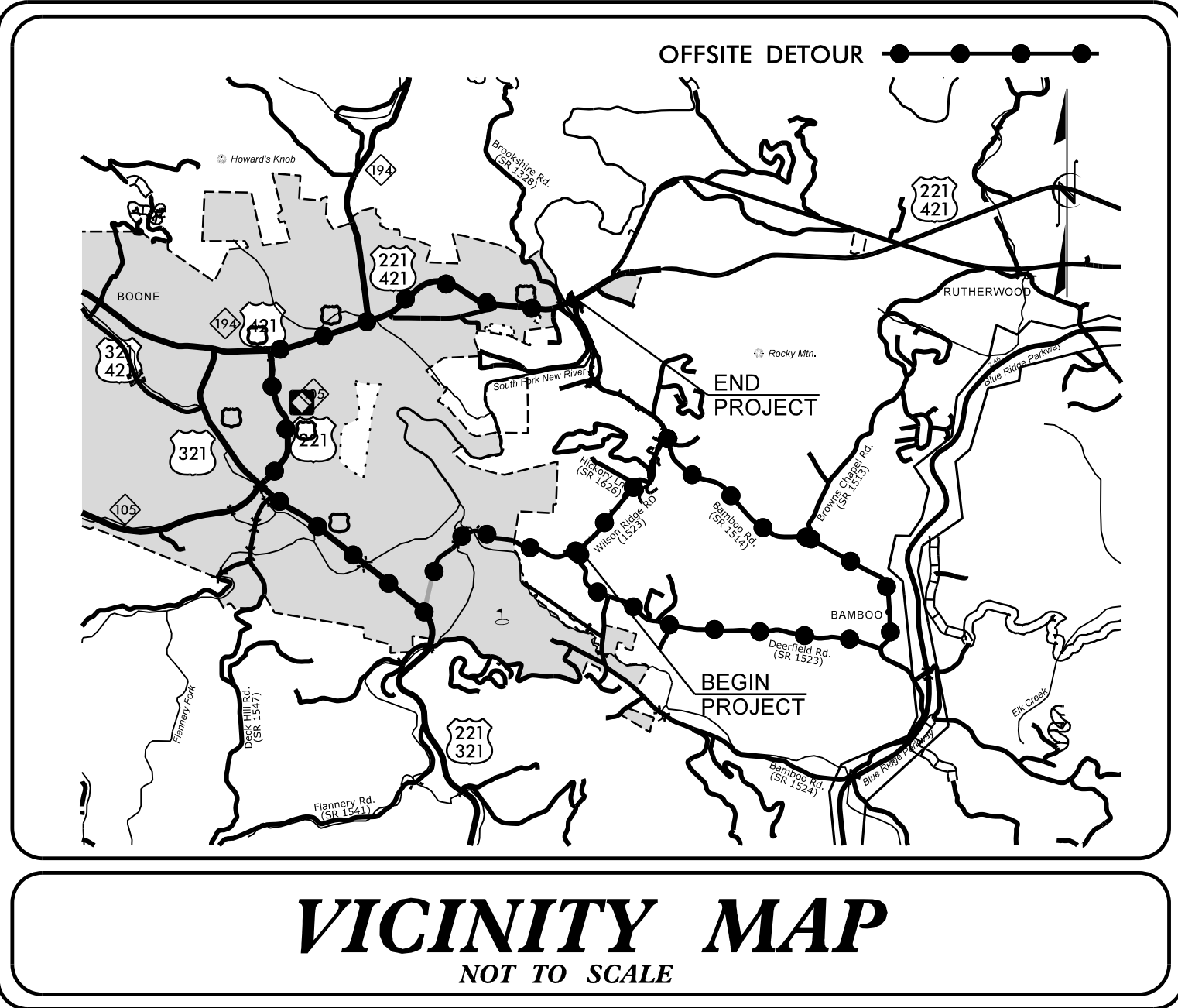


TIP PROJECT: U-5810

CONTRACT: C204504



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

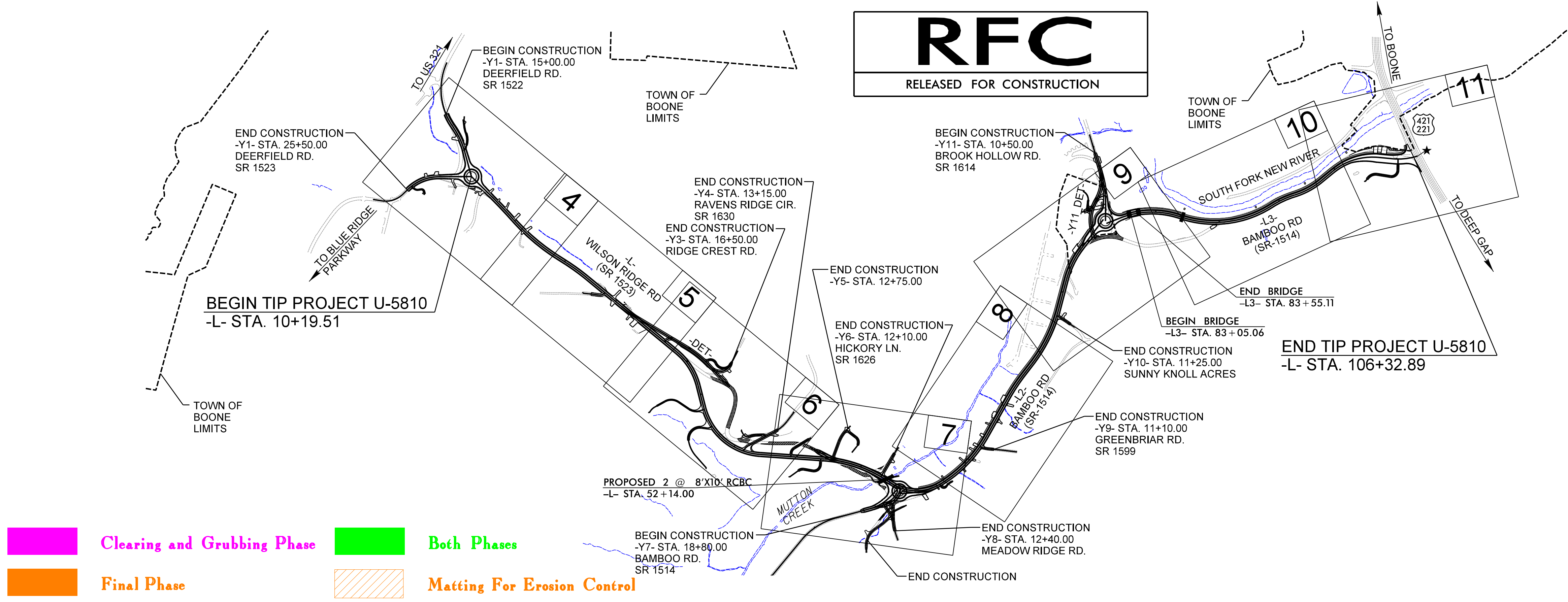
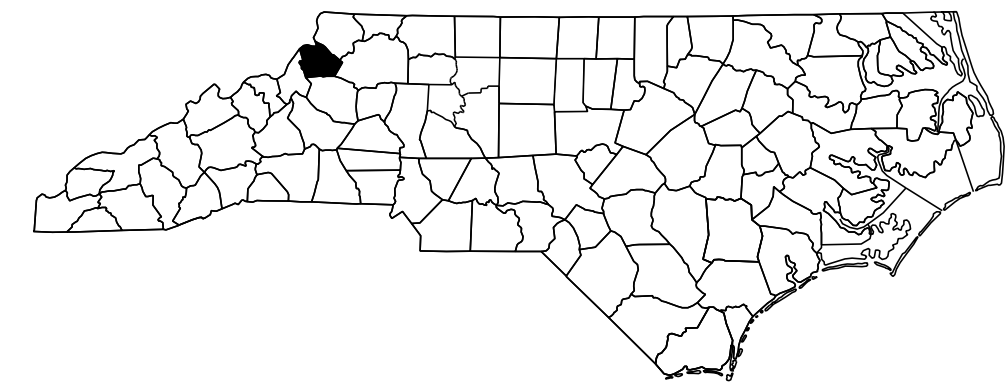
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

WATAUGA COUNTY

LOCATION: SR 1514 (BAMBOO ROAD)/SR 1523 (WILSON RIDGE ROAD)
FROM SR 1522 (DEERFIELD ROAD) TO US 421/US 221

TYPE OF WORK: GRADING, PAVING, WIDENING, DRAINAGE,
RETAINING WALL, SIGNALS, & UTILITIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5810	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44383.1.1		PE	
44383.2.1		R/W	
44383.2.2		UTILITIES	
44383.3.1	4438301	CONSTRUCTION	



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

THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.

ENVIRONMENTALLY
SENSITIVE AREA(S) EXIST
ON THIS PROJECT

Refer To E. C. Special Provisions
for Special Considerations.

GRAPHIC SCALE

50 25 0 50 100

PLANS

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

RK&K

Prepared In the Office of:

RK&K, LLP

8601 SIX FORKS ROAD, SUITE 700
RALEIGH, NORTH CAROLINA 27609
NC LINCENSE NO. F-0112
1-888-521-4455 OR 919-878-9560

Designed by:

COURTLAND A. HOFFMAN, P.E. 4312

NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

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

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

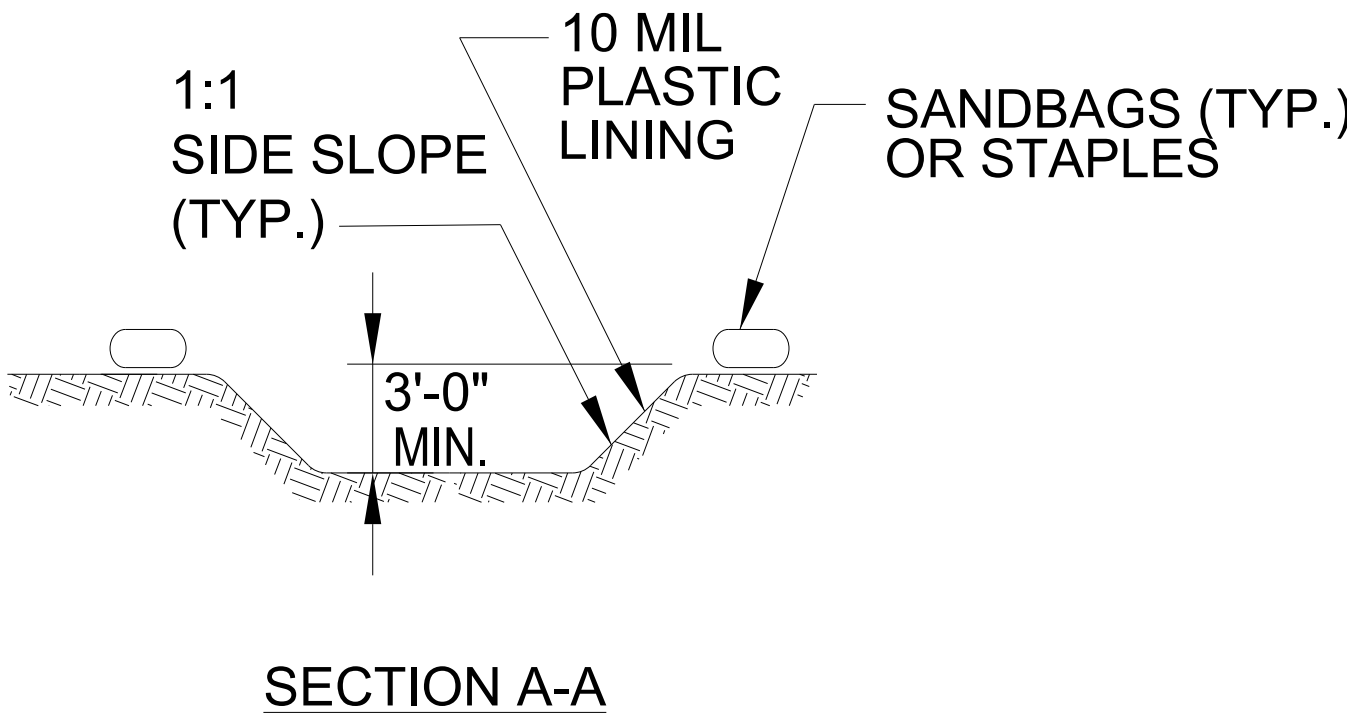
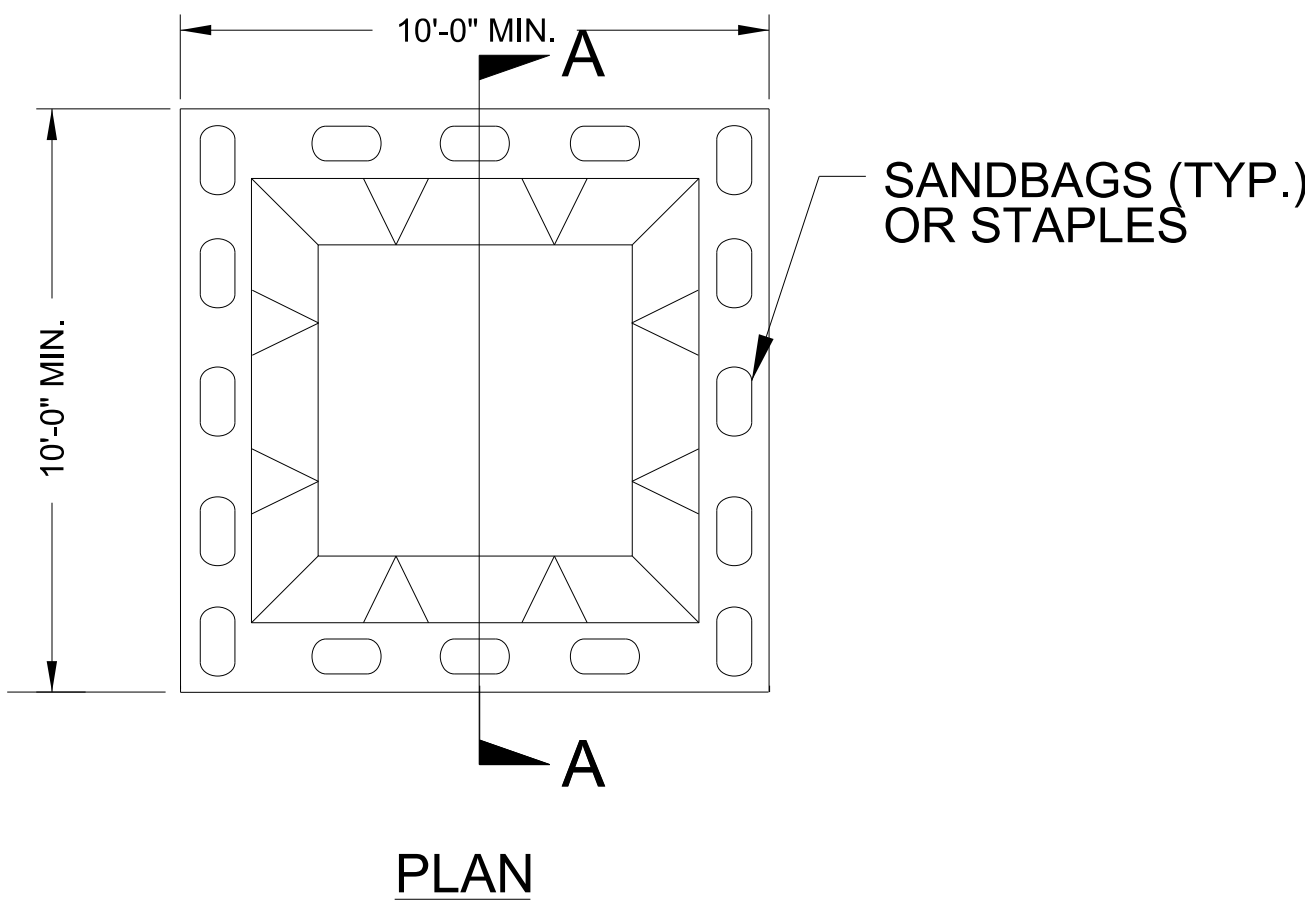
PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol	Std. #	Description	Symbol
1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1630.02	Silt Basin Type B		1634.01	Temporary Rock Sediment Dam Type A	
1630.03	Temporary Silt Ditch		1634.02	Temporary Rock Sediment Dam Type B	
1630.04	Stilling Basin		1635.01	Rock Pipe Inlet Sediment Trap Type A	
1630.05	Temporary Diversion		1635.02	Rock Pipe Inlet Sediment Trap Type B	
1630.06	Special Stilling Basin		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A				
1632.02	Type B		1636.03	Excelsior Wattle Barrier	
1632.03	Type C		1636.03	Coir Fiber Wattle Barrier	

