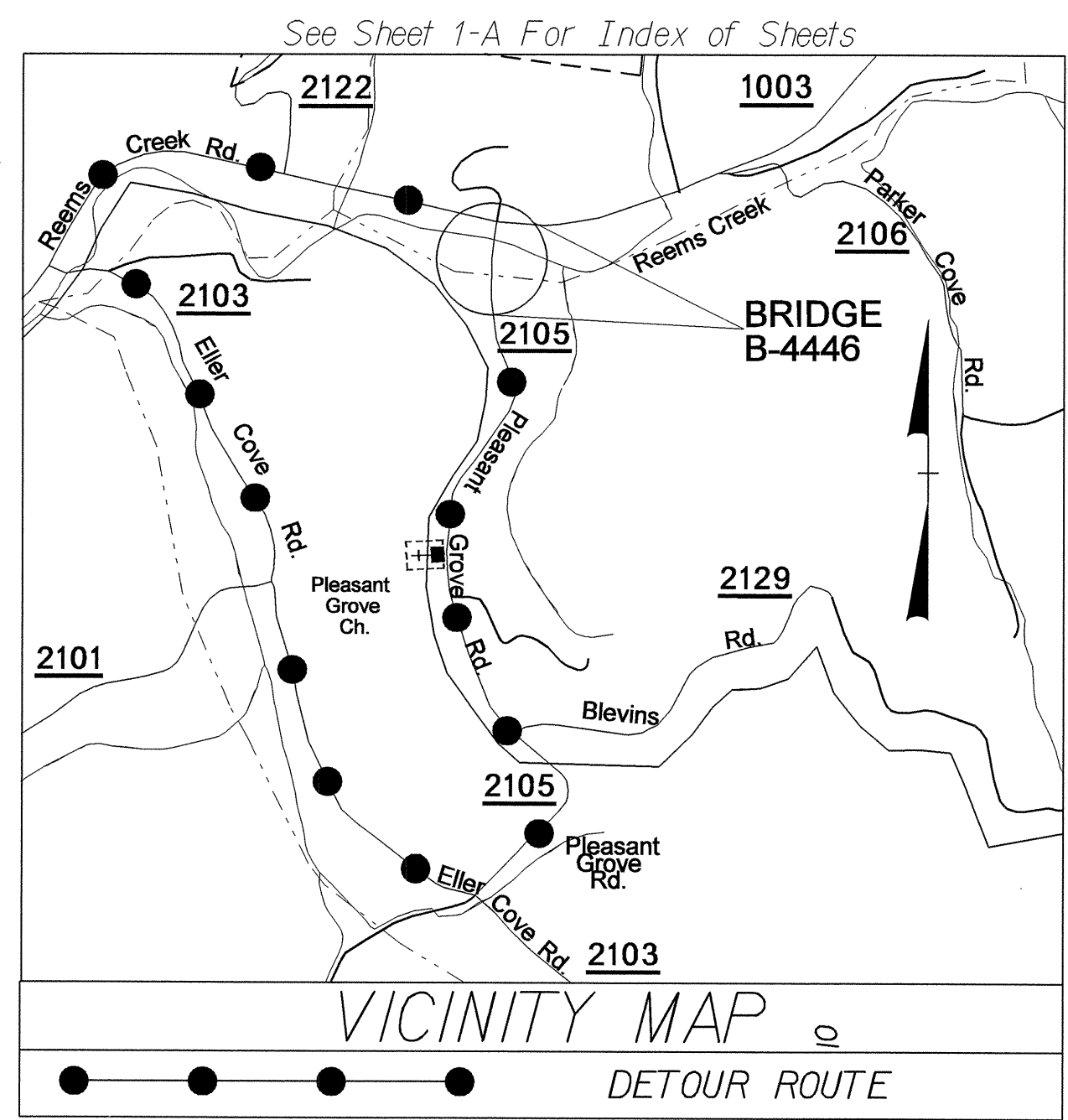


09/08/99

T.I.P. NO.	SHEET NO.
B-4446	UC-1

TIP PROJECT: B-4446

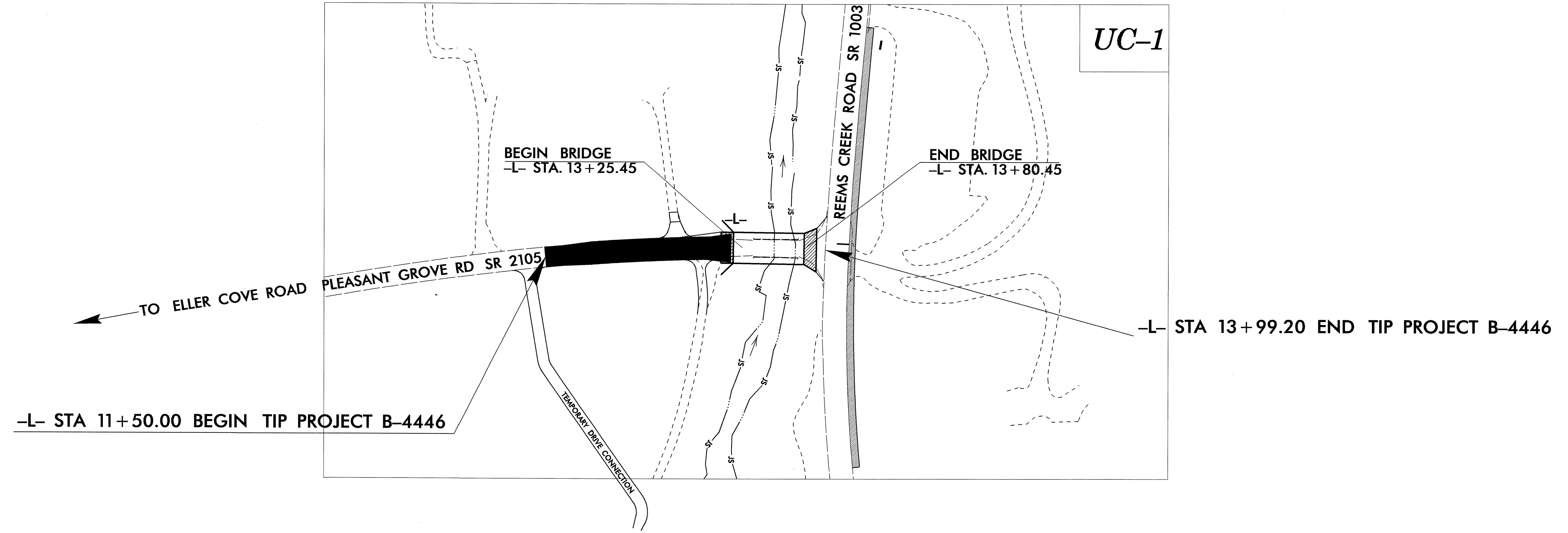
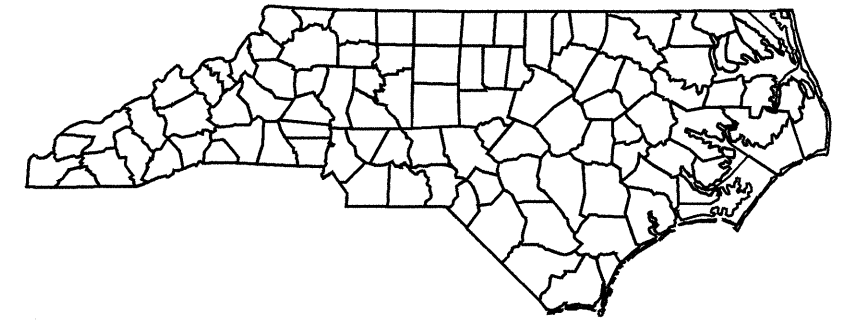


