October 22, 2026 Z:\Projects\Anderson\20240695WK - Stream Bank Stabilization\CAD\Branchcliff Project\Sheets\C_SHT_CS.dwg

BRANCHCLIFF LANE STREAMBANK STABILIZATION
FOR
CITY OF ANDERSON
ANDERSON, SC

OCTOBER 2026



LOCATION MAP
SCALE: 1":5000'

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NOTICE TO CONTRACTOR

1. PRIOR TO CONSTRUCTION, DIGGING, OR EXCAVATION THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST AND CROSS THROUGH THE AREA(S) OF CONSTRUCTION, WHETHER INDICATED ON THE PLANS OR NOT. CALL "811" A MINIMUM OF 72 HOURS PRIOR TO DIGGING OR EXCAVATING. REPAIRS TO ANY UTILITY DAMAGED RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

811 Know what's below. Call before you dig

ANDERSON
THE ELECTRIC CITY

CITY OF ANDERSON
314 TRIBBLE STREET ANDERSON, SC 29625

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
ARDURRA GROUP INC.
No. 6082
C.O.A.

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NO.	DATE	REVISION	BY
1	10/22/2026	ADDENDUM NO. 1	LT

BRANCHCLIFF LANE STREAMBANK STABILIZATION

COVER SHEET

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
No. 29606
WILLIAM A. RECTOR
10/23/2026

JOB NO:	20240695.00.WK
DATE:	OCTOBER 2026

CS

ISSUE FOR BID

ISSUE FOR BID - NOT FOR CONSTRUCTION

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GENERAL NOTES:

ALL MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH THE LATEST EDITION OF SCDOT STANDARD SPECIFICATIONS AND STANDARD DRAWINGS FOR ROADS AND STRUCTURES.

ACCESS TO SITES SHALL BE BY PUBLIC RIGHT-OF-WAYS AND UTILITY EASEMENTS. OTHER ACCESS LOCATIONS REQUIRED SHALL BE SECURED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. SUPPLEMENTAL EROSION CONTROL MEASURES SHALL BE REQUIRED TO INCLUDE CONSTRUCTION ENTRANCES, SILT FENCING, RESTORATION, ETC.

THE CONTRACTOR IS EXPECTED AND REQUIRED TO COOPERATE WITH THE PROPERTY OWNERS AFFECTED BY THE WORK. PRIVATE AGREEMENTS WITH PROPERTY OWNERS MUST BE IN WRITING ON A FORM APPROVED BY THE ENGINEER AND A COPY SHALL BE PROVIDED TO THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION ACTIVITIES AFFECTED BY SAID AGREEMENT. THE AGREEMENT MUST SPECIFY THAT THE COUNTY AND THE ENGINEER SHALL BE HELD HARMLESS AGAINST ALL CLAIMS ARISING FROM THE AGREEMENT. THE OWNER DISCOURAGES PRIVATE AGREEMENTS. BEFORE FINAL ACCEPTANCE, A RELEASE FROM EACH PROPERTY OWNER THAT THE CONTRACTOR MADE AN AGREEMENT WITH SHALL BE REQUIRED. THE PROPERTY OWNER'S RELEASE IS A CONDITION OF FINAL ACCEPTANCE.

CONTRACTOR SHALL MAINTAIN A NEAT AND CLEAN JOB-SITE TO INCLUDE STAGING/STORAGE AREAS AS FOLLOWS:

- PERFORM DUST CONTROL BY WATERING DAILY OR AS DIRECTED BY THE ENGINEER.
- SWEEP STREETS A MINIMUM OF ONCE WEEKLY (FRIDAY) OR AS DIRECTED BY THE ENGINEER.
- BLADE, LEVEL AND RE-COMPACT ALL EXPOSED TRENCHES WEEKLY (OR AS DIRECTED BY THE ENGINEER) TO PRODUCE A SMOOTH "RIDE".
- PERFORM DAILY CLEAN-UP OF ALL DIRT, DEBRIS AND SCRAP MATERIALS.
- REMOVE EXCESS EQUIPMENT, MATERIALS, TOOLS, ETC. NOT NEEDED.

CONTRACTOR SHALL PROVIDE MEASURES DURING CONSTRUCTION TO SECURE THE SITE AND EXCAVATION FROM THE GENERAL PUBLIC AND COMPLY WITH ALL OSHA REGULATIONS. JOB SITE SAFETY IS THE EXCLUSIVE AND SOLE RESPONSIBILITY OF THE CONTRACTOR.

CONTRACTOR SHALL REPAIR OR REPLACE DRIVES DISTURBED BY CONSTRUCTION TO EXISTING OR BETTER CONDITIONS. NO SEPARATE PAYMENT UNLESS OTHERWISE INDICATED.

CONTRACTOR SHALL PROVIDE TEMPORARY FENCING WHERE FENCES ARE REMOVED FOR CONSTRUCTION. CONTRACTOR SHALL COORDINATE REMOVAL OF EXISTING FENCE AND INSTALLATION OF TEMPORARY FENCE WITH PROPERTY OWNER PRIOR TO CONSTRUCTION. REMOVAL OF TEMPORARY FENCE AND INSTALLATION OF PERMANENT FENCE MUST ALSO BE COORDINATED WITH PROPERTY OWNER. ALL REMOVAL, TEMPORARY, AND REPLACEMENT FENCING SHALL BE CONSIDERED INCIDENTAL TO THE TOWN INSTALLATION AND NO SEPARATE PAYMENT SHALL BE MADE. CONTRACTOR SHALL REINSTALL ALL SHEDS, FENCES, ETC. TO AS GOOD OR BETTER THAN EXISTING CONDITIONS UNLESS OTHERWISE INDICATED. (NO SEPARATE PAYMENT).

CONTRACTOR SHALL REPLACE ALL DISTURBED MAILBOXES, SIGNS, ETC. DISTURBED DURING CONSTRUCTION WITHIN 24 HOURS OF DISTURBANCE. PERMANENT ROAD SIGNAGE DISTURBED SHALL BE REPLACED IMMEDIATELY AND IF NECESSARY ROADWAY SIGNS SHALL BE TEMPORARILY INSTALLED TO PROVIDE CONTINUOUS TRAFFIC AWARENESS OF ROADWAY CONDITIONS. (NO SEPARATE PAYMENT).

CONTRACTOR SHALL PROVIDE SECURITY FENCING, SECURITY GUARD, AND ANY AND ALL OTHER MEASURES CONTRACTOR DEEMS NECESSARY TO PROTECT EQUIPMENT AND MATERIALS STORED ON THE PROJECT. (NO SEPARATE PAYMENT).

WHEN CONTRACTOR CEASES WORK OPERATION FOR A 72 HOUR PERIOD OR LONGER, SUCH AS HOLIDAYS, ETC., THE FOLLOWING SHALL BE ACCOMPLISHED PRIOR TO THE WORK STOPPAGE.

- CONTRACTOR WILL STORE ALL EQUIPMENT IN THE CONTRACTOR STAGING AREA OR OFF SITE.
- THE CONTRACTOR SHALL SWEEP ALL STREETS, PERFORM GENERAL CLEANUP AND SHALL PERFORM MAINTENANCE ON ALL EXPOSED PATCHES.

CONTRACTOR SHALL SCHEDULE WORK AND MATERIAL DELIVERIES SO THAT STORED MATERIAL QUANTITIES ON THE JOB SITE SHALL BE MINIMIZED.

CONTRACTOR SHALL STORE ALL MATERIALS IN THE CONTRACTOR STAGING AREA 72 HOURS PRIOR TO INCORPORATING INTO THE WORK TO REDUCE OBSTRUCTIONS TO TRAFFIC AND INCONVENIENCE TO RESIDENTS.

GENERAL NOTES FOR RESIDENT RELATIONS (MANDATORY):
THE CONTRACTOR IS REQUIRED TO DEVELOP GOOD RELATIONS WITH THE RESIDENTS IN AND AROUND THE PROJECT AREA WHICH INCLUDE THE FOLLOWING MANDATORY MINIMUM REQUREMENTS:

- NO SPEEDING WITH EQUIPMENT AND/OR VEHICLES (25 MPH MAX.)
- DO NOT BLOCK DRIVEWAYS AT ANY TIME
- DO NOT LITTER AT ANY TIME
- DO NOT USE RESIDENT'S WATER WITHOUT THEIR PERMISSION (SIGNED AGREEMENT REQUIRED)
- ALL PLUMBING CODE REQUIREMENTS FOR BACK FLOW PREVENTION WILL BE ADHERED TO
- RESPOND TO RESIDENT'S COMPLAINTS WITHIN 24 HOURS
- DO NOT USE ABUSIVE LANGUAGE, PROFANITY OR CAT-CALLING
- WEAR PROPER PROTECTIVE CLOTHING (HARD HATS, PROPER SHOES, SHIRTS, ETC.) AT ALL TIMES.
- MAINTAIN PROPER SAFETY MEASURES, PARTICULARLY ALONG OPEN TRENCHES AND BACK FILLING OPEN TRENCHES IF CONSTRUCTION IS STOPPED AND THE OPEN TRENCH IS NOT MANNED.
- PERSONNEL MUST WEAR NCDOT APPROVED SAFETY VEST AT ALL TIMES WHILE WORKING IN THE COUNTY AND/OR NCDOT RIGHT-OF-WAY
- ALL TRAFFIC CONTROL FLAG PERSONS AND AT LEAST ONE PERSON ON EACH WORK CREW MUST BE FLUENT IN THE ENGLISH LANGUAGE

IF THE CONTRACTOR AND/OR SUBCONTRACTORS CANNOT ADEQUATELY PERFORM AND/OR COMPLY WITH THESE REQUIREMENTS, THE INDIVIDUAL, SUBCONTRACTOR, OR EMPLOYEES MAY BE DIRECTED TO LEAVE THE PROJECT PERMANENTLY. INCONSIDERATE, NON-COOPERATIVE ATTITUDES AND ACTIONS WILL NOT BE TOLERATED.

UTILITIES:
UTILITIES ARE ILLUSTRATED FOR INFORMATION PURPOSES ONLY. THE COUNTY OR ENGINEER WILL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OF UTILITY LOCATIONS, SIZES, DEPTHS, OR FOR COMPLETENESS OF UTILITY INFORMATION SHOWN.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY AND MEET WITH ALL UTILITY OWNERS. THE CONTRACTOR SHALL PROTECT ALL UTILITIES FROM DAMAGE CAUSED BY HIS OPERATIONS OR THOSE OF HIS AGENTS. THE CONTRACTOR SHALL HOLD THE COUNTY HARMLESS FOR ANY THIRD-PARTY INCONVENIENCE CREATED BY WORK OF HIS OWN FORCES OR THAT OF HIS AGENTS. ANY DAMAGES INCURRED SHALL BE THE CONTRACTOR'S FINANCIAL RESPONSIBILITY.

THE CONTRACTOR SHALL COORDINATE WORK WITH UTILITY OWNERS SO AS NOT TO ADVERSELY AFFECT THE PROJECT SCHEDULE. THE COUNTY WILL NOT BE HELD RESPONSIBLE FOR ANY DELAYS OR DISRUPTIONS TO THE WORK SCHEDULE OF OTHER UTILITY OWNERS.

- FOR UTILITY LOCATES CALL SOUTH CAROLINA ONE-CALL @ 811.
- FOR LOCATES OF UTILITIES NOT MEMBERS OF SOUTH CAROLINA ONE-CALL CONTACT PROJECT MANAGER OR UTILITY COORDINATOR.