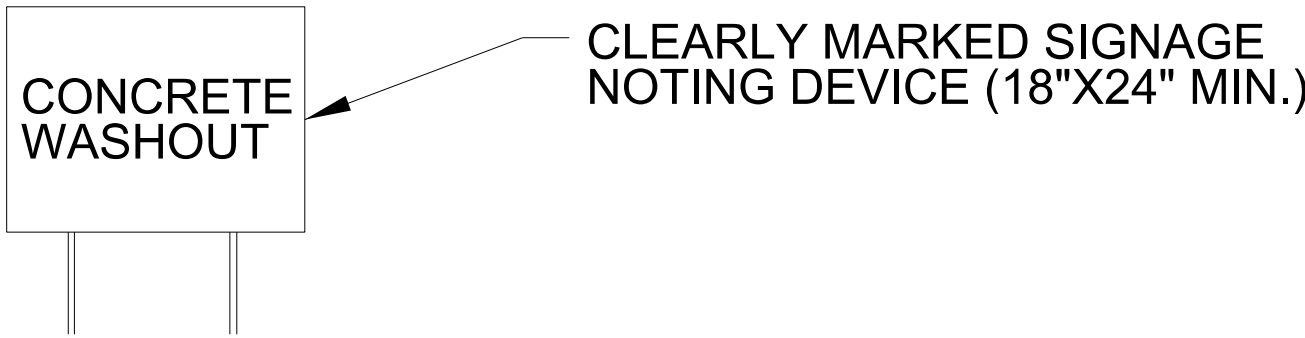
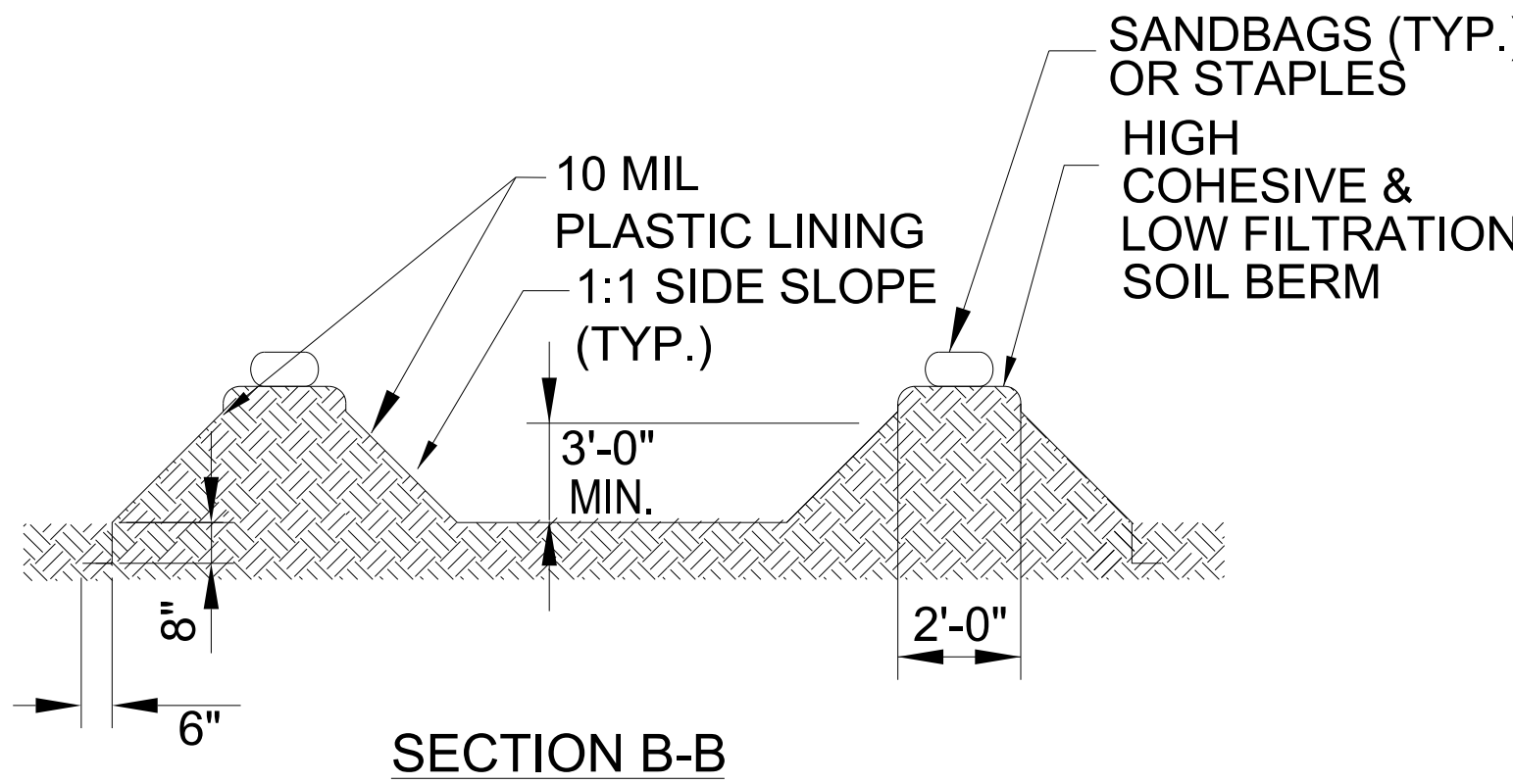
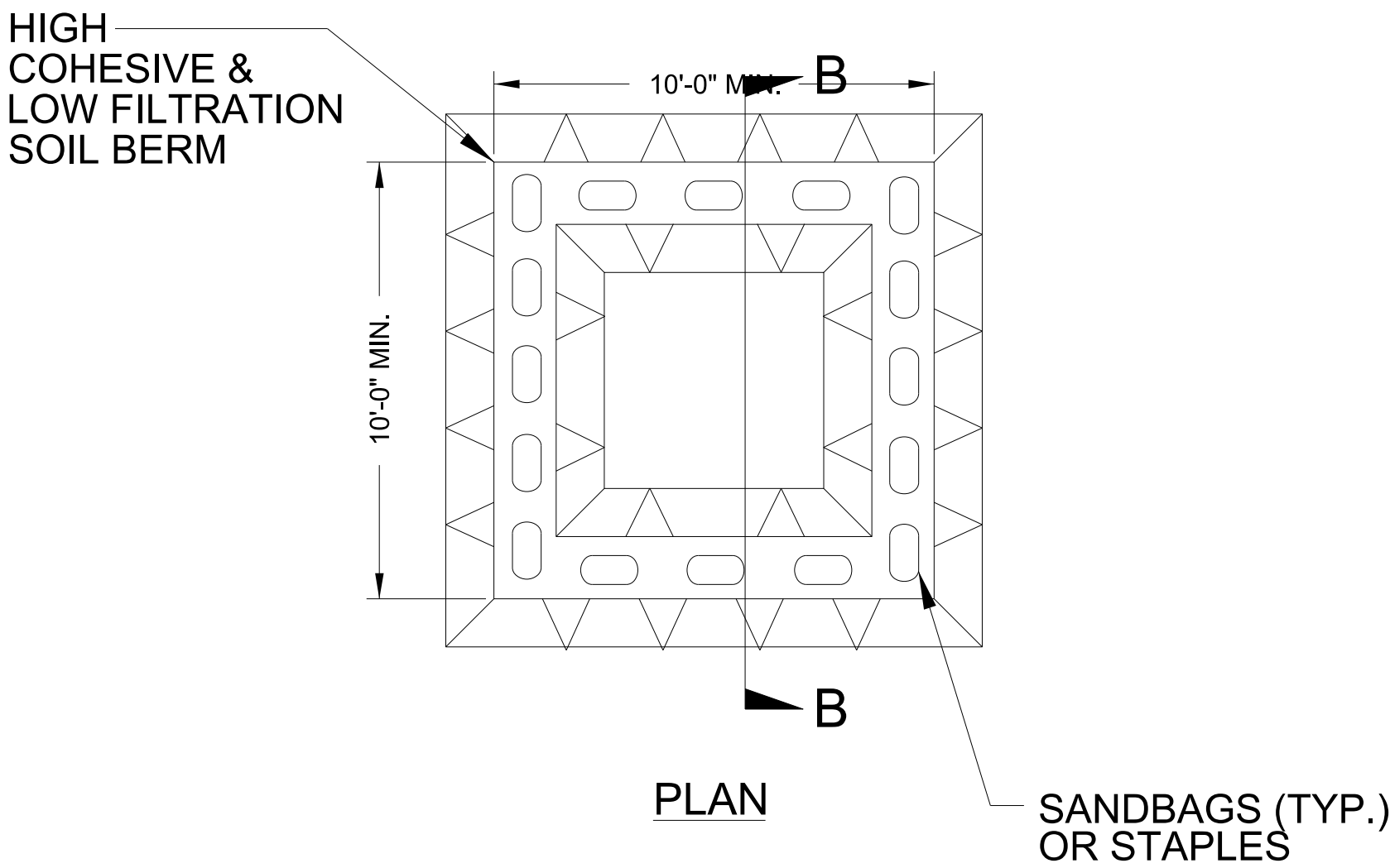
ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER

PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

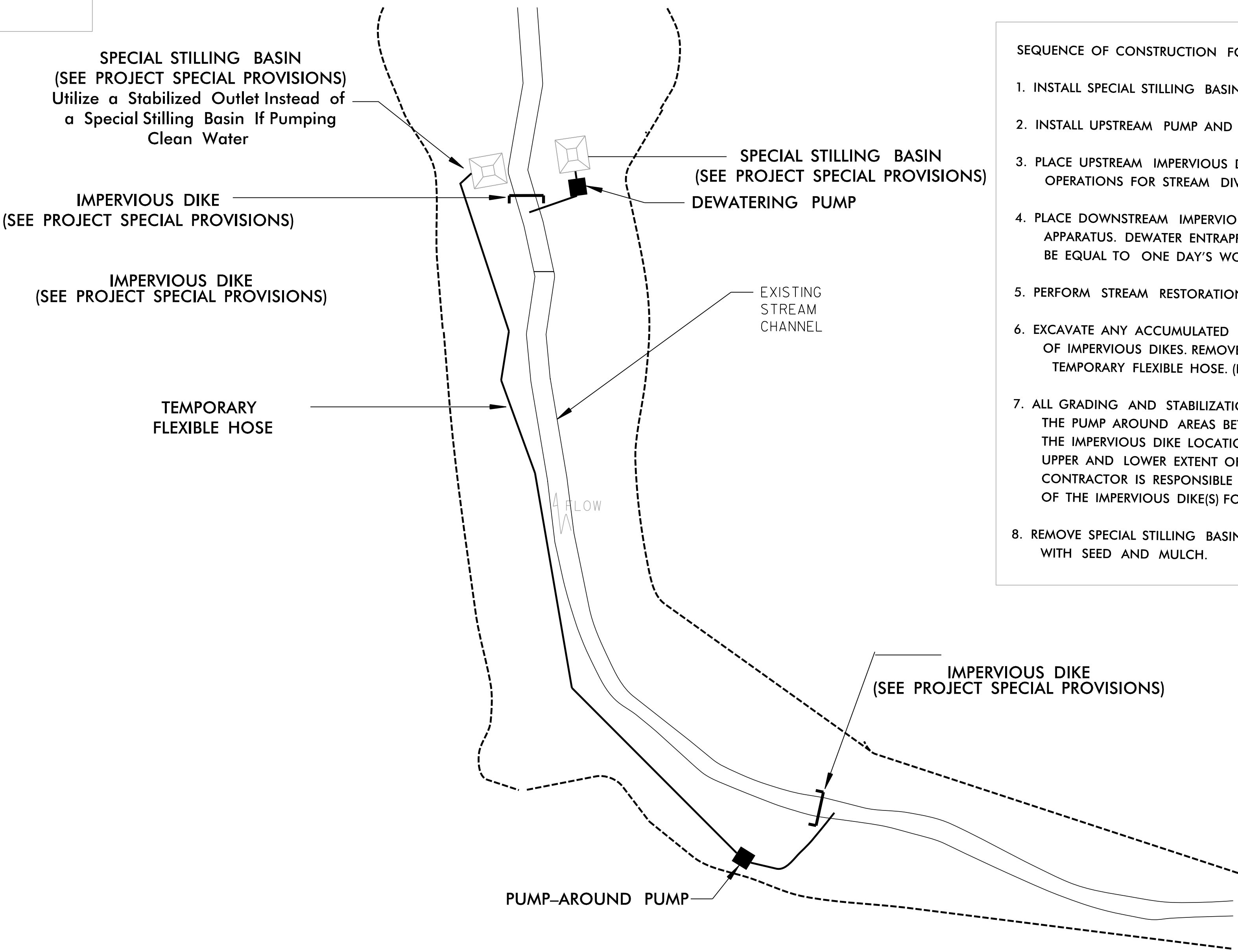
- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

EXAMPLE OF PUMP-AROUND OPERATION

PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.		SHEET NO.	
U-5810		EC-3	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

SOIL STABILIZATION SUMMARY SHEET

EROSION CONTROL STRAW MATTING IN DITCHES

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	12+50	15+50	RT	165
5-6	-L-	27+50	36+00	RT	460
7	-L-	55+45	56+50	RT	115
7	-L-	60+00	61+00	RT	55
7	-L-	61+00	61+25	RT	15
7	-L-	61+58	62+50	RT	50
7	-L-	64+50	64+73	RT	15
7	-DRI6-	10+50	11+00	RT	30
9	-L-	70+00	72+00	RT	110
9	-L-	73+60	75+00	RT	80
9	-YII-	14+50	14+85	RT	30
10	-L3-	90+50	93+00	RT	140
		STRAW SUBTOTAL			1,265

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
		STRAW SUBTOTAL			1,265
		EXCELSIOR SUBTOTAL			955
*MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					84,655
				TOTAL	86,875
				SAY	87,000
*INCLUDES MATTING ON SLOPES					

PSRM 1 MATTING IN DITCHES

2B-1	-DET-	19+50	20+30	LT	45
		PSRM 1 SUBTOTAL			45

EROSION CONTROL EXCELSIOR MATTING

4	-YI-	22+00	22+80	LT	45
5	-L-	20+50	23+50	RT	165
7	-L-	72+00	72+13	RT	10
7	-L-	72+13	72+78	RT	40
7	-L-	11+24	12+46	RT	100
7	-DR9-	11+00	11+50	LT	30
8	-L-	59+00	60+00	RT	85
9	-YII-	10+50	10+80	RT	25
9	-YII-	12+10	12+50	RT	35
9	-YII-	12+50	13+50	RT	80
9	-DR24-	10+50	11+00	RT	30
11	-L2-	105+20	106+33	RT	65
11	-L3-	100+50	105+00	RT	245
		EXCELSIOR SUBTOTAL			955

PSRM 3 MATTING IN DITCHES

4	-L-	11+50	11+87	RT	25
4	-DRI-	11+47	12+25	RT	45
4	-YI-	22+00	24+00	RT	110
7	-Y5-	11+00	12+60	LT	90
8	-L-	63+50	64+50	RT	55
		PSRM 3 SUBTOTAL			325

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

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

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8/17/99

-Y11_DET-		-DR24_DET-		-DR25_DET-	
PI Sta 13+43.69	PI Sta 16+06.76	PI Sta 10+33.92	PI Sta 11+20.20	PI Sta 11+20.20	PI Sta 11+20.20
$\Delta = 47^{\circ} 35' 44.3''$ (RT)	$\Delta = 51^{\circ} 57' 03.7''$ (LT)	$\Delta = 19^{\circ} 16' 19.6''$ (LT)	$\Delta = 60^{\circ} 19' 12.1''$ (LT)	$\Delta = 60^{\circ} 19' 12.1''$ (LT)	$\Delta = 60^{\circ} 19' 12.1''$ (LT)
D = 19' 05' 54.9"	D = 19' 05' 54.9"	D = 57' 17' 44.8"	D = 81' 51' 04.0"	D = 81' 51' 04.0"	D = 81' 51' 04.0"
L = 249.21'	L = 272.01'	L = 33.64'	L = 73.69'	L = 73.69'	L = 73.69'
T = 132.30'	T = 146.16'	T = 16.98'	T = 40.68'	T = 40.68'	T = 40.68'
R = 300.00'	R = 300.00'	R = 100.00'	R = 70.00'	R = 70.00'	R = 70.00'

