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STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3330	EC-1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
36596.1.2	STP – 0301 (28)	PE
36596.2.1	STP – 0301 (28)	R/W
36596.2.U1	STP – 0301 (28)	UTIL.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

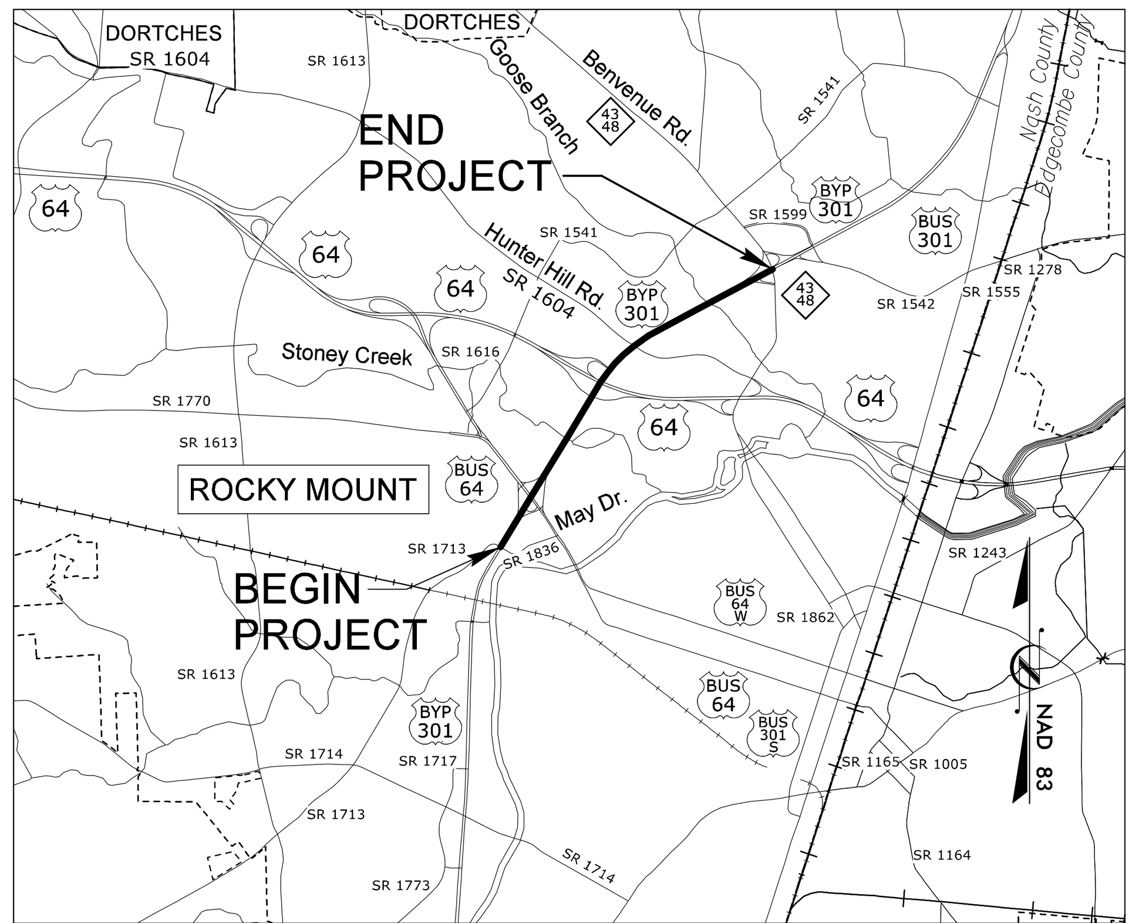
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

NASH COUNTY

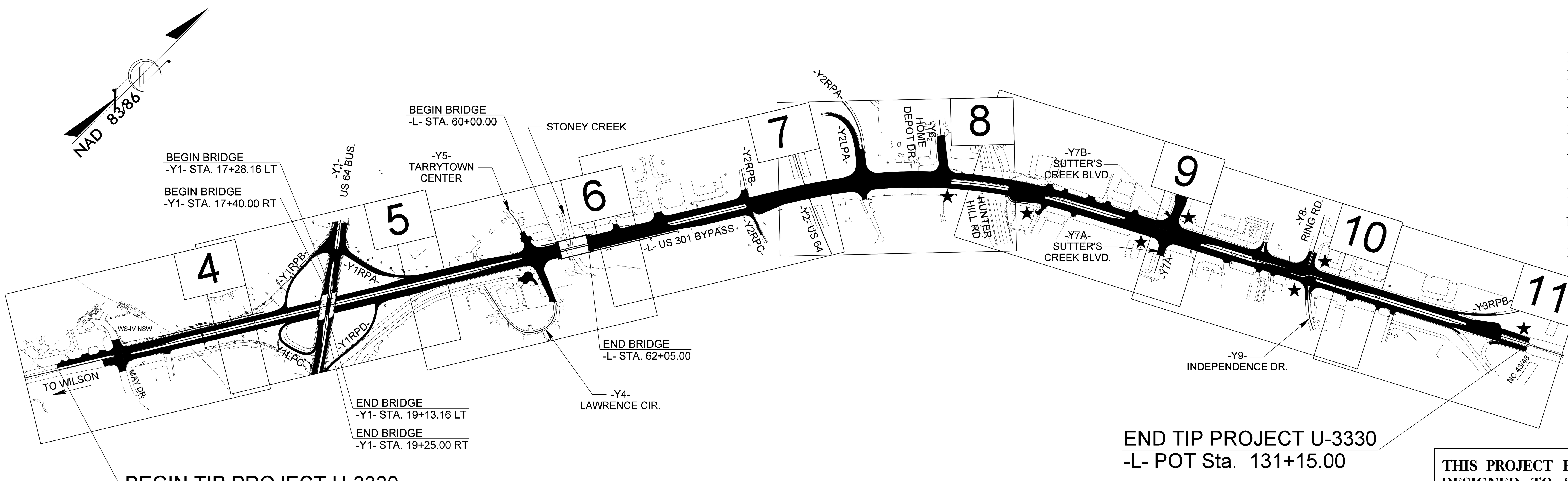
LOCATION: ROCKY MOUNT – US 301 BYPASS FROM SR 1836 (MAY DRIVE) TO NC 43/48 (BENVENUE ROAD) INTERCHANGE

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

See Sheet 1-A For Index of Sheets



VICINITY MAP



BEGIN TIP PROJECT U-3330
-L- Sta. 23+25.00

END TIP PROJECT U-3330
-L- POT Sta. 131+15.00

NOTES:
1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
2. THIS IS A PARTIAL CONTROLLED–ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.
3. THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARY OF ROCKY MOUNT.

★ TRAFFIC SIGNAL

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT. REFER TO E.C. SPECIAL PROVISIONS FOR SPECIAL DESIGN CONSIDERATIONS AND STANDARDS.

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	EW / CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
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	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

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

MATTHEW HARVEY
LEVEL IIIA NAME

3487
LEVEL IIIA CERTIFICATION NO.

TIP PROJECT: U-3330

CONTRACT:

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG–010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared In the Office of:

ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2012 STANDARD SPECIFICATIONS

Roadway Standard Drawings

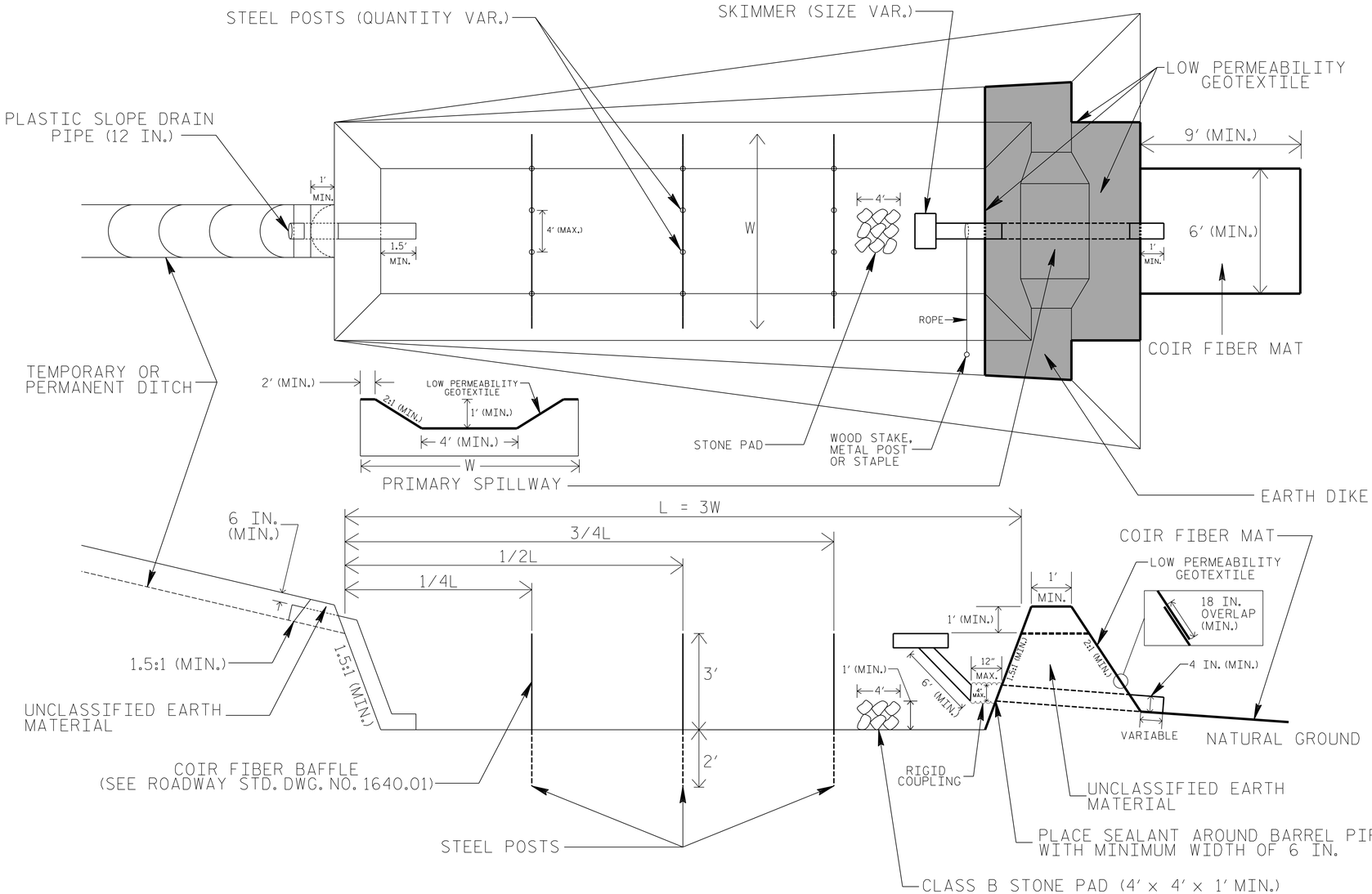
The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2012 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail
1605.01	Temporary Silt Fence
1606.01	Special Sediment Control Fence
1607.01	Gravel Construction Entrance
1622.01	Temporary Berms and Slope Drains
1630.01	Riser Basin
1630.02	Silt Basin Type B
1630.03	Temporary Silt Ditch
1630.04	Stilling Basin
1630.05	Temporary Diversion
1630.06	Special Stilling Basin
1631.01	Matting Installation
1632.01	Rock Inlet Sediment Trap Type A
1632.02	Rock Inlet Sediment Trap Type B
1632.03	Rock Inlet Sediment Trap Type C
1633.01	Temporary Rock Silt Check Type A
1633.02	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
1640.01	Coir Fiber Baffle
1645.01	Temporary Stream Crossing

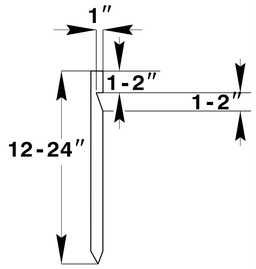
09/08/99
$$$$SYSTIME$$$$
$$$$DGN$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

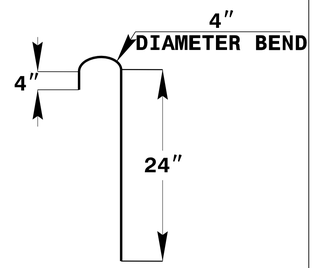
SKIMMER BASIN WITH BAFFLES DETAIL (EAST)



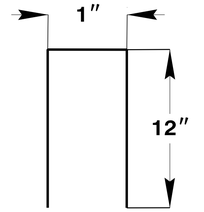
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING Q/0.4, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BORROW PIT DEWATERING BASIN DETAIL

GENERAL NOTES:

DETERMINE BORROW PIT DEWATERING BASIN SIZE USING V = 8.0203 * Q * T, WHERE V IS VOLUME (FT^3), Q IS PUMP FLOW RATE (GPM), AND T IS DEWATERING TIME (HR). USE MAXIMUM FLOW RATE OF 1000 GPM AND A MINIMUM DEWATERING TIME OF 2 HOURS.

RISER SHALL BE A NON-PERFORATED, SMOOTH OR CORRUGATED MATERIAL WITH A FLASHBOARD OPTION.

CONSTRUCT THE COIR FIBER BAFFLE IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1640.01 AND WITH MATERIAL THAT MEETS THE SPECIFICATIONS OF ROADWAY STANDARD 1060-14.

PROVIDE 5′ STEEL POSTS OF THE SELF-FASTENER ANGLE STEEL TYPE. INSTALL STEEL POSTS WITH NO MORE THAN 3′ OF THE POST APPEARING ABOVE THE GROUND.

ATTACH THE COIR FIBER MAT TO THE STEEL POSTS WITH WIRE OR OTHER ACCEPTABLE MEANS AND STAPLED INTO THE BOTTOM AND SIDE SLOPES OF THE BASIN WITH 12″ STAPLES.

INSTALL TYPE 2 GEOTEXTILE ON SIDESLOPES AND BOTTOM OF BASIN AT INLET AS SHOWN IN THE DETAIL.

USE THE TYPICAL SECTION SHOWN FOR THE BORROW PIT DEWATERING BASIN AS A GUIDE. THE BASIN MAY HAVE ANY TYPE CONFIGURATION AS LONG AS SUFFICIENT VOLUME IS PROVIDED AND PROVISIONS ARE MADE FOR A NON-PERFORATED RISER.

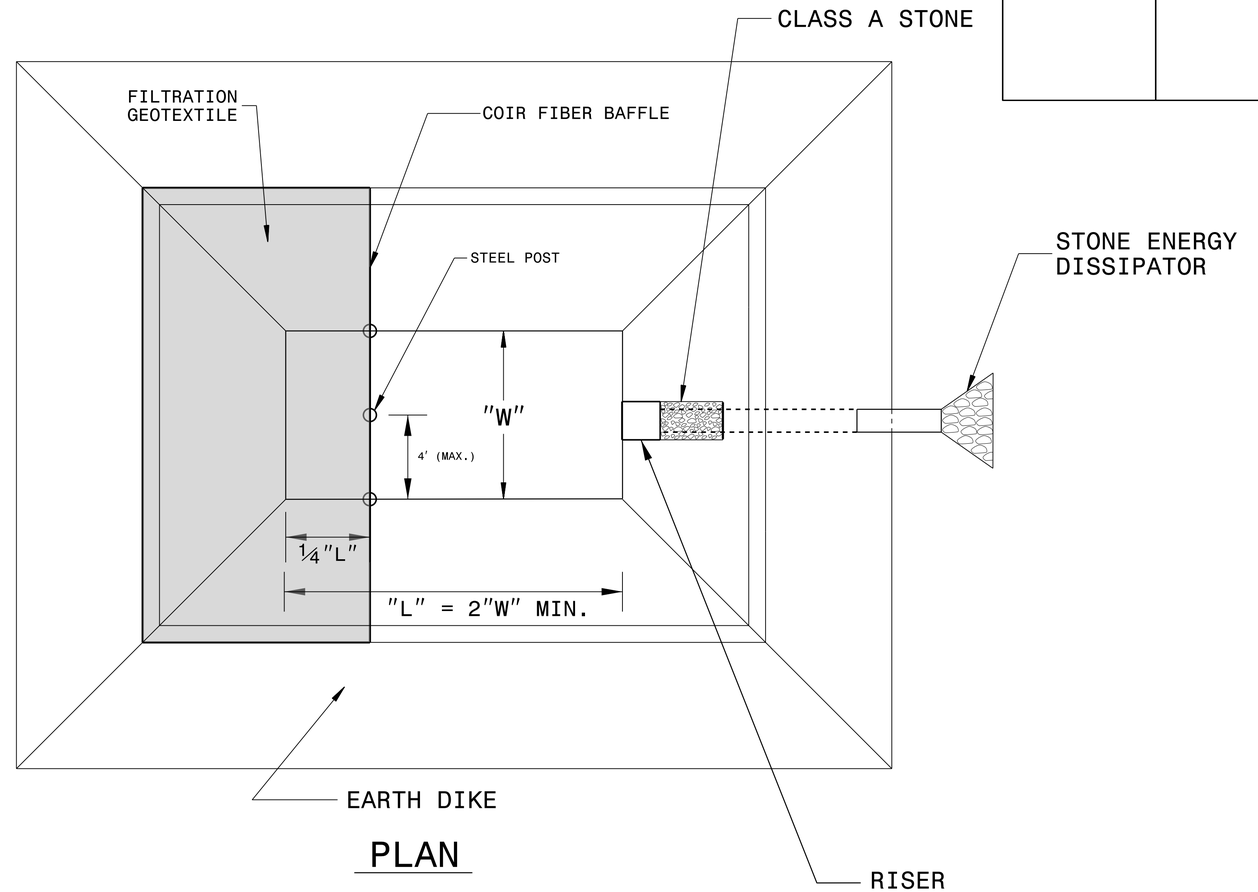
DO NOT EXCEED 3½ FT. IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR BORROW PIT DEWATERING BASIN.

