

09/28/2011

TIP PROJECT: BR-0047

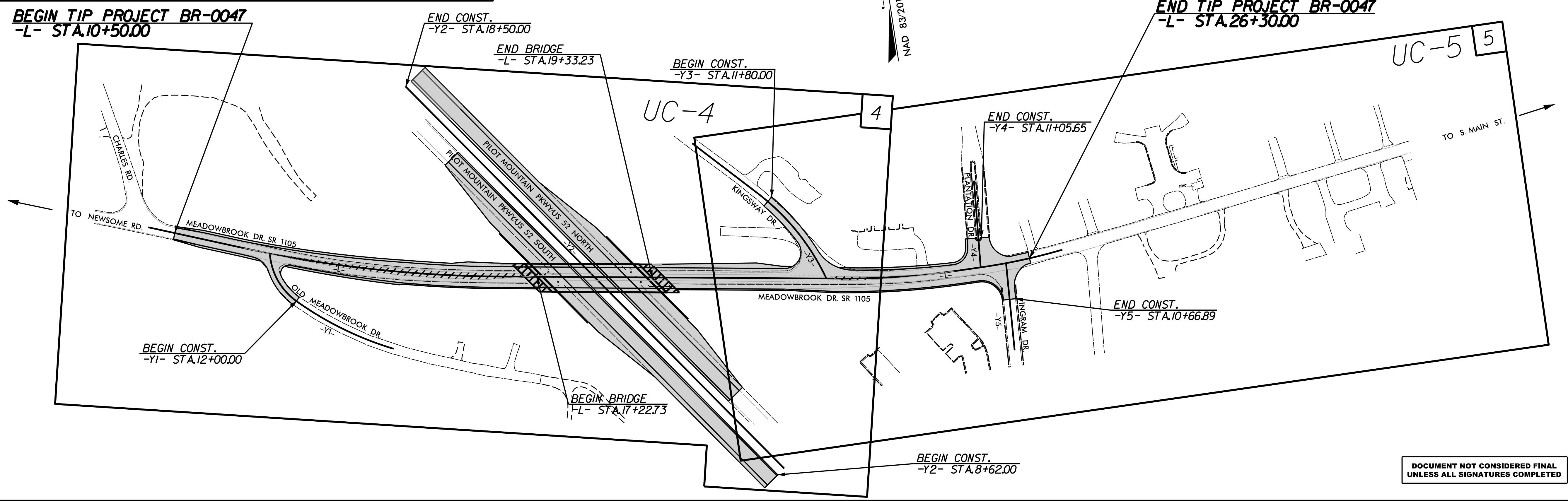
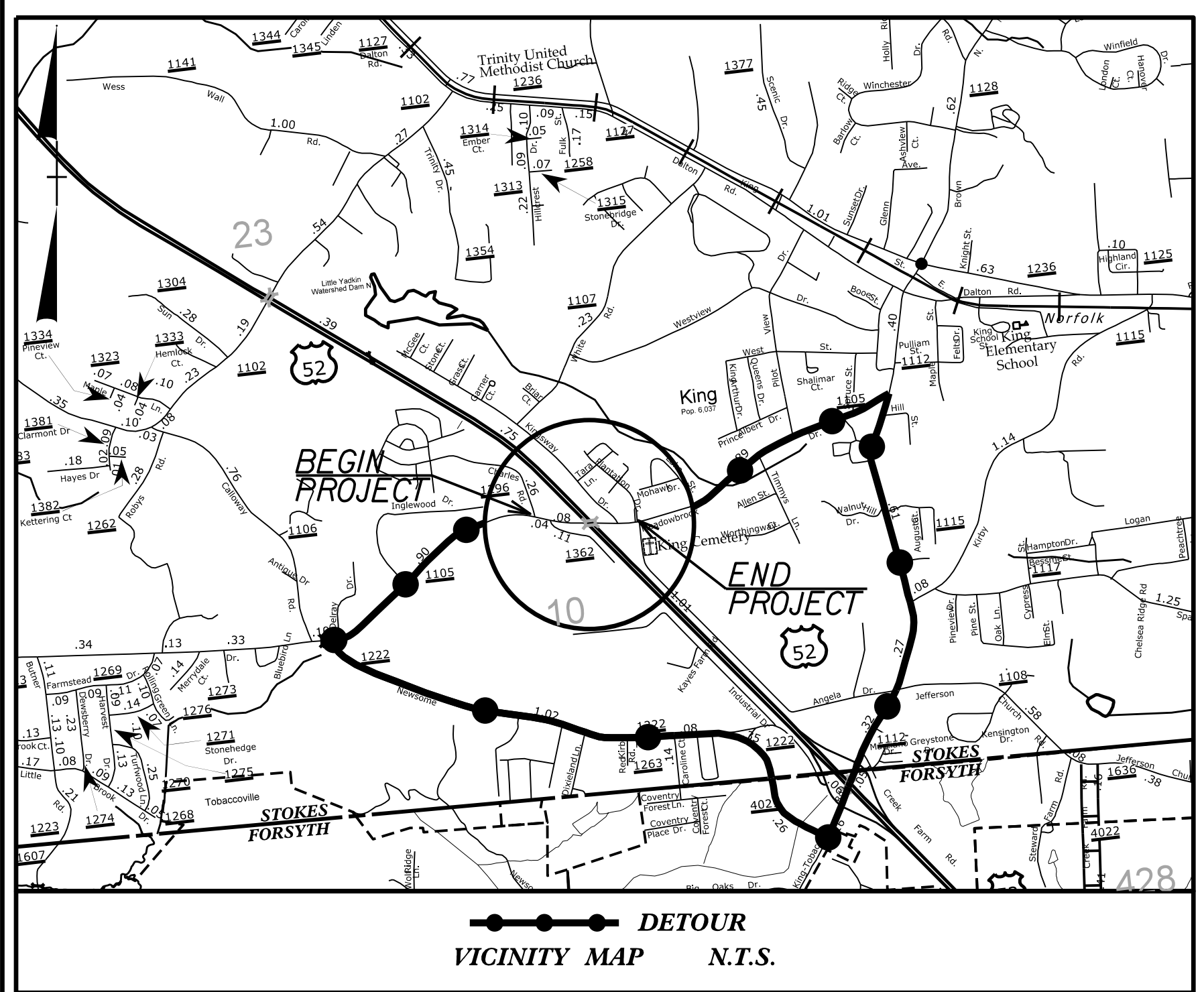
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

