

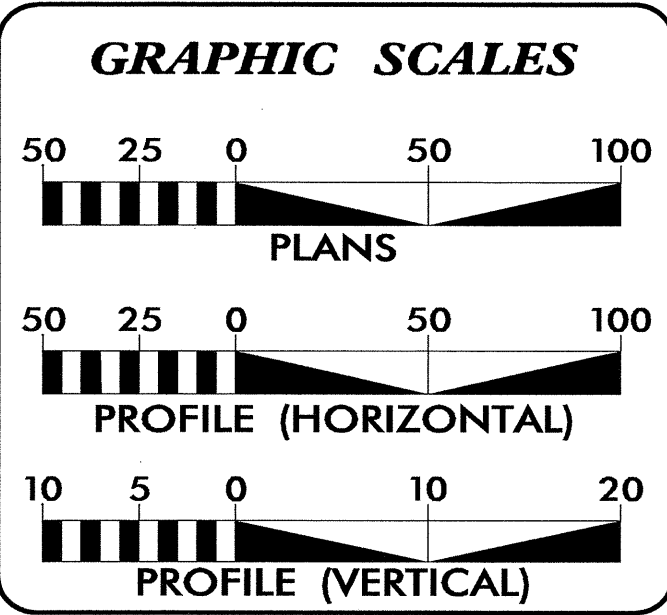
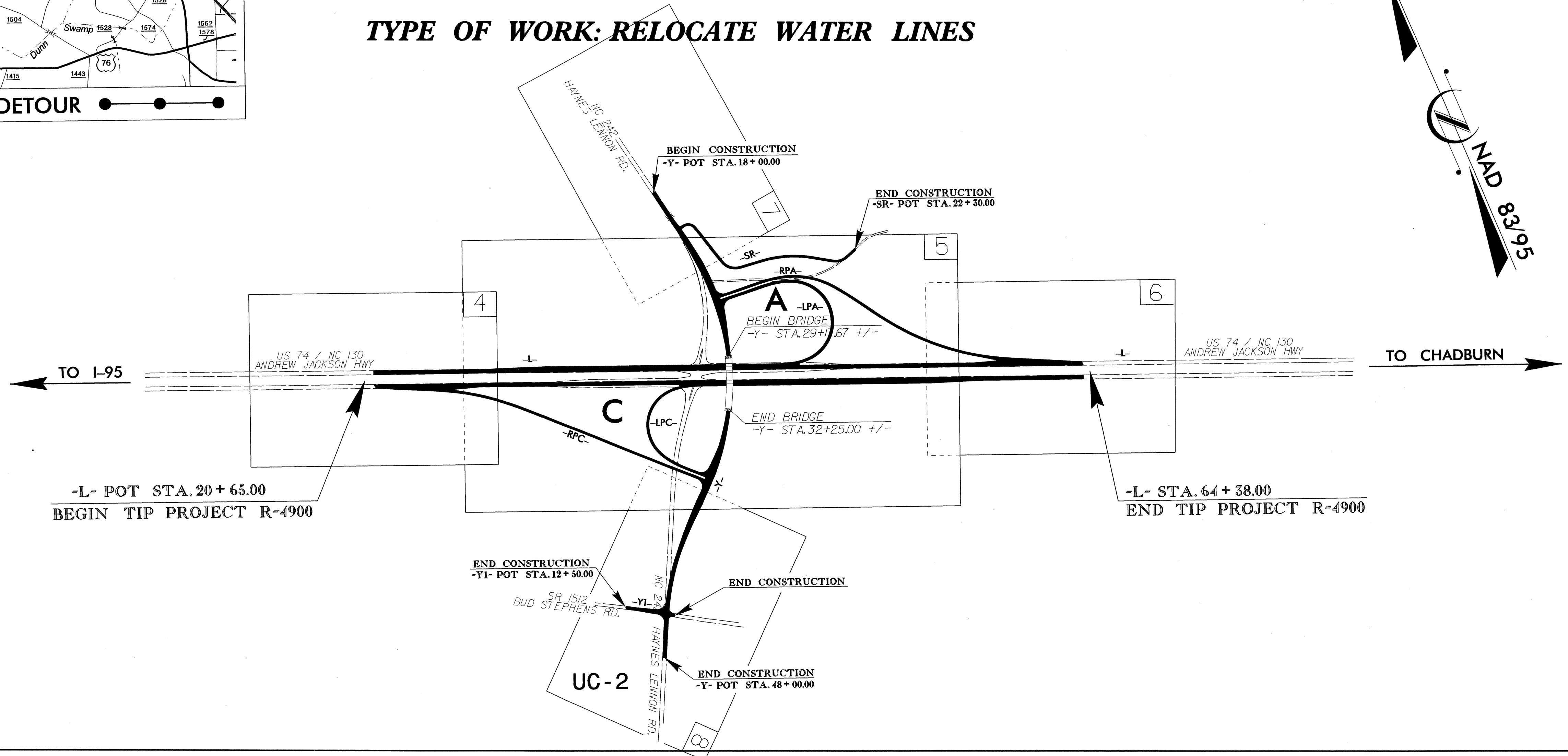
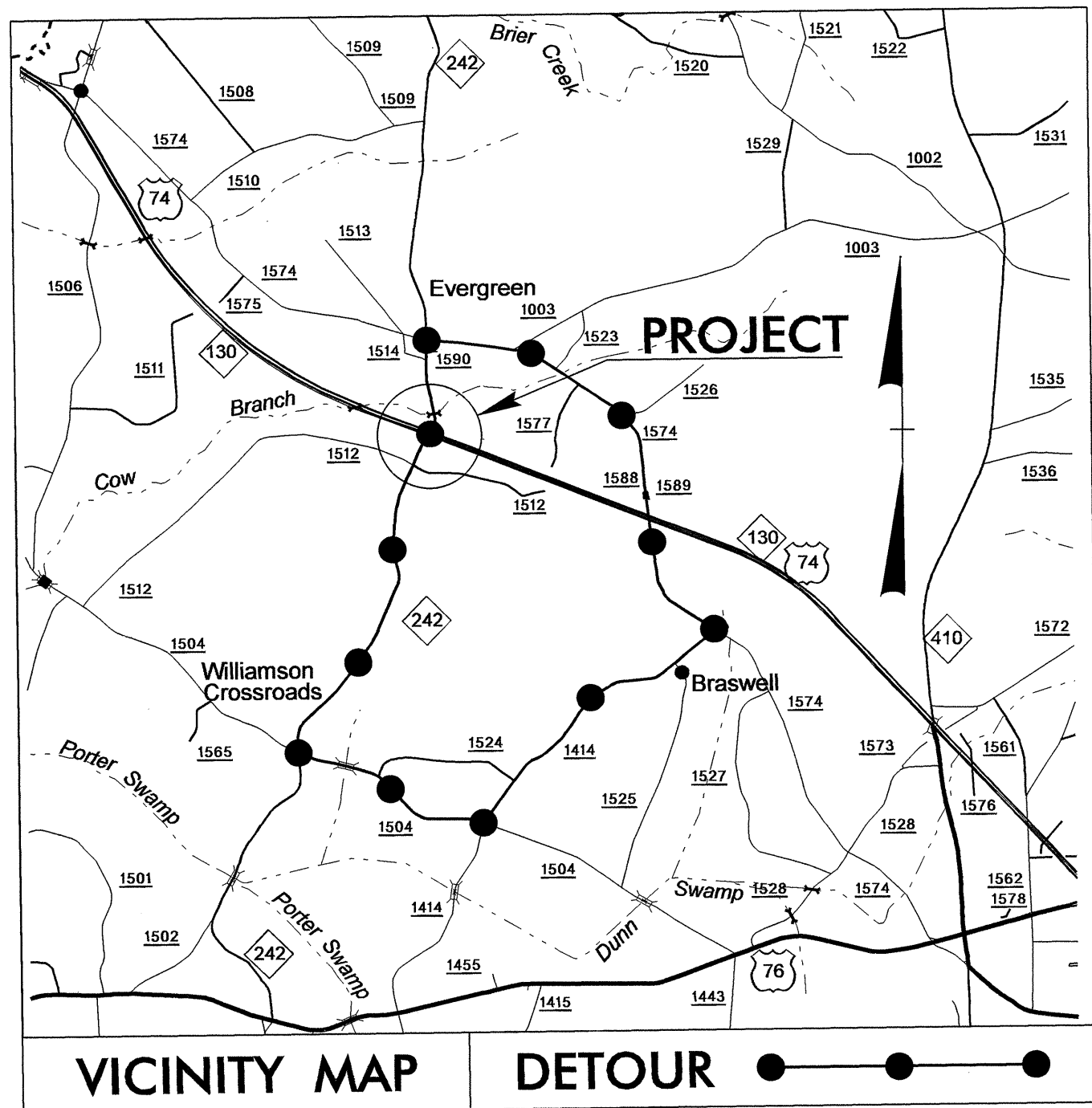
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**UTILITY CONSTRUCTION PLANS  
COLUMBUS COUNTY**

