

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# UTILITY CONSTRUCTION PLANS CUMBERLAND COUNTY

**LOCATION: SR 1003 (CAMDEN ROAD) FROM NC 59  
(HOPE MILLS ROAD) TO HOPE MILLS BYPASS**

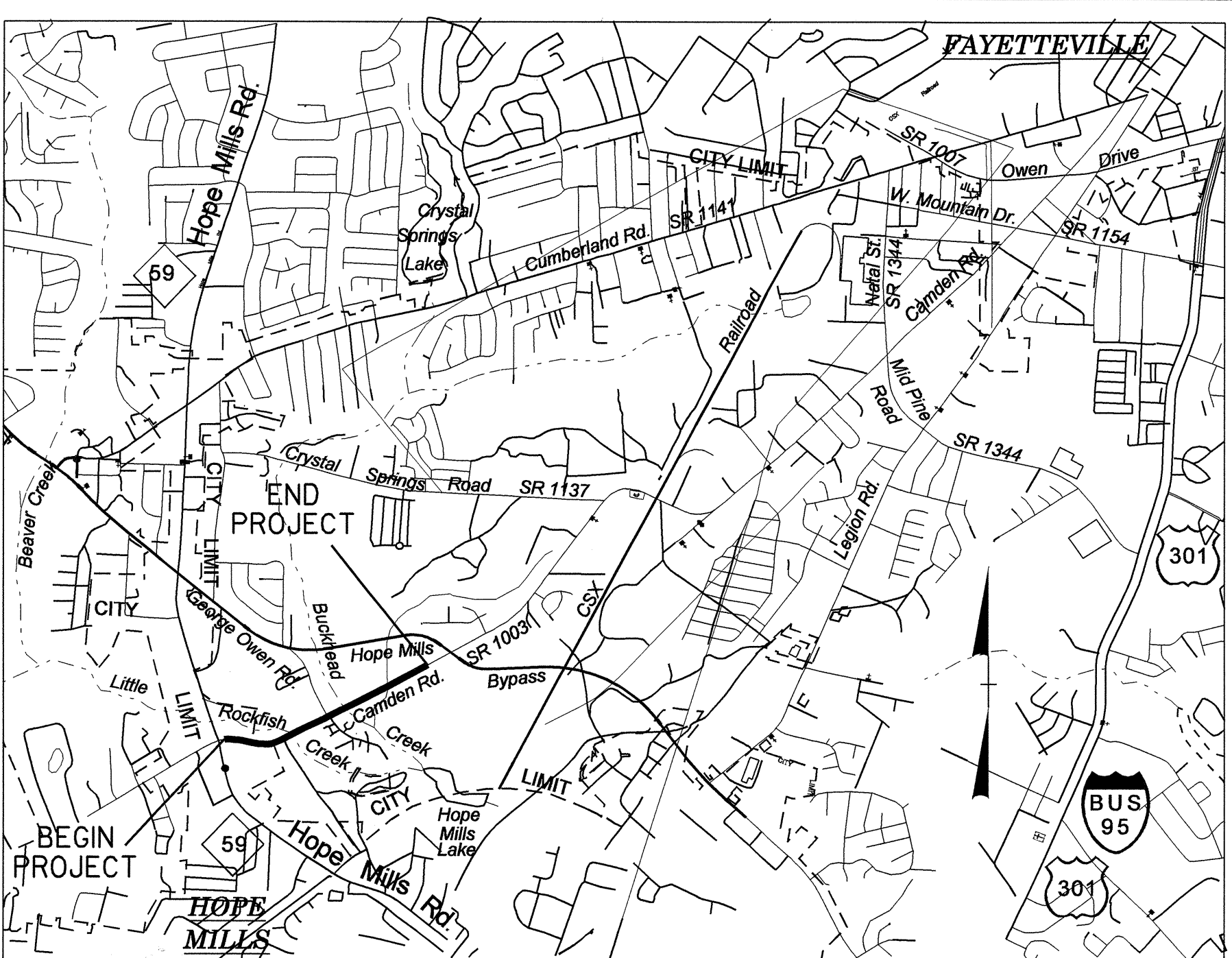
**TYPE OF WORK: SANITARY SEWER AND WATER**

**BEGIN TIP PROJECT U-2810A**

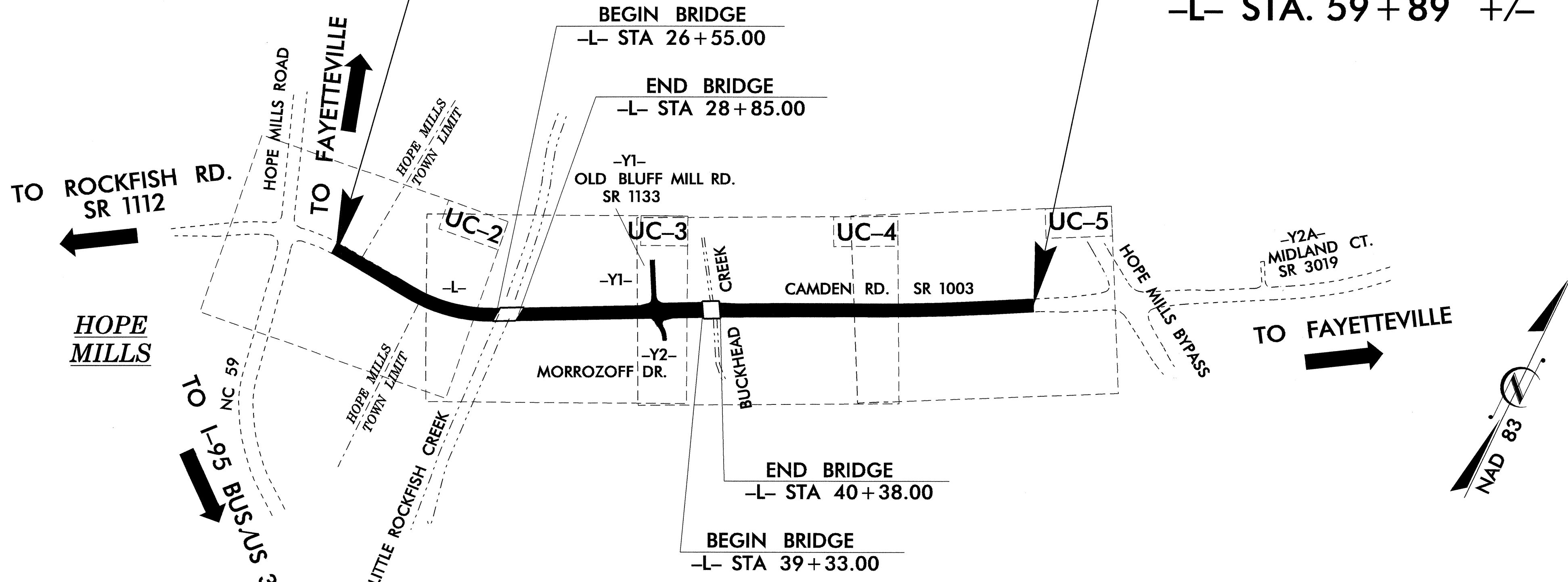
**-L- STA. 15+00.00**

**END TIP PROJECT U-2810A**

**-L- STA. 59+89 +/-**



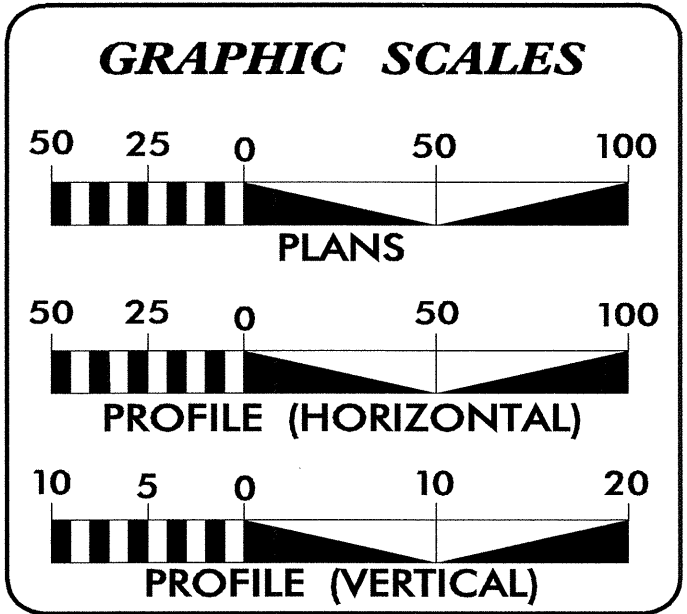
**VICINITY MAP**



**2006 STANDARD SPECIFICATIONS**

**TIP PROJECT: U-2810A**

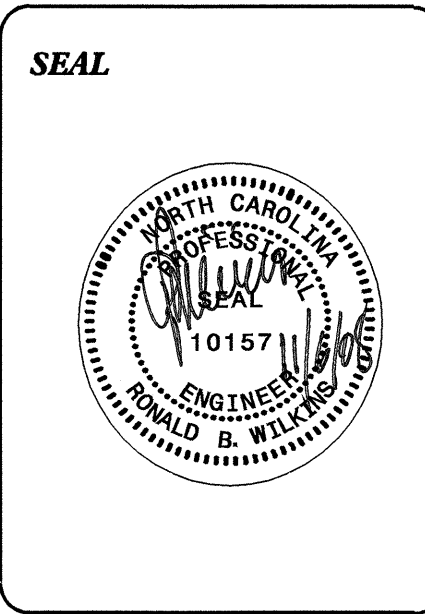
**CONTRACT: 202066**



SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2 - UC-5	UTILITY CONSTRUCTION PLANS
UC-6	PROFILES

**WATER AND SEWER OWNERS ON PROJECT**

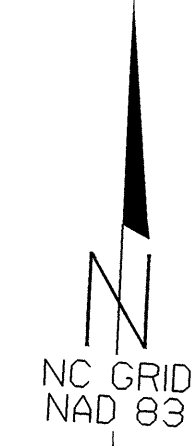
(1) WATER - PUBLIC WORKS COMMISSION OF FAYETTEVILLE  
(2) SANITARY SEWER - PUBLIC WORKS COMMISSION OF FAYETTEVILLE



