

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

UTILITY CONSTRUCTION

PROJECT REFERENCE NO. U-5808	SHEET NO. UC-3
DESIGNED BY: KJB	
DRAWN BY: JLS	
CHECKED BY: RJD	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
Mead&Hunt <small>111 E. Hargett Street, Suite 300 Raleigh, North Carolina 27601 919-714-8870 meadhunt.com NC License No. F-1235</small>	

GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SPECIFICATIONS SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD FOR ROADS AND STRUCTURES" DATED JANUARY 2018.
2. THE EXISTING UTILITIES BELONG TO THE UNION COUNTY.
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL WATERLINES SHALL ADHERE TO THE UNION COUNTY PUBLIC WORKS SANITARY SEWER AND WATER SPECIFICATIONS REV. 6 AND DETAILS. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.
4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.
5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE OF MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.
7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.
8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.
9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, "SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE NCDOT STANDARD SPECIFICATIONS.

LIST OF STANDARD DRAWINGS

1. NCDOT STANDARD DRAWING 654.01 "PAVEMENT REPAIRS"

PROJECT SPECIFIC NOTES:

1. ALL PROPOSED 8" WATER LINES SHALL BE AWWA C-900 PVC THICKNESS CLASS SDR 18 WITH A MINIMUM PRESSURE RATING OF 200 PSI. ALL PROPOSED 12" WATER LINES SHALL BE DUCTILE IRON PIPE PC 350. RESTRAINED-JOINT DUCTILE IRON PIPE IS REQUIRED AROUND ALL BENDS, VALVES, IN SCP, ETC.
2. ALL WATER LINE FITTINGS SHALL BE RESTRAINED-JOINT DUCTILE IRON IN ACCORDANCE WITH THE REQUIREMENTS OF EITHER ANSI/AWWA A21.53/C153 OR ANSI/AWWA A21.1 O/C 110. FITTINGS SHALL HAVE CEMENT MORTAR LINING AND SEAL COATED IN ACCORDANCE WITH ANSI/AWWA A21.4/C104.

3. THE JACK AND BORE AT THE RAILROAD CROSSING SHALL BE DONE IN ACCORDANCE WITH CSX DESIGN AND CONSTRUCTION STANDARD SPECIFICATIONS.
4. ALL VALVES SHALL CONFORM TO AWWA C509 FOR BRONZE MOUNTED, RESILIENT SEATED, CAST IRON BODIED GATE VALVES.
5. PROPOSED WATER LINES SHALL BE WRAPPED IN POLYETHYLENE ENCASEMENT FOR 10' EACH SIDE OF GAS LINE CROSSINGS AND WHERE THE WATER LINE AND GAS LINE ARE WITHIN 10 FEET OF EACH OTHER.
6. CONTRACTOR SHALL RETURN ALL REMOVED WATER METERS TO THE UTILITY OWNER.
7. PROVIDE THRUST BLOCKS ON THE EXISTING WATER LINE WHERE TIE-INS ARE MADE AS NECESSARY. REFER TO PLANS.
8. CONTRACTOR SHALL NOT OPERATE ANY VALVES ON THE EXISTING UTILITY SYSTEMS. CONTRACTOR SHALL CONTACT THE UTILITY OWNER TO CONDUCT STRATEGIC OPERATION OF VALVES FOR SERVICE INTERRUPTION IN ORDER TO PERFORM SPECIFIC WORK.
9. ANY BENDS OF PVC WATER PIPE NOT SPECIFICALLY CALLED OUT WITH A 90, 45, 22.5, OR 11.25 DEGREE BEND FITTING, SHALL BE CONSTRUCTED BY A RADIAL BEND OF THE PIPE AS NOTED ON THE PLANS OR IN ACCORDANCE WITH PIPE MANUFACTURER'S SPECIFICATIONS (WHICHEVER IS MORE STRINGENT)- OR A COMBINATION OF BEND FITTINGS AND A RADIAL BEND OF THE PIPE.
10. RESTRAINT JOINT PIPE LENGTH HAS BEEN CALCULATED IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) STANDARDS FOR ALL FITTINGS. THIS DESIGN ACCOMODATES 20' LAY LENGTH PIPES. REFER TO PROFILES FOR RJ DIP LIMITS.
11. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF UNION COUNTY PUBLIC WORKS WATER SPECIFICATIONS.
12. WELL IN ADVANCE OF BEGINNING UTILITY WORK, SOFT DIGS SHALL BE PERFORMED BY CONTRACTOR TO VERIFY ACTUAL WATER LINE DEPTH AND MATERIAL AT PROPOSED TIE-IN LOCATIONS.
13. LAY PIPE STRAIGHT IN ALIGNMENT AND GRADIENT OR FOLLOW TRUE CURVES AS NEARLY AS POSSIBLE. DO NOT DEFLECT ANY JOINT MORE THAN HALF THE MAXIMUM DEFLECTION RECOMMENDED BY THE MANUFACTURER.

