

NCDOT NASH COUNTY REST AREA

I-95 WATER MAIN EXTENSION AND REPLACEMENT

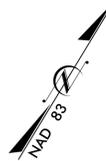
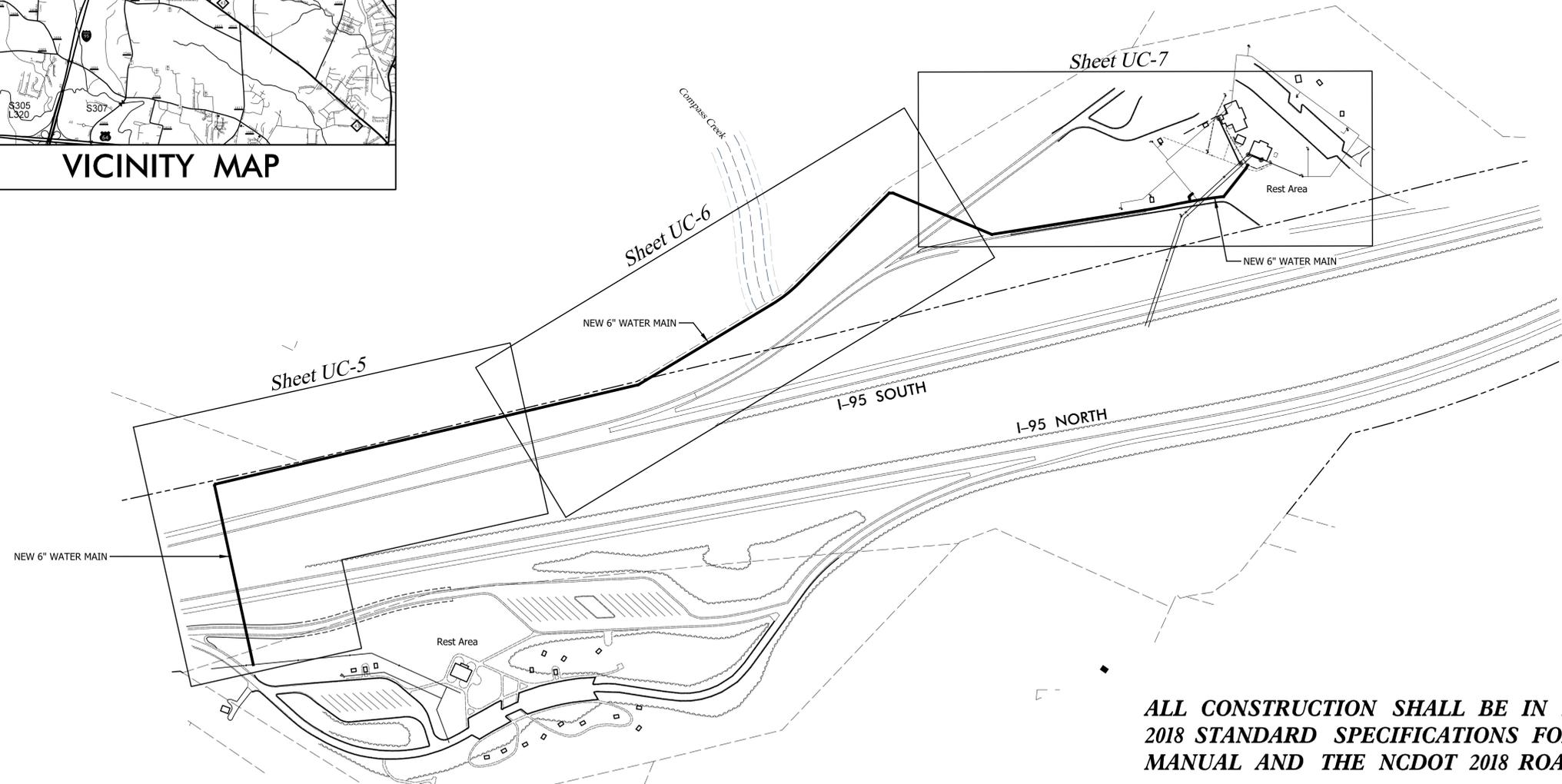
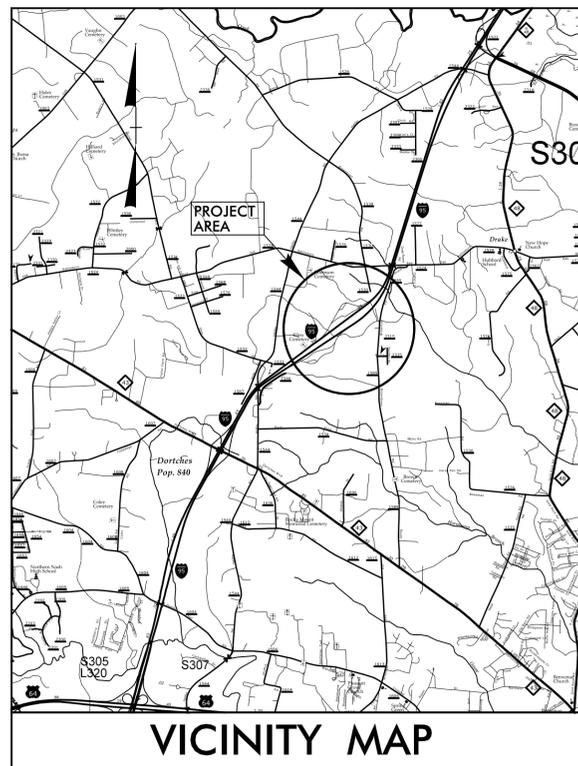
SHEET NO.	
UC-1	

