

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4026	1	
WSB NO.	F.A. PROJ. NO.	DESCRIPTION	
35018.1.1		P.E.	
35018.2.1		R/W	
35018.3.1		CONST	

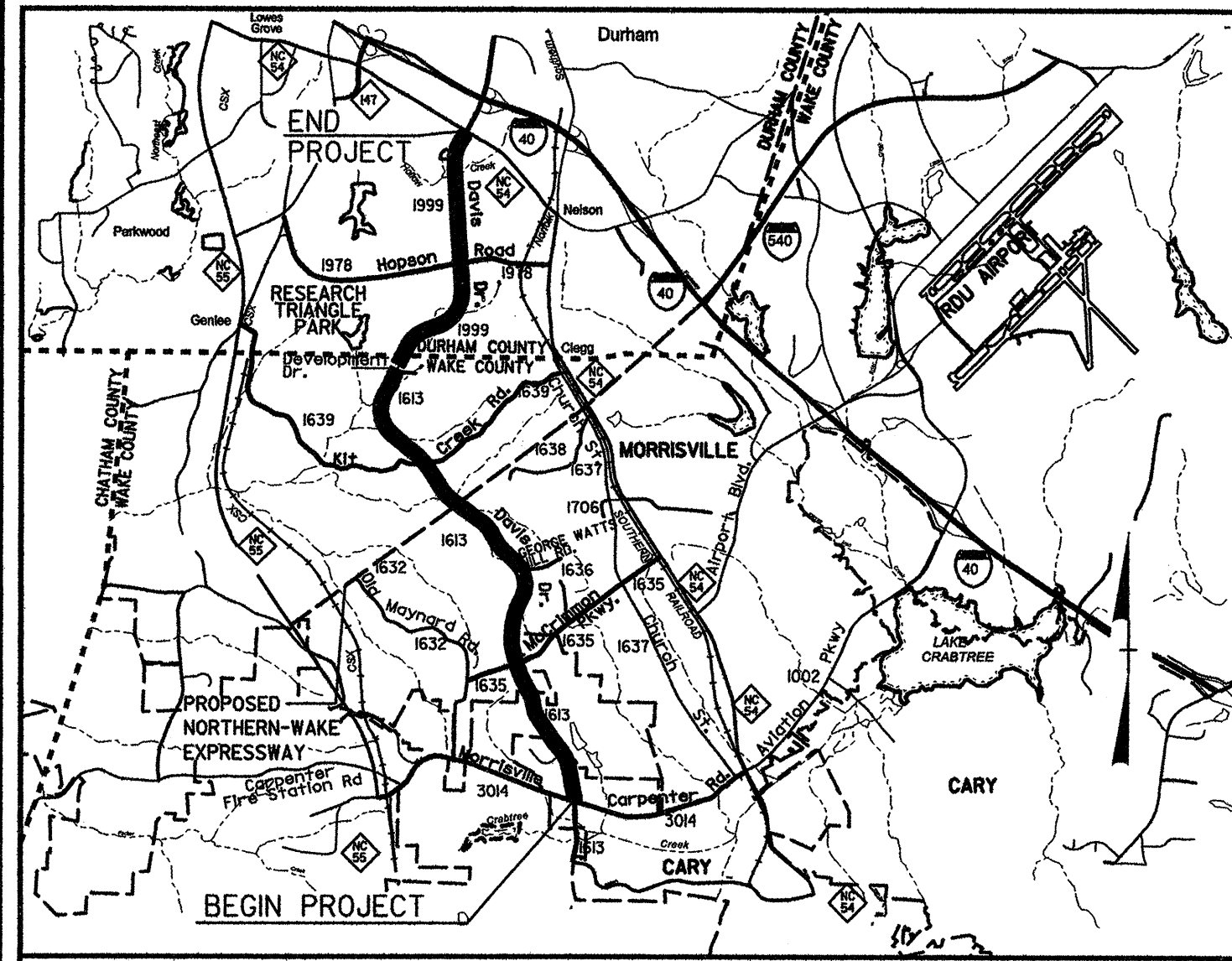
See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

WAKE-DURHAM COUNTIES

LOCATION: DAVIS DRIVE (SR 1613/1999) FROM 390' NORTH OF MORRISVILLE-CARPENTER ROAD (SR 3014) TO NORTH OF NC 54

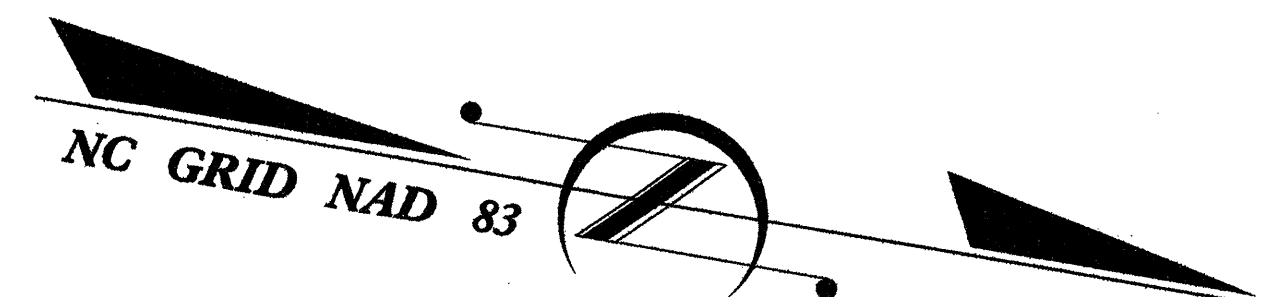
TYPE OF WORK: GRADING, DRAINAGE, PAVING, CULVERTS, SIGNALS AND SIGNING



VICINITY MAP

LEGEND

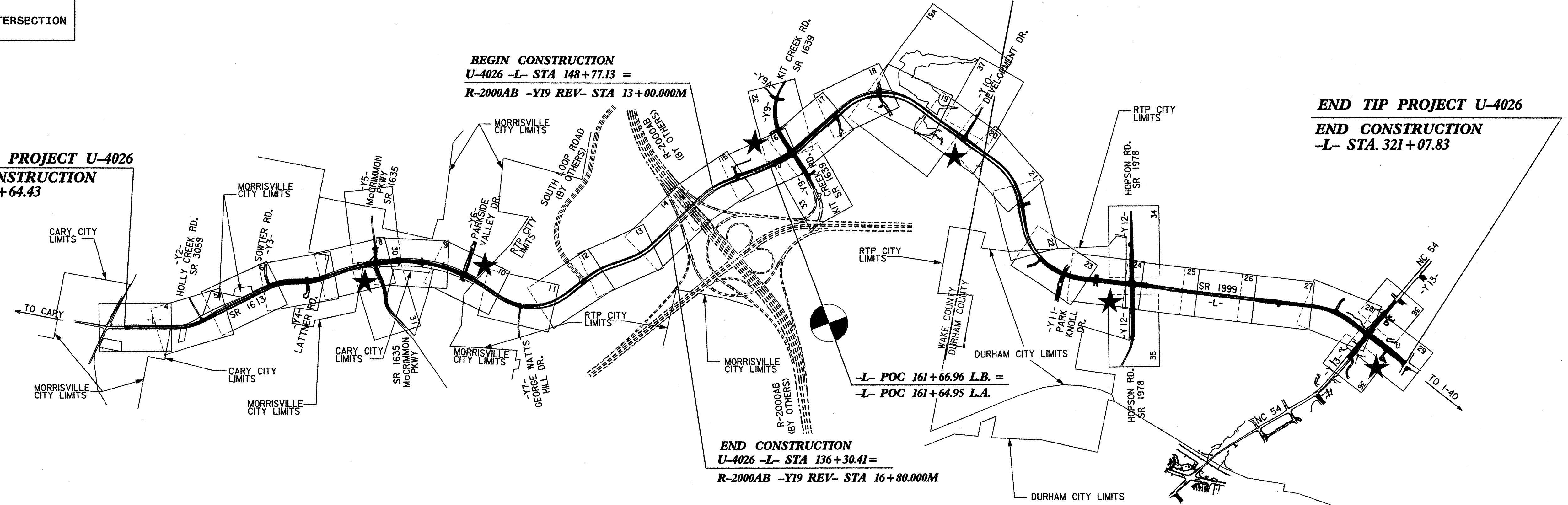
★ SIGNED INTERSECTION



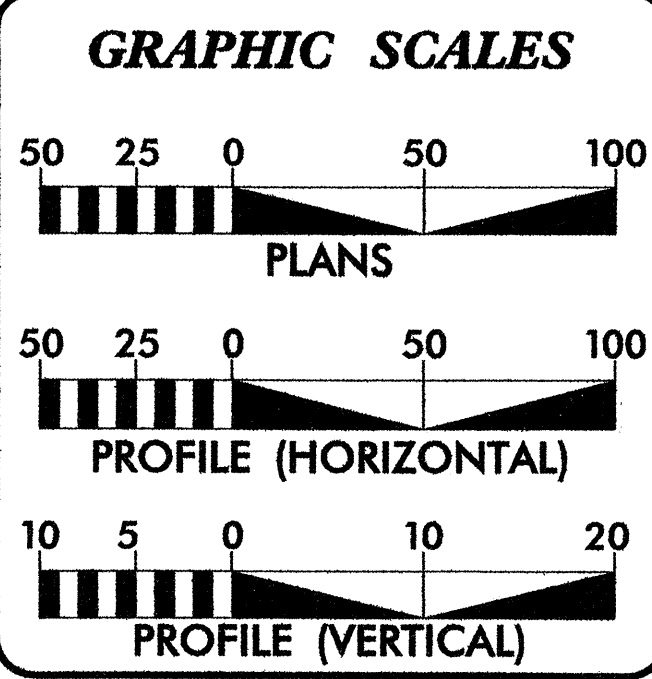
**BEGIN TIP PROJECT U-4026
BEGIN CONSTRUCTION
-L- STA. 13+64.43**

**BEGIN CONSTRUCTION
U-4026 -L- STA 148+77.13 =
R-2000AB -Y19 REV- STA 13+00.000M**

**END TIP PROJECT U-4026
END CONSTRUCTION
-L- STA. 321+07.83**



NCDOT CONTACT: DOUG TAYLOR, P.E.
ROADWAY DESIGN - ENGINEERING COORDINATION



DESIGN DATA

ADT (2004) = 24155
ADT (2024) = 45055
DHV = 12 %
D = 65 %
T = 4 % *
V = 55 MPH (SHLD)
= 50 MPH (C&G)
* TTST 1 % DUAL 3 %

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-4026	=	5.587 MI.
TOTAL LENGTH OF TIP PROJECT U-4026	=	5.587 MI.

Prepared in the Office of:
KO & ASSOCIATES, P.C.
1011 Schaub Dr. Suite 202, Raleigh, NC 27606 919-851-6066
for
North Carolina Department of Transportation

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
U-4026A - APRIL 29, 2003
U-4026B - JUNE 30, 2003

LETTING DATE:

Stephen R. Whitley, P.E.
PROJECT ENGINEER

David C. Waller, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

Professional Seal: SEAL 021162, ENGINEER, HERBERT TURNER

Signature: *Herbert Turner*, P.E.
SIGNATURE: 5-4-2006

ROADWAY DESIGN ENGINEER

Professional Seal: SEAL 20774, ENGINEER, STEPHEN R. WHITLEY

Signature: *Stephen R. Whitley*
SIGNATURE: 5-4-2006

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

Professional Seal: SEAL 20774, ENGINEER, STEPHEN R. WHITLEY

Signature: *Art McMillan*, P.E.
STATE HIGHWAY DESIGN ENGINEER

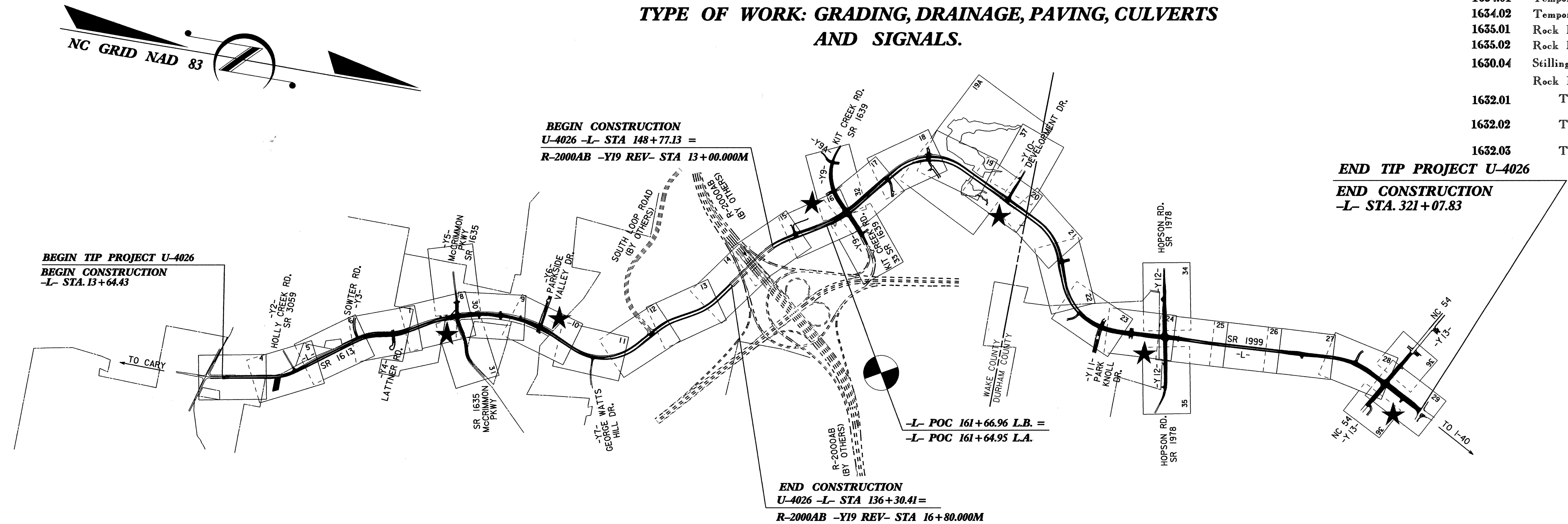
CONTRACT: C200840 TIP PROJECT: U-4026

5/2/2006 E:\Roadway\Projects\U4026\ash Ko & Associates, P.C.

TIP PROJECT: U-4026

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
WAKE-DURHAM COUNTIES

LOCATION: DAVIS DRIVE (SR 1613/1999) FROM 390' NORTH
OF MORRISVILLE-CARPENTER ROAD (SR 3014)
TO NORTH OF NC 54
TYPE OF WORK: GRADING, DRAINAGE, PAVING, CULVERTS
AND SIGNALS.



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4026	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

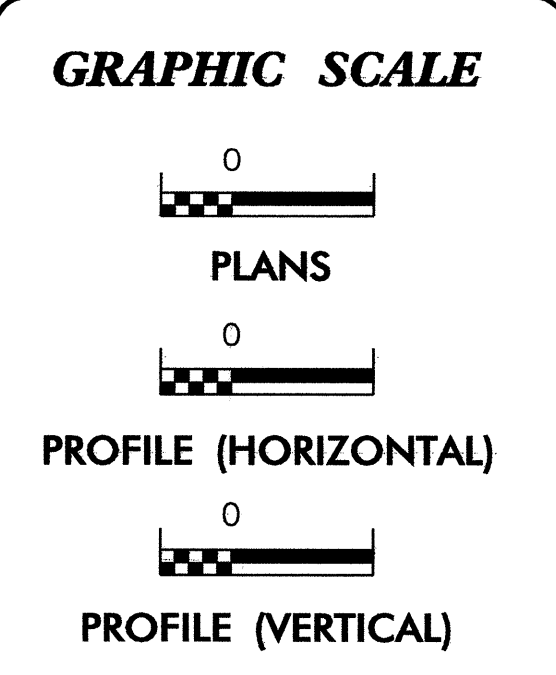
EROSION AND SEDIMENT CONTROL MEASURES

Sta. #	Description	Symbol
	Streambank Reforestation.....	
1630.03	Temporary Silt Ditch.....	
1630.05	Temporary Diversion.....	
1605.01	Temporary Silt Fence.....	
1606.01	Special Sediment Control Fence.....	
1622.01	Temporary Berms and Slope Drains.....	
1630.01	Riser Basin.....	
1630.02	Silt Basin Type B.....	
1633.01	Temporary Rock Silt Check Type-A.....	
	Temporary Rock Silt Check Type-B.....	
1634.01	Temporary Rock Sediment Dam Type-A.....	
1634.02	Temporary Rock Sediment Dam Type-B.....	
1635.01	Rock Pipe Inlet Sediment Trap Type-A.....	
1635.02	Rock Pipe Inlet Sediment Trap Type-B.....	
1630.04	Stilling Basin.....	
	Rock Inlet Sediment Trap:	
1632.01	Type A.....	A OR A)
1632.02	Type B.....	B OR B)
1632.03	Type C.....	C OR C)

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

ENVIRONMENTALLY
SENSITIVE AREA(S) EXIST
ON THIS PROJECT

Refer To E. C. Special Provisions
for Special Considerations.



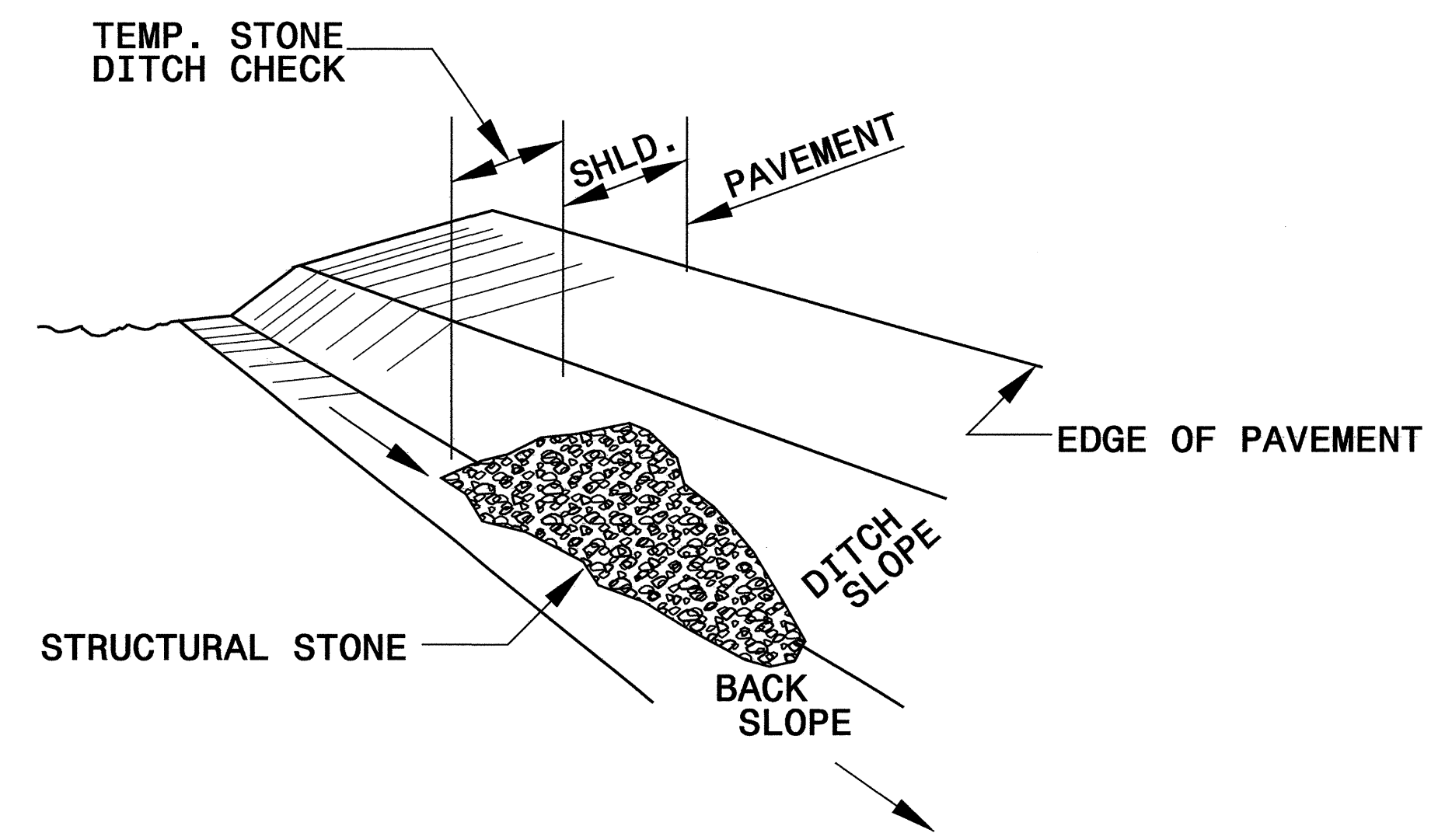
ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611
2006 STANDARD SPECIFICATIONS

- Roadway Standard Drawings
- The following roadway english 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 | 1630.06 Special Stilling Basin |
| 1606.01 Special Sediment Control Fence | 1632.03 Rock Inlet Sediment Trap Type C |
| 1607.01 Gravel Construction Entrance | 1633.01 Temporary Rock Silt Check Type A |
| 1622.01 Temporary Berms and Slope Drains | 1634.01 Temporary Rock Sediment Dam Type A |
| 1630.02 Silt Basin Type B | 1634.02 Temporary Rock Sediment Dam Type B |
| 1630.03 Temporary Silt Ditch | 1635.01 Rock Pipe Inlet Sediment Trap Type A |
| 1630.05 Temporary Diversion | |

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

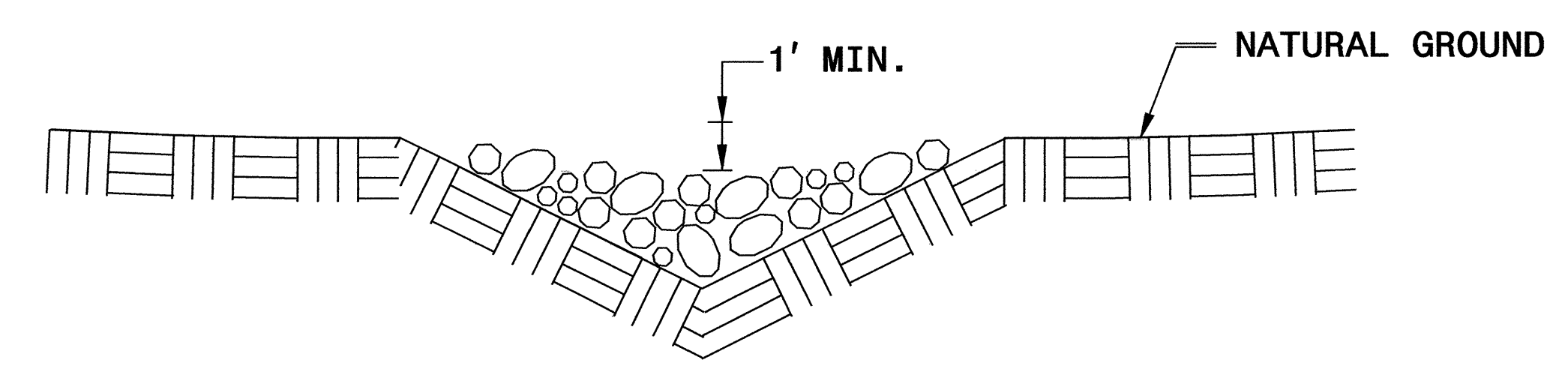


ISOMETRIC VIEW

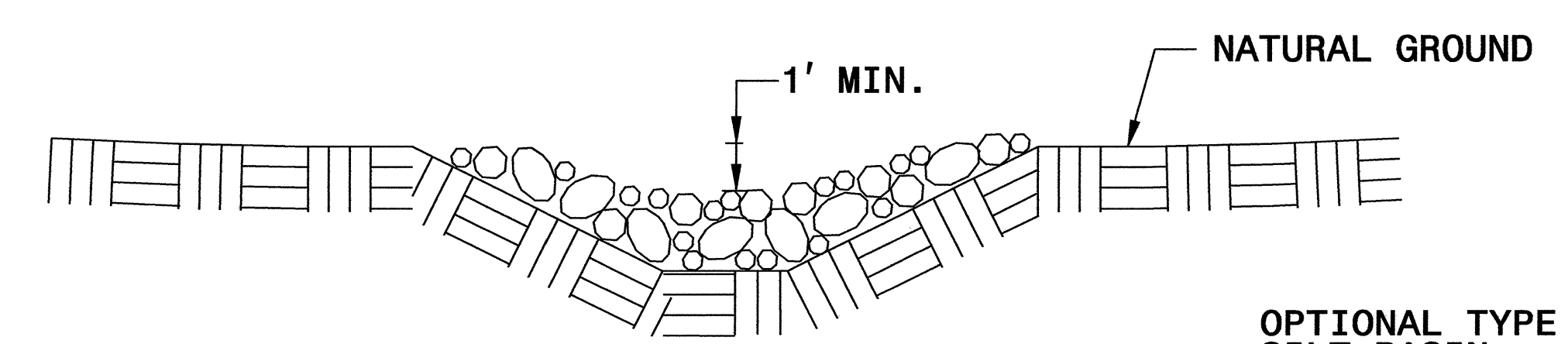
NOTES:

USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

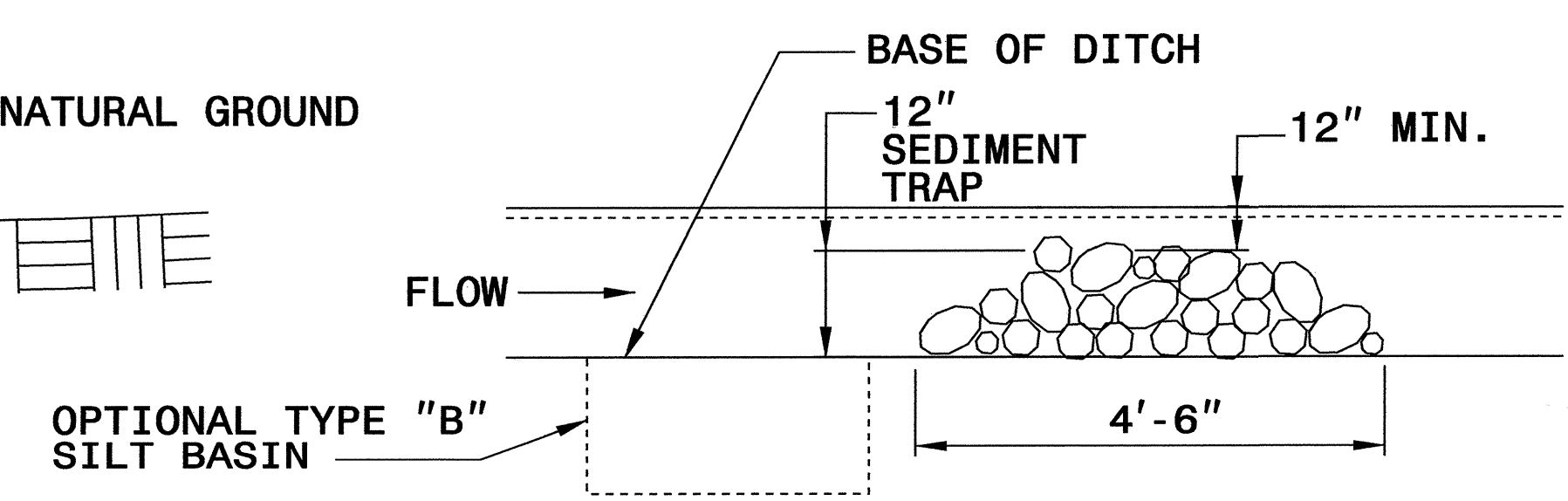
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION
VEE DITCH**



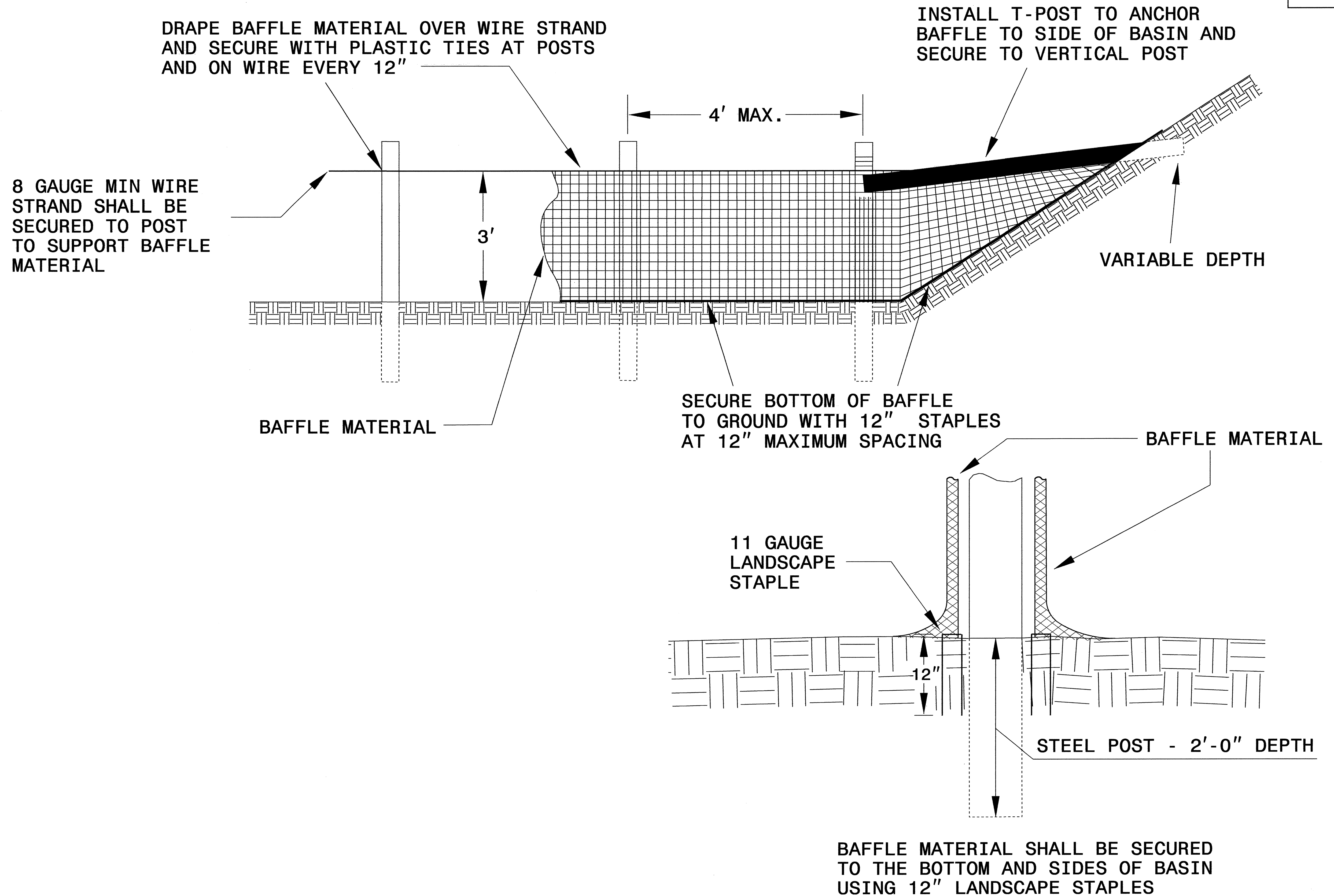
**CROSS SECTION
TRAPEZOIDAL DITCH**



ELEVATION VIEW

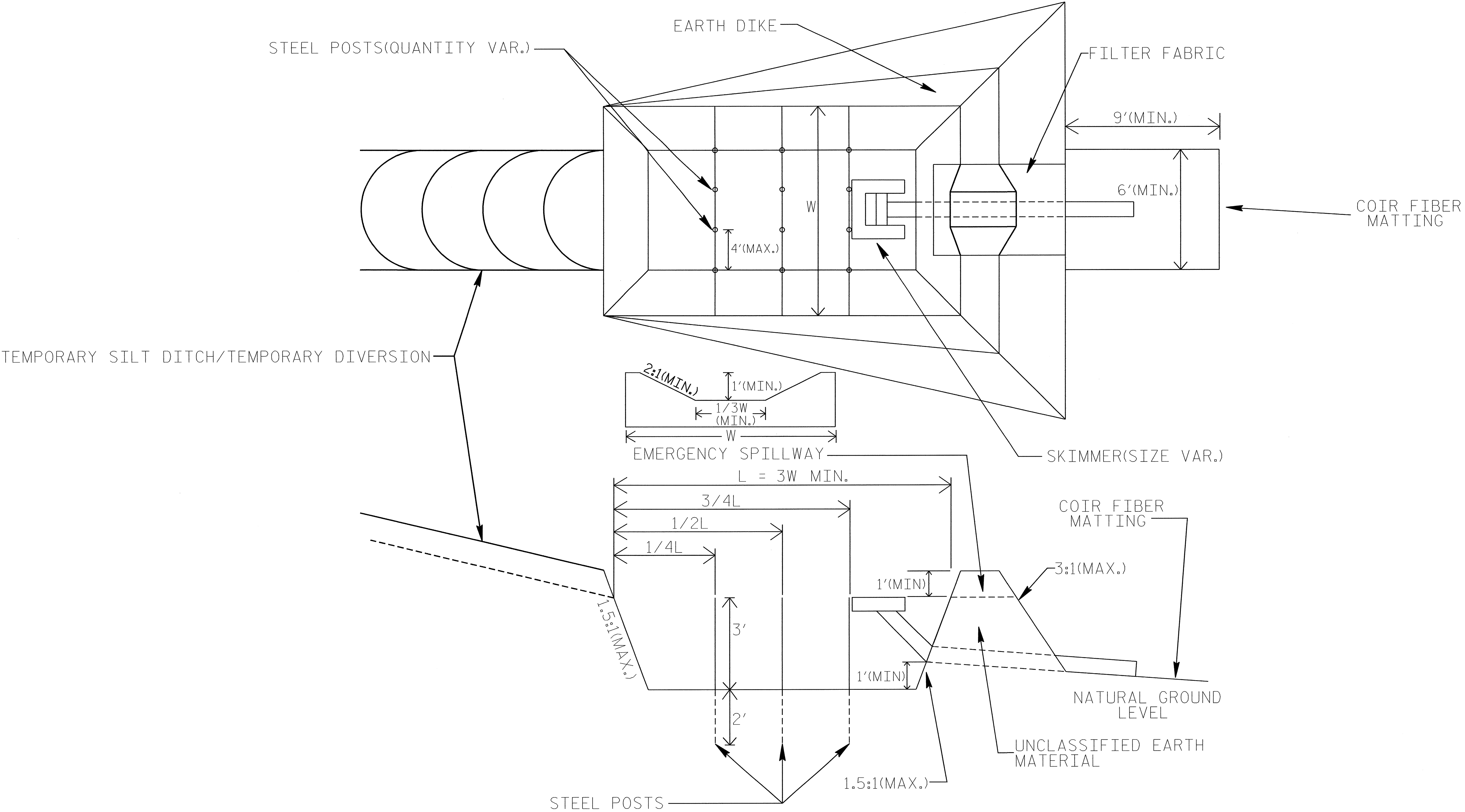
PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL



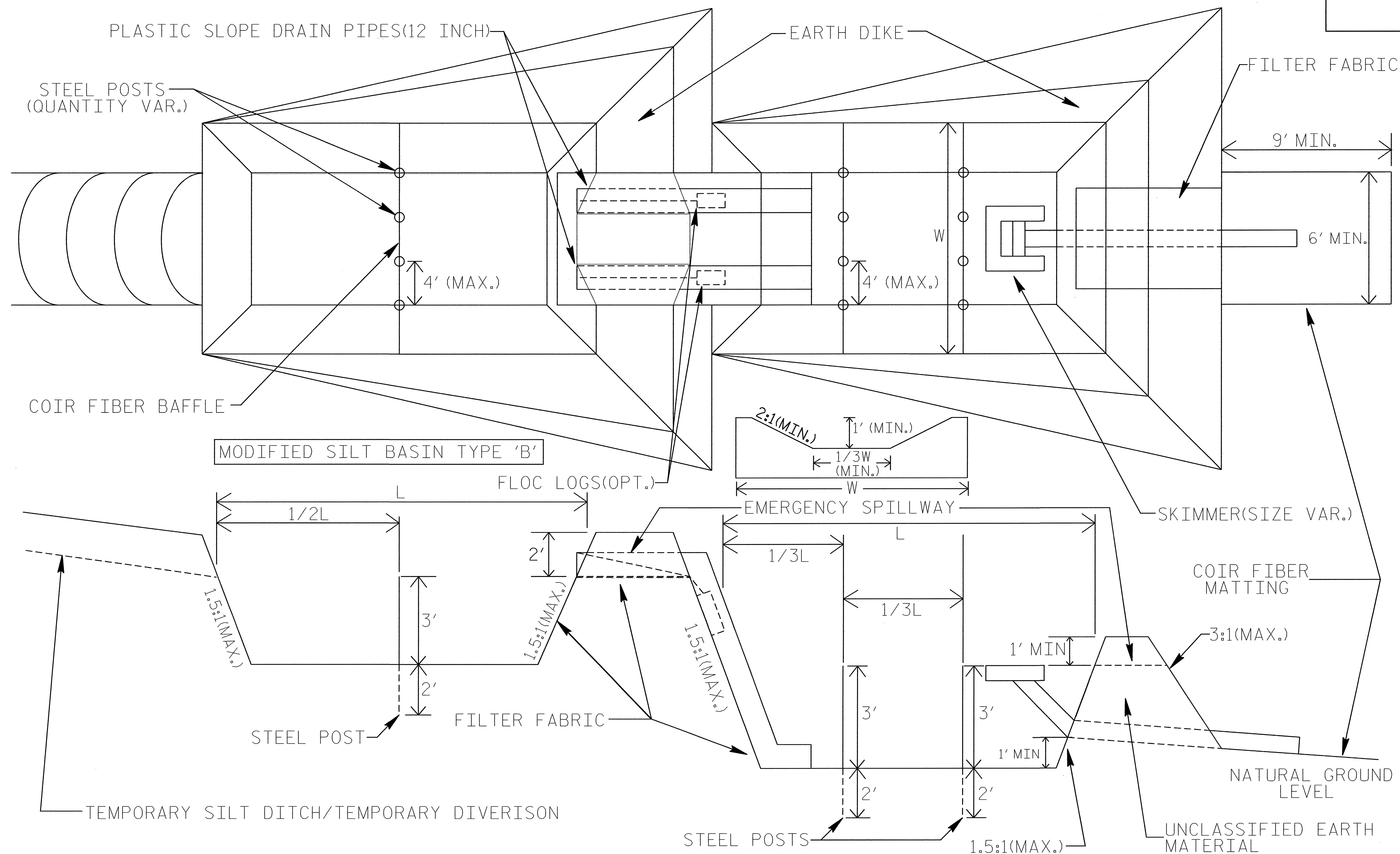
PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TIERED SKIMMER BASIN DETAIL



NOTE

ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.

