99

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

T.I.P. NO. SHEET NO.

B5766

UC-1

STOKES COUNTY UTILITIES CONSTRUCTION PLANS

LOCATION: BRIDGE NO. 82 OVER DAN RIVER ON SR 1674 (SHEPPARD MILL ROAD) DANBURY, NORTH CAROLINA

> _L_ SR 1674 (SHEPPARD MILL ROAD)

> > END BRIDGE

-L- STA. 16 + 83.00

TYPE OF WORK: UTILITIES CONSTRUCTION

BEGIN PROJECT B-5766

L STA. 10 + 08.83

BEGIN BRIDGE

-L- STA. 13 + 09.00

UC-5

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END PROJECT B-5766

-L- STA. 21+35.00

GRAPHIC SCALES **PLANS** PROFILE (HORIZONTAL) PROFILE (VERTICAL)

BEGIN PROJECT

END PROJECT

END CONSTRUCTION

BEGIN CONSTRUCTION

-Y- STA. 102 + 09.70

-Y- STA. 103 + 82.63

VICINITY MAP N.T.S.

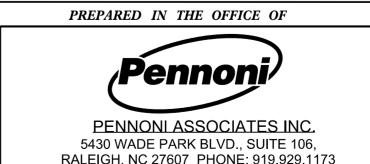
INDEX OF SHEETS

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SHEET NO **DESCRIPTION:** TITLE SHEET *UC*–2 UTILITY SYMBOLOGY **NOTES** *UC-3 UC-3A*, *UC-3B* **DETAILS** *UC-4*, 5 UTILITY CONSTRUCITON SHEETS *UC*–6, 7 UTILITY PROFILE SHEETS

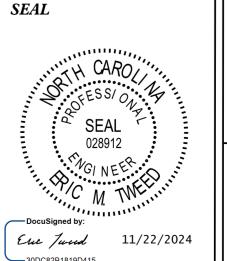
WATER AND SEWER OWNERS ON PROJECT

STOKES COUNTY PUBLIC WORKS



RALEIGH, NC 27607 PHONE: 919.929.1173 FAX: 919.493.6548 NC LICENSE #F-1267

BRIAN WILES, PE UTILITY PROJECT MANAGER ERIC TWEED, PE UTILITY ENGINEER





DIVISION OF HIGHWAYS DIVISION 9 375 SILAS CREEK PARKWAY WINSTON SALEM, 27127

RYAN NEWCOMB, PE DIVISION PROJECT ENGINEER DIVISION UTILITY COORDINATOR LOU PORTER JOSH MCMAHAN DIVISION UTILITY ENGINEER

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PROJECT REFERENCE NO. SHEET NO. UC-2

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

Water Line (Sized as Shown) 11⅓ Degree Bend 22½ Degree Bend 45 Degree Bend 90 Degree Bend 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)	12" SS
Force Main Sewer Line (Sized as Shown)	12″ FSS
Manhole (Sized per Note)	
Sewer Pump Station PS(SS)	

PROPOSED MISCELLANOUS UTILITIES SYMBOLS

Power Pole	6	Thrust Block
elephone Pole	-O -	Air Release Valve
Joint Use Pole	-	Utility Vault
elephone Pedestal	TEL PED O	Concrete Pier
Itility Line by Others Type as Shown)	PROP O/H POW LINES	Steel Pier
renchless Installation	■12" TL INSTALL	Plan Note
Encasement by Open Cut	24" FNCAS BY OC	Pay Item Note
Encasement	24" FNCASEMENT	

EXISTING UTILITIES SYMBOLS

Power Pole	•
Telephone Pole	-•-
Joint Use Pole	-
Utility Pole	•
Utility Pole with Base	
H-Frame Pole	••
Power Transmission Line Tower	\boxtimes
Water Manhole	W
Power Manhole	P
Telephone Manhole	①
Sanitary Sewer Manhole	(b)
Hand Hole for Cable	H
Power Transformer	
Telephone Pedestal	T
CATV Pedestal	C
Gas Valve	\Diamond
Gas Meter	\$
Located Miscellaneous Utility Object	⊙
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

