

09.08/2019

T.I.P. NO.	SHEET NO.
HE-0016	UC-1

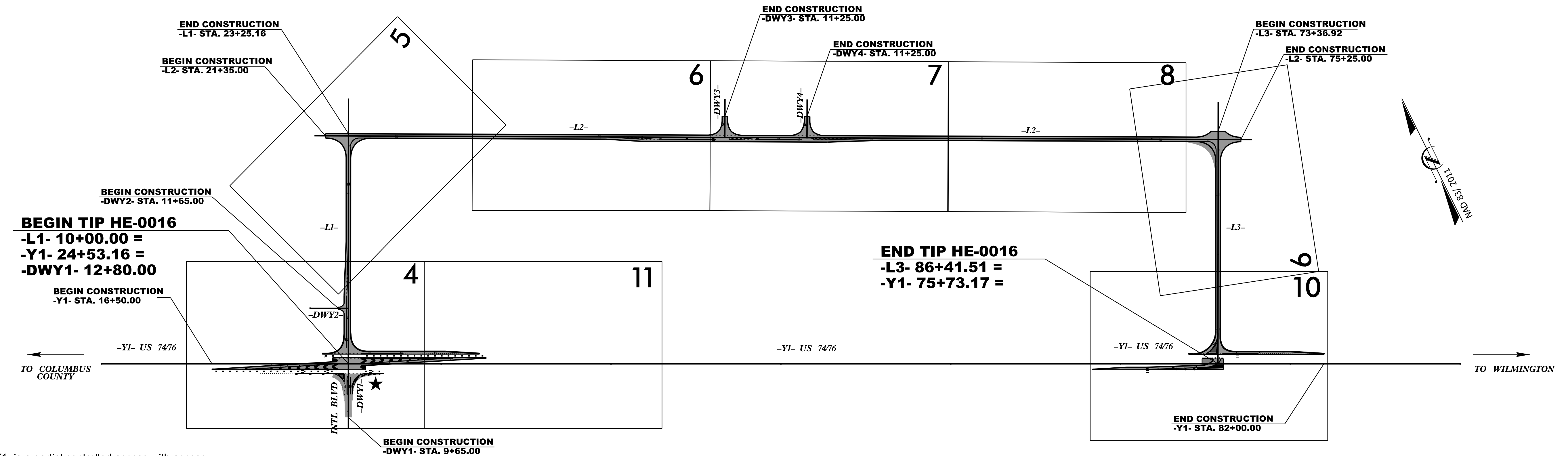
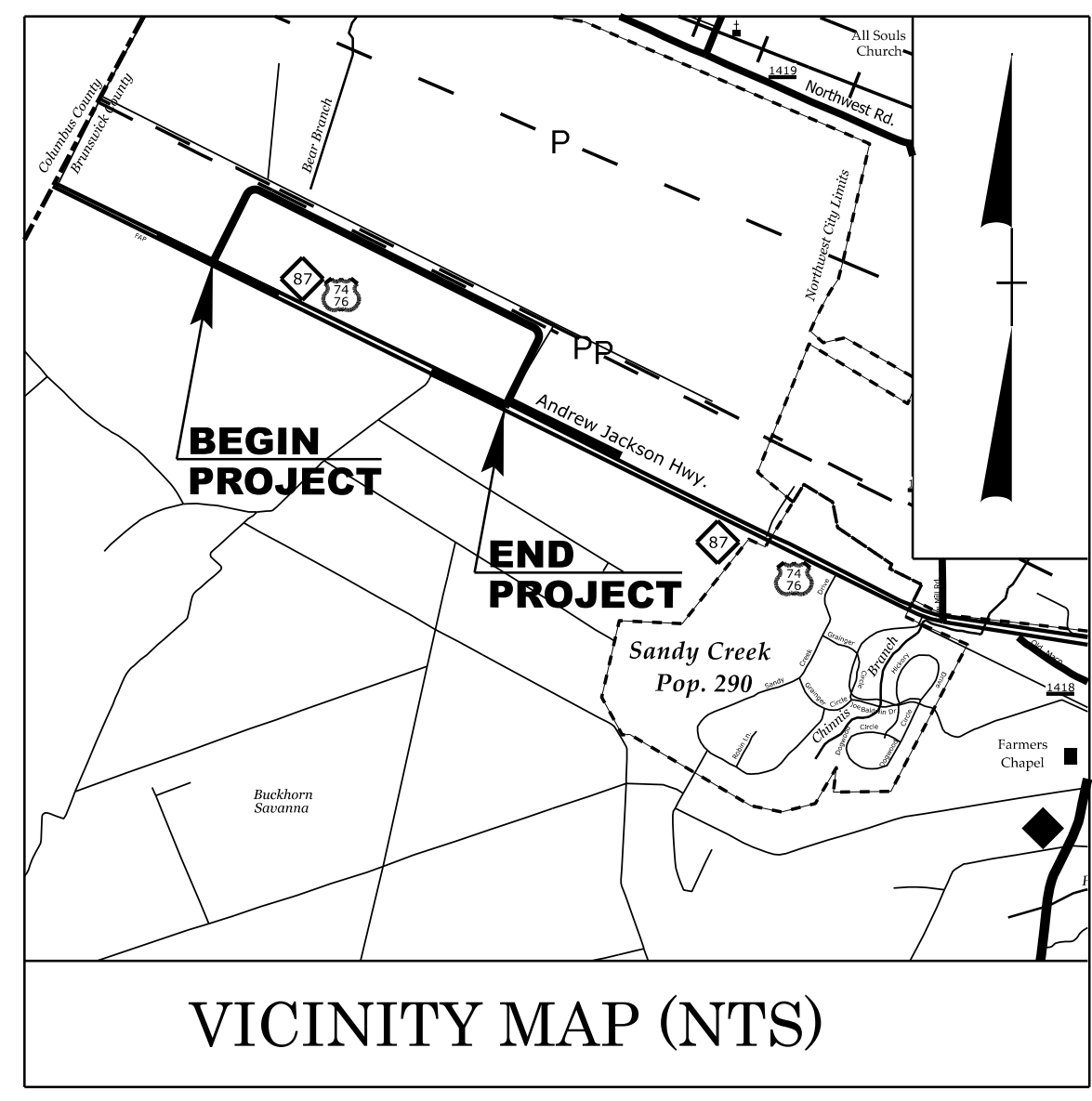
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