UTILITY CONSTRUCTION PLANS DESIGNED BY:

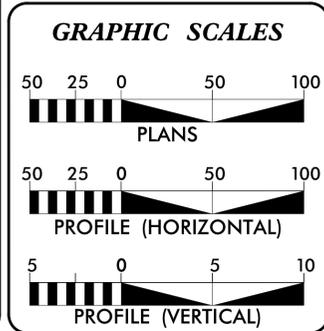


THE WOOTEN COMPANY
ENGINEERING | PLANNING | ARCHITECTURE
120 North Baylan Avenue, Raleigh, NC 27603-1423
919.828.0531 fax 919.834.3589
License Number: F-0115

James R. Gregg UTILITIES PROJECT ENGINEER



ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT 2018 STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES MANUAL AND THE NCDOT 2018 ROADWAY STANDARD DRAWINGS.



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOLOGY
UC-3	NOTES
UC-4A & UC-4B	DETAILS
UC-5 TO UC-7	UTILITY CONSTRUCTION SHEETS
UC-8 TO UC-9	PROFILE SHEETS

WATER OWNER ON PROJECT

(1) NCDOT

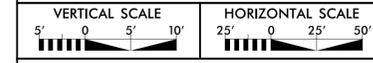
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SIMPSON - 195	SHEET NO.
WATER MAIN EXTENSION	UC-2
DESIGNED BY: JRG	
DRAWN BY: TK	
CHECKED BY: JRG	
APPROVED BY: JRG	
REVISED:	



WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	
11 1/4 Degree Bend	
22 1/2 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	
Water Meter	
Relocate Water Meter	
Remove Water Meter	
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	

EXISTING UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Utility Pole	
Utility Pole with Base	
H-Frame Pole	
Power Transmission Line Tower	
Water Manhole	
Power Manhole	
Telephone Manhole	
Sanitary Sewer Manhole	
Hand Hole for Cable	
Power Transformer	
Telephone Pedestal	
CATV Pedestal	
Gas Valve	
Gas Meter	
Located Miscellaneous Utility Object	
Abandoned According to Utility Records	
End of Information	

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

UTILITY CONSTRUCTION

*Underground Power Line	
*Underground Telephone Cable	
*Underground Telephone Conduit	
*Underground Fiber Optics Telephone Cable	
*Underground TV Cable	
*Underground Fiber Optics TV Cable	
*Underground Gas Pipeline	
Aboveground Gas Pipeline	
*Underground Water Line	
Aboveground Water Line	
*Underground Gravity Sanitary Sewer Line	
Aboveground Gravity Sanitary Sewer Line	
*Underground SS Forced Main Line	
Underground Unknown Utility Line	
SUE Test Hole	
Water Meter	
Water Valve	
Fire Hydrant	
Sanitary Sewer Cleanout	

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

UTILITY CONSTRUCTION

PREPARED IN THE OFFICE OF:  THE WOOTEN COMPANY ENGINEERING PLANNING ARCHITECTURE 120 North Spade Avenue Raleigh, NC 27603-1423 919.878.0531 fax 919.878.1599 License Number: F-0115	SIMPSON - 195	SHEET NO.
	WATER MAIN EXTENSION	UC-3
DESIGNED BY: JRG		
DRAWN BY: TK		
CHECKED BY: JRG		
APPROVED BY: JRG		
REVISED:		
VERTICAL SCALE HORIZONTAL SCALE  		
WATER LINE CONSTRUCTION SHOWN ON THIS SHEET		



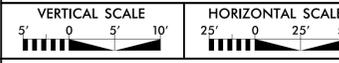
GENERAL NOTES:

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 NCDOT.
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 SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY 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 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 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. WATER SERVICES MAY ONLY BE SHUT DOWN FOR A MAXIMUM OF TWO (2) HOURS FOR SWITCHOVERS AND MAKING CONNECTIONS.
10. 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. PROPOSED WATER LINE SHALL BE PVC C900 DR-18, AND FUSIBLE PVC C900 DR 18 FOR HORIZONTAL DIRECTION DRILL (HDD) AS INDICATED ON THE CONSTRUCTION DRAWINGS.
2. PVC WITH JOINT RESTRAINT SHALL BE RESTRAINED JOINT DUCTILE IRON PIPE (RJD) CLASS 350, FUSIBLE PVC, OR PVC C900 DR 18 WITH BELL RESTRAINED. ALL RESTRAINED MUST BE APPROVED BY THE MANUFACTURER. GASKET-TYPE RESTRAINT WILL NOT BE ALLOWED.
3. CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102, 107, AND 1550 OF THE STANDARD SPECIFICATIONS CONCERNING TRENCHLESS INSTALLATION. IT IS CONTRACTOR'S RESPONSIBILITY TO HAVE BORE DESIGNED AND SEALED BY A LICENSED NORTH CAROLINA PROFESSIONAL ENGINEER. NO DAMAGE IS ALLOWED TO RIVER, WETLANDS, OR BUFFER ZONES.
4. TRACER WIRE AND WARNING TAPES SHALL BE INSTALLED WITH ALL PLASTIC PIPE UTILITIES. WIRE, TAPE AND PIPE SHALL BE COLOR CODED ACCORDING TO UTILITY (BLUE FOR WATER) AND SHALL BE IN ACCORDANCE WITH NCDOT SPECIFICATIONS.
5. FUSED PVC LENGTHS THAT HAVE BEEN INSTALLED IN THE TRENCH SHALL NOT BE BENT OR JOCKEYED INTO POSITION WITH HEAVY EQUIPMENT IN ORDER TO CONNECT TO FITTINGS. ALL ALIGNMENT CORRECTIONS TO TAKE PLACE IN THE DIP FITTINGS.
6. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLAN TO NCDOT AND ENGINEER FOR REVIEW/APPROVAL FOR ALL WORK ADJACENT TO SHOULDER AND TRAVEL LANES. CONTRACTOR SHALL PROVIDE NOTICE TO NCDOT AT LEAST 24 HOURS IN ADVANCE OF ALL LANE OR SHOULDER CLOSURES.
7. CONTRACTOR SHALL BE REQUIRED TO ADHERE TO ALL TRAFFIC CONTROL PROCEDURES AS INDICATED IN THE MOST RECENT EDITION OF THE MUTCD FOR ALL LANE AND SHOULDER CLOSURES.
8. A QUALIFIED AND TRAINED WORK ZONE TRAFFIC CONTROL SUPERVISOR SHALL BE REQUIRED ON THIS PROJECT. NO LANE OR SHOULDER SHALL BE CLOSED OR RESTRICTED BETWEEN THE HOURS OF 7:00 TO 9:00 AM AND 4:00 TO 6:00 PM. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD BETWEEN NCDOT, THE CONTRACTOR, AND THE ENGINEER.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL EROSION AND SEDIMENTATION CONTROL MEASURES. CONTRACTOR SHALL INSTALL ALL MEASURES NECESSARY TO PREVENT SEDIMENTATION FROM LEAVING THE CONSTRUCTION AREA. MEASURES MAY BE REQUIRED IN ADDITION TO THOSE SHOW ON THE DRAWINGS.
10. CONTRACTOR SHALL USE DUE DILIGENCE TO MINIMIZE THE AMOUNT OF TIME THAT LANE AND/OR SHOULDER CLOSURES ARE REQUIRED.
11. CONTRACTOR SHALL USE DUE DILIGENCE TO MINIMIZE THE AMOUNT OF MATERIALS THAT MUST BE STORED ON SITE DURING CONSTRUCTION.
12. CONTRACTOR SHALL USE RESTRAINED JOINT PIPE IN LIEU OF CONCRETE BLOCKING.
13. ALL VEGETATIVE MATERIAL MUST BE CHIPPED ON-SITE AND THEN DISPOSED OF PROPERLY OFF-SITE. HAULING OF TIMBER OFF-SITE WILL NOT BE ALLOWED.

