LIST OF SHEETS

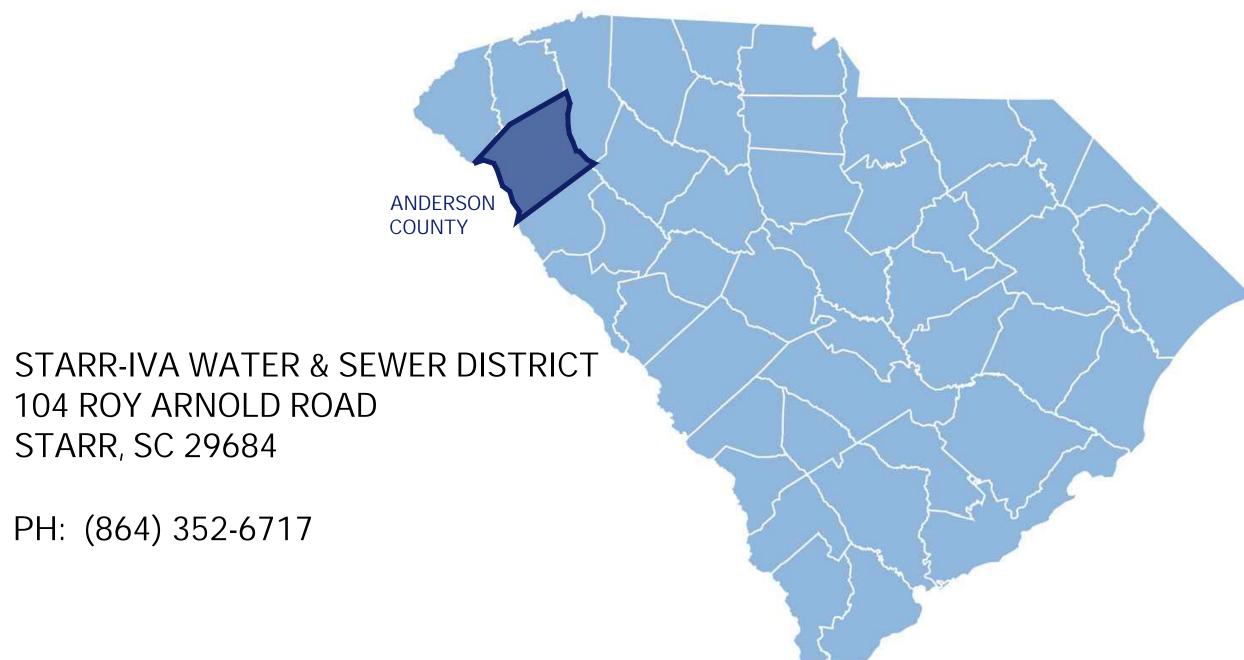
COVER SHEET PROJECT NOTES WATERLINE PLAN SHEET CONSTRUCTION DETAILS

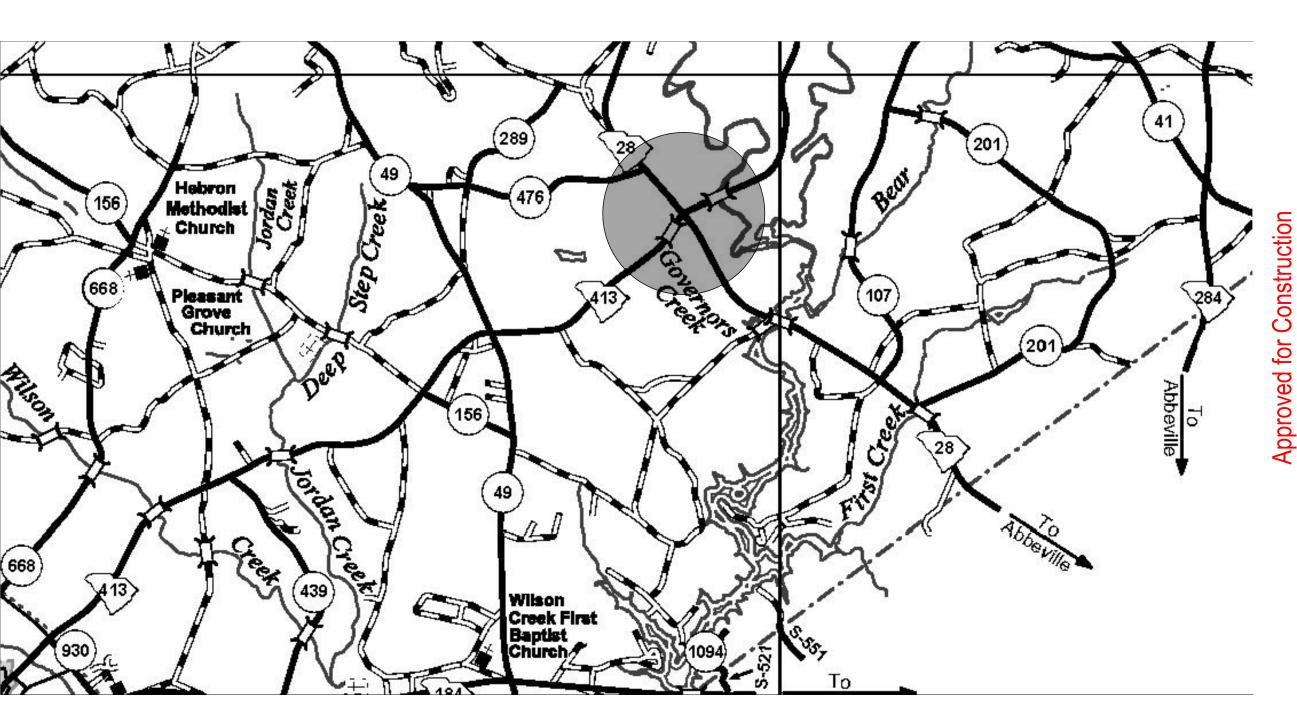
EROSION & SEDIMENTATION CONTROL DETAILS



APPROXIMATE LOCATION OF EXISTING UTILITIES SHOWN FOR CONTRACTOR'S REFERENCE AND SHOULD BE VERIFIED BY CONTRACTOR PRIOR TO STARTING CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CONTRACTOR'S NEGLIGENCE IN EXISTING UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. ENGINEER URGES CONTRACTOR TO UTILIZE SC811 AS PART OF HIS DUE DILIGENCE.

