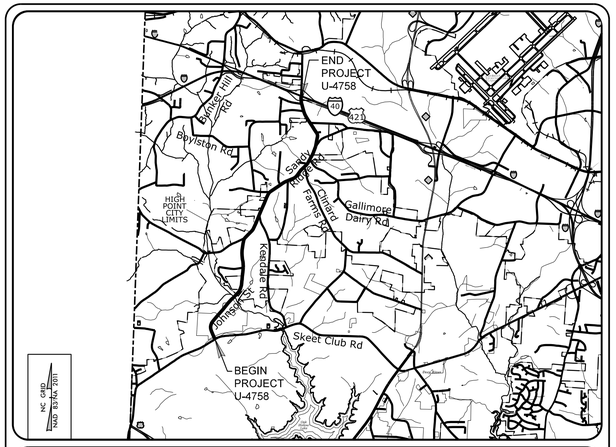
TIP PROJECT: U-4758

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4758	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
40251.1.1	0710025/0710027	PE
40251.2.1	0710027	R/W
40251.2.2	0710027	UTILITIES
40251.3.1	0710027	CONSTRUCTION



VICINITY MAP
NOT TO SCALE

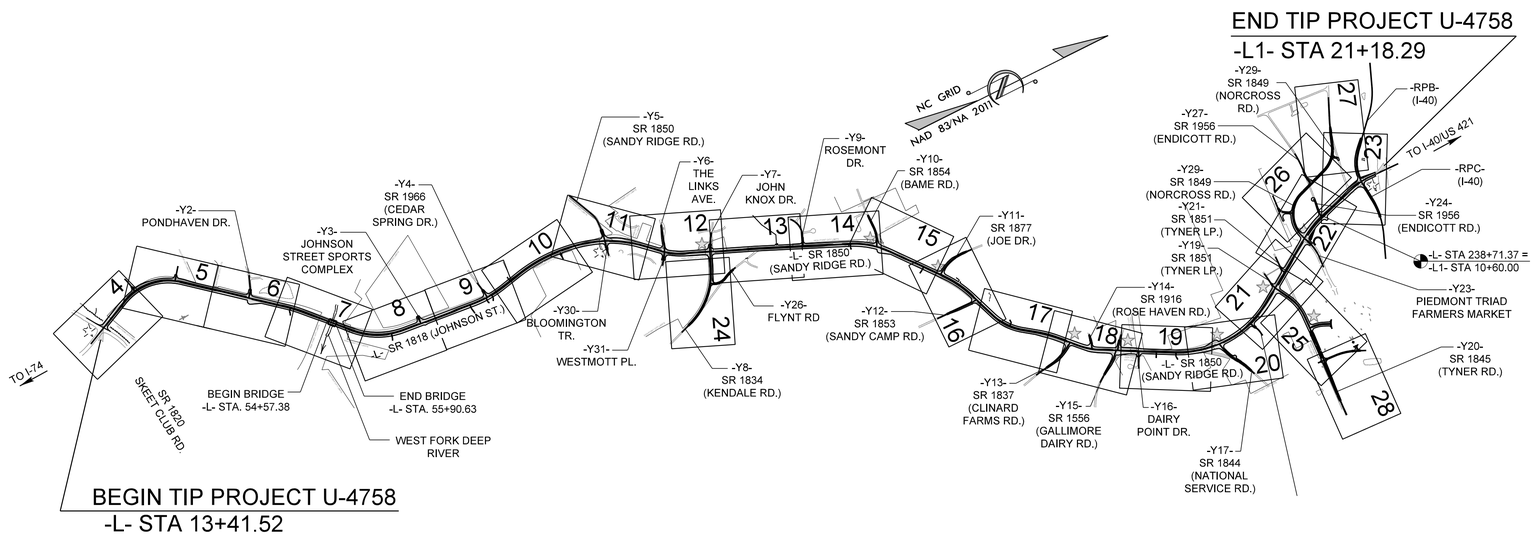
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

GUILFORD COUNTY

LOCATION: SR 1818 (JOHNSON STREET) /SR 1850 (SANDY RIDGE ROAD) FROM SR 1820 (SKEET CLUB ROAD) TO I-40

TYPE OF WORK: GRADING, DRAINAGE, PAVING, WIDENING, RESURFACING, SIGNALS, AND STRUCTURE



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

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 Considerations.

GRAPHIC SCALE

50 25 0 50 100

PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG 010000 GENERAL STORMWATER CONSTRUCTION PERMIT ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES.

Prepared in the Office of:

SUNGATE DESIGN GROUP, P.A.

905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL (919) 859-2243
ENG FIRM LICENSE NO. C-890

Designed by:

MATTHEW C. EDWARDS, PE ***3992***

NAME *LEVEL III CERTIFICATION NO.*

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

4/21/2025
U4758_EC_dan_psh_01.dgn
ME-EDWARDS

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

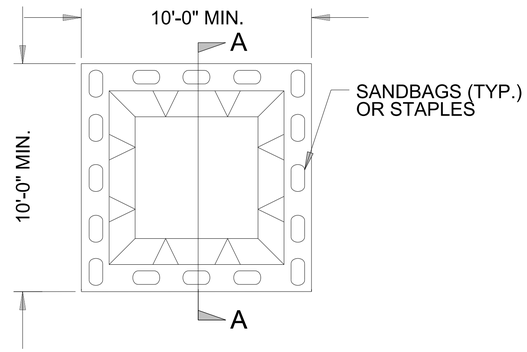
EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	TSD
1630.04	Stilling Basin	
1630.05	Temporary Diversion	TD
1630.06	Special Stilling Basin	
1630.07	Skimmer Basin	
1630.08	Tiered Skimmer Basin	
1630.09	Earthen Dam with Skimmer	
	Infiltration Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C

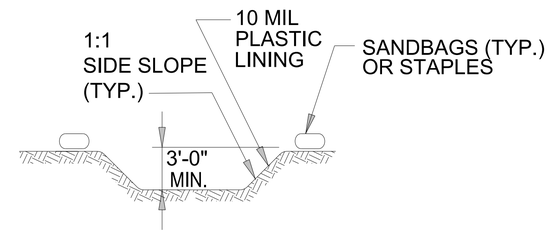
Std. #	Description	Symbol
1633.01	Temporary Rock Silt Check Type A	
1633.02	Temporary Rock Silt Check Type B	
1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1634.01	Temporary Rock Sediment Dam Type A	
1634.02	Temporary Rock Sediment Dam Type B	
1635.01	Rock Pipe Inlet Sediment Trap Type A	A
1635.02	Rock Pipe Inlet Sediment Trap Type B	B
1636.01	Excelsior Wattle Check	
1636.01	Excelsior Wattle Check with Flocculant	
1636.01	Coir Fiber Wattle Check	
1636.01	Coir Fiber Wattle Check with Flocculant	
1636.02	Silt Fence Excelsior Wattle Break	EW
	Silt Fence Coir Fiber Wattle Break	CFW
1636.03	Excelsior Wattle Barrier	—EW—EW—EW—
1636.03	Coir Fiber Wattle Barrier	—CFW—CFW—CFW—

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



PLAN



SECTION A-A

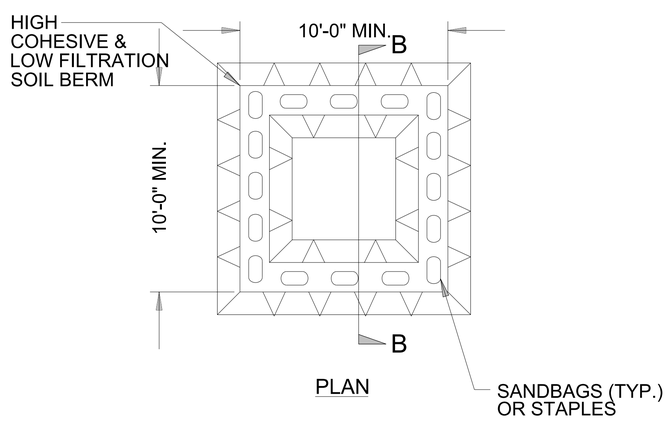
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

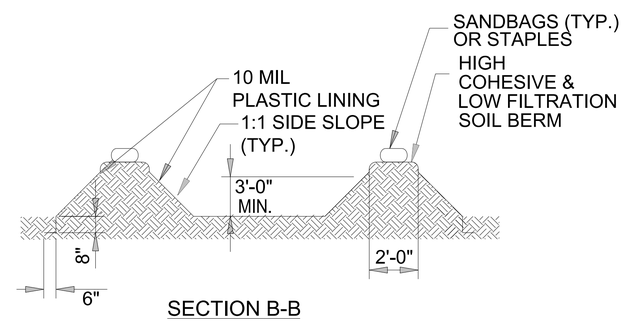
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

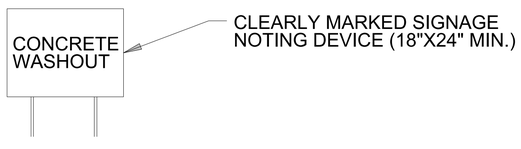
NOT TO SCALE



PLAN



SECTION B-B



NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

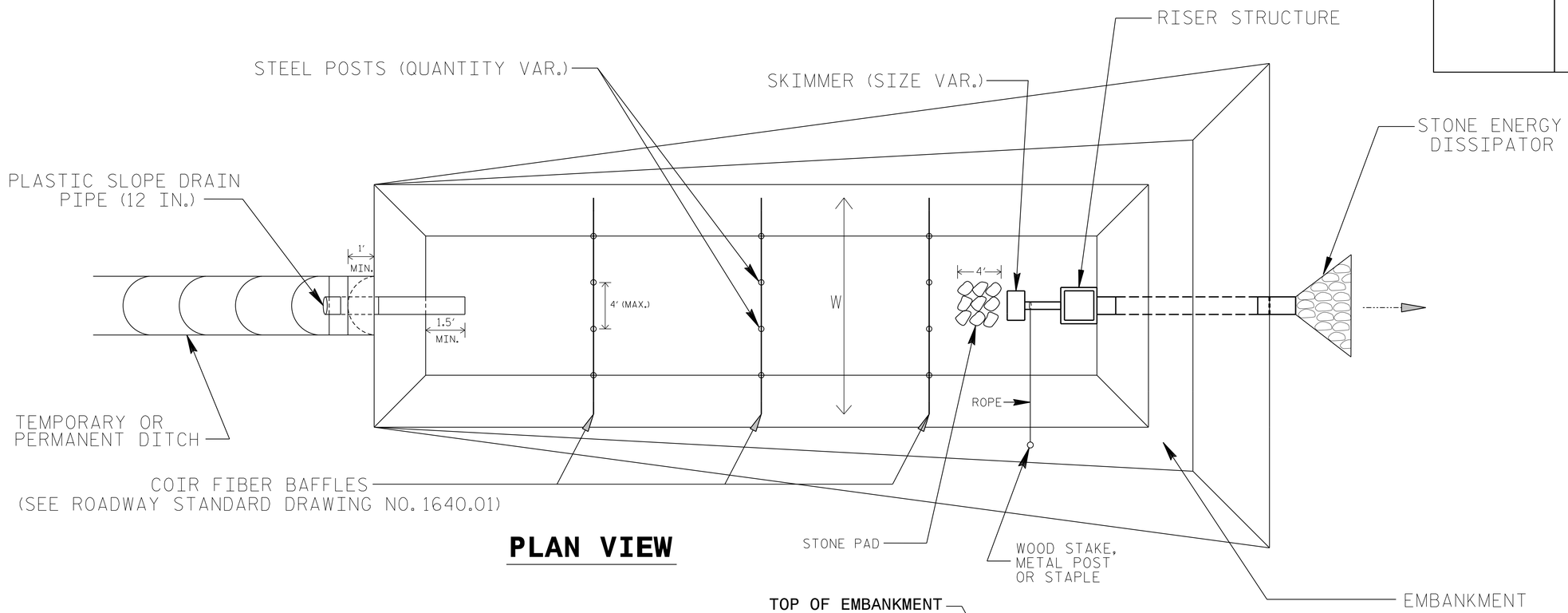
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

ABOVE GRADE WASHOUT STRUCTURE

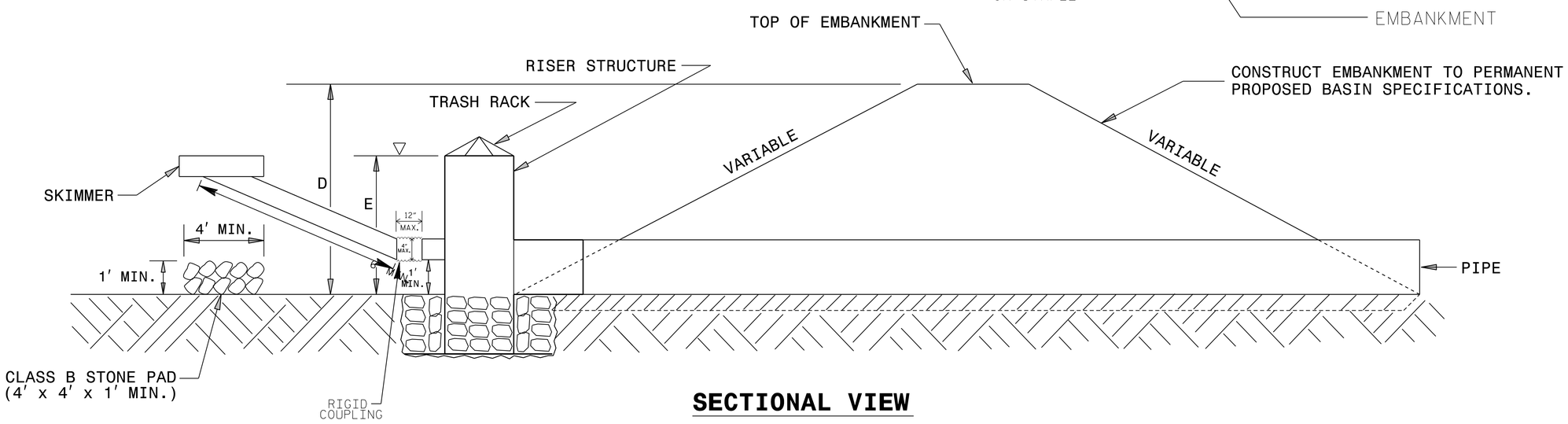
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STORMWATER BASIN WITH SKIMMER



PLAN VIEW



SECTIONAL VIEW

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. INSTALL A MINIMUM OF 3 COIR FIBER BAFFLES IN ACCORDANCE WITH ROADWAY STD. DRAWING 1640.01.
3. INSTALL SKIMMER AND COUPLING TO RISER STRUCTURE OR DIRECTLY INTO EMBANKMENT 1 FT. FROM BOTTOM OF BASIN.
4. THE ARM PIPE SHALL HAVE A MINIMUM LENGTH OF 6 FT. BETWEEN THE SKIMMER AND COUPLING.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE AS DIRECTED.
6. THE DIFFERENCE BETWEEN LENGTHS "D" AND "E" REPRESENT THE FREEBOARD AND SHOULD BE 1 FT. MINIMUM.

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL (STRAW)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	20+75	21+00	RT	20
5	-L-	22+50	25+00	LT	235
5	-L-	34+10	35+00	LT	85
5	-L-	21+00	23+00	RT	175
6	-L-	35+00	36+00	LT	95
6	-L-	41+50	47+00	RT	560
7	-L-	47+00	47+50	RT	75
7	-L-	48+50	49+00	RT	75
7	-L-	49+50	50+60	RT	460
8	-L-	69+50	70+00	LT	60
9	-L-	79+70	79+95	RT	55
9	-Y4-	11+50	12+00	LT	45
9	-Y4-	11+50	12+00	RT	45
10	-L-	93+00	95+00	RT	175
11	-Y5-	17+00	18+70	RT	200
12	-L-	118+00	120+50	RT	230
13	-L-	128+10	128+75	RT	125
13	-L-	134+50		RT	70
13	-Y26-	14+00	17+50	LT	395
13	-Y26-	14+00	14+50	RT	45
14	-L-	141+00	142+40	LT	135
14	-L-	147+35	148+00	LT	65
15	-L-	148+00	148+50	LT	50
15	-Y10-	10+00	12+50	LT	190
16	-L-	169+00	171+00	RT	245
16	-Y11-	10+50	15+00	LT	350
16	-Y11-	11+00	13+50	RT	305
16	-Y12-	11+50	12+50	LT	95
16	-Y12-	12+00	16+50	RT	255
17	-L-	171+00	180+00	RT	1,250

MATTING FOR EROSION CONTROL (STRAW)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
18	-L-	184+00	184+77	LT	70
18	-L-	188+00	188+50	LT	35
18	-L-	193+23	194+50	LT	120
18	-L-	190+43	192+25	RT	170
18	-Y13-	10+00	15+50	LT	615
18	-Y13-	10+50	13+50	RT	330
18	-Y13-	15+00	16+00	RT	135
18	-Y14-	10+17	11+50	LT	100
18	-Y15-	11+00	15+00	LT	440
18	-Y15-	12+00	14+00	RT	235
19	-L-	196+00	206+00	LT	1,480
19	-L-	202+50	206+00	RT	350
20	-L-	215+30		LT	600
20	-L-	211+50	215+00	RT	290
20	-L-	215+50	216+00	RT	50
20	-Y17-	11+00	14+00	LT	425
20	-Y17-	12+50	17+50	RT	490
21	-L-	221+70		LT	210
21	-L-	216+00	216+25	RT	25
21	-L-	217+25	222+50	RT	710
21	-L-	224+47	225+75	RT	115
21	-Y18-	10+65	12+00	RT	125
21	-Y20-	10+83	13+50	LT	240
21	-Y20-	11+00	13+50	RT	225
22	-L-	230+85		LT	180
22	-Y24-	10+00		LT	65
22	-Y24-	10+00		RT	105
22	-Y24-	10+00	12+50	RT	120
22	-Y29-	31+00	31+50	LT	55
22	-Y29-	31+90	33+00	RT	165

