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 \$\$\$DGN\$\$\$
 \$\$\$USERNAME\$\$\$

TIP PROJECT: 17BP.9.R.83

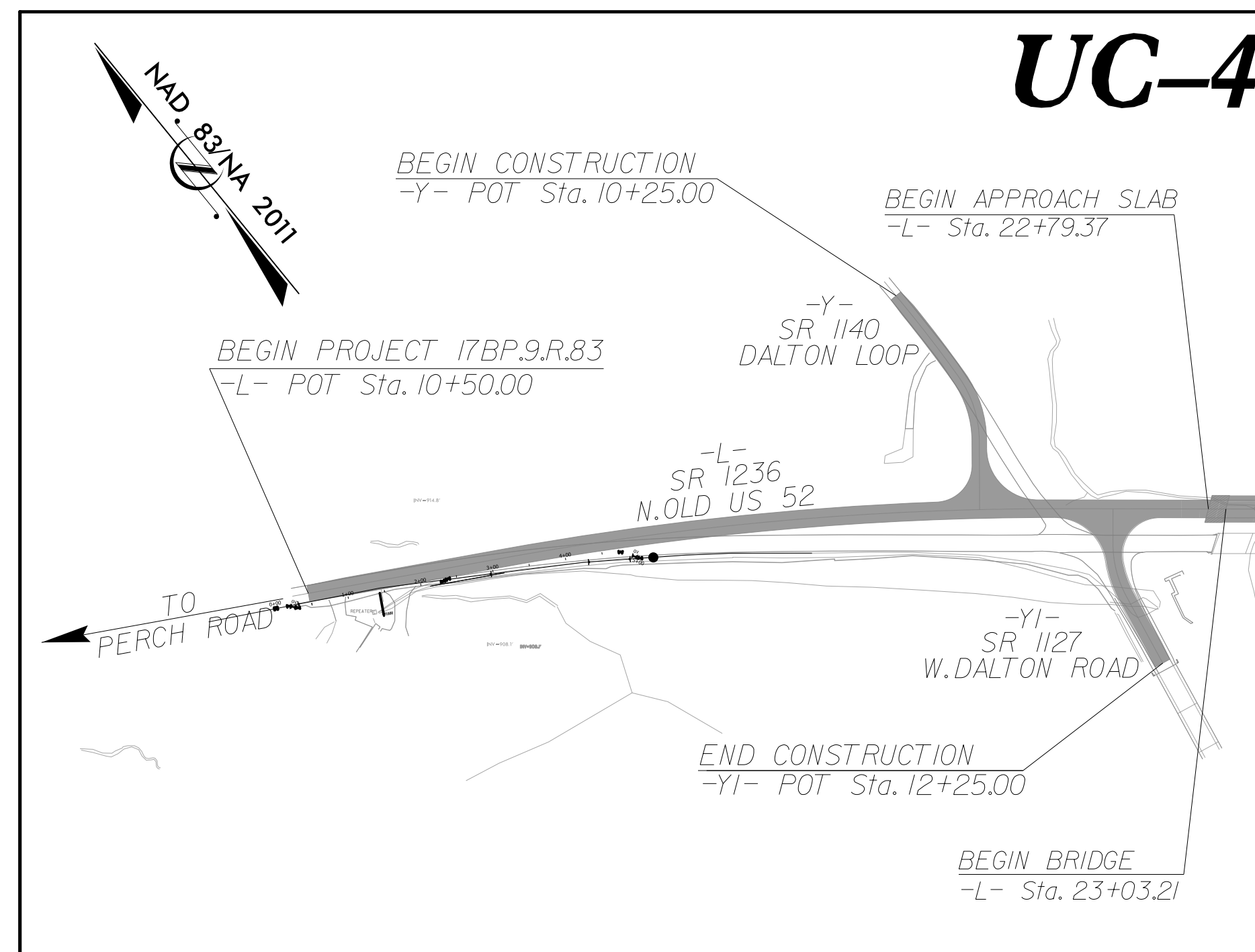
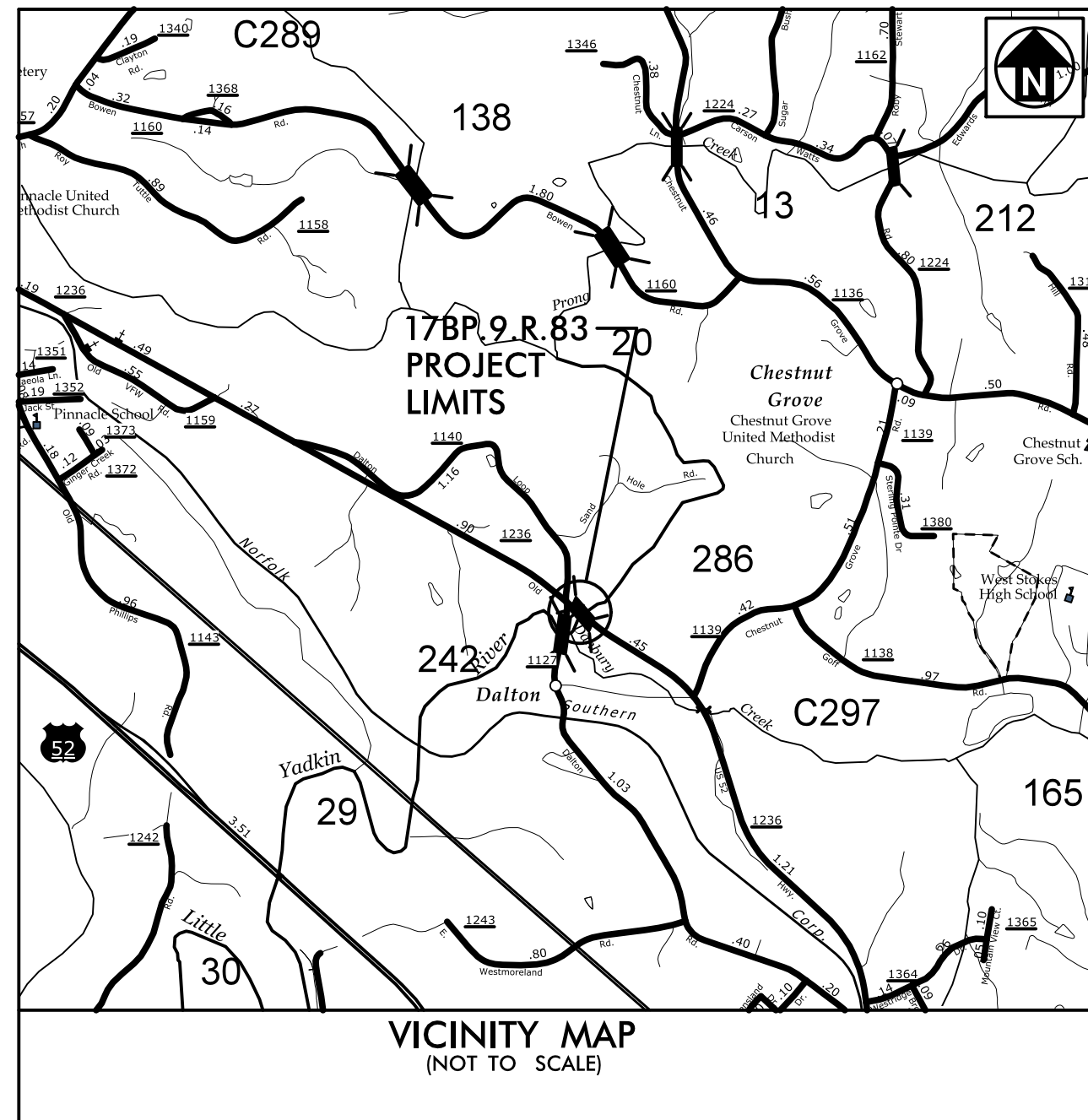
T.I.P. NO.	SHEET NO.
17BP.9.R.83	UC-1

