# CCU - SCIENCE COMPLEX SIDEWALK

## FOR

## COASTAL CAROLINA UNIVERSITY

4703 OLEANDER DRIVE

MYRTLE BEACH, SC 29577





23.185 1" = 400' DRAFTED BY: DESIGNED BY: APPROVED BY:

SHEET NUMBER:

## PROJECT SUMMARY

SITE LOCATION COASTAL CAROLINA **UNIVERSITY** CONWAY, SC

HORIZONTAL DATUM: NAD 83	
VERTICAL DATUM: NAVD 88	
BENCHMARK : XX	
NDDEC DEDMIT . VV	╗╽

0.52 ACRES

NPDES PERMIT: XX

PARCEL PIN #'(S): 383-08-03-0019

TOTAL PROJECT AREA =

THIS PROPERTY IS LOCATED IN FLOOD ZONE "X" AS SCALED FROM F.I.R.M. No. 45051C0702 H, DATED AUGUST 23, 1999, THIS PLAT IS NOT THE BASIS FOR FLOOD ZONE DETERMINATION OR FLOOD ZONE RELATED ISSUES.

CONTRACTOR SHALL BE KNOWLEDGEABLE WITH LOCAL, CITY, COUNTY, STATE, AND FEDERAL REGULATIONS AS THEY MAY PERTAIN TO THIS PROJECT AND SHALL ADHERE TO THESE REGULATIONS.

INFORMATION REGARDING THE PRESENCE, SIZE, CHARACTER, AND LOCATION OF ANY UNDERGROUND UTILITY AND/OR STRUCTURE SHOWN ON THIS PLAN IS APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE ALL UNDERGROUND UTILITIES LOCATED.

CONTINUE SE
ARTIC AVE
CITE
SITE
COASTAL CAROLINA UNIVERSITY
HORRY-GEORGETOWN
TECHNICAL COLLEGE
WIVERSTY BLVD
LOCATION MAP / VICINITY MAP

SCALE 1'' = 400'

ATLANTIC AVE
SITE
COASTAL CAROLINA UNIVERSITY
HORRY-GEORGETOWN TECHNICAL COLLEGE
TECHNICAL COLLEGE
WIVERSITY BLVD
INIVERSIT.
LOCATION MAP / VICINITY MAP

**Know what's below.** Call before you dig.

SHEET TABLE

**SHEET NUMBER** 

C1.0

C2.0

C3.0

C4.0

**SHEET TITLE** 

**COVER SHEET** 

**GENERAL NOTES** 

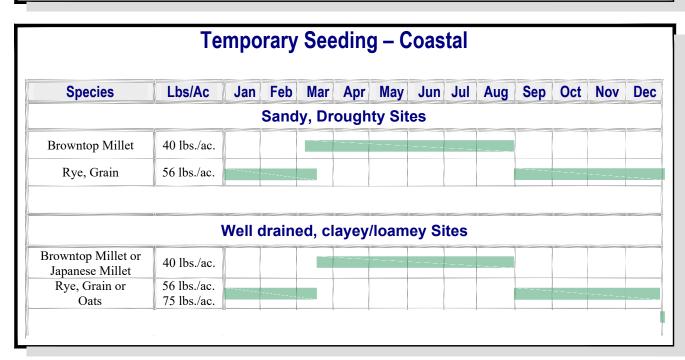
**EXISTING CONDITIONS** 

SITE PLAN

**EROSION CONTROL PLAN** 

**DETAILS** 

Permanent Seeding - Coastal													
Species	Lbs/Ac	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Browntop Millet	10 lbs./ac.												
Bahiagrass	40 lbs./ac.												
Browntop Millet	10 lbs./ac.								1				
Bahiagrass	30 lbs./ac.							سطر		4 1		1	
Sericea Lespedeza	40 lbs/ac.				1 '		1	(			1		
Browntop Millet	10 lbs./ac.			1				1	1				
Atlantic Coastal	15 lbs./ac.									1		1	
Panicgrass	PLS			1	1 '		1	ĺ			1		
Browntop Millet	10 lbs./ac.	1	+ +	,									
Switchgrass	8 lbs./ac.				['		[ ]			1		'	
(Alamo)	PLS											'	
Little Bluestem	4 lbs./ac.			1			1				'	'	
Sericea Lespedeza	20 lbs./ac.			1	1 '		1	ĺ			'	1	
Browntop Millet	10 lbs./ac.	-	+		<del></del>	<del>                                     </del>						-	-
Weeping Lovegrass	8 lbs./ac.							l l		[		1	
Weeping Lovegrass	0 105./ac.			<u></u>	<u></u>			===			<u> </u>	<u></u>	<u> </u>
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Browntop Millet	10 lbs./ac.		7										
Bahiagrass	40 lbs./ac.				,					[ ]	1		
Rye, Grain	10 lbs./ac.			1					1				
Bahiagrass	40 lbs./ac.			1	1 '		1		1				
Clover, Crimson	5 lbs./ac.						1						
(Annual)	J 102			1	1		1	ĺ			1		
Browntop Millet	10 lbs./ac.		+ +						1				
Bahiagrass	30 lbs./ac.											1	
Sericea lespedeza	40 lbs./ac.									1	1		
Browntop Millet	10 lbs./ac.	-	+		<u> </u>	<del>                                     </del>			<del>                                     </del>	<del>                                     </del>	-	<del></del>	-
Bermuda, Common	10 lbs./ac.											'	
Sericea lespedeza	40 lbs./ac.									4 - 1			
Browntop Millet	10 lbs./ac.	-	+		+	+	$\overline{}$		-			-	-
Bermuda, Common	10 lbs./ac.					4				1			
Kobe Lespedeza	12 lbs./ac.									4		1	
(Annual)	10 108./ac.			1	1		1	ĺ			'		
	10 lbs./ac.		+'	+	<del></del>	+	<del></del>		-	-			-
Browntop Millet	10 lbs./ac. 20 lbs./ac.									. '			
Bahiagrass Parmuda Common	6 lbs./ac.									4		1	
Bermuda, Common				'	1		1	i .					
Sericea lespedeza	40 lbs./ac.			<u> </u>	<u> </u>	+	$\overline{}$			1			-
Browntop Millet	10 lbs./ac.			'	1		1			1		'	
Switchgrass	8 lbs./ac.			1	1		1			1			
Little Bluestem	PLS											1	
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	3 lbs./ac.			1	1		1	1			'		
	PLS			1	1 '	1	( I			1	1	1	