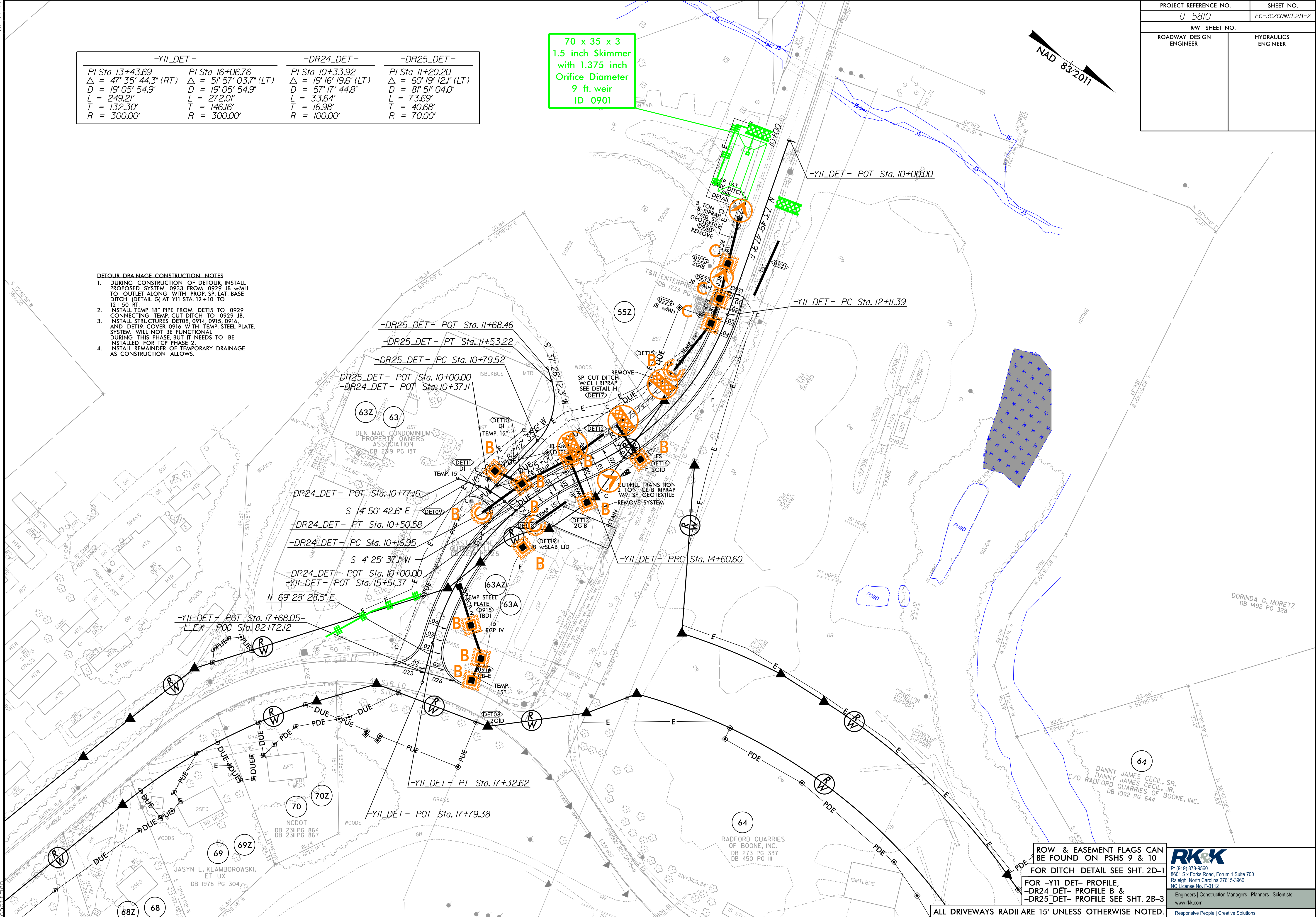
70 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
9 ft. weir
ID 0901

NAD 83 2011

PROJECT REFERENCE NO.		SHEET NO.	
U-5810		EC-3C/CONST.2B-2	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER			

DETOUR DRAINAGE CONSTRUCTION NOTES

- DURING CONSTRUCTION OF DETOUR, INSTALL PROPOSED SYSTEM 0933 FROM 0929 JB WMH TO OUTLET ALONG WITH PROP. SP. LAT. BASE DITCH (DETAIL G) AT Y11 STA. 12+10 TO 12+50 RT.
- INSTALL TEMP. 18" PIPE FROM DET15 TO 0929 JB CONNECTING TEMP. CUT DITCH TO 0929 JB.
- INSTALL STRUCTURES DET08, 0914, 0915, 0916, AND DET19. COVER 0916 WITH TEMP. STEEL PLATE. SYSTEM WILL NOT BE FUNCTIONAL DURING THIS PHASE BUT IT NEEDS TO BE INSTALLED FOR TCP PHASE 2.
- INSTALL REMAINDER OF TEMPORARY DRAINAGE AS CONSTRUCTION ALLOWS.



ROW & EASEMENT FLAGS CAN BE FOUND ON PSHS 9 & 10
FOR DITCH DETAIL SEE SHT. 2D-1
FOR -Y11_DET- PROFILE,
-DR24_DET- PROFILE B &
-DR25_DET- PROFILE SEE SHT. 2B-3

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ALL DRIVEWAYS RADII ARE 15' UNLESS OTHERWISE NOTED.

8/17/99
R:\2026\Hydraulics\CADD\PSH\EC\U-5810-EC.psh04.dgn
2/24/2026
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PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

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

NOTE: INSTALL STANDARD DITCH AT L STA. 11+86 LT AND
54" WELDED STEEL CROSSPIPE IN CLEARING AND
GRUBBING PHASE.

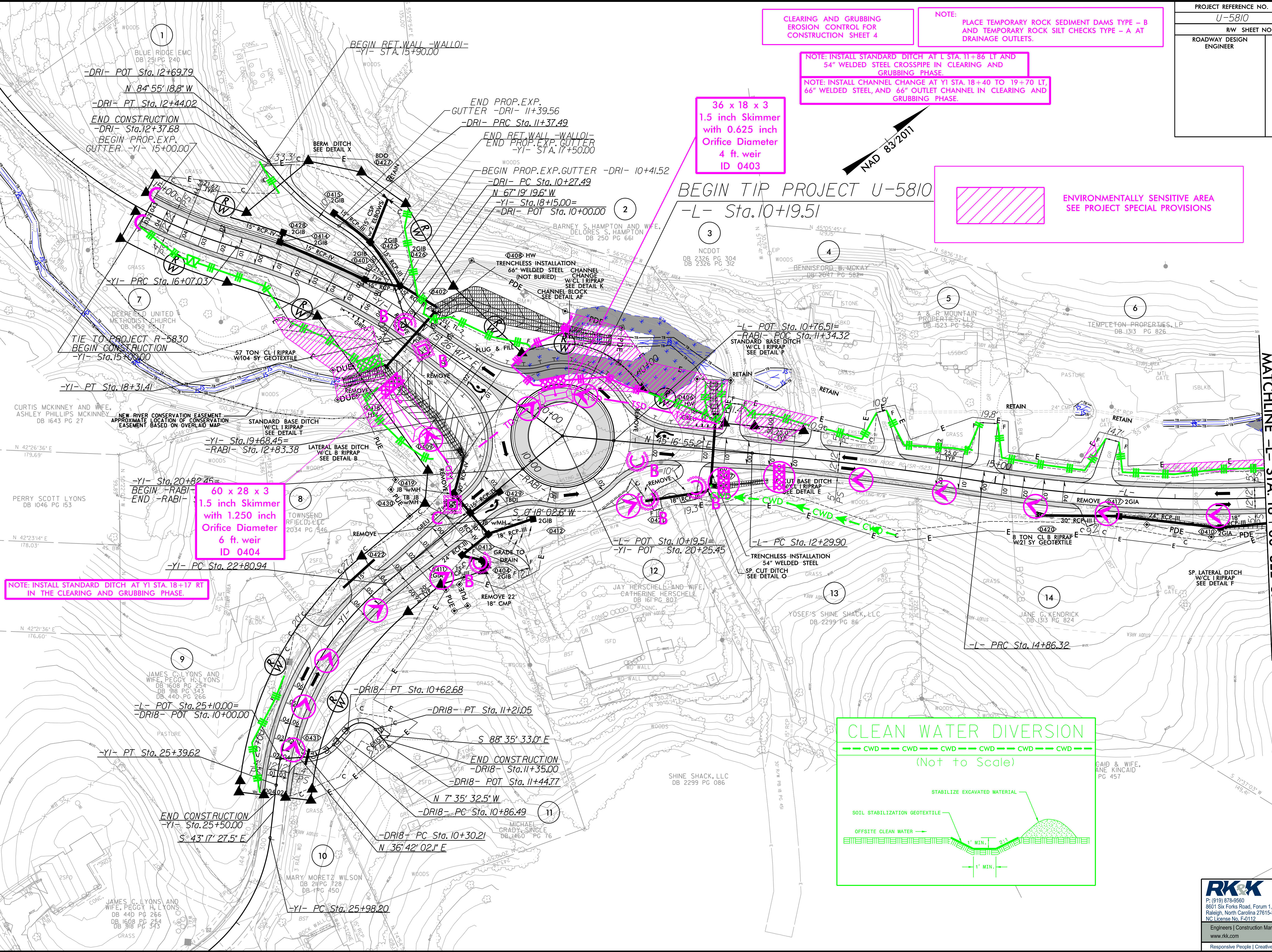
NOTE: INSTALL CHANNEL CHANGE AT Y1 STA. 18+40 TO 19+70 LT,
66" WELDED STEEL, AND 66" OUTLET CHANNEL IN CLEARING AND
GRUBBING PHASE.

36 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 0403

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

BEGIN TIP PROJECT U-5810
-L- Sta. 10+19.51

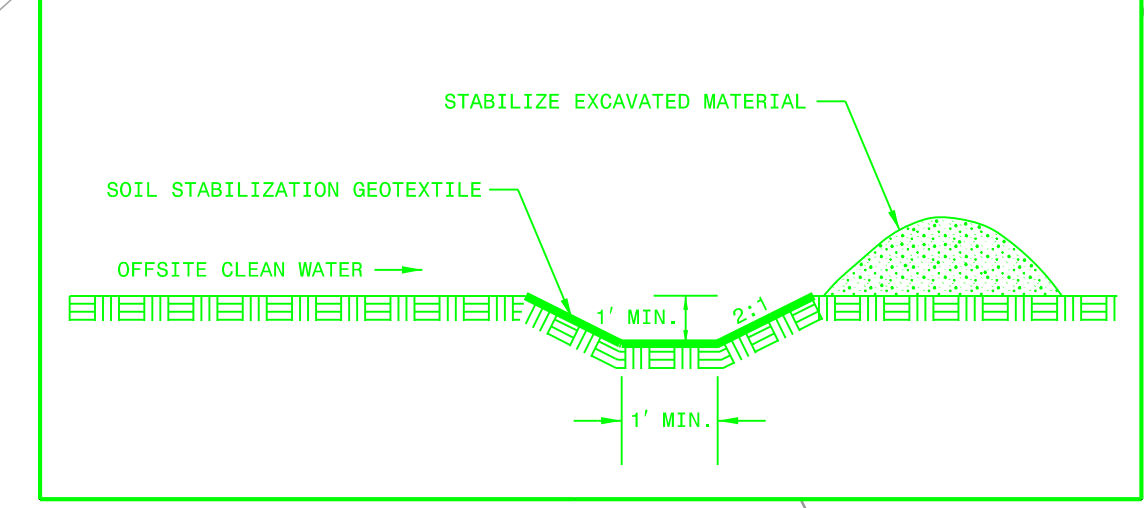
MATCHLINE -L- STA. 18+00 SEE SHEET 5

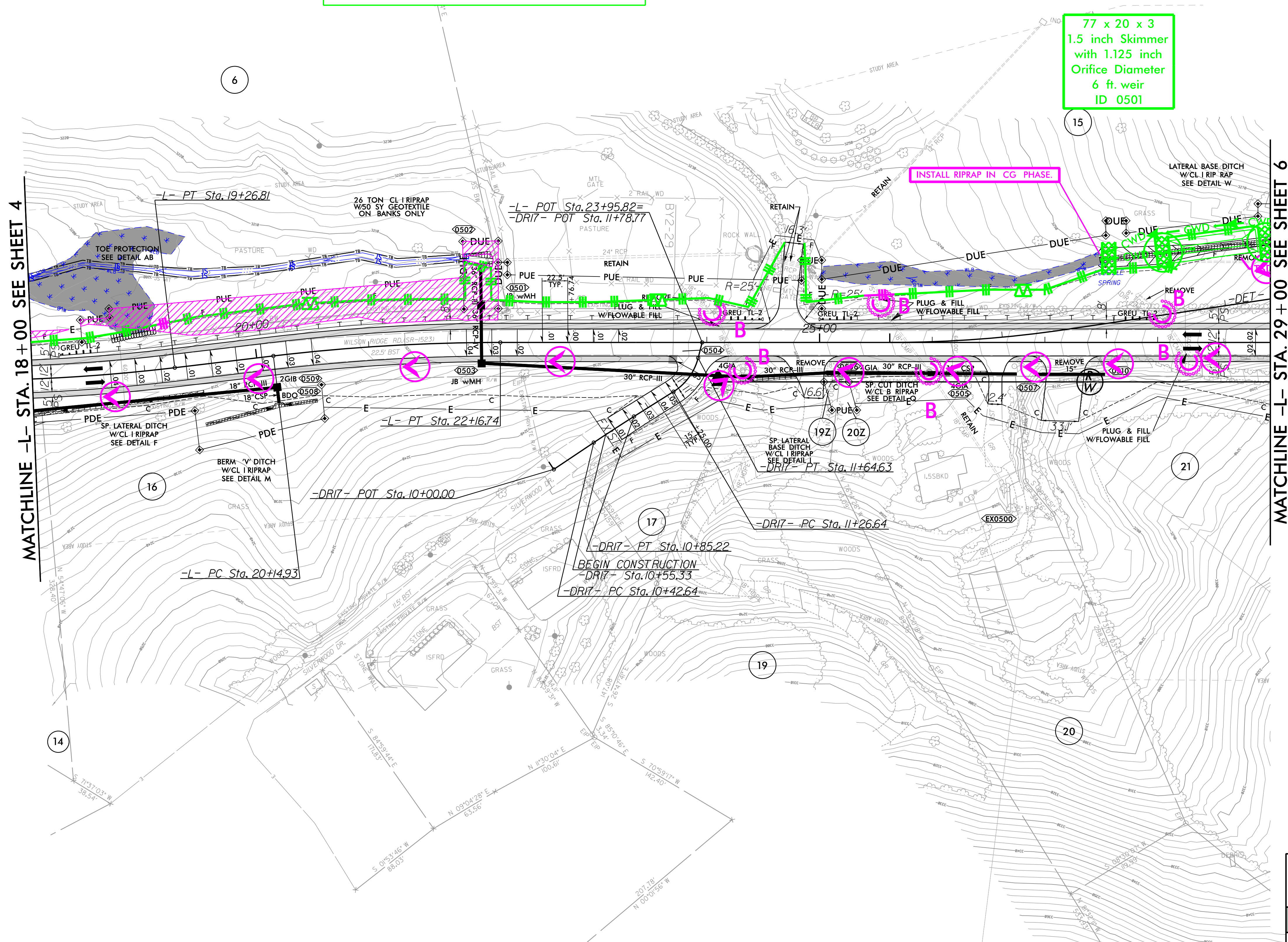


NOTE: INSTALL STANDARD DITCH AT Y1 STA. 18+17 RT
IN THE CLEARING AND GRUBBING PHASE.

