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# SITE DEVELOPMENT PLANS FOR WEST STREET DRAINAGE IMPROVEMENTS BEAUFORT, SC

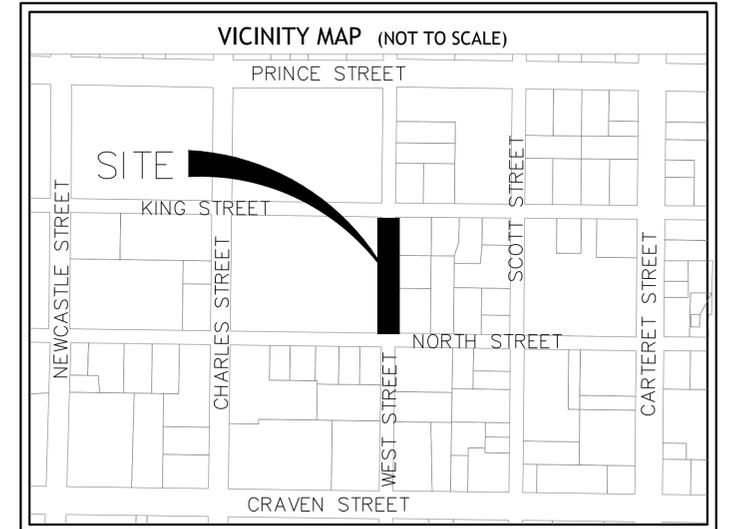
## PREPARED FOR CITY OF BEAUFORT

### PROJECT NUMBER 130215C

PREPARED BY



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PROJECT DATA	
DEVELOPER:	CITY OF BEAUFORT PUBLIC WORKS 16 BURTON HILL ROAD BEAUFORT, SC 29906
24 HOUR CONTACT:	LAMAR TAYLOR, OPERATIONS OFFICER
TELEPHONE:	(843) 525-7054
FAX:	(843) 525-7095
JURISDICTION:	BEAUFORT, SC
TAX MAP#	S-107 AND R121 004 000 0713 0000
PROPERTY OWNER OF RECORD:	SCDOT & JEAN AVENT (RESPECTIVELY)
NPDES DISTURBED AREA:	0.2 ACRES
APPROXIMATE LOCATION OF SITE:	
LONGITUDE:	W 80° 40' 18"
LATITUDE:	N 32° 26' 03"
<input checked="" type="checkbox"/> NOT FOR CONSTRUCTION <input type="checkbox"/> RELEASED FOR CONSTRUCTION	

**SCDHEC-OCRM CERTIFICATION:**  
 "I HAVE PLACED MY SIGNATURE AND SEAL ON THE DESIGN DOCUMENTS SUBMITTED SIGNIFYING THAT I ACCEPT RESPONSIBILITY FOR THE DESIGN OF THE SYSTEM. FURTHER, I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN IS CONSISTENT WITH THE REQUIREMENTS OF TITLE 48, CHAPTER 14 OF THE CODE OF LAWS OF SC, 1976 AS AMENDED, PURSUANT TO REGULATION 72-300 ET SEQ. (IF APPLICABLE), AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SCR100000."

RELEASE SCHEDULE		
NO.	DESCRIPTION	DATE
1.0	RELEASED FOR CLIENT REVIEW	05-15-2014
2.0	RELEASED FOR PERMITTING	06-4-2014
3.0	RELEASED FOR BIDDING	08-8-2014
4.0	RELEASED FOR CONSTRUCTION	

SCHEDULE OF DRAWINGS	
SHEET NO.	DESCRIPTION
C.01	COVER SHEET (THIS SHEET)
C.02	CONSTRUCTION NOTES
C.03	EXISTING CONDITIONS PLAN
C.04	DEMOLITION DRAINAGE & PAVING PLAN
C.05A-C	CONSTRUCTION DETAILS

PROJECT #: 130215C

WARD EDWARDS, INC.

PROJECT: WEST STREET DRAINAGE IMPROVEMENTS

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**GENERAL NOTES:**

- BOUNDARY INFORMATION TAKEN FROM ASBUILT & TOPOGRAPHICAL SURVEY OF THE AREA PREPARED BY GRAY SURVEYING & MAPPING FOR THE CITY OF BEAUFORT.
- TOPOGRAPHIC DATA PROVIDED BY GRAY SURVEYING & MAPPING.
- APPROXIMATE LOCATION OF CERTAIN EXISTING UNDERGROUND UTILITY LINES AND STRUCTURES ARE SHOWN ON THIS PLAN FOR INFORMATION ONLY. ADDITIONAL UNDERGROUND LINES OR STRUCTURES MAY EXIST THAT ARE NOT SHOWN. CALL PALMETTO UTILITY PROTECTION SERVICE AT 1-888-721-7677 BETWEEN THE HOURS OF 7:00 AM AND 7:00 PM MONDAY THRU FRIDAY AT LEAST THREE WORKING DAYS BEFORE COMMENCING CONSTRUCTION. REQUEST UNDERGROUND UTILITIES TO BE LOCATED AND MARKED WITHIN AND NEAR THE CONSTRUCTION SITE.
- COMPLY WITH SOUTH CAROLINA UNDERGROUND UTILITY DAMAGE PREVENTION ACT (S.C. CODE ANN. §6-15-10, C.T.-SEC. SUPP. 1978). NOTIFICATION OF INTENT TO EXCAVATE MAY BE GIVEN BY CALLING THE TOLL FREE NUMBER 1-800-522-0883.
- PROTECT BENCH MARKS AND PROPERTY MONUMENTS FROM DAMAGE DURING CONSTRUCTION OPERATIONS. REPLACE ANY BENCH MARKS OR MONUMENTS DAMAGED OR DESTROYED AS A RESULT OF CONTRACTOR'S OPERATIONS AT NO COST TO THE OWNER.
- OFF-STREET PARKING FOR THE CONTRACTOR'S EMPLOYEES AND AUTHORIZED VISITORS TO THE SITE MUST BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO WEIGHT LIMITS PRESCRIBED FOR ALL PUBLIC ROADS WHEN HAULING EQUIPMENT AND MATERIALS TO AND FROM THE PROJECT SITE. DAMAGES TO EXISTING PAVEMENT DUE TO THE CONTRACTOR'S CONSTRUCTION OPERATIONS OR IMPROPER TRANSPORTATION OF MATERIALS AND EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- AT LEAST ONE DRIVING LANE ON PUBLIC ROADS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES. TRAFFIC LANES WILL ONLY BE CLOSED WITH THE EXPRESS WRITTEN CONSENT OF THE AGENCY HAVING JURISDICTION OVER THE ROADWAY. NOTIFY AGENCY HAVING JURISDICTION AT LEAST 5 DAYS BEFORE CLOSING ANY DRIVING LANES TO TRAFFIC. PROVIDE TRAFFIC CONTROL DEVICES, SIGNAGE AND FLAGMEN AS REQUIRED TO ENSURE PUBLIC SAFETY.
- CONTRACTOR SHALL COORDINATE DEMOLITION, CLEARING AND CONSTRUCTION OF IMPROVEMENTS TO MINIMIZE INTERFERENCE WITH VEHICULAR AND PEDESTRIAN TRAFFIC AND WITH OPERATIONS OF EXISTING FACILITIES.

**WATER AND SEWER LINE CONSTRUCTION:**

- ALL WATER AND SEWER LINE CONSTRUCTION SHALL CONFORM TO APPLICABLE STATE AND BEAUFORT JACOBS WATER AND SEWER AUTHORITY REQUIREMENTS, STANDARDS AND SPECIFICATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION AND APPROVAL OF ALL WATER AND SEWER SYSTEM CONSTRUCTION AND FOR ACCEPTANCE FOR OPERATION AND MAINTENANCE.
- ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION OF ALL UTILITY OWNERS AND FOR FIELD VERIFICATION OF BOTH HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO COMMENCING CONSTRUCTION. ANY DAMAGES TO EXISTING UTILITIES DUE TO THIS CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- NOTIFY THE PROJECT ENGINEER, IF CONFLICTS WITH EXISTING STRUCTURES REQUIRE THAT PROPOSED UTILITIES BE RELOCATED.
- THE CONTRACTOR MUST NOTIFY BUREAU FORTY EIGHT (48) HOURS PRIOR TO ANY CONSTRUCTION, INSPECTION OR TESTING OF THE WATER DISTRIBUTION SYSTEM.
- PIPE FITTINGS, VALVES AND APPURTENANCES FOR WATER AND SEWER LINES SHALL ALL BE IN ACCORDANCE WITH THE REQUIREMENTS CONTAINED IN THE BEAUFORT-JASPER WATER AND SEWER AUTHORITY TECHNICAL SPECIFICATIONS.
- INSTALLATION OF WATER AND SEWER LINES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE BEAUFORT-JASPER WATER AND SEWER AUTHORITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATION.
- CONTRACTOR SHALL INSTALL MECHANICAL RESTRAINTS ON ALL BENDS, PLUGS AND TEES, 2" OR LARGER, ON WATER LINES AND SANITARY SEWER FORCE MAINS.
- ALL WATER MAINS SHALL BE STERILIZED AND PRESSURE TESTED IN ACCORDANCE WITH BWSSA SPECIFICATIONS.
- SEPARATION OF WATER MAINS AND SEWERS:
  - PARALLEL INSTALLATION. UNLESS OTHERWISE SPECIFICALLY SHOWN IN A SPECIAL DETAIL ON THE PLANS, INSTALL WATER MAINS AT LEAST 10'-0" HORIZONTALLY FROM ANY EXISTING OR PROPOSED SANITARY SEWER OR SANITARY SEWER FORCE MAIN. THE DISTANCE BEING MEASURED IN A HORIZONTAL PLANE BETWEEN THE OUTSIDE SURFACES OF THE PIPES.
  - CROSSINGS. UNLESS OTHERWISE SPECIFICALLY SHOWN IN A SPECIAL DETAIL ON THE PLANS, INSTALL WATER LINES CROSSING SANITARY SEWERS OR SANITARY SEWER FORCE MAINS TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 18" BENEATH BETWEEN THE OUTSIDE SURFACES OF THE PIPES. THIS SHALL BE THE CASE WHETHER THE WATER LINE IS ABOVE OR BELOW THE SANITARY SEWER LINE. WHENEVER POSSIBLE LOCATE THE WATER LINE ABOVE THE SEWER LINE. WHERE A NEW WATER LINE CROSSES A NEW SEWER LINE, PLACE A FULL LENGTH OF DUCTILE IRON PIPE FOR BOTH THE WATER AND THE SEWER LINE AT THE CROSSING WITH BOTH PIPES POSITIONED SO THAT THE JOINTS ON EACH ARE AS FAR AS POSSIBLE FROM THE POINT OF CROSSING. WHERE A NEW WATER LINE CROSSES AN EXISTING SEWER LINE, PLACE ONE FULL LENGTH OF DUCTILE IRON PIPE WATER LINE SO THAT THE JOINTS ARE AS FAR FROM THE POINT OF CROSSING AS POSSIBLE.
- SANITARY MANHOLE RIM GRADES SHOWN ARE APPROXIMATE. ADJUST RIM ELEVATIONS TO BE FLUSH WITH FINISHED GRADE.
- THE CONTRACTOR UNDER THIS CONTRACT SHALL NOT MAKE ANY CONNECTIONS TO THE EXISTING WATER OR SANITARY SEWER SYSTEMS UNLESS EXPRESSLY AUTHORIZED TO DO SO BY THE BEAUFORT-JASPER WATER AND SEWER AUTHORITY. ALL WATER AND SEWER IMPROVEMENTS UNDER THIS CONTRACT MUST BE CONSTRUCTED OF CONCRETE. TESTED, INSPECTED AND APPROVED BY THE BEAUFORT-JASPER WATER AND SEWER AUTHORITY BEFORE ANY AUTHORIZATION TO CONNECT WILL BE GIVEN. COORDINATION OF TESTING, INSPECTION AND CONNECTIONS WITH THE BEAUFORT-JASPER WATER AND SEWER AUTHORITY IS THE RESPONSIBILITY OF THE CONTRACTOR UNDER THIS CONTRACT.
- ALL WATER MAINS SHALL BE INSTALLED WITH THIRTY-SIX INCHES (30") MINIMUM COVER FROM FINISHED GRADE. MAXIMUM DEPTH SHALL BE FIVE FEET (5'). WHERE WATER MAINS MAY CONFLICT WITH OTHER UTILITIES, THE WATER MAIN CROSSING SHALL BE CONSTRUCTED WITH DUCTILE IRON PIPE, MECHANICAL JOINT 45-DEG. BENDS AND MECHANICAL RESTRAINTS.

