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PROJECT: R-2603

TIP P

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2603	EC-1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

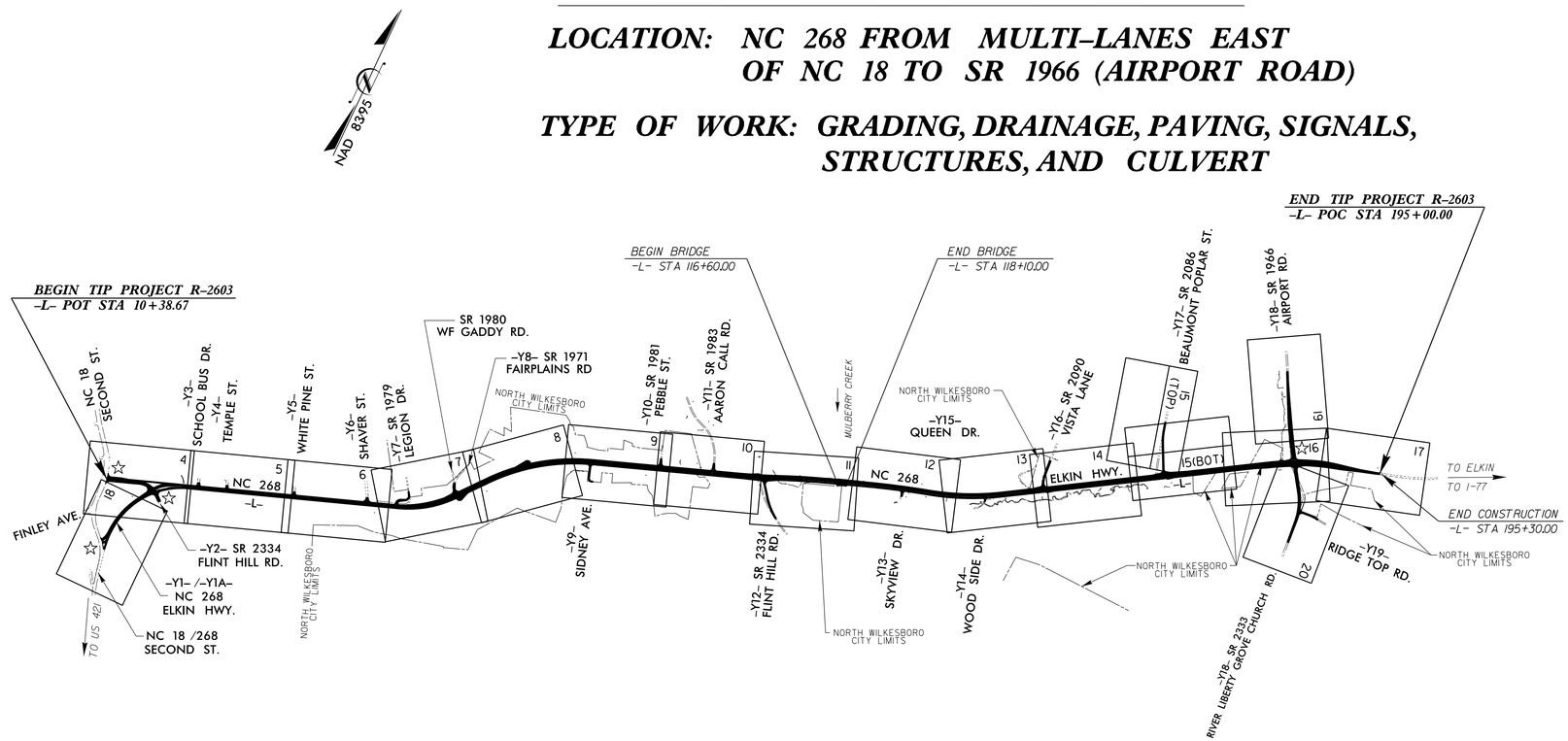
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

WILKES COUNTY

LOCATION: NC 268 FROM MULTI-LANES EAST OF NC 18 TO SR 1966 (AIRPORT ROAD)

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



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.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

GRAPHIC SCALE

0
PLANS

0
PROFILE (HORIZONTAL)

0
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

Designed by:

JEREMY GOODWIN — ***3446***
NAME — *LEVEL III CERTIFICATION NO.*

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	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
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	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	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
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

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jagoodwin
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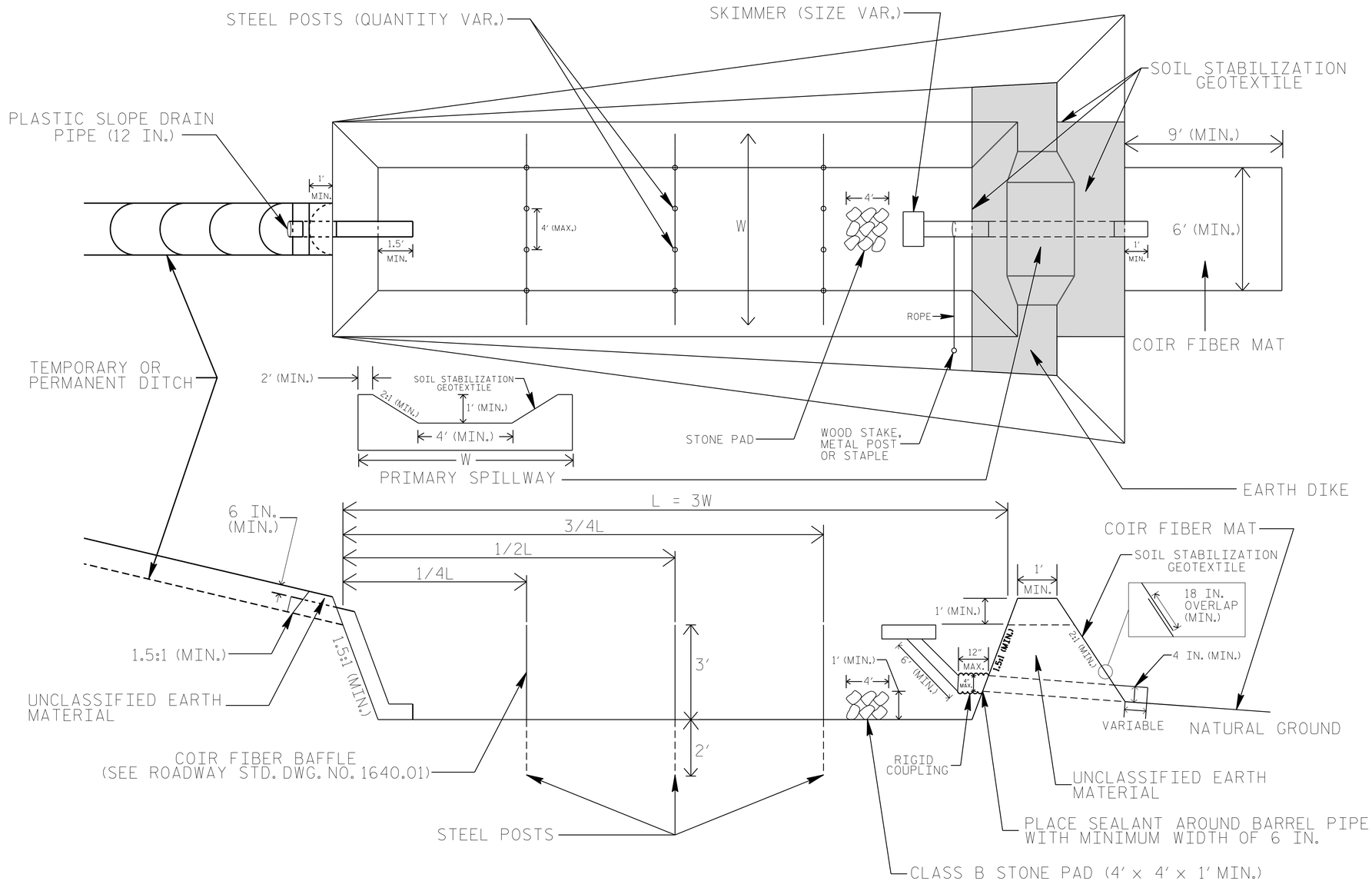
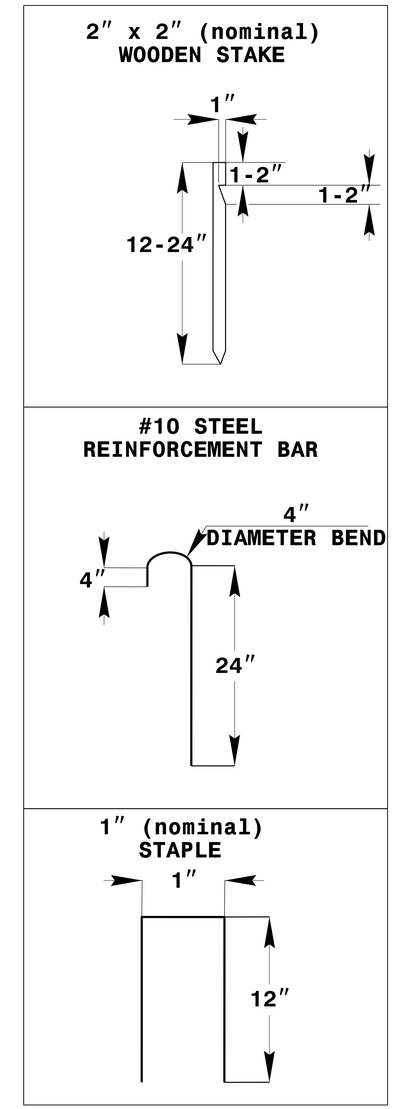
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL





COIR FIBER MAT ANCHOR OPTIONS

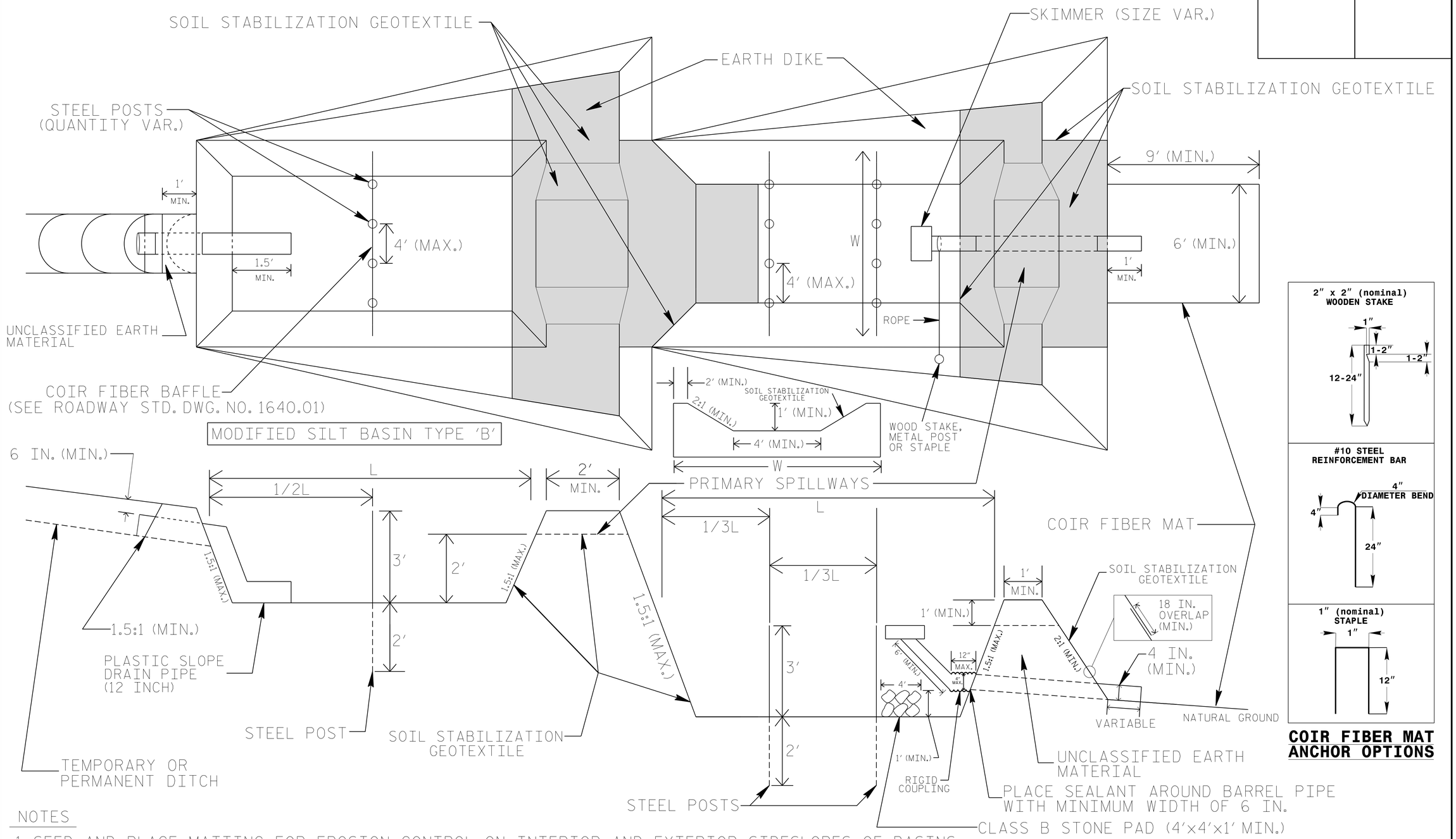
NOTES

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/0.8, 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. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TIERED SKIMMER BASIN DETAIL



COIR FIBER MAT ANCHOR OPTIONS

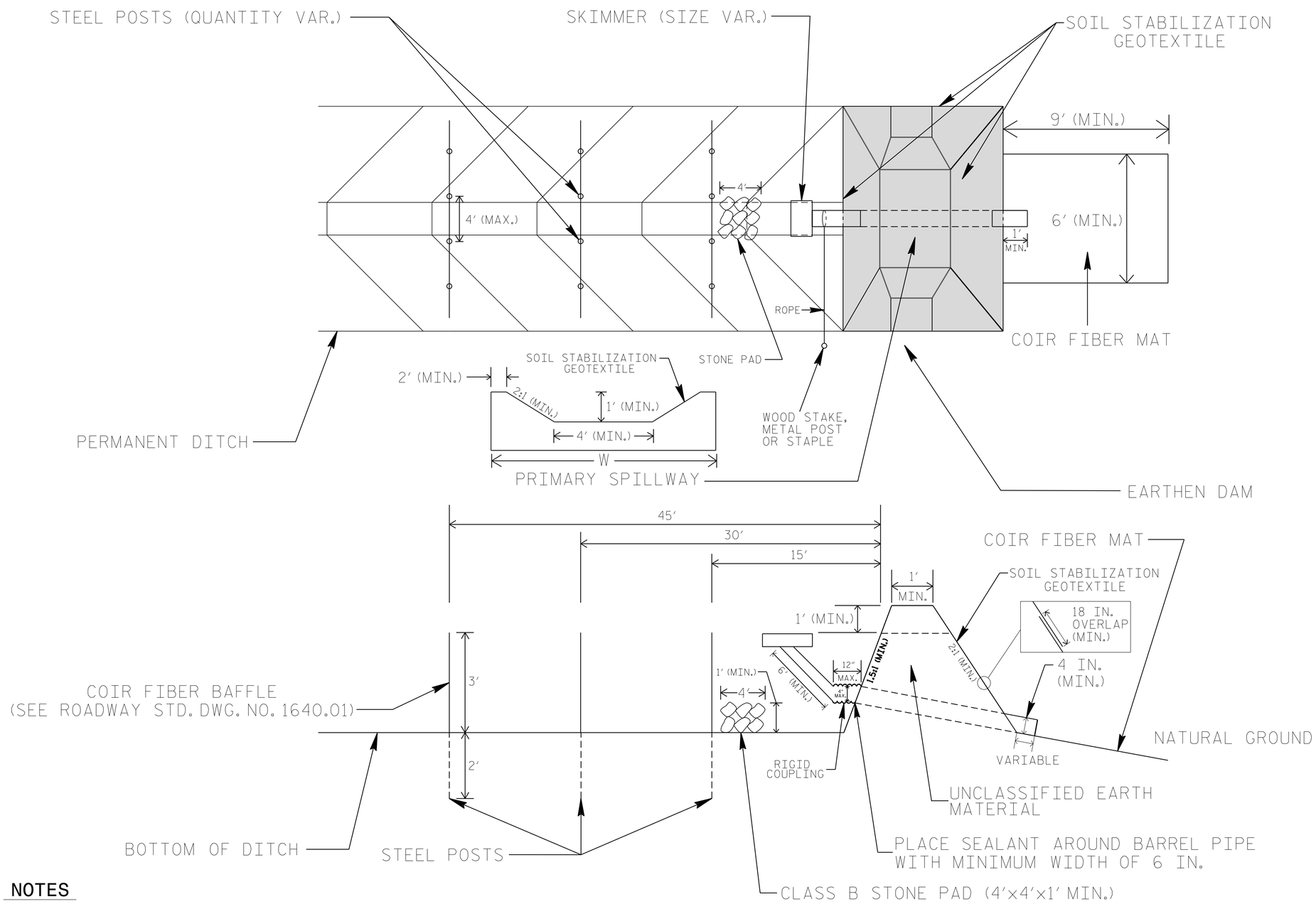
NOTES

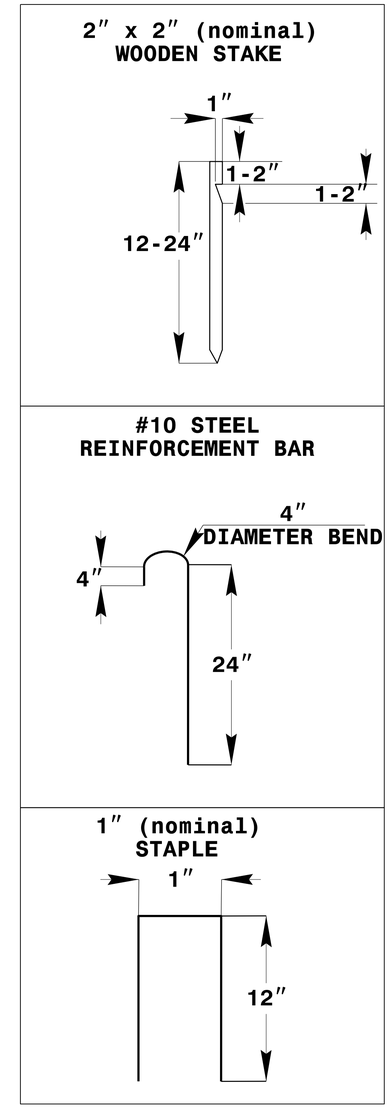
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
4. FOR BASIN DEPTHS OF 3FT., THE MINIMUM BASIN WIDTHS SHALL BE 9 FT.
5. DETERMINE PRIMARY SPILLWAY WEIR LENGTHS (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EARTHEN DAM WITH SKIMMER





COIR FIBER MAT ANCHOR OPTIONS

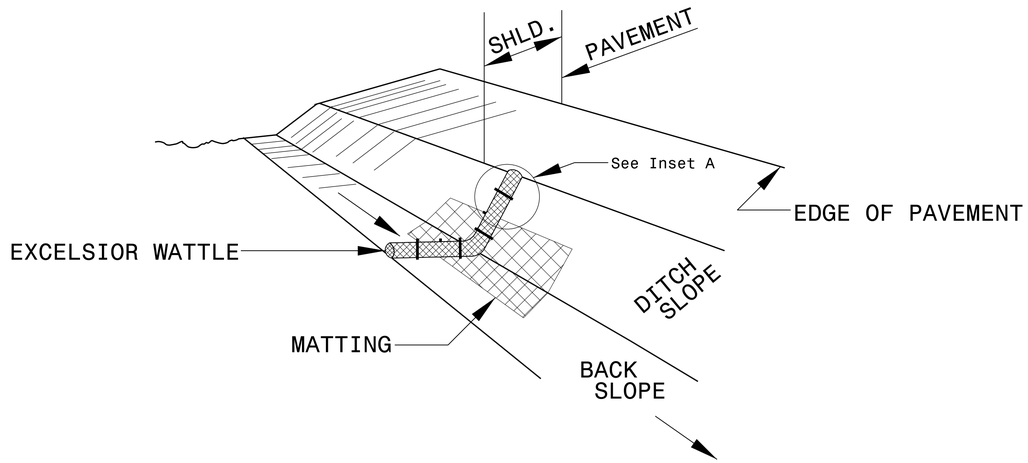
NOTES

1. LIMIT EARTHEN DAM HEIGHT TO 5 FT.
2. DETERMINE PRIMARY SPILLWAY LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
3. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

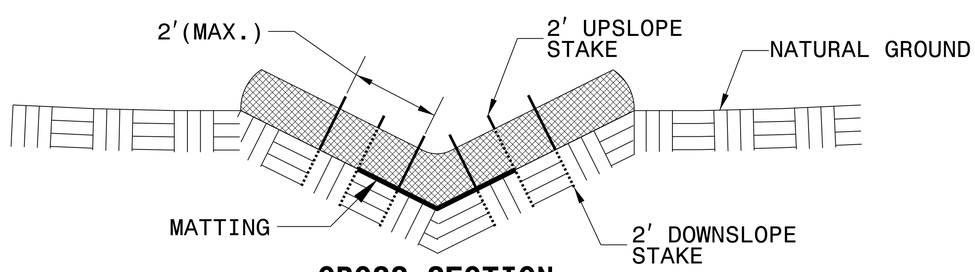
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

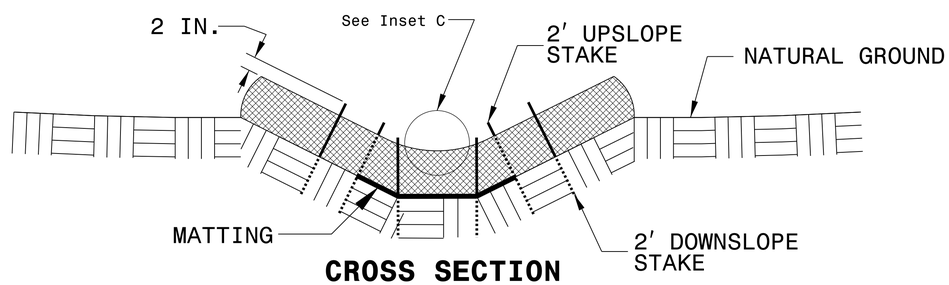
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



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.

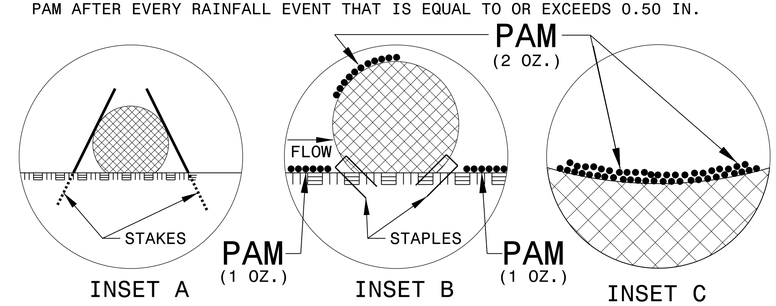
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

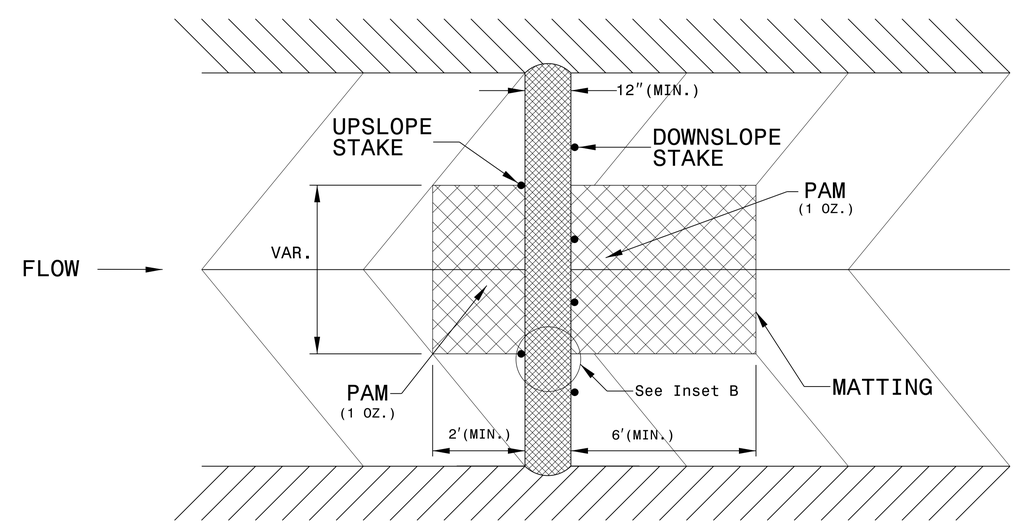
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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.

