

1549 BROUGHTON STREET
ORANGEBURG, SOUTH CAROLINA

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ADA COMPLIANCE

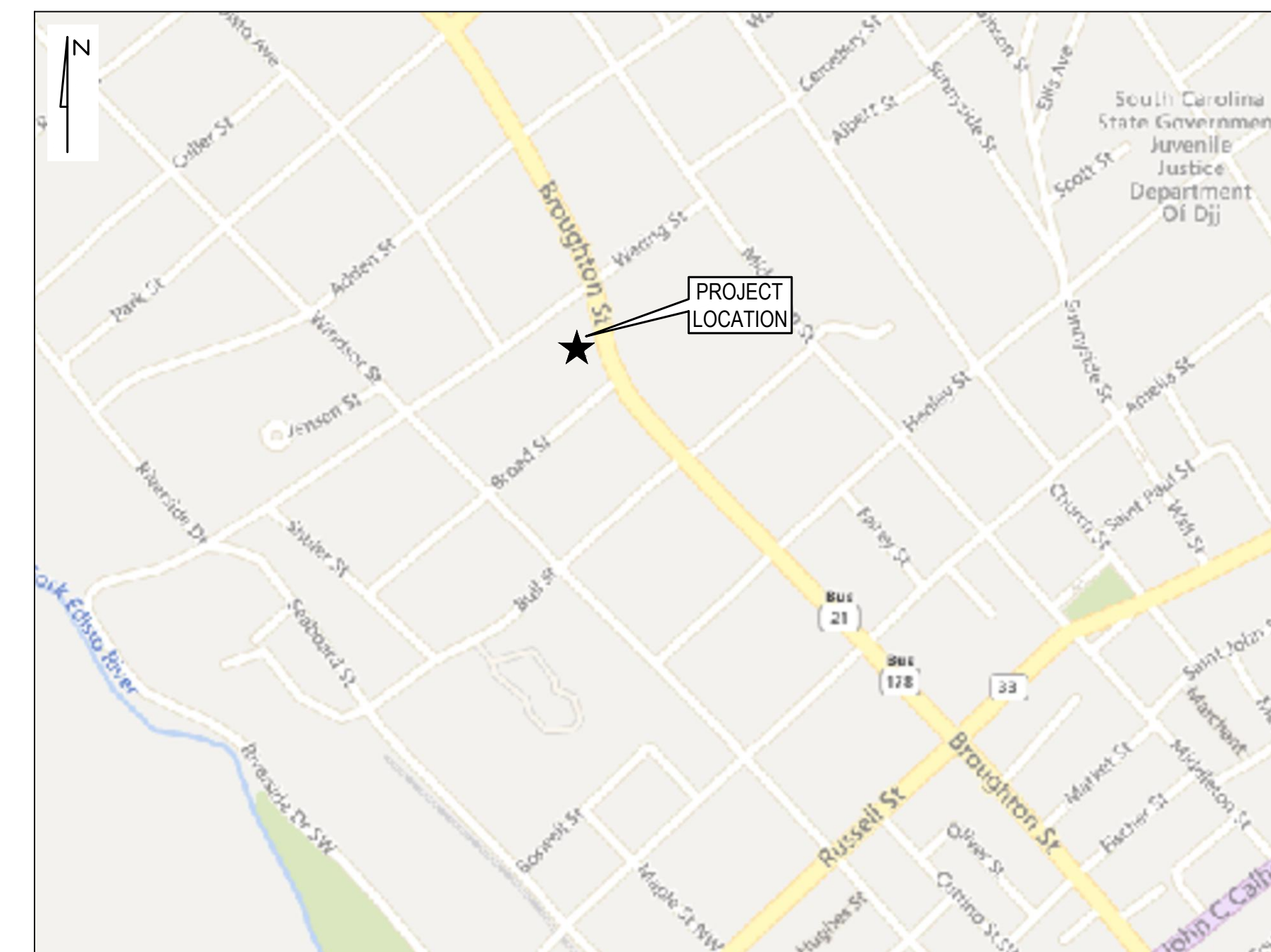
THE PUBLIC RIGHT-OF-WAY MUST REMAIN ADA COMPLIANT DURING CONSTRUCTION OR AN ALTERNATIVE ROUTE MUST BE PROVIDED. IT IS THE OWNERS RESPONSIBILITY TO REPAIR ALL DAMAGED SIDEWALKS TO REINSTATE AN ADA ACCESSIBLE ROUTE.

PROJECT DESCRIPTION

SITE IMPROVEMENTS WILL CONSIST OF THE INSTALLATION ONE RESIDENTIAL BUILDING (SENIOR APARTMENTS). THE INSTALLATION OF A STORMWATER MANAGEMENT SYSTEM INCLUDING DRAINAGE STRUCTURES, PIPES AND BASIN. THE INSTALLATION OF SITE UTILITIES INCLUDING DOMESTIC WATER, SANITARY SEWER, ETC.

SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
G-1	COVER
G-2	GENERAL NOTES
G-3	GENERAL NOTES
C-1	SITE PLAN
C-2	DEMOLITION, TREE PROTECTION AND SWPPP
C-3	GRADING AND DRAINAGE PLAN
C-4	UTILITY PLAN



VICINITY MAP

SCALE 1" = 500'

NOTES

1. THE TOPO IS LIDAR, PROPERTY LINES AND EASEMENTS ARE ASSUMED AND NOT SURVEYED, EXISTING UTILITIES SHOWN FROM GIS DATA, EXISTING WETLAND INFORMATION IS ESTIMATED BASED ON THE AERIAL, AND PROPOSED STORM WATER IMPROVEMENTS ARE CONCEPTUAL IN NATURE.

PROJECT MANAGER			MOL				
DRAWN BY			AL				
PROJECT DATE		APRIL 2018					
JOB NUMBER		20077					
SHEET NUMBER							
G-1							
BROUGHTON SENIOR APARTMENTS		 CLINE ENGINEERING PROFESSIONAL DESIGN CONSULTING	A	05/22/2018	ISSUED FOR REVIEW AND APPROVAL	--	MDC
COVER			REV.	DATE	DESCRIPTION	DRAWN	APPV.
1540 BROUGHTON STREET ORANGEBURG, SOUTH CAROLINA							

