

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4002	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

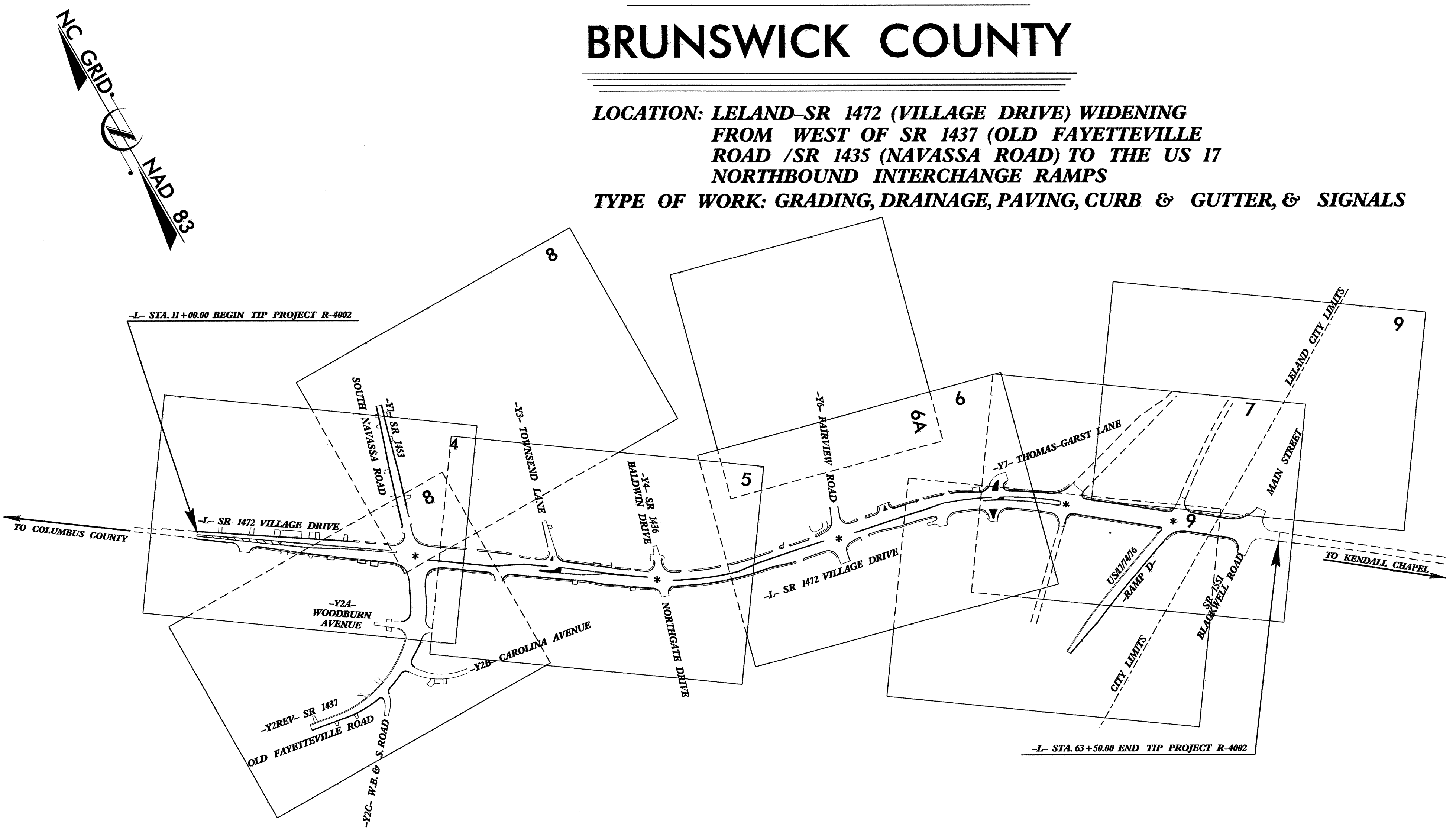
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
BRUNSWICK COUNTY

**LOCATION: LELAND-SR 1472 (VILLAGE DRIVE) WIDENING
 FROM WEST OF SR 1437 (OLD FAYETTEVILLE
 ROAD /SR 1435 (NAVASSA ROAD) TO THE US 17
 NORTHBOUND INTERCHANGE RAMP**
TYPE OF WORK: GRADING, DRAINAGE, PAVING, CURB & GUTTER, & SIGNALS

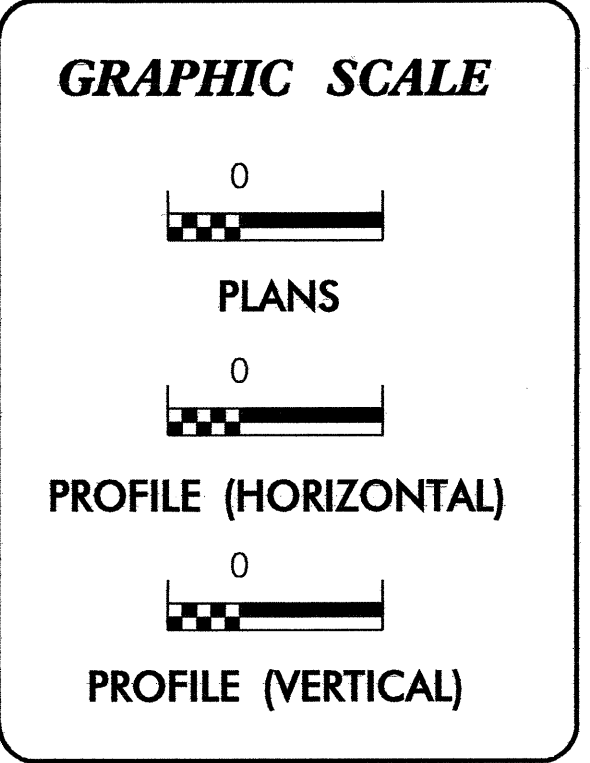
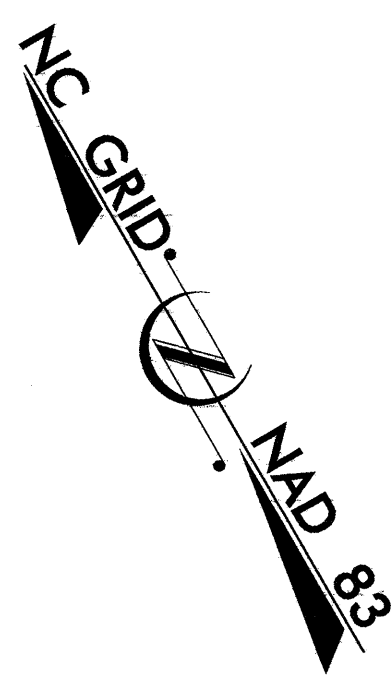
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch.....	TD
1630.05	Temporary Diversion.....	TD
1605.01	Temporary Silt Fence.....	III III III
1606.01	Special Sediment Control Fence.....	III III III
1622.01	Temporary Berms and Slope Drains.....	III III III
1630.01	Riser Basin.....	III III III
	Silt Basin Type B.....	III III III
1633.01	Temporary Rock Silt Check Type-A.....	III III III
	Temporary Rock Silt Check Type-B.....	III III III
	Wattle.....	III III III
1634.01	Temporary Rock Sediment Dam Type-A.....	III III III
1634.02	Temporary Rock Sediment Dam Type-B.....	III III III
1635.01	Rock Pipe Inlet Sediment Trap Type-A.....	III III III
1635.02	Rock Pipe Inlet Sediment Trap Type-B.....	III III III
1630.04	Stilling Basin.....	III III III
1630.06	Special Stilling Basin.....	III III III
	Rock Inlet Sediment Trap:	
1632.01	Type A.....	A
1632.02	Type B.....	B
1632.03	Type C.....	C
	Skimmer Basin.....	III III III
	Tiered Skimmer Basin.....	III III III
	Infiltration Basin.....	III III III

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



TIP PROJECT: R-4002



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

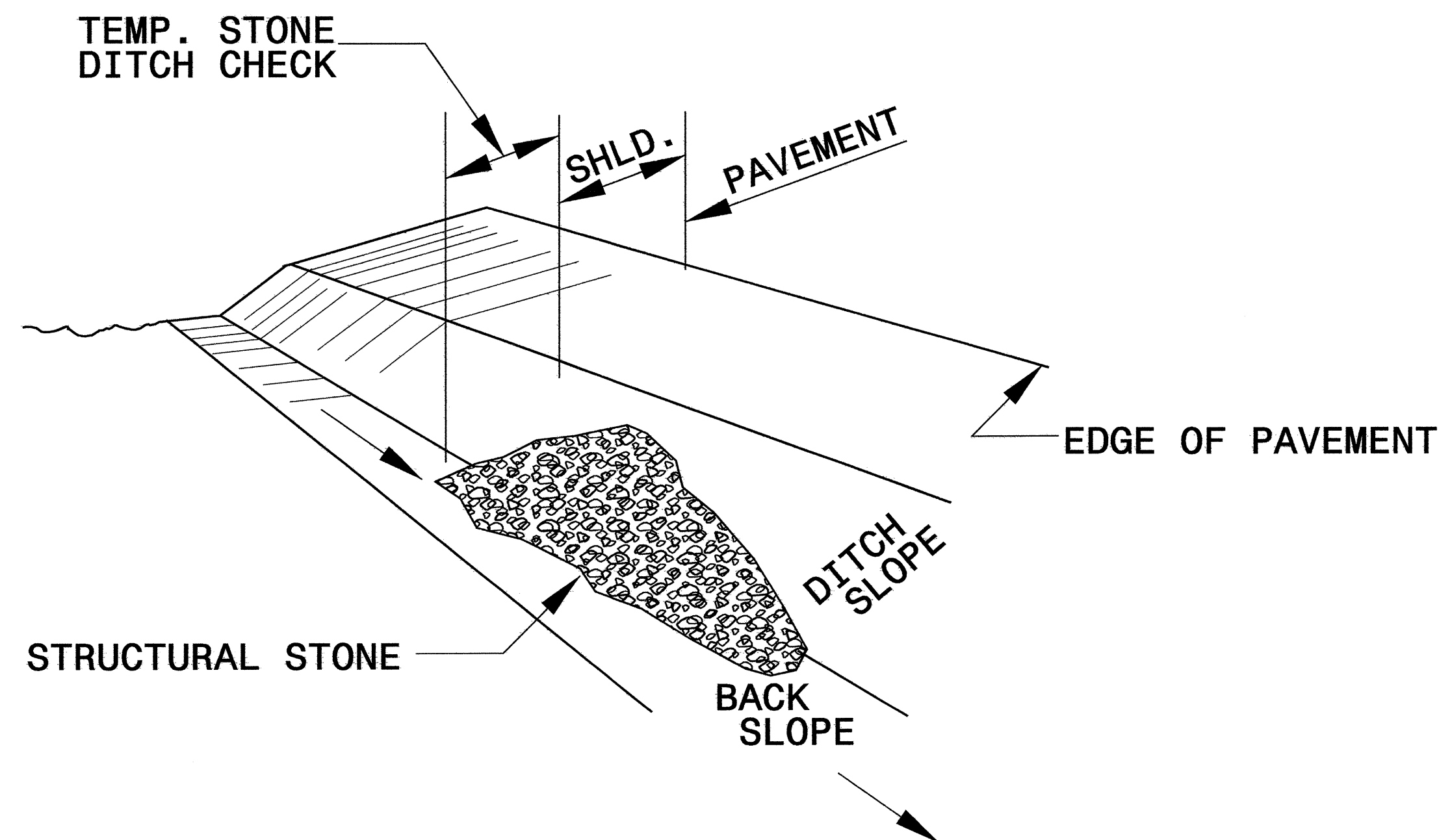
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1607.01 Gravel Construction Entrance	1632.03 Rock Inlet Sediment Trap Type C
1622.01 Temporary Berms and Slope Drains	1633.01 Temporary Rock Silt Check Type A
1630.05 Temporary Diversion	1635.01 Rock Pipe Inlet Sediment Trap Type A
	1635.02 Rock Pipe Inlet Sediment Trap Type B

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PROJECT REFERENCE NO. R-4002	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

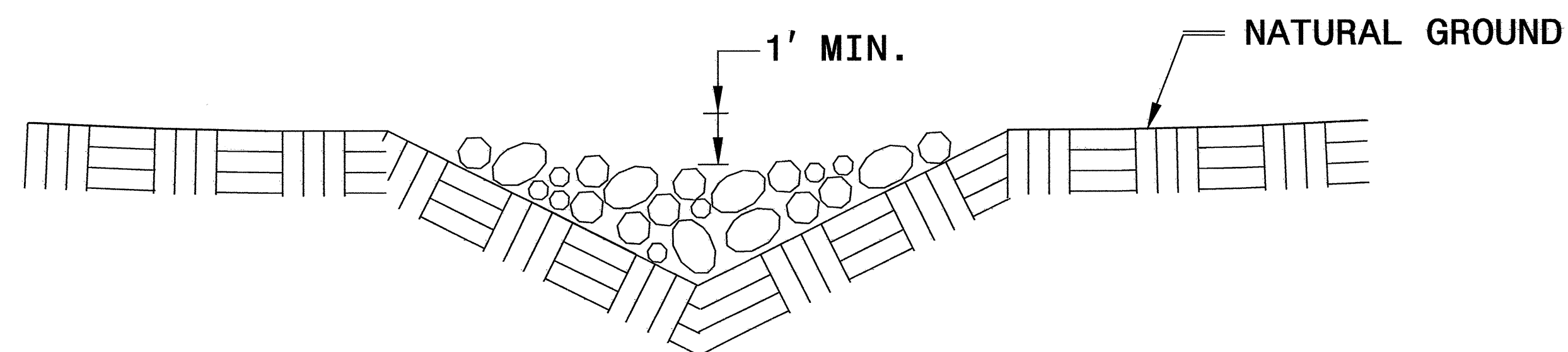


ISOMETRIC VIEW

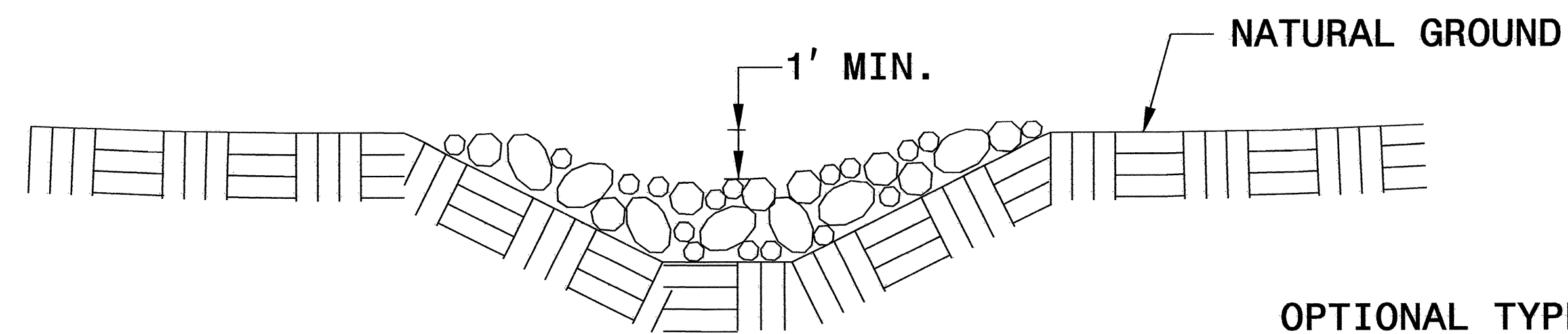
NOTES:

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

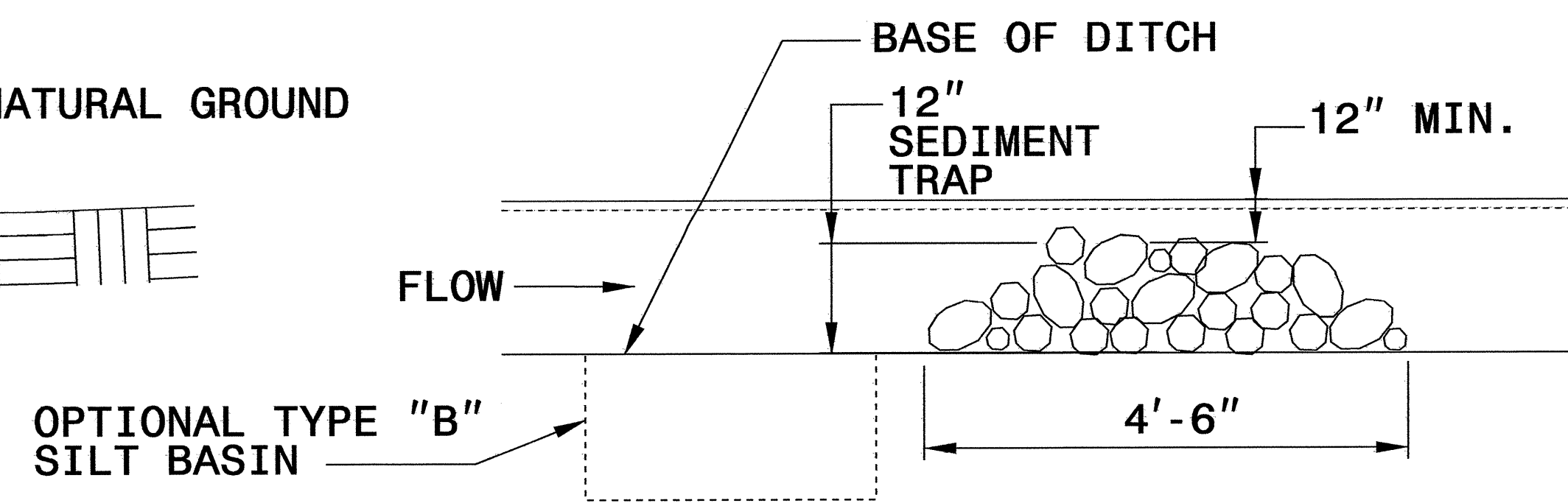
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



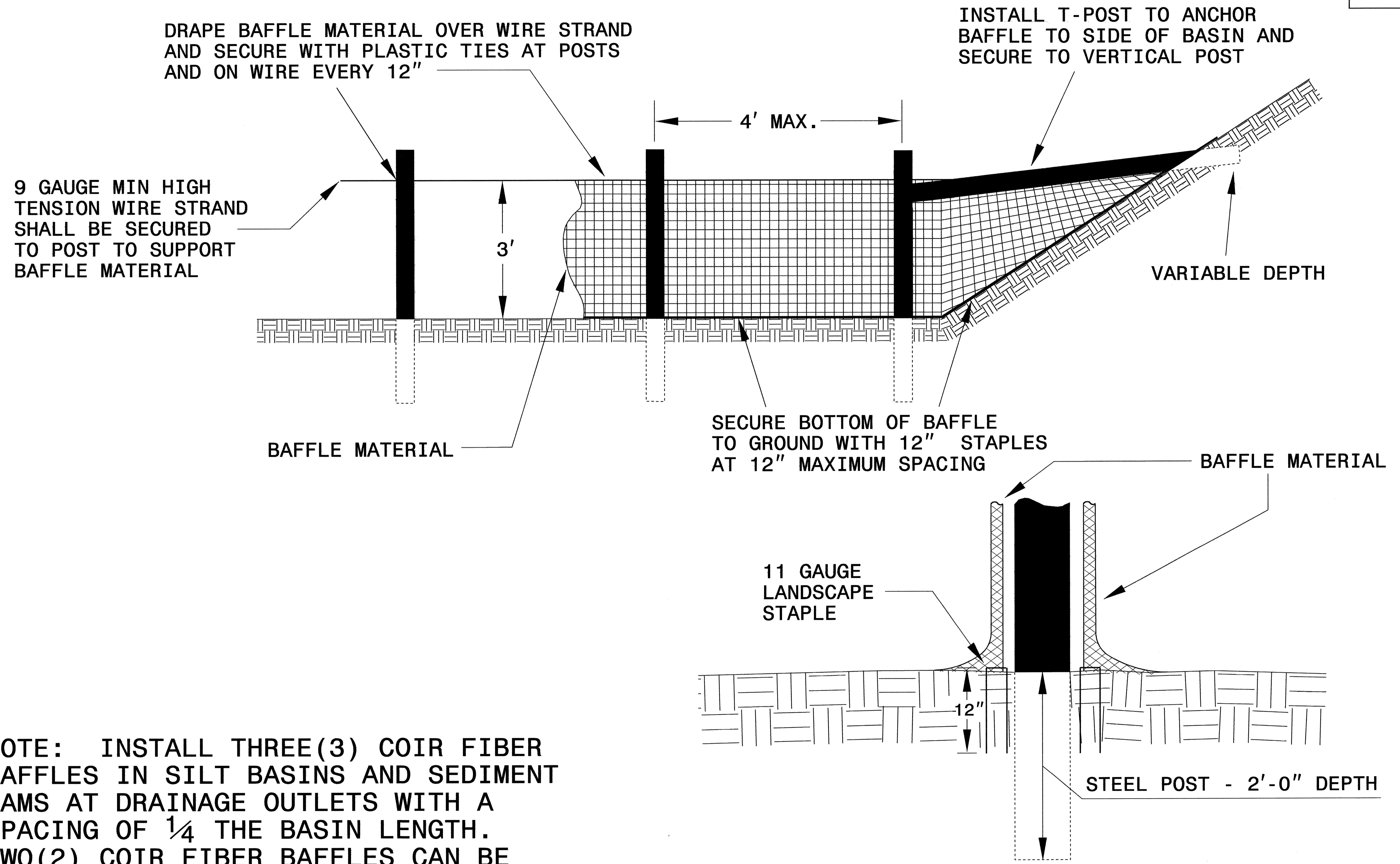
CROSS SECTION TRAPEZOIDAL DITCH



ELEVATION VIEW

PROJECT REFERENCE NO. R-4002	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL