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL (STRAW)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
23	-L1-	242+00	244+00	LT	140
23	-RPB-	23+00	27+00	LT	450
23	-RPB-	22+72	25+00	RT	260
24	-Y26-	10+75	14+00	LT	265
24	-Y26-	11+50	14+50	RT	235
24	-Y8-	16+50	17+50	LT	150
24	-Y8-	19+00	23+50	LT	680
24	-Y8-	12+00	12+50	RT	65
24	-Y8-	18+00	20+50	RT	410
24	-Y8-	22+00	23+50	RT	195
25	-Y20-	13+50	13+82	LT	30
25	-Y20-	20+00	23+50	LT	315
25	-Y20-	13+50	17+60	RT	370
25	-Y20-	19+10	20+00	RT	85
25	-Y20-	20+60	23+50	RT	265
26	-DWAY20-	12+25	14+50	LT	375
26	-Y29-	22+00	23+00	LT	120
26	-Y29-	27+00	30+00	LT	340
26	-Y29-	30+50	31+00	LT	55
26	-Y27-	13+00	15+00	RT	160
26	-Y29-	22+00	25+00	RT	510
26	-Y29-	26+00	29+00	RT	325
27	-Y29-	14+50	17+00	LT	300
27	-Y29-	18+00	19+50	LT	140
27	-Y29-	20+00	22+00	LT	245
27	-Y29-	14+50	22+00	RT	1,370
28	-DWAY24-	12+00	16+30	RT	370
28	-Y20-	23+50	24+35	LT	65
28	-Y20-	27+75	33+50	LT	405
28	-Y20-	23+50	24+45	RT	75

MATTING FOR EROSION CONTROL (STRAW)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
28	-Y20-	25+59	32+50	RT	495

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-3B
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL (EXCELSIOR)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
16	-Y11-	14+50	16+00	RT	205
28	-Y20-	25+59		LT	65

MATTING FOR EROSION CONTROL (EXCELSIOR)

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
NOTE:	SOIL STABILIZATION SUMMARY SHEET DOES NOT SHOW STATIONS FROM DITCHES HATCHED ON PLAN SHEETS				
				SUBTOTAL FOR STRAW	23,705
				SUBTOTAL FOR EXCELSIOR	270
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					100,960
				TOTAL	124,935
				SAY	125,000

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-3C
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 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-04/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

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

DETAIL 4–1
SPEC LAT V DITCH
(NOT TO SCALE)

FROM STA. 20+75 TO STA. 23+00 –L– RT

DETAIL 4–2
LATERAL BASE DITCH
(Not to Scale)

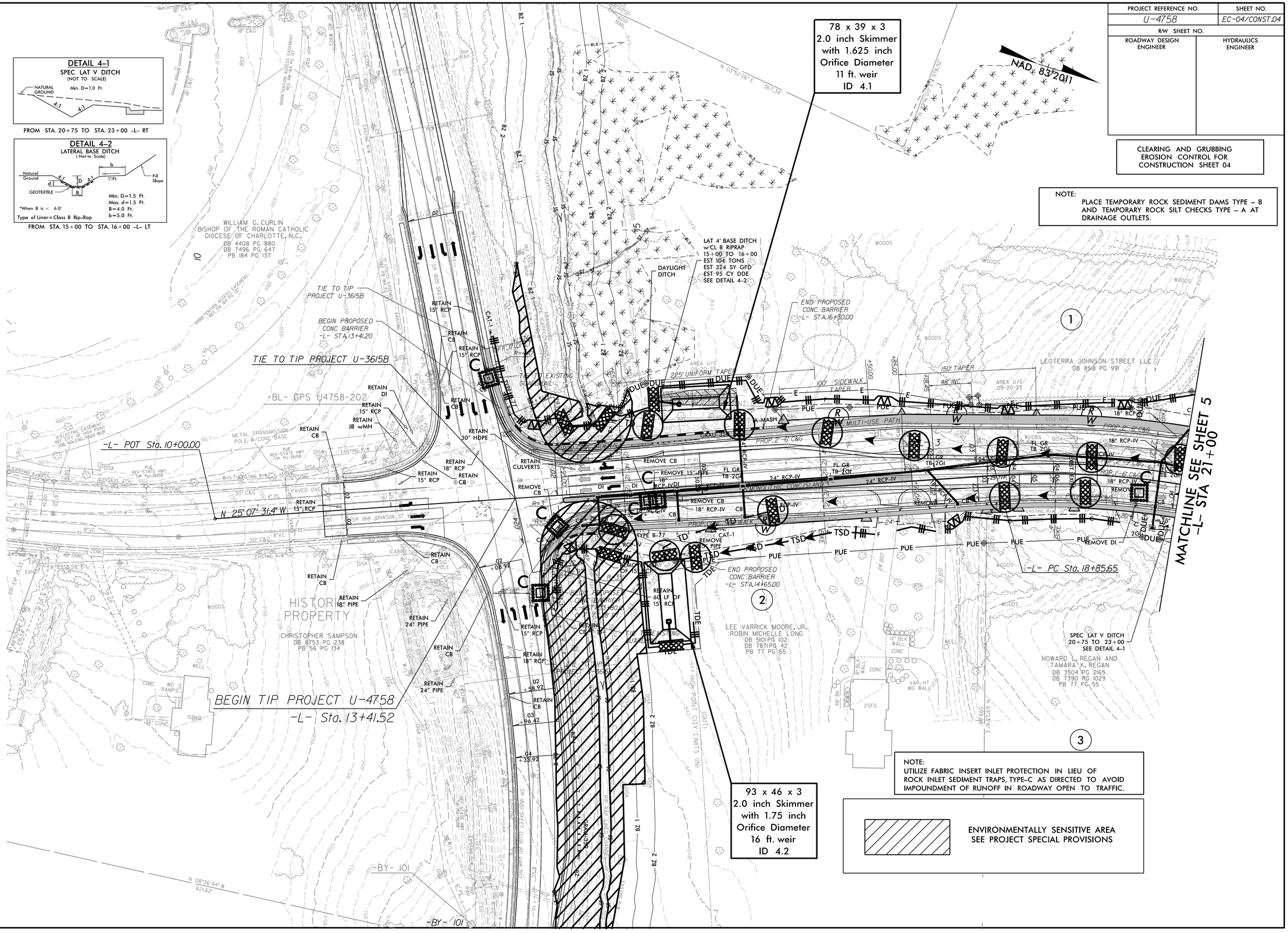
FROM STA. 15+00 TO STA. 16+00 –L– LT

78 x 39 x 3
2.0 inch Skimmer
with 1.625 inch
Orifice Diameter
11 ft. weir
ID 4.1

93 x 46 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
16 ft. weir
ID 4.2

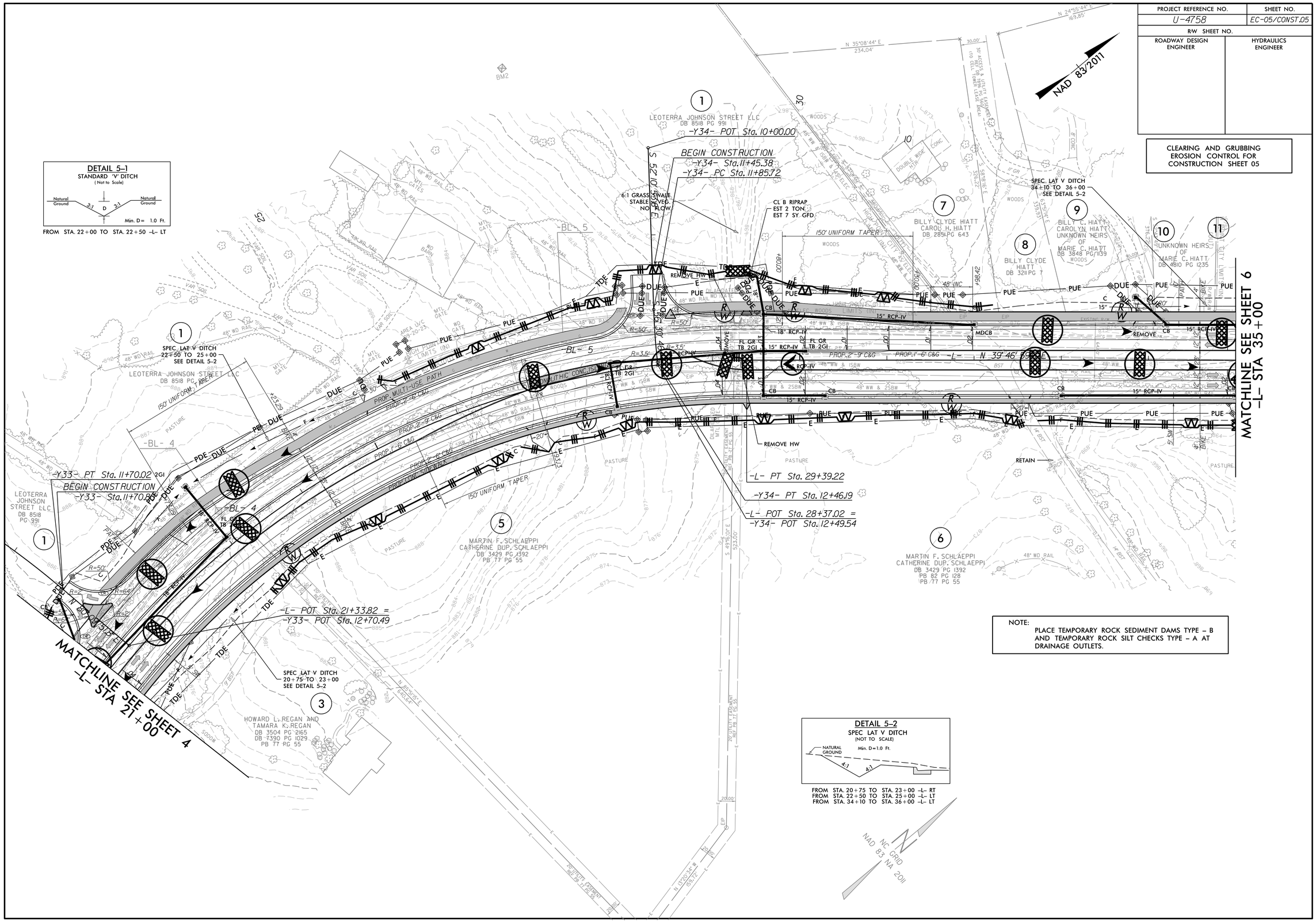
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE–C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS



PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-05/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

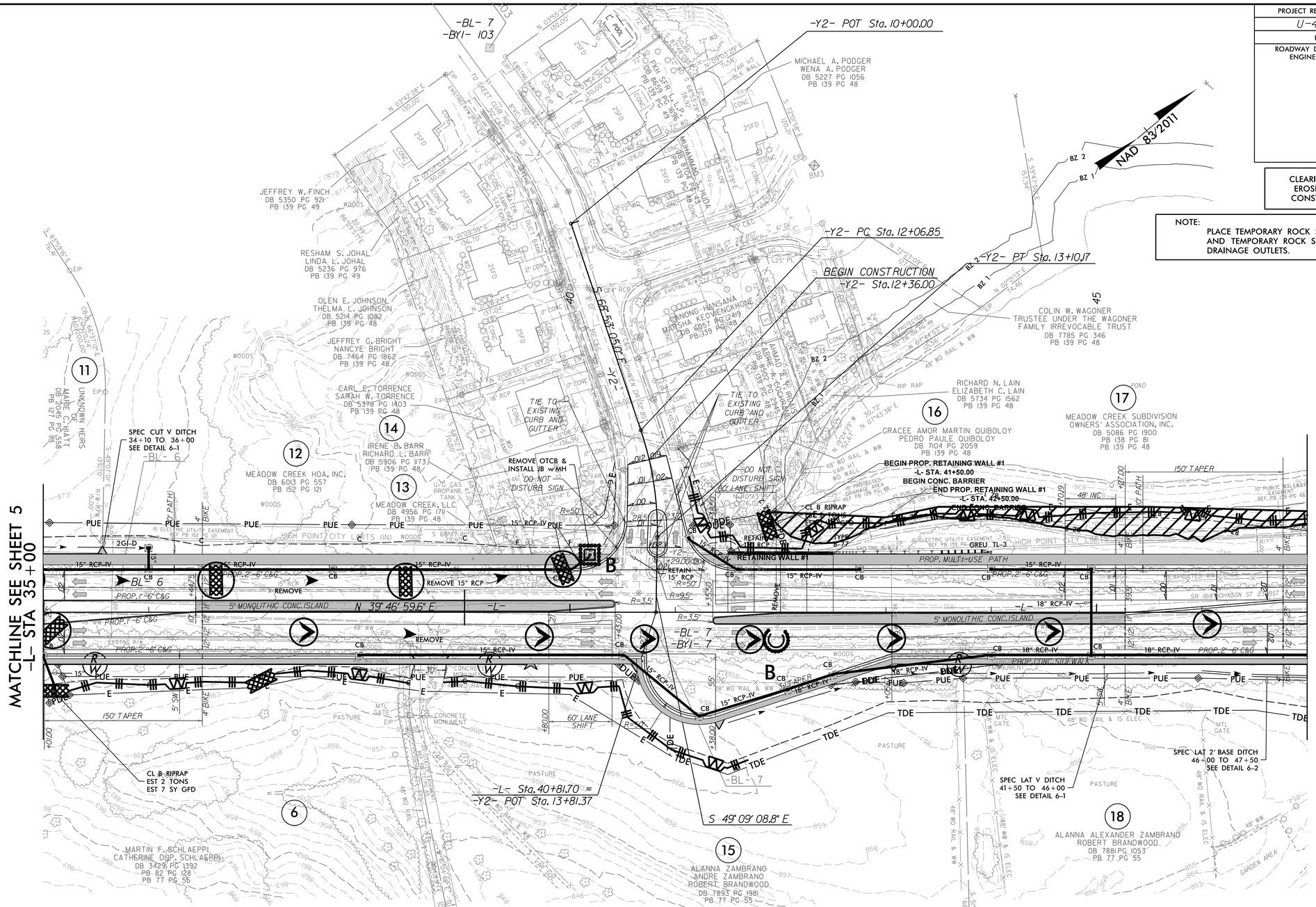


NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

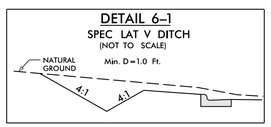
PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-06/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06

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

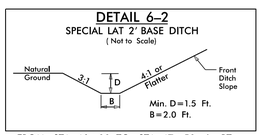


DETAIL 6–1
SPEC LAT V DITCH
(NOT TO SCALE)



FROM STA. 34+10 TO STA. 36+00 –L– LT
FROM STA. 41+50 TO STA. 46+00 –L– RT

DETAIL 6–2
SPECIAL LAT 2' BASE DITCH
(Not to Scale)



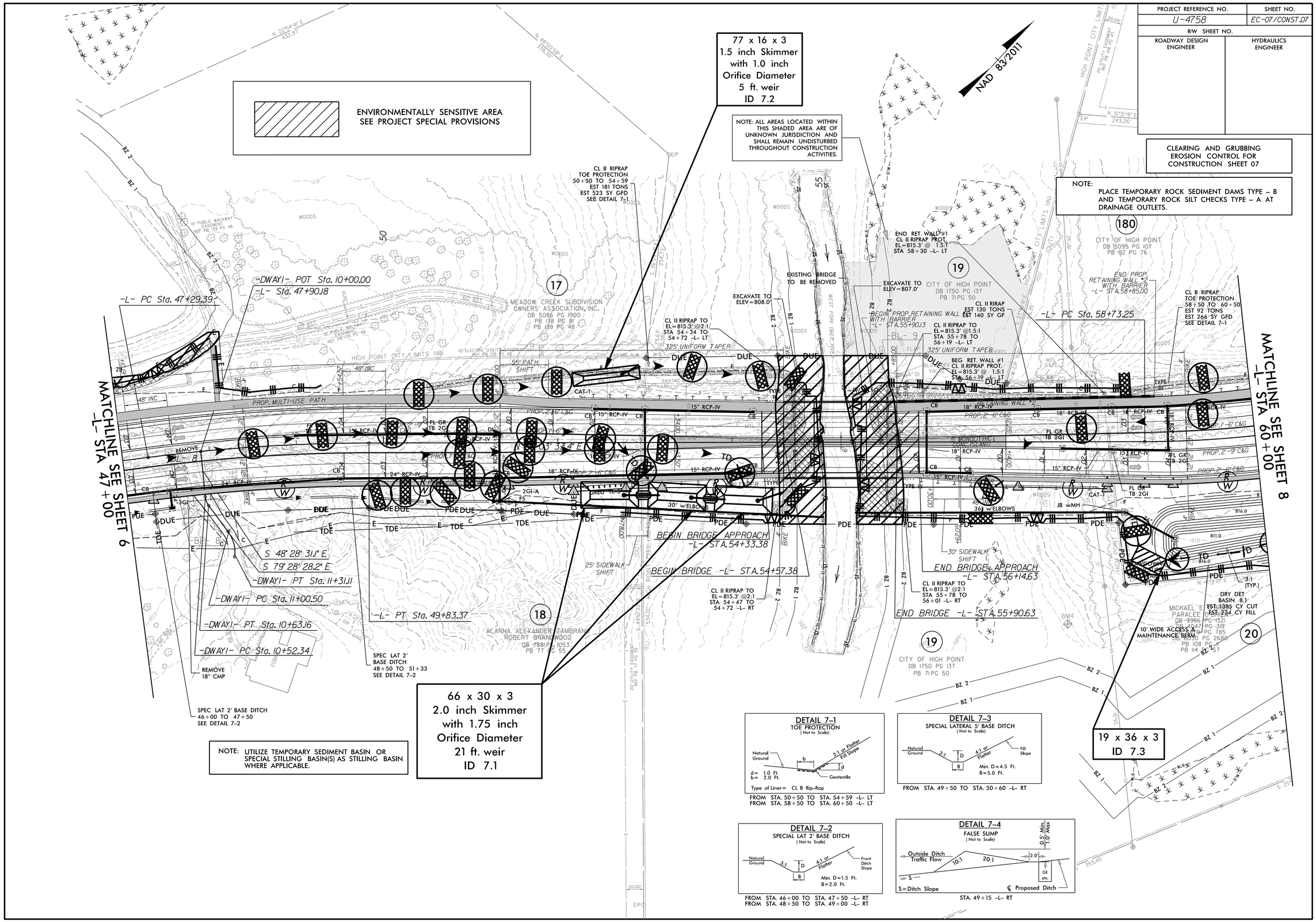
FROM STA. 46+00 TO STA. 47+50 –L– RT

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-07/CONST.07
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07