60 x 28 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
6 ft. weir
ID 0404

CLEAN WATER DIVERSION
(Not to Scale)





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

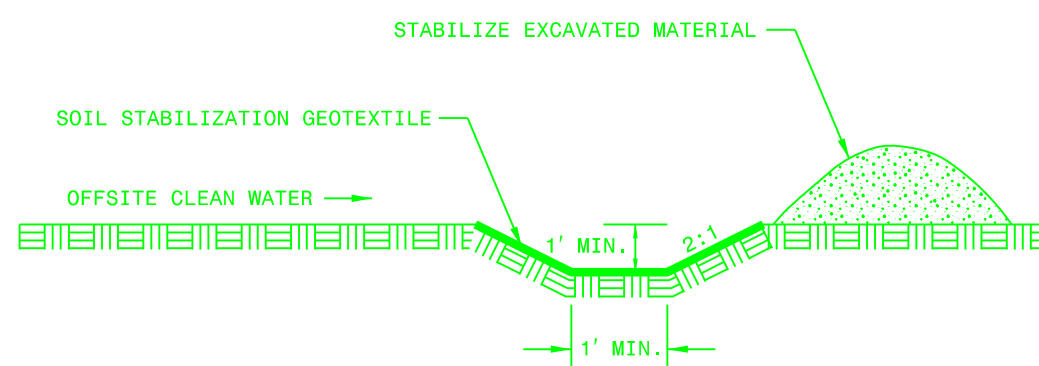
48 x 24 x 2
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 0601

58 x 29 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
6 ft. weir
ID 0603

15" TEMPORARY
PIPE

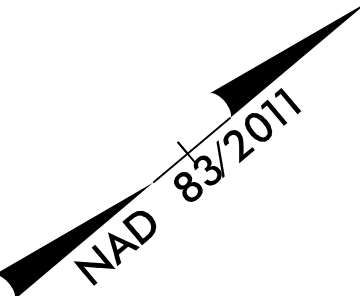
CLEAN WATER DIVERSION

(Not to Scale)



MATCHLINE -L- STA. 29+00 SEE SHEET 5

MATCHLINE STA. 44+00 SEE SHEET 7



PROJECT REFERENCE NO.		SHEET NO.	
U-5810		EC-6/CONST.6	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



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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

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

84 x 41 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
14 ft. weir
ID 0705

BASIN WILL BE USED AS A SKIMMER BASIN
FOR CLEARING & GRUBBING AND FINAL PHAS
CONSTRUCTION AND AS A STILLING BASIN
FOR CROSSING AT STA 53+79

90 x 42 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
14 ft. weir

32 x 16 x 3
1.5 inch Skimmer
with 0.500 inch
Orifice Diameter
4 ft. weir

CLEAN WATER DIVERSION

— CWD — CWD — CWD — CWD — CWD — CWD —

(Not to Scale)

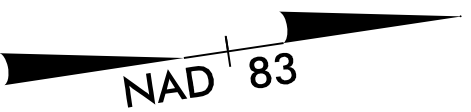
Diagram illustrating a stabilized excavated area. The diagram shows a cross-section of an excavation with a sloped side. A layer of "SOIL STABILIZATION GEOTEXTILE" is applied to the slope. "OFFSITE CLEAN WATER" is shown flowing into the excavation from the left. The excavated material is labeled "STABILIZE EXCAVATED MATERIAL". Dimensions are indicated: a minimum of 1' (1' MIN.) for the width of the excavation at the bottom, and a minimum of 1' (1' MIN.) for the width of the stabilized area on the right. A 2:1 slope ratio is also indicated.

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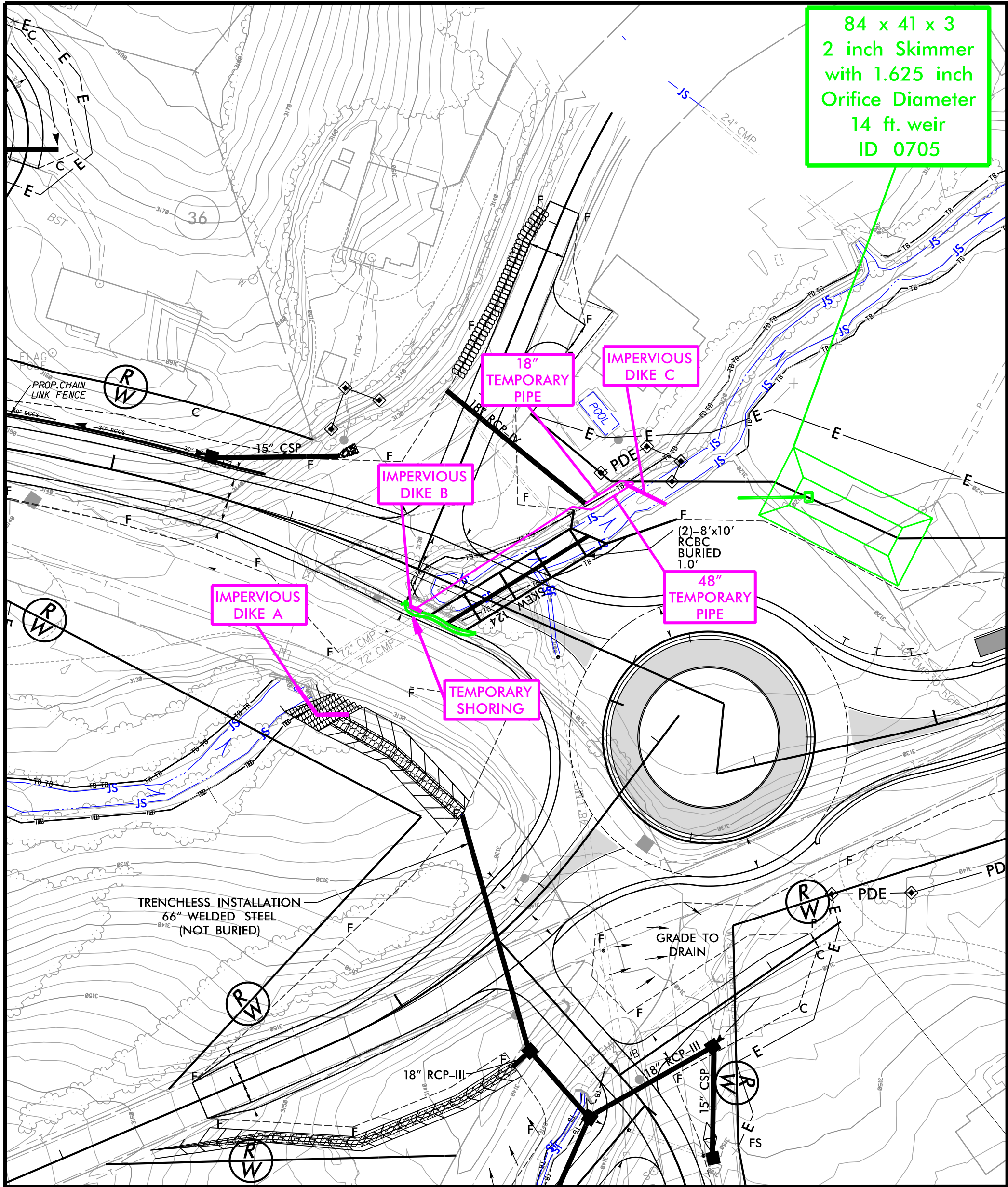
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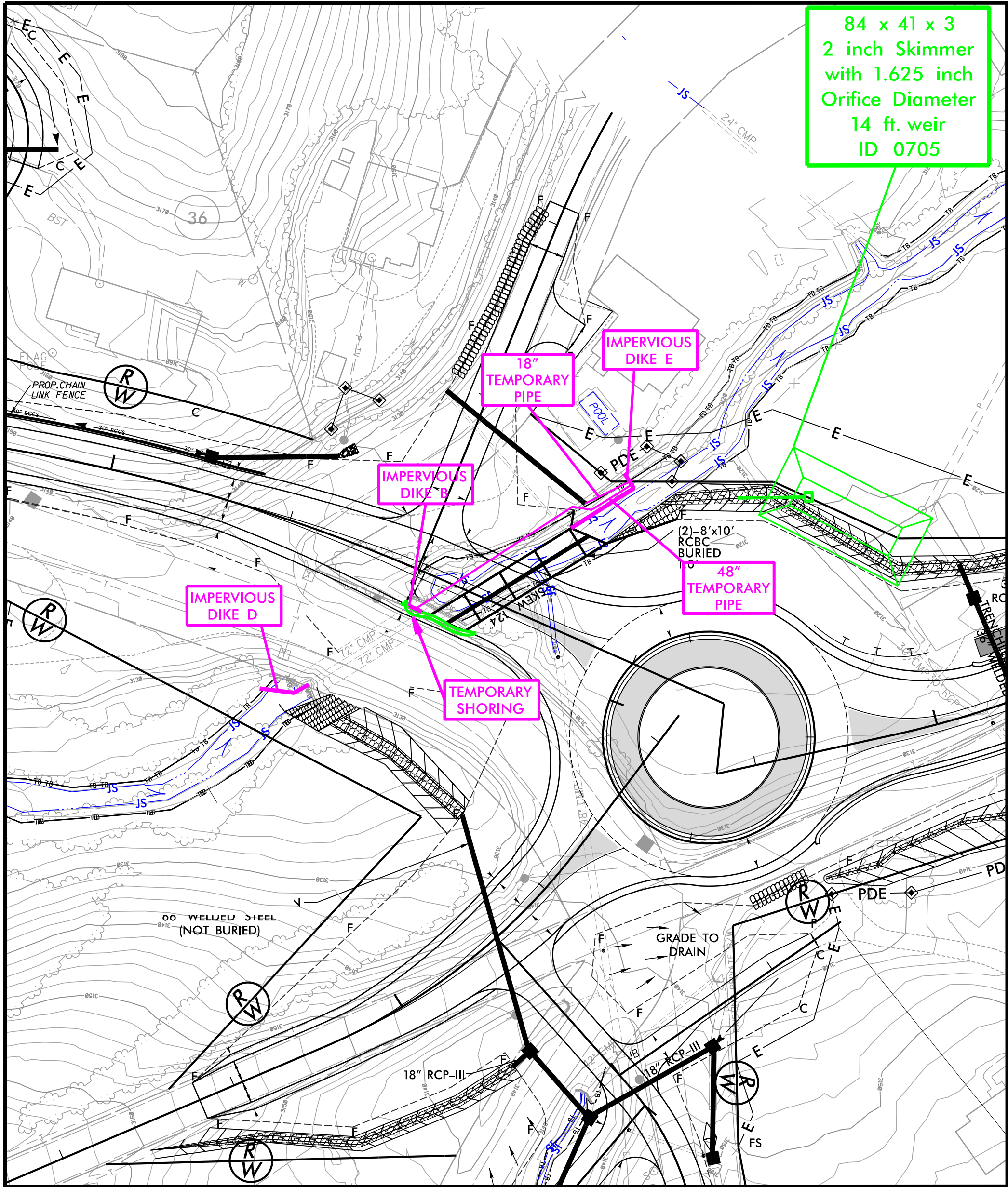
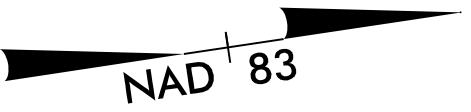
PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-7A/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CULVERT INSTALLATION PHASE 1 STA. 53+79 -L-

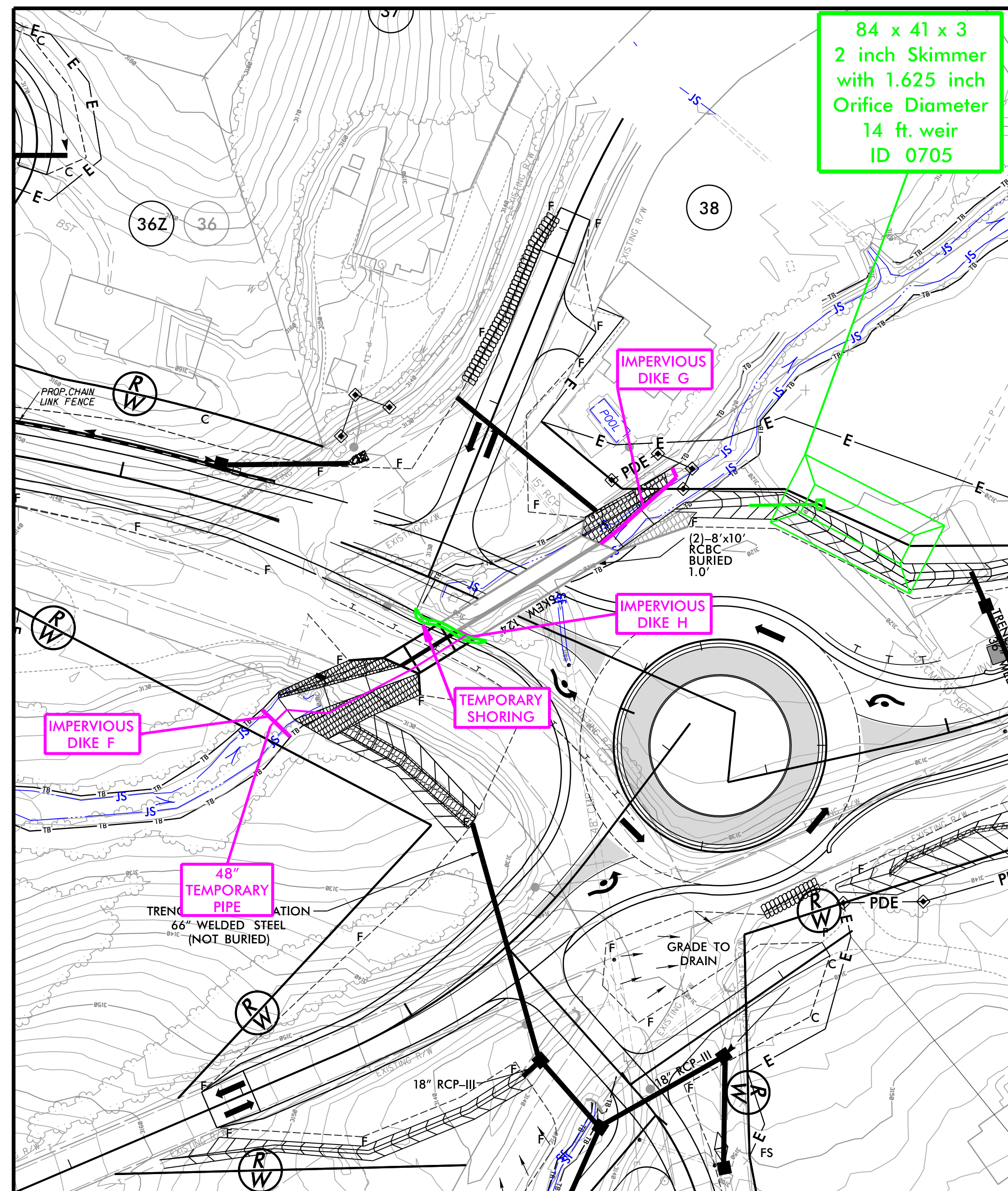
1. MAINTAIN TRAFFIC ON EXISTING ROADWAY.
2. UTILIZE SKIMMER BASIN 0705 FOR ANTICIPATED SEDIMENT CAPACITY OF 136 CY.
3. INSTALL IMPERVIOUS DIKES IN LOCATIONS A, B AND C AND INSTALL 48" TEMPORARY PIPE AT OUTLET OF WESTERN EXISTING 72" CMP.
4. INSTALL 18" TEMPORARY PIPE TO ROUTE FLOW FROM PROPOSED 18" RCP-IV AROUND IMPERVIOUS DIKE C.
5. IF PIPE SYSTEM 0721 TO 0726 (EC-7D) IS NOT YET INSTALLED, UTILIZE PUMP-AROUND SYSTEM TO CONVEY RUNOFF FROM EXISTING 48" CMP AROUND IMPERVIOUS DIKE C.
6. CONSTRUCT TEMPORARY SHORING AS SHOWN ON PLANS.
7. MAINTAIN FLOW THROUGH WESTERN EXISTING 72" CMP AND 48" TEMPORARY PIPE.
8. REMOVE DOWNSTREAM EXISTING HEADWALL AND 13 LF OF EASTERN EXISTING 72" CMP.
9. CONSTRUCT 97.5 LF OF PROPOSED DOWNSTREAM 2 @ 8' X 10' BOX CULVERT, HW, WING WALLS AND PORTION OF CHANNEL IMPROVEMENT.
10. REMOVE IMPERVIOUS DIKES A & C.

PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-7B/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CULVERT INSTALLATION PHASE 2 STA. 53+79 -L-

1. DRILL HOLE THROUGH TEMPORARY SHORING AT EASTERN 72" CMP.
2. INSTALL IMPERVIOUS DIKES D & E TO DIRECT FLOW THROUGH EXISTING EASTERN 72" CMP AND PROPOSED WESTERN BARREL OF 8'X10' RCBC.
3. REMOVE IMPERVIOUS DIKE B, 48" TEMPORARY PIPE, AND 18" TEMPORARY PIPE.
4. CONSTRUCT PROPOSED ROADWAY.