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

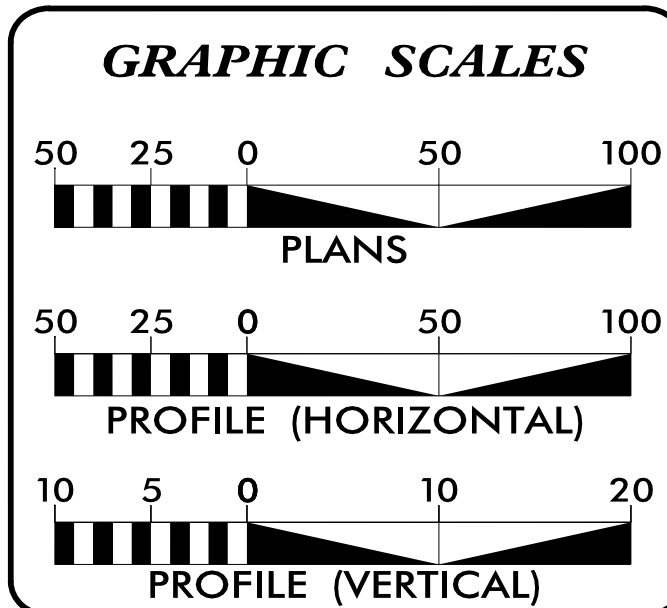
**UTILITY CONSTRUCTION PLANS
 STOKES COUNTY**

**LOCATION: BRIDGE NO. 286 OVER LITTLE YADKIN RIVER)
 ON SR 1236 (NORTH OLD 52)**

TYPE OF WORK: WATER LINE RELOCATION



**DOCUMENT NOT CONSIDERED FINAL
 UNTIL ALL SIGNATURES ARE COMPLETED**



INDEX OF SHEETS

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

UTILITY OWNERS ON PROJECT

(A) WATER (CITY OF KING)

PREPARED IN THE OFFICE OF

Wooten

300 S. Main Street • Winston-Salem, NC 27101
 (336) 722-5326 • thewootencompany.com
 License Number: F-0115

<u>John C. Grey, P.E.</u>	CONSULTANT CONTACT #1
<u>J. Perry Mayhew, P.E.</u>	CONSULTANT CONTACT #2
_____	CONSULTANT CONTACT #3

SEAL

2/11/2025

Document Not Considered Final
 Unless All Signatures Completed
 UTILITY CONSTRUCTION
 PLANS ONLY

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

<u>Amy Dupree York</u>	UTILITIES REGIONAL ENGINEER
<u>David Trantham, Div. 9</u>	UTILITIES ENGINEER
<u>Lou Porter, Div. 9</u>	UTILITIES AREA COORDINATOR
<u>Mark Hood, SO-DEEP</u>	UTILITIES COORDINATOR

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	
11¼ Degree Bend	
22½ Degree Bend	
45 Degree Bend	
90 Degree Bend	
Plug	
Tee	
Cross	
Reducer	
Gate Valve	
Butterfly Valve	
Tapping Valve	
Line Stop	
Line Stop with Bypass	
Blow Off	
Fire Hydrant	
Relocate Fire Hydrant	
Remove Fire Hydrant	REM FH
Water Meter	
Relocate Water Meter	
Remove Water Meter	REM WM
Water Pump Station	
RPZ Backflow Preventer	
DCV Backflow Preventer	
Relocate RPZ Backflow Preventer	
Relocate DCV Backflow Preventer	

PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	
Force Main Sewer Line (Sized as Shown)	
Manhole (Sized per Note)	
Sewer Pump Station	

PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Telephone Pedestal	
Utility Line by Others (Type as Shown)	
Trenchless Installation	
Encasement by Open Cut	
Encasement	

Thrust Block	
Air Release Valve	
Utility Vault	
Concrete Pier	
Steel Pier	
Plan Note	
Pay Item Note	

NOTE
PAY ITEM

EXISTING UTILITIES SYMBOLS

Power Pole		*Underground Power Line	
Telephone Pole		*Underground Telephone Cable	
Joint Use Pole		*Underground Telephone Conduit	
Utility Pole		*Underground Fiber Optics Telephone Cable	
Utility Pole with Base		*Underground TV Cable	
H-Frame Pole		*Underground Fiber Optics TV Cable	
Power Transmission Line Tower		*Underground Gas Pipeline	
Water Manhole		Aboveground Gas Pipeline	
Power Manhole		*Underground Water Line	
Telephone Manhole		Aboveground Water Line	
Sanitary Sewer Manhole		*Underground Gravity Sanitary Sewer Line	
Hand Hole for Cable		Aboveground Gravity Sanitary Sewer Line	
Power Transformer		*Underground SS Forced Main Line	
Telephone Pedestal		Underground Unknown Utility Line	
CATV Pedestal		SUE Test Hole	
Gas Valve		Water Meter	
Gas Meter		Water Valve	
Located Miscellaneous Utility Object		Fire Hydrant	
Abandoned According to Utility Records	AATUR	Sanitary Sewer Cleanout	
End of Information	E.O.I.		

*For Existing Utilities
Utility Line Drawn from Record (Type as Shown)
Designated Utility Line (Type as Shown)

5/14/99
REV: 2/1/2012

UTILITY CONSTRUCTION


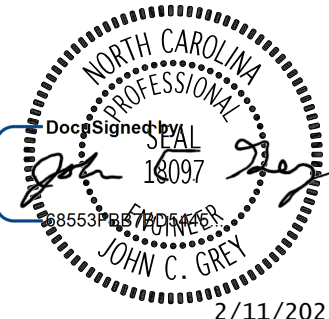
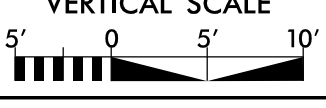

GENERAL NOTES:

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 2024.
2. THE EXISTING WATER UTILITIES BELONG TO 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 AND PUBLIC WATER SUPPLY SECTION.
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 DEPARTMENT. 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 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 WITHOUT ENDANGERING THE UTILITY SERVICE AND IN ACCORDANCE WITH UTILITY OWNER'S REQUIREMENTS. ALL EXISTING WATER MAINS MUST REMAIN ACTIVE AT ALL TIMES DURING CONSTRUCTION. EXISTING WATER MAINS SHALL NOT BE TAKEN OUT OF SERVICE UNTIL NEW MAINS HAVE BEEN TESTED, DISINFECTED AND CERTIFIED. THIS IS PROVIDED AS A GUIDE ONLY AND IS NOT INTENDED TO BE BINDING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ADEQUATE SEQUENCING AND BYPASS PUMPING.
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. NEW WATER MAIN AND APPURTENANCES MUST BE CONSTRUCTED, TESTED, APPROVED FOR SERVICE PRIOR TO EXISTING WATER MAIN BEING TAKEN OUT OF SERVICE.
2. NEW WATER MAIN MAY BE CONSTRUCTED IN PHASES TO FACILITATE ROADWAY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION OF A PHASING PLAN CLEARLY IDENTIFYING EACH PHASE AND SUBMIT FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION. EACH COMPLETED PHASE MUST RECEIVE NCDEQ FINAL APPROVAL PRIOR TO BEING PLACED INTO SERVICE.
3. REMOVAL OF ALL ASBESTOS CEMENT (AC) PIPE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. CONTACT JEFF DELLINGER (919-707-5950) WITH NCDHHS FOR FURTHER INFORMATION.
4. WATER LINE PIPE MATERIAL SHALL EITHER BE DUCTILE IRON OR C-900 PVC (DR-14).