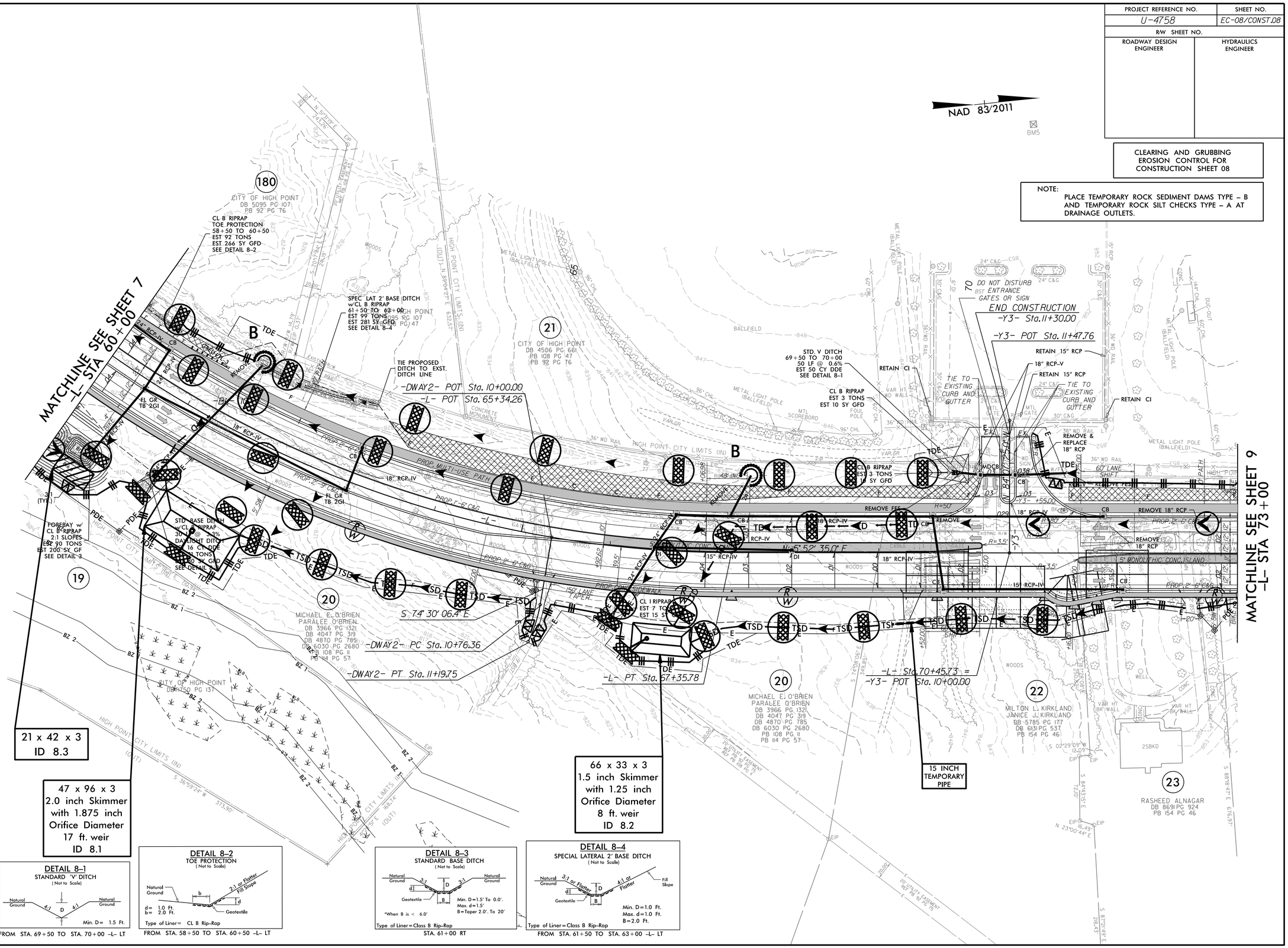
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.



PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-08/CONST.08
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 08

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



DETAIL 8–1
STANDARD 'V' DITCH
(Not to Scale)

Min. D = 1.5 Ft.

FROM STA. 69+50 TO STA. 70+00 –L– LT

DETAIL 8–2
TOE PROTECTION
(Not to Scale)

d = 1.0 Ft.
b = 2.0 Ft.

Type of Liner = CL B Rip-Rap

FROM STA. 58+50 TO STA. 60+50 –L– LT

DETAIL 8–3
STANDARD BASE DITCH
(Not to Scale)

Min. D = 1.5' To 0.0'.
Max. d = 1.5'
B = Taper 2.0'. To 20'

*When B is < 6.0'

Type of Liner = Class B Rip-Rap

STA. 61+00 RT

DETAIL 8–4
SPECIAL LATERAL 2' BASE DITCH
(Not to Scale)

Min. D = 1.0 Ft.
Max. d = 1.0 Ft.
B = 2.0 Ft.

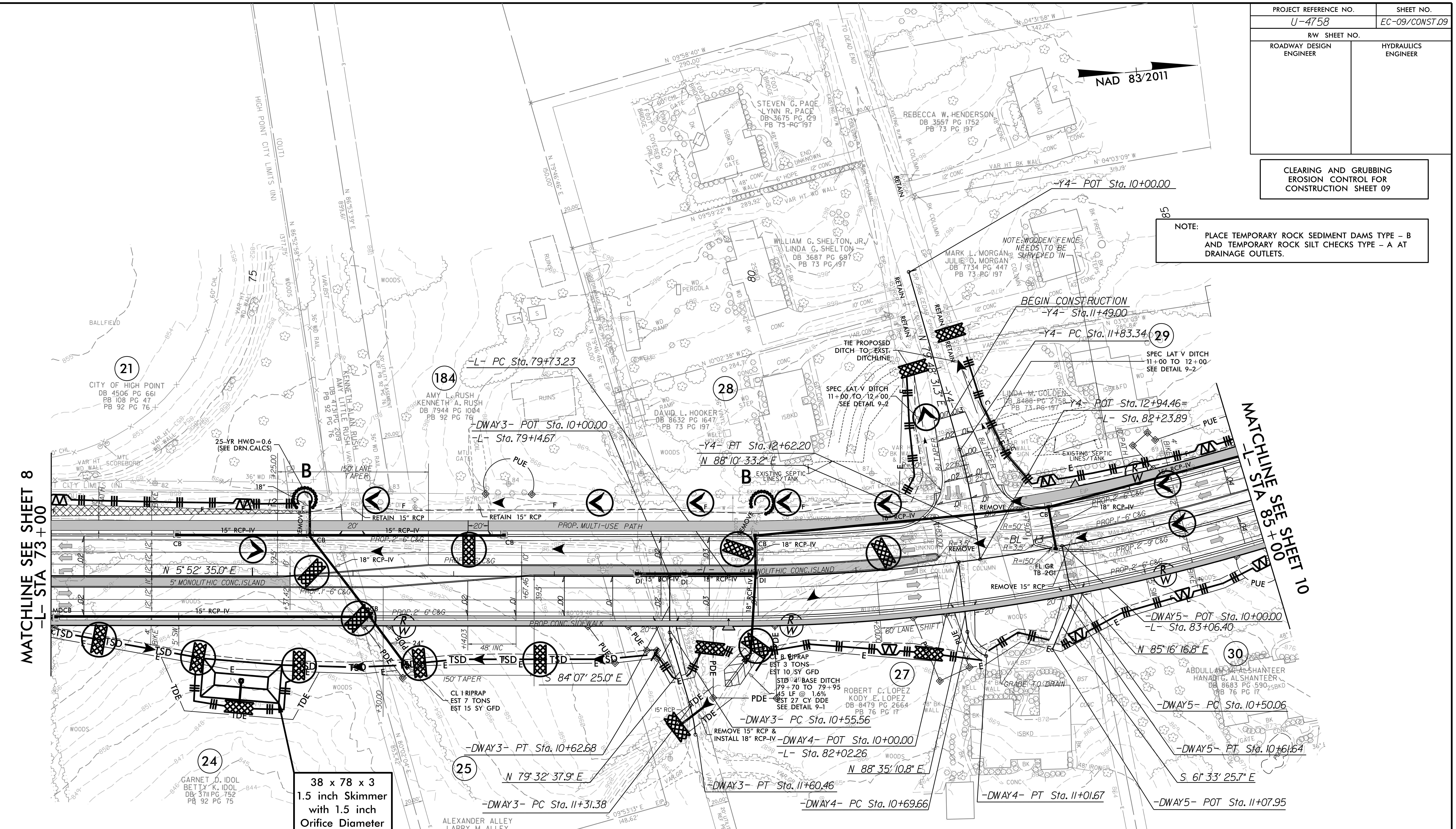
Type of Liner = Class B Rip-Rap

FROM STA. 61+50 TO STA. 63+00 –L– LT

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-09/CONST.09
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 09

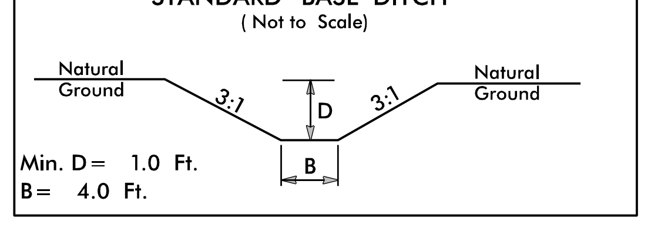
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.



38 x 78 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
11 ft. weir
ID 9.1

DETAIL 9-1

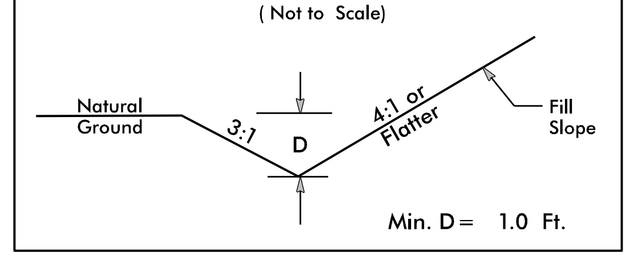
STANDARD BASE DITCH
(Not to Scale)



FROM STA. 79+70 TO STA. 79+95 -L- RT

DETAIL 9-2

SPECIAL LATERAL 'V' DITCH
(Not to Scale)

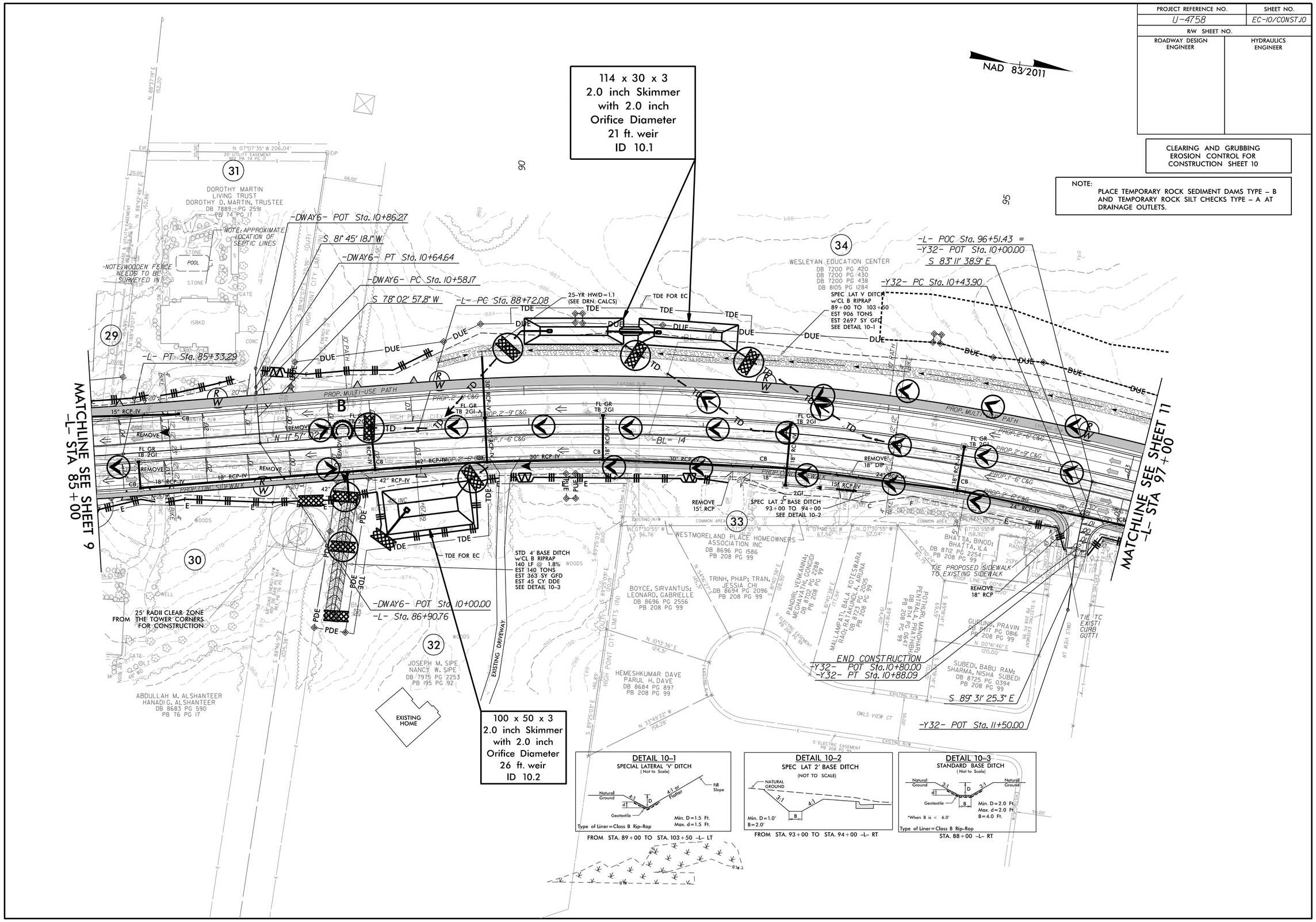


FROM STA. 11+00 TO STA. 12+00 -Y4- LT & RT

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-10/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

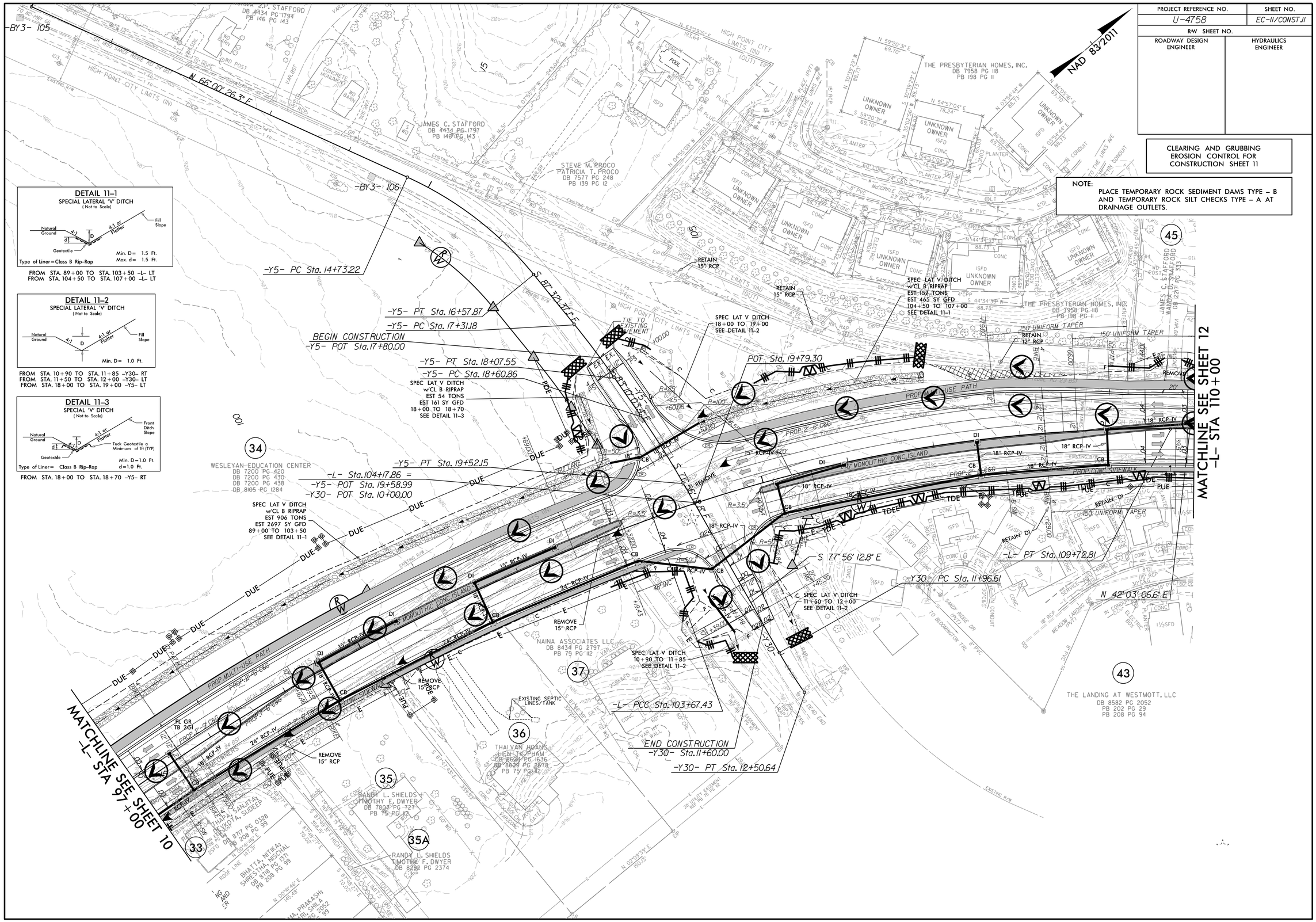
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.



PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-11/CONST.JI
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

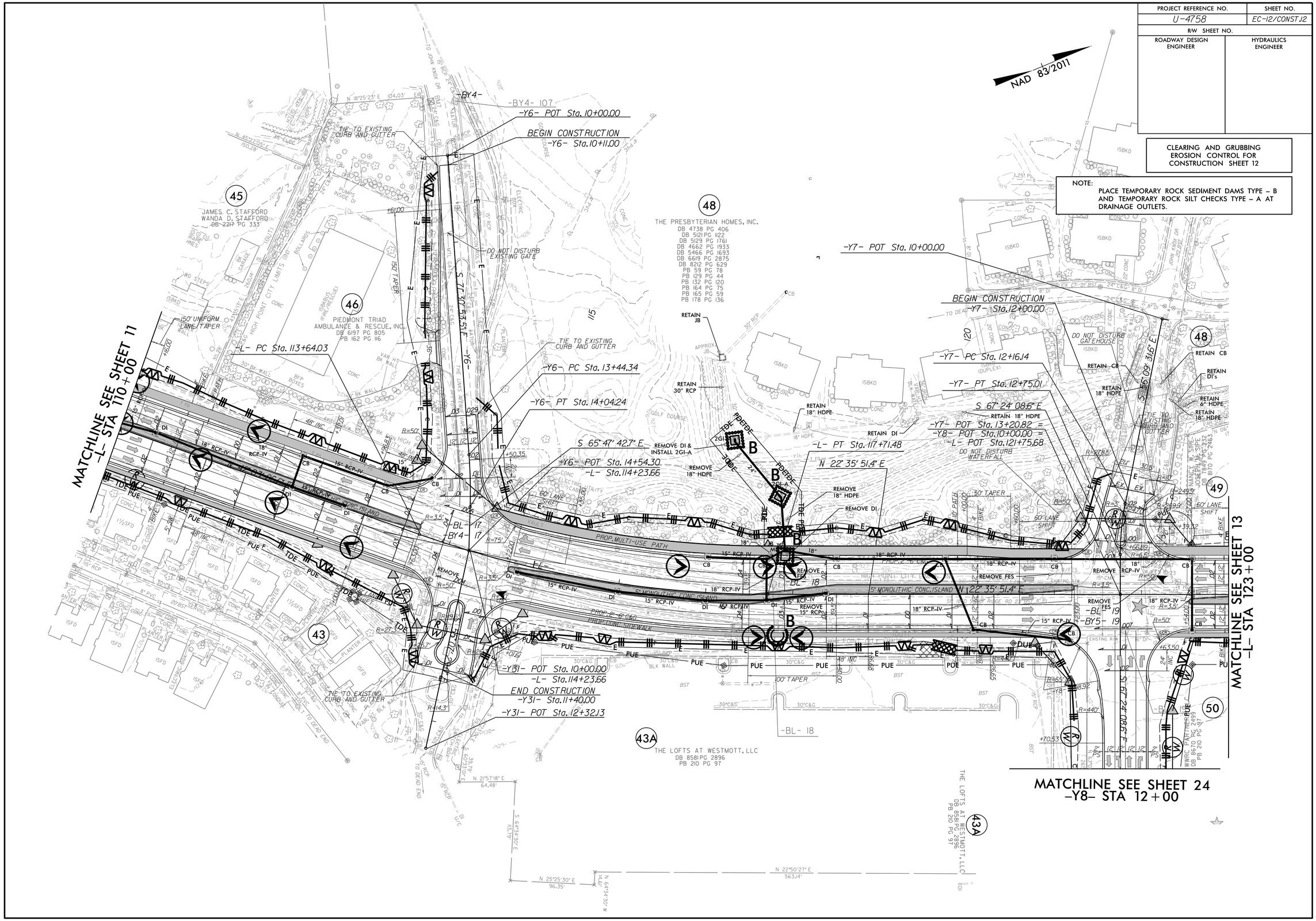
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.



PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-12/CONST J2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.



PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-13/CONST J3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13

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

DETAIL 13–1
STANDARD 2' BASE DITCH
(Not to Scale)

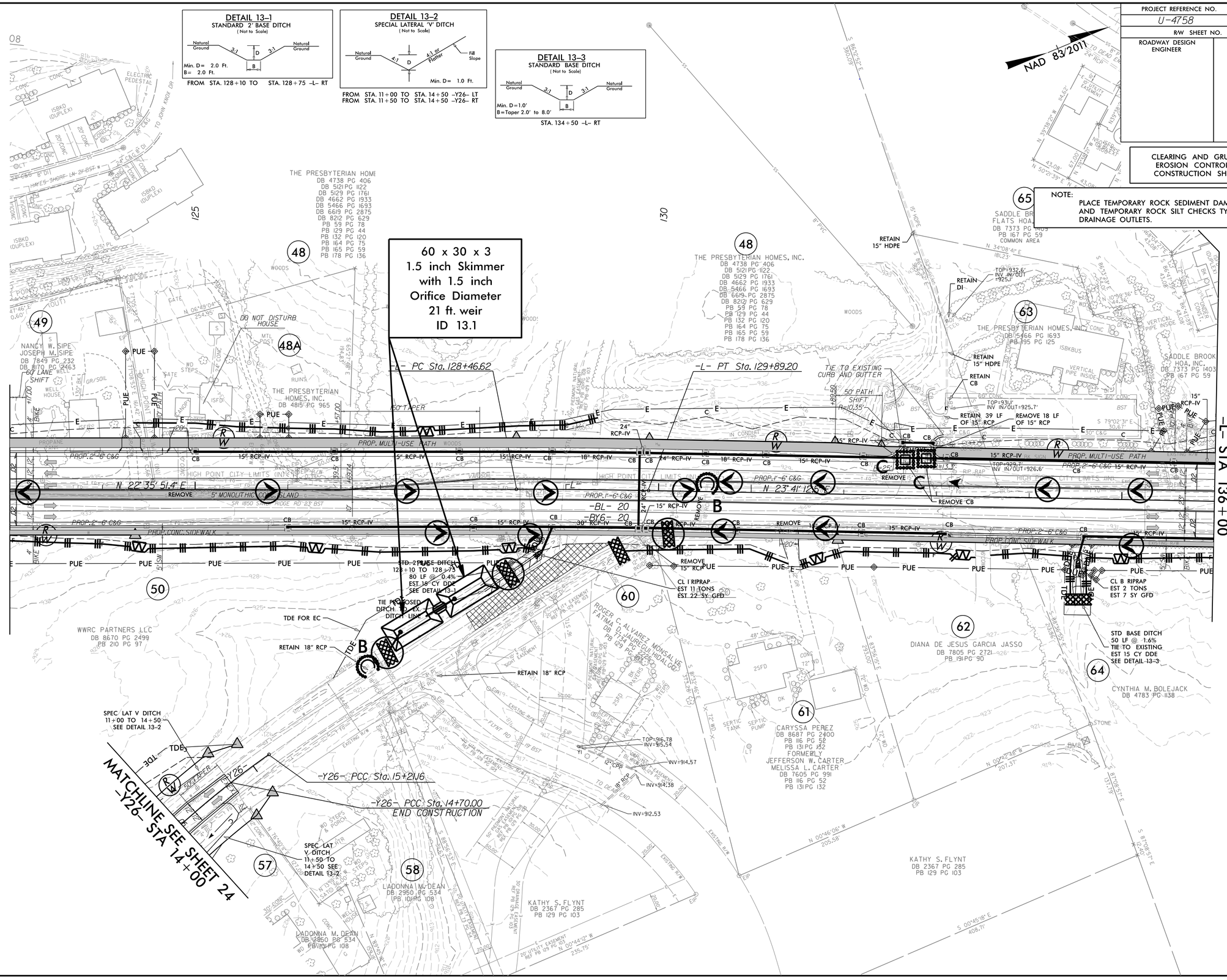
Min. D= 2.0 Ft.
B= 2.0 Ft.
FROM STA. 128+10 TO STA. 128+75 –L– RT

DETAIL 13–2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Min. D= 1.0 Ft.
FROM STA. 11+00 TO STA. 14+50 –Y26– LT
FROM STA. 11+50 TO STA. 14+50 –Y26– RT

DETAIL 13–3
STANDARD BASE DITCH
(Not to Scale)

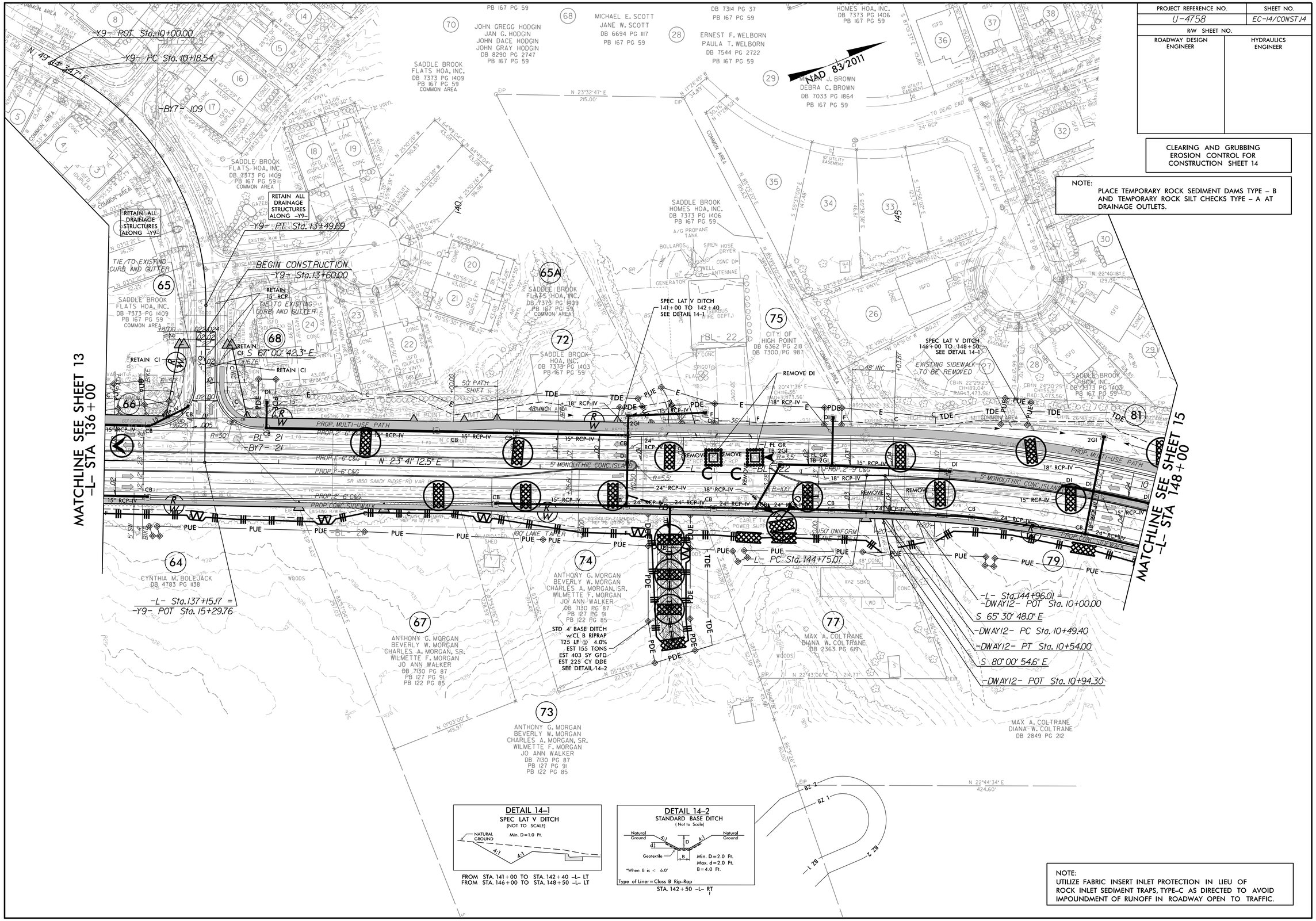
Min. D=1.0'
B=Taper 2.0' to 8.0'
STA. 134+50 –L– RT



PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-14/CONST.J4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14

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



DETAIL 14–1
SPEC LAT V DITCH
(NOT TO SCALE)

FROM STA. 141+00 TO STA. 142+40 –L– LT
FROM STA. 146+00 TO STA. 148+50 –L– LT

DETAIL 14–2
STANDARD BASE DITCH
(Not to Scale)

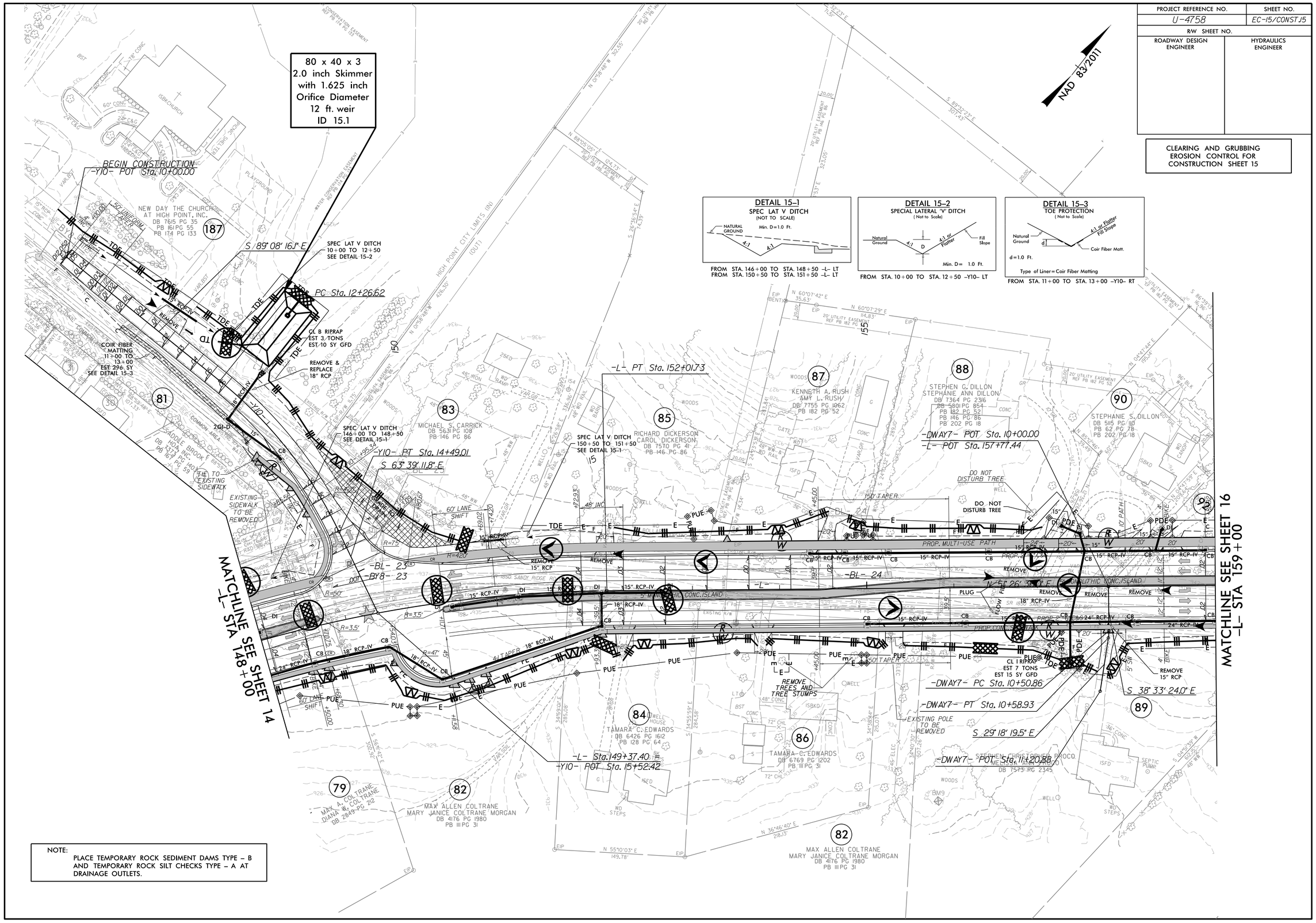
Type of Liner=Class B Rip-Rap

STA. 142+50 –L– RT

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-15/CONST J5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

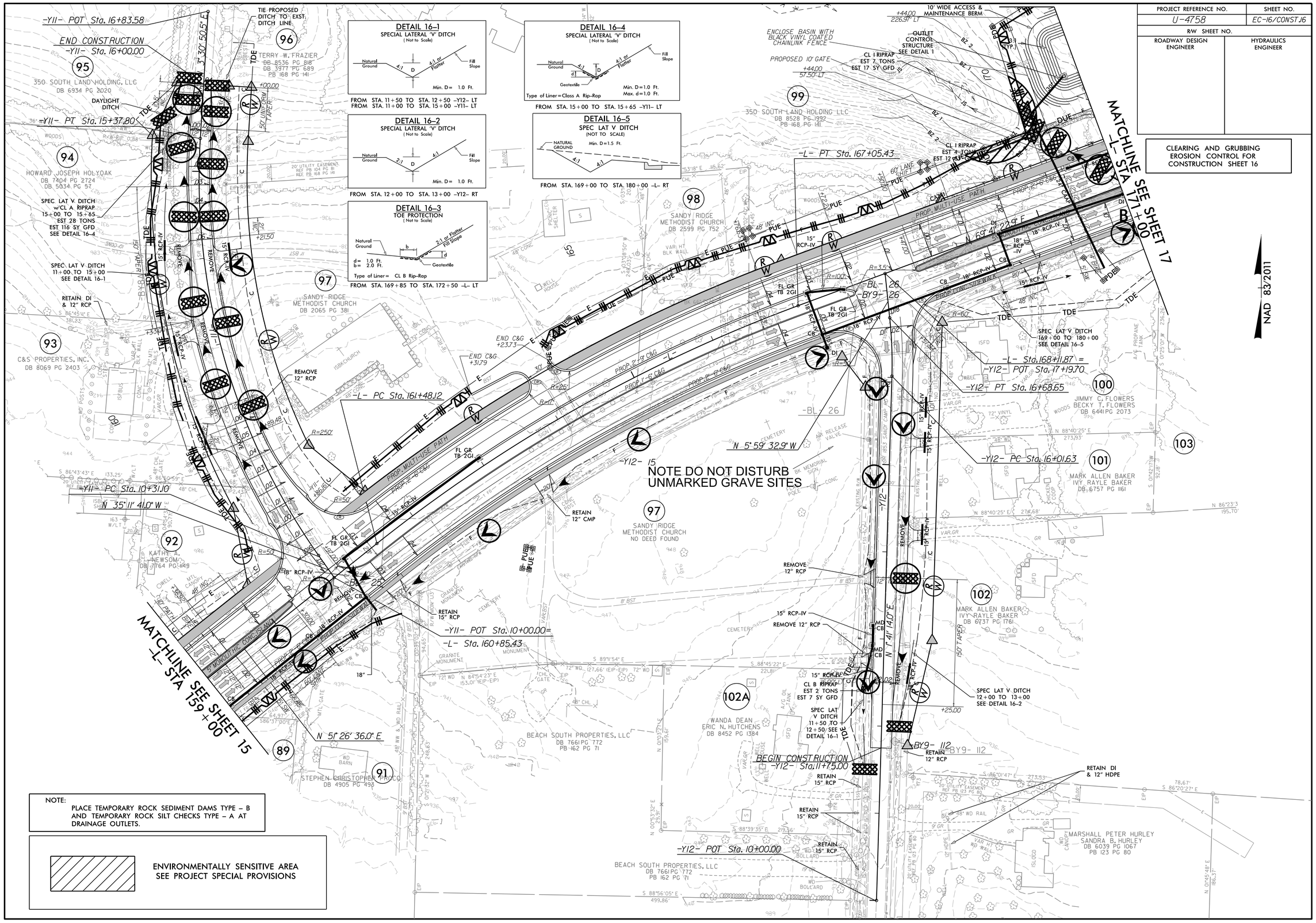
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15



