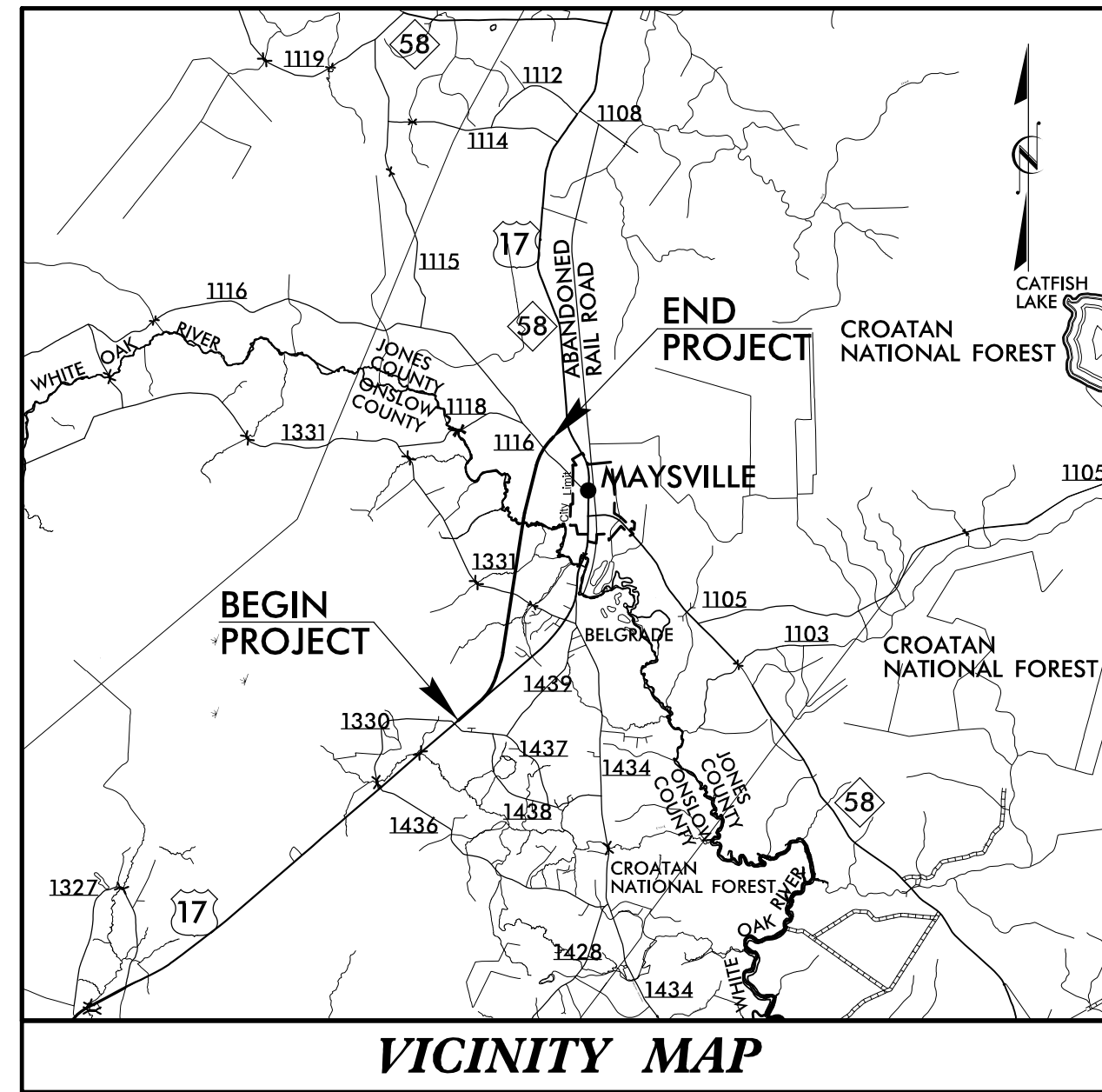


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and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

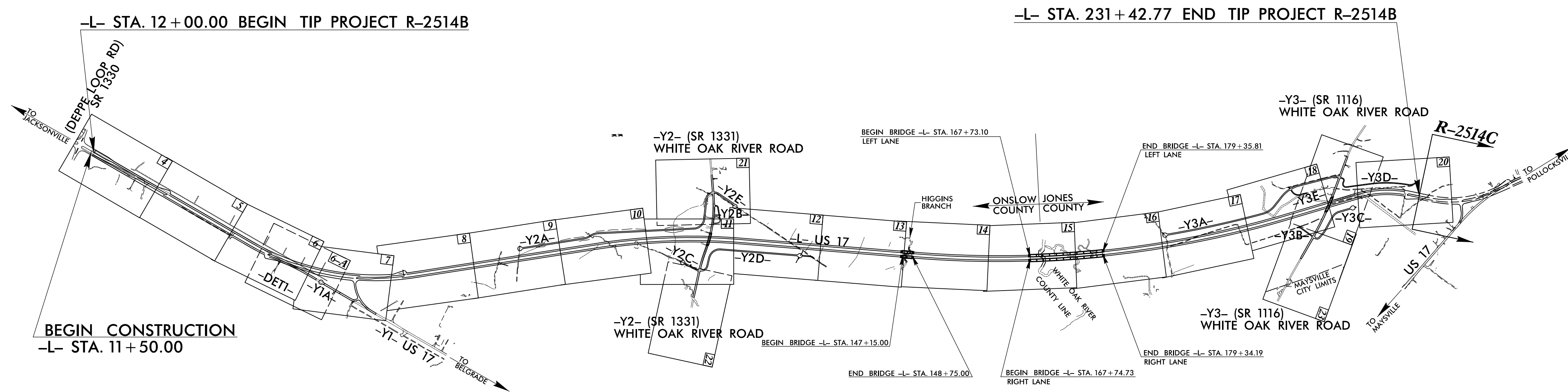
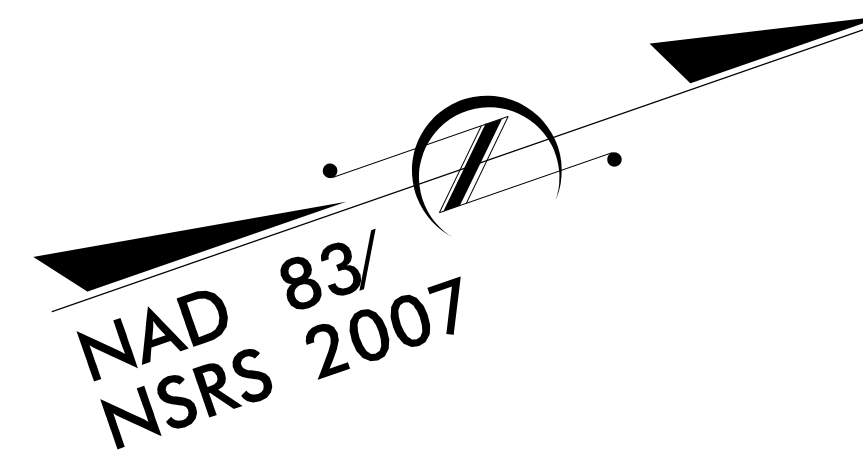
TIP PROJECT: R-2514B



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
ONSLOW & JONES COUNTIES

**LOCATION: US 17 FROM SOUTH OF BELGRADE AT
SR 1330/SR 1439 TO NORTH OF MAYSVILLE**

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

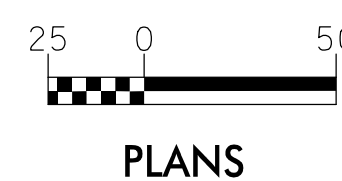


EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1650.03	Temporary Silt Ditch	TD
1650.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	---X---
1622.01	Temporary Berms and Slope Drains	---X---
1650.02	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	~
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	~
1634.01	Temporary Rock Sediment Dam Type-A	▨
1634.02	Temporary Rock Sediment Dam Type-B	▨
1655.01	Rock Pipe Inlet Sediment Trap Type-A	U
1655.02	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.**

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:

HDR HDR Engineering, Inc. of the Carolinas
N.C.B.E.L.S. License Number: F-0116
3733 National Drive, Suite 207 Raleigh, N.C. 27612

2012 STANDARD SPECIFICATIONS

Designed by:

WYATT D. YELVERTON, P.E. 3609
NAME LEVEL III CERTIFICATION NO.

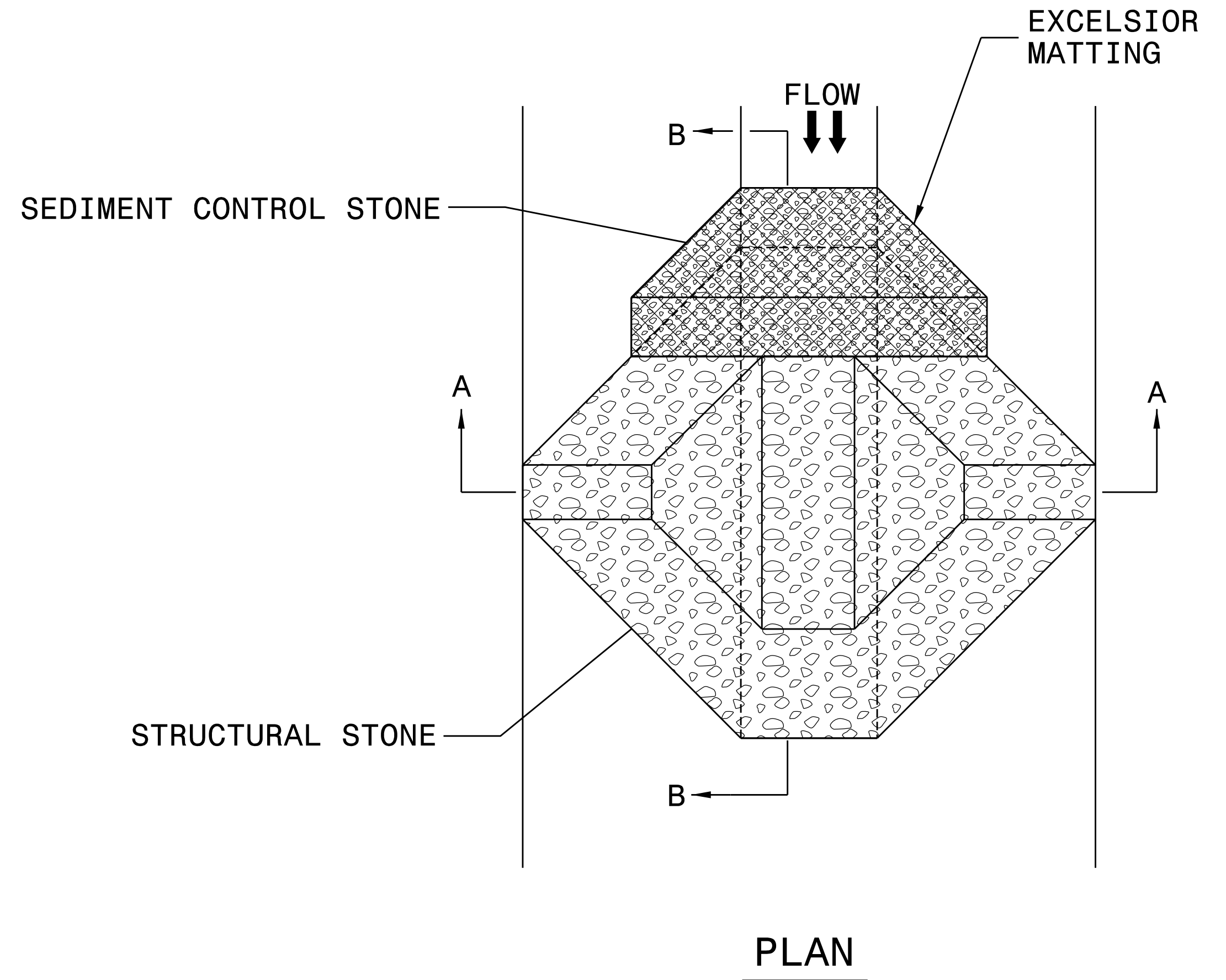
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest 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	

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



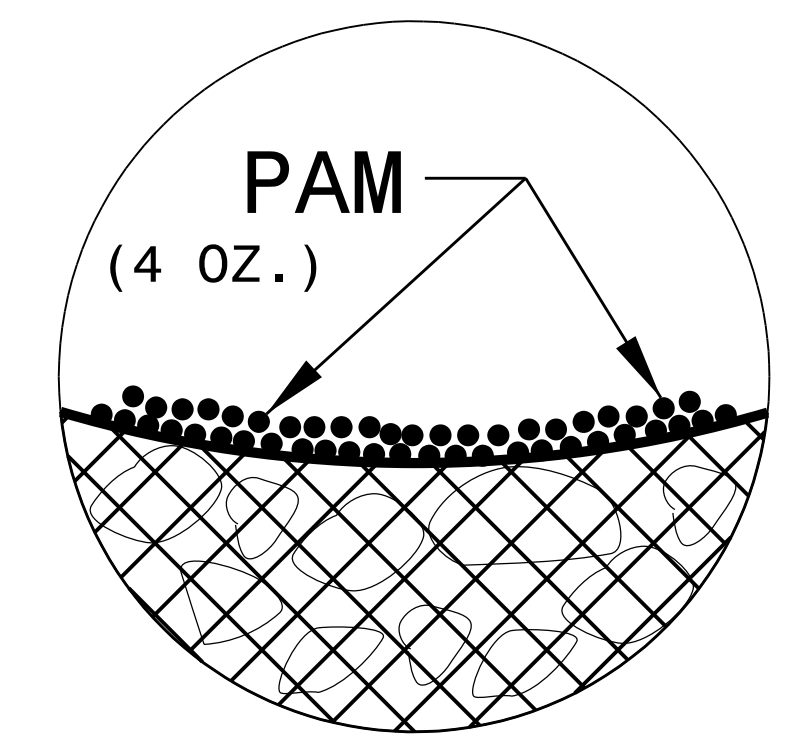
NOTES:

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

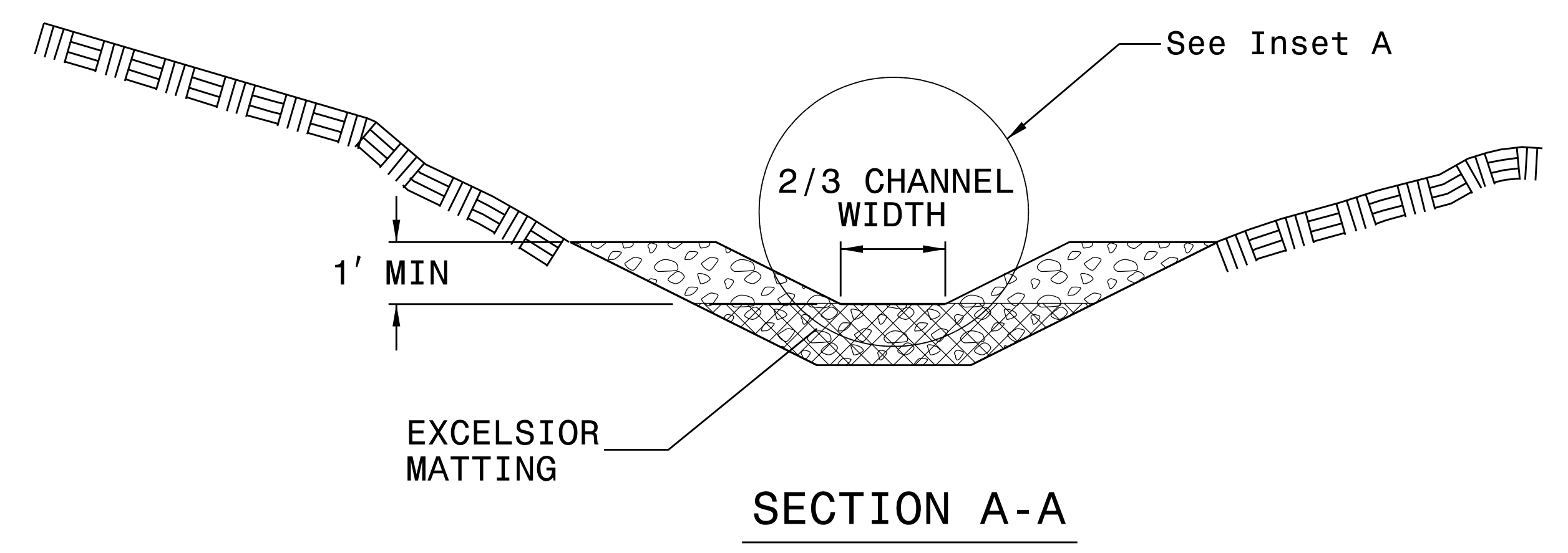
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

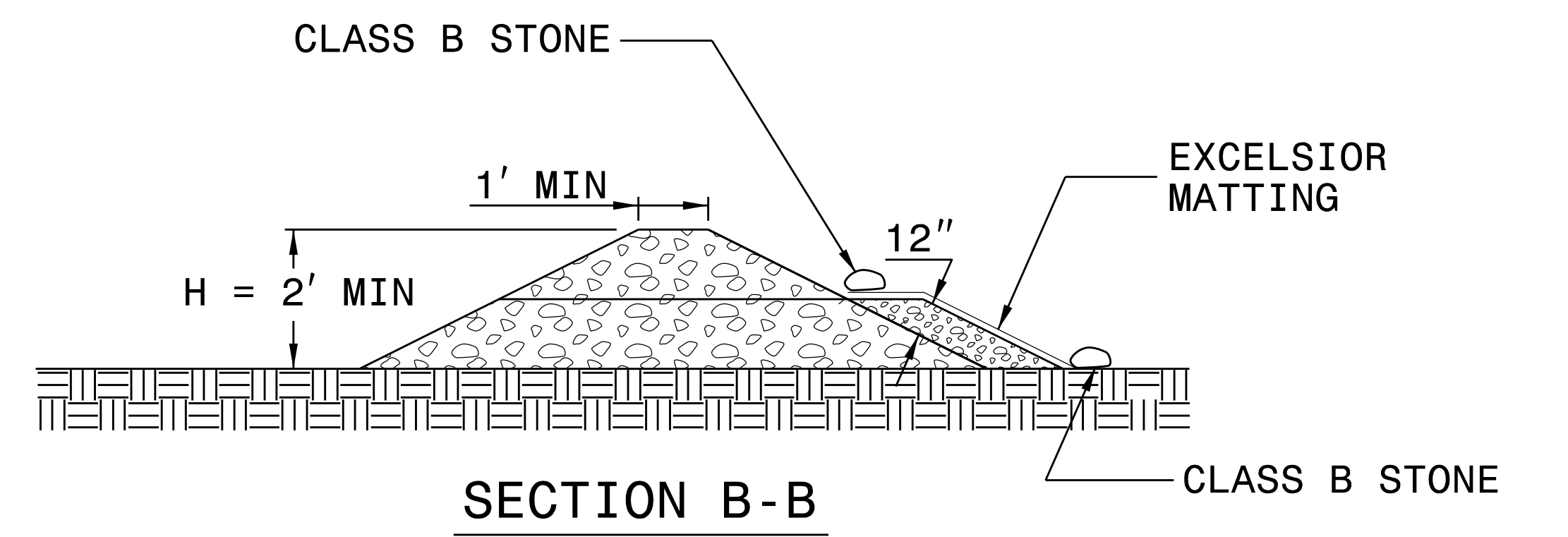
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



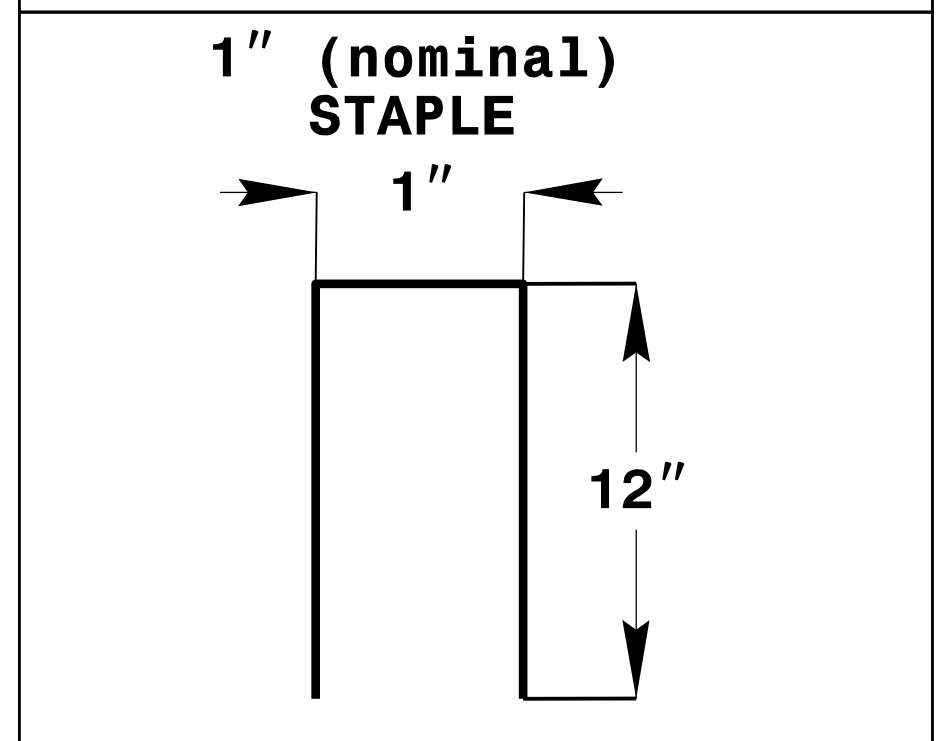
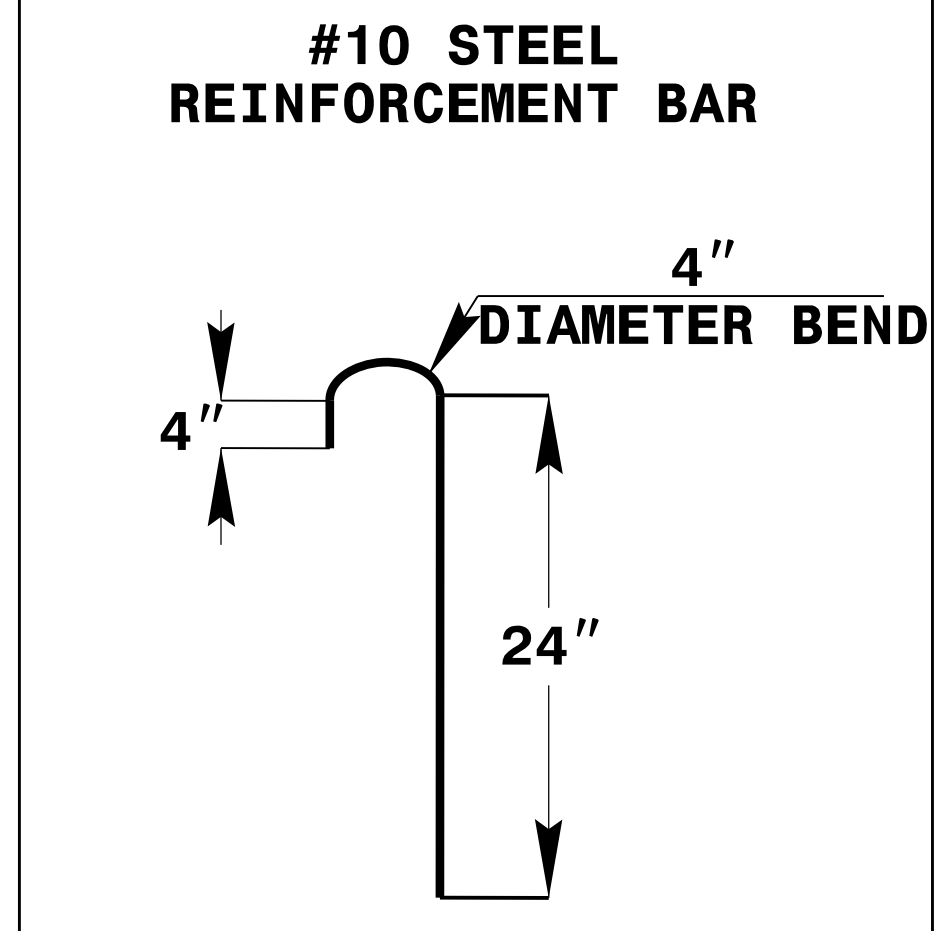
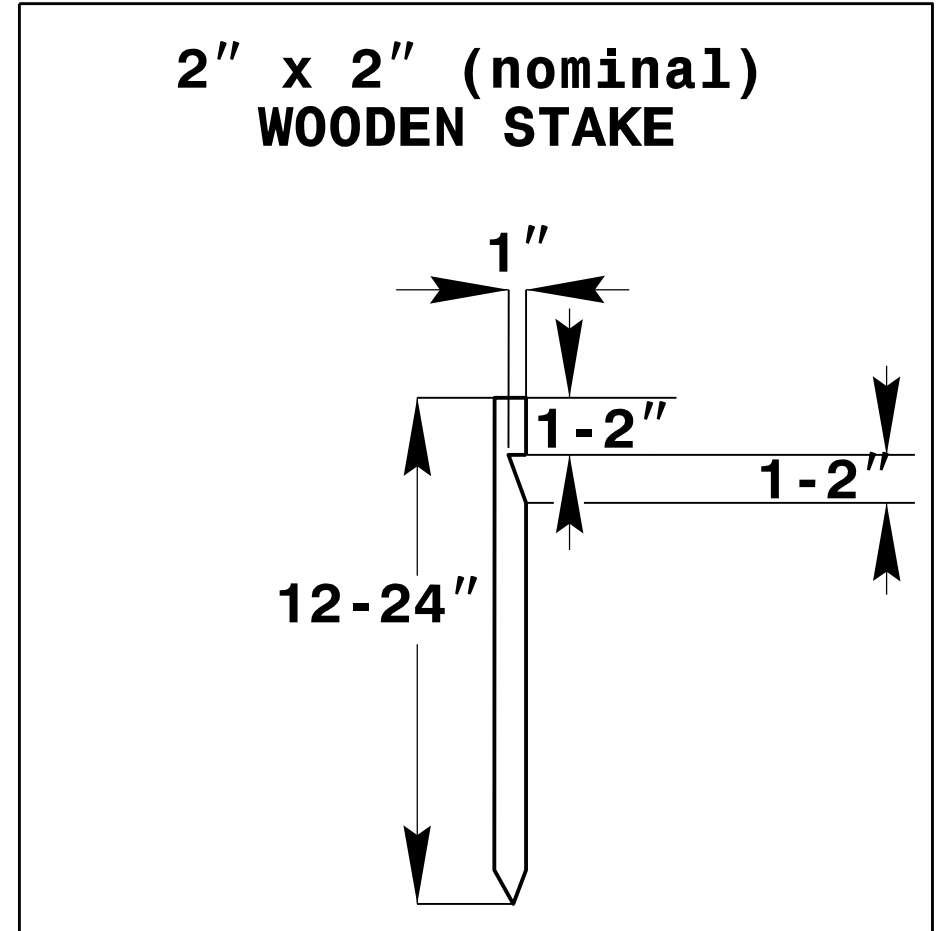
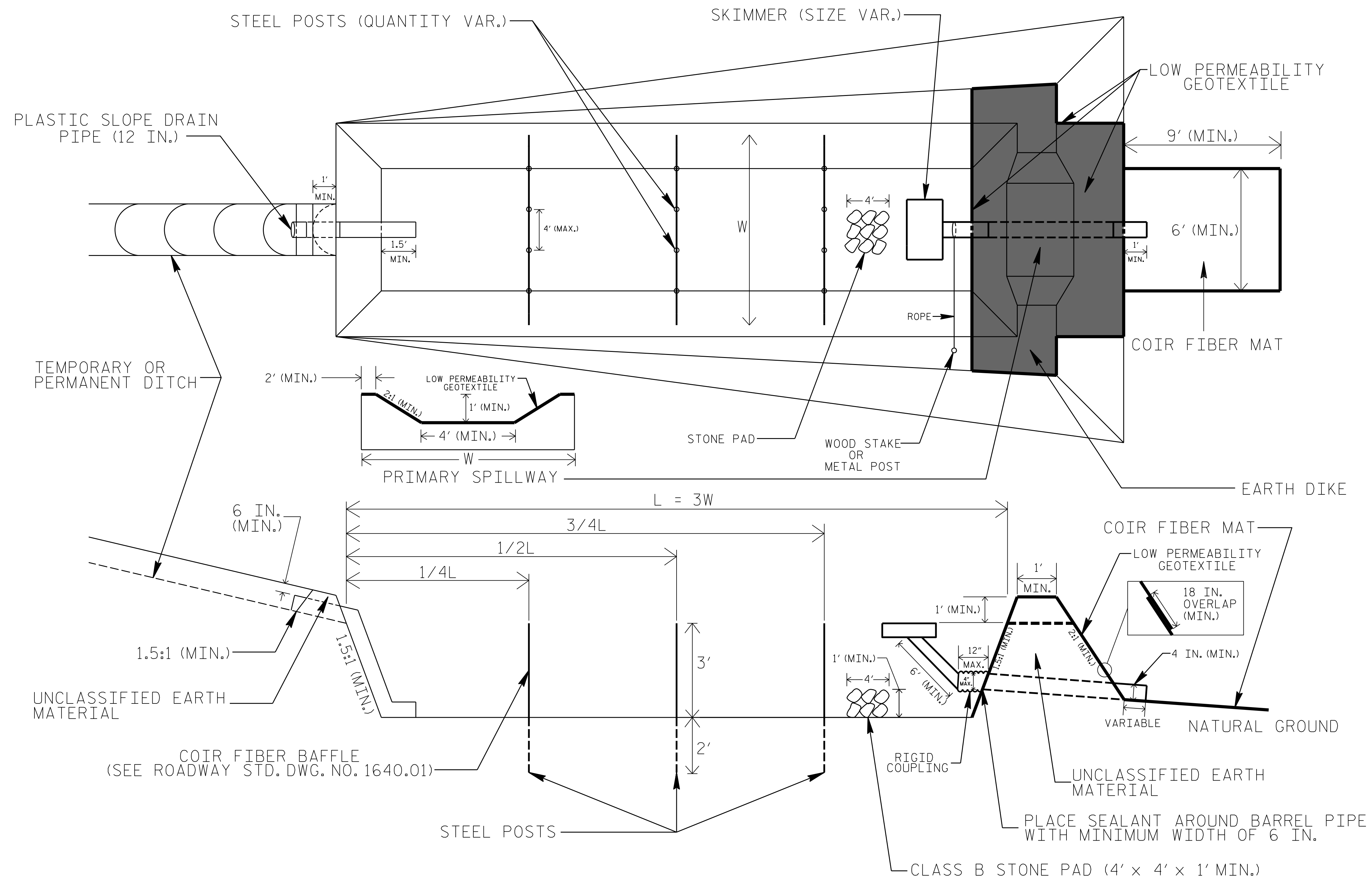
SECTION B-B

NOT TO SCALE

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 DATE: 1/22/2015

PROJECT REFERENCE NO. R-2514B	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL (EAST)



COIR FIBER MAT ANCHOR OPTIONS

NOTES

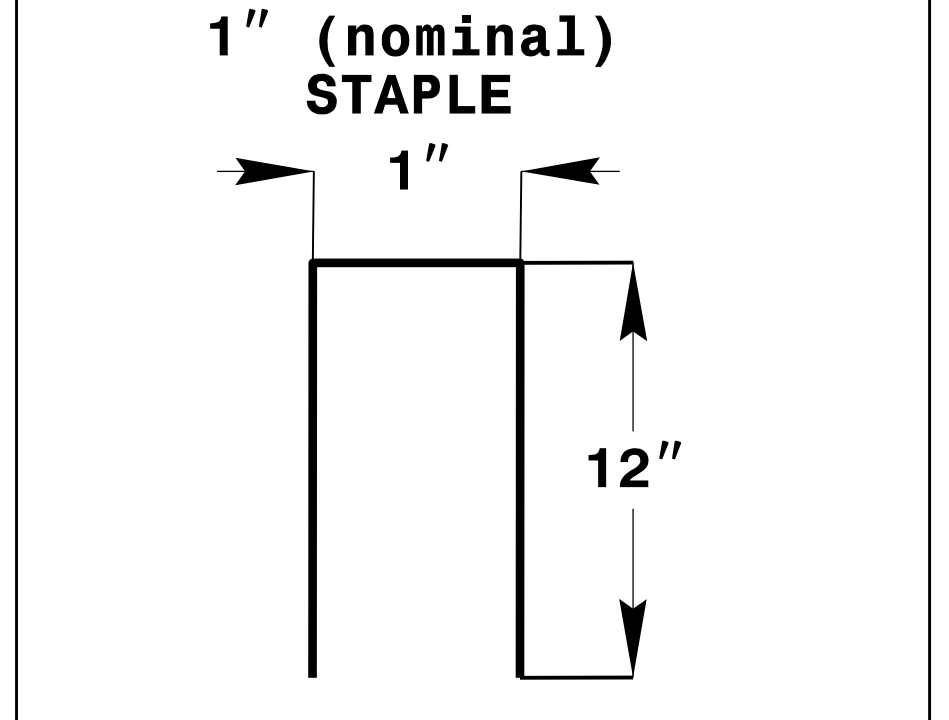
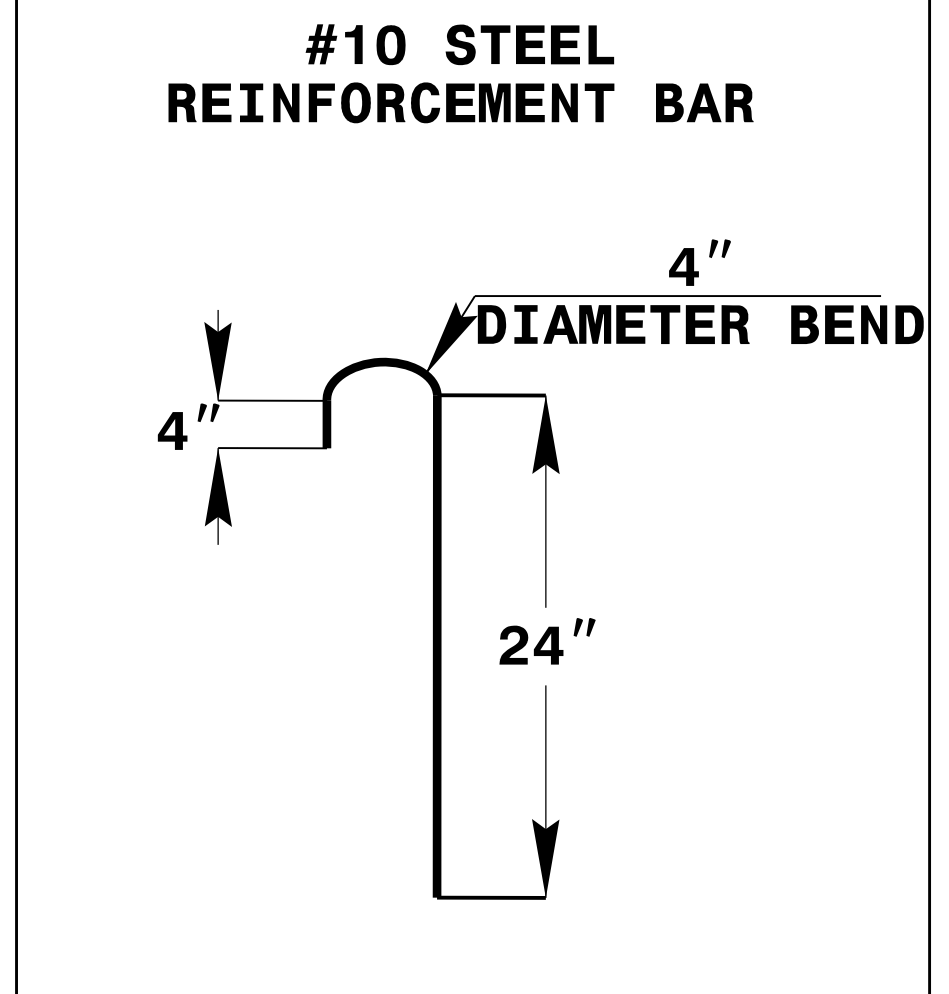
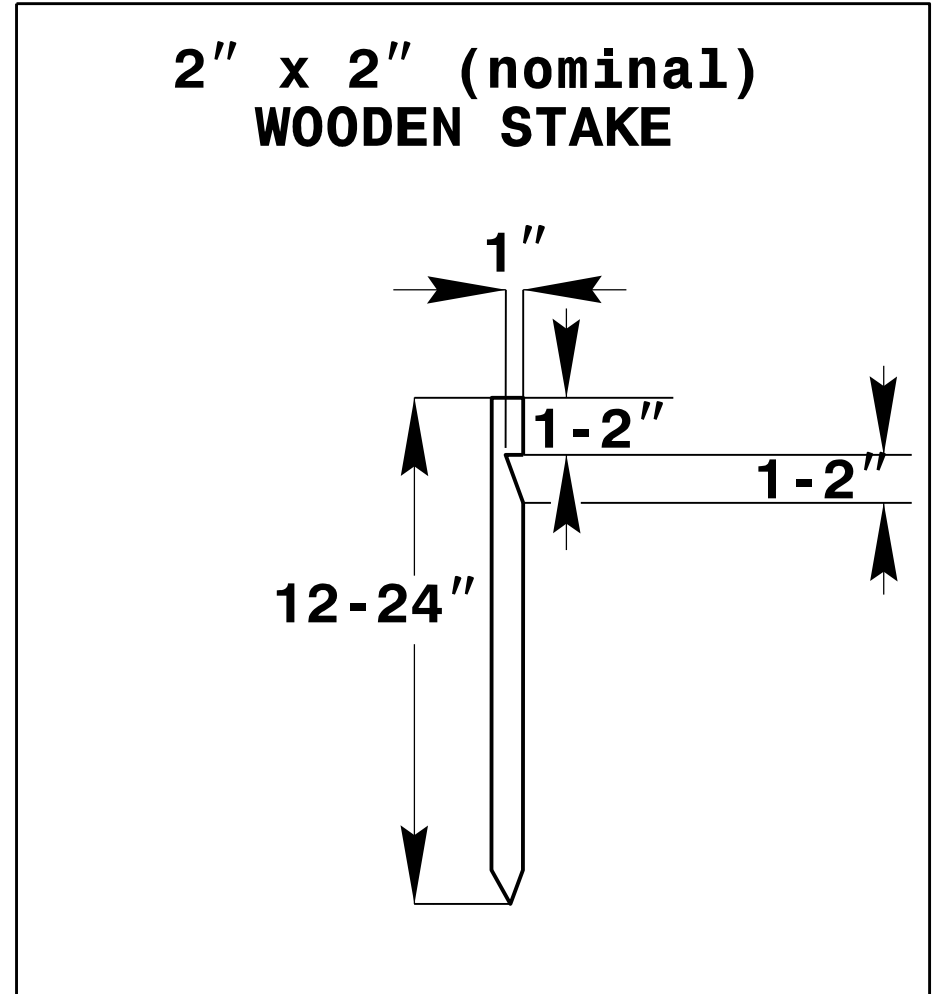
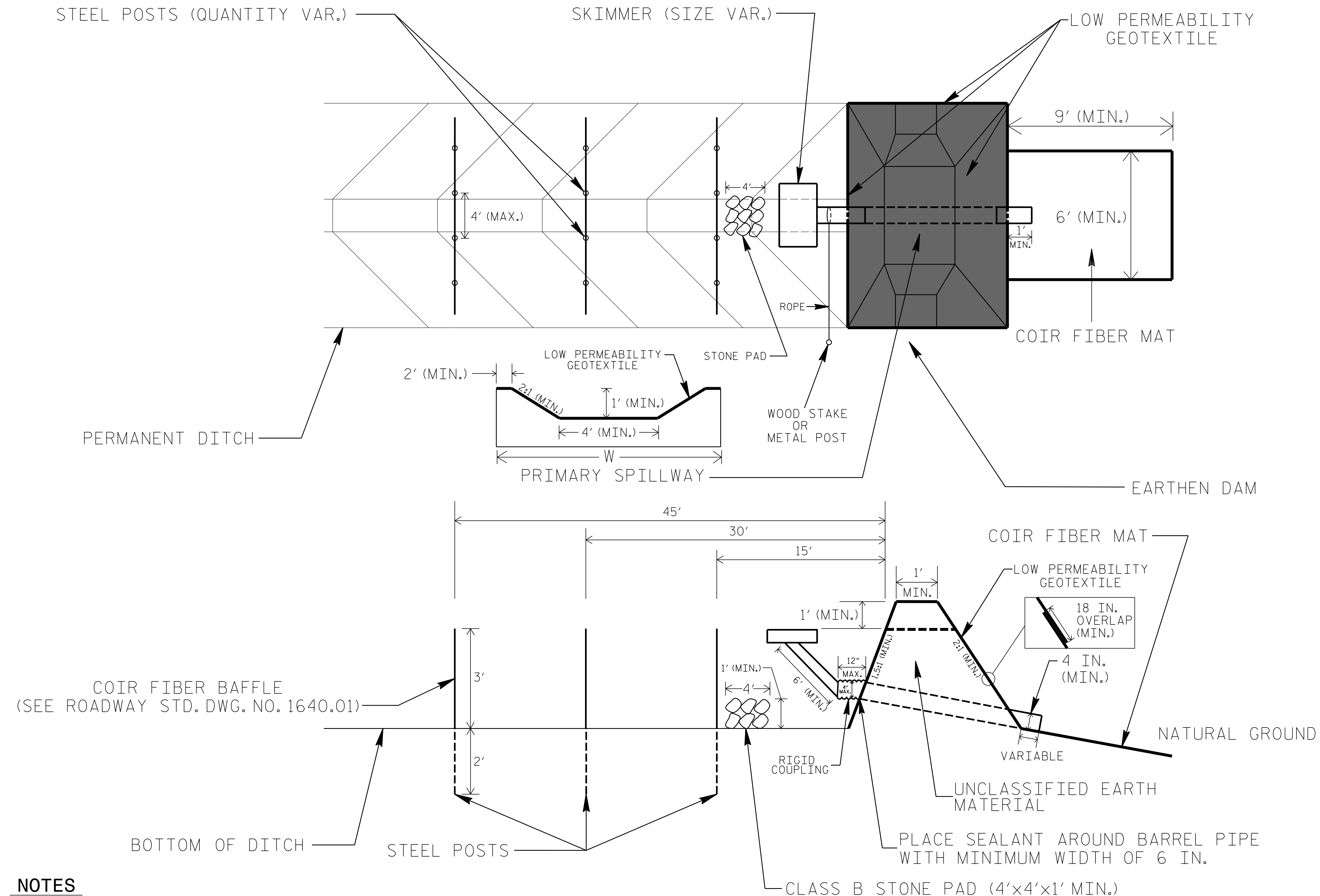
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING $Q/0.4$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PLOT DRIVER: NCDOT_pcf_color_eng_50.plt
 USER: cmysers
 FILE: North Carolina Dept. of Transportation\Erosion_Cr-H.R.2514B_TO_3.e\13.00.CAD\Erosion_Control\NR2514B_Hyd.EC.DETAIL.S.dgn
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 DATE: 1/22/2015