CULVERT INSTALLATION PHASE 3 STA. 53+79 -L-

1. SHIFT TRAFFIC TO NEWLY CONSTRUCTED ROADWAY.
2. REMOVE REMAINDER OF WESTERN 72" CMP WHILE MAINTAINING FLOW THROUGH EASTERN 72" CMP.
3. REMOVE IMPERVIOUS DIKES D & E FROM PHASE 2.
4. INSTALL 48" TEMPORARY PIPE AT UPSTREAM END OF PARTIALLY CONSTRUCTED EASTERN BOX CULVERT.
5. INSTALL IMPERVIOUS DIKES F, G, AND H TO DIRECT FLOW TO PARTIALLY CONSTRUCTED EASTERN BOX CULVERT AND 48" TEMPORARY PIPE.
6. REMOVE REMAINDER OF EASTERN 72" CMP AND INSTALL REMAINDER OF OUTLET CHANNEL IMPROVEMENTS.
7. CONSTRUCT REMAINING UPSTREAM PORTION OF 2 @ 8' X 10' BOX CULVERT, HEADWALL, WING WALLS, APPROACHES AND CHANNEL IMPROVEMENTS.
8. REMOVE IMPERVIOUS DIKES, TEMPORARY 48" PIPE, AND TEMPORARY SHORING.

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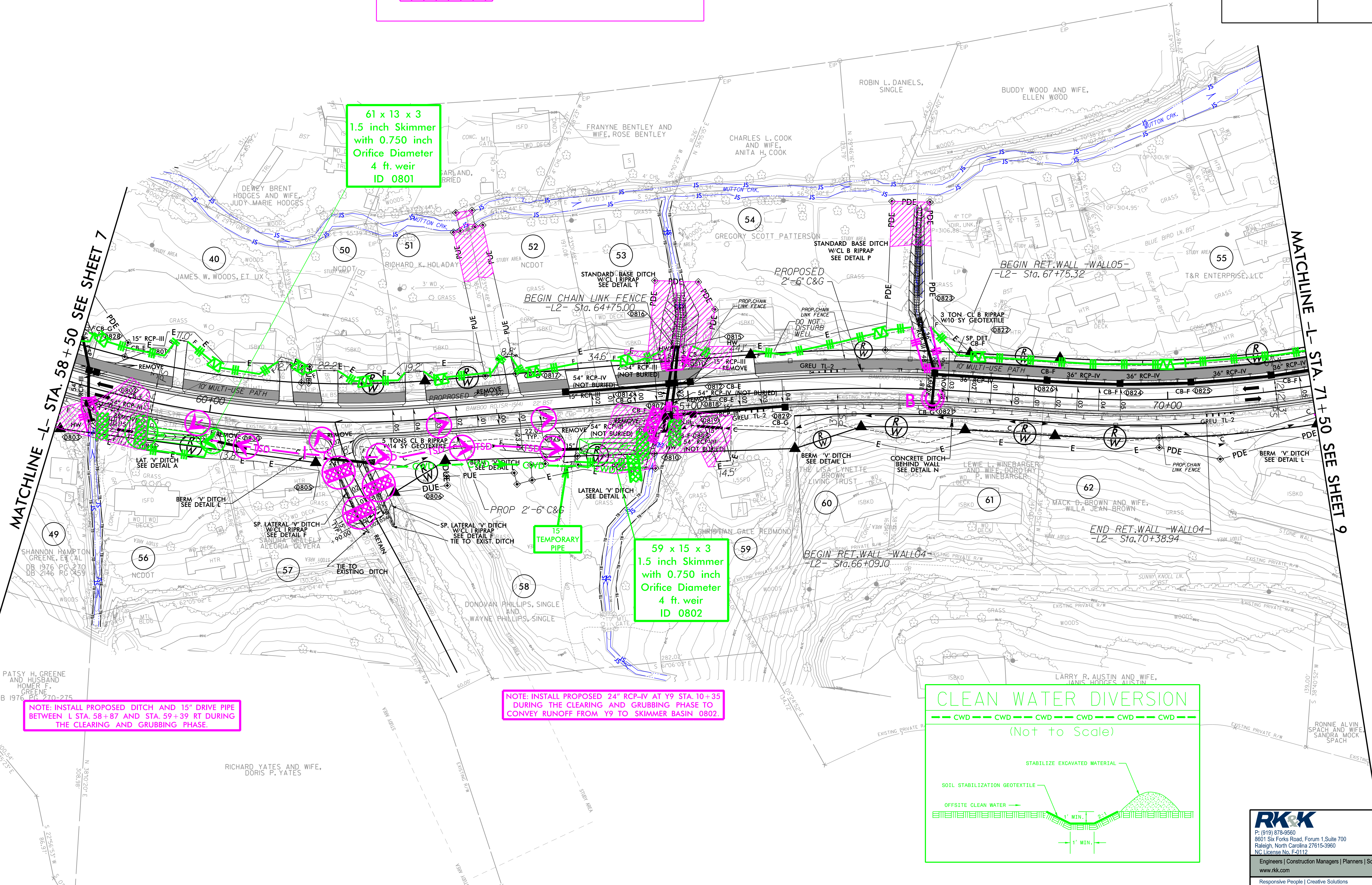
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chaitman

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-8/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

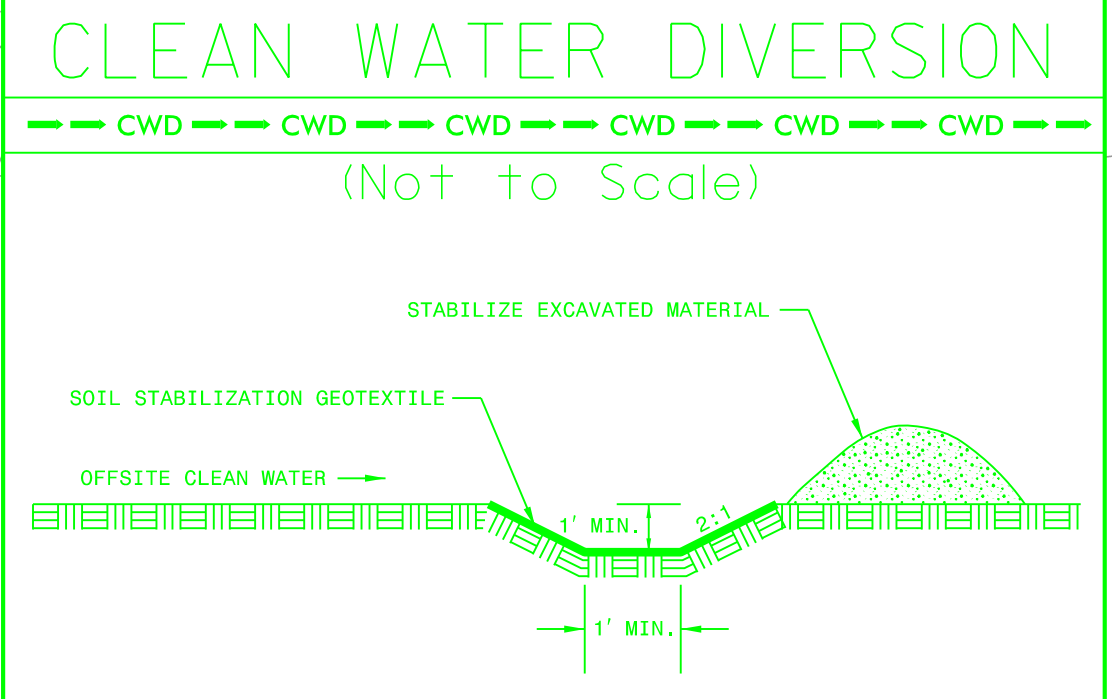


61 x 13 x 3
1.5 inch Skimmer
with 0.750 inch
Orifice Diameter
4 ft. weir
ID 0801

59 x 15 x 3
1.5 inch Skimmer
with 0.750 inch
Orifice Diameter
4 ft. weir
ID 0802

NOTE: INSTALL PROPOSED 24\" RCP-IV AT Y9 STA. 10+35
DURING THE CLEARING AND GRUBBING PHASE TO
CONVEY RUNOFF FROM Y9 TO SKIMMER BASIN 0802.

NOTE: INSTALL PROPOSED DITCH AND 15\" DRIVE PIPE
BETWEEN L STA. 58+87 AND STA. 59+39 RT DURING
THE CLEARING AND GRUBBING PHASE.

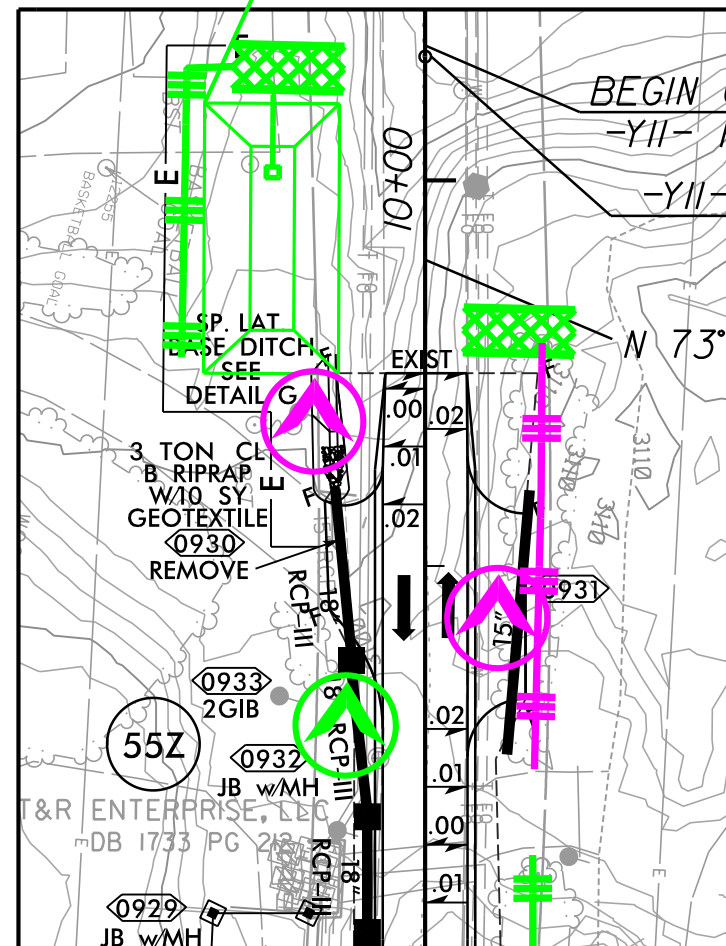


PROJECT REFERENCE NO.		SHEET NO.	
U-5810		EC-9/CONST.9	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER			

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

70 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
9 ft. weir
ID 0901



MATCHLINE -Y11-
STA. 12+00
SEE SHEET 9

-L2- PT Sta. 73+67.36

-L2- POC Sta. 73+11.76=
-Y10- POT Sta. 10+00.00

MATCHLINE -L2- STA. 71+50
SEE SHEET 8

END CONSTRUCTION
-Y10- Sta. 11+25.00

-Y10- PT Sta. 11+65.66

-DR25- POT Sta. 11+60.14
-DR25- PT Sta. 11+44.90
END CONSTRUCTION
-DR25- POT Sta. 10+95.05
-DR25- PRC Sta. 10+68.46
-DR24- PRC Sta. 11+08.85
-DR25- PC Sta. 10+17.34

-DR25- POT Sta. 10+00.00

END CONSTRUCTION
-DR24- POT Sta. 12+20.74
SP. LAT. BASE DITCH
SEE DETAIL G
2 TON CL B RIPRAP
W/7 SY GEOTEXTILE
-DR24- POT Sta. 12+31.86

-DR24- PT Sta. 11+98.50
-L2- POT Sta. 80+98.82=
-RAB3- POC Sta. 13+50.85

-RAB3- PC Sta. 10+00.00
-RAB3- PT Sta. 13+58.14

-L2- POT Sta. 81+52.19

MATCHLINE -Y11-
STA. 12+00.00
SEE INSET

-Y11- PC Sta. 12+02.23

-DR24- PC Sta. 10+19.96

-DR24- POT Sta. 10+00.00

-Y11- PT Sta. 14+81.60

-RAB3- POC Sta. 12+28.02

-Y11- POT Sta. 15+86.13

-L3- POT Sta. 81+04.00

PCC Sta. 11+79.07

-L3- PC Sta. 82+17.32

BEGIN BRIDGE
-L3- STA. 83+05.06

END BRIDGE
-L3- STA. 83+55.11

END APPROACH SLAB
-L3- STA. 83+79.11

BEGIN APPROACH SLAB
-L3- STA. 82+81.06

-L3- POT Sta. 81+57.38=
-RAB3- POC Sta. 11+40.24

LATERAL BASE DITCH TO
BEHIND RETAINING WALL
W/CL B RIPRAP
SEE DETAIL AA

MATCHLINE -L3- STA. 85+50
SEE SHEET 10

FOR -L2- /-L3- PROFILE SEE SHTS. 14-15
FOR -RAB3- PROFILE SEE SHT. 16
FOR -Y10- PROFILE SEE SHT. 18
FOR -Y11- PROFILE SEE SHT. 18
FOR -DR24- PROFILE SEE SHT. 21
FOR -DR25- PROFILE SEE SHT. 21

SEE SHEET 9A FOR RIGHT OF WAY STATIONS AND OFFSETS

ALL DRIVEWAYS RADII ARE 15' UNLESS OTHERWISE NOTED.

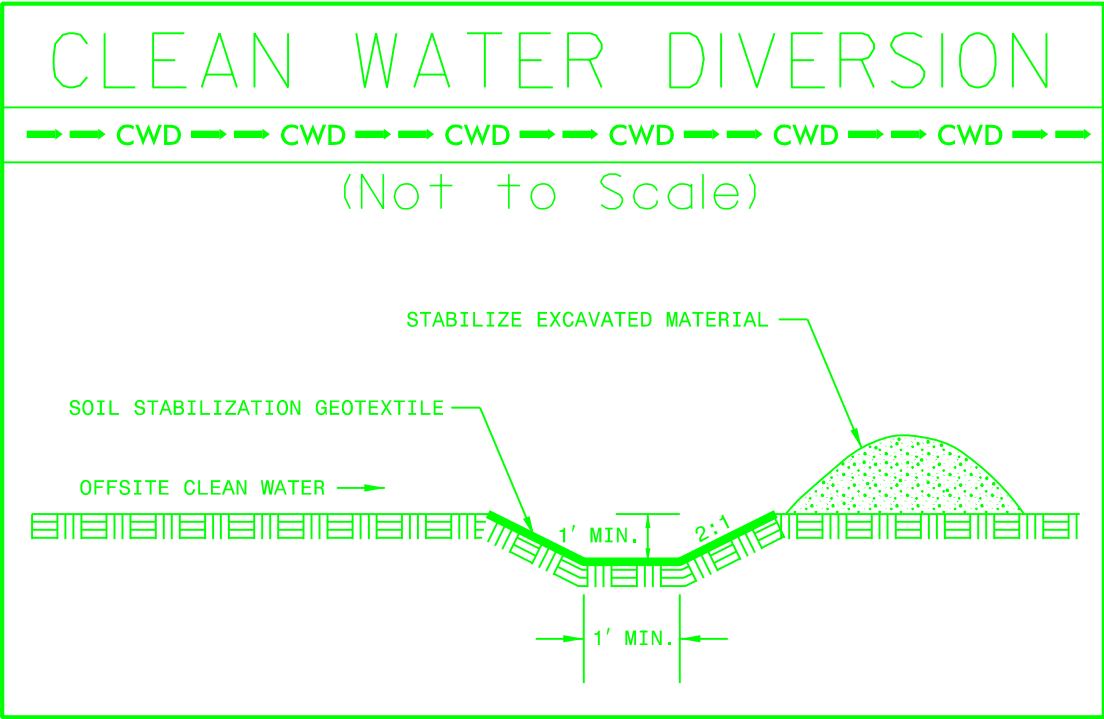
FOR -Y11 DET-, -DR24 DET- & -DR25 DET PLAN SEE SHT. 2B-2
FOR -Y11 DET-, -DR24 DET- & -DR25 DET PROFILE SEE SHT. 2B-3
FOR INTERSECTION DETAIL SEE SHT. 2B-6
FOR DITCH DETAIL SEE SHT. 2D-1

