

GRASSING SCHEDULE: TEMPORARY AND PERMANENT COASTAL REGION								
MONTH	TEMPORARY SEEDING		PERMANENT SEEDING (for slopes 2:1 and flatter)			PERMANENT SEEDING (for slopes 2.5:1 and steeper)		
	SEED SPECIES ¹	BROADCAST APPLICATION RATE (lbs./acre)	SEED SPECIES ²	BROADCAST APPLICATION RATE (lbs./acre)	MULCHING DRY STRAW or (DRY HAY) (tons/acre)	SEED SPECIES	BROADCAST APPLICATION RATE (lbs./acre)	MULCHING DRY STRAW or (DRY HAY) (tons/acre)
January	Annual Ryegrass (do not mix)	40	Unhulled Bermuda (with temporary cover)	10	2.5 (2.0)	Mixed Unscarified Sericea Lespedeza Unhulled Bermuda	75 6	2.5 (2.0)
February	Annual Ryegrass (do not mix)	40	Hulled Bermuda (do not mix)	10	2.5 (2.0)	Mixed Unscarified Sericea Lespedeza Weeping Lovegrass (alone)	75 4	2.5 (2.0)
March	Annual Ryegrass (do not mix)	40	Hulled Bermuda (do not mix)	10	2.5 (2.0)	Mixed Scarified Sericea Lespedeza Weeping Lovegrass (alone)	60 4	2.5 (2.0)
April	Brown Top Millet (can mix)	40	Hulled Bermuda (do not mix)	10	2.5 (2.0)	Mixed Scarified Sericea Lespedeza Weeping Lovegrass (alone)	60 4	2.5 (2.0)
May	Brown Top Millet (can mix)	40	Hulled Bermuda (do not mix)	10	2.5 (2.0)	Mixed Scarified Sericea Lespedeza Weeping Lovegrass (alone)	60 4	2.5 (2.0)
June	Brown Top Millet (can mix)	40	Hulled Bermuda (do not mix)	10	2.5 (2.0)	Mixed Scarified Sericea Lespedeza Weeping Lovegrass (alone)	60 4	2.5 (2.0)
July	Brown Top Millet (can mix)	40	Pensacola Bahia (alone or with temporary cover)	60	2.5 (2.0)	Mixed Unscarified Sericea Lespedeza Sudangrass (alone)	75 60	2.5 (2.0)
August	Pearl Millet (do not mix)	50	Pensacola Bahia (alone or with temporary cover)	60	2.5 (2.0)	Mixed Unscarified Sericea Lespedeza Pensacola Bahia	75 30	2.5 (2.0)
September	Annual Ryegrass (do not mix)	40	Pensacola Bahia (alone or with temporary cover)	60	2.5 (2.0)	Mixed Unscarified Sericea Lespedeza Pensacola Bahia	75 30	2.5 (2.0)
October	Annual Ryegrass (do not mix)	40	Pensacola Bahia (alone or with temporary cover)	60	2.5 (2.0)	Mixed Unscarified Sericea Lespedeza Pensacola Bahia	75 30	2.5 (2.0)
November	Annual Ryegrass (do not mix)	40	Unhulled Bermuda (with temporary cover)	10	2.5 (2.0)	Mixed Unscarified Sericea Lespedeza Unhulled Bermuda	75 6	2.5 (2.0)
December	Annual Ryegrass (do not mix)	40	Unhulled Bermuda (with temporary cover)	10	2.5 (2.0)	Mixed Unscarified Sericea Lespedeza Unhulled Bermuda	75 6	2.5 (2.0)

¹Do not mix temporary annual ryegrass seed with any other type of seed (including permanent seeding).
²Can mix with a temporary cover other than annual ryegrass.

Refer to Manual for Erosion and Sediment Control in Georgia for additional information.