THE BORROW PIT DEWATERING BASIN SIZE IS VARIABLE AND DEPENDENT ON SPECIFIC SITE REQUIREMENTS AS WELL AS PROPOSED CONSTRUCTION OPERATIONS.

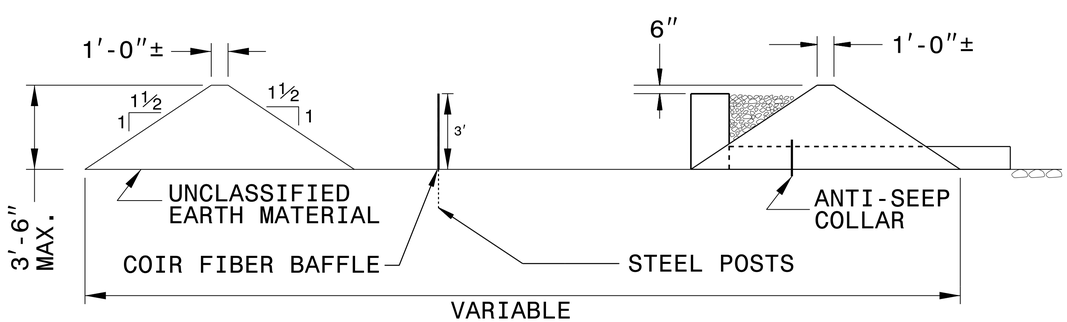
SUBMIT THE SIZE, LOCATION AND RISER PIPE MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

PUMP THE EFFLUENT INTO THE BORROW PIT DEWATERING BASIN TO A MAXIMUM DEPTH OF 6 IN. BELOW TOP OF EARTH DIKE.

PROVIDE A STONE ENERGY DISSIPATOR PAD AT THE OUTLET OF THE PUMP DISCHARGE HOSE AND OUTLET OF THE RISER BARREL IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 876.02 FOR OUTLET W/O DITCH.



PLAN

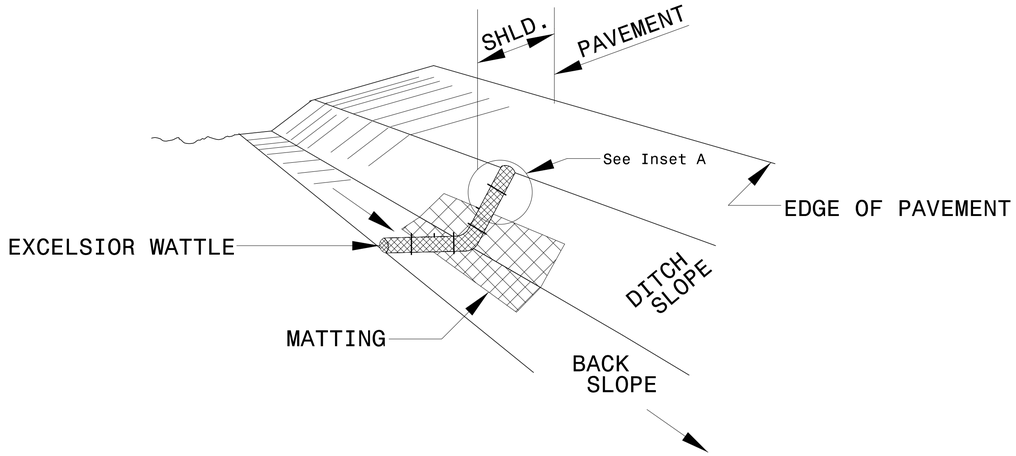


TYPICAL SECTION VIEW

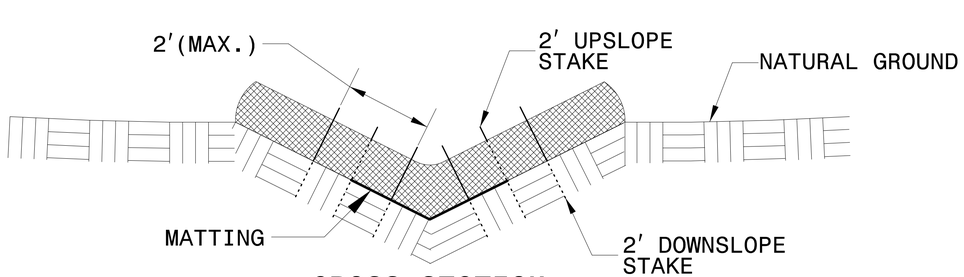
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

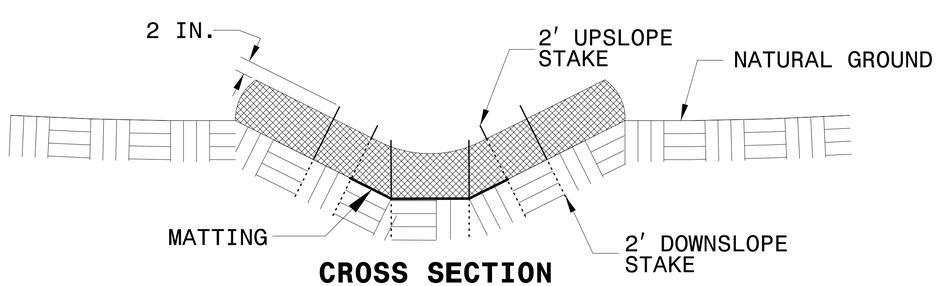
WATTLE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

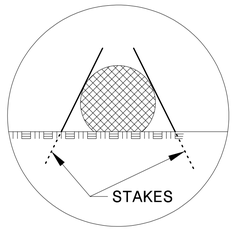
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

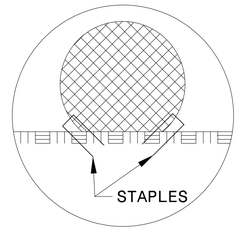
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

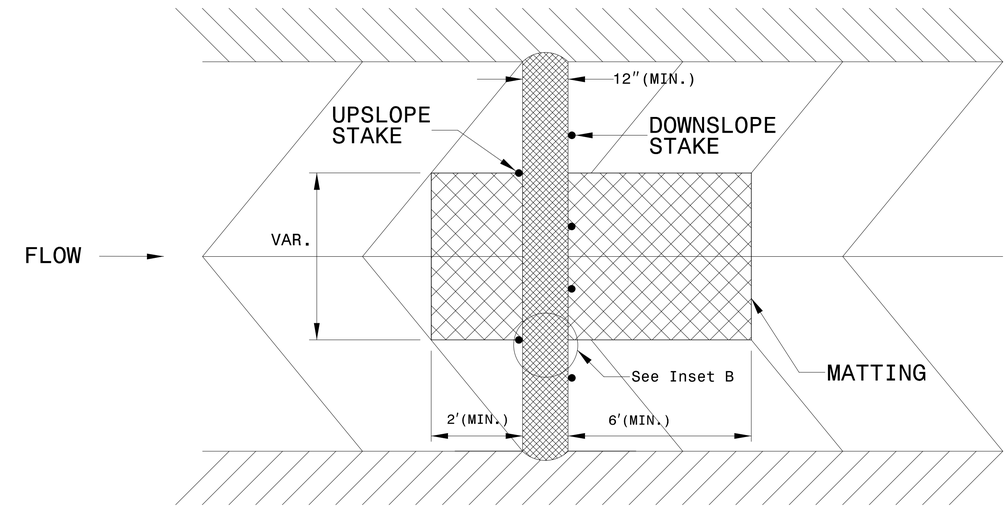
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A



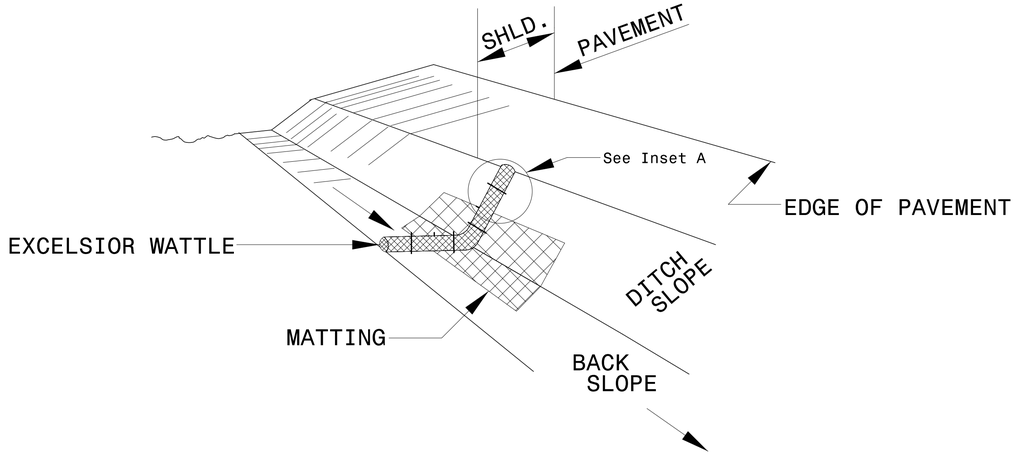
INSET B



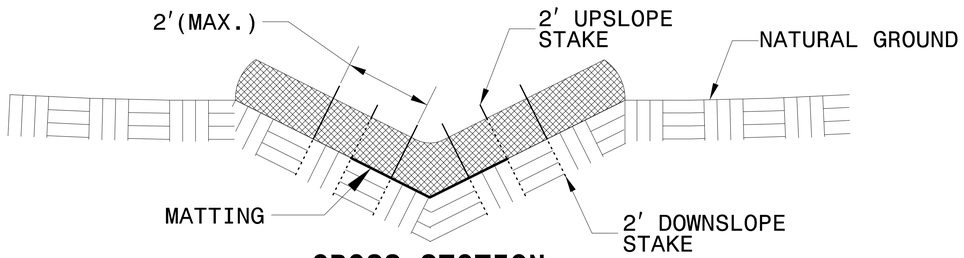
TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

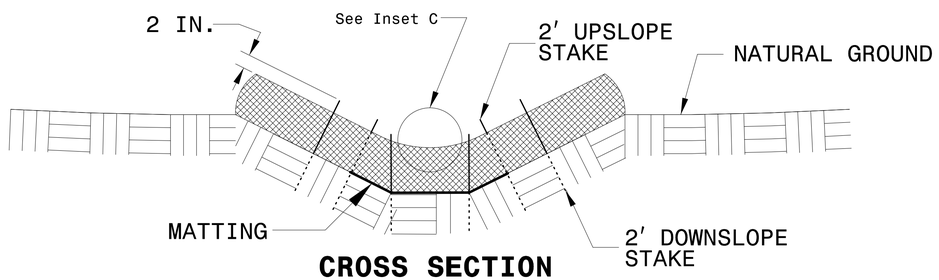
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

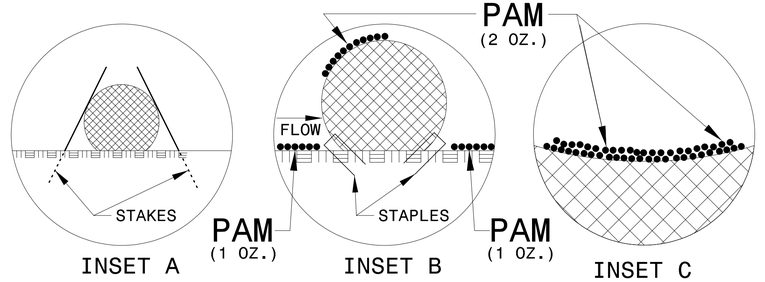
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

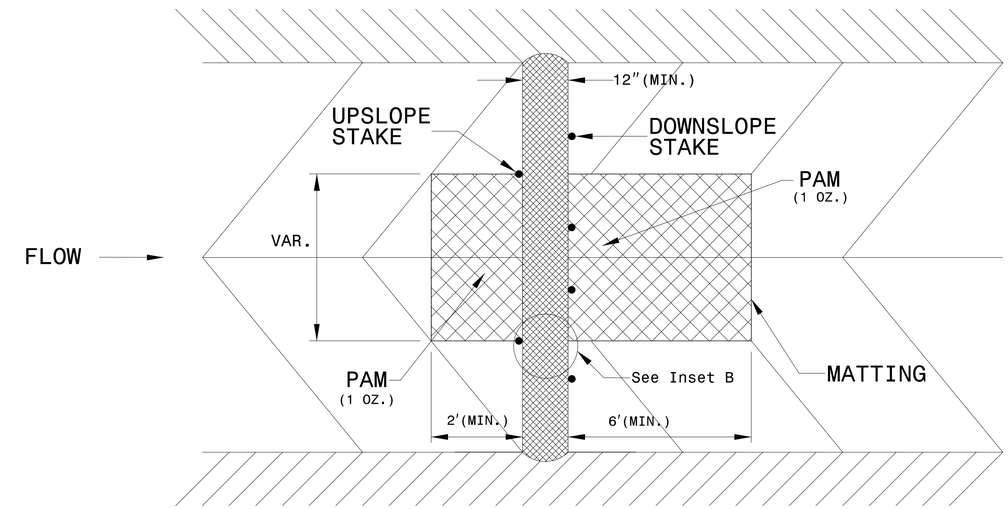
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-3

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	29+00	32+00	LT	210
4	-L-	35+00	39+50	LT	510
5	-Y1RPB-	10+55	12+50	LT	200
5	-Y1LPC-	13+50	14+00	RT	200
5	-Y1RPD-	11+03	13+00	RT	200
5	-Y1RPD-	13+00	14+00	RT	105
5	-Y1RPD-	10+81	13+00	LT	225
5	-Y1RPD-	13+00	14+00	LT	105
5	-Y1RPD-	14+00	16+00	LT	205
5	-Y1RPA-	10+90	12+15	RT	200
5	-Y1RPA-	12+15	15+00	RT	260
5	-Y1RPA-	15+00	16+50	RT	140
5	-L-	47+00	50+72	RT	500
5/6	-L-	50+00	53+00	LT	340
6	-L-	55+00	57+00	LT	185
6	-Y4-	11+13	12+50	LT	100
6	-L-	59+01	59+85	RT	60
8	-L-	83+00	85+00	LT	230
8	-L-	83+00	87+50	LT	365
9	-L-	95+50	97+00	RT	125
9	-L-	103+00	103+50	RT	45
10	-L-	111+76	112+74	LT	155
10	-L-	112+87	113+79	LT	105
10	-L-	108+00	108+50	RT	45
10	-L-	116+00	117+50	RT	155
				SUBTOTAL	4,840
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					9,105
				TOTAL	13,945
				SAY	14,000

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-04/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

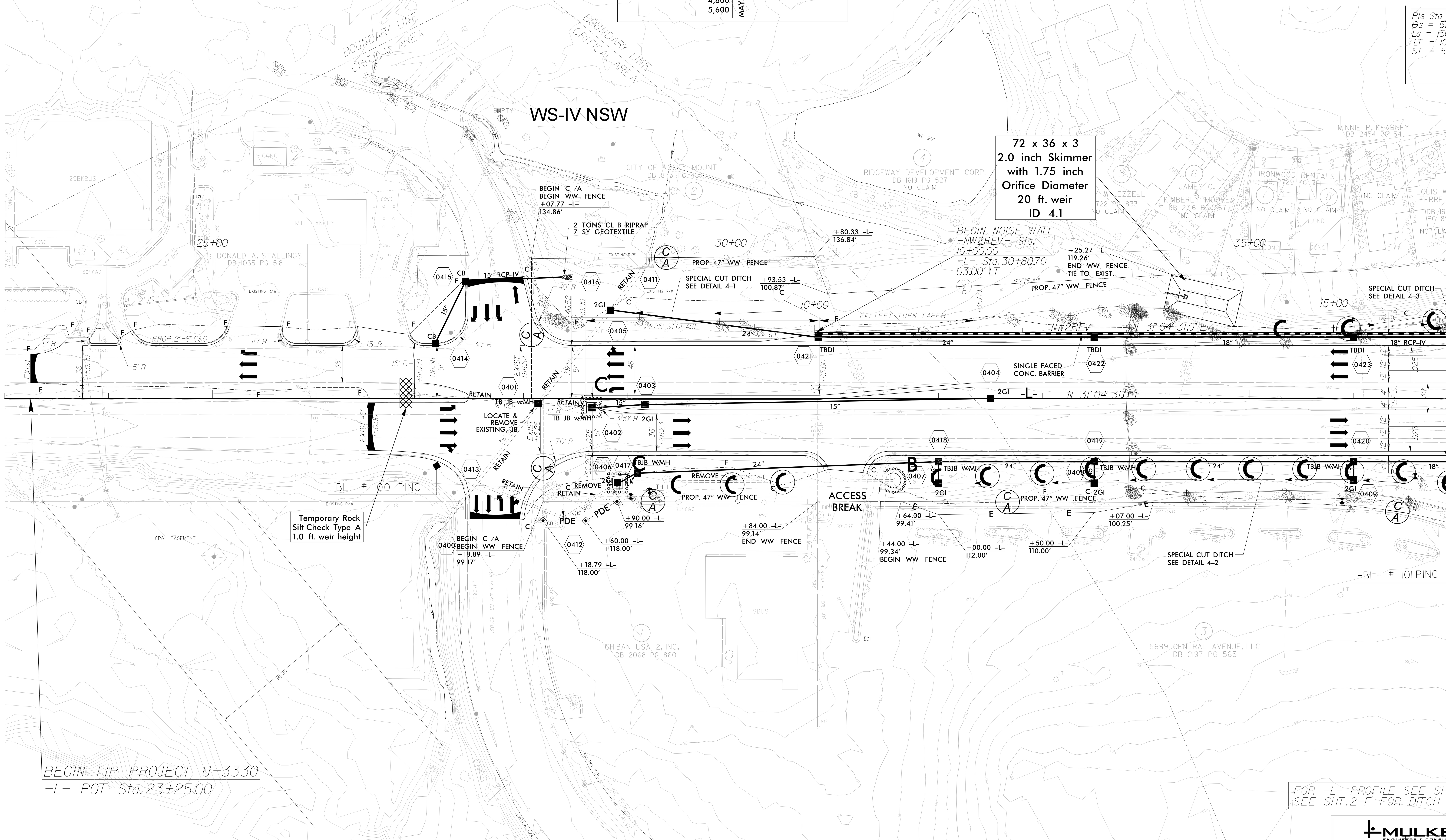
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

