

09.08/99

TIP PROJECT: B-5671

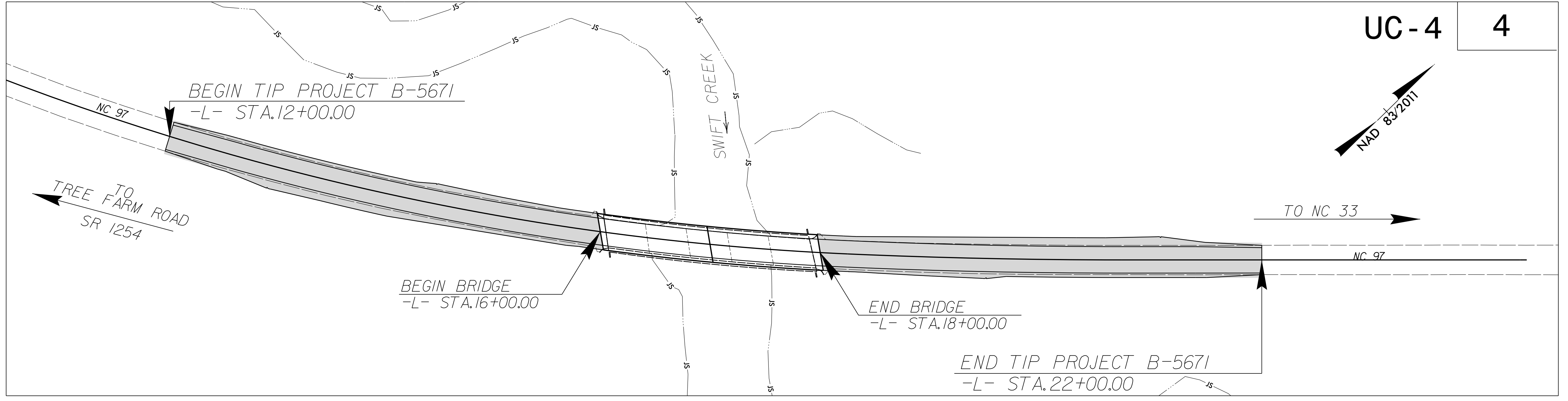
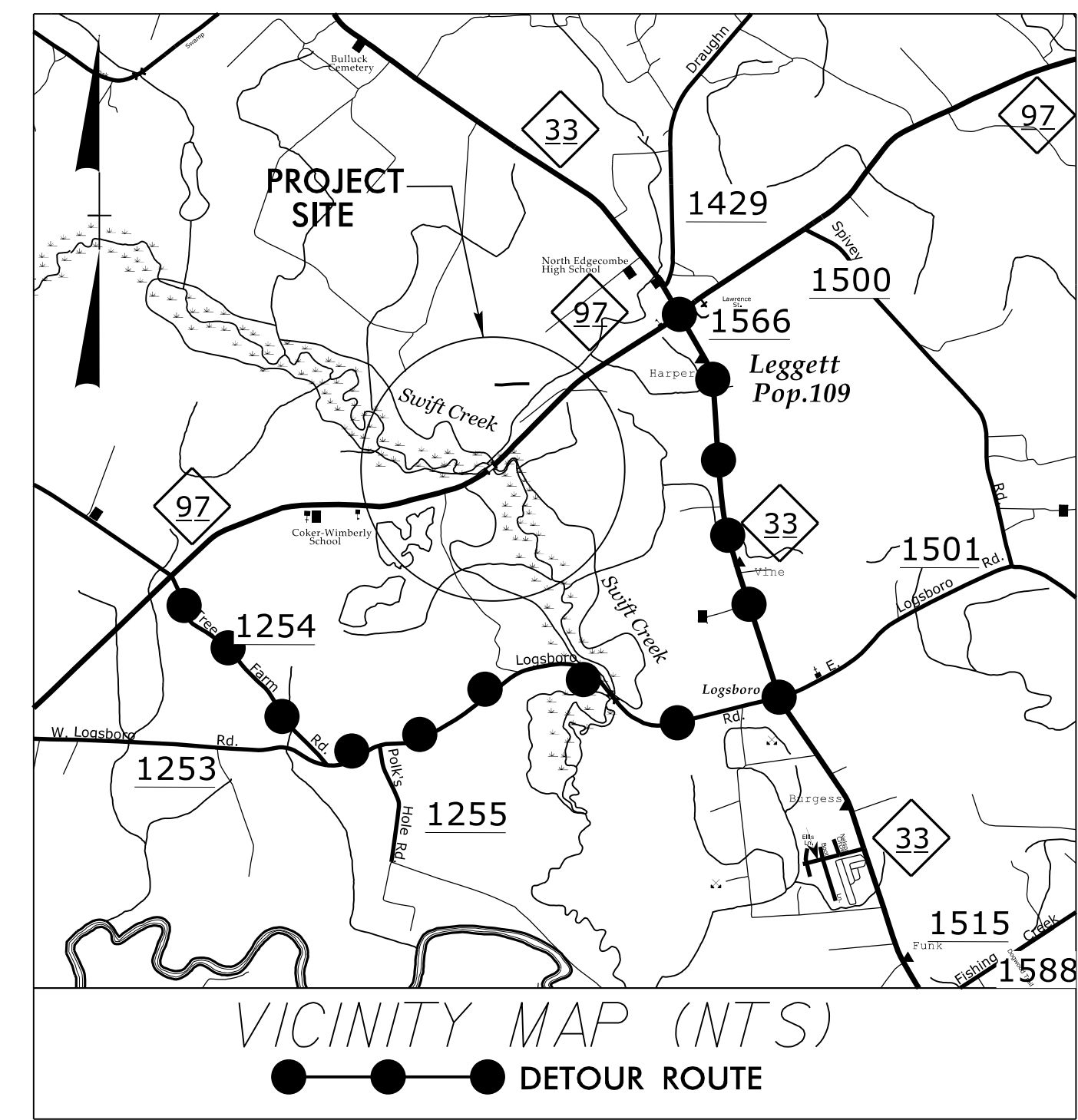
T.I.P. NO.	SHEET NO.
B-5671	UC-1

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**UTILITY CONSTRUCTION PLANS**  
**EDGECOMBE COUNTY**

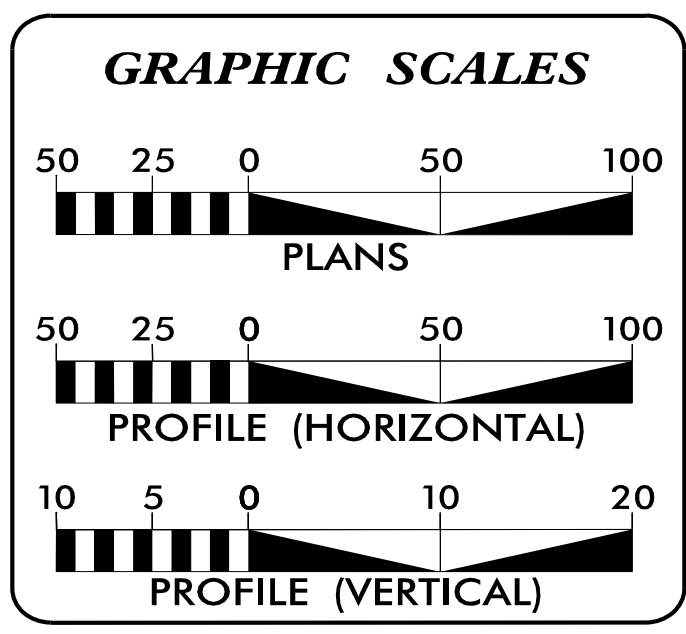
LOCATION: BRIDGE NO. 87 OVER SWIFT CREEK ON NC 97

