

09/28/09

TIP PROJECT: R-2100B

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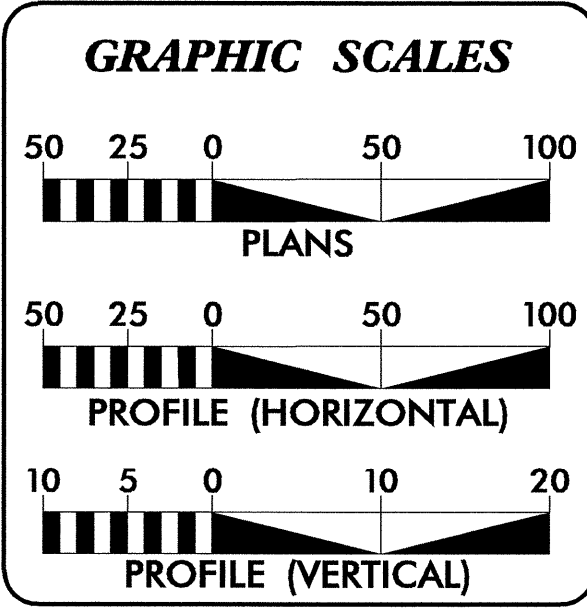
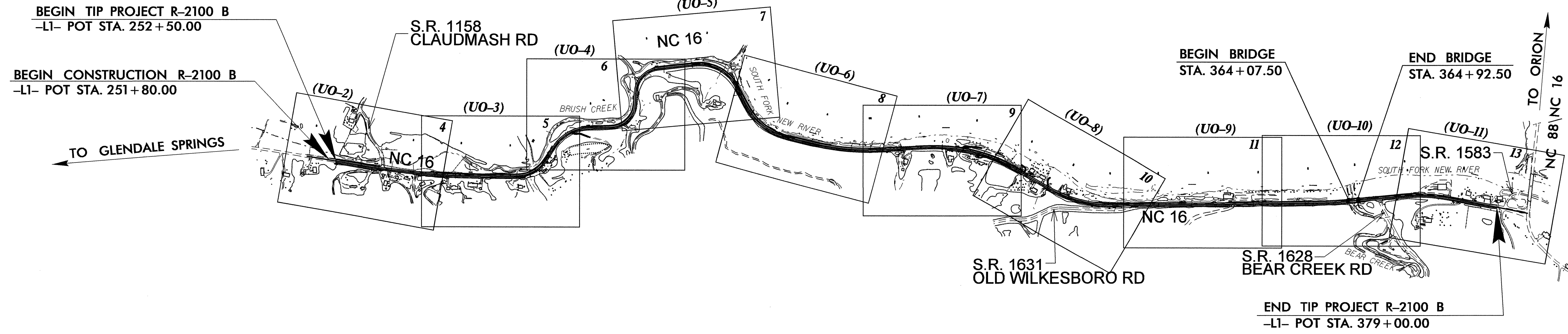
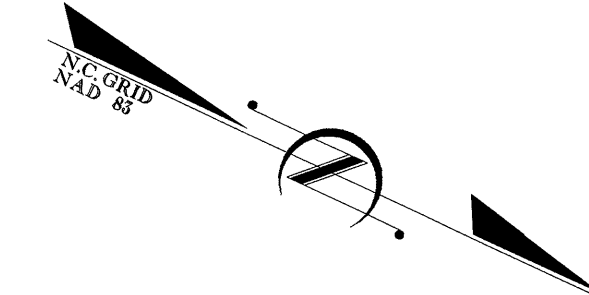
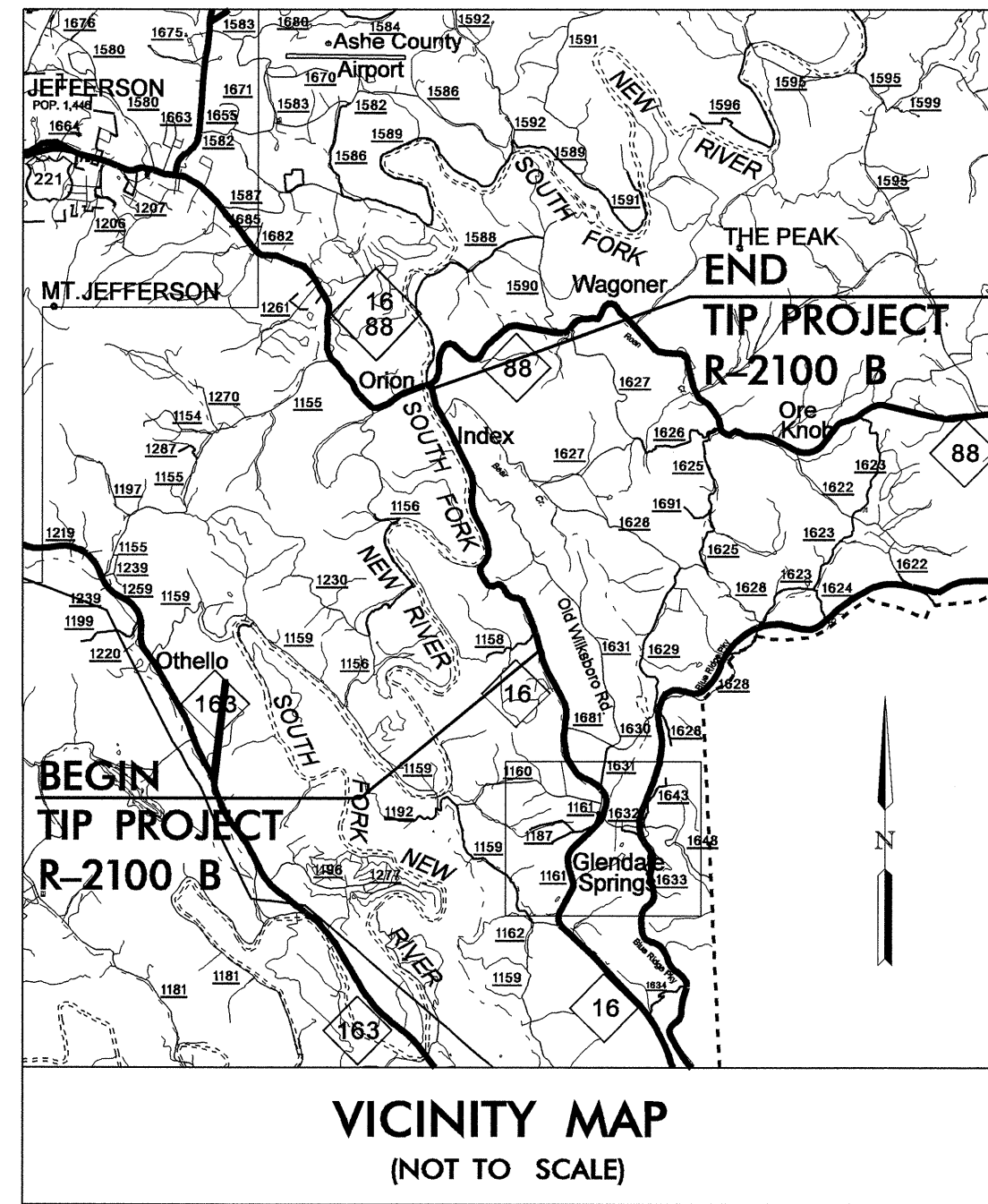
T.I.P. NO.	SHEET NO.
R-2100B	UO-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

**UTILITIES BY OTHERS PLANS
ASHE COUNTY**

LOCATION: NC 16 FROM SOUTHEAST OF SR 1158 TO
SOUTHEAST OF NC 88

TYPE OF WORK: UTILITIES RELOCATION



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2 THRU UO-12	UTILITY BY OTHERS PLAN SHEETS

TILITY OWNERS ON PROJECT

- Blue Ridge EMC (Power)
- Skyline TMC (Telephone)
- Embarq (Telephone)
- Ashe County Cablevision (CATV)

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

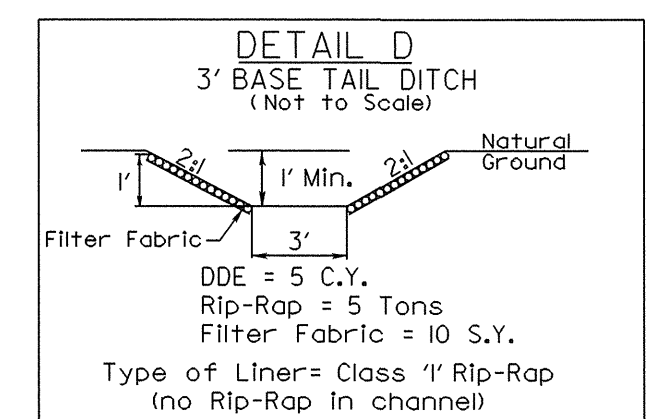
1591 MAIL SERVICES CENTER
RALEIGH NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

Roger Worthington, P.E. UTILITIES SECTION ENGINEER
Corey Bousquet, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
Nabil Hamdan UTILITIES PROJECT DESIGNER