LOCATION: NEW INTERCHANGE US 74 - NC 130 / NC 242

TYPE OF WORK: RELOCATE WATER LINES

TIP PROJECT: R-4900

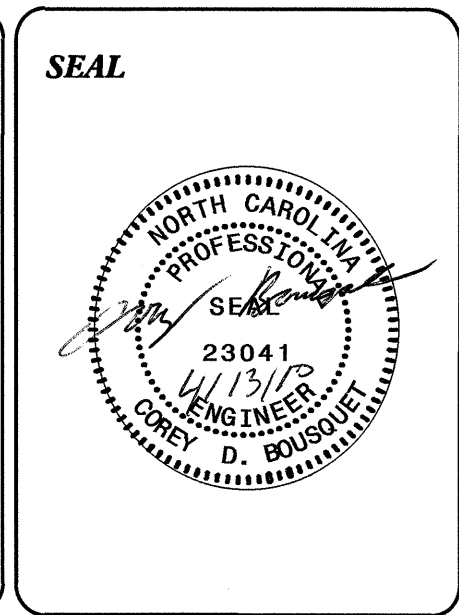


**INDEX OF SHEETS**

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

**WATER AND SEWER OWNERS ON PROJECT**

(1) WATER: COLUMBUS COUNTY WATER

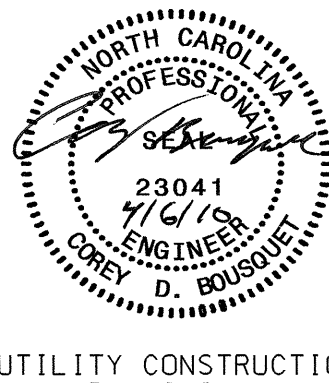


PREPARED IN THE OFFICE OF:  
**DIVISION OF HIGHWAYS  
UTILITIES ENGINEERING  
SECTION**

1591 MAIL SERVICES CENTER  
RALEIGH, NC 27609-1591  
PHONE (919) 250-4128  
FAX (919) 250-4119

**Roger Worthington, P.E.** UTILITIES SECTION ENGINEER  
**Corey Bousquet, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER  
**Kifah Kamil** UTILITIES PROJECT DESIGNER