PRIOR TO COMMENCEMENT OF ANY WORK WITHIN EASEMENTS OR RIGHT-OF-WAYS, THE CONTRACTOR IS REQUIRED TO NOTIFY CONCERNED UTILITY COMPANIES. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. NO SEPARATE PAYMENT. EXISTING UTILITIES SHOWN ARE TAKEN FROM SURVEY PREPARED BY UPSTATE SURVEYING.

THE CONTRACTOR SHALL DIG UP EACH UTILITY WHICH MAY CONFLICT WITH CONSTRUCTION 14 DAYS IN ADVANCE TO VERIFY LOCATIONS (HORIZONTALLY AND VERTICALLY) TO ALLOW THE ENGINEER AN OPPORTUNITY TO ADJUST THE DESIGN TO AVOID CONFLICTS (NO SEPARATE PAYMENT).

STORM DRAINAGE REPAIRS BY CONTRACTOR DUE TO CONSTRUCTION DAMAGE AND JOINTS EXPOSED DURING CONSTRUCTION SHALL BE INSPECTED BY THE OWNER PRIOR TO BACKFILLING.

TREES, SHRUBS, AND HEDGES:
ALL TREES THAT ARE TO REMAIN ARE TO BE PROTECTED WITH TREE PROTECTION BARRIERS ACCEPTABLE TO THE COUNTY OR LANDSCAPE ARCHITECT. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY OR LANDSCAPE ARCHITECT PRIOR TO ROOT PRUNING. WHEN ROOT PRUNING IS ABSOLUTELY NECESSARY, CUT ROOTS CLEANLY USING A DISC TRENCHER OR OTHER APPROVED METHOD.

CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY PRIOR TO REMOVING ANY TREES. ALL TREES LOCATED WITHIN THE LOT THAT ARE TO REMAIN AFTER CONSTRUCTION SHALL BE INSPECTED BY THE COUNTY TO VERIFY THEY ARE SUITABLE TO REMAIN.

GRADING:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BORROW MATERIAL REQUIRED TO CONSTRUCT PROJECT AS SHOWN ON THE CONTRACT DOCUMENTS.

ALL EXCAVATED MATERIALS THAT ARE NOT REQUIRED OR ARE UNSUITABLE FOR THE PROJECT SHALL BE CONSIDERED WASTE AND SHALL BE HAULED OFF SITE AND DISPOSED IN A SAFE AND LEGAL MANNER AT THE CONTRACTOR'S EXPENSE.

EROSION CONTROL:
CONTRACTOR SHALL NOT DISTURB ANY AREAS OUTSIDE OF THE DESIGNATED LIMITS OF DISTURBANCE AREAS.

THE CONTRACTOR SHALL MAINTAIN EROSION CONTROL DEVICES IN ACCORDANCE WITH THE APPROPRIATE COUNTY AND STATE EROSION AND SEDIMENT CONTROL ORDINANCES. THE CONTRACTOR SHALL PREVENT STANDING WATER DUE TO CONSTRUCTION.

GRADING NOTES:
NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, TRENCHING, OR OTHER LAND DISTURBING ACTIVITY SHALL BE PERMITTED BEYOND LIMITS OF GRADING WITHOUT PRIOR APPROVAL FROM THE OWNER AND ENGINEER.

THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY DISCREPANCIES FOUND BETWEEN ACTUAL CONDITION AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING.

THE CONTRACTOR SHALL DESIGN, FURNISH, AND INSTALL ANY TRENCH STABILIZATION NECESSARY TO MAINTAIN EXCAVATION FOR PIPE AND DRAINAGE STRUCTURE INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND REMOVAL OF ANY TRENCH STABILIZATION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY DAMAGE TO ADJACENT STRUCTURES RESULTING FROM THE INSTALLATION, REMOVAL OR ABSENCE OF TRENCH STABILIZATION.

GRADES, ELEVATIONS AND LOCATIONS SHOWN MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN CONDITIONS ONLY WITH PRIOR APPROVAL OF THE ENGINEER. ALL PROPOSED GRADES ARE FINISH GRADES.

THE CONTRACTOR SHALL BACKFILL OPEN EXCAVATIONS AT THE END OF EACH WORKING DAY. AT DRAINAGE STRUCTURE LOCATIONS, THE EXCAVATION SHALL BE COVERED WITH METAL PLATES WHEN PRACTICAL OR COMPLETELY ENCLOSED WITH SAFETY NETTING.

STOCKPILING NOTE:
ANY ONSITE STOCKPILING IS TO BE COORDINATED AND APPROVED BY ENGINEER. THE STOCKPILE SHALL BE PROVIDED WITH GROUND COVER WITHIN 15 WORKING DAYS OF PROJECT COMPLETION.

EXCESS SUITABLE SOIL EXCAVATED DURING CONSTRUCTION SHALL BE STOCKPILED FOR USE ON THE PROJECT OR DISPOSED OF OFF-SITE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL NOT BE ALLOWED TO STOCKPILE MATERIALS OR EXCESS MATERIALS IN THE STREET RIGHT-OF-WAYS AT ANY TIME UNLESS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A SUFFICIENT AND SUITABLE STOCKPILE AREA AND LOCATION AT THE CONTRACTOR'S EXPENSE.

PLANTING NOTES:

1. SEE SPECIFICATIONS ON SHEET C7.0 OR TEMPORARY AND PERMANENT SEEDING RATES, FERTILIZER AND LIME APPLICATIONS RATES, AND MULCHING RATES. CONTRACTOR MUST ACHIEVE 85% GROUND COVER.
2. A PREMIUM HYDROMULCH MAY BE USED, INSTEAD OF STRAW MULCH, AT A RATE OF 3,000 LBS PER ACRE INCLUDING A JUMP START FORMULA ADDED AT A RATE PER MANUFACTURES RECOMMENDATIONS.
3. IF HYDRO SEEDING, WOOD CELLULOSE MAY BE USED IN ADDITION TO STRAW MULCH AT THE RATE OF 1,000 LBS PER ACRE.
4. ALL SEEDING SHALL BE MAINTAINED UNTIL A PERMANENT VEGETATIVE GROUND COVER IS ESTABLISHED OVER ALL DISTURBED AREAS.

NATIVE PLANT SEEDING MIX FOR STREAM STABILIZATION
SEEDING FOR STREAM STABILIZATION SHALL BE A MIXTURE OF NATIVE GRASSES, PLANTS AND TREES. NATIVE PLANT MIX VARIATIONS SHALL BE APPROVED BY ENGINEER AND INCLUDE THE FOLLOWING:

PERMANENT SEEDING
SEE PLANTING PLAN SHEET C7.0 FOR DETAILS

TEMPORARY SEEDING
FOR SEEDING BETWEEN MAY 1 AND AUGUST 31 ADD TO THE ABOVE
BROWN TOP MILLET 25 LBS/ACRE
FOR SEEDING BETWEEN SEPTEMBER 1 AND APRIL 30 ADD TO THE ABOVE
RYE (GRAIN) 25 LBS/ACRE

NOTE: NO FERTILIZER SHALL BE USED WITHIN 10' OF TOP OF STREAM BANK OR WETLAND BOUNDARY.

ORDER OF PRECEDENCE GENERAL NOTES/TECHNICAL SPECIFICATIONS:
THE NOTES CONTAINED HEREIN ARE INTENDED TO SUPPLEMENT THE TECHNICAL SPECIFICATIONS AND PROVIDE EASY REFERENCE FOR THE CONTRACTOR. IN NO CASE SHALL THESE NOTES VOID ANY PART, SECTION OR REQUIREMENT OUTLINED IN THE TECHNICAL SPECIFICATIONS CONTAINED IN THE CONTRACT DOCUMENTS. IF CONFLICTS OCCUR BETWEEN THE TECHNICAL SPECIFICATIONS AND THE NOTES CONTAINED HEREIN, THE TECHNICAL SPECIFICATIONS SHALL SUPERSEDE.

TRAFFIC CONTROL
CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS FOR WORK ZONE TRAFFIC CONTROL. CONTRACTOR SHALL NOT PLACE ANY TRAFFIC CONTROL DEVICES WITHOUT HAVING APPROVAL FROM THE CITY OF ANDERSON.

CONTRACTOR SHALL ENSURE ACCESS TO ALL PROPERTIES BY PROPERTY OWNERS AT ALL TIMES.

CONTRACTOR SHALL NOTIFY ENGINEER ONE WEEK IN ADVANCE OF ANY ROAD CLOSING AND COORDINATE ALL ROAD CLOSINGS/UTILITY INTERRUPTIONS WITH PROPERTY OWNERS AFFECTED 48 HOURS PRIOR TO CLOSING/INTERRUPTING SERVICES.

MINIMUM ONE WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES UNLESS ROAD CLOSURE IS APPROVED BY DURHAM COUNTY. COORDINATE WITH DURHAM COUNTY ON ADVANCE NOTIFICATION REQUIREMENT.

THE CONTRACTOR SHALL NOT IMPEDE TRAFFIC AT ANY TIME UNTIL THE APPROVED TRAFFIC CONTROL DEVICES ARE IN PLACE.

ALL TRAFFIC CONTROL MEASURES, DEVICES, INSTALLATION, METHODS, SEQUENCING AND PLANS SHALL BE IN STRICT ACCORDANCE WITH SCDOT AND THE CITY OF ANDERSON REQUIREMENTS.

LEGEND:

	CHANNEL BANK TOP
	EXISTING CHANNEL
	EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
OHE OHE	ELECTRIC DISTRIBUTION
LOD LOD	LIMIT OF DISTURBANCE
P/L P/L	PROPERTY LINE
	ROAD
	ROAD CENTERLINE
	ROAD RIGHT-OF-WAY (ROW)
	PROPOSED BOULDER STRUCTURE
	GEO-SOIL LIFTS
SS	SANITARY SEWER PIPELINE
S	SANITARY SEWER MANHOLE

SOUTH CAROLINA DEPARTMENT OF ENVIRONMENTAL SERVICES EROSION CONTROL NOTES:

1. 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.

2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.
- WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
- WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.

3. 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 INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.

4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL 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.

5. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

6. 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.

7. 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.

8. 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.

9. ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SEDIMENT TUBES IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS WHERE CONSTRUCTION ACTIVITIES NOT ASSOCIATED WITH A USACE PERMIT ARE TO OCCUR. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SEDIMENT TUBES AND ALL WOS WHERE CONSTRUCTION ACTIVITIES ARE TO OCCUR NOT ASSOCIATED WITH A USACE PERMIT.

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 EASILY 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 OR 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 ALTERATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE;

15. 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.

15. 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.

16. 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.

17. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED PLAN PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.

AS-BUILT SURVEY REQUIREMENT

THE CONTRACTOR SHALL PROVIDE A PLS-SEALED AS-BUILT SURVEY PREPARED BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF SOUTH CAROLINA PRIOR TO CONTRACT CLOSEOUT.

EROSION CONTROL MAINTENANCE SCHEDULE

ALL SEDIMENT AND EROSION CONTROLS ARE TO BE INSPECTED AT LEAST ONCE EVERY CALENDAR WEEK WITH NO PERIOD BETWEEN INSPECTIONS EXCEEDING NINETEEN (I9) CALENDAR DAYS. CONTRACTOR TO DOCUMENT WITH SCDES APPROVED INSPECTION REPORTS AND LOGGED IN THE PROJECT SWPPP.

14 DAY STABILIZATION CLAUSE

ALL DISTURBED AREAS WHICH ARE TO BE LEFT IDLE FOR A PERIOD OF 14 DAYS OR LONGER ARE TO RECEIVE TEMPORARY VEGETATION OR MULCH.

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
ARDURRA GROUP INC.
No. 6082
C.O.A.

