

EROSION CONTROL GENERAL NOTES

- EROSION CONTROL MEASURES ARE TO BE ACCOMPLISHED PRIOR TO ANY CONSTRUCTION ON THE SITE AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- ADDITIONAL EROSION CONTROL MEASURES WILL BE EMPLOYED WHERE DETERMINED NECESSARY BY ACTUAL SITE CONDITIONS.
- ALL DEVICES ARE TO BE MAINTAINED AND REPAIRED ON A REGULAR BASIS.
- EXCESS SEDIMENT TO BE REMOVED WHEN SILT REACHES ONE-HALF (1/2) THE HEIGHT OF THE FENCE.
- TEMPORARY GRASSING SHALL BE IMPLEMENTED NOT MORE THAN TWO (2) WEEKS AFTER COMPLETION OF ANY GRADING ACTIVITIES.
- ALL DRAINAGE STRUCTURES TO BE EROSION PROOFED (EXTEND RIPRAP SIX TIMES PIPE DIAMETER FROM DOWNSTREAM END) ALL RIPRAP SHALL BE TYPE 1 STONE PLAIN WITH A MINIMUM THICKNESS OF 18" IN ACCORDANCE WITH THE LATEST EDITION OF S.C.D.O.T. STANDARD SPECIFICATIONS.
- ALL HEAD WALLS ARE TO HAVE ST. STORM DRAIN OUTLET PROTECTION AND SILT TRAP DITCHES.
- ALL CATCH BASINS AND DROP INLETS ARE TO HAVE SD2 TEMPORARY TOPS UNTIL THE FINAL GRADE IS ESTABLISHED.
- PERMANENT VEGETATION SHALL BE INSTALLED AS SOON AS PRACTICAL FOLLOWING FINAL GRADING.
- NOTIFY OWNER'S REPRESENTATIVE 48 HOURS PRIOR TO CONSTRUCTION.
- EROSION CONTROL MEASURES WILL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RAIN, AND REPAIRED BY THE GENERAL CONTRACTOR AS NEEDED.
- CONTRACTOR TO COMPLETELY SECURE FROM EROSION ANY STOCK PILE OF EARTHEN MATERIALS.
- EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.
- ALL DESIGN WILL CONFORM TO AND ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF S.C.D.H.E.C.'S PUBLICATION ENTITLED "BMP HANDBOOK".
- ADDITIONAL EROSION CONTROL DEVICES SHALL BE INSTALLED AS REQUIRED BY THE PROJECT ENGINEER, COUNTY REPRESENTATIVE OR, AS CONDITIONS MAY DICTATE.
- MAXIMUM CUT OR FILL SLOPES IS 3H:1V UNLESS OTHERWISE NOTED.
- SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE 1/3 FULL VOLUME.
- MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR.
- DETENTION POND, DETENTION OUTLET STRUCTURES AND TEMPORARY SEDIMENT POND FEATURES ARE TO BE CONSTRUCTED AND FULLY OPERATIONAL PRIOR TO ANY OTHER CONSTRUCTION OR GRADING.
- DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY VEGETATION OR MULCH IF LAND-DISTURBING ACTIVITIES CEASE FOR MORE THAN 14 CALENDAR DAYS.
- ALL FILL SLOPES SHALL HAVE SILT FENCE PLACED AT THE SLOPE'S TOE.
- CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 3:1 WITH A HEIGHT OF TEN FEET OR GREATER SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKET.
- THE PROFESSIONAL WHO SEALS THIS PLAN CERTIFIES UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY THE PROFESSIONAL OR THE PROFESSIONAL'S AUTHORIZED AGENT, UNDER THE PROFESSIONAL'S DIRECT SUPERVISION.
- NO WASTE WILL BE DISPOSED INTO STORM WATER INLET OR WATER OF THE STATE.
- IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

- ***NOTE:**
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.
 - EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
 - ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

SEEDING CONSTRUCTION SPECIFICATIONS:

TIMING:
APPLY PERMANENT SEEDING ON AREAS LEFT DORMANT FOR 1 YEAR OR MORE. APPLY PERMANENT SEEDING WHEN NO FURTHER DISTURBANCES ARE PLANNED. TO DETERMINE OPTIMUM SEEDING SCHEDULE, CONSULT A LOCAL AGRONOMIST OR EROSION CONTROL SPECIALIST.
APPLY PERMANENT SEEDING BEFORE SEASONAL RAINS OR FREEZING WEATHER IS ANTICIPATED.
USE DORMANT SEEDING FOR LATE FALL OR WINTER SEEDING SCHEDULES.