HWY 28 AT HWY 413 WATERLINE EXTENSION ANDERSON COUNTY, SC





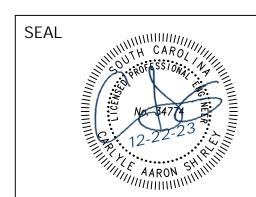
LOCATION MAP N.T.S.

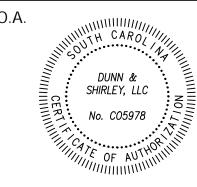
REVISIONS

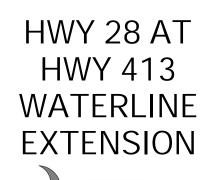
Dunn & Shirley — CONSULTING ENGINEERS —

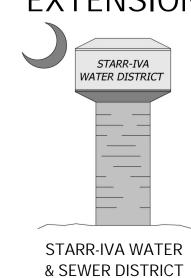


Dunn & Shirley, LLC 823 Martin Road









ISSUED FOR PERMITS

104 ROY ARNOLD ROAD

STARR, SC 29684

12-22-23

	PROJECT NO.	23018
	SCALE:	N.T.S.
	DRAWN BY:	CAS
	DESIGNED BY:	CAS
	CHECKED BY:	BKD

COVER SHEET

SHEET NO.

- 2. ALL WORK IS TO BE COMPLETED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND/OR LOCAL LAWS, REGULATIONS, AND/OR REQUIREMENTS.
- 3. THE LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE BASED ON AVAILABLE INFORMATION AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY FIELD CONDITIONS INCLUDING THE EXACT LOCATION AND ELEVATION OF UTILITIES PRIOR TO BEGINNING THE WORK. ANY DAMAGE TO EXISTING UTILITIES MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 4. NOTIFY THE ENGINEER OF CONDITIONS THAT ARE DIFFERENT FROM THOSE SHOWN.
- 5. WORK PERFORMED WITHIN STATE RIGHTS-OF-WAY AND/OR UTILITY EASEMENTS MUST ADHERE TO THE REQUIREMENTS OF THE RESPECTIVE PERMITTING AGENCY. IN CERTAIN CASES, SUPPLEMENTARY SPECIFICATIONS OR REQUIREMENTS WILL BE PROVIDED AS PART OF AN AGENCY-ISSUED PERMIT. IN THESE CASES, THE SUPPLEMENTAL SPECIFICATIONS WILL OVERRIDE THE PROJECT MANUAL UNLESS EXPRESSLY OTHERWISE STATED BY THE ENGINEER.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, O.S.H.A COMPLIANCE, AND COMPLIANCE WITH ALL PERMITS AT ALL TIMES, REGARDLESS IF ENGINEER'S RESIDENT FIELD REPRESENTATIVE IS PRESENT. CONDITIONS OF THE JOB SITE AND SAFETY OF PEOPLE AND PROPERTY IS A CONTINUOUS REQUIREMENT, NOT LIMITED TO WORK HOURS.
- 7. THE CONTRACTOR MUST PROTECT AND/OR RESTORE IMPROVEMENTS TO OWNER'S PROPERTY AND ALL ADJOINING PROPERTIES IN ACCORDANCE WITH THE PROJECT MANUAL.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION SURVEYING (LINES, STAKING, ETC.). IF NO BID ITEM IS PROVIDED FOR THIS, THE WORK IS CONSIDERED INCIDENTAL AND THE CONTRACTOR MUST MAKE PROVISIONS FOR THE WORK ELSEWHERE IN HIS BID.
- 9. THE CONTRACTOR CANNOT BEGIN THE WORK UNTIL BONDS AND INSURANCE CERTIFICATES ARE PROVIDED AS DETAILED IN THE PROJECT MANUAL.
- 10. THE CONTRACTOR CANNOT BEGIN ANY PORTION OF THE WORK UNTIL ALL APPLICABLE PERMITS ARE IN HAND FOR THAT PORTION OF THE WORK.
- 11. THE CONTRACTOR CANNOT BEGIN THE WORK UNTIL AN APPROPRIATE PRE-CONSTRUCTION CONFERENCE IS HELD FOR THE PROJECT. TYPICALLY, THIS IS HELD AT LEAST 48 HOURS PRIOR TO THE START OF THE WORK AND INCLUDES ALL PARTIES TO THE CONTRACT (CONTRACTOR, OWNER, ENGINEER) AS WELL AS AGENCY REPRESENTATIVES AND LOCAL UTILITY REPRESENTATIVES. REFER TO TECHNICAL SPECIFICATIONS FOR MORE INFORMATION.
- 12. COMPLY WITH SCDHEC "BMP HANDBOOK" AND "STORMWATER MANAGEMENT BMP FIELD MANUAL" FOR ALL LAND DISTURBING ACTIVITIES FOR THE DURATION OF THE PROJECT.
- 13. DISPOSE OF ANY EXCESS EXCAVATION AND/OR UNSUITABLE MATERIALS, DEMOLITION DEBRIS (INCL. CLEARING & GRUBBING), AND SOLID WASTE OFFSITE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND/OR LOCAL REGULATIONS.
- 14. CONCRETE WASHOUTS, STOCKPILES, MATERIAL STORAGE, EQUIPMENT, AND DEBRIS MUST BE LOCATED WITHIN THE LIMITS OF DISTURBANCE AT ALL TIMES. ADJACENT AREAS, OUTSIDE OF THE LIMITS OF DISTURBANCE, MUST BE KEPT CLEAN AND FREE FROM CONSTRUCTION IMPACTS.
- 15. UNLESS PROVIDED IN THE PROJECT MANUAL AS PART OF AN APPROVED ENCROACHMENT PERMIT, PREPARATION AND APPROVAL OF TRAFFIC CONTROL PLANS ARE THE CONTRACTOR'S RESPONSIBILITY.
- 16. THE CONTRACTOR MUST MAINTAIN ONE CLEAN SET OF DRAWINGS FOR USE IN CREATING "RECORD DRAWINGS" AS CONSTRUCTION PROGRESSES IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.

