

V:\GT35-400 - Regent Parkway Relief System Design\ GT35-Sheet\GT35-NOTES.dwg, NOTES, Itrake

SANITARY SEWER GENERAL NOTES

- 1) ALL CONSTRUCTION AND MATERIALS SHALL BE IN GENERAL ACCORDANCE WITH APPLICABLE STATE, FEDERAL AND LOCAL REGULATIONS, THE MOST RECENT YORK COUNTY GOVERNMENT WATER & SEWER DEPARTMENT SPECIFICATIONS AND SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (SCDHEC) REGULATIONS.
- 2) CONSTRUCTION ON THIS SITE IS AUTHORIZED BY PERMITS ISSUED BY THE SCDHEC. THE WORK IS SUBJECT TO INSPECTION AT ALL TIMES BY REPRESENTATIVES OF SCDHEC, YORK COUNTY AND THE ENGINEER OF RECORD. THE PERMITS REQUIRE CERTIFICATION OF COMPLETION BY THE ENGINEER OF THE SEWER SYSTEM PRIOR TO ISSUANCE OF FINAL OPERATIONAL APPROVAL BY THE SCDHEC.
- 3) CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH ENGINEER, YORK COUNTY, SCDOT AND ANY OTHER INTERESTED PARTIES WITH A REQUIRED MINIMUM OF FIVE (5) WORKING DAYS NOTIFICATION PRIOR TO PRE-CONSTRUCTION MEETING.
- 4) CONTRACTOR SHALL CONTACT YORK COUNTY 48 HOURS PRIOR TO STARTING CONSTRUCTION.
- 5) CONTRACTOR IS RESPONSIBLE AT CONTRACTOR'S EXPENSE FOR ENSURING AND OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO CONSTRUCTION. THESE PERMITS MAY INCLUDE, BUT NOT LIMITED TO: GRADING, DEMOLITION, BLASTING, ZONING, BUILDING, DRIVEWAY, DETENTION, SUBDIVISION SPECIAL USE, WATER AND SEWER PERMITS AND APPROVALS.
- 6) CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR CONTACTING ALL APPROPRIATE UTILITIES AND ENSURING THAT UTILITIES ARE LOCATED PRIOR TO COMMENCEMENT OF CONSTRUCTION AS REQUIRED BY SOUTH CAROLINA LAW. CONTRACTOR SHALL VERIFY LOCATION AND DEPTHS OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCY OR CONFLICTS PRIOR TO CONSTRUCTION.
- 7) PROJECT IS LOCATED WITHIN FEMA FLOOD ZONE AE PER FEMA FIRM MAP# 45091C0208F, EFFECTIVE DATE MAY 16, 2017.
- 8) CONNECTION TO ANY EXISTING LINES SHALL BE BY THE CONTRACTOR IN THE PRESENCE OF YORK COUNTY INSPECTION PERSONNEL. PLUG NEW CONNECTION UNTIL CONSTRUCTION AND TESTING HAVE BEEN COMPLETED. INSPECTED BY THE ENGINEER OF RECORD AND YORK COUNTY, AND FINAL CONNECTION HAS BEEN AUTHORIZED.
- 9) CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR REPAIR AND REPLACEMENT OF FENCES, MAILBOXES, DRIVEWAYS, FLOWER BEDS AND ANY/OR SIMILAR STRUCTURES DISTURBED AND/OR DAMAGED DURING CONSTRUCTION.
- 10) YORK COUNTY PROHIBITS ANY AND ALL PLANTING OF TREES AND/OR SHRUBBERY OR BUILDING OF ANY STRUCTURE ON OR WITHIN SANITARY SEWER EASEMENT AREAS.
- 11) CLEARING AND GRUBBING SHALL BE PERFORMED WITHIN THE LIMITS SHOWN ON THE PLANS. ALL TIMBER, BRUSH ROOTS, STUMPS, TREES, OTHER VEGETATION AND DEMOLITION DEBRIS REMOVED SHALL BECOME THE CONTRACTOR'S RESPONSIBILITY TO DISPOSE OF PROPERLY BY REMOVAL FROM PROJECT SITE. THE CONTRACTOR MAY, WITH PRIOR WRITTEN APPROVAL FROM YORK COUNTY, DISPOSE OF ORGANIC MATERIAL ONSITE BY CHIPPING/MULCHING ONLY.
- 12) APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE OR DISTURB ADJACENT PROPERTIES. WHEN FIELD CONDITONS WARRANT DISTURBANCE BEYOND THE PROJECT LIMITS, WRITTEN PERMISSION MUST BE OBTAINED FROM THE PROPERTY OWNER(S).
- 13) ALL DISTURBED AREAS SHALL BE ADEQUATELY SEEDED AND STRAWED AFTER COMPLETION OF PIPE INSTALLATION. ALL NEWLY STABILIZED AREAS DISTURBED DURING CONSTRUCTION ACTIVITIES AND/OR TESTING SHALL BE RE-SEEDED AND RE-STRAWED AS REQUIRED.
- 14) WHEN UNDERGROUND OBSTRUCTIONS NOT SHOWN ON THE CONSTRUCTION DRAWINGS (ROCK, PIPING, ETC.) ARE ENCOUNTERED, THE CONTRACTOR SHALL PROMPTLY REPORT THE CONFLICT TO THE ENGINEER AND YORK COUNTY. ALL CHANGES MUST BE APPROVED IN WRITING BY THE ENGINEER AND APPROVED BY YORK COUNTY BEFORE CONSTRUCTION CAN PROCEED.
- 15) SANITARY SEWER GRAVITY MAINS SHALL BE POLYVINYL CHLORIDE (PVC), ASTM D3034 SDR 35 FOR 4-INCH THROUGH 15-INCH DIAMETERS AND ASTM F-679 FOR 18-INCH THROUGH 24-INCH DIAMETERS, WITH STONE BEDDING EXCEPT WHERE DUCTILE IRON PIPE OR LONG SPAN STEEL PIPE IS REQUIRED.
- 16) DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF AWWA STANDARD C151 AND SHALL HAVE A CEMENT MORTAR LINING OF STANDARD THICKNESS IN ACCORDANCE WITH AWWA C104. DUCTILE IRON PIPE EXTERIOR SHALL BE BITUMINOUS COATED A MINIMUM OF 1 MM THICK.
- 17) DUCTILE IRON PIPE SHALL BE FURNISHED WITH PUSH-ON JOINTS IN ACCORDANCE WITH AWWA C111. DUCTILE IRON PIPE WITHIN STEEL ENCASEMENT PIPES SHALL BE FURNISHED WITH FIELD LOK GASKET OR APPROVED EQUIVALENT IN ACCORDANCE WITH AWWA C111.
- 18) WHEN A SEWER MAIN OR LATERAL CROSSES OR IS PARALLEL TO AN EXISTING WATER MAIN, THE CONTRACTOR SHALL PROVIDE DUCTILE IRON PIPE, INCLUDING LATERALS, FOR THE SEWER MAIN AS FOLLOWS:
- A) WHENEVER IT IS NECESSARY FOR A SEWER MAIN TO CROSS UNDER A WATER MAIN WITH LESS THAN 18-INCHES OF VERTICAL SEPARATION, THE SEWER AND WATER MAINS SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
- B) WHENEVER IT IS NECESSARY FOR A SEWER MAIN TO CROSS OVER A WATER MAIN, THE SEWER AND WATER MAINS SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
- C) SEWER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM EXISTING OR PROPOSED WATER MAINS UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT THIS SEPARATION. IN THIS CASE, THE SEWER MAIN SHALL BE LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18-INCHES ABOVE THE TOP OF THE SEWER. IF THESE CONDITIONS CANNOT BE MET, THE SEWER AND WATER MAINS SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE.
- 19) EXISTING UTILITY CROSSEINGS SHALL BE AS FOLLOWS:
- A) WHEN A SEWER MAIN CROSSES UNDER OTHER UTILITY LINES (GAS, TELEPHONE CONDUIT, STORM DRAIN, ETC.) THERE SHALL BE TWO (2) FEET OF SEPARATION BETWEEN THE TOP OF THE SEWER MAIN AND THE BOTTOM OF THE UTILITY. STONE BEDDING SHALL BE USED FROM 6-INCHES BELOW THE SEWER TO 12-INCHES ABOVE THE SEWER FROM ONE (1) FOOT OUTSIDE THE UTILITY TRENCH. IF THIS CONDITION CANNOT BE MET, THE SEWER MAIN SHALL BE DUCTILE IRON PIPE A DISTANCE OF ONE (1) FOOT OUTSIDE THE UTILITY TRENCH, BUT NOT LESS THAN 10 FEET IN LENGTH.
- B) WHEN A SEWER MAIN CROSSES OVER OTHER UTILITY LINES (GAS, TELEPHONE CONDUIT, STORM DRAIN, ETC.) THERE SHALL BE ONE (1) FOOT OF SEPARATION BETWEEN THE TOP OF THE UTILITY AND THE BOTTOM OF THE SEWER. IF THIS CONDITION CANNOT BE MET, THE SEWER MAIN SHALL BE DUCTILE IRON PIPE A DISTANCE OF ONE (1) FOOT OUTSIDE THE UTILITY TRENCH, BUT NOT LESS THAN 10 FEET IN LENGTH.
- 20) ALL SEWER LINES IN EXCESS OF 16 FEET IN DEPTH OR WHERE LESS THAN 36-INCHES MINIMUM COVER CAN NOT BE MAINTAINED SHALL BE CEMENT LINED DUCTILE IRON PIPE FOR A LENGTH NO LESS THAN THE DISTANCE OVER 16 FEET OR LESS THAN 36-INCHES COVER.
- 21) A CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED IN THE TRENCH FOR ALL BURIED PIPE. BACKFILL MATERIAL SHALL BE TAMPED IN LAYERS AROUND THE PIPE AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE. STONES, OTHER THAN CRUSHED BEDDING, SHALL NOT COME INTO CONTACT WITH THE PIPE AND SHALL NOT BE WITHIN SIX (6) INCHES OF THE PIPE.
- 22) ALL SANITARY SEWER MANHOLES SHALL BE PRE-CAST REINFORCED CONCRETE WITH INTEGRALLY CAST WATERTIGHT CONNECTIONS IN ACCORDANCE WITH YORK COUNTY GOVERNMENT WATER & SEWER DEPARTMENT STANDARD DETAIL DRAWINGS & SPECIFICATIONS.
- 23) MANHOLES SHALL HAVE A MINIMUM INSIDE DIAMETER OF 4 FEET FOR INVERT DEPTHS LESS THAN 20 FEET. MANHOLES WITH INVERT DEPTHS OF 20 FEET AND GREATER SHALL HAVE A MINIMUM INSIDE DIAMETER OF 5 FEET. THE MINIMUM ACCESS DIAMETER FOR ALL MANHOLES SHALL BE 22-INCHES.

24) MANHOLE FRAMES AND COVERS SHALL BE DEWEY BROTHERS RCR 2010, VULCAN VM-83, US FOUNDRY OR APPROVED EQUAL.

25) WATERTIGHT MANHOLE FRAMES AND COVERS SHALL BE PROVIDED AS INDICATED ON THE PLANS. WHERE WATERTIGHT FRAMES AND COVERS ARE SPECIFIED, THE WATERTIGHT SEAL AND COVER SHALL BE ACCOMPLISHED BY MEANS OF A RUBBER GASKET. WATERTIGHT FRAMES AND COVERS SHALL BE DEWEY BROTHERS RCR 2010, VULCAN VM-83, US FOUNDRY OR APPROVED EQUAL.

26) ALL OFF-SITE SANITARY SEWER MANHOLES SHALL EXTEND A MINIMUM OF 2 FEET ABOVE FINISHED GRADE.

27) MANHOLES EXTENDING ABOVE FINAL GRADE SHALL HAVE THE FRAME BOLTED TO THE MANHOLE.

28) ALL CREEK CROSSING METHODS OF DETAIL WORK TO BE PERFORMED MUST BE APPROVED BY THE ENGINEER AND MUST HAVE PRIOR FEDERAL, STATE AND/OR LOCAL REQUIRED APPROVAL.

29) CONTRACTOR SHALL SUBMIT FIVE (5) COPIES OF SHOP DRAWINGS FOR ALL MATERIALS TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO CONSTRUCTION.

30) ALL SEWER MAINS SHALL BE TESTED FOR DEFLECTION WITH A 5% MANDEREL NOT LESS THAN 30-DAYS AFTER COMPLETION OF BACKFILL. PERFORM LOW PRESSURE AIR TESTING IN ACCORDANCE WITH ASTM C828 AND C924 ON ALL SEWER MAINS.

31) ALL TRENCHES/EXCAVATIONS, OUTSIDE EXISTING/FUTURE ROAD RIGHT-OF-WAYS, SHALL BE BACKFILLED WITH SUITABLE SOILS COMPACTED TO A MINIMUM DRY DENSITY OF 90% OF THE SOILS MAXIMUM DRY DENSITY BASED ON A STANDARD PROCTOR (ASTM D-698) FROM THE TOP OF THE STONE BEDDING TO SUBGRADE.

32) ALL TRENCHES/EXCAVATIONS WITHIN THE PRIMROSE WALK EASEMENT SHALL BE BACKFILLED WITH SUITABLE SOILS COMPACTED TO A MINIMUM DRY DENSITY OF 95% OF THE SOILS MAXIMUM DRY DENSITY BASED ON A STANDARD PROCTOR (ASTM D-698) FROM THE TOP OF THE STONE BEDDING TO WITHIN 9-INCHES OF SUBGRADE. THE TOP 6-INCHES OF THE SUBGRADE SHALL BE COMPACTED TO 100% OF THE SOILS STANDARD PROCTOR MAXIMUM DRY DENSITY.

33) ALL TRENCHES/EXCAVATIONS WITHIN THE EXISTING REGENT PARKWAY RIGHT-OF-WAY SHALL BE BACKFILLED IN ACCORDANCE WITH THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION (SCDOT) STANDARD SPECIFICATIONS.

34) YORK COUNTY SHALL CONTRACT WITH A GEOTECHNICAL ENGINEER TO PERFORM ALL COMPACTION TESTING. ALL FAILED TESTS SHALL BE PAID FOR BY THE CONTRACTOR.

35) CONTRACTOR SHALL FURNISH, SECURE AND PROVIDE ALL NECESSARY TESTING MATERIALS, EQUIPMENT, PROCEDURES, AND CERTIFIED LABORATORY TESTING RESULTS FOR USE WITH THE ENGINEER'S FINAL CERTIFICATION OF COMPLETION.

36) ANY ASPHALT REPAIRS OR REPLACEMENTS SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PAY FOR ALL NECESSARY ASPHALT PAVEMENT. THERE IS NO ASPHALT DESIGN OR REPLACEMENT AS PART OF THIS PROJECT.

37) THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH SEWER AS-BUILTS (LOCATION, ELEVATION, LENGTH AND SLOPE) PREPARED BY A REGISTERED LAND SURVEYOR.

38) ENGINEER OF RECORD SHALL SECURE FINAL OPERATIONAL APPROVAL SCDHEC PRIOR TO ACTIVATION OF THE SYSTEM.

CONNECTION TO EXISTING SEWERS

TIE-INS TO EXISTING ACTIVATED SEWER LINES WILL BE ALLOWED WHEN PROPER PRECAUTIONS ARE TAKEN TO PROTECT THE EXISTING MAIN. TIE-INS TO EXISTING UNACTIVATED SEWER LINES NOT INSTALLED UNDER THE SAME CONTRACT WILL NOT BE ALLOWED WITHOUT WRITTEN APPROVAL FROM ALL PARTIES INVOLVED (YORK COUNTY, CONTRACTORS, CONTRACT HOLDERS, ETC.). THE CONTRACTOR SHALL BE REQUIRED TO INSTALL WATERTIGHT MASONRY PLUGS IN THE PROPOSED PIPELINE AT THE EXISTING MANHOLE AND AT THE FIRST PROPOSED MANHOLE UNTIL ALL CONSTRUCTION IS COMPLETED AND TESTING BEGINS. IF THE PROPOSED SEWER DOES NOT BEGIN AT AN EXISTING MANHOLE, A STRADDLE TYPE MANHOLE AS SHOWN ON THE STANDARD DETAILS SHALL BE CONSTRUCTED OVER (AND AROUND) THE UNDISTURBED EXISTING PIPELINE AND THE PROPOSED PIPELINE PLUGGED AS SPECIFIED. THE EXISTING PIPELINE SHALL NOT BE BROKEN-OUT AND THE NEW INVERT FORMED UNTIL ALL TESTING HAS BEEN SUCCESSFULLY COMPLETED. ANY CONNECTION WITH 18-INCH AND SMALLER PIPE AT AN EXISTING PRECAST-IN-PLACE MANHOLE SHALL REQUIRE THE CONTRACTOR TO CORE THE NECESSARY OPENING THROUGH THE MANHOLE WALL. CONNECTIONS TO EXISTING MANHOLES WITH 21-INCH AND LARGER PIPE MAY BE CORED OR SAWED AS APPROVED BY THE ENGINEER.

TEMPORARY WATERTIGHT PLUGS: THE CONTRACTOR SHALL INSTALL TEMPORARY WATERTIGHT PLUGS IN THE PROPOSED SEWER LINE AT ANY MANHOLE THAT IS INCOMPLETE, AT THE OPEN END OF THE PIPELINE PRIOR TO LEAVING THE JOB SITE DAILY AND ELSEWHERE AS DICTATED BY GOOD ENGINEERING AND CONSTRUCTION PRACTICES. ALL INSTALLED PIPE SHALL BE BACKFILLED OR OTHERWISE SECURELY TIED DOWN TO PREVENT FLOTATION IN THE EVENT WATER ENTERS OR RISES IN THE TRENCH. THE PLUGS INSTALLED SHALL PREVENT INFILTRATION OR THE INTRODUCTION OF ANY FOREIGN MATERIAL INTO EITHER THE EXISTING OR PROPOSED SYSTEMS. THE COUNTY WILL NOT ACCEPT ANY PIPELINE OR MANHOLE, WHICH CONTAINS ANY SILT, SEDIMENTATION OR OTHER FOREIGN MATERIAL. THE CONTRACTOR SHALL AT HIS OWN EXPENSE FLUSH, OR OTHERWISE CAUSE THE LINE (AND MANHOLES) TO BE CLEANED OUT WITHOUT ANY DISCHARGE INTO THE EXISTING SYSTEM. UPON COMPLETION OF ALL CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REMOVAL OF ALL WATERTIGHT PLUGS, IN THE SEQUENCE NECESSARY TO ALLOW TESTING AND SUBSEQUENT ACTIVATION, ALL UNDER THE DIRECTION OF THE ENGINEER.

SCHEDULING: WHEN THE FLOW OF AN EXISTING SEWER MUST BE INTERRUPTED AND/OR BYPASSED, THE CONTRACTOR SHALL, BEFORE BEGINNING ANY CONSTRUCTION, SUBMIT A WORK SCHEDULE WHICH WILL MINIMIZE THE INTERRUPTION AND/OR BYPASSING OF WASTEWATER FLOW DURING CONSTRUCTION. THE SCHEDULE MUST BE APPROVED BY THE APPROPRIATE CONTROLLING AGENCIES AND ENGINEER AND MAY REQUIRE NIGHT, HOLIDAY, AND/OR WEEKEND WORK.

BYPASS PUMPING: WHEN BY-PASS PUMPING, AN IDENTICAL STANDBY PUMP SHALL BE ON SITE IN THE EVENT OF FAILURE OF THE PRIMARY PUMP. IF, AT ANY TIME DURING CONSTRUCTION, EFFLUENT FROM THE EXISTING SEWER IS NOT FULLY CONTAINED BY THE BYPASS SYSTEM, GRAVITY SERVICE SHALL BE RESTORED BY A TEMPORARY TIE TO THE NEW CONSTRUCTION AND WORK SHALL BE SUSPENDED UNTIL THE PROBLEM IS RESOLVED TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES LEVIED AS A RESULT OF EFFLUENT REACHING THE WATERS OF THE STATE AND/OR WETLANDS. THE CONTRACTOR SHALL BE REQUIRED TO VERIFY HIS METHOD OF HANDLING SEWER FLOWS DURING CONSTRUCTION BY PUMPING AT PEAK FLOWS FOR 1 HOUR AS APPROVED BY THE ENGINEER.

ABBREVIATIONS

ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
CB	CATCH BASIN
CL	CENTERLINE
CONST	CONSTRUCTION
DB	DEED BOOK
DIP	DUCTILE IRON PIPE
DIA	DIAMETER
ESMT	EASEMENT
EXIST	EXISTING
FES	FLARED END SECTION
INV	INVERT
LF	LINEAR FEET
MANH	MANHOLE
OHWM	ORDINARY HIGH WATER MARK
PB	PLAT BOOK
PG	PAGE
PROP	PROPOSED
PVC	POLYVINYL CHLORIDE
RCF	REINFORCED CONCRETE PIPE
R/W	RIGHT OF WAY
SAN SWR	SANITARY SEWER
SCDHEC	SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
SCDOT	SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
SMH	SANITARY SEWER MANHOLE
TEMP	TEMPORARY
TYP	TYPICAL

CONSTRUCTION SEQUENCE

- 1) RECEIVE NPDES PERMIT FOR SCDHEC
- 2) RECEIVE NOTICE TO PROCEED
- 3) HOLD AN ON-SITE PRE-CONSTRUCTION MEETING
- 4) RECEIVE THE YORK COUNTY LAND DISTURBANCE PERMIT (AT THE PRE-CONSTRUCTION MEETING). THIS WILL BE A PRELIMINARY ISSUANCE OF THE LAND DISTURBANCE PERMIT.
- 5) MOBILIZE EQUIPMENT AND MATERIAL
- 6) CLEARING AND GRUBBING ONLY FOR THOSE AREAS NECESSARY FOR INSTALLATION OF PERIMETER CONTROLS
- 7) INSTALL TEMPORARY EROSION CONTROL, MEASURES AND PERIMETER CONTROLS
- 8) CALL THE YORK COUNTY ENVIRONMENTAL COMPLIANCE DIVISION TO REQUEST AN INSPECTION OF THE CONTROL MEASURES FOR PERIMETER CONTROLS. UPON SATISFACTORY INSPECTION AND APPROVAL OF PERIMETER CONTROLS AND ANY SEDIMENT BASINS AND TRAPS, THE ENVIRONMENTAL COMPLIANCE INSPECTOR WILL ISSUE THE FINAL LAND DISTURBANCE PERMIT.
- 9) REMAINING CLEARING AND GRUBBING
- 10) INSTALL GRAVITY SEWER (MH#1-MH#2)
- 11) INSTALL CONCRETE PIERS FOR AERIAL CROSSING
- 12) INSTALL GRAVITY SEWER (MH#2-MH#4)
- 13) STABILIZE DOWNSTREAM WORK AREA AS IT IS FINALIZED
- 14) INSPECT AND TEST INSTALLED DOWNSTREAM INFRASTRUCTURE (MH#1-MH#4)
- 15) RE-STABILIZE ANY DISTURBED AREAS
- 16) RECEIVE SCDHEC PARTIAL PERMIT TO OPERATE
- 17) PLACE NEW SEWER CONNECTION INTO OPERATION (MH#4)
- 18) INSTALL GRAVITY SEWER (MH#4-MH#2)
- 19) INSTALL FORCE MAIN TO GRAVITY SEWER MANHOLE
- A) INSTALL FORCE MAIN SEWER (MH#2-EXISTING MCCULLOUGH FORCE MAIN)
- B) INSTALL FORCE MAIN SEWER (MH#2-EXISTING MADISON GREEN FORCE MAIN)
- C) INSTALL FORCE MAIN SEWER (MH#2-EXISTING HAVEN FORCE MAIN)
- 16) STABILIZE DOWNSTREAM WORK AREA AS IT IS FINALIZED
- 17) INSPECT AND TEST INSTALLED DOWNSTREAM INFRASTRUCTURE (MH#4-MH#2)
- 18) RECEIVE REMAINING SCDHEC PERMIT TO OPERATE
- 19) PLACE NEW SEWER CONNECTION INTO OPERATION (MH#2)
- 20) PLACE NEW FORCE MAIN CONNECTION INTO OPERATION (MCCULLOUGH)
- 21) PLACE NEW FORCE MAIN CONNECTION INTO OPERATION (MADISON GREEN)
- 22) PLACE NEW FORCE MAIN CONNECTION INTO OPERATION (HAVEN)
- 23) PLUG AND ABANDON EXISTING PORTION OF FORCE MAINS NO LONGER IN SERVICE
- 24) FINAL GRADING, LANDSCAPING, AND STABILIZE ALL REMAINING DISTURBED AREAS
- 25) CONFIRM FINAL STABILIZATION HAS BEEN REACHED AND REQUEST INSPECTION FROM THE COUNTY.
- 26) UPON APPROVAL, REMOVE TEMPORARY EROSION CONTROL MEASURES
- 27) FILE FOR NOTICE OF TERMINATION WITH YORK COUNTY APPROVAL

SPILL PREVENTION AND RESPONSE

CLEANUP AND STORAGE PROCEDURES

- 1) IF A SPILL OCCURS, DEMOLIBIZE IT AS SOON AS POSSIBLE.
- 2) IF THERE IS A CHANCE THAT THE SPILL COULD ENTER A STORM DRAIN OR SEWER, PLUG THE INLET AND TURN OFF OR DIVERT ANY INCOMING WATER.
- 3) COVER THE SPILL WITH ABSORBENT MATERIAL SUCH KITTY LITTER OR SAWDUST. DO NOT USE STRAW. DISPOSE OF THE USED ABSORBENT PER MANUFACTURER'S INSTRUCTIONS. IF THE SPILL IS FLAMMABLE, DISPOSE OF AS DIRECTED BY THE LOCAL FIRE MARSHAL.
- 4) KEEP THE AREA WELL VENTILATED.
- 5) MINOR SPILLS TYPICALLY INVOLVE SMALL QUANTITIES OF OIL, GASOLINE, PAINT, ETC., WHICH CAN BE CONTROLLED BY THE FIRST RESPONDER AT THE DISCOVERY OF THE SPILL. USE ABSORBENT MATERIALS ON SMALL SPILLS RATHER THAN HOSING DOWN OR BURYING THE SPILL.
- 6) SEMI-SIGNIFICANT SPILLS STILL CAN BE CONTROLLED BY THE FIRST RESPONDER ALONG WITH THE AID OF OTHER PERSONNEL SUCH AS LABORERS AND THE FOREMAN, ETC. THIS RESPONSE MAY REQUIRE THE CESSATION OF ALL OTHER ACTIVITIES.
- 7) CONTAIN SPILLS IMMEDIATELY:
 - IF THE SPILL OCCURS ON PAVED OR IMPERMEABLE SURFACES, CLEAN UP USING "DRY" METHODS (ABSORBENT MATERIALS, CAT LITTER AND/OR RAGS). CONTAIN THE SPILL BY ENCIRCLING WITH ABSORBENT MATERIALS AND DO NOT LET THE SPILL SPREAD WIDELY.
 - IF THE SPILL OCCURS IN DIRT AREAS, IMMEDIATELY CONTAIN THE SPILL BY CONSTRUCTING AN EARTHEN DIKE.
 - IF THE SPILL OCCURS DURING RAIN, TO THE EXTENT THAT IT DOESN'T COMPROMISE CLEAN UP ACTIVITIES, COVER SPILL WITH TARPS OR OTHER MATERIAL TO PREVENT CONTAMINATING RUNOFF.
- 8) SIGNIFICANT OR HAZARDOUS SPILLS THAT CANNOT BE CONTROLLED BY PERSONNEL IN THE IMMEDIATE VICINITY, THE SERVICES OF A SPILLS CONTRACTOR OR A HAZ-MAT TEAM SHOULD BE OBTAINED IMMEDIATELY. CONSTRUCTION PERSONNEL SHOULD NOT ATTEMPT TO CLEAN UP THE SPILL UNTIL THE APPROPRIATE AND QUALIFIED STAFF HAS ARRIVED AT THE JOB SITE.
- 9) SPILLS SHOULD NOT BE BURIED OR WASHED WITH WATER.
- 10) USED CLEAN UP MATERIALS, CONTAMINATED MATERIALS, AND RECOVERED SPILL MATERIAL THAT ARE NO LONGER SUITABLE FOR THE INTENDED PURPOSE SHOULD BE STORED AND DISPOSED OF PROPERLY.
- 11) WATER USED FOR CLEANING AND DECONTAMINATION SHOULD NOT BE ALLOWED TO ENTER STORM DRAINS OR WATERCOURSES AND SHOULD BE COLLECTED AND DISPOSED OF AS DESCRIBED IN LIQUID WASTE MANAGEMENT.
- 12) PROPER STORAGE, CLEAN-UP AND SPILL REPORTING INSTRUCTIONS FOR HAZARDOUS MATERIALS STORED OR USED ON THE PROJECT SITE SHOULD BE POSTED AT ALL TIMES IN AN OPEN, CONSPICUOUS AND ACCESSIBLE LOCATION.
- 13) WASTE STORAGE AREAS SHOULD BE KEPT CLEAN, WELL ORGANIZED AND EQUIPPED WITH AMPLE CLEAN-UP SUPPLIES AS APPROPRIATE FOR THE MATERIALS BEING STORED. PERIMETER CONTROLS, CONTAINMENT STRUCTURES, COVERS AND LINERS SHOULD BE REPAIRED OR REPLACED AS NEEDED TO MAINTAIN PROPER FUNCTION.

INSPECTION AND MAINTENANCE

- 1) VERIFY WEEKLY THAT SPILL CONTROL CLEAN UP MATERIALS ARE LOCATED NEAR MATERIAL STORAGE, UNLOADING AND USE AREAS.
- 2) UPDATE PLANS AND STOCK APPROPRIATE CLEAN-UP MATERIALS WHENEVER CHANGES OCCUR IN THE TYPES OF CHEMICALS USED OR STORED ONSITE.

TO REPORT CHEMICAL SPILLS, OIL SPILLS, OR FISH KILLS CALL OUR TOLL-FREE 24-HOUR EMERGENCY RESPONSE LINE AT 1-888-481-0125



ESP Associates, Inc.
P.O. Box 7030
Charlotte, NC 28241
3475 Lakemont Blvd.
Fort Mill, SC 29708
704-553-4949 (NC)
803-802-2440 (SC)
www.espassociates.com

BY	TWO				
REVISION	PER YORK COUNTY COMMENTS				
DATE	1/2/2025				
NO.	1				

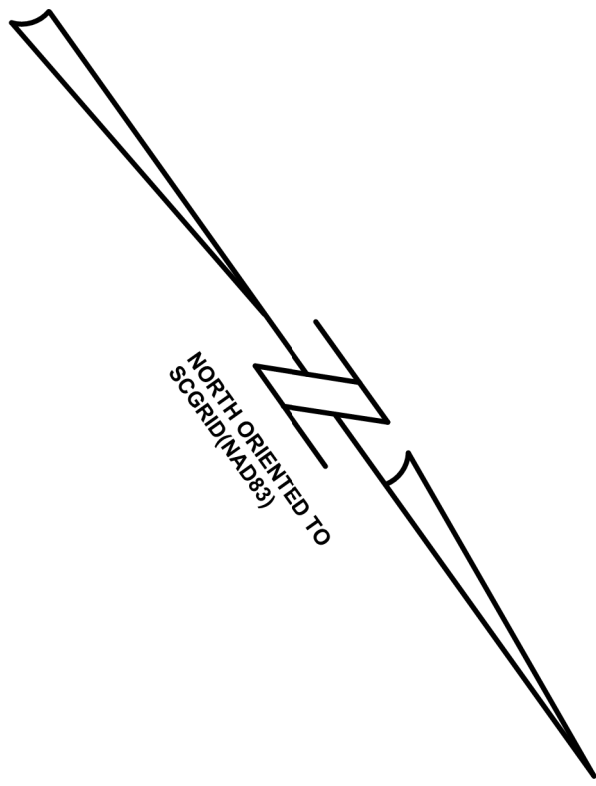
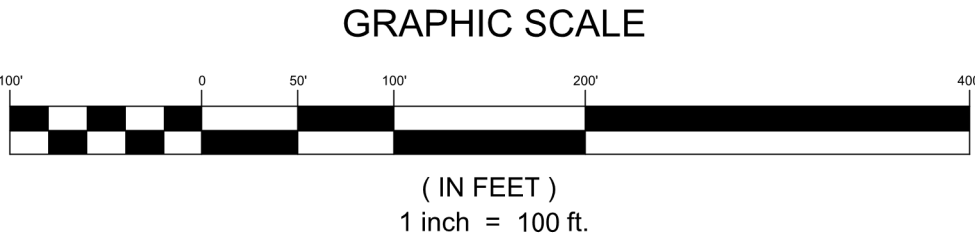
NOTES

REGENT PARKWAY
SS RELIEF SYSTEM

YORK COUNTY
FORT MILL, SC

PROJECT INFORMATION	
PROJECT MANAGER:	BAM
DESIGNED BY:	CSH
DRAWN BY:	TWD
PROJECT NUMBER:	GT35.400
ORIGINAL DATE:	4/1/2024
SHEET:	C1.0

V:\GT35.400 - Regent Parkway Relief System Design\GT35\Sheet\GT35-CWSPP.dwg, SSWR OVERALL PLAN, Issue



ESP Associates, Inc.
P.O. Box 7030
Charlotte, NC 28241
3475 Lakemont Blvd.
Fort Mill, SC 29708
704-553-4949 (NC)
803-802-2440 (SC)
www.espassociates.com