### GENERAL NOTES

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- IF ANY ERRORS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING PRIOR TO CONSTRUCTION SO THAT CLARIFICATION OR REDESIGN MAY OCCUR
- THE CONTRACTOR SHALL CONFINE ALL WORK WITHIN THE LIMITS SHOWN.
- CONTRACTOR IS RESPONSIBLE FOR HAVING, IN HIS POSSESSION, ALL REQUIRED PERMITS AND APPROVALS PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL PERMITS OBTAINED FOR THE PROJECT.
- THE CONTRACTOR SHALL RESTORE GROUND SURFACE, DRAINAGE DITCHES AND EMBANKMENTS TO ORIGINAL GRADE AND VEGETATION ACCORDING TO PROJECT SPECIFICATIONS UNLESS OTHERWISE NOTED ON PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LINES, GRADES AND ELEVATIONS. ALL PIPES SHALL SLOPE UNIFORMLY BETWEEN INVERT ELEVATIONS
- THE CONTRACTOR SHALL ENSURE THAT EACH BUSINESS AND HOMEOWNER HAS ONE SAFE POINT OF ACCESS FOR CUSTOMERS AND DELIVERIES AT A

TIMES. THE CONTRACTOR SHALL MAINTAIN ACCESS KEEP IT SAFE, CLEAN AND FREE OF DEBRIS AND PROVIDE THE NECESSARY SAFETY DEVICES WHERI

- THE CONTRACTOR SHALL GIVE AFFECTED BUSINESS OWNERS AND HOMEOWNER AT LEAST A TWO (2) WORKING DAY ADVANCED NOTICE OF REMOVAL
- THE CONTRACTOR SHALL PRESERVE AND PROTECT PROPERTY MARKERS, SECTION CORNERS, SURVEY MARKS AND BENCH MARKS, SUCH AS STONES, PIPES. OR OTHER MONUMENTS ENCOUNTERED. IF THE CONTRACTOR MUST DISTURB THE PROPERTY MARKERS OR MONUMENTS, THEIR HORIZONTAL AND VERTICAL LOCATION SHALL BE DETERMINED AND RECORDED BY A REGISTERED LAND SURVEYOR AND THE OWNER NOTIFIED BEFORE DISTURBING. ALL
- PROPERTY MARKERS AND MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RE-ESTABLISHED BY A REGISTERED LAND SURVEYOR. ALL MATERIALS REQUIRED MUST BE PROVIDED AS NEW AND OF THE QUALITY CALLED OUT IN THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE THE EXACT MATERIALS AND PLACE THEM IN ACCORDANCE WITH THE DOCUMENTS AND REGULATORY AGENCY REQUIREMENTS
- 10. THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED. SHOULD THE CONTRACTOR PROCEED WITH CONSTRUCTION PRIOR TO DOING THIS AND ANY CONFLICTS OCCUR THEN THE CONTRACTOR WILL BE RESPONSIBLE FOR THE TOTAL COST TO REMEDY THE SITUATION INCLUDING ENGINEERING FEES. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN) WITHIN SCOPE OF CONSTRUCTION. IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPAIR THEM AT HIS OWN EXPENSE.
- 11. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SAFETY DURING ALL PHASES OF CONSTRUCTION

DEMOLITION AND /OR CONSTRUCTION ACTIVITY IN FRONT OF OR AFFECTING ACCESS TO THAT BUSINESS OR HOME.

12. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL GEOTECHNICAL ENGINEERING, COMPACTION, SOILS AND COMPACTION TESTING, AND HOMESITE SUITABILITY. ENGINEER MAKES NO REPRESENTATIONS OR WARRANTIES CONCERNING GEOTECHNICAL ENGINEERING, COMPACTION, SOILS, COMPACTION TESTING OR HOMESITE SUITABILITY.

### **EROSION CONTROL NOTES**

REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.

THE SITE IS STABILIZED.