TRAFFIC DIAGRAM

ADT 2019
ADT 2039

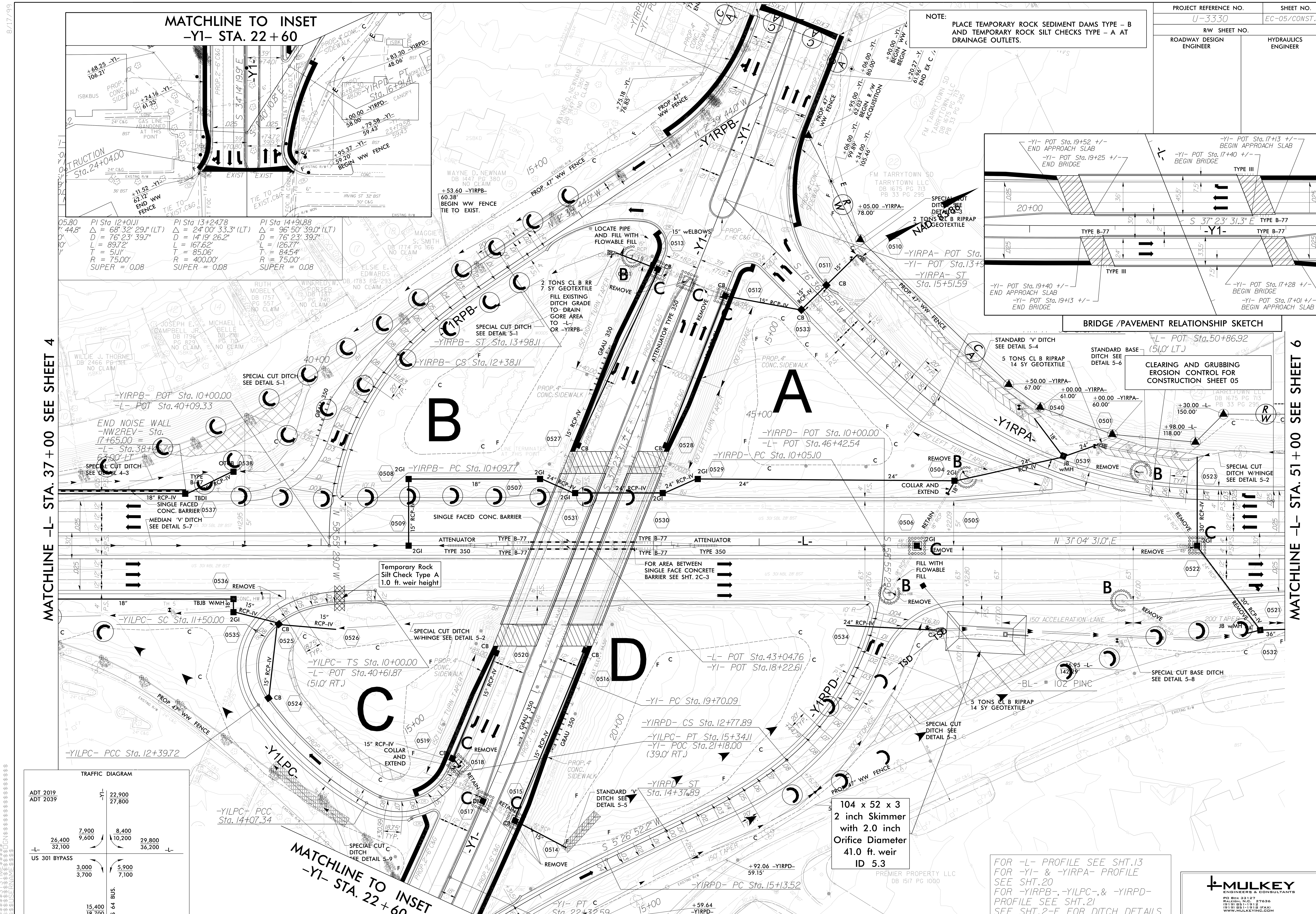
OLD MILL RD: 6,900 / 8,400
1,800 / 2,200
3,400 / 4,200
-L- 26,200 / 31,800
26,400 / 32,100 -L-
US 301 BYPASS
2,100 / 2,600
700 / 900
MAY DR: 4,600 / 5,600



FOR -L- PROFILE SEE SHT.12
SEE SHT.2-F FOR DITCH DETAILS

DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

MULKEY ENGINEERS & CONSULTANTS

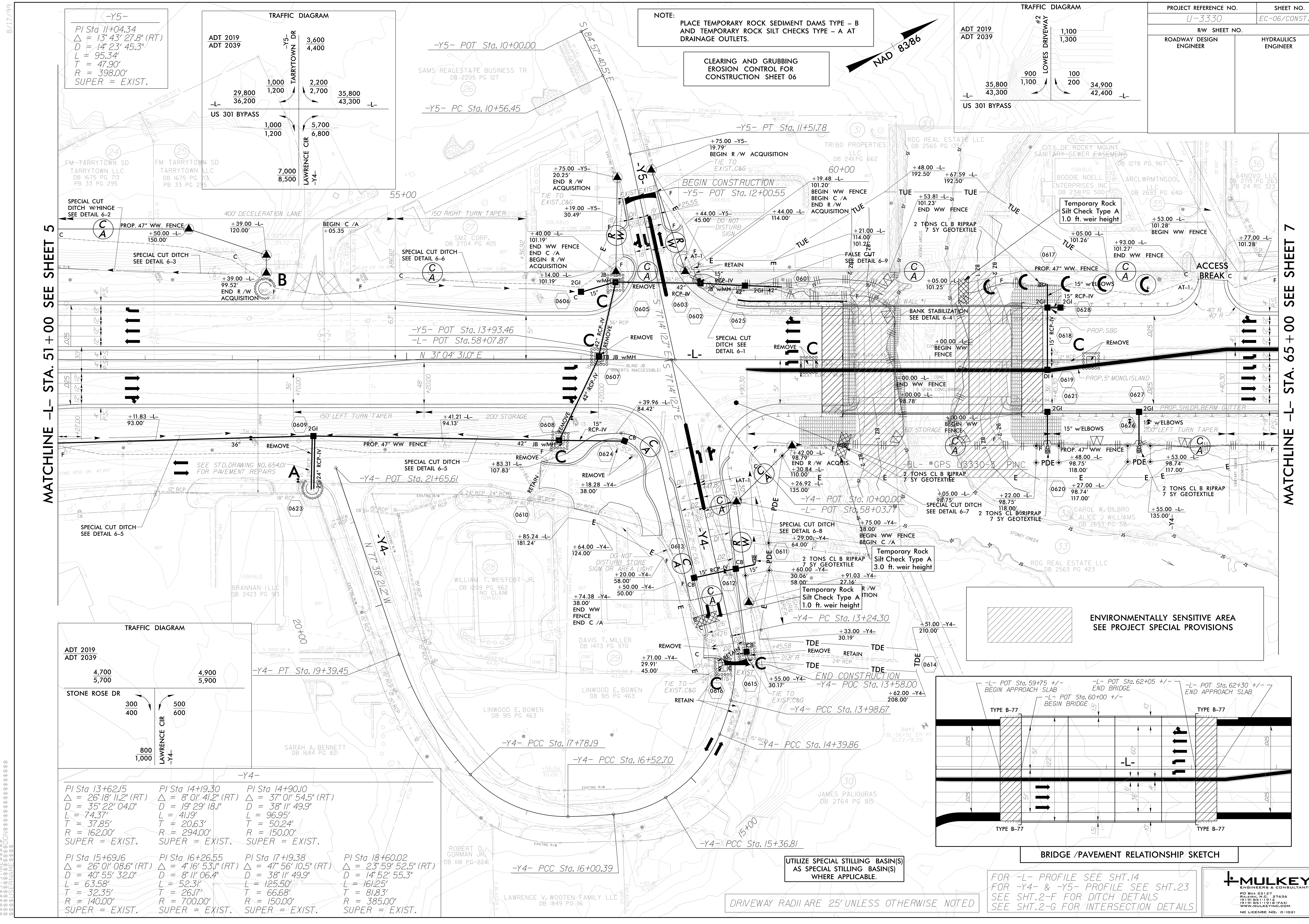


PROJECT REFERENCE NO.
U-3330
SHEET NO.
EC-05/CONST.05
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.
MATCHLINE TO INSET -Y1- STA. 22+60
BRIDGE /PAVEMENT RELATIONSHIP SKETCH
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 05
MATCHLINE -L- STA. 37+00 SEE SHEET 4
MATCHLINE -L- STA. 51+00 SEE SHEET 6
MATCHLINE TO INSET -Y1- STA. 22+60
PI Sta 12+01.11 △ = 68° 32' 29.1" (LT) D = 76° 23' 39.7" L = 89.72' T = 51.11' R = 75.00' SUPER = 0.08
PI Sta 13+24.78 △ = 24° 00' 33.3" (LT) D = 14° 19' 26.2" L = 167.62' T = 85.06' R = 400.00' SUPER = 0.08
PI Sta 14+91.88 △ = 96° 50' 39.0" (LT) D = 76° 23' 39.7" L = 126.77' T = 84.54' R = 75.00' SUPER = 0.08
Temporary Rock Silt Check Type A 1.0 ft. weir height
104 x 52 x 3 2 inch Skimmer with 2.0 inch Orifice Diameter 41.0 ft. weir ID 5.3
TRAFFIC DIAGRAM
ADT 2019
ADT 2039
US 301 BYPASS
US 64 BUS.
FOR -L- PROFILE SEE SHT.13
FOR -Y1- & -Y1RPA- PROFILE SEE SHT.20
FOR -Y1RPB-,-Y1LPC-,& -Y1RPD- PROFILE SEE SHT.21
SEE SHT.2-F FOR DITCH DETAILS
MULKEY ENGINEERS & CONSULTANTS
NC LICENSE NO. C-1021

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-06/CONST.06
R/W 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 06



TRAFFIC DIAGRAM (US 301 BYPASS / TARRYTOWN DR / LAWRENCE CIR)

ADT 2019 / ADT 2039

-Y5- TARRYTOWN DR: 3,600 / 4,400; 1,000 / 1,200; 2,200 / 2,700
-L- US 301 BYPASS: 29,800 / 36,200; 35,800 / 43,300
1,000 / 1,200; 5,700 / 6,800
LAWRENCE CIR -Y4-: 7,000 / 8,500

TRAFFIC DIAGRAM (US 301 BYPASS / LOWES DRIVEWAY #2)

ADT 2019 / ADT 2039

LOWES DRIVEWAY #2: 1,100 / 1,300; 900 / 1,100; 100 / 200
-L- US 301 BYPASS: 35,800 / 43,300; 34,900 / 42,400

TRAFFIC DIAGRAM (STONE ROSE DR / LAWRENCE CIR)

ADT 2019 / ADT 2039

4,700 / 5,700; 4,900 / 5,900
STONE ROSE DR: 300 / 400; 500 / 600
LAWRENCE CIR -Y4-: 800 / 1,000

-Y5-

PI Sta 11+04.34
△ = 13° 43' 27.8" (RT)
D = 14° 23' 45.3"
L = 95.34'
T = 47.90'
R = 398.00'
SUPER = EXIST.

-Y4-

PI Sta 13+62.15	PI Sta 14+19.30	PI Sta 14+90.10	
△ = 26° 18' 11.2" (RT)	△ = 8° 01' 41.2" (RT)	△ = 37° 01' 54.5" (RT)	
D = 35° 22' 04.0"	D = 19° 29' 18.1"	D = 38° 11' 49.9"	
L = 74.37'	L = 41.19'	L = 96.95'	
T = 37.85'	T = 20.63'	T = 50.24'	
R = 162.00'	R = 294.00'	R = 150.00'	
SUPER = EXIST.	SUPER = EXIST.	SUPER = EXIST.	
PI Sta 15+69.16	PI Sta 16+26.55	PI Sta 17+19.38	PI Sta 18+60.02
△ = 26° 01' 08.6" (RT)	△ = 4° 16' 53.1" (RT)	△ = 47° 56' 10.5" (RT)	△ = 23° 59' 52.5" (RT)
D = 40° 55' 32.0"	D = 8° 11' 06.4"	D = 38° 11' 49.9"	D = 14° 52' 55.3"
L = 63.58'	L = 52.31'	L = 125.50'	L = 161.25'
T = 32.35'	T = 26.17'	T = 66.68'	T = 81.83'
R = 140.00'	R = 700.00'	R = 150.00'	R = 385.00'
SUPER = EXIST.	SUPER = EXIST.	SUPER = EXIST.	SUPER = EXIST.

FOR -L- PROFILE SEE SHT.14
FOR -Y4- & -Y5- PROFILE SEE SHT.23
SEE SHT.2-F FOR DITCH DETAILS
SEE SHT.2-G FOR INTERSECTION DETAILS

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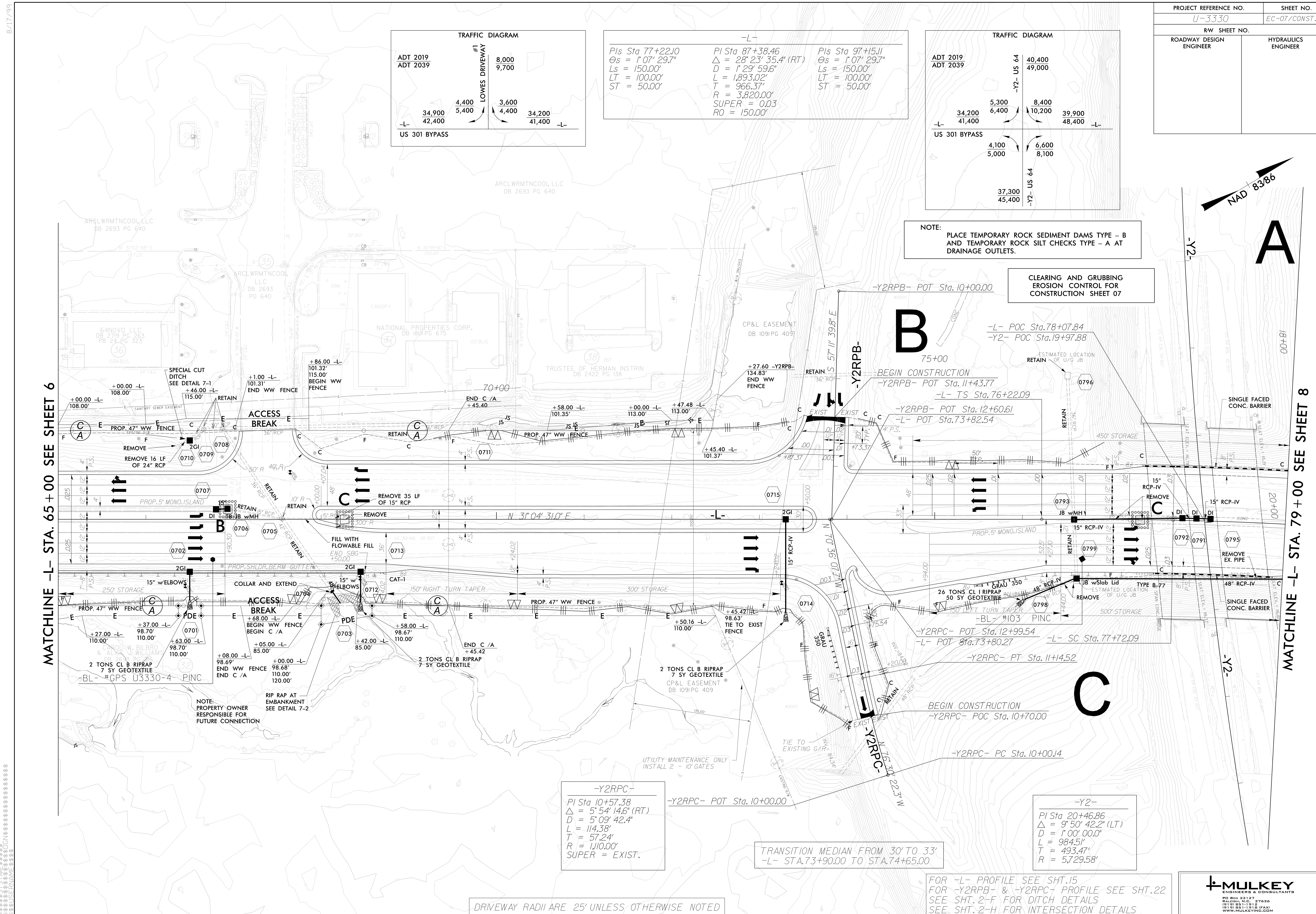