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EARTHEN DAM WITH SKIMMER DETAIL (EAST)



COIR FIBER MAT ANCHOR OPTIONS

NOTES

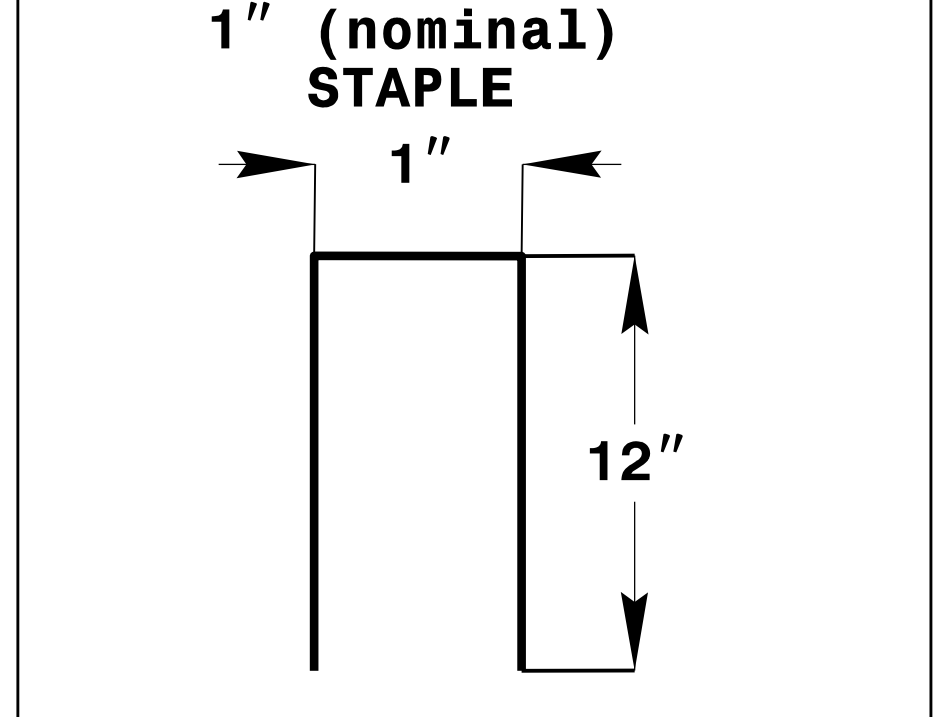
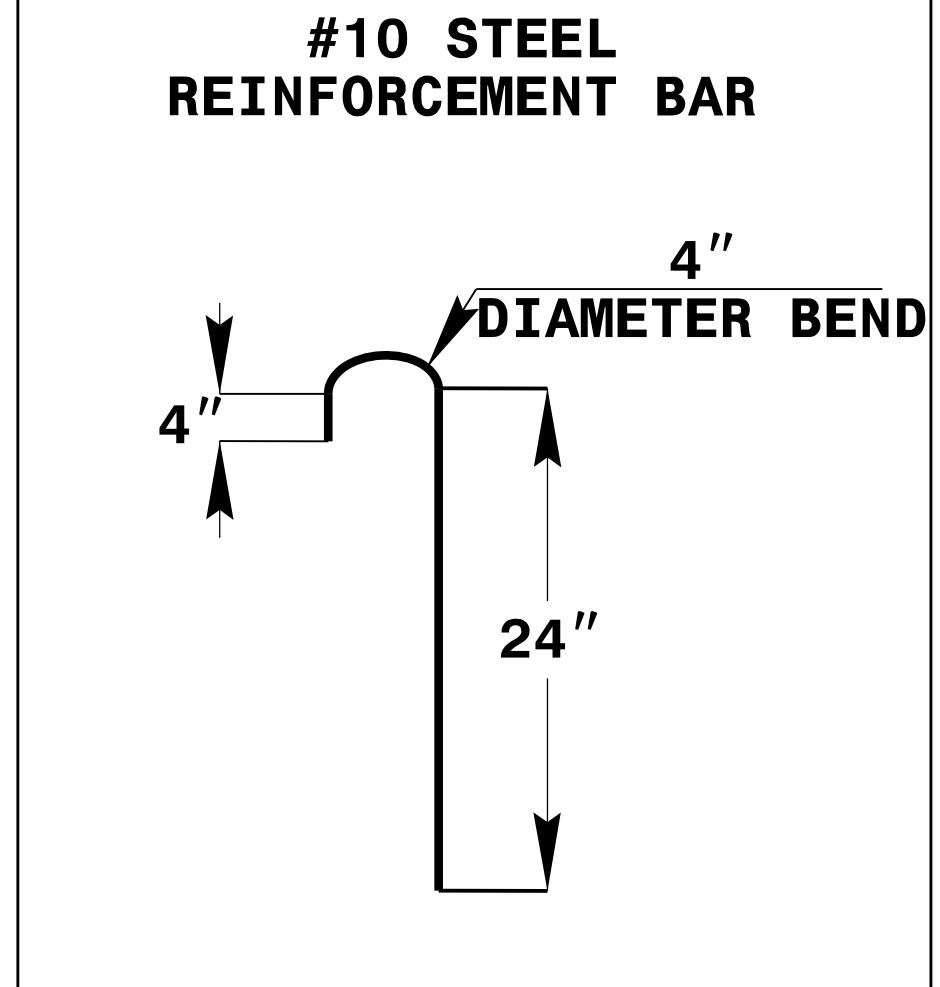
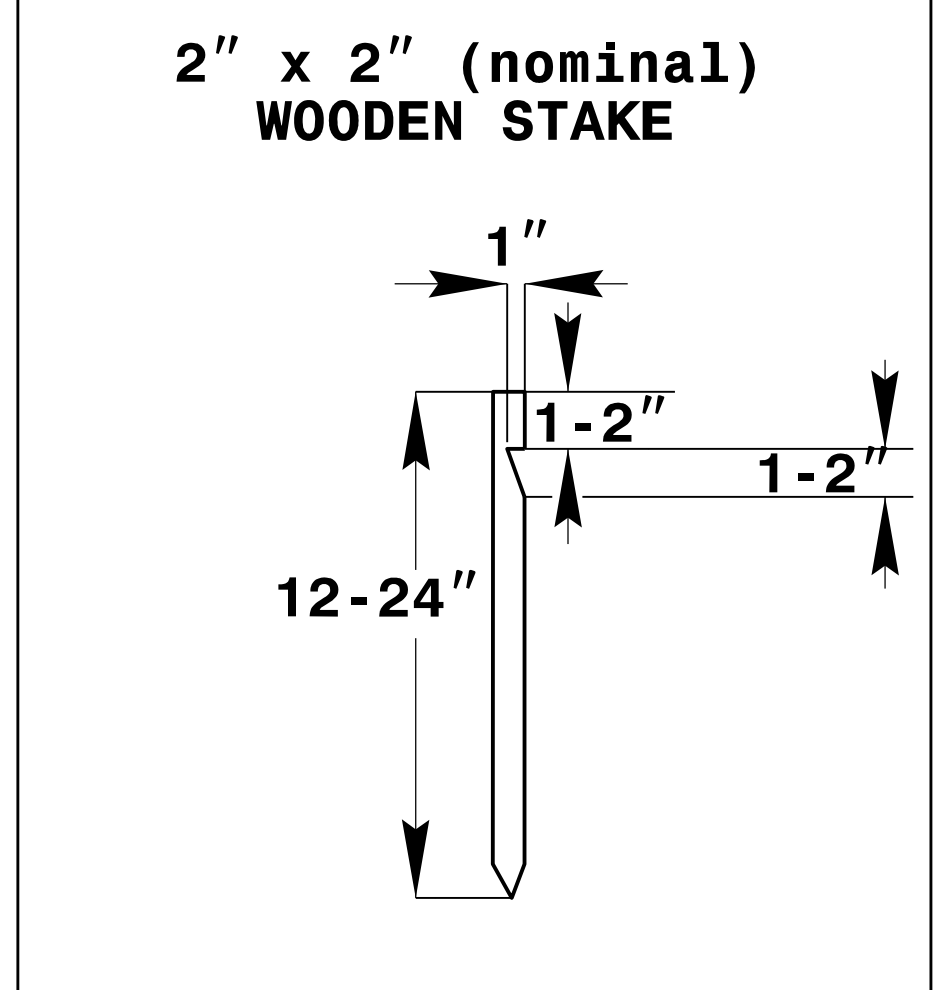
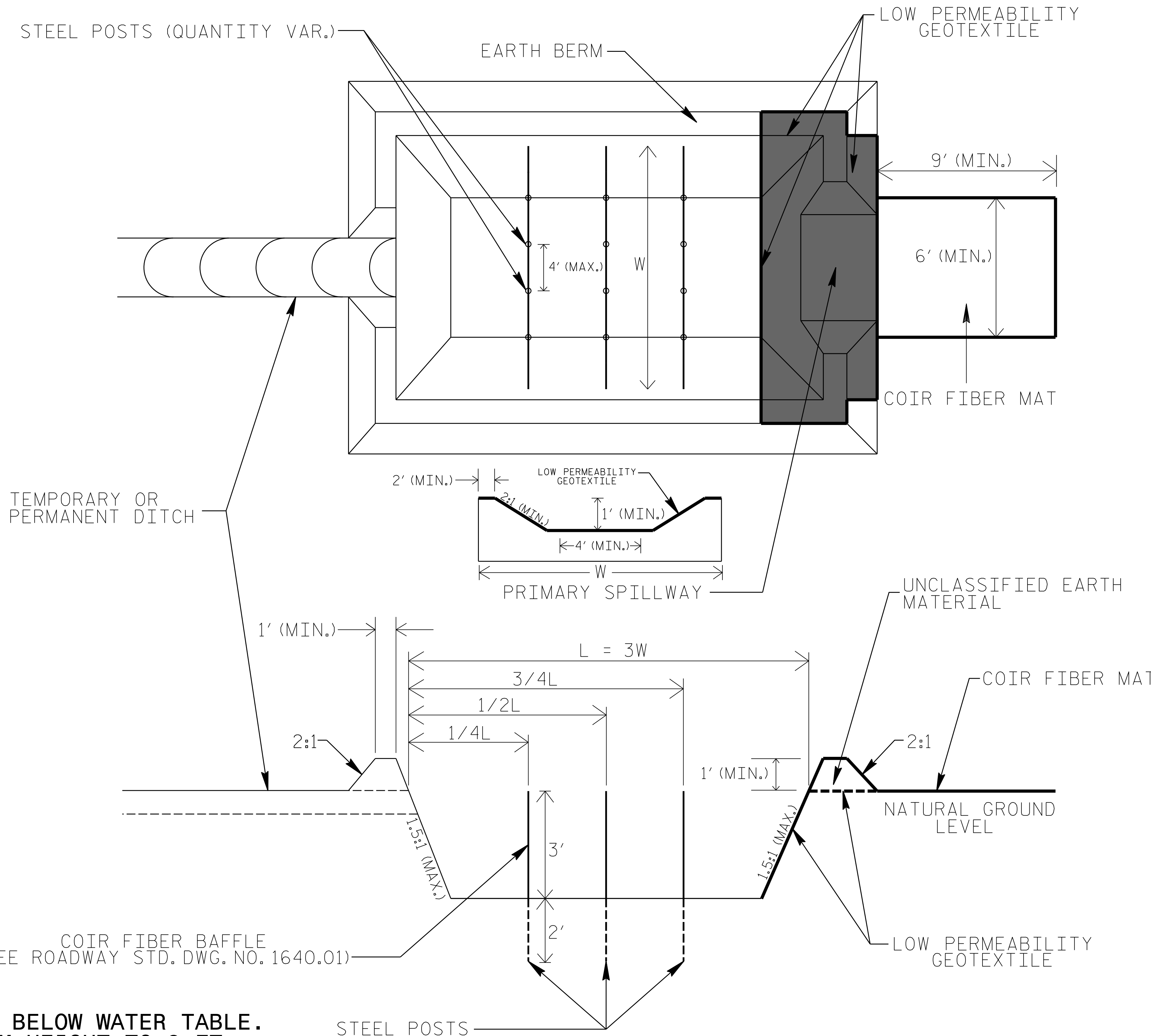
1. LIMIT EARTHEN DAM HEIGHT TO 5 FT.
2. DETERMINE PRIMARY SPILLWAY LENGTH (FT.) USING $Q/0.4$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
3. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

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 TIME: 3:30:33 PM
 DATE: 1/22/2015

INFILTRATION BASIN WITH BAFFLES DETAIL (EAST)

PROJECT REFERENCE NO. R-2514B	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. DO NOT EXCAVATE BELOW WATER TABLE.
2. LIMIT EARTH BERM HEIGHT TO 3 FT.
3. AVOID COMPACTING BOTTOM OF BASIN.
4. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
5. DETERMINE PRIMARY SPILLWAY LENGTH (FT.) USING $Q/0.4$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.

NOT TO SCALE

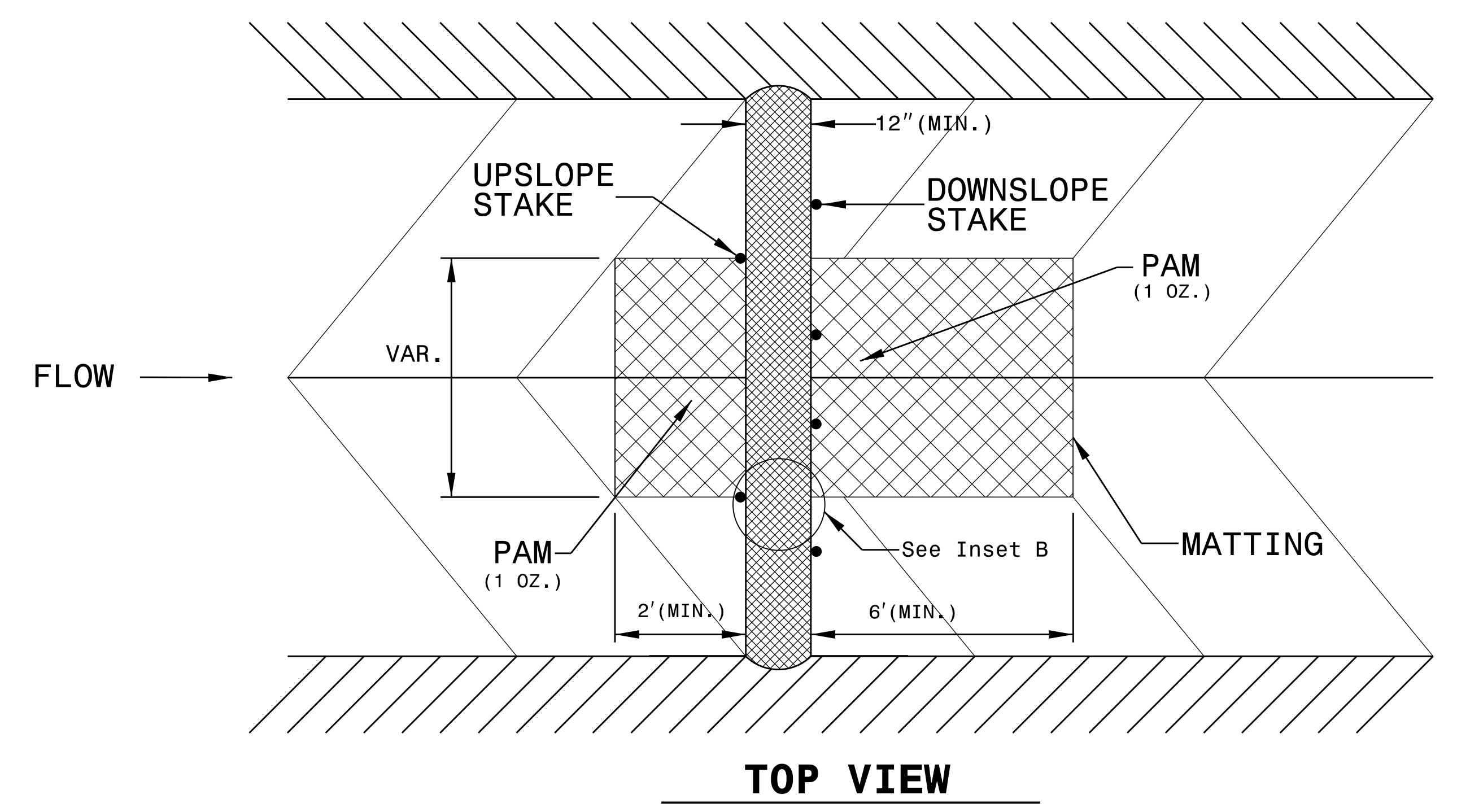
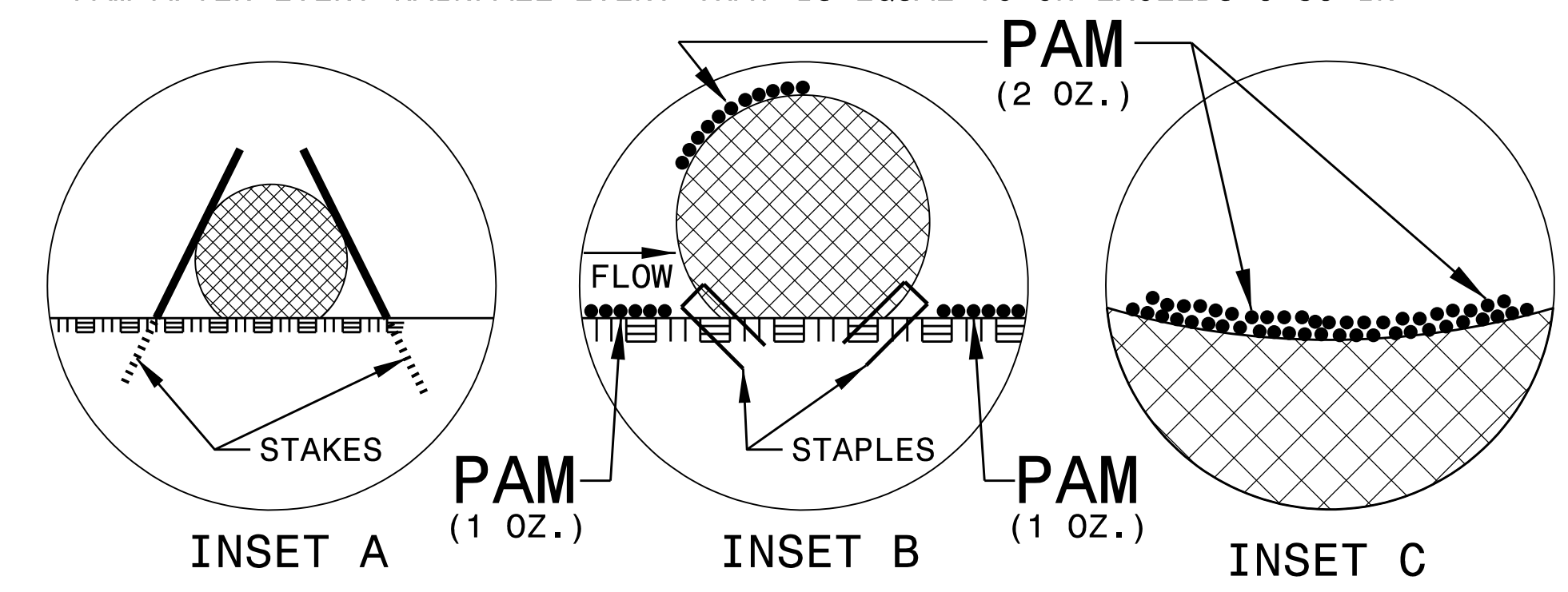
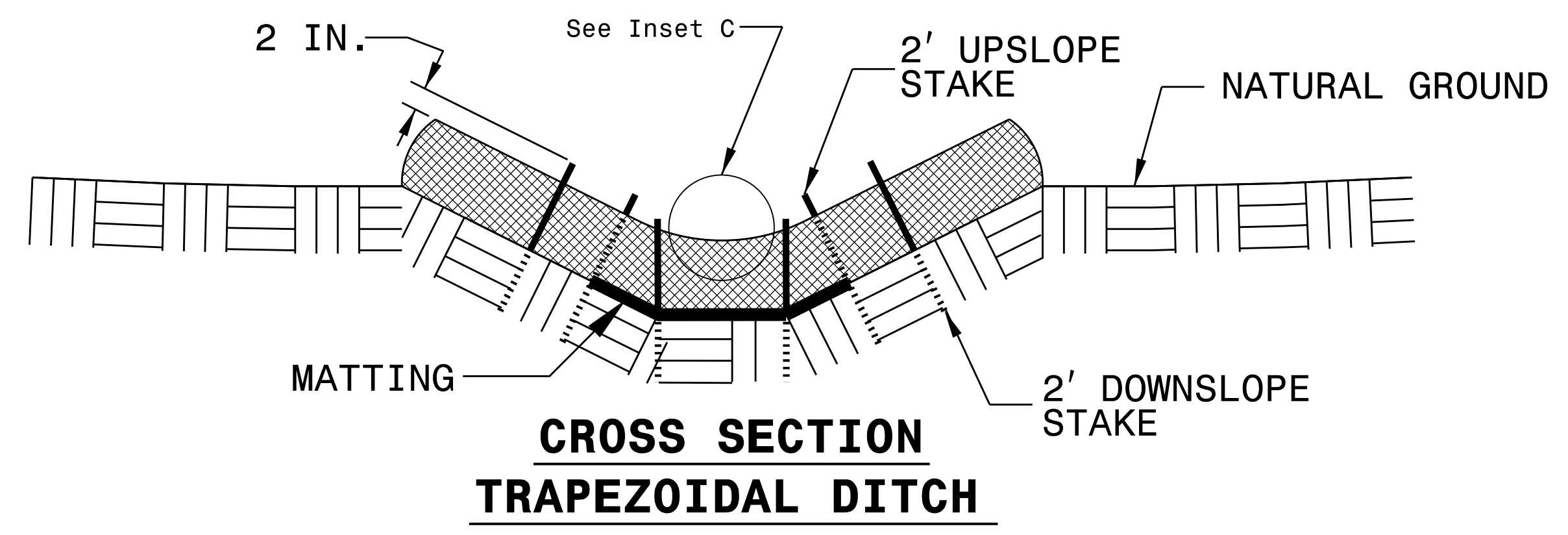
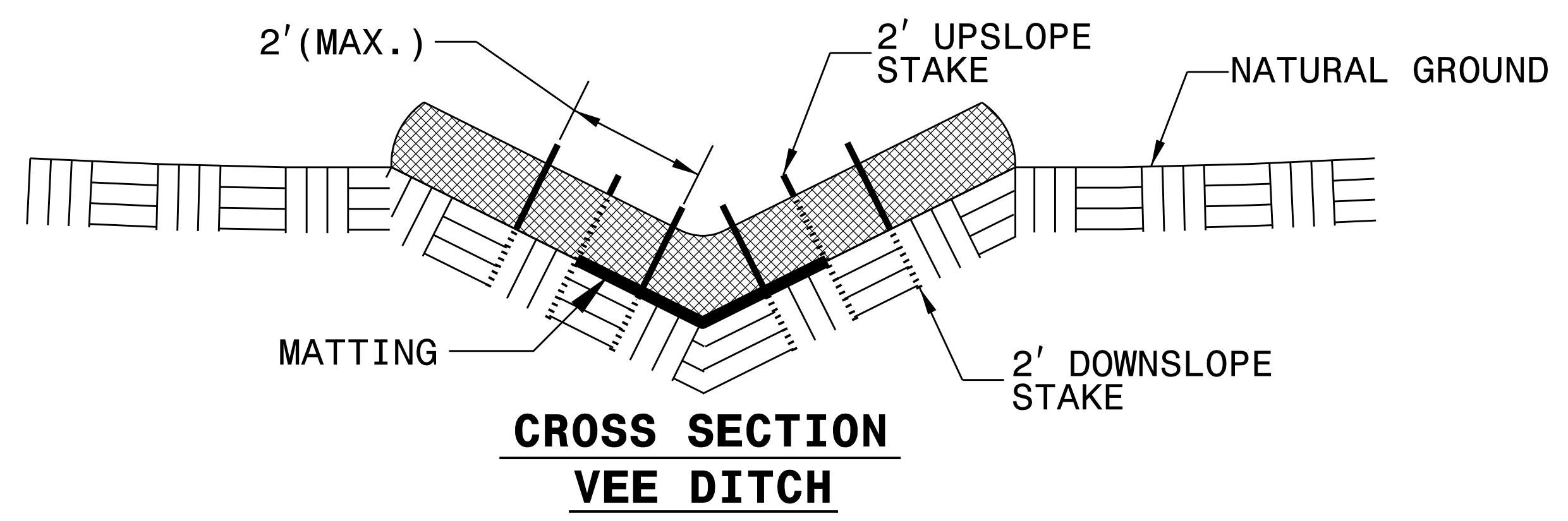
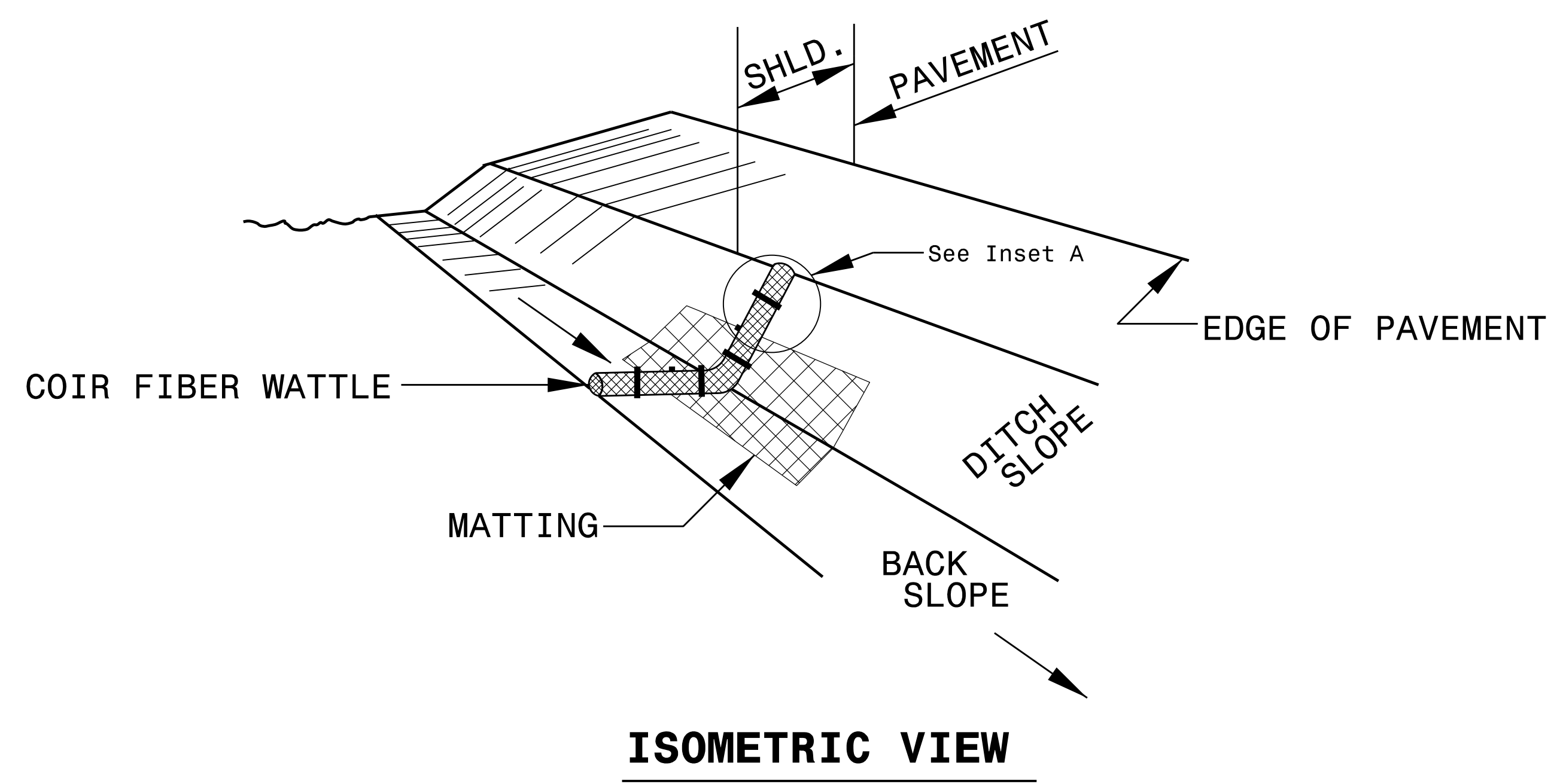
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PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-2D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

NOTES:

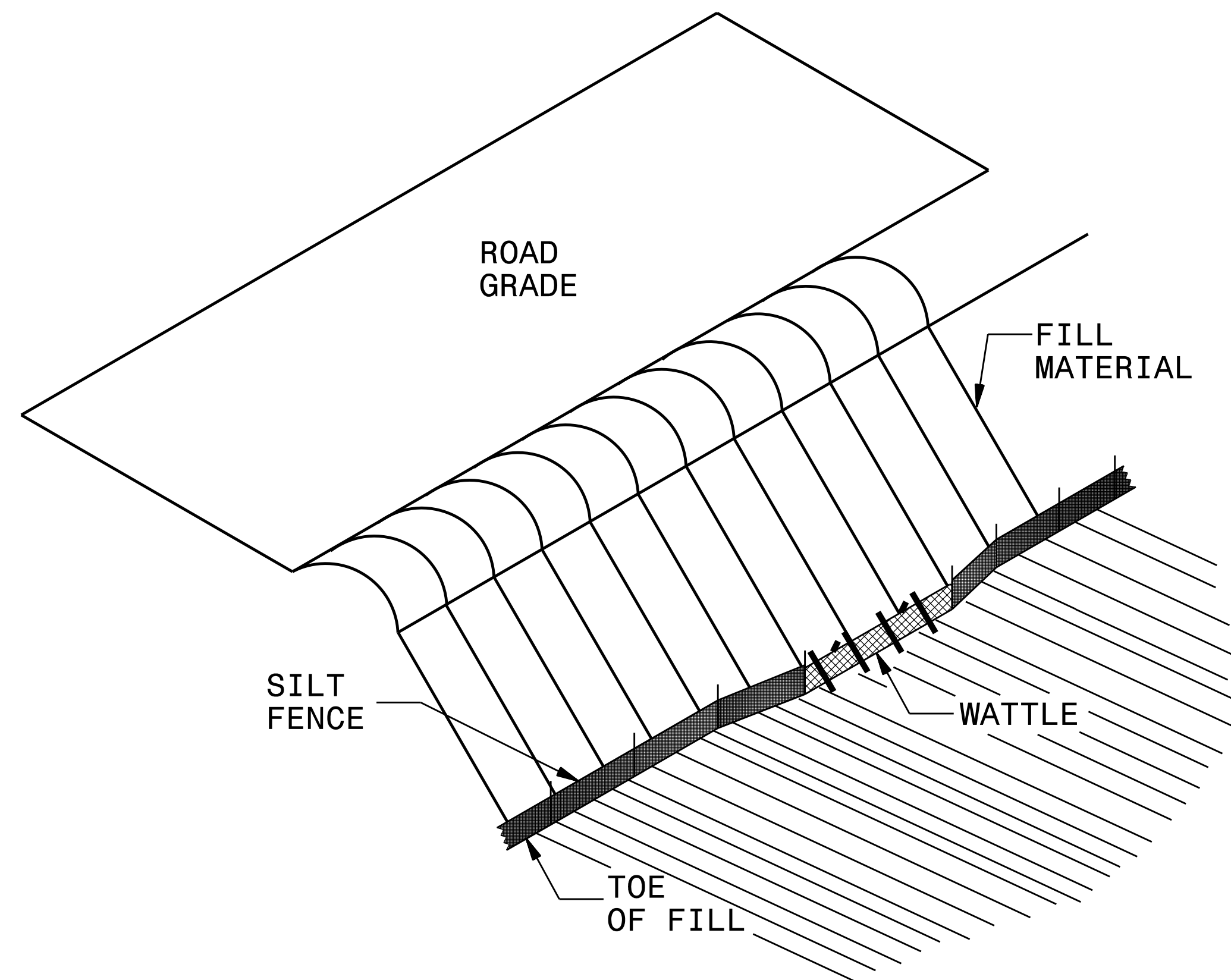
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY** INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 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.



