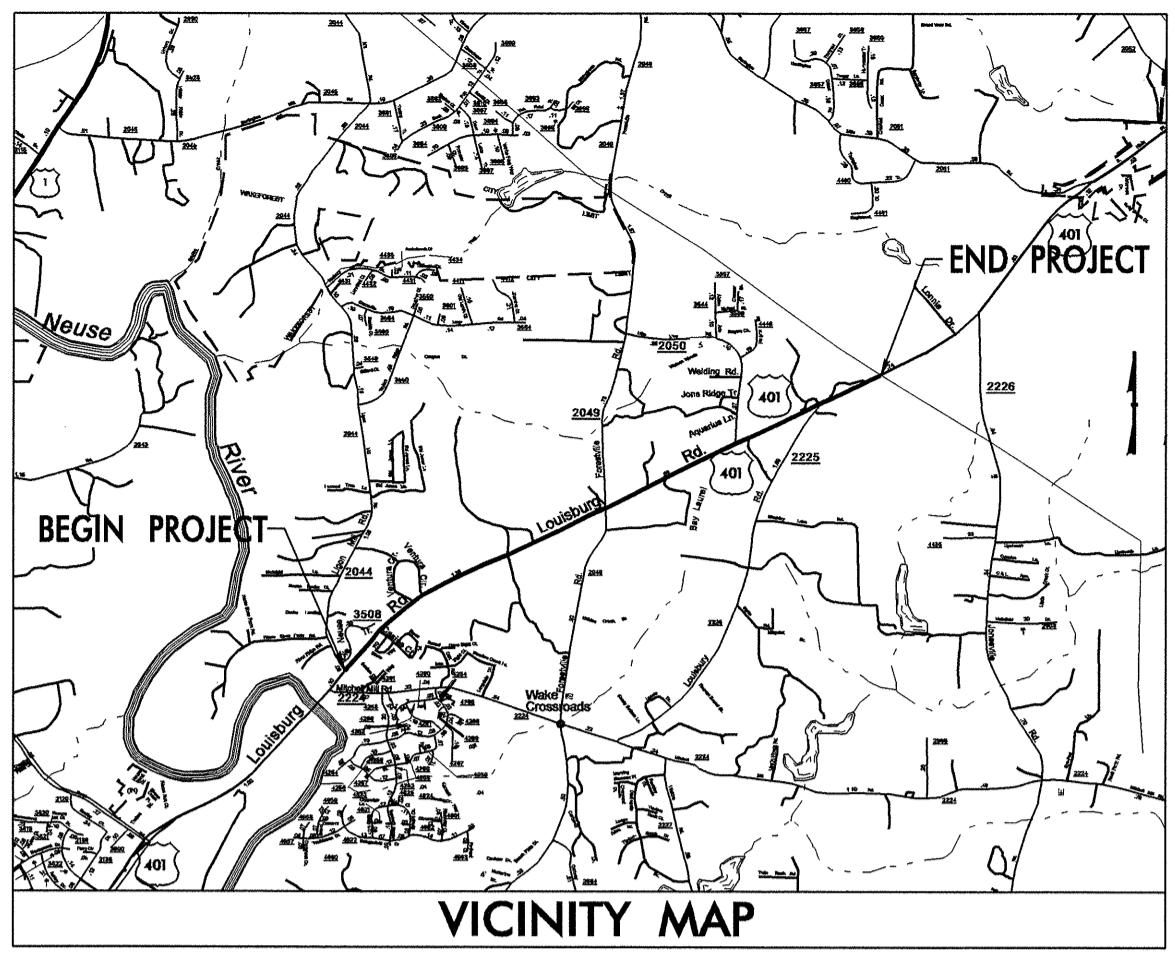


TIP: R-2814A

CONTRACT: 202228



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

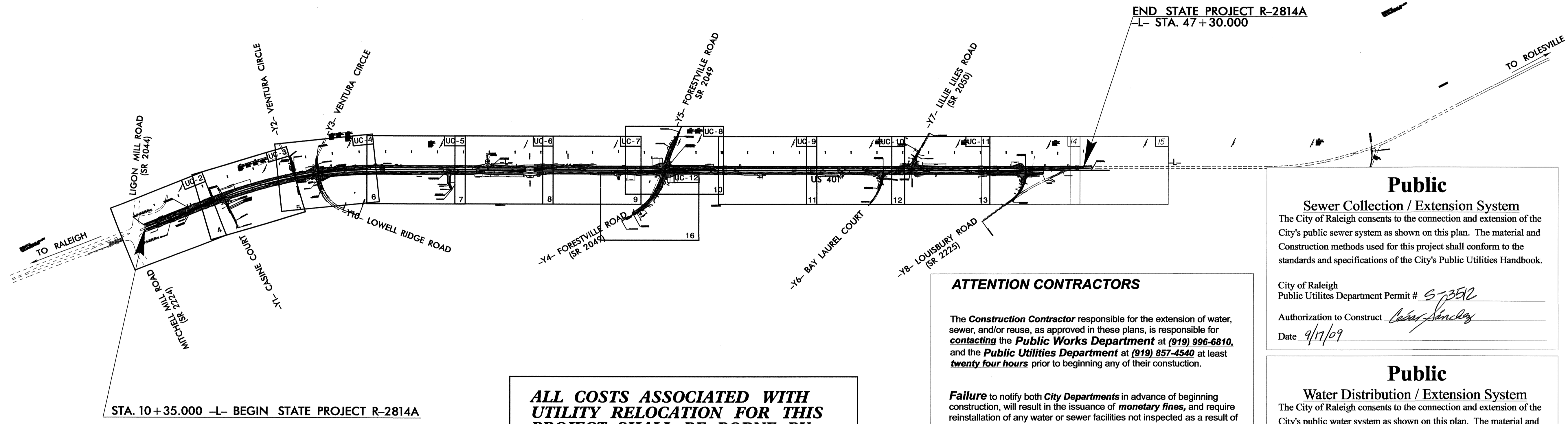
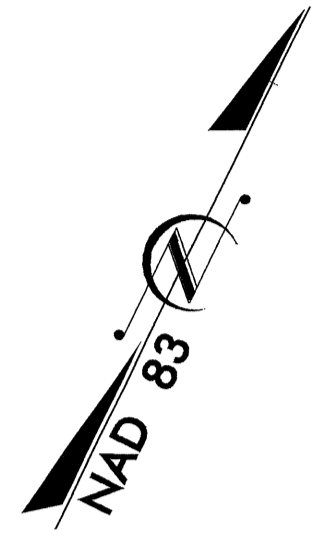
**UTILITY CONSTRUCTION PLANS
WAKE COUNTY**

**LOCATION: US 401 FROM SR 2044 (LIGON MILL ROAD)
TO SOUTH OF SR 2226 (JONESVILLE ROAD)**

TYPE OF WORK: UTILITY RELOCATION

METRIC
ALL DIMENSIONS IN
THESE PLANS ARE IN METERS
AND/OR MILLIMETERS
UNLESS OTHERWISE SHOWN

T.I.P. NO.	SHEET NO.
R-2814A	UC-1



**ALL COSTS ASSOCIATED WITH
UTILITY RELOCATION FOR THIS
PROJECT SHALL BE BORNE BY
THE CITY OF RALEIGH**

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
NOTE: THIS IS A PARTIALLY CONTROLLED ACCESS PROJECT WITH ACCESS POINTS SHOWN ON THE PLANS
NOTE: THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

ATTENTION CONTRACTORS

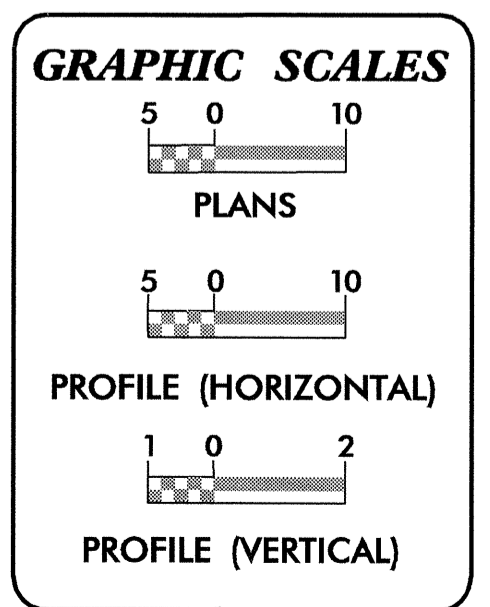
The **Construction Contractor** responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for **contacting the Public Works Department at (919) 996-6810**, and the **Public Utilities Department at (919) 857-4540** at least **twenty four hours** prior to beginning any of their construction.

Failure to notify both **City Departments** in advance of beginning construction, will result in the issuance of **monetary fines**, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for **Inspection, Install a Downstream Plug, have Permitted Plans** on the **Jobsite**, or any other **Violation of City of Raleigh Standards** will result in a **Fine and Possible Exclusion** from future work in the **City of Raleigh**.

Public
Sewer Collection / Extension System
The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh
Public Utilities Department Permit # S-73512
Authorization to Construct Cesar Sanchez
Date 9/17/09

Public
Water Distribution / Extension System
The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh
Public Utilities Department Permit # W-2895
Authorization to Construct Cesar Sanchez
Date 9/17/09



INDEX OF SHEETS


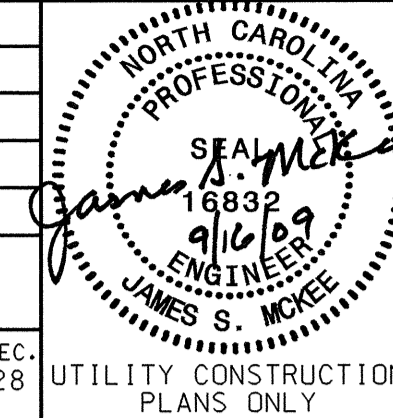
SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2 THRU UC-12	UTILITY CONSTRUCTION PLAN SHEETS

- WATER AND SEWER OWNERS ON PROJECT**
- (1) WATER - CITY OF RALEIGH
 - (2) SANITARY SEWER - CITY OF RALEIGH

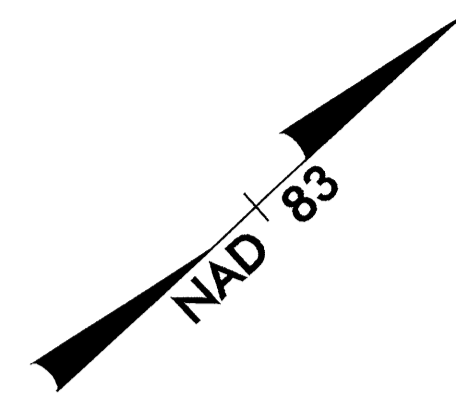


PREPARED IN THE OFFICE OF:
**DIVISION OF HIGHWAYS
UTILITIES ENGINEERING
SECTION**
1591 MAIL SERVICES CENTER
RALEIGH, NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

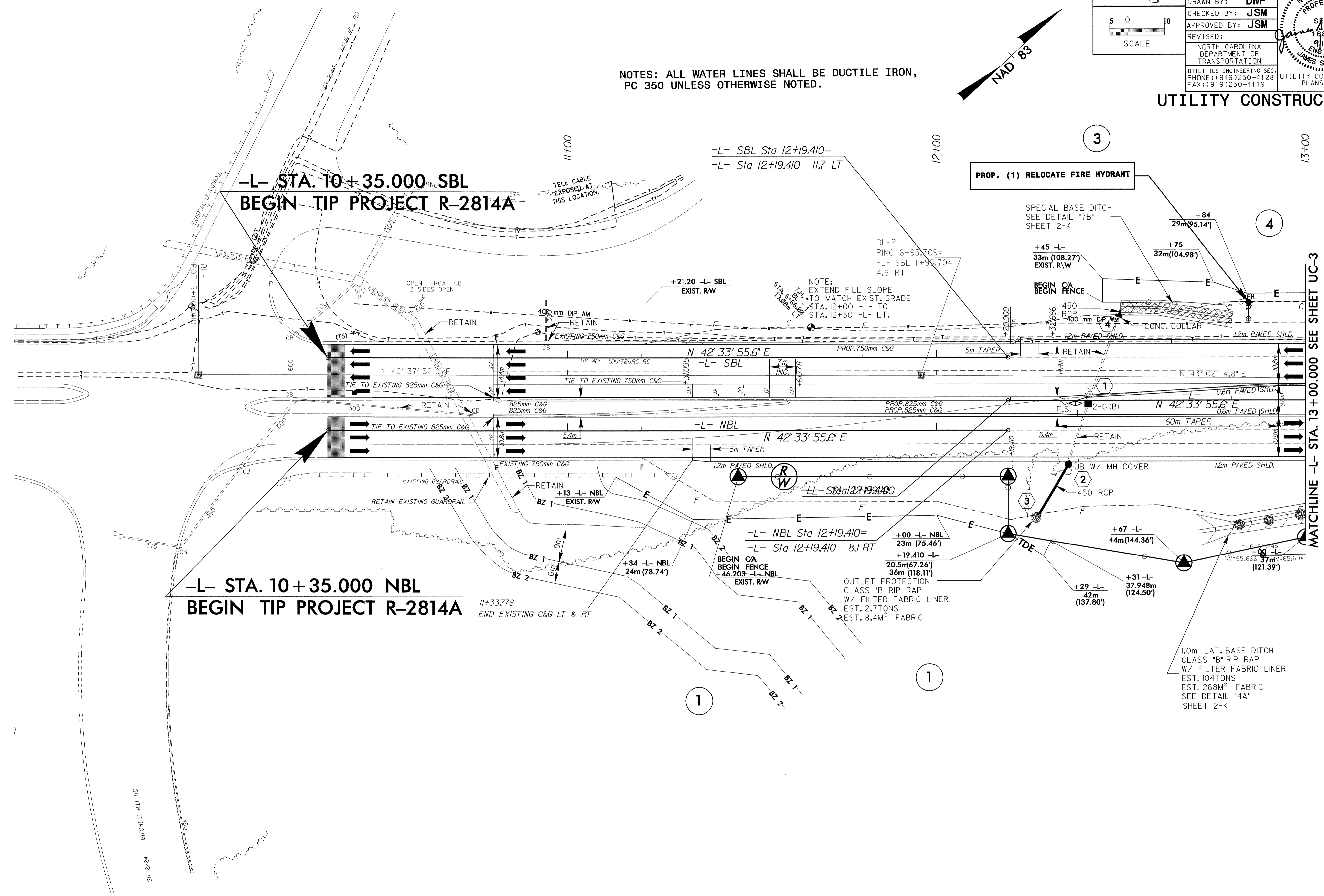
Roger Worthington, P.E. UTILITIES SECTION ENGINEER
Steve McKee, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
Donald Proper UTILITIES PROJECT DESIGNER

 SCALE: 5 0 10	PROJECT REFERENCE NO.	SHEET NO.
	R-2814A	UC-2
DESIGNED BY: DWP		
DRAWN BY: DWP		
CHECKED BY: JSM		
APPROVED BY: JSM		
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY		

NOTES: ALL WATER LINES SHALL BE DUCTILE IRON, PC 350 UNLESS OTHERWISE NOTED.



UTILITY CONSTRUCTION



-L- STA. 10+35.000 SBL
BEGIN TIP PROJECT R-2814A

-L- STA. 10+35.000 NBL
BEGIN TIP PROJECT R-2814A

PROP. (1) RELOCATE FIRE HYDRANT

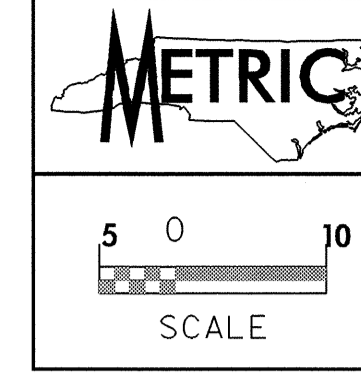
1.0m LAT. BASE DITCH
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 104 TONS
EST. 268M² FABRIC
SEE DETAIL "4A"
SHEET 2-K

OUTLET PROTECTION
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 2.7 TONS
EST. 8.4M² FABRIC

NOTE: EXTEND FILL SLOPE TO MATCH EXIST. GRADE STA. 12+00 -L- TO STA. 12+30 -L- LT.

TELE CABLE EXPOSED AT THIS LOCATION.

MATCHLINE -L- STA. 13+00.000 SEE SHEET UC-3



PROJECT REFERENCE NO.	R-2814A	SHEET NO.	UC-3
DESIGNED BY:	DWP		
DRAWN BY:	DWP		
CHECKED BY:	JSM		
APPROVED BY:	JSM		
REVISED:		NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 250-4128 FAX: (919) 250-4119	
			UTILITY CONSTRUCTION PLANS ONLY

NOTES: ALL WATER LINES SHALL BE DUCTILE IRON, PC 350 UNLESS OTHERWISE NOTED.

