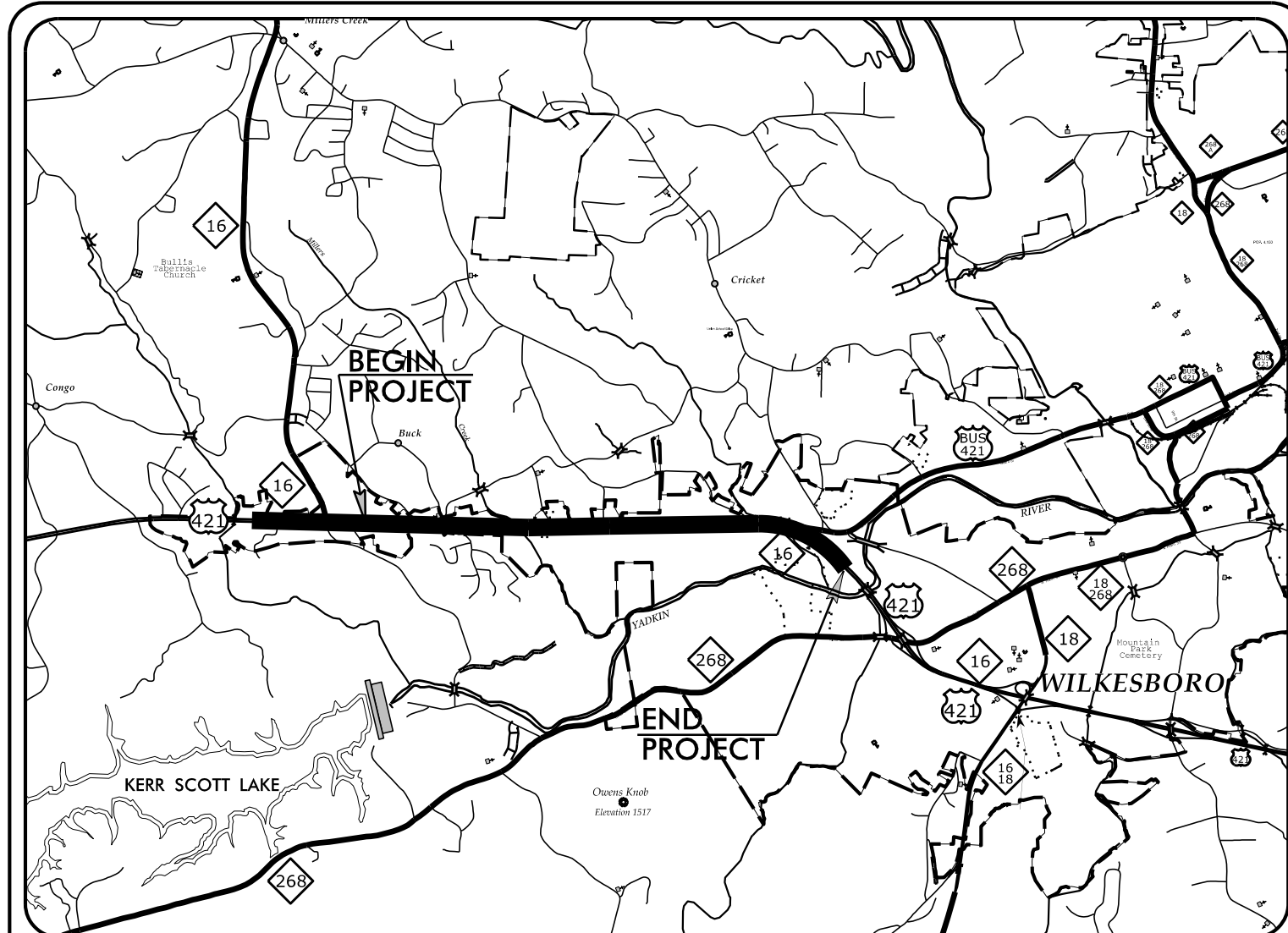


TIP PROJECT: U-5312

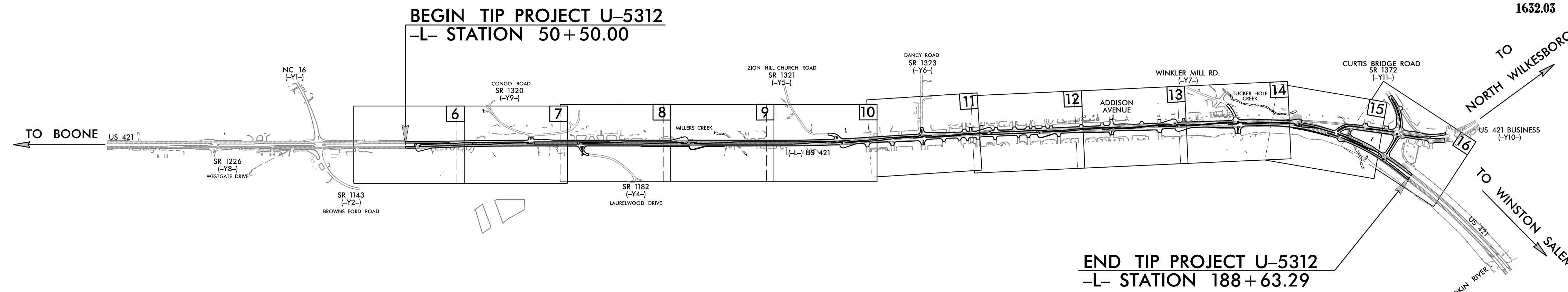


VICINITY MAP
NOT TO SCALE

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

LOCATION: US 421 FROM NC 16 TO US 421 BUSINESS IN WILKESBORO

TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES,
SIGNING, SIGNALS, AND ITS



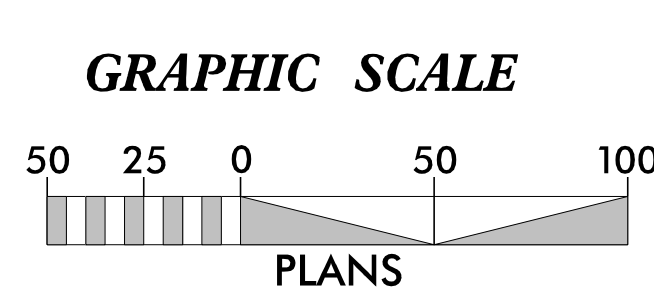
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	▲▲▲▲▲
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	W
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	W
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	U
1635.02	Rock Pipe Inlet Sediment Trap Type-B	U
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.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT
Refer To E. C. Special Provisions for Special Considerations.



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER 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.

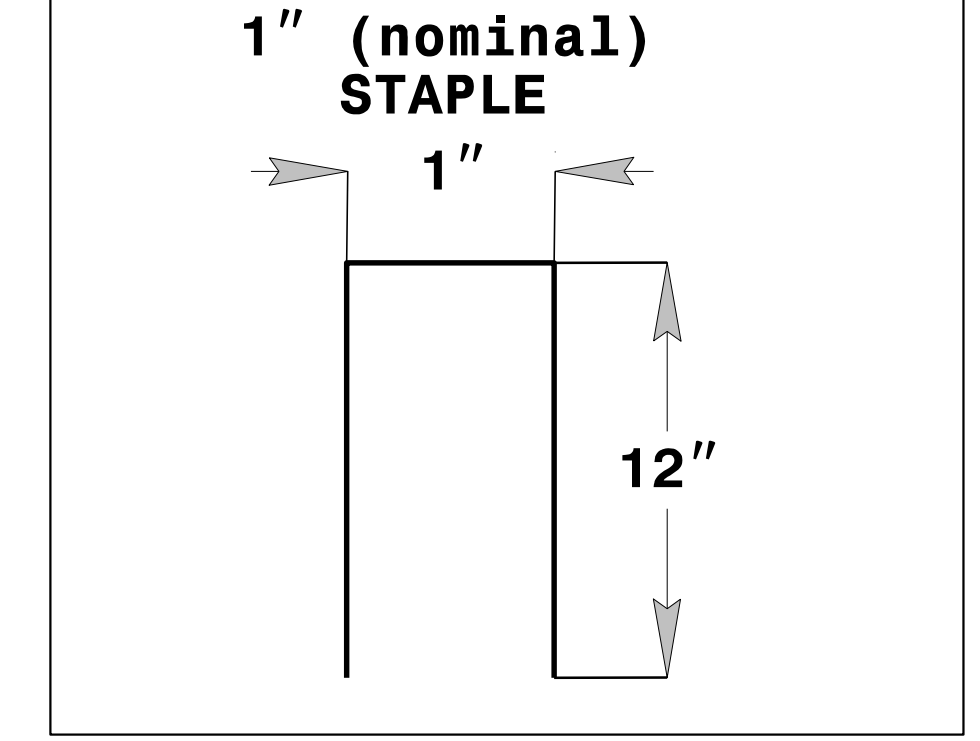
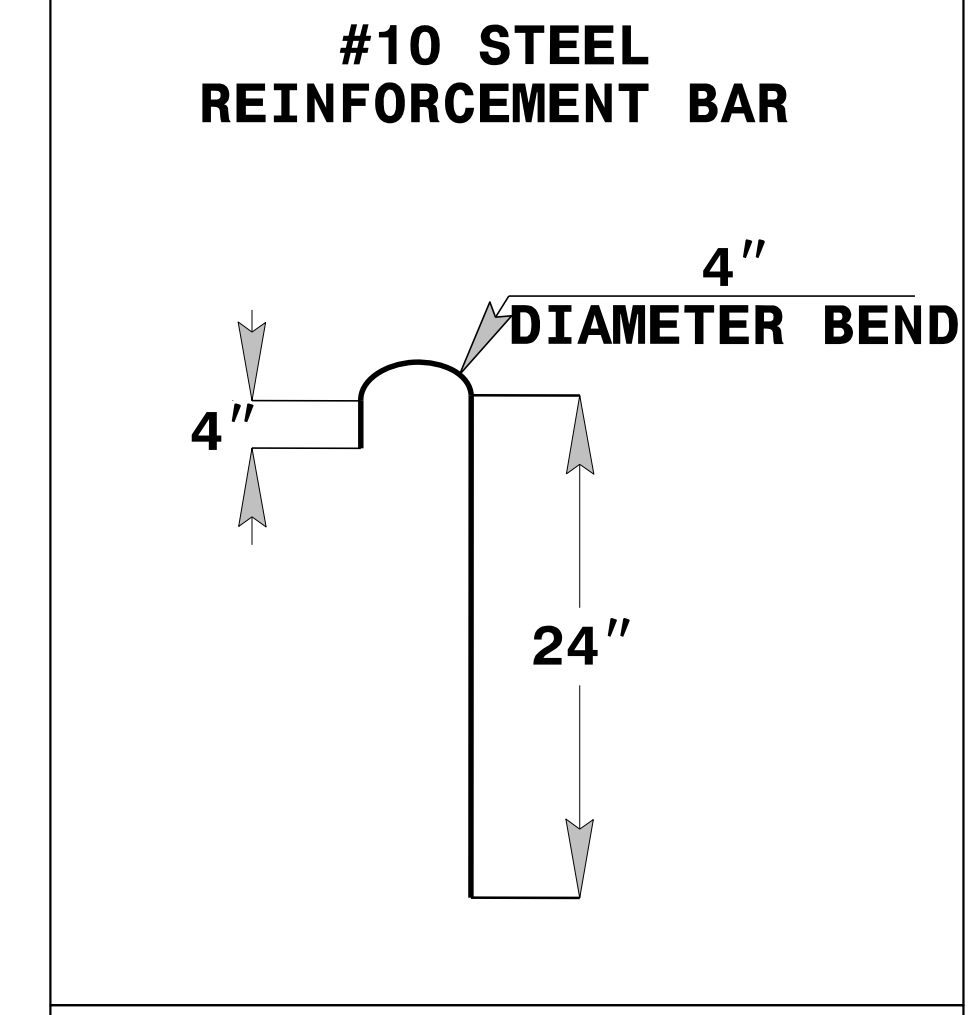
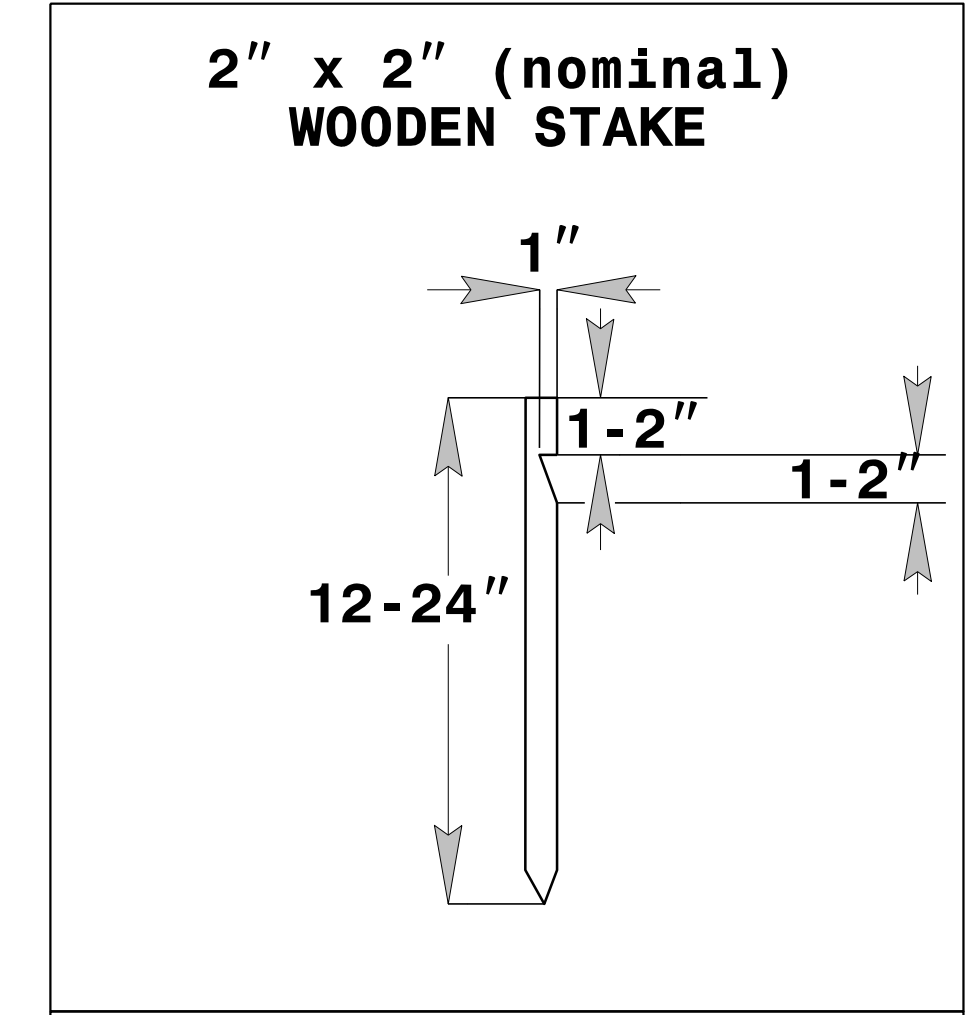
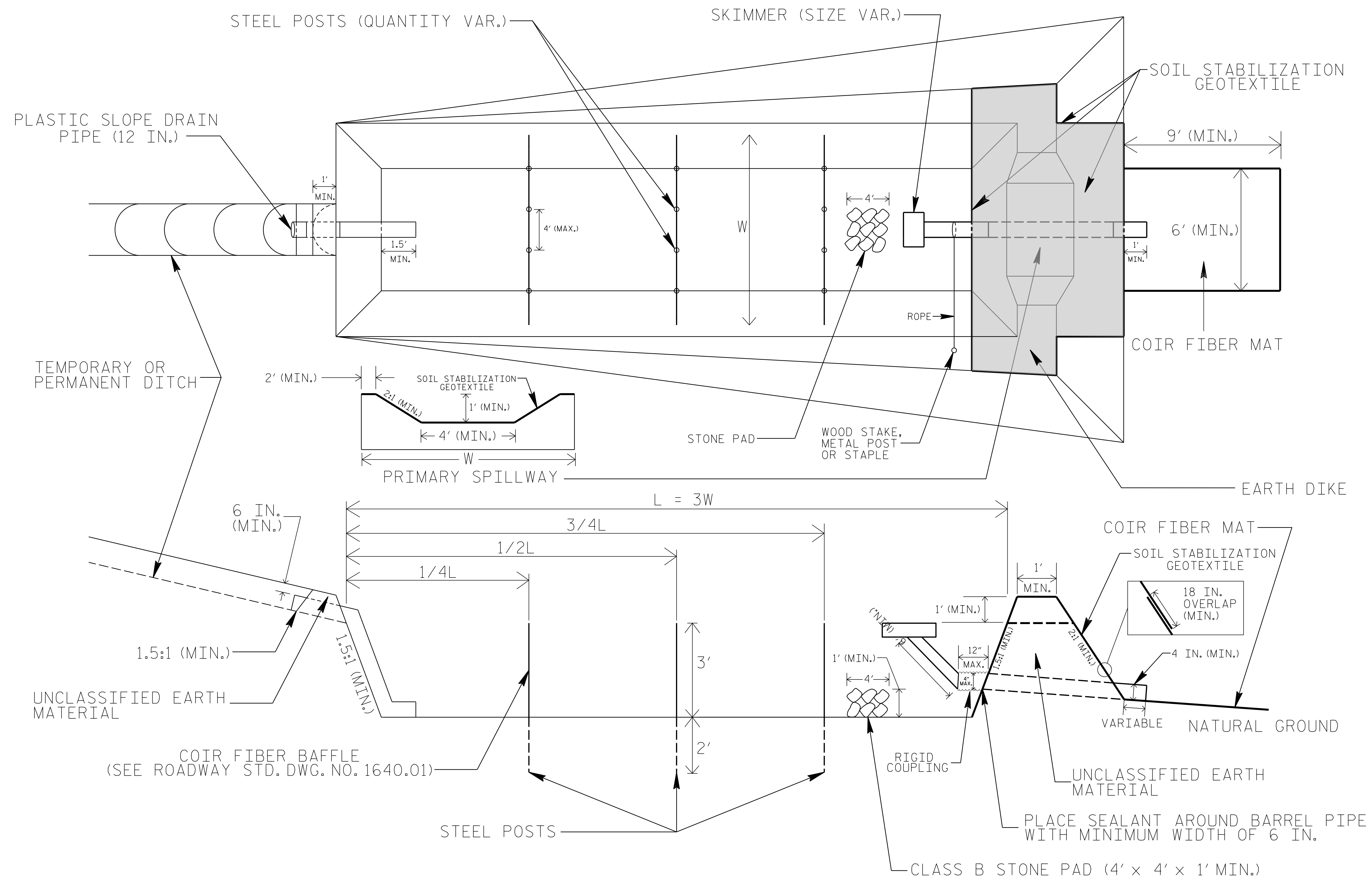
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision 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 J
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 J
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type J	1634.02 Temporary Rock Sediment Dam Type J
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 J
1630.05 Temporary Diversion	1640.01 Coir Fiber Jaffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

PROJECT REFERENCE NO. U-5312	SHEET NO. EC-2
RW 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. U-5312	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) 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.

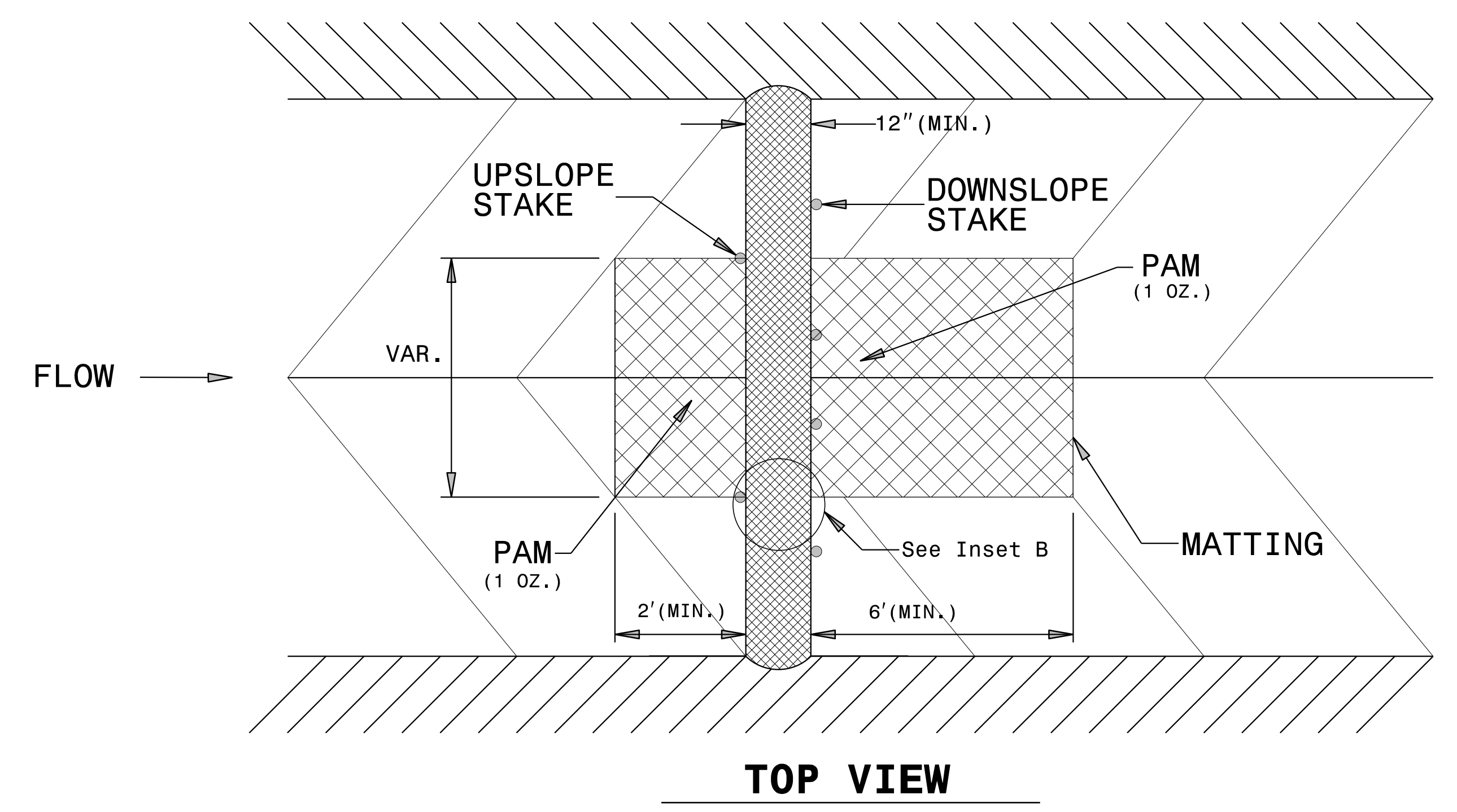
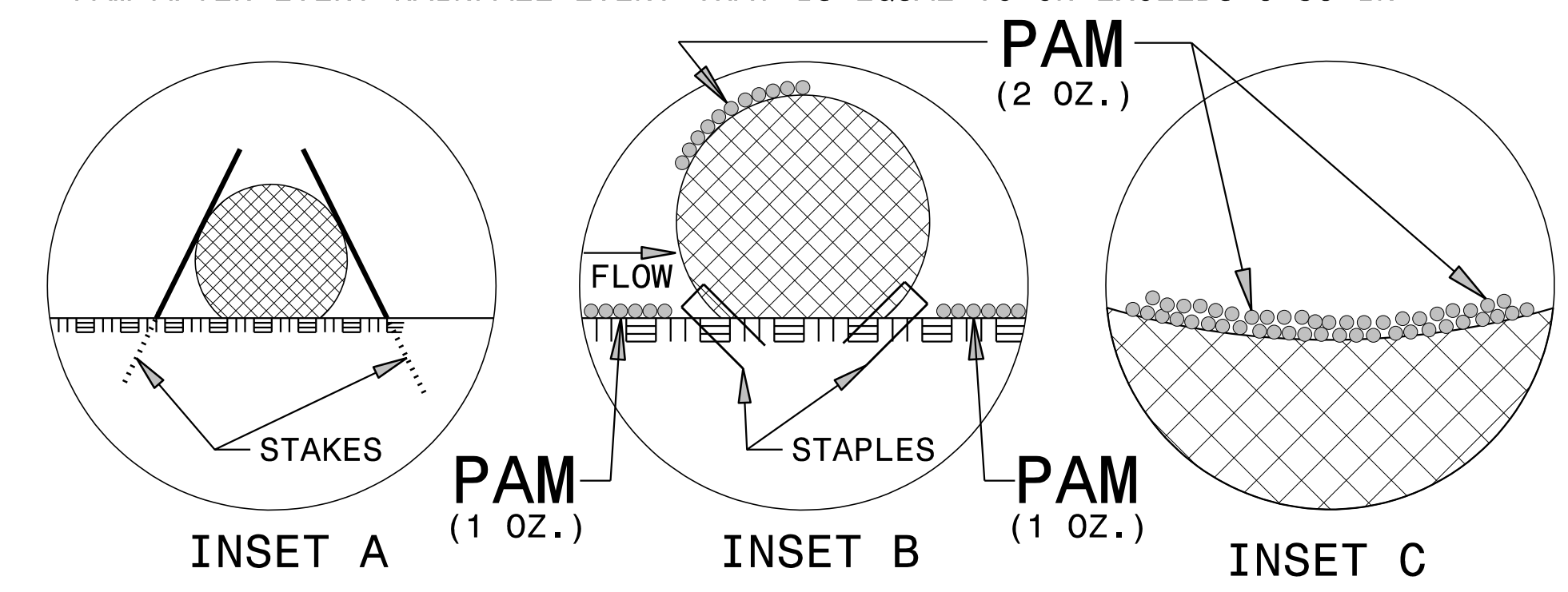
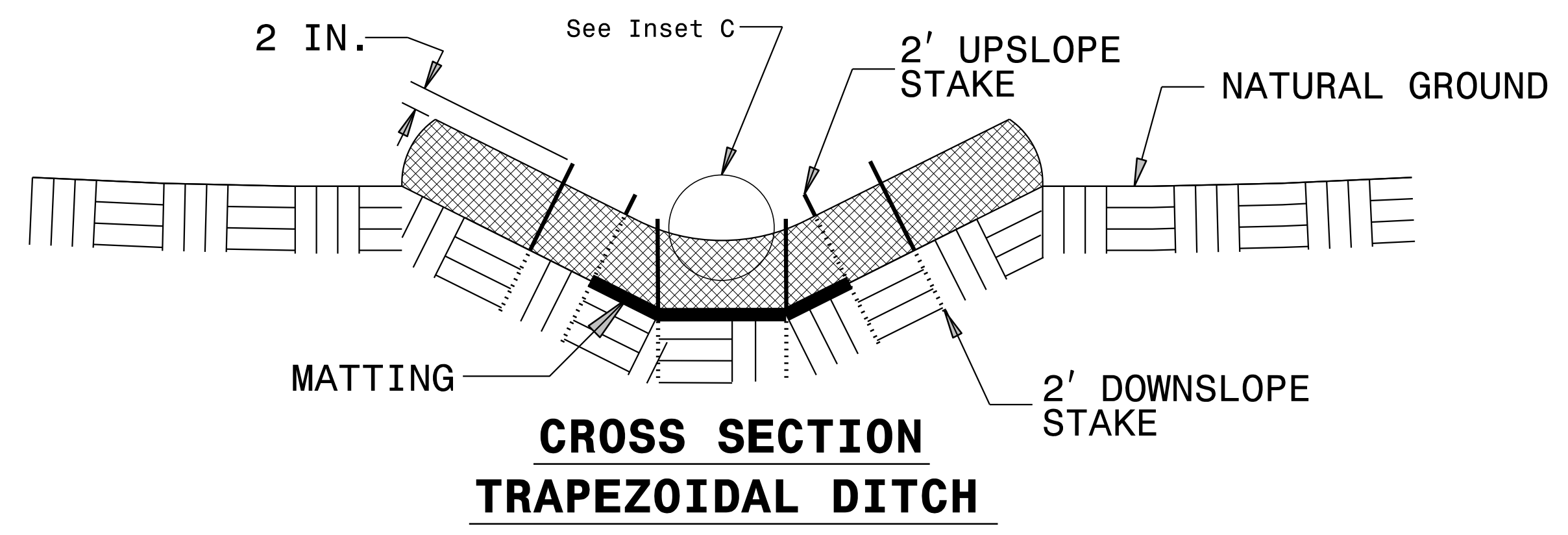
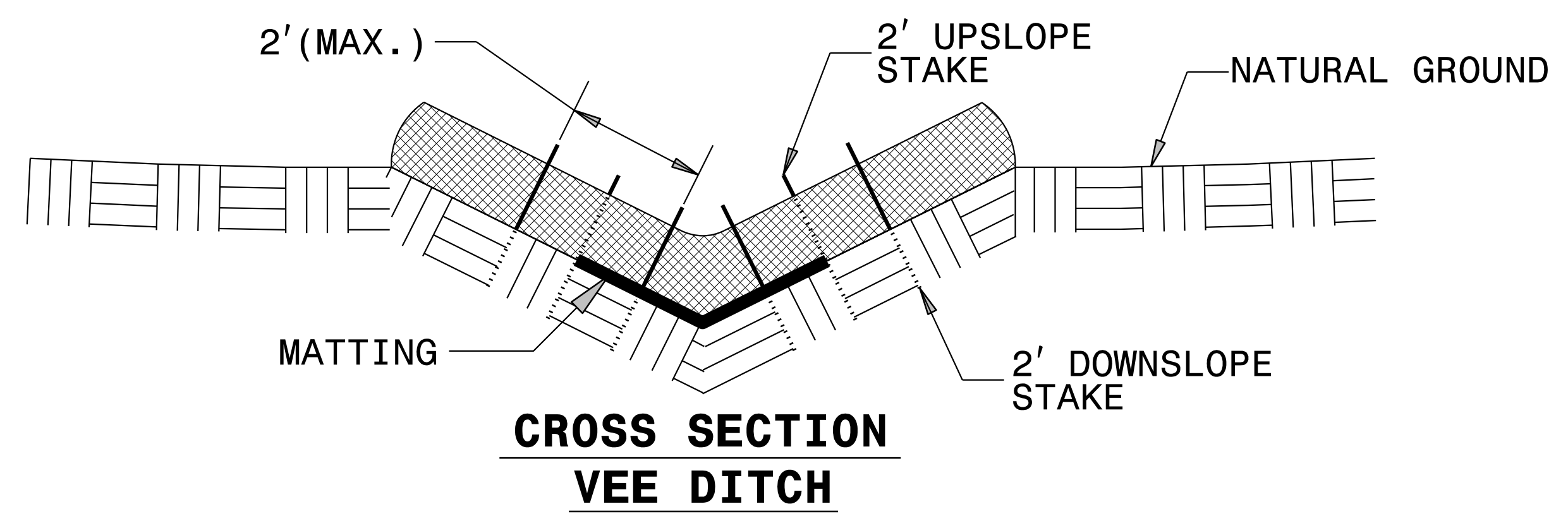
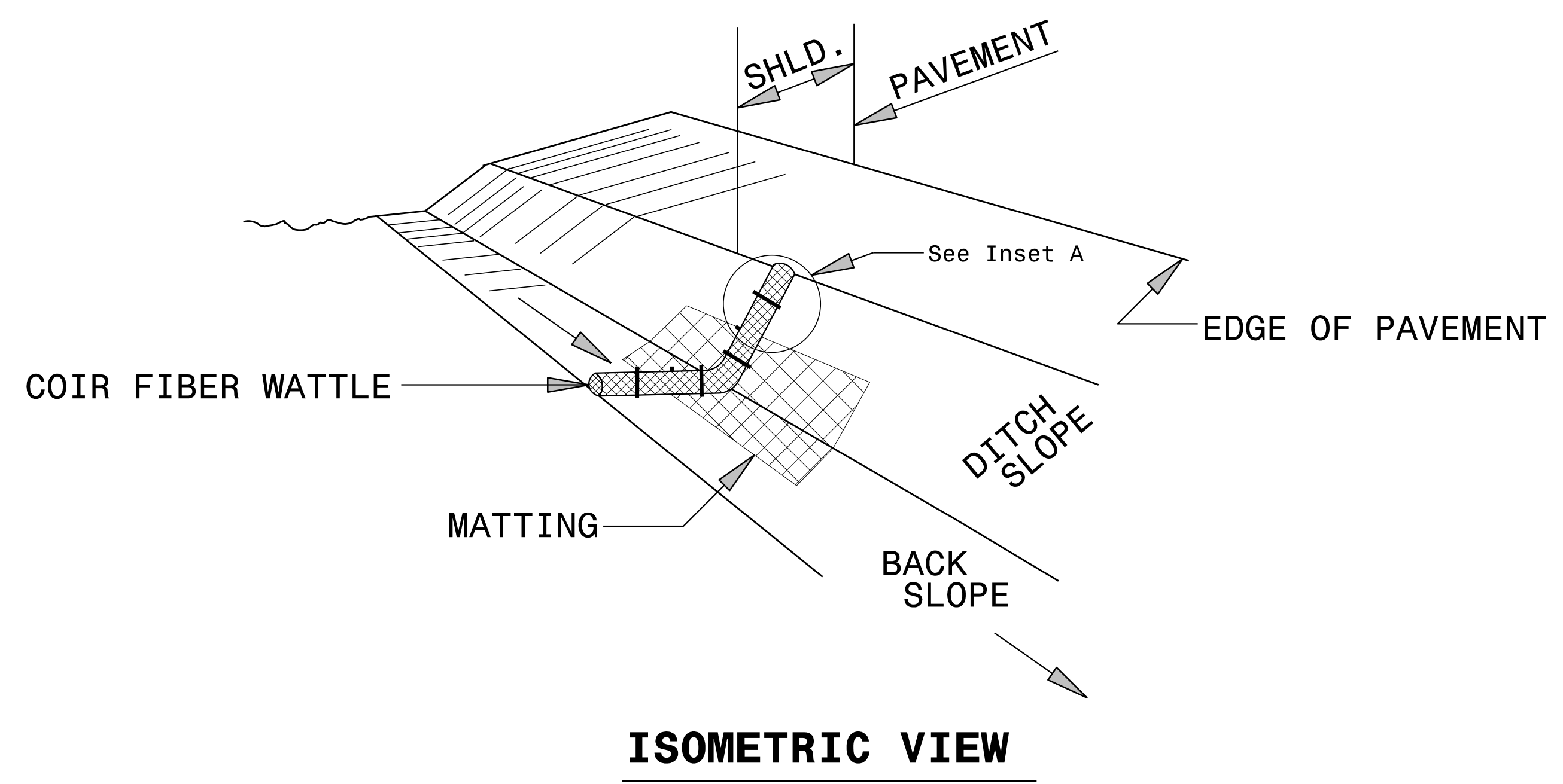
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.