*Underground Power Line	
*Underground Telephone Cable	
*Underground Telephone Conduit	
*Underground Fiber Optics Telephone Cable	— — T FO— — —
*Underground TV Cable	
*Underground Fiber Optics TV Cable	TV FO
*Underground Gas Pipeline	
Aboveground Gas Pipeline	A/G Gas
*Underground Water Line	
Aboveground Water Line	A/G Water
*Underground Gravity Sanitary Sewer Line	ss
Aboveground Gravity Sanitary Sewer Line	A/G Sanitary Sewer
*Underground SS Forced Main Line	
Underground Unknown Utility Line	QUT
SUE Test Hole	
SUE Test Hole Water Meter	•
Water Meter	■■⊗
Water Meter Water Valve	●○◇◆

*For Existing Utilit	ties	
Utility Line Drawn (Type as Shown)	from RecordPROP O/H POW LINES	
Designated Utility (Type as Shown)	Line	

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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 2024.
- 2. THE EXISTING WATER, FORCEMAIN AND GRAVITY SEWER LINES BELONG TO STOKES 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 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. BURIED FORCEMAIN SHALL BE RESTRAINED JOINT C900 PVC PIPE. THE AERIAL SUSPENDED PORTION OF THE FORCEMAIN SHALL BE RESTRAINED JOINT DIP. WATER PIPE SHALL BE RJ DIP.
- 2. CONSTRUCTION OF THE AERIAL SUSPENDED PORTION OF THE FORCEMAIN: EACH RJ PIPE SECTION SHALL BE PULLED DURING INSTALLATION IN ORDER TO FULLY EXTEND THE JOINT AND REMOVE SLACK. PIPE SHALL BE HYDROSTATICALLY TESTED PRIOR TO MAKING OFF-BRIDGE CONNECTIONS. FAILURE TO DO SO MAY RESULT IN DEFLECTION OF PIPE WHEN PRESSURE IS APPLIED. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING DEFLECTION.
- 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.

PROJECT REFERENCE NO. SHEET NO.

B-5766

DESIGNED BY: EMT

DRAWN BY: LMS

CHECKED BY:

APPROVED BY:

REVISED:

NORTH CAROLINA
DEPARTMENT OF
TRANSPORTATION

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

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DOCUMENT OF
TRANSPORTATION

CLU June 11/22/2024

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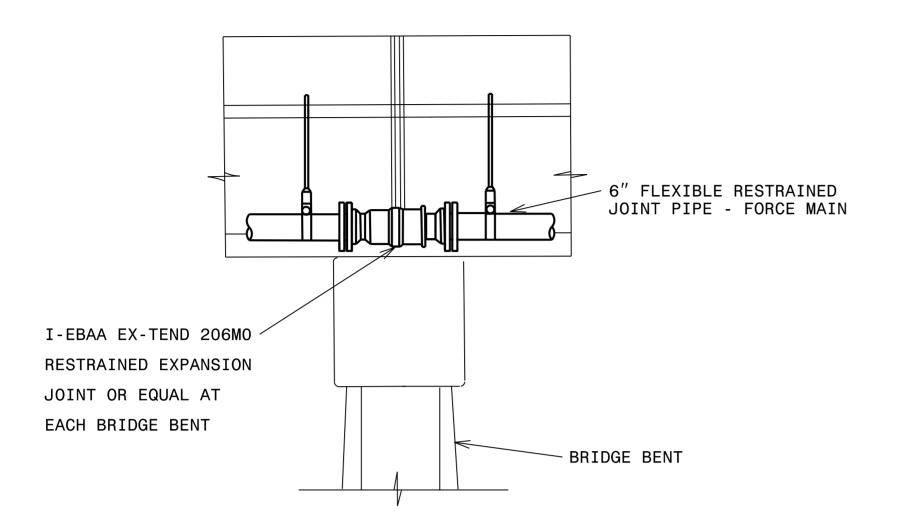
UTILITY CONSTRUCTION