1.0m LAT. BA:
 CLASS "B" RIP RAP
 W/ FILTER FABRIC LINER
 EST. 84M TONS
 EST. 106 M² FABRIC
 SEE DETAIL "5B"
 SHEET 2-K

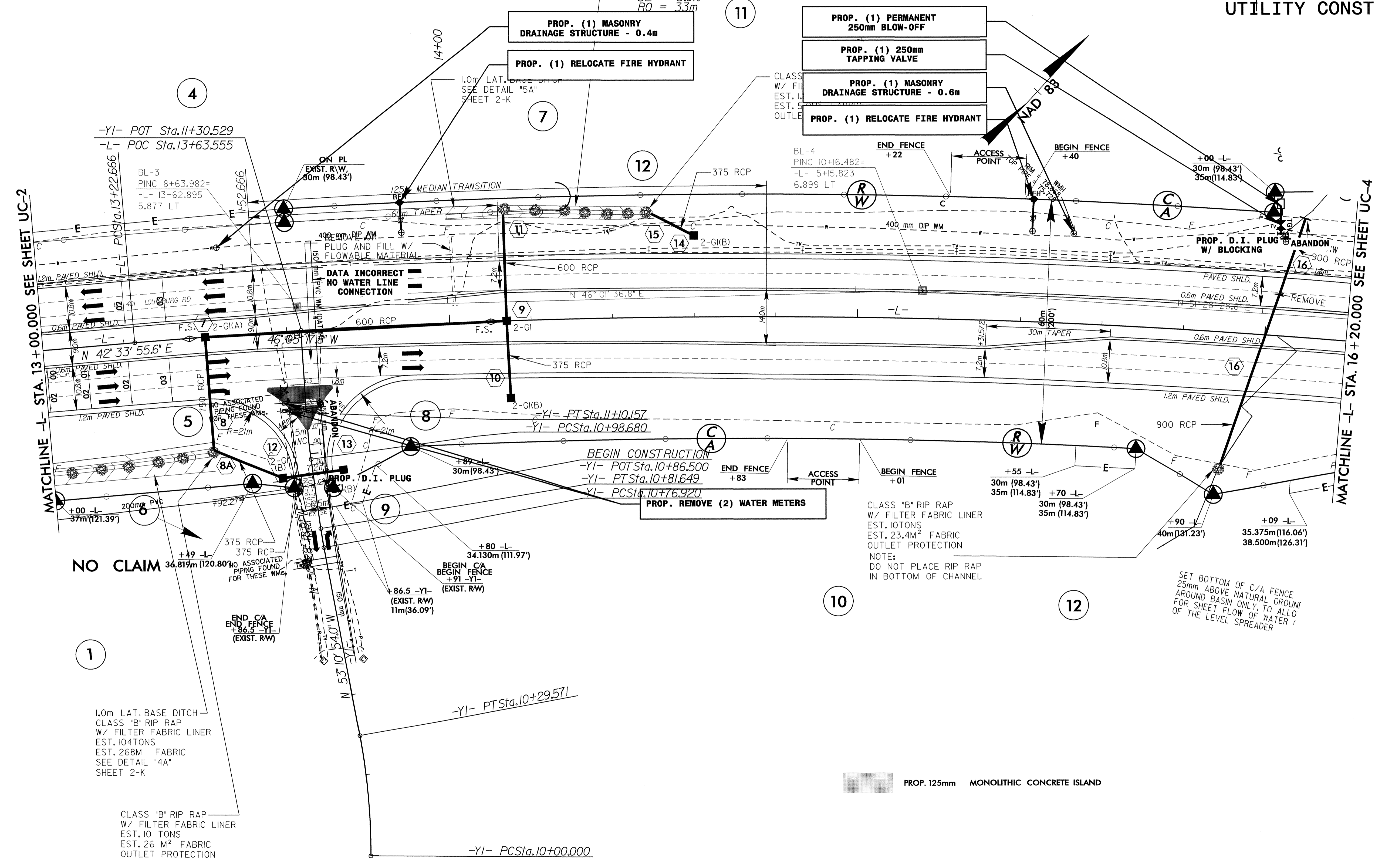
PI Sta 16+52.303
 $\Delta = 21^{\circ} 27' 17.0"$ (RT)
 L = 651.553
 T = 329.637
 R = 1,740.000
 SE = 3.0%
 RO = 3.3m

PI Sta 11+04.421
 $\Delta = 4^{\circ} 23' 01.1"$ (RT)
 L = 11.476
 T = 5.741
 R = 150.000

PI Sta 10+79.285
 $\Delta = 2^{\circ} 42' 35.2"$ (RT)
 L = 4.729
 T = 2.365
 R = 100.000

PI Sta 10+14.831
 $\Delta = 10^{\circ} 55' 51.6"$ (LT)
 L = 29.571
 T = 14.831
 R = 155.000

UTILITY CONSTRUCTION



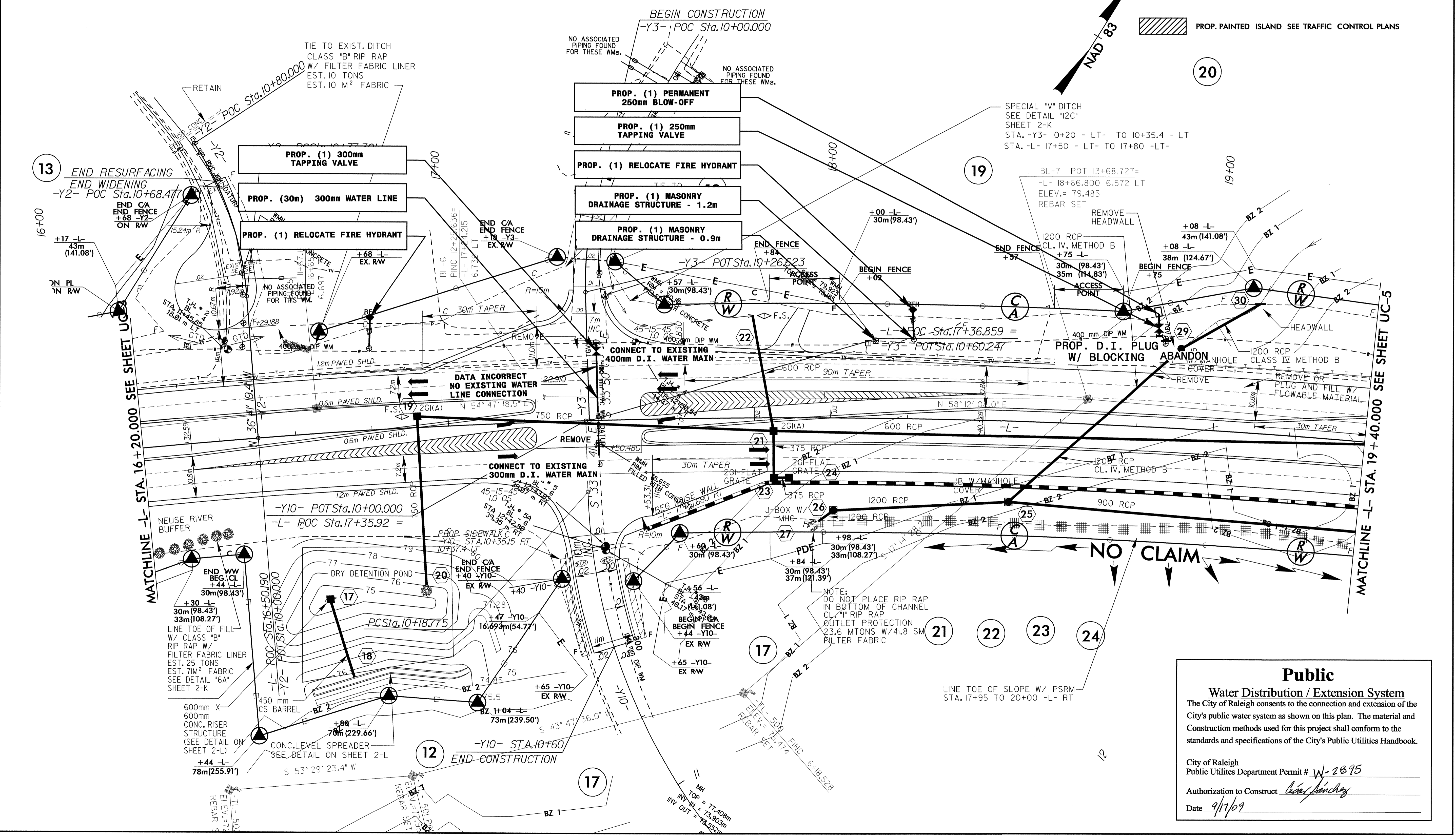
PROP. 125mm MONOLITHIC CONCRETE ISLAND

	PROJECT REFERENCE NO.	R-2814A	SHEET NO.	UC-4
	DESIGNED BY:	DWP		
	DRAWN BY:	DWP		
	CHECKED BY:	JSM		
	APPROVED BY:	JSM		
REVISOR:		NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 250-4128 FAX: (919) 250-4119		
UTILITY CONSTRUCTION			UTILITY CONSTRUCTION PLANS ONLY	


-L-	-Y2-	-Y3-
PI Sta 16+52.303	PI Sta 10+64.019	PI Sta 10+13.436
$\Delta = 21^\circ 27' 17.0''$ (RT)	$\Delta = 34^\circ 50' 28.7''$ (LT)	$\Delta = 19^\circ 04' 01.6''$ (LT)
L = 651.553	L = 51.779	L = 26.623
T = 329.637	T = 26.718	T = 13.436
R = 1,740.000	R = 85.150	R = 80.000
SE = 3.0%		
RO = 33m		

-Y10-
PI Sta 11+09.797
$\Delta = 61^\circ 49' 44.9''$ (LT)
L = 164.027
T = 91.023
R = 152.000

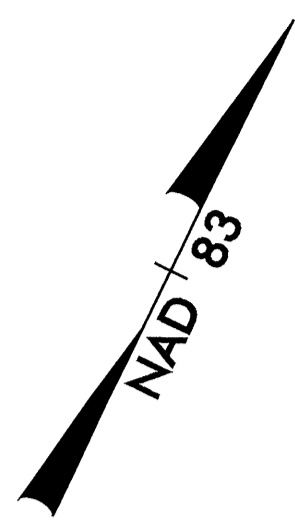
NOTES: ALL WATER LINES SHALL BE DUCTILE IRON, PC 350 UNLESS OTHERWISE NOTED.



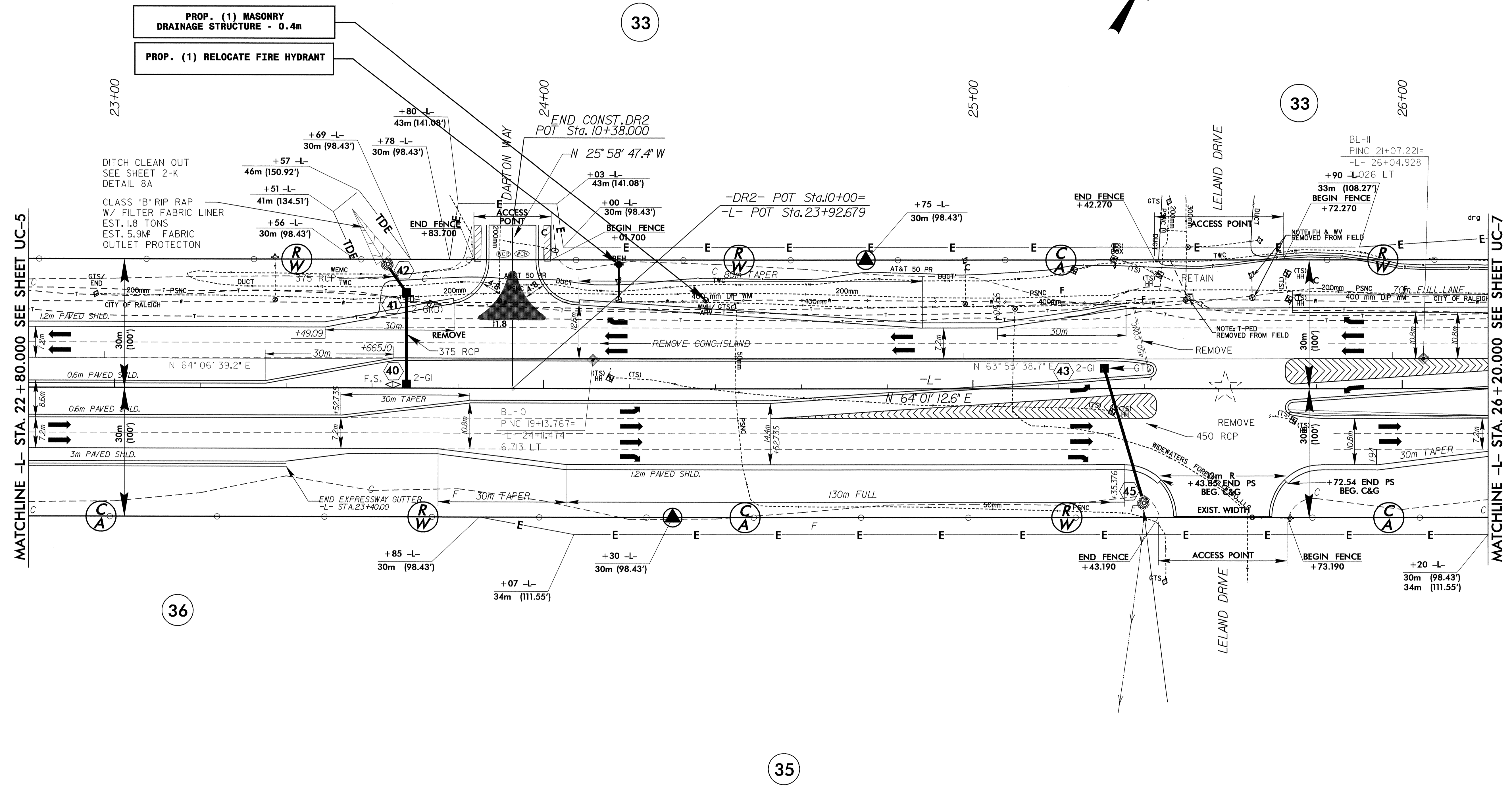
Public
Water Distribution / Extension System
 The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
 City of Raleigh
 Public Utilities Department Permit # W-2895
 Authorization to Construct *Chris Sanchez*
 Date 9/17/09

 SCALE: 5 0 10	PROJECT REFERENCE NO.	SHEET NO.
	R-2814A	UC-6
	DESIGNED BY: DWP	
	DRAWN BY: DWP	
	CHECKED BY: JSM	
APPROVED BY: JSM		
REVISER:		
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119		NORTH CAROLINA PROFESSIONAL ENGINEERING SEAL 16889 JAMES S. MCKEE UTILITY CONSTRUCTION PLANS ONLY

NOTES: ALL WATER LINES SHALL BE DUCTILE IRON, PC 350 UNLESS OTHERWISE NOTED.



UTILITY CONSTRUCTION



33

33

36

35

Public
Sewer Collection / Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

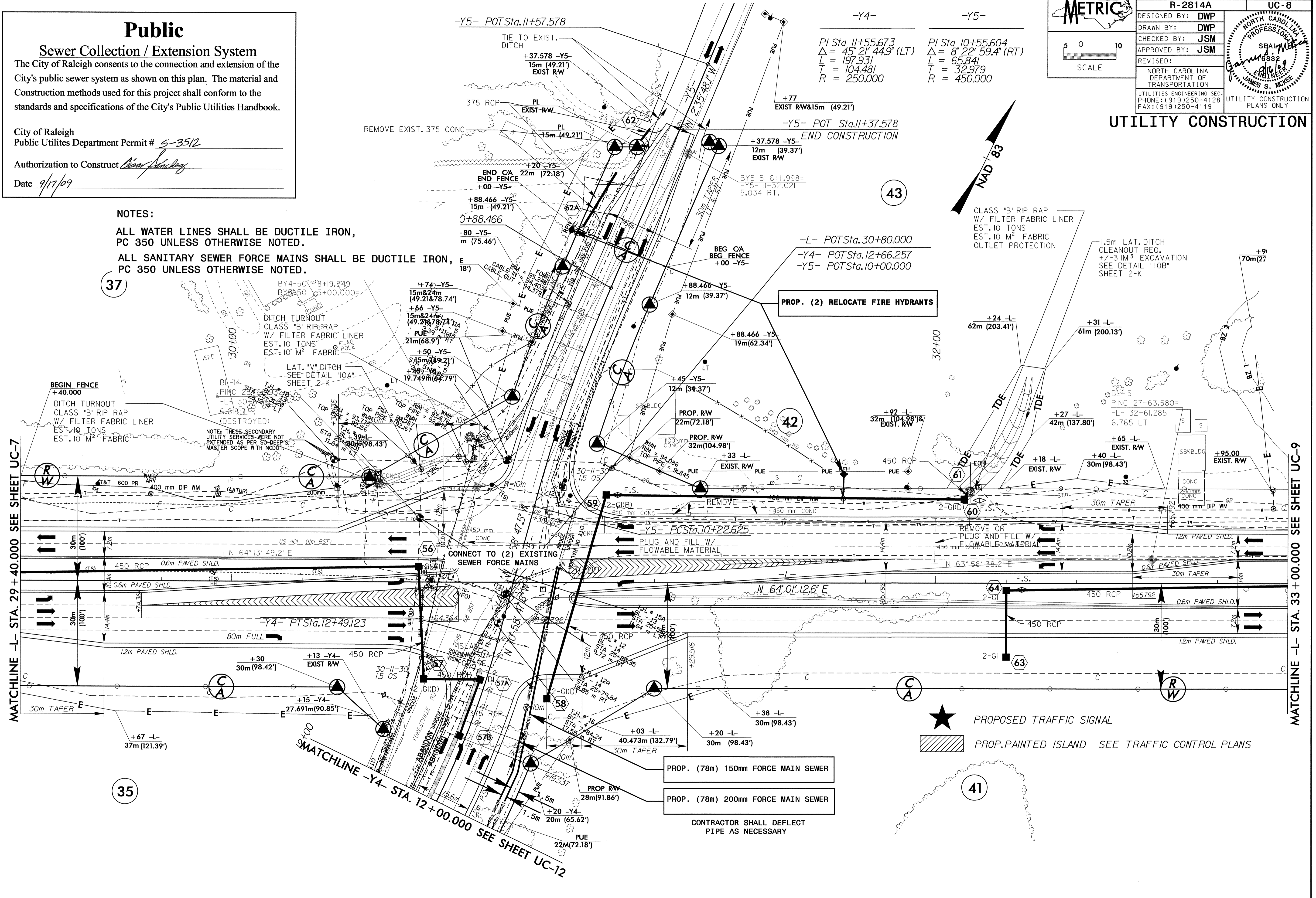
City of Raleigh
 Public Utilities Department Permit # *6-3512*

Authorization to Construct *Clear Sewerage*

Date *9/17/09*

 5 0 10 SCALE	PROJECT REFERENCE NO. R-2814A	SHEET NO. UC-8
	DESIGNED BY: DWP	
	CHECKED BY: JSM	
	APPROVED BY: JSM	
	REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)250-4128 FAX: (919)250-4119		UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION



NOTES:

ALL WATER LINES SHALL BE DUCTILE IRON, PC 350 UNLESS OTHERWISE NOTED.