**UTILITY CONSTRUCTION PLANS
BRUNSWICK COUNTY**

LOCATION: *CONSTRUCT ROAD ON NEW LOCATION
AND CONSTRUCT INTERSECTIONS
WITH US 74 ON EAST AND WEST
TERMINI*

TYPE OF WORK: *SANITARY SEWER FORCE MAIN RELOCATION*

PROJECT: HE-0016

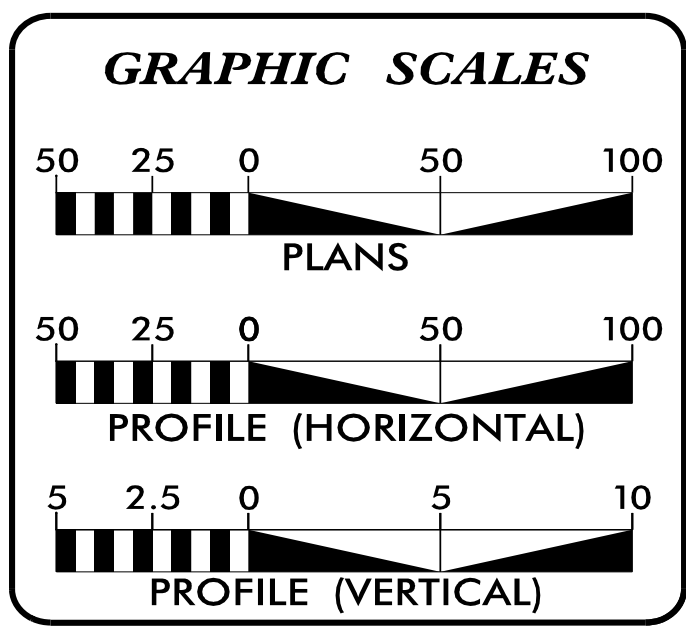


-Y1- is a partial controlled access with access being limited to points shown on the plans.

★ PROPOSED SIGNAL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT:



SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A THRU UC-3D	DETAILS
UC-4 THRU UC-5	UTILITY CONSTRUCTION SHEETS
UC-6 THRU UC-8	PROFILE SHEETS

WATER AND SEWER OWNERS ON PROJECT

(A) SEWER - BRUNSWICK COUNTY
(B) WATER - BRUNSWICK COUNTY

PREPARED IN THE OFFICE OF

1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - SURVEY/SUE - UTILITIES - CONSTRUCTION OBSERVATION

PANKIL K. PATEL UTILITY PROJECT MANAGER
TREVER REEVES UTILITY COORDINATOR

SEAL
12/16/2025

Signed by:
Edward G. Wetherill
PROFESOR/PE/001074

DIVISION OF HIGHWAYS
DIVISION 3
5501 Barbados Blvd
Castle Hayne NC, 28429

BRIAN HARDING NCDOT PROJECT MANAGER
TIM GODWIN NCDOT UTILITY ENGINEER

07/22/2025
U:\UC\Proj\HE0016_UTL_UC_TSH.dgn
USER:Reeves

Note: Not to Scale

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin (EIP)	○ EIP
Computed Property Corner	×
Existing Concrete Monument (ECM)	□ ECM
Parcel / Sequence Number	⑫③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-w-lb-
Proposed Wetland Boundary	-w-lb-
Existing Endangered Animal Boundary	-eab-
Existing Endangered Plant Boundary	-epb-
Existing Historic Property Boundary	-hpb-
Known Contamination Area: Soil	-s-s-
Potential Contamination Area: Soil	-s-s-
Known Contamination Area: Water	-w-w-
Potential Contamination Area: Water	-w-w-
Contaminated Site: Known or Potential	☠ ?

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	□ +
Building	□
School	□
Church	□
Dam	□

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
Jurisdictional Stream	-js-
Buffer Zone 1	-bz 1-
Buffer Zone 2	-bz 2-
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	⌵
Proposed Lateral, Tail, Head Ditch	← FLOW
False Sump	◇

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY & PROJECT CONTROL:

Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	●
Secondary Horiz and Vert Control Point	◆
Vertical Benchmark	⊠
Existing Right of Way Monument	△
Proposed Right of Way Monument (Rebar and Cap)	▲
Proposed Right of Way Monument (Concrete)	▲
Existing Permanent Easement Monument	◇
Proposed Permanent Easement Monument (Rebar and Cap)	◇
Existing C/A Monument	△
Proposed C/A Monument (Rebar and Cap)	▲
Proposed C/A Monument (Concrete)	▲
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Existing Control of Access Line	-----
Proposed Control of Access Line	-----
Proposed ROW and CA Line	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage/Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-c-
Proposed Slope Stakes Fill	-f-
Proposed Curb Ramp	CR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	⊗
VEGETATION:	
Single Tree	☼
Single Shrub	☼
Hedge	-----

Woods Line	-----
Orchard	-----
Vineyard	-----

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	CONC
Bridge Wing Wall, Head Wall and End Wall	CONC WW
MINOR:	
Head and End Wall	CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	⊕
Storm Sewer	s

UTILITIES:

* SUE - Subsurface Utility Engineering
LOS - Level of Service - A, B, C or D (Accuracy)

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊕
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	PH
H-Frame Pole	●
U/G Power Line Test Hole (SUE - LOS A)*	⊕
U/G Power Line (SUE - LOS B)*	-----
U/G Power Line (SUE - LOS C)*	-----
U/G Power Line (SUE - LOS D)*	-----

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Pedestal	⊠
Telephone Cell Tower	⊠
U/G Telephone Cable Hand Hole	PH
U/G Telephone Test Hole (SUE - LOS A)*	⊕
U/G Telephone Cable (SUE - LOS B)*	-----
U/G Telephone Cable (SUE - LOS C)*	-----
U/G Telephone Cable (SUE - LOS D)*	-----
U/G Telephone Conduit (SUE - LOS B)*	-----
U/G Telephone Conduit (SUE - LOS C)*	-----
U/G Telephone Conduit (SUE - LOS D)*	-----
U/G Fiber Optics Cable (SUE - LOS B)*	-----
U/G Fiber Optics Cable (SUE - LOS C)*	-----
U/G Fiber Optics Cable (SUE - LOS D)*	-----

