

0259DEL_P10c2

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
RAIL DIVISION

UTILITIES PLAN SHEET SYMBOLS



PROJECT REFERENCE NO. C4901-B	SHEET NO. UC-2
DESIGNED BY: EMT	
DRAWN BY: EMT	
CHECKED BY: TRH	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	
1-4-13 UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

Water

Proposed Back Flow Preventor	
Relocate Back Flow Preventor	
Existing Water Valve	
Proposed Valve	
Proposed Tapping Valve	
Existing Water Meter	
Proposed Water Meter	
Proposed Water Meter/Vault	
Relocate Water Meter	
Remove Water Meter	REM WM
Existing Hydrant	
Prop Hydrant	
Relocate Hydrant	
Remove Hydrant	REM FH

Proposed RPZ Back Flow Preventor	
Relocate RPZ Back Flow Preventor	
Water Cross	
Water Plug	
Water Reducer	
Water Tee	
Water Pump Station	
Water Thrust Block	
Blow Off Valve	
Air Release Valve	
Water Line Stop	
Water Line Stop w Bypass	

Utility By Other Symbols

Proposed Tel Pole	
Proposed Power Pole	
Proposed Joint Use Power, Tel Pole	
Proposed Joint Use Power, CATV Pole	
Proposed Joint Use Power, Tel, CATV Pole	
Proposed Joint Use Tel, CATV Pole	

Sewer

Existing Manhole	
Proposed UT Manhole	
Remove UT Manhole	REM UT MH
Abandon Utility Manhole	ABAND MH
Sewer Line Stop	
Sewer Line Stop w Bypass	

Sewer Cross	
Sewer Plug	
Sewer Reducer	
Sewer Tee	
Sewer Pump Station	
Sewer Thrust Block	

PUE Monument	
Concrete Pier	
Steel Pile Pier	
Test Hole (SUE)	
Prop Utility Vault	



3220 GLEN ROYAL RD. RALEIGH, NC 27617
TELE 919.788.0224 FAX 919.788.0232
NC LICENSE #P-0189

0259DEL_P10c2

8/17/99

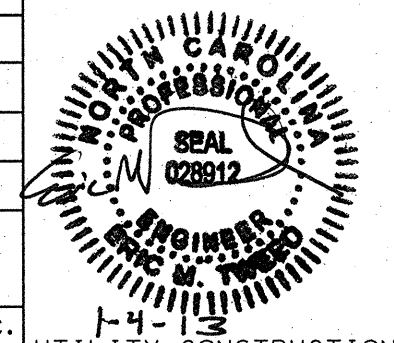
DCN 0259DEL P10c2

REVISIONS

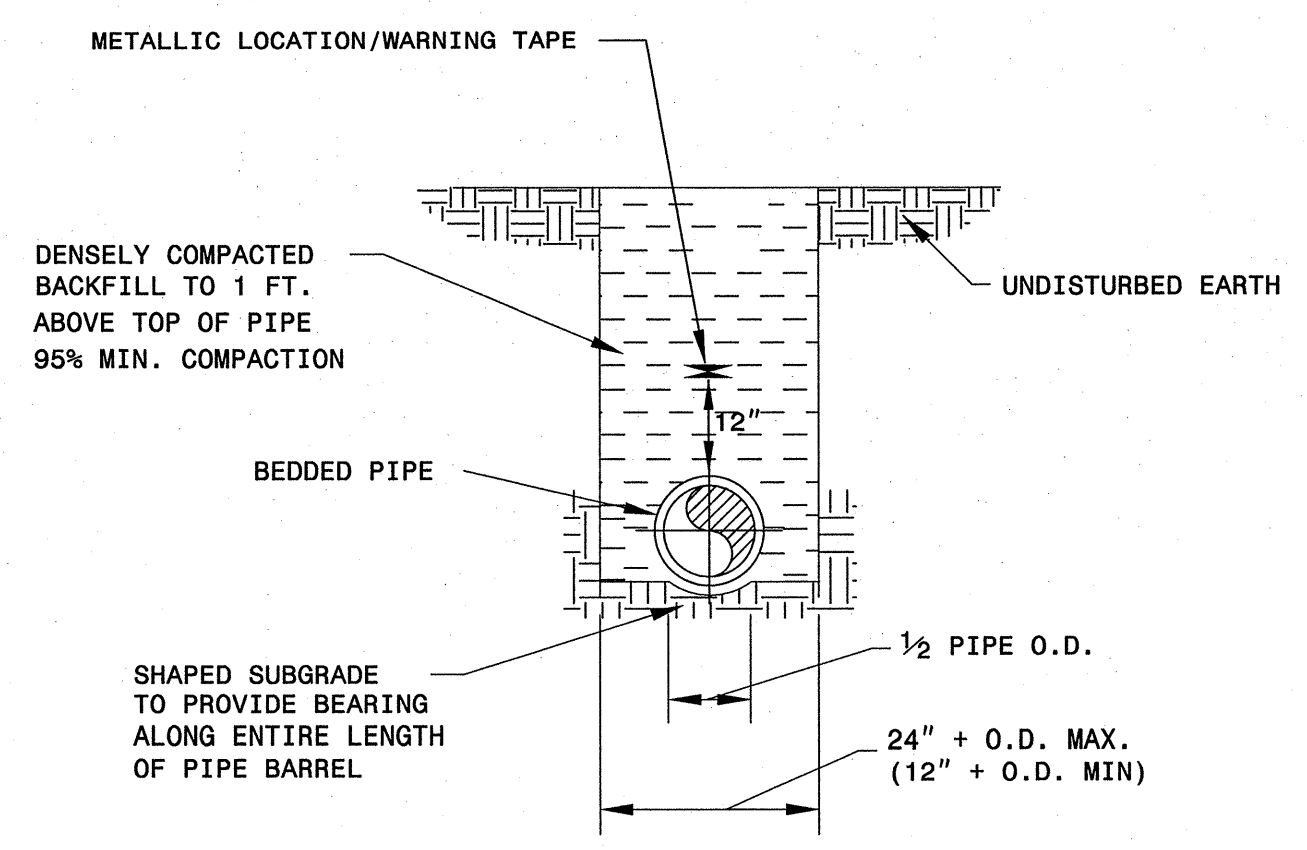
CH ENGINEERING
 3220 GLEN ROYAL RD. RALEIGH, NC 27617
 TELE 919.788.0224 FAX 919.788.0232
 NC LICENSE #P-0189