SITework

1. TOPOGRAPHIC AND BOUNDARY SURVEY BY OTHERS AND PROVIDED TO CLINE ENGINEERING BY CLIENT.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION AND INVERT ELEVATION OF ALL UNDERGROUND UTILITIES, AND VERIFY PROPERTY CORNERS AND TOPOGRAPHY BEFORE ANY CONSTRUCTION IS BEGUN. CALL UTILITY COMPANIES BEFORE EXCAVATION TO LOCATE ALL BURIED CABLES AND UNDERGROUND UTILITIES. PRIOR TO INSTALLATION OF STORM OR SANITARY SEWER, THE CONTRACTOR SHALL VERIFY THE INVERTS OF EXISTING STRUCTURES AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHOULD NOTIFY THE ENGINEERS FOR A REVIEW SHOULD DISCREPANCIES BE DISCOVERED AT THE SITE OR ON THE DRAWINGS BEFORE AND DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE BETWEEN ALL CIVIL DRAWINGS WITH GRADING AND UTILITY CONTRACTORS IN ORDER TO AVOID PROBLEMS DURING CONSTRUCTION.
4. CONTRACTOR TO SCHEDULE A PRECONSTRUCTION MEETING WITH ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER AND UTILITY COMPANIES DURING CONSTRUCTION OF WATER AND SEWER SO PERIODIC OBSERVATIONS CAN BE MADE. CONTRACTOR WILL CERTIFY TO THE ENGINEER IN WRITING THAT WATER AND SEWER LINES HAVE BEEN TESTED AND CONSTRUCTED ACCORDING TO THE ENGINEERS' AND UTILITY COMPANY'S DRAWINGS AND SPECIFICATIONS.
5. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
6. ALL REFERENCE TO SPECIFICATIONS FOR HIGHWAY CONSTRUCTION OR MATERIALS ARE MADE FROM SOUTH CAROLINA STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATION, LATEST EDITION.
7. ALL DIMENSIONS SHOWN ARE MEASURED FROM OUTSIDE FACE OF BUILDING WALL AND TO FACE OF CURB LINE. MIDDLE LINE IS THE FACE OF CURB.
8. EARTHWORK SHALL BE TO THE LINES AND GRADES SHOWN. PROOF ROLLING AND COMPACTION TEST SHALL BE ACCOMPLISHED IN THE FIELD TO TEST ALL AREAS. THE OWNER SHALL RETAIN THE SERVICES OF A TESTING COMPANY TO TEST ALL AREAS. MASS AREAS OF FILL SHALL BE PLACED IN LOOSELY MEASURED LIFTS NOT EXCEEDING 8" THICKNESS. ISOLATED AREAS OF FILL (SUCH AS TRENCH BACKFILL) SHALL BE PLACED IN LIFTS NOT EXCEEDING 6" THICKNESS.
9. CONTRACTOR SHALL PROTECT ALL TREES THAT ARE TO REMAIN AS MARKED IN THE FIELD BY OWNER'S REPRESENTATIVE.
10. THE GRADING CONTRACTOR SHALL PROOF-ROLL THE CONSTRUCTION AREA WITH A FULLY-LOADED TANDEM-AXLE DUMP TRUCK, OR APPROVED EQUAL, BY MAKING 2 COMPLETE PASSES IN EACH OF 2 PERPENDICULAR DIRECTIONS. ALL SOFT SPOTS SHALL BE UNDERGUT AND RE-COMPACTED WITH SUITABLE STRUCTURAL FILL MATERIAL. MINIMUM AXLE WEIGHT = 10 TONS.
11. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES. IN, ON, OR NEAR THE CONSTRUCTION SITE, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL BARRICADES, WARNING SIGNS, FLASHING LIGHTS, AND TRAFFIC CONTROL DEVICES DURING CONSTRUCTION. THE CONTRACTOR IS TO COMPLY WITH ALL OSHA REGULATIONS, REQUIREMENTS, AND SAFETY MEETING REQUIREMENTS.
12. ALL NEW ELEVATIONS SHOWN ARE FINISH GRADE ELEVATION. THE GRADING CONTRACTOR SHALL DEDUCT THE FOLLOWING FOR SUBGRADE ELEVATION:
- BUILDING FLOOR - SEE ARCHITECTURAL PLANS
 - HEAVY DUTY PAVEMENT - 11"
 - LIGHT DUTY PAVEMENT - 6"
 - PCC PAVEMENT - 12"
 - SIDEWALKS - 4"
 - TURF AREAS - 4"
13. THE CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION THAT ARE WITHIN 5 FEET OF NEW CONSTRUCTION. REMOVE DEBRIS FROM SITE OR BURN IN ACCORDANCE WITH LOCAL LAWS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY BURNING PERMITS. PROTECT ALL TREES THAT ARE TO REMAIN.
14. TOPSOIL SHALL BE STRIPPED TO A DEPTH AS REQUIRED BY OWNER OR GEOTECH AND STOCKPILED AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
15. THE TOP 18" OF FILL SHALL BE COMPACTED TO 98% OF MAXIMUM DRY DENSITY BY THE STANDARD PROCTOR METHOD ASTM D-698. ALL OTHER FILL SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY. MOISTURE SHALL BE CONTROLLED TO WITHIN ±2% OF OPTIMUM.
16. ALL EXCAVATION SHALL BE "CLASSIFIED EXCAVATION". EXCAVATION SHALL BE "CLASSIFIED" AS "COMMON EXCAVATION" OR "ROCK EXCAVATION". ROCK EXCAVATION SHALL BE CLASSIFIED AS FOLLOWS:
- MASSIVE ROCK EXCAVATION - ANY MATERIAL, WHICH CANNOT BE EXCAVATED WITH A SINGLE TOOTH RIPPER DRAWN BY A CRAWLER TRACTOR HAVING A MINIMUM DRAW BAR WEIGHT AT NOT LESS THAN \$3,000 POUNDS (CATERPILLAR D-8 OR EQUIVALENT) AND OCCUPYING AN ORIGINAL VOLUME OF AT LEAST ONE CUBIC YARD OR MORE.
 - TRENCH EXCAVATION - ANY MATERIAL WHICH CANNOT BE EXCAVATED WITH A POWER SHOVEL HAVING THE CAPACITY OF AT LEAST THAT OF A CATERPILLAR 225 AND OCCUPYING AN ORIGINAL VOLUME OF AT LEAST 1/2 CUBIC YARD OR MORE.
- COMMON EXCAVATION SHALL INCLUDE ALL MATERIALS THAT CAN BE RIPPED, BOULDERS, AND ALL OTHER MATERIALS THAT DO NOT FALL IN THE CATEGORY OF ROCK EXCAVATION AS DEFINED ABOVE.
17. THE CLASSIFICATION OF SOILS INCLUDE: TOPSOIL, FILL MATERIAL, UNSUITABLE MATERIAL, AND ROCK EXCAVATION. THE CLASSIFICATION OF SOILS IS THE RESPONSIBILITY OF THE OWNER'S SOIL TESTING FIRM.
18. ALL FILL MATERIAL SHALL CONSIST OF AN APPROVED MATERIAL AND BE FREE OF ORGANIC MATTER AND DEBRIS. IMPORTED FILL SHALL HAVE A MINIMUM STANDARD PROCTOR MAXIMUM DRY DENSITY OF 95 PCF, CLAY/SILT FINES CONTENT NOT GREATER THAN 25%, AND A PLASTICITY INDEX LESS THAN 15%.
19. ALL EXISTING SLOPES STEEPER THAN 4:1 THAT WILL RECEIVE FILL SHALL BE PLOWED AND SCARIFIED SO NEW FILL WILL BOND WITH EXISTING SURFACE.
20. CONTRACTOR SHALL SCARIFY ALL EXISTING ASPHALT PAVEMENT BEFORE PLACING FILL, UNLESS OVERLAYING ASPHALT ONTO EXISTING ASPHALT.
21. THE GRADING CONTRACTOR SHALL CONFORM TO ELEVATIONS AND DIMENSIONS SHOWN WITHIN A TOLERANCE OF PLUS OR MINUS 0.05 FEET. (FINAL GRADED SURFACE UNDER BUILDING SLABS SHALL BE WITHIN A TOLERANCE OF 3/8" WHEN MEASURED WITH A 10' STRAIGHT EDGE). (FINAL PAVEMENT WEARING COURSE SURFACE SHALL BE WITHIN A TOLERANCE OF 3/16" WHEN MEASURED WITH A 10' STRAIGHT EDGE). (PAVEMENT VARIATION FROM TRUE DESIGN ELEVATION SHALL BE 1/4" OR LESS.)
22. SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER CONTOURS AND SLOPES SHOWN. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF SPOT ELEVATIONS WHICH DO NOT APPEAR TO BE CONSISTENT WITH THE CONTOURS AND SLOPES. SPOT ELEVATIONS SHALL BE USED FOR SETTING ELEVATIONS OF CURB AND GUTTER AND UTILITIES.
23. IF GRADE ADJUSTMENTS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO INVESTIGATE SUCH ADJUSTMENTS.
24. GRADES SHOWN AT ALL ENTRANCES ARE DESIGN GRADES. CONTRACTOR SHALL COORDINATE GRADING IN THESE AREAS WITH THE EXISTING FEATURES IN THE FIELD AND/OR CURRENT DESIGN DRAWINGS.
25. SITE CONTRACTOR SHALL EXTEND UNDERGROUND ROOF DRAINAGE PIPING TO WITHIN 5 FT OF BUILDING FOR CONNECTION TO ROOF DOWNSPOUTS. CONNECTIONS SHALL BE COORDINATED WITH BUILDING CONTRACTOR.
26. ALL ROADS AND PARKING LOTS SHALL HAVE A MINIMUM 3'-0" WIDE GRASSSED SHOULDER. A 5'-0" WIDE SHOULDER IS PREFERRED AND SHALL BE PROVIDED WHERE POSSIBLE.
27. ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE CLASS III, UNLESS NOTED ON DRAWINGS WITH BELL & SPIGOT ENDS AND SHALL CONFORM TO ALL REQUIREMENTS OF ASTM C 76, LATEST EDITION, INSTALLED WITH FLEXIBLE PLASTIC (BTJUMEN) GASKETS AT ALL JOINTS. GASKETS SHALL COMPLY WITH AASHTO M-198.751, TYPE B, AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATIONS.
28. ALL CORRUGATED PLASTIC PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M-294, TYPE S, SHALL BE SMOOTH INTERIOR WITH ANNULAR CORRUGATED EXTERIOR, H-I Q SURE-LOCK 10.8 PIPE, ADS, N-12, OR APPROVED EQUAL. ALL JOINTS SHALL BE BELL AND SPIGOT AND SHALL MEET THE REQUIREMENTS OF AASHTO M-294. SHALL BE WATER TIGHT, MEETING THE REQUIREMENTS OF ASTM D 3212. THE GASKETS SHALL BE MADE OF POLYISOPRENE MEETING THE REQUIREMENTS OF ASTM F 477. INSTALLATION SHALL CONFORM TO AASHTO M-294, ASTM D-2321, AND MANUFACTURERS' INSTALLATION PROCEDURES.
29. ANY REINFORCED CONCRETE PIPE WITH MORE THAN 15 FOOT OF COVER SHALL BE CLASS IV WITH O-RING JOINTS.
30. ALL STORM PIPE LENGTH AND ELEVATIONS (TOPS AND INVERTS) OF STORM DRAINAGE STRUCTURES SHOWN ON THE DRAWINGS ARE APPROXIMATE. CONTRACTOR MAY HAVE TO FIELD ADJUST AS NECESSARY DURING CONSTRUCTION. THE CONTRACTOR MAY USE PRE-CAST DRAINAGE STRUCTURES AS AN ALTERNATE FOR STRUCTURES SPECIFIED ON THIS PLAN. HOWEVER, THE OWNER AND CLINE ENGINEERING, INC. ASSUME NO RESPONSIBILITY FOR THESE STRUCTURES, AS FIELD CONDITIONS DURING CONSTRUCTION OFTEN DICTATE ADJUSTMENTS TO STORM DRAINAGE STRUCTURES. THE CONTRACTOR RETAINS ALL RESPONSIBILITY AND EXPENSE FOR MODIFYING THESE PRE-CAST STRUCTURES TO ACCOMMODATE THESE ADJUSTMENTS.
31. ANY REINFORCED CONCRETE PIPE STEEPER THAN 10 PERCENT MUST HAVE CONCRETE COLLARS, CORRUGATED METAL PIPE WITH HUGGER BANDS MAY BE SUBSTITUTED. THE NUMBER OF CONCRETE COLLARS AND TYPE OF STORM PIPE WILL BE DETERMINED TOGETHER BY THE CONTRACTOR AND THE ENGINEER.
32. ALL SANITARY SEWER WORK SHALL BE CONSTRUCTED TO LINES AND GRADES SHOWN AND AS DETAILED ON THE DRAWINGS. ALL MANHOLE/CLEANOUT TOP ELEVATIONS ON CIVIL DRAWINGS ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL MANHOLE/CLEANOUT TOPS ARE FLUSH WITH PAVEMENT FINISHED GRADE THROUGHOUT THE PROJECT.
33. THE CONTRACTOR SHALL PROVIDE STANDARD CLEAN-OUTS OR MANHOLES AT ALL BENDS AND CHANGES IN GRADE IN SEWER LINES AND CONNECTIONS TO EXISTING SEWER LINES. PIPE BEDDING AND BACKFILL SHALL BE CAREFULLY CONTROLLED. ALL SANITARY SEWER WORK SHALL COMPLY WITH LOCAL CODES AND ORDINANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING WITH THE LOCAL AND STATE SEWER APPROVAL AUTHORITIES TO INSURE THAT ALL MATERIALS, INSTALLATION, TESTING, AND AS-BUILT DRAWING REQUIREMENTS WILL BE TO THE SATISFACTION OF THE LOCAL AND STATE AUTHORITIES.
34. ALL WATER LINES SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS. ALL PIPES, VALVES, AND FITTINGS SHALL COMPLY WITH AWWA STANDARDS, ALL LOCAL AND STATE CODES AND ORDINANCES. PIPE BEDDING AND BACKFILL SHALL BE CAREFULLY CONTROLLED. WATER LINES SHALL BE PRESSURE TESTED, AND DISINFECTED AS REQUIRED. ALL NECESSARY AS-BUILTS SHALL BE ACCOMPLISHED TO THE SATISFACTION OF THE LOCAL AUTHORITY.
35. ALL UTILITY TRENCHES SHALL BE THOROUGHLY COMPACTED AND TESTED TO PREVENT SETTLEMENT AND DAMAGE TO FUTURE PAVEMENT AND STRUCTURES.
36. ASPHALT PAVING FOR LIGHT DUTY AREAS SHALL BE CONSTRUCTED ON A PREPARED AND WELL-DRAINED SUBGRADE COMPACTED AS SPECIFIED. THE BASE COURSE SHALL BE CONSTRUCTED WITH 6" COMPACTED THICKNESS STONE BASE. THE SURFACE COURSE SHALL BE CONSTRUCTED WITH 2" COMPACTED THICKNESS ALL PAVING WORK (MATERIALS AND CONSTRUCTION) SHALL COMPLY WITH STATE SPECIFICATIONS.
37. ASPHALT PAVING FOR HEAVY DUTY AREAS SHALL BE CONSTRUCTED ON A PREPARED AND WELL-DRAINED SUBGRADE COMPACTED AS SPECIFIED. THE BASE COURSE SHALL BE CONSTRUCTED WITH 6" COMPACTED THICKNESS STONE BASE. THE UNDER COURSE SHALL BE CONSTRUCTED WITH 1.5" COMPACTED THICKNESS ASPHALT CONCRETE. THE SURFACE COURSE SHALL BE CONSTRUCTED WITH 1.5" COMPACTED THICKNESS ASPHALT CONCRETE. ALL PAVING WORK (MATERIALS AND CONSTRUCTION) SHALL COMPLY WITH STATE SPECIFICATIONS.
38. CONCRETE TRUCK PAVEMENT SHALL BE CONSTRUCTED WITH 4,000 PSI CONCRETE, 6" THICK REINFORCED WITH 6" X 6" - W2.9 X W2.9 W.W.M. JOINTS SHALL BE CONSTRUCTED AS SHOWN ON DETAILS.
39. CONCRETE SIDEWALKS SHALL BE CONSTRUCTED WITH 3,000 PSI CONCRETE, 4" THICK NON-REINFORCED WITH JOINTS AS SHOWN ON DETAILS.
40. ALL AREAS NOT COVERED BY BUILDINGS AND PAVEMENT SHALL RECEIVE TOPSOIL AND BE GRASSED IN ACCORDANCE WITH SPECIFICATIONS.
41. CONCRETE CURB AND GUTTER SHALL BE 18" WIDE WITH 6" CURB CONSTRUCTED WITH 3,000 PSI CONCRETE WITH EXPANSION JOINTS AND CONNECTION JOINTS INSTALLED TO COMPLY WITH S.C.D.O.T. STANDARD SPECIFICATION FOR MATERIALS AND CONSTRUCTION OF CURB AND GUTTER.
42. THE GRADING CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDING AT ALL TIMES. CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY AREAS THAT MAY NOT DRAIN PROPERLY DURING CONSTRUCTION.
43. GRADING CONTRACTOR SHALL INCLUDE IN COST ALL CUT/FILL AND IMPORT/EXPORT NECESSARY FOR EARTHWORK BALANCE. CONTRACTOR SHALL INCLUDE IN COST ALL WETTING/DRYING OF SOILS NECESSARY TO ACHIEVE COMPACTION PER SPECIFICATIONS.
44. THE CONTRACTOR SHALL CONFORM TO THE CONSTRUCTION SEQUENCE.
45. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SEDIMENT TRAPS BEFORE OTHER SITE GRADING AND SITEMWORK IS BEGUN. THE SEDIMENT TRAPS AND SEDIMENT CONTROL DURING CONSTRUCTION SHALL COMPLY WITH ALL LOCAL CODES AND REGULATIONS. AFTER ALL SITEMWORK IS COMPLETED AND GRASSING ESTABLISHED, THE GRADING CONTRACTOR SHALL REMOVE ALL SILT FROM THE SITE AND LEGALLY DISPOSE OF ALL SILT OFF-SITE AT NO ADDITIONAL COST TO THE OWNER.
46. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE WHEN INSTRUCTIONS FROM REGULATORY AGENCIES ARE RECEIVED AND COMPLY WITH INSTRUCTIONS AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
47. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE CONSTRUCTION DOCUMENTS AND SHALL, AT ONCE REPORT TO THE ENGINEER ANY INCONSISTENCIES OR OMISSIONS DISCOVERED. THE CONTRACTOR SHALL TAKE FIELD MEASUREMENTS TO VERIFY THAT ALL LOCATIONS ARE CORRECT PRIOR TO COMMENCING CONSTRUCTION.
48. THE CONTRACTOR SHALL NOT PERFORM ANY WORK ON ANY UTILITIES OR IN ANY PUBLIC RIGHT-OF-WAYS UNTIL HE HAS OBTAINED COPIES OF ALL NECESSARY ENCROACHMENT AND CONSTRUCTION PERMITS. ANY FIELD CHANGES WITHIN SCOOT ROW OR CHANGES THAT WOULD IMPACT SCOOT ROW WILL REQUIRE WRITTEN SCOOT APPROVAL PRIOR TO CHANGES BEING IMPLEMENTED IN THE FIELD. (E.G. DRAINAGE, GRADING, ACCESS DESIGN ETC.).

49. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN FOR ALL LANE AND SHOULDER CLOSURES WILL NEED TO BE SUBMITTED FOR ALL WORK WITHIN THE ROW PRIOR TO CONSTRUCTION. NIGHT WORK COULD BE REQUIRED FOR ANY AND ALL LANE CLOSURES.
50. THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF DRIVEWAYS AND OTHER ACCESS POINTS, INCLUDING ANY NEW DRAINAGE STRUCTURES, FOR AREAS WITHIN THE RIGHTS-OF-WAYS OF STATE MAINTAINED FACILITIES IN PERPETUITY.
51. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING ANY EXISTING UTILITIES NECESSARY FOR SITE CONSTRUCTION INCLUDING ALL PERMITS AND FEES.
52. THE CONTRACTOR SHALL VERIFY BENCH MARK LOCATION AND ELEVATION WITH SURVEYOR BEFORE BEGINNING CONSTRUCTION.
53. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EASEMENTS ON THE SITE BEFORE PROCEEDING WITH CONSTRUCTION.
54. ALL PARKING LOT STRIPING IS TO BE PER SOUTH CAROLINA D.O.T. SPECIFICATIONS AND HAVE TWO (2) COATS OF PAINT. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING FIRE LANE STRIPING AND SIGNAGE TO MEET LOCAL REQUIREMENTS. THE BASES OF ALL LIGHT POLES, ALL SPEED BUMPS, ALL BOLLARDS, AND ALL FACES OF SIDEWALK THAT ARE NOT FLUSH WITH ASPHALT ARE TO BE PAINTED TRAFFIC YELLOW.
55. IN THE CASE OF A CONFLICT IN SPECIFICATIONS, NOTES, OR DETAILS, THE STRICTER SHALL GOVERN.

DEMOLITION NOTES

1. DEMOLITION INCLUDES THE REMOVAL AND DISPOSAL OF DEMOLISHED MATERIALS, AS SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED.
2. CONDITIONS EXISTING AT THE TIME OF INSPECTION FOR BIDDING PURPOSES WILL BE MAINTAINED BY THE OWNER IN SO FAR AS PRACTICABLE, HOWEVER, VARIATIONS MAY OCCUR.
3. STORAGE OR SALE OF DEMOLISHED MATERIAL ON THE SITE WILL NOT BE PERMITTED.
4. THE USE OF EXPLOSIVES WILL BE PERMITTED ONLY WHEN AUTHORIZED BY THE CONSTRUCTION PROJECT MANAGER.
5. CONDUCT DEMOLITION OPERATIONS AND THE REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES OR ADJACENT CONSTRUCTION PROCESSES.
6. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM THE CONSTRUCTION PROJECT MANAGER AND THE AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS IF REQUIRED BY GOVERNING REGULATIONS.
7. ENSURE THE SAFE PASSAGE OF PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT OPERATIONS TO PREVENT INJURY TO ADJACENT BUILDINGS, STRUCTURES, OTHER FACILITIES, AND PERSONS.
8. PROMPTLY REPAIR DAMAGES CAUSED TO ADJACENT FACILITIES BY DEMOLITION OPERATIONS AT NO COST TO THE OWNER.
9. MAINTAIN EXISTING UTILITIES, INDICATED TO REMAIN, KEEP IN SERVICE, AND PROTECT AGAINST DAMAGE DURING DEMOLITION OPERATIONS. CONTRACTOR SHALL FIELD LOCATE AND VERIFY ALL UTILITIES ON SITE.
10. DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR USED FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING FROM THE CONSTRUCTION PROJECT MANAGER AND THE AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO THE GOVERNING AUTHORITIES. NOTIFY ALL BUSINESSES IMPACTED IN ADVANCE OF ALL SCHEDULED UTILITY INTERRUPTIONS.
11. COMPLY WITH GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
12. DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS.
13. COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES BELOW GRADE.
14. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 6" IN LOOSE DEPTH. COMPACT EACH LAYER AT OPTIMUM MOISTURE CONTENT OF THE FILL MATERIAL TO A DENSITY EQUAL TO THE ORIGINAL ADJACENT GROUND, UNLESS SUBSEQUENT EXCAVATION FOR NEW WORK IS REQUIRED. AFTER FILL PLACEMENT AND COMPACTION, GRADE THE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE FLOW TO SURFACE DRAINAGE STRUCTURES.
15. REMOVE FROM THE SITE DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS, OR AS DIRECTED BY THE CONSTRUCTION PROJECT MANAGER AND LEGALLY DISPOSE OF DEBRIS "OFF-SITE".
16. ALL PIPING, FENCING AND OTHER MATERIALS THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED OR ABANDONED AS DIRECTED BY THE CONSTRUCTION PROJECT MANAGER.
17. ALL SALVAGEABLE MATERIALS WILL REMAIN THE PROPERTY OF THE OWNER. THE CONTRACTOR SHALL REMOVE AND STORE THIS MATERIAL AS DIRECTED BY THE CONSTRUCTION PROJECT MANAGER.
18. TRANSPORT MATERIALS REMOVED FROM DEMOLISHED STRUCTURES AND DISPOSE OF "OFF" SITE AS REQUIRED. DEBRIS SHALL NOT BE "BURIED" OR LEFT ON SITE EXCEPT AS ALLOWED BY ALL APPLICABLE LAWS AND BY THE GEOTECHNICAL ENGINEER.
19. THE CONTRACTOR IS TO MAINTAIN MINIMUM COVER OVER ALL UTILITY LINES THROUGHOUT CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO UTILITY LINES AT NO ADDITIONAL COST TO THE OWNER.
20. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO THE SITE OR TO THE BUILDING AND IMPROVEMENTS ON THE SITE THAT OCCUR DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
21. THE CONTRACTOR MUST VISIT SITE PRIOR TO SUBMITTING BID AND INCLUDE IN HIS PRICE ALL DEMOLITION AND DISPOSAL COSTS TO REMOVE/RELOCATE ANY AND ALL ITEMS THAT MAY INTERFERE WITH NEW CONSTRUCTION.
22. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND COORDINATE THE DEMOLITION, REMOVAL, RELOCATION, ABANDONMENT, ETC. OF ALL UTILITIES THAT INTERFERE WITH NEW CONSTRUCTION. ANY DEMOLITION AND RELOCATION SHOWN IS SCHEMATIC ONLY. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE DESIGN, CONSTRUCTION, AND EASEMENTS OF ALL UTILITY WORK WITH THE APPROPRIATE UTILITIES.
23. DEMOLISH ALL EXISTING UTILITIES THAT LIE UNDER AND 10' OUTSIDE OF NEW BUILDINGS. THE EXISTING UTILITIES 10' OR MORE OUTSIDE NEW BUILDINGS MAY BE DRAINED AND FILLED WITH FLOWABLE FILL IF TESTING COMPANY APPROVES EXISTING BACKFILL.