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line Test Hole (SUE - LOS A)*	⊕
U/G Water Line (SUE - LOS B)*	-----
U/G Water Line (SUE - LOS C)*	-----
U/G Water Line (SUE - LOS D)*	-----
Above Ground Water Line	A/G Water

TV:

TV Pedestal	⊠
TV Tower	⊗
U/G TV Cable Hand Hole	PH
U/G TV Test Hole (SUE - LOS A)*	⊕
U/G TV Cable (SUE - LOS B)*	-----
U/G TV Cable (SUE - LOS C)*	-----
U/G TV Cable (SUE - LOS D)*	-----
U/G Fiber Optic Cable (SUE - LOS B)*	-----
U/G Fiber Optic Cable (SUE - LOS C)*	-----
U/G Fiber Optic Cable (SUE - LOS D)*	-----

GAS:

Gas Valve	◇
Gas Meter	◇
U/G Gas Line Test Hole (SUE - LOS A)*	⊕
U/G Gas Line (SUE - LOS B)*	-----
U/G Gas Line (SUE - LOS C)*	-----
U/G Gas Line (SUE - LOS D)*	-----
Above Ground Gas Line	A/G Gas

SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	ss
Above Ground Sanitary Sewer	A/G Sanitary Sewer
SS Force Main Line Test Hole (SUE - LOS A)*	⊕
SS Force Main Line (SUE - LOS B)*	-----
SS Force Main Line (SUE - LOS C)*	-----
SS Force Main Line (SUE - LOS D)*	-----

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line (SUE - LOS B)*	-----
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	UST
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

GENERAL NOTES:

UTILITY CONSTRUCTION

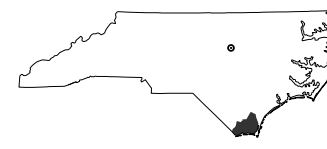


1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2024.
2. THE EXISTING UTILITIES BELONG TO BRUNSWICK COUNTY. CONTACT MR. BOB TWEEDY, PE, PROJECT MANAGER, AT 910-253-2994.
3. 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.
10. CONTRACTOR SHALL CONFORM TO BRUNSWICK COUNTY'S TECHNICAL SPECIFICATIONS FOR WASTEWATER FORCE MAINS (BC SPECIFICATIONS - 022...).

PROJECT SPECIFIC NOTES:

1. PROPOSED FORCE MAIN SEWER LINE (FSS-1) SHALL BE 8" PVC C900 DR-18 WITH DUCTILE IRON FITTINGS, INSTALLED BY OPEN CUT METHOD.
2. PROPOSED FORCE MAIN SEWER LINE (FSS-2) SHALL BE 8" PVC C900 DR-18 WITH DUCTILE IRON FITTINGS, INSTALLED BY OPEN CUT METHOD.
3. PROPOSED ENCASEMENT PIPE SHALL BE 30" STEEL, MINIMUM 0.312" THICKNESS, INSTALLED BY OPEN CUT METHOD. STEEL ENCASEMENT PIPE SHALL MEET ASTM SPECIFICATIONS WITH MINIMUM YIELD STRENGTH OF 35,000 PSI AND CAPPED AT BOTH ENDS.
4. SEE "INSET A" ON SHEET UC-4 FOR VALVE CONFIGURATION AT STA. 10+00 FOR FSS-1 PER BRUNSWICK COUNTY AS-BUILTS. CONTRACTOR SHALL VERIFY THE PIPING CONNECTIONS PRIOR TO THE FORCE MAIN RELOCATION.