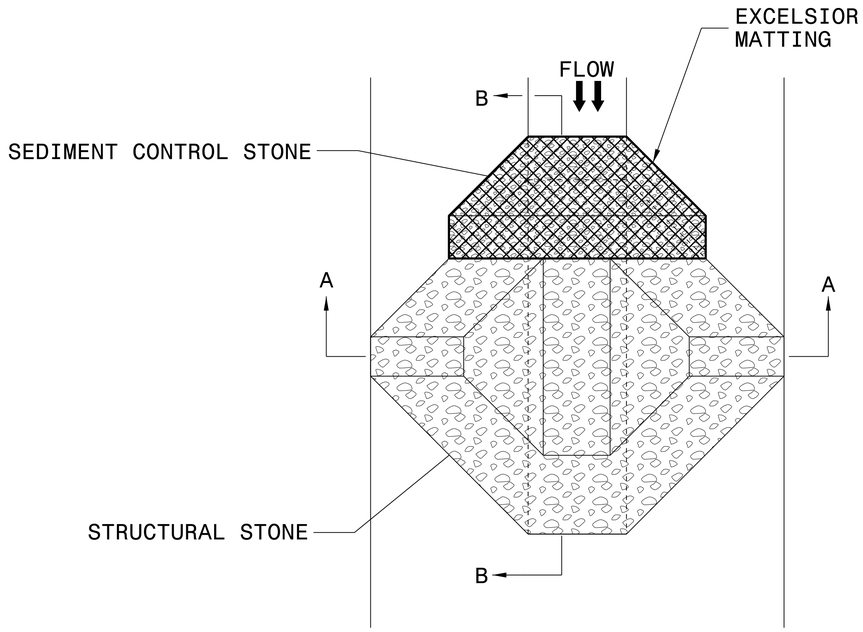




TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-2D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



PLAN

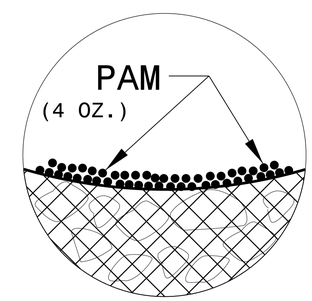
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

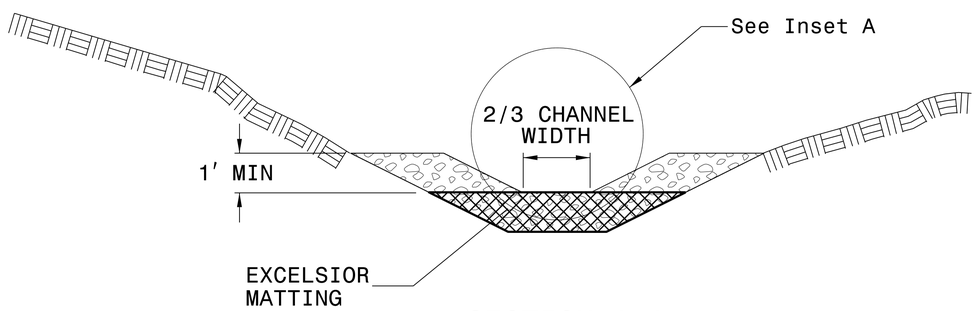
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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 ROCK SILT CHECK.

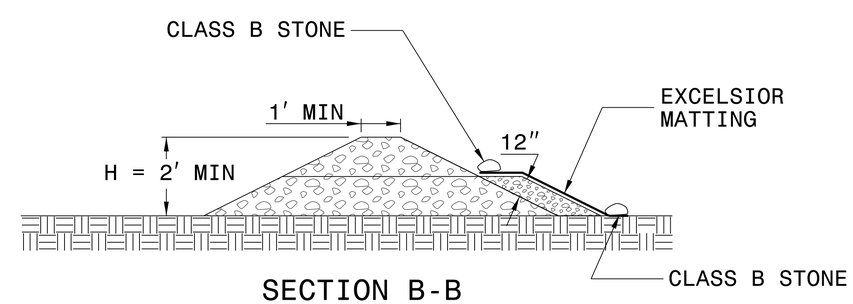
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2603	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)
5	-L-	28+00	28+50	LT	25
5	-L-	29+50	30+50	LT	50
5	-L-	34+00	36+50	LT	150
6	-L-	44+00	47+00	LT	150
7	-Y7-	11+00	11+50	RT	50
7	-Y7-	13+00	13+50	LT	25
8	-L-	73+50	78+00	LT	225
9	-L-	86+50	87+00	RT	25
10	-L-	96+00	97+00	LT	50
10	-L-	97+00	98+00	LT	50
11	-Y12-	11+00	14+00	RT	210
11	-Y12-	11+00	13+50	LT	175
11	-Y12-	14+00	14+50	RT	35
12	-L-	128+00	136+00	LT	925
12	-L-	136+50	146+00	LT	1,275
14	-L-	147+00	155+00	LT	1,075
14	-L-	157+00	163+00	LT	805
15	-L-	162+00	170+50	RT	955
15	-L-	172+50	177+00	RT	510
16	-L-	173+00	179+50	LT	665
16	-L-	183+50	193+00	LT	1,275
16	-L-	184+00	195+00	RT	1,235
19	-Y18-	21+00	22+50	LT	170
19	-Y18-	25+50	26+00	LT	35
19	-Y18-	26+00	30+00	LT	410
20	-Y18-	35+50	41+50	RT	420
20	-Y18-	38+50	41+00	LT	175
2B-1	-LDET-	55+50	58+00	RT	150
2B-1	-LDET-	60+00	61+50	LT	90
2B-3	-Y9DET-	13+00	14+00	LT	70

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
				SUBTOTAL	11,460
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					109,460
				TOTAL	120,920
				SAY	121,000

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-Y1-	22+50	24+00	RT	90
7	-Y7-	12+00	13+50	RT	105
7	-Y7-	13+00	13+50	LT	35
8	-L-	75+00	76+50	RT	75
9	-L-	89+50	90+50	RT	60
9	-Y9-	11+00	12+50	RT	105
9	-Y9-	11+00	12+50	LT	105
9	-DRIVE7-	10+60	11+75	RT	155
9	-DRIVE7-	10+60	11+75	LT	155
10	-DRIVE3-	10+50	12+00	RT	105
10	-DRIVE3-	10+50	13+00	LT	175
11	-L-	107+00	107+35	LT	20
11	-L-	108+50	113+50	LT	565
11	-L-	110+00	111+00	RT	115
11	-L-	111+50	111+86	RT	30
11	-L-	113+26	113+77	RT	45
13	-DRIVE5-	10+25	10+75	RT	25
13	-DRIVE5-	10+25	10+75	LT	25
14	-Y15-	10+50	11+50	RT	70
14	-Y15-	10+50	11+50	LT	70
14	-Y16-	10+65	11+33	RT	55
14	-Y16-	12+50	14+00	RT	170
14	-Y16-	13+00	14+00	LT	70
15	-Y17-	14+00	18+00	RT	280
15	-Y17-	16+00	18+00	LT	140
16	-Y18-	31+50	35+00	LT	245
16	-Y18-	32+00	34+00	RT	140
20	-Y18-	36+00	37+00	LT	70
20	-Y19-	11+00	12+50	LT	75
20-1	-LDET-	58+00	59+00	LT	60

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
20-1	-Y7DET-	5+50	8+00	LT	175
20-1	-Y7DET-	5+75	8+25	RT	175
20-3	-Y9DET-	11+00	14+00	RT	210
20-3	-Y9DET-	11+50	12+00	LT	35
20-4	-Y16DET-	12+50.64	17+23.61	RT	315
20-4	-Y16DET-	15+03.91	17+23.61	LT	140
				SUBTOTAL	4,485
	ADDITIONAL PSRM TO BE INSTALLED				1,455
				TOTAL	5,940
				SAY	6,000

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-3B
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.
R-2603	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

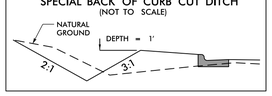
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

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

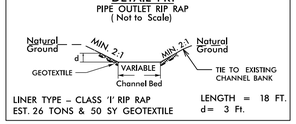
NAD 83/95

DETAIL BC3
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)



FROM –Y1– STA. 22+40 TO STA. 24+00 RT

DETAIL PR1
PIPE OUTLET RIP RAP
(Not to Scale)



LINER TYPE – CLASS 'I' RIP RAP
EST. 26 TONS & 50 SY GEOTEXTILE
LENGTH = 18 FT.
d= 3 Ft.

–Y2– STA. 19+30 LT

BEGIN T.I.P. PROJECT R-2603
–L– POT 10+38.67

–L– POT Sta. 10+00.00

–Y2– POT Sta. 14+65.00
–L– POT Sta. 14+65.00

–Y2– PC Sta. 15+02.33=
–L– POT Sta. 15+02.33

–Y1A– POC Sta. 24+48.58=
–Y2– POC Sta. 17+37.19

–Y1– POC Sta. 24+52.75=
–Y2– POC Sta. 17+71.19

–Y1A– PT Sta. 27+72.80=
–L– POT Sta. 20+19.69 (5.50' LT)

–Y2– PT Sta. 18+16.39

–Y1A– POT Sta. 21+58.06 LT=
–Y1– POC Sta. 21+58.06

END CONSTRUCTION
–Y2– POT 19+30.00

–Y1A– PC Sta. 23+88.84

–Y2– POT Sta. 19+88.82

N 70°19' 47.8" E

N 30°19' 52.0" E

S 49°41' 21.1" E

MATCH LINE –L– STA.22+00
SEE SHEET NO.5

MATCH LINE –Y1– STA.20+00
SEE SHEET NO.18

SPECIAL BACK OF CURB CUT DITCH SEE DETAIL BC3

CLASS 'I' RIP RAP
PLACE ON BANKS ONLY
SEE DETAIL PR1

DO NOT DISTURB SIGN

DO NOT DISTURB VAULT

DO NOT DISTURB

NO CLAIM

UPGRADE EXISTING SIGNAL

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

8/17/99

04-JUN-2015 10:06
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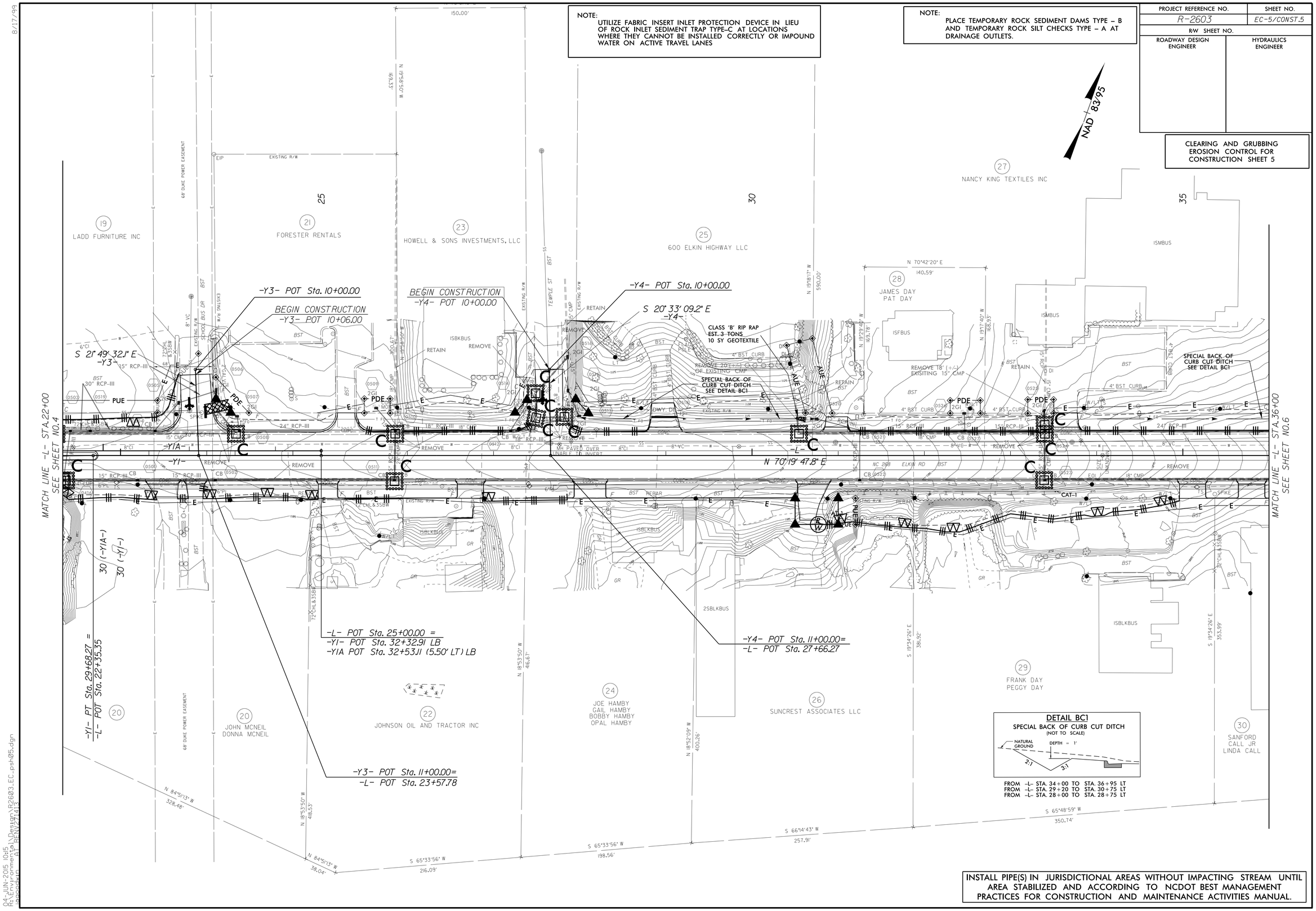
pscoggin

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

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



INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

8/17/99

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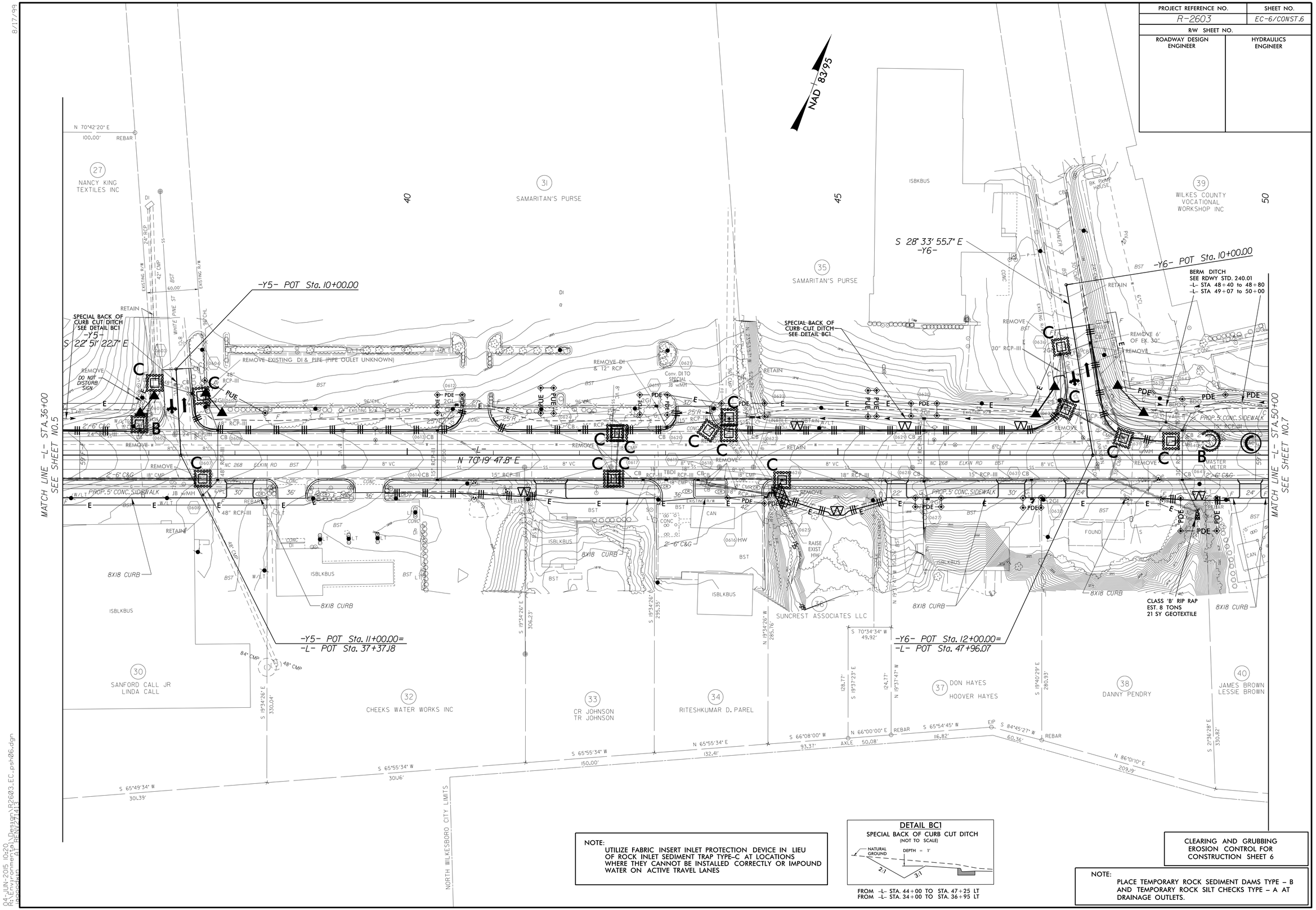
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-6/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

DETAIL BC1
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)

FROM -L- STA. 44+00 TO STA. 47+25 LT
FROM -L- STA. 34+00 TO STA. 36+95 LT

CLEARING AND GRUBBING
EROSION CONTROL FOR CONSTRUCTION SHEET 6

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

8/17/99

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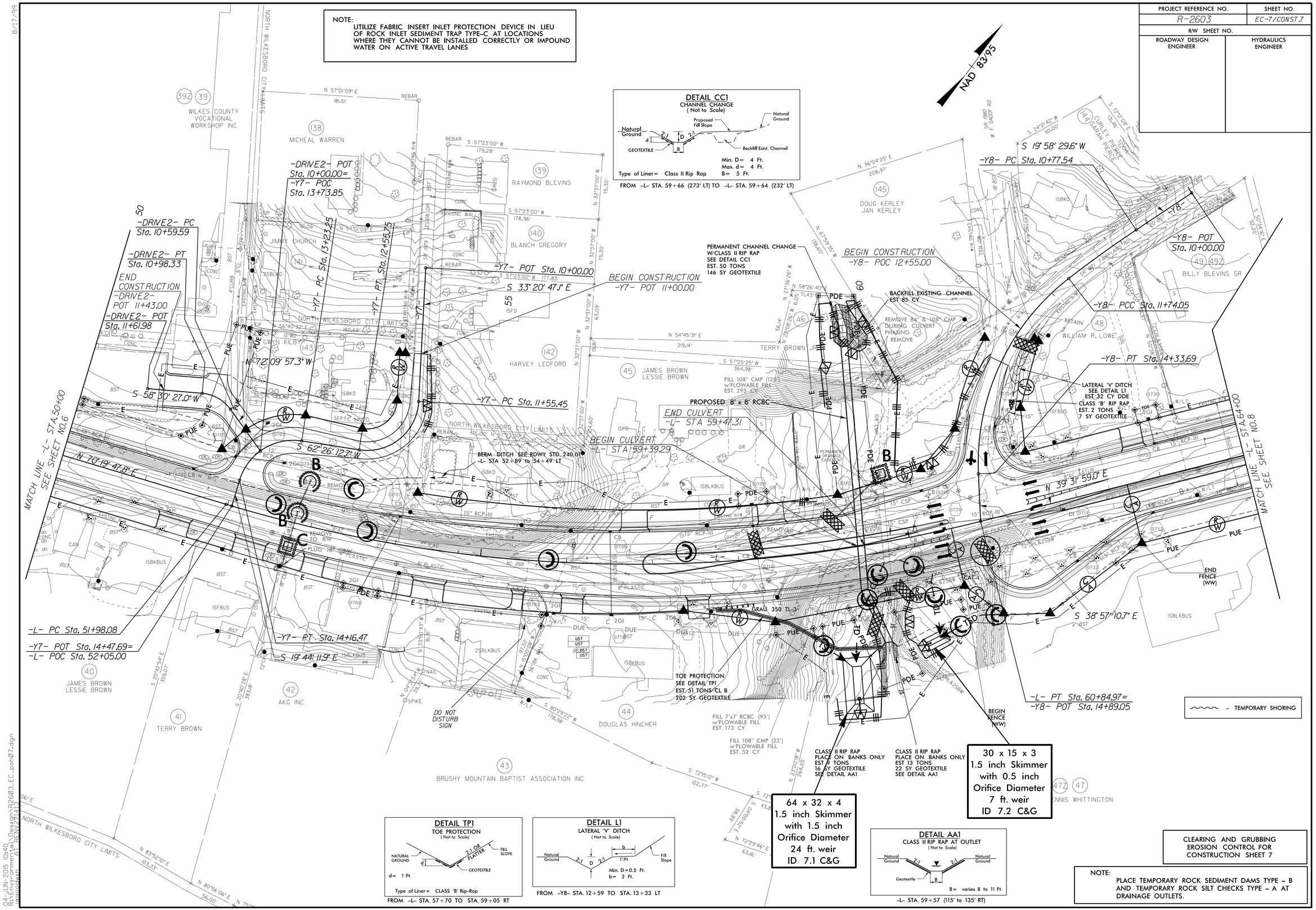
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-7/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



DETAIL CC1
CHANNEL CHANGE
(Not to Scale)

Natural Ground, Proposed Fill Slope, Natural Ground, GEOTEXTILE, Backfill Exist. Channel

Min. D= 4 Ft.
Max. d= 4 Ft.
B= 5 Ft.

Type of Liner= Class II Rip Rap

FROM -L- STA. 59+66 (273' LT) TO -L- STA. 59+64 (232' LT)

DETAIL TP1
TOE PROTECTION
(Not to Scale)

NATURAL GROUND, 2:1 OR FLATTER, FILL SLOPE, GEOTEXTILE

d= 1 Ft.

Type of Liner= CLASS 'B' Rip-Rap

FROM -L- STA. 57+70 TO STA. 59+05 RT

DETAIL L1
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, b, 1'Ft., Fill Slope

Min. D=0.5 Ft.
b= 2 Ft.

FROM -Y8- STA. 12+59 TO STA. 13+33 LT

DETAIL AA1
CLASS II RIP RAP AT OUTLET
(Not to Scale)

Natural Ground, 2:1, B, 2:1, Natural Ground, Geotextile

B= varies 8 to 11 Ft.

-L- STA. 59+57 (115' to 135' RT)

CLEARING AND GRUBBING
EROSION CONTROL FOR CONSTRUCTION SHEET 7

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

8/17/99

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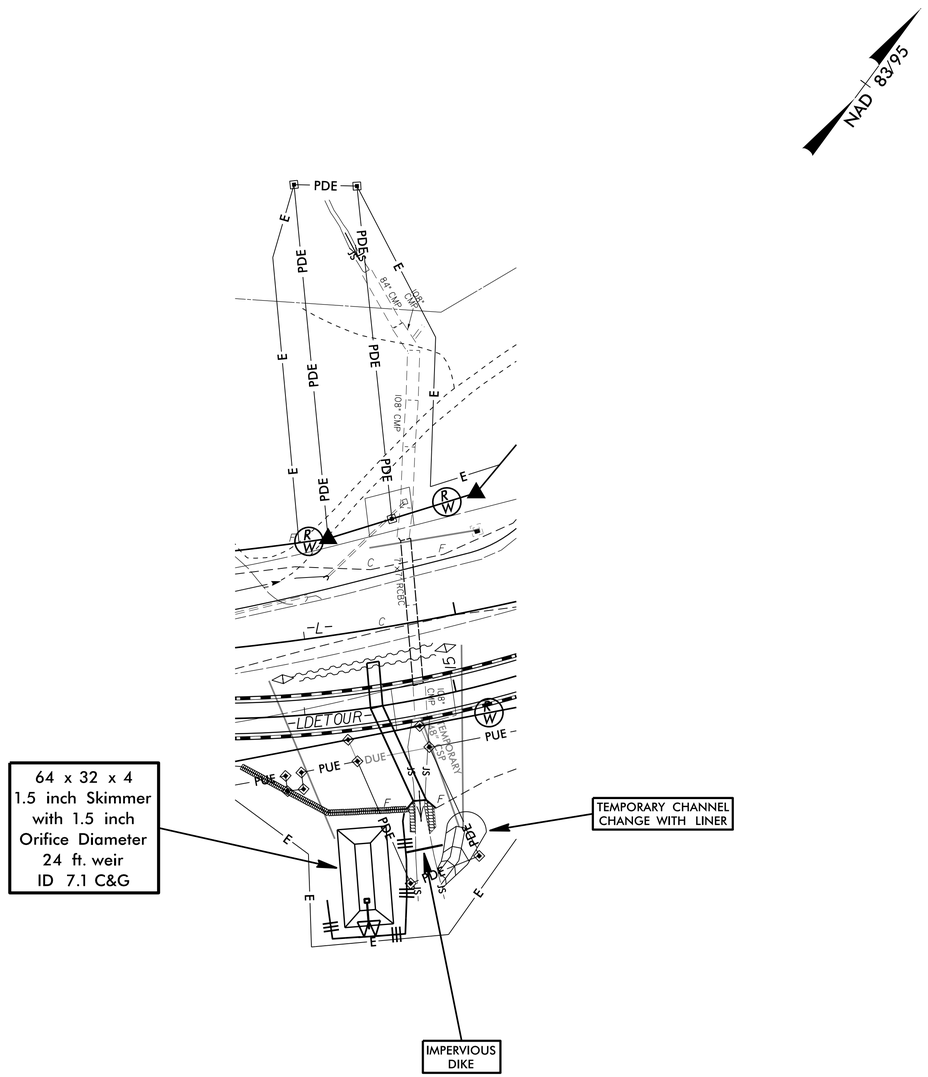
CULVERT CONSTRUCTION SEQUENCE STA. 59 + 43 –L–

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-8/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

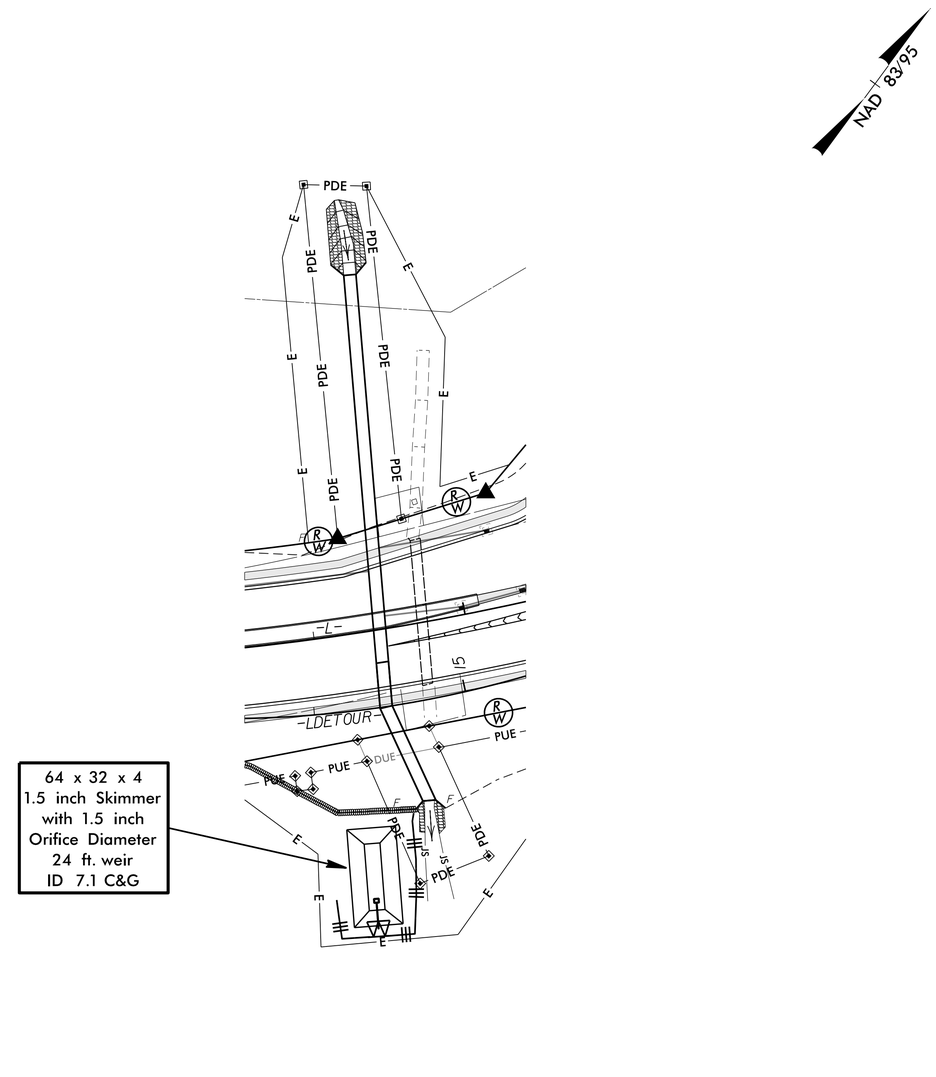
PHASE I

1. UTILIZE SKIMMER BASIN 7.1 C&G AS STILLING BASIN THROUGHOUT CULVERT CONSTRUCTION.
2. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (6 FT. BASE, 2 FT. DEEP, 2:1 SIDE SLOPES).
3. INSTALL TEMPORARY 48" CSP ACCORDING TO NCDOT 'BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES' MANUAL, AND IMPERVIOUS DIKE, DIVERTING FLOW TO THE TEMPORARY CHANNEL CHANGE.
4. CONSTRUCT PORTION OF THE PROPOSED CULVERT, INCLUDING OUTLET CHANNEL IMPROVEMENTS.
5. CONSTRUCT DETOUR ALIGNMENT AND SHIFT TRAFFIC.