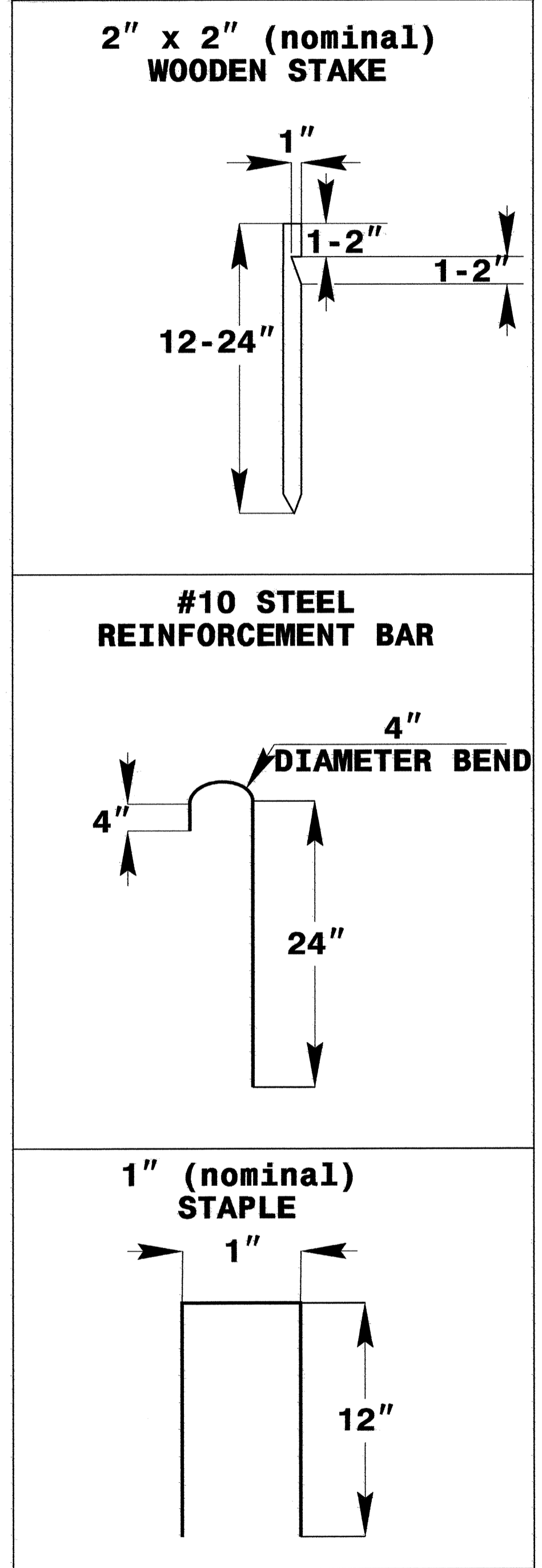
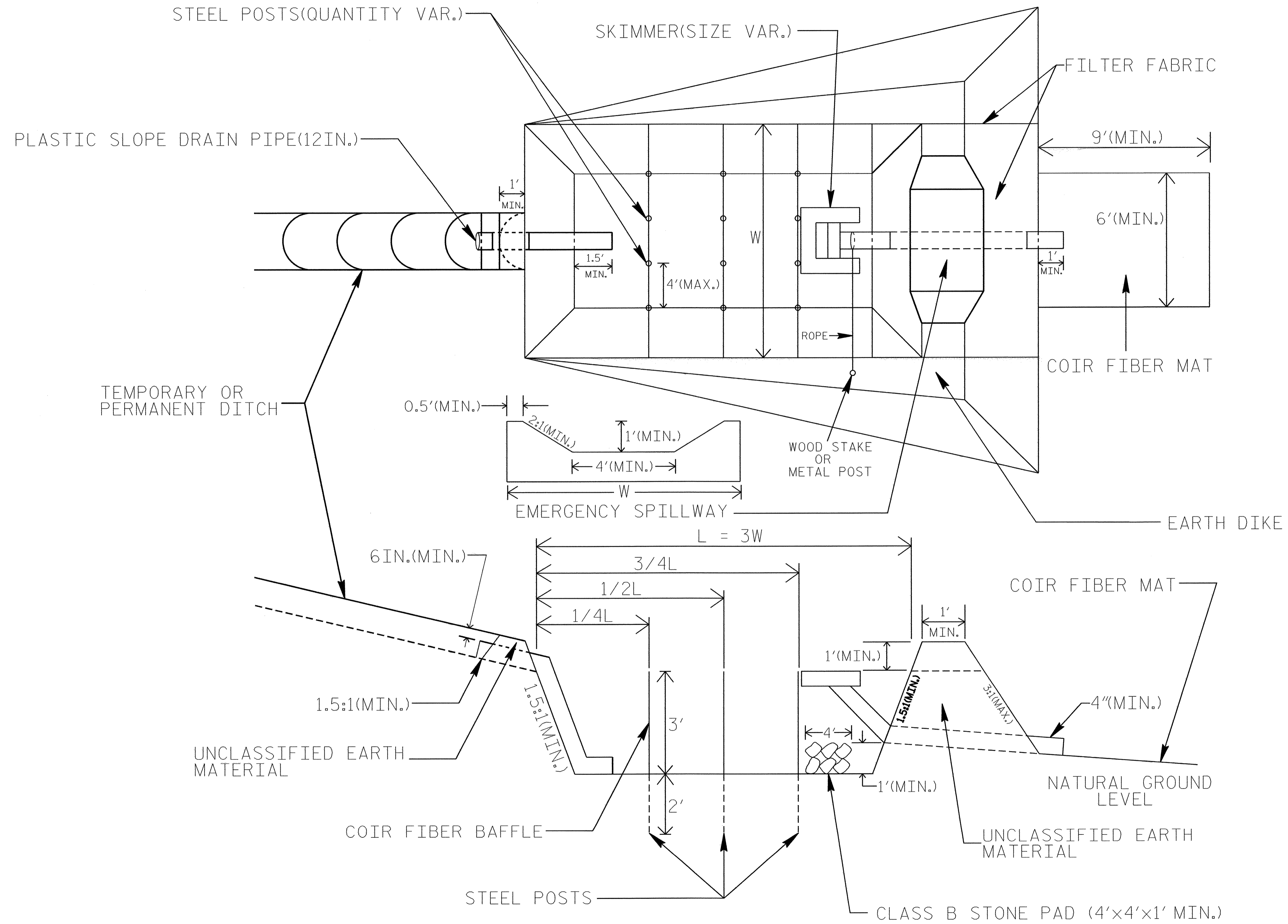


NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF $\frac{1}{4}$ THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF $\frac{1}{3}$ THE BASIN LENGTH.

BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

SKIMMER BASIN WITH BAFFLES DETAIL

PROJECT REFERENCE NO. R-4002	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



COIR FIBER MAT ANCHOR OPTIONS

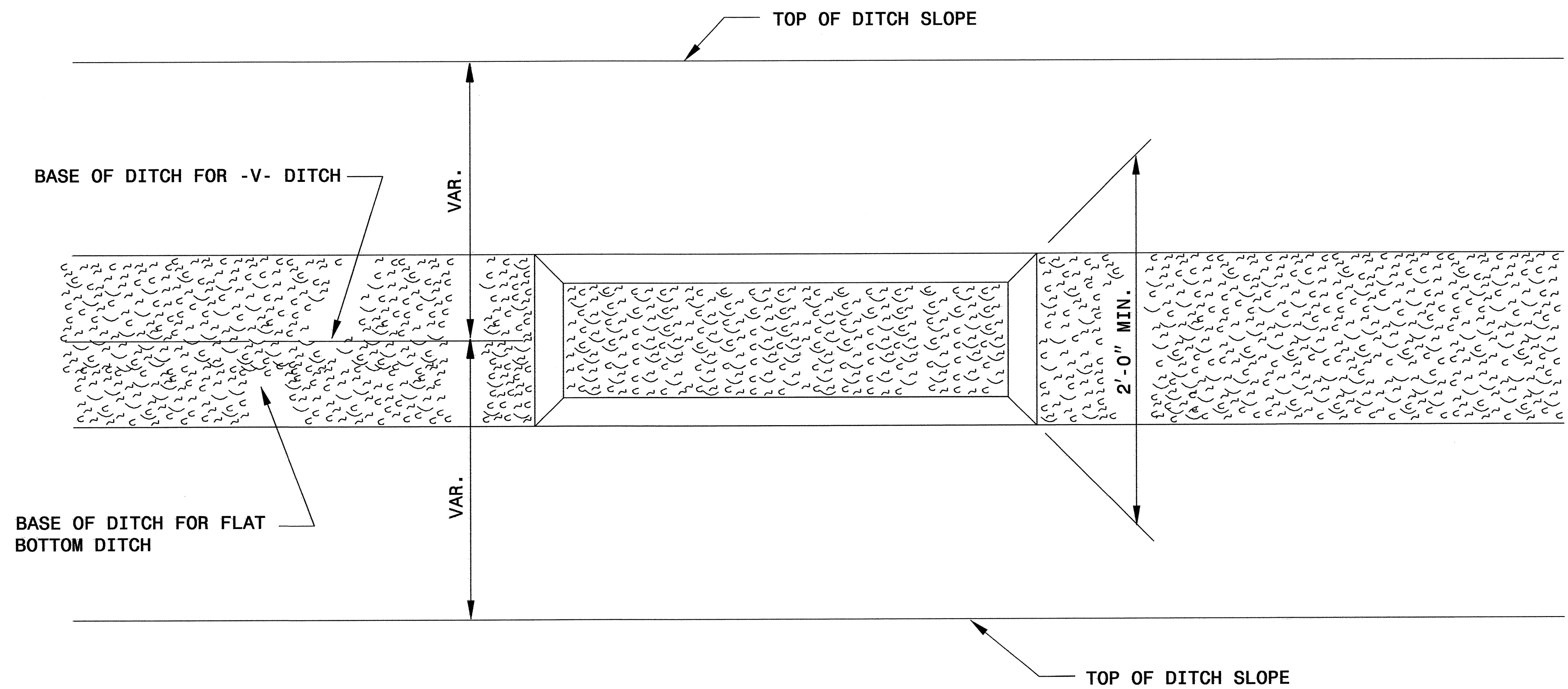
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.

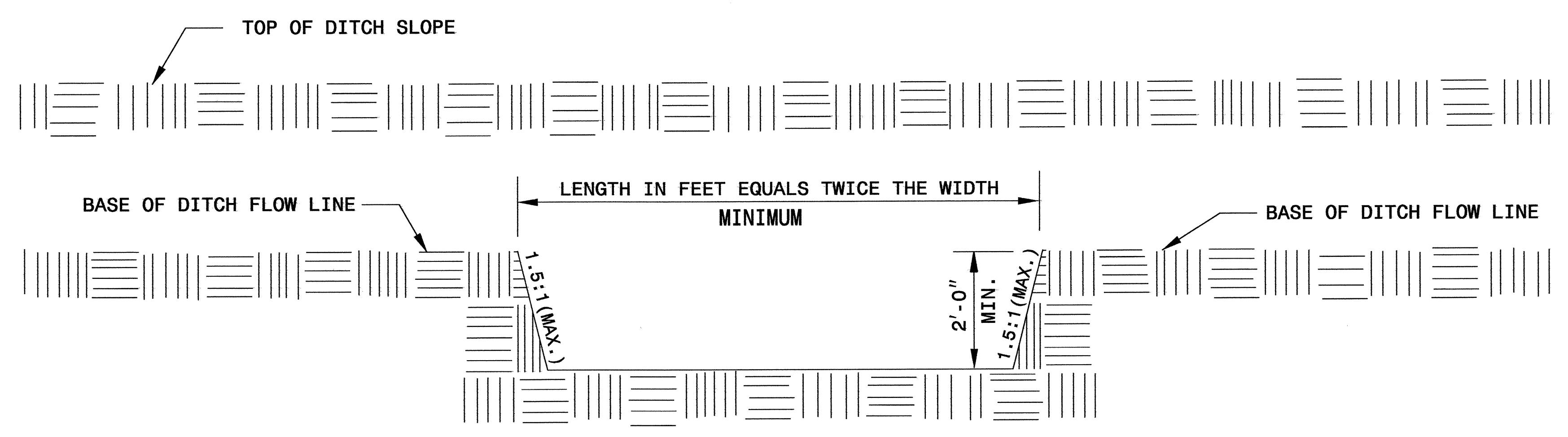
NOT TO SCALE

PROJECT REFERENCE NO. <i>R-4002</i>	SHEET NO. <i>EC-2C</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL

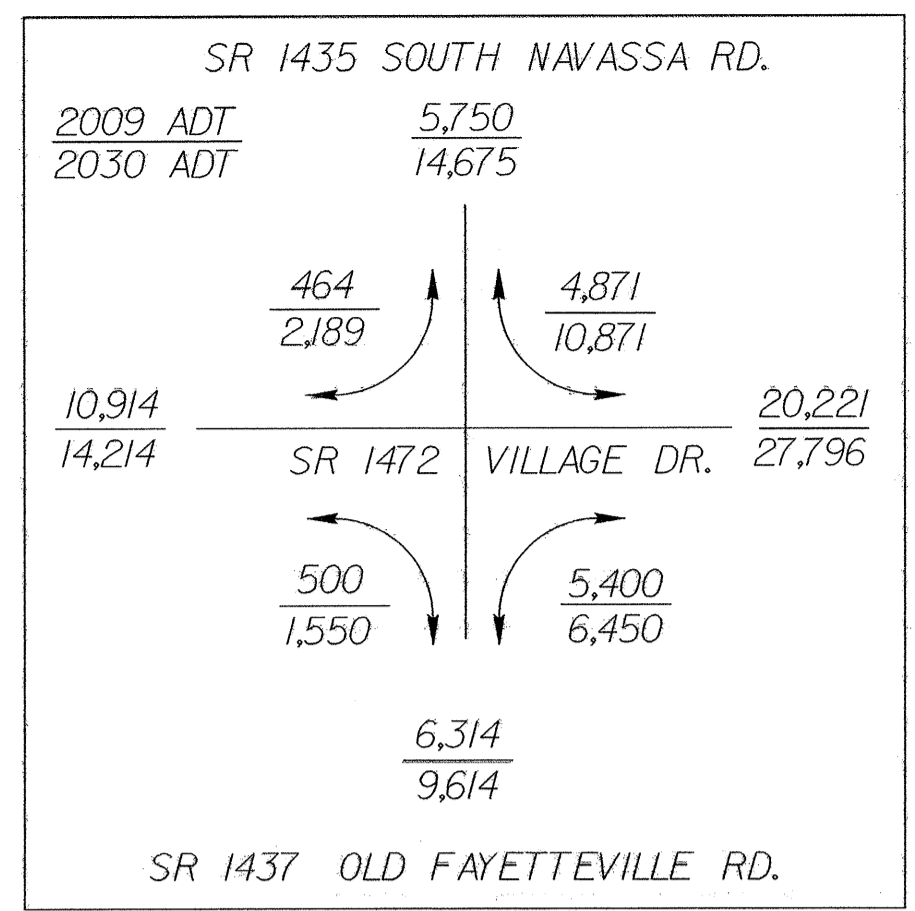


PLAN



ELEVATION

PROJECT REFERENCE NO. R-4002	SHEET NO. EC-3/CONST.4
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



LINE	STATION	STATION	SIDE
L	18+49	18+77	LT
L	19+04	19+54	LT
L	19+92	20+75	LT
L	21+15	23+87	LT
L	24+40	26+02	LT
L	26+45	26+95	LT
L	27+19	27+79	LT
L	31+04	31+77	LT
L	31+99	32+86	LT
L	33+30	34+23	LT
L	34+63	36+21	LT
L	36+61	38+82	LT
L	39+71	40+69	LT
L	41+02	41+74	LT
L	43+01	43+17	LT
L	43+56	44+26	LT
L	39+54	39+73	RT
L	40+11	41+71	RT
L	42+25	43+04	RT
L	43+41	46+75	RT
L	50+10	52+10	RT
Y1	15+62	15+96	LT

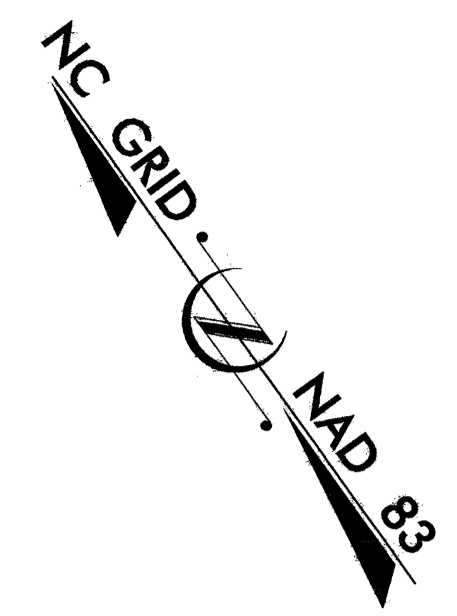
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

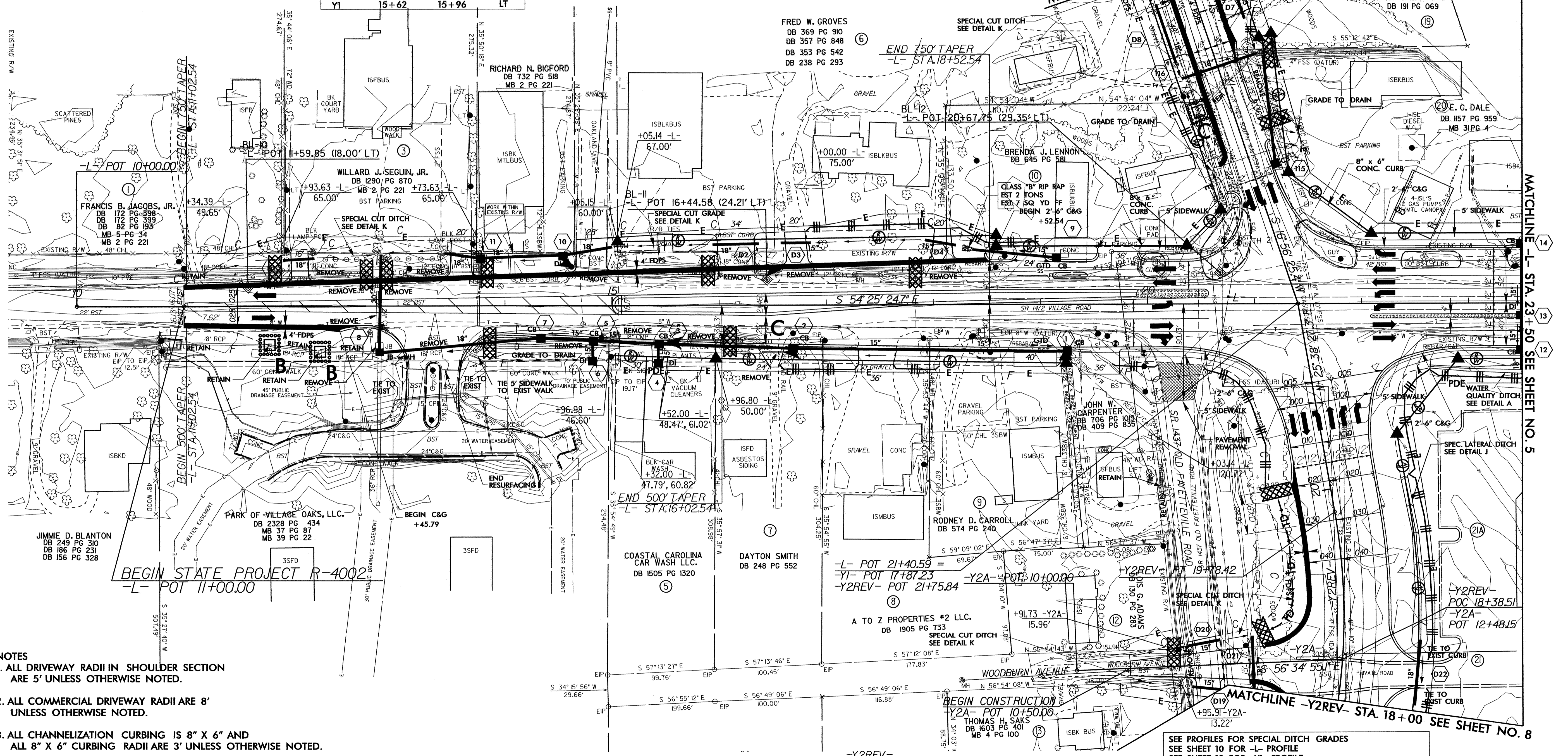
NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.