SEWER INSTALLATION NOTES

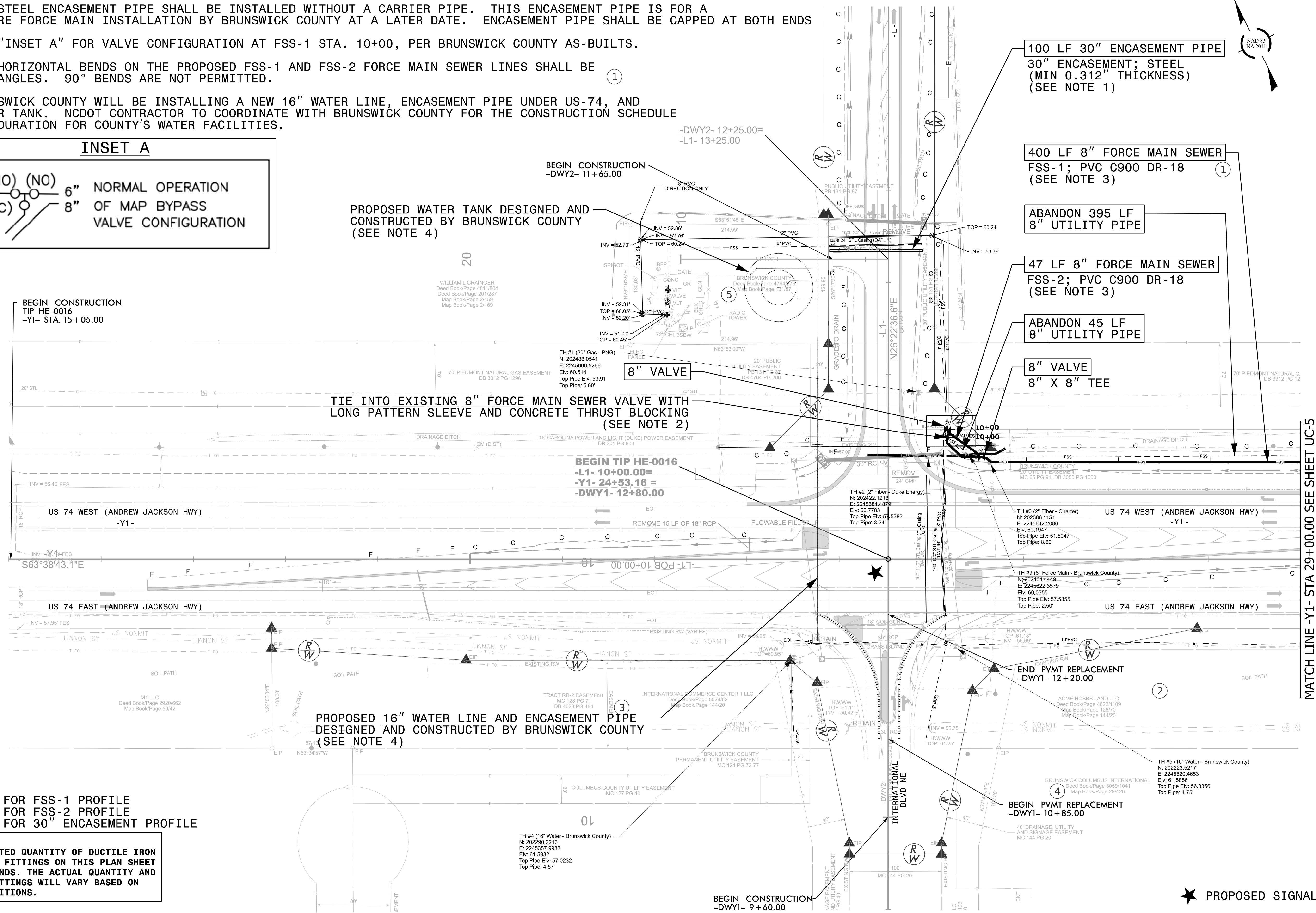
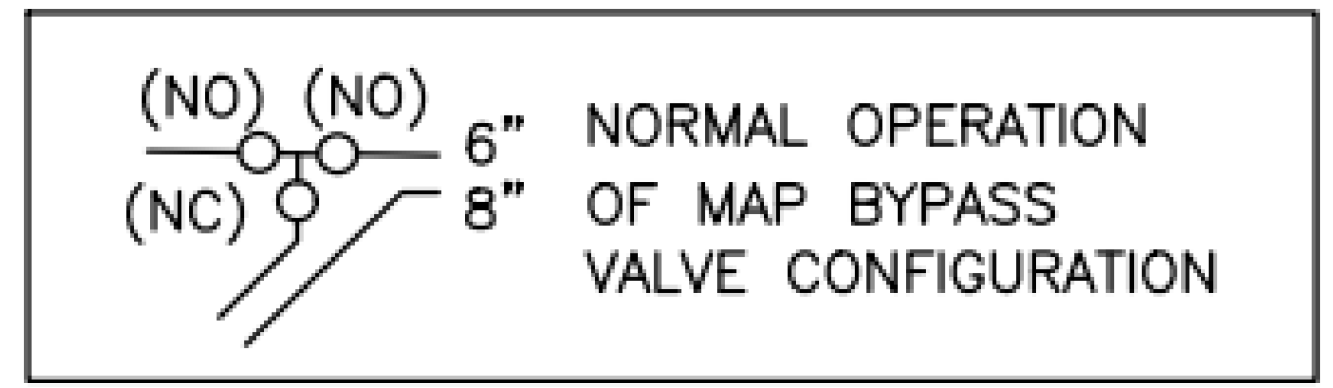
1. CONTRACTOR SHALL FULLY INSTALL, PRESSURE & LEAKAGE TEST NEW SEWER MAIN PRIOR TO CONNECTION TO EXISTING SYSTEM.
2. CONTRACTOR SHALL PERFORM THE CONNECTION DURING OFF PEAK HOURS WITH A MAXIMUM SHUT DOWN TIME OF FIVE HOURS. CONTRACTOR TO COORDINATE WITH BRUNSWICK COUNTY FOR WORKING HOURS PRIOR TO CONSTRUCTION.
3. DOWN TIME FOR FORCE MAIN SEWER SHALL BE DETERMINED BY BRUNSWICK COUNTY PRIOR TO CONSTRUCTION AND COORDINATED WITH CONTRACTOR.
4. THE SEQUENCE OF CONSTRUCTION MAY REQUIRE A PUMP-AND-HAUL OPERATION DURING THE TIME THE FITTINGS AND SHORT SECTIONS OF PIPE ARE ASSEMBLED. BRUNSWICK COUNTY WILL PROVIDE SEWAGE FLOW INFORMATION FOR THE PUMP-AND-HAUL OPERATION AT A LATER DATE.
5. ANY TEST PERFORMED WITHOUT NOTIFICATION TO BRUNSWICK COUNTY SHALL BE PERFORMED AT THE CONTRACTOR'S RISK. TESTING SHALL BE PERFORMED IN THE PRESENCE OF BRUNSWICK COUNTY PERSONNEL. CONTACT MR. BOB TWEEDY, PE AT 910-253-2994.
6. NEW SEWER MAIN SHALL NOT BE CONNECTED TO EXISTING MAIN WITHOUT PRIOR APPROVAL AND COORDINATION WITH BRUNSWICK COUNTY.
7. FOR NEW SEWER MAIN CONNECTIONS, USE LONG PATTERN SLEEVE AND THRUST COLLAR AS REQUIRED.
8. EXISTING FORCE MAIN SEWER SHALL BE ABANDONED IN PLACE WITH FLOWABLE FILL BETWEEN TIE-IN LOCATIONS AFTER CONNECTIONS ARE COMPLETE. REFER TO UTILITY ACCOMMODATION MANUAL AND 2024 STANDARD SPECIFICATIONS.
9. CONTRACTOR SHALL COORDINATE WITH BRUNSWICK COUNTY ON SPECIFIC PUMP STATION OUTAGE REQUIREMENTS AND RESTRICTIONS PRIOR TO THE INSTALLATION AND TIE-IN FOR FSS-1 AND FSS-2.
10. NEW 30" STEEL ENCASEMENT PIPE SHALL BE INSTALLED WITHOUT A CARRIER PIPE BY NCDOT CONTRACTOR. BRUNSWICK COUNTY WILL INSTALL A NEW FORCE MAIN SEWER AT A LATER DATE THROUGH THIS 30" ENCASEMENT PIPE.
11. BRUNSWICK COUNTY MUST MAINTAIN ACCESS TO THE PUMP STATION AT ALL TIMES.
12. ELECTRONIC MARKER BALLS MUST BE INSTALLED ALONG FSS-1 AND FSS-2 ALIGNMENT. REFER TO DETAIL WS-23 ON SHEET UC-3D.
13. ALL HORIZONTAL AND VERTICAL BENDS ON THE PROPOSED FORCE MAIN SEWER LINES SHALL BE 45° ANGLES OR LESS. 90° BENDS ARE NOT PERMITTED.
14. BRUNSWICK COUNTY REQUESTS THE USE OF MECHANICAL JOINT RESTRAINTS IN LIEU OF CONCRETE THRUST BLOCKING WHERE POSSIBLE.