GENERAL WATER SYSTEM NOTES

- 1. A PRE-CONSTRUCTION MEETING (PRE-CON) AS DEFINED IN THE PROJECT MANUAL MUST BE HELD AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. THE ENGINEER WILL SCHEDULE THE PRE-CON AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE MEETING WHENEVER POSSIBLE. THOSE IN ATTENDANCE MUST INCLUDE: THE OWNER, ENGINEER, CONTRACTOR (INCL. SUPERINTENDENT, SUBCONTRACTORS, UTILITIES) AND APPLICABLE PERMITTING AGENCIES. THE CONTRACTOR MUST NOTIFY ANY UTILITIES THAT MAY BE AFFECTED BY CONSTRUCTION PRIOR TO THE PRE-CON TO ALLOW THEM AN OPPORTUNITY TO ATTEND THE PRE-CON.
- 2. THE CONTRACTOR SHALL INSTALL THE WATER SYSTEM IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
- 3. AT LEAST ONE (1) SET OF APPROVED PLANS AND SPECIFICATIONS MUST BE KEPT AT THE SITE AT ALL TIMES. THE CONTRACTOR INSTALLING THE WATER SYSTEM IS RESPONSIBLE FOR KEEPING THESE PLANS AT THE SITE.
- 4. THE CONTRACTOR MUST NOTIFY THE OWNER AND ENGINEER NOT LESS THAN 48 HOURS PRIOR TO: START OF CONSTRUCTION, ANY TESTING OF THE SYSTEM, READINESS FOR FINAL INSPECTION.
- 5. FOR NEW INSTALLATIONS AUTHORIZED BY A SCDHEC CONSTRUCTION PERMIT, A CERTIFICATION WILL NOT BE ISSUED IF THE ENGINEER OR A REPRESENTATIVE OF THE ENGINEER IS NOT PRESENT DURING ALL TESTING AND FINAL INSPECTION. WITHOUT THIS ENGINEER'S CERTIFICATION, AN APPROVAL TO PLACE INTO OPERATION WILL NOT BE ISSUED BY SCDHEC.
- 6. THE CONTRACTOR MUST SUBMIT A RECORD DRAWING SKETCH (OR REDLINE MARKUP) TO THE ENGINEER NO LATER THAN 48 HOURS AFTER FINAL COMPLETION.
- 7. THE RECORD DRAWING SKETCH MUST BE SIGNED AND DATED BY THE CONTRACTOR AND MUST CONTAIN THE FOLLOWING PHRASE: "I HEREBY CERTIFY THAT THE WATER SYSTEM WAS INSTALLED AS SHOWN ON THIS PLAN". THE SKETCH SHOULD INCLUDE SUFFICIENT MEASUREMENTS AND INFORMATION TO PROPERLY LOCATE THE WATER SYSTEM FEATURES AS INSTALLED. FAILURE TO SUBMIT THE SKETCH OR TO PROVIDE SUFFICIENT DETAIL WILL RESULT IN THE ENGINEER REQUIRING AN AS-BUILT SURVEY TO BE COMPLETED BY A LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- 8. THE CONTRACTOR SHALL MAINTAIN AND BACKFILL THE WATER LINE AS IT IS LAID. NO OPEN DITCHES WILL BE ALLOWED AT THE CLOSE OF THE DAYS WORK. STEEL PLATES SHALL BE USED AS NECESSARY TO COVER OPEN TRENCHES IN ROADS.
- 9. BROADCAST TEMPORARY GRASS SEED AND STRAW DAILY AS TRENCH IS BACKFILLED. MAINTAIN GRASS DURING CONSTRUCTION AND RE-SEED AS OFTEN AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
- 10. INSPECT ALL SEDIMENT AND EROSION CONTROLS ONCE EACH CALENDAR WEEK OR AFTER RAINFALL EVENTS EXCEEDING 0.5", AT MINIMUM. MAINTAIN THE CONTROLS IN GOOD WORKING ORDER DURING CONSTRUCTION UNTIL UPSTREAM AREAS ARE COMPLETELY STABILIZED. CERTAIN CONTROLS IN CRITICAL AREAS MAY REMAIN IN PLACE AT THE DIRECTION OF THE ENGINEER FOR THE DURATION OF THE PROJECT REGARDLESS OF STABILIZATION.

SCDHEC STANDARD 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 REQUIRED 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 PRACTICARIE
- 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, 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 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 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. STANDARD NOTES FEBRUARY 2017
- 13. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL

SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.

- 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;
- 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
- 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 THE DEPARTMENT HAS APPROVED OTHERWISE.

STARR-IVA WATER CONTACTS

MR. PATRICK JACKSON MANAGER (864) 352-6717 PJACKSON@SIWATER.NET

OR

MR. PATRICK BOYKIN SUPERINTENDENT (864) 276-2229 PBOYKIN@SIWATER.NET

DATA SOURCES

STARR-IVA WATER SYSTEM MAP (ARCGIS)