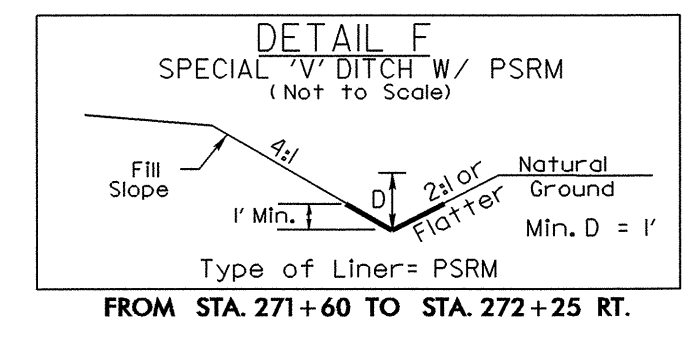
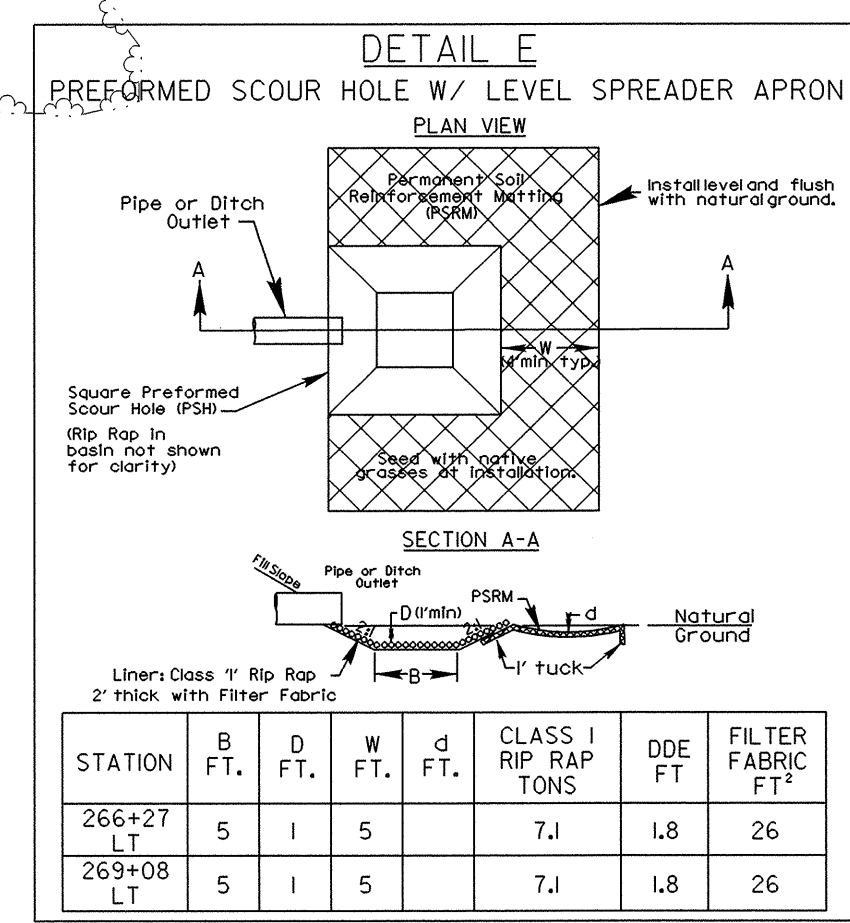
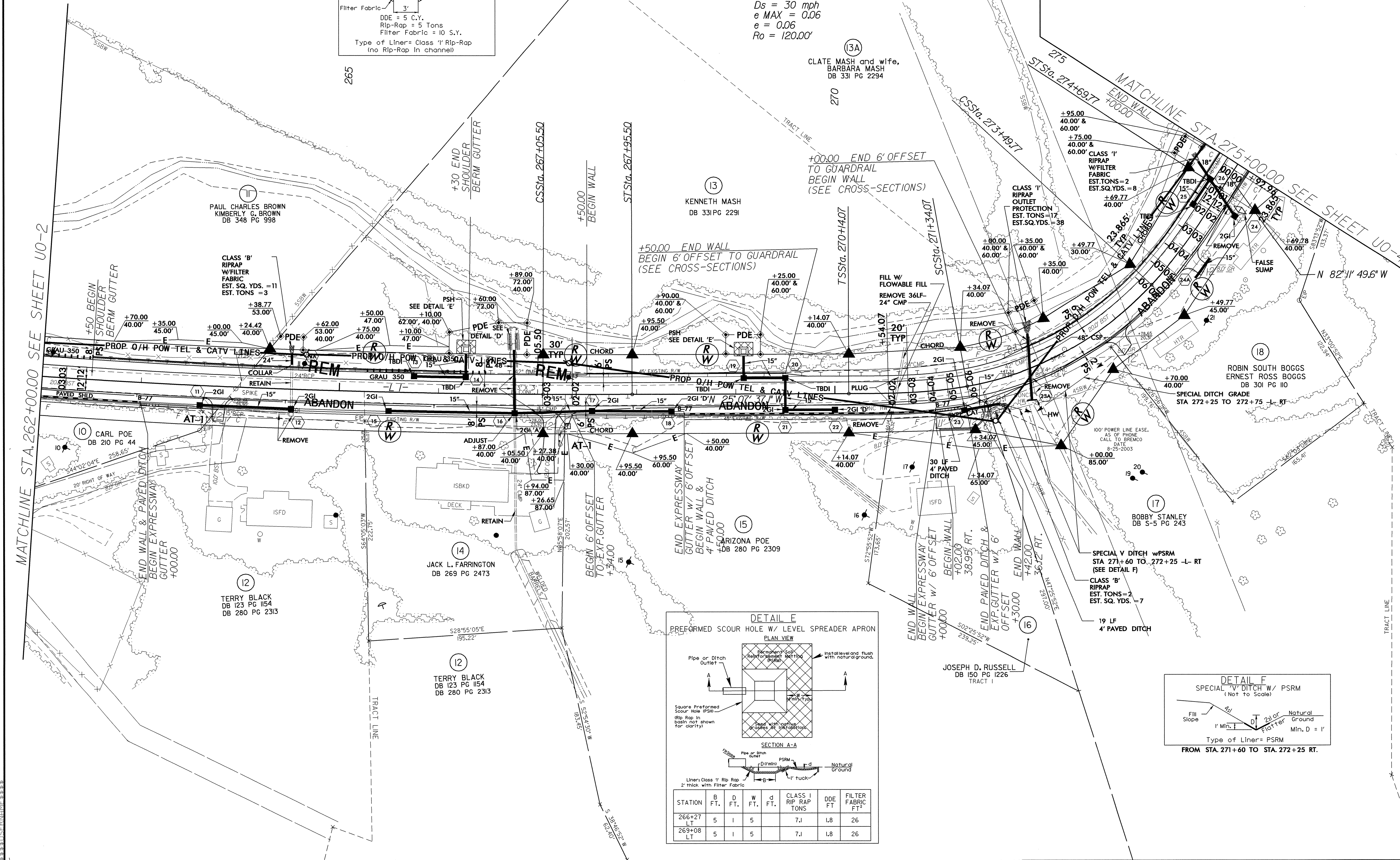
UTILITIES BY OTHERS

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

-L I-
Pls Sta 255+31.43 Pls Sta 261+34.54 Pls Sta 267+35.50
Os = 0° 20' 15.0" Δ = 8° 34' 49.8" (LT) Os = 0° 20' 15.0"
Ls = 90.00' D = 0° 45' 00.0" Ls = 90.00'
LT = 60.00' L = 1,44.07' LT = 60.00'
ST = 30.00' R = 7,639.44' ST = 30.00'
Ds = 60 mph
e MAX = 0.08
e = 0.03
Ro = 90.00'



-L I-
Pls Sta 270+94.20 Pls Sta 272+45.76 Pls Sta 273+89.89
Os = 10° 12' 00.0" Δ = 36° 40' 12.5" (LT) Os = 10° 12' 00.0"
Ls = 120.00' D = 17° 00' 00.0" Ls = 120.00'
LT = 80.13' L = 215.71' LT = 80.13'
ST = 40.12' R = 337.03' ST = 40.12'
Ds = 30 mph
e MAX = 0.06
e = 0.06
Ro = 120.00'



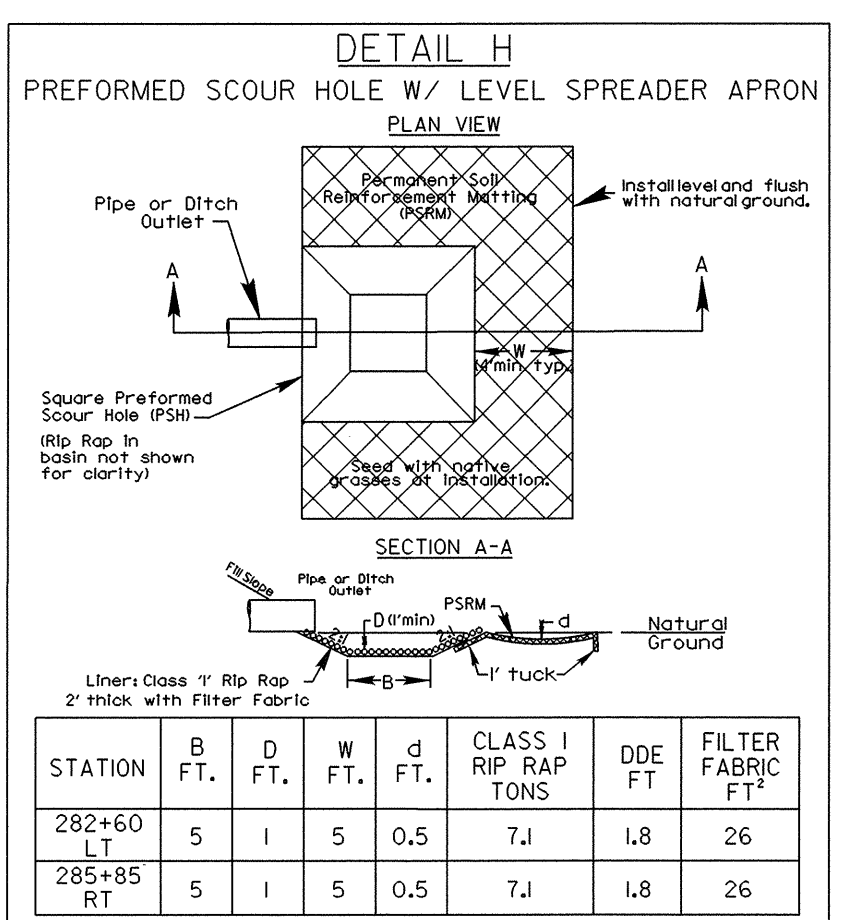
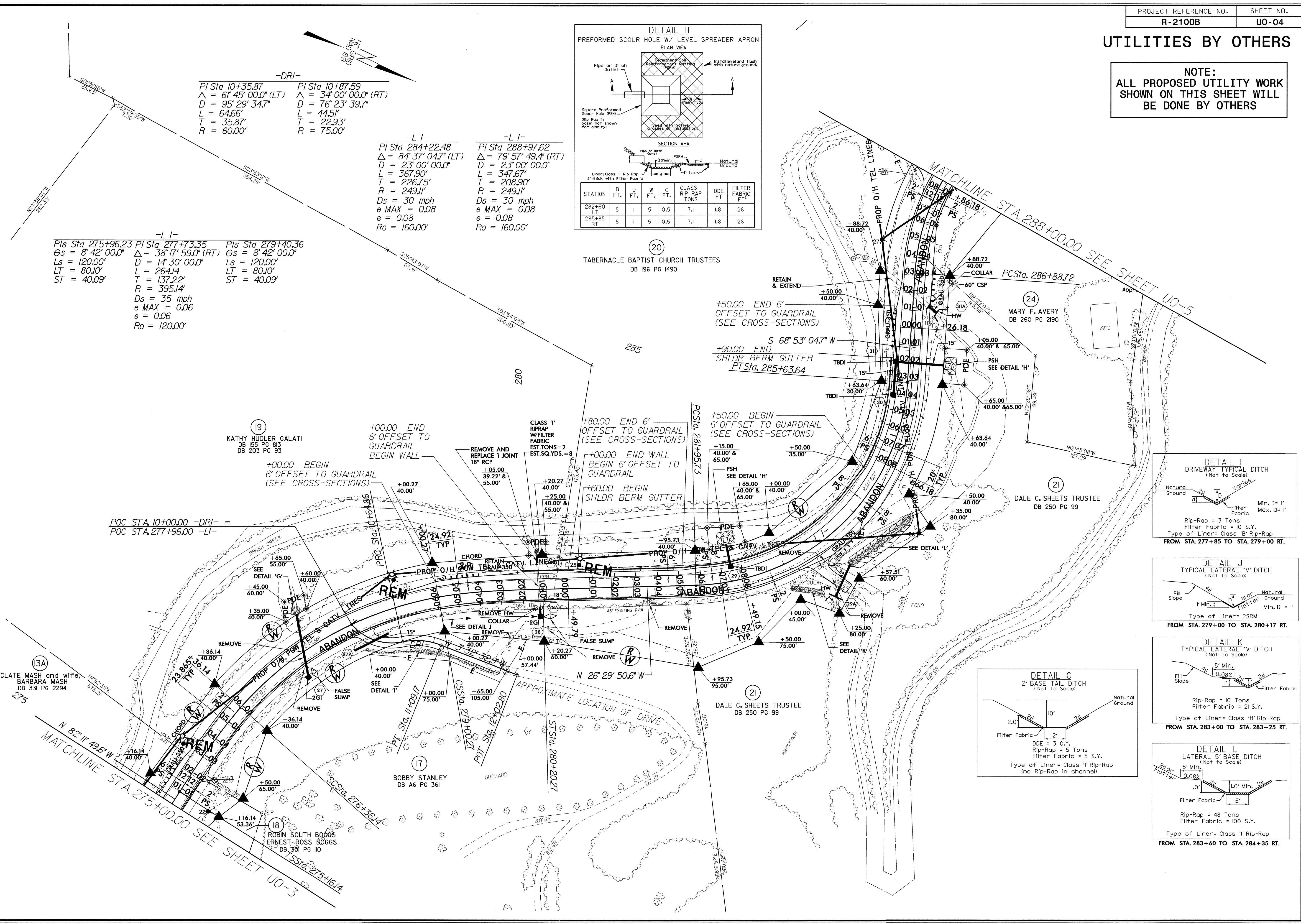
MATCHLINE STA. 262+00.00 SEE SHEET UO-2