MISCELLANEOUS SPECIFICATIONS	
SEED DEPTH:	3/4" to 1" via drilling (depth is 10x the seed diameter)
LIME:	1 - 2 Tons/Acre
FERTILIZER:	Refer to Fertilizer Table
NITROGEN:	Refer to Fertilizer Table

LIME AND FERTILIZER (GRASS)

- Submit soil samples to UGA Cooperative Extension Service for Soil Analysis prior to seeding.
- Per the provided table, spread ground limestone by conventional methods at least six months prior to the planting dates (depends on soil analysis).
- Agricultural lime is required unless soil tests indicate otherwise.
- Graded areas require lime application.
- Fertilizer and lime shall be applied before land preparation and incorporated with a disk harrow, ripper or chisel. Tillage depth shall be 4 to 6 inches.

Refer to Manual for Erosion and Sediment Control in Georgia for additional information.

SEEDBED PREPARATION, SEEDING AND MULCHING (GRASS)

- TEMPORARY AND PERMANENT GRASSING:** If a hydraulic seeder is utilized, seedbed preparation is not required.
- TEMPORARY AND PERMANENT GRASSING:** Grade and shape ground to decrease stormwater runoff velocities as much as possible.
- TEMPORARY AND PERMANENT GRASSING:** Broadcast volumes of seed are based on a Pure Live Seed ratio.
- TEMPORARY AND PERMANENT GRASSING:** Apply irrigation water as required during dry weather periods. Irrigation shall not abruptly run off the site and it shall thoroughly wet the soil to a depth to insure germination of the seed.
- TEMPORARY GRASSING:** Seed shall be applied uniformly by hand, cyclone seeder, drill, culti-packer-seeder or hydraulic seeder.
- TEMPORARY GRASSING:** Mulching, in most cases, is not required if the vegetation can be established quickly. Contractor to determine if mulching is necessary.
- PERMANENT GRASSING:** Seed shall be applied uniformly by hydraulic seeding conventional seeding, no-till seeding.
- PERMANENT GRASSING:** Mulching is required per the requirements of this section. Mulch material shall be applied by hand or mechanical equipment.
- PERMANENT GRASSING:** Anchor mulch into the soil immediately after seeding. Use a disk harrow or chisel tilled asphalt. A harrow disk shall not cut mulch but press it into the soil. Straw or hay mulch spread with special blower-type equipment may be used. Tackifiers binders and hydraulic mulch with tackifier specifically designed for tacking straw can be substituted for emulsified asphalt. Refer to Tack - Tackifiers specification.

Refer to Manual for Erosion and Sediment Control in Georgia for additional information.

TACKIFIER APPLICATIONS

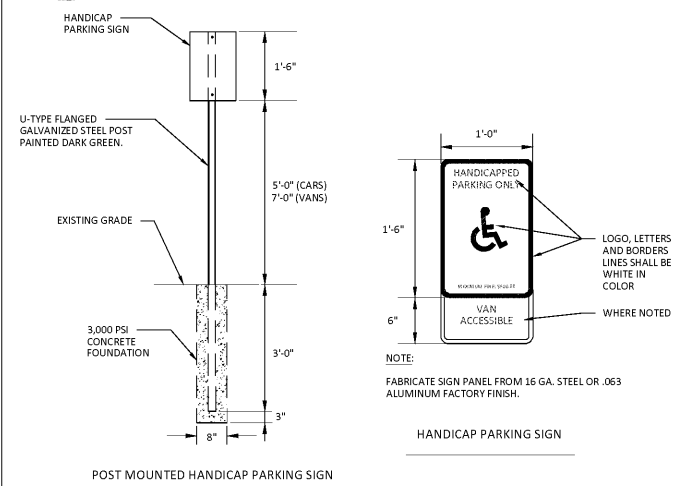
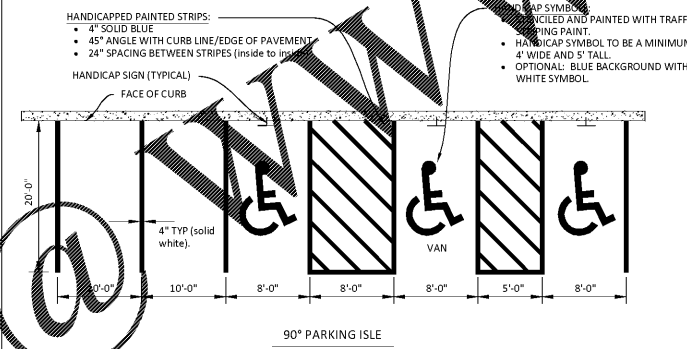
- Tackifiers are used as a tie-down for soil, seed, straw or hay mulch. Tackifiers hydrate in water and readily blend with other slurry materials for form a homogenous slurry.
- Tackifiers reduce soil erosion from wind and water on construction sites.
- Five types of tackifier applications are available. Refer to manufacturer guidelines for application.
- MAINTENANCE:** Tackified areas shall be checked after every rain event. Periodic inspections and required maintenance must be provided per manufacturer's recommendations.