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NO.	DATE	REVISION
1	10/22/2026	ADDENDUM NO. 1

BRANCHCLIFF LANE STREAMBANK STABILIZATION

GENERAL NOTES

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
No. 29606
WILLIAM A. RECTOR
10/23/2026

JOB NO: 20240695.00.WK
DATE: OCTOBER 2026

C1.0

ISSUE FOR BID

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October 22, 2026 Z:\Projects\Anderson\20240695DWK - Stream Bank Stabilization\CADD\Bacliff Project\Sheets\C_SHT_EX.dwg



0 40 80
SCALE: FEET

SURVEY NOTES

1. SURVEY DATA FROM UPSTATE SURVEYING ASSOCIATES, DATED JUNE 12, 2025.
2. SURVEY DATA HORIZONTAL DATUM SET TO SC STATE PLANE, NAD '83(2011).
3. SURVEY DATA VERTICAL DATUM SET TO NAD83.
4. THE DRAWING UNITS ARE IN U.S. INTERNATIONAL FEET.
5. CONTOUR INTERVAL IS SHOWN AS ONE (1)-FOOT.
6. PROJECT AREA LOCATED WITHIN FEMA ZONE 'AE' AS REFERENCED ON FEMA FLOOD INSURANCE RATE MAP NUMBER 45007C0241F, DATED DEC. 21, 2017, AND IS IN A SPECIAL FLOOD HAZARD ZONE.
7. NOT ALL UNDERGROUND UTILITIES ARE ILLUSTRATED. CONTRACTOR SHALL CALL 811 PRIOR TO CONSTRUCTION.

SURVEYOR INFORMATION

UPSTATE SURVEYING ASSOCIATES
327 ENTERPRISE DR
EASLEY, SC 29642

GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE WITH CITY OF ANDERSON FOR SITE ACCESS.
2. ANY DAMAGE TO PRIVATE PROPERTY AND/OR EXISTING UTILITIES INCURRED DURING CONSTRUCTION ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
3. CONTRACTOR SHALL ACCESS THE SITE FROM THE CONSTRUCTION ENTRANCE LOCATED OFF OF BROOKMEADE DRIVE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE ACCESS ROAD DURING CONSTRUCTION ACTIVITIES AND SHALL RESTORE THE AREA TO BETTER THAN EXISTING CONDITIONS WHEN CONSTRUCTION ACTIVITIES ARE COMPLETE.
5. ANY NECESSARY MODIFICATIONS TO THE ACCESS ROAD REQUIRED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE CITY OF ANDERSON'S ON-SITE REPRESENTATIVE.
6. RESTORATION OF THE ACCESS ROAD SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7. ALL STAGING OF EQUIPMENT AND STOCK PILING OF REQUIRED MATERAILS SHALL BE COORDINATED WITH THE CITY OF ANDERSON'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND SHALL COMPLY WITH THE ACCESS AGREEMENT WITH THE PROPERTY OWNER.

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No. 6082
C.O.A.

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(t) 803-786-4261
www.ardurra.com

CITY OF ANDERSON
314 TRIBBLE STREET
ANDERSON, SC 29625
ALEX KOSTIK
AKOSTIK@CITYOFANDERSONSC.COM
(864)-231-5931

NO.	DATE	REVISION	BY
1	10/22/2026	ADDENDUM NO. 1	LT

BRANCHCLIFF LANE STREAMBANK STABILIZATION

EXISTING CONDITIONS

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
No. 29606
WILLIAM A. RECTOR
10/23/2026

JOB NO: 20240695.00.WK
DATE: OCTOBER 2026

C2.0

ISSUE FOR BID



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BRANCHCLIFF LANE STREAMBANK STABILIZATION

SITE PLAN

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
No. 29606
WILLIAM A. RECTOR
10/23/2026

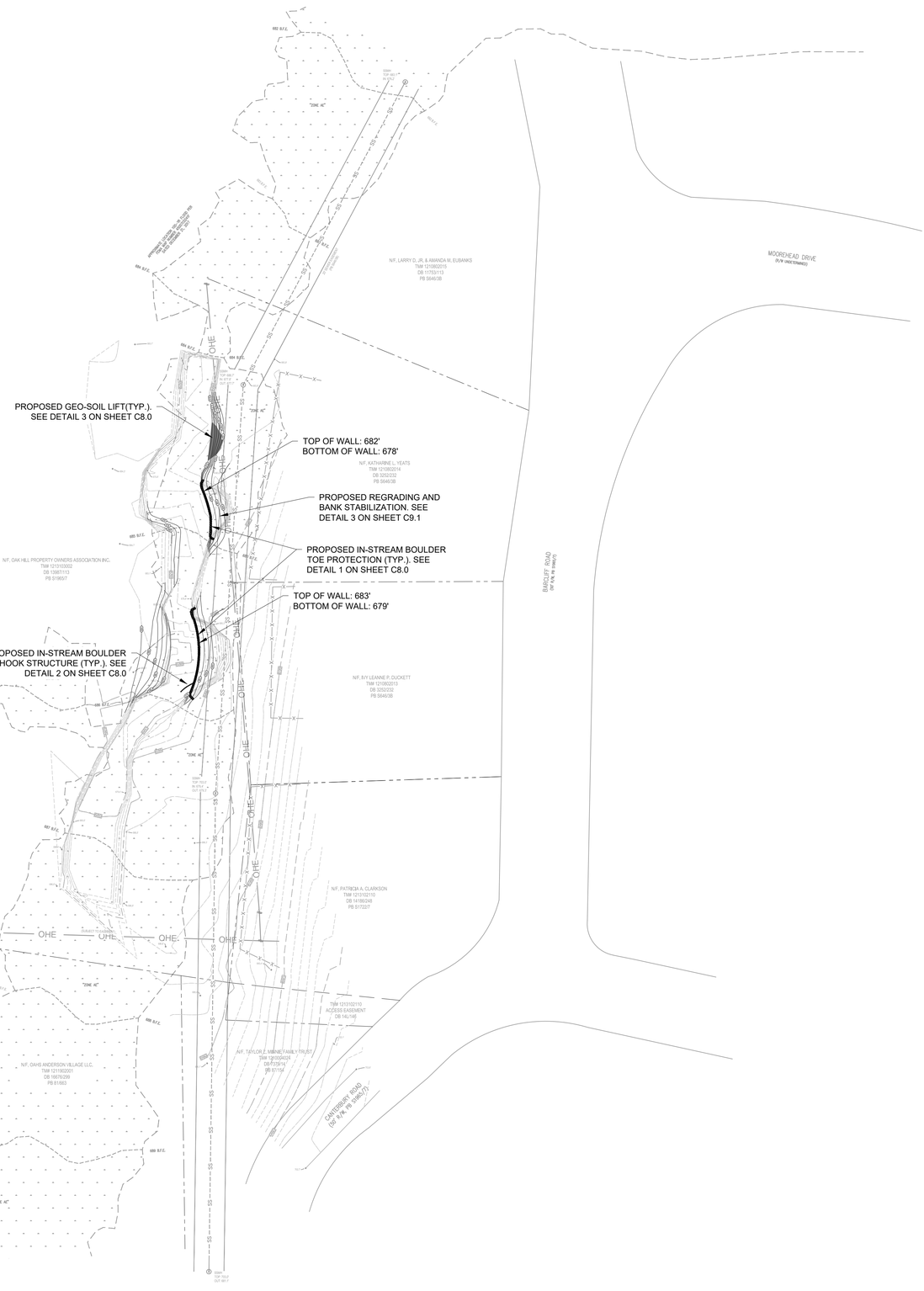
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DATE:	OCTOBER 2026

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BRANCHCLIFF LANE STREAMBANK STABILIZATION

GRADING PLAN

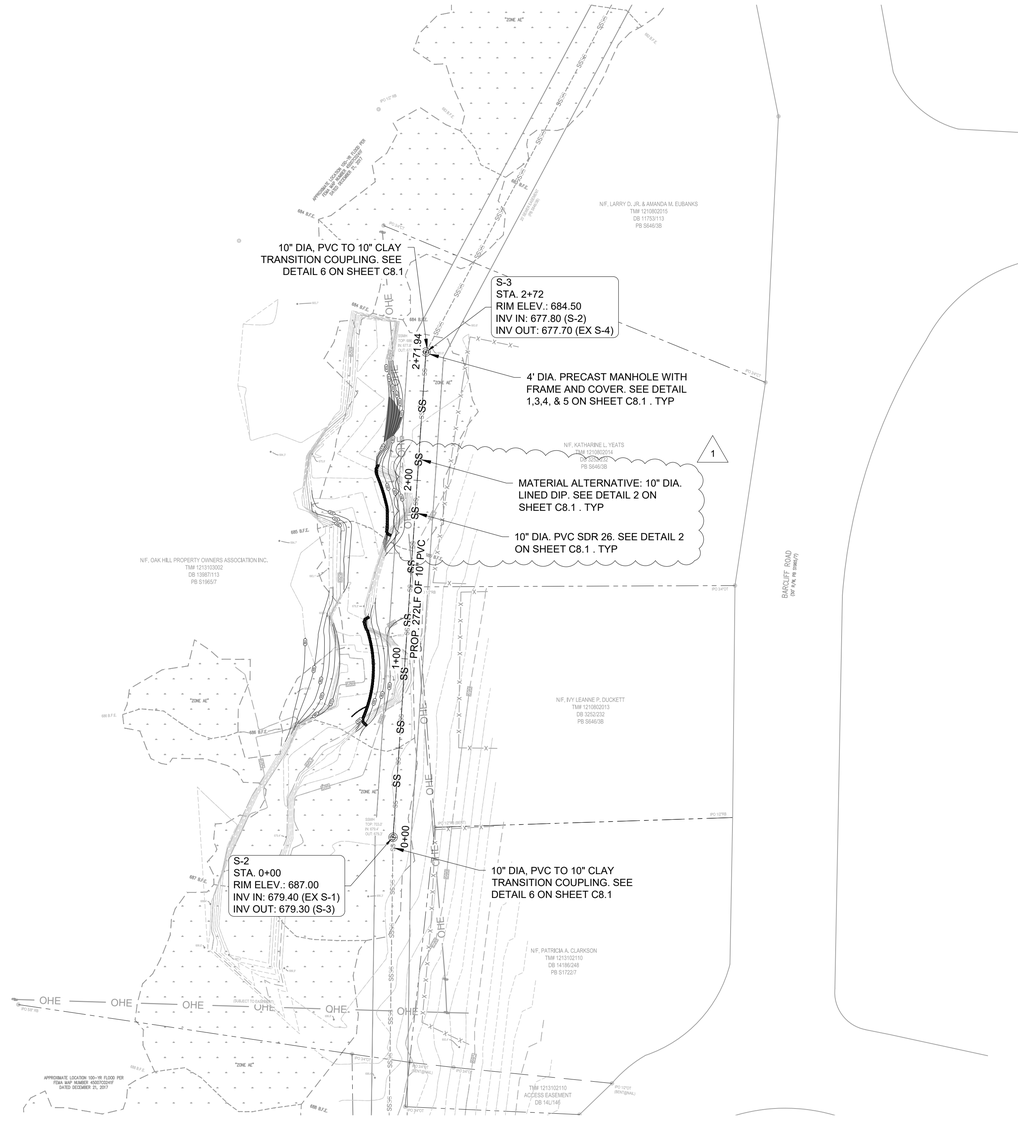
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No. 29606
WILLIAM A. RECTOR
10/23/2026