SOIL STABILIZATION SUMMARY SHEET

MATTING

MATTING

[illegible]

SOIL STABILIZATION SUMMARY SHEET

MATTING

MATTING

[illegible]

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-4/CONST.4
U-4026A	R/W SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

TOWN OF GARY TO HANDLE ALL
RIGHT OF WAY CLAIMS THIS SHEET

78 x 25 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
9 ft. weir

WETLANDS
DO NOT DISTURB

BEGIN TIP PROJECT U-4026
-L- PT STA. 13+64.43 =
PROJECT TOC 99-040
-L- PT STA. 220+71.66

FUTURE PROJECT
BY OTHERS

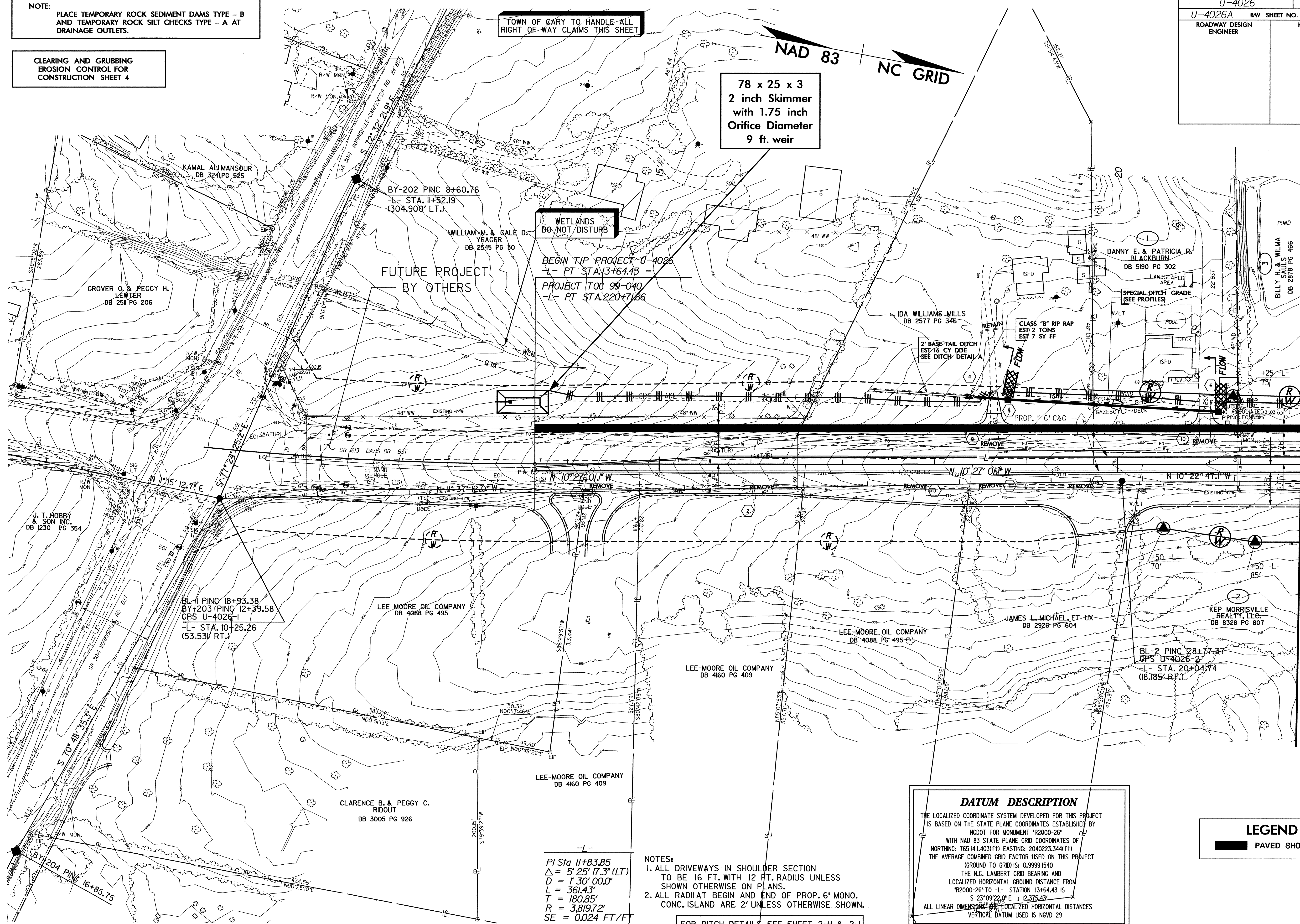
DATUM DESCRIPTION
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT
IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY
NCDOT FOR MONUMENT "R2000-26"
WITH NAD 83 STATE PLANE GRID COORDINATES OF
NORTHING: 765141.403(ft) EASTING: 2040223.344(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT
(GROUND TO GRID) IS: 0.99991540
THE N.C. LAMBERT GRID BEARING AND
LOCALIZED HORIZONTAL GROUND DISTANCE FROM
"R2000-26" TO -L- STATION 13+64.43 IS
S 23°09'22.0" E ; 12,375.43'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NGVD 29

LEGEND
PAVED SHOULDER

- NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION
TO BE 16 FT. WITH 12 FT. RADIUS UNLESS
SHOWN OTHERWISE ON PLANS.
2. ALL RADIAT BEGIN AND END OF PROP. 6" MONO.
CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEET 2-H & 2-I
FOR -L- PROFILE, SEE SHEET 38

-L-
PI Sta 11+83.85
 $\Delta = 5' 25" 17.3" (LT)$
 $D = 1' 30" 00.0"$
 $L = 361.43'$
 $T = 180.85'$
 $R = 3,819.72'$
 $SE = 0.024 FT/FT$



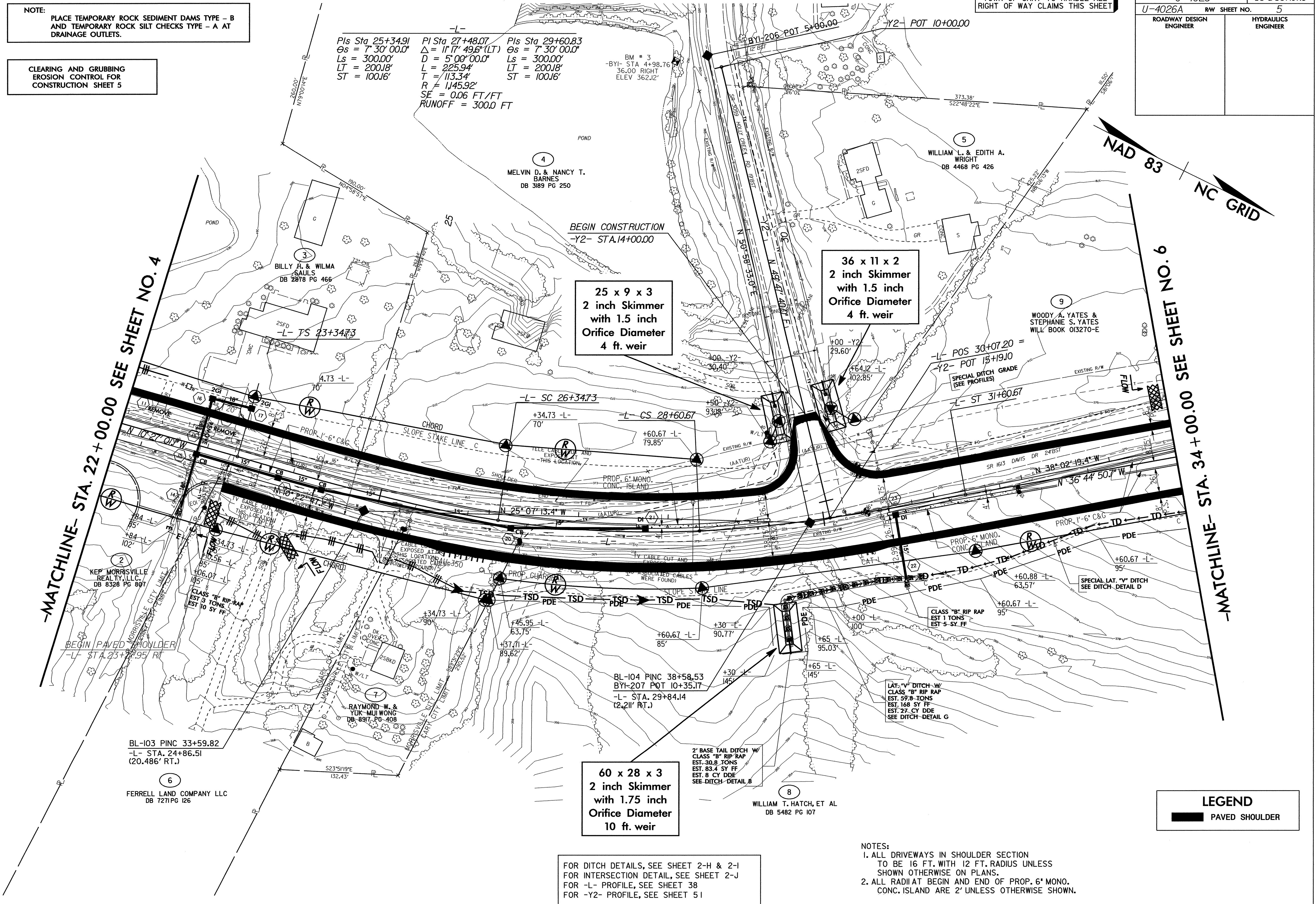
-MATCHLINE- STA. 22 + 00.00 SEE SHEET NO. 5

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

TOWN OF CARY TO HANDLE ALL
RIGHT OF WAY CLAIMS THIS SHEET

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-5/CONST.5
U-4026A	RW SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



LEGEND
PAVED SHOULDER

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

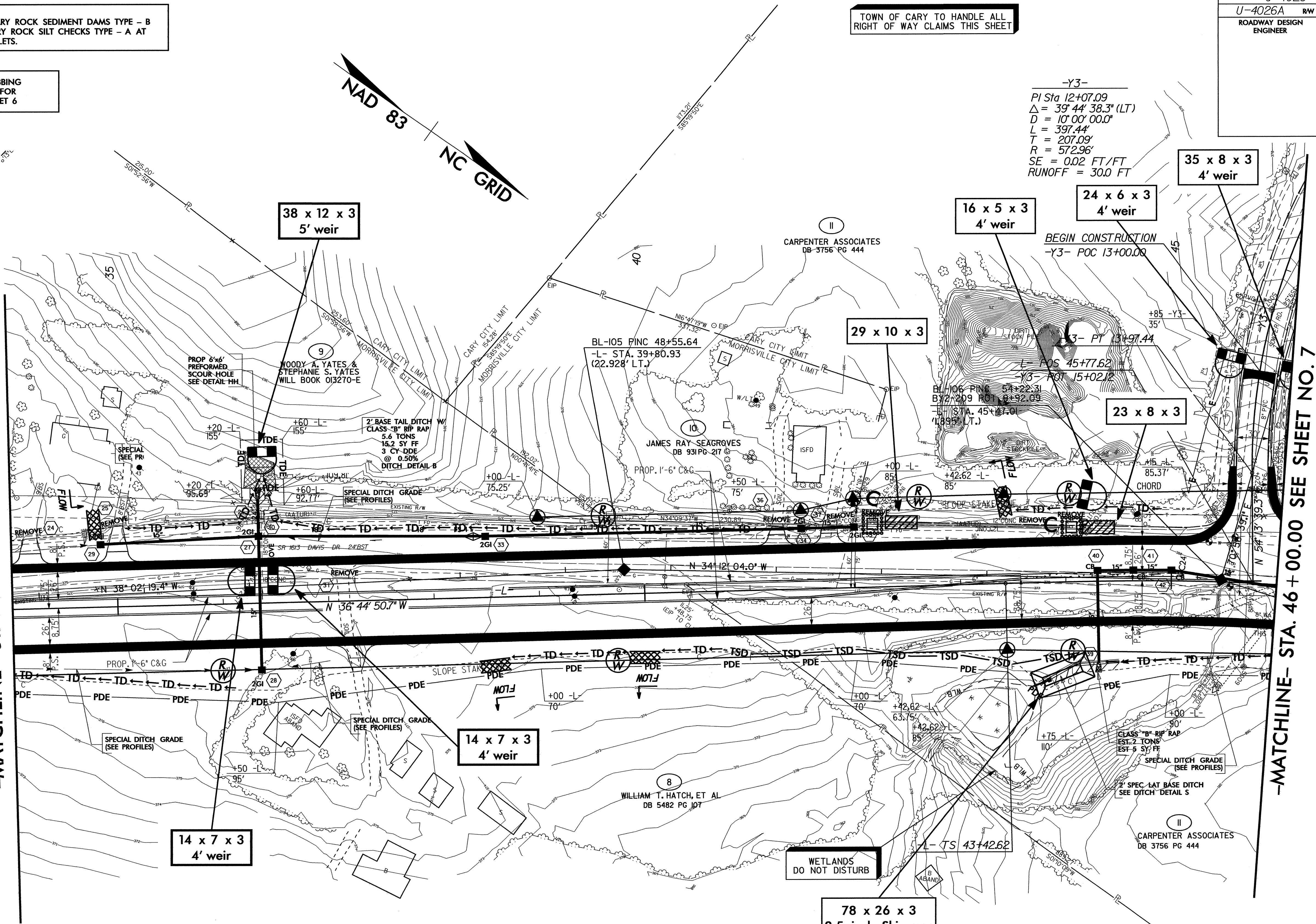
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

TOWN OF CARY TO HANDLE ALL
RIGHT OF WAY CLAIMS THIS SHEET

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-6/CONST.6
U-4026A	RW SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-MATCHLINE- STA. 34+00.00 SEE SHEET NO. 5

-MATCHLINE- STA. 46+00.00 SEE SHEET NO. 7



- NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 2. ALL RADIAT BEGIN AND END OF PROP. 6' MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEET 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-J
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR -L- PROFILE, SEE SHEET 39
FOR -Y3- PROFILE, SEE SHEET 51

-L-
PIs Sta 45+42.80
Gs = 7' 30' 00.0"
Ls = 300.00'
LT = 200.18'
ST = 100.16'

LEGEND
PAVED SHOULDER

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

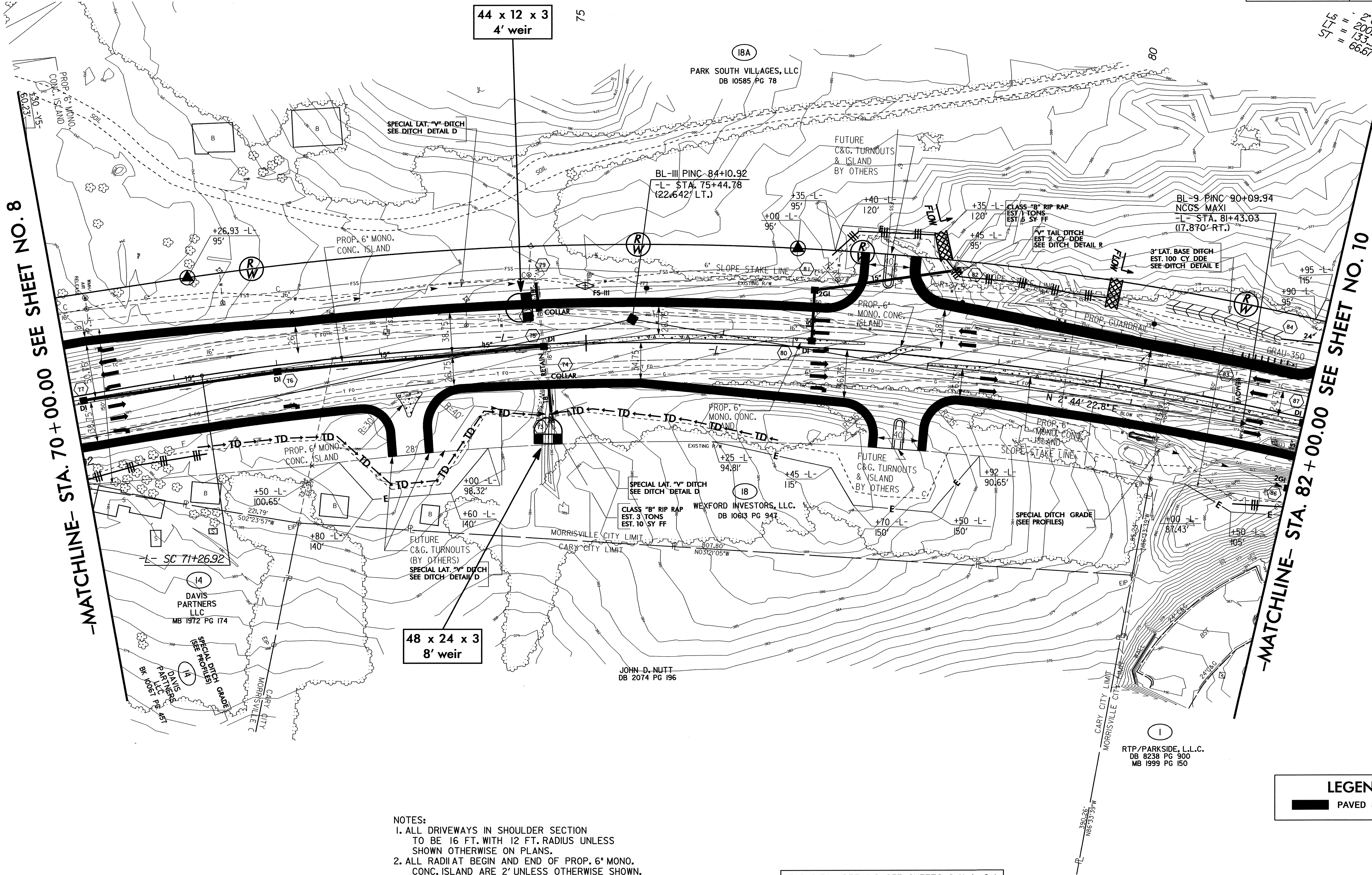
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

TOWN OF CARY TO HANDLE CLAIMS
ON PARCEL NO. 14 & 18 THIS SHEET

-L-
Pls Sta 70+60.27
Os = 2' 00' 00.0"
Ls = 200.00'
LT = 133.34'
ST = 66.67'
PI Sta 80+83.70
Δ = 36° 56' 10.4" (RT)
D = 2' 00' 00.0"
L = 1,846.81'
T = 956.77'
R = 2,864.79'
SE = 0.04 FT/FT
RUNOFF = 200.0 FT
Pls Sta 90+40.41
Os = 2' 00' 00.0"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

NAD 83 | NC GRID

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-9/CONST. 9
U-4026A	R/W SHEET NO. 9
U-4026B	R/W SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-10/CONST.10
U-4026A RW SHEET NO.	10
U-4026B RW SHEET NO.	5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

Pls Sta 70+60.27
Δs = 2'00"00.0"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

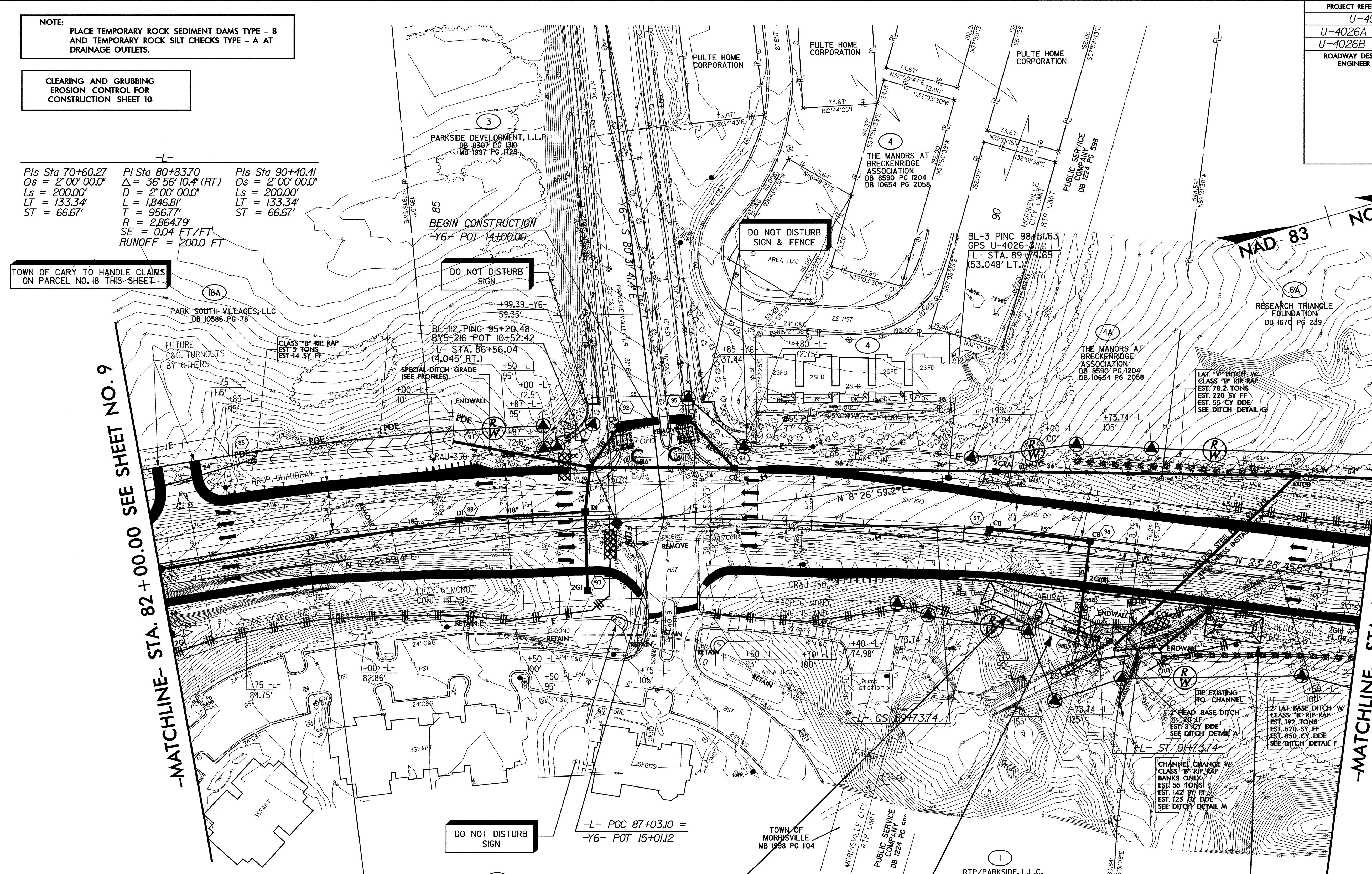
Pls Sta 80+83.70
Δs = 36'56"10.4" (RT)
D = 2'00"00.0"
L = 1846.81'
T = 956.77'
R = 2,864.79'
SE = 0.04 FT/FT
RUNOFF = 200.0 FT

Pls Sta 90+40.41
Δs = 2'00"00.0"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

TOWN OF CARY TO HANDLE CLAIMS
ON PARCEL NO.18 THIS SHEET

-MATCHLINE- STA. 82 + 00.00 SEE SHEET NO. 9

-MATCHLINE- STA. 94 + 00.00 SEE SHEET NO. 11



EXIST. EARTH BERM
TO BE REMOVED

RTP/PARKSIDE, L.L.C.
DB 8238 PG 900
MB 1999 PG 150

Modified Silt Basin
Type 'B'
50 x 40 x 3
(See Tiered Skimmer
Basin Detail)

50 x 40 x 3
3 inch Skimmer
with 2.5 inch
Orifice Diameter
14 ft. weir
(See Tiered Skimmer
Basin Detail)

42 x 15 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
6 ft. weir

LEGEND
PAVED SHOULDER

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-K
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR -L- PROFILE, SEE SHEET 41
FOR -Y6- PROFILE, SEE SHEET 53

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

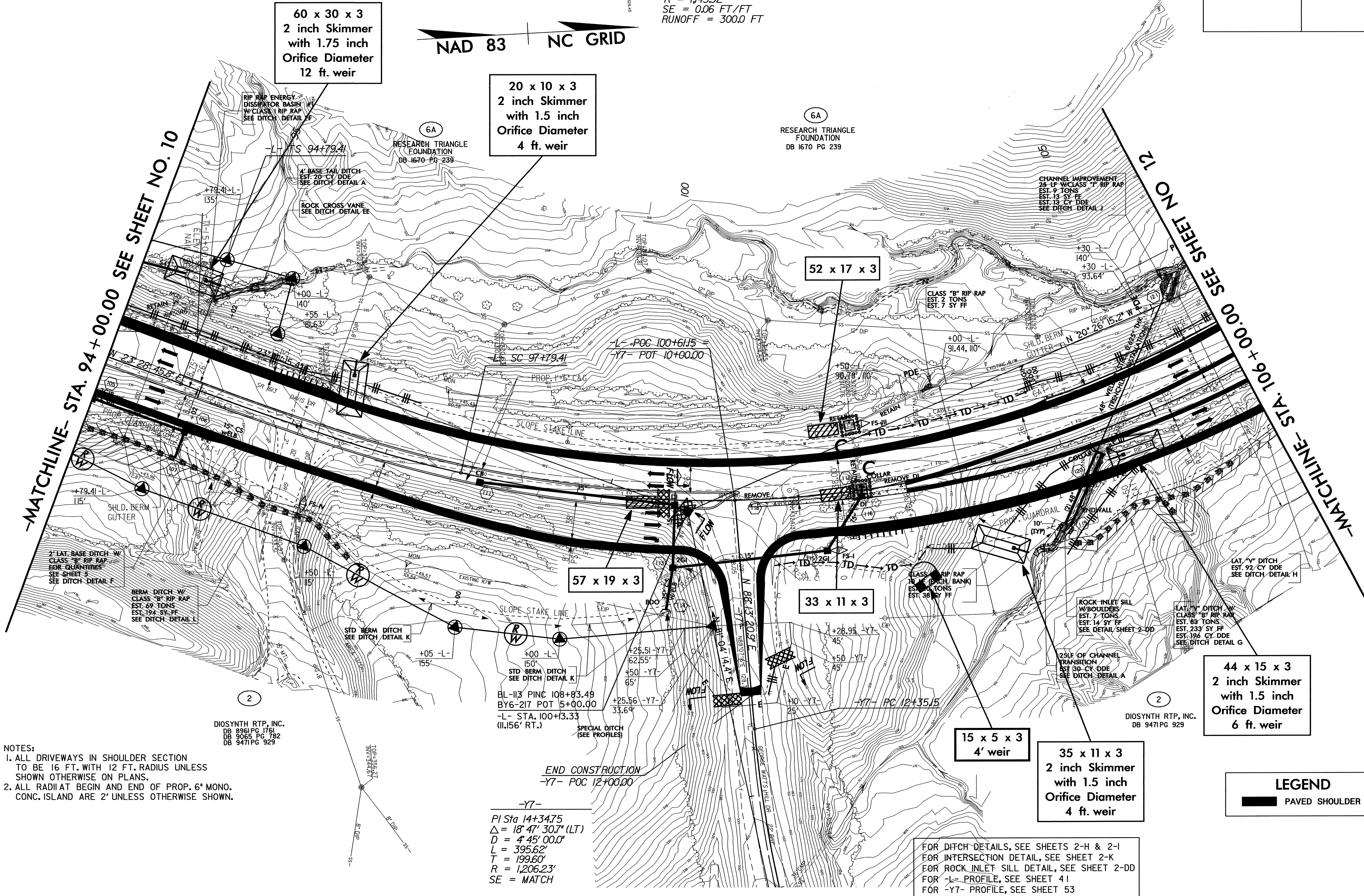
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

Pls Sta 96+79.59
Os = 7° 30' 00.0"
Ls = 300.00'
LT = 200.18'
ST = 100.16'

Pls Sta 103+87.90
Δ = 55° 56' 12.8" (LT)
D = 5° 00' 00.0"
L = 1,118.74'
T = 608.48'
R = 1,455.92'
SE = 0.06 FT/FT
RUNOFF = 300.0 FT

NAD 83 NC GRID

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-1VCONST.11
U-4026B RW	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION
TO BE 16 FT. WITH 12 FT. RADIUS UNLESS
SHOWN OTHERWISE ON PLANS.
2. ALL RADII AT BEGIN AND END OF PROP. 6' MONO.
CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

END CONSTRUCTION
-Y7- POC 12+00.00

-Y7-
Pls Sta 14+34.75
Δ = 18° 47' 30.7" (LT)
D = 4° 45' 00.0"
L = 395.62'
T = 199.60'
R = 1,206.23'
SE = MATCH

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-K
FOR ROCK INLET SILL DETAIL, SEE SHEET 2-DD
FOR -L- PROFILE, SEE SHEET 41
FOR -Y7- PROFILE, SEE SHEET 53

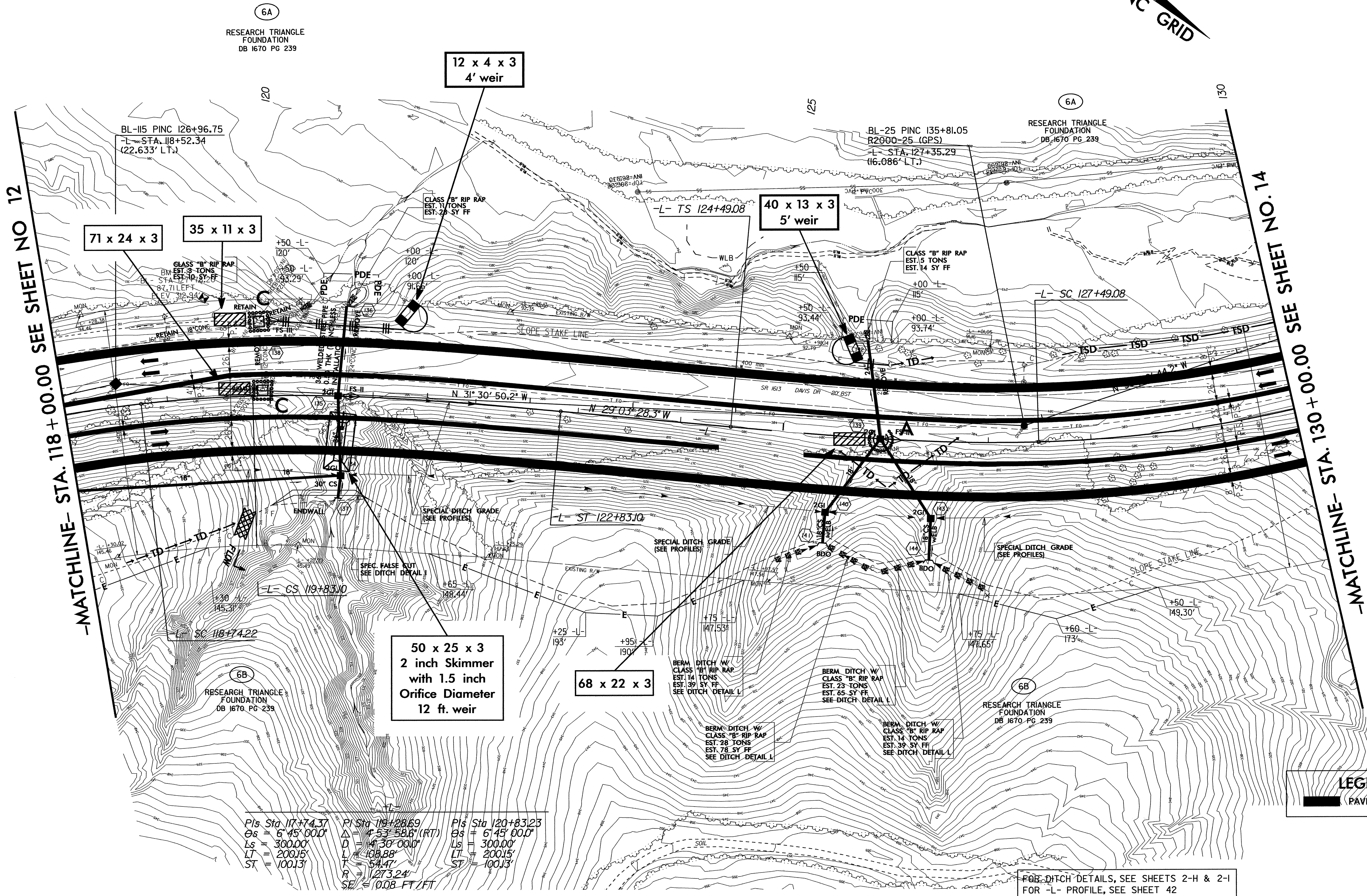
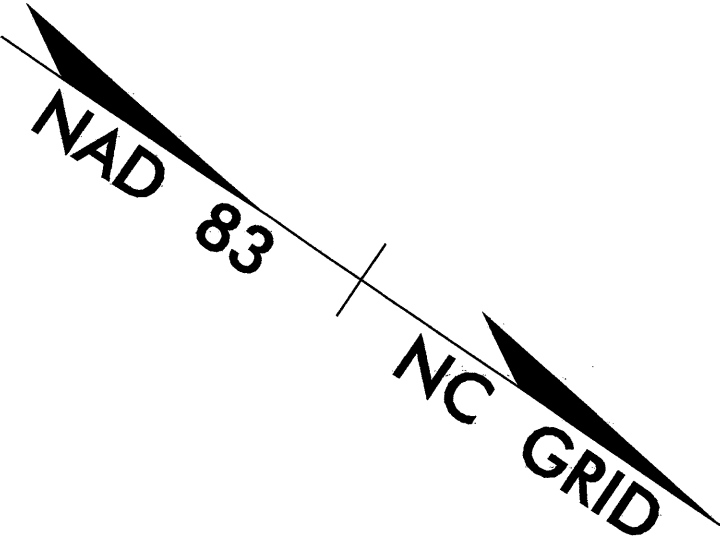
LEGEND
PAVED SHOULDER

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-13/CONST.13
U-4026B	R/W SHEET NO. 8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-
Pls Sta 126+49.22
Θs = 6° 45' 00.0"
Ls = 300.00'
LT = 200.15'
ST = 100.13'
PI Sta 128+78.04
Δ = 11° 34' 03.7" (LT)
D = 4° 30' 00.0"
L = 257.06'
T = 128.97'
R = 1273.24'
SE = 0.08 FT/FT
RUNOFF = 300.0 FT



LEGEND
PAVED SHOULDER

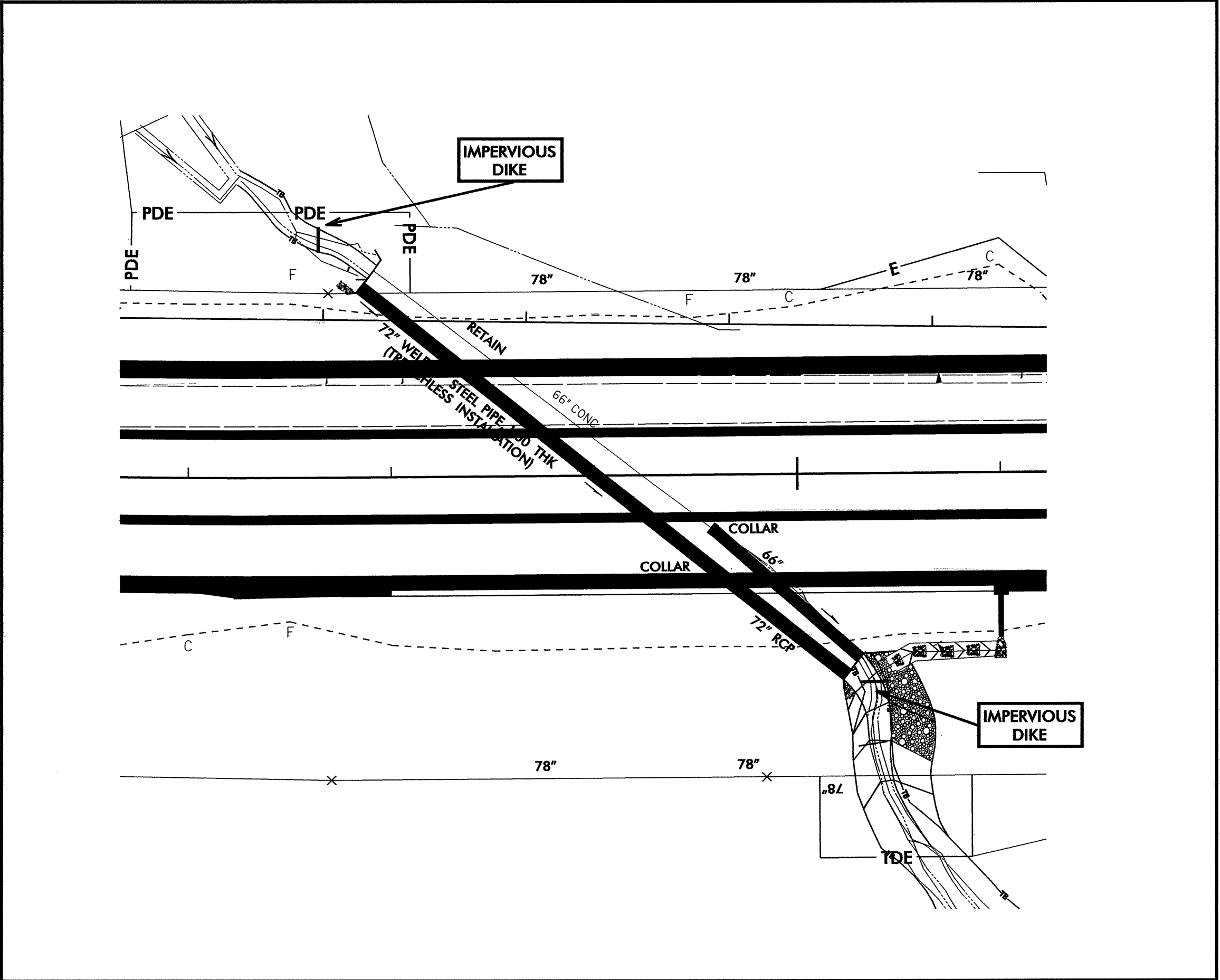
FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR -L- PROFILE, SEE SHEET 42

Pls Sta 117+74.37
Θs = 6° 45' 00.0"
Ls = 300.00'
LT = 200.15'
ST = 100.13'
PI Sta 119+28.69
Δ = 4° 53' 58.6" (RT)
D = 4° 30' 00.0"
L = 108.88'
T = 54.47'
R = 1273.24'
SE = 0.08 FT/FT
Pls Sta 120+83.23
Θs = 6° 45' 00.0"
Ls = 300.00'
LT = 200.15'
ST = 100.13'

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-15/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 134+00 -L-

- 1.) Maintain flow through existing 66" pipe and channel while proposed 72" spiral welded steel pipe is installed using trenchless construction.
 - 2.) Install Special Stilling Basin.
 - 3.) Extend steel pipe with 72" RCP.
 - 4.) Construct half of headwall and endwall.
 - 5.) Partially excavate the inlet and outlet channels.
 - 6.) Install Impervious dikes and divert flow through 72" structure.
 - 7.) Extend 66" pipe and complete headwall and endwall.
 - 8.) Complete channel improvements and finish roadway construction.