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

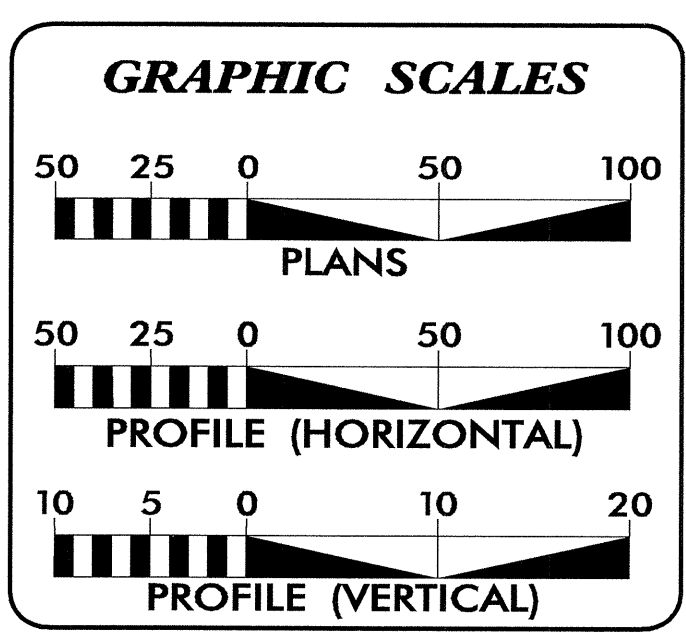
**UTILITY CONSTRUCTION PLANS
BUNCOMBE COUNTY**

LOCATION: BRIDGE NO. 227 OVER REEMS CREEK

TYPE OF WORK: UTILITY RELOCATION



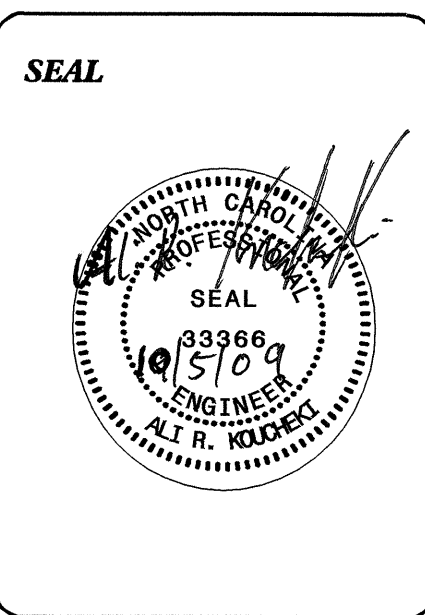
ALL 8" PIPE SHALL BE DI, PC 350



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

WATER AND SEWER OWNERS ON PROJECT

(1) WATER TOWN OF WEAVERVILLE



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
Carl Barclay, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
Ali Kouchehi, P.E. UTILITIES PROJECT DESIGNER

05-OCT-2009 10:00
F:\Utilities\rdy\ut\pro\1\4446_rdy_tsh_uc-1.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

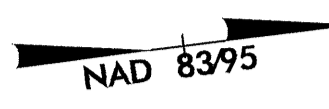
5/14/99

NOTE: THE LOCATION OF THE TIE IN POINTS, FIRE HYDRANT RELOCATION, AND 8" VALVE MAY VARY DEPENDING ON TRENCHLESS INSTALLATION METHOD SELECTED.

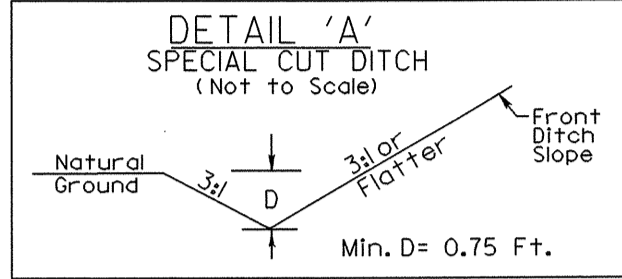
-L- CURVE DATA
 PI Sta. 12+27.51
 $\Delta = 1^\circ 13' 28.0" (RT)$
 $D = 3^\circ 10' 59.2"$
 $L = 352.63'$
 $T = 176.88'$
 $R = 1,800.00'$