**SITE CLEARING AND DEMOLITION:**

- NO CLEARING SHALL OCCUR WITHIN DESIGNATED BUFFER ZONES, TREE PROTECTION ZONES, OUTSIDE OF THE PROPERTY LINES OR BEYOND THE CLEARING LIMITS UNLESS OTHERWISE SPECIFICALLY SHOWN ON THE PLANS.
- ONLY THOSE TREES DESIGNATED ON THE DRAWINGS FOR REMOVAL ARE TO BE REMOVED AS PART OF THE SITE CLEARING OPERATIONS.
- THE CONTRACTOR SHALL INSTALL A CONTINUOUS LINE OF FLAGGING OR FENCING ALONG THE LIMITS OF CLEARING PRIOR TO COMMENCING ANY CLEARING, DEMOLITION OR CONSTRUCTION WORK ON THE PROJECT.
- EXERCISE CAUTION DURING CLEARING OPERATIONS TO AVOID FELLING TREES INTO DESIGNATED TREE PROTECTION ZONES.
- NO BURNING WILL BE ALLOWED WITHIN 50 FEET OF A TREE PROTECTION ZONE OR TREE DRIP LINE.
- SELECTIVE CLEARING AREAS SHALL BE CLEARED OF ALL BRUSH AND UNDERSTORY GROWTH.

**TREE PROTECTION-BEAUFORT**

- ALL TREES HAVING A TRUNK DIAMETER OF 4 INCHES (4") OR LARGER, AND SPERMATOPHYTES MUST BE PRESERVED UNLESS SPECIFICALLY APPROVED FOR REMOVAL IN ACCORDANCE WITH THE CITY OF BEAUFORT ZONING AND DEVELOPMENT STANDARDS ORDINANCE AND INDICATED ON THE PLANS TO BE REMOVED.
- PRIOR TO COMMENCING ANY CLEARING OR CONSTRUCTION OPERATIONS ON THE SITE, THE CONTRACTOR SHALL ERECT TREE PROTECTION BARRIERS AROUND EACH TREE OR GROUP OF TREES DESIGNATED FOR PRESERVATION IN ACCORDANCE WITH THE DETAILS ON THE PLANS AND THE REQUIREMENTS CONTAINED IN ARTICLE 7, SECTION 2, PAR. D.3 OF THE CITY OF BEAUFORT, SOUTH CAROLINA UNIFIED DEVELOPMENT ORDINANCE.
- A TREE PROTECTION ZONE SHALL BE ESTABLISHED IN ACCORDANCE WITH THE PROVISIONS CONTAINED IN ARTICLE 7, SECTION 2, PAR. D.3 OF THE CITY OF BEAUFORT, SOUTH CAROLINA UNIFIED DEVELOPMENT ORDINANCE FOR EACH EXISTING TREE OR GROUPING OF TREES DESIGNATED FOR PRESERVATION. THE MINIMUM TREE PROTECTION ZONE AS DEFINED IN THE ORDINANCE IS A CIRCULAR AREA CENTERED ON THE TREE AND HAVING A RADIUS OF THE GREATER OF 4 FT. OR ONE AND ONE HALF (1.5) TIMES THE TREE AT BREAST HEIGHT. THE SIZE OR CONFIGURATION OF THE TREE PROTECTION ZONE MAY BE ADJUSTED AT THE DISCRETION OF THE CITY ADMINISTRATOR.
  - PLACEMENT OR STORAGE OF ANY SOIL, DEBRIS, OILS, FUELS, PAINT, BUILDING MATERIALS OR ANY OTHER MATERIALS.
  - BURNING.
  - VEHICLE PARKING.
  - PAVING.
  - TRUCKING FOR UTILITIES.
  - WHERE UTILITY LINES MUST PASS THRU THE TREE PROTECTION ZONE, THEY SHALL BE INSTALLED BY HORIZONTAL BORING METHODS ABOVE THE ROOTS OF THE TREE.
  - WHERE IT IS NECESSARY FOR MACHINERY AND EQUIPMENT TO PASS WITHIN THE TREE PROTECTION ZONE, APPROVAL MUST BE OBTAINED FROM THE ZONING AND DEVELOPMENT ADMINISTRATOR. SPECIAL MEASURES WILL BE REQUIRED TO PROTECT THE ROOTS FROM EXCESSIVE COMPACTION.
  - THE CONTRACTOR IS RESPONSIBLE TO AVOID ANY DAMAGE TO THE TREE PROTECTION ZONE BY COORDINATING ALL INSPECTIONS REQUIRED BY BEAUFORT COUNTY IN CONNECTION WITH TREE PRESERVATION AND REMOVAL ACTIVITIES, DURING CONSTRUCTION.

**SITE GRADING AND DRAINAGE:**

- ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING 72-HOUR NOTICE TO ALL RESPECTIVE UTILITY COMPANIES FOR FIELD VERIFICATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. ANY DAMAGES TO EXISTING UTILITIES DUE TO THIS CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- TEMPORARY CONTROL OF STORM WATER DRAINAGE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SEQUENCING AND CONSTRUCTION TECHNIQUES SHALL PREVENT OBSTRUCTION OF STORM SEWERS, FLOWING IN TRAFFIC AREAS OR RISING OR WATER LEVELS WHICH WOULD ENTER ADJACENT BUILDINGS OR STRUCTURES.
- FULL WIDTH OF STREET AND ROAD RIGHTS-OF-WAY MUST BE CLEARED AND GRADED AS SHOWN IN THE DETAILS ON THE DRAWINGS.
- SUBGRADE PREPARATION: TOP SOIL SHALL BE REMOVED FROM PAVED AREAS TO A MINIMUM DEPTH OF 4". ALL EXCAVATION SHALL BE TO SUBGRADE LIMITS.
- ALL UTILITY PIPE LINES, CONDUITS AND SLEEVES UNDER PAVED AREAS MUST BE IN PLACE PRIOR TO ELEVATION OF THE ROADWAY SUBGRADE AND THE PORTION OF THE FINISH GRADING SHALL INCLUDE THE PLACEMENT OF TOPSOIL OVER ALL UNPAVED AREAS NOT OCCUPIED BY BUILDINGS OR STRUCTURES AND FIRE GRADING UNDER BUILDINGS, ADJACENT TO WALKS, CURBS, GUTTERS AND STRUCTURES TO ASSURE POSITIVE DRAINAGE.

**SCHEMATIC SEDIMENT AND EROSION CONTROL STANDARD NOTES (REVISED DEC-2012):**

- 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 BERMS MAY BE NEEDED 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 EARTHSTABILIZING 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 EVERY CALENDAR WEEK, IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITEE MUST ADDRESS THE NECESSARY REPAIRS OR MODIFICATION TO CORRECT THE CONDITION OF 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. ALL DISTURBED AREAS SHALL BE CLEARED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY IS RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE SEDIMENT BEFORE BEING PUMPED BACK INTO ANY DURING OF THE STATE.
- ALL EROSION CONTROL DEVICES MUST 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 ROADWAYS (S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL ONLY REMOVE MUD FROM PAVED AREAS AS MAY BE REQUIRED.
- RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE 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. 7A-300 ET SEQ. AND SCRI10000.
- 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 OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN 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 STOCK WATER OR DISCHARGED, PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
- A COPY OF THE SWPPP, INSPECTION RECORDS, AND RAINFALL DATA MUST BE REMAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION DURING ALL ACCESSIBLE 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 INEVITABLE, PRESERVE TOPSOIL.
- WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, 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 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 SCs 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-LEARN PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.