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

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-16/CONST.16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 16



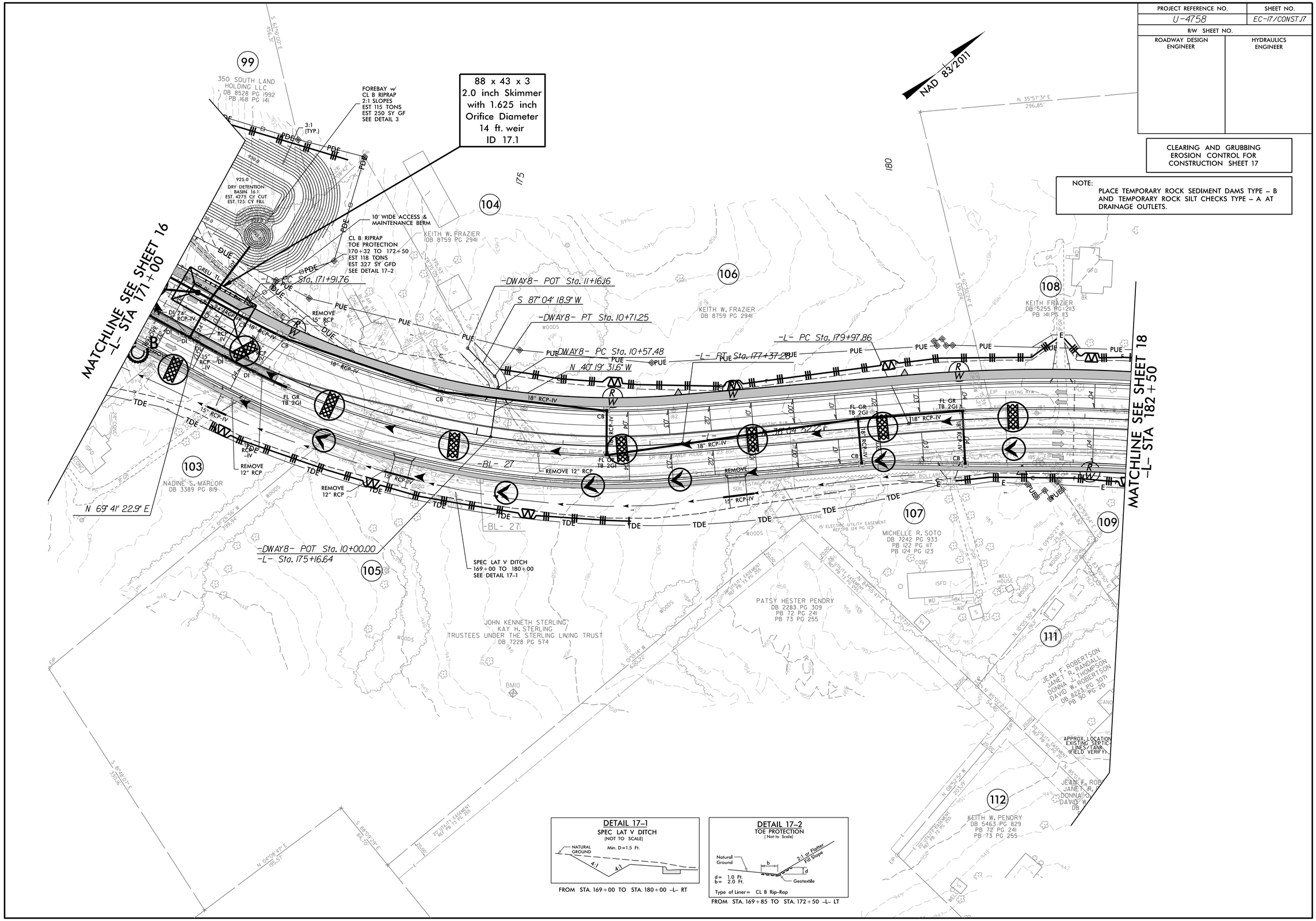
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-17/CONST.17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

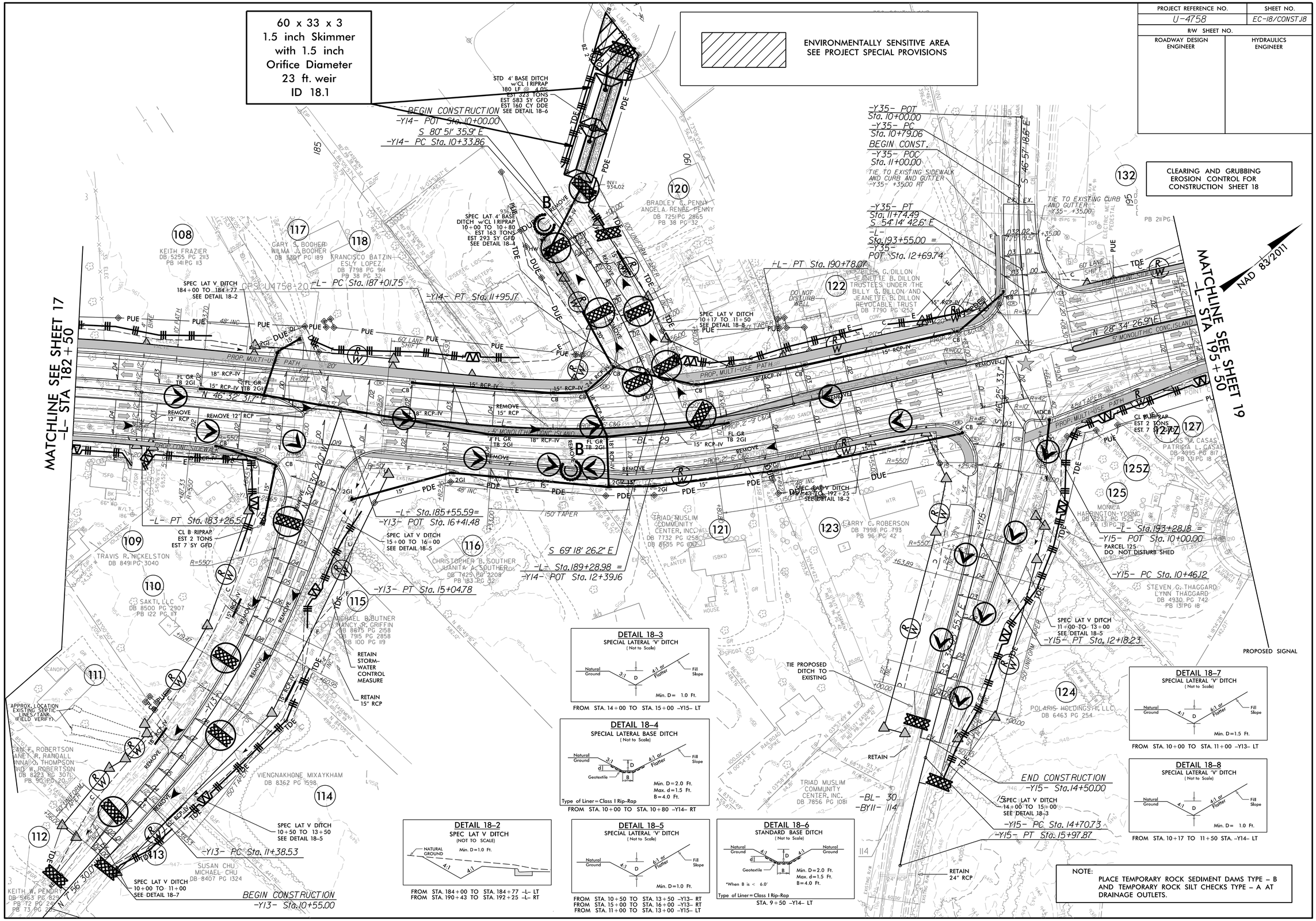


PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-18/CONST 18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

60 x 33 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
23 ft. weir
ID 18.1

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 18



DETAIL 18-3
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 4:1 or Flatter — Fill Slope
Min. D = 1.0 Ft.

FROM STA. 14+00 TO STA. 15+00 –Y15– LT

DETAIL 18-4
SPECIAL LATERAL BASE DITCH
(Not to Scale)

Natural Ground — 3:1 — d — D — B — 4:1 or Flatter — Fill Slope
Geotextile
Min. D = 2.0 Ft.
Max. d = 1.5 Ft.
B = 4.0 Ft.
Type of Liner = Class I Rip-Rap

FROM STA. 10+00 TO STA. 10+80 –Y14– RT

DETAIL 18-2
SPEC LAT V DITCH
(NOT TO SCALE)

NATURAL GROUND — 4:1 — 4:1
Min. D = 1.0 Ft.

FROM STA. 184+00 TO STA. 184+77 –L– LT
FROM STA. 190+43 TO STA. 192+25 –L– RT

DETAIL 18-5
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 4:1 — D — 6:1 or Flatter — Fill Slope
Min. D = 1.0 Ft.

FROM STA. 10+50 TO STA. 13+50 –Y13– RT
FROM STA. 15+00 TO STA. 16+00 –Y13– RT
FROM STA. 11+00 TO STA. 13+00 –Y15– LT

DETAIL 18-6
STANDARD BASE DITCH
(Not to Scale)

Natural Ground — 4:1 — d — D — B — 4:1 — Natural Ground
Geotextile
Min. D = 2.0 Ft.
Max. d = 1.5 Ft.
B = 4.0 Ft.
*When B is < 6.0'
Type of Liner = Class I Rip-Rap

STA. 9+50 –Y14– LT

DETAIL 18-7
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 4:1 — D — 6:1 or Flatter — Fill Slope
Min. D = 1.5 Ft.

FROM STA. 10+00 TO STA. 11+00 –Y13– LT

DETAIL 18-8
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 4:1 — D — 4:1 or Flatter — Fill Slope
Min. D = 1.0 Ft.

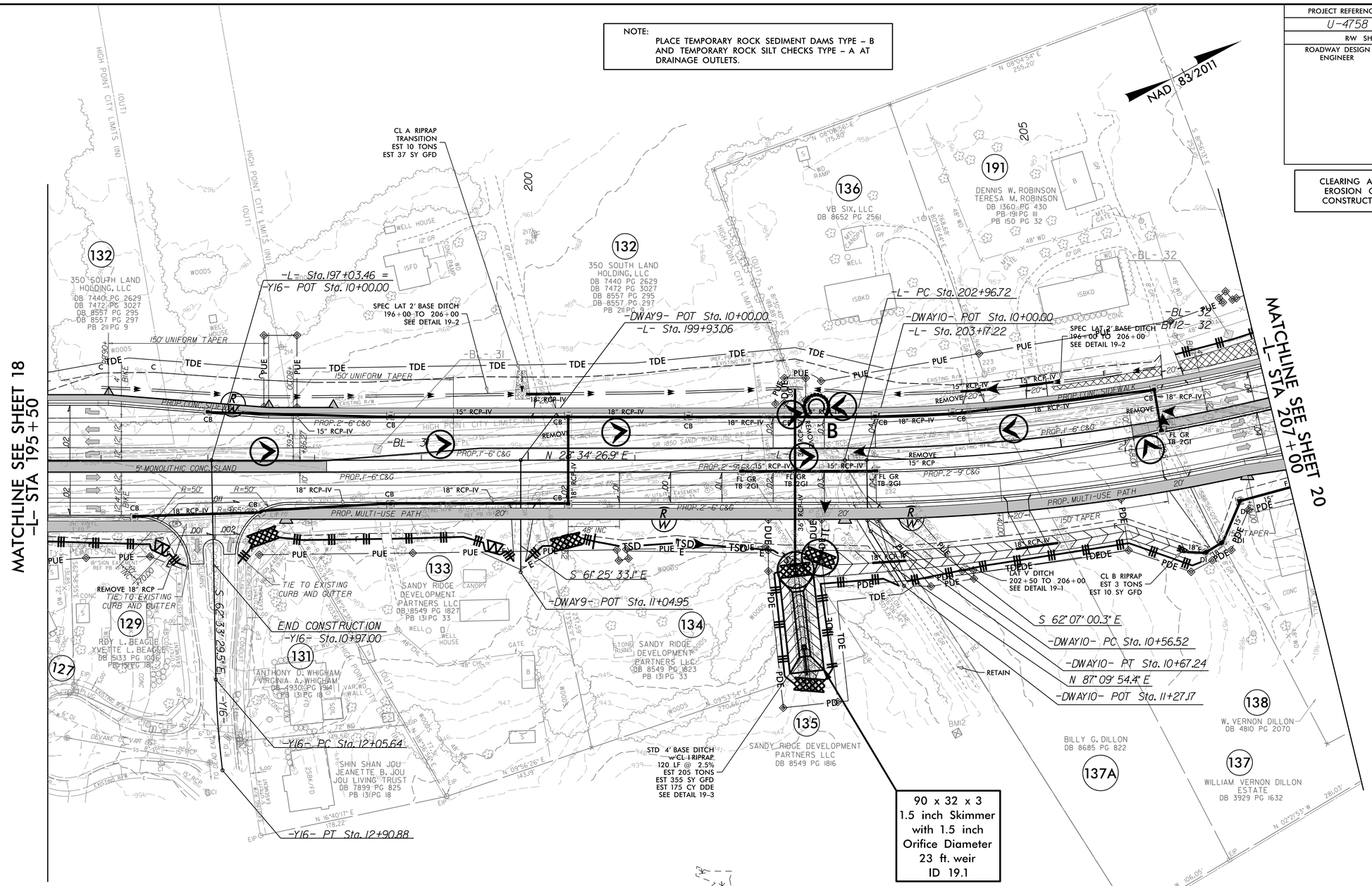
FROM STA. 10+17 TO 11+50 STA. –Y14– LT

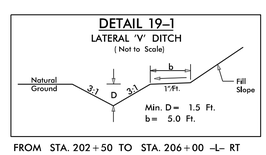
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-19/CONST.19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

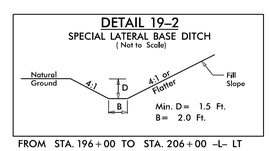
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 19

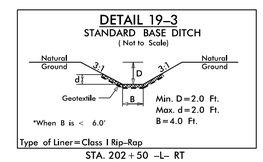




FROM STA. 202+50 TO STA. 206+00 -L- RT



FROM STA. 196+00 TO STA. 206+00 -L- LT



STA. 202+50 -L- RT

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-20/CONST.20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

Excavate Proposed Ditch according to Detail 20–1 from Sta. 211+25 to Sta. 215+00

NAD 83/2011

MATCHLINE SEE SHEET 21 –L– STA 216+00

MATCHLINE SEE SHEET 19 –L– STA 207+00

STD 4' BASE DITCH w/CL B RIPRAP
315 LF @ 2.6%
EST 257 TONS
EST 796 SY GFD
EST 870 CY DDE
SEE DETAIL 20–7

CL I RIPRAP
EST 11 TONS
EST 22 SY GFD

–Y17– POT Sta. 10+00.00
–L– Sta. 210+51.33

CL B RIPRAP
EST 3 TONS
EST 10 SY GFD

W 78° 08' 28.6" E

–Y17– PC Sta. 10+50.05

SPEC LAT V DITCH
11+00 TO 11+50
SEE DETAIL 20–4

SPEC LAT V DITCH
211+25 TO 215+00
SEE DETAIL 20–1

SPEC LAT V DITCH
215+50 TO 216+25
SEE DETAIL 20–2

REMOVE 22 LF OF 18" HDPE

CL B RIPRAP
EST 10 TONS
EST 10 SY GFD

–Y17– PRC Sta. 13+96.38

SPEC LAT V DITCH
12+50 TO 15+50
SEE DETAIL 20–3

CLASS B RIPRAP
DITCH LINER
14+00 TO 16+00
EST 155 TONS
EST 459 SY GFD
SEE DETAIL 20–8

–Y17– PT Sta. 16+03.00

SPEC LAT V DITCH
w/CL B RIPRAP
16+00 TO 17+30
EST 134 TONS
EST 372 SY GFD
SEE DETAIL 20–5

END CONSTRUCTION
–Y17– Sta. 17+00.00

–Y17– POT Sta. 17+65.69

TIE PROPOSED DITCH TO EXISTING

RETAIN EXISTING ASPHALT

RETAIN 15" RCP

139 JASON LEE ROBINSON
MELISSA BREWER ROBINSON
DB 7810 PG 1856
PB 191 PG 111

146 DENNIS W. ROBINSON
TERESA M. ROBINSON
DB 4268 PG 493
PB 72 PG 340

149

148

147 HERBERT N. SAMPSON, JR.
DB 4064 PG 362
PB 44 PG 34

145 SCR PROPERTIES, LLC
DB 8343 PG 1564
PB 202 PG 66

BETTY C. SAMPSON
DB 4899 PG 1367
PB 154 PG 59
PB 44 PG 34

144Z

144 KEITH D. PEEDEN
DB 7254 PG 100
PB 154 PG 58
PB 199 PG 33

143 JOSE M. MARTINEZ-GUEVARA
ELBA N. GRANADOS
DB 8389 PG 162
PB 111 PG 95

142 EDDIE W. BATES
SHARON T. BATES
DB 3271 PG 686

141 GENE B. PITTS
OMA LOU PITTS
DB 2812 PG 838
DB 3656 PG 1656

140

138 W. VERNON DILLON
DB 4810 PG 2070

191

ELIZABETH M. PARKER
DB 3412 PG 1352
PB 72 PG 233

EDDIE W. BATES
SHARON T. BATES
DB 3271 PG 686
PB 72 PG 233

DETAIL 20–1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground; 3:1; D; 4:1 or Flatter; Fill Slope

Min. D = 1.0 Ft.