T.I.P. NO.	SHEET NO.
BR-0047	UC-1

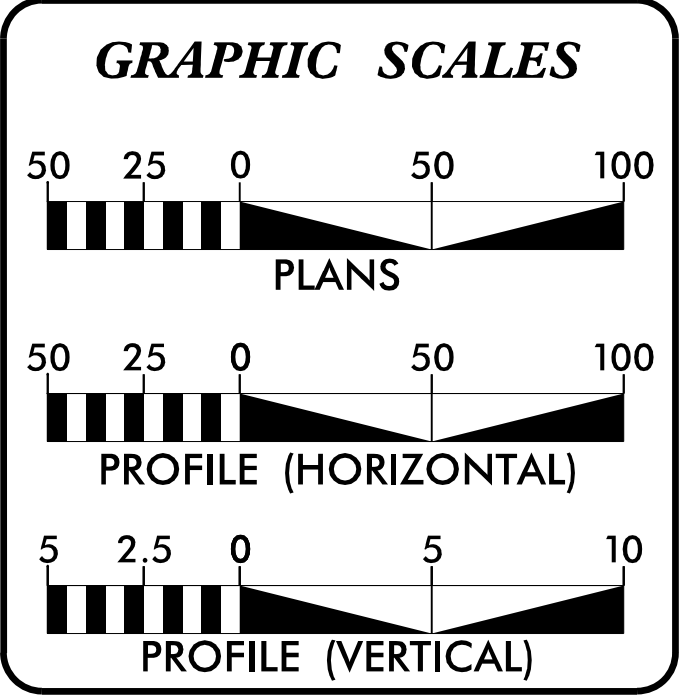
# UTILITY CONSTRUCTION PLANS STOKES COUNTY