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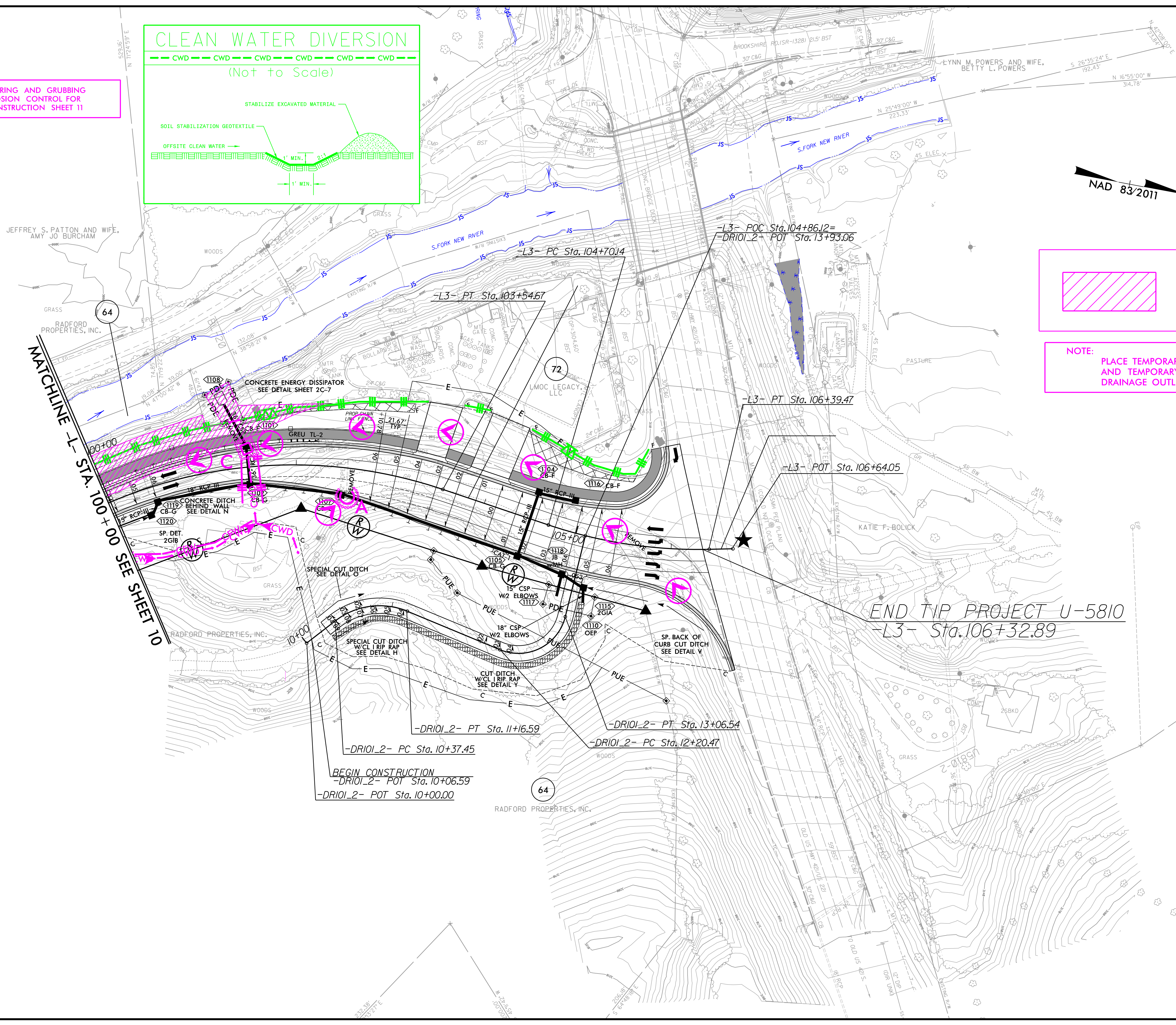
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chaitman

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11



ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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



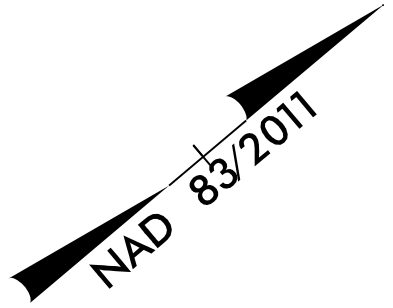
PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-11/CONST.11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

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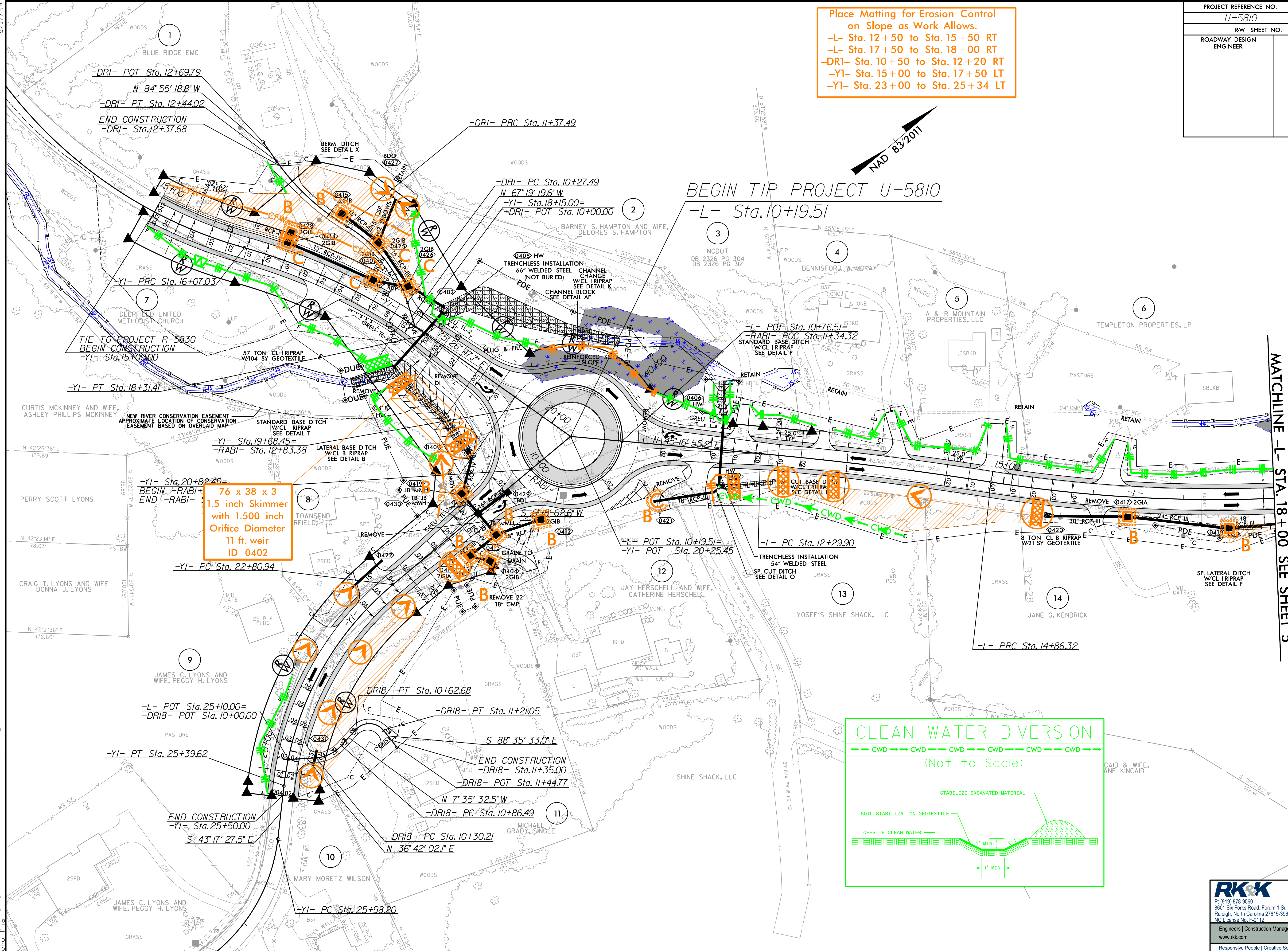
PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-12/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Place Matting for Erosion Control
on Slope as Work Allows.
-L- Sta. 12+50 to Sta. 15+50 RT
-L- Sta. 17+50 to Sta. 18+00 RT
-DRI- Sta. 10+50 to Sta. 12+20 RT
-YI- Sta. 15+00 to Sta. 17+50 LT
-YI- Sta. 23+00 to Sta. 25+34 LT

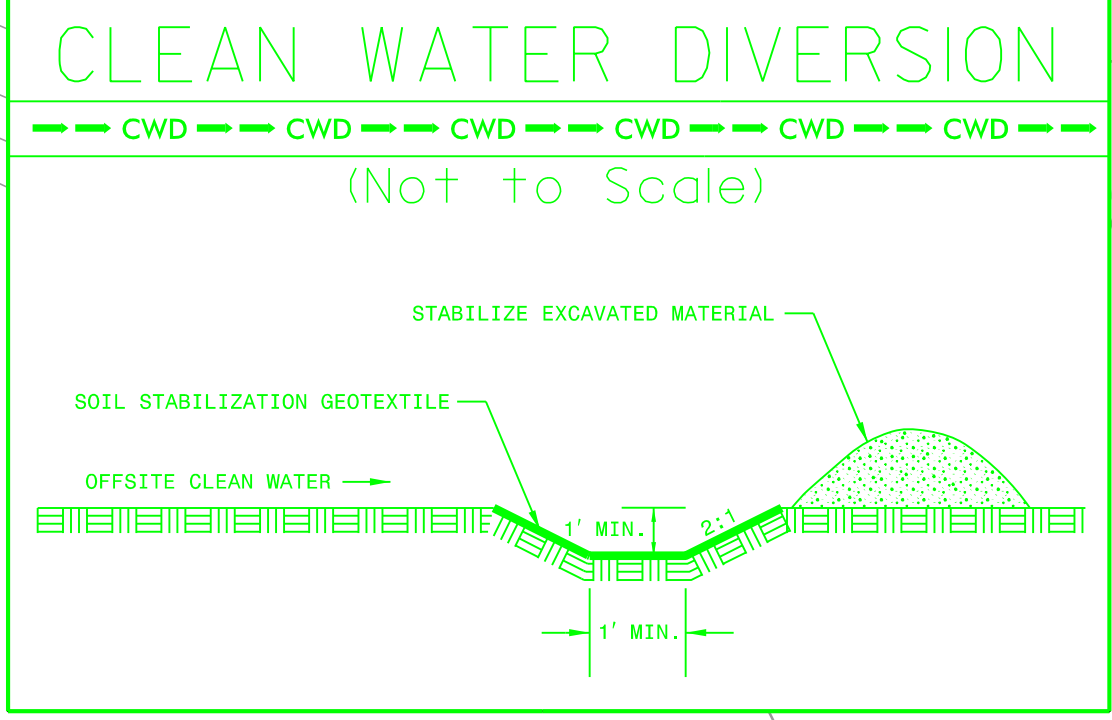


BEGIN TIP PROJECT U-5810
-L- Sta. 10+19.51

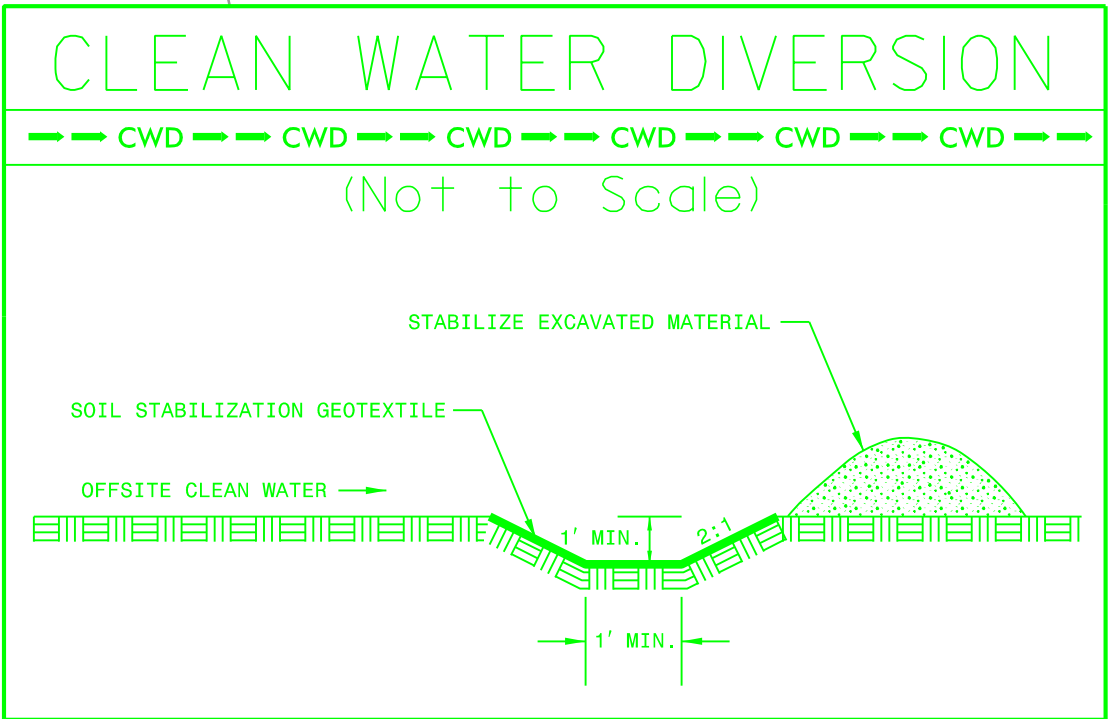
MATCHLINE -L- STA. 18+00 SEE SHEET 5



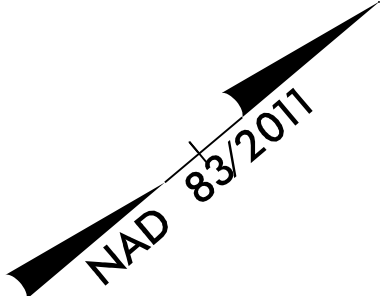
76 x 38 x 3
1.5 inch Skimmer
with 1.500 inch
Orifice Diameter
11 ft. weir
ID 0402



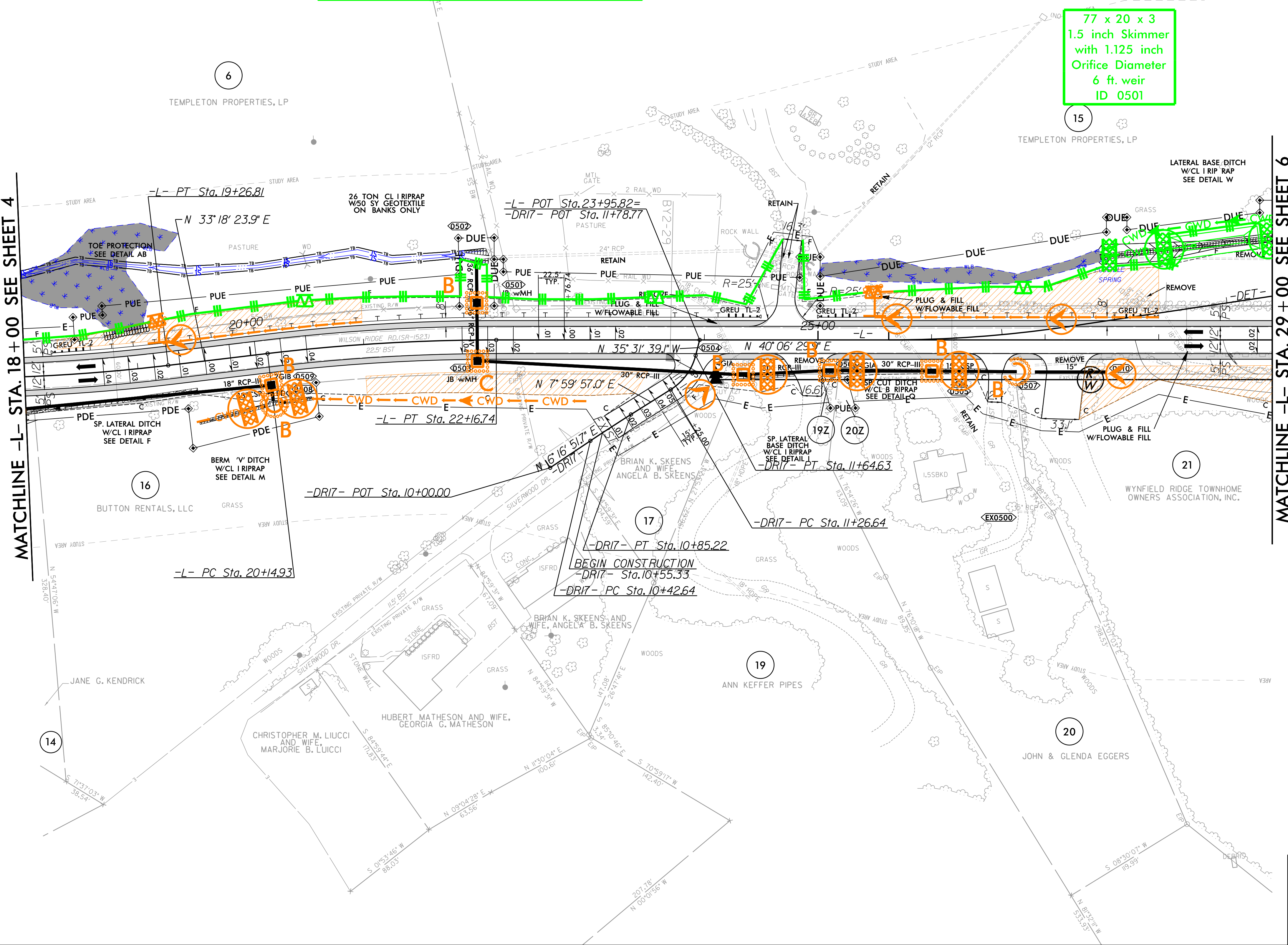
PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-13/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



Place Matting for Erosion Control
on Slope as Work Allows.
-L- Sta. 18+30 to Sta. 21+00 LT
-L- Sta. 21+00 to Sta. 23+50 RT
-L- Sta. 25+50 to Sta. 28+00 LT
-L- Sta. 27+00 to Sta. 29+00 RT



77 x 20 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 0501



MATCHLINE -L- STA. 18+00 SEE SHEET 4

MATCHLINE -L- STA. 29+00 SEE SHEET 6

Place Matting for Erosion Control
on Slope as Work Allows.