NAD 83
NC GRID

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15

NAD 83
NC GRID

* 2G TO BE CONSTRUCTED
UNDER TIP PROJECT
R-2000AB

BEGIN CONSTRUCTION
TIP PROJECT U-4026AB
-L- POC STA.148+77.13 =
(R-2000AB) -Y19REV- STA.13+00.00 (METRIC)

BL-26 PINC 155+50.61=
R2000-26 (GPS)
-L- STA.147+12.65
(58.052' LT.)

6C
RESEARCH TRIANGLE
FOUNDATION
DB 1670 PG 239
POND

10
CISCO SYSTEMS, INC.
DB 9390 PG 1902
MB 1994 PG 950

-MATCHLINE- STA. 142 + 00.00 SEE SHEET NO. 14

-MATCHLINE- STA. 154 + 00.00 SEE SHEET NO. 16

55 x 25 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
9 ft. weir

PIs Sta 146+21.82
OS = 4'58"10.3"
LS = 278.87'
LT = 185.99'
ST = 93.02'
PI Sta 149+03.70
Δ = 13'24'36.7" (RT)
D = 5'33'50.5"
L = 376.26'
T = 189.00'
R = 1607.61'
SE = 0.06 FT/FT
RUNOFF = 280.0 FT
PIs Sta 151+84.37
OS = 4'59"22.8"
LS = 280.00'
LT = 186.74'
ST = 93.40'

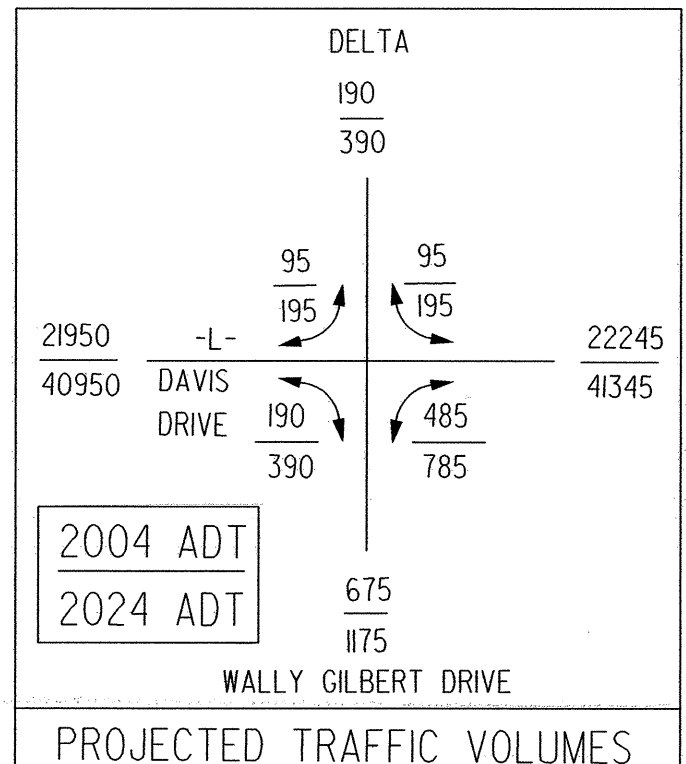
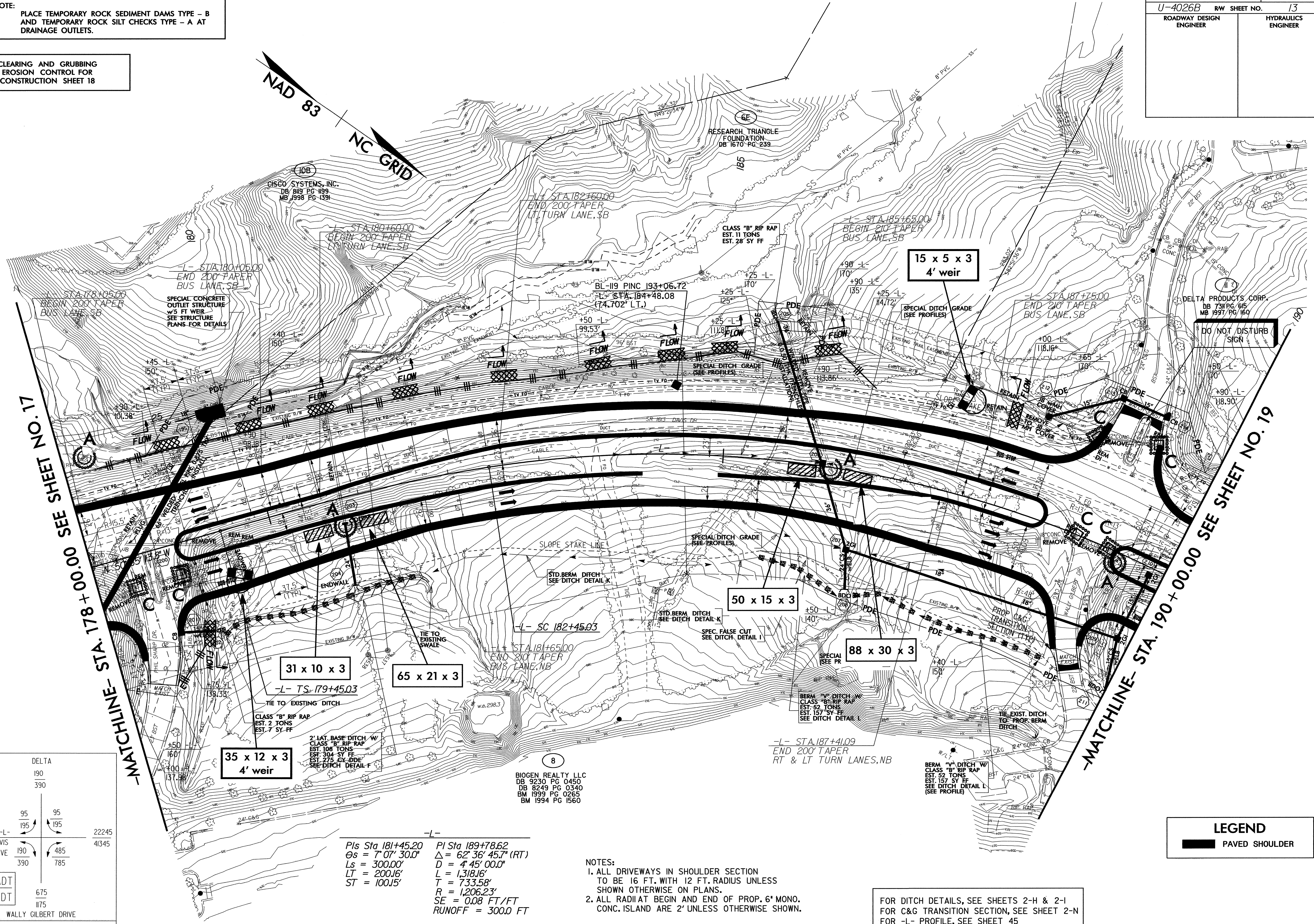
FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR -L- PROFILE, SEE SHEET 43

LEGEND
PAVED SHOULDER

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 18

PROJECT REFERENCE NO.		SHEET NO.	
U-4026		EC-19/CONST.18	
U-4026B	R/W	SHEET NO.	13
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



Pls Sta 181+45.20
 $\Delta s = 7' 07' 30.0''$
 $L_s = 300.00'$
 $LT = 200.16'$
 $ST = 100.15'$

Pls Sta 189+78.62
 $\Delta = 62' 36' 45.7''$ (RT)
 $D = 4' 45' 00.0''$
 $L = 1,318.16'$
 $T = 733.58'$
 $R = 1,206.23'$
 $SE = 0.08$ FT/FT
 $RUNOFF = 300.0$ FT

- NOTES:
- ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 - ALL RADIAT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

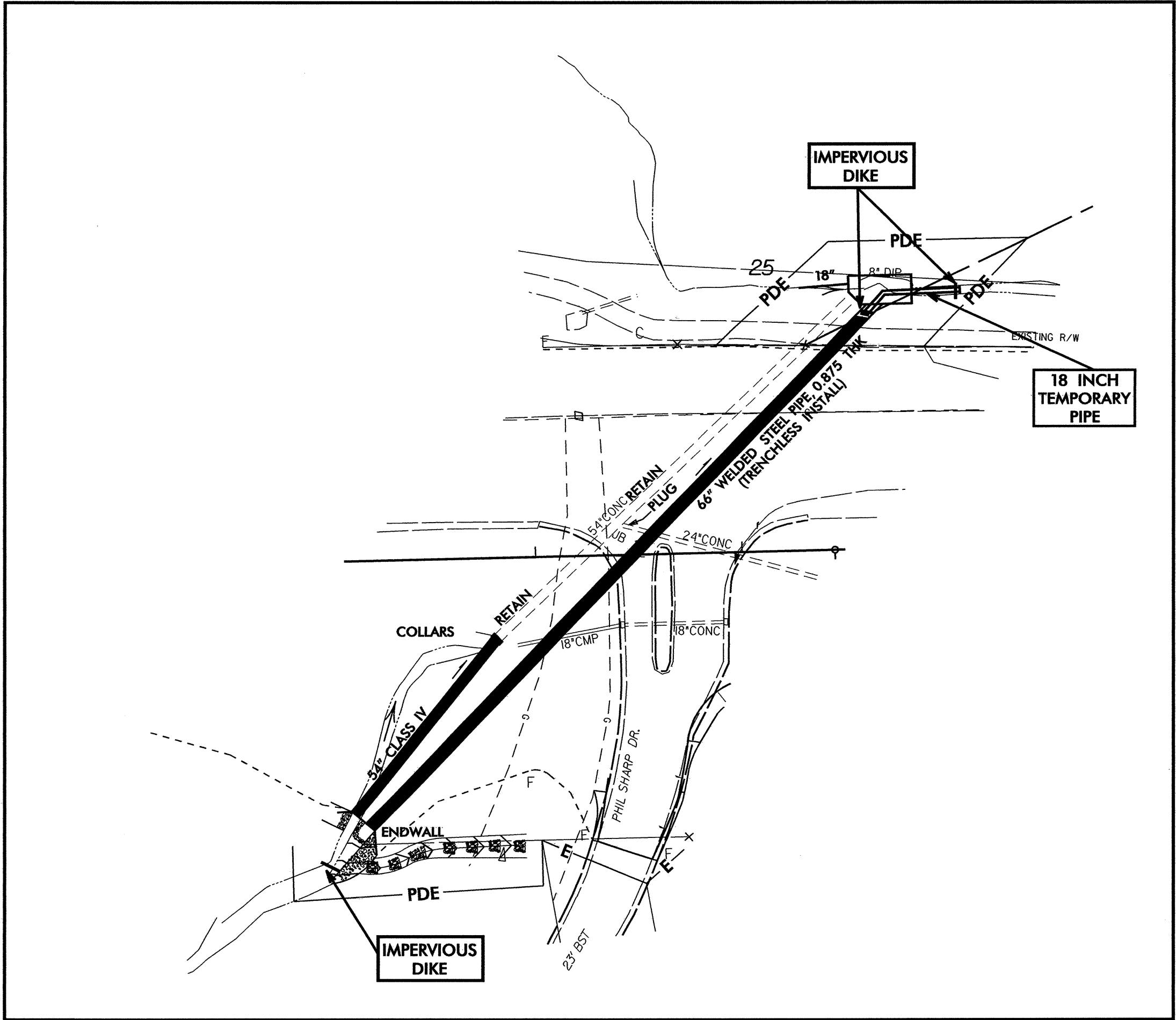
FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR -L- PROFILE, SEE SHEET 45

LEGEND	
	PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-20/CONST.18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 178+50 -L-

- 1.) Maintain flow through existing 54" pipe and channel while proposed 66" spiral welded steel pipe is installed using trenchless construction.
- 2.) Install Special Stilling Basin.
- 3.) Extend steel pipe with 66" RCP.
- 4.) Construct half of headwall.
- 5.) Partially excavate the inlet and outlet channels.
- 6.) Install Impervious dikes and 18" temporary pipe.
- 7.) Divert flow into 66" structure.
- 8.) Extend 54" pipe and complete headwall and outlet structure.
- 9.) Complete channel improvements and finish roadway construction.

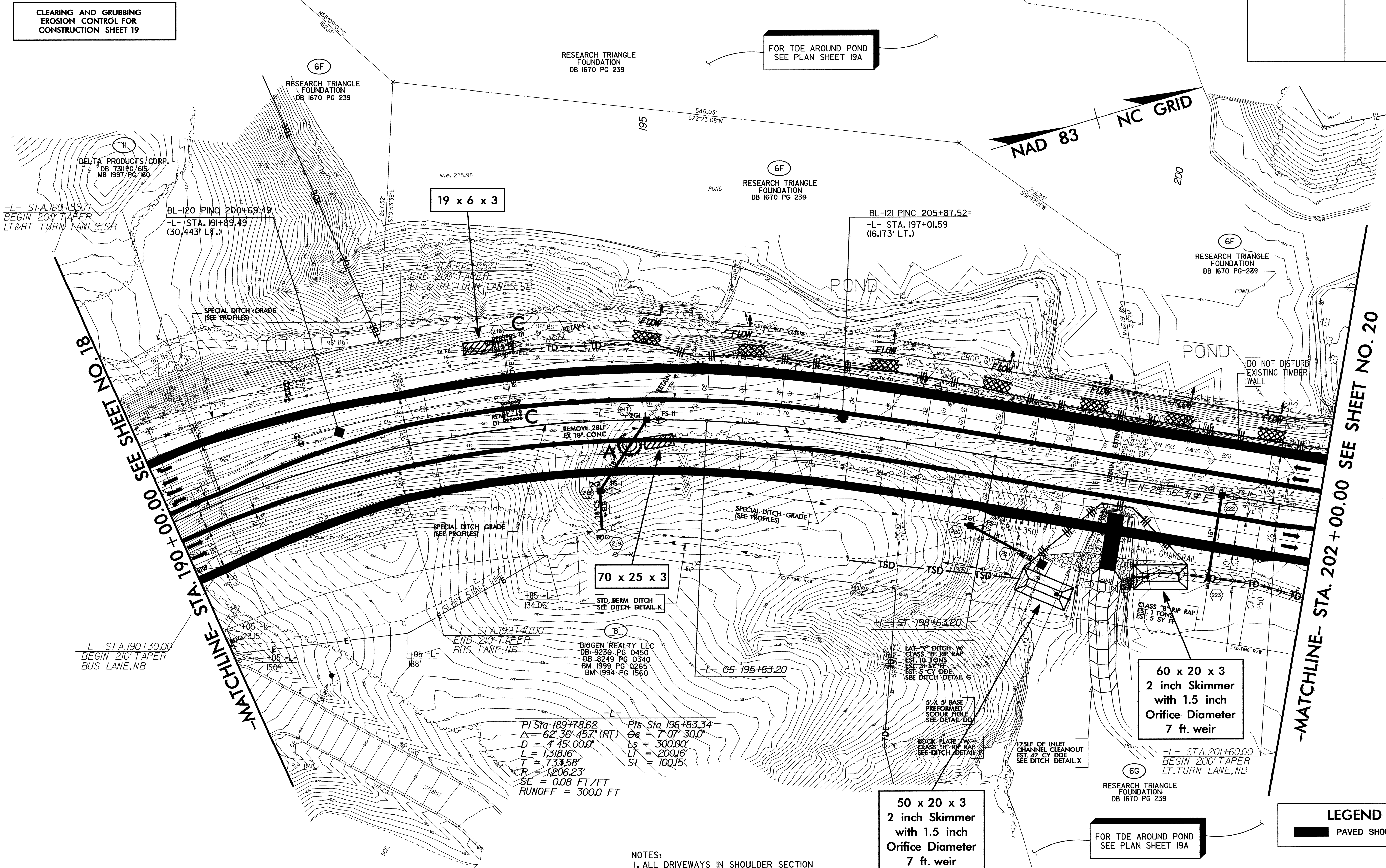


NAD 83
NC GRID

PROJECT REFERENCE NO.		SHEET NO.
U-4026		EC-2V/CONST.19
U-4026B RW		SHEET NO. 14
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 19



- NOTES:
- ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 - ALL RADII AT BEGIN AND END OF PROP. 6' MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

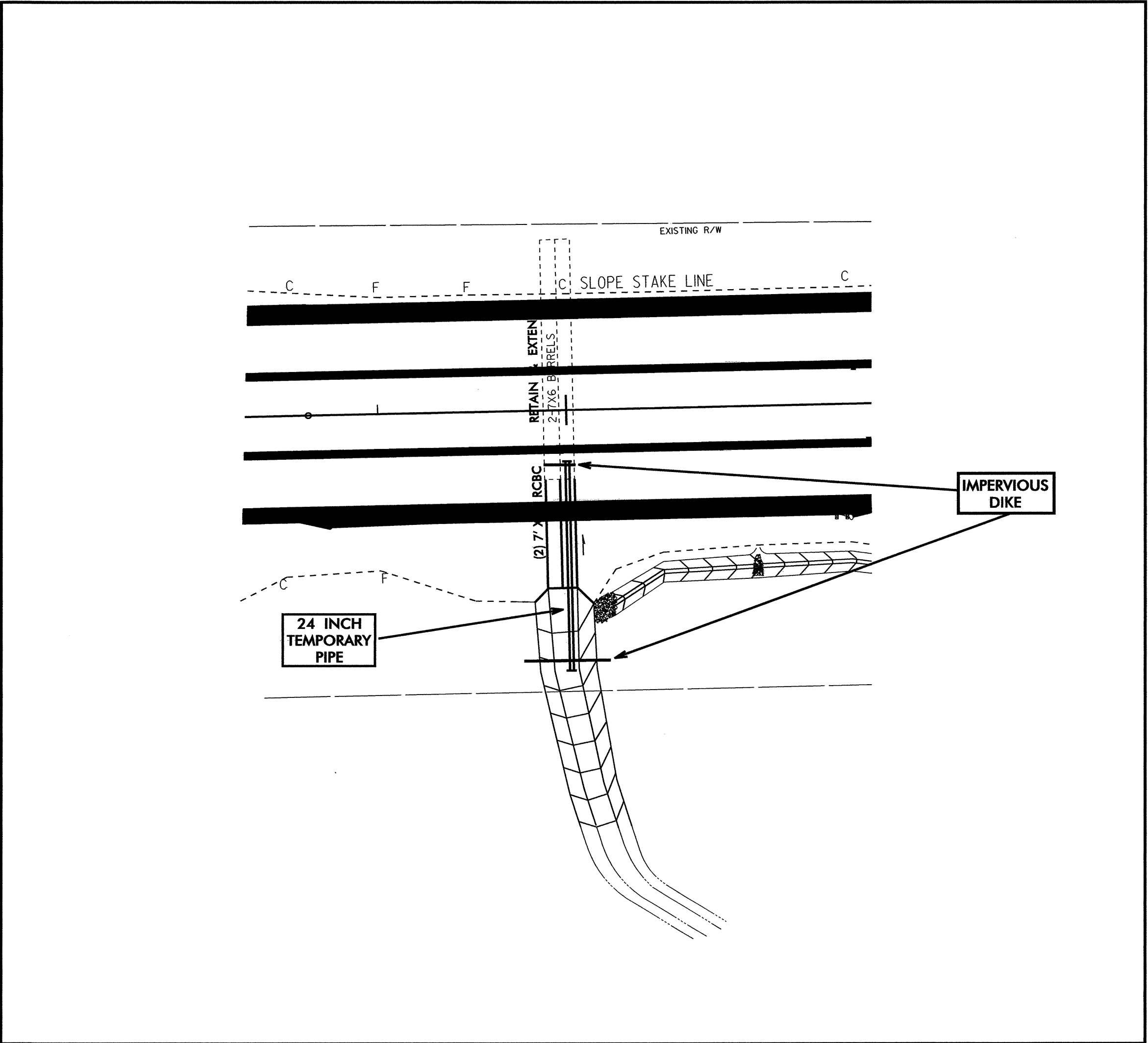
FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR -L- PROFILE, SEE SHEET 45
FOR CULVERT PLANS, SEE CULVERT SHEETS C- -- - C- --

LEGEND
PAVED SHOULDER

PROJECT REFERENCE NO.		SHEET NO.	
U-4026		EC-22/CONST.19	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

CULVERT CONSTRUCTION SEQUENCE STA. 200+00 -L-

- 1.) Utilize Special Stilling Basin to pump effluent.
2.) Install Impervious Dikes and 24" temporay pipe.
3.) Construct Culvert Extension.
4.) Complete channel improvements.
5.) Complete roadway.



NAD 83 | NC GRID

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 20

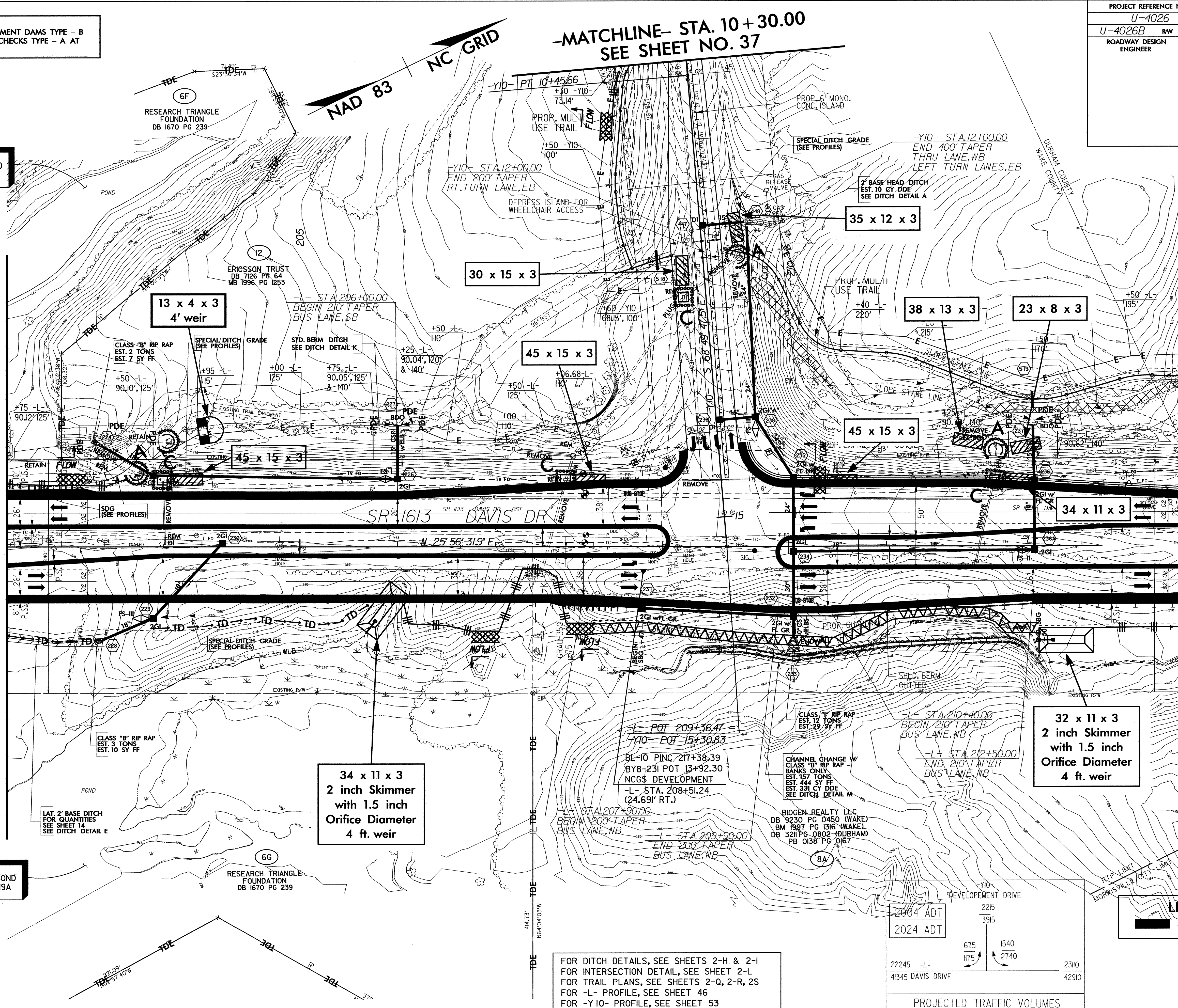
FOR TDE AROUND POND
SEE PLAN SHEET 19A

PROJECT REFERENCE NO.		SHEET NO.	
U-4026		EC-23/CONST.20	
U-4026B		R/W	SHEET NO. 15
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

-MATCHLINE- STA. 202 + 00.00 SEE SHEET NO.19

-MATCHLINE- STA. 214 + 00.00 SEE SHEET NO.21

FOR TDE AROUND POND
SEE PLAN SHEET 19A



FOR DITCH DETAILS, SEE SHEETS 2-H & 2-L
FOR INTERSECTION DETAIL, SEE SHEET 2-L
FOR TRAIL PLANS, SEE SHEETS 2-Q, 2-R, 2S
FOR -L- PROFILE, SEE SHEET 46
FOR -Y10- PROFILE, SEE SHEET 53

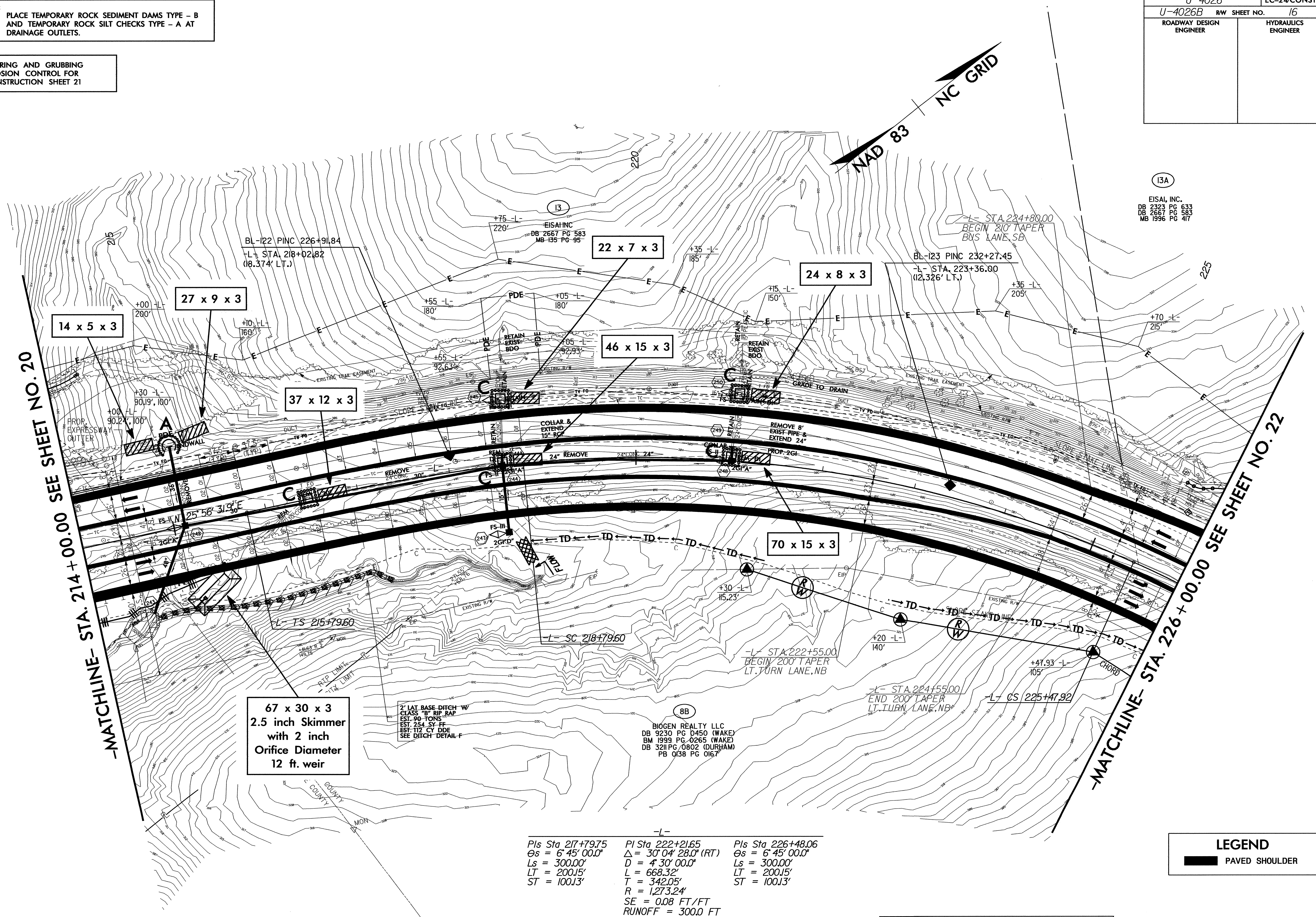
2004 ADT		2024 ADT	
22245	-L-	2215	3915
41345	DAVIS DRIVE	675	1540
		1175	2740
			23110
			42910

PROJECTED TRAFFIC VOLUMES

LEGEND
PAVED SHOULDER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 21

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-24/CONST.21
U-4026B	R/W SHEET NO. 16
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

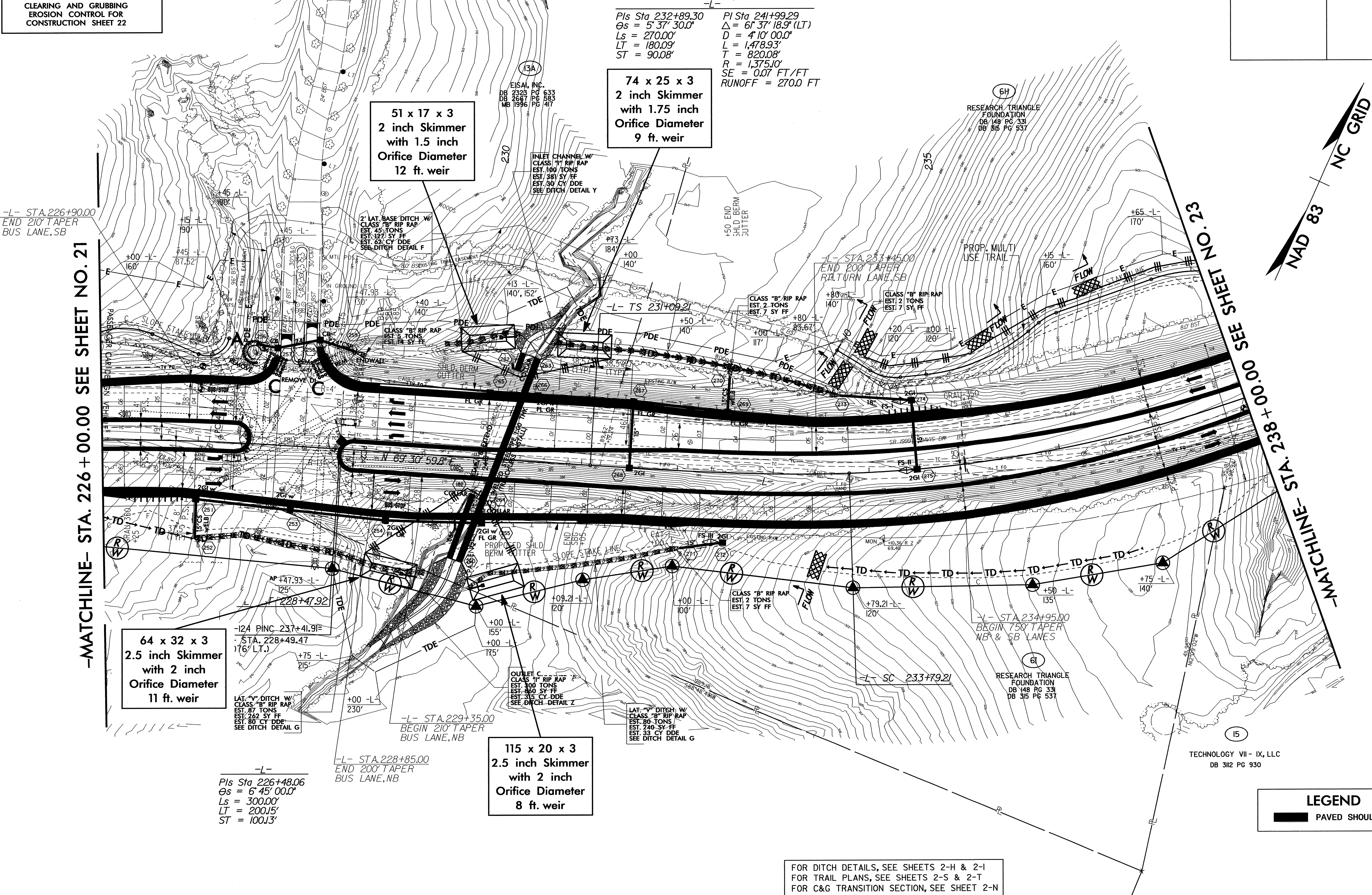


FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR TRAIL PLANS, SEE SHEETS 2-R & 2-S
FOR -L- PROFILE, SEE SHEET 46

PROJECT REFERENCE NO.		SHEET NO.
U-4026		EC-25/CONST.22
U-4026B	RW	SHEET NO. 17
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 22

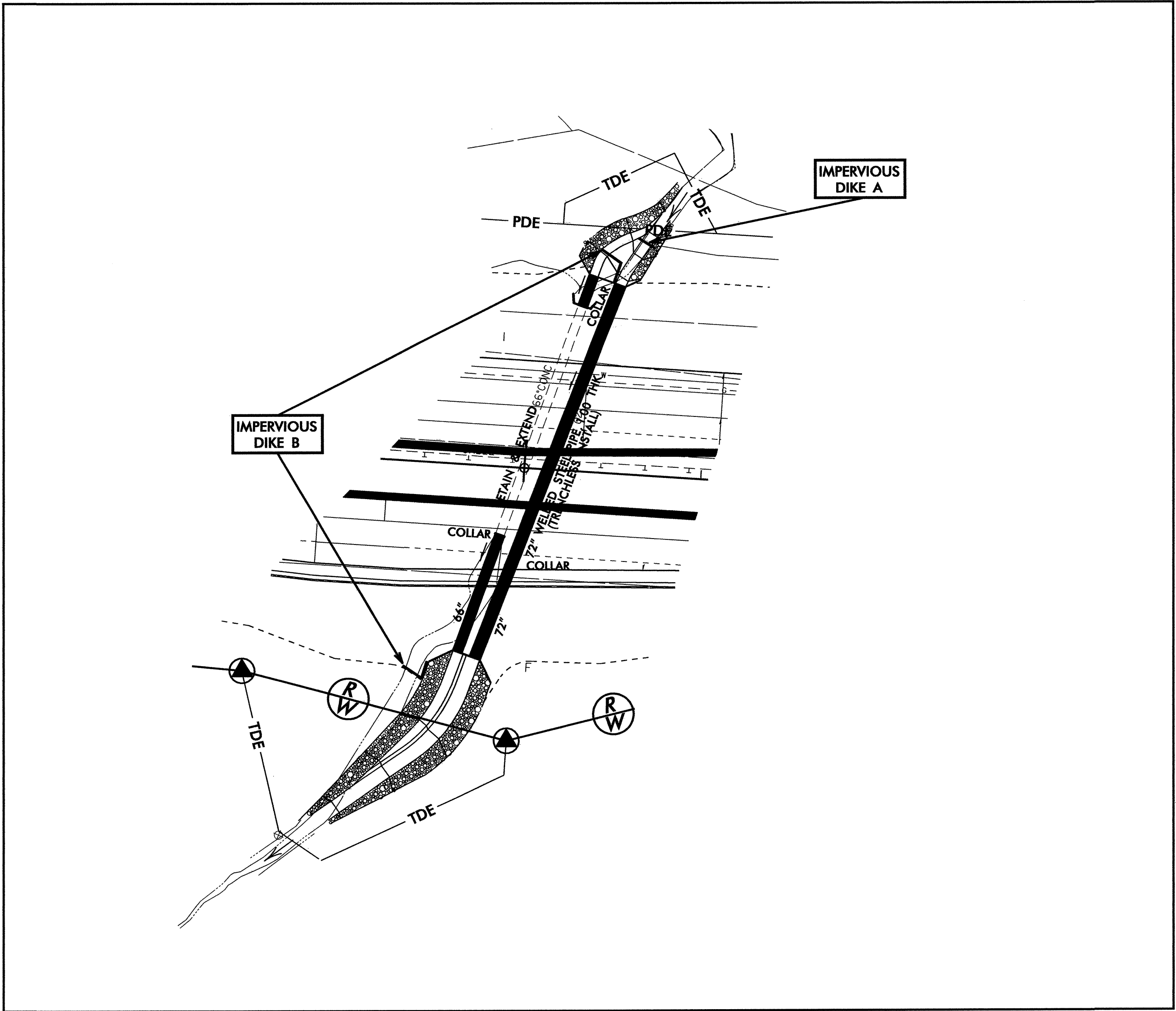


LEGEND
PAVED SHOULDER

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR TRAIL PLANS, SEE SHEETS 2-S & 2-T
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR -L- PROFILE, SEE SHEET 47

CULVERT CONSTRUCTION SEQUENCE STA. 230+00 -L-

- 1.) Install Special Stilling Basin.
2.) Partially excavate inlet channel to ensure flow through existing 66" pipe.
3.) Install Impervious Dike "A".
4.) Install 72" Spiral Welded steel pipe with trenchless construction.
5.) Complete 72" structure with installation of 72" RCP.
6.) Construct half of the headwall and endwall.
7.) Partially excavate outlet channel and complete inlet channel excavation.
8.) Install Impervious Dike B and divert flow into 72" pipe.
9.) Extend existing 66" pipe at inlet and outlet.
10.) Complete headwall and endwall construction, remaining channel improvements and finish roadway.