**WORK ON SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY:**

- COMPLY WITH ALL SPECIAL PROVISIONS CONTAINED IN THE DEPARTMENT OF TRANSPORTATION ENCROACHMENT PERMIT ISSUED FOR THE WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION AND COORDINATION OF ALL WORK ON DOT RIGHTS-OF-WAY WITH THE DISTRICT ENGINEERING REPRESENTATIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A DOT APPROVED TRAFFIC CONTROL PLAN FOR SITE ACCESS AND FOR CONSTRUCTION ON DEPARTMENT OF TRANSPORTATION RIGHTS-OF-WAY. ALL TRAFFIC CONTROL PROVISIONS MUST COMPLY WITH DEPARTMENT OF TRANSPORTATION MINIMUM REQUIREMENTS, LIGHTS, SIGNS, FLAGMEN AND ALL OTHER TRAFFIC CONTROL DEVICES MUST CONFORM TO THE REQUIREMENTS CONTAINED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- PROVIDE ALL REGULATORY SIGNS, PAVEMENT STRIPPING AND MARKINGS, AS REQUIRED BY THE SOUTH CAROLINA DOT DISTRICT ENGINEERING INSPECTOR. ALL SIGNS MUST CONFORM TO THE REQUIREMENTS CONTAINED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND TO THE SOUTH CAROLINA DOT STANDARD DETAILS WITH RESPECT TO COLOR, SIZE, REFLECTIVITY, HEIGHT AND PLACEMENT.
- ALL PAVEMENT MARKINGS ON DOT RIGHTS-OF-WAY SHALL BE THERMOPLASTIC (1/2 IN. THICKNESS) AND MUST COMPLY WITH THE REQUIREMENTS IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. PLACEMENT SHALL BE IN ACCORDANCE WITH SOUTH CAROLINA DOT STANDARD DRAWINGS 603-2 AND 603-4, AS APPLICABLE.
- ALL PAVEMENT MARKINGS TO BE REMOVED MUST BE ERADICATED BY GRINDING.

**DRY UTILITY CONDUITS FOR ELECTRIC, TELEPHONE AND CABLE TV:**

- ALL DRY UTILITY CONDUIT ENDS SHALL BE CAPPED AND MARKED WITH A STEEL REBAR STAKE IMBEDDED ONE (1) FOOT BELOW GROUND SURFACE.
- 48" MINIMUM DEPTH FOR ALL ELECTRICAL CONDUITS.
- MAINTAIN MINIMUM 12" VERTICAL CLEARANCE WHEN CROSSING WATER, SEWER, AND STORM DRAIN LINES.
- MAINTAIN MINIMUM 18" HORIZONTAL CLEARANCE WITH PARALLELING WATER, SEWER AND STORM DRAIN LINES.
- EXTEND CONDUIT BEYOND PAVEMENT, CURBS, AND SIDEWALKS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE INSTALLATION OF ALL UTILITY SERVICE CONNECTIONS. REFER TO APPROVED BUILDING PLANS FOR THE EXACT LOCATION OF ALL SERVICE CONNECTIONS. THE CONTRACTOR MUST INSTALL CONDUITS, AS SHOWN ON THE PLANS OR AS REQUIRED BY RESPECTIVE UTILITY COMPANIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE STRICT COMPLIANCE WITH ALL APPLICABLE CODES AND REGULATIONS WITH REGARDS TO THE INSTALLATION OF UTILITIES AND CONDUIT.
- LOCATIONS SHOWN ON THE PLANS FOR PROPOSED DRY UTILITY CONDUITS ARE APPROXIMATE ONLY. ALL DIMENSIONING AND STAKING SHOULD BE BASED ON ECONOMIC AND PRACTICAL CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE RESPECTIVE UTILITY REPRESENTATIVES, PRIOR TO ANY CONDUIT INSTALLATION.
- TRANSFORMER PADS SHALL BE LOCATED AS DIRECTED BY THE RESPECTIVE UTILITY REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE CODE REQUIREMENTS.
- NOTIFY THE ENGINEER IF CONFLICTS WITH EXISTING OR PROPOSED STRUCTURES REQUIRE THAT PROPOSED UTILITIES BE RELOCATED.

**LEGEND**

DESCRIPTION	EXISTING	PROPOSED
<b>LINE TYPES:</b>		
CENTERLINE		
CONTOUR LINE		
CURB & GUTTER (standard)		
CURB & GUTTER (rot curb)		
DITCH CENTERLINE		
DRAIN LINE		
EASEMENT		
FORCE MAIN		
PAVEMENT		
PROPERTY LINE		
SEWER LINE		
WATER LINE		
<b>TYPICAL SYMBOLS:</b>		
TREE		
TREE TO BE REMOVED		
TREE PROTECTION		
SPOT ELEVATION		
TOP OF PAVING		
TOP OF CURB		
TOP OF WALK		
DIRECTION OF FLOW		

DESCRIPTION	EXISTING	PROPOSED
<b>STRUCTURE SYMBOLS:</b>		
WEIR INLET		
CATCH BASIN		
CURB INLET		
CURB INLET (WITH GRATE)		
STORM DRAIN JUNCTION BOX		
STORM DRAIN MANHOLE		
STORM GRATE INLET		
SANITARY SEWER MANHOLE		
SANITARY SEWER CLEANOUT		
SANITARY SEWER WYE		

DESCRIPTION	EXISTING	PROPOSED
<b>WATER SYSTEM SYMBOLS:</b>		
WATER METER		
WATER VALVE		
REDUCER		
POST INDICATOR VALVE		
FIRE HYDRANT		
BLOWOFF HYDRANT		
YARD HYDRANT		
FIRE DEPART. CONNECT. (FDC)		
CAP		
PLUG		

DESCRIPTION	EXISTING	PROPOSED
<b>MATERIAL SYMBOLS:</b>		
PROPOSED DEMOLITION		
PROPOSED SIDEWALK/CONCRETE		
EXISTING WETLANDS		
PROPOSED AGGREGATE/STONES		
PROPOSED ASPHALT (STANDARD ASPHALT)		
PROPOSED ASPHALT (HEAVY DUTY)		
PERVIOUS PAVERS		

SEQUENCE OF CONSTRUCTION ACTIVITIES PROJECT PHASING
ESTIMATED START DATE: 9/0/16 ESTIMATED COMPLETION DATE: 9/0/16
1. INSTALL TREE PROTECTION AND DELINEATE CLEARING LIMITS
2. INSTALL PERMETER CONTROLS FOR SOIL EROSION
3. PROVIDE SITE DRAINAGE WITH DIVERSION DITCHES, SWALES AND DRAINS
4. CLEAR AND GRUB SITE, INCLUDING DEMOLITION TO LIMITS, AS SHOWN
5. STRIP AND STOCKPILE TOP SOIL FOR USE IN LANDSCAPE AREAS
6. COMPLETE SITE GRADING
7. COMPLETE UTILITY INSTALLATION
8. CONSTRUCT NEW CURB AND GUTTER AND PAVEMENT
9. FINISH GRADING AND FINAL GRASSING AND LANDSCAPING
10. REMOVE SEDIMENT CONTROLS AFTER SITE HAS BEEN STABILIZED