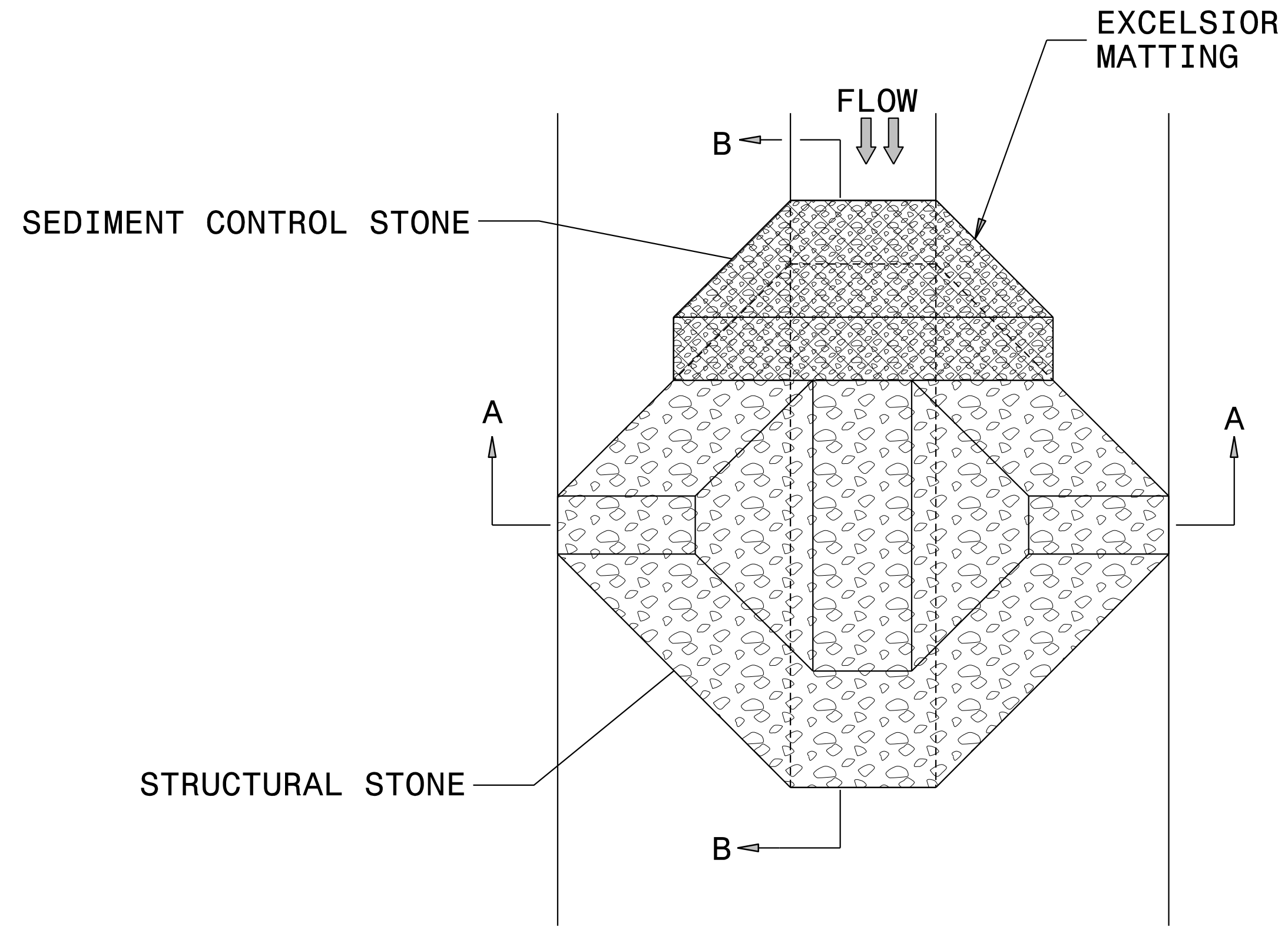
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

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



PROJECT REFERENCE NO. U-5312	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

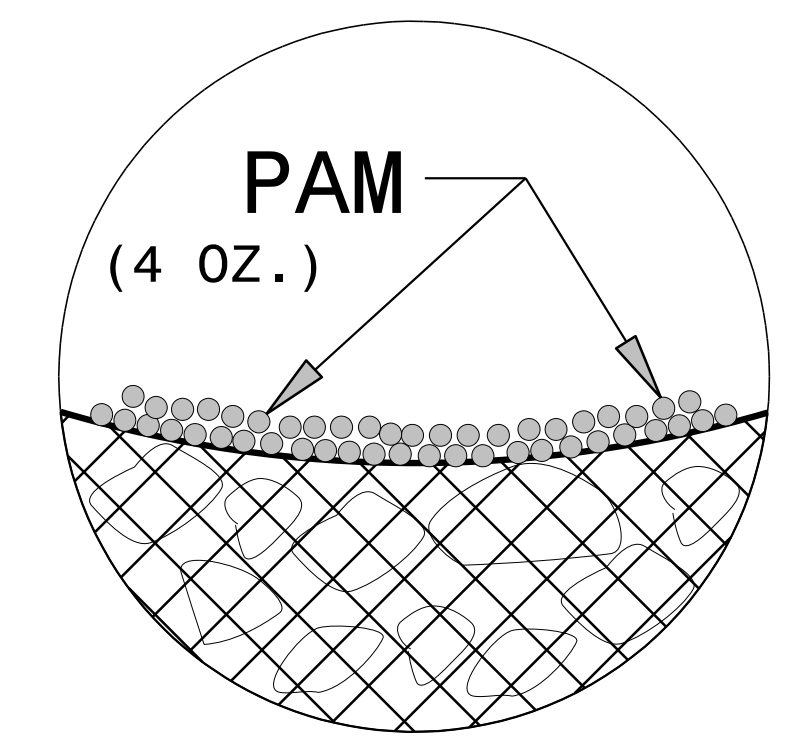
NOTES:

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

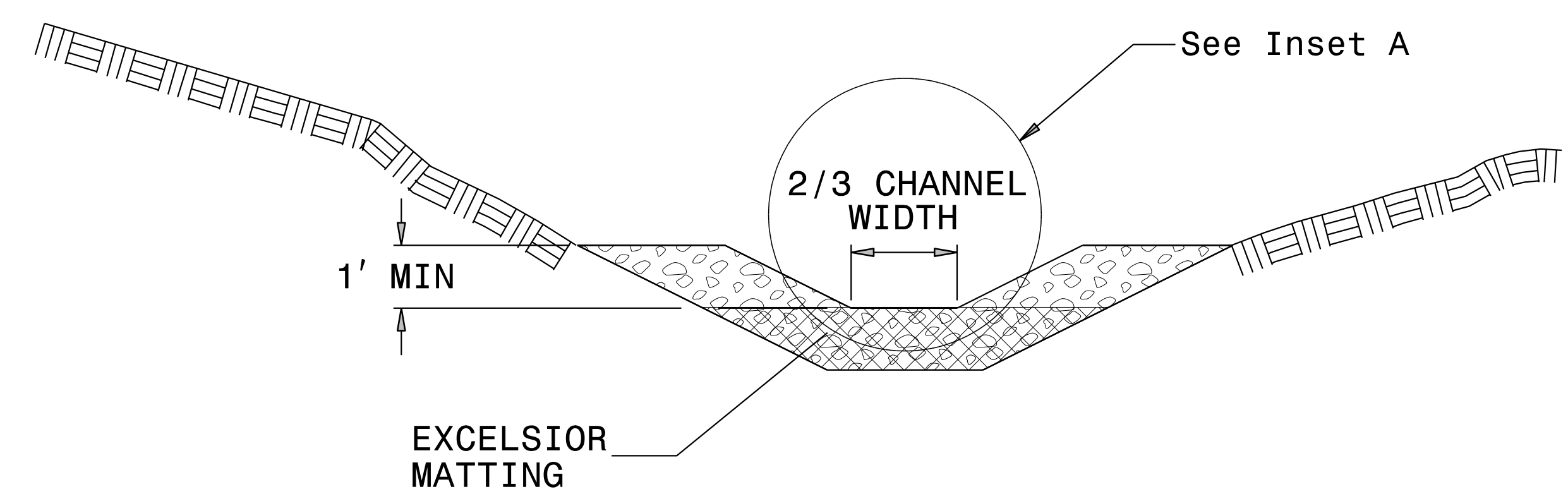
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

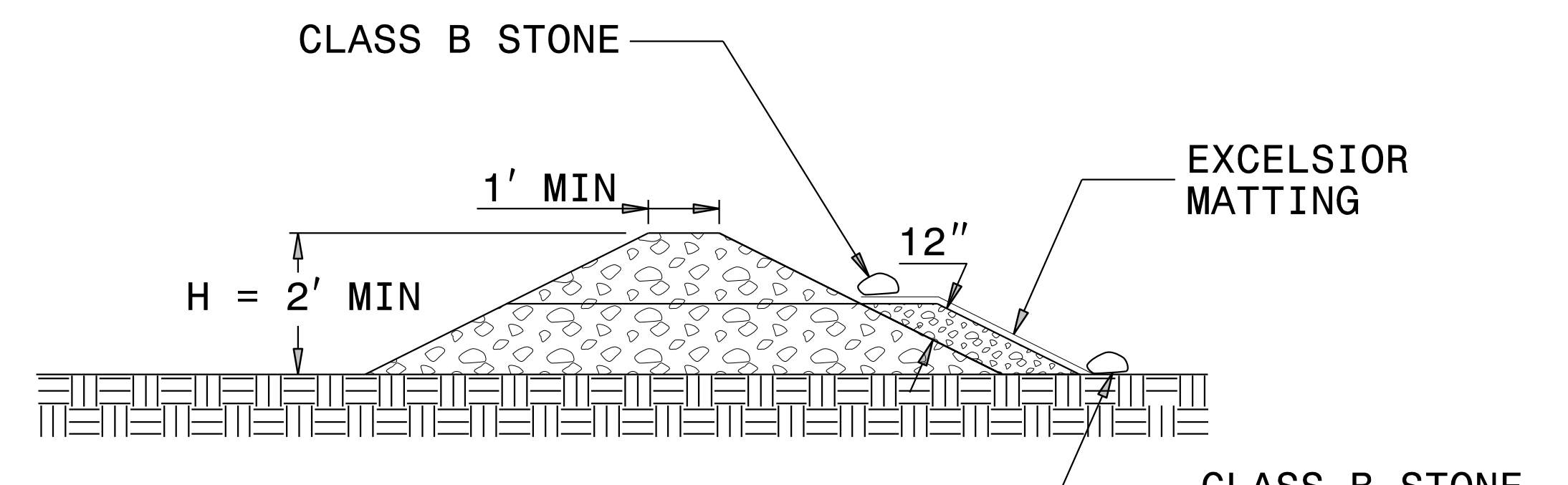
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

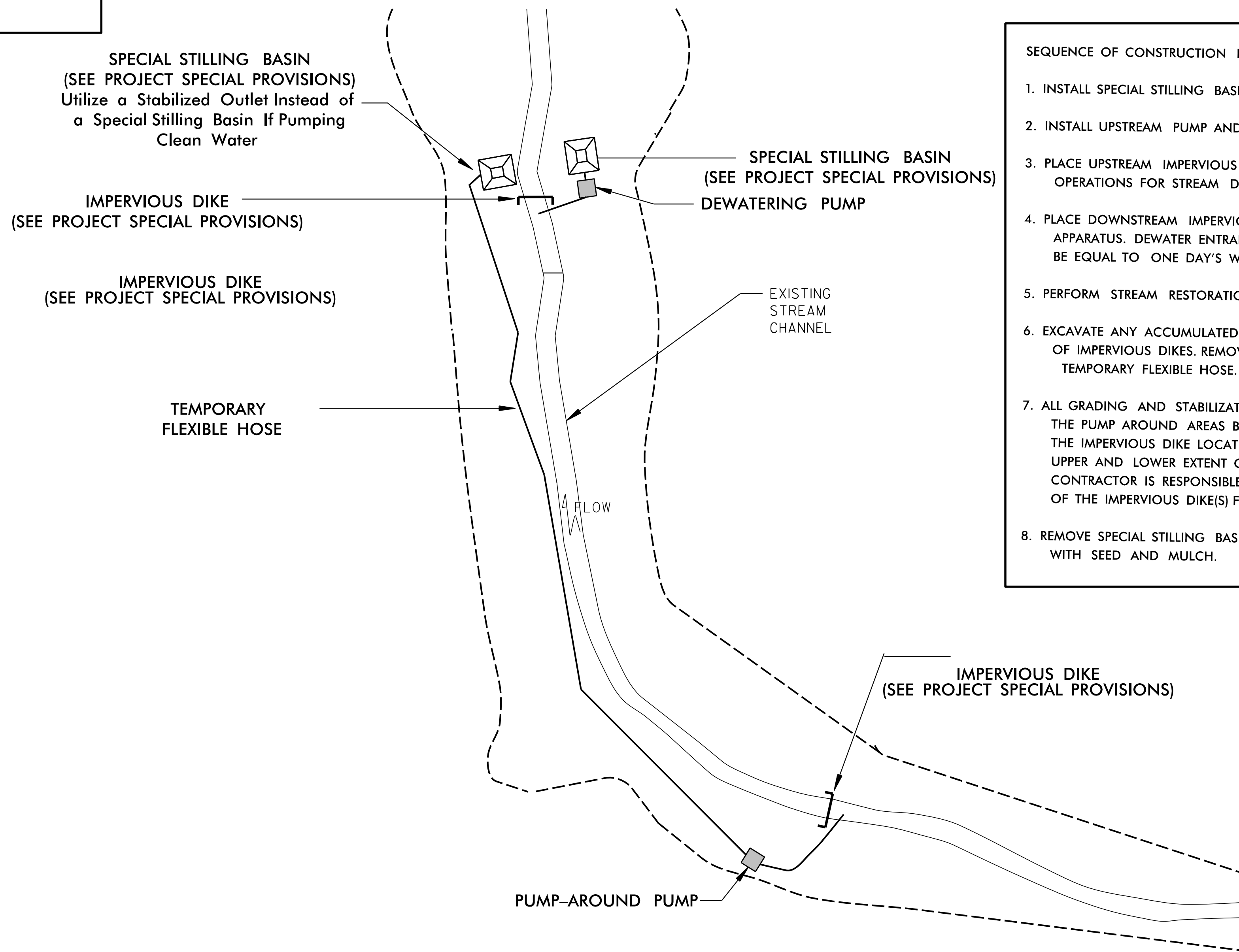
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EXAMPLE OF PUMP-AROUND OPERATION

NOTES:

- 1) All excavation shall be performed in only dry or isolated sections of channel.
- 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
- 3) All graded areas shall be stabilized within 24 hours.
- 4) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
- 5) Pumps and hoses shall be of sufficient size to dewater the work area.



- SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA
1. INSTALL SPECIAL STILLING BASIN(S).
 2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
 3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
 4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
 5. PERFORM STREAM RESTORATION WORK IN ACCORDANCE WITH THE PLANS.
 6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSE. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
 7. ALL GRADING AND STABILIZATION MUST BE COMPLETED IN ONE DAY WITHIN THE PUMP AROUND AREAS BETWEEN THE IMPERVIOUS DIKES. THE IMPERVIOUS DIKE LOCATIONS AS SHOWN ON THIS SHEET ONLY SHOW THE UPPER AND LOWER EXTENT OF WORK FOR EACH STREAM SEGMENT. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF THE IMPERVIOUS DIKE(S) FOR EACH DAY'S WORK.
 8. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>U-5312</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL (STRAW)

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
6	-L-	50+50	51+50	MED	150
6	-L-	52+57	58+00	MED	455
6	-LNØL-	51+50	53+00	LT	280
6	-LØØL-	55+00	56+00	RT	75
7	-L-	60+50	61+00	LT	185
7	-L-	62+50	67+00	LT	900
7	-L-	71+50	72+00	LT	95
8	-L-	72+00	73+00	LT	190
8	-L-	74+00	74+50	LT	95
8	-L-	78+00	79+00	LT	225
8	-L-	79+50	80+00	LT	115
8	-L-	85+50	86+00	LT	40
8	-L-	75+50	82+00	RT	1,160
9	-L-	86+00	87+50	LT	335
9	-L-	98+50	99+50	LT	370
9	-L-	94+00	94+50	RT	140
9	-L-	99+00	100+00	RT	190
10	-L-	112+00	113+50	LT	335
10	-L-	100+00	102+00	RT	375
10	-L-	103+50	104+50	RT	190
10	-L-	105+00	108+00	RT	560
10	-L-	112+00	113+00	RT	130
11	-L-	115+50	117+50	LT	590
11	-L-	121+50	123+50	LT	205
11	-L-	124+00	126+00	LT	250
11	-L-	117+00	119+00	RT	180
11	-L-	121+50	123+00	RT	135
11	-L-	124+00	125+25	RT	145
11	-L-	126+00	126+50	RT	115
12	-L-	128+00	130+00	LT	450

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
12	-L-	131+50	132+50	LT	140
12	-L-	134+00	134+50	LT	70
12	-L-	139+00	142+00	LT	445
12	-L-	129+00	130+00	RT	225
12	-L-	131+00	133+25	RT	155
12	-L-	131+00	133+40	RT	480
12	-L-	135+50	138+50	RT	520
12	-L-	140+00	142+50	RT	335
13	-L-	143+00	144+75	LT	235
13	-L-	147+00	150+00	LT	445
13	-L-	151+00	153+50	LT	340
13	-L-	155+50	155+75	LT	30
13	-L-	142+00	145+70	RT	540
13	-L-	147+00	148+17	RT	105
13	-L-	149+00	152+50	RT	650
13	-L-	153+50	156+00	RT	475
14	-L-	157+00	160+00	LT	270
14	-L-	162+00	162+50	LT	45
14	-L-	156+00	161+00	RT	920
14	-Y7-	11+00	12+00	RT	120
15	-L-	174+50	176+50	LT	120
15	-Y10-	10+50	11+50	LT	120
16	-L-	181+67	182+50	LT	115
16	-L-	185+00	188+50	MED	775
16	-L-	134+00	134+65	RT	90
16	-Y10-	23+50	25+32	LT	215
16	-Y11-	15+50	19+00	LT	375
16	-Y11-	15+50	16+83	RT	155
16	-Y11-	17+50	19+00	RT	175

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>U-5312</i>	SHEET NO. <i>EC-3B</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

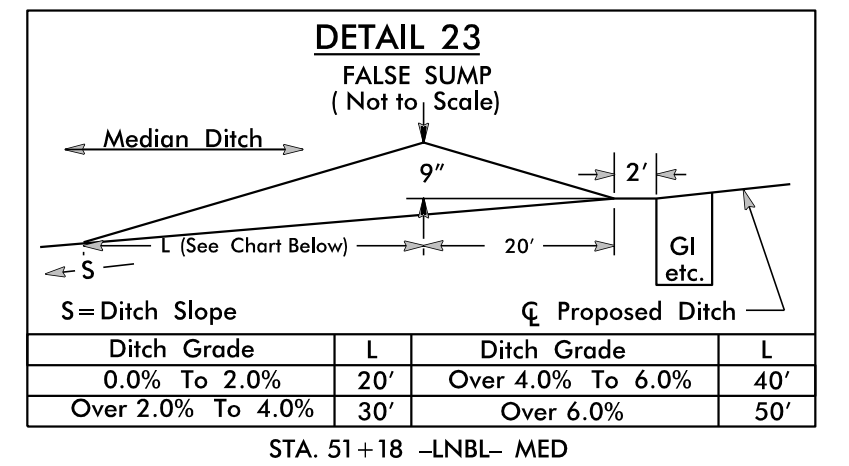
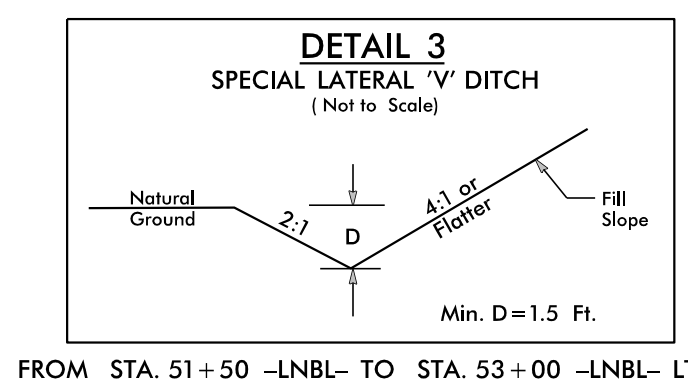
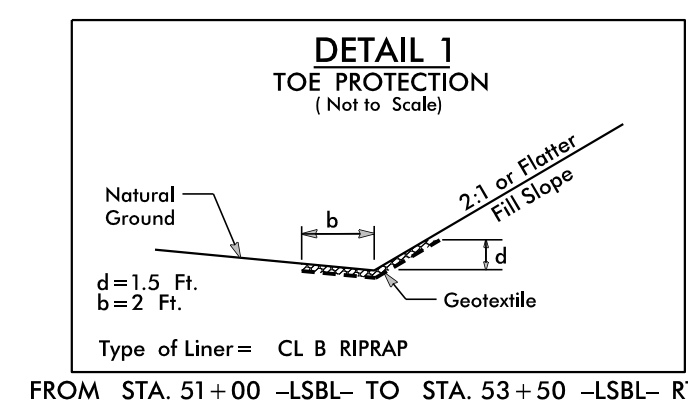
SOIL STABILIZATION TIMEFRAMES

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

PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-04/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

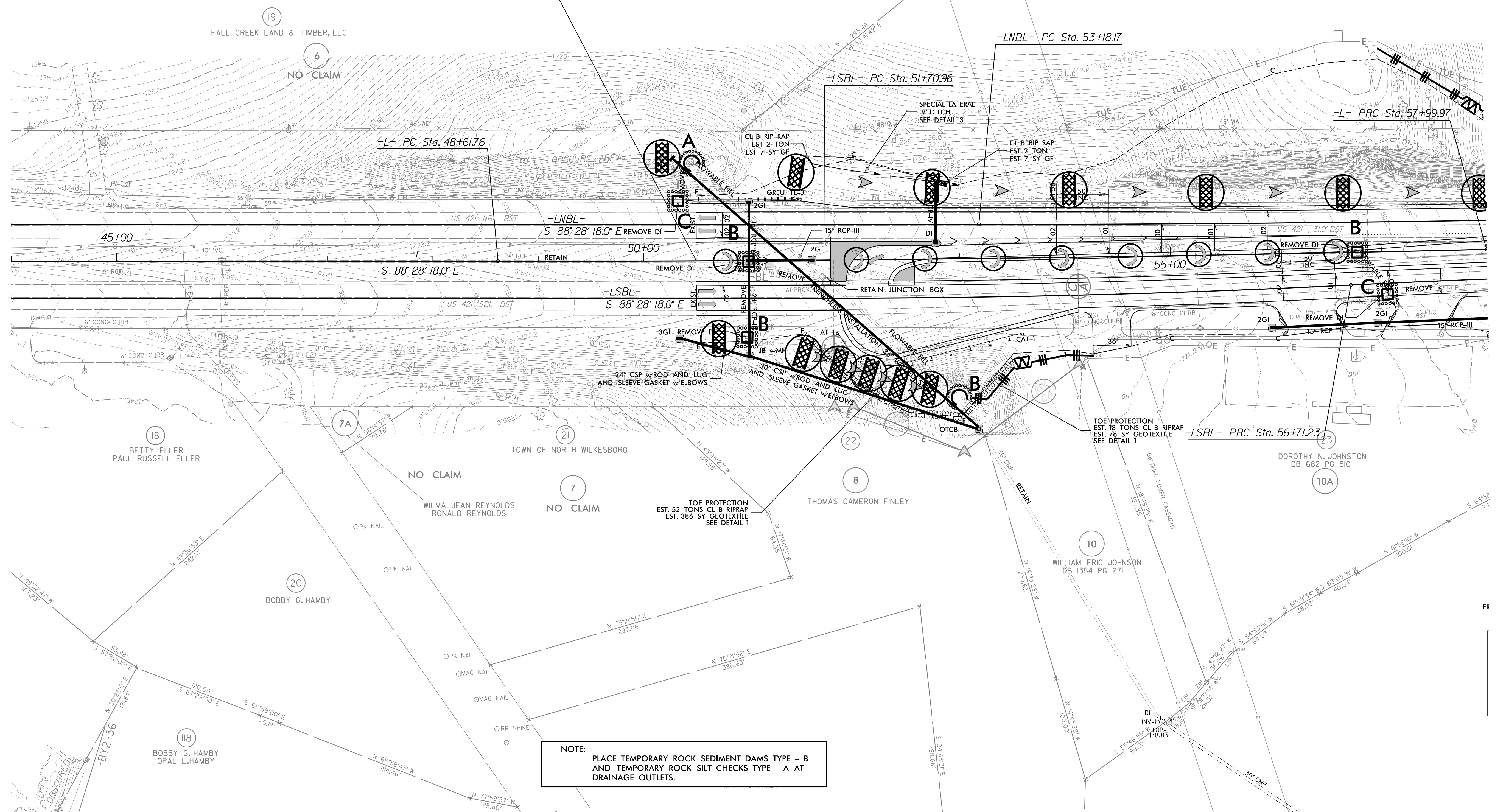
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06

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



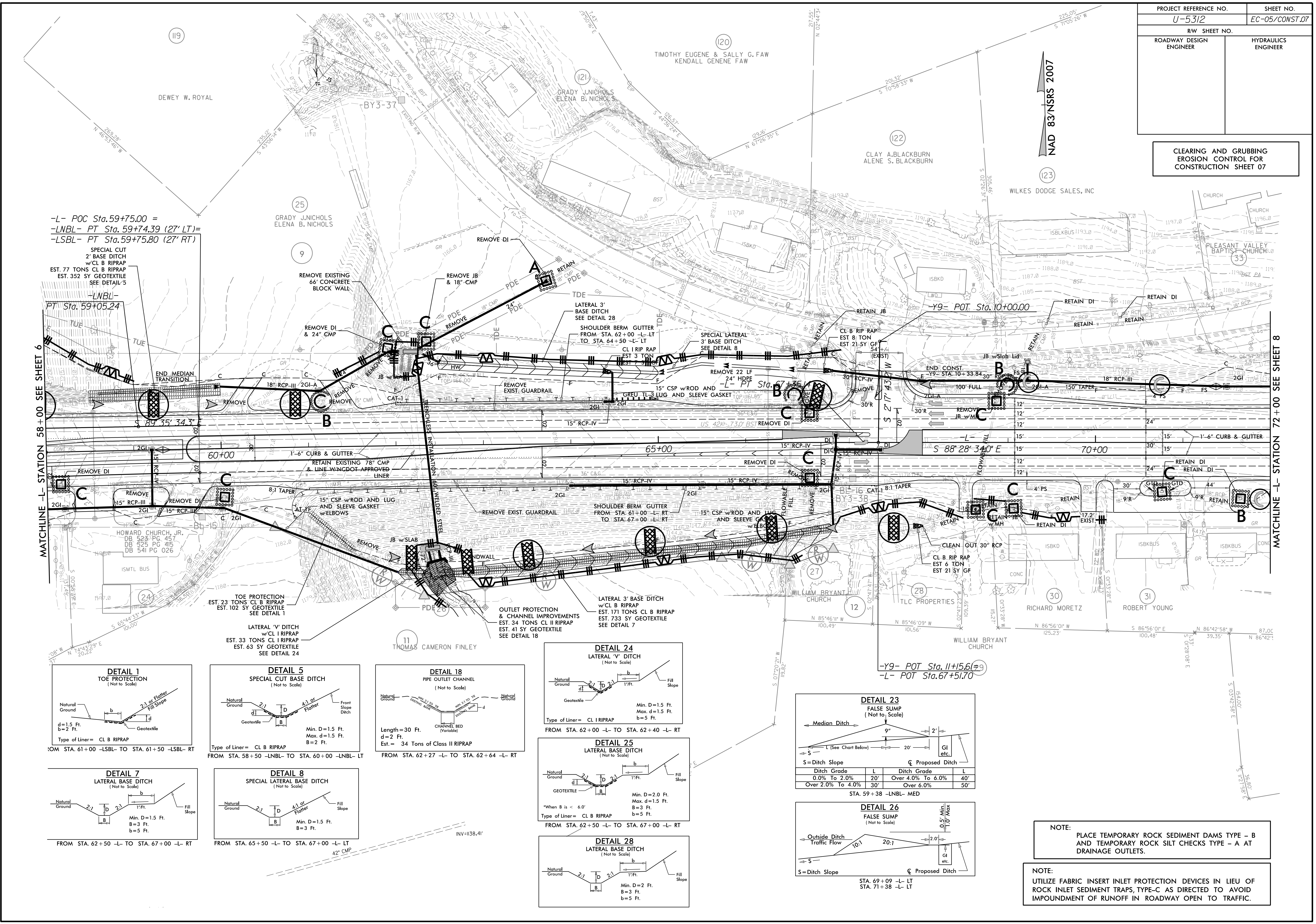
NAD 83/NSRS 2007

BEGIN TIP PROJECT U-5312
-L- STA. 50+50.00
GRADE LINES MAY BE ADJUSTED AT THEIR
BEGINNING AS DIRECTED BY THE ENGINEER
IN ORDER TO SECURE A PROPER TIE-IN.