PHASE II

6. CONSTRUCT REMAINDER OF PROPOSED CULVERT.
7. CONSTRUCT INLET CHANNEL IMPROVEMENTS ACCORDING TO NCDOT 'BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES' MANUAL.
8. REMOVE IMPERVIOUS DIKE AND DIVERT FLOW THROUGH PROPOSED CULVERT.
9. REMOVE PORTION OF EXISTING UPSTREAM PIPE/CULVERT SYSTEM AND FILL REMAINDER WITH FLOWABLE FILL.
10. REMOVE TEMPORARY CHANNEL CHANGE, AND COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-9/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL L1
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, b, 1'/Ft., Fill Slope

Min. D=0.5 Ft.
b= 2 Ft.

FROM –L– STA. 73+10 TO STA. 78+00 LT
FROM –L– STA. 74+85 TO STA. 77+00 RT

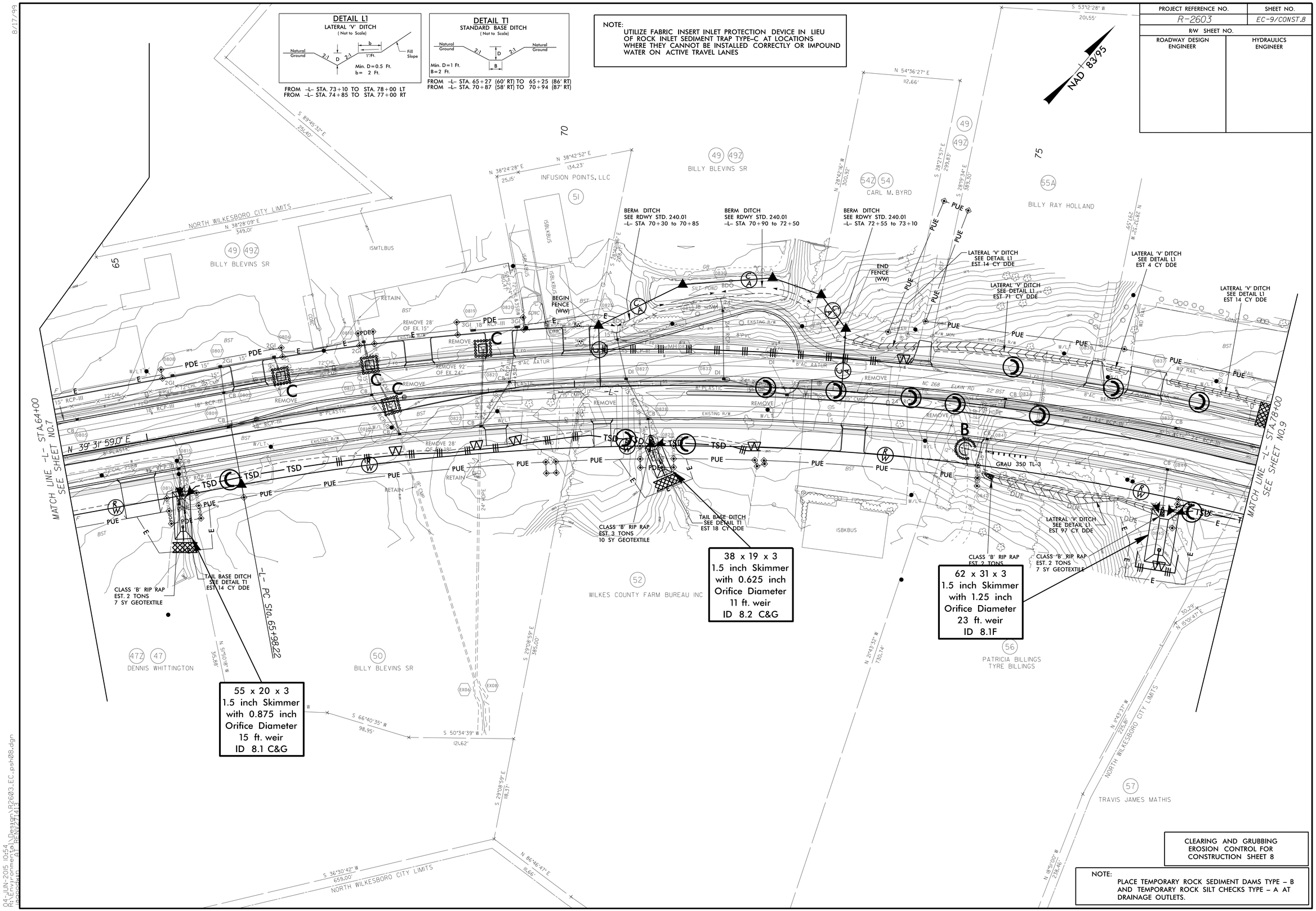
DETAIL T1
STANDARD BASE DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, Natural Ground, B

Min. D=1 Ft.
B=2 Ft.

FROM –L– STA. 65+27 (60' RT) TO 65+25 (86' RT)
FROM –L– STA. 70+87 (58' RT) TO 70+94 (87' RT)

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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

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PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-10/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL BC1
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)

FROM –L– STA. 82+00 TO STA. 83+50 LT
FROM –L– STA. 83+80 TO STA. 84+50 LT
FROM –L– STA. 84+80 TO STA. 85+80 LT
FROM –L– STA. 90+00 TO STA. 90+65 RT
FROM –L– STA. 91+19 TO STA. 93+50 RT

DETAIL BC2
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)

FROM –L– STA. 89+14 TO STA. 90+00 RT

DETAIL L1
LATERAL 'V' DITCH
(Not to Scale)

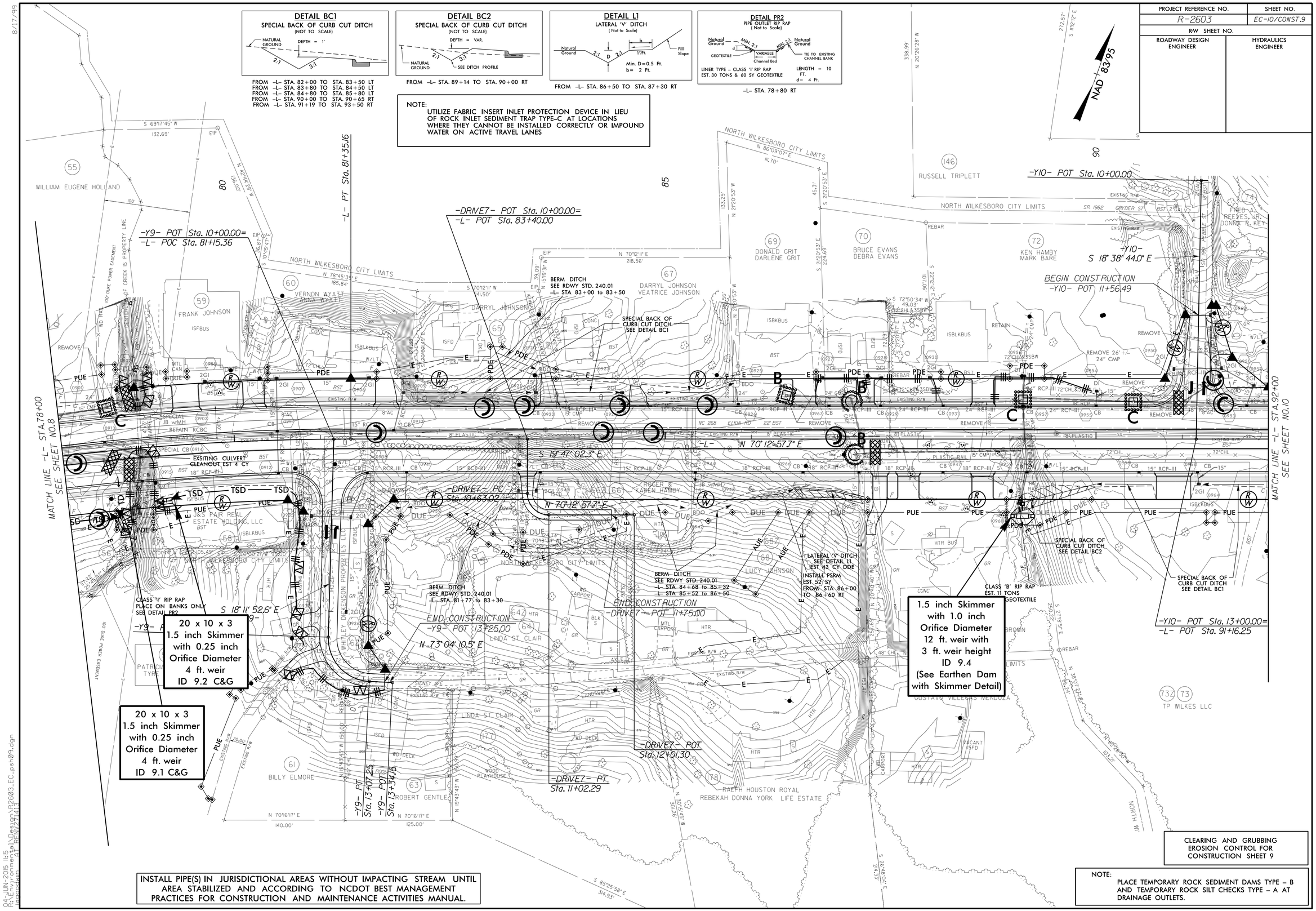
FROM –L– STA. 86+50 TO STA. 87+30 RT

DETAIL PR2
PIPE OUTLET RIP RAP
(Not to Scale)

LINER TYPE – CLASS 'I' RIP RAP
EST. 30 TONS & 60 SY GEOTEXTILE
LENGTH = 10 FT.
d = 4 Ft.

–L– STA. 78+80 RT

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

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

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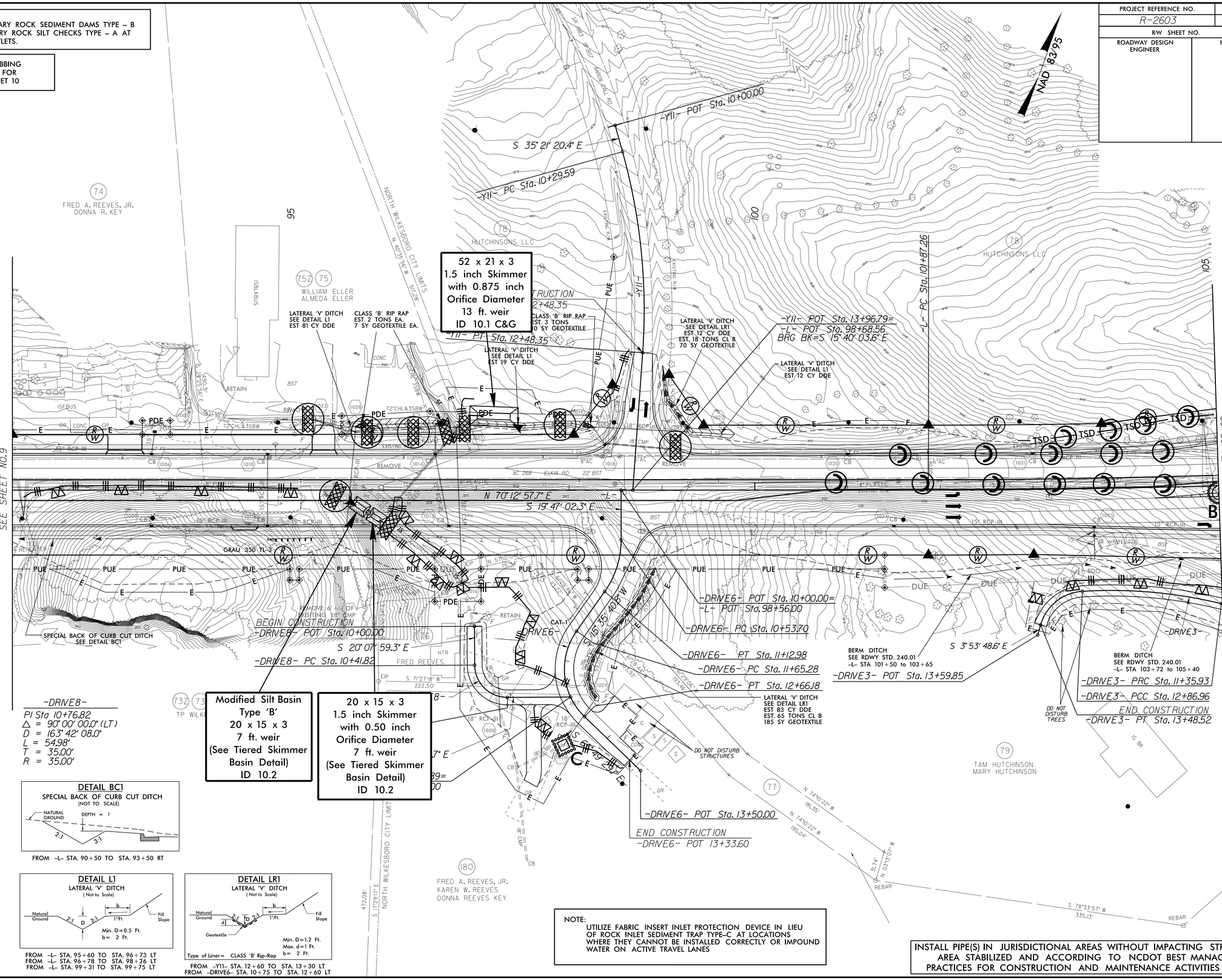
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 10

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-11/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



DETAIL BC1
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)

FROM –L– STA. 90+50 TO STA. 93+50 RT

DETAIL L1
LATERAL 'V' DITCH
(Not to Scale)

FROM –L– STA. 95+60 TO STA. 96+73 LT
FROM –L– STA. 96+78 TO STA. 98+26 LT
FROM –L– STA. 99+31 TO STA. 99+75 LT

DETAIL LR1
LATERAL 'V' DITCH
(Not to Scale)

Type of Liner= CLASS 'B' Rip-Rap

FROM –Y11– STA. 12+60 TO STA. 13+30 LT
FROM –DRIVE6– STA. 10+75 TO STA. 12+60 LT

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

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PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-12/CONST.J1
R/W SHEET NOS.	
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 11

DETAIL LR1
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 2:1, b, 1'/Ft., Fill Slope, Geotextile

Min. D=1.2 Ft.
Max. d=1 Ft.
b= 2 Ft.

Type of Liner= CLASS 'B' Rip-Rap

FROM –L– STA. 105+50 TO STA. 108+00 LT

DETAIL L4
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 2:1, b, 1'/Ft., Fill Slope, GEOTEXTILE, B

Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 2 Ft.

*When B is < 6.0'

Type of Liner= CLASS 'B' Rip-Rap

FROM –L– STA. 107+00 TO STA. 108+50 RT
FROM –L– STA. 111+00 TO STA. 111+50 RT
FROM –L– STA. 111+86 TO STA. 113+26 RT
FROM –L– STA. 113+77 TO STA. 117+00 RT

DETAIL LB4
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 2:1, b, 1'/Ft., Fill Slope, GEOTEXTILE, B

Min. D= 0.5Ft.
Max. d= 0.5Ft.
B= 4Ft.
b= 2Ft.

*When B is < 6.0'

Type of Liner= Class 'B' Rip-Rap

FROM –L– STA. 108+50 TO STA. 109+50 RT

DETAIL EB1
RIP RAP AT BRIDGE BENT AND STREAM EMBANKMENT
(Not to Scale)

PROP. BRIDGE BENT, 2', GEOTEXTILE

Type of Liner = EST. 55 TONS,CL II Rip-Rap Each Bent
Geotextile = EST. 60 SY Each Bent

–L– STA. 117+03
–L– STA. 117+65

DETAIL TB4
STANDARD BASE DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 2:1, Natural Ground, Geotextile, B

Min. D= 1 Ft.
Max. d= 1 Ft.
B= 4 Ft.

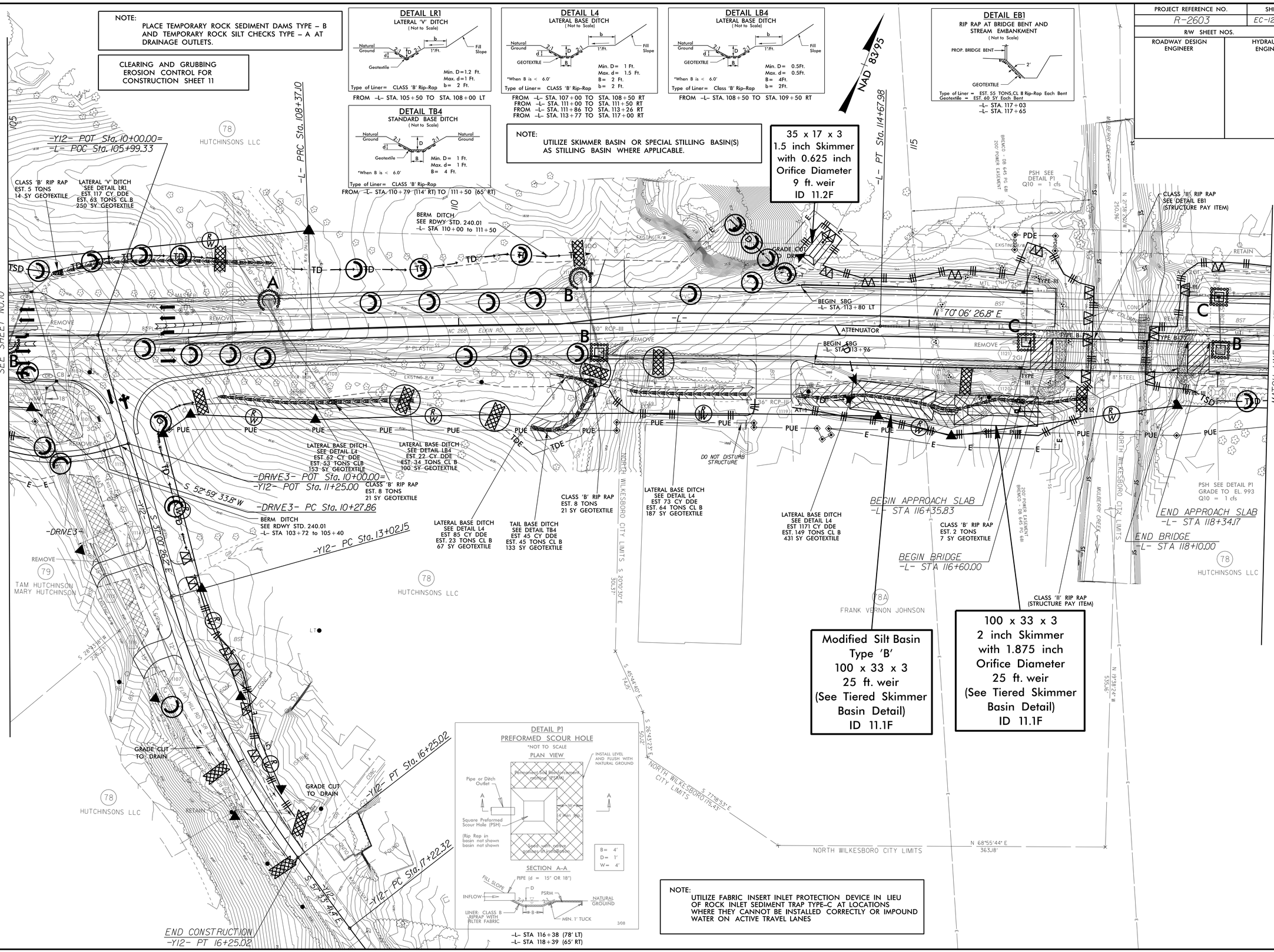
*When B is < 6.0'

Type of Liner= CLASS 'B' Rip-Rap

FROM –L– STA. 110+79 (114' RT) TO 111+50 (65' RT)

NOTE:
UTILIZE SKIMMER BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

35 x 17 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
9 ft. weir
ID 11.2F



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

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PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-13/CONST.12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

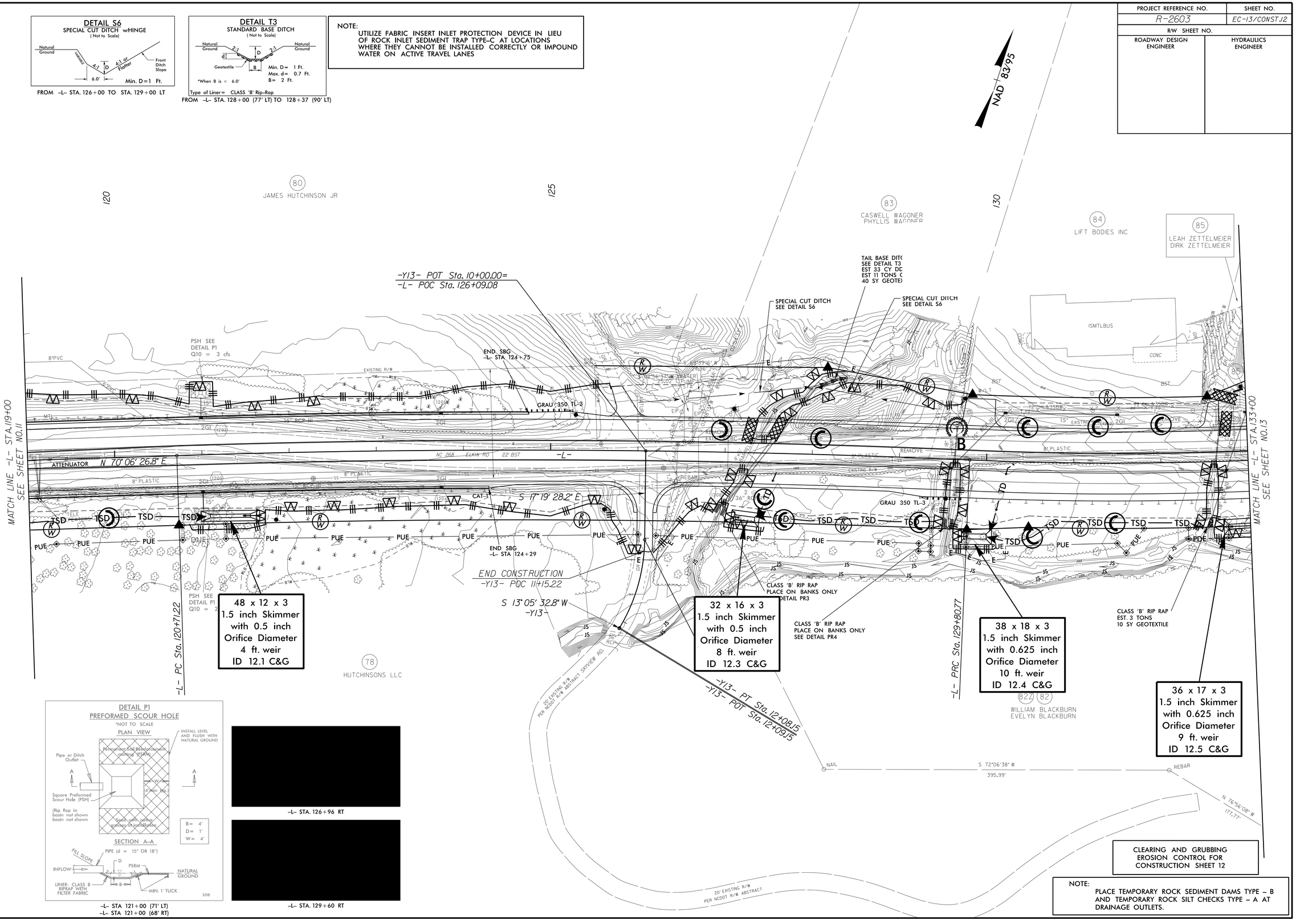
DETAIL S6
SPECIAL CUT DITCH wHINGE
(Not to Scale)

FROM –L– STA. 126+00 TO STA. 129+00 LT

DETAIL T3
STANDARD BASE DITCH
(Not to Scale)

