

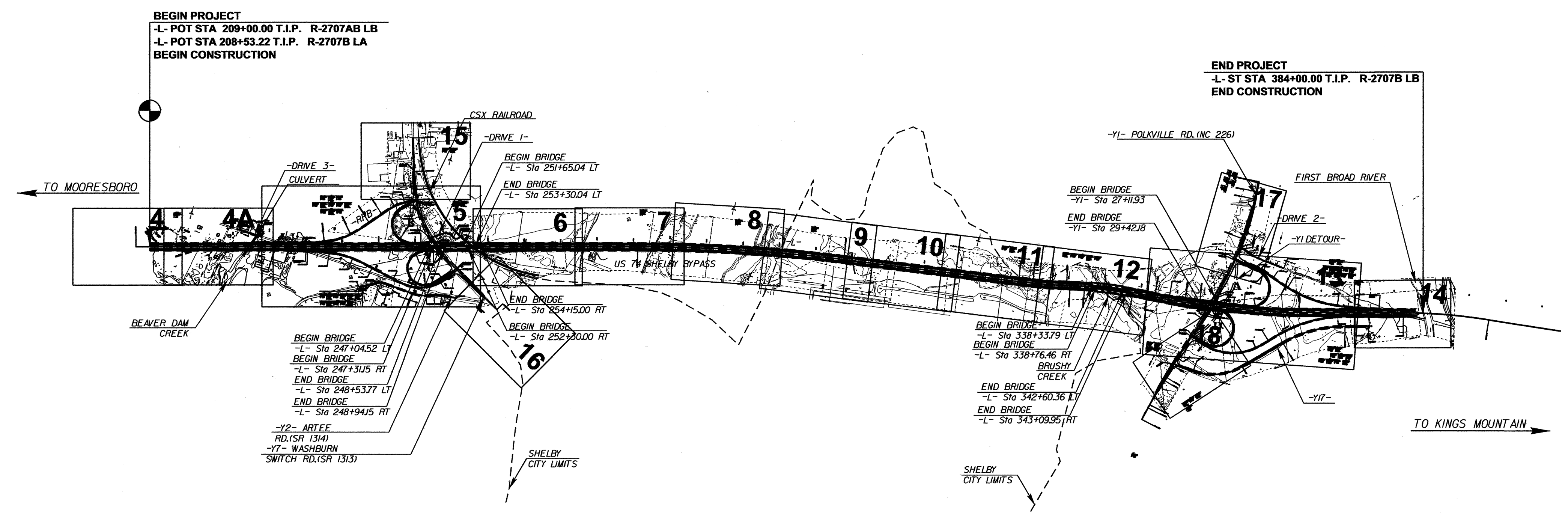
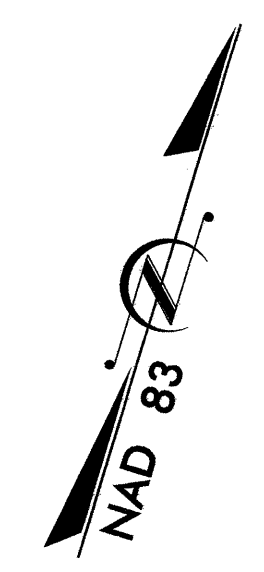
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2707B	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

TIP PROJECT: R-2707B

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

LOCATION: US 74 - SHELBY BYPASS FROM EAST OF SR 1315 (PLATO LEE ROAD) TO EAST OF NC 226

TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES & CULVERT

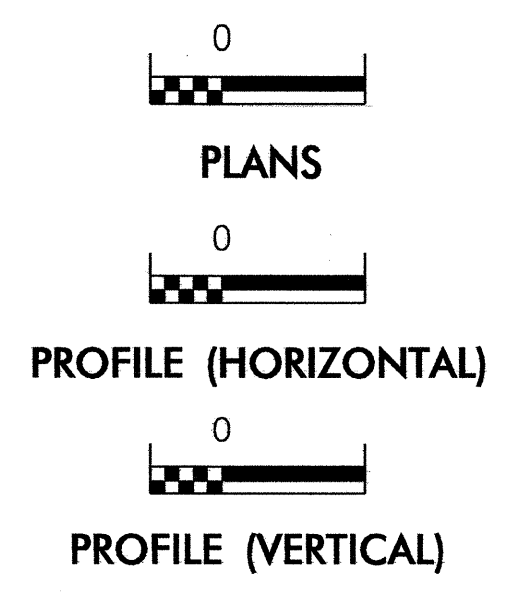


EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.05	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	TSF
1606.01	Special Sediment Control Fence	SSCF
1622.01	Temporary Berms and Slope Drains	TBSD
1630.02	Silt Basin Type B	SB
1633.01	Temporary Rock Silt Check Type-A	TRSCA
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	TRSCA-PAM
1633.02	Temporary Rock Silt Check Type-B	TRSCB
	Wattle / Coir Fiber Wattle	WCFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	WCFW-PAM
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA
1634.02	Temporary Rock Sediment Dam Type-B	TRSDA-B
1635.01	Rock Pipe Inlet Sediment Trap Type-A	RPISTRA
1635.02	Rock Pipe Inlet Sediment Trap Type-B	RPISTRB
1630.04	Stilling Basin	SB
1630.06	Special Stilling Basin	SSB
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	SKB
	Tiered Skimmer Basin	TSKB
	Infiltration Basin	IB

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

GRAPHIC SCALE



ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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

Prepared In the Office of:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611
2012 STANDARD SPECIFICATIONS

Roadway Standard Drawings

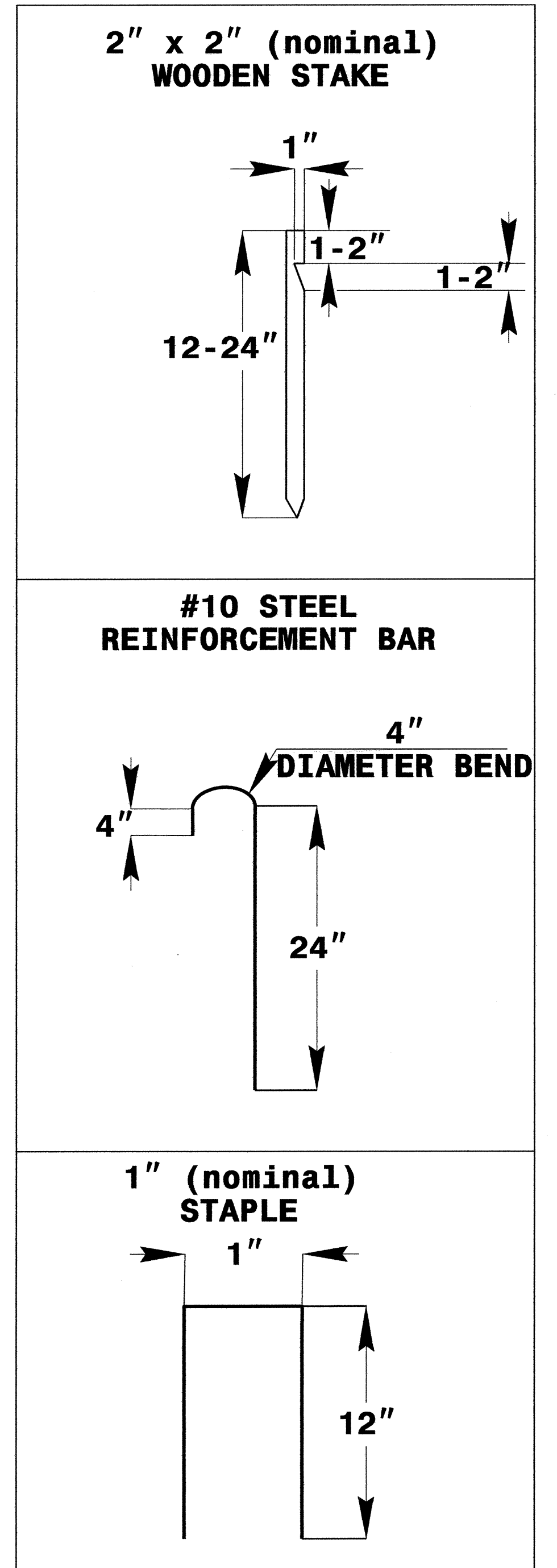
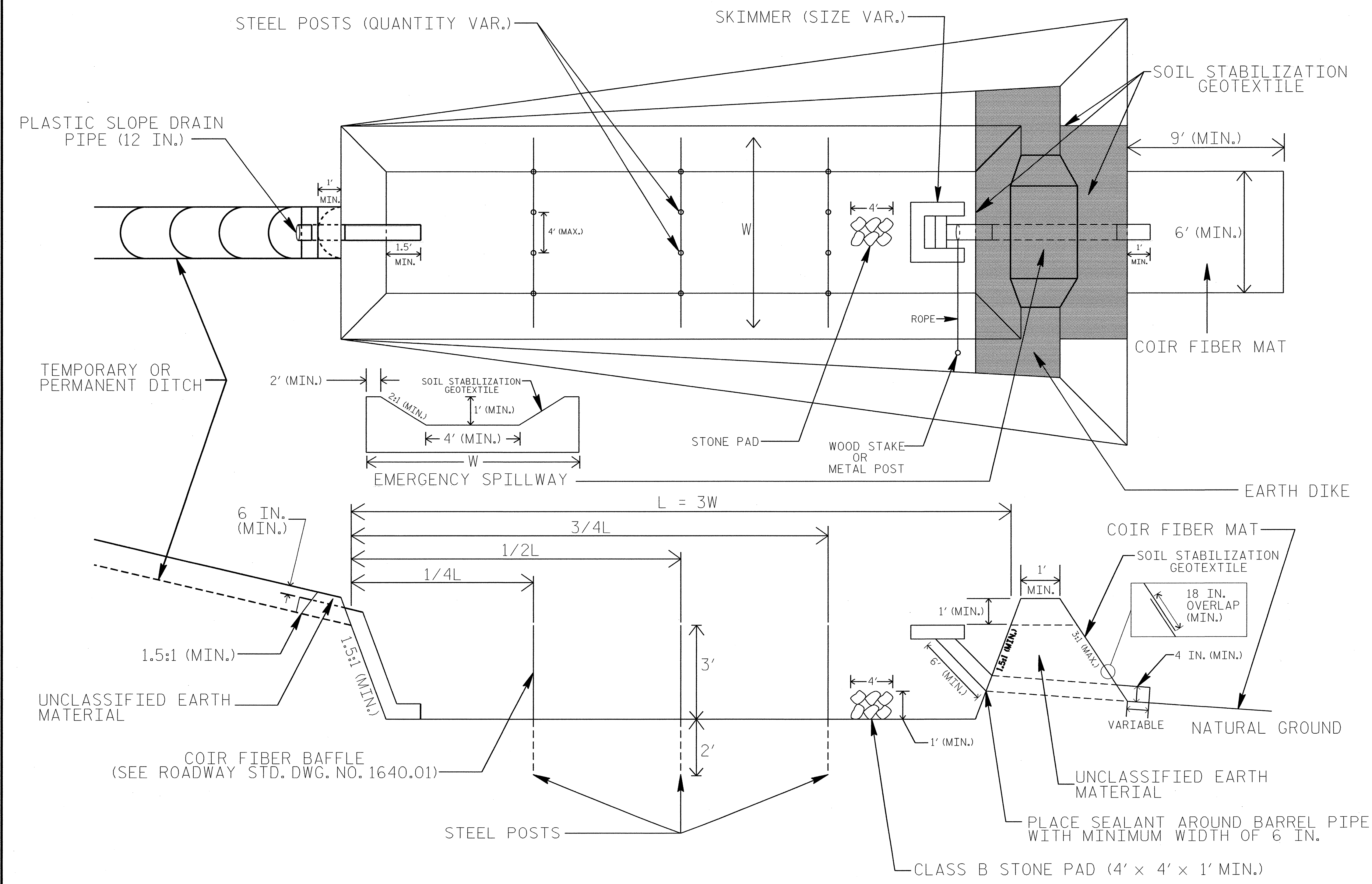
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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 B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

17 MAY 2012 08:58
R:\ENR\env\env\2707b\2707b.dwg
jagoodwin

PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-02
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



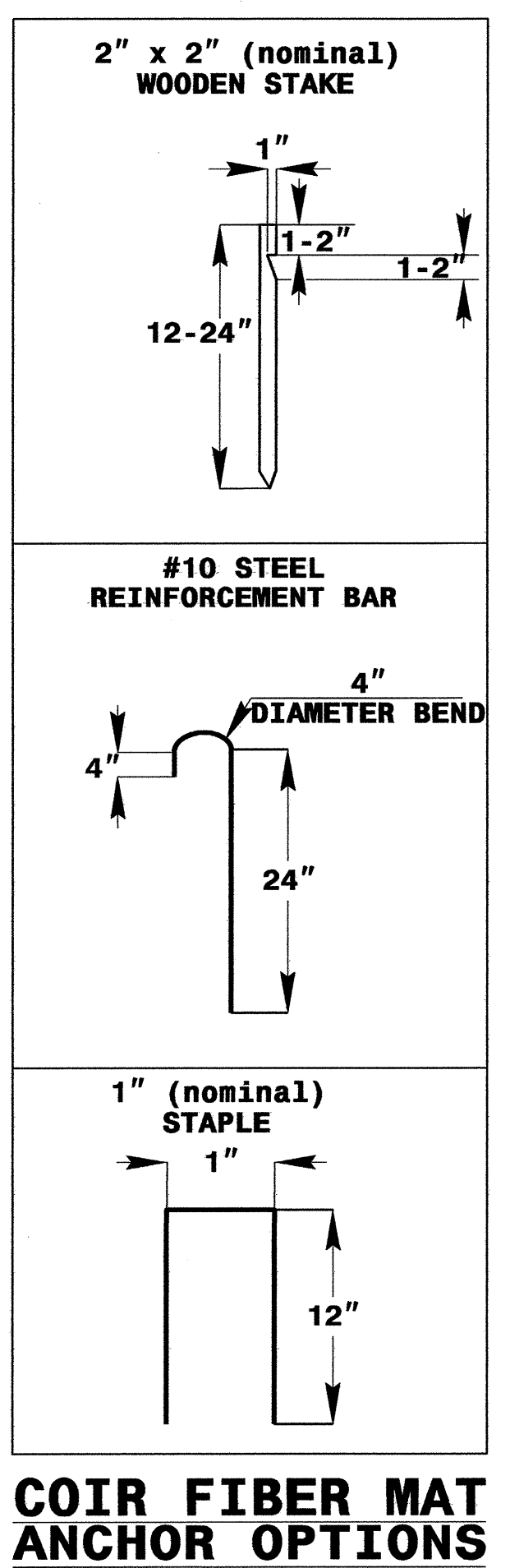
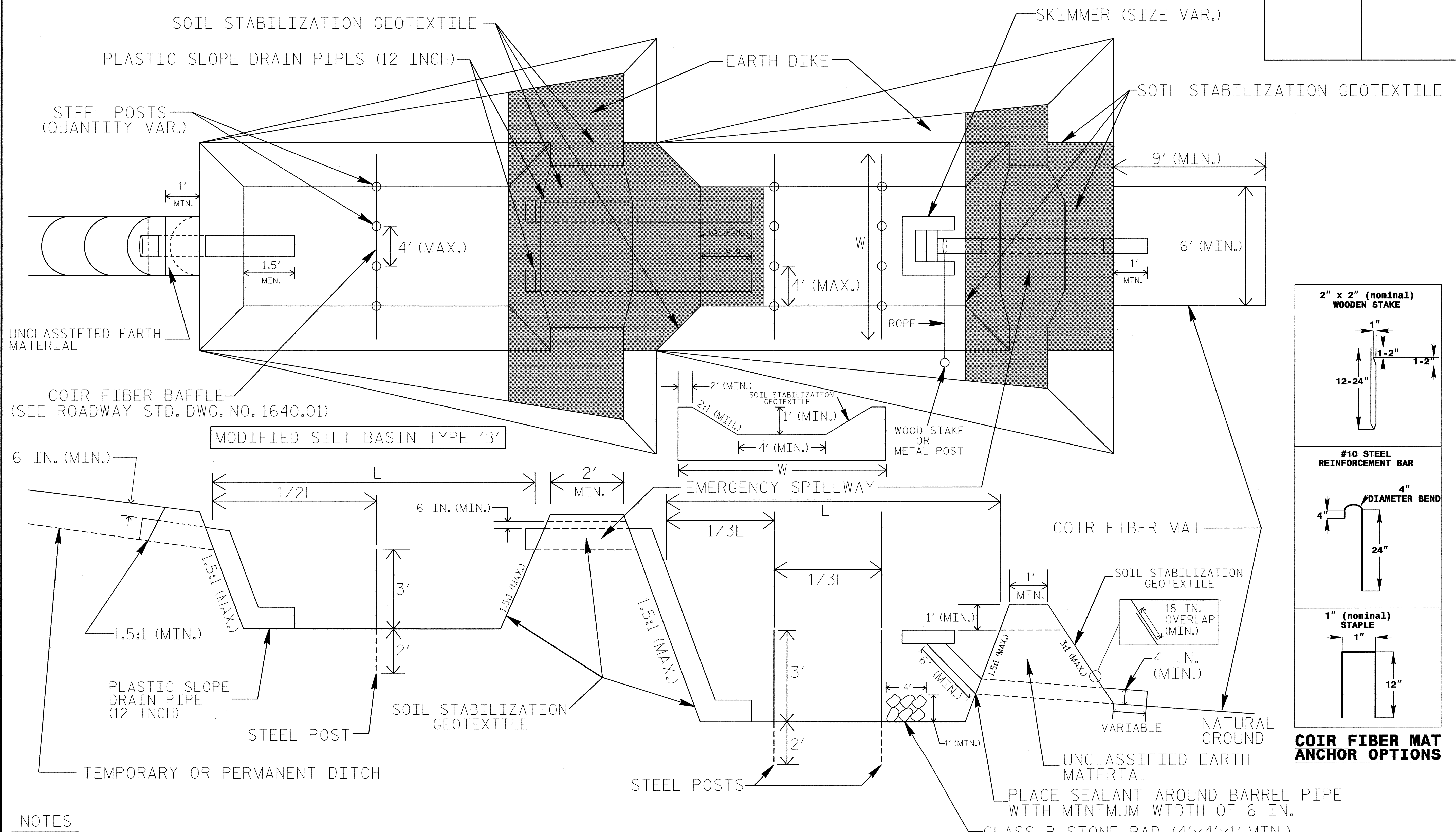
NOTES

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 EMERGENCY 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 EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

TIERED SKIMMER BASIN DETAIL

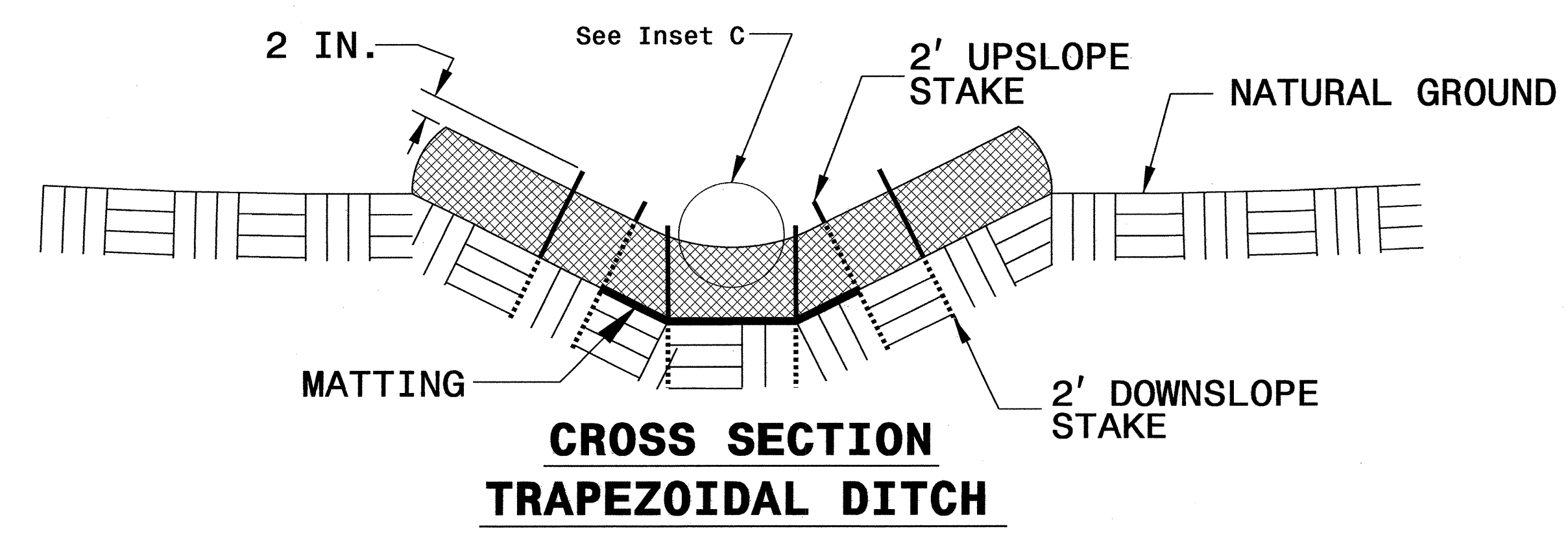
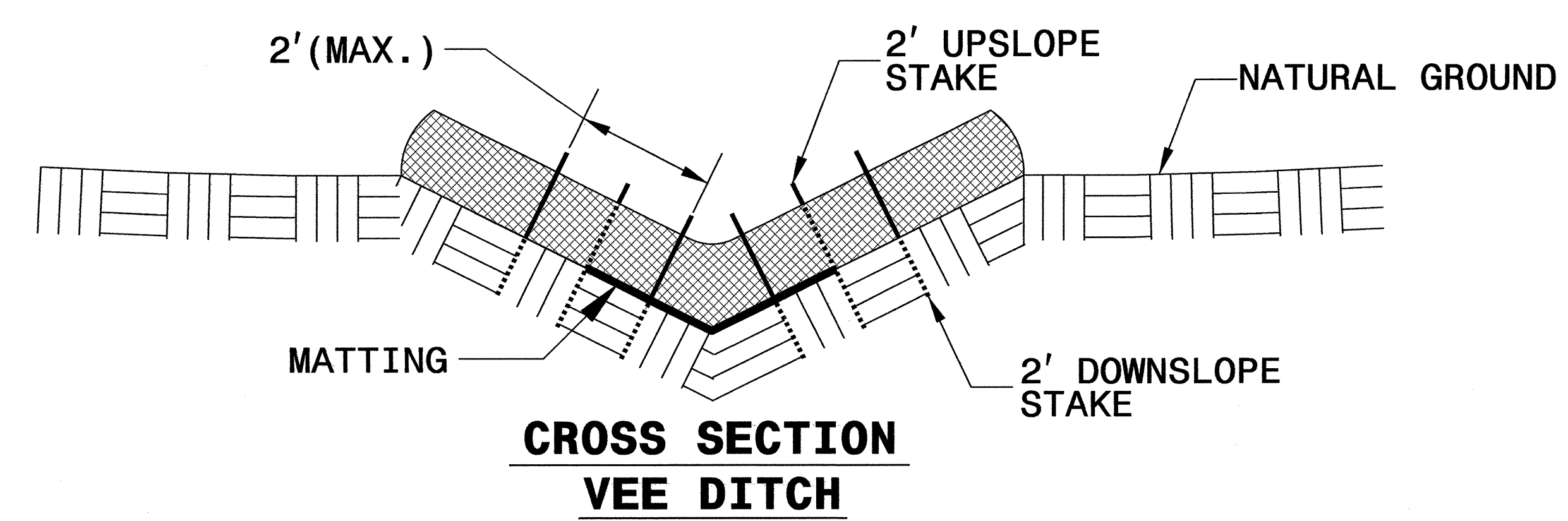
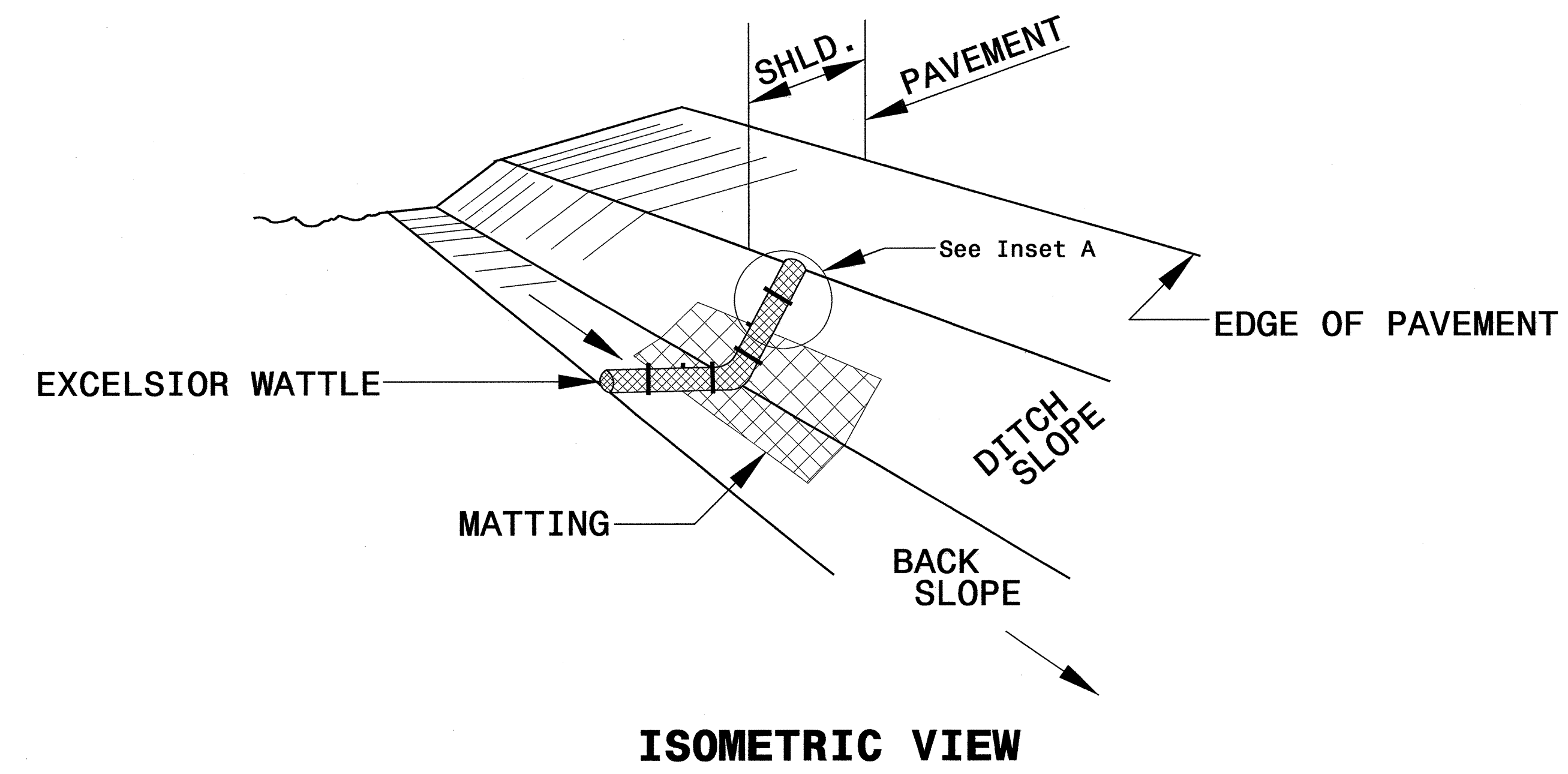
PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



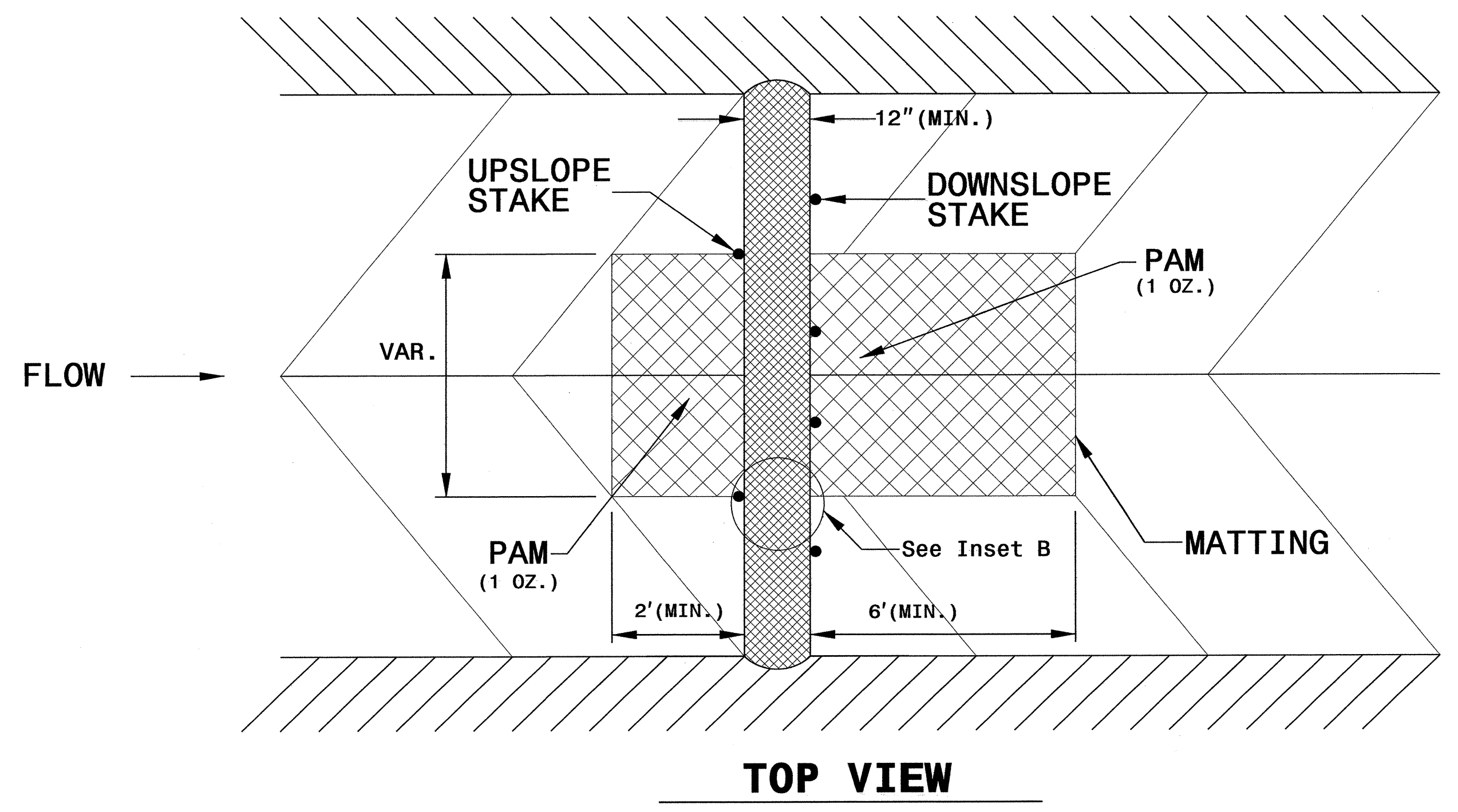
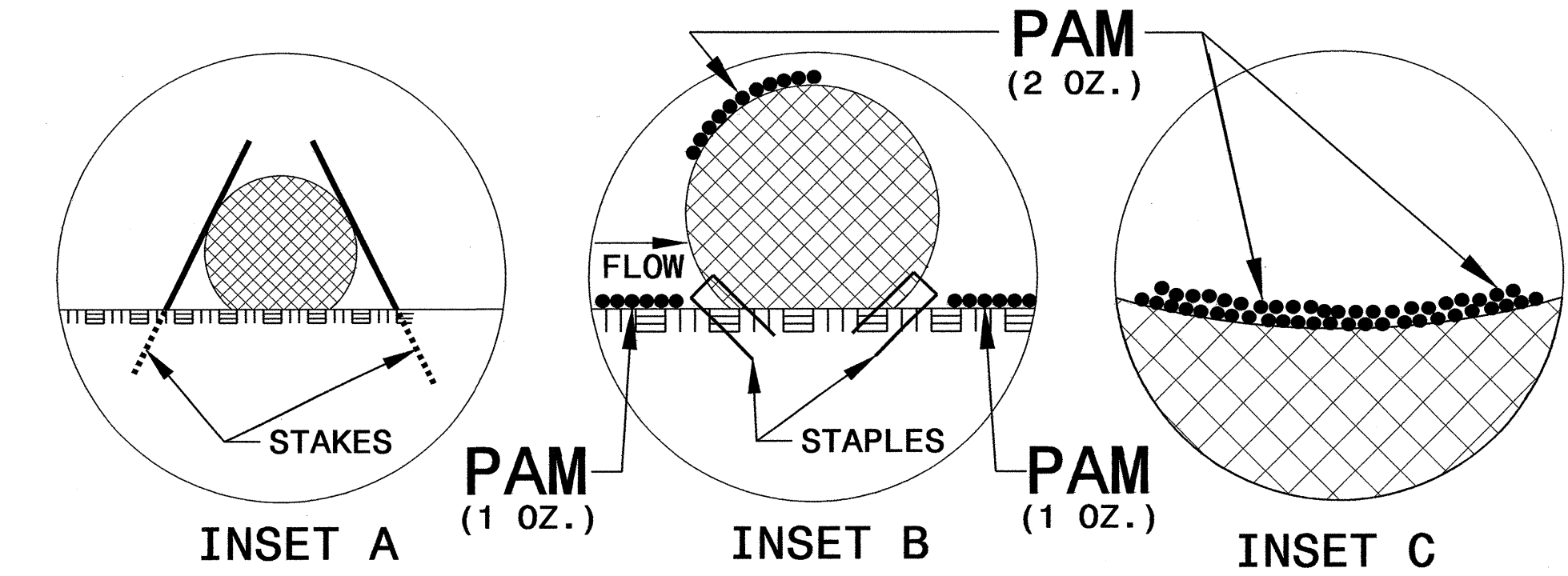
- NOTES**
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES OF BASINS.
 2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
 3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
 4. FOR BASIN DEPTHS OF 3 FT., THE MINIMUM BASIN WIDTHS SHALL BE 9 FT.
 5. DETERMINE EMERGENCY SPILLWAY LENGTHS (FT.) USING $Q/O.8$, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.
 6. SOIL STABILIZATION GEOTEXTILE FOR EMERGENCY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).
- NOT TO SCALE

PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

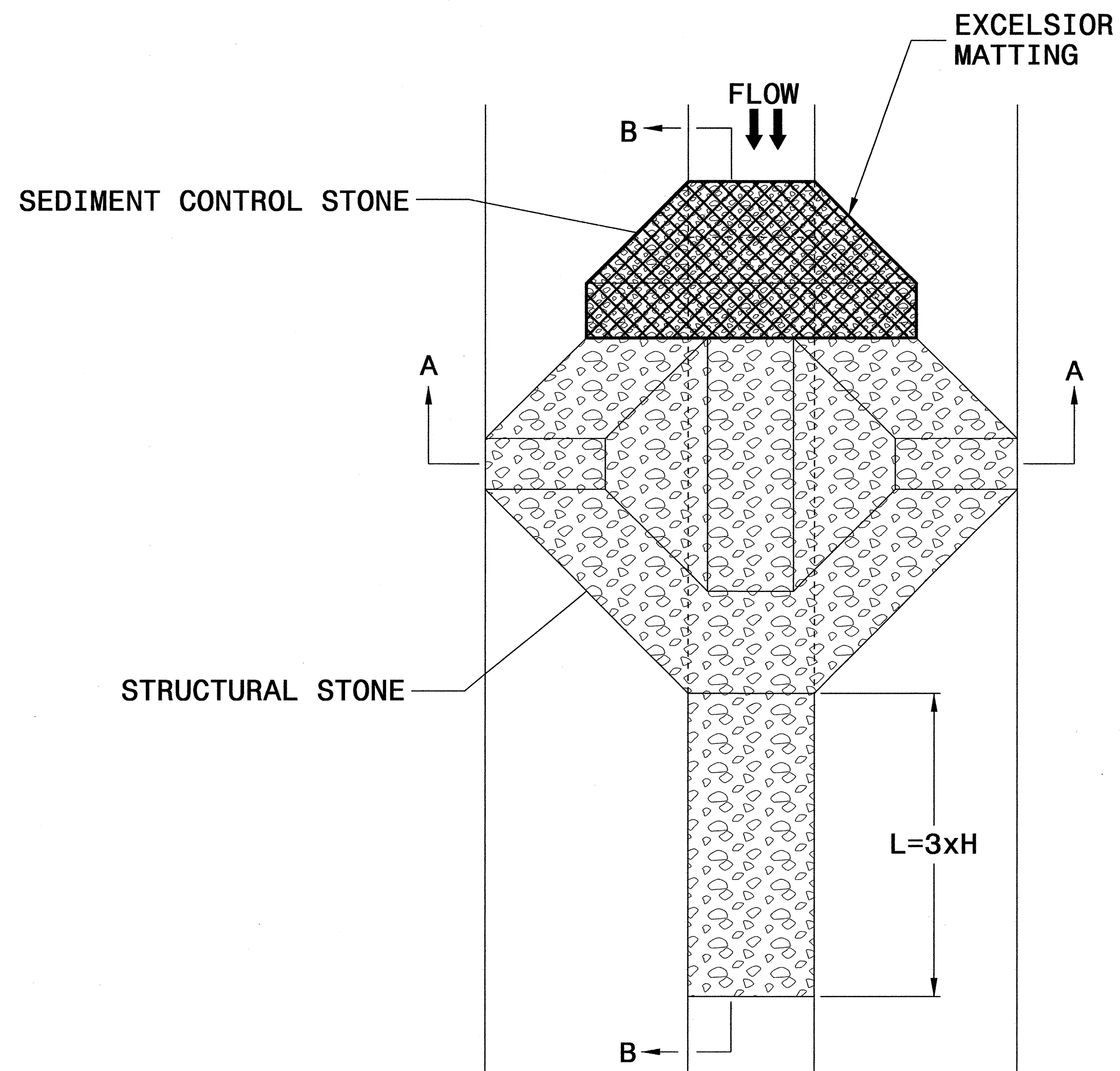


- NOTES:
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
 - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
 - PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
 - INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
 - INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.
 - PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
 - INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



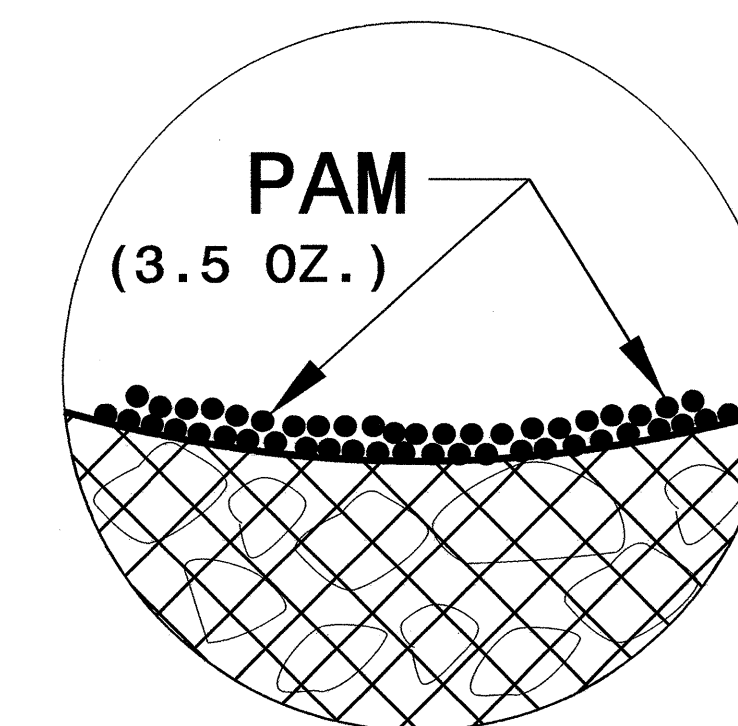
PLAN

NOTES

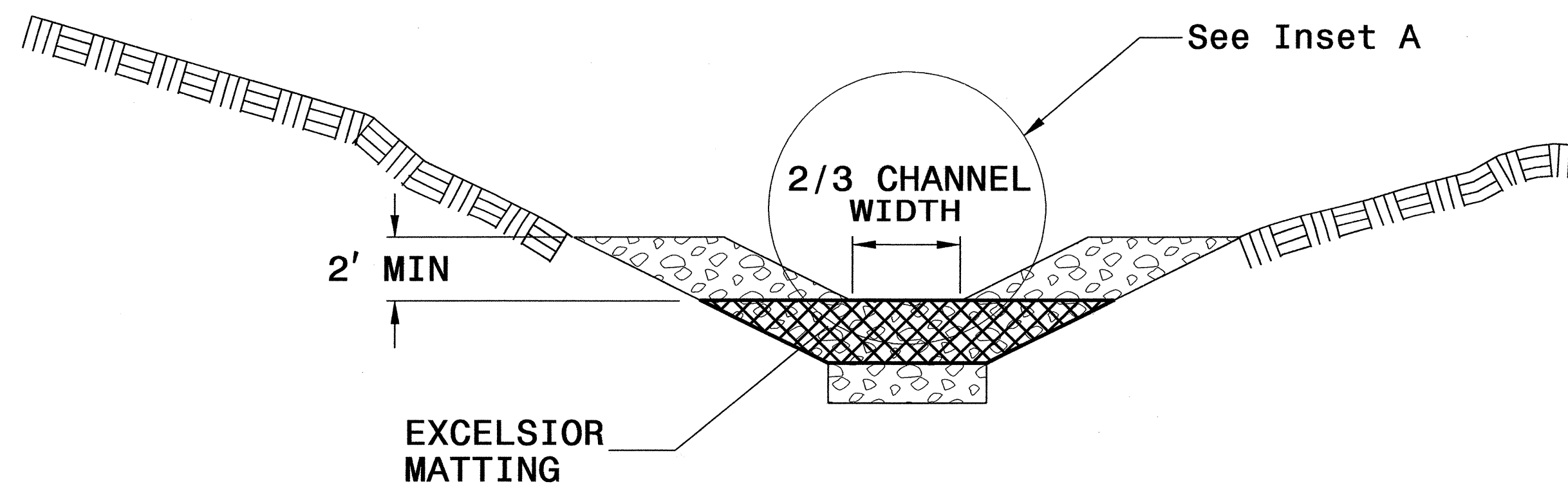
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

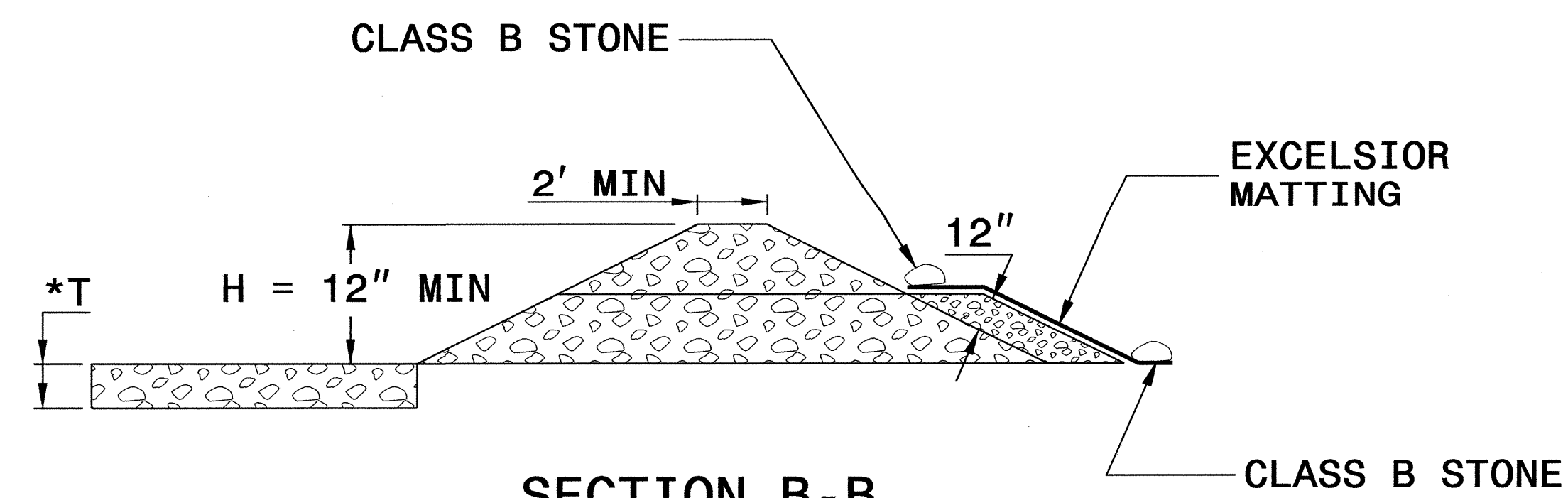
INITIALLY APPLY 3.5 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



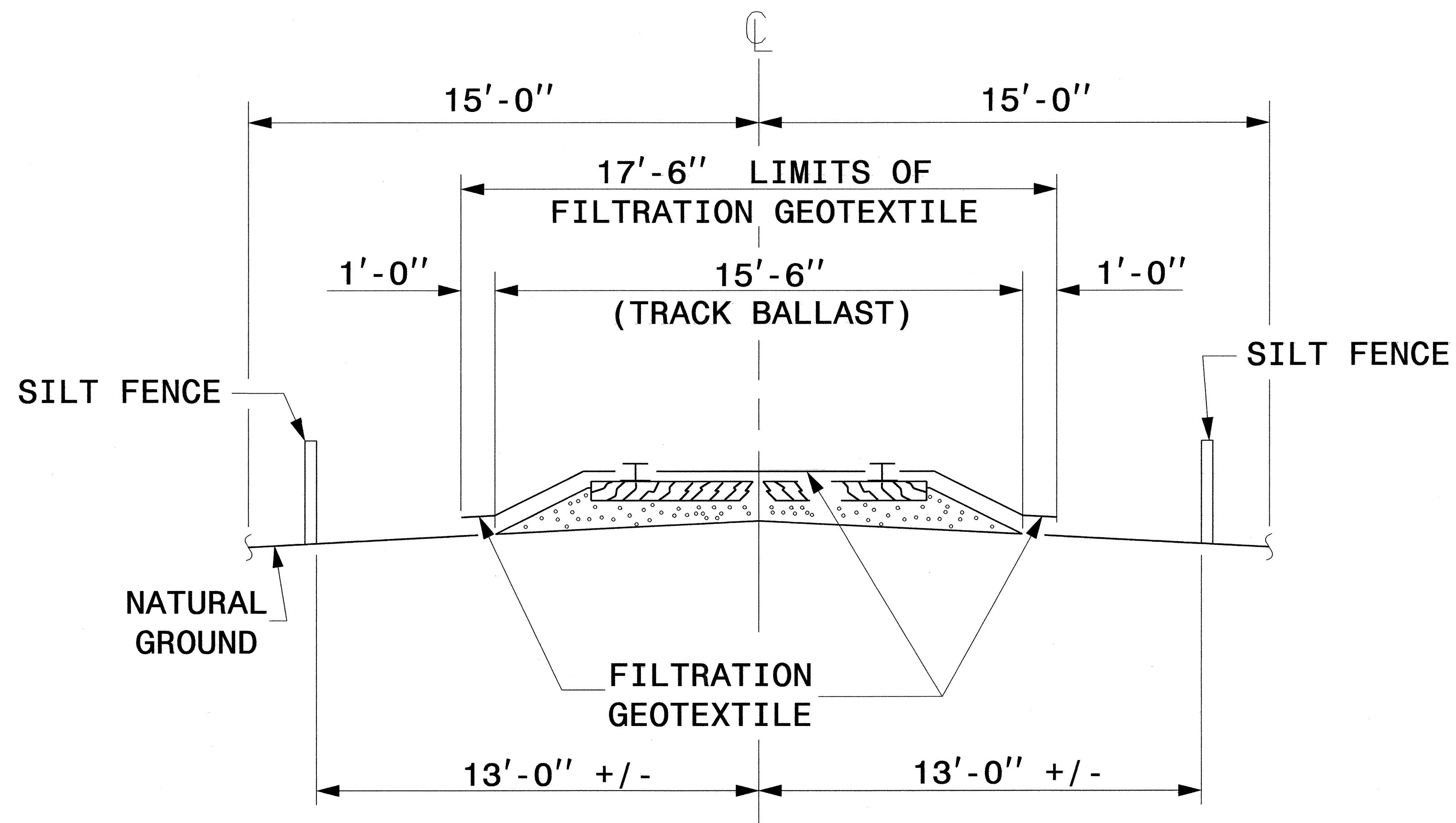
SECTION B-B

*T = 12" MIN., 18" MAX.

NOT TO SCALE

PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-2D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

RAILROAD EROSION CONTROL DETAIL



NOTES

INSTALL RAILROAD EROSION CONTROL MEASURES PRIOR TO PERFORMING ANY WORK IN THE RAILROAD RIGHT-OF-WAY.

ADDITIONAL EROSION CONTROL MEASURES FOR PROTECTION OF RAILROAD DITCHES MAY BE REQUIRED AS DIRECTED.

MAKE NO SEPARATE PAYMENT FOR RAILROAD EROSION CONTROL MEASURES.

EXTEND LIMITS OF SILT FENCE AND FILTRATION GEOTEXTILE PARALLEL TO RAILROAD A MINIMUM OF 10'-0" OUTSIDE EDGE OF SUPERSTRUCTURE OR TOE OF SLOPE ON CONSTRUCTION. A GREATER LENGTH OF SILT FENCE OR FILTRATION GEOTEXTILE MAY BE REQUIRED AS DIRECTED.

NAIL FILTRATION GEOTEXTILE TO TIMBER RAIL TIES WITH PRIME SOURCE "GRIP CAP" OR EQUIVALENT. SECURE FILTRATION GEOTEXTILE ON SHOULDER AS DIRECTED BY THE RAILROAD AND NCDOT.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-2707B</i>	SHEET NO. <i>EC-3B</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

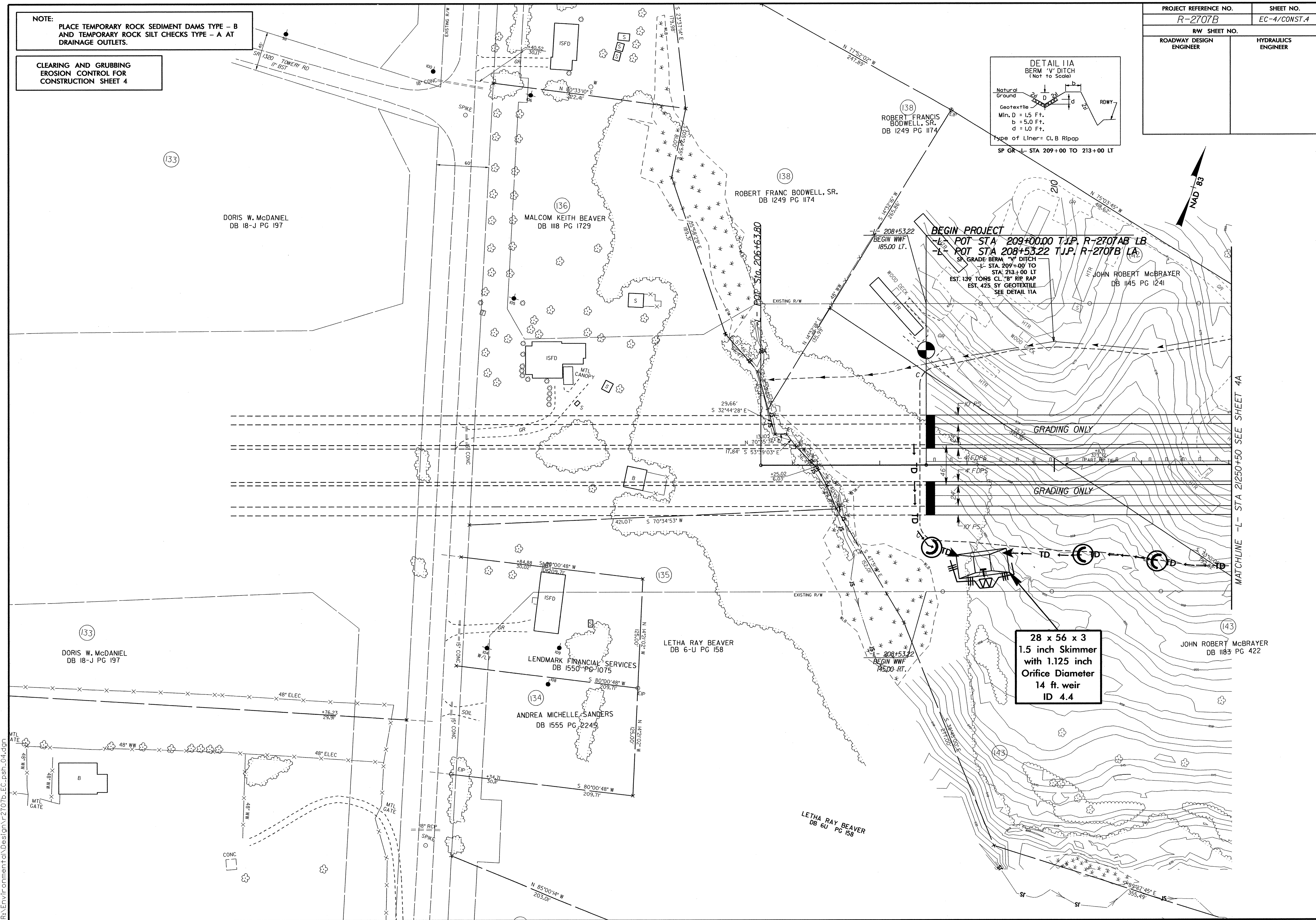
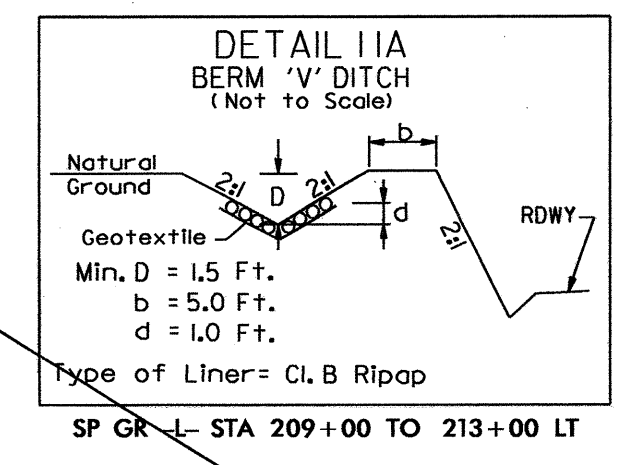
SOIL STABILIZATION TIMEFRAMES

<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.
R-2707B	EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4



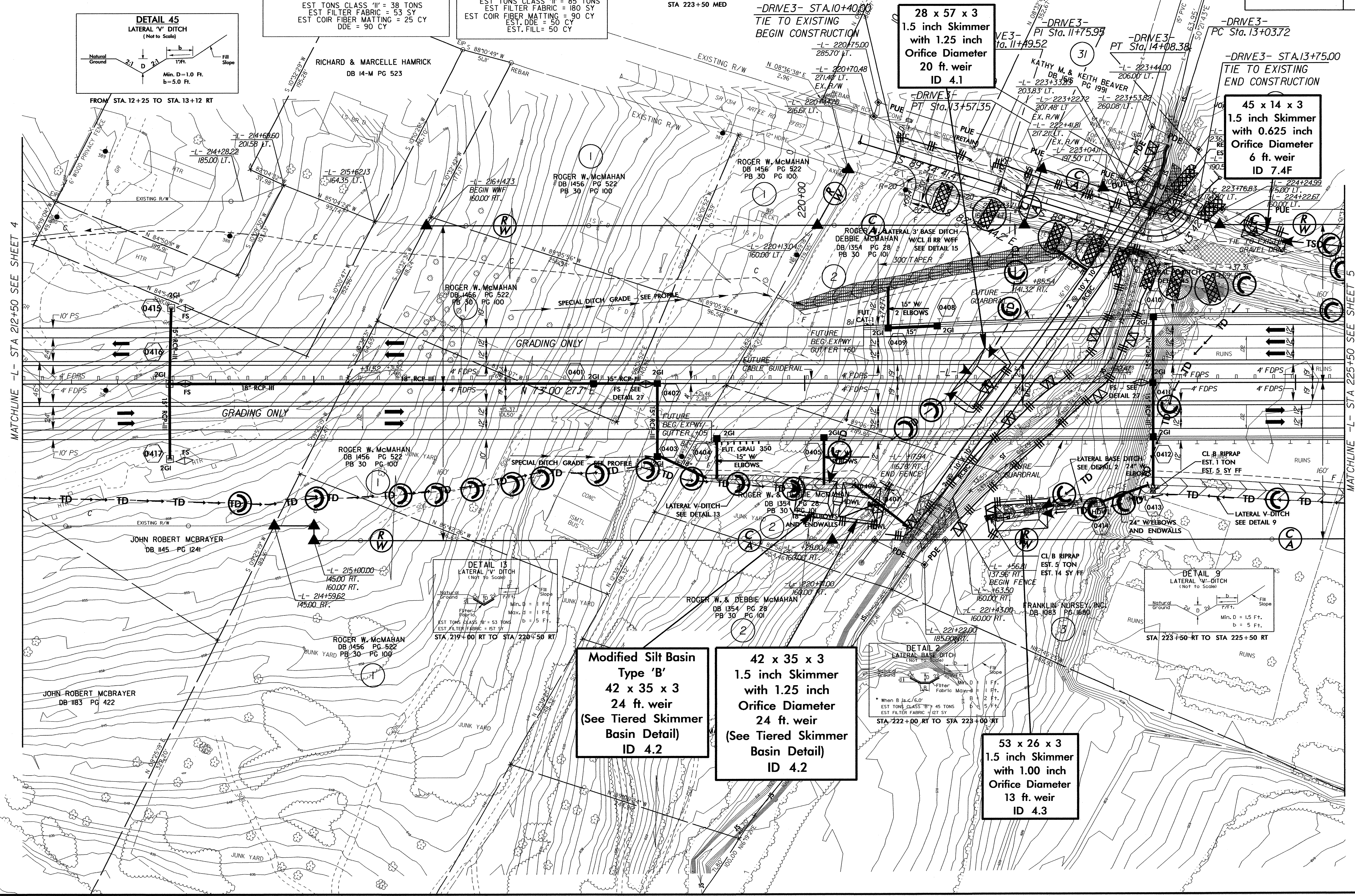
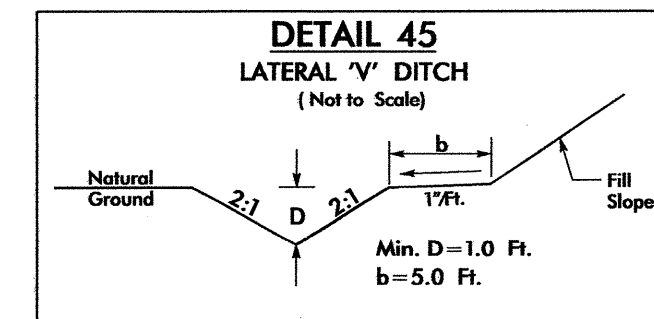
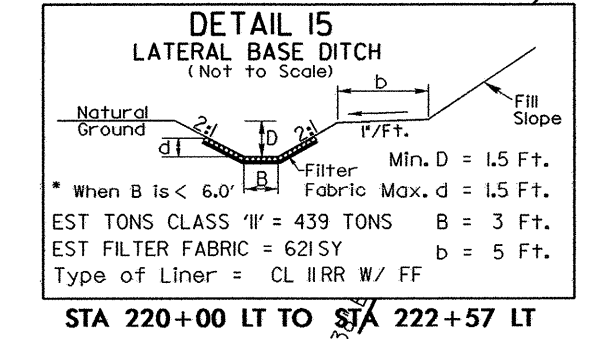
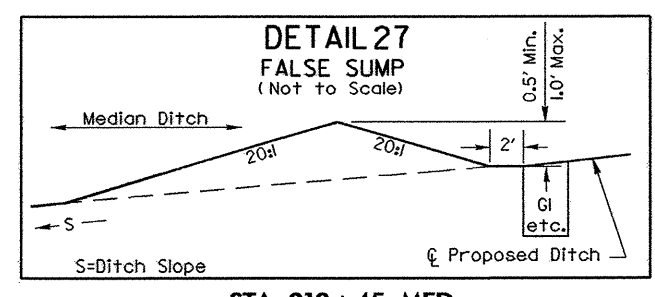
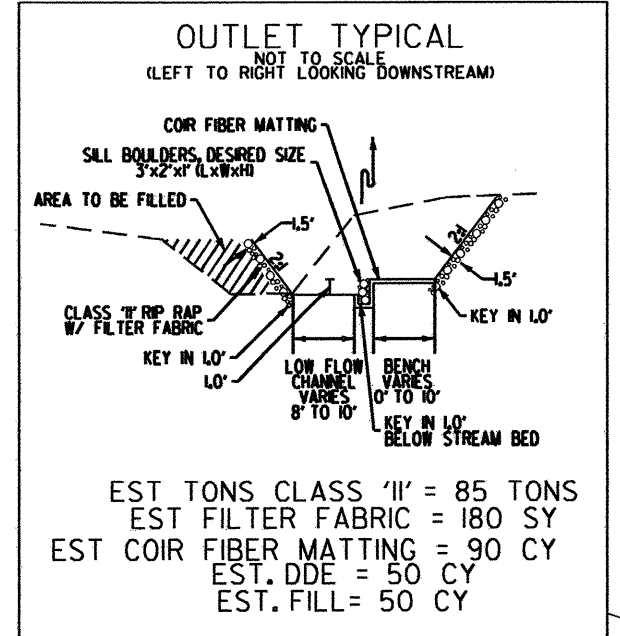
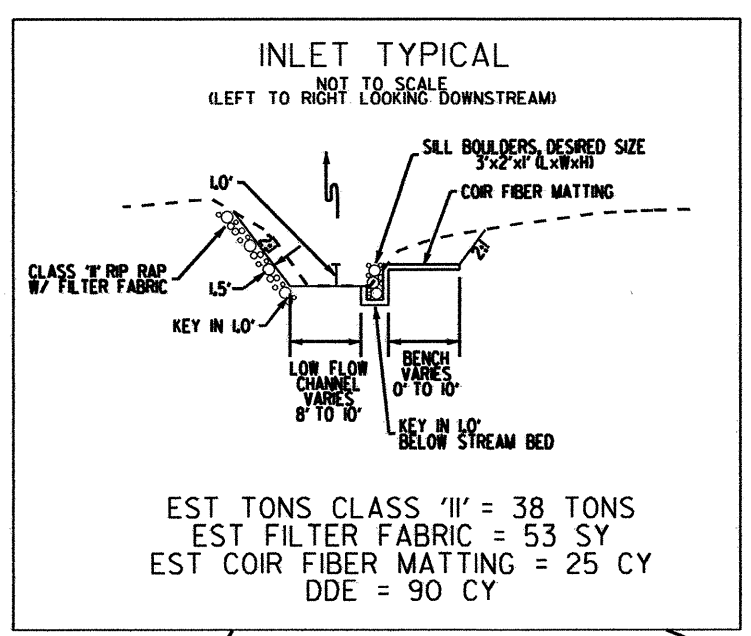
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PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-5/CONST.4A
RW SHEET NO.	4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 4A