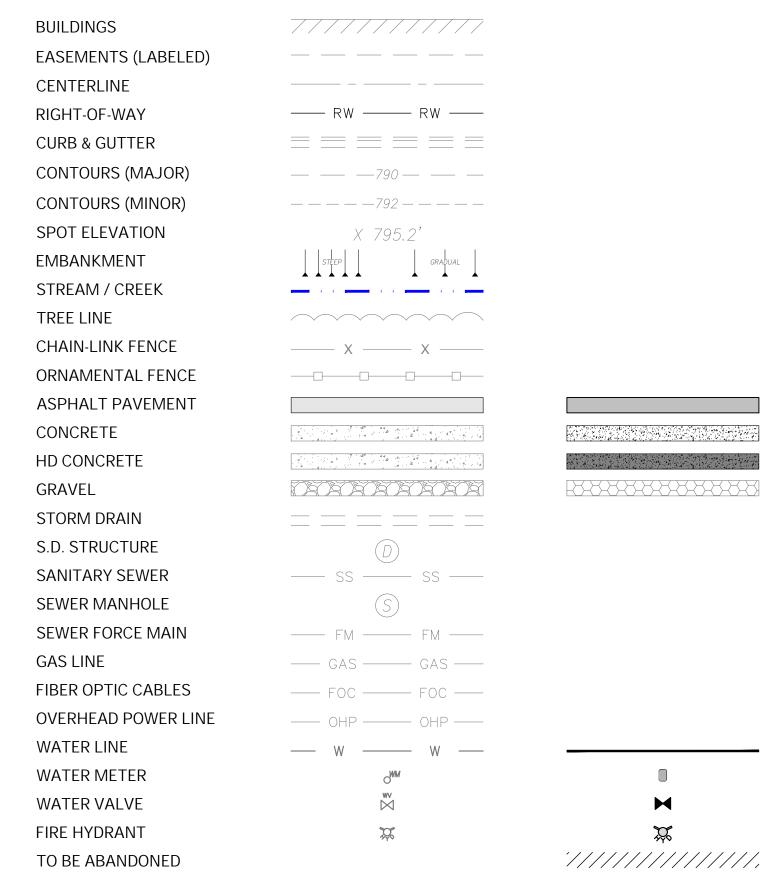
ANDERSON COUNTY GIS

SCDOT "PLANS ONLINE"

LEGEND

EXISTING

PROPOSED



COMMON ABBREVIATIONS

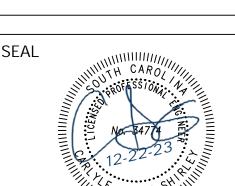
A/C	ASBESTOS-CEMENT	IE(I)	INVERT ELEVATION IN
APPR	APPROXIMATE	IE(O)	INVERT ELEVATION OUT
ASS'Y	ASSEMBLY	INV	INVERT
BLDG	BUILDING	IRR	IRRIGATION
B.O.	BLOW-OFF	L.F.	LINEAR FEET
C.I.	CAST IRON	MH	MANHOLE
C.O.	CLEAN-OUT	M.J.	MECHANICAL JOINT
C.Y.	CUBIC YARDS	POLY	POLYETHYLENE
CONC	CONCRETE	PRV	PRESSURE REDUCING VALVE
DI	DUCTILE IRON	PVC	POLYVINYL CHLORIDE PIPE
DIP	DUCTILE IRON PIPE	R.J.	RESTRAINED JOINT
E.O.P.	EDGE OF PAVEMENT	S.Y.	SQUARE YARDS
FDC	FIRE DEPARTMENT CONNECTION	SL	SERVICE LATERAL (SEWER)
FH	FIRE HYDRANT	SS	SANITARY SEWER
FT.	FEET	SSMH	SANITARY SEWER MANHOLE
GALV	GALVANIZED	S/W	SIDEWALK
GV	GATE VALVE	THD	THREADED
HDD	HORIZONTAL DIRECTIONAL DRILL	U.S.	UPSTREAM
HDPE	HIGH DENSITY POLYETHYLENE PIPE	VCP	VITRIFIED CLAY PIPE
HYD	HYDRANT	W.L.	WATERLINE
I.C.V.	IRRIGATION CONTROL VALVE	WM	WATER METER