Refer to Manual for Erosion and Sediment Control in Georgia for additional information.

ISSUED FOR REVIEW
January 14, 2020

FERTILIZER SCHEDULE: PERMANENT GRASSING ALL MAJOR LAND RESOURCE AREAS				
SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	NITROGEN TOP DRESSING RATE
Cool Season Grasses	First	6-12-12	1,500 lbs./acre	50-100 lbs./acre ^{1,2}
	Second	6-12-12	1,000 lbs./acre	-----
	Maintenance	10-10-10	400 lbs./acre	30 lbs./acre
Cool Season Grasses and Legumes	First	6-12-12	1,500 lbs./acre	0-50 lbs./acre ³
	Second	0-10-10	1,000 lbs./acre	-----
	Maintenance	0-10-10	400 lbs./acre	-----
Ground Covers	First	10-10-10	1,300 lbs./acre ³	-----
	Second	10-10-10	1,300 lbs./acre ³	-----
	Maintenance	10-10-10	400 lbs./acre	-----
Pine Seedlings	First	20-10-5	One 21 gram pellet seedling placed in the closing hole	-----
	Second	0-10-10	700 lbs./acre	-----
Shrub Lespedeza	First	0-10-10	700 lbs./acre	-----
	Maintenance	0-10-10	700 lbs./acre	-----
Temporary Cover Crops Seeded Alone	First	10-10-10	500 lbs./acre	30 lbs./acre ⁵
	Second	6-12-12	1,500 lbs./acre	50-100 lbs./acre ⁶
Warm Season Grasses	First	6-12-12	800 lbs./acre	50-100 lbs./acre ⁷
	Second	10-10-10	400 lbs./acre	30 lbs./acre
	Maintenance	6-12-12	1,500 lbs./acre	50 lbs./acre ⁸
Warm Season Grasses and Legumes	First	6-12-12	1,000 lbs./acre	-----
	Second	0-10-10	1,000 lbs./acre	-----
	Maintenance	0-10-10	400 lbs./acre	-----

- Footnotes**
- Apply in the spring following seeding.
 - Apply in split applications when high rates are used.
 - Apply in three split applications.
 - Apply when plants are pruned.
 - Apply to grass species only.
 - Apply when plants grow to a height of two to four inches.



O.C.G.A. SECTION 40-6-221:
 (3) "PARKING PLACE FOR PERSONS WITH DISABILITIES MEANS ANY AREA ON PUBLIC OR PRIVATE PROPERTY WHICH HAS BEEN DESIGNATED FOR USE OF PERSONS WITH DISABILITIES AS FOLLOWS:
 (a) BY A BLUE METAL REFLECTIVE SIGN WHICH IS AT LEAST 12 INCHES IN WIDTH AND 18 INCHES IN LENGTH AND IS ERRECTED AT A HEIGHT OF SEVEN FEET FROM THE BOTTOM OF THE SIGN TO ITS GROUND SURFACE AND IN SUCH MANNER THAT IT WILL NOT BE OBTURED BY A VEHICLE PARKED IN THE SPACE AND BEARING THE FOLLOWING WORDS: "PERMIT PARKING ONLY", "TOW-AWAY ZONE", AND THE INTERNATIONAL SYMBOL FOR ACCESSIBILITY. THE WARNING REQUIRED IN THIS SUBPARAGRAPH SHALL BE CENTERED ON THE SIGN, PRINTED IN WHITE, AND SHALL OCCUPY NOT LESS THAN 75 PERCENT OF THE SURFACE AREA OF THE SIGN. THE SIGN REQUIRED BY THIS SUBPARAGRAPH SHALL BE THE OFFICIAL AUTHORIZED SIGN FOR PARKING PLACE DESIGNATIONS FOR PERSONS WITH DISABILITIES IN THIS STATE.