UTILITY CONSTRUCTION

14. CONTRACTOR SHALL ADHERE TO SECTION 1530 "ABANDON OR REMOVE UTILITIES" FOR ABANDONMENT OF EXISTING WATER LINES.
15. PRIOR TO THE START OF PROJECT, CONTRACTOR MUST CONTACT MICHAEL CALDWELL OF UNION COUNTY PUBLIC WORKS DEPARTMENT AT 704-968-4150. UNION COUNTY PUBLIC WORKS DEPARTMENT MAY INSPECT WORK AT ANY TIME.
16. NO INTERRUPTION OF EXISTING WATER SERVICE SHALL BE MADE DURING CONSTRUCTION UNTIL AUTHORIZED BY UNION COUNTY PUBLIC WORKS DEPARTMENT. UNION COUNTY PUBLIC WORKS DEPARTMENT WILL BE COPIED ON BOTH THE WATER MAIN PRESSURE TEST REPORT AND THE WATER MAIN CHLORINATION TEST REPORT. UNION COUNTY WILL COLLECT SAMPLES AND PERFORM BACTERIOLOGICAL TESTING. UNION COUNTY WILL NOT ACCEPT TEST RESULTS FORM OUTSIDE TESTING LABS.
17. CONTRACTOR SHALL COORDINATE SHUT DOWN OF ALL WATER LINES MINIMUM OF 96 HOURS IN ADVANCE WITH UNION COUNTY PUBLIC WORKS DEPARTMENT (MICHAEL CALDWELL, 704-968-4150). CONTRACTOR SHALL COMPLETE TIE-INS WITHIN A 6 HOUR WINDOW. MAY REQUIRE NIGHT WORK.
18. IN ACCORDANCE WITH NCDOT SPECIFICATION SECTION 1500-7 SUBMITTALS AND RECORDS, CONTRACTOR TO PROVIDE AS-BUILT PLANS OF THE INSTALLED UTILITY TO UTILITY OWNER AND ENGINEER.
19. FOR CONNECTIONS TO EXISTING WATER LINES, CONTRACTOR TO COORDINATE WITH UNION COUNTY FIELD REPRESENTATIVE. PROVIDE A MINIMUM OF 96 HOURS OF NOTICE TO FIELD REPRESENTATIVE PRIOR TO THE NEED FOR ISOLATION OF WATER LINES.
20. COORDINATE WITH UNION COUNTY FIELD REPRESENTATIVE TO DEVELOP A PLAN TO CONNECT THE NEW WATER LINES TO EXISTING WATER LINES WHILE MINIMIZING WATER SERVICE INTERRUPTIONS. DEVLEOP A PLAN TO PERFORM WATER SERVICE TRANSFERS WITH MINIMUM INTERRUPTION OF SERVICE.
21. LIMIT INTERRUPTION OF SERVICE TO UNION COUNTY WATER CUSTOMERS TO NO MORE THAN 6 HOURS FOR WATER LINE INTERCONNECTIONS, AND 30 MINUTES FOR WATER SERVICE TRANSFERS.