NAD 83 | NC GRID

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-26/CONST.22
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 24

-Y12- SR 1978 (HOPSON RD)	
2004 ADT	16465
2024 ADT	31165
24155	21775
45055 DAVIS DRIVE	40275
8100	5180
2670	1620
5270	3220
13865	26565
PROJECTED TRAFFIC VOLUMES	

NAD 83 | NC GRID

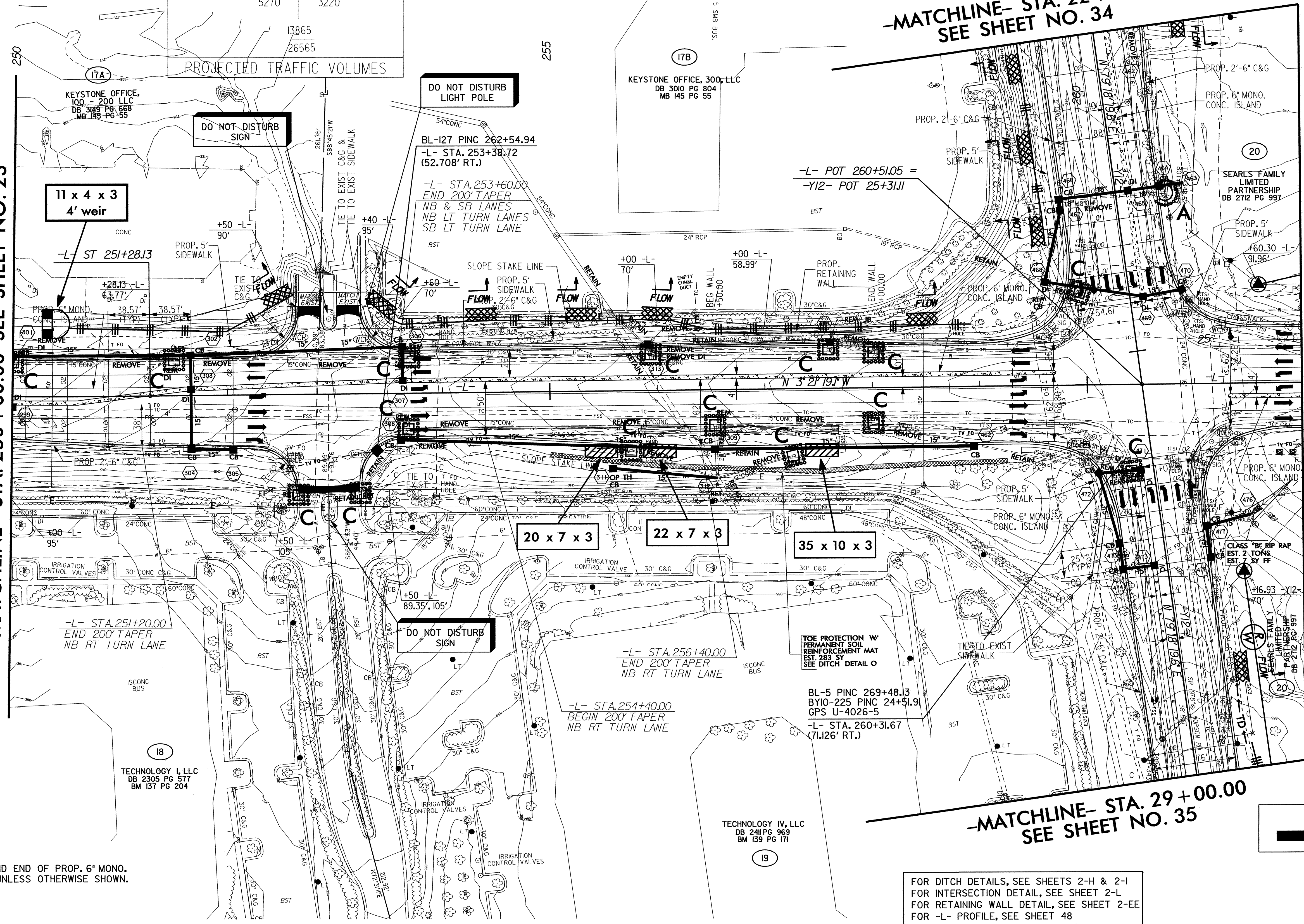
PROJECT REFERENCE NO.		SHEET NO.	
U-4026		EC-28/CONST.24	
U-4026B	RW	SHEET NO.	19
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

-MATCHLINE- STA. 250 + 00.00 SEE SHEET NO. 23

-MATCHLINE- STA. 22 + 00.00
SEE SHEET NO. 34

-MATCHLINE- STA. 262 + 00.00 SEE SHEET NO. 25

NOTES:
1. ALL RADII AT BEGIN AND END OF PROP. 6" MONO.
CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.



-MATCHLINE- STA. 29 + 00.00
SEE SHEET NO. 35

LEGEND
PAVED SHOULDER

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-L
FOR RETAINING WALL DETAIL, SEE SHEET 2-EE
FOR -L- PROFILE, SEE SHEET 48
FOR -Y12- PROFILE, SEE SHEET 56

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

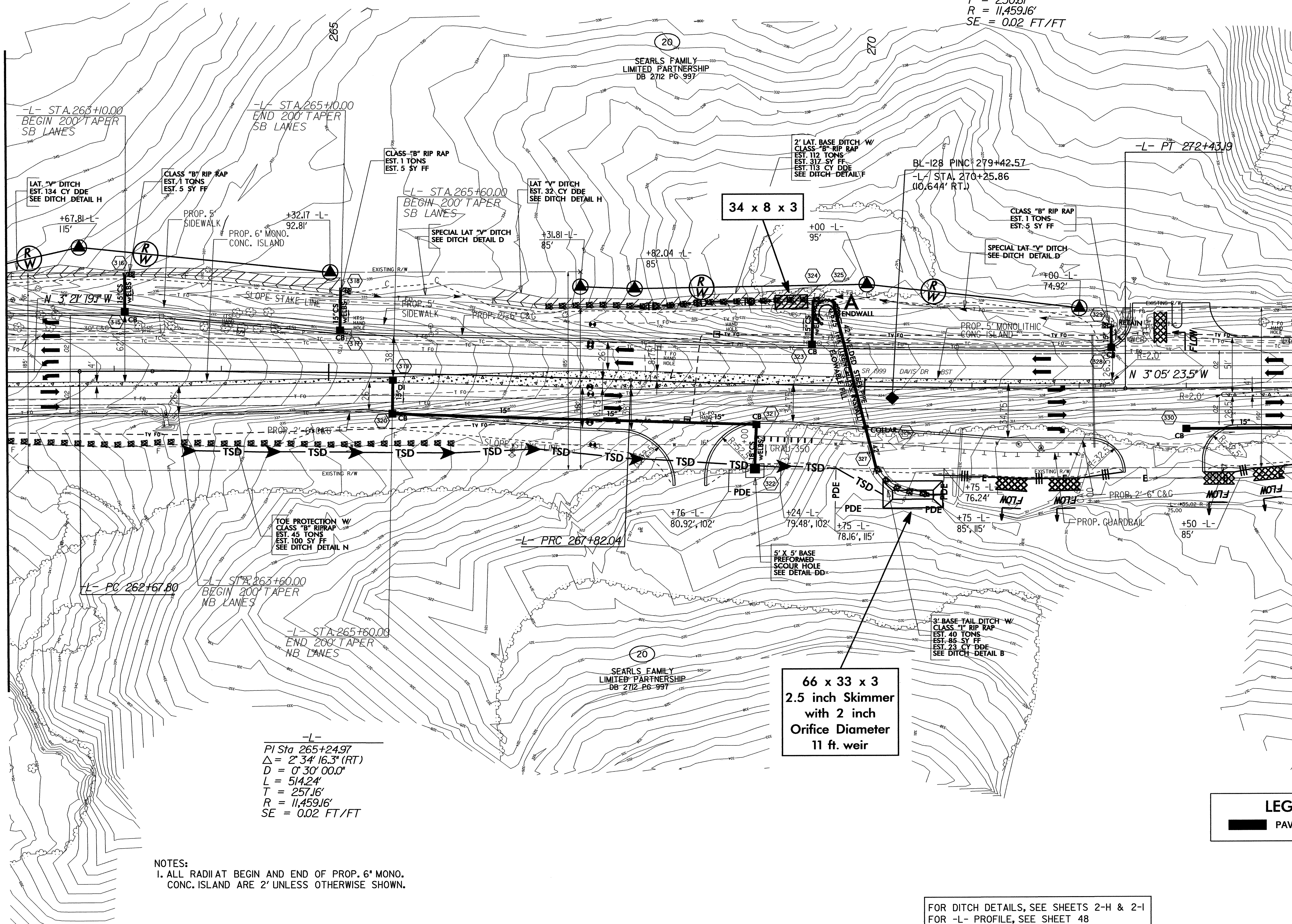
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 25

PROJECT REFERENCE NO.		SHEET NO.	
U-4026		EC-29/CONST.25	
U-4026B	R/W SHEET NO.	20	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NAD 83 | NC GRID

-L-
PI Sta 270+12.65
 $\Delta = 2' 18' 20.7" (LT)$
 $D = 0' 30' 00.0"$
 $L = 461.15'$
 $T = 230.61'$
 $R = 11,459.16'$
 $SE = 0.02 \text{ FT/FT}$

-MATCHLINE- STA. 262 + 00.00 SEE SHEET NO. 24



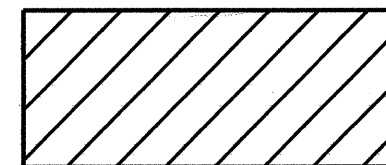
-MATCHLINE- STA. 274 + 00.00 SEE SHEET NO. 26

LEGEND
PAVED SHOULDER

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR -L- PROFILE, SEE SHEET 48

PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 26**

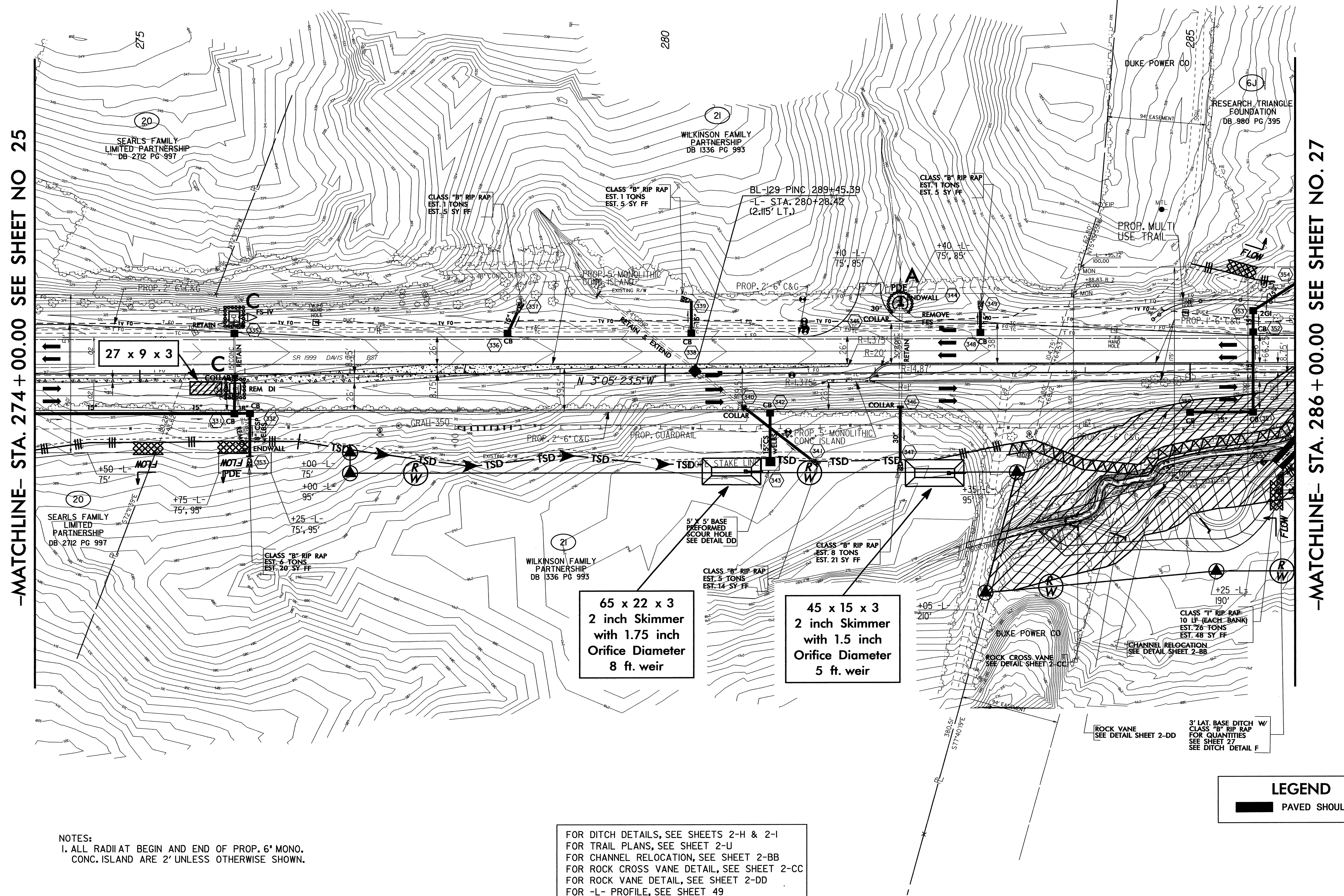


**ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS**

NAD 83

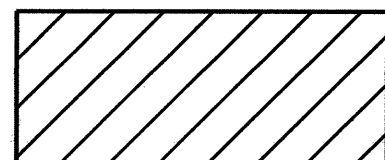
NC GRID

PROJECT REFERENCE NO.	SHEET NO.
<i>U-4026</i>	EC-30/CONST.26
<i>U-4026B</i> RW SHEET NO.	<i>21</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 27



ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

NAD 83 | NC GRID

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-31/CONST.27
U-4026B RW SHEET NO.	22
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-MATCHLINE- STA. 286 + 00.00 SEE SHEET NO. 26

-MATCHLINE- STA. 298 + 00.00 SEE SHEET NO. 28

-L- STA. 286+20.00
BEGIN 200' TAPER
RT. TURN LANE, NB

NOTES:
1. ALL RADII AT BEGIN AND END OF PROP. 6" MONO.
CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

-L-
Pls Sta. 297+87.71
Os = 3' 22' 30.0"
Ls = 225.00'
LT = 150.03'
ST = 75.02'

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR -L- PROFILE, SEE SHEET 49
FOR TRAIL PLANS, SEE SHEETS 2-U & 2-V
FOR CULVERT PLANS, SEE CULVERT SHEETS C- -- - C- --

LEGEND

PAVED SHOULDER

CULVERT CONSTRUCTION SEQUENCE STA. 294+00 -L-

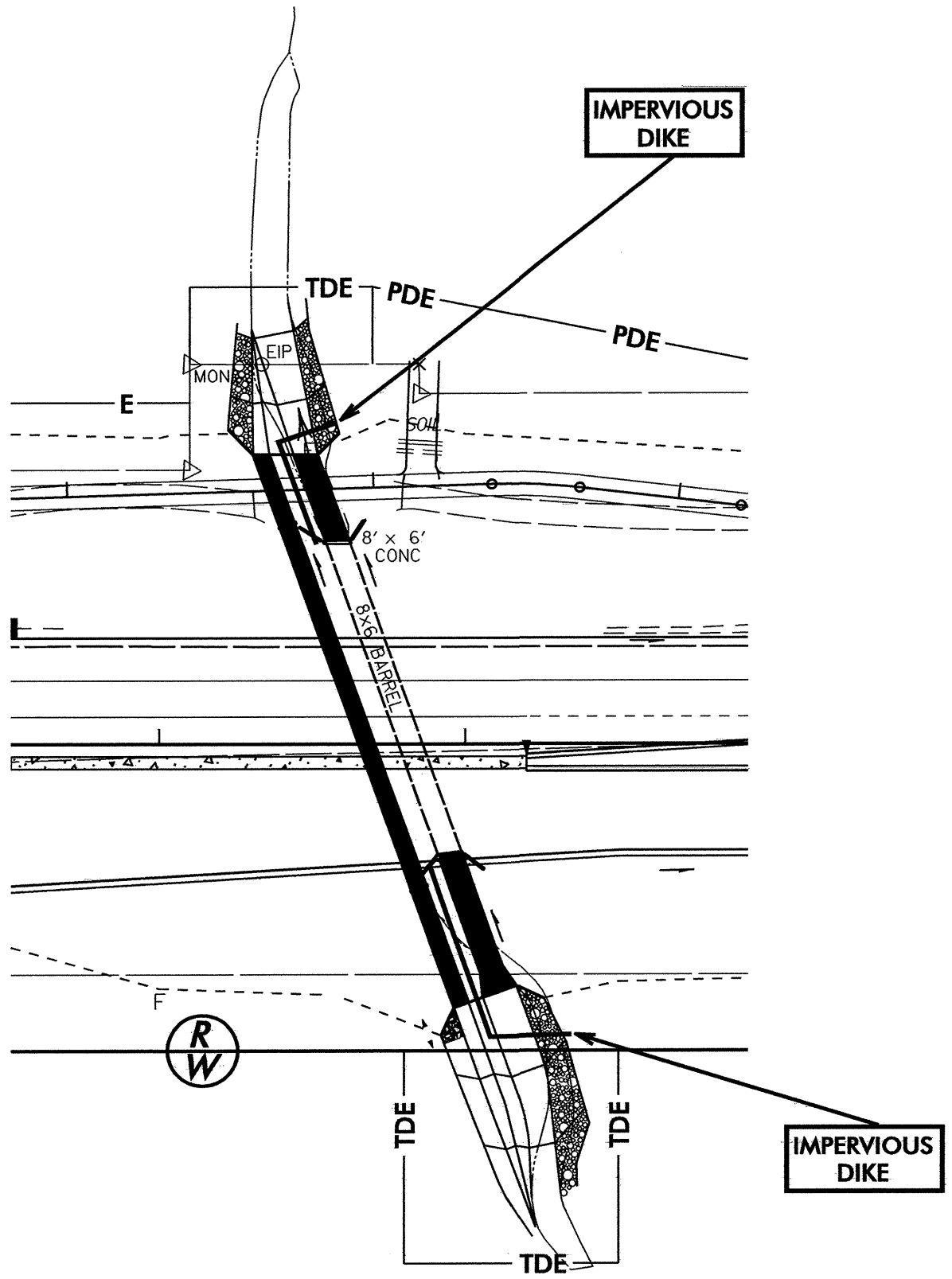
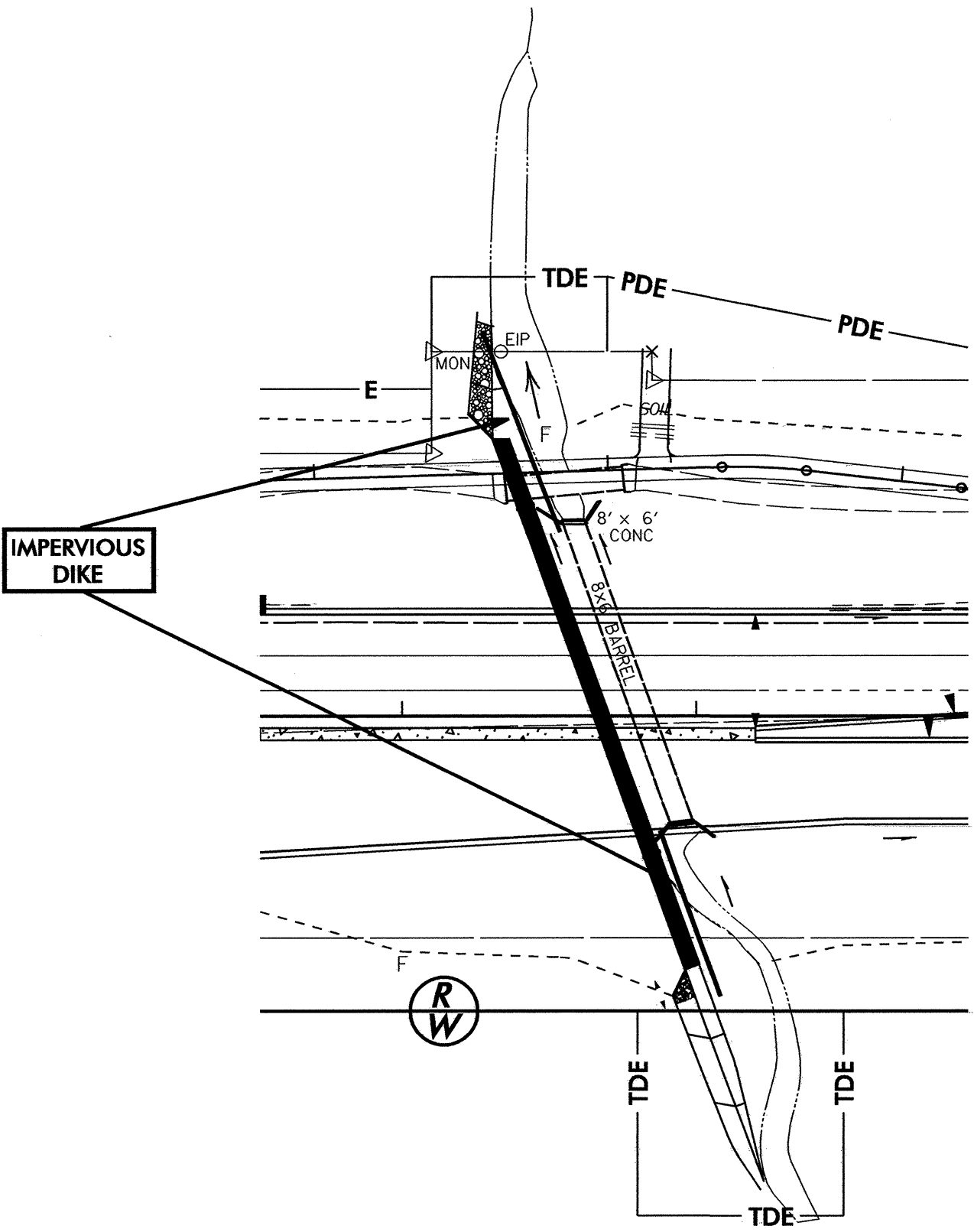
PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-32/CONST. 27
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE I

- 1.) Install Special Stilling Basin.
- 2.) Remove existing Greenway Bridge.
- 3.) Utilize channel adjustments and install impervious dikes to ensure flow remains in existing culvert.
- 4.) Install 60" spiral welded steel pipe using trenchless construction.
- 5.) Complete installation of 60" structure with construction of 60" RCP.
- 6.) Construct half of headwall and endwall.

PHASE II

- 1.) Partially excavate inlet and outlet channel.
- 2.) Shift Impervious Dikes to divert flow into 60" structure.
- 3.) Extend 8'x6' RCBC with tapered inlet.
- 4.) Extend outlet end of culvert.
- 5.) Complete headwall, endwall and finish channel improvements.
- 6.) Complete roadway.

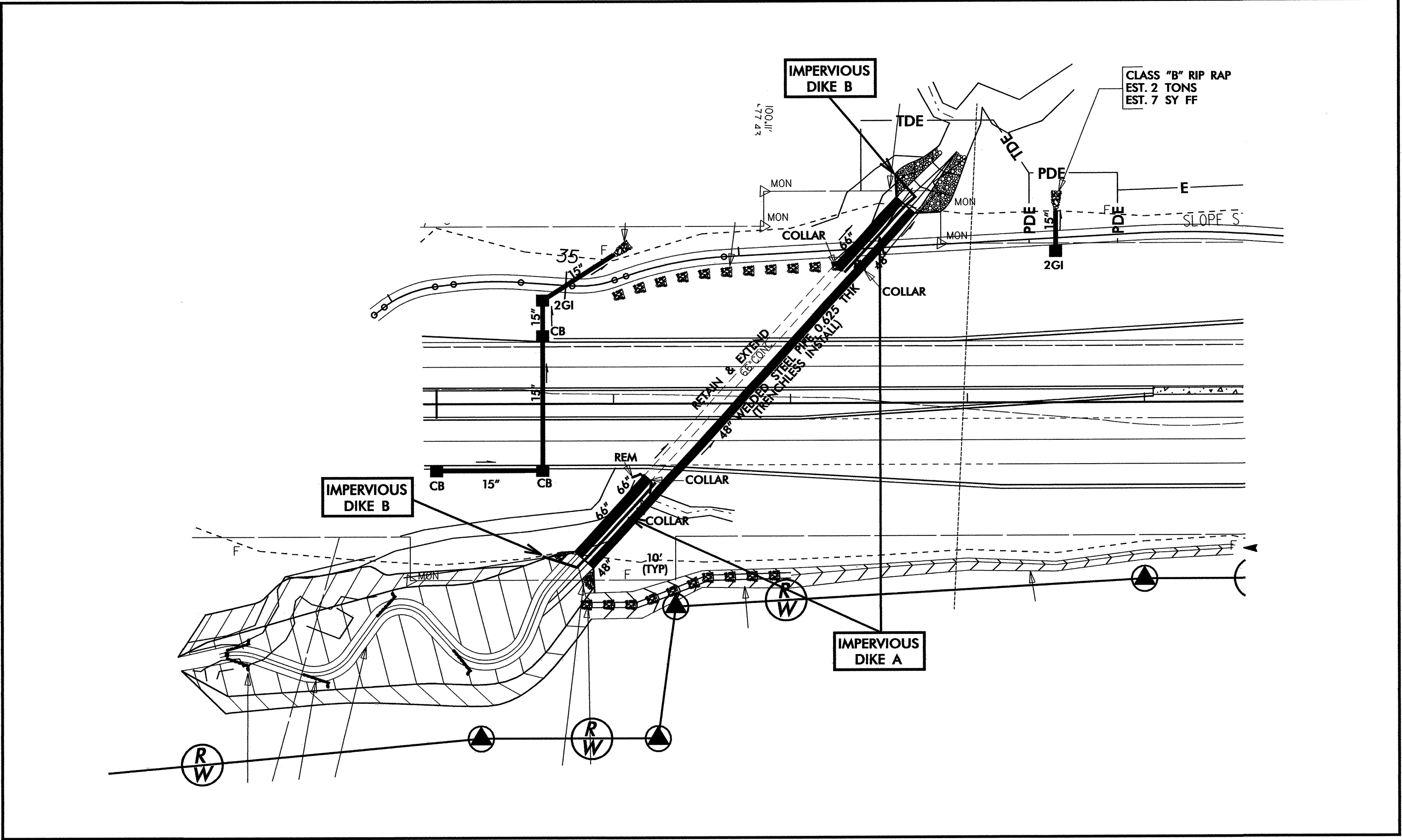


NAD 83 | NC GRID

CULVERT CONSTRUCTION SEQUENCE STA. 287+00 -L-

- 1.) Install Special Stilling Basin.
- 2.) Modify inlet channel to insure flow through existing 66" pipe and relocate existing lateral ditch.
- 3.) Install Impervious Dike A.
- 4.) Install 48" spiral welded steel pipe with trenchless construction and complete structure with installation of 48" RCP at inlet and outlet.
- 5.) Construct half of headwall and endwall.
- 6.) Partially excavate inlet and outlet channel and install Impervious Dike B.
- 7.) Divert flow through 48 " structure.
- 8.) Extend existing 66" pipe at inlet and outlet.
- 9.) Complete headwall and endwall construction and inlet and outlet channel improvements.
- 10.) Complete Roadway.

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-33/CONST.27
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

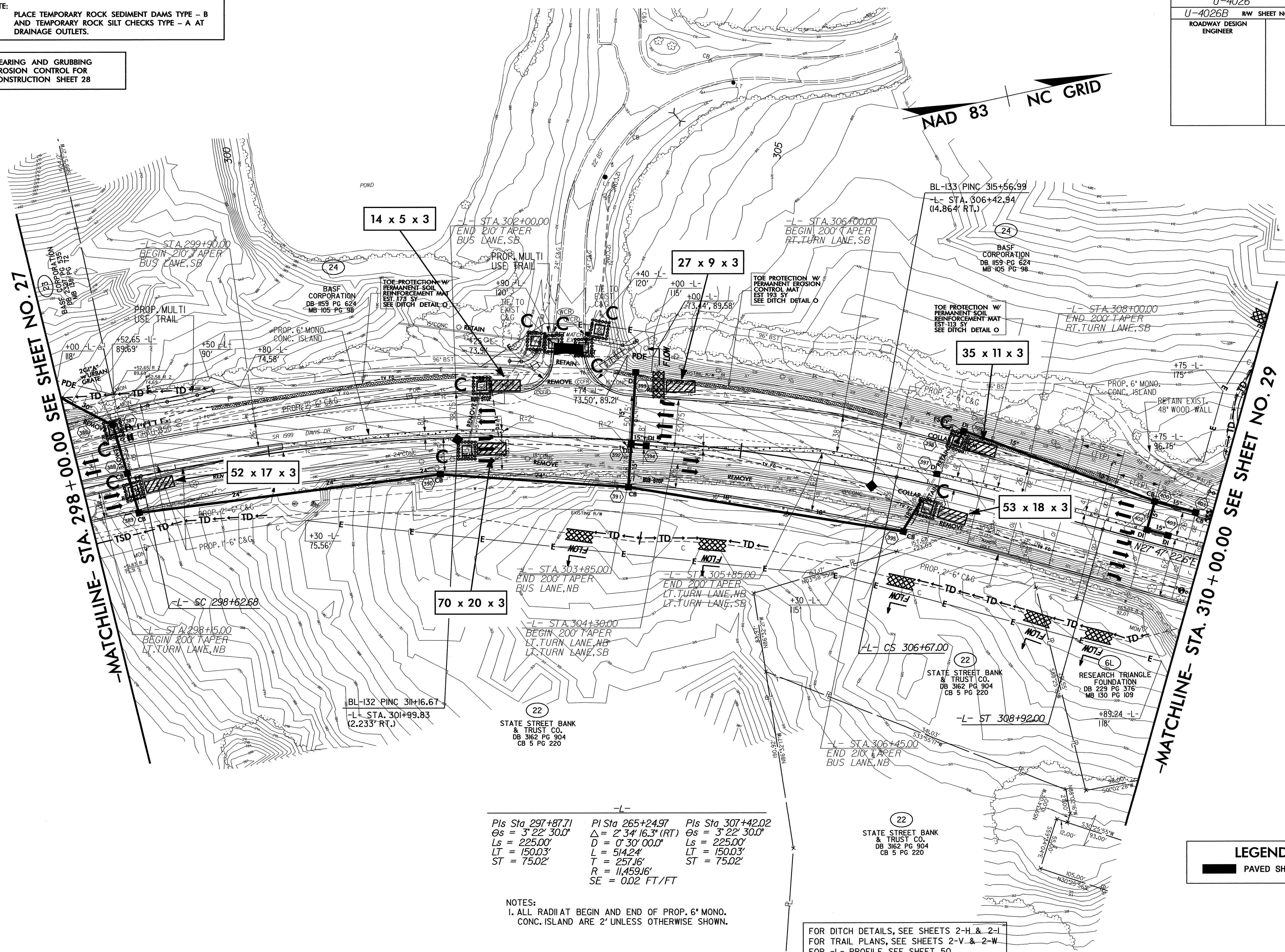


NAD 83 | NC GRID

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 28

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-34/CONST.28
U-4026B	R/W SHEET NO. 23
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



Pls Sta 297+87.71
 $\Delta s = 3' 22' 30.0''$
 $Ls = 225.00'$
 $LT = 150.03'$
 $ST = 75.02'$

Pls Sta 265+24.97
 $\Delta s = 2' 34' 16.3'' (RT)$
 $D = 0' 30' 00.0''$
 $L = 514.24'$
 $T = 257.16'$
 $R = 11,459.16'$
 $SE = 0.02 \text{ FT/FT}$

Pls Sta 307+42.02
 $\Delta s = 3' 22' 30.0''$
 $Ls = 225.00'$
 $LT = 150.03'$
 $ST = 75.02'$

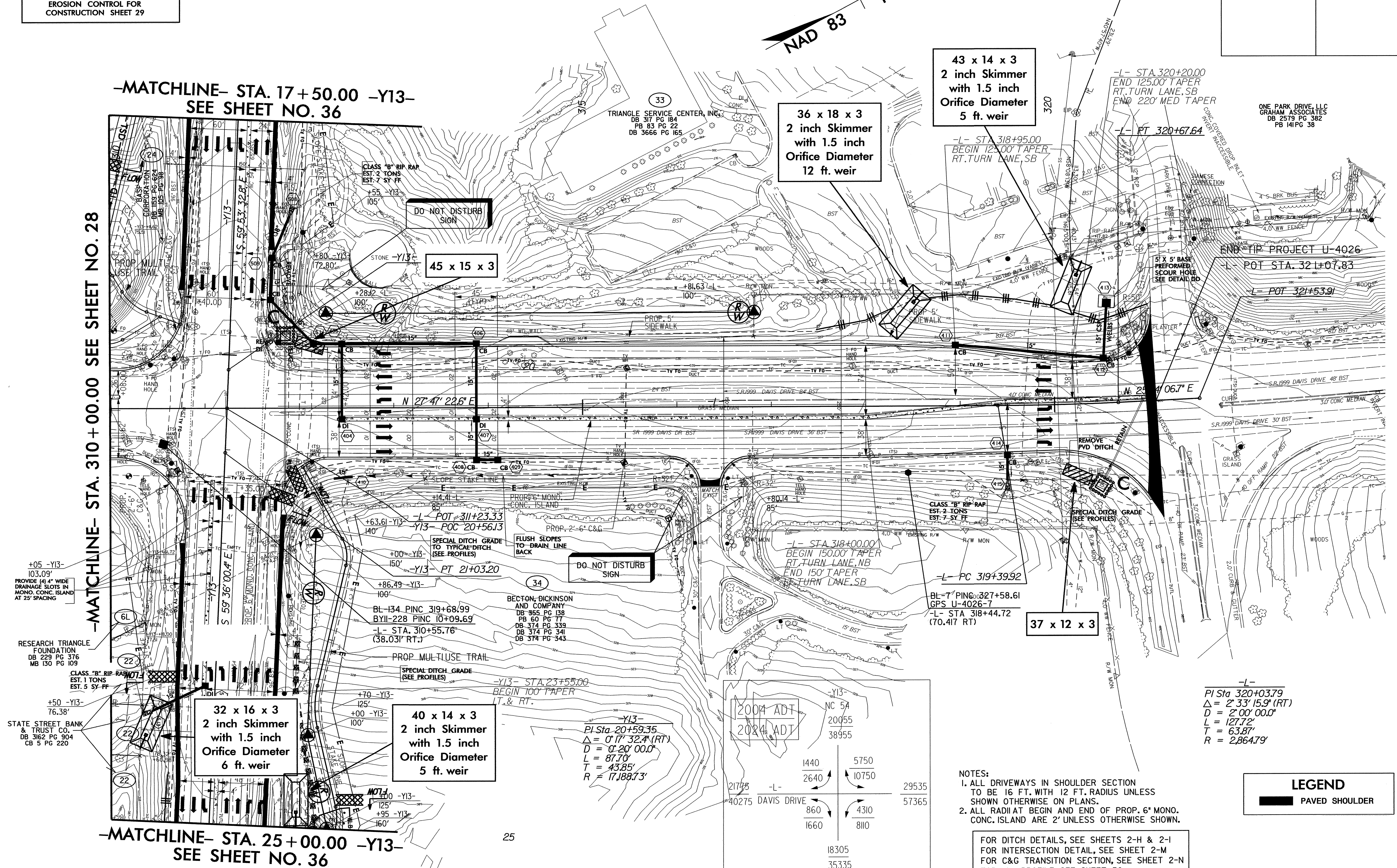
NOTES:
1. ALL RADIAT BEGIN AND END OF PROP. 6' MONO.
CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR TRAIL PLANS, SEE SHEETS 2-V & 2-W
FOR -L- PROFILE, SEE SHEET 50

LEGEND
PAVED SHOULDER

**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 29**

PROJECT REFERENCE NO.	SHEET NO.
<i>U-4026</i>	EC-35/CONST.29
<i>U-4026B</i> RW	SHEET NO. <i>24</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES:

1. ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
2. ALL RADIAT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-M
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR -L- PROFILE, SEE SHEET 50
FOR -Y13- PROFILE, SEE SHEET 57
FOR TRAIL PLANS SEE 2-W & 2-X