PROJECT REFERENCE NO.	SHEET NO.
C4901-B	UC-3
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



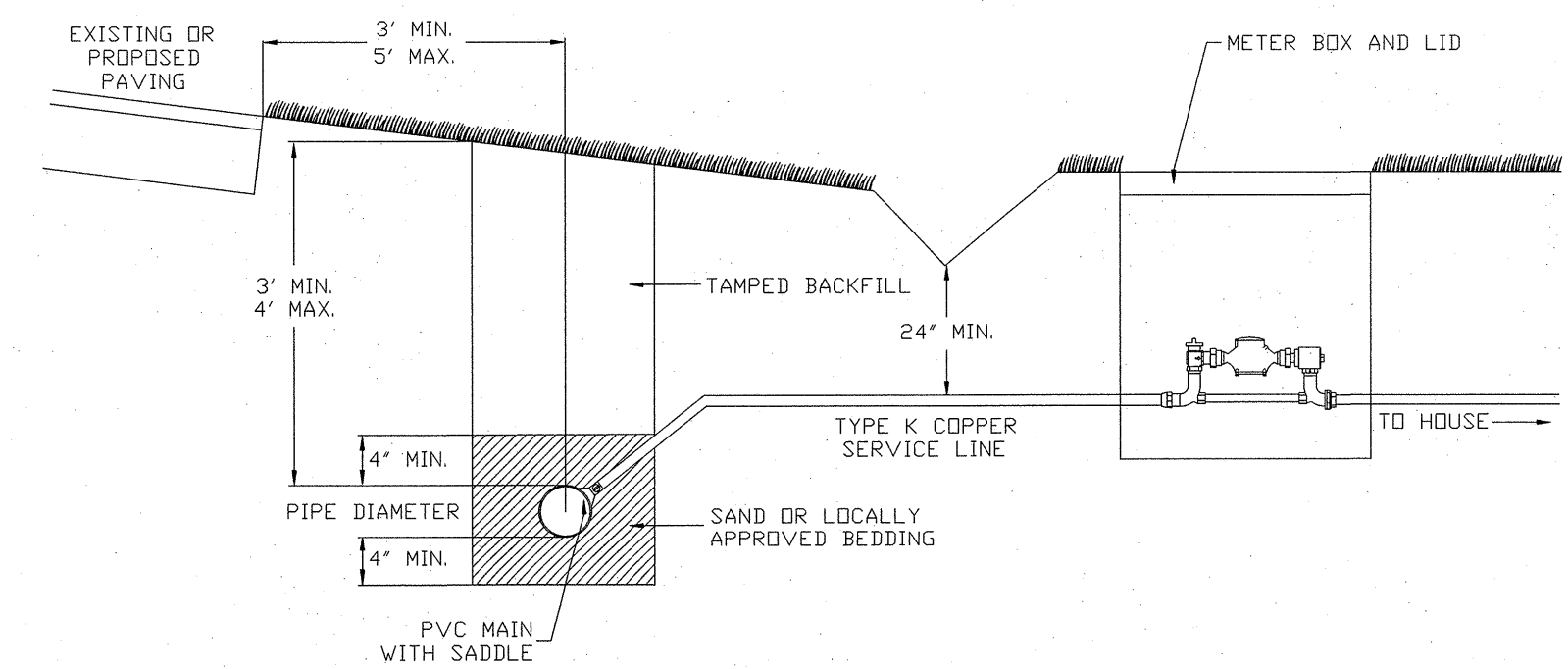
UTILITY CONSTRUCTION



WATER MAINS 8" AND SMALLER SHALL HAVE A MINIMUM OF 3' OF COVER.