SEED MIXES:
USE SEEDS APPROPRIATE TO THE SEASON AND SITE CONDITIONS. CONSULT LOCAL AGRONOMIST OR EROSION CONTROL SPECIALISTS FOR SEED MIX. USE A SEED BLEND TO INCLUDE ANNUALS, PERENNIALS AND LEGUMES.
USE SEED RATES BASED ON PURE LIVE SEED (PLS) OF 80% WHEN PLS IS BELOW 80% ADJUST RATES ACCORDINGLY.

SITE PREPARATION:
BRING THE PLANTING AREA TO FINAL GRADE AND INSTALL THE NECESSARY EROSION CONTROL PRACTICES.
DIVERT CONCENTRATED FLOWS AWAY FROM THE SEEDED AREA.
CONDUCT SOIL TEST TO DETERMINE PH AND NUTRIENT CONTENT. ROUGHEN THE OIL BY HARROWING, TRACKING, GROOVING OR FURROWING.
APPLY AMENDMENTS AS NEEDED TO ADJUST PH TO 6.0-7.5. INCORPORATE THESE AMENDMENTS INTO THE SOIL.
PREPARE A 3-5 INCH (76-127 MM) DEEP SEEDBED, WITH THE TOP 3-4 INCHES (76-102 MM) CONSISTING OF TOPSOIL.
THE SEEDBED SHOULD BE FIRM BUT NOT COMPACT. THE TOP THREE INCHES OF SOIL SHOULD BE LOOSE, MOIST AND FREE OF LARGE CLODS AND STONES.
THE TOPSOIL SURFACE SHOULD BE IN REASONABLY CLOSE CONFORMITY TO THE LINES, GRADES AND CROSS SECTIONS SHOWN ON THE GRADING PLANS.

PLANTING:
SEED TO SOIL CONTACT IS THE KEY TO GOOD GERMINATION.
SEED SHOULD BE APPLIED IMMEDIATELY AFTER SEEDBED PREPARATION WHILE THE SOIL IS LOOSE AND MOIST. IF THE SEEDBED HAS BEEN IDLE LONG ENOUGH FOR THE SOIL TO BECOME COMPACT, THE TOPSOIL SHOULD BE HARROWED WITH A DISK, SPRING TOOTH DRAG, SPIKE TOOTH DRAG, OR OTHER EQUIPMENT DESIGNED TO CONDITIONS THE SOIL FOR SEEDING.
HARROWING, TRACKING OR FURROWING SHOULD BE DONE HORIZONTALLY ACROSS THE FACE OF THE SLOPE. SEED TO SOIL CONTACT IS THE KEY TO GOOD GERMINATION. ALWAYS APPLY SEED BEFORE APPLYING MULCH.
APPLY SEED AT THE RATES SPECIFIED USING CALIBRATED SEED SPREADERS, CYCLONE SEEDERS, MECHANICAL DRILLS, OR HYDROSEEDER SO THE SEED IS APPLIED UNIFORMLY ON THE SITE.
BROADCAST SEED SHOULD BE INCORPORATED INTO THE SOIL BY RAKING OR CHAIN DRAGGING, AND THEN LIGHTLY COMPACTED TO PROVIDE GOOD SEED-SOIL CONTACT. APPLY FERTILIZER AS SPECIFIED.
APPLY MULCH OR EROSION CONTROL BLANKET, AS SPECIFIED, OVER THE SEEDED AREAS.

INSPECTION AND MAINTENANCE:
NEWLY SEEDED AREAS NEED TO BE INSPECTED FREQUENTLY TO ENSURE THE GRASS IS GROWING.
IF THE SEEDED AREA IS DAMAGED DUE TO RUNOFF, ADDITIONAL STORMWATER MEASURES MAY BE NEEDED.
SPOT SEEDING CAN BE DONE ON SMALL AREAS TO FILL IN BARE SPOTS WHERE GRASS DID NOT GROW PROPERLY.

