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| SHEET NO. | TOTAL SHEETS |
| UC1 | 4 |



PROPOSED PLANS
FOR
YORK COUNTY, SOUTH CAROLINA
US 21 NORTH PHASE 1 & SC 51
YORK COUNTY PROJECT ID # 11149-004
PROJECT ID # 0042332
US 21 FROM SC 460 (SPRINGFIELD PKWY) TO
700' SOUTH OF S-48 (SPRINGHILL FARM RD)
& SC 51 FROM US 21 TO THE NC STATE LINE

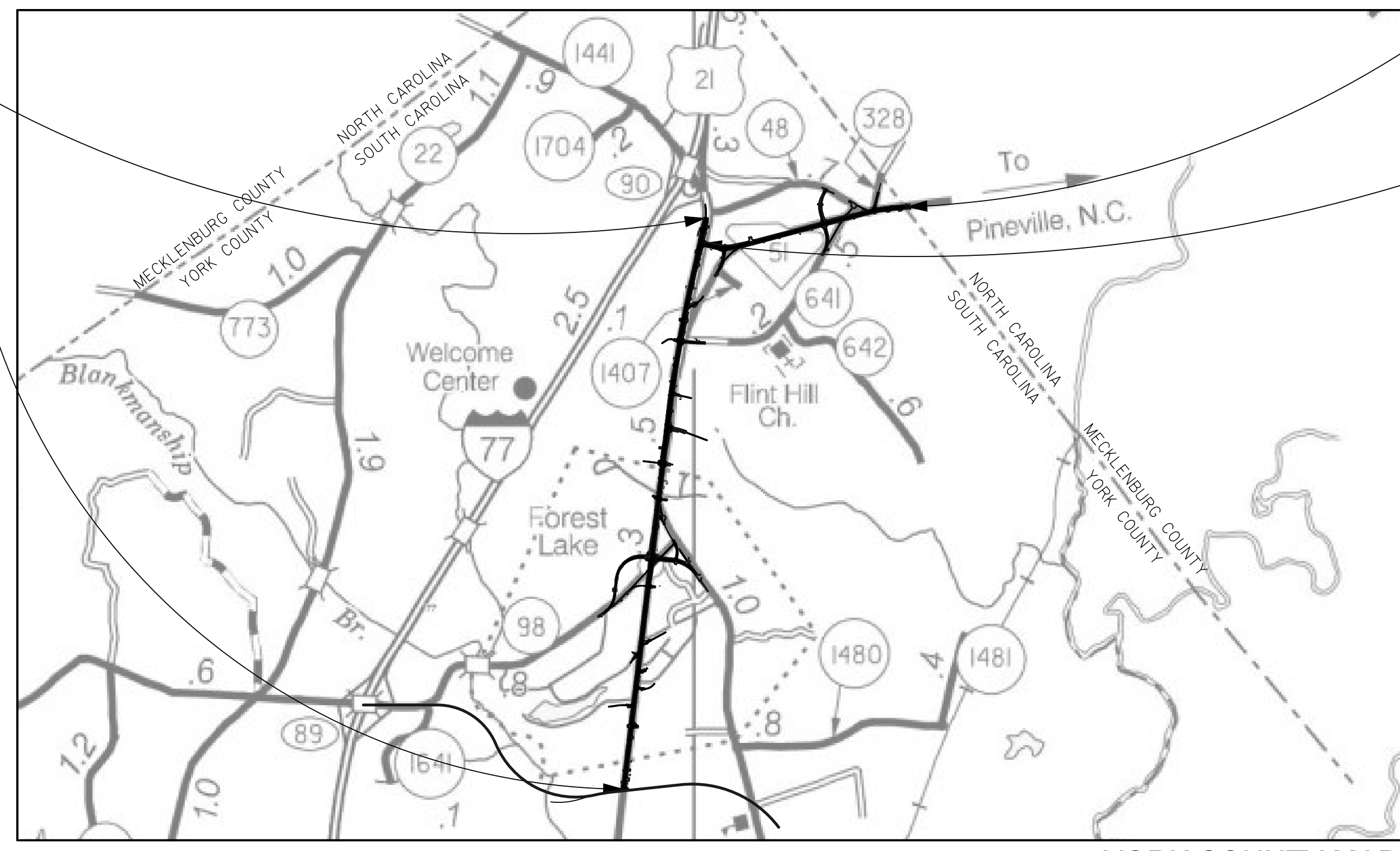
FERN FOREST
WATER LINE
RELOCATION PLANS

SURVEY STA. 134+33.25 END
PROJECT ID 0042332
US 21

SURVEY STA. 14+78.91 BEGIN
PROJECT ID 0042332
US 21

SURVEY STA. 340+10.00 END
PROJECT ID 0042332
SC 51

SURVEY STA. 296+15.72 BEGIN
PROJECT ID 0042332
SC 51



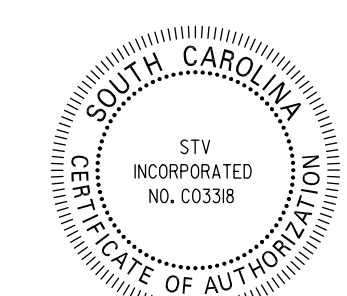
LAYOUT
 SCALE 1 INCH = 2,300 FEET

SHEET INDEX

- COVER**
- WATER AND SEWER NOTES**
- TESTING AND INSPECTION NOTES**
- WATER PLAN**

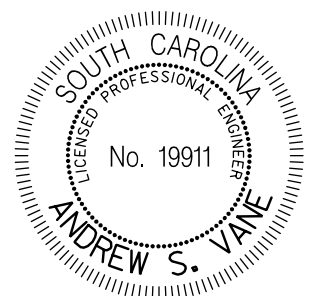
- UC-1**
- UC-2**
- UC-3**
- UC-4**

CONSULTING ENGINEERING FIRM



STV 100 Years
 STV Incorporated
 400 CENTRE POINTE DRIVE
 SUITE 100
 SOUTH CHARLESTON, SOUTH CAROLINA 29408

ENGINEER OF RECORD



DocuSigned by:
Andrew S Vane
 FOR CONSTRUCTION : _____ DATE 2/13/2023

| FED. ROAD DIV. NO. | STATE | COUNTY | PROJECT ID | PROJECT NO. | ROUTE NO. | SHEET NO. |
|--------------------|-------|--------|------------|-------------|-----------|-----------|