UTILITY CONSTRUCTION



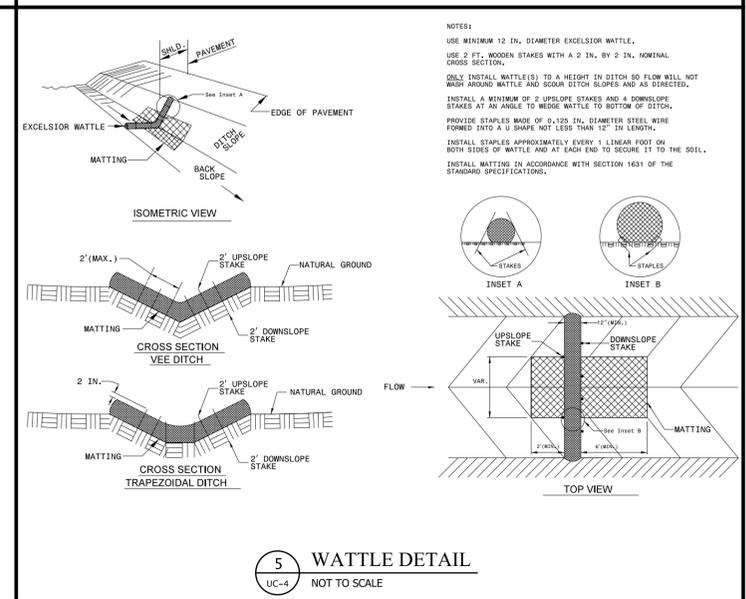
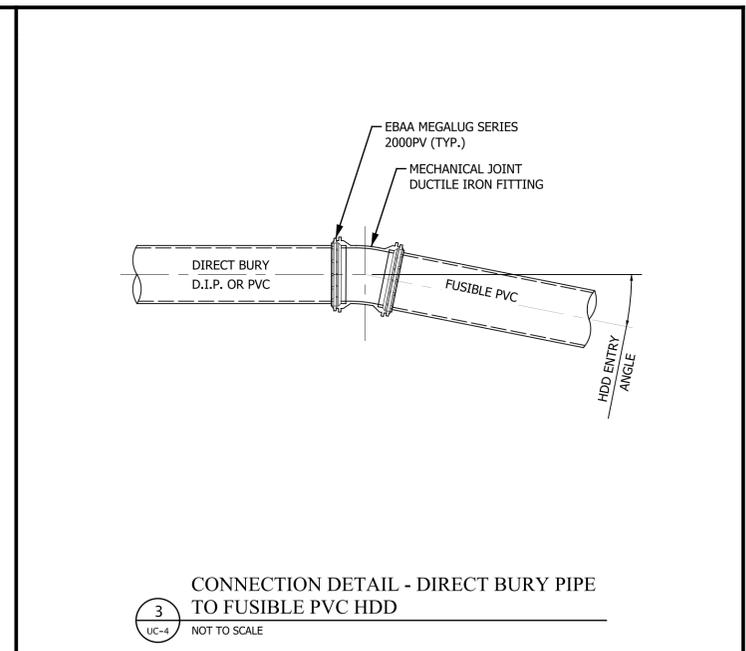
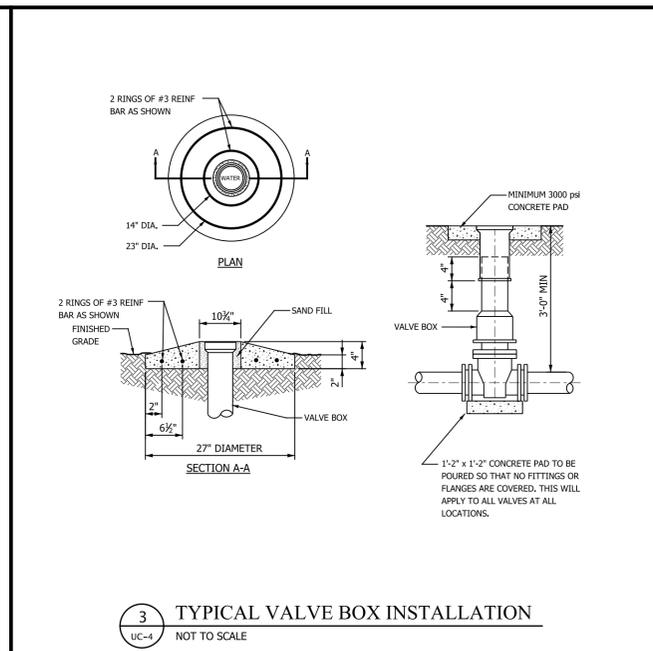
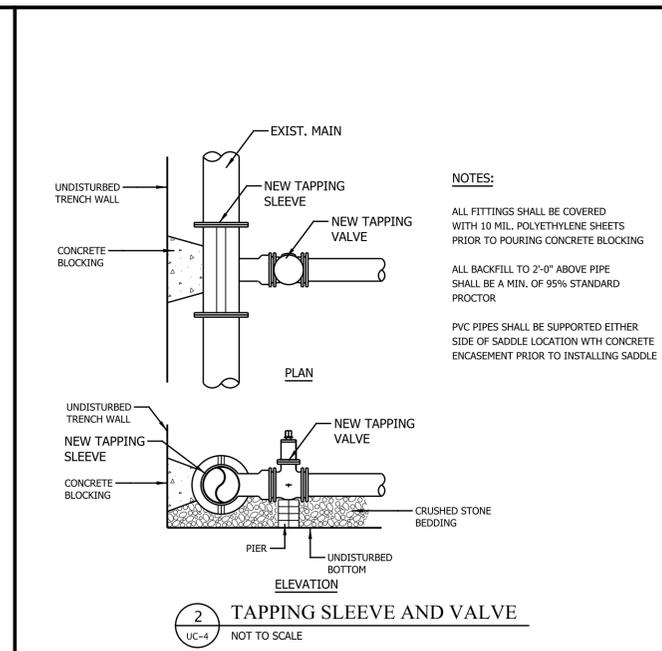
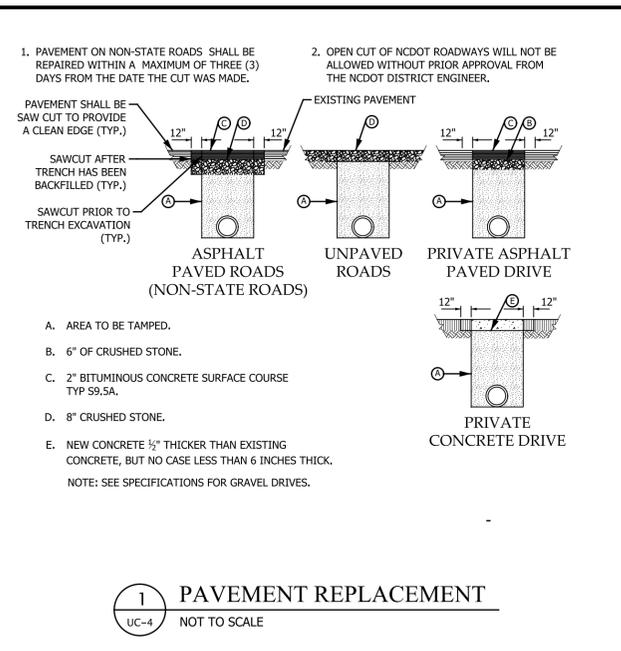
WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

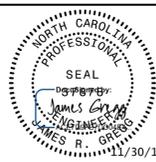
SIMPSON - 195	SHEET NO.
WATER MAIN EXTENSION	UC-4A
DESIGNED BY: JRG	
DRAWN BY: TK	
CHECKED BY: JRG	
APPROVED BY: JRG	
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UTILITY CONSTRUCTION