LEGEND

PAVED SHOULDER

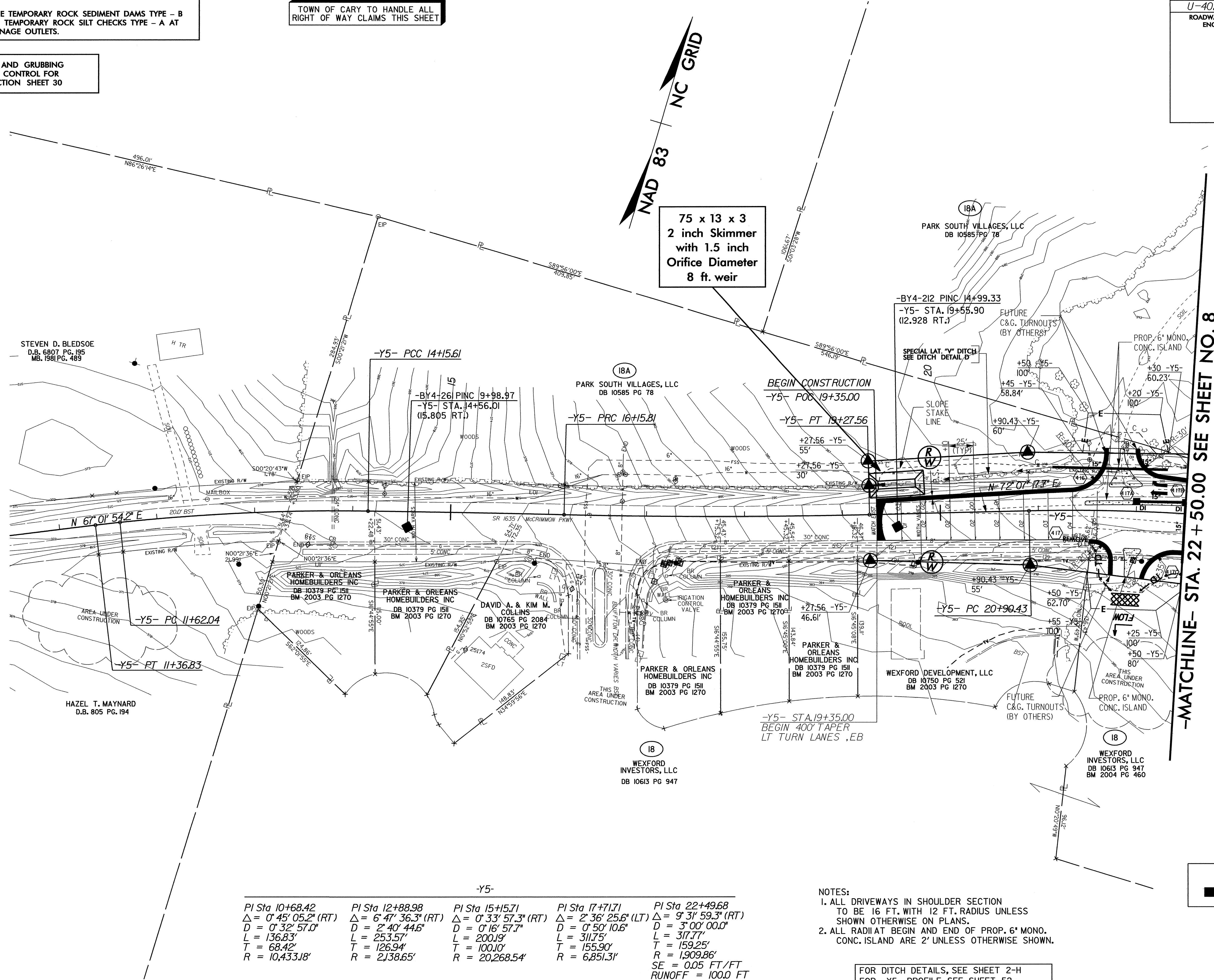
PROJECT REFERENCE NO.		SHEET NO.	
U-4026		EC-36/CONST.30	
U-4026A	R/W	SHEET NO.	11
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 30

TOWN OF CARY TO HANDLE ALL
RIGHT OF WAY CLAIMS THIS SHEET

75 x 13 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
8 ft. weir



-Y5-				
PI Sta 10+68.42 Δ = 0° 45' 05.2" (RT) D = 0° 32' 57.0" L = 136.83' T = 68.42' R = 10,433.18'	PI Sta 12+88.98 Δ = 6° 47' 36.3" (RT) D = 2° 40' 44.6" L = 253.57' T = 126.94' R = 2,138.65'	PI Sta 15+15.71 Δ = 0° 33' 57.3" (RT) D = 0° 16' 57.7" L = 200.19' T = 100.10' R = 20,268.54'	PI Sta 17+71.71 Δ = 2° 36' 25.6" (LT) D = 0° 50' 10.6" L = 311.75' T = 155.90' R = 6,851.31'	PI Sta 22+49.68 Δ = 9° 31' 59.3" (RT) D = 3° 00' 00.0" L = 317.77' T = 159.25' R = 1,909.86' SE = 0.05 FT/FT RUNOFF = 100.0 FT

- NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 2. ALL RADIAT BEGIN AND END OF PROP. 6' MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEET 2-H
FOR -Y5- PROFILE, SEE SHEET 52

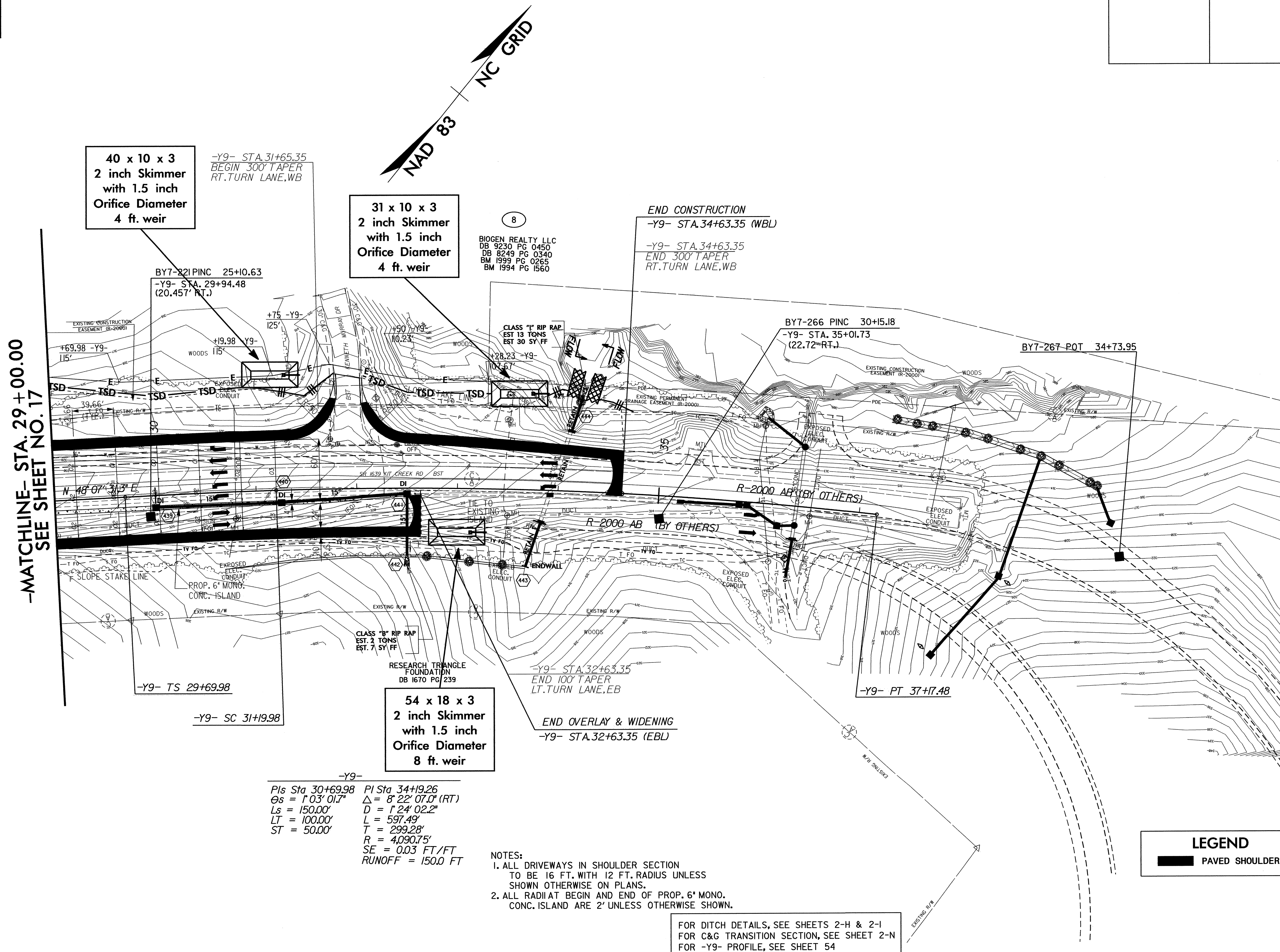
LEGEND

PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-39/CONST.33
U-4026B RW SHEET NO.	26
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 33



Y9-
Pls Sta 30+69.98
 $\Delta s = 1' 03' 01.7"$
 $L_s = 150.00'$
 $L_T = 100.00'$
 $ST = 50.00'$

PI Sta 34+92.6
 $\Delta = 8' 22' 07.0" (RT)$
 $D = 1' 24' 02.2"$
 $L = 597.49'$
 $T = 299.28'$
 $R = 4090.75'$
 $SE = 0.03 \text{ FT/FT}$
 $RUNOFF = 150.0 \text{ FT}$

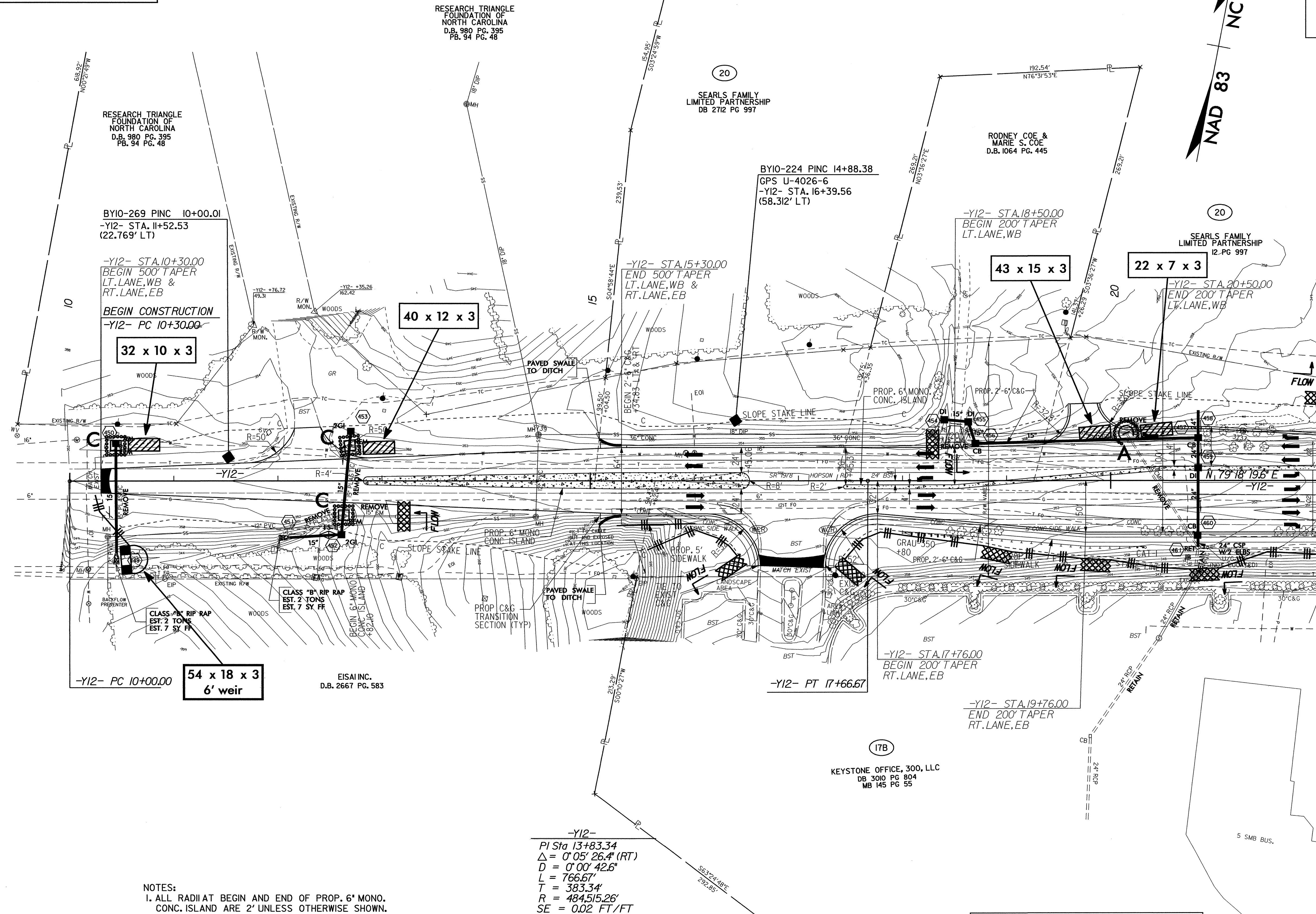
- NOTES:
- ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 - ALL RADIAT BEGIN AND END OF PROP. 6' MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR -Y9- PROFILE, SEE SHEET 54

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 34

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-40/CONST.34
U-4026B RW	SHEET NO. 27
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-MATCHLINE- STA. 22 + 00.00 SEE SHEET NO. 24

LEGEND
PAVED SHOULDER

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR -Y12- PROFILE, SEE SHEET 55

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 35

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-41/CONST.35
U-4026B RW SHEET NO.	28
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-MATCHLINE- STA. 29 + 00.00 SEE SHEET NO. 24

28 x 14 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
5 ft. weir

-Y12- STA. 31+60.00
BEGIN 200' TAPER
LT. LANE, WB &
RT. LANE, EB

SEARLS FAMILY
LIMITED PARTNERSHIP
DB 2712 PG 997

ROBERT H. &
NANCY C. MALLETT
DB 2044 PG 112

SUSAN S. O'BRIEN &
PATRICIA S. O'BRIEN
DB 1822 PG 237
PB 190 PG 136

ESTATE OF AGATHA L. HURST
WILL BOOK 00E - 176

-Y12- STA. 36+10.00
BEGIN 200' TAPER
LT. LANE, WB

BY10-270 PINC 34+32.11
-Y12- STA. 35+77.36
(14.42 LT)

CHARLES KENNEDY &
WIFE JANE W.
DB 1275 424
PB 30 PG 116

RONALD K. MAYNOR
DB 1080 PG 151
PB 100 PG 148

GERALD E. SEARLS
DB 1615 PG 358
PB 61 PG 127

BY10-271 POT 38+67.09
-Y12- STA. 40+08.07
(25.59 LT)

-Y12- STA. 40+60.00
END 250' TAPER
WB & EB

SEARLS FAMILY
LIMITED PARTNERSHIP
DB 2712 PG 997

-Y12- POT 41+03.12

RAYMOND M. PROCTOR &
WIFE FAYE B.
DB 287 PG 107

RAYMOND M. PROCTOR
& WIFE FAYE B.
DB 989 PG 567
PB 95 PG 10

END CONSTRUCTION
-Y12- POT 40+60.00

PI Sta 34+94.63 $\Delta = 4' 10' 04.6''$ (RT) $D = 1' 52' 43.5''$ $L = 221.85'$ $T = 110.97'$ $R = 3,049.69'$ $SE = 0.04$ FT/FT $RUNOFF = 110.0$ FT	PI Sta 37+09.84 $\Delta = 11' 54' 47.1''$ (RT) $D = 5' 43' 46.5''$ $L = 207.92'$ $T = 104.34'$ $R = 1,000.00'$ $SE = 0.06$ FT/FT	PI Sta 38+40.50 $\Delta = 6' 53' 10.9''$ (RT) $D = 12' 43' 56.7''$ $L = 54.09'$ $T = 27.08'$ $R = 450.00'$ $SE = 0.06$ FT/FT	PI Sta 39+62.00 $\Delta = 5' 58' 31.2''$ (RT) $D = 3' 09' 54.1''$ $L = 188.79'$ $T = 94.48'$ $R = 1,810.28'$ $SE = 0.06$ FT/FT $RUNOFF = 165.0$ FT
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NOTES:
1. ALL RADII AT BEGIN AND END OF PROP. 6" MONO.
CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR -Y12- PROFILE, SEE SHEET 56

LEGEND
PAVED SHOULDER

NAD 83
NC GRID

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 36

BEGIN CONSTRUCTION
-Y13- POT 11+50.00

CANOPY
-Y13- POT 10+00.00

40 x 12 x 3

BYII-272 POT 0+37.9
-YI3- STA. II+26.32
(47.163' RT.)

-YK3< STA.11+50.00
BEGIN 300' TAPER
EB & WB THRU LANE

Y13- STA.14+50.00
BEGIN 100' TAPER
RT. TURN LANE, EB
END 300' TAPER
EB & WB THRU LANE

30 x 10 x 3
4' weir

-Y13- STA.15+50.00
END 100' TAPER
RT.TURN LANE,EB

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR C&G TRANSITION, SEE SHEET 2-N
FOR TRAIL PLANS, SEE SHEETS 2-W & 2-X
FOR -Y 13- PROFILE, SEE SHEET 57

PROJECT REFERENCE NO.	SHEET NO.
<i>U-4026</i>	EC-42/CONST.36
<i>U-4026B</i> R/W SHEET NO.	<i>29</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

34

BECTON, DICKINSON
AND COMPANY
DB 355 PG 138
PB 60 PG 77
DB 374 PG 339
DB 374 PG 341
DB 374 PG 343

-Y13- STA. 25+00.00
BEGIN 100' TAPER
RT. TURN LANE, WB

-Y13- STA. 26+00.00
END 100' TAPER
RT. TURN LANE, WB

SPECIAL LAT "V" DITCH
W/CLASS "B" RIP RAP
FOR QUANTITIES
SEE SHEET 24
SEE DITCH DETAIL C

—MATCHLINE— STA. 25+00.00 —Y13—
SEE SHEET NO. 29

DO NOT DISTURB
SIGN

~~END CONSTRUCTION~~
~~-Y13- POT 27+00.00 =~~
~~R-2904 -L- POT 16+40.63~~

~~BYII-229 POT 15+24.83
 YI3 POT 26+11.60
 (38.094' RT)~~

22
STATE STREET BANK
& TRUST CO.
DB 3162 PG 904
CB 5 PG 220

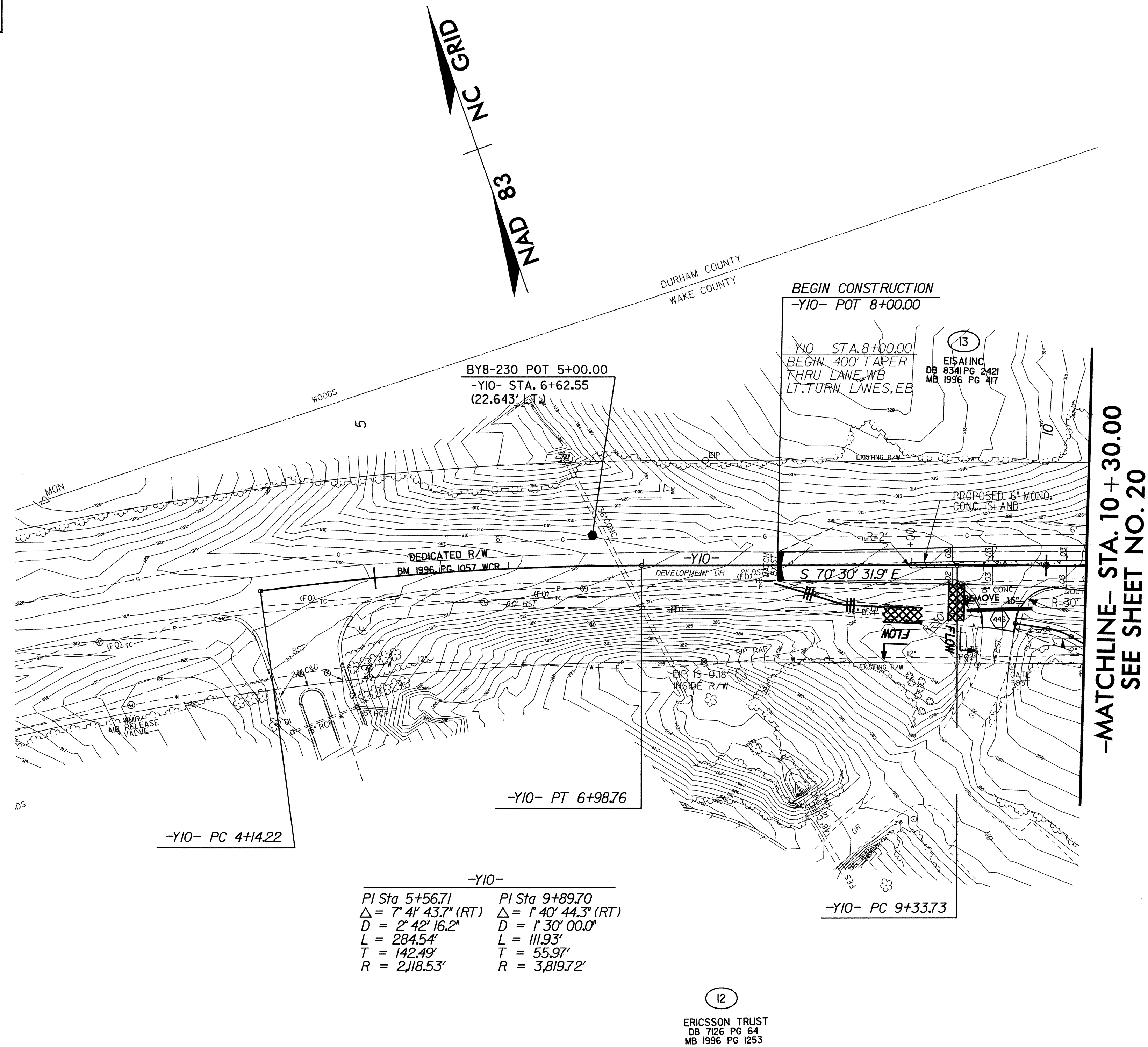
LEGEND

■ PAVED SHOULDER

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 37

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-43/CONST.37
U-4026B RW	SHEET NO. 30
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-Y10-
PI Sta 5+56.71 PI Sta 9+89.70
 $\Delta = 7^\circ 41' 43.7''$ (RT) $\Delta = 1^\circ 40' 44.3''$ (RT)
 $D = 2^\circ 42' 16.2''$ $D = 1^\circ 30' 00.0''$
 $L = 284.54'$ $L = 111.93'$
 $T = 142.49'$ $T = 55.97'$
 $R = 2,118.53'$ $R = 3,819.72'$

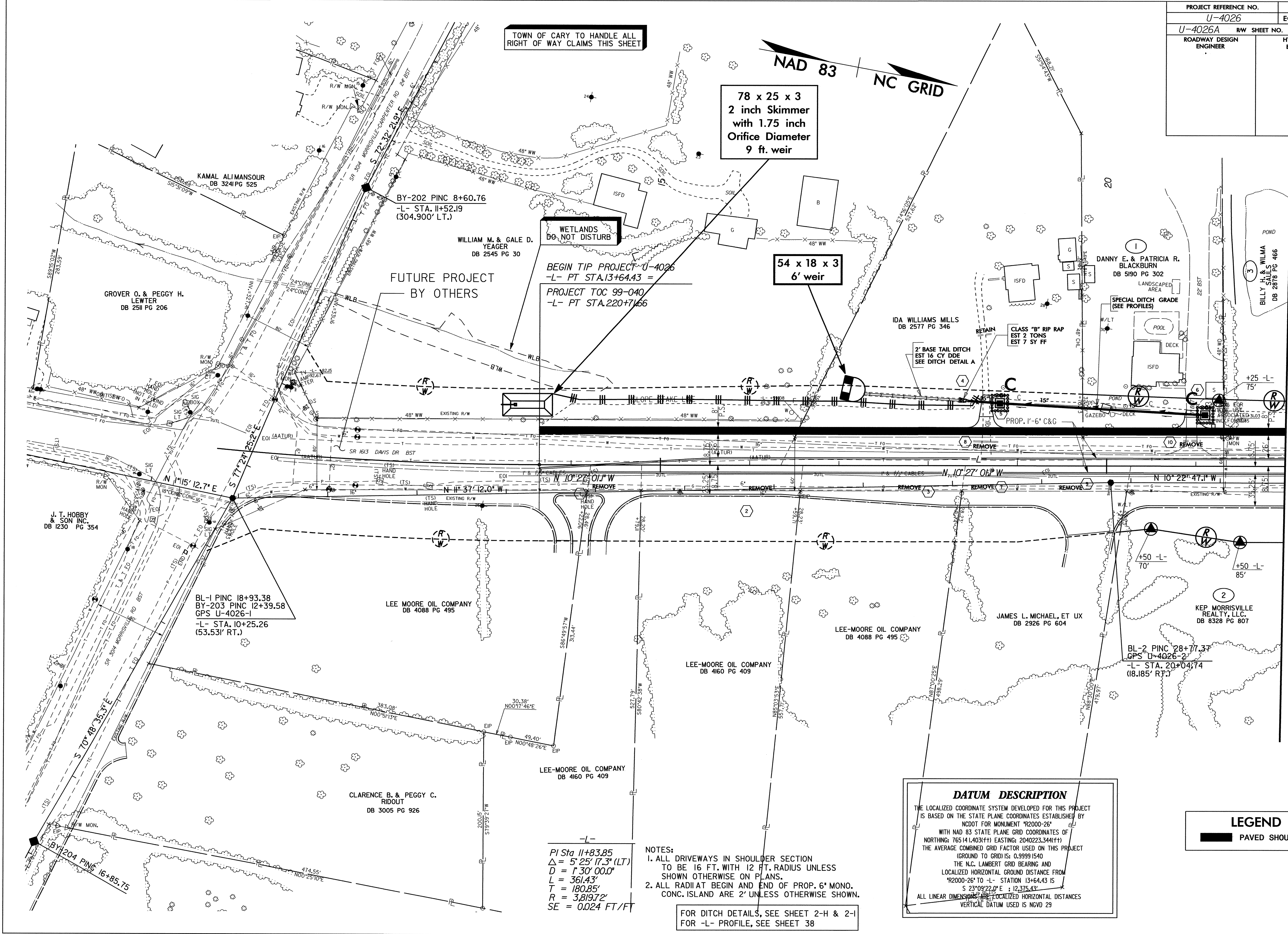
(12)
ERICSSON TRUST
DB 7126 PG 64
MB 1996 PG 1253

- NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION
TO BE 16 FT. WITH 12 FT. RADIUS UNLESS
SHOWN OTHERWISE ON PLANS.
 2. ALL RADII AT BEGIN AND END OF PROP. 6" MONO.
CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR TRAIL PLANS SEE SHEET 2-Q
FOR DITCH DETAILS SEE SHEET 2-H & 2-I
FOR -Y10- PROFILE, SEE SHEET 53

LEGEND
PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-44/CONST.4
U-4026A	R/W SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-MATCHLINE- STA. 22 + 00.00 SEE SHEET NO. 5

TOWN OF CARY TO HANDLE ALL
RIGHT OF WAY CLAIMS THIS SHEET

78 x 25 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
9 ft. weir

WETLANDS
DO NOT DISTURB

BEGIN TIP PROJECT U-4026
-L- PT STA.13+64.43 =
PROJECT TOC 99-040
-L- PT STA.220+71.66

54 x 18 x 3
6' weir

CLASS "B" RIP RAP
EST 2 TONS
EST 7 SY FF

2' BASE TAIL DITCH
EST 16 CY DDE
SEE DITCH DETAIL A

PROP. 1'-6" C&G

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

REMOVE

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT
IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY
NC DOT FOR MONUMENT "R2000-26"
WITH NAD 83 STATE PLANE GRID COORDINATES OF
NORTHING: 765141.403(FT) EASTING: 2040223.344(FT)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT
(GROUND TO GRID) IS: 0.99991540
THE N.C. LAMBERT GRID BEARING AND
LOCALIZED HORIZONTAL GROUND DISTANCE FROM
"R2000-26" TO -L- STATION 13+64.43 IS
S 23°09'22.0" E : 12,375.43'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NGVD 29

LEGEND

PAVED SHOULDER

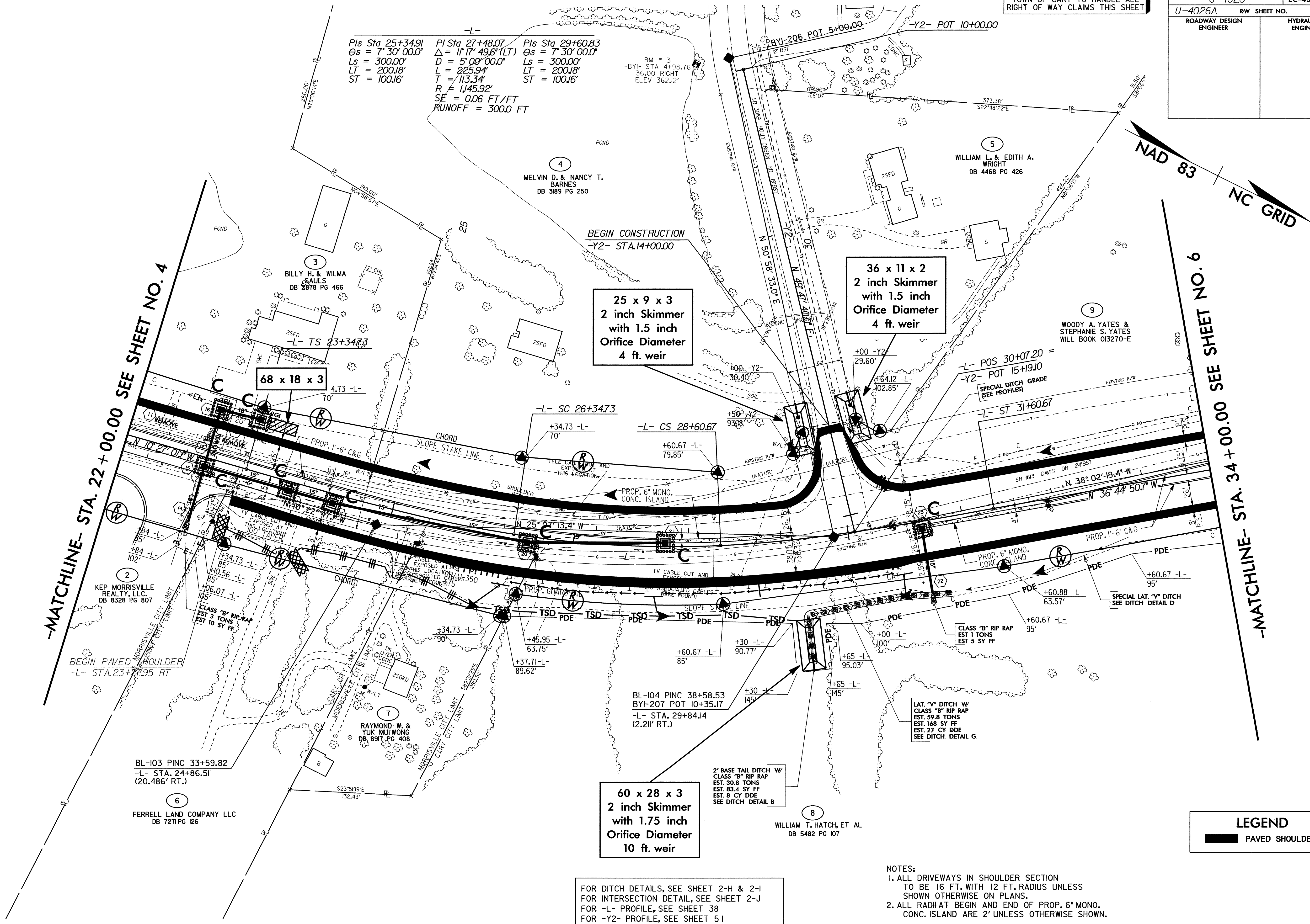
- NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION
TO BE 16 FT. WITH 12 FT. RADIUS UNLESS
SHOWN OTHERWISE ON PLANS.
 2. ALL RADIAT BEGIN AND END OF PROP. 6' MONO.
CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEET 2-H & 2-I
FOR -L- PROFILE, SEE SHEET 38

-L-
PI Sta 11+83.85
Δ = 5°25'17.3" (LT)
D = 1°30'00.0"
L = 361.43'
T = 180.85'
R = 3,819.72'
SE = 0.024 FT/FT

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-45/CONST.5
U-4026A	R/W SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TOWN OF CARY TO HANDLE ALL
RIGHT OF WAY CLAIMS THIS SHEET



FOR DITCH DETAILS, SEE SHEET 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-J
FOR -L- PROFILE, SEE SHEET 38
FOR -Y2- PROFILE, SEE SHEET 5 I

- NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 2. ALL RADIAT BEGIN AND END OF PROP. 6' MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

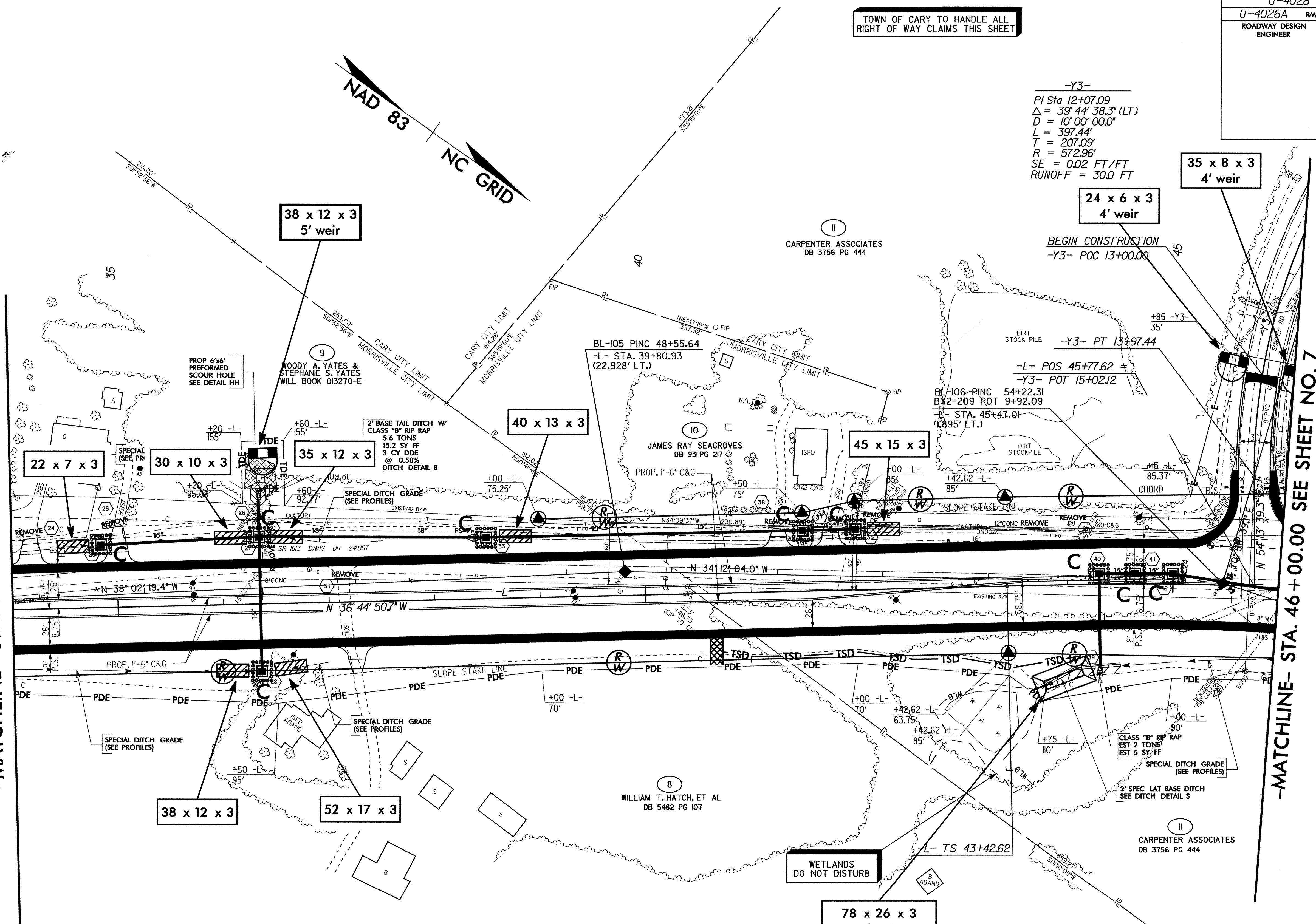
LEGEND
PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-46/CONST.6
U-4026A	R/W SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TOWN OF CARY TO HANDLE ALL
RIGHT OF WAY CLAIMS THIS SHEET

-MATCHLINE- STA. 34 + 00.00 SEE SHEET NO. 5

-MATCHLINE- STA. 46 + 00.00 SEE SHEET NO. 7



-Y3-
PI Sta 12+07.09
 $\Delta = 39^\circ 44' 38.3" (LT)$
 $D = 10' 00' 00.0"$
 $L = 397.44'$
 $T = 207.09'$
 $R = 572.96'$
 $SE = 0.02 FT/FT$
 $RUNOFF = 30.0 FT$

-L- POS 45+77.62 =
-Y3- POT 15+02.12
BL-106 PINC 54+22.31
BY 2-209 ROT 9+92.09
-L- STA. 45+47.01
(1.895' LT.)