MATCHLINE STA. 275+00.00 SEE SHEET UO-4

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UTILITIES BY OTHERS

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



-DRI-

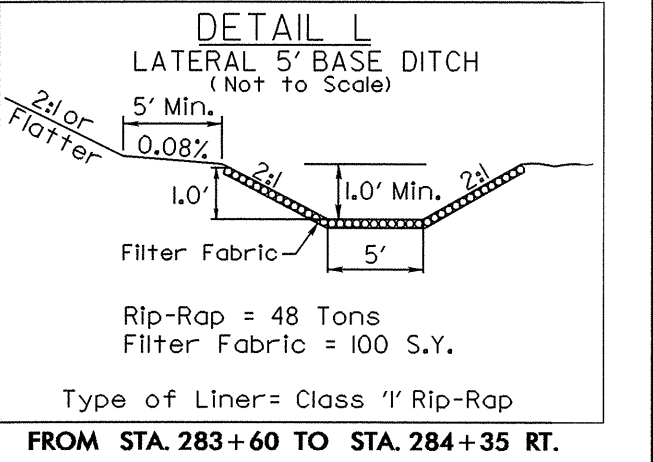
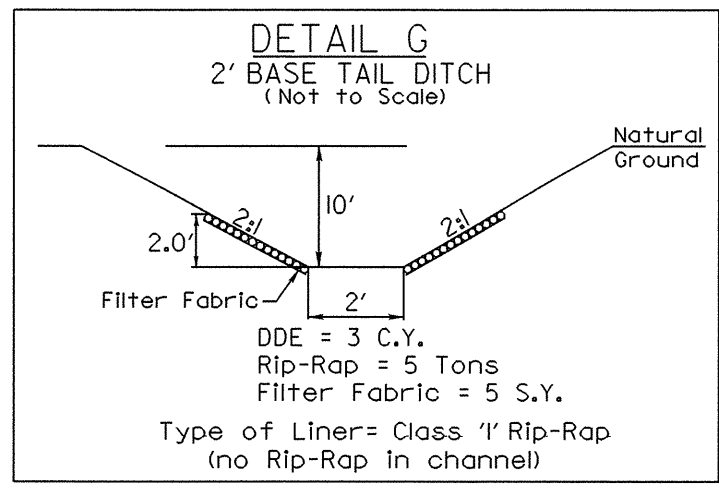
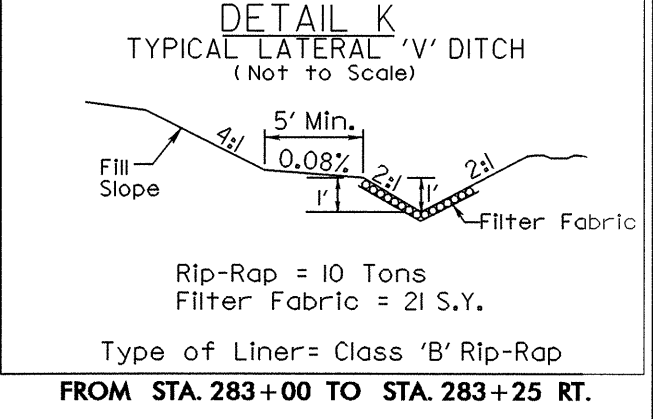
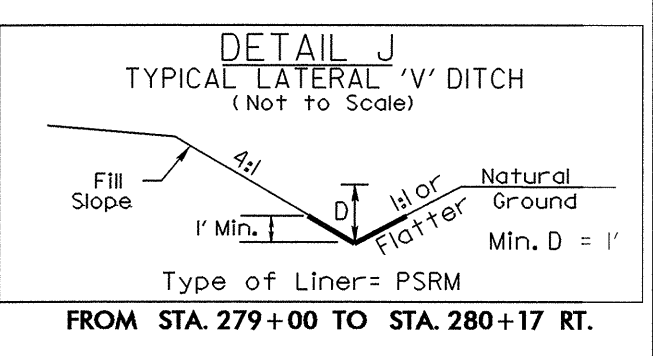
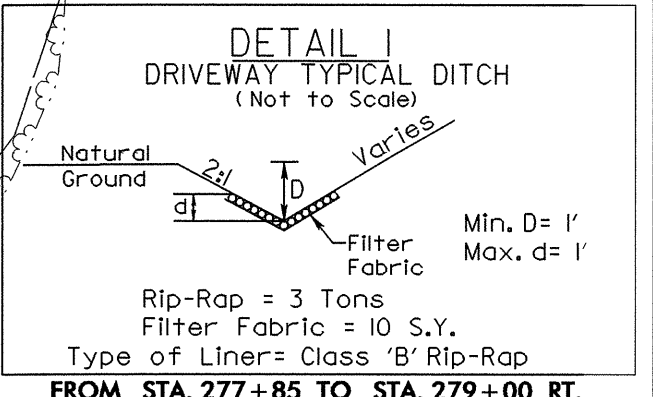
PI Sta. 10+35.87 Δ = 61° 45' 00.0" (LT) D = 95° 29' 34.7" L = 64.66' T = 35.87' R = 60.00'	PI Sta. 10+87.59 Δ = 34° 00' 00.0" (RT) D = 76° 23' 39.7" L = 44.51' T = 22.93' R = 75.00'
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-L1-

PI Sta. 275+96.23 Δ = 8° 42' 00.0" Ls = 120.00' LT = 80.10' ST = 40.09' R = 395.14' Ds = 35 mph e MAX = 0.06 e = 0.06 Ro = 120.00'	PI Sta. 277+73.35 Δ = 38° 17' 59.0" (RT) D = 14° 30' 00.0" L = 264.14 T = 137.22' R = 395.14'	PI Sta. 279+40.36 Δ = 8° 42' 00.0" Ls = 120.00' LT = 80.10' ST = 40.09' R = 395.14'
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-L1-

PI Sta. 284+22.48 Δ = 84° 37' 04.7" (LT) D = 23° 00' 00.0" L = 367.90' T = 226.75' R = 249.11' Ds = 30 mph e MAX = 0.08 e = 0.08 Ro = 160.00'	PI Sta. 288+97.62 Δ = 79° 57' 49.4" (RT) D = 23° 00' 00.0" L = 347.67' T = 208.90' R = 249.11' Ds = 30 mph e MAX = 0.08 e = 0.08 Ro = 160.00'
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UTILITIES BY OTHERS

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

25
WARREN MILLER
DB Y-5 PG 138
50 ACRES (DEED)

25
WARREN MILLER
DB 124 PG 38

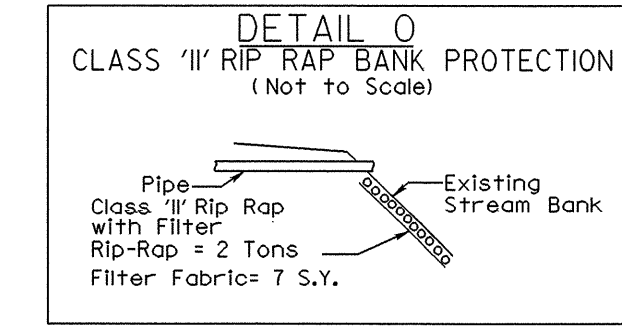
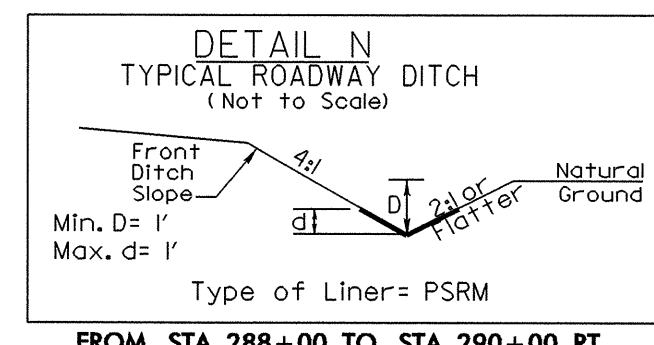
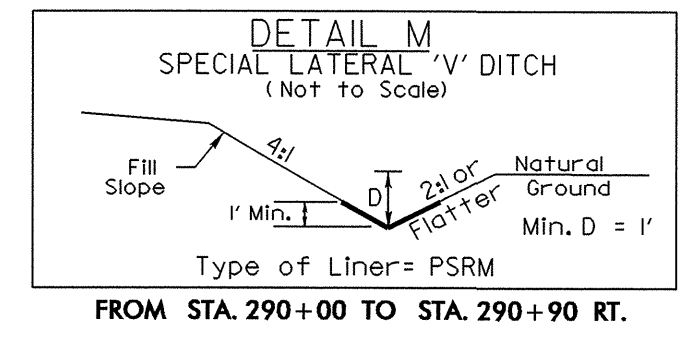
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TABERNALE BAPTIST CHURCH TRUSTEES
DB 196 PG 1490