**PARKING LOT STRIPING
(Handicap and General)**

N.T.S.

ASPHALT PAVING	
PART 1 - GENERAL	<p>1.01 INSTALLATION CONDITIONS</p> <p>A. WEATHER LIMITATIONS</p> <ol style="list-style-type: none"> APPLY BITUMINOUS PRIME AND TACK COATS ONLY WHEN THE AMBIENT TEMPERATURE IN THE SHADE HAS BEEN AT LEAST 40 DEGREES F. FOR TWELVE HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT CONDUCT PAVING OPERATIONS WHEN SURFACE IS WET, FROZEN OR CONTAINS EXCESS OF MOISTURE WHICH WOULD PREVENT UNIFORM DISTRIBUTION AND REQUIRED PENETRATION, OR WHEN WET WEATHER IS IMMINENT. CONSTRUCT ASPHALT COURSES ONLY WHEN ATMOSPHERIC TEMPERATURE IN THE SHADE IS ABOVE 35 DEGREES F. WHEN THE UNDERLYING BASE IS DRY AND WHEN WEATHER IS NOT FAIRLY. PLACE BASE COURSE WHEN AIR TEMPERATURE IS ABOVE 35 DEGREES F. AND RISING. NO BASE COURSE SHALL BE PLACED ON A FROZEN OR MUDDY SUBGRADE. GRADE CONTROL: ESTABLISH AND MAINTAIN THE REQUIRED LINES AND GRADES FOR EACH COURSE DURING CONSTRUCTION OPERATIONS. <p>1.02 INSPECTION AND TESTING</p> <p>A. PAVEMENT AND BASE TESTING WILL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY SELECTED BY THE OWNER.</p> <p>B. THE TESTING AGENCY SHALL TEST AND REPORT FOR COMPLIANCE WITH SPECIFIED COMPACTION, THICKNESS AND SURFACE SMOOTHNESS REQUIREMENTS.</p> <p>C. THE TESTING AGENCY SHALL TAKE ONE 4-INCH DIAMETER CORE PER 300 SQUARE YARDS OF PAVED SURFACE AT LOCATIONS SELECTED BY THE ENGINEER FOR DENSITY AND THICKNESS TESTS. REPAIR HOLES RESULTING FROM CORING TO MATCH EXISTING SURFACE.</p> <p>D. ASPHALT PAVEMENT COMPOSITION SHALL BE IN ACCORDANCE WITH GEORGIA DOT SPECIFICATIONS FOR THE SELECTED TYPE OF PAVEMENT.</p> <p>E. COMPACTION</p> <ol style="list-style-type: none"> THE TOP 18 INCHES OF SUBGRADE SHALL BE COMPACTED TO 98 PERCENT OF THE MAXIMUM DRY DENSITY. GRADED AGGREGATE BASE COURSE: NO MINIMUM ACCEPTABLE PERCENTAGE OF MAXIMUM DRY DENSITY IS SPECIFIED. INTERVALS OF TESTS SHALL BE AS CONDUCT ONE TEST FOR EACH 1,500 SQUARE YARDS OF IN-PHASE MATERIAL. IN NO CASE LESS THAN ONE DAILY. EACH LABORATORY SHALL TEST EACH COURSE OF AGGREGATE BASE ACCORDING TO ASTM D 1557. ASPHALT CONCRETE: COMPARE DENSITY OF IN-PHASE MATERIAL AGAINST LABORATORY SPECIMEN OF SAME MIXTURE SUBMITTED TO 50 BLOWS OF A STANDARD JACK HAMMER OR BY THE USE OF A PORTABLE TAMPER. MINIMUM ACCEPTABLE PERCENT OF IN-PLACE MATERIAL SHALL BE 94 PERCENT OF THE RELATED VOLUME DENSITY BASED UPON THE EFFECTIVE SPECIFIC GRAVITY OF THE AGGREGATE USED. IT IS INTENDED THAT ACCEPTANCE DENSITY TESTING WILL BE COMPLETED WHILE THE BITUMINOUS MIXTURE IS HOT ENOUGH TO PERMIT FURTHER MODIFICATION IF SUCH IS SHOWN TO