NOTE: MIN COVER MUST BE 3' BELOW THE CREEK BED

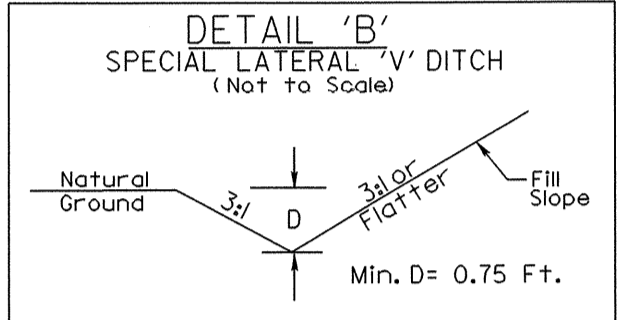
PROJECT REFERENCE NO.	SHEET NO.
B-4446	UC-2
DESIGNED BY: ARK	
DRAWN BY: ARK	
CHECKED BY: CAB	
APPROVED BY: CAB	
REVISER:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	



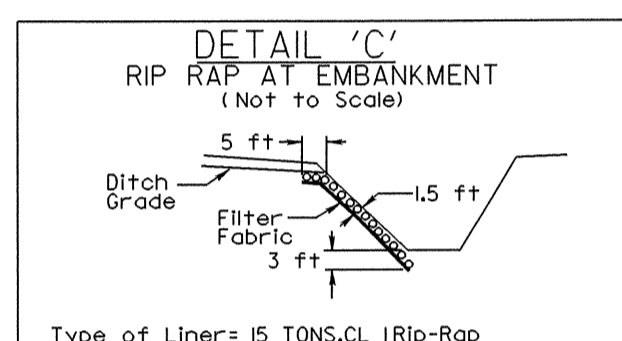
UTILITY CONSTRUCTION



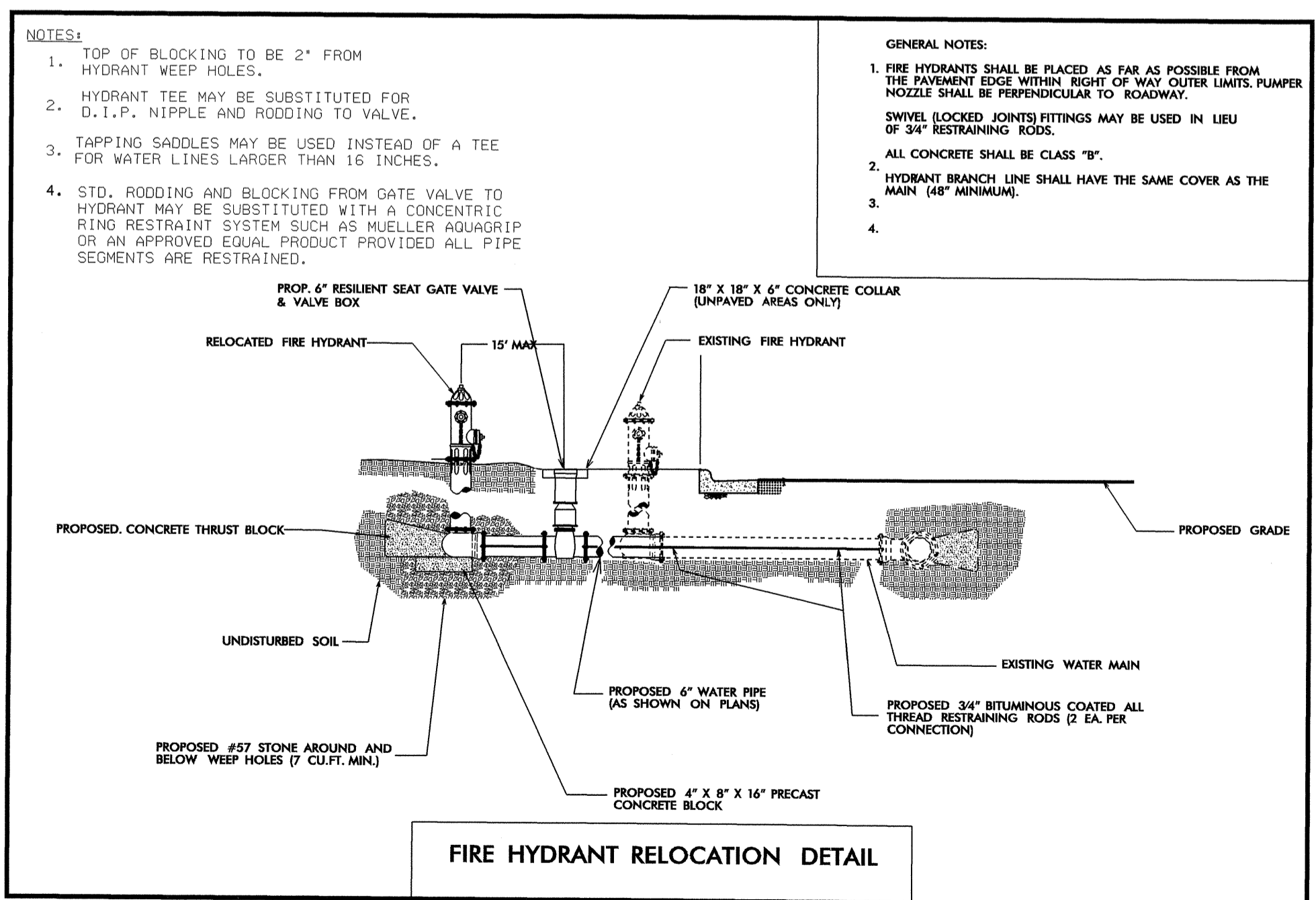
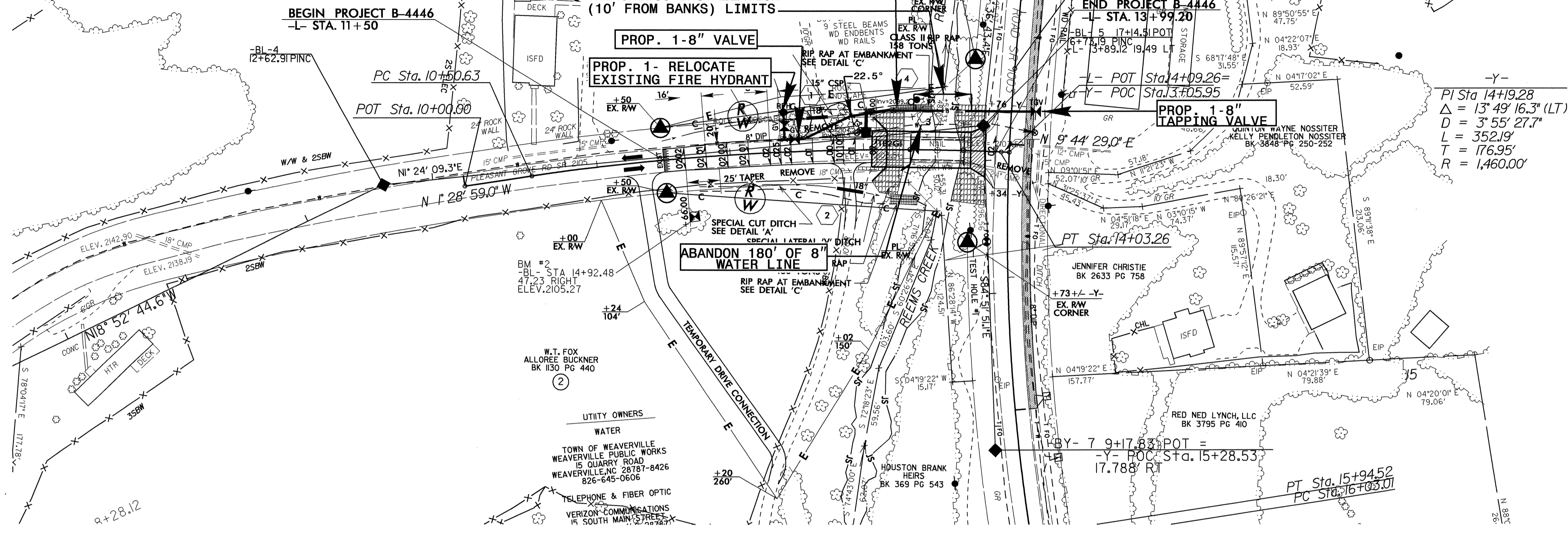
FROM STA. 11+50 TO STA. 12+75 LT
 FROM STA. 11+75 TO STA. 13+00 RT