28 x 57 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
20 ft. weir
ID 4.1

45 x 14 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
6 ft. weir
ID 7.4F

Modified Silt Basin
Type 'B'
42 x 35 x 3
24 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 4.2

42 x 35 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
24 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 4.2

53 x 26 x 3
1.5 inch Skimmer
with 1.00 inch
Orifice Diameter
13 ft. weir
ID 4.3

\$\$\$DATE\$\$\$\$
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MATCHLINE -L- STA 212+50 SEE SHEET 4

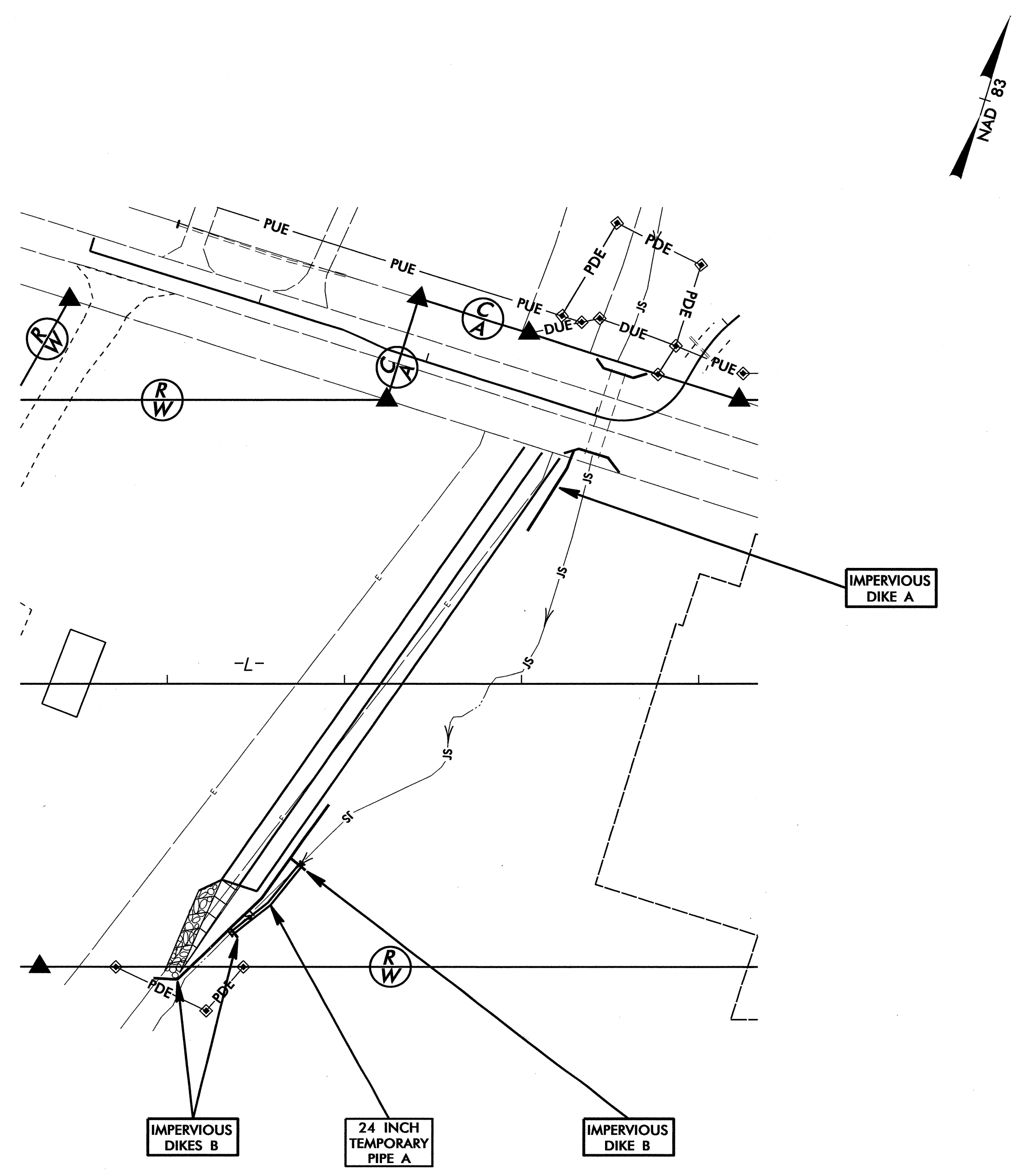
MATCHLINE -L- STA 225+50 SEE SHEET 5

PROJECT REFERENCE NO. <i>R-2707B</i>	SHEET NO. <i>EC-6/CONST.4A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 222 + 20.43 -L-

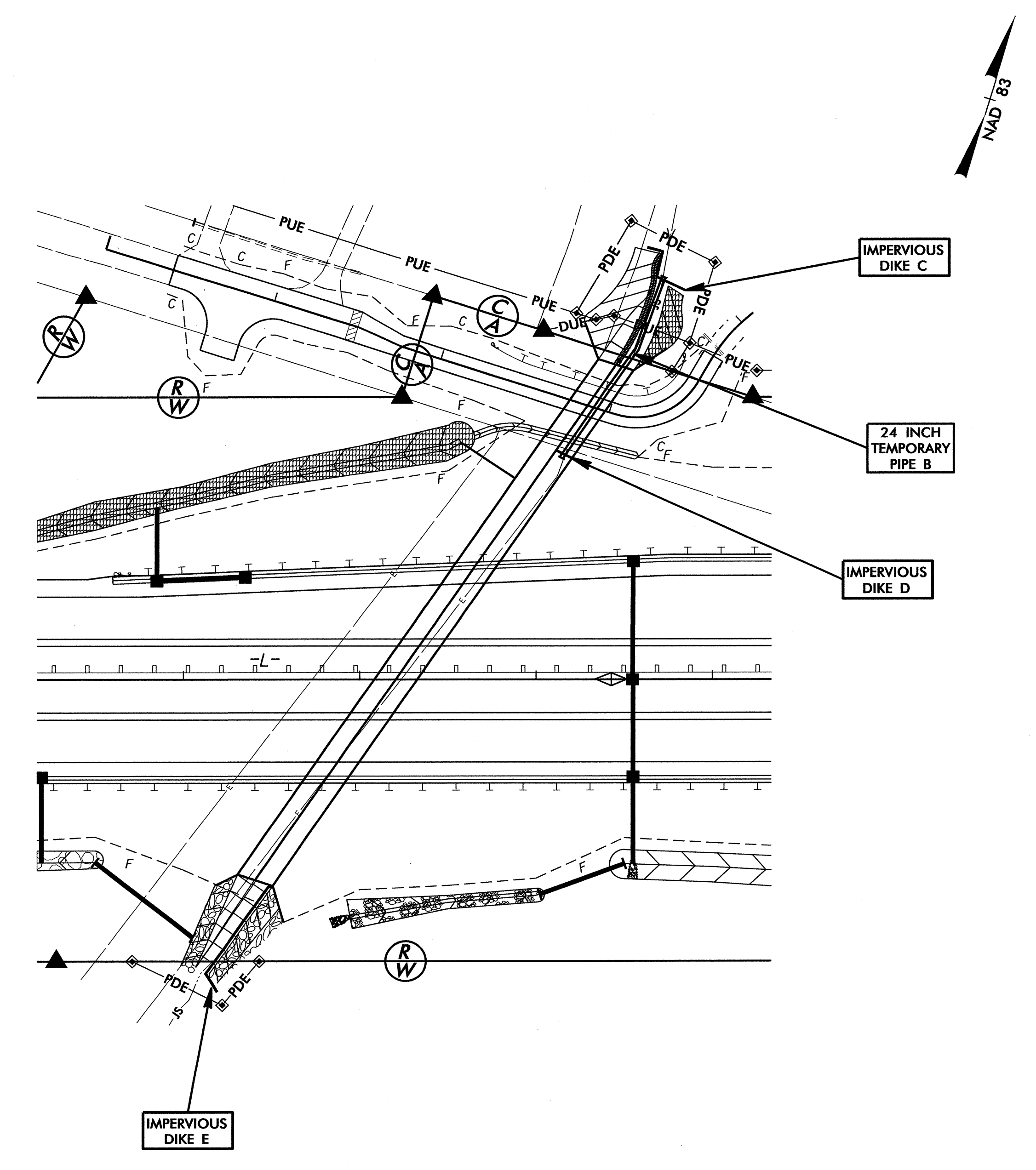
PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. MAINTAIN EXISTING CMPA AND TRAFFIC ON ARTEE ROAD.
3. CONSTRUCT IMPERVIOUS DIKES A AND B AND INSTALL 24 INCH TEMPORARY PIPE A, DIVERTING FLOW.
4. CONSTRUCT BOTH BARRELS OF PROPOSED CULVERT SOUTH OF ARTEE ROAD, AND WESTERN WINGWALLS AND WESTERN DOWNSTREAM CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKES A AND B AND 24 INCH TEMPORARY PIPE A.



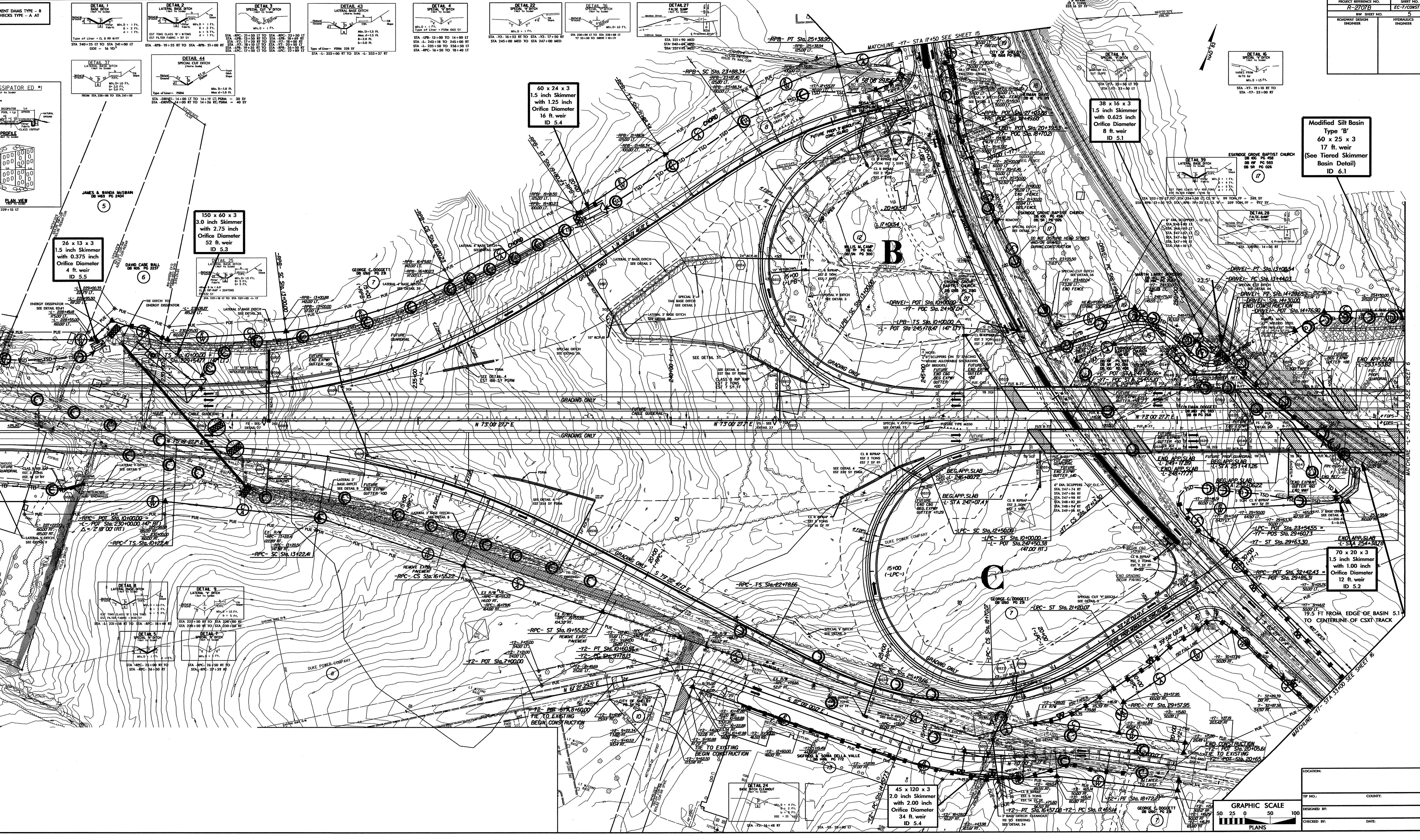
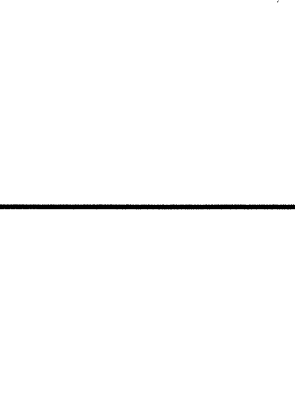
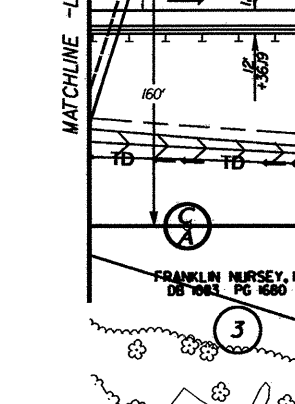
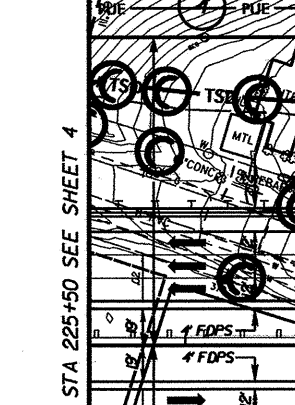
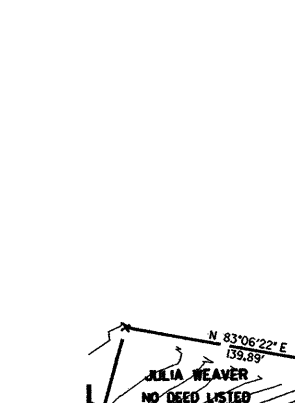
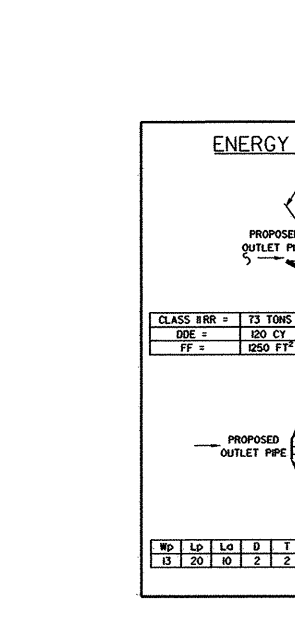
PHASE II

6. CONSTRUCT IMPERVIOUS DIKES C, D AND E, DIVERTING FLOW INTO 24 INCH TEMPORARY PIPE B.
7. REMOVE EXISTING CMPA ON ARTEE ROAD WHILE PROVIDING TEMPORARY ACCESS TO PROPERTY SERVICED BY -DRIVE 3- AT ALL TIMES.
8. CONSTRUCT REMAINING BARRELS OF CULVERT, UPSTREAM WINGWALLS AND CHANNEL IMPROVEMENTS AND DOWNSTREAM EASTERN WINGWALL AND CHANNEL IMPROVEMENTS.
9. REMOVE IMPERVIOUS DIKES C, D AND E AND 24 INCH TEMPORARY PIPE B.
10. REMOVE ANY REMAINING SPECIAL STILLING BASINS.
11. COMPLETE ROADWAY.



DATE: 05/04/2014 10:46
PROJECT: R-2107B
DRAWN BY: J. B. BROWN
CHECKED BY: J. B. BROWN
SCALE: AS SHOWN

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.
CLEARING AND GRUBBING PROVISIONS FOR CONSTRUCTION SHEET 5



GRAPHIC SCALE				
50	25	0	50	100
PLANS				

PROJECT REFERENCE NO.	SHEET NO.
R-2107B	EC-7/CONSTR.5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

LOCATION:	COUNTY:
DESIGNED BY:	DATE:
CHECKED BY:	

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-8/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**Modified Silt Basin
Type 'B'
60 x 25 x 3
17 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 6.1**

**60 x 25 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
17 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 6.1**

**124 x 23 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
15 ft. weir
ID 6.2**

**33 x 60 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
52 ft. weir
ID 6.3**

**38 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
10 ft. weir
ID 6.4**

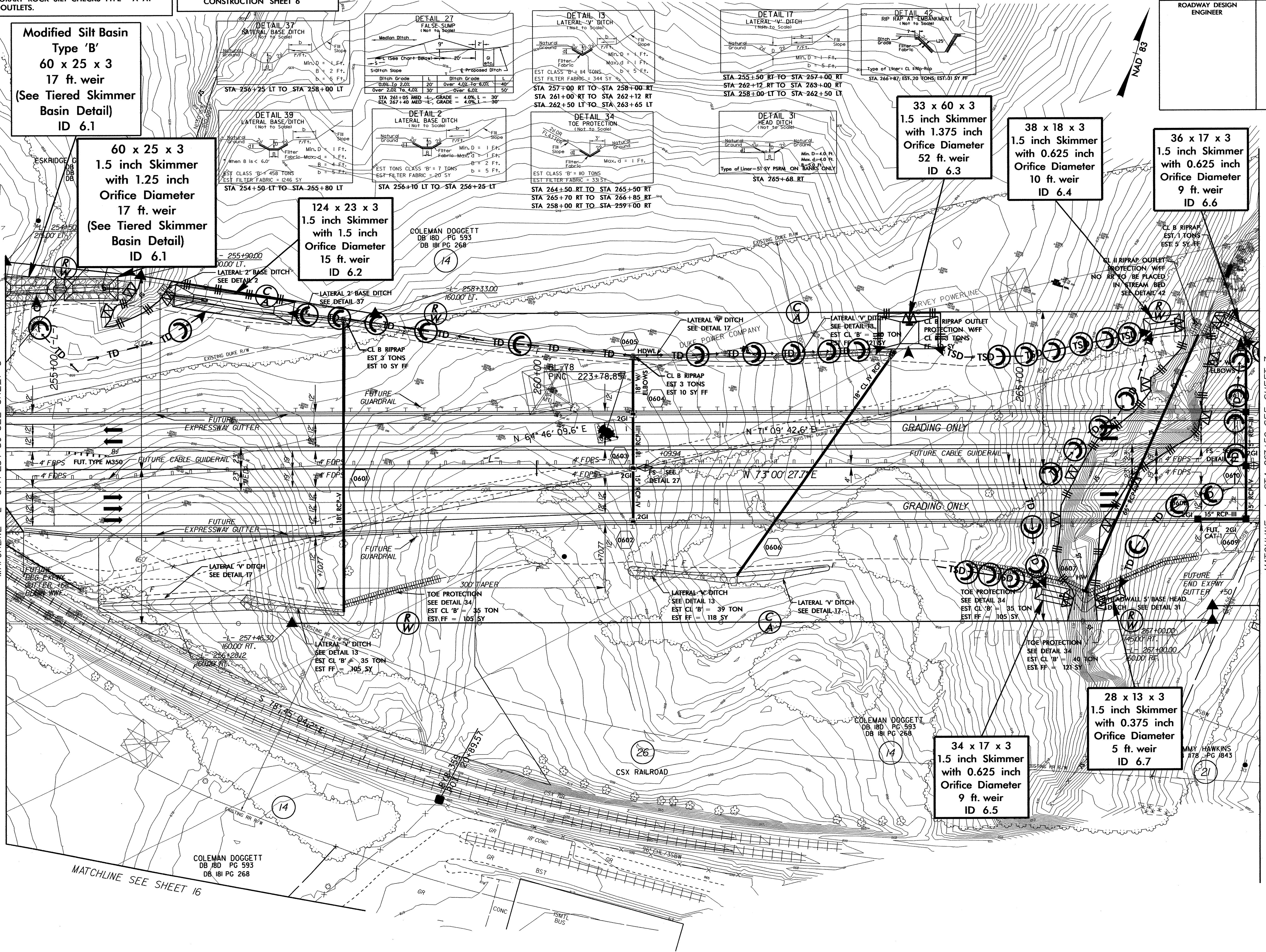
**36 x 17 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
9 ft. weir
ID 6.6**

**34 x 17 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
9 ft. weir
ID 6.5**

**28 x 13 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
5 ft. weir
ID 6.7**

MATCHLINE -L- STA 254+50 SEE SHEET 5

MATCHLINE -L- STA 267+50 SEE SHEET 7



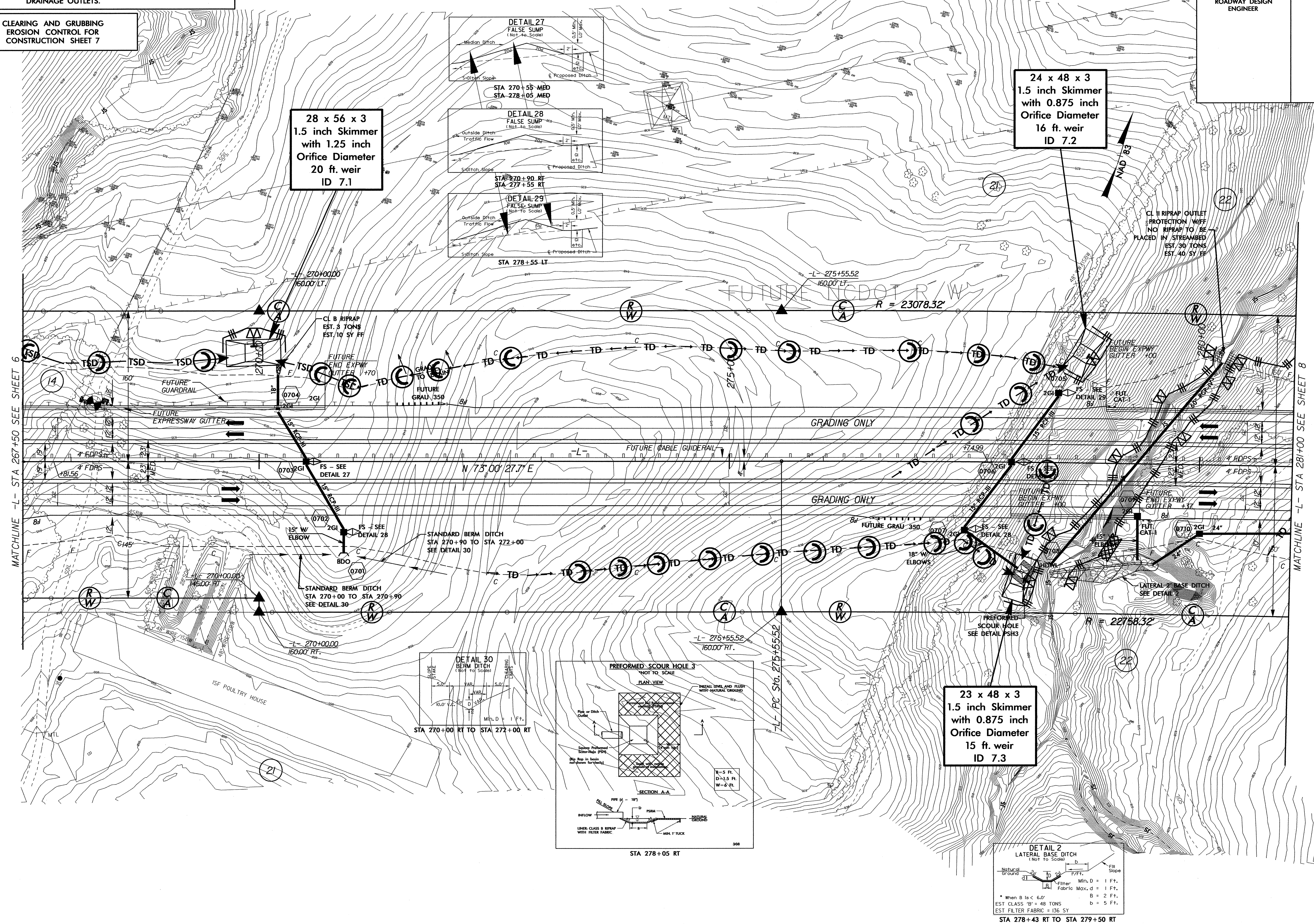
MATCHLINE SEE SHEET 16

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

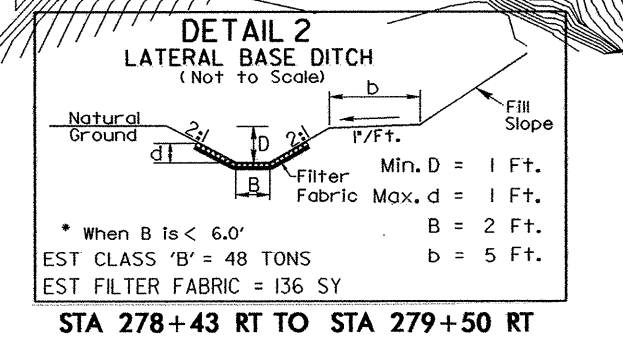
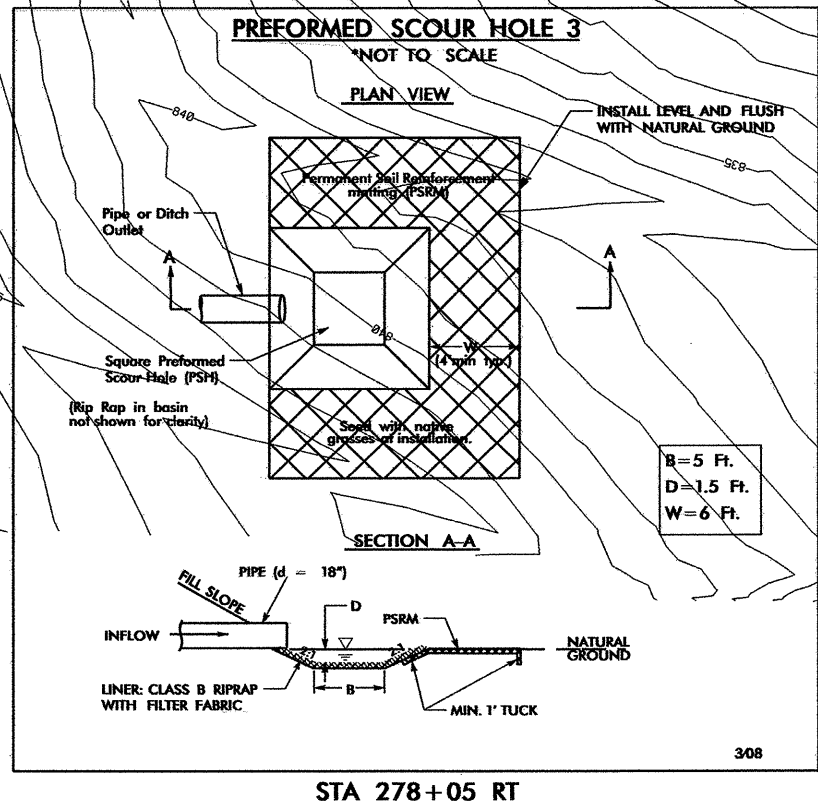
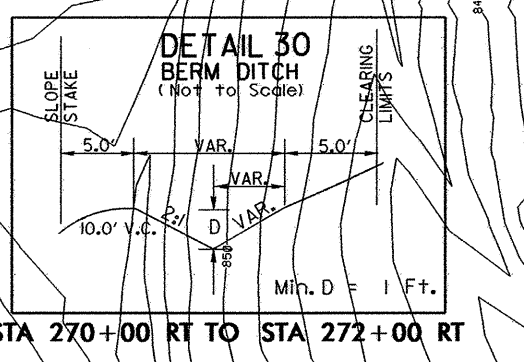
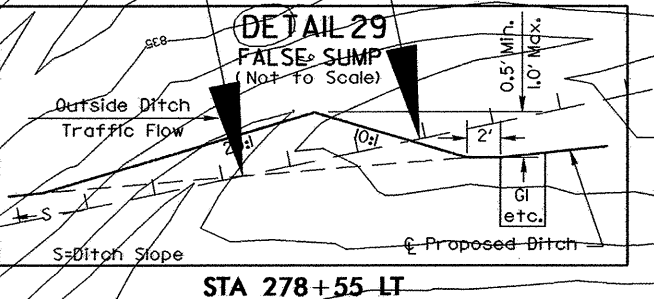
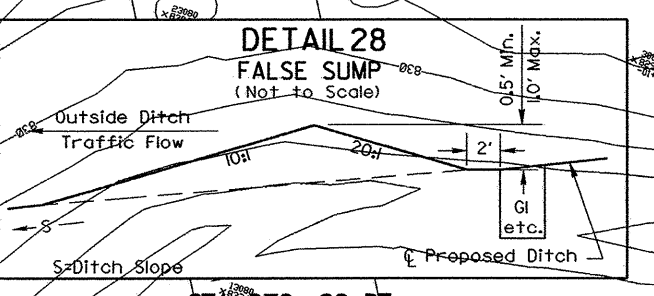
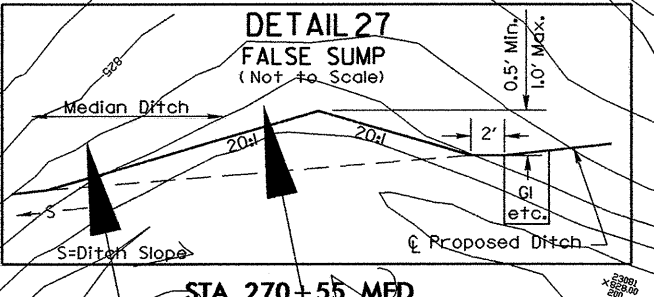
PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-9/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