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

**CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07**



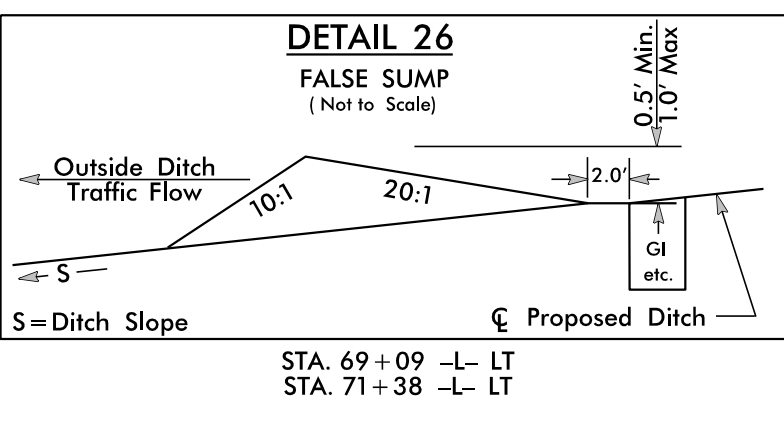
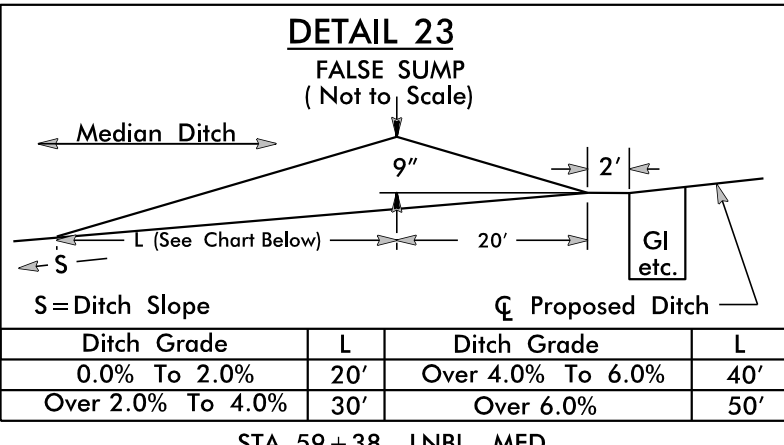
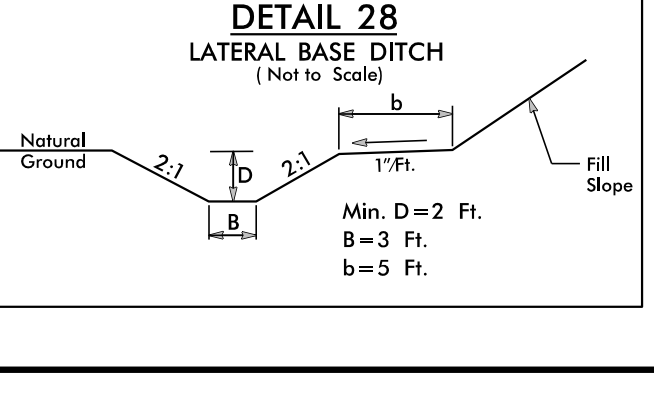
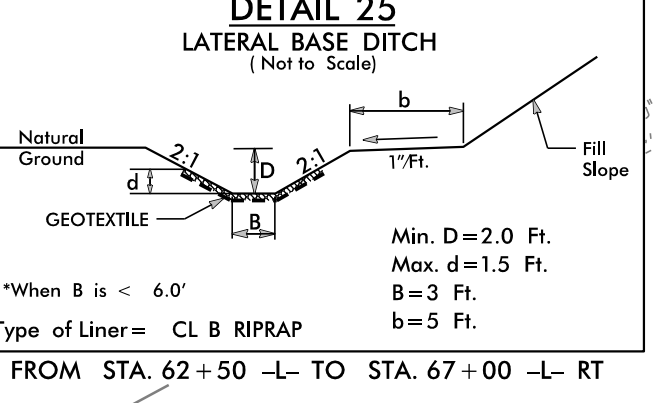
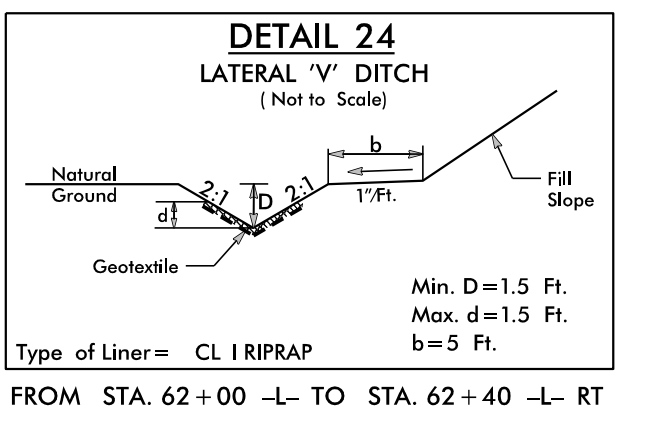
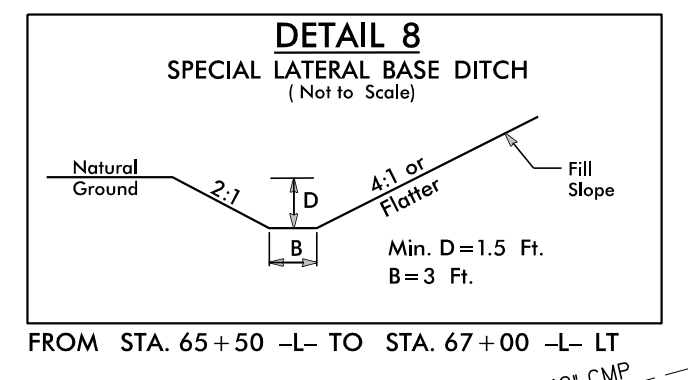
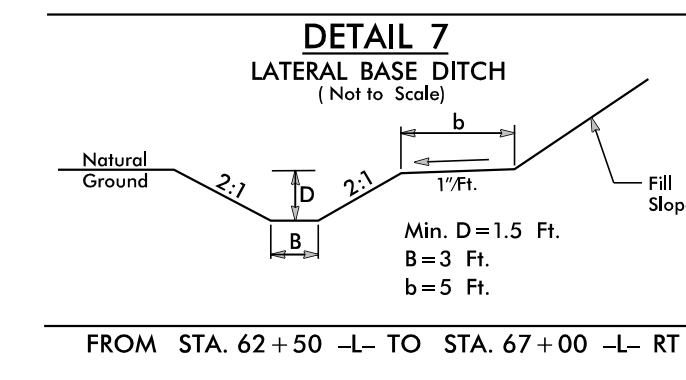
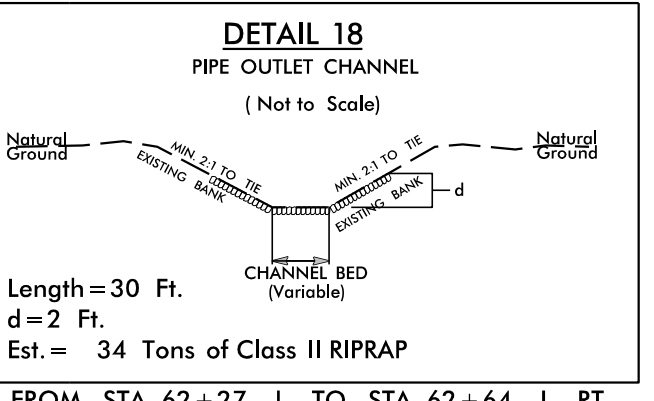
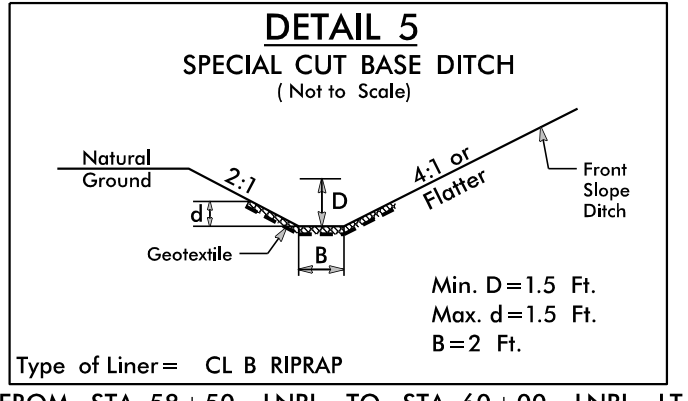
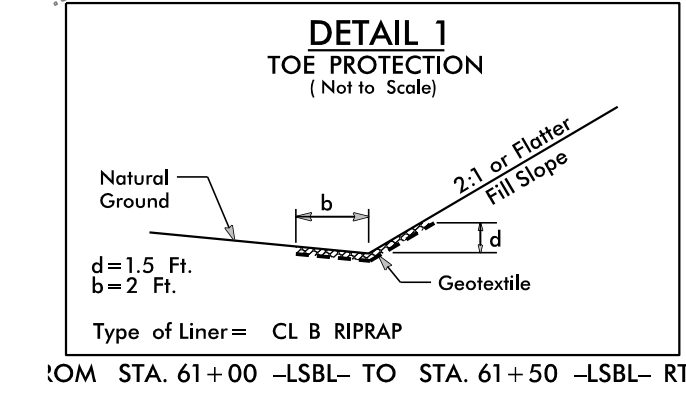
-L- POC Sta. 59+75.00 =
-LNBL- PT Sta. 59+74.39 (27' LT) =
-LSBL- PT Sta. 59+75.80 (27' RT)

SPECIAL CUT
2" BASE DITCH
w/CL B RIPRAP
EST. 77 TONS CL B RIPRAP
EST. 352 SY GEOTEXTILE
SEE DETAIL 5

-LNBL-
PT Sta. 59+05.24

MATCHLINE -L- STATION 58+00 SEE SHEET 6

MATCHLINE -L- STATION 72+00 SEE SHEET 8



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

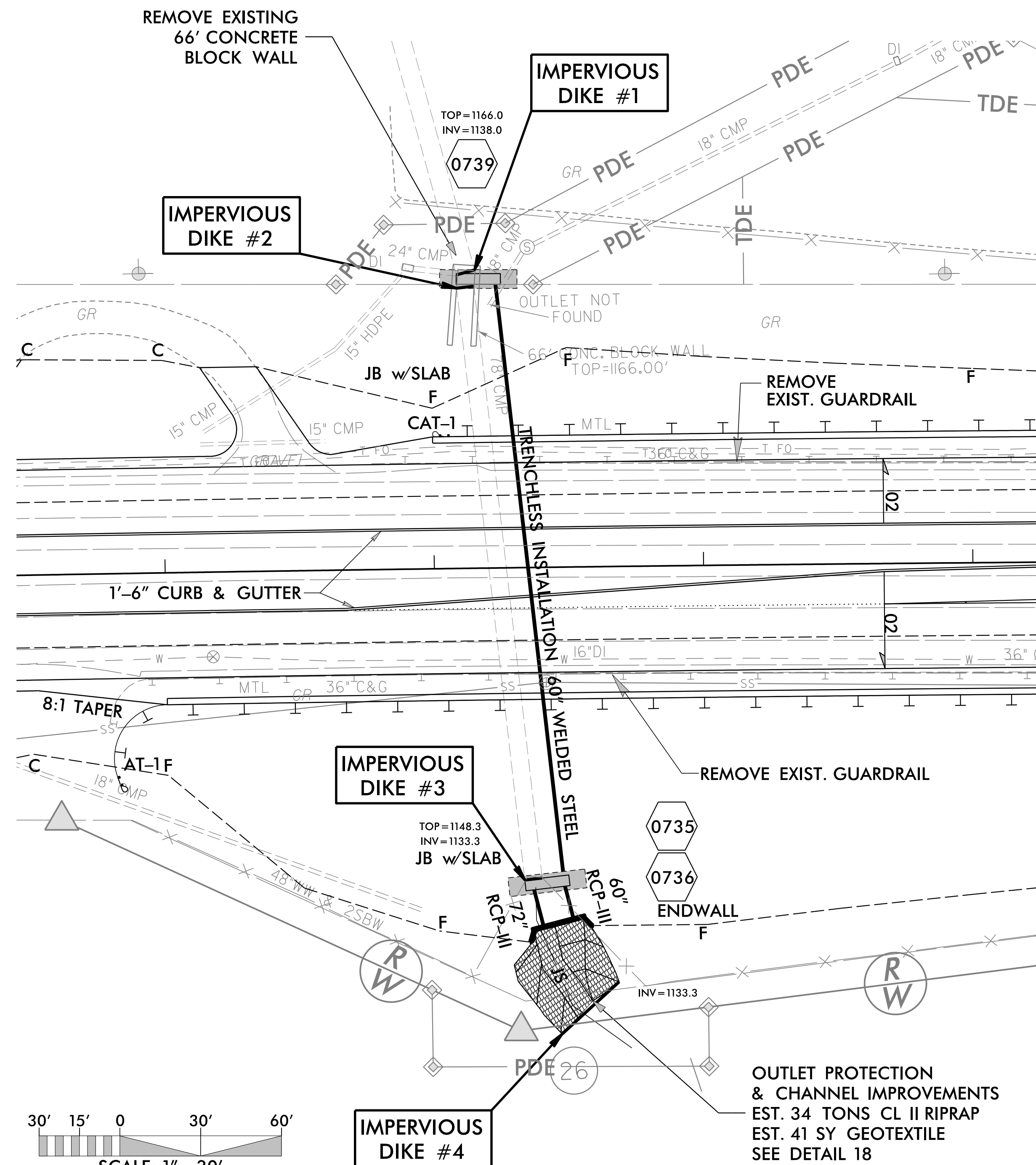
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF
ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

78" CMP LINING AND 60" WSP INSTALLATION SEQUENCE STA. 62+29 -L- UT TO YADKIN RIVER

PROJECT REFERENCE NO. U-5312	SHEET NO. EC-05A/CONST.07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

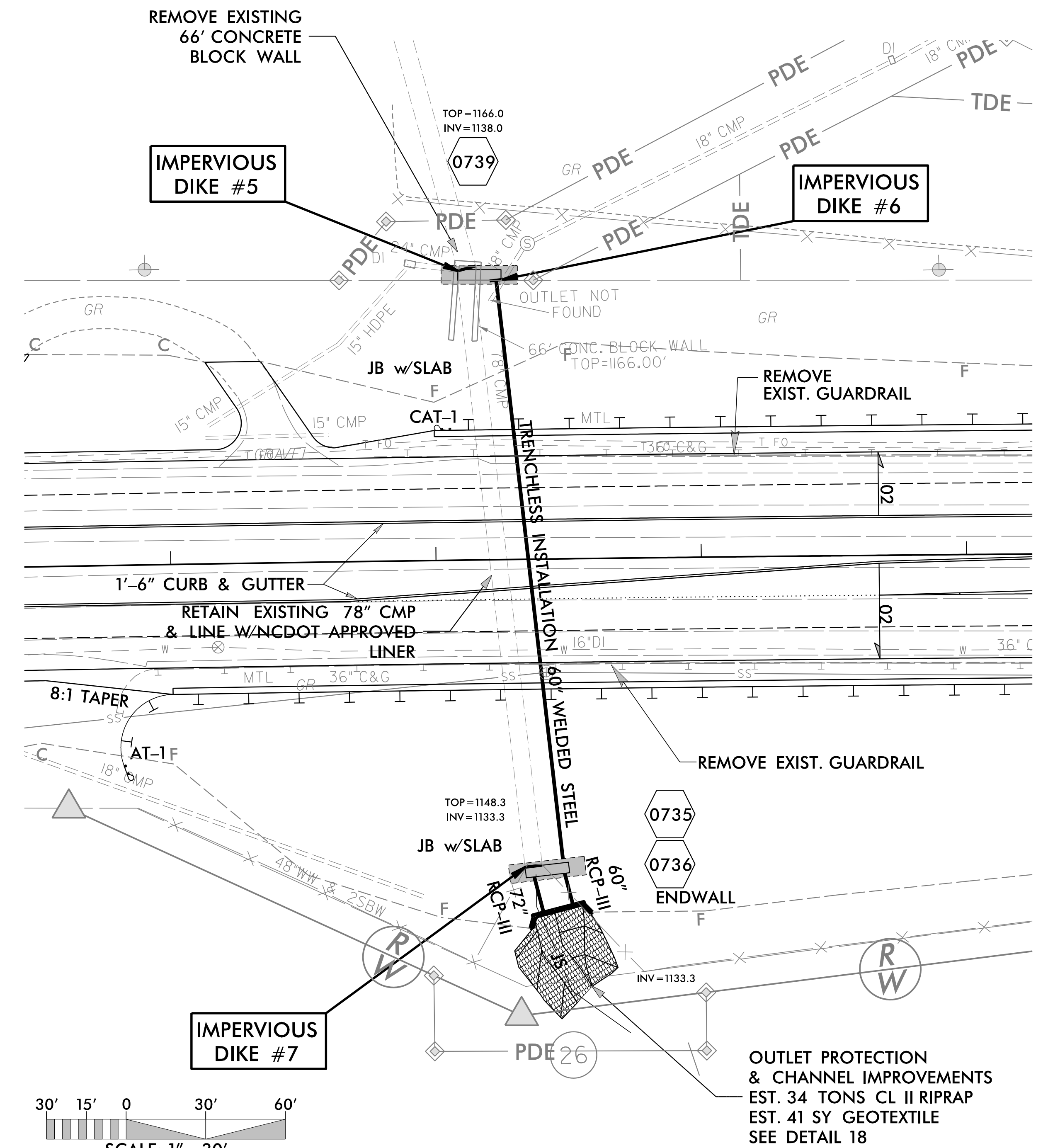
PHASE I

- 1.) UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT PIPE INSTALLATION.
- 2.) INSTALL UPSTREAM AND DOWNSTREAM PUMPS AND TEMPORARY FLEXIBLE HOSES.
- 3.) INSTALL IMPERVIOUS DIKES #1, #2, #3, AND #4 AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
- 4.) DEWATER CONSTRUCTION AREAS UTILIZING SPECIAL STILLING BASIN(S) FOR PUMPED EFFLUENT.
- 5.) REMOVE EXISTING 66' CONCRETE BLOCK WALL AND CONSTRUCT UPSTREAM JUNCTION BOX W/SLAB.
- 6.) INSTALL TRENCHLESS 60" WELDED STEEL PIPE.
- 7.) CONSTRUCT OUTLET PROTECTION AND CHANNEL IMPROVEMENTS, DOWNSTREAM JUNCTION BOX W/SLAB, 72" RCP-III, AND 60" RCP-III.
- 8.) EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 9.) REMOVE IMPERVIOUS DIKES, DOWNSTREAM PUMPS, AND ASSOCIATED FLEXIBLE HOSES.



PHASE II

- 1.) MAINTAIN UPSTREAM PUMPS AND TEMPORARY FLEXIBLE HOSES.
- 2.) INSTALL IMPERVIOUS DIKES #5, #6, AND #7 AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
- 3.) DIVERT FLOW THROUGH TRENCHLESS 60" WELDED STEEL PIPE.
- 4.) DEWATER CONSTRUCTION AREA UTILIZING SPECIAL STILLING BASIN(S).
- 5.) LINE EXISTING 78" CMP W/NC DOT APPROVED LINER.
- 6.) EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 7.) REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), IMPERVIOUS DIKES, UPSTREAM PUMPS, AND TEMPORARY FLEXIBLE HOSES.
- 8.) COMPLETE ROADWAY.

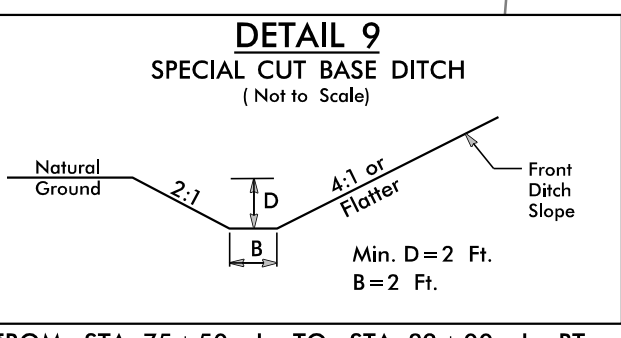
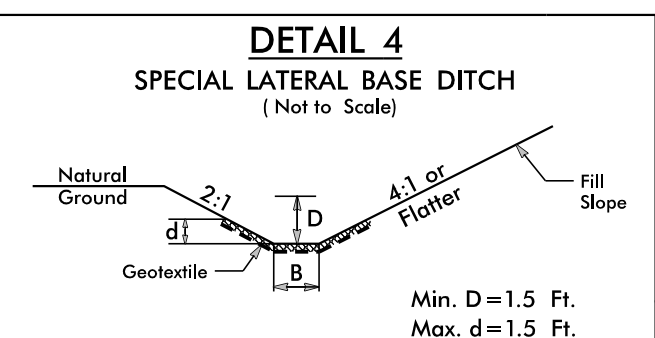
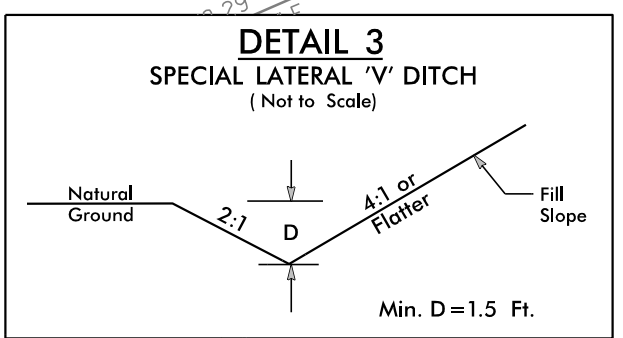
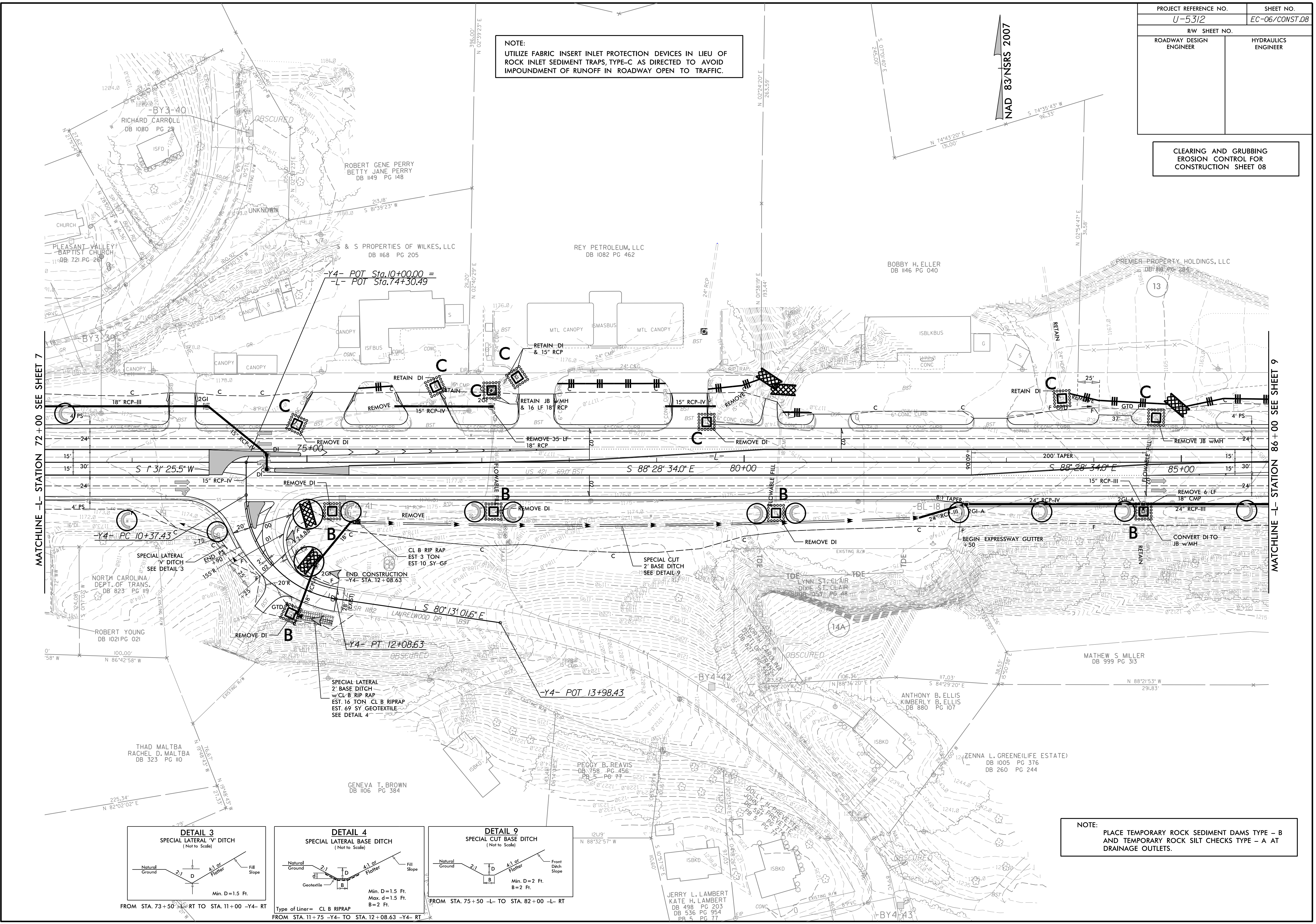


PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-06/CONST.08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 08

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES 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.



MATCHLINE -L- STATION 72+00 SEE SHEET 7

MATCHLINE -L- STATION 86+00 SEE SHEET 9

FROM STA. 73+50 -L- RT TO STA. 11+00 -Y4- RT

Type of Liner = CL B RIPRAP
FROM STA. 11+75 -Y4- TO STA. 12+08.63 -Y4- RT

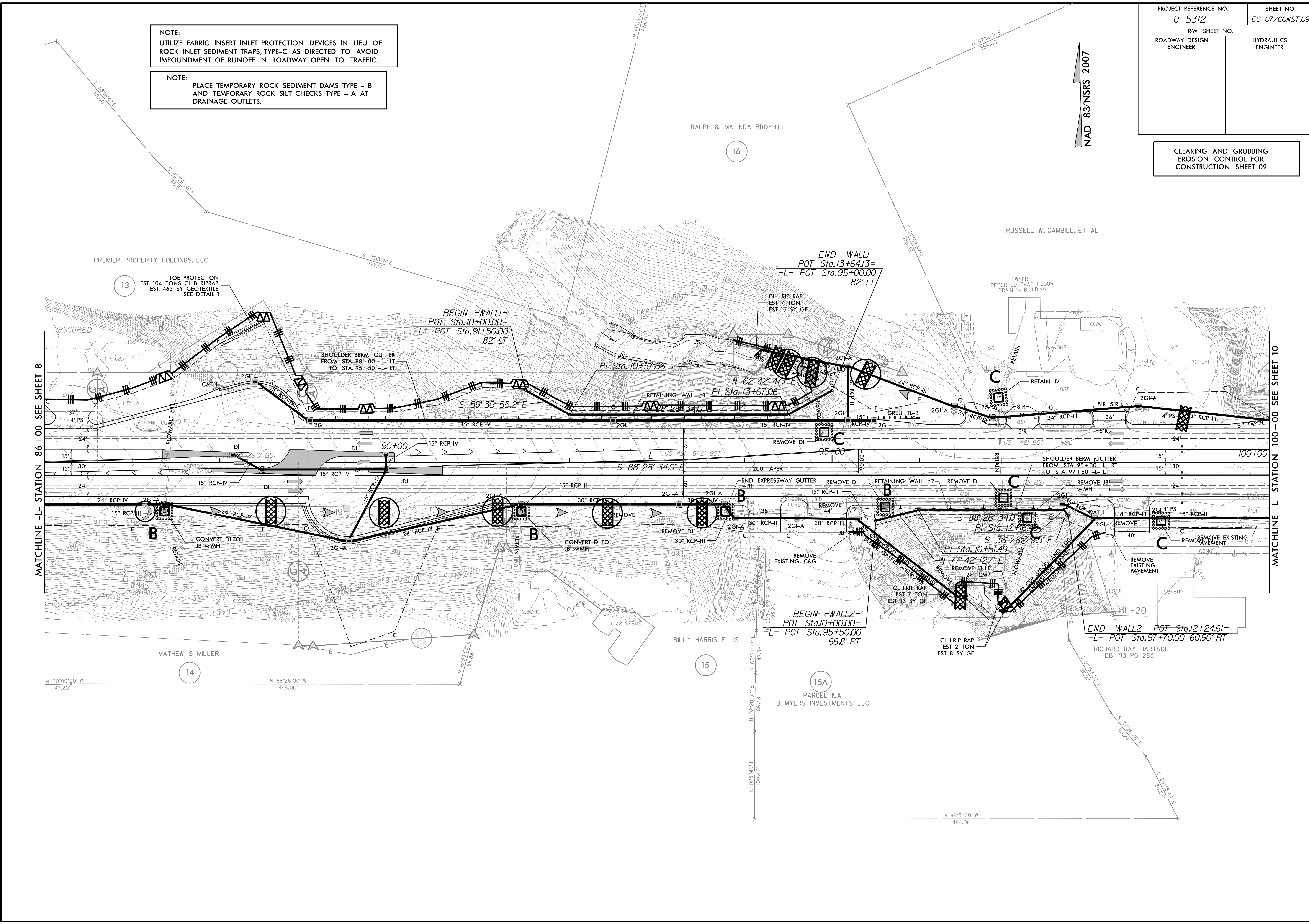
FROM STA. 75+50 -L- TO STA. 82+00 -L- RT

PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-07/CONST.09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 09

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

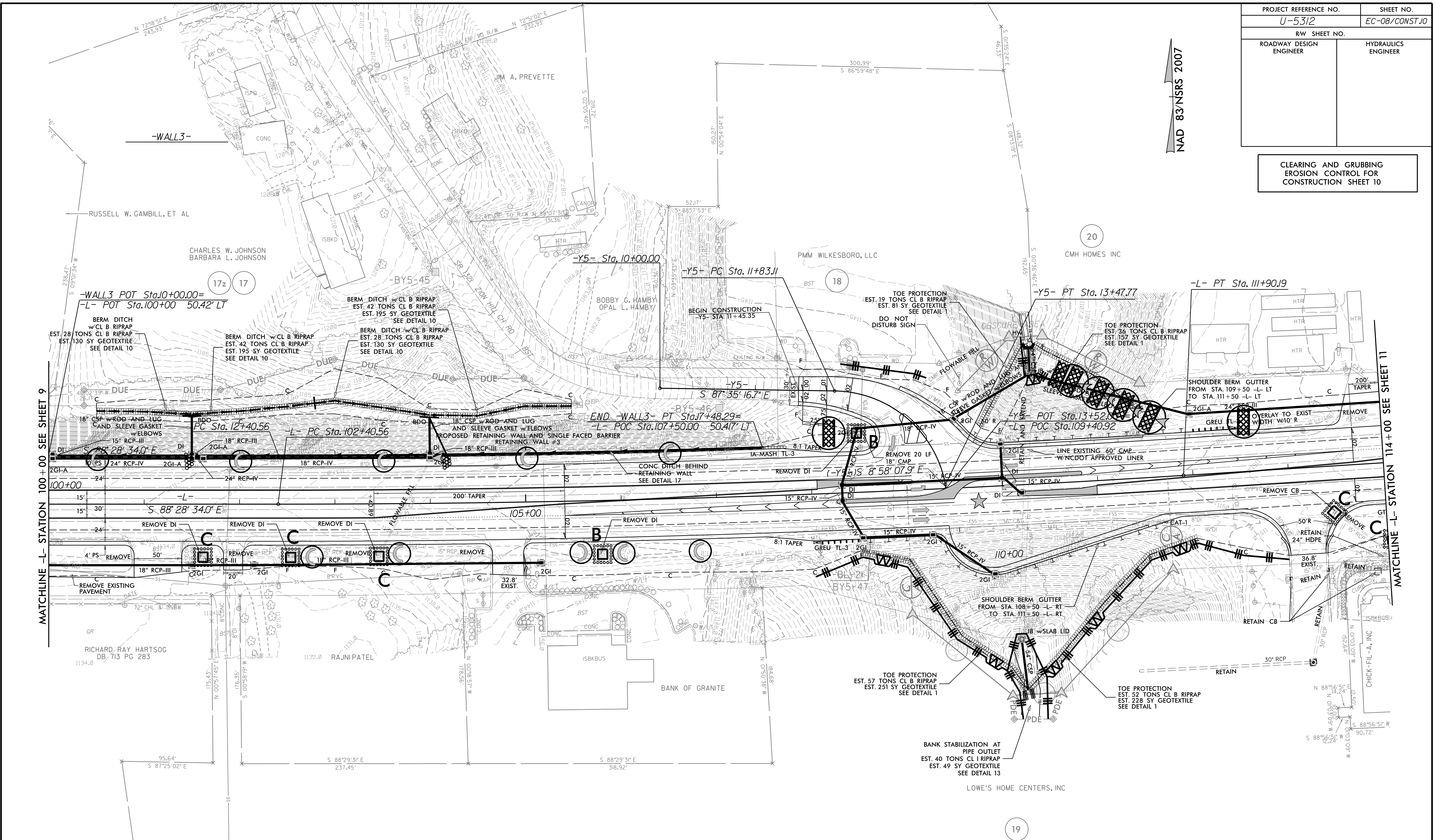
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-08/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

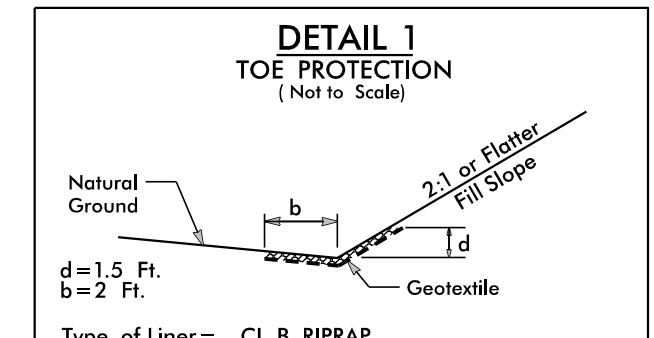
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

NAD 83/NSRS 2007

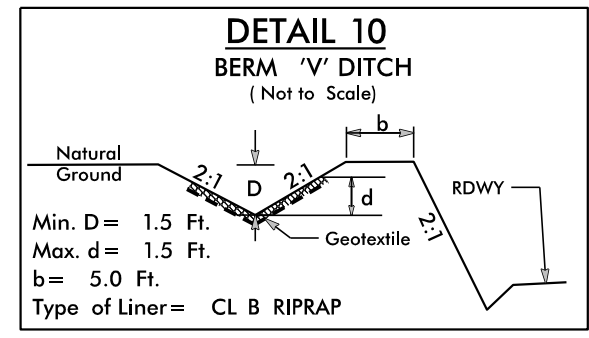


MATCHLINE -L- STATION 100+00 SEE SHEET 9

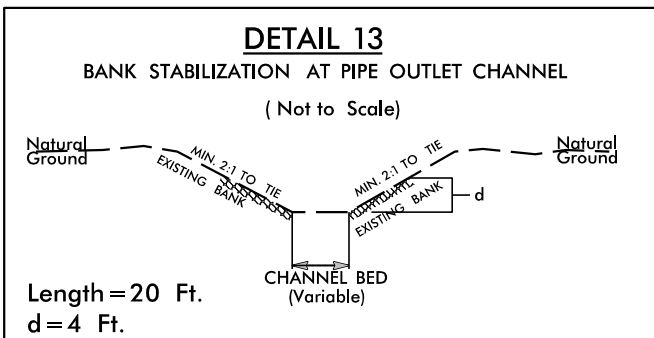
MATCHLINE -L- STATION 114+00 SEE SHEET 11



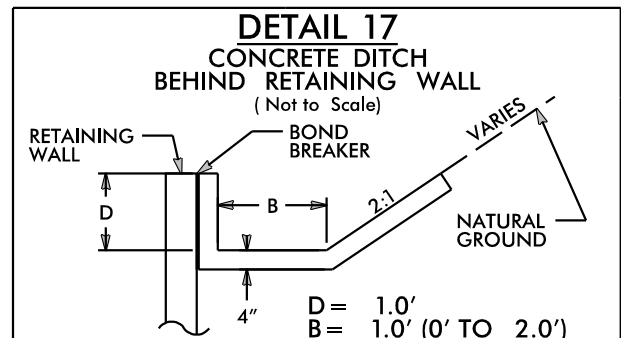
FROM STA. 108+50 -L- TO STA. 110+00 -L- RT
FROM STA. 109+79 -L- TO STA. 110+32 -L- LT
FROM STA. 110+47 -L- TO STA. 111+50 -L- LT
FROM STA. 110+50 -L- TO STA. 111+50 -L- RT



FROM STA. 100+50 -L- TO STA. 105+50 -L- LT



FROM STA. 110+00 -L- TO STA. 110+20 -L- RT



FROM STA. 100+00 -L- TO STA. 107+50 -L- LT

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES 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.