TYPE OF WORK: RELOCATION OF WATER AND SANITARY SEWER LINES



UC - 4      4

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 THRU UC-3C	DETAILS
UC-4	UTILITY CONSTRUCTION SHEET
UC-5, UC-6	PROFILE SHEETS

**WATER AND SEWER OWNERS ON PROJECT**

EDGECOMBE COUNTY WATER AND SEWER  
201 SAINT ANDREW ST.  
POST OFFICE BOX 10  
TARBORO, NC 27886

PREPARED IN THE OFFICE OF

**DINKISSA KEREYU, PE** PROJECT ENGINEER  
**MARCO MENENDEZ, PE** PROJECT MANAGER  
**ANGELICA PURA** PROJECT DESIGNER

SEAL

**DIVISION OF HIGHWAYS**  
**DIVISION 4**  
509 WARD BLVD  
PO BOX 3165  
WILSON, NC 27895

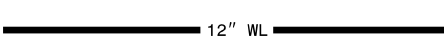























**NABIL HAMDAN** UTILITIES REGIONAL ENGINEER  
**KELVIN MARTIN, EI** SENIOR UTILITIES ENGINEER  
**KYLE PLEASANT** AREA UTILITIES COORDINATOR  
**LARRY JAMES JR.** SENIOR UTILITY COORDINATOR

26-MAR-2020 11:43  
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\$\$\$\$\$SERVNAME\$\$\$\$\$





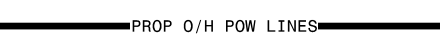
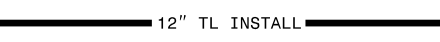
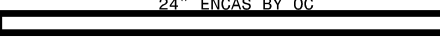
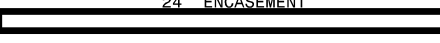
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS




## 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 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	

### 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) \_\_\_\_\_

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# UTILITY CONSTRUCTION

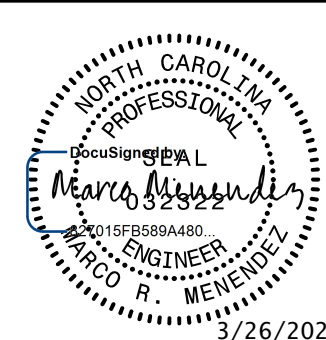
## GENERAL NOTES:

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 EDGECOMBE COUNTY WATER AND SEWER.
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 ENVIRONMENT 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. 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. CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102, 107, AND 1550 OF THE STANDARD SPECIFICATIONS CONCERNING TRENCH LESS 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.
2. THE PROPOSED WATER LINE INSTALLED USING DIRECTIONAL DRILLING SHALL BE DR-9 HDPE WITH BUTT-FUSED JOINTS OR DR18 FUSIBLE PVC PIPES.
3. THE INTERNAL DIAMETER OF HDD PIPES SHALL BE EQUAL OR GREATER THAT THE EXISTING DIAMETER OF EXISTING WATER AND SEWER LINES.
4. ALL PIPES AND FITTINGS JOINTS SHALL BE RESTRAINED WITH RESTRAINED JOINTS.
5. CONTRACTOR SHALL COORDINATE WITH EDGECOMBE COUNTY WATER AND SEWER TO SHUTDOWN EXISTING WATER AND SANITARY SEWER LINES. SHUTTING DOWN OF THE PUMPING STATION FOR THE FORCE MAIN SANITARY SEWER SHALL BE LIMITED TO NOT MORE THAN 8 HOURS. THE CONTRACTOR WILL BE ALLOWED TO SHUT DOWN THE PUMPING STATION ONLY FOR CONNECTING THE NEW SEWER LINE WITH THE EXISTING ONE AFTER COMPLETING ALL OTHER ACTIVITIES RELATED TO FORCE MAIN INSTALLATION.
6. THE CONTRACTOR SHALL ALLOW SUFFICIENT LENGTHS OF PIPE TO EXTEND PAST THE TERMINATION POINT TO ALLOW FOR CONTRACTION. PULLED HDD PIPES SHALL BE ALLOWED TO RELAX FOR A MINIMUM OF 48 HOURS.