PIPE LAYING CONDITION

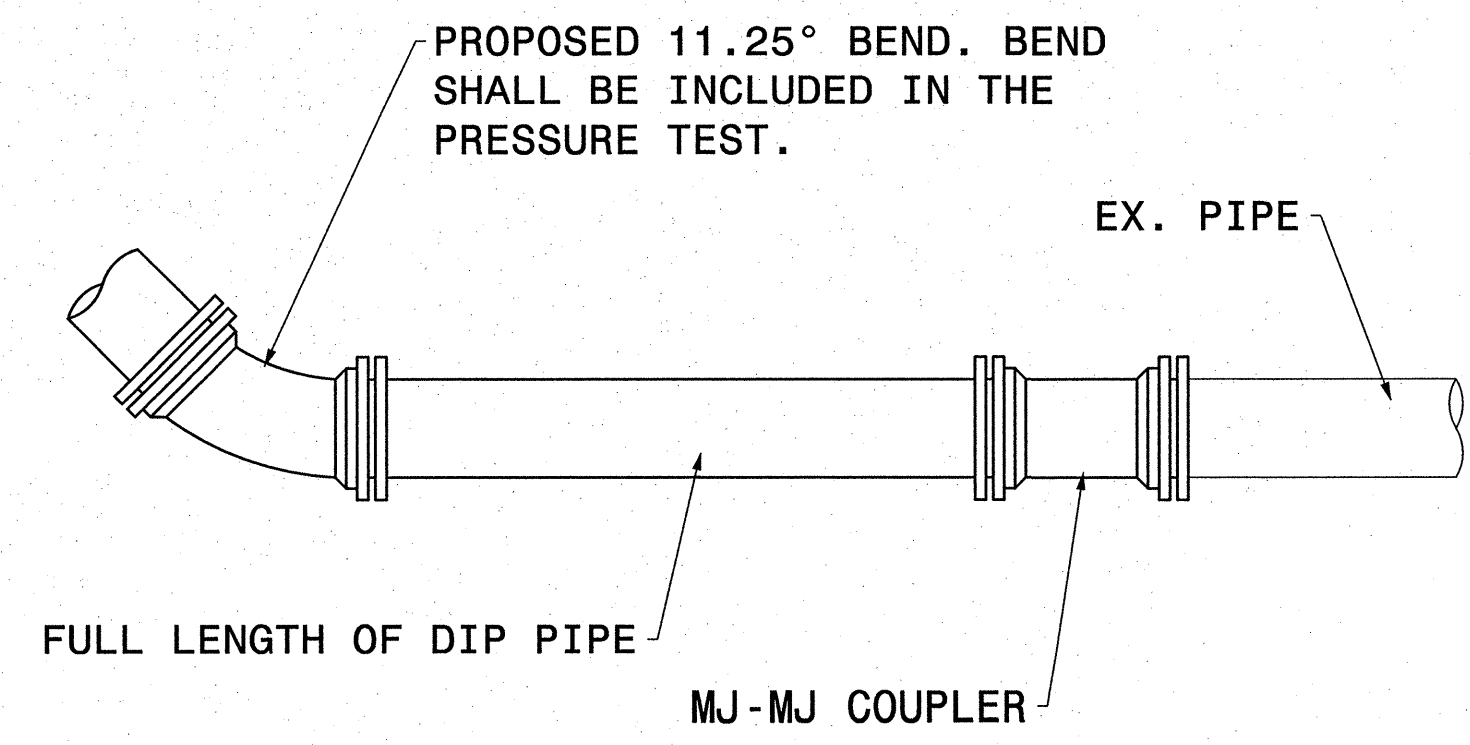
NOT TO SCALE



- STONE
- CONCRETE
- BACKFILL
- UNDISTURBED SOIL
- BEDDING

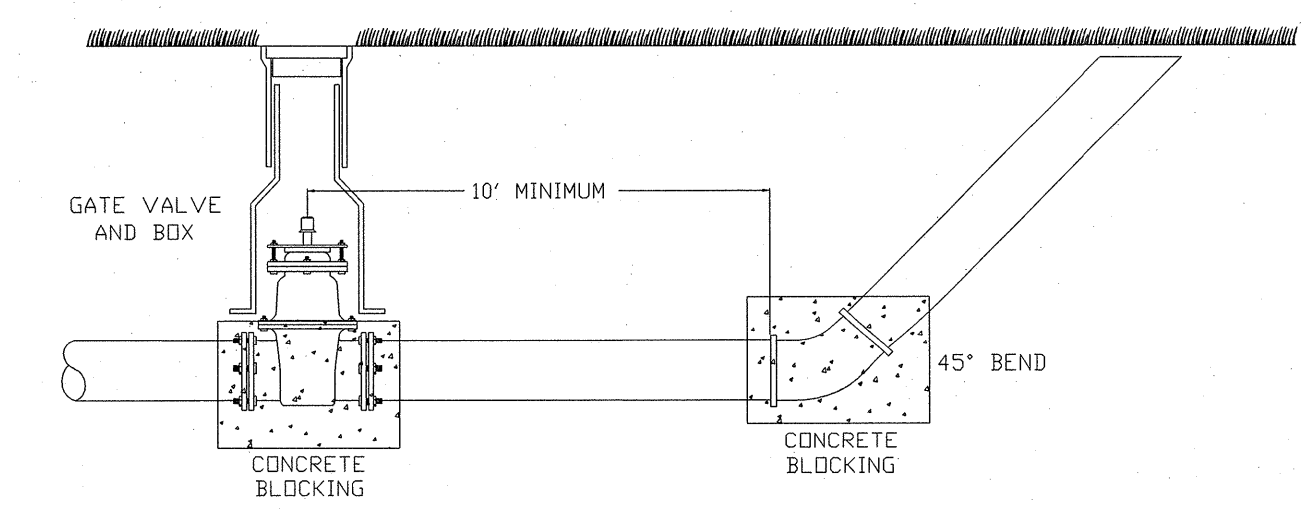