PREPARED IN THE OFFICE OF:  <small>300 S. Main Street • Winston-Salem, NC 27101 (336) 722-6326 • thewootencompany.com License Number: F-0115</small>	PROJECT REFERENCE NO.	SHEET NO.
	17BP.9.R.83	UC-3
	DESIGNED BY: JCG	
	DRAWN BY: BTH	
CHECKED BY: KJW		
APPROVED BY: JCG	REVISED: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
VERTICAL SCALE 	HORIZONTAL SCALE 	<small>2/11/2025 Document Not Considered Final Unless All Signatures Completed UTILITY CONSTRUCTION PLANS ONLY</small>
WATER LINE CONSTRUCTION SHOWN ON THIS SHEET		

UTILITY CONSTRUCTION

PROJECT TYPICAL DETAILS

PREPARED IN THE OFFICE OF:

PROJECT REFERENCE NO. 17BP.9.R.83 SHEET NO. UC-3A

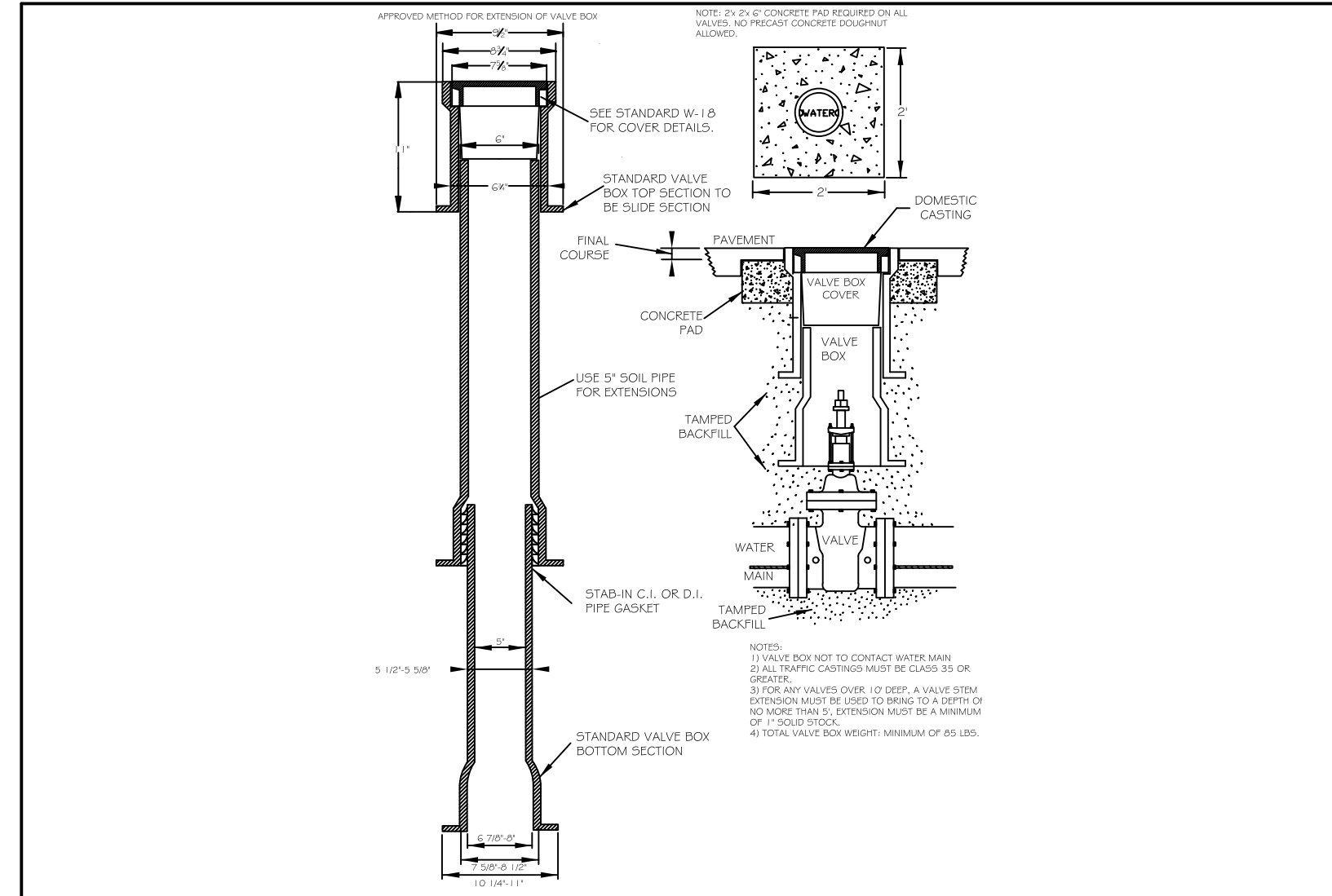
DESIGNED BY: JCG
 DRAWN BY: BTH
 CHECKED BY: KJW
 APPROVED BY: JCG

REVIS: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151

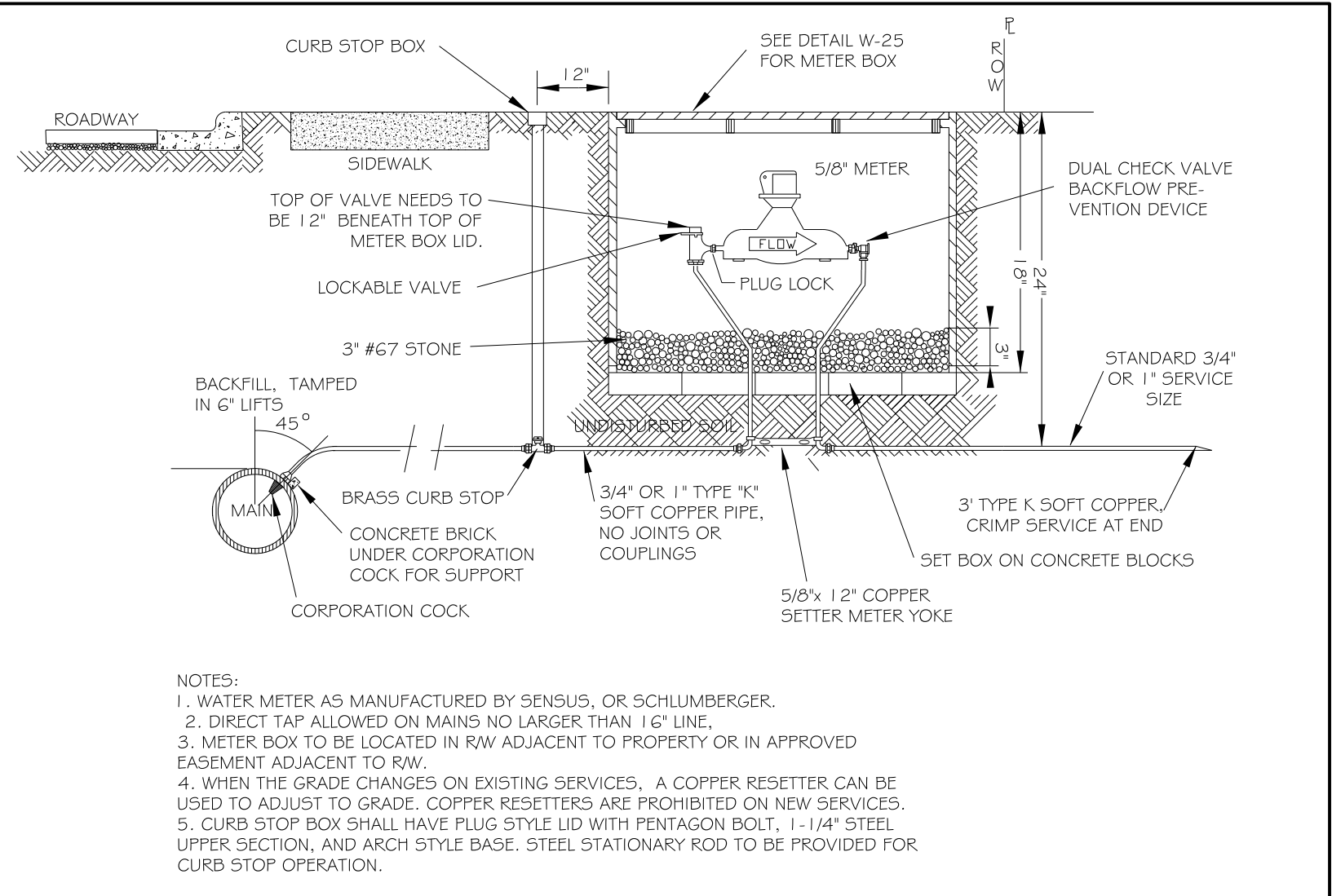
2/11/2025
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VERTICAL SCALE 0 5' 10'
 HORIZONTAL SCALE 0 25' 50'

