

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4015A	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

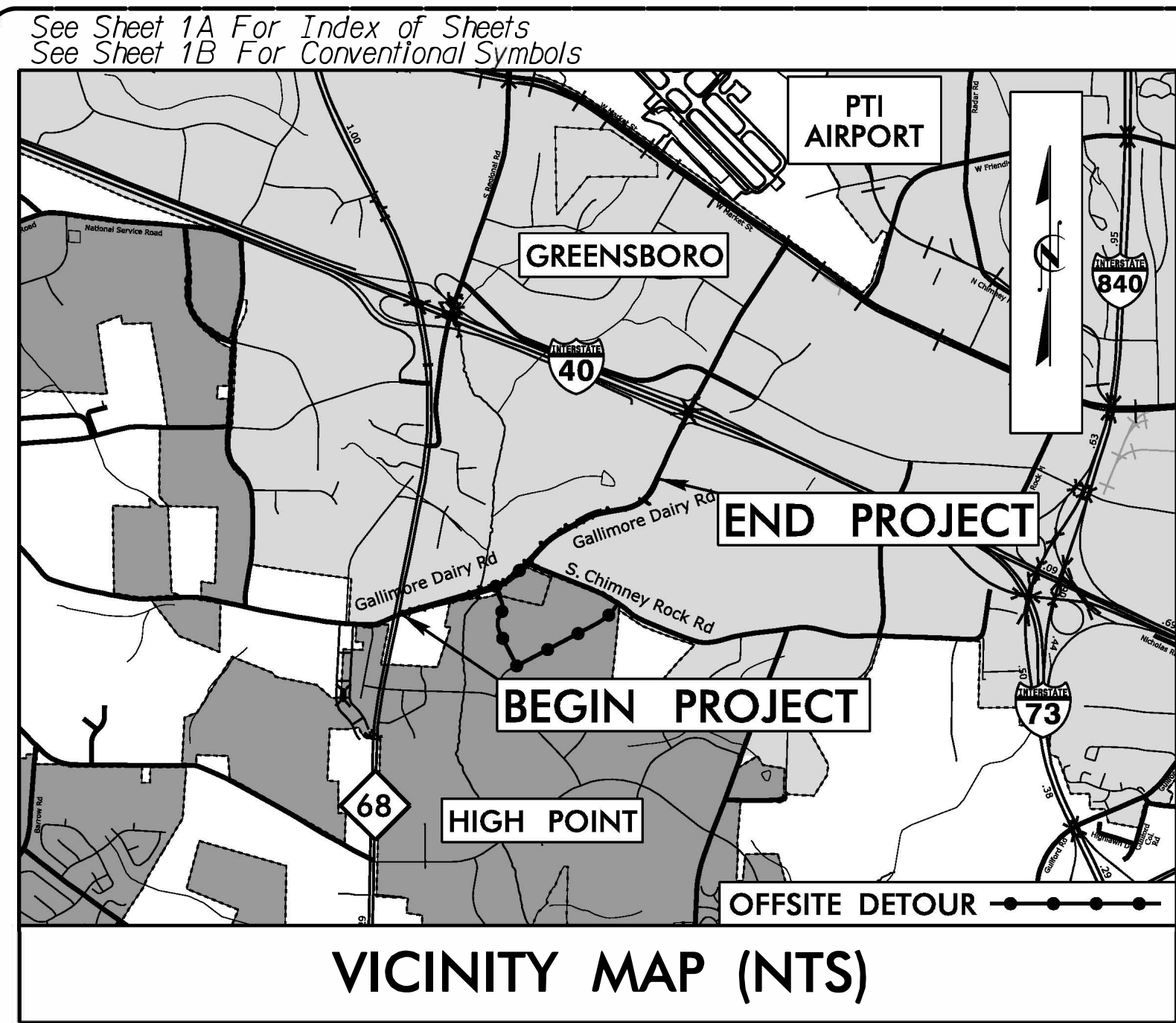
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL

GUILFORD COUNTY

LOCATION: SR 1556 (GALLIMORE DAIRY RD.) FROM NC 68 - EASTCHESTER DR (LYNNWOOD SMITH EXPY.) TO SOUTH OF AIRPARK RD. IN GREENSBORO
TYPE OF WORK: DRAINAGE, GRADING, PAVING, SIGNALS & STRUCTURES