- l. IF NECESSARY, SLOPES, WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION <sup>1</sup> 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 HAV 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 B INITIATED AS SOON AS PRACTICABLE.
- WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
- . ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY, OR INCORRECTLY, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION
- 4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. AL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION, FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO
- REMOVE SEDIMENT BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE. i. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND
- 5. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, 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. 72-300 ET SEQ. AND SCR100000.
- 3. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOP RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
- 9. 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'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.
- 10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
- 11. A COPY OF THE SWPPP, INSPECTIONS RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASIL'I ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.
- 12. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OF TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
- 13. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
- 14. 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:
- l5. 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.).
- 16. 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.
- 17. 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.
- 18. IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.
- 19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS TH DEPARTMENT HAS APPROVED OTHERWISE.

### SITE WORK

- EXISTING CONTOURS AND ELEVATIONS AS SHOWN ON THIS PLAN WERE TAKEN FROM A FIELD TOPOGRAPHIC SURVEY PREPARED BY DEVELOPMENT RESOURCE GROUP, LLC, CONTRACTOR SHALL CONTACT AND REFERENCE SAME BENCHMARK AS USED BY SURVEYOR
- BEFORE ANY EARTHWORK IS DONE, THE CONTRACTOR SHALL STAKE OUT AND FLAG THE CLEARING LIMITS, TREES TO BE SAVED & OTHER ITEMS ESTABLISHED BY THE PLANS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO FARTHWORK.
- CLEARING LIMITS SHALL BE, AT A MINIMUM, THE CLEARING REQUIRED IN ORDER TO FACILITATE THE WORK, OR TO PROVIDE FOR ADDITIONAL UTILITIES OR EASEMENTS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- NO TREE SHALL BE REMOVED OR DAMAGED WITHOUT PRIOR AUTHORIZATION OF THE OWNER OR OWNER'S REPRESENTATIVE. EXISTING TREES TO BE SAVED, AS SHOWN ON THE DRAWINGS, SHALL BE PRESERVED.
- ALL BACKFILL AND FILL SOILS SHOULD BE NON-PLASTIC AND GRANULAR IN NATURE. SOILS SHOULD BE PLACED IN MAXIMUM EIGHT (8.0) INCH COMPACTED LIFTS. EACH LIFT SHALL BE COMPACTED TO AT LEAST NINETY-FIVE PERCENT (95%) OF THE SOIL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM
- CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF UNSUITABLE MATERIAL OFF SITE. ALL SUITABLE MATERIAL SHALL BE STOCKPILED AT OWNERS
- ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED. UNUSABLE EXCAVATED MATERIAL AND ALL WASTE RESULTING FROM SITE CLEARING AND GRUBBING SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR AT THEIR EXPENSE UNLESS INSTRUCTED OTHERWISE BY THE
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL GEOTECHNICAL ENGINEERING CONCERNING THE SITE, HOMESITE LOCATION, COMPACTION, SOILS AND COMPACTION TESTING AND HOMESITE SUITABILITY.

- ALL MATERIALS AND WORKMANSHIP ARE TO CONFORM TO THE REQUIREMENTS SET FORTH BY CITY OF MYRTLE BEACH, SCDOT AND SC DHEC.
- IF AN ITEM IS NOT COVERED BY THESE PLANS, THEN CITY OF MYRTLE BEACH AND SCDOT AND SC DHEC GENERAL SPECIFICATIONS COVERING SUCH ITEMS SHALL APPLY.
- ALL DRAINAGE PIPE SHALL BE RCP, CLASS III UNLESS OTHERWISE SPECIFIED
- 4. FOR PIPE JOINTS, AND DRAINAGE STRUCTURES, CONTRACTOR SHALL USE TYPE M OR S MORTAR
- ALL DRAINAGE STRUCTURES GREATER THAN 6' IN DEPTH SHALL UTILIZE STEPS.

ALL DRAINAGE STRUCTURES SHALL HAVE A MINIMUM INSIDE DIMENSION OF 3' x 3'

ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

### WATER AND SEWER

- ALL MATERIALS AND WORKMANSHIP ARE TO CONFORM TO THE REQUIREMENTS SET FORTH BY GRAND STRAND WATER AND SEWER AUTHORITY AND SC
- IF AN ITEM IS NOT COVERED BY THESE PLANS, THEN GRAND STRAND WATER AND SEWER AUTHORITY AND SC DHEC GENERAL SPECIFICATIONS COVERING SUCH ITEMS SHALL APPLY.
- WATER MAINS SHALL BE MINIMUM, C-900, DR18 PVC PIPE, BLUE IN COLOR
- 4. HYDRANTS SHALL BE MUELLER SUPER CENTURION A423 (4 1/2" MAIN VALVE)
- SEWER PIPE SHALL BE MINIMUM, SDR 35 PVC PIPE, GREEN IN COLOR
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING RECORD DRAWINGS TO THE ENGINEER SHOWING THE LOCATION OF WATER INFRASTRUCTURE IN STATE PLANE COORDINATES AND ANY DEVIATIONS FROM PLANS MADE DURING CONSTRUCTION. THE ENGINEER WILL PROVIDE RECORD PLANS TO GRAND STRAND WATER AND SEWER AUTHORITY.
- THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE UTILITIES. ALL PUBLIC PIPE, STRUCTURES, AND FITTINGS SHALL BE INSPECTED BY GRAND STRAND WATER AND SEWER AUTHORITY INSPECTOR PRIOR TO BEING COVERED. THE INSPECTOR MUST ALSO BE PRESENT DURING DISINFECTION AND PRESSURE TESTING OF ALL MAINS. THE CONTRACTOR'S BID PRICE SHALL INCLUDE A TESTING AND INSPECTION FEES.
- WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" BELOW PROPOSED FINISHED GRADE.
- 9. ALL UNDERGROUND UTILITIES AND FIRE HYDRANTS MUST BE FUNCTIONALLY APPROVED PRIOR TO BUILDING CONSTRUCTION.
- 10. IN NO SUCH CASE SHALL SEWER SLOPES BE LESS THAN INDICATED ON THESE PLANS.