-L-
PIs Sta 45+42.80
 $\Theta_s = 7^\circ 30' 00.0"$
 $L_s = 300.00'$
 $LT = 200.18'$
 $ST = 100.16'$

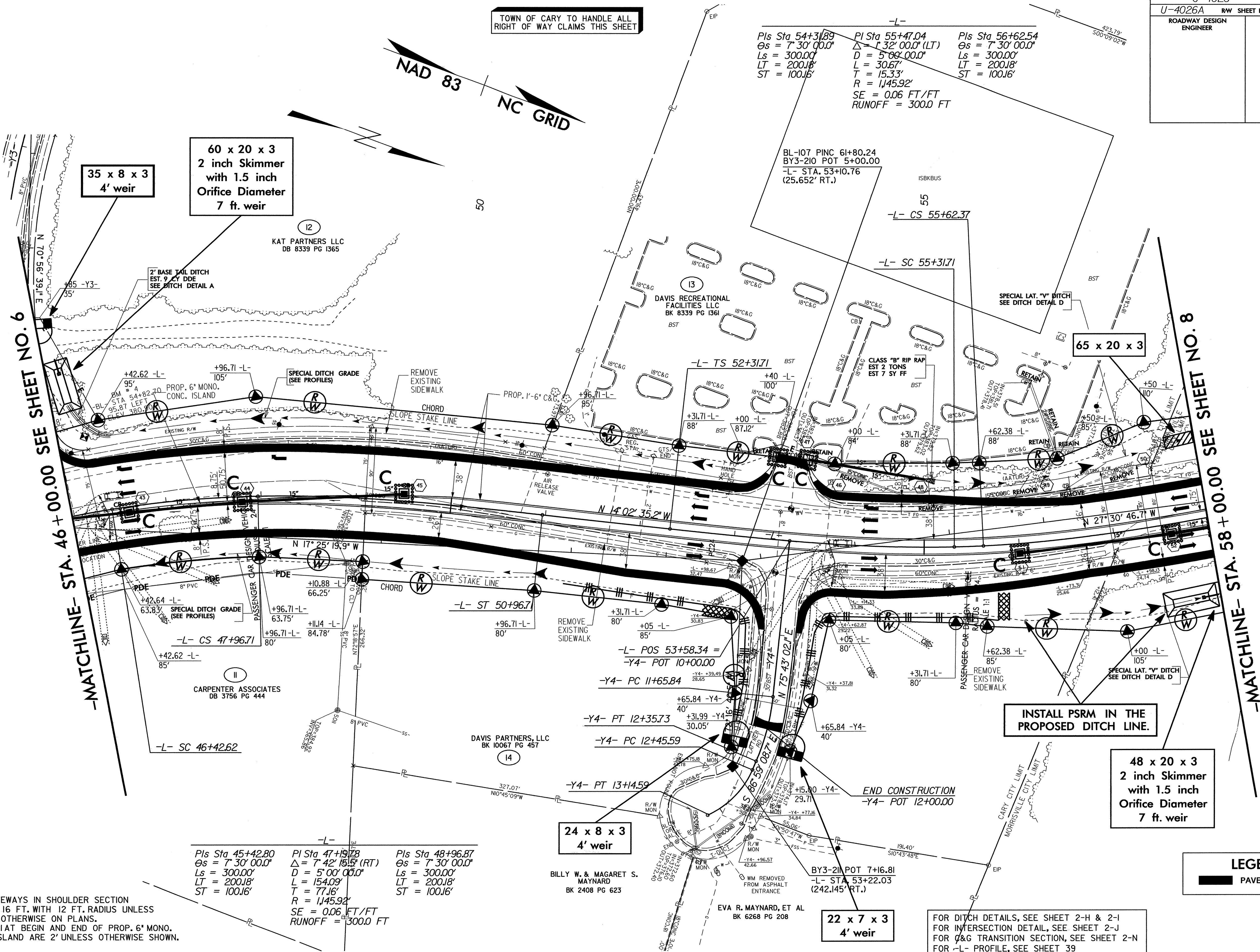
- NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 2. ALL RADIAT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEET 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-J
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR -L- PROFILE, SEE SHEET 39
FOR -Y3- PROFILE, SEE SHEET 51

LEGEND
PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-47/CONST.7
U-4026A	R/W SHEET NO. 7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES:
 1. ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 2. ALL RADIAT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.



INSTALL PSRM IN THE PROPOSED DITCH LINE.

48 x 20 x 3
 2 inch Skimmer
 with 1.5 inch
 Orifice Diameter
 7 ft. weir

LEGEND
 PAVED SHOULDER

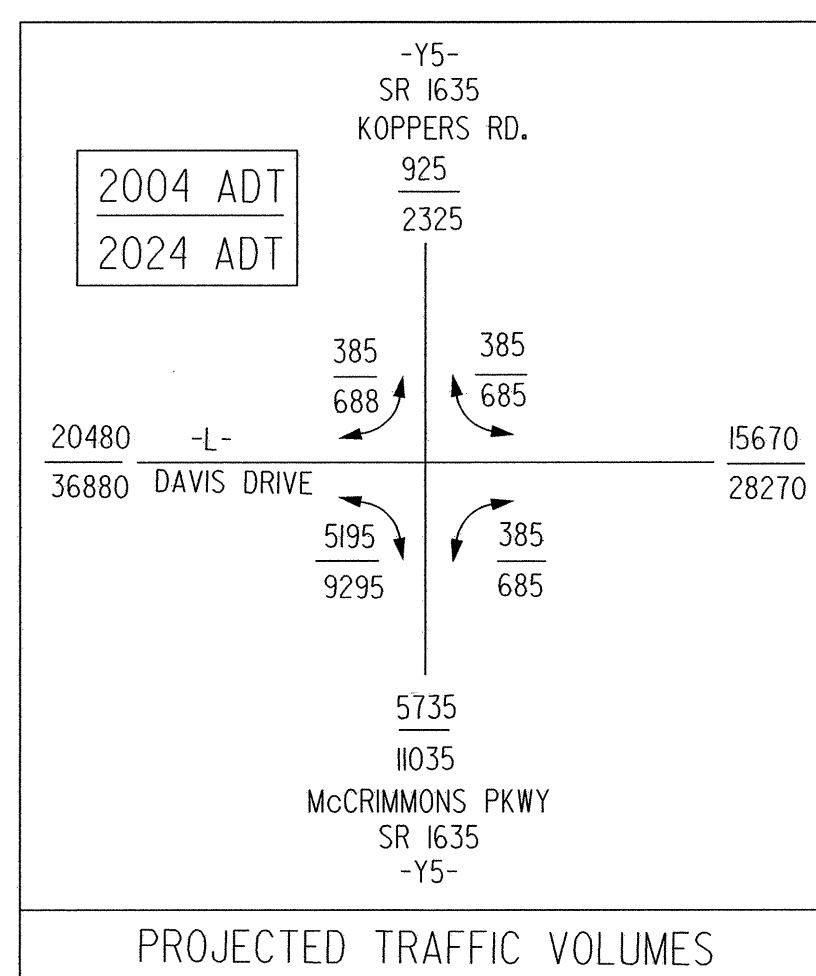
FOR DITCH DETAILS, SEE SHEET 2-H & 2-I
 FOR INTERSECTION DETAIL, SEE SHEET 2-J
 FOR G&G TRANSITION SECTION, SEE SHEET 2-N
 FOR -L- PROFILE, SEE SHEET 39
 FOR -Y4- PROFILE, SEE SHEET 51

TOWN OF CARY TO HANDLE ALL
 RIGHT OF WAY CLAIMS THIS SHEET

-MATCHLINE- STA. 46+00.00 SEE SHEET NO. 6

-MATCHLINE- STA. 58+00.00 SEE SHEET NO. 8

TOWN OF CARY TO HANDLE ALL
RIGHT OF WAY CLAIMS THIS SHEET



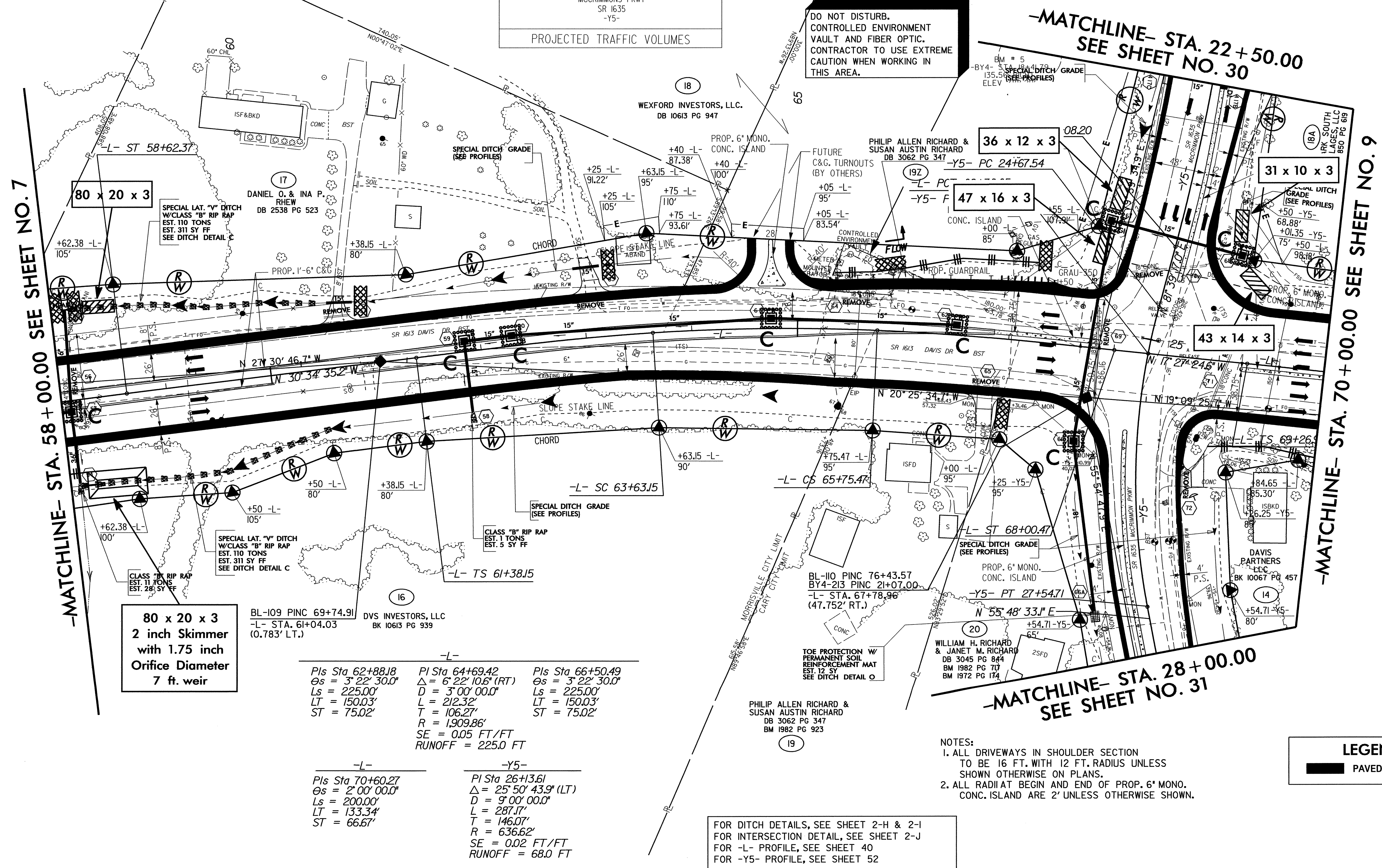
-Y5-
PI Sta 22+49.68
 $\Delta = 9' 31'' 59.3'' (RT)$
 $D = 3' 00'' 00.0''$
 $L = 317.77'$
 $T = 159.25'$
 $R = 1,909.86'$
 $SE = 0.05 \text{ FT/FT}$
 $RUNOFF = 100.0 \text{ FT}$

DO NOT DISTURB.
CONTROLLED ENVIRONMENT
VAULT AND FIBER OPTIC.
CONTRACTOR TO USE EXTREME
CAUTION WHEN WORKING IN
THIS AREA.

-MATCHLINE- STA. 22+50.00
SEE SHEET NO. 30

-MATCHLINE- STA. 58+00.00 SEE SHEET NO. 7

-MATCHLINE- STA. 70+00.00 SEE SHEET NO. 9



80 x 20 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
7 ft. weir

Pls Sta 62+88.18
 $\Delta s = 3' 22'' 30.0''$
 $Ls = 225.00'$
 $LT = 150.03'$
 $ST = 75.02'$

PI Sta 64+69.42
 $\Delta = 6' 22'' 10.6'' (RT)$
 $D = 3' 00'' 00.0''$
 $L = 212.32'$
 $T = 106.27'$
 $R = 1,909.86'$
 $SE = 0.05 \text{ FT/FT}$
 $RUNOFF = 225.0 \text{ FT}$

Pls Sta 66+50.49
 $\Delta s = 3' 22'' 30.0''$
 $Ls = 225.00'$
 $LT = 150.03'$
 $ST = 75.02'$

-L-
Pls Sta 70+60.27
 $\Delta s = 2' 00'' 00.0''$
 $Ls = 200.00'$
 $LT = 133.34'$
 $ST = 66.67'$

-Y5-
PI Sta 26+13.61
 $\Delta = 25' 50'' 43.9'' (LT)$
 $D = 9' 00'' 00.0''$
 $L = 287.17'$
 $T = 146.07'$
 $R = 636.62'$
 $SE = 0.02 \text{ FT/FT}$
 $RUNOFF = 68.0 \text{ FT}$

FOR DITCH DETAILS, SEE SHEET 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-J
FOR -L- PROFILE, SEE SHEET 40
FOR -Y5- PROFILE, SEE SHEET 52

NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION
TO BE 16 FT. WITH 12 FT. RADIUS UNLESS
SHOWN OTHERWISE ON PLANS.
2. ALL RADIAT BEGIN AND END OF PROP. 6" MONO.
CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

LEGEND
PAVED SHOULDER

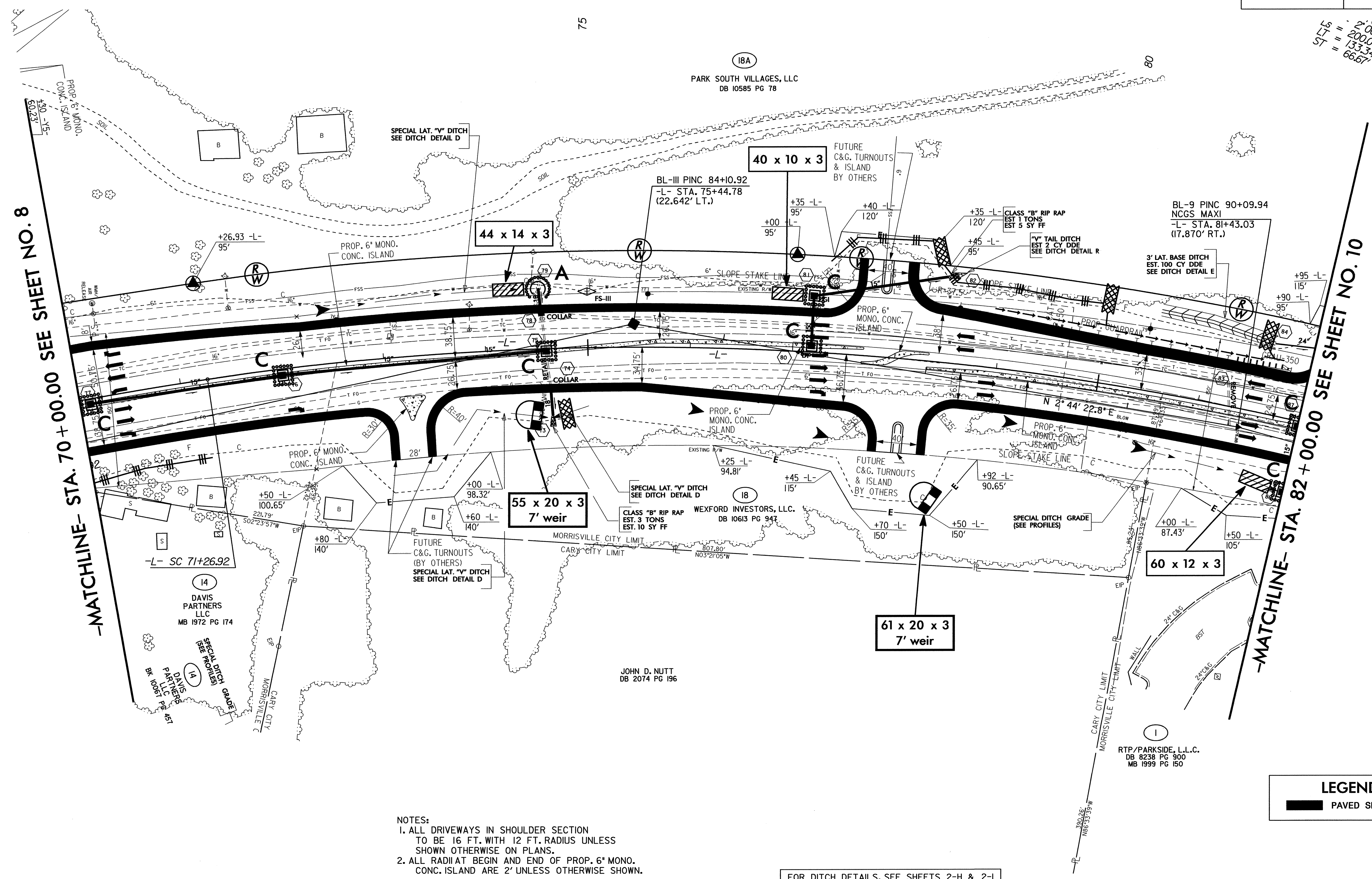
TOWN OF CARY TO HANDLE CLAIMS
ON PARCEL NO. 14 & 18 THIS SHEET

-L-
Pls Sta 70+60.27
Δs = 2' 00' 00.0"
Ls = 200.00'
LT = 133.34'
ST = 66.67'
PI Sta 80+83.70
Δ = 36' 56' 10.4" (RT)
D = 2' 00' 00.0"
L = 1846.81'
T = 956.77'
R = 2864.79'
SE = 0.04 FT/FT
RUNOFF = 200.0 FT
Pls Sta 90+40.41
Δs = 2' 00' 00.0"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

NAD 83 | NC GRID

PROJECT REFERENCE NO.		SHEET NO.
U-4026		EC-49/CONST.9
U-4026A	R/W SHEET NO.	9
U-4026B	R/W SHEET NO.	4
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

LS = 2' 00' 00.0"
LT = 200.00'
ST = 133.34'
66.67'



- NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 2. ALL RADIAT BEGIN AND END OF PROP. 6\"/>

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR -L- PROFILE, SEE SHEET 40

LEGEND

PAVED SHOULDER

PROJECT REFERENCE NO.		SHEET NO.
U-4026		EC-50/CONST.10
U-4026A	R/W SHEET NO.	10
U-4026B	R/W SHEET NO.	5
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

-L-
Pls Sta 70+60.27
Δs = 2' 00' 00.0"
Ls = 200.00'
LT = 133.34'
ST = 66.67'
PI Sta 80+83.70
Δ = 36' 56' 10.4" (RT)
D = 2' 00' 00.0"
L = 1846.81'
T = 956.77'
R = 2864.79'
SE = 0.04 FT/FT
RUNOFF = 200.0 FT
Pls Sta 90+40.41
Δs = 2' 00' 00.0"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

TOWN OF CARY TO HANDLE CLAIMS
ON PARCEL NO. 18 THIS SHEET

76 x 25 x 3
2 inch Skimmer
with 2 inch
Orifice Diameter
1.75 ft. weir

DO NOT DISTURB
SIGN

DO NOT DISTURB
SIGN & FENCE

INSTALL PSRM IN THE
PROPOSED DITCH LINE.

48 x 10 x 3

45 x 10 x 3

50 x 15 x 3

36 x 18 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
7 ft. weir

50 x 16 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
8 ft. weir

DO NOT DISTURB
SIGN

EXIST. EARTH BERM
TO BE REMOVED

LEGEND
PAVED SHOULDER

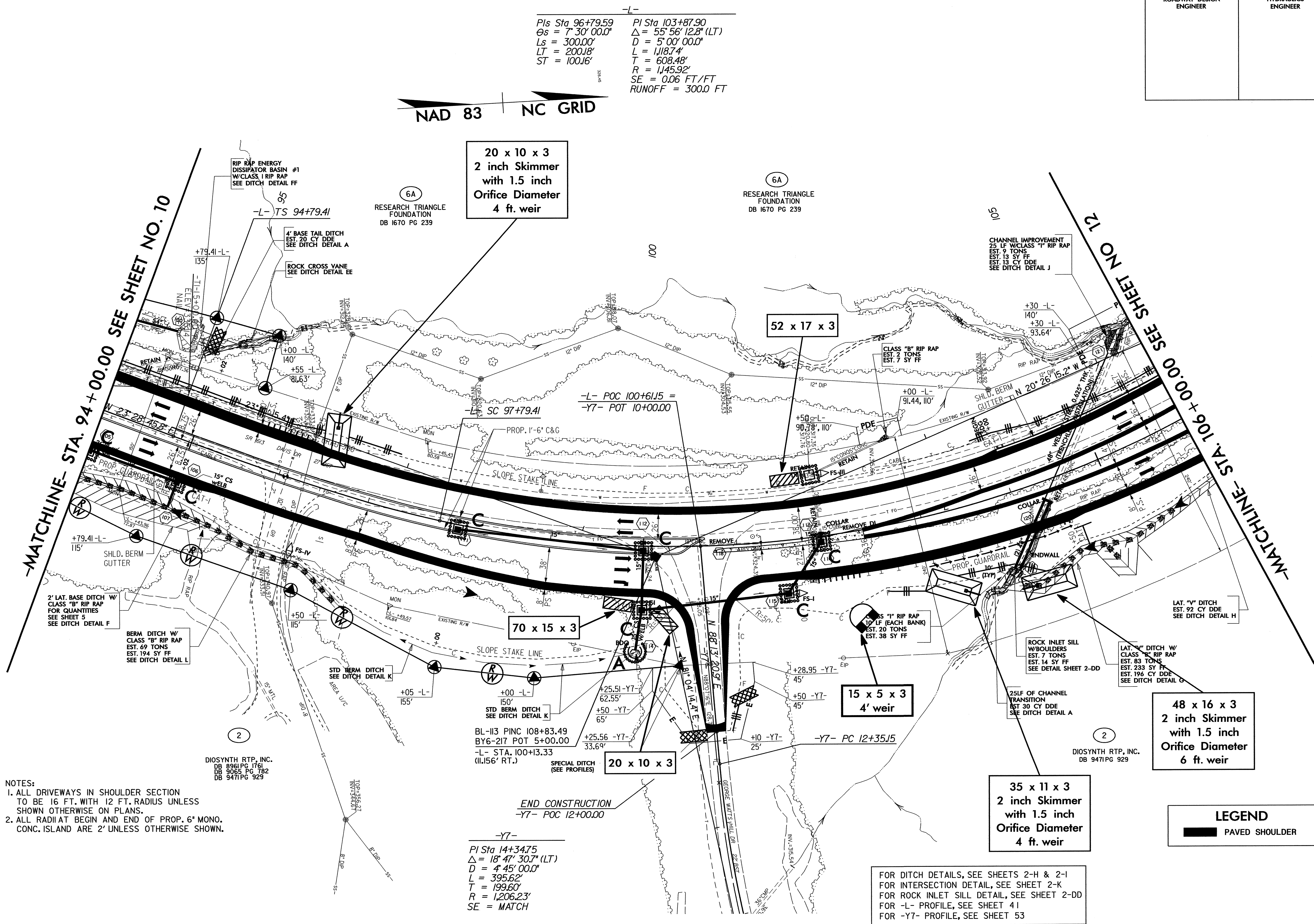
FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-K
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR L- PROFILE, SEE SHEET 41
FOR -Y6- PROFILE, SEE SHEET 53

-MATCHLINE- STA. 82+00.00 SEE SHEET NO. 9

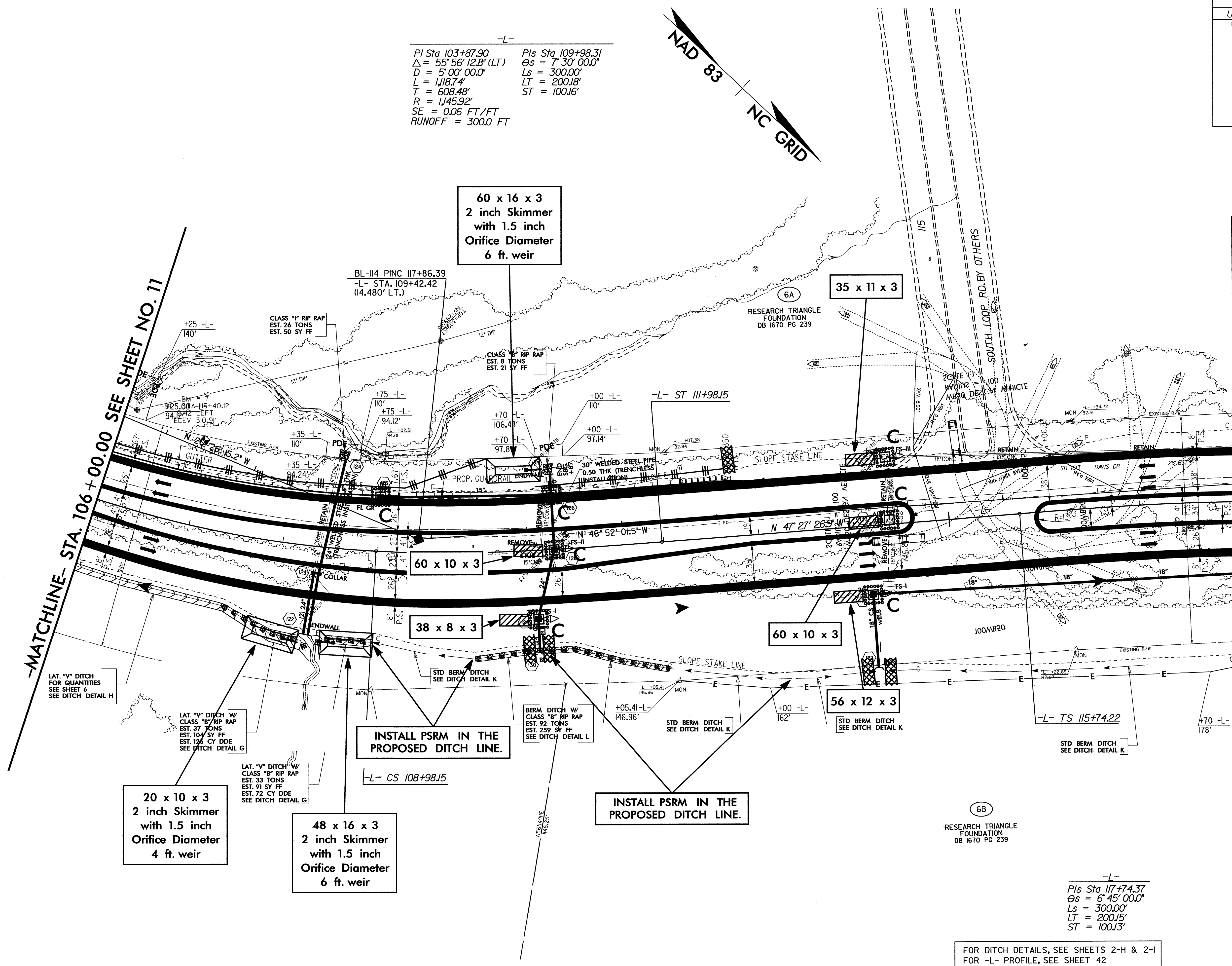
-MATCHLINE- STA. 94+00.00 SEE SHEET NO. 11

NAD 83
NC GRID

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-51/CONST.11
U-4026B RW SHEET NO.	6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROJECT REFERENCE NO.		SHEET NO.	
U-4026		EC-52/CONST.12	
U-4026B	R/W	SHEET NO. 7	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



-L-
 Pls Sta 103+87.90
 $\Delta = 55^\circ 56' 12.8''$ (LT)
 $D = 5' 00'' 00.0''$
 $L = 1,118.74'$
 $T = 608.48'$
 $R = 1,145.92'$
 $SE = 0.06$ FT/FT
 $RUNOFF = 300.0$ FT

Pls Sta 109+98.31
 $\Theta_s = 7^\circ 30' 00.0''$
 $L_s = 300.00'$
 $LT = 200.18'$
 $ST = 100.16'$

-L-
 Pls Sta 117+74.37
 $\Theta_s = 6^\circ 45' 00.0''$
 $L_s = 300.00'$
 $LT = 200.15'$
 $ST = 100.13'$

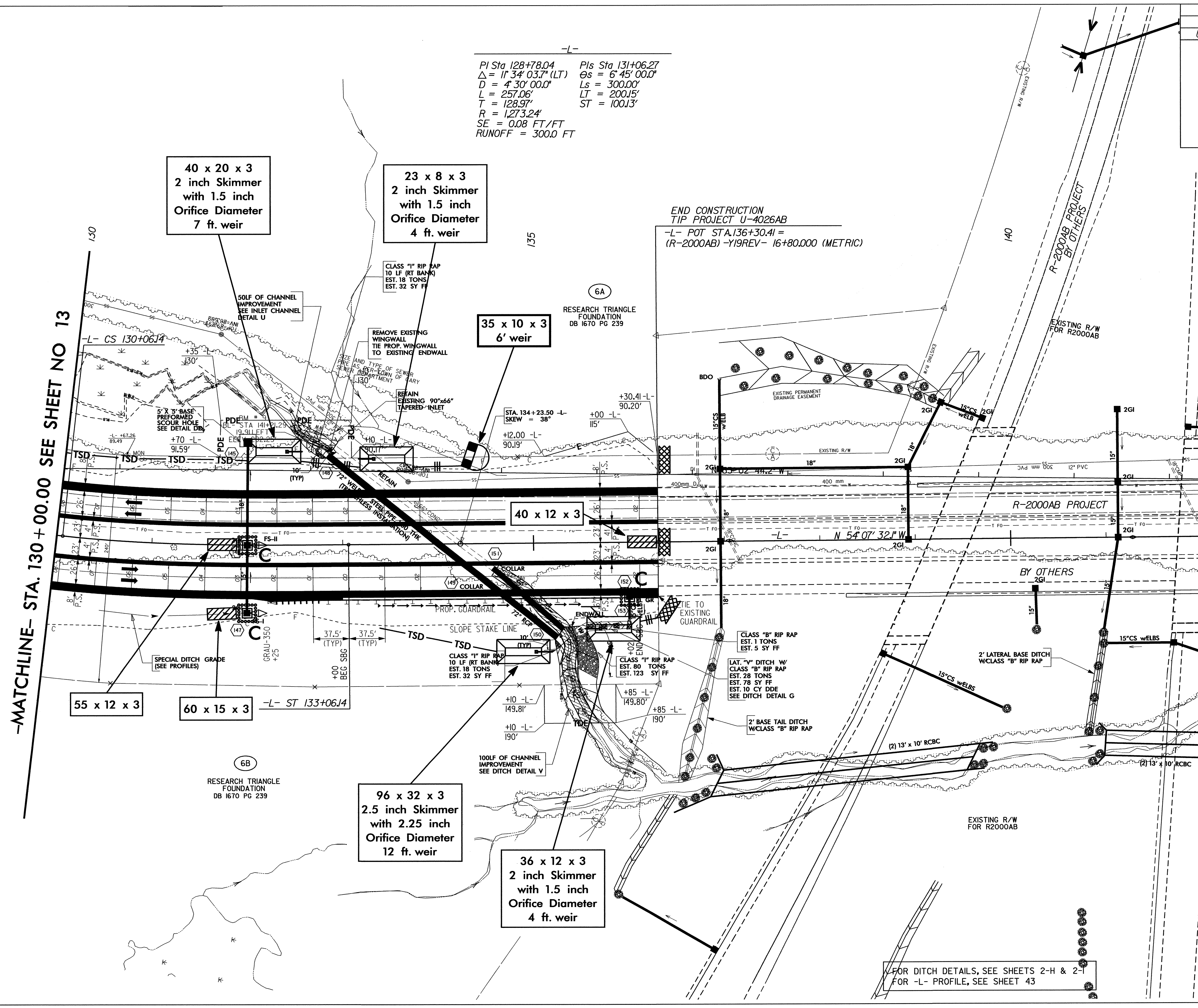
FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
 FOR -L- PROFILE, SEE SHEET 42

-MATCHLINE- STA. 106 + 00.00 SEE SHEET NO. 11

-MATCHLINE- STA. 118 + 00.00 SEE SHEET NO. 13

LEGEND	
	PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-54/CONST.14
U-4026B RW SHEET NO.	9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



$\Delta = 11' 34" 03.7" (LT)$
 $D = 4' 30" 00.0"$
 $L = 257.06'$
 $T = 128.97'$
 $R = 1,273.24'$
 $SE = 0.08 \text{ FT/FT}$
 $RUNOFF = 300.0 \text{ FT}$

$\Delta = 6' 45" 00.0"$
 $L_s = 300.00'$
 $LT = 200.15'$
 $ST = 100.13'$

END CONSTRUCTION
 TIP PROJECT U-4026AB
 -L- POT STA.136+30.41 =
 (R-2000AB) -Y19REV- 16+80.000 (METRIC)

NAD 83
 NC GRID

-MATCHLINE- STA. 130 + 00.00 SEE SHEET NO. 13

-MATCHLINE- STA. 142 + 00.00 SEE SHEET NO. 15

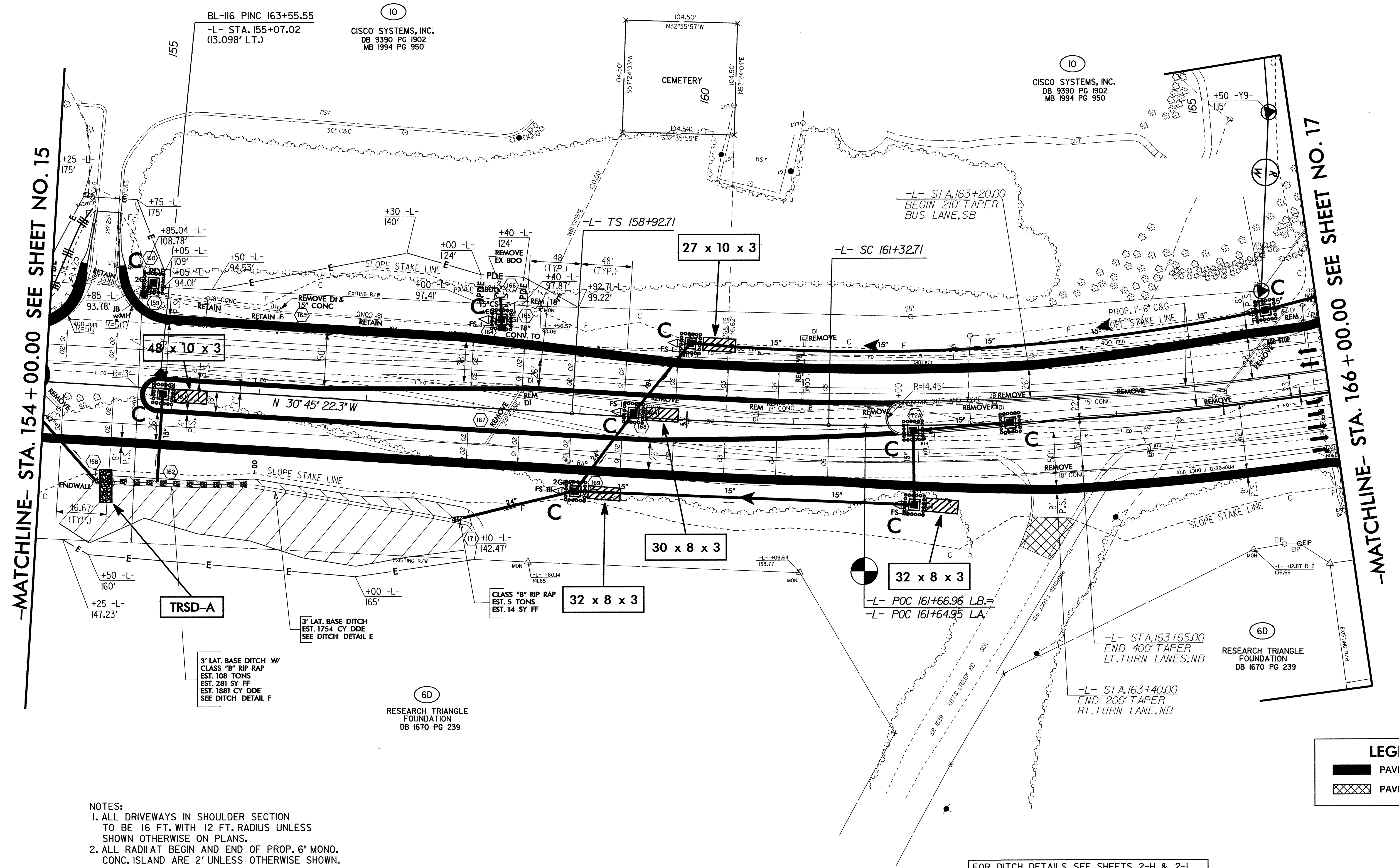
LEGEND
 PAVED SHOULDER

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
 FOR -L- PROFILE, SEE SHEET 43

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-56/CONST.16
U-4026B R/W SHEET NO.	//
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83
NC GRID

-L-
PIs Sta 160+52.73
 $\Delta s = 2' 24' 00.0"$
 $Ls = 240.00'$
 $LT = 160.01'$
 $ST = 80.01'$
PI Sta 161+49.84
 $\Delta = 0' 41' 05.9" (LT)$
 $D = 2' 00' 00.0"$
 $L = 34.25'$
 $T = 17.12'$
 $R = 2,864.79'$
 $SE = 0.05 FT/FT$
 $RUNOFF = 240.0 FT$
PI Sta 165+33.95
 $\Delta = 14' 40' 45.7" (LT)$
 $D = 2' 00' 00.0"$
 $L = 733.97'$
 $T = 369.00'$
 $R = 2,864.79'$



-MATCHLINE- STA. 154+00.00 SEE SHEET NO. 15

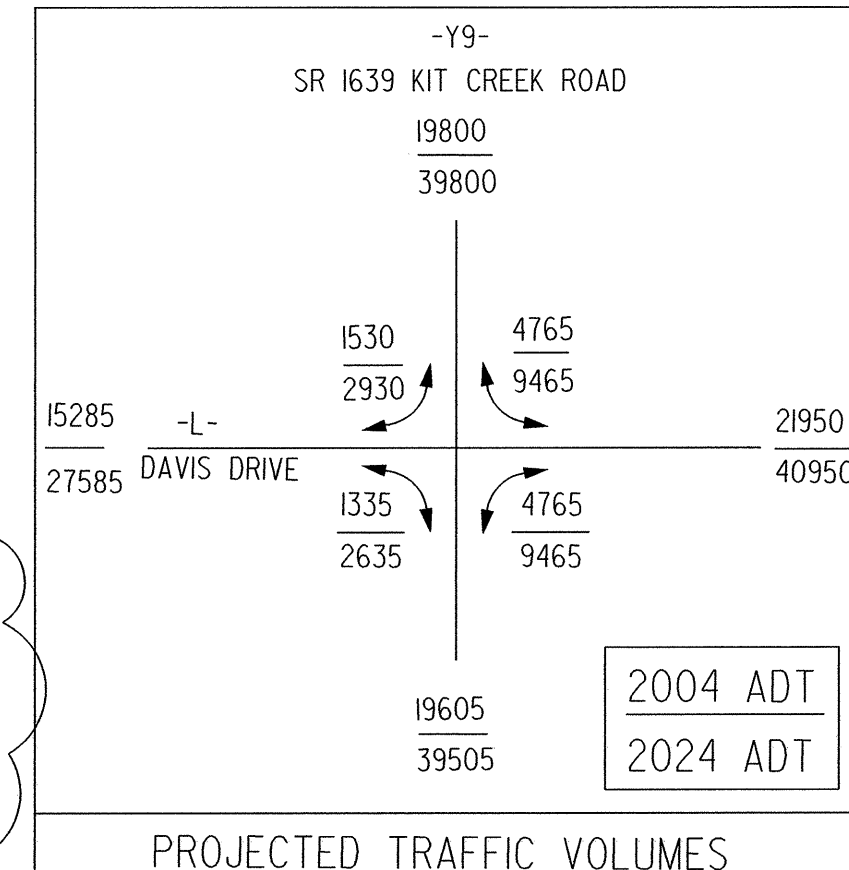
-MATCHLINE- STA. 166+00.00 SEE SHEET NO. 17

LEGEND	
	PAVED SHOULDER
	PAVEMENT REMOVAL

- NOTES:
- ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 - ALL RADII AT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR -L- PROFILE, SEE SHEET 44

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-57/CONST.17
U-4026B	R/W SHEET NO. 12
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



INSTALL PSRM IN THE PROPOSED DITCH LINE.