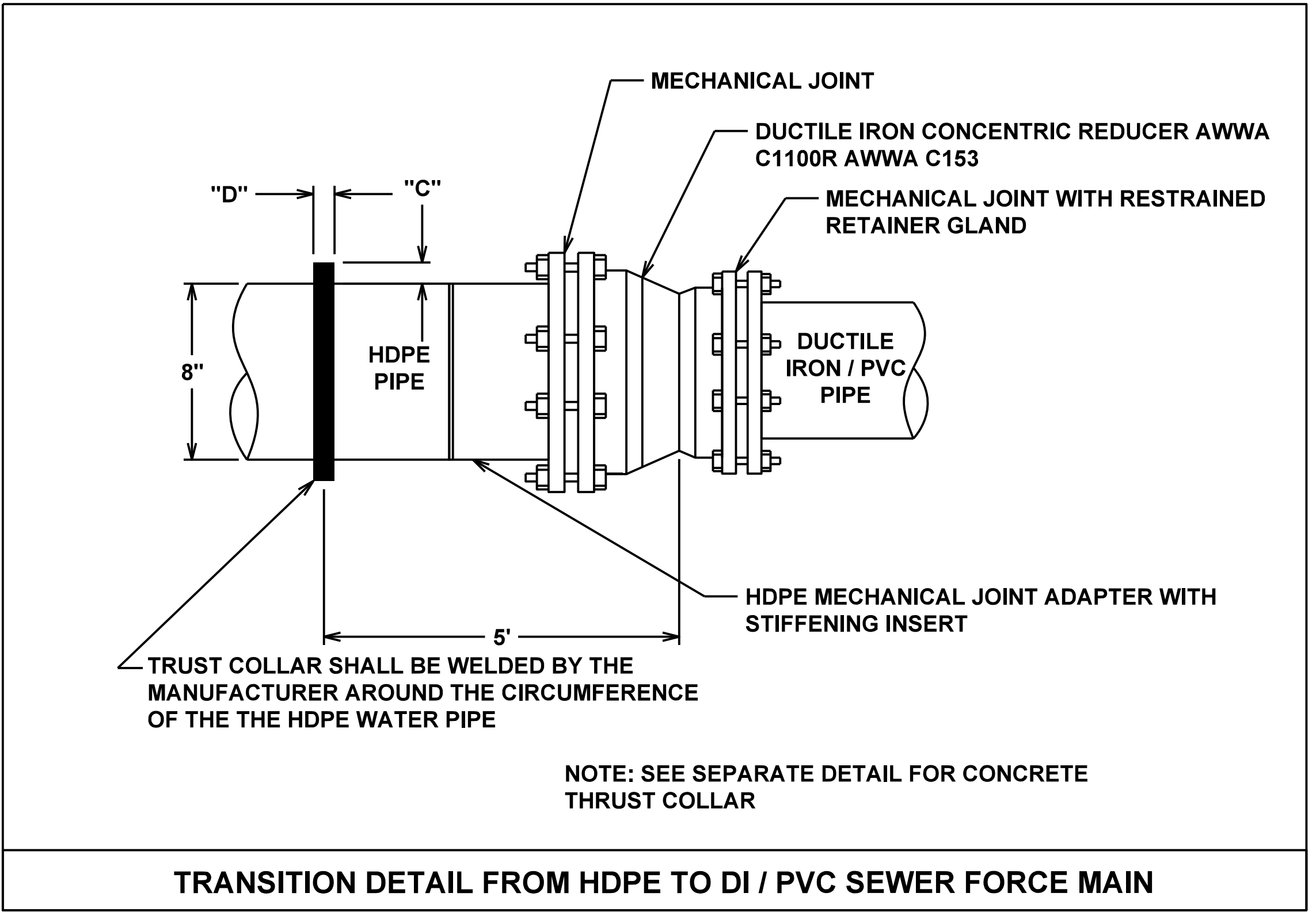
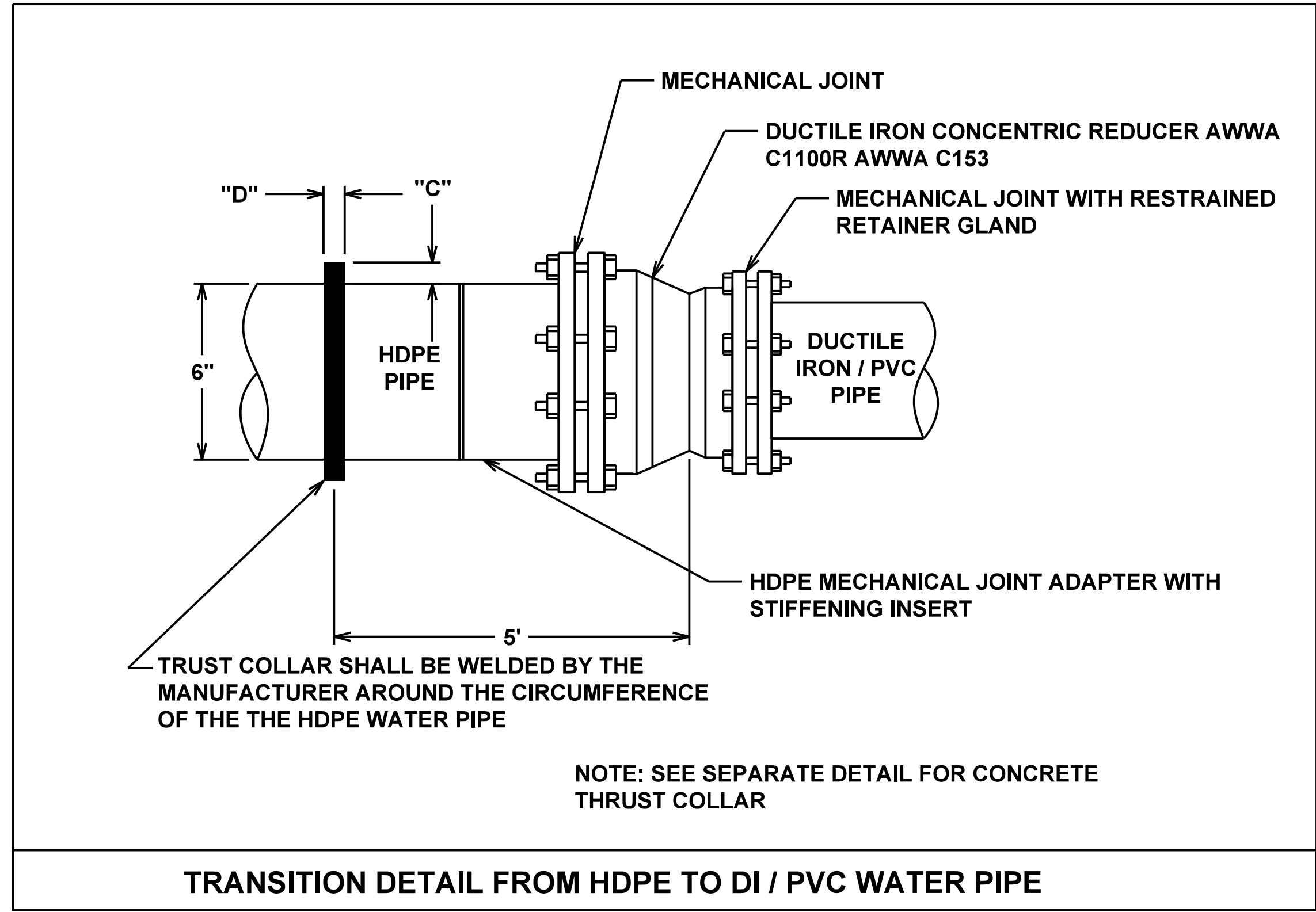
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DRAWN BY: <i>AP</i>	
CHECKED BY: <i>MM</i>	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
KCI Engineers • Planners • Scientists • Construction Managers 4500 Falls of Neuse Road, Suite 400 Raleigh, NC 27609 Phone (919) 783-9214 • Fax (919) 783-9266 License No. C-764	