FROM STA. 211+25 TO STA. 215+00 –L– RT

DETAIL 20–7
STANDARD BASE DITCH
(Not to Scale)

Natural Ground; 3:1; D; 3:1; Natural Ground; d; Geotextile; B

Min. D = 2.0 Ft.
Max. d = 1.5 Ft.
B = 4.0 Ft.

*When B is < 6.0'

Type of Liner = Class B Rip-Rap

STA. 215+30 –L– LT

DETAIL 20–2
SPEC LAT V DITCH
(NOT TO SCALE)

NATURAL GROUND; 4:1; 4:1

Min. D = 1.0 Ft.

FROM STA. 215+50 TO STA. 216+25 –L– RT

DETAIL 20–4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground; 6:1; D; 6:1 or Flatter; Fill Slope

Min. D = 1.0 Ft.

FROM STA. 11+00 TO STA. 11+50 –Y17– LT

DETAIL 20–3
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground; 4:1; D; 6:1 or Flatter; Fill Slope

Min. D = 1.0 Ft.

FROM STA. 12+50 TO STA. 15+50 –Y17– RT

DETAIL 20–5
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground; 4:1; D; d; Geotextile; 6:1 or Flatter; Fill Slope

Min. D = 1.5 Ft.
Max. d = 1.5 Ft.

Type of Liner = Class B Rip-Rap

FROM STA. 16+00 TO STA. 17+30 –Y17– LT

DETAIL 20–6
STANDARD BASE DITCH
(Not to Scale)

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

Min. D = 2.0 Ft.
Max. d = 2.0 Ft.
B = 4.0 Ft.

*When B is < 6.0'

Type of Liner = Class I Rip-Rap

STA. 213+10 –L– LT

DETAIL 20–8
TYP. ROADWAY DITCH
(Not to Scale)

Natural Ground; 4:1; D; 6:1; Front Ditch Slope; d; Geotextile

Min. D = 1.5 Ft.
Max. d = 1.0 Ft.

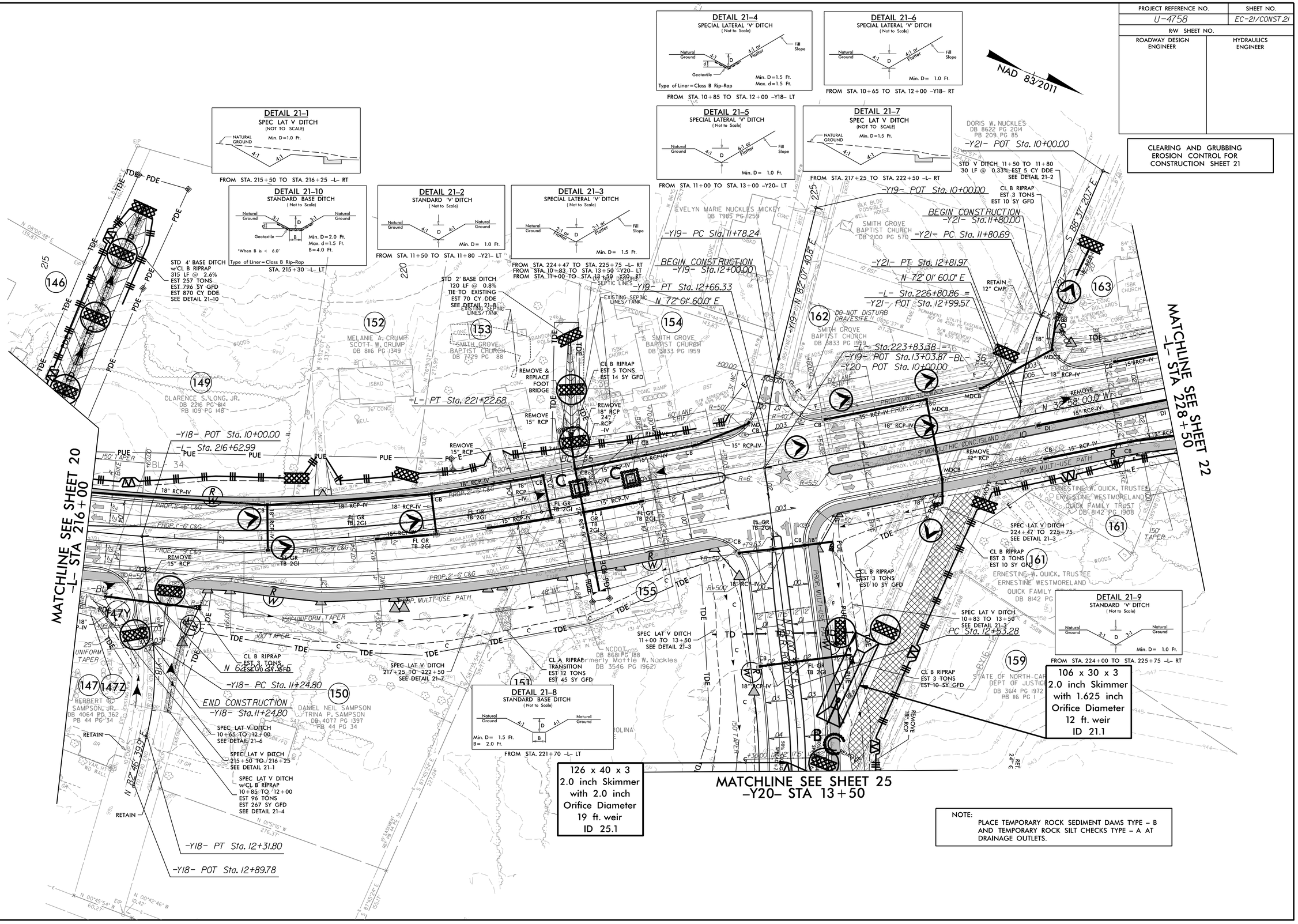
Type of Liner = Class B Rip-Rap

FROM STA. 14+00 TO STA. 16+00 –Y17– LT

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-21/CONST.21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 21

NAD 83/2011

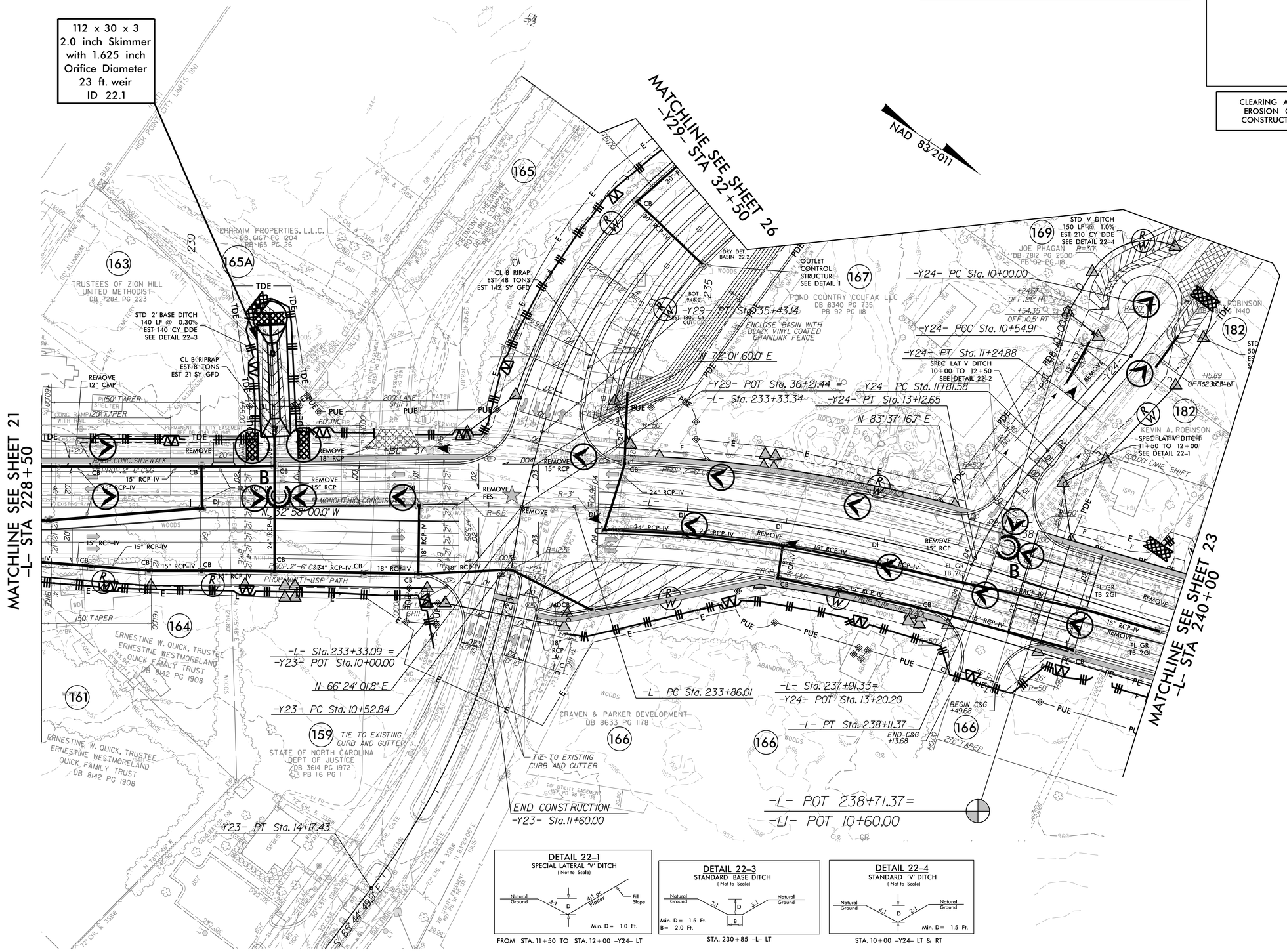


NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-22/CONST.22
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 22

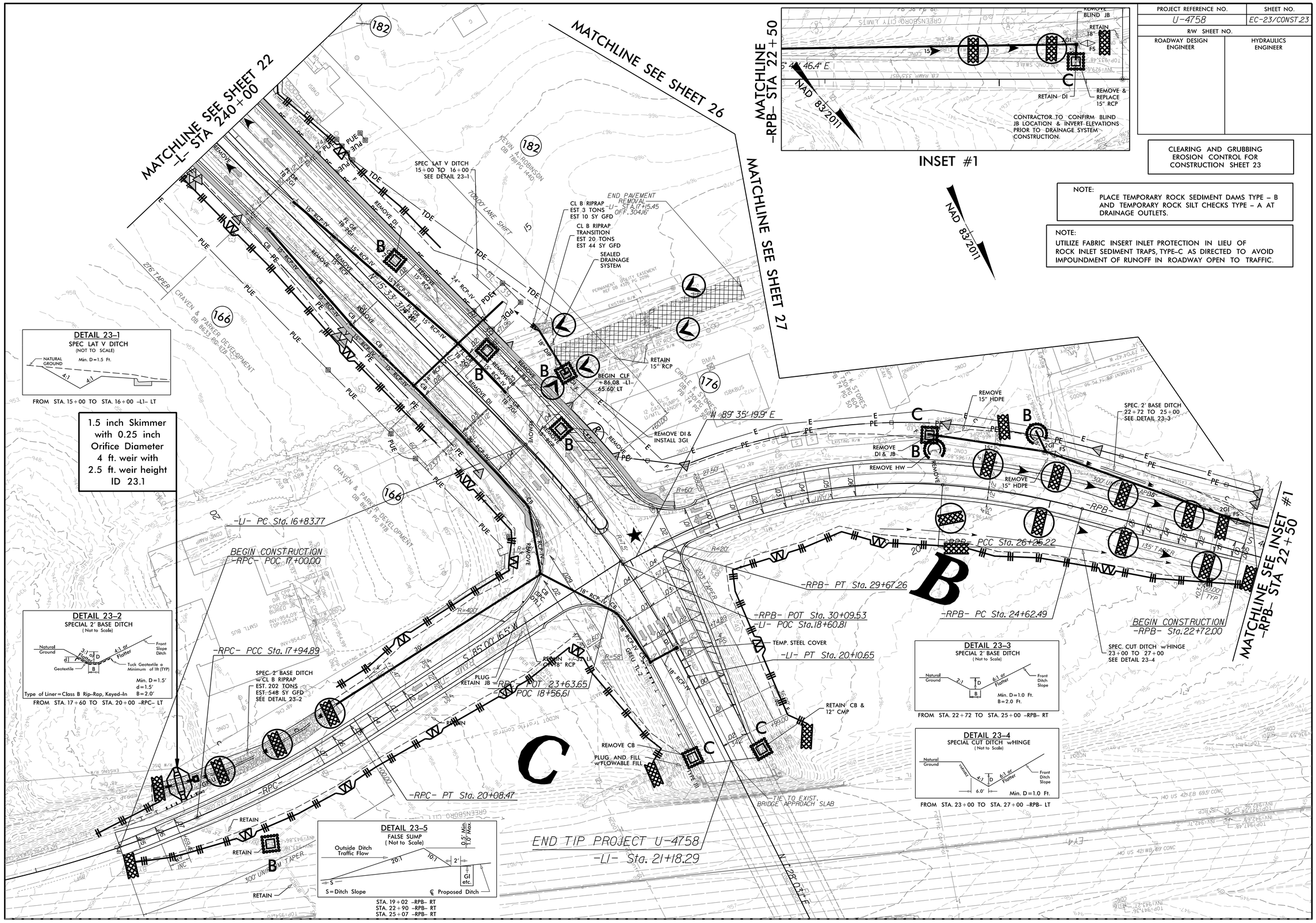


PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-23/CONST.23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 23

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

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE–C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.



DETAIL 23–1
SPEC LAT V DITCH
(NOT TO SCALE)
NATURAL GROUND
Min. D=1.5 Ft.
4:1
4:1
FROM STA. 15+00 TO STA. 16+00 –L1– LT

1.5 inch Skimmer
with 0.25 inch
Orifice Diameter
4 ft. weir with
2.5 ft. weir height
ID 23.1

DETAIL 23–2
SPECIAL 2' BASE DITCH
(Not to Scale)
Natural Ground
3:1 or Flatter
4:1 or Flatter
Front Slope Ditch
Geotextile
Tuck Geotextile a Minimum of 1ft (TYP)
Min. D=1.5'
d=1.5'
B=2.0'
Type of Liner=Class B Rip–Rap, Keyed–In
FROM STA. 17+60 TO STA. 20+00 –RPC– LT

DETAIL 23–3
SPECIAL 2' BASE DITCH
(Not to Scale)
Natural Ground
2:1
6:1 or Flatter
Front Ditch Slope
Min. D=1.0 Ft.
B=2.0 Ft.
FROM STA. 22+72 TO STA. 25+00 –RPB– RT

DETAIL 23–4
SPECIAL CUT DITCH w/HINGE
(Not to Scale)
Natural Ground
4:1
6:1 or Flatter
Front Ditch Slope
6.0'
Min. D=1.0 Ft.
FROM STA. 23+00 TO STA. 27+00 –RPB– LT

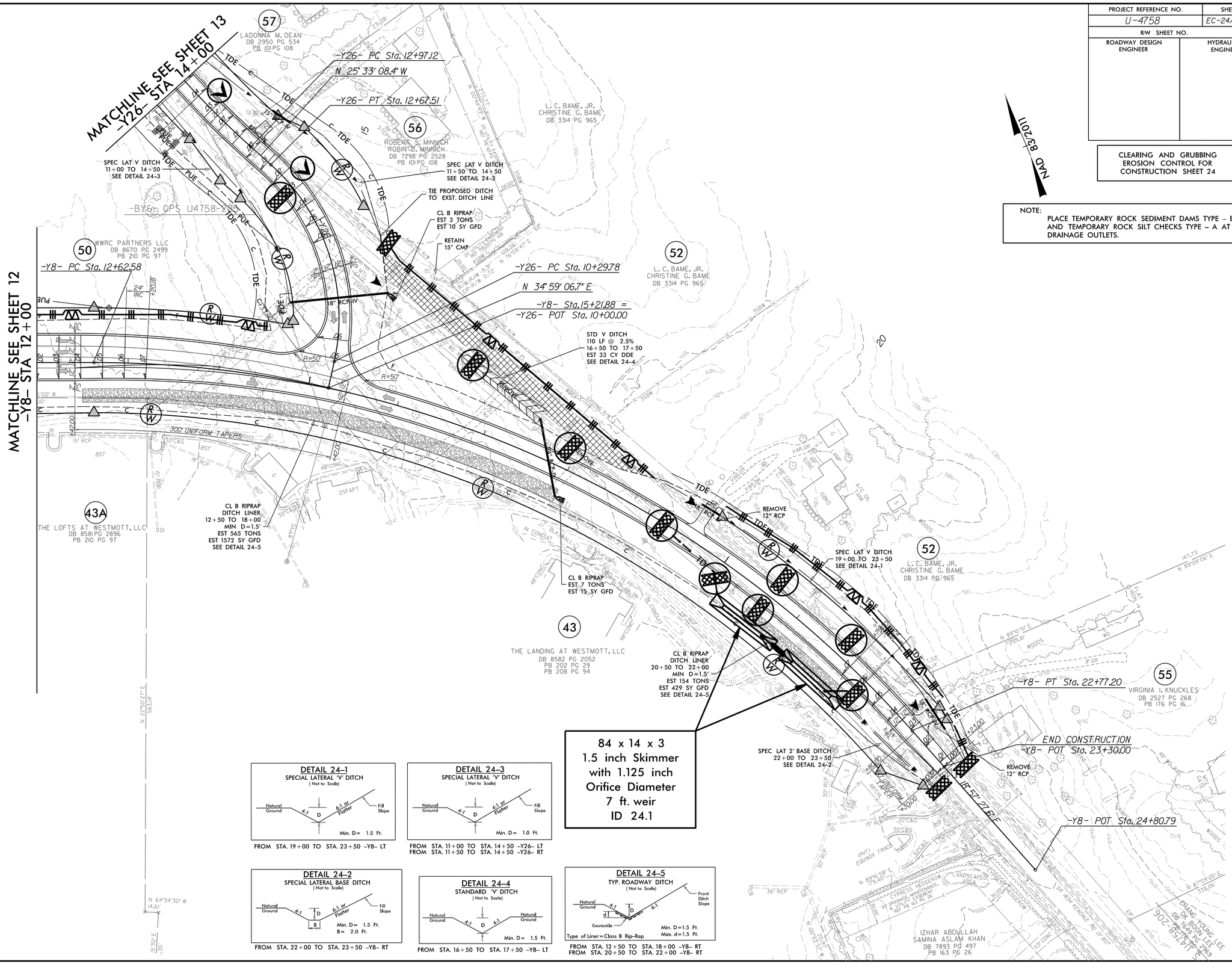
DETAIL 23–5
FALSE SUMP
(Not to Scale)
0.5' Min. 1.0' Max.
Outside Ditch Traffic Flow
20:1
10:1
2'
GI etc.
S
S=Ditch Slope
℄ Proposed Ditch
STA. 19+02 –RPB– RT
STA. 22+90 –RPB– RT
STA. 25+07 –RPB– RT