PROJECT REFERENCE NO. U-3330
SHEET NO. EC-07/CONST.07
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
TRAFFIC DIAGRAM
ADT 2019 / ADT 2039
LOWES DRIVEWAY #1
8,000 / 9,700
4,400 / 5,400
3,600 / 4,400
34,900 / 42,400
34,200 / 41,400
-L- US 301 BYPASS -L-
-L-
PIs Sta 77+22.10
Θs = 1° 07' 29.7"
Ls = 150.00'
LT = 100.00'
ST = 50.00'
PI Sta 87+38.46
△ = 28° 23' 35.4" (RT)
D = 1° 29' 59.6"
L = 1,893.02'
T = 966.37'
R = 3,820.00'
SUPER = 0.03
RO = 150.00'
PIs Sta 97+15.11
Θs = 1° 07' 29.7"
Ls = 150.00'
LT = 100.00'
ST = 50.00'
TRAFFIC DIAGRAM
ADT 2019 / ADT 2039
-Y2- US 64
40,400 / 49,000
5,300 / 6,400
8,400 / 10,200
34,200 / 41,400
39,900 / 48,400
-L- US 301 BYPASS -L-
4,100 / 5,000
6,600 / 8,100
37,300 / 45,400
-Y2- US 64
NAD 83/86
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 07
A
B
C
-Y2-
-Y2RPB-
-Y2RPC-
-Y2RPB- POT Sta. 10+00.00
-L- POC Sta.78+07.84
-Y2- POC Sta.19+97.88
BEGIN CONSTRUCTION
-Y2RPB- POT Sta. 11+43.77
-L- TS Sta. 76+22.09
-Y2RPB- POT Sta. 12+60.61
-L- POT Sta.73+82.54
-Y2RPC- POT Sta. 12+99.54
-L- POT Sta.73+80.27
-L- SC Sta. 77+72.09
-Y2RPC- PT Sta. 11+14.52
BEGIN CONSTRUCTION
-Y2RPC- POC Sta. 10+70.00
-Y2RPC- PC Sta. 10+00.14
-Y2RPC- POT Sta. 10+00.00
MATCHLINE -L- STA. 65+00 SEE SHEET 6
MATCHLINE -L- STA. 79+00 SEE SHEET 8
N 31° 04' 31.0" E
S 57° 11' 39.8" E
N 70° 36' 07.7" W
N 76° 30' 22.3" W
ARCLWRMTNCOOL, LLC DB 2693 PG 640
64NOVO LLC DB 2719 PG 263 PB 24 PG 323
NATIONAL PROPERTIES CORP. DB 1801 PG 675
TRUSTEE OF HERMAN INSTRIN DB 2422 PG 138
CP&L EASEMENT DB 1091 PG 409
CAROL W. BILBRO & ALICE J. WILLIAMS DB 2693 PG 316
SPECIAL CUT DITCH SEE DETAIL 7-1
ACCESS BREAK
PROP. 47" WW FENCE
REMOVE
REMOVE 16 LF OF 24" RCP
REMOVE 35 LF OF 15" RCP
FILL WITH FLOWABLE FILL
COLLAR AND EXTEND
15" w/ELBOWS
2 TONS CL B RIPRAP 7 SY GEOTEXTILE
26 TONS CL I RIPRAP 50 SY GEOTEXTILE
RIP RAP AT EMBANKMENT SEE DETAIL 7-2
NOTE: PROPERTY OWNER RESPONSIBLE FOR FUTURE CONNECTION
-BL- #GPS U3330-4 PINC
-BL- #103 PINC
TIE TO EXIST FENCE
TIE TO EXISTING G/R
UTILITY MAINTENANCE ONLY INSTALL 2 - 10' GATES
SINGLE FACED CONC. BARRIER
REMOVE EX. PIPE
JB w/Slab Lid
ESTIMATED LOCATION OF U/G JB
TYPE B-77
48" RCP-IV
15" RCP-IV
450' STORAGE
500' STORAGE
300' STORAGE
250' STORAGE
150' RIGHT TURN TAPER
150' LEFT TURN TAPER
PROP. 5" MONO. ISLAND
PROP. SHLDR. BERM GUTTER
-Y2RPC-
PI Sta 10+57.38
△ = 5° 54' 14.6" (RT)
D = 5° 09' 42.4"
L = 114.38'
T = 57.24'
R = 1,110.00'
SUPER = EXIST.
-Y2-
PI Sta 20+46.86
△ = 9° 50' 42.2" (LT)
D = 1° 00' 00.0"
L = 984.51'
T = 493.47'
R = 5,729.58'
TRANSITION MEDIAN FROM 30' TO 33' -L- STA.73+90.00 TO STA.74+65.00
DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED
FOR -L- PROFILE SEE SHT.15
FOR -Y2RPB- & -Y2RPC- PROFILE SEE SHT.22
SEE SHT. 2-F FOR DITCH DETAILS
SEE SHT. 2-H FOR INTERSECTION DETAILS
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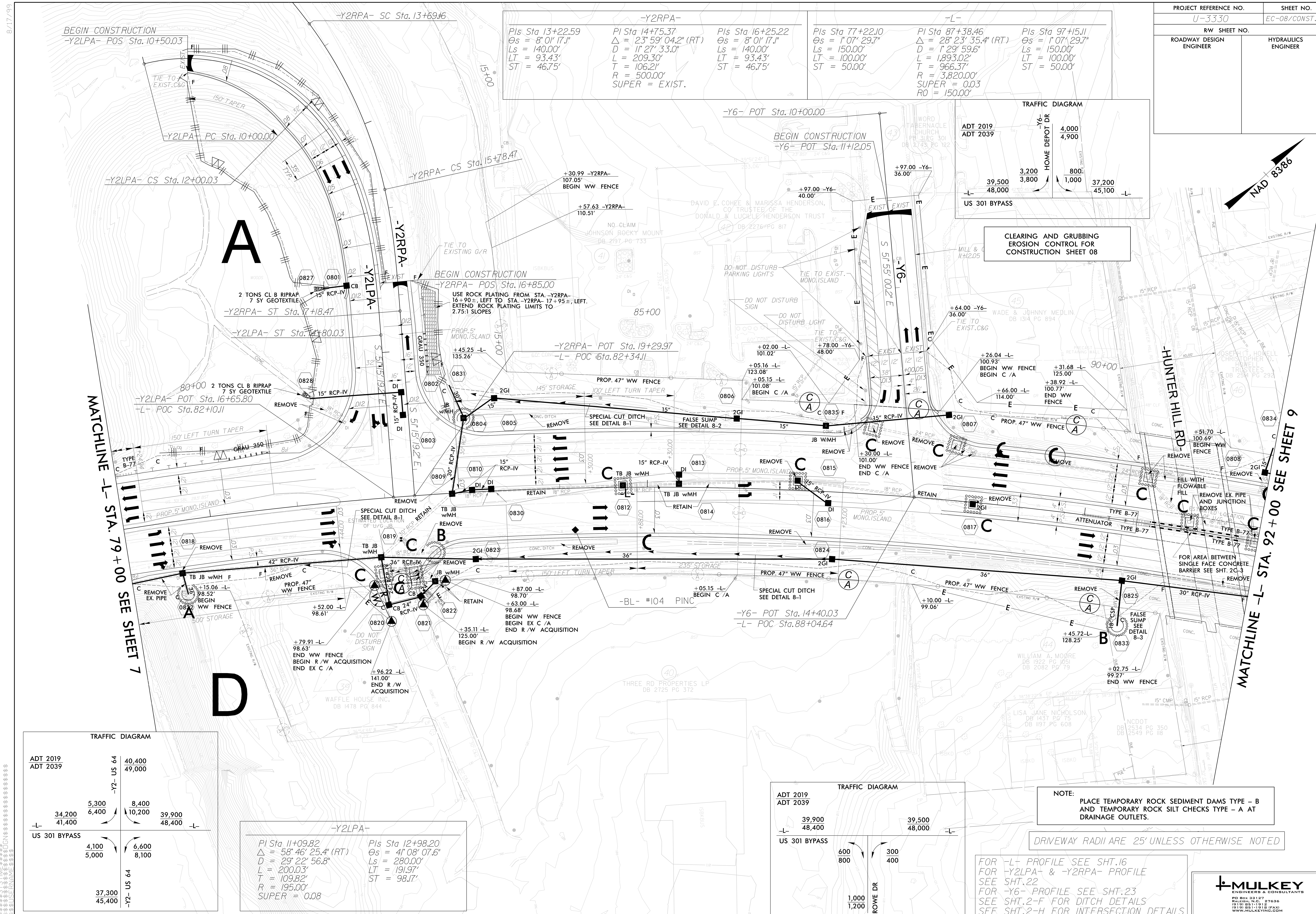
PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-08/CONST.08
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-Y2RPA-

PIs Sta 13+22.59	PI Sta 14+75.37	PIs Sta 16+25.22
Θs = 8° 01' 17.1"	Δ = 23° 59' 04.2" (RT)	Θs = 8° 01' 17.1"
Ls = 140.00'	D = 11° 27' 33.0"	Ls = 140.00'
LT = 93.43'	L = 209.30'	LT = 93.43'
ST = 46.75'	T = 106.21'	ST = 46.75'
	R = 500.00'	
	SUPER = EXIST.	

-L-

PIs Sta 77+22.10	PI Sta 87+38.46	PIs Sta 97+15.11
Θs = 1° 07' 29.7"	Δ = 28° 23' 35.4" (RT)	Θs = 1° 07' 29.7"
Ls = 150.00'	D = 1° 29' 59.6"	Ls = 150.00'
LT = 100.00'	L = 1,893.02'	LT = 100.00'
ST = 50.00'	T = 966.37'	ST = 50.00'
	R = 3,820.00'	
	SUPER = 0.03	
	RO = 150.00'	

TRAFFIC DIAGRAM (-Y6- HOME DEPOT DR / US 301 BYPASS)

ADT 2019
ADT 2039
-Y6- HOME DEPOT DR: 4,000 / 4,900; 3,200 / 3,800; 800 / 1,000
-L- US 301 BYPASS: 39,500 / 48,000; 37,200 / 45,100

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 08

TRAFFIC DIAGRAM (-Y2- US 64 / US 301 BYPASS)

ADT 2019
ADT 2039
-Y2- US 64: 40,400 / 49,000; 5,300 / 6,400; 8,400 / 10,200
-L- US 301 BYPASS: 34,200 / 41,400; 39,900 / 48,400
4,100 / 5,000; 6,600 / 8,100
-Y2- US 64: 37,300 / 45,400

-Y2LPA-

PI Sta 11+09.82	PIs Sta 12+98.20
Δ = 58° 46' 25.4" (RT)	Θs = 41° 08' 07.6"
D = 29° 22' 56.8"	Ls = 280.00'
L = 200.03'	LT = 191.97'
T = 109.82'	ST = 98.17'
R = 195.00'	
SUPER = 0.08	

TRAFFIC DIAGRAM (ROWE DR / US 301 BYPASS)

ADT 2019
ADT 2039
-L- US 301 BYPASS: 39,900 / 48,400; 39,500 / 48,000
600 / 800; 300 / 400
ROWE DR: 1,000 / 1,200

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

DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT.16
FOR -Y2LPA- & -Y2RPA- PROFILE SEE SHT.22
FOR -Y6- PROFILE SEE SHT.23
SEE SHT.2-F FOR DITCH DETAILS
SEE SHT.2-H FOR INTERSECTION DETAILS

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PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-09/CONST.09
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 09

-L-

PIs Sta 77+22.10	PI Sta 87+38.46	PIs Sta 97+15.11
Θs = 1° 07' 29.7"	△ = 28° 23' 35.4" (RT)	Θs = 1° 07' 29.7"
Ls = 150.00'	D = 1° 29' 59.6"	Ls = 150.00'
LT = 100.00'	L = 1,893.02'	LT = 100.00'
ST = 50.00'	T = 966.37'	ST = 50.00'
	R = 3,820.00'	
	SUPER = 0.03	
	RO = 150.00'	

TRAFFIC DIAGRAM

ADT 2019
ADT 2039

-Y7B-
SUTTER CREEK RD
11,100
13,500
7,600
9,200
2,200
2,700
37,200
45,100
31,500
38,200
-L-
US 301 BYPASS
1,100
1,300
700
900
SUTTER CREEK RD
-Y7A-
3,100
3,800

NAD 83/86

MATCHLINE -L- STA. 92+00 SEE SHEET 8

MATCHLINE -L- STA. 106+00 SEE SHEET 10

-Y7B- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y7B- POT Sta. 10+68.04

-Y7B- POT Sta. 13+50.00
-L- POT Sta.104+43.19

-L- POT Sta.104+25.01

-Y7A- POT Sta. 10+00.00

-Y7A- POT Sta. 13+00.00

END CONSTRUCTION
-Y7A- POT Sta. 11+70.00

-L- ST Sta. 98+15.11

-L- CS Sta. 96+65.11

-BL- #105 PINC

-BL- #106 PINC

N 61° 43' 05.8" E

S 26° 13' 49.3" E

S 28° 11' 13.8" E

NASH THREE, LLC
DB 2740 PG 81

JOSEPH T. HOWELL
CHRISTOPHER D. HOWELL
TRUSTEES
DB 2514 PG 292

THREE RD PROPERTIES, LP
DB 2736 PG 737

NINE HUNDRED FORTY FOUR WESLEYAN LLC
DB 2343 PG 203

STORE MASTER FUNDING I LLC
DB 2635 PG 366

OBS INVESTMENTS, LLC
DB 2653 PG 501

KIM ROCKY MOUNT LLC
DB 2635 PG 344

ARPC RE PORTFOLIO V, LLC
DB 2740 PG 628

JACQUELINE D. MURRAY
DB 1747 PG 495

SANDY FLATS, LLC
DB 2713 PG 829

HERNDON HOLDING, INC
DB 2640 PG 1

REALTY YANCEY LLC
DB 2554 PG 417

ROCKY MOUNT M, LLC
DB 2145 PG 951

DAILEY OF ROCKY MOUNT, LLC, ETAL
DB 2267 PG 543

SPECIAL CUT DITCH SEE DETAIL 4-2

SPECIAL CUT DITCH SEE DETAIL 9-1

Temporary Rock Silt Check Type A 1.0 ft. weir height

ACCESS BREAK

150' LEFT TURN TAPER

150' STORAGE

200' STORAGE

EXPRESSWAY GUTTER STA 92+40 TO 94+10

DO NOT DISTURB SIGNS

3 TONS CL B RIPR
10 SY GEOTEXTILE

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

DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT. I6 & I7
FOR -Y7A- & -Y7B- PROFILE SEE SHT. 23
SEE SHT. 2-F FOR DITCH DETAILS
SEE SHT. 2-I FOR INTERSECTION DETAILS

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SYSTEMS ENGINEERING

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-10/CONST10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

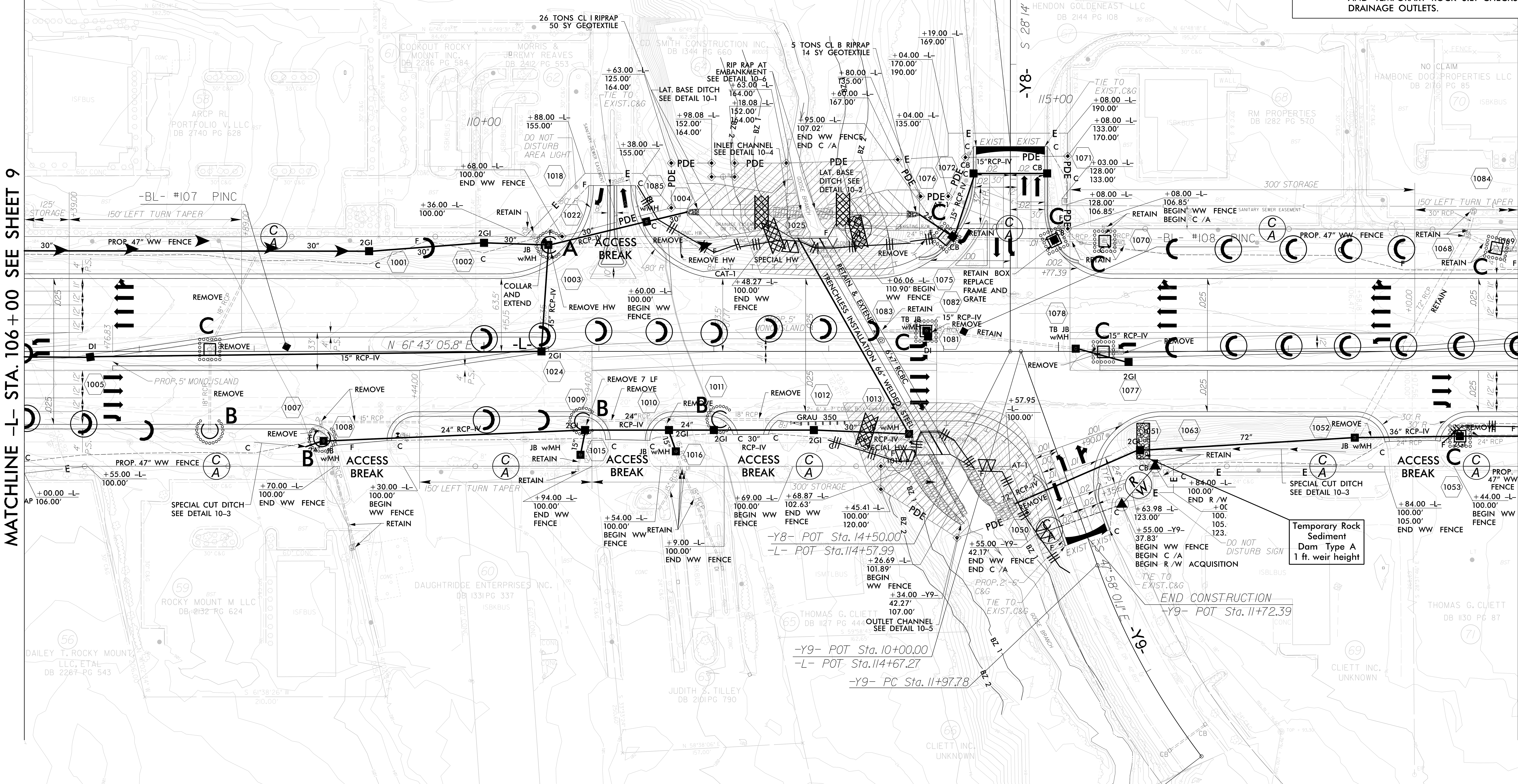
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