ALL SANITARY SEWER FORCE MAINS SHALL BE DUCTILE IRON, PC 350 UNLESS OTHERWISE NOTED.

MATCHLINE -L- STA. 29 + 40.000 SEE SHEET UC-7

MATCHLINE -L- STA. 33 + 00.000 SEE SHEET UC-9

PROP. (78m) 150mm FORCE MAIN SEWER

PROP. (78m) 200mm FORCE MAIN SEWER

CONTRACTOR SHALL DEFLECT PIPE AS NECESSARY

★ PROPOSED TRAFFIC SIGNAL

▨ PROP. PAINTED ISLAND SEE TRAFFIC CONTROL PLANS


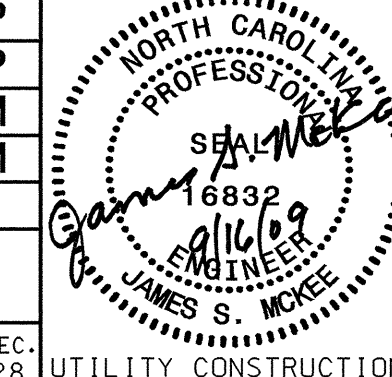
37

43

42

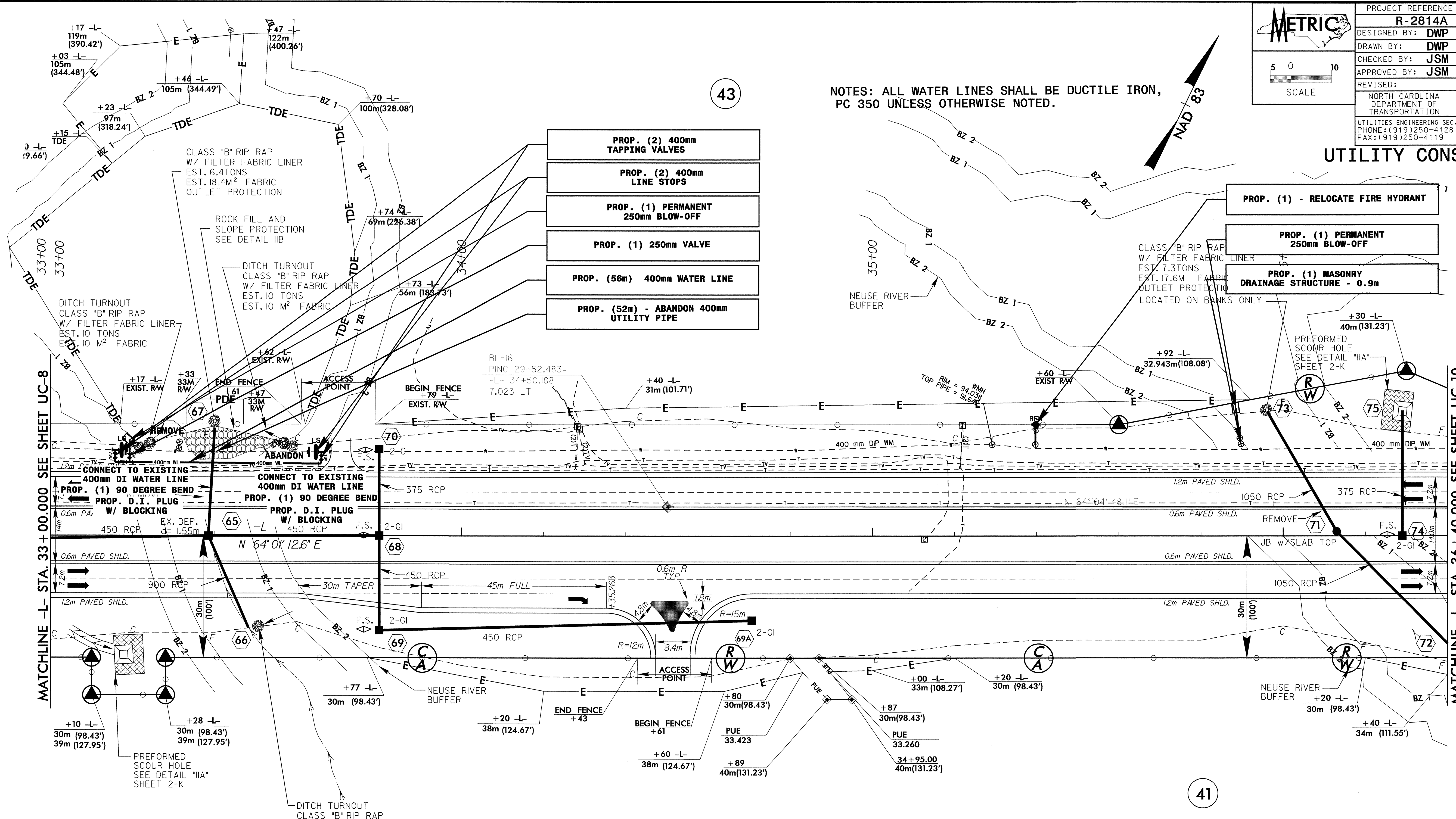
35

41

 5 0 10 SCALE	PROJECT REFERENCE NO.	R-2814A	SHEET NO.	UC-9
	DESIGNED BY:	DWP		
	DRAWN BY:	DWP		
	CHECKED BY:	JSM		
	APPROVED BY:	JSM		
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919)250-4128 FAX: (919)250-4119			

UTILITY CONSTRUCTION

NOTES: ALL WATER LINES SHALL BE DUCTILE IRON, PC 350 UNLESS OTHERWISE NOTED.



- PROP. (2) 400mm TAPPING VALVES
- PROP. (2) 400mm LINE STOPS
- PROP. (1) PERMANENT 250mm BLOW-OFF
- PROP. (1) 250mm VALVE
- PROP. (56m) 400mm WATER LINE
- PROP. (52m) - ABANDON 400mm UTILITY PIPE

- PROP. (1) - RELOCATE FIRE HYDRANT
- PROP. (1) PERMANENT 250mm BLOW-OFF
- PROP. (1) MASONRY DRAINAGE STRUCTURE - 0.9m

MATCHLINE -L- STA. 33+00.00 SEE SHEET UC-8

MATCHLINE -L- STA. 36+40.00 SEE SHEET UC-10

41

Public

Water Distribution / Extension System

The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
 Public Utilities Department Permit # *W-2895*

Authorization to Construct *Cesar Penning*

Date *9/17/09*

41

METRIC

PROJECT REFERENCE NO. **R-2814A** SHEET NO. **UC-10**

DESIGNED BY: **DWP**

DRAWN BY: **DWP**

CHECKED BY: **JSM**

APPROVED BY: **JSM**

REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119

UTILITY CONSTRUCTION PLANS ONLY

SCALE: 5 0 10

9/16/18

JAMES S. WICKEE

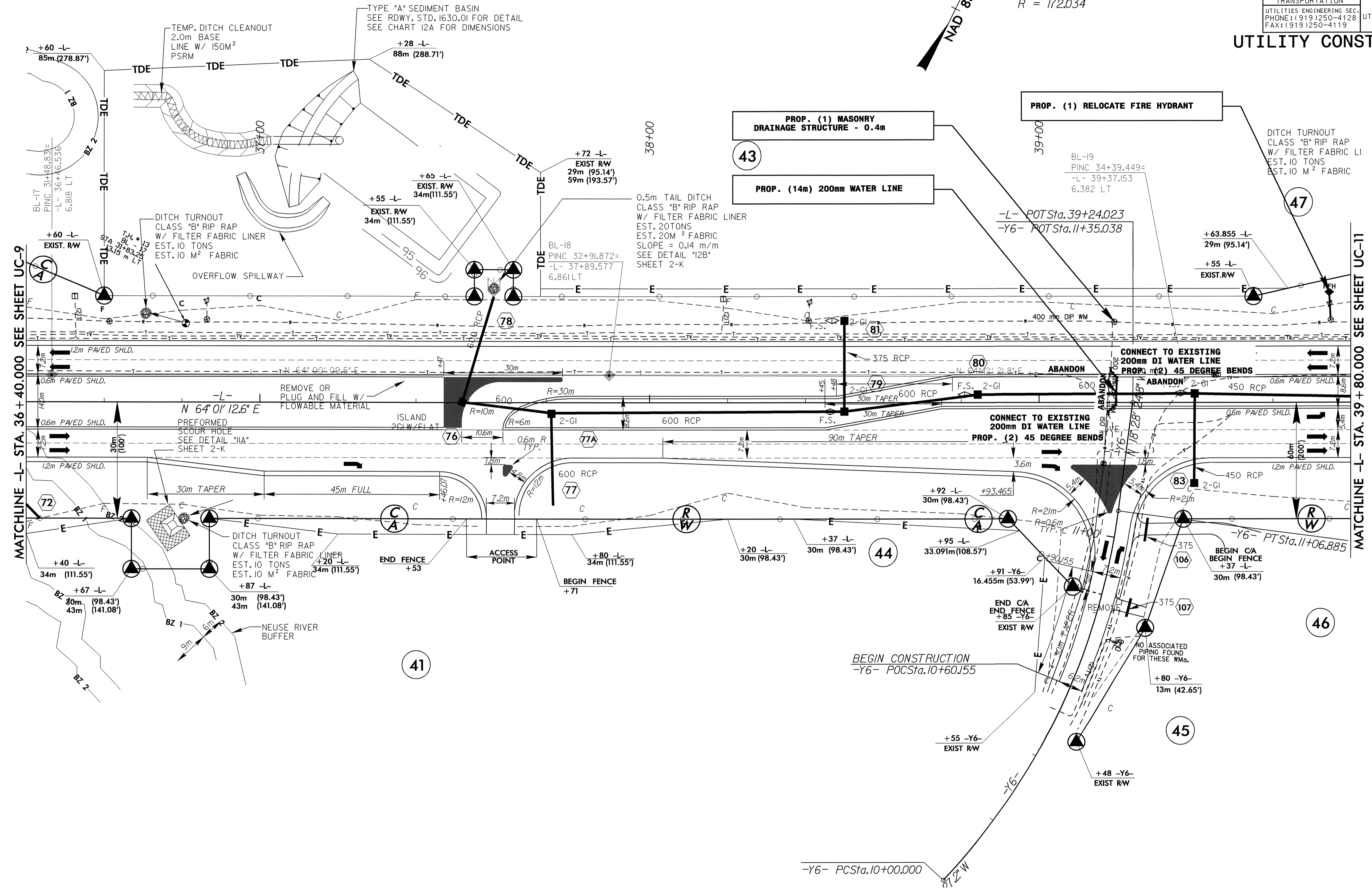
CHART 12A

BASIN #	APPROX. STA.	P	H	T	D	E	F	B	X	Y	XI	YI	SURFACE AREA (min)	STORAGE VOLUME (min)
1	37+00 LT.	900	0.3	2.0	2.7	2.0	.46	2.4	2.1	0.6	1.8	0.6	880	482

NOTES: ALL WATER LINES SHALL BE DUCTILE IRON, PC 350 UNLESS OTHERWISE NOTED.

-Y6-


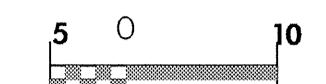
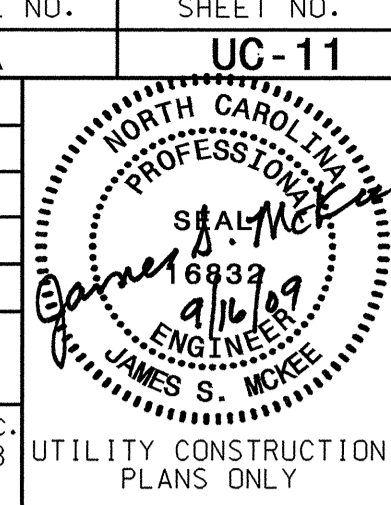
PI Sta 10+55.231
 $\Delta = 35^\circ 35' 52.0''$ (LT)
 L = 106.884
 T = 55.230
 R = 172.034



MATCHLINE -L- STA. 36 + 40.000 SEE SHEET UC-9

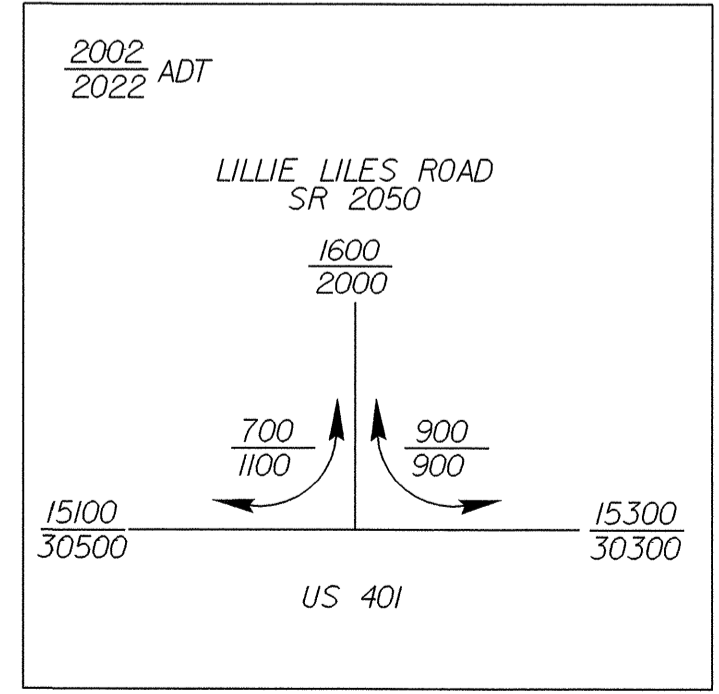
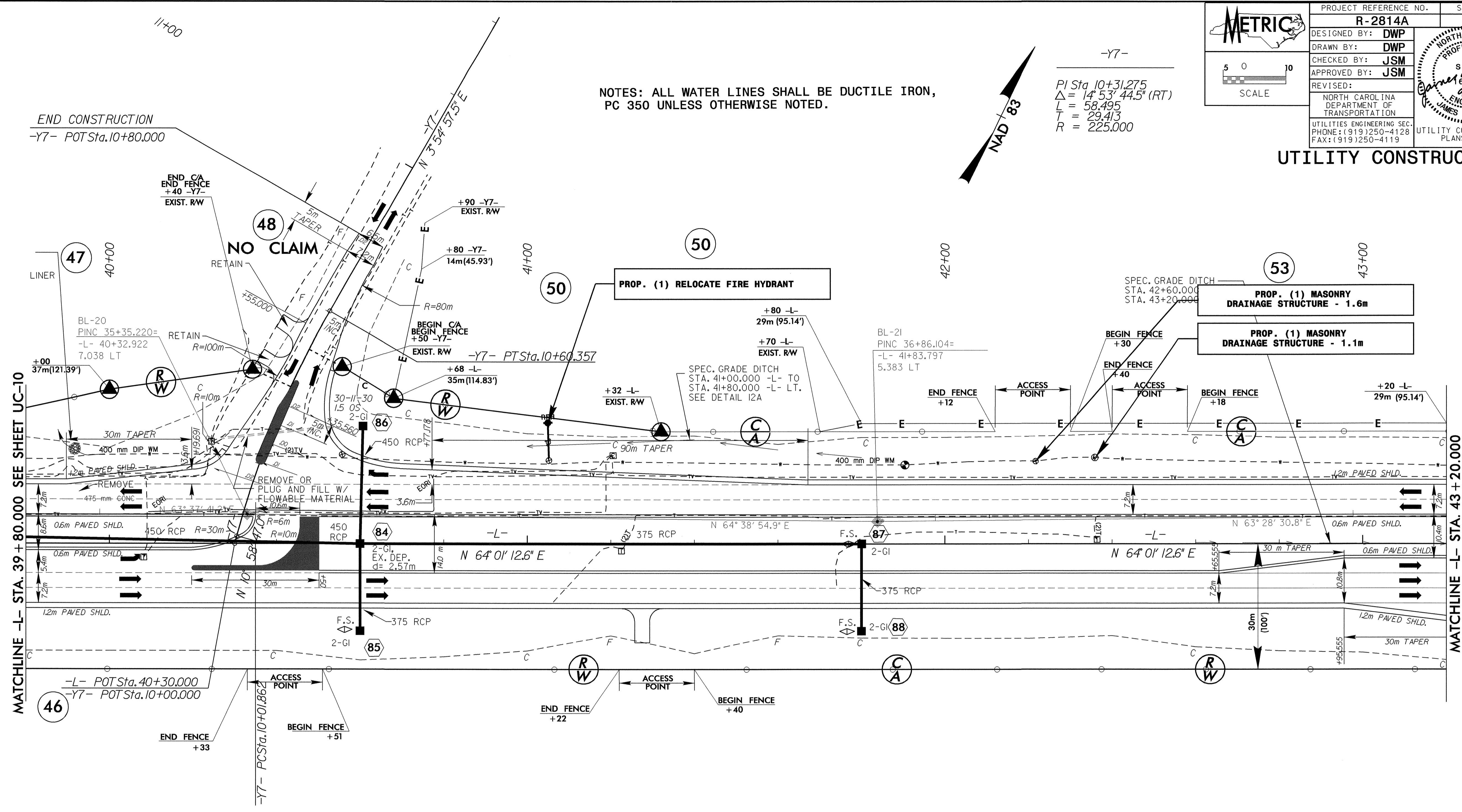
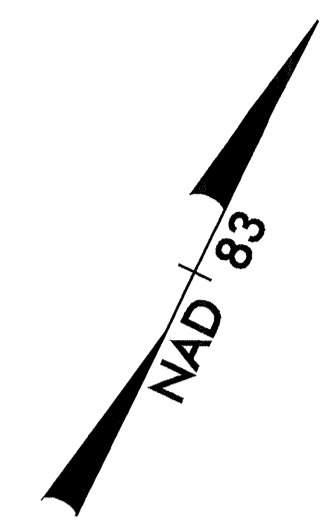
MATCHLINE -L- STA. 39 + 80.000 SEE SHEET UC-11

UTILITY CONSTRUCTION

 SCALE 	PROJECT REFERENCE NO.	SHEET NO.
	R-2814A	UC-11
	DESIGNED BY: DWP	
	DRAWN BY: DWP	
	CHECKED BY: JSM	
APPROVED BY: JSM		
REVISID:	UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY		


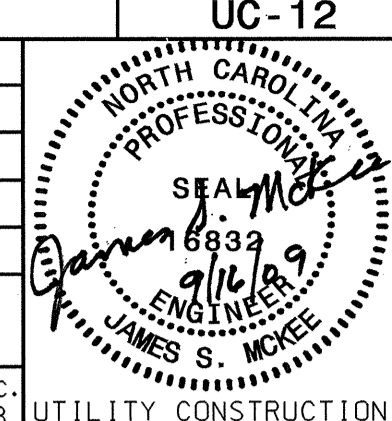
NOTES: ALL WATER LINES SHALL BE DUCTILE IRON, PC 350 UNLESS OTHERWISE NOTED.