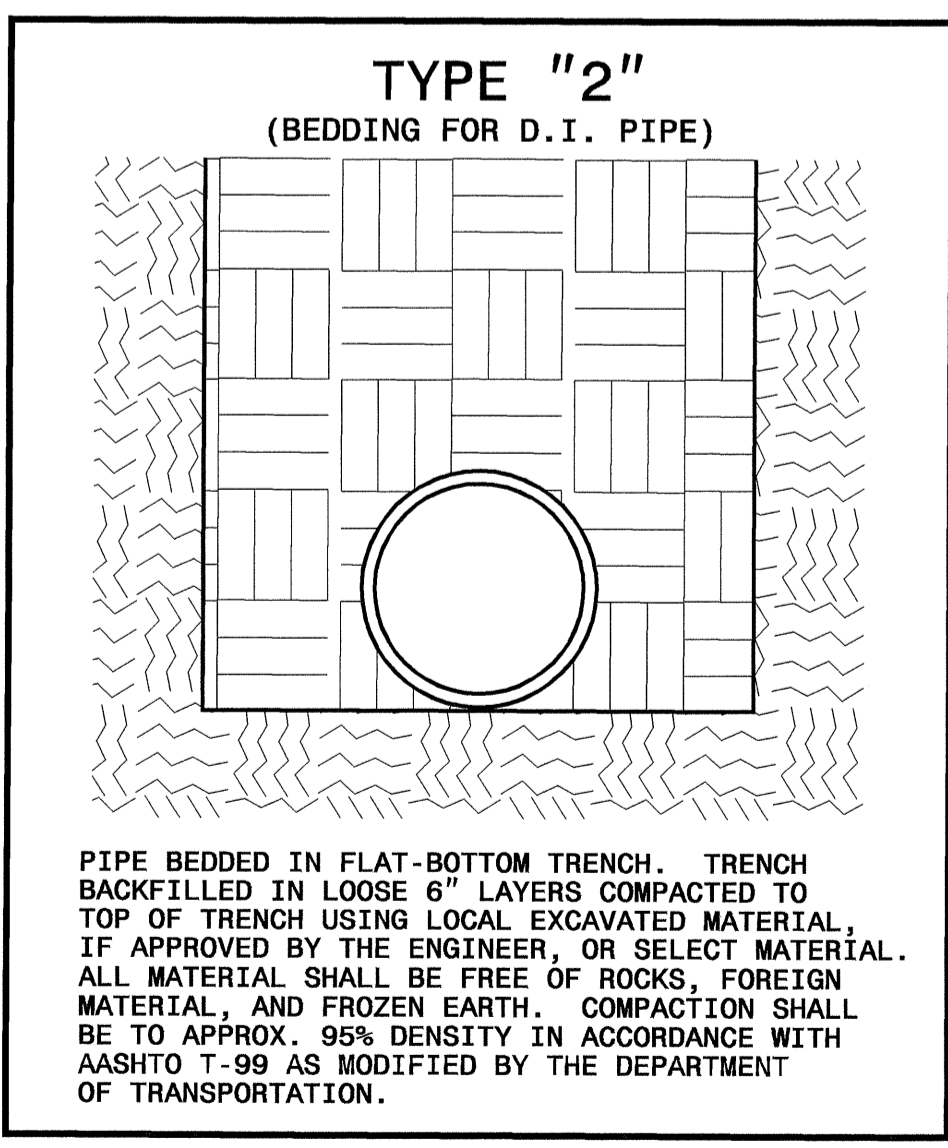
FROM STA. 12+76 TO STA. 13+37 LT
 FROM STA. 13+01 TO STA. 13+31 RT