BE NECESSARY. IF THE DENSITY DOES NOT COMPLY WITH THE REQUIREMENTS STATED HEREIN ABOVE, THE CONTRACTOR SHALL CONTINUE COMPACTION EFFORT UNTIL THE REQUIRED DENSITY IS OBTAINED. PAVEMENT THICKNESS: INSPECT THE CORES OF THE BASE AND SURFACE COURSES TO DETERMINE THE AVERAGE THICKNESS OF THE COURSE. IF THE AVERAGE THICKNESS EXCEEDS THE ALLOWABLE VARIATION BELOW, ADDITIONAL CORES SHALL BE MADE AT THE CONTRACTOR'S EXPENSE TO DETERMINE THE AREA OF DEFICIENT THICKNESS. THE DEFICIENT AREA SHALL BE CORRECTED BY OVERLAY WITH THE SAME TYPE MIX TO THE LIMITS AS DETERMINED BY THE ENGINEER. <ol style="list-style-type: none"> BASE COURSE: ±1/2 INCH SURFACE COURSE: ±1/4 INCH SURFACE SMOOTHNESS: TEST FINISHED SURFACE OF EACH ASPHALT COURSE FOR SMOOTHNESS USING A 10 FOOT STRAIGHTEDGE. INTERVALS OF TESTS SHALL BE AS DIRECTED BY THE ENGINEER. SURFACES WILL NOT BE ACCEPTABLE IF EXCEEDING THE FOLLOWING: <ol style="list-style-type: none"> BASE COURSE: 1/4-INCH IN 10 FEET SURFACE COURSE: 1/8-INCH IN 10 FEET CONTRACTOR'S DUTIES RELATIVE TO TESTING <ol style="list-style-type: none"> NOTIFY THE LABORATORY OF CONDITIONS REQUIRING TESTING. COORDINATING WITH LABORATORY FOR FIELD TESTING. PAVING COSTS FOR ADDITIONAL TESTING PERFORMED BEYOND THE SCOPE OF THAT REQUIRED AND FOR RETESTING WHERE INITIAL TESTS REVEAL NON-COMFORMANCE WITH SPECIFIED REQUIREMENTS. PAVING THE COST OF OVERLAYS OR PAVEMENT REMOVAL AND REPLACEMENT WHICH DOES NOT COMPLY WITH THE SPECIFIED TESTING LIMITS. <p>PART 2 - PRODUCTS</p> <p>2.01 MATERIALS</p> <ol style="list-style-type: none"> GRADED AGGREGATE BASE COURSE: GRADED AGGREGATE BASE COURSE (GROUP II) SHALL BE OF UNIFORM QUALITY THROUGHOUT AND SHALL MEET THE REQUIREMENTS OF SECTIONS 800 AND 815 OF THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. SURFACE COURSE: SURFACE COURSE SHALL BE OF UNIFORM QUALITY THROUGHOUT AND SHALL CONFORM TO THE REQUIREMENTS OF SECTION 400, 12.5 MM AND/OR 19 MM SUPERPAVE OF THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. PRIME COAT: PRIME COAT SHALL CONFORM TO THE REQUIREMENTS OF SECTION 412 OF THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. <p>PART 3 - EXECUTION</p> <p>3.01 REMOVING PAVEMENT</p> <ol style="list-style-type: none"> GENERAL: REMOVE EXISTING PAVEMENT AS NECESSARY FOR INSTALLING THE PIPE LINE AND APPURTENANCES. MARKING: BEFORE REMOVING ANY PAVEMENT, MARK THE PAVEMENT NEATLY PARALLEL TO EXISTING STREET LINES. SPACE THE MARKS THE WIDTH OF THE TRENCH. BREAKING: BREAK ASPHALT PAVEMENT ALONG THE MARKS USING PAVEMENT SHEARING EQUIPMENT, JACK HAMMERS OR OTHER SUITABLE TOOLS. BREAK CONCRETE PAVEMENT