LOCATION: REPLACE BRIDGE 10 ON SR 1105  
(MEADOWBROOK DR.) OVER U.S. 52

TYPE OF WORK: UTILITY CONSTRUCTION



DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A	DETAILS
UC-4 THRU UC-5	UTILITY CONSTRUCTION SHEETS
UC-6	PROFILE SHEET

**WATER AND SEWER OWNERS ON PROJECT**

A) WATER - CITY OF KING  
B) SEWER - CITY OF KING

PREPARED IN THE OFFICE OF:

**DAVIS • MARTIN • POWELL**  
ENGINEERS & SURVEYORS **dmp**

6415 OLD PLANK RD., HIGH POINT, NC 27265  
PHONE: (336)886-4821 FAX: (336)886-4458  
WWW.DMP-INC.COM LICENSE: F-0245

Andy Larrick, P.E. CONSULTANT CONTACT #1  
Steve McKee, P.E. CONSULTANT CONTACT #2  
Ralph Lowe CONSULTANT CONTACT #3

SEAL

3/19/2020

**DIVISION OF HIGHWAYS UTILITIES UNIT**  
1555 MAIL SERVICES CENTER  
RALEIGH, NC 27699-1555  
PHONE (919) 707-6690  
FAX (919) 250-4151

Tucker Martin, P.E. CENTRAL UTILITIES MANAGER  
Ali Kouchehi, P.E. REGIONAL UTILITIES ENGINEER  
Dayton Martin REGIONAL UTILITY COORDINATOR  
Jon Gaillard UTILITY COORDINATOR

\$\$\$\$\$ SYSTEM \$\$\$\$\$\$ DGN\$\$\$\$\$ USER NAME \$\$\$\$\$\$





5/14/99

REVISIONS

# UTILITY CONSTRUCTION

## GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2018.
2. THE EXISTING UTILITIES BELONG TO THE CITY OF KING.
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. 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 OWNER'S 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 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. LINE STOPS AND INSERT VAVLES WILL BE REQUIRED WHERE INDICATED ON THE PLANS, WHERE THE UTILITY OWNER CANNOT ISOLATE THE EXISTING LINES WITHOUT MAJOR DISRUPTION OF SERVICE TO MANY USERS.
9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

## PROJECT SPECIFIC NOTES:

1. UNLESS OTHERWISE NOTED, FOR PROPOSED WATER MAINS AND SEWER MAINS 4" THRU 12" DIAMETER, PIPE SHALL BE DUCTILE IRON, PC 350. PROVIDE RESTRAINED-JOINT DIP WHERE INDICATED ON PROFILES.
2. WATER LINE VALVES SHALL BE RESILIENT-SEAT GATE VALVES CONFORMING TO ANSI/AWWA C509, RATED FOR 200 PSI MINIMUM WORKING PRESSURE.
3. CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102, 107, AND 1550 OF THE STANDARD SPECIFICATIONS CONCERNING TRENCHLESS INSTALLATION.
4. CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNER CONCERNING THE TIMING AND SCHEDULE OF REQUIRED SHUT-DOWNS OF ANY EXISTING WATER OR SEWER MAINS.
5. THE CITY OF KING DOES NOT HAVE RECORD DRAWINGS FOR THE EXISTING WATER SYSTEM WITHIN THE PROJECT LIMITS. EXISTING WATER LINES ARE DEPICTED FROM AVAILABLE SCHEMATIC DRAWINGS, FROM LIMITED SUBSURFACE UTILITY ENGINEERING (SUE) BY THE SURVEYING CONSULTANT, AND FROM HISTORICAL KNOWLEDGE OF THE SYSTEM AS CONVEYED BY THE CITY OF KING UTILITIES DEPARTMENT. THE CONTRACTOR SHALL PERFORM INVESTIGATIONS AS NECESSARY TO CONFIRM WHAT IS DEPICTED ON THE PLANS, ESPECIALLY AT LOCATIONS WHERE PROPOSED WATER LINES WILL TIE INTO EXISTING WATER LINES. CONTRACTOR SHALL NOTIFY THE ENGINEER WITH ANY DISCOVERIES THAT MAY REQUIRE DEVIATIONS FROM THE PLANS.