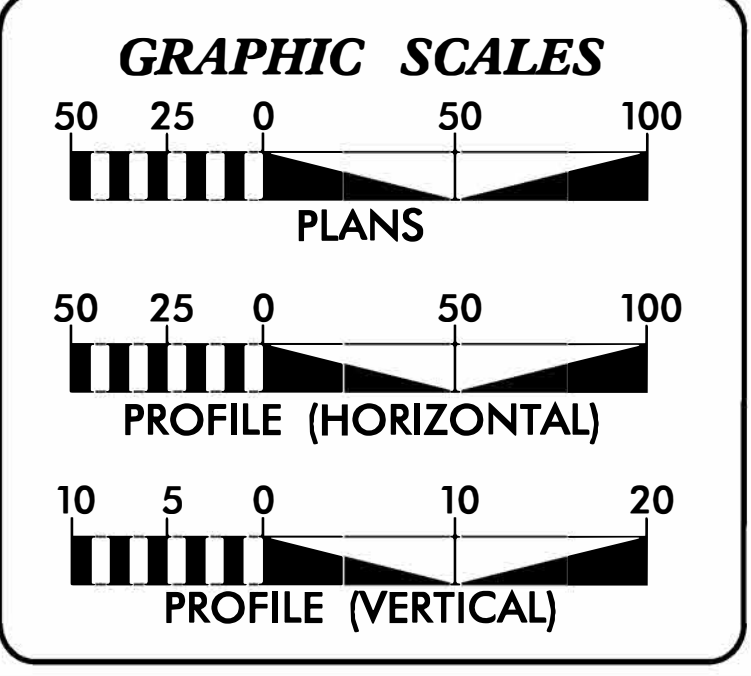
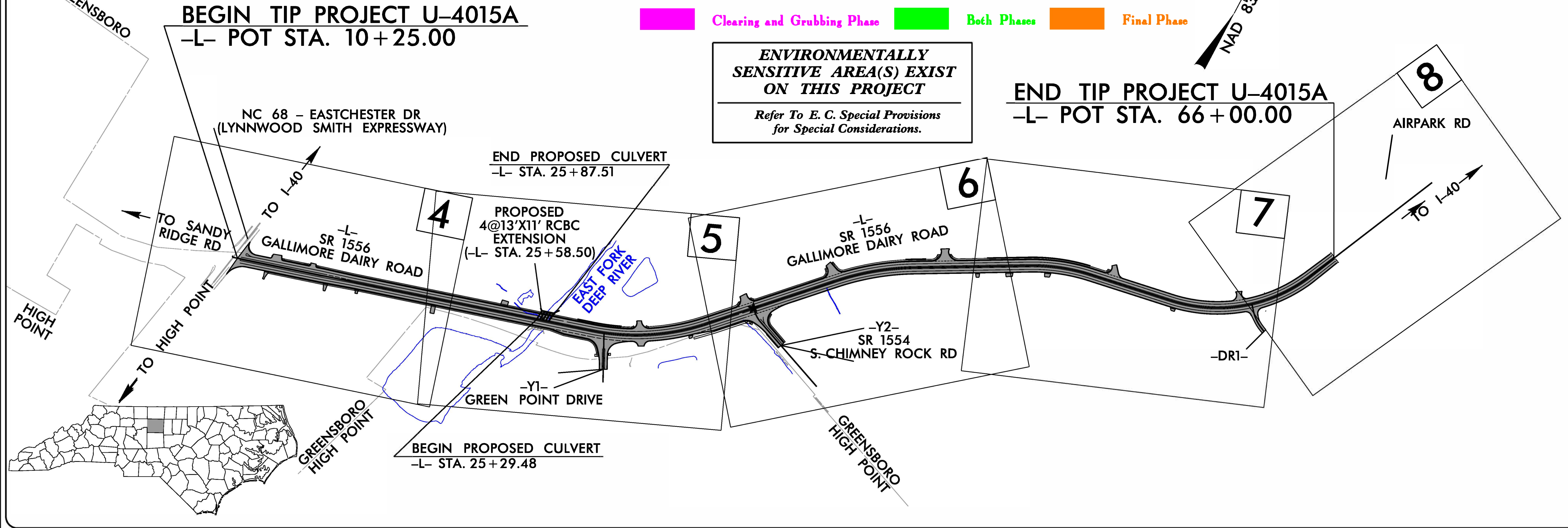
THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.