25A
UNKNOWN

WARREN MILLER
DB 191 PG 1387

21
DALE C. SHEETS TRUSTEE

22
ROBERT P. SHEETS
DB 188 PG 2358
DB 181 PG 263

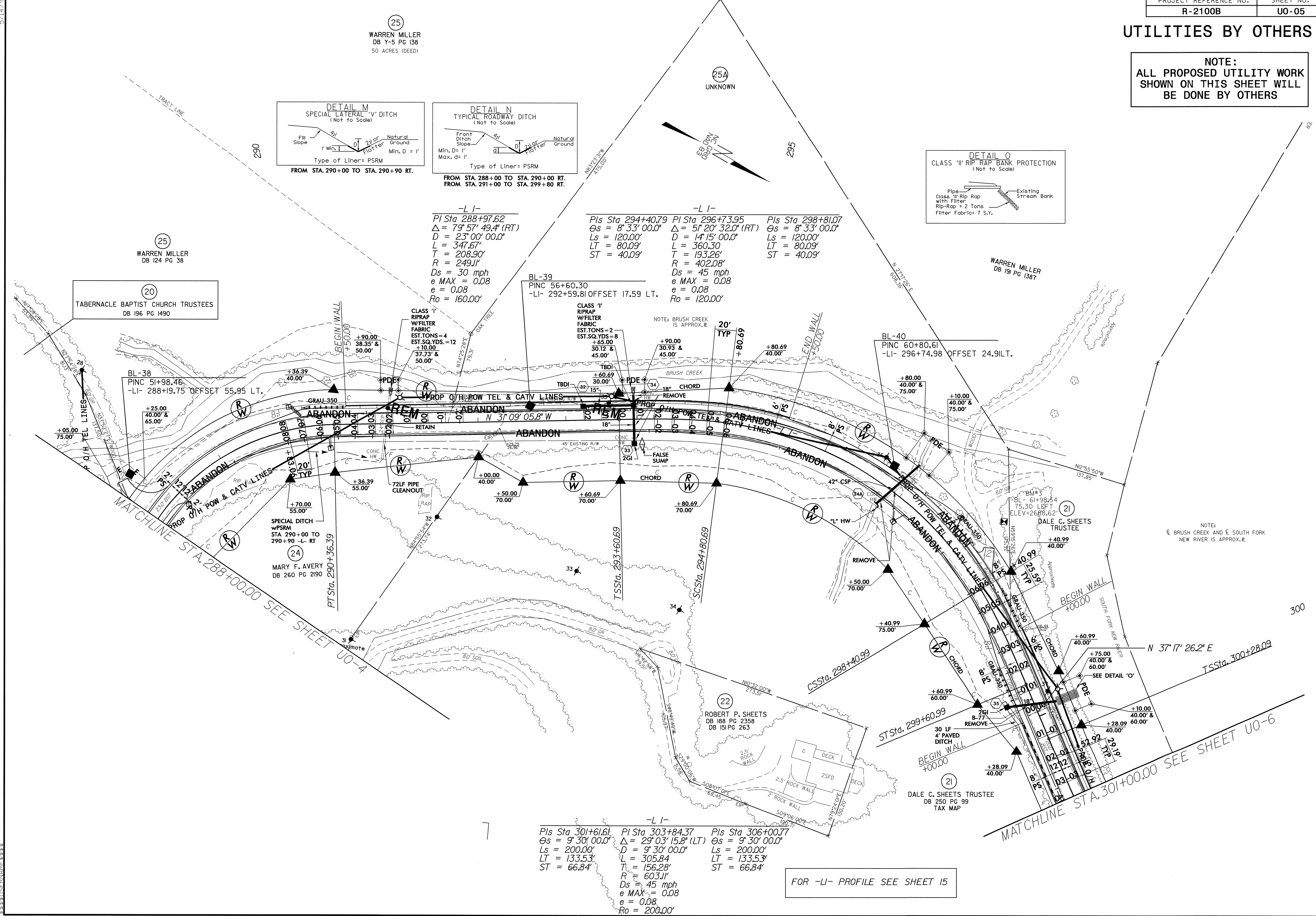


-L I-
PI Sta 288+97.62
Δ = 7° 57' 49.4" (RT)
D = 23' 00' 00.0"
L = 347.67'
T = 208.90'
R = 249.11'
Ds = 30 mph
e MAX = 0.08
e = 0.08
Ro = 160.00'

-L I-
Pls Sta 294+40.79 PI Sta 296+73.95 Pls Sta 298+81.07
Δ = 8° 33' 00.0" Δ = 5° 20' 32.0" (RT) Δ = 8° 33' 00.0"
Ls = 120.00' D = 14' 15' 00.0" Ls = 120.00'
LT = 80.09' L = 360.30' LT = 80.09'
ST = 40.09' T = 193.26' ST = 40.09'
R = 402.08'
Ds = 45 mph
e MAX = 0.08
e = 0.08
Ro = 120.00'

BL-39
PINC 56+60.30
-LI- 292+59.81 OFFSET 17.59 LT.

BL-40
PINC 60+80.61
-LI- 296+74.98 OFFSET 24.91 LT.



-L I-
Pls Sta 301+61.61 PI Sta 303+84.37 Pls Sta 306+00.77
Δ = 9° 30' 00.0" Δ = 29° 03' 15.8" (LT) Δ = 9° 30' 00.0"
Ls = 200.00' D = 9' 30' 00.0" Ls = 200.00'
LT = 133.53' L = 305.84' LT = 133.53'
ST = 66.84' T = 156.28' ST = 66.84'
R = 603.11'
Ds = 45 mph
e MAX = 0.08
e = 0.08
Ro = 200.00'

FOR -LI- PROFILE SEE SHEET 15

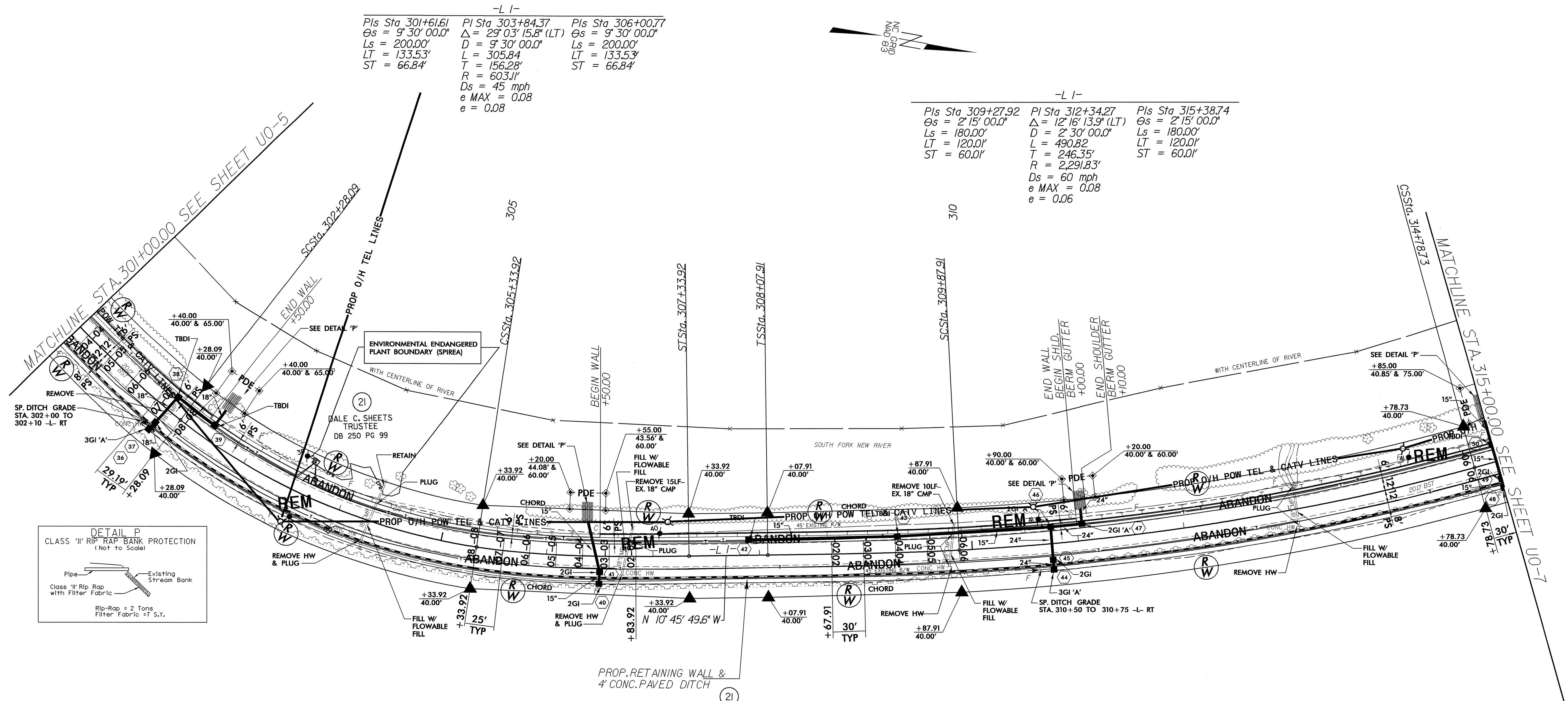
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UTILITIES BY OTHERS

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

-L I-
 Pls Sta 301+61.61 PI Sta 303+84.37 Pls Sta 306+00.77
 $\Theta_s = 9^\circ 30' 00.0''$ $\Delta = 29^\circ 03' 15.8''$ (LT) $\Theta_s = 9^\circ 30' 00.0''$
 $L_s = 200.00'$ $D = 9^\circ 30' 00.0''$ $L_s = 200.00'$
 $LT = 133.53'$ $L = 305.84'$ $LT = 133.53'$
 $ST = 66.84'$ $T = 156.28'$ $ST = 66.84'$
 $R = 603.11'$
 $D_s = 45$ mph
 $e_{MAX} = 0.08$
 $e = 0.08$

-L I-
 Pls Sta 309+27.92 PI Sta 312+34.27 Pls Sta 315+38.74
 $\Theta_s = 2^\circ 15' 00.0''$ $\Delta = 12^\circ 16' 13.9''$ (LT) $\Theta_s = 2^\circ 15' 00.0''$
 $L_s = 180.00'$ $D = 2^\circ 30' 00.0''$ $L_s = 180.00'$
 $LT = 120.01'$ $L = 490.82'$ $LT = 120.01'$
 $ST = 60.01'$ $T = 246.35'$ $ST = 60.01'$
 $R = 2,291.83'$
 $D_s = 60$ mph
 $e_{MAX} = 0.08$
 $e = 0.06$



DETAIL P
 CLASS "1" RIP RAP BANK PROTECTION
 (Not to Scale)

Pipe
 Existing Stream Bank
 Class "1" Rip Rap with Filter Fabric
 Rip-Rap = 2 Tons
 Filter Fabric = 7 S.Y.