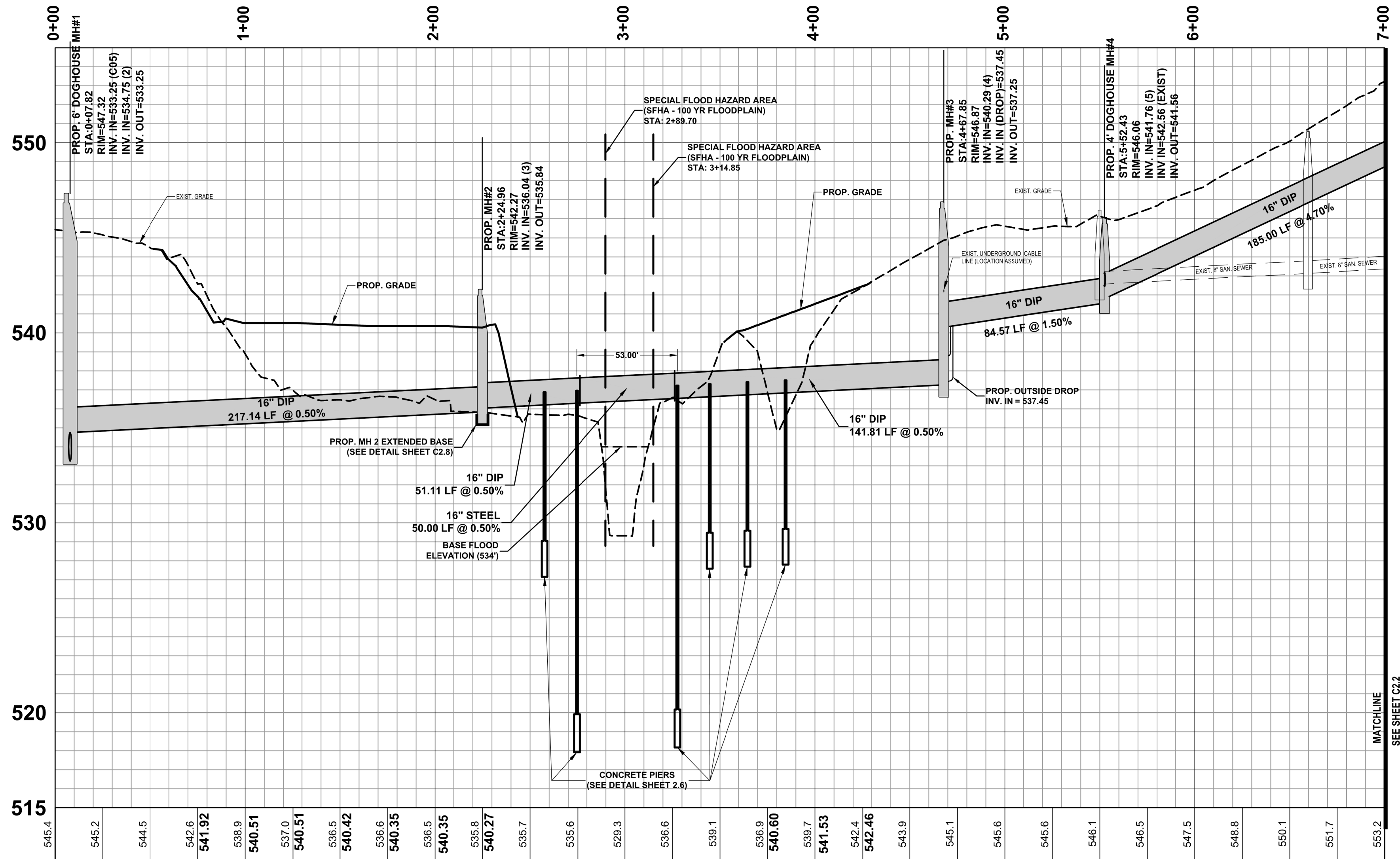
NO.	DATE	REVISION	BY
1	1/8/2025	PER YORK COUNTY COMMENTS	TWD

SANITARY SEWER OVERALL PLAN

REGENT PARKWAY
SS RELIEF SYSTEM

YORK COUNTY
FORT MILL, SC

PROJECT INFORMATION	
PROJECT MANAGER:	BAM
DESIGNED BY:	CSH
DRAWN BY:	TWD
PROJECT NUMBER:	GT35.400
ORIGINAL DATE:	4/1/2024
SHEET:	C2.0



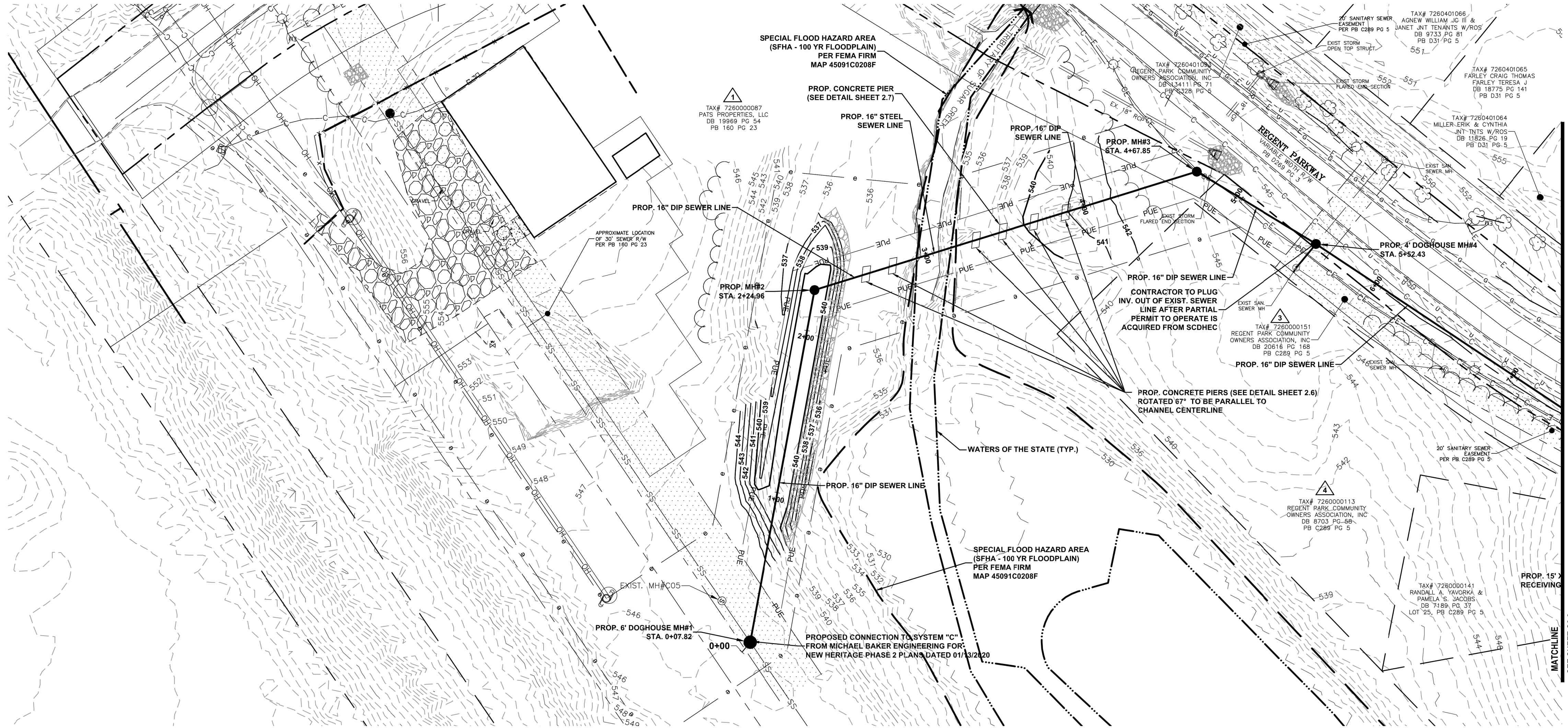
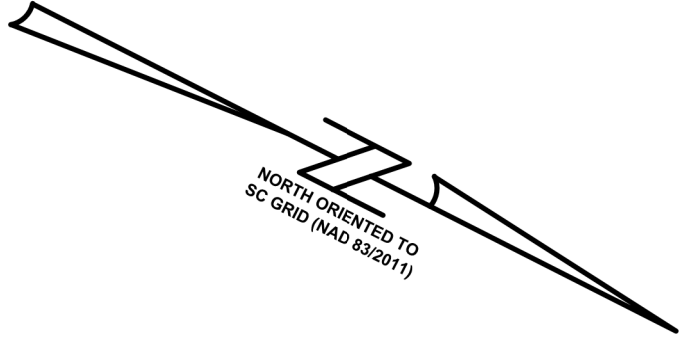
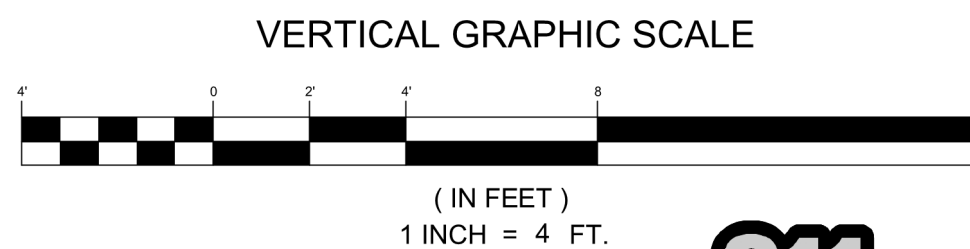
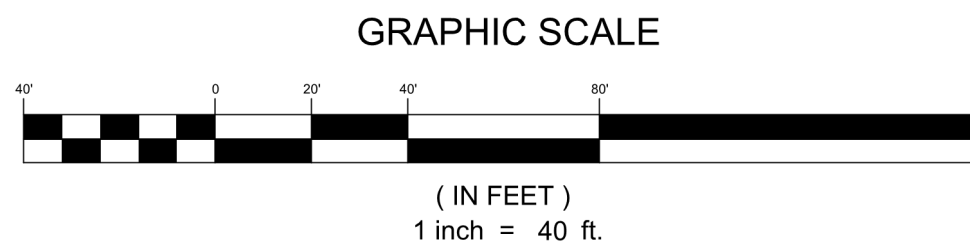
LEGEND

EXIST. MINOR CONTOUR	---
EXIST. MAJOR CONTOUR	---
EXIST. PROPERTY BOUNDARY	---
EXIST. ROW BOUNDARY	---
EXIST. SAN SEWER MH	⊙
EXIST. SAN SEWER	SS
EXIST. SAN SEWER FM	FM
EXIST. UTILITY ESMT.	---
EXIST. WATER LINE	W
EXIST. WATER VALVE	W
EXIST. FORCE MAIN	FM
EXIST. GAS LINE	G
EXIST. ELECTRIC	E
EXIST. OVERHEAD ELECTRIC	OE
EXIST. CABLE LINE	C
EXIST. UNKNOWN UTILITY	U
EXIST. STORM DRAIN PIPE	XX" RCP
EXIST. STORM DRAIN INLET	⊕
EXIST. STORM DRAIN MH	⊙
EXIST. STORM DRAIN DI	⊕
EXIST. STORM DRAIN FES	⊕
EXIST. CHANNEL	---
EXIST. RIP-RAP APRON	---
EXIST. FENCE	X
EXIST. TREE LINE	---
EXIST. TREE	⊕
EXIST. STREET SIGN	⊕
EXIST. LIGHT POLE	⊕
EXIST. SIDEWALK	---
PROP. SANITARY SEWER MH	⊙
PROP. SANITARY SEWER	SS
PROP. SANITARY SEWER ESMT.	PUE
TEMP. CONSTRUCTION ESMT.	---
PROP. TREE REMOVAL	⊕
PROP. SIDEWALK REPAIR	---
PROP. CURB & GUTTER REPAIR	---
FULL DEPTH ASPHALT REPAIR	---
MILL AND OVERLAY OF ASPHALT	---

(EXIST. SEWER LINES SHALL REMAIN IN SERVICE UNTIL SCDHEC PERMIT TO OPERATE IS OBTAINED AND PROPOSED GRAVITY SEWER TRUNK LINE IS PLACED INTO OPERATION)

FLOODPLAIN NOTES:
BASE FLOOD ELEVATION (BFE) AT LOCATION OF PROJECT IS 534' BASED ON FIRM PANEL 45091C0208F. PROPOSED SEWER AERIAL CROSSING BOTTOM ELEVATION IS APPROXIMATELY 535.5'

AN ELEVATION CERTIFICATE FOR FINISHED CONSTRUCTION WILL BE REQUIRED AT TIME OF PROJECT COMPLETION.



SANITARY SEWER PLAN & PROFILE (SHEET 1 OF 4)

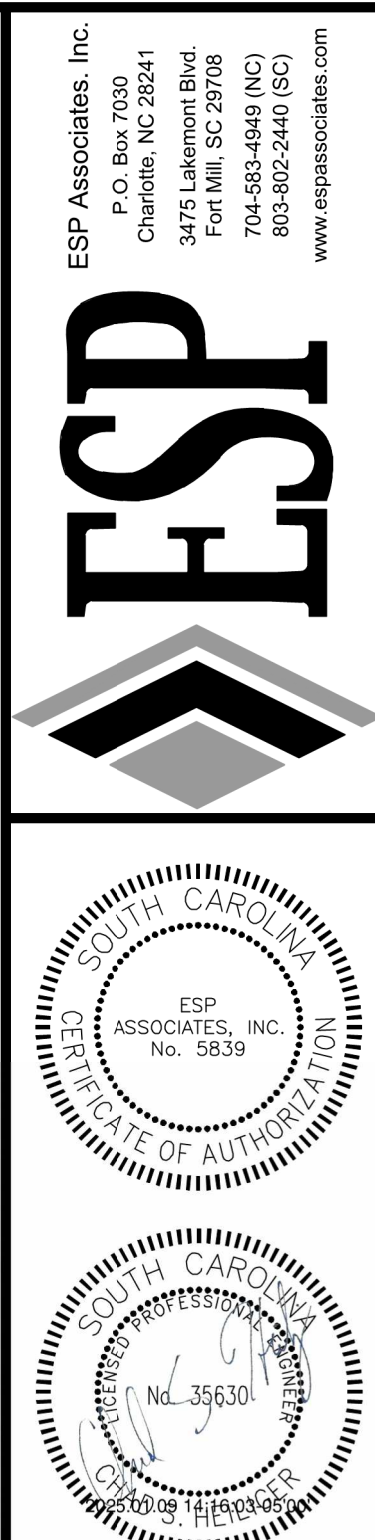
REGENT PARKWAY SS RELIEF SYSTEM

FORT MILL, SC

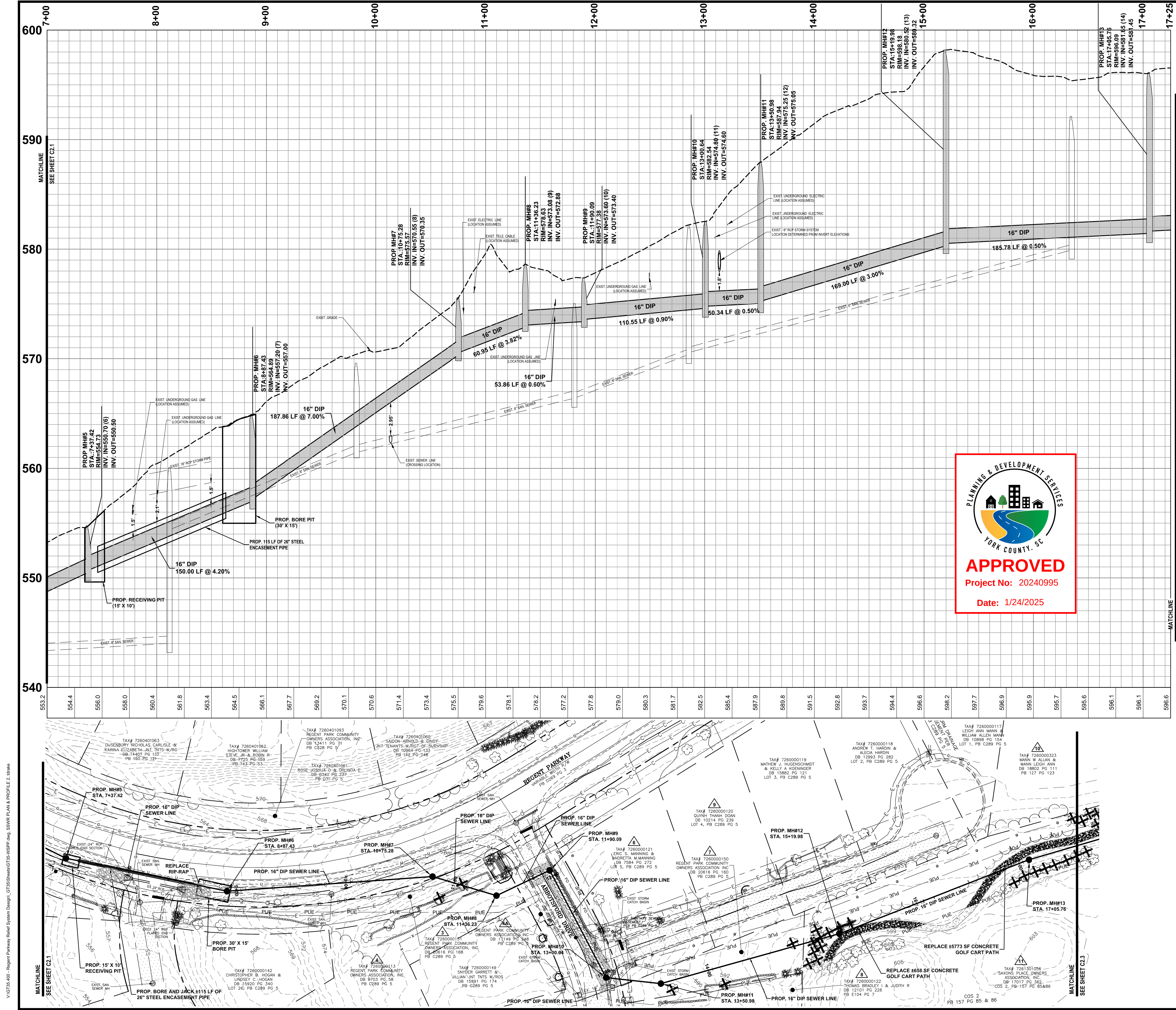
YORK COUNTY

PROJECT INFORMATION	
PROJECT MANAGER:	BAM
DESIGNED BY:	CSH
DRAWN BY:	TWD
PROJECT NUMBER:	GT35.400
ORIGINAL DATE:	4/1/2024

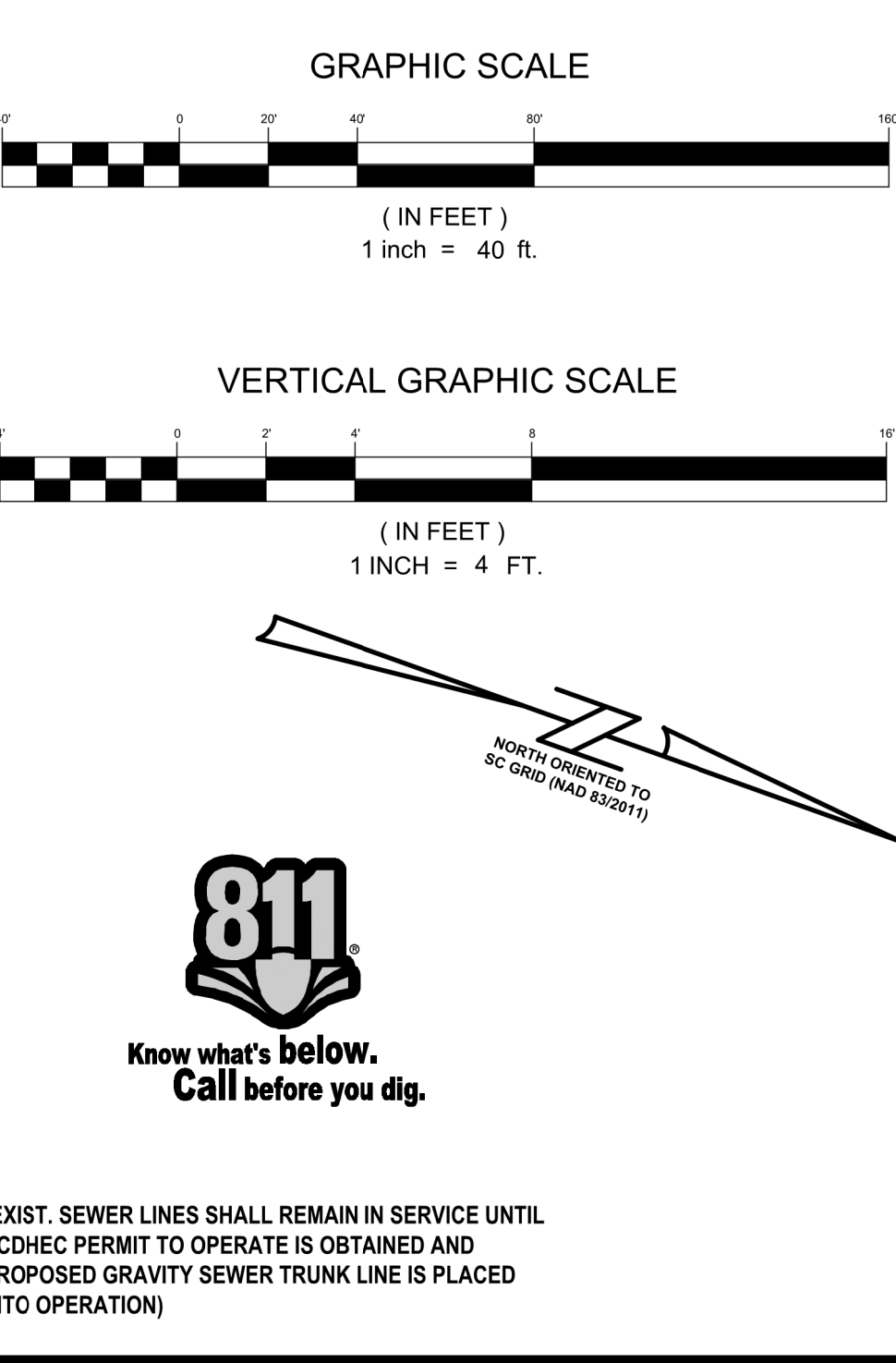
SHEET: **C2.1**



NO.	DATE	REVISION	BY	COMMENTS
1	1/24/2025		TWD	PER YORK COUNTY COMMENTS



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EXIST. MAJOR CONTOUR	---
EXIST. PROPERTY BOUNDARY	---
EXIST. ROW BOUNDARY	---
EXIST. SAN. SEWER MH	⊙
EXIST. SAN. SEWER	SS
EXIST. SAN. SEWER FM	FM FM
EXIST. UTILITY ESMT.	---
EXIST. WATER LINE	W W W
EXIST. WATER VALVE	W
EXIST. FORCE MAIN	FM
EXIST. GAS LINE	G G G
EXIST. ELECTRIC	E E E
EXIST. OVERHEAD ELECTRIC	OE
EXIST. CABLE LINE	C C C
EXIST. UNKNOWN UTILITY	U
EXIST. STORM DRAIN PIPE	XX" RCP
EXIST. STORM DRAIN INLET	⊙
EXIST. STORM DRAIN MH	⊙
EXIST. STORM DRAIN DI	⊙
EXIST. STORM DRAIN FES	⊙
EXIST. CHANNEL	---
EXIST. RIP-RAP APRON	---
EXIST. FENCE	X X X X
EXIST. TREE LINE	---
EXIST. TREE	⊙
EXIST. STREET SIGN	⊙
EXIST. LIGHT POLE	⊙
EXIST. SIDEWALK	---
PROP. SANITARY SEWER MH	⊙
PROP. SANITARY SEWER	---
PROP. SANITARY SEWER ESMT.	PUE
TEMP. CONSTRUCTION ESMT.	e
PROP. TREE REMOVAL	⊗
PROP. SIDEWALK REPAIR	---
PROP. CURB & GUTTER REPAIR	---
FULL DEPTH ASPHALT REPAIR	---
MILL AND OVERLAY OF ASPHALT	---



ESP

ESP Associates, Inc.
P.O. Box 7030
Charlotte, NC 28241
3475 Lakemont Blvd.
Fort Mill, SC 29708
704-553-4949 (NC)
803-802-2440 (SC)
www.espassociates.com

SOUTH CAROLINA
CERTIFICATE OF AUTHORIZATION
ESP ASSOCIATES, INC.
No. 5839

SOUTH CAROLINA
No. 35630
C. J. HENDERSON
C.E.P. & HENDERSON

BY	TWO
REVISION	PER YORK COUNTY COMMENTS
DATE	1/9/2025
NO.	1

SANITARY SEWER PLAN & PROFILE
(SHEET 2 OF 4)

REGENT PARKWAY
SS RELIEF SYSTEM

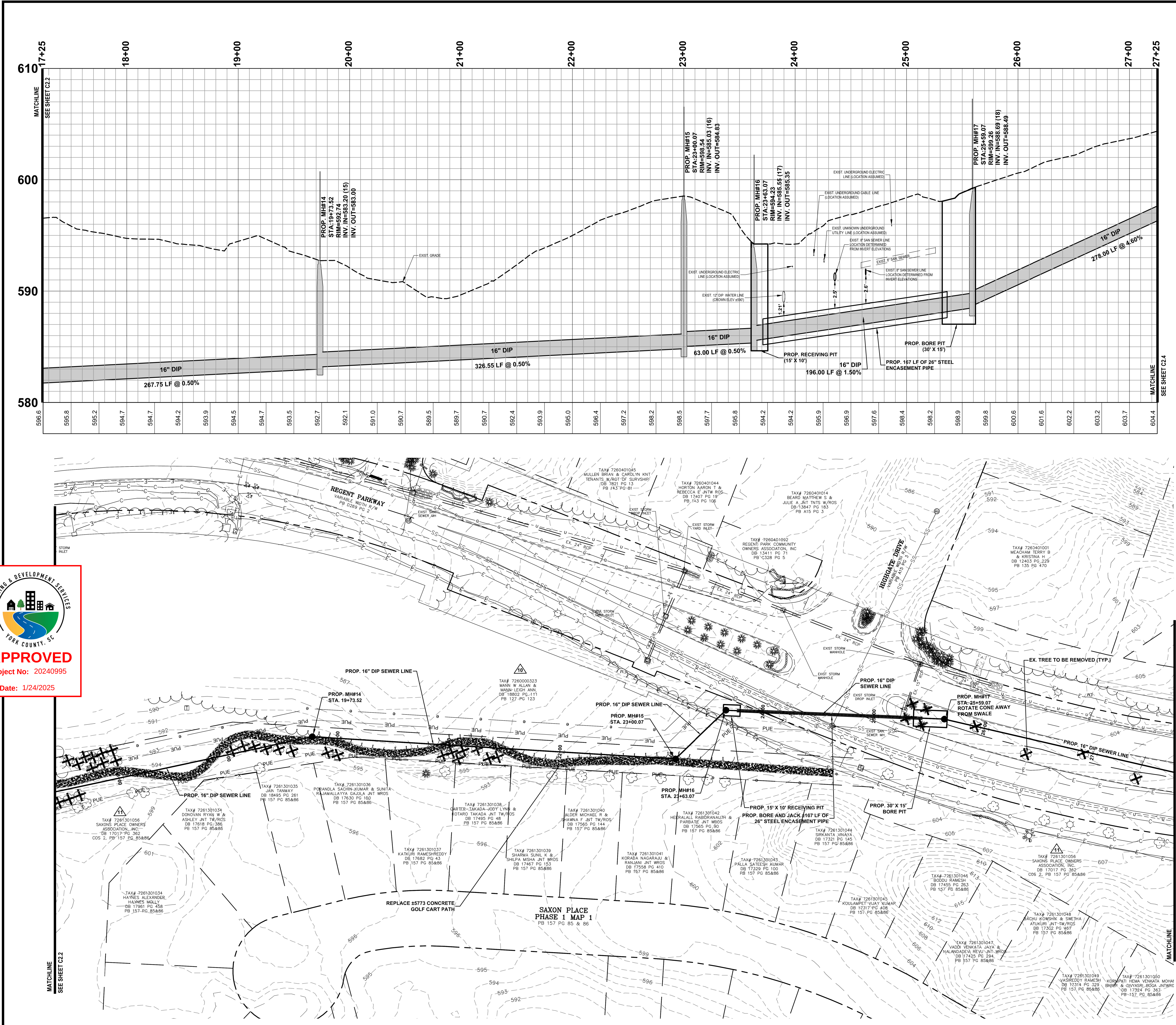
YORK COUNTY

FORT MILL, SC

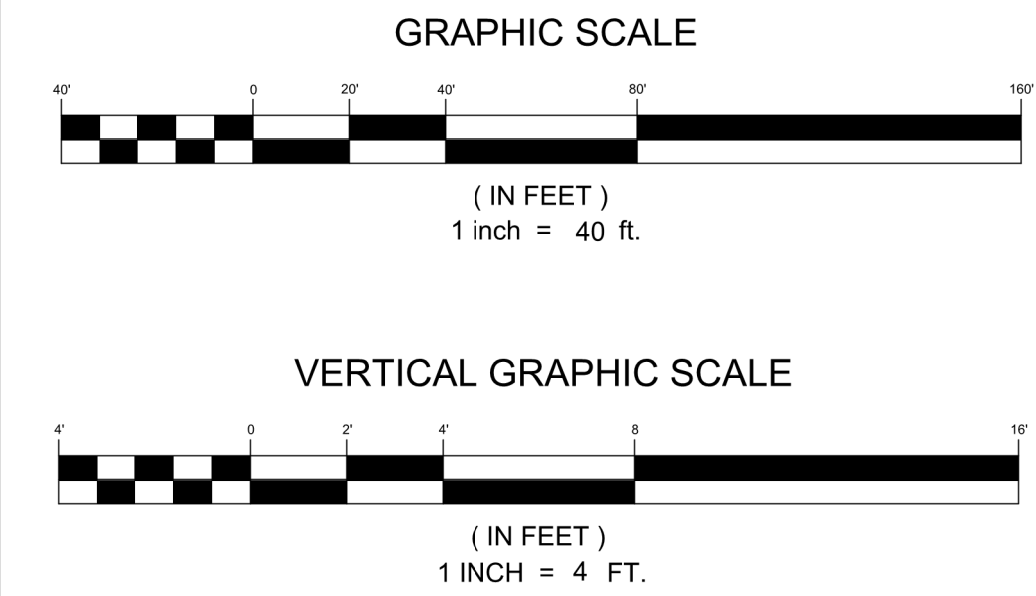
PROJECT INFORMATION	
PROJECT MANAGER:	BAM
DESIGNED BY:	CSH
DRAWN BY:	TWO
PROJECT NUMBER:	GT35.400
ORIGINAL DATE:	4/1/2024
SHEET:	C2.2



V:\GT35-400 - Regent Parkway Relief System Design\GT35-Sheet\GT35-VSPF.dwg, SEWER PLAN & PROFILE 3, Urban



LEGEND	
EXIST. MINOR CONTOUR	---
EXIST. MAJOR CONTOUR	---
EXIST. PROPERTY BOUNDARY	---
EXIST. ROW BOUNDARY	---
EXIST. SAN. SEWER MH	⊙
EXIST. SAN. SEWER	SS
EXIST. SAN. SEWER FM	FM
EXIST. UTILITY ESMT.	---
EXIST. WATER LINE	W
EXIST. WATER VALVE	W
EXIST. FORCE MAIN	FM
EXIST. GAS LINE	G
EXIST. ELECTRIC	E
EXIST. OVERHEAD ELECTRIC	OE
EXIST. CABLE LINE	C
EXIST. UNKNOWN UTILITY	U
EXIST. STORM DRAIN PIPE	XX" RCP
EXIST. STORM DRAIN INLET	⊙
EXIST. STORM DRAIN MH	⊙
EXIST. STORM DRAIN DI	⊙
EXIST. STORM DRAIN FES	⊙
EXIST. CHANNEL	---
EXIST. RIP-RAP APRON	---
EXIST. FENCE	X
EXIST. TREE LINE	---
EXIST. TREE	⊙
EXIST. STREET SIGN	⊙
EXIST. LIGHT POLE	⊙
EXIST. SIDEWALK	---
PROP. SANITARY SEWER MH	⊙
PROP. SANITARY SEWER	SS
PROP. SANITARY SEWER ESMT.	PUE
TEMP. CONSTRUCTION ESMT.	e
PROP. TREE REMOVAL	⊙
PROP. SIDEWALK REPAIR	---
PROP. CURB & GUTTER REPAIR	---
FULL DEPTH ASPHALT REPAIR	---
MILL AND OVERLAY OF ASPHALT	---



(EXIST. SEWER LINES SHALL REMAIN IN SERVICE UNTIL SCDHEC PERMIT TO OPERATE IS OBTAINED AND PROPOSED GRAVITY SEWER TRUNK LINE IS PLACED INTO OPERATION)



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SOUTH CAROLINA
ESP ASSOCIATES, INC.
No. 5839
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
No. 35630
Chris J. Hatcher
Professional Engineer

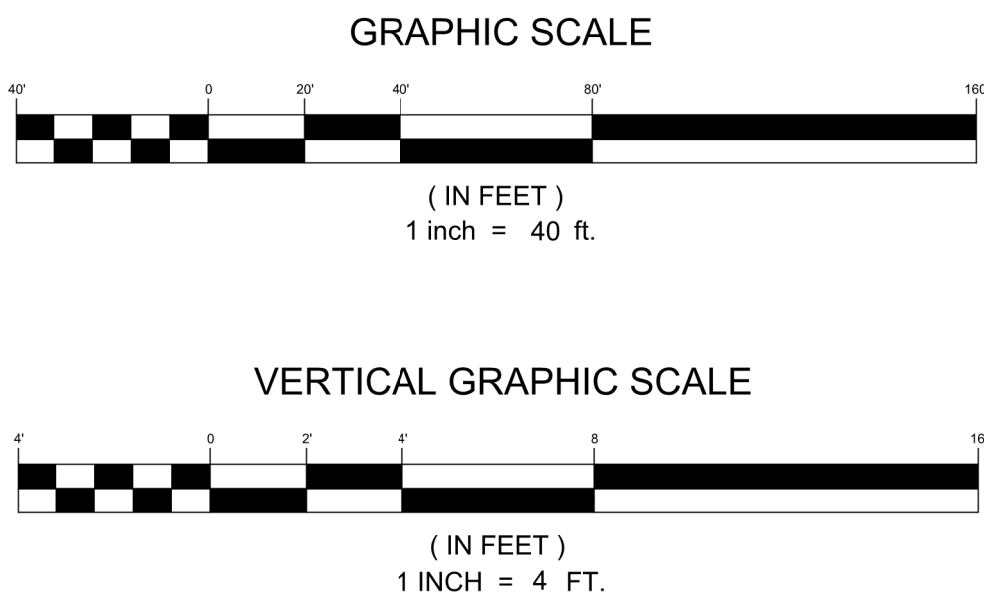
BY	TWD
REVISION	PER YORK COUNTY COMMENTS
DATE	1/23/2025
NO.	1

SANITARY SEWER PLAN & PROFILE
(SHEET 3 OF 4)

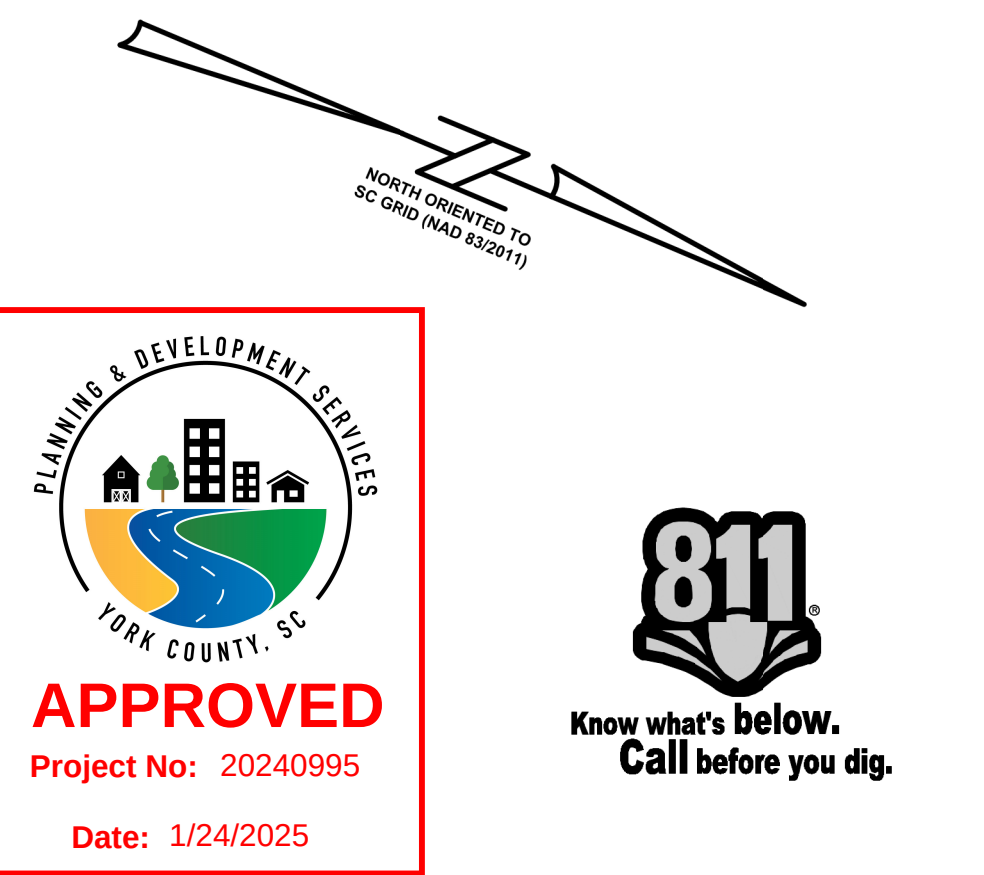
REGENT PARKWAY
SS RELIEF SYSTEM

YORK COUNTY
FORT MILL, SC

PROJECT INFORMATION	
PROJECT MANAGER:	BAM
DESIGNED BY:	CSH
DRAWN BY:	TWD
PROJECT NUMBER:	GT35-400
ORIGINAL DATE:	4/1/2024
SHEET:	C2.3