FROM STA. 13+20 TO STA. 13+50 LT
 FROM STA. 13+20 TO STA. 13+40 RT



- NOTES:
- TOP OF BLOCKING TO BE 2" FROM HYDRANT WEEP HOLES.
 - HYDRANT TEE MAY BE SUBSTITUTED FOR D.I.P., NIPPLE AND RODDING TO VALVE.
 - TAPPING SADDLES MAY BE USED INSTEAD OF A TEE FOR WATER LINES LARGER THAN 16 INCHES.
 - STD. RODDING AND BLOCKING FROM GATE VALVE TO HYDRANT MAY BE SUBSTITUTED WITH A CONCENTRIC RING RESTRAINT SYSTEM SUCH AS MUELLER AQUAGRIP OR AN APPROVED EQUAL PRODUCT PROVIDED ALL PIPE SEGMENTS ARE RESTRAINED.
- GENERAL NOTES:
- FIRE HYDRANTS SHALL BE PLACED AS FAR AS POSSIBLE FROM THE PAVEMENT EDGE WITHIN RIGHT OF WAY OUTER LIMITS. PUMPER NOZZLE SHALL BE PERPENDICULAR TO ROADWAY.
 - SWIVEL LOCKED JOINTS FITTINGS MAY BE USED IN LIEU OF 3/4" RESTRAINING RODS.
 - ALL CONCRETE SHALL BE CLASS "B".
 - HYDRANT BRANCH LINE SHALL HAVE THE SAME COVER AS THE MAIN (48" MINIMUM).



MAXIMUM TRENCH WIDTH AT TOP OF PIPE			
NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)	NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		

05-OCT-2009 13:44
 r:\ut\13366\PROJECTS\B-4446\ut-4-uc-2.psh.dgn

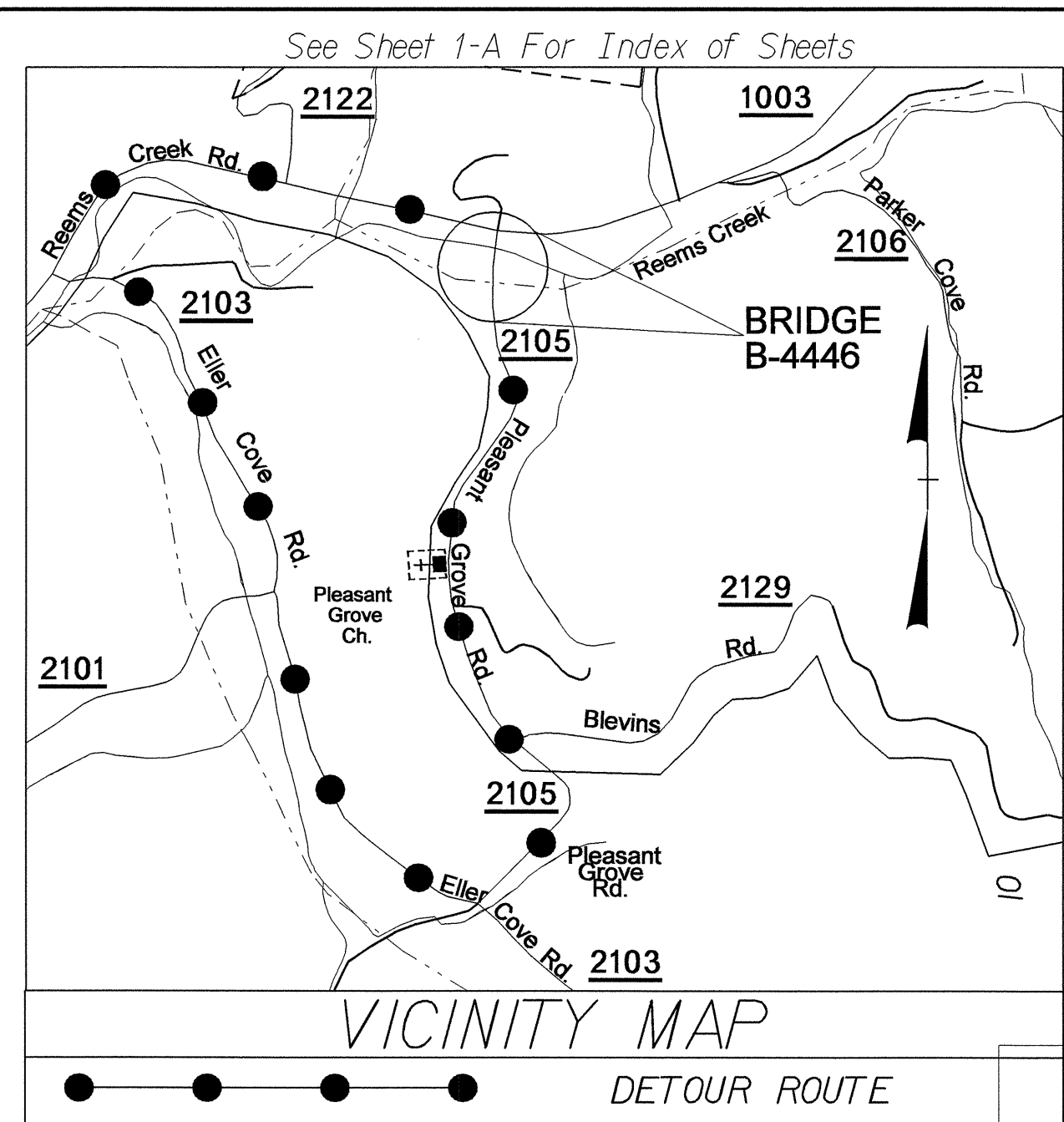
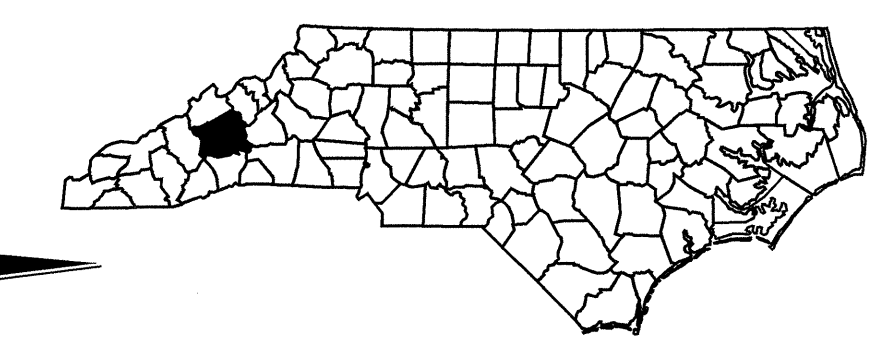
T.I.P. NO.	SHEET NO.
B-4446	UO-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