**UTILITY CONSTRUCTION**  
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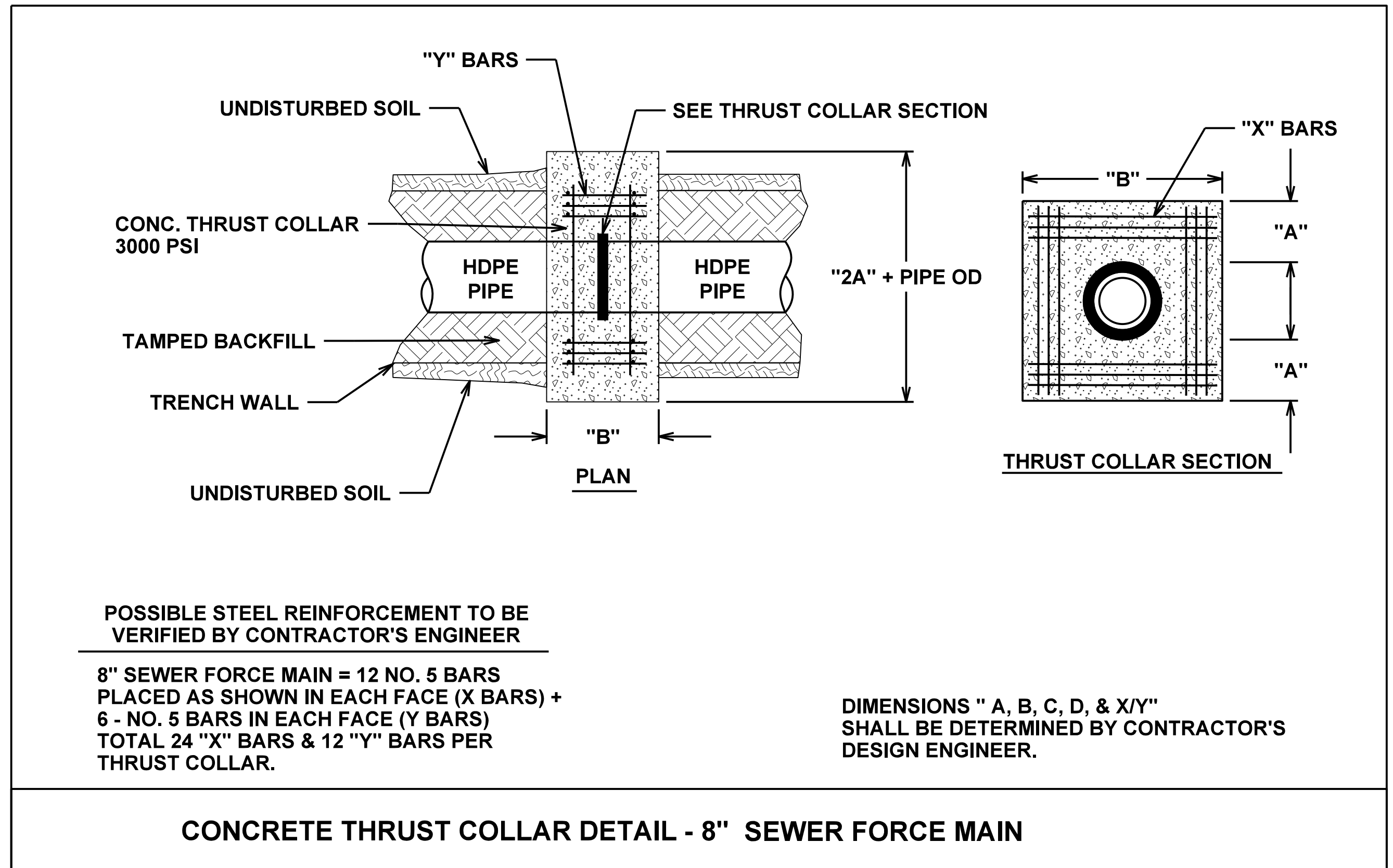
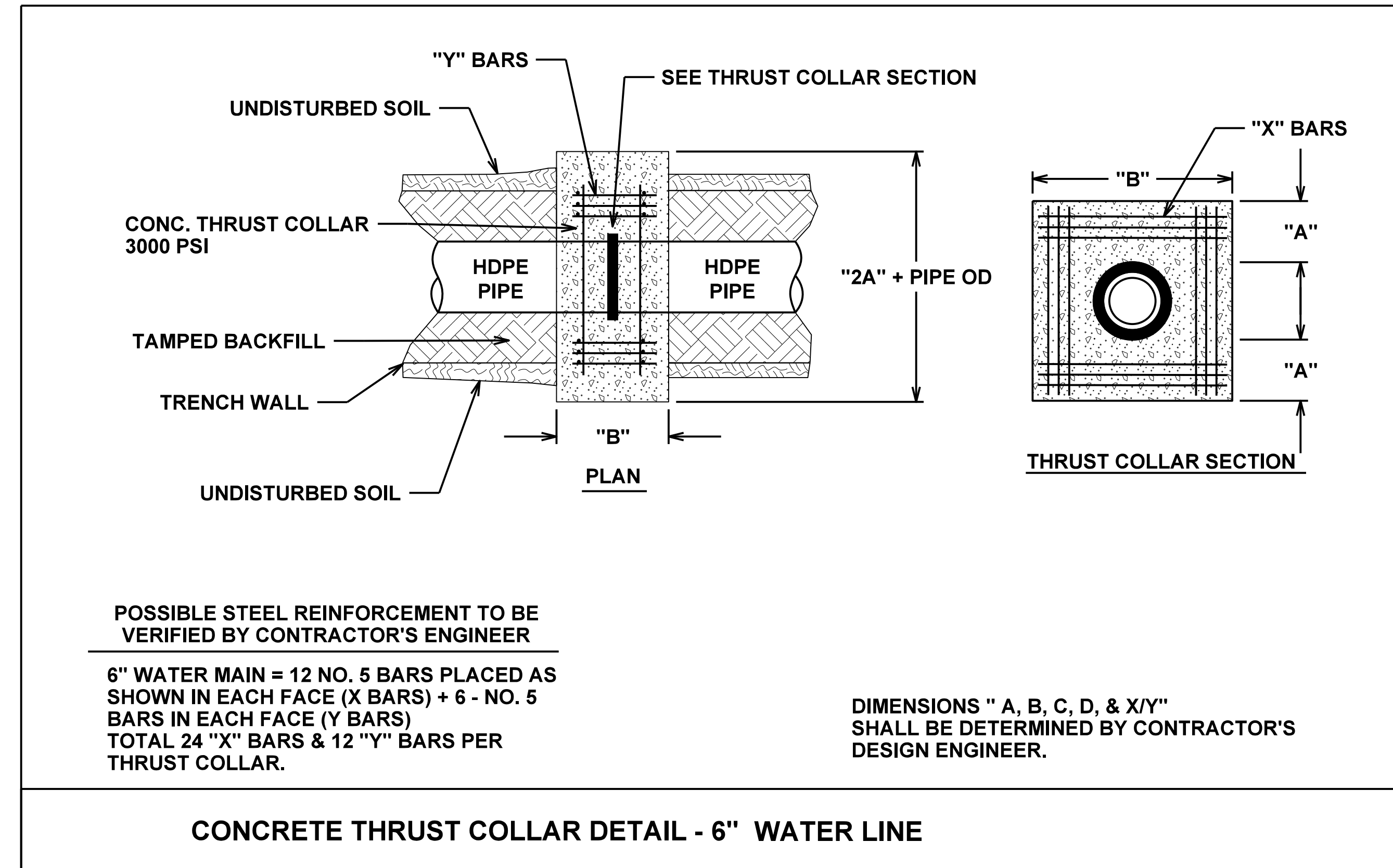
# PROJECT TYPICAL DETAILS

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DESIGNED BY: DK	
DRAWN BY: AP	
CHECKED BY: MM	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151 UTILITY CONSTRUCTION PLANS ONLY	



**UTILITY CONSTRUCTION**  
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NOTE:  
CONTRACTOR TO PROVIDE P. E. SEALED  
DESIGNED SHOP DRAWINGS FOR THRUST  
COLLARS BASED UPON THE ACTUAL ON-SITE  
EXISTING SOILS IN ACCORDANCE WITH THE  
LATEST NCDOT STANDARDS AND  
SPECIFICATIONS.