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MANHOLE NOTES

- 1. ALL PRE CAST CONCRETE MANHOLES SHALL CONFORM TO THE LATEST REVISION OF ASTM C478.
- 2. CONCRETE SHALL BE 4000 PSI AT 28 DAYS MINIMUM.
- 3. STEEL REINFORCEMENT SHALL BE GRADE 40 BILLET STEEL CONFORMING TO THE LATEST REVISION OF ASTM-A-185 FOR WALL REINFORCEMENT, AND THE LATEST REVISION OF ASTM-A615 FOR THE BASE REINFORCEMENT.
- 4. STANDARD JOINTS SHALL BE; SEALED WITH PUTTY TYPE PLASTIC CEMENT PER FED. SPEC. SS-C-153 OR AN O-RING TYPE JOINT CONFORMING TO THE LATEST REVISION OF ASTM-C443.
- 5. MANHOLE INLETS AND OUTLETS SHALL BE CAST IN PLACE FLEXIBLE RUBBER SLEEVES BOOTS PER THE LATEST REVISION OF ASTM-C923.
- 6. INVERTS TO BE CONSTRUCTED OF A CONCRETE BENCH.
- 7. THE MAXIMUM SEPARATION OR INVERT IN TO INVERT OUT WITHIN A MANHOLE IS 0.50 FEET. WHEN THE SEPARATION IS GREATER THAN 0.5 FEET A DROP MANHOLE MUST BE USED.
- 8. MANHOLES GREATER THAN 18 FEET IN DEPTH SHALL HAVE AN INSIDE DIAMETER OR 5'-0". FOR SANITARY SEWER MAINS GREATER THAN EIGHTEEN INCHES (18") IN DIAMETER, MANHOLES SHALL BE A MINIMUM OF 5'-0" IN DIAMETER.
- 9. RIM ELEVATIONS SHALL BE AT GRADE IN STREETS & PARKING LOTS.
- 10. RIM ELEVATIONS ALONG OUTFALLS SHALL BE A MINIMUM OF 3' ABOVE EXISTING GROUND ELEVATION. IF THE OUTFALL IS LOCATED WITHIN THE FLOOD PLAIN, RIM ELEVATIONS SHALL BE 2' ABOVE THE 100-YEAR FLOOD ELEVATION (WHILE STILL MAINTAINING THE 3' ABOVE THE EXISTING GROUND ELEVATION MINIMUM REQUIREMENT). THE 100-YEAR FLOOD ELEVATION SHALL BE NOTED ON THE CONSTRUCTION DRAWINGS.