TEMPORARY SEEDING

DESCRIPTION

THE PURPOSE OF TEMPORARY SEEDING IS TO REDUCE EROSION AND SEDIMENTATION BY STABILIZING DISTURBED AREAS THAT WOULD OTHERWISE LAY BARE FOR LONG PERIODS OF TIME BEFORE THEY ARE WORKED OR STABILIZED. TEMPORARY SEEDING IS ALSO USED WHERE PERMANENT VEGETATION GROWTH IS NOT NECESSARY OR APPROPRIATE.

WHEN AND WHERE TO USE IT

TEMPORARY SEEDING IS USED ON EXPOSED SOIL SURFACES SUCH AS DEMOLISHED AREAS, SOIL STOCKPILES, DIKES, DAMS, BANKS OF SEDIMENT BASINS, BANKS OF SEDIMENT TRAPS, AND TEMPORARY ROAD BANKS. IT PREVENTS ANY SEEDING PREVENTS AND LIMITS COSTLY MAINTENANCE OPERATIONS ON OTHER SEDIMENT CONTROL STRUCTURES. SEDIMENT CLEANOUT REQUIREMENTS FOR SEDIMENT BASINS, SEDIMENT, TRAPS, AND SILT FENCE IS REDUCED IF THE DRAINAGE AREA IS SEEDED WHEN GRADING AND CONSTRUCTION OPERATION ARE NOT TAKING PLACE. TEMPORARY STABILIZATION IS REQUIRED WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY IS COMPLETE UNLESS CONSTRUCTION ACTIVITY IS GOING TO RESUME WITHIN 21 DAYS. COVER SEEDED AREAS WITH AN APPROPRIATE MULCH TO PROVIDE PROTECTION FROM THE WEATHER. WHEN THE TEMPORARY VEGETATION DOES NOT GROW QUICKLY OR THICK ENOUGH TO PREVENT EROSION, RE-SEED AS SOON AS POSSIBLE. KEEP SEEDED AREAS ADEQUATELY MOIST. IRRIGATE THE SEEDED AREA IF NORMAL RAINFALL IS NOT ADEQUATE FOR THE GERMINATION AND GROWTH OF SEEDLINGS. WATER SEEDED AREAS AT CONTROLLED RATES THAT ARE LESS THAN THE RATE AT WHICH THE SOIL CAN ABSORB WATER TO PREVENT RUNOFF. RUNOFF OF IRRIGATION WATER WASTES WATER AND CAN CAUSE EROSION.

SEED SELECTION

SEED SELECTION IS BASED ON GEOGRAPHICAL LOCATION, SOIL TYPE AND THE SEASON OF THE YEAR IN WHICH THE PLANTING IS TO BE DONE. USE THE TABLES IN APPENDIX C AS A GUIDE FOR CONVENTIONAL TILLAGE METHODS (PLOWING, SEEDED PREPARATION, HYDROSEEDING, ETC.) IF A FAST GROWING CROP TO NURSE THE PERMANENT SPECIE OR SPECIES IS REQUIRED, THEN USE THE MIX RATE. FAILURE TO CAREFULLY FOLLOW AGRONOMIC RECOMMENDATIONS RESULTS IN AN INADEQUATE STAND OF TEMPORARY VEGETATION THAT PROVIDES LITTLE OR NO EROSION CONTROL.