LEGEND

- PAVEMENT REMOVAL
- PAVED SHOULDER
- CONCRETE ISLAND



REVISIONS



- NOTES**
- ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
 - ALL COMMERCIAL DRIVEWAY RADII ARE 8' UNLESS OTHERWISE NOTED.
 - ALL CHANNELIZATION CURBING IS 8" X 6" AND ALL 8" X 6" CURBING RADII ARE 3' UNLESS OTHERWISE NOTED.
 - SEE PAVEMENT MARKING PLANS FOR PAINTED ISLANDS.
 - ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.
 - SEE CURB AND GUTTER END TREATMENT DETAIL ON SHEET 2-E.

-Y2REV-
 PI Sta 16+74.13
 $\Delta = 74^{\circ} 09' 21.0''$ (LT)
 $D = 108' 08'' 27.0''$
 $L = 731.26'$
 $T = 426.96'$
 $R = 565.00'$

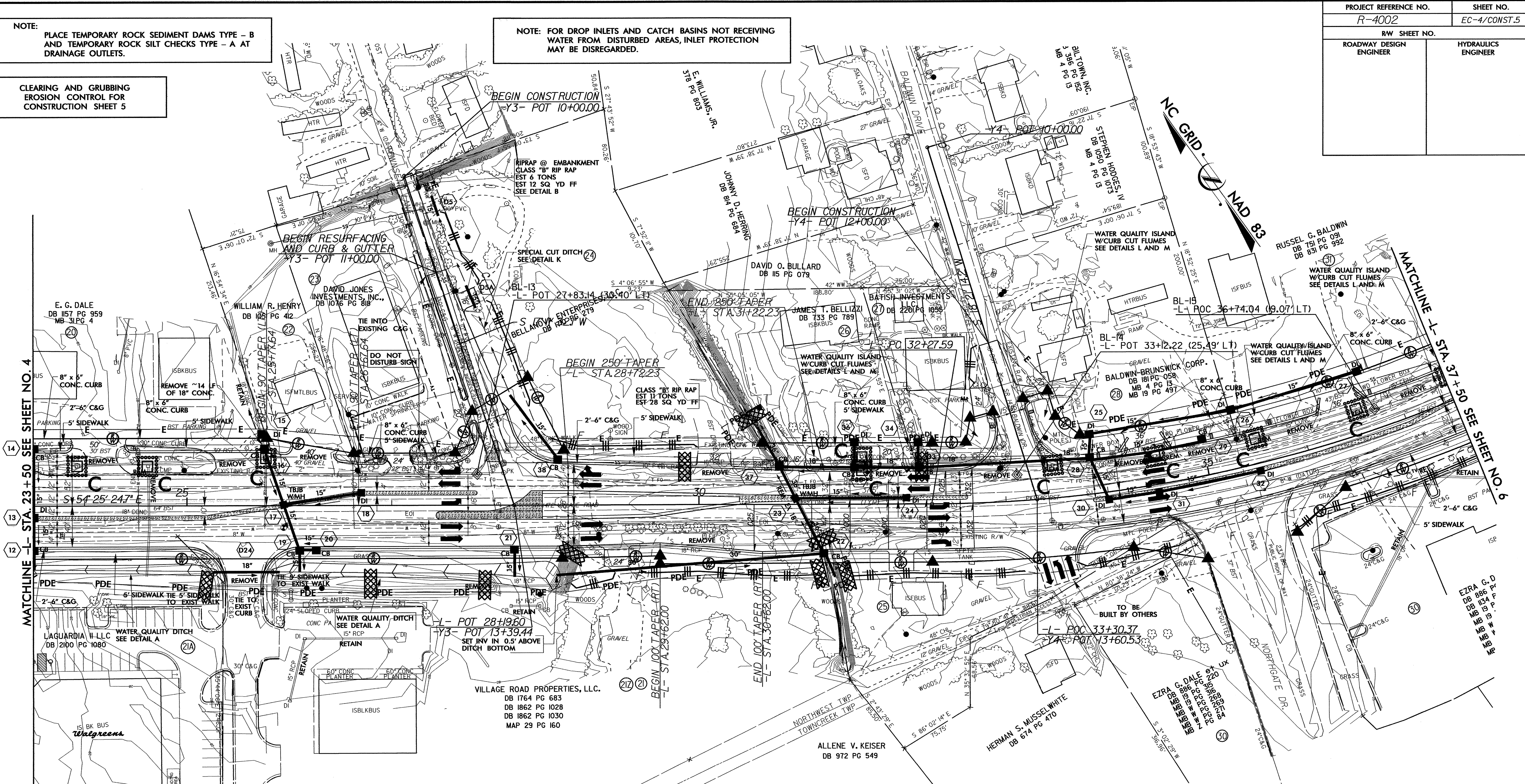
SEE PROFILES FOR SPECIAL DITCH GRADES
 SEE SHEET 10 FOR -L- PROFILE
 SEE SHEET 12 FOR -Y1- PROFILE
 SEE SHEET 12 FOR -Y2A- PROFILE
 SEE SHEET 13 FOR -Y2REV- PROFILE
 SEE SHEET 2-F FOR DITCH DETAILS, WATER QUALITY ISLAND, AND CURB CUT FLUME DETAIL
 SEE SHEET 2-G FOR -Y1- & -Y2REV- INTERSECTION DETAIL
 SEE SHEET 2-K FOR -Y2A- INTERSECTION DETAIL

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

NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5



REVISIONS

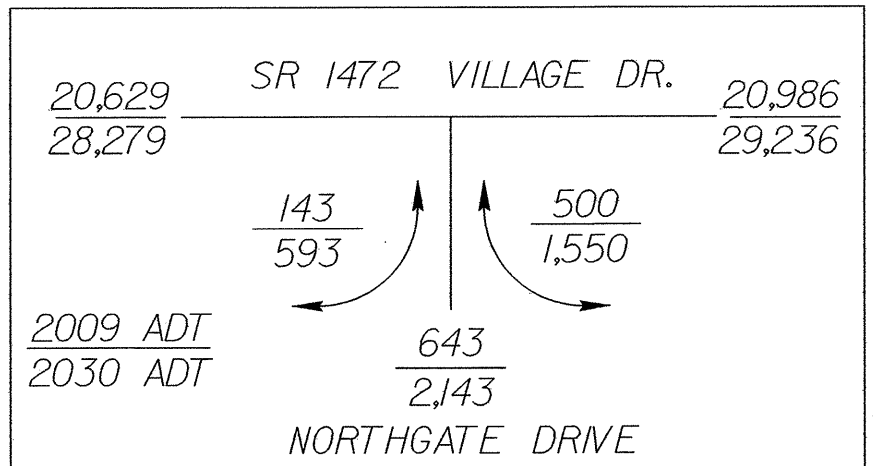
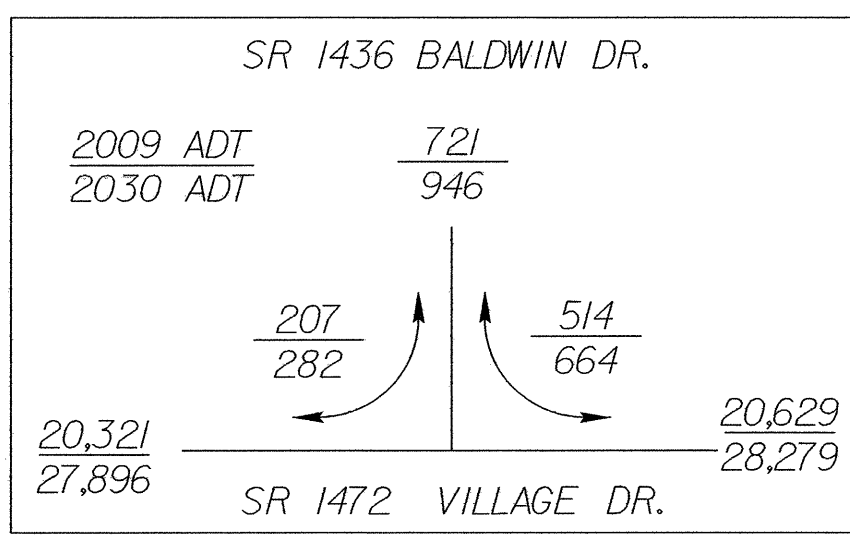
MATCHLINE -L- STA. 23+50 SEE SHEET NO. 4

MATCHLINE -L- STA. 37+50 SEE SHEET NO. 6

8"x6" CURB LOCATIONS			
LINE	STATION	STATION	SIDE
L	18+49	18+77	LT
L	19+04	19+54	LT
L	19+92	20+75	LT
L	21+15	23+87	LT
L	24+40	26+02	LT
L	26+45	26+95	LT
L	27+19	27+79	LT
L	31+04	31+77	LT
L	31+99	32+86	LT
L	33+30	34+23	LT
L	34+63	36+21	LT
L	36+61	38+82	LT
L	39+71	40+69	LT
L	41+02	41+74	LT
L	43+01	43+17	LT
L	43+56	44+26	LT
L	39+54	39+73	RT
L	40+11	41+71	RT
L	42+25	43+04	RT
L	43+41	46+75	RT
L	50+10	52+10	RT
Y1	15+62	15+96	LT

-L-
PI Sta. 35+16.41
Δ = 24' 11" 04.9" (LT)
D = 4' 15" 00.0"
L = 569.05'
T = 288.83'
R = 1,348.14'

- NOTES
1. ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
 2. ALL COMMERCIAL DRIVEWAY RADII ARE 8' UNLESS OTHERWISE NOTED.
 3. ALL CHANNELIZATION CURBING IS 8" X 6" AND ALL 8" X 6" CURBING RADII ARE 3' UNLESS OTHERWISE NOTED.
 4. SEE PAVEMENT MARKING PLANS FOR PAINTED ISLANDS.
 5. ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.
 6. SEE CURB AND GUTTER END TREATMENT DETAIL ON SHEET 2-E.



LEGEND

- PAVEMENT REMOVAL
- PAVED SHOULDER
- CURB CUT W/FLUME
- CONCRETE ISLAND

SEE PROFILES FOR SPECIAL DITCH GRADES
SEE SHEET 10 FOR -L- PROFILE
SEE SHEET 13 FOR -Y3- PROFILE
SEE SHEET 13 FOR -Y4- PROFILE
SEE SHEET 2-F FOR DITCH DETAILS, WATER QUALITY ISLAND, AND CURB CUT FLUME DETAIL
SEE SHEET 2-G FOR -Y3- INTERSECTION DETAIL
SEE SHEET 2-H FOR -Y4- & -Y5- INTERSECTION DETAIL

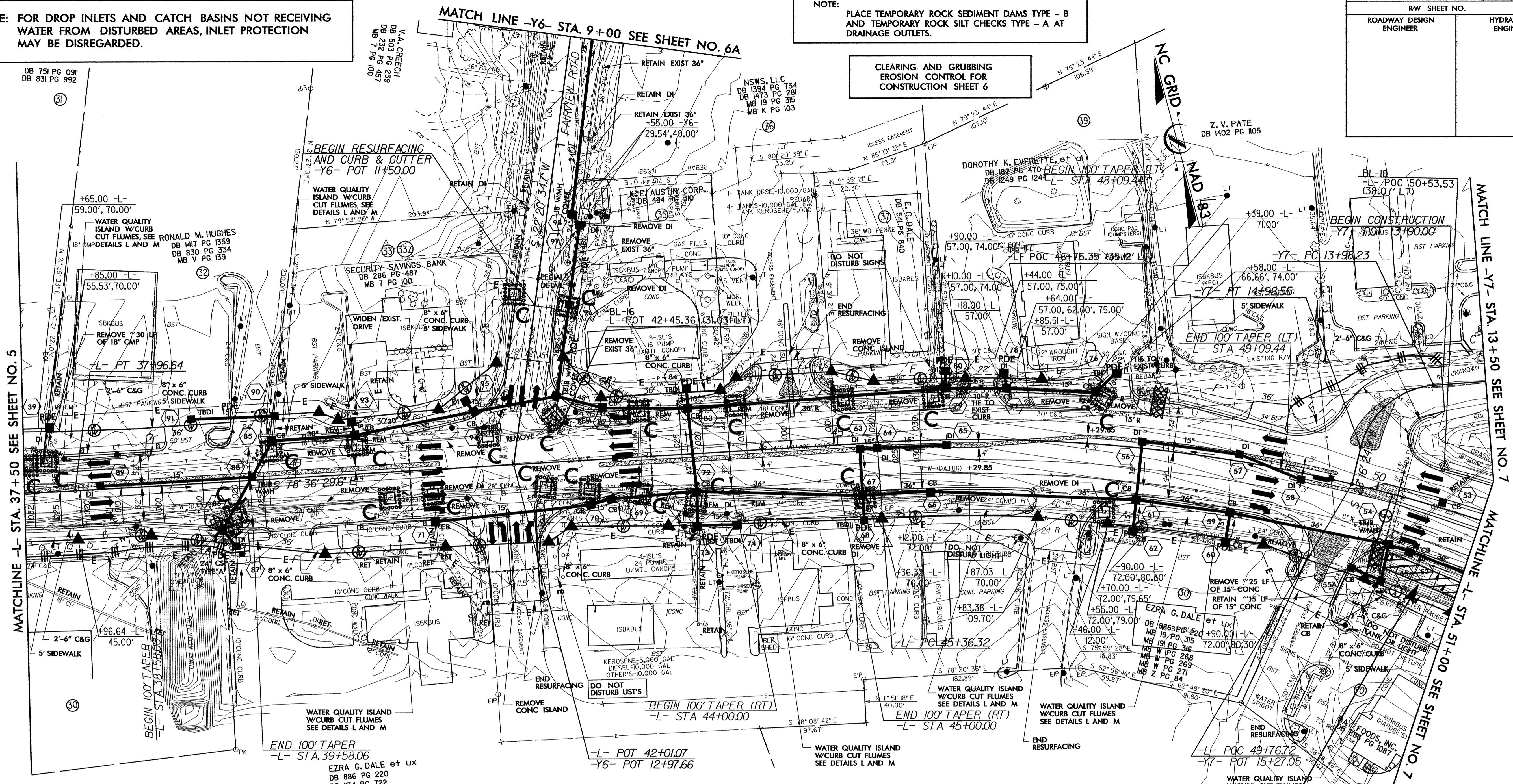
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NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.

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

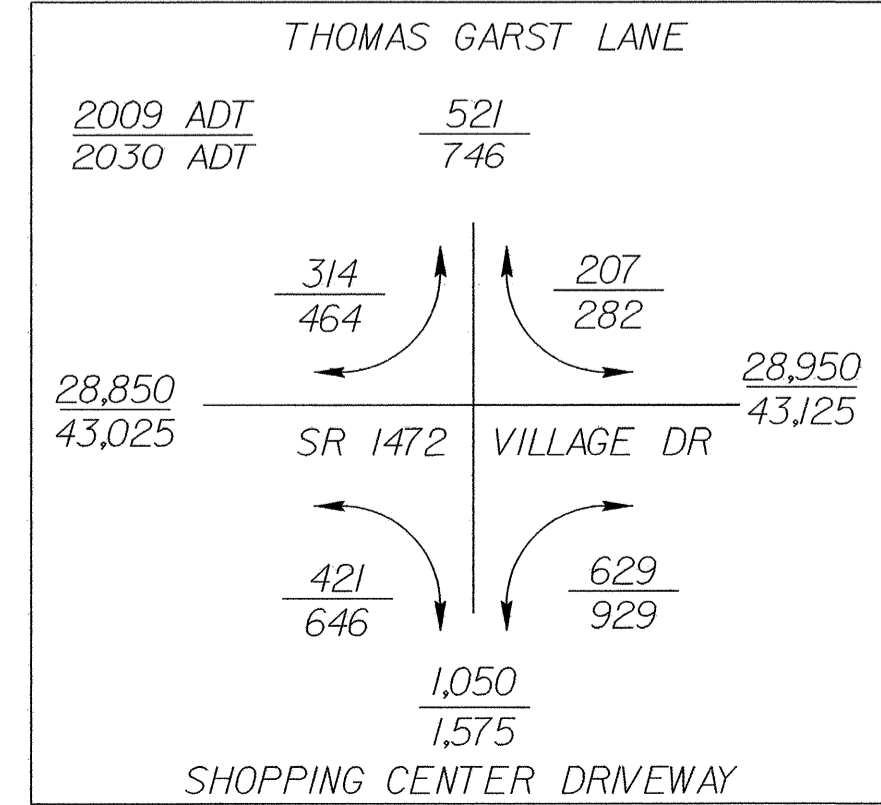
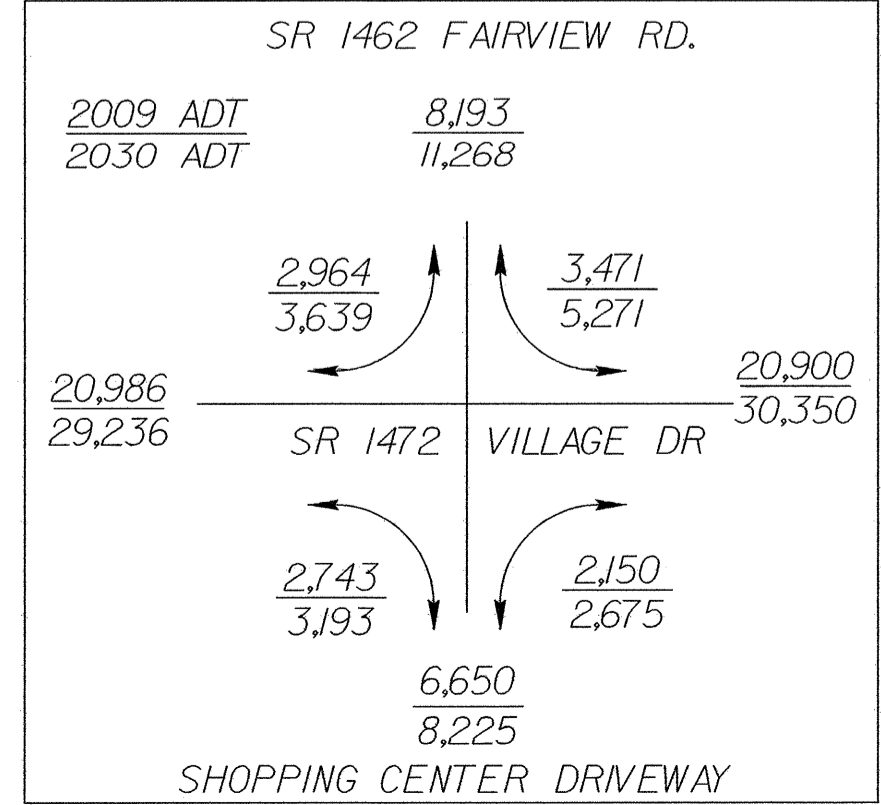


