PER ACRE	PER 1000 SQ.FT	
STRAW AND HAY	1.5 – 2 TONS (MINIMUM 2 TONS FOR WINTER COVER)	70-90 LBS	FREE FROM WEEDS AND COARSE MATTER. MUST BE ANCHORED. SPREAD WITH MULCH

SEEDING MIXTURES, RATES AND DATES: SOUTHERN PIEDMONT AND COASTAL PLAIN

SITE CONDITIONS	SEEDING MIXTURES	RATES: PER ACRE	RATES: PER 1000 FT²	DATES: 3/1 TO 4/15	DATES: 4/15 TO 8/1	DATES: 8/1 TO 10/15
HIGH MAINTENANCE LAWNS	1. Tall fescue–90% Kentucky bluegrass–10%	250 lbs	6 lbs	X	No	X
LOW MAINTENANCE GENERAL USE	2. Tall fescue–50% Ladino clover–10% Red clover–10% Korean lespedeza–15% Annual ryegrass–15%	80 lbs	2 lbs	X	(a,b) X	X
	3. Tall fescue–50% Sericea lespedeza–30% Annual ryegrass–20%	70 lbs	1 lbs	X	(a)X	X
DROUGHTY AREAS, SANDY SOILS	4. Tall fescue–50% Sericea lespedeza–20% Korean lespedeza–15% Annual ryegrass–15%	80 lbs	2 lbs	X	(a,b) X	X
POORLY DRAINED AREAS	5. Tall fescue–65% Korean lespedeza–20% Annual ryegrass–10% Redtop–5%	80 lbs	2 lbs	X	(a,b) X	X

a) After May 1, use 10 lb/A german millet or 2 lb/A weeping lovegrass in place of annual ryegrass.
b) After May 1, Korean lespedeza will not reseed itself. You may increase the amount of other legumes accordingly.

COMMONWEALTH OF VIRGINIA
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7/17/08
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DATE	REVISION DESCRIPTION
07-17-08	REVISED PER COUNTY COMMENTS

DATE 5/5/2008
DRAWN BY M. ROBESON
DESIGNED BY M. ROBESON
CHECKED BY S.LITTLE
SCALE AS SHOWN

TIMMONS GROUP

CROSSPOINTE CENTRE-PHASE 1 GRAVITY SEWER
PRINCE GEORGE COUNTY - VIRGINIA
E&S CONTROL NOTES & DETAILS

JOB NO. 25291-201
SHEET NO. U1.6

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