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 DATE: 1/22/2015
 TIME: 3:31:09 PM

SILT FENCE COIR FIBER WATTLE BREAK DETAIL

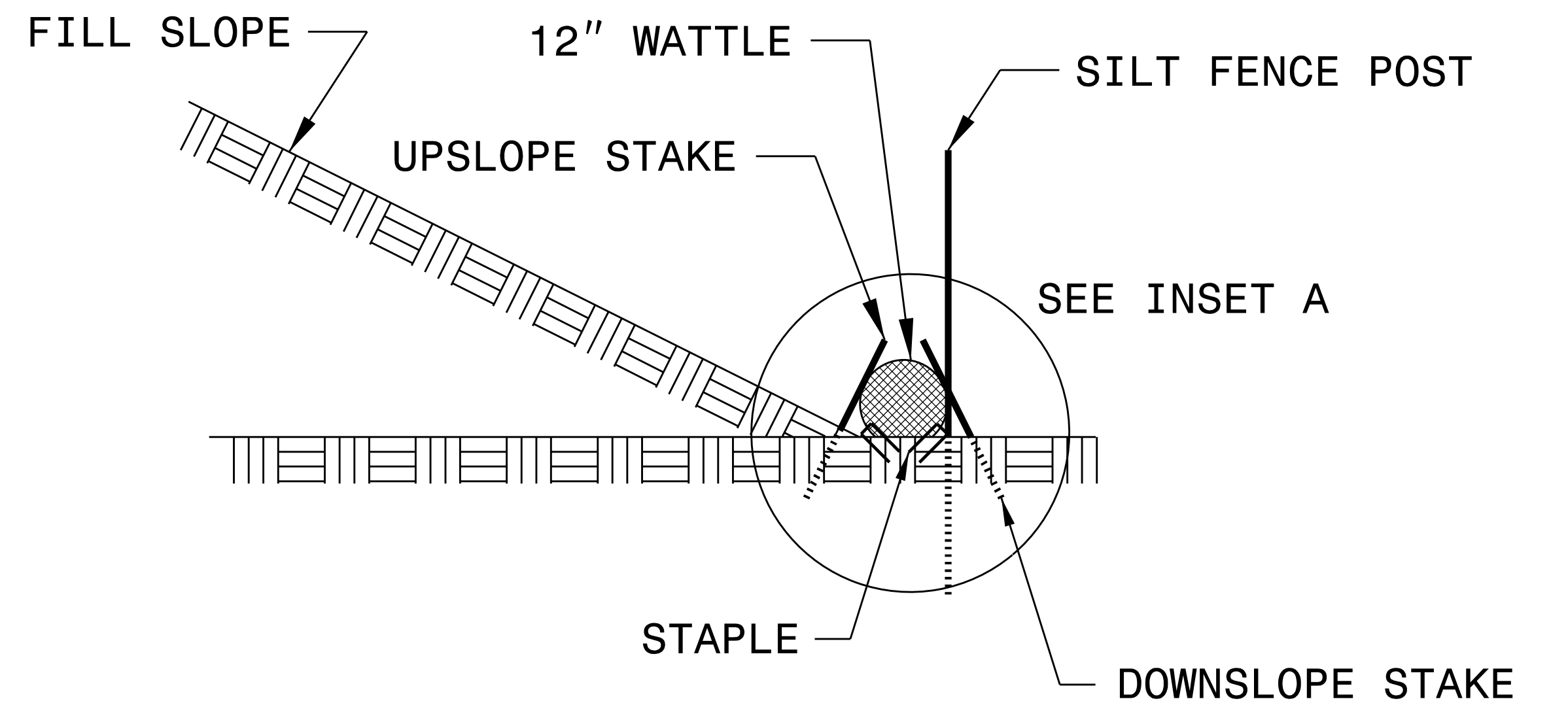
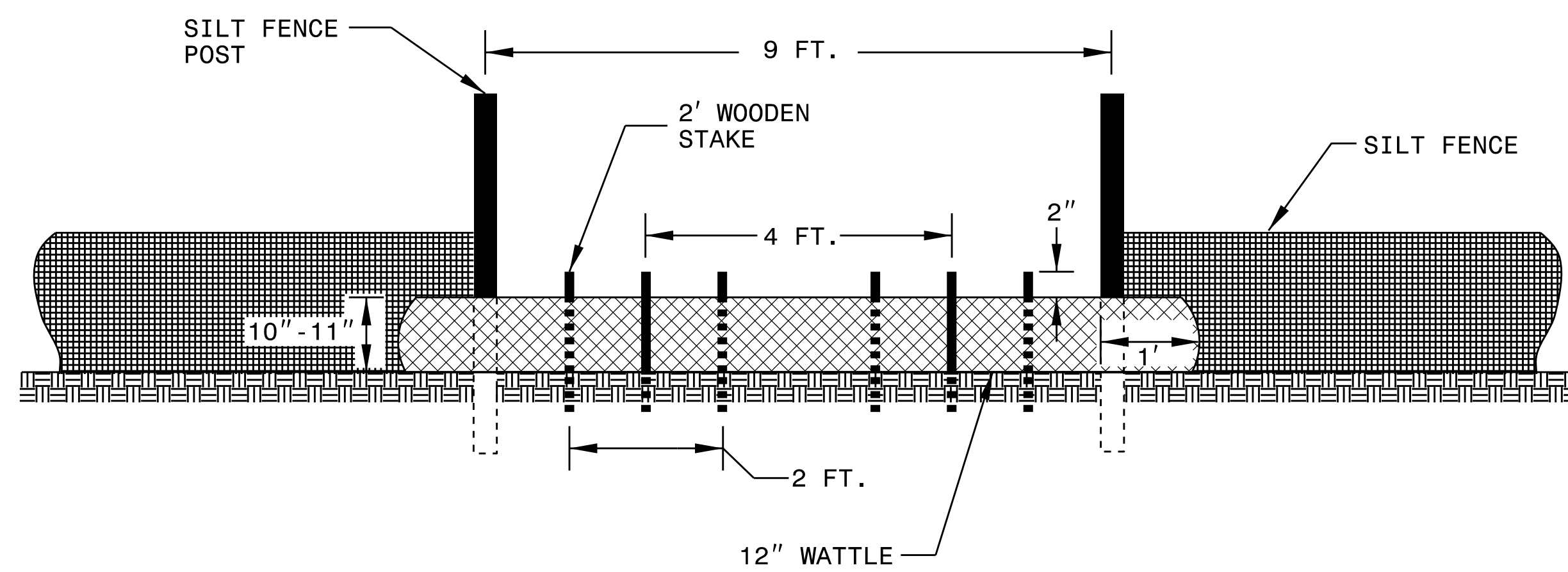
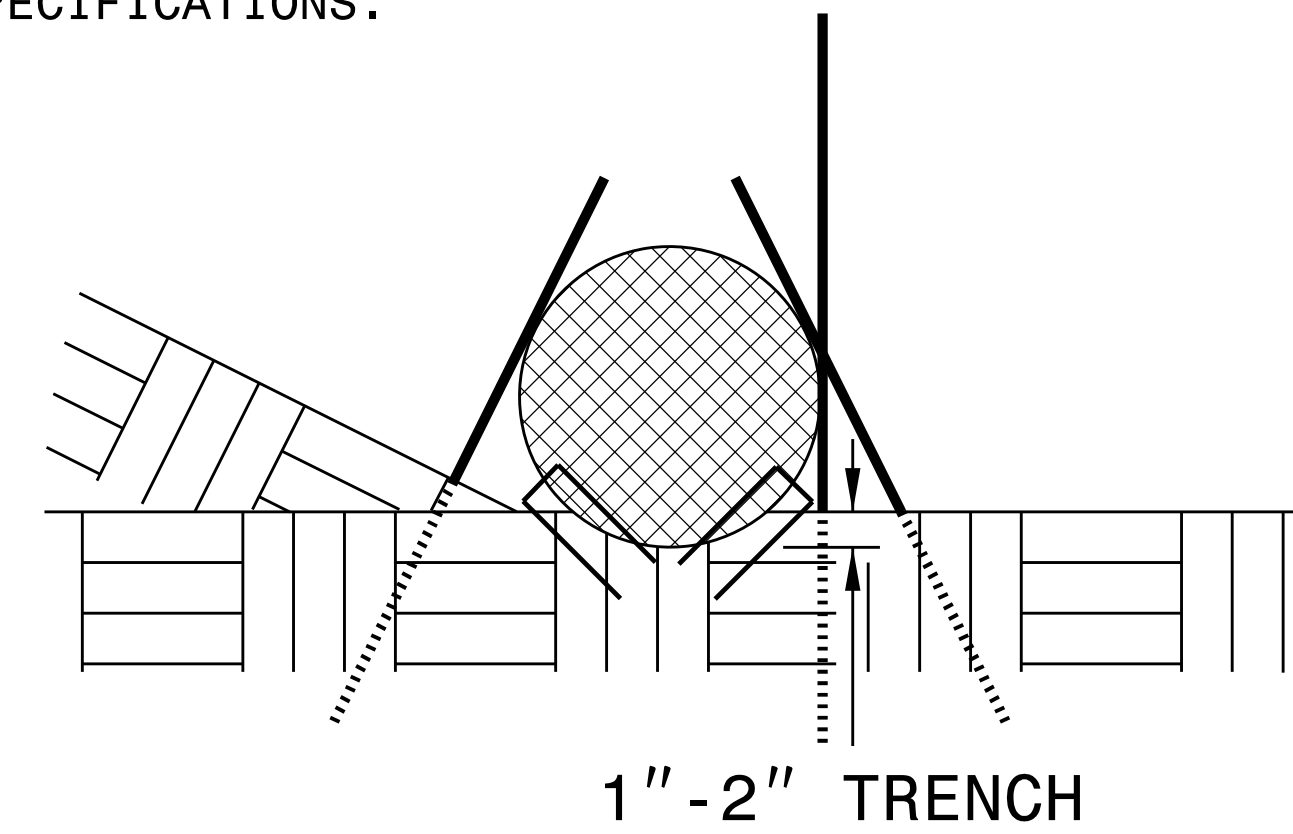
PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-2E
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTES:

- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLE ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.
- 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.
- WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.
- INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A

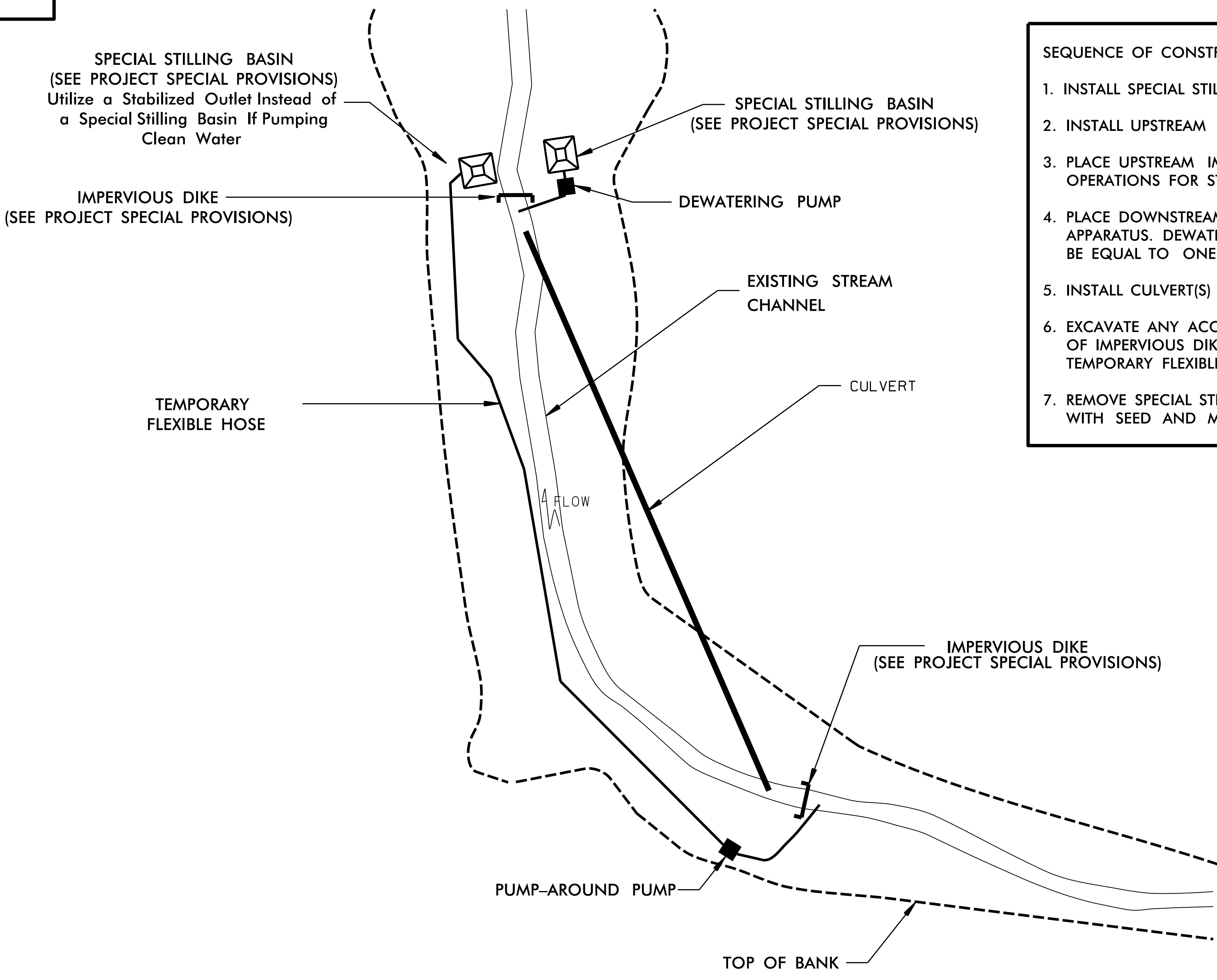


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 DATE: 1/22/2015
 TIME: 3:31:26 PM

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-2F
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PUMP-AROUND OPERATION

- NOTES:**
- 1) All excavation shall be performed in only dry or isolated areas of the work zone.
 - 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
 - 3) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
 - 4) 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. INSTALL CULVERT(S) 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. REMOVE SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA


HDR HDR Engineering, Inc. of the Carolinas
3733 National Drive, Suite 207 Raleigh, N.C. 27612
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO. R-2514B	SHEET NO. EC-3C
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

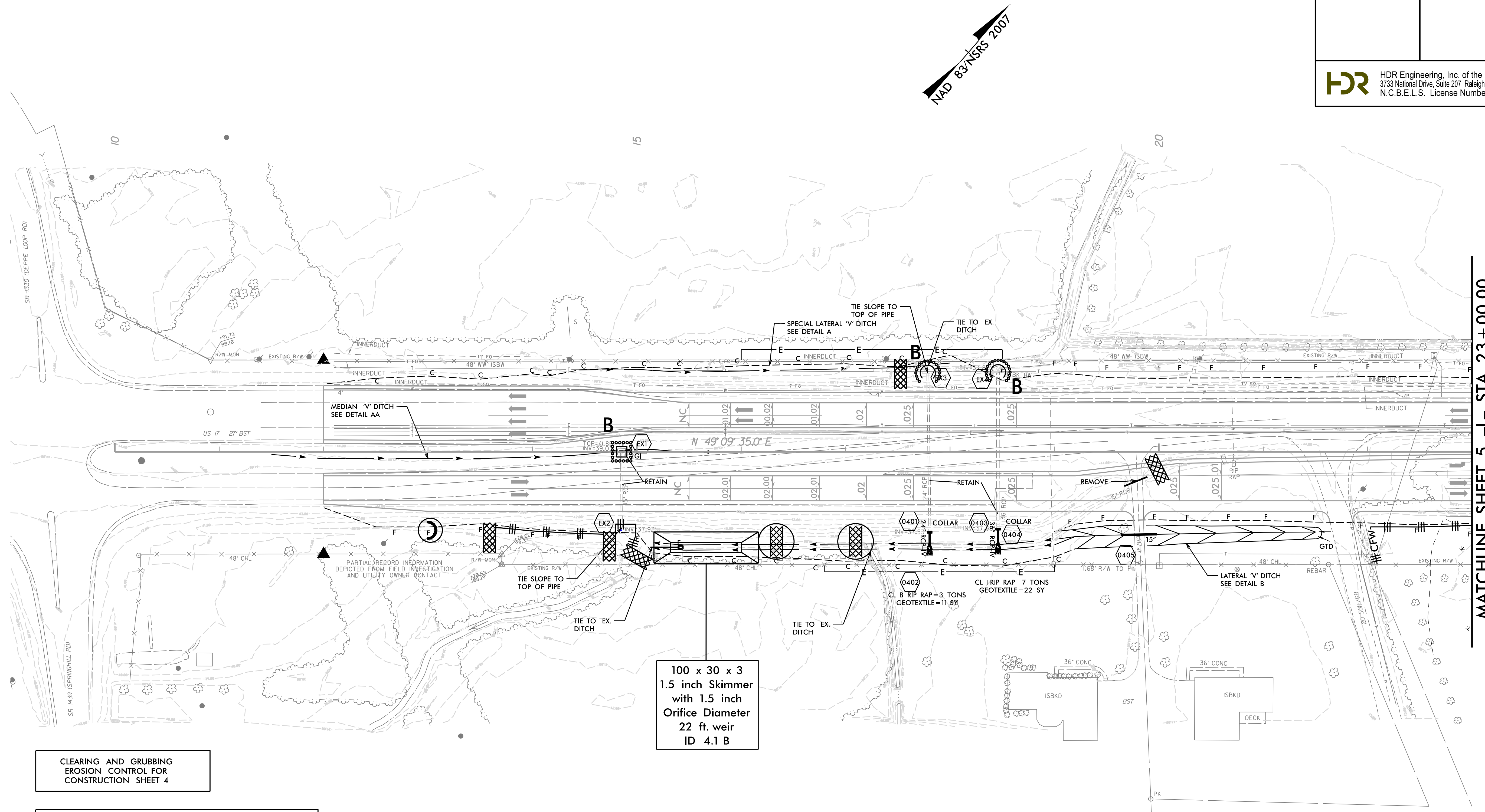
SOIL STABILIZATION TIMEFRAMES

<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.

PLOT DRIVER: NCDOT_pcf_color_eng_50.plt
 USER: cmyers
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 DATE: 1/22/2015

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

REVISIONS
 R/W Revision 4/19/14 JCL Added "No Claim" Note to parcels with no taking. Deleted Parcel #s 3 and 4. Added Parcel #2 Owner and Deed Book Information




CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

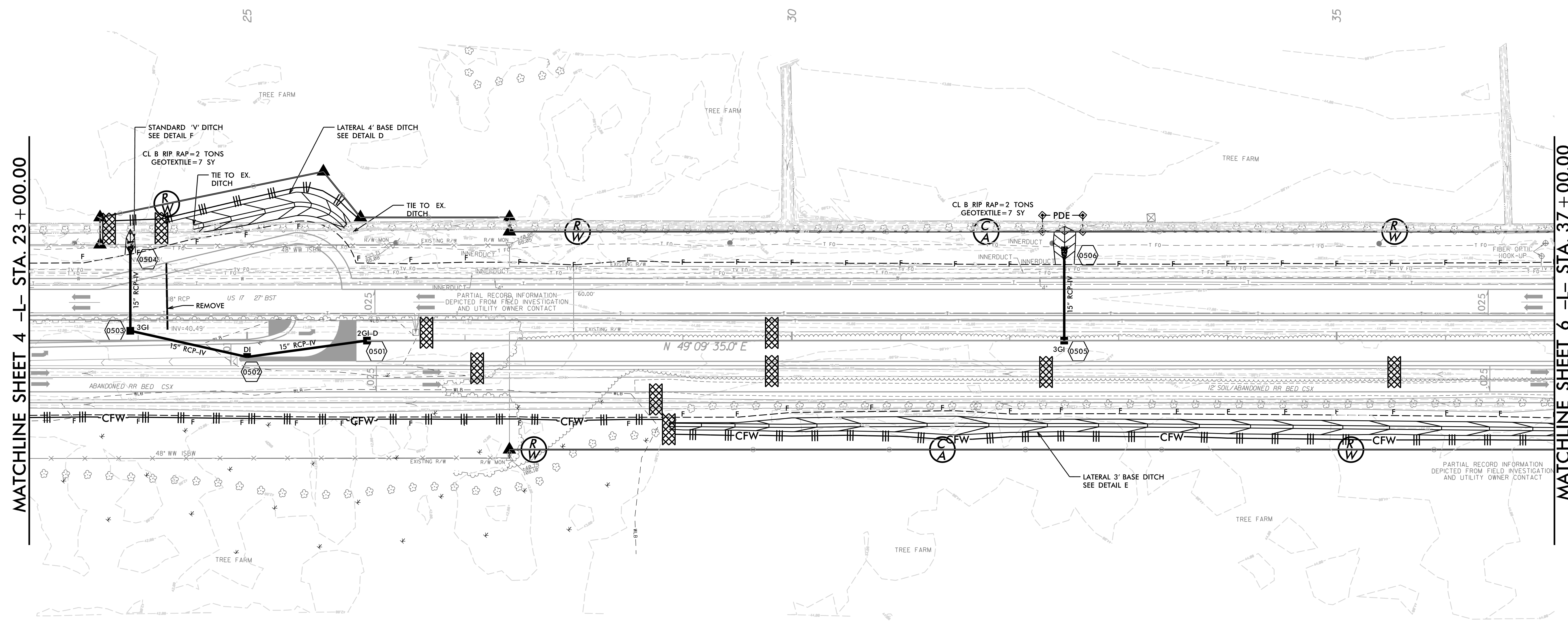
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

1/22/2015
 R-2514B-EC-CG_PSH.dgn
 2:40:58

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	



REVISIONS

R/W Revision 6/26/14 JCL Removed Permanent Utility Easement (PUE) on Parcel 1

8/17/99


1/22/2015
 2514B-EC-CG_PSH.dgn
 2514B-EC-CG_PSH.dgn

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 5

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

NOTE:
 PERIMETER EROSION CONTROL MEASURES SHALL BE
 INSTALLED DURING CLEARING AND GRUBBING PHASE.

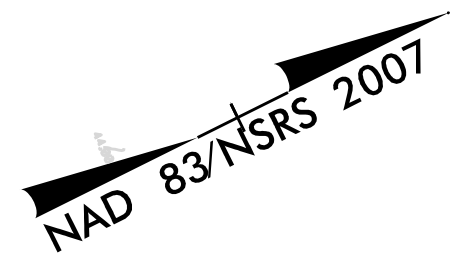
 CONCRETE ISLAND

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-7/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

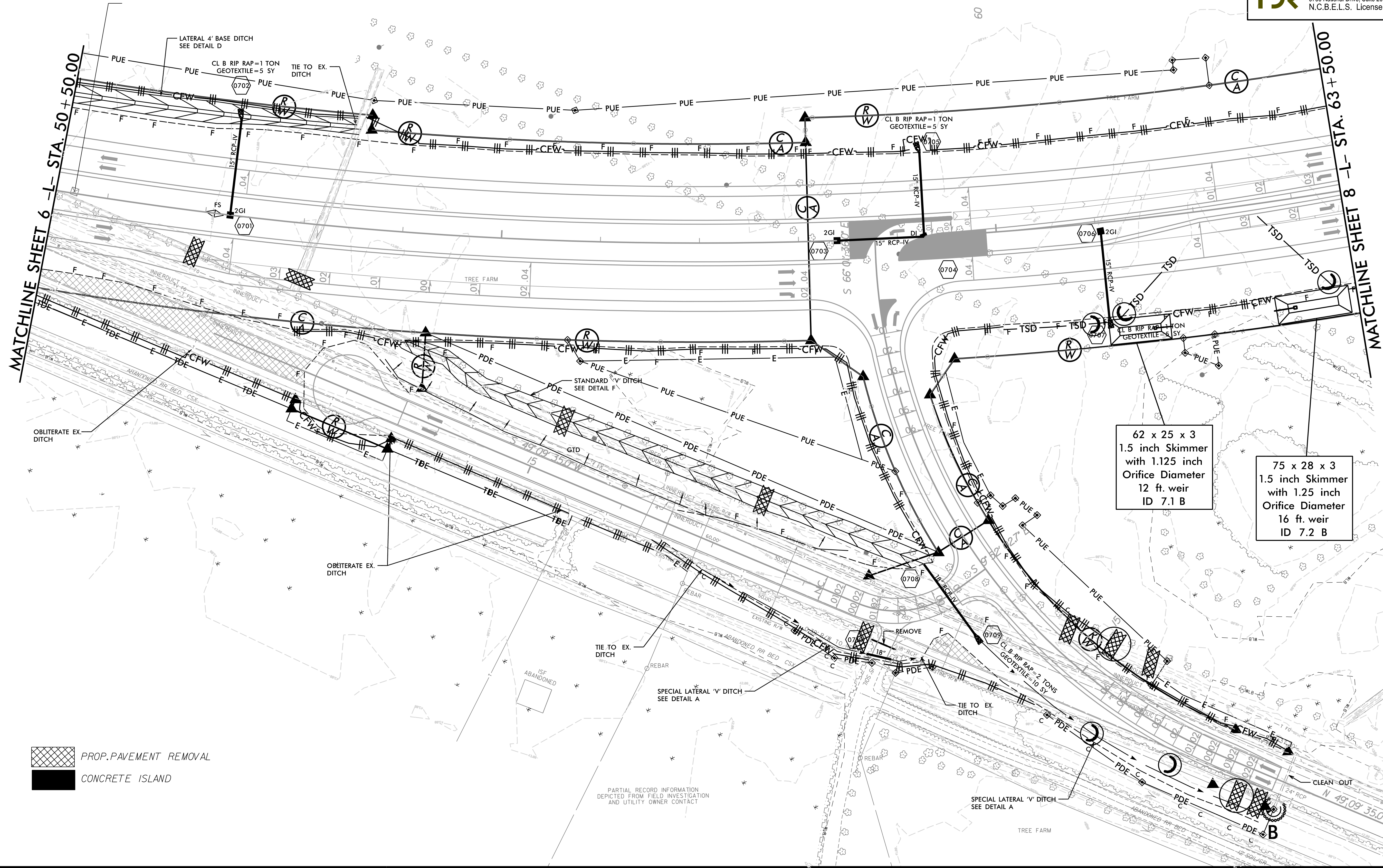
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

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


NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.



REVISIONS
 R/W Revision 6/26/14 JCL Revised and Added Permanent Utility Easements (PUE) to Parcel I Revised TCE on Parcel I Right - L - Sta. 55+85 to 58+33
 8/17/99
 1/22/2015
 R-2514B-EC-CG_PSH.dgn
 2514B-EC-CG_PSH.dgn



 PROP. PAVEMENT REMOVAL
 CONCRETE ISLAND

PROJECT REFERENCE NO.		SHEET NO.	
R-2514B		EC-8/CONST.8	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116			

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.

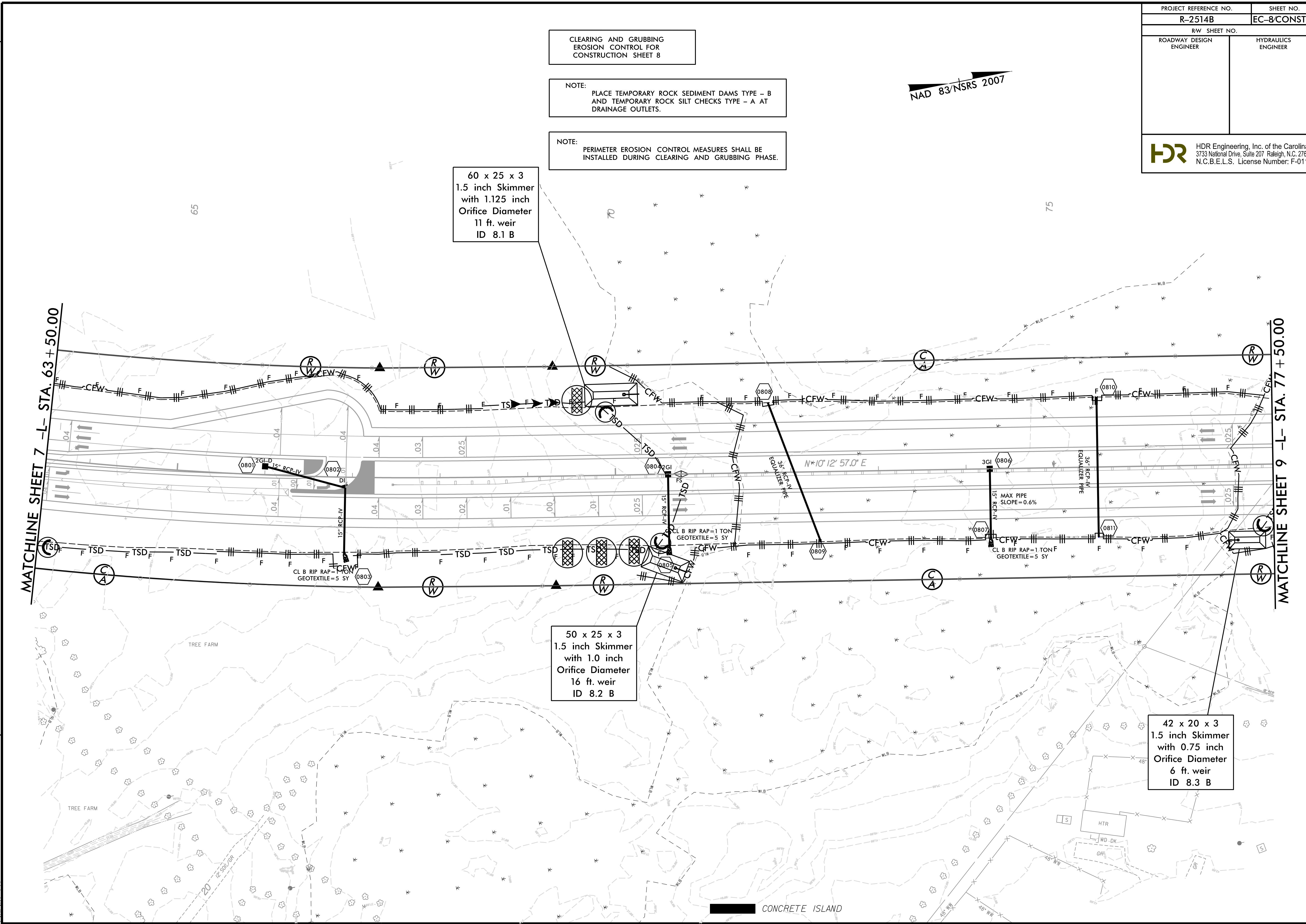
NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

NAD 83/NSRS 2007

60 x 25 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
11 ft. weir
ID 8.1 B


50 x 25 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
16 ft. weir
ID 8.2 B

42 x 20 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
6 ft. weir
ID 8.3 B



REVISIONS

8/17/99
1/22/2015
R-2514B-EC-CG_PSH.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-9/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

NAD 83/NSRS 2007

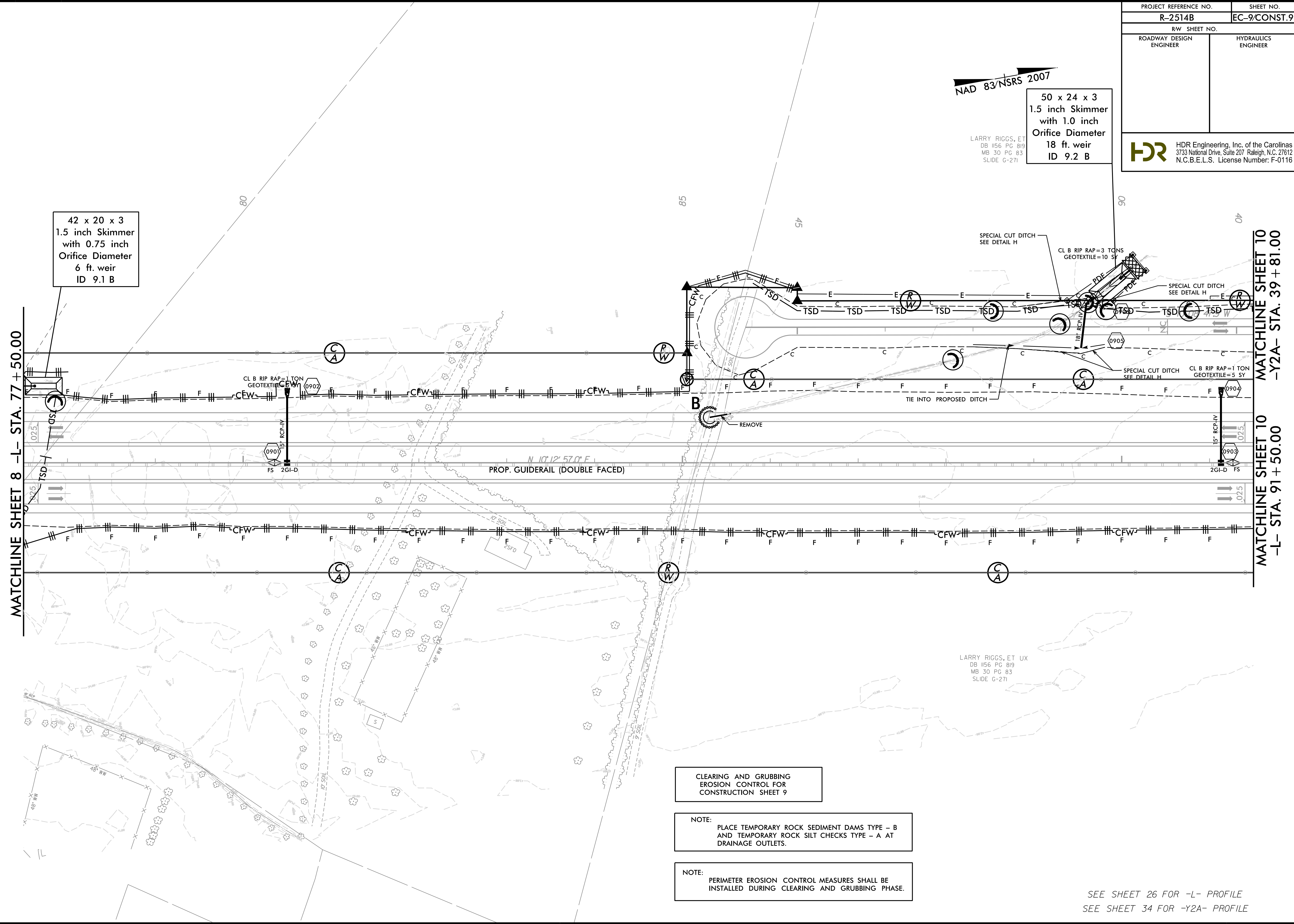
50 x 24 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
18 ft. weir
ID 9.2 B

LARRY RIGGS, ET
DB 1156 PG 819
MB 30 PG 83
SLIDE G-271

42 x 20 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
6 ft. weir
ID 9.1 B

MATCHLINE SHEET 8 -L- STA. 77 + 50.00

MATCHLINE SHEET 10 -Y2A- STA. 39 + 81.00
MATCHLINE SHEET 10 -L- STA. 91 + 50.00



REVISIONS
R/W Revision 5/11/14 JCL Realigned -Y2A- and Adjusted Proposed R/W, Permanent Drainage and Temporary Construction Easements on Parcels 10 and 11.