SERVICE DETAIL

NOT TO SCALE



TIE-IN DETAIL

NOT TO SCALE



BLOW-OFF DETAIL

NOT TO SCALE

0259DEL P10c2 DCN 8/17/99

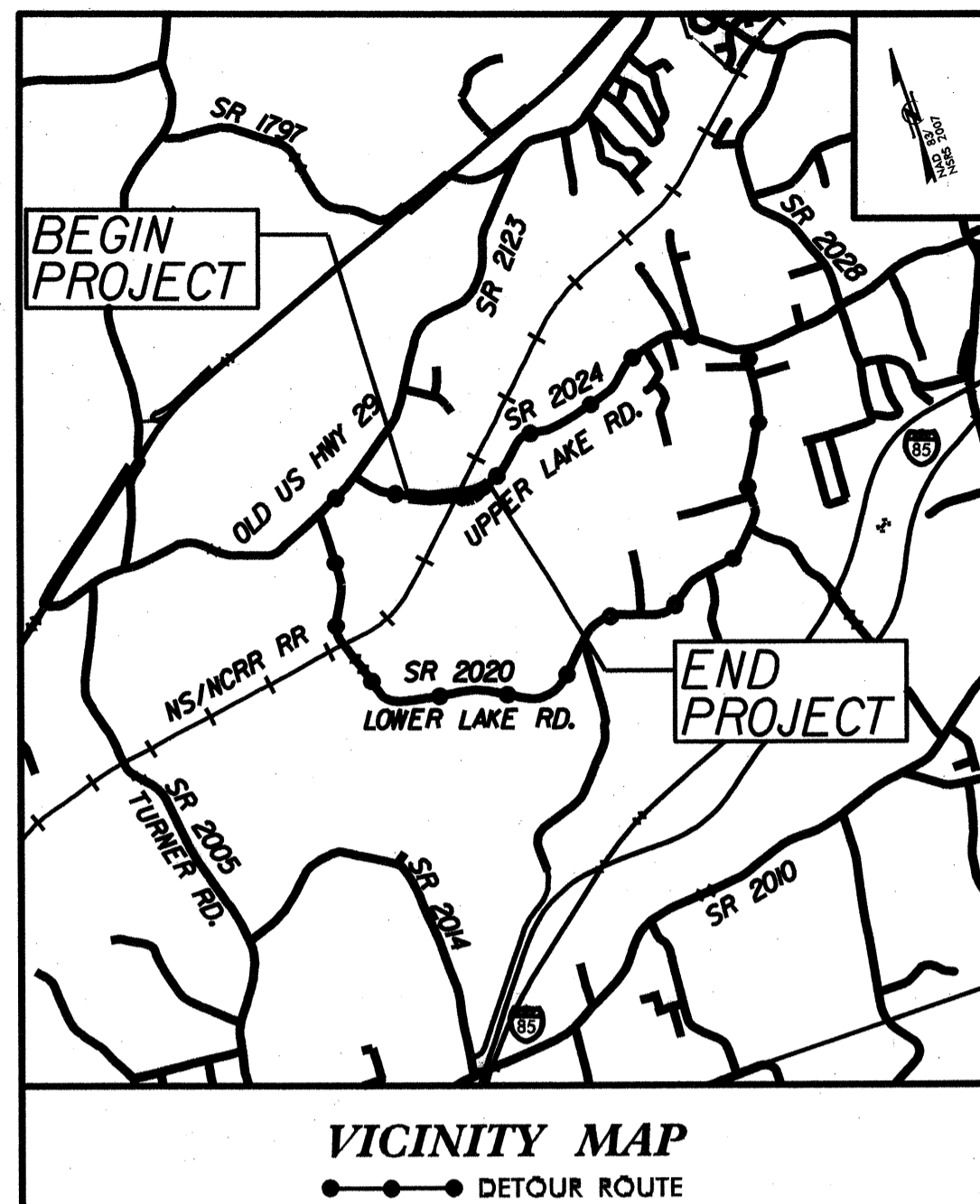
025DEL_P10-2