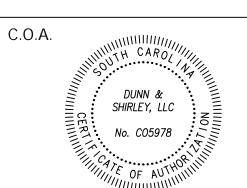
REVISIONS

NO. DATE DESCRIPTION

Dunn & Shirley —CONSULTING ENGINEERS—







HWY 28 AT HWY 413 WATERLINE EXTENSION STARR-IVA WATER DISTRICT STARR-IVA WATER

& SEWER DISTRICT 104 ROY ARNOLD ROAD STARR, SC 29684

ISSUED FOR PERMITS

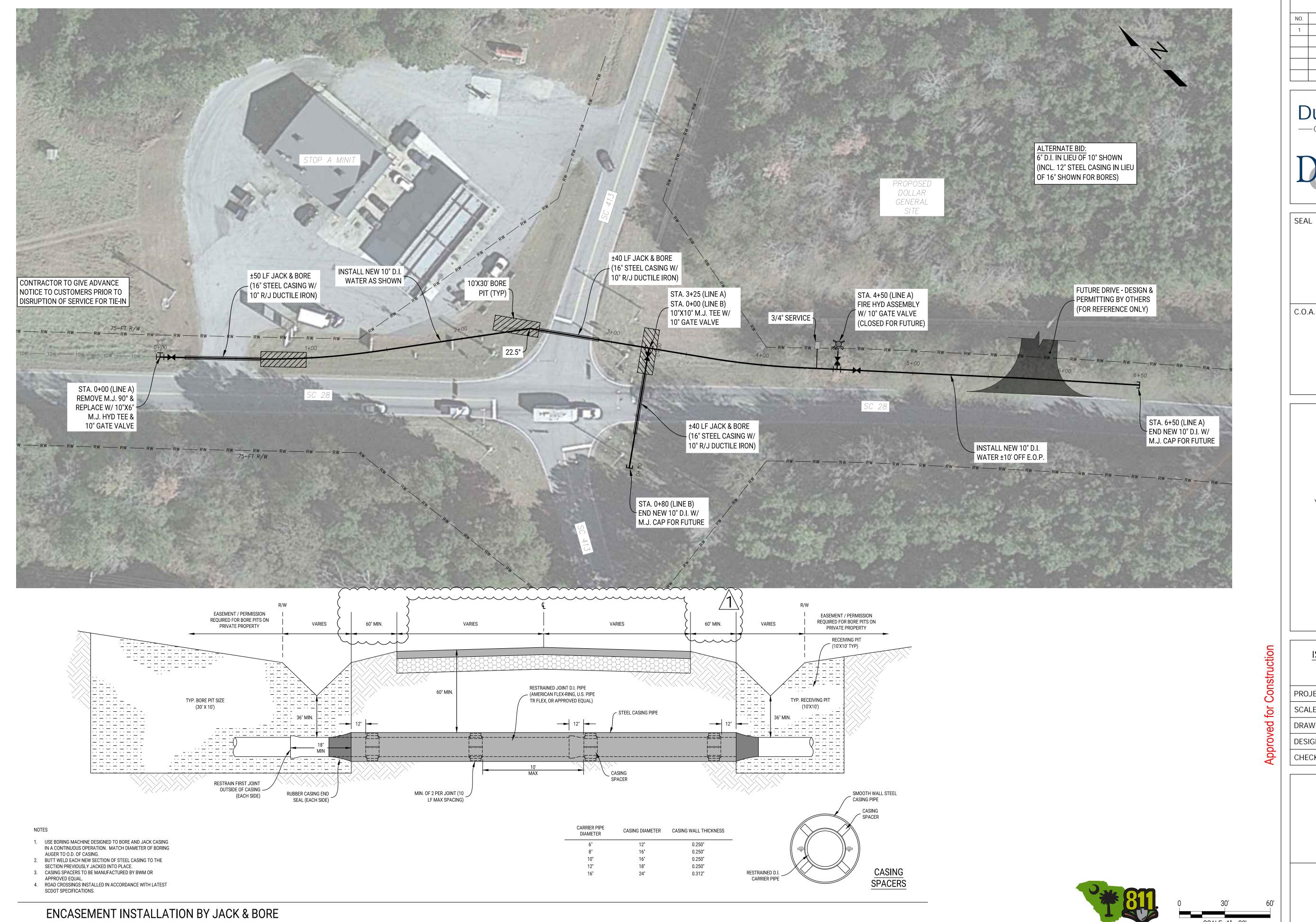
12-22-23

	PROJECT NO.	23018
	SCALE:	N.T.S
	DRAWN BY:	CAS
	DESIGNED BY:	CAS
	CHECKED BY:	BKI

PROJECT NOTES

SHEET NO.

02



REVISIONS

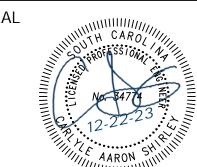
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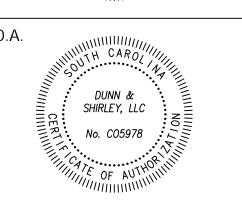
1 1/8/24 SCDOT COMMENTS

Dunn & Shirley
—CONSULTING ENGINEERS—



Dunn & Shirley, LLC 823 Martin Road Honea Path, SC 29654 (864) 245-0569 info@dunnshirley.com