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

TRAFFIC DIAGRAM

ADT 2019
ADT 2039

Movement	ADT 2019	ADT 2039
-Y8- RING RD	5,600	6,700
-L- US 301 BYPASS (west approach)	31,500	38,200
Left turn	3,900	4,800
Right turn	500	700
-L- (east)	26,300	31,800
Turn	2,600	3,300
Turn	800	1,000
-Y9- INDEPENDENCE DR	4,600	5,600



-Y9-
PI Sta 12+93.66
Δ = 17° 43' 17.2" (LT)
D = 9° 18' 59.0"
L = 190.22'
T = 95.87'
R = 615.00'
SUPER = EXIST.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT.17 & 18
FOR -Y8- & -Y9- PROFILE SEE SHT.24
SEE SHT. 2-F FOR DITCH DETAILS
SEE SHT. 2-I FOR INTERSECTION DETAILS

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PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-11/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 113 + 47.97

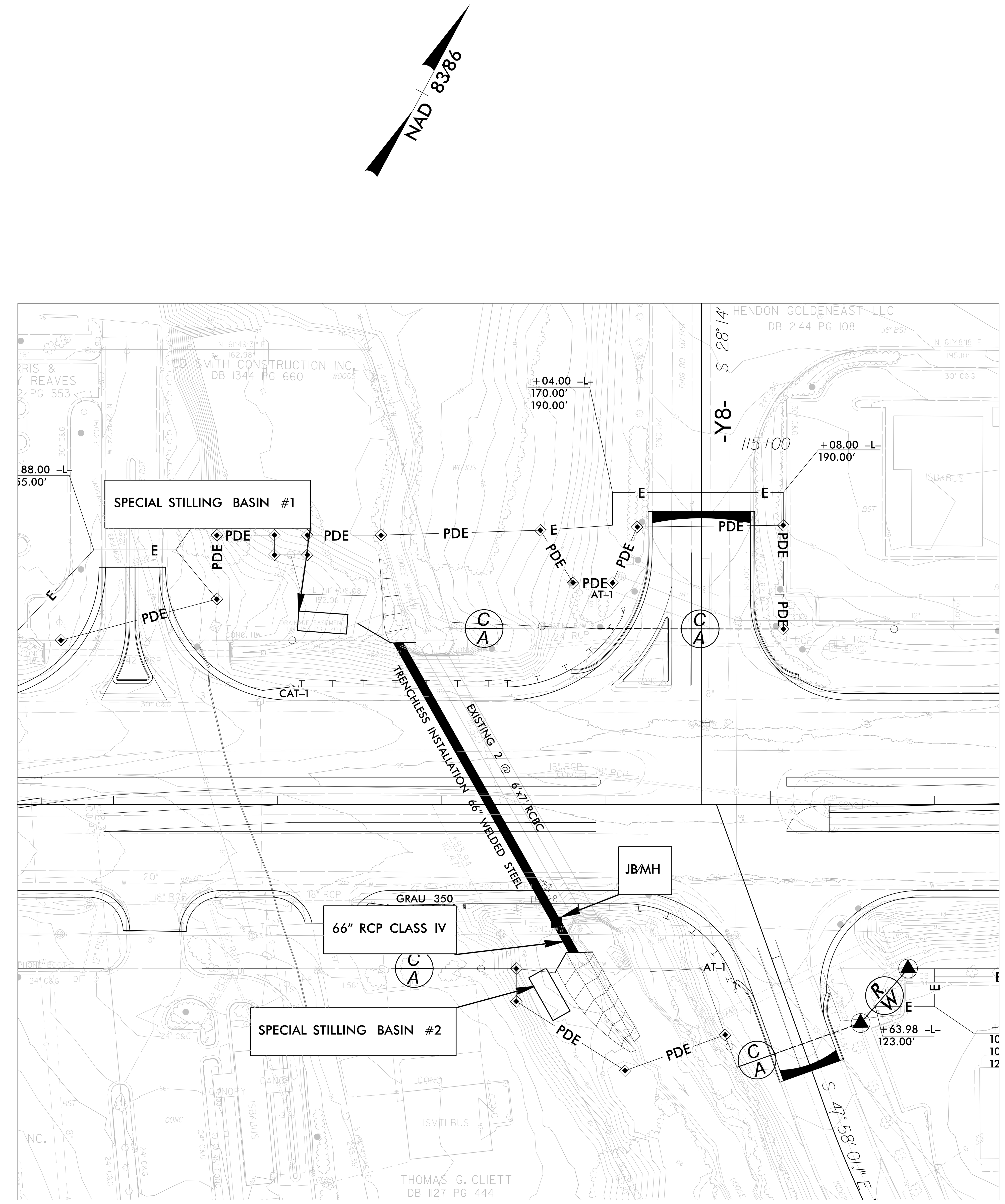
PHASE I

1. INSTALL SPECIAL STILLING BASINS.

2. PERFORM GRADING AT INLET AND OUTLET SUFFICIENT TO PREPARE FOR INSTALLATION OF 66" STEEL PIPE AND WATER DIVERSION TO NEW 66" STEEL PIPE. INSTALL COIR FIBER MATTING IN EXCAVATED AREA TO PREVENT EROSION.

3. INSTALL 196 LF OF 66" WELDED STEEL PIPE VIA TRENCHLESS INSTALLATION. INSTALL JB/MH AND 54 LF OF 66" RCP CLASS IV.

4. INSTALL PORTION OF HEADWALLS AND WINGWALLS ON INLET AND OUTLET WHILE PUMPING EFFLUENT INTO SPECIAL STILLING BASIN.



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PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-12/CONSTJ0
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 113+47.97

PHASE 2

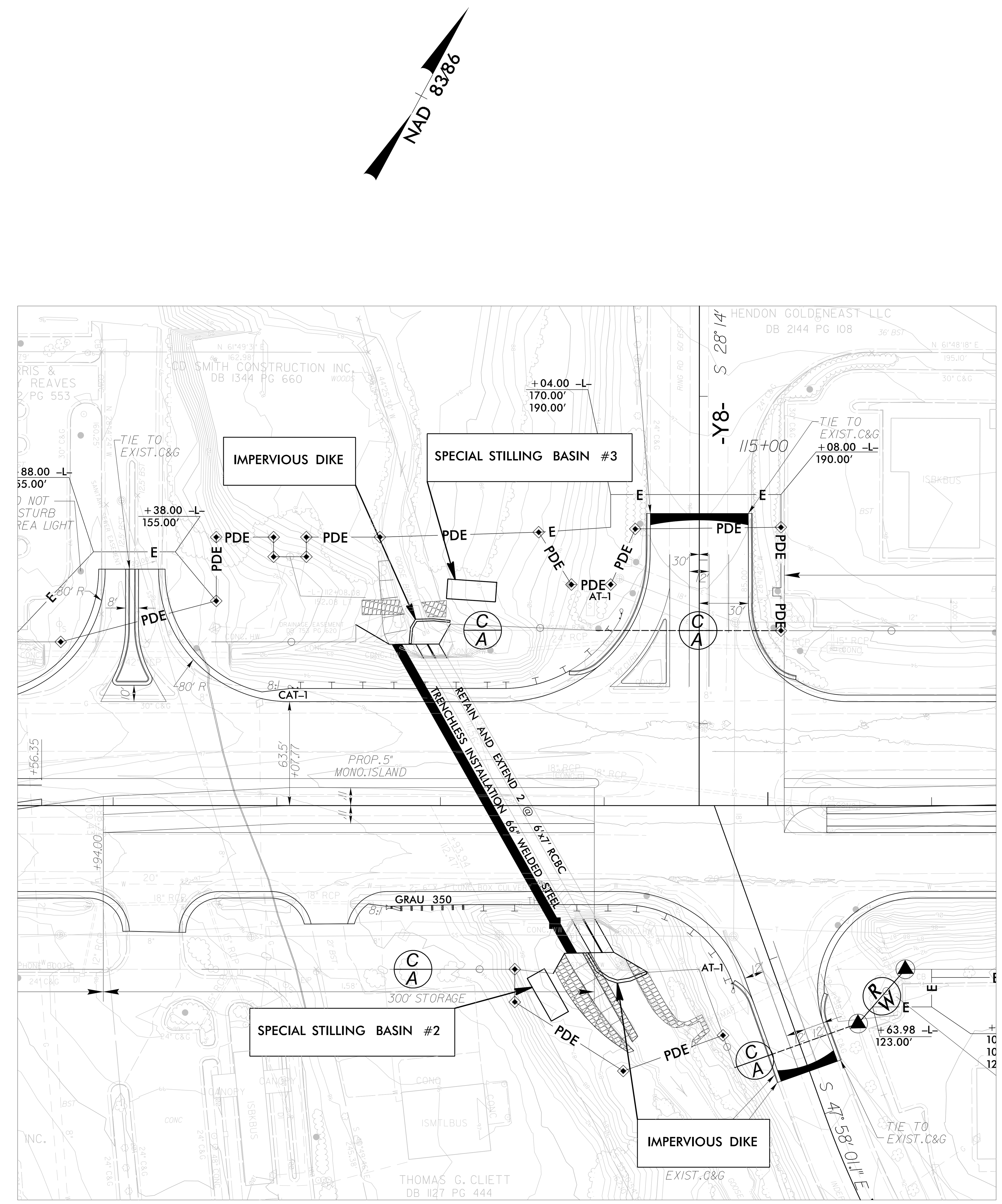
5. INSTALL IMPERVIOUS DIKES AND DIVERT WATER TO 66" STEEL PIPE.

6. REMOVE SPECIAL STILLING BASINS #1. INSTALL BASIN #3.

7. INSTALL 10' OF 2-6'X7' RCBC ON INLET END, 23' OF 2-6'X7' RCBC ON OUTLET END, AND REMAINING HEADWALLS AND WINGWALLS.

8. INSTALL CHANNEL IMPROVEMENTS AND RIP RAP UPSTREAM AND DOWNSTREAM.

9. REMOVE SPECIAL STILLING BASINS AND DIKES.



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PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-13/CONSTJ1

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

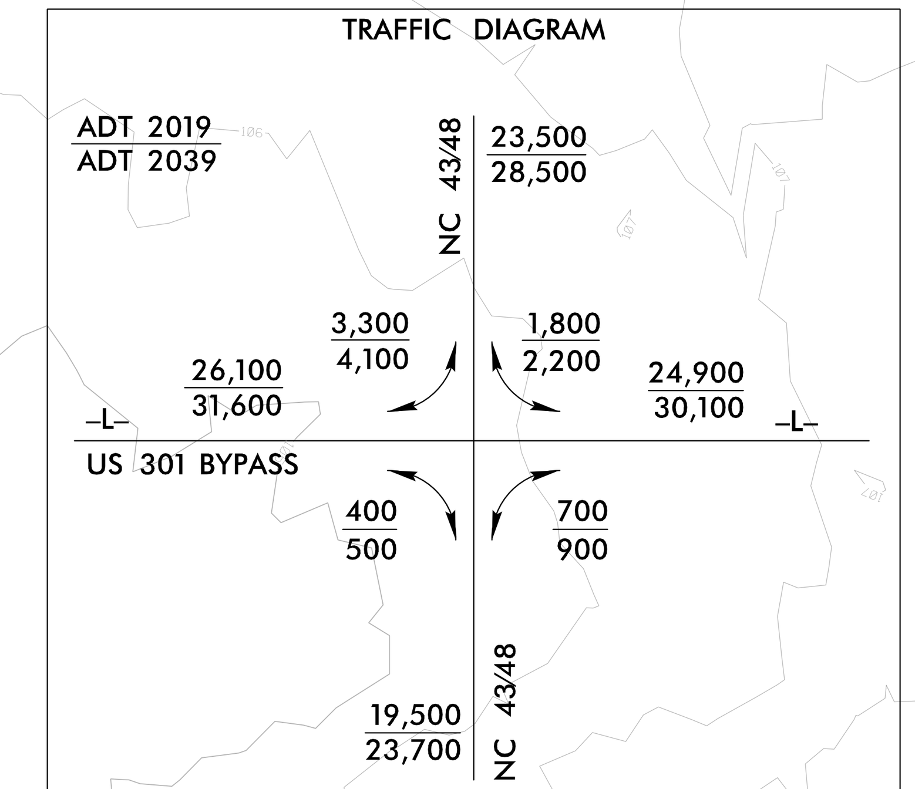
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 11

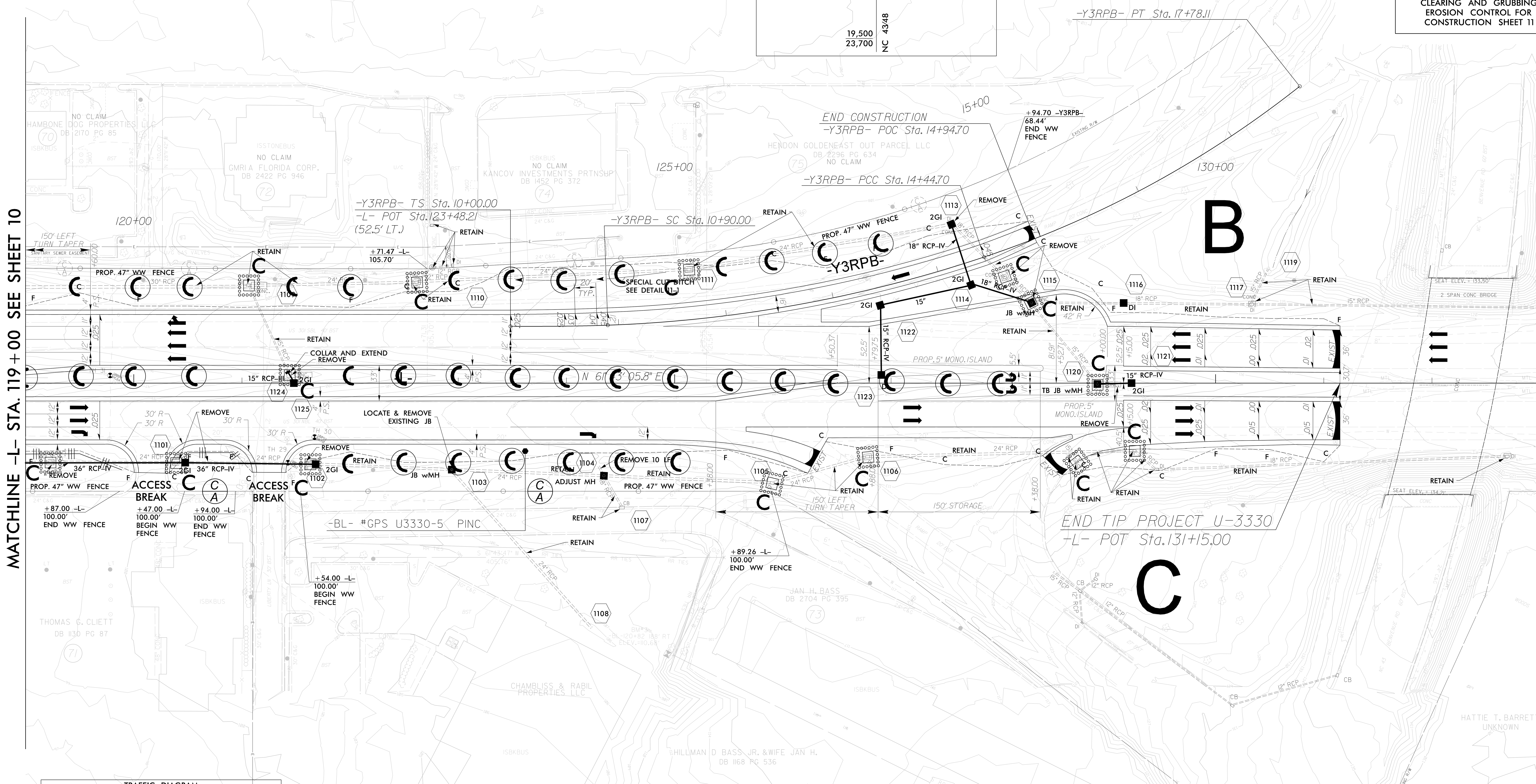
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