FOR -L I- PROFILE SEE SHEETS 15 & 16

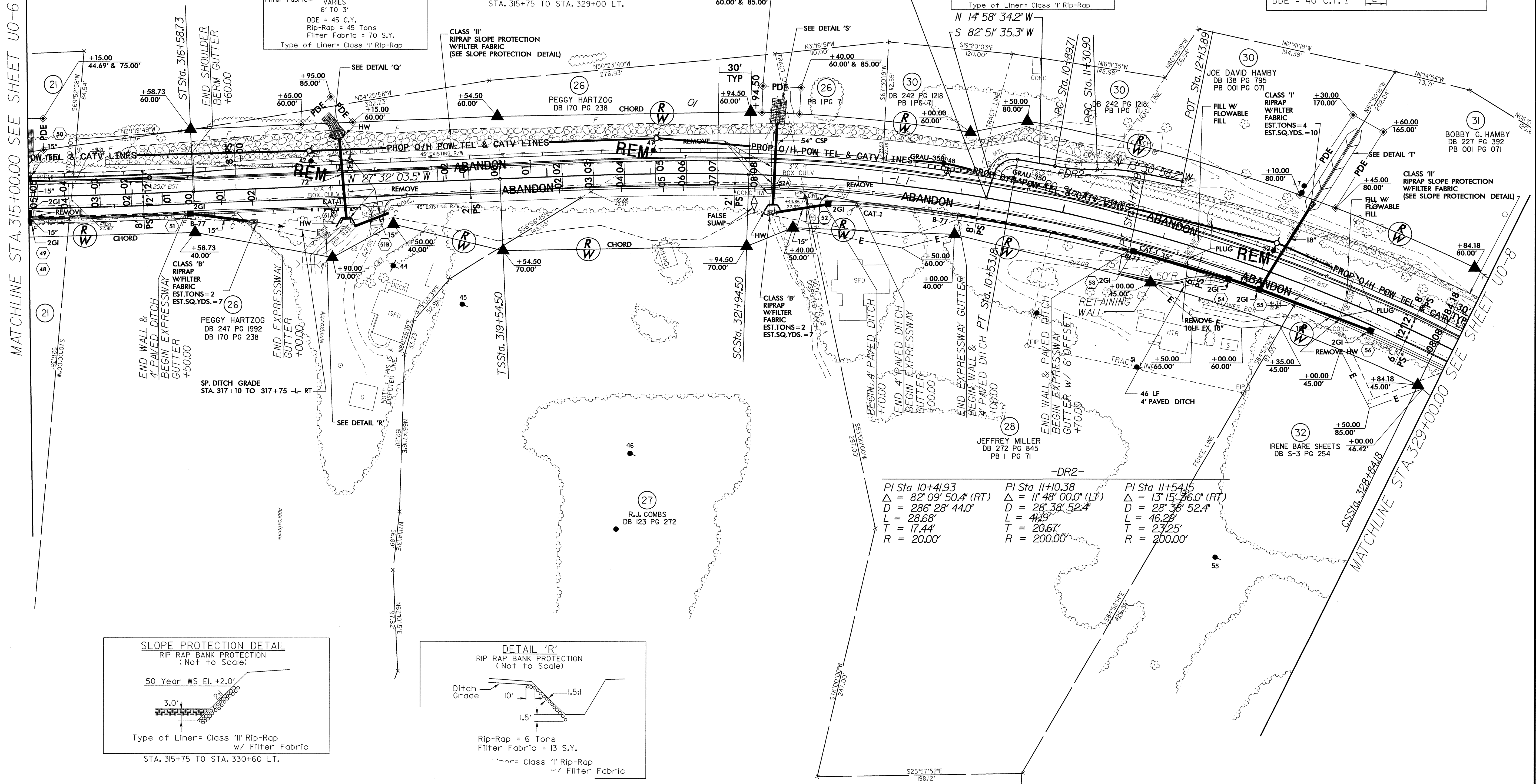
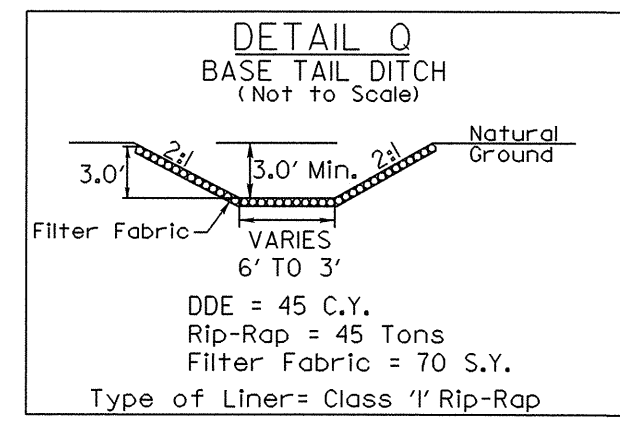
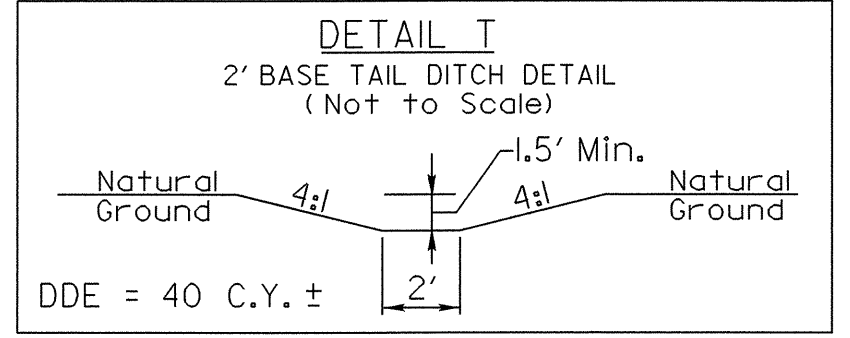
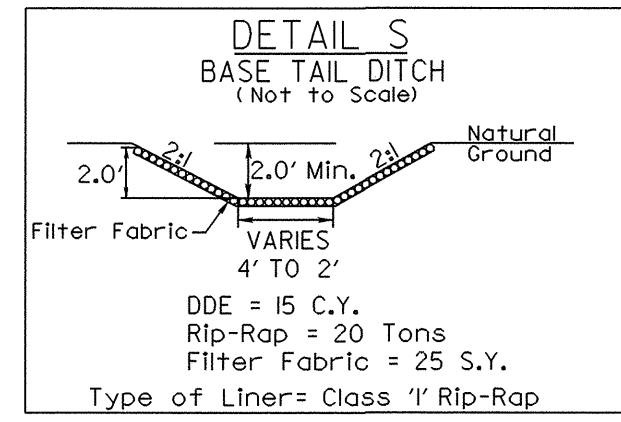
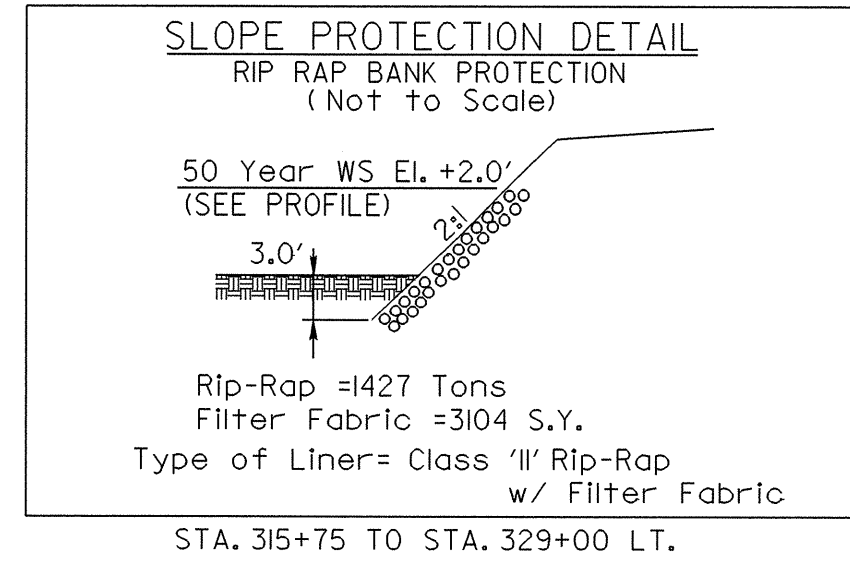
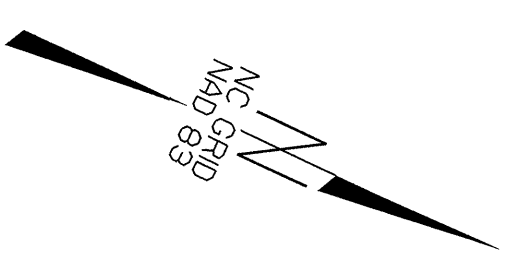
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UTILITIES BY OTHERS

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

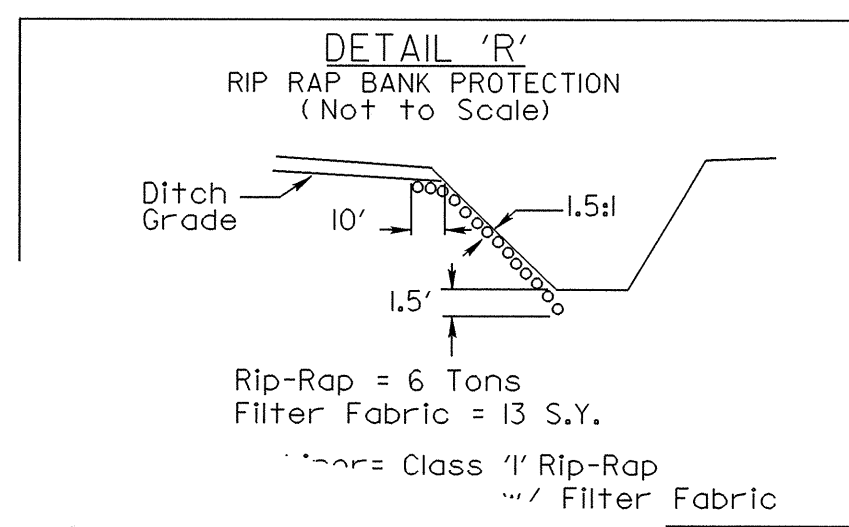
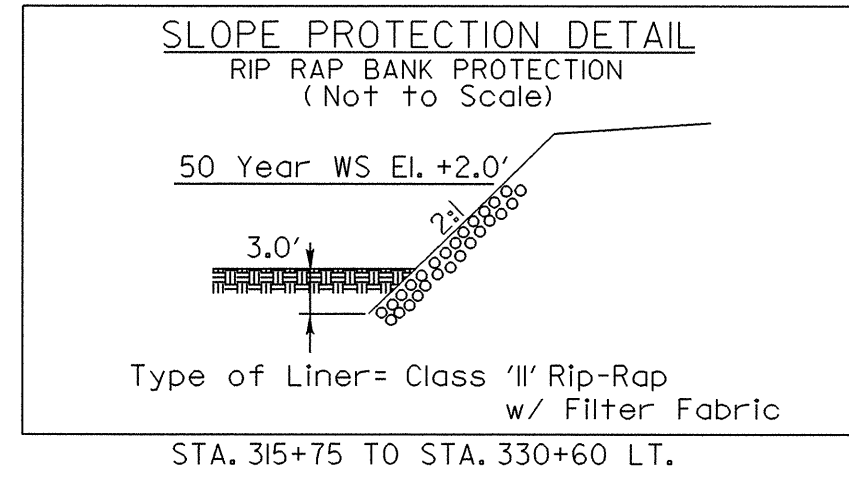
-L 1-
 Pls Sta 309+27.92 Δ = 12° 16' 13.9" (LT)
 Ls = 180.00' D = 2' 30" 00.0"
 LT = 120.01' L = 490.82
 ST = 60.01' T = 246.35'
 R = 2,291.83'
 Ds = 60 mph
 e MAX = 0.08
 e = 0.06
 Ro = 180.00'