INSTALLATION

- TILLAGE: IF THE AREA HAS BEEN RECENTLY PLOWED, NO TILLAGE IS REQUIRED OTHER THAN RAKING OR SURFACE ROUGHENING TO BREAK ANY CRUST THAT HAS FORMED LEAVING A TEXTURED SURFACE. DISK THE SOIL FOR OPTIMAL GERMINATION WHEN THE SOIL IS COMPACTED LESS THAN 6-INCHES.
- SOIL TESTING: SOIL TESTING IS AVAILABLE THROUGH CLEMSON UNIVERSITY COOPERATIVE EXTENSION SERVICE.
- LIME: LIME IS NOT REQUIRED FOR TEMPORARY SEEDING UNLESS A SOIL TEST SHOWS THAT THE SOIL PH IS BELOW 5.0. IT MAY BE DESIRABLE TO APPLY LIME DURING THE TEMPORARY SEEDING OPERATION TO BENEFIT THE LONG-TERM PERMANENT SEEDING.
- FERTILIZER: APPLY A MINIMUM OF 1.5 TONS OF LIME/ACRE (70 POUNDS PER 1000 SQUARE FEET) IF IT IS TO BE USED. APPLY A MINIMUM OF 500 POUNDS PER ACRE OF 10-10-10 FERTILIZER (11.5 POUNDS PER 1000 SQUARE FEET) OR EQUIVALENT DURING TEMPORARY SEEDING UNLESS A SOIL TEST INDICATES A DIFFERENT REQUIREMENT. INCORPORATE FERTILIZER AND LIME (IF USED) INTO THE TOP 4-6 INCHES OF THE SOIL BY DISKING OR OTHER MEANS WHERE CONDITIONS ALLOW.
- SEEDING: LOOSEN THE SOIL SURFACE BEFORE BROADCASTING THE SEED. APPLY SEED EVENLY BY THE MOST CONVENIENT METHOD AVAILABLE FOR THE TYPE OF SEED USED AND THE LOCATION OF THE TEMPORARY SEEDING. TYPICAL APPLICATION METHODS INCLUDE BUT ARE NOT LIMITED TO CYCLONE SEEDERS, ROTARY SPREADERS, DROP SPREADERS, BROADCAST SPREADERS, HAND SPREADERS, CUTLIPACKER SEEDER, AND HYDRO-SEEDERS. COVER APPLIED SEED BY RAKING OR DRAGGING A CHAIN, AND THEN LIGHTLY FIRM THE AREA WITH A ROLLER OR CUTLIPACKER.
- MULCHING: USE MULCH WITH TEMPORARY SEED APPLICATIONS TO RETAIN SOIL MOISTURE AND REDUCE EROSION DURING THE ESTABLISHMENT OF VEGETATION. TYPICAL MULCH APPLICATIONS INCLUDE STRAW, WOOD FIBER, HYDROMULCHES, BFM AND FSM. USE HYDROMULCHES WITH A MINIMUM BLEND OF 70% WOOD FIBERS. THE MOST COMMONLY ACCEPTED MULCH USED IN CONJUNCTION WITH TEMPORARY SEEDING IS SMALL GRASS STRAW. THIS STRAW SHOULD BE DRY AND FREE FROM MOLD DAMAGE AND NOXIOUS WEEDS. THE STRAW MAY NEED TO BE ANCHORED WITH NETTING OR EMULSIONS TO PREVENT IT FROM BEING BLOWN OR WASHED AWAY. APPLY THE STRAW MULCH BY HAND OR MACHINE AT THE RATE 1.5-2 TONS PER ACRE (90 POUNDS PER 1000 SQUARE FEET). FREQUENT INSPECTIONS ARE NECESSARY TO CHECK THAT CONDITIONS FOR GROWTH ARE GOOD.
- IRRIGATION: SEEDED AREAS SHOULD BE KEPT ADEQUATELY MOIST. IRRIGATE THE SEEDED AREA IF NORMAL RAINFALL IS NOT ADEQUATE FOR THE GERMINATION AND GROWTH OF SEEDLINGS. WATER SEEDED AREAS AT CONTROLLED RATES THAT ARE LESS THAN THE RATE AT WHICH THE SOIL CAN ABSORB WATER TO PREVENT RUNOFF. RUNOFF OF IRRIGATION WATER WASTES WATER AND CAN CAUSE EROSION.
- RE-SEEDING: RE-SEED AREAS WHERE SEEDING DOES NOT GROW QUICKLY, THICK ENOUGH, OR ADEQUATELY TO PREVENT EROSION. BASE SEED SELECTION SHOULD ON THE REQUIREMENTS OF LOCAL SPECIFICATIONS.

INSPECTION AND MAINTENANCE

- INSPECT EVERY 7 CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/4-INCHES OR MORE OF PRECIPITATION.
- COVER SEEDED WITH MULCH TO PROVIDE PROTECTION. FREQUENT INSPECTIONS ARE NECESSARY TO CHECK THAT CONDITIONS FOR GROWTH ARE GOOD.
- SUPPLY TEMPORARY SEEDING WITH ADEQUATE MOISTURE. SUPPLY WATER AS NEEDED, ESPECIALLY IN ABNORMALLY HOT OR DRY WEATHER OR ON ADVERSE SITES. CONTROL WATER APPLICATION RATES TO PREVENT RUNOFF.
- BASE SEED SELECTION ON LOCAL SPECIFICATIONS.
- RE-SEED AREAS WHERE THE PLANTS DO NOT GROW QUICK ENOUGH, THICK ENOUGH, OR ADEQUATELY ENOUGH TO PREVENT EROSION SHOULD BE RE-SEEDED.

TEMPORARY SEEDING - COASTAL

SPECIES	RATES PER ACRE	PLANTING DATES
SANDY, DROUGHTY SITES		
BROWNTOP MILLET	40 LBS.	MAR. 10 - SEPT. 1
RYE, GRAIN	56 LBS.	SEPT. 1 - MAR. 15
RYEGRASS	50 LBS.	SEPT. 1 - APR. 15
WELL DRAINED, CLAYEY/LOAMEY SITES		
BROWNTOP MILLET OR JAPANESE MILLET	40 LBS.	MAR. 15 - SEPT. 1
RYE, GRAIN	56 LBS.	SEPT. 1 - MAR. 15
OR OATS	75 LBS.	
RYEGRASS	50 LBS.	SEPT. 1 - APR. 15

PERMANENT SEEDING

DESCRIPTION

CONTROLLING RUNOFF AND PREVENTING EROSION BY ESTABLISHING A PERENNIAL VEGETATIVE COVER WITH SEED.

WHEN AND WHERE TO USE IT

- A MAJOR CONSIDERATION IN THE SELECTION OF THE TYPE OF PERMANENT GRASS TO ESTABLISH IS THE INTENDED USE OF THE LAND. LAND USE IS SEPARATED IN TO TWO CATEGORIES, HIGH-MAINTENANCE AND LOW-MAINTENANCE.
- HIGH-MAINTENANCE: HIGH MAINTENANCE AREAS ARE MOWED FREQUENTLY, LIME OR FERTILIZED ON A REGULAR BASIS, AND REQUIRE MAINTENANCE TO AN AESTHETIC STANDARD. LAND USES WITH HIGH MAINTENANCE GRASSES INCLUDE HOMES, INDUSTRIAL PARKS, SCHOOLS, CHURCHES, AND RECREATIONAL AREAS SUCH AS PARKS, ATHLETIC FIELDS, AND GOLF COURSES.
- LOW MAINTENANCE: LOW MAINTENANCE AREAS ARE MOWED INFREQUENTLY, IF AT ALL, AND LIME AND FERTILIZER MAY NOT BE APPLIED ON A REGULAR SCHEDULE. THESE AREAS ARE NOT SUBJECT TO INTENSE USE AND DO NOT REQUIRE A UNIFORM APPEARANCE. THE VEGETATION MUST BE ABLE TO SURVIVE WITH LITTLE MAINTENANCE OVER LONG PERIODS OF TIME. GRASS AND LEGUME MIXTURES ARE FAVORED IN THESE AREAS BECAUSE LEGUMES ARE CAPABLE OF FIXING NITROGEN IN THE SOIL FOR THEIR OWN USE AND THE USE OF THE GRASSES AROUND THEM. LAND USES REQUIRING LOW-MAINTENANCE GRASSES INCLUDE STEEP SLOPES, STREAM AND CHANNEL BANKS, ROAD BANKS, AND COMMERCIAL AND INDUSTRIAL AREAS WITH LIMITED ACCESS.

SEED SELECTION

THE USE OF NATIVE SPECIES IS PREFERRED WHEN SELECTING VEGETATION. BASE PLANT SEED SELECTION ON GEOGRAPHICAL LOCATION, THE TYPE OF SOIL, THE SEASON OF THE YEAR IN WHICH THE PLANTING IS TO BE DONE, AND THE NEEDS AND DESIRES OF THE PERMANENT LAND USER. FAILURE TO CAREFULLY FOLLOW AGRONOMIC RECOMMENDATIONS RESULTS IN AN INADEQUATE STAND OF PERMANENT VEGETATION THAT PROVIDES LITTLE OR NO EROSION CONTROL.