EXIST. MINOR CONTOUR	
EXIST. MAJOR CONTOUR	
EXIST. PROPERTY BOUNDARY	
EXIST. ROW BOUNDARY	
EXIST. SAN. SEWER MH	
EXIST. SAN. SEWER	
EXIST. SAN. SEWER FM	
EXIST. UTILITY ESMT.	
EXIST. WATER LINE	
EXIST. WATER VALVE	
EXIST. FORCE MAIN	
EXIST. GAS LINE	
EXIST. ELECTRIC	
EXIST. OVERHEAD ELECTRIC	
EXIST. CABLE LINE	
EXIST. UNKNOWN UTILITY	
EXIST. STORM DRAIN PIPE	
EXIST. STORM DRAIN INLET	
EXIST. STORM DRAIN MH	
EXIST. STORM DRAIN DI	
EXIST. STORM DRAIN FES	
EXIST. CHANNEL	
EXIST. RIP-RAP APRON	
EXIST. FENCE	
EXIST. TREE LINE	
EXIST. TREE	
EXIST. STREET SIGN	
EXIST. LIGHT POLE	
EXIST. SIDEWALK	
PROP. SANITARY SEWER MH	
PROP. SANITARY SEWER	
PROP. SANITARY SEWER ESMT.	
TEMP. CONSTRUCTION ESMT.	
PROP. TREE REMOVAL	
PROP. SIDEWALK REPAIR	
PROP. CURB & GUTTER REPAIR	
FULL DEPTH ASPHALT REPAIR	
MILL AND OVERLAY OF ASPHALT	



1. FIRE HYDRANTS SHALL BE YORK COUNTY STANDARD.
2. ALL WATER MAIN VALVES MUST OPEN COUNTERCLOCKWISE IN CONFORMANCE WITH YORK COUNTY STANDARDS.
3. BLOCKING SHALL BE INSTALLED AT ALL BENDS, TEES, VALVES, REDUCERS, BLOW-OFFS, AND HYDRANT LOCATIONS, UNLESS ALTERNATIVES ARE SHOWN ON DETAILS.
4. WATER MAINS LESS THAN 4 INCH IN DIAMETER SHALL BE PVC ASTM D2241 SDR 13.5, CLASS 315. ALL MAINS 4 INCH TO 12 INCH SHALL BE AWWA C-900 PRESSURE CLASS 200 PVC SDR14. FITTINGS LESS THAN 4 INCH SHALL BE SLIP JOINT PVC PER SPECIFICATIONS. PVC PIPING SHALL BE INSTALLED WITH APPROVED COPPER LOCATING WIRE.
5. ASBESTOS CEMENT PIPE SHALL NOT BE USED IN POTABLE WATER SYSTEMS.
6. DIP SHALL BE IN ACCORDANCE WITH AWWA C150/A21.50 & AWWA C151/A21.51
7. NO FLUSHING DEVICE SHALL BE DIRECTLY CONNECTED TO ANY SEWER SYSTEM.
8. CHAMBERS, PITS OR MANHOLES CONTAINING VALVES, BLOW-OFFS, METERS, AIR RELIEF VALVES OR OTHER SUCH APPURTENANCES TO A POTABLE WATER DISTRIBUTION SYSTEM, SHALL NOT BE CONNECTED DIRECTLY TO ANY STORM DRAIN OR SANITARY SEWER.
9. INSTALLATION OF WATER MAINS AND APPURTENANCES SHALL BE CONDUCTED IN ACCORDANCE SECTION C OF THE AWWA STANDARDS AND/OR MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
10. A CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED IN THE TRENCH FOR ALL BURIED PIPE. BACK-FILL MATERIAL SHALL BE TAMPED IN LAYERS AROUND THE PIPE AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE. STONES, OTHER THAN CRUSHED BEDDING, SHALL NOT COME INTO CONTACT WITH THE PIPE AND SHALL NOT BE WITHIN SIX (6) INCHES OF THE PIPE.
11. ALL WATER MAINS SHALL MEET THE YORK COUNTY WATER SPECIFICATIONS FOR PIPE WARNING TAPE AND TRACING WIRE. REFER TO YORK COUNTY WATER & SEWER STANDARDS TECHNICAL SPECIFICATIONS SECTION 33 05 05, SECTION 2.2 FOR PROPER INSTALLATION.
12. A "V" MUST BE ETCHED INTO THE CURBING SHOWING THE LOCATION OF WATER METERS.
13. A "V" MUST BE ETCHED INTO THE CURBING SHOWING THE LOCATION OF VALVES.
14. VALVES CANNOT BE LOCATED IN SIDEWALKS, CURBING, DRIVEWAYS, OR ASPHALT AREAS.
15. REFER TO YORK COUNTY STANDARD SPECIFICATIONS AND DETAILS REGARDING SERVICE LINE MATERIAL.
16. ALL SERVICE LINES REQUIRE INDIVIDUAL CONNECTIONS TO THE MAIN. MULTIPLE SERVICE LINES INTERCONNECTING WILL NOT BE ALLOWED.
17. WATER MAINS WHICH HAVE BEEN PREVIOUSLY USED FOR CONVEYING POTABLE WATER MAY BE REUSED PROVIDED THEY MEET APPLICABLE CRITERIA FROM AWWA SECTION C, ANSI/ANSI 61 AND ASTM D1785 OR D2241. THE MAINS MUST BE THOROUGHLY CLEANED AND RESTORED PRACTICALLY TO THEIR ORIGINAL CONDITION.
18. THERMOPLASTIC PIPE SHALL NOT BE USED ABOVE GRADE.

YORK COUNTY
ENGINEERING
STANDARDS

WATER/SEWER
GENERAL NOTES

STD. NO.
10.01
DATE
01/21

19. NATURAL RUBBER OR OTHER MATERIAL WHICH WILL SUPPORT MICROBIOLOGICAL GROWTH MAY NOT BE USED FOR ANY GASKETS, O-RINGS, AND OTHER PRODUCTS USED FOR JOINTING PIPES, SETTING METERS OR VALVES, OR OTHER APPURTENANCES WHICH WILL EXPOSE THE MATERIAL TO THE WATER.
20. LUBRICANTS WHICH WILL SUPPORT MICROBIOLOGICAL GROWTH SHALL NOT BE USED FOR SLIP-ON JOINTS.
21. THE USE OF VEGETABLE SHORTENING TO LUBRICATE JOINTS IS PROHIBITED.
22. THE USE OF SOLVENT-WELD PVC PIPE AND FITTINGS IN WATER MAINS 4 INCHES AND LARGER IS PROHIBITED.
23. AT NO TIME SHALL A POTABLE WATER LINE PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF A SEWER MANHOLE.
24. AIR RELIEF VALVES SHALL BE PROVIDED IN ACCORDANCE WITH SOUND ENGINEERING PRACTICE AT HIGH POINTS IN WATER MAINS AS REQUIRED. AUTOMATIC AIR RELIEF VALVES SHALL NOT BE USED IN SITUATIONS WHERE FLOODING OF THE INSTALLATION MANHOLE OR CHAMBER MAY OCCUR.
25. BLOW-OFFS SHOULD NOT BE DIRECTED TOWARDS ROADS OR SO THAT THE WATER FROM THE BLOW-OFF FLOWS INTO CREEKS, STREAMS, ETC... DIRECT BLOW-OFFS AT STREAM CROSSINGS AWAY FROM THE STREAM.
26. USE DIP WITH MECHANICAL JOINTS FOR ANY LINES BEING INSTALLED IN ROCK.
27. ANY PIPE, SOLDER, OR FLUX WHICH IS USED IN THE INSTALLATION OR REPAIR OF ANY PUBLIC WATER SYSTEM, USED IN ANY PLUMBING WHICH PROVIDES WATER THROUGH CONNECTION TO A PUBLIC WATER SYSTEM, FOR HUMAN CONSUMPTION, SHALL BE LEAD FREE. LEAD FREE, FOR SOLDER AND FLUX, MEAN THOSE CONTAINING NOT MORE THAN 0.2% LEAD. LEAD FREE, FOR PIPES AND PIPE FITTINGS, AS THOSE CONTAINING NOT MORE THAN 8.0% LEAD. LEADED JOINTS NECESSARY FOR THE REPAIR OF CIP SHALL BE EXEMPT FROM THE ABOVE.
28. THERE SHALL BE NO CONNECTION BETWEEN THE DISTRIBUTIONS SYSTEM AND ANY PIPES, PUMPS, HYDRANTS, OR TANKS WHEREBY UNSAFE WATER OR OTHER CONTAMINATION MATERIALS MAY BE DISCHARGED OR DRAWN INTO THE SYSTEM. NO BY-PASSES SHALL BE ALLOWED, UNLESS THE BYPASS IS ALSO EQUIPPED WITH AN EQUAL, APPROVED BACK-FLOW DEVICE.
29. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLIES SHALL NOT BE INSTALLED IN ANY AREA LOCATION SUBJECT TO POSSIBLE FLOODING.
30. ALL PIPING UP TO THE INLET OF THE BACKFLOW PREVENTION DEVICE MUST BE SUITABLE FOR POTABLE WATER. THE PIPE MUST BE AWWA OR NSF APPROVED. BLACK STEEL PIPE CANNOT BE USED ON THE INLET SIDE OF THE DEVICE.
31. FIRE LINE SPRINKLERS AND DEDICATED FIRE LINES, EXCEPT THOSE IN THE HIGH HAZARD CATEGORY, SHALL BE PROTECTED BY AN APPROVED DOUBLE CHECK VALVE ASSEMBLY.

YORK COUNTY
ENGINEERING
STANDARDS

WATER/SEWER
GENERAL NOTES

STD. NO.
10.01
DATE
01/21

YORK COUNTY
ENGINEERING
STANDARDS

SEWER
NOTES

1. SEWER FORCE MAINS LESS THAN 4 INCH IN DIAMETER SHALL BE PVC ASTM-D2241 SDR13.5 CLASS 315. ALL MAINS 4 INCH TO 12 INCH SHALL BE AWWA C-900, PRESSURE CLASS 200 PVC SDR14. FITTINGS 4 INCHES AND LARGER SHALL BE MECHANICAL JOINT CAST IRON. FITTINGS LESS THAN 4 INCH SHALL BE SLIP JOINT PVC PER SPECIFICATIONS. PVC PIPING SHALL BE INSTALLED WITH APPROVED COPPER LOCATING WIRE.
2. SANITARY SEWER MAINS SHALL BE PVC (ASTM D3034-SDR 35) WITH STONE BEDDING EXCEPT WHERE DUCTILE IRON PIPE OR LONG SPAN STEEL PIPE IS SHOWN. DUCTILE IRON PIPE SHALL BE BITUMINOUS COATED, CEMENT LINED WITH PUSH-ON JOINTS CONFORMING TO ASA A21.54 PC350. TRANSITIONAL COUPLINGS SHALL BE USED FOR PVC/DI SEWER CONNECTIONS. SEWER SERVICES SHALL BE SCHEDULE 40 PVC LONG SPAN STEEL PIPE SHALL BE COATED ON BOTH SIDES ON BOTH SIDES WITH 4 MILS EPOXY. ANY SEWER LINE PLACED 16 FEET OR GREATER IN DEPTH SHALL BE DUCTILE IRON PIPE.
3. ALL SEWER MANHOLES SHALL BE PRE-CAST CONCRETE WITH INTEGRALLY CAST WATER-TIGHT CONNECTIONS.
4. SANITARY SEWER LATERALS SHALL BE 4 INCH DIAMETER EXCEPT AS SPECIFICALLY NOTED.
5. CONTRACTOR SHALL STABILIZE ALL OUT OF STREET GRAVITY SEWER RIGHTS OF WAY WITH GRASS.
6. DIP SHALL BE IN ACCORDANCE WITH AWWA C150/A21.50 & AWWA C151/A21.51.
7. A CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED IN THE TRENCH FOR ALL BURIED PIPE. BACK-FILL MATERIAL SHALL BE TAMPED IN LAYERS AROUND THE PIPE AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE. STONES, OTHER THAN CRUSHED BEDDING, SHALL NOT COME INTO CONTACT WITH THE PIPE AND SHALL NOT BE WITHIN SIX (6) INCHES OF THE PIPE.
8. ALL OFF-SITE SEWER MANHOLES MUST BE A MINIMUM OF TWO (2) FEET ABOVE FINISHED GRADE OR THE 100 YEAR FLOOD PLAIN ELEVATION. ALL MANHOLE TOPS ARE TO BE BOLTED DOWN TO THE PRE-CAST HOUSINGS.
9. AN "S" MUST BE ETCHED INTO THE CURBING SHOWING THE LOCATION OF SEWER LATERALS.
10. MANHOLES MUST NOT BE PLACED WITHIN THE WHEEL-PATHS OF ANY ROADWAY TRAVELING LANES.
11. SEWER SERVICE LATERALS CONNECTING TO THE MAINLINE WITHIN 10' OF A MANHOLE MUST GO DIRECTLY INTO THE MANHOLE.
12. ALL SERVICE LINES REQUIRE INDIVIDUAL CONNECTIONS TO THE MAIN. MULTIPLE SERVICE LINES INTERCONNECTING WILL NOT BE ALLOWED.
13. FORCE MAINS TYING INTO MANHOLES SHALL ENTER THE MANHOLE A VERTICAL DISTANCE OF NOT MORE THAN TWO (2) FEET ABOVE THE FLOW LINE OF THE RECEIVING MANHOLE.
14. SEWER LATERALS BELOW MANHOLE BASE ELEVATION ARE REQUIRED TO HAVE A BACKWATER VALVE.

YORK COUNTY
ENGINEERING
STANDARDS

SEWER
NOTES

STD. NO.
10.03
DATE
01/21



1. NOTIFY THE ENGINEER OF RECORD AND YORK COUNTY AT LEAST 48 HOURS BEFORE STARTING CONSTRUCTION OF SEWER AND WATER FACILITIES. THE ENGINEER SHALL PERIODICALLY INSPECT THE PROGRESS OF INSTALLATION AND SHALL COMPLETE A FINAL WATER AND SEWER INSPECTION. THE ENGINEER OF RECORD AND YORK COUNTY SHALL WITNESS PRESSURE TESTING OF THE WATER SYSTEM, AND AIR AND MANDREL TESTING OF THE SEWER SYSTEM. THE CONTRACTOR SHALL FURNISH, SECURE, AND PROVIDE ALL NECESSARY TESTING MATERIALS, EQUIPMENT, PROCEDURES AND CERTIFIED LABORATORY TEST RESULTS FOR USE WITH ENGINEERS FINAL CERTIFICATION OF COMPLETION.
2. WATER MAINS AND SEWER FORCE MAINS MUST BE HYDROSTATICALLY TESTED PER YORK COUNTY SPECIFICATIONS AND UNDER THE SUPERVISION OF A YORK COUNTY INSPECTOR AND THE ENGINEER OF RECORD.
3. DISINFECT WATER LINES AND PROVIDE ACCEPTABLE BACTERIOLOGICAL TEST FROM A CERTIFIED TESTING LABORATORY FOR USE WITH THE ENGINEERS CERTIFICATION OF COMPLETION. A MINIMUM OF TWO (2) SAMPLES, COLLECTED AT LEAST TWENTY-FOUR (24) HOURS APART, ARE TO BE TAKEN FROM EACH SAMPLING SITE FOR TOTAL COLIFORM ANALYSIS AND TOTAL CHLORINE RESIDUAL. THE NUMBER OF TEST SITES MUST INCLUDE ALL DEAD-END LINES AND SHALL BE COLLECTED A MINIMUM OF EVERY 1,200 LINEAR FEET.
4. SECURE FINAL OPERATIONAL APPROVAL FROM YORK COUNTY AND SCDEH PRIOR TO ACTIVATION OF THE SYSTEM.
5. TEST SANITARY SEWER LINES FOR DEFLECTION WITH A 5 % MANDREL NOT LESS THAN 30 DAYS AFTER COMPLETION OF BACKFILL. PERFORM LOW PRESSURE AIR TESTING IN ACCORDANCE WITH ASTM C-828 AND C924 ON ALL SEWER MAINS.
6. TRENCH BACKFILL AND COMPACTION TESTING SHALL BE PERFORMED BY A CERTIFIED SOILS LABORATORY UNDER ALL AREAS WITHIN ROAD AND RAILWAY RIGHTS-OF-WAY. BACKFILL MATERIAL FROM THE BOTTOM OF TRENCH TO WITHIN SIX (6) INCHES OF THE SUBGRADE SHALL HAVE A MINIMUM DRY DENSITY OF 95% AS DEFINED BY THE STANDARD PROCTOR TEST. ALL MATERIAL WITHIN THE TOP 6 INCHES OF THE SUBGRADE LEVEL SHALL HAVE AN IN PLACE DENSITY OF 100%.
7. THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH SEWER AS-BUILTS (LOCATION, ELEVATION, LENGTH, AND SLOPE) PREPARED BY A REGISTERED LAND SURVEYOR AND WATER SERVICE MEASUREMENTS SUITABLE FOR PREPARATION OF FINAL RECORD DRAWINGS.
8. THE ENGINEER SHALL PROVIDE TO YORK COUNTY ENGINEERING A DIGITAL SET OF RECORD DRAWINGS IN AN AUTO-CAD FORMAT THAT IS GEO-REFERENCED TO THE SOUTH CAROLINA STATE PLANE COORDINATE SYSTEM AND A DIGITAL SET OF RECORD DRAWINGS IN A PDF FORMAT.

YORK COUNTY
ENGINEERING
STANDARDS

TESTING / INSPECTION
GENERAL NOTES

STD. NO.
10.04
DATE
01/21

12.01 NOTES:

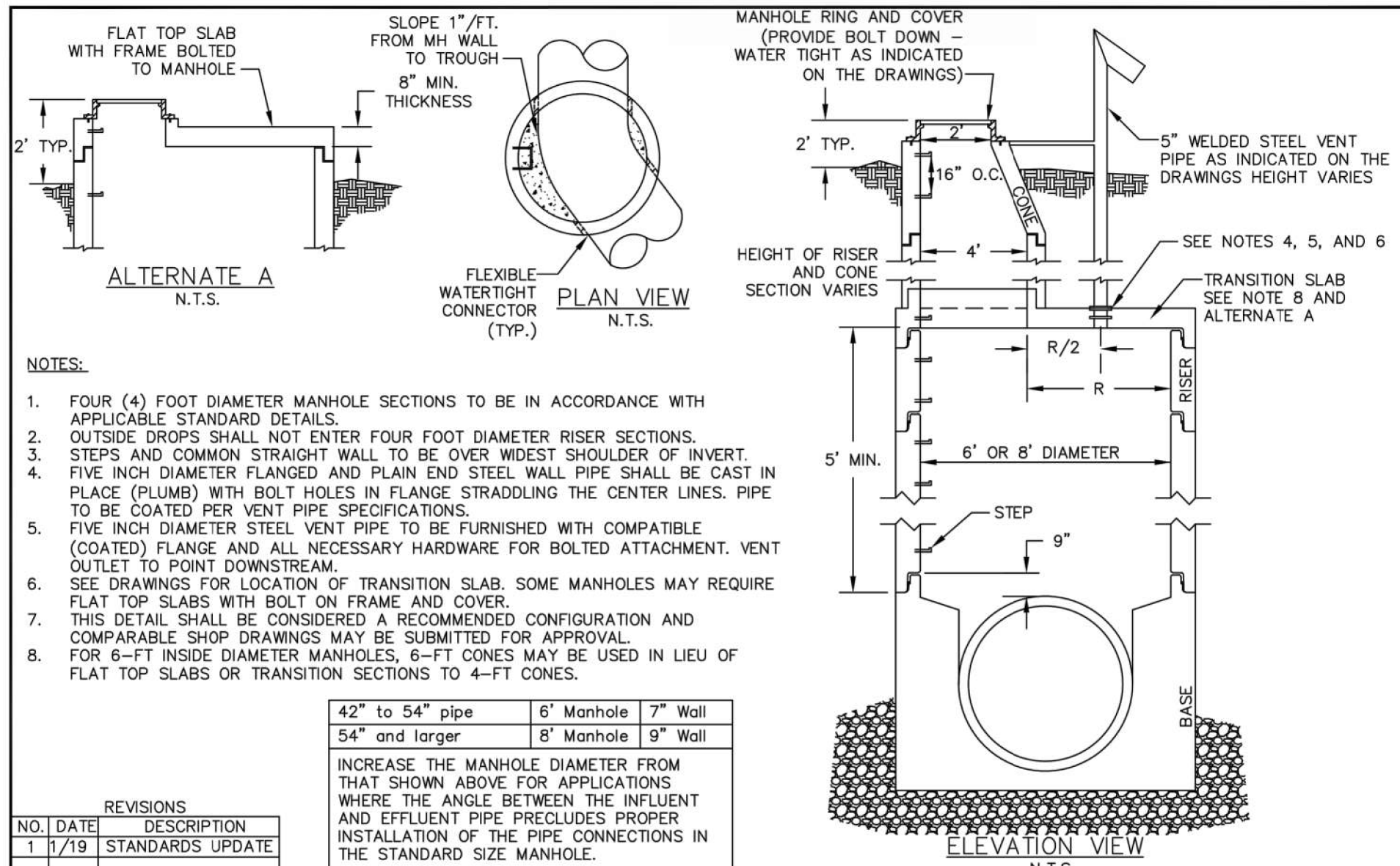
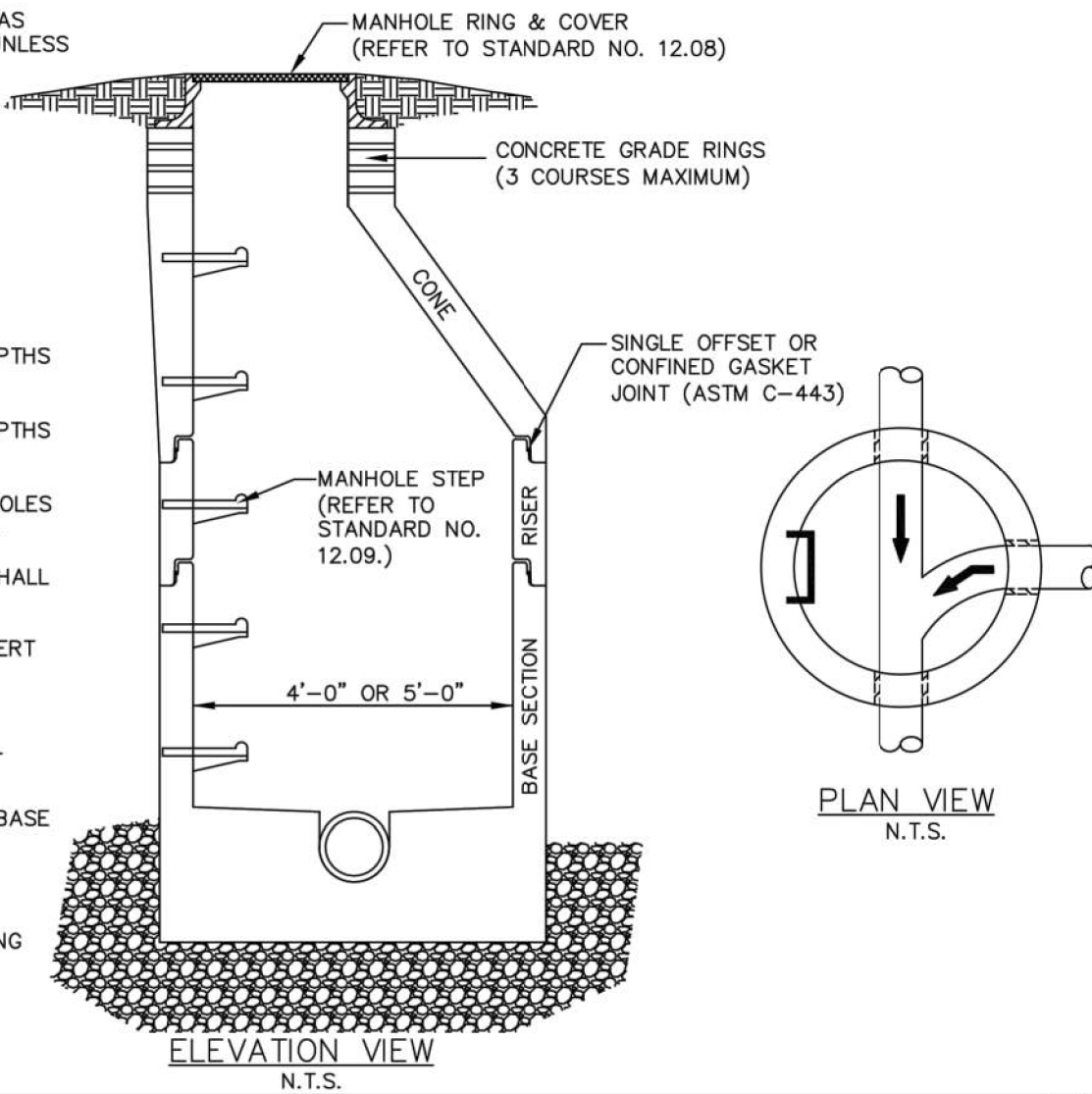
1. FURNISH MANHOLES WITH CLEAR INSIDE DIAMETERS AS LISTED ACCORDING TO THE SEWER MAIN DIAMETER UNLESS AMENDED ON THE DRAWINGS OR AS NOTED BELOW:
- | | | |
|-----------------|------------|---------|
| 8" to 18" pipe | 4" Manhole | 5" Wall |
| 21" to 36" pipe | 5" Manhole | 6" Wall |
- INCREASE THE MANHOLE DIAMETER FROM THAT SHOWN ABOVE FOR APPLICATIONS WHERE THE ANGLE BETWEEN THE INFLUENT AND EFFLUENT PIPE PRECLUDES PROPER INSTALLATION OF THE PIPE CONNECTIONS IN THE STANDARD SIZE MANHOLE.
2. PROVIDE MINIMUM 4" MANHOLE FEET FOR INVERT DEPTHS OF 19 FEET OR LESS.
3. PROVIDE MINIMUM 5" MANHOLE FEET FOR INVERT DEPTHS GREATER THAN 19 FEET.
4. INSTALL STEPS IN 5" DIAMETER AND GREATER MANHOLES OVER THE WIDEST SHELF UNLESS NOTED OTHERWISE.
5. UNLESS OTHERWISE APPROVED, INVERT CHANNELS SHALL BE INSTALLED AT PRECAST PLANT.
6. PROVIDE FULL BENCH INVERT CHANNELS. SLOPE INVERT BENCH 1/2 INCH TO 1 1/2 INCH PER FOOT.
7. FIELD INSTALLED INVERTS, IF APPROVED, SHALL BE FORMED WITHOUT THE USE OF BRICK OR OTHER FILL MATERIAL.
8. USE STANDARD BASE EXCEPT WHERE AN EXTENDED BASE IS INDICATED.
9. PROVIDE BEDDING MATERIAL COMPACTED TO A 90% PROCTOR 6" THICK, 6" BEYOND OUTSIDE RADIUS OF MANHOLE BASE. SUPPORT SEWER PIPES WITH BEDDING MATERIAL.