-Y3RPB-

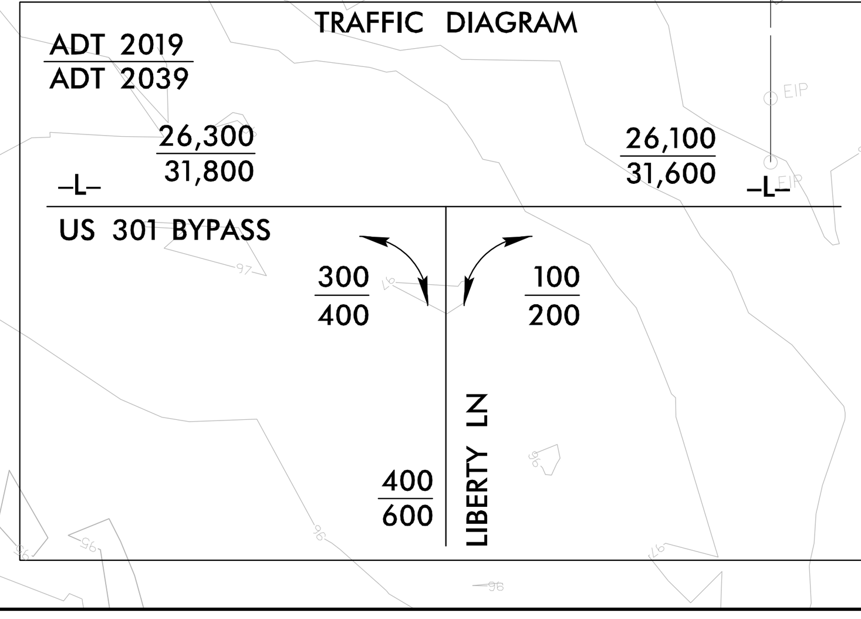
PIs Sta 10+60.00	PI Sta 12+68.57	PI Sta 16+13.10
Θs = 2° 04' 45.4"	Δ = 16° 23' 21.1" (LT)	Δ = 19° 53' 57.1" (LT)
Ls = 90.00'	D = 4° 37' 14.3"	D = 5° 58' 05.9"
LT = 60.00'	L = 354.70'	L = 333.41'
ST = 30.00'	T = 178.57'	T = 168.40'
	R = 1,240.00'	R = 960.00'
	SUPER = 0.045	

TRAFFIC DIAGRAM





TRAFFIC DIAGRAM



DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT.18 & 19
FOR -Y3RPB- PROFILE SEE SHT.22
FOR DITCH DETAILS SEE SHT.2-F

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PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-13A/CONST.2B-5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 8395

-Y13DET-
PI Sta 11+92.05
△ = 61° 41' 43.1" (LT)
D = 143° 14' 22.0"
L = 43.07'
T = 23.89'
R = 40.00'
e = NC

-DET1-
PI Sta 15+95.41
△ = 9° 19' 22.3" (RT)
D = 2° 47' 41.7"
L = 333.56'
T = 167.15'
R = 2,050.00'
e = NC

-DET1-
PI Sta 19+28.97
△ = 9° 19' 22.3" (LT)
D = 2° 47' 41.7"
L = 333.56'
T = 167.15'
R = 2,050.00'
e = NC

-DET2-
PI Sta 19+52.34
△ = 7° 56' 45.5" (LT)
D = 2° 47' 41.7"
L = 284.30'
T = 142.38'
R = 2,050.00'
e = NC

-DET2-
PI Sta 16+68.04
△ = 7° 56' 45.5" (RT)
D = 2° 47' 41.7"
L = 284.30'
T = 142.38'
R = 2,050.00'
e = NC

-DET2-
PI Sta 24+52.66
△ = 7° 56' 45.5" (LT)
D = 2° 47' 41.7"
L = 284.30'
T = 142.38'
R = 2,050.00'
e = NC

BEGIN CONSTRUCTION
-Y13DET- Sta.11+38.57

BEGIN U-3330 DETOUR
-L- POT Sta.49+96.78 =
-DET1- POT Sta.10+96.78 (27.0' LT)
-DET2- POT Sta.10+96.78 (27.0' RT)

-L- Sta.53+93.37 =
-Y13DET- Sta.13+28.06

-DET2- Sta.14+92.48 =
-Y13DET- Sta.13+55.08

-DET1- Sta.14+94.23 =
-Y13DET- Sta.13+02.11

END CONSTRUCTION
-Y13DET- Sta.14+40.53

END U-3330 DETOUR
-L- POT Sta.68+72.65 =
-DET1- PT Sta.29+78.53 (27.0' LT)
-DET2- POT Sta.29+76.29 (27.0' RT)

-Y4- POT Sta.10+00.00

-BL- #GPS U3330-3 PINC

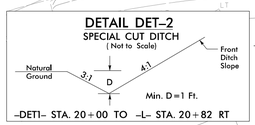
-BL- #GPS U3330-4 PINC

-BL- #103 PINC

MATCHLINE -DET1- STA. 24+50
SEE THIS SHEET

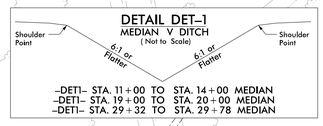
MATCHLINE -DET1- STA. 24+50
SEE THIS SHEET

DETAIL DET-2
SPECIAL CUT DITCH
(Not to Scale)



-DET1- STA. 20+00 TO -L- STA. 20+82 RT

DETAIL DET-1
MEDIAN 'V' DITCH
(Not to Scale)



-DET1- STA. 11+00 TO STA. 14+00 MEDIAN
-DET1- STA. 19+00 TO STA. 20+00 MEDIAN
-DET1- STA. 29+32 TO STA. 29+78 MEDIAN

FOR -DET1-, -DET2-, AND -Y13DET- PROFILES SEE SHTS.26 & 27

CALYX
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CHARLOTTE, NC 28227
phone: 704.537.7300
CALYXengineers.com
NC License # F-1333

$$$$SYSTIME$$$$
$$$$DGN$$$$
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-13B/CONST.2B-6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 8395

MATCHLINE -DET3- STA. 24 + 50
SEE THIS SHEET

-DET4-
PI Sta 17+58.22
△ = 5° 39' 41.7" (LT)
D = 2° 47' 41.7"
L = 202.57'
T = 101.37'
R = 2,050.00'

-DET4-
PI Sta 19+60.79
△ = 5° 39' 41.7" (RT)
D = 2° 47' 41.7"
L = 202.57'
T = 101.37'
R = 2,050.00'

DETAIL DET-1
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground
6:1
D
4:1
Front Ditch Slope
Min. D=1 Ft.
-DET3- STA. 18+00 TO -DET3- STA. 20+50 RT
-DET3- STA. 24+00 TO -DET3- STA. 27+50 RT

-DET3-
PI Sta 16+17.85
△ = 8° 24' 05.7" (LT)
D = 2° 47' 41.7"
L = 300.60'
T = 150.57'
R = 2,050.00'

-DET3-
PI Sta 19+18.45
△ = 8° 24' 05.7" (RT)
D = 2° 47' 41.7"
L = 300.60'
T = 150.57'
R = 2,050.00'

-DET4-
PI Sta 24+46.69
△ = 5° 39' 41.7" (RT)
D = 2° 47' 41.7"
L = 202.57'
T = 101.37'
R = 2,050.00'

ESTIMATED LOCATION -DET4B-
PI Sta 26+49.26
△ = 5° 39' 41.7" (LT)
D = 2° 47' 41.7"
L = 202.57'
T = 101.37'
R = 2,050.00'

-DET3-
PI Sta 24+92.39
△ = 8° 24' 05.7" (RT)
D = 2° 47' 41.7"
L = 300.60'
T = 150.57'
R = 2,050.00'

-DET3-
PI Sta 27+93.00
△ = 8° 24' 05.7" (LT)
D = 2° 47' 41.7"
L = 300.60'
T = 150.57'
R = 2,050.00'

FOR -DET3- & -DET4- PROFILE SEE SHTS.27 & 28

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CHARLOTTE, NC 28227
phone: 704.537.7300
CALYXengineers.com
NC License # F-1333

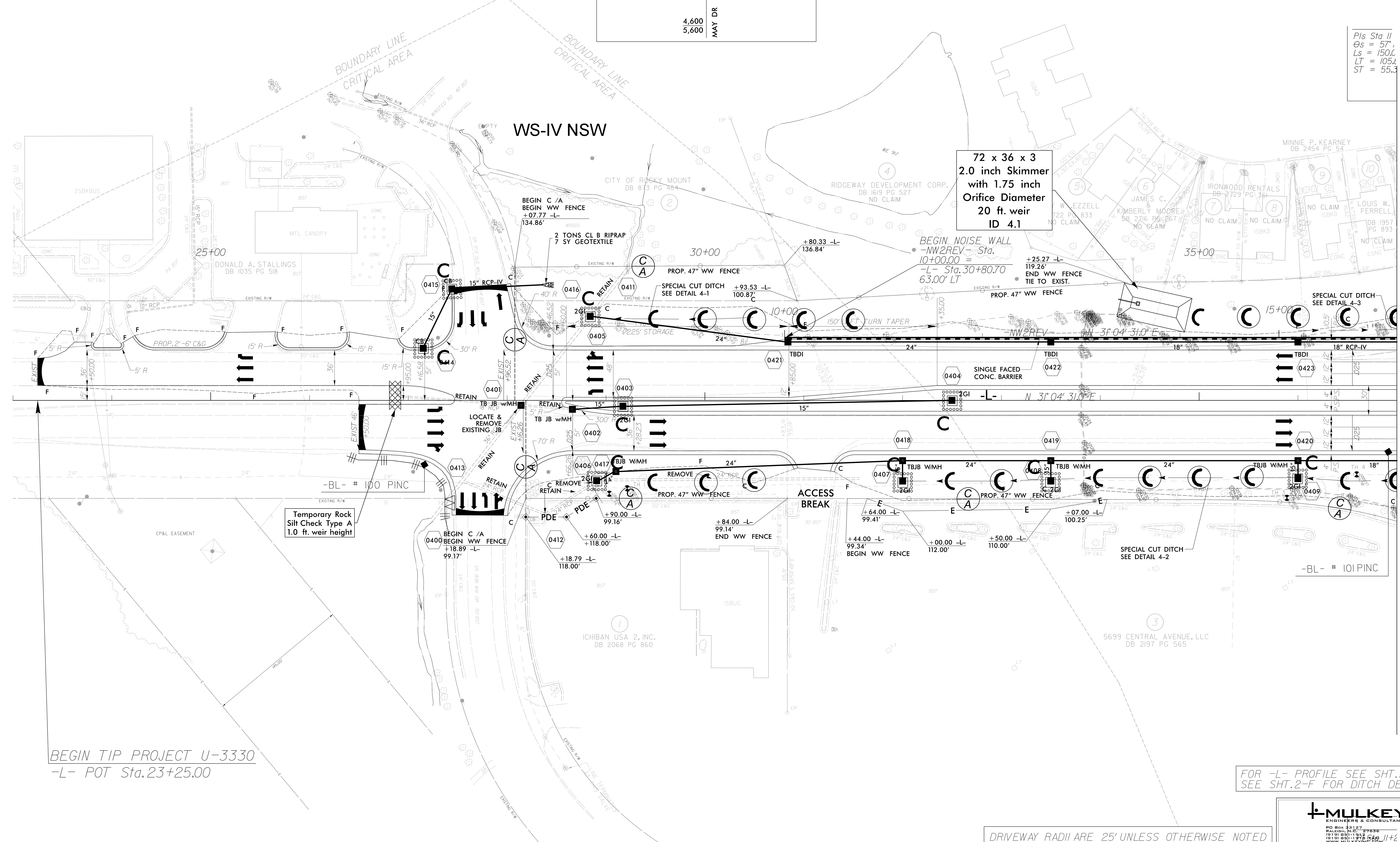
$$SYSTIME$$
$$DGNS$$
$$USERNAME$$
$$FILENAME$$

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-14/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TRAFFIC DIAGRAM

ADT 2019
ADT 2039

Approach	Volumes
OLD MILL RD	6,900 / 8,400
1,800 / 2,200	3,400 / 4,200
-L- US 301 BYPASS	26,200 / 31,800
-L-	26,400 / 32,100
2,100 / 2,600	700 / 900
MAY DR	4,600 / 5,600



NAD 83/86
WS-IV NSW
BOUNDARY LINE CRITICAL AREA
72 x 36 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
20 ft. weir
ID 4.1
BEGIN C /A
BEGIN WW FENCE
2 TONS CL B RIPRAP
7 SY GEOTEXTILE
PROP. 47" WW FENCE
SPECIAL CUT DITCH SEE DETAIL 4-1
BEGIN NOISE WALL -NW2REV- Sta. 10+00.00 = -L- Sta.30+80.70 63.00' LT
END WW FENCE TIE TO EXIST.
SPECIAL CUT DITCH SEE DETAIL 4-3
SINGLE FACED CONC. BARRIER
LOCATE & REMOVE EXISTING JB
ACCESS BREAK
END WW FENCE
BEGIN WW FENCE
SPECIAL CUT DITCH SEE DETAIL 4-2
Temporary Rock Silt Check Type A 1.0 ft. weir height
-BL- # 100 PINC
-BL- # 101 PINC
N 31° 04' 31.0" E
DONALD A. STALLINGS DB 1035 PG 518
CITY OF ROCKY MOUNT DB 873 PG 484
RIDGEWAY DEVELOPMENT CORP. DB 1619 PG 527 NO CLAIM
MINNIE P. KEARNEY DB 2454 PG 54
IRONWOOD RENTALS DB 2729 PG 361
ICHIBAN USA 2, INC. DB 2068 PG 860
5699 CENTRAL AVENUE, LLC DB 2197 PG 565
MATCHLINE -L- STA. 37+00 SEE SHEET 5
BEGIN TIP PROJECT U-3330
-L- POT Sta.23+25.00

FOR -L- PROFILE SEE SHT.12
SEE SHT.2-F FOR DITCH DETAILS

DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

MULKEY ENGINEERS & CONSULTANTS

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-15/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCHLINE TO INSET
-Y1- STA. 22+60

MATCHLINE -L- STA. 37+00 SEE SHEET 4

MATCHLINE -L- STA. 51+00 SEE SHEET 6

56 x 28 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
12 ft. weir
ID 5.4

70 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
18 ft. weir
ID 5.1

104 x 52 x 3
2 inch Skimmer
with 2.0 inch
Orifice Diameter
41.0 ft. weir
ID 5.3

BRIDGE /PAVEMENT RELATIONSHIP SKETCH

TRAFFIC DIAGRAM

ADT 2019 / ADT 2039	-Y1-	22,900 / 27,800
-L-	26,400 / 32,100	7,900 / 9,600 — 8,400 / 10,200 — 29,800 / 36,200
US 301 BYPASS	3,000 / 3,700 — 5,900 / 7,100	
	15,400 / 18,700	US 64 BUS.

FOR -L- PROFILE SEE SHT.13
FOR -Y1- & -YIRPA- PROFILE
SEE SHT.20
FOR -YIRPB-, -YILPC-,& -YIRPD-
PROFILE SEE SHT.21
SEE SHT.2-F FOR DITCH DETAILS

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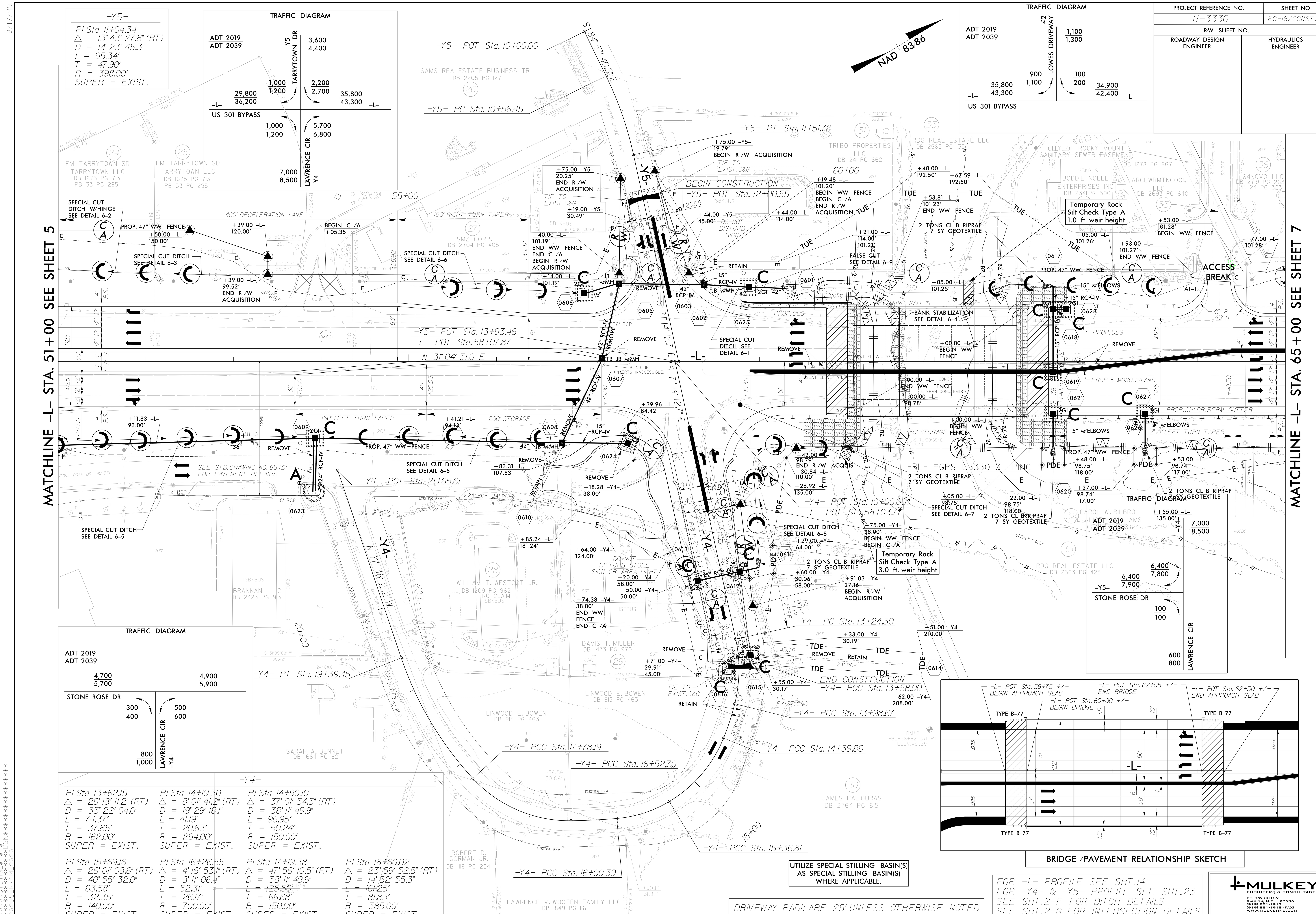