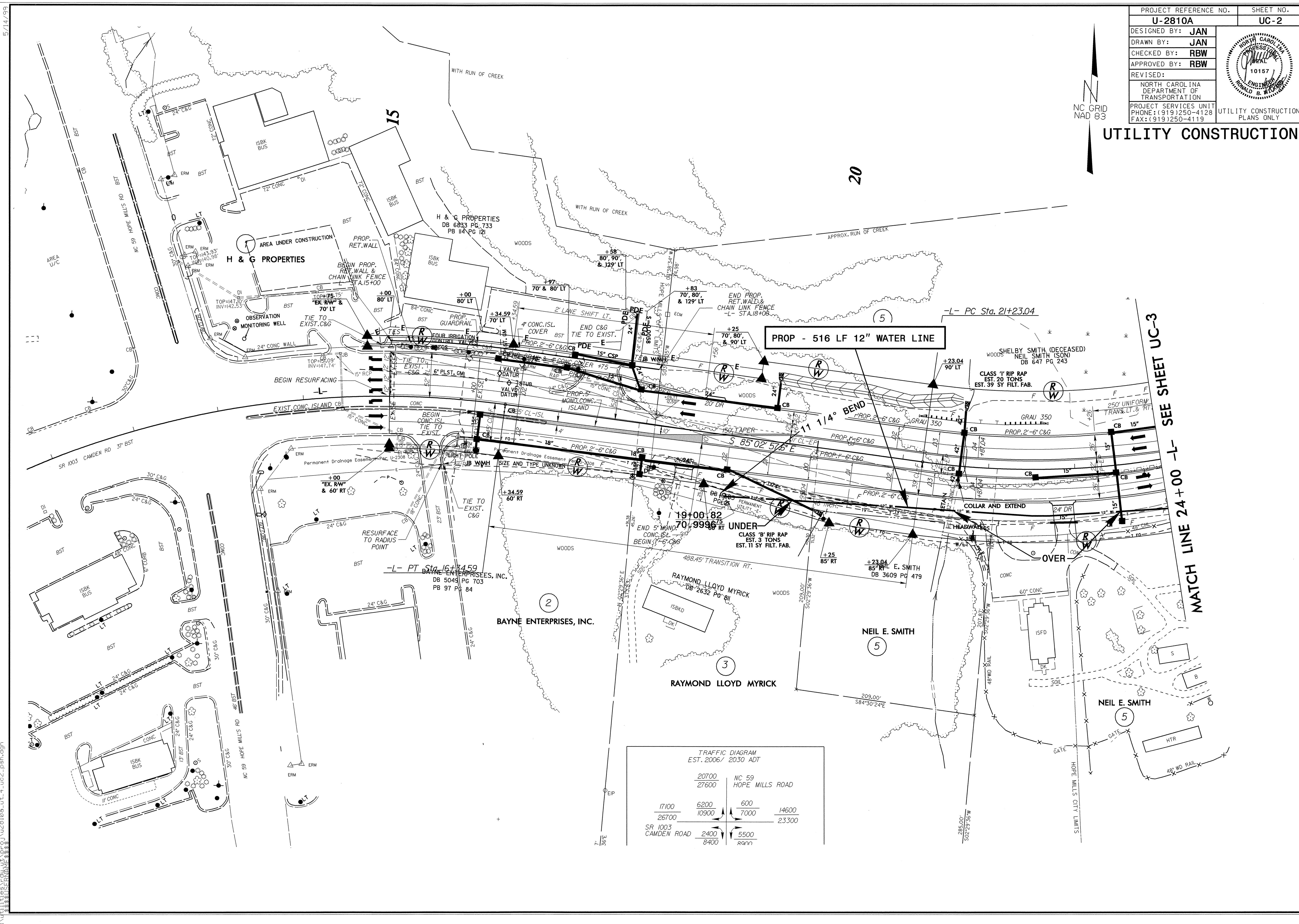
PREPARED IN THE OFFICE OF:  
**DIVISION OF HIGHWAYS  
PROJECT SERVICES  
UTILITY SECTION**

1591 MAIL SERVICES CENTER  
RALEIGH NC 27699-1591  
PHONE (919) 259-4128  
FAX (919) 259-4119

**Roger Worthington, P.E.** UTILITIES SECTION ENGINEER  
**R. B. WILKINS, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER  
**JOHN A. NIGRO, P.E.** UTILITIES PROJECT DESIGNER



# UTILITY CONSTRUCTION

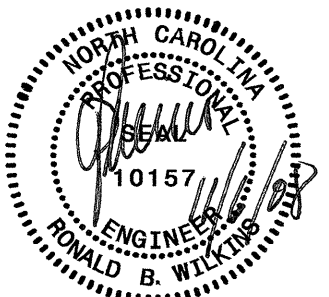


TRAFFIC DIAGRAM  
EST. 2006 / 2030 ADT

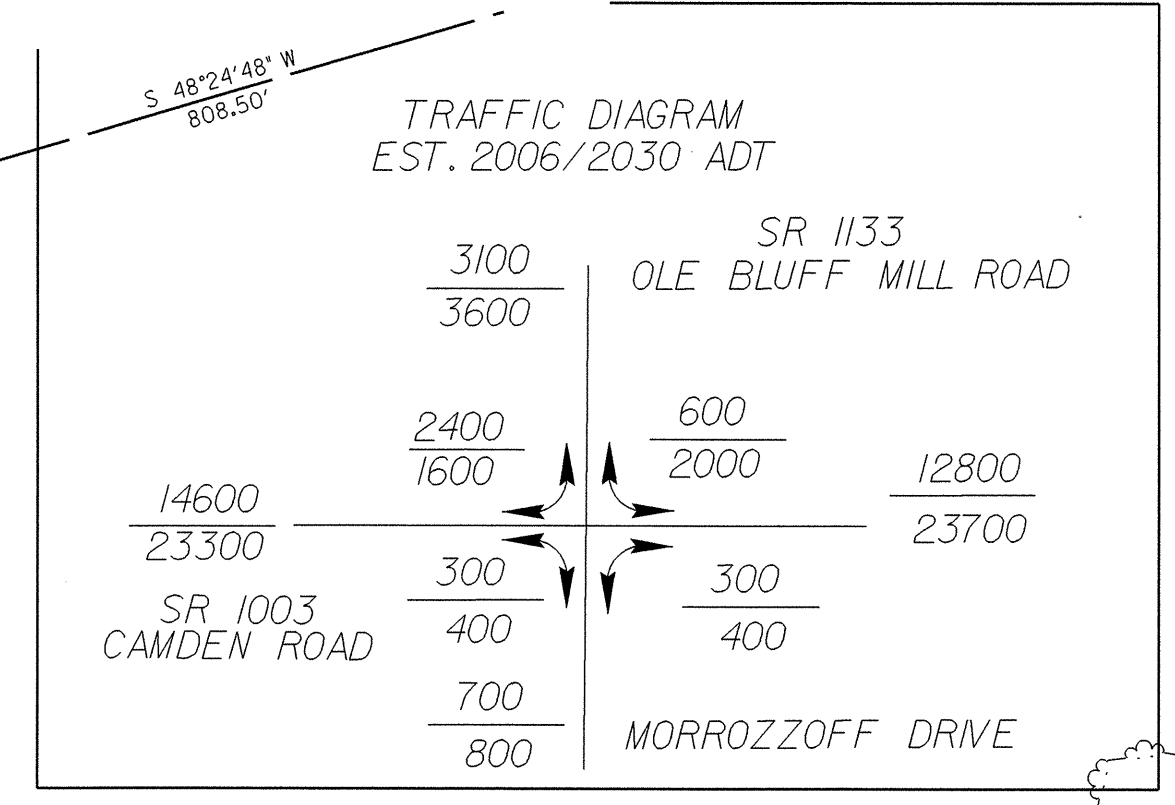
		NC 59 HOPE MILLS ROAD			
20700	27600	600	7000	14600	
17100	6200	600	7000	14600	
26700	10900	600	7000	23300	
SR 1003 CAMDEN ROAD		2400	5500	ran	
		8400			