54" CSP'S EXTENSIONS INSTALLATION SEQUENCE STA. 110+25 -L- UT TO MILLERS CREEK

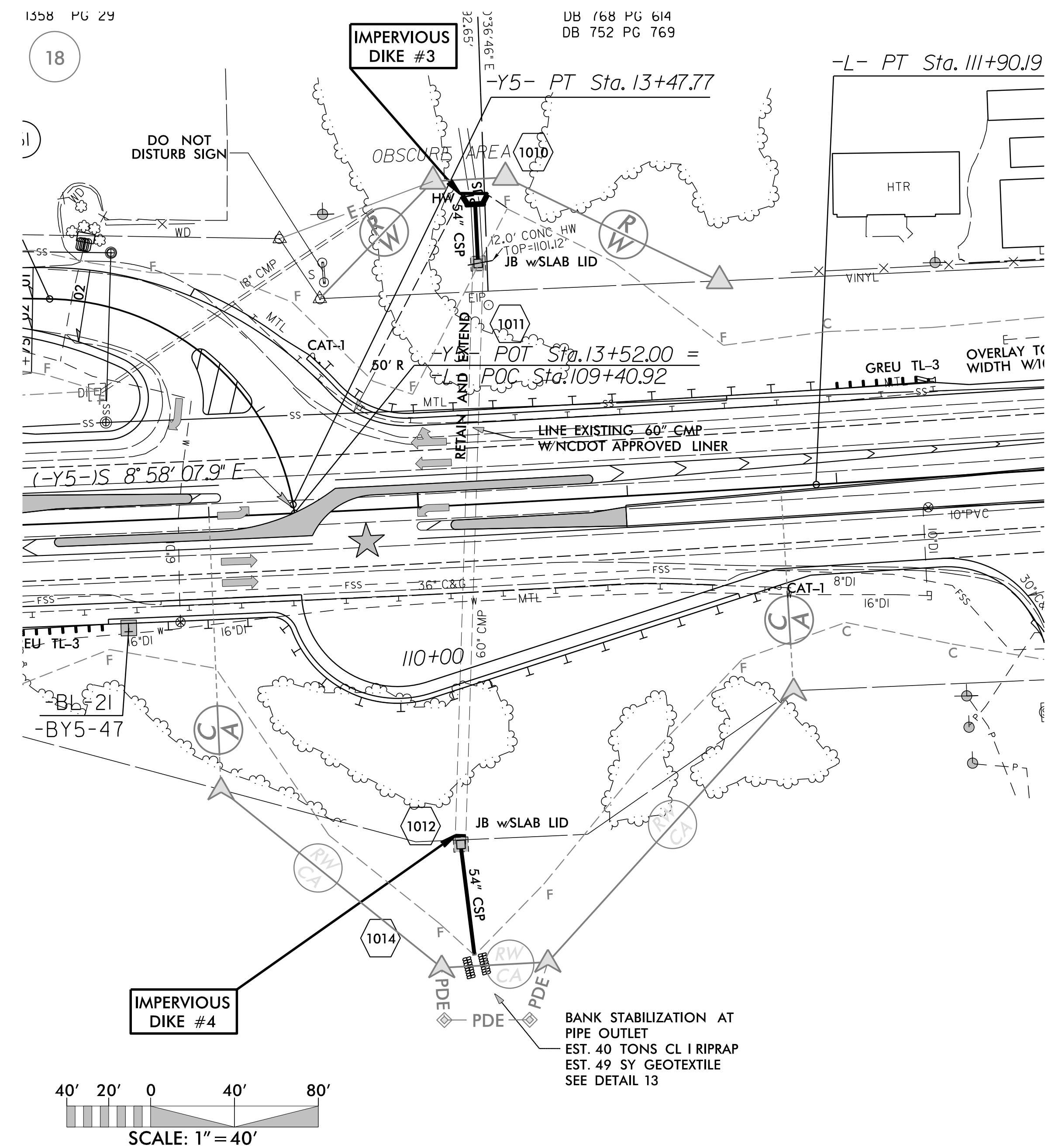
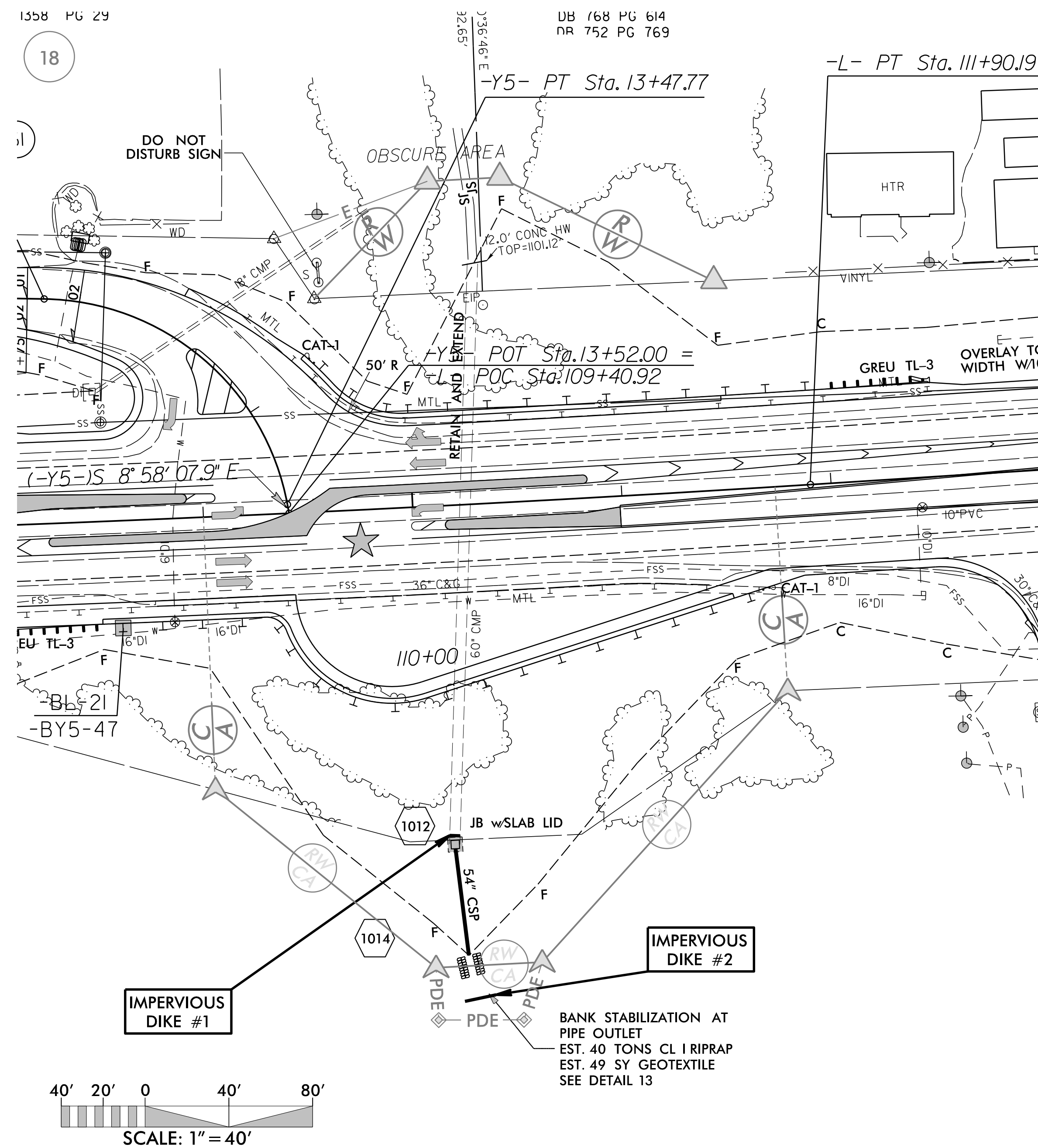
PROJECT REFERENCE NO. U-5312	SHEET NO. EC-08A/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE I

- 1.) UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT PIPE INSTALLATION.
- 2.) INSTALL DOWNSTREAM PUMPS AND TEMPORARY FLEXIBLE HOSES.
- 3.) INSTALL IMPERVIOUS DIKES #1 AND #2 AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
- 4.) DEWATER DOWNSTREAM CONSTRUCTION AREA, UTILIZING SPECIAL STILLING BASIN(S) FOR PUMPED EFFLUENT.
- 5.) CONSTRUCT DOWNSTREAM JUNCTION BOX WITH SLAB, 54" CSP, AND BANK STABILIZATION AT PIPE OUTLET IN ACCORDANCE WITH THE PLANS.
- 6.) EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 7.) REMOVE IMPERVIOUS DIKES, DOWNSTREAM PUMPS, AND TEMPORARY FLEXIBLE HOSES.
- 8.) DIRECT FLOW THROUGH 54" CSP.

PHASE II

- 1.) INSTALL UPSTREAM PUMPS AND TEMPORARY FLEXIBLE HOSES.
- 2.) INSTALL IMPERVIOUS DIKES #3 AND #4 AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
- 3.) DEWATER UPSTREAM CONSTRUCTION AREA UTILIZING SPECIAL STILLING BASIN(S) FOR PUMPED EFFLUENT.
- 4.) LINE EXISTING 60" CMP W/NC DOT APPROVED LINER.
- 5.) CONSTRUCT UPSTREAM JUNCTION BOX WITH SLAB, 54" CSP, AND HEADWALL IN ACCORDANCE WITH THE PLANS.
- 6.) EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 7.) REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), IMPERVIOUS DIKES, UPSTREAM PIPES, AND TEMPORARY FLEXIBLE HOSES.
- 8.) DIRECT FLOW THROUGH 54" CSP.
- 9.) COMPLETE ROADWAY.

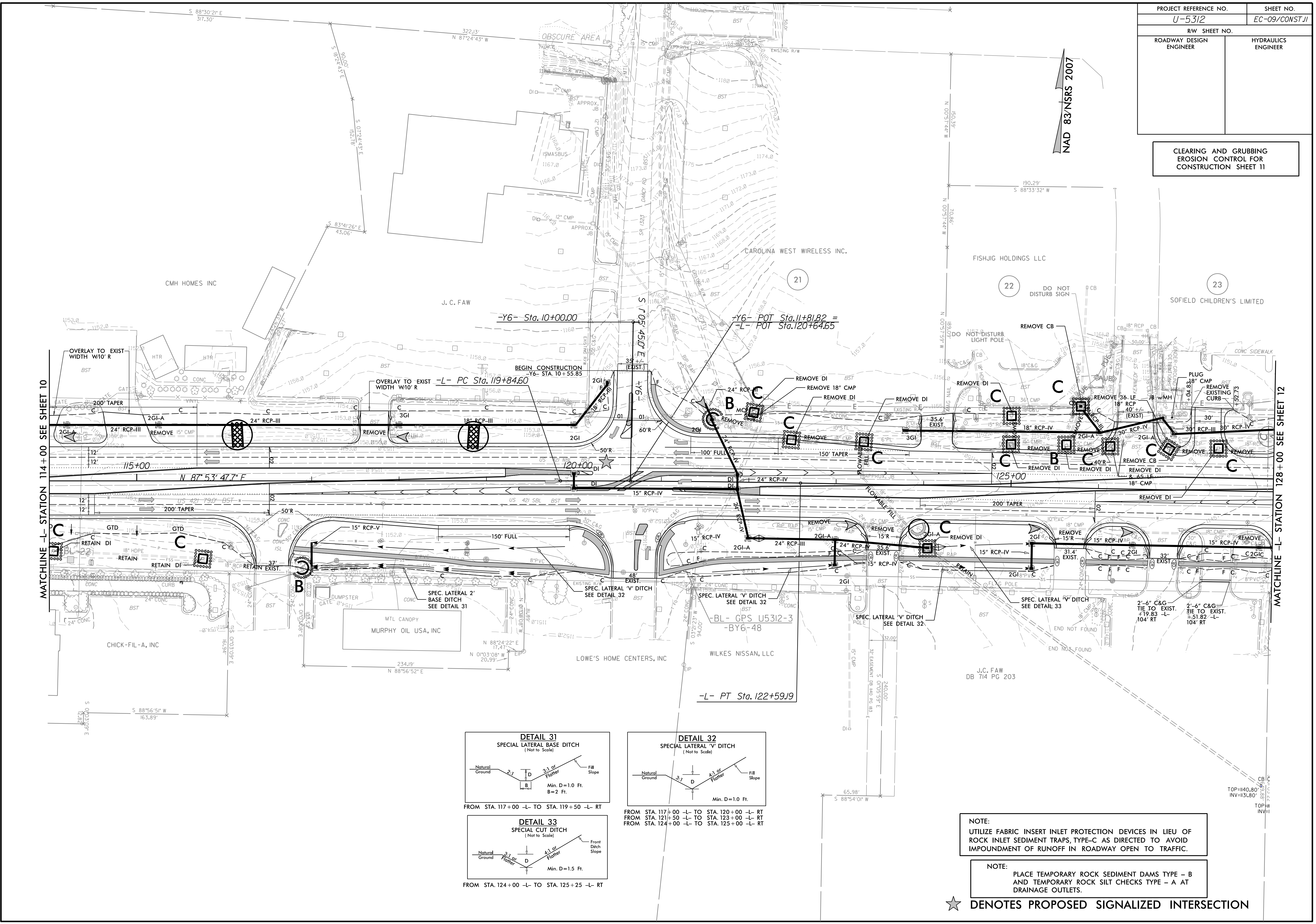


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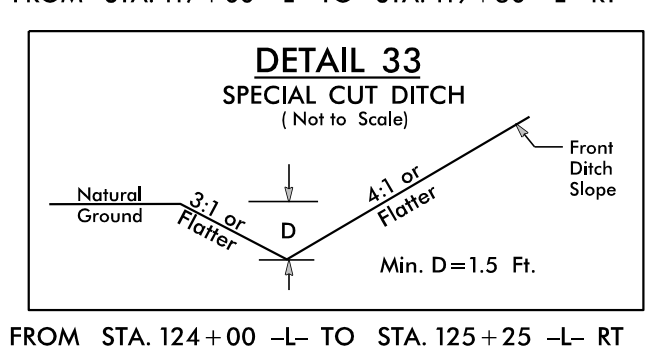
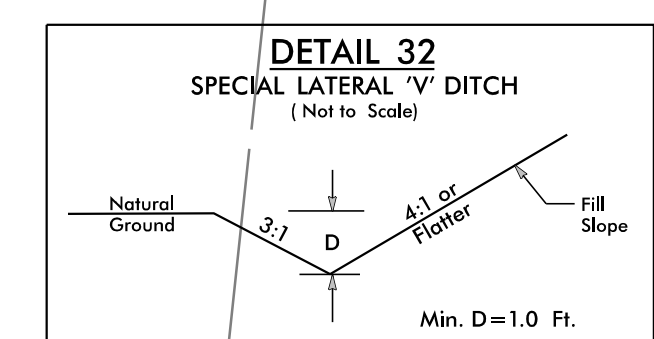
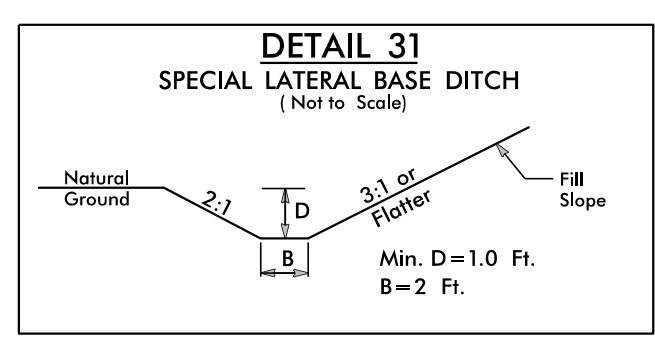
PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-09/CONST.II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11



MATCHLINE -L- STATION 114+00 SEE SHEET 10

MATCHLINE -L- STATION 128+00 SEE SHEET 12



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES 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.

★ DENOTES PROPOSED SIGNALIZED INTERSECTION

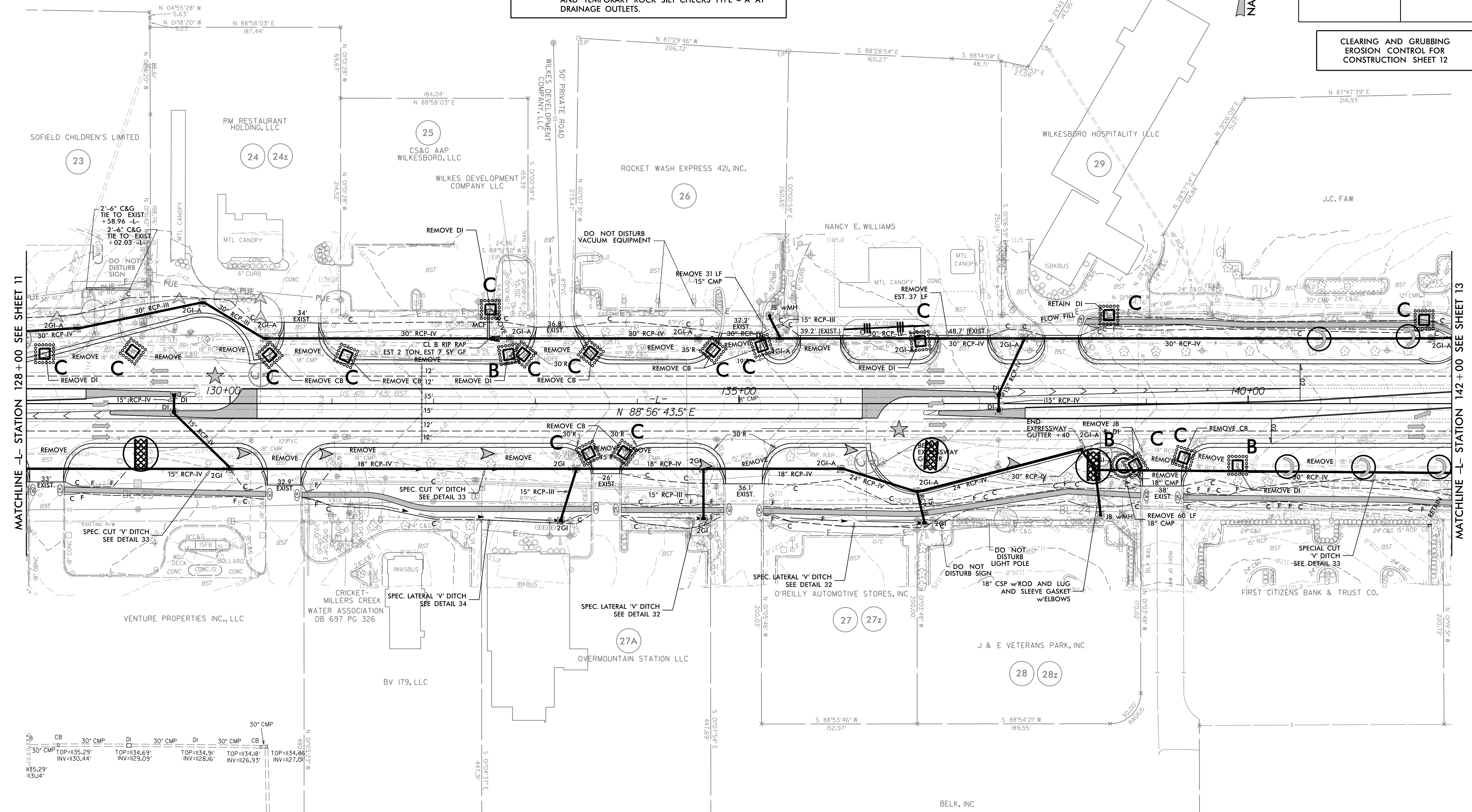
PROJECT REFERENCE NO. U-5312	SHEET NO. EC-10/CONST J2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES 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.

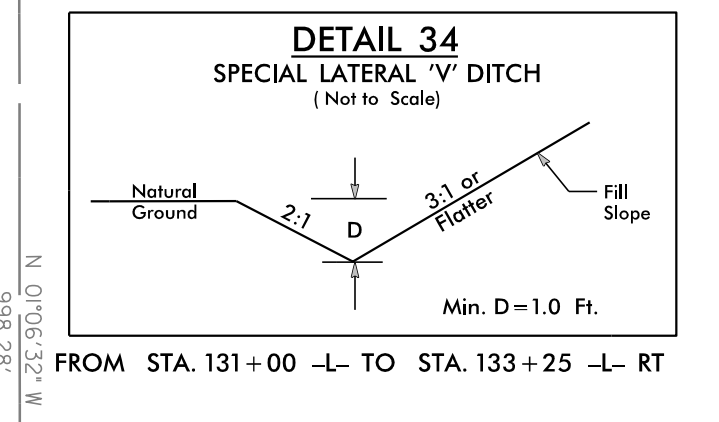
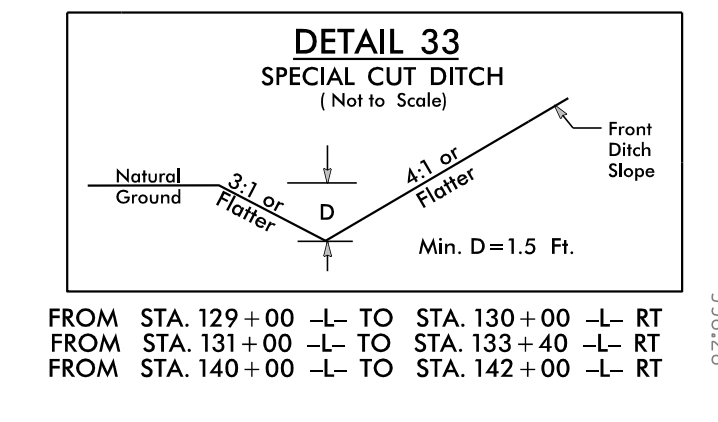
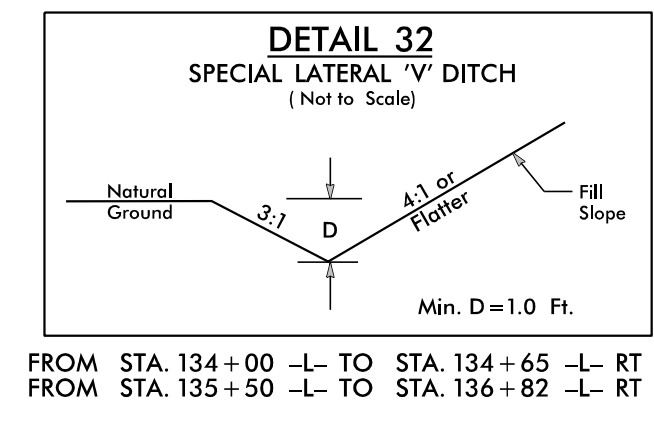
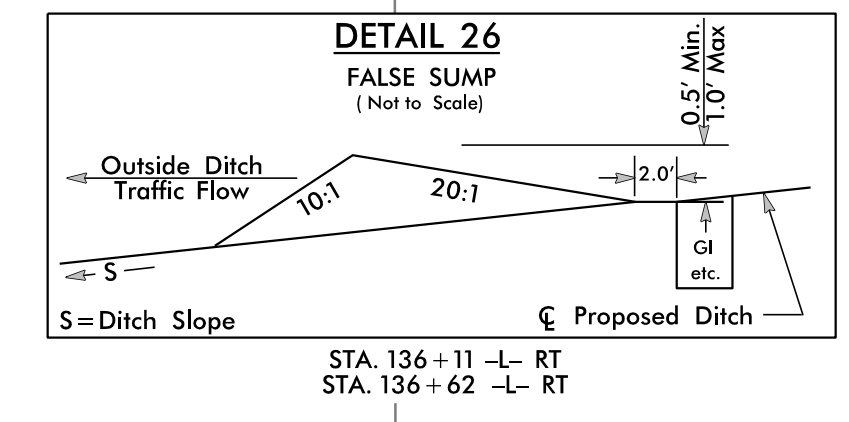
NAD 83/NRS 2007



MATCHLINE -L- STATION 128+00 SEE SHEET 11

MATCHLINE -L- STATION 142+00 SEE SHEET 13

30" CMP	30" CMP	30" CMP	30" CMP	30" CMP
TOP=135.29	TOP=134.69	TOP=134.91	TOP=134.18	TOP=134.46
INV=130.44	INV=129.09	INV=126.16	INV=127.00	

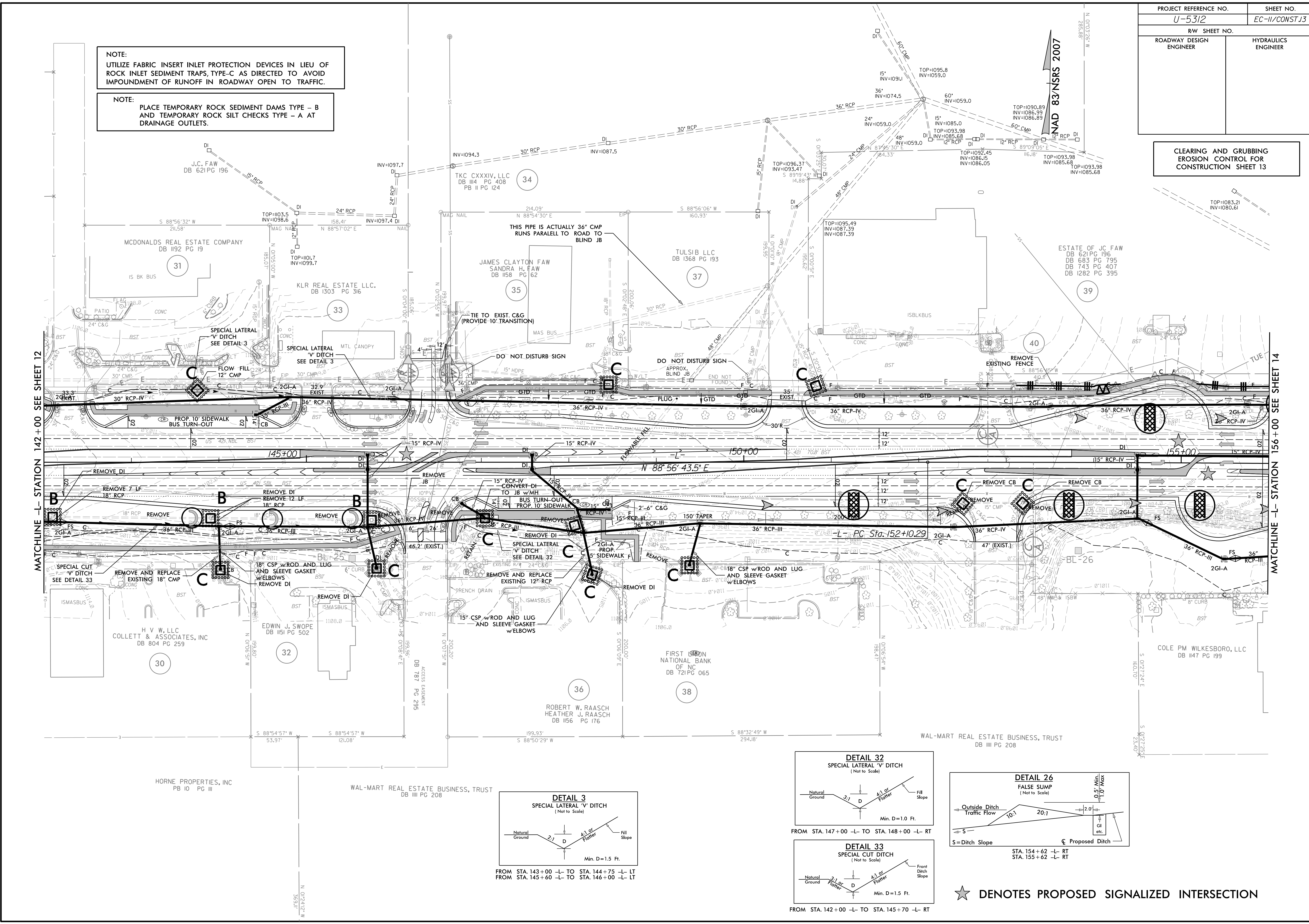


PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-II/CONST13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13

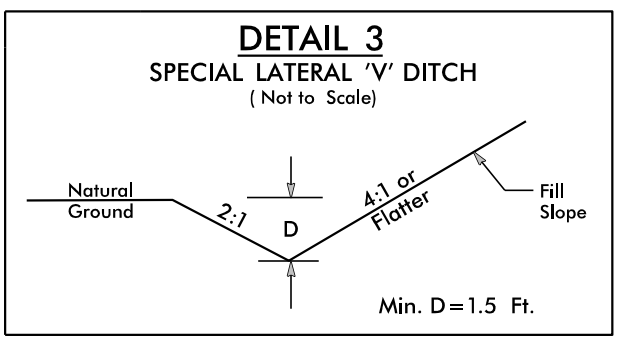
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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

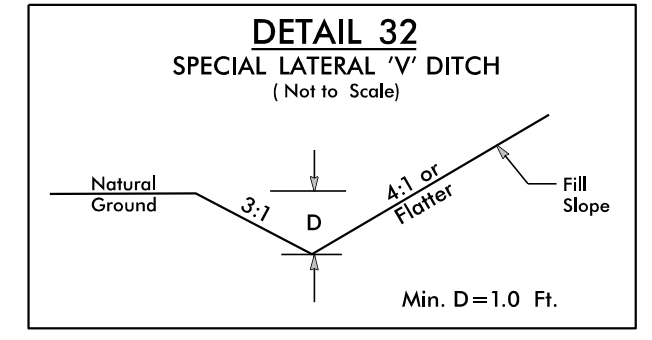


MATCHLINE -L- STATION 142+00 SEE SHEET 12

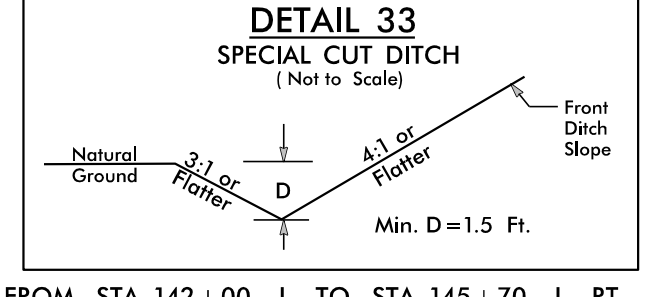
MATCHLINE -L- STATION 156+00 SEE SHEET 14