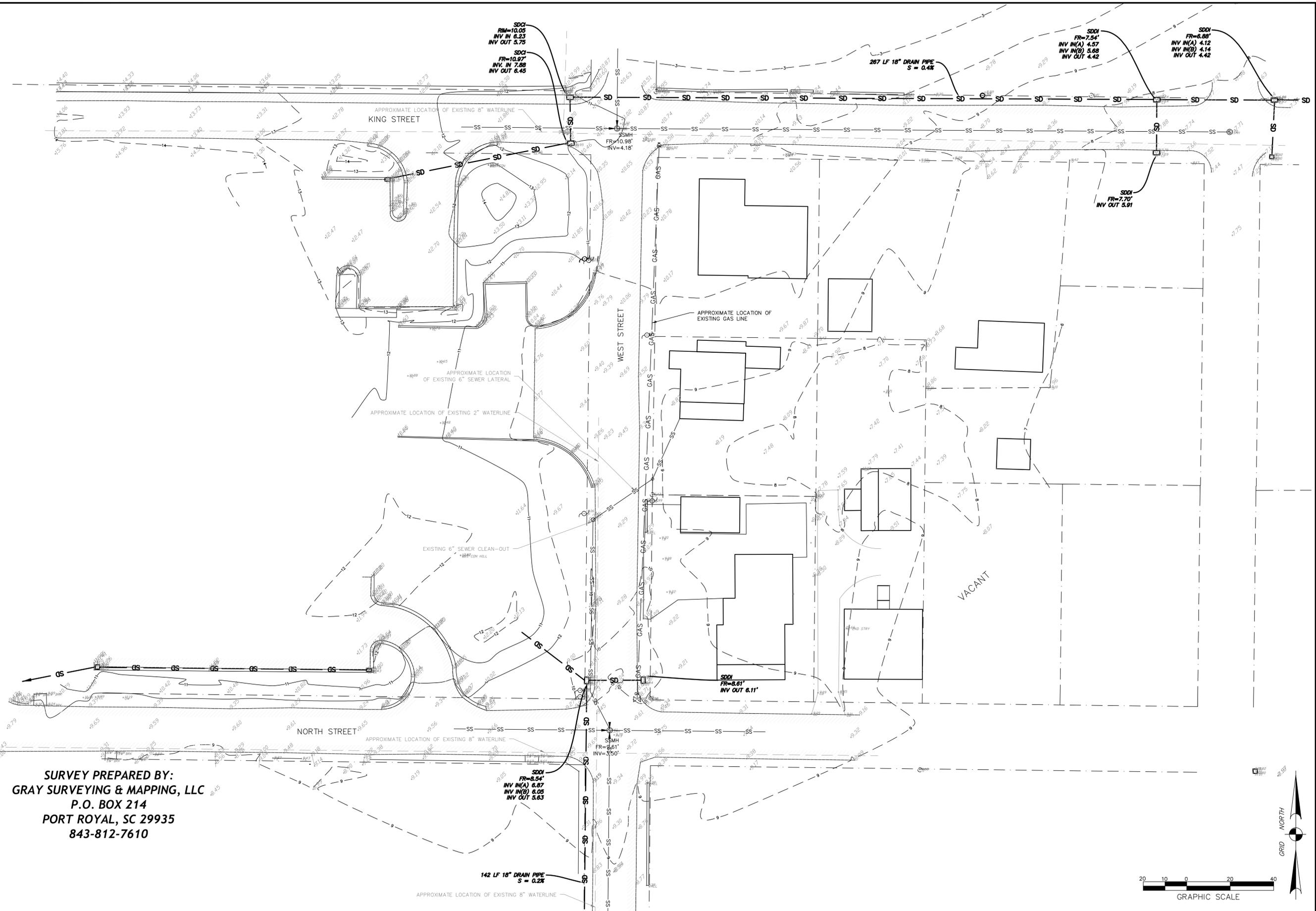
**EROSION & SEDIMENT CONTROL LEGEND**

DESCRIPTION	SYMBOL
<b>EROSION PREVENTION</b>	
LAND GRADING:	
SURFACE ROUGHENING:	
TOPSOILING:	
TEMPORARY SEEDING:	
MULCHING:	
ECB OR TRM:	
FGM:	
BFM:	
PERMANENT SEEDING:	
SODDING:	
RIPRAP:	
OUTLET PROTECTION:	
DUST CONTROL:	
POLYACRYLAMIDE (PAM):	
<b>SEDIMENT CONTROL</b>	
SEDIMENT BASIN:	
TEMPORARY SEDIMENT TRAP:	
ROCK SEDIMENT DIKE:	
ROCK CHECK DAM:	
SEDIMENT TUBE:	
SILT FENCE:	
REINFORCED SILT FENCE:	
TYPE A - FABRIC INLET PROTECTION:	
TYPE A - SEDIMENT TUBE INLET PROTECTION:	
TYPE B - WIRE MESH AND STONE DROP INLET PROTECTION:	
TYPE C - BLOCK AND GRAVEL INLET PROTECTION:	
TYPE D - RIGID INLET FILTER:	
TYPE E - SURFACE COURSE CURB INLET FILTER:	
TYPE F - INLET TUBE:	
<b>RUNOFF CONVEYANCE MEASURES:</b>	
VEGETATED CHANNELS:	
RIPRAP-LINED CHANNELS:	
ECB OR TRM-LINED CHANNELS:	
PAVED CHANNELS:	
PIPE SLOPE DRAINS:	
TEMPORARY STREAM CROSSING:	
TEMPORARY DIVERSION DITCH OR SWALE:	
PERMANENT DIVERSION DITCH:	
DIVERSION DIKE OR BERM:	
LEVEL SPREADER:	
SUBSURFACE DRAIN:	

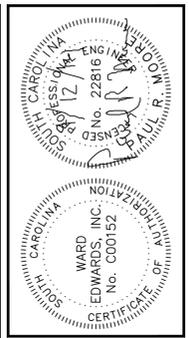
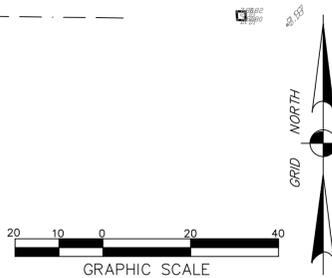
**STANDARD ABBREVIATIONS**

AC	ACRE	MJ	MECHANICAL JOINT
ADT	AVERAGE DAILY TRAFFIC	N	NORTH
ASPH	ASPHALT	NBR	NORTH BOUND ROADWAY
BEG	BEGIN	NC	NORMAL CROWN
BL	BASELINE	NGVD	NATIONAL GEODETTIC VERTICAL DATUM
BM	BENCHMARK	NT	NOT IN CONTRACT
BOB	BOTTOM OF BANK	OD	OUTSIDE DIAMETER
BOTT	BOTTOM	OH	OVERHEAD
BRG	BURIED TELEPHONE	OMP	OVERHEAD POWER
BT	BACK OF CURB	PAVT	PAVEMENT
B/C	RATE OF CHANGE IN SLOPE	PC	POINT OF CURVATURE
C & G	CURB AND GUTTER	PCC	POINT OF COMPOUND CURVATURE
CATV	CABLE TELEVISION	PERF	PERFORATED
CB	CATCH BASIN	PG	PROFILE GRADE
CI	CURB INLET	PGE	PROFILE GRADE ELEVATION
CL	CLEARANCE OR CENTERLINE	PGL	PROFILE GRADE LINE
CONST	CONSTRUCTION	PI	POINT OF INTERSECTION
CORR	CORRECTION	PR	POINT OF ROTATION
CR	CORRECTION	PRC	POINT OF REVERSE CURVATURE
DBL	DOUBLE	PRCS	PRESTRESS
DH	DESIGN HOURLY VOLUME	PT	POINT OF TANGENCY
DI	DITCH INLET	PVC	POLYVINYL CHLORIDE
DIA or D	DIAMETER	PVI	POINT OF VERTICAL INTERSECTION
DIP	DUCTILE IRON PIPE	Q	PEAK DISCHARGE OR FLOW VOLUME (CFS)
DT	DELETED	R	RATE OF CHANGE IN ELEVATION
E	ELEVATION	R or RAD	RADIUS
E	ELEVATION	RC	REINFORCED CONCRETE PIPE
E	ELEVATION	RD	ROADWAY
EGL	EXISTING GRADE LINE	REQ	REQUIRED
EL	ELEVATION	RT	RIGHT
EL	ELEVATION	R/W	RIGHT OF WAY
ENGR	ENGINEER	S	SPEED OR SOUTH OR SLOPE
EMBK	EMBANKMENT	SAHM	SAND-ASPHALT HOT MIX</

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**GRAY SURVEYING & MAPPING, LLC**  
 P.O. BOX 214  
 PORT ROYAL, SC 29935  
 843-812-7610



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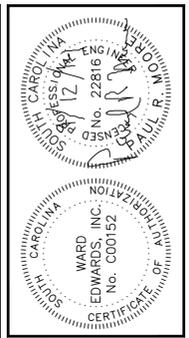
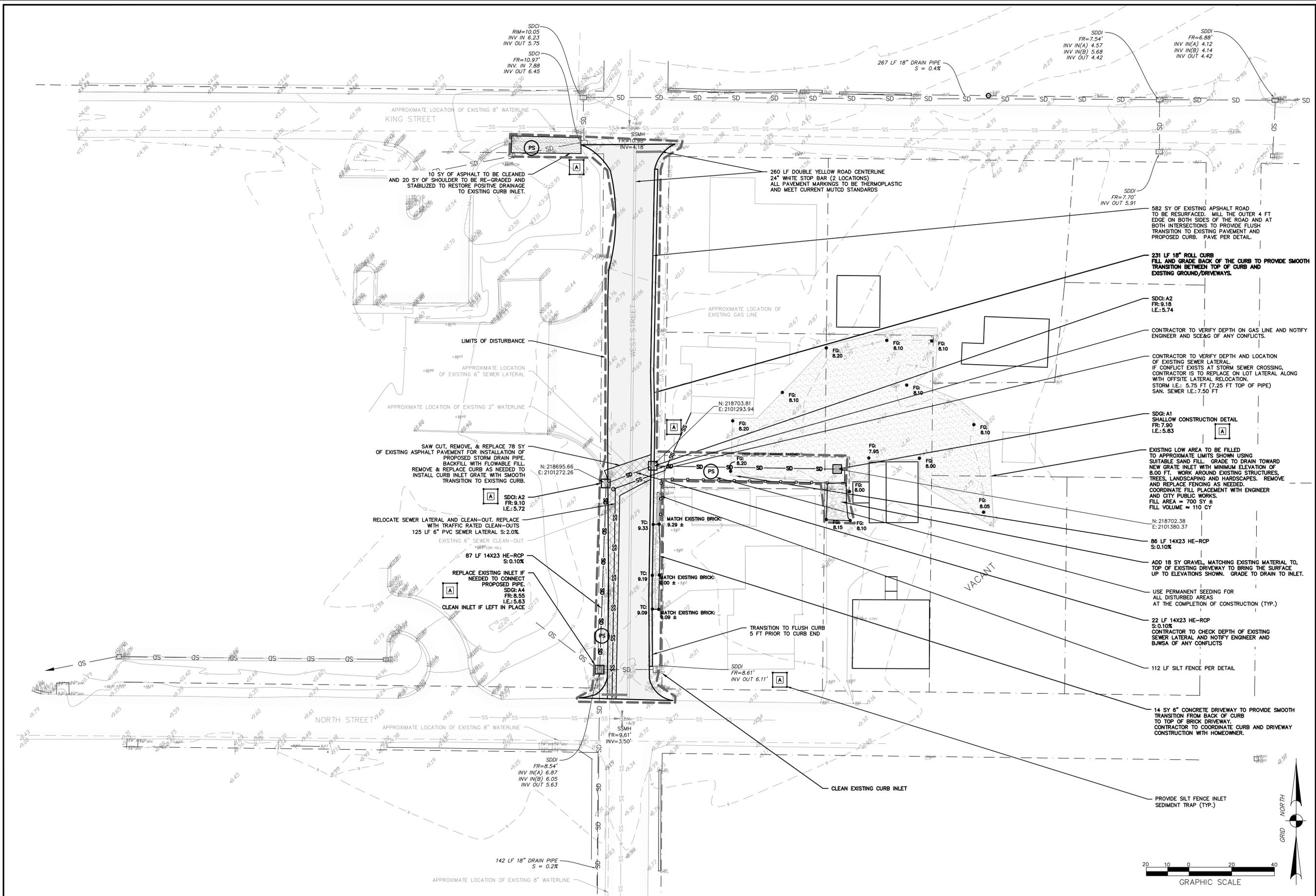
**WEST STREET DRAINAGE IMPROVEMENTS**  
 CITY OF BEAUFORT, SOUTH CAROLINA  
**PREPARED FOR THE CITY OF BEAUFORT**  
**BEAUFORT, SOUTH CAROLINA**  
**EXISTING CONDITIONS PLAN**

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<input type="checkbox"/> RELEASED FOR CONSTRUCTION
PROJECT #: 150215C
DATE: 08/08/16
DESIGNED BY: PRM
CHECKED BY: GAB
SCALE: 1"=20'