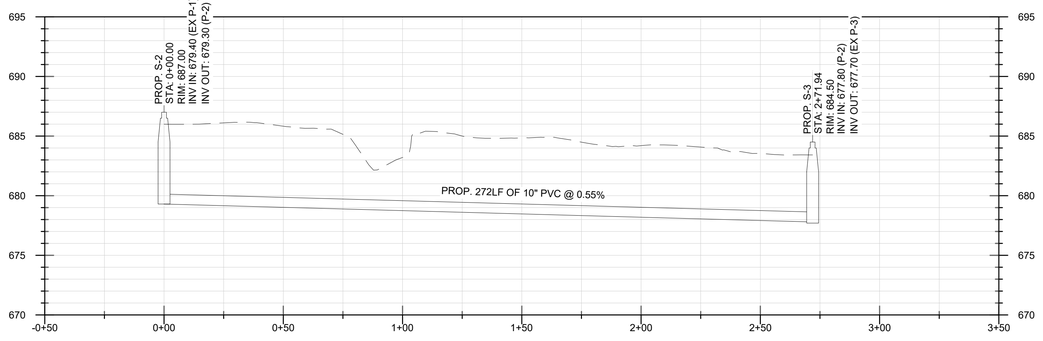
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PROPOSED SEWER REPLACEMENT

HOR 1"=30'; VERT 1"=6'

0 40 80

SCALE: FEET

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BRANCHCLIFF LANE STREAMBANK STABILIZATION

SANITARY SEWER PLAN

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 29606 WILLIAM A. RECTOR

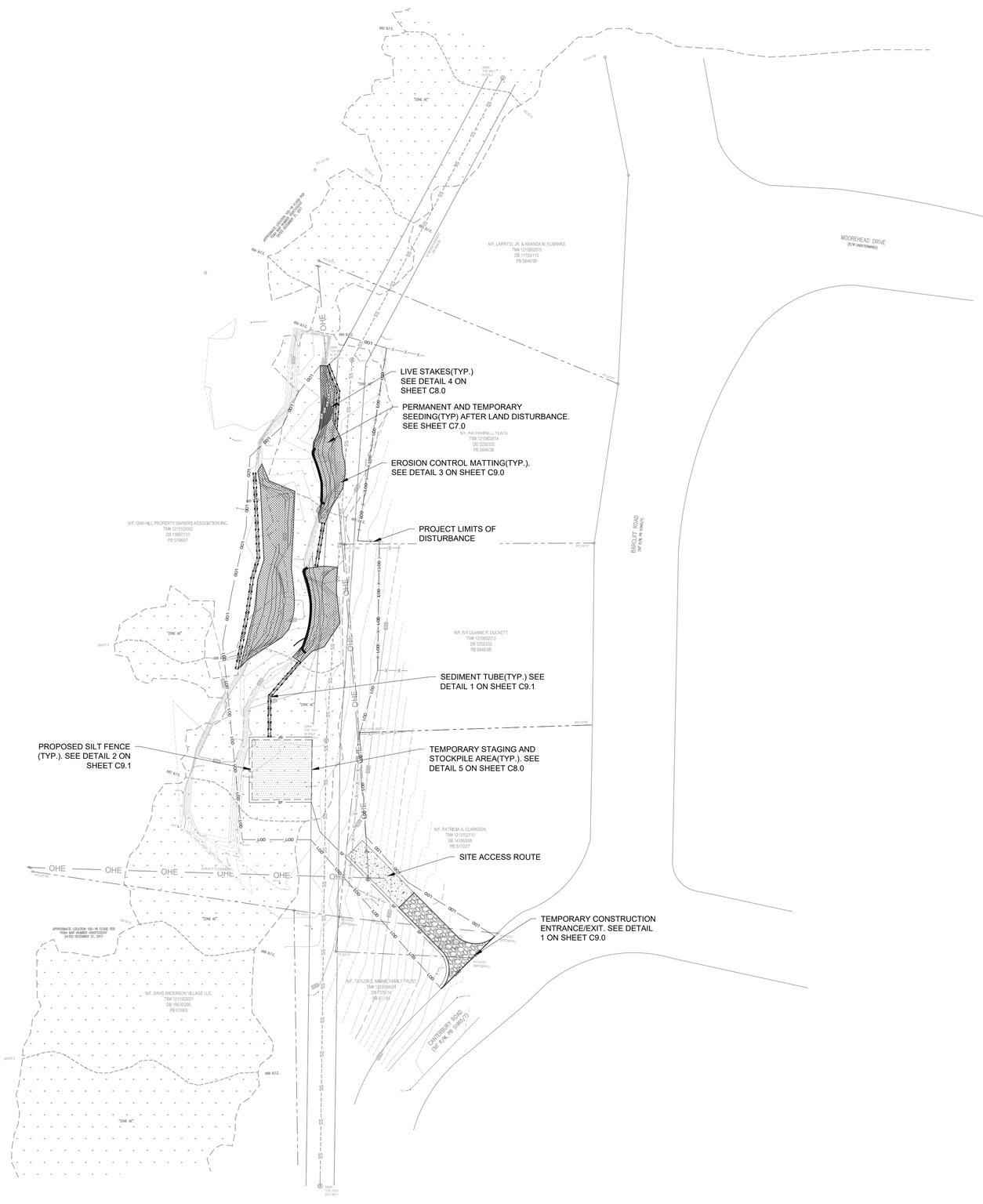
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DATE: OCTOBER 2026

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SCALE: FEET

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BRANCHCLIFF LANE STREAMBANK STABILIZATION

EROSION CONTROL PLAN

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
No. 29606
WILLIAM A. RECTOR
10/23/2026

JOB NO: 20240695.00.WK
DATE: OCTOBER 2026

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PLANTING SCHEDULE			
RIPARIAN SEED MIX(PERMANENT SEEDING)		**Size (acres):** 0.38	
COMMON NAME	**SCIENTIFIC NAME**	**STOCK SIZE**	**FREQUENCY**
HERBACEOUS PERMANENT SEED*			
Virginia Wildrye	*Elymus virginicus*	Seed	22.0%
Indiangrass	*Sorghastrum nutans*	Seed	21.7%
Switchgrass	*Panicum virgatum*	Seed	18.0%
Little Bluestem	*Panicum anceps*	Seed	18.0%
Purpletop	*Chasmanthium latifolium*	Seed	15.0%
Partridge Pea	*Chamaecrista fasciculata*	Seed	1.3%
Lanceleaf Coreopsis	*Coreopsis lanceolata*	Seed	1.3%
Blackeyed Susan	*Rudbeckia hirta*	Seed	1.3%
Showy Tickseed Sunflower	*Juncus effusus*	Seed	1.00%
Wild Bergamot	*Vernonia noveboracensis*	Seed	0.20%
Ohio Spiderwort	*Helianthus angustifolius*	Seed	0.20%
Total			**100.0%**

*Seeding rate: 45 lbs/acre with cover crop.
Cover crop: Oats at 30 lbs/acre in Jan-April. Brown top millet at 10 lbs/acre in May-Aug.
Grain rye at 30 lbs/acre in Sept-Dec.

PLANTING SCHEDULE			
RIPARIAN BUFFER PLANTING		**Size (acres):** 0.06	
COMMON NAME	**SCIENTIFIC NAME**	**STOCK SIZE**	**FREQUENCY**
HERBACEOUS PERMANENT SHRUB*			
Spice Bush	*Lindera benzoin*	Shrub	20.0%
Sweetshrub	*calycanthus floridus*	Shrub	20.0%
American Beautyberry	*Callicarpa americana*	Shrub	20.0%
Common Elderberry	*Sambucus canadensis*	Shrub	20.0%
Silky Dogwood	*Swida amomum*	Shrub	20.0%
Total			**100.0%**

*Size: Bare root and/or 1-gallon containerized stock.

PLANTING PLAN NOTES

1. ALL DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY SEEDING AND MULCH. REFER TEMPORARY SEEDING NOTES THIS SHEET FOR DETAILS.
2. THE CONTRACTOR SHALL SUBMIT COPIES OF THE PLANT MATERIAL ORDERS TO THE PROJECT ENGINEER AT LEAST ONE MONTH PRIOR TO ORDERING PLANT MATERIALS.
3. ALL PROPOSED FIELD CHANGES TO THE PLANTING PLAN SHALL BE MADE BY THE CONTRACTOR IN WRITING AND APPROVED IN WRITING BY THE PROJECT ENGINEER PRIOR TO ORDERING PLANT MATERIALS.
4. CONTRACTOR SHALL ENSURE THAT SOIL PH IS BETWEEN 5.5 TO 7.5 BEFORE PLANTING IS TO BEGIN FOR STEEP SLOPE PLANTING ZONES.
5. CONTRACTOR SHALL SUBMIT SOIL SAMPLES PLANTING AREAS TO THE NRCS SOIL LABORATORY TO DETERMINE FERTILIZER AND LIME APPLICATIONS RATES. A COPY OF THE FORM SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR THEIR RECORDS.
6. RIPARIAN STREAM BANK SEED MIXES, BARE ROOT SEEDLINGS AND CONTAINERIZED STOCK MUST BE FREE FROM DISEASE AND BE 1ST CLASS REPRESENTATIVES OF THEIR SPECIES. ALL PLANT STOCK WILL BE INSPECTED UPON DELIVERY BY THE SITE ENGINEER OR OWNER'S REPRESENTATIVE. PLANTING STOCK NOT MEETING MATERIAL SPECIFICATIONS WILL NOT BE APPROVED AND SHALL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
7. CONTRACTOR SHALL UTILIZE SEEDING RATES AND STOCKING RATES THIS SHEET.
8. SEED IDENTIFICATION TAGS MUST BE PROVIDED TO PROJECT ENGINEER BEFORE APPLICATION IS TO BEGIN. (CONTRACTOR MAY USE HYDRO-SEEDING TECHNIQUES FOR SEEDING APPLICATION IF DESIRED UPON APPROVAL BY PROJECT ENGINEER)
9. TO MAXIMUM EXTENT PRACTICABLE, ALL SPECIES SHALL BE BARE ROOT AND/OR CONTAINERIZED STOCK AND HAVE COME FROM A LOCAL NURSERY FOR THE UPPER PORTION OF THE BANK STABILIZATION. LIVE STAKES SHALL BE USED ALONG THE TOP OF THE BOULDER TOE PROTECTION AREA.
10. CONTRACTOR SHALL SUBMIT SPECIES IDENTIFICATION TAGS FOR BARE ROOT AND CONTAINERIZED STOCK TO PROJECT ENGINEER PRIOR TO INSTALLATION.
11. ALL BARE ROOT PLANT MATERIAL SHALL BE INOCULATED WITH MYCORRHIZAE FUNGI EITHER AT THE NURSERY OR ON SITE AT THE TIME OF PLANTING. THE METHOD OF INOCULATION SHALL BE APPROVED BY THE PROJECT ENGINEER OR OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT.
12. AFTER LIFTING THE PLANT STOCK AND PRIOR TO PACKAGING AT THE NURSERY, THE ENTIRE ROOT SYSTEM OF ALL BARE ROOT STOCK SHALL BE TREATED WITH A KAOLIN CLAY EMULSION.
13. THE ESTABLISHMENT PERIOD OF FOR BARE ROOT STOCK IS FROM OCTOBER 1ST TO DECEMBER 1ST (OR FIRST FROST)AND MARCH 1ST TO MAY 15TH.
14. ALL CARE SHOULD BE TAKEN WITH THE INSTALLATION OF PLANTED STOCK TO PREVENT DAMAGE TO VITAL ROOT SYSTEMS. BARE ROOT SAPLINGS SHALL BE INSTALLED WITH AN OST BAR, KBC BAR, OR HOEDADS (ONLY WHEN INSTALLED BY EXPERIENCED PLATING CREW)
15. PLANTING WILL BE SUPERVISED BY A CERTIFIED PROFESSIONAL WETLAND SCIENTIST OR EQUIVALENT.
16. HERBACEOUS COMPETITION MAY BE CONTROLLED PRIOR TO PLANTING AND THROUGHOUT THE MAINTENANCE AND MONITORING PERIOD BY ACCEPTABLE PHYSICAL, MECHANICAL, AND /OR CHEMICAL METHODS.
17. CONTRACTOR SHALL GUARANTEE FOR ONE YEAR THE SURVIVABILITY OF ALL PLANTED STOCK.
18. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT PLANTED MATERIALS ACHIEVE DESIRED (LIVE) PLANTED DENSITIES WITHIN THE FIRST YEAR.
19. CONTRACTOR SHALL ENSURE THAT PLANTED MATERIALS RECEIVE ENOUGH WATER DURING TIMES OF MINIMAL RAINFALL TO ENSURE SURVIVABILITY.
20. ALL DISTURBED AREAS OUTSIDE OF THE STEEP SLOPE PLANTING AREAS AREAS SHALL RECEIVE PERMANENT SEED MIX AND MULCH. SEE PERMANENT SEEDING NOTES THIS SHEET.
21. INVASIVE AND EXOTIC PLANT SPECIES WILL BE CONTROLLED TO NO MORE THAN FIVE (5) PERCENT AREAL COVERAGE IF THEY ARE NOTED TO BE A CONCERN WHILE MONITORING THE RSMB SITE. IF NECESSARY, THEY WILL BE CONTROLLED USING PROPER MECHANICAL AND CHEMICAL TREATMENT.