NO.	DATE	DESCRIPTION
1	8/08	REMOVED NOTE 12
2	1/19	STANDARDS UPDATE

YORK COUNTY
ENGINEERING
STANDARDS

MANHOLE
4' & 5' DIAMETER

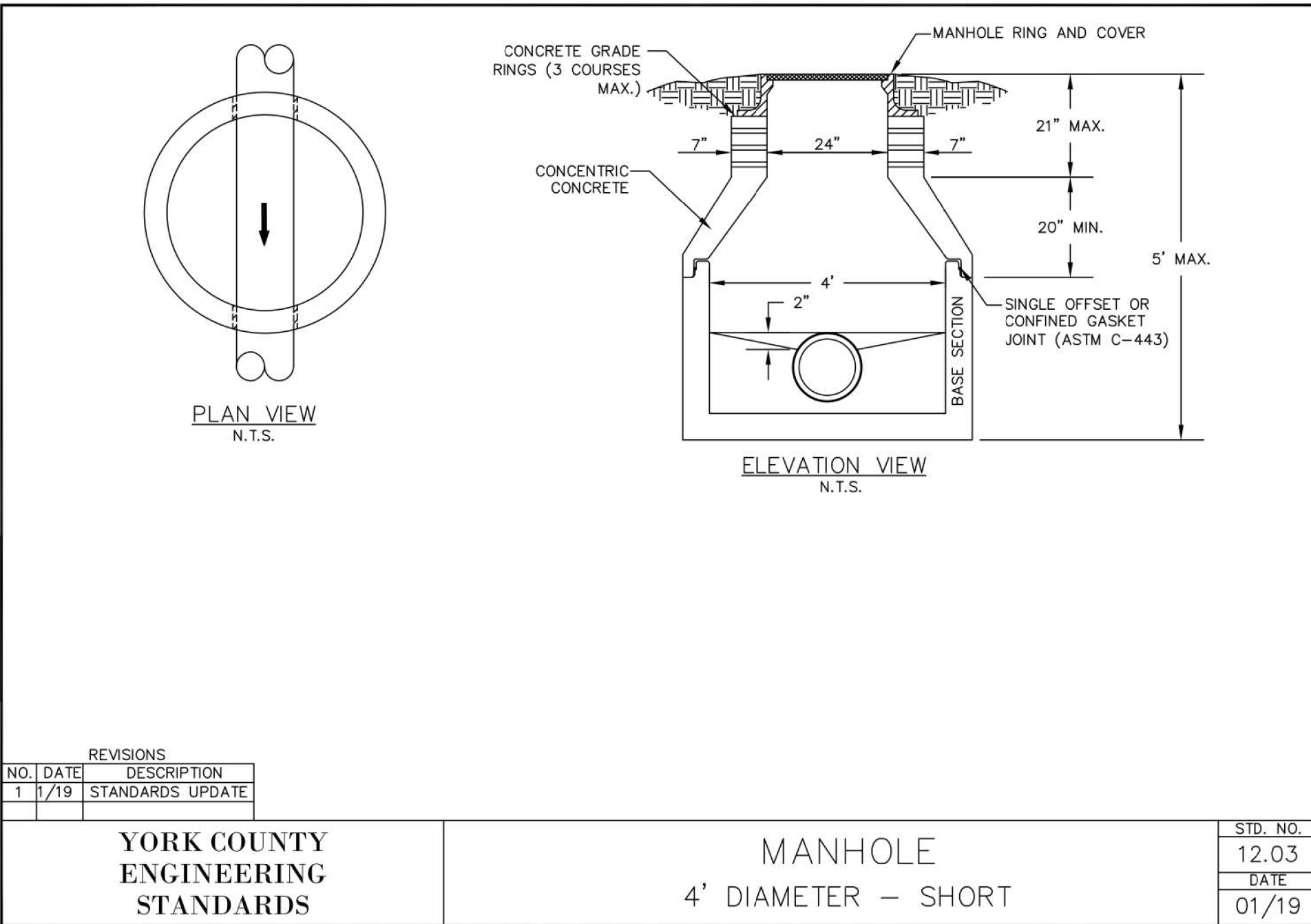
STD. NO.
12.01
DATE
01/19



YORK COUNTY
ENGINEERING
STANDARDS

MANHOLE
6' & 8' DIAMETER

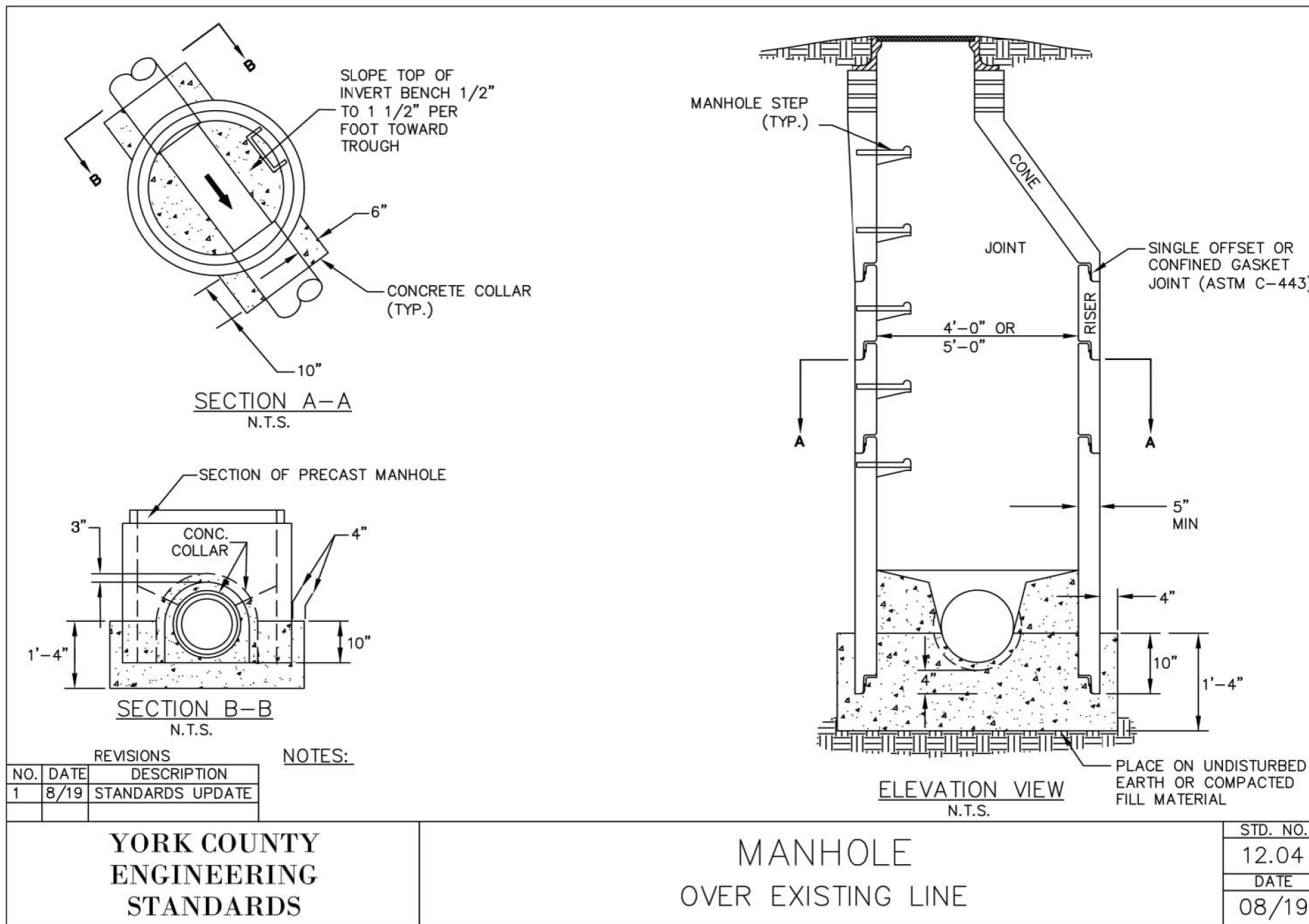
STD. NO.
12.02
DATE
01/19



YORK COUNTY
ENGINEERING
STANDARDS

MANHOLE
4' DIAMETER - SHORT

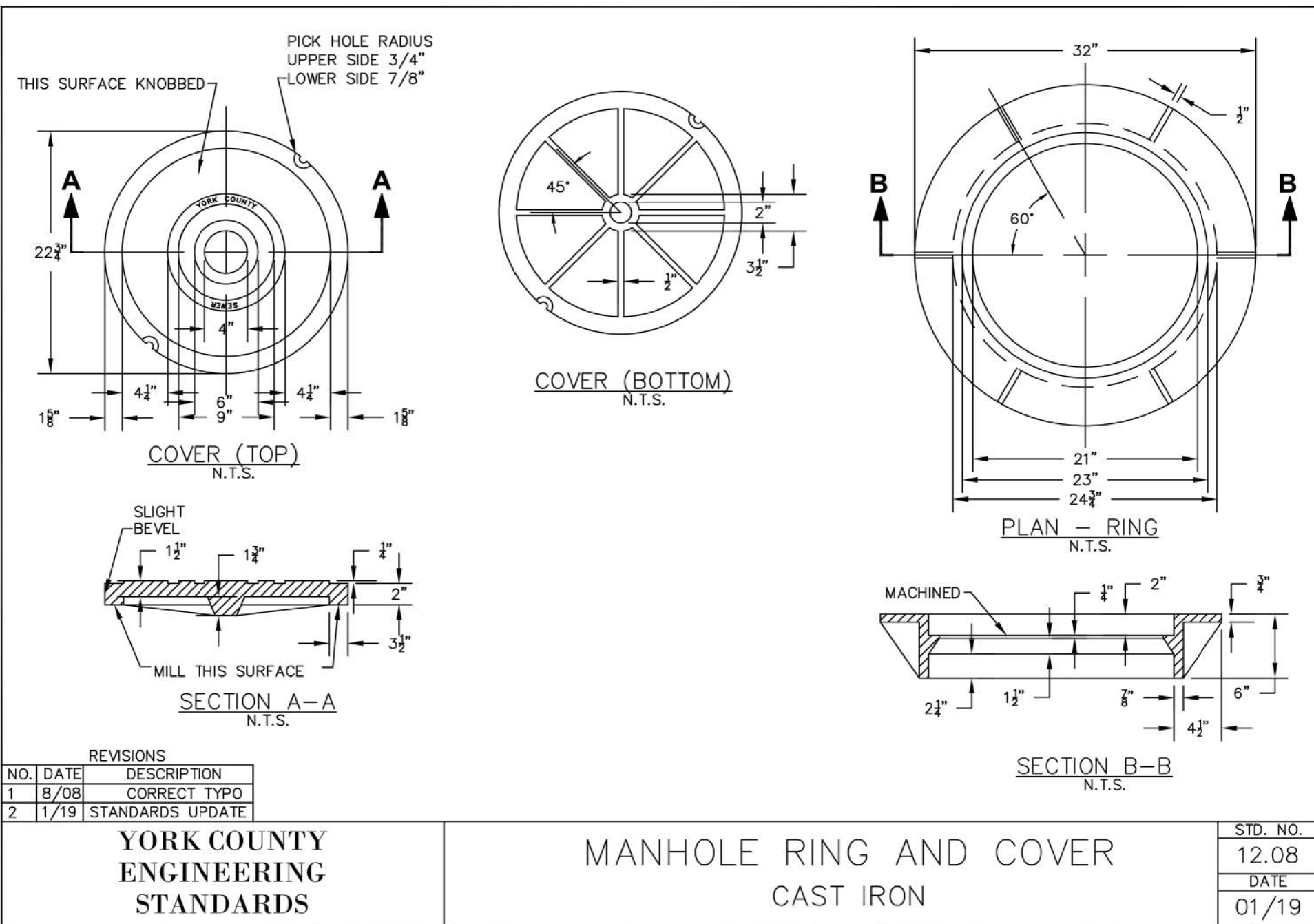
STD. NO.
12.03
DATE
01/19



YORK COUNTY
ENGINEERING
STANDARDS

MANHOLE
OVER EXISTING LINE

STD. NO.
12.04
DATE
08/19



YORK COUNTY
ENGINEERING
STANDARDS

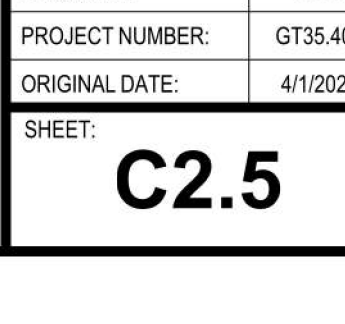
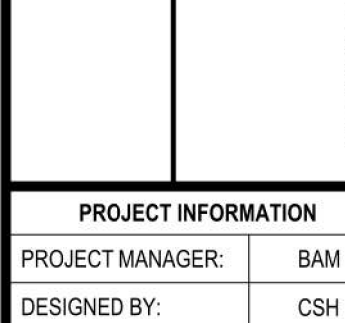
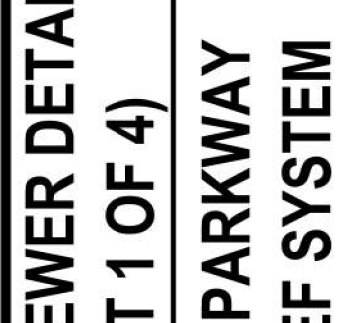
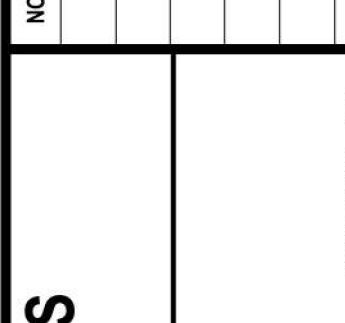
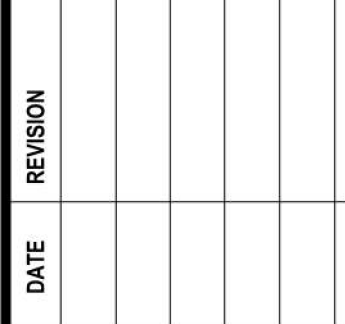
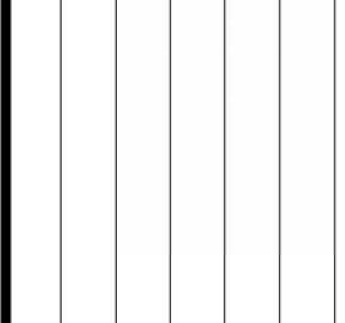
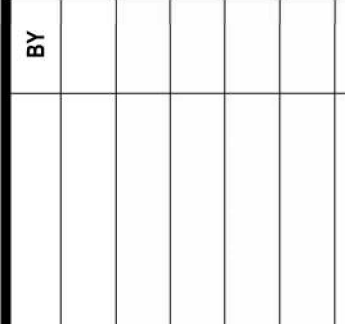
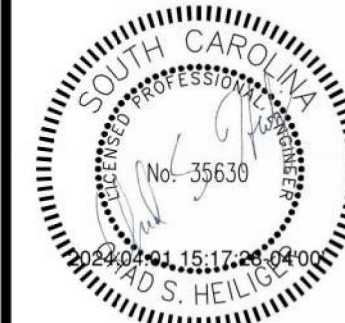
MANHOLE RING AND COVER
CAST IRON

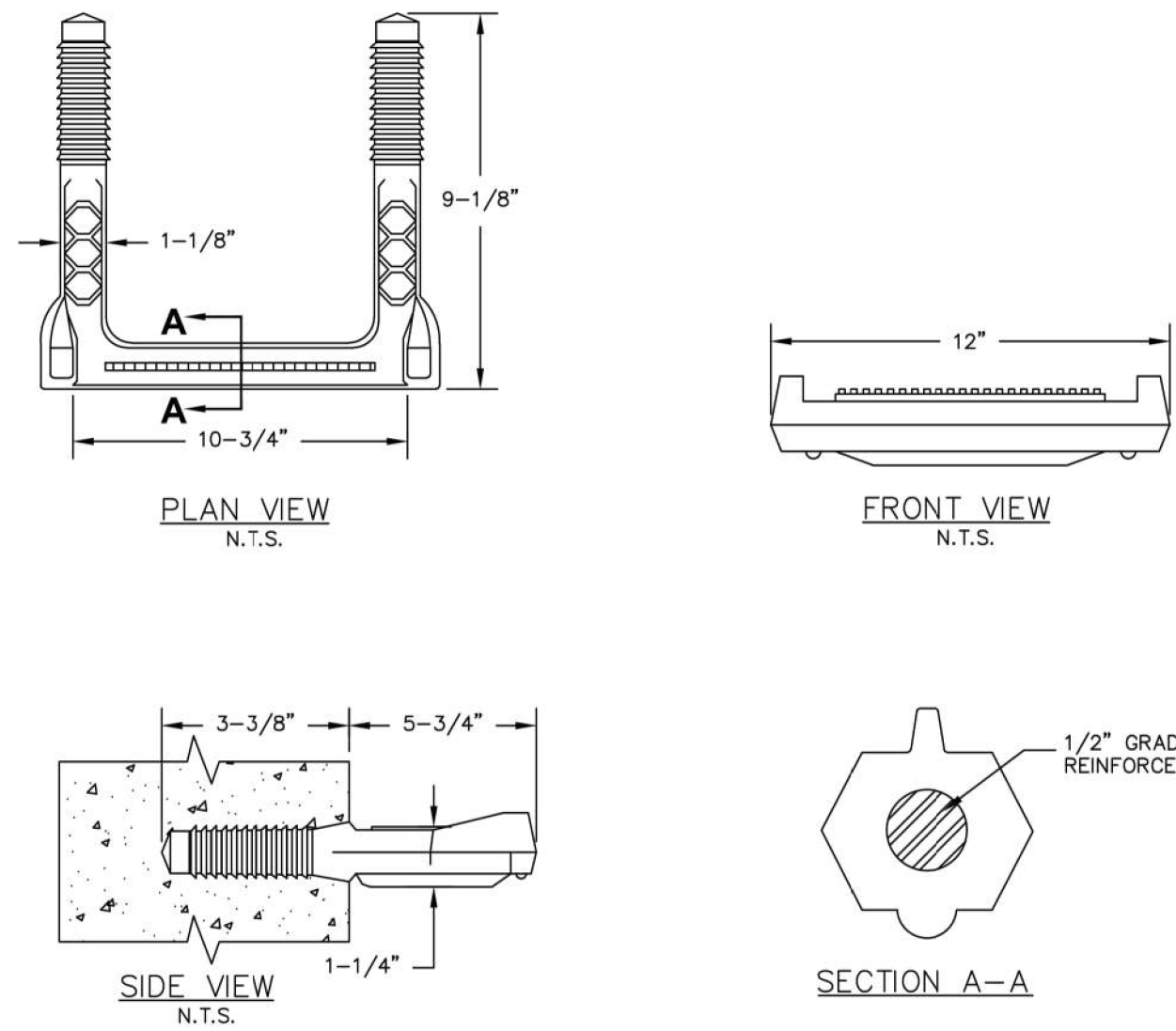
STD. NO.
12.08
DATE
01/19

SANITARY SEWER DETAILS
(SHEET 1 OF 4)

REGENT PARKWAY
SS RELIEF SYSTEM

PROJECT INFORMATION	
PROJECT MANAGER:	BAM
DESIGNED BY:	CSH
DRAWN BY:	TWD
PROJECT NUMBER:	GT35.400
ORIGINAL DATE:	4/1/2024
SHEET:	C2.5





NOTE:
1. DRIVE STEP INTO TAPERED HOLES IN PRECAST MANHOLE SECTIONS. DO NOT USE AS A GROUTED-IN STEP.

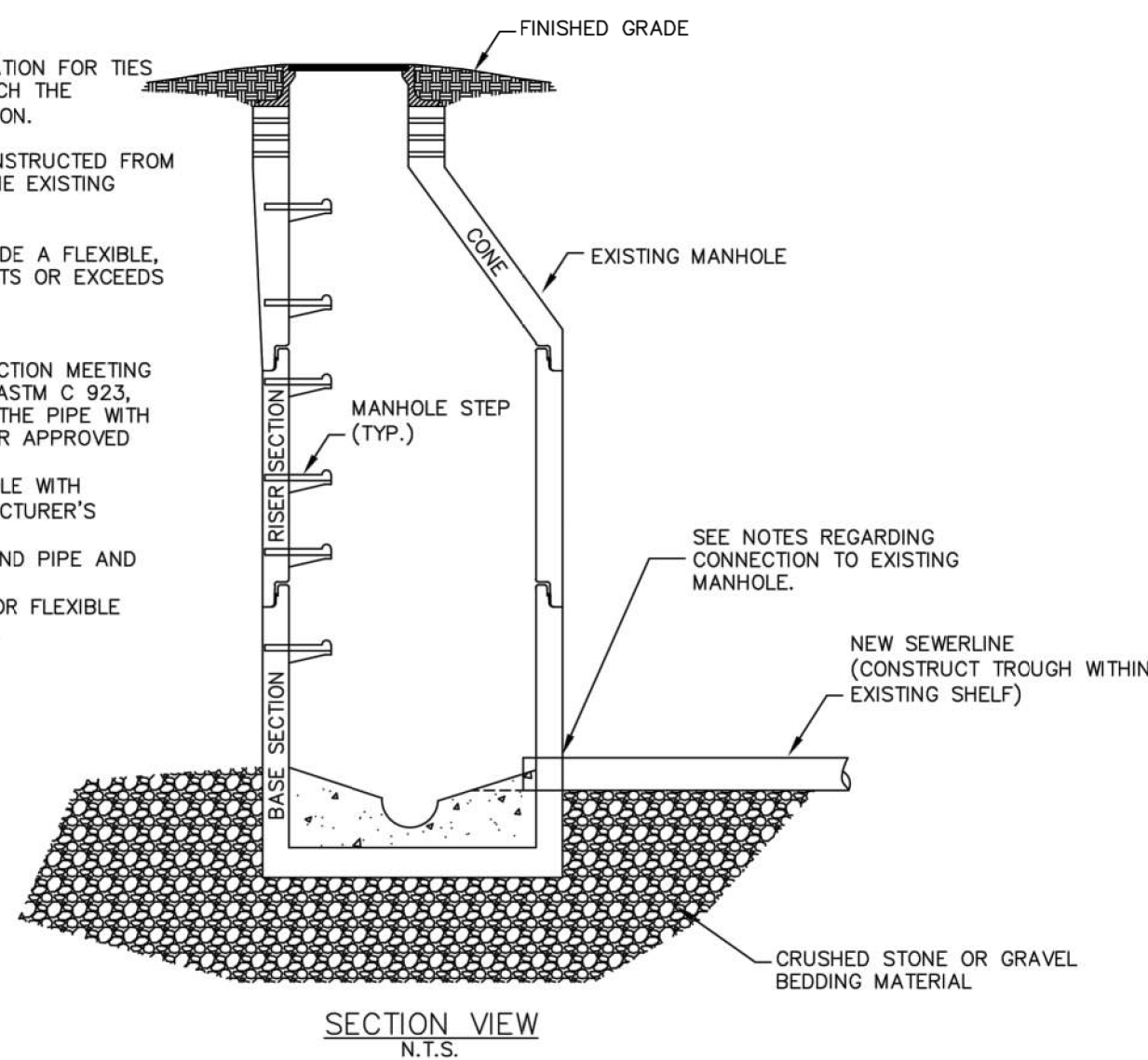
NO.	DATE	DESCRIPTION
1	01/19	STANDARDS UPDATE

YORK COUNTY
ENGINEERING
STANDARDS

MANHOLE
COPOLYMER POLYPROPYLENE STEP

STD. NO.
12.09
DATE
01/19

- NOTES:
1. THE NEW SEWER LINE INVERT ELEVATION FOR TIES TO EXISTING MANHOLES SHALL MATCH THE MANHOLE'S EXISTING SHELF ELEVATION.
 2. A CONCRETE TROUGH IS TO BE CONSTRUCTED FROM THE NEW SEWER LINE INVERT TO THE EXISTING MANHOLE'S INVERT.
 3. CORED OR DRILLED OPENING: PROVIDE A FLEXIBLE, WATER-TIGHT CONNECTION THAT MEETS OR EXCEEDS ASTM C 923.
 4. KNOCK-OUT OPENING:
A) PROVIDE A WATER-TIGHT CONNECTION MEETING THE MATERIAL REQUIREMENTS OF ASTM C 923, THAT IS SECURELY ATTACHED TO THE PIPE WITH STAINLESS STEEL BANDS OR OTHER APPROVED MEANS.
B) GROUT OPENING IN THE MANHOLE WITH NON-SHRINK GROUT, PER MANUFACTURER'S INSTRUCTIONS.
C) POUR CONCRETE COLLAR AROUND PIPE AND OUTSIDE MANHOLE OPENING.
D) PROVIDE FLEXIBLE PIPE JOINT OR FLEXIBLE CONNECTOR WITHIN 2' OF COLLAR.



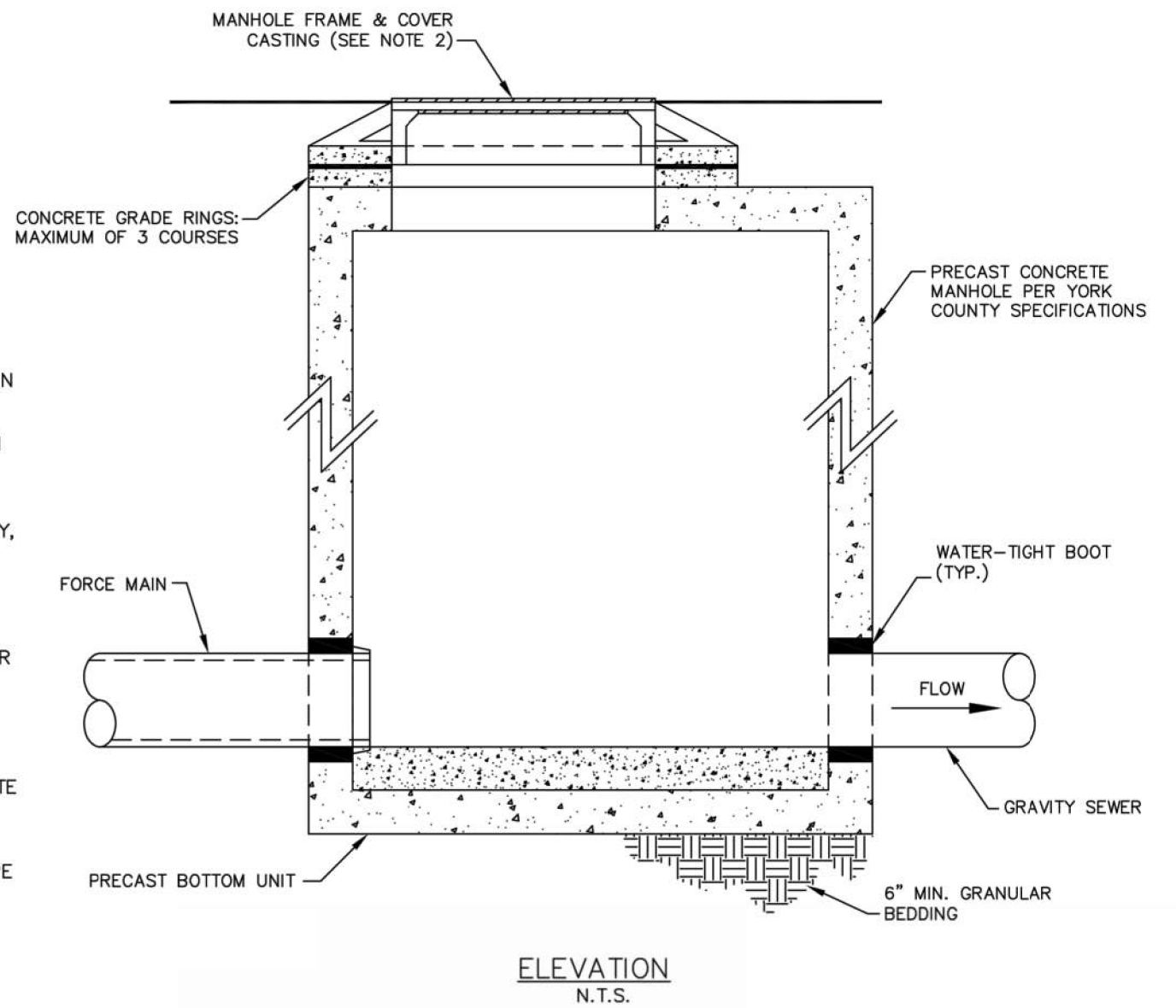
NO.	DATE	DESCRIPTION
1	05/18	TROUGH DETAIL EDIT
2	01/19	STANDARDS UPDATE

YORK COUNTY
ENGINEERING
STANDARDS

SEWER LINE TO EXISTING MANHOLE

STD. NO.
12.13
DATE
01/19

- NOTES:
1. FOR ALL MANHOLES RECEIVING FORCE MAIN EFFLUENT, APPLY A HEAVY-DUTY, CHEMICALLY-RESISTANT EPOXY-RESIN COATING TO CONCRETE AND DUCTILE IRON SURFACES SUITABLE FOR SEWER SERVICE IN ACCORDANCE WITH COATING MANUFACTURER'S INSTRUCTIONS. USE BITUMASTIC 300M BY CARBOLINE COMPANY, TNEC VINISTER SERIES 120-5001 OR APPROVED EQUAL.
 2. MANHOLE FRAME AND COVER ARE TO BE HEAVY-DUTY TRAFFIC-RATED WHEN LOCATED INSIDE ROAD RIGHTS-OF-WAY OR WHEN LOCATED WHERE SUSCEPTIBLE TO VEHICULAR TRAFFIC (SEE DETAIL 12.08).
 3. CONTRACTOR MAY INSTALL ECCENTRIC CONE SECTION TO BRING THE MANHOLE FRAME AND COVER TO GRADE IF ADEQUATE HEADROOM EXISTS.
 4. CONSTRUCT TROUGH FROM INFLUENT PIPE TO EFFLUENT PIPE USING ADEQUATE SLOPE FOR PROPER DRAINAGE.



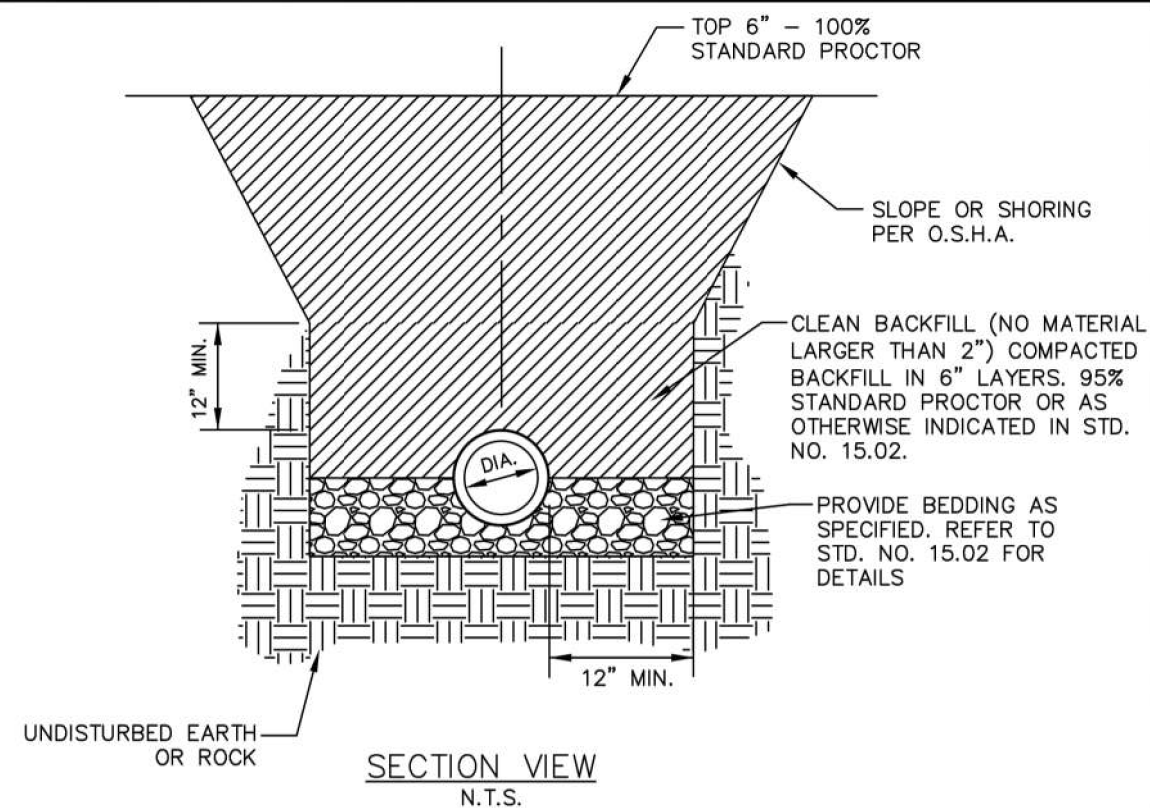
NO.	DATE	DESCRIPTION
1	07/19	STANDARDS UPDATE

YORK COUNTY
ENGINEERING
STANDARDS

FORCE MAIN TO GRAVITY SEWER
STANDARD DETAIL

STD. NO.
13.05
DATE
07/19

NOMINAL PIPE SIZE, IN.	TRENCH WIDTH, IN.
4	28
6	30
8	32
10	34
12	36
14	38
16	40
18	42
20	44
24	48
30	54
36	60
42	66
48	72
54	78
60	84
64	88



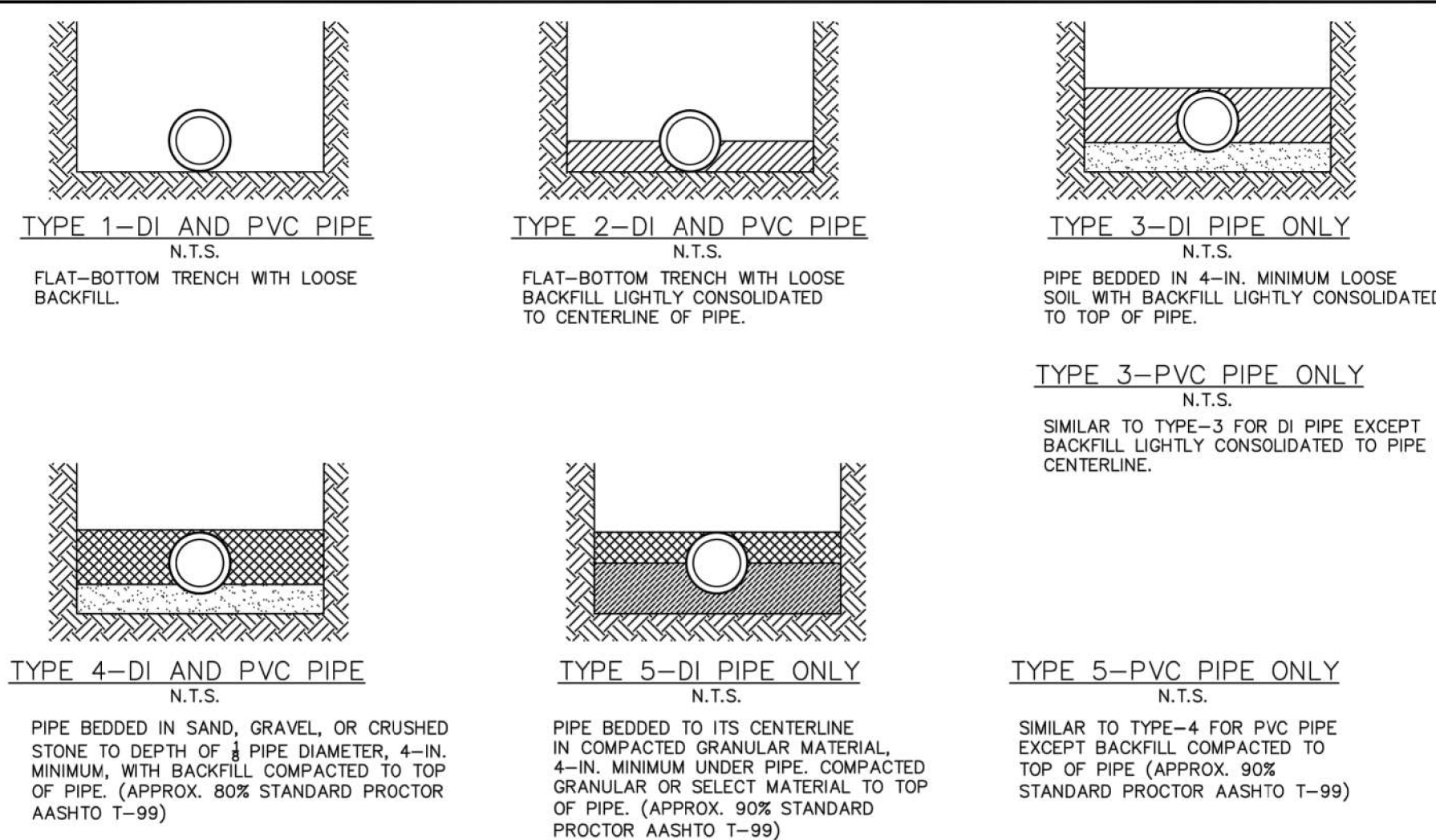
- NOTES:
1. TRENCH SIDE SLOPES SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. SUPPORT OR SHORE WHEN TRENCH IS MORE THAN 5' DEEP AND 8' LONG. BEGIN SIDE SLOPE, IF USED, APPROX. 18" ABOVE TOP OF PIPE.
 2. BACKFILL TRENCHES IMMEDIATELY AFTER PIPE IS LAID. COMPACTION REQUIREMENTS SHALL BE ATTAINED BY THE USE OF MECHANICAL TAMPS ONLY. EACH LAYER OF BACKFILL SHALL BE PLACED LOOSE IN 6" LAYERS AND THOROUGHLY COMPACTED INTO PLACE.
 3. UNDER NO CIRCUMSTANCES SHALL WATER BE PERMITTED TO RISE IN UN-BACKFILLED TRENCHES AFTER THE PIPE HAS BEEN PLACED.
 4. ALL MATERIAL SHALL HAVE AN IN-PLACE DENSITY OF 100% TO A DEPTH OF 6" BELOW THE FINISHED GRADE OF THE BACKFILL MATERIAL, AND 95% AT GREATER THAN 6" BELOW GRADE.
 5. USE PC350 DUCTILE IRON PIPE IF COVER IS LESS THAN 30" OR GREATER THAN 16'.
 6. FOR USE WITH ALL ASTM D3034 SDR 26 PVC PIPE UNLESS CONDITIONS OF POOR OR SATURATED SOIL OR ROCK ARE PRESENT.

NO.	DATE	DESCRIPTION
1	8/19	STANDARDS UPDATE

YORK COUNTY
ENGINEERING
STANDARDS

PIPE INSTALLATION
GRAVITY SEWER

STD. NO.
15.01
DATE
08/19

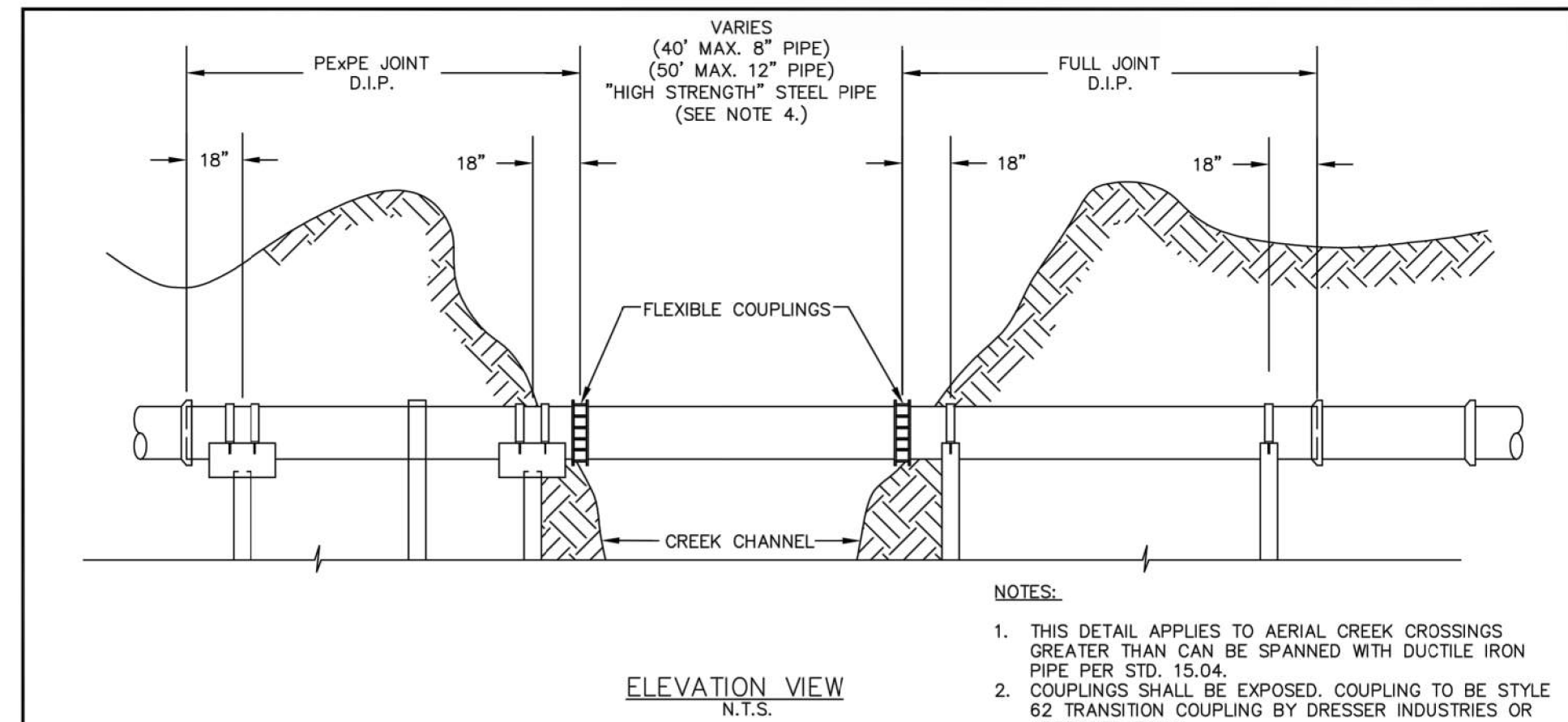


NO.	DATE	DESCRIPTION
1	8/19	STANDARDS UPDATE

YORK COUNTY
ENGINEERING
STANDARDS

PIPE BEDDING
STANDARD DETAIL

STD. NO.
15.02
DATE
08/19



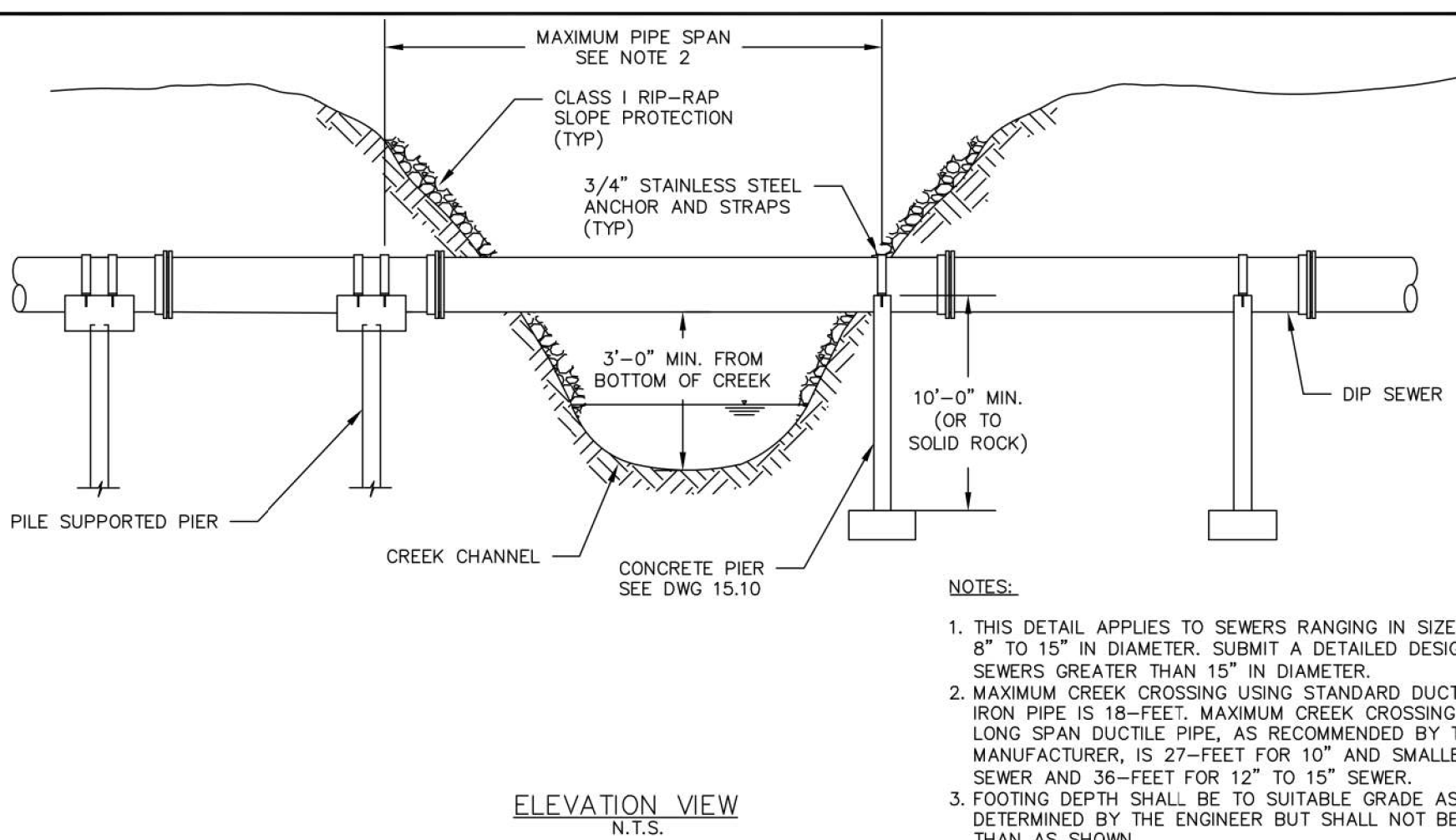
- NOTES:
1. THIS DETAIL APPLIES TO AERIAL CREEK CROSSINGS GREATER THAN CAN BE SPANNED WITH DUCTILE IRON PIPE PER STD. 15.04.
 2. COUPLINGS SHALL BE EXPOSED. COUPLING TO BE STYLE 82 TRANSITION COUPLING BY DRESSER INDUSTRIES OR APPROVED EQUAL.
 3. COUPLING CENTER RING LENGTH FOR 8" AND SMALLER PIPE TO BE 5-INCHES, CENTER RING FOR 10-INCH TO 15-INCH PIPE TO BE 7-INCH. THE CENTER RING, GLANDS, BOLTS AND NUTS SHALL RECEIVE ONE COAT OF SHOP PRIMER AND FIELD COATED PER THE SPECIFICATIONS.
 4. STEEL PIPE MUST BE SEAMLESS OR STRAIGHTSEAM. NO SPIRAL WELD ALLOWED. THE INSIDE DIAMETER OF THE STEEL PIPE TO MATCH THE INSIDE DIAMETER OF DUCTILE IRON PIPE. COAT STEEL PIPE PER SPECIFICATIONS.
 5. REFER TO STD NO. 15.04 FOR ADDITIONAL DETAILS.