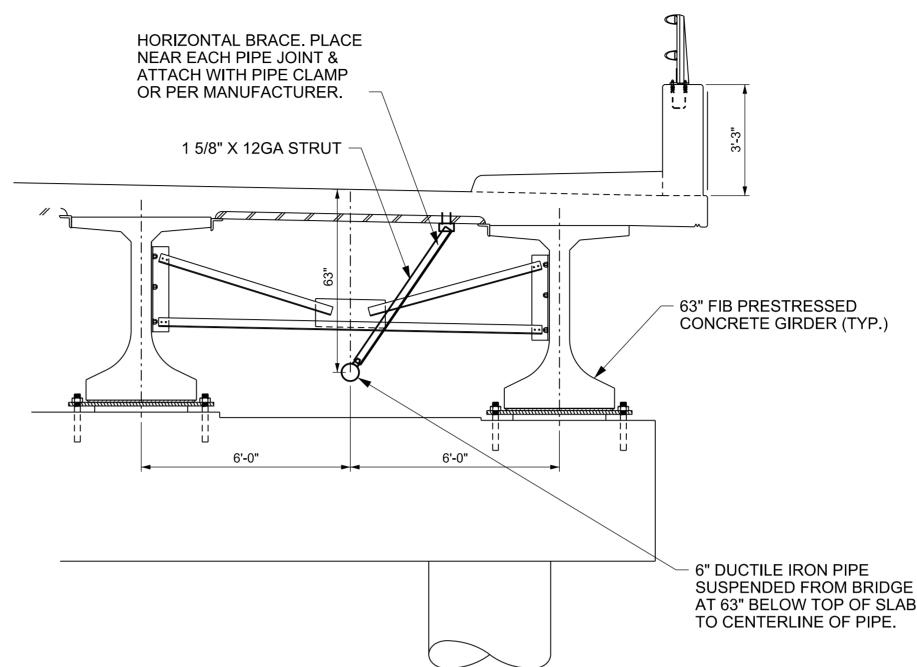
PROJECT TYPICAL DETAILS



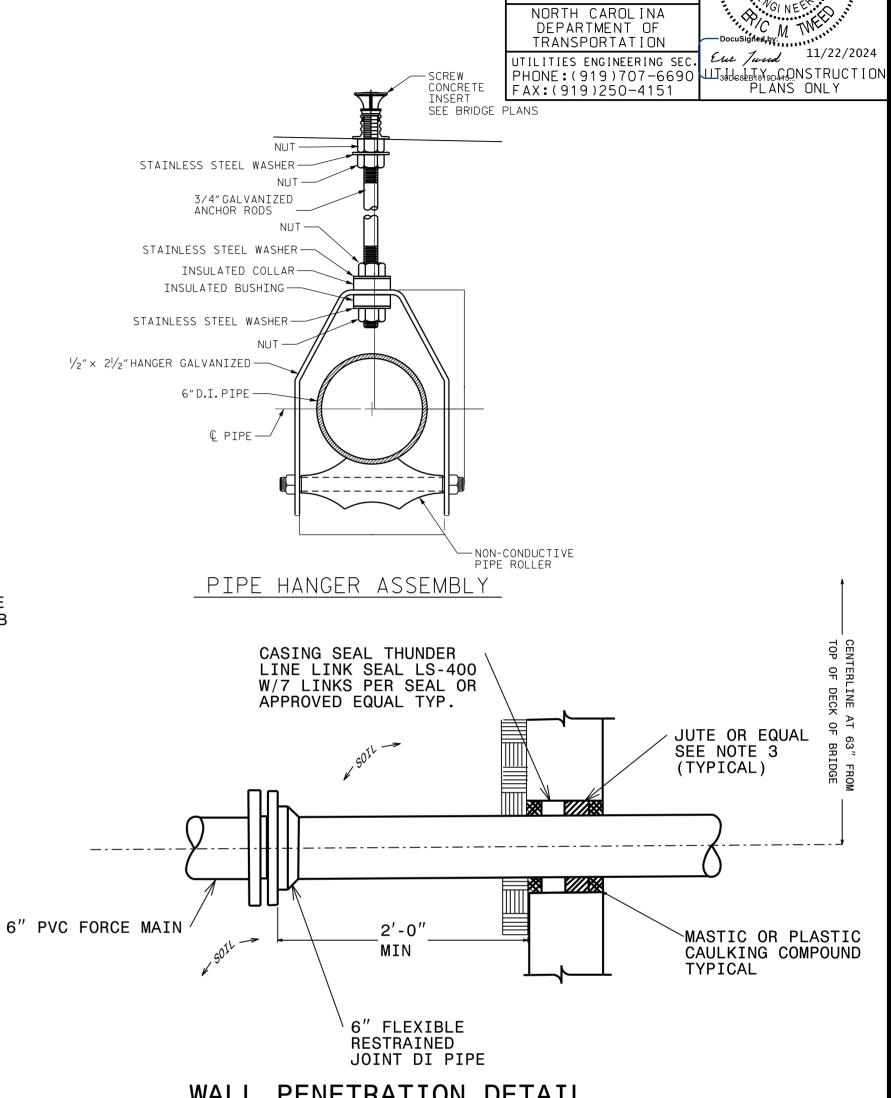
CONCRETE BRIDGE BENTS

PIPE EXPANSION JOINT DETAIL

NOTE: HANGERS SHALL NOT BE PLACED CLOSER THAN 6" FROM



PIPE SUSPENSION CROSS SECTION



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B-5766 ESIGNED BY: EMT

RAWN BY: HECKED BY: APPROVED BY:

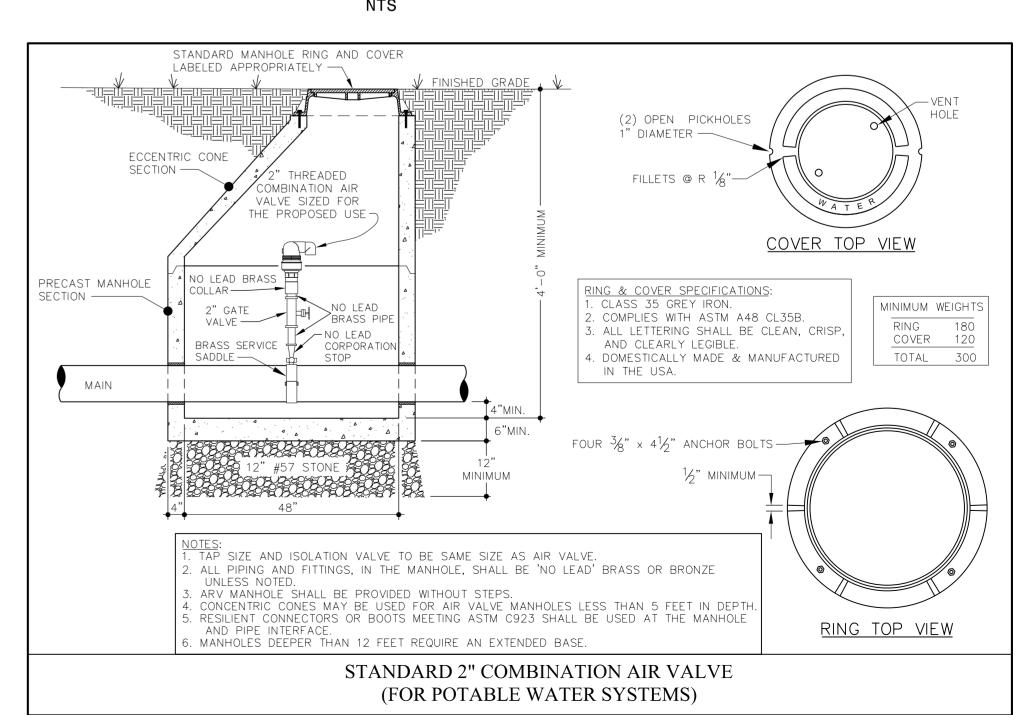
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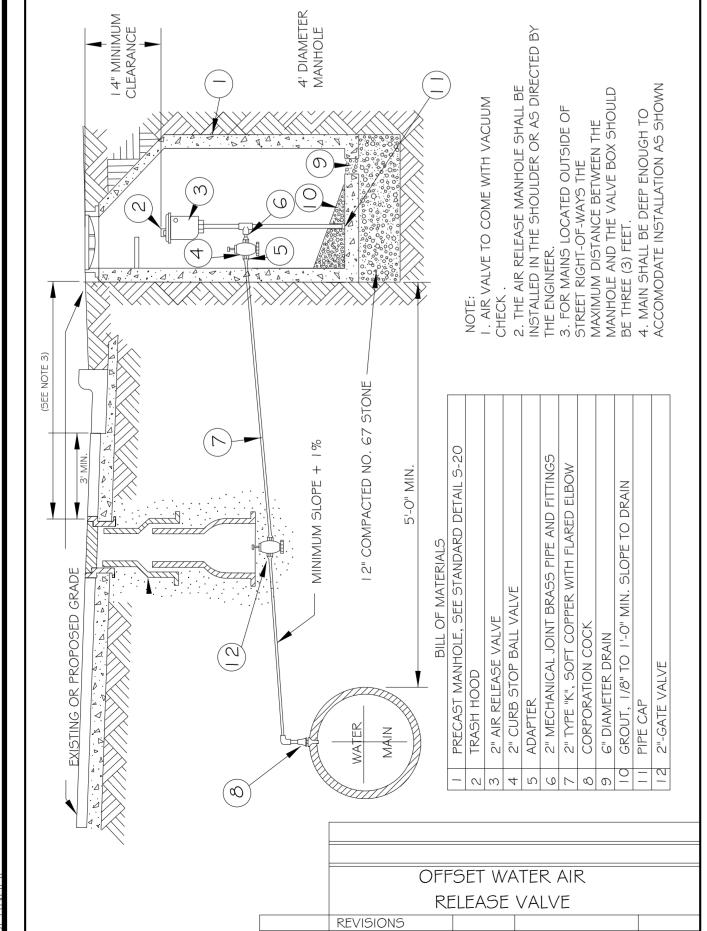
