

05/08/09

CONTRACT: C201281
TIP PROJECT: W-4713

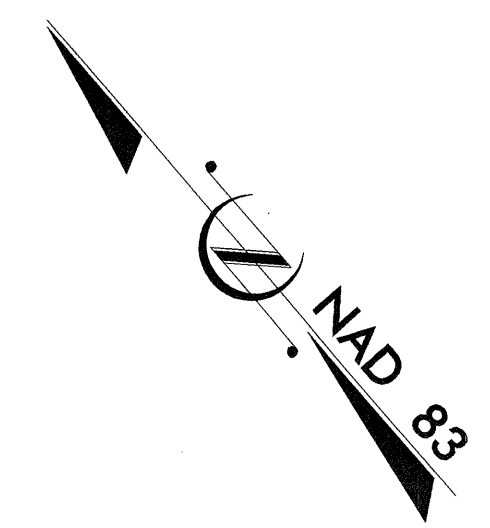
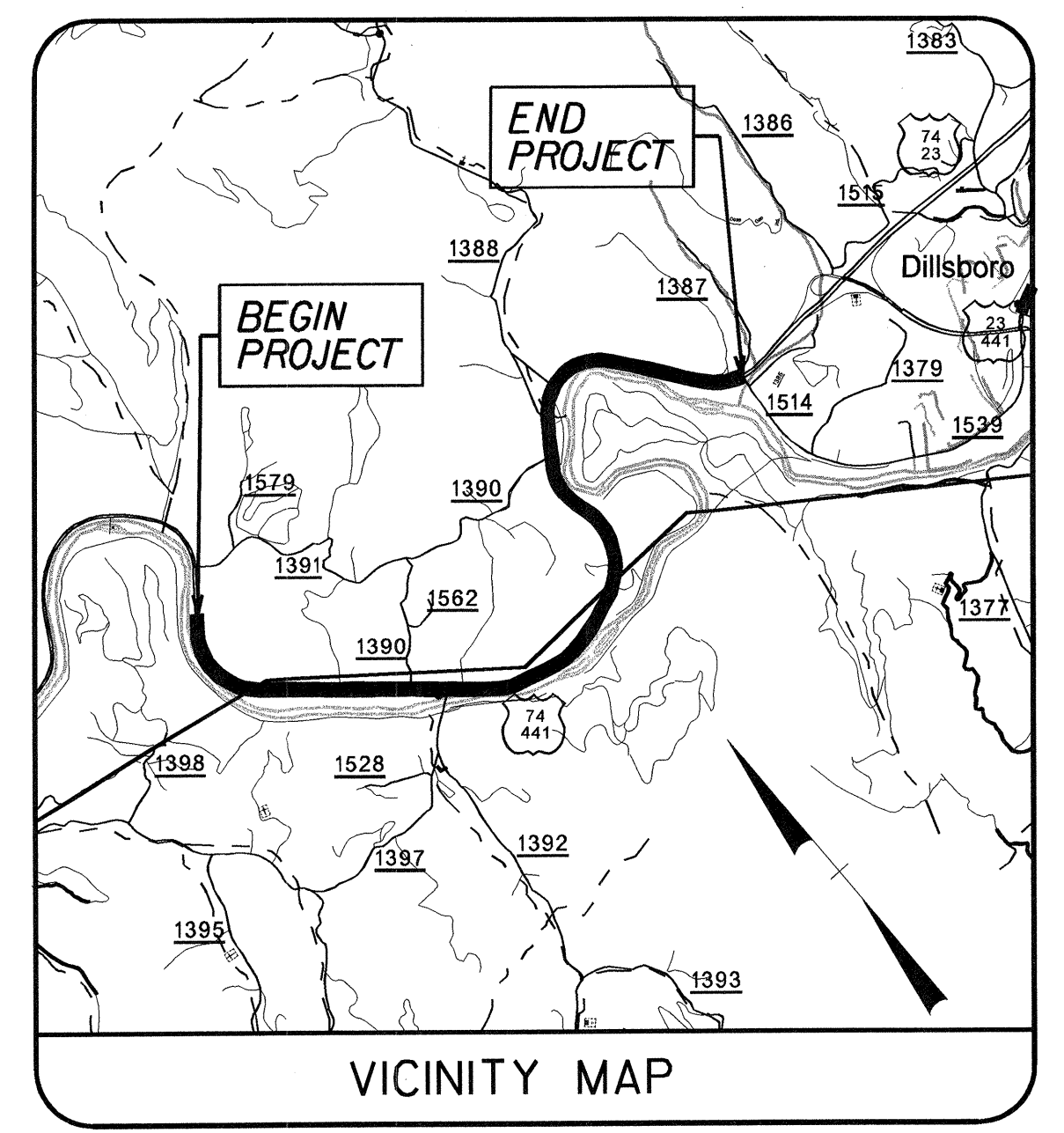
See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

PLAN FOR PROPOSED HIGHWAY EROSION CONTROL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-4713	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
37735.3.1		P.E.	

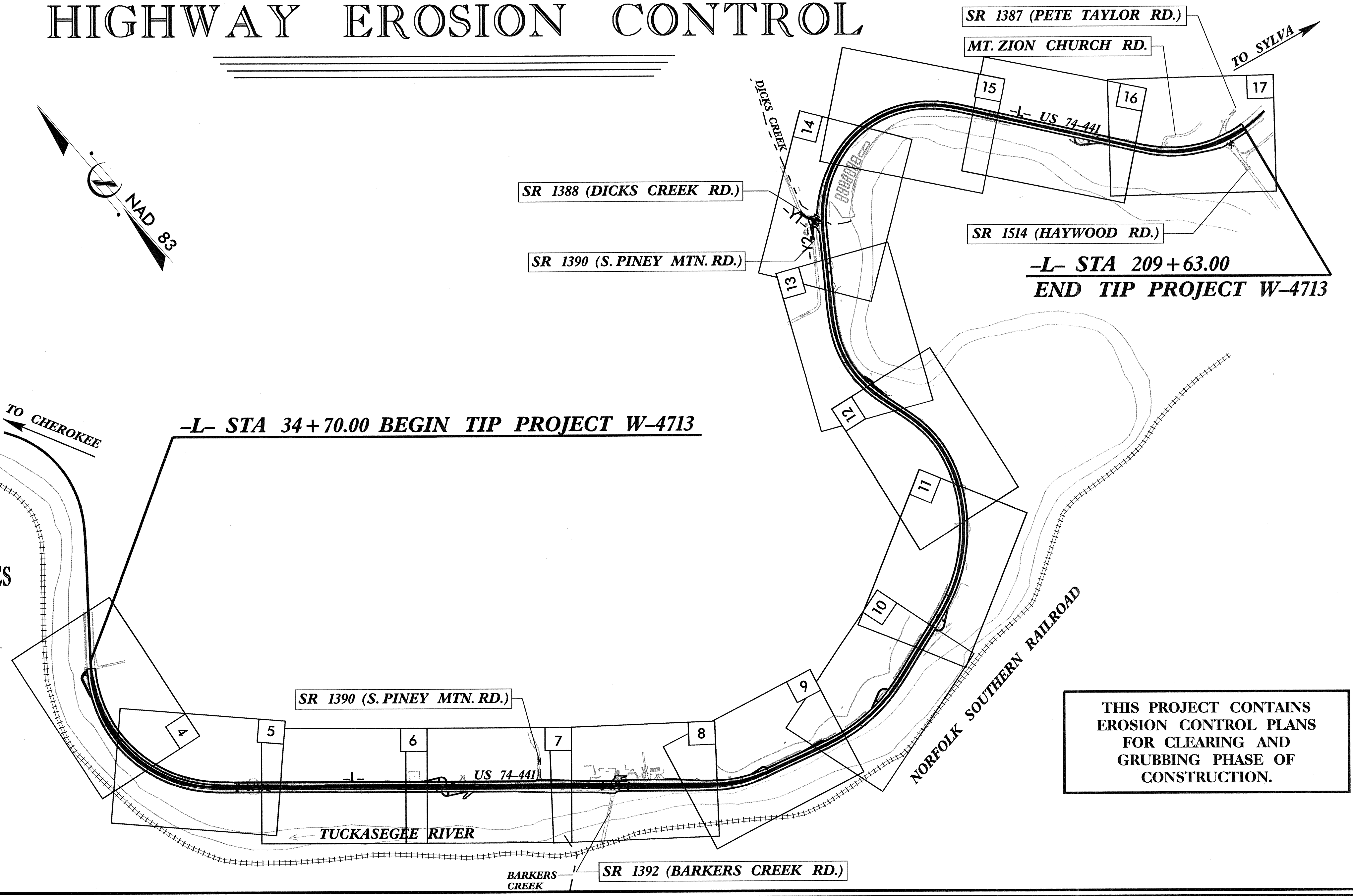


EROSION AND SEDIMENT CONTROL MEASURES

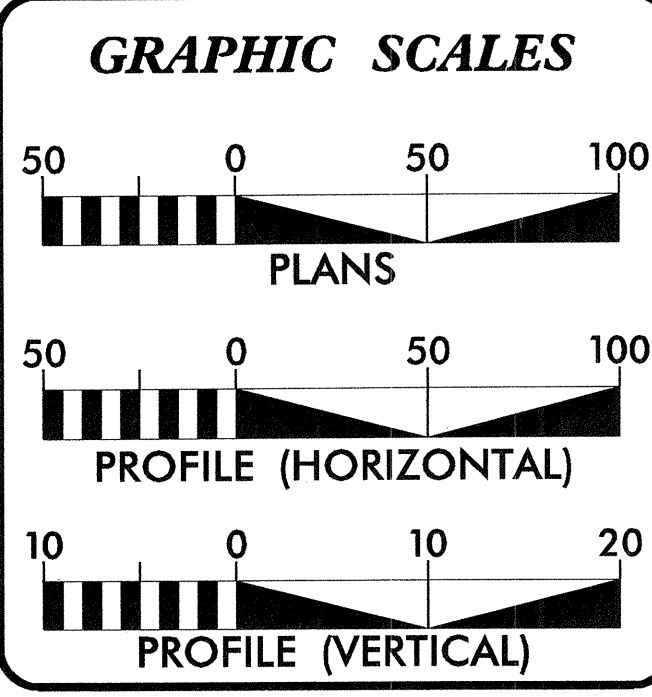
Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	C
Rock Inlet Sediment Trap:		
1632.01	Type A	A OR - A)
1632.03	Type C	C OR - C)

NOTES:

1. Clearing on this project shall be performed to the limits established by Method II.



THIS PROJECT CONTAINS
 EROSION CONTROL PLANS
 FOR CLEARING AND
 GRUBBING PHASE OF
 CONSTRUCTION.



PLANS PREPARED BY :
RUMMEL, KLEPPER & KAHL, LLP
 consulting engineers
 900 RIDGEFIELD DRIVE, SUITE 350
 RALEIGH, NORTH CAROLINA 27609
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 FOR
DIVISION OF HIGHWAYS

2006 STANDARD SPECIFICATIONS

LETTING DATE:
MARCH 20, 2007

B. Keith Skinner, P.E.
 PROJECT ENGINEER

Brandon J. McInnis, P.E.
 PROJECT DESIGN ENGINEER

PROJECT LENGTH

Length Roadway	
TIP Project W-4713	3.313 Mi.
Length Structure	
TIP Project W-4713	0.000 Mi.
TOTAL LENGTH TIP	
Project W-4713	3.313 Mi.

Roadway Standard Drawings

The following roadway standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01	Temporary Silt Fence
1607.01	Gravel Construction Entrance
1632.01	Rock Inlet Sediment Trap Type A
1632.03	Rock Inlet Sediment Trap Type C
1635.01	Rock Pipe Inlet Sediment Trap Type A

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PROJECT REFERENCE NO.	SHEET NO.
W-4713	EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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REVISIONS

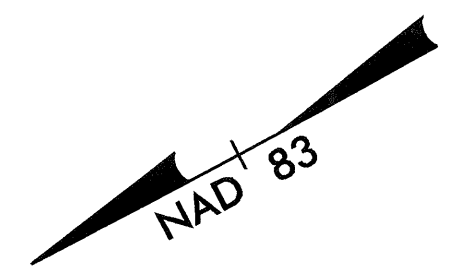
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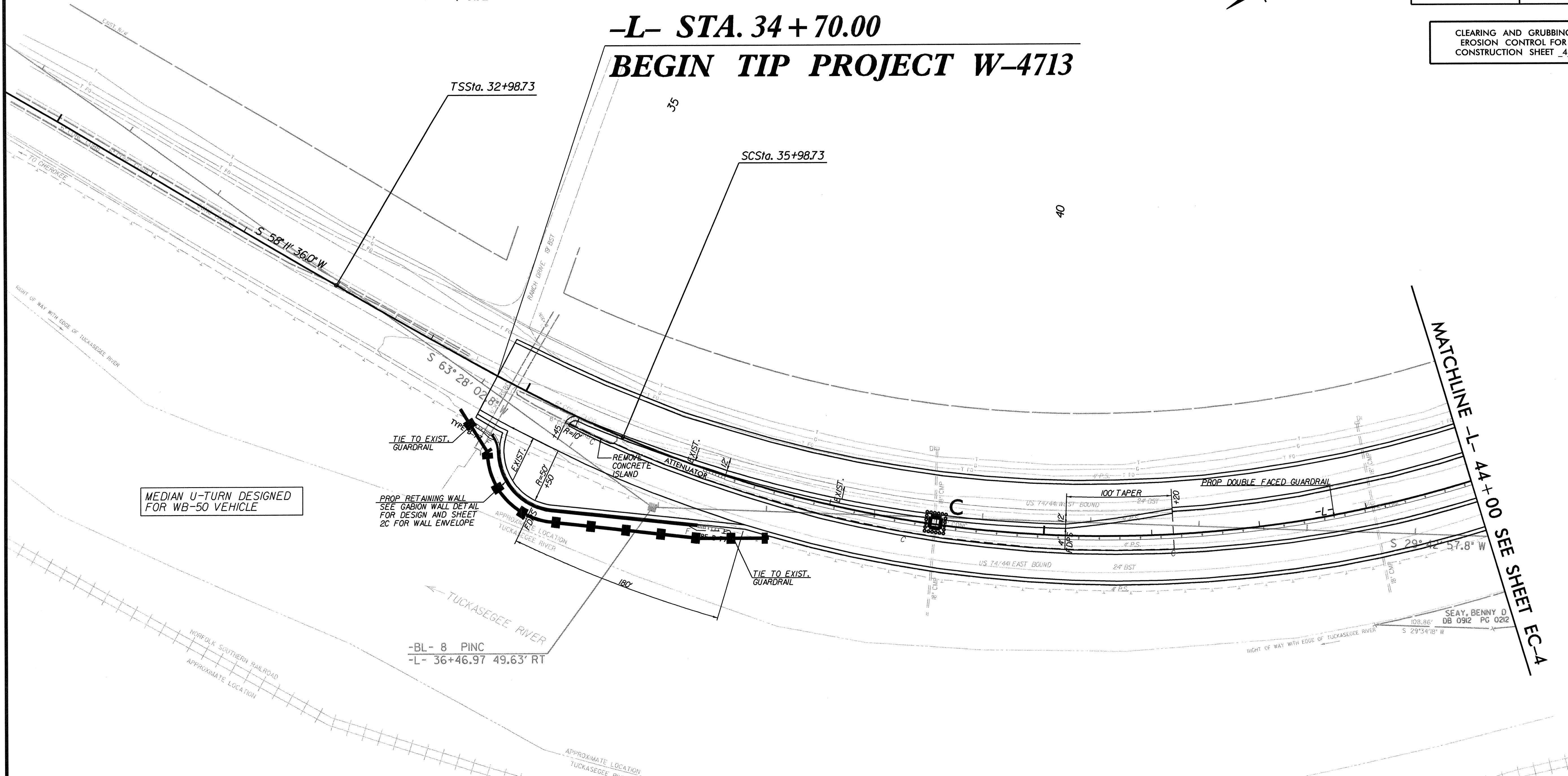
PROJECT REFERENCE NO. W-4713	SHEET NO. EC-3
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

-L-
Pls Sta 34+98.91 PI Sta 44+42.00
 $\Theta_s = 7^\circ 30' 00.0"$ $\Delta = 72^\circ 41' 52.0"$ (LT)
 $L_s = 300.00'$ $D = 5^\circ 00' 00.0"$
 $LT = 200.18'$ $L = 1,453.96'$
 $ST = 100.16'$ $T = 843.27'$
 $R = 1,145.92'$



**-L- STA. 34+70.00
 BEGIN TIP PROJECT W-4713**



DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "W4713 GPS-4" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 622700.186(ft) EASTING: 721431.816(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999783565 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "W4713 GPS-4" TO -L- STATION 32+00.00 IS NN13° 26' 04.5" W 44890.821'. ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

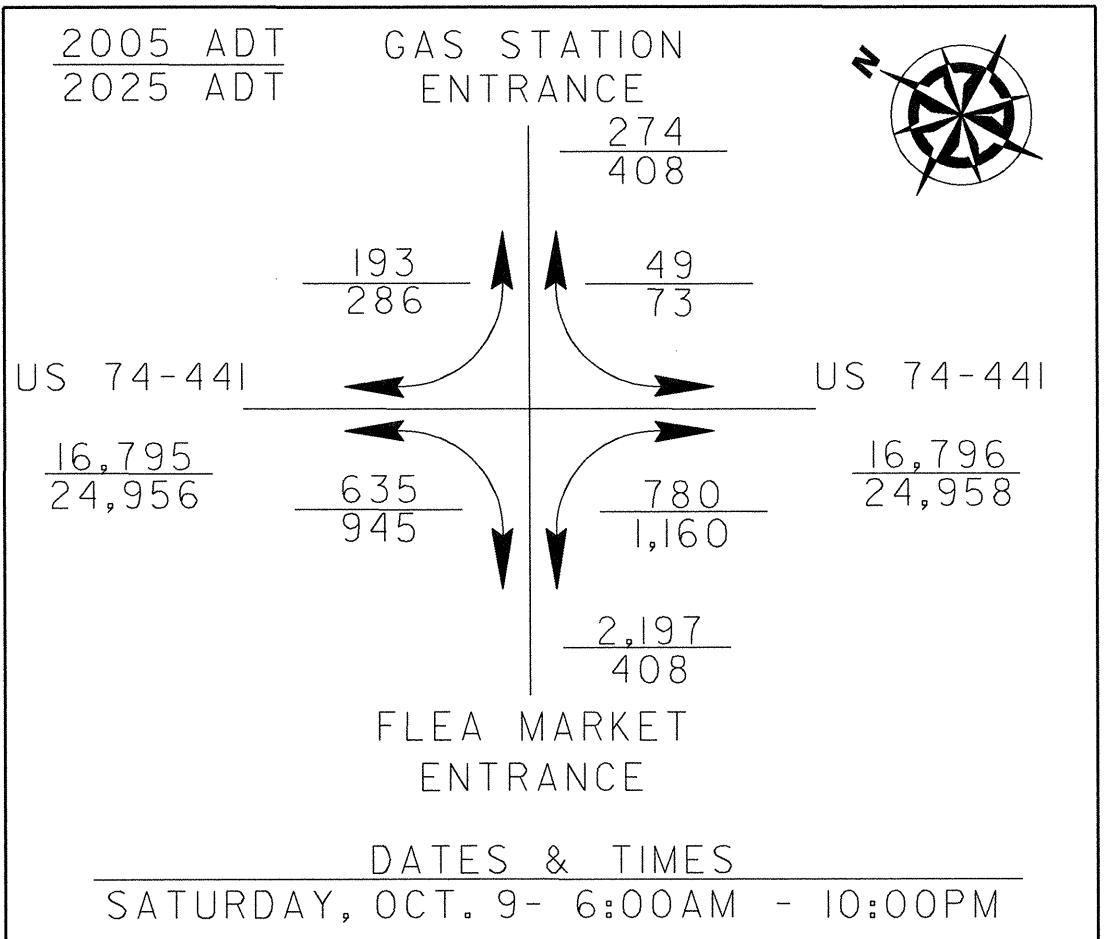
SEE SHEETS 2-E TO 2-F FOR RUMBLE STRIP DETAIL. RUMBLE STRIPS TO BE CONSTRUCTED ON INSIDE AND OUTSIDE SHOULDERS FROM -L- STA. 34+70.00 TO -L- STA. 209+63.00

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 FOR
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SEE SHEET 18 FOR -L- EXISTING GROUND PROFILE.