28 x 56 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
20 ft. weir
ID 7.1

24 x 48 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
16 ft. weir
ID 7.2

23 x 48 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
15 ft. weir
ID 7.3



MATCHLINE -L- STA 267+50 SEE SHEET 6

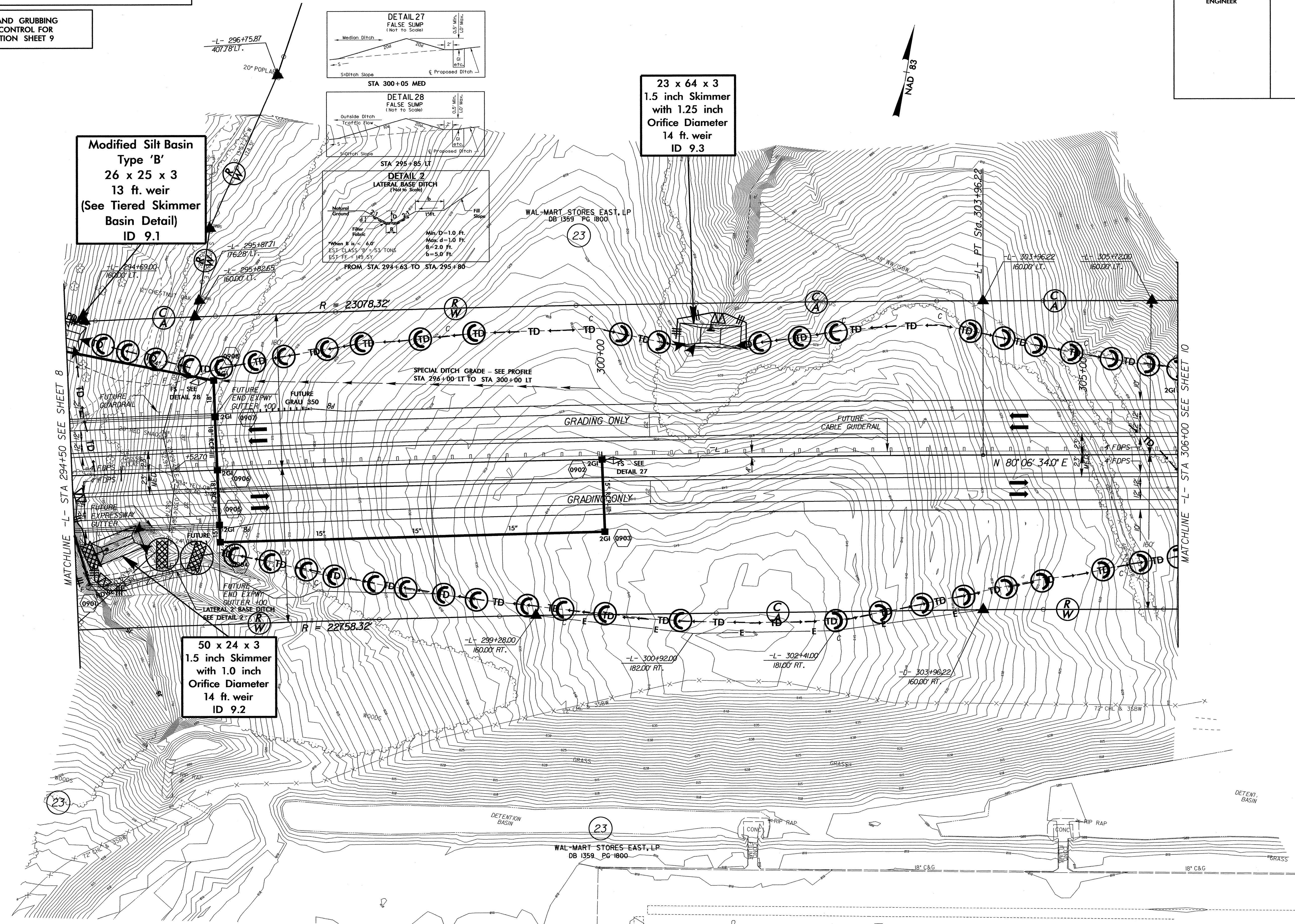
MATCHLINE -L- STA 281+00 SEE SHEET 8

\$\$\$DATE\$\$\$
17-MAY-2013 09:46
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PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-II/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

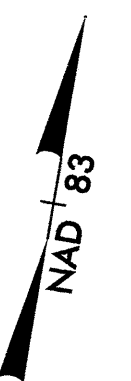
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9



MATCHLINE -L- STA 294+50 SEE SHEET 8

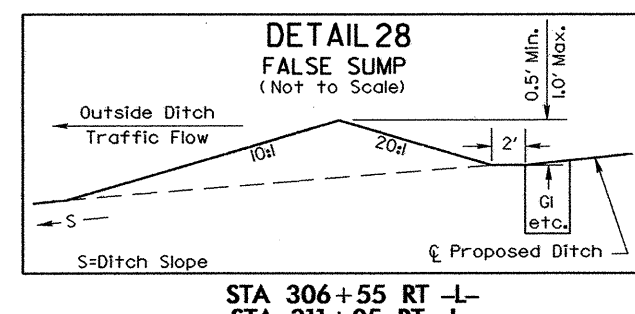
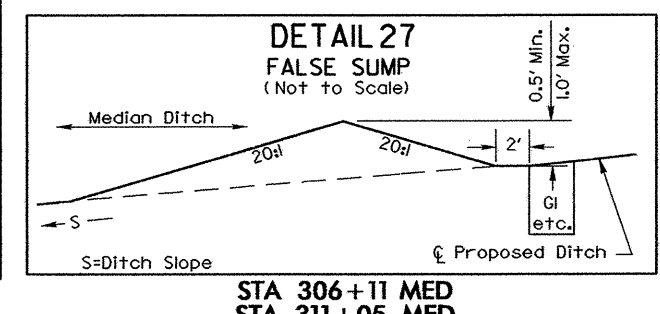
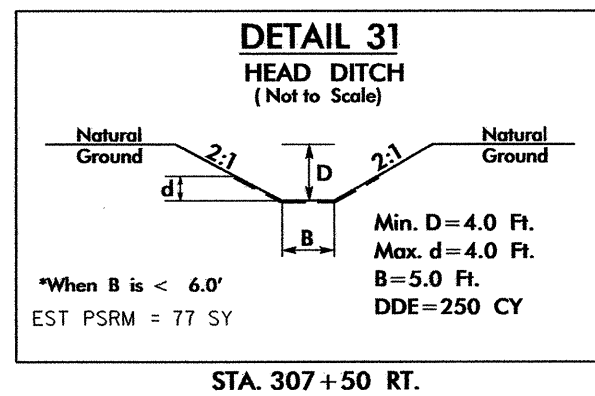
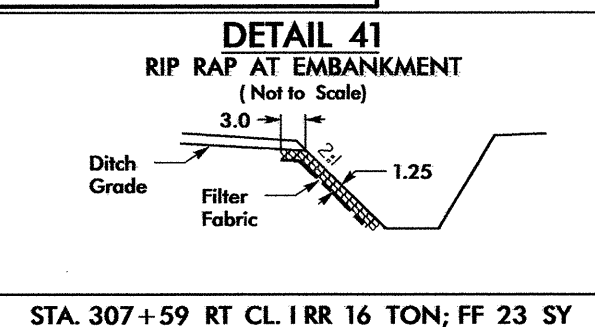
MATCHLINE -L- STA 306+00 SEE SHEET 10



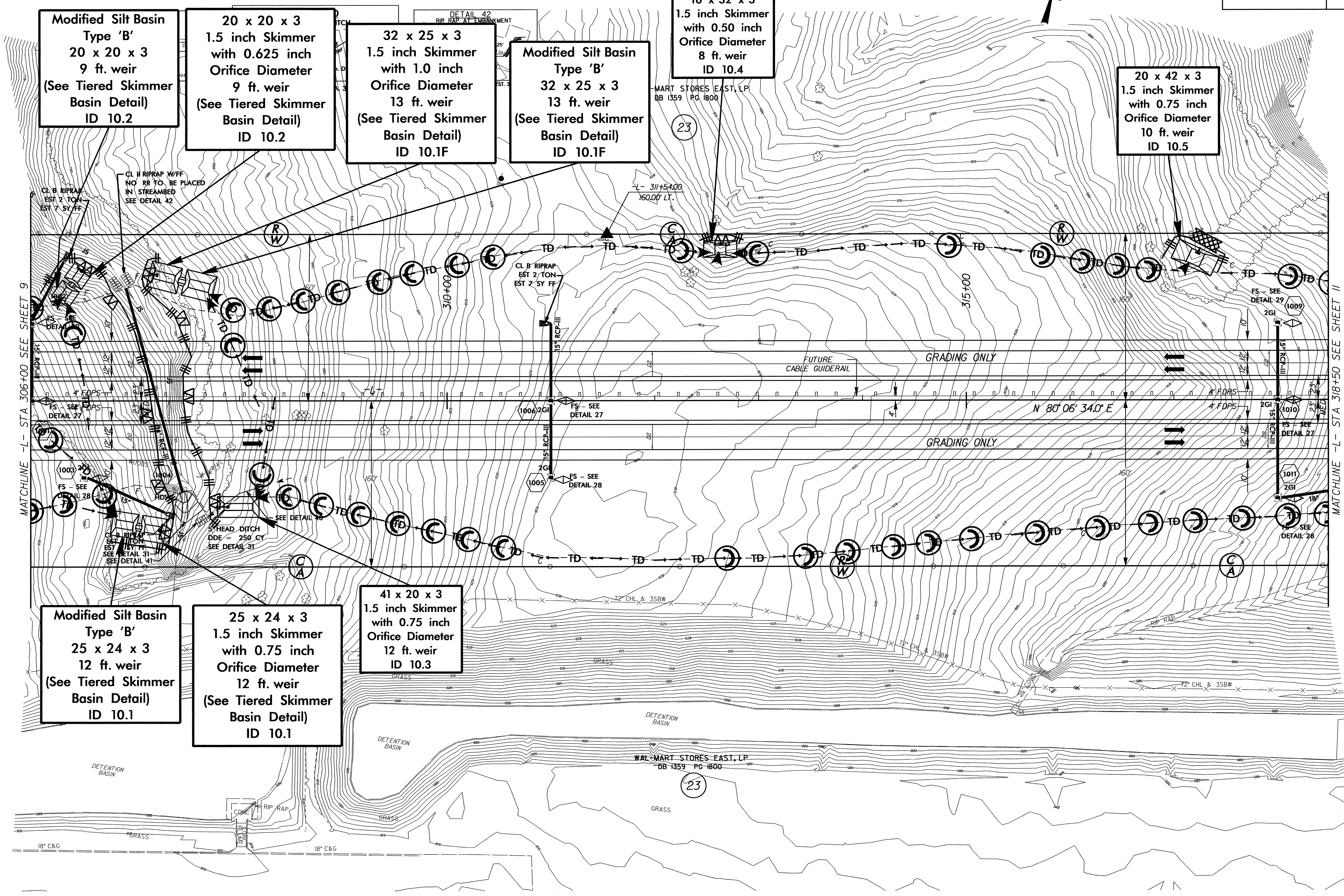
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17-MAY-2013 09:55
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NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10



PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-12/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



Modified Silt Basin Type 'B'
20 x 20 x 3
9 ft. weir
(See Tiered Skimmer Basin Detail)
ID 10.2

20 x 20 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
9 ft. weir
(See Tiered Skimmer Basin Detail)
ID 10.2

32 x 25 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
13 ft. weir
(See Tiered Skimmer Basin Detail)
ID 10.1F

Modified Silt Basin Type 'B'
32 x 25 x 3
13 ft. weir
(See Tiered Skimmer Basin Detail)
ID 10.1F

16 x 32 x 3
1.5 inch Skimmer
with 0.50 inch
Orifice Diameter
8 ft. weir
ID 10.4

20 x 42 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
10 ft. weir
ID 10.5

Modified Silt Basin Type 'B'
25 x 24 x 3
12 ft. weir
(See Tiered Skimmer Basin Detail)
ID 10.1

25 x 24 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
12 ft. weir
(See Tiered Skimmer Basin Detail)
ID 10.1

41 x 20 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
12 ft. weir
ID 10.3

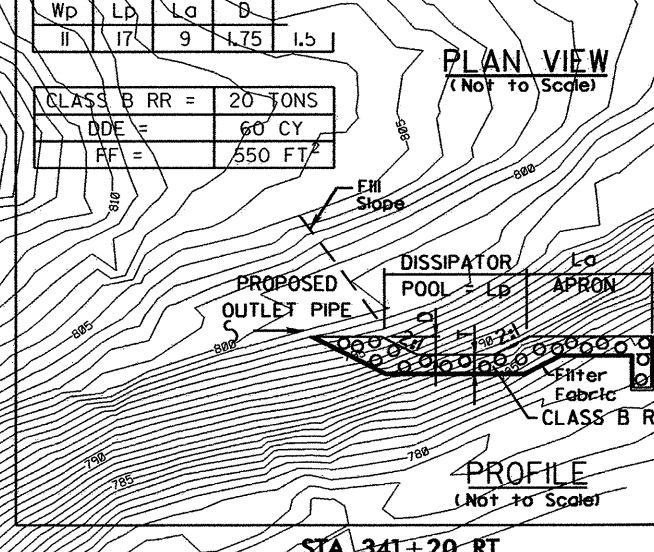
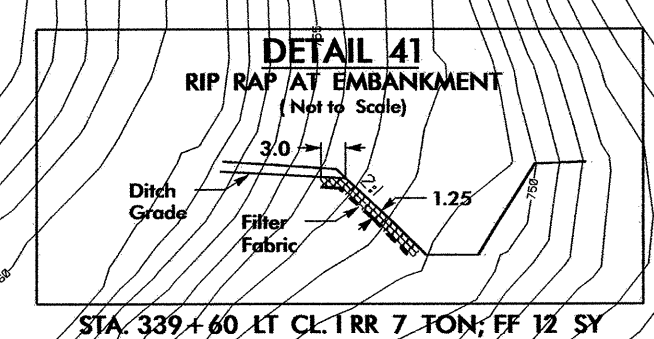
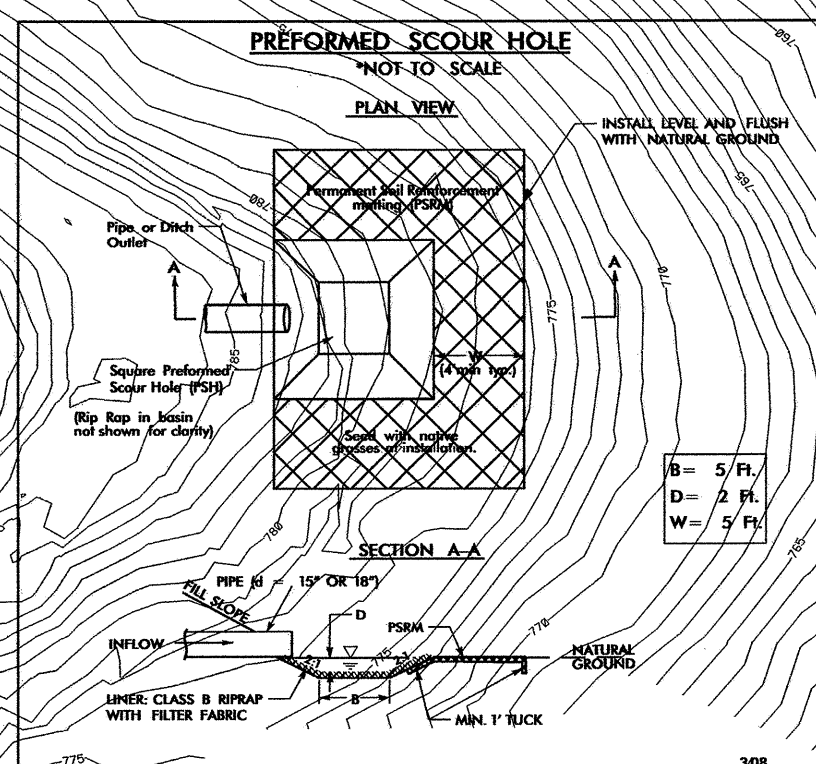
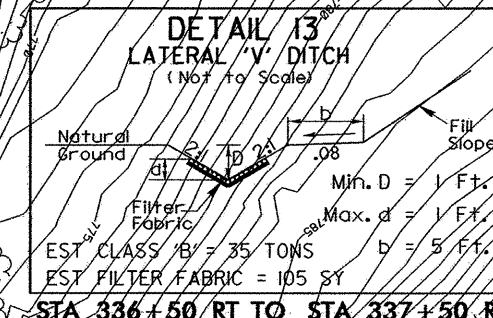
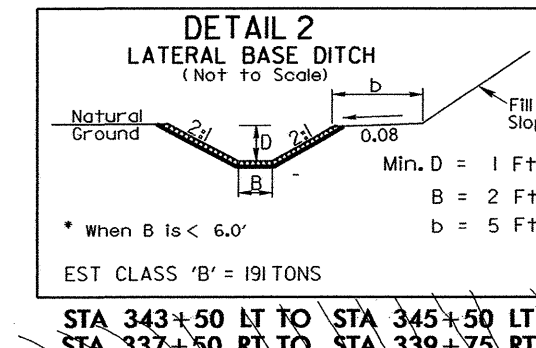
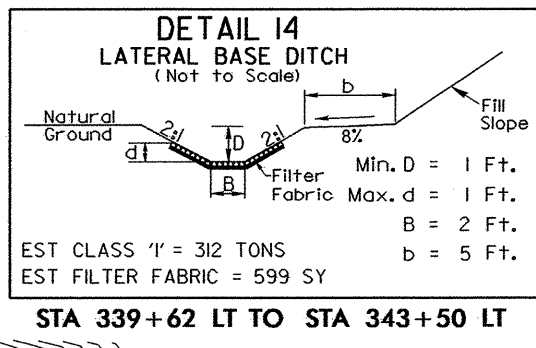
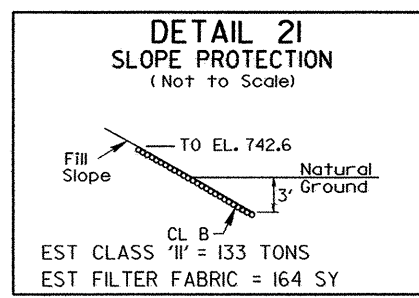
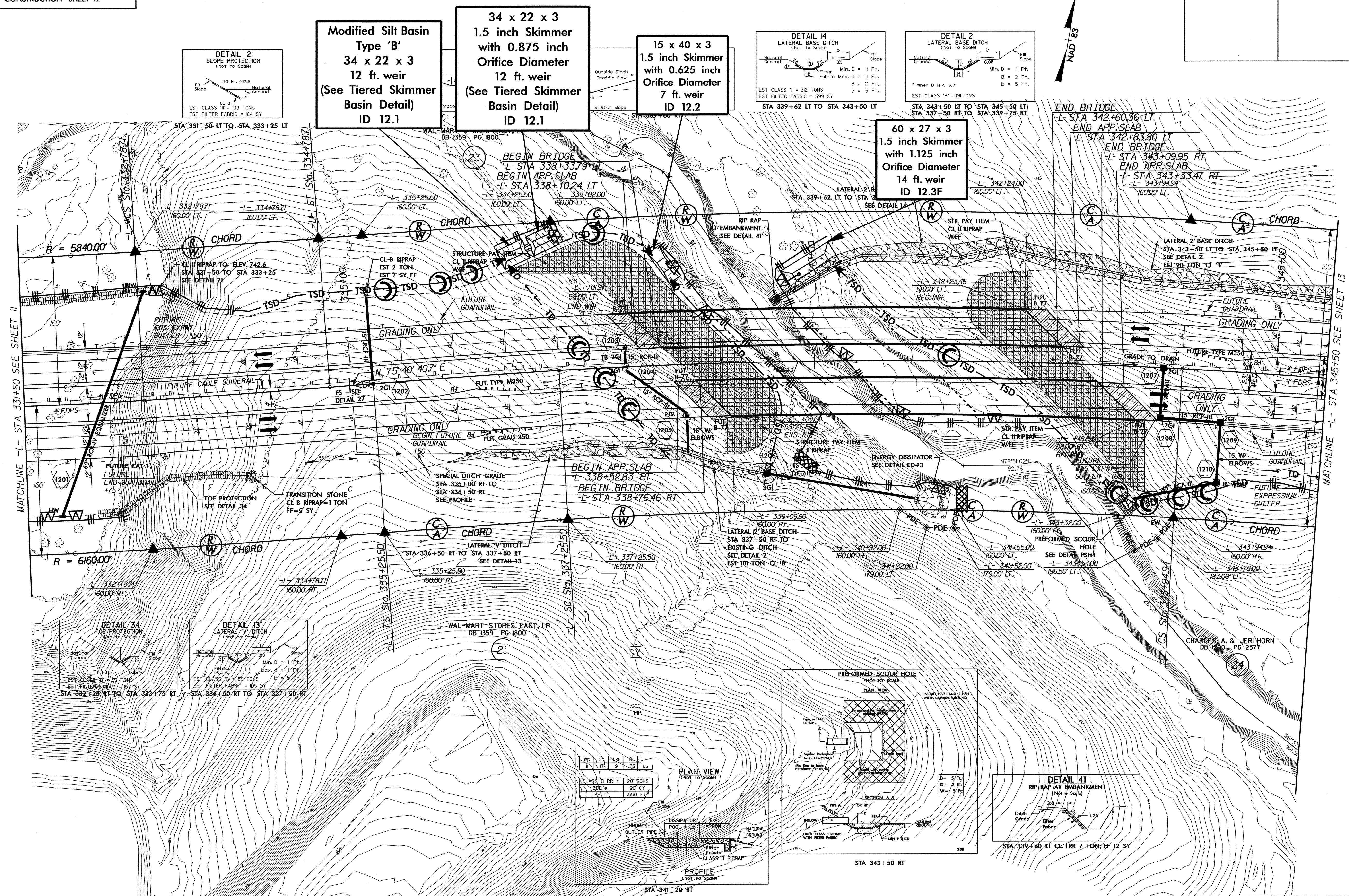
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17-MAY-2013 10:31
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NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12

NOTE:
UTILIZE SKIMMER BASIN AS STILLING BASIN WHERE
WHERE APPLICABLE.

PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-14/CONST.12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



DATE: 17-MAY-2013 10:40
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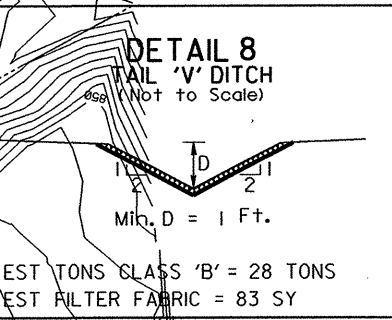
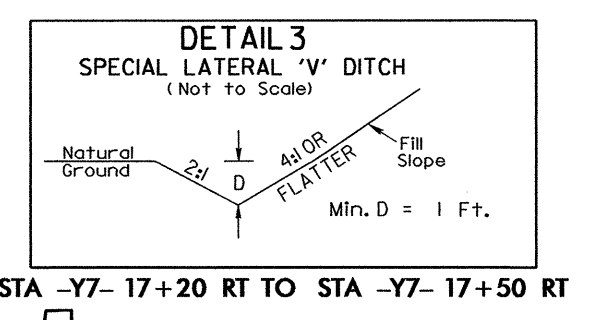
MATCHLINE -L- STA 345+50 SEE SHEET 13

MATCHLINE -L- STA 331+50 SEE SHEET 11

PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-17/CONST.15
R/W SHEET NO.	14
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 15



47 x 16 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
8 ft. weir
ID 15.1

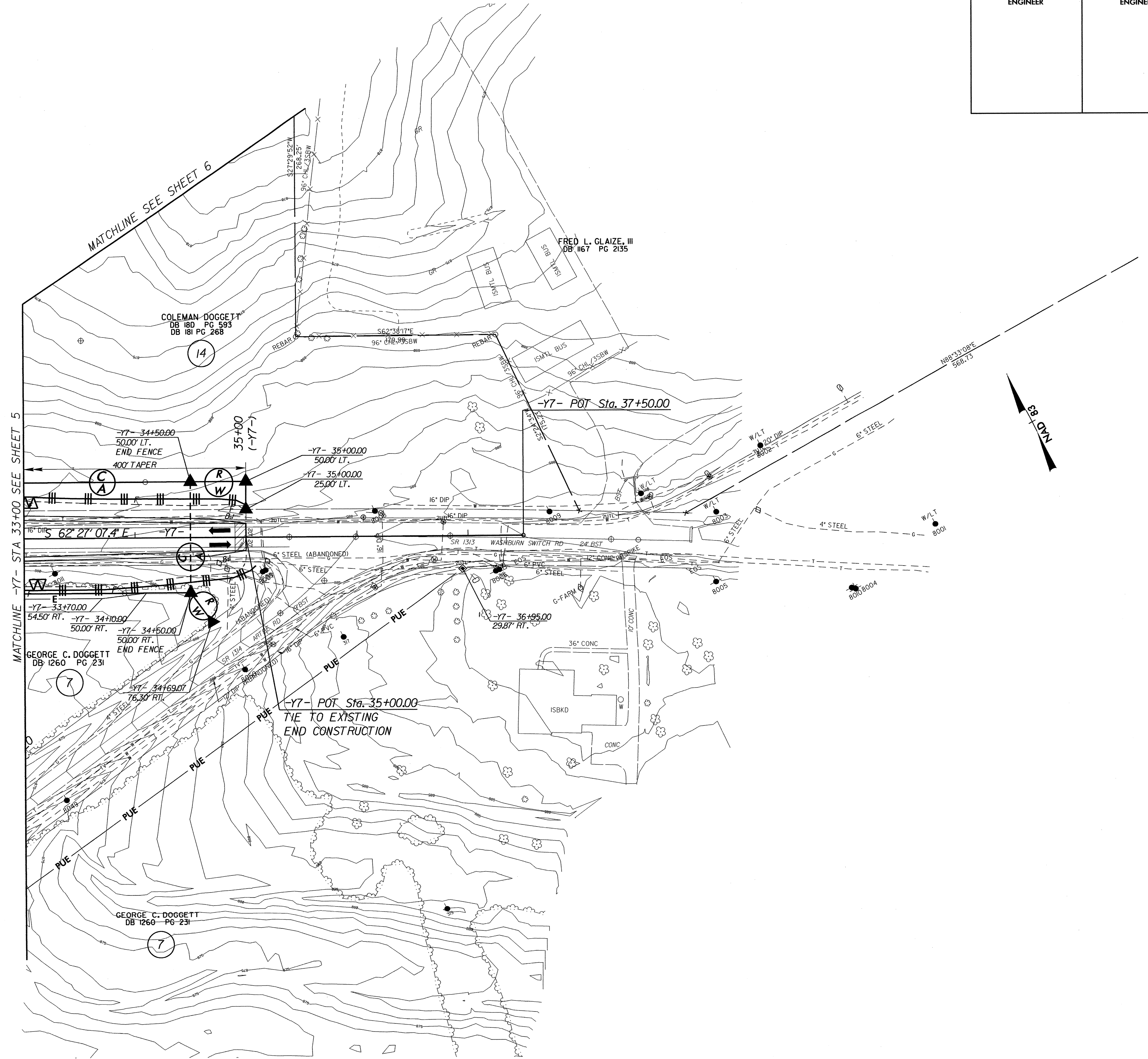
39.5 FT FROM
EDGE OF BASIN 15.1 TO
CENTERLINE OF CSX TRACK

\$\$\$DATE\$\$\$
16-DEC-2013 14:52
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NOTE:
 PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
 AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
 DRAINAGE OUTLETS.

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 16

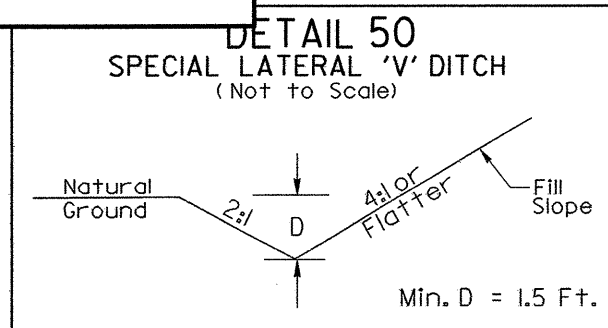
PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-18/CONST.16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



\$\$\$\$DATE\$\$\$\$
 17-MAY-2013 11:27
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NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

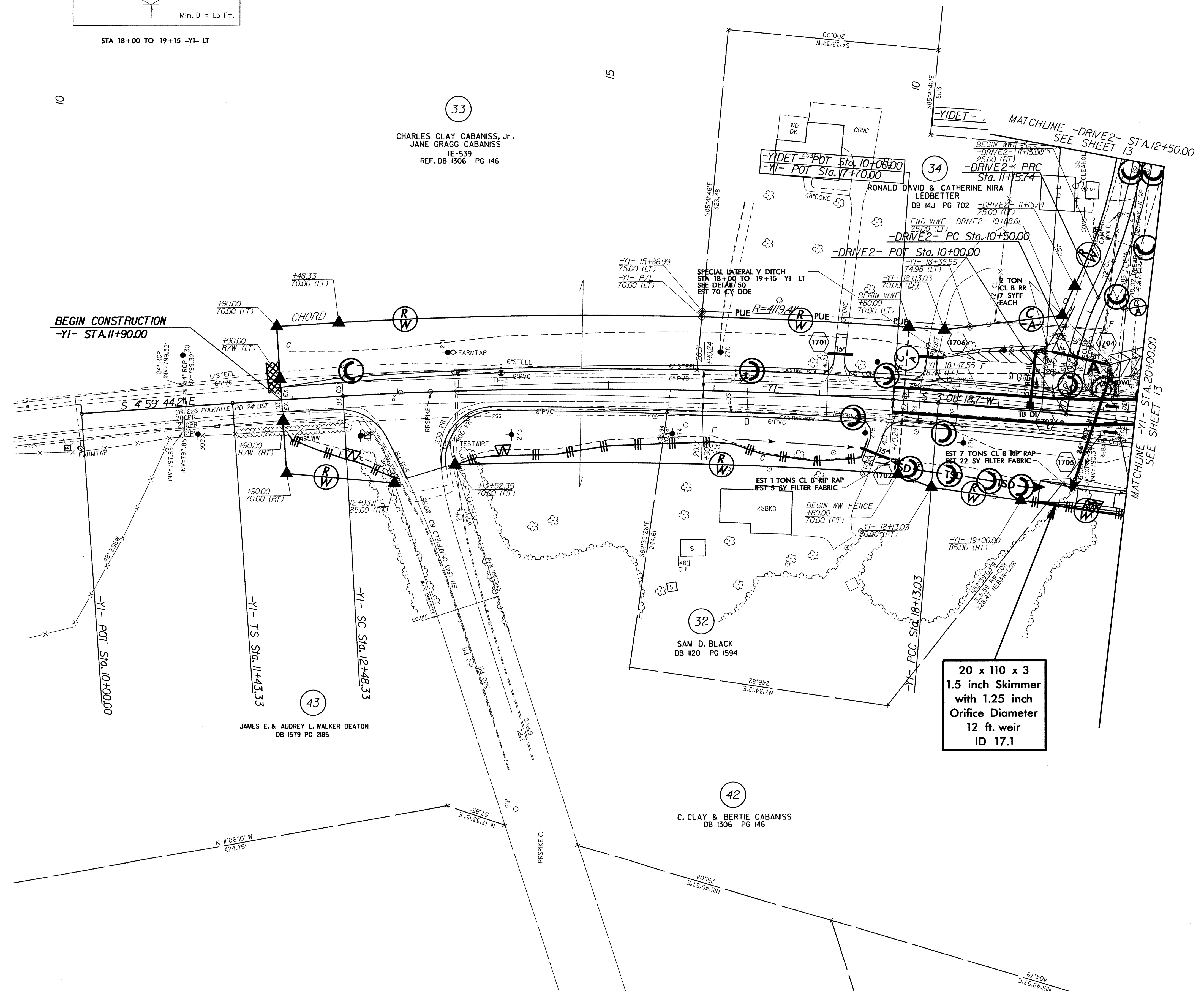
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 17



STA 18+00 TO 19+15 -Y1- LT

PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-19/CONST.17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD, 83

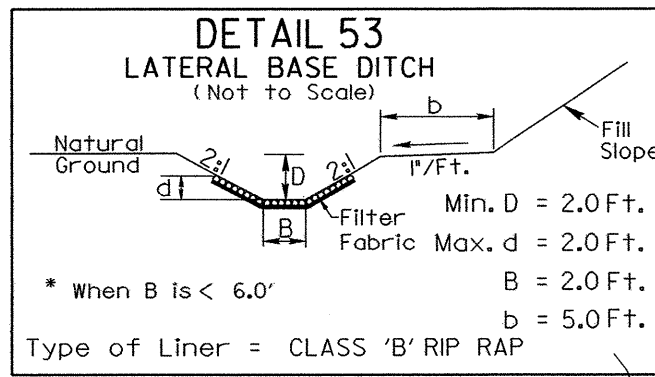


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PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-20/CONST.18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