MATCHLINE -L- STA. 37+50 SEE SHEET NO. 5

MATCHLINE -Y7- STA. 13+50 SEE SHEET NO. 7

MATCHLINE -L- STA. 51+00 SEE SHEET NO. 7

REVISIONS

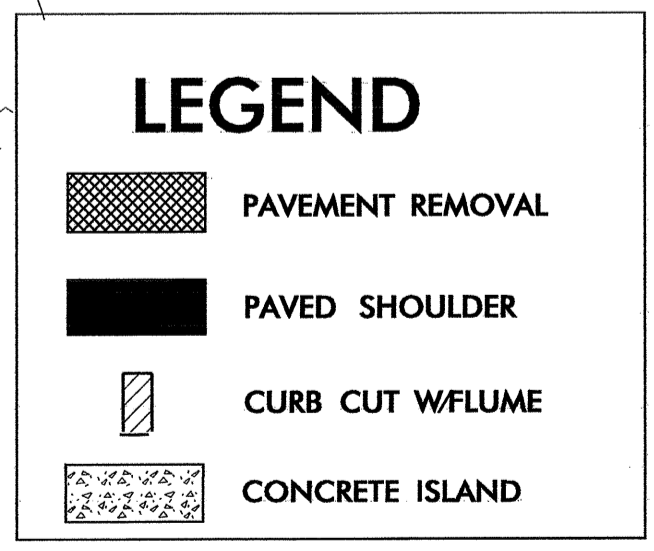


-L-
PI Sta 49+02.48
Δ = 27° 31' 48.3" (RT)
D = 3° 50' 00.0"
L = 718.18'
T = 366.16'
R = 1,494.67'

-Y7-
PI Sta 14+52.78
Δ = 72° 03' 38.1" (LT)
D = 76° 23' 39.7"
L = 94.33'
T = 54.55'
R = 75.00'

8"x6" CURB LOCATIONS			
LINE	STATION	STATION	SIDE
L	18+49	18+77	LT
L	19+04	19+54	LT
L	19+92	20+75	LT
L	21+15	23+87	LT
L	24+40	26+02	LT
L	26+45	26+95	LT
L	27+19	27+79	LT
L	31+04	31+77	LT
L	31+99	32+86	LT
L	33+30	34+23	LT
L	34+63	36+21	LT
L	36+61	38+82	LT
L	39+71	40+69	LT
L	41+02	41+74	LT
L	43+01	43+17	LT
L	43+56	44+26	LT
L	39+54	39+73	RT
L	40+11	41+71	RT
L	42+25	43+04	RT
L	43+41	46+75	RT
L	50+10	52+10	RT
Y1	15+62	15+96	LT

- NOTES
- ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
 - ALL COMMERCIAL DRIVEWAY RADII ARE 8' UNLESS OTHERWISE NOTED.
 - ALL CHANNELIZATION CURBING IS 8" X 6" AND ALL 8" X 6" CURBING RADII ARE 3' UNLESS OTHERWISE NOTED.
 - SEE PAVEMENT MARKING PLANS FOR PAINTED ISLANDS.
 - ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.
 - SEE CURB AND GUTTER END TREATMENT DETAIL ON SHEET 2-E.



SEE PROFILES FOR SPECIAL DITCH GRADES
SEE SHEET 11 FOR -L- PROFILE
SEE SHEET 14 FOR -Y6- PROFILE
SEE SHEET 14 FOR -Y7- PROFILE

SEE SHEET 2-F FOR DITCH DETAILS, WATER QUALITY ISLAND, AND CURB CUT FLUME DETAIL
SEE SHEET 2-H FOR -Y6- INTERSECTION DETAIL
SEE SHEET 2-I FOR -Y7- INTERSECTION DETAIL

75 x 15 x 3
ID 7.2C

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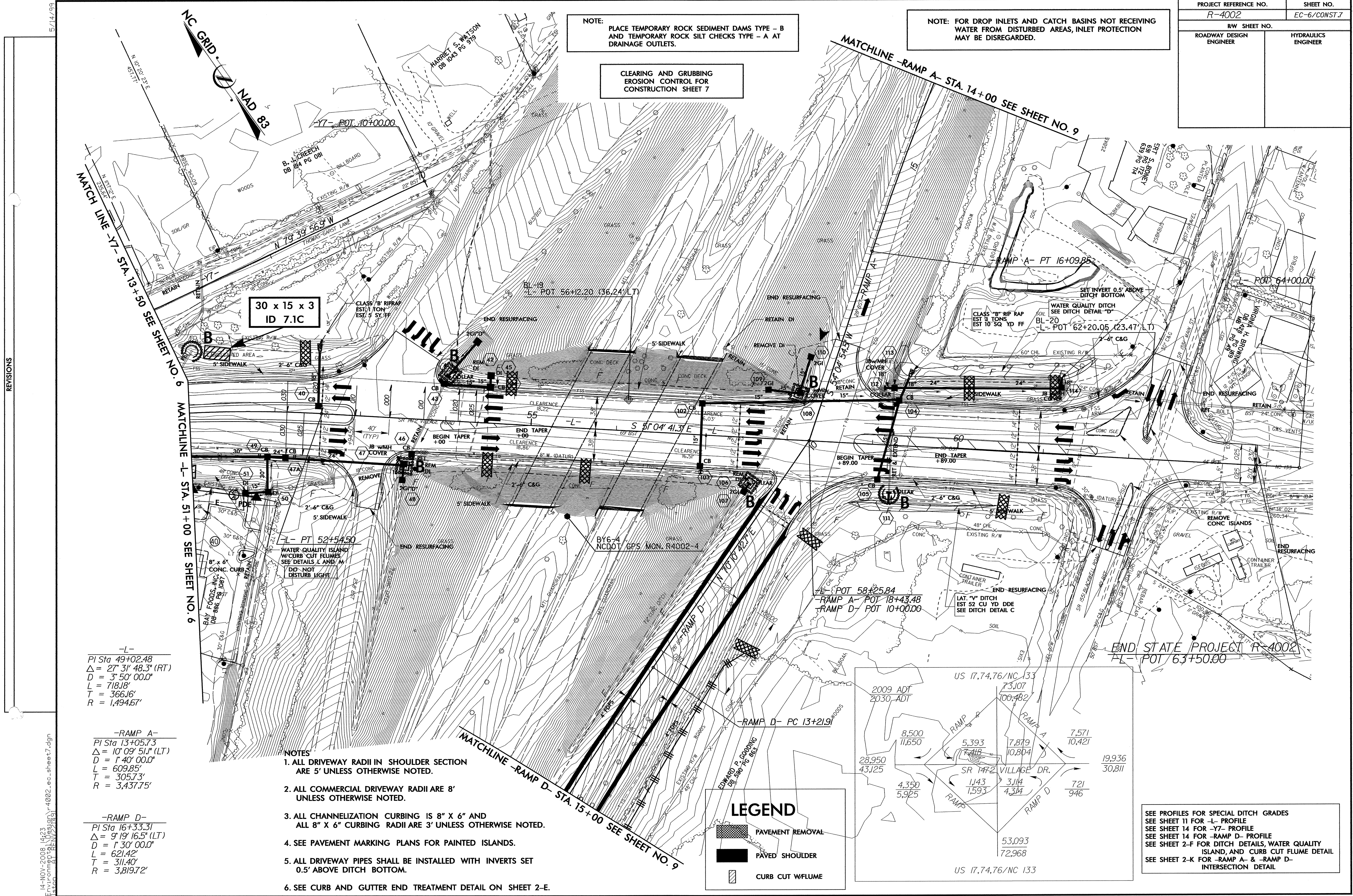
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PROJECT REFERENCE NO. R-4002	SHEET NO. EC-6/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7



REVISIONS
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-L-
 PI Sta 49+02.48
 $\Delta = 27' 31" 48.3" (RT)$
 $D = 3' 50' 00.0"$
 $L = 718.18'$
 $T = 366.16'$
 $R = 1,494.67'$

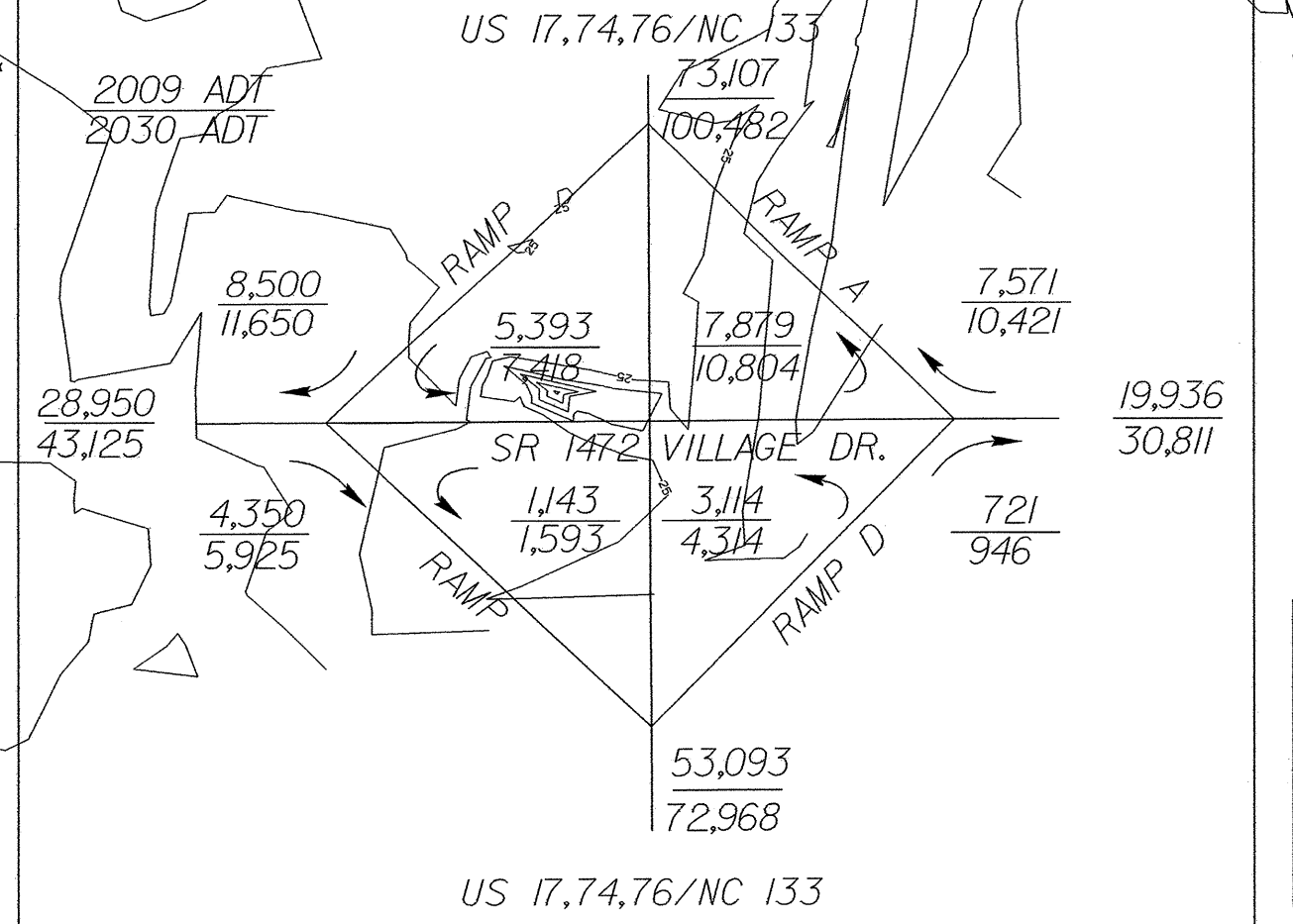
-RAMP A-
 PI Sta 13+05.73
 $\Delta = 10' 09' 51.1" (LT)$
 $D = 1' 40' 00.0"$
 $L = 609.85'$
 $T = 305.73'$
 $R = 3,437.75'$

-RAMP D-
 PI Sta 16+33.31
 $\Delta = 9' 19' 16.5" (LT)$
 $D = 1' 30' 00.0"$
 $L = 621.42'$
 $T = 311.40'$
 $R = 3,819.72'$

- NOTES
1. ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
 2. ALL COMMERCIAL DRIVEWAY RADII ARE 8' UNLESS OTHERWISE NOTED.
 3. ALL CHANNELIZATION CURBING IS 8" X 6" AND ALL 8" X 6" CURBING RADII ARE 3' UNLESS OTHERWISE NOTED.
 4. SEE PAVEMENT MARKING PLANS FOR PAINTED ISLANDS.
 5. ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.
 6. SEE CURB AND GUTTER END TREATMENT DETAIL ON SHEET 2-E.

LEGEND

- PAVEMENT REMOVAL
- PAVED SHOULDER
- CURB CUT W/FLUME



SEE PROFILES FOR SPECIAL DITCH GRADES
 SEE SHEET 11 FOR -L- PROFILE
 SEE SHEET 14 FOR -Y7- PROFILE
 SEE SHEET 14 FOR -RAMP D- PROFILE
 SEE SHEET 2-F FOR DITCH DETAILS, WATER QUALITY ISLAND, AND CURB CUT FLUME DETAIL
 SEE SHEET 2-K FOR -RAMP A- & -RAMP D- INTERSECTION DETAIL

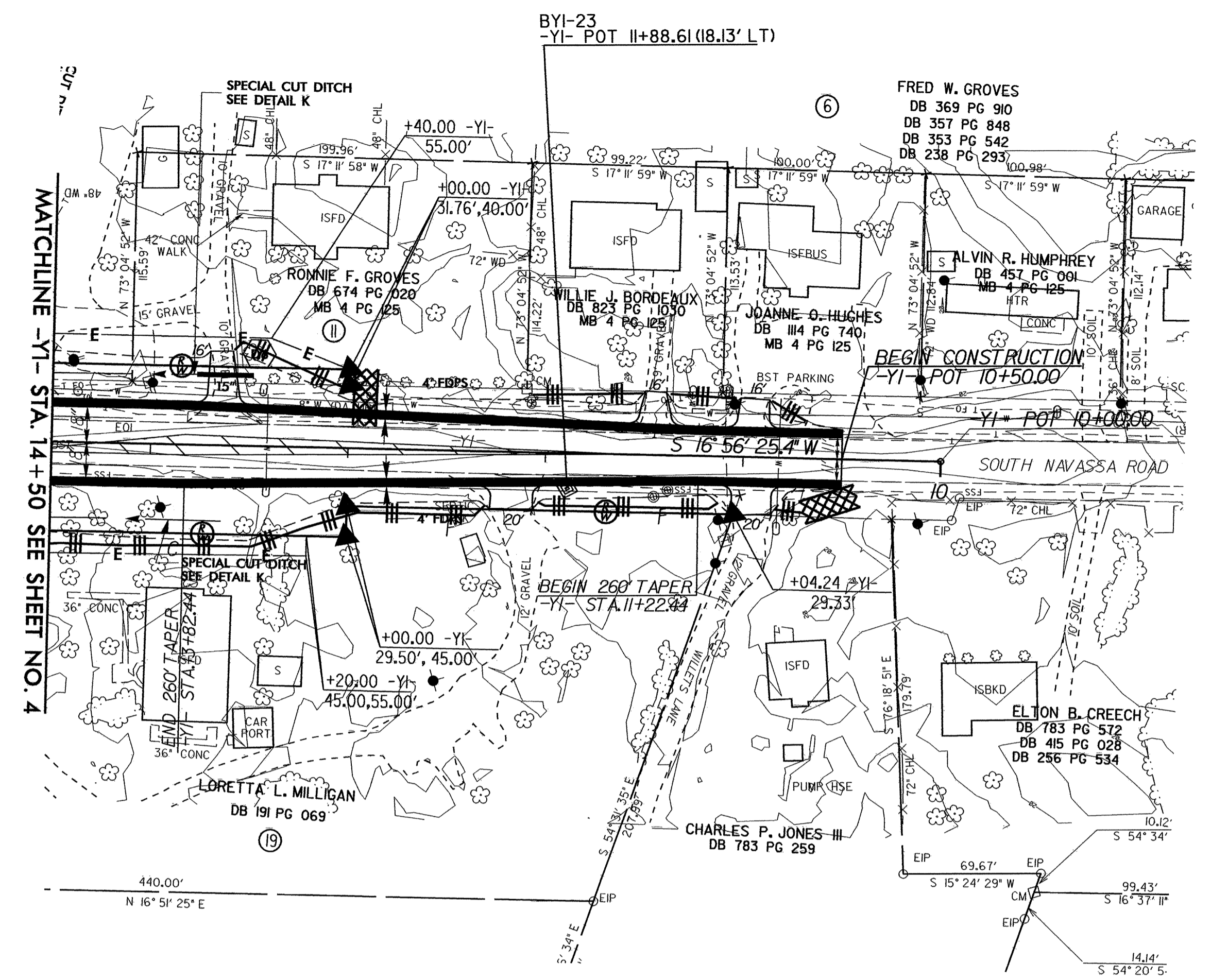
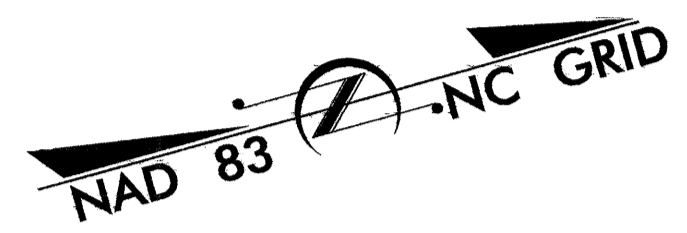
PROJECT REFERENCE NO.	SHEET NO.
R-4002	EC-7/CONST.8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

- NOTES
1. ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
 2. ALL COMMERCIAL DRIVEWAY RADII ARE 8' UNLESS OTHERWISE NOTED.
 3. ALL CHANNELIZATION CURBING IS 8" X 6" AND ALL 8" X 6" CURBING RADII ARE 3' UNLESS OTHERWISE NOTED.
 4. SEE PAVEMENT MARKING PLANS FOR PAINTED ISLANDS.
 5. ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.

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 8

NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.