HE-0016
UC 03
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BRUNSWICK COUNTY

ROADWAY DESIGN UNIT
UTILITY PROJECT MANAGER: PANKIL PATEL
UTILITY COORDINATOR: TREVOR REEVES
12/16/2025

Signed by: <i>Edward C. Wetmore</i> #60753EEBC0147D...
PREPARED BY  WE Design your Tomorrow ... 1223 Jones Franklin Road Raleigh, NC 27606 (919) 851-8077 NC License F-0377

NOTES:

- 30" STEEL ENCASUREMENT PIPE SHALL BE INSTALLED WITHOUT A CARRIER PIPE. THIS ENCASUREMENT PIPE IS FOR A FUTURE FORCE MAIN INSTALLATION BY BRUNSWICK COUNTY AT A LATER DATE. ENCASUREMENT PIPE SHALL BE CAPPED AT BOTH ENDS
- SEE "INSET A" FOR VALVE CONFIGURATION AT FSS-1 STA. 10+00, PER BRUNSWICK COUNTY AS-BUILTS.
- ALL HORIZONTAL BENDS ON THE PROPOSED FSS-1 AND FSS-2 FORCE MAIN SEWER LINES SHALL BE 45° ANGLES. 90° BENDS ARE NOT PERMITTED.
- BRUNSWICK COUNTY WILL BE INSTALLING A NEW 16" WATER LINE, ENCASUREMENT PIPE UNDER US-74, AND WATER TANK. NCDOT CONTRACTOR TO COORDINATE WITH BRUNSWICK COUNTY FOR THE CONSTRUCTION SCHEDULE AND DURATION FOR COUNTY'S WATER FACILITIES.

INSET A



SEE UC-6 FOR FSS-1 PROFILE
SEE UC-7 FOR FSS-2 PROFILE
SEE UC-8 FOR 30" ENCASUREMENT PROFILE

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON SEWER PIPE FITTINGS ON THIS PLAN SHEET IS 845 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

HE-0016
UC 04

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BRUNSWICK COUNTY

ROADWAY DESIGN UNIT
UTILITY PROJECT MANAGER: PANKIL PATEL
UTILITY COORDINATOR: TREVOR REEVES

12/16/2025

SEAL 10/13

Edward G. McNeill
660755EEC0147D

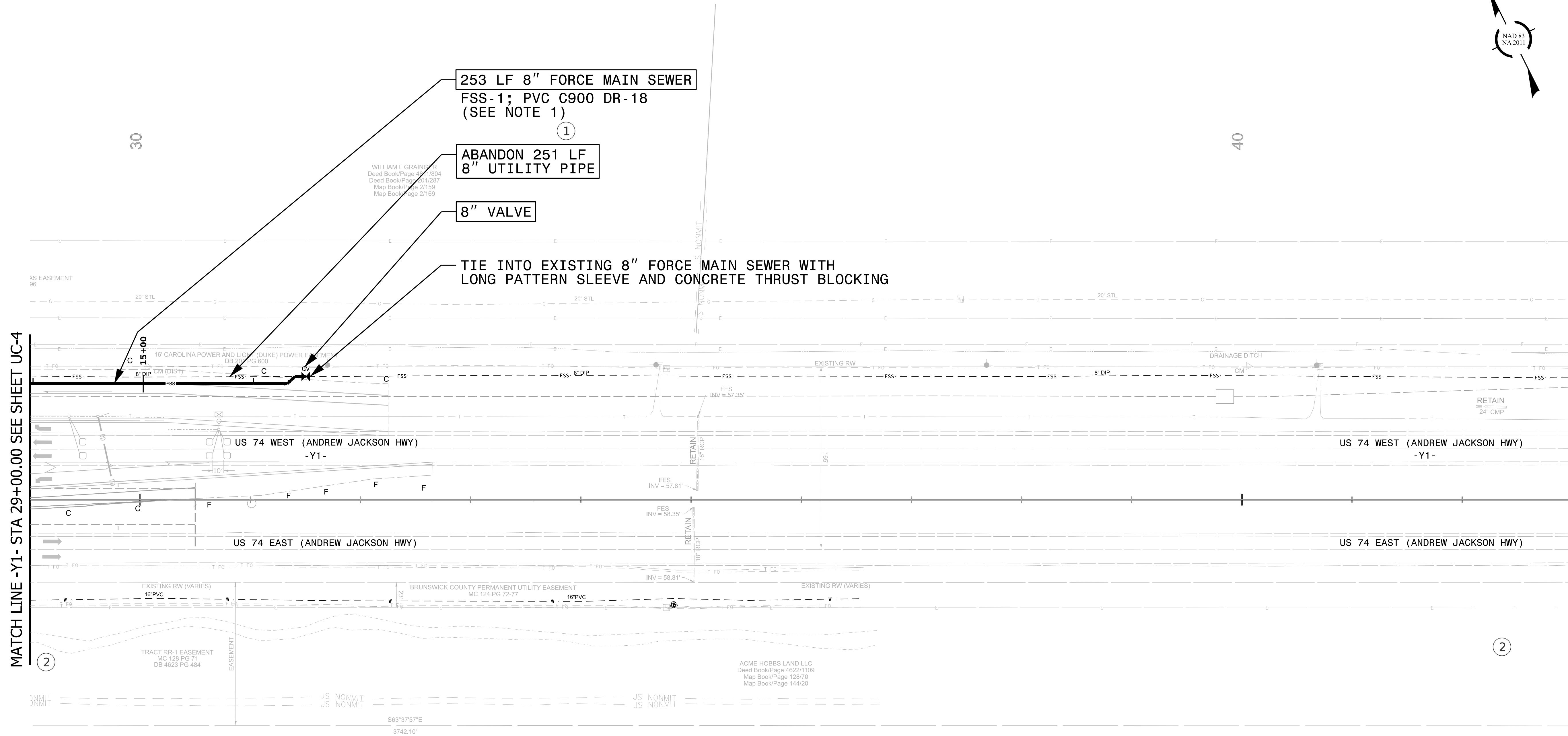
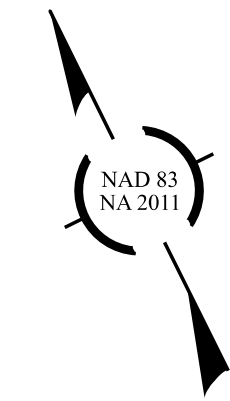
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WETHERILL ENGINEERING