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 USER:RWB





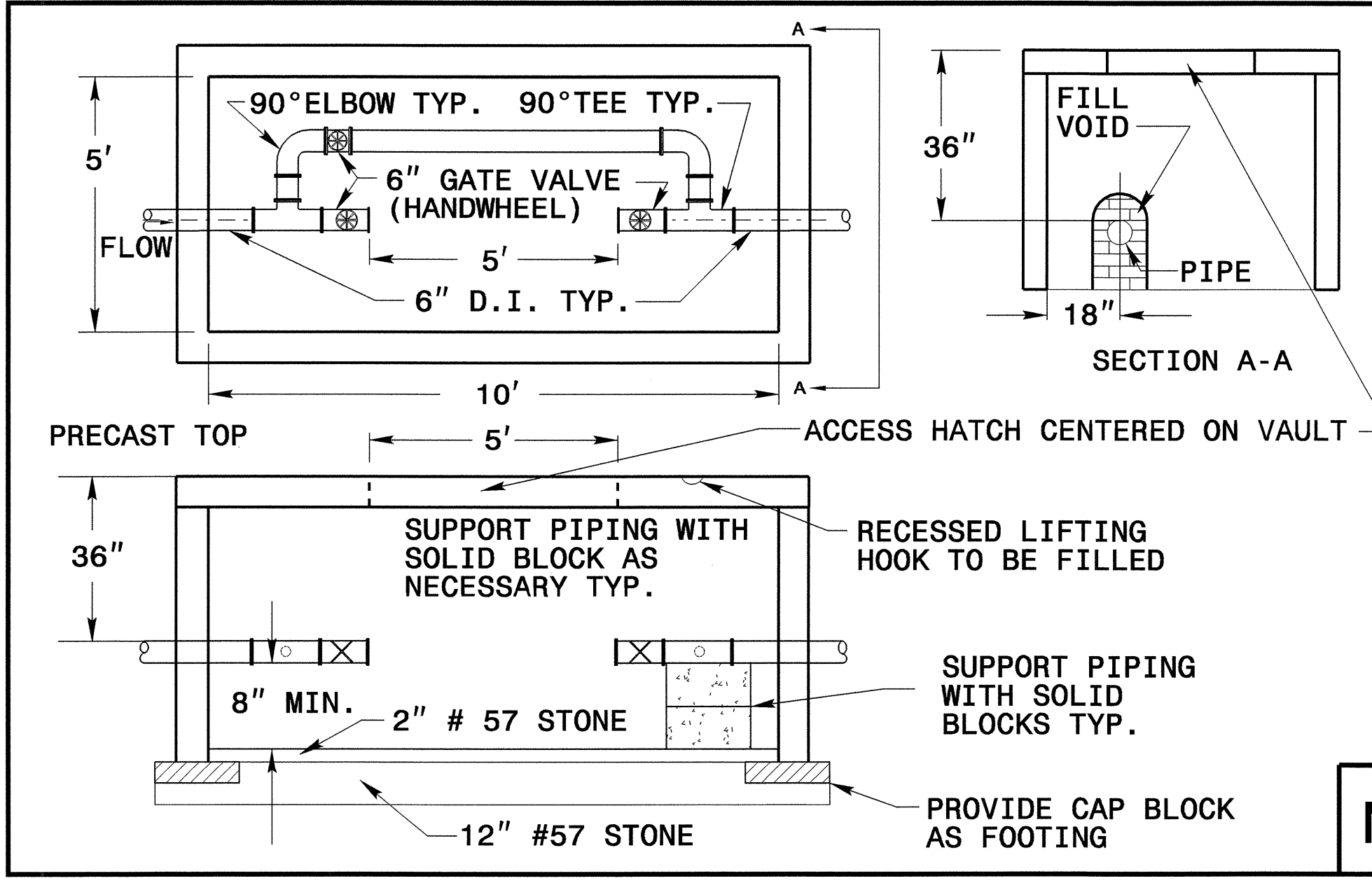
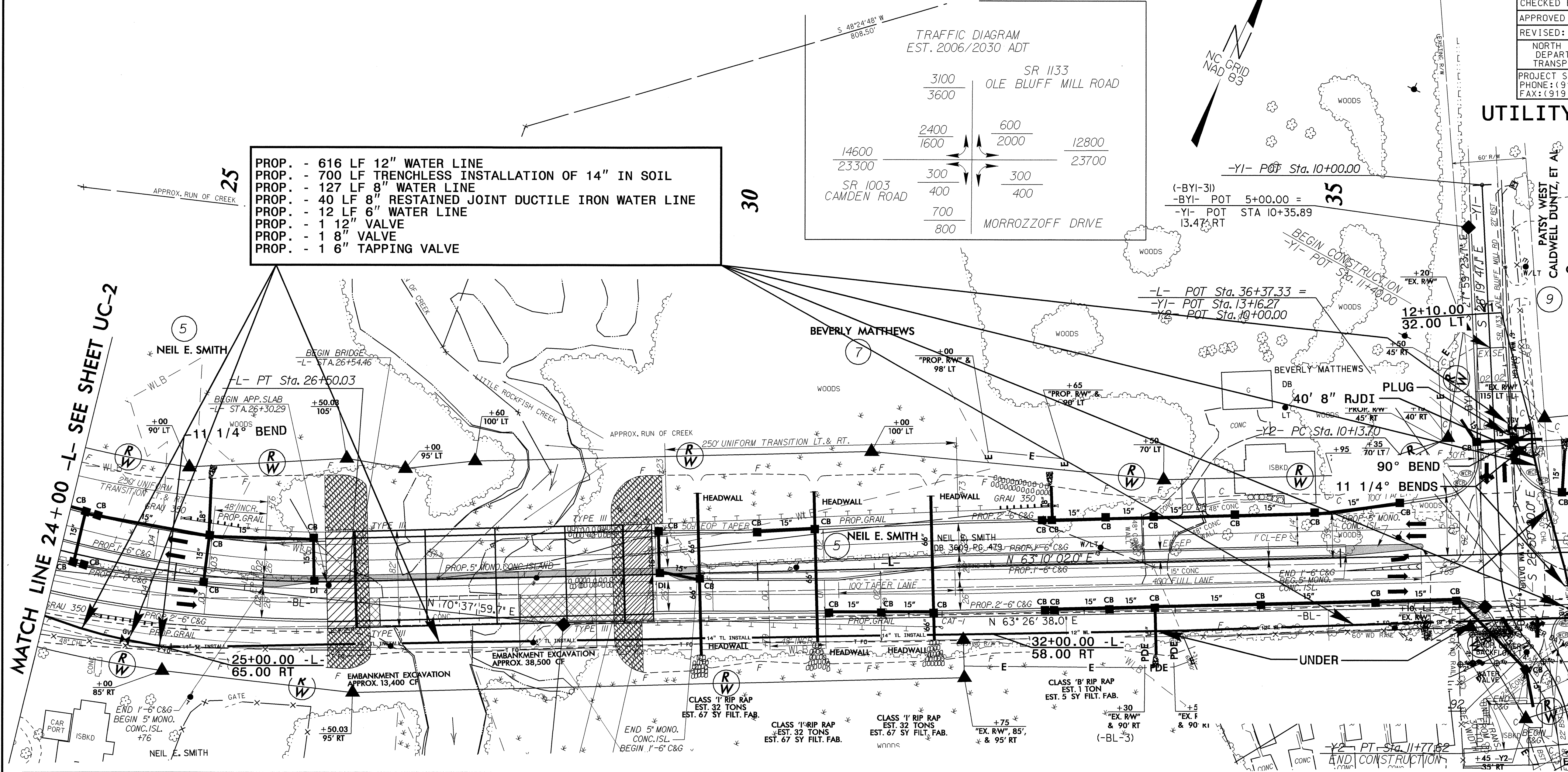
**UTILITY CONSTRUCTION**



- PROP. - 616 LF 12" WATER LINE
- PROP. - 700 LF TRENCHLESS INSTALLATION OF 14" IN SOIL
- PROP. - 127 LF 8" WATER LINE
- PROP. - 40 LF 8" RESTRAINED JOINT DUCTILE IRON WATER LINE
- PROP. - 12 LF 6" WATER LINE
- PROP. - 1 12" VALVE
- PROP. - 1 8" VALVE
- PROP. - 1 6" TAPPING VALVE