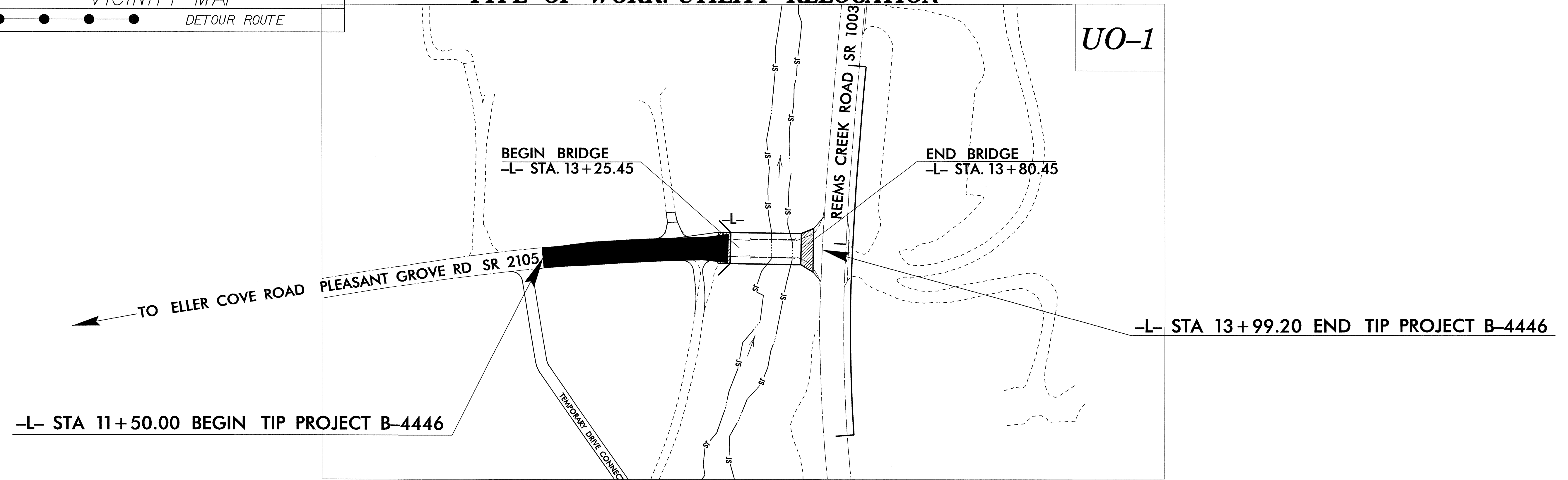
UTILITIES BY OTHERS PLANS
BUNCOMBE COUNTY

LOCATION: BRIDGE NO. 227 OVER REEMS CREEK

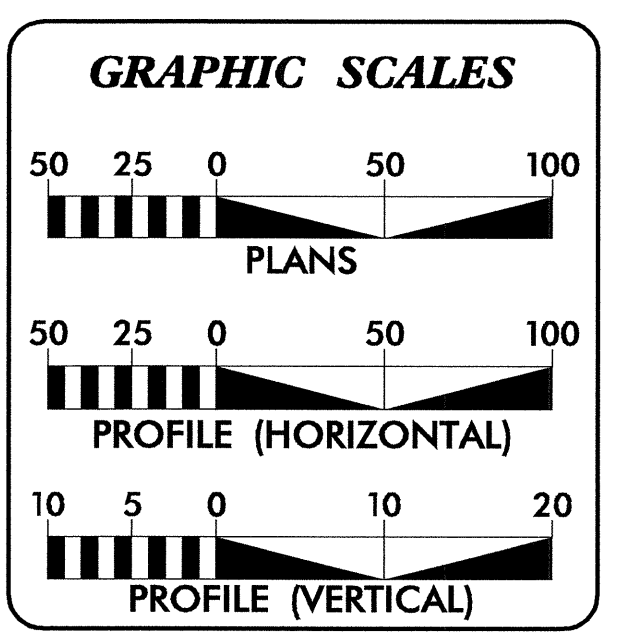
TYPE OF WORK: UTILITY RELOCATION



TIP PROJECT: B-4446



UO-1



INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2	UTILITY BY OTHERS PLAN SHEETS

UTILITY OWNERS ON PROJECT
(1) PROGRESS ENERGY
(2) VERIZON
(3) CHARTER COMMUNICATION

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

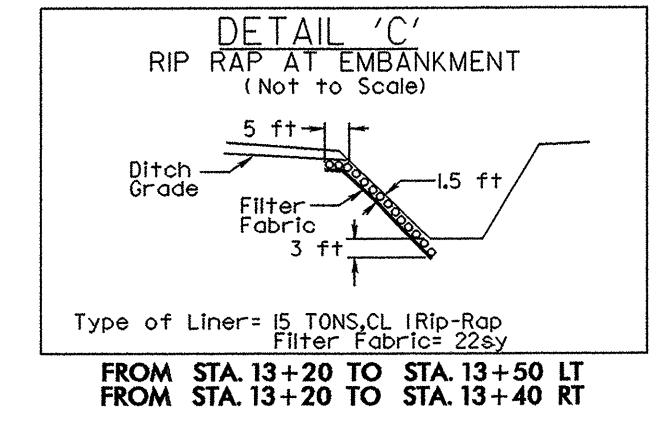
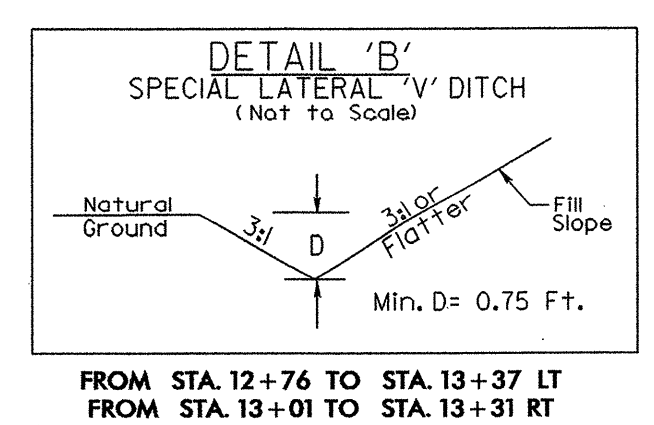
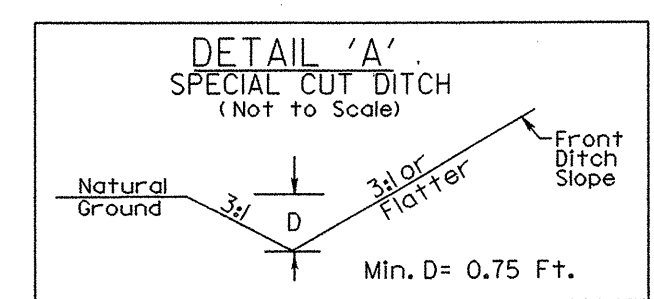
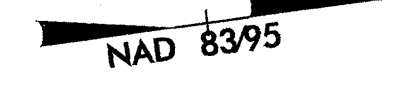
1591 MAIL SERVICES CENTER
RALEIGH NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