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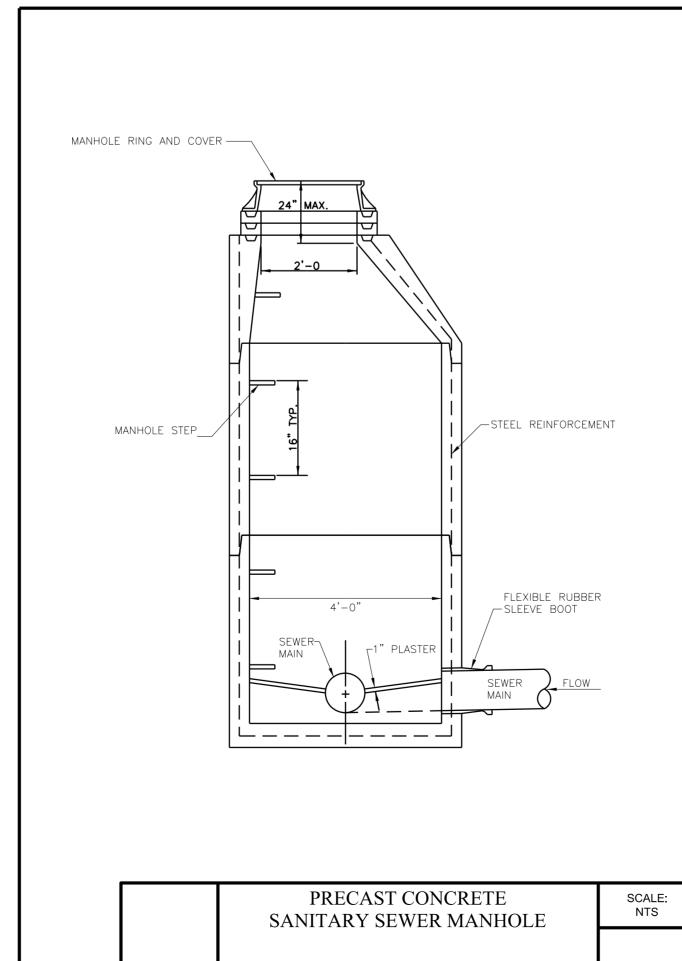
UC-3A