36

MYRTLE ROBERTSON, HEIRS
DB 7N PG 252



STA 17+60 TO 19+20 -Y17- RT
STA 17+00 TO 19+35 -Y17- LT

18 x 42 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
7 ft. weir
ID 18.1F

Modified Silt Basin
Type 'B'
33 x 30 x 3
16 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 18.2

33 x 30 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
16 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 18.2

Modified Silt Basin
Type 'B'
45 x 44 x 3
31 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 18.1

45 x 44 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
31 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 18.1

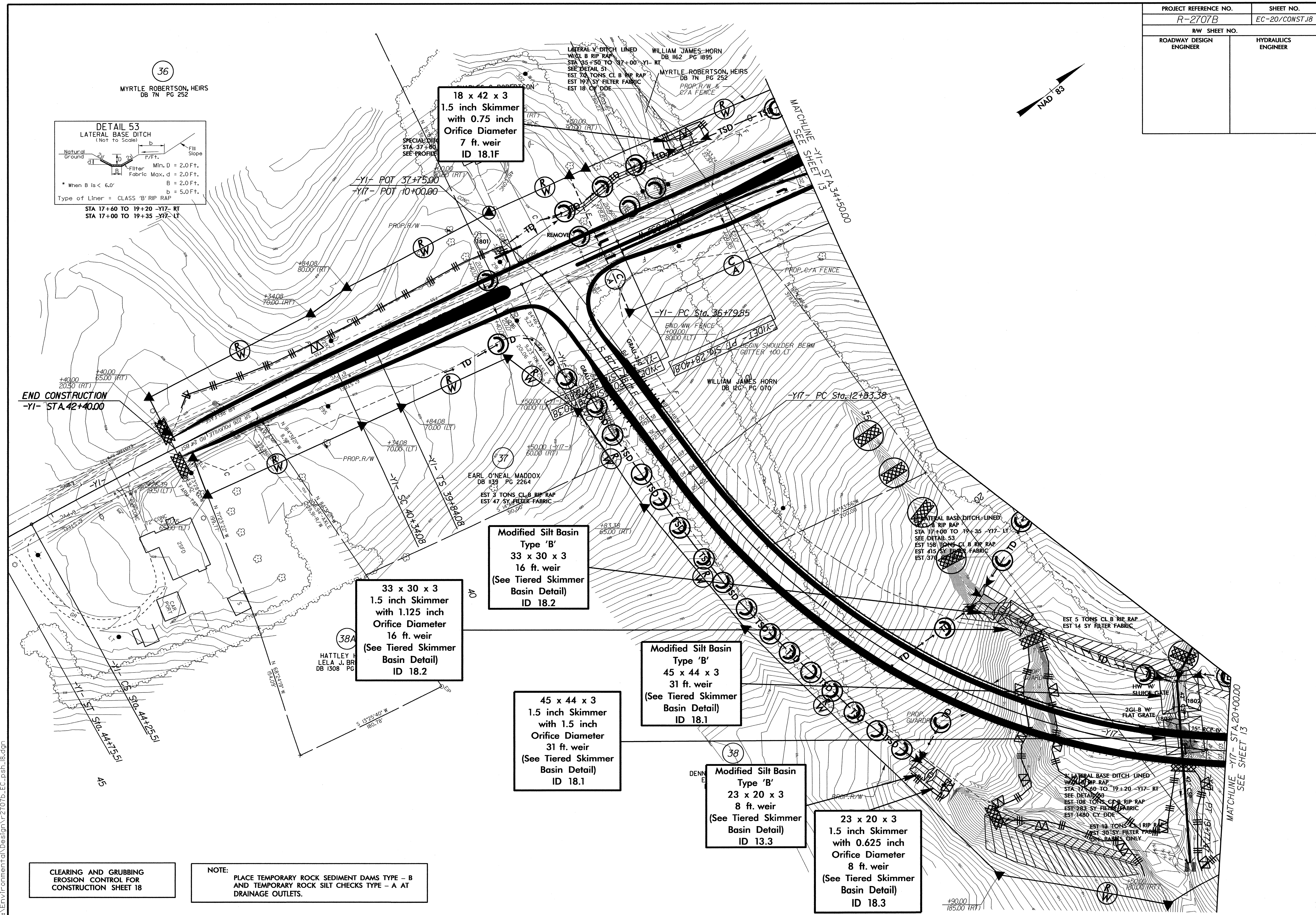
Modified Silt Basin
Type 'B'
23 x 20 x 3
8 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 13.3

23 x 20 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
8 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 18.3

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 18

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

\$\$\$DATE\$\$\$\$\$
 17-MAY-2013 11:38
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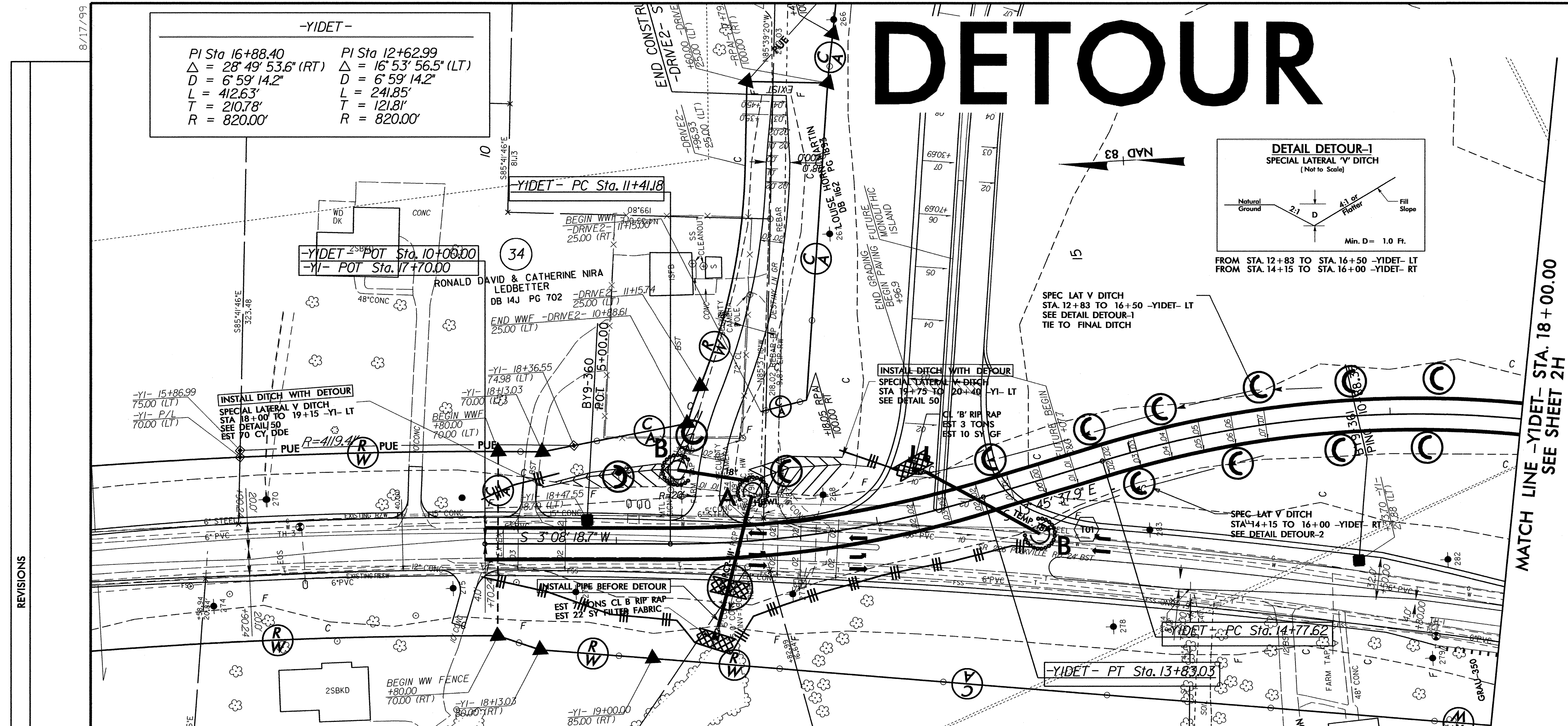
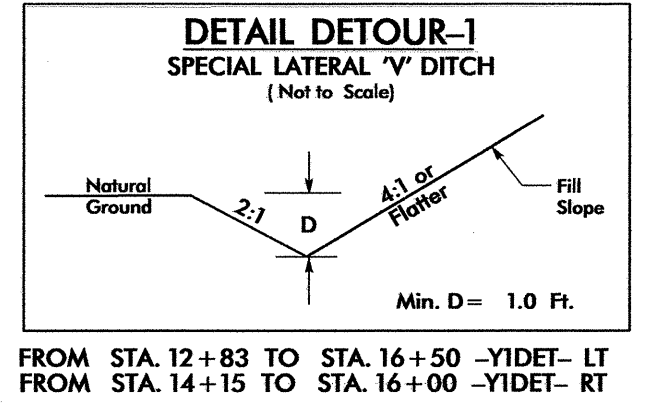
MATCHLINE -Y17- STA.20+00.00
 SEE SHEET 13

PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-21/CONST.26
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

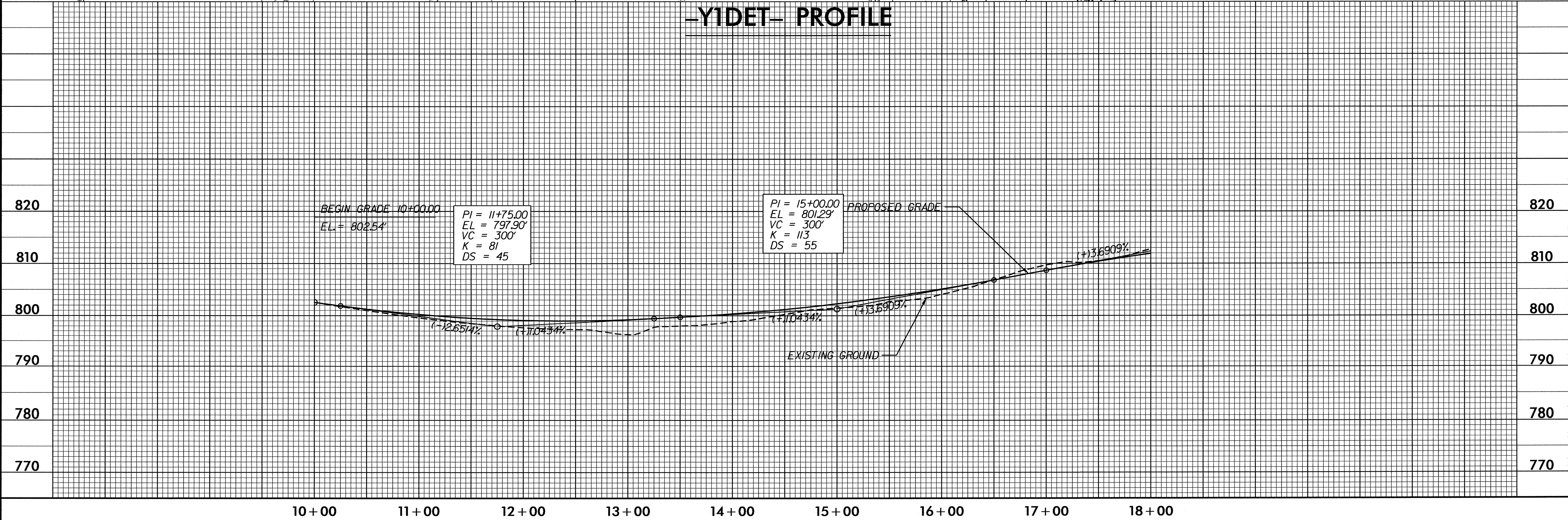
DETOUR

-YIDET-

PI Sta 16+88.40	PI Sta 12+62.99
$\Delta = 28^{\circ}49'53.6"$ (RT)	$\Delta = 16^{\circ}53'56.5"$ (LT)
D = 6'59"14.2"	D = 6'59"14.2"
L = 412.63'	L = 241.85'
T = 210.78'	L = 121.81'
R = 820.00'	R = 820.00'



-YIDET- PROFILE

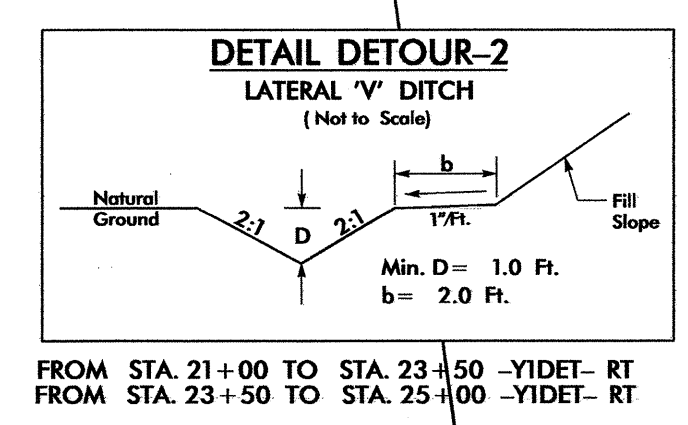


REVISIONS

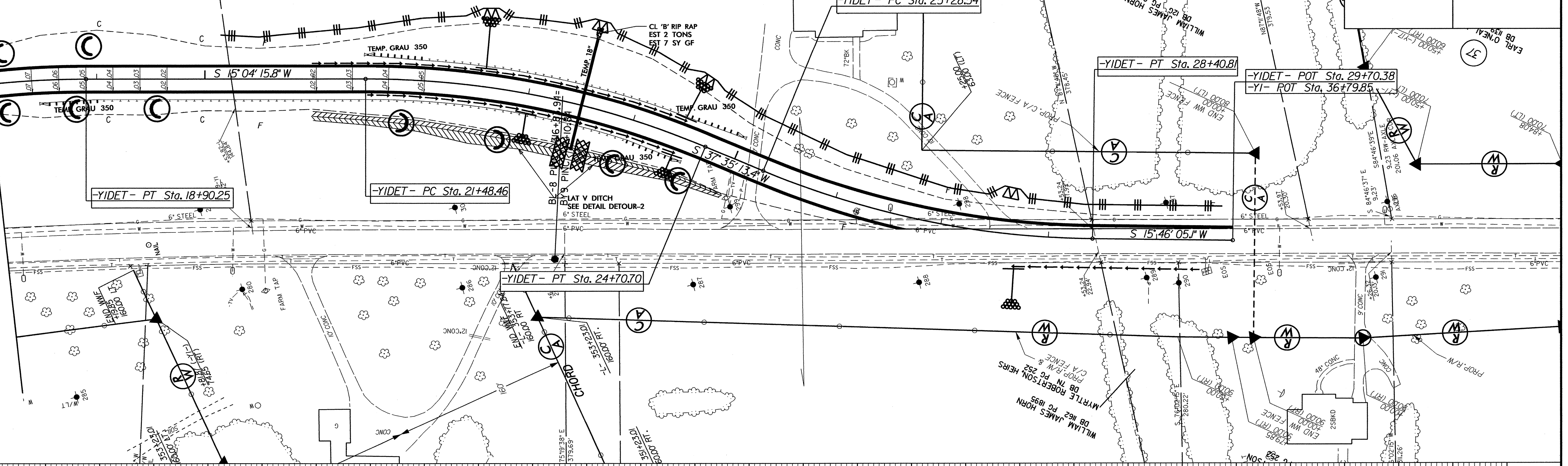
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 2707B.dwg

DETOUR

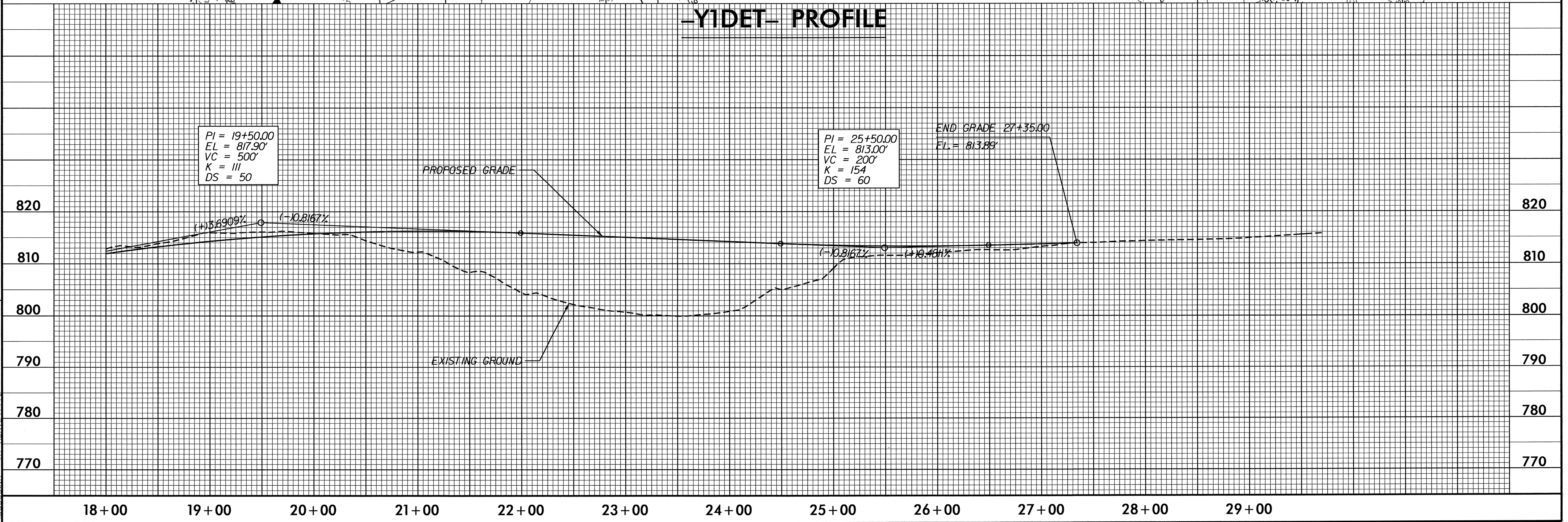
PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-22/CONST.2H
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCH LINE -YIDET- STA. 18+00.00
SEE SHEET 2G



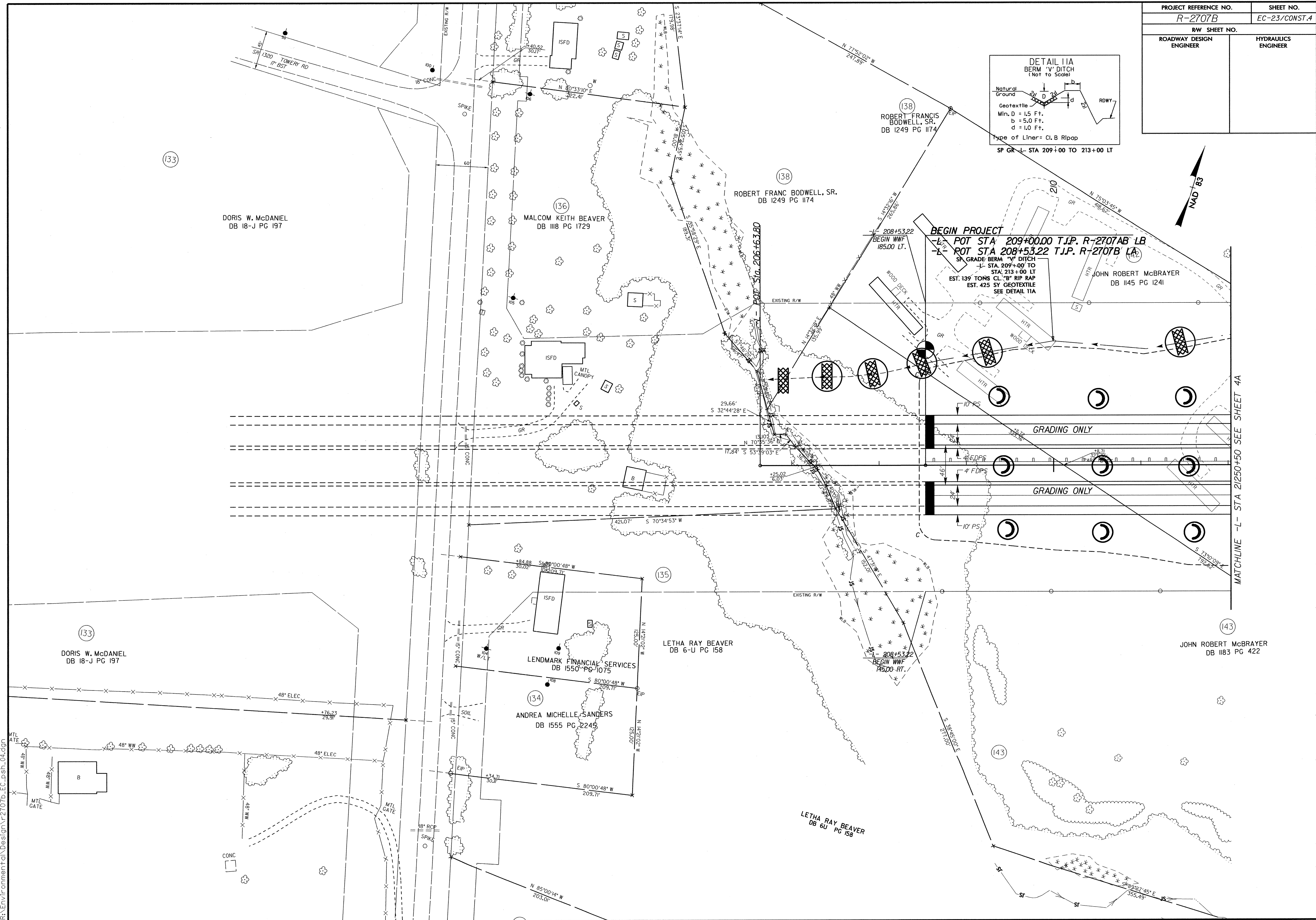
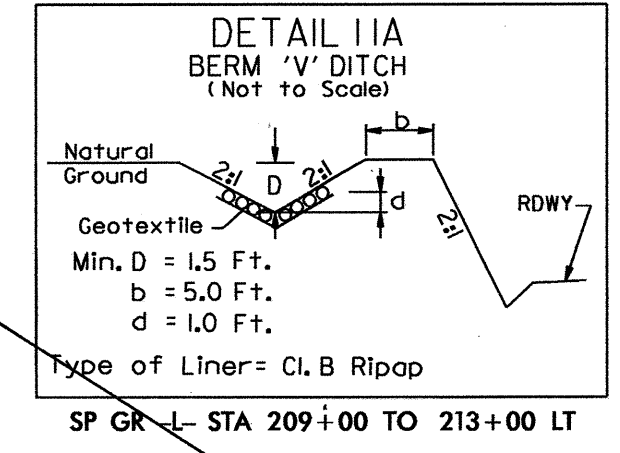
-YIDET- PROFILE



REVISIONS

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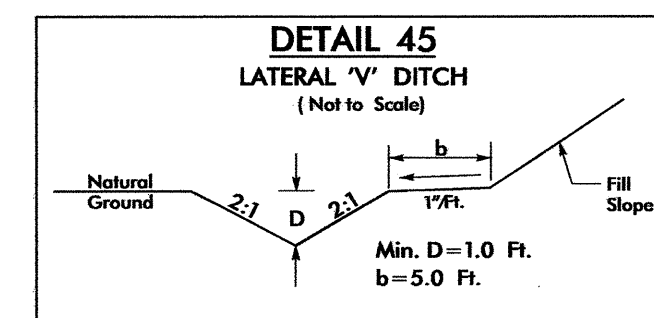
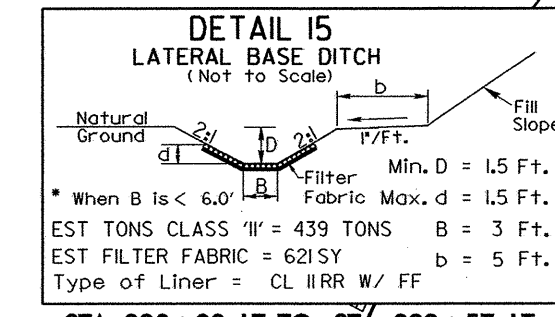
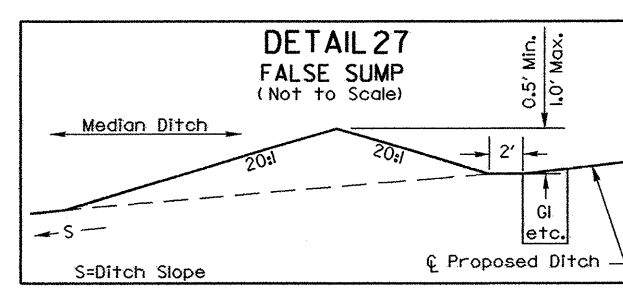
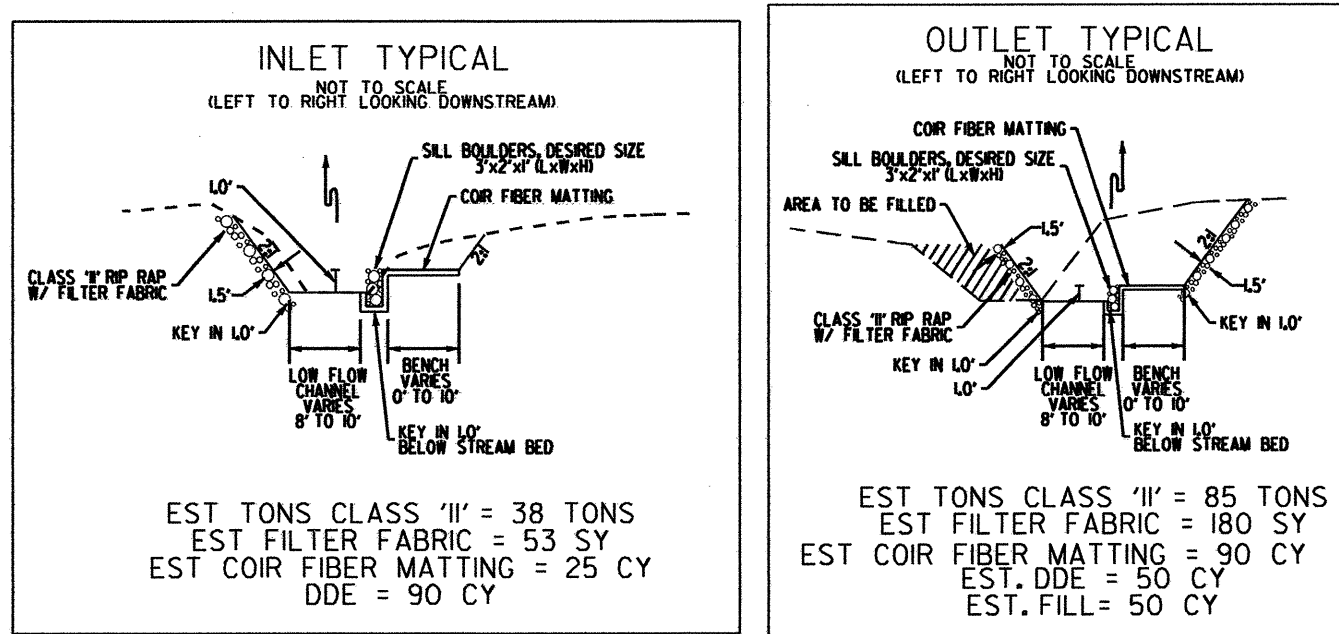
PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-23/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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 17-MAY-2013 09:10
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MATCHLINE -L- STA 21250+50 SEE SHEET 4A

PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-24/CONST.4A
RW SHEET NO.	4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



80 x 27 x 3
 1.5 inch Skimmer
 with 1.25 inch
 Orifice Diameter
 21 ft. weir
 ID 4.1F

45 x 14 x 3
 1.5 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 6 ft. weir
 ID 7.4F

100 x 35 x 3
 2.0 inch Skimmer
 with 1.75 inch
 Orifice Diameter
 27 ft. weir
 ID 4.2F

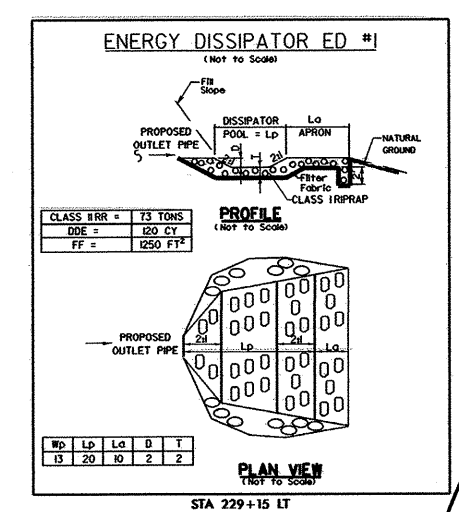
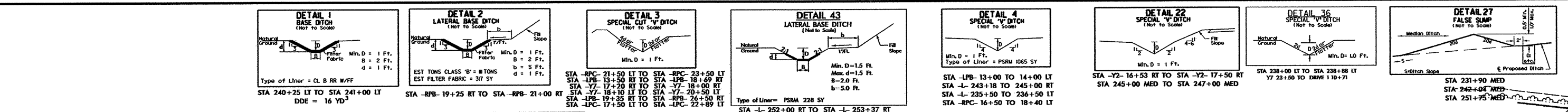
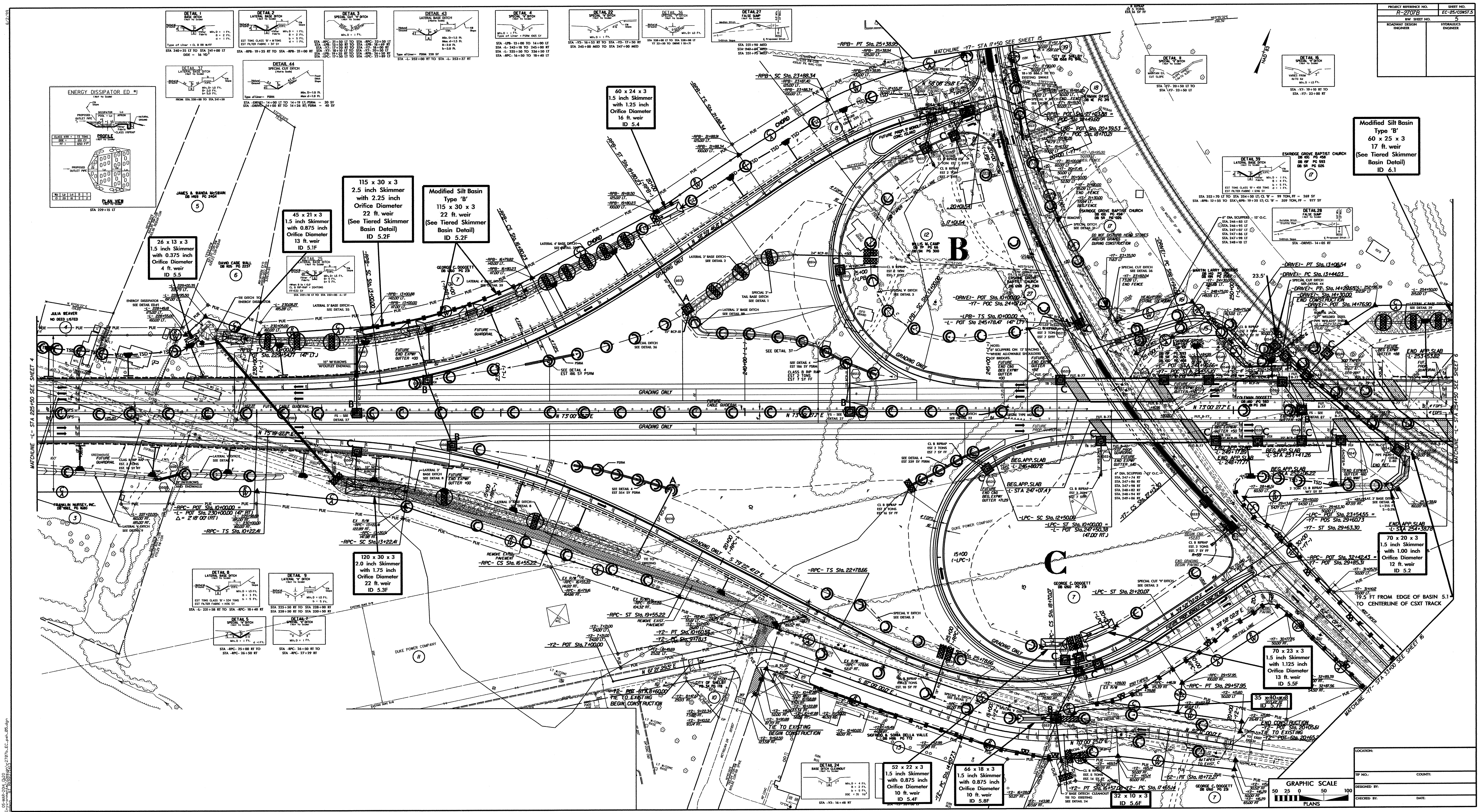
53 x 26 x 3
 1.5 inch Skimmer
 with 1.00 inch
 Orifice Diameter
 13 ft. weir
 ID 4.3