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS SCDOT STANDARD SPECIFICATIONS, LATEST EDITION, CITY OF MYRTLE BEACH SPECIFICATIONS, AND GEOTECHNICAL REPORT (WHEN PROVIDED)
- UPON COMPLETION OF PAVING, CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PAVEMENT CORE DATA AS REQUESTED BY CITY OF MYRTLE BEACH OR THE ENGINEER.
- PRIME COAT AND TACK COAT APPLICATION TO BE IN ACCORDANCE WITH SCDOT STANDARD SPECIFICATIONS.
- ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE SCDOT STANDARDS/FOR ROADWAY CONSTRUCTION AND THE MUTCD FOR HIGHWAY CONSTRUCTION.
- UNLESS OTHERWISE DIRECTED, PAVEMENT MARKINGS SHALL BE PAINT OR AS DIRECTED BY THE OWNER.
- ALL STOP BARS AND ARROWS ARE TO BE THERMOPLASTIC.
- 8. SAW CUTS ON EXISTING PAVEMENT FOR PATCHING SHALL HAVE A TYPICAL MINIMUM WIDTH OF 24 INCHES UNLESS OTHERWISE DIRECTED BY THE

1. CONTRACTOR SHALL BE AWARE OF UTILITES (DOMESTIC WATER, CHILLED WATER-SUPPLY/RETURN, GAS, FIBER, PRIVATE TELECOMMUNICATIONS) THAT RUN UNDER EXISTING PERVIOUS CONCRETE DRIVE. DEPTH OF EACH UTILITY VARIES. CONTRACTOR SHALL TAKE SPECIAL CARE WHEN REMOVING EXISTING PAVEMENT TO NOT DAMAGE EXISTING UTILITIES.