## LIST OF STANDARD DRAWINGS

- 1515.01 WATER METER
- 1515.02 FIRE HYDRANT

PROJECT REFERENCE NO. BR-0047	SHEET NO. UC-3
DESIGNED BY: DMP	
DRAWN BY: DMP	
CHECKED BY: DMP	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	3/19/2020
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

## UTILITY CONSTRUCTION

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

5/14/99

REVISIONS



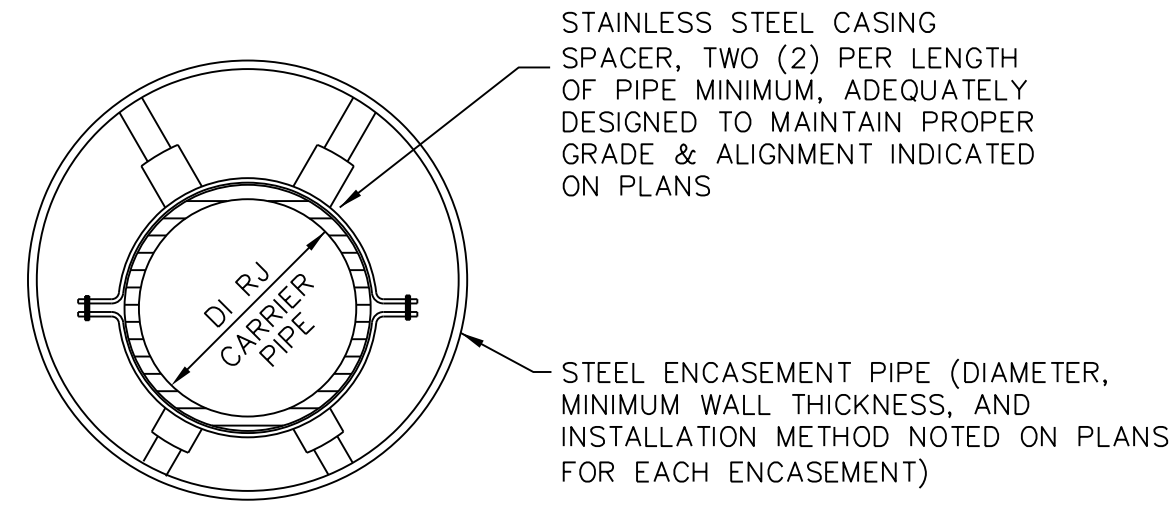
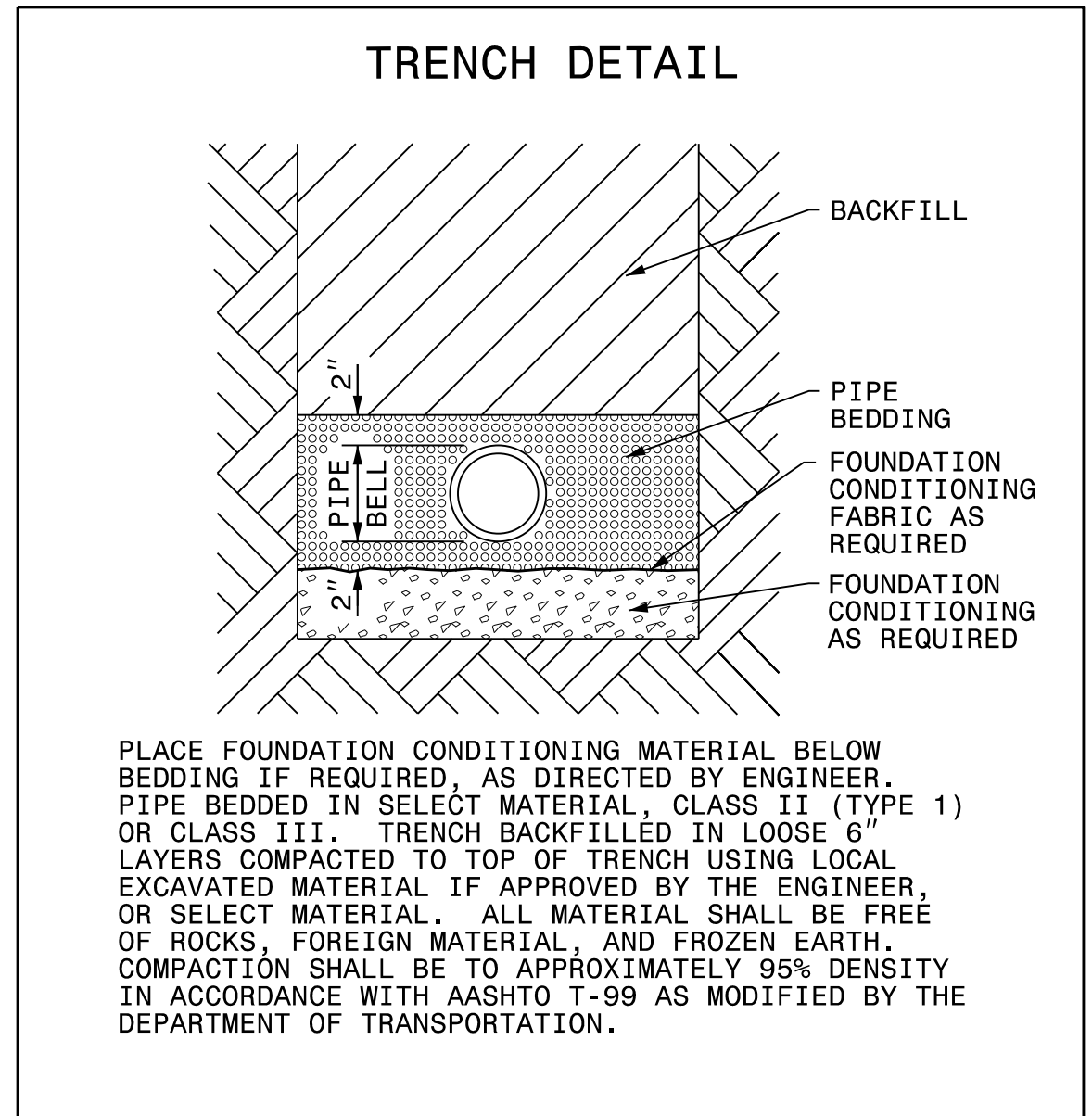
PROJECT REFERENCE NO. BR-0047	SHEET NO. UC-3A
DESIGNED BY: DMP	
DRAWN BY: DMP	
CHECKED BY: DMP	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	3/19/2020 ANDREW P. LARRICK
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