- USE A MINIMUM OF 40 LBS. SCARIFIED SEED, REMAINDER MAY BE UNSCARIFIED, CLEAN HULLED SEED.
- **USE EITHER COMMON SERALA OR INTERSTATE SERICEA LESPEDEZA
- ALL AREAS TO BE SEEDED SHALL HAVE LIME APPLIED AT A RATE OF 90 LB./1000 S.F. LIME AND FERTILIZER TO BE APPLIED PRIOR TO APPLICATION OF SEED AND MIXED THOROUGHLY WITH THE SOIL.
- ALL AREAS SEEDED SHALL HAVE AN APPLICATION OF STRAW MULCH (APPROXIMATELY 2 1/2 TONS PER ACRE) IMMEDIATELY AFTER PLANTING REGARDLESS OF PLANTING METHOD.
- MAINTAIN 1 YEAR MINIMUM
- FERTILIZER: AGRICULTURAL LIME 1 TON PER ACRE 8-12-12 OR 5-10-15 1000 LB. PER ACRE

DS1 — TEMPORARY MULCHING AND PERMANENT MULCHING

MULCHING APPLICATION REQUIREMENTS

MATERIAL	RATE	DEPTH
STRAW OR HAY	2 1/2 TON/ACRE	6" TO 10"
WOOD WASTE, CHIPS, SAWDUST, BARK	6 TO 9 TON/ACRE	2" TO 3"
CUTBACK ASPHALT	1200 GAL./ACRE OR 1/4 GAL./SQ. YD.	
POLYETHYLENE FILM	SECURE WITH SOIL, ANCHORS, WEIGHTS	
CUTBACK ASPHALT	SEE MANUFACTURER'S RECOMMENDATIONS	
GEOTEXTILES, JUTE MATTING, NETTING, ETC.		

DS2 — TEMPORARY SEEDING

PLANTS, PLANTING RATES, AND PLANTING DATES FOR TEMPORARY COVER OR COMPANION CROPS

SPECIES	BROADCAST RATES PER ACRE		PLS PER 1000 SF	RESOURCE	REMARKS
	RATES PER ACRE	PLS PER 1000 SF			
MILLET, BROWNTOP (PANICUM FASCICULATUM) ALONE	40 LBS.	0.9 LB.		MOUNTAINS SOUTHERN PIEDMONT SOUTHERN COASTAL PLAIN	137,000 SEED PER POUND QUICK DENSE COVER WILL PROVIDE TOO MUCH COMPETITION MIXTURES IF SEEDED AT HIGH RATES
RYE (SECALE CEREALE) ALONE	3 BU. (168 LBS.)	3.9 LB.		MOUNTAINS SOUTHERN PIEDMONT SOUTHERN COASTAL PLAIN	18,000 SEED PER POUND DENSE COVER THROUGH TOLERANT AND WINTER HARDY
RYEGRASS, ANNUAL (LOLIUM TEMULENTUM) ALONE	40 LBS.	0.9 LB.		MOUNTAINS SOUTHERN PIEDMONT SOUTHERN COASTAL PLAIN	227,000 SEED PER POUND DENSE COVER VERY COMPETITIVE AND IS NOT TO BE USED IN MIXTURES

DS3 — PERMANENT SEEDING/SODDING

PLANTS, PLANTING RATES, AND PLANTING DATES FOR TEMPORARY COVER OR COMPANION CROPS

SPECIES	BROADCAST RATES PER ACRE		PLS PER 1000 SF	RESOURCE	REMARKS
	RATES PER ACRE	PLS PER 1000 SF			
KENTUCKY 32 FESCUE ALONE	350 LBS.			SOUTHERN PIEDMONT SOUTHERN COASTAL PLAIN	
WITH OTHER PERENNIALS	6 LBS.	0.1 LB.			

SCDHEC NOTES

- IF NECESSARY, SLOPES, WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS. IN ADDITION TO HYDROSEEDING, IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY SLOPE DRAINS SHALL BE MAINTAINED UNTIL THE SLOPE IS BROUGHT TO GRADE.
- STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.
 - WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
 - WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
 - ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY, OR INCORRECTLY, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.
 - PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL COVER, AND TEMPORARY SEEDING AT THE TOE OF EACH SLOPE ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE FURROWING, WATER SHOULD BE FILTERED TO REMOVE SEDIMENT BEFORE BEING IMPEDED BACK INTO THE WATERS OF THE STATE.
 - ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
 - THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED SURFACE(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.
 - INDIVIDUAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR CONSTRUCTION, AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C. REG. 72-300 ET SEQ. AND S.C. REG. 72-300 ET SEQ.
 - TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
 - ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR BOUND BY A DOUBLE ROW OF SILT FENCE IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.
 - LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
 - A COPY OF THE SWPPP, INSPECTIONS RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.
 - INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
 - MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
 - MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.
 - MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPs (SEDIMENT BASIN, FILTER BAG, ETC.).
 - THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
 - WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL.
 - WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS.
 - FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND
 - SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
 - AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
 - IF EXISTING BMPs NEED TO BE MODIFIED OR IF ADDITIONAL BMPs ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPs MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.
 - A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.

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SEDIMENT & EROSION CONTROL NOTES
C-501