75 x 25 x 3
 1.5 inch Skimmer
 with 1.25 inch
 Orifice Diameter
 17 ft. weir
 ID 4.3F

MATCHLINE -L- STA 212+50 SEE SHEET 4

MATCHLINE -L- STA 225+50 SEE SHEET 5

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26 x 13 x 3
1.5 inch Skimmer
with 0.375 inch
Orifice Diameter
4 ft. weir
ID 5.5

45 x 21 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
13 ft. weir
ID 5.1F

115 x 30 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
22 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 5.2F

Modified Silt Basin
Type 'B'
115 x 30 x 3
22 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 5.2F

60 x 24 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
16 ft. weir
ID 5.4

120 x 30 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
22 ft. weir
ID 5.3F

52 x 22 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
10 ft. weir
ID 5.4F

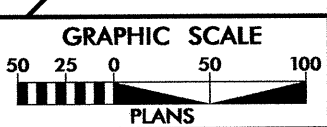
66 x 18 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
10 ft. weir
ID 5.8F

32 x 10 x 3
ID 5.6F

70 x 23 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
13 ft. weir
ID 5.5F

70 x 20 x 3
1.5 inch Skimmer
with 1.00 inch
Orifice Diameter
12 ft. weir
ID 5.2

Modified Silt Basin
Type 'B'
60 x 25 x 3
17 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 6.1



PROJECT REFERENCE NO.	R-2707B	SHEET NO.	5
REV SHEET NO.	EC-25/CONSTR 3		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

LOCATION:	
TRF NO.:	
COUNTY:	
DESIGNED BY:	
CHECKED BY:	
DATE:	

**Modified Silt Basin
 Type 'B'
 60 x 25 x 3
 17 ft. weir
 (See Tiered Skimmer
 Basin Detail)
 ID 6.1**

**60 x 25 x 3
 1.5 inch Skimmer
 with 1.25 inch
 Orifice Diameter
 17 ft. weir
 (See Tiered Skimmer
 Basin Detail)
 ID 6.1**

**124 x 23 x 3
 1.5 inch Skimmer
 with 1.5 inch
 Orifice Diameter
 15 ft. weir
 ID 6.2**

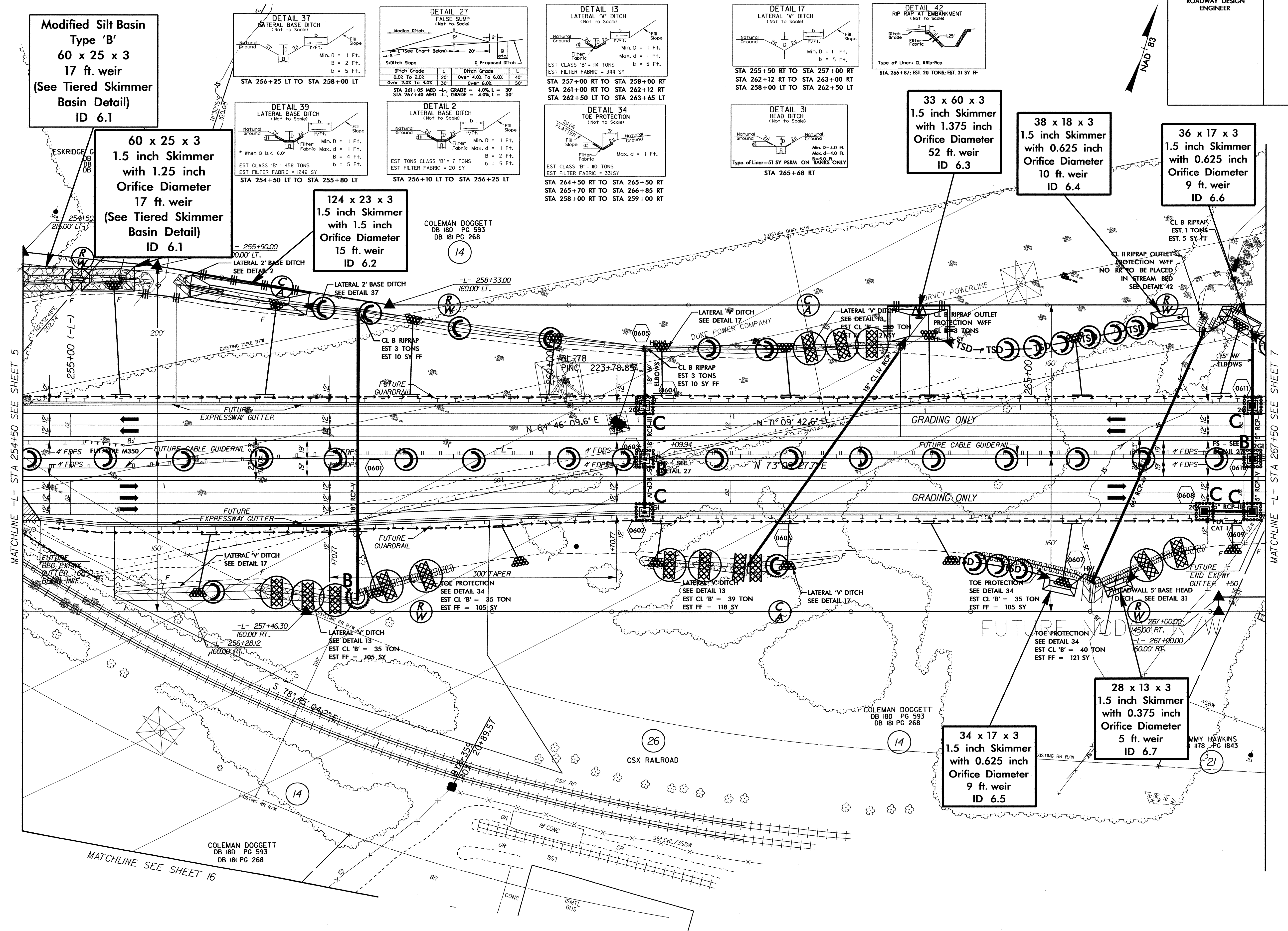
**33 x 60 x 3
 1.5 inch Skimmer
 with 1.375 inch
 Orifice Diameter
 52 ft. weir
 ID 6.3**

**38 x 18 x 3
 1.5 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 10 ft. weir
 ID 6.4**

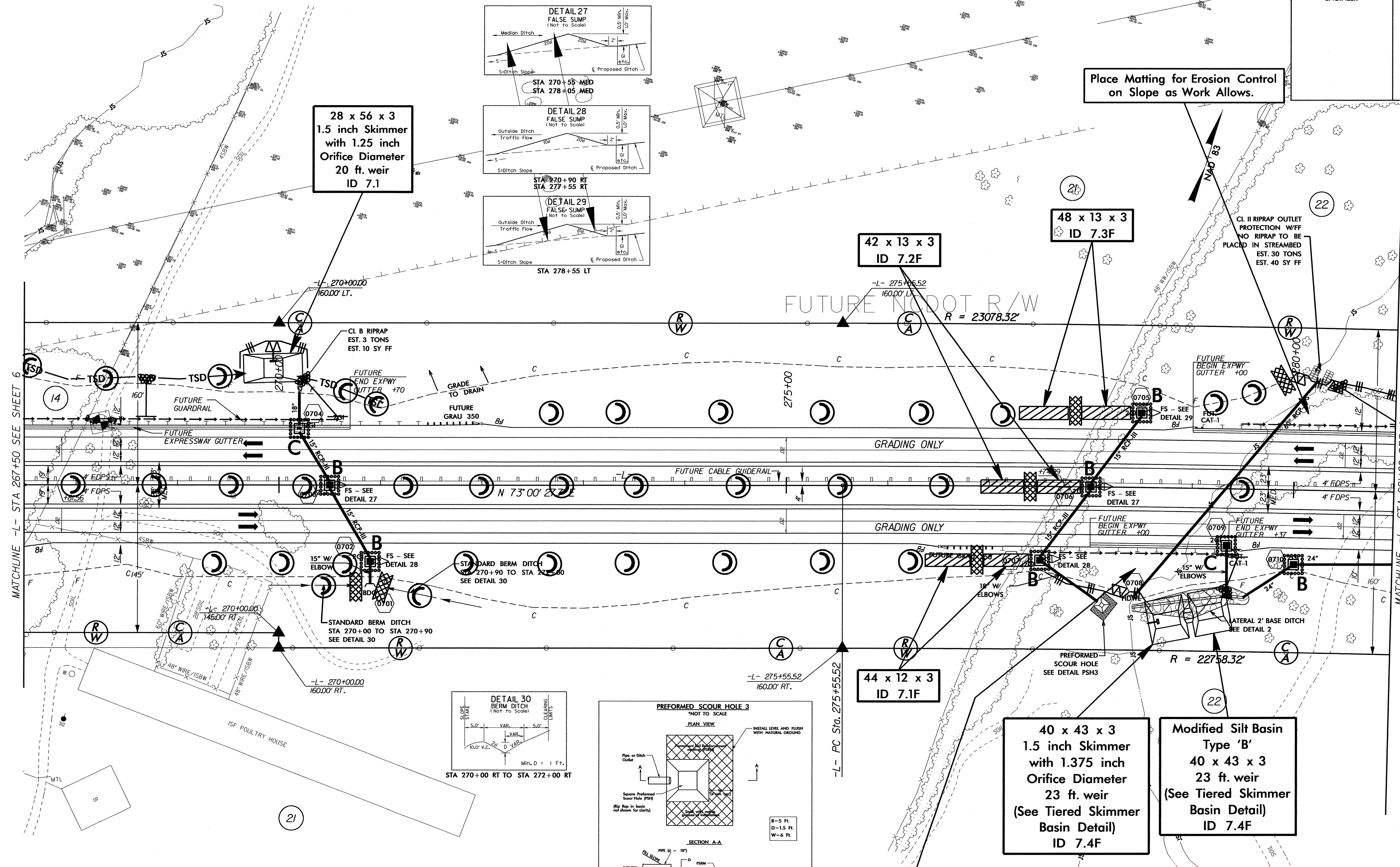
**36 x 17 x 3
 1.5 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 9 ft. weir
 ID 6.6**

**34 x 17 x 3
 1.5 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 9 ft. weir
 ID 6.5**

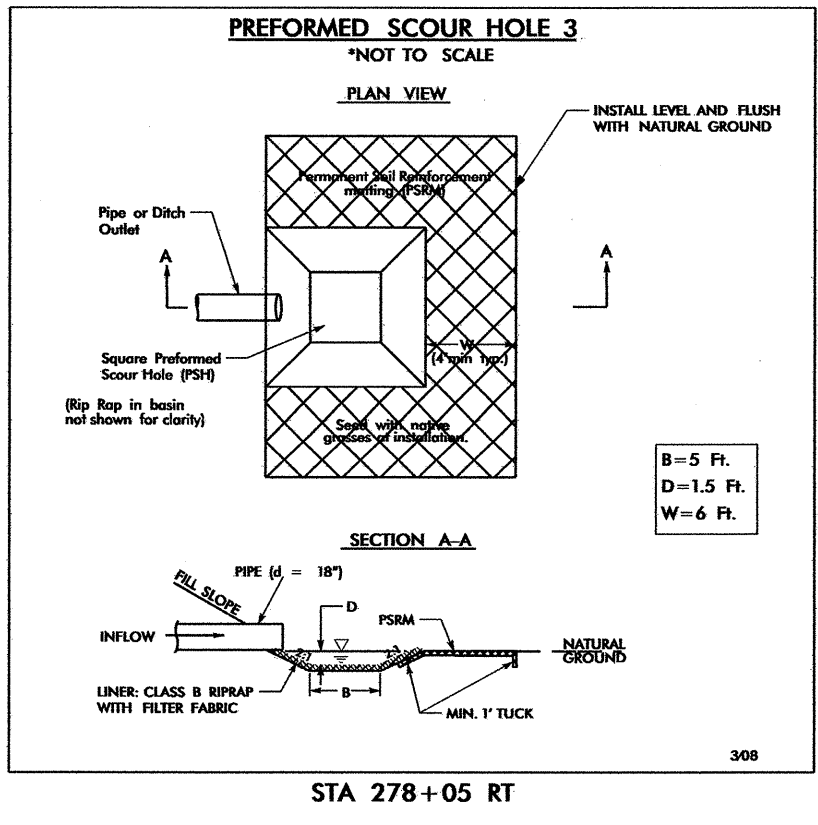
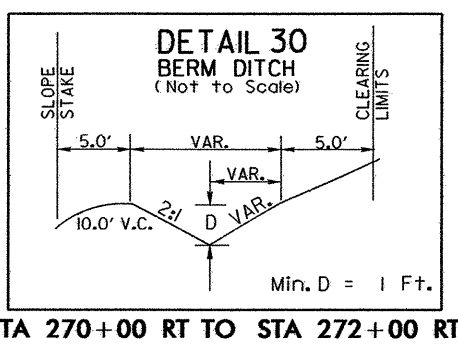
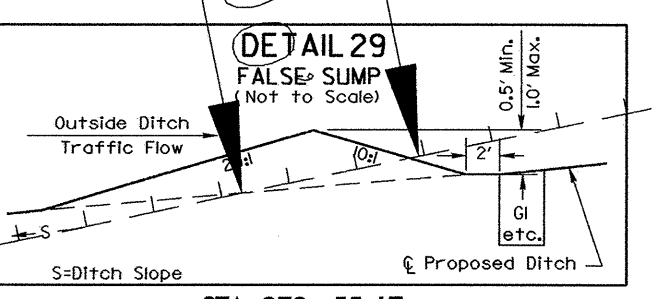
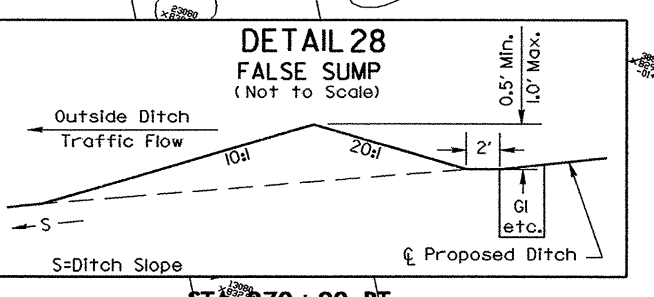
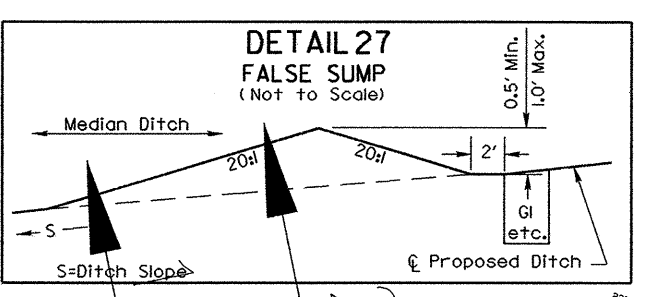
**28 x 13 x 3
 1.5 inch Skimmer
 with 0.375 inch
 Orifice Diameter
 5 ft. weir
 ID 6.7**



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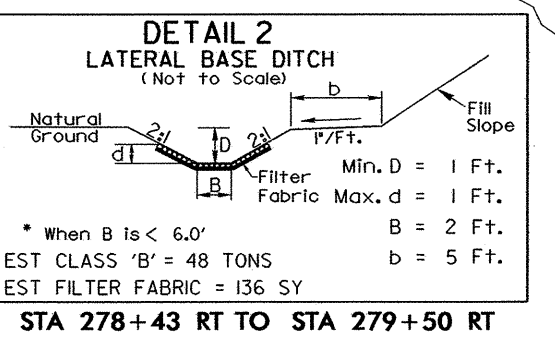


**28 x 56 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
20 ft. weir
ID 7.1**



**40 x 43 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
23 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.4F**

**Modified Silt Basin
Type 'B'
40 x 43 x 3
23 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.4F**

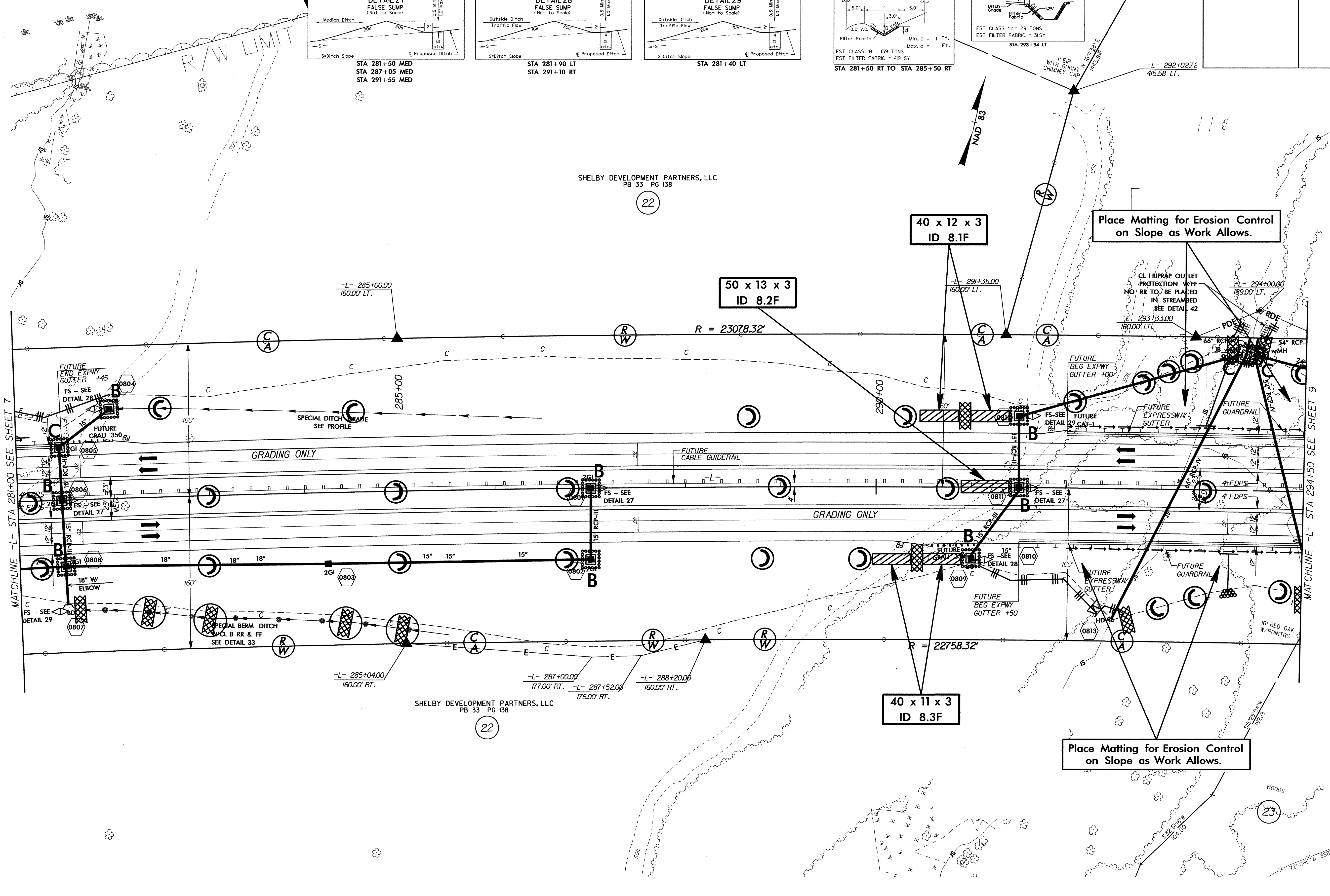
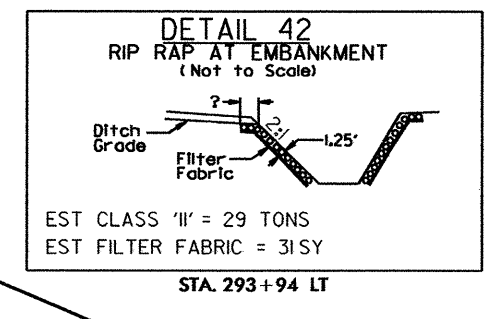
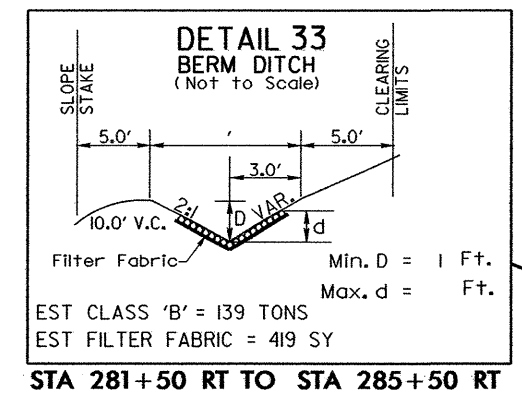
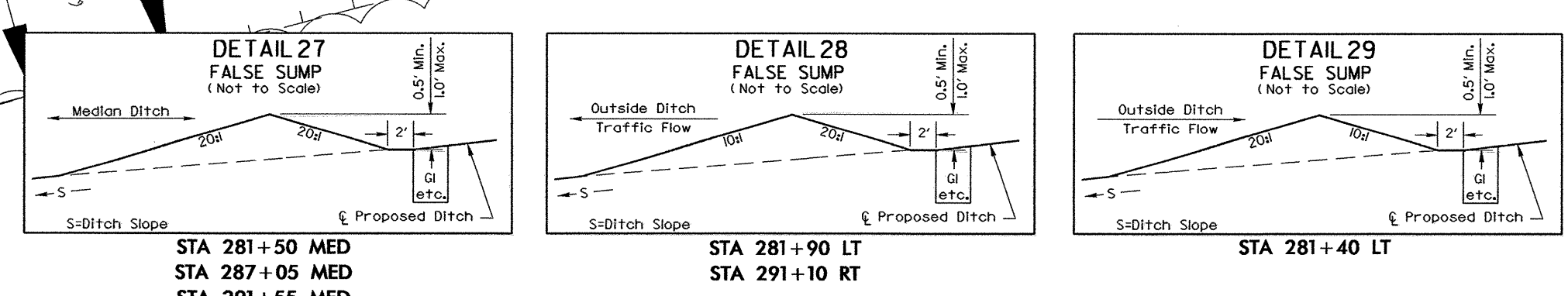


* When B is < 6.0'
EST. CLASS 'B' = 48 TONS
EST. FILTER FABRIC = 136 SY
STA 278+43 RT TO STA 279+50 RT

MATCHLINE -L- STA 267+50 SEE SHEET 6

MATCHLINE -L- STA 281+00 SEE SHEET 8

PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-28/CONST.B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

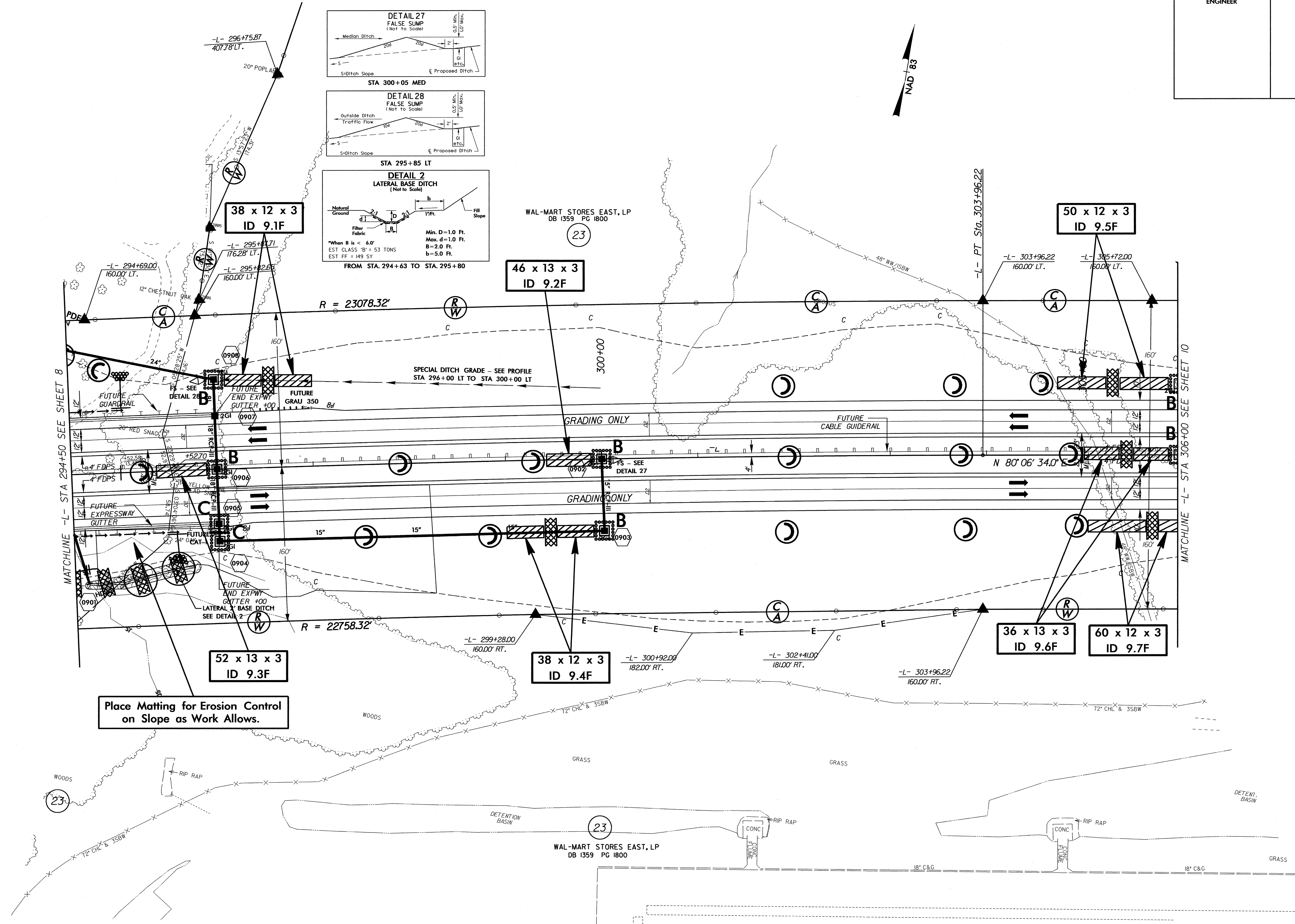


SHELBY DEVELOPMENT PARTNERS, LLC
PB 33 PG 138

SHELBY DEVELOPMENT PARTNERS, LLC
PB 33 PG 138

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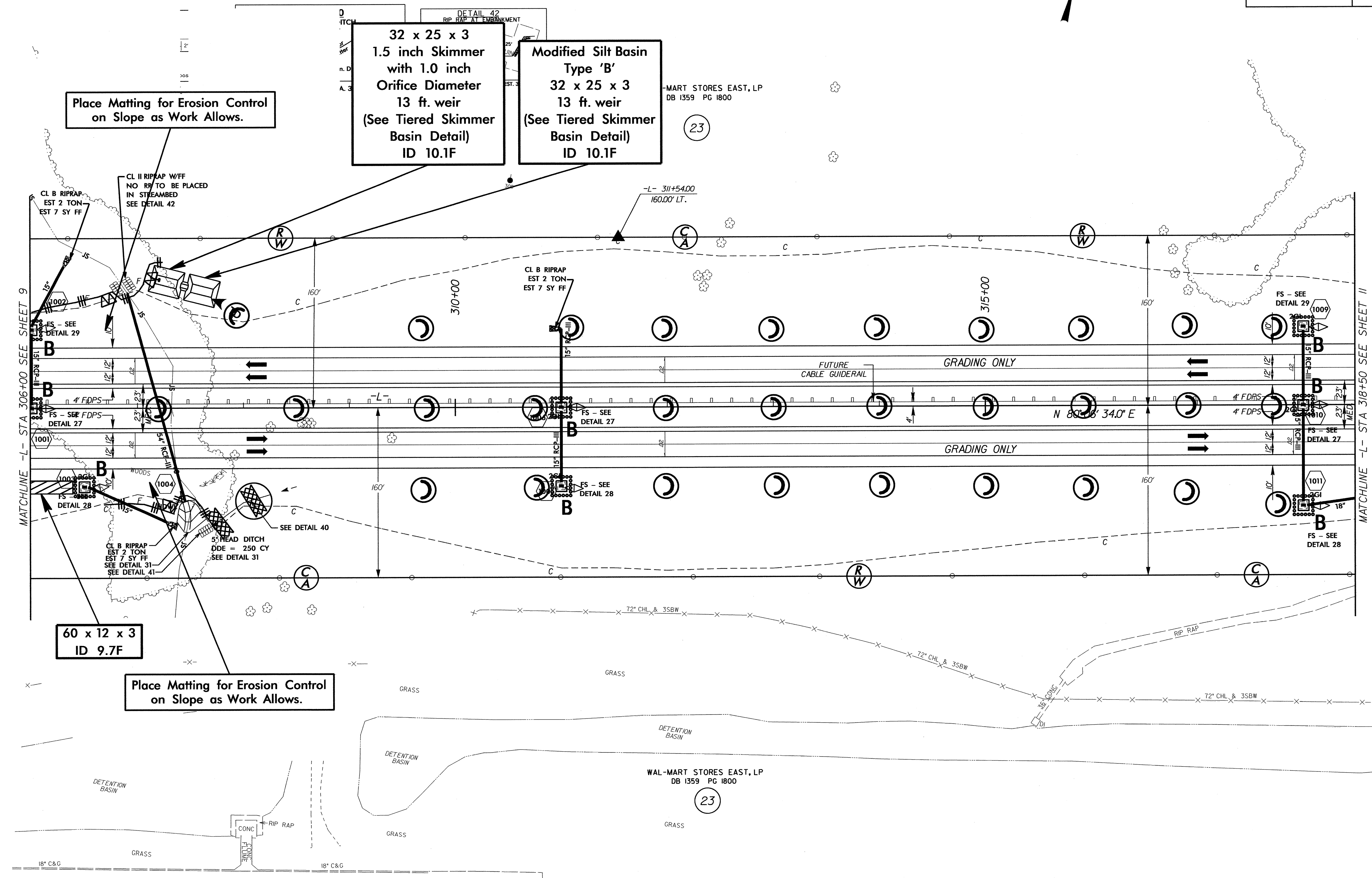
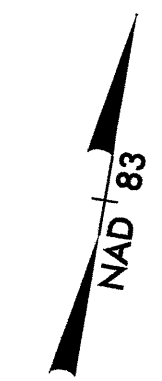
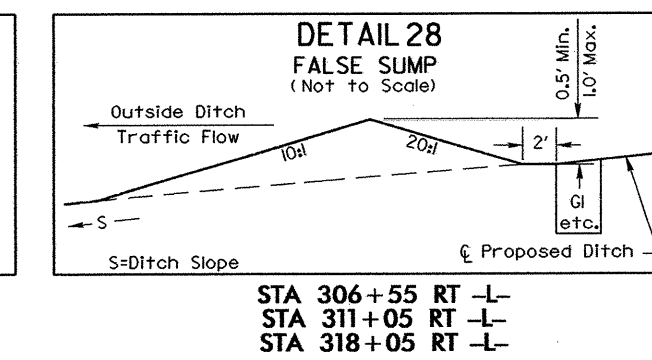
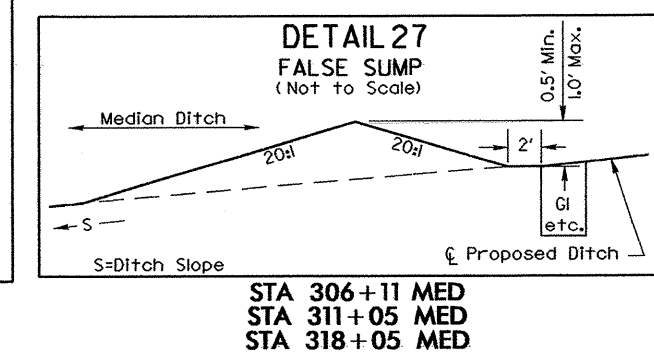
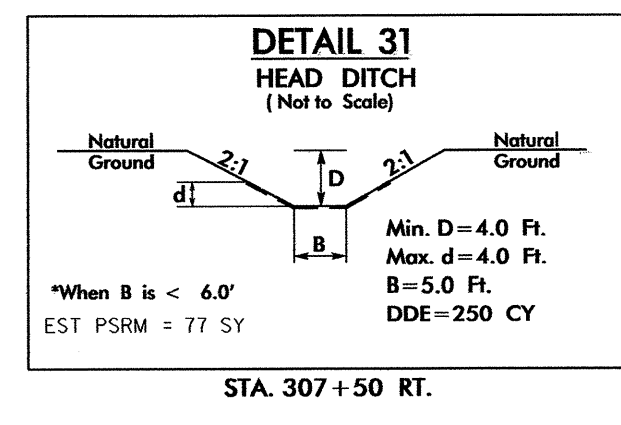
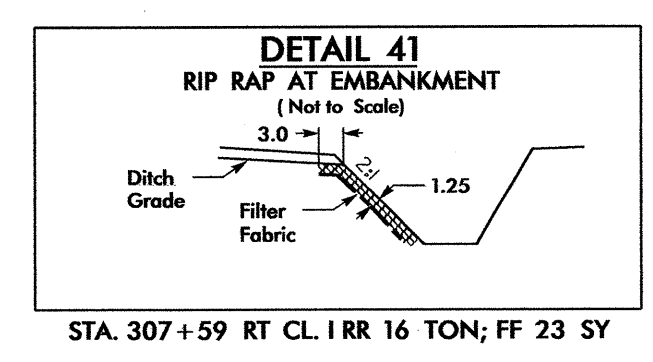
PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-29/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



Place Matting for Erosion Control on Slope as Work Allows.