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Raleigh, NC 27606
(919) 851-8077
NC License F-0377

11/14/23

NOTES:

- 1. ALL HORIZONTAL BENDS ON THE PROPOSED FSS-1 FORCE MAIN SEWER LINE SHALL BE 45° ANGLES. 90° BENDS ARE NOT PERMITTED.



MATCH LINE -Y1- STA 29+00.00 SEE SHEET UC-4

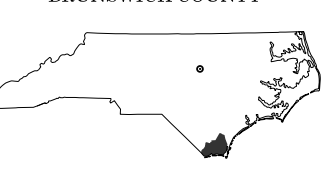
SEE UC-6 FOR FSS-1 PROFILE

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON SEWER PIPE FITTINGS ON THIS PLAN SHEET IS 220 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

HE-0016

UC 05

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BRUNSWICK COUNTY



ROADWAY DESIGN UNIT

UTILITY PROJECT MANAGER:

PANKIL PATEL

UTILITY COORDINATOR:

TREVER REEVES

12/16/2025



Signed by:
Edward G. Wetterill
#6073EEB00147D...

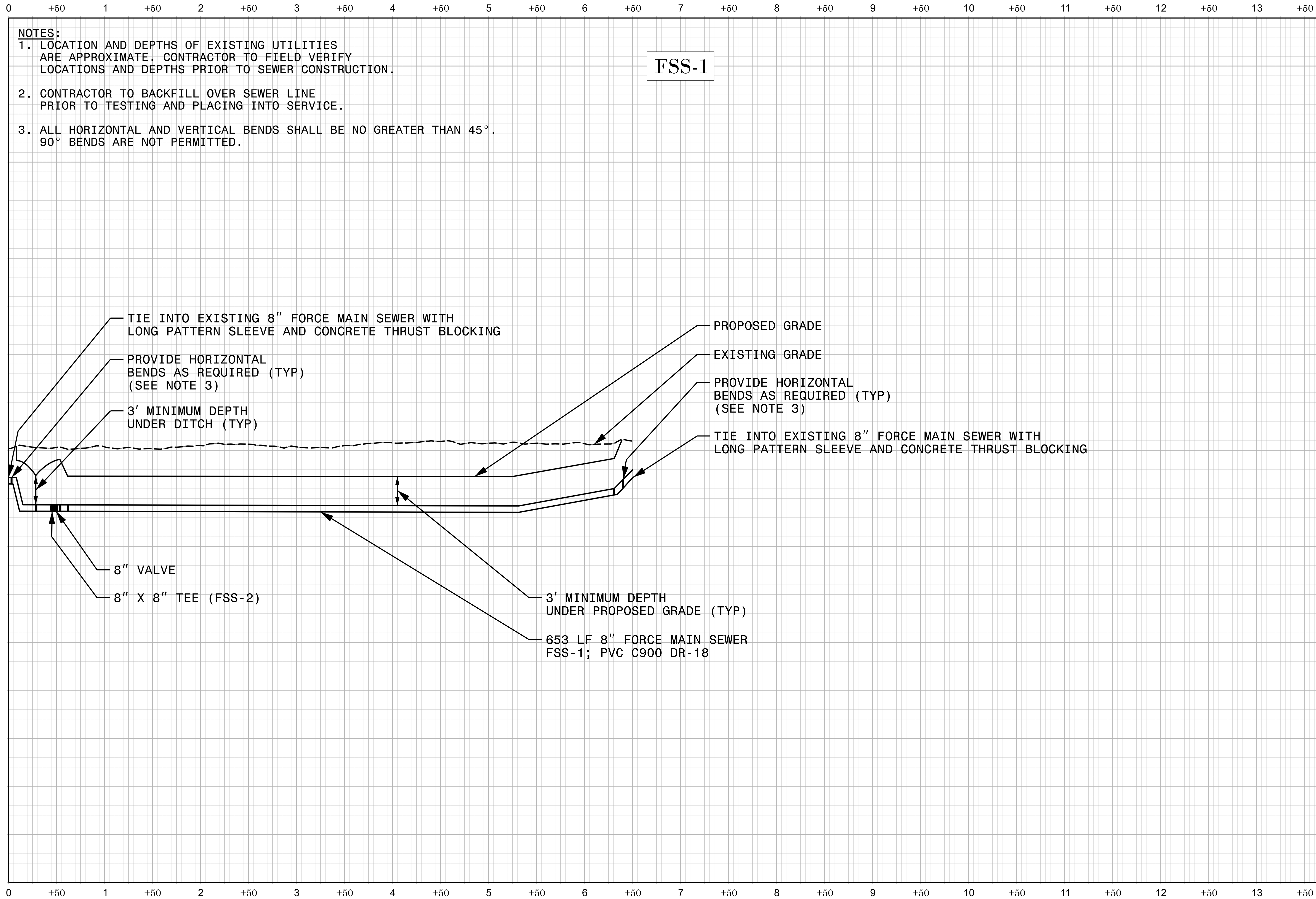
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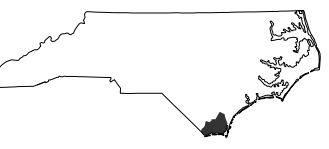


- NOTES:**
1. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTHS PRIOR TO SEWER CONSTRUCTION.
 2. CONTRACTOR TO BACKFILL OVER SEWER LINE PRIOR TO TESTING AND PLACING INTO SERVICE.
 3. ALL HORIZONTAL AND VERTICAL BENDS SHALL BE NO GREATER THAN 45°. 90° BENDS ARE NOT PERMITTED.