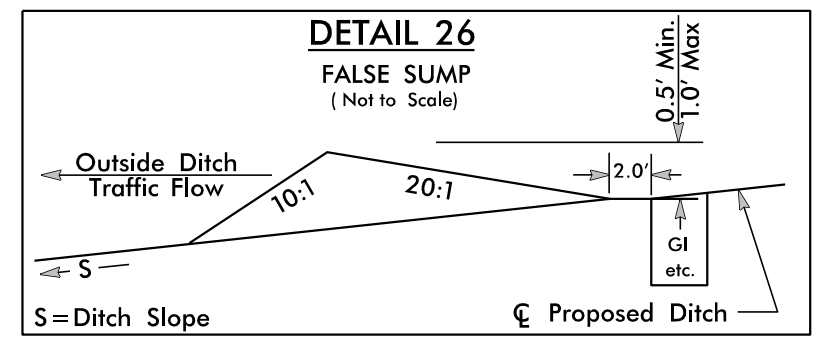
FROM STA. 143+00 -L- TO STA. 144+75 -L- LT
FROM STA. 145+60 -L- TO STA. 146+00 -L- LT



FROM STA. 147+00 -L- TO STA. 148+00 -L- RT



FROM STA. 142+00 -L- TO STA. 145+70 -L- RT



STA. 154+62 -L- RT
STA. 155+62 -L- RT

★ DENOTES PROPOSED SIGNALIZED INTERSECTION

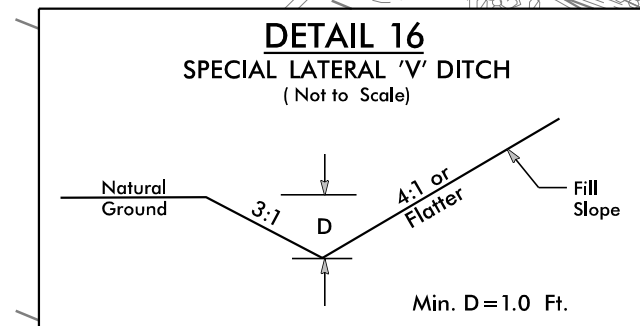
PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-12/CONST.14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14

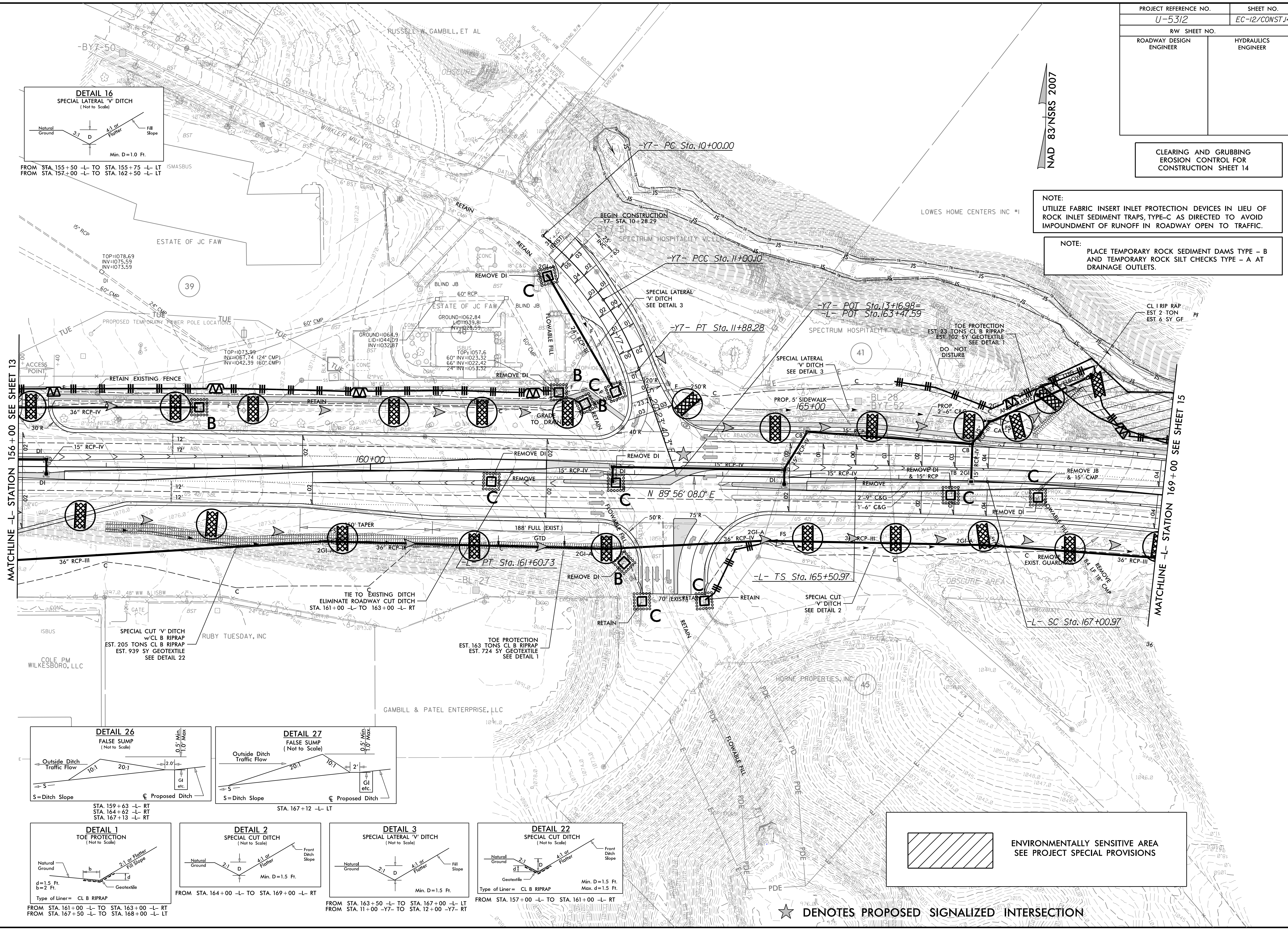
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF
ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

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

NAD 83/NRS 2007

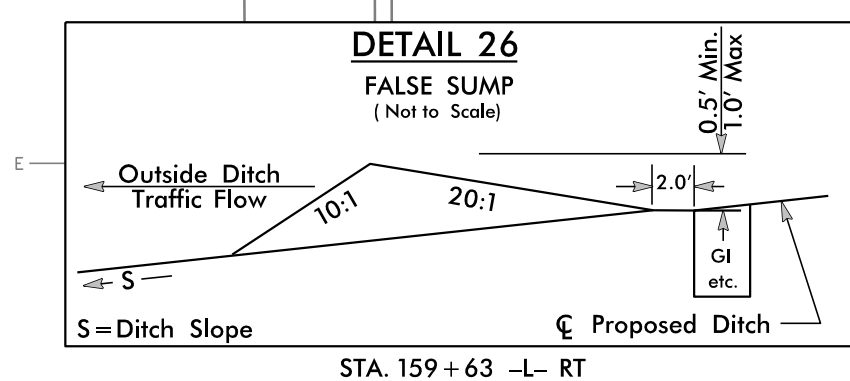


FROM STA. 155+50 -L- TO STA. 155+75 -L- LT
FROM STA. 157+00 -L- TO STA. 162+50 -L- LT

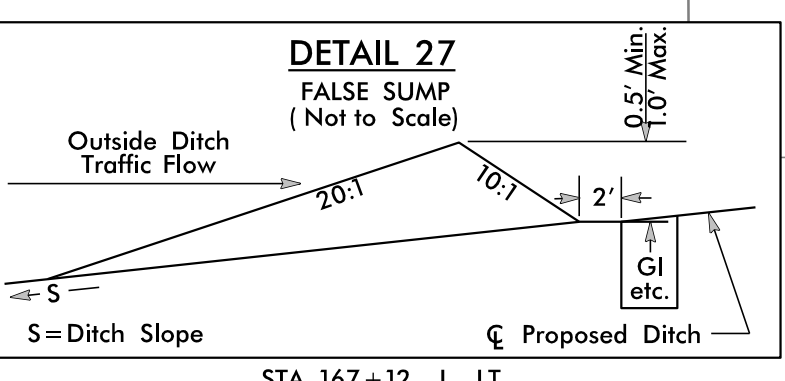


MATCHLINE -L- STATION 156+00 SEE SHEET 13

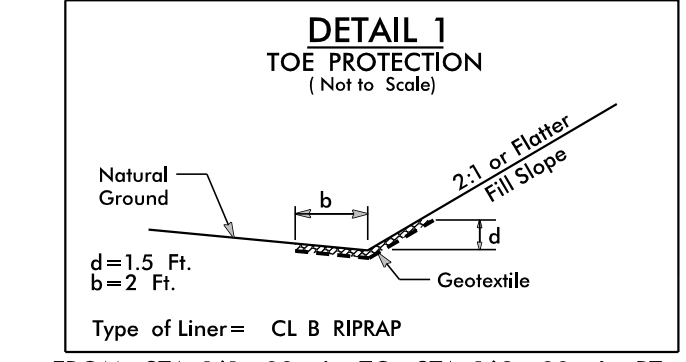
MATCHLINE -L- STATION 169+00 SEE SHEET 15



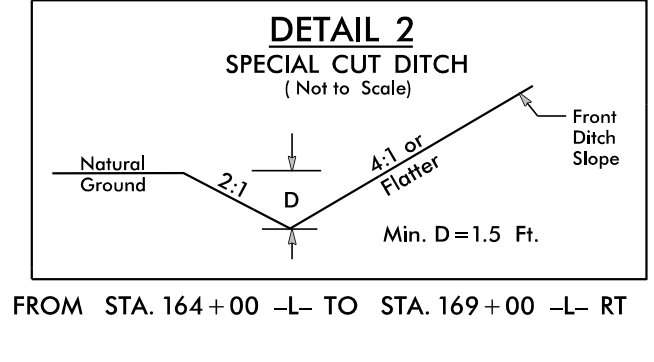
STA. 159+63 -L- RT
STA. 164+62 -L- RT
STA. 167+13 -L- RT



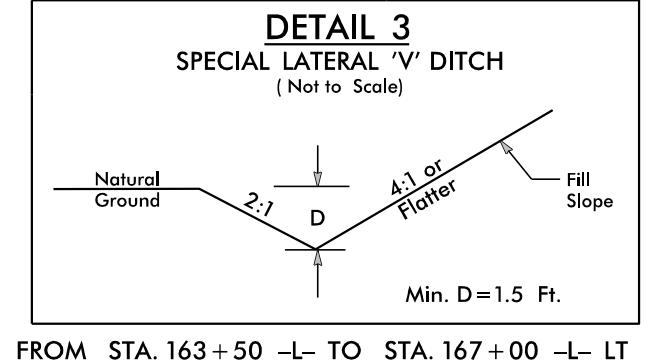
STA. 167+12 -L- LT



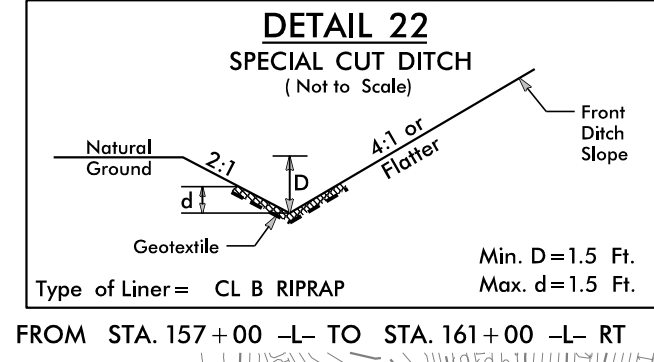
FROM STA. 161+00 -L- TO STA. 163+00 -L- RT
FROM STA. 167+50 -L- TO STA. 168+00 -L- LT



FROM STA. 164+00 -L- TO STA. 169+00 -L- RT



FROM STA. 163+50 -L- TO STA. 167+00 -L- LT
FROM STA. 11+00 -Y7- TO STA. 12+00 -Y7- RT



FROM STA. 157+00 -L- TO STA. 161+00 -L- RT

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

★ DENOTES PROPOSED SIGNALIZED INTERSECTION

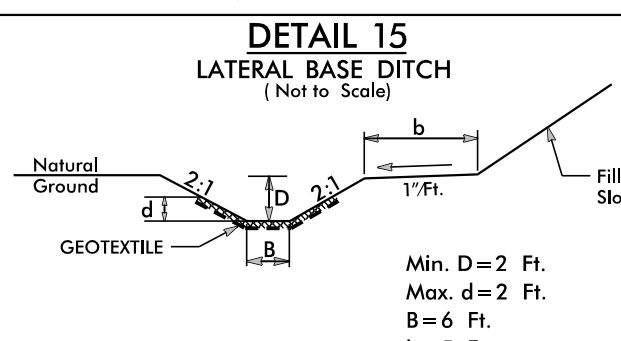
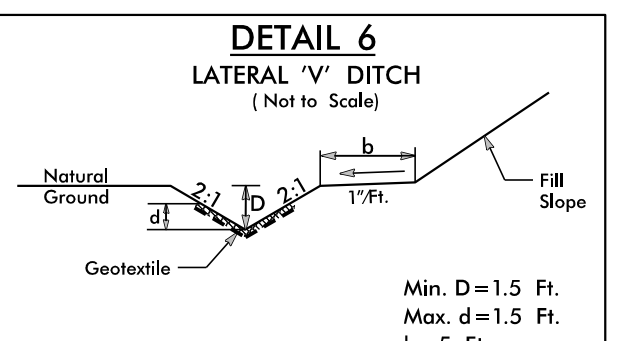
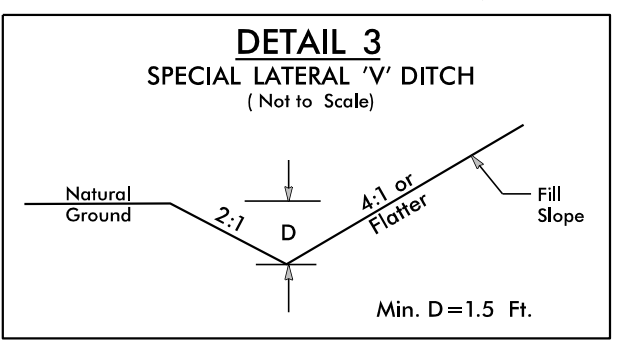
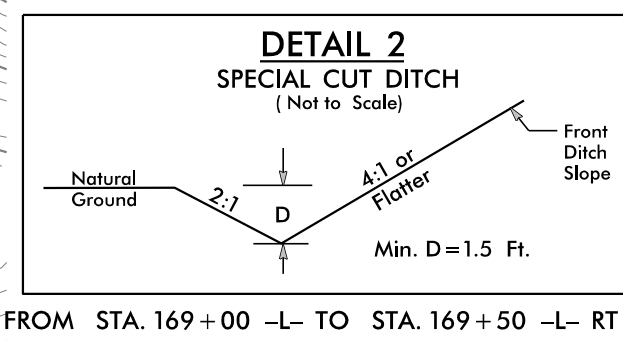
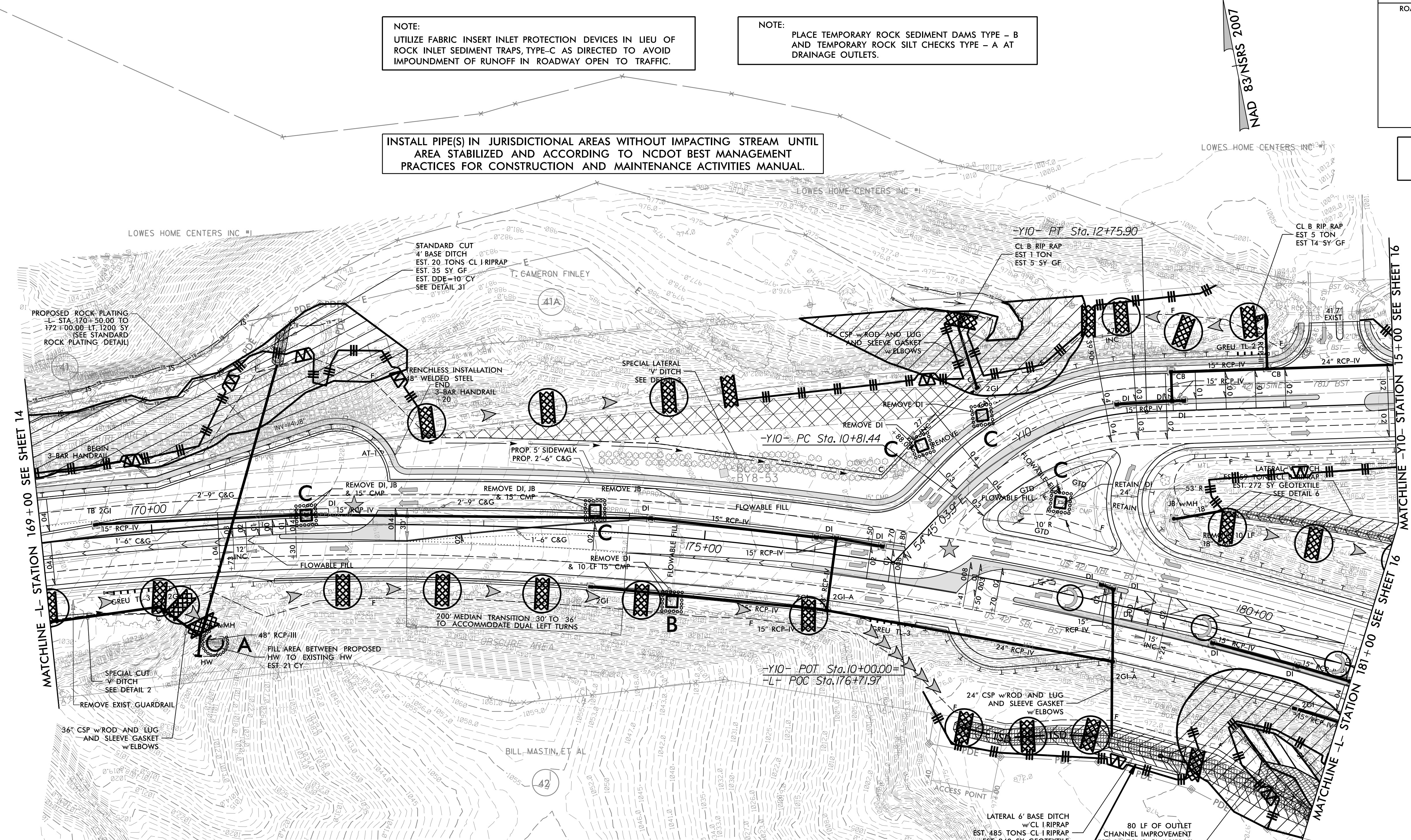
PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-13/CONST.15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES 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.

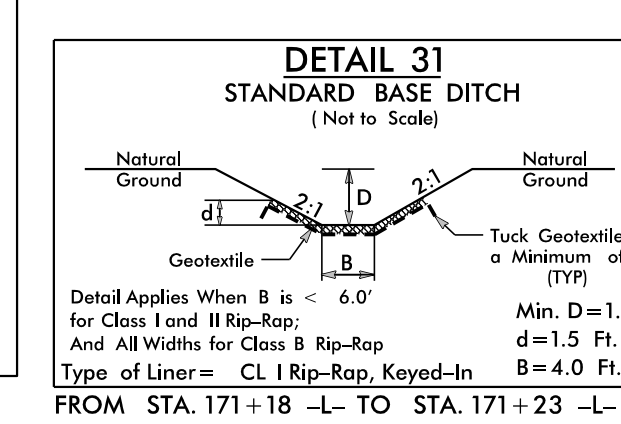
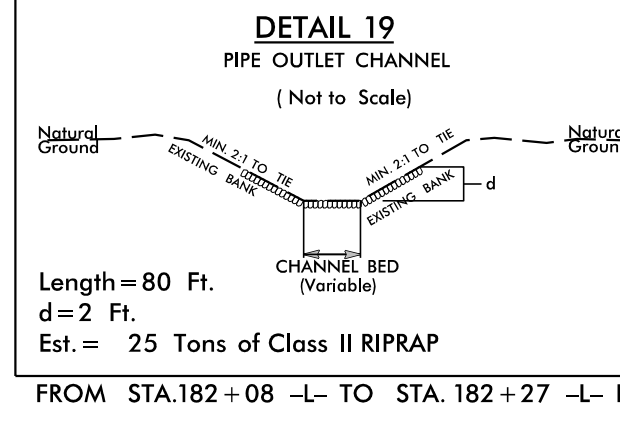
INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 15



81 x 26 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
8 ft. weir
ID 13.1

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

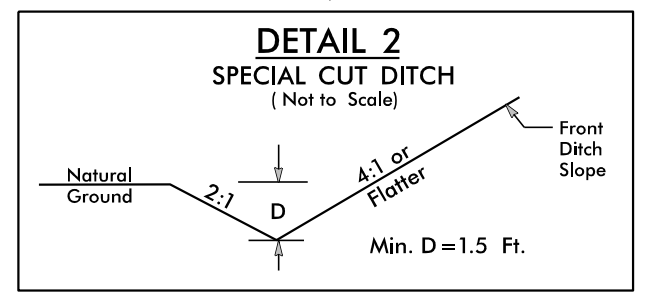


FOR -L- & -Y10- PROFILES SEE SHEETS 22 & 24
FOR INTERSECTION AND U-TURN BULB DETAILS SEE SHEETS 2B-14 & 2B-15

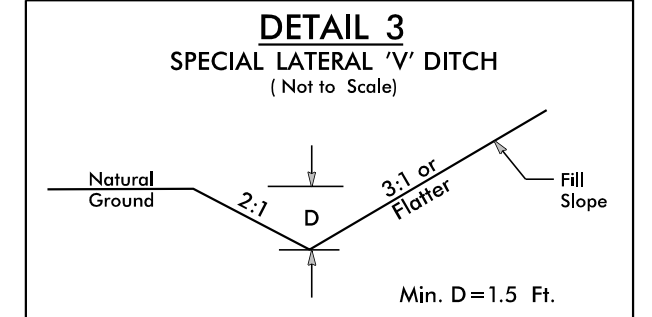
DENOTES PROPOSED SIGNALIZED INTERSECTION

PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-14/CONST 16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

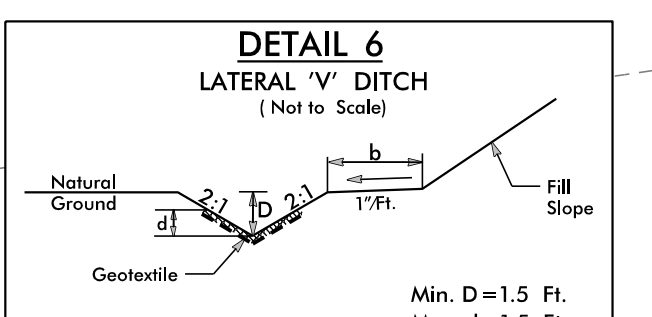
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 16



FROM STA. 19+60 -Y10- TO STA. 20+20 -Y10- LT
FROM STA. 15+50 -Y11- TO STA. 19+00 -Y11- LT
FROM STA. 17+50 -Y11- TO STA. 19+00 -Y11- RT

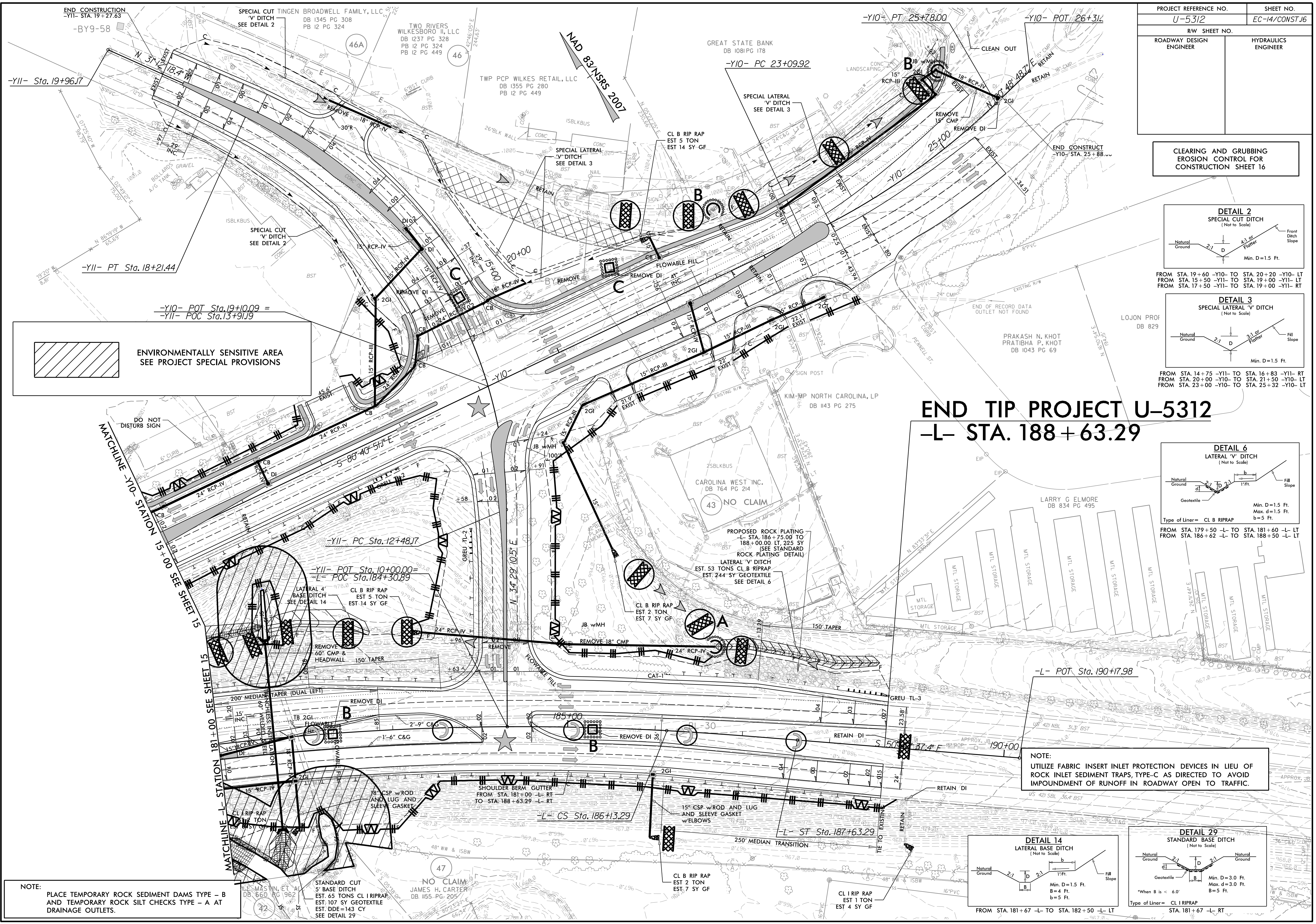


FROM STA. 14+75 -Y11- TO STA. 16+83 -Y11- RT
FROM STA. 20+50 -Y10- TO STA. 21+50 -Y10- LT
FROM STA. 23+00 -Y10- TO STA. 25+32 -Y10- LT



FROM STA. 179+50 -L- TO STA. 181+60 -L- LT
FROM STA. 186+62 -L- TO STA. 188+50 -L- LT

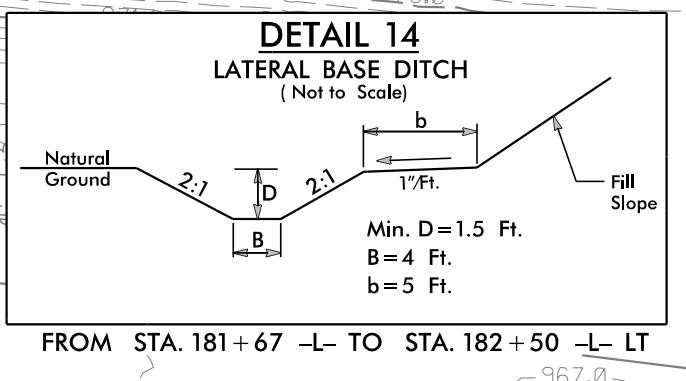
END TIP PROJECT U-5312 -L- STA. 188+63.29



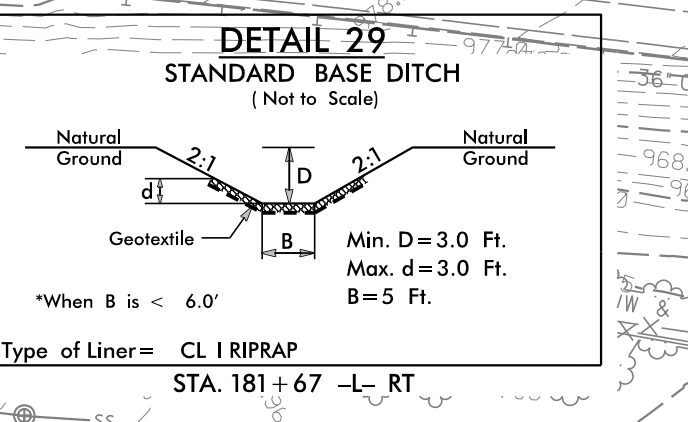
ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES 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.