8/17/99


1/22/2015
R-2514B-EC-CG_PSH.dgn
2514B-EC-CG_PSH.dgn

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

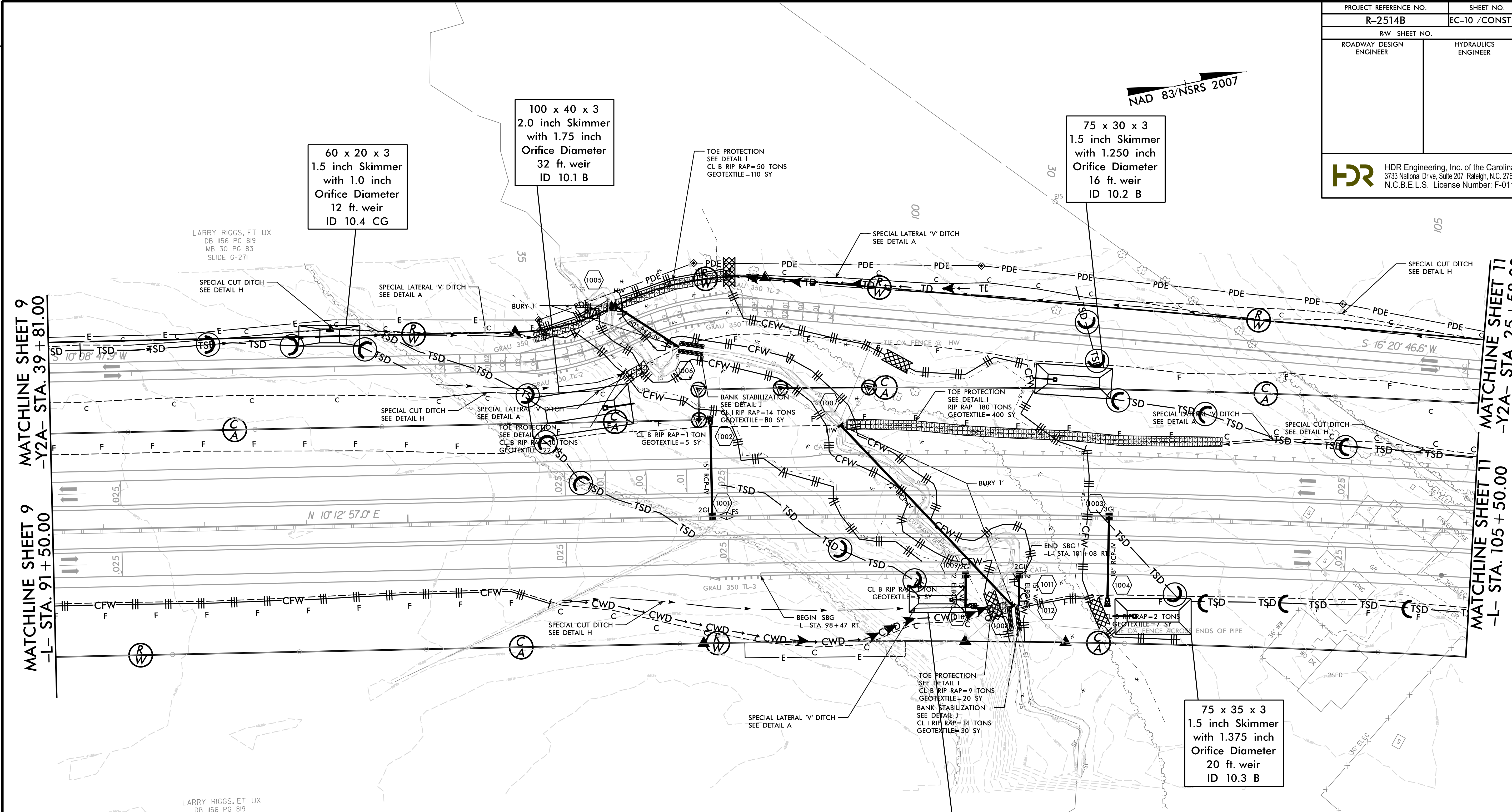
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

SEE SHEET 26 FOR -L- PROFILE
SEE SHEET 34 FOR -Y2A- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-10 /CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

NAD 83/NSRS 2007



MATCHLINE SHEET 9
-Y2A- STA. 39 + 81.00

MATCHLINE SHEET 9
-L- STA. 91 + 50.00

MATCHLINE SHEET 11
-Y2A- STA. 25 + 58.00

MATCHLINE SHEET 11
-L- STA. 105 + 50.00

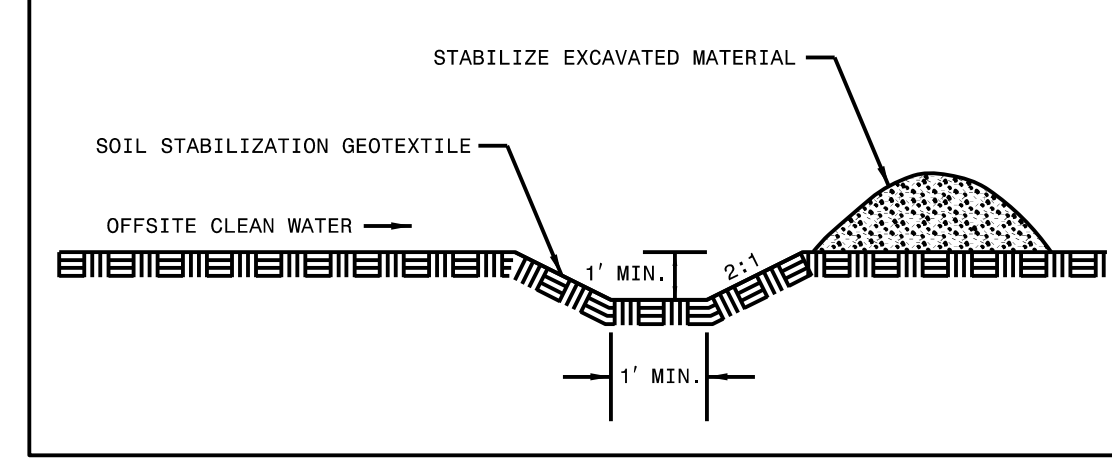
REVISIONS
 R/W Revision 5/11/14 JCL Realigned -Y2A- and Adjusted Proposed R/W, Permanent Drainage and Temporary Construction Easements on Parcels II, 12 and 13.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

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

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.


CLEAN WATER DIVERSION
 → CWD → CWD → CWD → CWD →
 (Not to Scale)



SBG = SHOULDER BERM GUTTER
 SEE SHEETS 26-27 FOR -L- PROFILE
 SEE SHEETS 33-34 FOR -Y2A- PROFILE
 SEE SHEETS C-1 THRU C-? FOR CULVERT PLANS

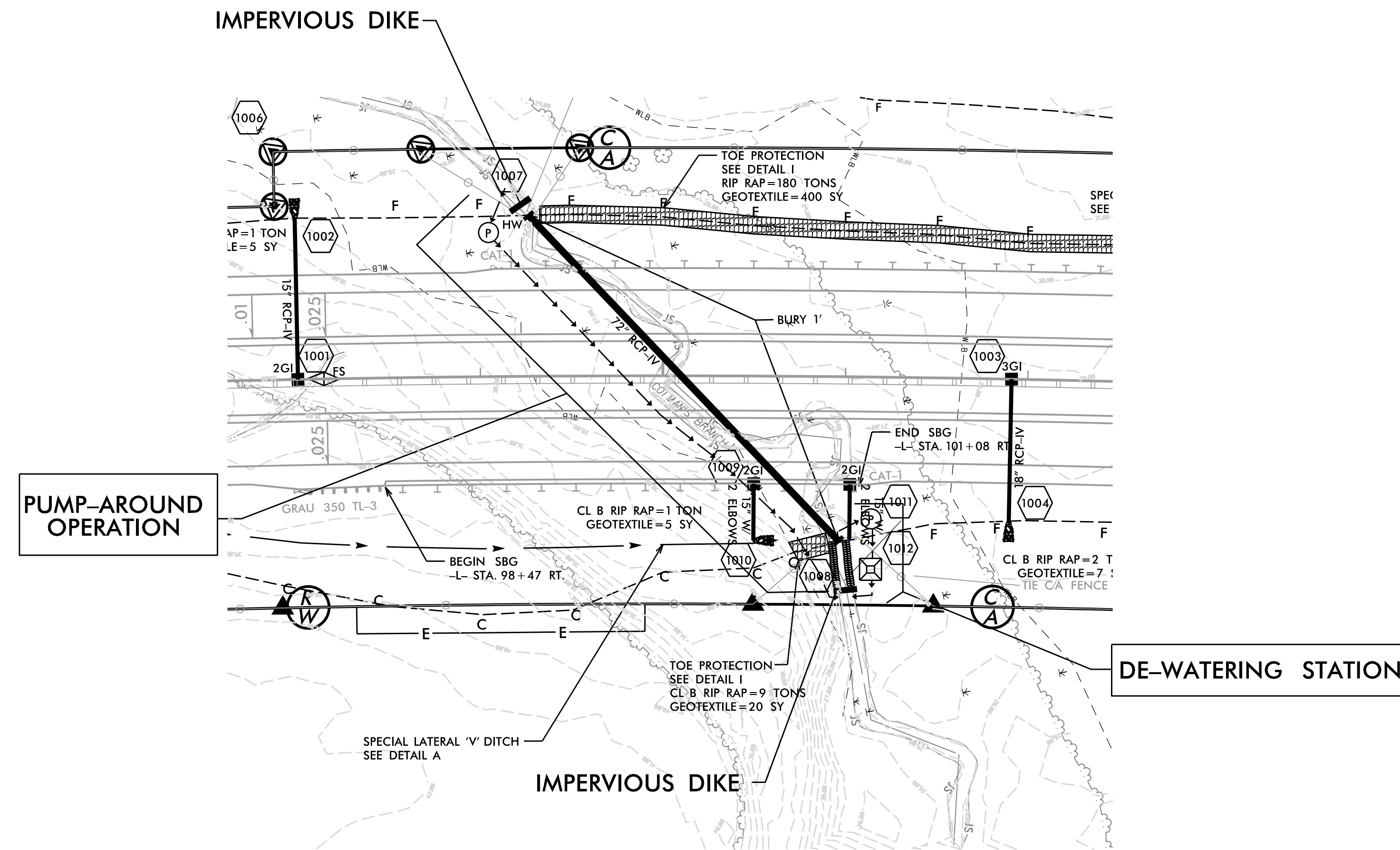
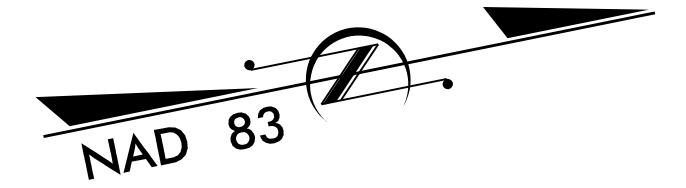
8/17/99
 1/22/2015
 5:53:40 PM
 R-2514B-EC-CG_PSH.dgn

CONSTRUCTION SEQUENCE ON R-2514B 72" RCP-IV AT STA 100+10 -L- COTMAN'S BRANCH

PROJECT REFERENCE NO. R-2514B	SHEET NO. EC-10A /CONST.10
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

PHASE I

1. INSTALL IMPERVIOUS DIKES UPSTREAM AND DOWNSTREAM OF CULVERT.
2. INSTALL PUMP AROUND OPERATION. STABILIZE OUTLET OF PUMP AROUND IF NEEDED TO CONTROL EROSION VELOCITIES.
3. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING THE WORK ZONE.
4. EXCAVATE WORK ZONE.
5. INSTALL 72" RCP-IV AND HEADWALLS.
6. PLACE BANK STABILIZATION AT OUTLET.
7. REMOVE IMPERVIOUS DIKES AND PUMP AROUND OPERATION.




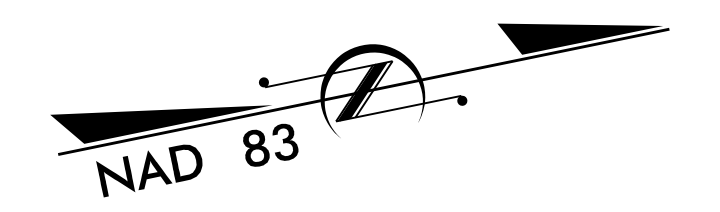
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 USER: emyers
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 DATE: 1/22/2015
 TIME: 3:41:24 PM

REVISIONS

6/2/99

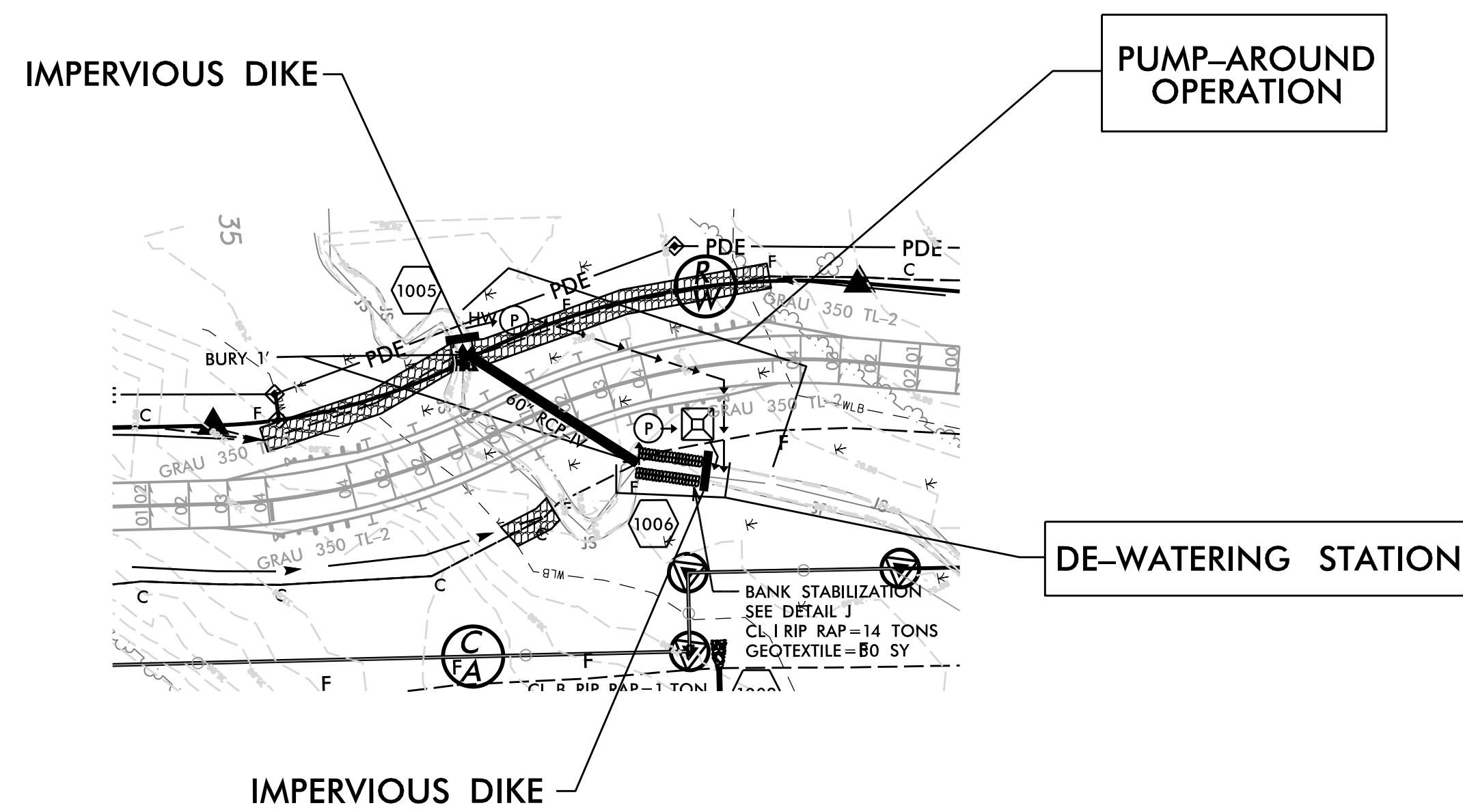
CONSTRUCTION SEQUENCE ON R-2514B 60" RCP-IV AT STA 33+90 -Y2A- COTMAN'S BRANCH

PROJECT REFERENCE NO. R-2514B	SHEET NO. EC-10B /CONST.10
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	



PHASE I


1. INSTALL IMPERVIOUS DIKES UPSTREAM AND DOWNSTREAM OF CULVERT.
2. INSTALL PUMP AROUND OPERATION. STABILIZE OUTLET OF PUMP AROUND IF NEEDED TO CONTROL EROSION VELOCITIES.
3. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING THE WORK ZONE.
4. EXCAVATE WORK ZONE.
5. INSTALL 60" RCP-IV AND HEADWALL.
6. PLACE BANK STABILIZATION AT OUTLET.
7. REMOVE IMPERVIOUS DIKES AND PUMP AROUND OPERATION.

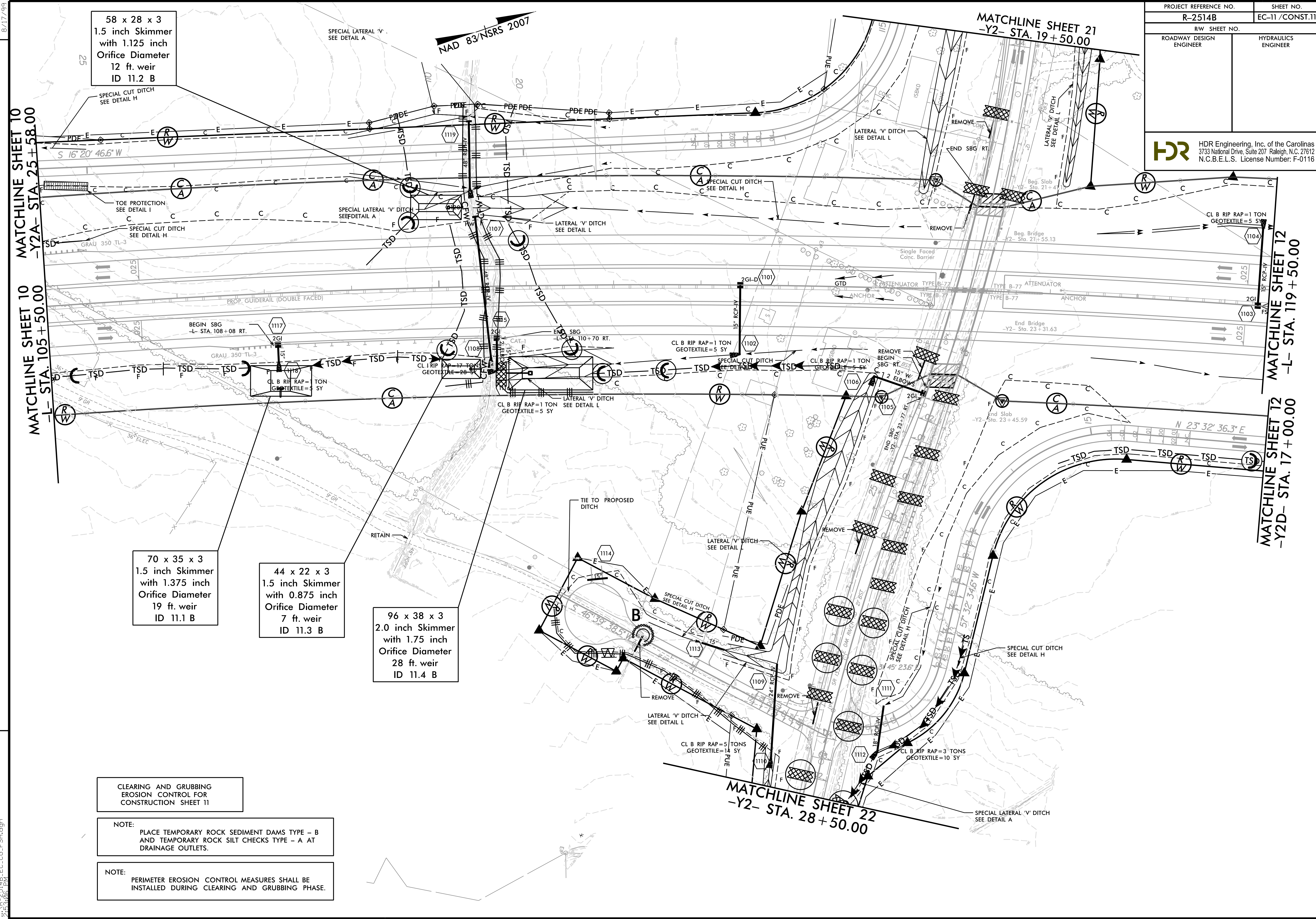


6/2/99

REVISIONS

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 TIME: 3:41:59 PM

PROJECT REFERENCE NO. R-2514B	SHEET NO. EC-11/CONST.11
R/W SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	



58 x 28 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
12 ft. weir
ID 11.2 B

70 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
19 ft. weir
ID 11.1 B

44 x 22 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
7 ft. weir
ID 11.3 B

96 x 38 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
28 ft. weir
ID 11.4 B


CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

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

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

REVISIONS
 R/W Revision 6/26/14 JCL Revised Permanent Utility Easements (PUE) on Parcels 12 and 14. Added new PUE on Parcel 16.

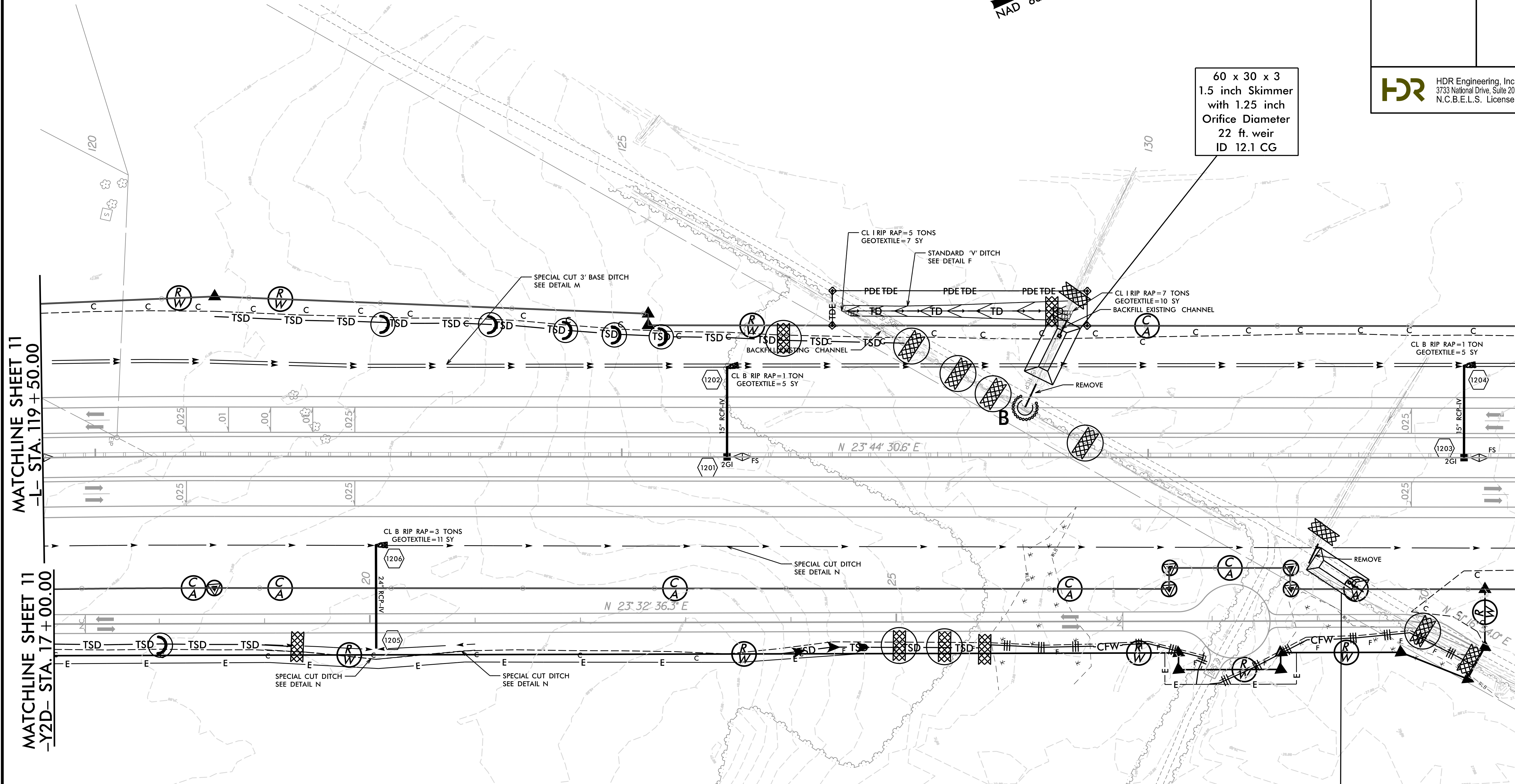
1/22/2015
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PROJECT REFERENCE NO.		SHEET NO.	
R-2514B		EC-12 /CONST.12	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116			

NAD 83/NSRS 2007

60 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
22 ft. weir
ID 12.1 CG

55 x 25 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
12 ft. weir
ID 12.2 CG



- CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12
- NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.
- NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

SEE SHEETS 27-28 FOR -L- PROFILE
SEE SHEET 36 FOR -Y2D- PROFILE

R/W Revision 4/9/14 JCL Converted Temporary Construction Easement (TCE) to Permanent Drainage Easement (PDE) on Parcel 1B

REVISIONS

8/17/99
1/22/2015
R-2514B-EC-CG_PSH.dgn
5:43:40 PM

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13

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

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

66 x 30 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
15 ft. weir
ID 13.6 CG

44 x 22 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
7 ft. weir
ID 13.1 B

56 x 28 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
12 ft. weir
ID 13.2 B

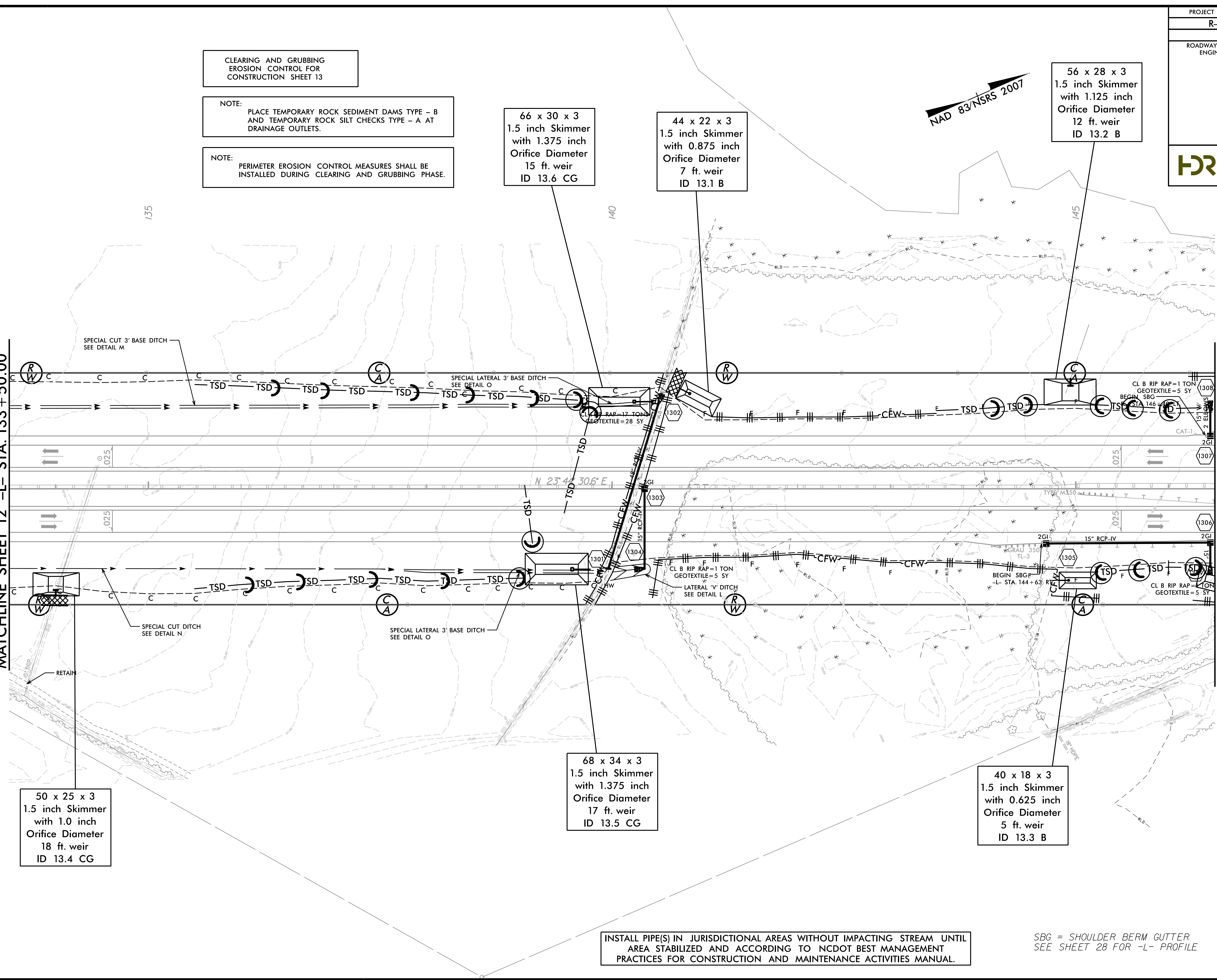
50 x 25 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
18 ft. weir
ID 13.4 CG

68 x 34 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
17 ft. weir
ID 13.5 CG

40 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
5 ft. weir
ID 13.3 B

MATCHLINE SHEET 12 -L- STA. 133 + 50.00

MATCHLINE SHEET 14 -L- STA. 146 + 50.00




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.

SBG = SHOULDER BERM GUTTER
SEE SHEET 28 FOR -L- PROFILE

REVISIONS

8/17/99

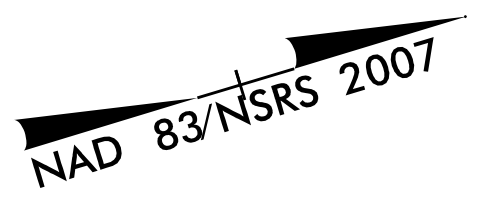
1/22/2015
R-2514B-EC-CG_PSH.dgn
R-2514B-EC-CG_PSH.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-15 / CONST.15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15

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

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.



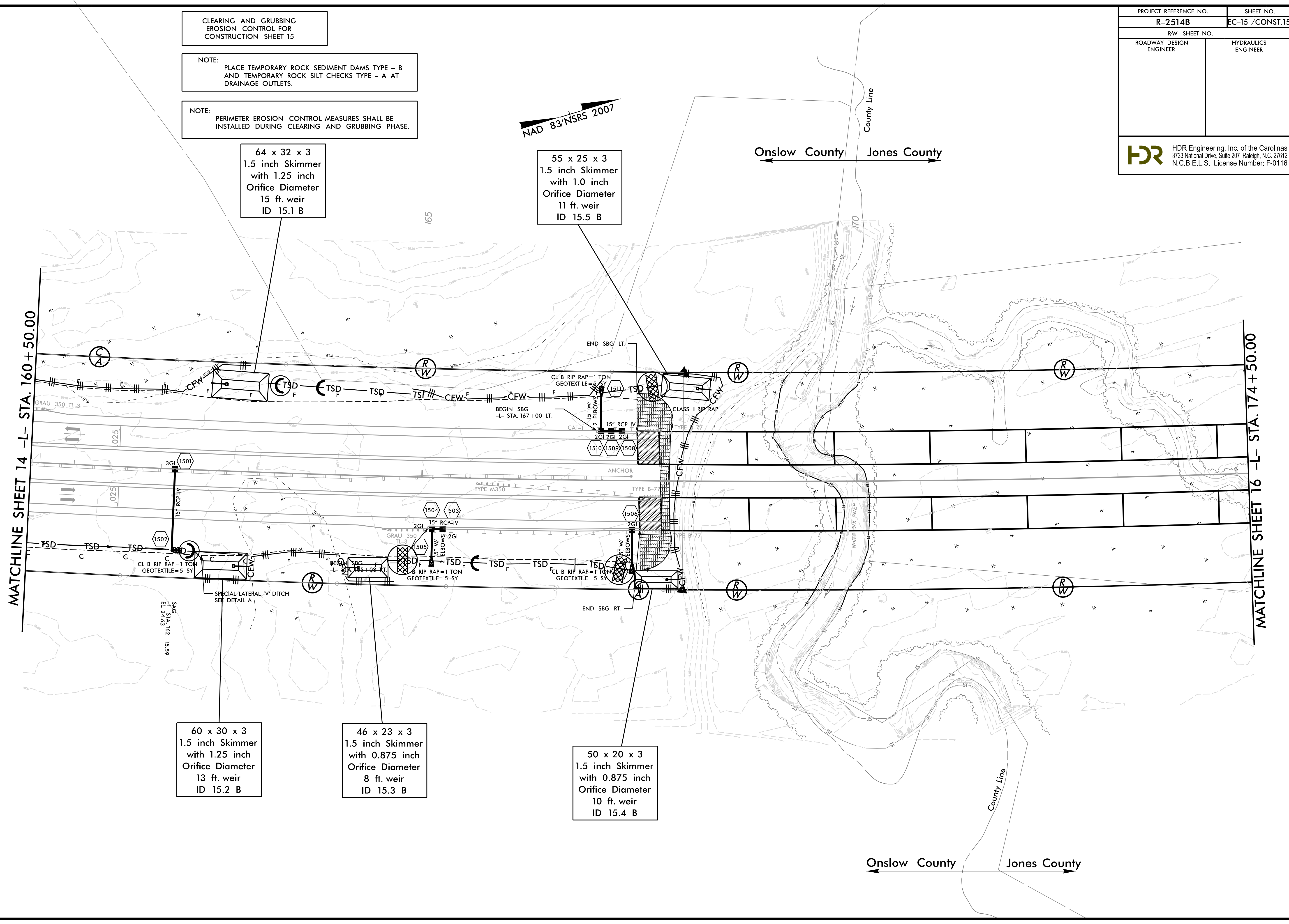
64 x 32 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
15 ft. weir
ID 15.1 B

55 x 25 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
11 ft. weir
ID 15.5 B

60 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
13 ft. weir
ID 15.2 B

46 x 23 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
8 ft. weir
ID 15.3 B

50 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
10 ft. weir
ID 15.4 B



REVISIONS
R/W REVISION 9/23/14 GM Revised owner of Parcel 22 to Walter B. Weherington


8/17/99
1/22/2015
R-2514B-EC-CG_PSH.dgn
R-2514B-PM

MATCHLINE SHEET 14 -L- STA. 160 + 50.00

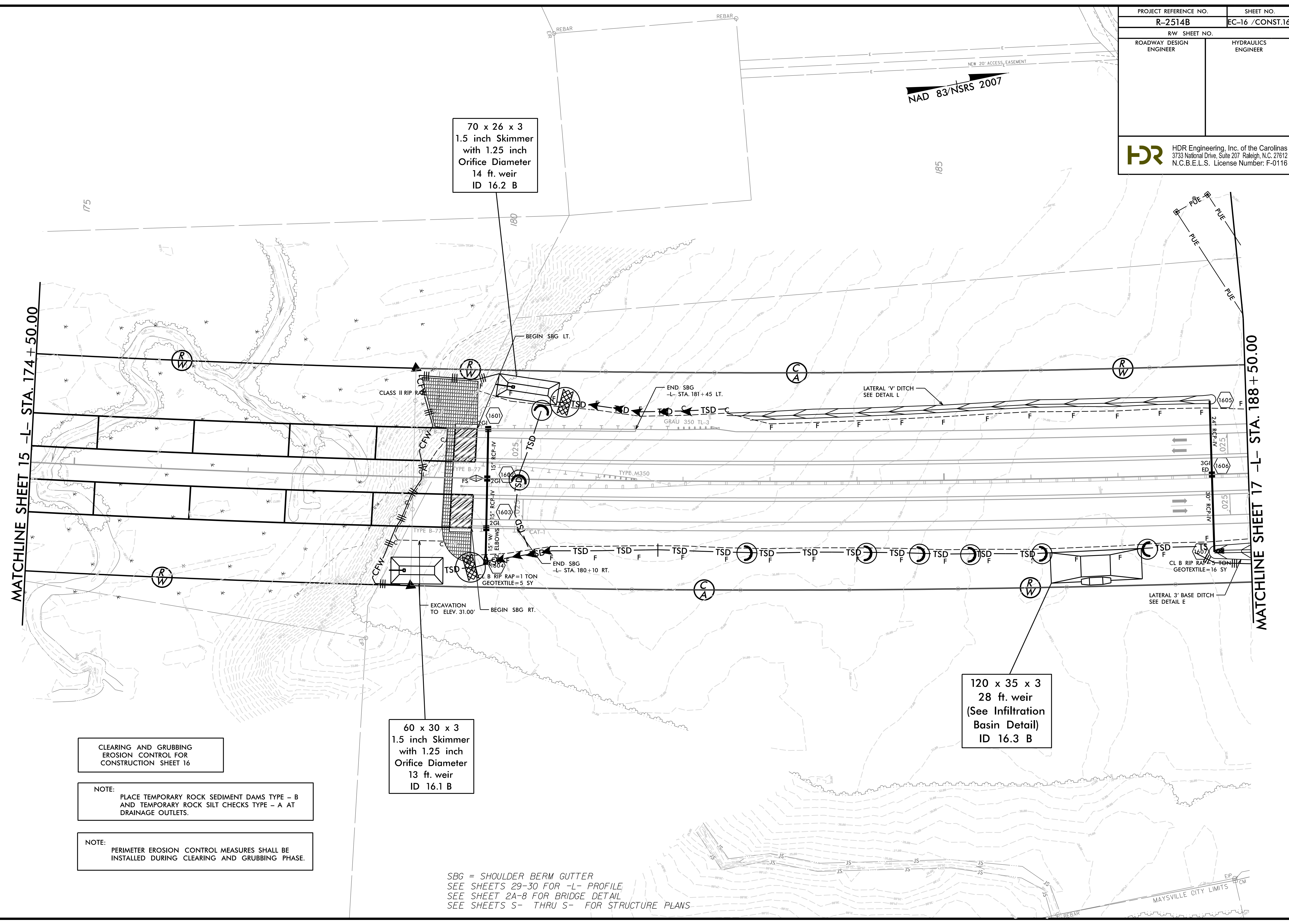
MATCHLINE SHEET 16 -L- STA. 174 + 50.00

Onslow County Jones County

Onslow County Jones County

PROJECT REFERENCE NO.		SHEET NO.	
R-2514B		EC-16 / CONST.16	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116			

NAD 83/NSRS 2007



MATCHLINE SHEET 15 -L- STA. 174+50.00

MATCHLINE SHEET 17 -L- STA. 188+50.00

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 16

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

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

60 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
13 ft. weir
ID 16.1 B


70 x 26 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
14 ft. weir
ID 16.2 B

120 x 35 x 3
28 ft. weir
(See Infiltration
Basin Detail)
ID 16.3 B

SBG = SHOULDER BERM GUTTER
SEE SHEETS 29-30 FOR -L- PROFILE
SEE SHEET 2A-8 FOR BRIDGE DETAIL
SEE SHEETS S- THRU S- FOR STRUCTURE PLANS

REVISIONS
 R/W Revision 6/26/14 JCL Added new Permanent Utility Easement (PUE) to Parcels 23A and 46. Added new Parcel No. 46.
 R/W Revision 9/23/14 GM Revised owner of Parcel 22 to Walter B. Wetherington.