-MATCHLINE- STA. 23+00.00
SEE SHEET NO. 32

-MATCHLINE- STA. 166+00.00 SEE SHEET 16

-MATCHLINE- STA. 178+00.00 SEE SHEET NO. 18

-MATCHLINE- STA. 29+00.00
SEE SHEET NO. 33

NAD 83 NC GRID

9
ARE - 7030
KIT CREEK, LLC
DB 8638 PG 425
MB 1994 PG 574

10B
CISCO SYSTEMS, INC.
DB 8119 PG 1199
MB 1998 PG 1391

54 x 16 x 3

70 x 15 x 3

30 x 15 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
5 ft. weir

50 x 10 x 3
4' weir

35 x 12 x 3
4' weir

15 x 7 x 3
4' weir

25 x 8 x 3
4' weir

Modified Silt Basin
Type 'B'
20 x 15 x 3
(See Tiered Skimmer
Basin Detail)

20 x 15 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
5 ft. weir
(See Tiered Skimmer
Basin Detail)

20 x 10 x 3
2 inch Skimmer
with 1.5 inch
Orifice Diameter
4 ft. weir

LEGEND
PAVED SHOULDER

- NOTES:
- ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 - ALL RADIAT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

-Y9-
PI Sta 27+56.01
Δ = 1' 52" 01.5" (RT)
D = 1' 00" 00.0"
L = 186.71'
T = 93.36'
R = 5729.58'
SE = 0.02 FT/FT

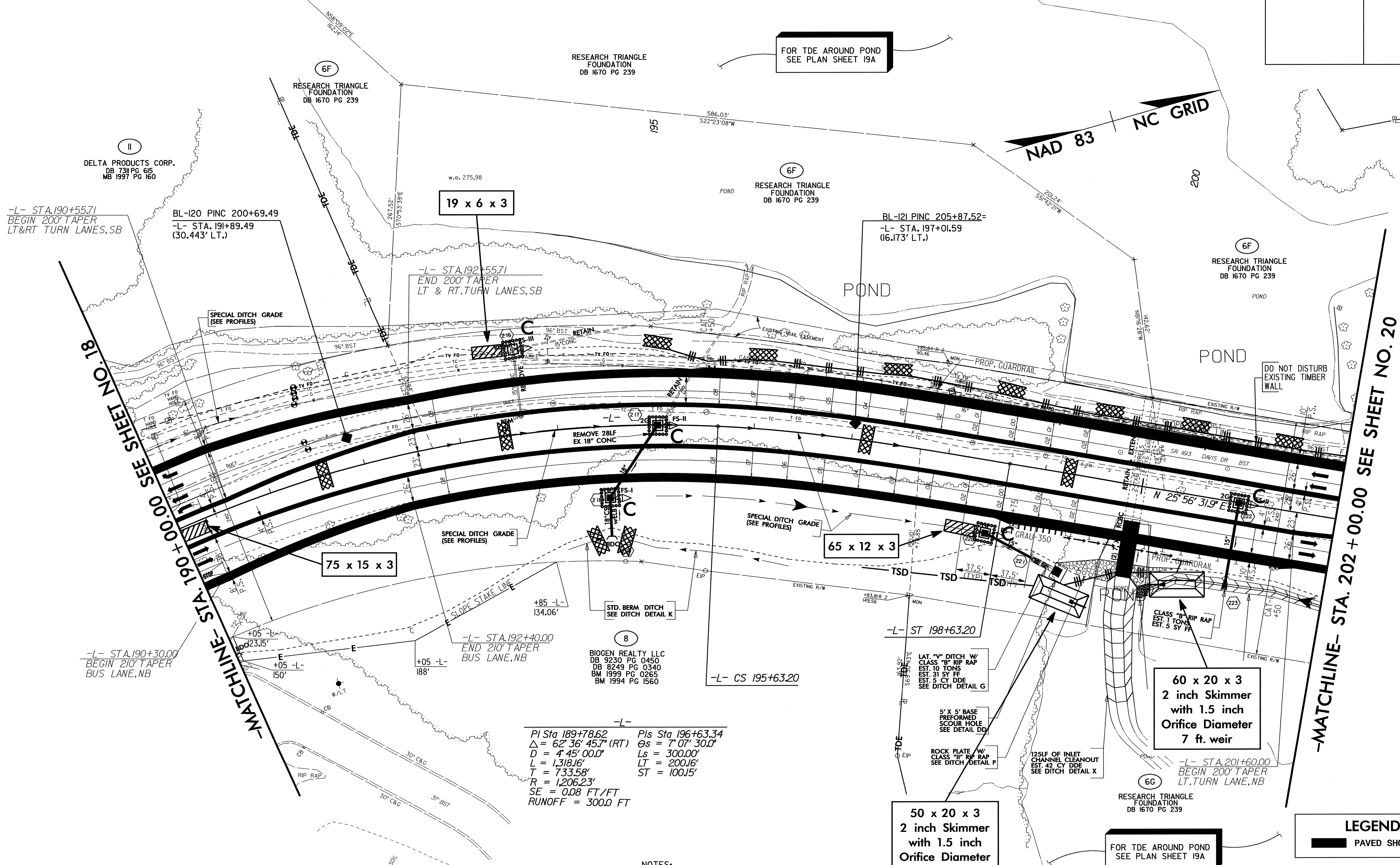
-L-
PI Sta 165+33.95
Δ = 14' 40" 45.6" (LT)
D = 2' 00" 00.0"
L = 733.97'
T = 369.00'
R = 2864.79'
SE = 0.05 FT/FT
RUNOFF = 240.0 FT

SPEC LAT. "V" DITCH W/
CLASS "B" RIP RAP
EST. 69 TONS
EST. 194 SY FF
SEE DITCH DETAIL C

8
BIOGEN REALTY LLC
DB 8249 PG 340
DB 6317 PG 83
MB 1999 PG 264
MB 1994 PG 1560

FOR DITCH DETAILS, SEE SHEETS 2-H& 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-K
FOR TRAIL PLANS, SEE SHEETS 2-O THRU 2-P
FOR ROCK INLET SILL DETAIL, SEE SHEET 2-DD
FOR -L- PROFILE, SEE SHEET 44
FOR -Y9- PROFILE, SEE SHEET 54

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-59/CONST.19
U-4026B	R/W SHEET NO. 14
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L-
Pls Sta 189+78.62 Pls Sta 196+63.34
 $\Delta = 62^{\circ} 36' 45.7''$ (RT) $\Theta s = 7^{\circ} 07' 30.0''$
 $D = 4' 45' 00.0''$ $Ls = 300.00'$
 $L = 1,318.16'$ $LT = 200.16'$
 $T = 733.58'$ $ST = 100.15'$
 $R = 1,206.23'$
 $SE = 0.08$ FT/FT
RUNOFF = 300.0 FT

- NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 2. ALL RADIAT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR -L- PROFILE, SEE SHEET 45
FOR CULVERT PLANS, SEE CULVERT SHEETS C- -- - C- --

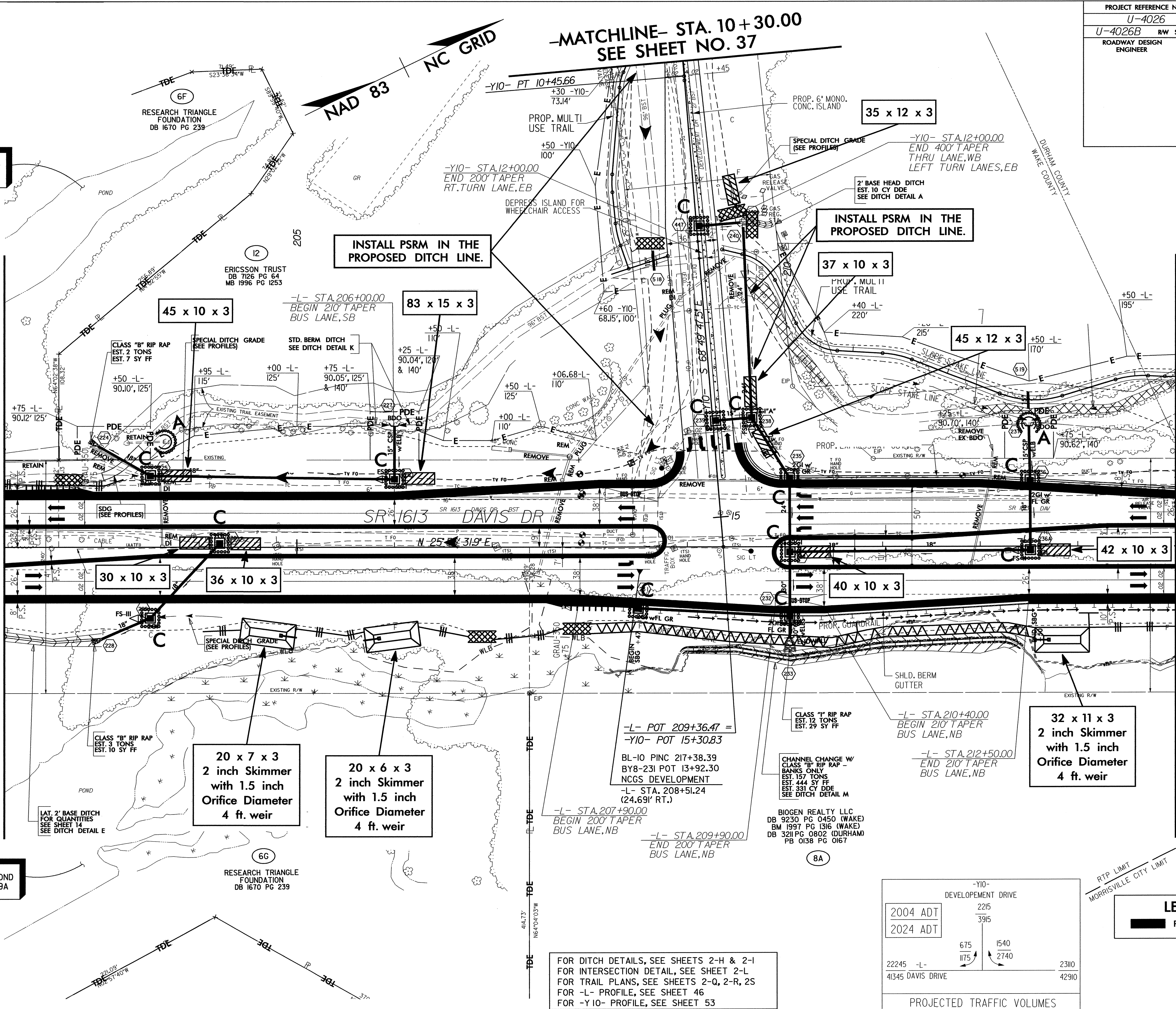
LEGEND
PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-60/CONST.20
U-4026B RW	SHEET NO. 15
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FOR TDE AROUND POND
SEE PLAN SHEET 19A

-MATCHLINE- STA. 202 + 00.00 SEE SHEET NO.19

FOR TDE AROUND POND
SEE PLAN SHEET 19A



-MATCHLINE- STA. 214 + 00.00 SEE SHEET NO.21

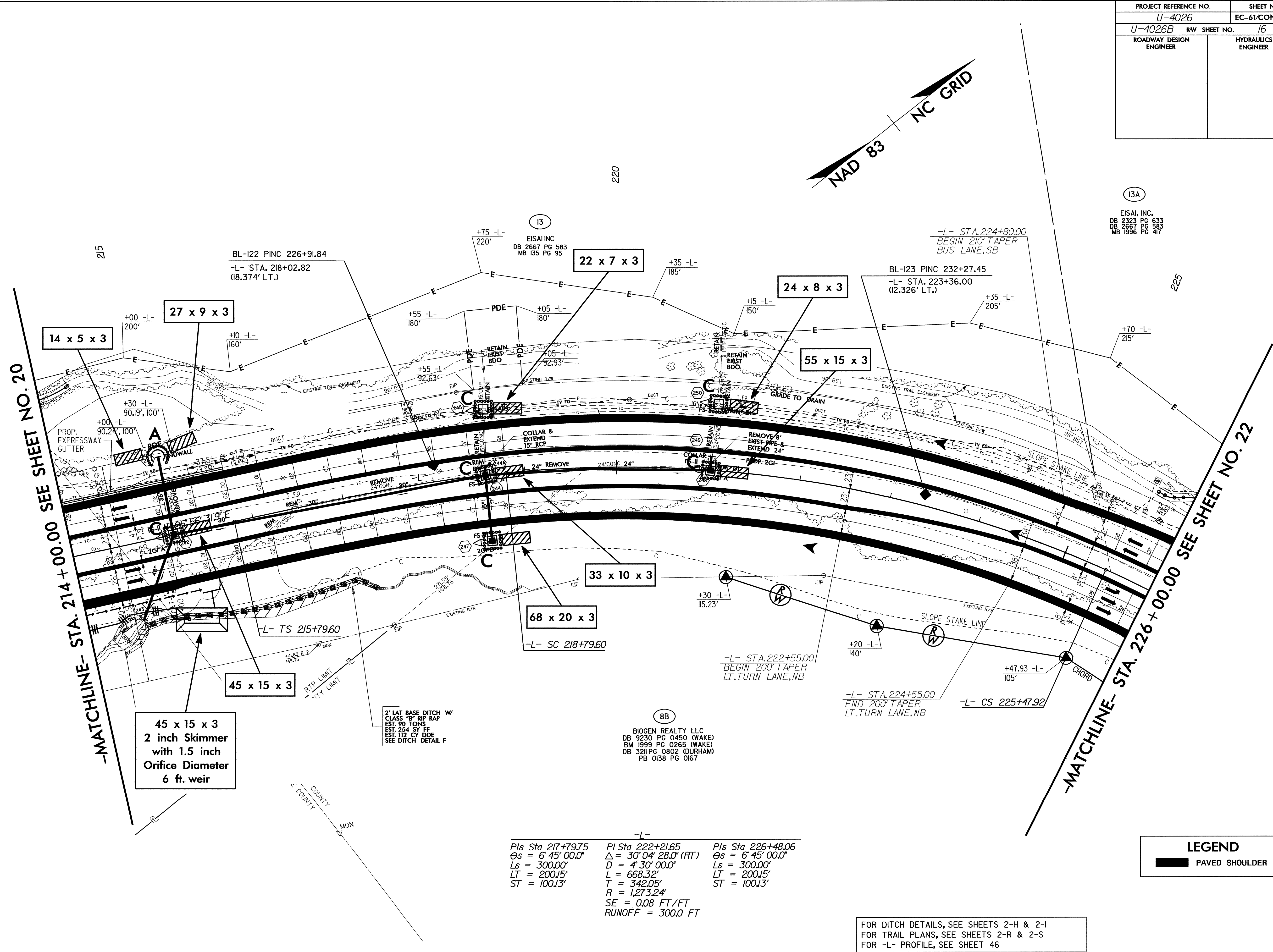
-MATCHLINE- STA. 10 + 30.00
SEE SHEET NO. 37

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-L
FOR TRAIL PLANS, SEE SHEETS 2-Q, 2-R, 2S
FOR -L- PROFILE, SEE SHEET 46
FOR -Y10- PROFILE, SEE SHEET 53

-Y10- DEVELOPMENT DRIVE			
2004 ADT	2215		
2024 ADT	3915		
	675	1540	
	1175	2740	
22245 -L-			23110
41345 DAVIS DRIVE			42910
PROJECTED TRAFFIC VOLUMES			

LEGEND
PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-61/CONST.21
U-4026B R/W	SHEET NO. 16
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



13A
EISAI, INC.
DB 2323 PG 633
DB 2667 PG 583
MB 1996 PG 417

8B
BIOGEN REALTY LLC
DB 9230 PG 0450 (WAKE)
BM 1999 PG 0265 (WAKE)
DB 3211 PG 0802 (DURHAM)
PB 0138 PG 0167

-L-	-L-	-L-
Pls Sta 217+79.75	Pl Sta 222+21.65	Pls Sta 226+48.06
Os = 6' 45' 00.0"	Δ = 30' 04' 28.0" (RT)	Os = 6' 45' 00.0"
Ls = 300.00'	D = 4' 30' 00.0"	Ls = 300.00'
LT = 200.15'	L = 668.32'	LT = 200.15'
ST = 100.13'	T = 342.05'	ST = 100.13'
	R = 1,273.24'	
	SE = 0.08 FT/FT	
	RUNOFF = 300.0 FT	

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR TRAIL PLANS, SEE SHEETS 2-R & 2-S
FOR -L- PROFILE, SEE SHEET 46

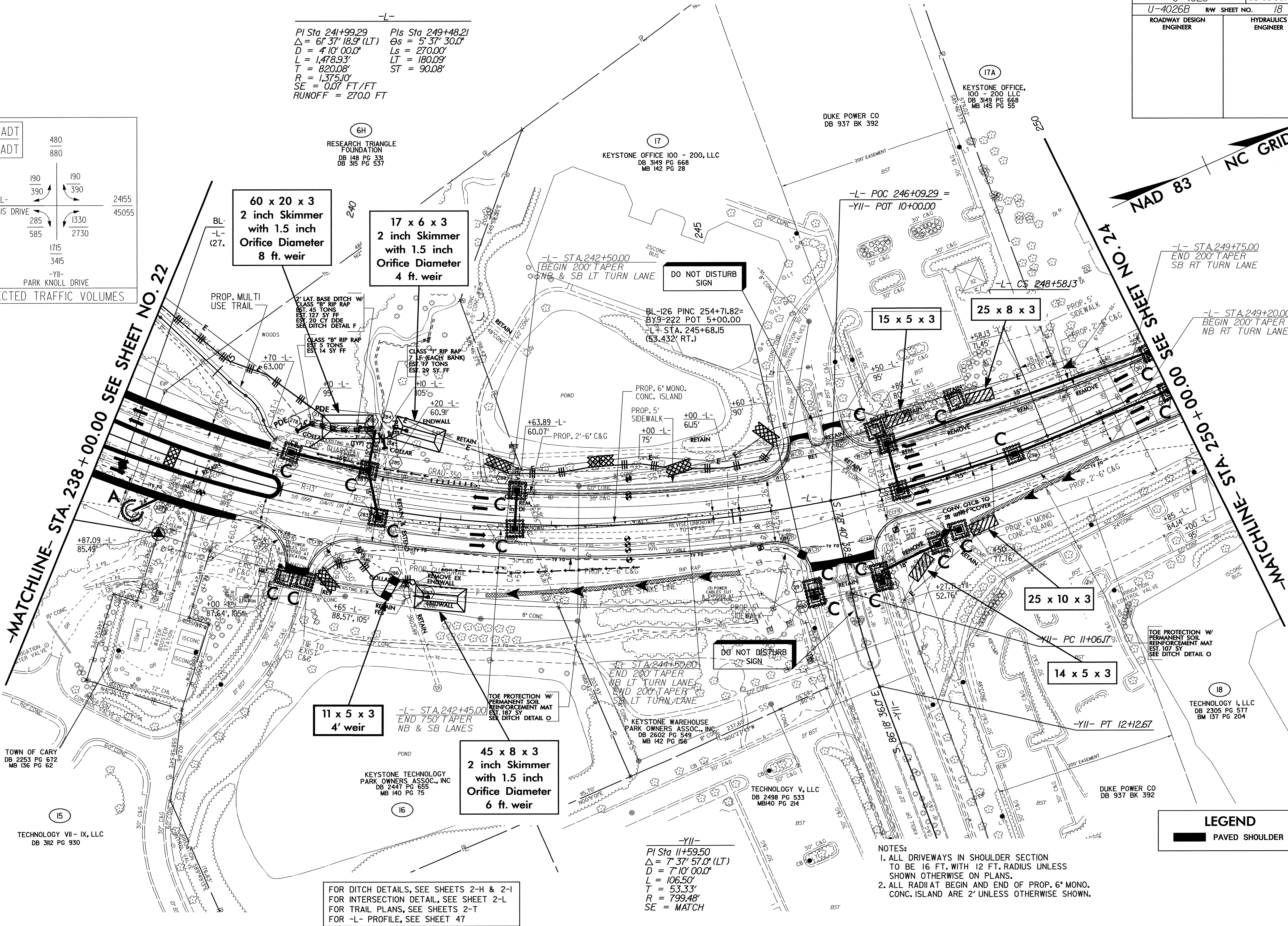
LEGEND
PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-63/CONST.23
U-4026B	RW SHEET NO. 18
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

2004 ADT	2024 ADT
480	880
190	190
390	390
2310	24155
42910	45055
285	1330
585	2730
1715	3415
-YII-	PARK KNOLL DRIVE
PROJECTED TRAFFIC VOLUMES	

Pls Sta 241+99.29
 $\Delta = 61.37' 18.9" (LT)$
 $D = 410' 00.0"$
 $L = 1,478.93'$
 $T = 820.08'$
 $R = 1,375.10'$
 $SE = 0.07' FT/FT$
 $RUNOFF = 270.0' FT$

Pls Sta 249+48.21
 $\Delta = 5' 37' 30.0"$
 $Os = 270.00'$
 $LT = 180.09'$
 $ST = 90.08'$



LEGEND
PAVED SHOULDER

- NOTES:
- ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
 - ALL RADIAT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-L
FOR TRAIL PLANS, SEE SHEETS 2-T
FOR -L- PROFILE, SEE SHEET 47

-YII-
Pls Sta 11+59.50
 $\Delta = 7' 37' 57.0" (LT)$
 $D = 710' 00.0"$
 $L = 106.50'$
 $T = 53.33'$
 $R = 799.48'$
 $SE = MATCH$

PROJECT REFERENCE NO.		SHEET NO.
U-4026		EC-64/CONST.24
U-4026B	RW SHEET NO.	19
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

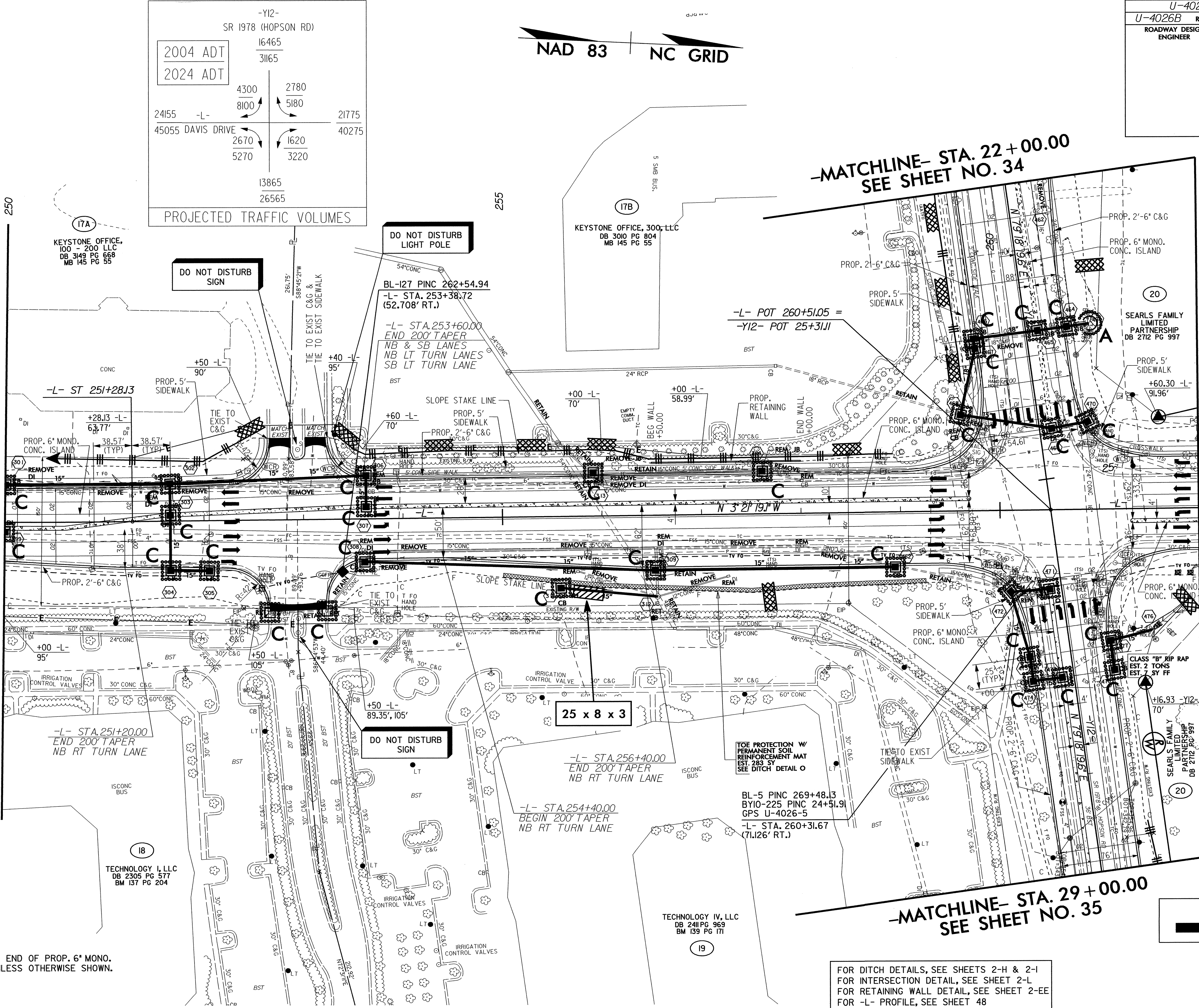
-MATCHLINE- STA. 250 + 00.00 SEE SHEET NO. 23

-MATCHLINE- STA. 262 + 00.00 SEE SHEET NO. 25

NOTES:
1. ALL RADII AT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-L
FOR RETAINING WALL DETAIL, SEE SHEET 2-EE
FOR -L- PROFILE, SEE SHEET 48
FOR -Y12- PROFILE, SEE SHEET 56

LEGEND
PAVED SHOULDER



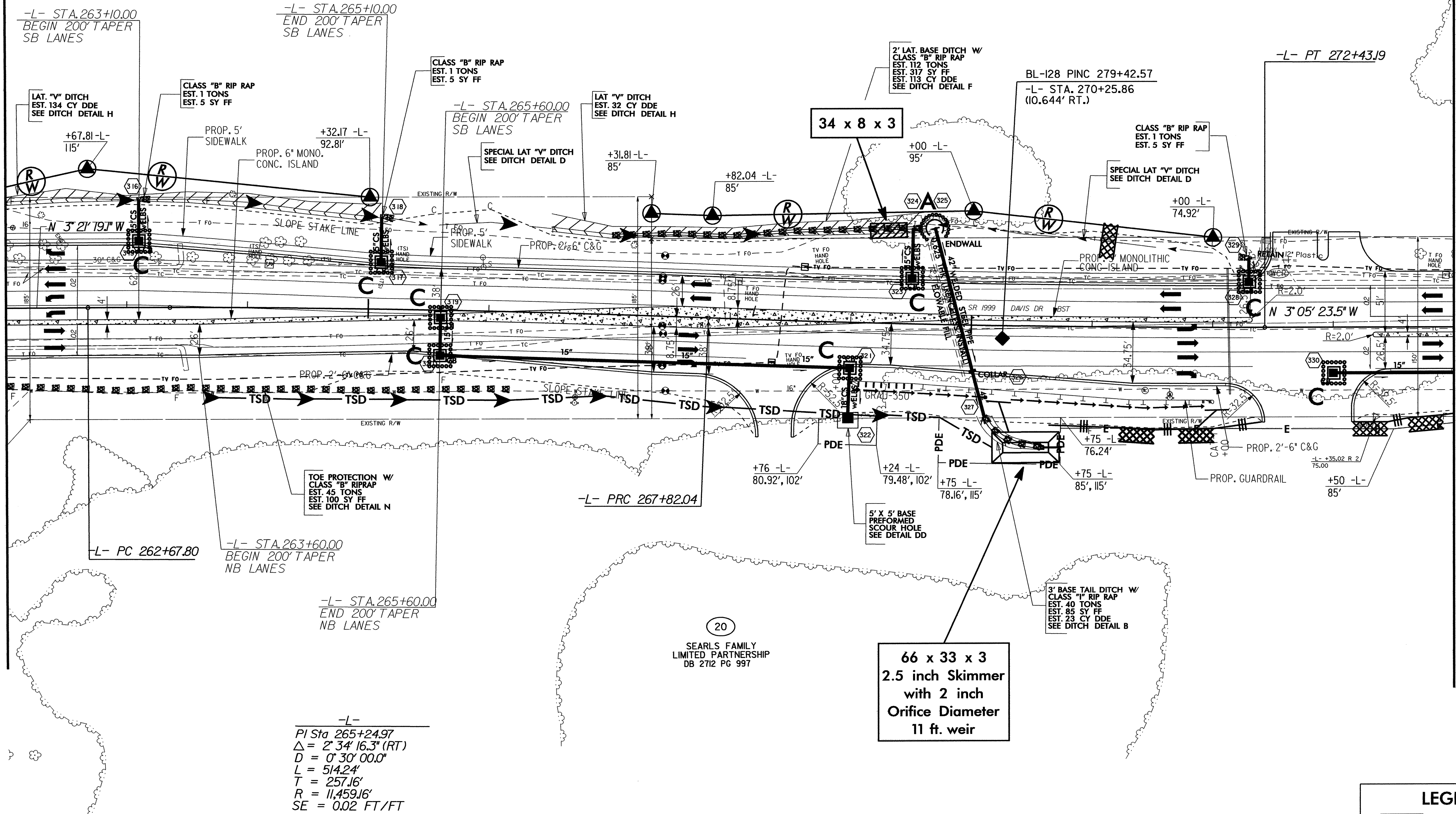
PROJECT REFERENCE NO.		SHEET NO.
U-4026		EC-65/CONST.25
U-4026B	R/W SHEET NO.	20
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

NAD 83 | NC GRID

-L-
PI Sta 270+12.65
 $\Delta = 2' 18" 20.7" (LT)$
 $D = 0' 30' 00.0"$
 $L = 461.15'$
 $T = 230.61'$
 $R = 11,459.16'$
 $SE = 0.02 \text{ FT/FT}$

-MATCHLINE- STA. 262 + 00.00 SEE SHEET NO. 24

-MATCHLINE- STA. 274 + 00.00 SEE SHEET NO. 26



NOTES:
1. ALL RADII AT BEGIN AND END OF PROP. 6' MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR -L- PROFILE, SEE SHEET 48

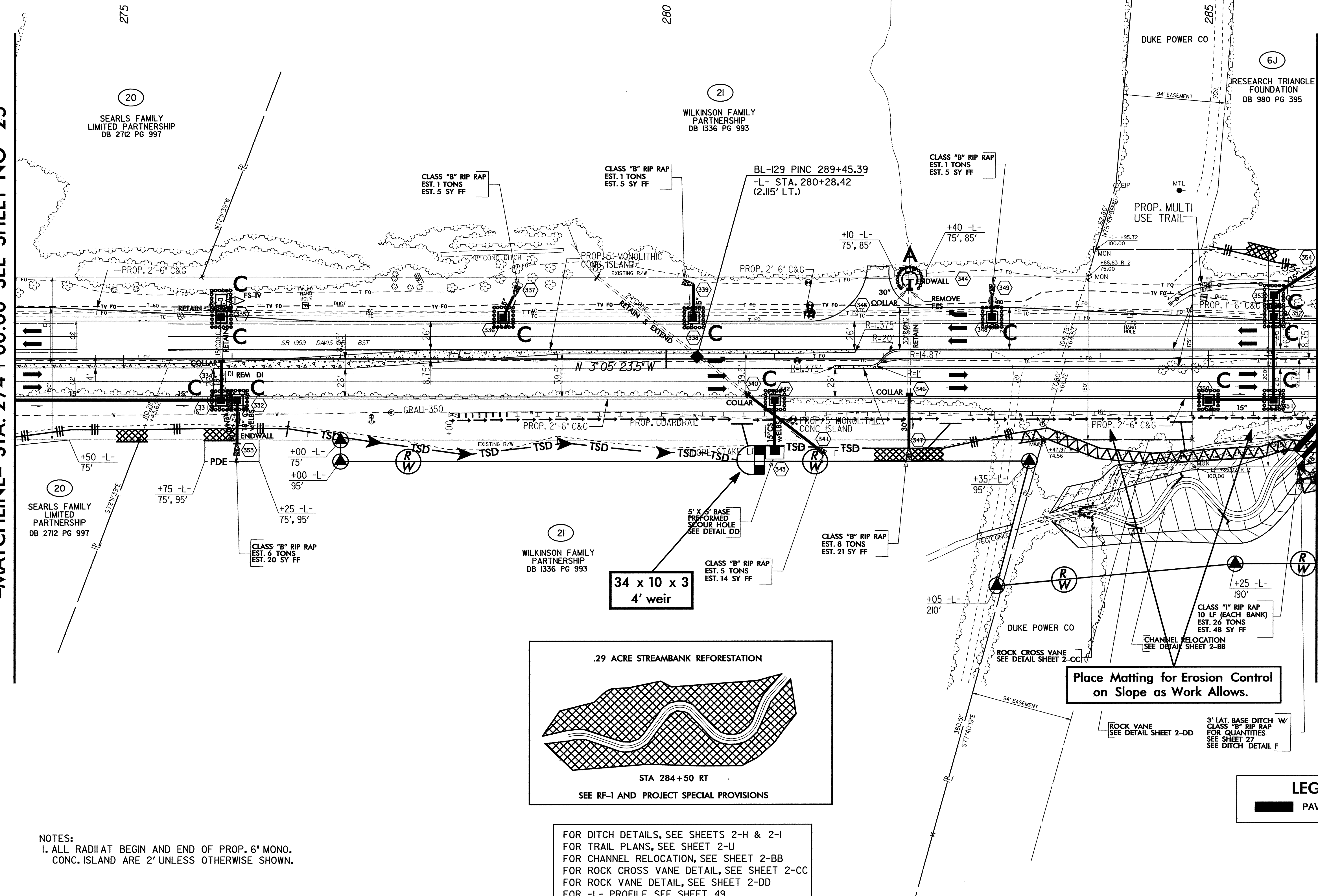
LEGEND
PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-66/CONST.26
U-4026B RW SHEET NO.	21
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

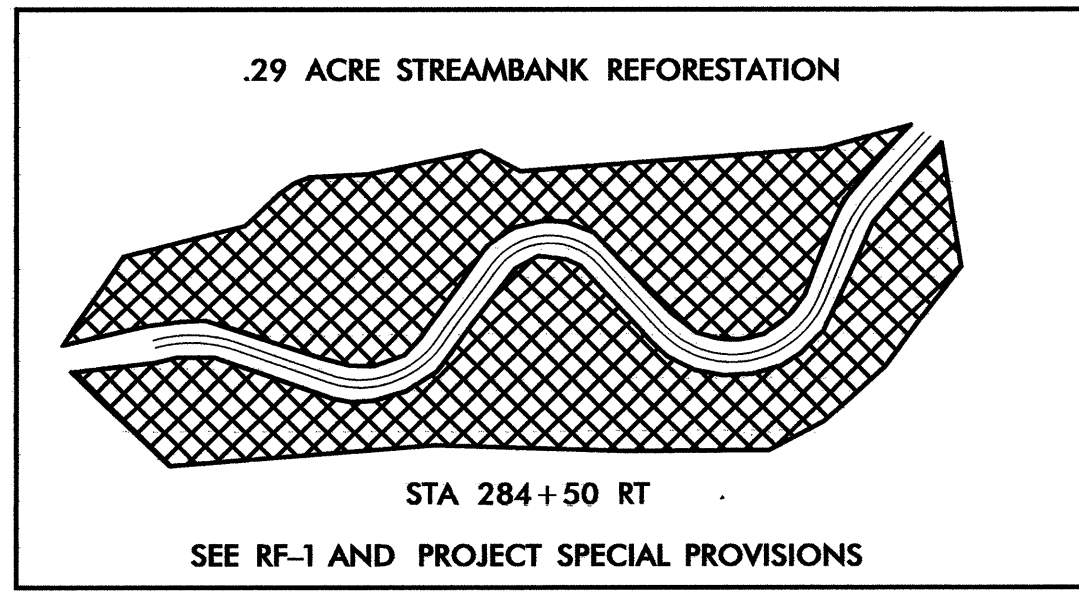
NAD 83 | NC GRID

-MATCHLINE- STA. 274 + 00.00 SEE SHEET NO. 25

-MATCHLINE- STA. 286 + 00.00 SEE SHEET NO. 27



NOTES:
1. ALL RADII AT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.