REFER TO NCDOT STANDARD DETAILS FOR THE FOLLOWING:

- 1605.01 - TEMPORARY SILT FENCE
- 1606.01 - SPECIAL SEDIMENT CONTROL FENCE
- 1607.01 - CONSTRUCTION ENTRANCE
- 1630.05 - TEMPORARY DIVERSION (DRAINAGE SLOPE)
- 1631.01 - MATTING INSTALLATION (TEMPORARY DITCH LINER)



PREPARED IN THE OFFICE OF:  THE WOOTEN COMPANY <small>ENGINEERING PLANNING ARCHITECTURE</small> <small>120 North Blount Street Raleigh, NC 27603-1423</small> <small>919.878.0531 fax 919.878.2588</small> <small>License Number: F-0015</small>	SIMPSON - 195	SHEET NO.
	WATER MAIN EXTENSION	UC-4B
DESIGNED BY: JRG		
DRAWN BY: TK		
CHECKED BY: JRG		
APPROVED BY: JRG		
REVISID:		



UTILITY CONSTRUCTION

**DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA**

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

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SIMPSON - 195 SHEET NO.

WATER MAIN EXTENSION UC-5

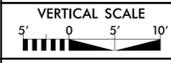
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CHECKED BY: JRG

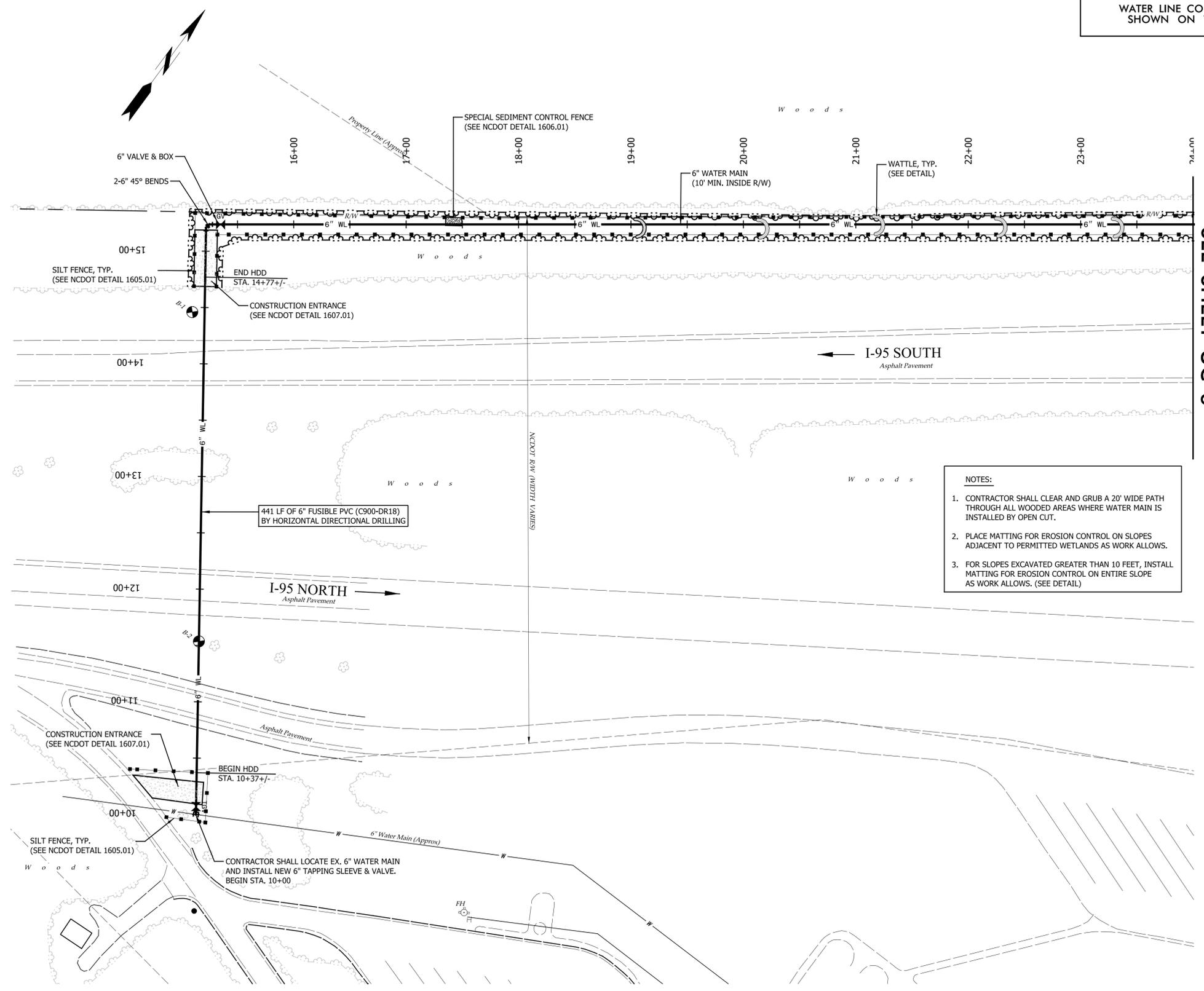
APPROVED BY: JRG

REVISED:



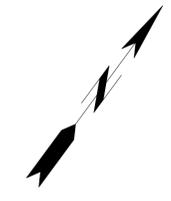
WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



MATCHLINE STA 24+00
SEE SHEET UC-6

- NOTES:**
1. CONTRACTOR SHALL CLEAR AND GRUB A 20' WIDE PATH THROUGH ALL WOODED AREAS WHERE WATER MAIN IS INSTALLED BY OPEN CUT.
 2. PLACE MATTING FOR EROSION CONTROL ON SLOPES ADJACENT TO PERMITTED WETLANDS AS WORK ALLOWS.
 3. FOR SLOPES EXCAVATED GREATER THAN 10 FEET, INSTALL MATTING FOR EROSION CONTROL ON ENTIRE SLOPE AS WORK ALLOWS. (SEE DETAIL)



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SIMPSON - 195 SHEET NO.

WATER MAIN EXTENSION UC-6

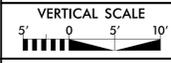
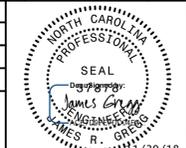
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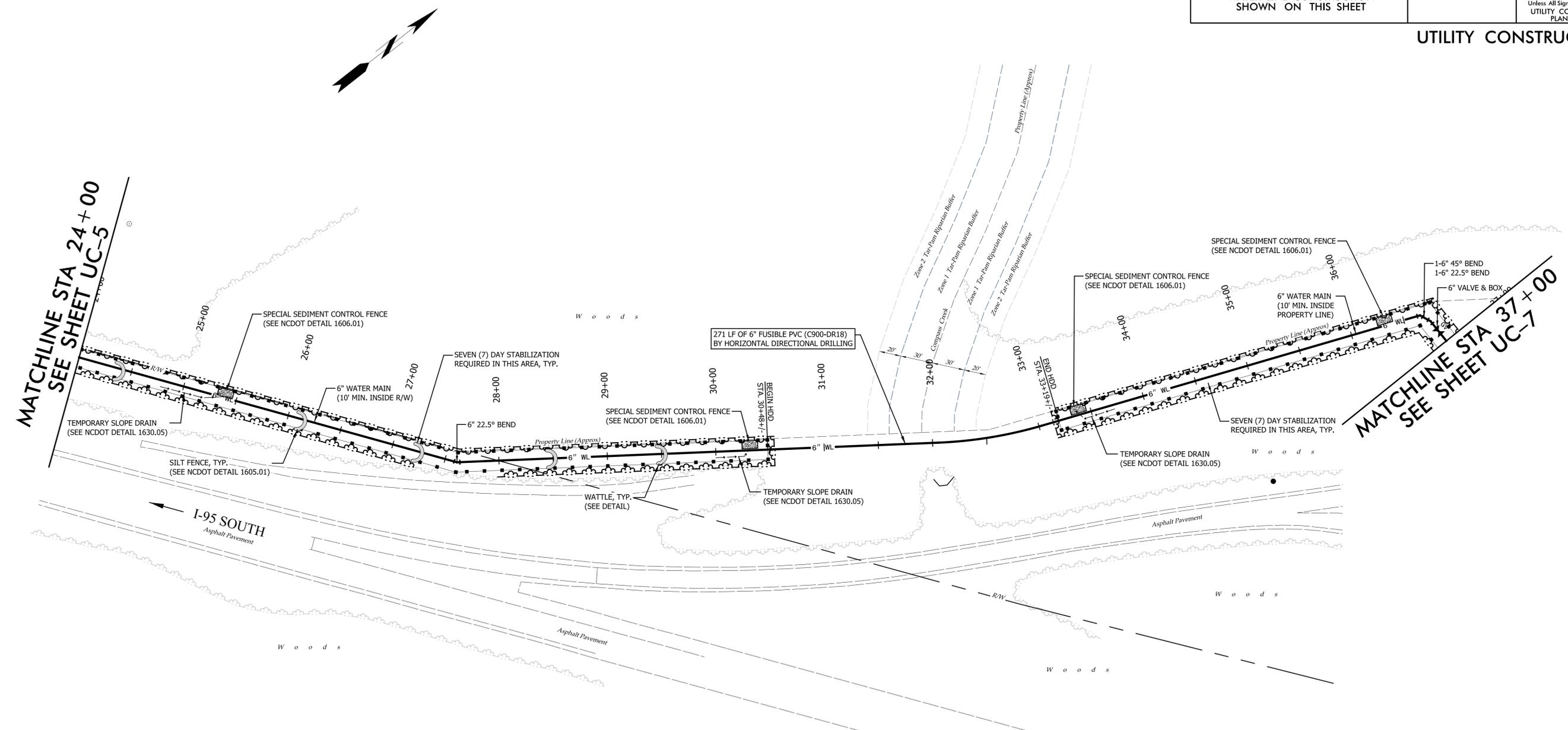
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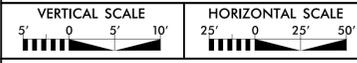
UTILITY CONSTRUCTION