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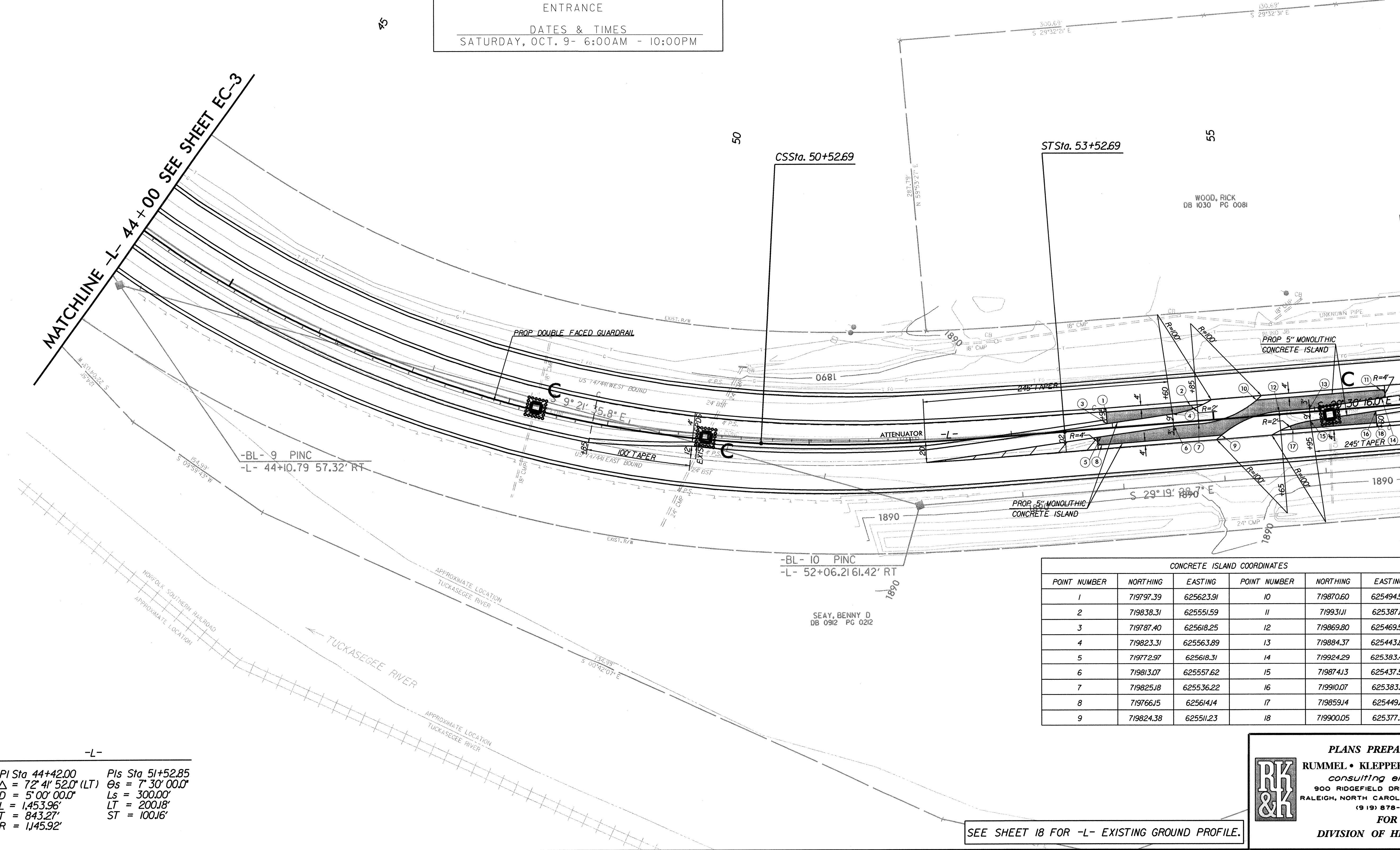
PROJECT REFERENCE NO. W-4713	SHEET NO. EC-4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET_5

MATCHLINE -L- 44+00 SEE SHEET EC-3

MATCHLINE -L- 57+00 SEE SHEET EC-5



CONCRETE ISLAND COORDINATES					
POINT NUMBER	NORTHING	EASTING	POINT NUMBER	NORTHING	EASTING
1	719797.39	625623.91	10	719870.60	625494.54
2	719838.31	625551.59	11	719931.11	625387.61
3	719787.40	625618.25	12	719869.80	625469.55
4	719823.31	625563.89	13	719884.37	625443.80
5	719772.97	625618.31	14	719924.29	625383.43
6	719813.07	625557.62	15	719874.13	625437.53
7	719825.18	625536.22	16	719910.07	625383.18
8	719766.15	625614.14	17	719859.14	625449.81
9	719824.38	625511.23	18	719900.05	625377.51

-L-	
PI Sta 44+42.00	PIs Sta 51+52.85
$\Delta = 72^\circ 41' 52.0"$ (LT)	$\Theta s = 7^\circ 30' 00.0"$
D = 5'00' 00.0"	LS = 300.00'
L = 1,453.96'	LT = 200.18'
T = 843.27'	ST = 100.16'
R = 1,445.92'	

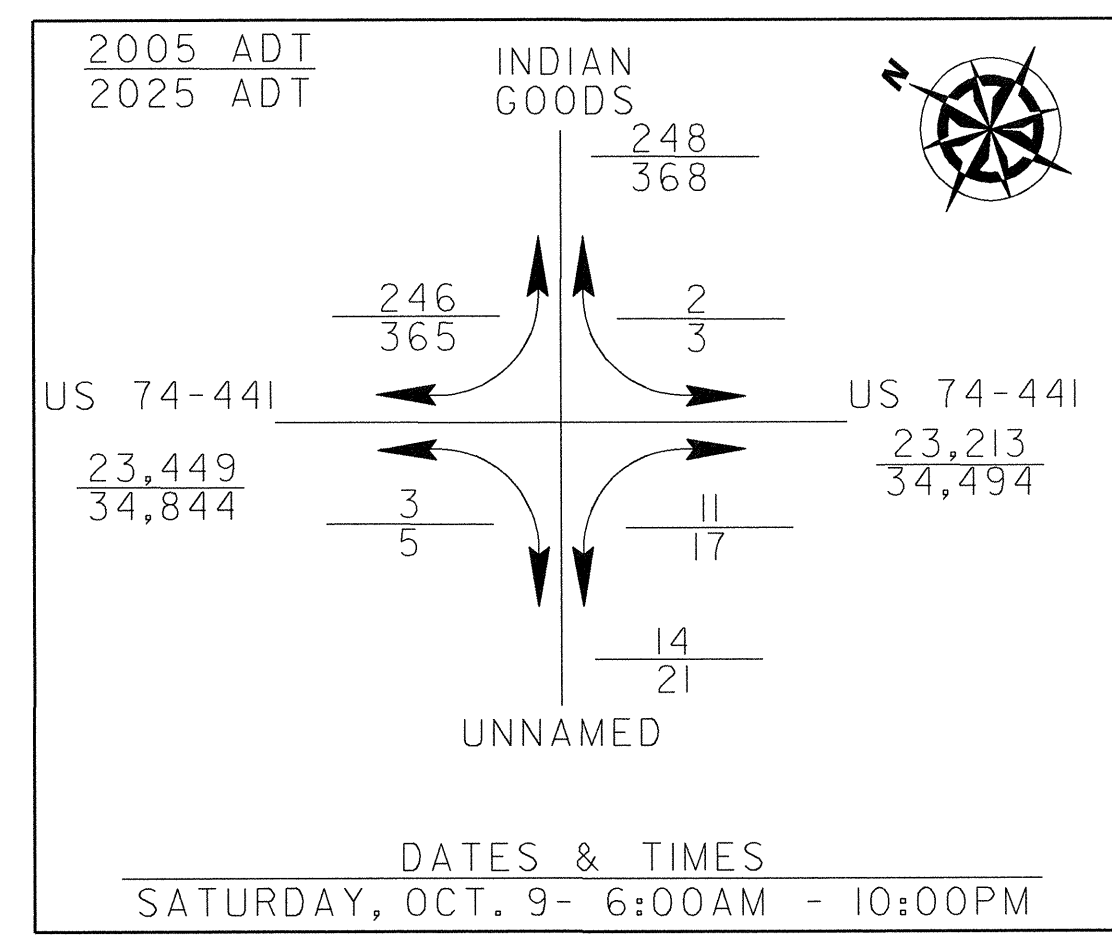
SEE SHEET 18 FOR -L- EXISTING GROUND PROFILE.

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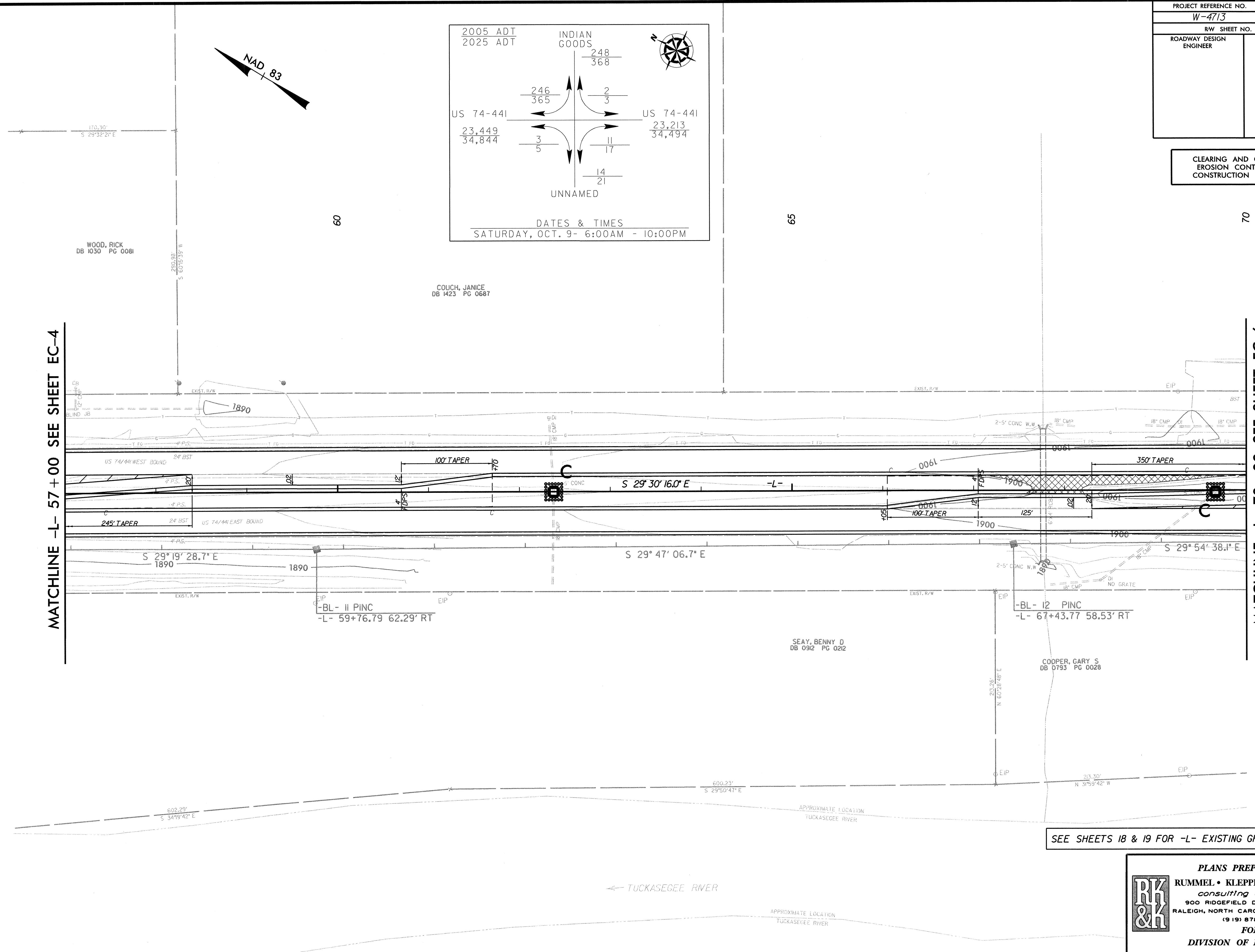
PROJECT REFERENCE NO.	SHEET NO.
W-4713	EC-5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6



MATCHLINE -L- 57+00 SEE SHEET EC-4

MATCHLINE -L- 70+00 SEE SHEET EC-6



SEE SHEETS 18 & 19 FOR -L- EXISTING GROUND PROFILE.

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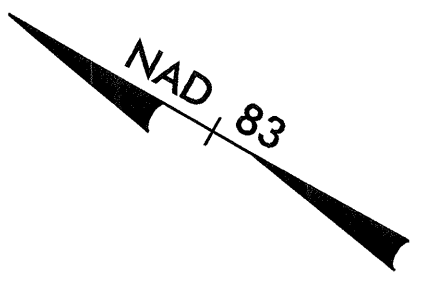
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DIVISION OF HIGHWAYS

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PROJECT REFERENCE NO. W-4713		SHEET NO. EC-6
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

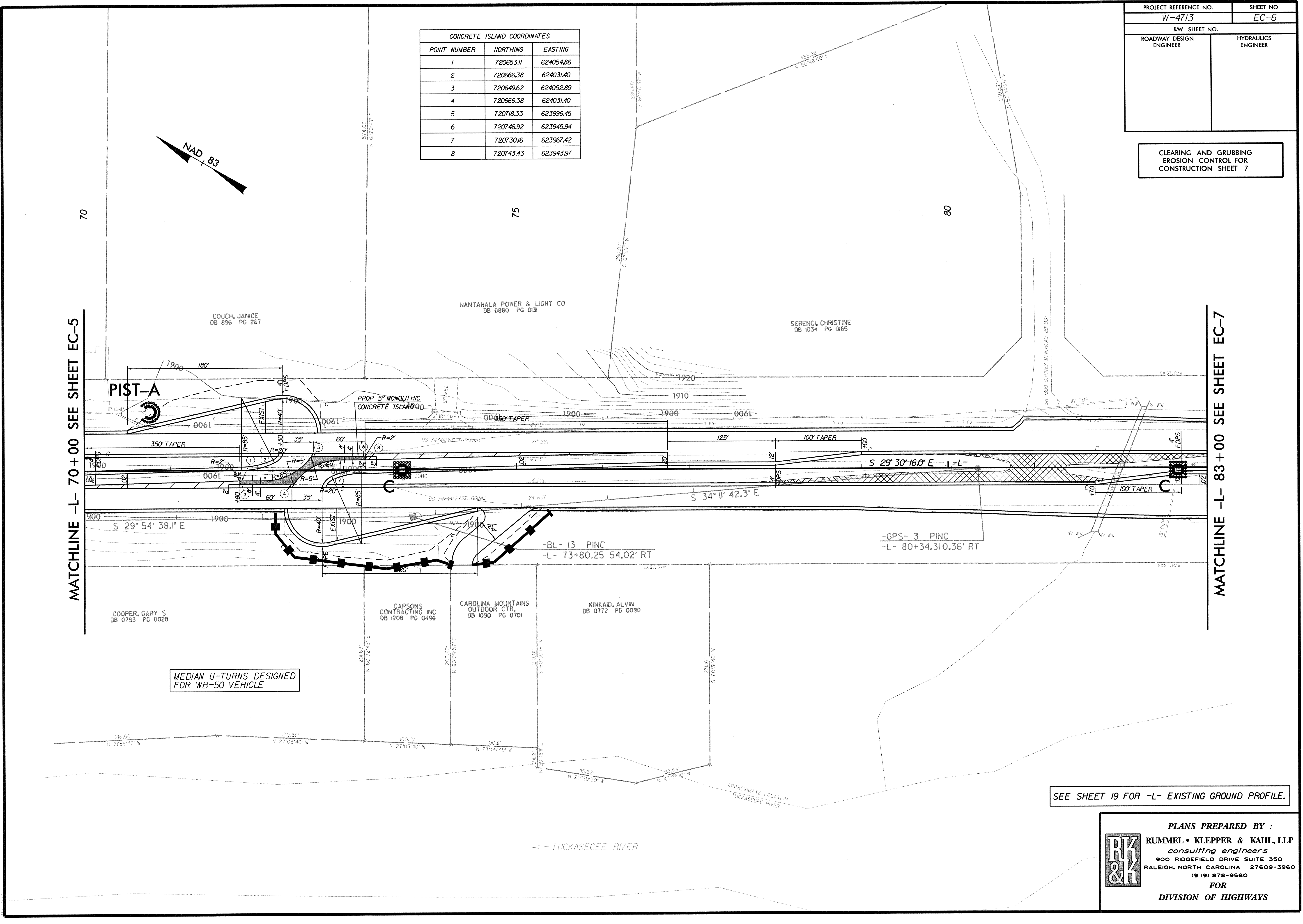
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

CONCRETE ISLAND COORDINATES		
POINT NUMBER	NORTHING	EASTING
1	720653.11	624054.86
2	720666.38	624031.40
3	720649.62	624052.89
4	720666.38	624031.40
5	720718.33	623996.45
6	720746.92	623945.94
7	720730.16	623967.42
8	720743.43	623943.97



MATCHLINE -L- 70+00 SEE SHEET EC-5

MATCHLINE -L- 83+00 SEE SHEET EC-7



SEE SHEET 19 FOR -L- EXISTING GROUND PROFILE.

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 FOR
DIVISION OF HIGHWAYS

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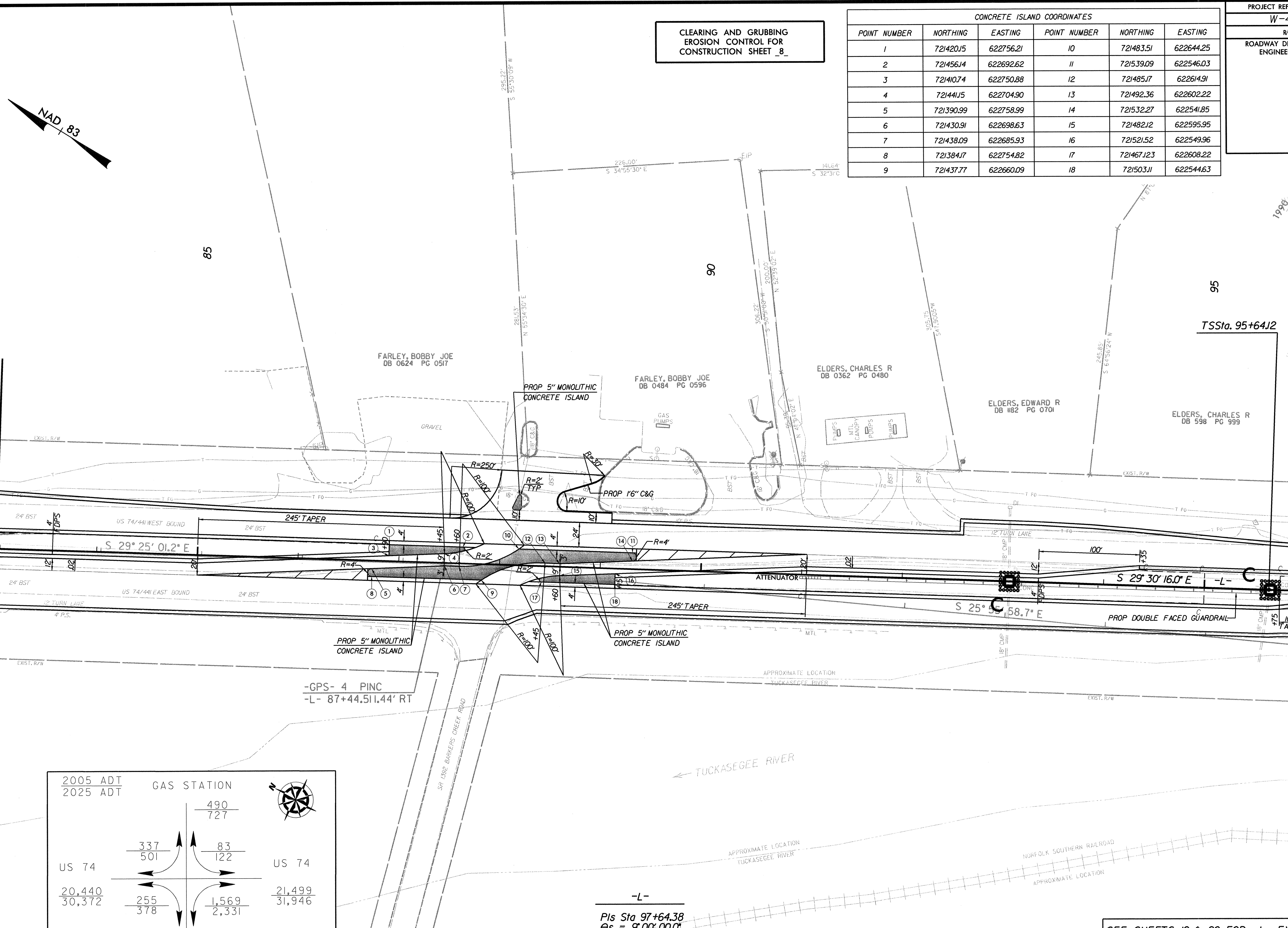
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8_

CONCRETE ISLAND COORDINATES					
POINT NUMBER	NORTHING	EASTING	POINT NUMBER	NORTHING	EASTING
1	721420.15	622756.21	10	721483.51	622644.25
2	721456.14	622692.62	11	721539.09	622546.03
3	721410.74	622750.88	12	721485.17	622614.91
4	721441.15	622704.90	13	721492.36	622602.22
5	721390.99	622758.99	14	721532.27	622541.85
6	721430.91	622698.63	15	721482.12	622595.95
7	721438.09	622685.93	16	721521.52	622549.96
8	721384.17	622754.82	17	721467.123	622608.22
9	721437.77	622660.09	18	721503.11	622544.63

PROJECT REFERENCE NO. W-4713	SHEET NO. EC-7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCHLINE -L- 83+00 SEE SHEET EC-6

MATCHLINE -L- 96+00 SEE SHEET EC-8



2005 ADT 2025 ADT

GAS STATION		SR 1392 (BARKERS CREEK)	
490	83	1,893	
727	122	2,813	
337	255		
501	378		
20,440	21,499		
30,372	31,946		

DATES & TIMES
WEDNESDAY, OCT. 13- 12:30PM - 10:00PM
THURSDAY, OCT. 14- 6:00AM - 12:30PM

-L-
Pls Sta 97+64.38
Gs = 9'00'00.0"
Ls = 300.00'
LT = 200.26'
ST = 100.24'

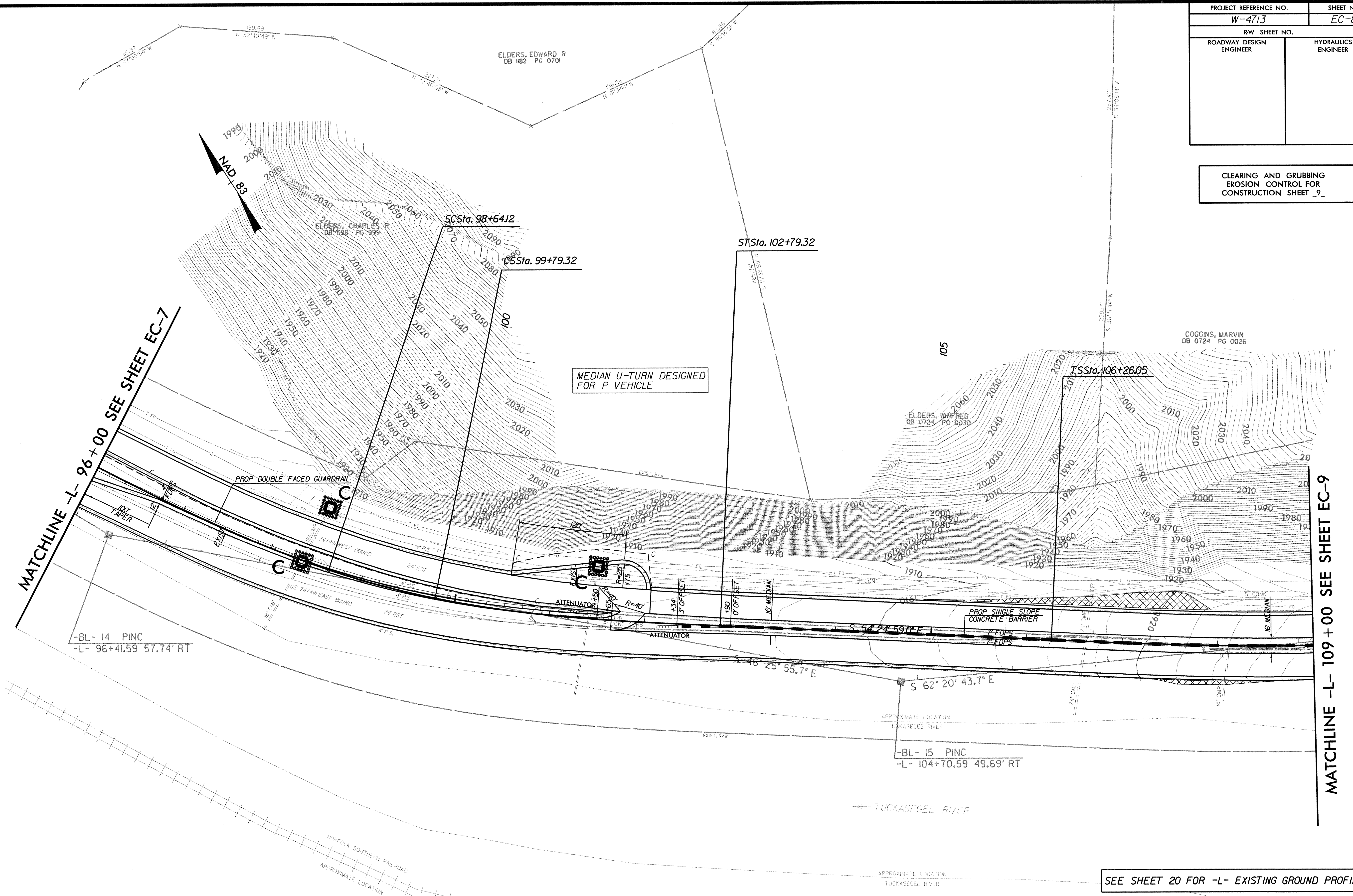
SEE SHEETS 19 & 20 FOR -L- EXISTING GROUND PROFILE.