- L- Sta. 29+00 to Sta. 36+00 RT
- L- Sta. 31+50 to Sta. 36+00 LT
- L- Sta. 38+50 to Sta. 40+50 LT
- L- Sta. 40+50 to Sta. 44+00 RT
- DR2- Sta. 10+50 to Sta. 14+59 LT
- DR2- Sta. 11+75 to Sta. 14+54 RT
- Y4- Sta. 10+14 to Sta. 12+15 RT

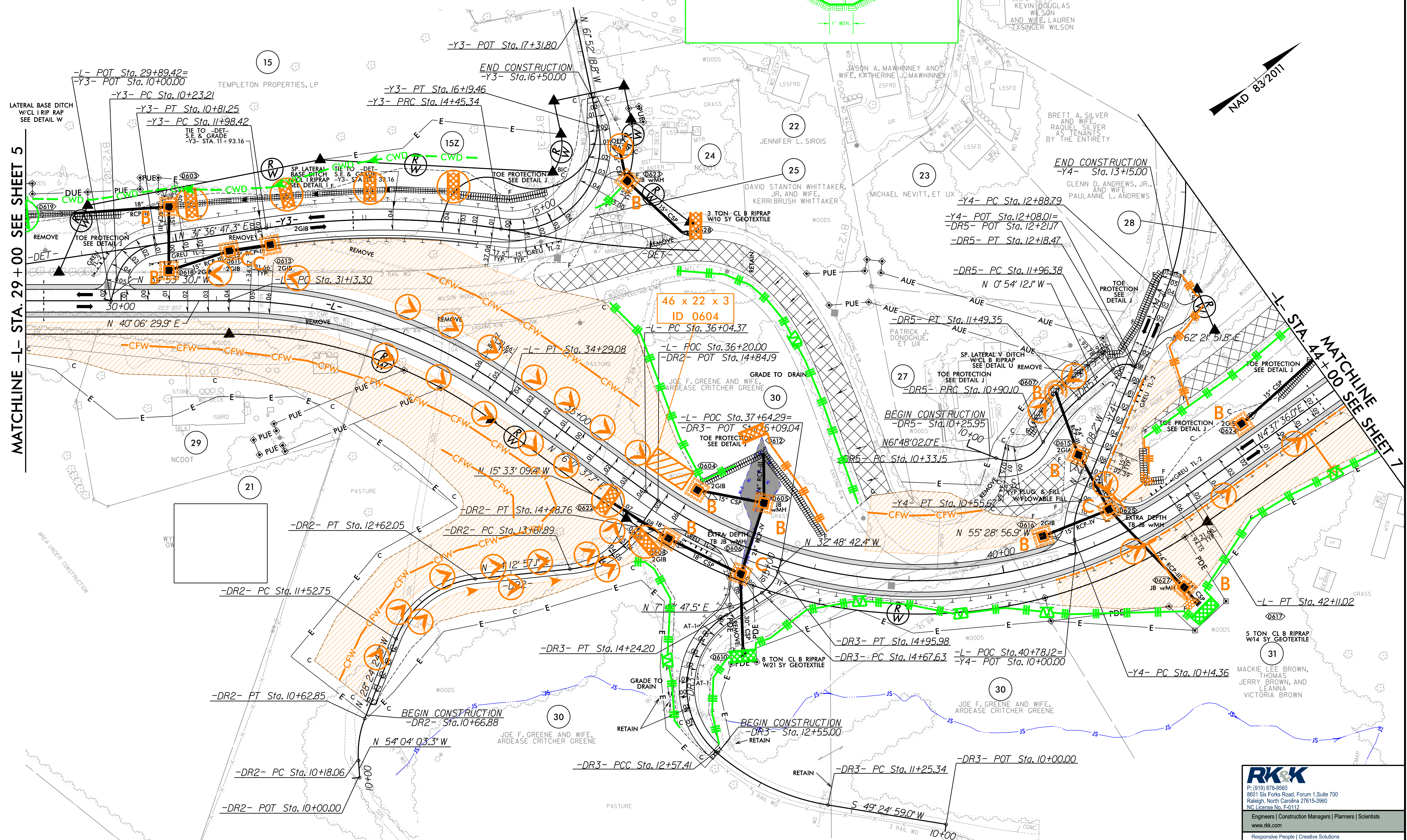
CLEAN WATER DIVERSION

→ CWD → CWD → CWD → CWD → CWD → CWD → CWD →

(Not to Scale)

Diagram illustrating a Clean Water Diversion (CWD) system:

- The system shows a cross-section of a diversion trench.
- Labels include:
 - SOIL STABILIZATION GEOTEXTILE
 - OFFSITE CLEAN WATER
 - STABILIZE EXCAVATED MATERIAL
- Dimensions and slopes are indicated:
 - A 1' MIN. horizontal distance is shown for the initial slope.
 - A 2:1 slope is indicated for the main diversion trench.
 - A 1' MIN. horizontal distance is shown for the final slope.



PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-15/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Place Matting for Erosion Control
on Slope as Work Allows.
-L- Sta. 44+00 to Sta. 45+50 RT
-DR8- Sta. 11+75 to Sta. 12+19 RT
-L2- Sta. 52+72 to -L3- Sta. 56+00 LT
-Y7- Sta. 19+50 to Sta. 20+00 RT
-Y7- Sta. 20+00 to Sta. 21+25 LT
-Y8- Sta. 10+50 to Sta. 11+00 RT

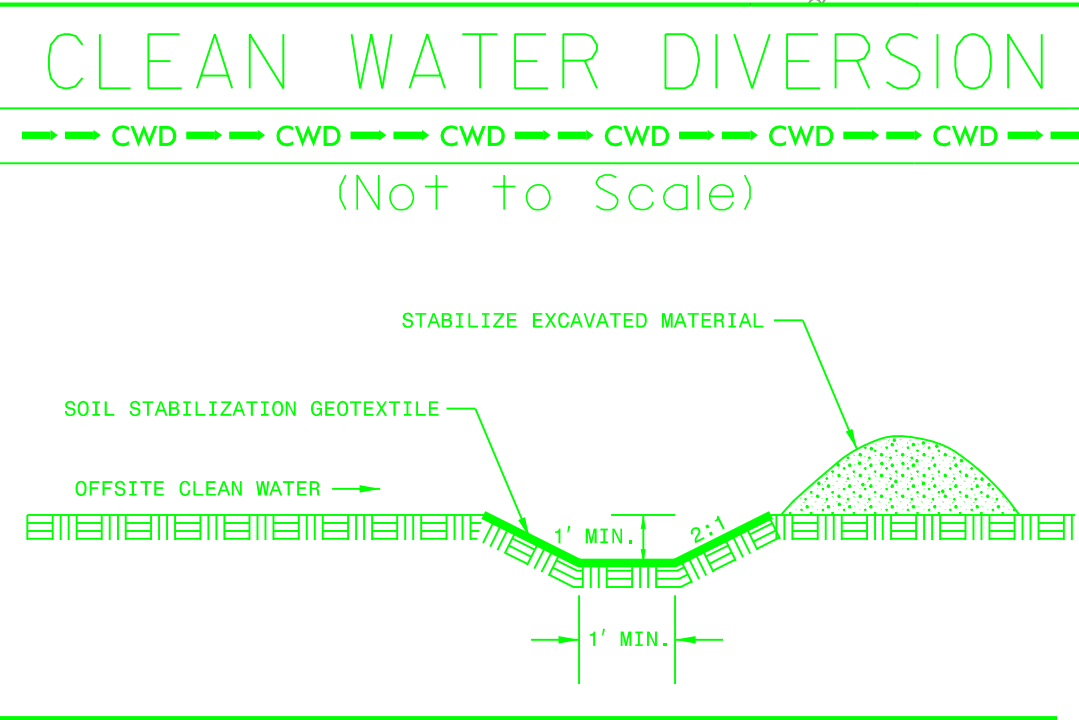
84 x 41 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
14 ft. weir
ID 0705

BASIN WILL BE USED AS A SKIMMER BASIN
FOR CLEARING & GRUBBING AND FINAL PHASE
CONSTRUCTION AND AS A STILLING BASIN
FOR CROSSING AT STA. 53+79

80 x 30 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
9 ft. weir
ID 0708

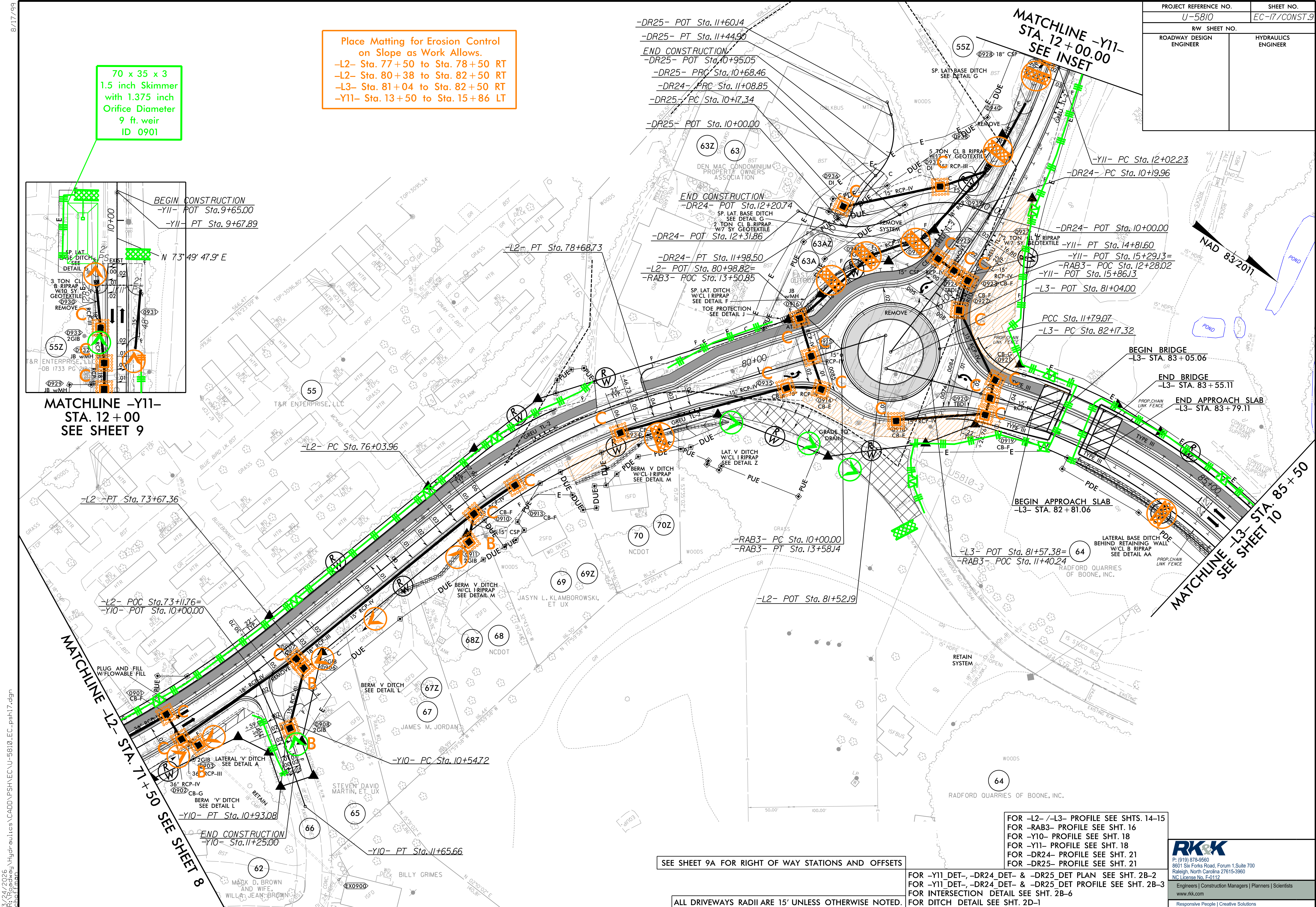
68 x 18 x 3
1.5 inch Skimmer
with 1.000 inch
Orifice Diameter
5 ft. weir
ID 0706

34 x 17 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 0707



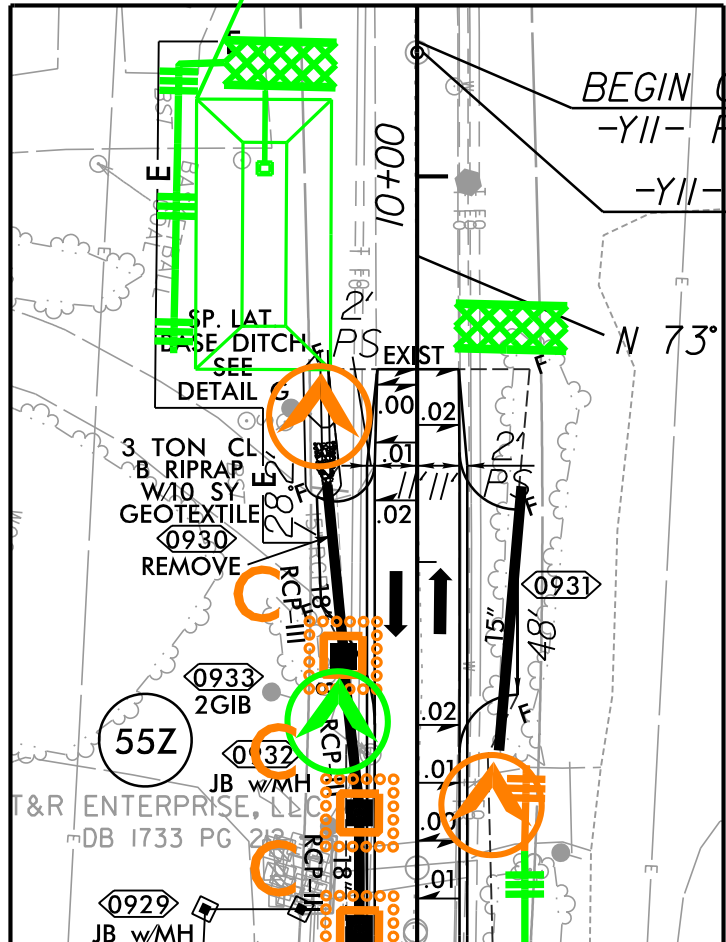
MATCHLINE -L- STA. 44+00 SEE SHEET 6

-L- STA. 58+50 MATCHLINE SEE SHEET 8



Place Matting for Erosion Control
on Slope as Work Allows.
-L2- Sta. 77+50 to Sta. 78+50 RT
-L2- Sta. 80+38 to Sta. 82+50 RT
-L3- Sta. 81+04 to Sta. 82+50 RT
-Y11- Sta. 13+50 to Sta. 15+86 LT

70 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
9 ft. weir
ID 0901



MATCHLINE -Y11-
STA. 12+00
SEE SHEET 9

-L2- PT Sta. 73+67.36

-L2- POC Sta. 73+11.76=
-Y10- POT Sta. 10+00.00

MATCHLINE -L2- STA. 71+50 SEE SHEET 8

END CONSTRUCTION
-Y10- Sta. 11+25.00

-Y10- PT Sta. 11+65.66

-DR25- POT Sta. 11+60.14
-DR25- PT Sta. 11+44.90
END CONSTRUCTION
-DR25- POT Sta. 10+95.05
-DR25- PRC Sta. 10+68.46
-DR24- PRC Sta. 11+08.85
-DR25- PC Sta. 10+17.34
-DR25- POT Sta. 10+00.00

END CONSTRUCTION
-DR24- POT Sta. 12+20.74
SP. LAT. BASE DITCH
SEE DETAIL G
2 TON CL B RIPRAP
W/ 5' GEOTEXTILE
-DR24- POT Sta. 12+31.86
-DR24- PT Sta. 11+98.50
-L2- POT Sta. 80+98.82=
-RAB3- POC Sta. 13+50.85
SP. LAT. DITCH
W/CL 1 RIPRAP
SEE DETAIL F
TOE PROTECTION
SEE DETAIL J

-RAB3- PC Sta. 10+00.00
-RAB3- PT Sta. 13+58.14
-L2- POT Sta. 81+52.19

MATCHLINE -Y11-
STA. 12+00.00
SEE INSET

-Y11- PC Sta. 12+02.23
-DR24- PC Sta. 10+19.96
-DR24- POT Sta. 10+00.00
-Y11- PT Sta. 14+81.60
-RAB3- POC Sta. 12+28.02
-Y11- POT Sta. 15+86.13
-L3- POT Sta. 81+04.00
PCC Sta. 11+79.07
-L3- PC Sta. 82+17.32

BEGIN BRIDGE
-L3- STA. 83+05.06
END BRIDGE
-L3- STA. 83+55.11
END APPROACH SLAB
-L3- STA. 83+79.11

BEGIN APPROACH SLAB
-L3- STA. 82+81.06

-L3- POT Sta. 81+57.38=
-RAB3- POC Sta. 11+40.24

MATCHLINE -L3- STA. 85+50
SEE SHEET 10

FOR -L2-/-L3- PROFILE SEE SHTS. 14-15
FOR -RAB3- PROFILE SEE SHT. 16
FOR -Y10- PROFILE SEE SHT. 18
FOR -Y11- PROFILE SEE SHT. 18
FOR -DR24- PROFILE SEE SHT. 21
FOR -DR25- PROFILE SEE SHT. 21

SEE SHEET 9A FOR RIGHT OF WAY STATIONS AND OFFSETS

ALL DRIVEWAYS RADII ARE 15' UNLESS OTHERWISE NOTED.