MATCHLINE -L- STA. 51+00 SEE SHEET 5
MATCHLINE -L- STA. 65+00 SEE SHEET 7
NAD 83/86
-Y5- POT Sta. 10+00.00
-Y5- PC Sta. 10+56.45
-Y5- PT Sta. 11+51.78
BEGIN CONSTRUCTION
-Y5- POT Sta. 12+00.55
-Y5- POT Sta. 13+93.46
-L- POT Sta. 58+07.87
N 31° 04' 31.0" E
-Y4- POT Sta. 21+65.61
-Y4- POT Sta. 10+00.00
-L- POT Sta. 58+03.77
-Y4- PC Sta. 13+24.30
END CONSTRUCTION
-Y4- POC Sta. 13+58.00
-Y4- PCC Sta. 13+98.67
-Y4- PCC Sta. 14+39.86
-Y4- PT Sta. 19+39.45
-Y4- PCC Sta. 17+78.19
-Y4- PCC Sta. 16+52.70
-Y4- PCC Sta. 15+36.81
-Y4- PCC Sta. 16+00.39
N 77° 38' 21.2" W
S 84° 57' 40.5" E
-BL- #GPS U3330-3 PINC
SPECIAL CUT DITCH W/HINGE SEE DETAIL 6-2
SPECIAL CUT DITCH SEE DETAIL 6-3
SPECIAL CUT DITCH SEE DETAIL 6-6
SPECIAL CUT DITCH SEE DETAIL 6-5
SPECIAL CUT DITCH SEE DETAIL 6-1
SPECIAL CUT DITCH SEE DETAIL 6-7
SPECIAL CUT DITCH SEE DETAIL 6-8
FALSE CUT SEE DETAIL 6-9
BANK STABILIZATION SEE DETAIL 6-4
PROP. 47" WW FENCE
400' DECELERATION LANE
150' RIGHT TURN TAPER
150' LEFT TURN TAPER
200' STORAGE
350' STORAGE
200' LEFT TURN TAPER
Temporary Rock Silt Check Type A 1.0 ft. weir height
Temporary Rock Silt Check Type A 3.0 ft. weir height
2 TONS CL B RIPRAP 7 SY GEOTEXTILE
SEE STD.DRAWING NO. 654.01 FOR PAVEMENT REPAIRS
ACCESS BREAK
SAMS REALESTATE BUSINESS TR DB 2205 PG 127
FM TARRYTOWN SD TARRYTOWN LLC DB 1675 PG 713 PB 33 PG 295
SMZ CORP. DB 2704 PG 405
TRIBO PROPERTIES LLC DB 2418 PG 662
RDG REAL ESTATE LLC DB 2565 PG 135
CITY OF ROCKY MOUNT SANITARY SEWER EASEMENT
BODDIE NOELL ENTERPRISES INC DB 2341 PG 500
ARCLWRMTNCOOL LLC DB 2693 PG 640
64NOVO LLC DB 2718 PG 323 PB 24 PG 323
BRANNAN LLLC DB 2423 PG 93
WILLIAM T. WESTCOT JR. DB 1209 PG 962 NO CLAIM
DAVIS T. MILLER DB 1473 PG 970
LINWOOD E. BOWEN DB 915 PG 463
SARAH A. BENNETT DB 1684 PG 821
JAMES PALIOURAS DB 2764 PG 815
ROBERT D. GORMAN JR. DB 1118 PG 224
LAWRENCE V. WOOTEN FAMILY LLC DB 1849 PG 116
RDG REAL ESTATE LLC DB 2563 PG 423
STONEY CREEK
BRIDGE /PAVEMENT RELATIONSHIP SKETCH
-L- POT Sta. 59+75 +/- BEGIN APPROACH SLAB
-L- POT Sta. 60+00 +/- BEGIN BRIDGE
-L- POT Sta. 62+05 +/- END BRIDGE
-L- POT Sta. 62+30 +/- END APPROACH SLAB
TYPE B-77

-Y5-

PI Sta 11+04.34
Δ = 13° 43' 27.8" (RT)
D = 14° 23' 45.3"
L = 95.34'
T = 47.90'
R = 398.00'
SUPER = EXIST.

TRAFFIC DIAGRAM (-Y5- TARRYTOWN DR / US 301 BYPASS / LAWRENCE CIR -Y4-)

ADT 2019 / ADT 2039: 3,600/4,400; 1,000/1,200; 2,200/2,700; 29,800/36,200; 35,800/43,300; 1,000/1,200; 5,700/6,800; 7,000/8,500

TRAFFIC DIAGRAM (LOWES DRIVEWAY #2 / US 301 BYPASS)

ADT 2019 / ADT 2039: 1,100/1,300; 900/1,100; 100/200; 35,800/43,300; 34,900/42,400

TRAFFIC DIAGRAM (STONE ROSE DR / LAWRENCE CIR -Y4-)

ADT 2019 / ADT 2039: 4,700/5,700; 4,900/5,900; 300/400; 500/600; 800/1,000

TRAFFIC DIAGRAM (-Y5- STONE ROSE DR / LAWRENCE CIR)

ADT 2019 / ADT 2039: 7,000/8,500; 6,400/7,800; 6,400/7,900; 100/100; 600/800

-Y4-

PI Sta 13+62.15	PI Sta 14+19.30	PI Sta 14+90.10	
Δ = 26° 18' 11.2" (RT)	Δ = 8° 01' 41.2" (RT)	Δ = 37° 01' 54.5" (RT)	
D = 35° 22' 04.0"	D = 19° 29' 18.1"	D = 38° 11' 49.9"	
L = 74.37'	L = 41.19'	L = 96.95'	
T = 37.85'	T = 20.63'	T = 50.24'	
R = 162.00'	R = 294.00'	R = 150.00'	
SUPER = EXIST.	SUPER = EXIST.	SUPER = EXIST.	
PI Sta 15+69.16	PI Sta 16+26.55	PI Sta 17+19.38	PI Sta 18+60.02
Δ = 26° 01' 08.6" (RT)	Δ = 4° 16' 53.1" (RT)	Δ = 47° 56' 10.5" (RT)	Δ = 23° 59' 52.5" (RT)
D = 40° 55' 32.0"	D = 8° 11' 06.4"	D = 38° 11' 49.9"	D = 14° 52' 55.3"
L = 63.58'	L = 52.31'	L = 125.50'	L = 161.25'
T = 32.35'	T = 26.17'	T = 66.68'	T = 81.83'
R = 140.00'	R = 700.00'	R = 150.00'	R = 385.00'
SUPER = EXIST.	SUPER = EXIST.	SUPER = EXIST.	SUPER = EXIST.

UTILIZE SPECIAL STILLING BASIN(S) AS SPECIAL STILLING BASIN(S) WHERE APPLICABLE.

DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT.14
FOR -Y4- & -Y5- PROFILE SEE SHT.23
SEE SHT.2-F FOR DITCH DETAILS
SEE SHT.2-G FOR INTERSECTION DETAILS

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-16/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MULKEY ENGINEERS & CONSULTANTS
PO Box 33127 Raleigh, N.C. 27636
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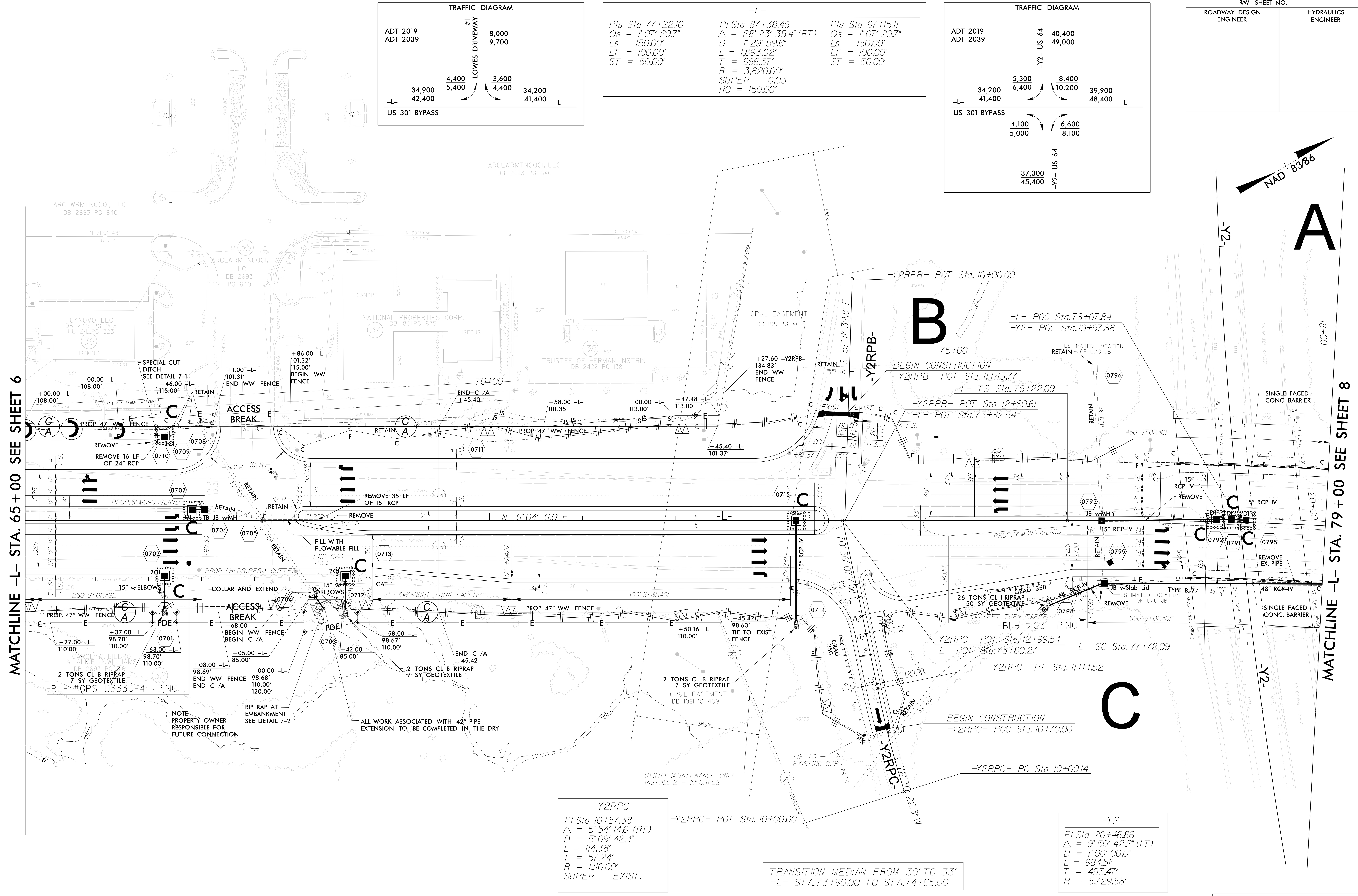
PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-17/CONST.07
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-

PIs Sta 77+22.10	PI Sta 87+38.46	PIs Sta 97+15.11
Θs = 1°07' 29.7"	Δ = 28° 23' 35.4" (RT)	Θs = 1°07' 29.7"
Ls = 150.00'	D = 1° 29' 59.6"	Ls = 150.00'
LT = 100.00'	L = 1,893.02'	LT = 100.00'
ST = 50.00'	T = 966.37'	ST = 50.00'
	R = 3,820.00'	
	SUPER = 0.03	
	RO = 150.00'	



-Y2RPC-

PI Sta 10+57.38
Δ = 5° 54' 14.6" (RT)
D = 5° 09' 42.4"
L = 114.38'
T = 57.24'
R = 1,110.00'
SUPER = EXIST.

-Y2-

PI Sta 20+46.86
Δ = 9° 50' 42.2" (LT)
D = 1° 00' 00.0"
L = 984.51'
T = 493.47'
R = 5,729.58'

TRANSITION MEDIAN FROM 30' TO 33'
-L- STA.73+90.00 TO STA.74+65.00

DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT.15
FOR -Y2RPB- & -Y2RPC- PROFILE SEE SHT.22
SEE SHT. 2-F FOR DITCH DETAILS
SEE SHT. 2-H FOR INTERSECTION DETAILS

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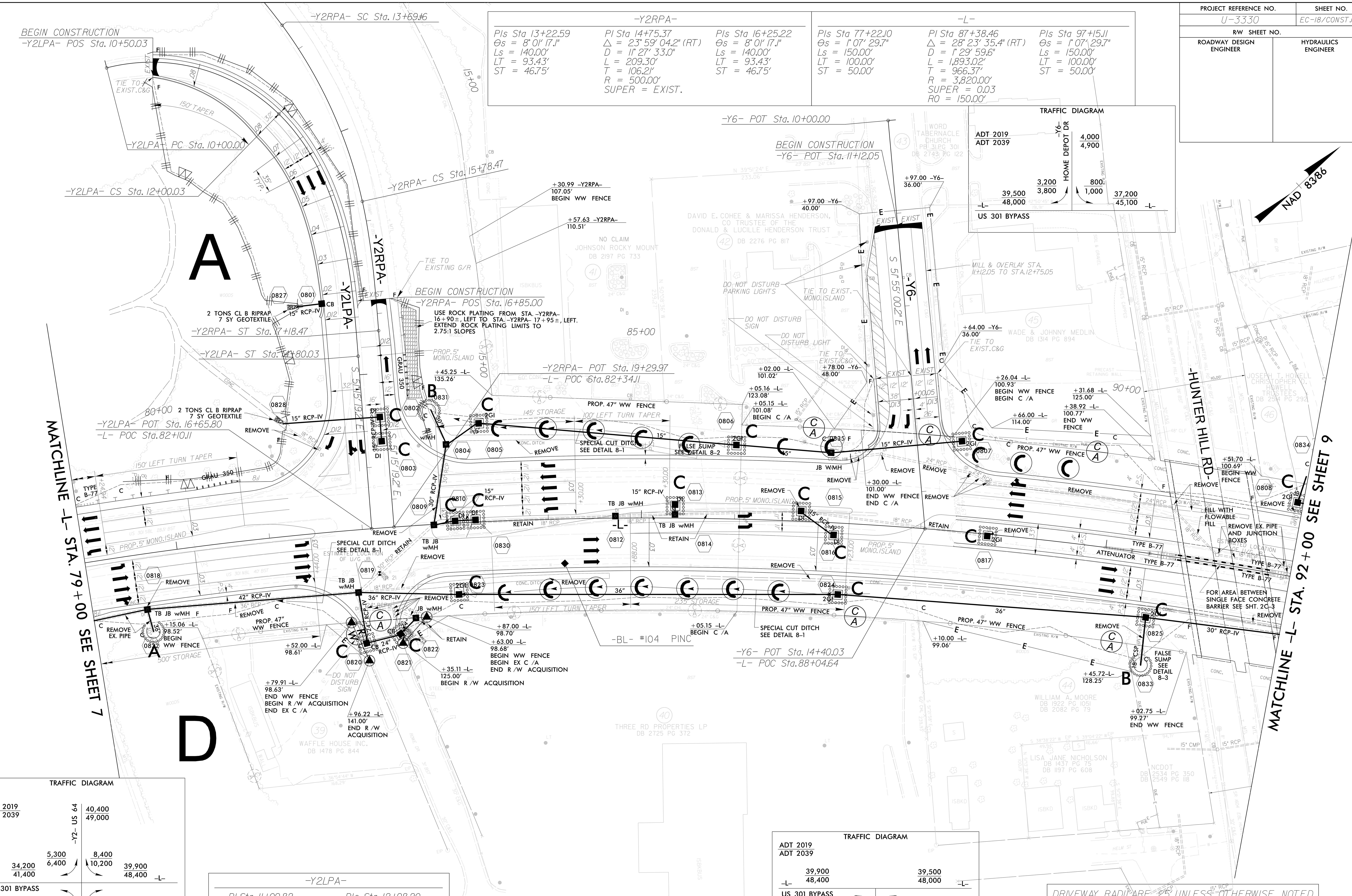
PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-18/CONST.08
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y2RPA-

PIs Sta 13+22.59	PI Sta 14+75.37	PIs Sta 16+25.22
θs = 8° 01' 17.1"	Δ = 23° 59' 04.2" (RT)	θs = 8° 01' 17.1"
Ls = 140.00'	D = 11° 27' 33.0"	Ls = 140.00'
LT = 93.43'	L = 209.30'	LT = 93.43'
ST = 46.75'	T = 106.21'	ST = 46.75'
	R = 500.00'	
	SUPER = EXIST.	