MATCH LINE 24+00 -L- SEE SHEET UC-2

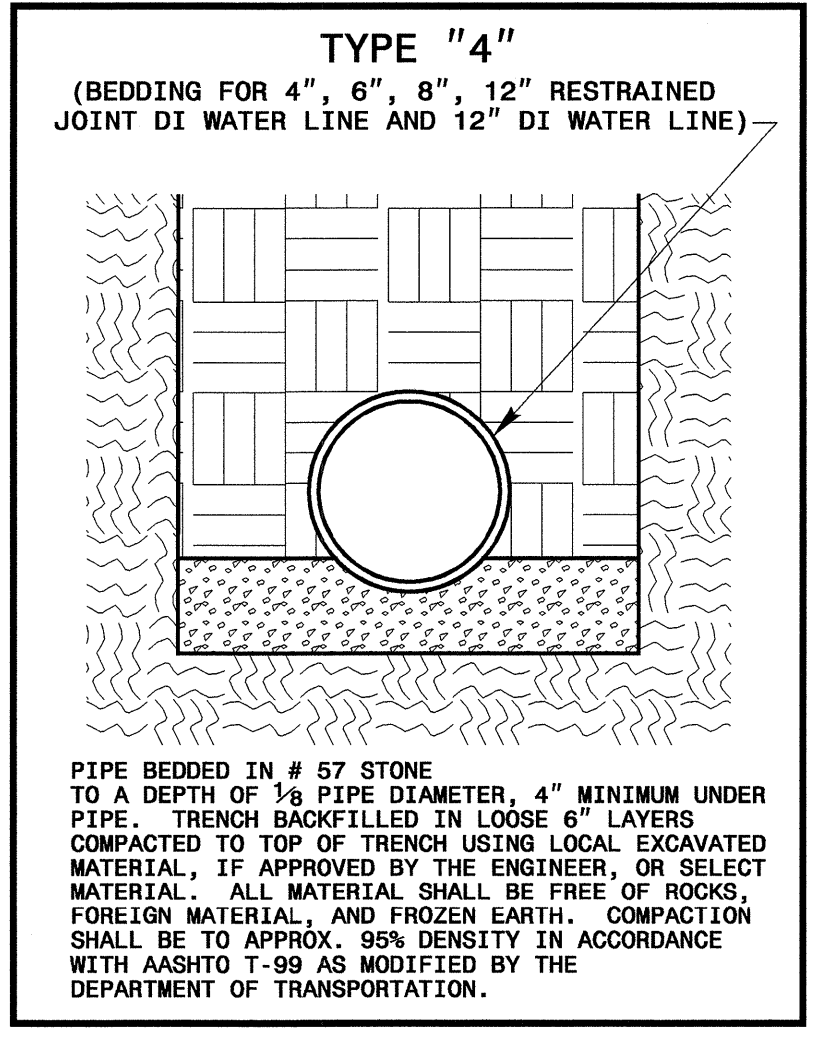
MATCH LINE 37+00 -L- SEE SHEET UC-4



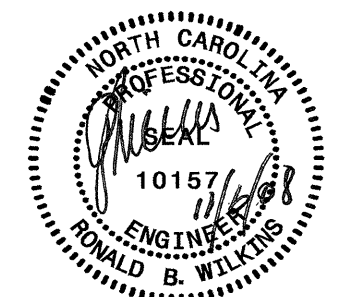
- NOTES:**
1. VAULTS SHALL BE PRECAST REINFORCED CONCRETE. MANUFACTURER TO PROVIDE DESIGN CALCULATIONS THAT STRUCTURE WILL WITHSTAND ANTICIPATED LOADS.
  2. CONTRACTOR TO PROVIDE ALL FITTINGS, PIPING, ETC. AS INDICATED OR REQUIRED.
  3. PIPING SHALL BE 6" RESTRAINED JOINT DUCTILE IRON FROM MAIN TO VAULT.
  4. PIPE FITTINGS INSIDE VAULT SHALL BE FLANGED.
  5. VAULT TO BE PLUMB AND LEVEL.
  6. ACCESS HATCH SHALL BE 5'x4' DOUBLE DOOR CENTERED ON VAULT.
  7. ACCESS HATCH SHALL BE ALUMINUM, MOUNTED FLUSH AND SHALL CAPABLE OF BEARING INCIDENTAL TRAFFIC LOADS.
  8. LATERAL AND PIPING INSIDE OF VAULT SHALL PASS HYDROSTATIC, LEAKAGE, AND STERILIZATION TESTS ( 200 PSI).
  9. CONSTRUCTOR SHALL VERIFY VAULT DIMENSIONS PRIOR TO ORDERING MATERIALS.
  10. CONSTRUCTOR SHALL PROVIDE 6" FLANGED DI PIPE IN METER LOCATION.

**METER VAULT ASSEMBLY DETAIL**

MAXIMUM TRENCH WIDTH AT TOP OF PIPE	
NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28
6	30
8	32
10	34
12	36
14	38
16	40
18	42







UTILITY CONSTRUCTION

50 KATHERINE McGEACHY WARD  
 11

PROP. - 680 LF 12" WATER LINE  
 PROP. - 220 LF 12" RESTRAINED JOINT DUCTILE IRON WATER LINE  
 PROP. - 400 LF TRENCHLESS INSTALLATION OF 14" IN SOIL  
 PROP. - 2 12" VALVE  
 PROP. - 1 FIRE HYDRANT

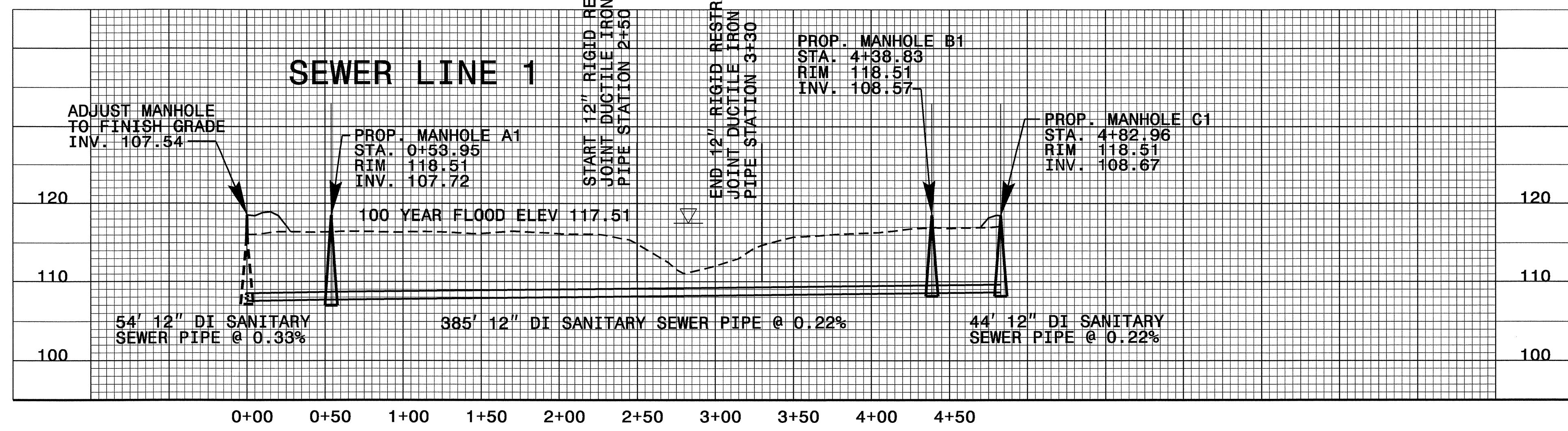
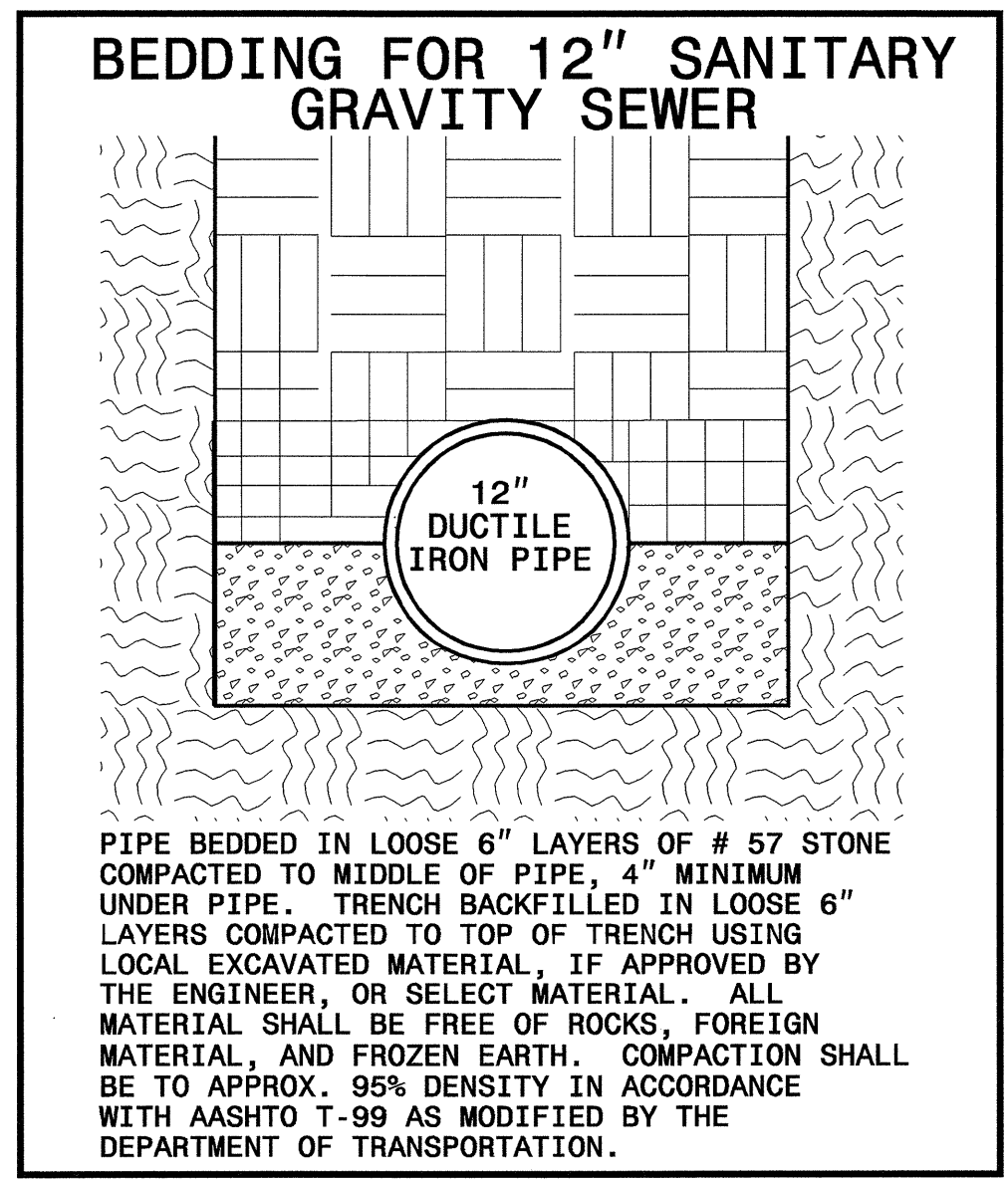
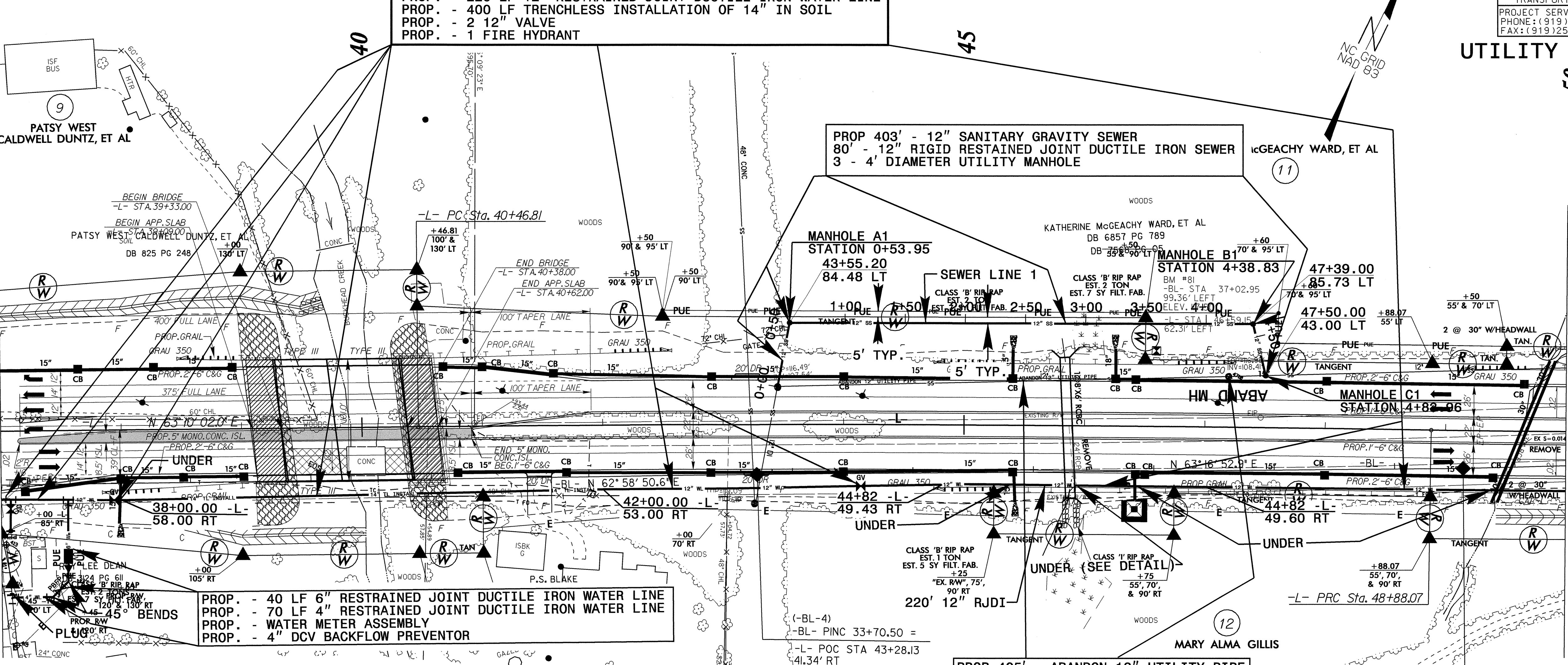
PROP 403' - 12" SANITARY GRAVITY SEWER  
 80' - 12" RIGID RESTRAINED JOINT DUCTILE IRON SEWER  
 3 - 4' DIAMETER UTILITY MANHOLE