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-24/CONST.24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

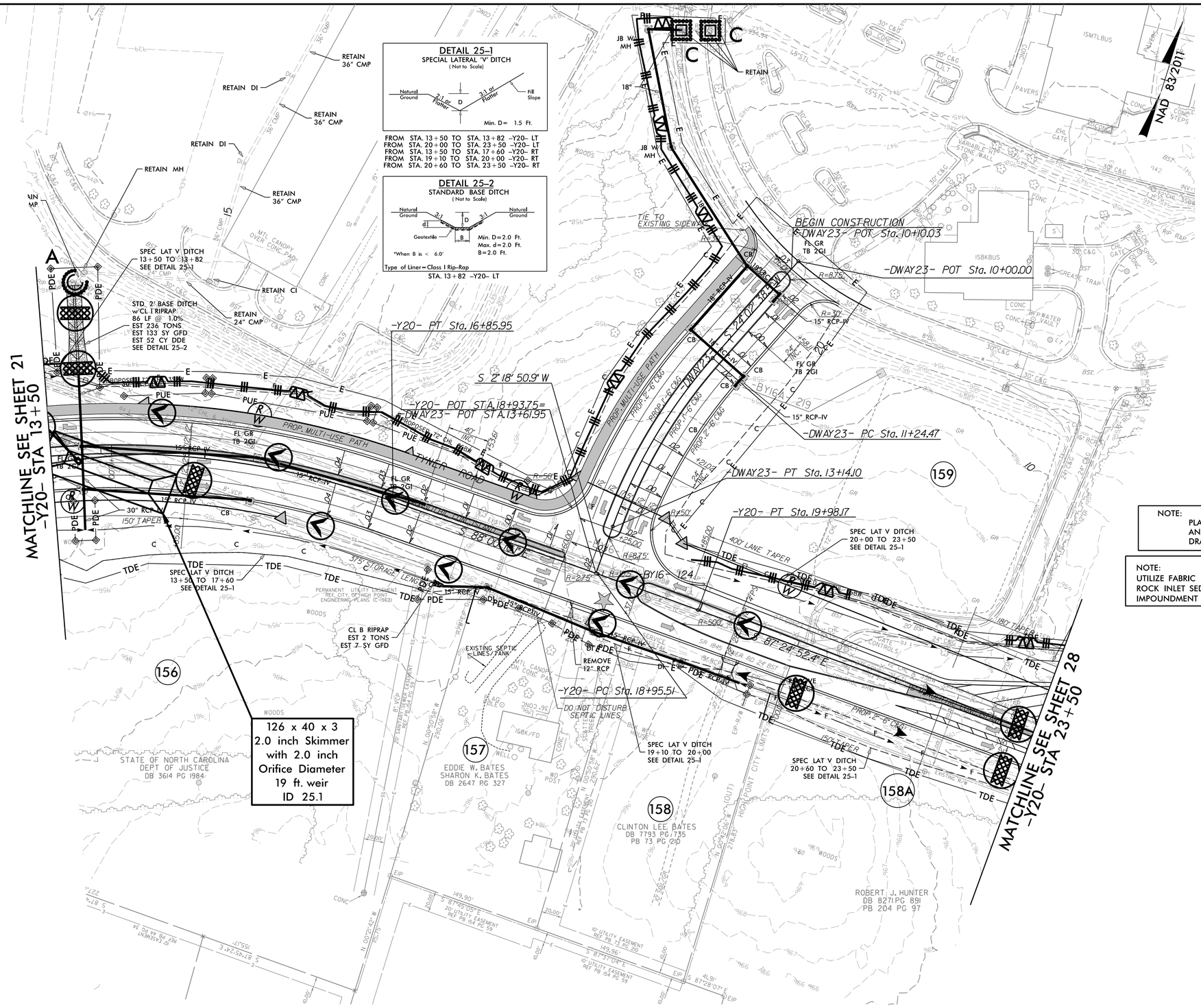
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 24

NAD 83/2011

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



PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-25/CONST.25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



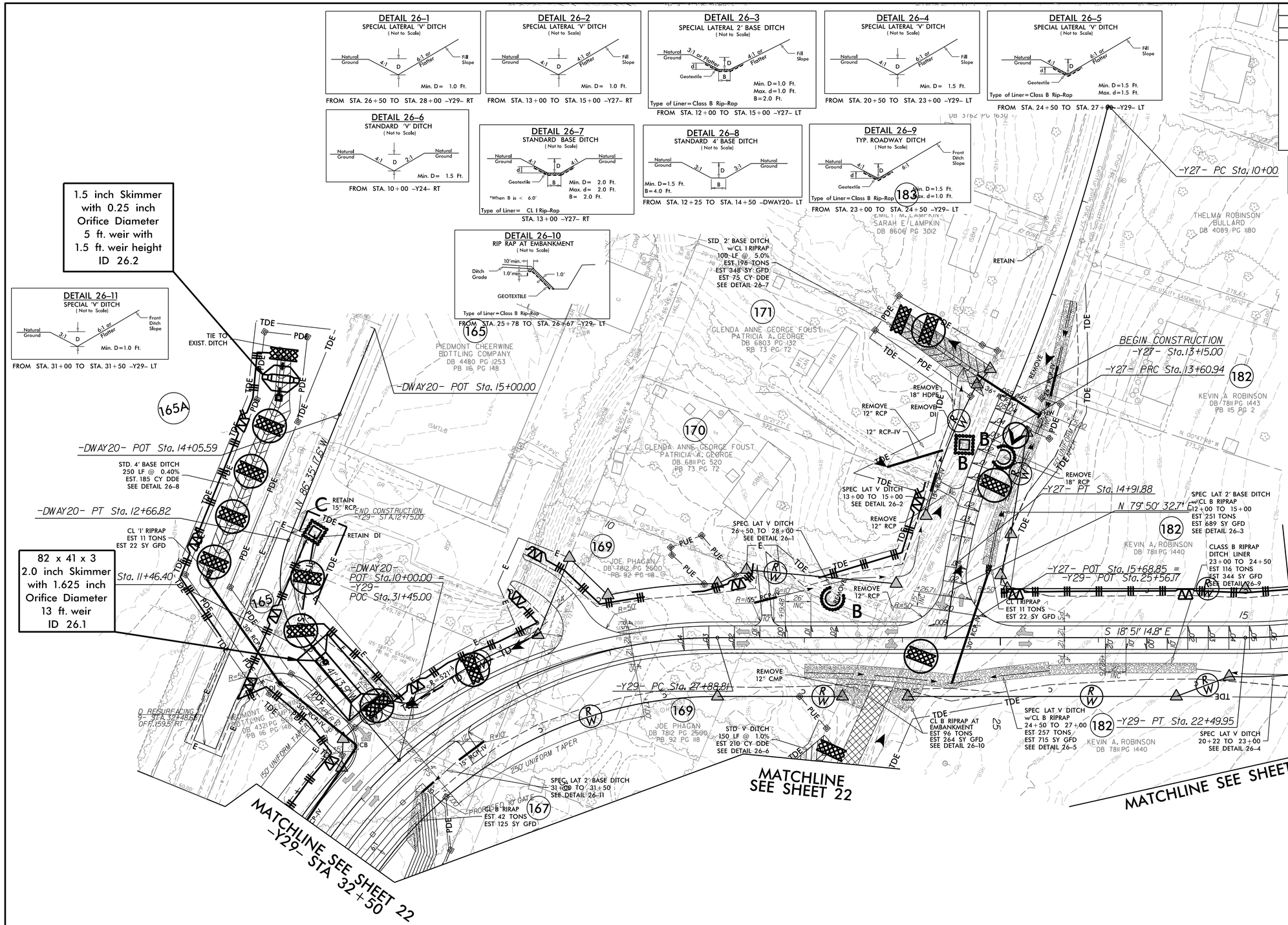
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 25

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

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE–C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-26/CONST.26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

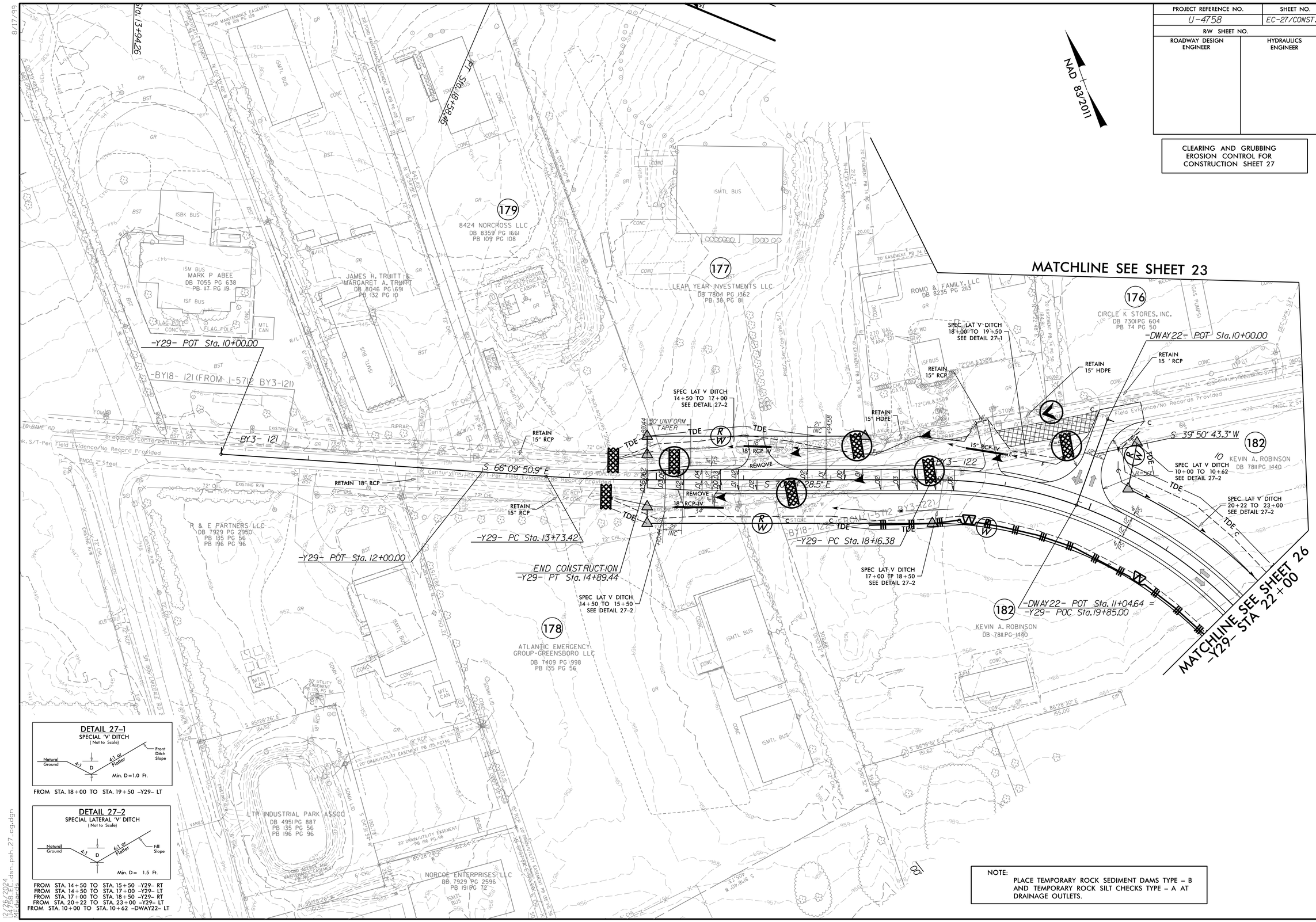
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 26



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

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-27/CONST.27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 27



DETAIL 27–1

SPECIAL 'V' DITCH
(Not to Scale)

Min. D = 1.0 Ft.

FROM STA. 18 + 00 TO STA. 19 + 50 –Y29– LT

DETAIL 27–2

SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Min. D = 1.5 Ft.

FROM STA. 14 + 50 TO STA. 15 + 50 –Y29– RT
FROM STA. 14 + 50 TO STA. 17 + 00 –Y29– LT
FROM STA. 17 + 00 TO STA. 18 + 50 –Y29– RT
FROM STA. 20 + 22 TO STA. 23 + 00 –Y29– LT
FROM STA. 10 + 00 TO STA. 10 + 62 –DWAY22– LT

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

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12/26/2024
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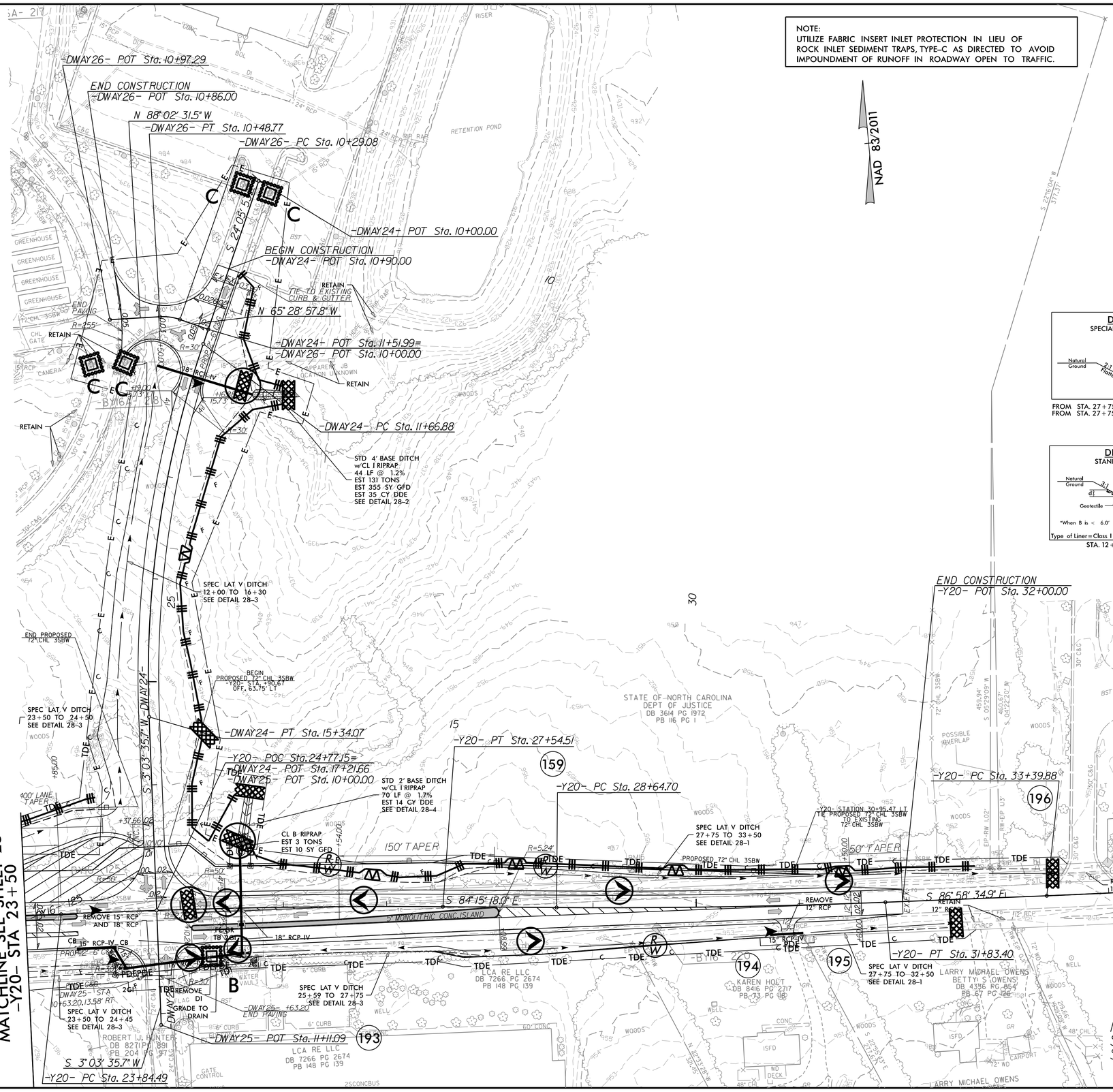
PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-27A/CONST.28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 28

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

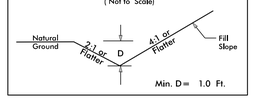
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NAD 83/2011



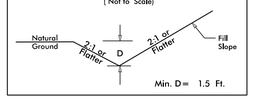
NOTE: SEE SHEET 43 FOR -Y20- PROFILE
SEE SHEET 49 FOR -DWAY24- PROFILE
SEE SHEET 49 FOR -DWAY26- PROFILE

DETAIL 28-1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



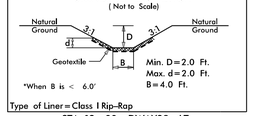
FROM STA. 27+75 TO STA. 33+50 -Y20- LT
FROM STA. 27+75 TO STA. 32+50 -Y20- RT