ISSUED FOR PERMITS

STARR, SC 29684

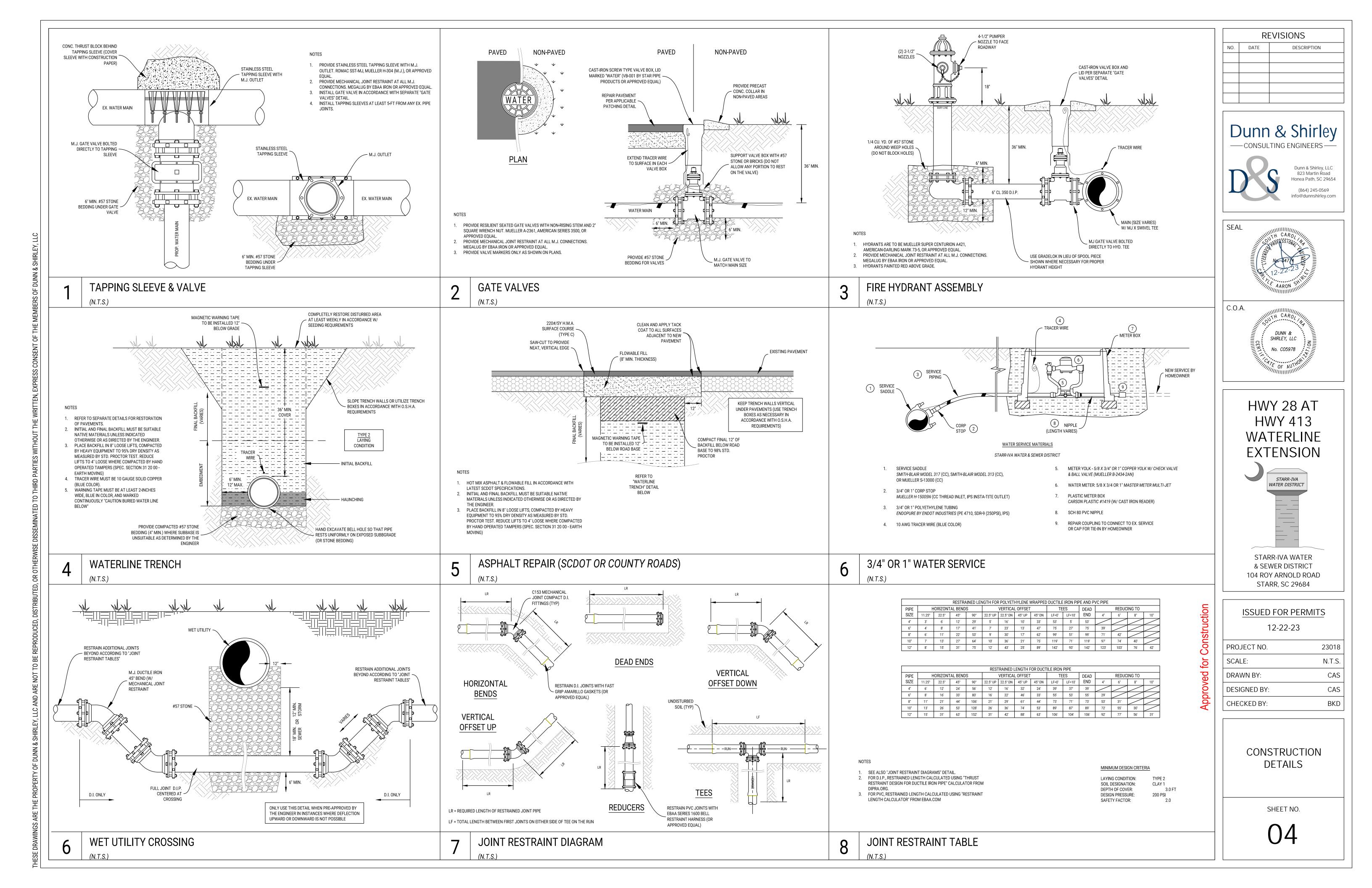
12-22-23

	PROJECT NO.	23018
	SCALE:	1" = 30"
	DRAWN BY:	CAS
	DESIGNED BY:	CAS
•	CHECKED BY:	BKD

WATERLINE PLAN SHEET

SHEET NO.

03



. 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 cleanou

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

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

Health and Environmental Contro

SILT FENCE

INLET TUBES

andard drawing no. SC-11 PAGE 1 of

NOT TO SCALE

NOT TO SCALE

DARD DRAWING NO. SC-03 Page 1 of

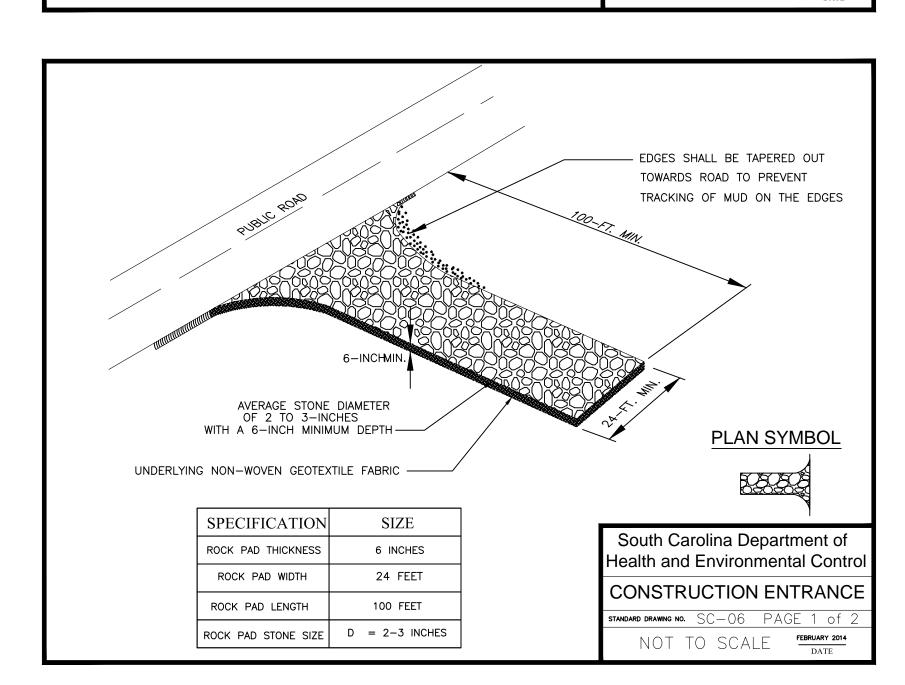
- T FENCE POST REQUIREMENTS
 Silt Fence posts must be 48—inch long steel posts that meet, at a minimum, the following physical characteristics. Composed of a high strength steel with a minimum yield strength of 50,000 psi. - Include a standard "T" section with a nominal face width of 1.38-inches and a nominal "T" length of 1.48-inches.
- Weigh 1.25 pounds per foot (± 8%) Posts shall be equipped with projections to aid in fastening of filter fabric. Steel posts may need to have a metal soil stabilization plate welded near the
- bottom when installed along steep slopes or installed in lose soils. The plate should have a minimum cross section of 17—square inches and be composed of 15 gauge steel, at a minimum. The metal soil stabilization plate should be
- Install posts to a minimum of 24-inches. A minimum height of 1- to 2inches above the fabric shall be maintained, and a maximum height of 3 feet
- Post spacing shall be at a maximum of 6-feet on center.
- ILT FENCE FABRIC REQUIREMENTS Silt fence must be composed of woven geotextile filter fabric that consists of the following requirements:

 - Composed of fibers consisting of long chain synthetic polymers of at Composed of fibers consisting of long chain synthetic polymers of at least 85% by weight of polyolefins, polyesters, or polyamides that are 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 alter its physical properties after installation;

 — Free of any defects or flaws that significantly affect its physical and/or filtering properties; and, — Have a minimum width of 36—inches.
- Use only fabric appearing on SC DOT's Qualified Products Listing (QPL), Approval Sheet #34, meeting the requirements of the most current edition of the SC DOT Standard Specifications for Highway Construction.
- 12-inches of the fabric should be placed within excavated trench and toed in
- . Filter Fabric shall be purchased in continuous rolls and cut to the length of the barrier to avoid joints.
- Filter Fabric shall be installed at a minimum of 24-inches above the ground.

- SILT FENCE INSPECTION & MAINTENANCE The key to functional silt fence is weekly inspections, routine maintenance, and
- 2. Regular inspections of silt fence shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of precipitation.
- 3. Attention to sediment accumulations along the silt fence is extremely important. Accumulated sediment should be continually monitored and removed when
- 4. Remove accumulated sediment when it reaches 1/3 the height of the silt
- 5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
- silt fence, or where the fence has sagged or collapsed due to runoff overtopping the silt fence. Install checks/tie-backs and/or reinstall silt fence,
- 7. Check for tears within the silt fence, areas where silt fence has begun to decompose, and for any other circumstance that may render the silt fence ineffective. Removed damaged silt fence and reinstall new silt fence
- 8. Silt fence should be removed within 30 days after final stabilization is achieved and once it is removed, the resulting disturbed area shall be permanently

South Carolina Department of Health and Environmental Contro SILT FENCE randard drawing no. SC-03 PAGE 2 of GENERAL NOTES



CONSTRUCTION ENTRANCE - GENERAL NOTES . Stabilized construction entrances should be used at all points where traffic will egress/ingress a construction site onto a public road or any impervious surfaces, such as parking lots.