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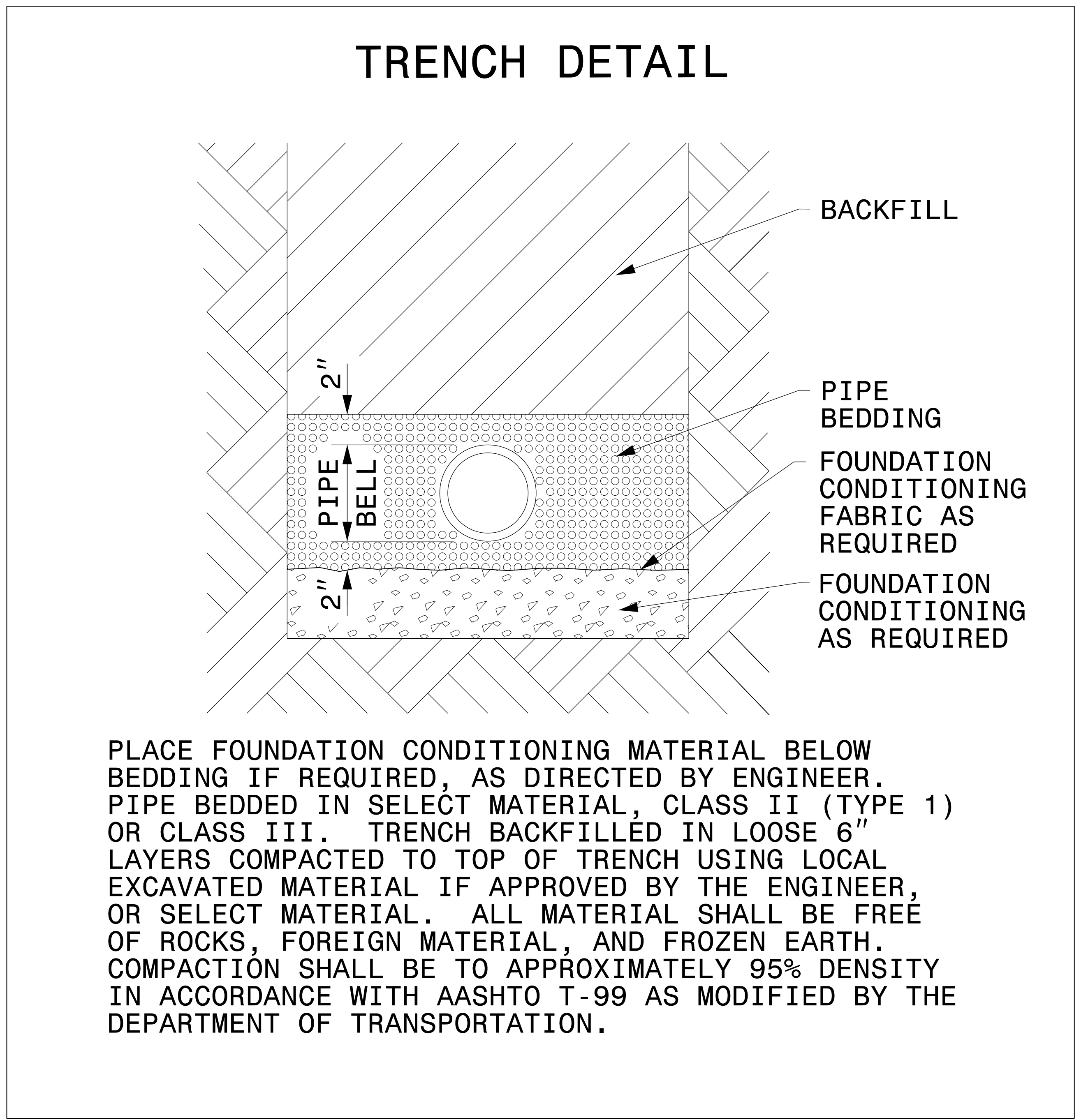
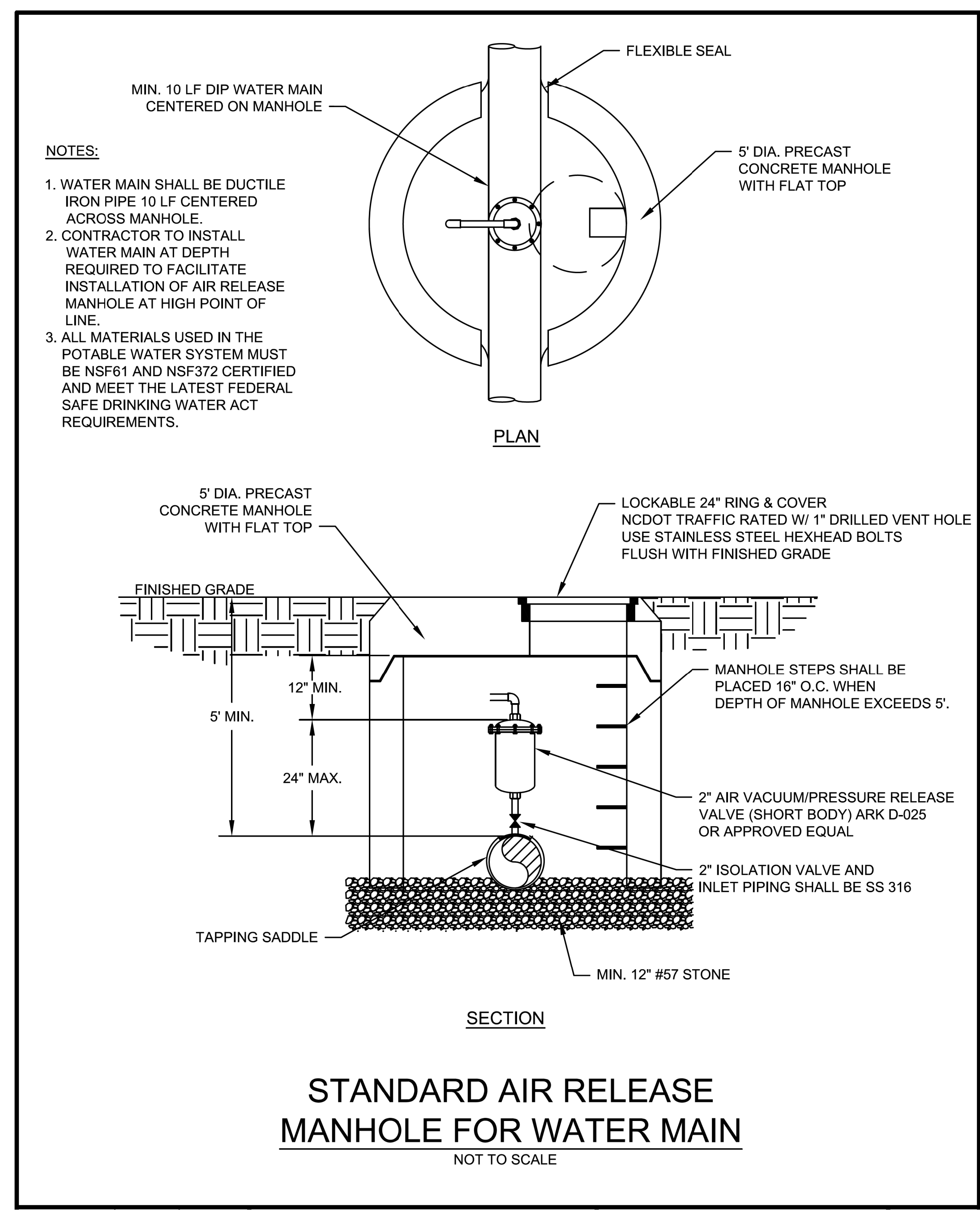
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# PROJECT TYPICAL DETAILS

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CHECKED BY: MM	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151 UTILITY CONSTRUCTION PLANS ONLY	
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## UTILITY CONSTRUCTION