-Y7-
 PI Sta. 10+31.275
 $\Delta = 14^\circ 53' 44.5" (RT)$
 $L = 58.495$
 $T = 29.413$
 $R = 225.000$

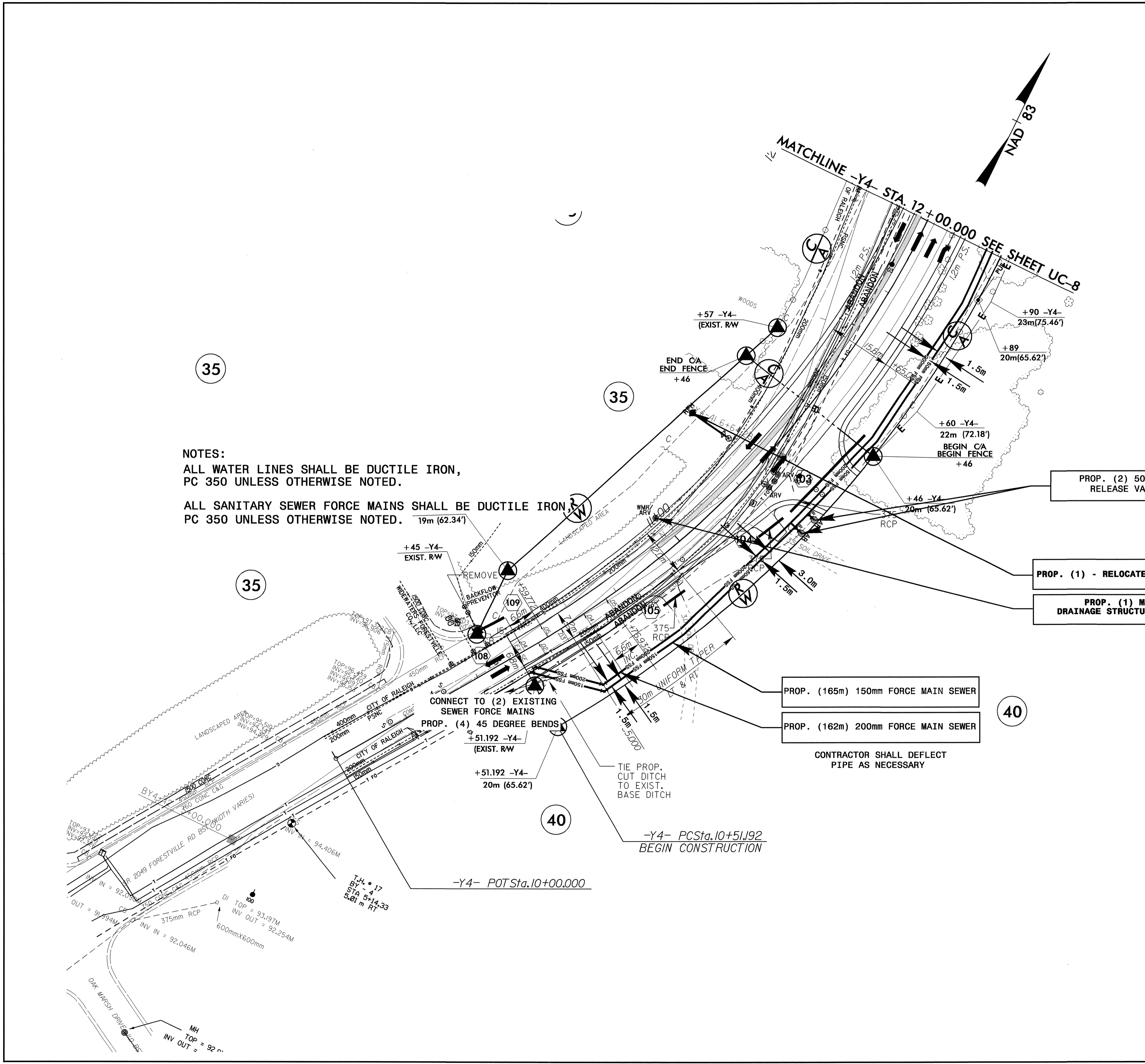


MATCHLINE -L- STA. 39 + 80.000 SEE SHEET UC-10

MATCHLINE -L- STA. 43 + 20.000

 SCALE: 5 0 10	PROJECT REFERENCE NO.	SHEET NO.
	R-2814A	UC-12
DESIGNED BY: DWP		
DRAWN BY: DWP		
CHECKED BY: JSM		
APPROVED BY: JSM		
REVISER:		
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119		

UTILITY CONSTRUCTION



NOTES:
 ALL WATER LINES SHALL BE DUCTILE IRON,
 PC 350 UNLESS OTHERWISE NOTED.

ALL SANITARY SEWER FORCE MAINS SHALL BE DUCTILE IRON,
 PC 350 UNLESS OTHERWISE NOTED.

PROP. (2) 50mm AIR
 RELEASE VALVE

PROP. (1) - RELOCATE FIRE HYDRANT

PROP. (1) MASONRY
 DRAINAGE STRUCTURE - 0.2m

PROP. (165m) 150mm FORCE MAIN SEWER

PROP. (162m) 200mm FORCE MAIN SEWER

CONTRACTOR SHALL DEFLECT
 PIPE AS NECESSARY

CONNECT TO (2) EXISTING
 SEWER FORCE MAINS
 PROP. (4) 45 DEGREE BENDS

-Y4- PC Sta. 10+51.192
 BEGIN CONSTRUCTION

-Y4- POT Sta. 10+00.000

Public

Sewer Collection / Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

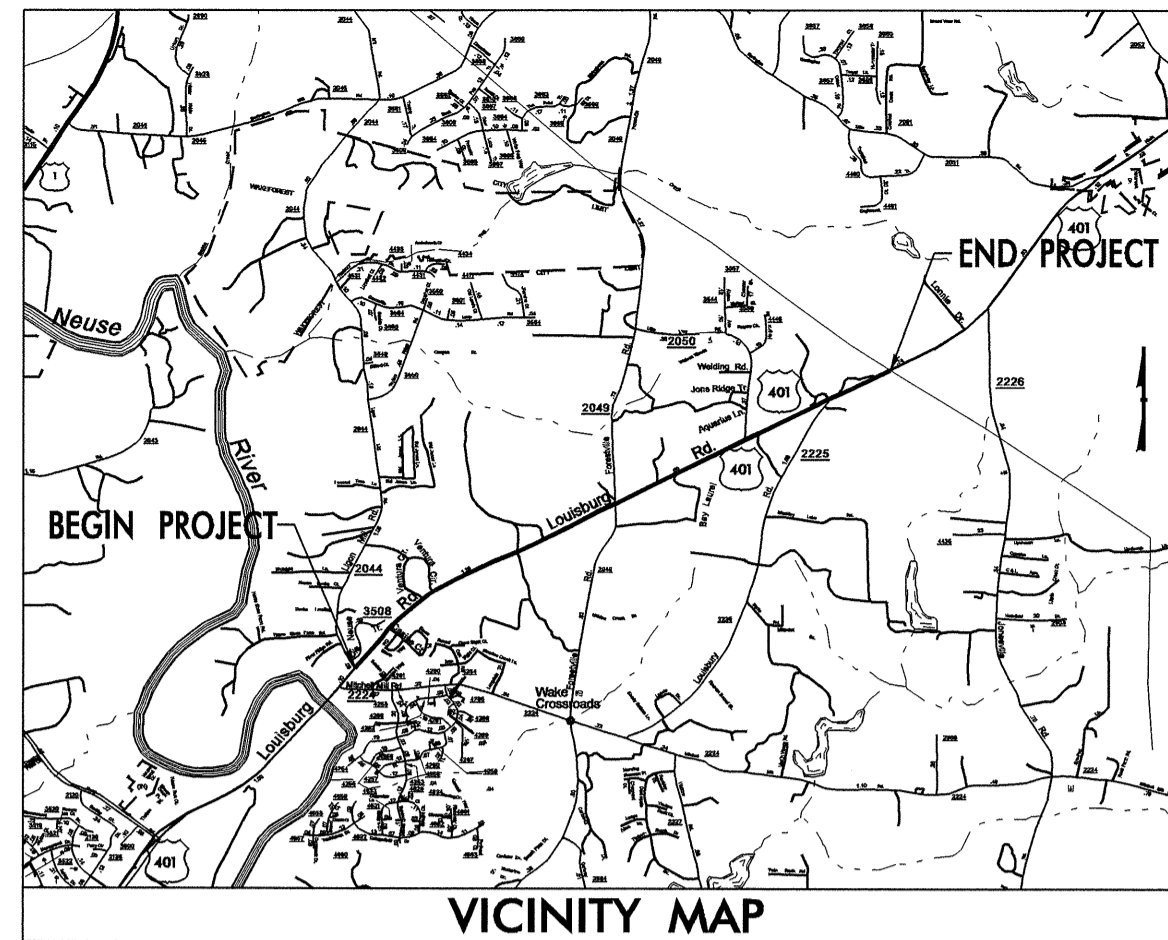
City of Raleigh
 Public Utilities Department Permit # 5-3512

Authorization to Construct [Signature]

Date 9/17/09

TIP: R-2814A

CONTRACT: 202228



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

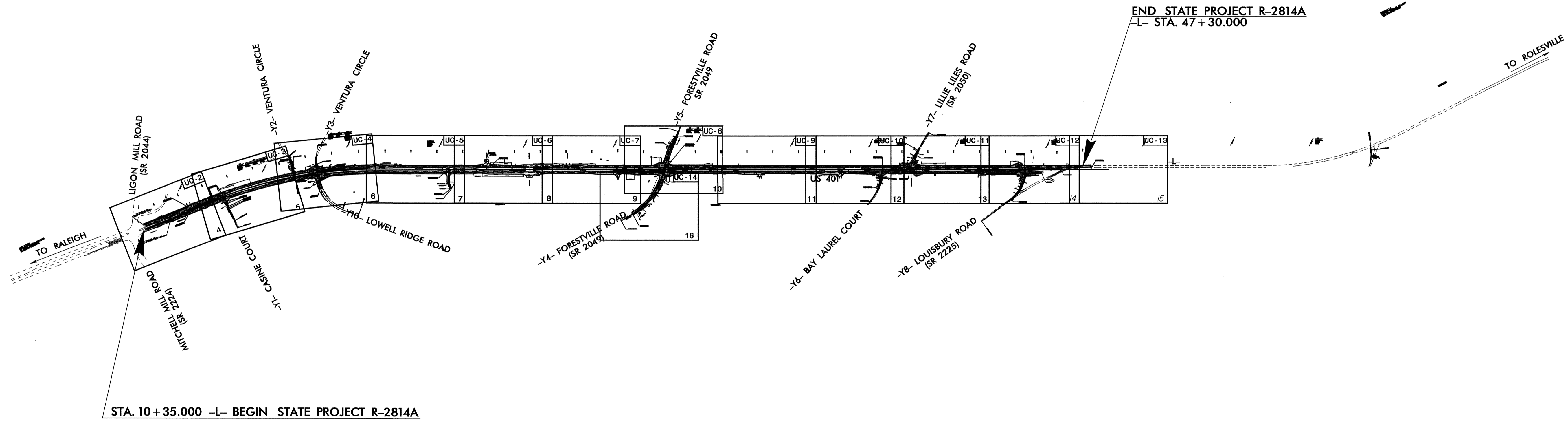
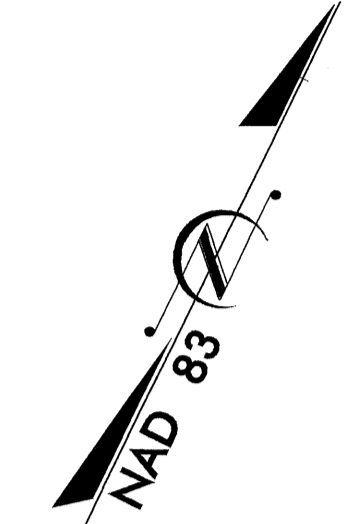
**UTILITIES BY OTHERS PLANS
WAKE COUNTY**

LOCATION: US 401 FROM SR 2044 (LIGON MILL ROAD)
TO SOUTH OF SR 2226 (JONESVILLE ROAD)

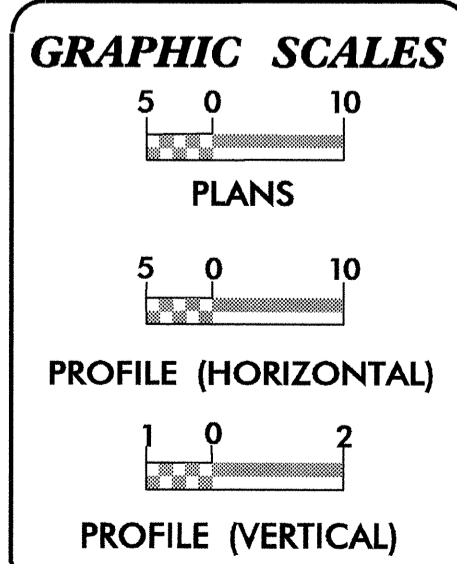
TYPE OF WORK: UTILITIES RELOCATIONS

METRIC
ALL DIMENSIONS IN
THESE PLANS ARE IN METERS
AND / OR MILLIMETERS
UNLESS OTHERWISE SHOWN

T.I.P. NO.	SHEET NO.
R-2814A	UO-1



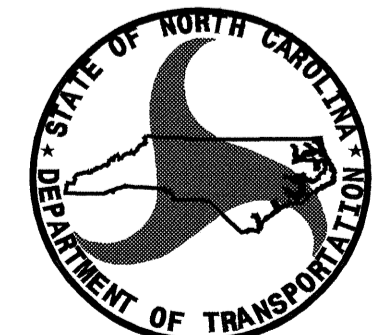
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
NOTE: THIS IS A PARTIALLY CONTROLLED ACCESS PROJECT WITH ACCESS POINTS SHOWN ON THE PLANS
NOTE: THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2 THRU UO-14	UTILITY BY OTHERS PLAN SHEETS

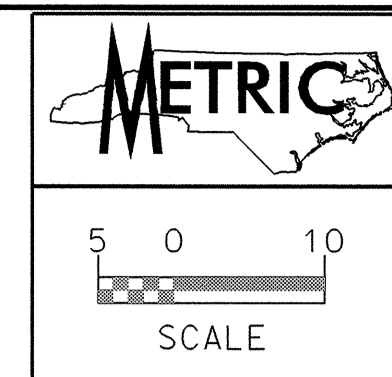
- UTILITY OWNERS ON PROJECT**
- (1) PROGRESS ENERGY - POWER
 - (2) WAKE EMC - POWER
 - (3) AT&T - TELEPHONE
 - (4) WINDSTREAM - TELEPHONE
 - (5) PSNC - GAS
 - (6) TIMEWARNER CABLE - CABLE TELEVISION