FROM STA. 181+67 -L- TO STA. 182+50 -L- LT



STA. 181+67 -L- RT

2@11'X11' RCBC CONSTRUCTION SEQUENCE STA. 179+42 -L- TUCKER HOLE CREEK

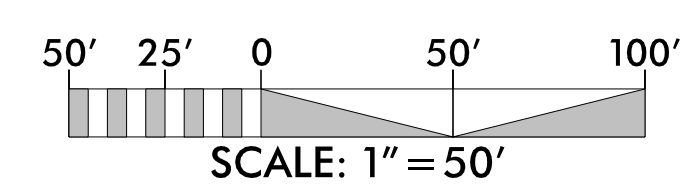
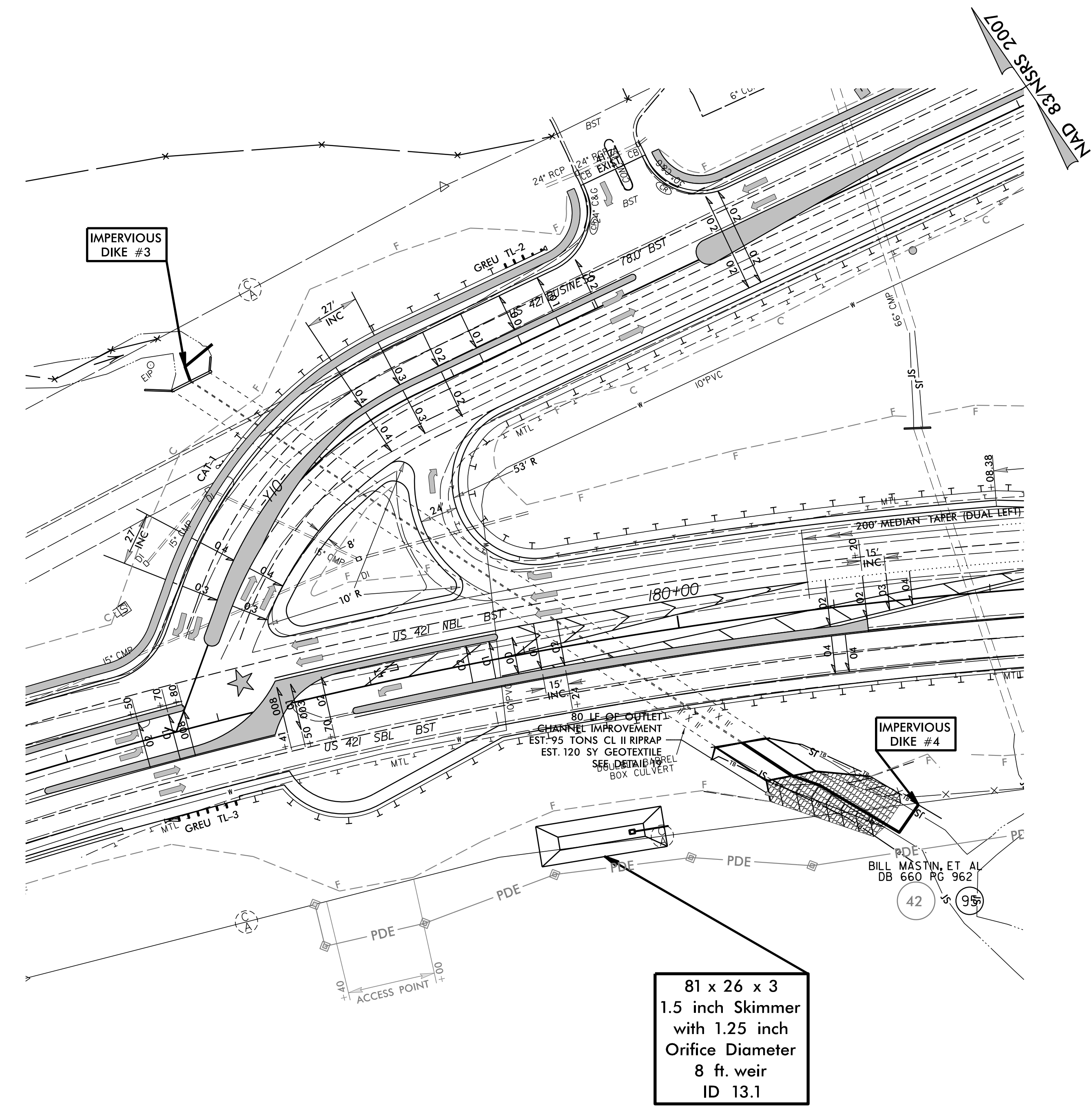
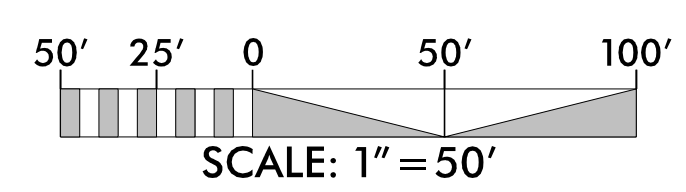
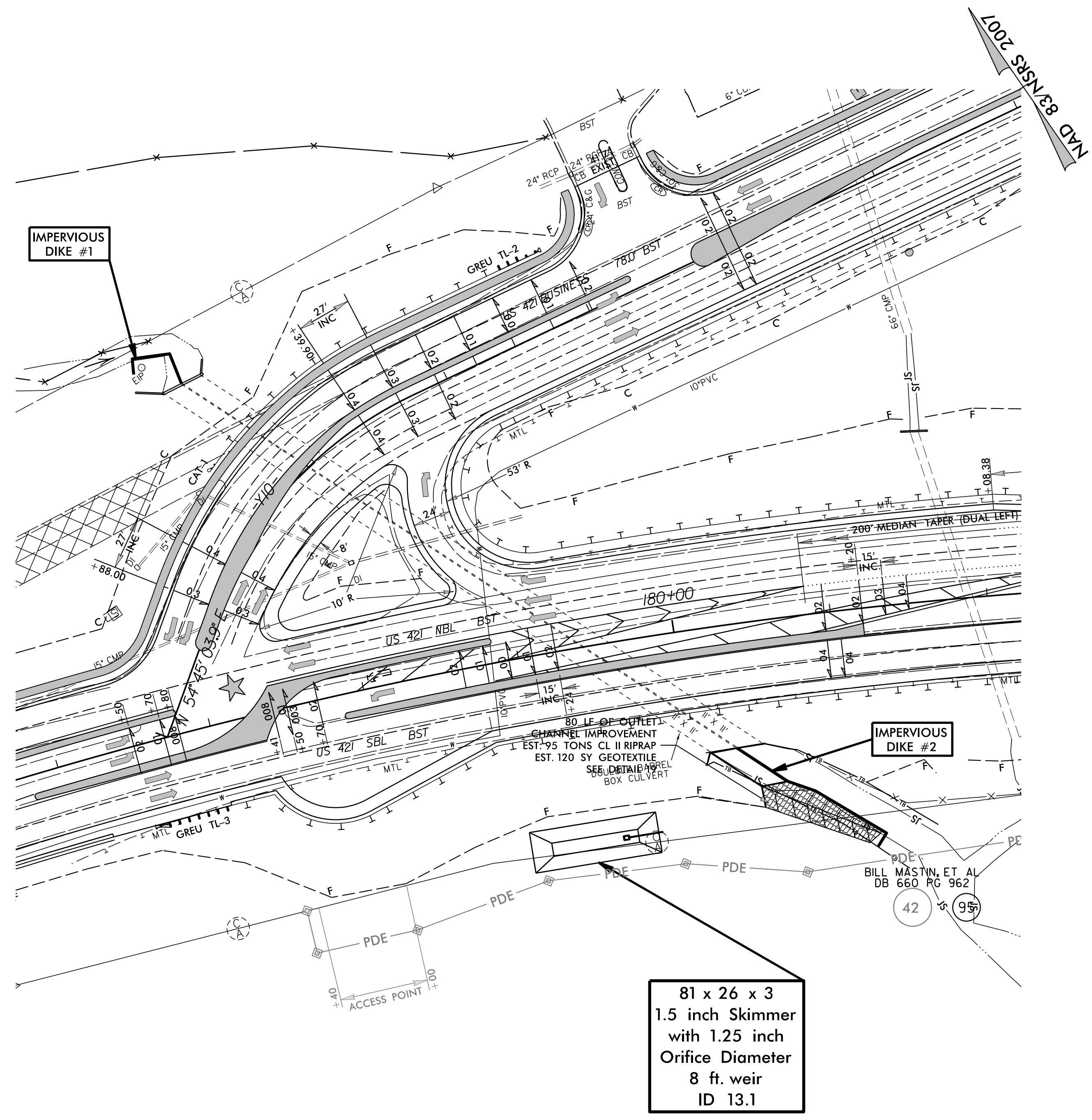
PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-14A/CONST.16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE I

- 1.) UTILIZE SKIMMER BASIN 13.1 AS A STILLING BASIN DURING CULVERT CONSTRUCTION.
- 2.) INSTALL IMPERVIOUS DIKES #1 AND #2.
- 3.) DEWATER CONSTRUCTION AREA UTILIZING SKIMMER BASIN 13.1.
- 4.) CONSTRUCT CULVERT EXTENSION FOR BARREL 1 (WESTERN BARREL) AND 80 LF OF OUTLET CHANNEL IMPROVEMENT.
- 5.) LINE OUTLET CHANNEL IMPROVEMENT WITH CL II RIPRAP UP TO IMPERVIOUS DIKE #2.
- 6.) EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 7.) REMOVE IMPERVIOUS DIKES AND DIRECT WATER THROUGH WESTERN BARREL.

PHASE II

- 1.) INSTALL IMPERVIOUS DIKES #3 AND #4.
- 2.) DEWATER CONSTRUCTION AREA UTILIZING SKIMMER BASIN 13.1.
- 3.) CONSTRUCT CULVERT EXTENSION FOR BARREL 2 (EASTERN BARREL) AND COMPLETE DOWNSTREAM OUTLET CHANNEL IMPROVEMENT.
- 4.) LINE OUTLET CHANNEL IMPROVEMENT WITH CL II RIPRAP UP TO IMPERVIOUS DIKE #4.
- 5.) EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 6.) REMOVE IMPERVIOUS DIKES.
- 7.) COMPLETE ROADWAY.

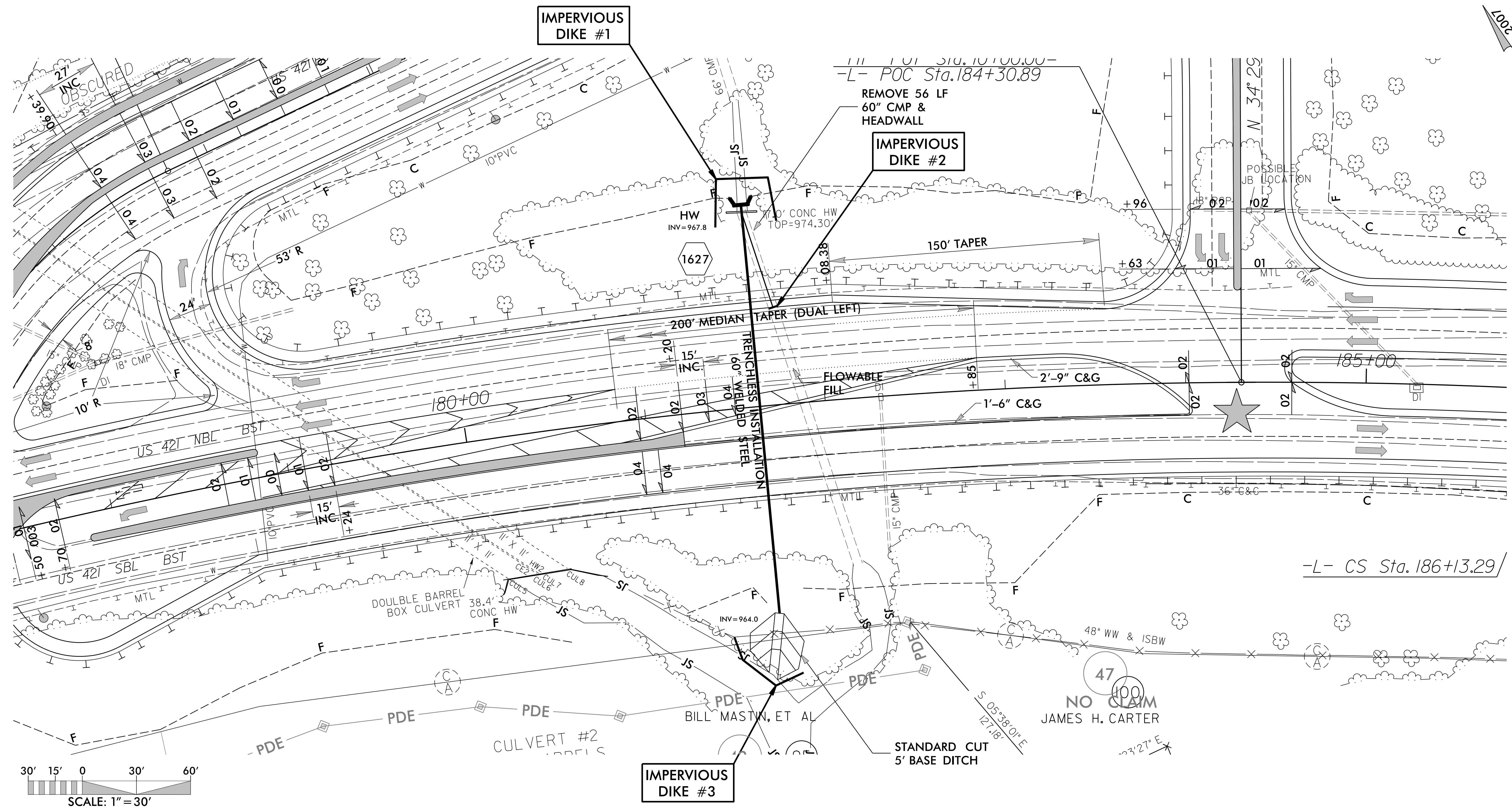


60" WSP INSTALLATION SEQUENCE STA. 181+64 -L- TUCKER HOLE CREEK

PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-14B/CONST.16
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

PHASE I

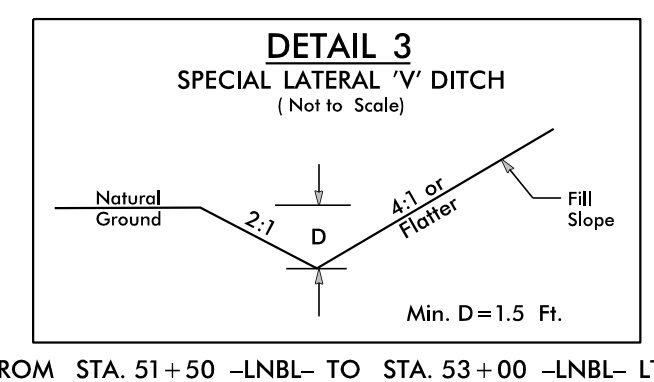
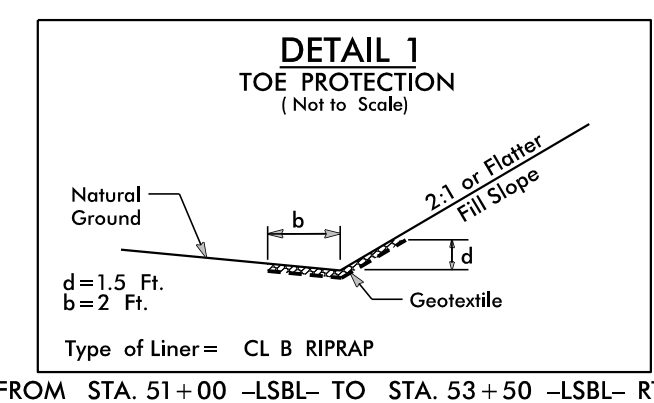
- 1.) UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT PIPE INSTALLATION.
- 2.) INSTALL UPSTREAM PUMPS AND TEMPORARY FLEXIBLE HOSES.
- 3.) INSTALL IMPERVIOUS DIKES #1, #2, AND #3 AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
- 4.) CONSTRUCT STANDARD CUT 5' BASE DITCH.
- 5.) REMOVE EXISTING HEADWALL AND +/- 55' OF 60" CMP.
- 6.) INSTALL TRENCHLESS 60" WELDED STEEL AND HEADWALL.
- 7.) EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES.
- 8.) REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), IMPERVIOUS DIKES, UPSTREAM PUMPS, AND TEMPORARY FLEXIBLE HOSES.
- 9.) DIVERT FLOW THROUGH TRENCHLESS 60" WELDED STEEL.
- 10.) FILL EXISTING 60" CMP WITH FLOWABLE FILL.
- 11.) COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-15/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 51+50 to Sta. 53+50 -L- RT

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



DETAIL 23
FALSE SLUMP
(Not to Scale)

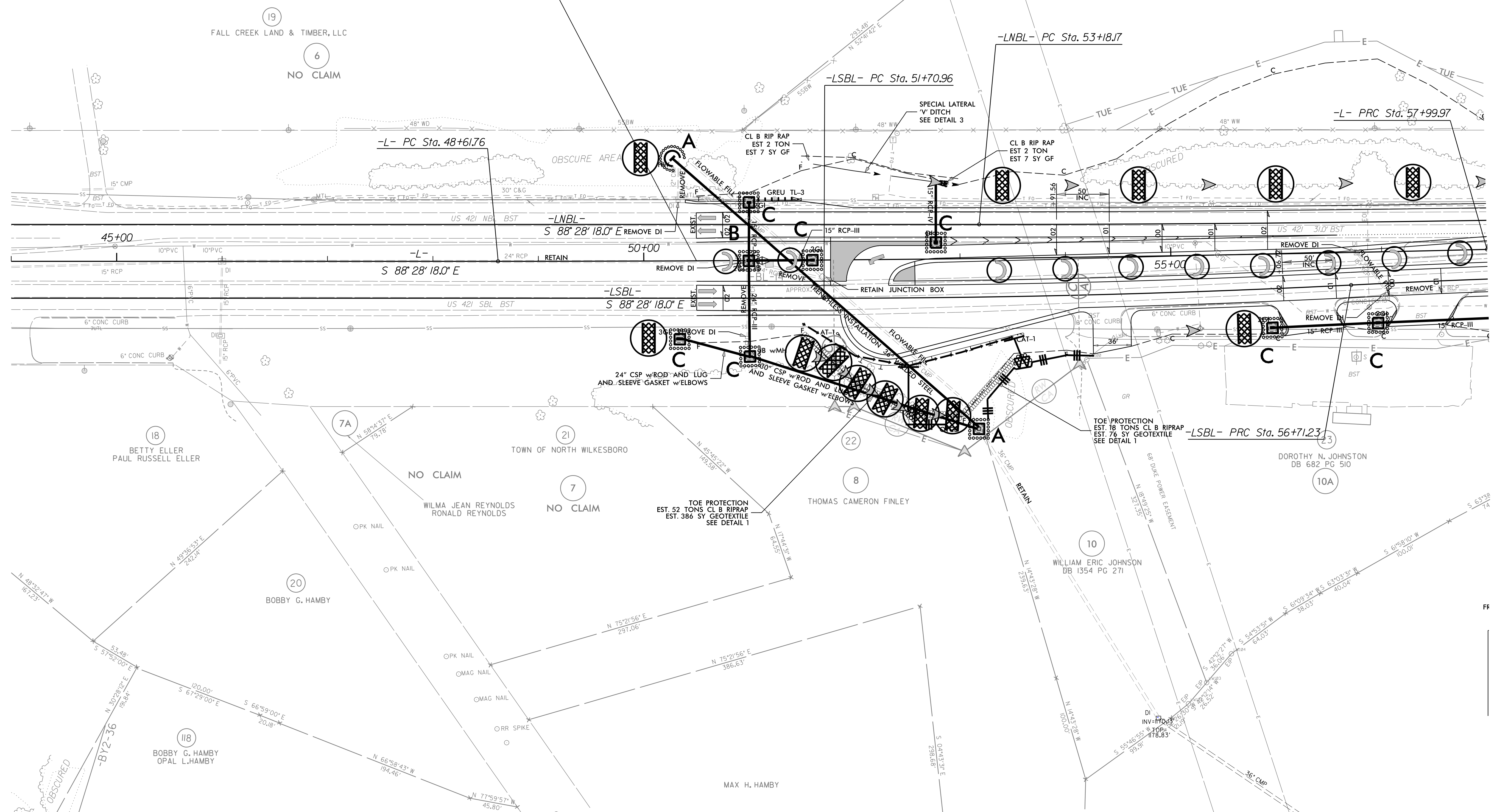
Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

S=Ditch Slope
L=Length
G=Proposed Ditch

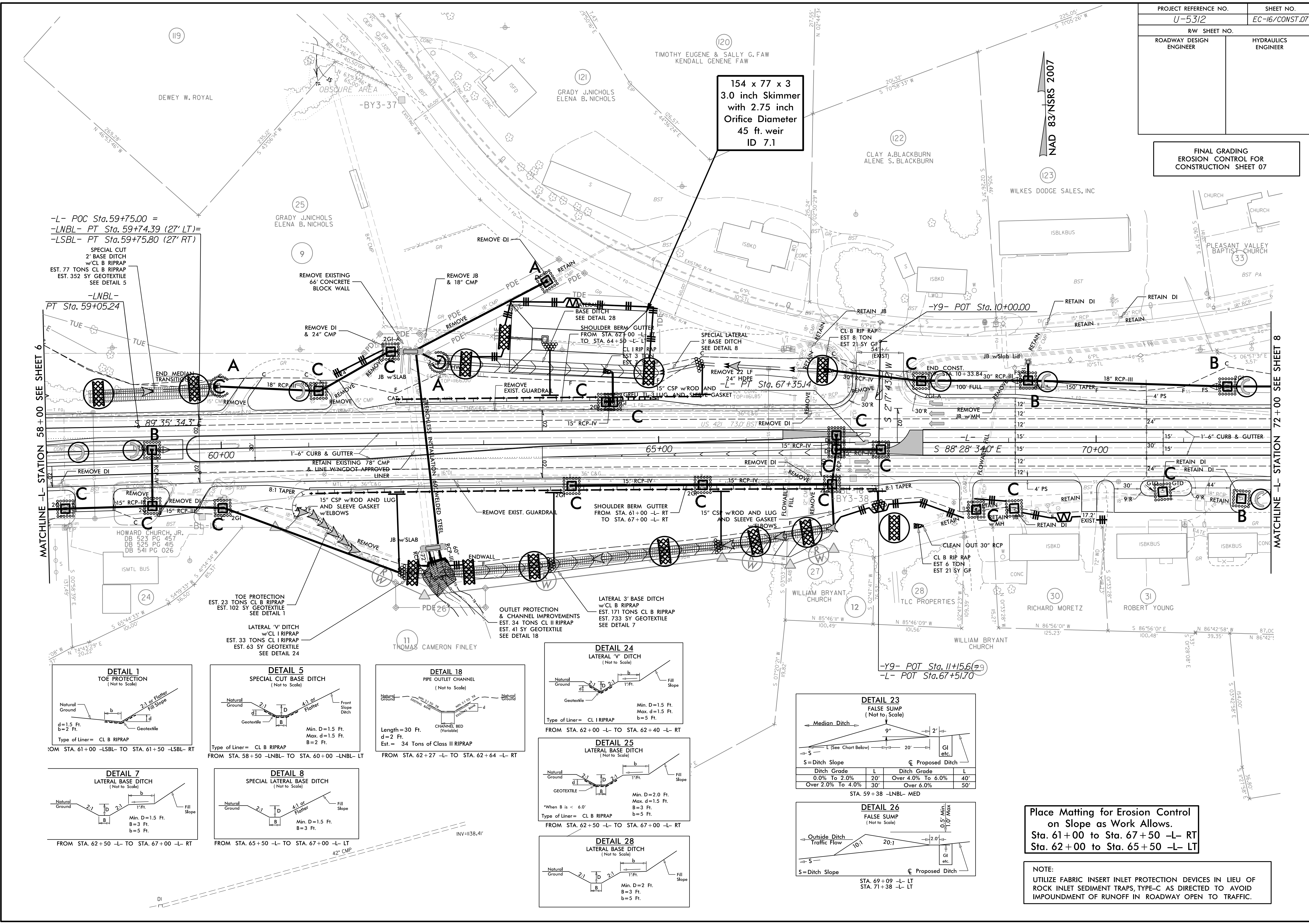
NAD 83/NSRS 2007

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06

BEGIN TIP PROJECT U-5312
-L- STA. 50+50.00
GRADE LINES MAY BE ADJUSTED AT THEIR
BEGINNING AS DIRECTED BY THE ENGINEER
IN ORDER TO SECURE A PROPER TIE-IN.



FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07

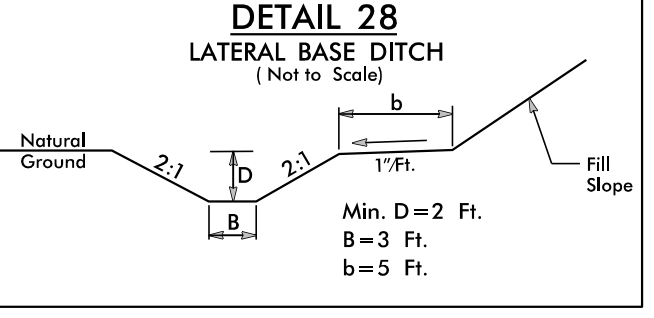
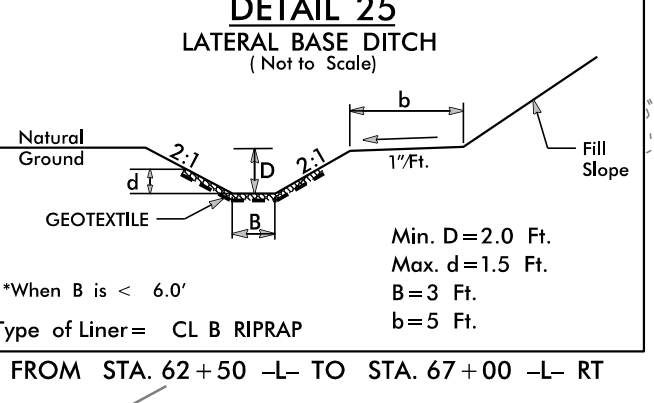
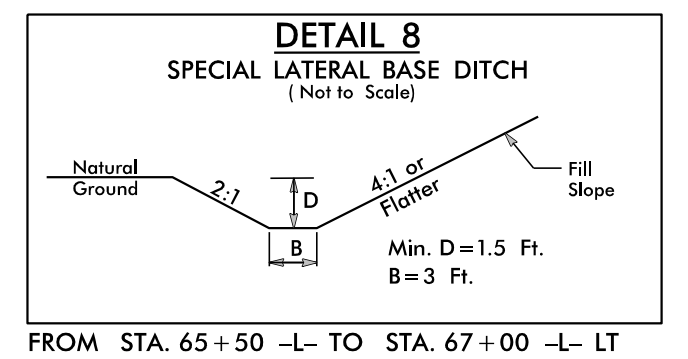
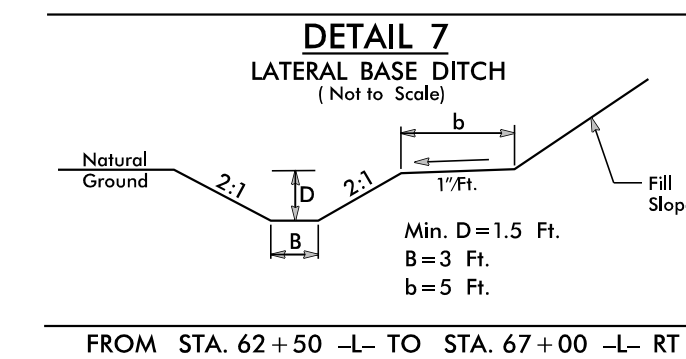
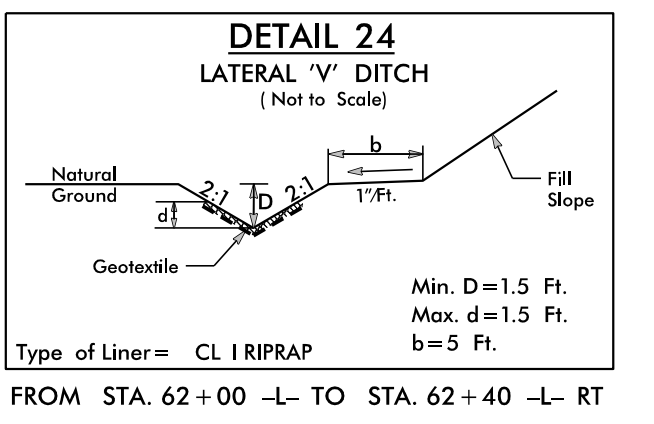
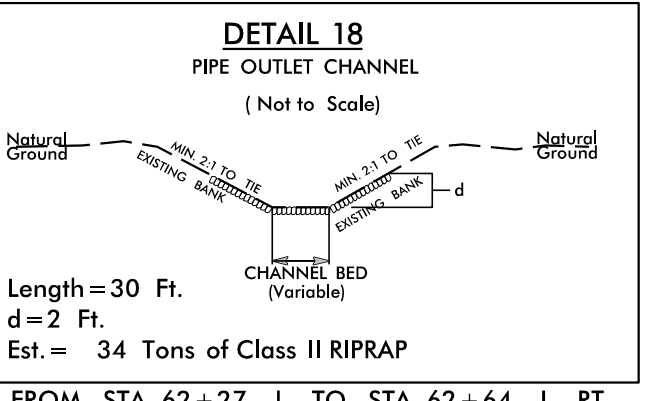
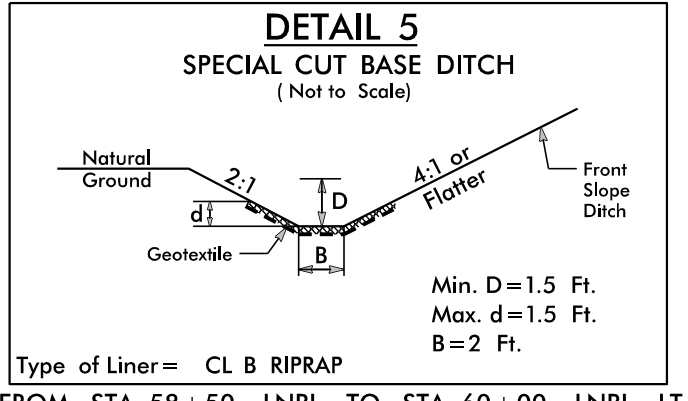
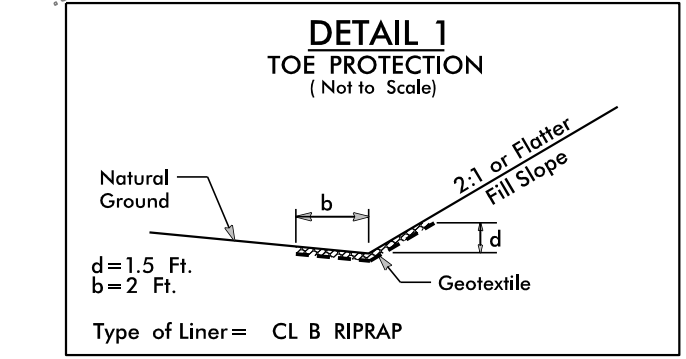


-L- POC Sta.59+75.00 =
-LNBL- PT Sta.59+74.39 (27' LT)=
-LSBL- PT Sta.59+75.80 (27' RT)

-LNBL-
PT Sta.59+05.24

-Y9- POT Sta.10+00.00

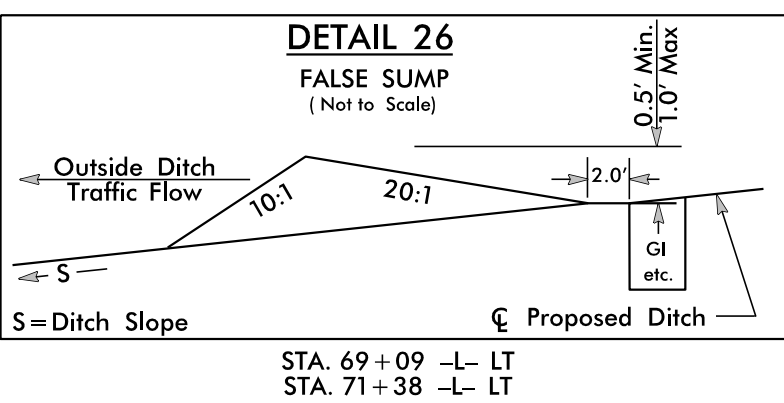
154 x 77 x 3
3.0 inch Skimmer
with 2.75 inch
Orifice Diameter
45 ft. weir
ID 7.1



DETAIL 23
FALSE SUMP
(Not to Scale)

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

STA. 59+38 -LNBL- MED



Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 61+00 to Sta. 67+50 -L- RT
Sta. 62+00 to Sta. 65+50 -L- LT