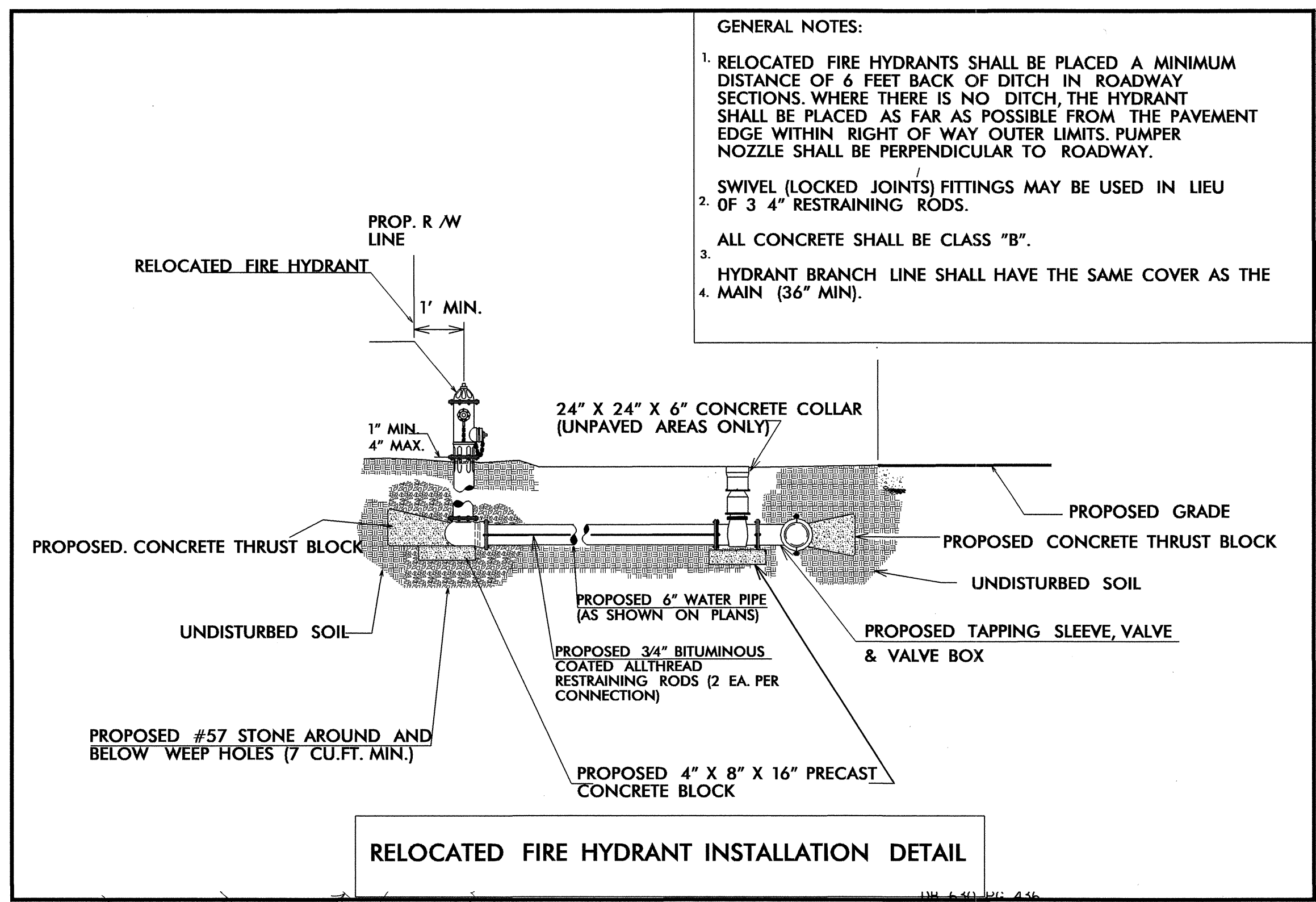
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-Y- CURVE DATA

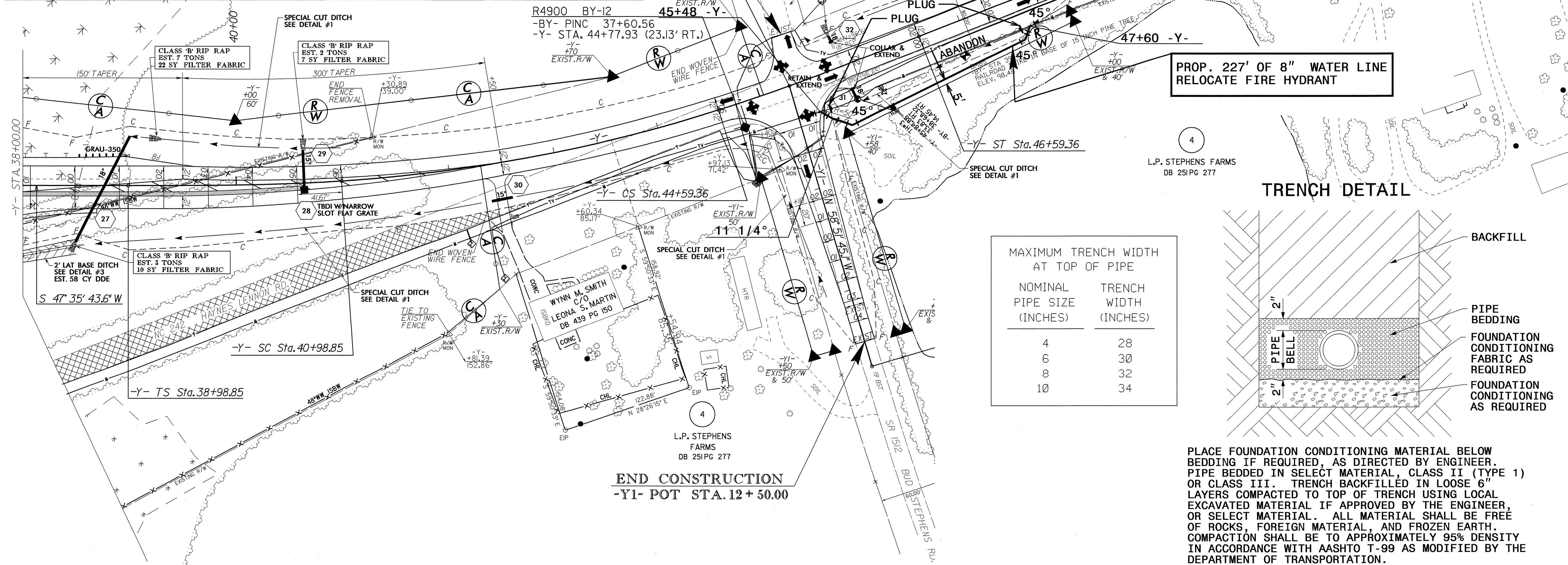
PIs Sta 40+32.21	PI Sta 42+79.98	PIs Sta 45+26.05
$\theta_s = 3^\circ 49' 11.0''$	$\Delta = 13^\circ 46' 13.7''$ (LT)	$\theta_s = 3^\circ 49' 11.0''$
$L_s = 200.00'$	$D = 3^\circ 49' 11.0''$	$L_s = 200.00'$
$LT = 133.36'$	$L = 360.51'$	$LT = 133.36'$
$ST = 66.69'$	$T = 181.3'$	$ST = 66.69'$
	$R = 1,500.00'$	
	$SE = .06$	

- GENERAL NOTES:
1. RELOCATED FIRE HYDRANTS SHALL BE PLACED A MINIMUM DISTANCE OF 6 FEET BACK OF DITCH IN ROADWAY SECTIONS. WHERE THERE IS NO DITCH, THE HYDRANT SHALL BE PLACED AS FAR AS POSSIBLE FROM THE PAVEMENT EDGE WITHIN RIGHT OF WAY OUTER LIMITS. PUMPER NOZZLE SHALL BE PERPENDICULAR TO ROADWAY.
  2. SWIVEL (LOCKED JOINTS) FITTINGS MAY BE USED IN LIEU OF 3 4" RESTRAINING RODS.
  3. ALL CONCRETE SHALL BE CLASS "B".
  4. HYDRANT BRANCH LINE SHALL HAVE THE SAME COVER AS THE MAIN (36" MIN.).