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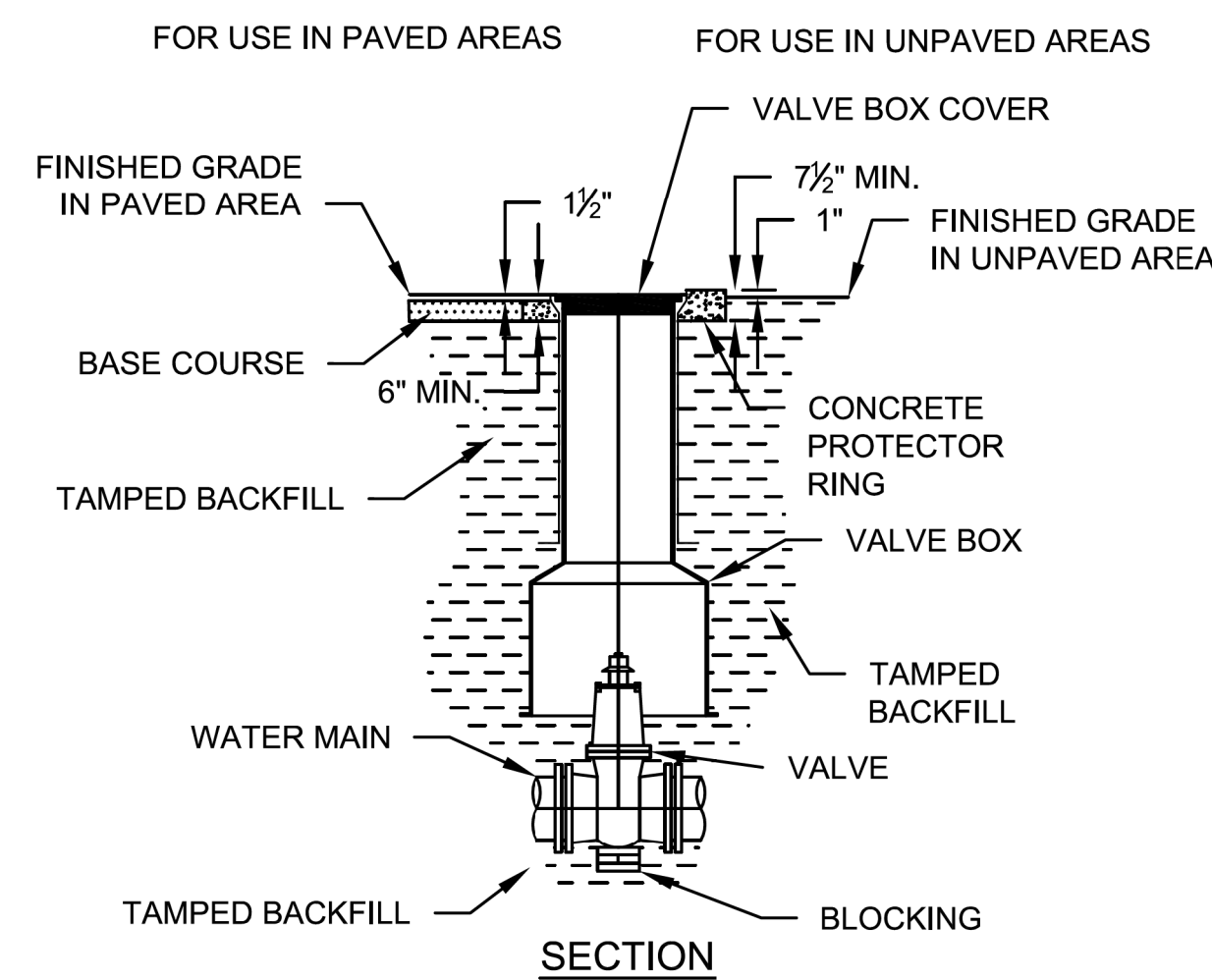
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DRAWN BY: AP	
CHECKED BY: MM	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY
Engineers • Planners • Scientists • Construction Managers 4509 Falls of Neuse Road, Suite 400 Raleigh, NC 27609 Phone (919) 783-9214 • Fax (919) 783-9266 License No. C-764	

## UTILITY CONSTRUCTION

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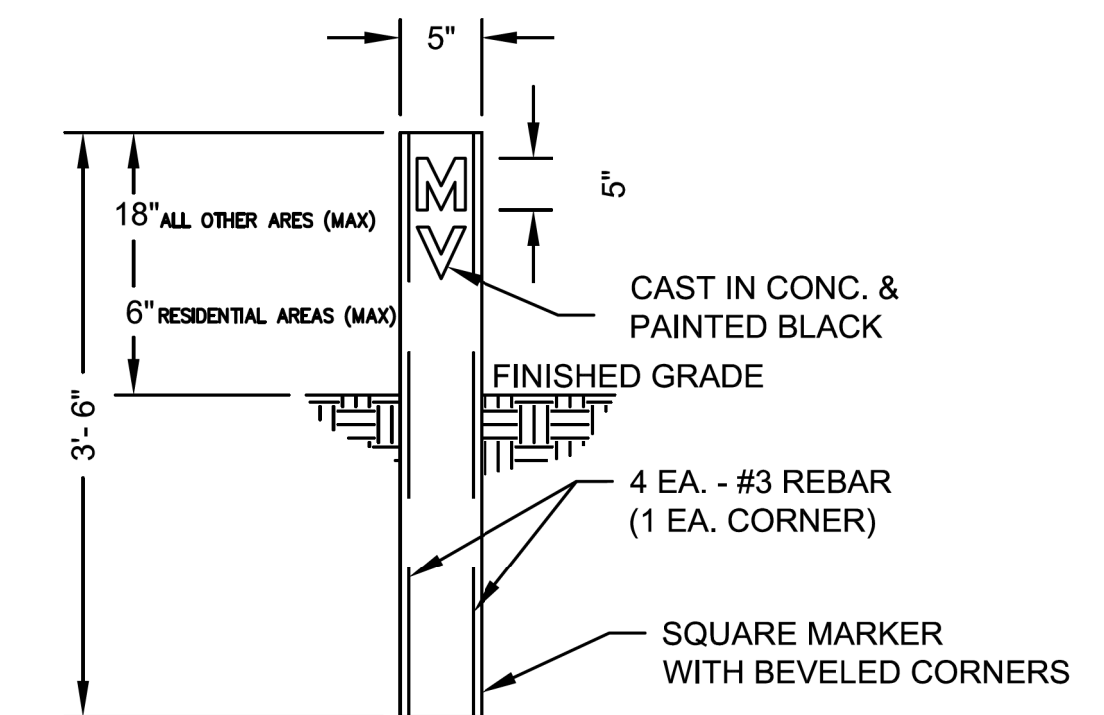


- NOTES:
1. D.I.P. MAY BE USED FOR VALVE BOX EXTENSIONS.
  2. VALVE BOX SHOULD NOT CONTACT WATER MAIN OR VALVE.
  3. CONCRETE PROTECTOR RING SHALL BE USED IN ALL UNPAVED AREAS.
  4. ALL MATERIALS USED IN THE POTABLE WATER SYSTEM MUST BE NSF61 AND NSF372 CERTIFIED AND MEET THE LATEST FEDERAL SAFE DRINKING WATER ACT REQUIREMENTS.

### VALVE AND VALVE BOX INSTALLATION

NOT TO SCALE

- NOTES:
1. VALVE MARKERS SHALL BE PLACED AT R/W.
  2. LETTERS "MV" SHALL FACE TOWARDS VALVE.
  3. MARKER SHALL HAVE BRASS OR BRONZE EMBED ON TOP OR SIDE.
  4. CONTRACTOR SHALL STAMP DISTANCE TO CENTER OF VALVE INTO EMBED.
  5. BLOW-OFF ASSEMBLY SHALL INCLUDE 1 EA. MARKER W/ "BO" OR "MV" CAST.