TIP PROJECT: U-4015A

CONTRACT: C204821



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 WATER RESOURCES.

Reviewed in the Office of:
ROADSIDE ENVIRONMENTAL UNIT
 1 South Wilmington St.
 Raleigh, NC 27611

2024 STANDARD SPECIFICATIONS

LENGTH ROADWAY TIP PROJECT U-4015A.....1.045 MILES
 LENGTH STRUCTURE TIP PROJECT U-4015A.....0.011 MILES
 TOTAL LENGTH TIP PROJECT U-4015A.....1.056 MILES



PLANS PREPARED BY:
 RUMMEL KLEPPER & KAHL, LLP
 8601 SIX FORKS ROAD, FLOOR 1, SUITE 700
 RALEIGH, NORTH CAROLINA 27615-3960
 NC LICENSE NO. F-0112

FOR NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION

SETH C. JONES, EI
 EROSION CONTROL DESIGN ENGINEER
 LEVEL III CERTIFICATION NO. 4183

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.

9/3/2024 R:\Hydr\guilcs\CADD\PSH\EC\4015a_hyd_EC.tsh.dgn

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

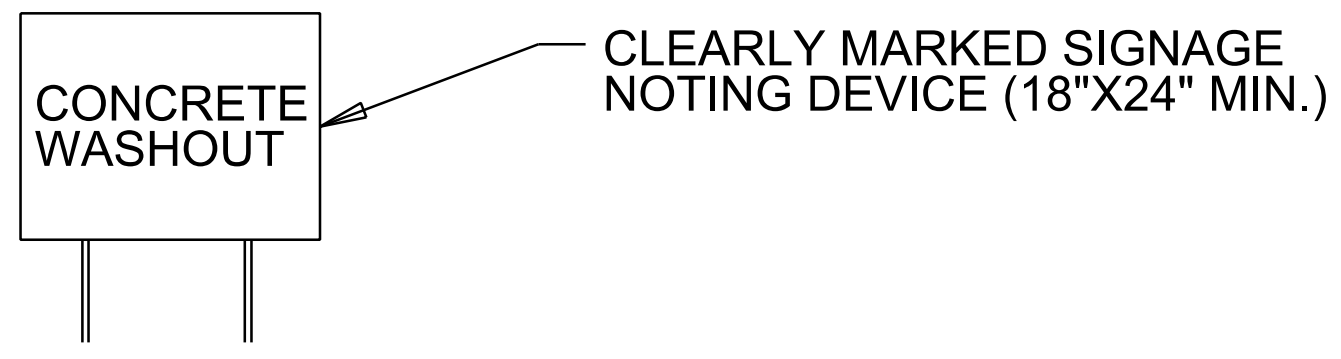
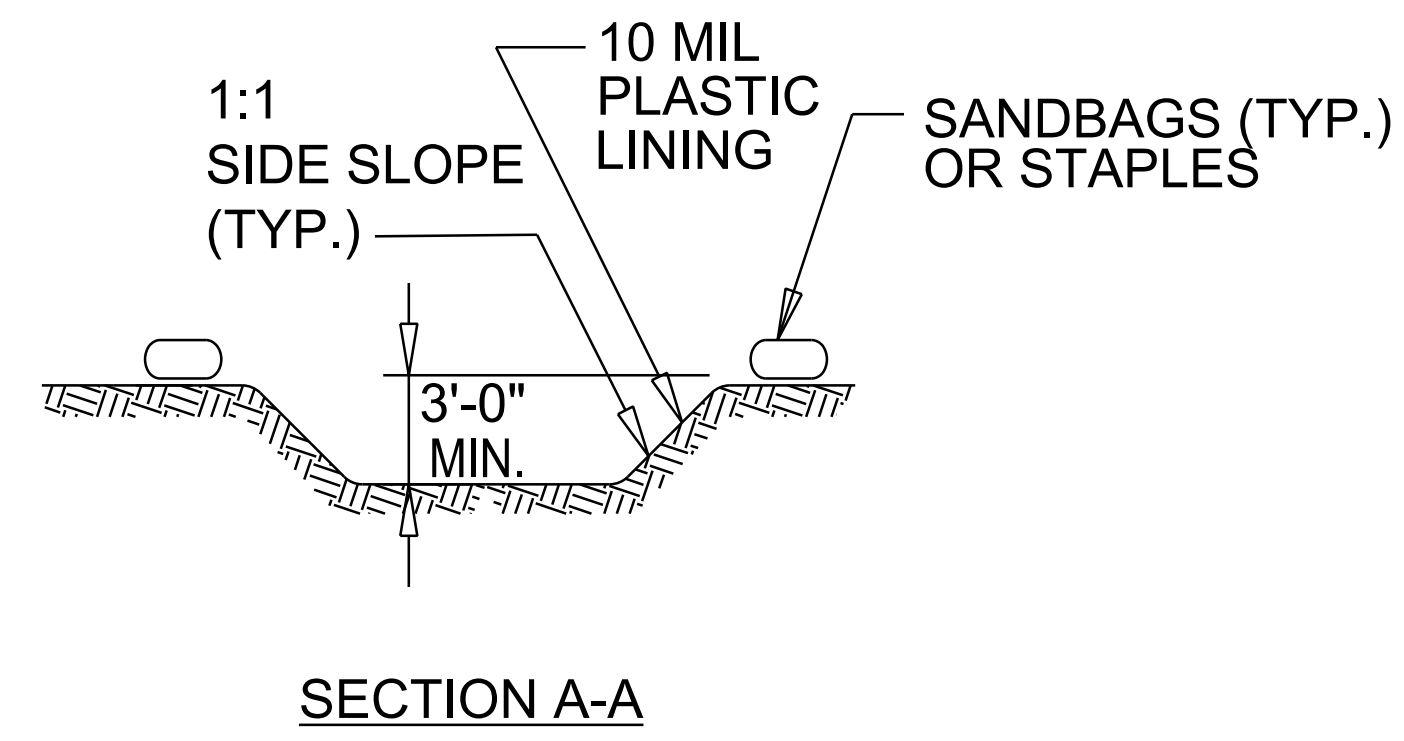
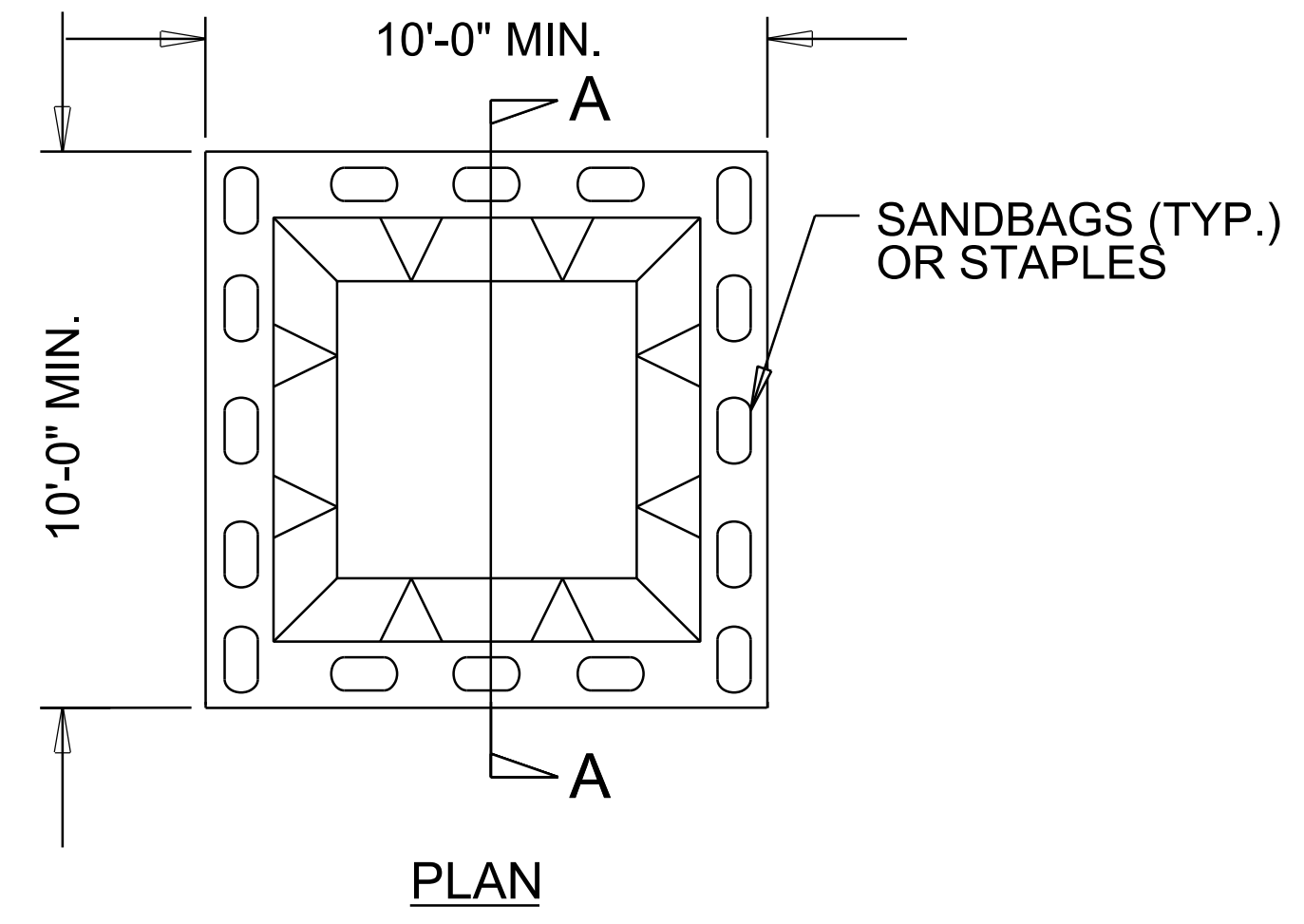
PROJECT REFERENCE NO. U-4015A	SHEET NO. EC-01A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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		1636.03	Excelsior Wattle Barrier	
1632.02	Type B		1636.03	Coir Fiber Wattle Barrier	
1632.03	Type C				