<u>Roger Worthington, P.E.</u>	UTILITIES SECTION ENGINEER
<u>Carl Barclay, P.E.</u>	UTILITIES SQUAD LEADER PROJECT ENGINEER
<u>Ali Kouchehi, PE</u>	UTILITIES PROJECT DESIGNER

CONTRACT:

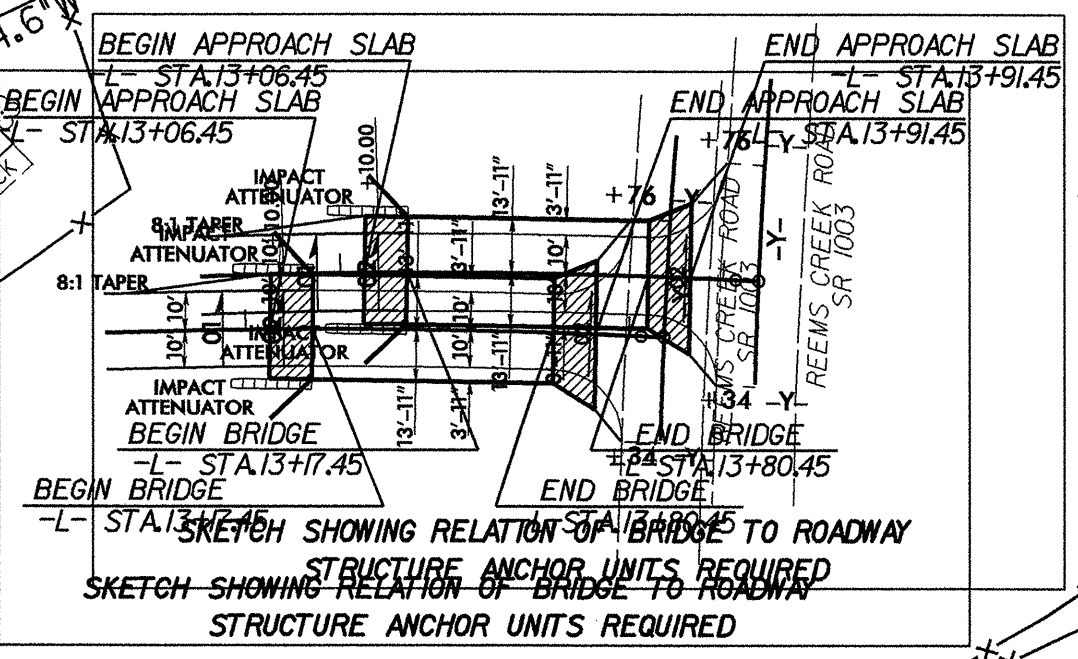
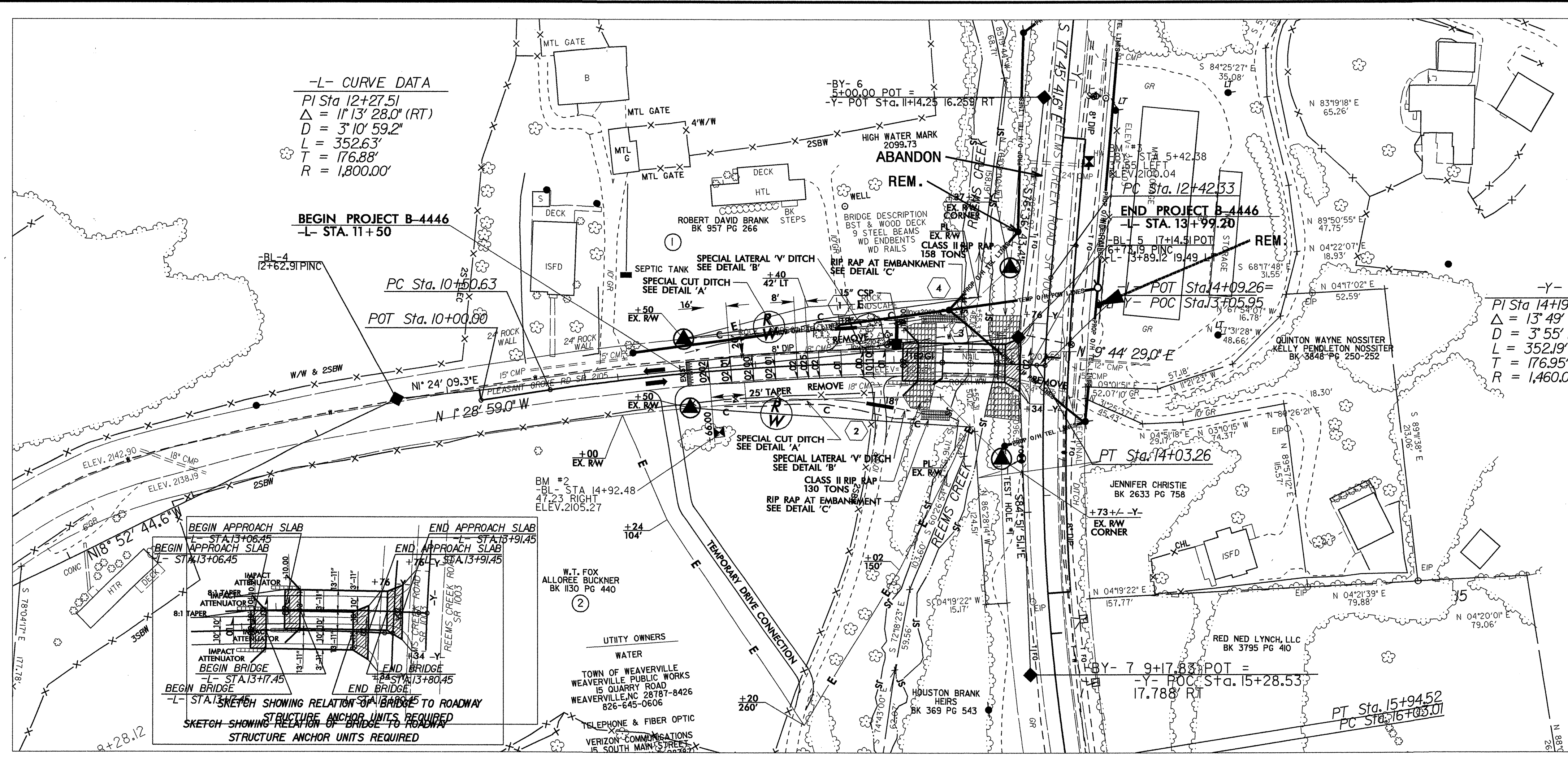
UTILITIES BY OTHERS