INSTALLATION

- TOPSOIL: APPLY TOPSOIL IF THE SURFACE SOIL OF THE SEEDBED IS NOT ADEQUATE FOR PLANT GROWTH.
- TILLAGE: IF THE AREA HAS BEEN RECENTLY PLOWED, NO TILLAGE IS REQUIRED OTHER THAN RAKING OR SURFACE ROUGHENING TO BREAK ANY CRUST THAT HAS FORMED LEAVING A TEXTURED SURFACE. DISK THE SOIL FOR OPTIMAL GERMINATION WHEN THE SOIL IS COMPACTED LESS THAN 6-INCHES. IF THE SOIL IS COMPACTED MORE THAN 6-INCHES, SUB-SOIL AND DISK THE AREA.
- SOIL TESTING: SOIL TESTING IS AVAILABLE THROUGH CLEMSON UNIVERSITY COOPERATIVE EXTENSION SERVICE.
- LIME: UNLESS A SPECIFIC SOIL TEST INDICATES OTHERWISE, APPLY 1 1/2 TONS OF GROUND COURSE TEXTURED AGRICULTURAL LIMESTONE PER ACRE (70 POUNDS PER 1000 SQUARE FEET).
- FERTILIZER: APPLY A MINIMUM OF 1000 POUNDS PER ACRE OF A COMPLETE 10-10-10 FERTILIZER (23 POUNDS PER 1000 SQUARE FEET) OR EQUIVALENT DURING PERMANENT SEEDING OF GRASSES UNLESS A SOIL TEST INDICATES A DIFFERENT REQUIREMENT. INCORPORATE FERTILIZER AND LIME (IF USED) INTO THE TOP 4-6 INCHES OF THE SOIL BY DISKING OR OTHER MEANS WHERE CONDITIONS ALLOW. DO NOT MIX THE LIME AND THE FERTILIZER PRIOR TO THE FIELD APPLICATION.
- SEEDING: LOOSEN THE SURFACE OF THE SOIL, JUST BEFORE BROADCASTING THE SEED. EVENLY APPLY SEED BY THE MOST CONVENIENT METHOD AVAILABLE FOR THE TYPE OF SEED APPLIED AND THE LOCATION OF THE SEEDING. TYPICAL APPLICATION METHODS INCLUDE BUT ARE NOT LIMITED TO CYCLONE SEEDERS, ROTARY SPREADERS, DROP SPREADERS, BROADCAST SPREADERS, HAND SPREADERS, CUTLIPACKER SEEDER, AND HYDRO-SEEDERS. COVER APPLIED SEED BY RAKING OR DRAGGING A CHAIN OR BRUSH MAT, AND THEN LIGHTLY FIRM THE AREA WITH A ROLLER OR CUTLIPACKER. DO NOT ROLL SEED THAT IS APPLIED WITH A HYDRO-SEEDER AND HYDRO-MULCH.
- MULCHING: COVER ALL PERMANENT SEEDED AREAS WITH MULCH IMMEDIATELY UPON COMPLETION OF THE SEEDING APPLICATION TO RETAIN SOIL MOISTURE AND REDUCE EROSION DURING ESTABLISHMENT OF VEGETATION. APPLY THE MULCH EVENLY IN SUCH A MANNER THAT IT PROVIDES A MINIMUM OF 75% COVERAGE. TYPICAL MULCH APPLICATIONS INCLUDE STRAW, WOOD FIBER, HYDROMULCHES, BFM AND FSM. USE HYDROMULCHES WITH A MINIMUM BLEND OF 70% WOOD FIBERS. THE MOST COMMONLY ACCEPTED MULCH USED IN CONJUNCTION WITH PERMANENT SEEDING IS SMALL GRASS STRAW. SELECT STRAW THAT IS DRY AND FREE FROM MOLD DAMAGE AND NOXIOUS WEEDS. THE STRAW MAY NEED TO BE ANCHORED WITH NETTING OR ASPHALT EMULSIONS TO PREVENT IT FROM BEING BLOWN OR WASHED AWAY. APPLY STRAW MULCH BY HAND OR MACHINE AT THE RATE 2 TONS PER ACRE (90 POUNDS PER 1000 SQUARE FEET). FREQUENT INSPECTIONS ARE NECESSARY TO CHECK THAT CONDITIONS FOR GROWTH ARE GOOD.
- IRRIGATION: KEEP PERMANENT SEEDED AREAS ADEQUATELY MOIST, ESPECIALLY LATE IN THE SPECIFIC GROWING SEASON. IRRIGATE THE SEEDED AREA IF NORMAL RAINFALL IS NOT ADEQUATE FOR THE GERMINATION AND GROWTH OF SEEDLINGS. WATER SEEDED AREAS AT CONTROLLED RATES THAT ARE LESS THAN THE RATE AT WHICH THE SOIL CAN ABSORB WATER TO PREVENT RUNOFF. RUNOFF OF IRRIGATION WATER WASTES WATER AND CAN CAUSE EROSION.
- RE-SEEDING: INSPECT PERMANENTLY SEEDED AREAS FOR FAILURE, MAKE NECESSARY REPAIRS AND RE-SEED OR OVERSEED WITHIN THE SAME GROWING SEASON IF POSSIBLE. IF THE GRASS COVER IS SPARSE OR PATCHY, RE-EVALUATE THE CHOICE OF GRASS AND QUANTITIES OF LIME AND FERTILIZER APPLIED. FINAL STABILIZATION BY PERMANENT SEEDING OF THE SITE REQUIRES THAT IT BE COVERED BY A 70% COVERAGE RATE.

INSPECTION AND MAINTENANCE FOR PERMANENT SEEDING

- INSPECT SEEDED AREAS FOR FAILURE AND MAKE NECESSARY REPAIRS AND RE-SEED IMMEDIATELY. CONDUCT A FOLLOW-UP SURVEY AFTER ONE YEAR AND REPLACE FAILED PLANTS WHERE NECESSARY.
- IF VEGETATIVE COVER IS INADEQUATE TO PREVENT RILL EROSION, OVERSEED AND FERTILIZE IN ACCORDANCE WITH SOIL TEST RESULTS.
- IF A STAND OF PERMANENT VEGETATION HAS LESS THAN 40 PERCENT COVER, RE-EVALUATE CHOICE OF PLANT MATERIALS AND QUANTITIES OF LIME AND FERTILIZER.
- RE-ESTABLISH THE STAND FOLLOWING SEED BED PREPARATION AND SEEDING RECOMMENDATIONS, OMITTING LIME AND FERTILIZER IN THE ABSENCE OF SOIL TEST RESULTS.
- IF THE SEASON PREVENTS RE-SEEDING, MULCH IS AN EFFECTIVE TEMPORARY COVER.
- FINAL STABILIZATION OF THE SITE REQUIRES A 70 PERCENT OVERALL COVERAGE RATE. THIS DOES NOT MEAN THAT 30 PERCENT OF THE SITE CAN REMAIN BARE. THE COVERAGE IS DEFINED AS LOOKING AT A SQUARE YARD OF COVERAGE, IN WHICH 70 PERCENT OF THAT SQUARE YARD IS COVERED WITH VEGETATION.