NO.	DATE	DESCRIPTION
1	8/19	STANDARDS UPDATE

YORK COUNTY
ENGINEERING
STANDARDS

CREEK CROSSING
WITH STEEL PIPE

STD. NO.
15.04A
DATE
08/19



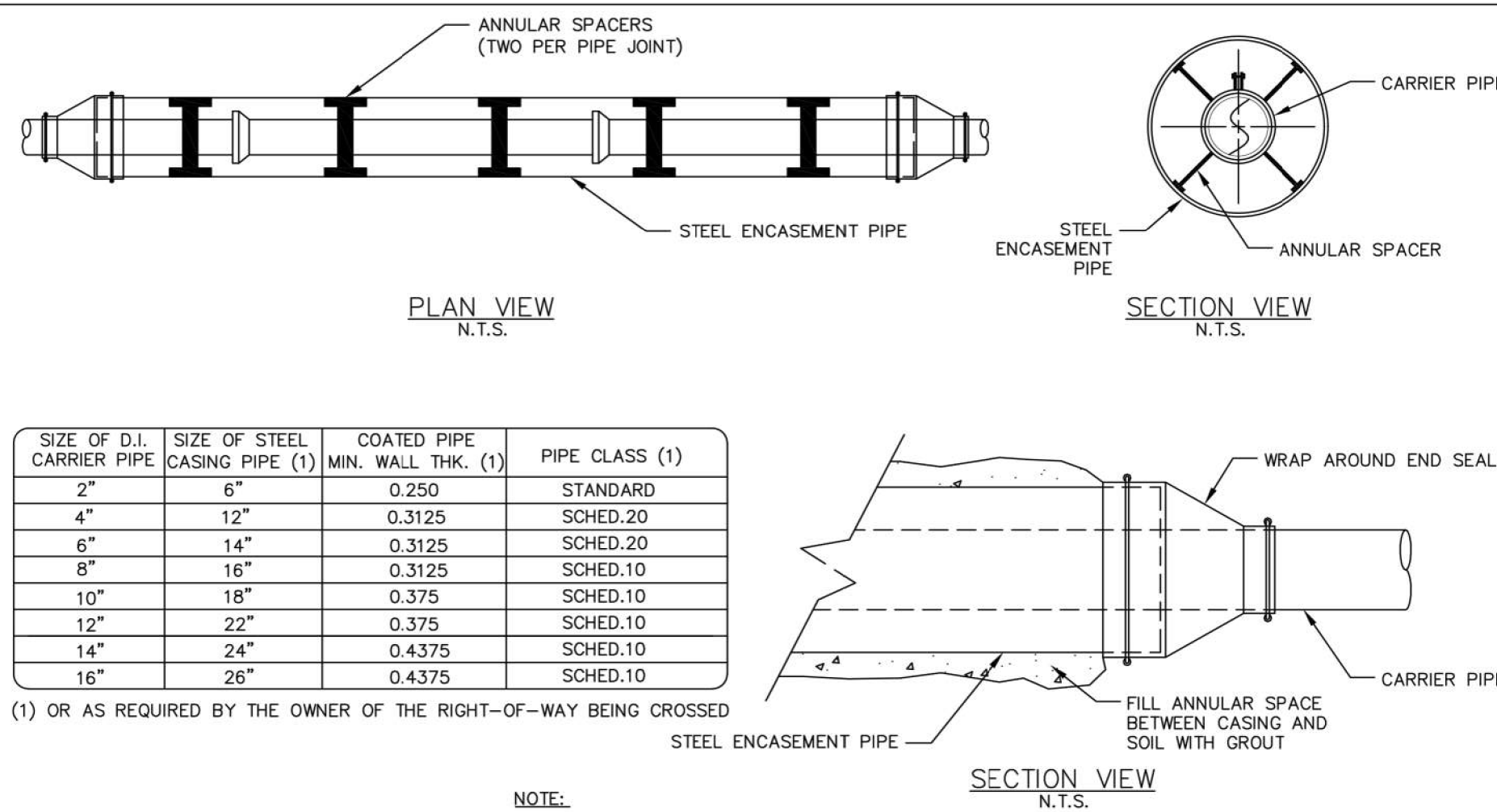
- NOTES:
1. THIS DETAIL APPLIES TO SEWERS RANGING IN SIZE FROM 8" TO 15" IN DIAMETER. SUBMIT A DETAILED DESIGN FOR SEWERS GREATER THAN 15" IN DIAMETER.
 2. MAXIMUM CREEK CROSSING USING STANDARD DUCTILE IRON PIPE IS 18- FEET. MAXIMUM CREEK CROSSING USING LONG SPAN DUCTILE PIPE, AS RECOMMENDED BY THE MANUFACTURER, IS 27- FEET FOR 10" AND SMALLER SEWER AND 36- FEET FOR 12" TO 15" SEWER.
 3. FOOTING DEPTH SHALL BE TO SUITABLE GRADE AS DETERMINED BY THE ENGINEER BUT SHALL NOT BE LESS THAN AS SHOWN.
 4. DUCTILE IRON PIPE TO EXTEND TO NEXT MANHOLE.
 5. CREEK CROSSINGS MAY REQUIRE A PERMIT FROM STATE AND FEDERAL REGULATORY AGENCIES. INSTALL PIPE BOTTOM ABOVE 25-YEAR FLOOD ELEVATION.
 6. STRAIGHTENING OF THE CREEK FOR INSTALLATION OF THE PIERS REQUIRES APPROVAL FROM AUTHORITIES HAVING JURISDICTION.

NO.	DATE	DESCRIPTION
1	8/19	STANDARDS UPDATE

YORK COUNTY
ENGINEERING
STANDARDS

AERIAL CREEK CROSSING
CONCRETE PIER/PILE SUPPORTED

STD. NO.
15.04
DATE
8/19



SIZE OF D.I. CARRIER PIPE	SIZE OF STEEL CASING PIPE (1)	COATED PIPE MIN. WALL THK. (1)	PIPE CLASS (1)
2"	6"	0.250	STANDARD
4"	12"	0.3125	SCHED.20
6"	14"	0.3125	SCHED.20
8"	16"	0.3125	SCHED.10
10"	18"	0.375	SCHED.10
12"	22"	0.375	SCHED.10
14"	24"	0.4375	SCHED.10
16"	26"	0.4375	SCHED.10

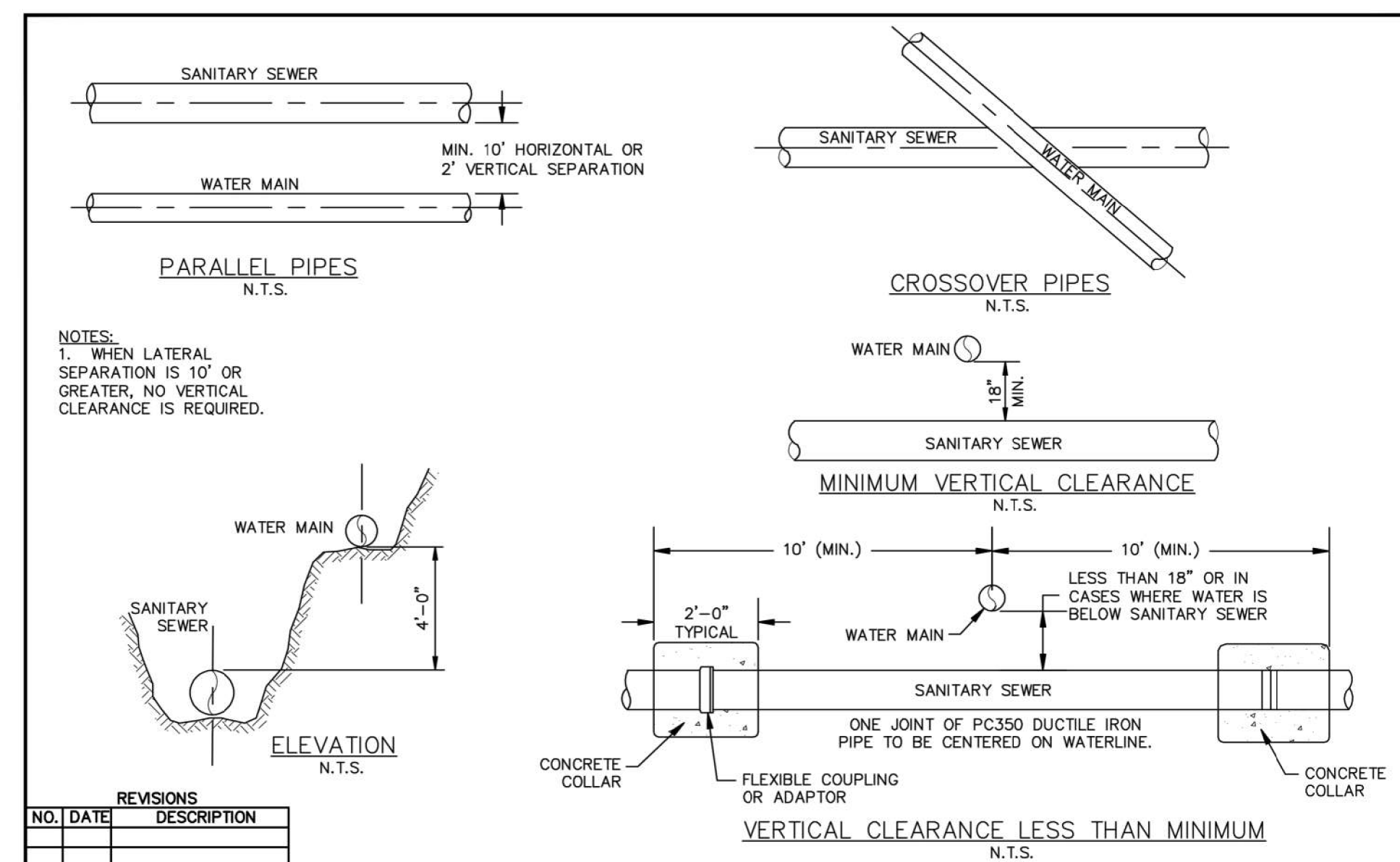
(1) OR AS REQUIRED BY THE OWNER OF THE RIGHT-OF-WAY BEING CROSSED

NO.	DATE	DESCRIPTION
1	3/09	REVISED MIN. WALL THICKNESS
2	8/19	STANDARDS UPDATE

YORK COUNTY
ENGINEERING
STANDARDS

BORING ENCASEMENT
STANDARD DETAIL

STD. NO.
15.06
DATE
08/19



- NOTES:
1. WHEN LATERAL SEPARATION IS 10' OR GREATER, NO VERTICAL CLEARANCE IS REQUIRED.

NO.	DATE	DESCRIPTION
1	8/19	STANDARDS UPDATE

YORK COUNTY
ENGINEERING
STANDARDS

PIPE SEPARATION REQUIREMENTS
FOR WATER MAINS AND SANITARY SEWER LINES

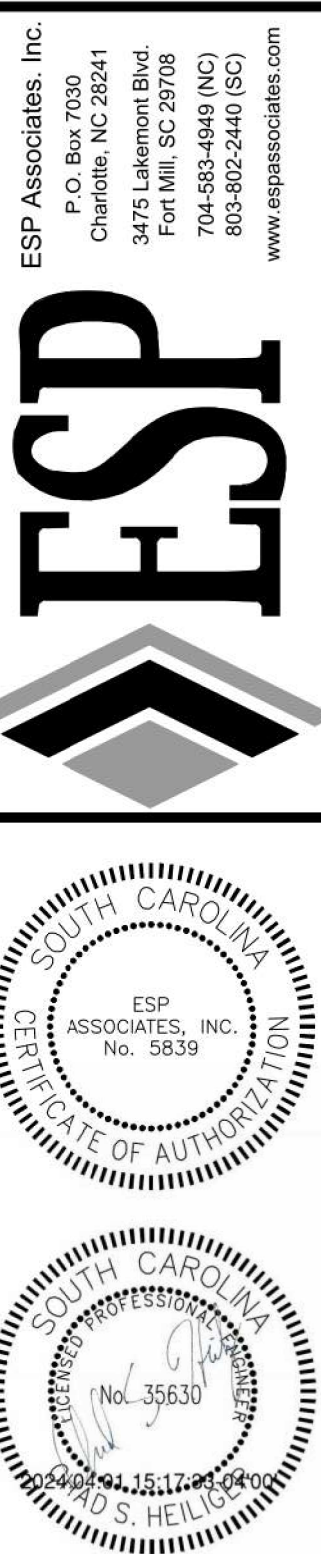
STD. NO.
15.07
DATE
10/06

SANITARY SEWER DETAILS
(SHEET 2 OF 4)

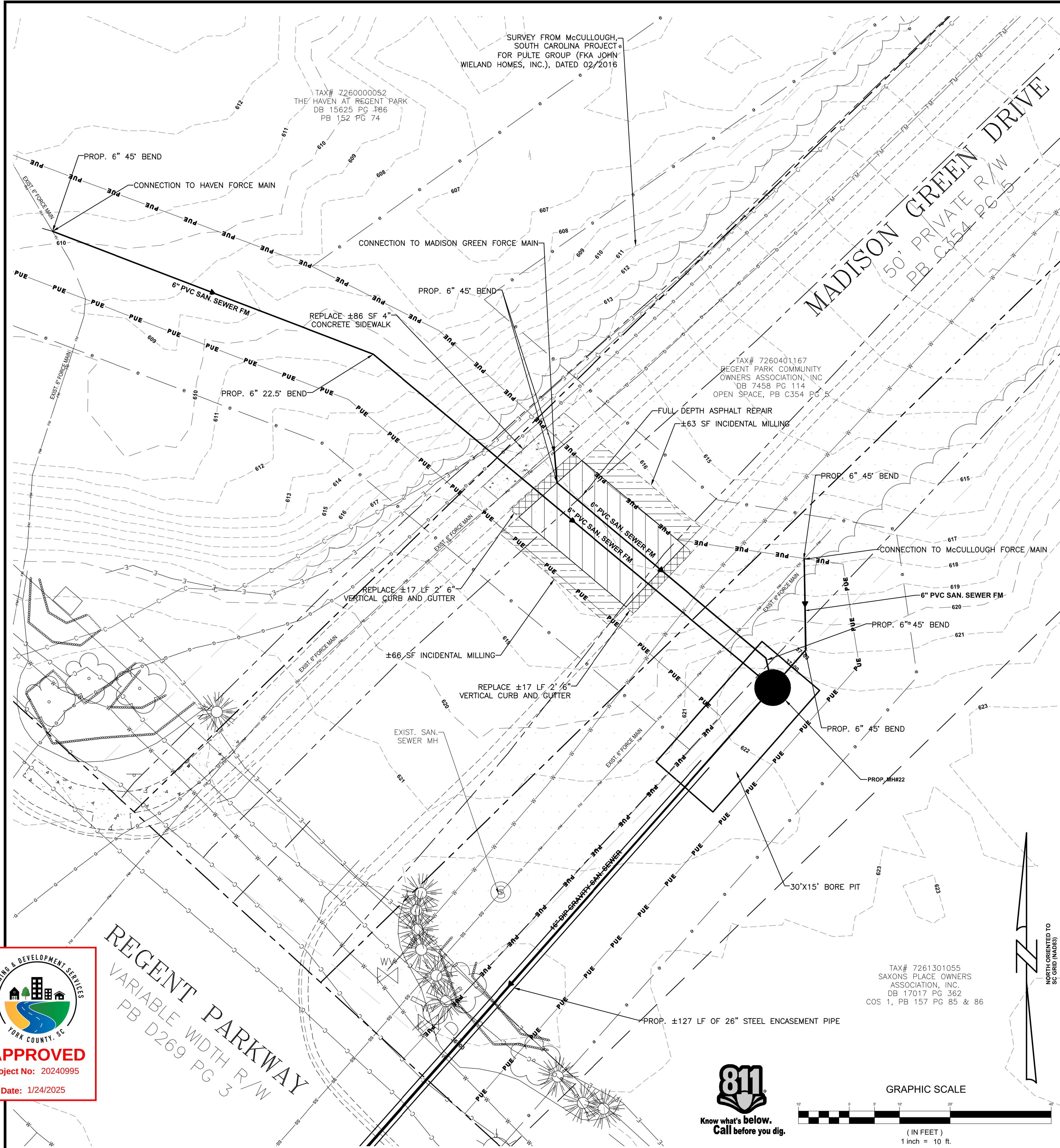
REGENT PARKWAY
SS RELIEF SYSTEM

PROJECT INFORMATION	
PROJECT MANAGER:	BAM
DESIGNED BY:	CSH
DRAWN BY:	TWD
PROJECT NUMBER:	GT35.400
ORIGINAL DATE:	4/1/2024
SHEET:	C2.6