**SHEET**  
**C.03**

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WEST STREET DRAINAGE IMPROVEMENTS  
CITY OF BEAUFORT, SOUTH CAROLINA  
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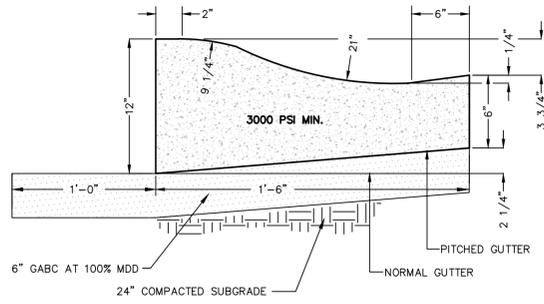
**DEMOLITION, DRAINAGE & PAVING PLAN**

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PROJECT #: 150215C
DATE: 08/08/16
DESIGNED BY: PRM
CHECKED BY: GAB
SCALE: 1"=20'

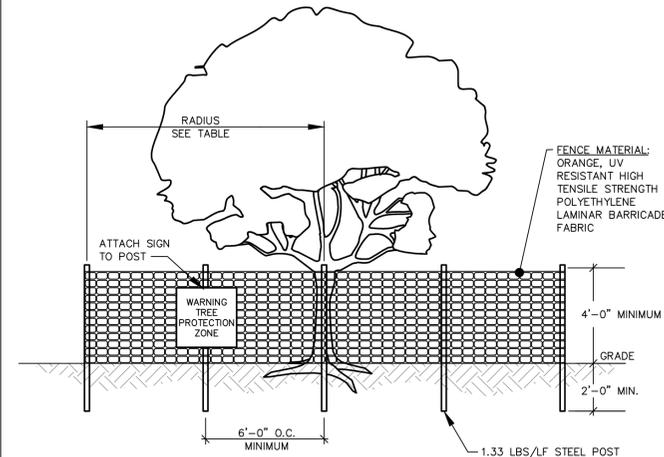
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**18" ROLLOVER CONCRETE CURB AND GUTTER DETAIL**  
DETAIL 03300-002



**NOTES:**

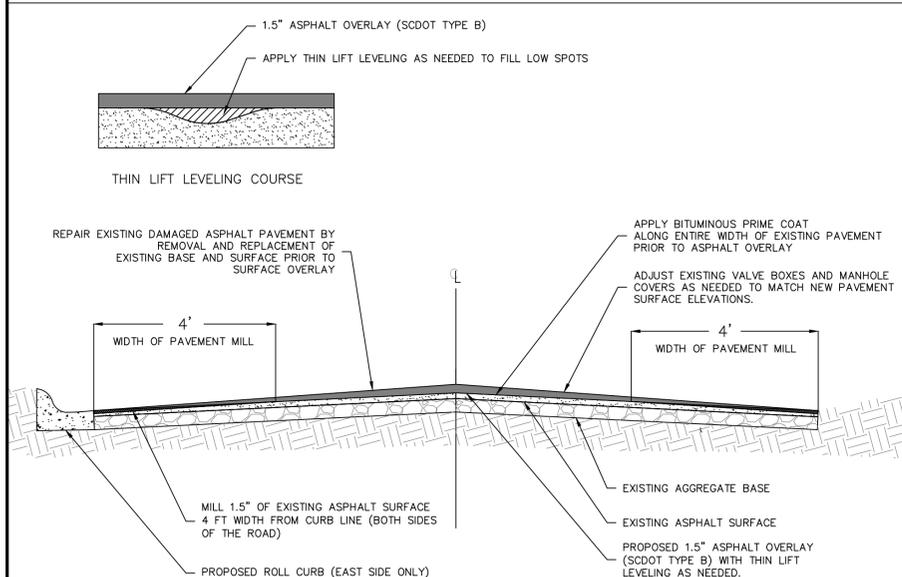
- ALL TREES DESIGNATED TO BE SAVED SHALL BE PROTECTED BY FENCING.
- INSTALL TREE PROTECTION FENCE TO RADIUS INDICATED IN TABLE UNLESS OTHERWISE INDICATED ON PLANS.
- WARNING SIGNS TO BE MADE OF DURABLE WATERPROOF MATERIAL.
- ALL WARNING SIGN LETTERS TO BE AT LEAST 3 INCHES HIGH, CLEARLY LEGIBLE AND SPACED A MINIMUM OF ONE EVERY 40 FT. FOR PROTECTION AREAS LESS THAN 40 FT IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER SIDE.
- THE SIZE OF EACH WARNING SIGN MUST BE A MINIMUM OF 2' x 2' AND BE VISIBLE FROM BOTH SIDES OF THE FENCE.
- ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
- THERE SHALL BE NO STORAGE OF MATERIAL WITHIN THE BOUNDARIES OF THE TREE PROTECTION FENCING.
- TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. FENCING MUST REMAIN UPRIGHT AND SLACK FREE.

JURISDICTION	RADIUS OF CIRCULAR TPZ
BEAUFORT COUNTY DSO 106-1846(b)(2)OR	1 FOOT PER INCH OF TRUNK DBH OR 5 FEET, WHICHEVER IS GREATER
TOWN OF BLUFFTON UDO 5.3.3, C(1)	1.5 FEET PER INCH OF TRUNK DBH
TOWN OF HILTON HEAD LMO 16-6-404	FENCING AT DRIP LINE FOR "SPECIMEN TREES", SEE PLANS FOR ALL OTHERS
CITY OF BEAUFORT UDO 7.3, D(3)	0.5 FOOT PER INCH OF TRUNK DBH OR 5 FEET, WHICHEVER IS GREATER
JASPER COUNTY ZONING ORD. ART. 13	FENCING AT DRIP LINE FOR "SIGNIFICANT" AND "LANDMARK" TREES
CITY OF HARDEEVILLE MZDSO 4.8, F	FENCING AT DRIP LINE FOR "PROTECTED TREES", SEE PLANS FOR ALL OTHERS

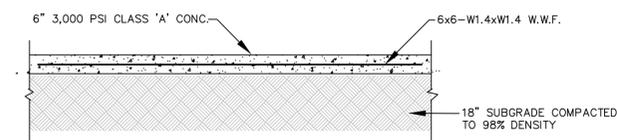
DBH = TRUNK DIAMETER AT BREAST HEIGHT

**TREE PROTECTION FENCE**  
DETAIL #02915-008

CITY OF BEAUFORT (U.D.O. 7.3, D(3))  
\*A CIRCLE WITH A RADIUS OF ONE-HALF FOOT FOR EVERY INCH OF DBH OR FIVE FEET, WHICHEVER IS GREATER (THE CIRCLE OF PROTECTION MAY BE OFFSET AS MUCH AS TWO-THIRDS OF ITS TOTAL DIAMETER).



**TYPICAL PAVEMENT CROSS SECTION**



**CONCRETE PAVING SECTION**

DETAIL #03300-034

**PERMANENT SEEDING - COASTAL**

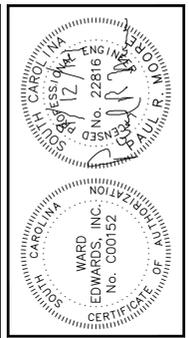
SPECIES	LBS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	10 LBS/AC												
BROWNTOP MILLET	40 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
BROWNTOP MILLET	30 LBS/AC												
BROWNTOP MILLET	40 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
BROWNTOP MILLET	15 LBS/AC												
BROWNTOP MILLET	8 LBS/AC												
BROWNTOP MILLET	8 LBS/AC												
BROWNTOP MILLET	4 LBS/AC												
BROWNTOP MILLET	20 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
BROWNTOP MILLET	8 LBS/AC												
WELL DRAINED, CLAYEY/LOAMEY SITES													
BROWNTOP MILLET	10 LBS/AC												
BROWNTOP MILLET	40 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
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BROWNTOP MILLET	12 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
BROWNTOP MILLET	20 LBS/AC												
BROWNTOP MILLET	6 LBS/AC												
BROWNTOP MILLET	40 LBS/AC												
BROWNTOP MILLET	10 LBS/AC												
BROWNTOP MILLET	8 LBS/AC												
BROWNTOP MILLET	3 LBS/AC												
BROWNTOP MILLET	3 LBS/AC												

**PERMANENT SEEDING - COASTAL**  
DETAIL 02370-010

**TEMPORARY SEEDING - COASTAL**

SPECIES	LBS/AC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SANDY, DROUGHTY SITES													
BROWNTOP MILLET	40 LBS/AC												
RYE, GRAIN	56 LBS/AC												
RYEGRASS	50 LBS/AC												
WELL DRAINED, CLAYEY/LOAMEY SITES													
BROWNTOP MILLET	40 LBS/AC												
BROWNTOP MILLET	OR												
JAPANESE MILLET	40 LBS/AC												
RYE, GRAIN OR	56 LBS/AC												
OATS	75 LBS/AC												
RYEGRASS	50 LBS/AC												

**TEMPORARY SEEDING - COASTAL**  
DETAIL 02370-011



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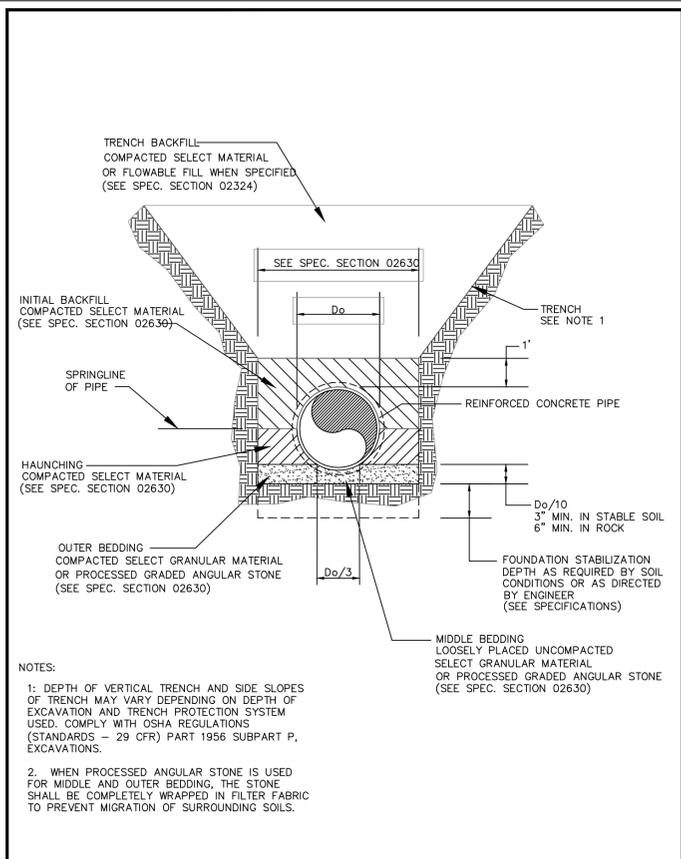
WEST STREET DRAINAGE IMPROVEMENTS  
CITY OF BEAUFORT, SOUTH CAROLINA  
PREPARED FOR THE CITY OF BEAUFORT  
BEAUFORT, SOUTH CAROLINA  
CONSTRUCTION DETAILS