PERMANENT SEEDING - COASTAL

SPECIES	RATES PER ACRE	PLANTING DATES
SANDY, DROUGHTY SITES		
BROWNTOP MILLET	10 LBS.	MAR. 10 - SEPT. 1
BAHAGRASS	40 LBS.	
BROWNTOP MILLET	10 LBS.	MAR. 10 - SEPT. 1
BAHAGRASS	30 LBS.	
SERICEA LESPEDEZA	40 LBS.	
BROWNTOP MILLET	10 LBS.	MAR. 10 - JUN. 25
ATLANTIC COASTAL	15 LBS.	
PANICGRASS	PLS.	
BROWNTOP MILLET	10 LBS.	MAR. 10 - JUN. 25
SWITCHGRASS (ALAMO)	8 LBS. PLS.	
LITTLE BLUESTEM	4 LBS.	
SERICEA LESPEDEZA	20 LBS.	
BROWNTOP MILLET	10 LBS.	MAR. 10 - JUN. 25
WEeping LOVEGRASS	8 LBS.	
WELL DRAINED, CLAYEY/LOAMEY SITES		
BROWNTOP MILLET	10 LBS.	MAR. 15 - SEPT. 1
BAHAGRASS	40 LBS.	
RYE, GRAIN	10 LBS.	SEPT. 1 - NOV. 10
BAHAGRASS	40 LBS.	
CLOVER (CRAMSON ANNUAL)	5 LBS.	
BROWNTOP MILLET	10 LBS.	MAR. 15 - SEPT. 1
BAHAGRASS	30 LBS.	
SERICEA LESPEDEZA	40 LBS.	
BROWNTOP MILLET	10 LBS.	MAR. 15 - SEPT. 1
BERMUDA, COMMON	10 LBS.	
SERICEA LESPEDEZA	40 LBS.	
BROWNTOP MILLET	10 LBS.	MAR. 15 - SEPT. 1
BERMUDA, COMMON	12 LBS.	
KOBE LESPEDEZA (ANNUAL)	10 LBS.	
BROWNTOP MILLET	10 LBS.	MAR. 15 - SEPT. 1
BAHAGRASS	20 LBS.	
BERMUDA, COMMON	6 LBS.	
SERICEA LESPEDEZA	40 LBS.	
BROWNTOP MILLET	10 LBS.	MAR. 15 - SEPT. 1
SWITCHGRASS	8 LBS. PLS.	
LITTLE BLUESTEM	3 LBS. PLS.	
INDIANGRASS	3 LBS. PLS.	

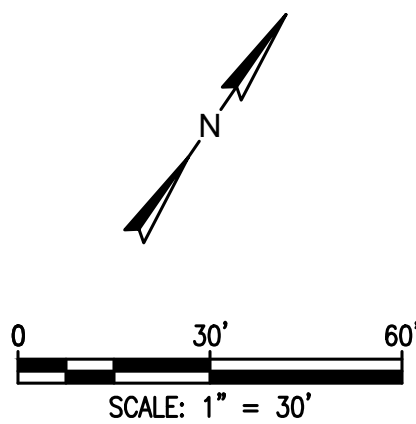
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PROJECT MANAGER		MDC		
DRAWN BY		AJ		
PROJECT DATE		APRIL 2006		
JOB NUMBER		2003		
SHEET NUMBER				
G-3				
BROUGHTON SENIOR APARTMENTS		1549 BROUGHTON STREET ORANGEBURG, SOUTH CAROLINA		
GENERAL NOTES				
 CLINE ENGINEERING		PROFESSIONAL DESIGN CONSULTING		
A	05/12/2026	ISSUED FOR REVIEW AND APPROVAL	--	MDC
REV.	DATE	DESCRIPTION	DRAWN	APPV.

SAFETY NOTICE TO CONTRACTOR
THE CONTRACTOR SHALL SHORE TRENCH EXCAVATION AND USE PIPE BOX TO COMPLY WITH ALL OSHA SAFETY REGULATIONS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE JOB SITE SAFETY AND COMPLY WITH ALL SAFETY REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR HIS MEANS AND METHODS OF CONSTRUCTION.

UTILITY NOTICE TO CONTRACTOR
THE UTILITIES SHOWN ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.



SITE DATA TABLE	
TAX MAP INFORMATION	0152-18-18-001
SUBJECT PARCEL(S) ZONING	B-1 (GENERAL BUSINESS DISTRICT)
SUBJECT PARCEL(S) AREA	4.6 AC ±
BUILDING AREA - EXISTING	BUILDING FOOTPRINT = 24,682 SF ±
BUILDING AREA - PROPOSED	SENIOR APARTMENT BUILDING = 20,410 SF ±
BUILDING SETBACK REQUIREMENTS	FRONT (MAJOR STREET) = 30' FRONT (MINOR STREET) = 10' SIDE = 5' REAR = 15'
SITE BUFFER REQUIREMENTS	8' TYPE 'A' BUFFER
SITE PARKING REQUIREMENTS	MULTIFAMILY RESIDENTIAL = 1.5 SPACES PER UNIT REQUIRED 54 UNITS PROPOSED X 1.5 SPACES PER UNIT = 81 REQUIRED SPACES
PARKING PROVIDED	104 SPACES (INCLUDES 8 ADA ACCESSIBLE SPACES)
RESIDENTIAL DENSITY	MAXIMUM 16 DWELLING UNITS PER GROSS ACRE 16 UNITS PER ACRE X 4.5 ACRES = 72 UNITS 54 UNITS PROPOSED
FLOOD ZONE INFORMATION (PROVIDED BY OTHERS)	PROJECT SITE APPEARS TO BE LOCATED IN FLOOD ZONE "X" AND "AE" AS SCALED FROM FIRM COMMUNITY PLAN, NUMBER 450164 AND MAP NUMBER 4507503762 DATED JANUARY 16, 2014. THE DEPICTION OF THE FLOOD ZONE WITHIN THIS SET OF PLANS SHALL NOT BE USED AS THE BASIS FOR FLOOD ZONE DETERMINATION OR FLOOD ZONE RELATED ISSUES.

- NOTES**
1. ALL ADA ACCESS ROUTES SHALL BE 5.00% MAX. LONGITUDINAL SLOPE WITH MAX. 2.00% CROSS SLOPE ON SIDEWALKS. MAX. 2.00% SLOPE IN PARKING AREA. CONTRACTOR TO MAINTAIN CONFORMANCE WITH THE ADA ACT.
 2. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS, SIDEWALKS, CANTPANS, EXTERIOR COLUMNS, DRIVE THROUGH UTILITY CONNECTIONS, ETC.
 3. CONTRACTOR TO PROTECT EXISTING SIDEWALKS WITHIN RIGHT-OF-WAY DURING CONSTRUCTION AND MAINTAIN THAT ALL SIDEWALKS ADJACENT TO SITE ARE SAFE AND ACCESSIBLE FOR PEDESTRIANS. REMOVE VEGETATION/OVERGROWTH AND MAKE REPAIRS TO ANY DAMAGED PORTIONS OF EXISTING SIDEWALK. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS. CONTRACTOR TO ENSURE ANY SIDEWALK REPAIRS MEET OR EXCEED SCDDC STANDARDS.
 4. CONSTRUCTION DEBRIS AND OTHER WASTE SHALL BE CONTAINED IN A DUMPMSTER OR COVERED WITH PLASTIC.
 5. CHEMICALS, PAINTS, SOLVENTS AND OTHER MATERIALS SHALL BE STORED SUCH THAT EXPOSURE RISK TO PRECIPITATION AND STORMWATER RUN IN IS LOW.
 6. CONCRETE WASH WATER SHALL BE SEPARATED IN AN AREA OF SOIL AWAY FROM SURFACE WATERS WHERE SOIL CAN ACT AS A FILTER OR EVAPORATE THE WATER. REMAINING CEMENT SHALL BE DISPOSED OF IN A DUMPMSTER OR OTHERWISE REMOVED FROM THE SITE.
 7. THE TOP OF LID, PROPERTY LINES AND EASEMENTS ARE ASSUMED AND NOT SURVEYED. UTILITIES SHOWN FROM GDS DATA, EXISTING AND INFORMATION IS ESTIMATED BASED ON THE AERIAL, AND PROPOSED STORM WATER IMPROVEMENTS ARE CONCEPTUAL IN NATURE.