WATER LINE CONSTRUCTION SHOWN ON THIS SHEET



1 VALVE BOX INSTALLATION AND EXTENSION DETAIL
 UC-3A NOT TO SCALE



2 STANDARD 3/4" & 1" WATER SERVICE INSTALLATION
 UC-3A NOT TO SCALE

SECTION OF MASONRY PIPE PLUG

SECTION OF CONCRETE PIPE PLUG

PIPE SIZE	QUANTITIES
12"	0.029
15"	0.045
18"	0.065
24"	0.116
30"	0.182
36"	0.262
42"	0.356
48"	0.465
54"	0.589
60"	0.727
66"	0.880

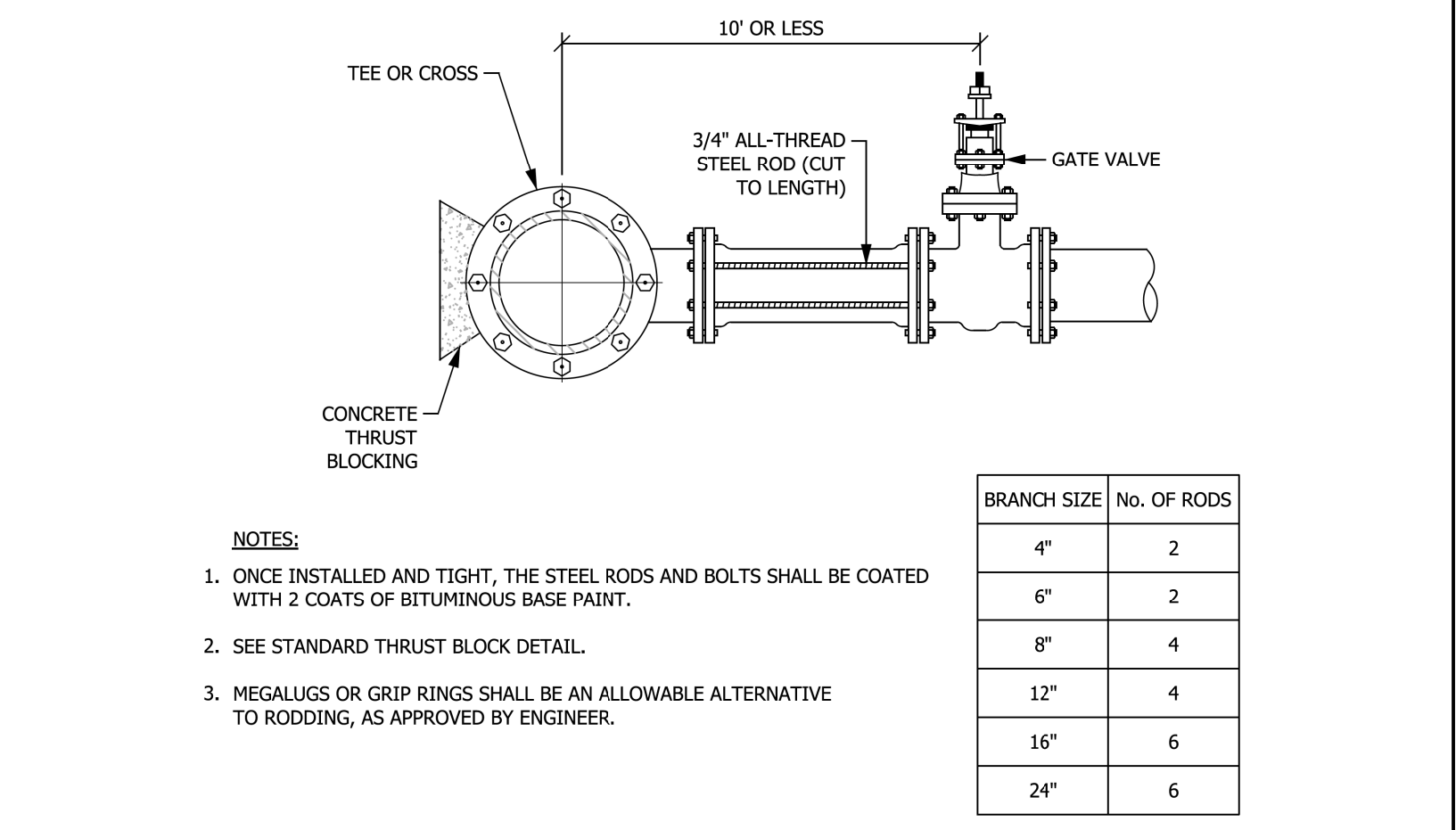
NOTE: EITHER BRICK MASONRY OR CONCRETE MAY BE USED. CONCRETE BRICK MAY BE USED IN LIEU OF CLAY BRICK. JUMBO BRICK WILL BE PERMITTED.

NOTE: USE PAY LIMITS (C.Y.) FOR PIPE PLUGS 12" IN THICKNESS ONLY.