SEEDING SCHEDULE FOR ALL DISTURBED AREAS OUTSIDE OF STREAM

1. ALL DISTURBED AREAS WILL BE SEEDED USING A PERMANENT RIPARIAN SEED MIX WITHIN 14 DAYS OF CONSTRUCTION ACTIVITIES CEASING.
2. ESTABLISHING A STAND OF PERENNIAL GRASSES IS CRITICAL TO CONTROLLING RUNOFF AND EROSION OF AREAS DISTURBED BY CONSTRUCTION AND MAINTENANCE ACTIVITIES.
3. SEEDING APPLICATION SHALL CONFORM TO THE RATES LISTED ON THIS SHEET.
4. IF CONSTRUCTION ACTIVITIES MUST TEMPORARILY CEASE FOR 14 DAYS OR MORE, THEN SEEDING MUST BE INITIATED. IF TEMPORARY SEEDING IS REQUIRED, ADD THE APPROPRIATE RATES TO THE PERMANENT SEED MIX.

SEEDING PROCEDURES

1. SUB-SOIL/CHISEL PLOW/DISK DISTURBED AREAS, AS NECESSARY
2. APPLY LIME, AS NECESSARY (BASED ON SOIL SAMPLE) (2,000 LB./ACRE IF SOIL SAMPLE NOT TAKEN)
3. DISK LIME TO INCORPORATE INTO THE SOIL PROFILE
4. APPLY SEED BASED ON APPLICATION RATES BELOW (PERMANENT GRASS AND NURSE CROP MIX)
5. ACQUIRE A FIRM SEED BED BY ROLLING WITH CULTIPACKER OR EQUIVALENT
6. APPLY HAY STRAW AT APPROXIMATELY 3,000 LB./ACRE AND CRIMP INTO SOIL OR HYDROMULCH AT APPROXIMATELY 1,200 LBS/ACRE
7. APPLY FERTILIZER AS NECESSARY (BASED ON SOIL SAMPLE)

(HYDROSEEDING WITH THE APPROPRIATE RATES OF LIME, MULCH, FERTILIZER, AND SEED MAY BE APPLIED IF A WELL ESTABLISHED SEED BED IS PRESENT (I.E. UNCOMPACTED AND LOOSELY DISKED SOILS)

TEMPORARY SEEDING APPLICATION RATES
COMMON NAME OF SEED / PLANTING RATE (POUNDS PER ACRE) / PLANTING DATES

WARM SEASON (SPRING AND SUMMER)
BROWNTOP MILLET / 40 LBS/ACRE / MID APRIL - AUGUST

COOL SEASON (FALL AND WINTER)
RYE GRAIN / 56 LBS/ACRE / JANUARY - MID APRIL AND SEPTEMBER - JANUARY

STEEP SLOPE PERMANENT SEED APPLICATION RATES
REFER TO THIS SHEET

ALL OTHER DISTURBED AREAS (PERMANENT SEED)
CONTRACTOR SHALL MATCH EXISTING TURF GRASS SEEDING RATES SHALL BE 250 LBS/ACRE OR IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS FOR LAWN ESTABLISHMENT.

NOTE: FOR SIGNIFICANT SLOPES GREATER THAN 5 FEET IN HEIGHT, ADD 10 LB/ACRE OF WEEPING LOVEGRASS (PERMANENT) AND 50 LB/ACRE OF SERICEA LESPEDEZA (PERMANENT) TO ABOVE RATES.

0 40 80
SCALE: FEET

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BRANCHCLIFF LANE STREAMBANK STABILIZATION

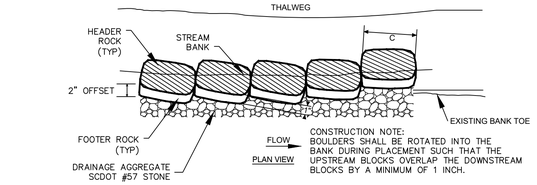
PLANTING PLAN

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 29004 WILLIAM A. RECTOR
10/23/2026

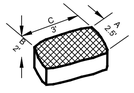
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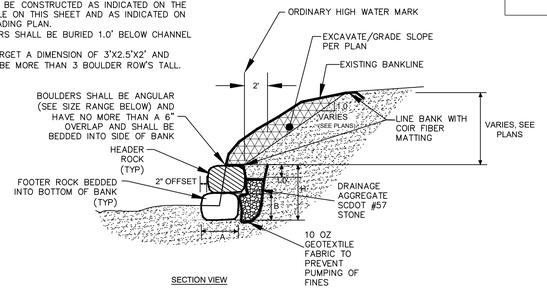
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NOTES:
1. BOULDER TOE SHALL BE CONSTRUCTED AS INDICATED ON THE DETAIL AND SCHEDULE ON THIS SHEET AND AS INDICATED ON THE APPLICABLE GRADING PLAN.
2. ALL FOOTER BOULDERS SHALL BE BURIED 1.0' BELOW CHANNEL THALWEG.
3. BOULDERS SHALL TARGET A DIMENSION OF 3'X2.5'X2' AND WALLS ARE NOT TO BE MORE THAN 3 BOULDER ROW'S TALL.



BOULDER SIZE RANGE



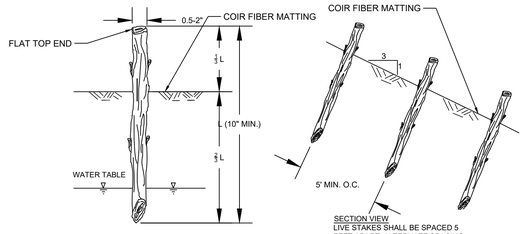
SECTION VIEW

BOULDER TOE PROTECTION SCHEDULE

BOULDER TOE LOCATION (APPROX)	SHEET	TOP OF ROCK ELEV (FEET)	BOTTOM OF ROCK ELEV (FEET)	LENGTH (LF)	TOTAL HEIGHT (FEET)
TOP	C4.0	682'-0"	678'-0"	41	4
BOTTOM	C4.0	683'-0"	679'-0"	64	4

1 C8.0 BOULDER TOE PROTECTION
NOT TO SCALE

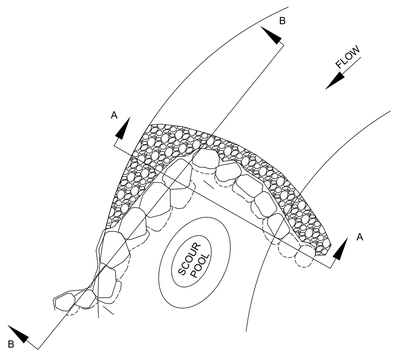
NOTES:
- (A) BOULDER TOE IS A BANK STABILIZATION MEASURE THAT PROTECTS THE STREAM BANK ALONG OUTSIDE MEANDER BENDS FROM EROSION.
- (B) BOULDER TOE SHOULD BE PLACED AT THE STATIONS, OFFSETS, ELEVATIONS, AND GEOMORPHIC POSITIONS INDICATED ON THE STREAM MITIGATION DATA TABLE IN THE PROJECT PLANS, STREAM MITIGATION PLAN, OR AS DIRECTED BY THE ENGINEER, AT A MINIMUM, THE BANKFULL WIDTH, BOULDER DIMENSIONS, AND ELEVATIONS SHOULD BE SPECIFIED IN THE STREAM MITIGATION DATA TABLE.
- (C) A HYDRAULIC EXCAVATOR WITH A HYDRAULIC THUMB SHALL BE USED TO PLACE BOULDERS.
- (D) CONSTRUCT WOOD OR BOULDER TOE, GEO-LIFTS, AND LIVE BRUSH LAYERING BY:
  - (1) SHAPE THE CHANNEL AND FLOODPLAIN TO THE SPECIFIED GRADES AND DIMENSIONS.
  - (2) GRADE EXISTING BANK SUBGRADE TO 2:1 (MIN).
  - (3) EXCAVATE BANK TO KEY IN BOULDERS AND PLACE TYPE III WOVEN GEOTEXTILE FABRIC ALONG THE EXCAVATED BANK. PLACE BOULDERS IN OVERLAPPING LAYERS AND IMBRICATE EACH LAYER. BACKFILL AREA BEHIND BOULDER WITH SOIL OR ALLUVIUM AND COMPACT WITH EXCAVATOR BUCKET.
- (E) ALL MATERIALS ARE TO BE APPROVED BY ENGINEER OR ENGINEER'S ON-SITE CONSTRUCTION OBSERVER



DETAIL
THE STAKES SHOULD HAVE A DIAMETER IN THE RANGE OF 0.5 TO 2 INCHES.

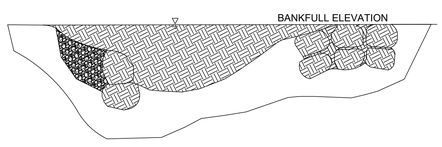
NOTE:
1. ACCEPTABLE SPECIES INCLUDE BUTTONBUSH (CEPHALANSIS OCCIDENTALIS), BLACK WILLOW (SALIX NIGRA) AND SILKY DOGWOOD (CORNUS AMMOMUM).
2. LIVE STAKES SHALL BE PLANTED ON SIDE SLOPES FROM 1' ABOVE CHANNEL BOTTOM TO THE BACK OF THE FLOOD BENCH, OR TO 4' ABOVE CHANNEL BOTTOM WHERE THERE IS NO PROPOSED FLOOD BENCH.