PROP 405' - ABANDON 12" UTILITY PIPE  
 1 - ABANDON UTILITY MANHOLE

PROP. - 40 LF 6" RESTRAINED JOINT DUCTILE IRON WATER LINE  
 PROP. - 70 LF 4" RESTRAINED JOINT DUCTILE IRON WATER LINE  
 PROP. - WATER METER ASSEMBLY  
 PROP. - 4" DCV BACKFLOW PREVENTOR

MATCH LINE 37+00 -L- SEE SHEET UC-3

MATCH LINE 50+00 -L- SEE SHEET UC-5



REVISIONS

8/17/99

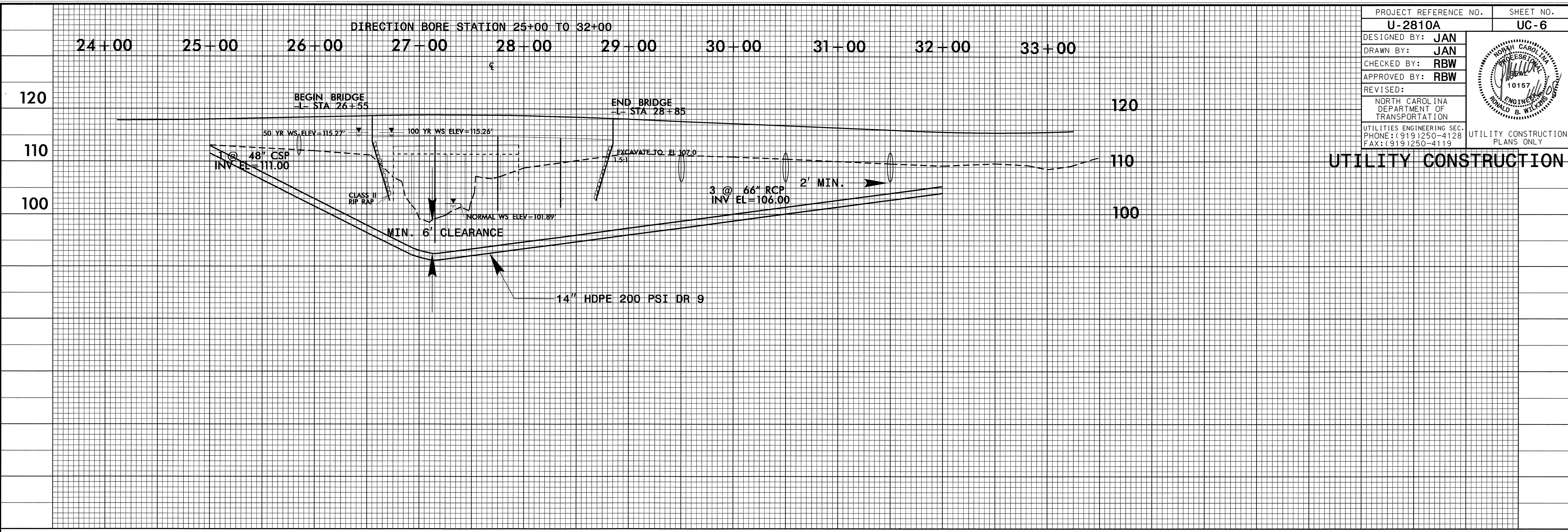




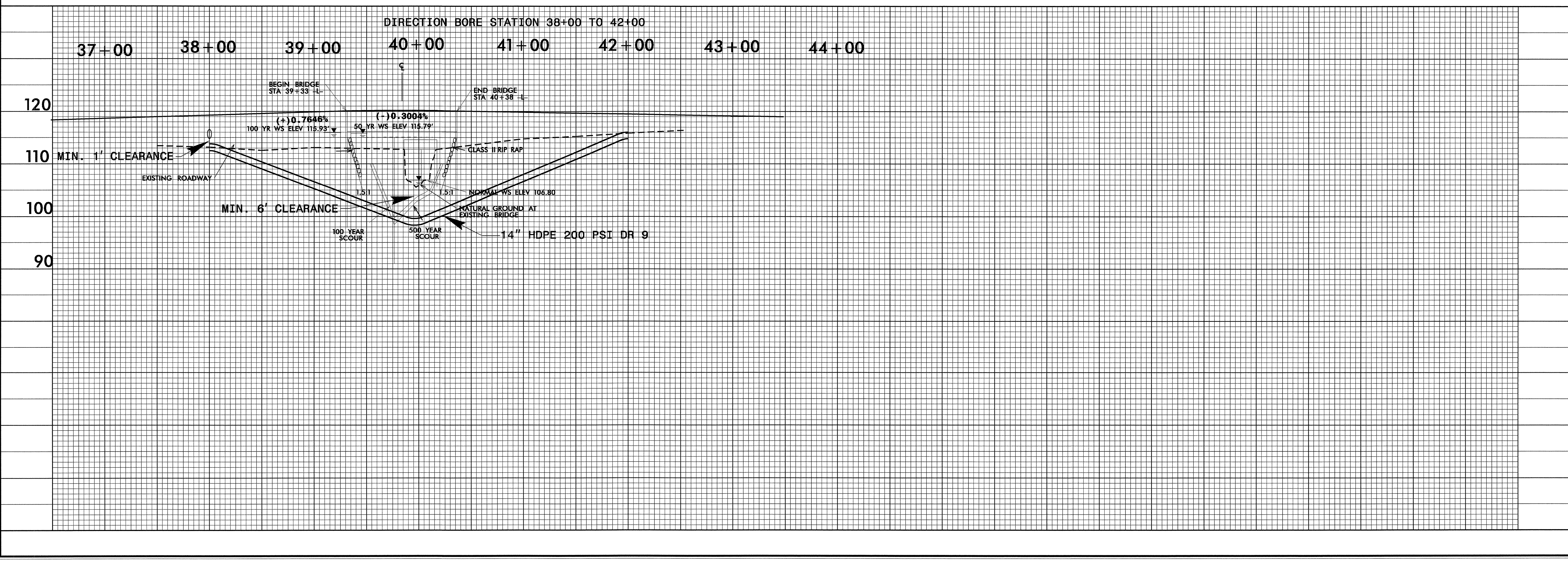


5/28/99

PROJECT REFERENCE NO.	SHEET NO.
U-2810A	UC-6
DESIGNED BY: JAN	
DRAWN BY: JAN	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)250-4128 FAX: (919)250-4119	
UTILITY CONSTRUCTION PLANS ONLY	