8/17/99
 1/22/2015
 R-2514B-EC-CG_PSH.dgn
 2:53:47 PM

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-17 /CONST.17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

56 x 28 x 3
14 ft. weir
(See Infiltration Basin Detail)
ID 17.2

42 x 20 x 3
6 ft. weir
(See Infiltration Basin Detail)
ID 17.3

49 x 24 x 3
9 ft. weir
(See Infiltration Basin Detail)
ID 17.1 B

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 17

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

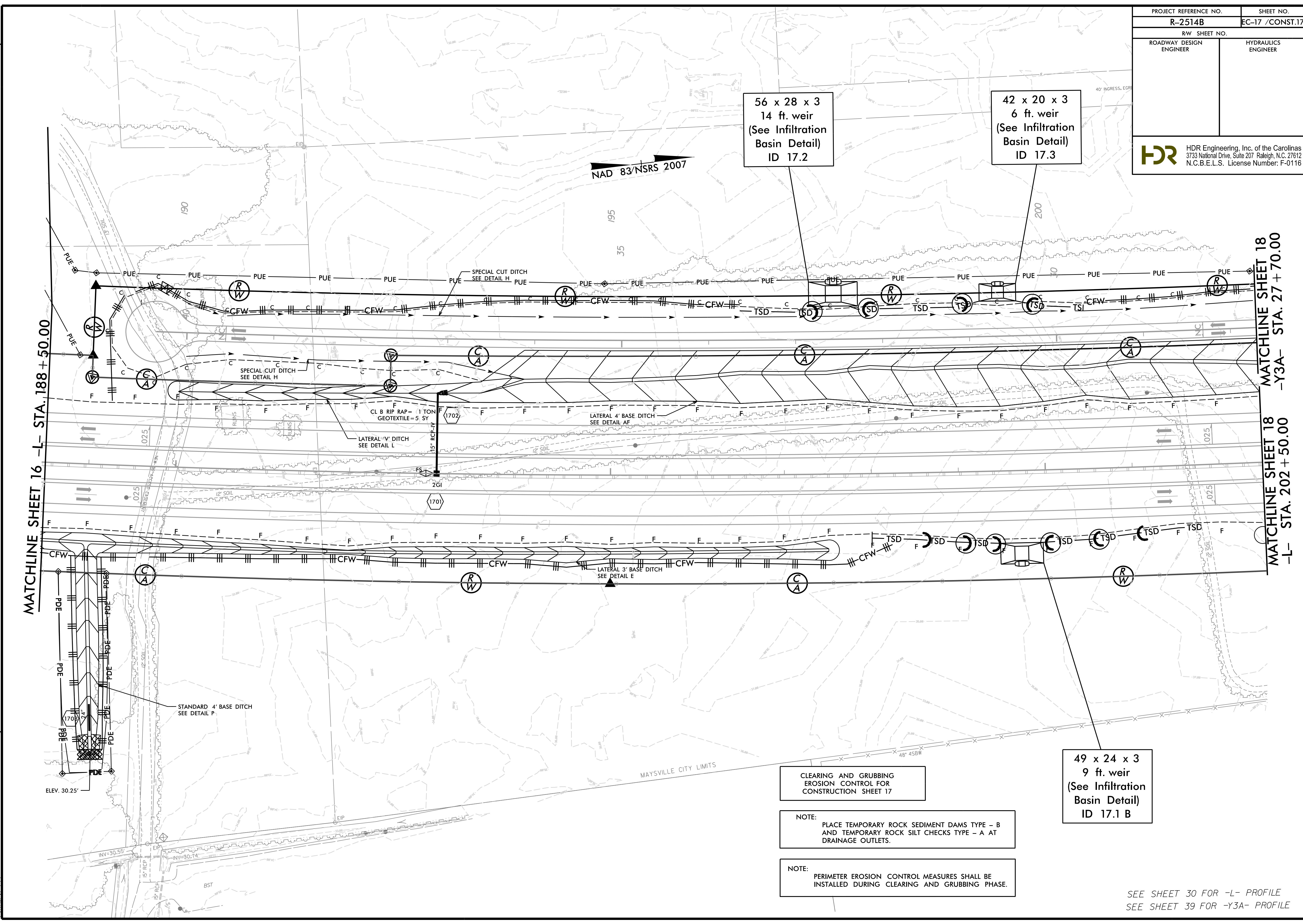
NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

SEE SHEET 30 FOR -L- PROFILE
SEE SHEET 39 FOR -Y3A- PROFILE

REVISIONS
 R/W Revision 6/26/14 JCL Added new Permanent Utility Easement (PUE) to Parcels 23A and 46. Added new Parcel No. 46.

8/17/99

1/22/2015
 R-2514B-EC-CG_PSH.dgn
 5:53:20 PM



PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-18 /CONST.18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

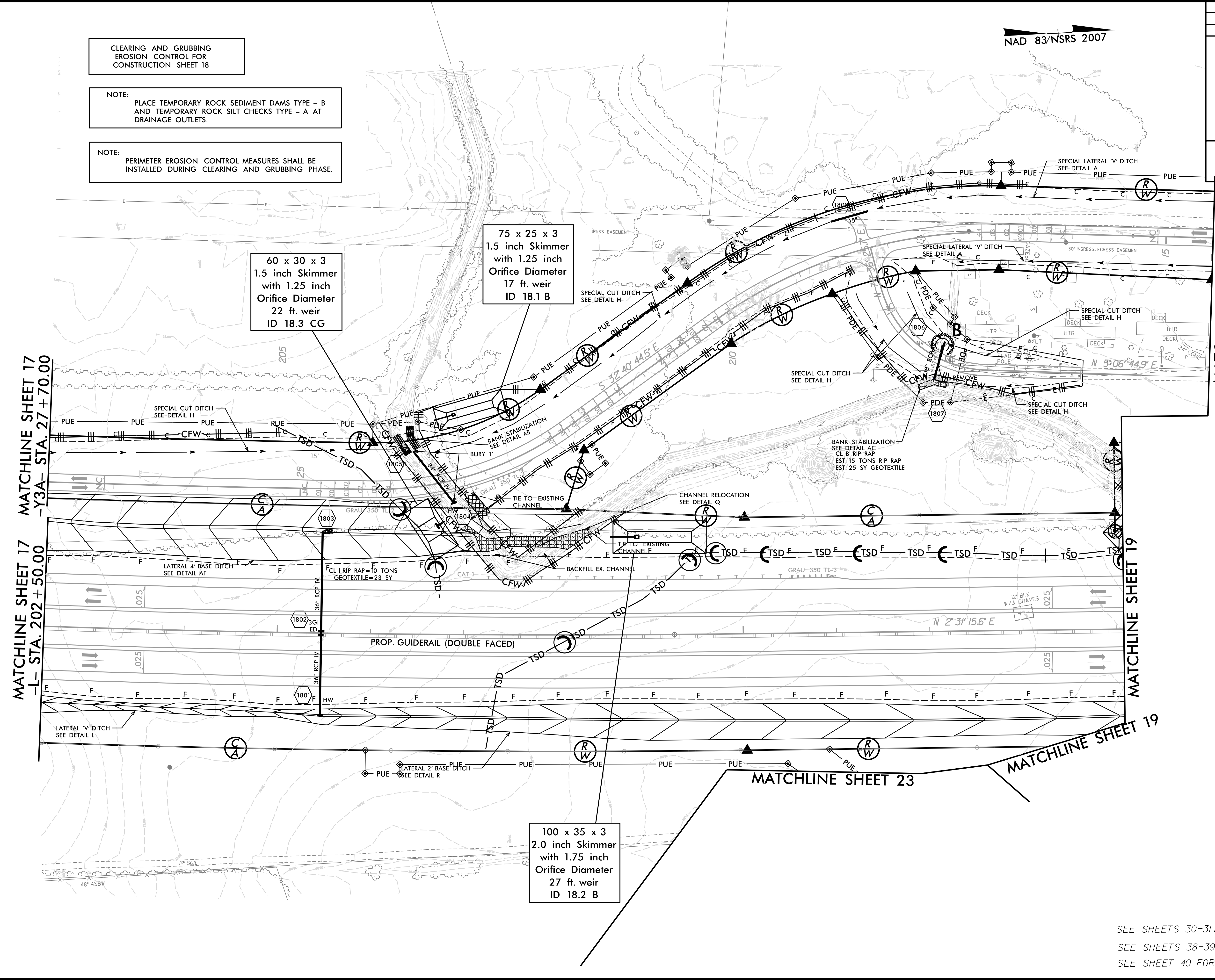
HDR HDR Engineering, Inc. of the Carolinas
 3733 National Drive, Suite 207 Raleigh, N.C. 27612
 N.C.B.E.L.S. License Number: F-0116

NAD 83/NSRS 2007

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.

NOTE:
 PERIMETER EROSION CONTROL MEASURES SHALL BE
 INSTALLED DURING CLEARING AND GRUBBING PHASE.



60 x 30 x 3
 1.5 inch Skimmer
 with 1.25 inch
 Orifice Diameter
 22 ft. weir
 ID 18.3 CG

75 x 25 x 3
 1.5 inch Skimmer
 with 1.25 inch
 Orifice Diameter
 17 ft. weir
 ID 18.1 B

100 x 35 x 3
 2.0 inch Skimmer
 with 1.75 inch
 Orifice Diameter
 27 ft. weir
 ID 18.2 B

MATCHLINE SHEET 19
 -Y3A- STA. 14 + 50.00

MATCHLINE SHEET 17
 -Y3A- STA. 27 + 70.00

MATCHLINE SHEET 17
 -L- STA. 202 + 50.00

MATCHLINE SHEET 19

MATCHLINE SHEET 19


MATCHLINE SHEET 23

REVISIONS
 R/W Revision 7/28/14 JCL Added new Parcel #302

1/22/2015
 R-2514B-EC-CG_PSH.dgn
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SEE SHEETS 30-31 FOR -L- PROFILE
 SEE SHEETS 38-39 FOR -Y3A- PROFILE
 SEE SHEET 40 FOR -Y3E- PROFILE

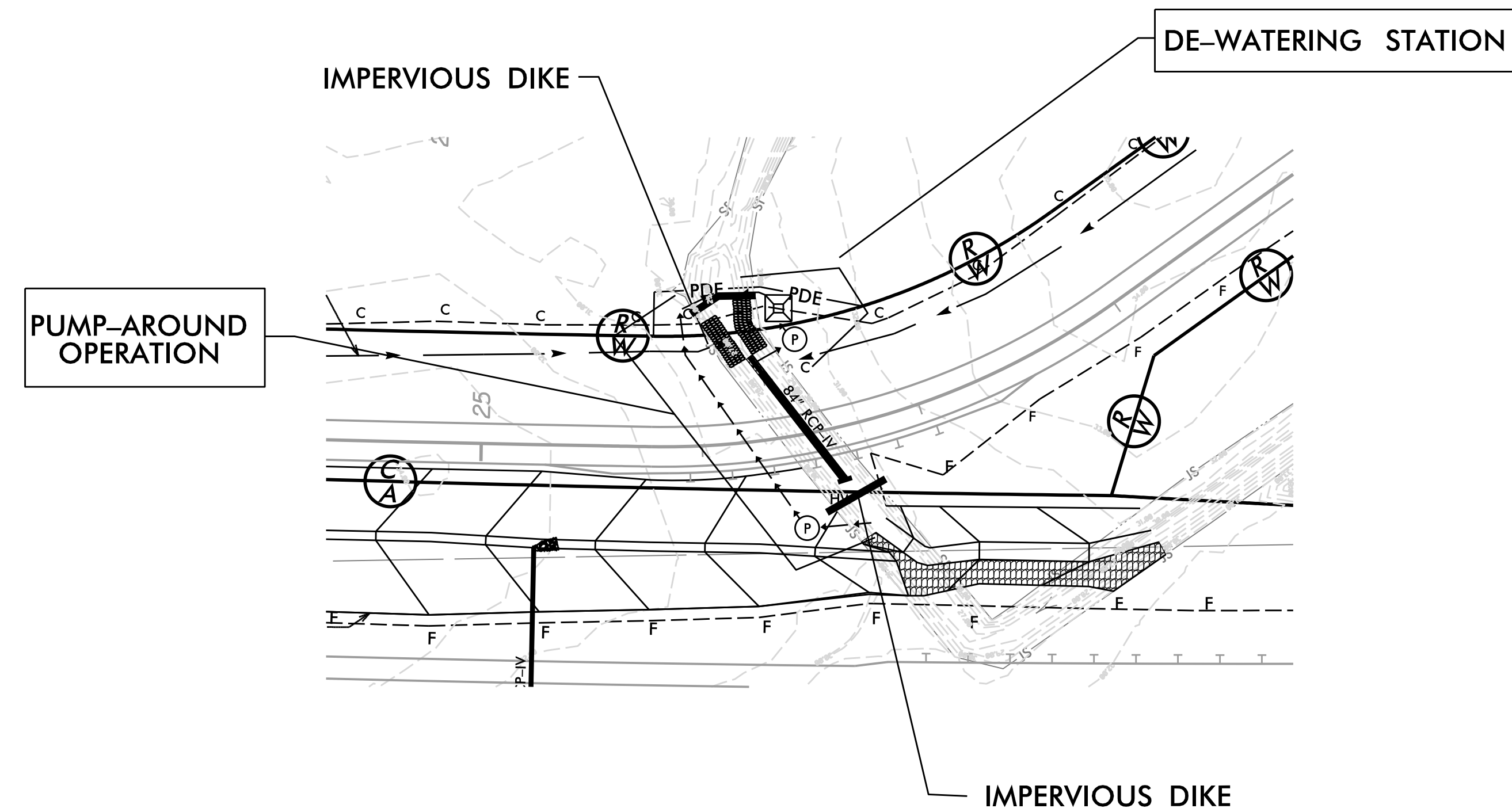
CONSTRUCTION SEQUENCE ON R-2514B 84" RCP-IV AT STA 23+51 -Y3A- UT TO WHITE OAK RIVER

PROJECT REFERENCE NO. R-2514B	SHEET NO. EC-18A /CONST.18
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	



PHASE I


1. INSTALL IMPERVIOUS DIKES UPSTREAM AND DOWNSTREAM OF CULVERT.
2. INSTALL PUMP AROUND OPERATION. STABILIZE OUTLET OF PUMP AROUND IF NEEDED TO CONTROL EROSION VELOCITIES.
3. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING THE WORK ZONE.
4. EXCAVATE WORK ZONE.
5. INSTALL 84" RCP-IV AND HEADWALL.
6. PLACE BANK STABILIZATION AT OUTLET.
7. REMOVE IMPERVIOUS DIKES AND PUMP AROUND OPERATION.

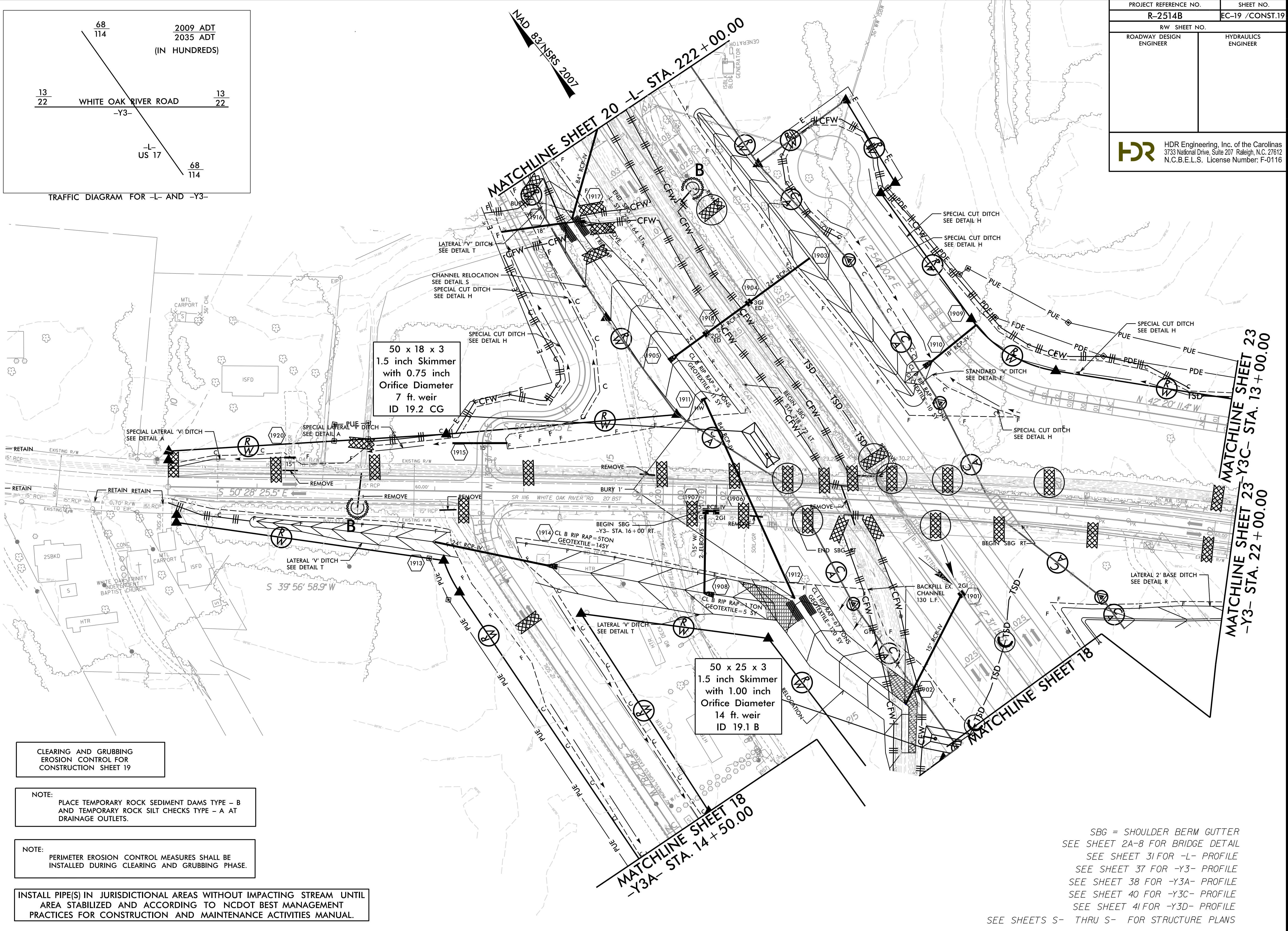
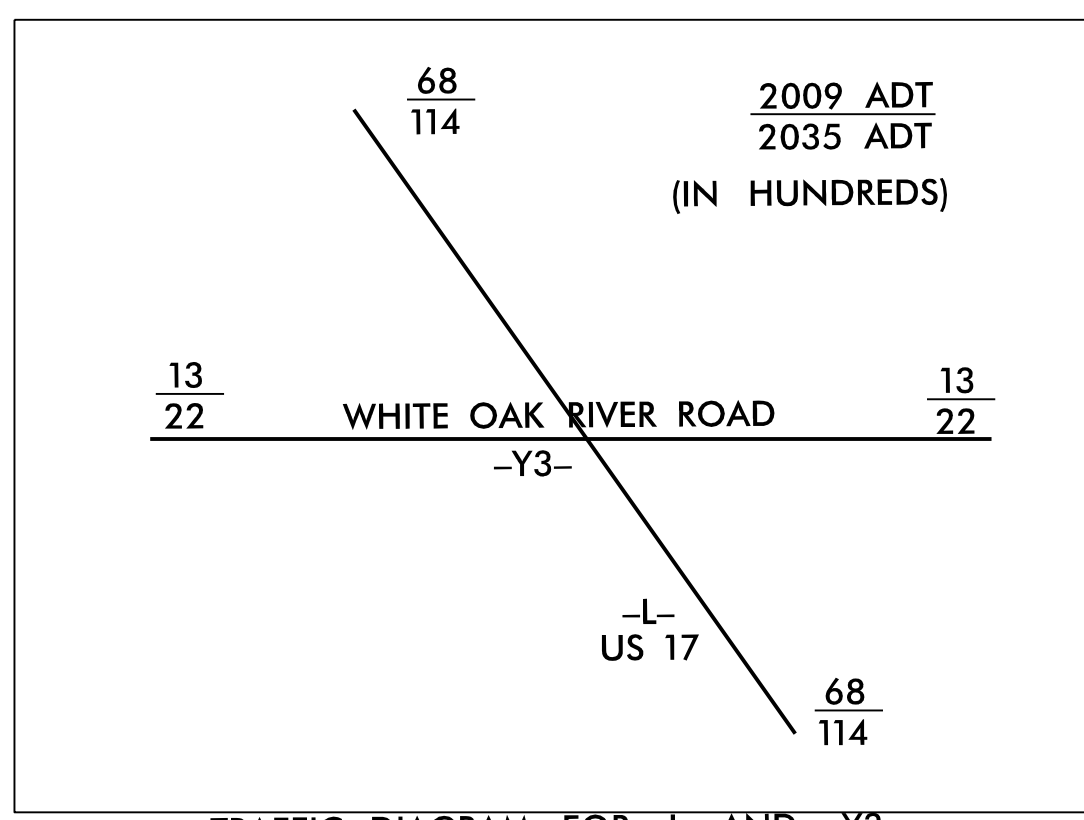


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 USER: emyers
 FILE: North Carolina Dept. of Transportation\Erosion_Cr11.R.2514B.T0.3.c\13.00.CAD\Erosion Control\N-2514B-Hyd.EC.CONST.SEQUENCE.dgn
 PENTABLE: NCDOT_EC_BW.tbl
 DATE: 1/22/2015
 TIME: 3:42:26 PM

REVISIONS

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-19 / CONST.19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 19

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

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

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.

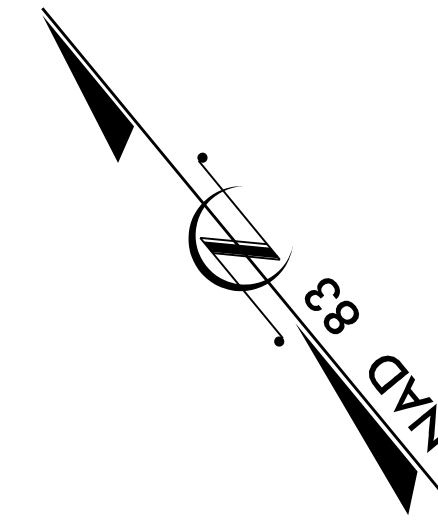
SBG = SHOULDER BERM GUTTER
SEE SHEET 2A-8 FOR BRIDGE DETAIL
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 37 FOR -Y3- PROFILE
SEE SHEET 38 FOR -Y3A- PROFILE
SEE SHEET 40 FOR -Y3C- PROFILE
SEE SHEET 41 FOR -Y3D- PROFILE
SEE SHEETS S- THRU S- FOR STRUCTURE PLANS


REVISIONS
R/W Revision 5/26/14 JCL Added new Permanent Utility Easements (PUE) to Parcel 34.

8/17/99
1/22/2015
R-2514B-EC-CG_PSH.dgn

CONSTRUCTION SEQUENCE ON R-2514B 84" RCP-IV 16 + 52 -Y3-

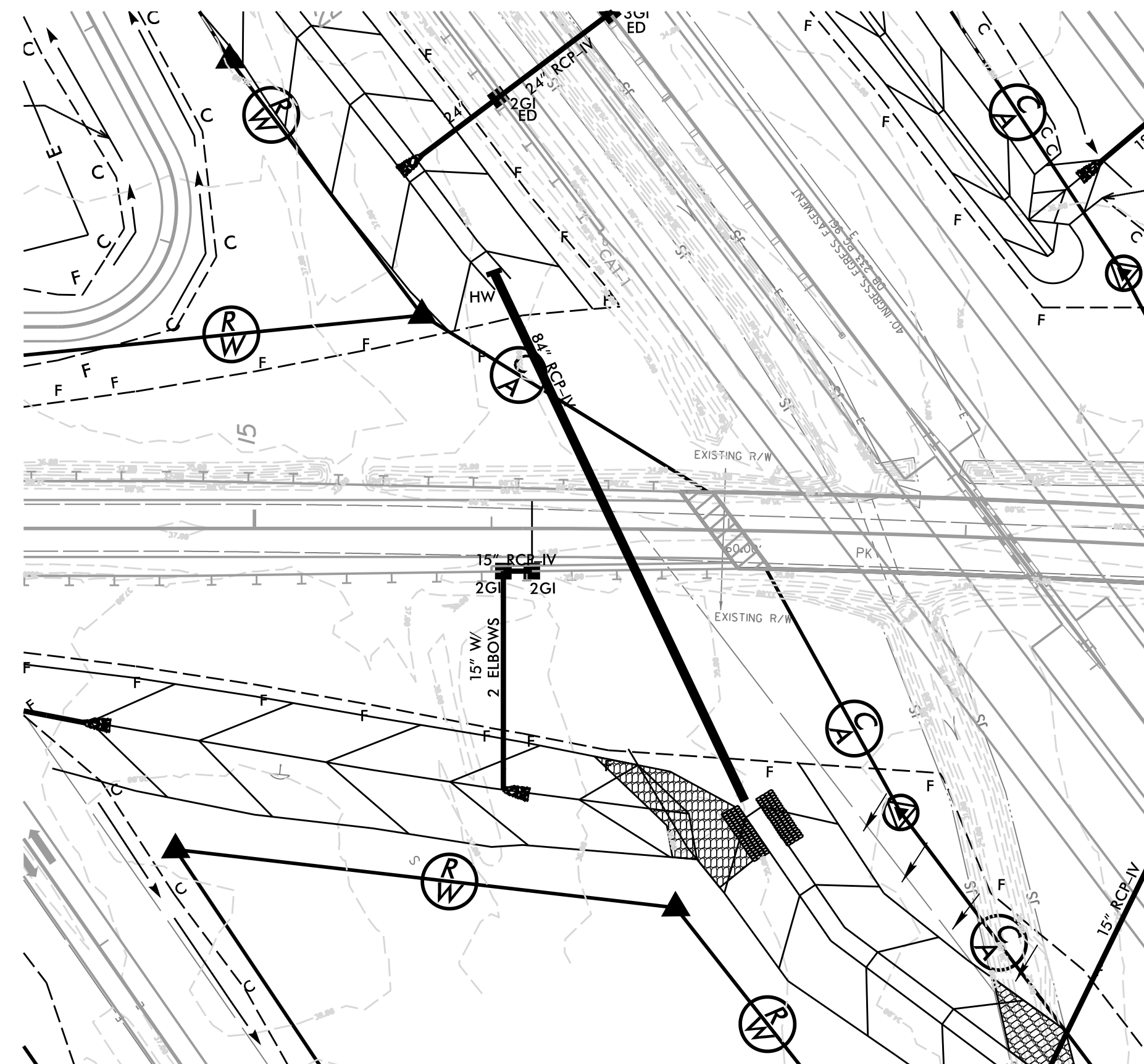
NOTE:
 RECOMMEND INSTALLING THIS CULVERT PRIOR TO INSTALLATION OF 84" RCP-IV @ -L- 222 + 22.
 CHANNEL RELOCATIONS FOR THE JURISDICTIONAL STREAM MUST BE COMPLETED WITH
 VEGETATION ESTABLISHED PRIOR TO INTRODUCTION OF STREAM FLOW.




PROJECT REFERENCE NO. R-2514B	SHEET NO. EC-19A / CONST.19
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

PHASE I

1. SET UP OFF-SITE TRAFFIC DETOUR TO INSTALL PIPE UNDER EXISTING WHITE OAK RIVER ROAD.
2. INSTALL 84" RCP-IV, INCLUDING HEADWALL AND OUTLET STABILIZATION IN DRY CONDITIONS.
3. CONSTRUCT UPSTREAM AND DOWNSTREAM CHANNELS TO MAXIMUM EXTENT PRACTICAL IN ORDER TO ESTABLISH VEGETATION.
4. USE EARTHEN DAM WITH SKIMMER AND ROCK SILT CHECK TYPE A AT FAR DOWNSTREAM END OF 8' BASE CHANNEL TO DRAIN RELOCATED CHANNEL WHILE VEGETATION IS BEING ESTABLISHED.
5. REMOVE EARTHEN DAM WITH SKIMMER, SILT CHECK A AND ANY OTHER EROSION CONTROL DEVICES IN CHANNEL PRIOR TO TURNING IN JURISDICTIONAL STREAM FLOW.

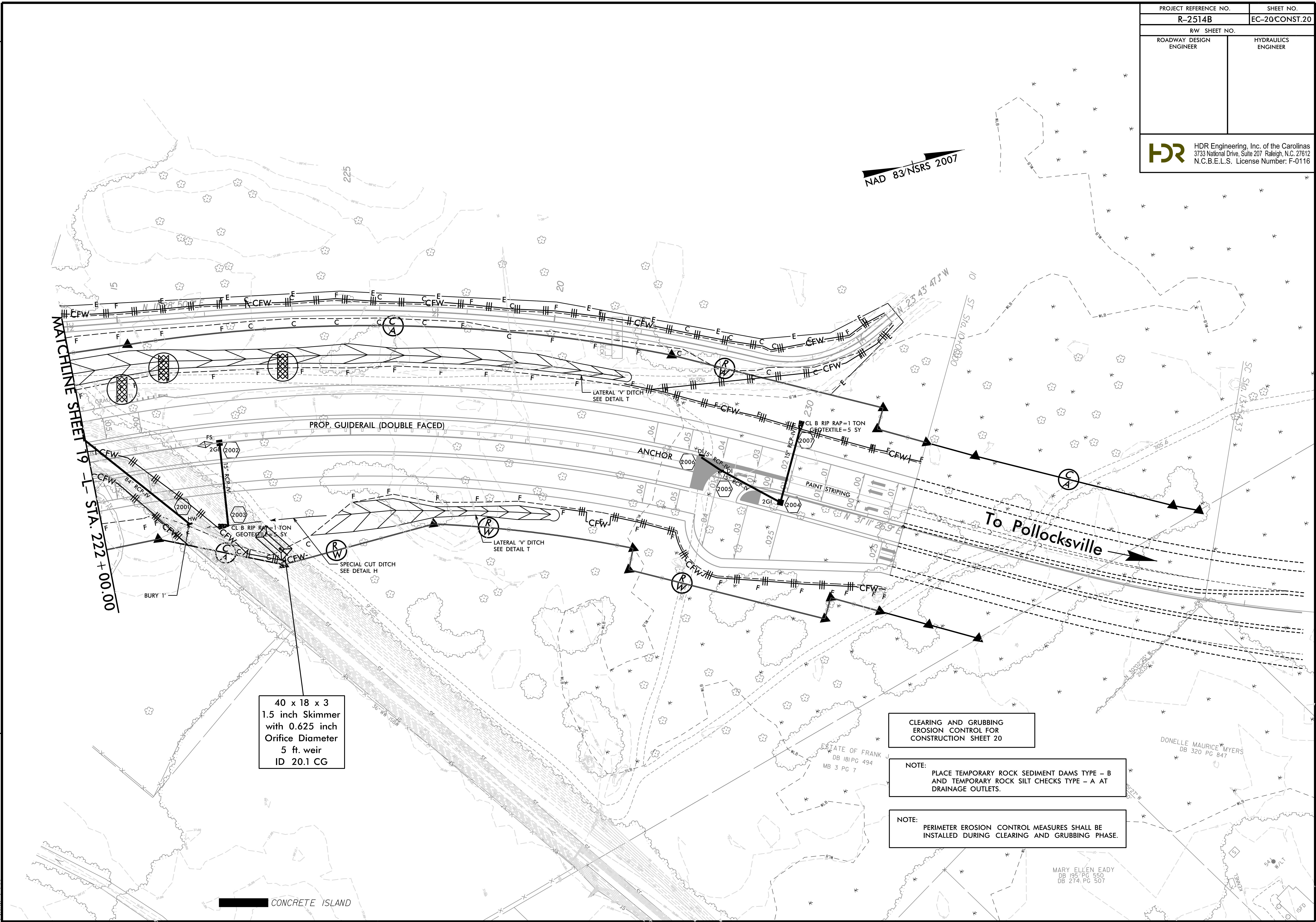


PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-20/CONST.20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

REVISIONS
 R/W Revision 4/9/14 JCL Added "No Claim" Note on parcels with no taking. Extended Proposed R/W Lines Across Parcel 34, Deleted Parcel #'s 36, 37 and 38

8/17/99

1/22/2015
 R-2514B-EC-CG_PSH.dgn
 2514B-EC-CG_PSH.dgn



40 x 18 x 3
 1.5 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 5 ft. weir
 ID 20.1 CG


CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 20

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

NOTE:
 PERIMETER EROSION CONTROL MEASURES SHALL BE
 INSTALLED DURING CLEARING AND GRUBBING PHASE.

MARY ELLEN EADY
 DB 195 PG 550
 DB 274 PG 507

6/2/99

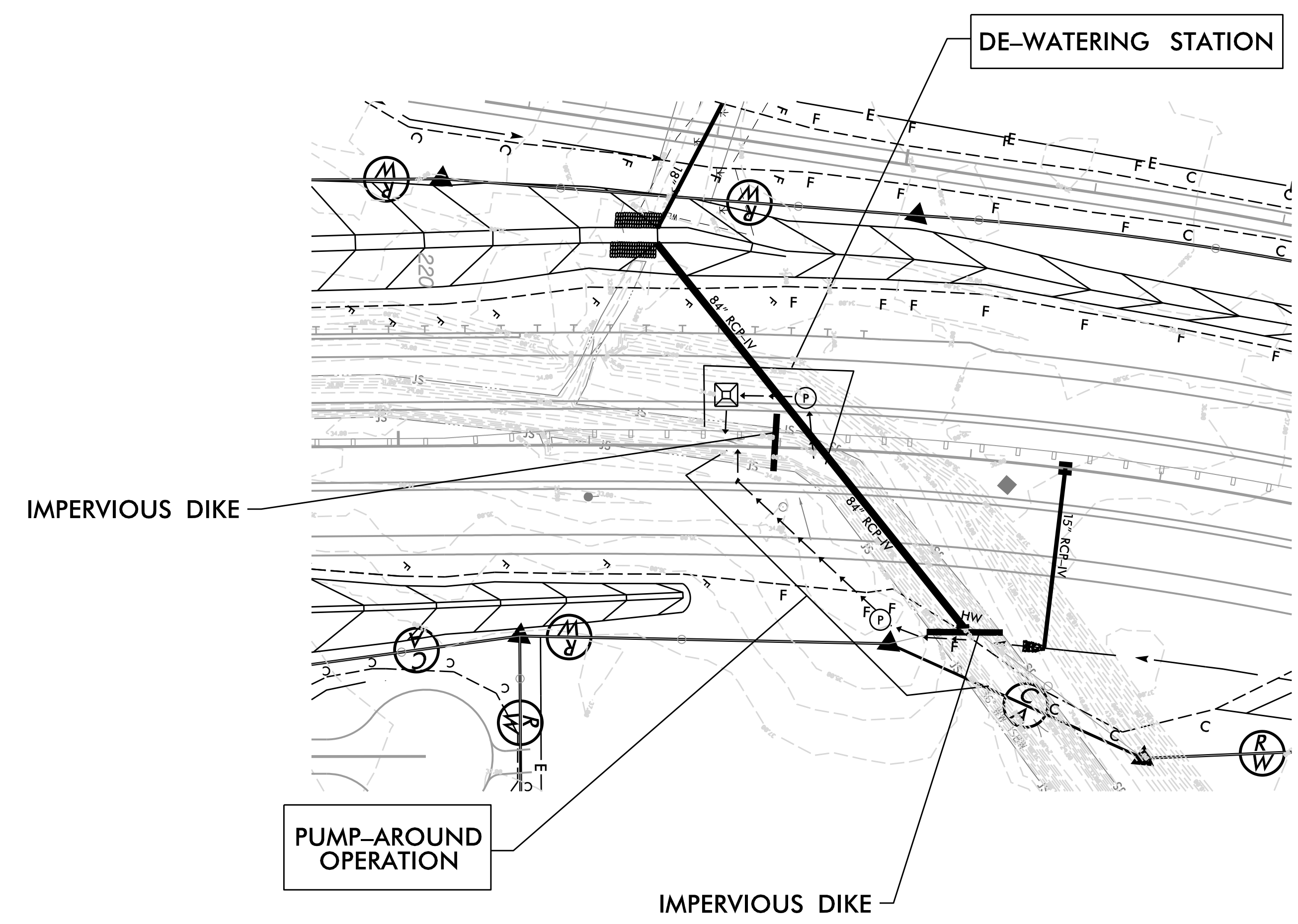
PROJECT REFERENCE NO. R-2514B	SHEET NO. EC-20A /CONST.20
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

CONSTRUCTION SEQUENCE ON R-2514B 84" RCP-IV AT 222+22 -L- UT TO WHITE OAK RIVER


NOTE:
RECOMMEND INSTALLING DOWNSTREAM 84" RCP-IV UNDER -Y3- AND
DOWNSTREAM CHANNEL RELOCATION PRIOR TO INSTALLATION OF THIS CULVERT.
THE DOWNSTREAM CONSTRUCTED CHANNEL WILL BECOME THE NEW JURISDICTIONAL
STREAM AND MUST BE GIVEN TIME TO ESTABLISH VEGETATION PRIOR ENTRY OF STREAM FLOW.