FROM –L– STA. 128+00 (77' LT) TO 128+37 (90' LT)

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



DETAIL P1
PREFORMED SCOUR HOLE
*NOT TO SCALE

[redacted]

–L– STA. 126+96 RT

[redacted]

–L– STA. 129+60 RT

–L– STA 121+00 (71' LT)
–L– STA 121+00 (68' RT)

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

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

8/17/99

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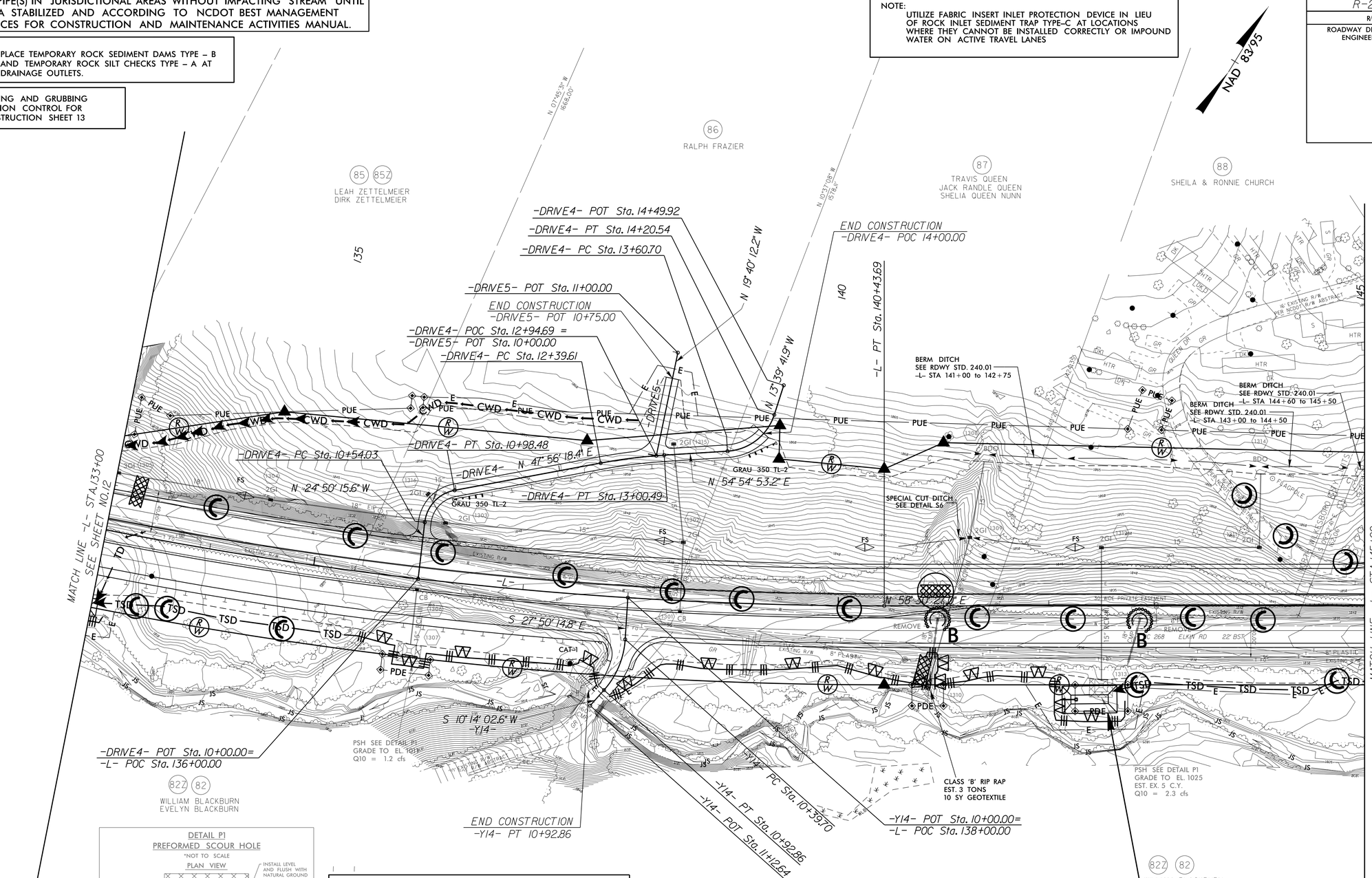
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-14/CONST.13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

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

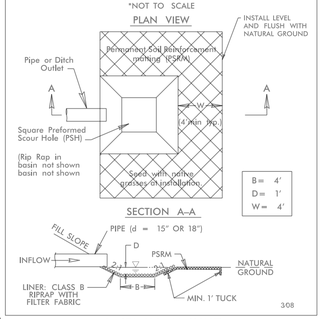
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



DETAIL P1
PREFORMED SCOUR HOLE

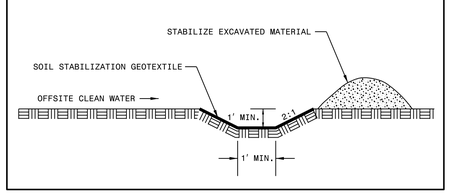
*NOT TO SCALE



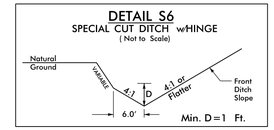
–L– STA 136+00 (69' LT)
–L– STA 142+50 (76' RT)

CLEAN WATER DIVERSION

(Not to Scale)

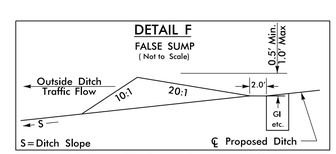


DETAIL S6
SPECIAL CUT DITCH wHINGE
(Not to Scale)



FROM –L– STA. 140+50 TO STA. 142+00 LT

DETAIL F
FALSE SUMP
(Not to Scale)



STA. –L– 134+25 STA. –L– 136+25
STA. –L– 138+25 STA. –L– 140+25
STA. –L– 142+25

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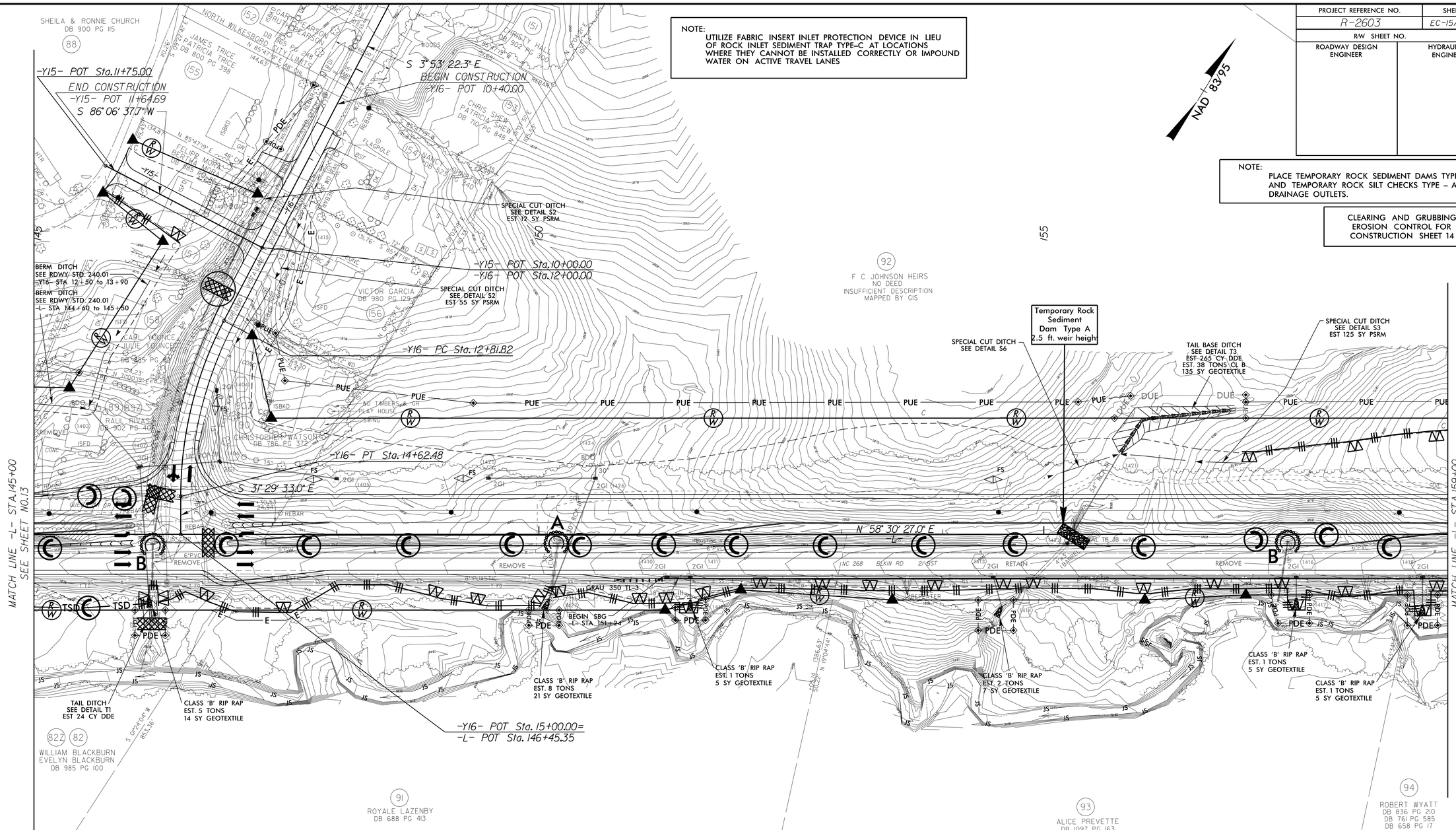
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-15/CONST J4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

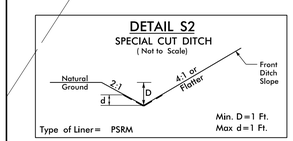
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

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 14

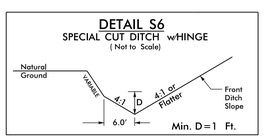


DETAIL S2
SPECIAL CUT DITCH
(Not to Scale)



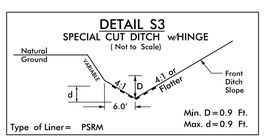
FROM –Y16– STA. 11+50 TO STA. 13+00 LT
FROM –Y16– STA. 11+75 RT

DETAIL S6
SPECIAL CUT DITCH w/HINGE
(Not to Scale)



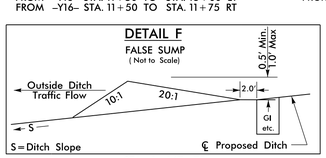
FROM –L– STA. 155+00 TO STA. 155+75 LT

DETAIL S3
SPECIAL CUT DITCH w/HINGE
(Not to Scale)



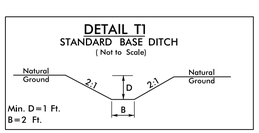
FROM –L– STA. 155+75 TO STA. 157+00 LT

DETAIL F
FALSE SUMP
(Not to Scale)



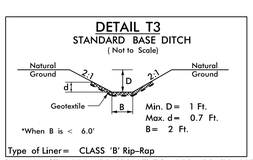
STA. –L– 147+75
STA. –L– 149+25
STA. –L– 154+50
STA. –Y16– 13+68

DETAIL T1
STANDARD BASE DITCH
(Not to Scale)



FROM –L– STA. 146+14 (61' RT) TO 146+16 (88' RT)

DETAIL T3
STANDARD BASE DITCH
(Not to Scale)



FROM –L– STA. 155+75 (80' LT) TO 156+89 (124' LT)

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proseman

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-16/CONST.J5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL LB1
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 2:1, D, d, 2:1, b, 1'-Ft., B, Fill Slope

Min. D = 1Ft.
Max. d = 1Ft.
B = 2Ft.
b = 2Ft.

Type of Liner = PSRM

FROM –Y17– STA. 11+15 TO STA. 13+00 LT

DETAIL L1
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 2:1, D, 4:1, b, 1'-Ft., Fill Slope

Min. D = 0.5 Ft.
b = 2 Ft.

FROM –Y17– STA. 15+00 TO STA. 16+00 LT

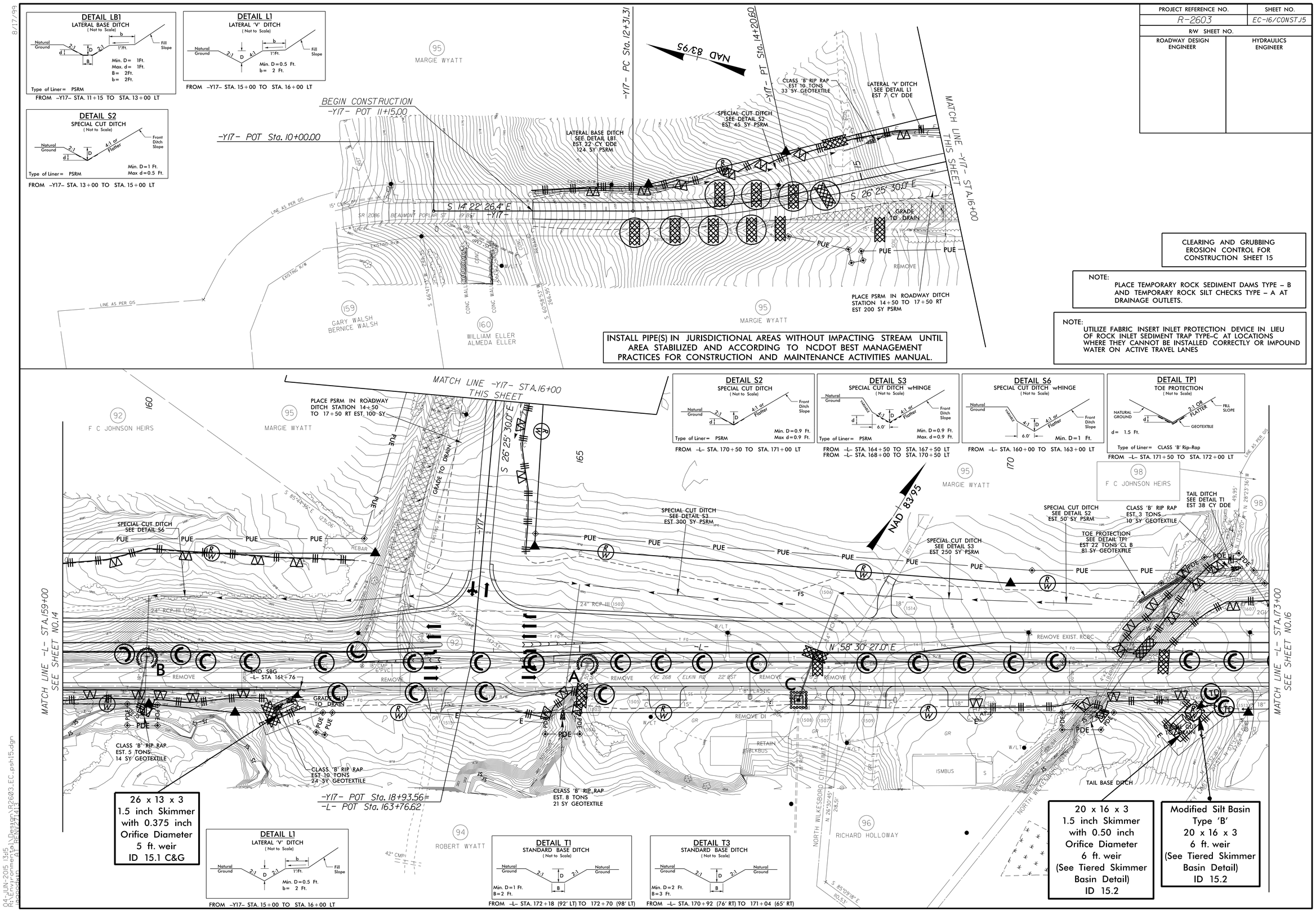
DETAIL S2
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 4:1 or Flatter, Front Ditch Slope

Min. D = 1 Ft.
Max d = 0.5 Ft.

Type of Liner = PSRM

FROM –Y17– STA. 13+00 TO STA. 15+00 LT



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15

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

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

DETAIL S2
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 4:1 or Flatter, Front Ditch Slope

Min. D = 0.9 Ft.
Max d = 0.9 Ft.

Type of Liner = PSRM

FROM –L– STA. 170+50 TO STA. 171+00 LT

DETAIL S3
SPECIAL CUT DITCH wHINGE
(Not to Scale)

Natural Ground, HINGE, 4:1, D, 4:1 or Flatter, d, 6.0', Front Ditch Slope

Min. D = 0.9 Ft.
Min. d = 0.9 Ft.

Type of Liner = PSRM

FROM –L– STA. 164+50 TO STA. 167+50 LT
FROM –L– STA. 168+00 TO STA. 170+50 LT

DETAIL S6
SPECIAL CUT DITCH wHINGE
(Not to Scale)

Natural Ground, HINGE, 4:1, D, 4:1 or Flatter, 6.0', Front Ditch Slope

Min. D = 1 Ft.

FROM –L– STA. 160+00 TO STA. 163+00 LT

DETAIL TP1
TOE PROTECTION
(Not to Scale)

NATURAL GROUND, d, 2:1 OR FLATTER, FILL SLOPE, GEOTEXTILE

d = 1.5 Ft.

Type of Liner = CLASS 'B' Rip-Rap

FROM –L– STA. 171+50 TO STA. 172+00 LT

26 x 13 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
5 ft. weir
ID 15.1 C&G

20 x 16 x 3
1.5 inch Skimmer
with 0.50 inch
Orifice Diameter
6 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 15.2

Modified Silt Basin
Type 'B'
20 x 16 x 3
6 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 15.2

DETAIL L1
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, b, 1'-Ft., Fill Slope

Min. D = 0.5 Ft.
b = 2 Ft.

FROM –Y17– STA. 15+00 TO STA. 16+00 LT

DETAIL T1
STANDARD BASE DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, Natural Ground, B

Min. D = 1 Ft.
B = 2 Ft.

FROM –L– STA. 172+18 (92' LT) TO 172+70 (98' LT)

DETAIL T3
STANDARD BASE DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, Natural Ground, B

Min. D = 2 Ft.
B = 3 Ft.

FROM –L– STA. 170+92 (76' RT) TO 171+04 (65' RT)

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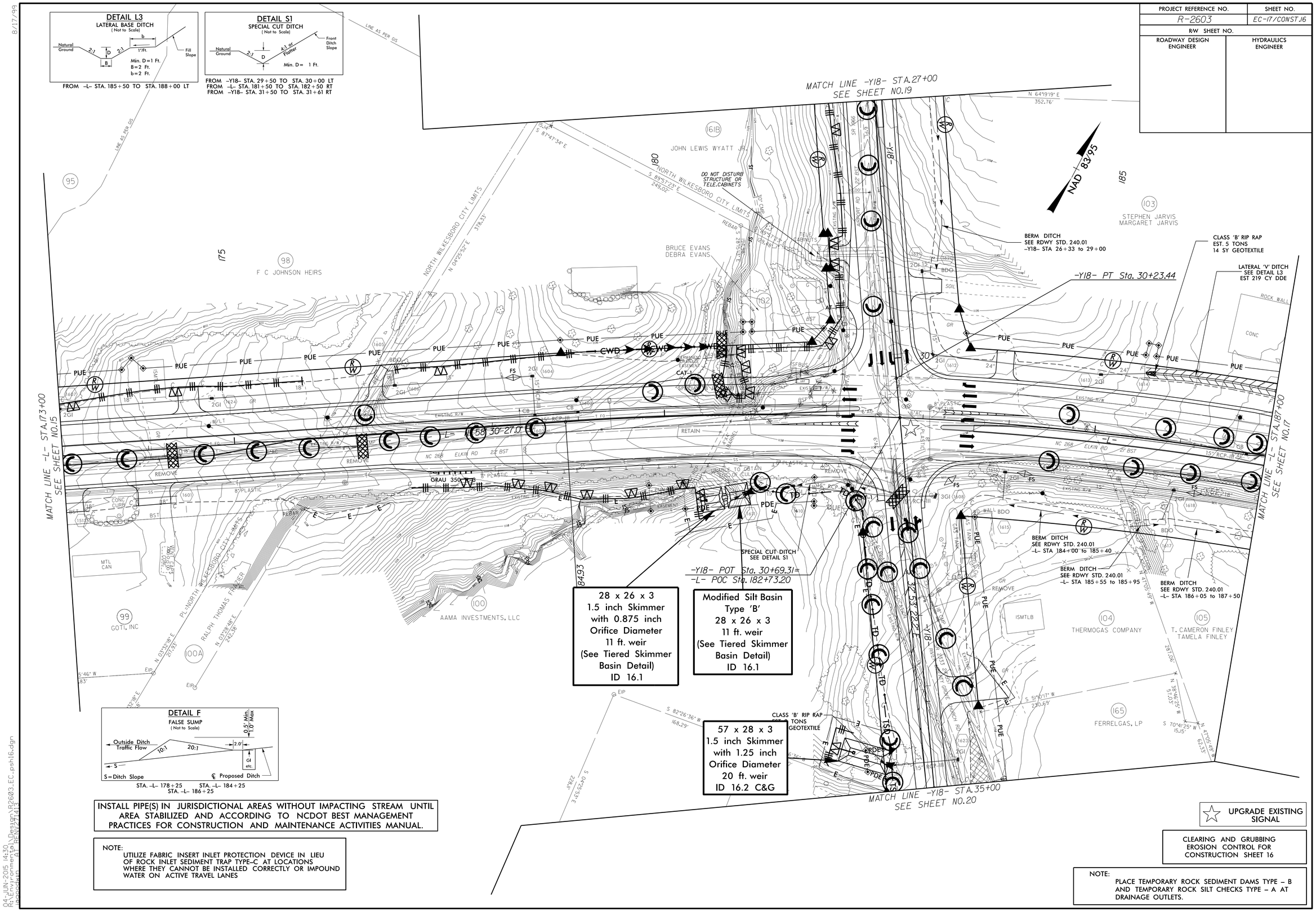
$$$$PENZ213

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-17/CONST.J6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

☆ UPGRADE EXISTING SIGNAL

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 16

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

8/17/99

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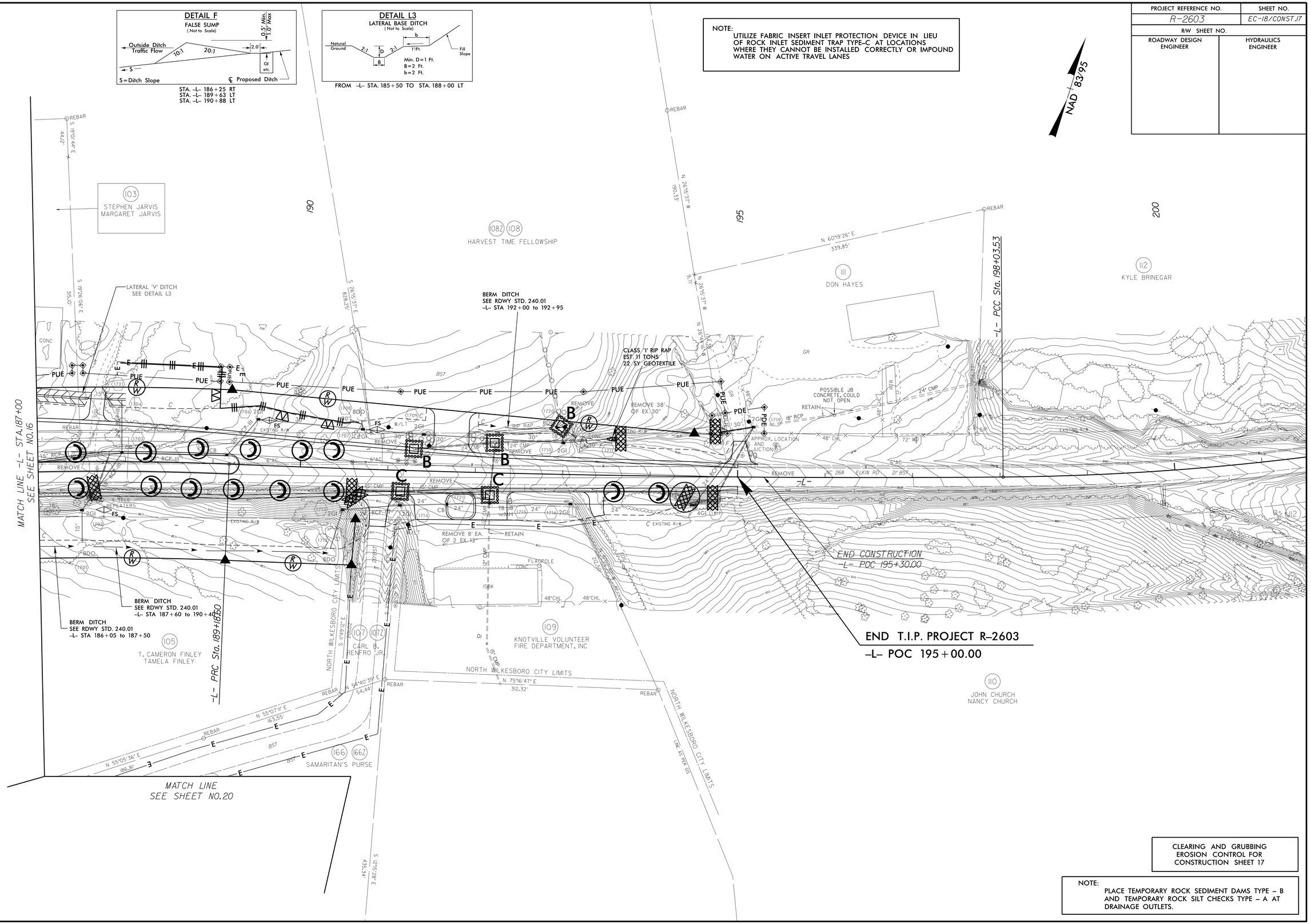
pscoggin
REVIEW 7.4.13

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-18/CONST.J7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 17