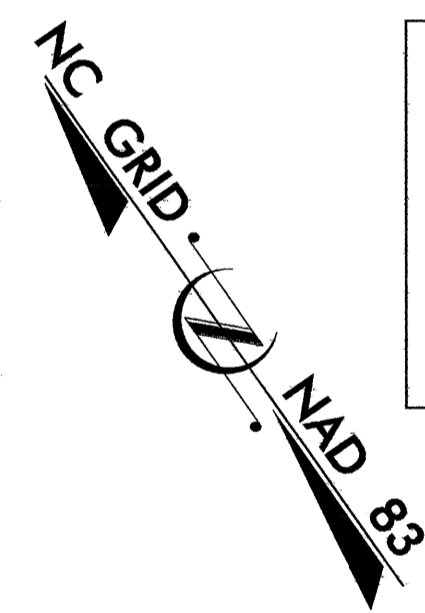


SEE PROFILES FOR SPECIAL DITCH GRADES
SEE SHEET 12 FOR -Y1- PROFILE

LEGEND

- PAVEMENT REMOVAL
- PAVED SHOULDER

REVISIONS



LEGEND

- PAVEMENT REMOVAL
- PAVED SHOULDER

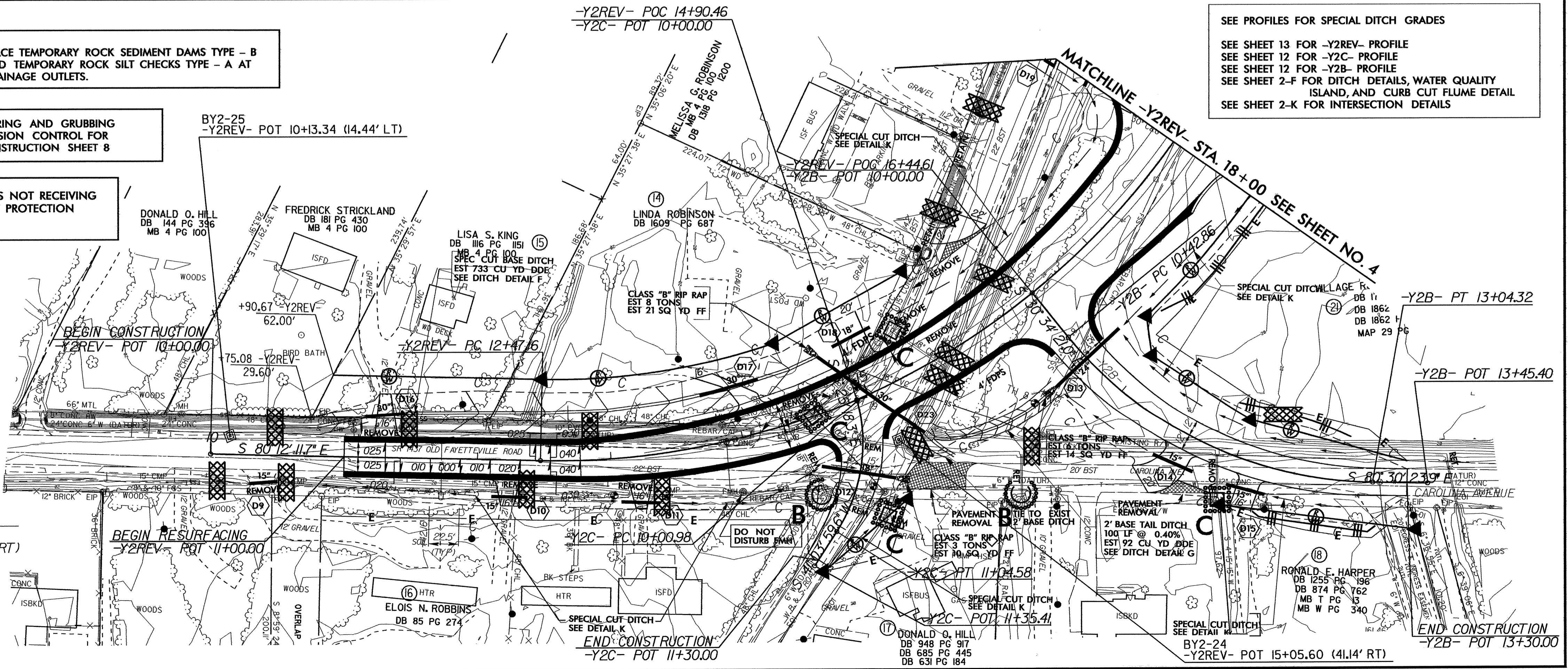
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 8

NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.

- NOTES
1. ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
 2. ALL COMMERCIAL DRIVEWAY RADII ARE 8' UNLESS OTHERWISE NOTED.
 3. ALL CHANNELIZATION CURBING IS 8" X 6" AND ALL 8" X 6" CURBING RADII ARE 3' UNLESS OTHERWISE NOTED.
 4. SEE PAVEMENT MARKING PLANS FOR PAINTED ISLANDS.
 5. ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.
 6. SEE CURB AND GUTTER END TREATMENT DETAIL ON SHEET 2-E.

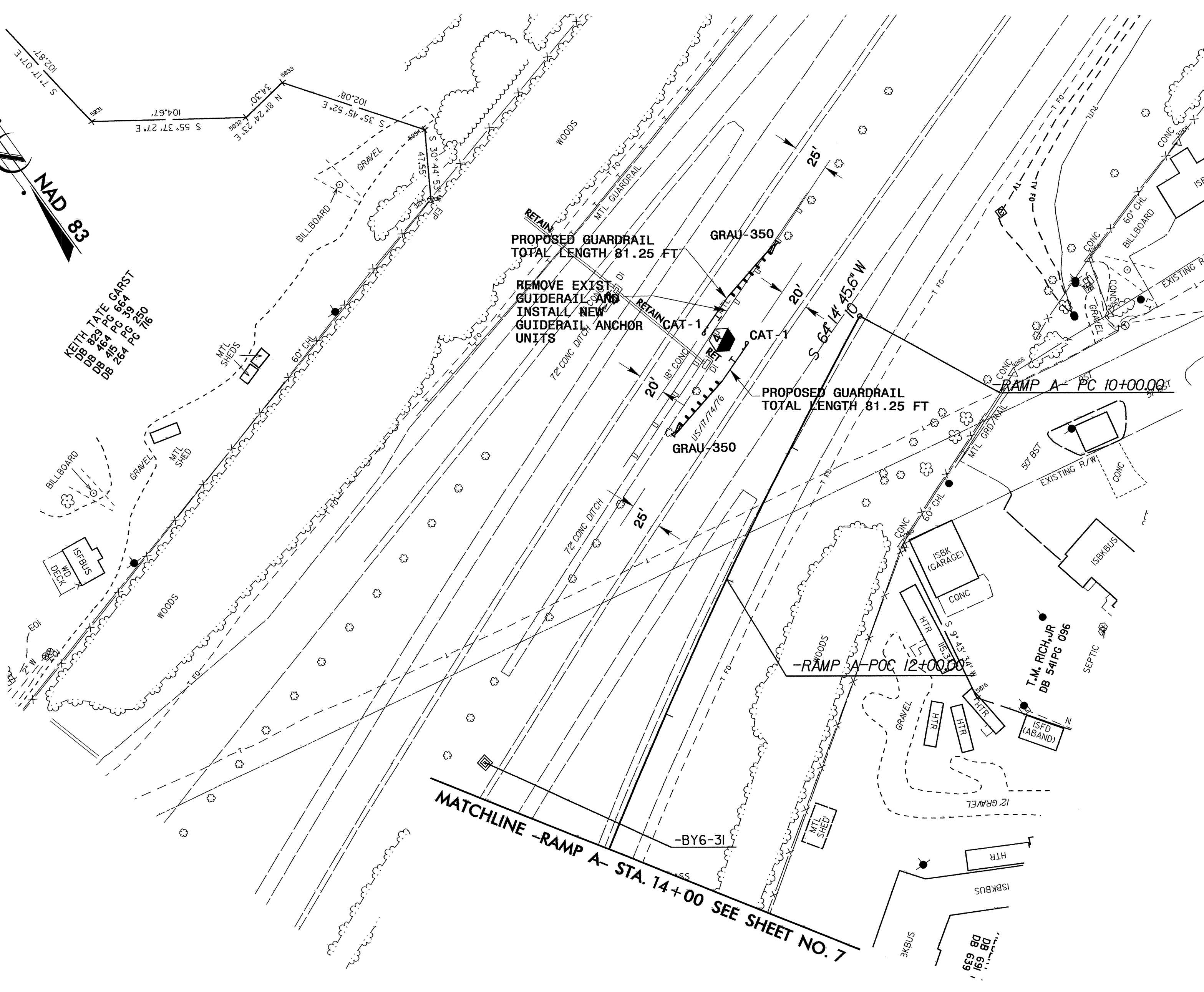
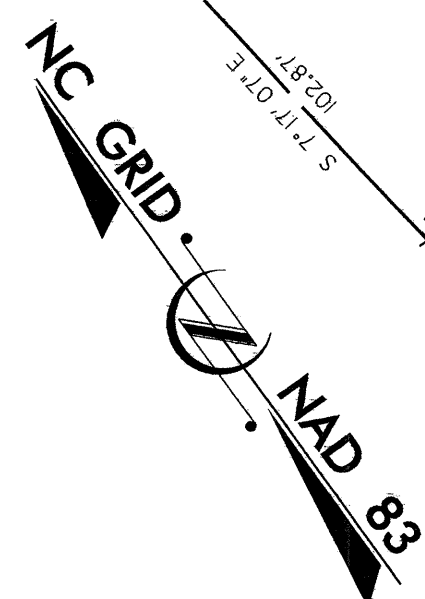
-Y2REV-	-Y2B-	-Y2C-
PI Sta 16+74.13	PI Sta 11+82.54	PI Sta 10+55.97
Δ = 74° 09' 21.0" (LT)	Δ = 49° 56' 02.9" (LT)	Δ = 47° 29' 17.9" (RT)
D = 10' 08' 27.0"	D = 19' 05' 54.9"	D = 45' 50' 11.8"
L = 731.26'	L = 261.45'	L = 103.60'
T = 426.96'	T = 139.68'	T = 54.99'
R = 565.00'	R = 300.00'	R = 125.00'



SEE PROFILES FOR SPECIAL DITCH GRADES
SEE SHEET 13 FOR -Y2REV- PROFILE
SEE SHEET 12 FOR -Y2C- PROFILE
SEE SHEET 12 FOR -Y2B- PROFILE
SEE SHEET 2-F FOR DITCH DETAILS, WATER QUALITY ISLAND, AND CURB CUT FLUME DETAIL
SEE SHEET 2-K FOR INTERSECTION DETAILS

14-NOV-2008 14:24
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jackson

5/14/99



REVISIONS

-RAMP A-
 PI Sta 13+05.73
 $\Delta = 10^{\circ} 09' 51.1''$ (LT)
 $D = 1' 40' 00.0''$
 $L = 609.85'$
 $T = 305.73'$
 $R = 3,437.75'$

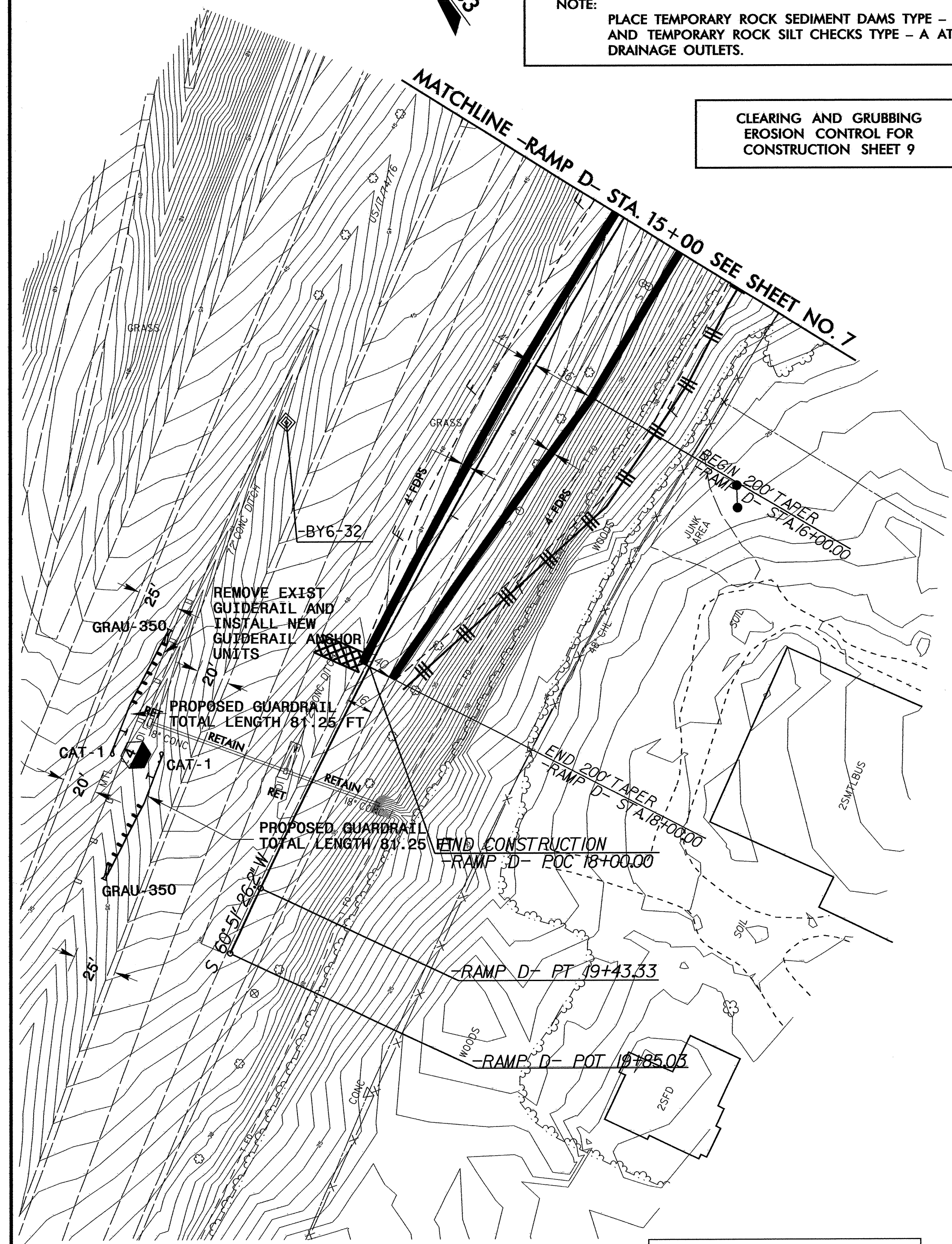
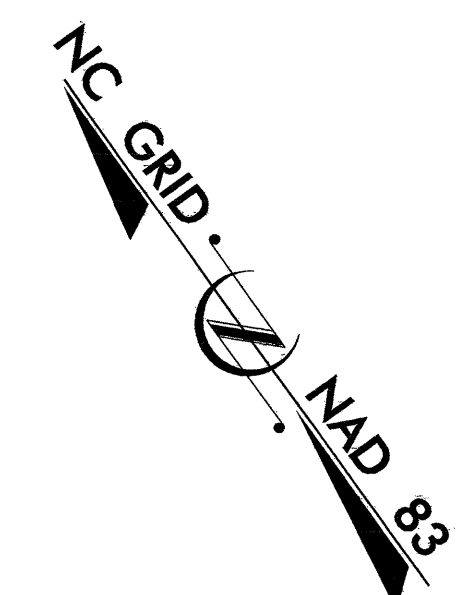
LEGEND

- PAVEMENT REMOVAL
- PAVED SHOULDER

PROJECT REFERENCE NO. R-4002	SHEET NO. EC-8/CONST.9
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 9



-RAMP D-
 PI Sta 16+33.31
 $\Delta = 9^{\circ} 19' 16.5''$ (LT)
 $D = 1' 30' 00.0''$
 $L = 621.42'$
 $T = 311.40'$
 $R = 3,819.72'$

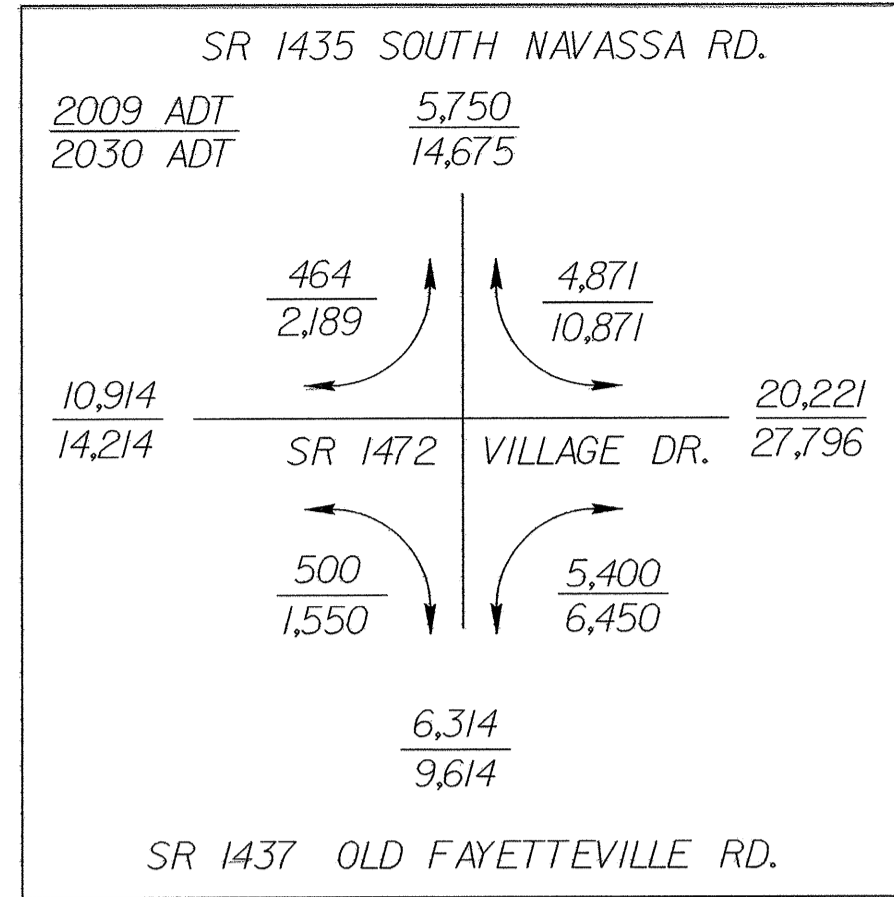
LEGEND

- PAVEMENT REMOVAL
- PAVED SHOULDER

SEE SHEET 14 FOR -RAMP D- PROFILE

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PROJECT REFERENCE NO. R-4002	SHEET NO. EC-9/CONST.4
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

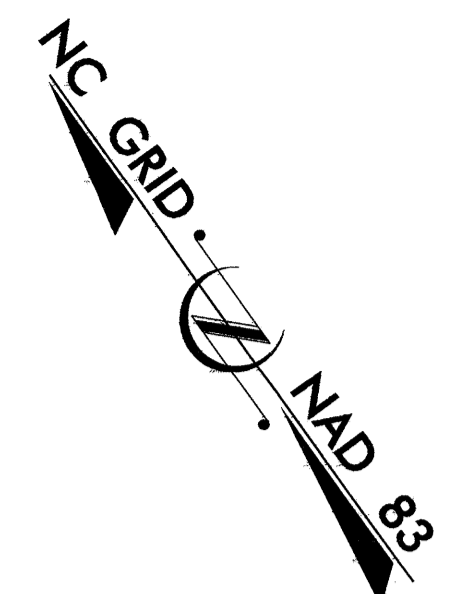


LINE	STATION	STATION	SIDE
L	18+49	18+77	LT
L	19+04	19+54	LT
L	19+92	20+75	LT
L	21+15	23+87	LT
L	24+40	26+02	LT
L	26+45	26+95	LT
L	27+19	27+79	LT
L	31+04	31+77	LT
L	31+99	32+86	LT
L	33+30	34+23	LT
L	34+63	36+21	LT
L	36+61	38+82	LT
L	39+71	40+69	LT
L	41+02	41+74	LT
L	43+01	43+17	LT
L	43+56	44+26	LT
L	39+54	39+73	RT
L	40+11	41+71	RT
L	42+25	43+04	RT
L	43+41	46+75	RT
L	50+10	52+10	RT
Y1	15+62	15+96	LT