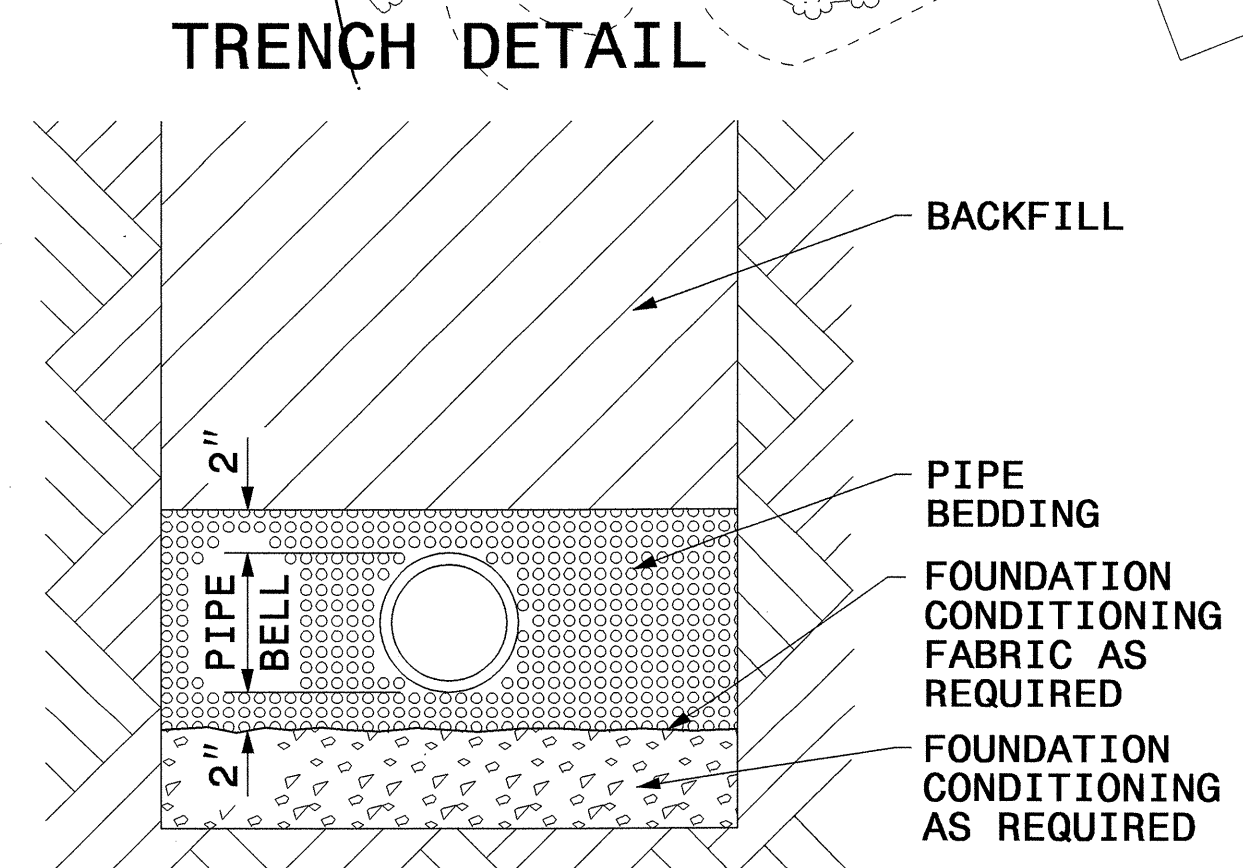


END CONSTRUCTION  
 -Y- POT STA. 48+00.00

R4900 BY-13  
 -BY- POT 44+40.02  
 -Y- STA. 51+56.17 (15.85' RT.)  
 -Y- POT Sta. 51+75.49



PROP. 227' OF 8" WATER LINE  
 RELOCATE FIRE HYDRANT



MAXIMUM TRENCH WIDTH AT TOP OF PIPE

NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28
6	30
8	32
10	34

PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS II (TYPE 1) OR CLASS III. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROXIMATELY 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