FSS-1

HE-0016
UC 06

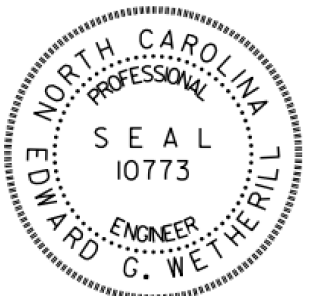
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
BRUNSWICK COUNTY



ROADWAY DESIGN UNIT
UTILITY PROJECT MANAGER:
PANKIL PATEL

UTILITY COORDINATOR:
TREVOR REEVES

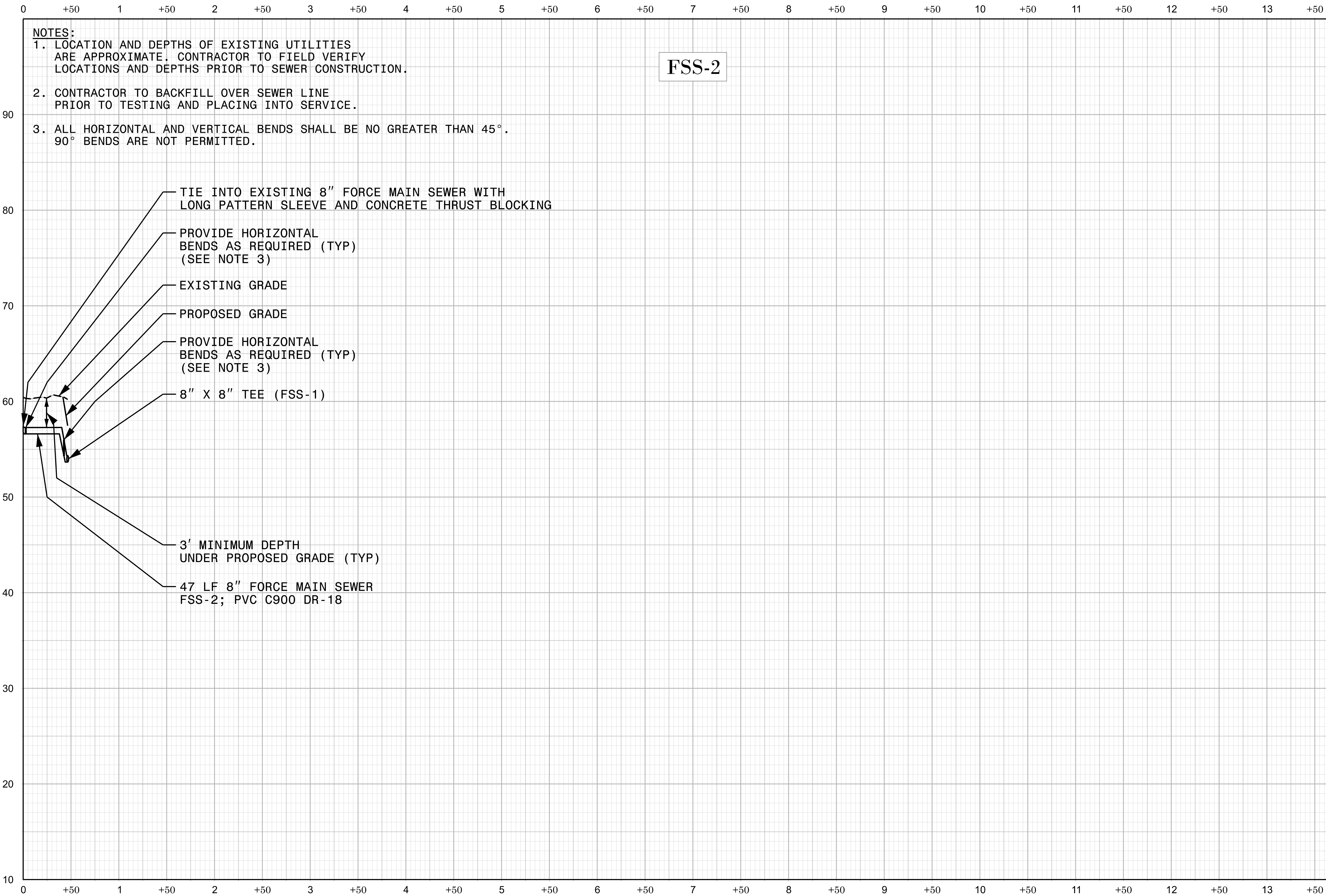
12/16/2025



Signed by:
Edward G. Wetmore
68073EEBC0147D

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WETHERILL ENGINEERING

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- NOTES:**
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 3. ALL HORIZONTAL AND VERTICAL BENDS SHALL BE NO GREATER THAN 45°. 90° BENDS ARE NOT PERMITTED.

FSS-2

TIE INTO EXISTING 8" FORCE MAIN SEWER WITH LONG PATTERN SLEEVE AND CONCRETE THRUST BLOCKING

PROVIDE HORIZONTAL BENDS AS REQUIRED (TYP) (SEE NOTE 3)

EXISTING GRADE

PROPOSED GRADE

PROVIDE HORIZONTAL BENDS AS REQUIRED (TYP) (SEE NOTE 3)

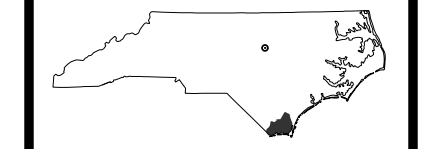
8" X 8" TEE (FSS-1)

3' MINIMUM DEPTH UNDER PROPOSED GRADE (TYP)