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



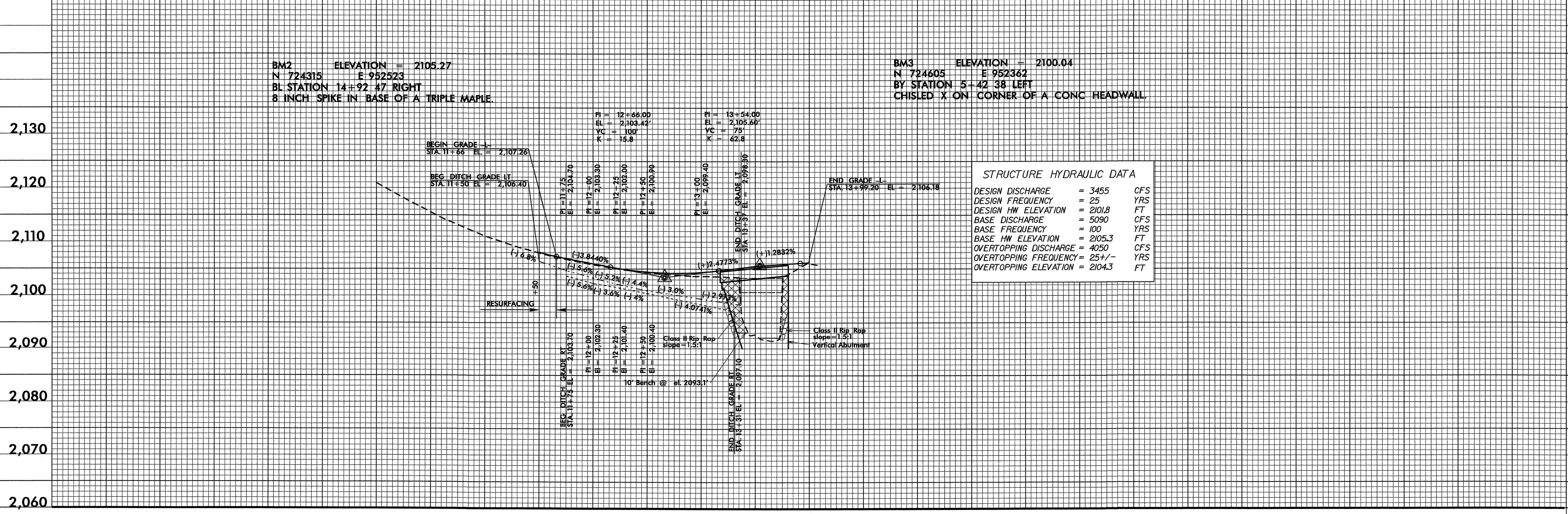
-L- CURVE DATA
PI Sta 12+27.51
 $\Delta = 1^\circ 13' 28.0''$ (RT)
D = 3' 10' 59.2"
L = 352.63'
T = 176.88'
R = 1,800.00'

-Y-
PI Sta 14+19.28
 $\Delta = 13^\circ 49' 16.3''$ (LT)
D = 3' 55' 27.7"
L = 352.19'
T = 176.95'
R = 1,460.00'



BM2 ELEVATION = 2105.27
N 724315 E 952523
BL STATION 14+92.47 RIGHT
8 INCH SPIKE IN BASE OF A TRIPLE MAPLE.

BM3 ELEVATION = 2100.04
N 724605 E 952362
BY STATION 5+42.38 LEFT
CHISEL X ON CORNER OF A CONC HEADWALL.



STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 3455	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 2101.8	FT
BASE DISCHARGE	= 5090	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 2105.3	FT
OVERTOPPING DISCHARGE	= 4050	CFS
OVERTOPPING FREQUENCY	= 25+/-	YRS
OVERTOPPING ELEVATION	= 2104.3	FT

REVISIONS
 R/W REVISION - FEBRUARY 11, 2009 - REVISED TEMPORARY CONSTRUCTION EASEMENT RIGHT OF -L- ON PARCEL 2, ADDED TEMPORARY DRIVEWAY CONNECTION
 REMOVED R/W MONUMENTS LEFT AND RIGHT OF -L- IN CREEK

5/14/09
 2955EP22009128807
 300647466446-ar.dwg-plotted.dwg