DETAIL 28-3
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



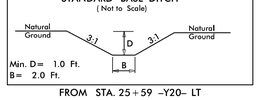
FROM STA. 12+00 TO STA. 16+30 -DWAY24- RT
FROM STA. 23+50 TO STA. 24+50 -Y20- LT
FROM STA. 23+50 TO STA. 24+45 -Y20- RT
FROM STA. 25+59 TO STA. 27+75 -Y20- RT

DETAIL 28-2
STANDARD BASE DITCH
(Not to Scale)



Type of Liner = Class I Rip-Rap
STA. 12+00 -DWAY23- LT

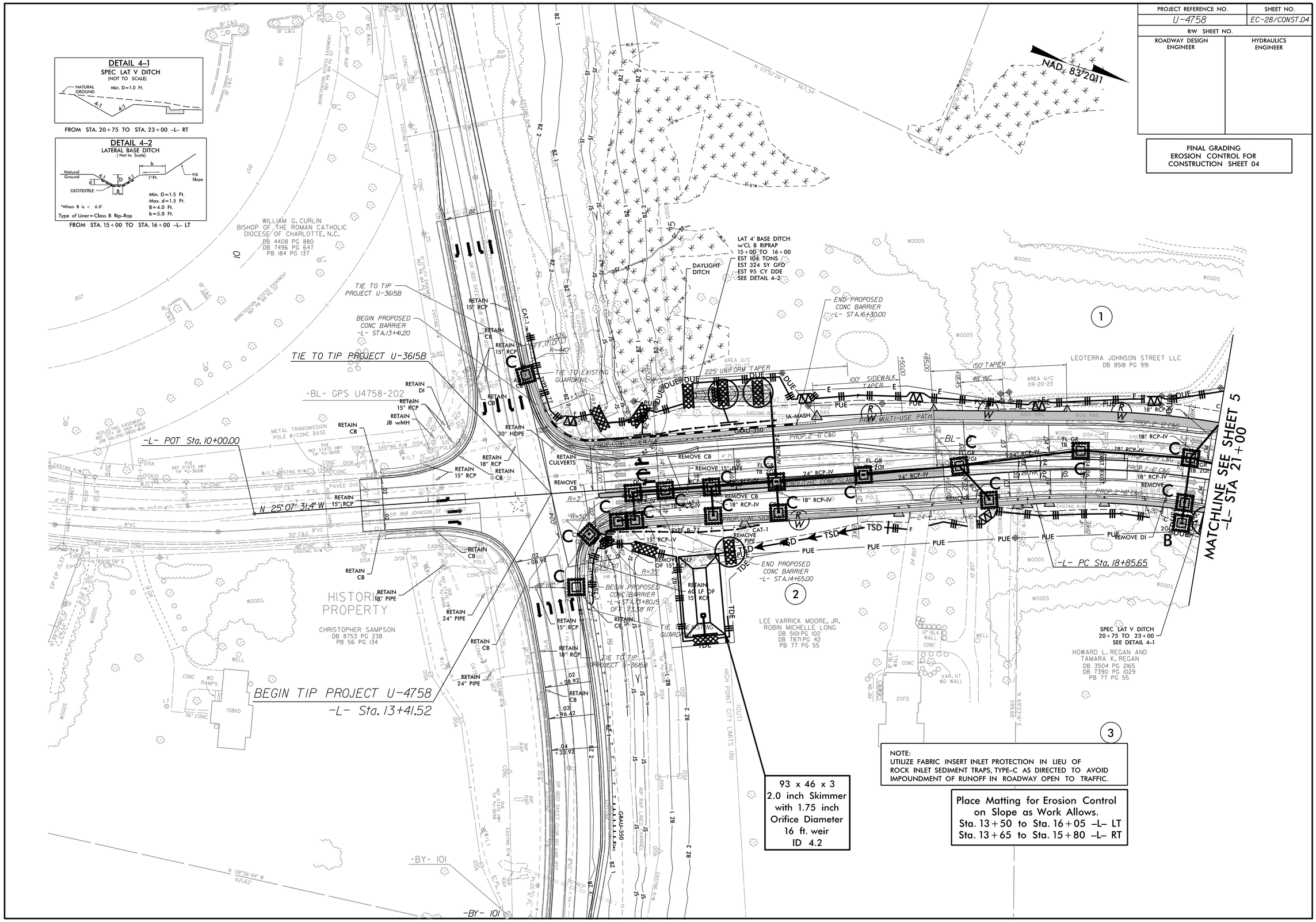
DETAIL 28-4
STANDARD BASE DITCH
(Not to Scale)



FROM STA. 25+59 -Y20- LT

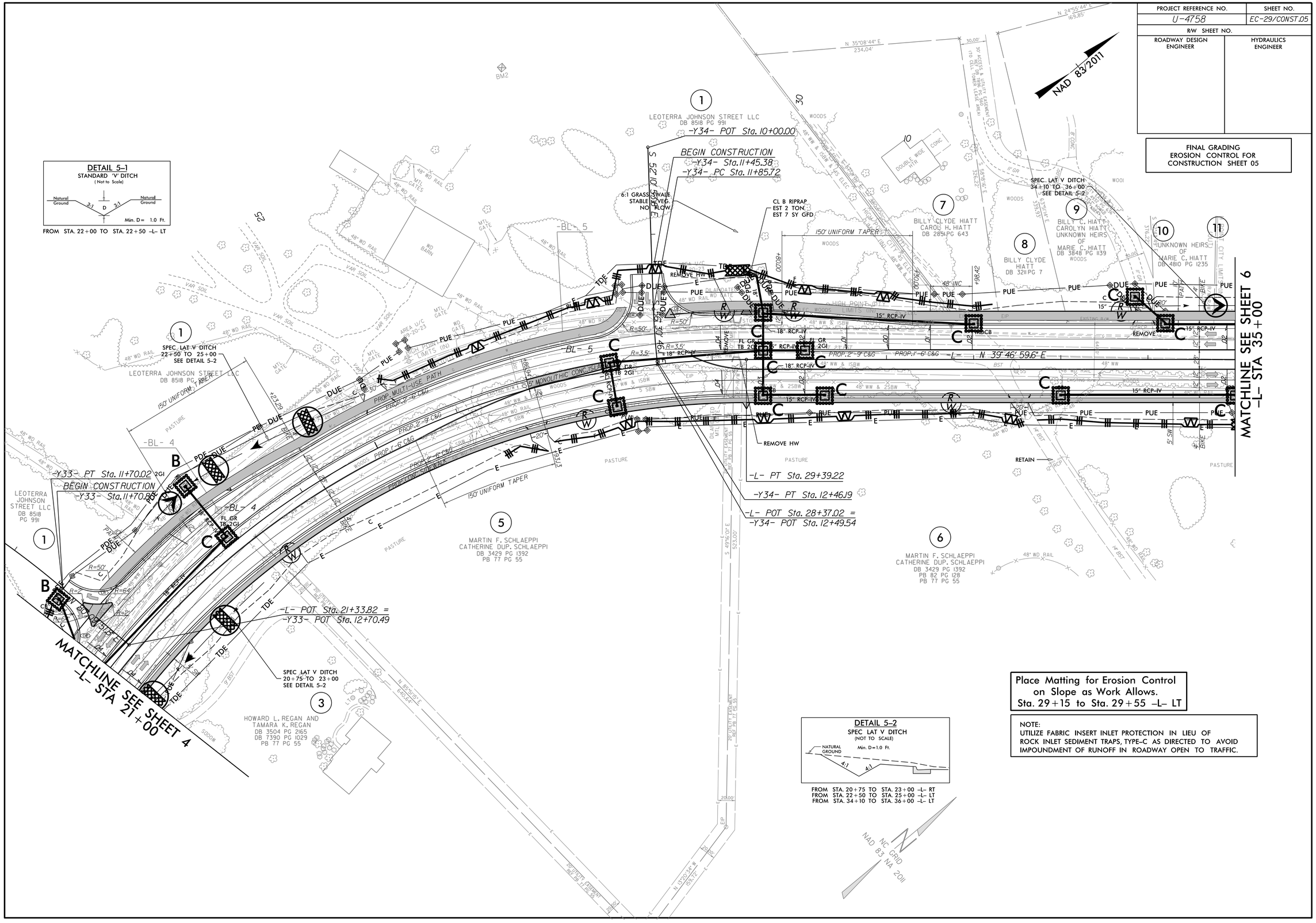
PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-28/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04



PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-29/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

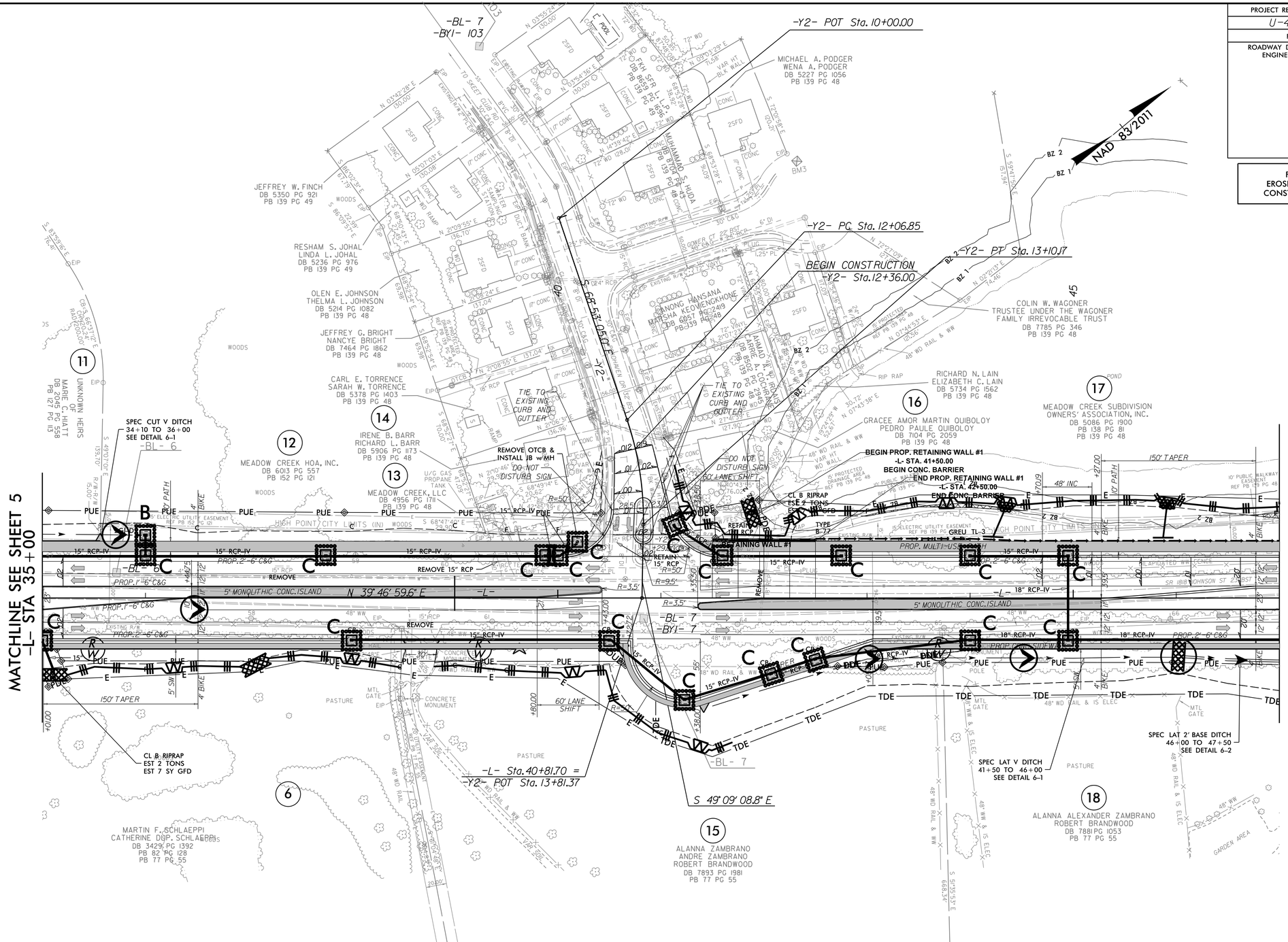


Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 29+15 to Sta. 29+55 -L- LT

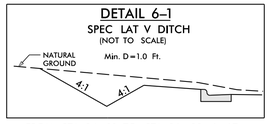
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-30/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06

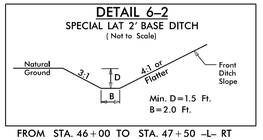


DETAIL 6-1
SPEC LAT V DITCH
(NOT TO SCALE)



FROM STA. 34+10 TO STA. 36+00 -L- LT
FROM STA. 41+50 TO STA. 46+00 -L- RT

DETAIL 6-2
SPECIAL LAT 2' BASE DITCH
(Not to Scale)



FROM STA. 46+00 TO STA. 47+50 -L- RT

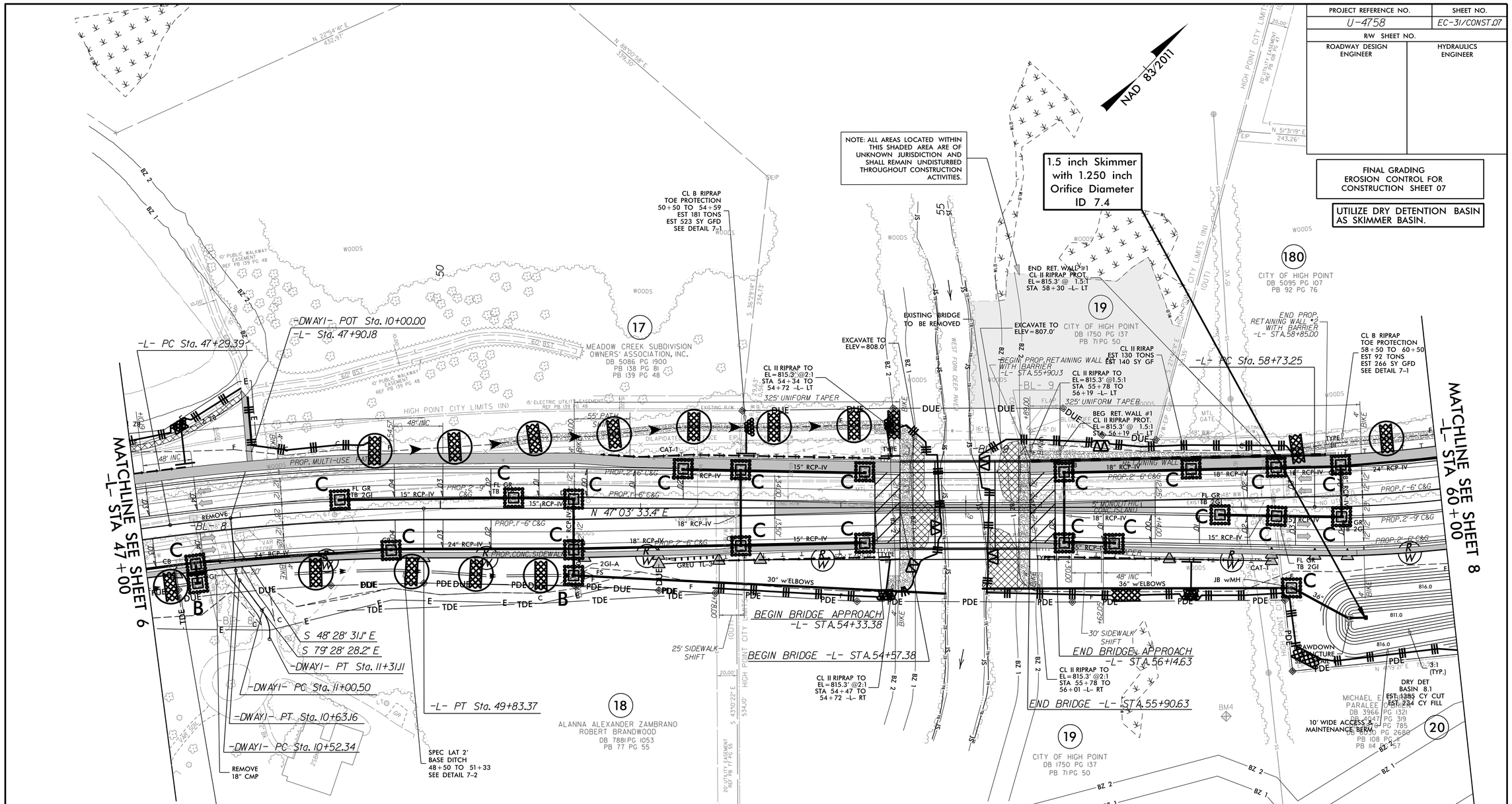
Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 42+50 to Sta. 47+00 -L- LT

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

PROJECT REFERENCE NO.	SHEET NO.
U-4758	EC-31/CONST.07
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07

UTILIZE DRY DETENTION BASIN AS SKIMMER BASIN.

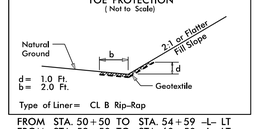


NOTE: UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

Place Matting for Erosion Control on Slope as Work Allows.
Sta. 47+00 to Sta. 47+50 -L- LT
Sta. 51+60 to Sta. 54+50 -L- LT
Sta. 52+75 to Sta. 54+50 -L- RT
Sta. 56+00 to Sta. 58+00 -L- RT

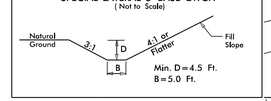
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

DETAIL 7-1
TOE PROTECTION
(Not to Scale)



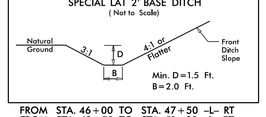
Type of Liner= CL B Rip-Rap
FROM STA. 50+50 TO STA. 54+59 -L- LT
FROM STA. 58+50 TO STA. 60+50 -L- LT

DETAIL 7-3
SPECIAL LATERAL 5' BASE DITCH
(Not to Scale)

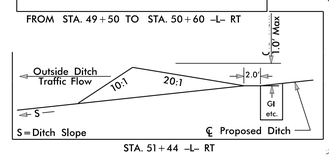


FROM STA. 49+50 TO STA. 50+60 -L- RT

DETAIL 7-2
SPECIAL LAT 2' BASE DITCH
(Not to Scale)



FROM STA. 46+00 TO STA. 47+50 -L- RT
FROM STA. 48+50 TO STA. 49+88 -L- RT



STA. 51+44 -L- RT