47 LF 8" FORCE MAIN SEWER FSS-2; PVC C900 DR-18

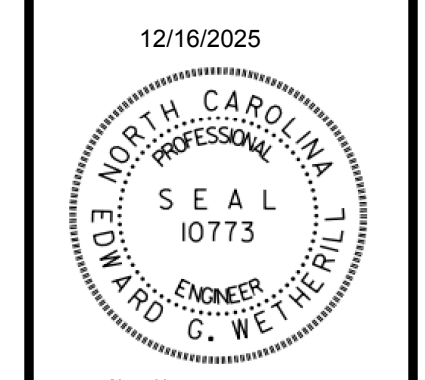
HE-0016
UC 07

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
BRUNSWICK COUNTY



ROADWAY DESIGN UNIT
UTILITY PROJECT MANAGER:
PANKIL PATEL

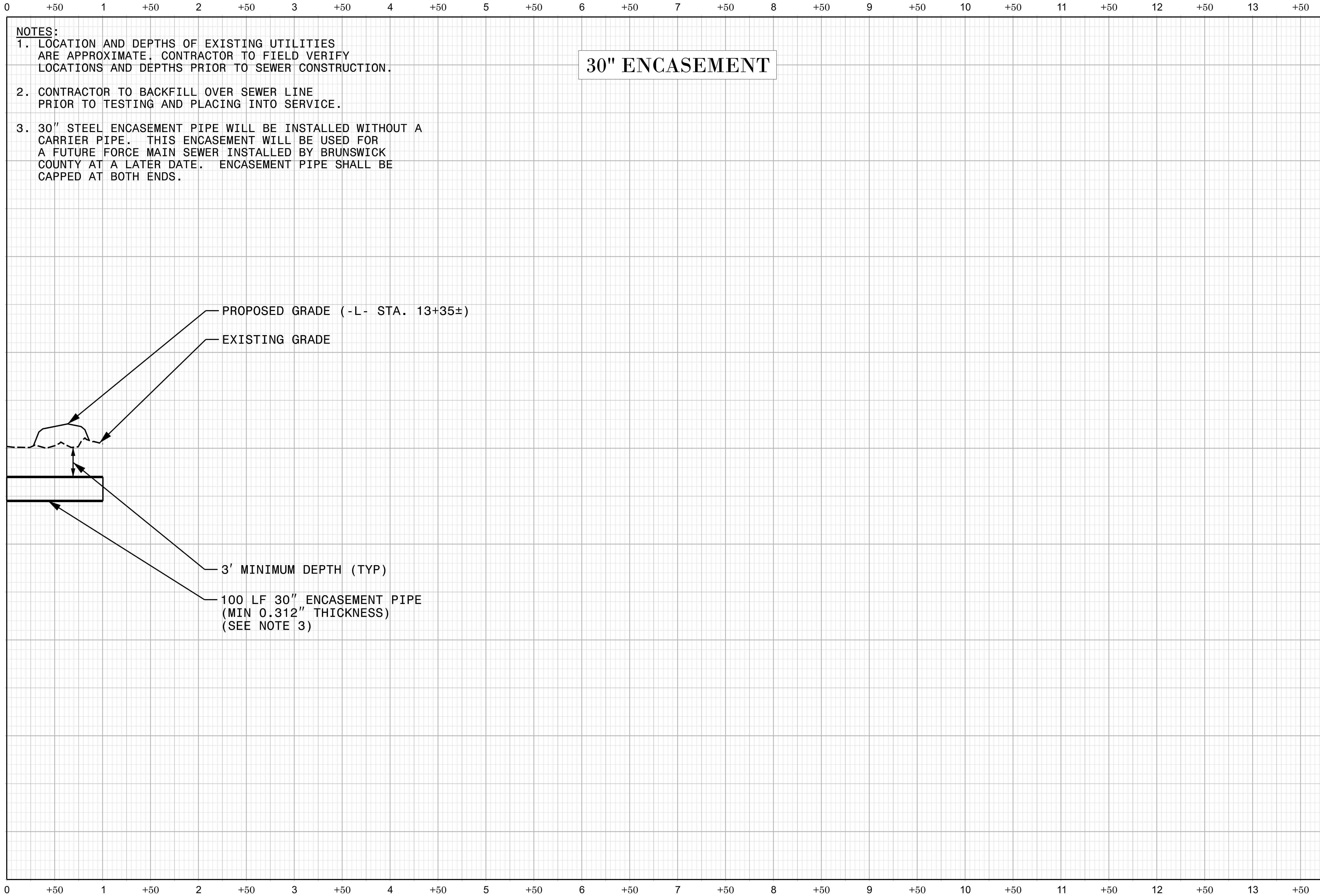
UTILITY COORDINATOR:
TREVOR REEVES



Signed by:
Edward C. Wetherill
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NOTES:

1. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTHS PRIOR TO SEWER CONSTRUCTION.
2. CONTRACTOR TO BACKFILL OVER SEWER LINE PRIOR TO TESTING AND PLACING INTO SERVICE.
3. 30" STEEL ENCASEMENT PIPE WILL BE INSTALLED WITHOUT A CARRIER PIPE. THIS ENCASEMENT WILL BE USED FOR A FUTURE FORCE MAIN SEWER INSTALLED BY BRUNSWICK COUNTY AT A LATER DATE. ENCASEMENT PIPE SHALL BE CAPPED AT BOTH ENDS.

30" ENCASEMENT

PROPOSED GRADE (-L- STA. 13+35±)

EXISTING GRADE

3' MINIMUM DEPTH (TYP)

100 LF 30" ENCASEMENT PIPE
(MIN 0.312" THICKNESS)
(SEE NOTE 3)

HE-0016

UC 08

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
BRUNSWICK COUNTY

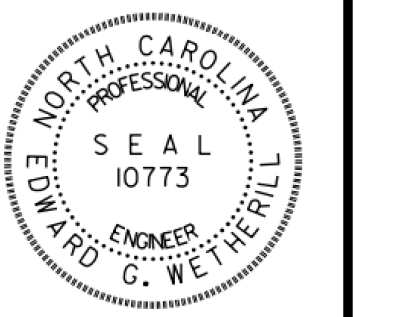


ROADWAY DESIGN UNIT

UTILITY PROJECT MANAGER:
PANKIL PATEL

UTILITY COORDINATOR:
TREVOR REEVES

12/16/2025



Signed by:
Edward G. Wetterill
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PREPARED BY
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