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

8/17/99

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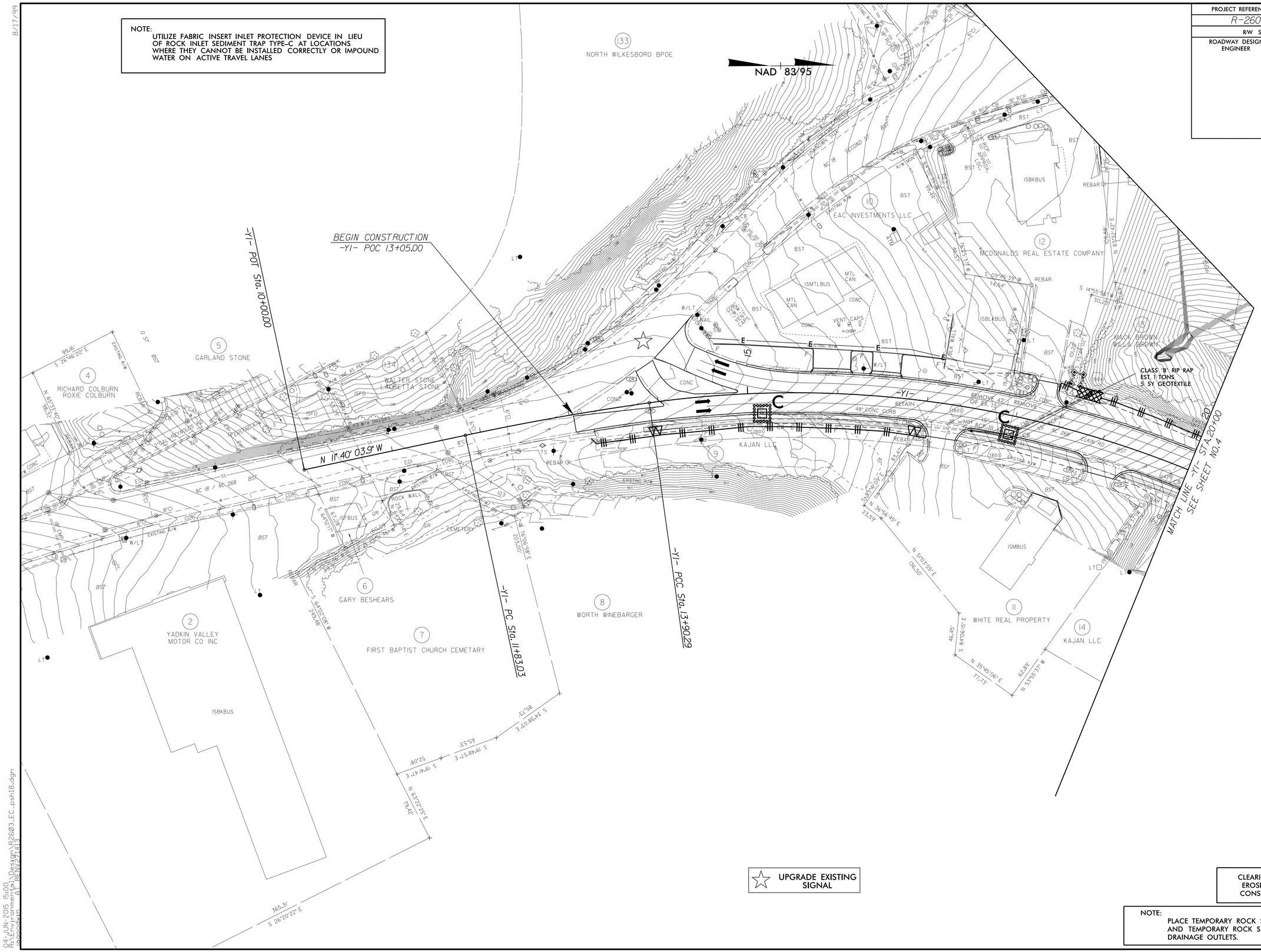
pccooper

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-19/CONST.18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 18

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

8/17/99

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pscoggin
R2603_EC_psh18

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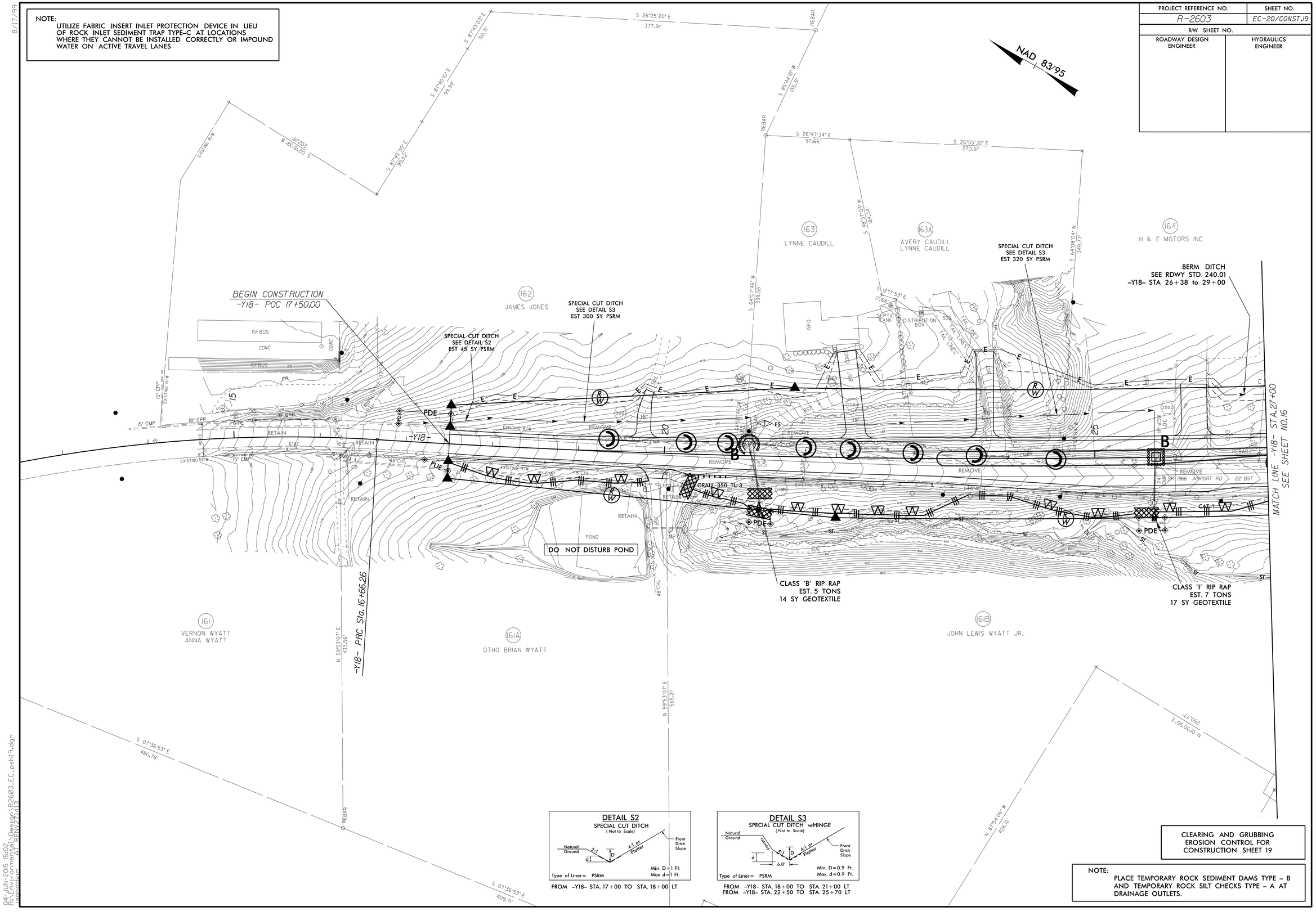
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-20/CONST.19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



DETAIL S2
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground; 2:1; d; D; 4:1 or Flatter; Front Ditch Slope

Type of Liner= PSRM
Min. D=1 Ft.
Max d=1 Ft.

FROM –Y18– STA. 17+00 TO STA. 18+00 LT

DETAIL S3
SPECIAL CUT DITCH wHINGE
(Not to Scale)

Natural Ground; PSRM; 4:1; D; 4:1 or Flatter; Front Ditch Slope; d; 6.0'

Type of Liner= PSRM
Min. D=0.9 Ft.
Max. d=0.9 Ft.

FROM –Y18– STA. 18+00 TO STA. 21+00 LT
FROM –Y18– STA. 22+50 TO STA. 25+70 LT

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 19

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

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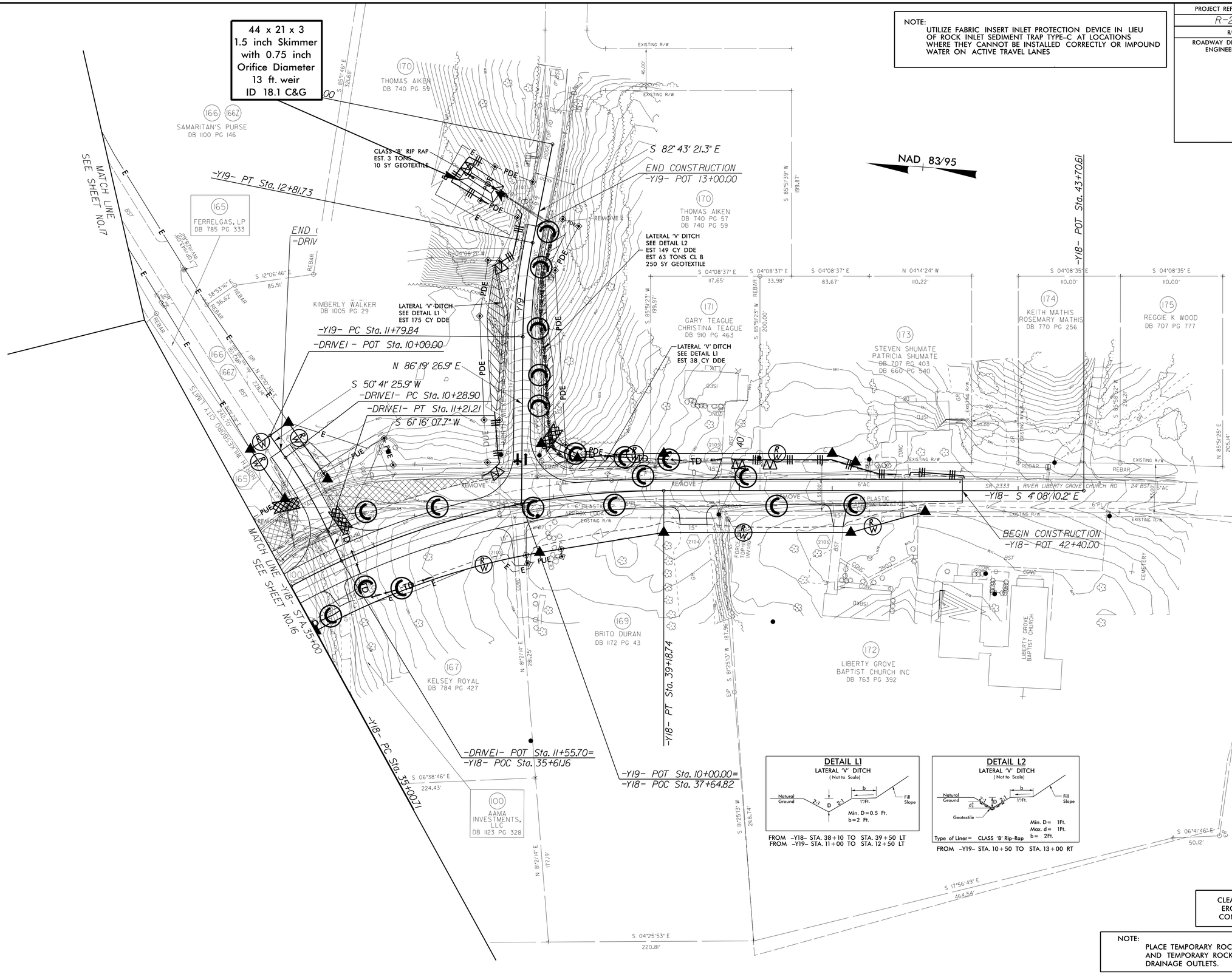
pscoggin

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-21/CONST.20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



DETAIL L1
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground; 2:1; D; 2:1; b; 1'/Ft.; Fill Slope

Min. D = 0.5 Ft.
b = 2 Ft.

FROM -Y18- STA. 38 + 10 TO STA. 39 + 50 LT
FROM -Y19- STA. 11 + 00 TO STA. 12 + 50 RT

DETAIL L2
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground; d; 2:1; D; 2:1; b; 1'/Ft.; Fill Slope; Geotextile

Min. D = 1Ft.
Max. d = 1Ft.
b = 2Ft.

Type of Liner = CLASS 'B' Rip-Rap

FROM -Y19- STA. 10 + 50 TO STA. 13 + 00 RT

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 20

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

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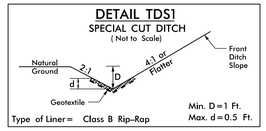
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-22/CONST.2B-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-LDETOUR- & -Y7DET-

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

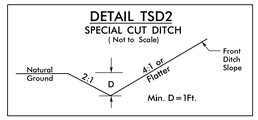
DETAIL TDS1
SPECIAL CUT DITCH
(Not to Scale)



Type of Liner= Class B Rip-Rap

-Y7DET- FROM STA. 6+50 TO STA. 7+75 RT

DETAIL TSD2
SPECIAL CUT DITCH
(Not to Scale)



FROM -L- STA. 56+83 TO STA. 59+21 LT

NAD 83/95

-DRIVE2- POT Sta. 10+00.00=
-Y7- POC Sta. 13+73.85

BEGIN CONSTRUCTION
-Y7DET- POT 5+40.00

-Y7- POT Sta. 10+00.00

-Y7- PC Sta. 13+23.25

-Y7- PT Sta. 12+55.75

-Y7DET- POT Sta. 5+00.00

-Y7DET- PC Sta. 5+51.60

-Y7- PC Sta. 11+55.45

-Y7DET- PT Sta. 6+13.94

-Y7DET- PC Sta. 7+72.41

-Y7DET- PT Sta. 8+17.08

-Y7- PT Sta. 14+16.47

APPROXIMATE LIMIT OF EXISTING -L- (LT) TEMPORARY WIDENING. (SEE WZ TRAFFIC CONTROL PLANS)

TEMPORARY SPECIAL CUT DITCH SEE DETAIL TSD1 EST 23 TONS CL B 83 SY GEOTEXTILE

TEMPORARY SPECIAL CUT DITCH SEE DETAIL TSD2

-Y8- PC Sta. 10+77.54

-Y8- POT Sta. 10+00.00

-Y8- PCC Sta. 11+74.05

-Y8- PT Sta. 14+33.69

-LDETOUR- PT Sta. 20+65.05 =
-L- POT Sta. 65+46.29 (28.28' LT)
BEARING AH N 38° 56' 35.6" E

-LDETOUR- PC Sta. 12+59.90

-Y7DET- POT Sta. 8+45.87=
-L- POC Sta. 56+41.79 (10.21' RT)
S 35° 04' 39.7" E

BEGIN CONSTRUCTION
-LDETOUR- POT Sta. 10+00.00 =
-L- POC Sta. 55+02.44 (10.95' RT)

-L- PT Sta. 60+84.97=
-Y8- POT Sta. 14+89.05

-LDETOUR- PRC Sta. 17+03.11

PORTABLE CONCRETE BARRIER
(TRAFFIC CONTROL PLAN)
-LDETOUR- STA. 12+20.00 TO 18+00.00 LT
-LDETOUR- STA. 12+60.00 TO 16+60.00 RT

TEMPORARY SHORING

END CONSTRUCTION
-LDETOUR- POT 18+72.92

-L- PC Sta. 65+98.22

GRADE CUT TO DRAIN

TOE PROTECTION SEE DETAIL TP1 PARTIAL INSTALLATION OF PROPOSED SEE SHEET 7 FOR QUANTITY

TEMPORARY SPECIAL FALSE SUMP SEE DETAIL SFS

TEMPORARY DIVERSION CHANNEL SEE DETAIL T1 EST 25 CY DDE

PROP. 8' x 8' RCBC PHASE 1 SECTION

CLASS II RIP RAP PLACE ON BANKS ONLY EST 9 TONS 16 SY GEOTEXTILE SEE DETAIL AA1

CLASS II RIP RAP PLACE ON BANKS ONLY EST 13 TONS 22 SY GEOTEXTILE SEE DETAIL AA1

DO NOT DISTURB SIGN

TIE TEMP. 18" CSP TO PROPOSED STILLING BASIN

TEMPORARY 18" CSP w/ELBOW

TEMPORARY 18" CSP

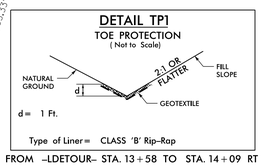
TEMPORARY 48" CSP

TEMPORARY SHORING

- TEMPORARY SHORING

DETOUR

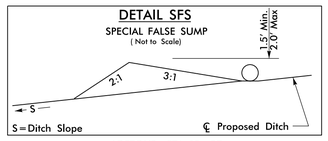
DETAIL TP1
TOE PROTECTION
(Not to Scale)



Type of Liner= CLASS 'B' Rip-Rap

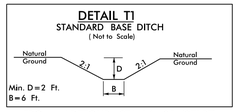
FROM -LDETOUR- STA. 13+58 TO STA. 14+09 RT

DETAIL SFS
SPECIAL FALSE SUMP
(Not to Scale)



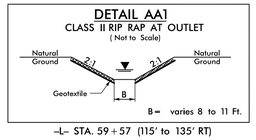
-LDETOUR- STA. 13+87
-LDETOUR- STA. 14+21

DETAIL T1
STANDARD BASE DITCH
(Not to Scale)



FROM -LDETOUR- STA. 14+85 (87' RT)
TO 14+68 (117' RT)

DETAIL AA1
CLASS II RIP RAP AT OUTLET
(Not to Scale)



-L- STA. 59+57 (115' to 135' RT)

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

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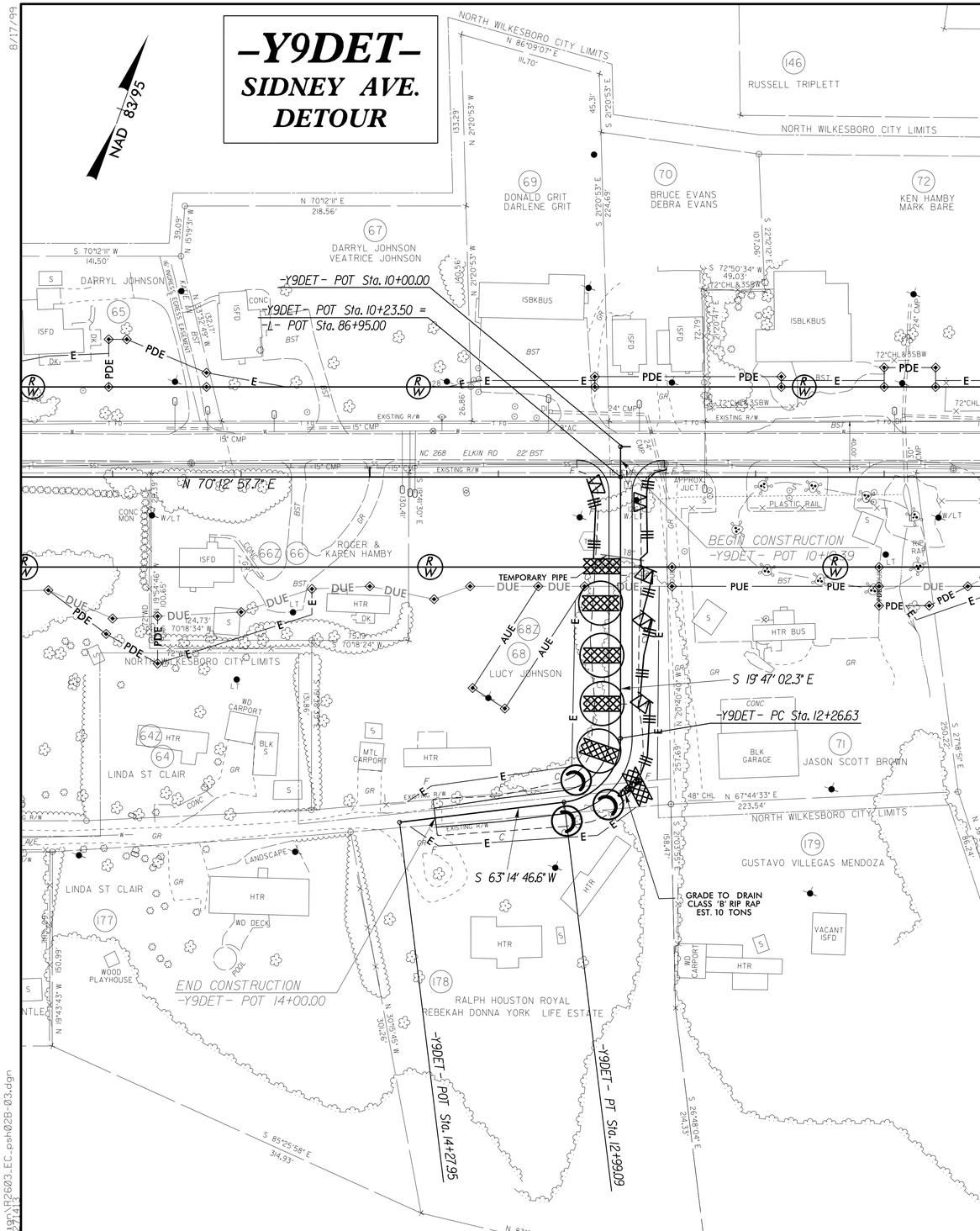
8/17/99

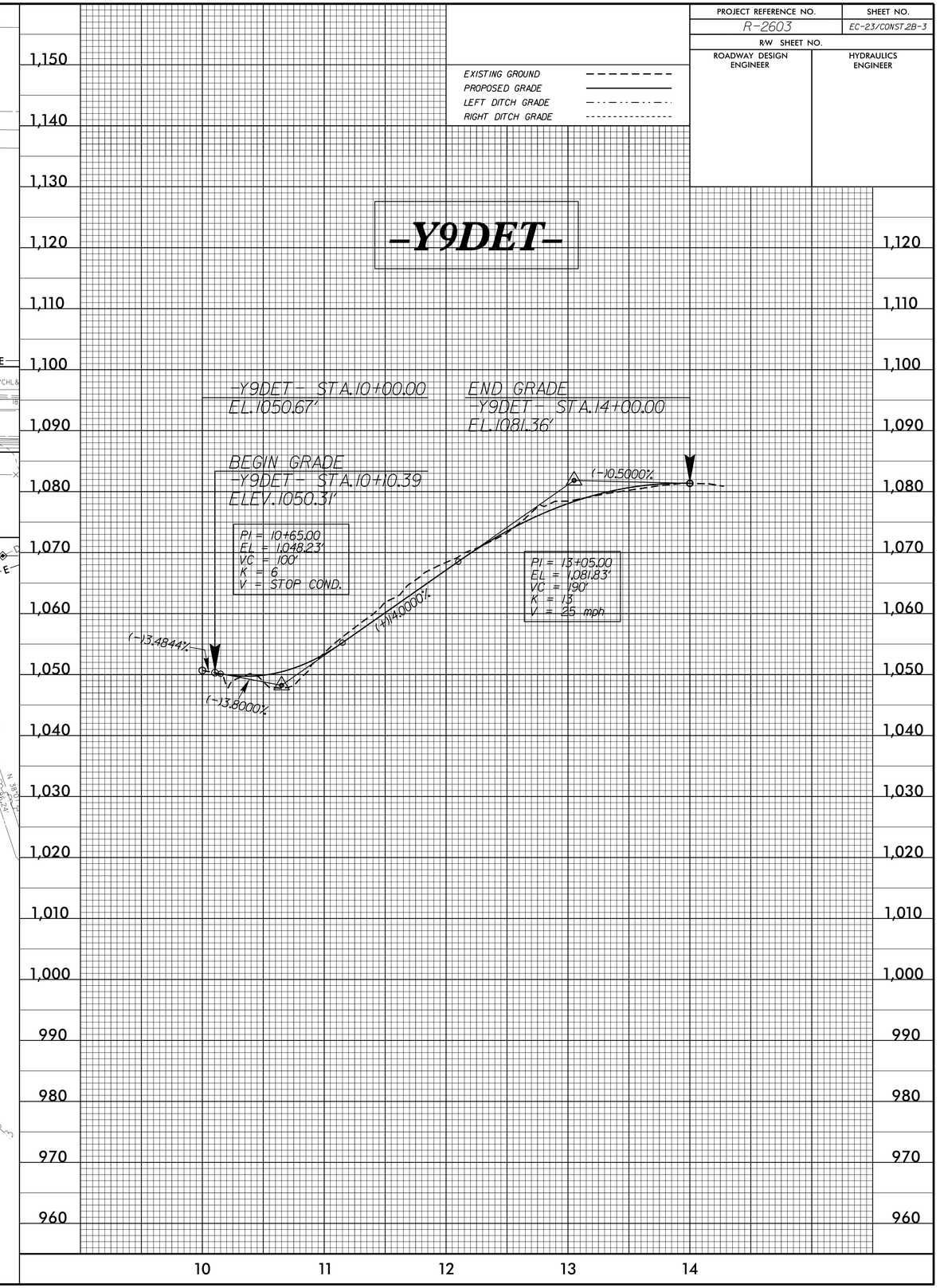
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-23/CONST.2B-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y9DET-
SIDNEY AVE. DETOUR