END CONSTRUCTION  
 -Y1- POT STA. 12+50.00

5/14/99  
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09/08/99

TIP PROJECT: R-4900

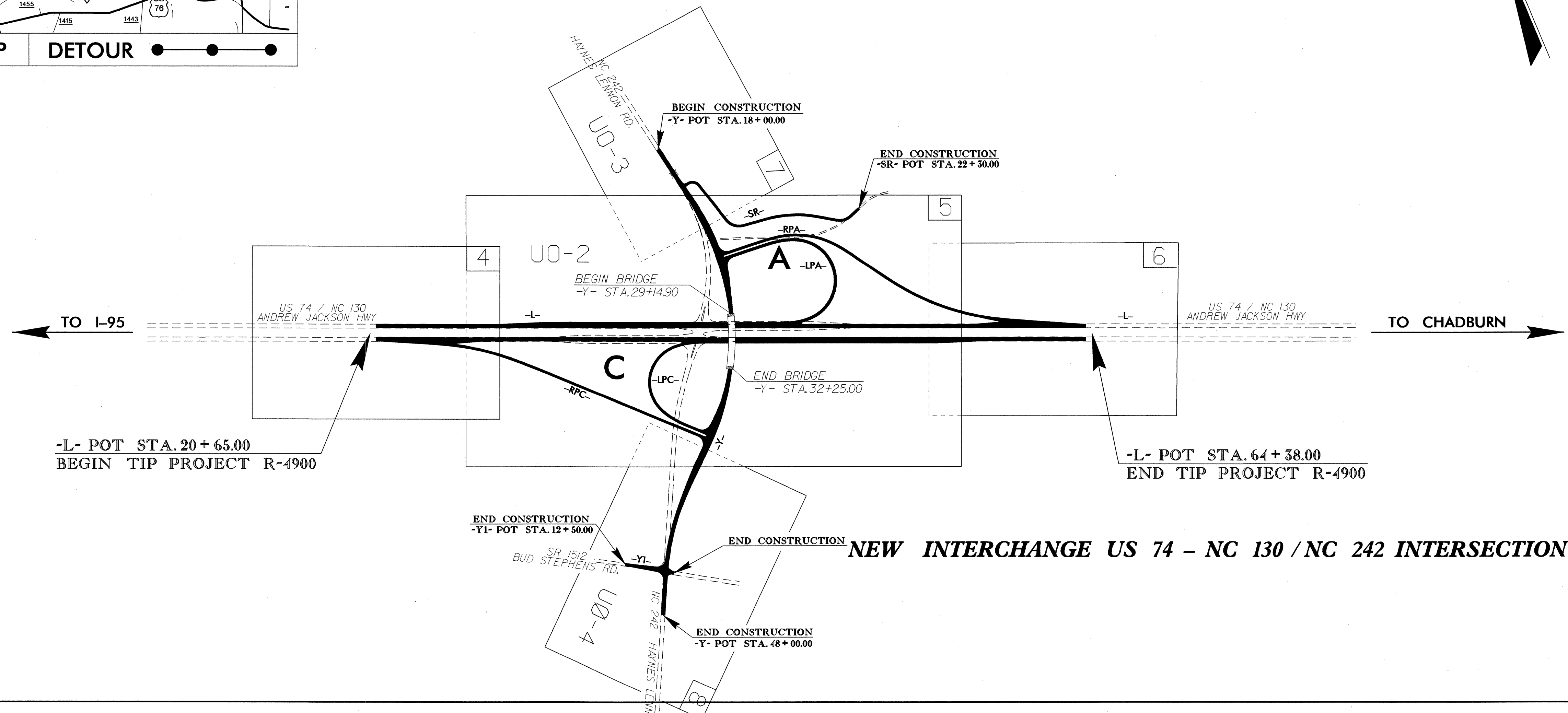
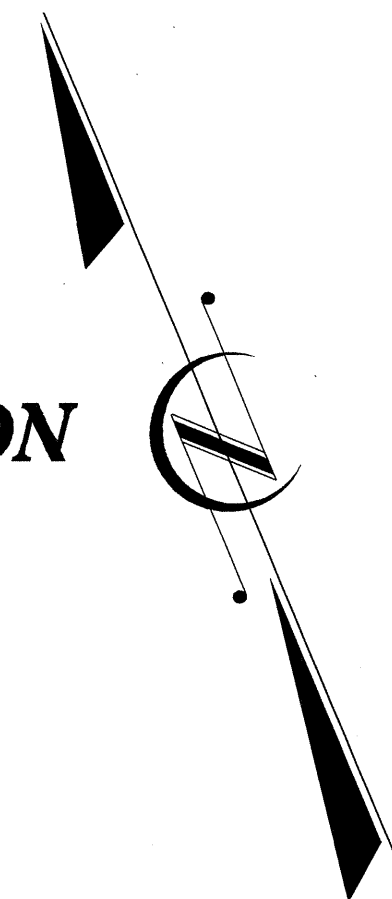
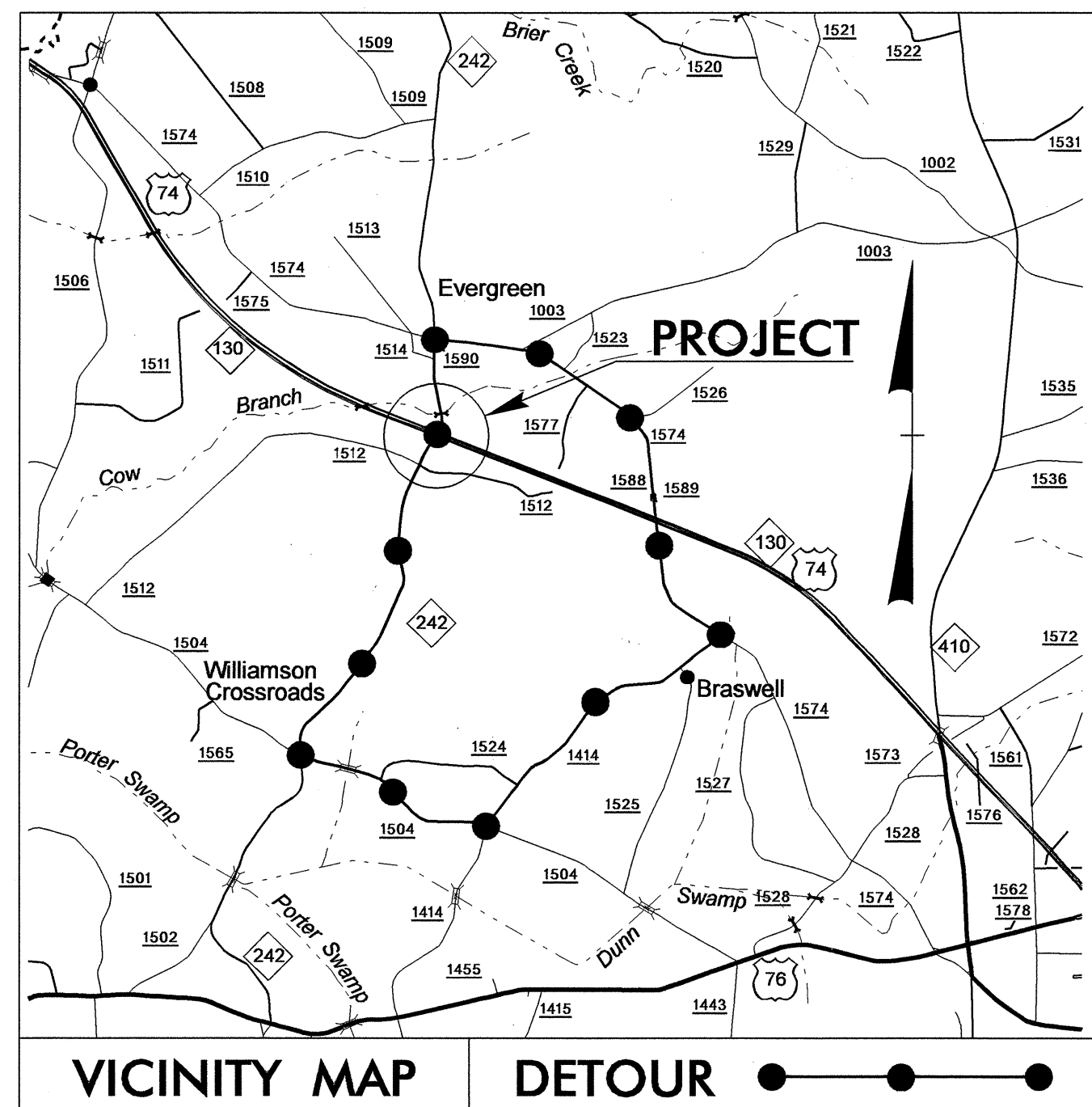
T.I.P. NO.	SHEET NO.
R-4900	UO-1