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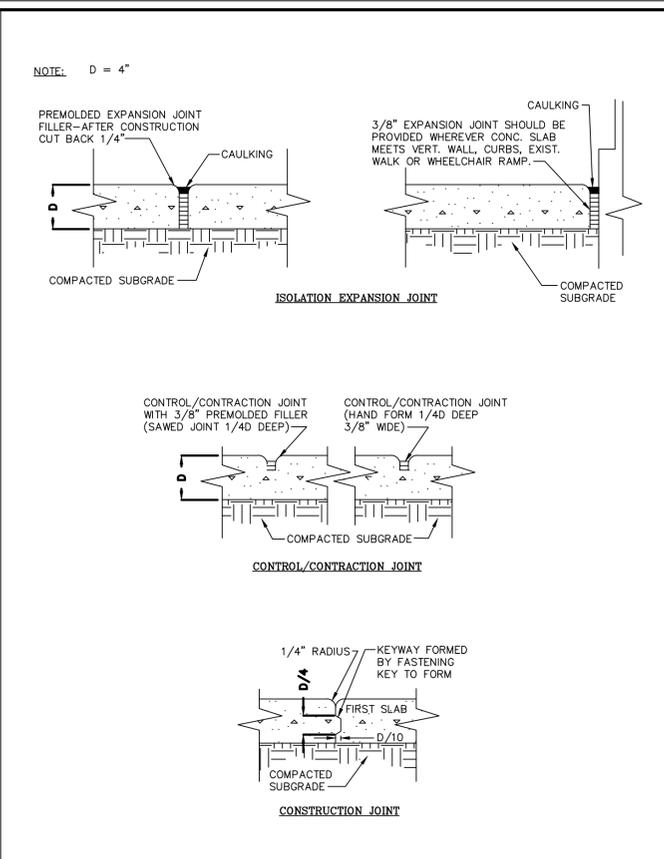
PROJECT #: 150215C  
DATE: 08/08/16  
DESIGNED BY: PRM  
CHECKED BY: GAB  
SCALE: AS NOTED

SHEET  
**C.05A**

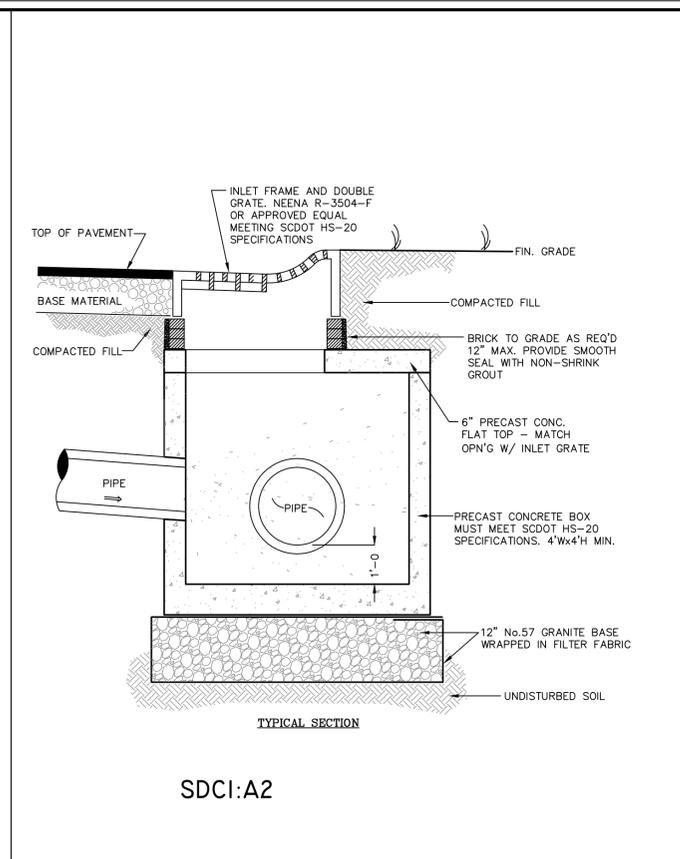
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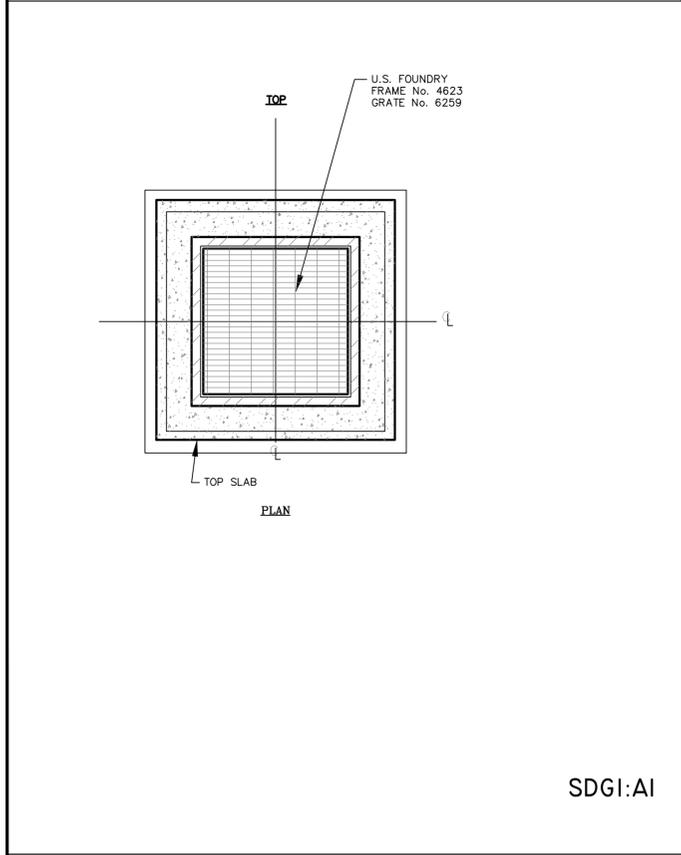
**EMBEDMENT DETAIL FOR REINFORCED CONCRETE PIPE**



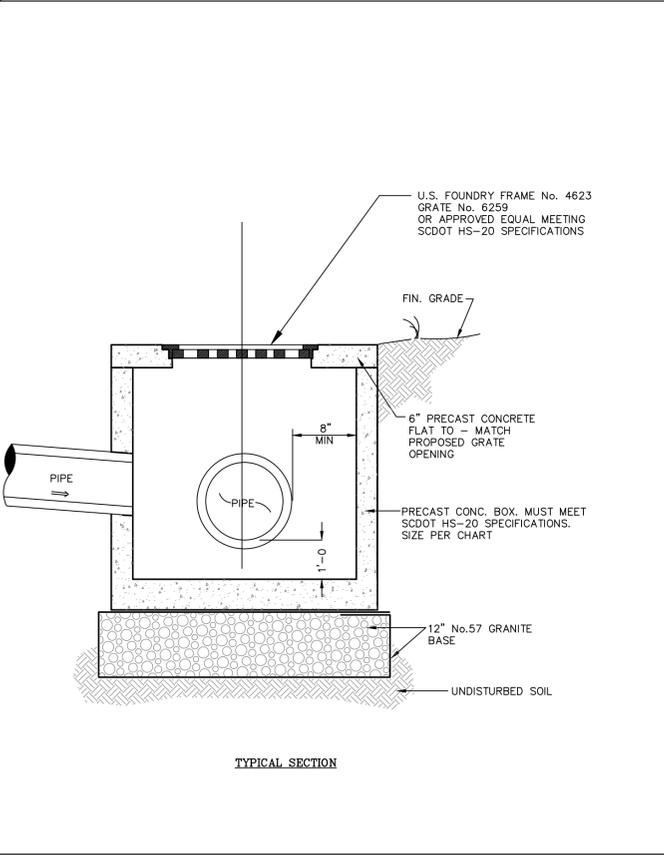
**CONCRETE JOINTS** DETAIL 03300-007



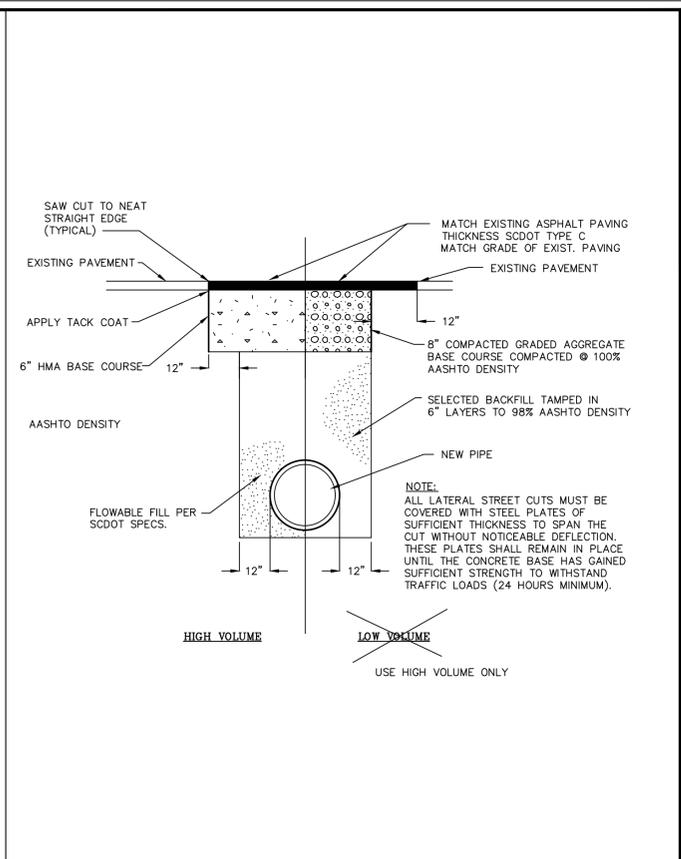
**CURB INLET WITH GRATE** DETAIL 02630-029