| 3 | S.C. | YORK | 0042332 | III49-004 | US 21 | UC-2 |

WATER/SEWER GENERAL NOTES

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 "W" 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/NSF 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.
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.

PROJECT SPECIFIC NOTES

1. CONTRACTOR SHALL COORDINATE ALL SHUT-DOWNS AND TIE-INS WITH FERN FOREST RURAL WATER ASSOCIATION. CONTACT DOTTIE CARTER AT 803-548-0398 A MINIMUM OF 1 WEEK IN ADVANCE.
2. EXISTING FERN FOREST WATER SYSTEM VALVES TO BE OPERATED BY FERN FOREST RURAL WATER ASSOCIATION ONLY.
3. CONTRACTOR MAY NEED TO SCHEDULE SHUTDOWN WORK DURING LOW DEMAND PERIODS INCLUDING NIGHT WORK.

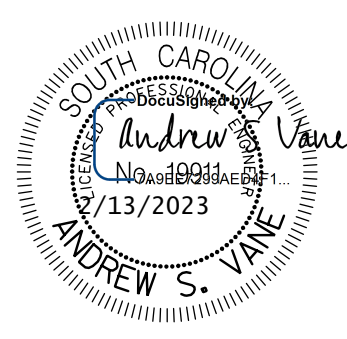
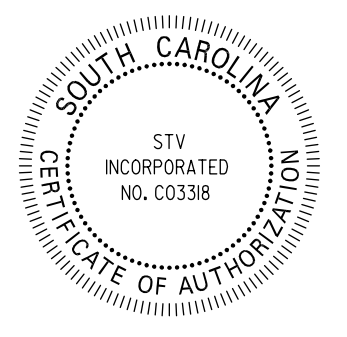
SEQUENCE OF CONSTRUCTION

1. INSTALL PROPOSED 3" PVC WATER LINE WHERE INDICATED ON PLANS TO A POINT JUST SHORT OF TIE-INS.
2. PRESSURE TEST, FLUSH AND CHLORINATE AND PREPARE FOR FINAL CONNECTION PER SCDHEC REQUIREMENTS.
3. MINIMIZE SHUT DOWN TIME TO A SINGLE 4 HOUR PERIOD, COORDINATED WITH FERN FOREST RURAL WATER ASSOCIATION
4. SHUT DOWN EXISTING 3" PVC WATER LINES ON FERN FOREST CT AND FOREST DRIVE AND COMPLETE TIE-IN.
5. PLACE NEW 3" PVC WATER MAIN INTO OPERATION.