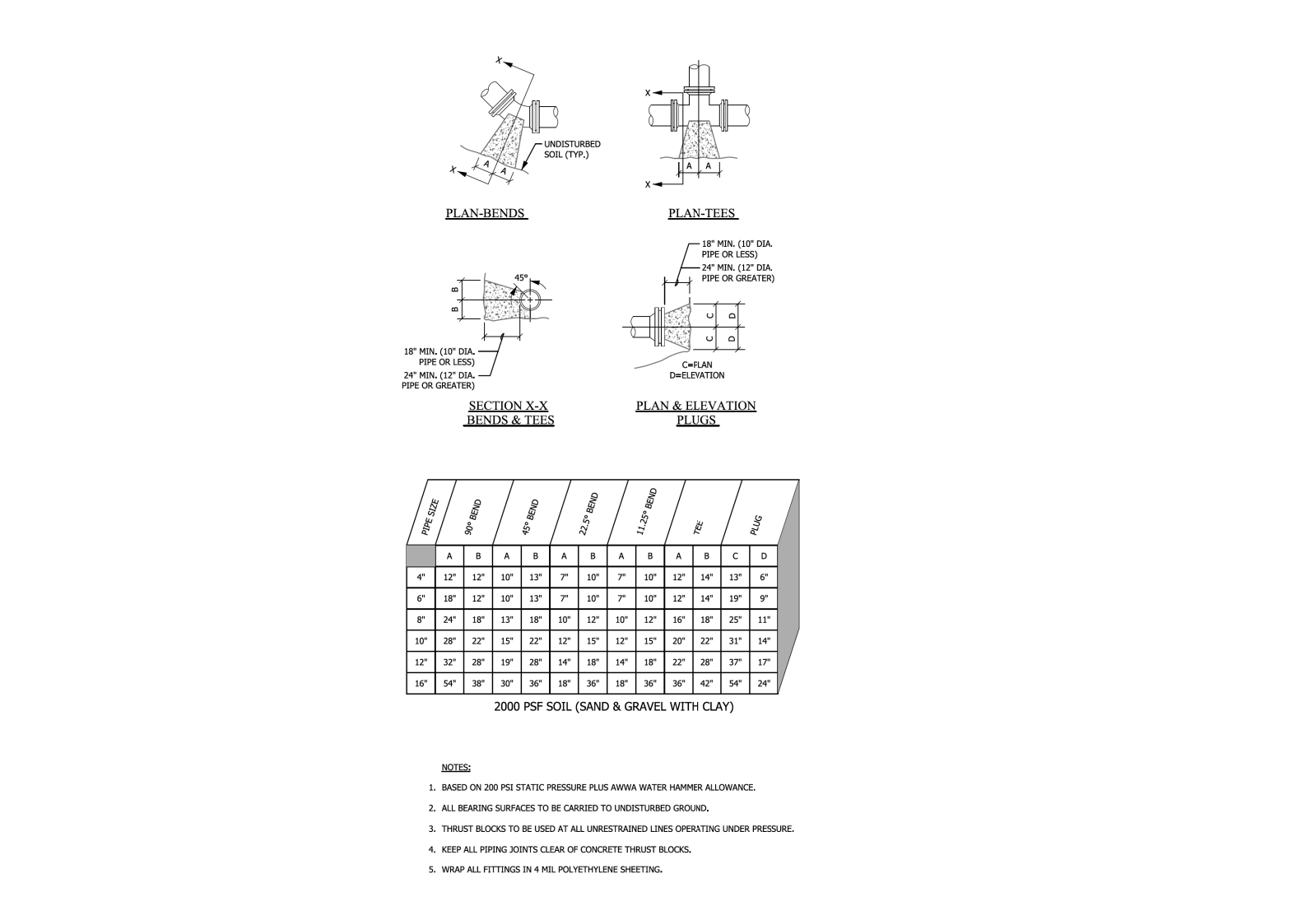
ROADWAY STANDARD DRAWING FOR CONCRETE AND BRICK PIPE PLUG

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS

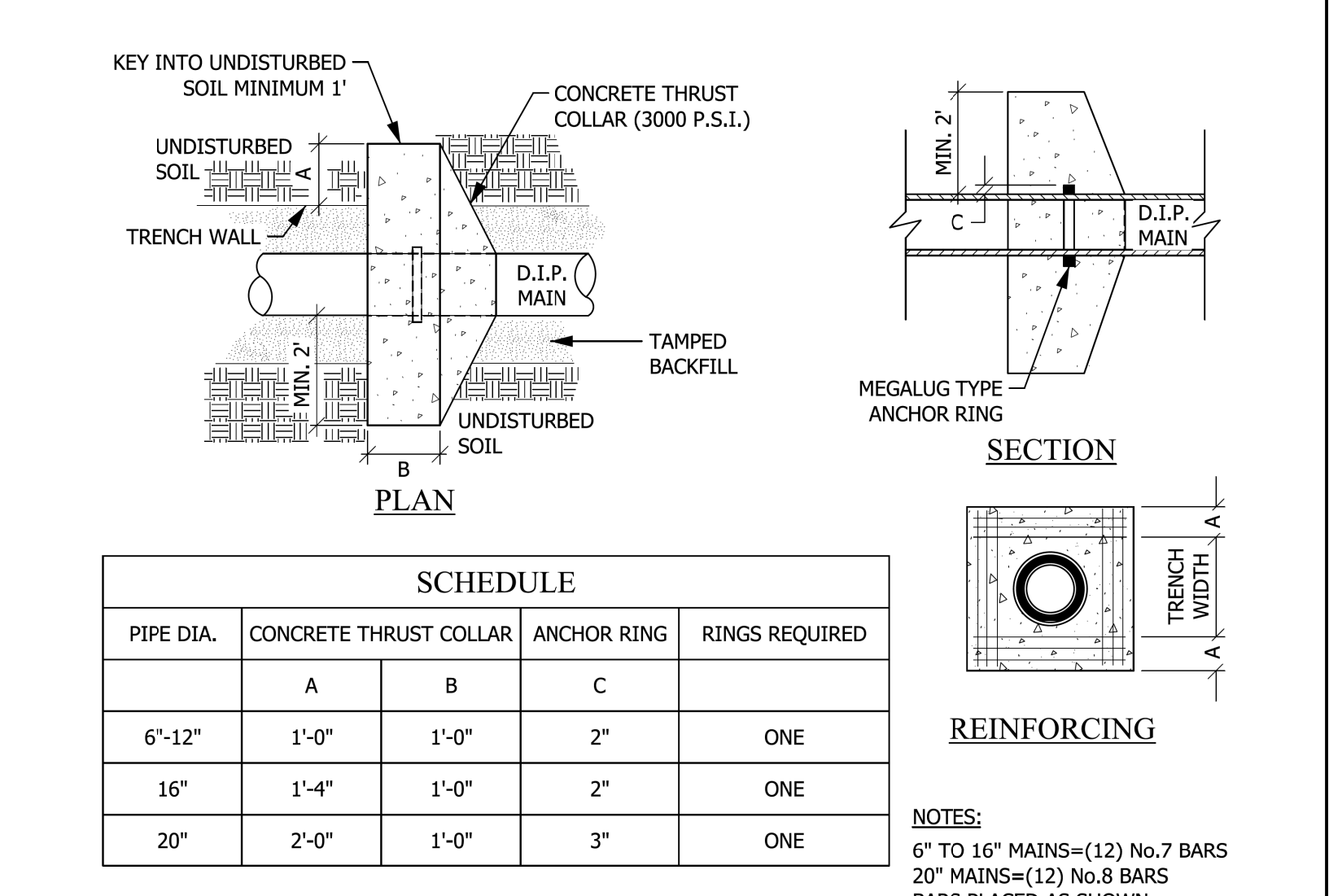
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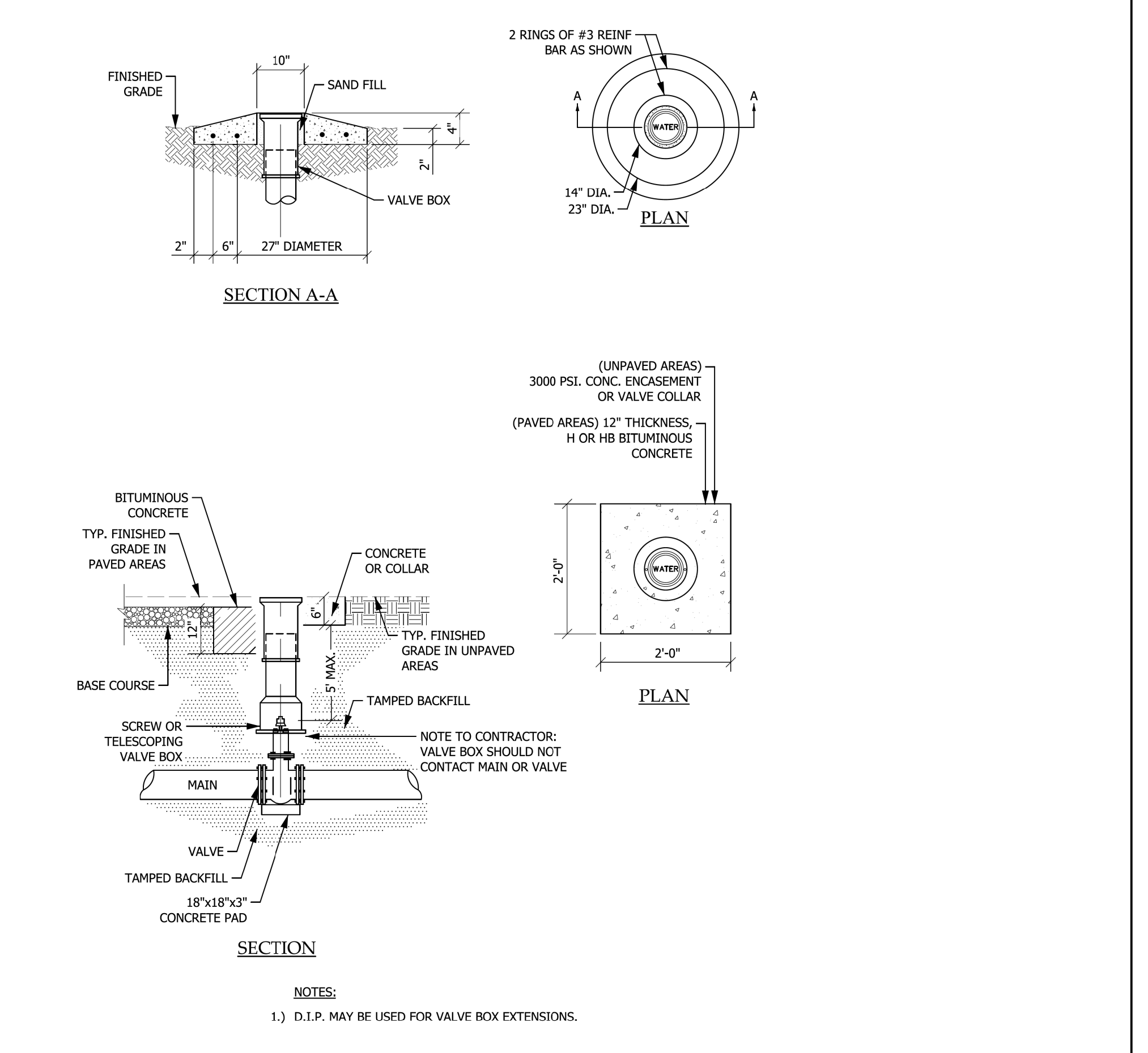
4 STANDARD VALVE RODDING
 UC-3A NOT TO SCALE