-L 1-
 Pls Sta 321+4.55 Δ = 24° 08' 19.1" (RT)
 Ls = 240.00' D = 3' 30" 00.0"
 LT = 160.05' L = 689.68
 ST = 80.04' T = 350.03'
 R = 1,637.02'
 Ds = 60 mph
 e MAX = 0.08
 e = 0.08
 Ro = 240.00'



MATCHLINE STA 315+00.00 SEE SHEET U0-6

MATCHLINE STA 329+00.00 SEE SHEET U0-8



-DR2-
 Pls Sta 10+41.93 Δ = 82° 09' 50.4" (RT)
 Ls = 286' 28" 44.0" D = 28' 38" 52.4"
 LT = 28.68' L = 41.9'
 ST = 17.44' T = 20.67'
 R = 20.00'

Pls Sta 11+10.38 Δ = 11° 48' 00.0" (LT)
 Ls = 28' 38" 52.4" D = 28' 38" 52.4"
 LT = 28.68' L = 41.9'
 ST = 17.44' T = 20.67'
 R = 200.00'

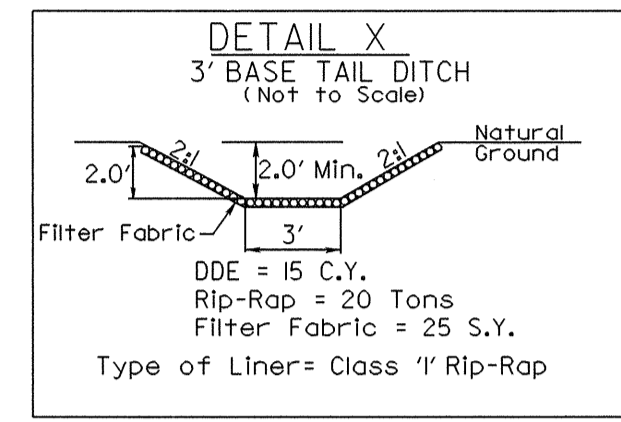
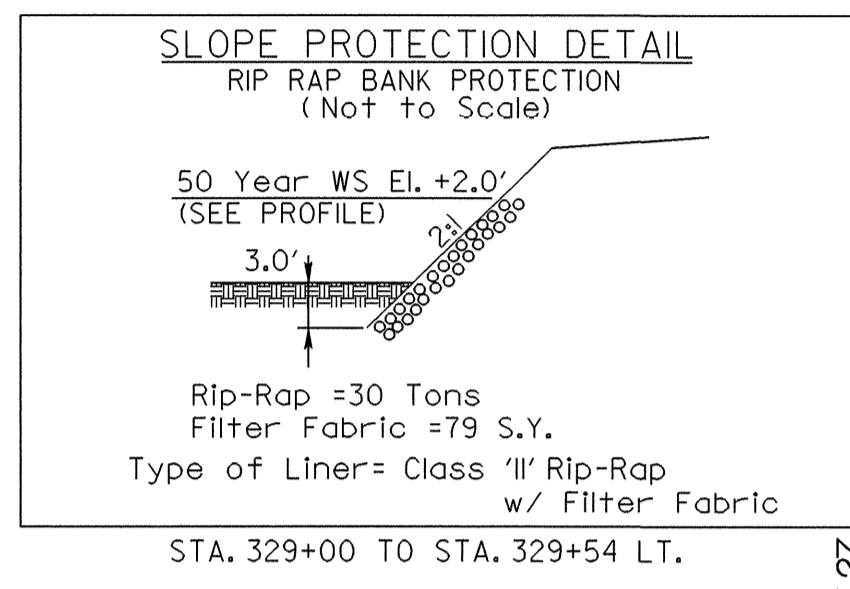
Pls Sta 11+54.15 Δ = 13° 15' 36.0" (RT)
 Ls = 28' 38" 52.4" D = 28' 38" 52.4"
 LT = 28.68' L = 46.28'
 ST = 23.25' T = 23.25'
 R = 200.00'

UTILITIES BY OTHERS

NOTE:
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SHOWN ON THIS SHEET WILL
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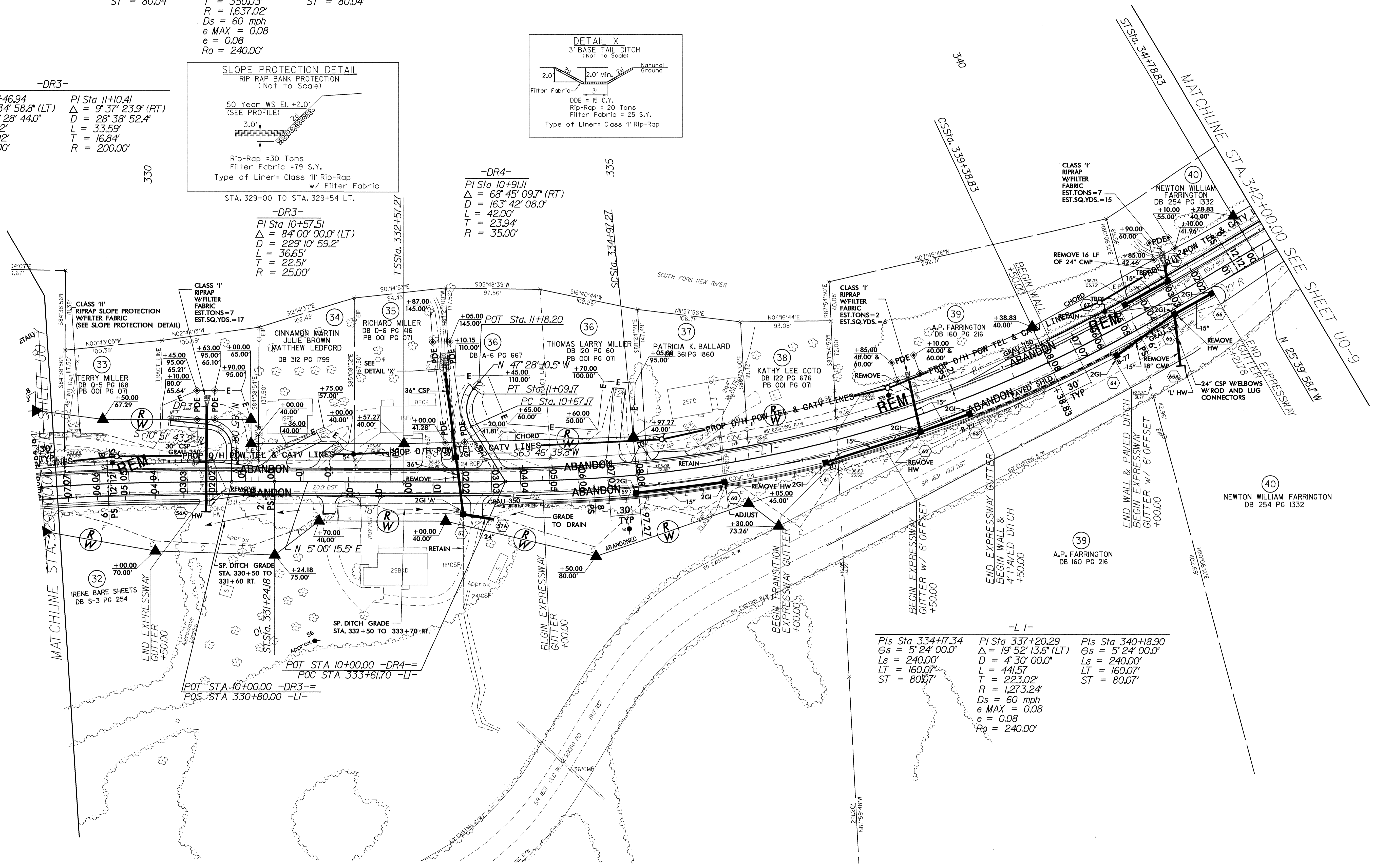
-L1-
Pls Sta 321+4.55 PI Sta 325+44.53 Pls Sta 329+64.22
Δ = 4° 12' 00.0" Δ = 24° 08' 19.1" (RT) Δ = 4° 12' 00.0"
Ls = 240.00' D = 3° 30' 00.0" Ls = 240.00'
LT = 160.05' L = 689.68 LT = 160.05'
ST = 80.04' T = 350.03' ST = 80.04'
R = 1,637.02'
Ds = 60 mph
e MAX = 0.08
e = 0.08
Ro = 240.00'

-DR3-
PI Sta 10+46.94 PI Sta 11+10.41
Δ = 92° 34' 58.8" (LT) Δ = 9° 37' 23.9" (RT)
D = 286° 28' 44.0" D = 28° 38' 52.4"
L = 32.32' L = 33.59'
T = 20.92' T = 16.84'
R = 20.00' R = 200.00'



-DR3-
PI Sta 10+57.51
Δ = 84° 00' 00.0" (LT)
D = 229° 10' 59.2"
L = 36.65'
T = 22.51'
R = 25.00'

-DR4-
PI Sta 10+91.11
Δ = 68° 45' 09.7" (RT)
D = 163° 42' 08.0"
L = 42.00'
T = 23.94'
R = 35.00'