MATCHLINE STA 24+00
SEE SHEET UC-5

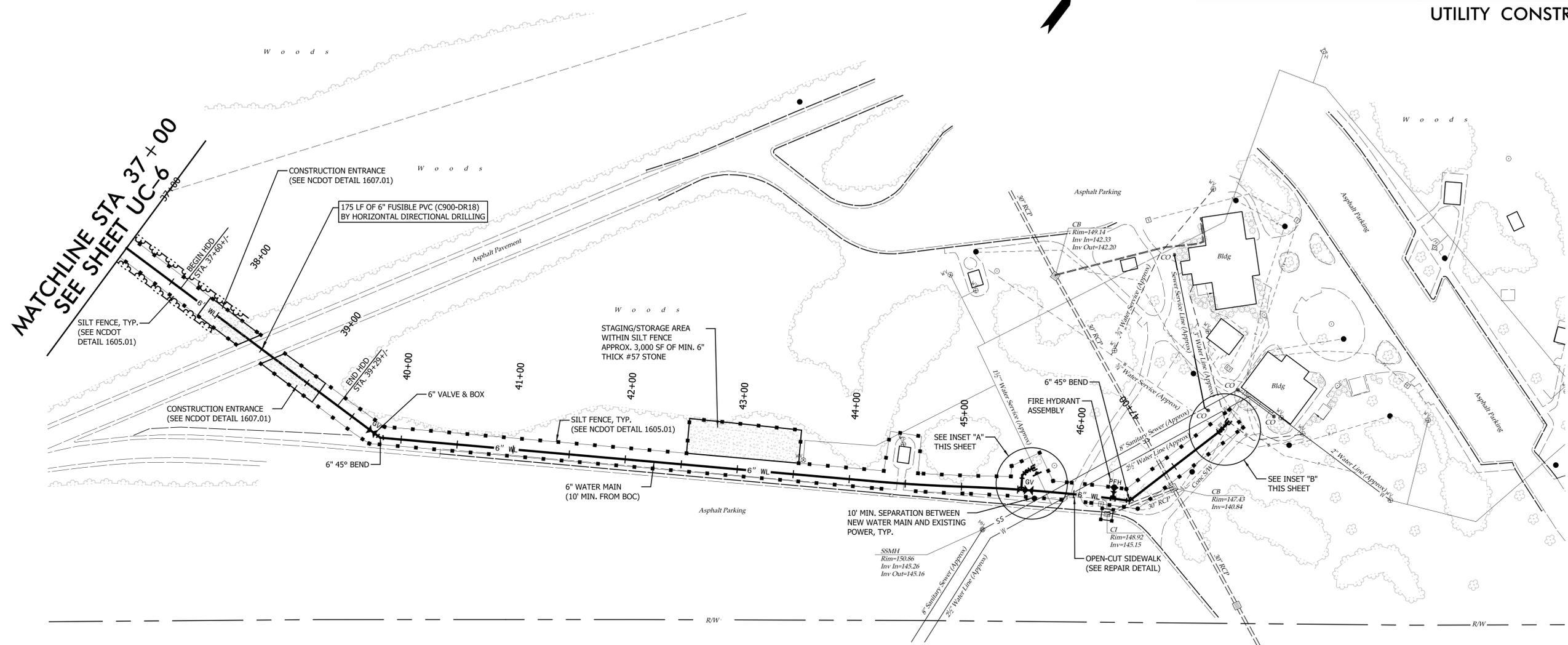
MATCHLINE STA 37+00
SEE SHEET UC-7

- NOTES:**
1. CONTRACTOR SHALL CLEAR AND GRUB A 20' WIDE PATH THROUGH ALL WOODED AREAS WHERE WATER MAIN IS INSTALLED BY OPEN CUT.
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 3. FOR SLOPES EXCAVATED GREATER THAN 10 FEET, INSTALL MATTING FOR EROSION CONTROL ON ENTIRE SLOPE AS WORK ALLOWS. (SEE DETAIL)

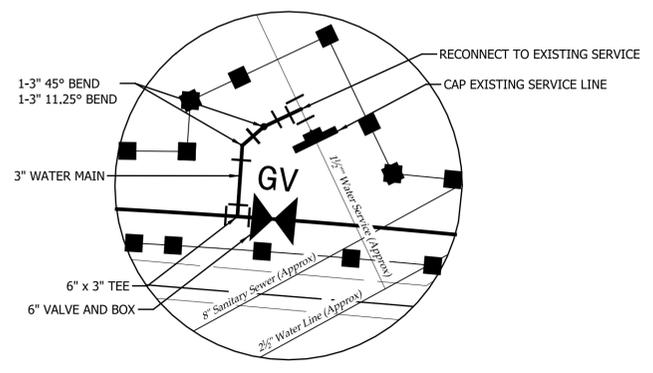


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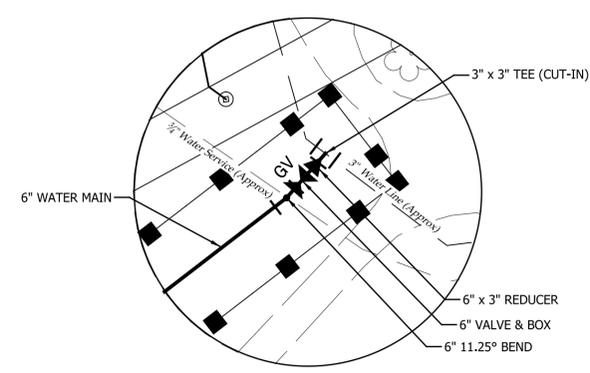
UTILITY CONSTRUCTION