PHASE I

1. INSTALL IMPERVIOUS DIKES.
2. INSTALL PUMP AROUND OPERATION. STABILIZE OUTLET OF PUMP AROUND IF NEEDED TO CONTROL EROSION VELOCITIES.
3. PROVIDE PUMP AND SPECIAL STILLING BASIN FOR DEWATERING THE WORK ZONE.
4. EXCAVATE WORK ZONE.
5. INSTALL 84" RCP-IV AND HEADWALL.
6. PLACE BANK STABILIZATION AT OUTLET.
7. REMOVE IMPERVIOUS DIKES AND PUMP AROUND OPERATION.



PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
 USER: emyers
 FILE: North Carolina Dept. of Transportation\Erosion_Ctrl\R-2514B_TO_3.c\13.00.CAD\Erosion Control\R-2514B_Hyd_EC_CONST_SEQUENCE.dgn
 PENTABLE: NCDOT_EC_BW.tbl
 DATE: 1/22/2015
 TIME: 3:43:29 PM
 REVISIONS

PROJECT REFERENCE NO.		SHEET NO.	
R-2514B		EC-21/CONST.21	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116			

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 21

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

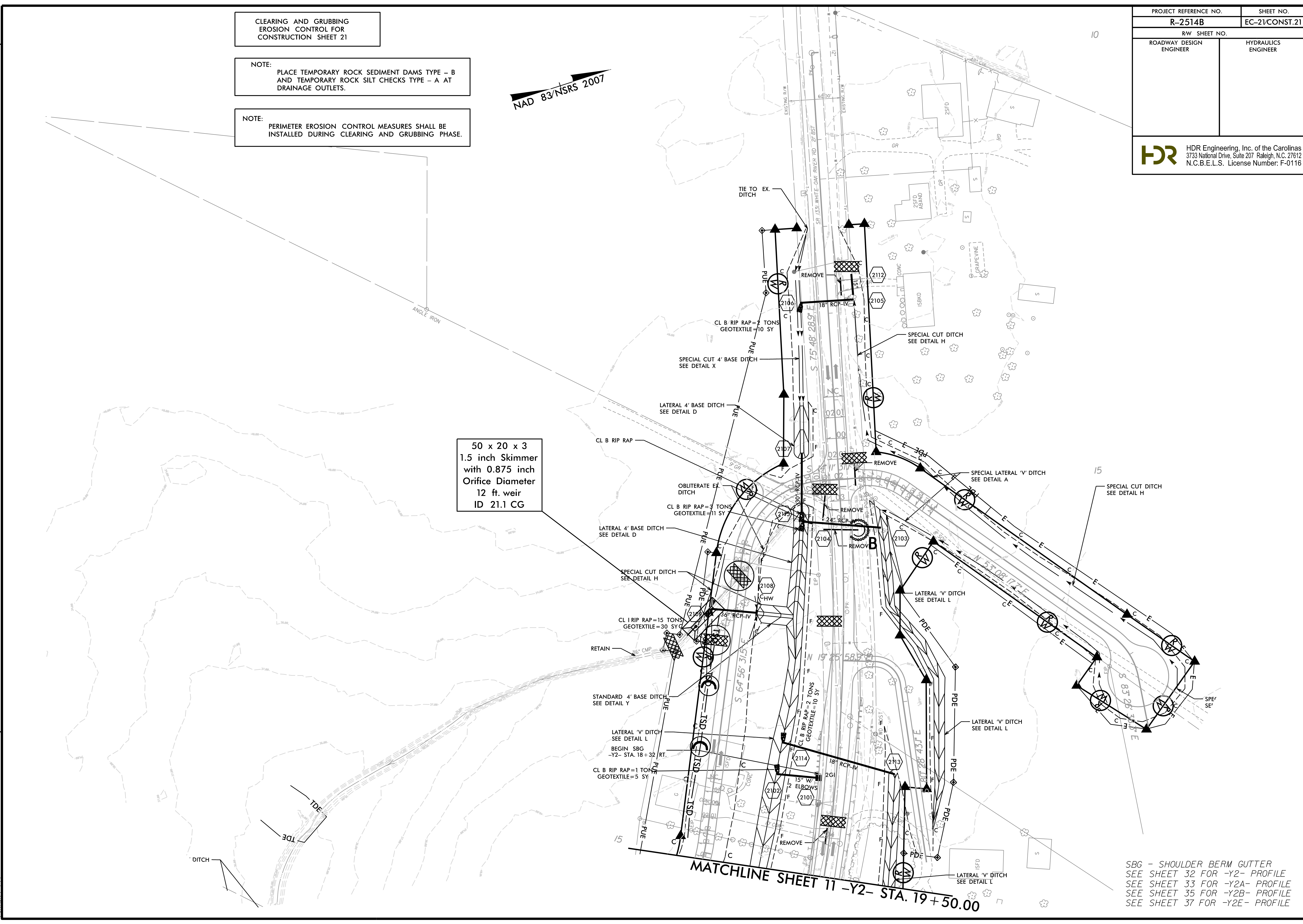
NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

NAD 83/NSRS 2007


REVISIONS
 R/W Revision 6/26/14 JCL Added new Permanent Utility Easement (PUE) to Parcels 13,16,18 and 41. Revised PUE on Parcel 39.
 R/W Revision 9/23/14 GM Revised owner of Parcel 39 to Dennis W. Saulter and added estate file reference. Revised PUE on Parcel 39. Eliminated PUE on Parcel 18.

8/17/99

1/22/2015
 R-2514B-EC-CG_PSH.dgn
 2514B-EC-CG_PSH.dgn

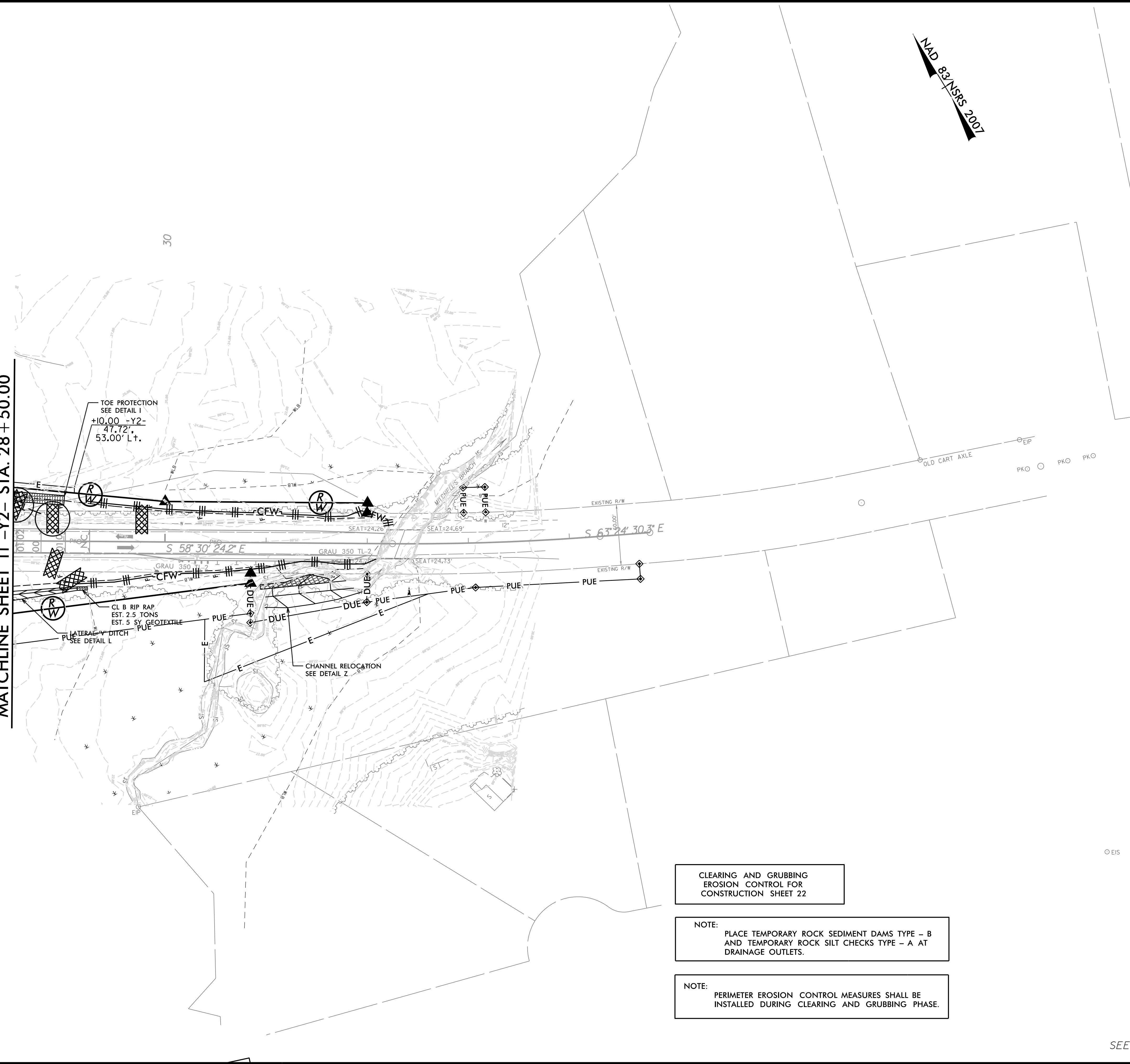


SBG - SHOULDER BERM GUTTER
 SEE SHEET 32 FOR -Y2- PROFILE
 SEE SHEET 33 FOR -Y2A- PROFILE
 SEE SHEET 35 FOR -Y2B- PROFILE
 SEE SHEET 37 FOR -Y2E- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-22/CONST.22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

REVISIONS
 R/W Revision 7/28/14 JCL Added new Parcel #43Z
 8/17/99

MATCHLINE SHEET 11 -Y2- STA. 28 + 50.00




CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 22

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

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

SEE SHEET 33 FOR -Y2- PROFILE

1/22/2015
 R-2514B-EC-CG_PSH.dgn
 2:43:37 PM

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-23/CONST.23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

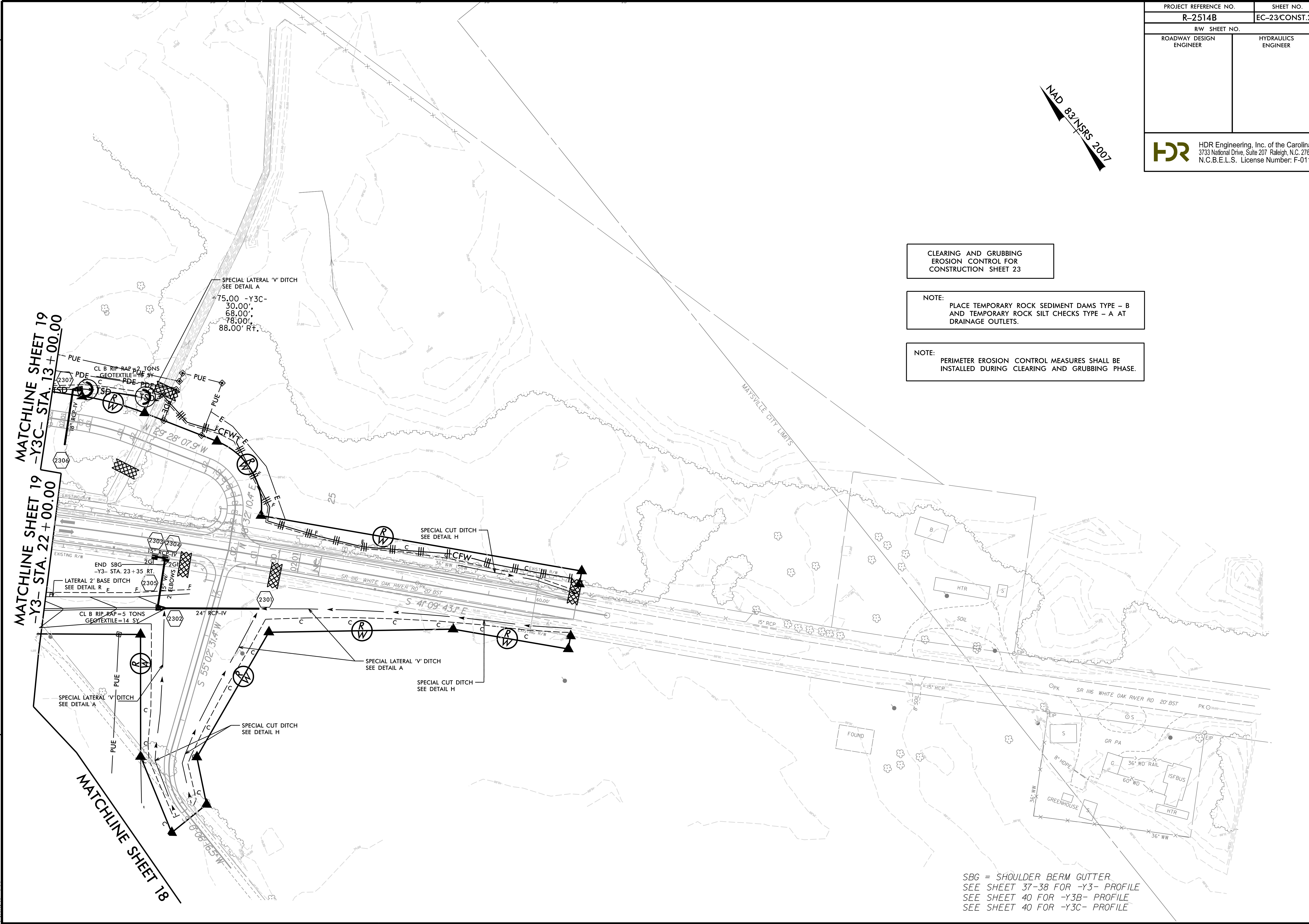
NAD 83/NSRS 2007

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 23

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

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.


REVISIONS
R/W Revision 6/26/14 JCL Added new Permanent Utility Easement (PUE) to Parcels 25,27 and 34



SBG = SHOULDER BERM GUTTER
SEE SHEET 37-38 FOR -Y3- PROFILE
SEE SHEET 40 FOR -Y3B- PROFILE
SEE SHEET 40 FOR -Y3C- PROFILE

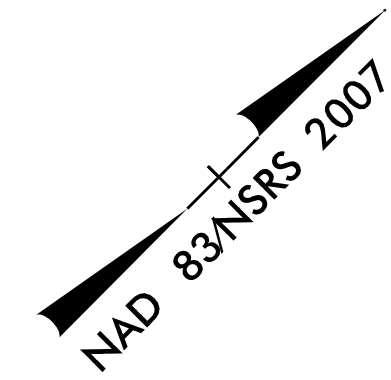
1/22/2015
R-2514B-EC-CG_PSH.dgn
34,35,36,37,38

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-24/CONST.6-A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

DETOUR SHEET

NOTE: USE FOR CONSTRUCTION OF DETOUR ONLY

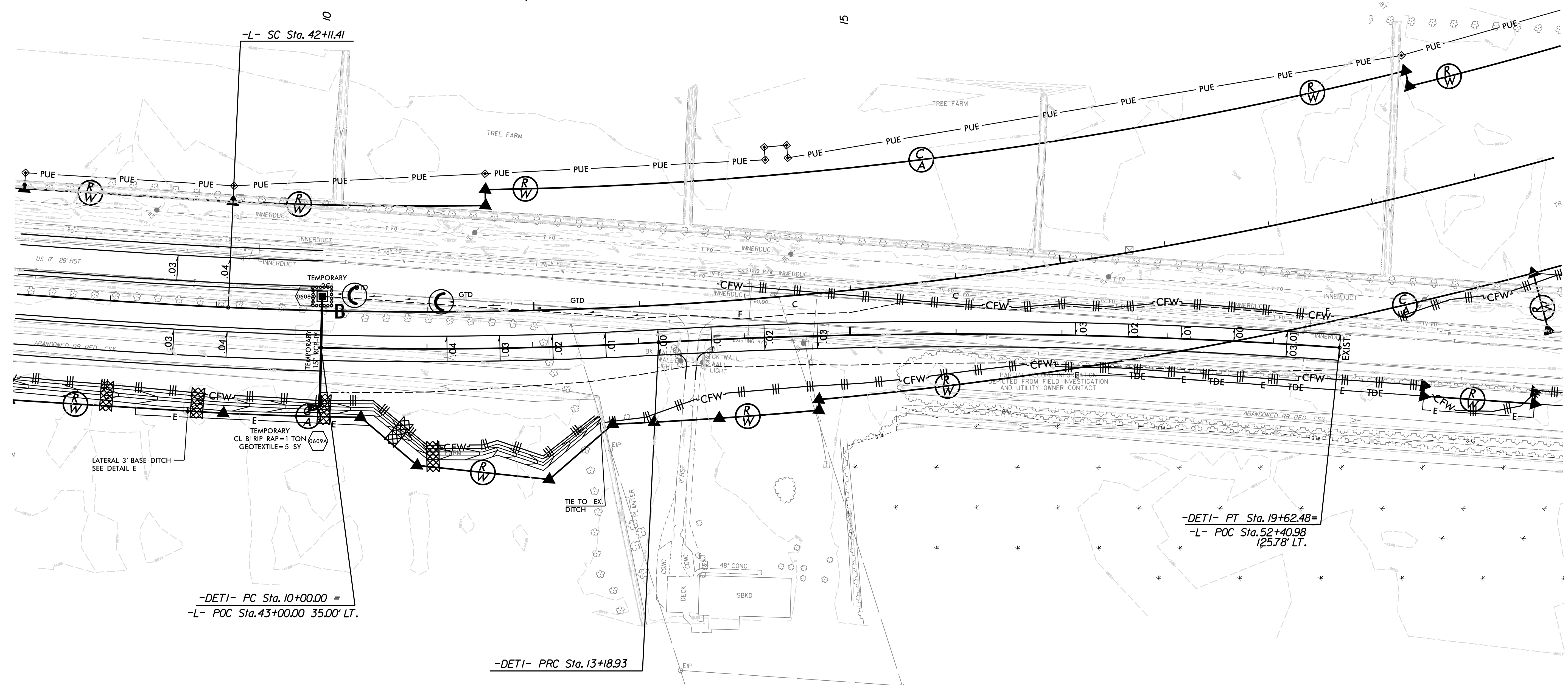


50

45

15

REVISIONS




-DETI- PC Sta. 10+00.00 =
 -L- POC Sta. 43+00.00 35.00' LT.

-DETI- PRC Sta. 13+18.93

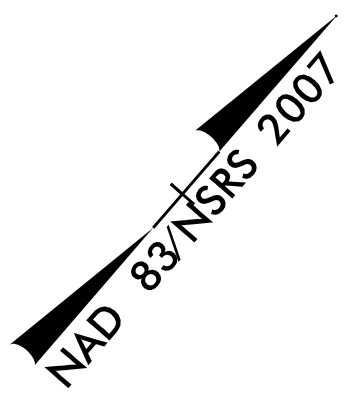
-DETI- PT Sta. 19+62.48 =
 -L- POC Sta. 52+40.98
 125.78' LT.

1/22/2015
 2:26:14 PM
 R-2514B-EC-CG_PSH.dgn

SEE SHEET 42 FOR -DETI- PROFILE

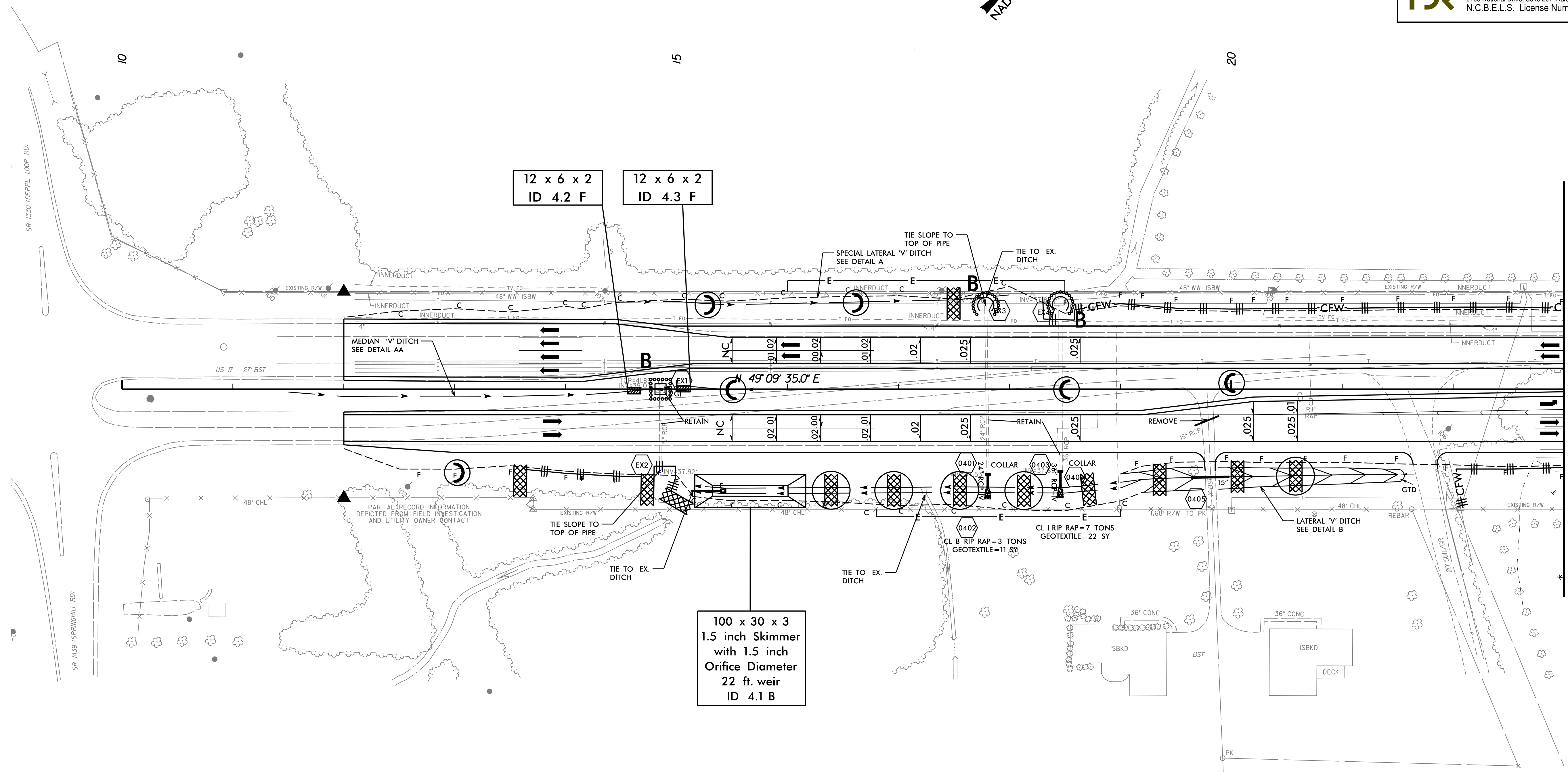
PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-25 /CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

Place Matting or Compost Blanket for Erosion Control on Slope as Work Allows. Sta. 22+00 RT to Sta. 29+00 RT




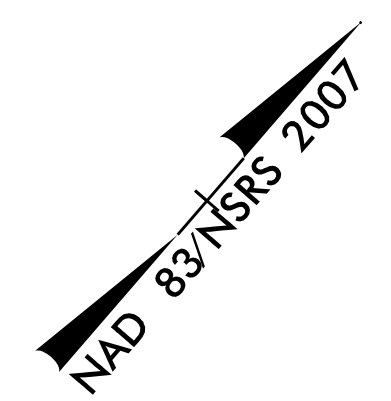
REVISIONS
 R/W Revision 4/19/14 JCL Added "No Claim" Note to parcels with no taking. Deleted Parcel #s 3 and 4. Added Parcel #2 Owner and Deed Book Information

8/17/99
 1/22/2015
 R-2514B-EC-FINAL_PSH.dgn

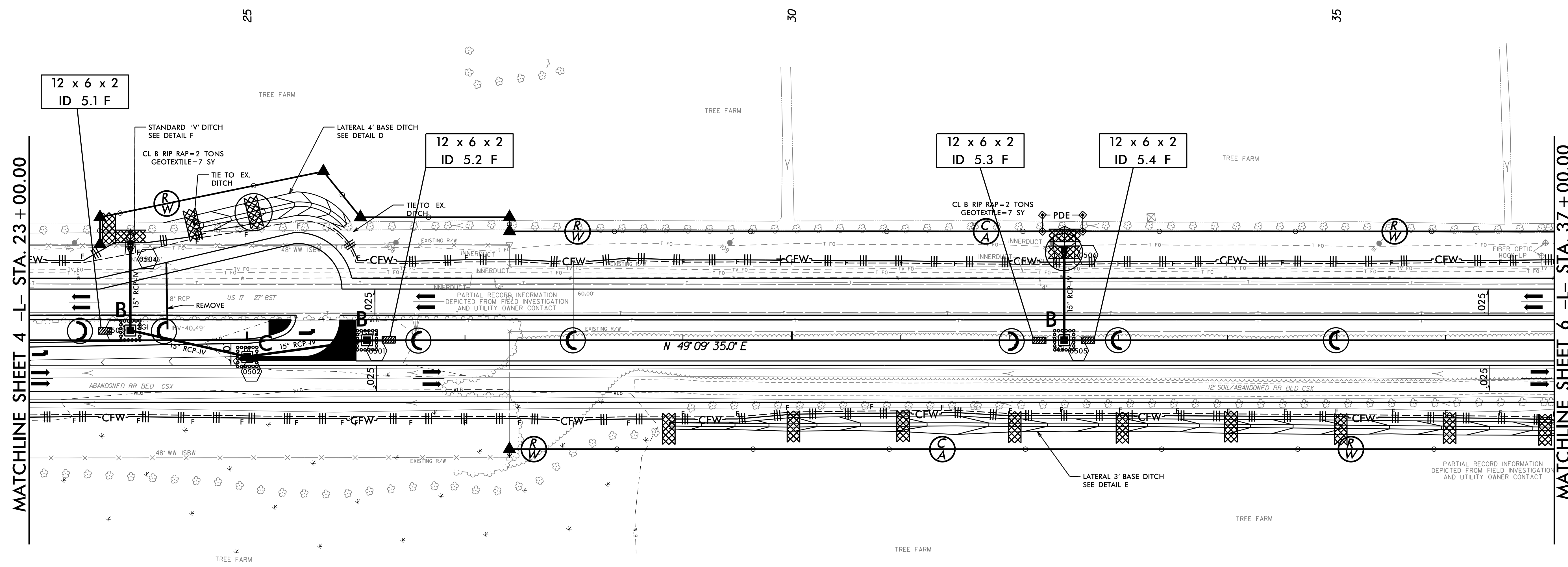


MATCHLINE SHEET 5 -L- STA. 23+00.00

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-26 /CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	



Place Matting or Compost Blanket for Erosion Control on Slope as Work Allows. Sta. 22+00 RT to Sta. 29+00 RT



MATCHLINE SHEET 4 -L- STA. 23+00.00


MATCHLINE SHEET 6 -L- STA. 37+00.00

REVISIONS

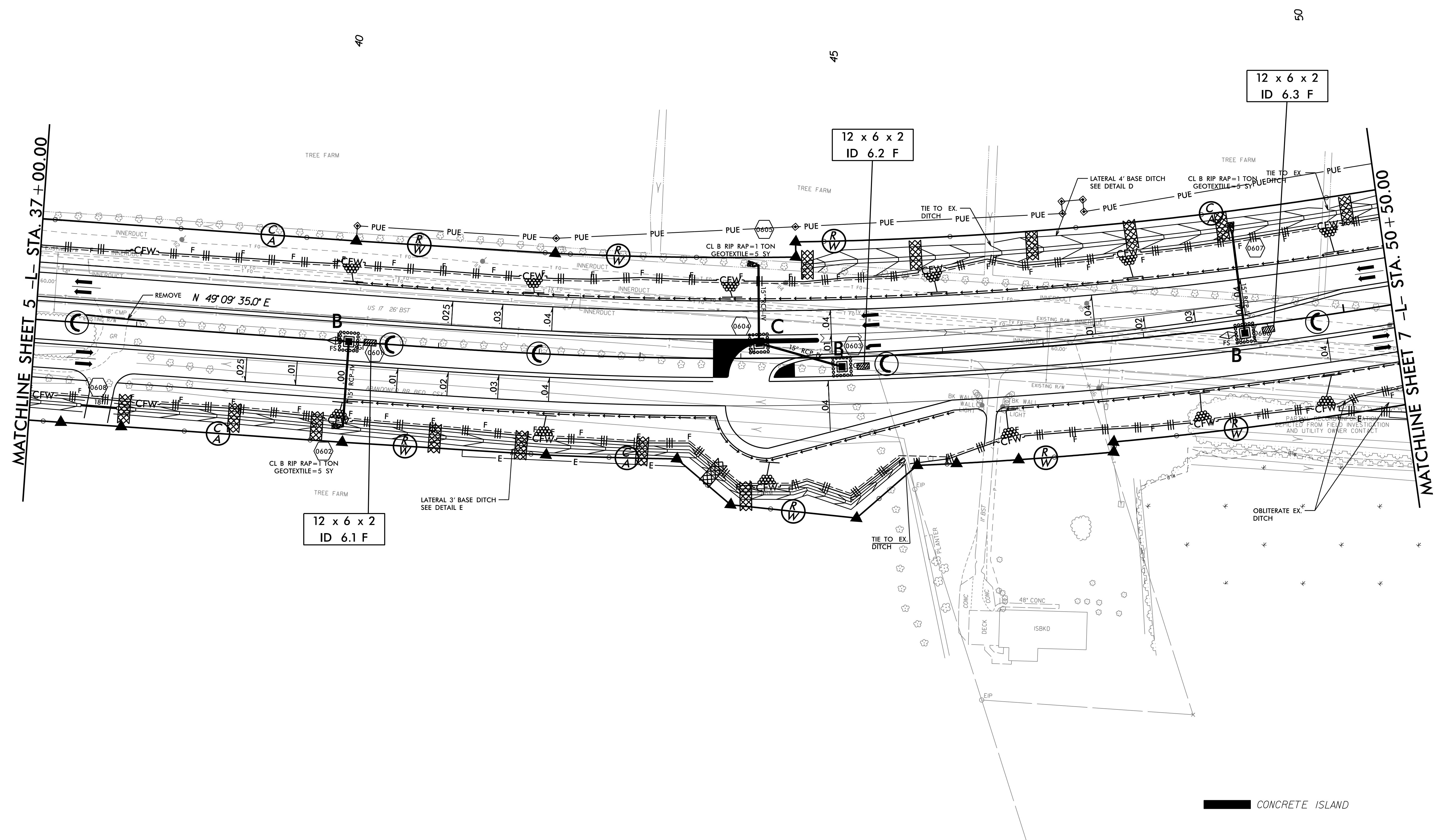
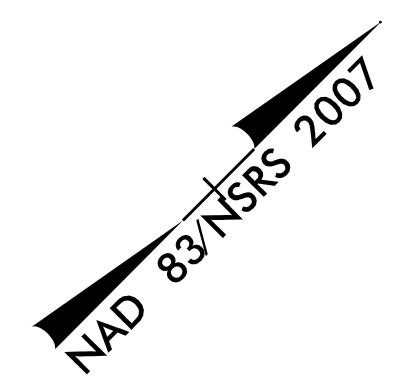
R/W Revision 6/26/14 JCL Removed Permanent Utility Easement (PUE) on Parcel 1

1/22/2015
 R-2514B-EC-FINAL_PSH.dgn
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 CONCRETE ISLAND

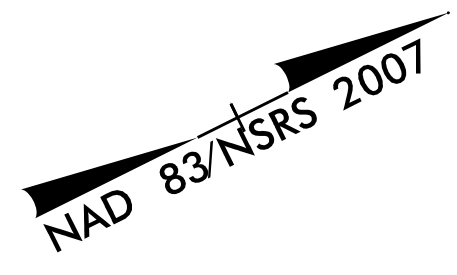
PROJECT REFERENCE NO.		SHEET NO.	
R-2514B		EC-27 /CONST.6	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116			

Place Matting or Compost Blanket for Erosion Control on Slope as Work Allows.
 Sta. 43+00 RT to Sta. 77+00 RT
 Sta. 41+00 LT to Sta. 78+00 LT

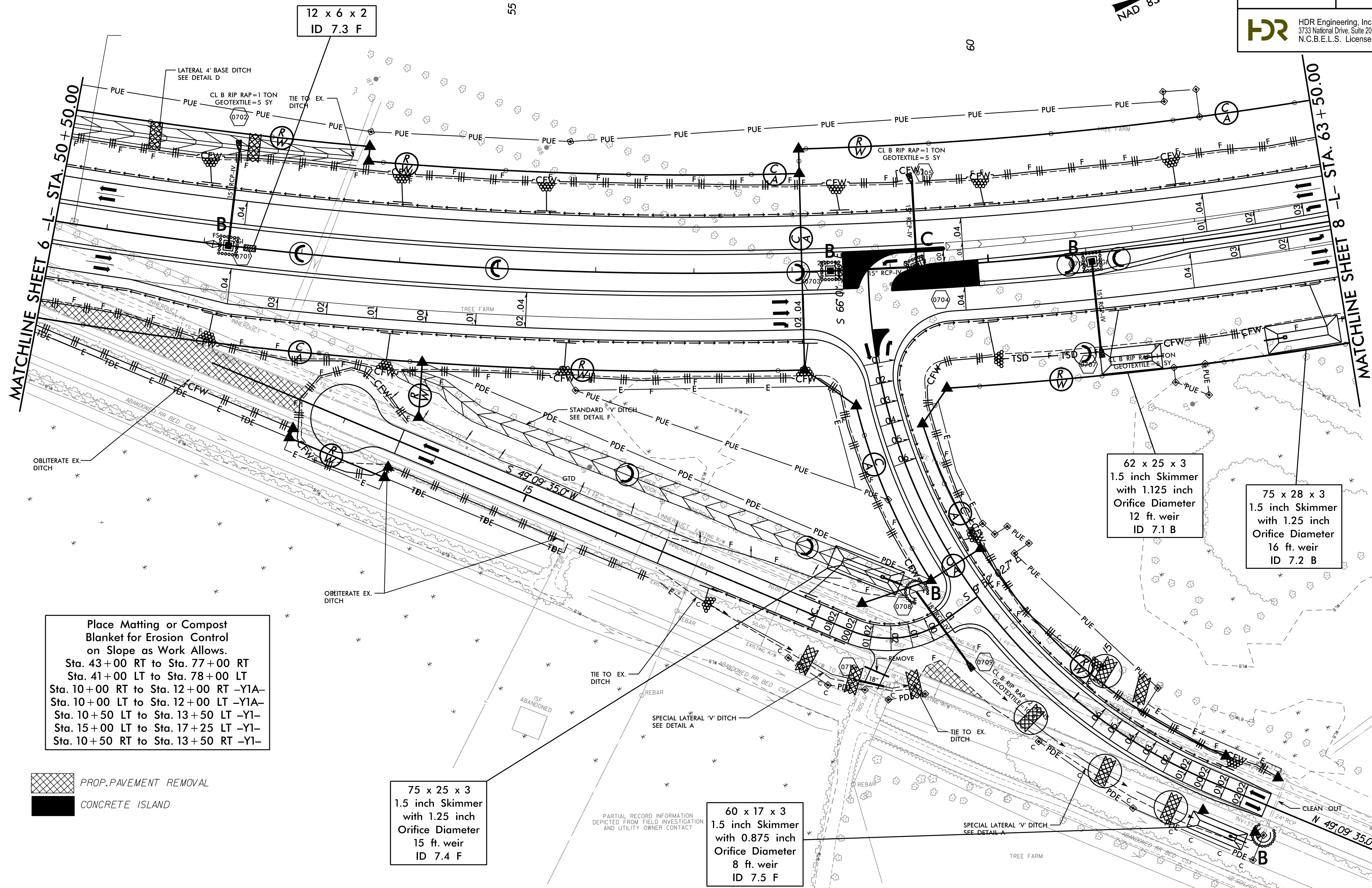


REVISIONS
 R/W Revision 6/26/14 JCL Revised Existing Permanent Utility Easements (PUE) on Parcel 1