4 C8.0 LIVE STAKE DETAIL
NTS

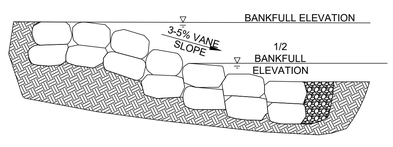


PLAN VIEW

NOTES:
- (A) BOULDERS MUST BE AT LEAST 30" X 24" X 12".
- (B) INSTALL FILTER FABRIC FOR DRAINAGE BEGINNING AT THE MIDDLE OF THE HEADER ROCKS AND EXTEND DOWNWARD TO THE DEPTH OF THE BOTTOM FOOTER ROCK, AND THEN UPSTREAM TO A MINIMUM OF TEN FEET.
- (C) DIG A TRENCH BELOW THE BED FOR FOOTER ROCKS AND PLACE FILL ON UPSTREAM SIDE OF VANE ARM, BETWEEN THE ARM AND STREAM BANK.
- (D) START AT BANK AND PLACE FOOTER ROCKS FIRST AND THEN HEADER (TOP) ROCK.
- (E) CONTINUE WITH STRUCTURE, FOLLOWING ANGLE AND SLOPE SPECIFICATIONS.
- (F) AN EXTRA BOULDER CAN BE PLACED IN SCOUR POOL FOR HABITAT IMPROVEMENT.
- (G) USE NATURAL STONE CLASS 1 TO FILL GAPS ON UPSTREAM SIDE OF BOULDERS, AND NATURAL STONE CLASS A TO FILL GAPS ON UPSTREAM SIDE OF NATURAL STONE CLASS 1 .
- (H) AFTER ALL STONE HAS BEEN PLACED, FILL IN THE UPSTREAM SIDE OF THE STRUCTURE WITH ON-SITE ALLUVIUM TO THE ELEVATION OF THE TOP OF THE HEADER ROCK.
- (I) START SLOPE AT 1/2 TO 2/3 BANKFULL STAGE.

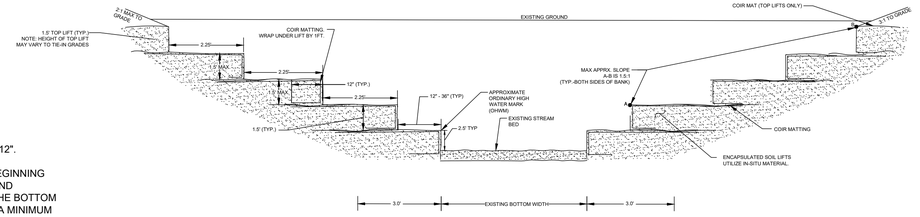


SECTION A-A



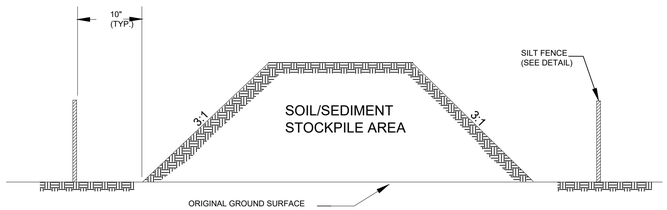
SECTION B-B

2 C8.0 BOULDER J-HOOK
NOT TO SCALE



3 C8.0 GEO-SOIL LIFT
NTS

NOTES:
- (A) CONSTRUCT GEO-LIFTS AND LIVE BRUSH LAYERING ABOVE WOOD OR BOULDER TOE, AS FOLLOWS:
  - (1) FOR EACH LIFT, PLACE BRUSH CUTTINGS PERPENDICULAR TO THE BANK AT A DENSITY OF 10-12 STEMS PER FOOT AND COVER WITH 2" OF SOIL.
  - (2) LAY COIR BLANKETS OVER THE LIVE CUTTINGS PARALLEL TO THE BANK AND SHINGLED IN A DOWNSTREAM DIRECTION.
  - (3) PLACE SPECIFIED SOIL LIFT OVER THE BACK HALF OF THE COIR BLANKET AND COMPACT WITH THE EXCAVATOR BUCKET.
  - (4) PLACE CLEAN STRAW OR MULCH ALONG THE FACE OF THE SOIL LIFT, WRAP THE LIFT WITH THE FRONT HALF OF THE COIR BLANKET AND STAKE IN PLACE WITH A MINIMUM OF TWO ROWS OF 2" x 4" x 18" WOOD STAKES AT FIVE-FOOT SPACING.
  - (5) REPEAT STEPS (a) THROUGH (d) FOR EACH GEO-LIFT SPECIFIED.
  - (6) PLACE LIVE STAKES OR WOODY PLANTINGS, AS SPECIFIED, ON THE TOP LIFT.



NOTES:
1. SILT FENCE TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE, OR IF STOCKPILE AREA IS LOCATED ON/NEAR A SLOP THE SILT FENCE IS TO EXTEND ALONG CONTOURS OF THE DOWN-GRADIENT AREA.
2. IF STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, TEMPORARY STABILIZATION MEASURES MUST BE IMPLEMENTED.
3. SILT FENCE SHALL BE MAINTAINED UNTIL STOCKPILE AREA HAS EITHER BEEN REMOVED OR PERMANENTLY STABILIZED.
4. THE KEY TO FUNCTIONAL TEMPORARY STOCKPILE AREAS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

5 C8.0 TEMPORARY STOCKPILE AREA

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1	10/22/2026	ADDENDUM NO. 1	LT

BRANCHCLIFF LANE STREAMBANK STABILIZATION

STANDARD DETAILS

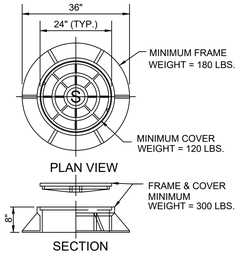
SOUTH CAROLINA PROFESSIONAL ENGINEER — No. 29006 — WILLIAM A. RECTOR — 10/23/2026

JOB NO: 20240695.00.WK
DATE: OCTOBER 2026

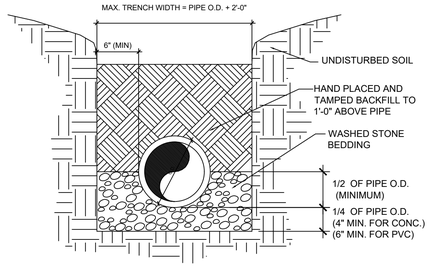
C8.0

ISSUE FOR BID

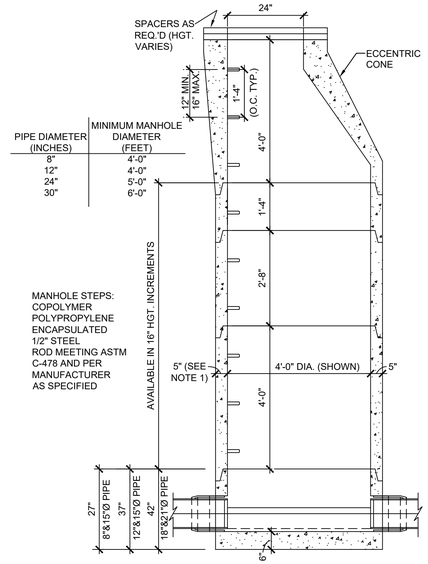
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1 C8.1 MANHOLE FRAME AND COVER



2 C8.1 PIPE BEDDING DETAIL



NOTES:

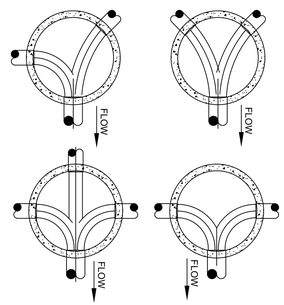
1. 5'-0" Ø, 6'-0" Ø, & 8'-0" Ø MANHOLES SIMILAR EXCEPT TOP TRANSITION PIECE AND MIN. WALL THICKNESSES VARY WITH MANHOLE DIAMETER (SEE MANUFACTURER'S SPECIFICATIONS)
2. FLEXIBLE JOINT @ ALL MANHOLE CONNECTIONS TO BE EITHER NEOPRENE BOOT, RUBBER WEDGE, OR APPROVED EQUAL.
3. DROP MANHOLE TO BE USED ONLY WHEN VERTICAL DISTANCE IS 24" OR MORE; IF LESS, SLOPE BASE UP TO INCOMING INVERT TO PREVENT SPLASH.

5 C8.1 PRECAST MANHOLE SECTION

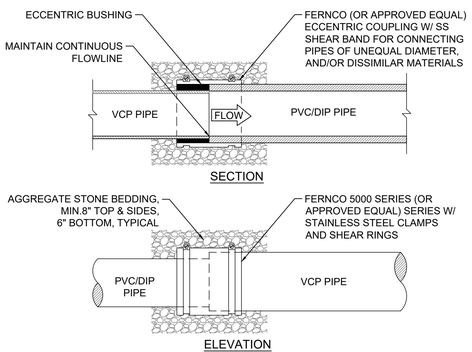
NOTE:

1. 60"Ø, 72"Ø, 84"Ø, 96"Ø, & 120"Ø MANHOLES (WHERE APPLICABLE) SIMILAR EXCEPT MINIMUM WALL THICKNESS AND TOP TRANSITION PIECES VARY WITH MANHOLE DIAMETER (SEE MANUFACTURERS SPECIFICATIONS).
2. FLEXIBLE JOINT AT ALL MANHOLE CONNECTIONS TO BE EITHER NEOPRENE BOOT, INTEGRALLY CAST GASKET, OR APPROVED EQUAL.
3. USE DROP MANHOLE WHEN VERTICAL DISTANCE EXCEEDS 24". IF LESS, SLOPE INVERT CHANNEL UP TO INCOMING INVERT TO PREVENT SPLASH.
4. FRAMES AND COVERS DESIGNATED WATERTIGHT FRAME AND COVER SHALL BE BOLTED AND GASKETED EQUAL TO US FOUNDRY 576-BH-BWTL.
5. WHEN GROUTING FRAME TO TOP OF MANHOLE, PLACE SHIMS UNDER CASTING AND PROVIDE 1/2" OF GROUT UNDER FRAME FLANGE, AND SLOPE GROUT FROM EDGE OF MANHOLE TO TOP OF FRAME RIBS.
6. PROVIDE GREEN FIBERGLASS WARNING MARKER LABELED SEWER FOR ALL MANHOLES IN DOT RIGHT-OF-WAY.
7. PROVIDE MANHOLES WITH EXTENDED BASES TO RESIST BUOYANCY FORCES.

3 C8.1 MANHOLE NOTES



4 C8.1 MANHOLE BOTTOM PLANS



NOTES:

1. SEE STANDARD SEWER LINE TRENCH DETAIL FOR PIPE BEDDING BEYOND COUPLING.

6 C8.1 STANDARD SEWER LINE COUPLING

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BRANCHCLIFF LANE STREAMBANK STABILIZATION

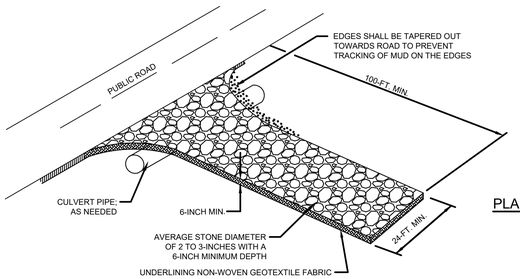
SANITARY SEWER DETAILS

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WILLIAM A. RECTOR
10/23/2026

JOB NO: 20240695.00.WK
DATE: OCTOBER 2026

C8.1

ISSUE FOR BID



PLAN SYMBOL

NOTES:

1. INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.
2. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN OR OTHER SEDIMENT TRAPPING STRUCTURE.

WHEN AND WHERE TO USE IT

STABILIZED CONSTRUCTION ENTRANCES SHOULD BE USED AT ALL POINTS WHERE TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AND MOVING DIRECTLY ONTO A PUBLIC ROAD.

IMPORTANT CONSIDERATIONS

- IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFFSITE.
- WASHDOWN FACILITIES SHALL BE REQUIRED AS DIRECTED BY SCDHEC AS NEEDED.
- WASHDOWN AREAS IN GENERAL MUST BE ESTABLISHED WITH CRUSHED GRAVEL AND DRAIN INTO A SEDIMENT TRAP OR SEDIMENT BASIN.
- CONSTRUCTION ENTRANCES SHOULD BE USED IN CONJUNCTION WITH THE STABILIZATION OF CONSTRUCTION ROADS TO REDUCE THE AMOUNT OF MUD PICKED UP BY VEHICLES.