ALONG THE MARKS BY SCORING WITH A HEAVY SAW AND BREAKING BELOW THE SCORE BY THE USE OF JACK HAMMERS OR OTHER SUITABLE TOOLS. ALL EDGES OF THE EXISTING PAVEMENT SHALL BE CUT TO A STRAIGHT VERTICAL EDGE. CARE SHALL BE USED TO GET A SMOOTH JOINT BETWEEN THE OLD AND NEW PAVEMENT AND TO PRODUCE AN EVEN SURFACE ON THE COMPLETED STREET. MACHINE PULLING: DO NOT PULL PAVEMENT WITH MACHINES UNTIL THE PAVEMENT IS COMPLETELY BROKEN AND SEPARATED FROM PAVEMENT TO BE REMOVED. DAMAGE TO ADJACENT PAVEMENT: DO NOT DISTURB OR DAMAGE THE ADJACENT PAVEMENT. IF THE ADJACENT PAVEMENT IS DISTURBED OR DAMAGED, REMOVE AND REPLACE THE DAMAGED PAVEMENT. <p>3.02 SURFACE PREPARATION</p> <ol style="list-style-type: none"> SUBGRADE CORRECTIONS: REFER TO INSPECTION AND TESTING PARAGRAPH ABOVE FOR REQUIREMENTS. GRADED AGGREGATE BASE COURSE <ol style="list-style-type: none"> CHECK SUBGRADE FOR CONFORMITY WITH ELEVATIONS AND SECTION IMMEDIATELY BEFORE PLACING AGGREGATE BASE MATERIAL. PLACE AGGREGATE BASE MATERIAL IN COMPACTED LAYERS NOT MORE THAN 6-INCHES THICK, UNLESS CONTRACTING TESTS INDICATE THAT THE REQUIRED RESULTS ARE BEING OBTAINED WITH THICK LAYERS. IN NO CASE SHALL MORE THAN 8-INCHES OF COMPACTED BASE BE PLACED IN ONE LIFT. SPREAD, SHAPE, AND COMPACT ALL AGGREGATE BASE MATERIAL DEPOSITED ON THE SUBGRADE DURING THE SAME DAY. THE COMPACTED BASE SHALL HAVE SUFFICIENT STABILITY TO SUPPORT CONSTRUCTION TRAFFIC WITHOUT PAVING. IF COMPACTED BASE BECOMES UNSTABLE AS A RESULT OF TOO MUCH MOISTURE, THE BASE MATERIAL AND UNDERLYING SUBGRADE, IF NECESSARY, SHALL BE DRIED AND REWORKED TO A MOISTURE CONTENT THAT CAN BE RECOMPACTED. REFER TO INSPECTION AND TESTING PARAGRAPH ABOVE FOR COMPACTION REQUIREMENTS. LOCKE AND FOREIGN MATERIAL: <ol style="list-style-type: none"> REMOVE LOOSE AND FOREIGN MATERIAL FROM SURFACE IMMEDIATELY BEFORE APPLICATION OF PAVING. USE POWER BROOMS OR BLOWERS, AND HAND BROOMING AS REQUIRED. DO NOT DISPLACE SURFACE MATERIAL. PRIME COAT <ol style="list-style-type: none"> UNIFORMLY APPLY AT A RATE OF 0.20 TO 0.50 GALLON PER SQUARE YARD OVER

DUNWODY/BEELAND, architects, inc.

1000 Peachtree Street, Suite 1200
 Atlanta, Georgia 30309
 Tel: 404.525.1200
 Fax: 404.525.1201

**FACILITY IMPROVEMENTS
AT TOBESOFKEE PARKS
FOR MACON-BIBB COUNTY**

MOSLEY DIXON ROAD MACON, GEORGIA

Revisions:

Sheet Title:
**CONSTRUCTION DETAILS
AND SPECIFICATIONS**

Project #: 1619 Date: 01/13/20

REEVES DESIGN
Services, LLC • Consulting Engineers

8875 RIVERSIDE DRIVE / SUITE 107
 MACON, GEORGIA 31210
 478.747.6772
 www.reevesdesign.net

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