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**UTILITIES BY OTHERS PLANS  
COLUMBUS COUNTY**

LOCATION: NEW INTERCHANGE US 74 - NC 130 / NC 242 INTERSECTION

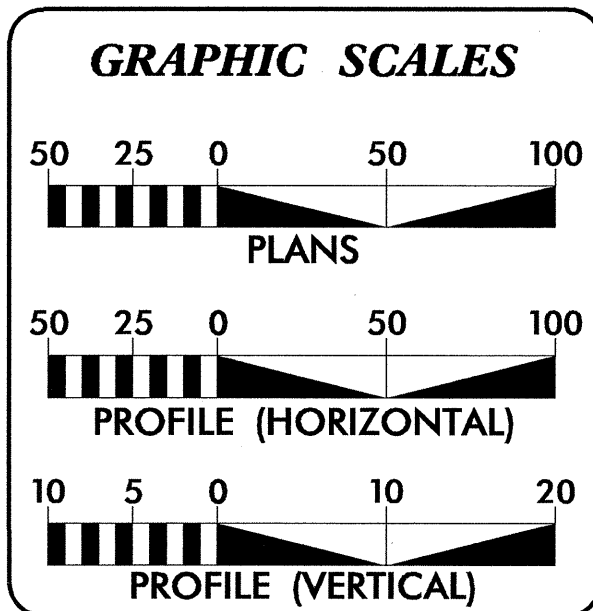
TYPE OF WORK: UTILITIES RELOCATION



-L- POT STA. 20+65.00  
BEGIN TIP PROJECT R-4900

-L- POT STA. 64+58.00  
END TIP PROJECT R-4900

NEW INTERCHANGE US 74 - NC 130 / NC 242 INTERSECTION

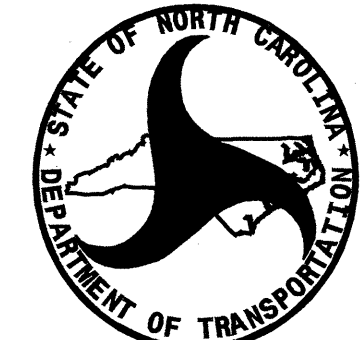


**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2 THRU UO-4	UTILITY BY OTHERS PLAN SHEETS

**UTILITY OWNERS ON PROJECT**

- (1) CATV: TIME WARNER CABLE
- (2) TEL: EMBARQ
- (3) POWER: BRUNSWICK - EMC



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

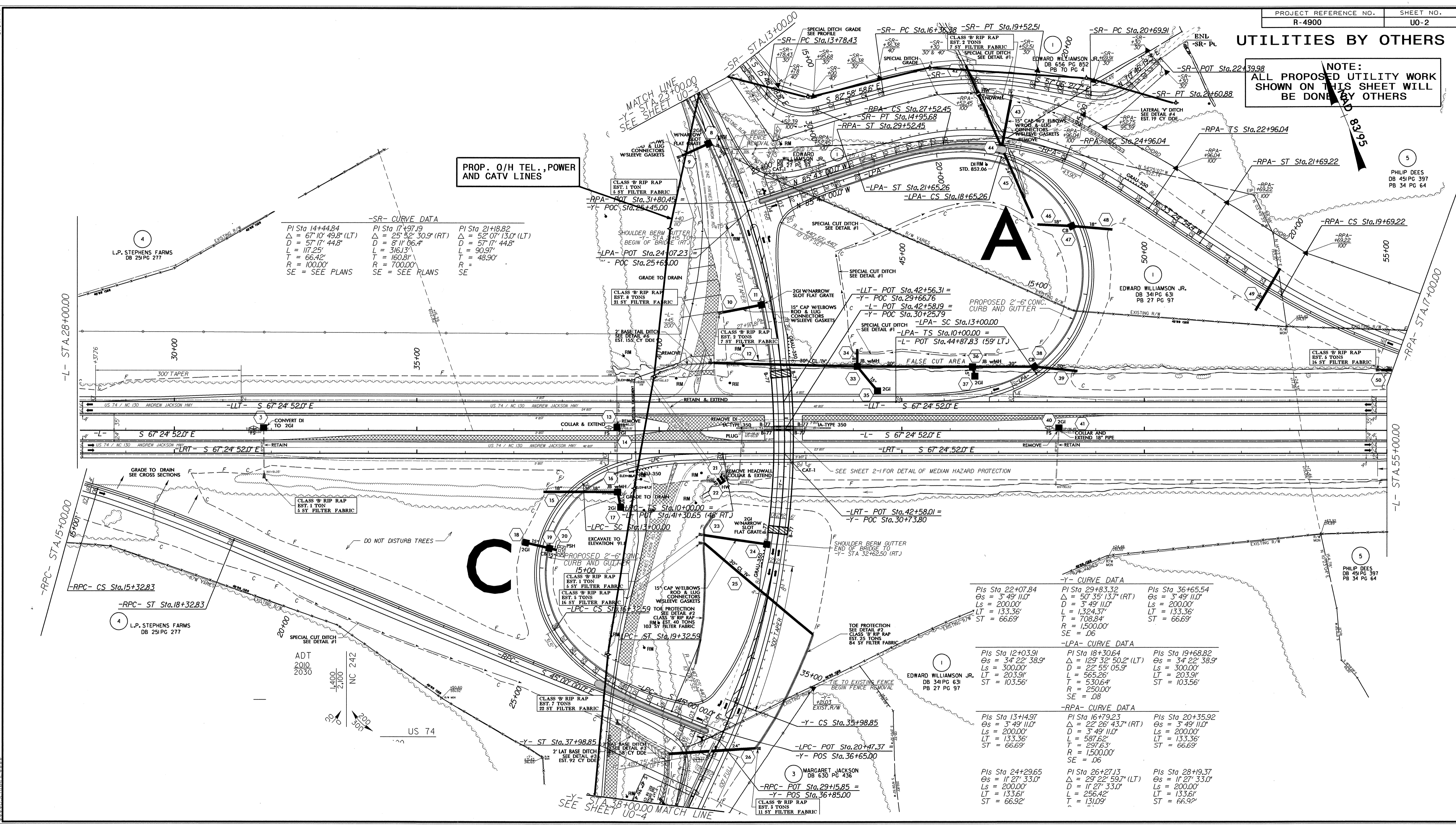
1591 MAIL SERVICES CENTER  
RALEIGH NC 27699-1591  
PHONE (919) 250-4128  
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**Roger Worthington, P.E.** UTILITIES SECTION ENGINEER  
**Corey Bousquet, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER  
**Kifah Kamil** UTILITIES PROJECT DESIGNER