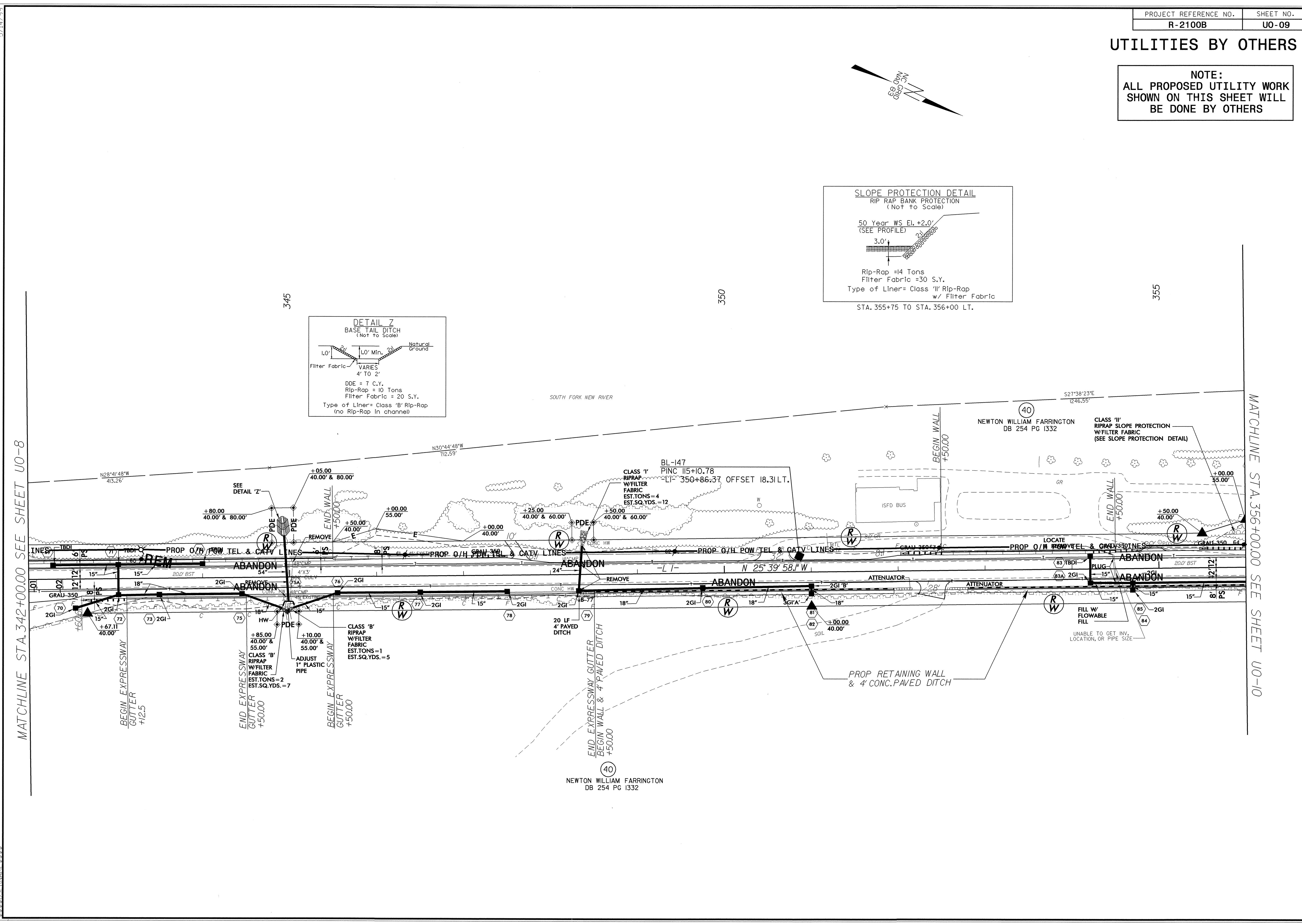
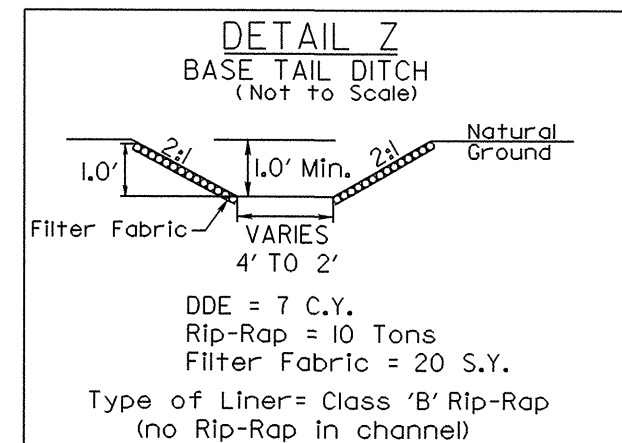
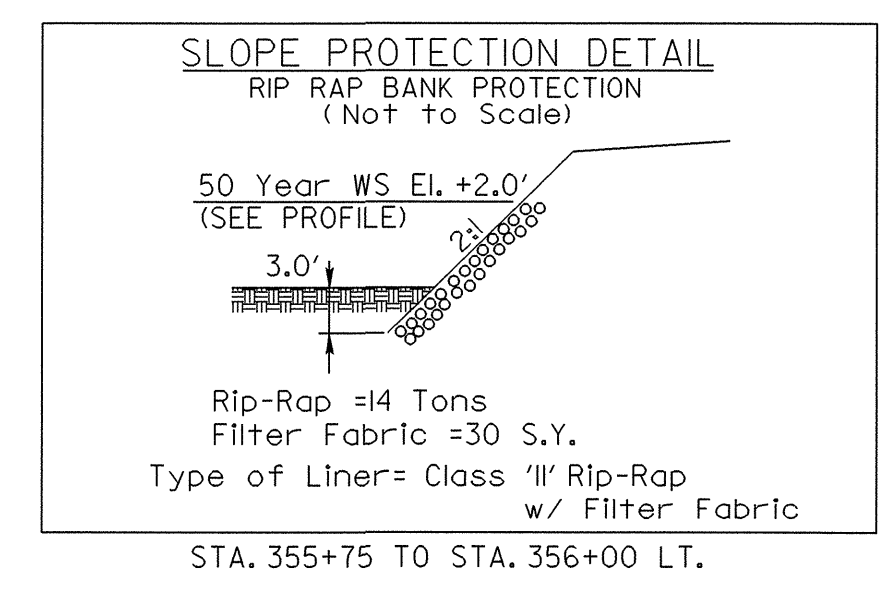
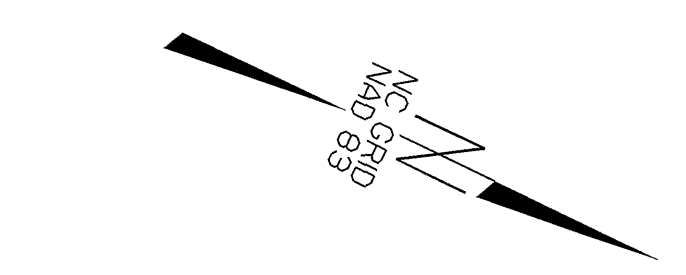


-L1-
Pls Sta 334+17.34 PI Sta 337+20.29 Pls Sta 340+18.90
Δ = 5° 24' 00.0" Δ = 19° 52' 13.6" (LT) Δ = 5° 24' 00.0"
Ls = 240.00' D = 4° 30' 00.0" Ls = 240.00'
LT = 160.07' L = 441.57' LT = 160.07'
ST = 80.07' T = 223.02' ST = 80.07'
R = 1,273.24'
Ds = 60 mph
e MAX = 0.08
e = 0.08
Ro = 240.00'

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UTILITIES BY OTHERS

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5/14/09

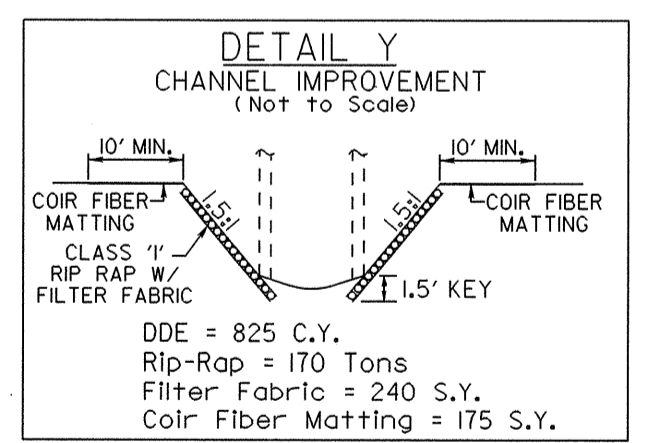
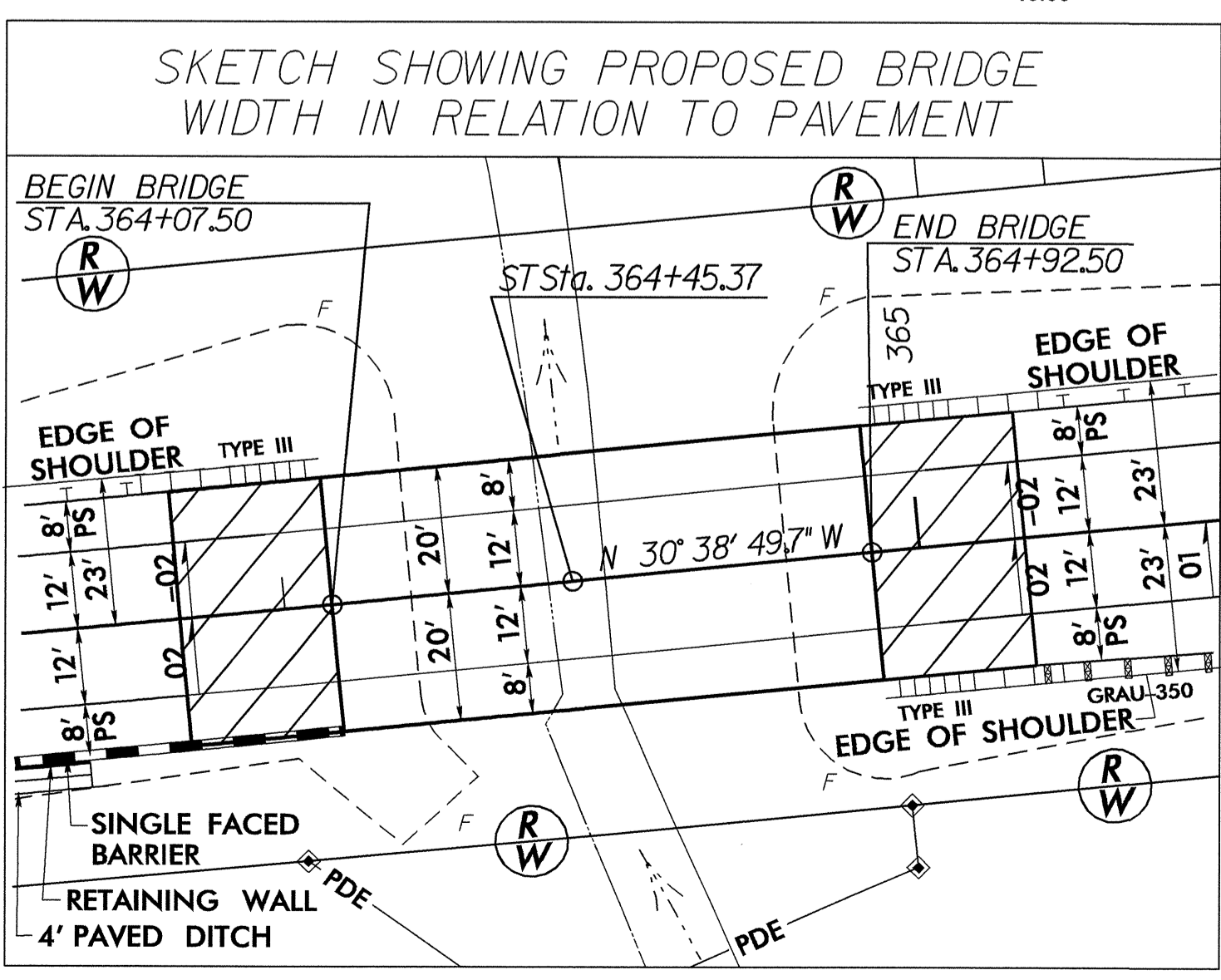
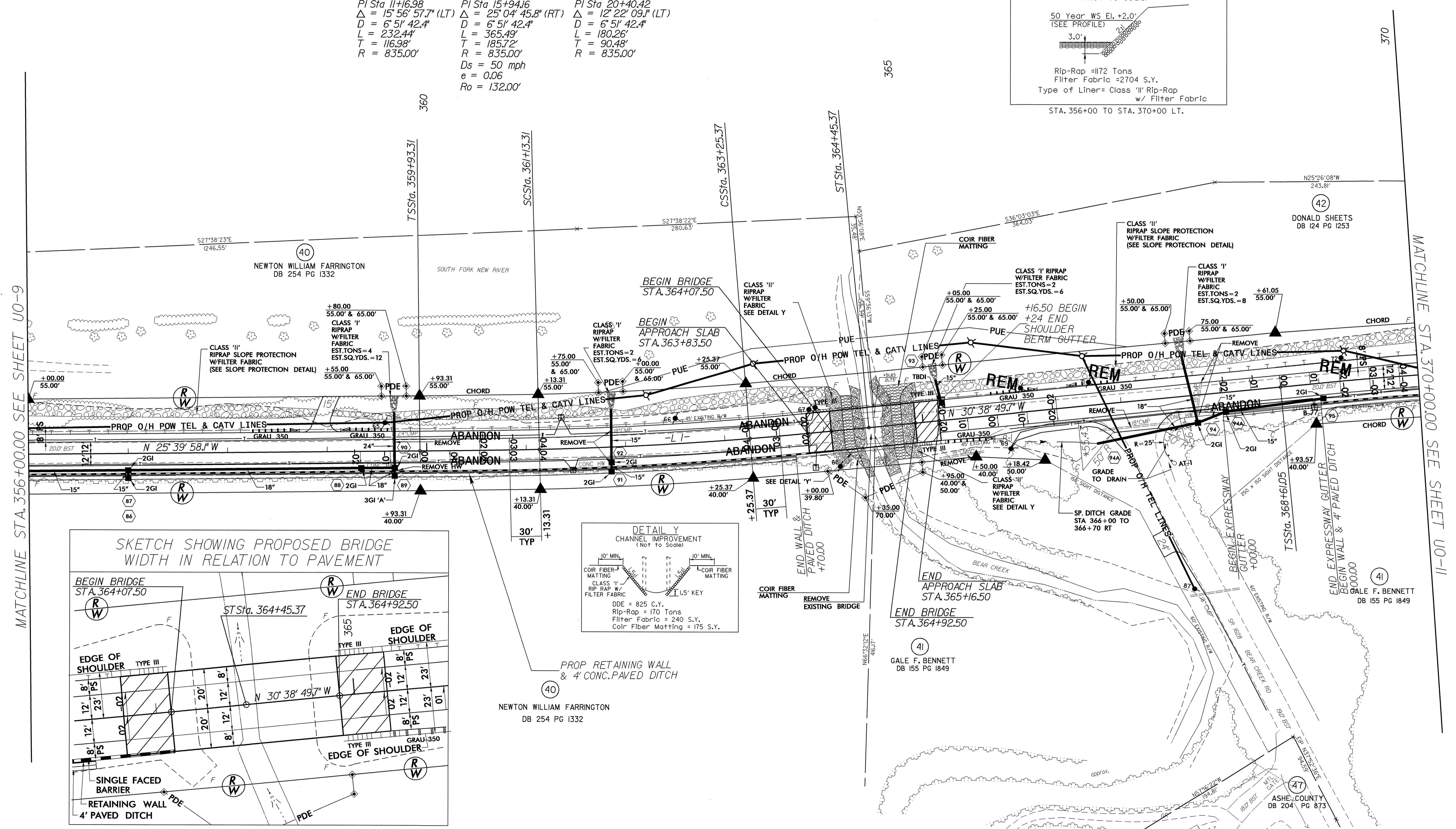
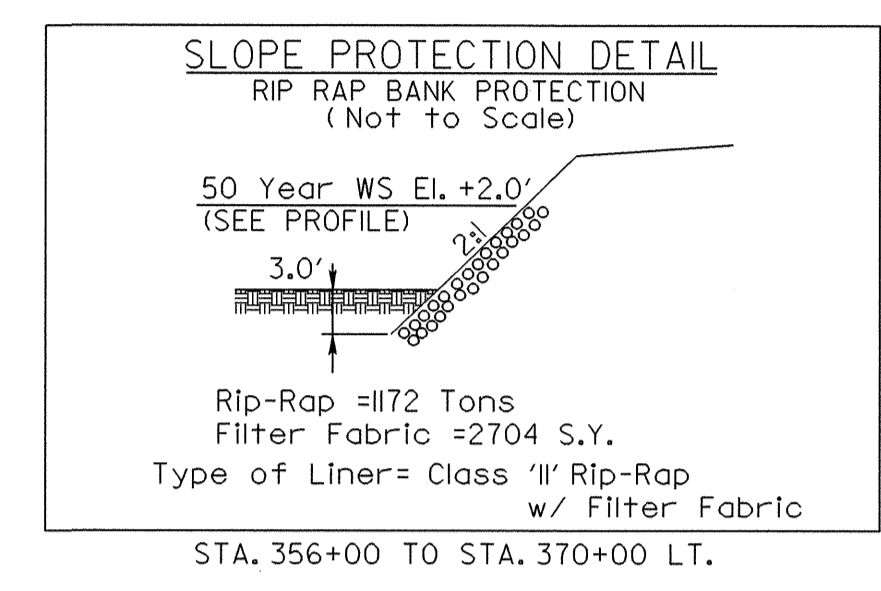
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UTILITIES BY OTHERS