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FOR
DIVISION OF HIGHWAYS

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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9



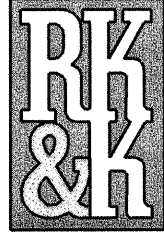
MATCHLINE -L- 96+00 SEE SHEET EC-7

MATCHLINE -L- 109+00 SEE SHEET EC-9

SEE SHEET 20 FOR -L- EXISTING GROUND PROFILE.

PIs Sta 97+64.38 θs = 9°00'00.0" Ls = 300.00' LT = 200.26' ST = 100.24'	PI Sta 99+21.79 Δ = 6°54'43.0" (LT) D = 6°00'00.0" L = 115.20' T = 57.67' R = 954.93'	PIs Sta 100+79.56 θs = 9°00'00.0" Ls = 300.00' LT = 200.26' ST = 100.24'	PIs Sta 108+59.54 θs = 6°33'45.0" Ls = 350.00' LT = 233.49' ST = 116.81'
---	--	--	--

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RALEIGH, NORTH CAROLINA 27609-3960
(919) 878-9560

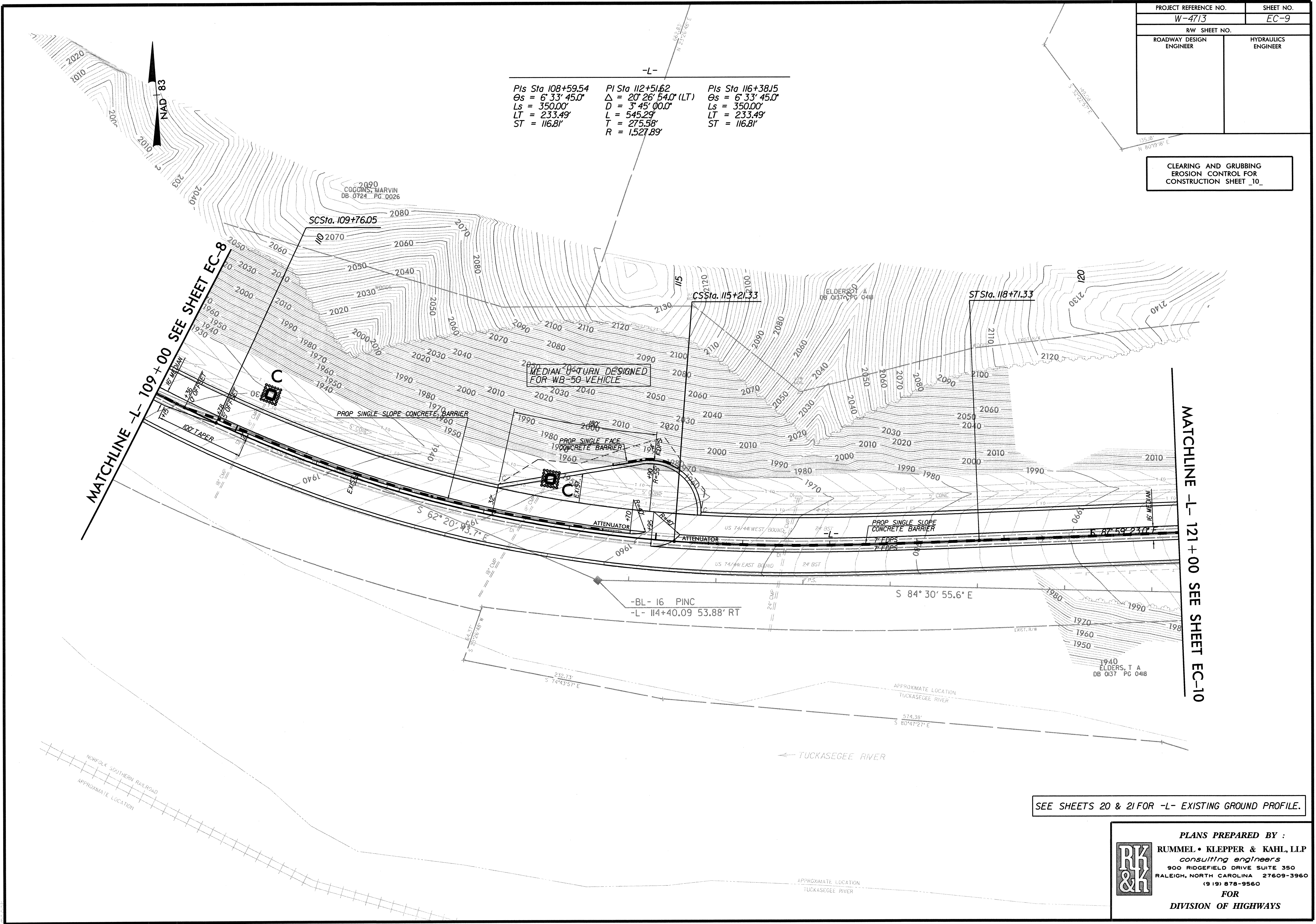
FOR
DIVISION OF HIGHWAYS

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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

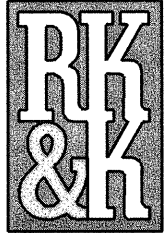
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10_

PIs Sta 108+59.54	PI Sta 112+51.62	PIs Sta 116+38.15
$\theta_s = 6^{\circ} 33' 45.0''$	$\Delta = 20^{\circ} 26' 54.0''$ (LT)	$\theta_s = 6^{\circ} 33' 45.0''$
$L_s = 350.00'$	$D = 3^{\circ} 45' 00.0''$	$L_s = 350.00'$
$LT = 233.49'$	$L = 545.29'$	$LT = 233.49'$
$ST = 116.81'$	$T = 275.58'$	$ST = 116.81'$
	$R = 1,527.89'$	



SEE SHEETS 20 & 21 FOR -L- EXISTING GROUND PROFILE.

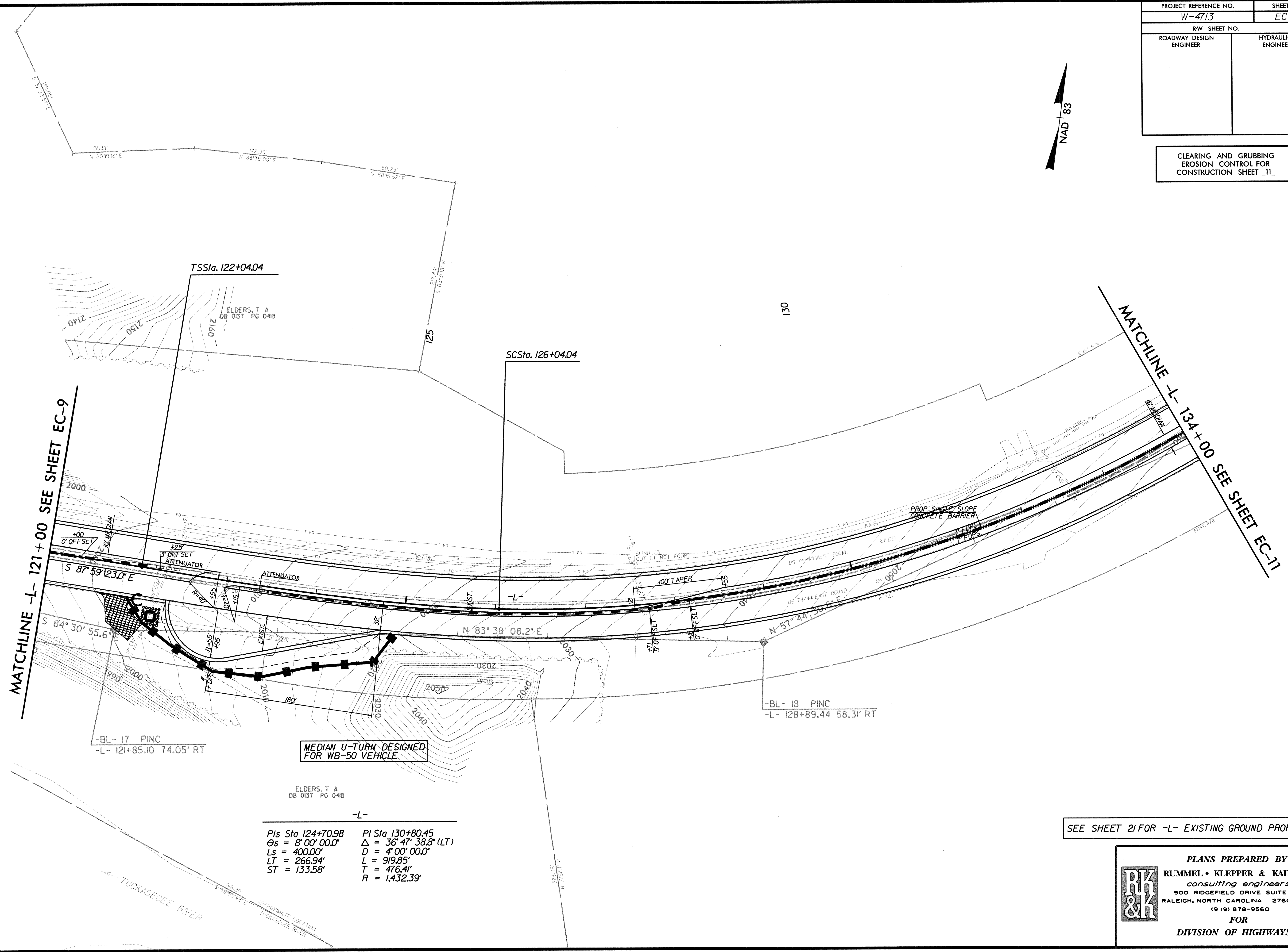
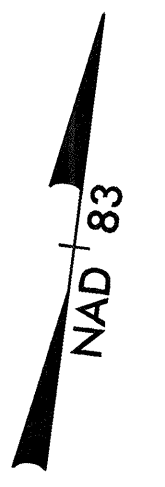
PLANS PREPARED BY :
RUMMEL • KLEPPER & KAHL, LLP
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FOR
DIVISION OF HIGHWAYS



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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET _11_



MATCHLINE -L- 121+00 SEE SHEET EC-9

MATCHLINE -L- 134+00 SEE SHEET EC-11

-BL- 17 PINC
-L- 121+85.10 74.05' RT

-BL- 18 PINC
-L- 128+89.44 58.31' RT

MEDIAN U-TURN DESIGNED
FOR WB-50 VEHICLE


ELDERS, T A
DB 0137 PC 0418

-L-

PIs Sta 124+70.98	PI Sta 130+80.45
$\theta_s = 8^\circ 00' 00.0''$	$\Delta = 36^\circ 47' 38.8''$ (LT)
$L_s = 400.00'$	$D = 4^\circ 00' 00.0''$
$LT = 266.94'$	$L = 919.85'$
$ST = 133.58'$	$T = 476.41'$
	$R = 1,432.39'$

SEE SHEET 21 FOR -L- EXISTING GROUND PROFILE.

PLANS PREPARED BY :



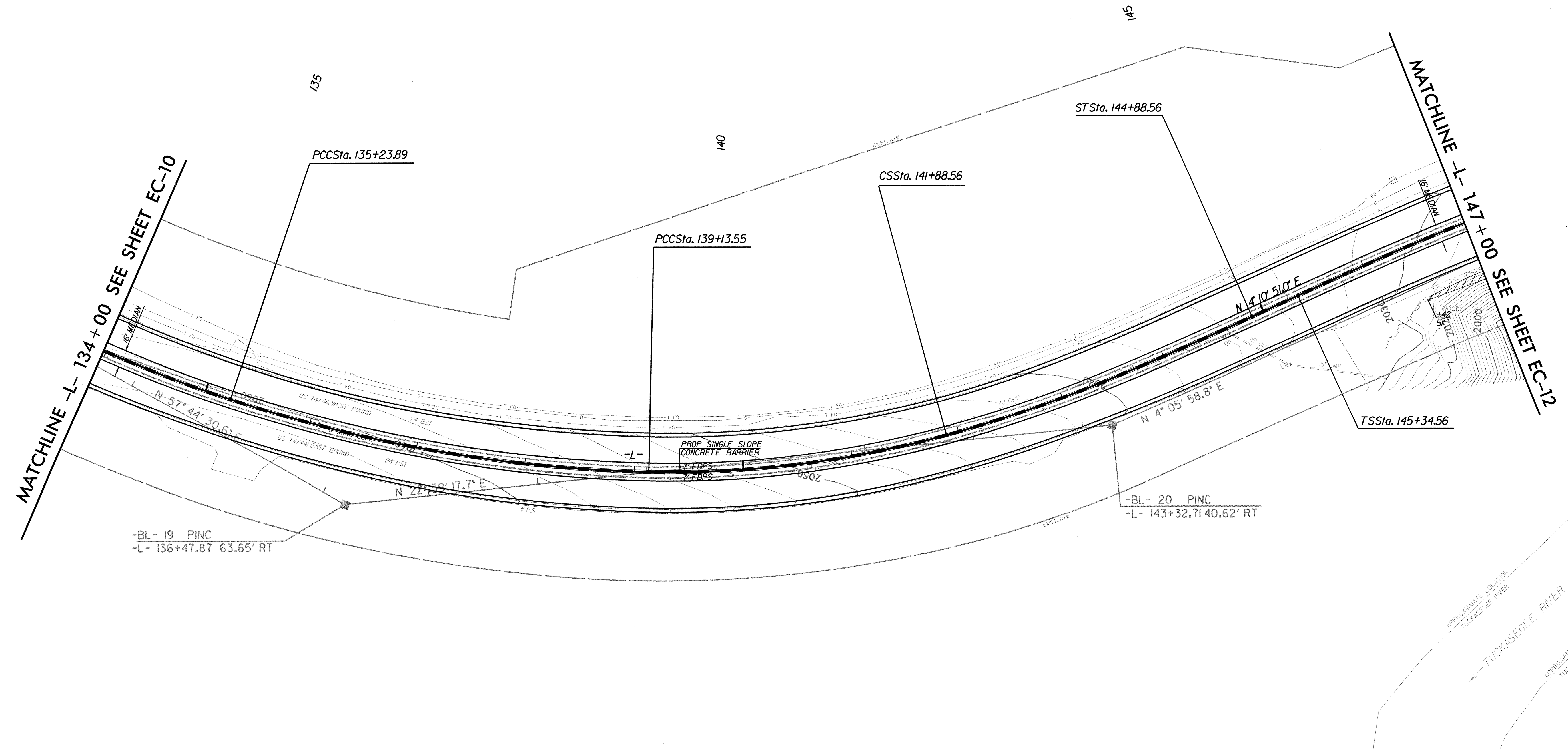
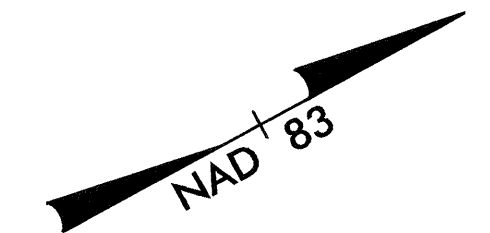
RUMMEL • KLEPPER & KAHL, LLP
consulting engineers
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
(919) 878-9560

FOR
DIVISION OF HIGHWAYS

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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12



-BL - 19 PINC
-L - 136+47.87 63.65' RT

-BL - 20 PINC
-L - 143+32.71 40.62' RT

PI Sta 130+80.45 Δ = 36° 47' 38.8" (LT) D = 4' 00' 00.0" L = 919.85' T = 476.41' R = 1,432.39'	PI Sta 137+20.26 Δ = 17° 32' 05.3" (LT) D = 4' 30' 00.0" L = 389.66' T = 196.37' R = 1,273.24'	PI Sta 140+52.02 Δ = 16° 30' 01.9" (LT) D = 6' 00' 00.0" L = 275.01' T = 138.46' R = 954.93'	PIs Sta 142+88.80 Os = 9' 00' 00.0" Ls = 300.00' LT = 200.26' ST = 100.24'	PIs Sta 147+34.82 Os = 9' 00' 00.0" Ls = 300.00' LT = 200.26' ST = 100.24'
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SAFETY CLEARING FOR SIGHT DISTANCE
WITHIN EXISTING RIGHT OF WAY OR AS
DIRECTED BY ENGINEER.

PLANS PREPARED BY :
RK & K
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consulting engineers
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(919) 878-9560
FOR
DIVISION OF HIGHWAYS

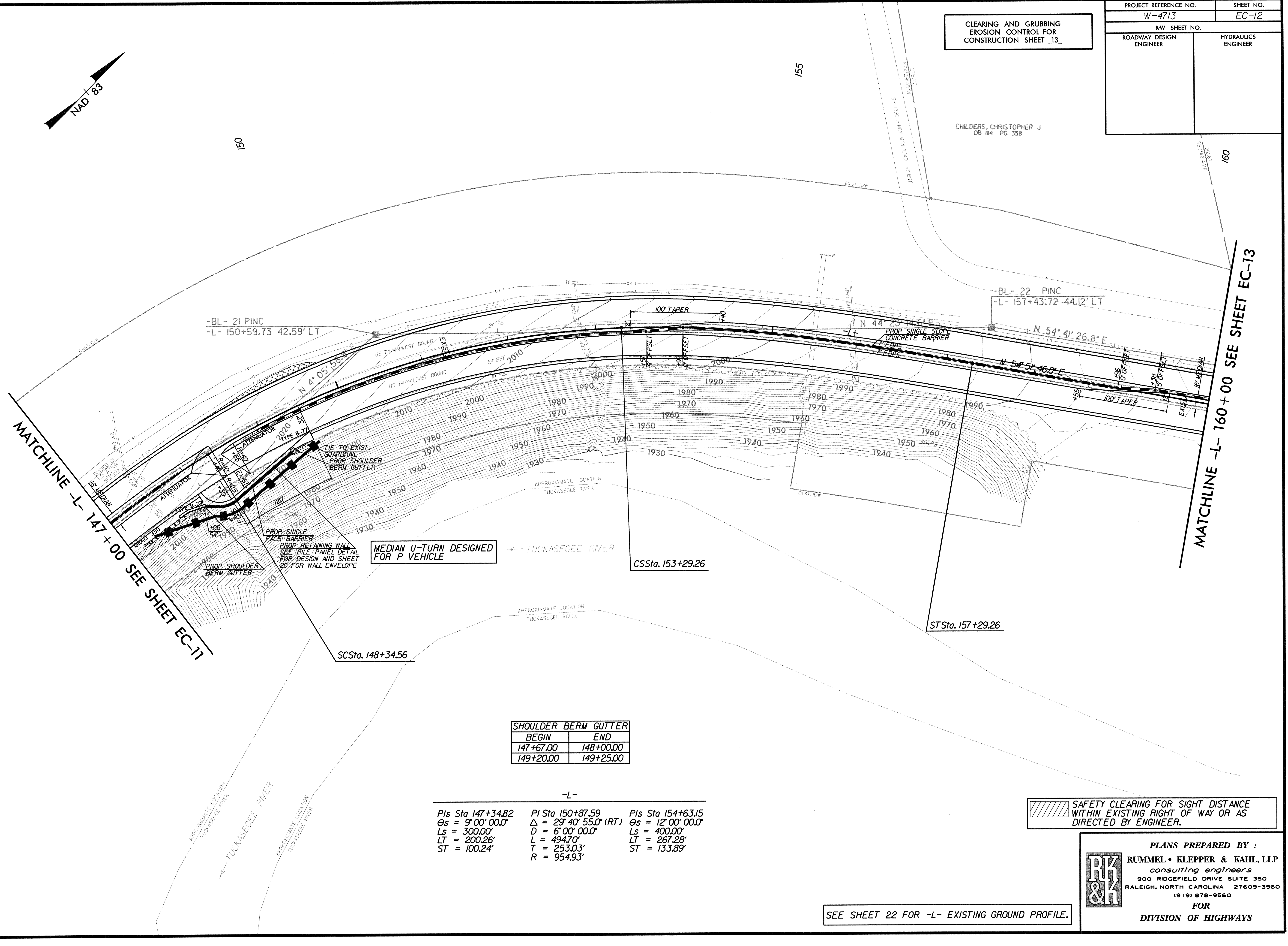
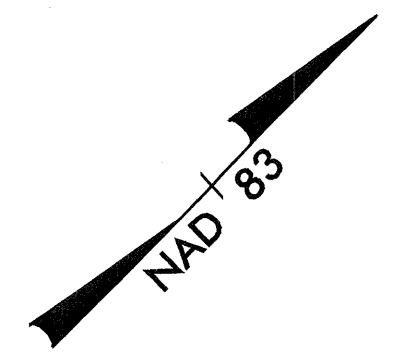
SEE SHEETS 21 & 22 FOR -L- EXISTING GROUND PROFILE.

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PROJECT REFERENCE NO.	W-4713	SHEET NO.	EC-12
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER		

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13

CHILDERS, CHRISTOPHER J
DB III4 PG 358



MATCHLINE -L- 147+00 SEE SHEET EC-11

MATCHLINE -L- 160+00 SEE SHEET EC-13

-BL- 21 PINC
-L- 150+59.73 42.59' LT

-BL- 22 PINC
-L- 157+43.72-44.12' LT

MEDIAN U-TURN DESIGNED
FOR P VEHICLE

SHOULDER BERM GUTTER	
BEGIN	END
147+67.00	148+00.00
149+20.00	149+25.00

-L-		
PIs Sta 147+34.82	PI Sta 150+87.59	PIs Sta 154+63.15
Os = 9°00'00.0"	Δ = 29°40'55.0" (RT)	Os = 12°00'00.0"
Ls = 300.00'	D = 6°00'00.0"	Ls = 400.00'
LT = 200.26'	L = 494.70'	LT = 267.28'
ST = 100.24'	T = 253.03'	ST = 133.89'
	R = 954.93'	

SAFETY CLEARING FOR SIGHT DISTANCE
WITHIN EXISTING RIGHT OF WAY OR AS
DIRECTED BY ENGINEER.

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FOR
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SEE SHEET 22 FOR -L- EXISTING GROUND PROFILE.