8/17/99
 1/22/2015
 R-2514B-EC-FINAL_PSH.dgn



REVISIONS
 R/W Revision 6/26/14 JCL Revised and Added Permanent Utility Easements (PUE) to Parcel I Right -L- Sta.55+85 to 58+33



12 x 6 x 2
ID 7.3 F

62 x 25 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
12 ft. weir
ID 7.1 B

75 x 28 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
16 ft. weir
ID 7.2 B

Place Matting or Compost
Blanket for Erosion Control
on Slope as Work Allows.
 Sta. 43+00 RT to Sta. 77+00 RT
 Sta. 41+00 LT to Sta. 78+00 LT
 Sta. 10+00 RT to Sta. 12+00 RT -Y1A-
 Sta. 10+00 LT to Sta. 12+00 LT -Y1A-
 Sta. 10+50 LT to Sta. 13+50 LT -Y1-
 Sta. 15+00 LT to Sta. 17+25 LT -Y1-
 Sta. 10+50 RT to Sta. 13+50 RT -Y1-

 PROP. PAVEMENT REMOVAL
 CONCRETE ISLAND

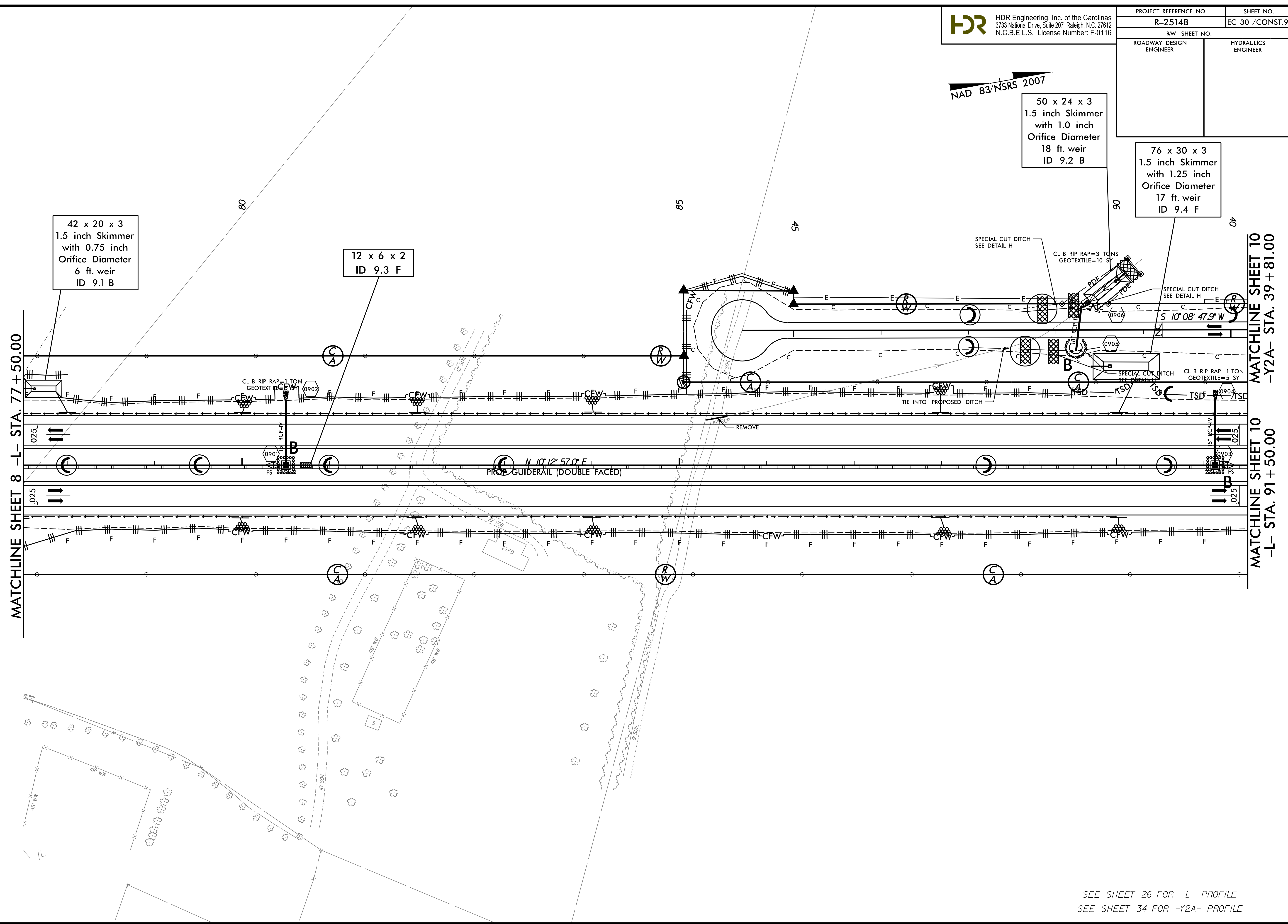
75 x 25 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
15 ft. weir
ID 7.4 F

60 x 17 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
8 ft. weir
ID 7.5 F

1/22/2015
 R-2514B-EC-FINAL_PSH.dgn
 2:54:02 PM

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-30 /CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NSRS 2007



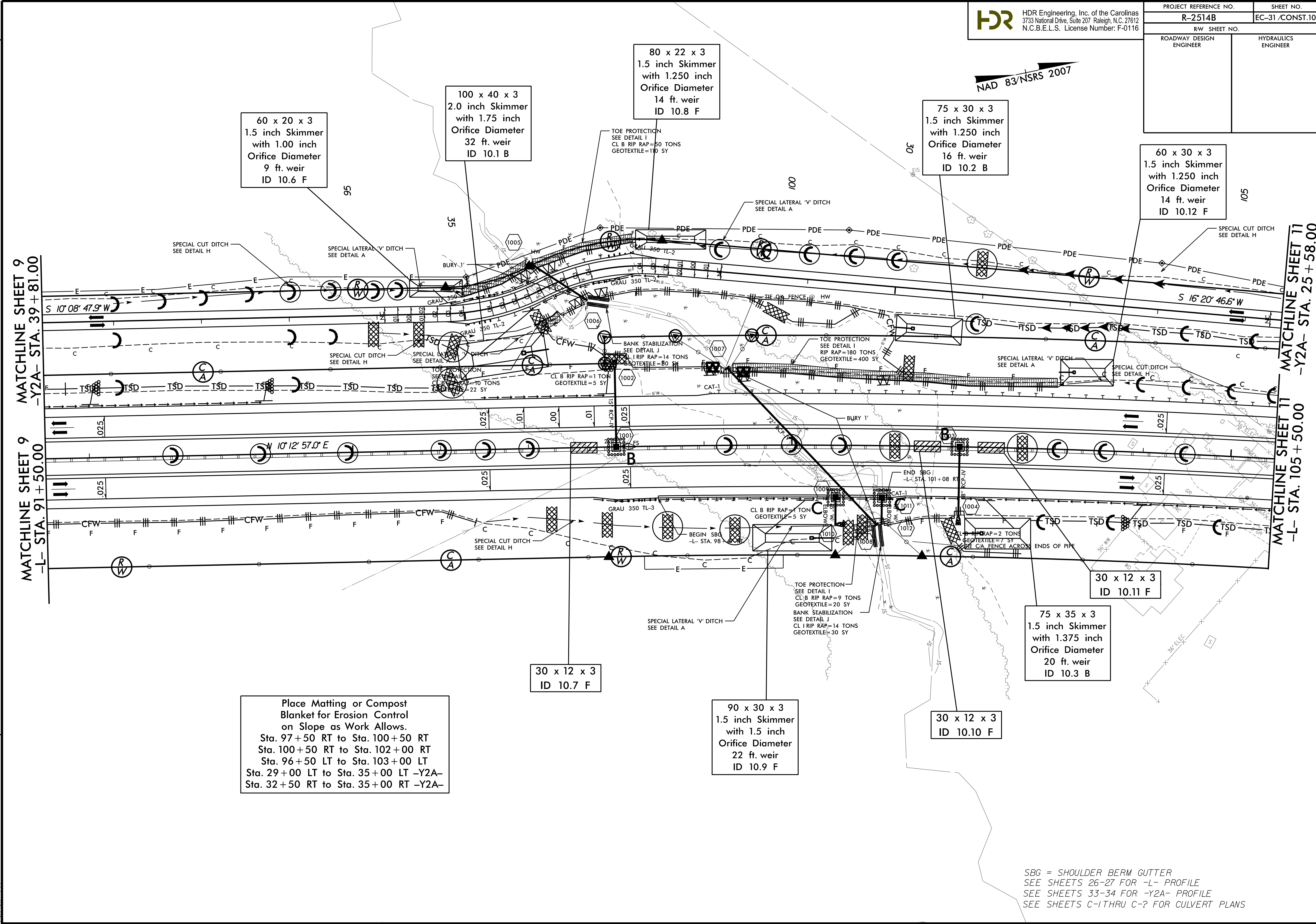
REVISIONS
 R/W Revision 5/11/14 JCL Realigned -Y2A- and Adjusted Proposed R/W, Permanent Drainage and Temporary Construction Easements on Parcels 10 and 11.

1/22/2015
 R-2514B-EC-FINAL_PSH.dgn
 2:44:08 PM

SEE SHEET 26 FOR -L- PROFILE
 SEE SHEET 34 FOR -Y2A- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-31/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NSRS 2007



Place Matting or Compost Blanket for Erosion Control on Slope as Work Allows.
 Sta. 97+50 RT to Sta. 100+50 RT
 Sta. 100+50 RT to Sta. 102+00 RT
 Sta. 96+50 LT to Sta. 103+00 LT
 Sta. 29+00 LT to Sta. 35+00 LT -Y2A-
 Sta. 32+50 RT to Sta. 35+00 RT -Y2A-

SBG = SHOULDER BERM GUTTER
 SEE SHEETS 26-27 FOR -L- PROFILE
 SEE SHEETS 33-34 FOR -Y2A- PROFILE
 SEE SHEETS C-1 THRU C-? FOR CULVERT PLANS

REVISIONS
 R/W Revision 5/11/14 JCL Realigned -Y2A- and Adjusted Proposed R/W, Permanent Drainage and Temporary Construction Easements on Parcels II, 12 and 13.

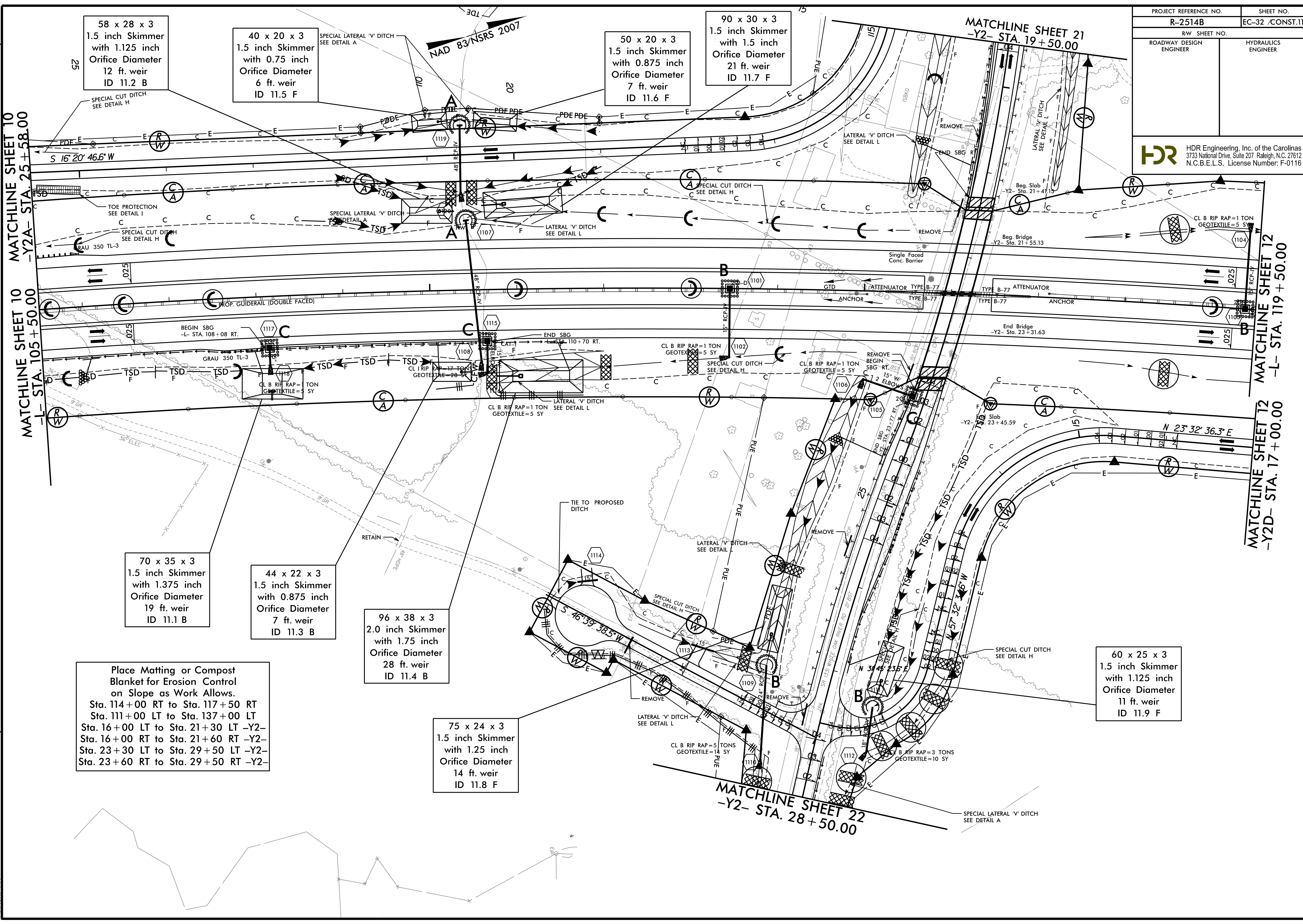
8/17/99

1/22/2015
 R-2514B-EC-FINAL_PSH.dgn
 2:54:12 PM

PROJECT REFERENCE NO. R-2514B	SHEET NO. EC-32 /CONST.11
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

HDR HDR Engineering, Inc. of the Carolinas
3733 National Drive, Suite 207 Raleigh, N.C. 27612
N.C.B.E.L.S. License Number: F-0116

8/17/99



58 x 28 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
12 ft. weir
ID 11.2 B

40 x 20 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
6 ft. weir
ID 11.5 F

50 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
7 ft. weir
ID 11.6 F

90 x 30 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
21 ft. weir
ID 11.7 F

70 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
19 ft. weir
ID 11.1 B

44 x 22 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
7 ft. weir
ID 11.3 B

96 x 38 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
28 ft. weir
ID 11.4 B

75 x 24 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
14 ft. weir
ID 11.8 F

60 x 25 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
11 ft. weir
ID 11.9 F

Place Matting or Compost
Blanket for Erosion Control
on Slope as Work Allows.
Sta. 114+00 RT to Sta. 117+50 RT
Sta. 111+00 LT to Sta. 137+00 LT
Sta. 16+00 LT to Sta. 21+30 LT -Y2-
Sta. 16+00 RT to Sta. 21+60 RT -Y2-
Sta. 23+30 LT to Sta. 29+50 LT -Y2-
Sta. 23+60 RT to Sta. 29+50 RT -Y2-

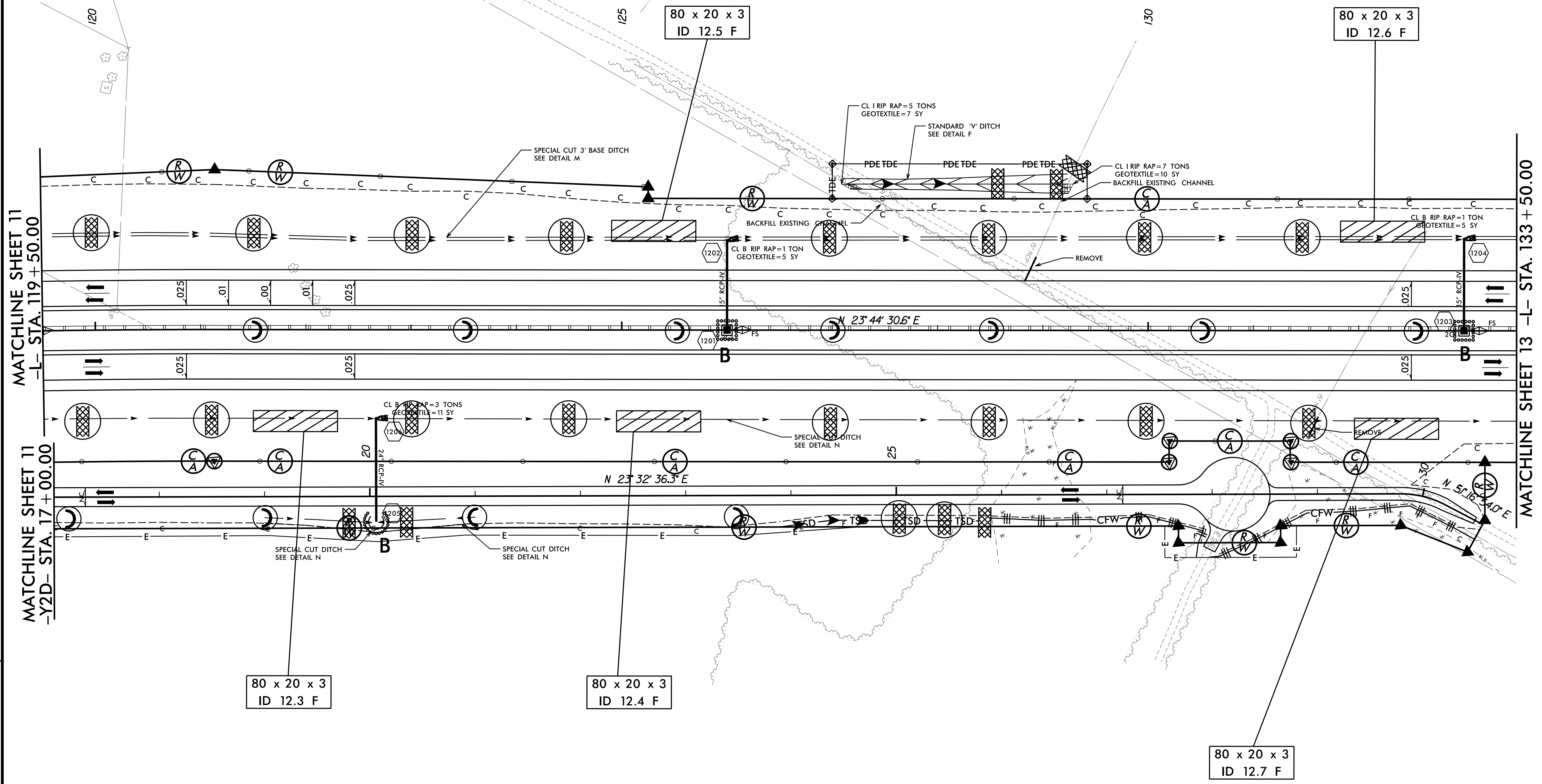
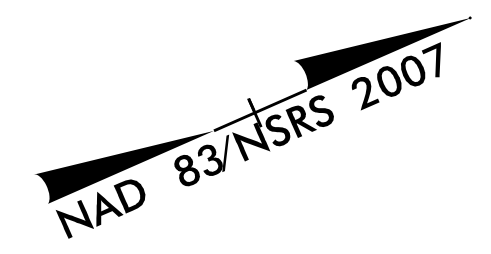
REVISIONS
R/W Revision 6/26/14 JCL Revised Permanent Utility Easements (PUE) on Parcels 12 and 14. Added new PUE on Parcel 16.

1/22/2015
R-2514B-EC-FINAL_PSH.dgn
5:44:15 PM

REVISIONS
 R/W Revision 4/9/14 JCL Converted Temporary Construction Easement (TCE) to Permanent Drainage Easement (PDE) on Parcel 1B


8/17/99
 1/22/2015
 R-2514B-EC-FINAL_PSH.dgn
 2514B-EC-FINAL_PSH.dgn

Place Matting or Compost
 Blanket for Erosion Control
 on Slope as Work Allows.
 Sta. 133+00 RT to Sta. 138+50 RT
 Sta. 111+00 LT to Sta. 137+00 LT
 Sta. 25+50 RT to Sta. 27+00 RT -Y2D-
 Sta. 28+50 RT to Sta. 30+55 RT -Y2D-

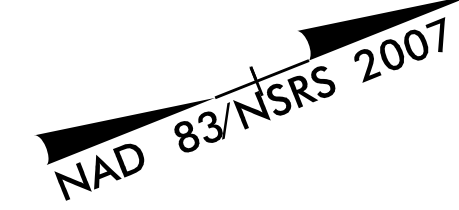


SEE SHEETS 27-28 FOR -L- PROFILE
 SEE SHEET 36 FOR -Y2D- PROFILE

8/17/99

PROJECT REFERENCE NO.		SHEET NO.	
R-2514B		EC-35 /CONST.14	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116			

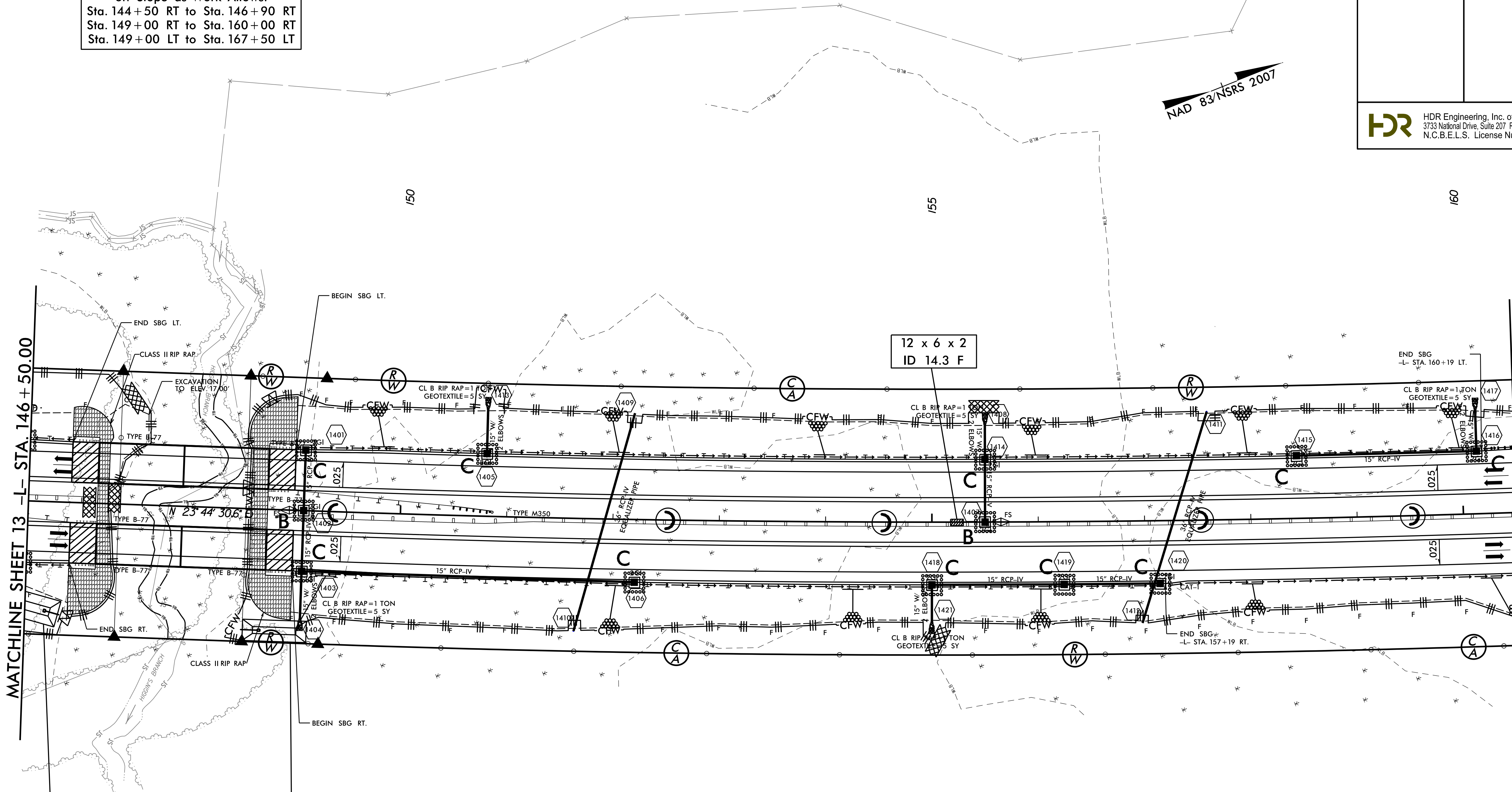
Place Matting or Compost Blanket for Erosion Control on Slope as Work Allows.
 Sta. 144+50 RT to Sta. 146+90 RT
 Sta. 149+00 RT to Sta. 160+00 RT
 Sta. 149+00 LT to Sta. 167+50 LT



REVISIONS

MATCHLINE SHEET 13 -L- STA. 146 + 50.00

MATCHLINE SHEET 15 -L- STA. 160 + 50.00




50 x 25 x 3
 1.5 inch Skimmer
 with 1.0 inch
 Orifice Diameter
 11 ft. weir
 ID 14.1 B

60 x 20 x 3
 1.5 inch Skimmer
 with 1.0 inch
 Orifice Diameter
 10 ft. weir
 ID 14.2 B

12 x 6 x 2
 ID 14.3 F

1/22/2015
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SBG = SHOULDER BERM GUTTER
 SEE SHEETS 28-29 FOR -L- PROFILE
 SEE SHEETS S- TO S- FOR STRUCTURE PLANS
 SEE SHEET 2A-8 FOR BRIDGE DETAIL

PROJECT REFERENCE NO.		SHEET NO.	
R-2514B		EC-36 /CONST.15	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116			

Place Matting or Compost Blanket for Erosion Control on Slope as Work Allows.
 Sta. 163+00 RT to Sta. 167+50 RT
 Sta. 149+00 LT to Sta. 167+50 LT

NAD 83/NSRS 2007

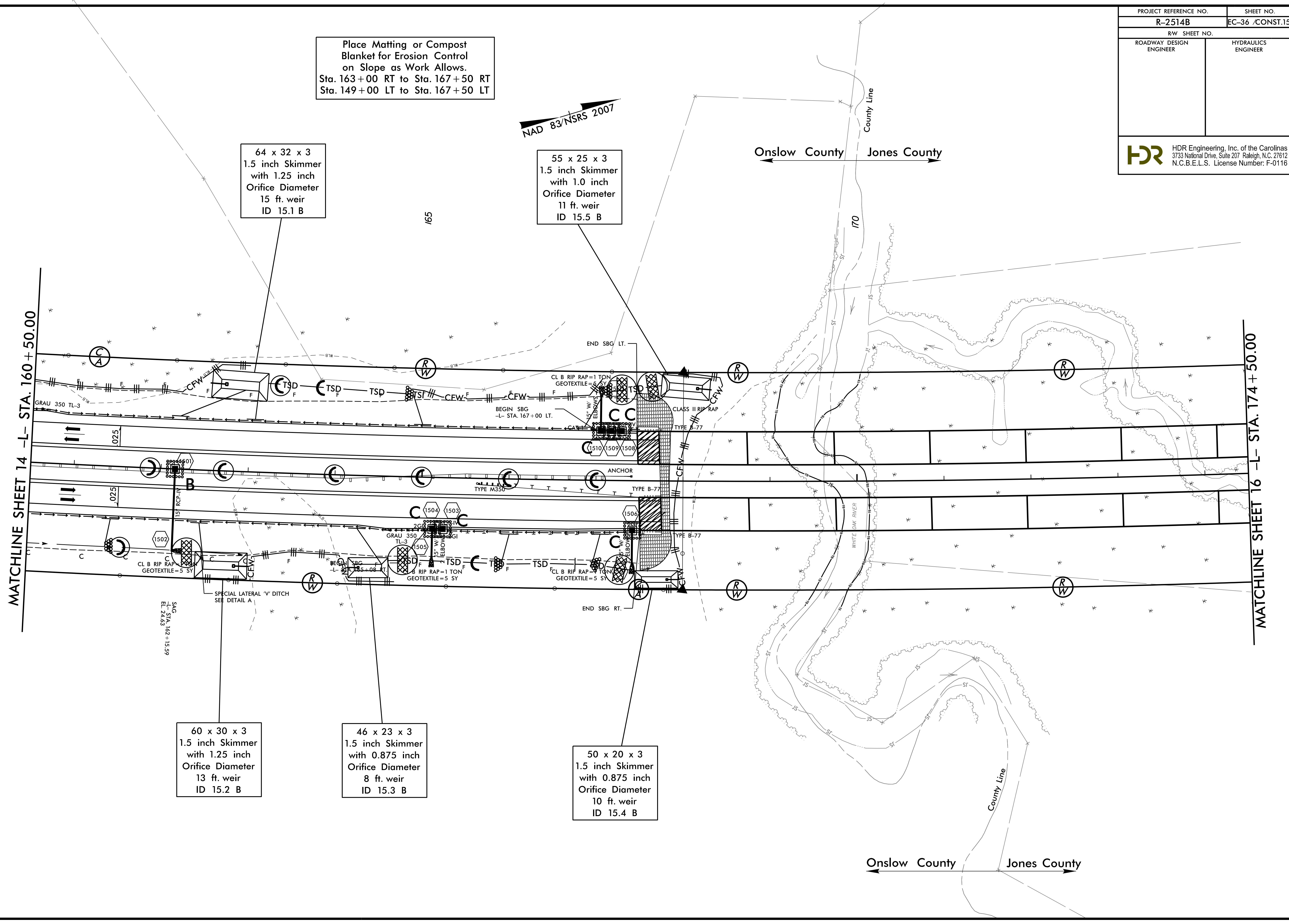
64 x 32 x 3
 1.5 inch Skimmer
 with 1.25 inch Orifice Diameter
 15 ft. weir
 ID 15.1 B

55 x 25 x 3
 1.5 inch Skimmer
 with 1.0 inch Orifice Diameter
 11 ft. weir
 ID 15.5 B

60 x 30 x 3
 1.5 inch Skimmer
 with 1.25 inch Orifice Diameter
 13 ft. weir
 ID 15.2 B


46 x 23 x 3
 1.5 inch Skimmer
 with 0.875 inch Orifice Diameter
 8 ft. weir
 ID 15.3 B

50 x 20 x 3
 1.5 inch Skimmer
 with 0.875 inch Orifice Diameter
 10 ft. weir
 ID 15.4 B



REVISIONS
 R/W REVISION 9/23/14 GM Revised owner of Parcel 22 to Walter B. Weherington

8/17/99
 1/22/2015
 R-2514B-EC-FINAL_PSH.dgn
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PROJECT REFERENCE NO. R-2514B		SHEET NO. EC-37 /CONST.16	
RW SHEET NO. ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116			

Place Matting or Compost Blanket for Erosion Control on Slope as Work Allows.
Sta. 179+60 RT to Sta. 181+50 RT
Sta. 179+60 LT to Sta. 181+50 LT

70 x 26 x 3
1.5 inch Skimmer
with 1.25 inch Orifice Diameter
14 ft. weir
ID 16.2 B

90 x 30 x 3
1.5 inch Skimmer
with 1.5 inch Orifice Diameter
22 ft. weir
ID 16.4 F

12 x 6 x 2
ID 16.6 F

60 x 30 x 3
1.5 inch Skimmer
with 1.25 inch Orifice Diameter
13 ft. weir
ID 16.1 B

120 x 35 x 3
28 ft. weir
(See Infiltration Basin Detail)
ID 16.3 B

12 x 6 x 2
ID 16.5 F

MATCHLINE SHEET 15 -L- STA. 174+50.00

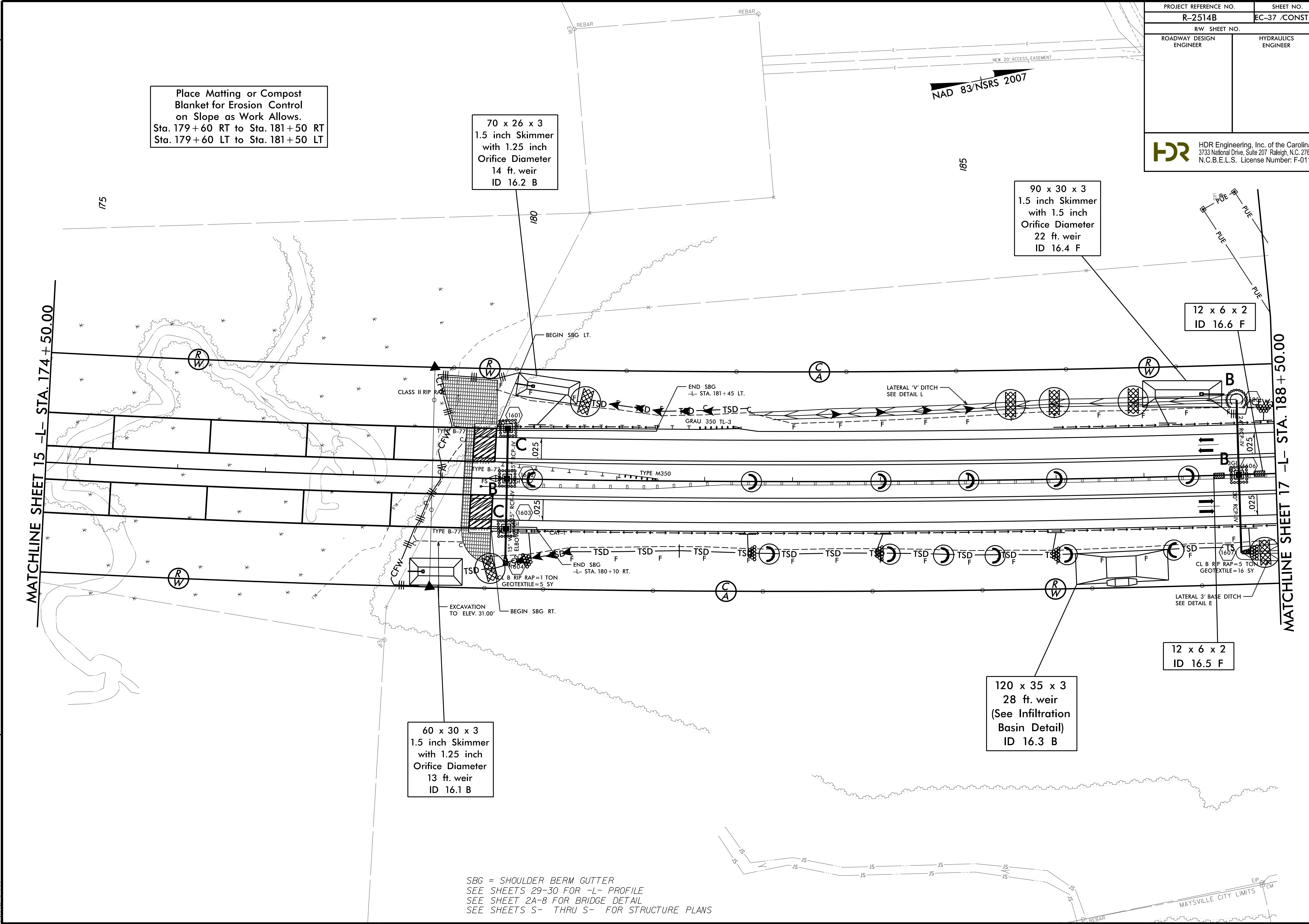
MATCHLINE SHEET 17 -L- STA. 188+50.00


8/17/99

REVISIONS
R/W Revision 6/26/14 JCL Added new Permanent Utility Easement (PUE) to Parcels 23A and 46. Added new Parcel No. 46.
R/W Revision 9/23/14 GM Revised owner of Parcel 22 to Walter B. Wetherington.