05-APR-2010 17:28  
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\$\$\$\$\$USERNAME\$\$\$\$\$

UTILITIES BY OTHERS

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



PROP. O/H TEL., POWER  
AND CATV LINES

SR CURVE DATA

PI Sta 14+44.84 Δ = 67°10'49.8" (LT) D = 57'17"44.8" L = 117.25' T = 66.42' R = 100.00'	PI Sta 17+97.19 Δ = 25°52'30.9" (RT) D = 8'11"86.4" L = 316.13' T = 160.81' R = 700.00'	PI Sta 21+18.82 Δ = 52°07'13.0" (LT) D = 57'17"44.8" L = 90.97' T = 48.90' R = 48.90'
--	--	--

SE = SEE PLANS

Y CURVE DATA

Pls Sta 22+07.84 Os = 3'49'11.0" Ls = 200.00' LT = 133.36' T = 708.84' R = 1,500.00' SE = .06	Pls Sta 29+83.32 Δ = 50°35'13.7" (RT) D = 3'49'11.0" L = 1,324.37' T = 530.64' R = 2,500.00' SE = .08	Pls Sta 36+65.54 Os = 3'49'11.0" Ls = 200.00' LT = 133.36' T = 708.84' R = 1,500.00' SE = .06
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LPA CURVE DATA

Pls Sta 12+03.91 Os = 3'42'38.9" Ls = 300.00' LT = 203.91' T = 103.56'	Pls Sta 18+30.64 Δ = 129°32'50.2" (LT) D = 22°55'05.9" L = 565.26' T = 530.64' R = 2,500.00' SE = .08	Pls Sta 19+68.82 Os = 3'42'38.9" Ls = 300.00' LT = 203.91' T = 103.56'
--	---	--

RPA CURVE DATA

Pls Sta 13+14.97 Os = 3'49'11.0" Ls = 200.00' LT = 133.36' T = 66.69'	Pls Sta 16+79.23 Δ = 22°26'43.7" (RT) D = 3'49'11.0" L = 587.62' T = 297.63' R = 1,500.00' SE = .06	Pls Sta 20+35.92 Os = 3'49'11.0" Ls = 200.00' LT = 133.36' T = 66.69'
---	---	---

Pls Sta 24+29.65  
Os = 1'27'33.0"  
Ls = 200.00'  
LT = 133.61'  
T = 66.92'

Pls Sta 26+27.13  
Δ = 29°22'59.7" (LT)  
D = 1'27'33.0"  
L = 256.42'  
T = 131.09'

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**UTILITIES BY OTHERS**

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

-Y- CURVE DATA

Pls Sta 40+32.21 θs = 3° 49' 11.0" Ls = 200.00' LT = 133.36' ST = 66.69'	Pls Sta 42+79.98 Δ = 13° 46' 13.7" (LT) D = 3° 49' 11.0" L = 360.51' T = 181.13' R = 1,500.00' SE = .06	Pls Sta 45+26.05 θs = 3° 49' 11.0" Ls = 200.00' LT = 133.36' ST = 66.69'
--	---	--