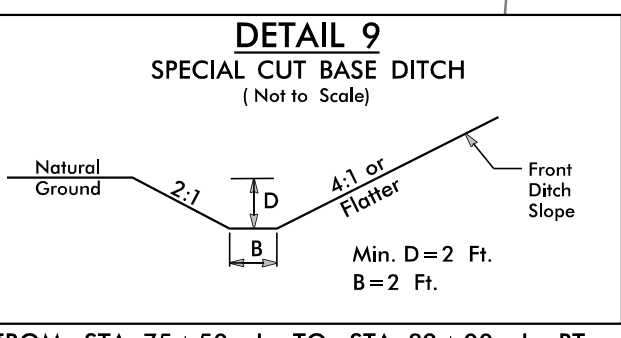
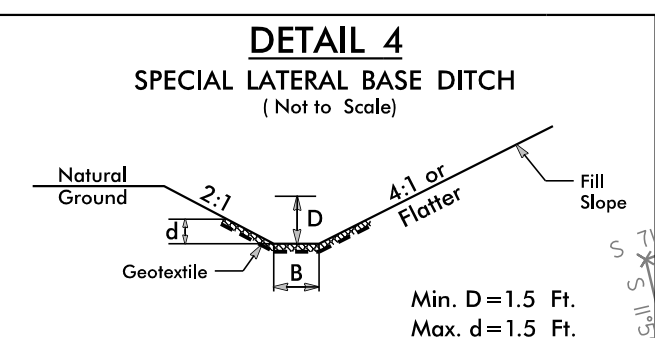
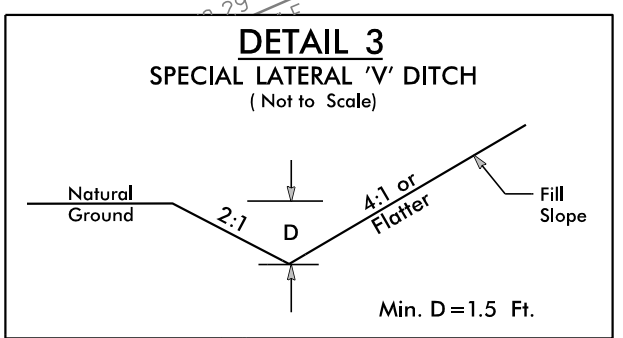
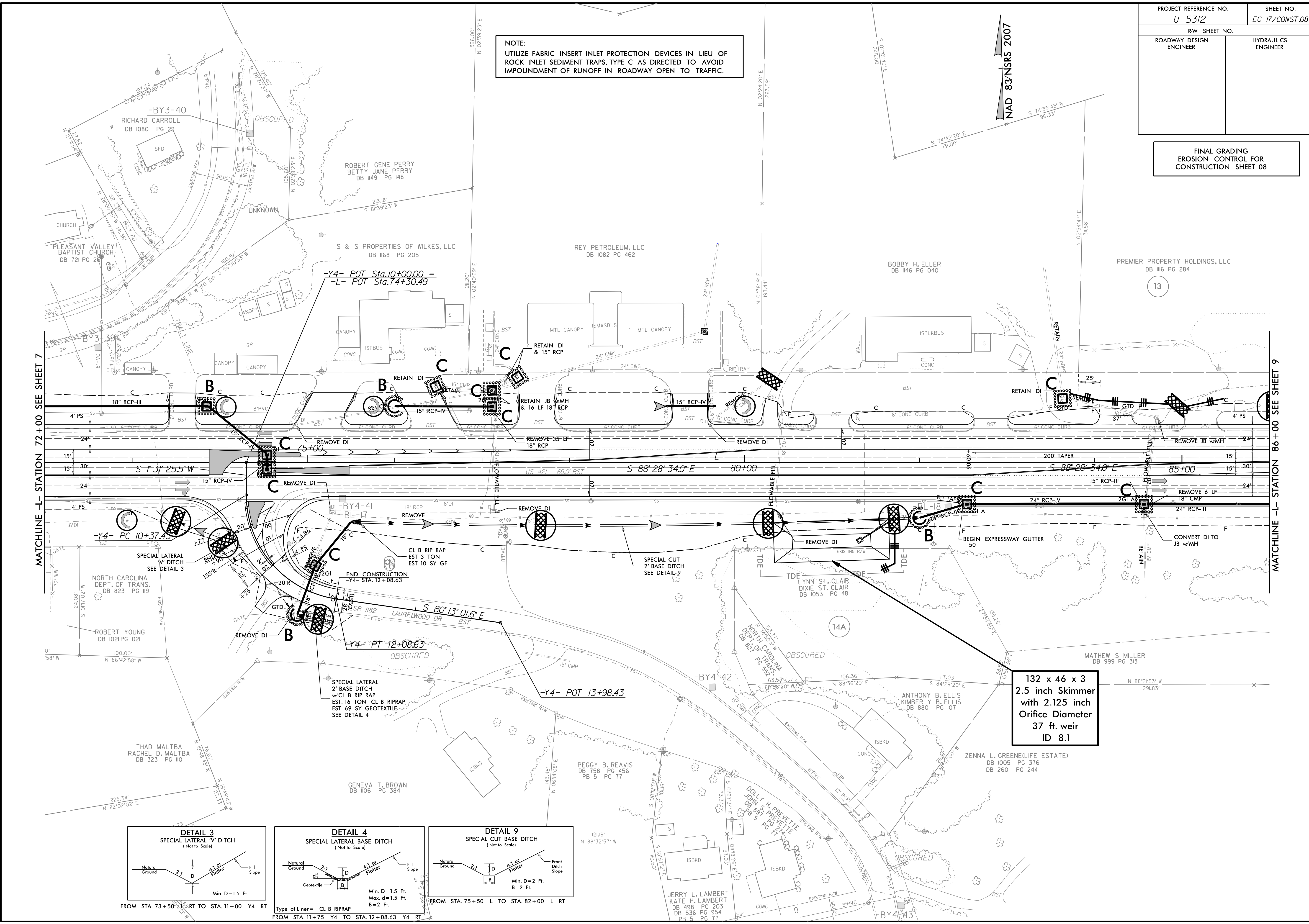
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF
ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-17/CONST.08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 08

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

NAD 83/NSRS 2007



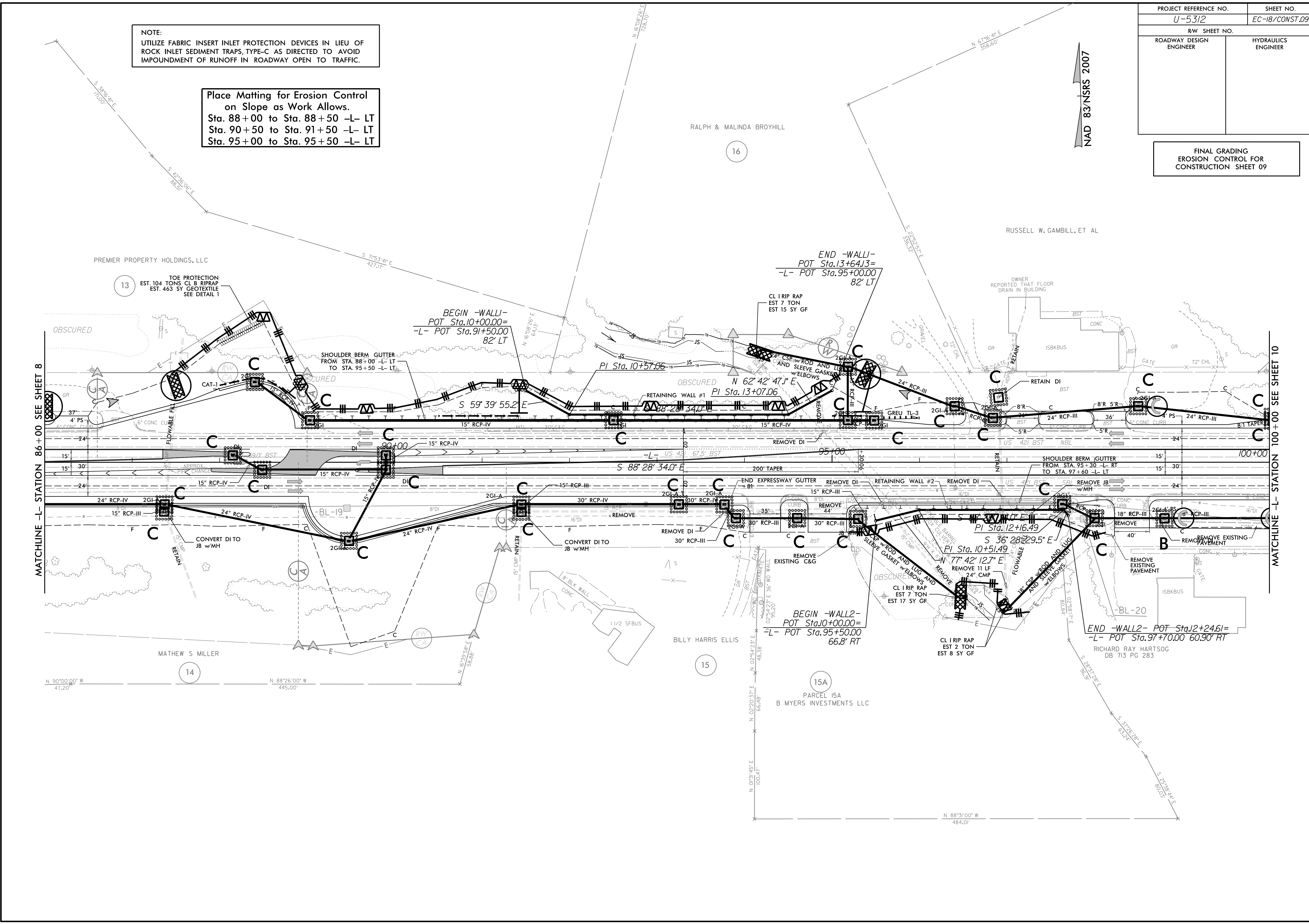
132 x 46 x 3
2.5 inch Skimmer
with 2.125 inch
Orifice Diameter
37 ft. weir
ID 8.1

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

Place Matting for Erosion Control
 on Slope as Work Allows.
 Sta. 88+00 to Sta. 88+50 -L- LT
 Sta. 90+50 to Sta. 91+50 -L- LT
 Sta. 95+00 to Sta. 95+50 -L- LT

PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-18/CONST.09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 09



MATCHLINE -L- STATION 86+00 SEE SHEET 8

MATCHLINE -L- STATION 100+00 SEE SHEET 10

N 90°00'00" W 47.20'
 N 88°26'00" W 445.00'

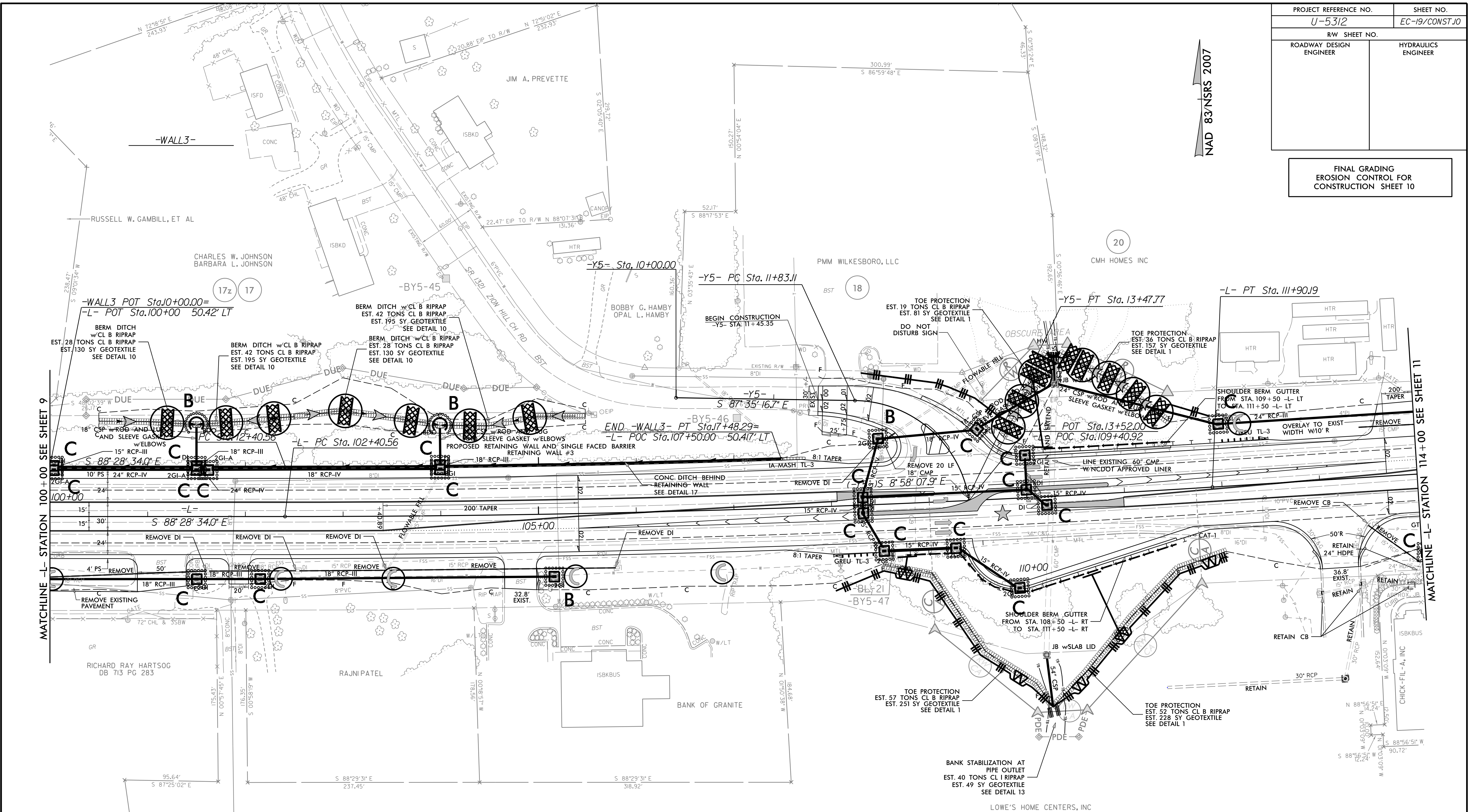
N 88°31'00" W 484.01'

NAD 83/NSRS 2007

PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-19/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

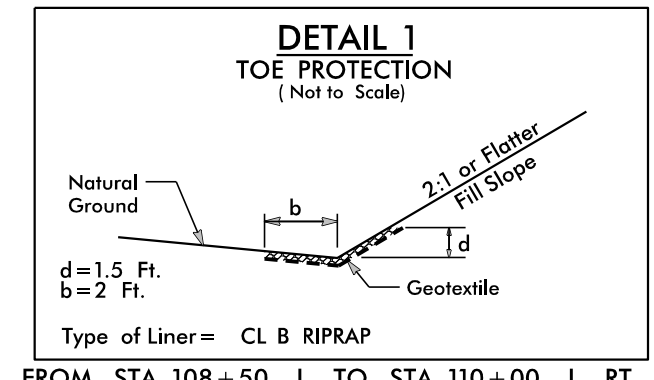
NAD 83/NSRS 2007



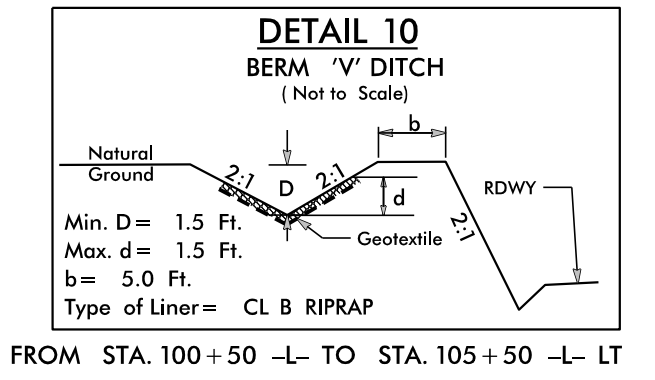
MATCHLINE -L- STATION 100+00 SEE SHEET 9

MATCHLINE -L- STATION 114+00 SEE SHEET 11

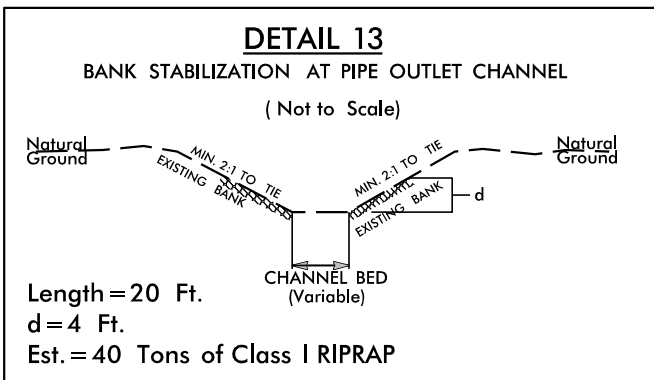
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF
ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.



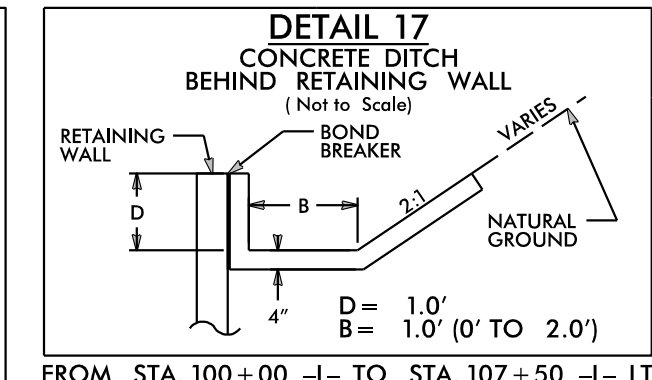
FROM STA. 108+50 -L- TO STA. 110+00 -L- RT
FROM STA. 109+79 -L- TO STA. 110+32 -L- LT
FROM STA. 110+47 -L- TO STA. 111+50 -L- LT
FROM STA. 110+50 -L- TO STA. 111+50 -L- RT



FROM STA. 100+50 -L- TO STA. 105+50 -L- LT



FROM STA. 110+00 -L- TO STA. 110+20 -L- RT

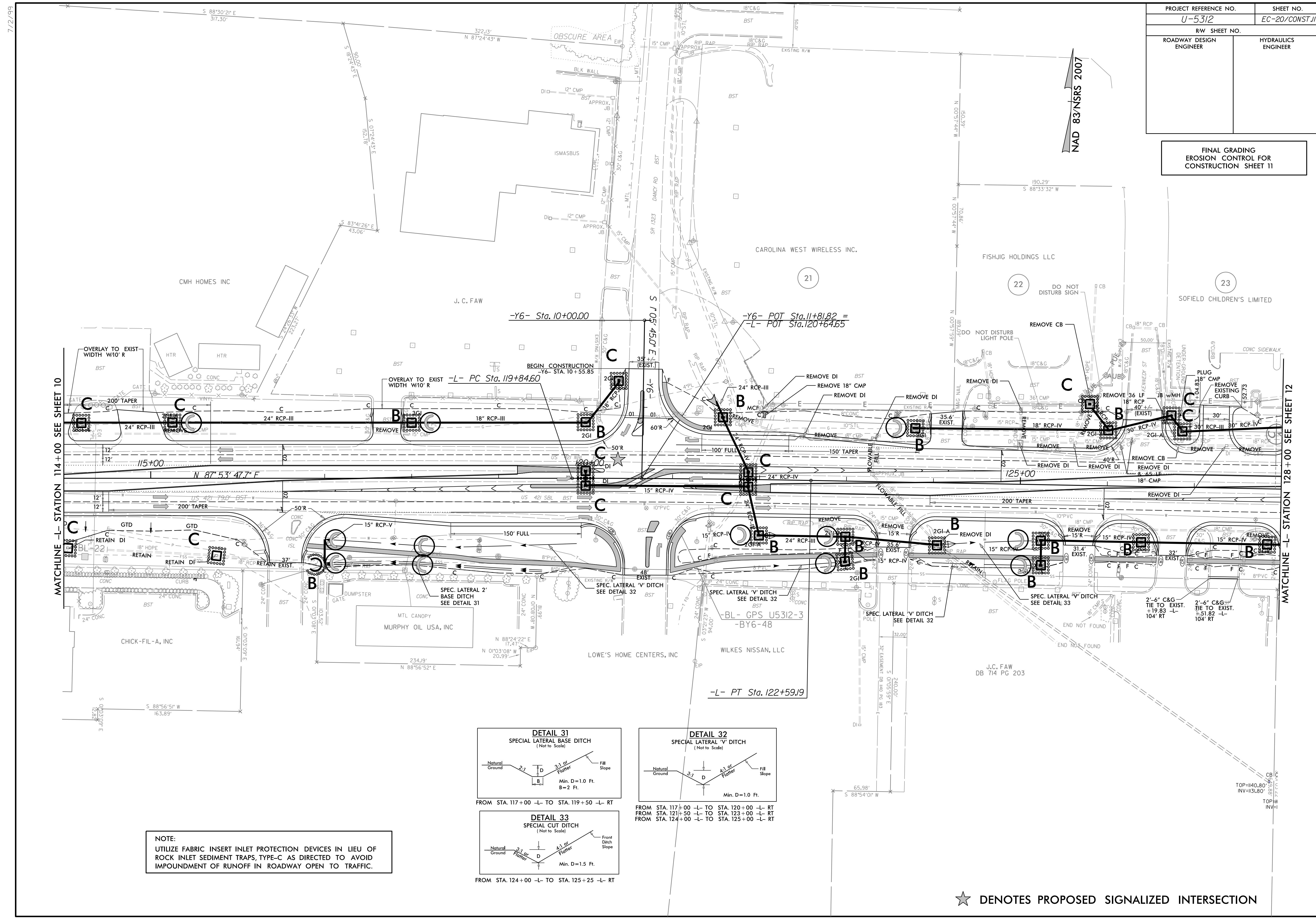


FROM STA. 100+00 -L- TO STA. 107+50 -L- LT

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 110+00 to Sta. 111+50 -L- LT
Sta. 108+50 to Sta. 111+50 -L- RT

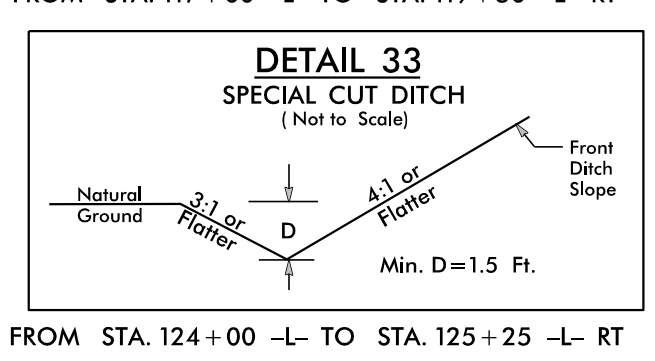
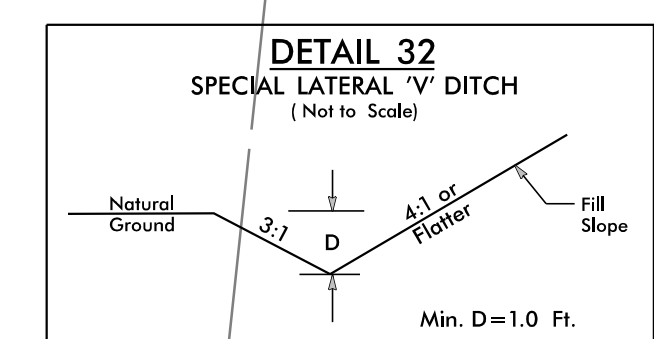
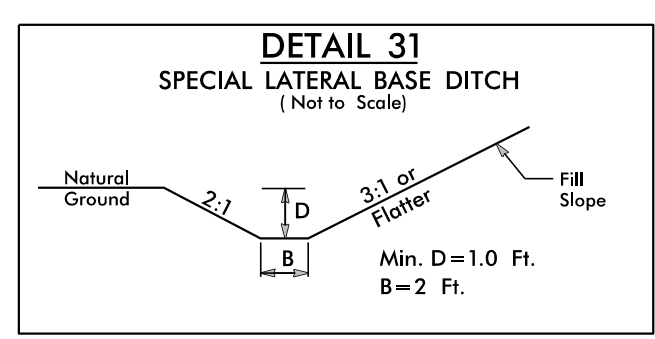
PROJECT REFERENCE NO. U-5312	SHEET NO. EC-20/CONST.II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11



MATCHLINE -L- STATION 114+00 SEE SHEET 10

MATCHLINE -L- STATION 128+00 SEE SHEET 12



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

★ DENOTES PROPOSED SIGNALIZED INTERSECTION

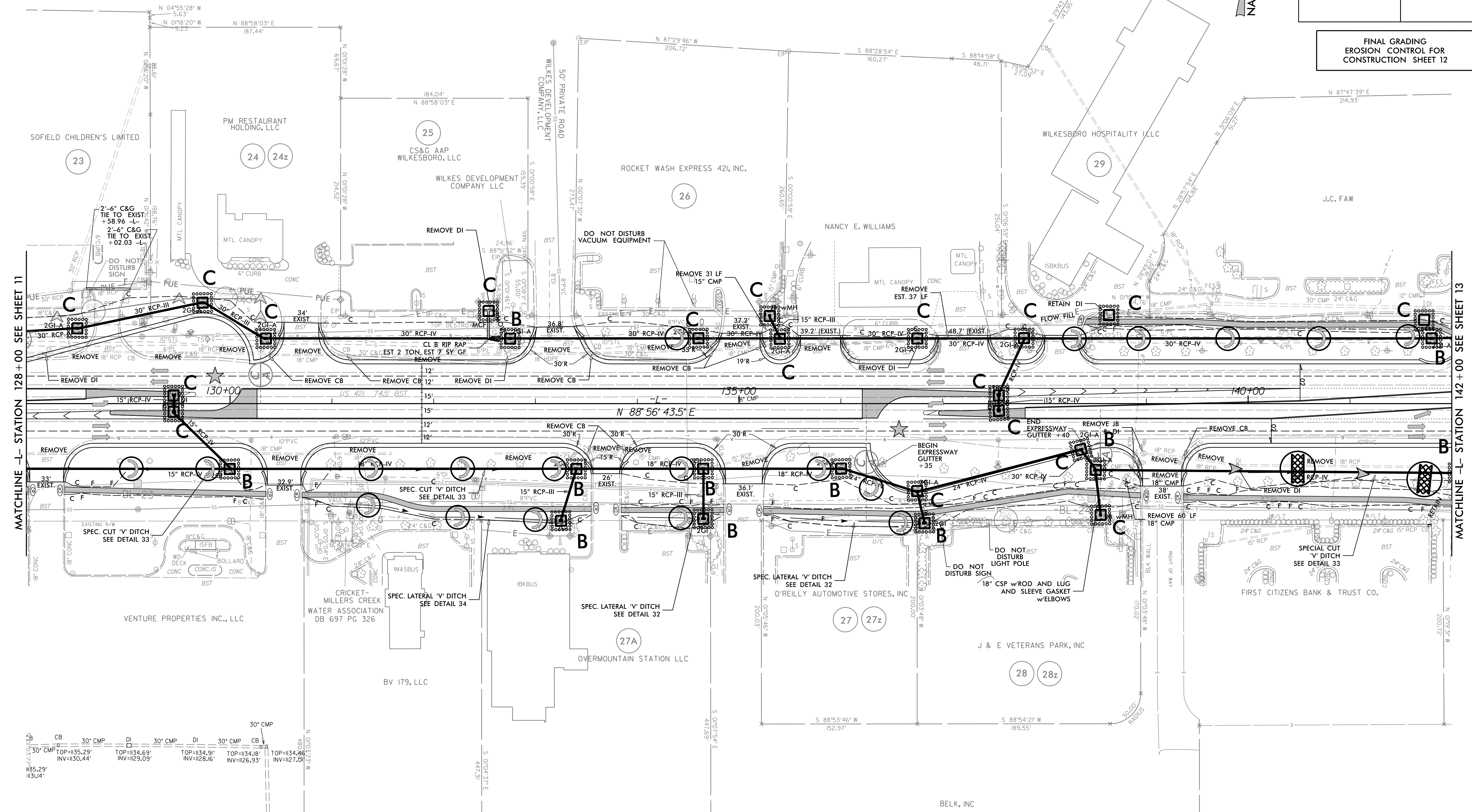
7/2/99

PROJECT REFERENCE NO. U-5312	SHEET NO. EC-21/CONST J2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

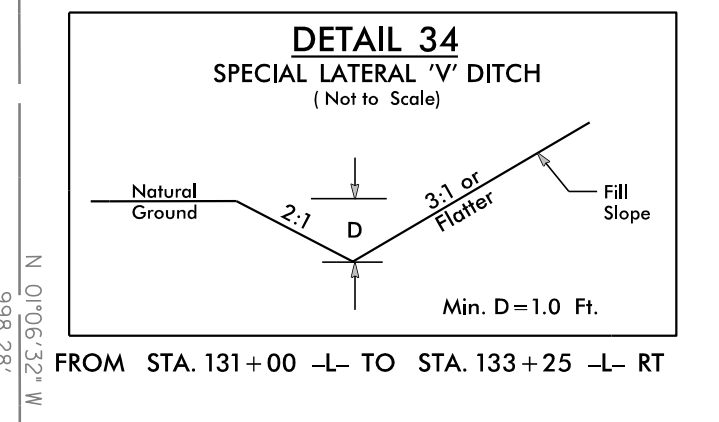
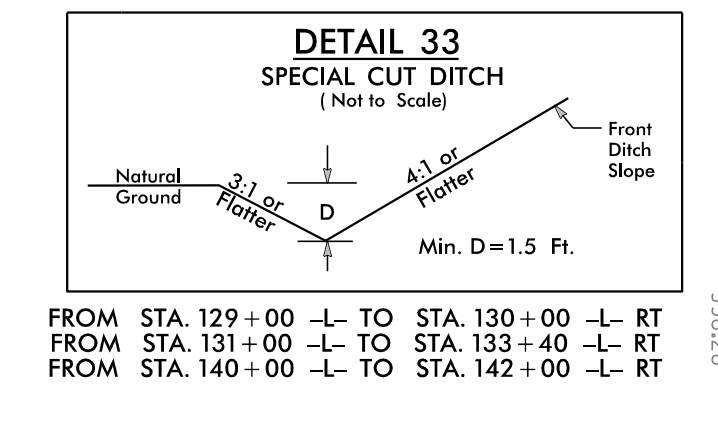
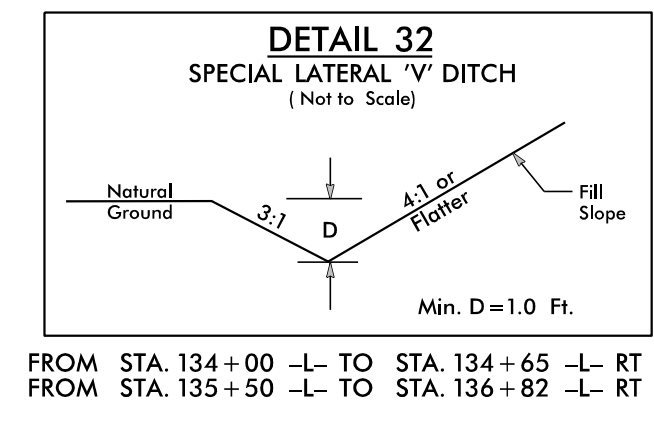
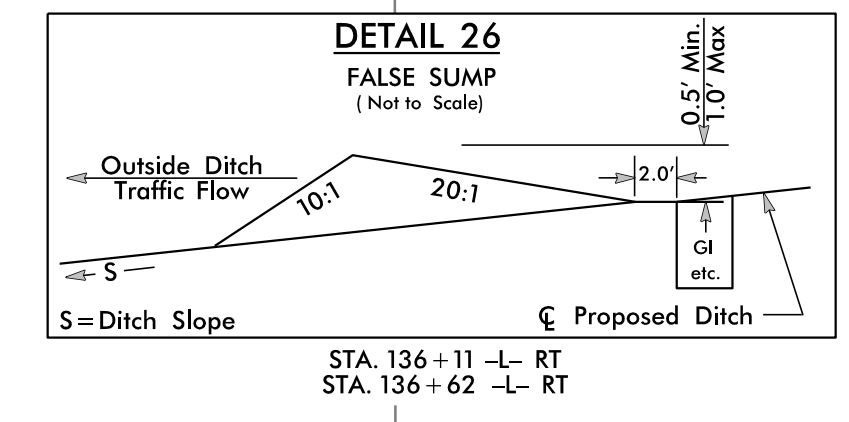
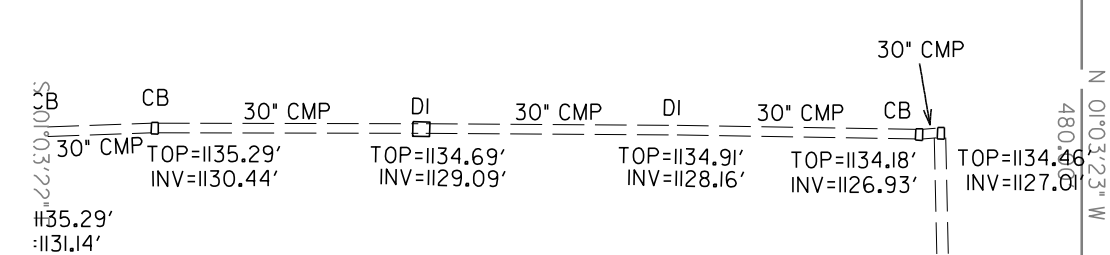
FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