TESTING/INSPECTION NOTES

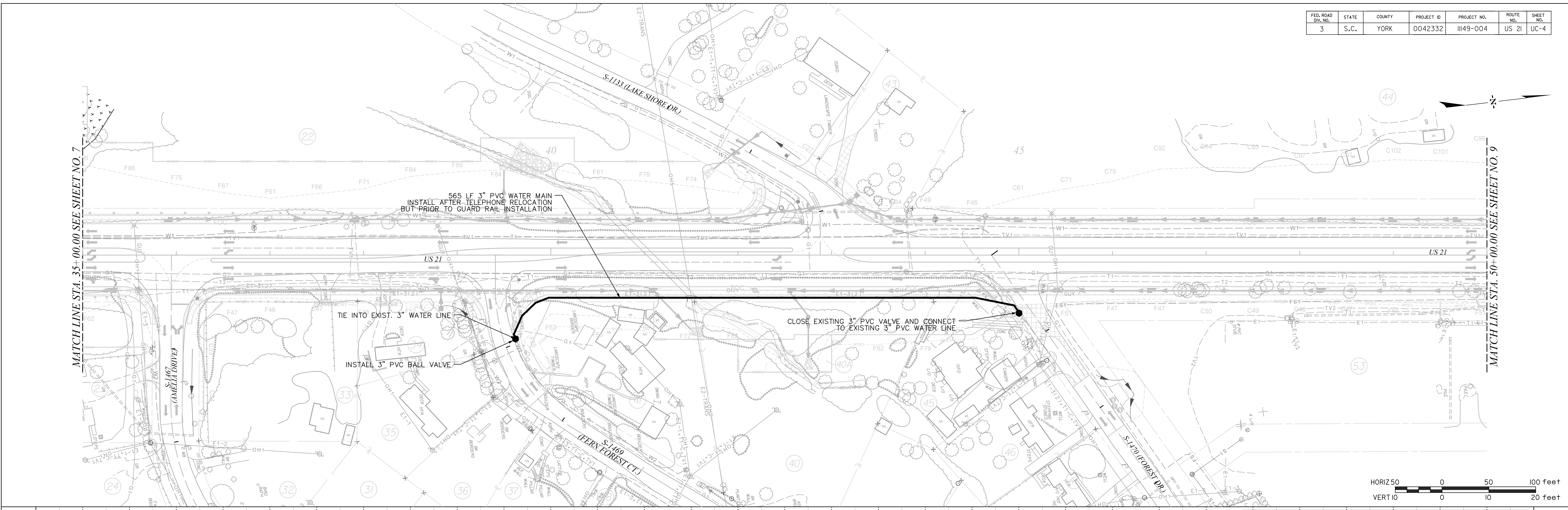
1. NOTIFY THE ENGINEER OF RECORD AND YORK COUNTY AT LEAST 48 HOURS BEFORE STARTING CONSTRUCTION OF SEWER AND WATER FACILITIES. THE ENGINEER SHALL PERIODICALLY INSPECT THE PROGRESS OF INSTALLATION AND SHALL COMPLETE A FINAL WATER AND SEWER INSPECTION. THE ENGINEER OF RECORD AND YORK COUNTY SHALL WITNESS 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 SCDHEC PRIOR TO ACTIVATION OF THE SYSTEM.

STV 100 Years STV Incorporated
4969 CENTRE POINTE DRIVE
SUITE 102
NORTH CHARLESTON, SOUTH CAROLINA 29418



Adriana 2/9/2023
stvinc.com\3106PA\0131\Projects\355776\355776_0001\90_CAD_Models_and_Sheets\04_C1-Transportation\Roadway\Utilities\Sheets\355776_UC_PLN_SHT2 - Fern Forest.dgn

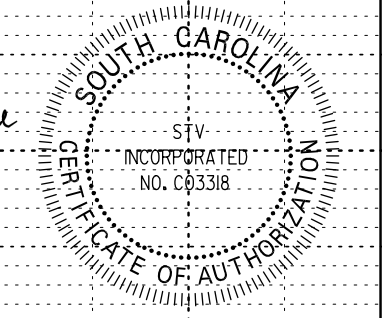
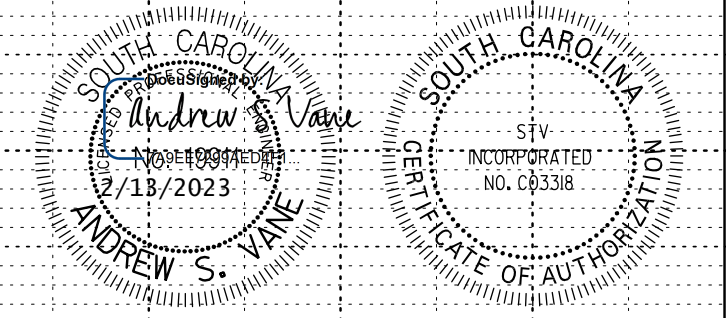
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| 3 | S.C. | YORK | 0042332 | III49-004 | US 21 | UC-4 |



US 21 (N HWY 21 BYPASS)

NO PROFILE

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 NORTH CHARLESTON, SOUTH CAROLINA 29418



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 2/9/2023