DETOUR

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



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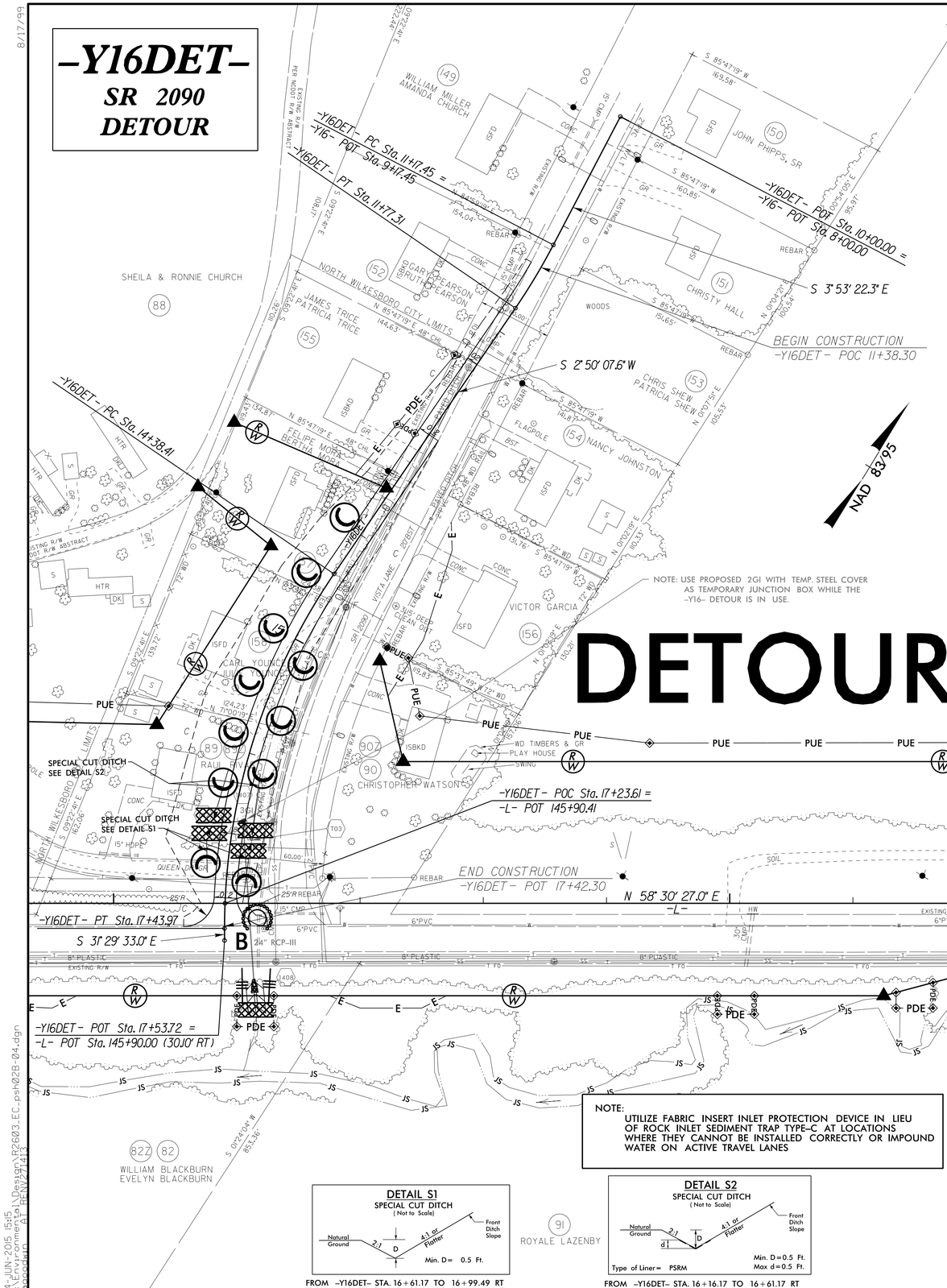
RELEASE 7.1.3

-Y16DET-
SR 2090
DETOUR



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

DETAIL S1
SPECIAL CUT DITCH
(Not to Scale)

FROM -Y16DET- STA. 16+61.17 TO 16+99.49 RT
FROM -Y16DET- STA. 16+69.85 TO 17+23.02 LT

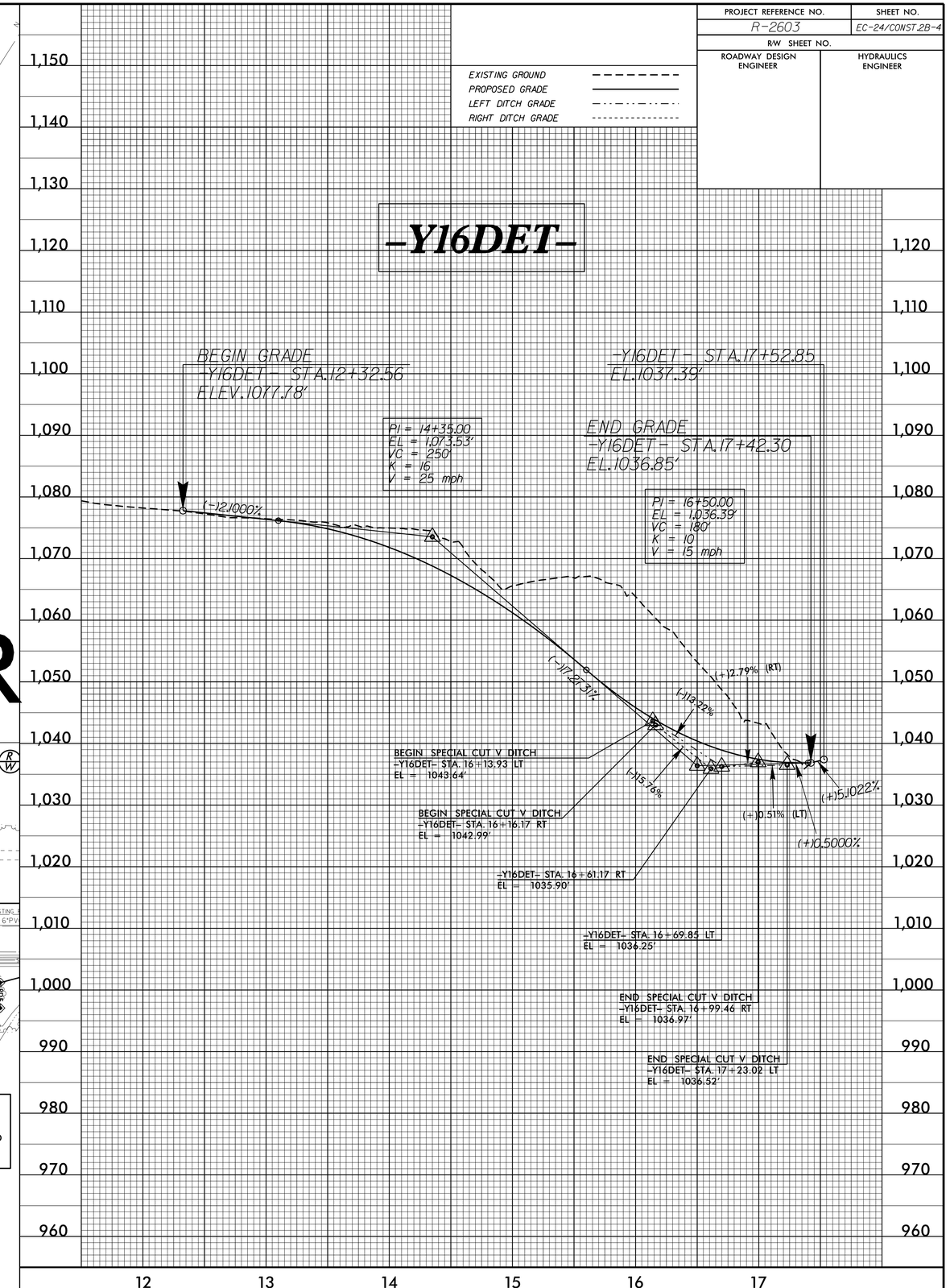
DETAIL S2
SPECIAL CUT DITCH
(Not to Scale)

FROM -Y16DET- STA. 16+16.17 TO 16+61.17 RT
FROM -Y16DET- STA. 16+13.93 TO 16+69.85 LT

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-24/CONST.2B-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EXISTING GROUND
PROPOSED GRADE
LEFT DITCH GRADE
RIGHT DITCH GRADE

-Y16DET-



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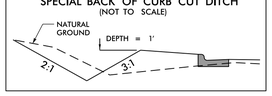
pscoggin

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-25/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

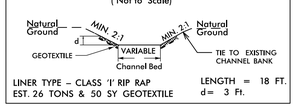
NAD 83/95

DETAIL BC3
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)



FROM -Y1- STA. 22+40 TO STA. 24+00 RT

DETAIL PR1
PIPE OUTLET RIP RAP
(Not to Scale)



LINER TYPE - CLASS 'I' RIP RAP
EST. 26 TONS & 50 SY GEOTEXTILE
LENGTH = 18 FT.
d= 3 Ft.

-Y2- STA. 19+30 LT

BEGIN T.I.P. PROJECT R-2603
-L- POT 10+38.67

-L- POT Sta. 10+00.00

-Y2- POT Sta. 14+65.00
-L- POT Sta. 14+65.00

-Y2- PC Sta. 15+02.33=
-L- POT Sta. 15+02.33

-Y1A- POC Sta. 24+48.58=
-Y2- POC Sta. 17+37.19

-Y1- POC Sta. 24+52.75=
-Y2- POC Sta. 17+71.19

-Y1A- PT Sta. 27+72.80=
-L- POT Sta. 20+19.69 (5.50' LT)

-Y2- PT Sta. 18+16.39

END CONSTRUCTION
-Y2- POT 19+30.00

-Y2- POT Sta. 19+88.82

-Y1A- PC Sta. 23+88.84

-Y1A- POT Sta. 21+58.06 LT
-Y1- POC Sta. 21+58.06

N 70° 19' 47.8" E

N 30° 19' 52.0" E

S 49° 41' 21.1" E

CLASS 'I' RIP RAP
PLACE ON BANKS ONLY
SEE DETAIL PR1

SPECIAL BACK OF CURB CUT DITCH
SEE DETAIL BC3

DO NOT DISTURB VAULT

DO NOT DISTURB SIGN

NO CLAIM

MATCH LINE -L- STA.22+00
SEE SHEET NO.5

MATCH LINE -Y1- STA.20+00
SEE SHEET NO.18

UPGRADE EXISTING SIGNAL

124 EDWARD GREENE
125 FIRST STATES INVESTORS 4100D LLC
126 J & L REAL ESTATE HOLDINGS LLC
136 INDUSTRIAL CENTERS LLC
19 LADD FURNITURE INC
127 JC FAW
129 CONRAD REEVES
130 CONNARD LLC
128 JOHNSON OIL AND TRACTOR INC
131 DAVID PENDRY & MAROLYN PENDRY
135 DUNCAN ELECTRIC CO
137 CHRISTOPHER ROBERTS TIMBERLI ROBERTS
15 JAMES BROWN ELLAGRENE BROWN
13 MACK BROWN WILLA BROWN
14 KAJAN LLC
16 COMMUNITY ONE BANK
17 CARL BYRD
18Z 18 GARY LACKEY ELLEN LACKEY
176 CHARLES B. BUSH JR.
20 JOHN MCNEIL DONNA MCNEIL

8/17/99

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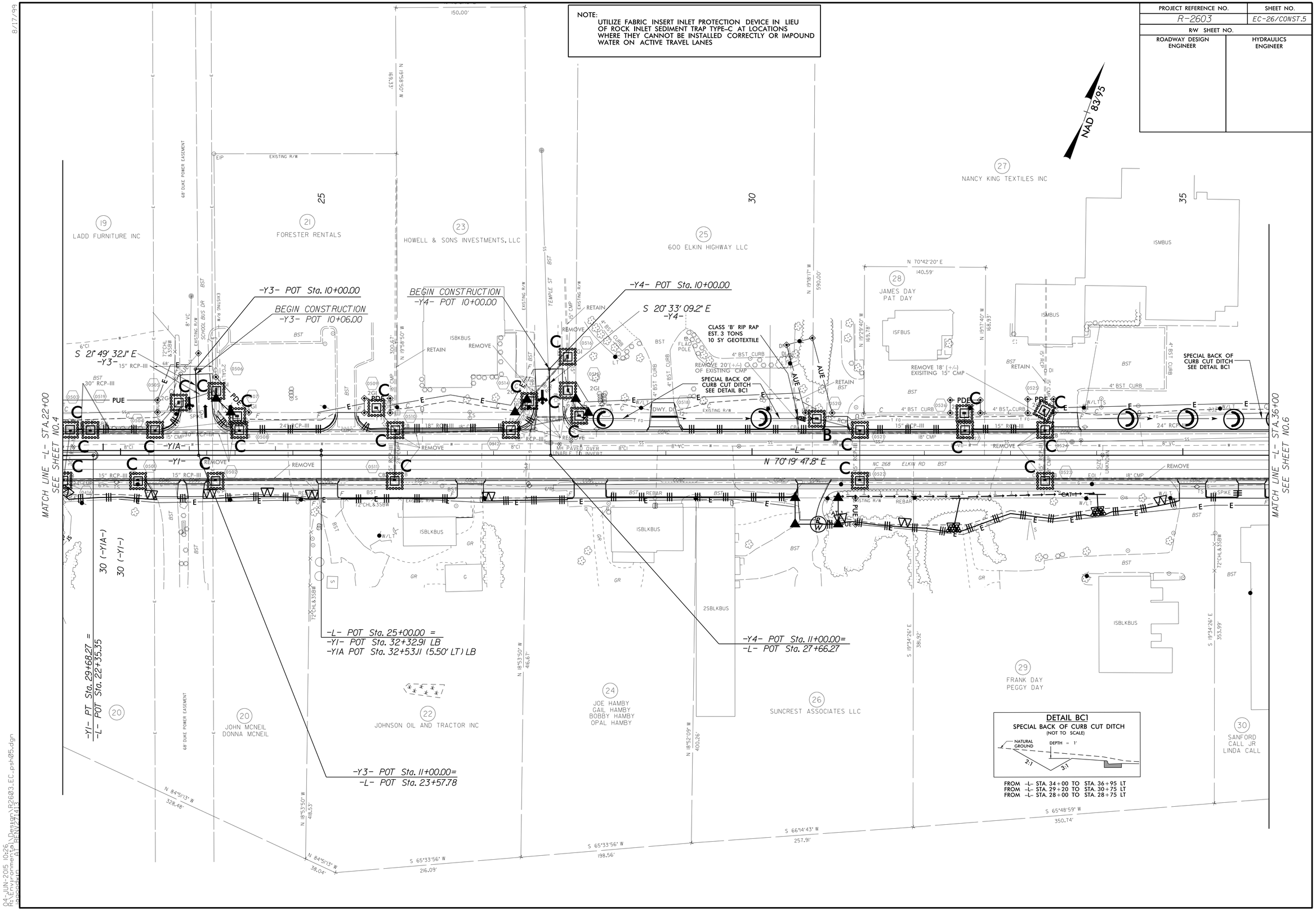
pscoggin

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-26/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



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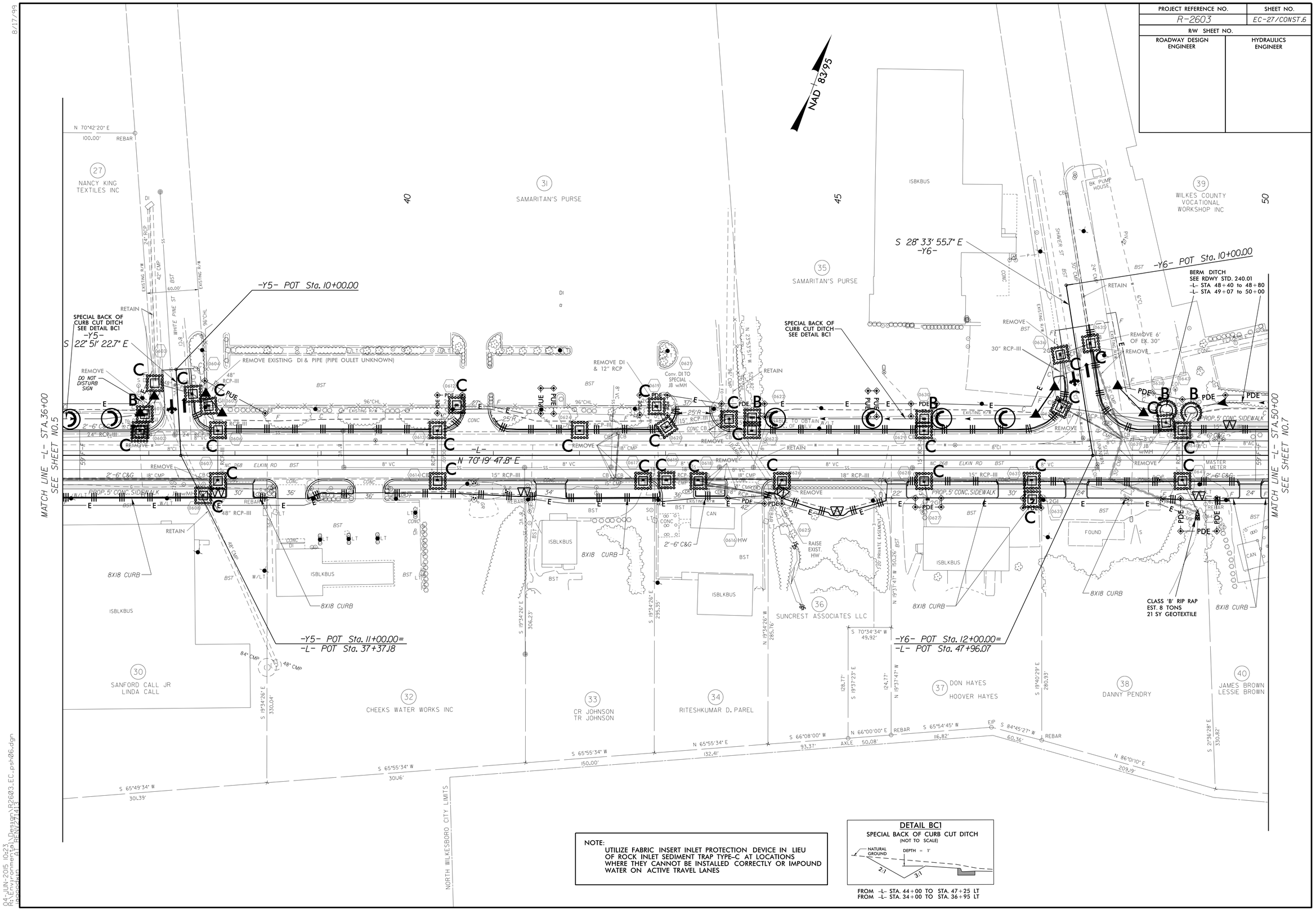
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-27/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

DETAIL BC1
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)

FROM -L- STA. 44+00 TO STA. 47+25 LT
FROM -L- STA. 34+00 TO STA. 36+95 LT

8/17/99

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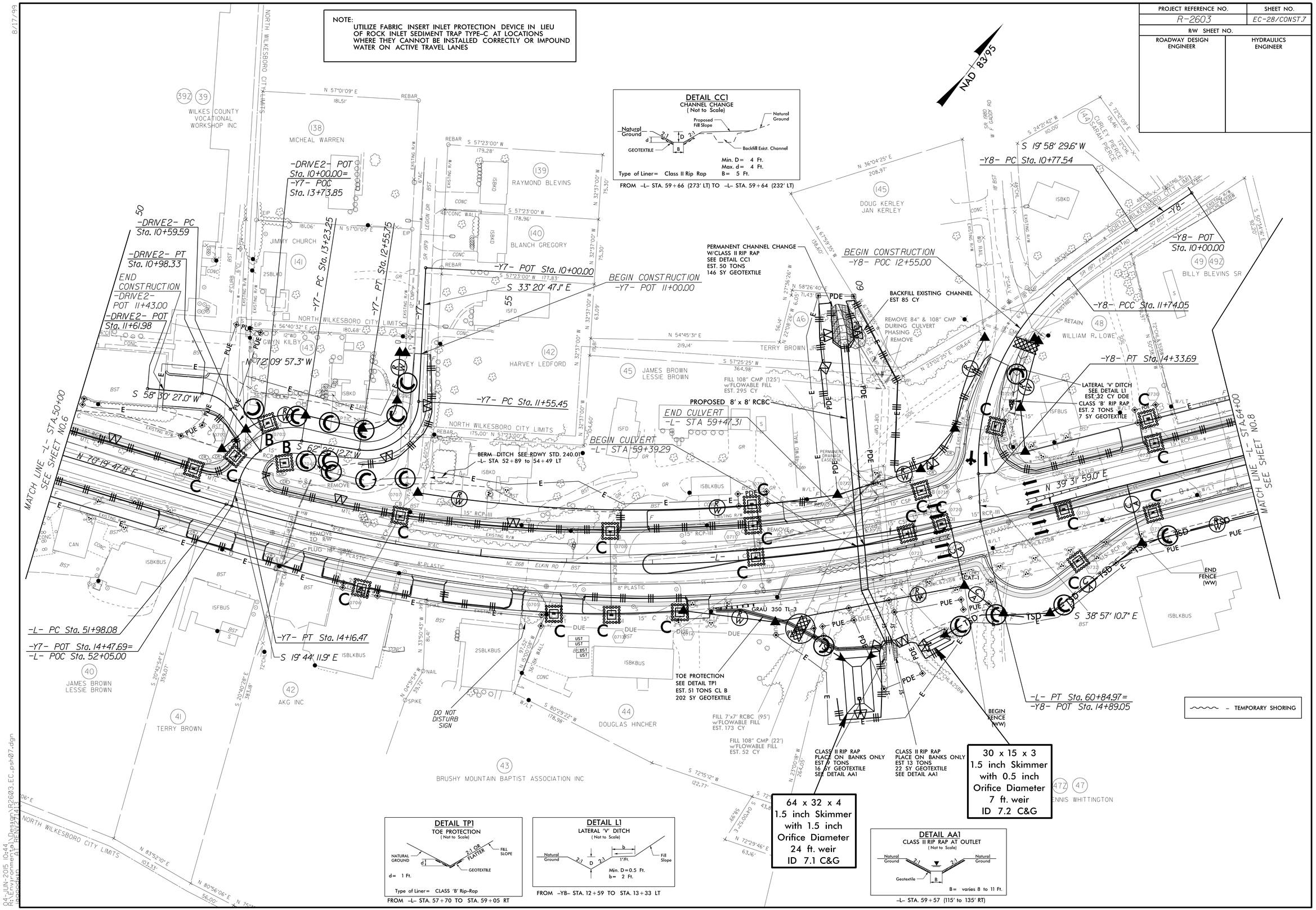
pscoggin at RENZ7413

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-28/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



FROM –L– STA. 57+70 TO STA. 59+05 RT

FROM –Y8– STA. 12+59 TO STA. 13+33 LT

–L– STA. 59+57 (115' to 135' RT)

FROM –L– STA. 59+66 (273' LT) TO –L– STA. 59+64 (232' LT)

8/17/99

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pscoggins

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-29/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL L1
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, b, 1'/ft., Fill Slope
Min. D=0.5 Ft.
b= 2 Ft.

FROM –L– STA. 73+10 TO STA. 78+00 LT
FROM –L– STA. 74+85 TO STA. 77+00 RT

DETAIL T1
STANDARD BASE DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, Natural Ground, B
Min. D=1 Ft.
B=2 Ft.