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PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-30/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



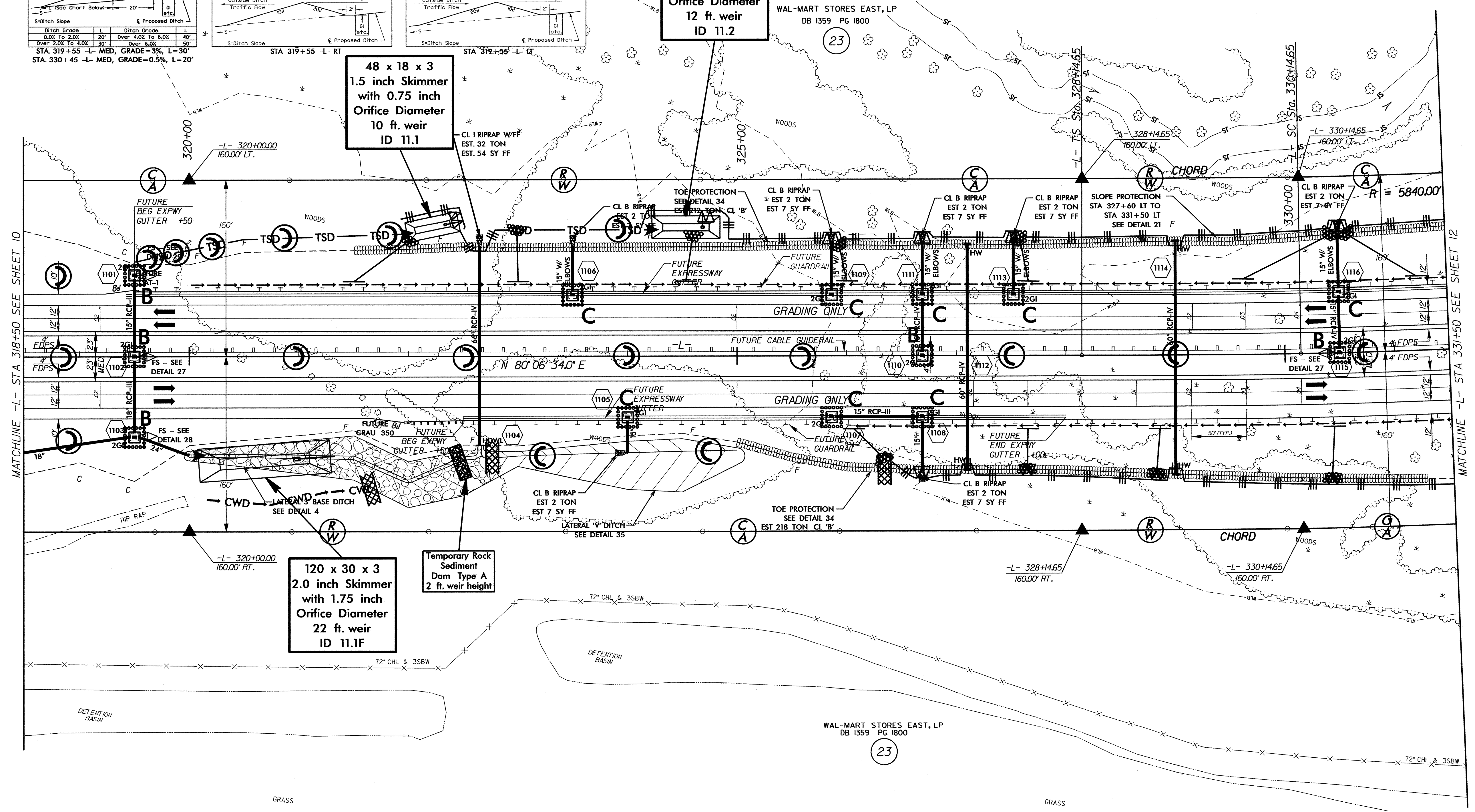
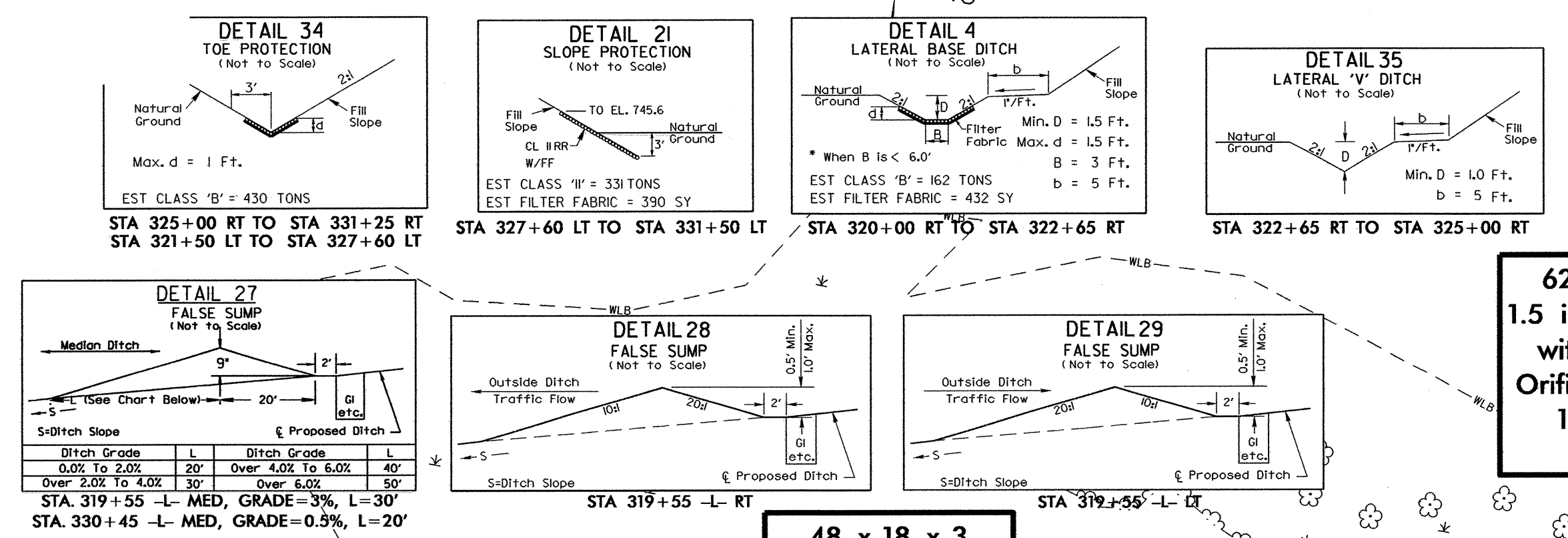
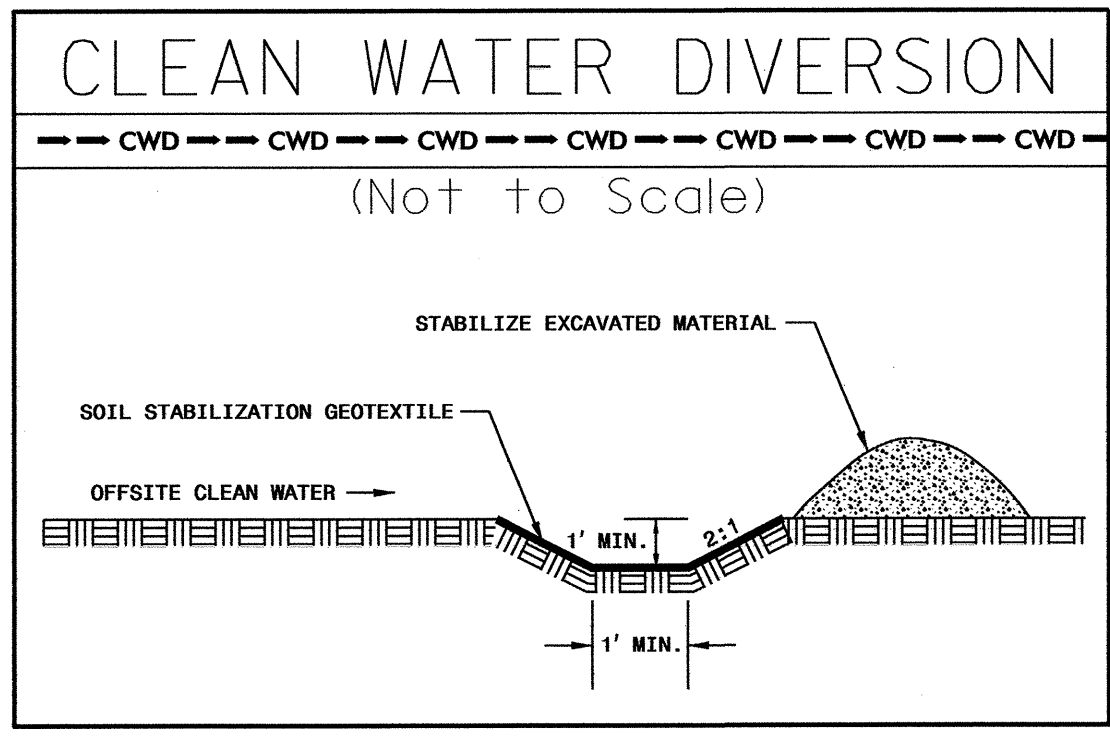
MATCHLINE -L- STA 306+00 SEE SHEET 9

MATCHLINE -L- STA 318+50 SEE SHEET 11

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Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

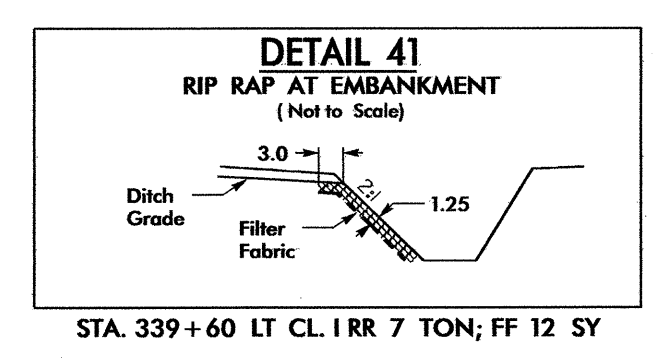
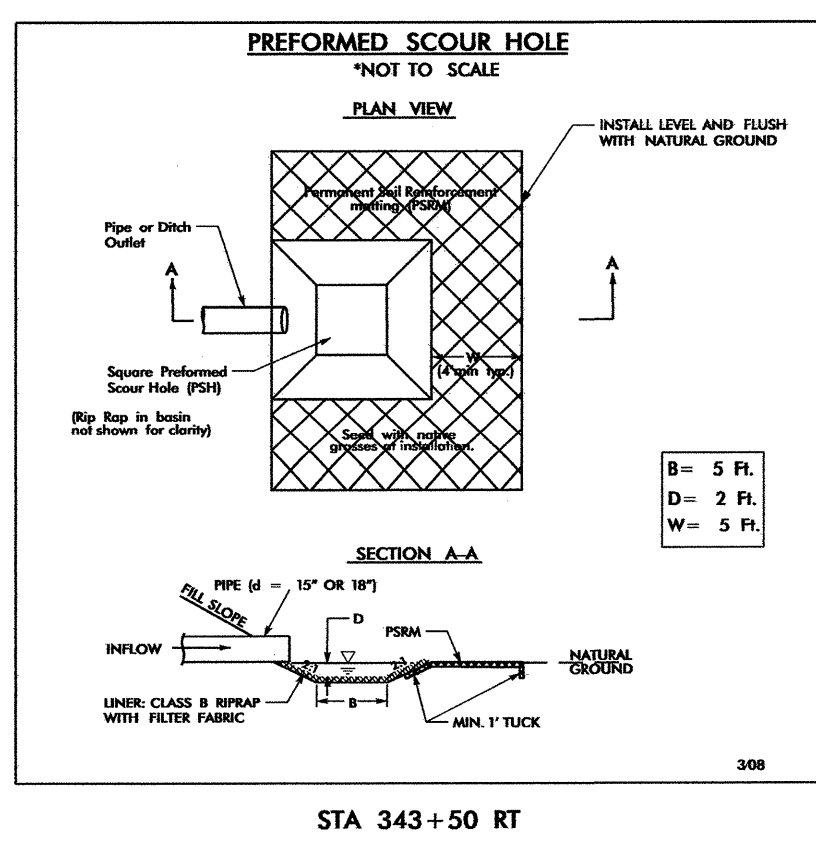
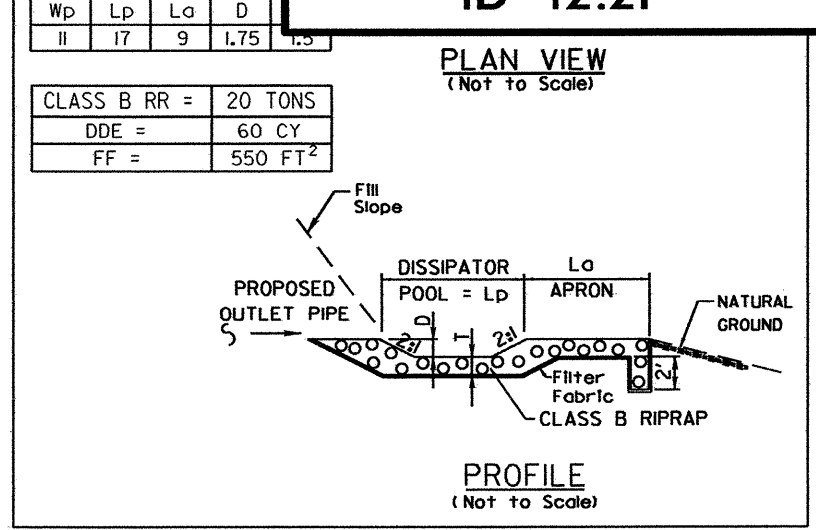
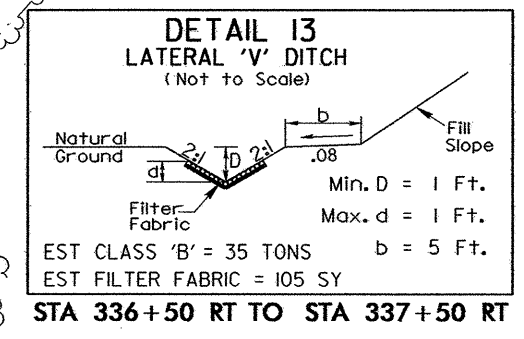
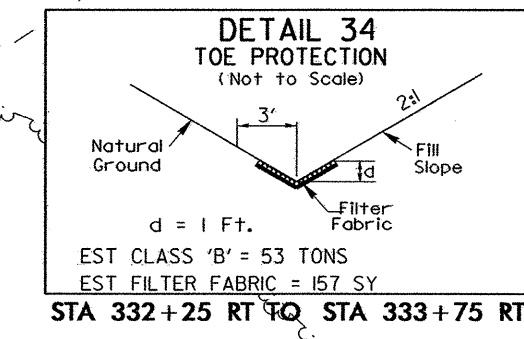
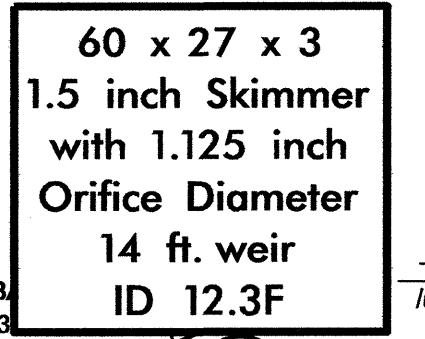
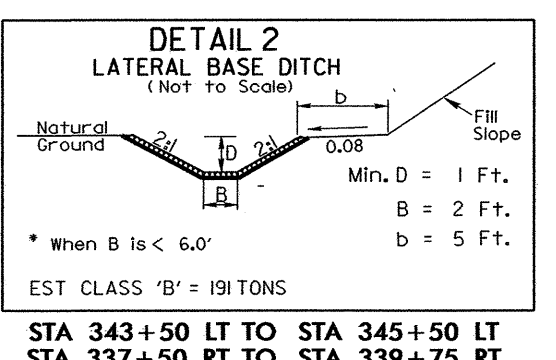
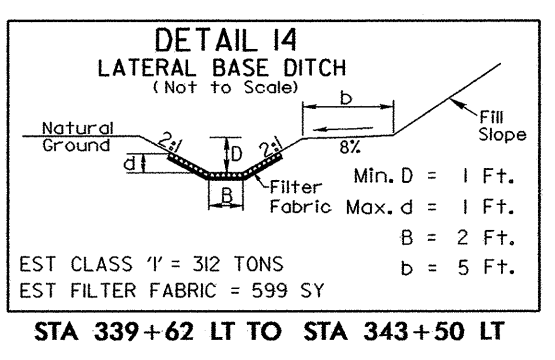
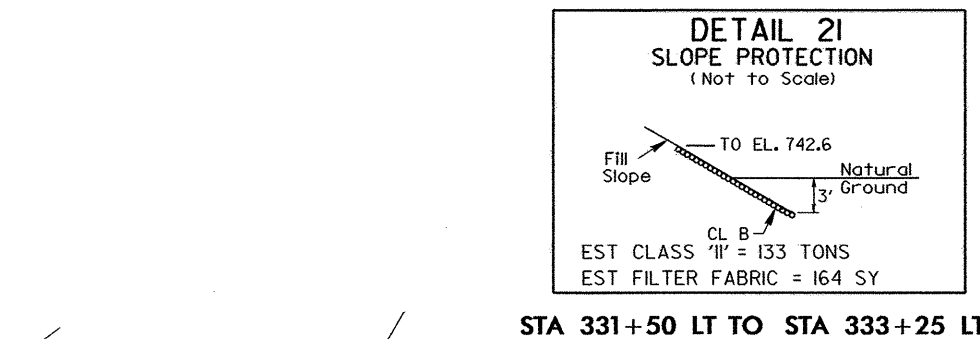
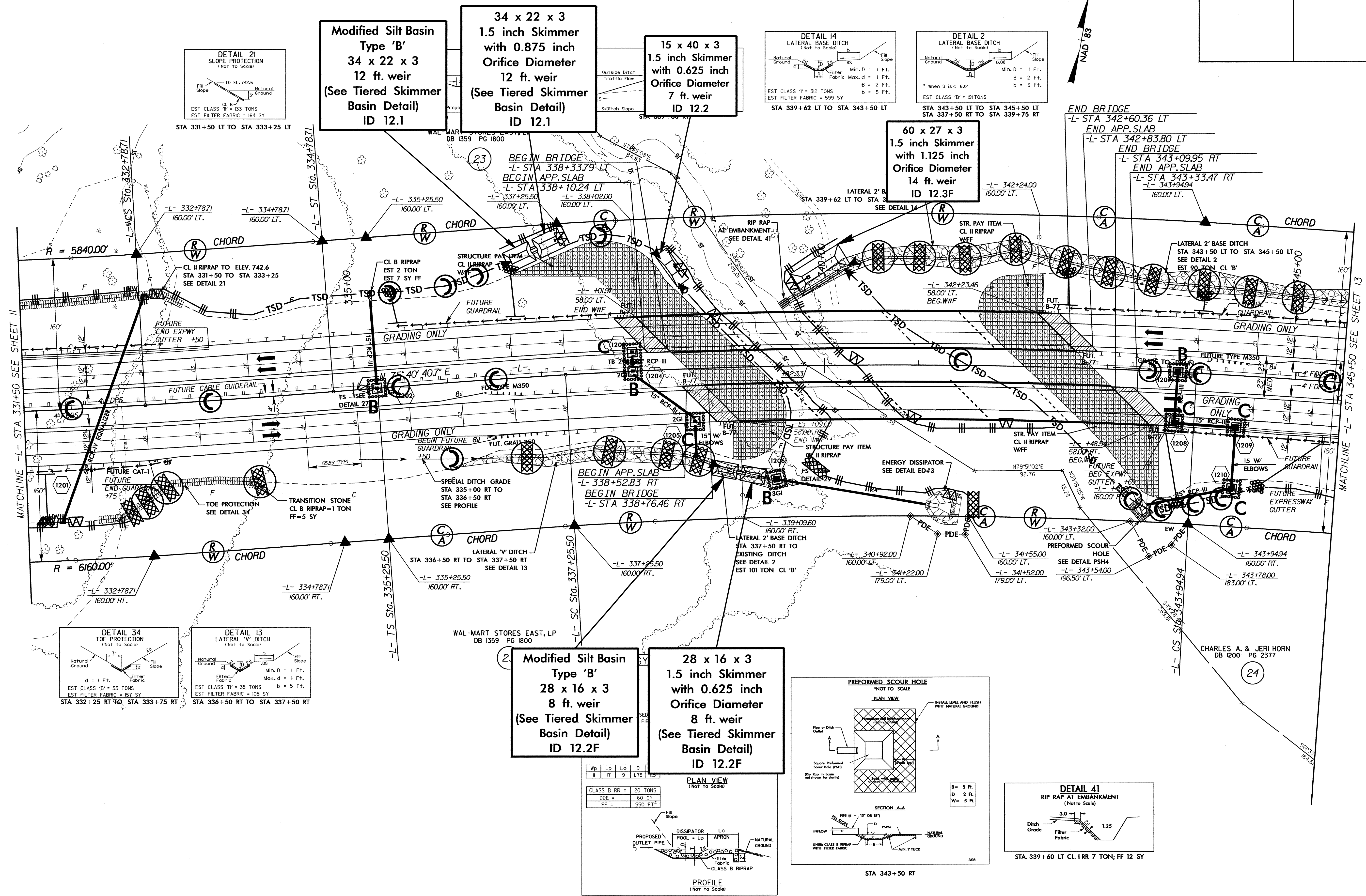
PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-31/CONST.II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

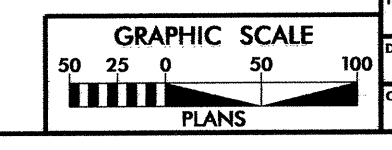
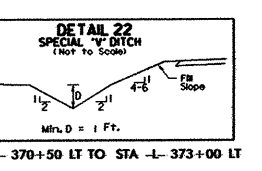
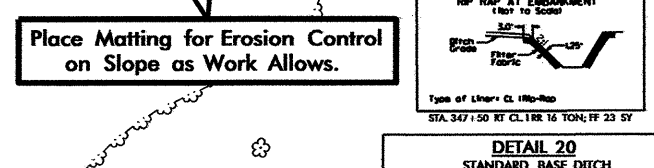
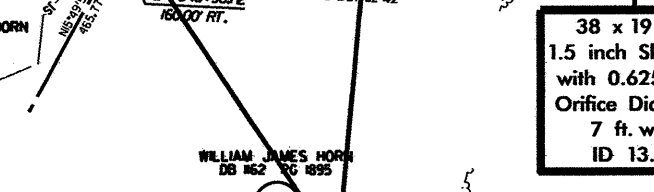
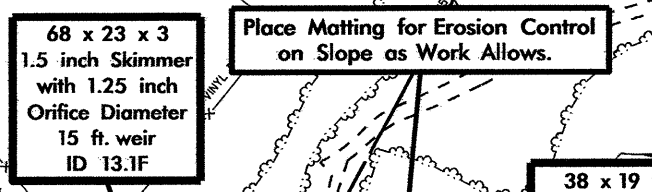
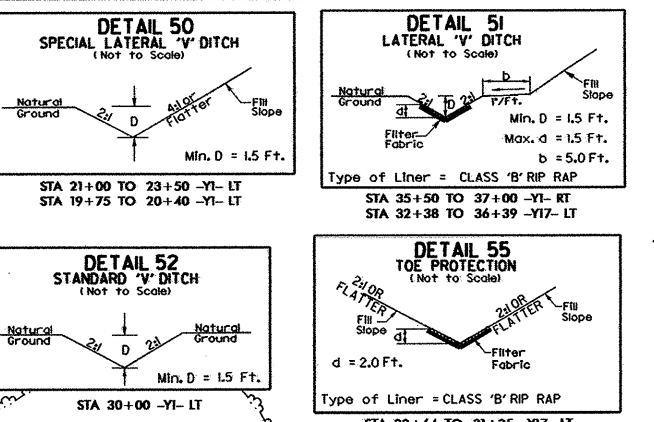
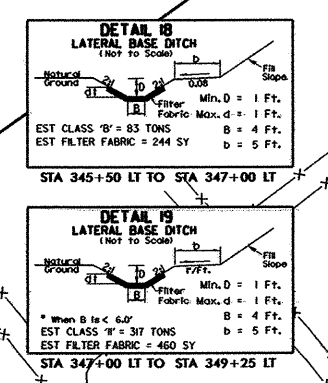
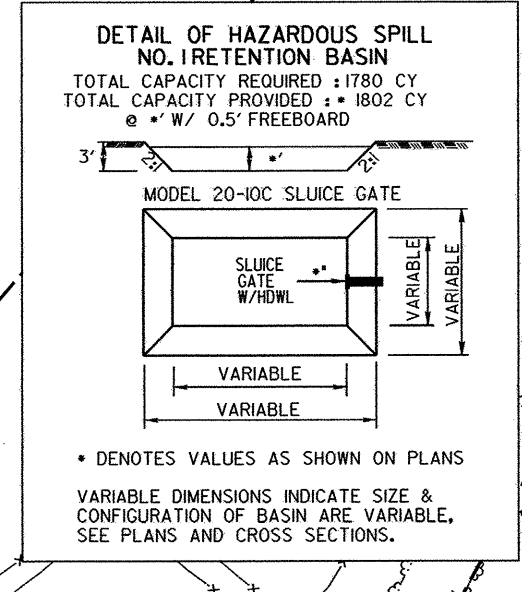
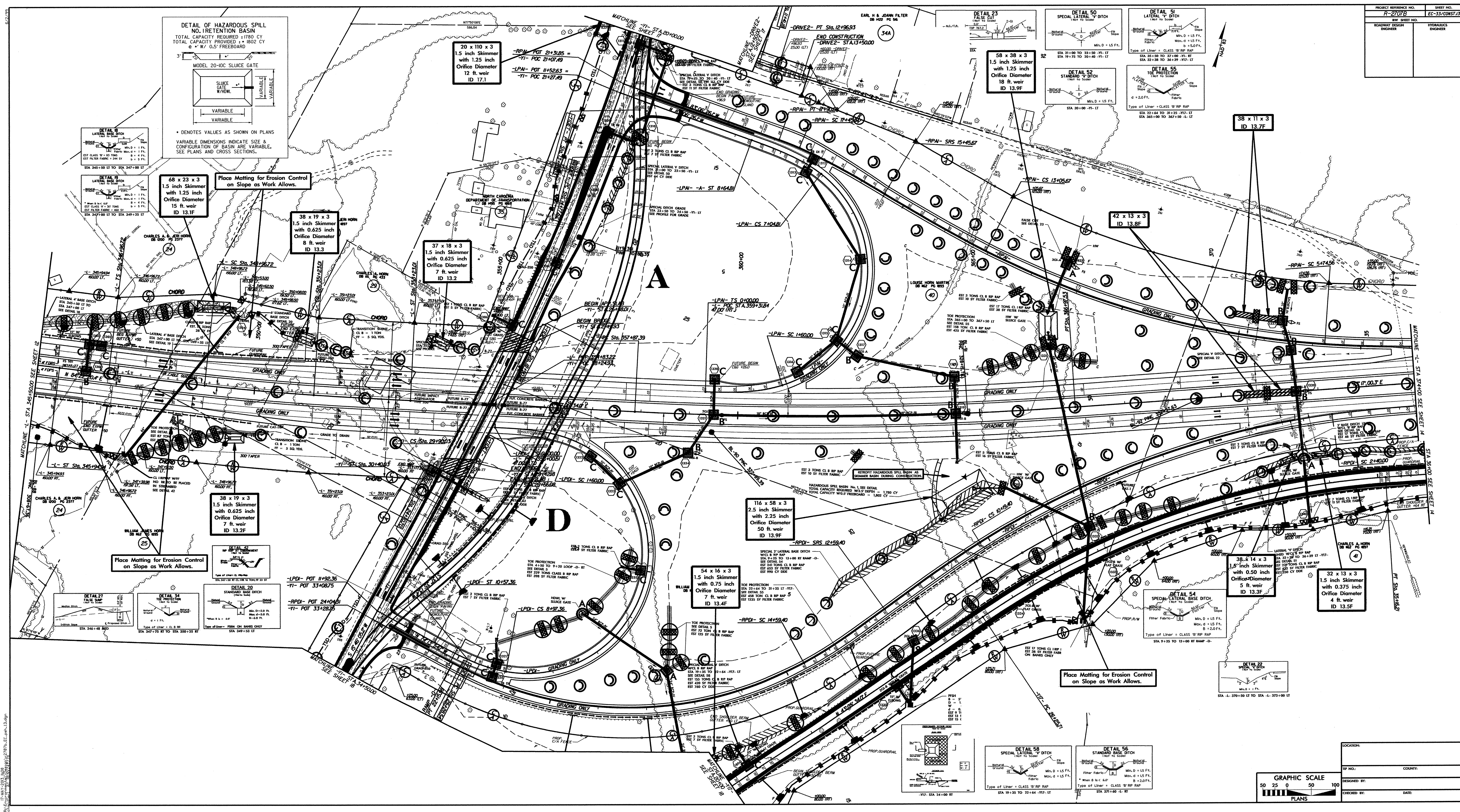
NOTE: UTILIZE SKIMMER BASIN AS STILLING BASIN WHERE WHERE APPLICABLE.