# PROJECT TYPICAL DETAILS

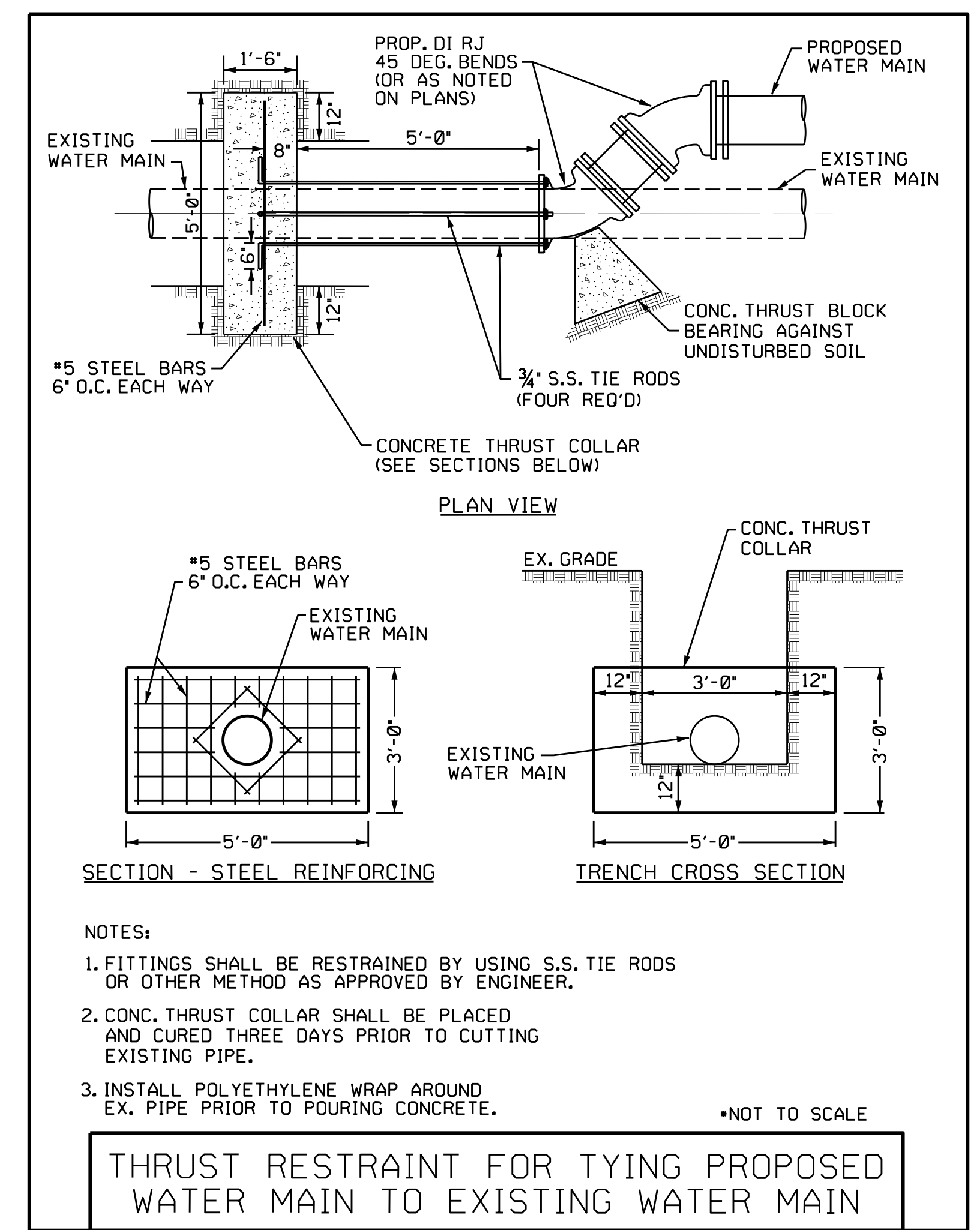
## UTILITY CONSTRUCTION

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NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)	NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		



- NOTES:
1. ENCLOSE ENDS WITH BRICK MASONRY.
  2. PROVIDE 1" WEEP HOLE AT LOW END OF ENCASEMENT.