8/17/09
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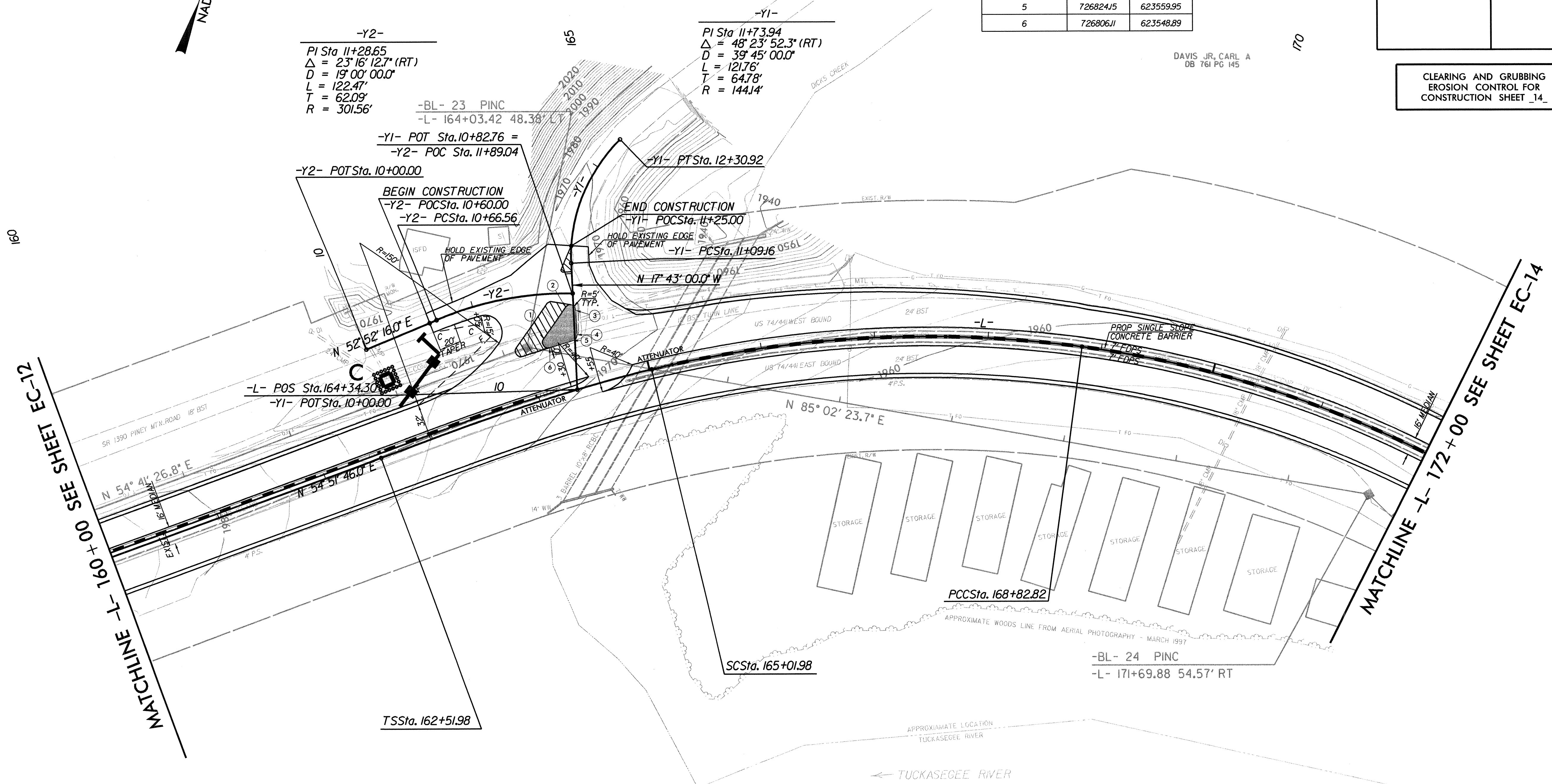
PROJECT REFERENCE NO. W-4713	SHEET NO. EC-13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONCRETE ISLAND COORDINATES		
POINT NUMBER	NORTHING	EASTING
1	726798.80	623554.93
2	726810.60	623585.75
3	726820.03	623585.48
4	726826.33	623565.75
5	726824.15	623559.95
6	726806.11	623548.89

DAVIS JR, CARL A
DB 761 PG 145

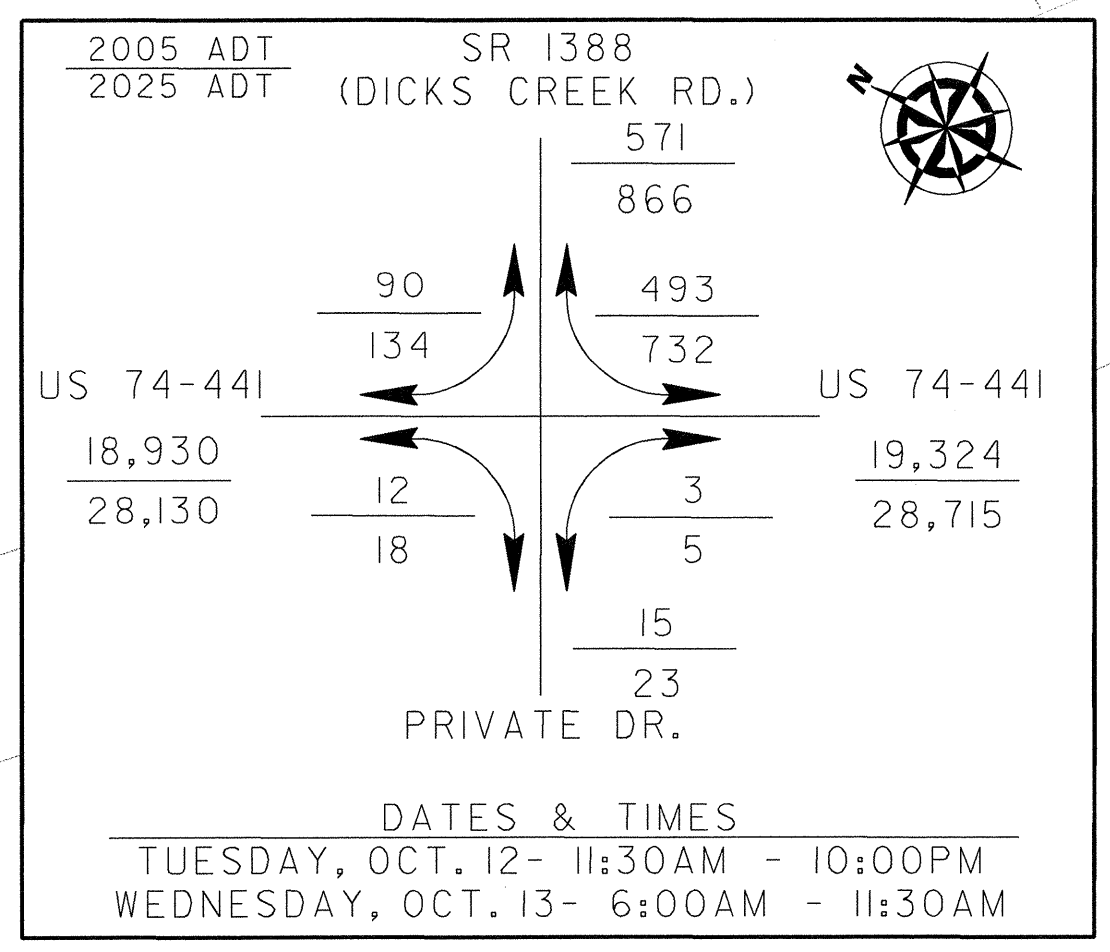
DAVIS JR, CARL A
DB 761 PG 145

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14



MATCHLINE -L- 160+00 SEE SHEET EC-12

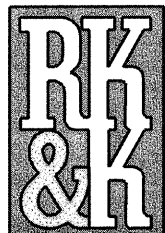
MATCHLINE -L- 172+00 SEE SHEET EC-14



-L-		
PI Sta 164+18.77 θs = 6° 52' 30.0" Ls = 250.00' LT = 166.79' ST = 83.45'	PI Sta 166+94.55 Δ = 20° 56' 46.9" (RT) D = 5' 30' 00.0" L = 380.84' T = 192.57' R = 1,041.74'	PI Sta 173+70.74 Δ = 54° 07' 45.7" (RT) D = 6' 00' 00.0" L = 902.16' T = 487.92' R = 954.93'

SEE SHEETS 22 & 23 FOR -L- EXISTING GROUND PROFILE.

PLANS PREPARED BY :

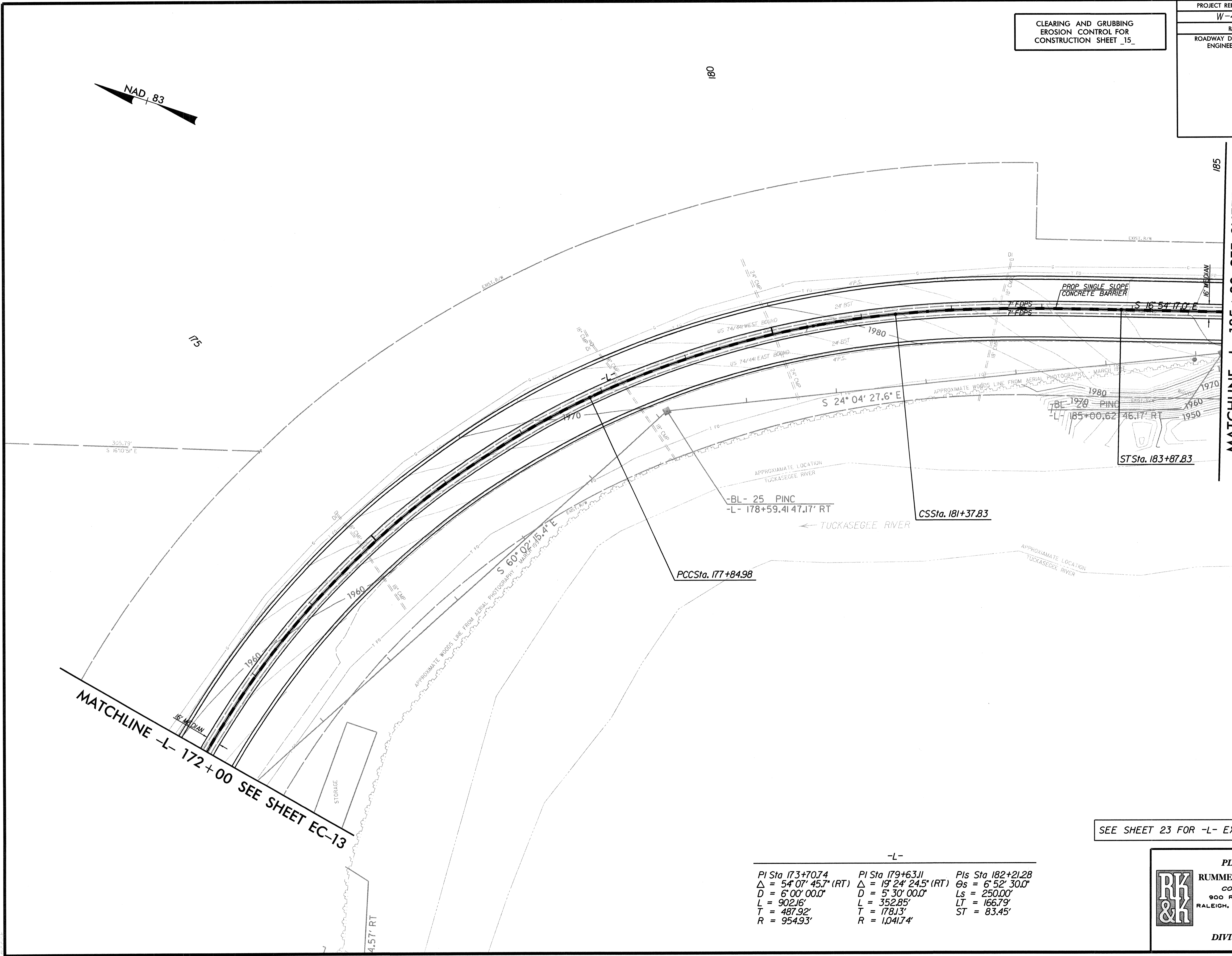


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CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15

PROJECT REFERENCE NO. W-4713	SHEET NO. EC-14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER




MATCHLINE -L- 172 + 00 SEE SHEET EC-13

SEE SHEET 23 FOR -L- EXISTING GROUND PROFILE.

-L-		
PI Sta 173+70.74	PI Sta 179+63.11	PIs Sta 182+21.28
$\Delta = 54^{\circ} 07' 45.7''$ (RT)	$\Delta = 19^{\circ} 24' 24.5''$ (RT)	$\Theta_s = 6^{\circ} 52' 30.0''$
$D = 6^{\circ} 00' 00.0''$	$D = 5^{\circ} 30' 00.0''$	$L_s = 250.00'$
$L = 902.16'$	$L = 352.85'$	$LT = 166.79'$
$T = 487.92'$	$T = 178.13'$	$ST = 83.45'$
$R = 954.93'$	$R = 1,041.74'$	

PLANS PREPARED BY :



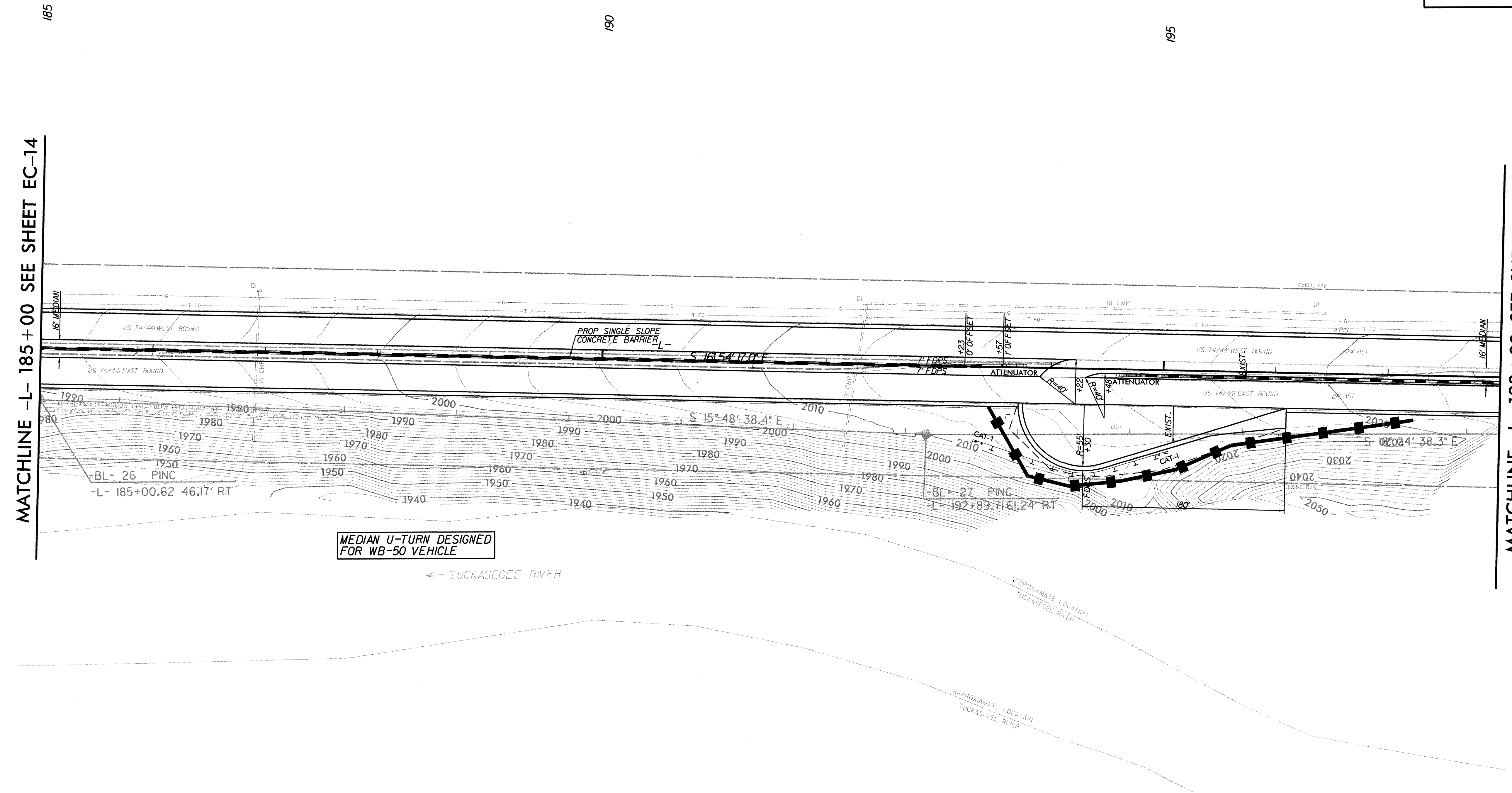
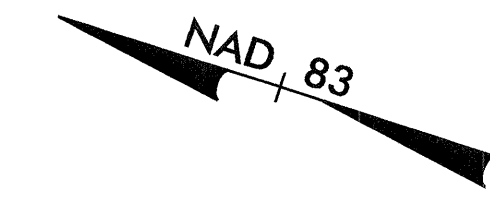
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 4.57' RT

PROJECT REFERENCE NO.	SHEET NO.
W-4713	EC-15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET _16_



MATCHLINE -L- 185 + 00 SEE SHEET EC-14

MATCHLINE -L- 198 + 00 SEE SHEET EC-16

MEDIAN U-TURN DESIGNED FOR WB-50 VEHICLE

← TUCKASEGEE RIVER

APPROXIMATE LOCATION TUCKASEGEE RIVER

APPROXIMATE LOCATION TUCKASEGEE RIVER

SEE SHEETS 23 & 24 FOR -L- EXISTING GROUND PROFILE.

PLANS PREPARED BY :

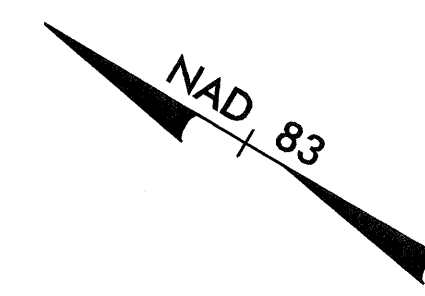
RK & K
RUMMEL • KLEPPER & KAHL, LLP
consulting engineers
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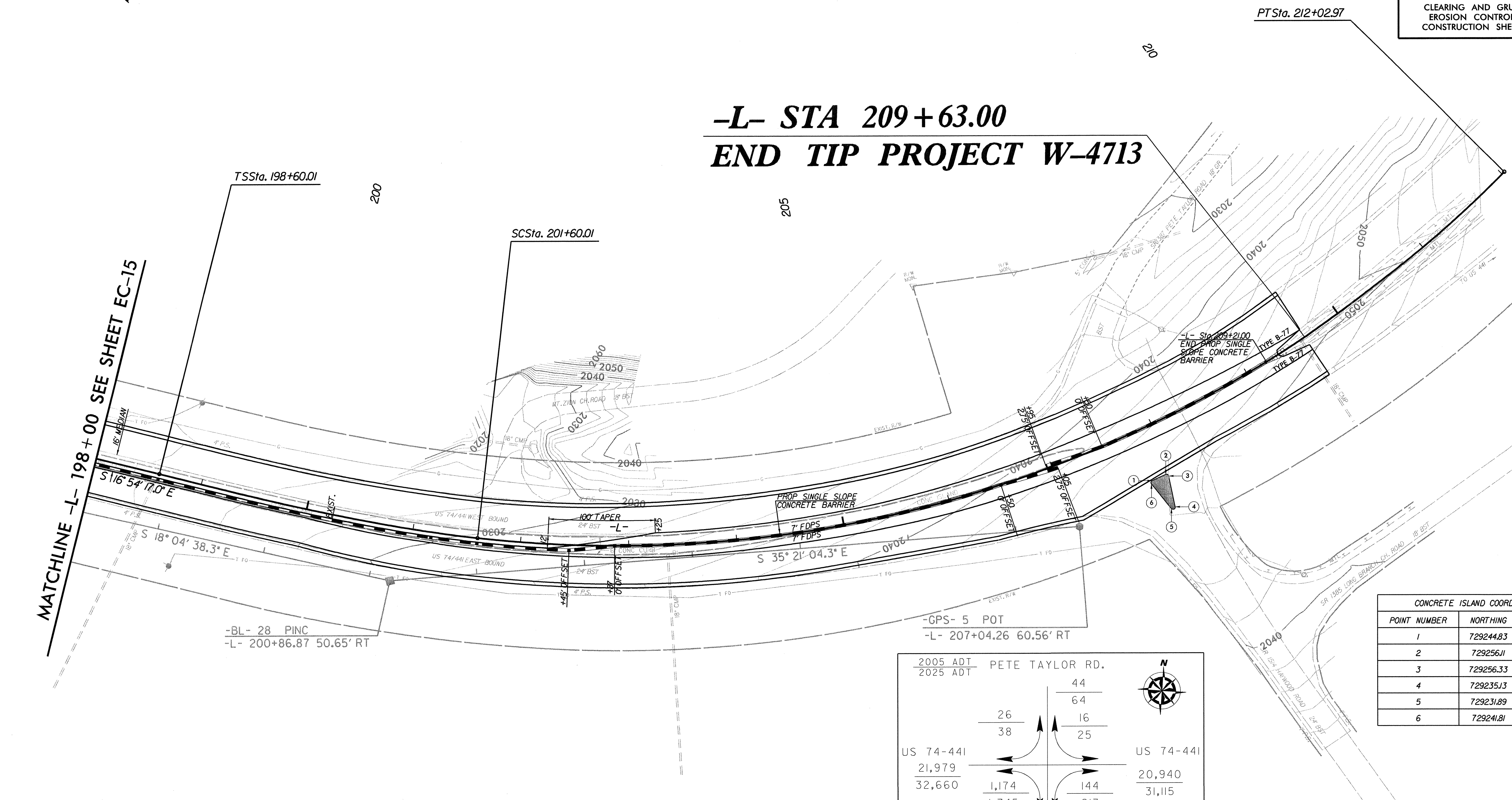
PROJECT REFERENCE NO. W-4713	SHEET NO. EC-16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 17



-L- STA 209+63.00 END TIP PROJECT W-4713

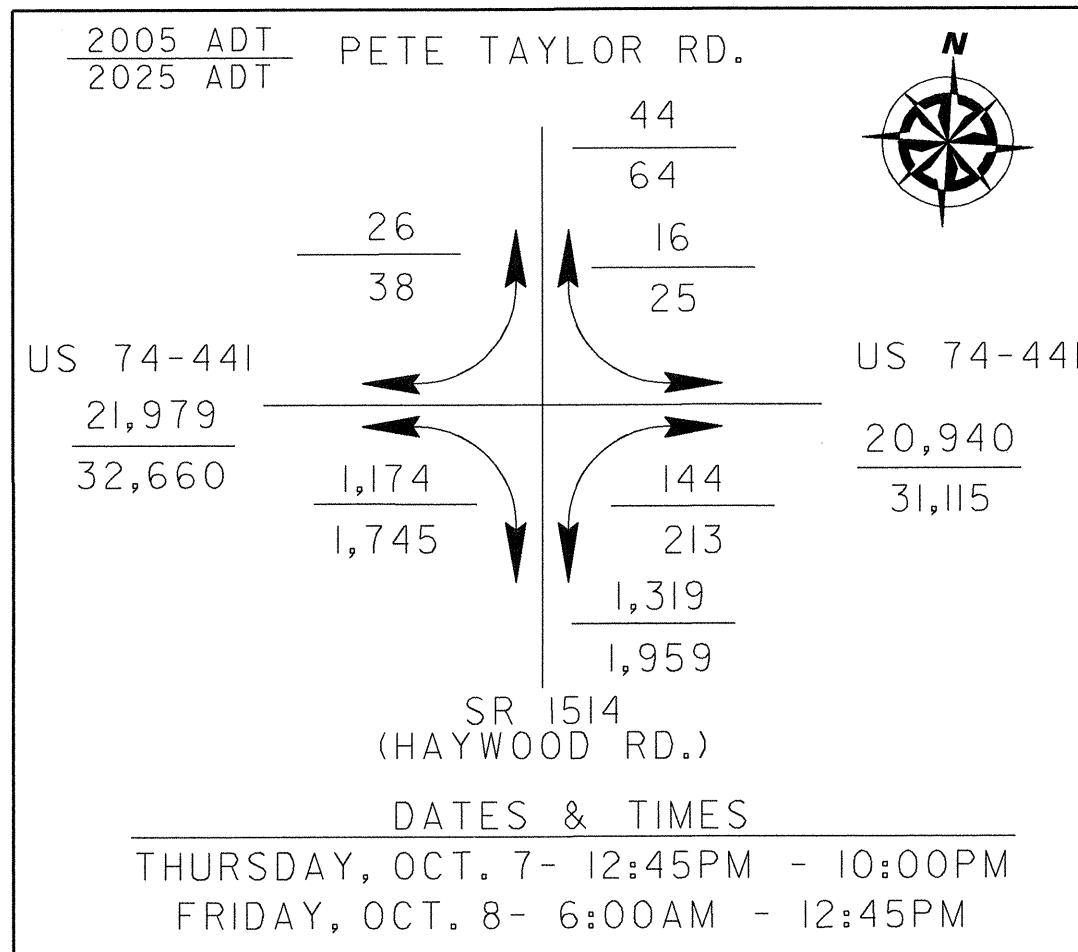
MATCHLINE -L- 198+00 SEE SHEET EC-15



POINT NUMBER	NORTHING	EASTING
1	729244.83	620647.83
2	729256.11	620639.50
3	729256.33	620636.39
4	729235.13	620616.84
5	729231.89	620618.99
6	729241.81	620646.37

-BL- 28 PINC
-L- 200+86.87 50.65' RT

-GPS- 5 POT
-L- 207+04.26 60.56' RT



-L-

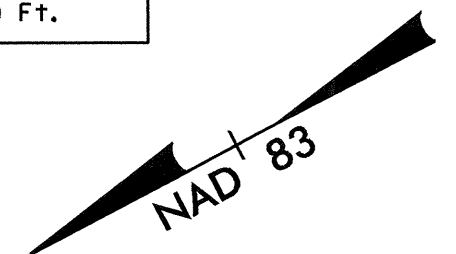
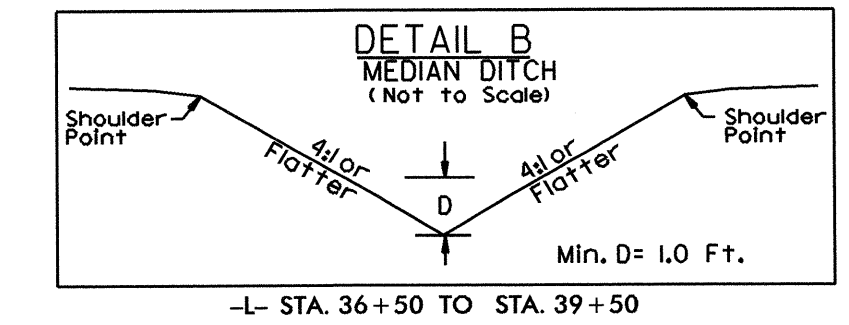
PIs Sta 200+60.19 $\Delta s = 7^{\circ} 30' 00.0''$ $L_s = 300.00'$ $LT = 200.18'$ $ST = 100.16'$	PI Sta 207+20.74 $\Delta = 52^{\circ} 08' 51.7'' (LT)$ $D = 5^{\circ} 00' 00.0''$ $L = 1,042.95'$ $T = 560.73'$ $R = 1,145.92'$
---	--

SEE SHEET 24 FOR -L- EXISTING GROUND PROFILE.