- 2. Install a non-woven geotextile fabric prior to placing any
- 3. Install a culvert pipe across the entrance when needed to provide positive drainage.
- 4. The entrance shall consist of 2-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
- accommodate site constraints. 6. The edges of the entrance shall be tapered out towards the road to prevent tracking at the edge of the entrance.

100-feet long, and may be modified as necessary to

- 7. Divert all surface runoff and drainage from the stone pad to
- a sediment trap or basin or other sediment trapping structure. 8. Limestone may not be used for the stone pad.

- CONSTR. ENTRANCE INSPECTION & MAINTENANCE
- 3. During regular inspections, check for mud and sediment buildup and pad integrity. Inspection frequencies may need to be more
- 4. Reshape the stone pad as necessary for drainage and runoff
- 5. Wash or replace stones as needed and as directed by site inspector. The stone in the entrance should be washed or replaced whenever the entrance fails to reduce the amount of mud being carried off-site by vehicles. Frequent washing will
- 6. Immediately remove mud and sediment tracked or washed onto adiacent impervious surfaces by brushing or sweeping. Flushing should only be used when the water can be discharged to a
- 7. During maintenance activities, any broken pavement should be

South Carolina Department of

randard drawing no. SC-06 PAGE 2 of GENERAL NOTES

1. The key to functional construction entrances is weekly inspections, routine maintenance, and regular sediment removal

2. Regular inspections of construction entrances shall be conducted once every calendar week and, as recommended, within 24—hours after each rainfall even that produces 1/2-inch or more of precipitation.

frequent during long periods of wet weather.

extend the useful life of stone pad.

repaired immediately.

8. Construction entrances should be removed after the site has reached final stabilization. Permanent vegetation should replace areas from which construction entrances have been removed, unless area will be converted to an impervious surface to serve

> Health and Environmental Control **CONSTRUCTION ENTRANCE**

BERMUDA GRASS - HULLED (ALONE) 8-12 BERMUDA GRASS - HULLED (MIX) TALL FESCUE - KY31 (ALONE) TALL FESCUE - KY31 (MIX) SERICEA LESPEDEZA - SCARIFIED (ALONE / MIX) - TYPE EL INOCULANT LADINO CLOVER (MIX TYPE AB INOCUL AN FOR STEEP SLOPES / CUT SLOPES WEEPING LOVEGRASS (ALONE) WEEPING LOVEGRASS (MIX)

PERMANENT SEEDING - UPSTATE

TEMPORARY SEEDING - UPSTATE

LBS/AC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

LBS/AC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC

SPECIES

BROWNTOP MILLET (ALONE)

BROWNTOP MILLET (MIX)

RYE GRAIN (ALONE)

RYE GRAIN (MIX)

RYE GRASS (ALONE)

RYE GRASS (MIX)

WEEPING LOVEGRASS (ALONE)

WEEPING LOVEGRASS (MIX)

SPECIES

BAHIA GRASS (ALONE

BAHIA GRASS (MIX)

CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING A GOOD STAND OF GRASS TO STABILIZE ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED, BUILT UPON, OR OTHERWISE LANDSCAPED UNTIL OWNER'S FINAL ACCEPTANCE. UNLESS SPECIFICALLY CALLED OUT ON THE PLANS OR DETAILS, SEED MAY BE APPLIED VIA BROADCAST SEEDING OR HYDRO-SEEDING. ALTERNATIVELY, SOD MAY BE USED FOR PERMANENT STABILIZATION.

- . CLEAR GROUND SURFACE OF STONES, ROOTS, AND DEBRIS IN EXCESS OF 1 INCH IN SIZE AND SCARIFY SUBGRADE TO A DEPTH OF 6 INCHES WHERE TOPSOIL IS SCHEDULED. ALL AREAS TO BE GRASS-STABILIZED SHALL HAVE 4"-6"TOPSOIL PLACED PRIOR TO
- GRASSING OPERATION. TOPSOIL SHALL CONSIST OF FERTILE, FRIABLE SURFACE SOIL FREE OF ROOTS NOXIOUS WEEDS, STONES LARGER THAN 1 ½ INCHES IN DIAMETER, AND OTHER FOREIGN MATERIAL. TOPSOIL SHALL NOT CONTAIN ANY SAND, SANDY CLAY, CLAY LOAM, SILTY CLAY, OR CLAY

CROWNVETCH (MIX) - TYPE M INOCULANT 8-10

- 3. FINE GRADE TOPSOIL TO ELIMINATE ROUGH, LOW, OR HIGH AREAS WHILE MAINTAINING
- PROFILE OF SUBGRADE. 4. LIGHTLY COMPACT TOPSOIL IN PREPARATION FOR PLANTINGS.

- 1. APPLY SEED EVENLY IN TWO INTERSECTING DIRECTIONS AT THE RATES SHOWN ABOVE
- USING HAND-OPERATED OR MACHINE-OPERATED MECHANICAL SPREADER. PACK SOIL FIRMLY AROUND THE SEED, MULCHED USING OAT OR WHEAT STRAW
- (WEED-FREE) AT A RATE OF 80LBS/1000 SF, AND MOISTENED BY SPRINKLING TO A DEPTH OF 4-INCHES 3. APPLY FERTILIZER ACCORDING TO RESULTS OF SOIL ANALYSIS.