5 STANDARD HORIZONTAL THRUST BLOCKING
 UC-3A NOT TO SCALE

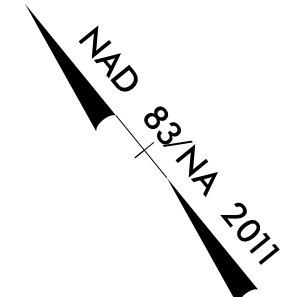


6 THRUST COLLAR INSTALLATION
 UC-3A NOT TO SCALE



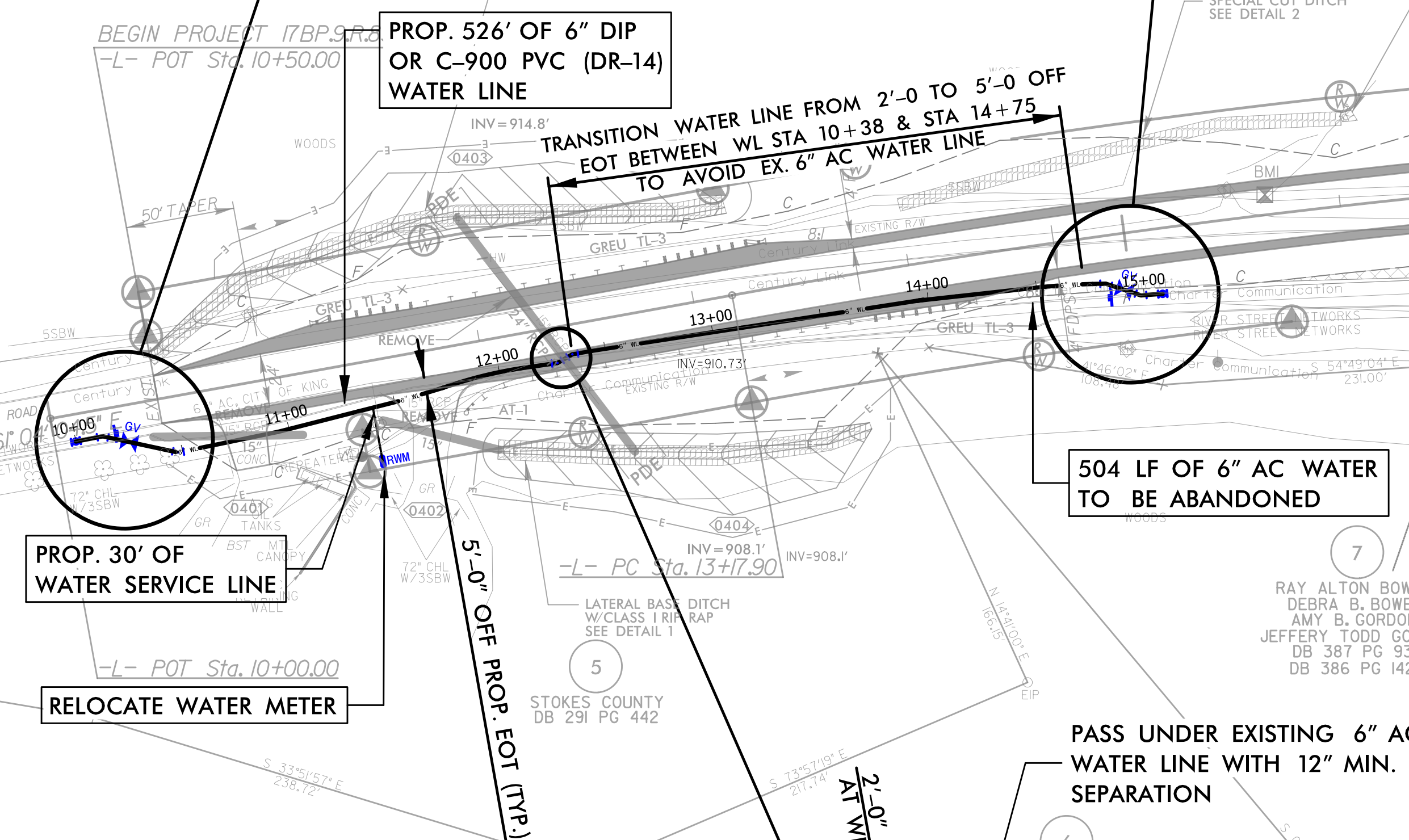