SEE SHEET I-A FOR INDEX OF SHEETS

STATE OF NORTH CAROLINA
RAIL DIVISIONS

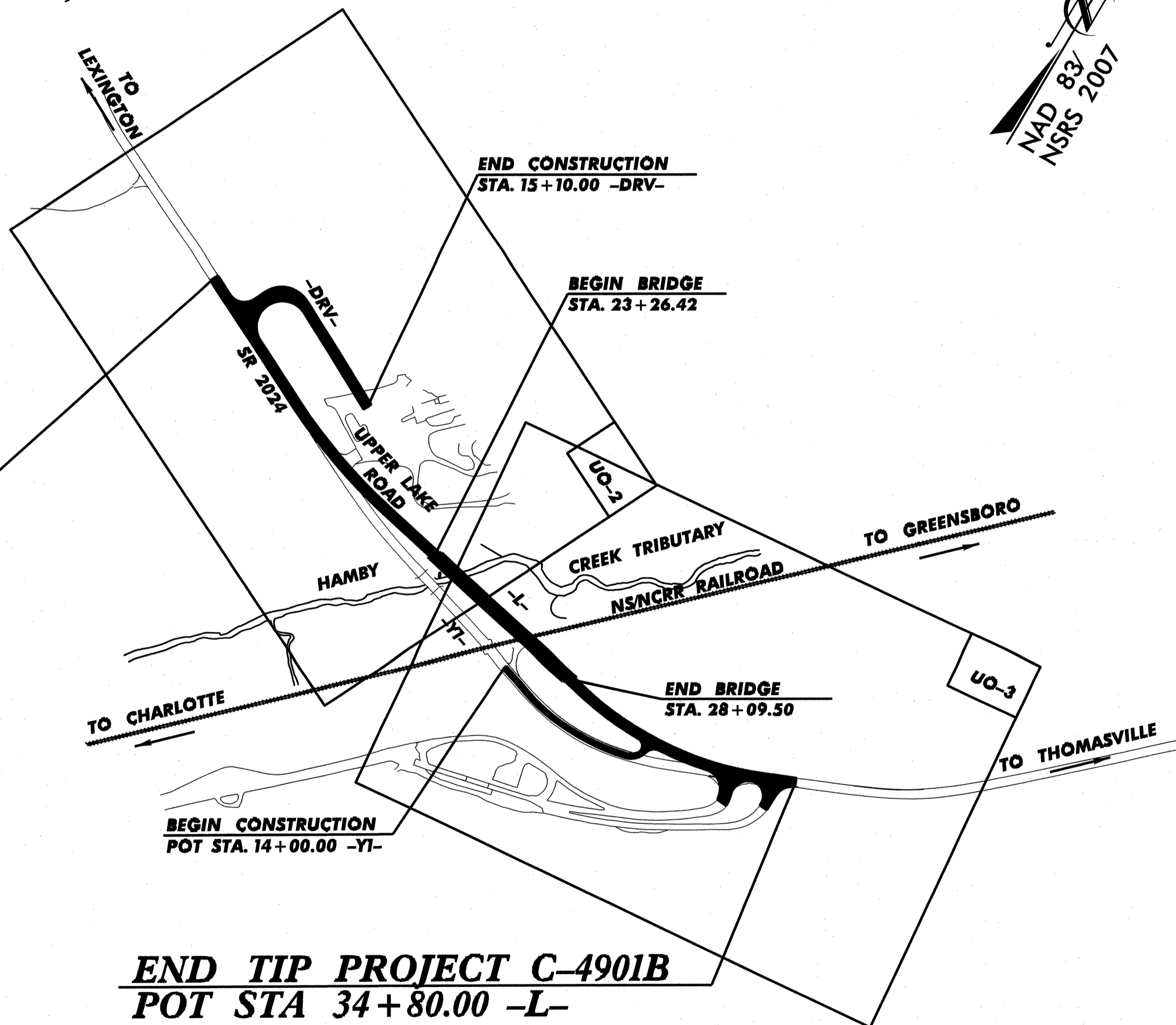
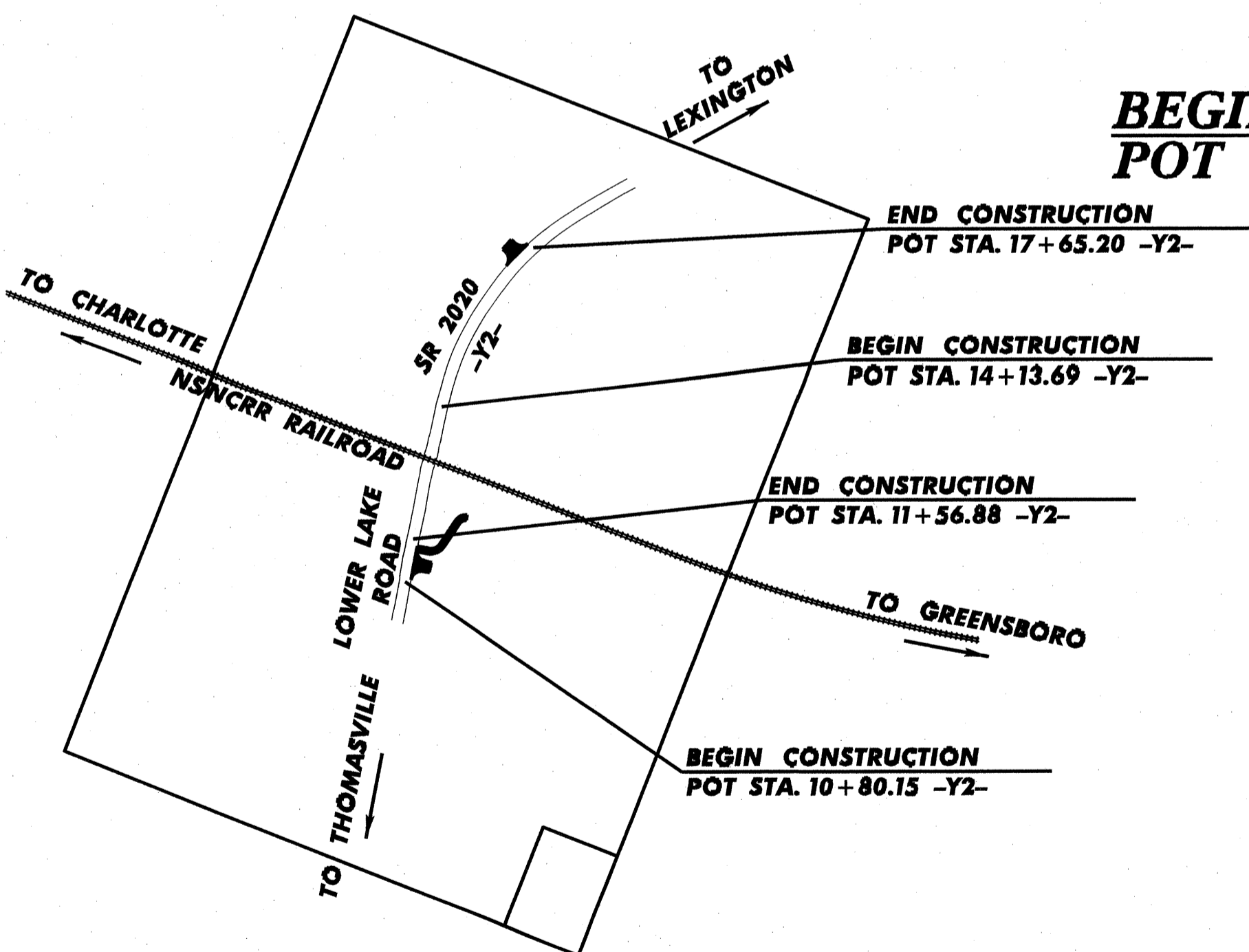
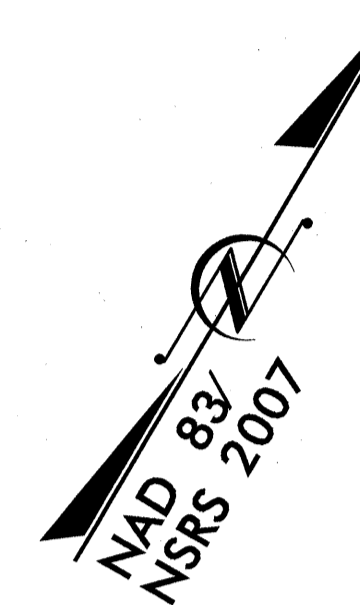