EVELOPMENT RESOURCE GROUP. 4703 OLEANDER DRIVE MYRTLE BEACH, SC 29577 843-839-3350 | DRGPLLC.COM



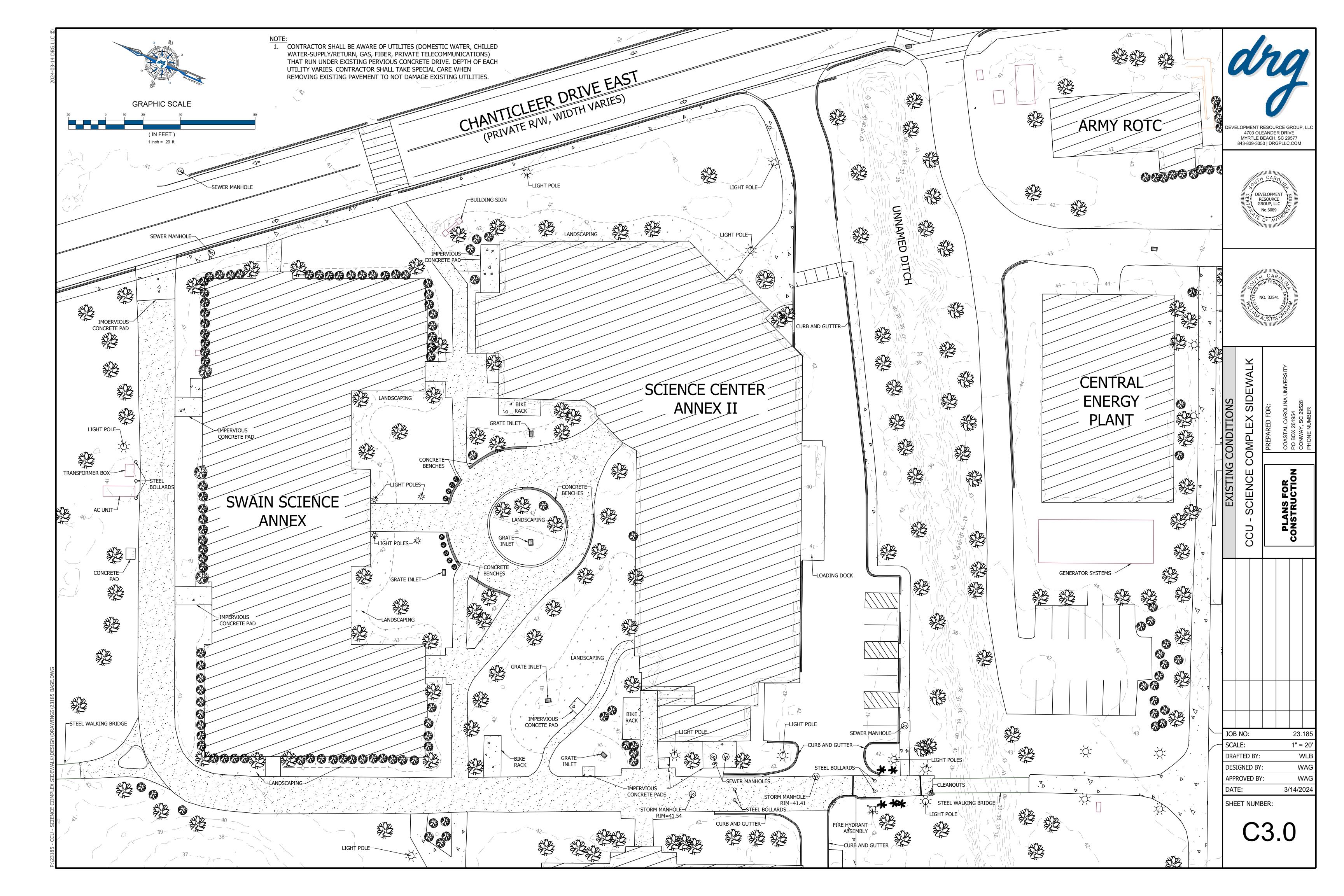


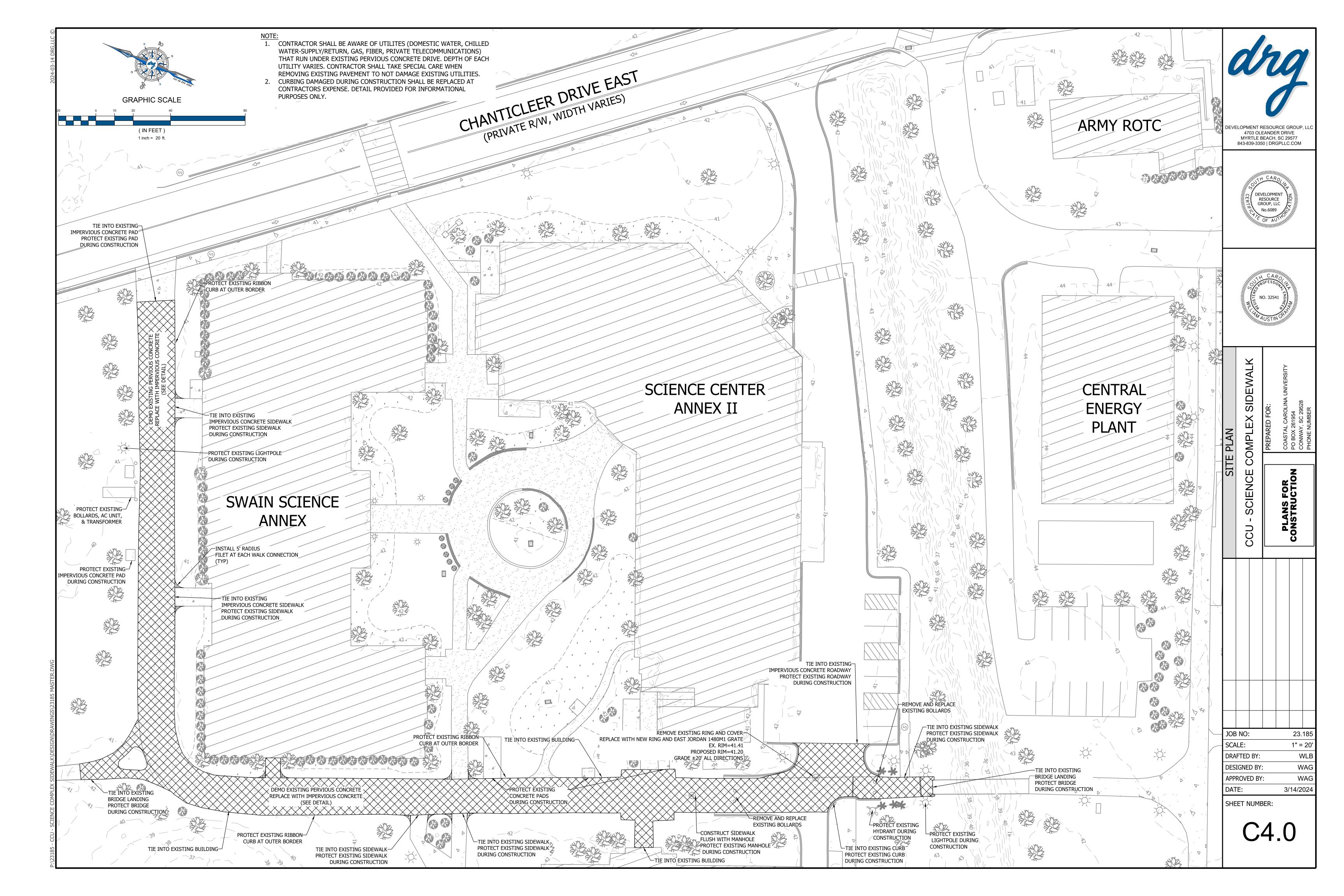
SCIENCE