R4900 BY-13  
-BY- POT 44+40.02  
-Y- STA. 51+56.17 (15.85' RT.)  
-Y- POT Sta. 51+75.49

**END CONSTRUCTION**  
-Y- POT STA. 48+00.00

**END CONSTRUCTION**

-YI- POT Sta. 10+00.00 =  
-Y- POS Sta. 45+29.51

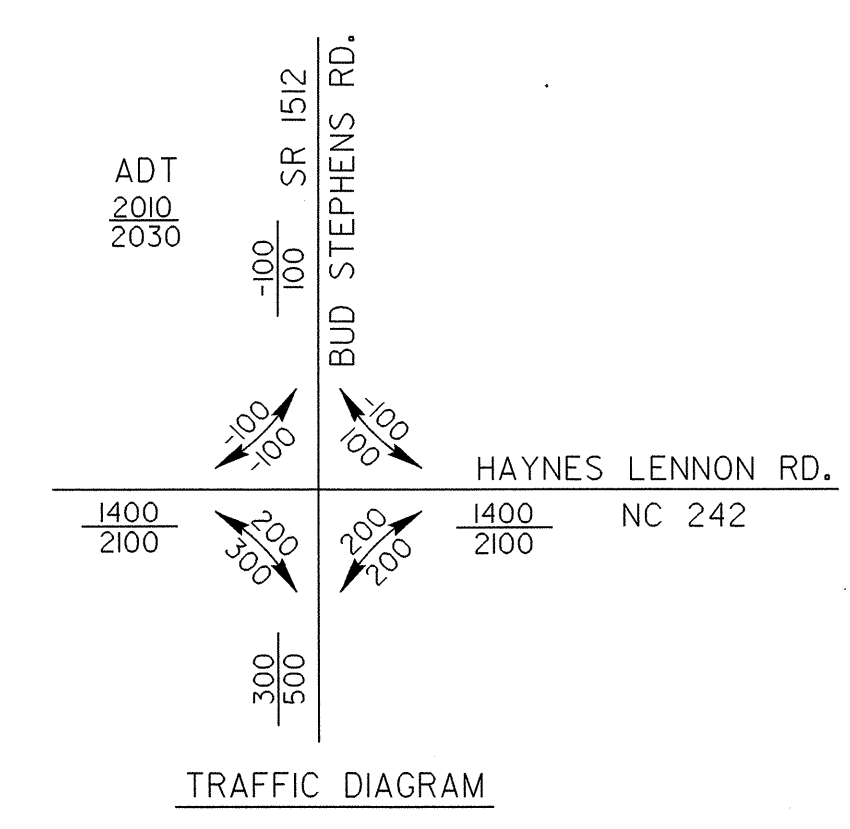
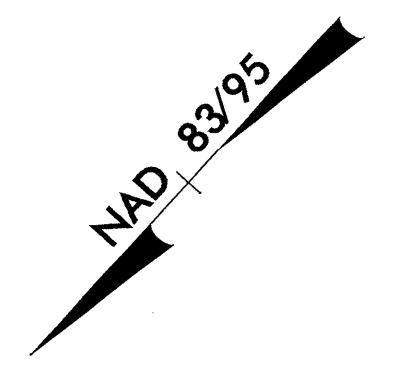
R4900 BY-12  
-BY- PINC 37+60.56  
-Y- STA. 44+77.93 (23.13' RT.)

-Y- CS Sta. 44+59.36

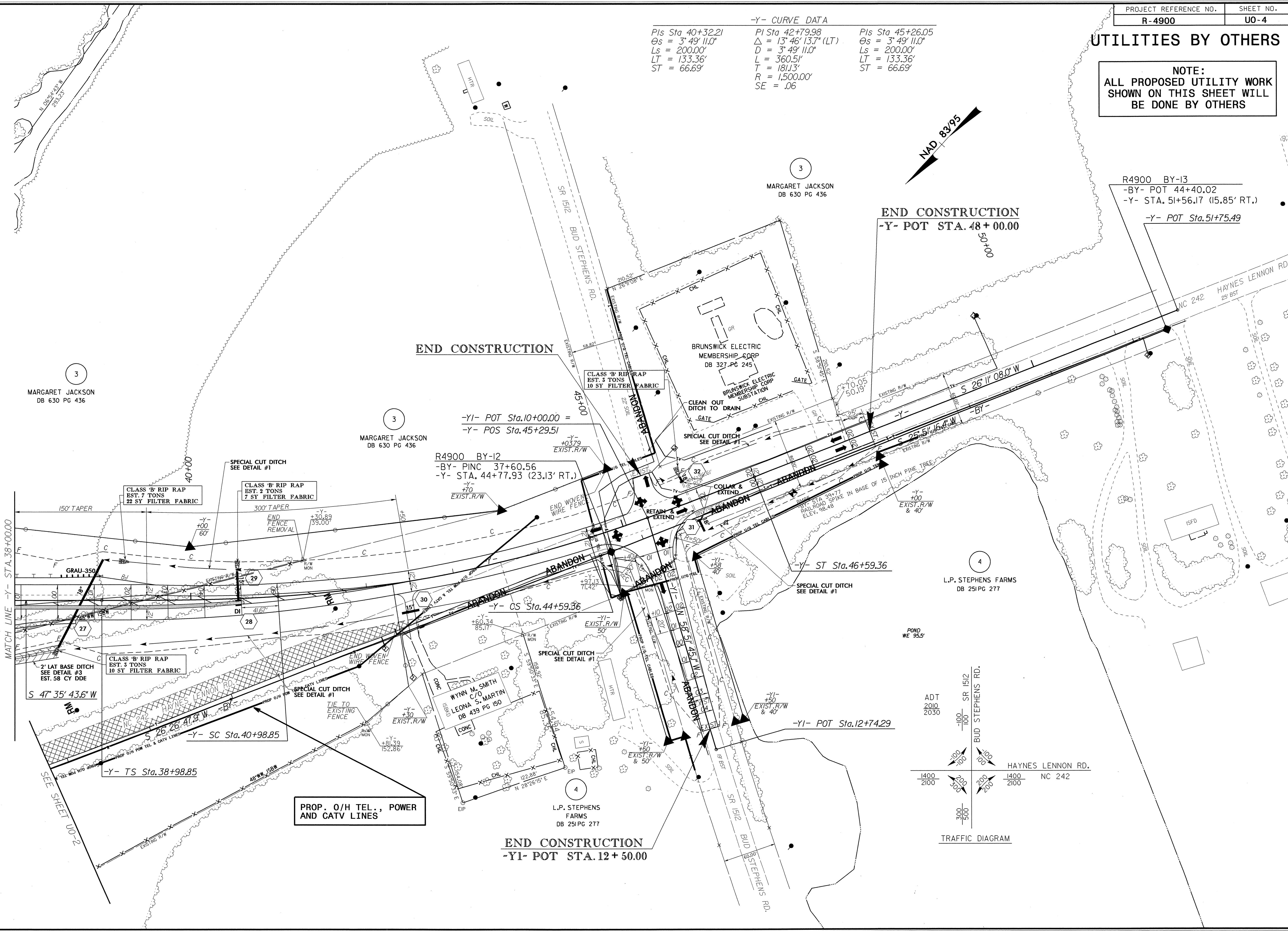
-Y- ST Sta. 46+59.36

-YI- POT Sta. 12+74.29

**END CONSTRUCTION**  
-YI- POT STA. 12+50.00



05-MAY-2010 10:14 R:\UTL\4900\Ut\_8\_UO4\_psh.dgn



MATCH LINE -Y- STA. 38+00.00

SEE SHEET UO-2

PROP. O/H TEL., POWER AND CATV LINES