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	C-4901B	UO-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
49010.1.STR05T1B		PE, UTIL PE	
49010.1.STR06T3		PE, UTIL PE	
43219.2.STR02C4901		RW	
49010.3.STR02T4D		UTIL CONST., CONST.	



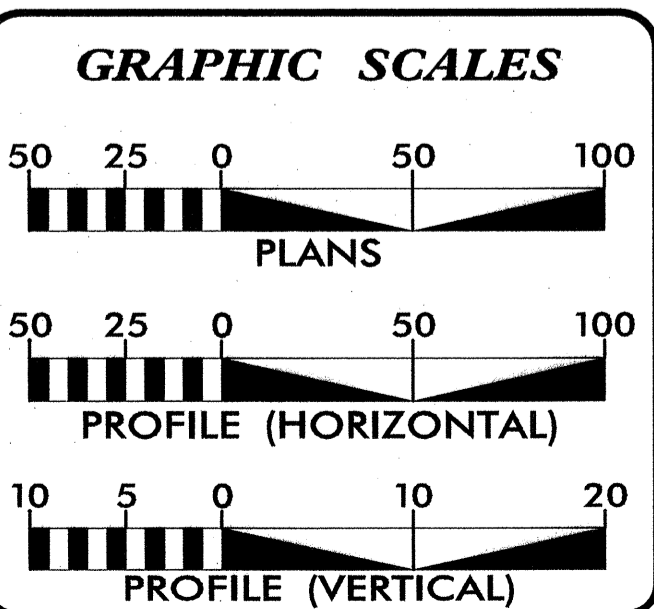
UTILITIES BY OTHERS PLANS DAVIDSON COUNTY