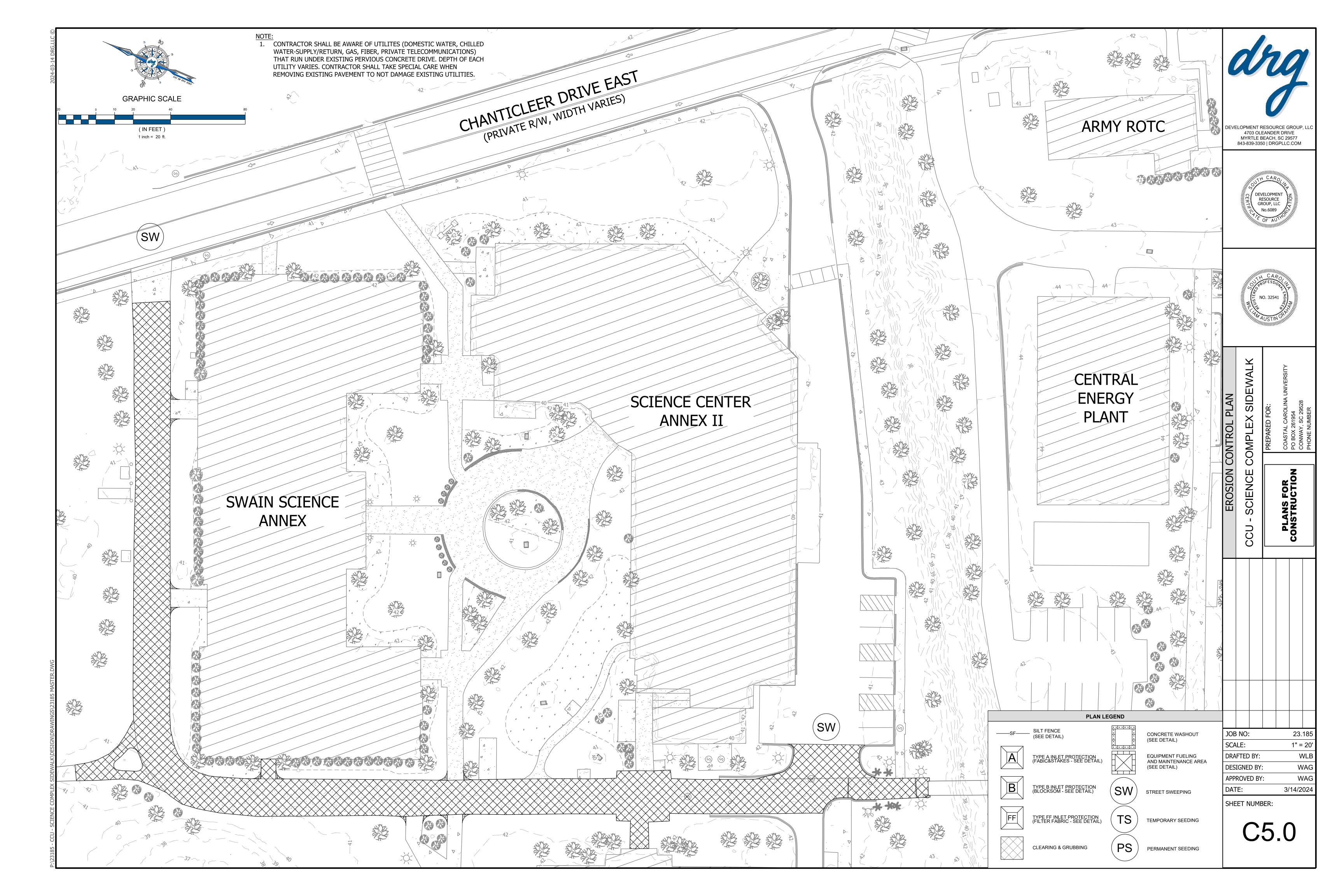
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23.185 SCALE: NTS DRAFTED BY: WLB DESIGNED BY: WAG WAG APPROVED BY: 3/14/2024

SHEET NUMBER:

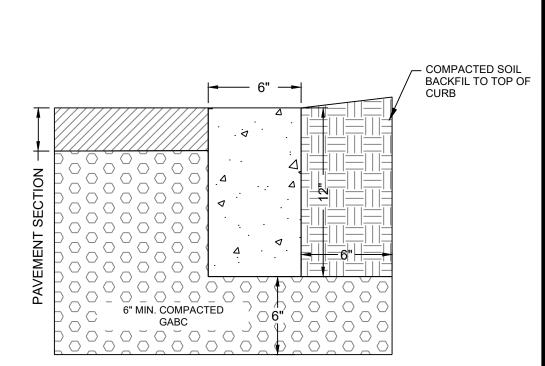








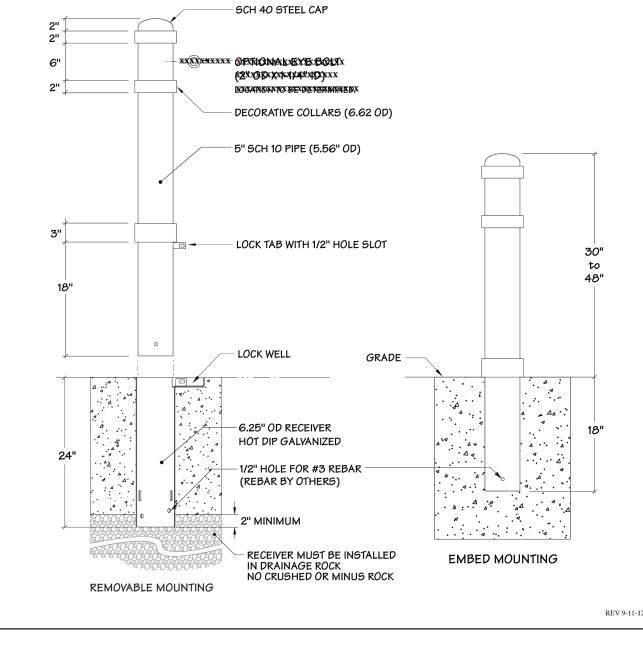




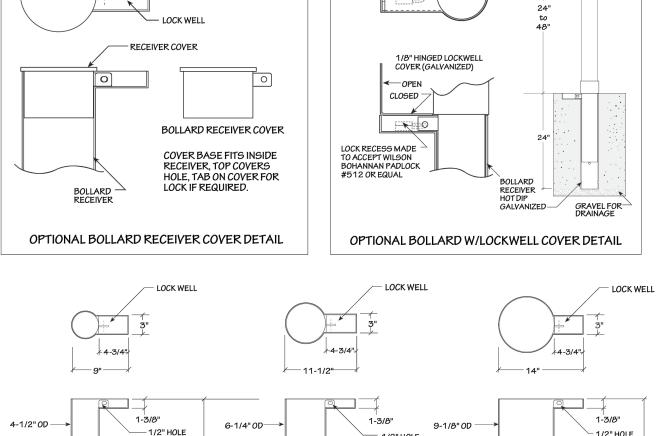
1. CONCRETE CURB SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI AND BE AIR ENTRAINED . CONTRACTOR SHALL PROVIDE THE ENGINEERING DEPARTMENT WITH CYLINDER TESTING DATA FROM AN INDEPENDENT TESTING LAB (AASHTO CERTIFIED) AND INSPECTOR CERTIFIED BY THE SCDOT TO INSPECT AND TEST CONCRETE INDICATING COMPRESSIVE STRENGTH OF CONCRETE TESTED. ONE SET OF THREE TEST CYLINDERS SHALL BE TAKEN EVERY 500 LINEAR FEET OF CURBING (250' OF ROADWAY WITH CURBING ON

BOTH SIDES OF THE ROAD). ALL TESTS SHALL BE IDENTIFIED WITH STATION IDENTIFICATION NUMBERS. NO TEST CYLINDER SHALL ATTAIN LESS THAN 2500 PSI WHILE THE AVERAGE OF ALL TEST CYLINDERS SHALL BE AT LEAST 3000 PSI. WHERE ANY SAMPLE IS LESS THAN 2500 PSI OR THE AVERAGE IS LESS THAN 3000 PSI THAN THE MATERIAL ASSOCIATED WITH THE FAILED SAMPLE STATION NUMBER(S) SHALL BE REMOVED AND REINSTALLED. NO AT-GRADE UTILITIES SHALL BE INSTALLED IN THE CURBLINE

> RIBBON CURB N.T.S. 08/25/23 DEVELOPMENT RESOURCE GROUP, LLC



### Model B-1, 6" Bollards with Collars



#### MATERIAL

SPECIFICATIONS

The B-1, 6" bollard shall be fabricated with 5" sch. 10 steel pipe (5.56" OD), 2 ea. 2 inch and 1 ea. 3" wide decorative collars (6.62" OD) and a schedule 40 weld cap all fully welded. Steel shall conform to ASTM A53.

The in ground receiver, for removable bollard only shall be fabricated with 6.25" OD steel sleeve welded to a  $3'' \times 5''$  lockwell.

#### PROTECTIVE COATINGS

Powder Coating: Following fabrication bollards shall be cleaned and treated with an iron phosphate process prior to the coating application. The protective coatings shall be either polyester or polyester TGIC powder. Following application the parts shall be baked until properly cured. The coating shall be a minimum of 4 mils thick on all surfaces. Options for finish: Corrosion resistant undercoat, strongly recommended

Hot Dip Galvanizing on Receivers: Following fabrication, the receivers shall be hot dip galvanized to standard ASTM A123, 3 to 4 mils thick.

**Note:** Unless otherwise specified, bollards shall be powder coated a standard FairWeather color. Options: Sch 40 or Sch 80 pipe, eye bolts, rivets On removable bollards: receiver cover, lock well cover

Mounting: Surface, removable or embed

and padlock.

 Depth and diameter of installation hole may vary with soil conditions. Consult project engineer for correct dimensions.

REMOVABLE BOLLARDS ONLY: Receiver must be installed in drainage rock. No crushed or minus rock Due to soil conditions the amount of drainage needed could vary from as little as 8 inches to 2 feet or more. Improper installation will void the warranty

#### **FairWeather Site Furnishings** 360-895-2626 or Toll Free 800-323-1798

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#### **SPECIFICATIONS**

#### MATERIAL

The **4"** in ground receiver, shall be fabricated with 4-1/2" OD steel sleeve welded to a 3" x 5" lockwell. The **6"** in around receiver, shall be fabricated with 6-1/4" OD steel sleeve welded to a 3" x 5" lockwell. The 8" in ground receiver, shall be fabricated with 9-1/8" OD steel sleeve welded to a 3" x 5" lockwell.

The lock recess is made to accept Wilson Bohannan solid brass padlock #512 or equal. A 1/2" hole will be be provided for the lock. The receiver will have a 1/2" hole for #3 rebar if required. The rebar will be supplied be others. The receiver should be installed with the top of the receiver and lock recess flush with the finish grade.

#### PROTECTIVE COATINGS

Hot Dip Galvanizing: Following fabrication the receiver, covers and lockwell covers shall be hot dip galvanized to standard ASTM A123, 3 to 4 mils thick.