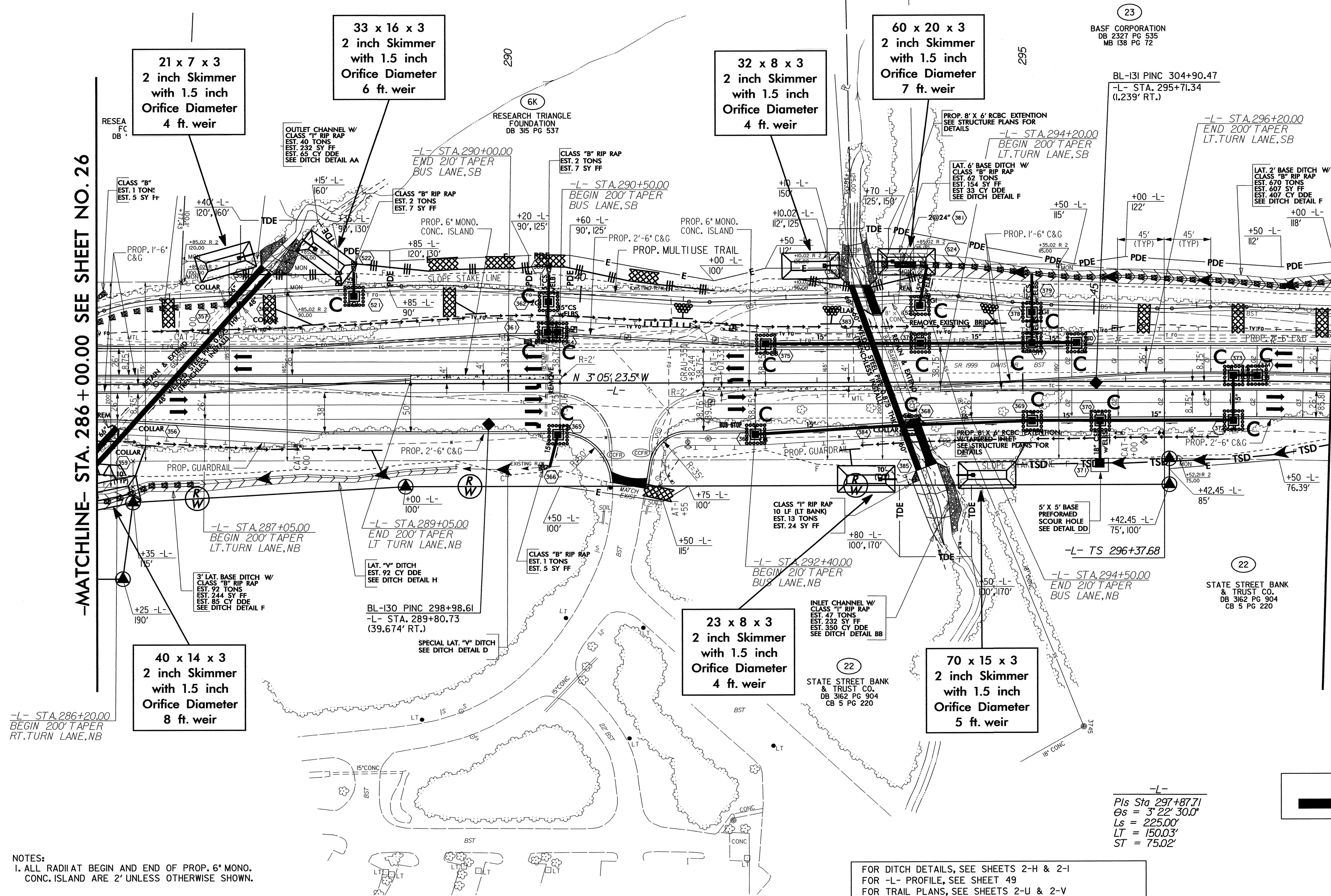
FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR TRAIL PLANS, SEE SHEET 2-U
FOR CHANNEL RELOCATION, SEE SHEET 2-BB
FOR ROCK CROSS VANE DETAIL, SEE SHEET 2-CC
FOR ROCK VANE DETAIL, SEE SHEET 2-DD
FOR -L- PROFILE, SEE SHEET 49

Place Matting for Erosion Control on Slope as Work Allows.

LEGEND
PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-67/CONST.27
U-4026B R/W SHEET NO.	22
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

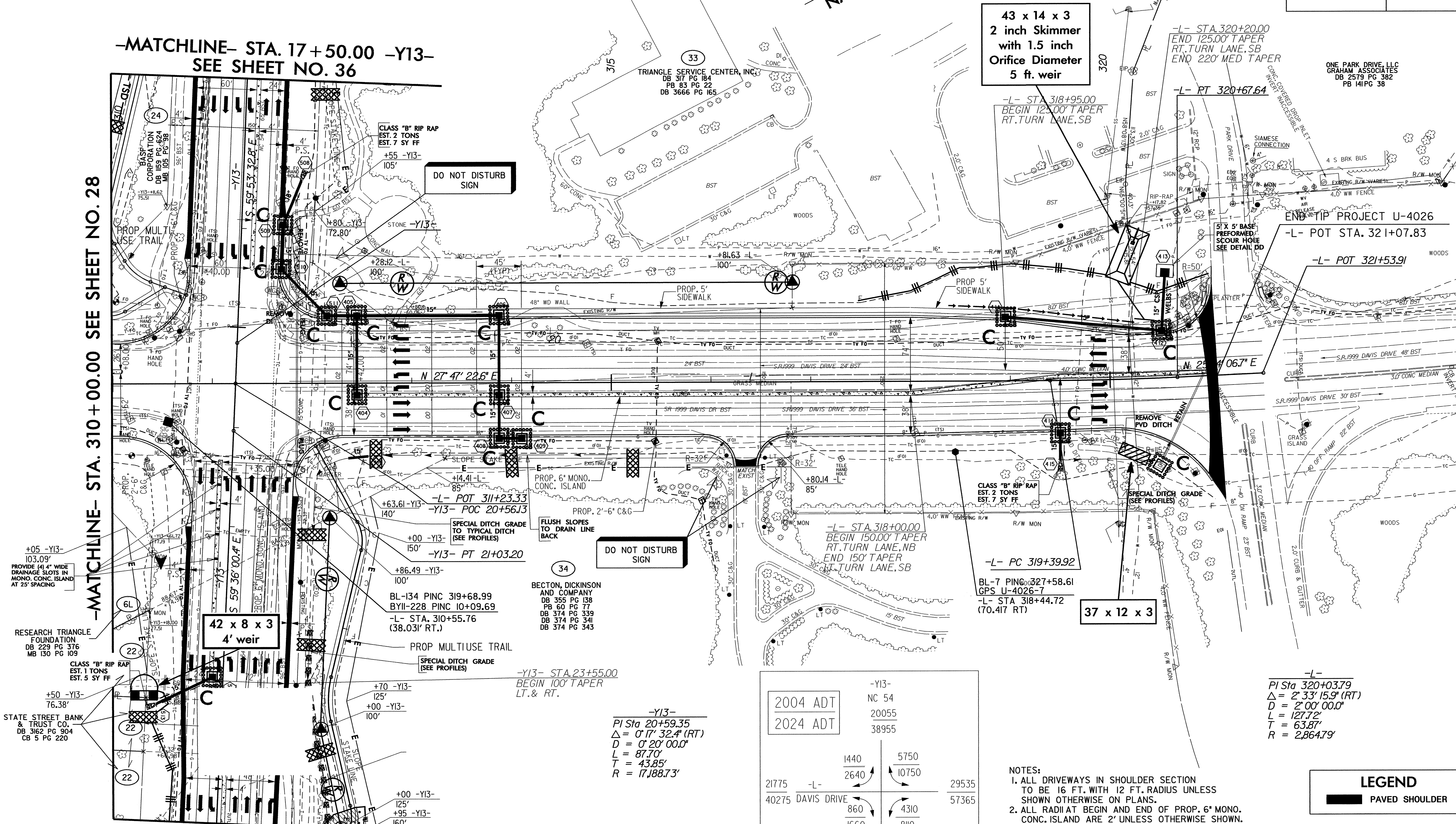
NAD 83 NC GRID



-MATCHLINE- STA. 286+00.00 SEE SHEET NO. 26

-MATCHLINE- STA. 298+00.00 SEE SHEET NO. 28

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-69/CONST.29
U-4026B R/W	SHEET NO. 24
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



2004 ADT	-Y13-
2024 ADT	NC 54
	20055
	38955
21775	1440
40275	2640
	5750
	10750
	860
	4310
	1660
	8110
	18305
	35335

NOTES:

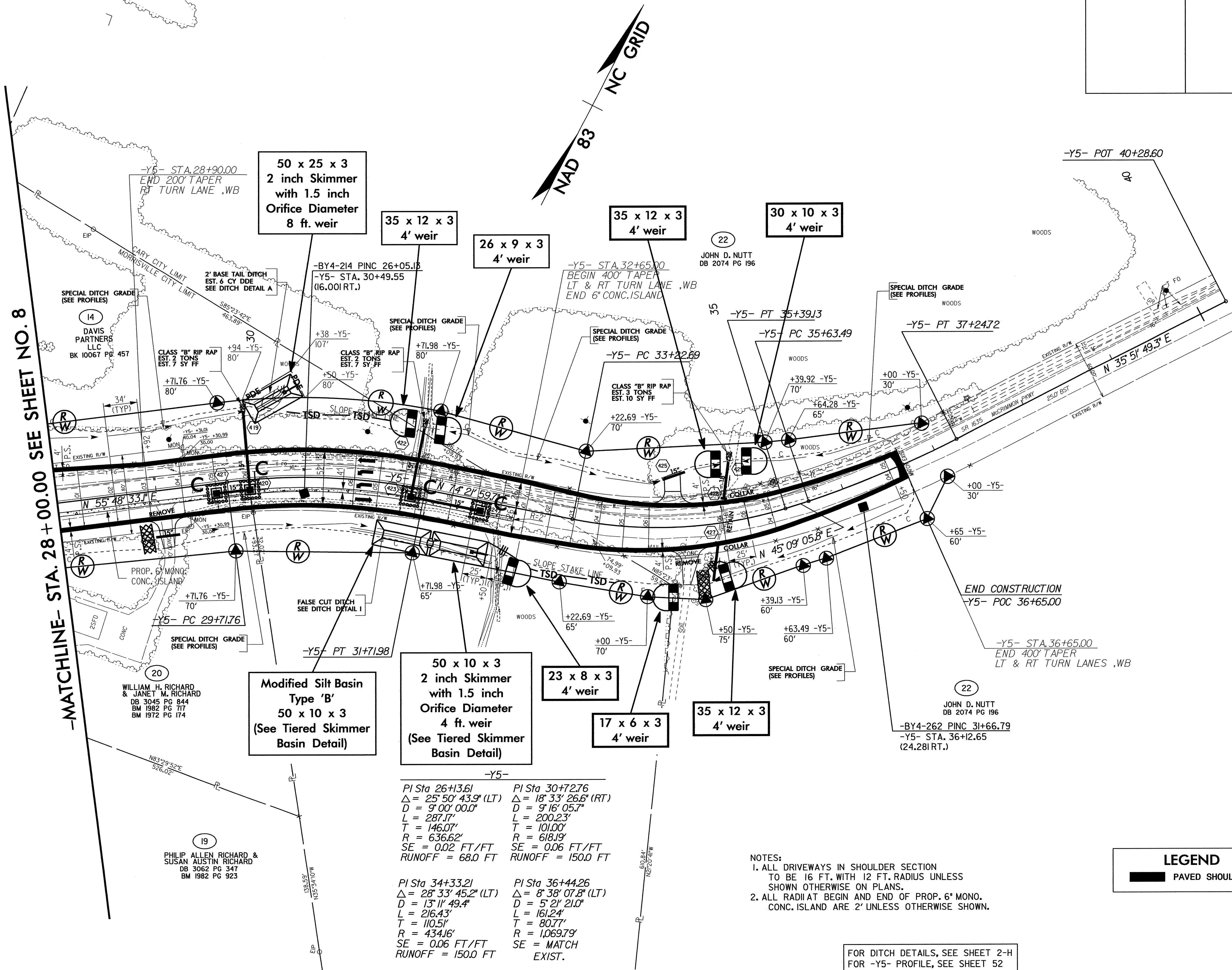
- ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
- ALL RADIAT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
 FOR INTERSECTION DETAIL, SEE SHEET 2-M
 FOR C&G TRANSITION SECTION, SEE SHEET 2-N
 FOR -L- PROFILE, SEE SHEET 50
 FOR -Y13- PROFILE, SEE SHEET 57
 FOR TRAIL PLANS SEE 2-W & 2-X

LEGEND
 PAVED SHOULDER

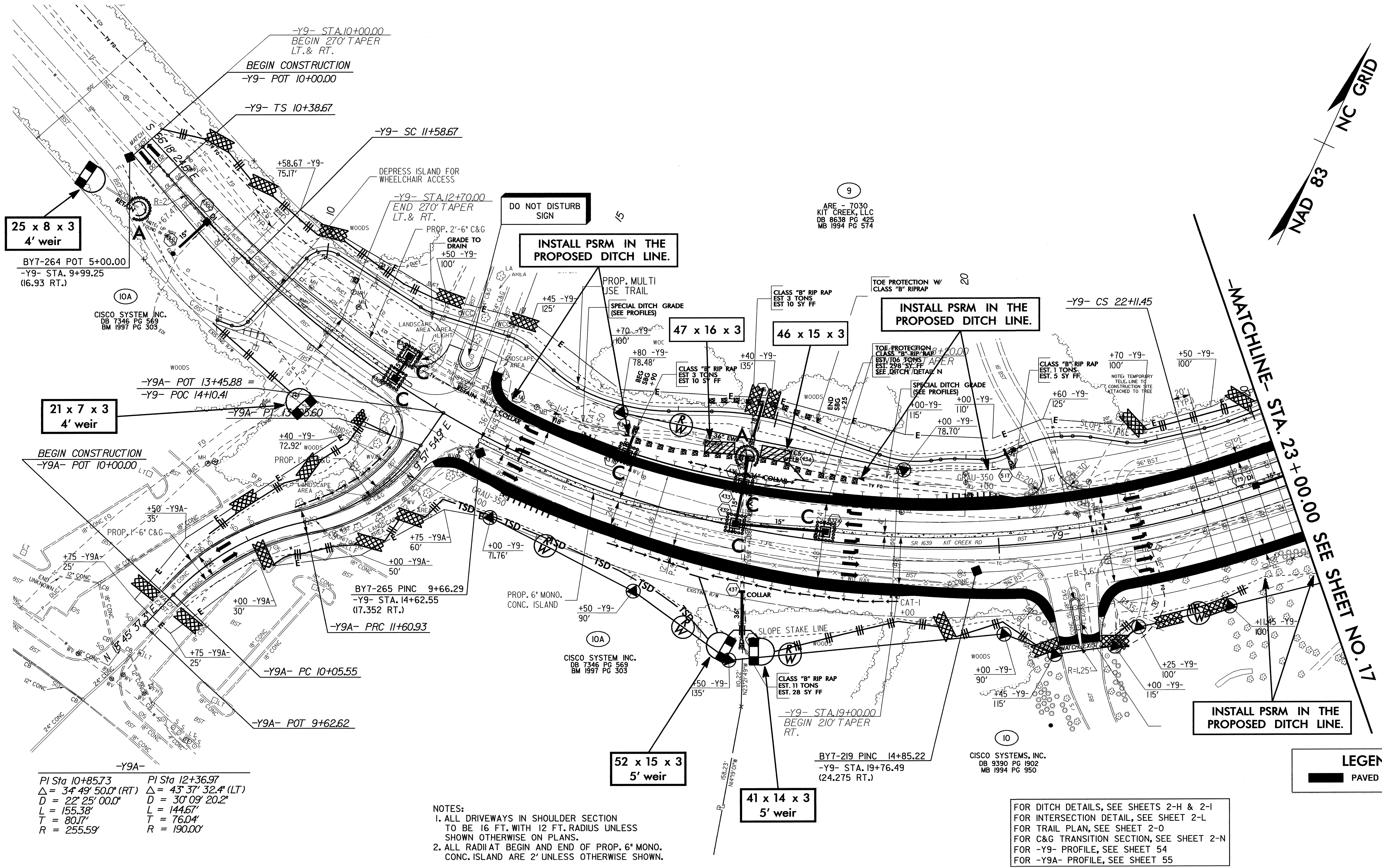
TOWN OF CARY TO HANDLE ALL
RIGHT OF WAY CLAIMS THIS SHEET

PROJECT REFERENCE NO.		SHEET NO.	
U-4026		EC-71/CONST.31	
U-4026A	R/W	SHEET NO.	12
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-72/CONST.32
U-4026B RW	SHEET NO. 25
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y9-
Pls Sta 11+8.69 PI Sta 17+40.19 Pls Sta 22+51.46
Os = 3° 27' 00.0" Δ = 60° 32' 05.6" (LT) Os = 3° 27' 00.0"
Ls = 120.00' D = 5° 45' 00.0" Ls = 120.00'
LT = 80.02' L = 1,052.78' LT = 80.02'
ST = 40.01' T = 581.52' ST = 40.01'
R = 996.45'
SE = 0.06 FT/FT
RUNOFF = 120.0 FT



NAD 83
NC GRID

MACHINE- STA. 23+00.00 SEE SHEET NO. 17

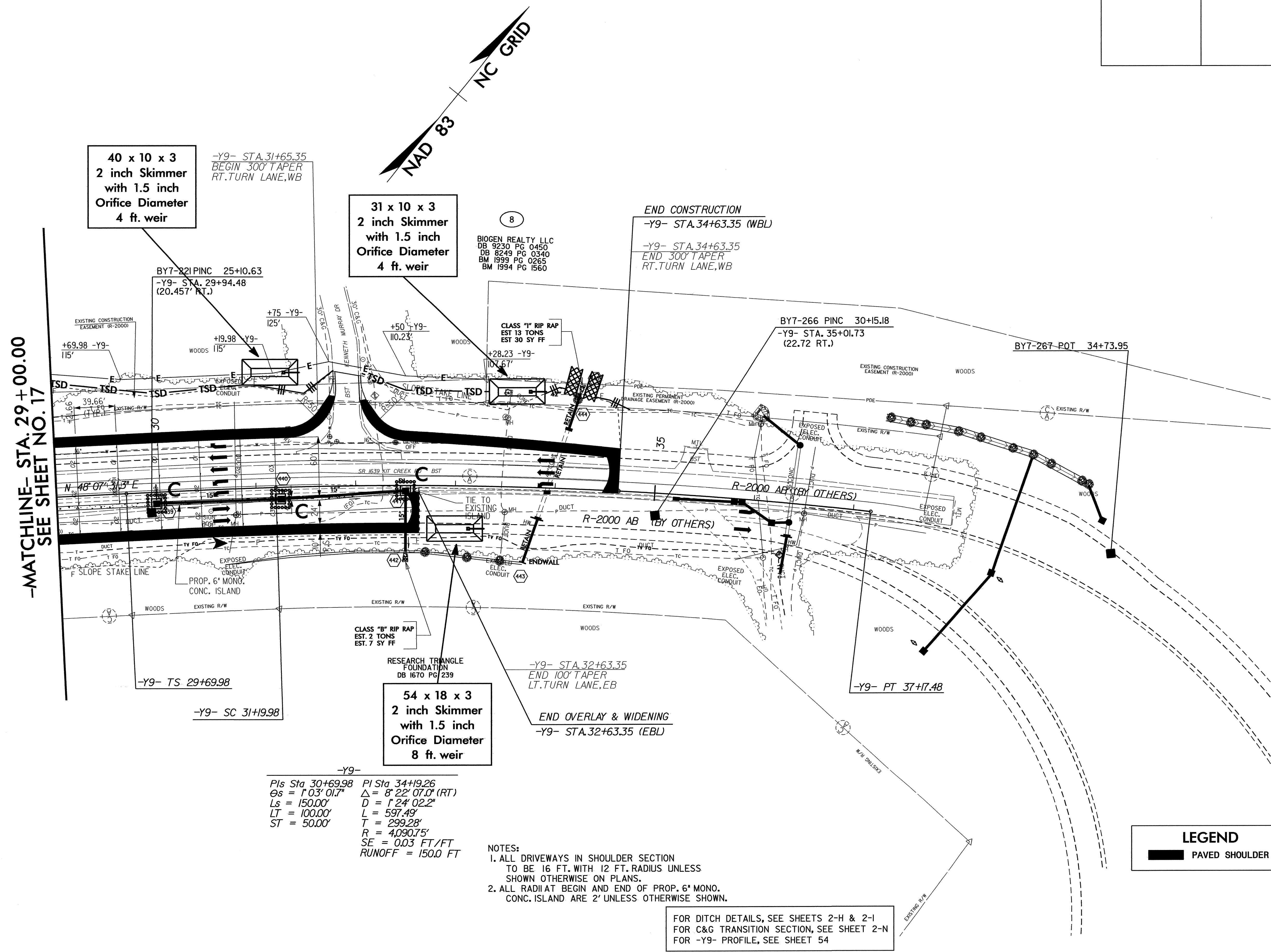
LEGEND
PAVED SHOULDER

-Y9A-
PI Sta 10+85.73 PI Sta 12+36.97
Δ = 34° 49' 50.0" (RT) Δ = 43° 37' 32.4" (LT)
D = 22° 25' 00.0" D = 30° 09' 20.2"
L = 155.38' L = 144.67'
T = 80.77' T = 76.04'
R = 255.59' R = 190.00'

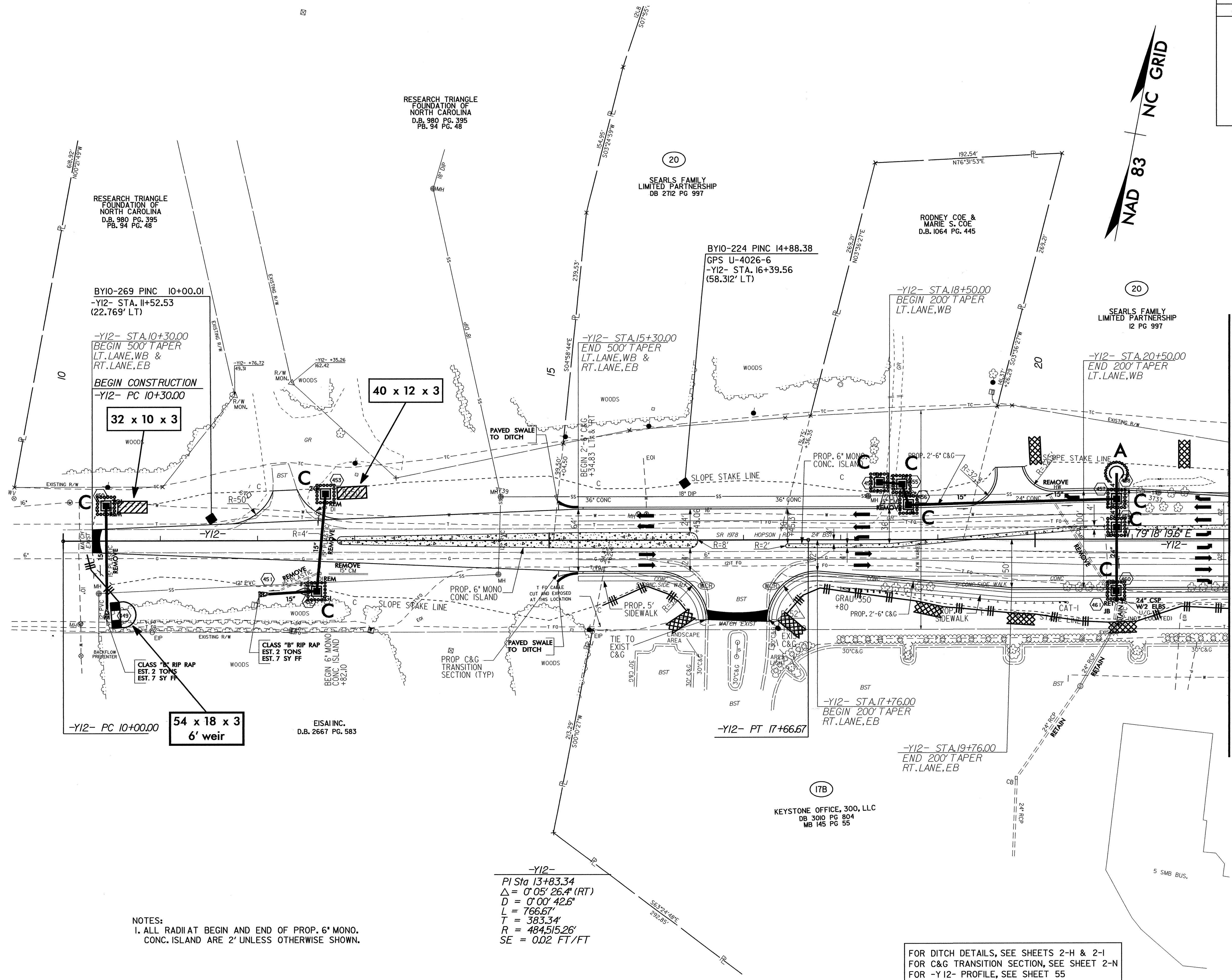
NOTES:
1. ALL DRIVEWAYS IN SHOULDER SECTION TO BE 16 FT. WITH 12 FT. RADIUS UNLESS SHOWN OTHERWISE ON PLANS.
2. ALL RADIAT BEGIN AND END OF PROP. 6" MONO. CONC. ISLAND ARE 2' UNLESS OTHERWISE SHOWN.

FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR INTERSECTION DETAIL, SEE SHEET 2-L
FOR TRAIL PLAN, SEE SHEET 2-0
FOR C&G TRANSITION SECTION, SEE SHEET 2-N
FOR -Y9- PROFILE, SEE SHEET 54
FOR -Y9A- PROFILE, SEE SHEET 55

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-73/CONST.33
U-4026B	R/W SHEET NO. 26
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROJECT REFERENCE NO.		SHEET NO.
U-4026		EC-74/CONST.34
U-4026B	R/W SHEET NO.	27
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

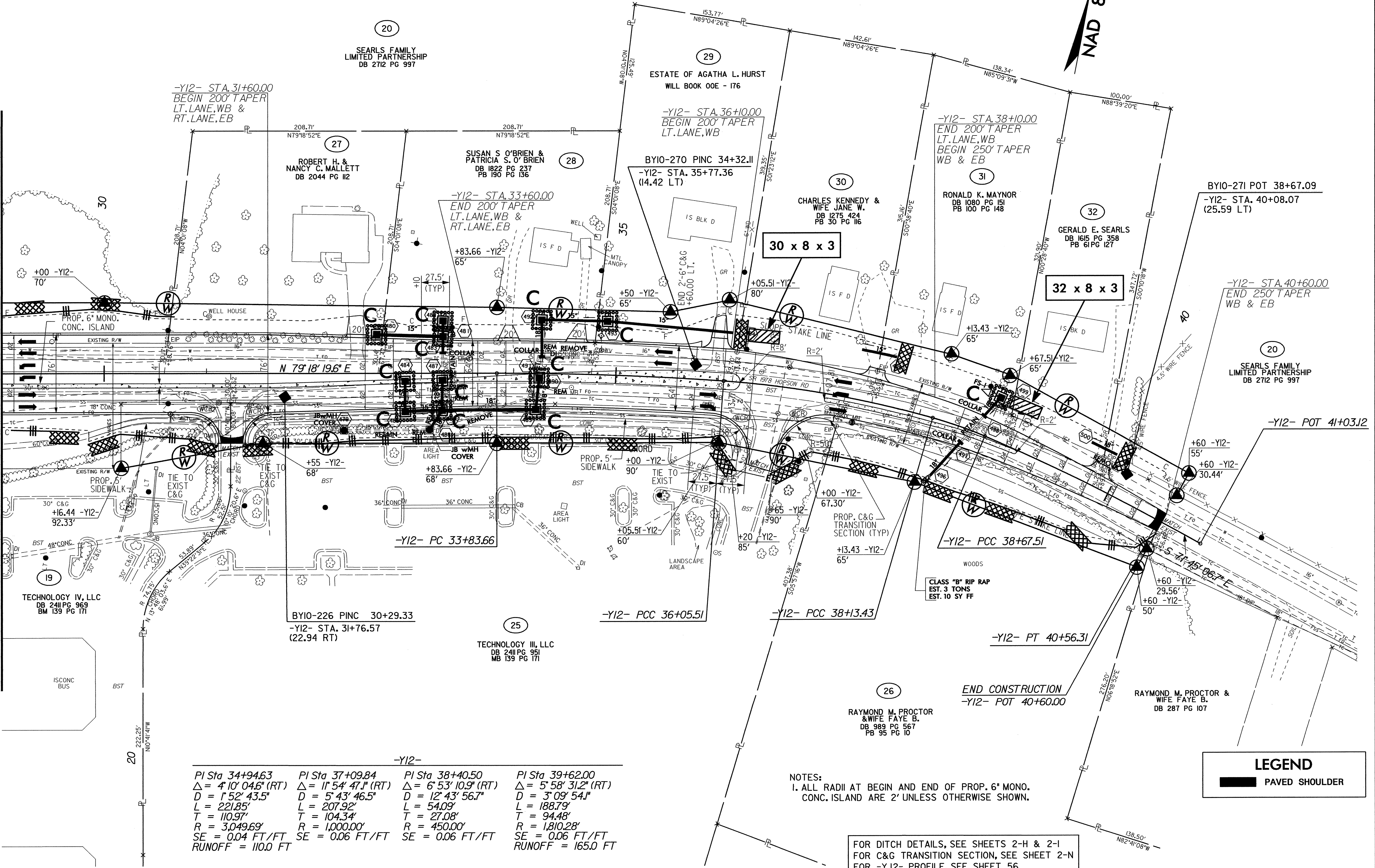


-MATCHLINE- STA. 22 + 00.00 SEE SHEET NO. 24

LEGEND	
	PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-75/CONST.35
U-4026B RW SHEET NO.	28
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-MATCHLINE- STA. 29 + 00.00 SEE SHEET NO. 24



PI Sta 34+94.63	PI Sta 37+09.84	PI Sta 38+40.50	PI Sta 39+62.00
$\Delta = 4' 10' 04.6''$ (RT)	$\Delta = 1' 54' 47.1''$ (RT)	$\Delta = 6' 53' 10.9''$ (RT)	$\Delta = 5' 58' 31.2''$ (RT)
$D = 1' 52' 43.5''$	$D = 5' 43' 46.5''$	$D = 12' 43' 56.7''$	$D = 3' 09' 54.1''$
$L = 221.85'$	$L = 207.92'$	$L = 54.09'$	$L = 188.79'$
$T = 110.97'$	$T = 104.34'$	$T = 27.08'$	$T = 94.48'$
$R = 3,049.69'$	$R = 1,000.00'$	$R = 450.00'$	$R = 1,810.28'$
$SE = 0.04$ FT/FT	$SE = 0.06$ FT/FT	$SE = 0.06$ FT/FT	$SE = 0.06$ FT/FT
$RUNOFF = 110.0$ FT			$RUNOFF = 165.0$ FT

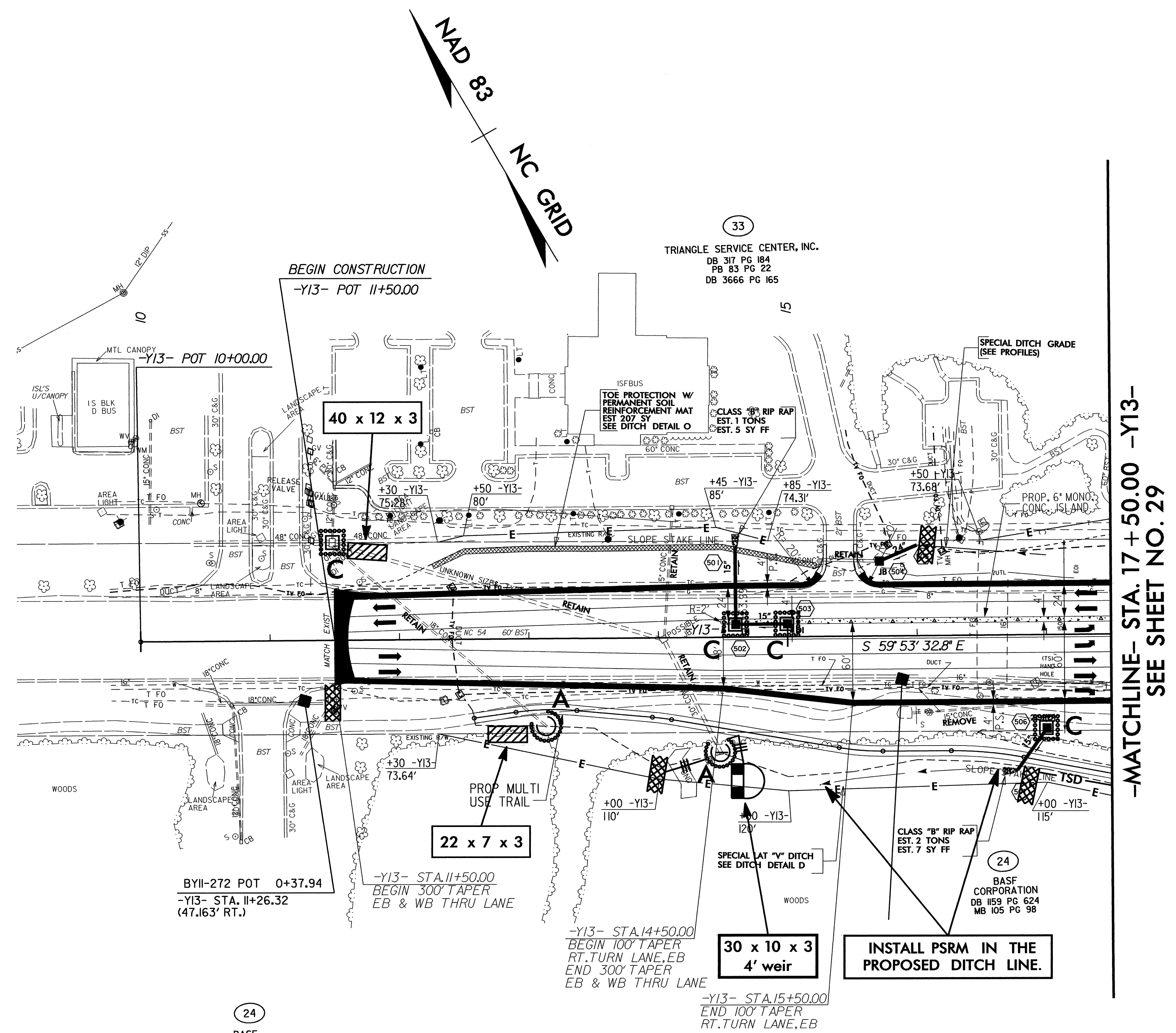
LEGEND
 PAVED SHOULDER

PROJECT REFERENCE NO.	SHEET NO.
U-4026	EC-76/CONST.36
U-4026B R/W SHEET NO.	29
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

34
BECTON, DICKINSON
AND COMPANY
DB 355 PG 138
PB 60 PG 77
DB 374 PG 339
DB 374 PG 341
DB 374 PG 343

22
STATE STREET BANK
& TRUST CO.
DB 3162 PG 904
CB 5 PG 220

LEGEND
PAVED SHOULDER

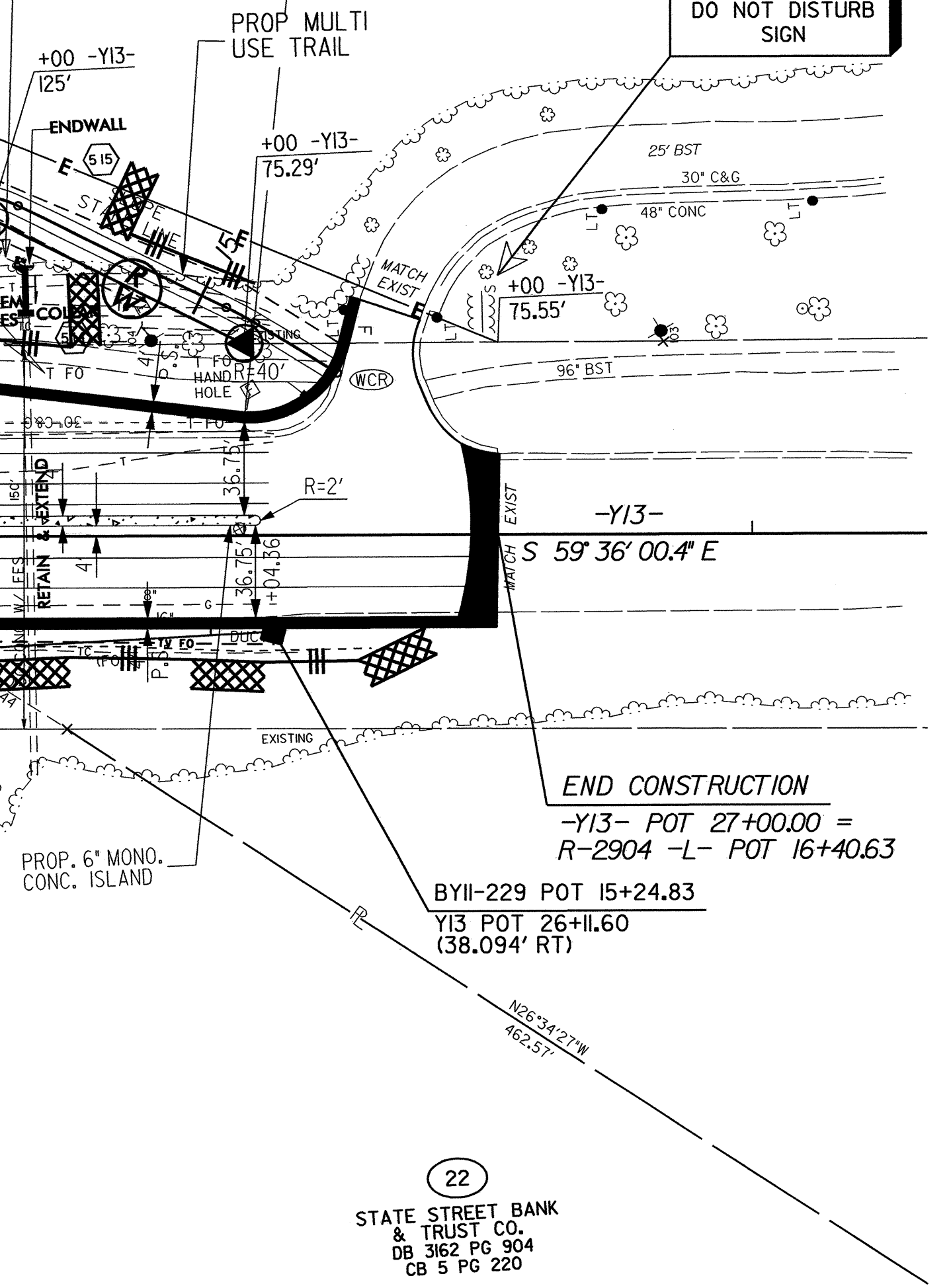


-Y13- STA. 25+00.00
BEGIN 100' TAPER
RT. TURN LANE, WB

-Y13- STA. 26+00.00
END 100' TAPER
RT. TURN LANE, WB

SPECIAL LAT "V" DITCH
W/CLASS "B" RIP RAP
FOR QUANTITIES
SEE SHEET 24
SEE DITCH DETAIL C

-MATCHLINE- STA. 25+00.00 -Y13-
SEE SHEET NO. 29



FOR DITCH DETAILS, SEE SHEETS 2-H & 2-I
FOR C&G TRANSITION, SEE SHEET 2-N
FOR TRAIL PLANS, SEE SHEETS 2-W & 2-X
FOR -Y13- PROFILE, SEE SHEET 57