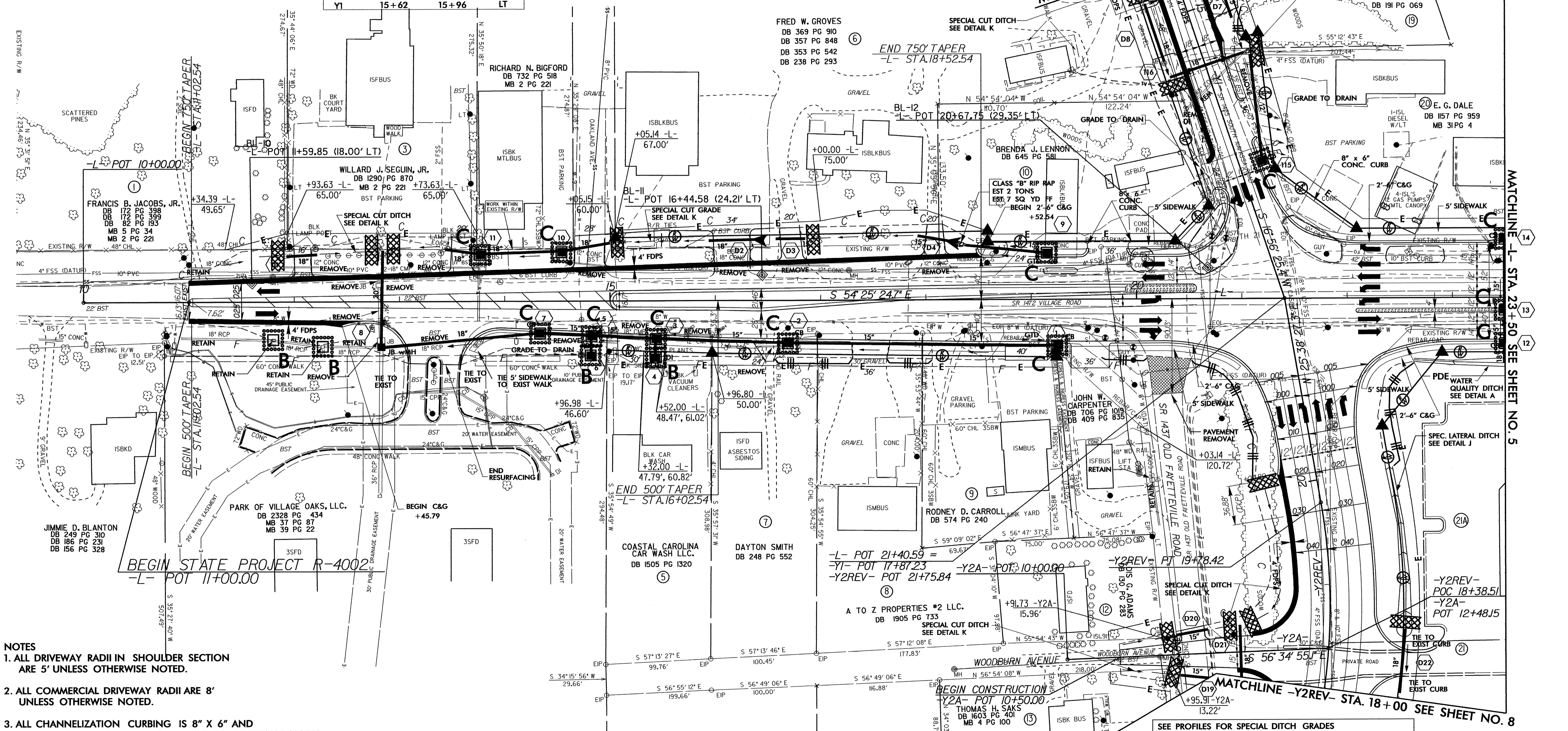
LEGEND

- PAVEMENT REMOVAL
- PAVED SHOULDER
- CONCRETE ISLAND

NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.



REVISIONS



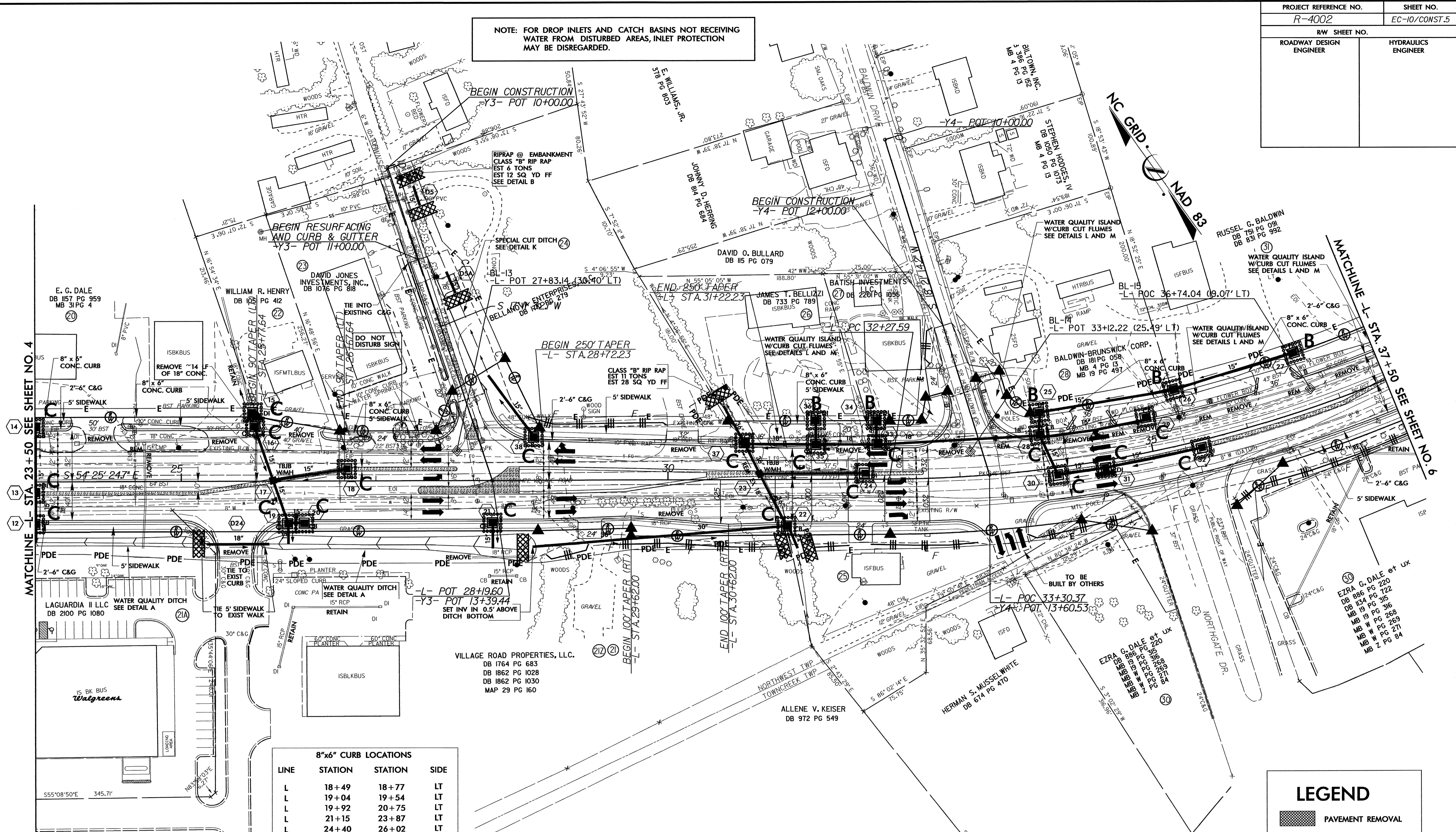
- NOTES**
- ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
 - ALL COMMERCIAL DRIVEWAY RADII ARE 8' UNLESS OTHERWISE NOTED.
 - ALL CHANNELIZATION CURBING IS 8" X 6" AND ALL 8" X 6" CURBING RADII ARE 3' UNLESS OTHERWISE NOTED.
 - SEE PAVEMENT MARKING PLANS FOR PAINTED ISLANDS.
 - ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.
 - SEE CURB AND GUTTER END TREATMENT DETAIL ON SHEET 2-E.

Pi Sta 16+74.13
 $\Delta = 74^{\circ} 09' 21.0" (LT)$
 $D = 10' 08" 27.0"$
 $L = 731.26'$
 $T = 426.96'$
 $R = 565.00'$

SEE PROFILES FOR SPECIAL DITCH GRADES
 SEE SHEET 10 FOR -L- PROFILE
 SEE SHEET 12 FOR -Y1- PROFILE
 SEE SHEET 12 FOR -Y2A- PROFILE
 SEE SHEET 13 FOR -Y2REV- PROFILE
 SEE SHEET 2-F FOR DITCH DETAILS, WATER QUALITY ISLAND AND CURB CUT FLUME DETAIL
 SEE SHEET 2-G FOR -Y1- & -Y2REV- INTERSECTION DETAIL
 SEE SHEET 2-K FOR -Y2A- INTERSECTION DETAIL

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NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.



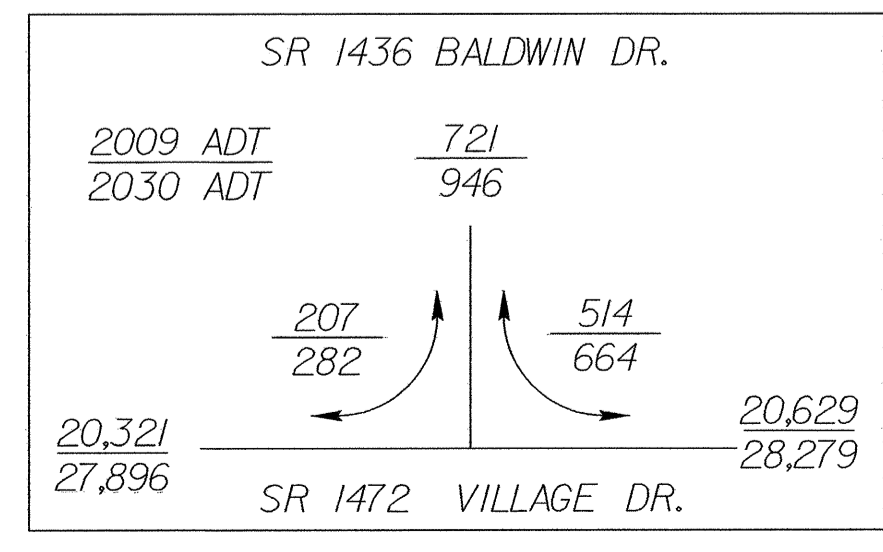
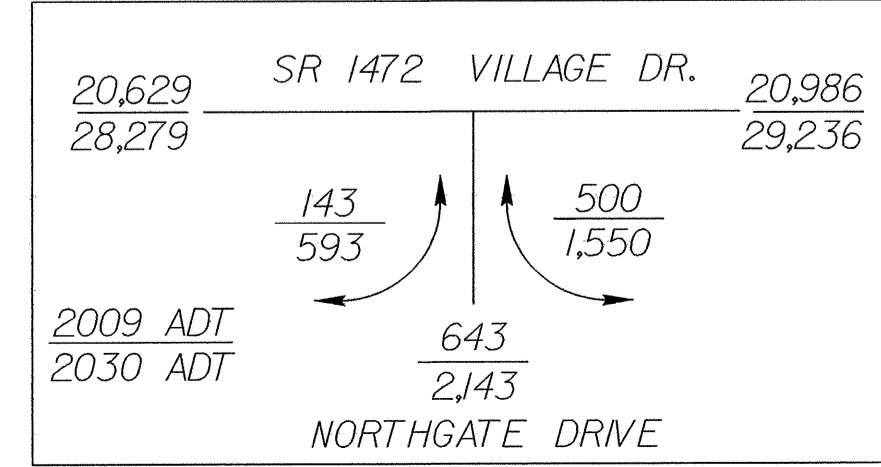
MATCHLINE - STA. 23+50 SEE SHEET NO. 4

MATCHLINE - STA. 37+50 SEE SHEET NO. 6

LINE	STATION	STATION	SIDE
L	18+49	18+77	LT
L	19+04	19+54	LT
L	19+92	20+75	LT
L	21+15	23+87	LT
L	24+40	26+02	LT
L	26+45	26+95	LT
L	27+19	27+79	LT
L	31+04	31+77	LT
L	31+99	32+86	LT
L	33+30	34+23	LT
L	34+63	36+21	LT
L	36+61	38+82	LT
L	39+71	40+69	LT
L	41+02	41+74	LT
L	43+01	43+17	LT
L	43+56	44+26	LT
L	39+54	39+73	RT
L	40+11	41+71	RT
L	42+25	43+04	RT
L	43+41	46+75	RT
L	50+10	52+10	RT
Y1	15+62	15+96	LT

- NOTES**
- ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
 - ALL COMMERCIAL DRIVEWAY RADII ARE 8' UNLESS OTHERWISE NOTED.
 - ALL CHANNELIZATION CURBING IS 8" X 6" AND ALL 8" X 6" CURBING RADII ARE 3' UNLESS OTHERWISE NOTED.
 - SEE PAVEMENT MARKING PLANS FOR PAINTED ISLANDS.
 - ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.
 - SEE CURB AND GUTTER END TREATMENT DETAIL ON SHEET 2-E.

-L-
 PI Sta 35+16.41
 $\Delta = 24' 11" 04.9" (LT)$
 $D = 4' 15" 00.0"$
 $L = 569.05'$
 $T = 288.83'$
 $R = 1,348.14'$



LEGEND

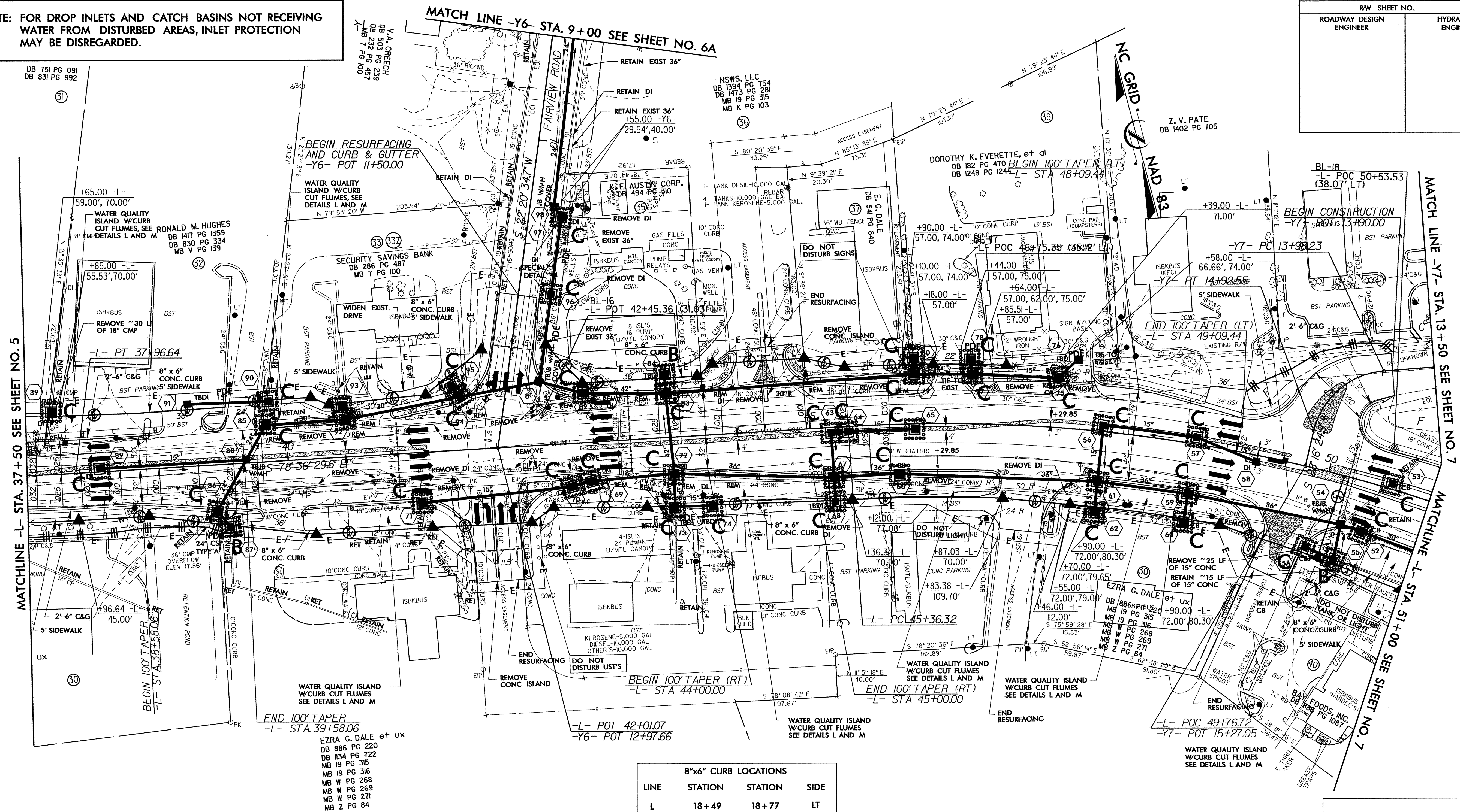
- PAVEMENT REMOVAL
- PAVED SHOULDER
- CURB CUT W/FLUME
- CONCRETE ISLAND

SEE PROFILES FOR SPECIAL DITCH GRADES
 SEE SHEET 10 FOR -L- PROFILE
 SEE SHEET 13 FOR -Y3- PROFILE
 SEE SHEET 13 FOR -Y4- PROFILE
 SEE SHEET 2-F FOR DITCH DETAILS, WATER QUALITY ISLAND, AND CURB CUT FLUME DETAIL
 SEE SHEET 2-G FOR -Y3- INTERSECTION DETAIL
 SEE SHEET 2-H FOR -Y4- & -Y5- INTERSECTION DETAIL

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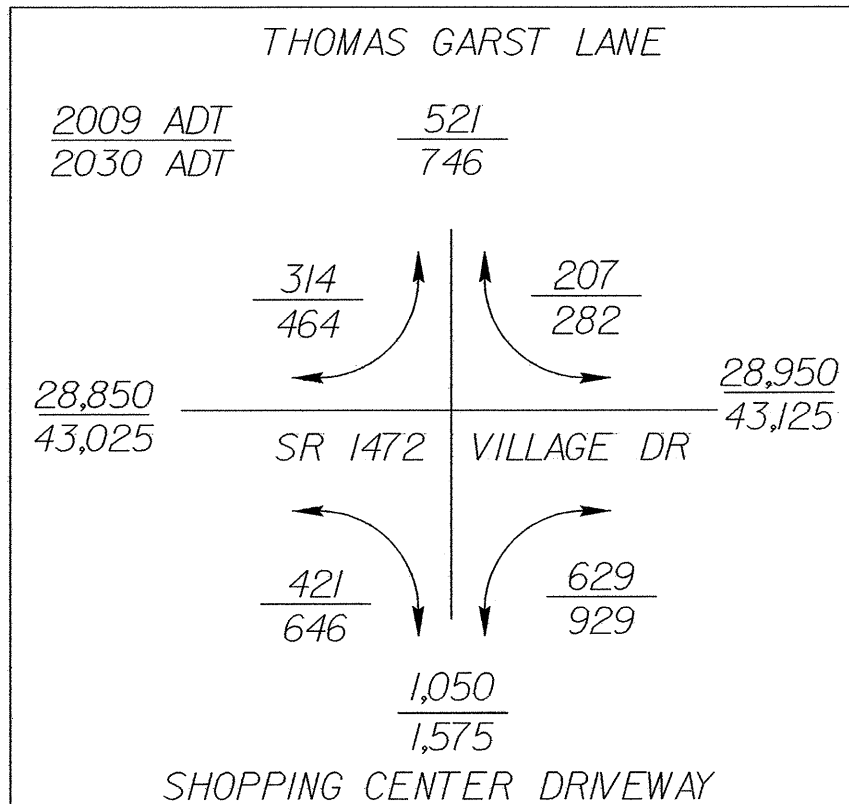
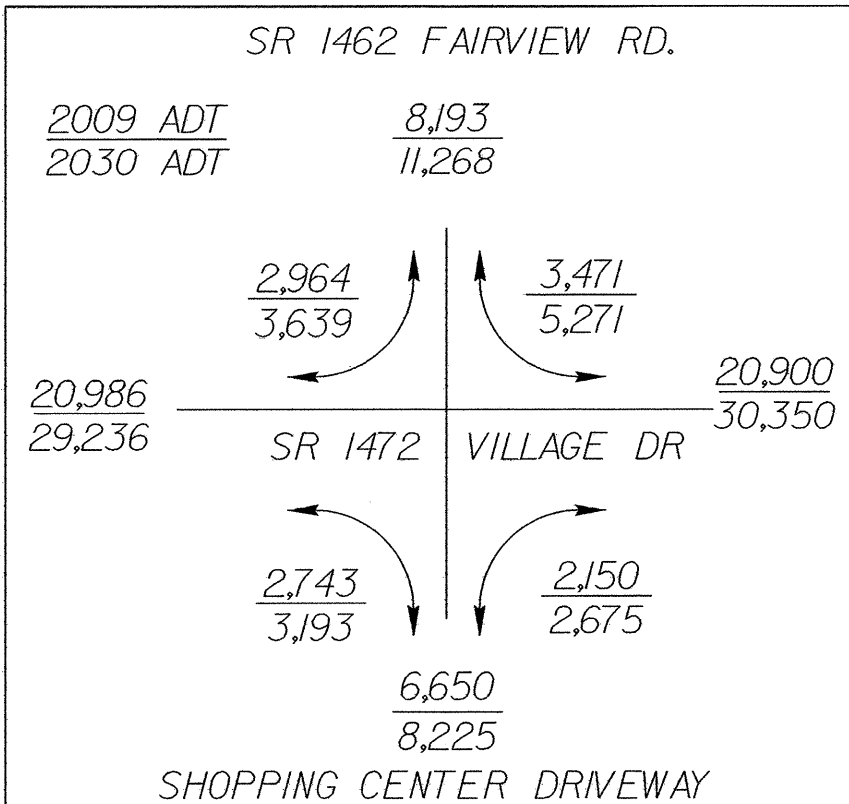
PROJECT REFERENCE NO.	SHEET NO.
R-4002	EC-11/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.