PREPARED IN THE OFFICE OF:
**DIVISION OF HIGHWAYS
UTILITIES ENGINEERING
SECTION**

1591 MAIL SERVICES CENTER
RALEIGH, NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

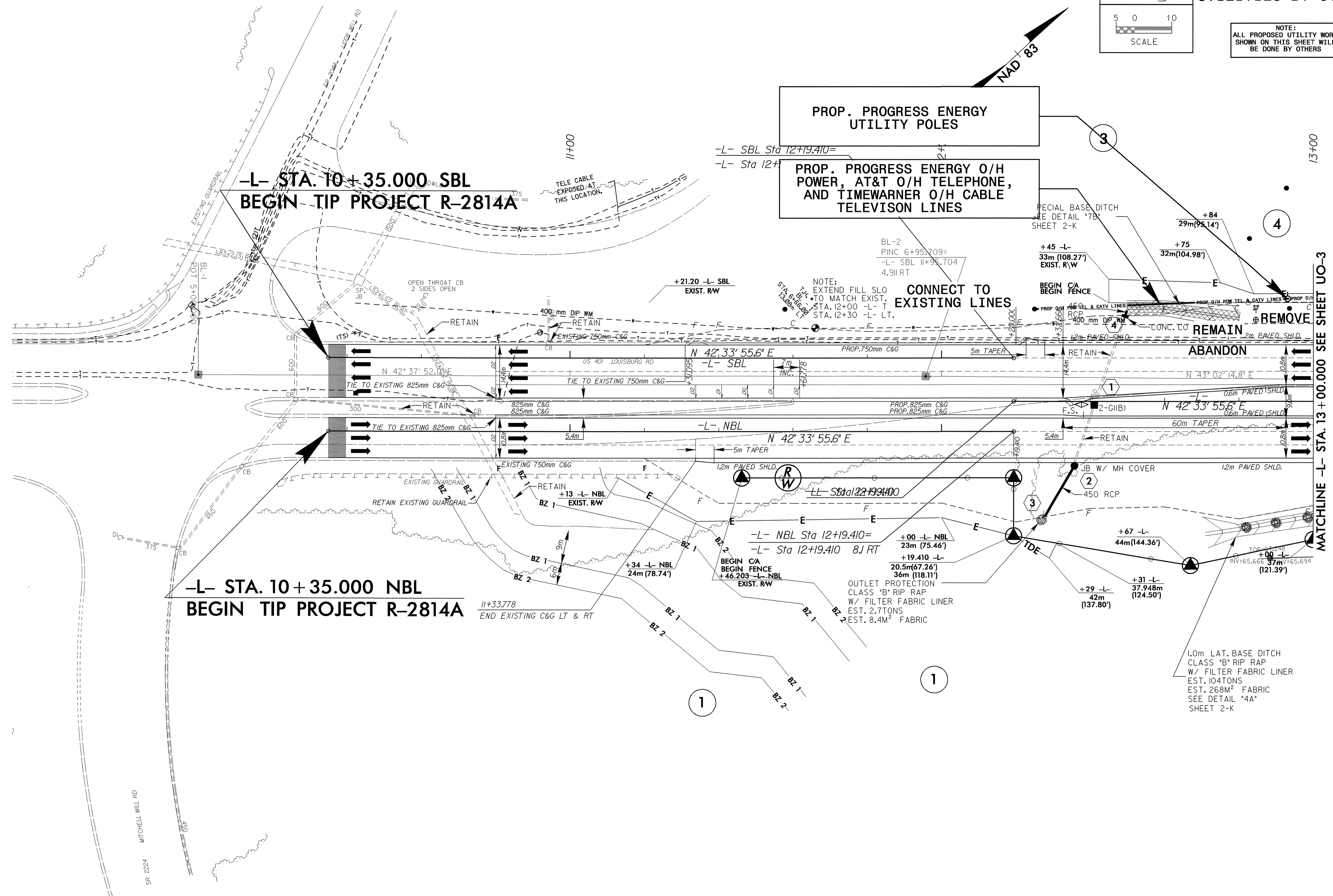
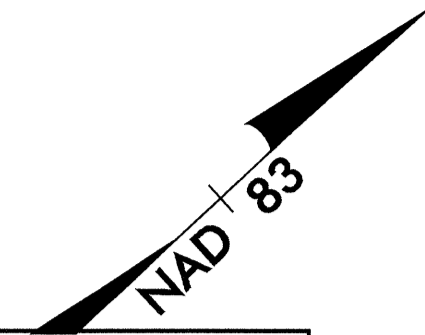
Roger Worthington, P.E. UTILITIES SECTION ENGINEER
Steve McKee, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
Donald W. Proper UTILITIES PROJECT DESIGNER



PROJECT REFERENCE NO.	SHEET NO.
R-2814A	U0-2

UTILITIES BY OTHERS

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



**-L- STA. 10+35.000 SBL
BEGIN TIP PROJECT R-2814A**

**-L- STA. 10+35.000 NBL
BEGIN TIP PROJECT R-2814A**

**PROG. PROGRESS ENERGY
UTILITY POLES**

**PROG. PROGRESS ENERGY O/H
POWER, AT&T O/H TELEPHONE,
AND TIMEWARNER O/H CABLE
TELEVISION LINES**

**CONNECT TO
EXISTING LINES**

ABANDON

MATCHLINE -L- STA. 13 + 00.000 SEE SHEET UO-3

-L- SBL Sta 12+19.410=
-L- Sta 12+19.410

+21.20 -L- SBL
EXIST. RW

BL-2
PINC 6+95.709=
-L- SBL 11+95.704
4.911 RT

SPECIAL BASE DITCH
SEE DETAIL "7B"
SHEET 2-K

+45 -L-
33m (108.27')
EXIST. R/W

BEGIN CA
BEGIN FENCE

REMOVE

NOTE:
EXTEND FILL SLO
TO MATCH EXIST.
STA. 12+00 -L- T
STA. 12+30 -L- LT.

**CONNECT TO
EXISTING LINES**

ABANDON

-L- NBL Sta 12+19.410=
-L- Sta 12+19.410 8.JRT

+00 -L- NBL
23m (75.46')
+19.410 -L-
20.5m (67.26')
36m (118.11')

OUTLET PROTECTION
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 2.7TONS
EST. 8.4M² FABRIC

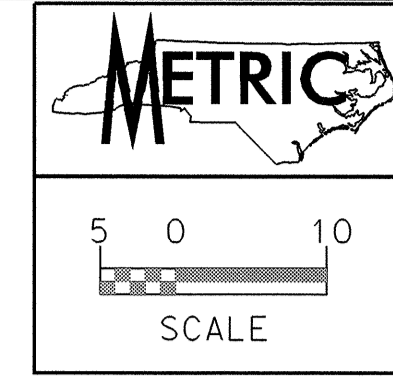
+67 -L-
44m (144.36')

+29 -L-
42m (137.80')

1.0m LAT. BASE DITCH
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 104TONS
EST. 268M² FABRIC
SEE DETAIL "4A"
SHEET 2-K

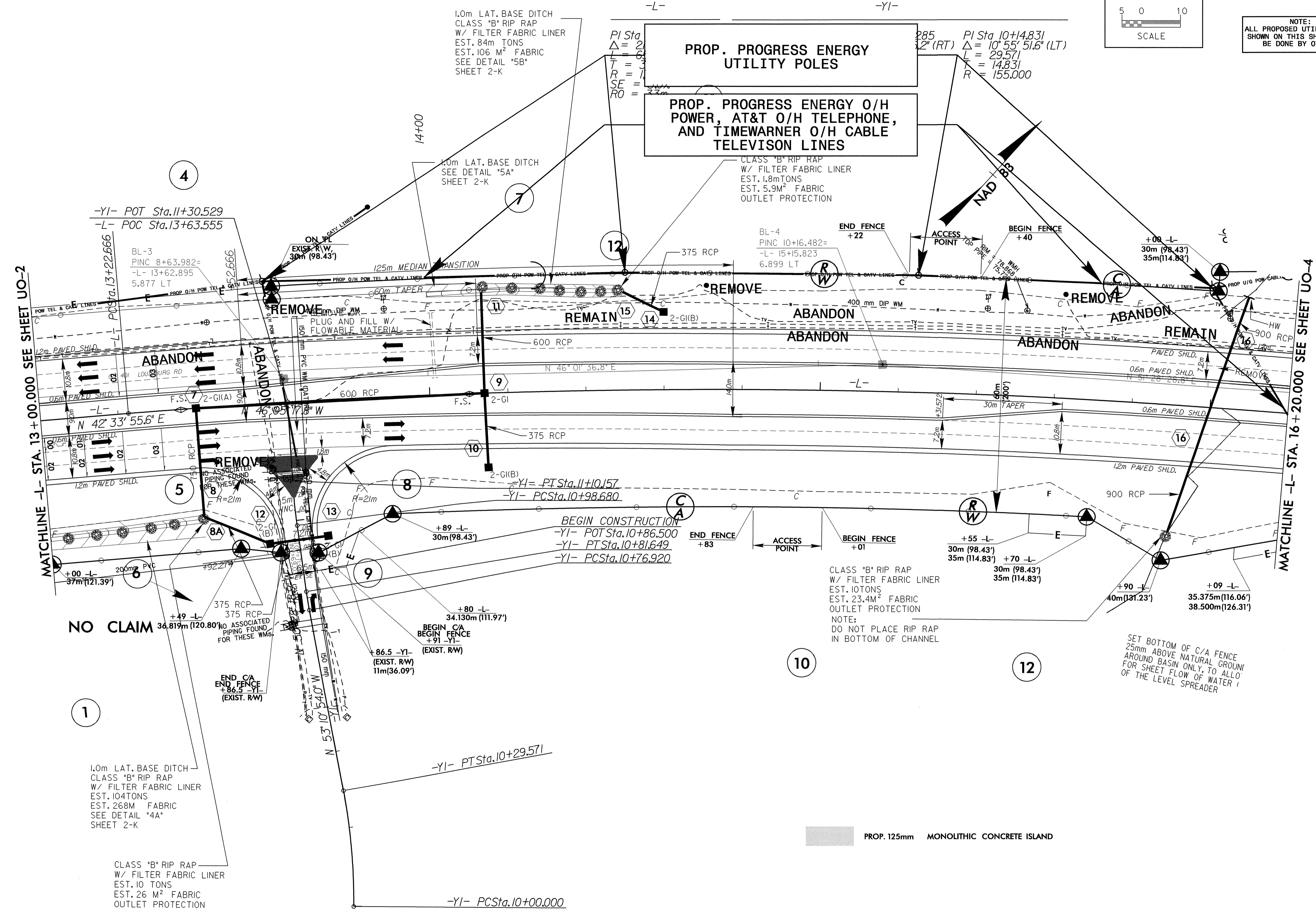
SR 2224 MITCHELL MILL RD

11+33.778
END EXISTING C&G LT & RT



UTILITIES BY OTHERS

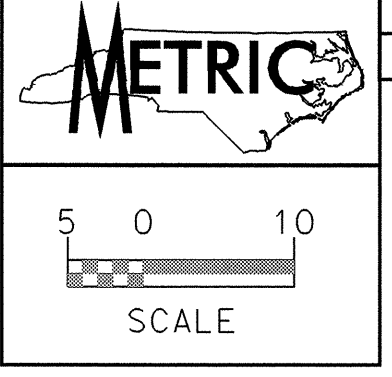
NOTE:
ALL PROPOSED UTILITY WORK
SHOWN ON THIS SHEET WILL
BE DONE BY OTHERS



PROP. 125mm MONOLITHIC CONCRETE ISLAND

UTILITIES BY OTHERS

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



-L- PI Sta 16+52.303
 $\Delta = 2^\circ 27' 17.0''$ (RT)

-Y2- PI Sta 10+64.019
 $\Delta = 34^\circ 50' 28.7''$ (LT)

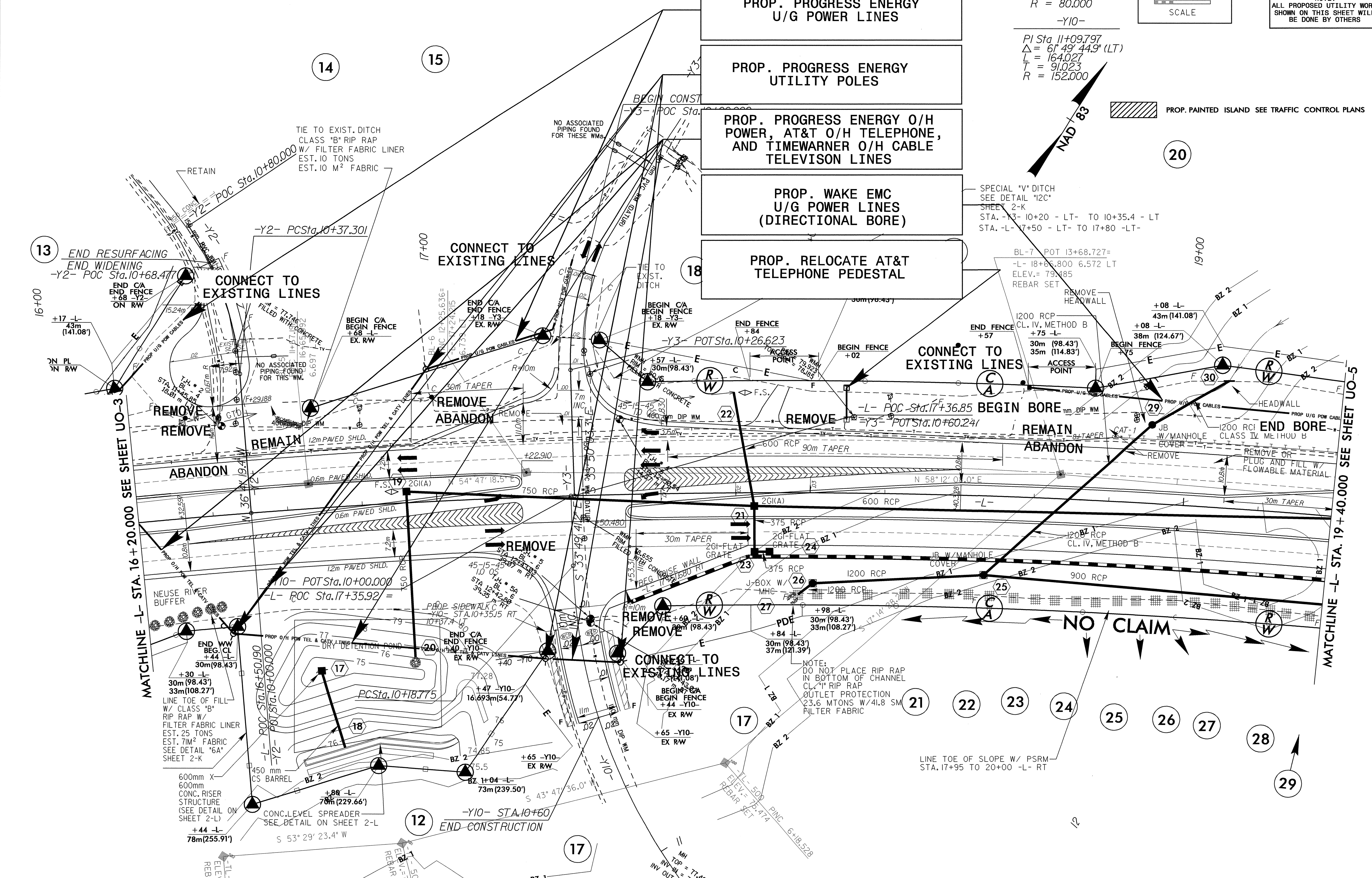
-Y3- PI Sta 10+13.436
 $\Delta = 19^\circ 04' 01.6''$ (LT)
L = 26.623
T = 13.436
R = 80.000

-Y10- PI Sta 11+09.797
 $\Delta = 61^\circ 49' 44.9''$ (LT)
L = 164.027
T = 91.023
R = 152.000

- PROP. PROGRESS ENERGY U/G POWER LINES
- PROP. PROGRESS ENERGY UTILITY POLES
- PROP. PROGRESS ENERGY O/H POWER, AT&T O/H TELEPHONE, AND TIMEWARNER O/H CABLE TELEVISION LINES
- PROP. WAKE EMC U/G POWER LINES (DIRECTIONAL BORE)
- PROP. RELOCATE AT&T TELEPHONE PEDESTAL

PROP. PAINTED ISLAND SEE TRAFFIC CONTROL PLANS

SPECIAL "V" DITCH
SEE DETAIL "12C"
SHEET 2-K
STA. -Y3- 10+20 - LT- TO 10+35.4 - LT-
STA. -L- 17+50 - LT- TO 17+80 - LT-



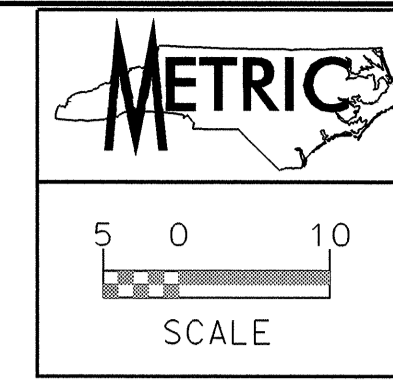
MATCHLINE -L- STA. 16 + 20.000 SEE SHEET UO-3