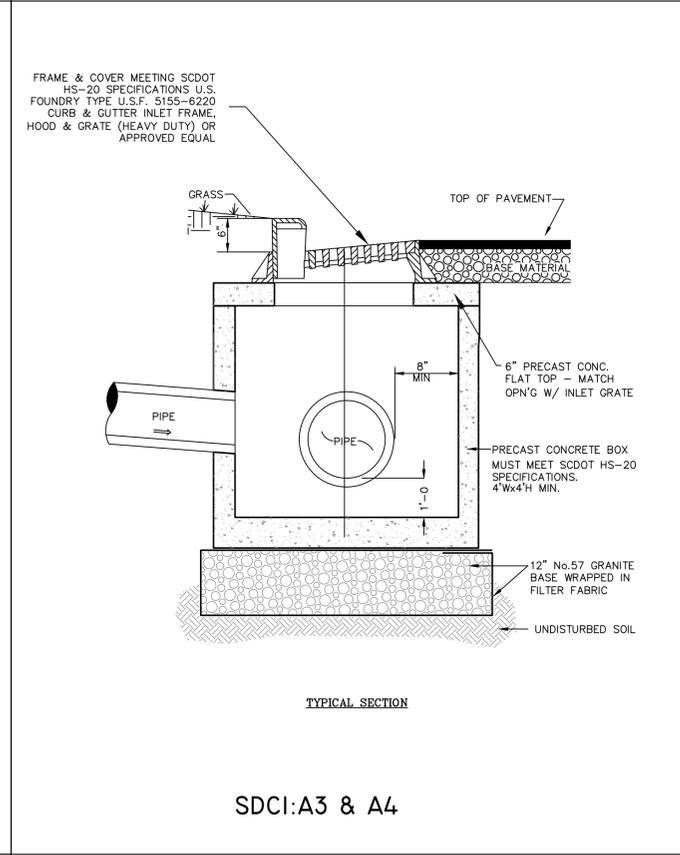
**GRATE INLET (SDGI)** DETAIL 02630-027



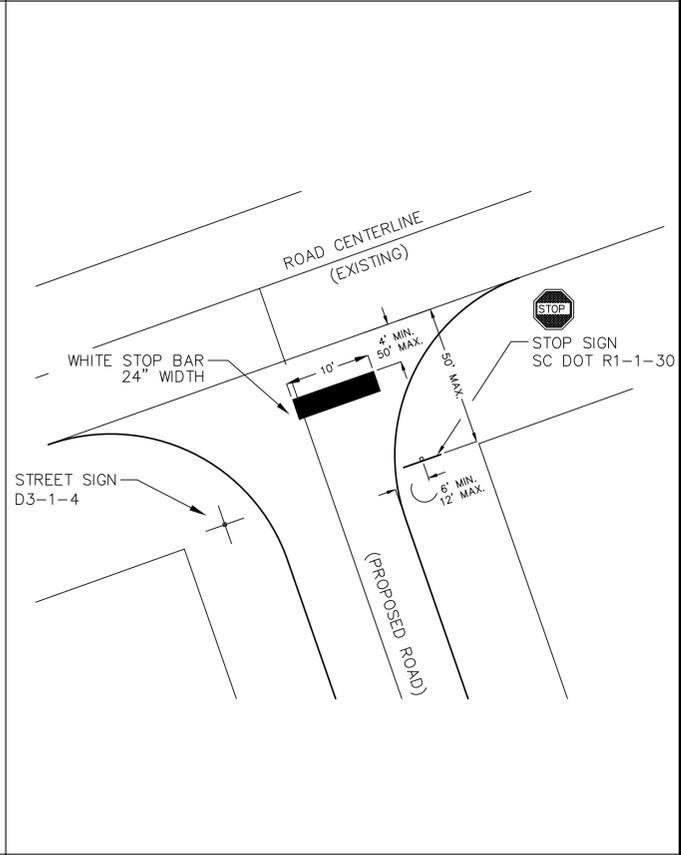
**CURB INLET WITH FRAME AND COVER** DETAIL 02630-028



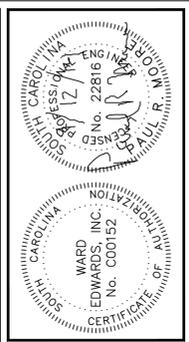
**ASPHALT CUT AND PATCH** DETAIL 02740-003



**CURB INLET WITH FRAME AND COVER** DETAIL 02630-028



**TYPICAL STOP SIGN & STOP BAR STRIPING AT INTERSECTION** DETAIL #02740-018



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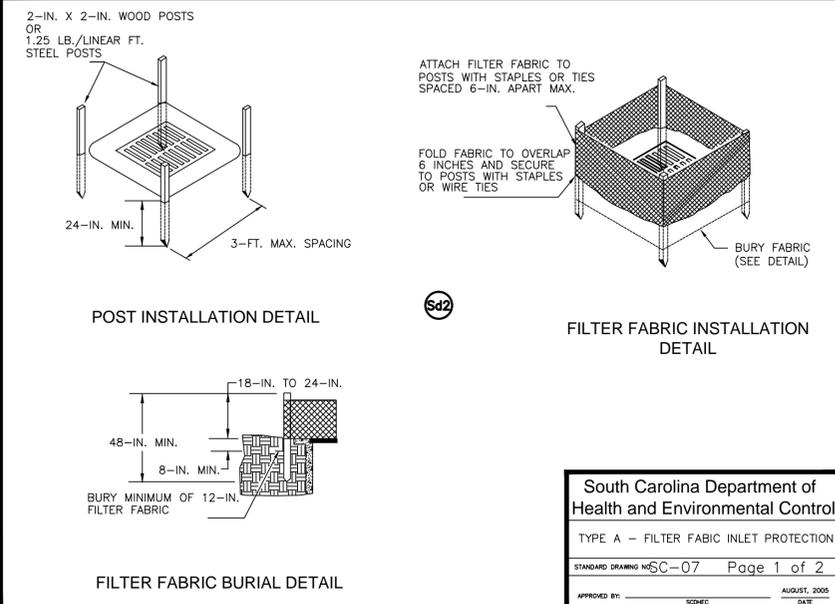
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**WEST STREET DRAINAGE IMPROVEMENTS**  
 CITY OF BEAUFORT, SOUTH CAROLINA  
 PREPARED FOR THE CITY OF BEAUFORT  
 BEAUFORT, SOUTH CAROLINA  
**CONSTRUCTION DETAILS**

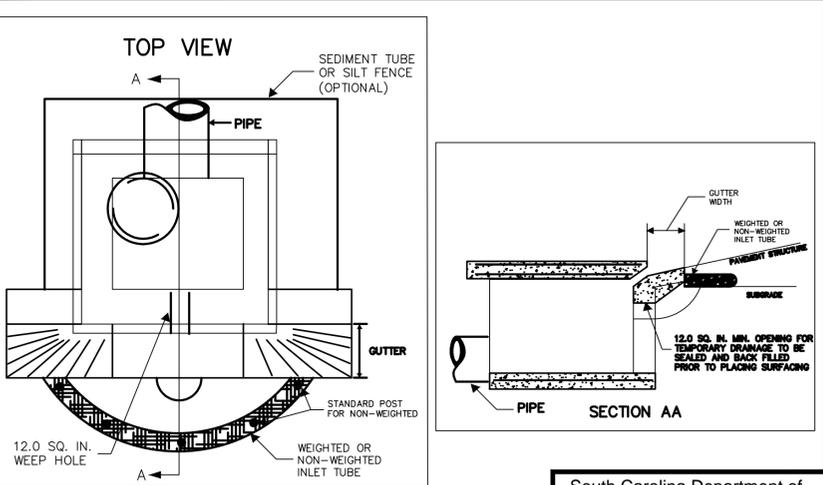
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PROJECT #:	150215C
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DESIGNED BY:	PRM
CHECKED BY:	GAB
SCALE:	AS NOTED

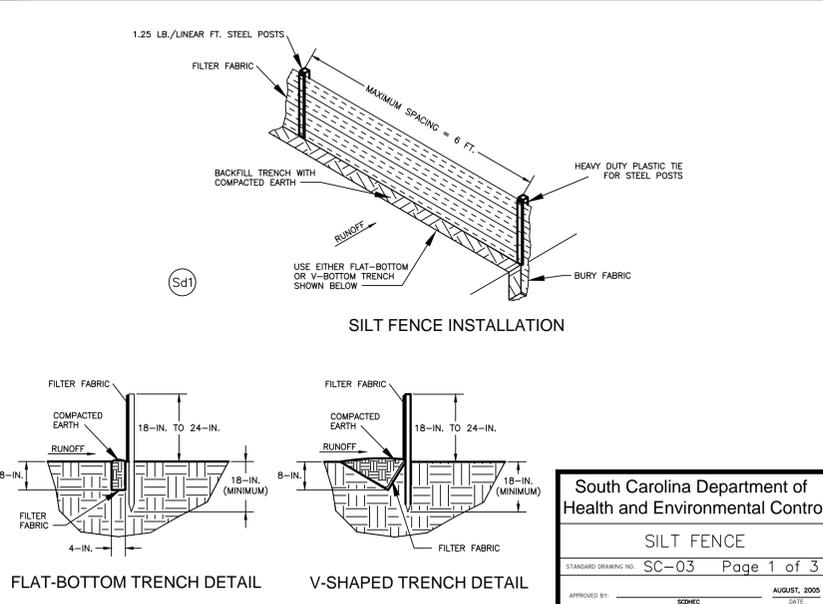
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South Carolina Department of Health and Environmental Control  
**TYPE A - FILTER FABRIC INLET PROTECTION**  
 STANDARD DRAWING NO. SC-07 Page 1 of 2  
 APPROVED BY: SCHEC DATE: AUGUST, 2005



South Carolina Department of Health and Environmental Control  
**TYPE F INLET TUBES**  
 STANDARD DRAWING NO. SC-11 Page 1 of 2  
 APPROVED BY: SCHEC DATE: AUGUST, 2005



South Carolina Department of Health and Environmental Control  
**SILT FENCE**  
 STANDARD DRAWING NO. SC-03 Page 1 of 3  
 APPROVED BY: SCHEC DATE: AUGUST, 2005

**FILTER FABRIC INLET PROTECTION**

**Materials:**  
 Use filter fabric that conforms to SCDOT standard specifications for highway construction (latest edition). Refer to the silt fence geotextile fabrics Approval Sheet #34.