NOTE:
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-L I-			-L I-		
Pls Sta. 363+65.38	PI Sta. 362+19.37	Pls Sta. 360+73.31	Pls Sta. 370+21.11	PI Sta. 371+94.30	Pls Sta. 373+67.33
Os = 0° 54' 00.0"	Δ = 3° 10' 51.6" (LT)	Os = 0° 54' 00.0"	Os = 4° 48' 00.0"	Δ = 7° 26' 56.9" (RT)	Os = 4° 48' 00.0"
Ls = 120.00'	D = 1° 30' 00.0"	Ls = 120.00'	Ls = 240.00'	D = 4° 00' 00.0"	Ls = 240.00'
LT = 80.00'	L = 212.07'	LT = 80.00'	L = 186.23'	L = 160.06'	LT = 160.06'
ST = 40.00'	T = 106.06'	ST = 40.00'	T = 93.25'	T = 80.05'	ST = 80.05'
	R = 3,819.72'		R = 1,432.39'		
	Ds = 60 mph		Ds = 60 mph		
	e MAX = 0.08		e MAX = 0.08		
	e = 0.04		e = 0.08		
	Ro = 120.00'		Ro = 240.00'		

-DET L I-		
PI Sta. 11+16.98	PI Sta. 15+94.16	PI Sta. 20+40.42
Δ = 15° 56' 57.7" (LT)	Δ = 25° 04' 45.8" (RT)	Δ = 12° 22' 09.1" (LT)
D = 6° 51' 42.4"	D = 6° 51' 42.4"	D = 6° 51' 42.4"
L = 232.44'	L = 365.49'	L = 180.26'
T = 116.98'	T = 185.72'	T = 90.48'
R = 835.00'	R = 835.00'	R = 835.00'
	Ds = 50 mph	
	e = 0.06	
	Ro = 132.00'	



MATCHLINE STA. 356+00.00 SEE SHEET UO-9

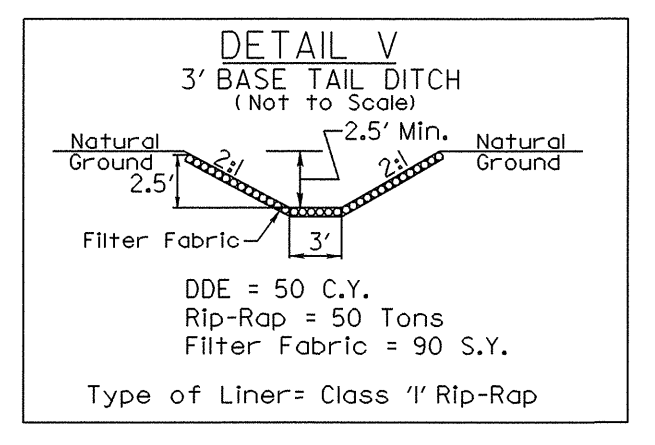
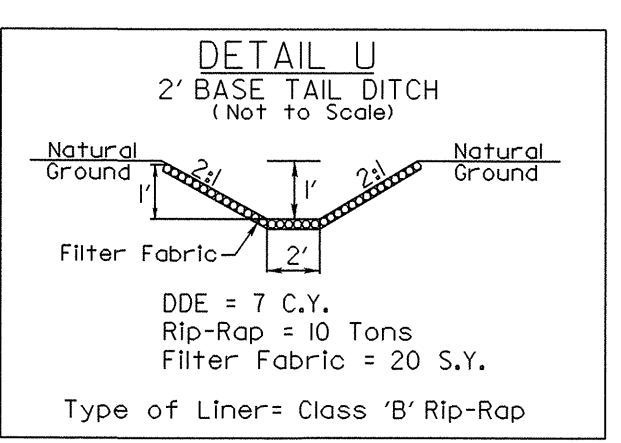
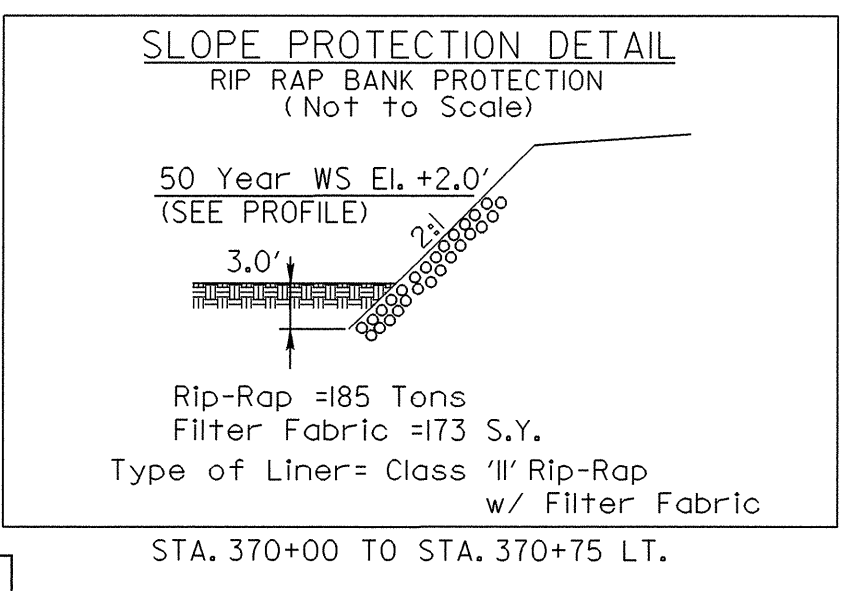
MATCHLINE STA. 370+00.00 SEE SHEET UO-11

5/14/99
04-AUG-2009 13:22
r:\utilities\2100b\ut_r.dwg UO10.dgn

UTILITIES BY OTHERS

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

-L I-
 Pls Sta 370+21.11 Δs = 4' 48" 00.0"
 Ls = 240.00' D = 4' 00" 00.0"
 LT = 160.06' T = 93.25'
 ST = 80.05' R = 1,432.39'
 Ds = 60 mph
 e MAX = 0.08
 e = 0.08
 Ro = 240.00'



-L I- POT STA 379+00.00
END TIP PROJECT R-2100 B

REVISION: 6/5/2008 Added existing above ground tank to Parcel 46