FROM –L– STA. 65+27 (60' RT) TO 65+25 (86' RT)
FROM –L– STA. 70+87 (58' RT) TO 70+94 (87' RT)

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

NAD 83/95

MATCH LINE –L– STA 64+00 SEE SHEET NO.7

MATCH LINE –L– STA 78+00 SEE SHEET NO.9

–L– PC Sta. 65+98.22

NORTH WILKESBORO CITY LIMITS

BILLY BLEVINS SR (49, 49Z)
INFUSION POINTS, LLC (51)
CARL M. BYRD (54Z, 54)
BILLY RAY HOLLAND (55A)
DENNIS WHITTINGTON (47Z, 47)
BILLY BLEVINS SR (50)
WILKES COUNTY FARM BUREAU INC (52)
PATRICIA BILLINGS TYRE BILLINGS (56)
TRAVIS JAMES MATHIS (57)

NC 268 ELKIN RD

BERM DITCH
SEE RDWY STD. 240.01
–L– STA 70+30 to 70+85

BERM DITCH
SEE RDWY STD. 240.01
–L– STA 70+90 to 72+50

BERM DITCH
SEE RDWY STD. 240.01
–L– STA 72+55 to 73+10

BEGIN FENCE (WW)

END FENCE (WW)

LATERAL 'V' DITCH
SEE DETAIL L1
EST 14 CY DDE

LATERAL 'V' DITCH
SEE DETAIL L1
EST 71 CY DDE

LATERAL 'V' DITCH
SEE DETAIL L1
EST 4 CY DDE

LATERAL 'V' DITCH
SEE DETAIL L1
EST 14 CY DDE

LATERAL 'V' DITCH
SEE DETAIL L1
EST 97 CY DDE

TAIL BASE DITCH
SEE DETAIL T1
EST 14 CY DDE

TAIL BASE DITCH
SEE DETAIL T1
EST 18 CY DDE

CLASS 'B' RIP RAP
EST. 2 TONS
7 SY GEOTEXTILE

CLASS 'B' RIP RAP
EST. 3 TONS
10 SY GEOTEXTILE

CLASS 'B' RIP RAP
EST. 2 TONS

CLASS 'B' RIP RAP
EST. 2 TONS
7 SY GEOTEXTILE

55 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
15 ft. weir
ID 8.1 C&G

38 x 19 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
11 ft. weir
ID 8.2 C&G

62 x 31 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
23 ft. weir
ID 8.1F

60 x 19 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
11 ft. weir
ID 8.2F

8/17/99

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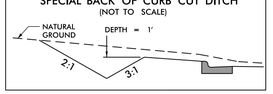
pooodwin 01 PENDING

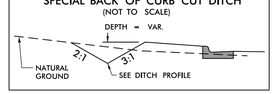
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-30/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL BC1
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)



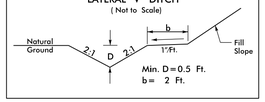
FROM –L– STA. 82+00 TO STA. 83+50 LT
FROM –L– STA. 83+80 TO STA. 84+50 LT
FROM –L– STA. 84+80 TO STA. 85+80 LT
FROM –L– STA. 90+00 TO STA. 90+65 RT
FROM –L– STA. 91+19 TO STA. 93+50 RT

DETAIL BC2
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)



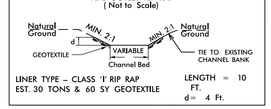
FROM –L– STA. 89+14 TO STA. 90+00 RT

DETAIL L1
LATERAL 'V' DITCH
(Not to Scale)



FROM –L– STA. 86+50 TO STA. 87+30 RT

DETAIL PR2
PIPE OUTLET RIP RAP
(Not to Scale)



–L– STA. 78+80 RT

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

60 x 19 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
11 ft. weir
ID 8.2F

20 x 10 x 3
1.5 inch Skimmer
with 0.25 inch
Orifice Diameter
4 ft. weir
ID 9.2 C&G

20 x 10 x 3
1.5 inch Skimmer
with 0.25 inch
Orifice Diameter
4 ft. weir
ID 9.1 C&G

–L– PT Sta. 81+35.16

–Y9– POT Sta. 10+00.00=
–L– POC Sta. 81+15.36

–DRIVE7– POT Sta. 10+00.00=
–L– POT Sta. 83+40.00

–Y10– POT Sta. 10+00.00

–Y10–
S 18° 38' 44.0" E

BEGIN CONSTRUCTION
–Y10– POT 11+56.49

BERM DITCH
SEE RDWY STD. 240.01
–L– STA 83+00 to 83+50

SPECIAL BACK OF CURB CUT DITCH SEE DETAIL BC1

BERM DITCH
SEE RDWY STD. 240.01
–L– STA 81+77 to 83+30

BERM DITCH
SEE RDWY STD. 240.01
–L– STA 84+68 to 85+32
–L– STA 85+52 to 86+50

LATERAL 'V' DITCH
SEE DETAIL L1
EST 43 CY DDE

INSTALL PSRM
EST 52 SY
FROM STA 86+00
TO 86+60 RT

SPECIAL BACK OF CURB CUT DITCH SEE DETAIL BC2

SPECIAL BACK OF CURB CUT DITCH SEE DETAIL BC1

CLASS 'I' RIP RAP
PLACE ON BANKS ONLY
SEE DETAIL PR2

CLASS 'B' RIP RAP
EST. 11 TONS
GEOTEXTILE

END CONSTRUCTION
–Y9– POT 13+25.00

END CONSTRUCTION
–DRIVE7– POT 11+75.00

–Y10– POT Sta. 13+00.00=
–L– POT Sta. 91+16.25

–DRIVE7– POT
Sta. 12+01.30

–DRIVE7– PT
Sta. 11+02.29

–Y9– PT
Sta. 13+07.25

–Y9– POT
Sta. 13+34.15

–DRIVE7– POT
Sta. 10+63.02

S 18° 11' 52.6" E

N 73° 04' 10.5" E

S 69° 47' 02.3" E

–L– N 70° 12' 57.7" E

MATCH LINE –L– STA.78+00
SEE SHEET NO.8

MATCH LINE –L– STA.92+00
SEE SHEET NO.10

NAD 83'95

WILLIAM EUGENE HOLLAND
VERNON WYATT
ANNA WYATT
FRANK JOHNSON
DARRYL JOHNSON
DARRYL JOHNSON
VEATRICE JOHNSON
DONALD GRIT
DARLENE GRIT
BRUCE EVANS
DEBRA EVANS
KEN HAMBY
MARK BARE
RUSSELL TRIPLETT
FRED A. REEVES, JR.
DONNA R. KEY
J&S FAIR REAL ESTATE HOLDING, LLC
ROGER & KAREN HAMB
LUCY JOHNSON
LINDA ST CLAIR
BILLY ELMORE
ROBERT GENTLE
RALPH HOUSTON ROYAL
REBEKAH DONNA YORK LIFE ESTATE
GUSTAVO VILLEGAS MENDOZA
TP WILKES LLC

NORTH WILKESBORO CITY LIMITS

EXISTING CULVERT
CLEANOUT EST 4 CY

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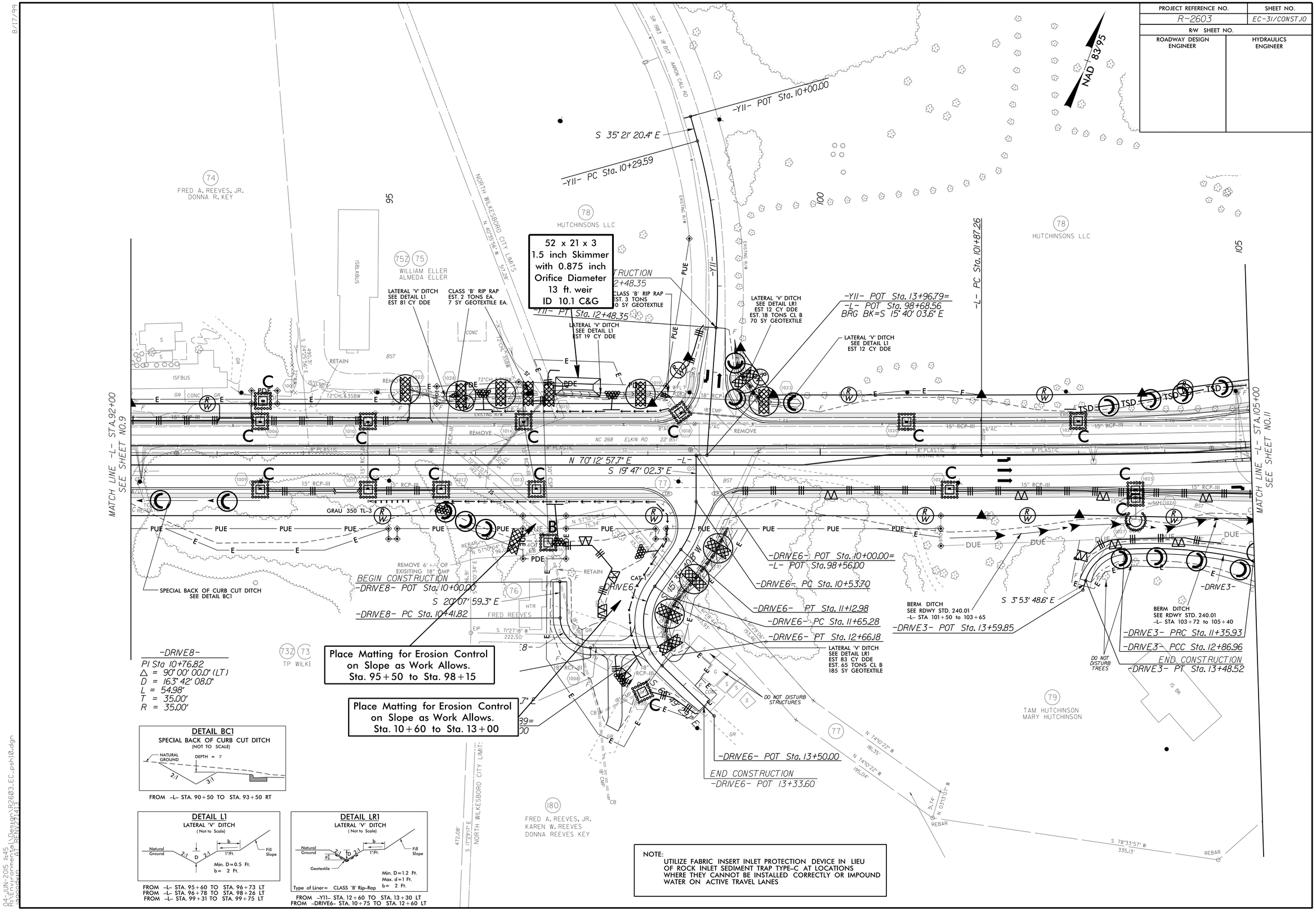
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-31/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-32/CONST.II
R/W SHEET NOS.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL LR1
LATERAL 'V' DITCH
(Not to Scale)

Min. D=1.2 Ft.
Max. d=1 Ft.
b= 2 Ft.

Type of Liner= CLASS 'B' Rip-Rap

FROM -L- STA. 105+50 TO STA. 108+00 LT

DETAIL L4
LATERAL BASE DITCH
(Not to Scale)

Min. D= 1 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.
b= 2 Ft.

*When B is < 6.0'

Type of Liner= Class 'B' Rip-Rap

FROM -L- STA. 107+00 TO STA. 108+50 RT
FROM -L- STA. 111+00 TO STA. 111+50 RT
FROM -L- STA. 111+86 TO STA. 113+26 RT
FROM -L- STA. 113+77 TO STA. 117+00 RT

DETAIL LB4
LATERAL BASE DITCH
(Not to Scale)

Min. D= 0.5Ft.
Max. d= 0.5Ft.
B= 4Ft.
b= 2Ft.

*When B is < 6.0'

Type of Liner= Class 'B' Rip-Rap

FROM -L- STA. 108+50 TO STA. 109+50 RT

DETAIL TB4
STANDARD BASE DITCH
(Not to Scale)

Min. D= 1 Ft.
Max. d= 1 Ft.
B= 4 Ft.

*When B is < 6.0'

Type of Liner= CLASS 'B' Rip-Rap

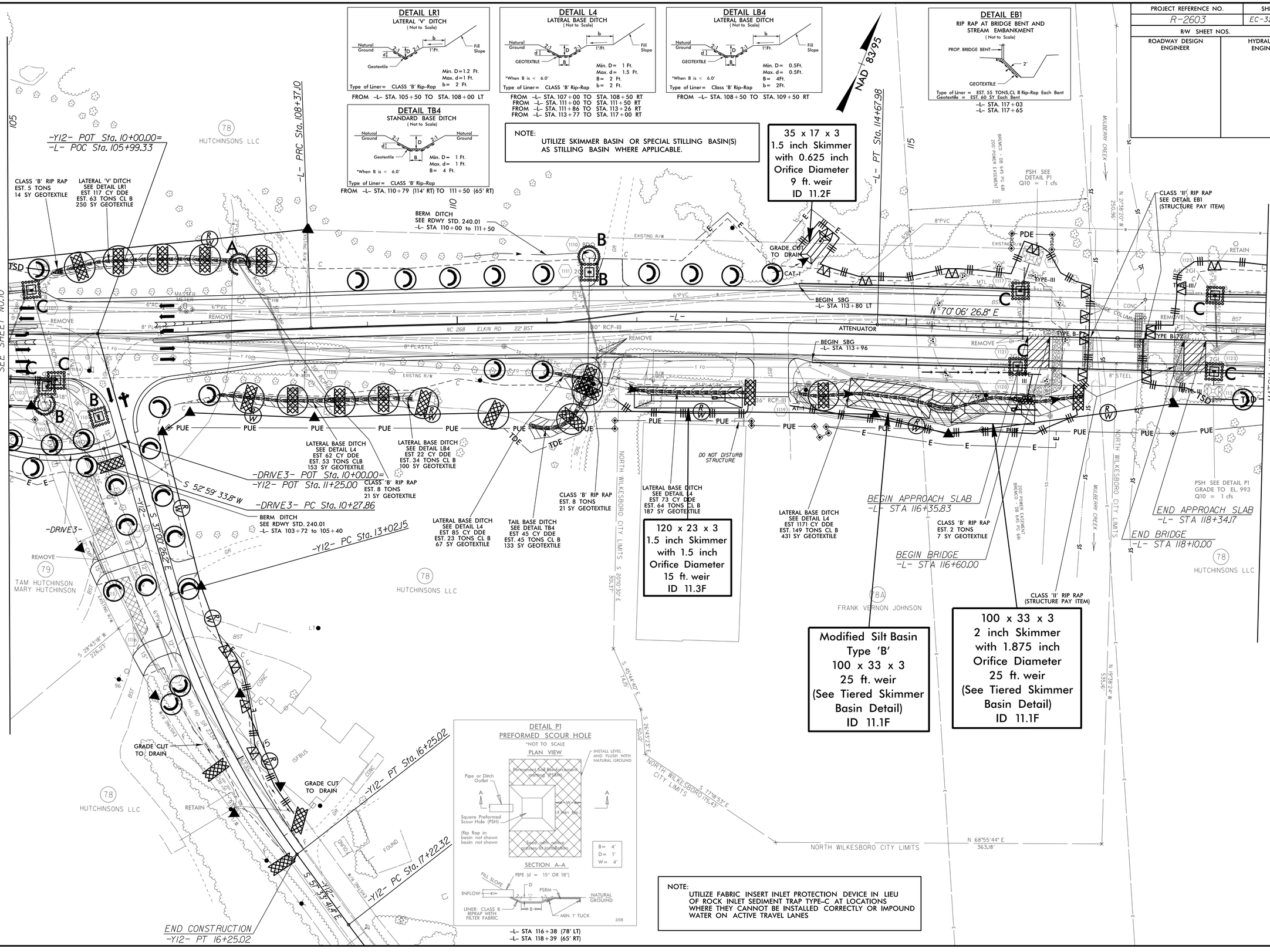
FROM -L- STA. 110+79 (114' RT) TO 111+50 (65' RT)

DETAIL EB1
RIP RAP AT BRIDGE BENT AND STREAM EMBANKMENT
(Not to Scale)

Type of Liner = EST. 55 TONS,CL II Rip-Rap Each Bent
Geotextile = EST. 60 SY Each Bent

-L- STA. 117+03
-L- STA. 117+65

NOTE:
UTILIZE SKIMMER BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-33/CONST.J2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

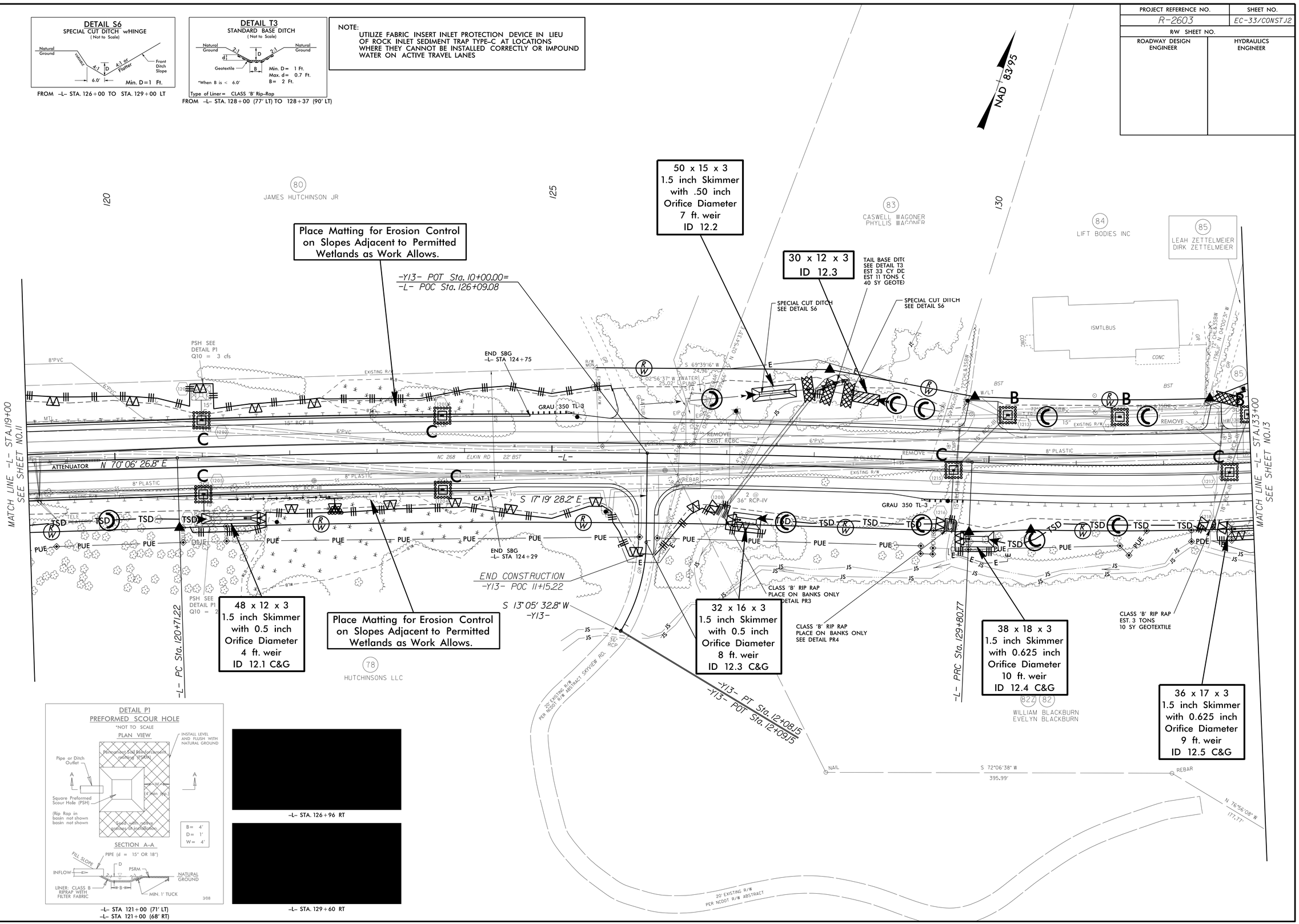
DETAIL S6
SPECIAL CUT DITCH wHINGE
(Not to Scale)

FROM –L– STA. 126+00 TO STA. 129+00 LT

DETAIL T3
STANDARD BASE DITCH
(Not to Scale)

FROM –L– STA. 128+00 (77' LT) TO 128+37 (90' LT)

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



DETAIL P1
PREFORMED SCOUR HOLE
*NOT TO SCALE

–L– STA 121+00 (71' LT)
–L– STA 121+00 (68' RT)

–L– STA. 126+96 RT

–L– STA. 129+60 RT

8/17/99

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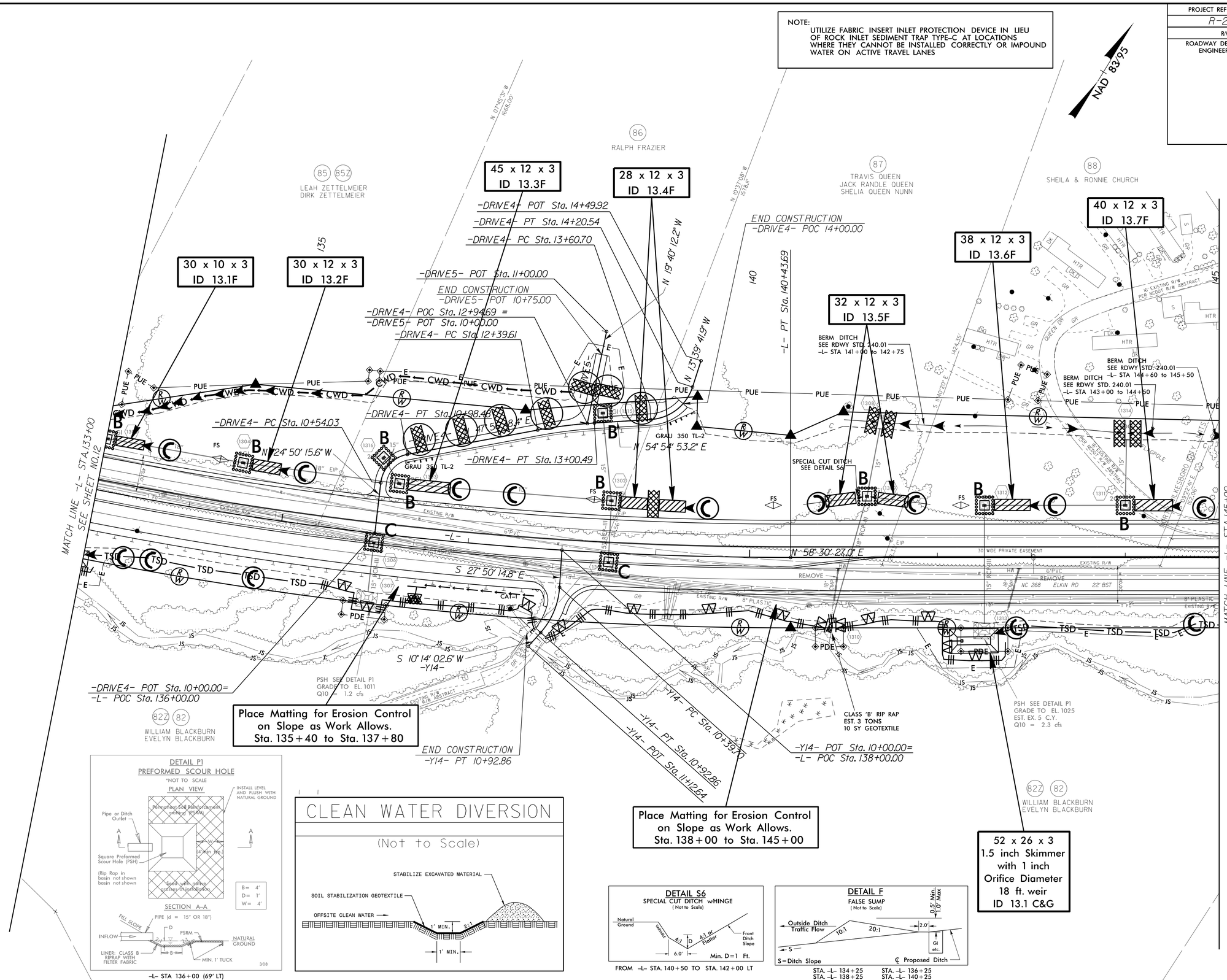
$$PENZ2415

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-34/CONST J3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



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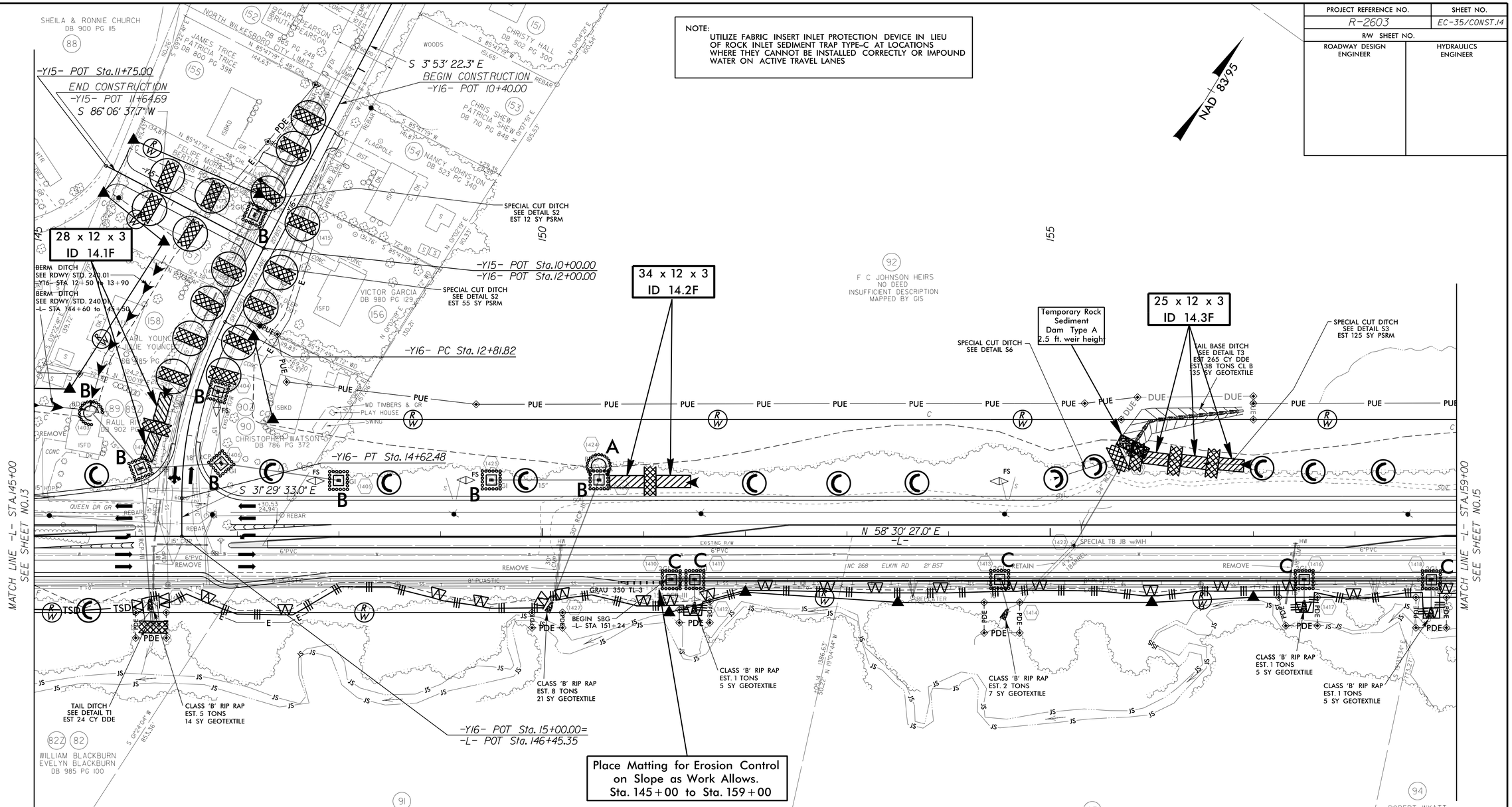
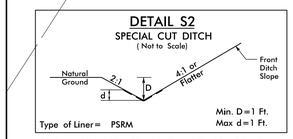
pscoggins

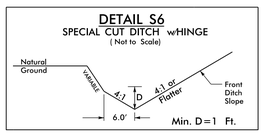
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-35/CONST.14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

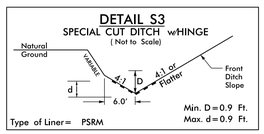




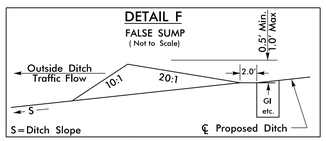
FROM -Y16- STA. 11+50 TO STA. 13+00 LT
FROM -Y16- STA. 11+50 TO STA. 11+75 RT



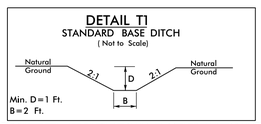
FROM -L- STA. 155+00 TO STA. 155+75 LT



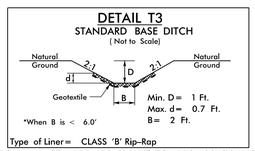
FROM -L- STA. 155+75 TO STA. 157+00 LT



STA. -L- 147+75
STA. -L- 149+25
STA. -L- 154+50
STA. -Y16- 13+68



FROM -L- STA. 146+14 (61' RT) TO 146+16 (88' RT)



FROM -L- STA. 155+75 (80' LT) TO 156+89 (124' LT)

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pscoggins
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-36/CONST.J5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DETAIL LB1
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 2:1, D, d, 2:1, b, 1'/Ft., B, Fill Slope

Min. D = 1Ft.
Max. d = 1Ft.
B = 2Ft.
b = 2Ft.