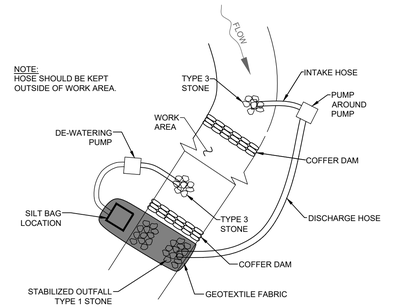
INSTALLATION:

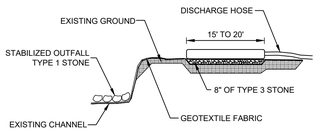
- REMOVE ALL VEGETATION AND ANY OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
- DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM STONES TO A SEDIMENT TRAP OR BASIN.
- INSTALL A NON-WOVEN GEOTEXTILE FABRIC PRIOR TO PLACING ANY STONE.
- INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.
- THE ENTRANCE SHALL CONSIST OF 1-INCH TO 3-INCH D50 STONE PLACED AT A MINIMUM DEPTH OF 6-INCHES. MINIMUM DIMENSIONS OF THE ENTRANCE SHALL BE 24-FEET WIDE BY 100-FEET LONG, AND MAY BE MODIFIED AS NECESSARY TO ACCOMMODATE SITE CONSTRAINTS.
- THE EDGES OF THE ENTRANCE SHALL BE TAPERED OUT TOWARDS THE ROAD TO PREVENT TRACKING OF MUD AT THE EDGE OF THE ENTRANCE.

INSPECTION AND MAINTENANCE:

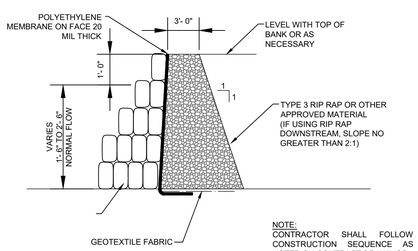
- INSPECT AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK, WITH NO TIME PERIOD BETWEEN INSPECTIONS EXCEEDING 9 DAYS AND WITHIN 24-HOURS AFTER EACH STORM THAT PRODUCES 1 -INCH OR MORE OF RAIN.
- CHECK FOR MUD AND SEDIMENT BUILDUP AND PAD INTEGRITY.
- MAKE DAILY INSPECTIONS DURING PERIODS OF WET WEATHER. MAINTENANCE IS REQUIRED MORE FREQUENTLY IN WET WEATHER CONDITIONS.
- RESHAPE THE STONE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
- WASH OR REPLACE STONES AS NEEDED AND AS DIRECTED BY THE INSPECTOR. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES. FREQUENT WASHING WILL EXTEND THE USEFUL LIFE OF STONE.
- IMMEDIATELY REMOVING MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING.
- FLUSHING SHOULD ONLY BE USED WHEN THE WATER CAN BE DISCHARGED TO A SEDIMENT TRAP OR BASIN.
- REPAIR ANY BROKEN PAVEMENT IMMEDIATELY.

1 / C9.0 — TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE





SILT BAG PROFILE



NOTE:
CONTRACTOR SHALL FOLLOW CONSTRUCTION SEQUENCE AS NOTED ON CONTRACT DRAWINGS.

COFFER DAM

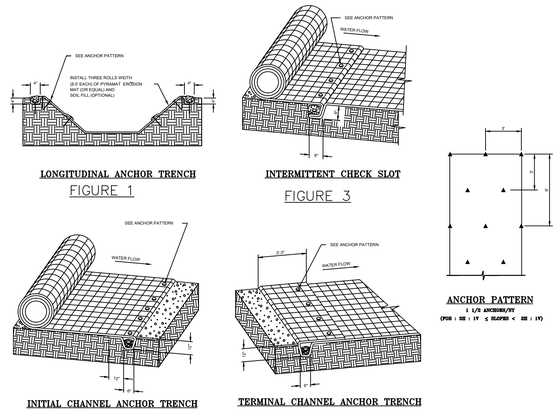
NOTES:

1. CONTRACTOR SHALL REFERENCE THIS PUMP-AROUND DETAIL SHOULD ON-SITE CONDITIONS WARRANT WORKING IN THE DRY IN ORDER TO PERFORM WORK IN CONFORMANCE WITH THE SPECIFICATIONS.
2. COFFER DAMS SHOULD BE USED TO ISOLATE WORK AREAS FROM STREAM FLOW.
3. THE CONTRACTOR SHALL NOT DISTURB MORE AREA THAN CAN BE STABILIZED IN ONE WORKING DAY.
4. THE PUMP-AROUND PUMP SHOULD ADEQUATELY CONVEY A MINIMUM FLOW SUCH THAT THE WORK AREA IS SUFFICIENTLY DEWATERED AND WORK CAN BE COMPLETED IN CONFORMANCE WITH THE SPECIFICATIONS.
5. COFFER DAM MUST BE CONSTRUCTED OF NON-ERODIBLE MATERIALS SUCH AS SANDBAGS.

SEQUENCE OF CONSTRUCTION FOR TYPICAL PUMP AROUND

1. INSTALL STILLING BASIN AND STABILIZED OUTFALL USING CLASS A RIP RAP AT THE DOWNSTREAM END OF THE DESIGNATED PROJECT WORKING AREA.
2. THE CONTRACTOR WILL INSTALL THE PUMP AROUND PUMP AND THE TEMPORARY PIPING THAT WILL CONVEY THE BASE FLOW FROM UPSTREAM OF THE WORK AREA TO THE STABILIZED OUTFALL.
3. INSTALL UPSTREAM COFFER DAM AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
4. INSTALL THE DOWNSTREAM COFFER DAM AND DEWATERING PUMPING APPARATUS IF NEEDED TO DEWATER THE ENTRAPPED AREA. THE PUMP AND HOSE FOR THIS PURPOSE SHALL BE OF SUFFICIENT SIZE TO DEWATER THE WORK AREA. THIS WATER WILL ALSO BE PUMPED TO AN OUTFALL STABILIZED WITH CLASS A RIP RAP.
5. THE CONTRACTOR WILL PERFORM CHANNEL WORK IN ACCORDANCE WITH THE PLAN AND FOLLOWING THE GENERAL CONSTRUCTION SEQUENCE.
6. THE CONTRACTOR WILL EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF THE COFFER DAM. WHEN DEWATERING THE AREA, ALL DIRTY WATER MUST BE PUMPED THROUGH A SILT BAG. REMOVE COFFER DAMS, PUMPS, AND TEMPORARY FLEXIBLE HOSE/PIPING STARTING WITH THE DOWNSTREAM COFFER DAM FIRST.
7. ONCE THE WORKING AREA IS COMPLETED, REMOVE ALL RIP RAP AND COFFER DAMS AND STABILIZE DISTURBED AREAS WITH SEED AND MULCH.
8 ALL WORK IN CHANNEL MUST BE COMPLETED BEFORE REMOVING COFFER DAMS.

2 / C9.0 — PUMP AROUND
NOT TO SCALE



EROSION CONTROL MAT INSTALLATION DETAILS

EROSION CONTROL MAT – INSTALLATION GUIDELINES

SITE PREPARATION:

1. Grade and compact area of installation.
2. Prepare seedbed by loosening 2–3 inches of topsoil above final grade.
3. Incorporate amendments such as lime and fertilizer into soil. See sheet no. 4.
4. Remove all rocks, clods, vegetation or other obstructions so that the installed Erosion Mat will have direct contact with soil surface.
5. Do not mulch areas where mat is to be placed.

SEEDING:

1. Seed swale before installation for erosion control and after installation for turf reinforcement. See sheet no. 4 for grassing specifications.
2. When seeding prior to mat installation, all check slots and other areas disturbed during installation must be reseeded.
3. Where soil filling is specified, seed matting and entire disturbed area after installation, prior to filling mat with soil.

GROUND ANCHORING DEVICES:

1. Metal geotextile stake pins can be used to anchor mats on the ground surface. Metal stake pins should be 3/16–inch diameter steel with a 1/2–inch steel washer at the head of the pin. Metal stake pins should be driven flush to the soil surface. All anchors should be 12–18 inches long and have sufficient ground penetration to resist pullout. Longer anchors may be required for loose soils.

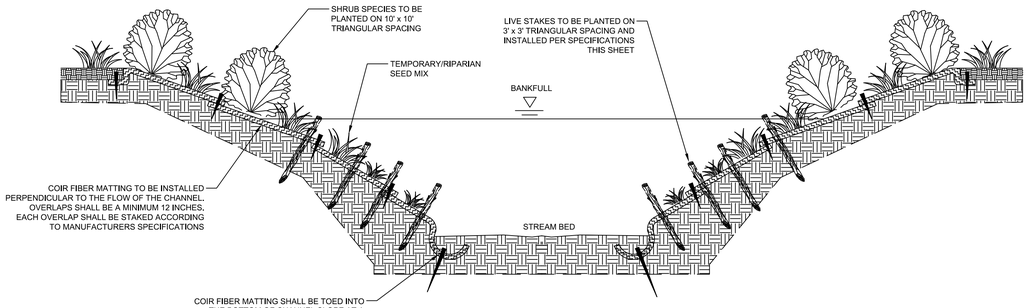
MAT PLACEMENT: CHANNELS

1. Dig initial anchor trench 12–inches deep and 6–inches wide across the channel at the lower end of the project area [Figure 2].
2. Excavate intermittent check slots 6–inches deep and 6–inches wide across the channel at 30 foot intervals along the channel [Figure 3].
3. Cut longitudinal channel anchor slots 4–inches deep and 4–inches wide along each side of the installation to bury edges of matting [Figure 2]. Whenever possible, extend matting 2–3 feet above crest of channel side slopes.
4. Beginning at the downstream end and in the center of the channel, place the initial end of the first roll in the anchor trench and secure with fastening devices at 1 foot intervals. NOTE: matting will initially be upside down in anchor trench, (smaller netting on top) [Figure 1].
5. In same manner, position adjacent rolls in anchor trench, overlapping the preceding roll a minimum of 3–inches.
6. Secure at 1 foot intervals, backfill and compact soil.
7. Unroll center strip of matting upstream over the compacted trench with smaller netting on bottom, large netting on top. Stop at next check slot or terminal anchor trench.
8. Unroll adjacent mats upstream in similar fashion, maintaining 3–inch overlap.
9. Fold and secure all rolls of matting snugly into all transverse check slots. Lay mat in the bottom of the slot then fold back against itself. Anchor through both layers of mat at 1 foot intervals then backfill and compact soil [Figure 3]. Continue rolling all mat widths upstream over the compacted slot to the next check slot or terminal anchor trench.
10. Single–lap roll ends by a minimum of 1 foot with upstream mat on top to prevent uplifting by water or begin new rolls in a check slot. Anchor overlapped area by placing two rows of anchors, 1 foot apart on 1 foot intervals.
11. Place edges of outside mats in previously excavated longitudinal slots, anchor using prescribed staple pattern, backfill and compact soil [Figure 1].
12. Anchor, fill and compact upstream end of swale in a 12"x6" terminal trench.
13. Secure mat to ground surface using geotextile pins.
14. Refer to Anchor Pattern Guide for appropriate number and pattern of anchors.
15. Seed and fill turf reinforcement matting with soil.