MATCHLINE -L- STA. 37 + 50 SEE SHEET NO. 5

MATCHLINE -L- STA. 51 + 00 SEE SHEET NO. 7

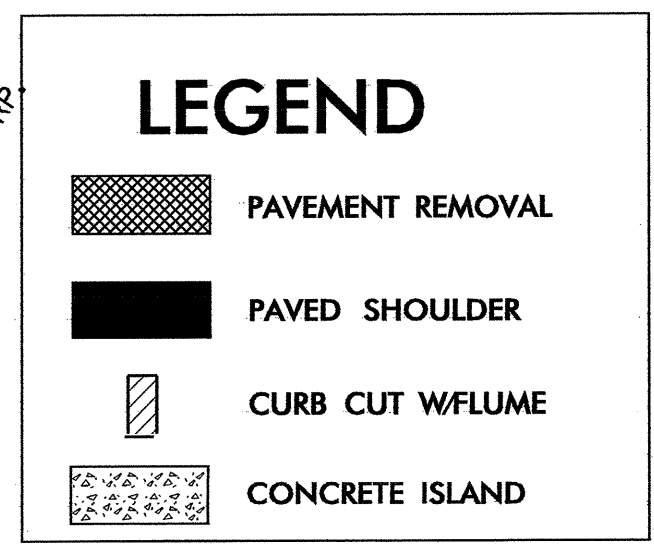


-L-
PI Sta 49+02.48
 $\Delta = 27^\circ 31' 48.3''$ (RT)
 $D = 3^\circ 50' 00.0''$
 $L = 718.18'$
 $T = 366.16'$
 $R = 1,494.67'$

-Y7-
PI Sta 14+52.78
 $\Delta = 72^\circ 03' 38.1''$ (LT)
 $D = 76^\circ 23' 39.7''$
 $L = 94.33'$
 $T = 54.55'$
 $R = 75.00'$

8"x6" CURB LOCATIONS			
LINE	STATION	STATION	SIDE
L	18+49	18+77	LT
L	19+04	19+54	LT
L	19+92	20+75	LT
L	21+15	23+87	LT
L	24+40	26+02	LT
L	26+45	26+95	LT
L	27+19	27+79	LT
L	31+04	31+77	LT
L	31+99	32+86	LT
L	33+30	34+23	LT
L	34+63	36+21	LT
L	36+61	38+82	LT
L	39+71	40+69	LT
L	41+02	41+74	LT
L	43+01	43+17	LT
L	43+56	44+26	LT
L	39+54	39+73	RT
L	40+11	41+71	RT
L	42+25	43+04	RT
L	43+41	46+75	RT
L	50+10	52+10	RT
Y1	15+62	15+96	LT

- NOTES
1. ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
 2. ALL COMMERCIAL DRIVEWAY RADII ARE 8' UNLESS OTHERWISE NOTED.
 3. ALL CHANNELIZATION CURBING IS 8" X 6" AND ALL 8" X 6" CURBING RADII ARE 3' UNLESS OTHERWISE NOTED.
 4. SEE PAVEMENT MARKING PLANS FOR PAINTED ISLANDS.
 5. ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.
 6. SEE CURB AND GUTTER END TREATMENT DETAIL ON SHEET 2-E.



SEE PROFILES FOR SPECIAL DITCH GRADES
SEE SHEET 11 FOR -L- PROFILE
SEE SHEET 14 FOR -Y6- PROFILE
SEE SHEET 14 FOR -Y7- PROFILE

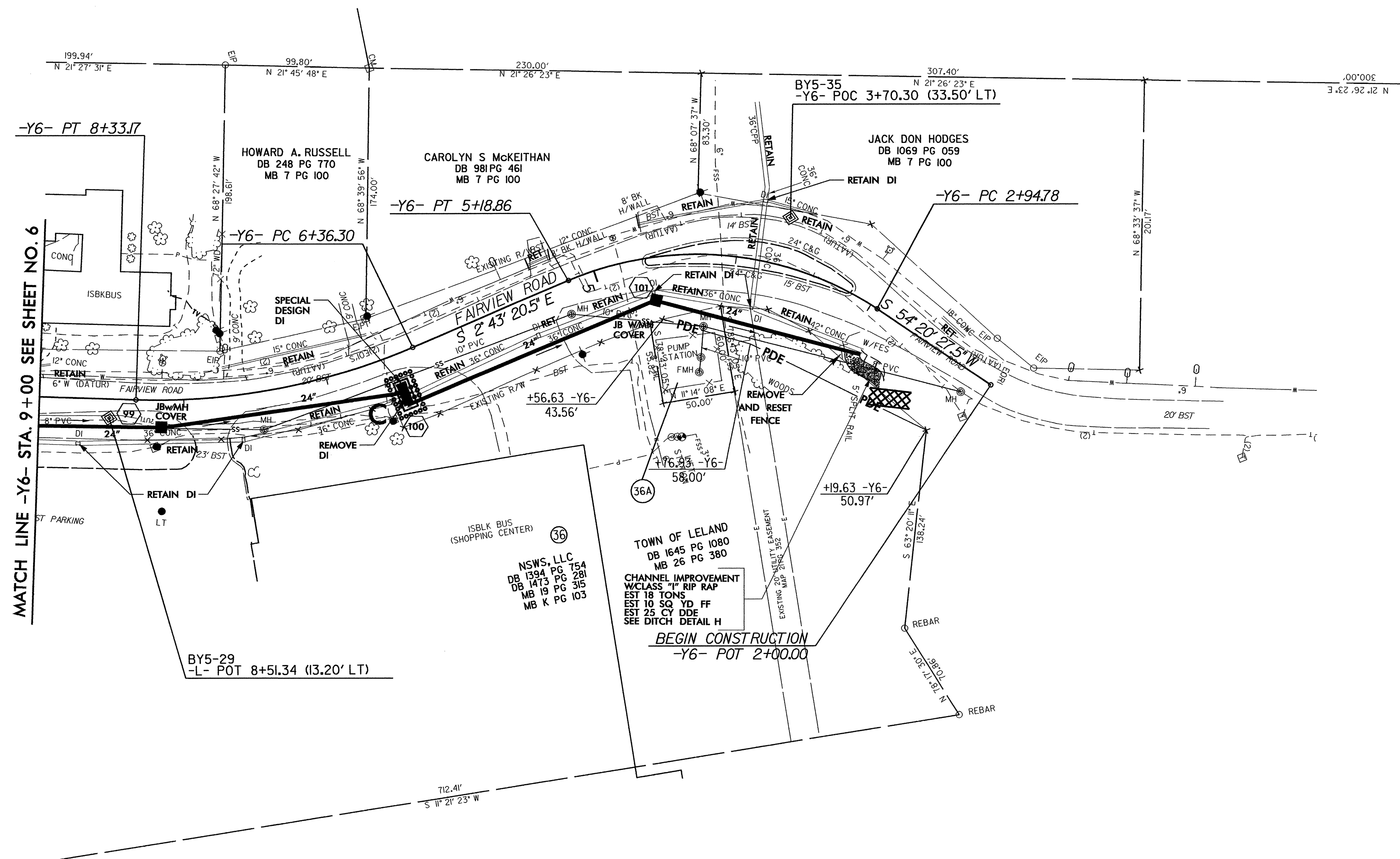
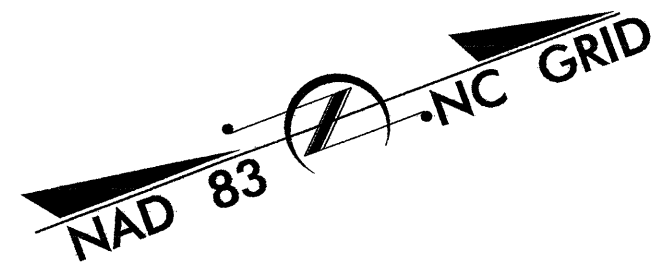
SEE SHEET 2-F FOR DITCH DETAILS, WATER QUALITY ISLAND, AND CURB CUT FLUME DETAIL
SEE SHEET 2-H FOR -Y6- INTERSECTION DETAIL
SEE SHEET 2-I FOR -Y7- INTERSECTION DETAIL

REVISIONS

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NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.

PROJECT REFERENCE NO.		SHEET NO.	
R-4002		EC-12/CONST.6A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



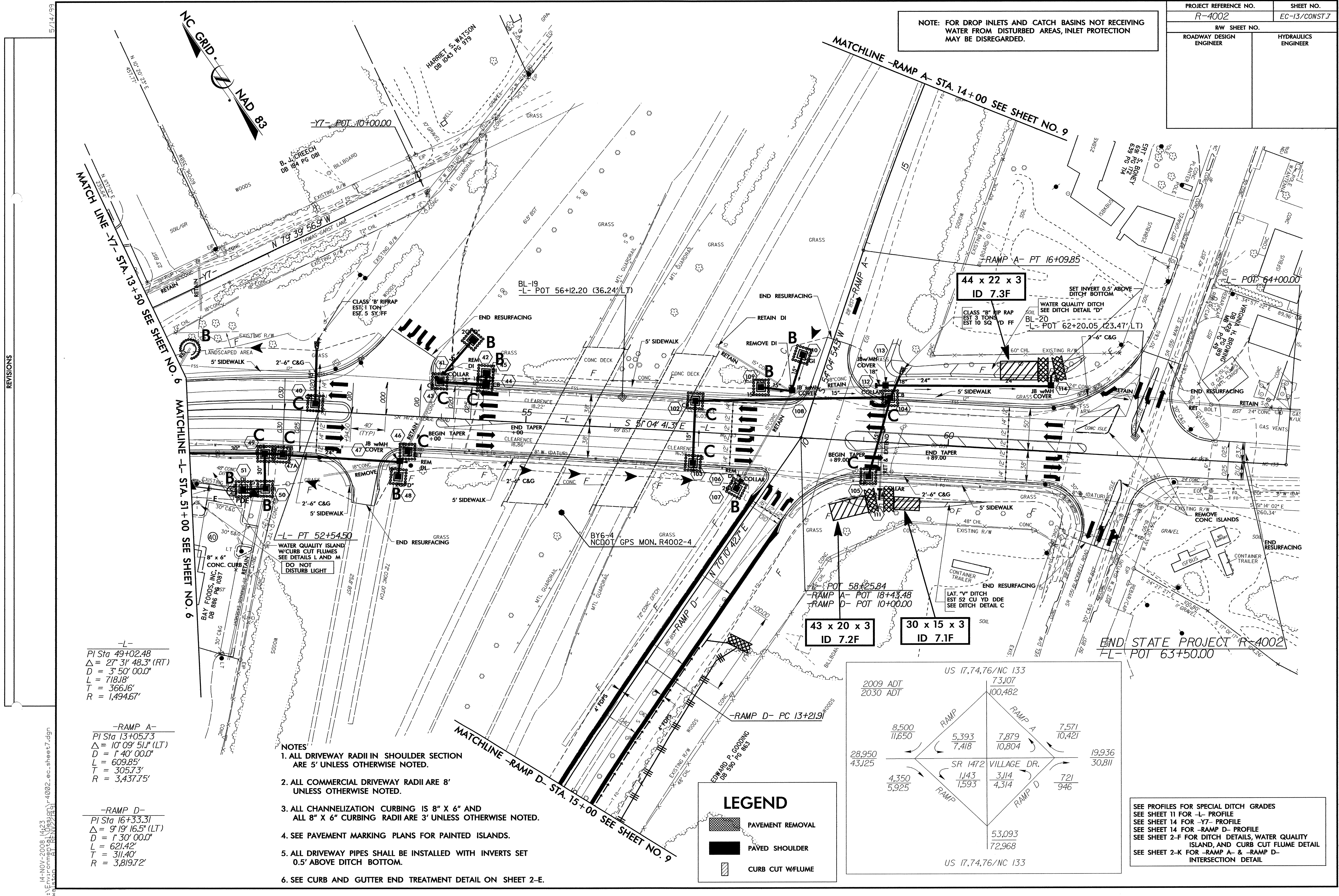
MATCH LINE -Y6- STA. 9+00 SEE SHEET NO. 6

-Y6-
 PI Sta 7+36.33
 $\Delta = 25^{\circ} 03' 55.3''$ (RT)
 $D = 12^{\circ} 43' 56.6''$
 $L = 196.86'$
 $T = 100.03'$
 $R = 450.00'$

-Y6-
 PI Sta 4+7.10
 $\Delta = 57^{\circ} 03' 47.6''$ (LT)
 $D = 25^{\circ} 27' 53.2''$
 $L = 224.09'$
 $T = 122.33'$
 $R = 225.00'$

PROJECT REFERENCE NO. R-4002	SHEET NO. EC-13/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.



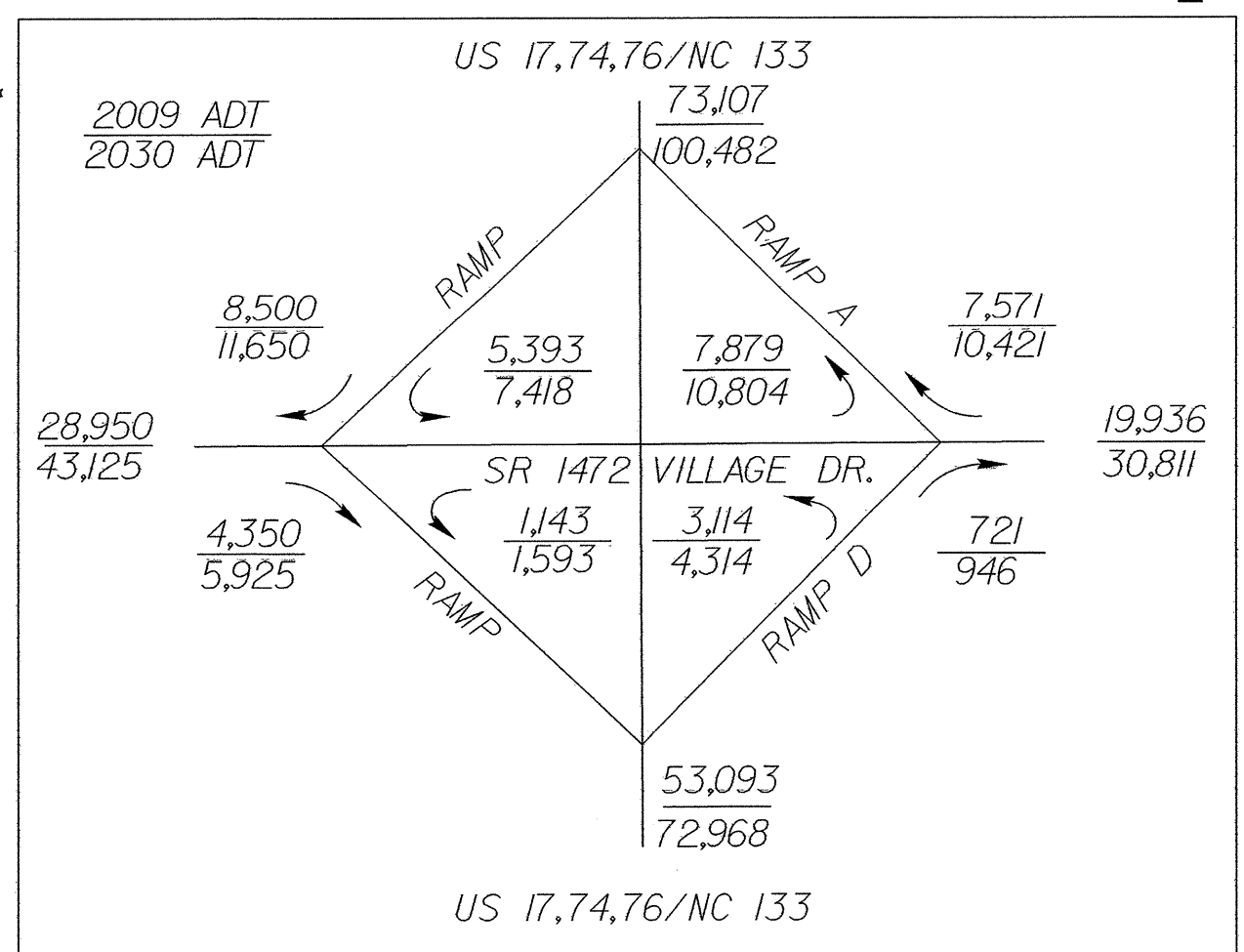
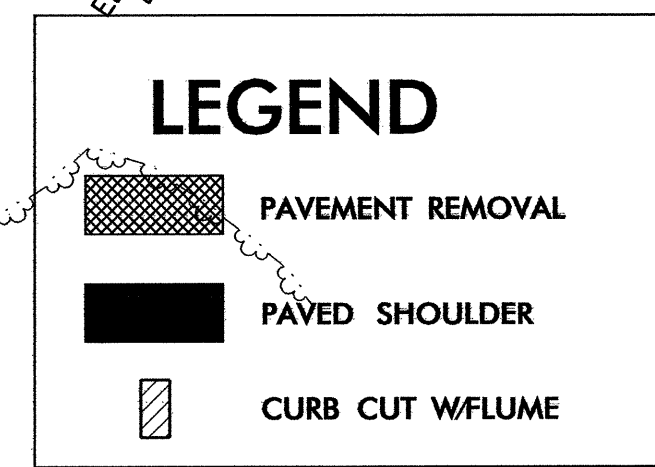
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 Johnson

-L-
 PI Sta 49+02.48
 $\Delta = 27' 31" 48.3" (RT)$
 $D = 3' 50' 00.0"$
 $L = 718.18'$
 $T = 366.16'$
 $R = 1,494.67'$

-RAMP A-
 PI Sta 13+05.73
 $\Delta = 10' 09" 51.1" (LT)$
 $D = 1' 40' 00.0"$
 $L = 609.85'$
 $T = 305.73'$
 $R = 3,437.75'$

-RAMP D-
 PI Sta 16+33.31
 $\Delta = 9' 19" 16.5" (LT)$
 $D = 1' 30' 00.0"$
 $L = 621.42'$
 $T = 311.40'$
 $R = 3,819.72'$