UTILITY CONSTRUCTION



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09/08/99

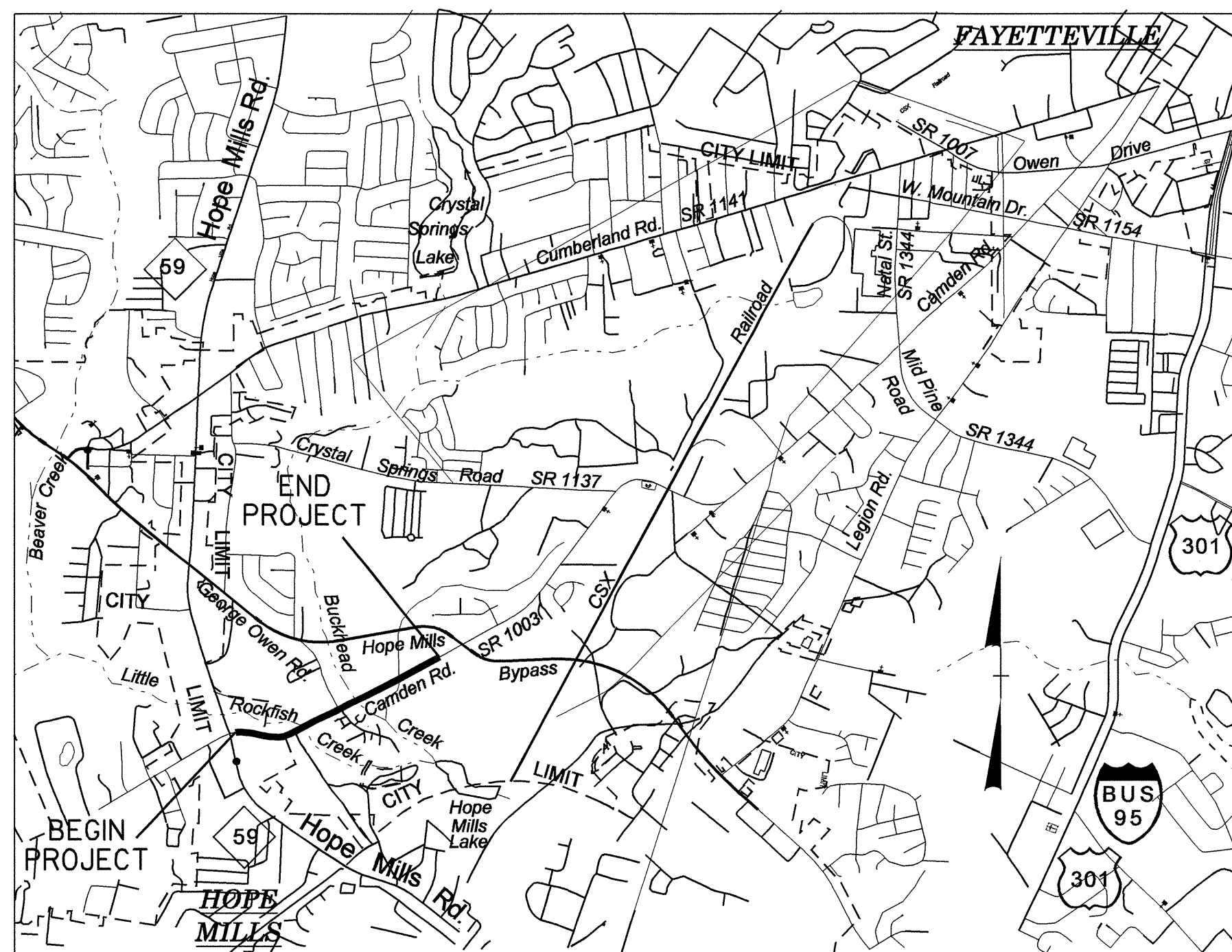
TIP PROJECT: U-2810A

T.I.P. NO.	SHEET NO.
U-2810A	UO-1

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**UTILITY BY OTHERS PLANS  
CUMBERLAND COUNTY**

**LOCATION: SR 1003 (CAMDEN ROAD) FROM NC 59  
(HOPE MILLS ROAD) TO HOPE MILLS BYPASS**  
**TYPE OF WORK: UTILITY CONSTRUCTION BY OTHERS**



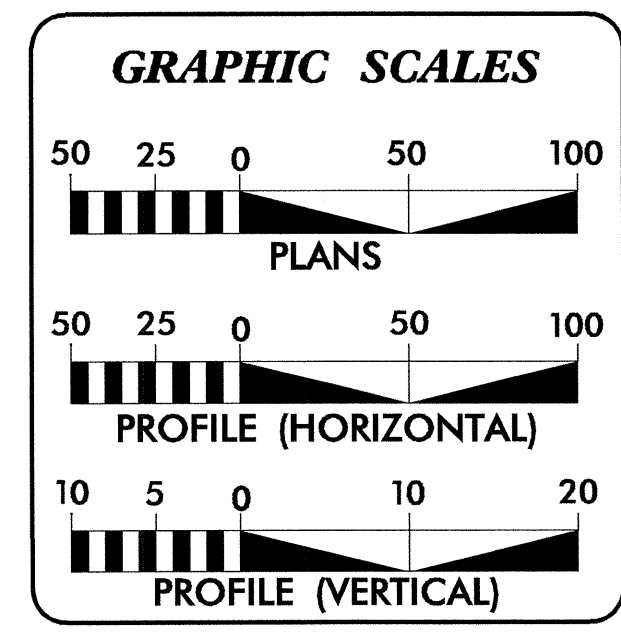
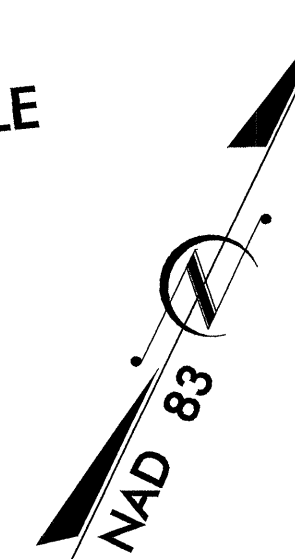
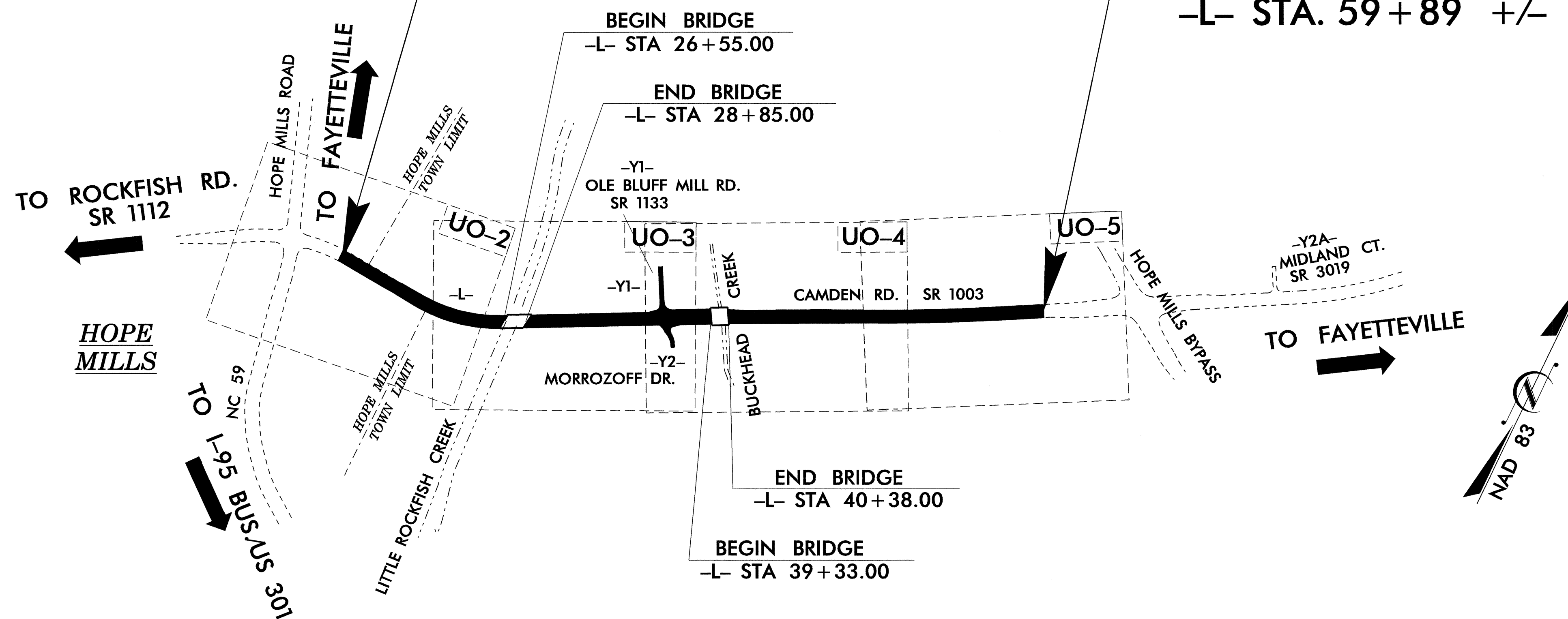
VICINITY MAP

BEGIN TIP PROJECT U-2810A

-L- STA. 15+00.00

END TIP PROJECT U-2810A

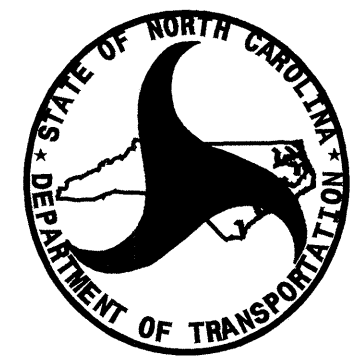
-L- STA. 59+89 +/-



**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2 THRU UO-5	UTILITY BY OTHERS PLAN SHEETS

- UTILITY OWNERS ON PROJECT**
- (1) ELECTRIC DISTRIBUTION - PUBLIC WORKS COMMISSION of the CITY OF FAYETTEVILLE
  - (2) CABLE TV - TIME WARNER CABLE
  - (3) FIBER OPTIC TELEPHONE - EMBARQ
  - (4) ELECTRIC DISTRIBUTION - PROGRESS ENERGY
  - (5) NATURAL GAS - PIEDMONT NATURAL GAS COMPANY