MATCHLINE -L- STA. 19 + 40.000 SEE SHEET UO-5

NOTE:
DO NOT PLACE RIP RAP
IN BOTTOM OF CHANNEL
CL. 4" RIP RAP
OUTLET PROTECTION
23.6 MTONS W/41.8 SM
FILTER FABRIC

LINE TOE OF FILL
W/ CLASS "B"
RIP RAP W/
FILTER FABRIC LINER
EST. 25 TONS
EST. 7M² FABRIC
SEE DETAIL "6A"
SHEET 2-K

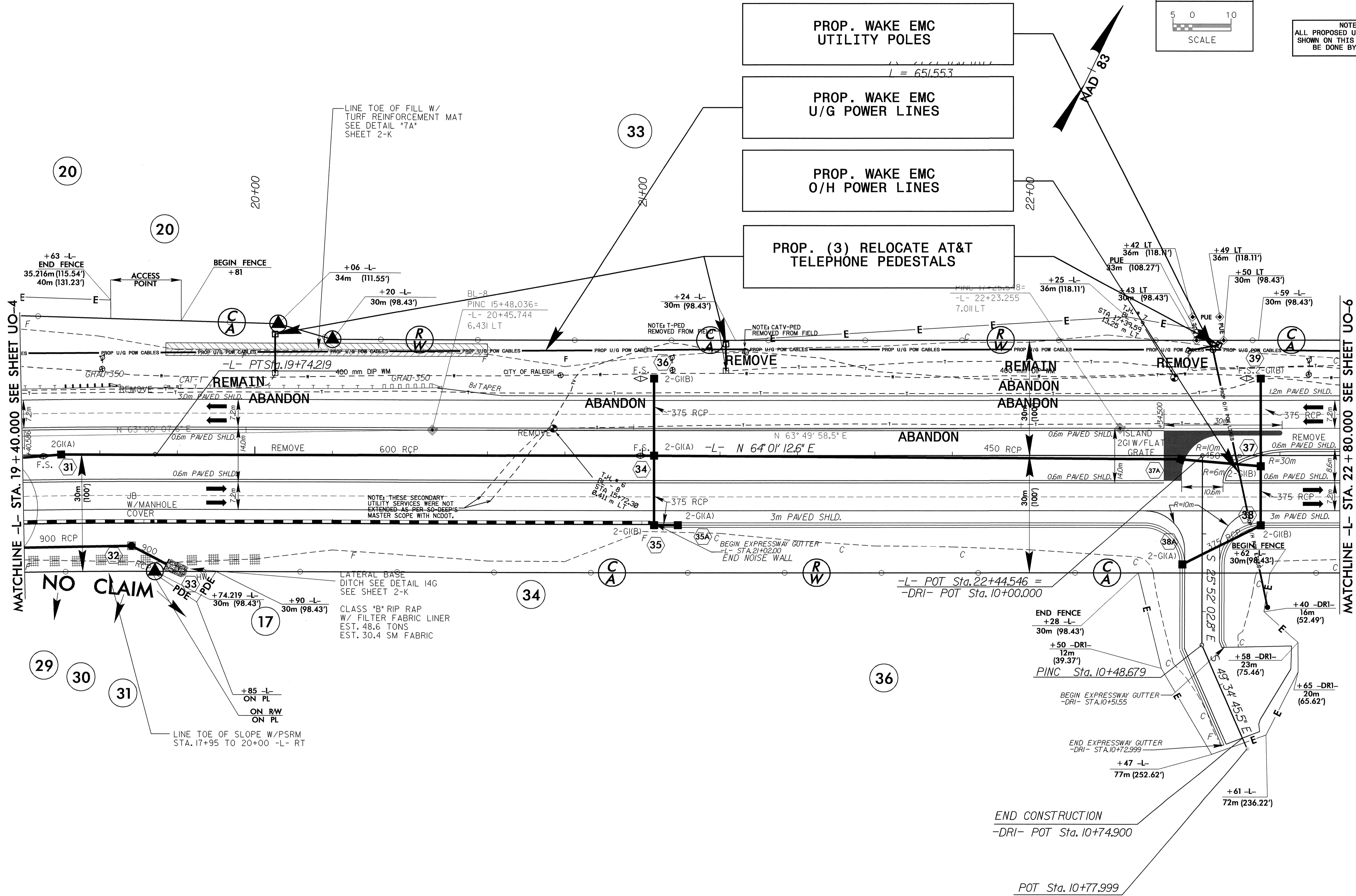
LINE TOE OF SLOPE W/ PSRM
STA. 17+95 TO 20+00 -L- RT



UTILITIES BY OTHERS

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

- PROP. WAKE EMC UTILITY POLES
- PROP. WAKE EMC U/G POWER LINES
- PROP. WAKE EMC O/H POWER LINES
- PROP. (3) RELOCATE AT&T TELEPHONE PEDESTALS

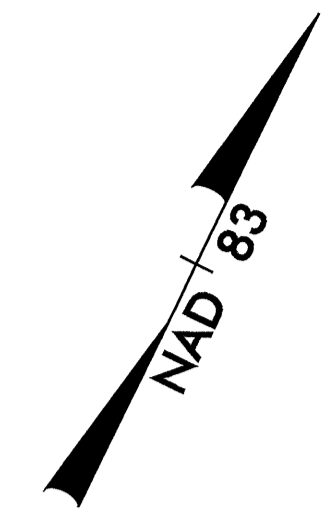
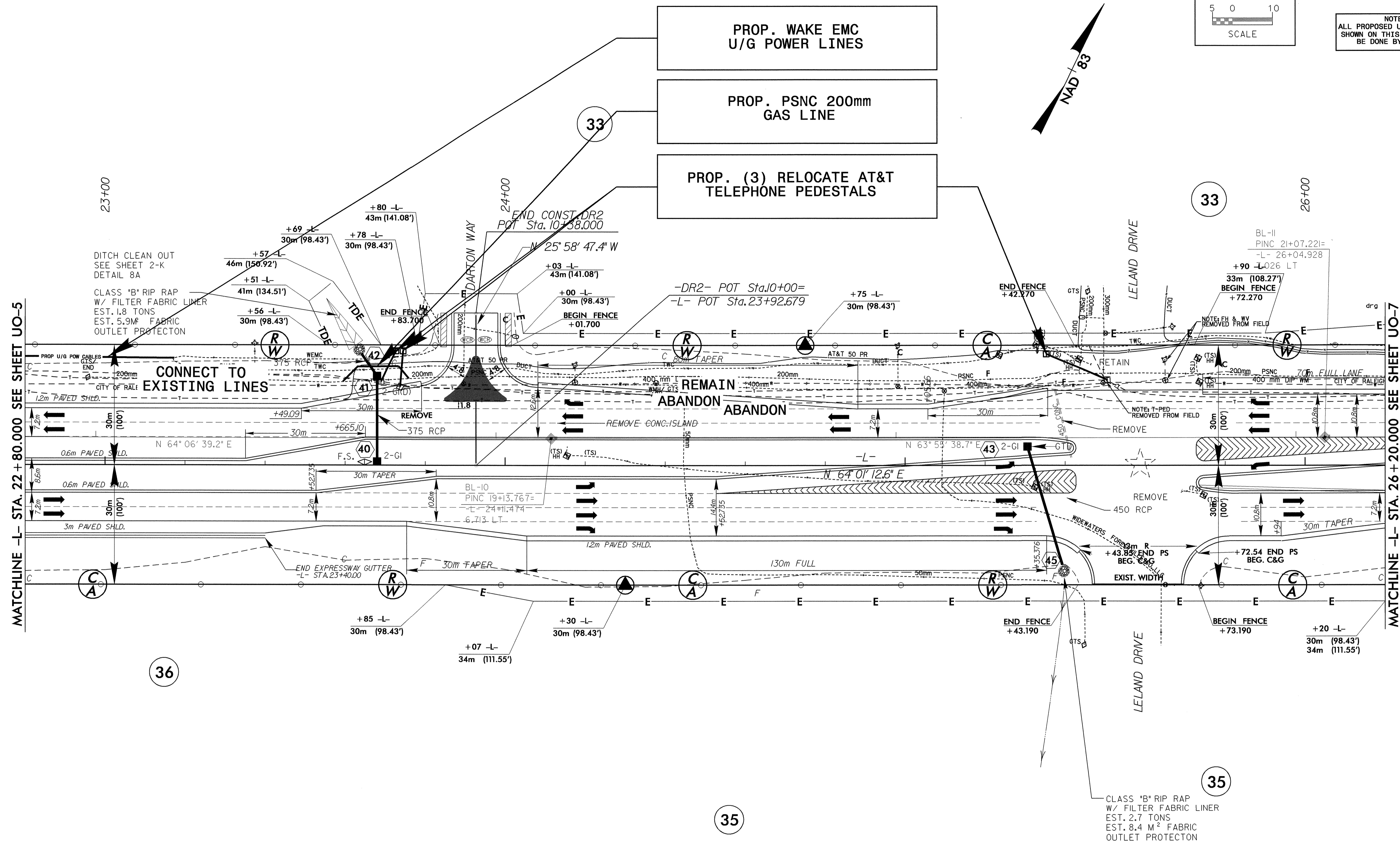


MATCHLINE -L- STA. 19 + 40.000 SEE SHEET UO-4

MATCHLINE -L- STA. 22 + 80.000 SEE SHEET UO-6

END CONSTRUCTION
 -DRI- POT Sta. 10+74.900
 POT Sta. 10+77.999

- PROP. WAKE EMC U/G POWER LINES
- PROP. PSNC 200mm GAS LINE
- PROP. (3) RELOCATE AT&T TELEPHONE PEDESTALS



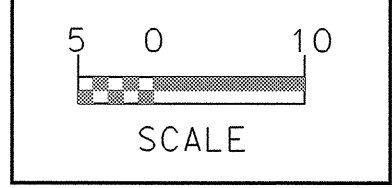
MATCHLINE -L- STA. 22 + 80.000 SEE SHEET UO-5