SOIL FILLING

1. Place soil filling in erosion mats specified.
2. After seeding, spread and lightly rake 1/2–3/4 inches of fine topsoil into the mat apertures to completely fill mat thickness. Use backside of rake or other flat implement.
3. Spread topsoil using lightweight loader, backhoe, or other power equipment. Avoid sharp turns with equipment.
4. Do not drive tracked or heavy equipment over mat.
5. Avoid any traffic over matting if loose or wet soil conditions exist.
6. Use shovels, rakes or brooms for find grading and touch up.
7. Smooth out soil filling just exposing top netting of matrix. DO NOT PLACE EXCESSIVE SOIL ABOVE THE MAT.
8. Broadcast additional seed.
9. Apply water to enhance growth.
10. Consult manufacturer's technical representative for installation assistance.

3 / C9.0 — EROSION CONTROL MATTING
NOT TO SCALE



4 / C9.0 — CROSS-SECTION PLANTING PLAN
NOT TO SCALE

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BRANCHCLIFF LANE STREAMBANK STABILIZATION

EROSION CONTROL DETAILS

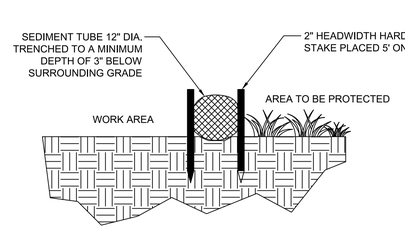
SOUTH CAROLINA
LICENSED PROFESSIONAL ENGINEER
No. 29604
WILLIAM A. RECTOR
10/23/2026

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DATE:	OCTOBER 2026

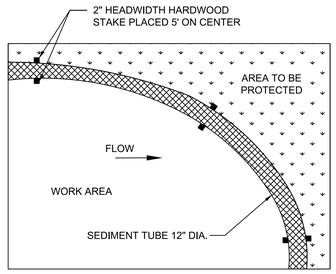
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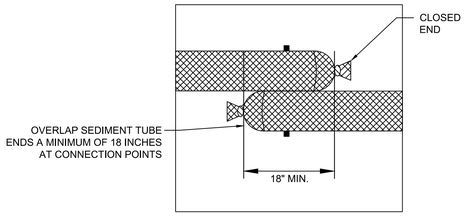
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SECTION VIEW



PLAN VIEW



CONNECTION DETAIL

CONDITION WHERE PRACTICE APPLIES

SEDIMENT TUBES SHOULD BE PLACED ALONG TOPOGRAPHIC ELEVATION CONTOURS, WHERE IT CAN INTERCEPT STORMWATER RUNOFF THAT IS IN DISPERSED SHEET FLOW. SEDIMENT FENCE SHOULD NOT BE USED ALONE BELOW GRADED SLOPES GREATER THAN 10 FEET IN HEIGHT OR IN CONCENTRATED FLOW AREAS.

PLANNING CONSIDERATIONS

TIE THE ENDS OF A SEDIMENT TUBE INTO HIGHER GROUND TO PREVENT FLOW AROUND THE END OF THE FENCE BEFORE THE POOL REACHES DESIGN LEVEL. CURLING EACH END OF THE FENCE UPHILL IN A "J" PATTERN MAY BE APPROPRIATE TO PREVENT END FLOW.

A SEDIMENT TUBES ACTS AS A DIVERSION IF PLACED SLIGHTLY OFF THE CONTOUR. A MAXIMUM SLOPE OF 2 PERCENT IS RECOMMENDED.

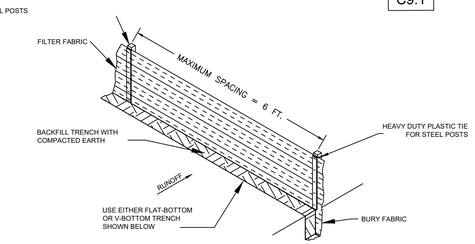
THE SEDIMENT TUBE MUST BE TRENCHED IN TO A MINIMUM DEPTH OF 3 INCHES TO PREVENT SURFACE WATER FROM UNDERCUTTING THE SEDIMENT TUBE INSTALLATION.

NOTE: WOODEN STAKES MUST BE APPROVED BY ENGINEER OR SPECIFICALLY NOTED IN PLANS.

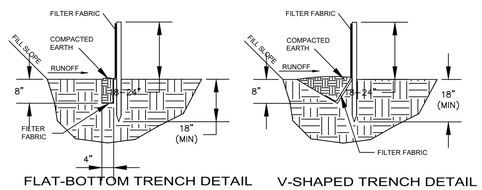
INSTALLATION

1. SEDIMENT TUBES USED FOR PERIMETER CONTROL SHALL BE PLACED PARALLEL TO THE BASE OF THE SLOPE OR OTHER DISTURBED AREAS. IN EXTREME CONDITIONS (I.E., 2:1 SL0PES), A SECOND ROW OF SEDIMENT TUBES SHALL BE CONSTRUCTED AT THE TOP OF THE SLOPE.
2. EFFECTIVE SEDIMENT TUBE HEIGHT IN THE FILED SHALL BE AS FOLLOWS: 8" DIAMETER SEDIMENT TUBE = 6.5" HIGH, 12" DIAMETER SEDIMENT TUBE = 9.5" HIGH, 18" DIAMETER SEDIMENT TUBE = 19" HIGH.
3. STAKES SHALL BE TRENCHED IN TO A MINIMUM DEPTH OF 3-INCHES BELOW SURROUNDING GRADE TO ENSURE SURFACE WATER DOES NOT PASS UNDERNEATH THE SEDIMENT TUBE. LOOSE SOIL MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE SEDIMENT TUBE, FILLING THE SEAM BETWEEN THE SOIL AND THE SEDIMENT CONTROL.
4. STAKES SHALL BE INSTALLED PERPENDICULAR TO BOTH SIDES SIDE SEDIMENT TUBE ON 5 FOOT CENTERS, USING 2-INCH BY 2-INCH BY 3-FOOT HARD WOOD STAKES.
5. STAKING DEPTH FOR SAND AND SILT LOAM SHALL BE A MINIMUM OF 12 INCHES, AND 8 INCHES FOR CLAY SOILS.
6. IF THE SEDIMENT TUBE IS TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED AT TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
7. SEDIMENT TUBES ARE NOT TO BE PLACED IN PERENNIAL, EPHEMERAL, OR INTERMITTENT STREAMS.

1 C9.1 SEDIMENT TUBE PERIMETER EROSION CONTROL
NOT TO SCALE



SILT FENCE INSTALLATION



FLAT-BOTTOM TRENCH DETAIL V-SHAPED TRENCH DETAIL

SILT FENCE
NOT TO SCALE

Inspection and Maintenance of Silt Fences

All sediment and erosion control devices shall be inspected at least once every seven (7) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. If site inspections identify BMPs that are damaged or are not operating effectively, maintenance must be performed as soon as practical or as reasonably possible and before the next storm event whenever practicable. 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.

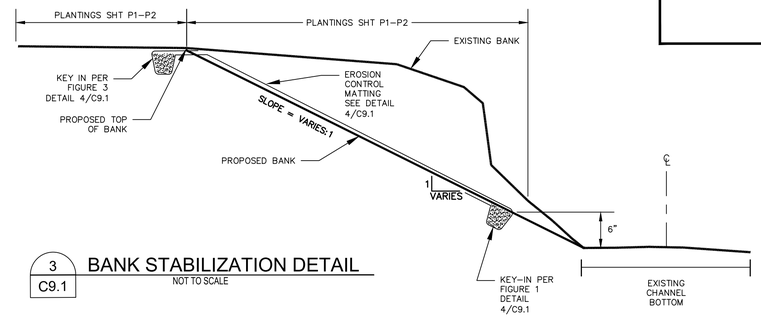
Remove sediment accumulated along the fence when it reaches 1/3 the height of the fence, especially if heavy rains are expected.

Remove trapped sediment from the site or stabilize it on-site.

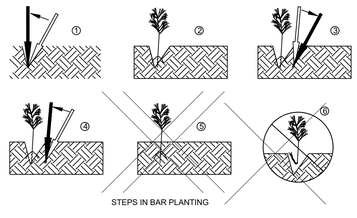
Remove silt fence within 30 days after final stabilization is achieved or after temporary best management practices (BMPs) are no longer needed.

Permanently stabilize disturbed areas resulting from fence removal.

2 C9.1 SILT FENCE
NOT TO SCALE

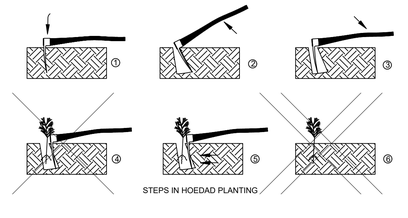


3 C9.1 BANK STABILIZATION DETAIL
NOT TO SCALE



GENERAL NOTES:

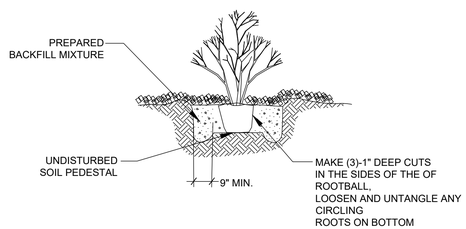
1. INSERT BAR AS SHOWN, AND PUSH HANDLE FORWARD.
2. REMOVE THE BAR, AND PLACE SEEDLING AT CORRECT DEPTH.
3. INSERT BAR 3 TO 4 INCHES FROM SEEDLING (TOWARD YOU), AND PULL HANDLE TO CLOSE BOTTOM OF HOLE.
4. PUSH HANDLE FORWARD TO CLOSE TOP OF HOLE.
5. REMOVE BAR, AND CAREFULLY CLOSE THE OPENING WITH YOUR HEEL TO AVOID INJURING THE SEEDLING.
6. THIS TECHNIQUE WILL NOT BE USED FOR CONTAINERIZED TREES.
7. DEPTH OF HOLE MUST BE DEEP ENOUGH TO ACCOMMODATE ENTIRE TAP ROOT.
8. AVOID ROOT-PRUNING.
9. AVOID J-ROOTING (SEE 6 ABOVE).



GENERAL NOTES:

1. SWING HOEDAD FROM OVERHEAD DOWNWARD, SINKING THE BLADE ITS FULL LENGTH VERTICALLY INTO SOIL (MINIMUM DEPTH OF SLOT IS 8 INCHES).
2. PULL THE BLADE UPWARD SLIGHTLY BY LIFTING THE END OF HANDLE.
3. PUSH THE HANDLE DOWNWARD WHILE PULLING BACK TO OPEN HOLE.
4. WITH THE BLADE IN CAVITY TO HOLD BACK LOOSE SOIL, CAREFULLY PLACE SEEDLING IN HOLE, MAKING SURE ROOTS ARE FULLY EXTENDING. THEN REMOVE THE BLADE.
5. CLOSE THE HOLE BY INSERTING HOEDAD BESIDE THE SEEDLING, THEN LIFTING UP AND PUSHING DOWN ON THE HANDLE TO TIGHTEN SOIL. THEN PUSH SOIL TOWARD SEEDLING.
BE SURE PLANTING SLOT IS CLOSED COMPLETLY.
6. SEE "APPROVED BARE ROOT SPECIES" LIST (BELOW) FOR ALTERNATIVES.
7. THIS TECHNIQUE WILL NOT BE USED FOR CONTAINERIZED TREES.

4 C9.1 BARE ROOT PLANTING DETAIL (APPROVED METHODS)



5 C9.1 CONTAINERIZED TREE AND SHRUB PLANTING DETAIL

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION ARDURRA GROUP INC. No. 6082 C.O.A.

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NO.	DATE	REVISION	BY
1	10/22/2026	ADDENDUM NO. 1	LT

BRANCHCLIFF LANE STREAMBANK STABILIZATION

EROSION CONTROL DETAILS

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 29004 WILLIAM A. RECTOR
10/23/2026

JOB NO: 20240695.00.WK
DATE: OCTOBER 2026

C9.1

ISSUE FOR BID