FOR -Y11 DET-, -DR24 DET- & -DR25 DET PLAN SEE SHT. 2B-2
FOR -Y11 DET-, -DR24 DET- & -DR25 DET PROFILE SEE SHT. 2B-3
FOR INTERSECTION DETAIL SEE SHT. 2B-6
FOR DITCH DETAIL SEE SHT. 2D-1

PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-17/CONST.9
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

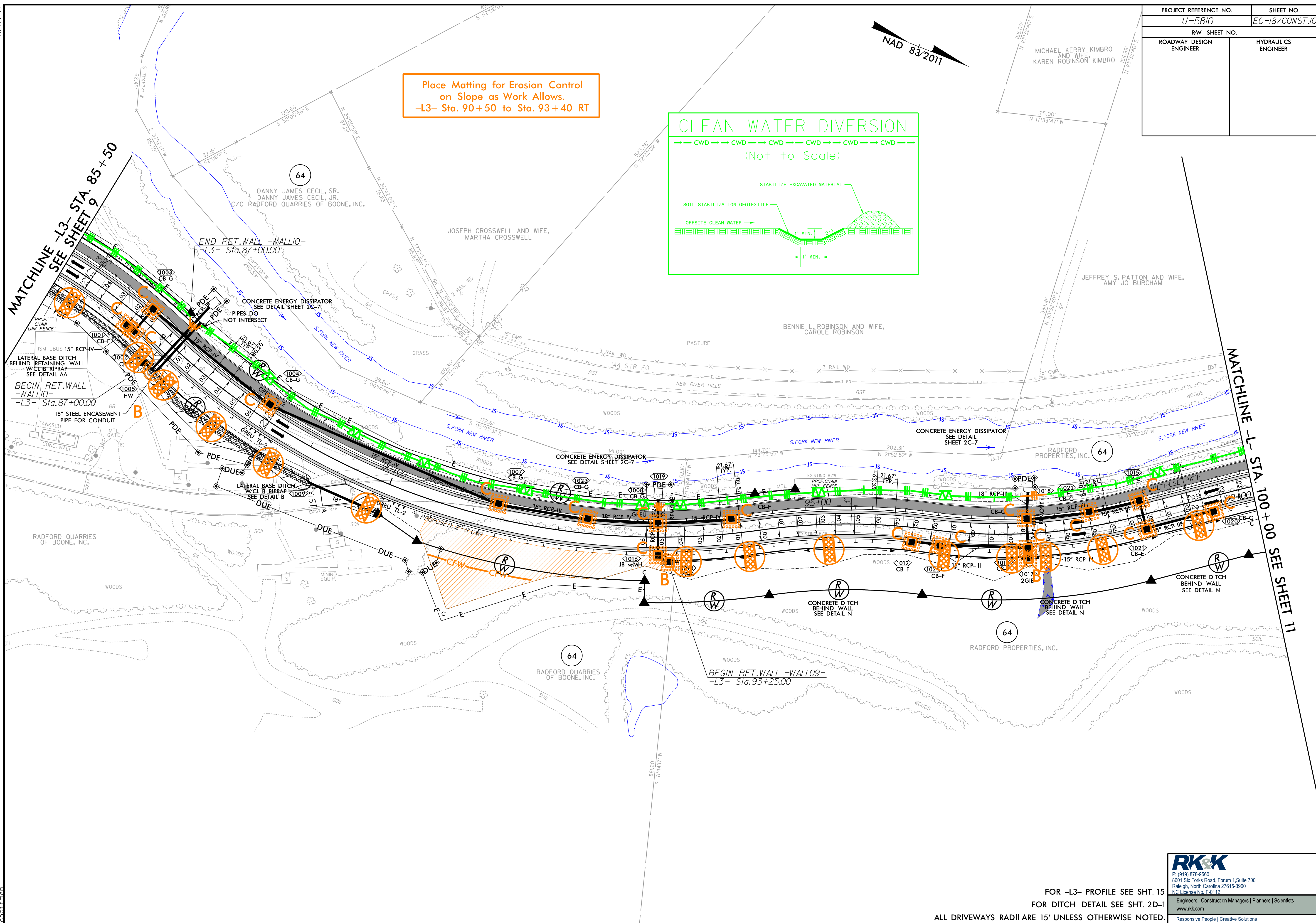
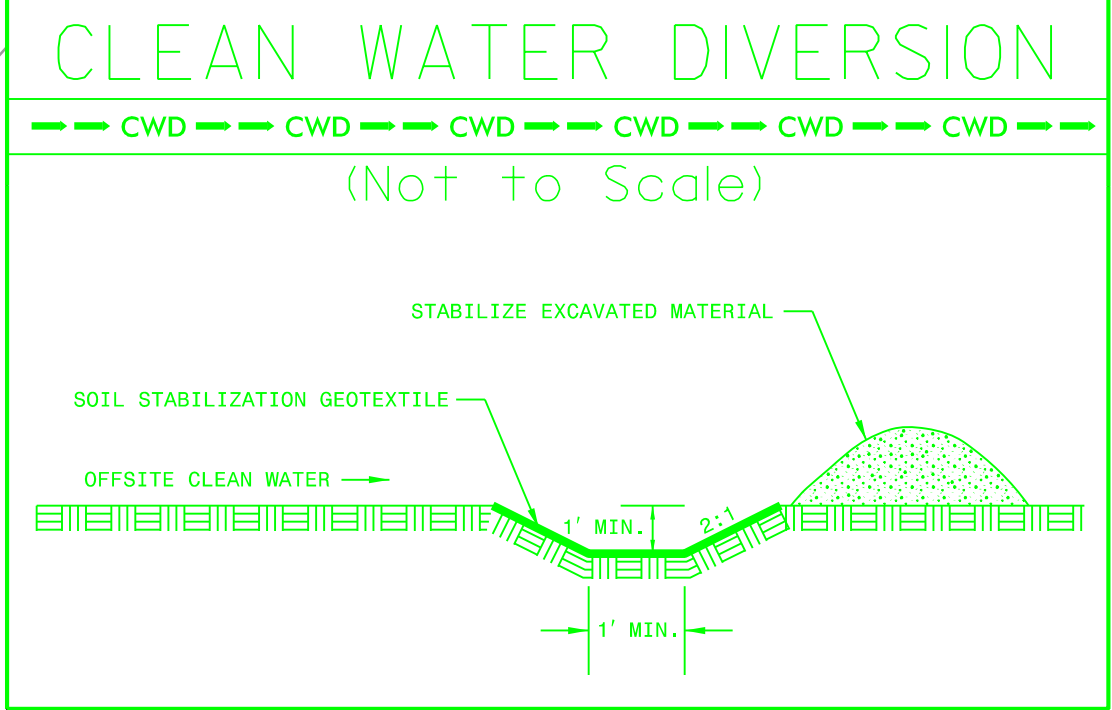
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PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-18/CONST JO
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Place Matting for Erosion Control
on Slope as Work Allows.
-L3- Sta. 90+50 to Sta. 93+40 RT

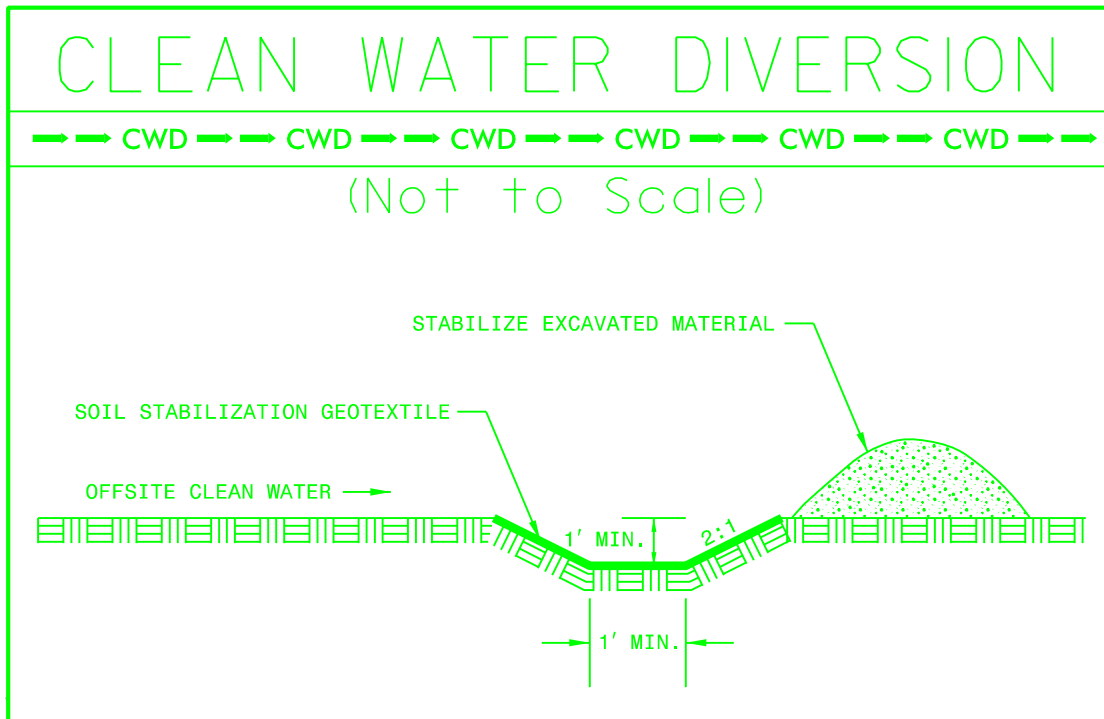


FOR -L3- PROFILE SEE SHT. 15
FOR DITCH DETAIL SEE SHT. 2D-1
ALL DRIVEWAYS RADII ARE 15' UNLESS OTHERWISE NOTED.

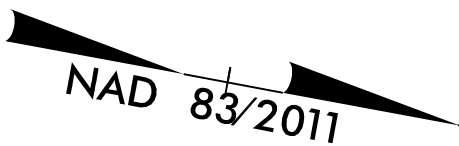
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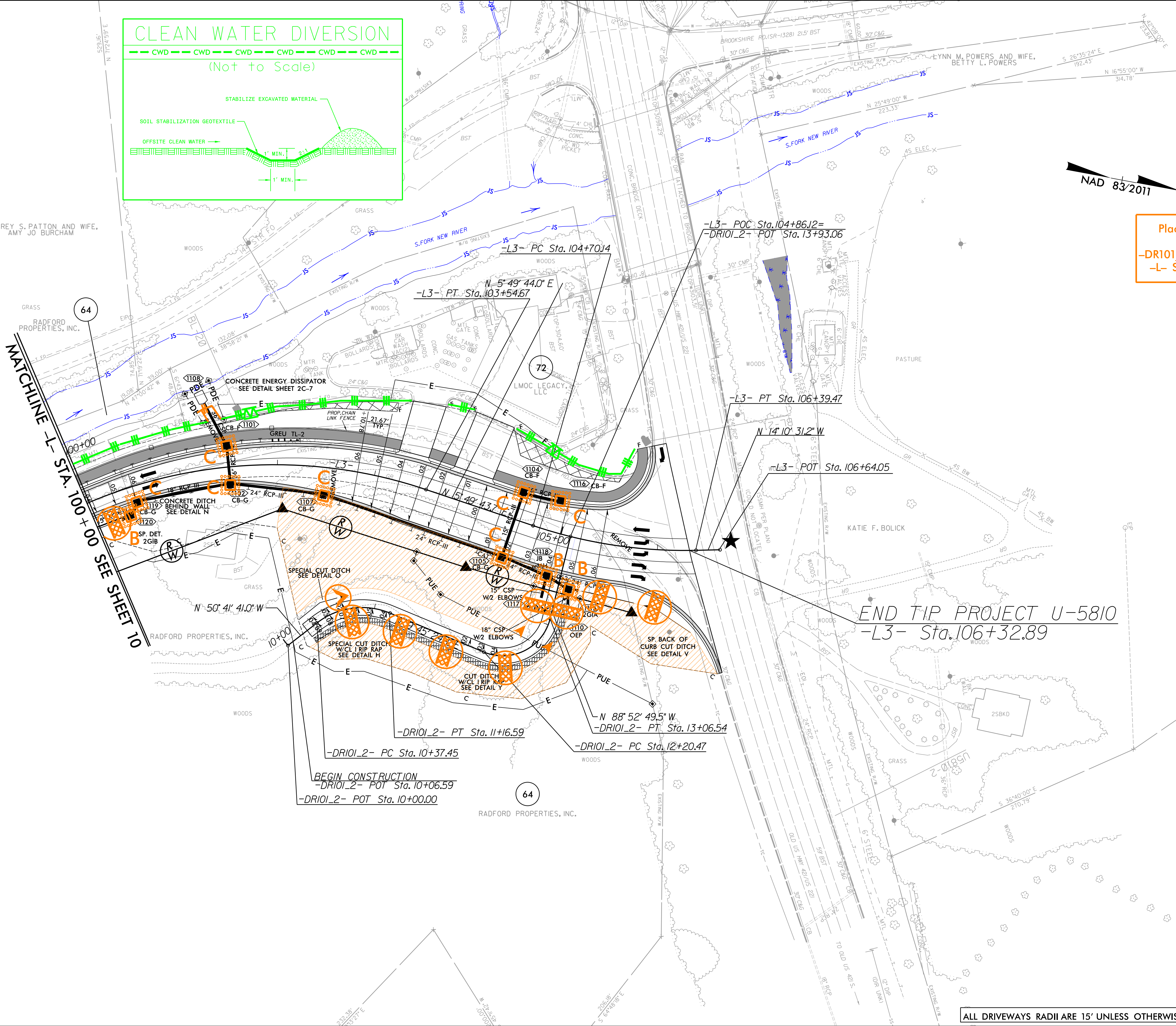
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chaitman



PROJECT REFERENCE NO.	SHEET NO.
U-5810	EC-19/CONST II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



Place Matting for Erosion Control
on Slope as Work Allows.
-DR101_2- Sta. 10+15 to Sta. 13+88 RT
-L- Sta. 102+00 to Sta. 106+00 RT



FOR L PROFILE SEE SHT. 15
FOR DR101_2 PROFILE SEE SHT. 19

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