### VALVE MARKER DETAIL

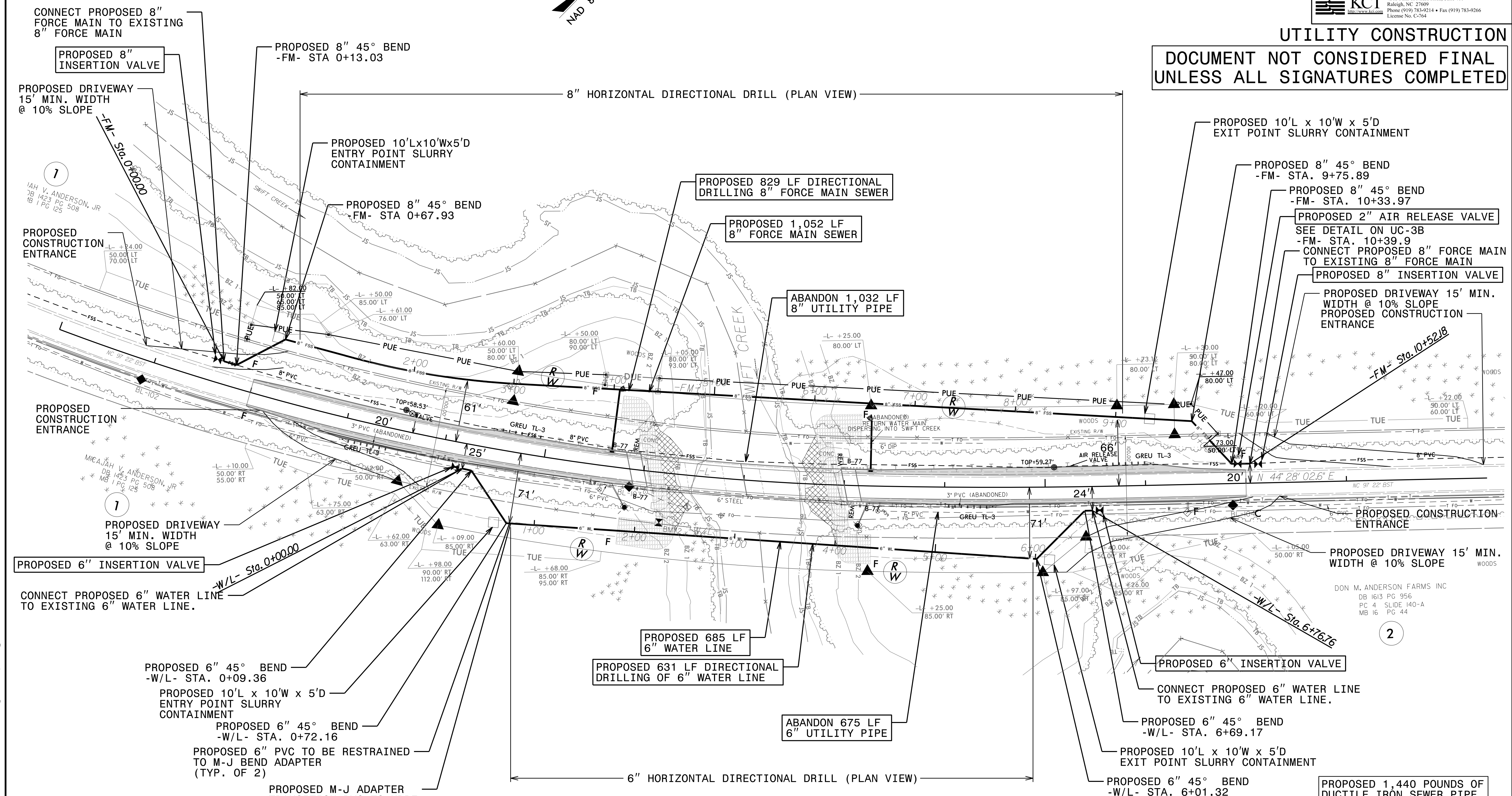
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DRAWN BY: AP	
CHECKED BY: MM	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151 UTILITY CONSTRUCTION PLANS ONLY	
Engineers • Planners • Scientists • Construction Managers 4409 Falls of Neuse Road, Suite 400 Raleigh, NC 27609 Phone (919) 783-9214 • Fax (919) 783-9266 License No. C-764	

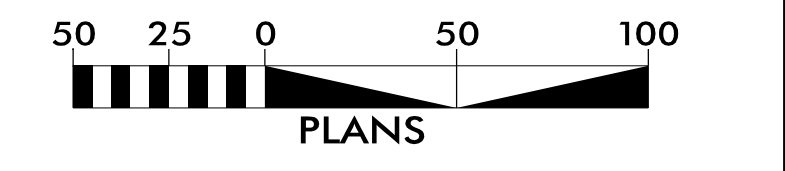
UTILITY CONSTRUCTION

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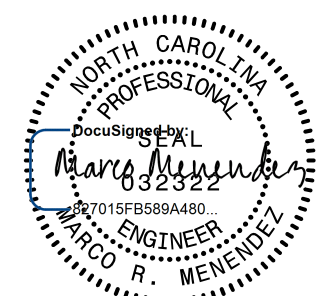

NOTES:

1. APPROXIMATE COORDINATES OF WATER LINE ENTRY POINT ARE N814542.06, E2415826.96.
2. APPROXIMATE COORDINATES OF WATER LINE EXIT POINT ARE N814880.14, E2416223.65.
3. APPROXIMATE COORDINATES OF FORCE MAIN ENTRY POINT ARE N814547.06, E2415575.30.
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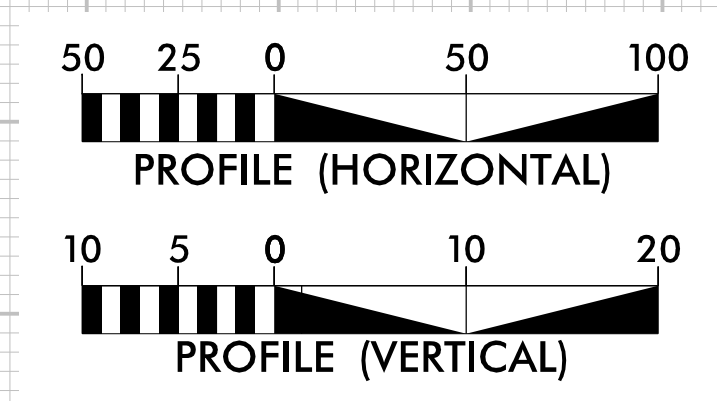
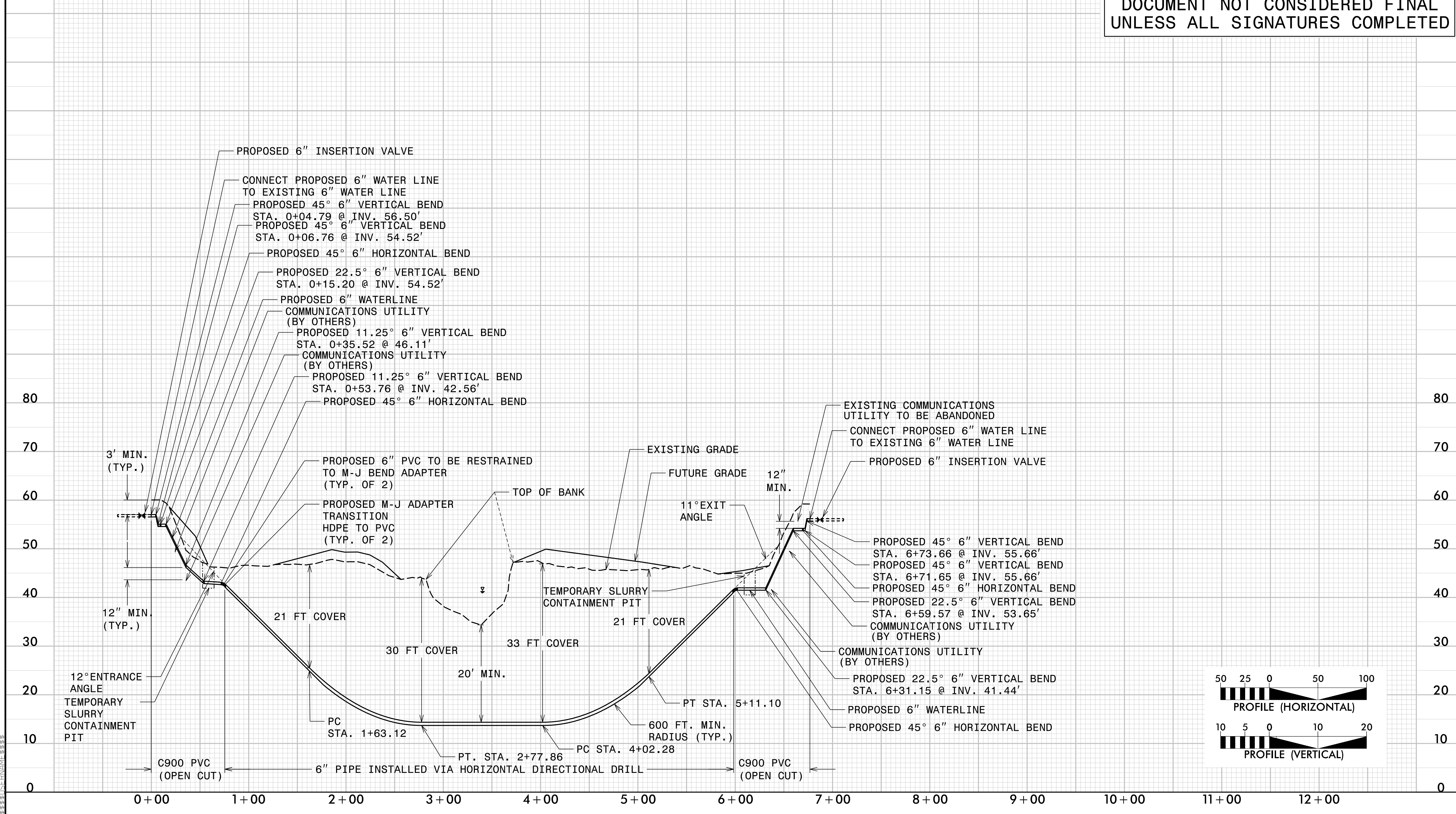
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CHECKED BY: <b>MM</b>	
APPROVED BY:	
REVISED BY:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 3/12/2020
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY
 Engineers • Planners • Scientists • Construction Managers 4505 Falls of Neuse Road, Suite 400 Raleigh, NC 27609 Phone (919) 783-9214 • Fax (919) 783-9266 License No. C-764	