I-95 SOUTH
Asphalt Pavement



INSET "A"
(3X SCALE)



INSET "B"
(3X SCALE)

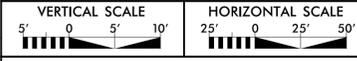
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5/28/19

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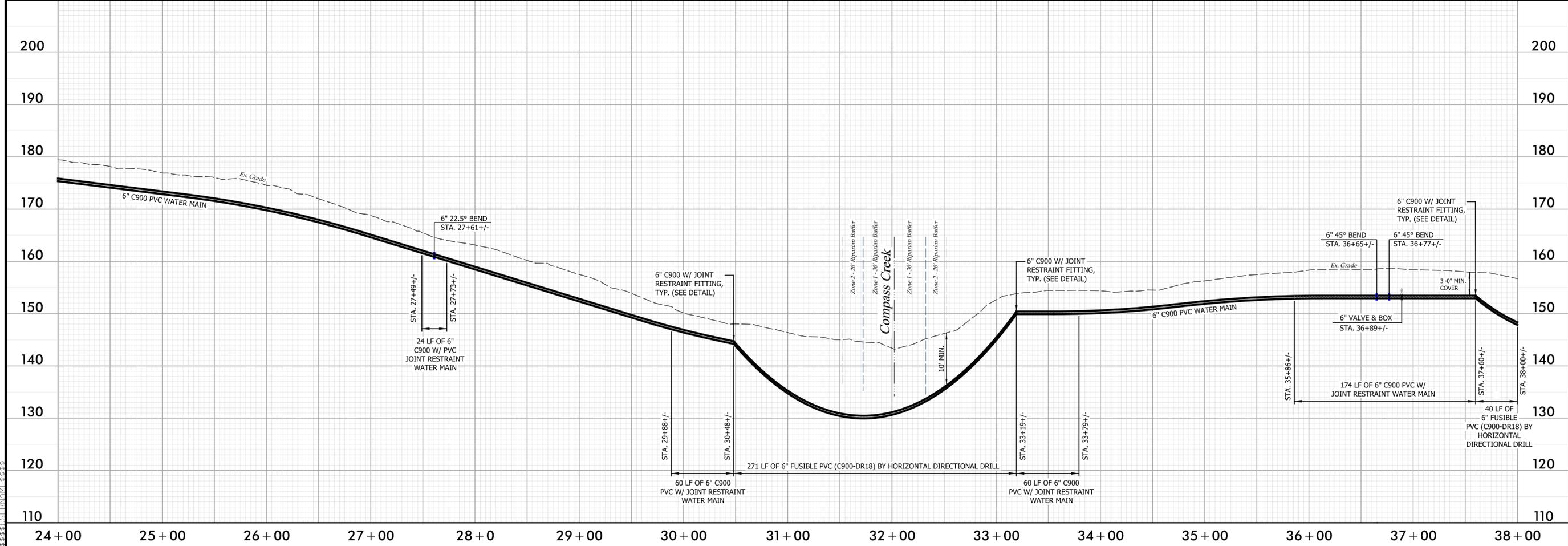
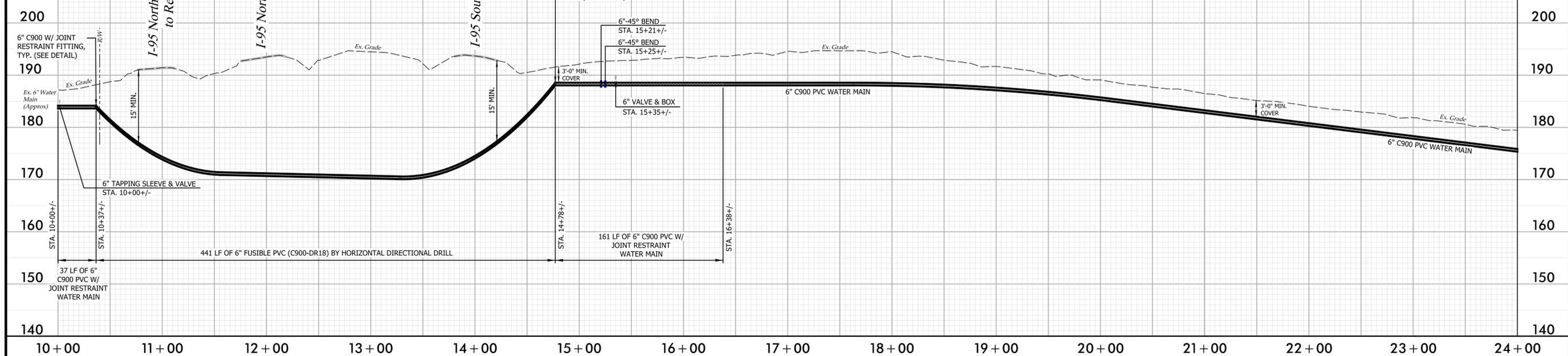
SIMPSON - 195	SHEET NO.
WATER MAIN EXTENSION	UC-8
DESIGNED BY: JRG	
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CHECKED BY: JRG	
APPROVED BY: JRG	
REVISED:	



WATER LINE CONSTRUCTION SHOWN ON THIS SHEET



UTILITY CONSTRUCTION



5/28/19