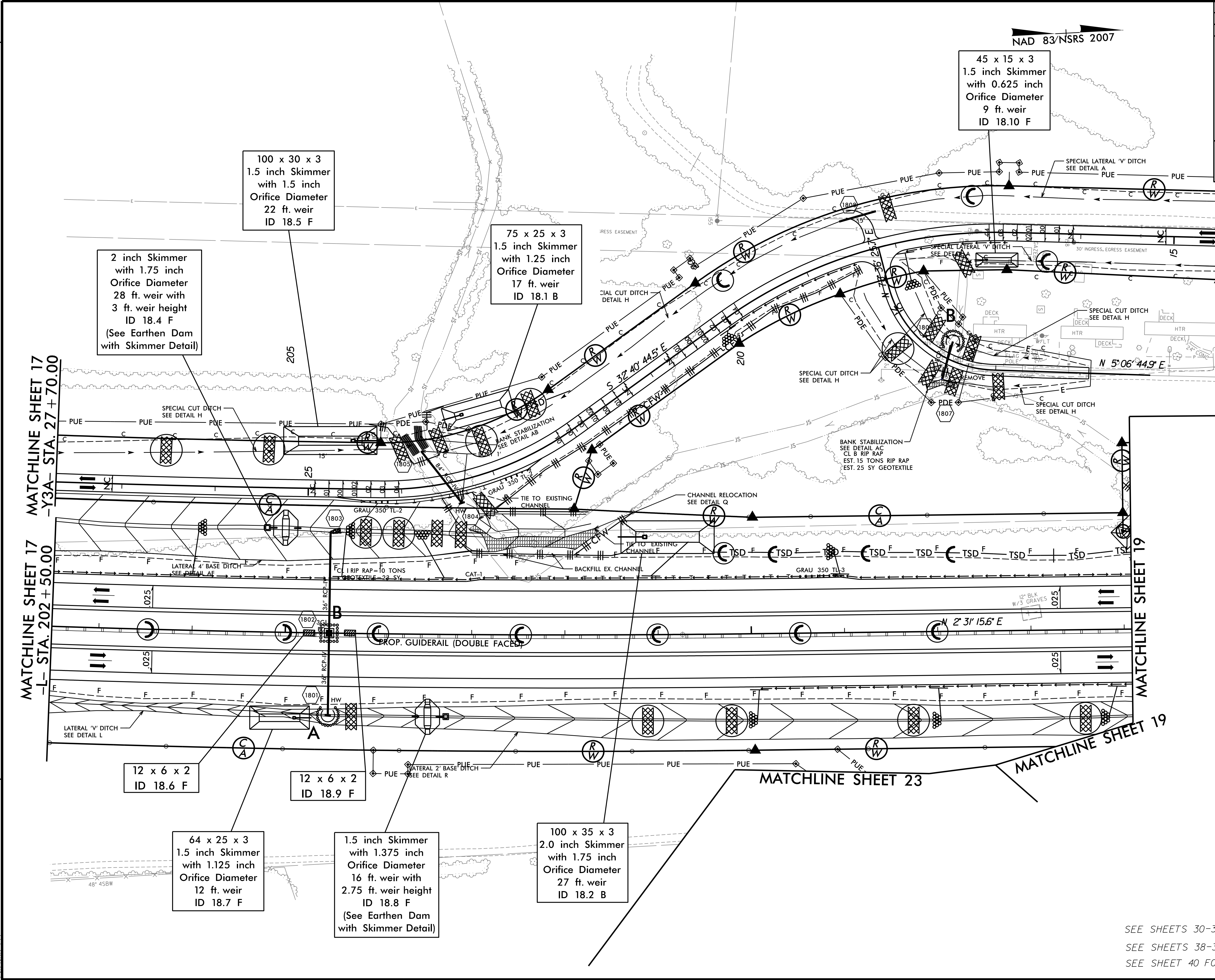
1/22/2015
R-2514B-EC-FINAL_PSH.dgn

SBG = SHOULDER BERM GUTTER
SEE SHEETS 29-30 FOR -L- PROFILE
SEE SHEET 2A-8 FOR BRIDGE DETAIL
SEE SHEETS S- THRU S- FOR STRUCTURE PLANS



PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-39 /CONST.18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

NAD 83/NSRS 2007



MATCHLINE SHEET 17
-L- STA. 202+50.00

MATCHLINE SHEET 17
-Y3A- STA. 27+70.00

MATCHLINE SHEET 19
-Y3A- STA. 14+50.00

12 x 6 x 2
ID 18.6 F

12 x 6 x 2
ID 18.9 F

64 x 25 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
12 ft. weir
ID 18.7 F

1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
16 ft. weir with
2.75 ft. weir height
ID 18.8 F
(See Earthen Dam
with Skimmer Detail)

100 x 35 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
27 ft. weir
ID 18.2 B

45 x 15 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
9 ft. weir
ID 18.10 F

100 x 30 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
22 ft. weir
ID 18.5 F

75 x 25 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
17 ft. weir
ID 18.1 B

2 inch Skimmer
with 1.75 inch
Orifice Diameter
28 ft. weir with
3 ft. weir height
ID 18.4 F
(See Earthen Dam
with Skimmer Detail)

MATCHLINE SHEET 23

MATCHLINE SHEET 19

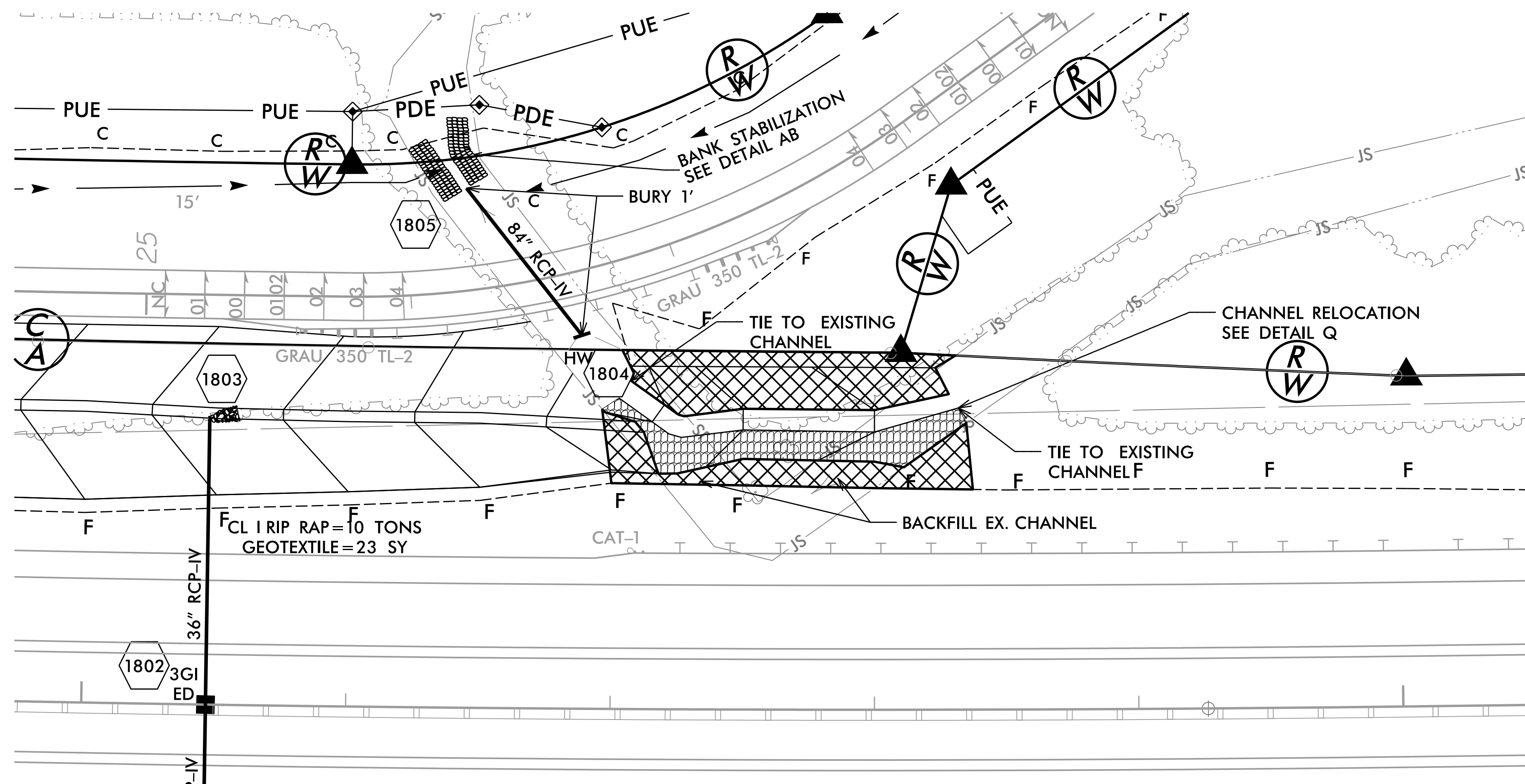
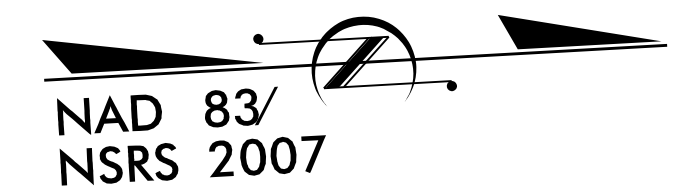
REVISIONS
 R/W Revision 7/28/14 JCL Added new Parcel #302

1/22/2015
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SEE SHEETS 30-31 FOR -L- PROFILE
 SEE SHEETS 38-39 FOR -Y3A- PROFILE
 SEE SHEET 40 FOR -Y3E- PROFILE


0.09 ACRE STREAMBANK REFORESTATION

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-39A /CONST.18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

PLOT DRIVER: NCDOT_pcf_color_eng_50.plt
 USER: cmyers
 FILE: North Carolina Dept. of Transportation\Erosion_Cr+I.R._2514B_TO_3.c\13.00.CAD\Erosion_Control\R-2514B_Reforestation_PSH.dgn
 PENTABLE: NCDOT_EC.BW.tbl
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 TIME: 3:46:34 PM

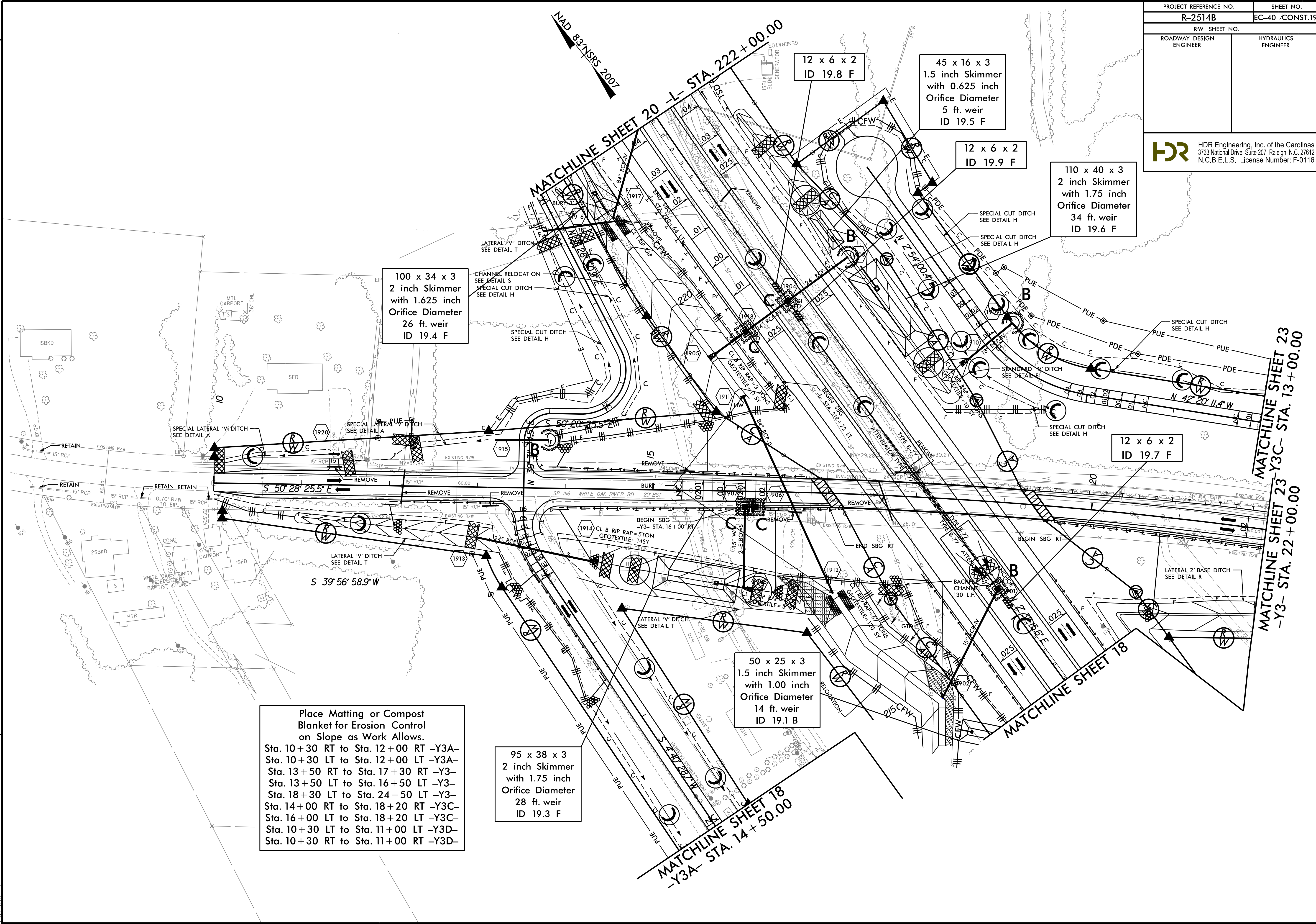
PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-40 /CONST.19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

8/17/99

REVISIONS

R/W Revision 5/26/14 JCL Added new Permanent Utility Easements (PUE) to Parcel 34.

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100 x 34 x 3
 2 inch Skimmer
 with 1.625 inch
 Orifice Diameter
 26 ft. weir
 ID 19.4 F

12 x 6 x 2
 ID 19.8 F

45 x 16 x 3
 1.5 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 5 ft. weir
 ID 19.5 F

12 x 6 x 2
 ID 19.9 F

110 x 40 x 3
 2 inch Skimmer
 with 1.75 inch
 Orifice Diameter
 34 ft. weir
 ID 19.6 F

12 x 6 x 2
 ID 19.7 F

50 x 25 x 3
 1.5 inch Skimmer
 with 1.00 inch
 Orifice Diameter
 14 ft. weir
 ID 19.1 B

95 x 38 x 3
 2 inch Skimmer
 with 1.75 inch
 Orifice Diameter
 28 ft. weir
 ID 19.3 F


Place Matting or Compost
 Blanket for Erosion Control
 on Slope as Work Allows.
 Sta. 10+30 RT to Sta. 12+00 RT -Y3A-
 Sta. 10+30 LT to Sta. 12+00 LT -Y3A-
 Sta. 13+50 RT to Sta. 17+30 RT -Y3-
 Sta. 13+50 LT to Sta. 16+50 LT -Y3-
 Sta. 18+30 LT to Sta. 24+50 LT -Y3-
 Sta. 14+00 RT to Sta. 18+20 RT -Y3C-
 Sta. 16+00 LT to Sta. 18+20 LT -Y3C-
 Sta. 10+30 LT to Sta. 11+00 LT -Y3D-
 Sta. 10+30 RT to Sta. 11+00 RT -Y3D-

MATCHLINE SHEET 23
 -Y3- STA. 13+00.00

MATCHLINE SHEET 23
 -Y3- STA. 22+00.00

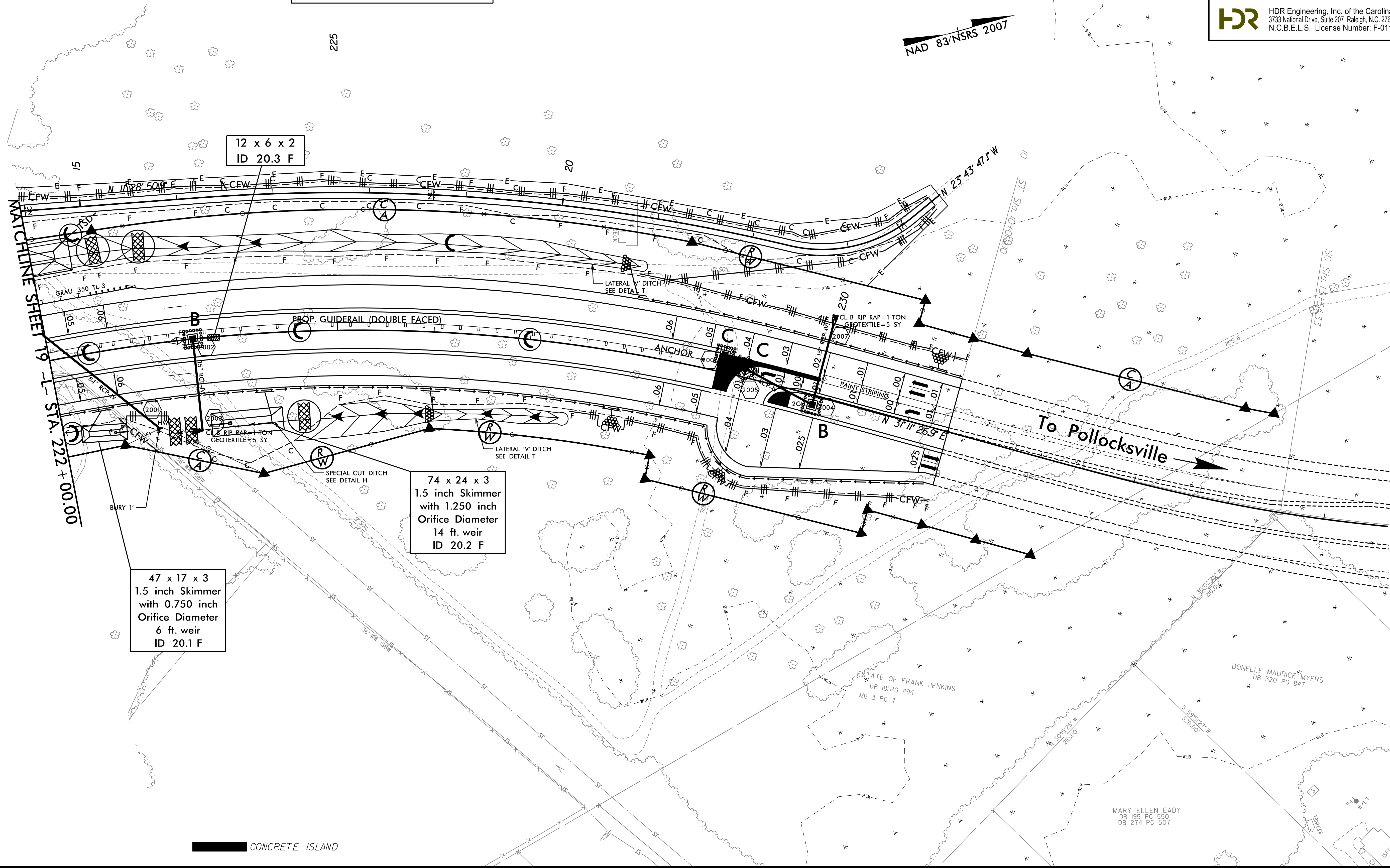
MATCHLINE SHEET 20
 -L- STA. 222+00.00

MATCHLINE SHEET 18
 -Y3A- STA. 14+50.00

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-41 /CONST.20
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

Place Matting or Compost Blanket for Erosion Control on Slope as Work Allows.
 Sta. 223+00 RT to Sta. 223+50 RT
 Sta. 223+50 RT to Sta. 225+50 RT
 Sta. 228+00 RT to Sta. 231+50 RT
 Sta. 220+50 LT to Sta. 231+50 LT

NAD 83/NSRS 2007



47 x 17 x 3
 1.5 inch Skimmer
 with 0.750 inch
 Orifice Diameter
 6 ft. weir
 ID 20.1 F

74 x 24 x 3
 1.5 inch Skimmer
 with 1.250 inch
 Orifice Diameter
 14 ft. weir
 ID 20.2 F

12 x 6 x 2
 ID 20.3 F

CONCRETE ISLAND

REVISIONS
 R/W Revision 4/9/14 JCL Added "No Claim" Note on parcels with no taking. Extended Proposed R/W Lines Across Parcel 34, Deleted Parcel #s 36, 37 and 38

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ESTATE OF FRANK JENKINS
 DB 181 PG 494
 MB 3 PG 7

DONELLE MAURICE MYERS
 DB 320 PG 847

MARY ELLEN EADY
 DB 195 PG 550
 DB 274 PG 507

NAD 83/NSRS 2007

REVISIONS
 R/W Revision 6/26/14 JCL Added new Permanent Utility Easement (PUE) to Parcels 13,16,18 and 41. Revised PUE on Parcel 39.
 R/W Revision 9/23/14 GM Revised owner of Parcel 39 to Dennis W. Saulter and added estate file reference. Revised PUE on Parcel 18.

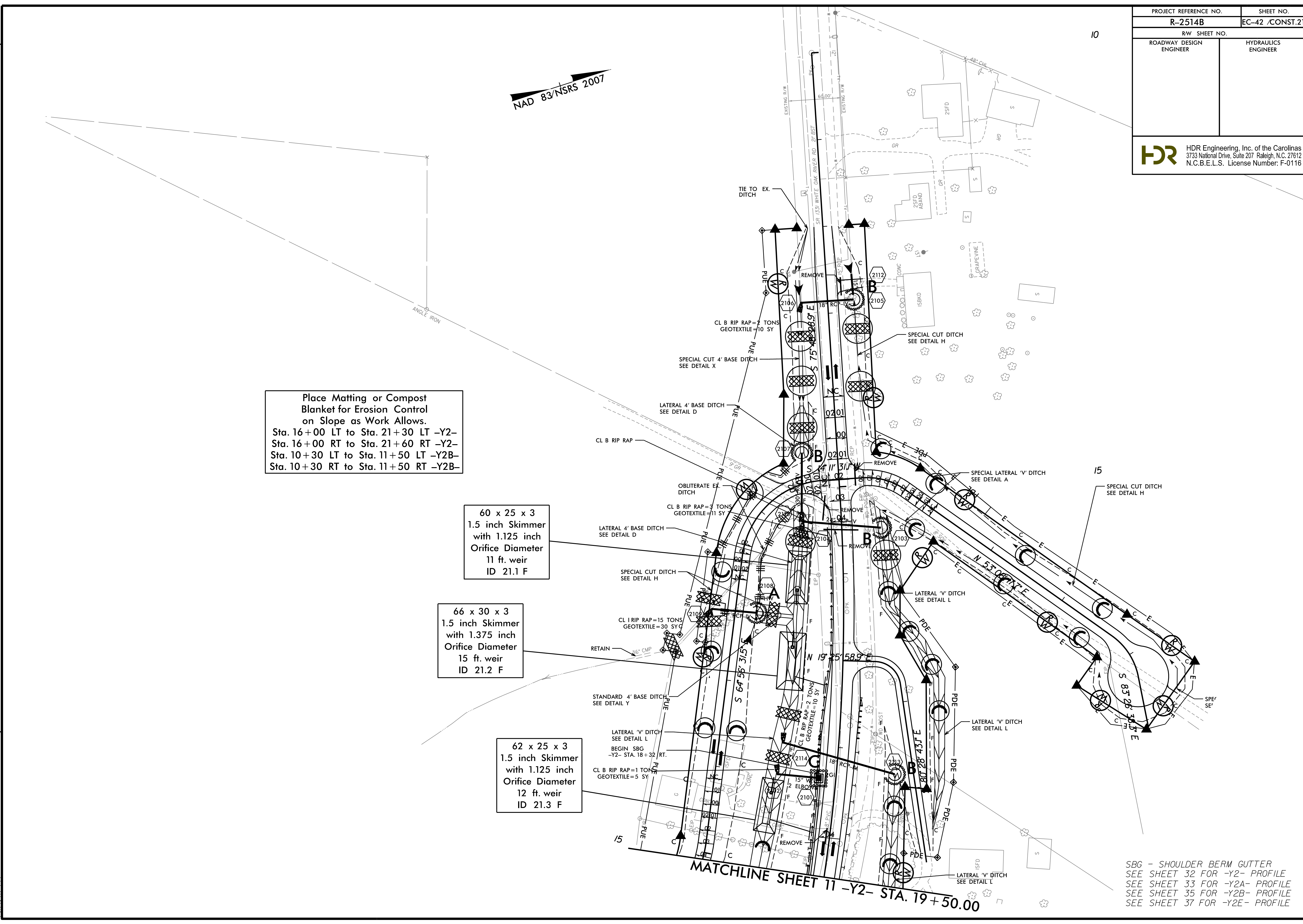
Place Matting or Compost Blanket for Erosion Control on Slope as Work Allows.
 Sta. 16+00 LT to Sta. 21+30 LT -Y2-
 Sta. 16+00 RT to Sta. 21+60 RT -Y2-
 Sta. 10+30 LT to Sta. 11+50 LT -Y2B-
 Sta. 10+30 RT to Sta. 11+50 RT -Y2B-

60 x 25 x 3
 1.5 inch Skimmer
 with 1.125 inch
 Orifice Diameter
 11 ft. weir
 ID 21.1 F

66 x 30 x 3
 1.5 inch Skimmer
 with 1.375 inch
 Orifice Diameter
 15 ft. weir
 ID 21.2 F


62 x 25 x 3
 1.5 inch Skimmer
 with 1.125 inch
 Orifice Diameter
 12 ft. weir
 ID 21.3 F

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SBG - SHOULDER BERM GUTTER
 SEE SHEET 32 FOR -Y2- PROFILE
 SEE SHEET 33 FOR -Y2A- PROFILE
 SEE SHEET 35 FOR -Y2B- PROFILE
 SEE SHEET 37 FOR -Y2E- PROFILE

MATCHLINE SHEET 11 -Y2- STA. 19+50.00

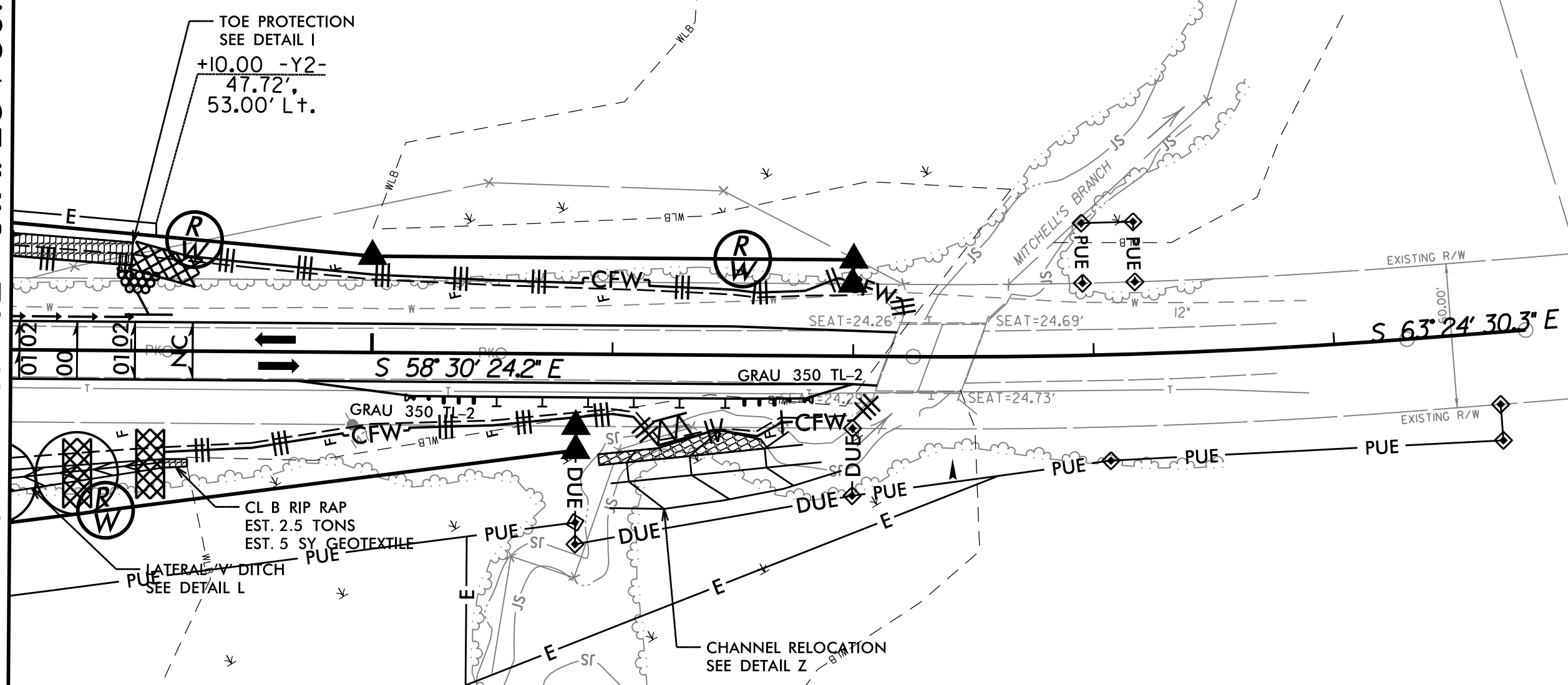
PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-43 /CONST.22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

Place Matting or Compost Blanket for Erosion Control on Slope as Work Allows.
 Sta. 29+50 RT to Sta. 32+00 RT -Y2-
 Sta. 30+00 LT to Sta. 32+00 LT -Y2-

NAD 82/NRS 2007

REVISIONS
 R/W Revision 7/28/14 JCL Added new Parcel #43Z

MATCHLINE SHEET 11 -Y2- STA. 28 + 50.00

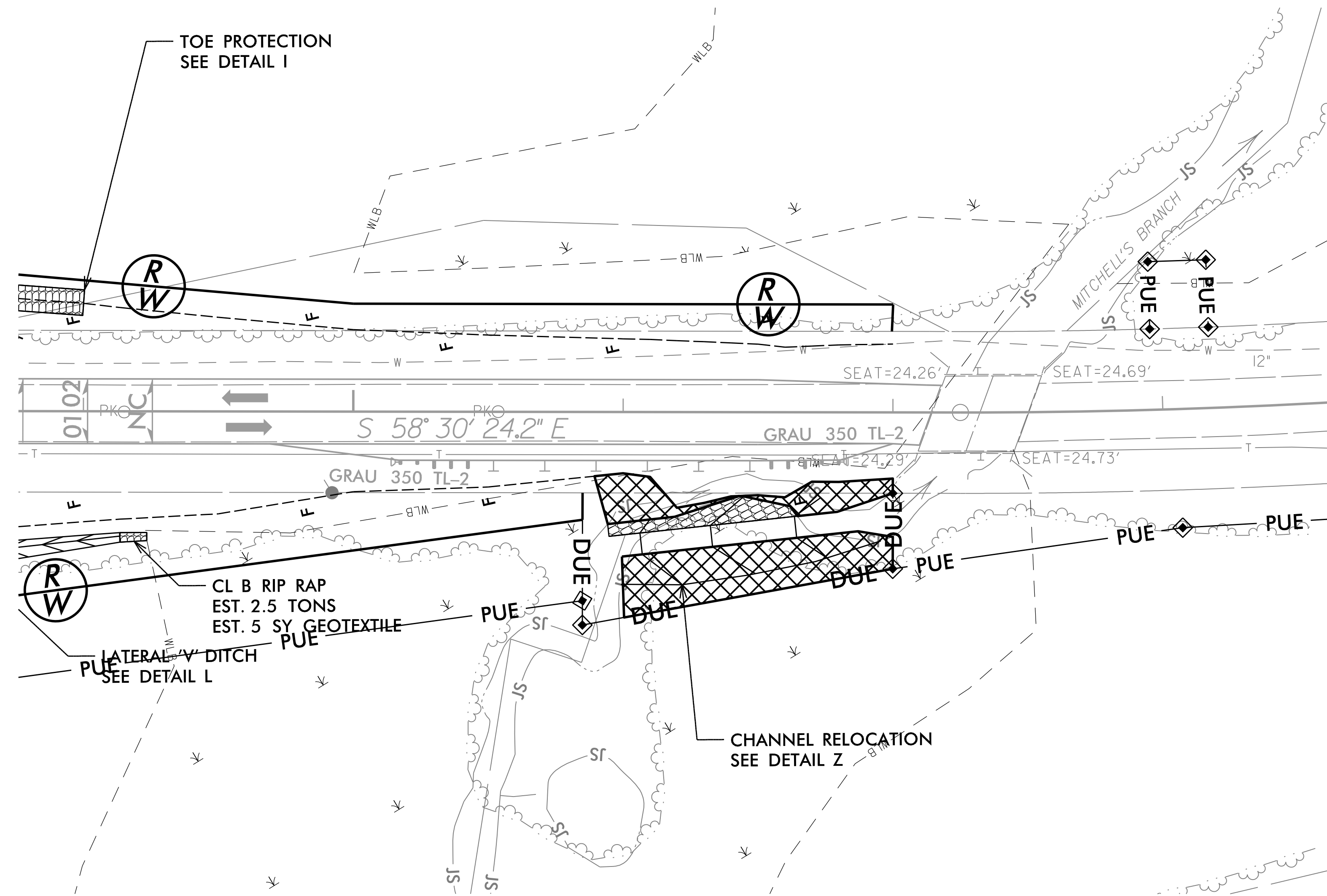


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SEE SHEET 33 FOR -Y2- PROFILE


0.06 ACRE STREAMBANK REFORESTATION

PROJECT REFERENCE NO. R-2514B	SHEET NO. EC-43A /CONST.22
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

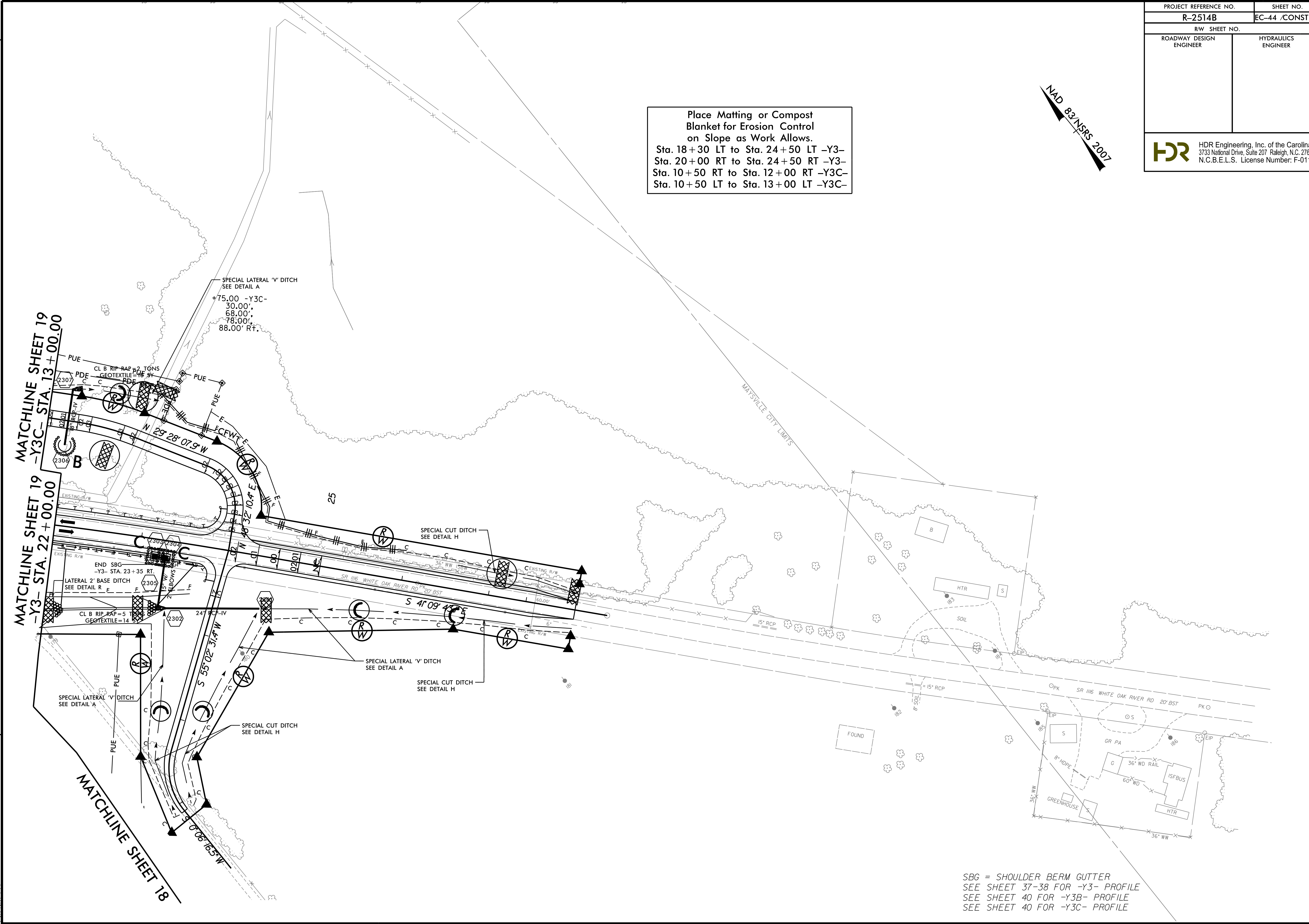
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 USER: cmyers
 FILE: North Carolina Dept. of Transportation\Erosion_Cr+R_2514B_TO_3.c\13.00.CAD\Erosion_Control\R-2514B_Reforestation_PSH.dgn
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 DATE: 1/22/2015

PROJECT REFERENCE NO.	SHEET NO.
R-2514B	EC-44 /CONST.23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

Place Matting or Compost Blanket for Erosion Control on Slope as Work Allows.
 Sta. 18+30 LT to Sta. 24+50 LT -Y3-
 Sta. 20+00 RT to Sta. 24+50 RT -Y3-
 Sta. 10+50 RT to Sta. 12+00 RT -Y3C-
 Sta. 10+50 LT to Sta. 13+00 LT -Y3C-

NAD 83/NSRS 2007

REVISIONS
 R/W Revision 6/26/14 JCL Added new Permanent Utility Easement (PUE) to Parcels 25,27 and 34



SBG = SHOULDER BERM GUTTER
 SEE SHEET 37-38 FOR -Y3- PROFILE
 SEE SHEET 40 FOR -Y3B- PROFILE
 SEE SHEET 40 FOR -Y3C- PROFILE

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