Use steel posts that meet the following minimum physical requirements:  
 Be composed of high strength steel with minimum yield strength of 50,000 psi.  
 Have a standard "T" section with a nominal face width of 1.38-inches and nominal "T" length of 1.48-inches.  
 Weigh 1.25 pounds per foot (± 8%).  
 Be painted with a water based baked enamel paint.

Attach fabric to metal posts with heavy-duty plastic ties.

**Installation:**  
 Excavate a trench 6-inches wide and 6-inches deep around the outside perimeter of the inlet unless the fabric is pneumatically installed.

Extend the filter fabric a minimum of 12-inches into the trench. Backfill the trench with soil or crushed stone and compact over the filter fabric unless the fabric is pneumatically installed.

Use steel posts with a minimum post length of 60-inches consisting of standard "T" sections with a weight of 1.25 pounds per foot (±8%).  
 Install the filter fabric to a minimum height of 24-inches above grade. Space the steel posts around the perimeter of the inlet a maximum of 3-feet apart and drive them into the ground a minimum of 24-inches. Cut the filter fabric from a continuous roll to the length of the protected area to avoid the use of joints. When joints are necessary, wrap filter fabric together only at a support post with both ends securely fastened to the post, with a minimum 6-inch overlap.

Attach fabric to steel posts with heavy-duty plastic ties.

Attach at least four (4) evenly spaced ties in a manner to prevent sagging or tearing of the fabric. In all cases, affix ties in no less than four (4) places.

**Inspection and Maintenance:**  
 Inspections should be made every 7 calendar days and within 24-hours after each storm that produces 1/2-inch or more of rain. If the fabric becomes clogged, it should be replaced. Sediment should be removed when it reaches approximately 1/3 the height of the fence. Take care not to damage or undercut fabric when removing sediment. If a sump is used, sediment should be removed when it fills approximately 1/3 the depth of the hole. Maintain the pool area, always providing adequate sediment storage volume for the next storm.

Storm drain inlet protection structures should be removed only after the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Use appropriate permanent stabilization methods to stabilize bare areas around the inlet.

South Carolina Department of Health and Environmental Control  
**Type A - FILTER FABRIC INLET PROTECTION**  
 STANDARD DRAWING NO. SC-07 Page 2 of 2  
 APPROVED BY: SCHEC DATE: AUGUST, 2005

**Type F Inlet Tubes**

**Materials:**  
 Use inlet tubes that exhibit the following properties:  
 Produced by a Manufacturer experienced in sediment tube manufacturing.  
 Composed of compacted geotextiles, curled excelsior wood, natural coconut fibers or hardwood mulch or a mix of these materials enclosed by a flexible netting material.  
 Do not use straw, straw fiber, straw bales, pine needles or leaf mulch under this specification.  
 Utilize an outer netting that consists of seamless, high-density polyethylene photodegradable materials treated with ultraviolet stabilizers or a seamless, high-density polyethylene non-degradable materials. Curled wood excelsior fiber, or natural coconut fiber rolled erosion control products (RECP) rolled up to create an inlet tube devices are not allowed under this specification.

**Weighted Inlet Tubes**  
 Weighted inlet tubes are sediment tubes capable of staying in place without external stabilization measures and may have a weighted inner core or other weighted mechanism to keep them in place.

**Materials:**  
 Applicable Type F weighted inlet tubes may be selected from the SCDOT approved products list.

**Installation:**  
 Install weighted inlet tubes lying flat on the ground, with no gaps between the underlying surface and the inlet tube.  
 Never stack weighted inlet tubes on top of one another.

Do not completely block inlets with weighted inlet tubes.

Install weighted inlet tubes in such a manner that all overflow or overtopping water has the ability to enter the inlet unobstructed.

To avoid possible flooding, two or three concrete cinder blocks may be placed between the weighted inlet tubes and the inlet.

**Non-Weighted Inlet Tubes**  
 Non-weighted inlet tubes are defined as sediment tubes that require staking or other stabilization methods to keep them safely in place.

**Materials:**  
 Applicable Type F non-weighted inlet tubes may be selected from the SCDOT approved products list.

**Inspection and Maintenance:**  
 Inlet tubes may be temporarily moved during construction as needed.  
 Replace inlet tubes damaged during installation as directed by the Inspector or Manufacturer's Representative at the contractor's expense.

South Carolina Department of Health and Environmental Control  
**TYPE F INLET TUBES**  
 STANDARD DRAWING NO. SC-11 Page 2 of 2  
 APPROVED BY: SCHEC DATE: AUGUST, 2005

**SILT FENCE DETAIL**

**When and Where to Use it**  
 Silt fence is applicable in areas:  
 Where the maximum sheet or overland flow path length to the fence is 100-feet.  
 Where the maximum slope steepness (normal [perpendicular] to fence line) is 2H:1V.  
 That do not receive concentrated flows greater than 0.5 cfs.

Do not place silt fence across channels or use it as a velocity control BMP.

**Materials:**  
 Steel Posts  
 Use 48-inch long steel posts that meet the following minimum physical requirements:  
 Composed of high strength steel with minimum yield strength of 50,000 psi.  
 Have a standard "T" section with a nominal face width of 1.38-inches and nominal "T" length of 1.48-inches.  
 Weigh 1.25 pounds per foot (± 8%).  
 Have a soil stabilization plate with a minimum cross section area of 17-square inches attached to the steel posts.  
 Painted with a water based baked enamel paint.

Use steel posts with a minimum length of 4-feet, weighing 1.25 pounds per linear foot (± 8%) with projections to aid in fastening the fabric. Except when heavy clay soils are present on site, steel posts will have a metal soil stabilization plate welded near the bottom such that when the post is driven to the proper depth, the plate will be below the ground level for added stability.

The soil plates should have the following characteristics:  
 Be composed of minimum 15 gauge steel.  
 Have a minimum cross section area of 17-square inches.

**Geotextile Filter Fabric**  
 Filter fabric is:  
 Composed of fibers consisting of long chain synthetic polymers composed of at least 85% by weight of polyolefins, polyesters, or polyamides. Formed into a network such that the filaments or yarns retain dimensional stability relative to each other. Free of any treatment or coating which might adversely affect its physical properties after installation. Free of defects or flaws that significantly affect its physical and/or physical properties. Cut to a minimum width of 36 inches.

Use only fabric appearing on SCDOT Approval Sheet #34 meeting the requirements of the most current edition of the SCDOT Standard Specifications for Highway Construction.

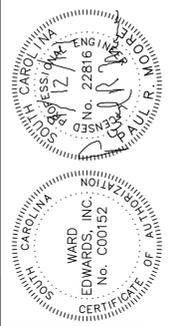
South Carolina Department of Health and Environmental Control  
**SILT FENCE**  
 STANDARD DRAWING NO. SC-03 Page 2 of 3  
 APPROVED BY: SCHEC DATE: AUGUST, 2005

**SILT FENCE DETAIL**

**Installation**  
 Excavate a trench approximately 6-inches wide and 6-inches deep when placing fabric by hand. Place 12-inches of geotextile fabric into the 6-inch deep trench, extending the remaining 6-inches towards the upslope side of the trench. Backfill the trench with soil or gravel and compact. Bury 12-inches of fabric into the ground when pneumatically installing silt fence with a slicing method. Purchase fabric in continuous rolls and cut to the length of the barrier to avoid joints. When joints are necessary, wrapped the fabric together at a support post with both ends fastened to the post, with a 6-inch minimum overlap. Install posts to a minimum depth of 24-inches. Install posts a minimum of 1- to 2- inches above the fabric, with no more than 3-feet of the post above the ground. Space posts to maximum 6-feet centers. Attach fabric to wood posts using staples made of heavy-duty wire at least 1 1/2-inch long, spaced a maximum of 6-inches apart. Staple a 2-inch wide lathe over the filter fabric to securely fasten it to the upslope side of wooden posts. Attach fabric to the steel posts using heavy-duty plastic ties that are evenly spaced and placed in a manner to prevent sagging or tearing of the fabric. In call cases, ties should be affixed in no less than 4 places. Install the fabric a minimum of 24-inches above the ground. When necessary, the height of the fence above ground may be greater than 24-inches. In tidal areas, extra silt fence height may be required. The post height will be twice the exposed post height. Post spacing will remain the same and extra height fabric will be 4-, 5-, or 6-feet tall. Locate silt fence checks every 100 feet maximum and at low points. Install the fence perpendicular to the direction of flow and place the fence the proper distance from the toe of steep slopes to provide sediment storage and access for maintenance and cleanout.

**Inspection and Maintenance**  
 Inspect every seven calendar days and within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation. Check for sediment buildup and fence integrity. Check where runoff has eroded a channel beneath the fence, or where the fence has sagged or collapsed by fence overtopping. If the fence fabric tears, begins to decompose, or in any way becomes ineffective, replace the section of fence immediately.  
 Remove sediment accumulated along the fence when it reaches 1/3 the height of the fence, especially if heavy rains are expected.  
 Remove trapped sediment from the site or stabilize it on site.  
 Remove silt fence within 30 days after final stabilization is achieved or after temporary best management practices (BMPs) are no longer needed.  
 Permanently stabilize disturbed areas resulting from fence removal.

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NO.	DESCRIPTION	DATE
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WEST STREET DRAINAGE IMPROVEMENTS  
 CITY OF BEAUFORT, SOUTH CAROLINA  
 PREPARED FOR THE CITY OF BEAUFORT  
 BEAUFORT, SOUTH CAROLINA  
**CONSTRUCTION DETAILS**

NOT FOR CONSTRUCTION  
 RELEASED FOR CONSTRUCTION

PROJECT #: 150215C  
 DATE: 08/08/16  
 DESIGNED BY: PRM  
 CHECKED BY: GAB  
 SCALE: AS NOTED

**SHEET C.05C**