PREPARED IN THE OFFICE OF:  
**DIVISION OF HIGHWAYS  
PROJECT SERVICES  
UTILITY SECTION**

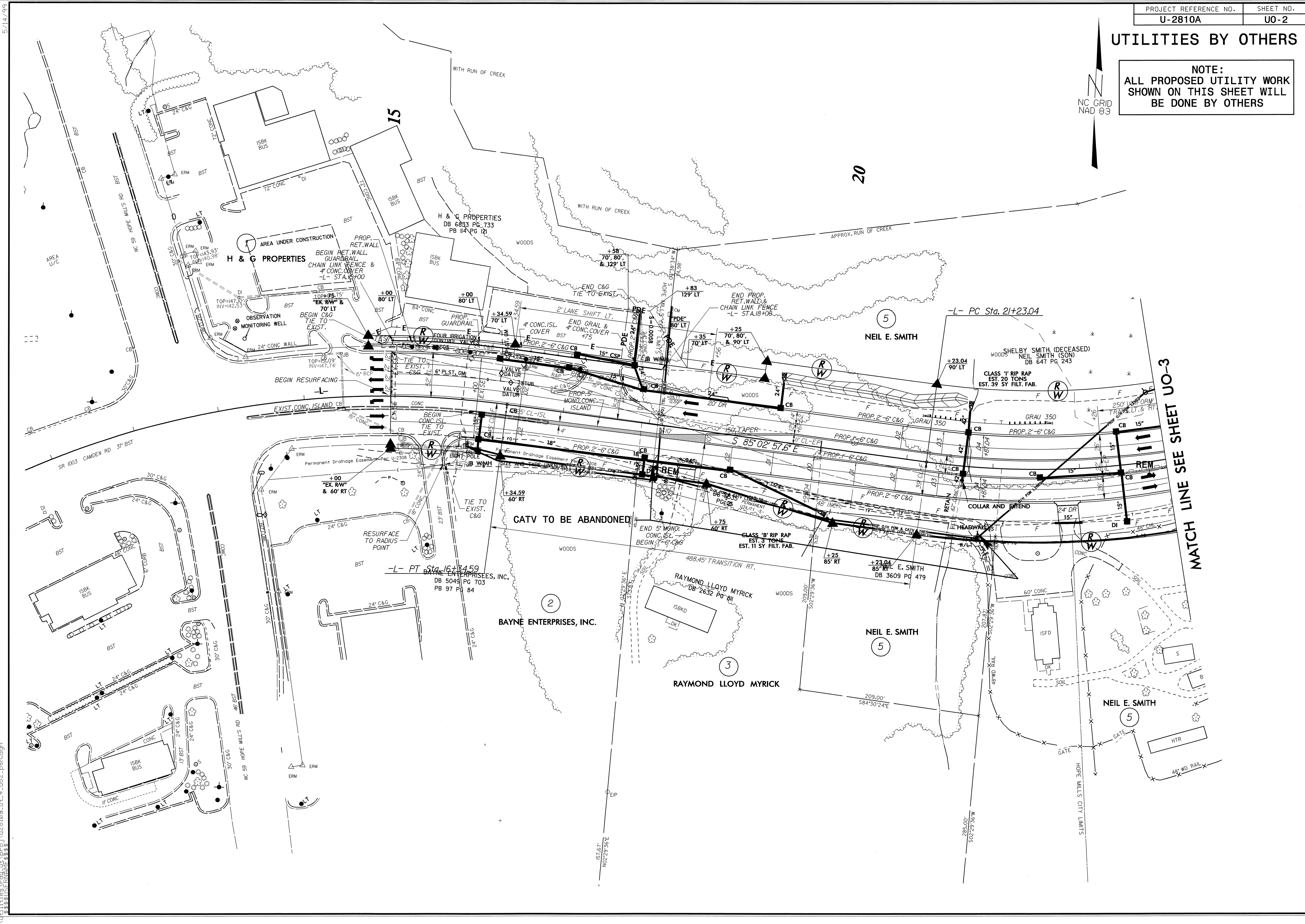
1591 MAIL SERVICES CENTER  
RALEIGH NC 27699-1591  
PHONE (919) 250-4128  
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**John A. Nigro, P.E.** UTILITIES PROJECT DESIGNER

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### UTILITIES BY OTHERS

**NOTE:**  
ALL PROPOSED UTILITY WORK  
SHOWN ON THIS SHEET WILL  
BE DONE BY OTHERS



5/14/99

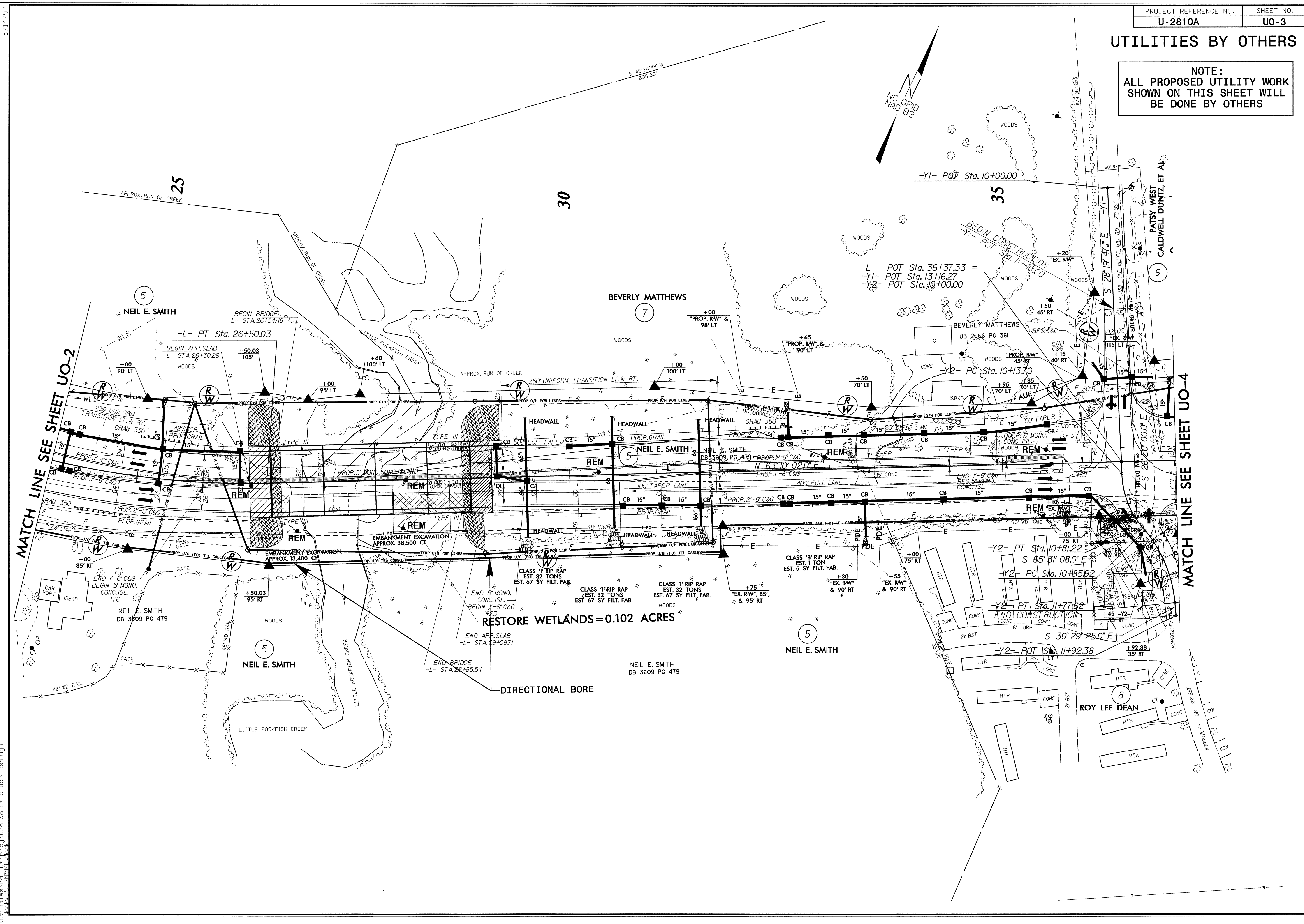
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MATCH LINE SEE SHEET UO-3