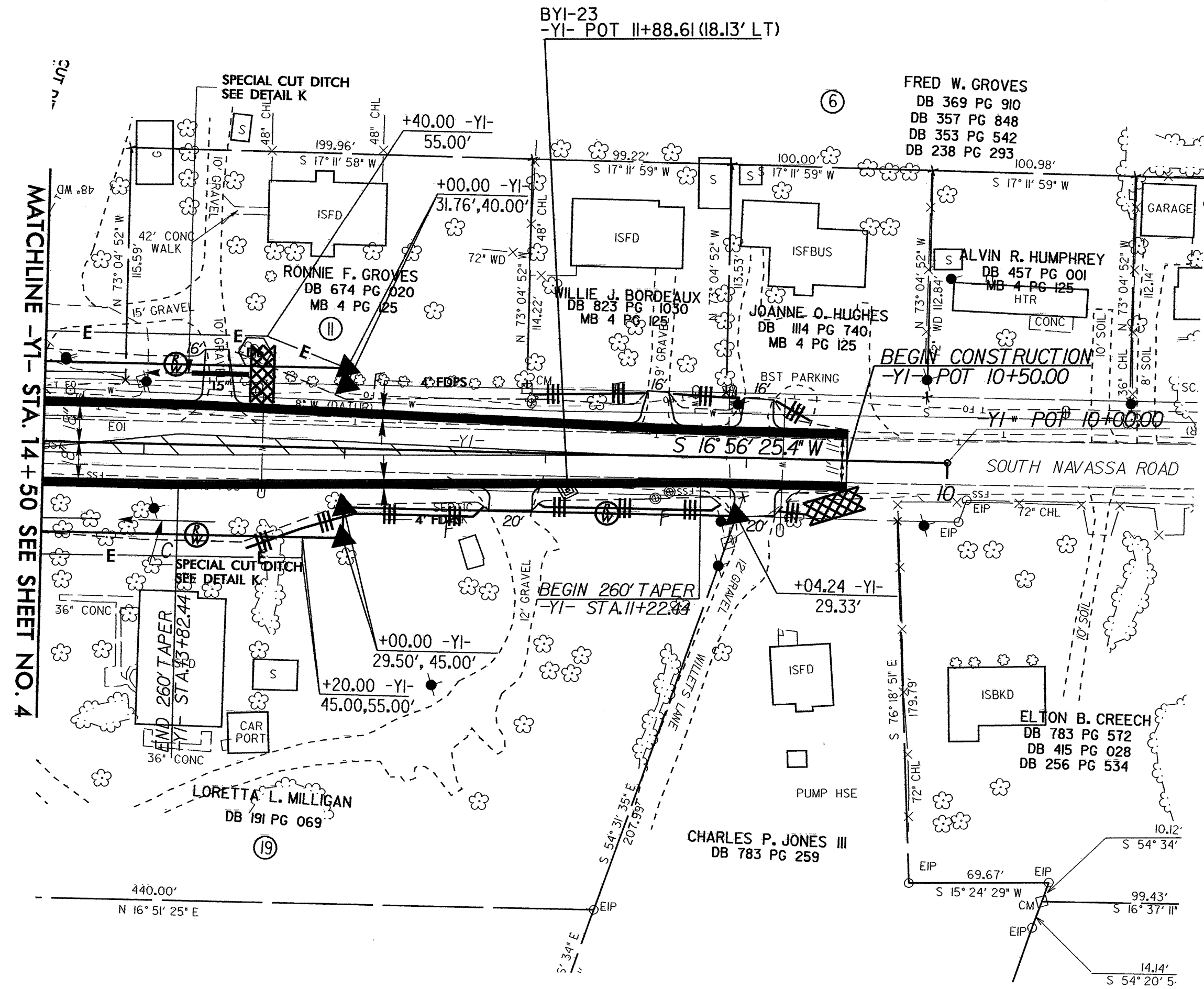
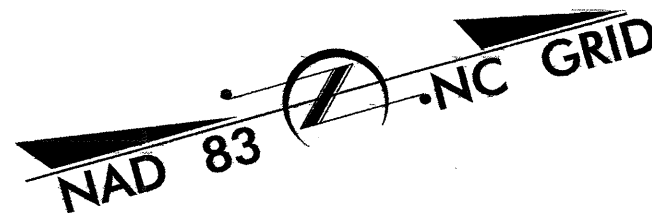
- NOTES
1. ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
 2. ALL COMMERCIAL DRIVEWAY RADII ARE 8' UNLESS OTHERWISE NOTED.
 3. ALL CHANNELIZATION CURBING IS 8" X 6" AND ALL 8" X 6" CURBING RADII ARE 3' UNLESS OTHERWISE NOTED.
 4. SEE PAVEMENT MARKING PLANS FOR PAINTED ISLANDS.
 5. ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.
 6. SEE CURB AND GUTTER END TREATMENT DETAIL ON SHEET 2-E.



SEE PROFILES FOR SPECIAL DITCH GRADES
 SEE SHEET 11 FOR -L- PROFILE
 SEE SHEET 14 FOR -Y7- PROFILE
 SEE SHEET 14 FOR -RAMP D- PROFILE
 SEE SHEET 2-F FOR DITCH DETAILS, WATER QUALITY ISLAND, AND CURB CUT FLUME DETAIL
 SEE SHEET 2-K FOR -RAMP A- & -RAMP D- INTERSECTION DETAIL

PROJECT REFERENCE NO.	SHEET NO.
R-4002	EC-14/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.



- NOTES
1. ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
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 3. ALL CHANNELIZATION CURBING IS 8" X 6" AND ALL 8" X 6" CURBING RADII ARE 3' UNLESS OTHERWISE NOTED.
 4. SEE PAVEMENT MARKING PLANS FOR PAINTED ISLANDS.
 5. ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.

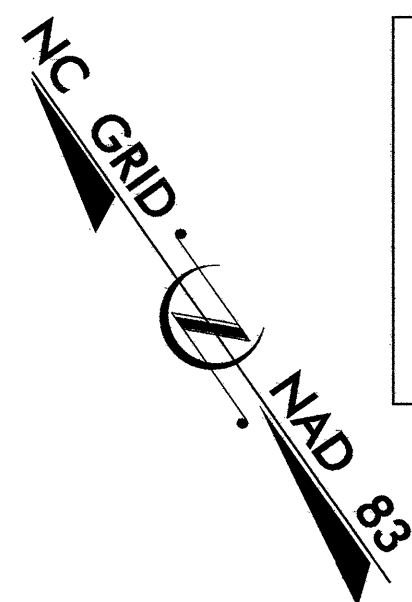
LEGEND

PAVEMENT REMOVAL

PAVED SHOULDER

SEE PROFILES FOR SPECIAL DITCH GRADES
SEE SHEET 12 FOR -Y1- PROFILE

REVISIONS



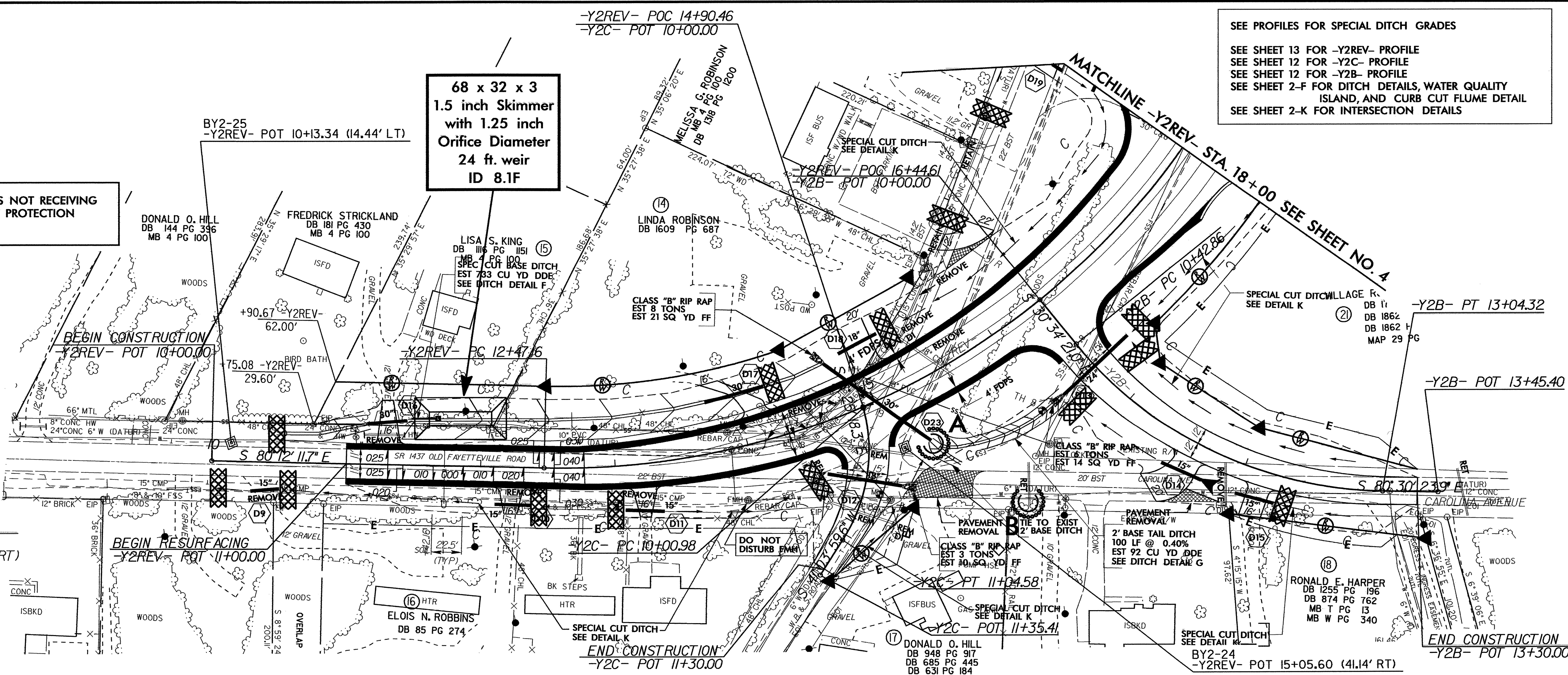
LEGEND

PAVEMENT REMOVAL

PAVED SHOULDER

NOTE: FOR DROP INLETS AND CATCH BASINS NOT RECEIVING WATER FROM DISTURBED AREAS, INLET PROTECTION MAY BE DISREGARDED.

- NOTES
1. ALL DRIVEWAY RADII IN SHOULDER SECTION ARE 5' UNLESS OTHERWISE NOTED.
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 5. ALL DRIVEWAY PIPES SHALL BE INSTALLED WITH INVERTS SET 0.5' ABOVE DITCH BOTTOM.
 6. SEE CURB AND GUTTER END TREATMENT DETAIL ON SHEET 2-E.



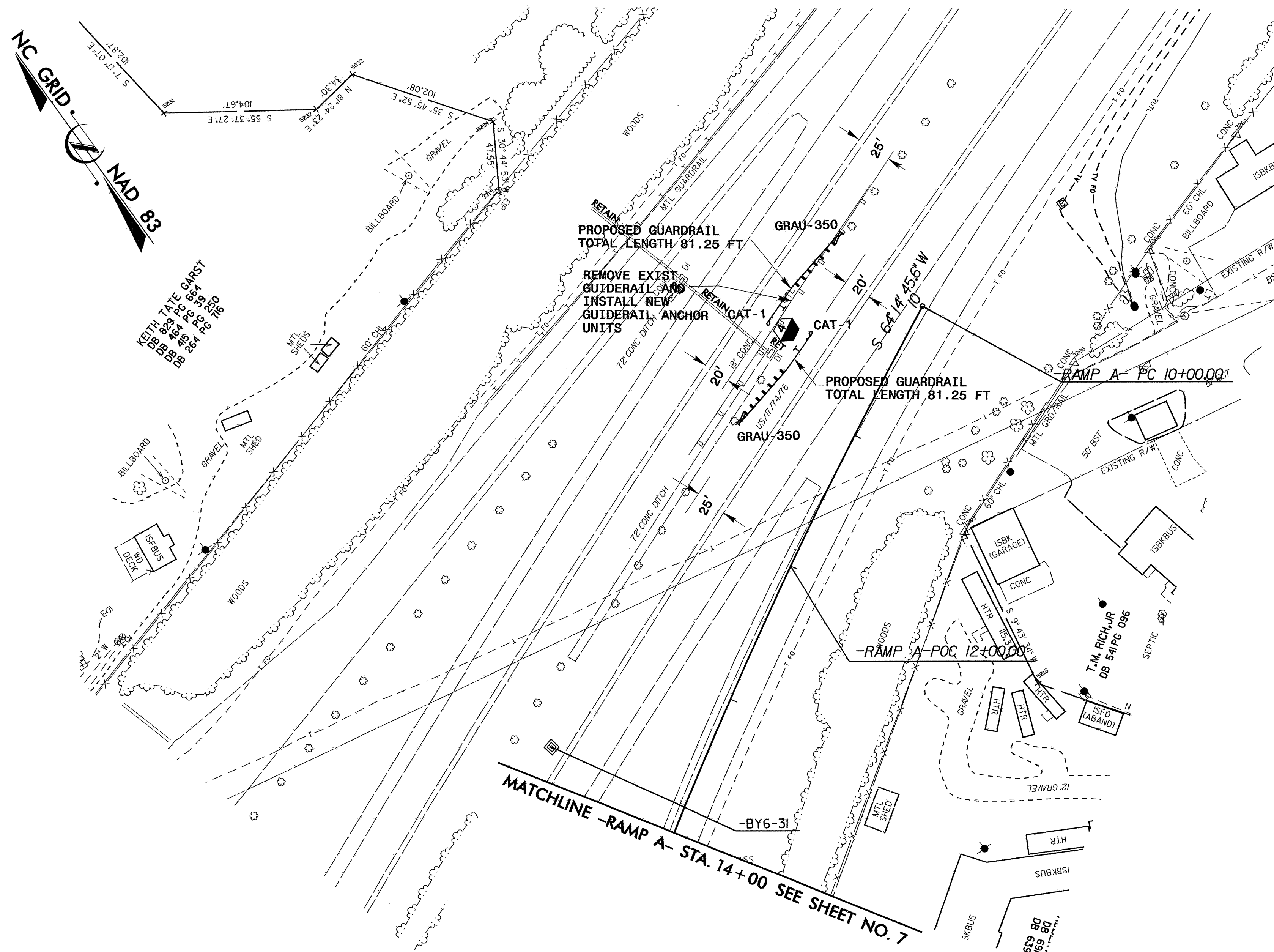
SEE PROFILES FOR SPECIAL DITCH GRADES
SEE SHEET 13 FOR -Y2REV- PROFILE
SEE SHEET 12 FOR -Y2C- PROFILE
SEE SHEET 12 FOR -Y2B- PROFILE
SEE SHEET 2-F FOR DITCH DETAILS, WATER QUALITY ISLAND, AND CURB CUT FLUME DETAIL
SEE SHEET 2-K FOR INTERSECTION DETAILS

-Y2REV-	-Y2B-	-Y2C-
PI Sta 16+74.13	PI Sta 11+82.54	PI Sta 10+55.97
$\Delta = 74^{\circ} 09' 21.0" (LT)$	$\Delta = 49^{\circ} 56' 02.9" (LT)$	$\Delta = 47^{\circ} 29' 17.9" (RT)$
$D = 10^{\circ} 08' 27.0"$	$D = 19^{\circ} 05' 54.9"$	$D = 45^{\circ} 50' 11.8"$
$L = 731.26'$	$L = 261.45'$	$L = 103.60'$
$T = 426.96'$	$T = 139.68'$	$T = 54.99'$
$R = 565.00'$	$R = 300.00'$	$R = 125.00'$

5/14/99


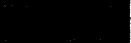
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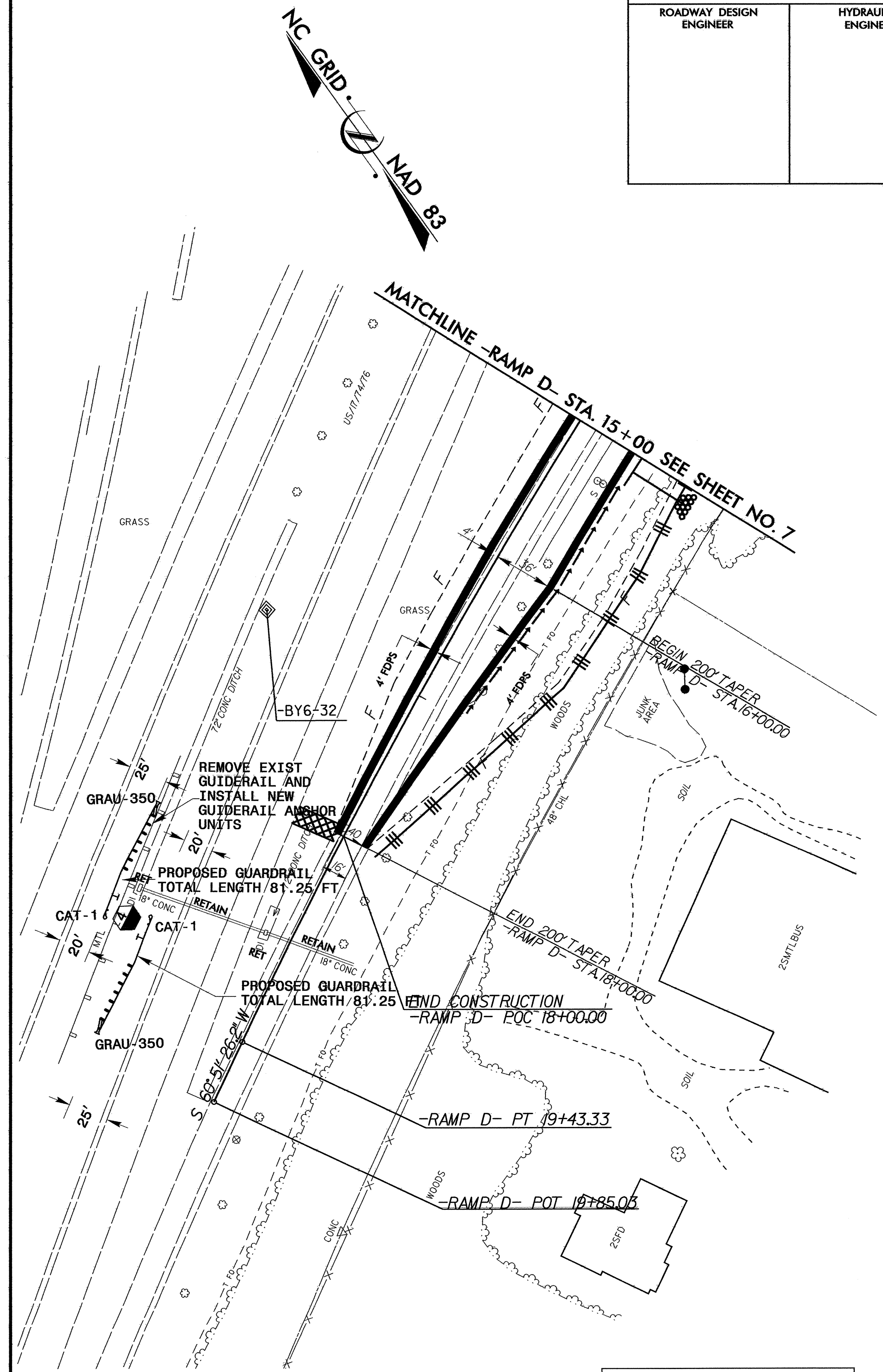


-RAMP A-
 PI Sta 13+05.73
 $\Delta = 10^{\circ} 09' 51''$ (LT)
 $D = 1^{\circ} 40' 00.0''$
 $L = 609.85'$
 $T = 305.73'$
 $R = 3,437.75'$

LEGEND



-  PAVEMENT REMOVAL
-  PAVED SHOULDER

PROJECT REFERENCE NO. R-4002	SHEET NO. EC-15/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-RAMP D-
 PI Sta 16+33.31
 $\Delta = 9^{\circ} 19' 16.5''$ (LT)
 $D = 1^{\circ} 30' 00.0''$
 $L = 621.42'$
 $T = 311.40'$
 $R = 3,819.72'$

LEGEND

-  PAVEMENT REMOVAL
-  PAVED SHOULDER

SEE SHEET 14 FOR -RAMP D- PROFILE