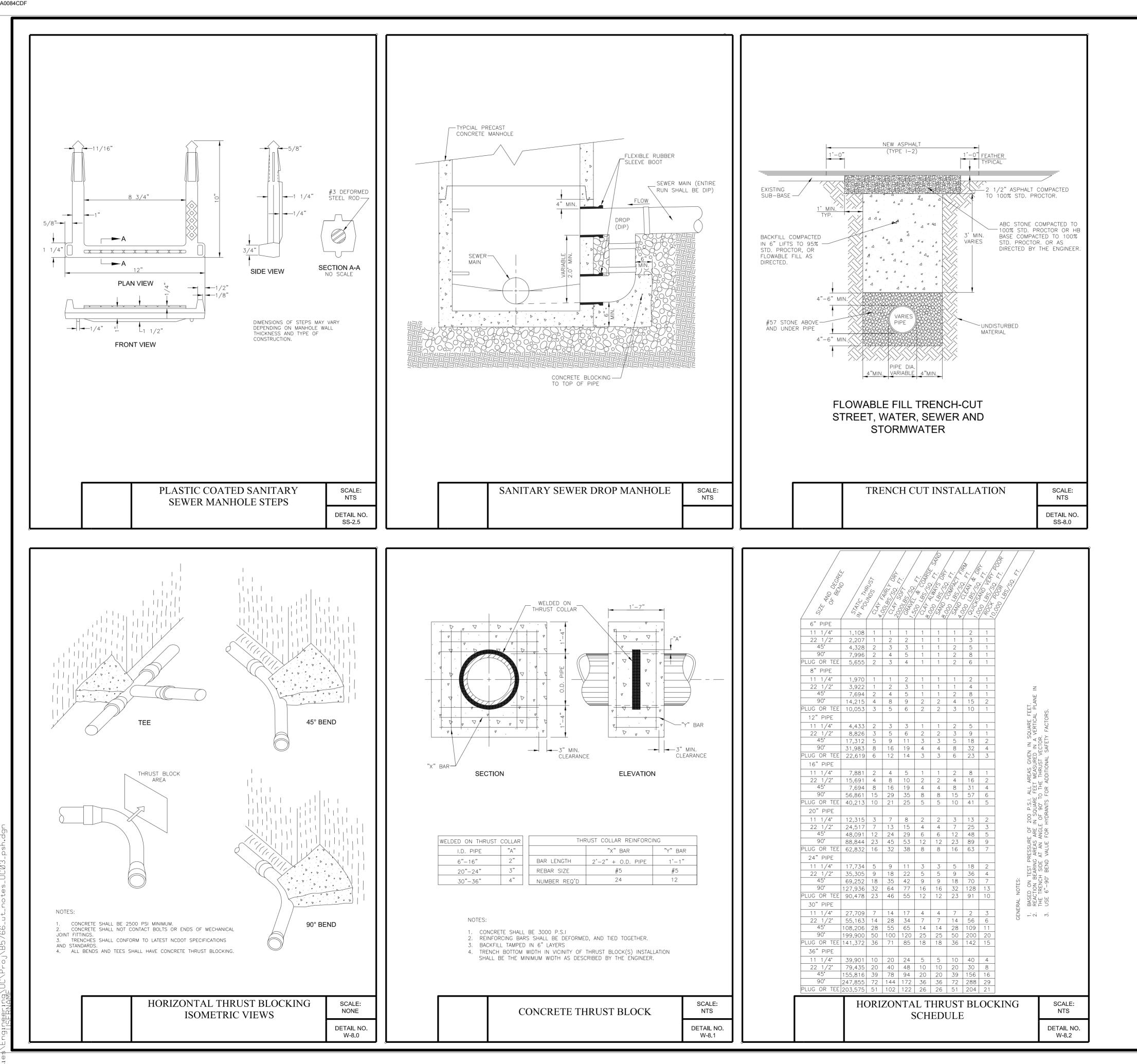
SEAL 028912

WALL PENETRATION DETAIL









PROJECT REFERENCE NO. SHEET NO. UC-3B B-5766 DESIGNED BY: EMT DRAWN BY: LMS CHECKED BY: APPROVED BY: SEAL 028912 REVISED: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION JTILITIES ENGINEERING SEC PHONE: (919)707-6690 UT399€999€9NSTRUCTION FAX: (919)250-4151 PLANS ONLY

UTILITY CONSTRUCTION

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