MATCHLINE -L- STA. 26 + 20.000 SEE SHEET UO-7

36

35

35

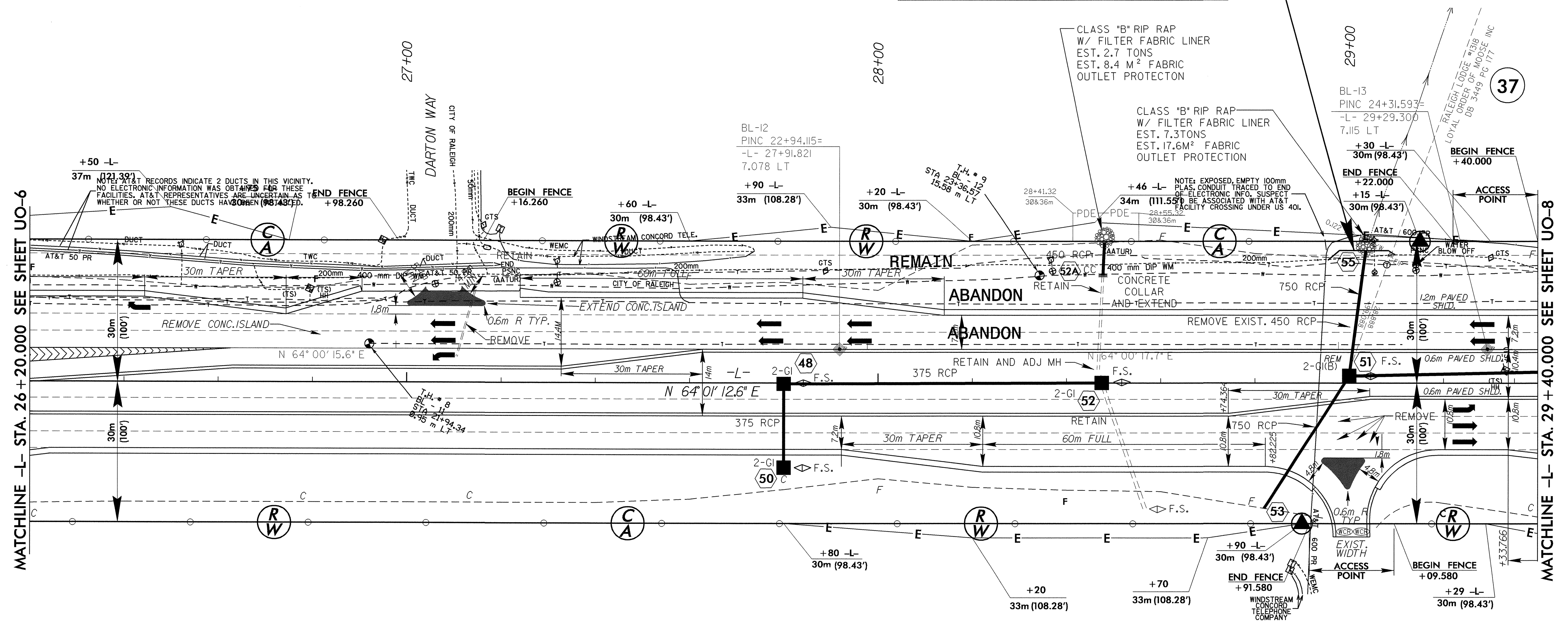


33

CENTEX HOMES
DB I1586 PG 169
B.M. 2005 PG 1821-1825
PSD 045-06-RW

**PROP. PSNC 200mm
GAS LINE**

NAD 83

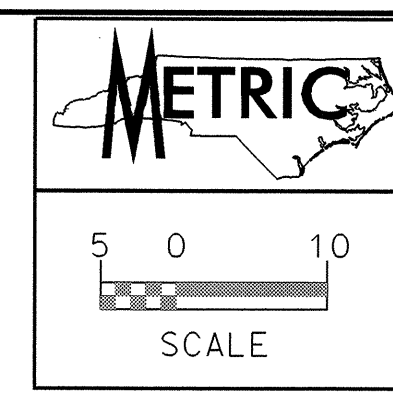


35

WIDWATERS FORESTVILLE CO., LLC
DB 12057 PG 941
BM 2007 PG 358
PSD 046-06-RW

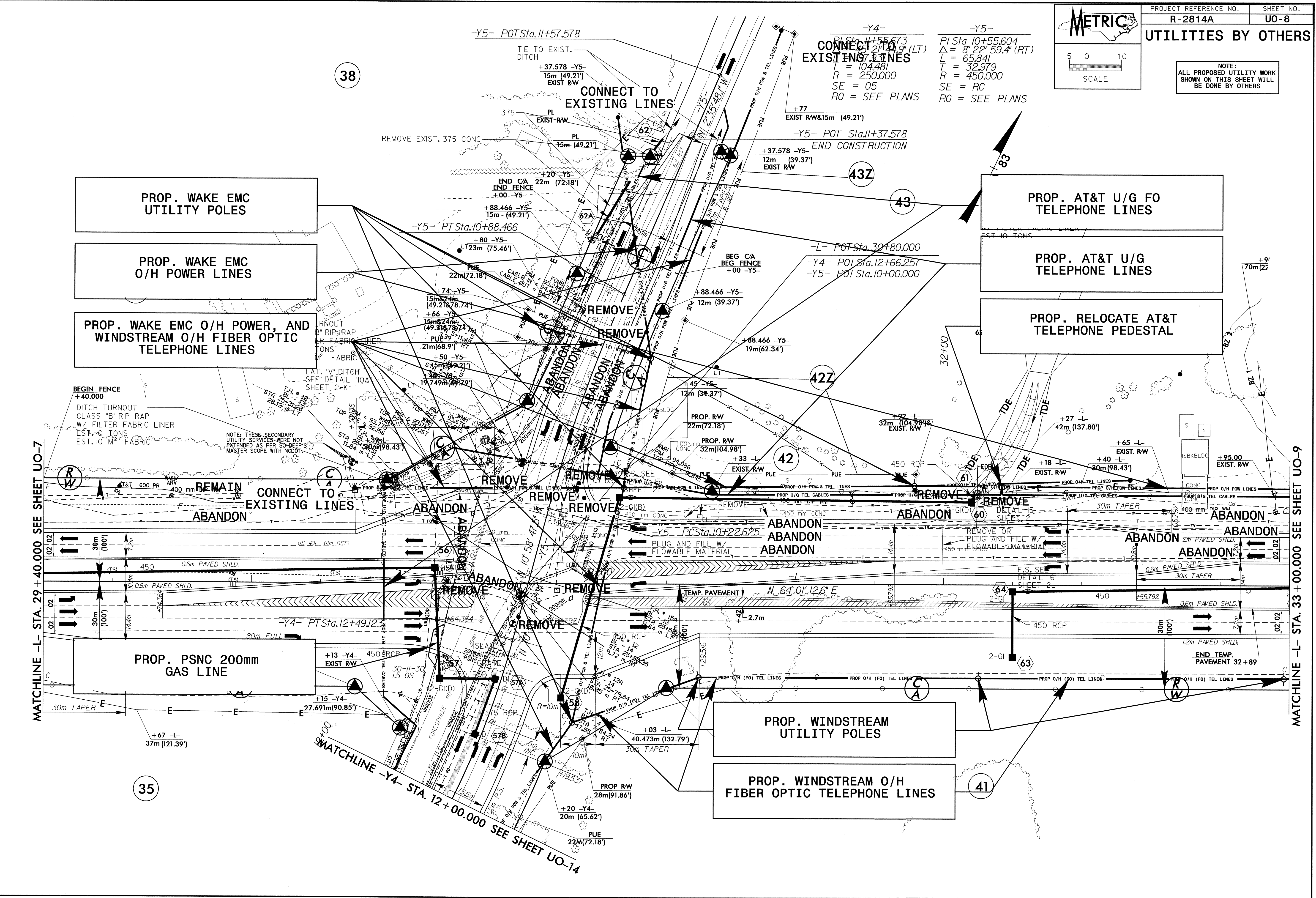
WIDWATERS FORESTVILLE CO., LLC
DB 12057 PG 941
BM 2007 PG 358
PSD 046-06-RW

35



UTILITIES BY OTHERS

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



PROP. WAKE EMC
UTILITY POLES

PROP. WAKE EMC
O/H POWER LINES

PROP. WAKE EMC O/H POWER, AND
WINDSTREAM O/H FIBER OPTIC
TELEPHONE LINES

PROP. AT&T U/G FO
TELEPHONE LINES

PROP. AT&T U/G
TELEPHONE LINES

PROP. RELOCATE AT&T
TELEPHONE PEDESTAL

PROP. PSNC 200mm
GAS LINE

PROP. WINDSTREAM
UTILITY POLES

PROP. WINDSTREAM O/H
FIBER OPTIC TELEPHONE LINES

MATCHLINE -L- STA. 29 + 40.000 SEE SHEET UO-7

MATCHLINE -L- STA. 33 + 00.000 SEE SHEET UO-9

35

38

43Z

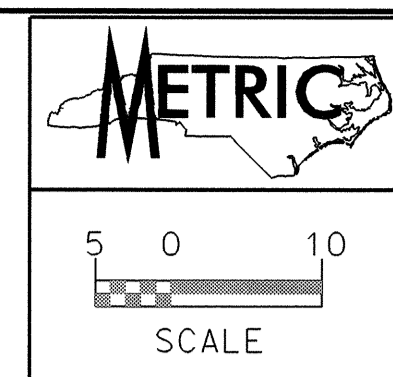
43

42Z

42

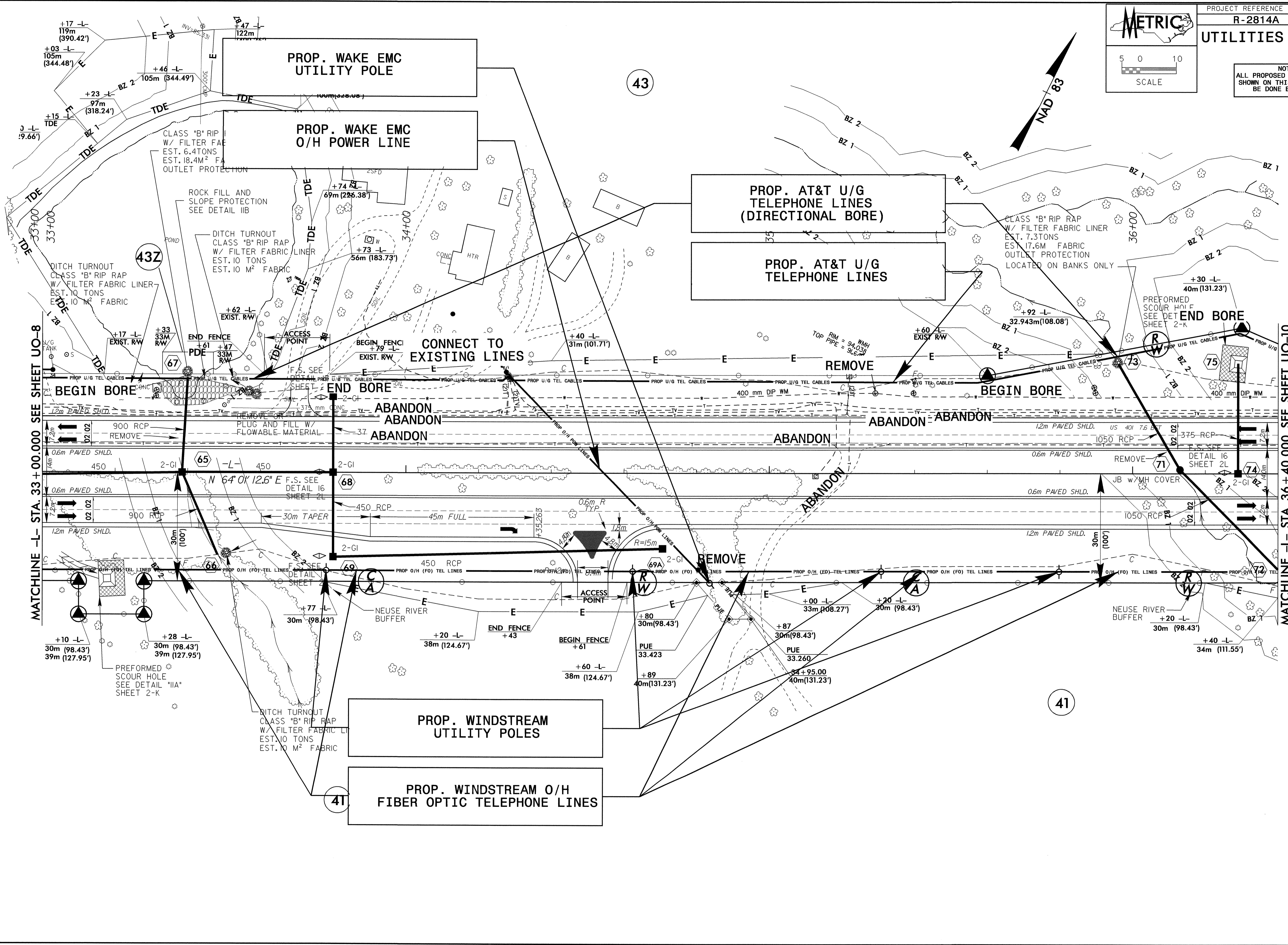
41

MATCHLINE -Y4- STA. 12 + 00.000 SEE SHEET UO-14



UTILITIES BY OTHERS

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



MATCHLINE -L- STA. 33+00.000 SEE SHEET UO-8

MATCHLINE -L- STA. 36+40.000 SEE SHEET UO-10

43

41

43Z

41

+17 -L- 119m (390.42')

+03 -L- 105m (344.48')

+23 -L- 97m (318.24')

+15 -L- 99.66'

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

+17 -L- 105m (344.48')

CLASS "B" RIP RAP
W/ FILTER FABRIC
EST. 6.4 TONS
EST. 18.4 M² FABRIC
OUTLET PROTECTION

ROCK FILL AND
SLOPE PROTECTION
SEE DETAIL IIB

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

DITCH TURNOUT
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 10 TONS
EST. 10 M² FABRIC

PROP. WINDSTREAM
UTILITY POLES

PROP. WINDSTREAM O/H
FIBER OPTIC TELEPHONE LINES

PROP. AT&T U/G
TELEPHONE LINES
(DIRECTIONAL BORE)

PROP. AT&T U/G
TELEPHONE LINES

CONNECT TO
EXISTING LINES

ABANDON
ABANDON
ABANDON

REMOVE

ABANDON

ABANDON

REMOVE

ABANDON

REMOVE

ABANDON

REMOVE

ABANDON

REMOVE

CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 7.3 TONS
EST. 17.6 M² FABRIC
OUTLET PROTECTION
LOCATED ON BANKS ONLY

PREFORMED
SCOUR HOLE
SEE DETAIL
SHEET 2-K

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

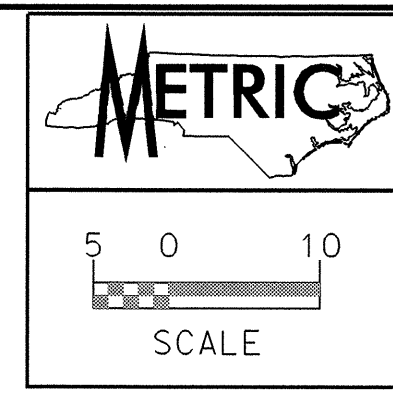
REMOVE

REMOVE

REMOVE

REMOVE

REMOVE



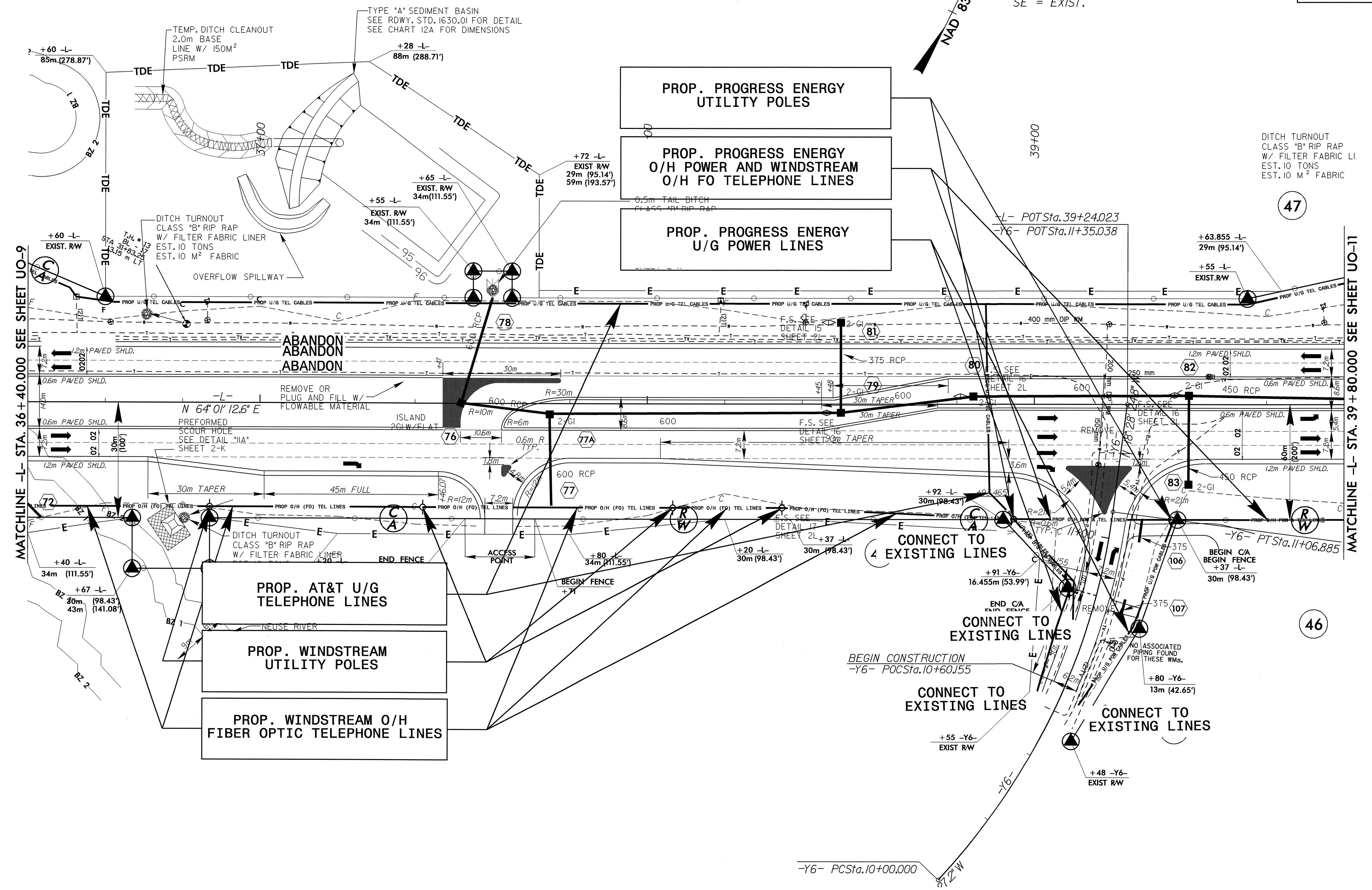
UTILITIES BY OTHERS

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

CHART I2A

BASIN #	APPROX. STA.	P	H	T	D*	E	F	B	X	Y	XI	YI	SURFACE AREA (m ²)	STORAGE VOLUME (m ³)
1	37+00 LT.	900	0.3	2.0	2.7	2.0	.46	2.4	2.1	0.6	1.8	0.6	880	482

-Y6-
PI Sta. 10+55.231
Δ = 35° 35' 52.0" (LT)
L = 106.884
T = 55.230
R = 172.034
SE = EXIST.



MATCHLINE -L- STA. 36+40.000 SEE SHEET UO-9

MATCHLINE -L- STA. 39+80.000 SEE SHEET UO-11

PROP. AT&T U/G TELEPHONE LINES

PROP. WINDSTREAM UTILITY POLES

PROP. WINDSTREAM O/H FIBER OPTIC TELEPHONE LINES

PROP. PROGRESS ENERGY UTILITY POLES

PROP. PROGRESS ENERGY O/H POWER AND WINDSTREAM O/H FO TELEPHONE LINES

PROP. PROGRESS ENERGY U/G POWER LINES

CONNECT TO 4 EXISTING LINES

CONNECT TO EXISTING LINES

CONNECT TO EXISTING LINES

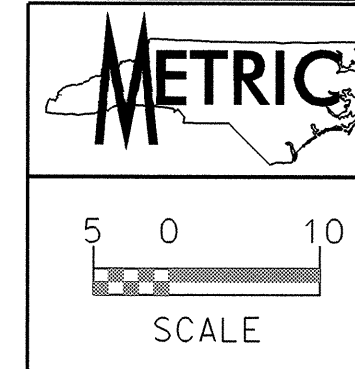
CONNECT TO EXISTING LINES

DITCH TURNOUT CLASS "B" RIP RAP W/ FILTER FABRIC LINER EST. 10 TONS EST. 10 M² FABRIC

47

46

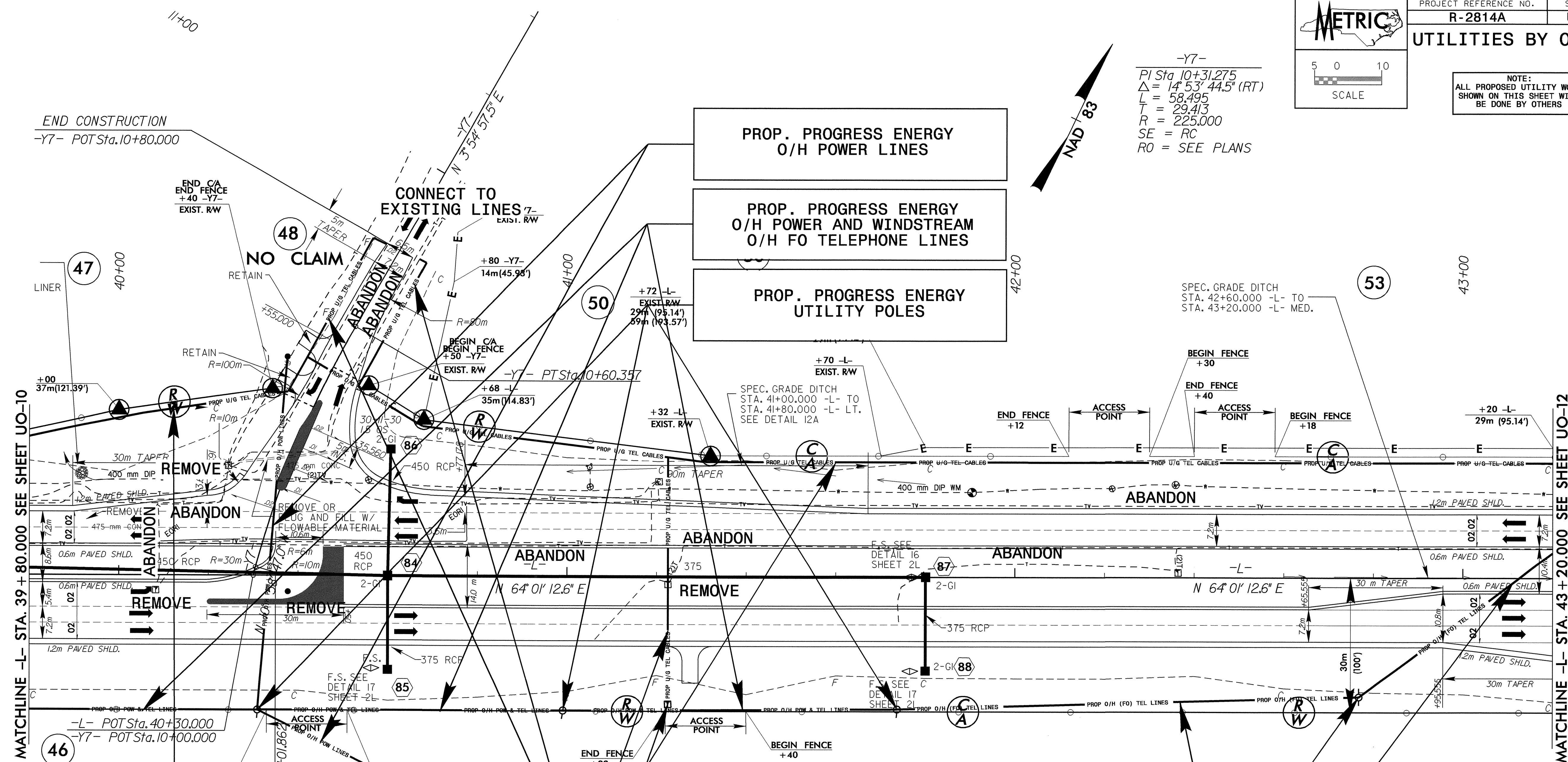
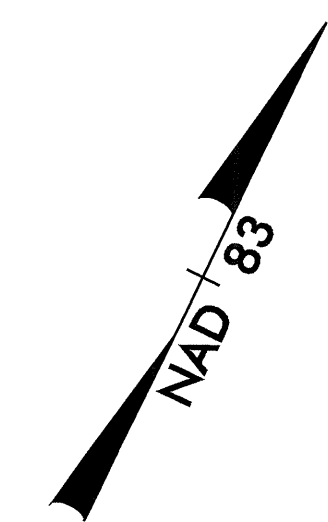
-Y6- PCSta. 10+00.000



UTILITIES BY OTHERS

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

-Y7-
PI Sta 10+31.275
 $\Delta = 14^{\circ} 53' 44.5''$ (RT)
L = 58.495
T = 29.413
R = 225.000
SE = RC
RO = SEE PLANS



PROP. PROGRESS ENERGY
O/H POWER LINES

PROP. PROGRESS ENERGY
O/H POWER AND WINDSTREAM
O/H FO TELEPHONE LINES

PROP. PROGRESS ENERGY
UTILITY POLES

PROP. AT&T U/G
TELEPHONE LINES

PROP. RELOCATE AT&T
TELEPHONE PEDESTALS

PROP. WINDSTREAM
UTILITY POLE

PROP. WINDSTREAM O/H
FIBER OPTIC TELEPHONE LINES

MATCHLINE -L- STA. 39 + 80.000 SEE SHEET U0-10

MATCHLINE -L- STA. 43 + 20.000 SEE SHEET U0-12

END CONSTRUCTION
-Y7- POT Sta. 10+80.000

-L- POT Sta. 40+30.000
-Y7- POT Sta. 10+00.000

SPEC. GRADE DITCH
STA. 42+60.000 -L- TO
STA. 43+20.000 -L- MED.