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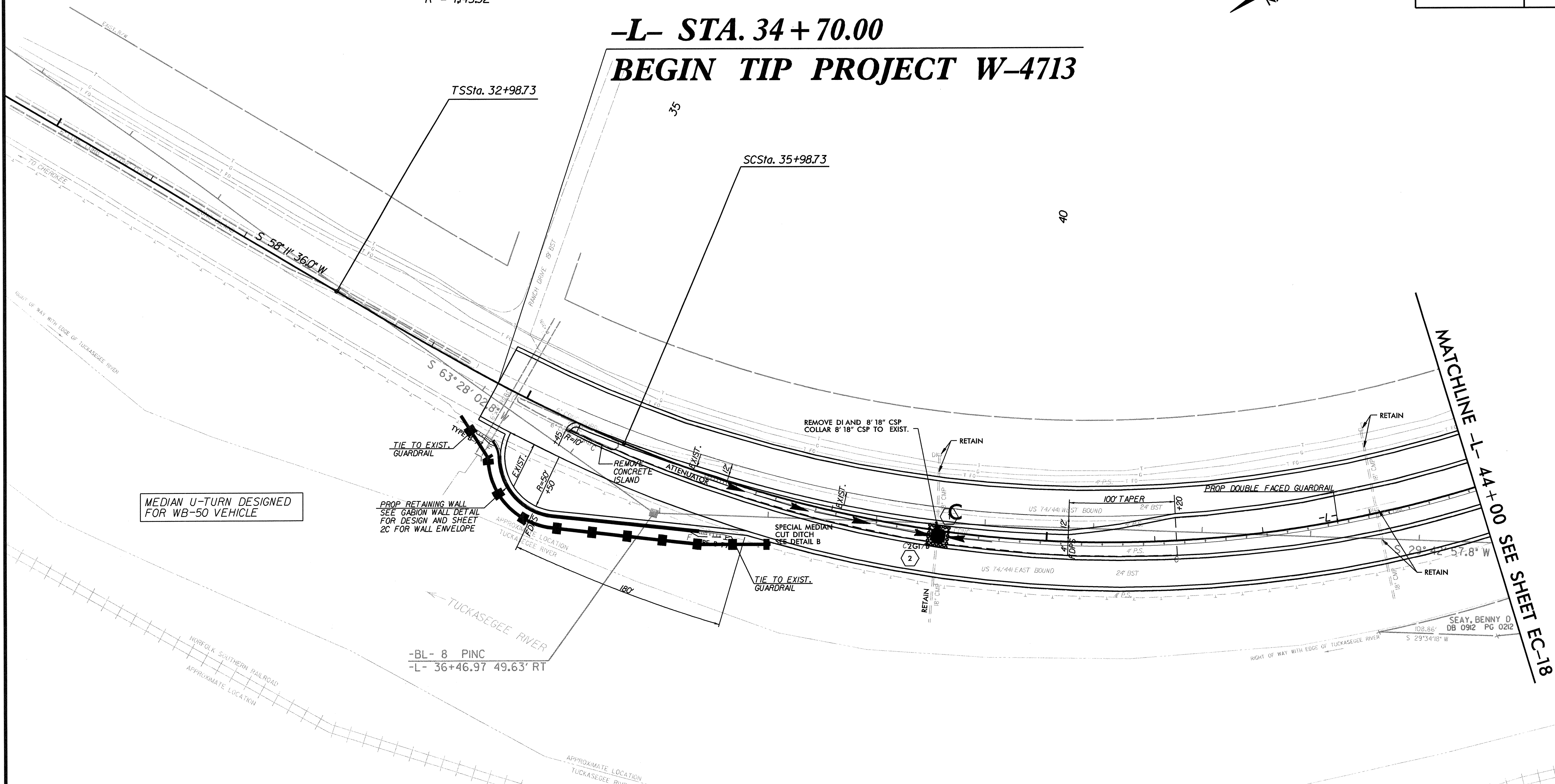
PROJECT REFERENCE NO. W-4713	SHEET NO. EC-17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L-

PIs Sta 34+98.91	PI Sta 44+42.00
$\Delta s = 7^{\circ} 30' 00.0''$	$\Delta = 72^{\circ} 41' 52.0''$ (LT)
$L_s = 300.00'$	$D = 5^{\circ} 00' 00.0''$
$LT = 200.18'$	$L = 1,453.96'$
$ST = 100.16'$	$T = 843.27'$
	$R = 1,145.92'$

-L- STA. 34+70.00 BEGIN TIP PROJECT W-4713



MEDIAN U-TURN DESIGNED FOR WB-50 VEHICLE

DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "W4713 GPS-4" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 622700.186(ft) EASTING: 721431.816(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999783565 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "W4713 GPS-4" TO -L- STATION 32+00.00 IS NN:13°42'04.55" W:44890.821'. ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

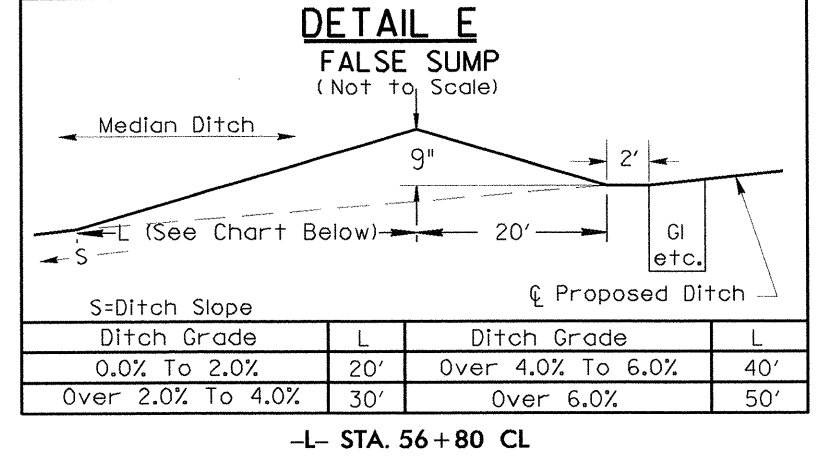
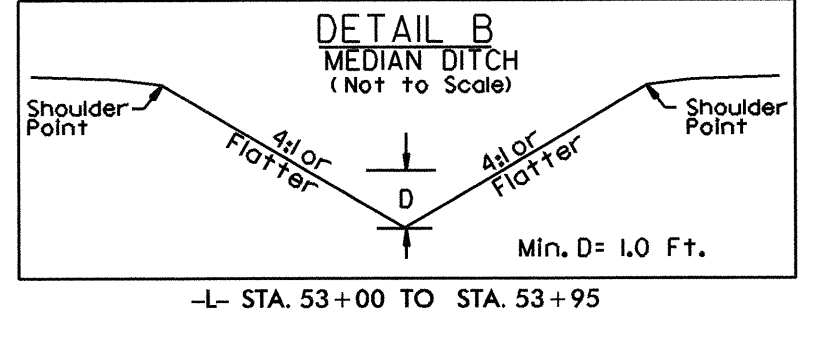
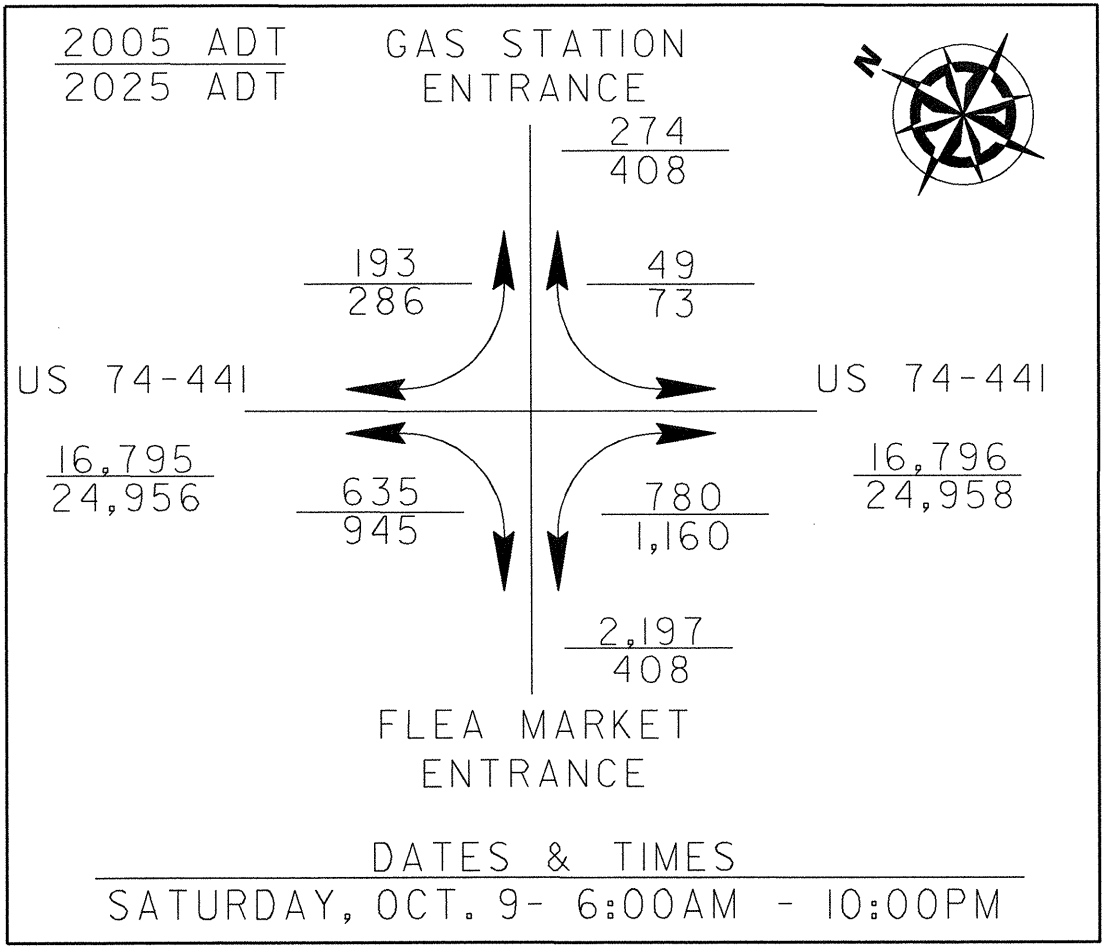
SEE SHEETS 2-E TO 2-F FOR RUMBLE STRIP DETAIL. RUMBLE STRIPS TO BE CONSTRUCTED ON INSIDE AND OUTSIDE SHOULDERS FROM -L- STA. 34+70.00 TO -L- STA. 209+63.00

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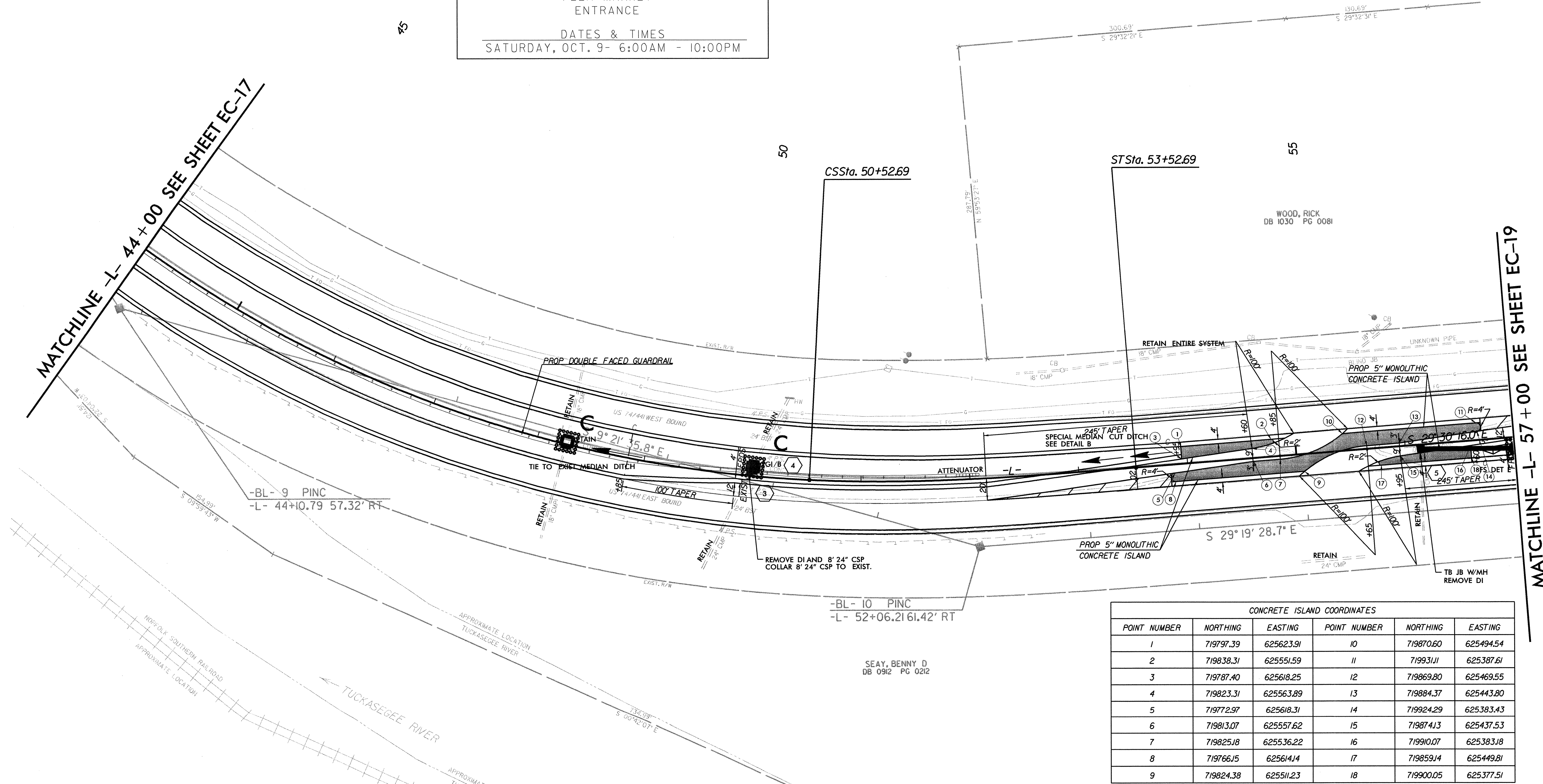
SEE SHEET 18 FOR -L- EXISTING GROUND PROFILE.

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PROJECT REFERENCE NO.	SHEET NO.
W-4713	EC-18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE -L- 44+00 SEE SHEET EC-17



MATCHLINE -L- 57+00 SEE SHEET EC-19

POINT NUMBER	NORTHING	EASTING	POINT NUMBER	NORTHING	EASTING
1	719797.39	625623.91	10	719870.80	625494.54
2	719838.31	625551.59	11	719931.11	625387.61
3	719787.40	625618.25	12	719869.80	625469.55
4	719823.31	625563.89	13	719884.37	625443.80
5	719772.97	625618.31	14	719924.29	625383.43
6	719813.07	625557.62	15	719874.13	625437.53
7	719825.18	625536.22	16	719910.07	625383.18
8	719766.15	625614.14	17	719859.14	625449.81
9	719824.38	625511.23	18	719900.05	625377.51

-L-
 Pls Sta 44+42.00 Δ = 72° 41' 52.0" (LT) D = 5' 00' 00.0" L = 1,453.96' T = 843.27' R = 1,145.92'
 Pls Sta 51+52.85 Θs = 7° 30' 00.0" Ls = 300.00' LT = 200.18' ST = 100.16'

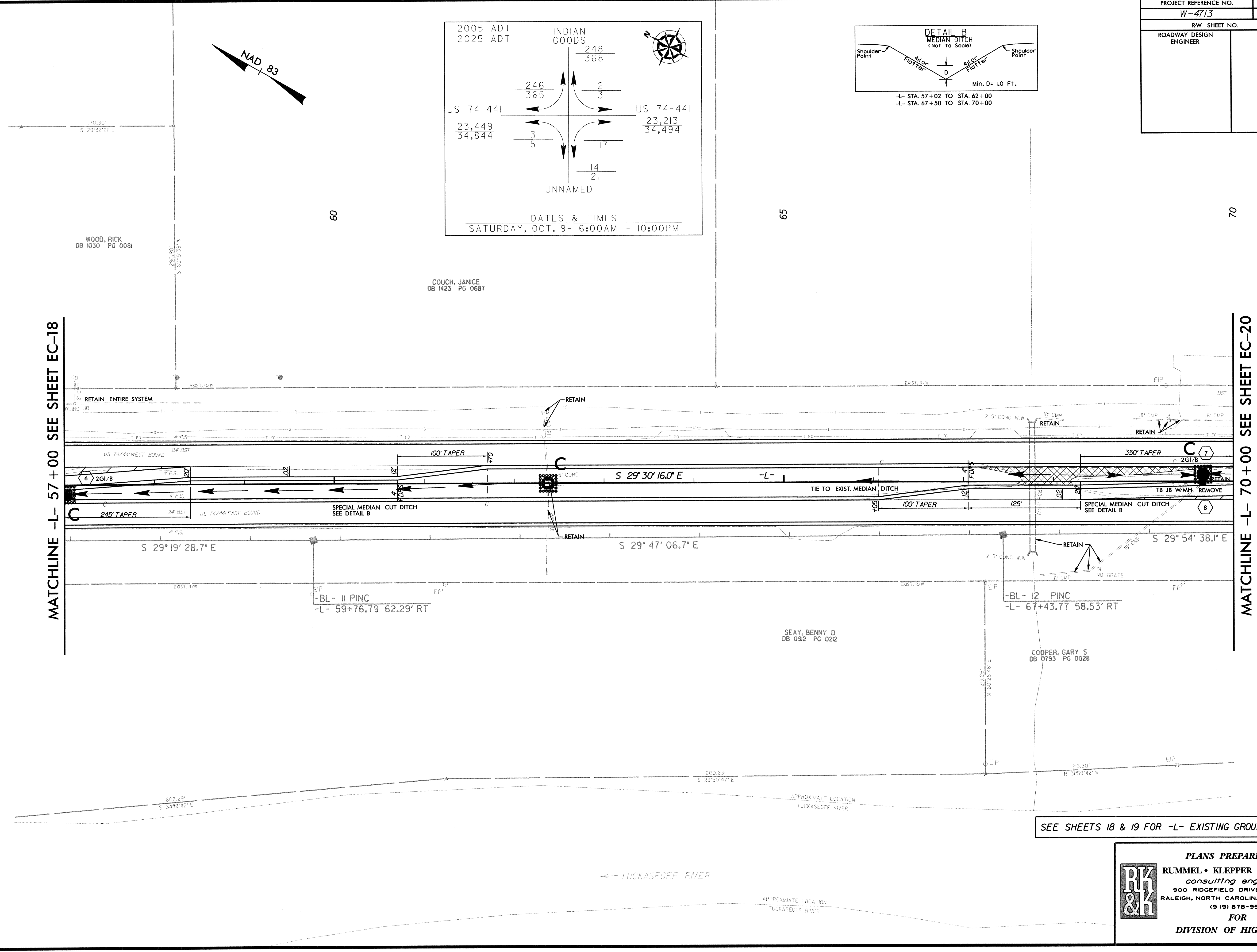
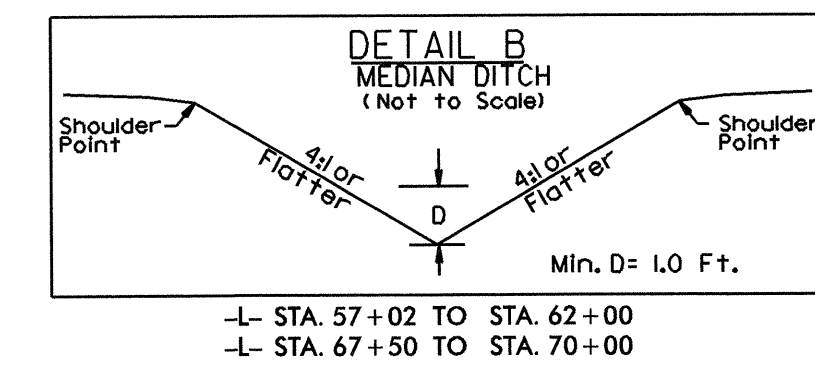
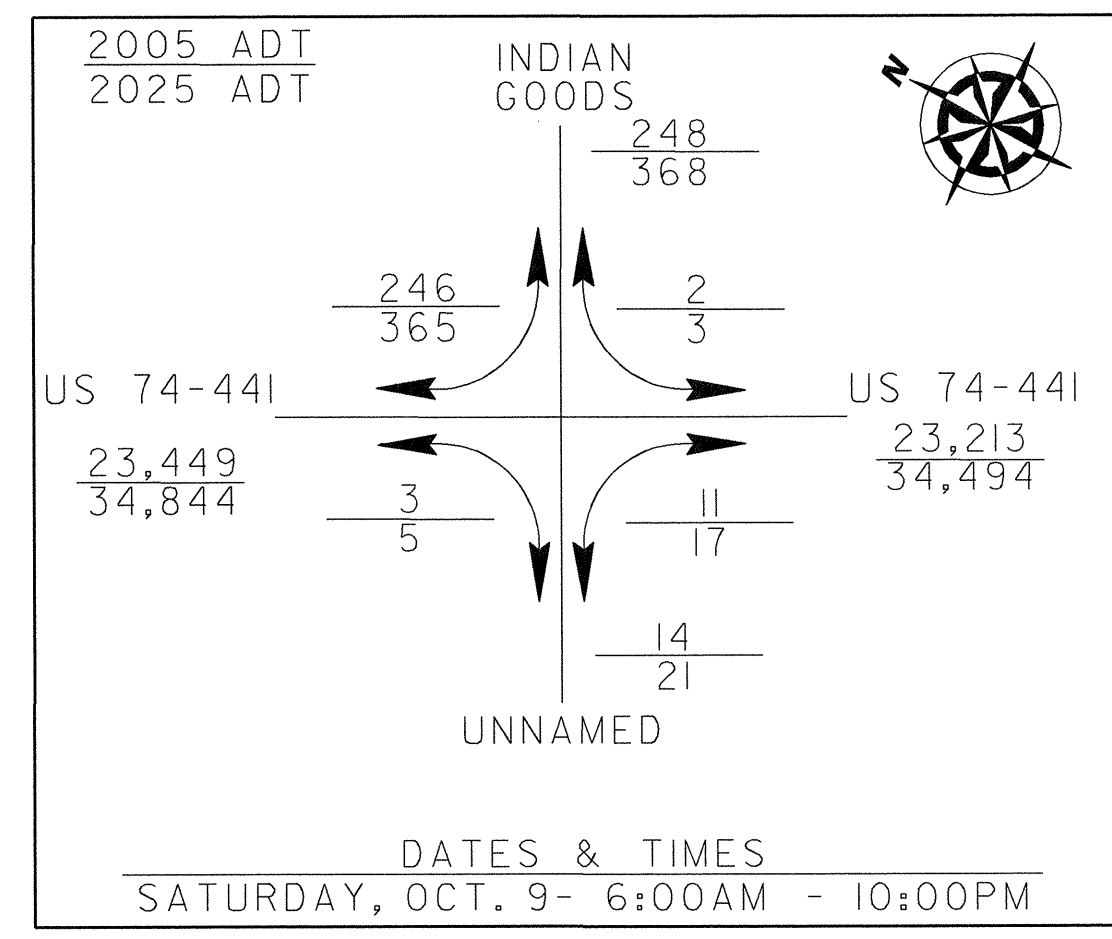
SEE SHEET 18 FOR -L- EXISTING GROUND PROFILE.