PROJECT REFERENCE NO. R-2707B	SHEET NO. EC-32/CONST.12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

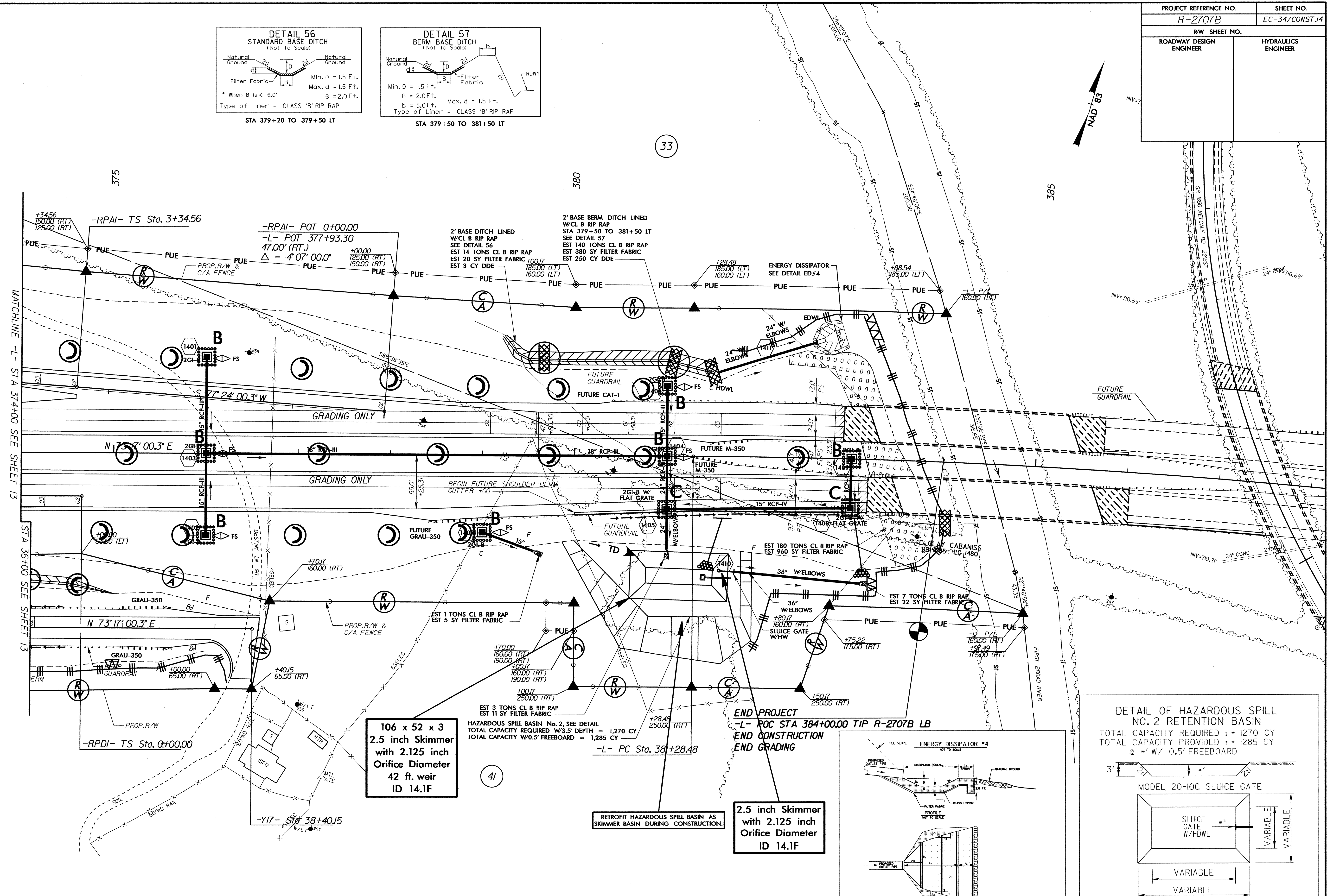
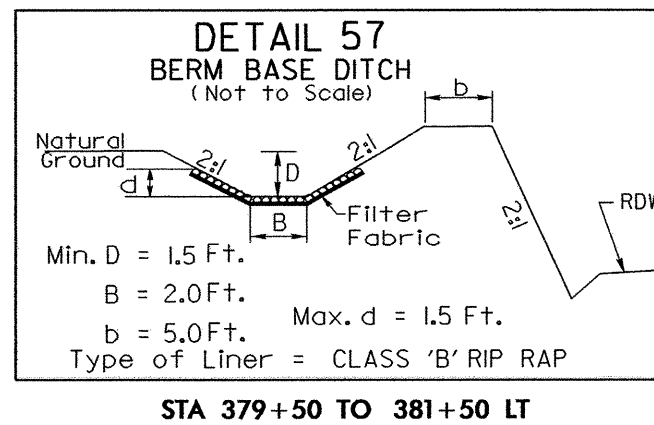
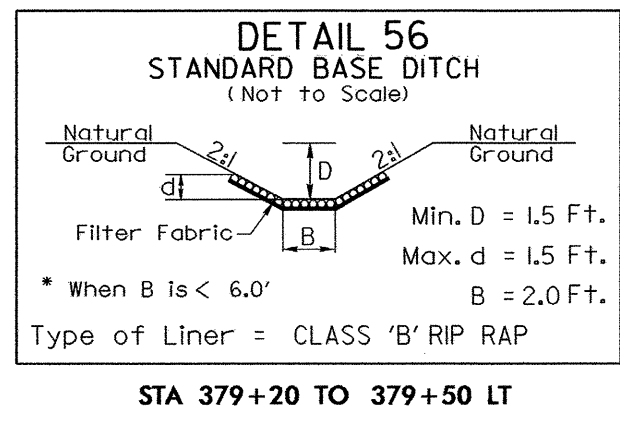


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PROJECT REFERENCE NO.	R-2707B
SHEET NO.	EC-33-CONST.13
ROADWAY DESIGN ENGINEER	
HYDRAULICS ENGINEER	



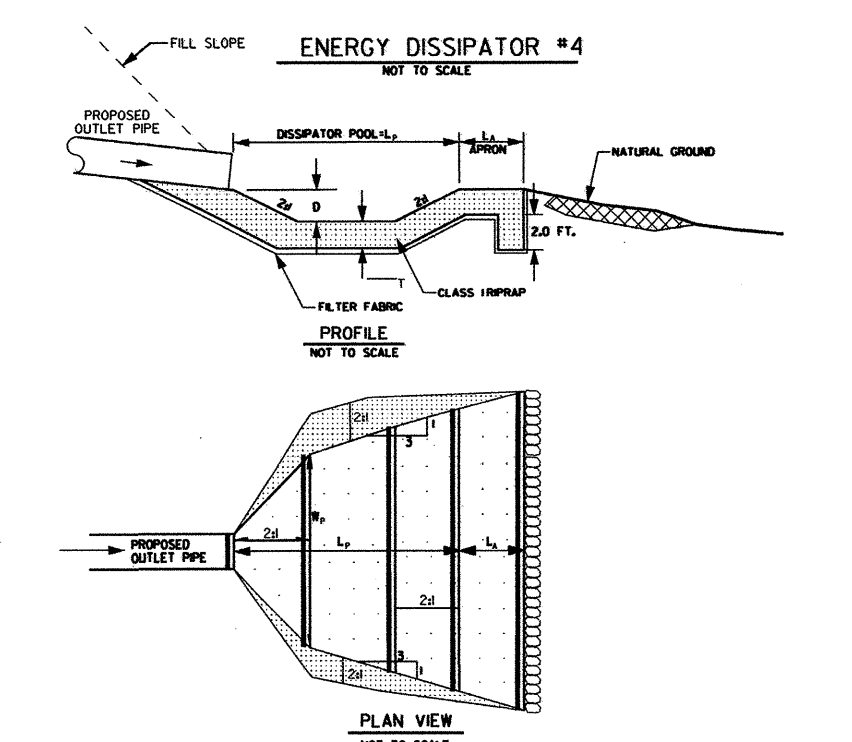
LOCATION:	
TP NO.:	
COUNTY:	
DESIGNED BY:	
CHECKED BY:	
DATE:	



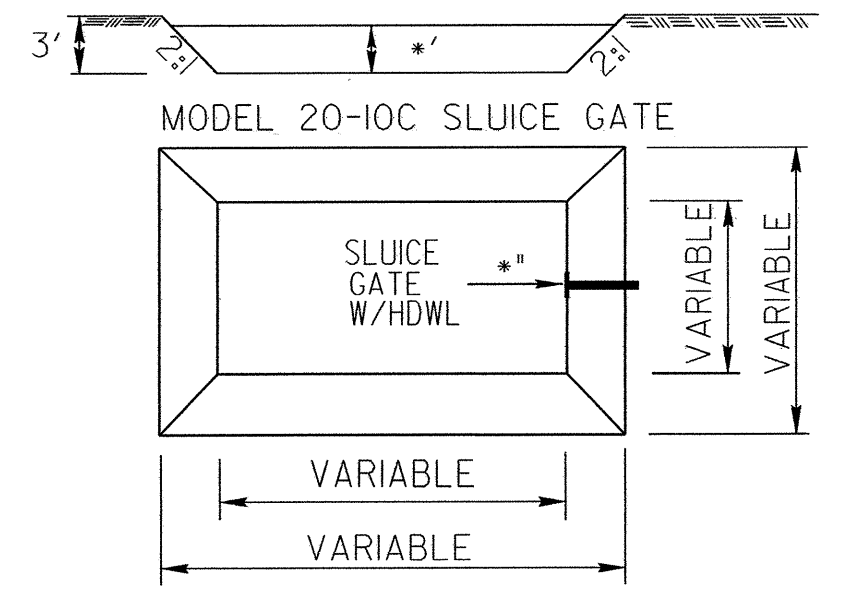
**106 x 52 x 3
2.5 inch Skimmer
with 2.125 inch
Orifice Diameter
42 ft. weir
ID 14.1F**

RETROFIT HAZARDOUS SPILL BASIN AS SKIMMER BASIN DURING CONSTRUCTION.

**2.5 inch Skimmer
with 2.125 inch
Orifice Diameter
ID 14.1F**



**DETAIL OF HAZARDOUS SPILL
NO. 2 RETENTION BASIN**
TOTAL CAPACITY REQUIRED : * 1270 CY
TOTAL CAPACITY PROVIDED : * 1285 CY
@ * W/ 0.5' FREEBOARD



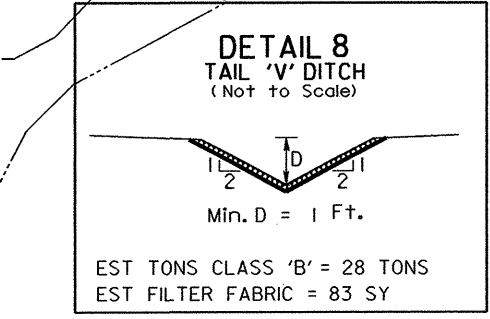
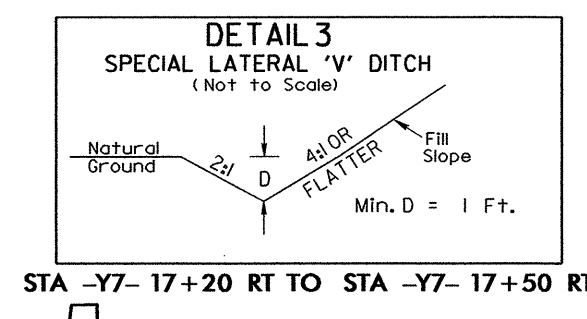
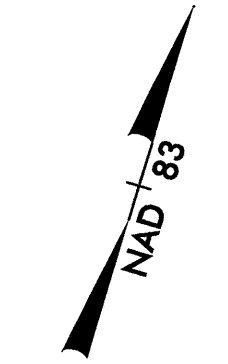
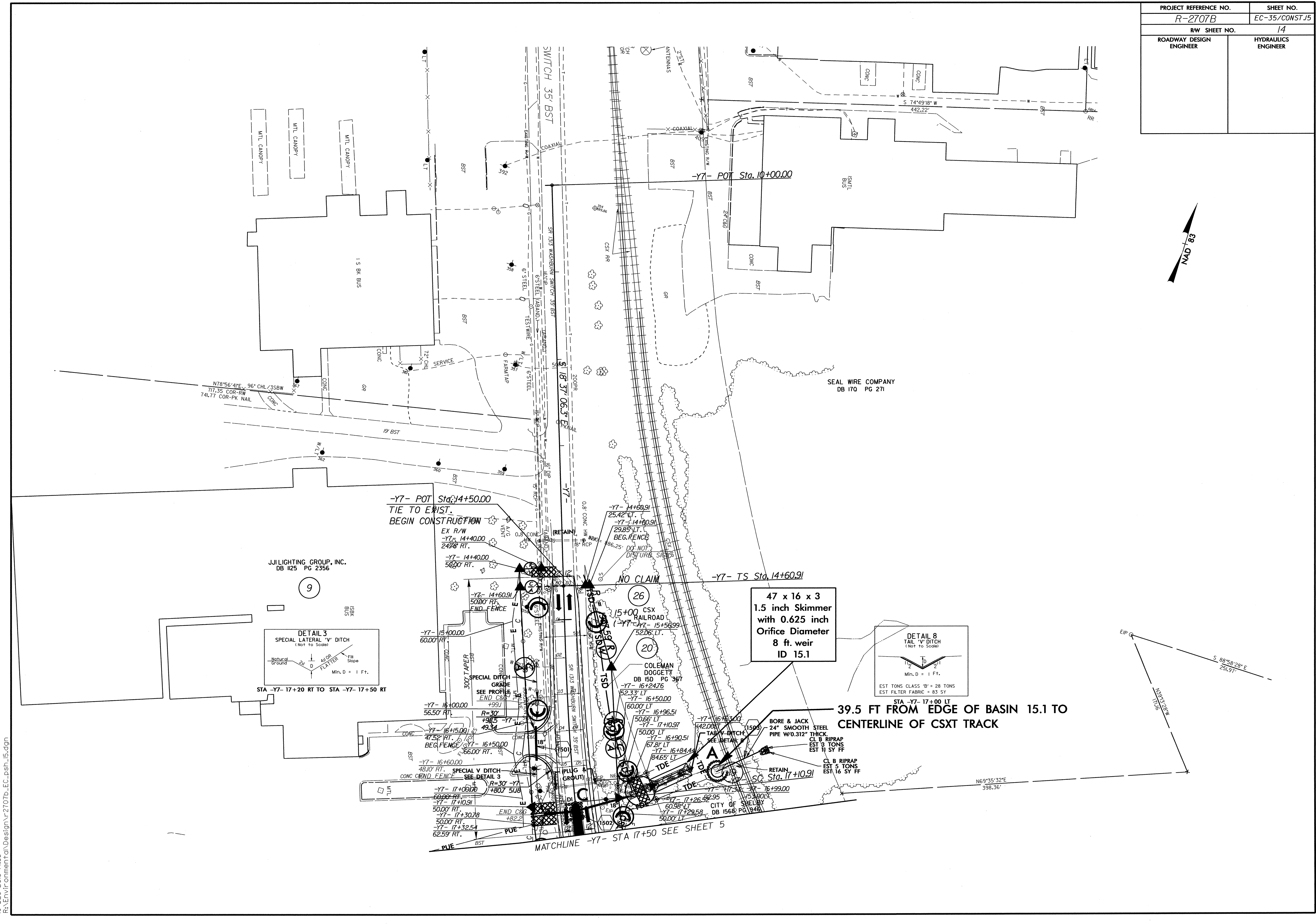
* DENOTES VALUES AS SHOWN ON PLANS
VARIABLE DIMENSIONS INDICATE SIZE & CONFIGURATION OF BASIN ARE VARIABLE, SEE PLANS AND CROSS SECTIONS.

NOTE:
EC MEASURES DRAINING TO FIRST BROAD RIVER HAVE BEEN DESIGNED TO DESIGN STANDARDS IN SENSITIVE WATERSHEDS.

STATION	L ₀ FT.	W ₀ FT.	L ₁ FT.	T FT.	D FT.	CLASS I RIP RAP TONS	DDE (CU YD)	FILTER FABRIC (SQ YD)
382+50 -L-	26	8	2	2	3	84	68	42

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PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-35/CONST.15
R/W SHEET NO.	14
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

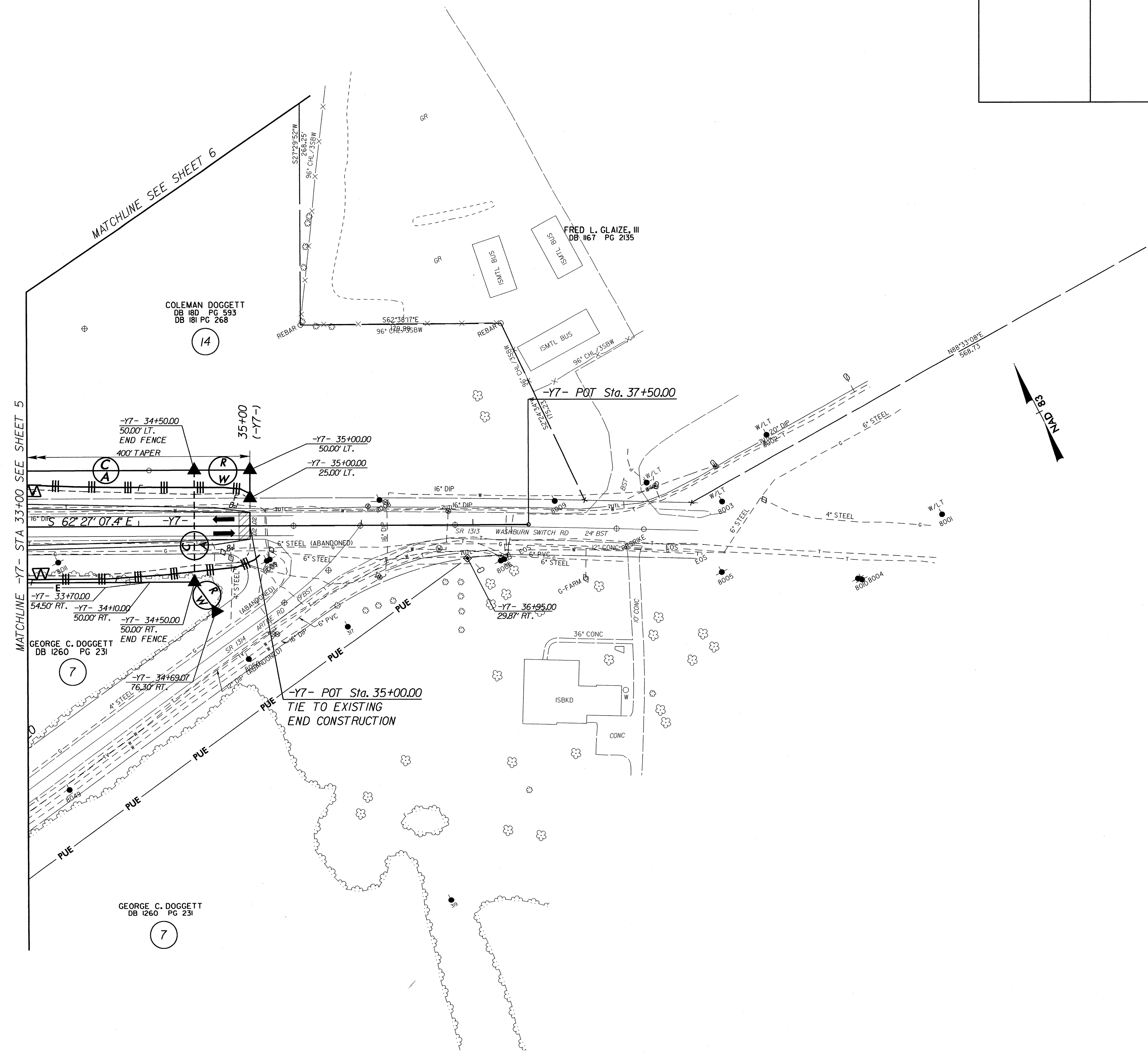


47 x 16 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
8 ft. weir
ID 15.1

39.5 FT FROM
EDGE OF BASIN 15.1 TO
CENTERLINE OF CSXT TRACK

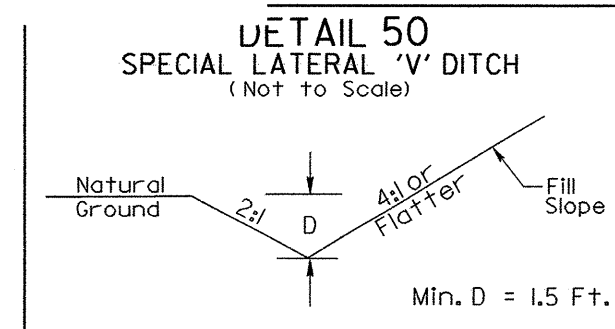
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PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-36/CONST.16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

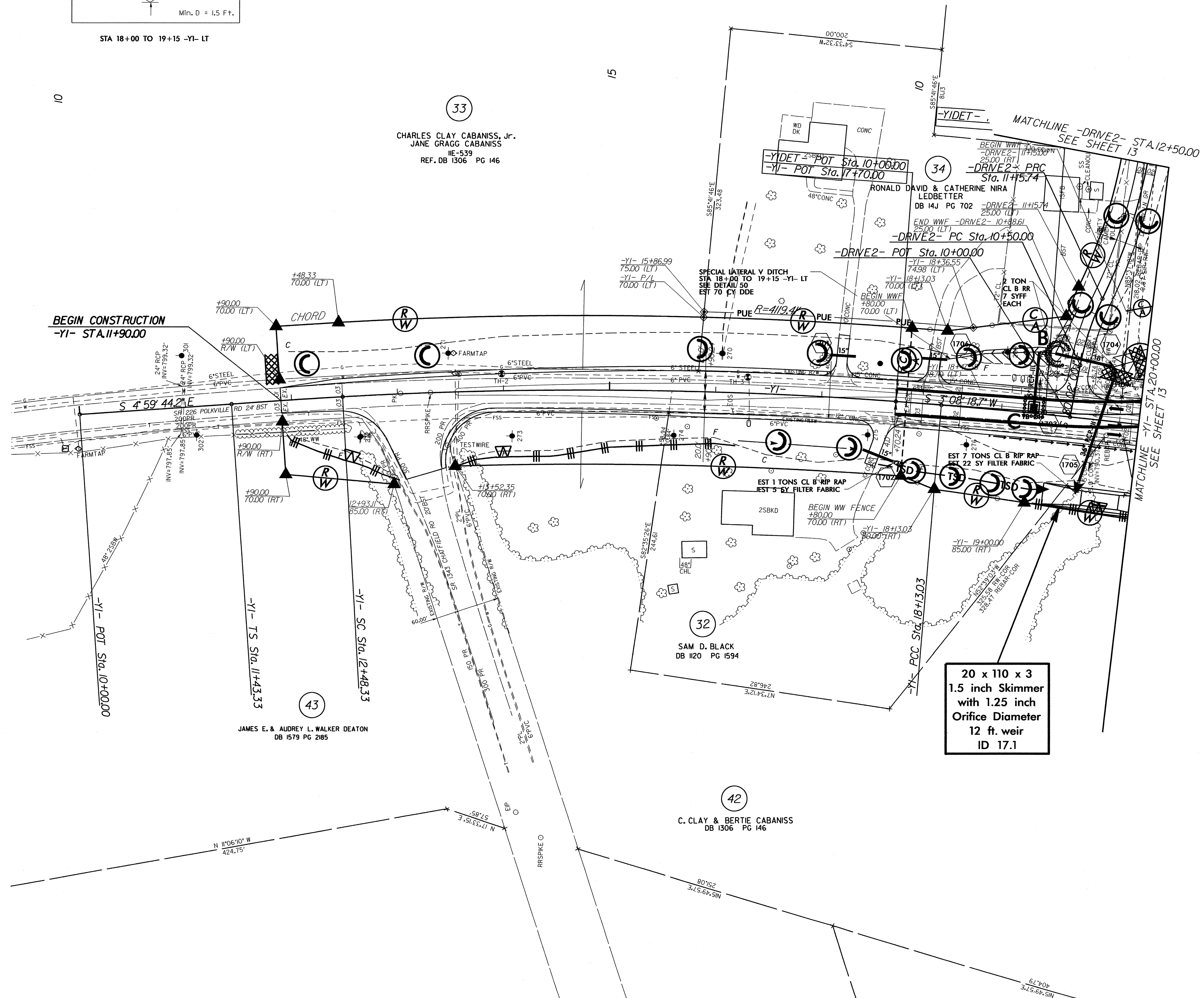


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PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-37/CONST.17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



STA 18+00 TO 19+15 -YI- LT



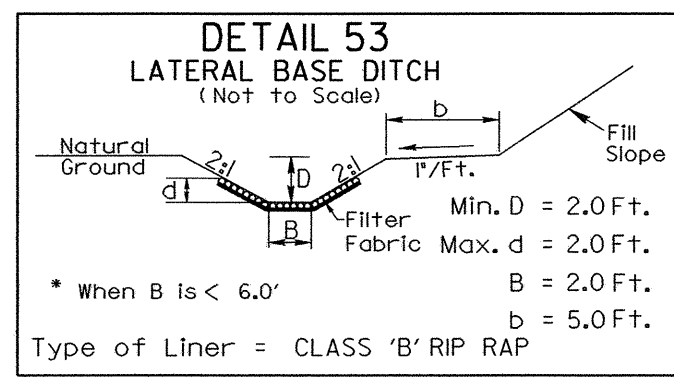
20 x 110 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
12 ft. weir
ID 17.1

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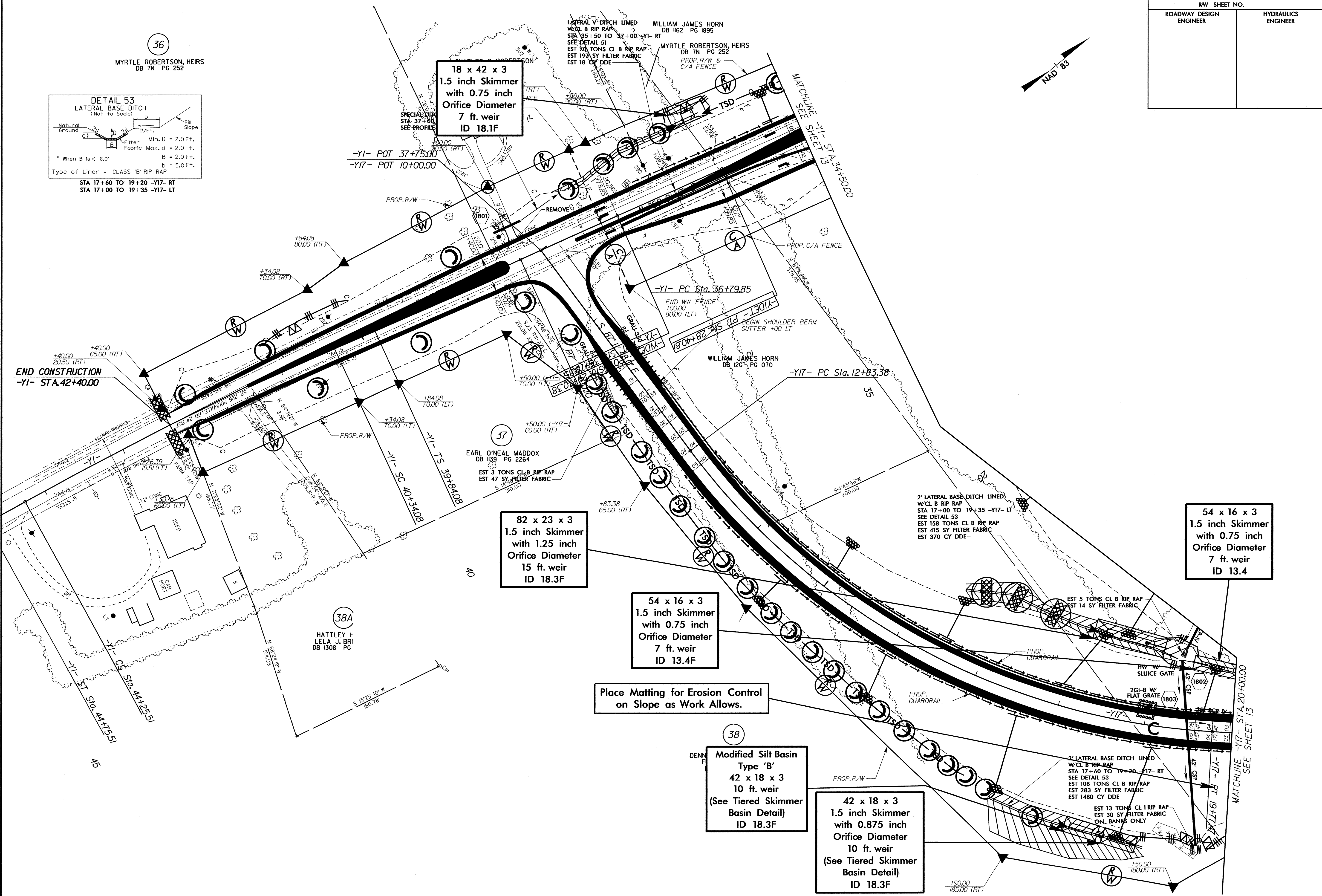
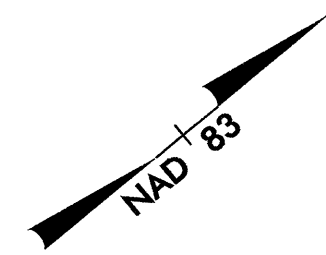
PROJECT REFERENCE NO.	SHEET NO.
R-2707B	EC-38/CONST.18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

36

MYRTLE ROBERTSON, HEIRS
DB 7N PG 252



STA 17+60 TO 19+20 -Y17- RT
STA 17+00 TO 19+35 -Y17- LT



18 x 42 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
7 ft. weir
ID 18.1F

82 x 23 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
15 ft. weir
ID 18.3F

54 x 16 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
7 ft. weir
ID 13.4F

Place Matting for Erosion Control
on Slope as Work Allows.

Modified Silt Basin
Type 'B'
42 x 18 x 3
10 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 18.3F

42 x 18 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
10 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 18.3F

54 x 16 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
7 ft. weir
ID 13.4

\$\$\$DATE\$\$\$
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