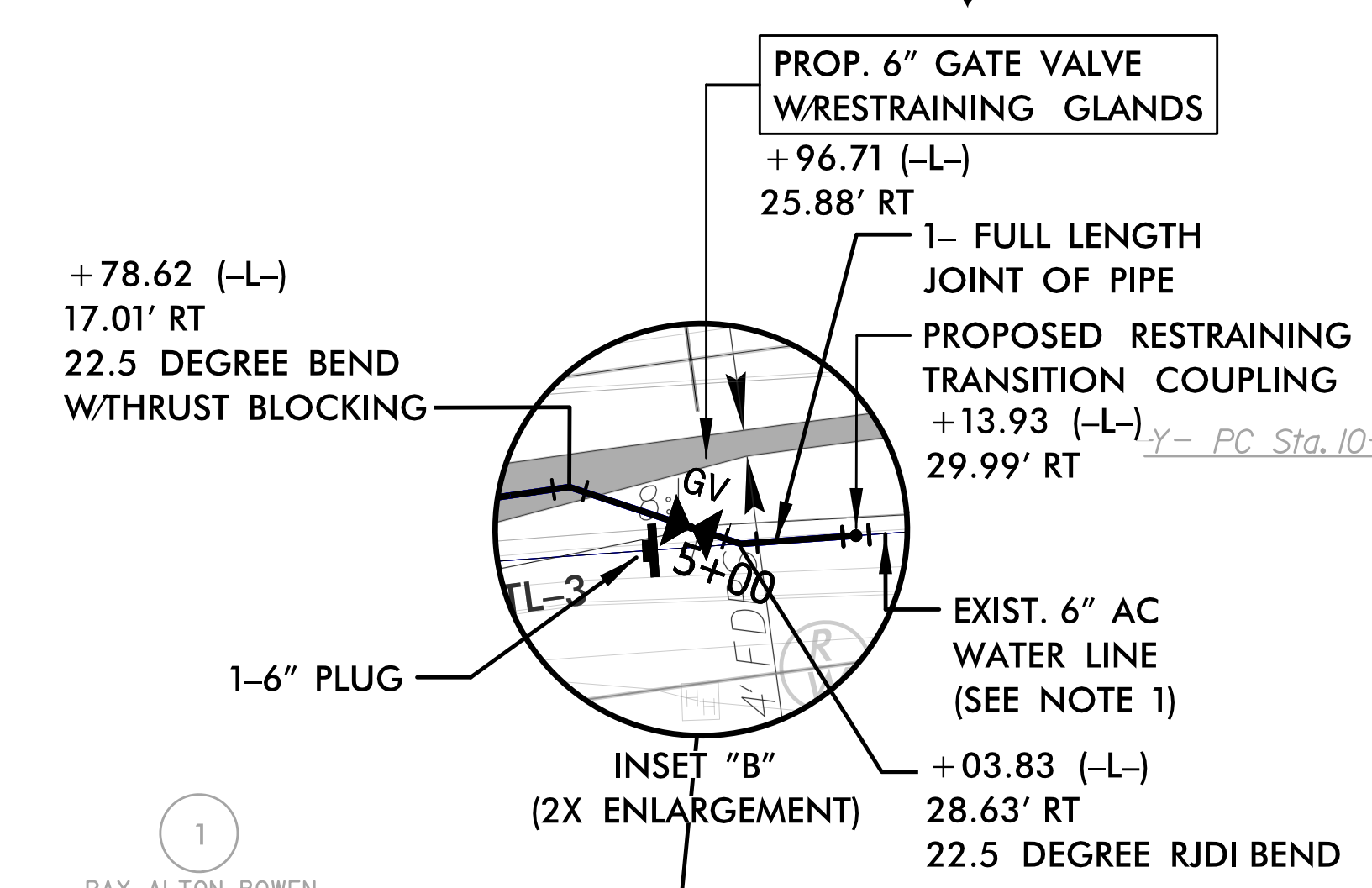
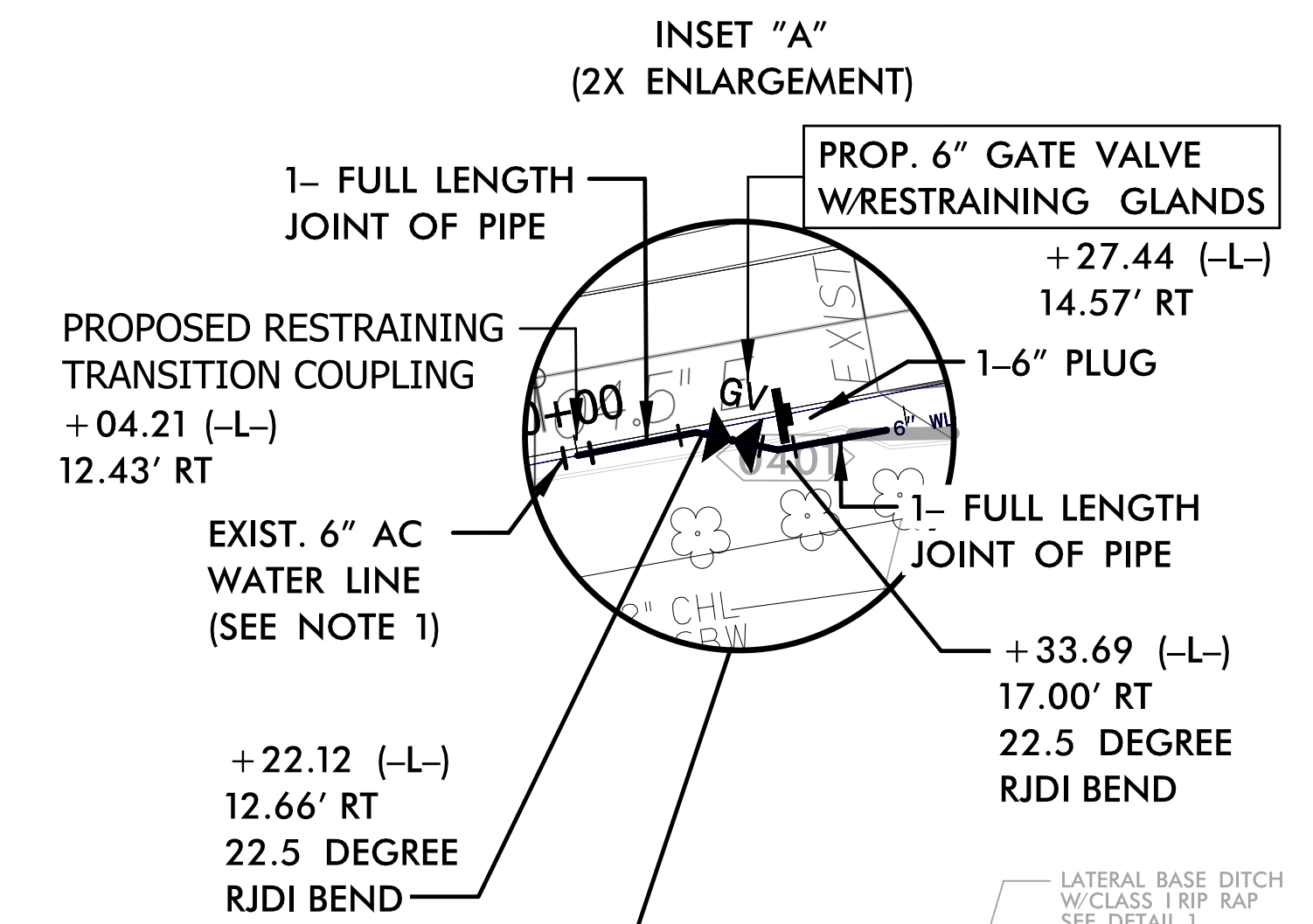
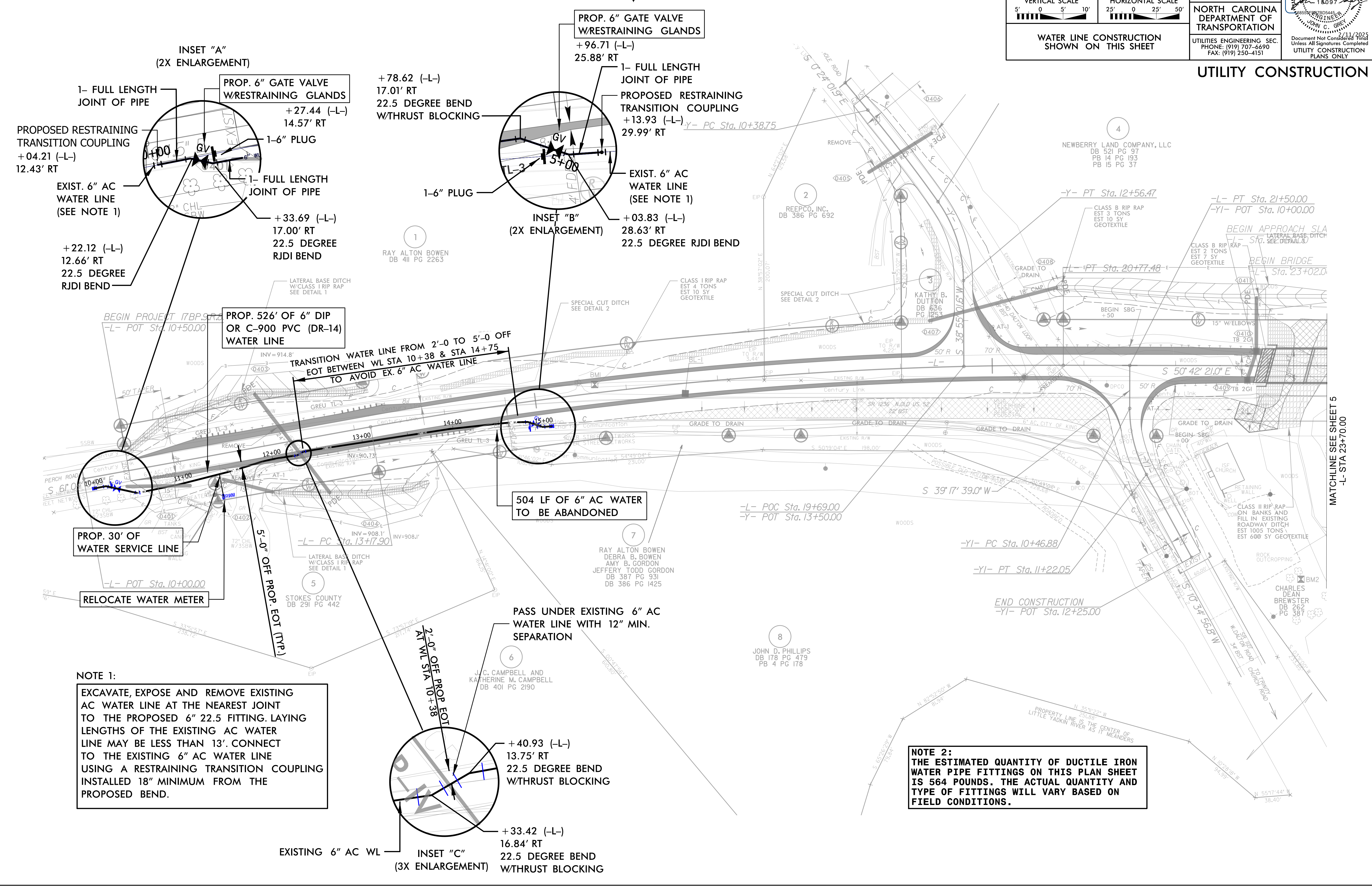
7 STANDARD VALVE BOX INSTALLATION DETAIL
 UC-3A NOT TO SCALE