SPEC. GRADE DITCH
STA. 41+00.000 -L- TO
STA. 41+80.000 -L- LT.
SEE DETAIL 12A

CONNECT TO
EXISTING LINES

CONNECT TO
EXISTING LINES

END CA
END FENCE
+40 -Y7-
EXIST. RW

END FENCE
+33

CONNECT TO
EXISTING LINES

END FENCE
+22

BEGIN FENCE
+40

+70 -L-
EXIST. RW

+32 -L-
EXIST. RW

+68 -L-
35m (114.83')

+80 -Y7-
14m (45.98')

+72 -L-
EXIST. RW
29m (95.14')
59m (193.57')

BEGIN FENCE
+30

END FENCE
+40

ACCESS POINT

BEGIN FENCE
+18

49

47

48

50

53

46

46

85

84

84

84

87

88

87

87

87

87

87

87

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

+00
37m (121.39')

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

40+00

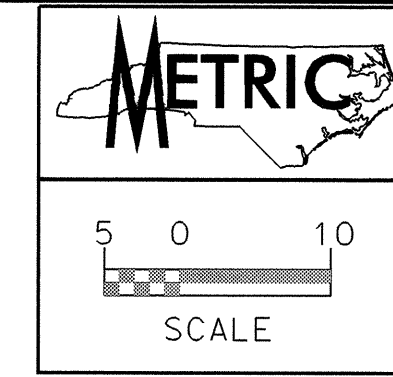
40+00

40+00

40+00

40+00

40+00

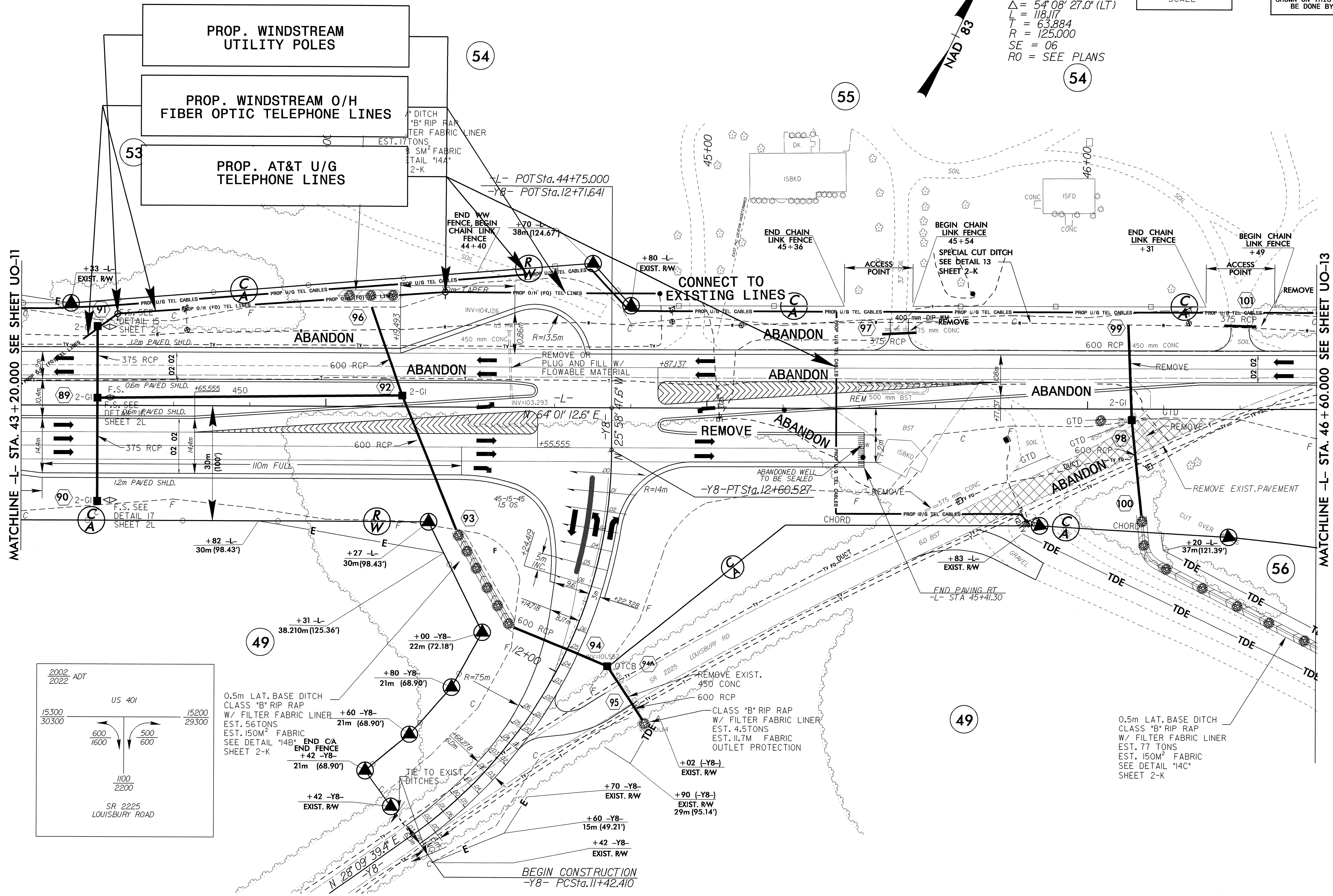
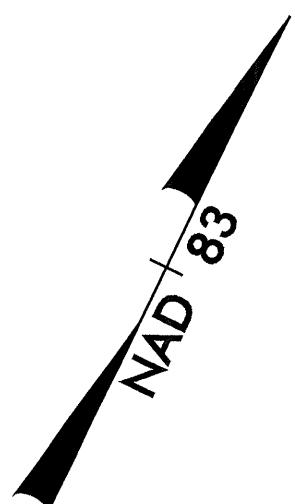


PROJECT REFERENCE NO. R-2814A SHEET NO. UO-12

UTILITIES BY OTHERS

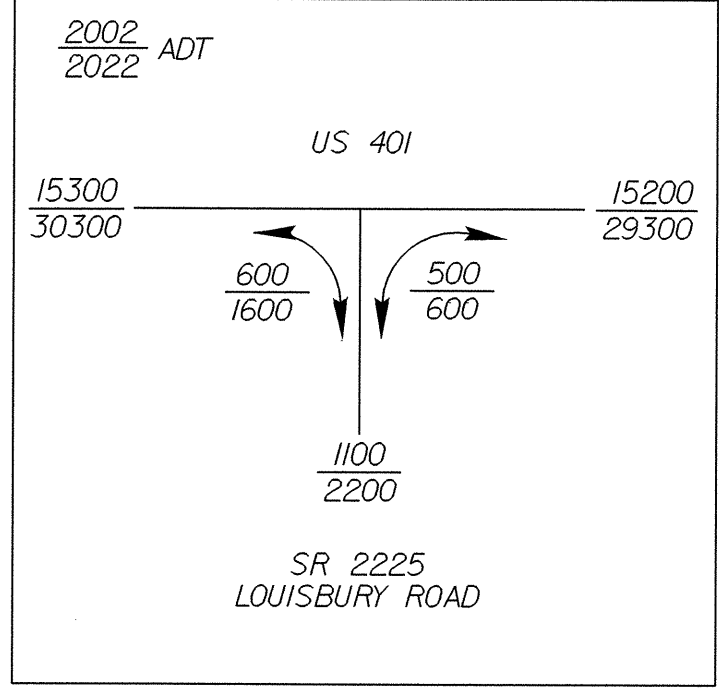
NOTE: ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

-Y8-
PI Sta 12+06.294
Δ = 54° 08' 27.0" (LT)
L = 118.117
T = 63.884
R = 125.000
SE = 06
RO = SEE PLANS



MATCHLINE -L- STA. 43 + 20.000 SEE SHEET UO-11

MATCHLINE -L- STA. 46 + 60.000 SEE SHEET UO-13



0.5m LAT. BASE DITCH
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 56 TONS
EST. 150M² FABRIC
SEE DETAIL "14B"
END CA
END FENCE
+42 -Y8-
21m (68.90')

REMOVE EXIST.
450 CONC
600 RCP
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 4.5 TONS
EST. 11.7M² FABRIC
OUTLET PROTECTION

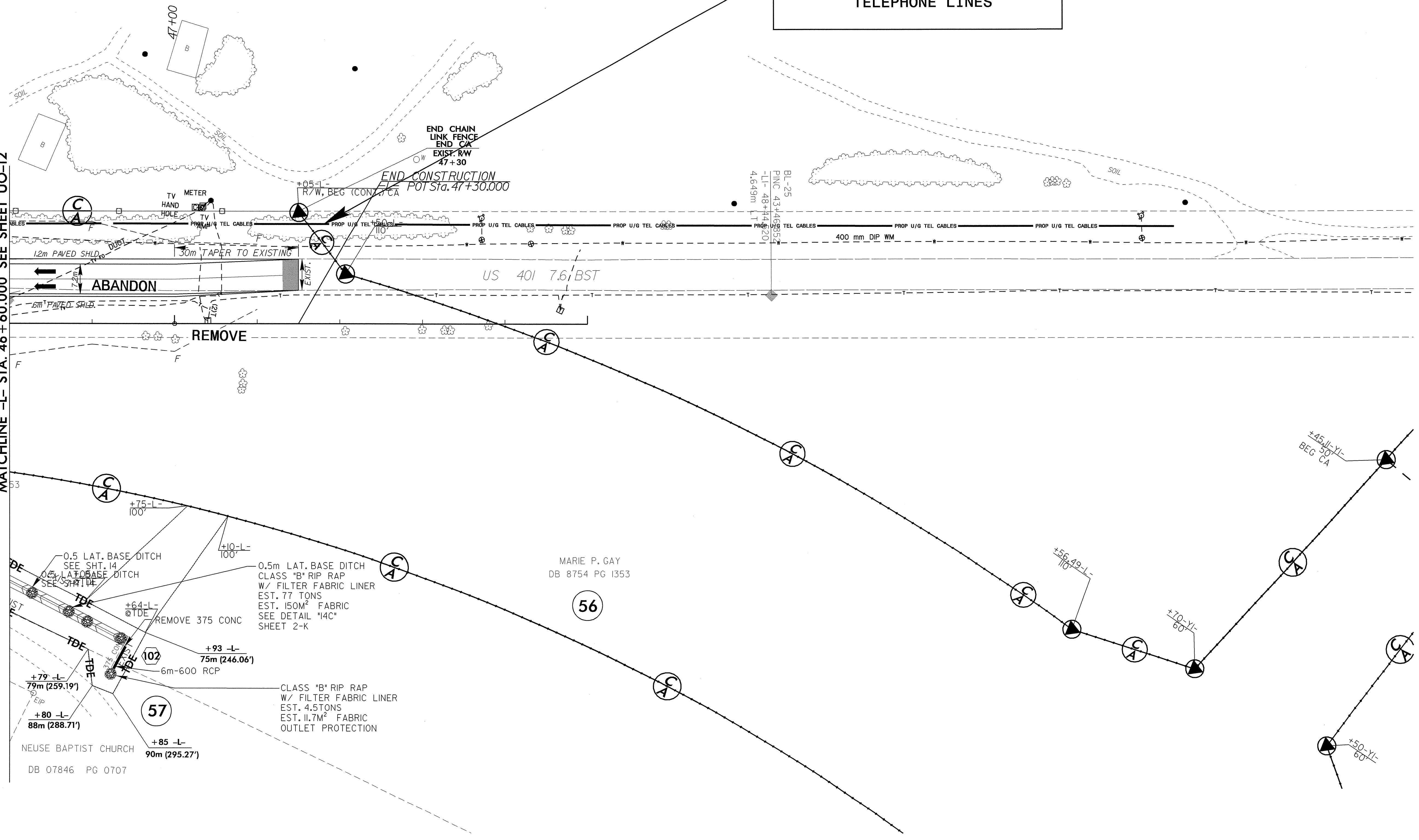
0.5m LAT. BASE DITCH
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 77 TONS
EST. 150M² FABRIC
SEE DETAIL "14C"
SHEET 2-K

BEGIN CONSTRUCTION
-Y8- PCSta. 11+42.410

54
RONALD GAY, ET, AL
DB 1789 PG 32,
DB 12502 PG 2773
DB 1306 PG 110
ESTATE FILE 08-E-1157 AND OTHERS

PROP. AT&T U/G
TELEPHONE LINES

MATCHLINE -L- STA. 46 + 60.000 SEE SHEET UO-12



56
MARIE P. GAY
DB 8754 PG 1353

57
NEUSE BAPTIST CHURCH
DB 07846 PG 0707

0.5m LAT. BASE DITCH
SEE SHT. 14

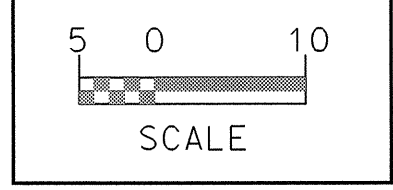
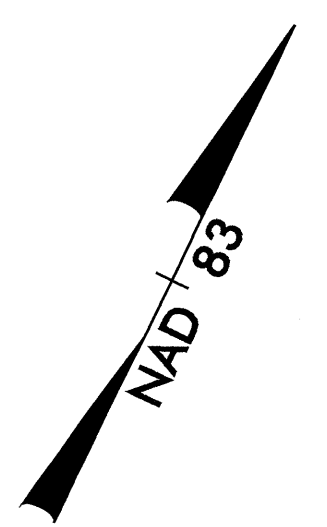
0.5m LAT. BASE DITCH
SEE SHT. 14

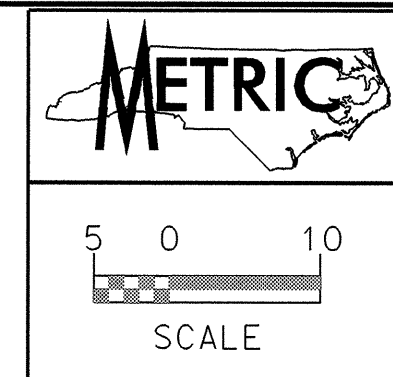
+64-L-
@TDE REMOVE 375 CONC

+93 -L-
75m (246.06')

6m-600 RCP

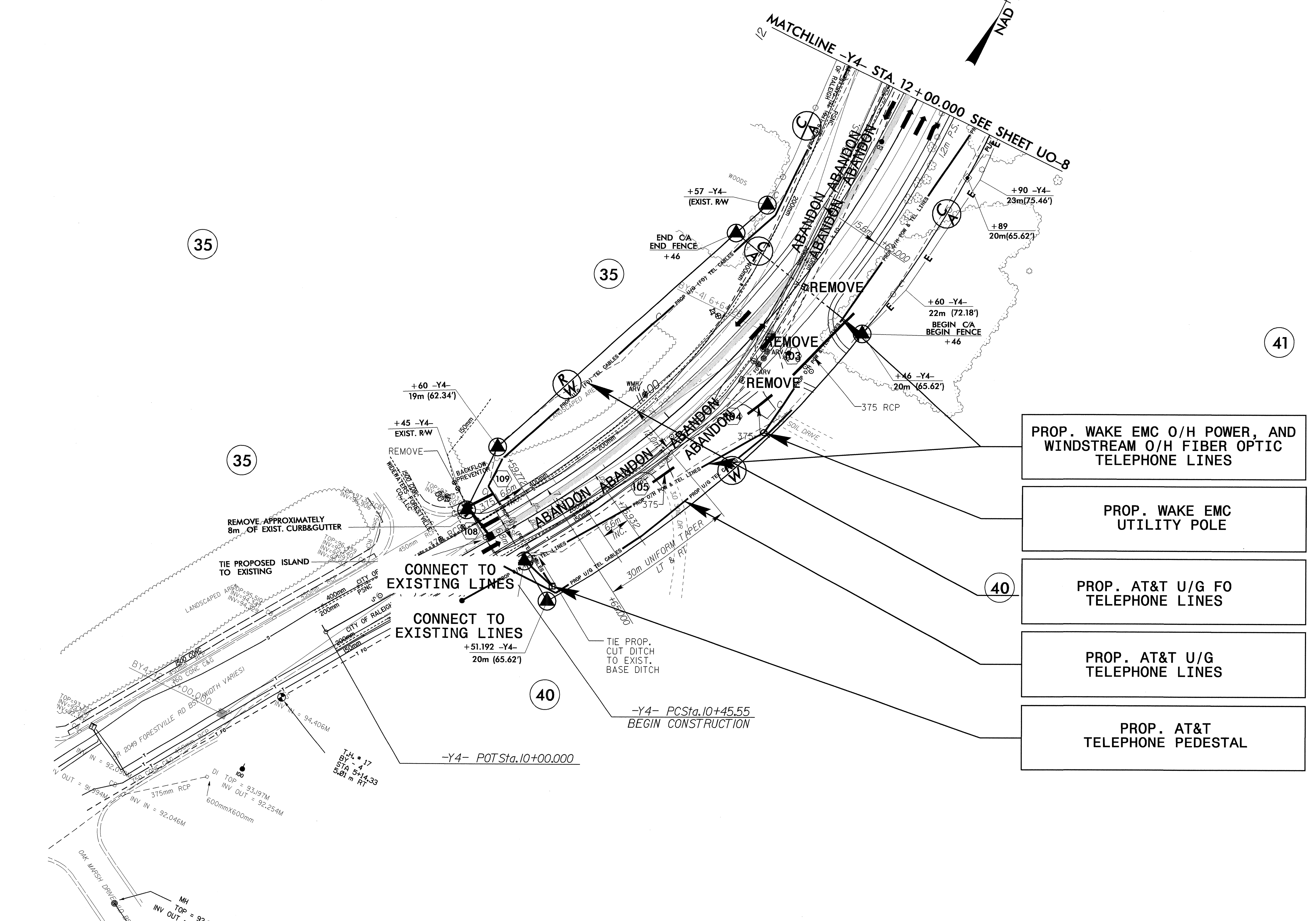
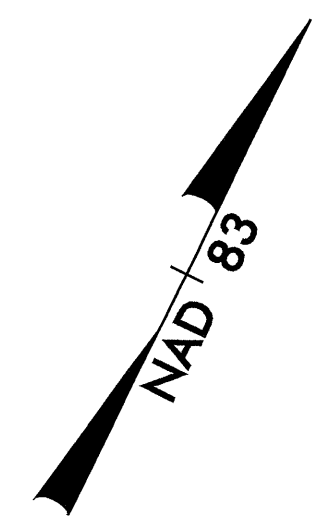
CLASS "B" RIP RAP
W/ FILTER FABRIC LINER
EST. 4.5 TONS
EST. 11.7M² FABRIC
OUTLET PROTECTION





UTILITIES BY OTHERS

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



- PROP. WAKE EMC O/H POWER, AND WINDSTREAM O/H FIBER OPTIC TELEPHONE LINES
- PROP. WAKE EMC UTILITY POLE
- PROP. AT&T U/G FO TELEPHONE LINES
- PROP. AT&T U/G TELEPHONE LINES
- PROP. AT&T TELEPHONE PEDESTAL