NAD 83/NRS 2007



MATCHLINE -L- STATION 128+00 SEE SHEET 11

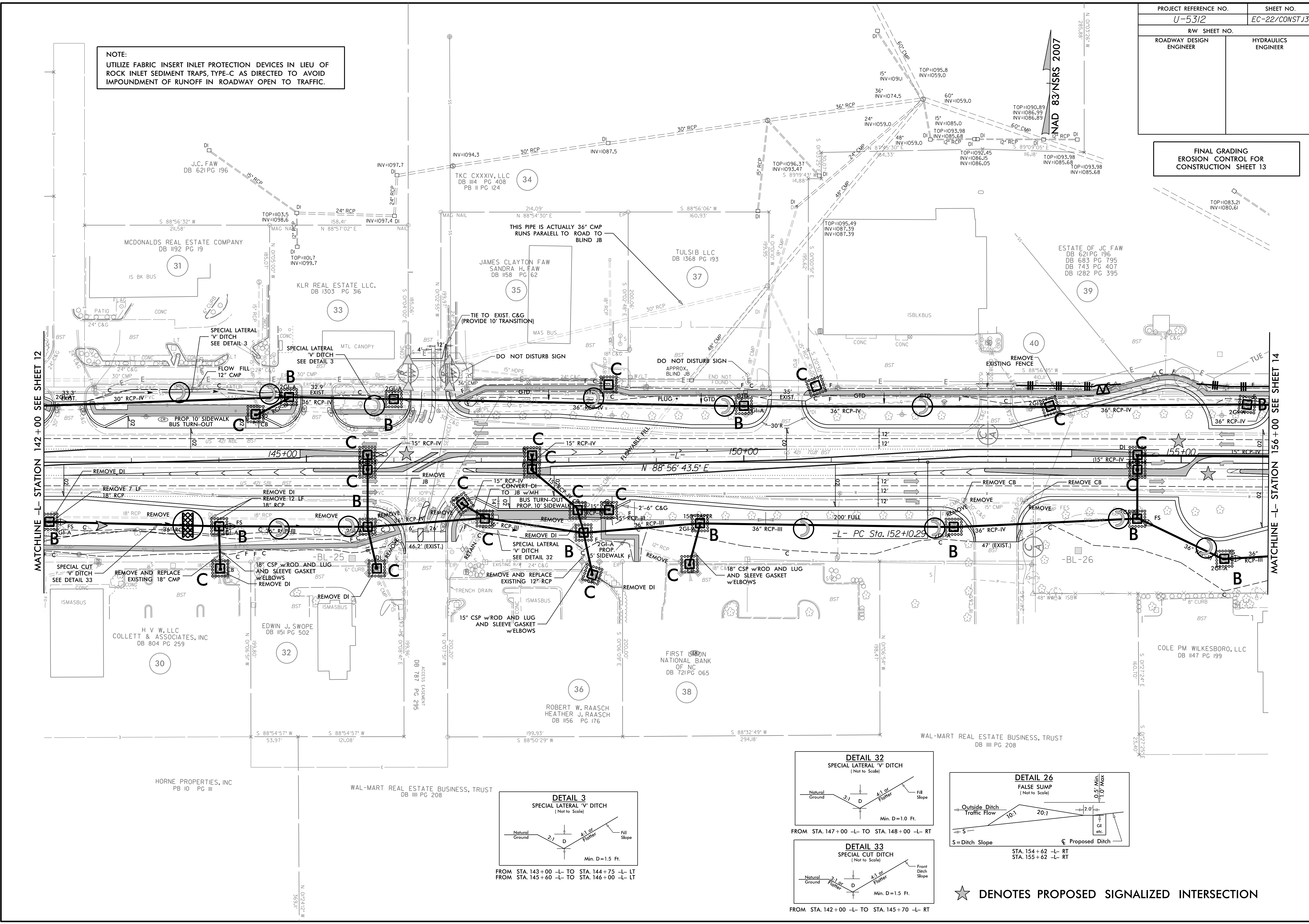
MATCHLINE -L- STATION 142+00 SEE SHEET 13



PROJECT REFERENCE NO. U-5312	SHEET NO. EC-22/CONST 13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

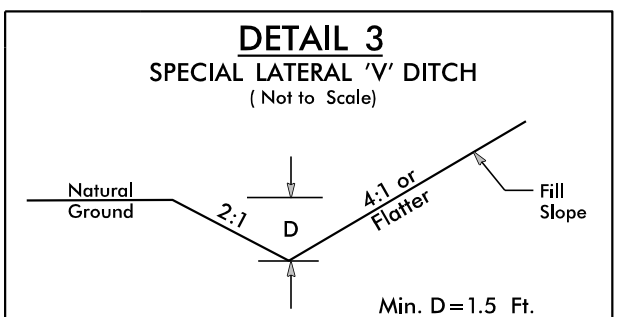
FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13

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

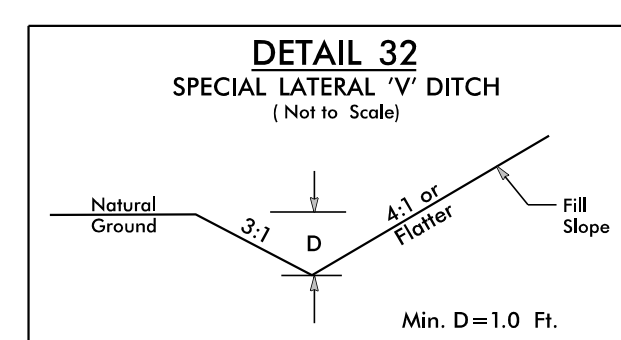


MATCHLINE -L- STATION 142+00 SEE SHEET 12

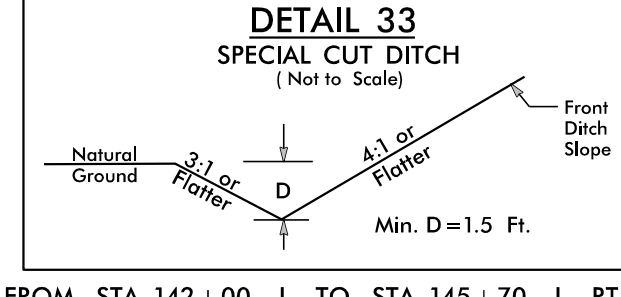
MATCHLINE -L- STATION 156+00 SEE SHEET 14



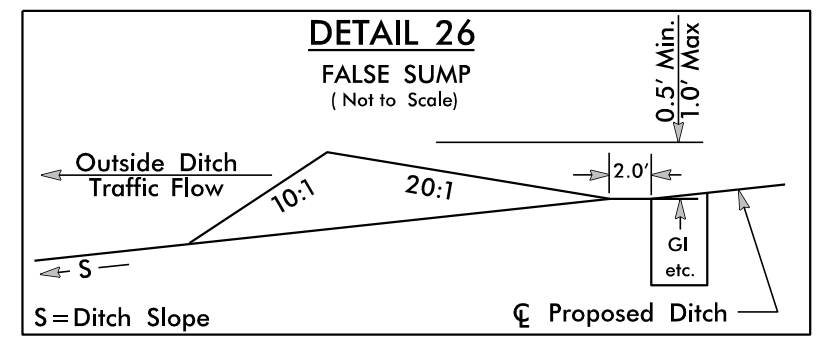
FROM STA. 143+00 -L- TO STA. 144+75 -L- LT
FROM STA. 145+60 -L- TO STA. 146+00 -L- LT



FROM STA. 147+00 -L- TO STA. 148+00 -L- RT



FROM STA. 142+00 -L- TO STA. 145+70 -L- RT



STA. 154+62 -L- RT
STA. 155+62 -L- RT

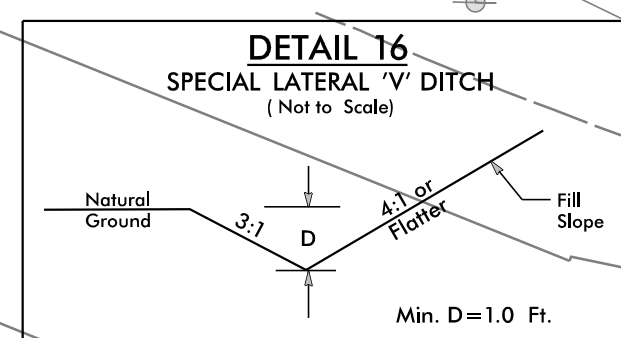
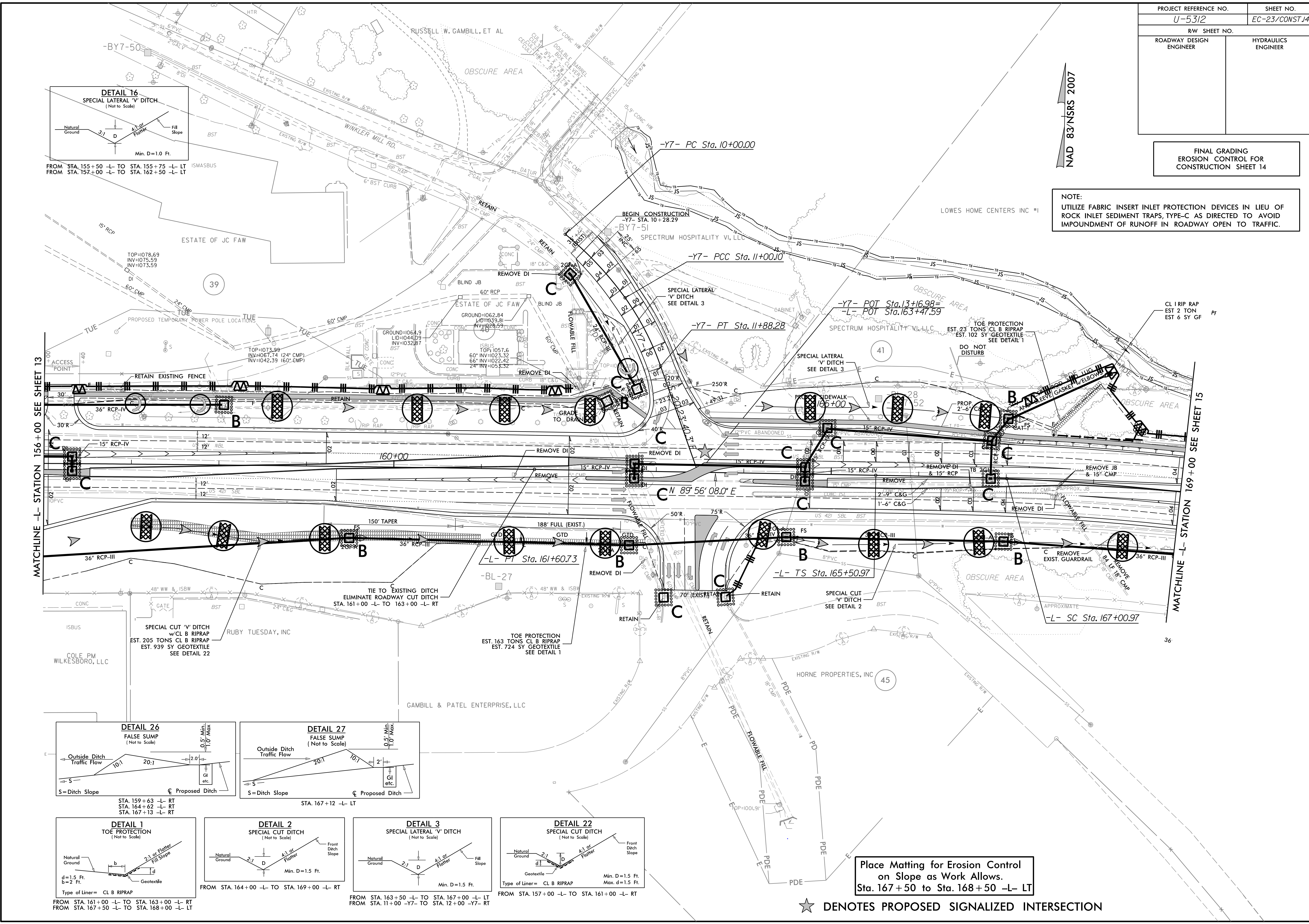
★ DENOTES PROPOSED SIGNALIZED INTERSECTION

PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-23/CONST.14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14

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

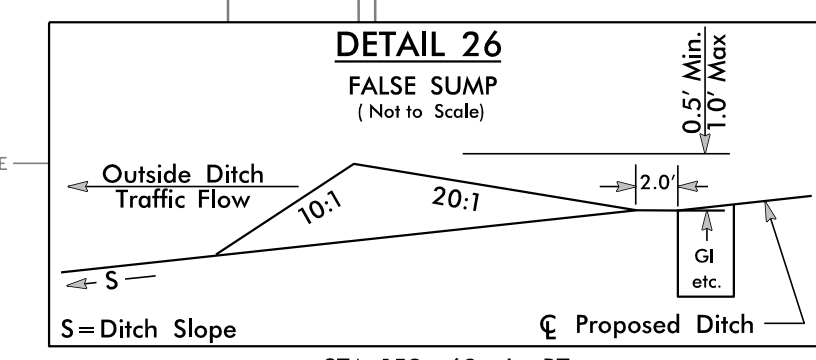
NAD 83/NSRS 2007



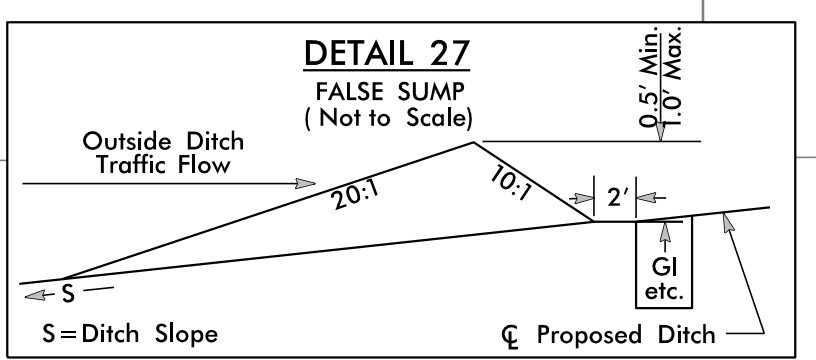
FROM STA. 155+50 -L- TO STA. 155+75 -L- LT
FROM STA. 157+00 -L- TO STA. 162+50 -L- LT

MATCHLINE -L- STATION 156+00 SEE SHEET 13

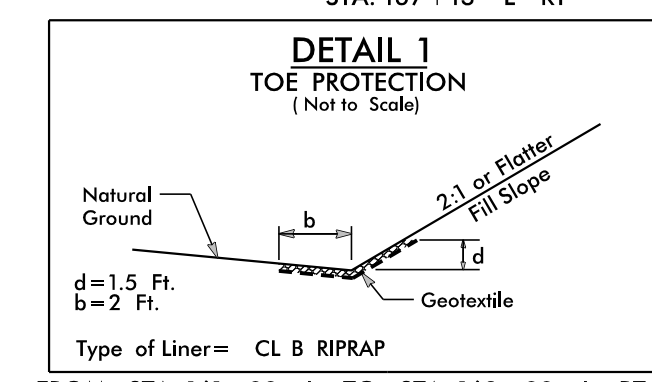
MATCHLINE -L- STATION 169+00 SEE SHEET 15



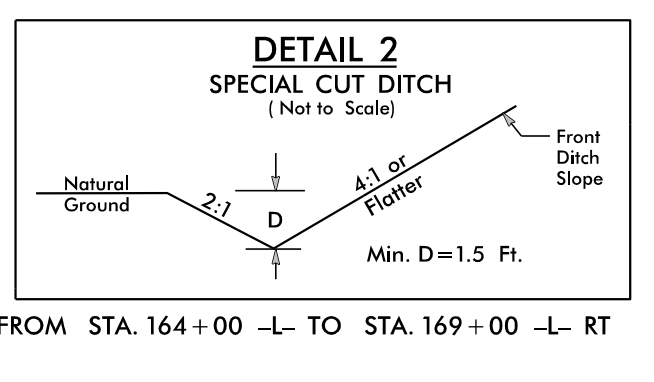
STA. 159+63 -L- RT
STA. 164+62 -L- RT
STA. 167+13 -L- RT



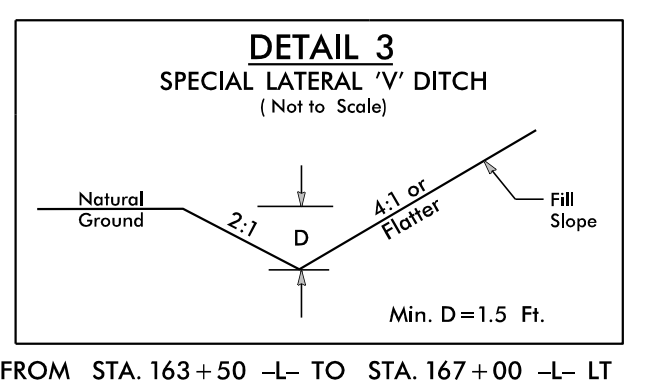
STA. 167+12 -L- LT



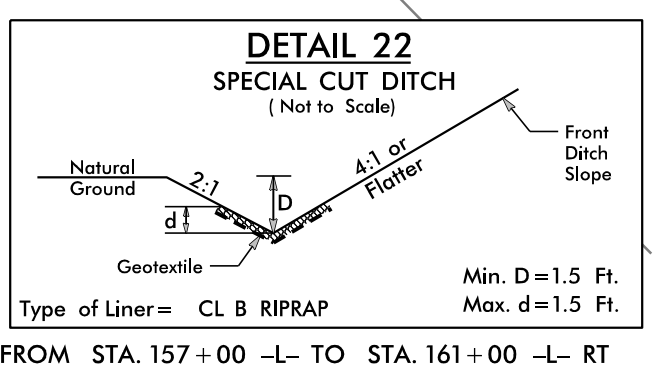
FROM STA. 161+00 -L- TO STA. 163+00 -L- RT
FROM STA. 167+50 -L- TO STA. 168+00 -L- LT



FROM STA. 164+00 -L- TO STA. 169+00 -L- RT



FROM STA. 163+50 -L- TO STA. 167+00 -L- LT
FROM STA. 11+00 -Y7- TO STA. 12+00 -Y7- RT



FROM STA. 157+00 -L- TO STA. 161+00 -L- RT

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 167+50 to Sta. 168+50 -L- LT

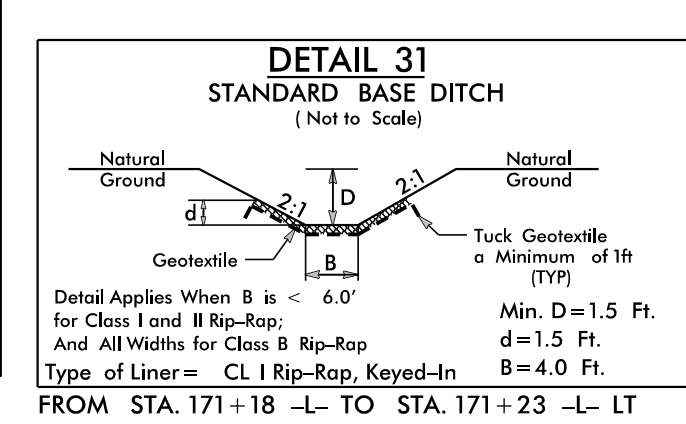
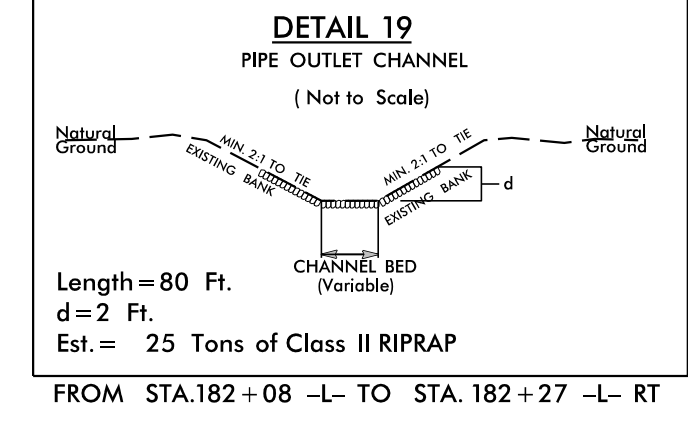
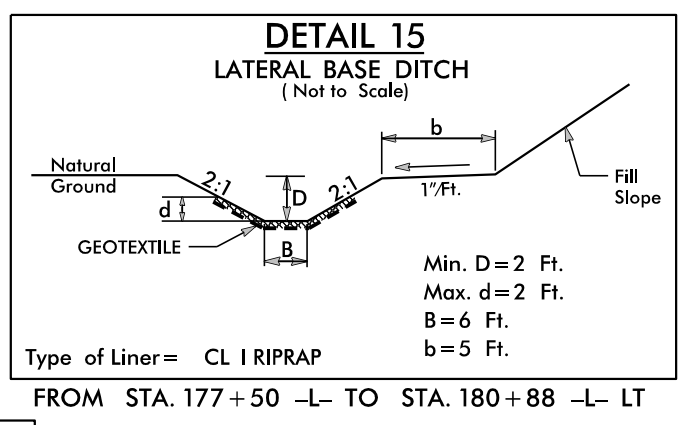
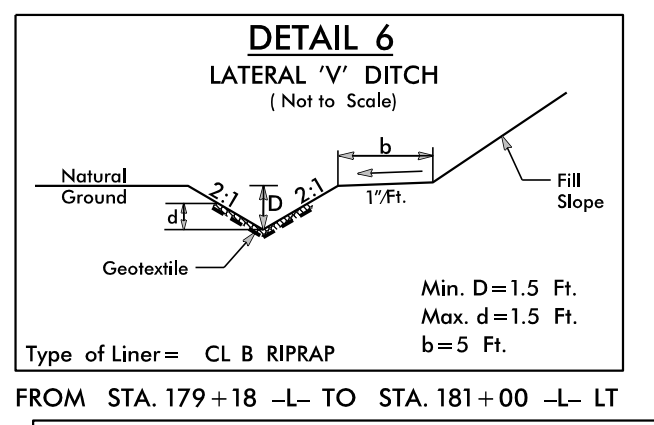
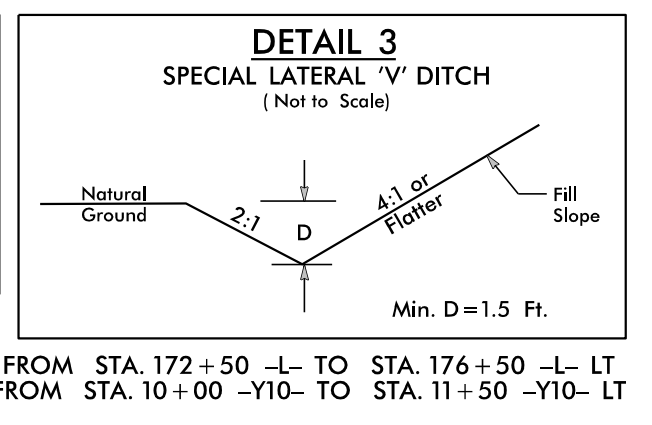
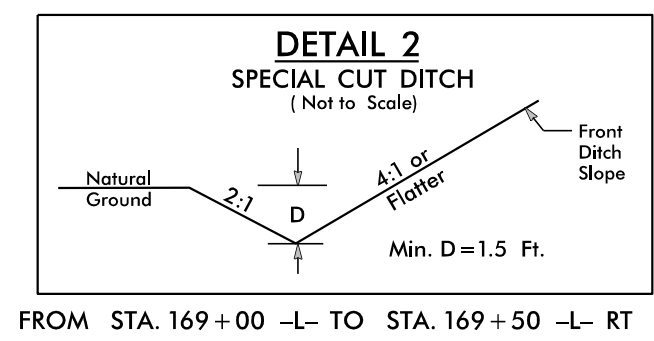
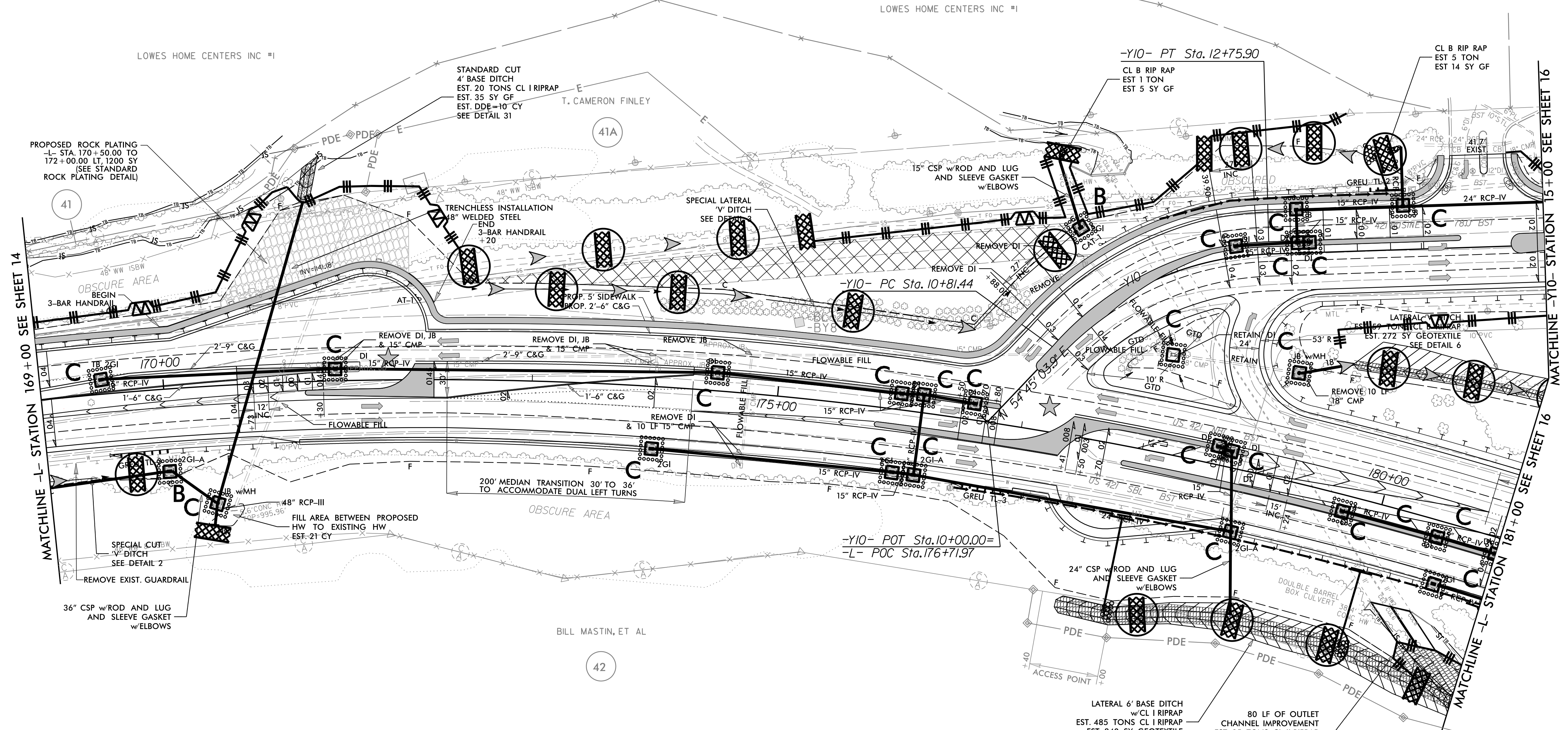
★ DENOTES PROPOSED SIGNALIZED INTERSECTION

PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-24/CONST.15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15

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

NAD 83/NSRS 2007



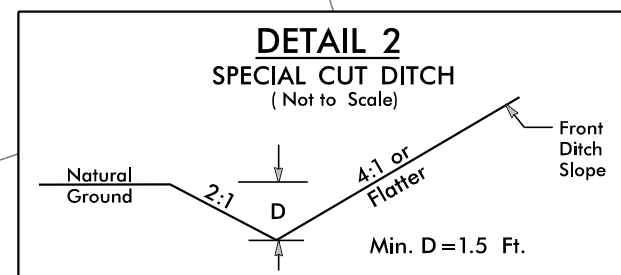
Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 176+50 to Sta. 181+00 -L- RT

FOR -L- & -Y10- PROFILES SEE SHEETS 22 & 24
FOR INTERSECTION AND U-TURN BULB DETAILS SEE SHEETS 2B-14 & 2B-15

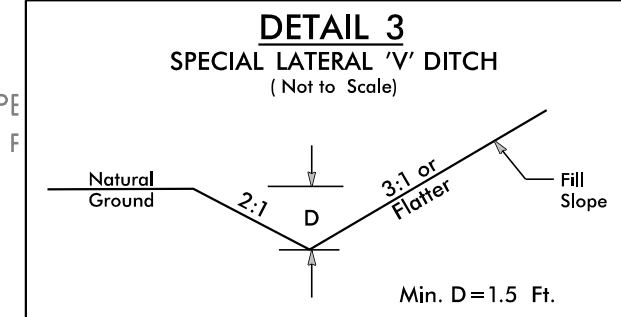
★ DENOTES PROPOSED SIGNALIZED INTERSECTION

PROJECT REFERENCE NO.	SHEET NO.
U-5312	EC-25/CONST.16
RW DESIGN NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

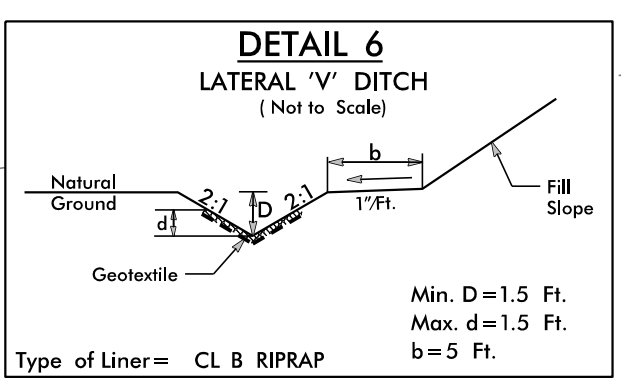
FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 16



FROM STA. 19+60 -Y10- TO STA. 20+20 -Y10- LT
FROM STA. 15+50 -Y11- TO STA. 19+00 -Y11- LT
FROM STA. 17+50 -Y11- TO STA. 19+00 -Y11- RT

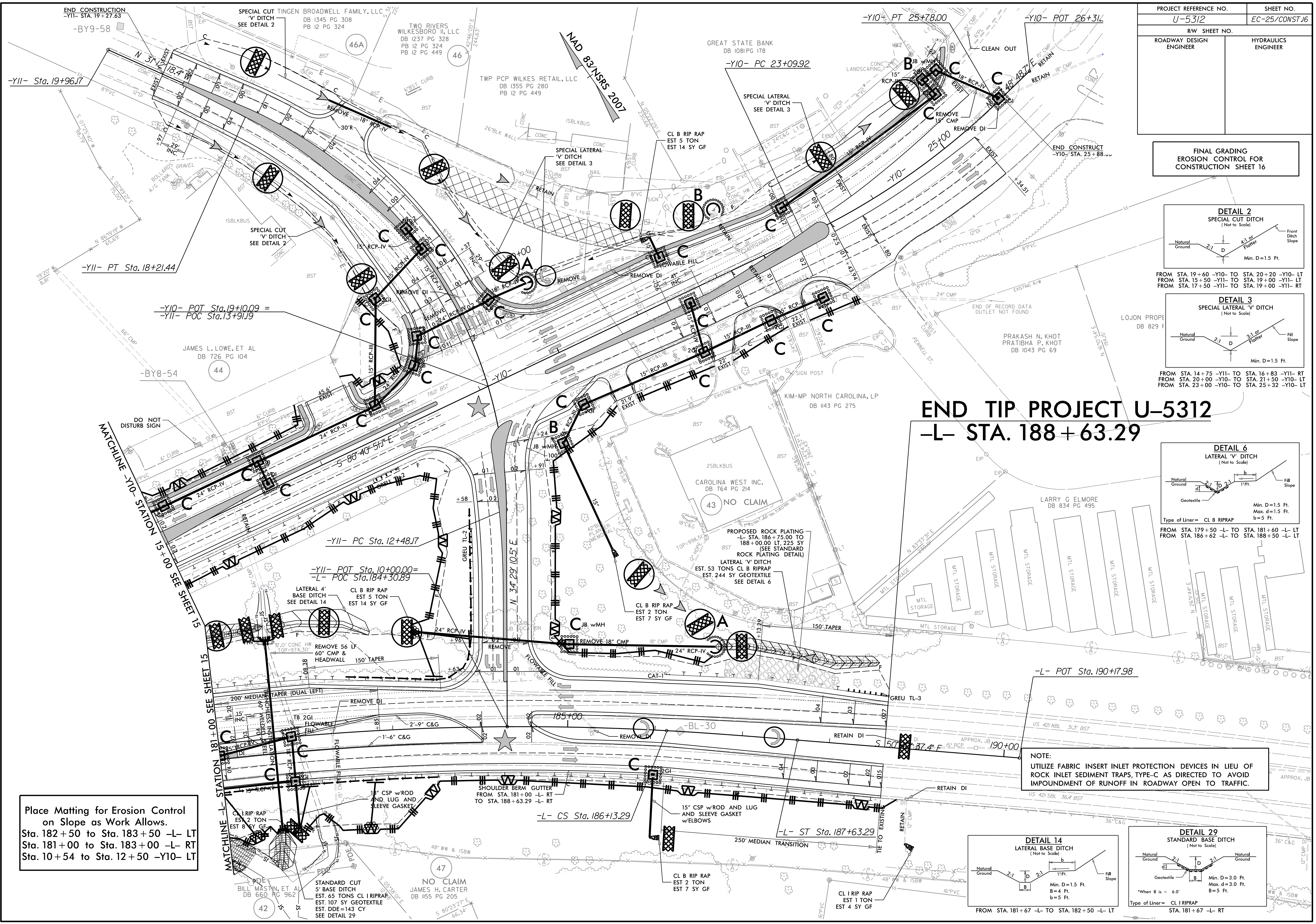


FROM STA. 14+75 -Y11- TO STA. 16+83 -Y11- RT
FROM STA. 20+50 -Y10- TO STA. 21+50 -Y10- LT
FROM STA. 23+00 -Y10- TO STA. 25+32 -Y10- LT



FROM STA. 179+50 -L- TO STA. 181+60 -L- LT
FROM STA. 186+62 -L- TO STA. 188+50 -L- LT

END TIP PROJECT U-5312 -L- STA. 188+63.29



Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 182+50 to Sta. 183+50 -L- LT
Sta. 181+00 to Sta. 183+00 -L- RT
Sta. 10+54 to Sta. 12+50 -Y10- LT

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