-L-

PIs Sta 77+22.10	PI Sta 87+38.46	PIs Sta 97+15.11
θs = 1° 07' 29.7"	Δ = 28° 23' 35.4" (RT)	θs = 1° 07' 29.7"
Ls = 150.00'	D = 1° 29' 59.6"	Ls = 150.00'
LT = 100.00'	L = 1,893.02'	LT = 100.00'
ST = 50.00'	T = 966.37'	ST = 50.00'
	R = 3,820.00'	
	SUPER = 0.03	
	RO = 150.00'	



TRAFFIC DIAGRAM

ADT 2019
ADT 2039

-Y6- HOME DEPOT DR: 4,000 / 4,900; 3,200 / 3,800; 800 / 1,000

-L- US 301 BYPASS: 39,500 / 48,000; 37,200 / 45,100

TRAFFIC DIAGRAM

ADT 2019
ADT 2039

-Y2- US 64: 40,400 / 49,000; 5,300 / 6,400; 8,400 / 10,200

-L- US 301 BYPASS: 34,200 / 41,400; 39,900 / 48,400; 4,100 / 5,000; 6,600 / 8,100

-Y2- US 64: 37,300 / 45,400

-Y2LPA-

PI Sta 11+09.82	PIs Sta 12+98.20
Δ = 58° 46' 25.4" (RT)	θs = 41° 08' 07.6"
D = 29° 22' 56.8"	Ls = 280.00'
L = 200.03'	LT = 191.97'
T = 109.82'	ST = 98.17'
R = 195.00'	
SUPER = 0.08	

TRAFFIC DIAGRAM

ADT 2019
ADT 2039

-L- US 301 BYPASS: 39,900 / 48,400; 39,500 / 48,000; 600 / 800; 300 / 400

ROWE DR: 1,000 / 1,200

DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT.16
FOR -Y2LPA- & -Y2RPA- PROFILE SEE SHT.22
FOR -Y6- PROFILE SEE SHT.23
SEE SHT.2-F FOR DITCH DETAILS
SEE SHT.2-H FOR INTERSECTION DETAILS

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PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-19/CONST.09
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-

PIs Sta 77+22.10	PI Sta 87+38.46	PIs Sta 97+15.11
Θs = 1° 07' 29.7"	△ = 28° 23' 35.4" (RT)	Θs = 1° 07' 29.7"
Ls = 150.00'	D = 1° 29' 59.6"	Ls = 150.00'
LT = 100.00'	L = 1,893.02'	LT = 100.00'
ST = 50.00'	T = 966.37'	ST = 50.00'
	R = 3,820.00'	
	SUPER = 0.03	
	RO = 150.00'	

TRAFFIC DIAGRAM

ADT 2019 / ADT 2039	-Y7B- SUTTER CREEK RD	11,100 / 13,500
37,200 / 45,100 -L-	7,600 / 9,200 SUTTER CREEK RD	2,200 / 2,700 31,500 / 38,200 -L-
US 301 BYPASS	1,100 / 1,300 SUTTER CREEK RD -Y7A-	700 / 900
	3,100 / 3,800	

NAD 83/86

MATCHLINE -L- STA. 92+00 SEE SHEET 8

MATCHLINE -L- STA. 106+00 SEE SHEET 10

-BL- # 105 PINC

-Y7B- POT Sta. 10+00.00

BEGIN CONSTRUCTION -Y7B- POT Sta. 10+68.04

-Y7B- POT Sta. 13+50.00

-L- POT Sta.104+43.19

-L- POT Sta.104+25.01

-Y7A- POT Sta. 10+00.00

-Y7A- POT Sta. 13+00.00

END CONSTRUCTION -Y7A- POT Sta. 11+70.00

-L- ST Sta. 98+15.11

-L- CS Sta. 96+65.11

-L- N 61° 43' 05.8" E

-Y7A- S 28° 11' 13.8" E

95+00

100+00

105+00

SPECIAL CUT DITCH SEE DETAIL 4-2

SPECIAL CUT DITCH SEE DETAIL 9-1

150' STORAGE

150' LEFT TURN TAPER

200' STORAGE

75' RIGHT TURN TAPER

EXPRESSWAY GUTTER STA.92+40 TO 94+10

ACCESS BREAK

PROP. 47" WW FENCE

PROP. 5' MONO. ISLAND

PROP. 2'-6" C&G

REMOVE 6 LF

REMOVE 20 LF

REMOVE 14 LF

REMOVE 35 LF

REMOVE 45 LF

FILL WITH FLOWABLE FILL

REMOVE EX. PIPE

3 TONS CL B RIPR 10 SY GEOTEXTILE

DO NOT DISTURB SIGN

DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT. 16 & 17
FOR -Y7A- & -Y7B- PROFILE SEE SHT. 23
SEE SHT. 2-F FOR DITCH DETAILS
SEE SHT. 2-I FOR INTERSECTION DETAILS

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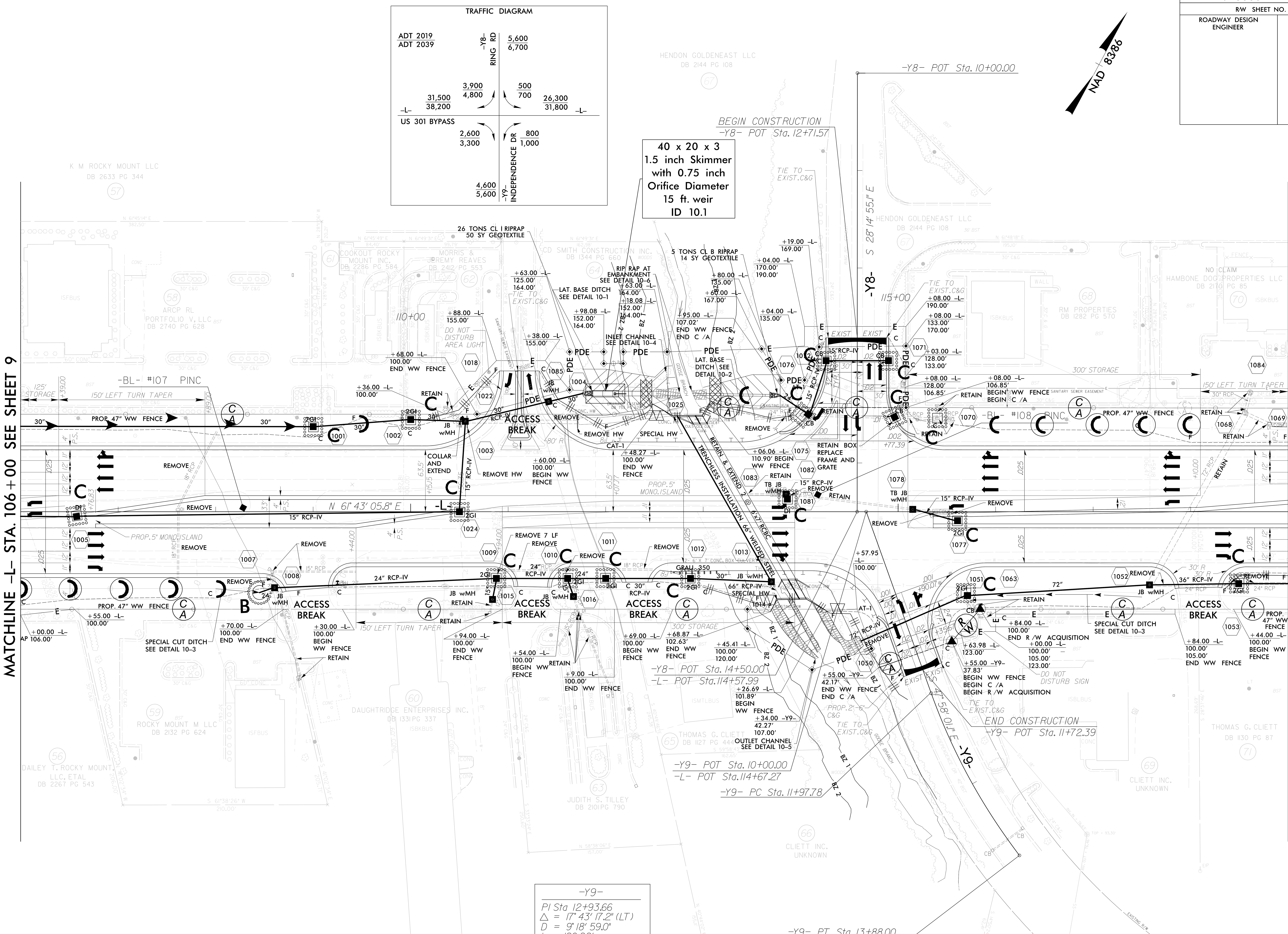
SYSTEMS ENGINEERING

PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-20/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-Y9-
PI Sta 12+93.66
Δ = 17° 43' 17.2" (LT)
D = 9° 18' 59.0"
L = 190.22'
T = 95.87'
R = 615.00'
SUPER = EXIST.

DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT.17 & 18
FOR -Y8- & -Y9- PROFILE SEE SHT.24
SEE SHT. 2-F FOR DITCH DETAILS
SEE SHT. 2-I FOR INTERSECTION DETAILS

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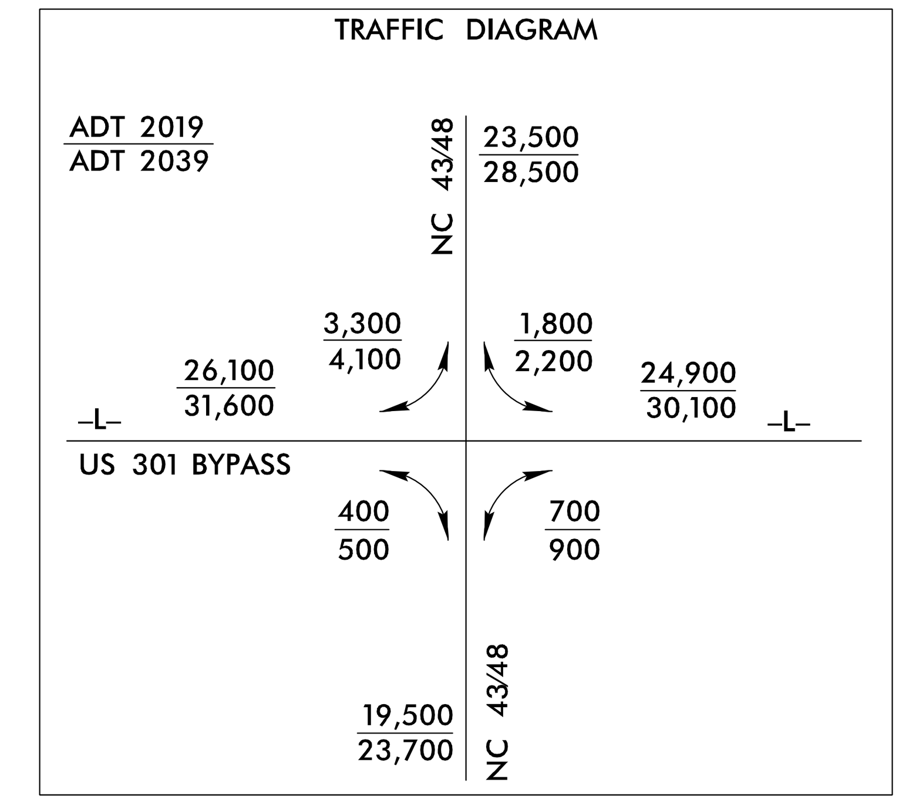
NC LICENSE NO. C-1021

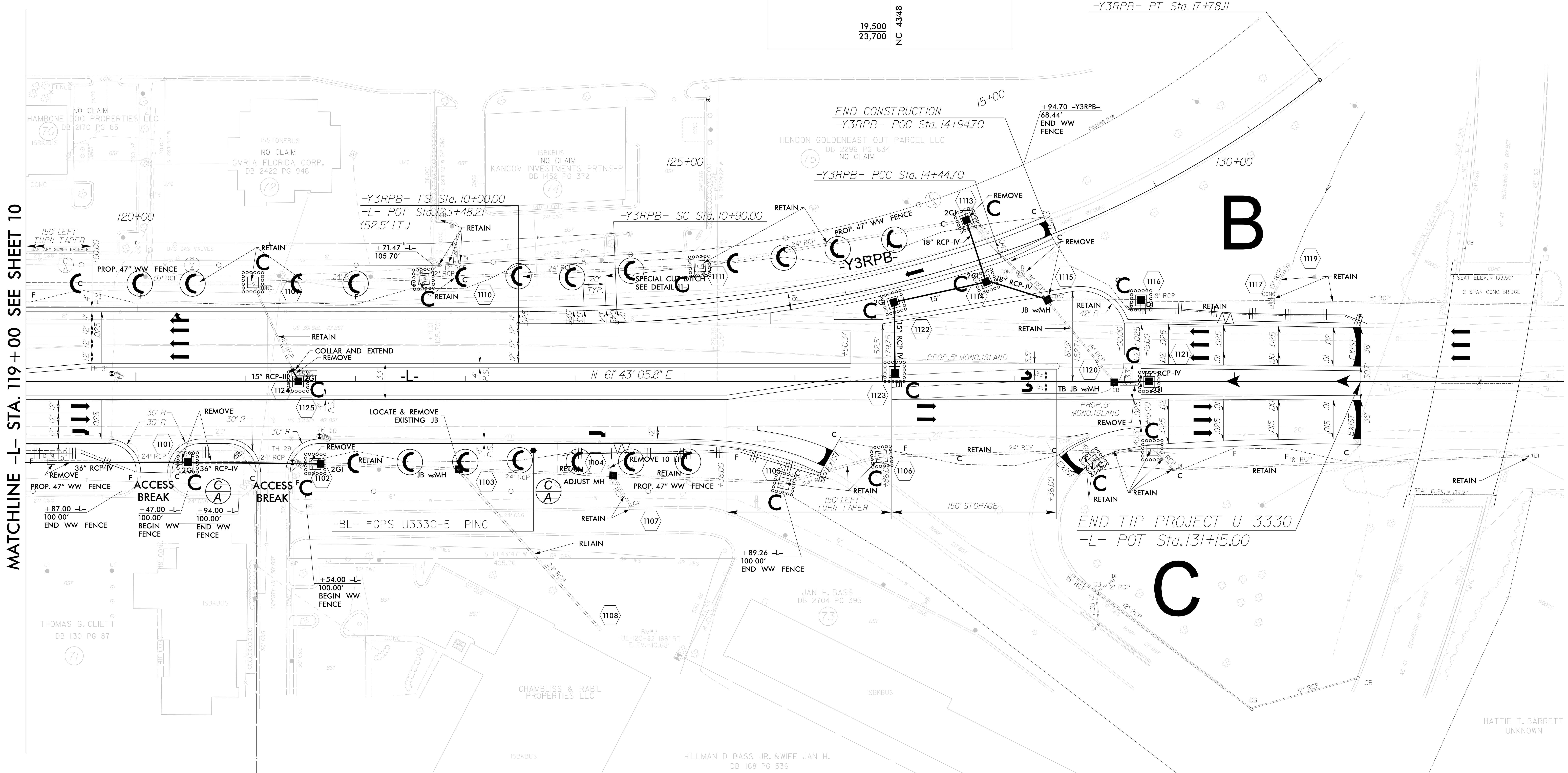
PROJECT REFERENCE NO.	SHEET NO.
U-3330	EC-21/CONST11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

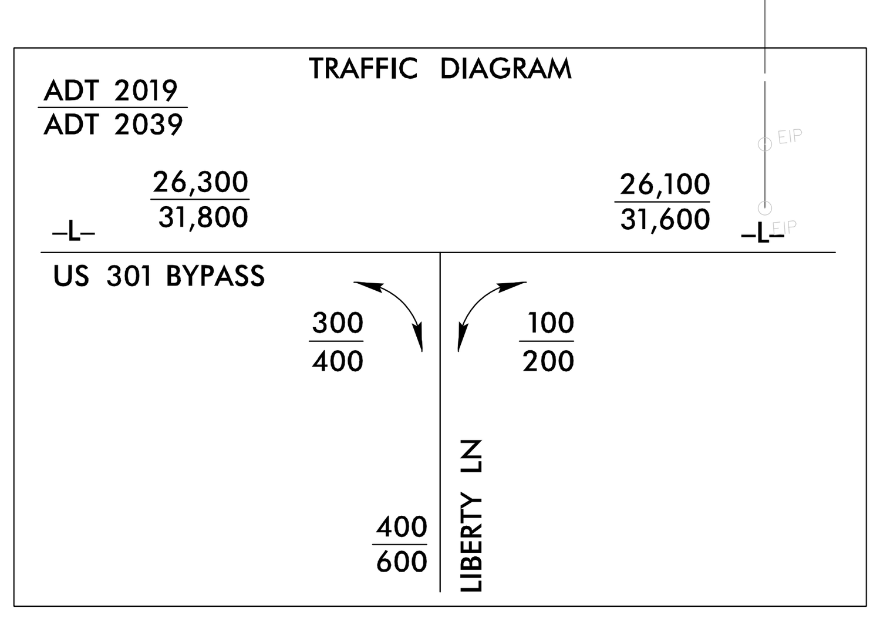
NAD 83/86

-Y3RPB-

PIs Sta 10+60.00	PI Sta 12+68.57	PI Sta 16+13.10
Θs = 2° 04' 45.4"	Δ = 16° 23' 21.1" (LT)	Δ = 19° 53' 57.1" (LT)
Ls = 90.00'	D = 4° 37' 14.3"	D = 5° 58' 05.9"
LT = 60.00'	L = 354.70'	L = 333.41'
ST = 30.00'	T = 178.57'	T = 168.40'
	R = 1,240.00'	R = 960.00'
	SUPER = 0.045	







DRIVEWAY RADII ARE 25' UNLESS OTHERWISE NOTED

FOR -L- PROFILE SEE SHT.18 & 19
FOR -Y3RPB- PROFILE SEE SHT.22
FOR DITCH DETAILS SEE SHT.2-F

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