- NOTES:
1. FITTINGS SHALL BE RESTRAINED BY USING S.S. TIE RODS OR OTHER METHOD AS APPROVED BY ENGINEER.
  2. CONC. THRUST COLLAR SHALL BE PLACED AND CURED THREE DAYS PRIOR TO CUTTING EXISTING PIPE.
  3. INSTALL POLYETHYLENE WRAP AROUND EX. PIPE PRIOR TO POURING CONCRETE.
- \*NOT TO SCALE

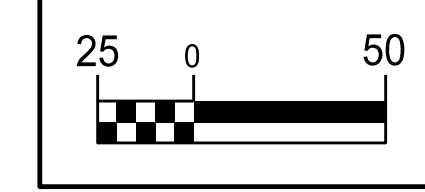
NOTE: CONCRETE THRUST COLLARS ARE SUGGESTED AT LOCATIONS WHERE PROPOSED WATER LINES WILL CONNECT TO EXISTING WATER LINES. PER DIVISION 15 OF THE NCDOT STANDARD SPECIFICATIONS, SECTION 1505-3-E, THE CONTRACTOR IS RESPONSIBLE FOR DESIGN AND CONSTRUCTION OF THE THRUST RESTRAINT SELECTED FOR THE PARTICULAR APPLICATION. CONCRETE THRUST COLLARS, OR OTHER THRUST RESTRAINT DEVICES, SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.