LOCATION: UPPER LAKE RD. (SR 2024) GRADE SEPARATION OVER HAMBY CREEK
TRIBUTARY AND NS/NCRR RAILROAD
TYPE OF WORK: PAVING, GRADING, DRAINAGE AND STRUCTURES



TIP PROJECT: C-4901B

CONTRACT: C203141




INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2	UTILITIES BY OTHERS PLAN SHEET
UO-3	UTILITIES BY OTHERS PLAN SHEET

UTILITY OWNERS ON PROJECT	
(1)	DUKE ENERGY - POWER DISTRIBUTION
(2)	NORTH STATE COMMUNICATIONS - TELEPHONE
(3)	CITY OF LEXINGTON GAS DEPT. - NATURAL GAS



NC DEPARTMENT OF
TRANSPORTATION
RAIL DIVISION
PLANNING AND DEVELOPMENT




Roger Worthington, P.E. UTILITIES SECTION ENGINEER

UTILITIES SQUAD LEADER PROJECT ENGINEER

UTILITIES PROJECT DESIGNER

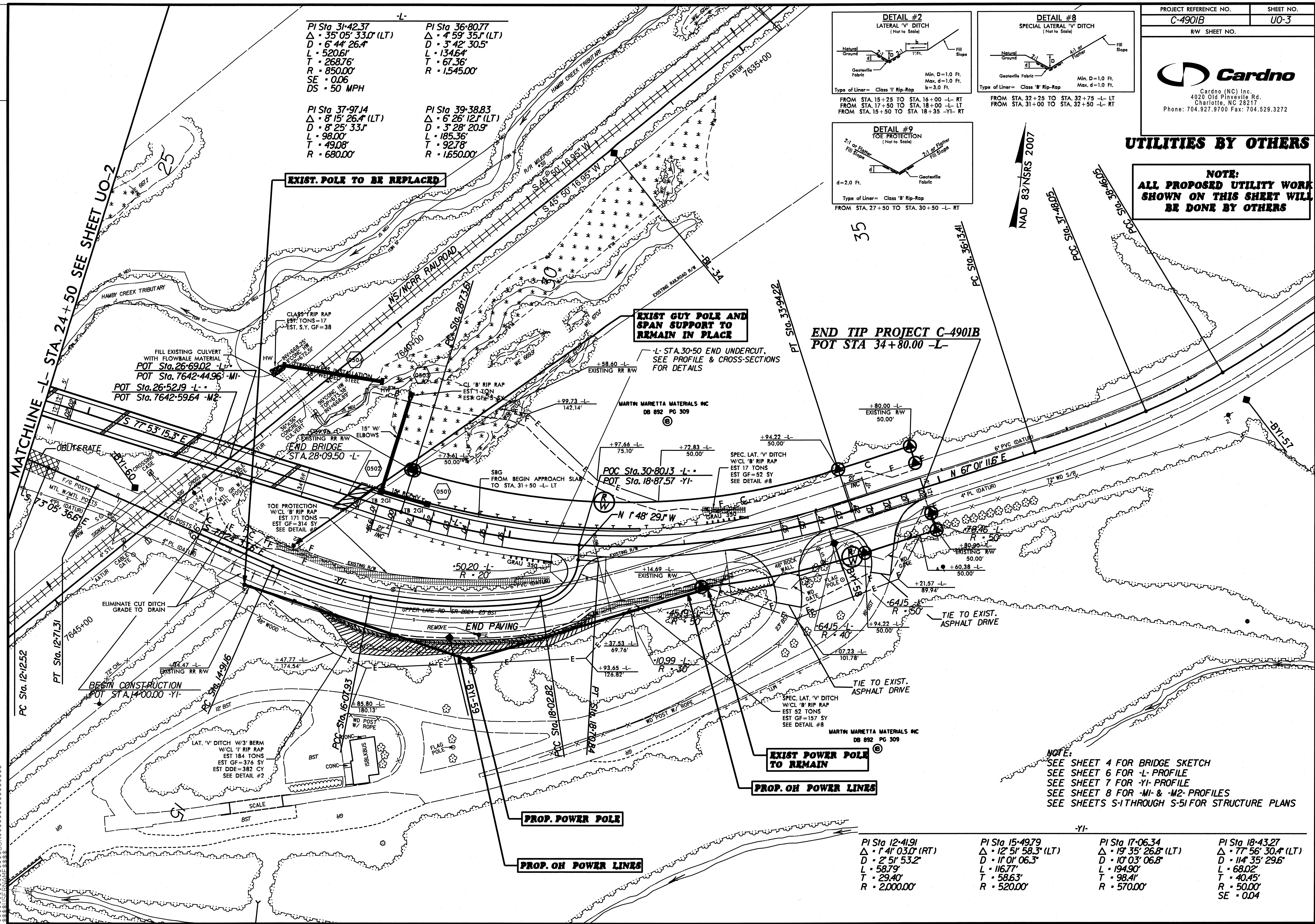
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\$\$\$\$\$DCNS\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

0259DEL_P1002

PROJECT REFERENCE NO. C-4901B	SHEET NO. UO-3
RW SHEET NO.	
	