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PLN 6.00 10/05/07 2:33 PM W-4713 H:\D_csh_005.dwg 2:17:00 PM

PROJECT REFERENCE NO.		SHEET NO.	
W-4713		EC-19	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



MATCHLINE -L- 57+00 SEE SHEET EC-18

MATCHLINE -L- 70+00 SEE SHEET EC-20

SEE SHEETS 18 & 19 FOR -L- EXISTING GROUND PROFILE.

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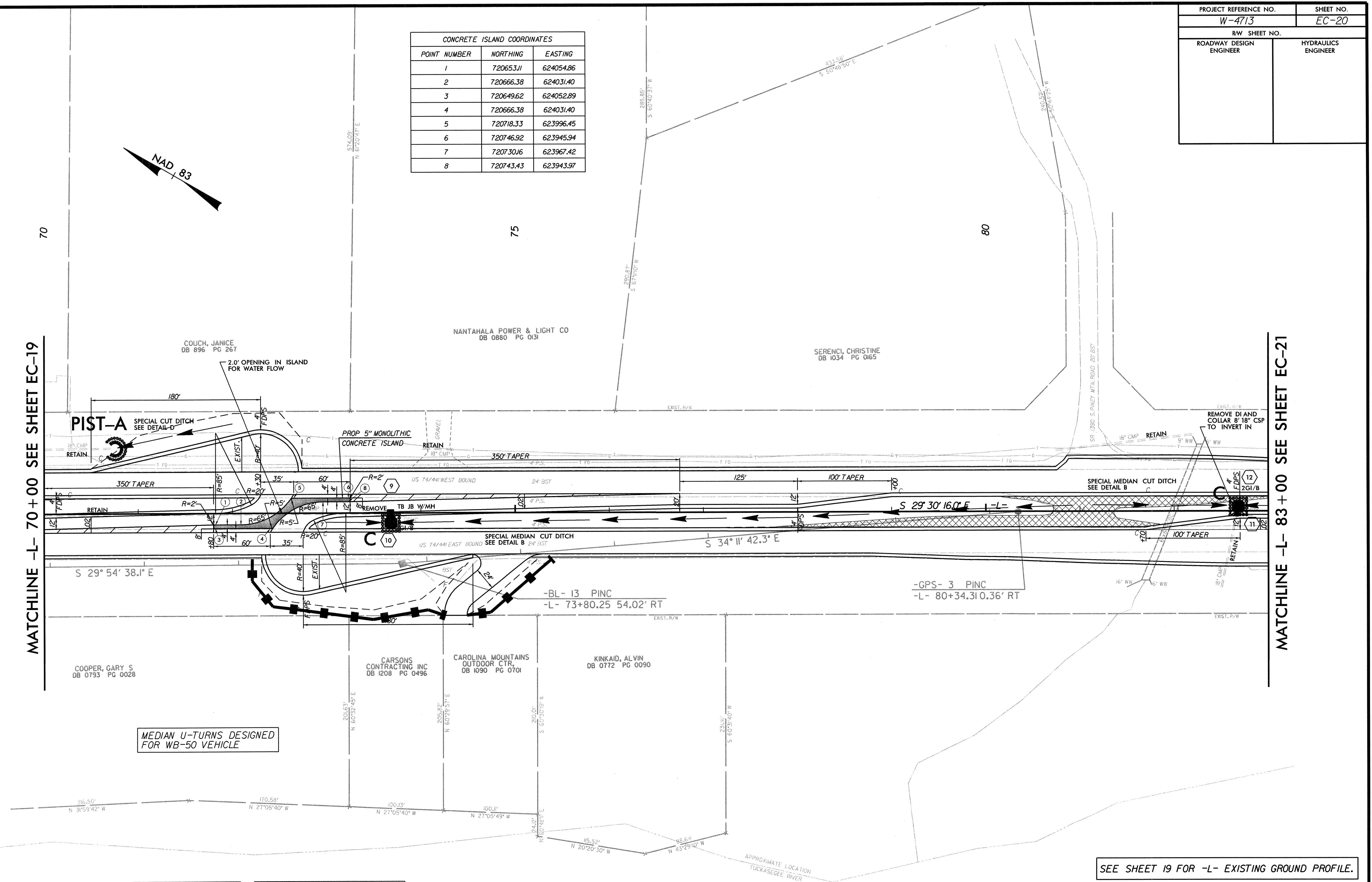
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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-20
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

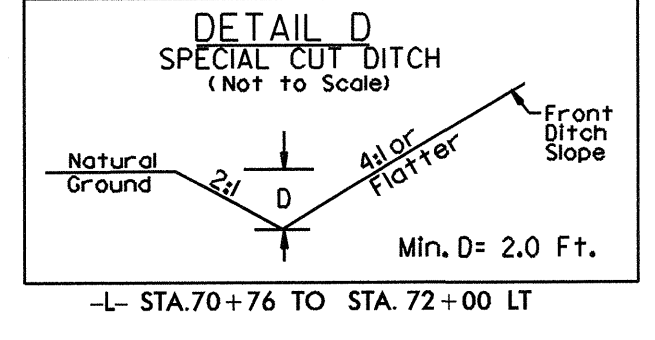
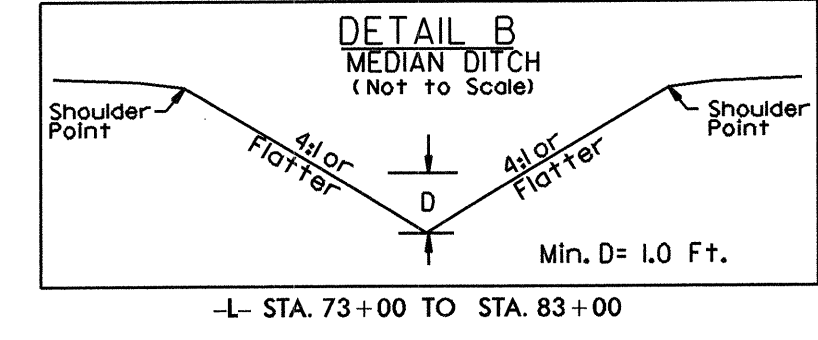
CONCRETE ISLAND COORDINATES		
POINT NUMBER	NORTHING	EASTING
1	720653.11	624054.86
2	720666.38	624031.40
3	720649.62	624052.89
4	720666.38	624031.40
5	720718.33	623996.45
6	720746.92	623945.94
7	720730.16	623967.42
8	720743.43	623943.97

MATCHLINE -L- 70+00 SEE SHEET EC-19

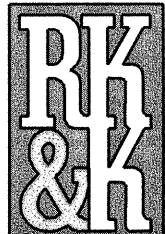
MATCHLINE -L- 83+00 SEE SHEET EC-21



MEDIAN U-TURNS DESIGNED FOR WB-50 VEHICLE



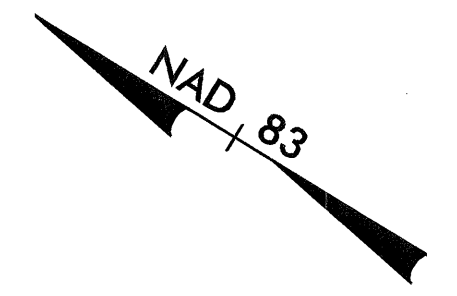
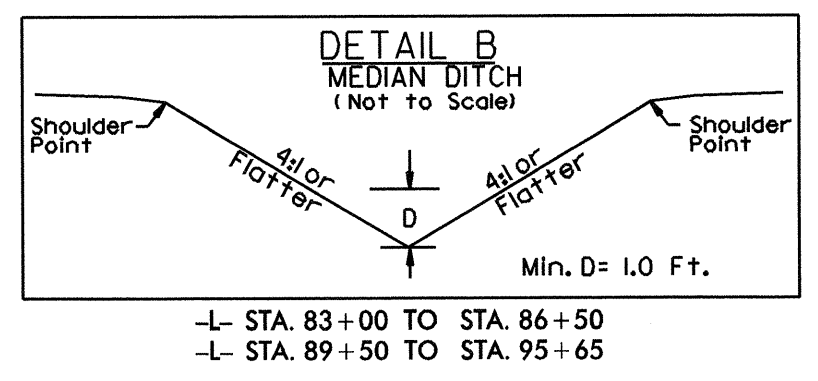
SEE SHEET 19 FOR -L- EXISTING GROUND PROFILE.

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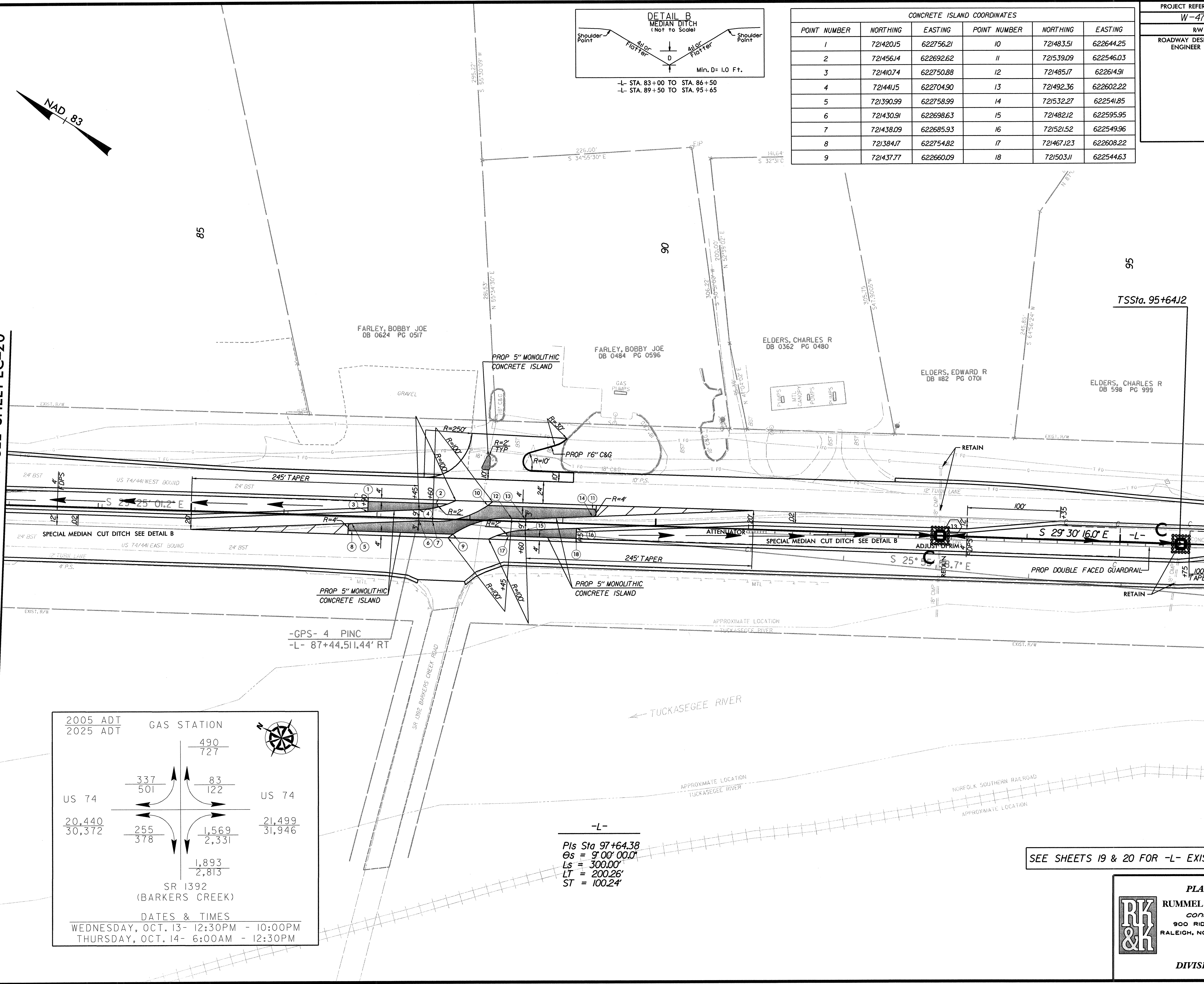
PROJECT REFERENCE NO.	W-4713	SHEET NO.	EC-21
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

CONCRETE ISLAND COORDINATES					
POINT NUMBER	NORTHING	EASTING	POINT NUMBER	NORTHING	EASTING
1	721420.5	622756.21	10	721483.51	622644.25
2	721456.14	622692.62	11	721539.09	622546.03
3	721410.74	622750.88	12	721485.17	622614.91
4	721441.5	622704.90	13	721492.36	622602.22
5	721390.99	622758.99	14	721532.27	622541.85
6	721430.91	622698.63	15	721482.12	622595.95
7	721438.09	622685.93	16	721521.52	622549.96
8	721384.17	622754.82	17	721467.123	622608.22
9	721437.77	622660.09	18	721503.11	622544.63



MATCHLINE -L- 83+00 SEE SHEET EC-20

MATCHLINE -L- 96+00 SEE SHEET EC-22



2005 ADT 2025 ADT

GAS STATION			
	490		
	727		
337	83	501	122
20,440	255	30,372	1,569
	378		2,331
	1,893		2,813

US 74

SR 1392 (BARKERS CREEK)

DATES & TIMES
 WEDNESDAY, OCT. 13- 12:30PM - 10:00PM
 THURSDAY, OCT. 14- 6:00AM - 12:30PM

-L-
 Pls Sta 97+64.38
 Os = 9'00'00.0"
 Ls = 300.00'
 LT = 200.26'
 ST = 100.24'

SEE SHEETS 19 & 20 FOR -L- EXISTING GROUND PROFILE.

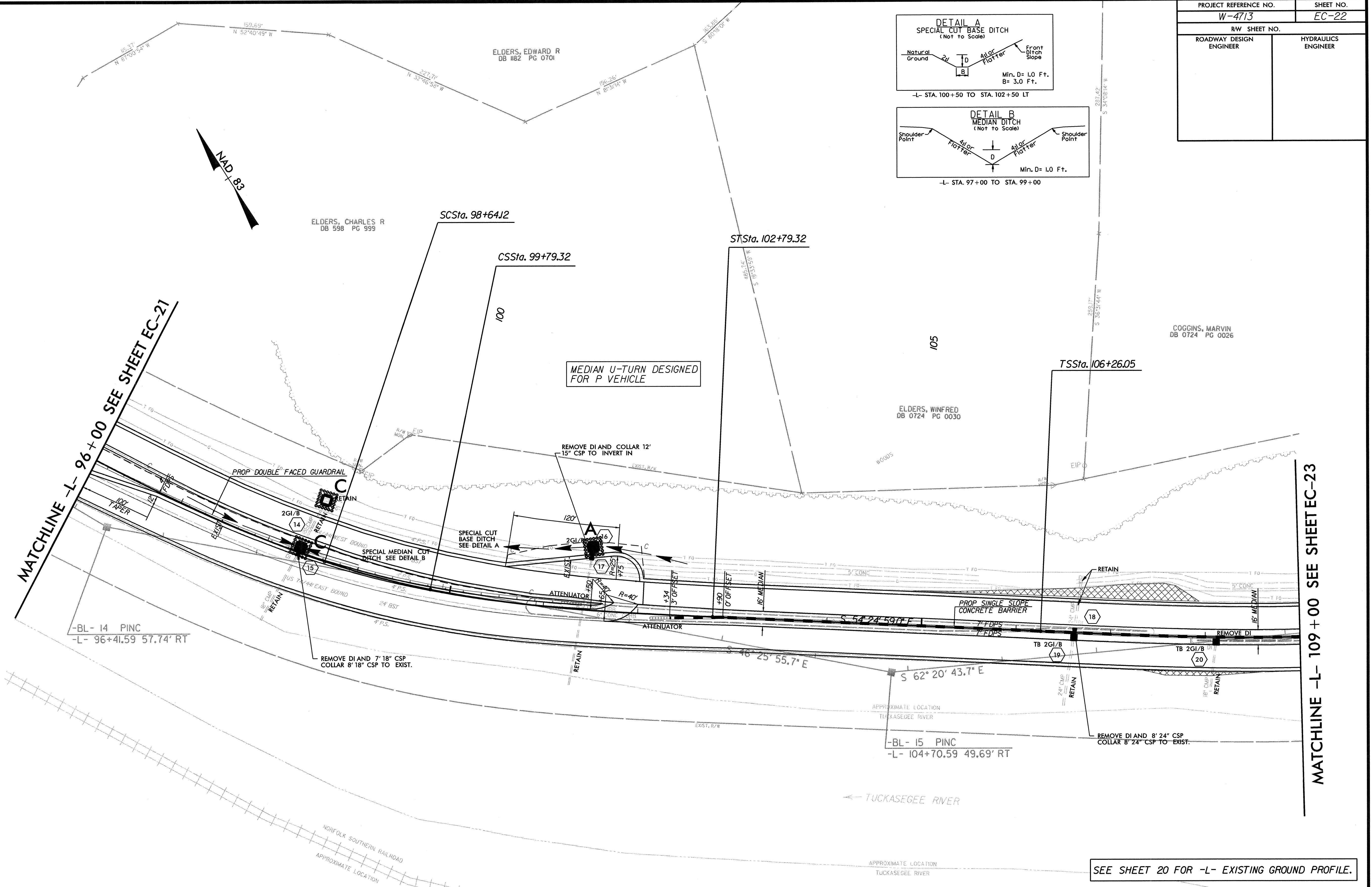
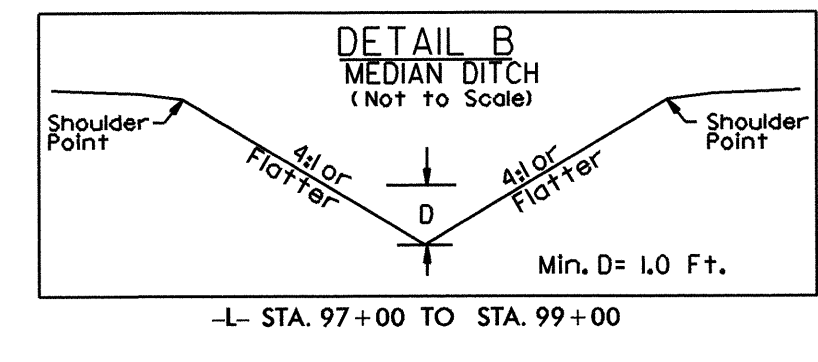
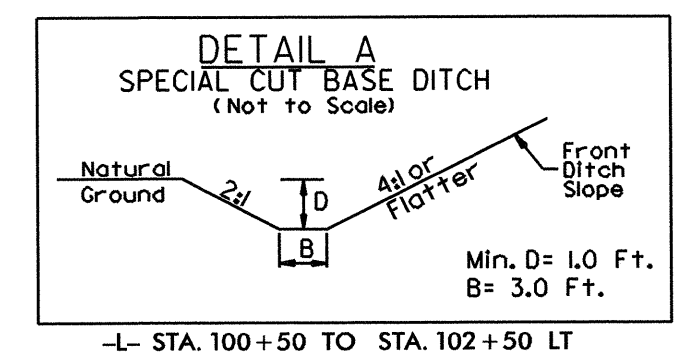
PLANS PREPARED BY :

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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-22
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

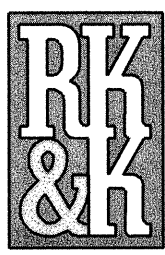


MATCHLINE -L- 96+00 SEE SHEET EC-21

MATCHLINE -L- 109+00 SEE SHEET EC-23

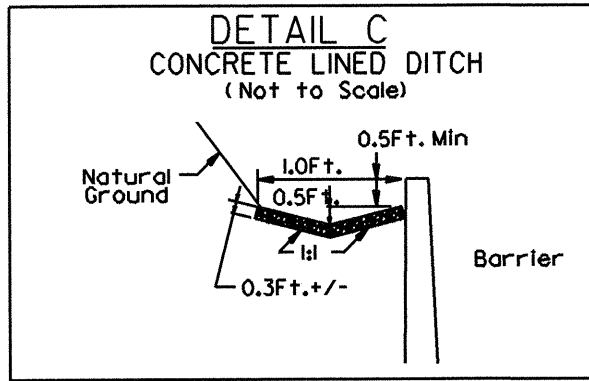
SEE SHEET 20 FOR -L- EXISTING GROUND PROFILE.