MAINTENANCE & FINAL STABILIZATION

- . CONTRACTOR IS RESPONSIBLE FOR ON-GOING MAINTENANCE OF GRASSED AREAS UNTIL OWNER'S FINAL ACCEPTANCE WHICH INCLUDES WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, EDGING, AND CONTROLLING INSECTS/DISEASE AS WELL AS ROLLING, RE-GRADING, AND RE-SEEDING WHERE NECESSARY TO PROVIDE A SMOOTH ESTABLISHED LAWN FREE OF BARE AREAS
- OVERALL COVERAGE RATE. THIS DOES NOT MEAN THAT 30 PERCENT OF THE SITE CAN REMAIN BARE. THE COVERAGE IS DEFINED AS LOOKING AT A SQUARE YARD OF COVERAGE, IN WHICH 70 PERCENT OF THAT SQUARE YARD IS COVERED WITH VEGETATION."

SEEDING (N.T.S.)

1. SLURRY SHALL BE MIXED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION TO ACHIEVE THE SEED APPLICATION RATES ABOVE IN ADDITION TO 50 LBS/1000 SF WOOD MULCH AND 10 LBS/1000 SF OF 19-19-19 FERTILIZER.

- 2 AS DEFINED BY SCHEC "FINAL STABILIZATION OF THE SITE REQUIRES A 70 PERCENT

STARR-IVA WATER & SEWER DISTRICT 104 ROY ARNOLD ROAD

ISSUED FOR PERMITS

12-22-23

STARR, SC 29684

REVISIONS

Dunn & Shirley

——CONSULTING ENGINEERS —

DUNN &

SHIRLEY, LLC

No. CO5978

HWY 28 AT

HWY 413

EXTENSION

STARR-IVA

WATER DISTRICT

DESCRIPTION

Dunn & Shirley, LLC

823 Martin Road

Honea Path, SC 29654

info@dunnshirlev.com

(864) 245-0569

DATE

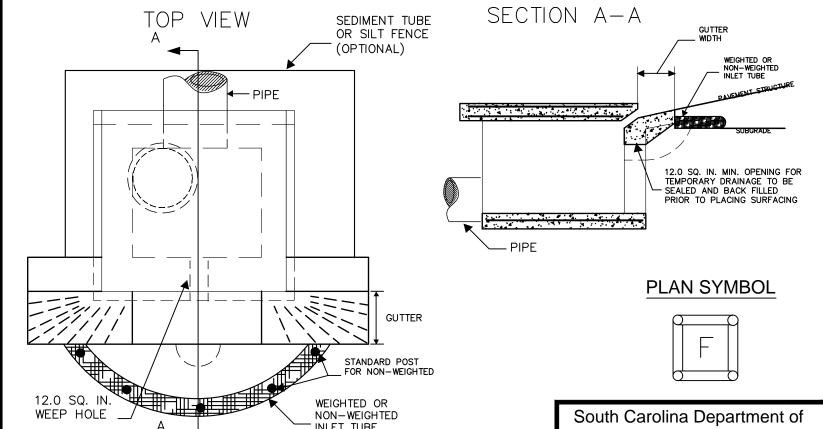
SEAL

C.O.A.

Approved tor Cor	PROJECT NO.	23018
	SCALE:	N.T.S
	DRAWN BY:	CAS
	DESIGNED BY:	CAS
Арр	CHECKED BY:	ВКГ

EROSION & SEDIMENTATION **CONTROL DETAILS**

SHEET NO.



GENERAL NOTES

. Inlets tubes should be composed of compacted geotextiles, curled excelsior wood, natural coconut fibers, a hardwood mulch, or a mix of these materials enclosed by a flexible — netting material.

seamless, high-density polyethylene photodegradable materials treated with ultraviolet stabilizers or a seamless, high-density polyethylene non-degradable material. Curled wood excelsior fiber, up to create an inlet tube device are not allowed.

leaf mulch as fill material within inlet tubes.

weighted inner core or other weighted mechanism to keep them in place. 5. Install weighted tubes lying flat on the ground, with no gaps

between the underlying surface and the inlet tube. Do not stack inlet tubes. Do not completely block inlet with tube.

methods to keep them safely in place. 7. Overflow or overtopping of inlet tubes must be allowed to flow into inlet unobstructed.

may be placed between the tube and the inlet.

1. The key to functional inlet protection is weekly inspection,

2. Regular inspections of all inlet protection shall be conducted once every calendar week and, as recommended, within more of precipitation.

3. Attention to sediment accumulations in front of the inlet be continually monitored and removed when necessary.

4. Remove accumulated sediment when it reaches 1/3 the height of the blocks. If a sump is used, sediment should be removed

5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.

6. Large debris, trash, and leaves should be removed from in

'. Replace inlet tube when damaged or as recommended by manufacturer's specifications.

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. Stabilize all bare areas immediately.

> South Carolina Department of Health and Environmental Control

Type F INLET TUBES

randard drawing no. SC-11 PAGE 2 of 2 GENERAL NOTES

TEMPORARY STOCKPILE AREA SILT FENCE (SEE DETAL) SOIL/SEDIMEN STOCKPILE ARE ORIGINAL GROUND SURFAC

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.

South Carolina Department of Health and Environmental Control TEMPORARY STOCKPILE

andard drawing no. SC-15 PAGE 1 of 1 NOT TO SCALE

Health and Environmental Control Type F

TYPE F - INLET TUBES INLET PROTECTION

2. Inlets tubes should utilize an outer netting that consists of or natural coconut fiber rolled erosion control products rolled

3. Do not use straw, straw fiber, straw bales, pine needles, or

4. Weighted inlet tubes must be capable of staying in place without external stabilization measures and may have a

6. Non-weighted inlet tubes require staking or other stabilization

8. To avoid possible flooding, two or three concrete cinder blocks

INSPECTION AND MAINTENANCE

routine maintenance, and regular sediment removal. 24-hours after each rainfall event that produces 1/2-inch or

protection is extremely important. Accumulated sediment should

when it fills approximately 1/3 the depth of the hole.

front of tubes when found.

8. Inlet protection structures should be removed after the