Cardno (NC) Inc. 4020 Old Pinneville Rd. Charlotte, NC 28217 Phone: 704.927.9700 Fax: 704.529.3272	

UTILITIES BY OTHERS

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

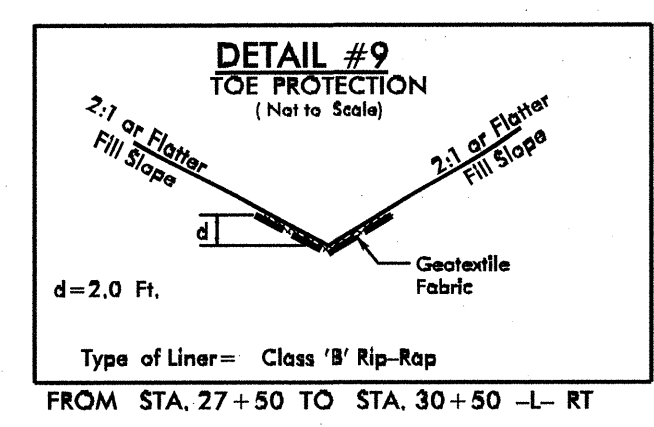
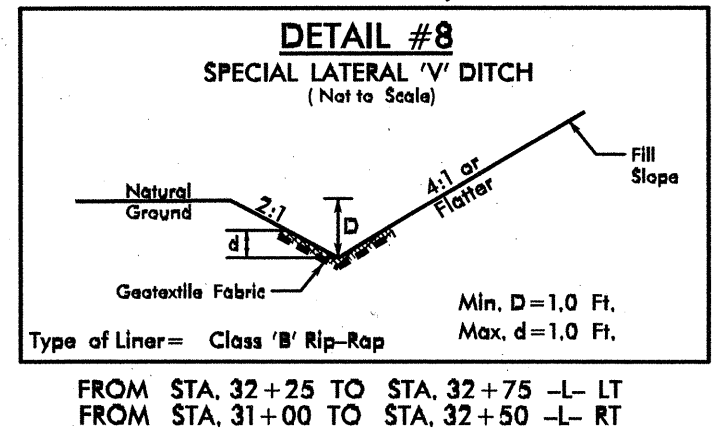
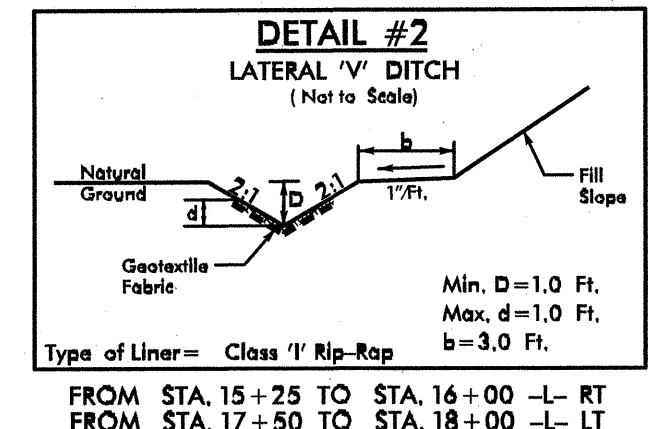


PI Sta 31+42.37
Δ • 35° 05' 33.0" (LT)
D • 6° 44' 26.4"
L • 520.61'
T • 268.76'
R • 850.00'
SE • 0.06
DS • 50 MPH

PI Sta 37+97.14
Δ • 8° 15' 26.4" (LT)
D • 8° 25' 33.1"
L • 98.00'
T • 49.08'
R • 680.00'

PI Sta 36+80.77
Δ • 4° 59' 35.1" (LT)
D • 3° 42' 30.5"
L • 134.64'
T • 67.36'
R • 1,545.00'

PI Sta 39+38.83
Δ • 6° 26' 12.1" (LT)
D • 3° 28' 20.9"
L • 185.36'
T • 92.78'
R • 1,650.00'



END TIP PROJECT C-4901B
POT STA 34+80.00 -L-

NOTE:
SEE SHEET 4 FOR BRIDGE SKETCH
SEE SHEET 6 FOR -L- PROFILE
SEE SHEET 7 FOR -YI- PROFILE
SEE SHEET 8 FOR -MI- & -M2- PROFILES
SEE SHEETS S-1 THROUGH S-51 FOR STRUCTURE PLANS

PI Sta 12+41.91
Δ • 1° 41' 03.0" (RT)
D • 2° 51' 53.2"
L • 58.79'
T • 29.40'
R • 2,000.00'

PI Sta 15+49.79
Δ • 12° 51' 58.3" (LT)
D • 11° 01' 06.3"
L • 58.79'
T • 58.63'
R • 520.00'

PI Sta 17+06.34
Δ • 19° 35' 26.8" (LT)
D • 10° 03' 06.8"
L • 194.90'
T • 98.41'
R • 570.00'

PI Sta 18+43.27
Δ • 77° 56' 30.4" (LT)
D • 114° 35' 29.6"
L • 68.02'
T • 40.45'
R • 50.00'
SE • 0.04