Type of Liner = PSRM

FROM –Y17– STA. 11+15 TO STA. 13+00 LT

DETAIL L1
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 2:1, D, 4:1, b, 1'/Ft., Fill Slope

Min. D = 0.5 Ft.
b = 2 Ft.

FROM –Y17– STA. 15+00 TO STA. 16+00 LT

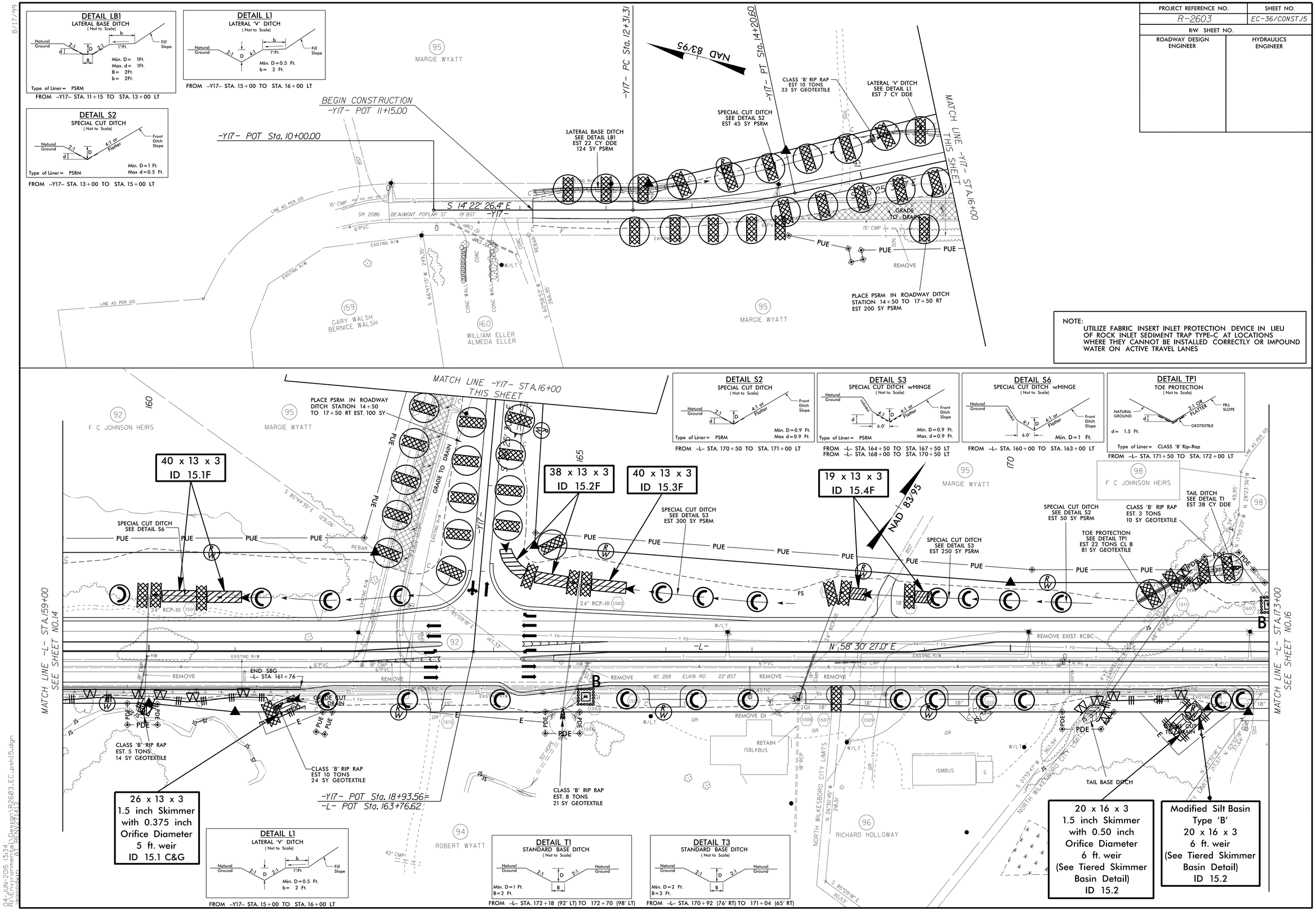
DETAIL S2
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 4:1 or Flatter, Front Ditch Slope

Min. D = 1 Ft.
Max d = 0.5 Ft.

Type of Liner = PSRM

FROM –Y17– STA. 13+00 TO STA. 15+00 LT



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

DETAIL S2
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground, 2:1, d, D, 4:1 or Flatter, Front Ditch Slope

Min. D = 0.9 Ft.
Max d = 0.9 Ft.

Type of Liner = PSRM

FROM –L– STA. 170+50 TO STA. 171+00 LT

DETAIL S3
SPECIAL CUT DITCH wHINGE
(Not to Scale)

Natural Ground, HINGE, 4:1, D, 4:1 or Flatter, d, 6.0', Front Ditch Slope

Min. D = 0.9 Ft.
Max. d = 0.9 Ft.

Type of Liner = PSRM

FROM –L– STA. 164+50 TO STA. 167+50 LT
FROM –L– STA. 168+00 TO STA. 170+50 LT

DETAIL S6
SPECIAL CUT DITCH wHINGE
(Not to Scale)

Natural Ground, HINGE, 4:1, D, 4:1 or Flatter, 6.0', Front Ditch Slope

Min. D = 1 Ft.

FROM –L– STA. 160+00 TO STA. 163+00 LT

DETAIL TP1
TOE PROTECTION
(Not to Scale)

NATURAL GROUND, d, 2:1 OR FLATTER, FILL SLOPE, GEOTEXTILE

d = 1.5 Ft.

Type of Liner = CLASS 'B' Rip-Rap

FROM –L– STA. 171+50 TO STA. 172+00 LT

DETAIL L1
LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, b, 1'/Ft., Fill Slope

Min. D = 0.5 Ft.
b = 2 Ft.

FROM –Y17– STA. 15+00 TO STA. 16+00 LT

DETAIL T1
STANDARD BASE DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, Natural Ground, B

Min. D = 1 Ft.
B = 2 Ft.

FROM –L– STA. 172+18 (92' LT) TO 172+70 (98' LT)

DETAIL T3
STANDARD BASE DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, Natural Ground, B

Min. D = 2 Ft.
B = 3 Ft.

FROM –L– STA. 170+92 (76' RT) TO 171+04 (65' RT)

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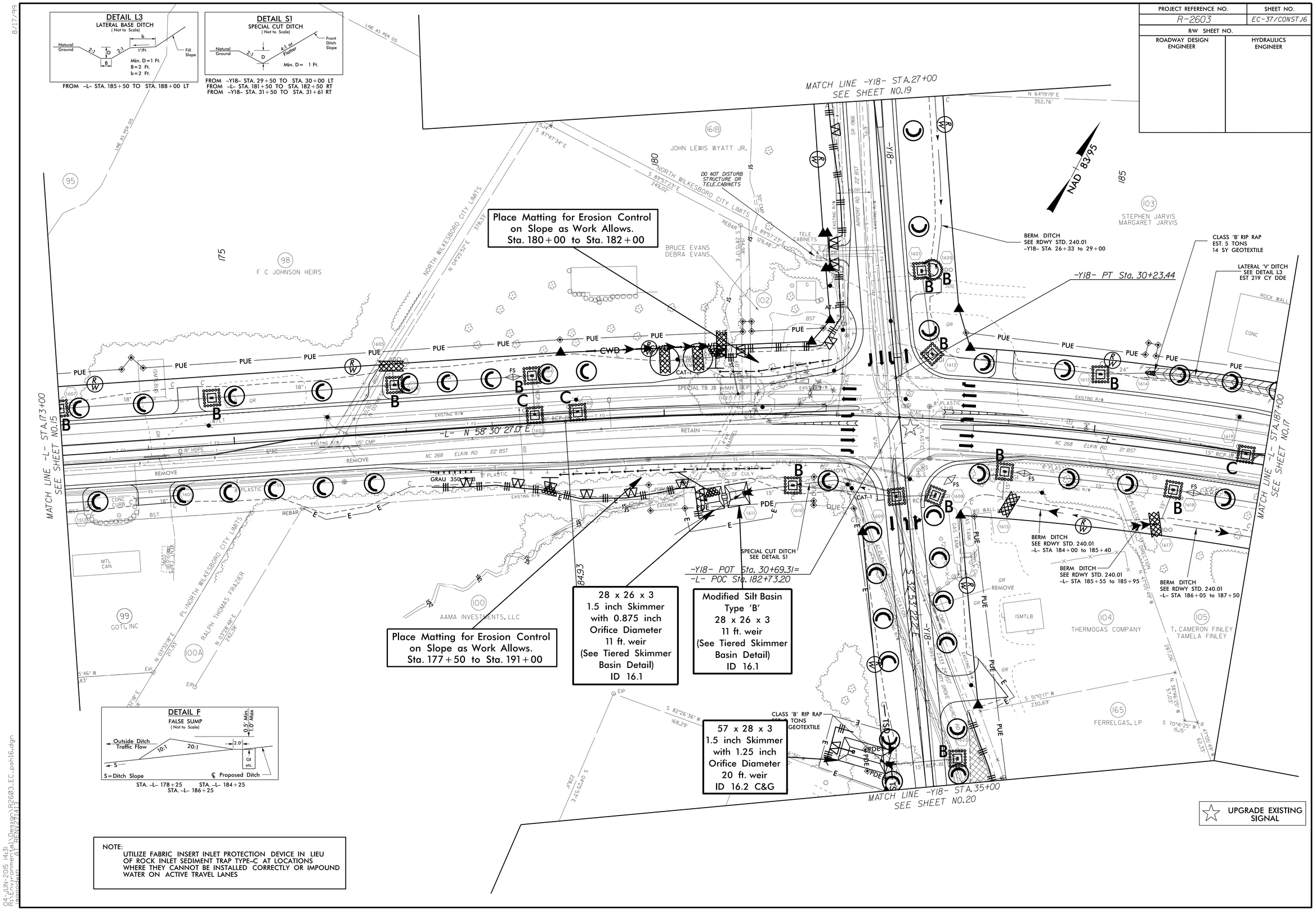
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-37/CONST J6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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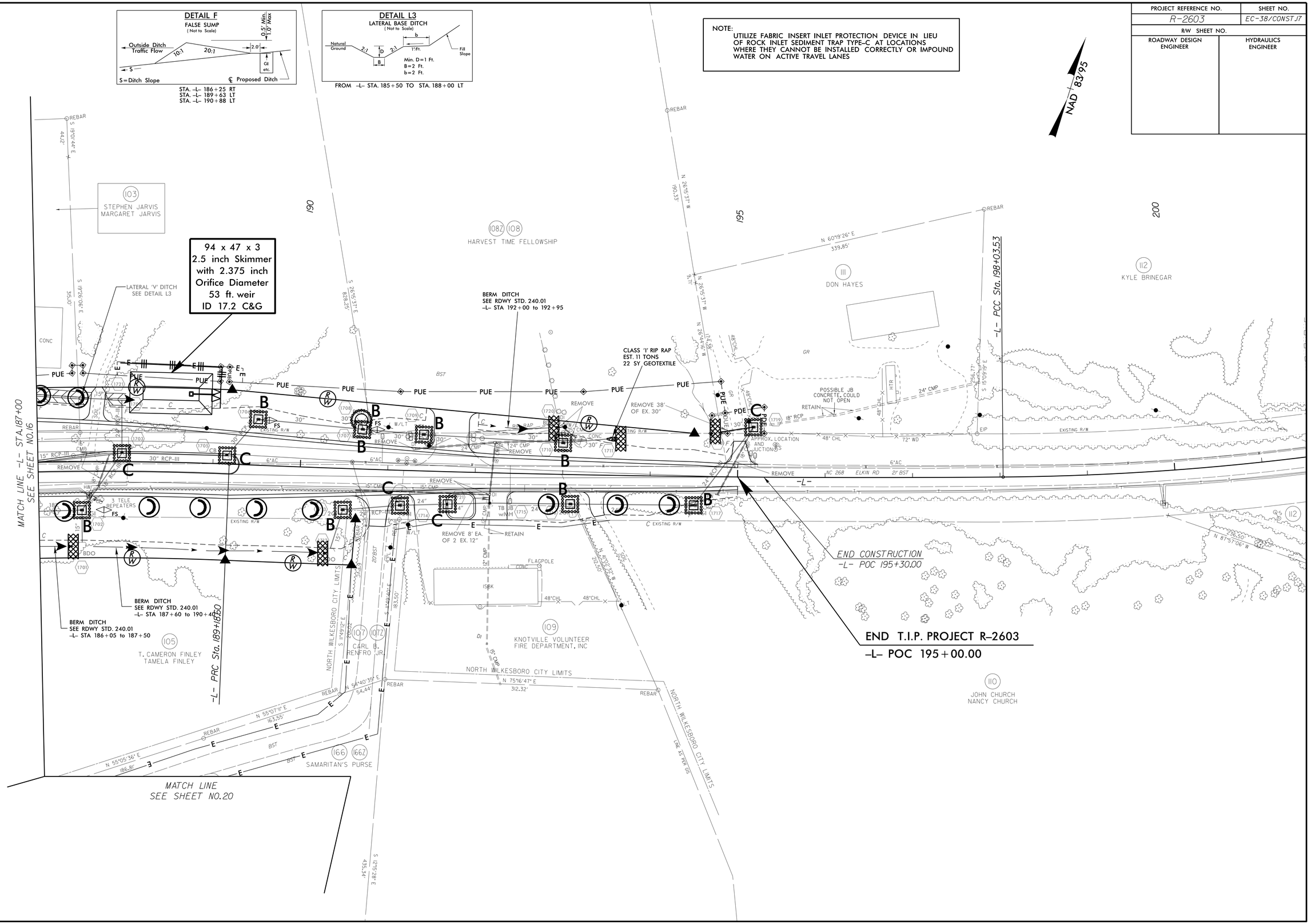
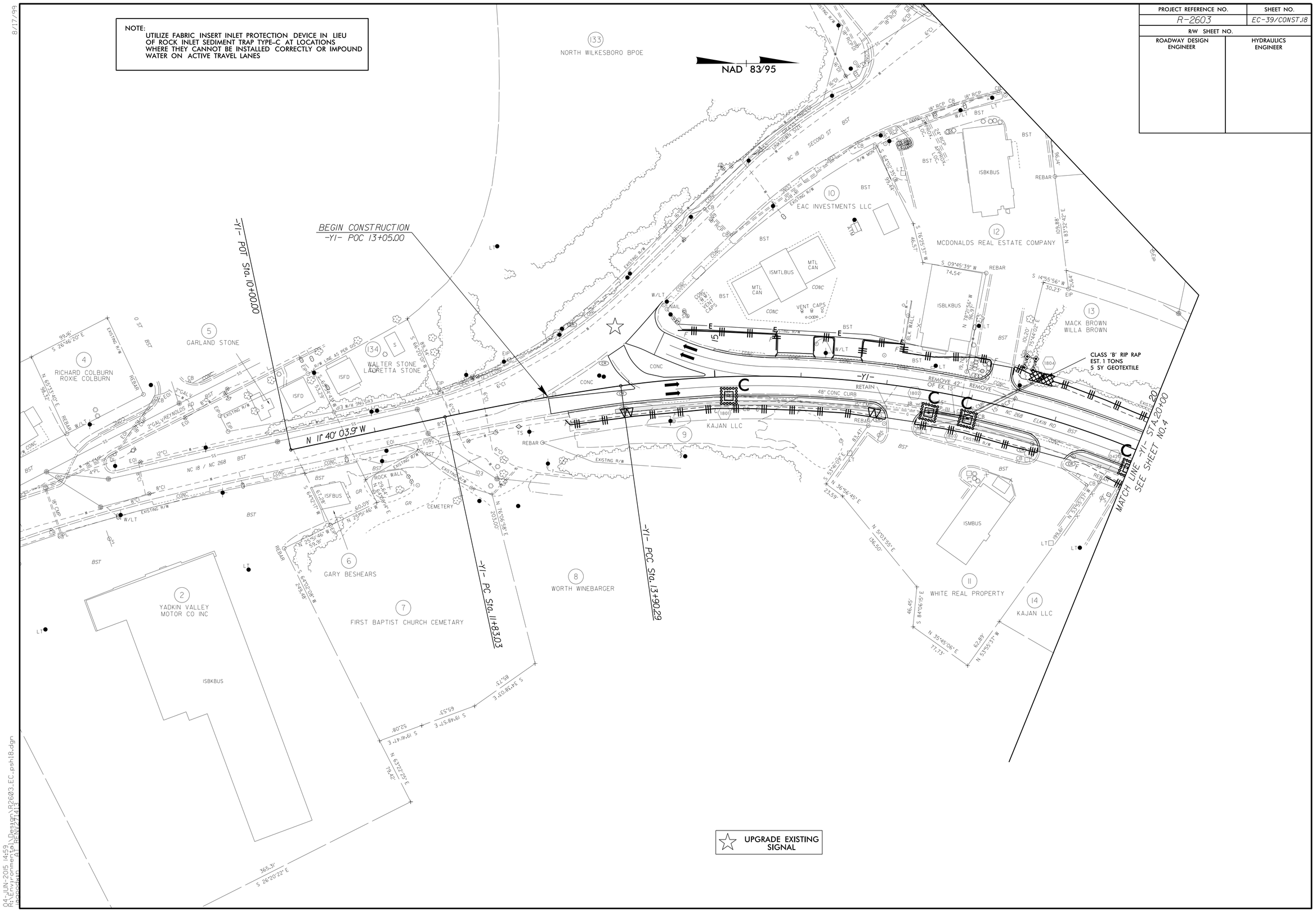
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-38/CONST.J7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-39/CONST18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



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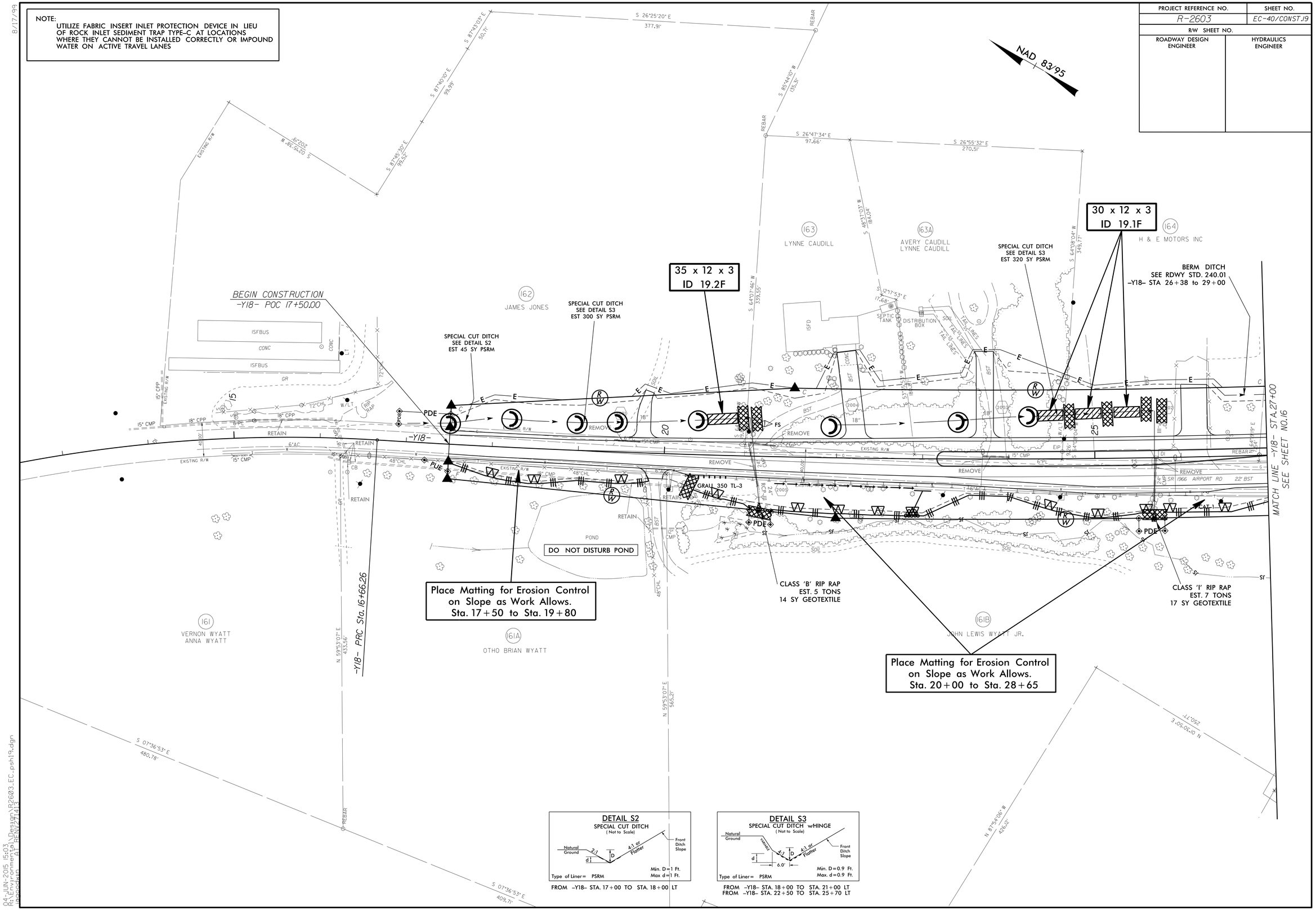
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE–C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES

PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-40/CONST.19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



DETAIL S2
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground — 2:1 — d — D — 4:1 or Flatter — Front Ditch Slope

Min. D=1 Ft.
Max. d=1 Ft.

Type of Liner= PSRM

FROM –Y18– STA. 17+00 TO STA. 18+00 LT

DETAIL S3
SPECIAL CUT DITCH wHINGE
(Not to Scale)

Natural Ground — VARIABLE — d — 4:1 — D — 4:1 or Flatter — 6.0' — Front Ditch Slope

Min. D=0.9 Ft.
Max. d=0.9 Ft.

Type of Liner= PSRM

FROM –Y18– STA. 18+00 TO STA. 21+00 LT
FROM –Y18– STA. 22+50 TO STA. 25+70 LT

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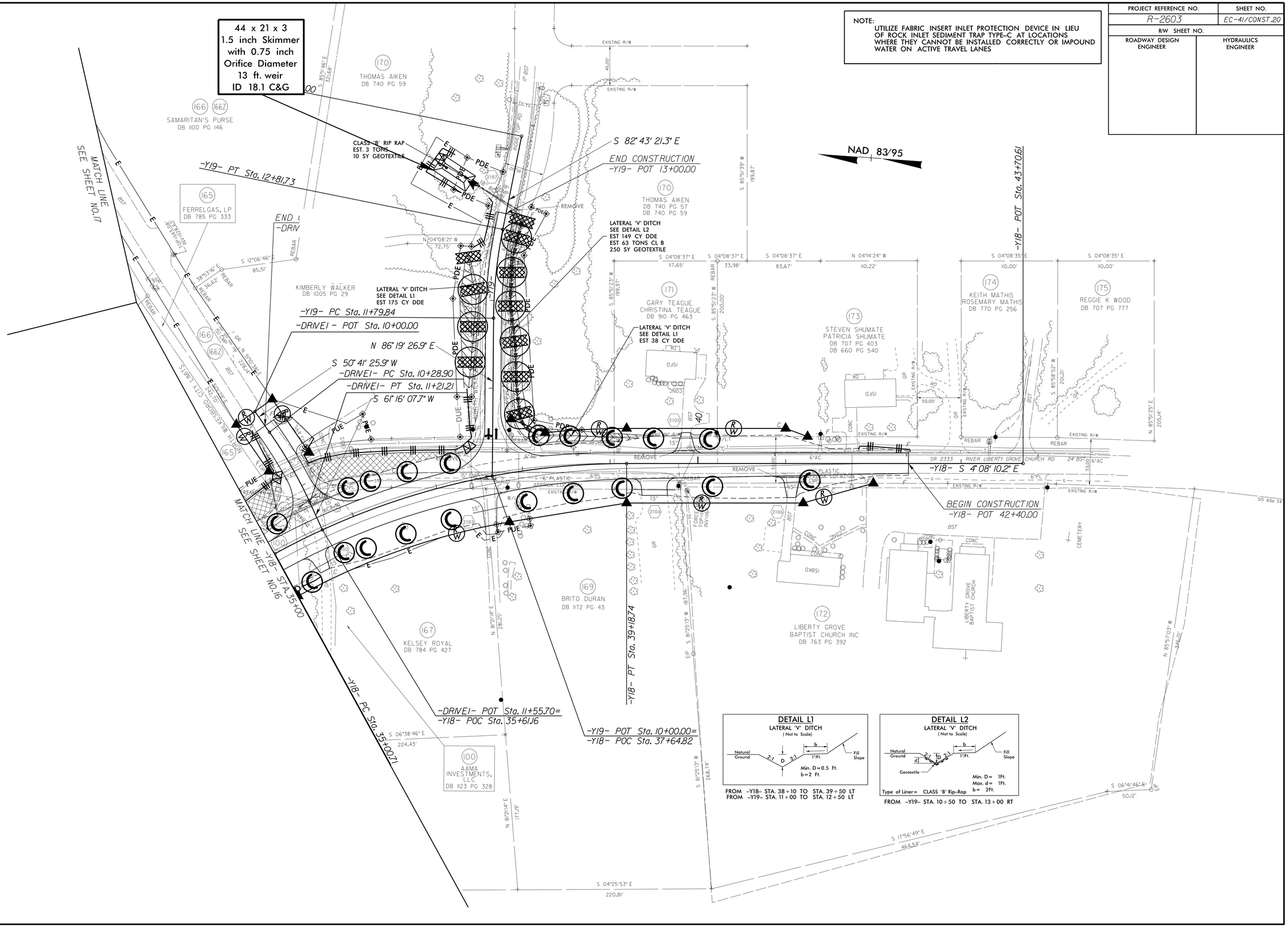
PROJECT REFERENCE NO.	SHEET NO.
R-2603	EC-41/CONST.20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE-C AT LOCATIONS WHERE THEY CANNOT BE INSTALLED CORRECTLY OR IMPOUND WATER ON ACTIVE TRAVEL LANES



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