PIs Sta 97+64.38 θs = 9°00'00.0" Ls = 300.00' LT = 200.26' ST = 100.24'	PI Sta 99+21.79 Δ = 6°54'43.0" (LT) D = 6°00'00.0" L = 115.20' T = 57.67' R = 954.93'	PIs Sta 100+79.56 θs = 9°00'00.0" Ls = 300.00' LT = 200.26' ST = 100.24'	PIs Sta 108+59.54 θs = 6°33'45.0" Ls = 350.00' LT = 233.49' ST = 116.81'
---	--	--	--

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PROJECT REFERENCE NO.	SHEET NO.
W-4713	EC-23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



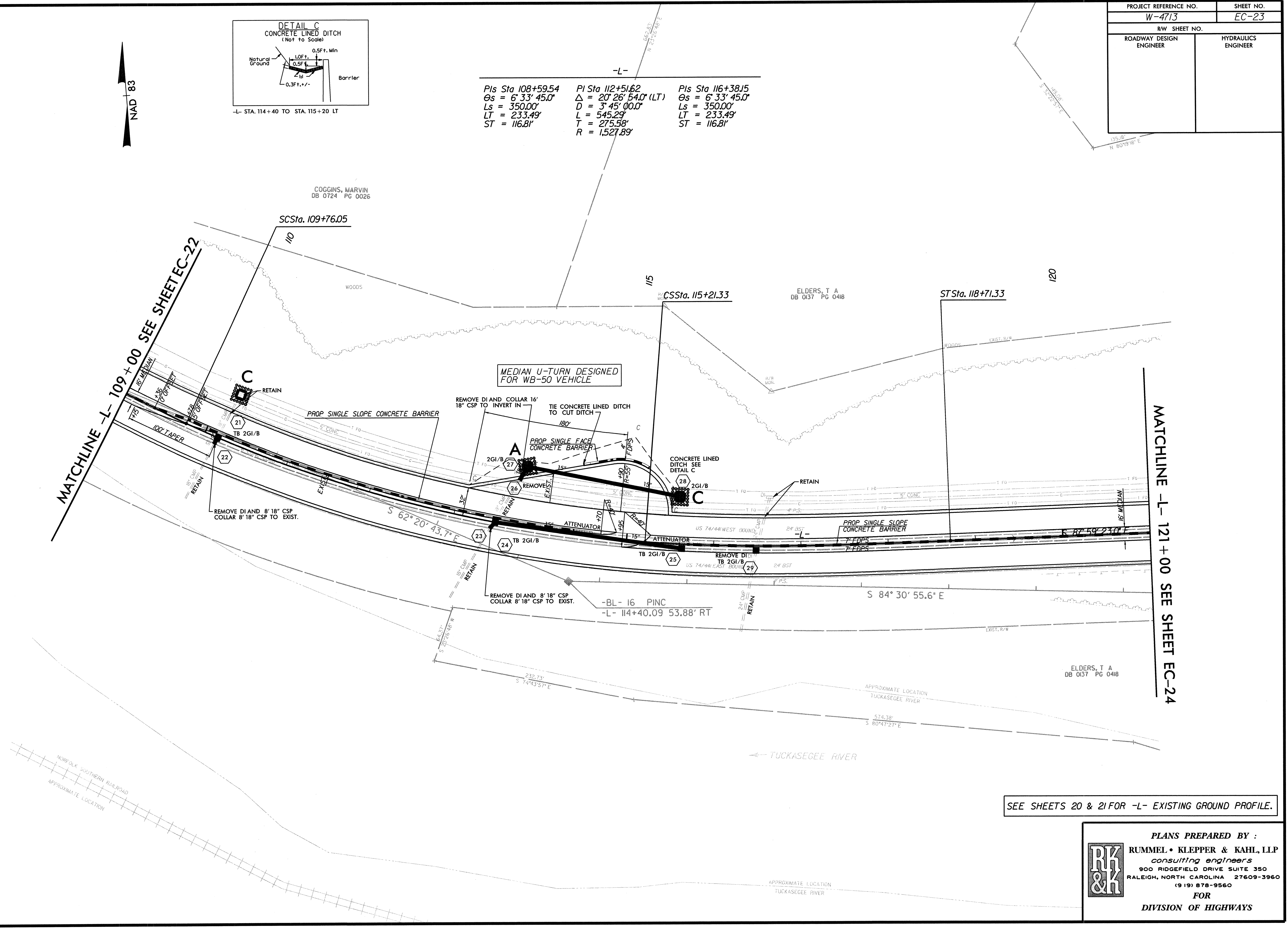
-L-

PIs Sta 108+59.54	PI Sta 112+51.62	PIs Sta 116+38.15
$\theta_s = 6' 33' 45.0''$	$\Delta = 20' 26' 54.0''$ (LT)	$\theta_s = 6' 33' 45.0''$
$L_s = 350.00'$	$D = 3' 45' 00.0''$	$L_s = 350.00'$
$LT = 233.49'$	$L = 545.29'$	$LT = 233.49'$
$ST = 116.81'$	$T = 275.58'$	$ST = 116.81'$
	$R = 1,527.89'$	



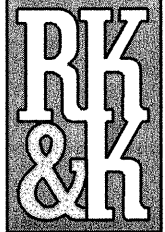
MATCHLINE -L- 109 + 00 SEE SHEET EC-22

MATCHLINE -L- 121 + 00 SEE SHEET EC-24



SEE SHEETS 20 & 21 FOR -L- EXISTING GROUND PROFILE.

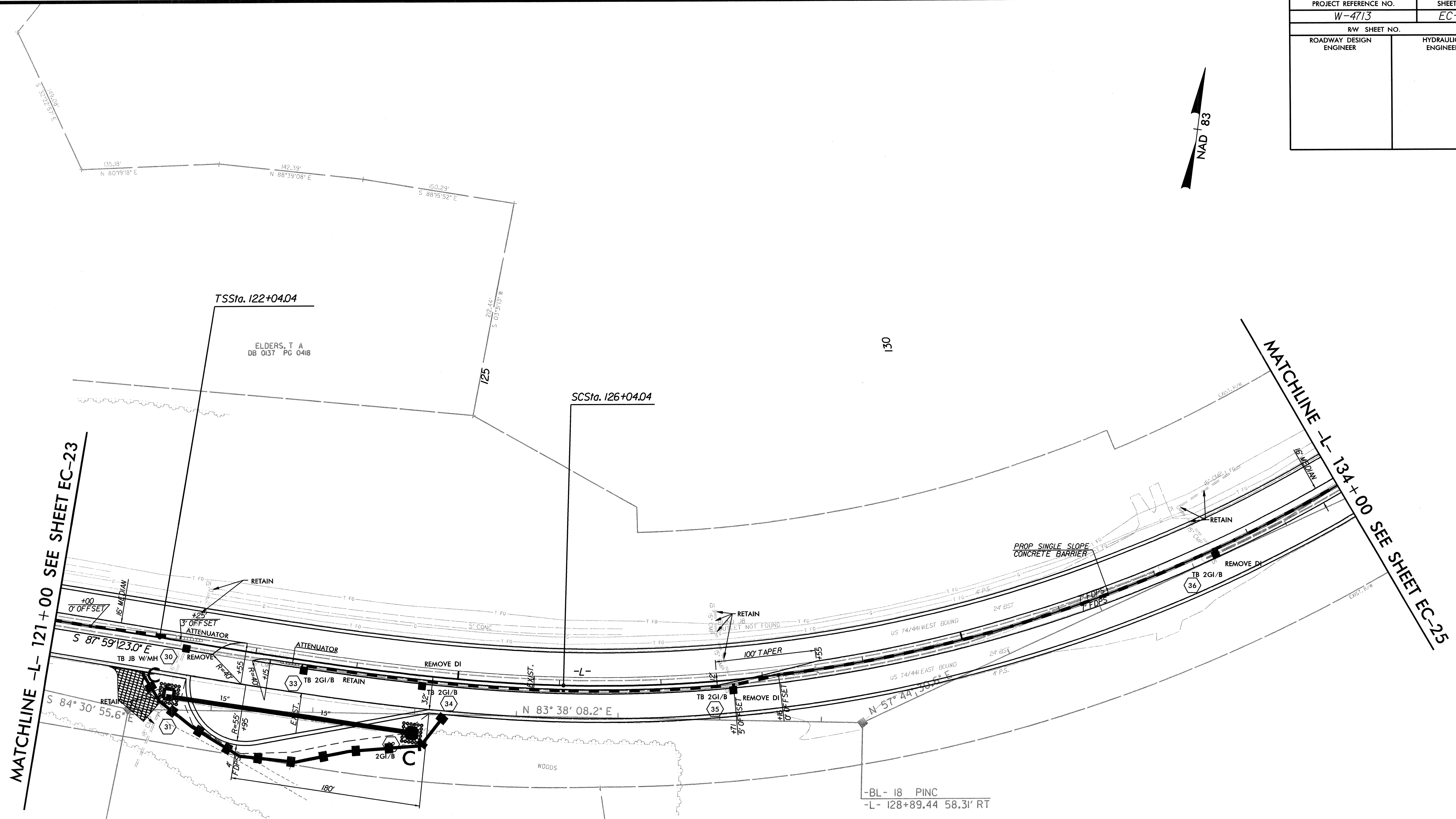
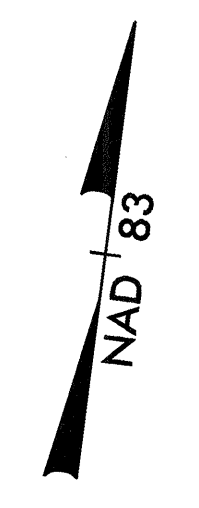
PLANS PREPARED BY :



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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-24
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE -L- 121+00 SEE SHEET EC-23

MATCHLINE -L- 134+00 SEE SHEET EC-25

MEDIAN U-TURN DESIGNED FOR WB-50 VEHICLE

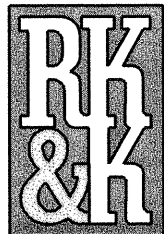
ELDERS, T A
DB 0137 PG 0418

-L-

PI Sta 124+70.98	PI Sta 130+80.45
$\theta_s = 8^{\circ}00'00.0''$	$\Delta = 36^{\circ}47'38.8''$ (LT)
$L_s = 400.00'$	$D = 4^{\circ}00'00.0''$
$LT = 266.94'$	$L = 919.85'$
$ST = 133.58'$	$T = 476.41'$
	$R = 1,432.39'$

SEE SHEET 21 FOR -L- EXISTING GROUND PROFILE.

PLANS PREPARED BY :

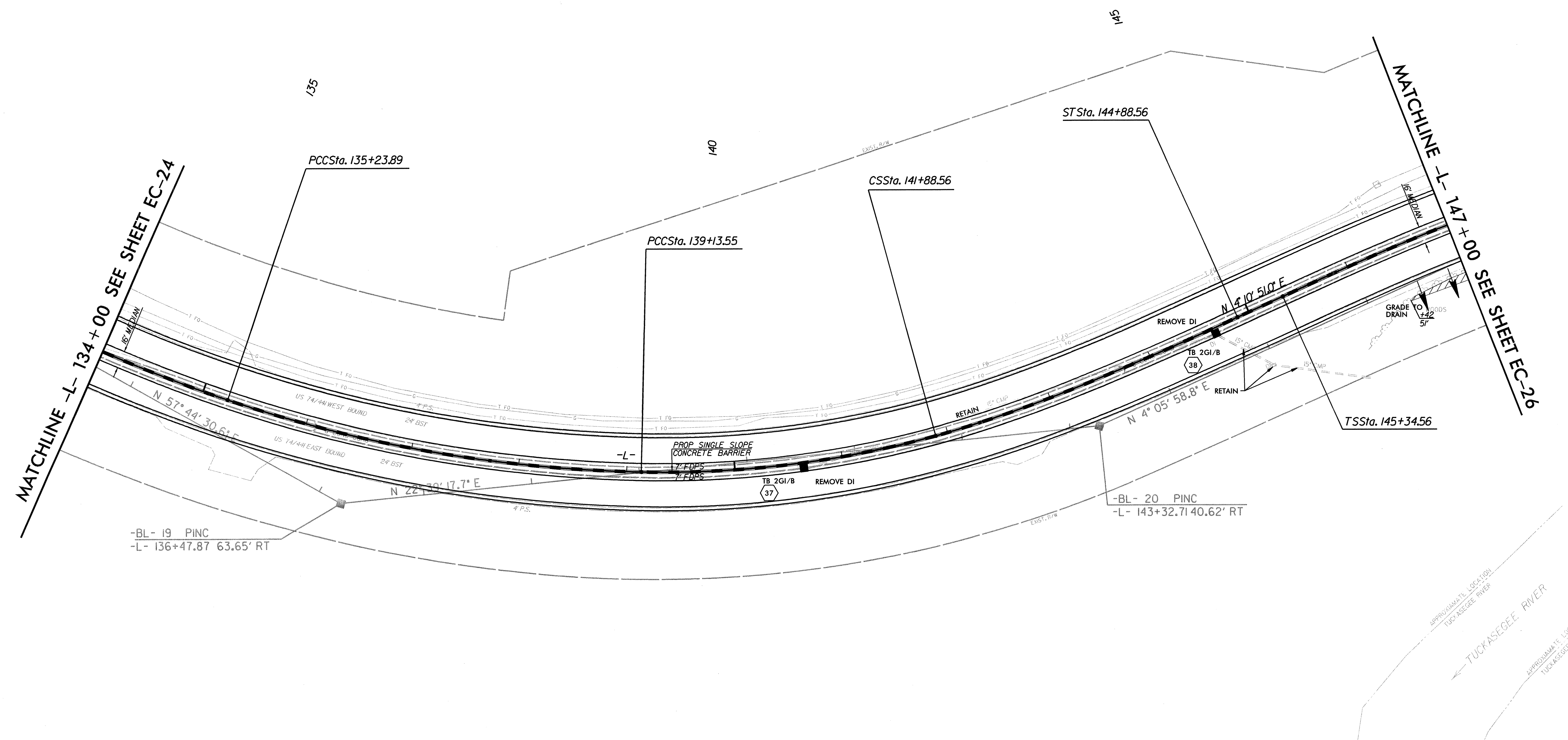
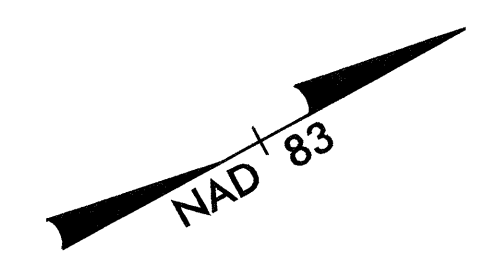


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FOR
DIVISION OF HIGHWAYS

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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE -L- 134+00 SEE SHEET EC-24

MATCHLINE -L- 147+00 SEE SHEET EC-26

-BL- 19 PINC
-L- 136+47.87 63.65' RT

-BL- 20 PINC
-L- 143+32.71 40.62' RT

PI Sta 130+80.45 Δ = 36° 47' 38.8" (LT) D = 4' 00' 00.0" L = 919.85' T = 476.41' R = 1,432.39'	PI Sta 137+20.26 Δ = 17° 32' 05.3" (LT) D = 4' 30' 00.0" L = 389.66' T = 196.37' R = 1,273.24'	PI Sta 140+52.02 Δ = 16° 30' 01.9" (LT) D = 6' 00' 00.0" L = 275.01' T = 138.46' R = 954.93'	PIs Sta 142+88.80 Os = 9' 00' 00.0" Ls = 300.00' LT = 200.26' ST = 100.24'	PIs Sta 147+34.82 Os = 9' 00' 00.0" Ls = 300.00' LT = 200.26' ST = 100.24'
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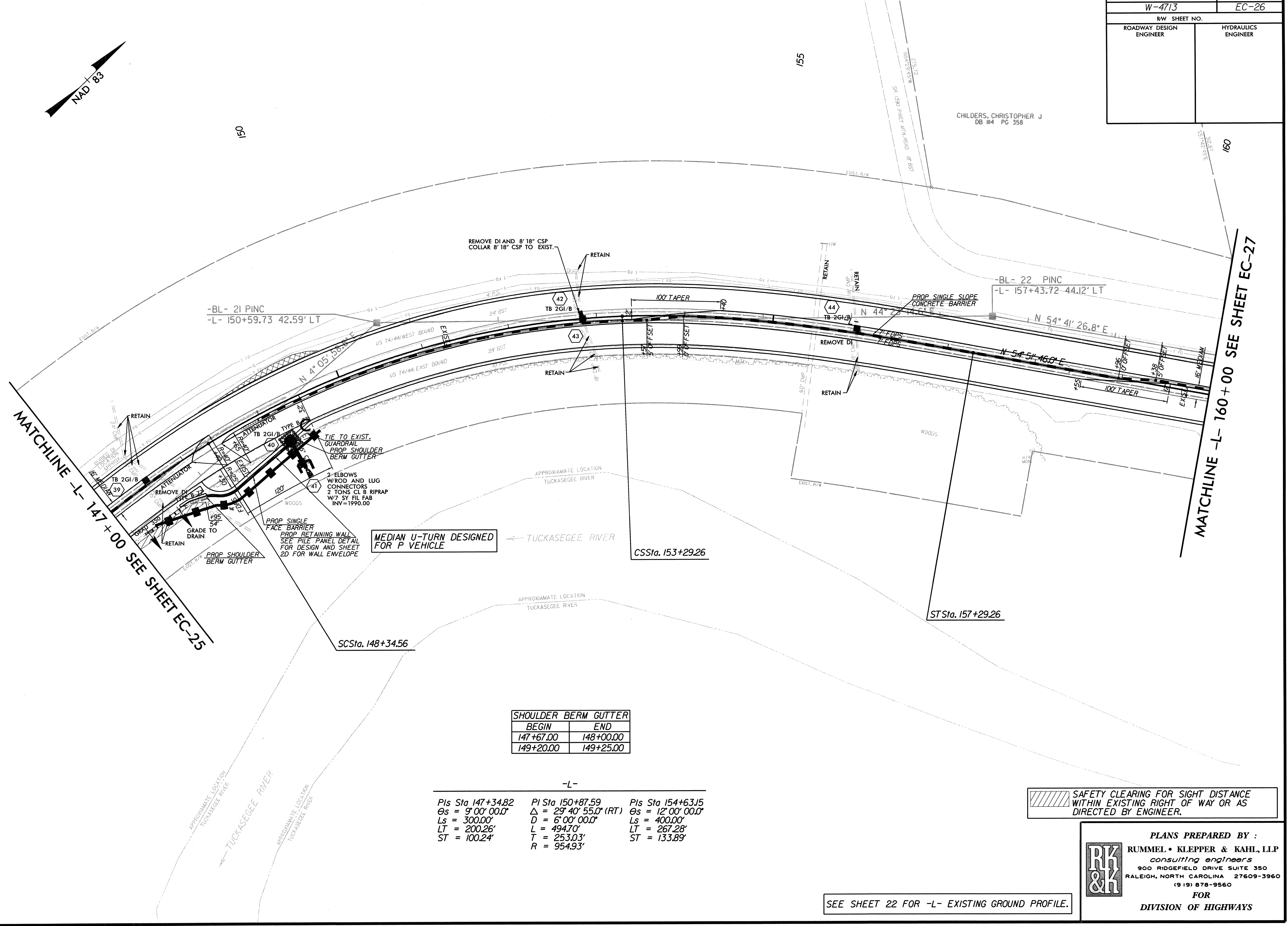
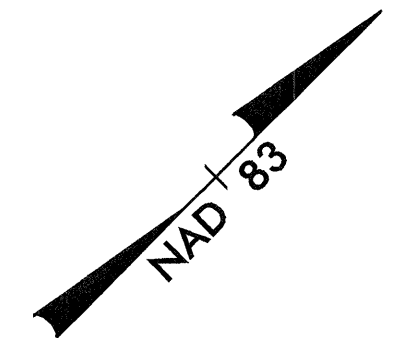
SAFETY CLEARING FOR SIGHT DISTANCE WITHIN EXISTING RIGHT OF WAY OR AS DIRECTED BY ENGINEER.

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SEE SHEETS 21 & 22 FOR -L- EXISTING GROUND PROFILE.

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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-26
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE -L- 147+00 SEE SHEET EC-25

MATCHLINE -L- 160+00 SEE SHEET EC-27

SHOULDER BERM GUTTER	
BEGIN	END
147+67.00	148+00.00
149+20.00	149+25.00

-L-		
PIs Sta 147+34.82 Es = 9'00"00.0" Ls = 300.00' LT = 200.26' ST = 100.24'	PI Sta 150+87.59 $\Delta = 29^{\circ}40'55.0"$ (RT) D = 6'00"00.0" L = 494.70' T = 253.03' R = 954.93'	PIs Sta 154+63.15 Es = 12'00"00.0" Ls = 400.00' LT = 267.28' ST = 133.89'

SAFETY CLEARING FOR SIGHT DISTANCE WITHIN EXISTING RIGHT OF WAY OR AS DIRECTED BY ENGINEER.

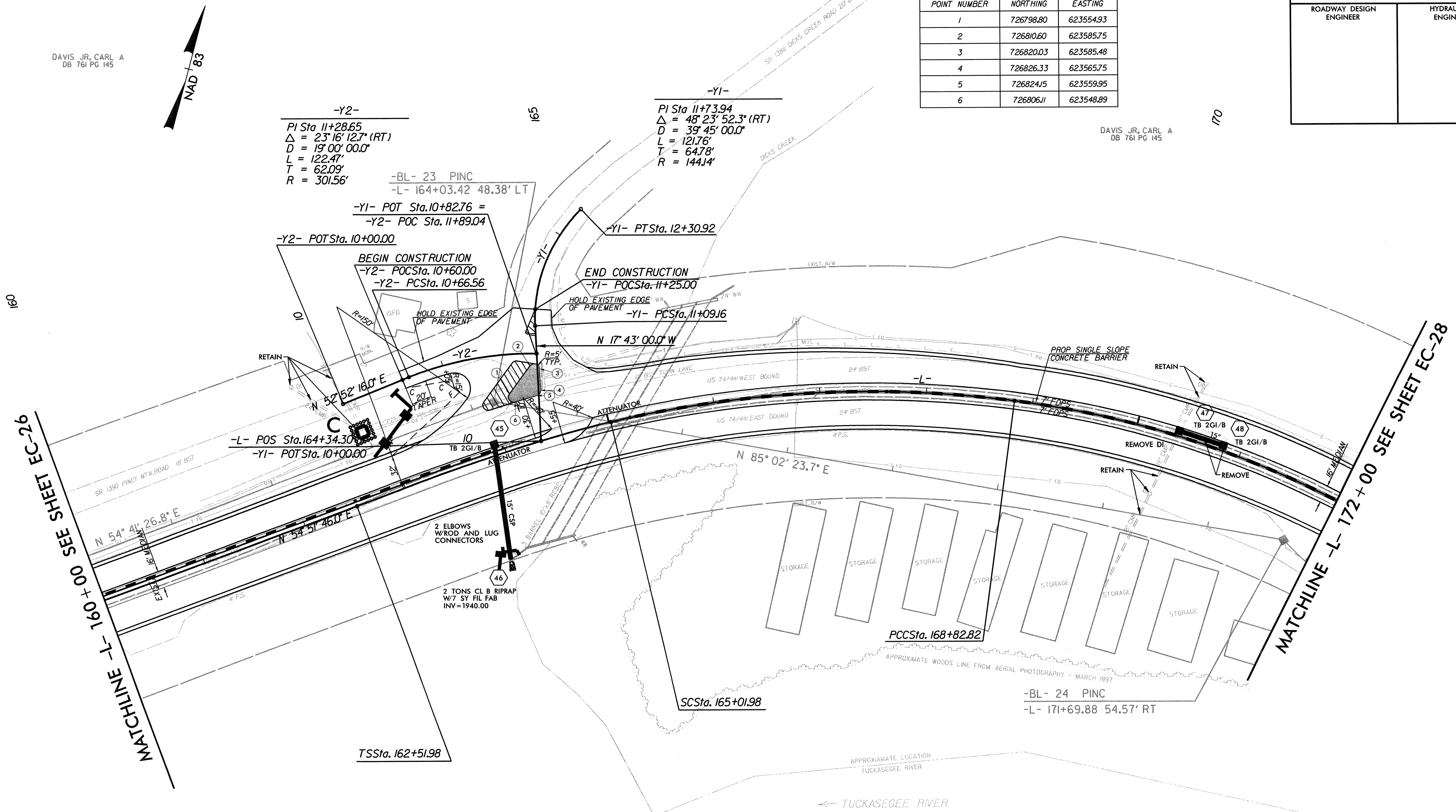
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SEE SHEET 22 FOR -L- EXISTING GROUND PROFILE.