### Bollard receiver cover, lockwell cover

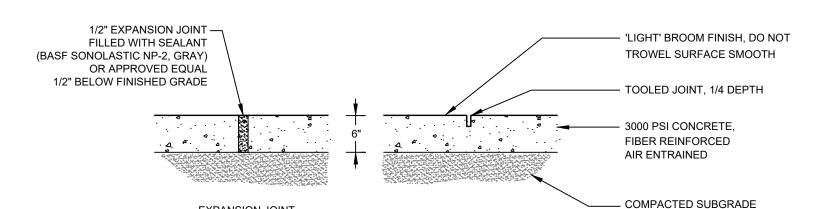
1. Depth and diameter of installation hole may vary with soil conditions. Consult project engineer

for correct dimensions. 2. Receiver <u>must</u> be installed over rock pocket for drainage. Due to soil conditions the amount of inches to 2 feet or more. Failure to use adequate

drainage needed could vary from as little as 4 drainage can allow the receiver to fill with water making the bollard hard to remove and replace. Inadequate drainage can also cause the bollard to freeze in place and possibly bow out the base which can cause the powder coating to pop off at the base. Improper installation will void the warranty

#### FairWeather Site Furnishings 360-895-2626 or Toll Free 800-323-1798 Port Orchard, Washington

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**EXPANSION JOINT CONTROL JOINT** 1. CONCRETE SHALL BE FIBER REINFORCED, AIR ENTRAINED, AND SHALL HAVE A 28 DAY CONCRETE SIDEWALK COMPRESSIVE STRENGTH OF 3000 PSI. MAXIMUM AGGREGATE SIZE SHALL BE 1/2" DIAMETER. 2. CONTROL JOINTS SHALL BE PLACED AT 5' O.C. MAX. EXPANSION JOINTS SHALL BE PLACED AT

PLAN SYMBOL

-SF -SF -

HEAVY DUTY PLASTIC TIE

8-INCHES OF FABRIC)

FOR STEEL POSTS

(RESTRICT TO TOP

3. ALL SIDEWALK'S CROSS SLOPE TO BE MIN 1.0% AND 2.0% MAXIMUM.

SILT FENCE INSTALLATION

4. ALL SIDEWALK SHALL BE 5' WIDE, UNLESS NOTED OTHERWISE

1.25 LB./LINEAR FT. STEEL POSTS

OR V-BOTTOM TRENCH

. Do not place silt fence across channels or in other areas subject to concentrated flows. Silt fence should no

- Wrap each fabric together at a support post with both ends fastened to the post, with a 1-foot

- Overlap silt fence by installing 3-feet passed the support post to which the new silt fence roll is

Attach filter fabric to the steel posts using heavy-duty plastic ties that are evenly spaced within the top

. Install the silt fence perpendicular to the direction of the stormwater flow and place the silt fence the proper

distance from the toe of steep slopes to provide sediment storage and access for maintenance and cleanout.

Install Silt Fence Checks (Tie-Backs) every 50-100 feet, dependent on slope, along silt fence that is installed

3-FT. MAX. SPACING

\_18-IN. TO 24-IN.

with slope and where concentrated flows are expected or are documented along the proposed/installed silt

— Overlap entire width of each silt fence roll from one support post to the next support post.

be used as a velocity control BMP. Concentrated flows are any flows greater than 0.5 cfs.

Maximum sheet or overland flow path length to the silt fence shall be 100-feet. . Maximum slope steepness (normal [perpendicular] to the fence line) shall be 2:1.

4. Silt fence joints, when necessary, shall be completed by one of the following options:

attached. Attach old roll to new roll with heavy-duty plastic ties; or,

POST INSTALLATION DETAIL

BURY MINIMUM OF 12-IN.

FILTER FABRIC BURIAL DETAIL

FILTER FABRIC

FILTER FABRIC

BACKFILL TRENCH WITH

2-IN. X 2-IN. WOOD POSTS

1.25 IB./LINFAR FT.

STEEL POSTS

COMPACTED EARTH

08/27/2 DEVELOPMENT RESOURCE GROUP, LLC

HEAVY DUTY PLASTIC TIES

FLAT-BOTTOM TRENCH DETAIL

N.T.S.

COMPACTED

6-IN. —

V-SHAPED TRENCH DETAIL

EARTH

RUNOFF

COMPACTED EARTH (

RUNOFF

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SIDI

OMPL

SCIENCE

South Carolina Department of Health and Environmental Contro

SILT FENCE idard drawing no. SC-03 Page 1 of 2 NOT TO SCALE

DATE ATTACH FILTER FABRIC TO POSTS WITH STAPLES OR TIES SPACED 6-IN. APART MAX. FOLD FABRIC TO OVERLA 6 INCHES AND SECURE
TO POSTS WITH STAPLES
OR WIRE TIES (SEE DETAIL)

> FILTER FABRIC INSTALLATION **DETAIL**

South Carolina Department of Health and Environmental Control TYPE A - FILTER FABIC INLET PROTECTION ANDARD DRAWING NO. SC-07 Page 1 of 2

DATE

JOB NO: 23.185 SCALE: NTS DRAFTED BY: WLB WAG DESIGNED BY: APPROVED BY: WAG 3/14/2024

SHEET NUMBER:



4" RECEIVER 6" RECEIVER 8" RECEIVER

Receivers for 4", 6" and 8" Bollards