**-W/L-**

**NOTE:**  
 PRIOR TO COMMENCING ANY WORK ON ANY TRENCHLESS INSTALLATION ON THIS PROJECT, PROVIDE A DESIGN FOR THE TRENCHLESS INSTALLATION CERTIFIED BY AN ENGINEER LICENSED BY THE STATE OF NORTH CAROLINA, AS REQUIRED BY SUBARTICLE 1550-3(B) OF THE STANDARD SPECIFICATIONS.

**UTILITY CONSTRUCTION**

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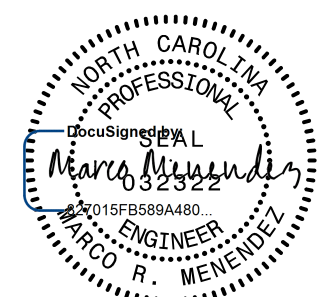



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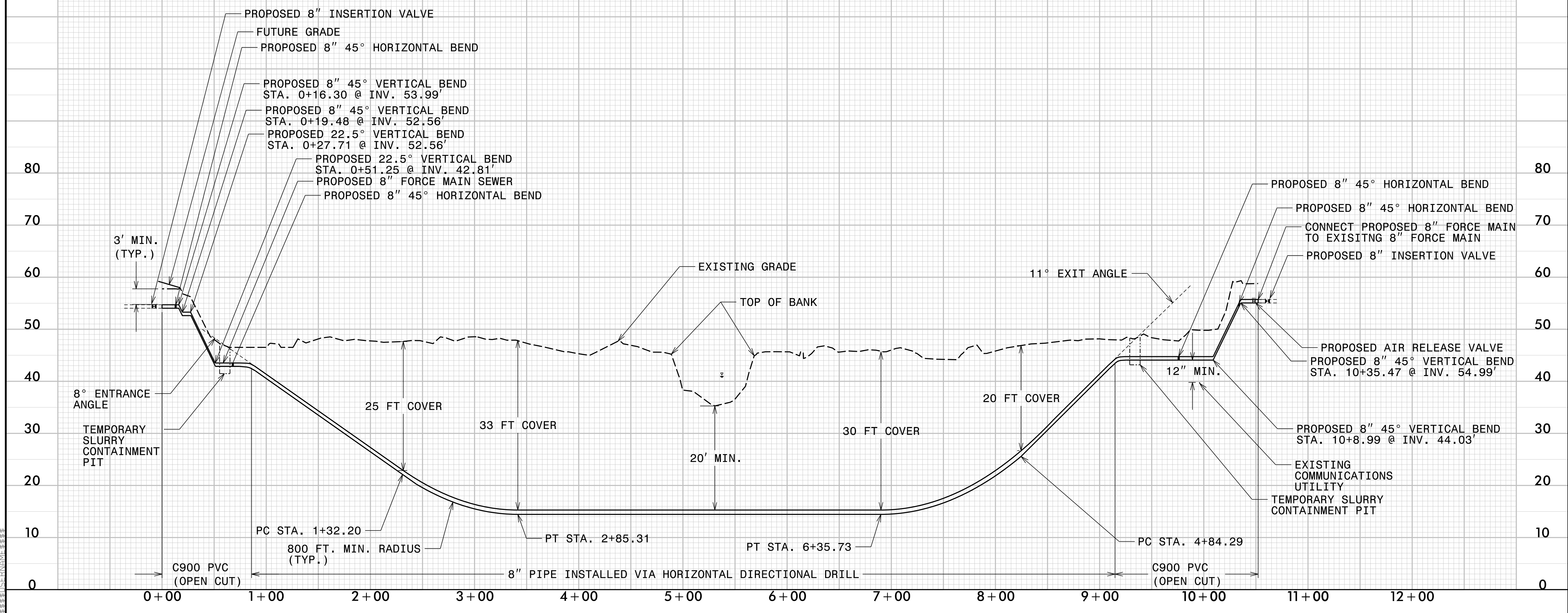
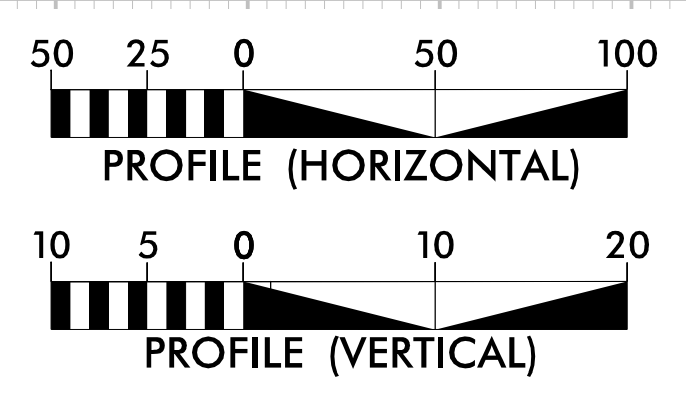
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CHECKED BY: <b>MM</b>	
APPROVED BY:	
REVISED:	3/12/2020
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151 UTILITY CONSTRUCTION PLANS ONLY	
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