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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-27
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONCRETE ISLAND COORDINATES		
POINT NUMBER	NORTHING	EASTING
1	726798.80	623554.93
2	726810.60	623585.75
3	726820.03	623585.48
4	726826.33	623565.75
5	726824.5	623559.95
6	726806.11	623548.89

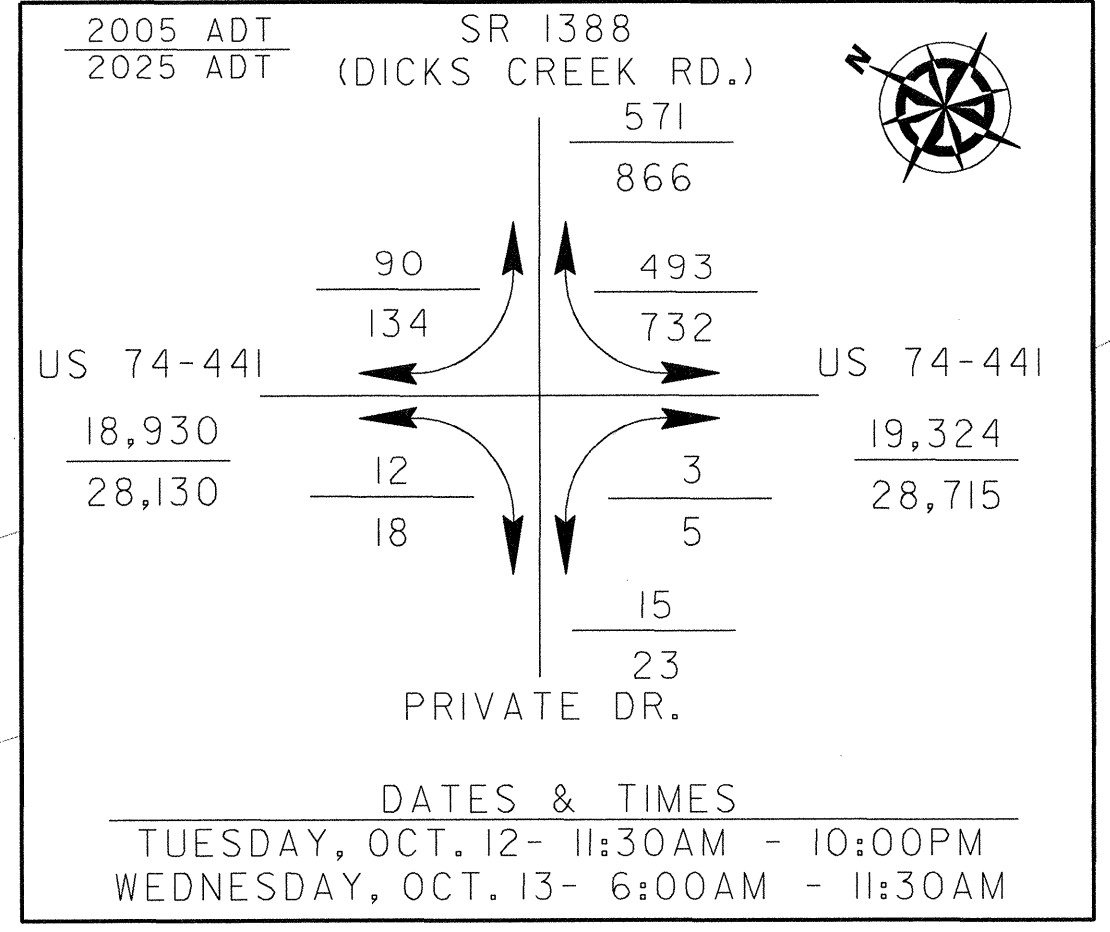


MATCHLINE -L- 160+00 SEE SHEET EC-26

MATCHLINE -L- 172+00 SEE SHEET EC-28

DAVIS JR, CARL A
DB 761 PG 145

DAVIS JR, CARL A
DB 761 PG 145



-L-		
PI Sta 164+18.77 θs = 6° 52' 30.0" Ls = 250.00' LT = 166.79' ST = 83.45'	PI Sta 166+94.55 Δ = 20° 56' 46.9" (RT) D = 5° 30' 00.0" L = 380.84' T = 192.57' R = 1,041.74'	PI Sta 173+70.74 Δ = 54° 07' 45.7" (RT) D = 6° 00' 00.0" L = 902.16' T = 487.92' R = 954.93'

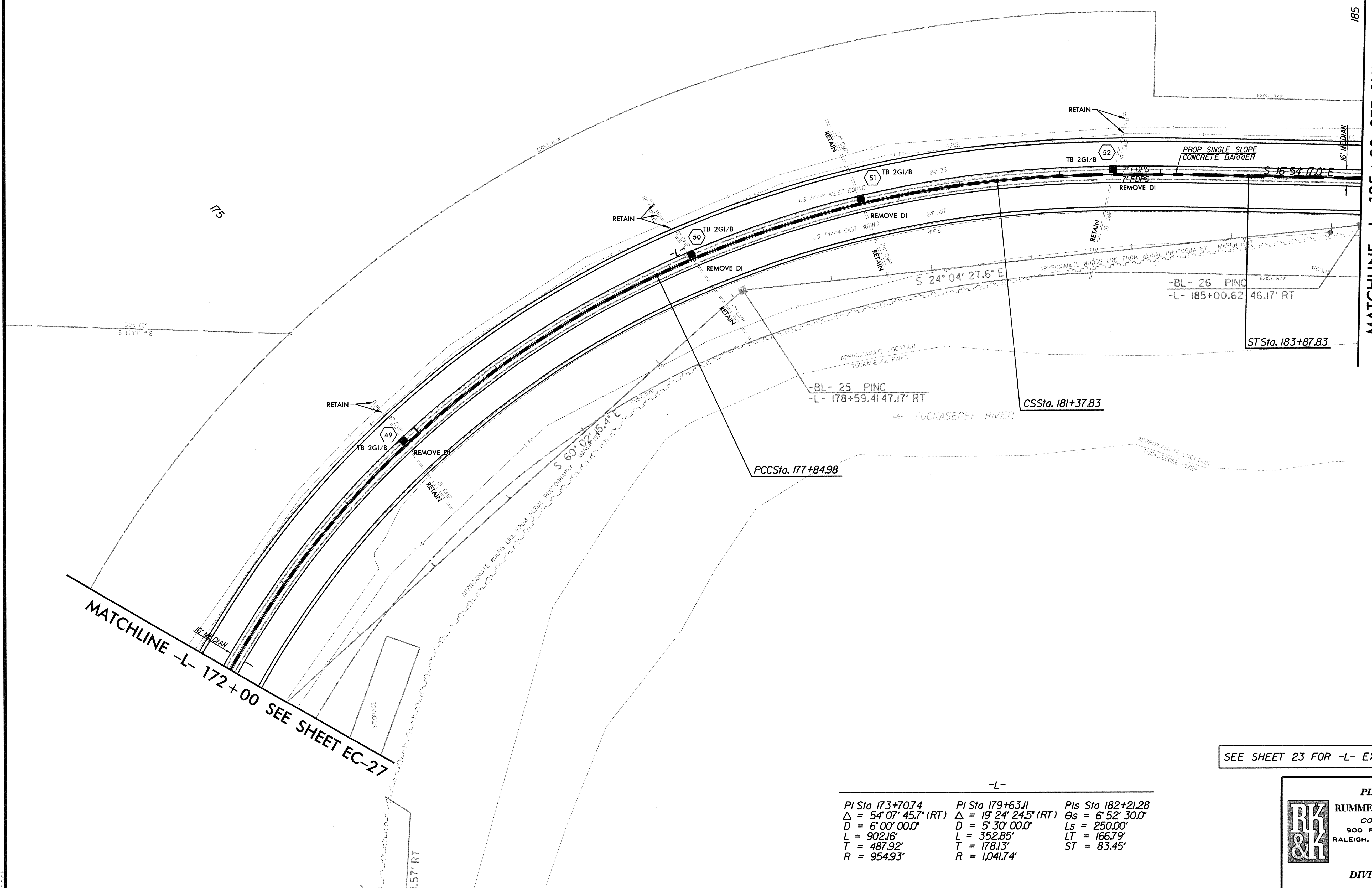
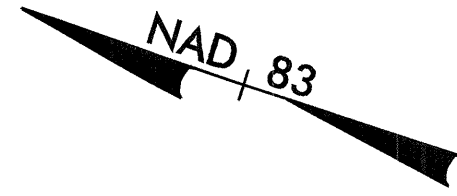
SEE SHEETS 22 & 23 FOR -L- EXISTING GROUND PROFILE.

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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-28
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE -L- 172+00 SEE SHEET EC-27

SEE SHEET 23 FOR -L- EXISTING GROUND PROFILE.

-L-

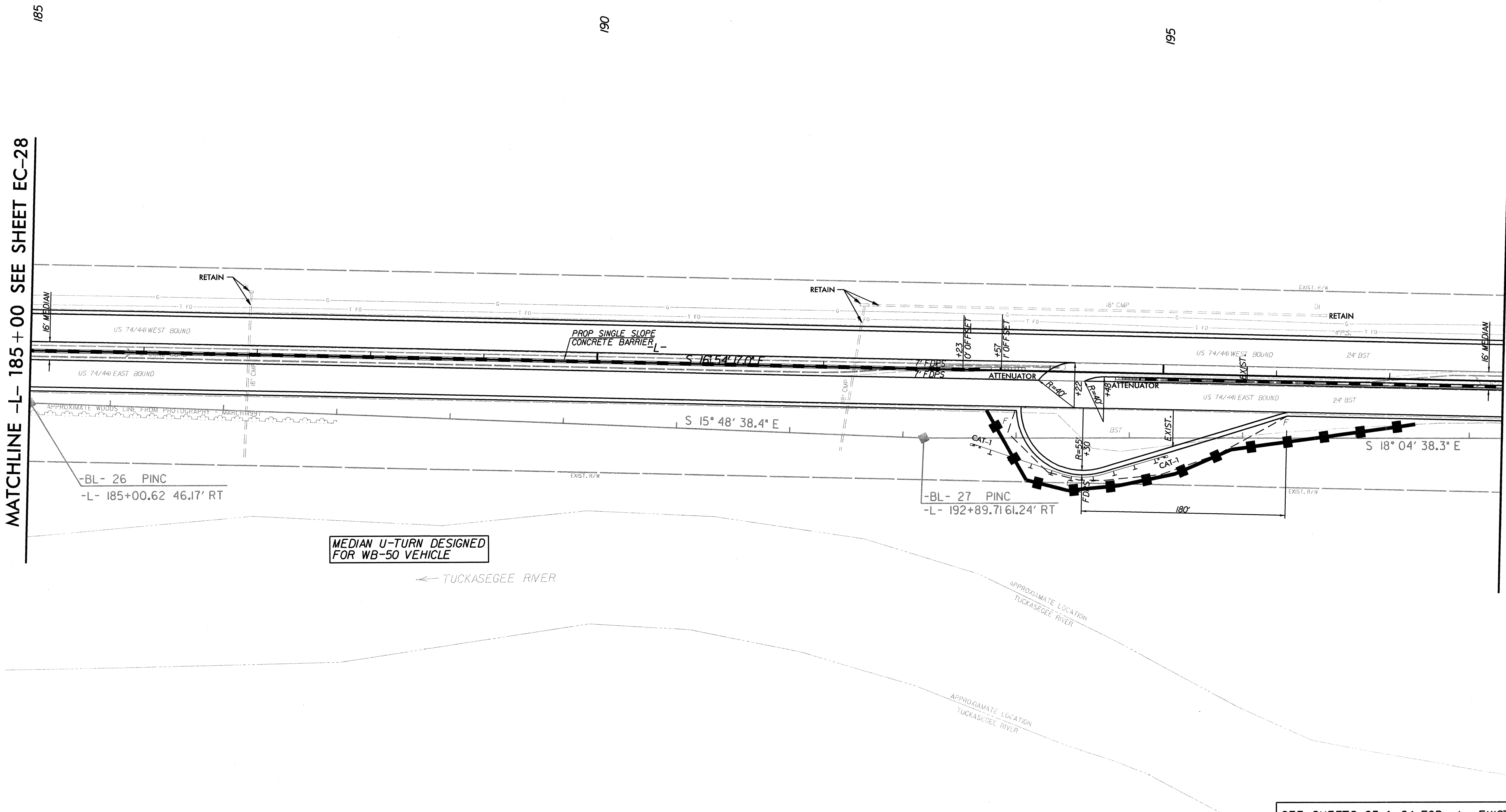
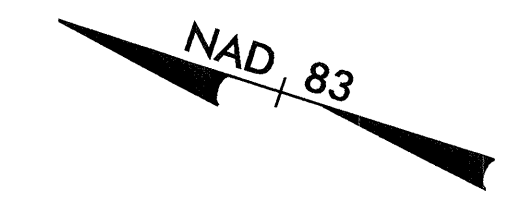
PI Sta 173+70.74	PI Sta 179+63.11	PIs Sta 182+21.28
$\Delta = 54^{\circ} 07' 45.7''$ (RT)	$\Delta = 19^{\circ} 24' 24.5''$ (RT)	$\Theta_s = 6^{\circ} 52' 30.0''$
D = 6' 00' 00.0"	D = 5' 30' 00.0"	Ls = 250.00'
L = 902.16'	L = 352.85'	LT = 166.79'
T = 487.92'	T = 178.13'	ST = 83.45'
R = 954.93'	R = 1,041.74'	

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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-29
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

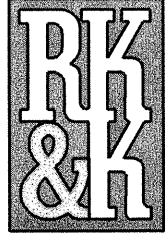


MATCHLINE -L- 185 + 00 SEE SHEET EC-28

MATCHLINE -L- 198 + 00 SEE SHEET EC-30

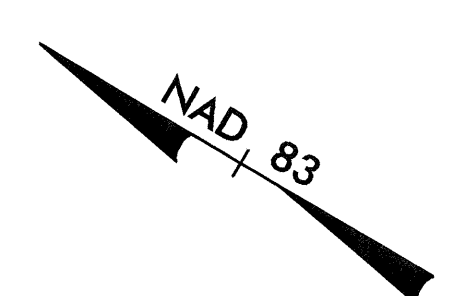
MEDIAN U-TURN DESIGNED FOR WB-50 VEHICLE

SEE SHEETS 23 & 24 FOR -L- EXISTING GROUND PROFILE.

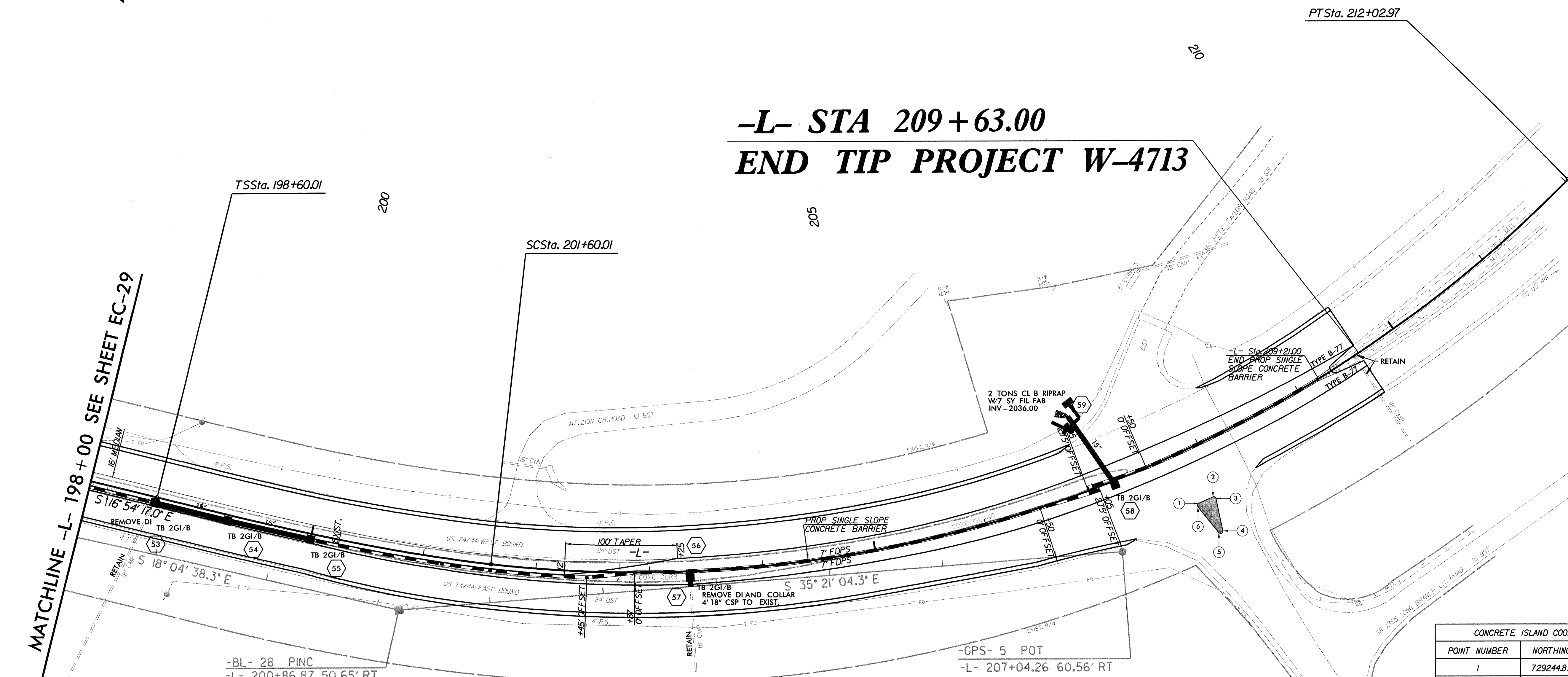
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PROJECT REFERENCE NO. W-4713	SHEET NO. EC-30
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L- STA 209+63.00 END TIP PROJECT W-4713



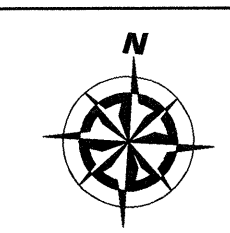
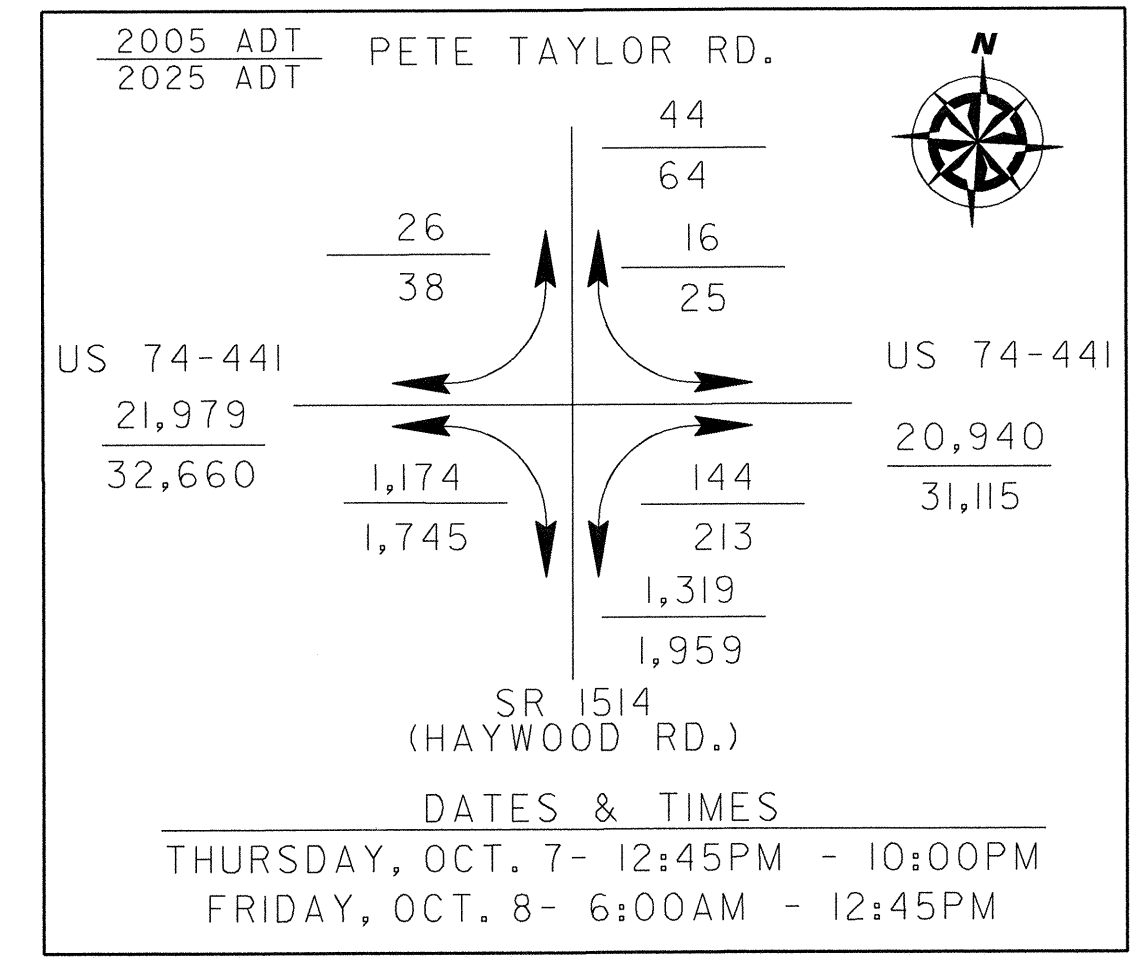
-BL- 28 PINC
-L- 200+86.87 50.65' RT

-GPS- 5 POT
-L- 207+04.26 60.56' RT

CONCRETE ISLAND COORDINATES		
POINT NUMBER	NORTHING	EASTING
1	729244.83	620647.83
2	729256.11	620639.50
3	729256.33	620636.39
4	729235.13	620616.84
5	729231.89	620618.99
6	729241.81	620646.37

-L-

PIs Sta 200+60.19	PI Sta 207+20.74
Θs = 7° 30' 00.0"	Δ = 52° 08' 51.7" (LT)
Ls = 300.00'	D = 5° 00' 00.0"
LT = 200.18'	L = 1,042.95'
ST = 100.16'	T = 560.73'
	R = 1,145.92'



SEE SHEET 24 FOR -L- EXISTING GROUND PROFILE.

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