YORK COUNTY
FORT MILL, SC





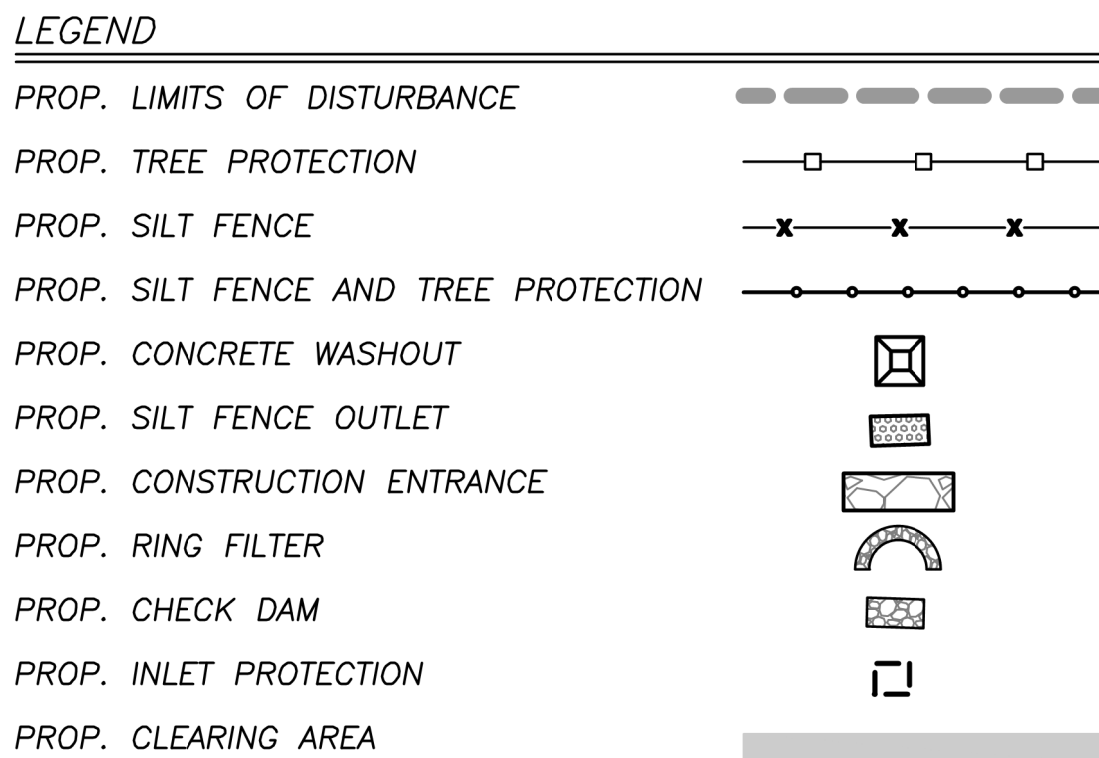


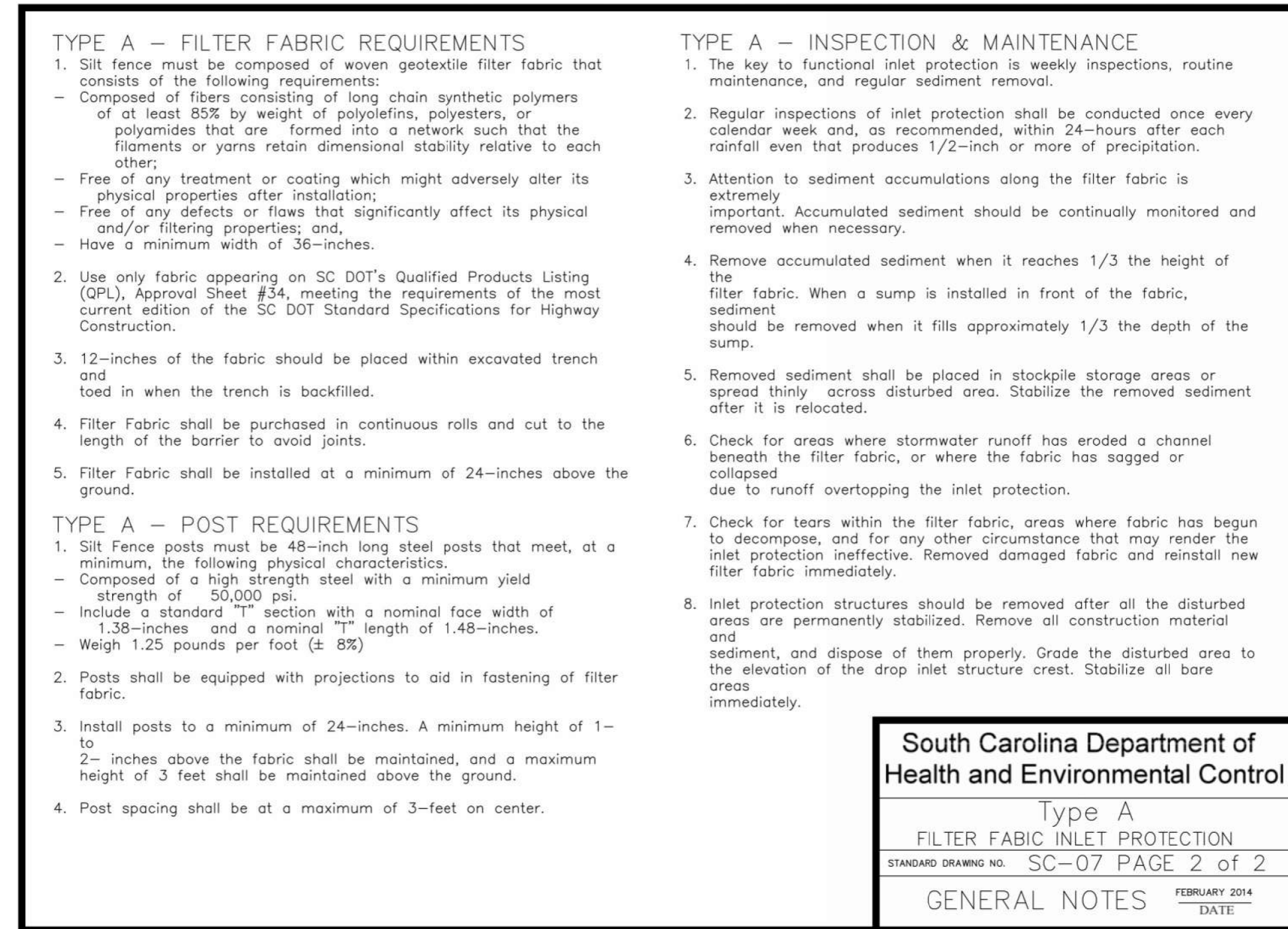
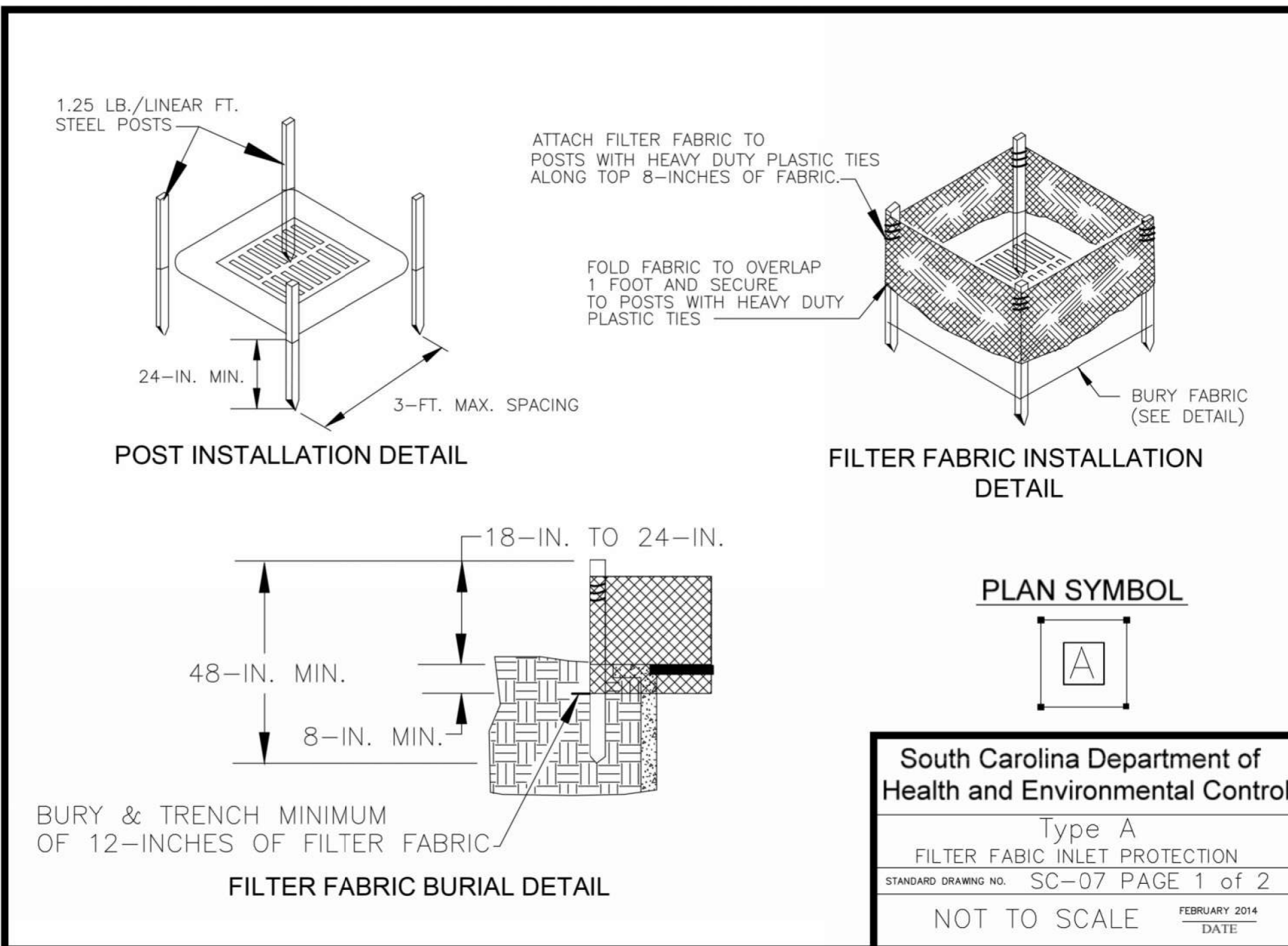
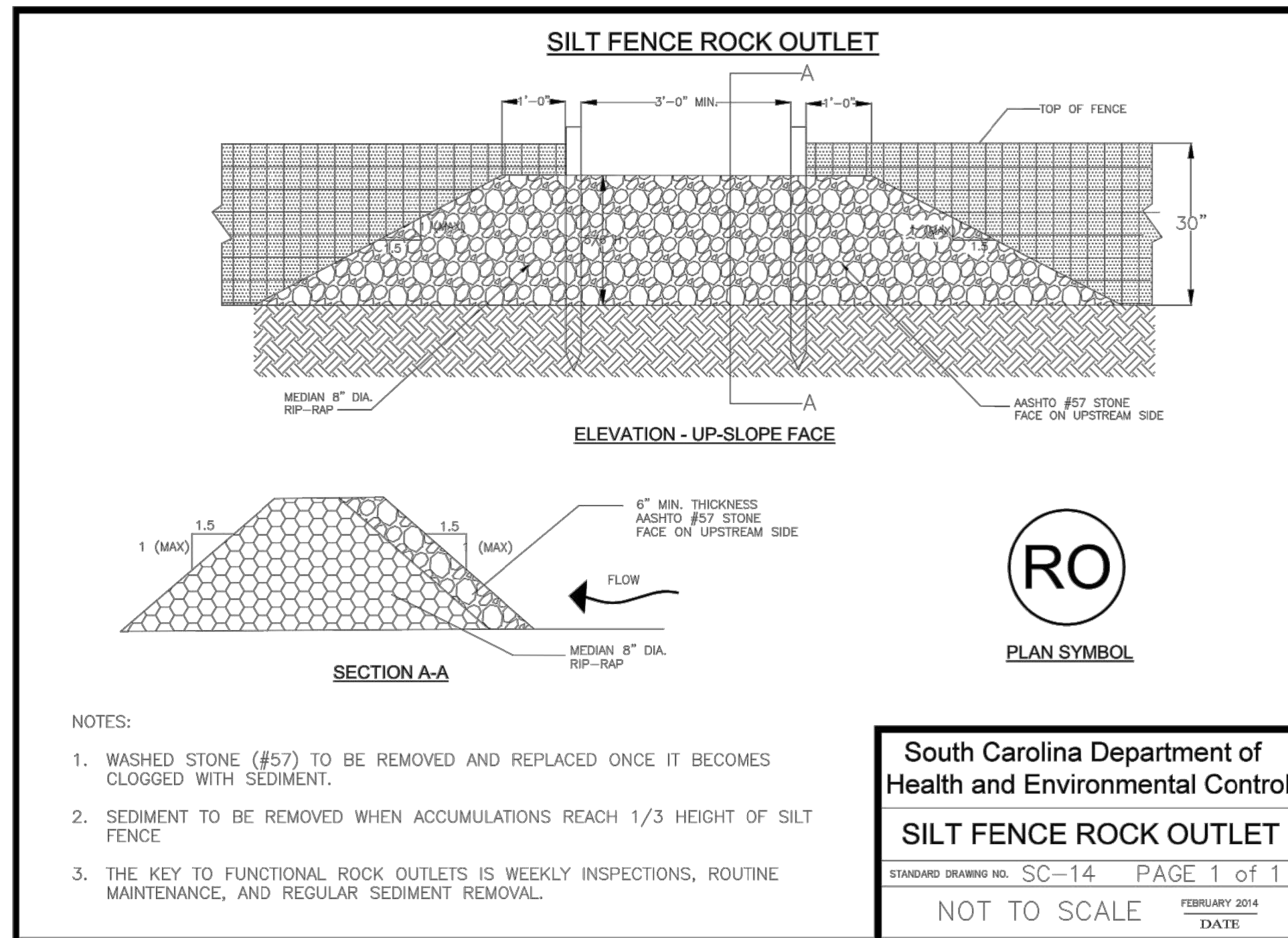
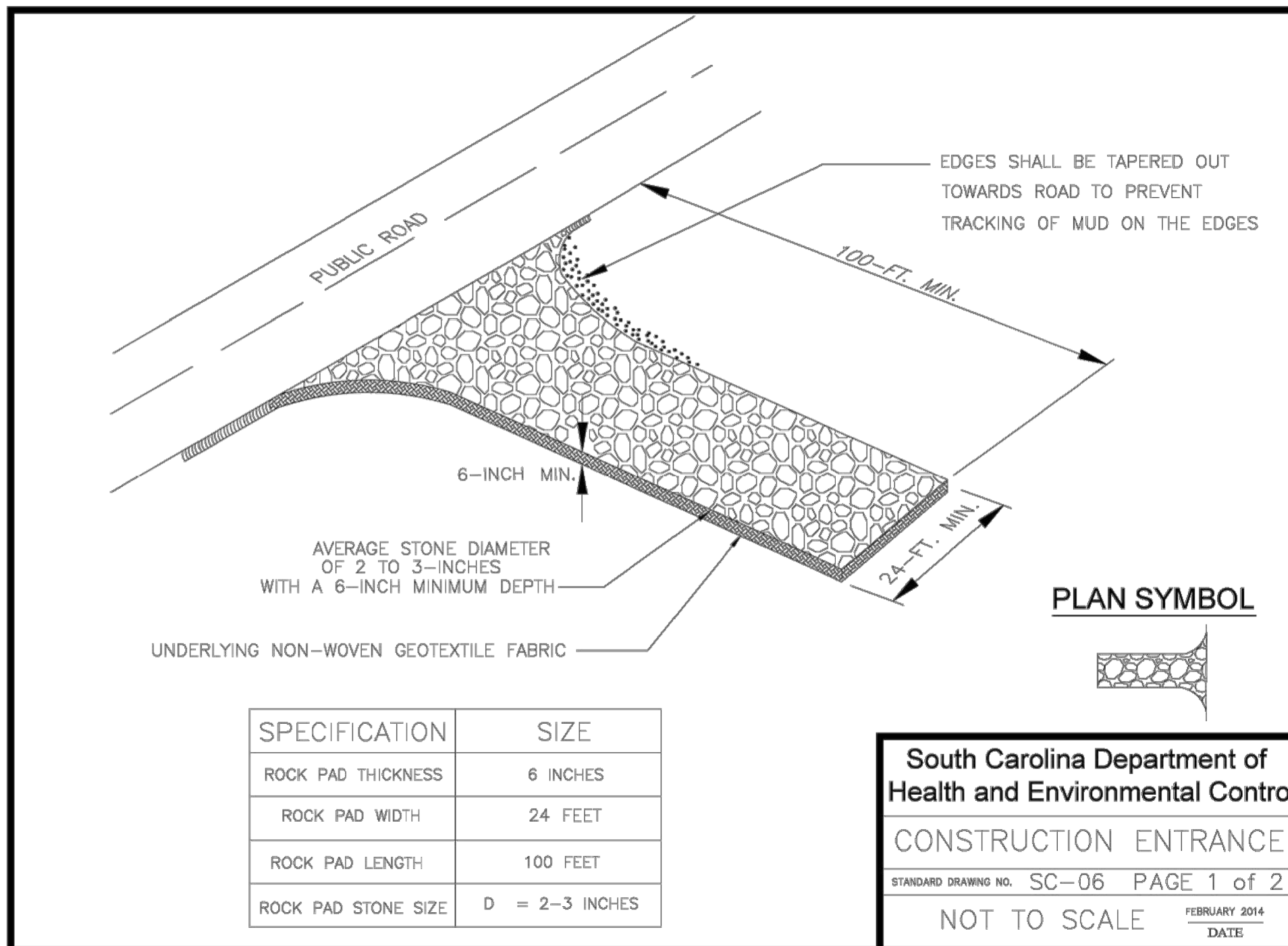
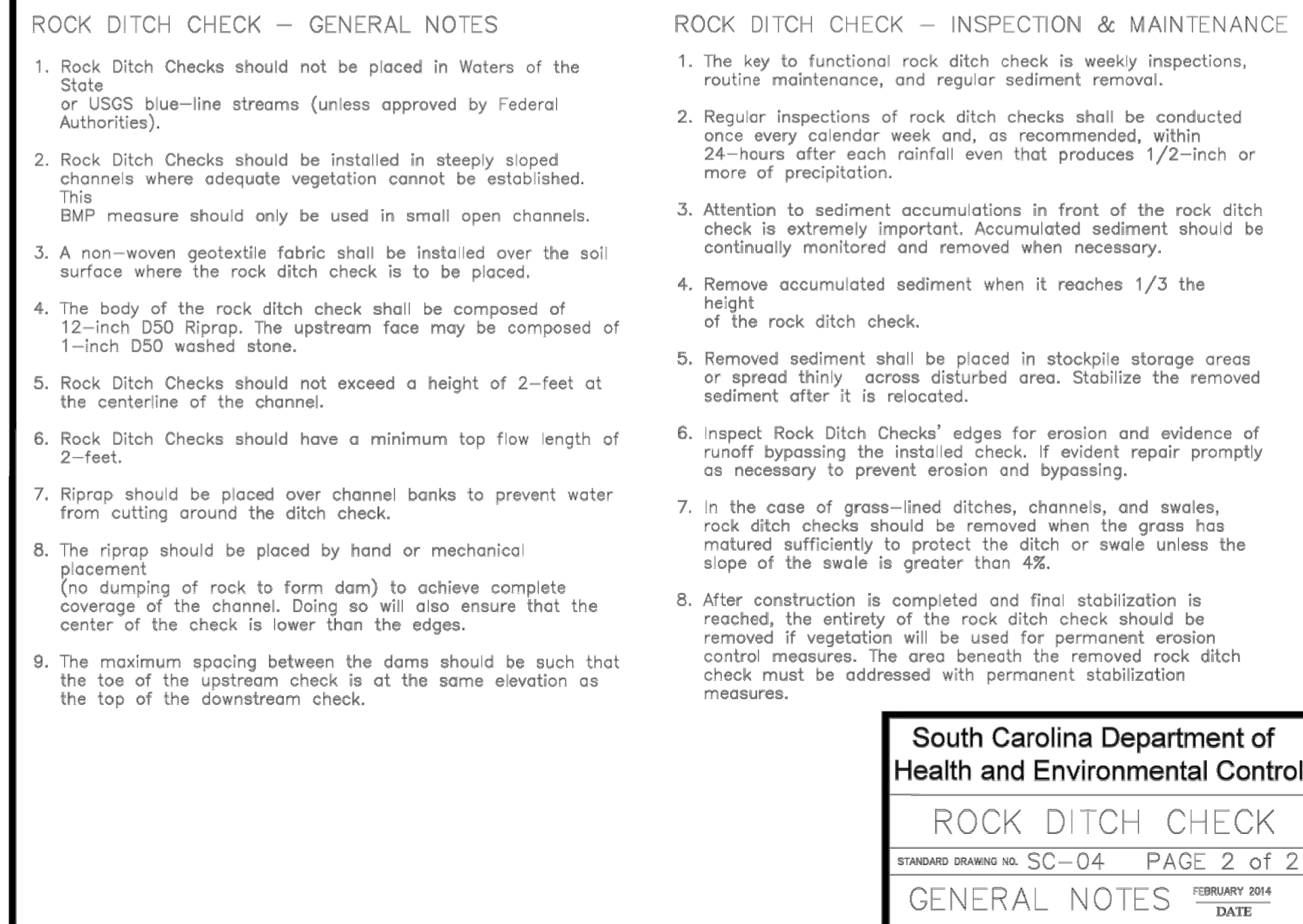
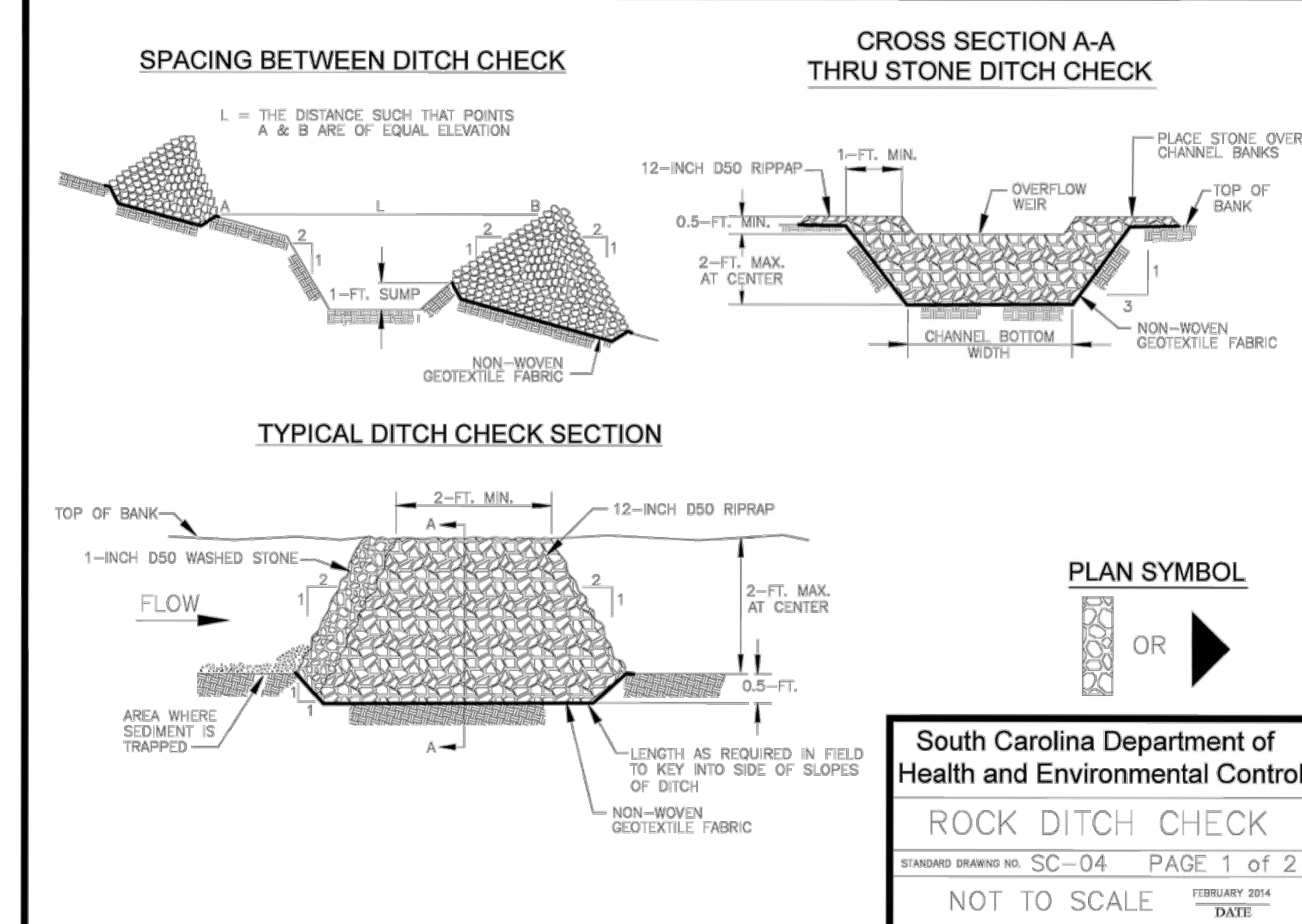
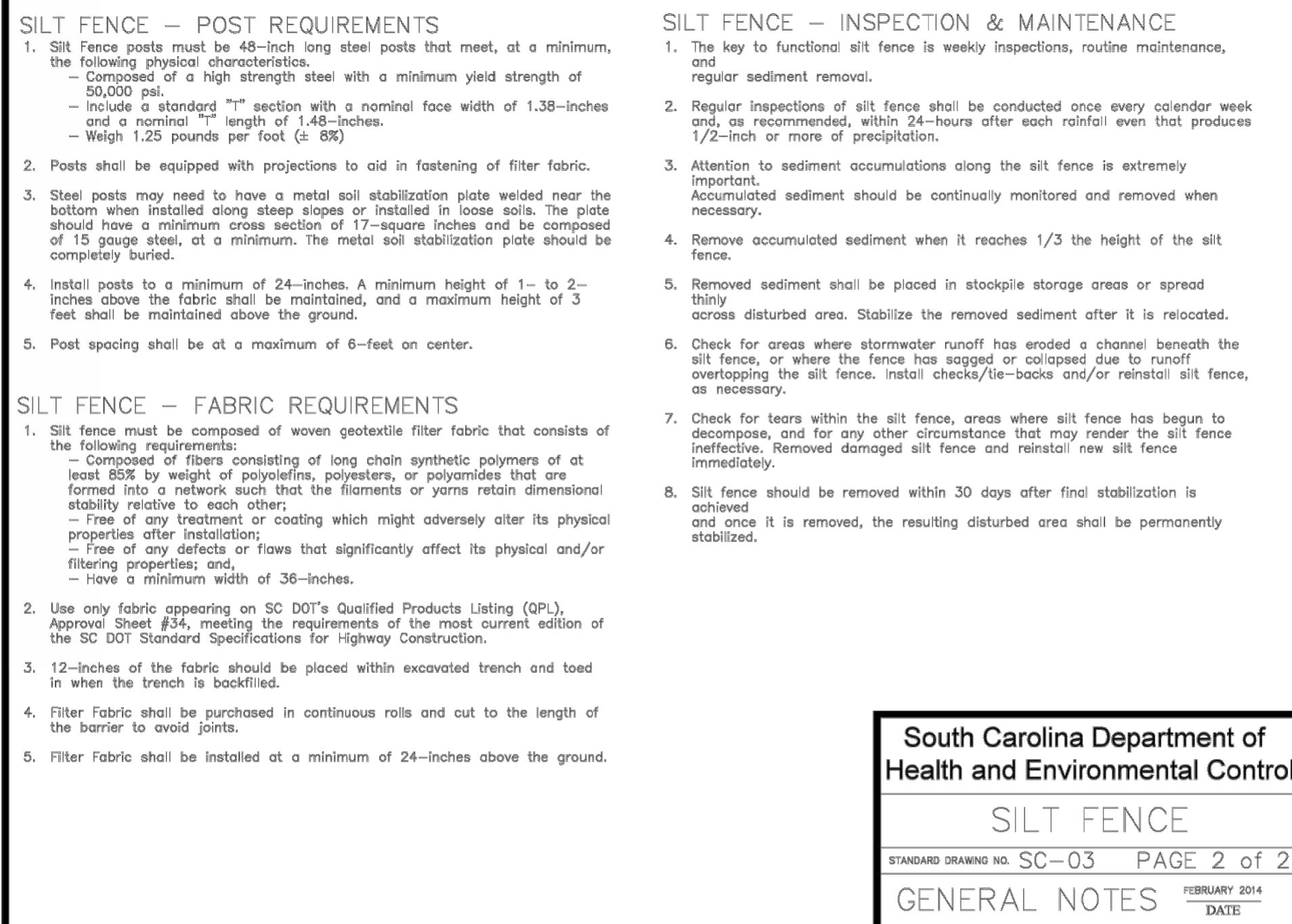
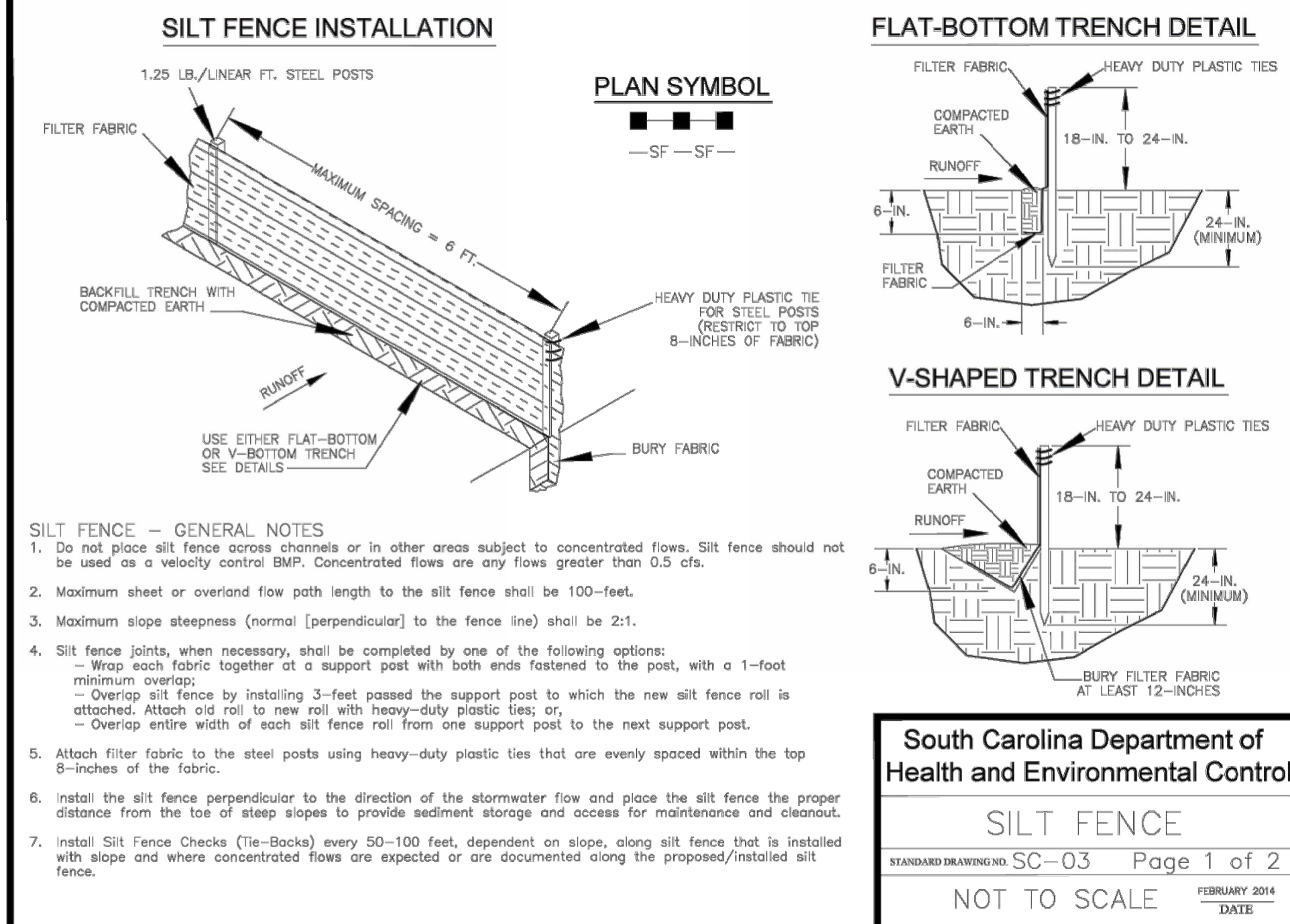
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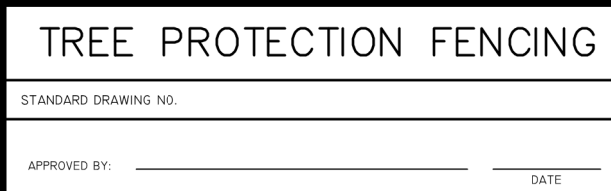
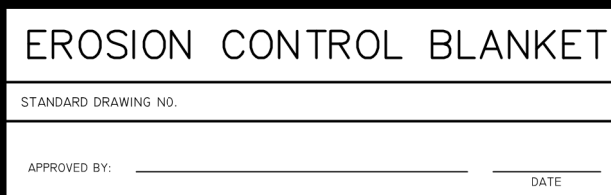
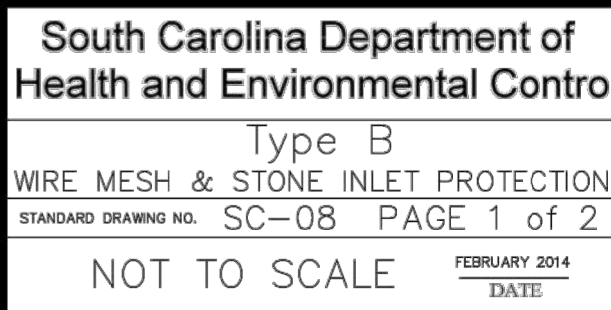


(IN FEET)
1 inch = 10 ft.

- | PROJECT INFORMATION | |
|---------------------|----------|
| PROJECT MANAGER: | BAM |
| DESIGNED BY: | AMM |
| DRAWN BY: | AMM |
| PROJECT NUMBER: | GT35.400 |
| ORIGINAL DATE: | 4/1/2024 |
| SHEET: | |
| C3.0 | |

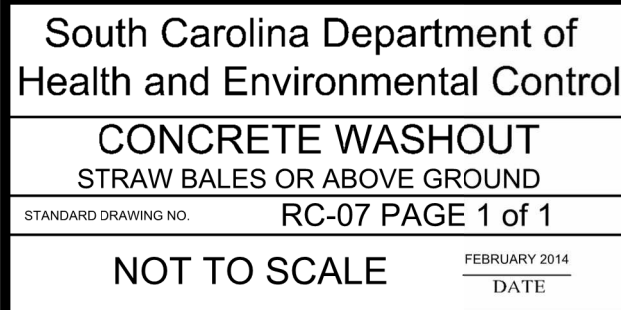






South Carolina Department of Health and Environmental Control	
Type B	
WIRE MESH & STONE INLET PROTECTION	
STANDARD DRAWING NO. SC-08	PAGE 2 of 2
GENERAL NOTES	
FEBRUARY 2014 DATE	

South Carolina Department of Health and Environmental Control	
Type B	
WIRE MESH & STONE INLET PROTECTION	
STANDARD DRAWING NO. SC-08	PAGE 2 of 2
GENERAL NOTES	
FEBRUARY 2014 DATE	



APPROVED

Project No: 20240995

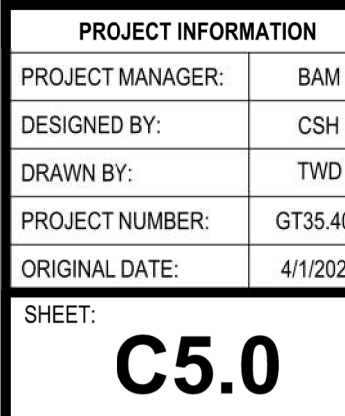
Date: 1/24/2025

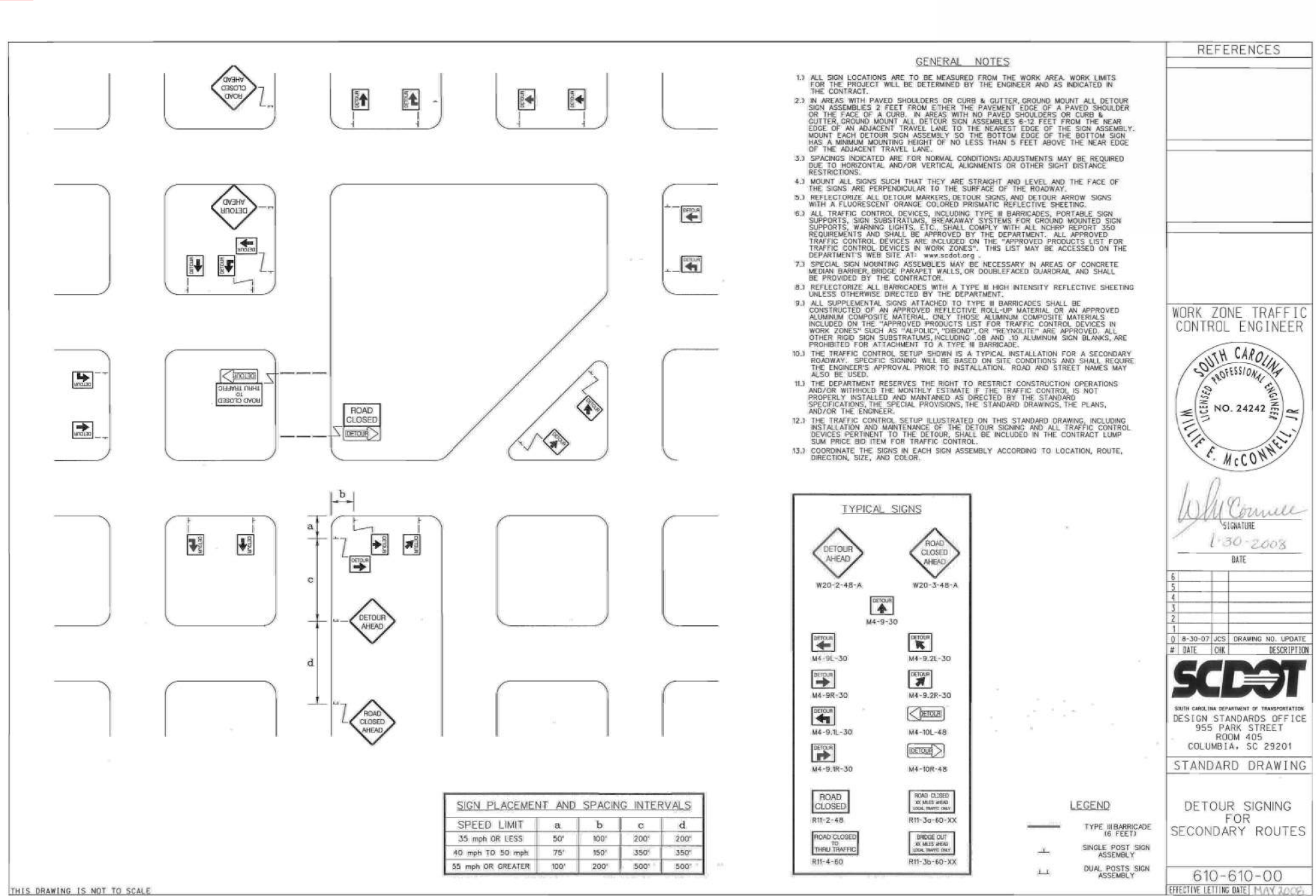
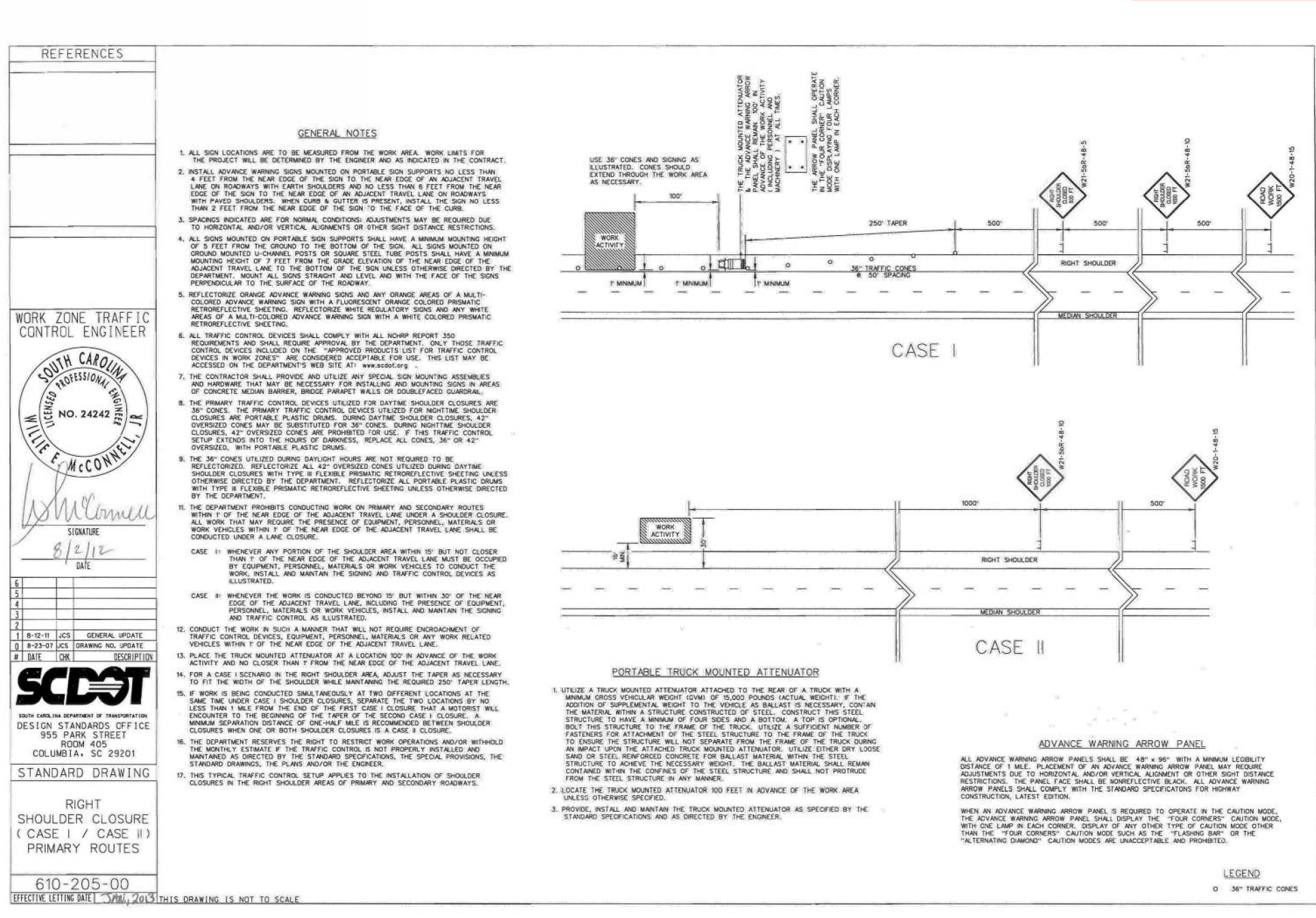
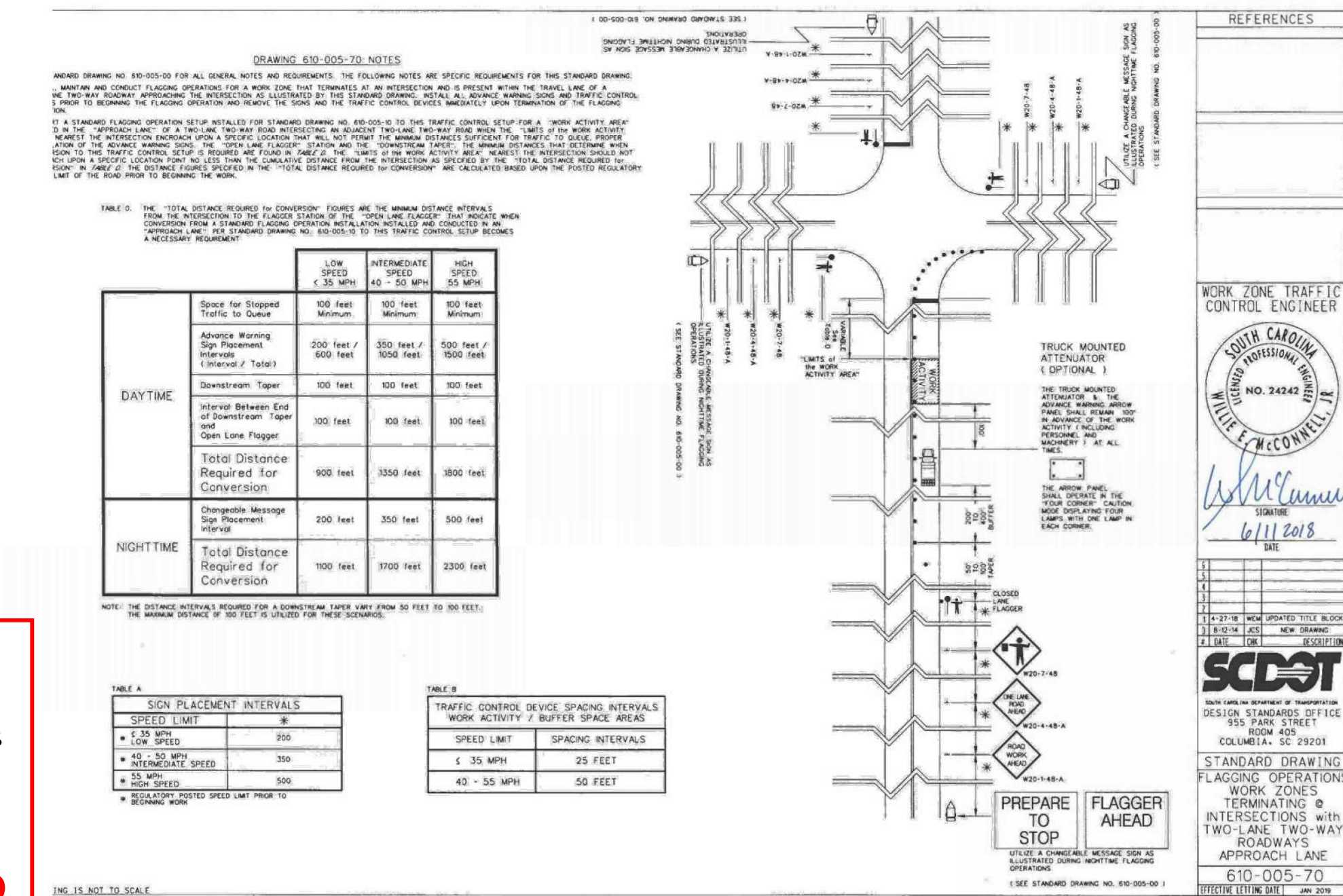
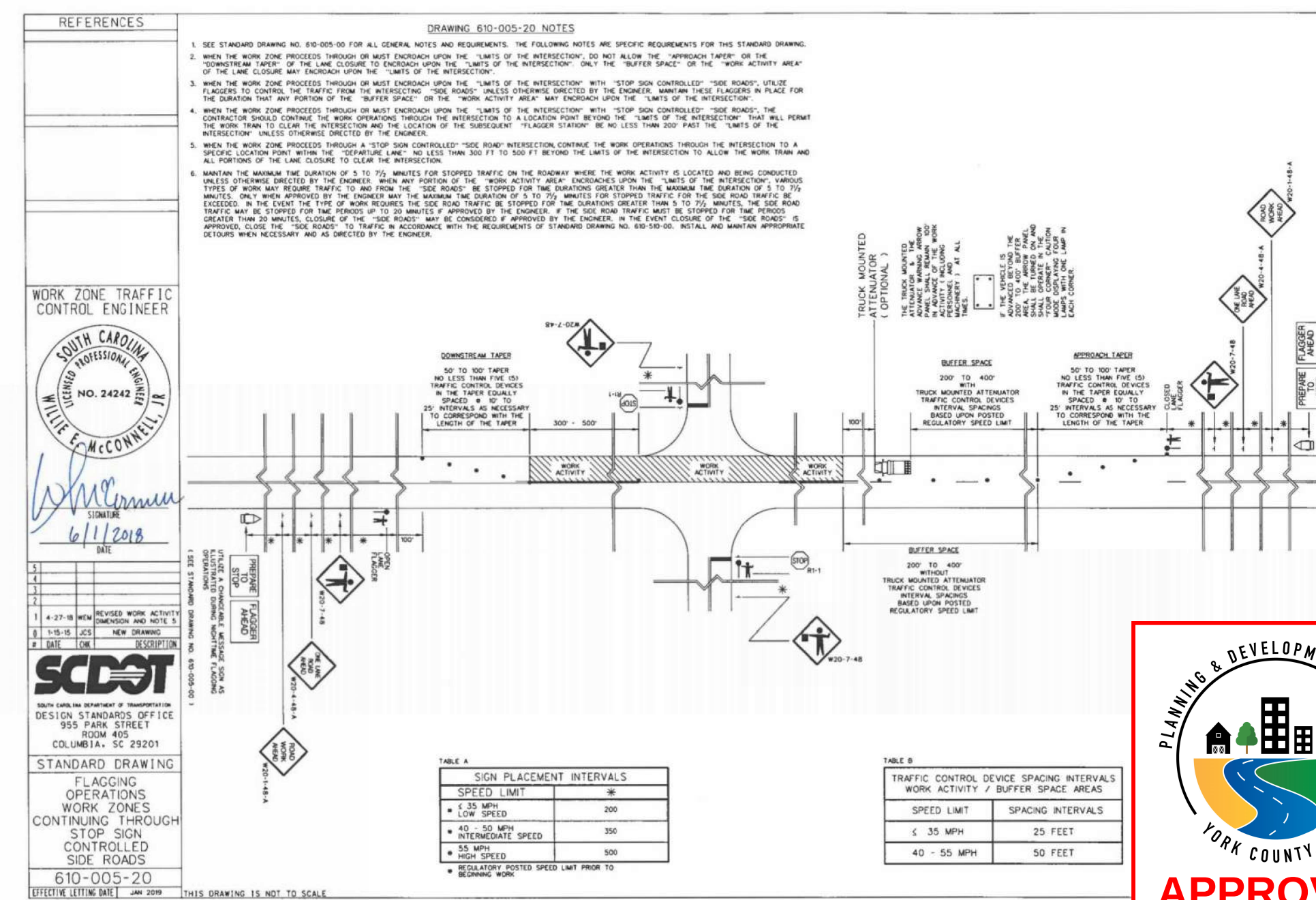
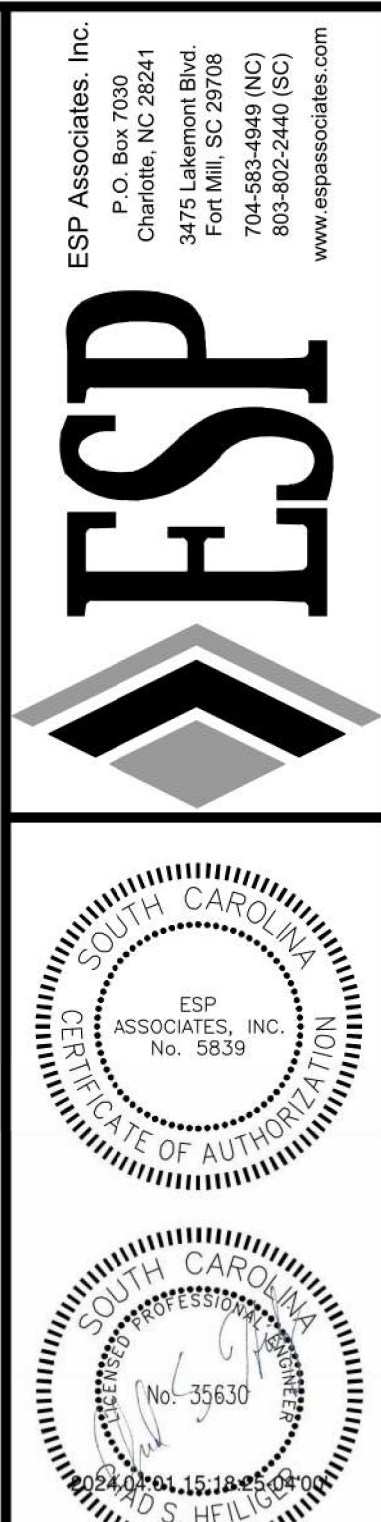
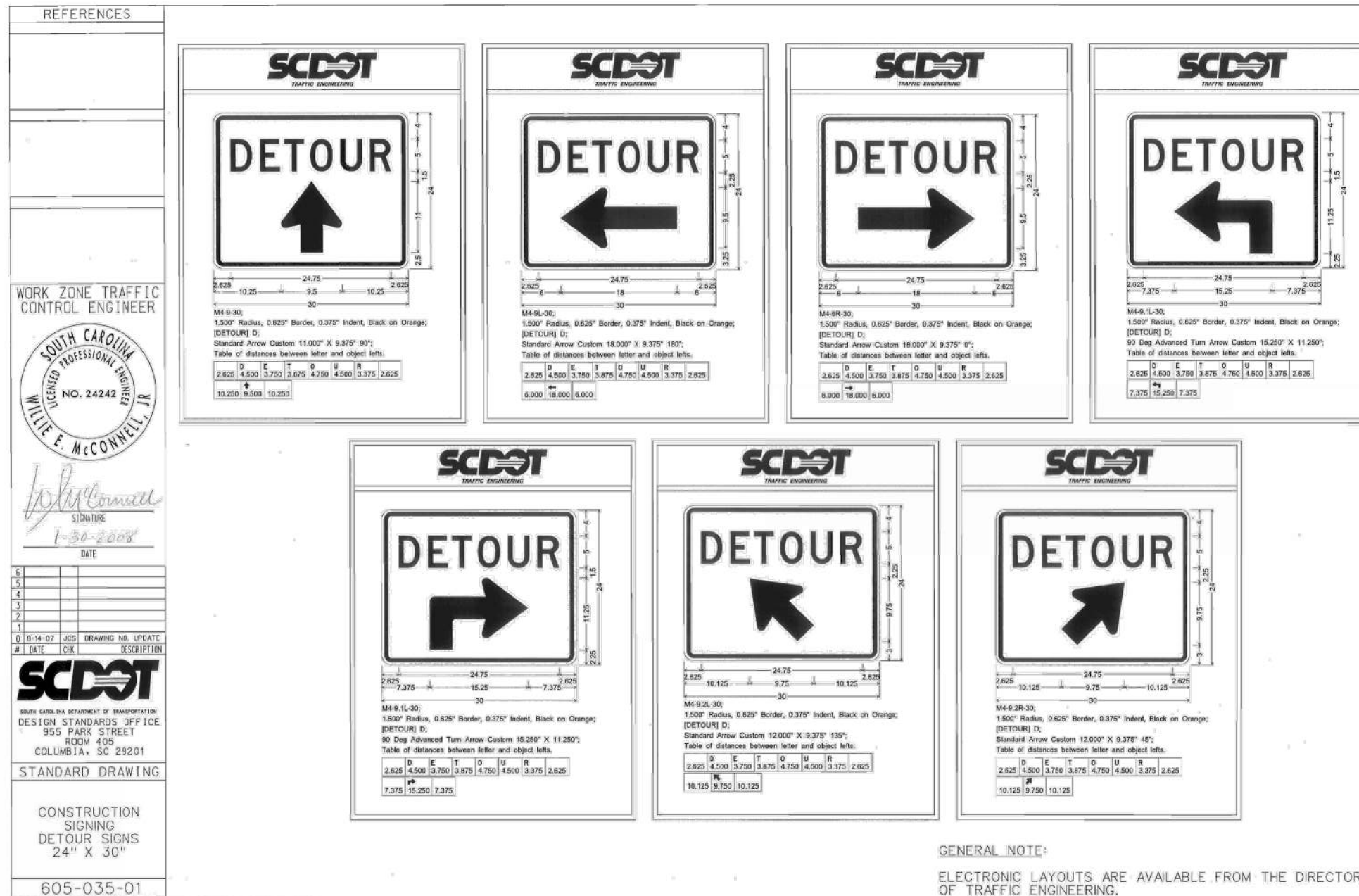
EROSION CONTROL DETAILS (SHEET 2 OF 2)	REGENT PARKWAY SS RELIEF SYSTEM	YORK COUNTY FORT MILL, SC
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PROJECT INFORMATION	
PROJECT MANAGER:	BAM
DESIGNED BY:	CSH
DRAWN BY:	TWD
PROJECT NUMBER:	GT35.400
ORIGINAL DATE:	4/1/2024
SHEET:	