### UTILITIES BY OTHERS

**NOTE:**  
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS



5/14/99

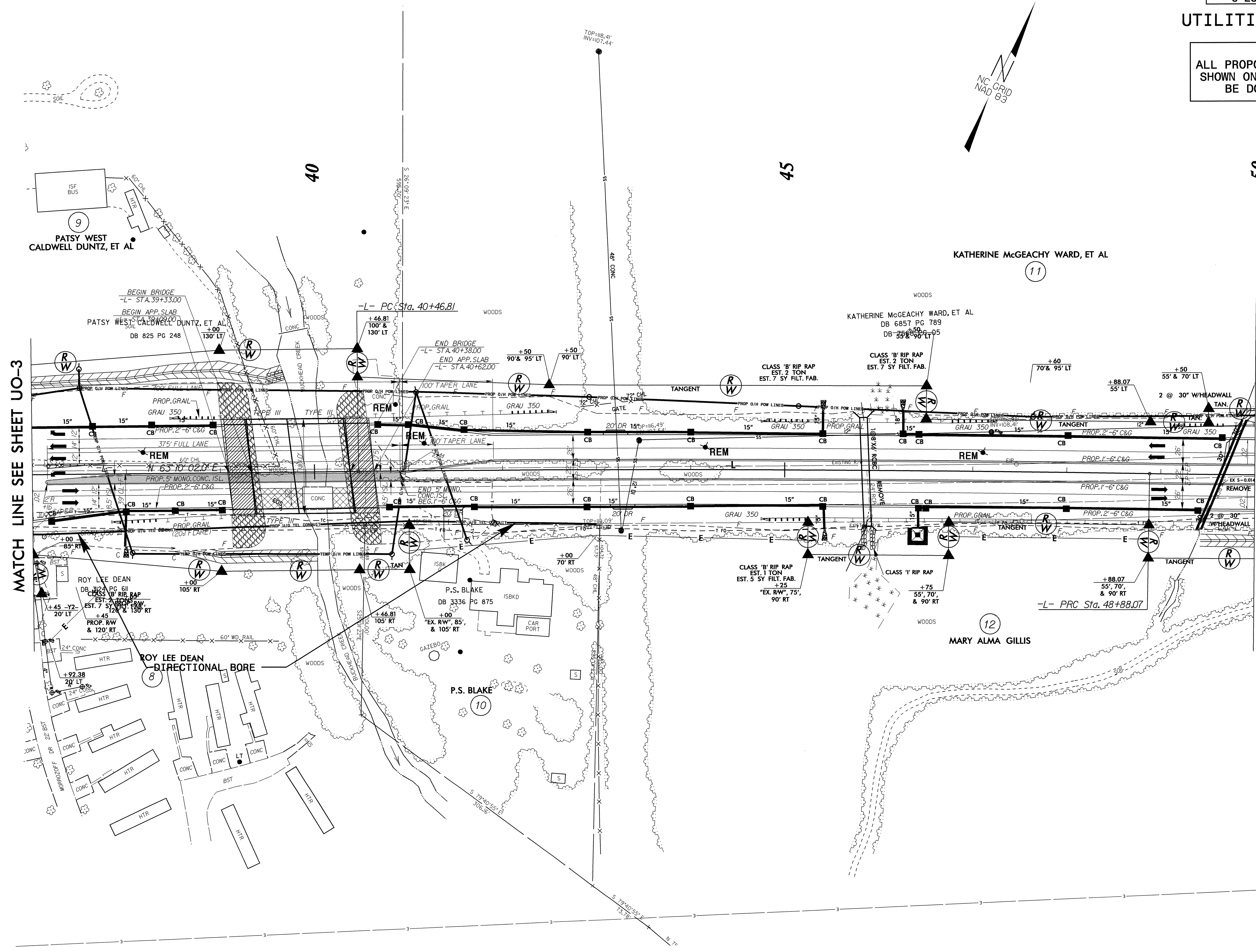
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### UTILITIES BY OTHERS

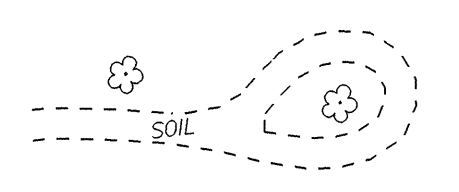
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SHOWN ON THIS SHEET WILL  
BE DONE BY OTHERS

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MATCH LINE SEE SHEET UO-3

MATCH LINE SEE SHEET UO-5



9  
Patsy West  
Caldwell Duntz, et al

11  
KATHERINE McGEACHY WARD, ET AL

8  
ROY LEE DEAN  
DIRECTIONAL BORE

10  
P.S. BLAKE

12  
MARY ALMA GILLIS

50

45

40

KATHER

TOP=118.41'  
INV=107.44'

BEGIN BRIDGE  
-L- STA. 39+33.00  
BEGIN APP. SLAB  
-L- STA. 39+38.00  
Patsy West  
Caldwell Duntz, et al  
DB 825 PG 248

-L- PC Sta. 40+46.81

END BRIDGE  
-L- STA. 40+38.00  
END APP. SLAB  
-L- STA. 40+62.00

CLASS 'B' RIP RAP  
EST. 2 TON  
EST. 7 SY. FILT. FAB.

CLASS 'B' RIP RAP  
EST. 2 TON  
EST. 7 SY. FILT. FAB.

CLASS 'B' RIP RAP  
EST. 1 TON  
EST. 5 SY. FILT. FAB.  
+25  
EX. RW, 75',  
90' RT

CLASS 'I' RIP RAP  
EST. 5 SY. FILT. FAB.

-L- PRC Sta. 48+88.07

85' RT

105' RT

105' RT

70' RT

70' RT

75' 55', 70', & 90' RT

88.07 55', 70', & 90' RT

88.07 55' LT

55' & 70' LT

2 @ 30" W/HADWALL

+60 70' & 95' LT

55' & 70' LT

2 @ 30" W/HADWALL

15"

15"

15"

15"

15"

15"

15"

15"

15"

15"

85' RT

105' RT

105' RT

70' RT

70' RT

75' 55', 70', & 90' RT

88.07 55', 70', & 90' RT

88.07 55' LT

55' & 70' LT

2 @ 30" W/HADWALL

+60 70' & 95' LT

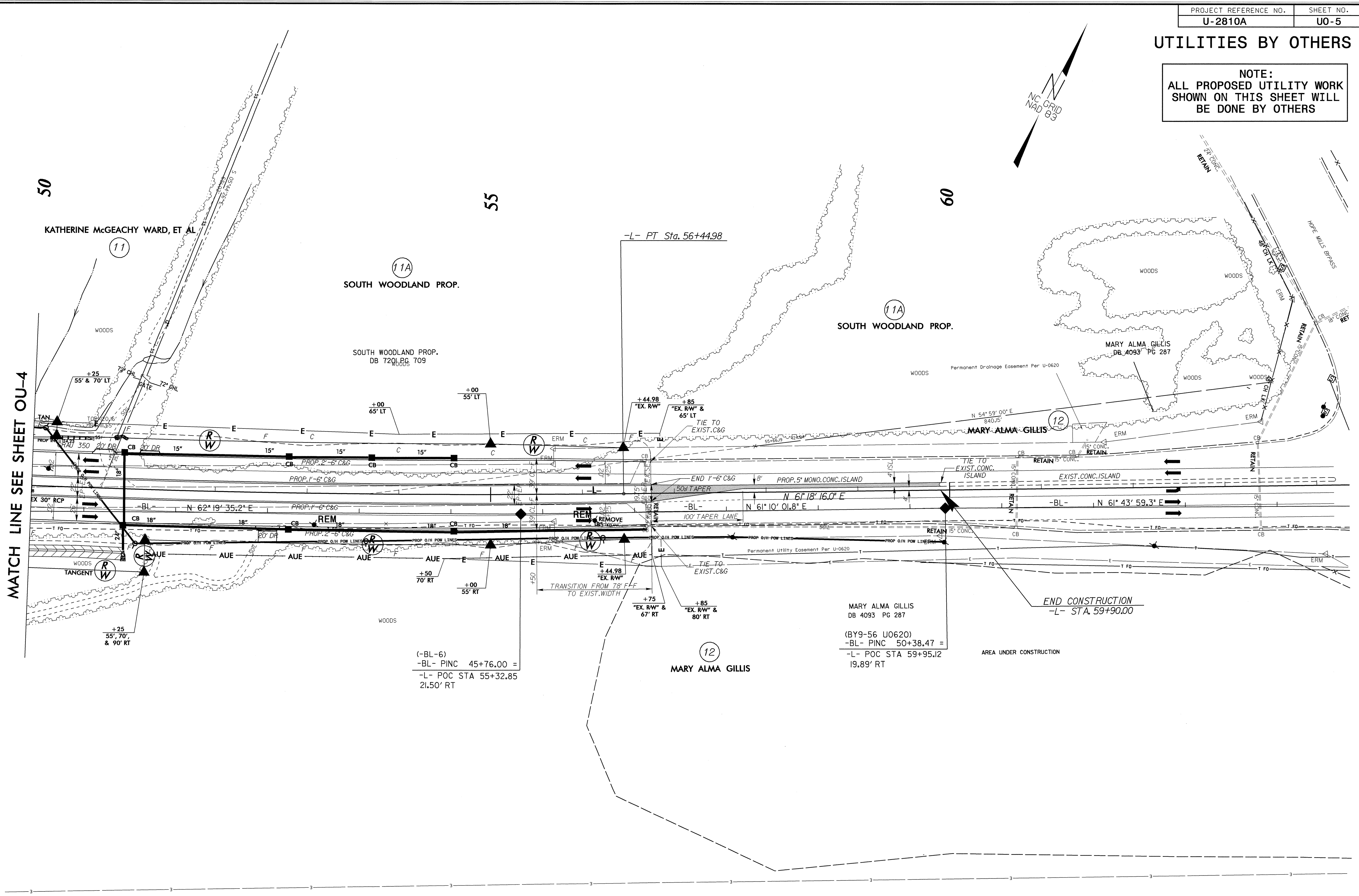
55' & 70' LT

2 @ 30" W/HADWALL



### UTILITIES BY OTHERS

**NOTE:**  
ALL PROPOSED UTILITY WORK  
SHOWN ON THIS SHEET WILL  
BE DONE BY OTHERS



MATCH LINE SEE SHEET OU-4

(-BL-6)  
-BL- PINC 45+76.00 =  
-L- POC STA 55+32.85  
21.50' RT

MARY ALMA GILLIS  
DB 4093 PG 287  
(BY9-56 U0620)  
-BL- PINC 50+38.47 =  
-L- POC STA 59+95.12  
19.89' RT

AREA UNDER CONSTRUCTION

END CONSTRUCTION  
-L- STA. 59+90.00

5/14/99  
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