5/14/99



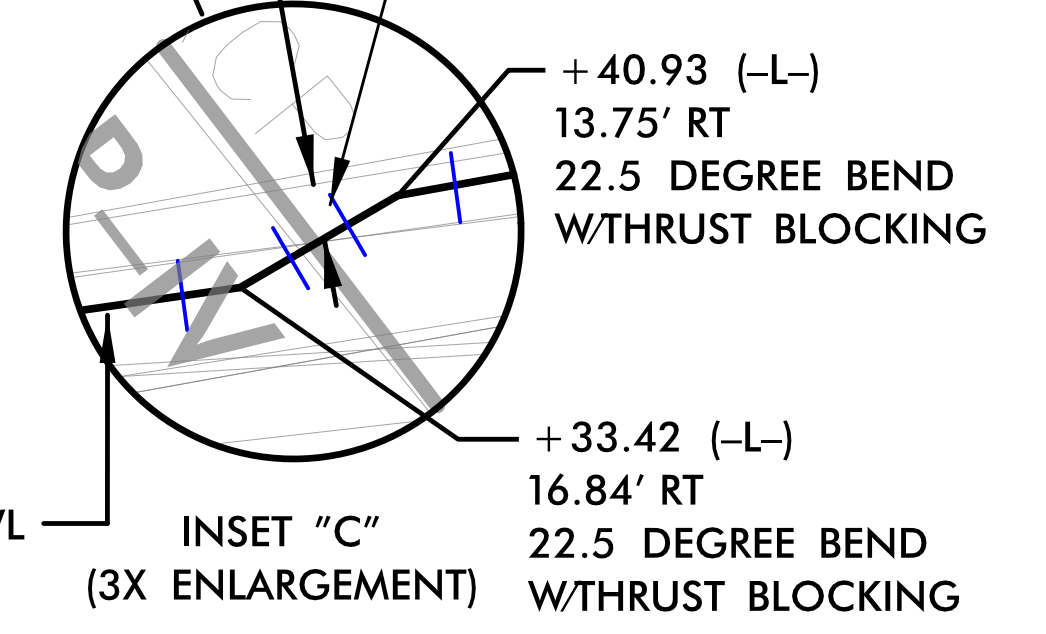
Wooten 119 Brookstown Ave, Suite 100 • Winston-Salem, NC 27101 (336) 722-5326 • thewootencompany.com License Number: F-0115	PROJECT REFERENCE NO. 17BP.9.R.83	SHEET NO. UC-4
	DESIGNED BY: JCG	
	CHECKED BY: KJW	
	APPROVED BY: JCG	
REVISD: 5/4/2023	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

UTILITY CONSTRUCTION



NOTE 1:

EXCAVATE, EXPOSE AND REMOVE EXISTING AC WATER LINE AT THE NEAREST JOINT TO THE PROPOSED 6" 22.5 FITTING. LAYING LENGTHS OF THE EXISTING AC WATER LINE MAY BE LESS THAN 13'. CONNECT TO THE EXISTING 6" AC WATER LINE USING A RESTRAINING TRANSITION COUPLING INSTALLED 18" MINIMUM FROM THE PROPOSED BEND.



NOTE 2:

THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 564 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

MATCHLINE SEE SHEET 5 -L- STA 23+70.00

5/28/99

PREPARED IN THE OFFICE OF:

Wooten

300 S. Main Street • Winston-Salem, NC 27101
(803) 722-8300 • www.wootencompany.com
License Number: F-0115

PROJECT REFERENCE NO.

17BP.9.R.83

SHEET NO.

UC-5

DESIGNED BY: JCG

DRAWN BY: BTH

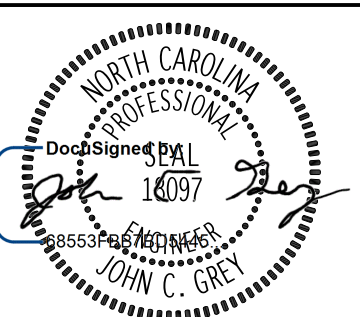
CHECKED BY: JCG

APPROVED BY: JCG

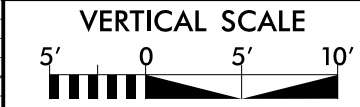
REVISED:

**NORTH CAROLINA
DEPARTMENT OF
TRANSPORTATION**

UTILITIES ENGINEERING - SEC.
PHONE: (919) 707-6690
FAX: (919) 250-4151



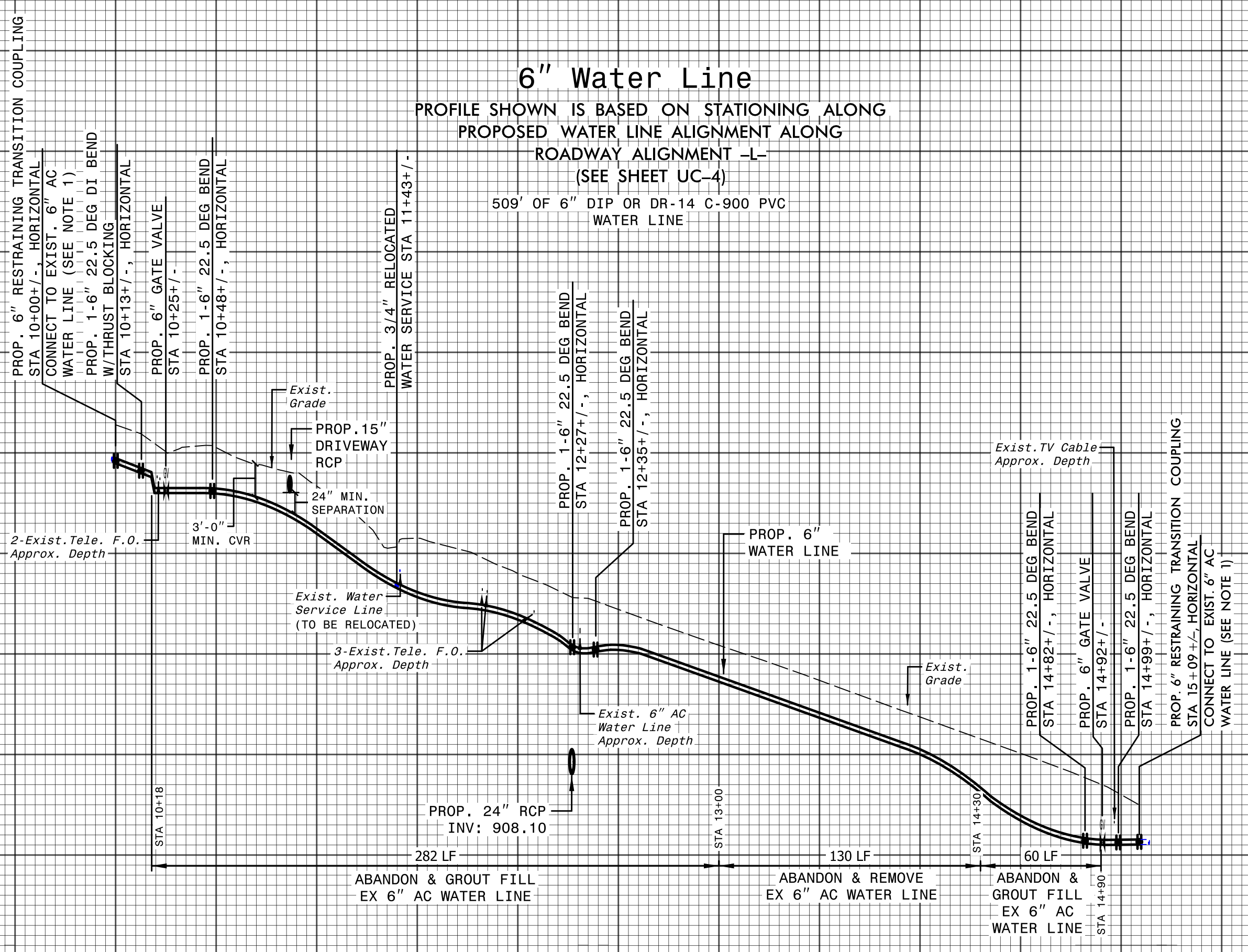
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**WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET**

UTILITY CONSTRUCTION

950
940
930
920
910
900
890



NOTE 1:
COMPETENT PERSON(S) IN COMPLIANCE
WITH OSHA'S ASBESTOS STANDARD FOR
CONSTRUCTION, 1926.1101, SHALL BE ON
SITE WHEN EXCAVATING NEAR AC PIPE.

5/28/99