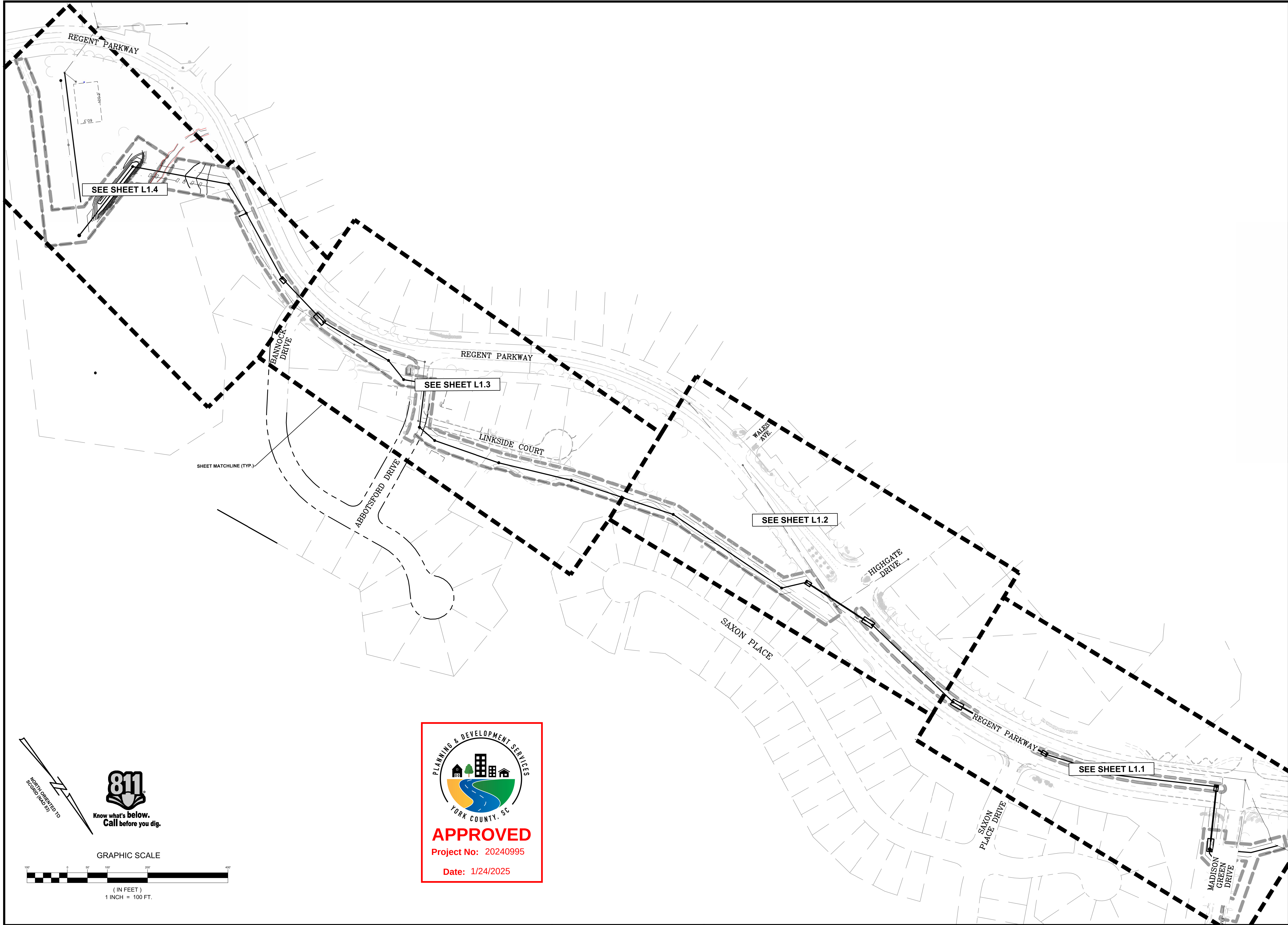
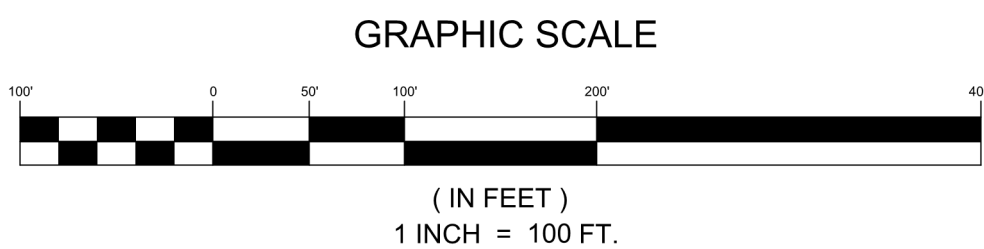
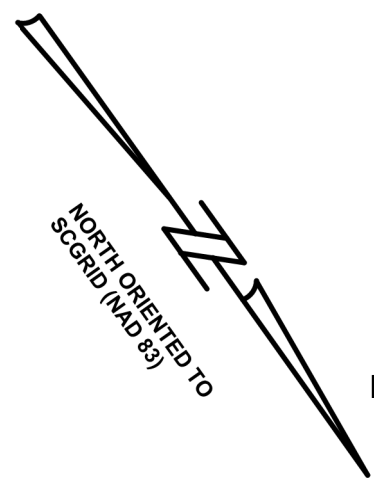
C4.3

Date: 1/24/2025





U:\2018 Projects (G)\GT35 - Regent Parkway\GT35\Regent Parkway LA Plans\Sheets\GT35-LAND.dwg, L1.0, OVERALL LANDSCAPE PLAN, ddesch



ESP Associates, Inc.
P.O. Box 7030
Charlotte, NC 28241
3475 Lakemont Blvd.
Fort Mill, SC 29708
704-553-4949 (NC)
803-802-2440 (SC)
www.espasociates.com

12/16/2024

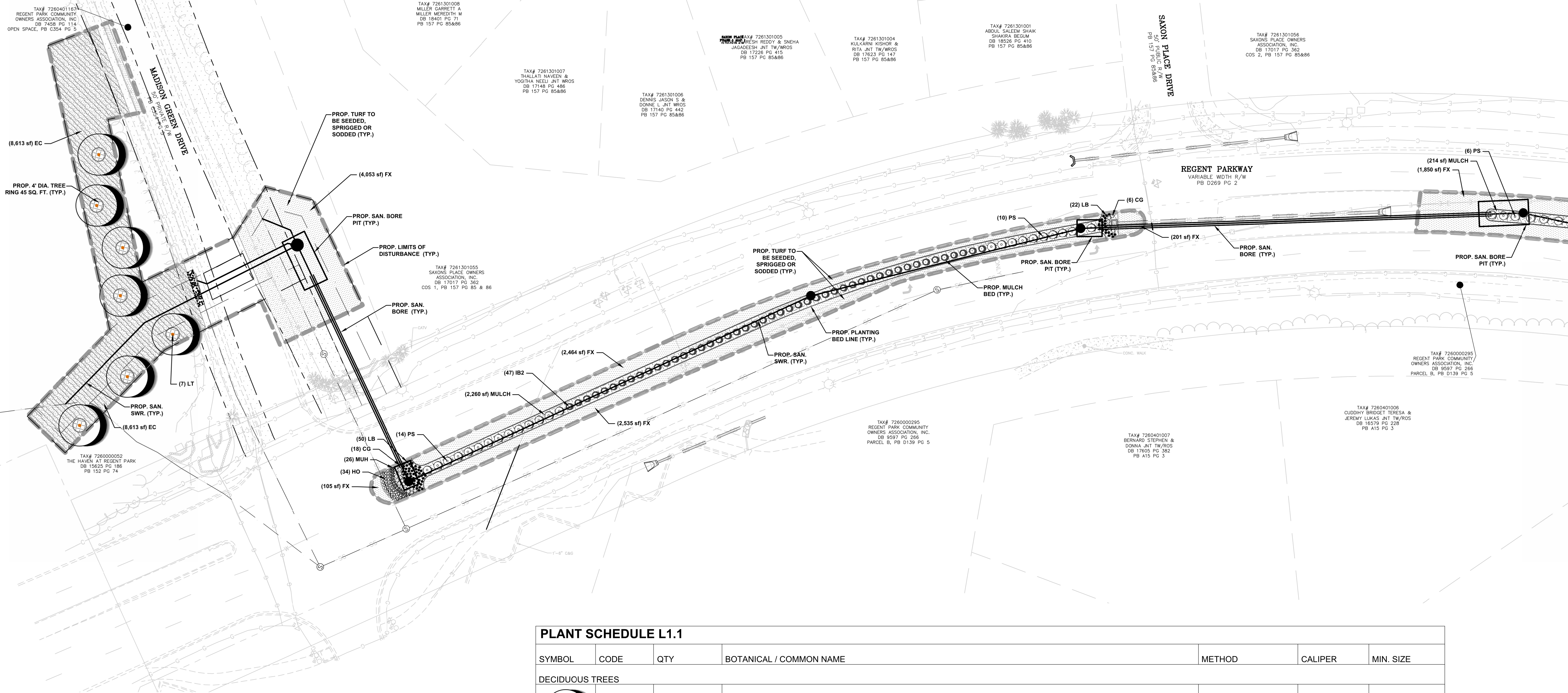
NO.	DATE	REVISION	REV. PER COUNTY COMMENTS	BY	CL
1	12/16/2024				

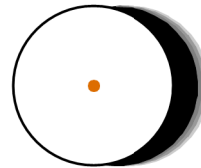
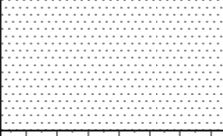
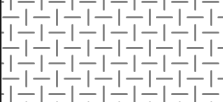
OVERALL LANDSCAPE PLAN

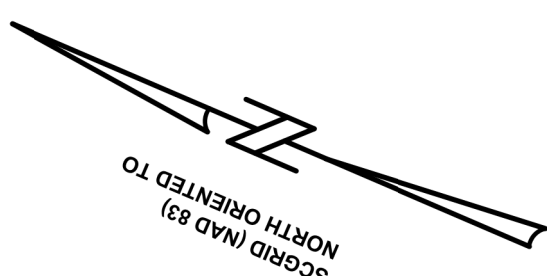
REGENT PARKWAY
SS RELIEF SYSTEM

YORK COUNTY
YORK COUNTY, SC

PROJECT INFORMATION	
PROJECT MANAGER:	MM
DESIGNED BY:	AP
DRAWN BY:	AP
PROJECT NUMBER:	GT35.100
ORIGINAL DATE:	4/01/2024
SHEET:	L1.0



SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	METHOD	CALIPER	MIN. SIZE
DECIDUOUS TREES						
	LT	7	LIRIODENDRON TULIPIFERA / TULIP TREE	2.5" CAL	B&B	MIN. 10-12'
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	METHOD	MIN. HT.	MIN. SPREAD
SHRUBS						
	CG	24	CHAMAECYPARIS PISIFERA 'GOLDEN MOP' / GOLDEN MOP THREADLEAF FALSE CYPRESS	CONT.	3 GAL.	
	IB2	47	ILEX CORNUTA 'BURFORDII' / BURFORD CHINESE HOLLY	CONT.	2FT X 2FT	2FT X 2FT
	PS	30	PRUNUS LAUROCERASUS 'SCHIPKAENSIS' / SCHIPKA LAUREL	CONT.	7 GAL.	
PERENNIALS						
	HO	34	HEMEROCALLIS X 'STELLA DE ORO' / STELLA DE ORO DAYLILY	CONT.	1 GAL.	
	LB	72	LIRIOPE MUSCARI 'BIG BLUE' / BIG BLUE LILYTURF	CONT.	1 GAL.	
	MUH	26	MUHLENBERGIA CAPILLARIS / PINK MUHLY	CONT.	3 GAL.	
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	METHOD	SPACING	MIN. SIZE
GROUND COVERS						
	EC	8,613 SF	ERAGROSTIS CURVULA / WEEPING LOVEGRASS	SEED OR PLUG	SQ. FT.	
	FX	11,384 SF	FESTUCA X 'REBEL SUPREME' / REBEL SUPREME FESCUE	PLUG OR SOD	SQ. FT.	
	MULCH	2,709 SF	MULCH / PINE STRAW MULCH	BALE	SQ. FT.	



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



APPROVED

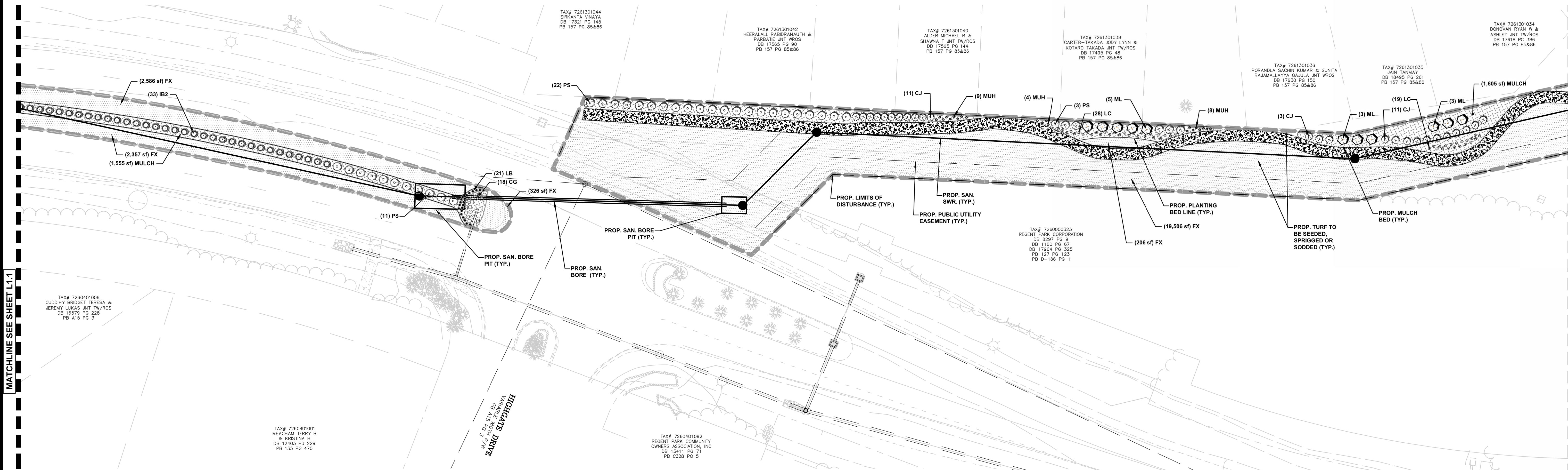
Project No: 20240995

Date: 1/24/2025

GRAPHIC SCALE

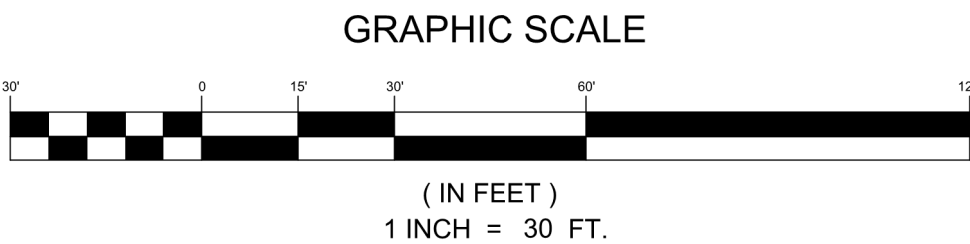
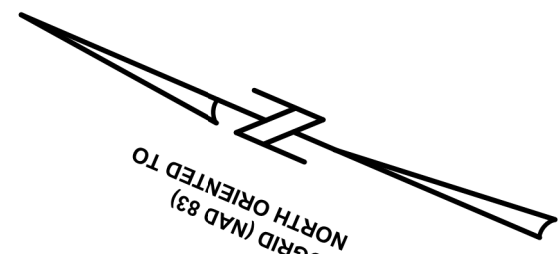


(IN FEET)
1 INCH = 30 FT.



PLANT SCHEDULE L1.2

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	METHOD	CALIPER	MIN. SIZE
TREES						
	ML	11	MAGNOLIA GRANDIFLORA 'LITTLE GEM' / DWARF SOUTHERN MAGNOLIA	B&B	2" CAL.	8' HT.
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	METHOD	SIZE	HEIGHT
SHRUBS						
	CG	18	CHAMAECYPARIS PISIFERA 'GOLDEN MOP' / GOLDEN MOP THREADLEAF FALSE CYPRESS	CONT.	3 GAL.	
	CJ	25	CLEYERA JAPONICA / SAKAKI	CONT.	7 GAL.	
	IB2	33	ILEX CORNUTA 'BURFORDII' / BURFORD CHINESE HOLLY	CONT.	2FT X 2FT	2FT X 2FT
	LC	47	LOROPETALUM CHINENSE 'CAROLINA MIDNIGHT' / CAROLINA MIDNIGHT LOROPETALUM	CONT.	3 GAL.	
	PS	39	PRUNUS LAUROCERASUS 'SCHIPKAENSIS' / SCHIPKA LAUREL	CONT.	7 GAL.	
PERENNIALS						
	LB	21	LIRIOPE MUSCARI 'BIG BLUE' / BIG BLUE LILYTURF	CONT.	1 GAL.	
	MUH	21	MUHLENBERGIA CAPILLARIS / PINK MUHLY	CONT.	3 GAL.	
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	METHOD	-	MIN. SIZE
GROUND COVERS						
	FX	25,077 SF	FESTUCA X 'REBEL SUPREME' / REBEL SUPREME FESCUE	PLUG OR SOD	SQ. FT.	
	MULCH	4,951 SF	MULCH / PINE STRAW MULCH	BALE	SQ. FT.	

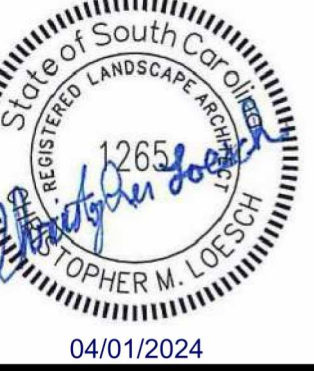
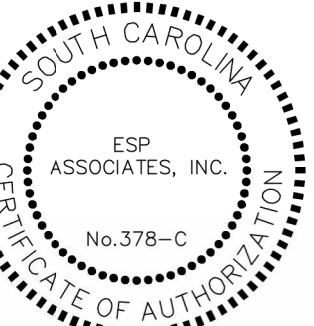


LANDSCAPE PLAN ENLARGEMENTS (SHEET 2 OF 4)

REGENT PARKWAY SS RELIEF SYSTEM

YORK COUNTY, SC

ESP Associates, Inc.
P.O. Box 7030
Charlotte, NC 28241
3475 Lakemont Blvd.
Fort Mill, SC 29708
704-553-4949 (NC)
803-802-2440 (SC)
www.espasociates.com

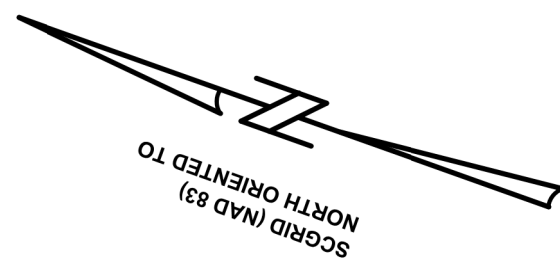


NO.	DATE	REVISION	BY

PROJECT INFORMATION	
PROJECT MANAGER:	MM
DESIGNED BY:	AP
DRAWN BY:	AP
PROJECT NUMBER:	GT35.100
ORIGINAL DATE:	12/13/2022

SHEET: **L1.2**

U:\2018 Projects (G)\GT35 - Regent Parkway\GT35\Regent Parkway LA Plans\Sheets\GT35-LAND.dwg, L1.3, LANDSCAPE PLAN ENLARGEMENTS (SHEET 3 OF 4), dorsch



GRAPHIC SCALE



(IN FEET)
1 INCH = 30 FT.



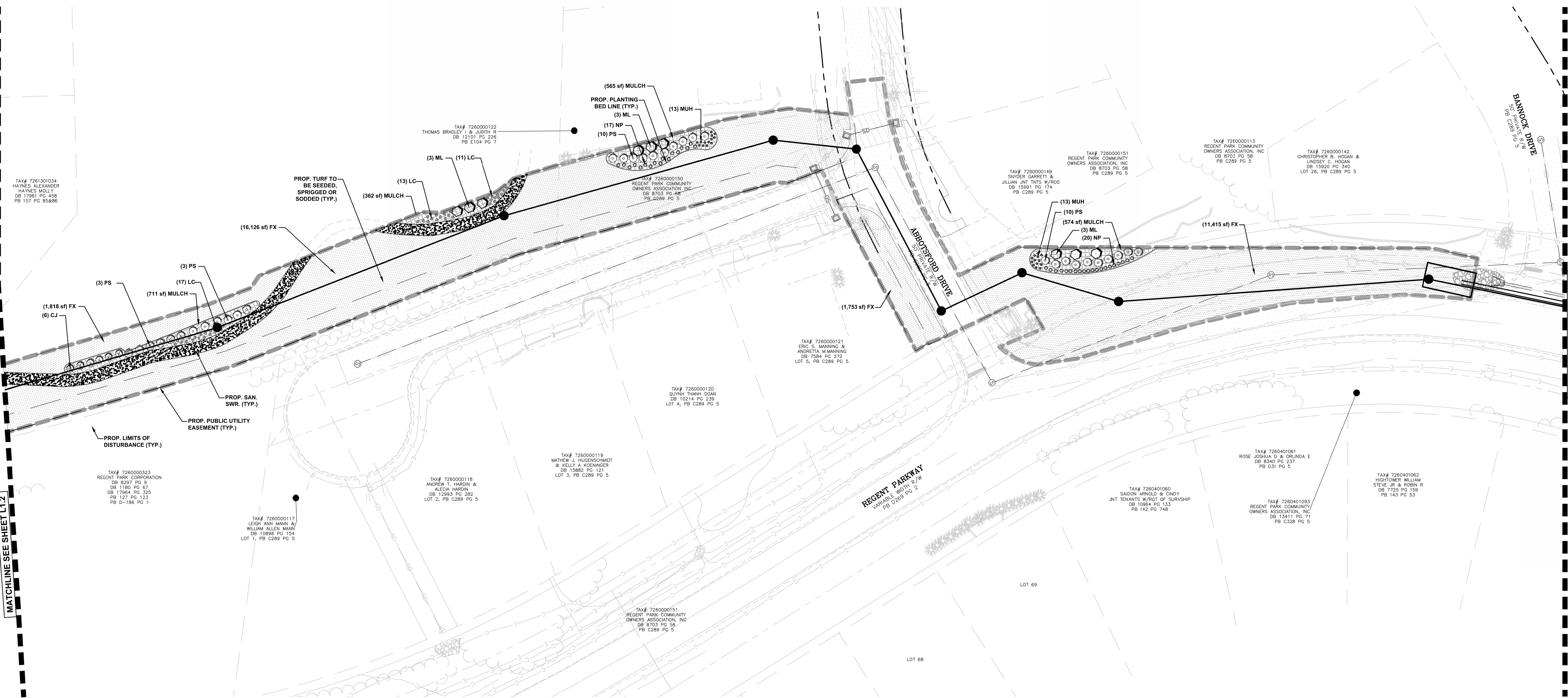
APPROVED

Project No: 20240995

Date: 1/24/2025

PLANT SCHEDULE L1.3

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	METHOD	CALIPER	MIN. SIZE
TREES						
	ML	9	MAGNOLIA GRANDIFLORA 'LITTLE GEM' / DWARF SOUTHERN MAGNOLIA	B&B	2" CAL.	8' HT.
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	METHOD	MIN. HT.	MIN. SPREAD
SHRUBS						
	CJ	6	CLEYERA JAPONICA / SAKAKI	CONT.	7 GAL.	
	LC	41	LOROPETALUM CHINENSE 'CAROLINA MIDNIGHT' / CAROLINA MIDNIGHT LOROPETALUM	CONT.	3 GAL.	
	NP	37	NANDINA DOMESTICA 'FIRE POWER' / FIREPOWER NANDINA	CONT.	3 GAL.	
	PS	32	PRUNUS LAUROCERASUS 'SCHIPKAENSIS' / SCHIPKA LAUREL	CONT.	7 GAL.	
PERENNIALS						
	MUH	26	MUHLENBERGIA CAPILLARIS / PINK MUHLY	CONT.	3 GAL.	
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	METHOD	SPACING	MIN. SIZE
GROUND COVERS						
	FX	31,169 SF	FESTUCA X 'REBEL SUPREME' / REBEL SUPREME FESCUE	PLUG OR SOD	SQ. FT.	
	MULCH	2,212 SF	MULCH / PINE STRAW MULCH	BALE	SQ. FT.	