5/14/2011

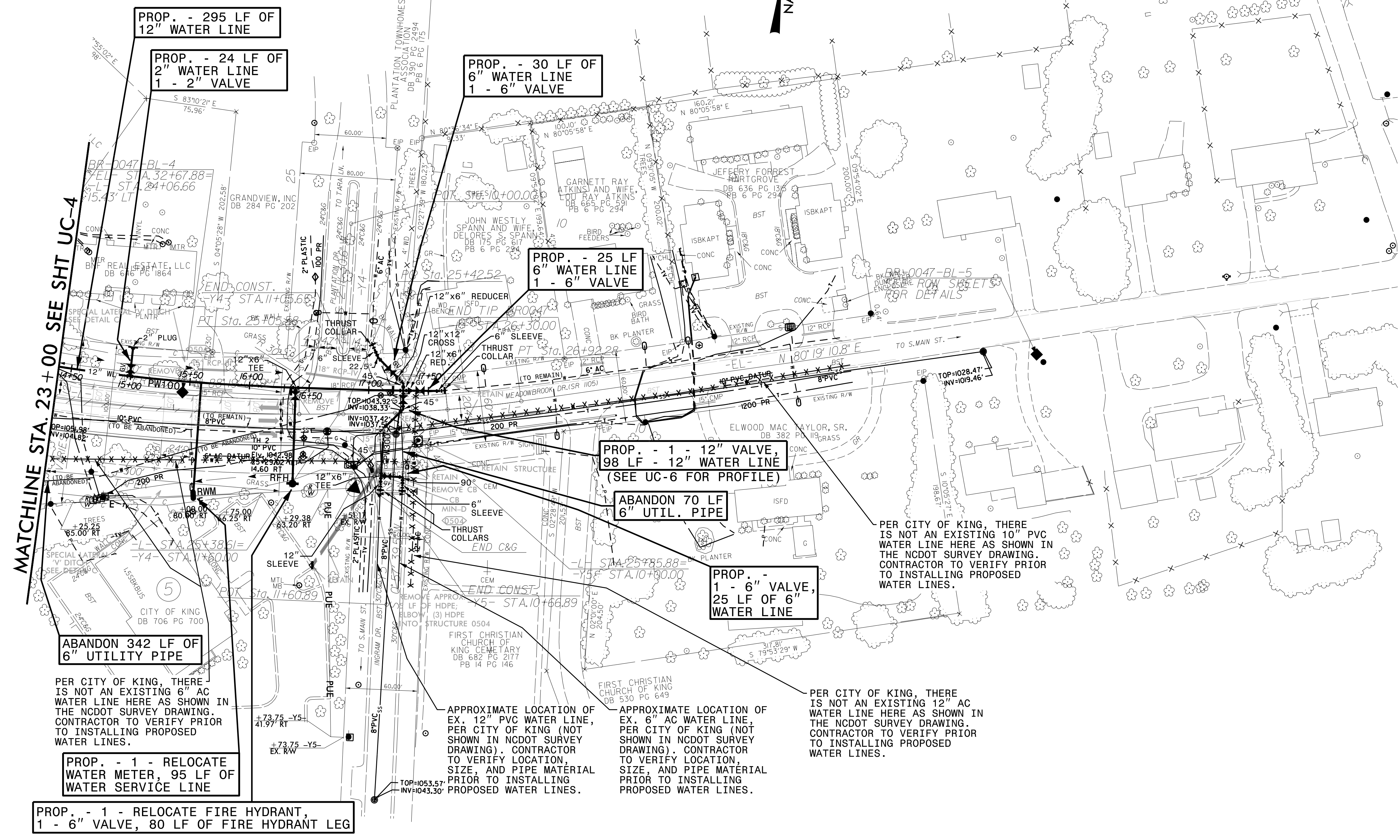


PROJECT REFERENCE NO.	SHEET NO.
BR-0047	UC-5
DESIGNED BY: DMP	
DRAWN BY: DMP	
CHECKED BY: DMP	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	3/19/2011
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

# UTILITY CONSTRUCTION

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MATCHLINE STA. 23+00 SEE SHT UC-4

NAD 83/2011

ABANDON 342 LF OF 6" UTILITY PIPE

PER CITY OF KING, THERE IS NOT AN EXISTING 6" AC WATER LINE HERE AS SHOWN IN THE NCDOT SURVEY DRAWING. CONTRACTOR TO VERIFY PRIOR TO INSTALLING PROPOSED WATER LINES.

PROP. - 1 - RELOCATE WATER METER, 95 LF OF WATER SERVICE LINE

PROP. - 1 - RELOCATE FIRE HYDRANT, 1 - 6" VALVE, 80 LF OF FIRE HYDRANT LEG

PROP. - 295 LF OF 12" WATER LINE

PROP. - 24 LF OF 2" WATER LINE 1 - 2" VALVE

PROP. - 30 LF OF 6" WATER LINE 1 - 6" VALVE

PROP. - 25 LF OF 6" WATER LINE 1 - 6" VALVE

PROP. - 1 - 12" VALVE 98 LF - 12" WATER LINE (SEE UC-6 FOR PROFILE)

ABANDON 70 LF 6" UTIL. PIPE

PROP. - 1 - 6" VALVE, 25 LF OF 6" WATER LINE

APPROXIMATE LOCATION OF EX. 12" PVC WATER LINE, PER CITY OF KING (NOT SHOWN IN NCDOT SURVEY DRAWING). CONTRACTOR TO VERIFY LOCATION, SIZE, AND PIPE MATERIAL PRIOR TO INSTALLING PROPOSED WATER LINES.

APPROXIMATE LOCATION OF EX. 6" AC WATER LINE, PER CITY OF KING (NOT SHOWN IN NCDOT SURVEY DRAWING). CONTRACTOR TO VERIFY LOCATION, SIZE, AND PIPE MATERIAL PRIOR TO INSTALLING PROPOSED WATER LINES.

PER CITY OF KING, THERE IS NOT AN EXISTING 12" AC WATER LINE HERE AS SHOWN IN THE NCDOT SURVEY DRAWING. CONTRACTOR TO VERIFY PRIOR TO INSTALLING PROPOSED WATER LINES.

THE ESTIMATED QUANTITY OF D.I. WATER PIPE FITTINGS ON THIS PLAN SHEET IS 3,030 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