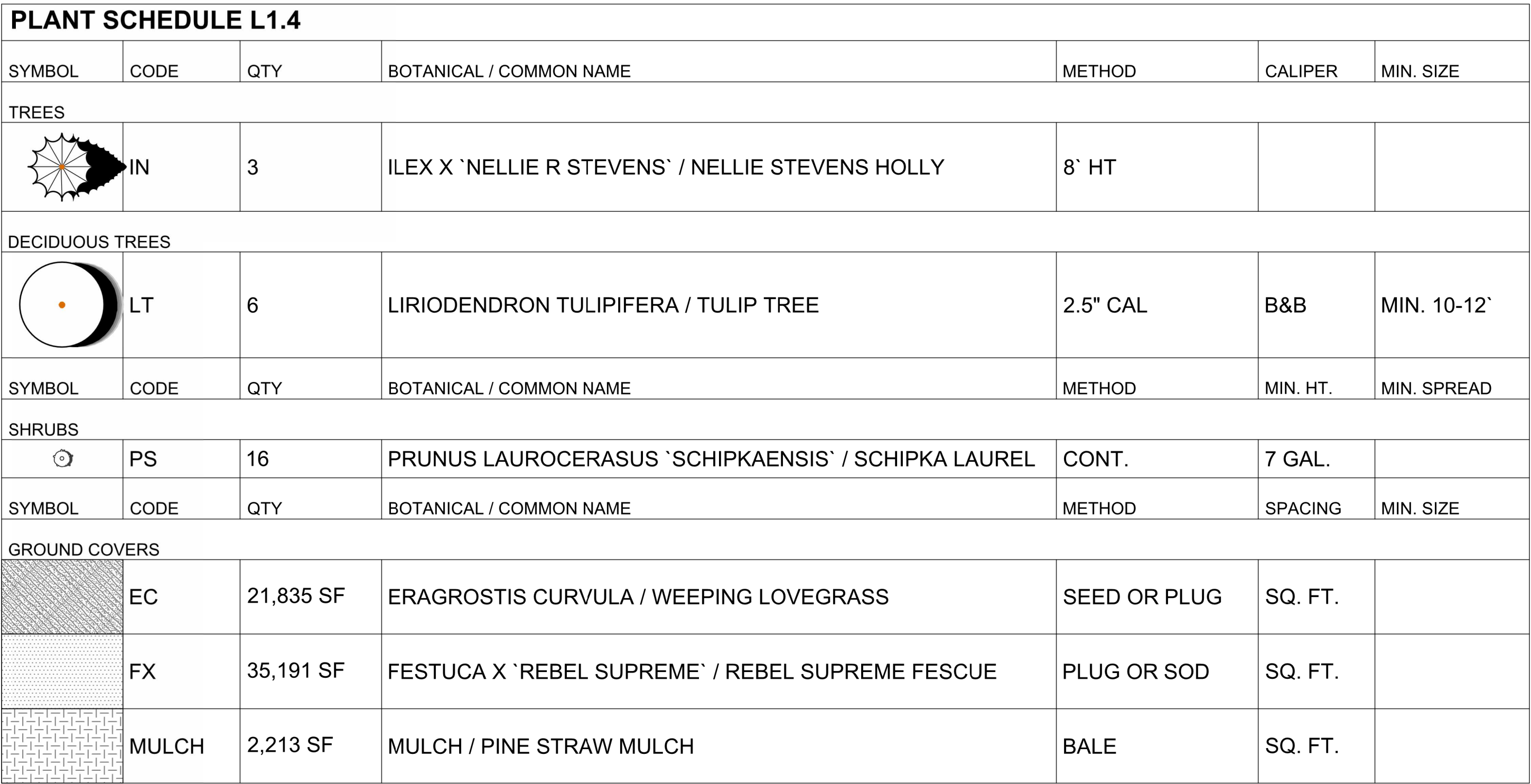
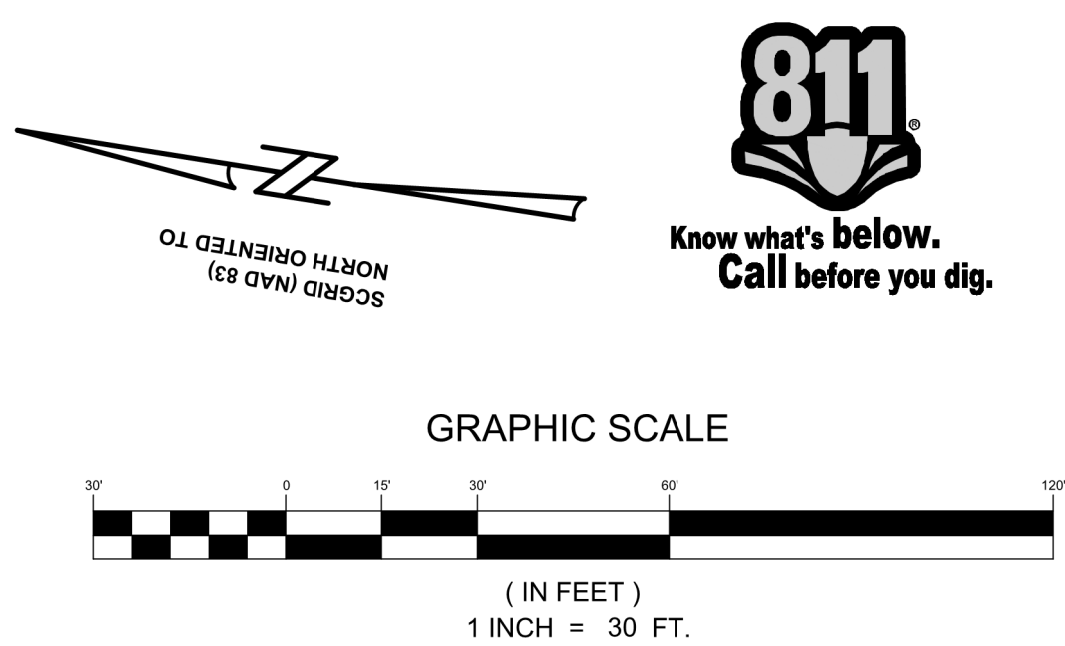
ESP Associates, Inc.
P.O. Box 7030
Charlotte, NC 28241
3475 Lakemont Blvd.
Fort Mill, SC 29708
704-553-4949 (NC)
803-802-2440 (SC)
www.espassociates.com

LANDSCAPE PLAN
ENLARGEMENTS (SHEET 3 OF 4)
REGENT PARKWAY
SS RELIEF SYSTEM
YORK COUNTY

YORK COUNTY, SC

PROJECT INFORMATION
PROJECT MANAGER: MM
DESIGNED BY: AP
DRAWN BY: AP
PROJECT NUMBER: GT35.100
ORIGINAL DATE: 4/01/2024
SHEET:

L1.3



ESP Associates, Inc. P.O. Box 1000 Chapel Hill, NC 27514 34751 Lakemont Blvd Fort Mill, SC 29708 704-583-0948 (NC) 803-802-5440 (SC) www.espassociates.com   12/16/2024		ESP Associates, Inc. 12/16/2024	
BY		CL	
REVISION		REV. PER COUNTY COMMENTS	
1		12/16/2024	
LANDSCAPE PLAN ENLARGEMENTS (SHEET 4 OF 4)		YORK COUNTY, SC	
REGENT PARKWAY SS RELIEF SYSTEM		YORK COUNTY, SC	
PROJECT INFORMATION			
PROJECT MANAGER:		MM	
DESIGNED BY:		AP	
DRAWN BY:		AP	
PROJECT NUMBER:		GT35-100	
ORIGINAL DATE:		4/01/2024	
SHEET: L1.4			

U:\2018 Projects (G)\GT35 - Regent Parkway\GT35\Regent Parkway\LA Plans\Sheet\GT35-LAND.dwg, L1.10, OVERALL PLANT LIST, dconch

LANDSCAPE NOTES

1. SIZE, QUALITY AND OVERALL HEALTH OF ALL PLANT MATERIAL USED SHALL CONFORM TO THE LATEST EDITION OF "USA STANDARDS FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
2. PROJECT BASE ITEMS FOR ALL PLANTING PLANS ARE CONSIDERED PRELIMINARY.
3. CONTRACTOR SHALL MULCH ALL SHRUB BEDS WITH PINE STRAW MULCH.
4. CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON PLANS. QUANTITIES ARE FOR CONVENIENCE ONLY. IF THERE IS A DISCREPANCY BETWEEN THE PLANTING PLAN AND THE PLANTING SCHEDULE, THE PLAN SHALL PREVAIL.
5. ALL CONSTRUCTION MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM WITH YORK COUNTY STANDARDS.
6. CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO INSTALLATION AND NOTIFY ESP ASSOCIATES IMMEDIATELY IF FIELD CONDITIONS WARRANT ADJUSTMENT OF PLANT MATERIALS.
7. COORDINATE LANDSCAPE INSTALLATION WITH ANY IRRIGATION CONSTRUCTION. IRRIGATION IS TO BE DESIGNED AND INSTALLED BY OTHERS, AND MIGHT CAUSE ADJUSTMENTS TO THE PLANT LOCATIONS. IRRIGATION DESIGN AND LOCATION IS NOT INCLUDED IN THE PLANTING PLAN.
8. ALL AREAS NOT MULCH BEDS OR PAVED TO BE BERMUDA SOD OR GRASSED AS DIRECTED BY OWNER.
9. LARGE MATURING TREES MUST BE A MINIMUM 20 FEET FROM OVERHEAD DISTRIBUTION OR TRANSMISSION LINES. IF TREES CONFLICT WITH POWER LINES OR SIGNS NOTIFY PROPERTY OWNER TO RESOLVE BEFORE PLANTING.
10. TOPSOIL SHALL BE PROVIDED BY LANDSCAPE CONTRACTOR AND USED FOR BACKFILLING ALL PITS FOR PLANTS. DEPTH OF TOPSOIL MINIMUM OF 2" FOR ALL TREE PLANTINGS. AVERAGE TOPSOIL MIXTURE SHALL CONSIST OF 3 PARTS GOOD GARDEN SOIL, ½ PART PEAT MOSS, ½ PART MANURE OR BONE MEAL, AND 1 POUND LIME PER CUBIC FOOT.
11. CONTRACTOR IS RESPONSIBLE FOR THE VIABILITY OF ALL PLANT MATERIAL FOR A MINIMUM PERIOD OF ONE YEAR AFTER ACCEPTANCE FROM OWNER.
12. IN AREAS WHERE CONSTRUCTION GRAVEL IS EMBEDDED IN THE SOIL, CONTRACTOR SHALL REMOVE CONTAMINATED SOIL TO A DEPTH OF 24" AND FILL WITH CLEAN TOPSOIL. CONTRACTOR SHALL IMPORT CLEAN TOPSOIL AT NO CHARGE TO OWNER IF REQUIRED TO FILL THESE EXCAVATIONS.
13. CONTRACTOR SHALL REPAIR (RESEED OR SOD) ANY LAWN AREAS DAMAGED DUE TO PLANT MATERIAL INSTALLATION.
14. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT ALL UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION AND SHALL NOT BE IMPACTED BY PLANTINGS. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE THAT MAY OCCUR TO EXISTING UTILITIES.
15. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES, USING FLAG MEN, ETC. AS NECESSARY TO INSURE PUBLIC SAFETY.
16. CONTRACTOR RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS BEFORE STARTING SITE WORK.
17. PROPERTY OWNERS MUST FOLLOW A ROUTINE SCHEDULE OF WATERING, FERTILIZATION, PEST CONTROL AND PRUNING. TREES WHICH ARE DETERMINED TO BE DEAD, DISEASED, DAMAGED OR MALNOURISHED SHALL BE CORRECTED.
18. ALL LANDSCAPING TO BE INSTALLED OUTSIDE OF ALL SIGHT TRIANGLES AND/OR SIGHT DISTANCE LINES. CONTRACTOR RESPONSIBLE FOR LOCATING ALL SIGHT TRIANGLES AND SIGHT DISTANCE LINES PRIOR TO INSTALLATION.
19. ALL STRAPPING AND TOP 2/3 OF WIRE BASKET MUST BE CUT AWAY AND REMOVED FROM ROOT BALL PRIOR TO BACKFILLING PLANTING PIT. REMOVE TOP 1/3 OF THE BURLAP FROM ROOT BALL.
20. LARGE MATURING TREES MAY NOT BE PLANTED WITHIN 20' OF OVERHEAD DISTRIBUTION OR TRANSMISSION LINES. IF TREES CONFLICT WITH POWER LINES OR SIGNS, NOTIFY LANDSCAPE ARCHITECT BEFORE PLANTING.
21. ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES. PLANT 10' FROM ALL UNDERGROUND UTILITIES (SEWER AND STORM DRAINAGE, GAS, WATER, PHONE, AND ELECTRICAL LINES.)
22. SITE LIGHTING SHALL BE PLACED AS TO AVOID CONFLICTS WITH TREE PLANTING AREAS. SITE LIGHTING PLAN TO BE PROVIDED BY OTHERS.
23. THE AREA OF ANY EASEMENTS (WATER, SEWER, UTILITY, ETC.) THAT PASS THROUGH TREE SAVE AREAS CANNOT BE COUNTED TOWARD THE REQUIRED TREE SAVE REQUIREMENT.

LANDSCAPE INSTALLATION NOTES:

1. FIELD ADJUSTMENTS TO PLANT MATERIAL TO BE MADE AS NEEDED BY OWNER OR OWNER'S REPRESENTATIVE. FIELD ADJUST PLANTS TO ACCOMMODATE SEWER CLEANOUTS AND ENSURE ACCESS FOR MAINTENANCE.
2. SIZE, QUALITY AND OVERALL HEALTH OF ALL PLANT MATERIAL USED SHALL CONFORM TO THE LATEST EDITION OF "USA STANDARDS FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
3. CALIPER SPECIFICATIONS INDICATED ON THE PLANT SCHEDULE SHALL TAKE PRECEDENCE OVER HEIGHT.
4. PLANTS SHALL BE COVERED DURING TRANSPORT TO PREVENT WIND DAMAGE. COVERING SHALL BE REMOVED IMMEDIATELY UPON ARRIVAL ON SITE. ROOT BALLS SHALL BE THOROUGHLY WATERED IMMEDIATELY UPON ARRIVAL ON SITE AND THEN REGULARLY AS NEEDED. IF PLANTS ARE NOT INSTALLED IMMEDIATELY THEY SHALL BE STORED IN A PROTECTED AREA OUT OF DIRECT SUNLIGHT AND AWAY FROM HOT SURFACES. IF POSSIBLE, AND ROOT BALLS SHALL BE COVERED WITH MULCH.
5. PLANTS SHALL BE TRANSPORTED BY LIFTING FROM BOTTOM OF ROOT BALL ONLY.
6. CONTRACTOR SHALL REMOVE ALL LUMPS OF CLAY, STONES OVER 1" IN DIAMETER AND ALL CONSTRUCTION DEBRIS INCLUDING GRAVEL, ROOTS, LIMBS AND OTHER DELETERIOUS MATTER WHICH WOULD BE HARMFUL OR PREVENT PROPER ESTABLISHMENT AND/OR MAINTENANCE OF LAWN AND PLANTING AREAS.
7. IN LANDSCAPE AREAS WHERE ASPHALT IS REMOVED FOR PLANTING BEDS OR WHERE CONSTRUCTION GRAVEL IS EMBEDDED IN THE SOIL, CONTRACTOR SHALL REPLACE CONTAMINATED SOIL TO A DEPTH OF 2" PRIOR TO PLANTING INSTALLATION ALL PLANTING BEDS ARE TO BE TILED AT A MINIMUM OF 1" DEPTH AND RECEIVE AN AMENDED TOPSOIL MIXTURE APPROPRIATE FOR GOOD PLANT GROWTH AND ADEQUATE DRAINAGE. RECOMMENDED SOIL AMENDMENTS AND SOIL COMPOSITE SHALL BE BASED UPON RECOMMENDATION FROM SOIL TESTS. A MINIMUM OF ONE SOIL TEST IS REQUIRED FOR THIS SITE.
8. REFER TO TREE PLANTING DETAILS FOR INSTALLATION PROCEDURES AND REQUIREMENTS.
9. CONTRACTOR SHALL MULCH SHRUB BEDS AND TREES WITH TRIPLE SHREDDED HARDWOOD MULCH AS SPECIFIED IN LANDSCAPE PLAN.
10. ALL PLANT BEDS ARE TO RECEIVE WEED INHIBITOR OF PREEM® OR APPROVED EQUAL.
11. CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON PLANS. QUANTITIES ARE FOR CONVENIENCE ONLY. IF THERE IS A DISCREPANCY BETWEEN THE PLANTING PLAN AND THE PLANTING SCHEDULE, THE PLAN SHALL PREVAIL.
12. CONTRACTOR SHALL COORDINATE ANY PLANTING OR IRRIGATION IN ANY RIGHT-OF-WAY WITH YORK COUNTY, SCDOT, AND ANY OTHER APPLICABLE LOCAL TRANSPORTATION DEPARTMENTS AND NOTIFY ESP IF CONDITIONS WARRANT ADJUSTMENTS TO PLANT MATERIAL AND LOCATIONS.
13. NO TREES TO BE PLANTED WITHIN 15 FEET OF UTILITIES OR LIGHT POLE. LARGE MATURING TREES MUST BE A MINIMUM 25 FEET FROM OVERHEAD DISTRIBUTION OR TRANSMISSION LINES. COORDINATE PLANTINGS WITH DUKE PROGRESS IF NECESSARY. IF TREES CONFLICT WITH POWER LINES OR SIGNS NOTIFY LANDSCAPE ARCHITECT TO RESOLVE BEFORE PLANTING.
14. ALL DISTRIBUTED AREAS AND AREAS OUTSIDE PLANTING BEDS BUT WITHIN LIMITS OF WORK SHALL BE SODDED OR SEEDED WITH BERMUDA GRASS OR APPROVED EQUAL PER OWNER.
15. LEAVE CLEARANCE AND ACCESS TO ALL TRANSFORMERS, GENERATORS, HVAC SYSTEMS, AND OTHER UTILITIES AS REQUIRED PER MANUFACTURER'S SPECIFICATIONS.
16. CONTRACTOR RESPONSIBLE FOR LOCATING SIGHT DISTANCE AND SIGHT TRIANGLES PRIOR TO INSTALLATION OF PLANT MATERIALS, MONUMENTS, SIGNS, LIGHTING, AND/OR FENCES. CONTRACTOR SHALL INSTALL PLANT MATERIALS, MONUMENTS, SIGNS, LIGHTING, AND/OR FENCES OUTSIDE OF SIGHT TRIANGLES AND/OR SIGHT DISTANCE LINES.

MAINTENANCE AND WARRANTY NOTES:

1. CONTRACTOR RESPONSIBLE FOR PROVIDING ONE 15 GALLON TREEGATOR® BAG OR APPROVED EQUAL PER EACH TREE AT TIME OF INSTALLATION.
2. CONTRACTOR MUST FOLLOW A ROUTINE SCHEDULE OF WATERING, FERTILIZATION, PEST CONTROL AND PRUNING UNTIL FINAL ACCEPTANCE BY OWNER. TREES WHICH ARE DETERMINED TO BE DEAD, DISEASED, DAMAGED OR MALNOURISHED SHALL BE REPLACED AT CONTRACTORS EXPENSE.
3. CONTRACTOR IS RESPONSIBLE FOR THE VIABILITY OF PLANT MATERIAL FOR A MINIMUM PERIOD OF ONE YEAR AFTER ACCEPTANCE FROM OWNER BUT MAY ALSO BE BONDED FOR WARRANTIES BY LOCAL ORDINANCE OR DEVELOPMENT CONDITIONS. IN THE EVENT THAT LANDSCAPE MAINTENANCE IS PROVIDED BY ANOTHER CONTRACTOR, WARRANTY SHALL BE TRANSFERABLE TO MAINTENANCE CONTRACTOR.

TREE STAKING AND LOCATIONS:

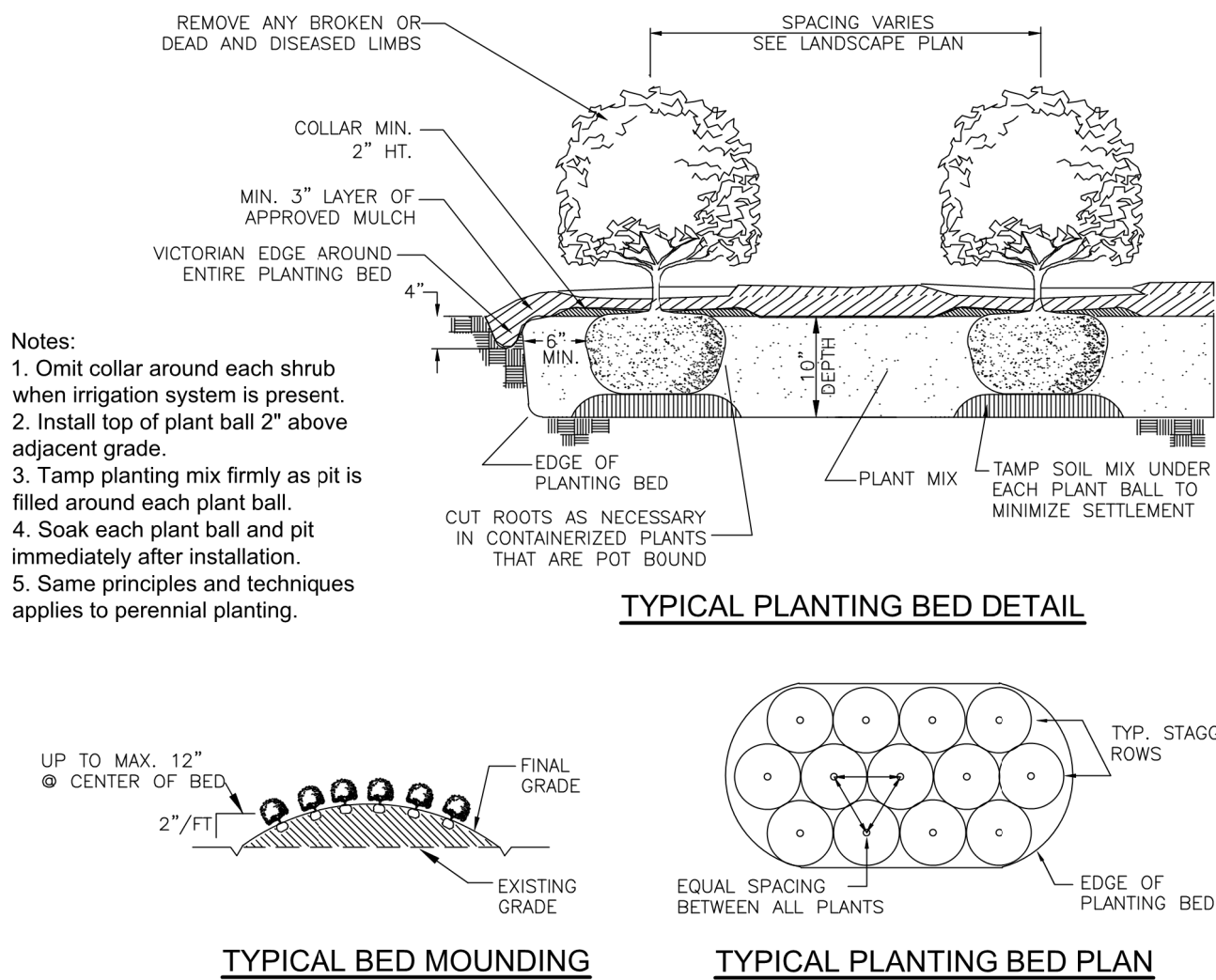
1. CONTRACTOR SHALL STAKE LOCATION OF ALL TREES AND OBTAIN APPROVAL FROM OWNER OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION

PLANT MATERIAL SUBSTITUTION:

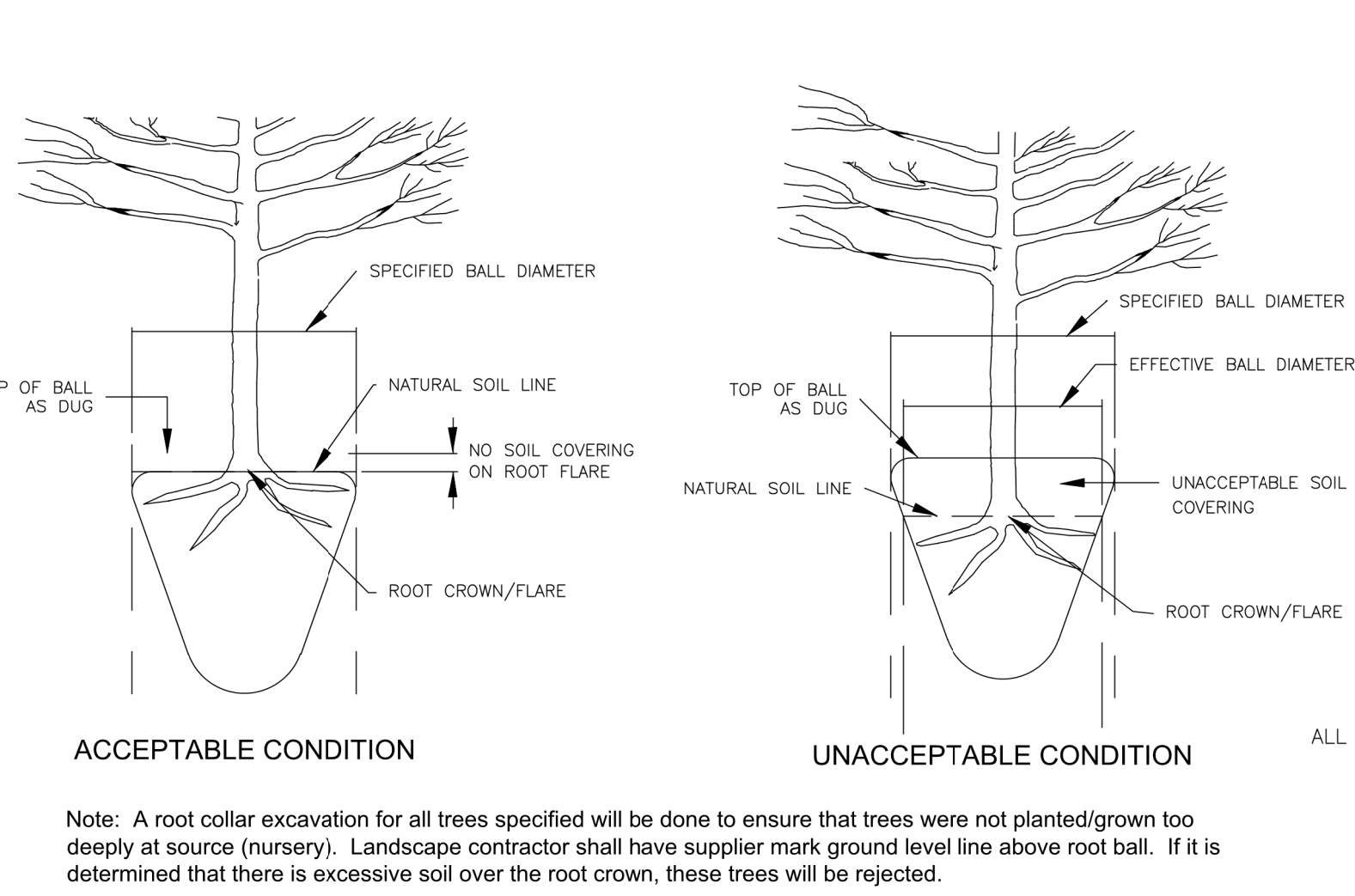
1. PLANT MATERIAL SUBSTITUTIONS TO BE APPROVED BY OWNER AND/OR LANDSCAPE ARCHITECT PRIOR TO ORDERING PLANT MATERIAL. SUBSTITUTIONS OF PLANT MATERIAL NOT APPROVED BY OWNER OR LANDSCAPE ARCHITECT MAY BE REJECTED.

IRRIGATION SYSTEM STANDARDS:

1. CONTRACTOR RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS PRIOR TO START OF WORK.
2. IRRIGATION SYSTEM SHALL BE DESIGNED TO MEET THE STANDARDS OF THE PLANTS IN THE LANDSCAPE. IRRIGATION SYSTEM SHALL BE DESIGNED TO SEPARATELY SERVE TURF AND NON-TURF AREAS. ALL TURF AREAS TO BE IRRIGATED BY OVERHEAD SPRINKLERS. ALL NON-TURF AREAS TO BE IRRIGATED BY ORIF EMITTERS.
3. CONTRACTOR RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT ALL UTILITIES ARE LOCATED PRIOR TO START OF CONSTRUCTION. PERFORM WORK IN A MANNER WHICH WILL AVOID DAMAGE TO UNDERGROUND UTILITIES.
4. TO BE INSTALLED PER ALL MANUFACTURER'S SPECIFICATIONS AND REQUIREMENTS.
5. COORDINATE WORK SCHEDULE WITH OWNER, GENERAL CONTRACTOR, PLANT INSTALLATION AND OTHER CONTRACTOR(S).
6. INSTALL IRRIGATION METERS AND BACKFLOW PREVENTION DEVICES IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
7. IRRIGATION SYSTEM SHALL BE DESIGNED TO MAXIMIZE UNIFORMITY CONSIDERING EMITTER TYPES, HEAD SPACING, SPRINKLER PATTERN, AND WATER PRESSURE AT EMITTER.
8. PRECIPITATION RATES FOR SPRINKLERS AND ALL EMITTERS IN THE SAME ZONE SHALL BE MATCHED, EXCEPT THAT MICRO IRRIGATION EMITTERS MAY BE SPECIFIED TO MEET REQUIREMENTS OF INDIVIDUAL PLANTS.
9. IRRIGATION SYSTEM SHALL INCLUDE SHUT OFF VALVES AS NEEDED PER THE SYSTEM DESIGN FOR OPTION TO SHUT OFF ALL OR SPECIFIC ZONES.
10. PROVIDE APPROVED CONNECTIONS TO DEVELOPER PROVIDED ELECTRICAL SYSTEMS AS IS REQUIRED FOR THE PROPER OPERATION OF THE AUTOMATIC CONTROL SYSTEM. ALL ELECTRICAL WORK SHALL BE INSTALLED IN CONFORMANCE WITH NATIONAL, STATE, AND LOCAL ELECTRICAL CODES.
11. REGULATIONS AND ORDINANCES AND WITH ESTABLISHED LOCAL CODES APPLICABLE HERETO. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH COMPLIANCE.
12. MATERIALS USED IN THE SYSTEM SHALL BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE.
13. CONTRACTOR SHALL PROVIDE A CERTIFICATE OF WARRANTY FOR A ONE YEAR PERIOD FROM DATE OF FINAL ACCEPTANCE OF THE SYSTEM.
14. CONTRACTOR SHALL APPLY FOR ANY WARRANTIES IN THE OWNER'S NAME AND TURN PAPERWORK OVER TO THE OWNER.



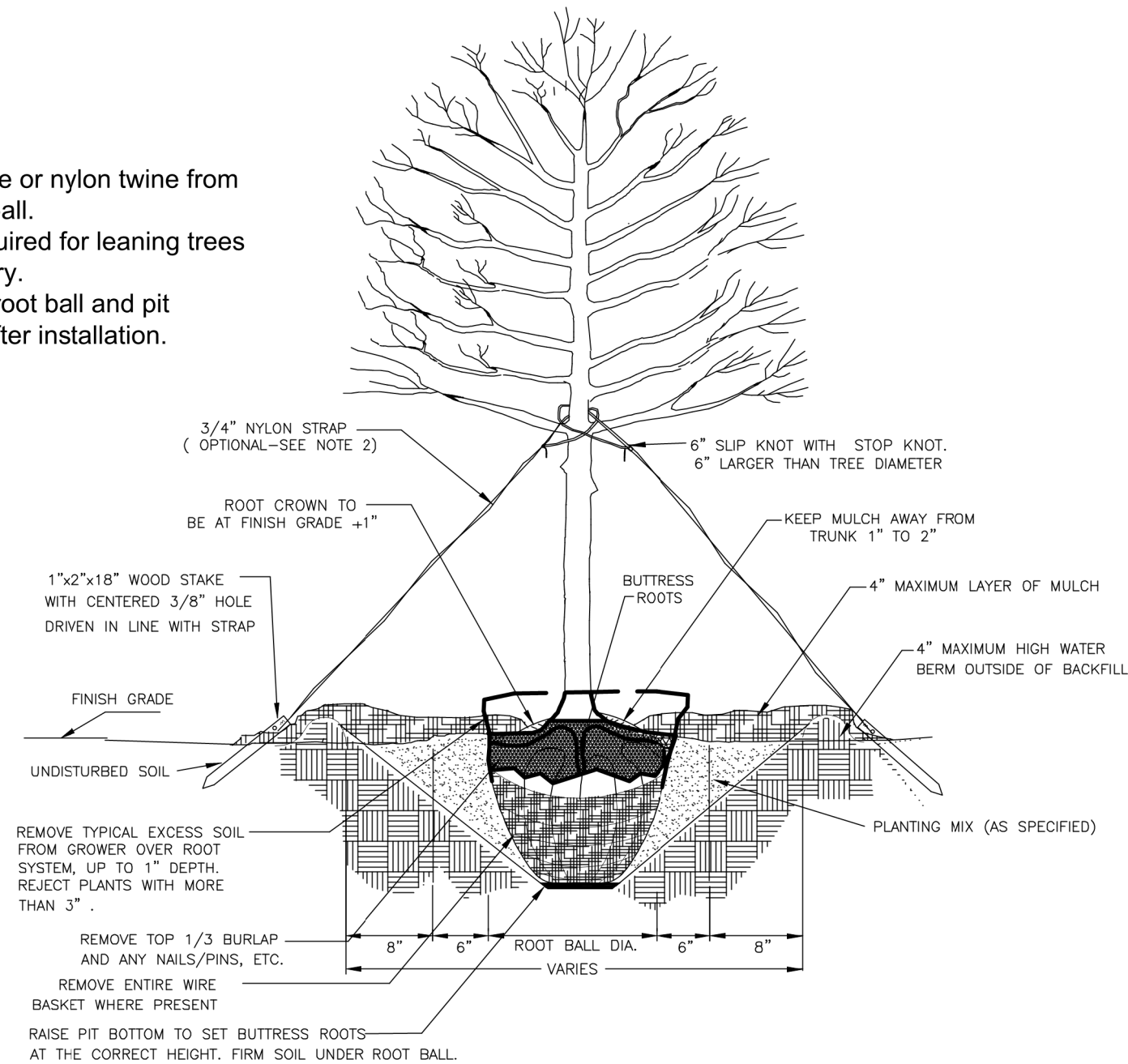
Shrub Planting Detail
Not to Scale



Root Crown Depths Detail
Not to Scale

PLANT SCHEDULE										
SYMBOL	CODE	QTY	L1.1	L1.2	L1.3	L1.4	BOTANICAL / COMMON NAME	METHOD	CALIPER	MIN. SIZE
TREES										
		3				3	ILEX X 'NELLIE R STEVENS' / NELLIE STEVENS HOLLY	8' HT		
	ML	20		11	9		MAGNOLIA GRANDIFLORA 'LITTLE GEM' / DWARF SOUTHERN MAGNOLIA	B&B	2" CAL.	8' HT.
DECIDUOUS TREES										
	LT	13	7			6	LIRIODENDRON TULIPIFERA / TULIP TREE	2.5" CAL	B&B	MIN. 10-12"
SYMBOL	CODE	QTY	L1.1	L1.2	L1.3	L1.4	BOTANICAL / COMMON NAME	METHOD	MIN. HT.	MIN. SPREAD
SHRUBS										
	CG	42	24	18			CHAMAECYPARIS PISIFERA 'GOLDEN MOP' / GOLDEN MOP THREADLEAF FALSE CYPRESS	CONT.	3 GAL.	
	CJ	31		25	6		CLEYERA JAPONICA / SAKAKI	CONT.	7 GAL.	
	IB2	80	47	33			ILEX CORNUTA 'BURFORDII' / BURFORD CHINESE HOLLY	CONT.	2FT X 2FT	2FT X 2FT
	LC	88		47	41		LOROPETALUM CHINENSE 'CAROLINA MIDNIGHT' / CAROLINA MIDNIGHT LOROPETALUM	CONT.	3 GAL.	
	NP	37			37		NANDINA DOMESTICA 'FIRE POWER' / FIREPOWER NANDINA	CONT.	3 GAL.	
	PS	117	30	39	32	16	PRUNUS LAUROCERASUS 'SCHIPKAENSIS' / SCHIPKA LAUREL	CONT.	7 GAL.	
PERENNIALS										
	HO	34	34				HEMEROCALLIS X 'STELLA DE ORO' / STELLA DE ORO DAYLILY	CONT.	1 GAL.	
	LB	93	72	21			LIRIOPE MUSCARI 'BIG BLUE' / BIG BLUE LILYTURF	CONT.	1 GAL.	
	MUH	73	26	21	26		MUHLENBERGIA CAPILLARIS / PINK MUHLY	CONT.	3 GAL.	
SYMBOL	CODE	QTY	L1.1	L1.2	L1.3	L1.4	BOTANICAL / COMMON NAME	METHOD	SPACING	MIN. SIZE
GROUND COVERS										
	EC	30,448 SF	8,613 SF			21,835 SF	ERAGROSTIS CURVULA / WEEPING LOVEGRASS	SEED OR PLUG	SQ. FT.	
	FX	102,821 SF	11,384 SF	25,077 SF	31,169 SF	35,191 SF	FESTUCA X 'REBEL SUPREME' / REBEL SUPREME FESCUE	PLUG OR SOD	SQ. FT.	
	MULCH	12,085 SF	2,709 SF	4,951 SF	2,212 SF	2,213 SF	MULCH / PINE STRAW MULCH	BALE	SQ. FT.	

- Notes:
1. Remove wire or nylon twine from ENTIRE root ball.
 2. Staking required for leaning trees or as necessary.
 3. Soak each root ball and pit immediately after installation.



ALL TREES SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK (AMSI, 1990, PART 1, "SHADE AND FLOWERING TREES") FOR EXAMPLE:

CALIPER	HEIGHT (RANGE)	MAX. HEIGHT	MIN. ROOT BALL DIA.	MIN. ROOT BALL DEPTH
2" 3"	12-14' 14-16'	16' 18'	24" 32"	16" 21"

Tree Planting Detail
Not to Scale

ESP Associates, Inc.
P.O. Box 7090
Charlotte, NC 28241
3475 Lakemont Blvd.
Fort Mill, SC 29708
704-553-4949 (NC)
803-802-2440 (SC)
www.espassociates.com

BY

REVISION

DATE

NO.

OVERALL PLANT LIST & DETAILS

REGENT PARKWAY

SS RELIEF SYSTEM

YORK COUNTY

YORK COUNTY, SC

PROJECT INFORMATION

PROJECT MANAGER: MM

DESIGNED BY: AP

DRAWN BY: AP

PROJECT NUMBER: GT35.100

ORIGINAL DATE: 4/01/2024

SHEET:

L1.10