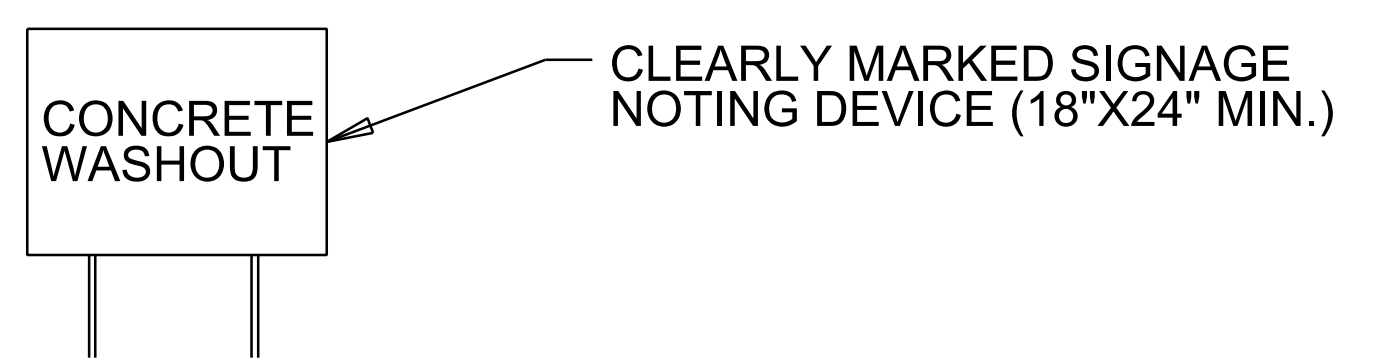
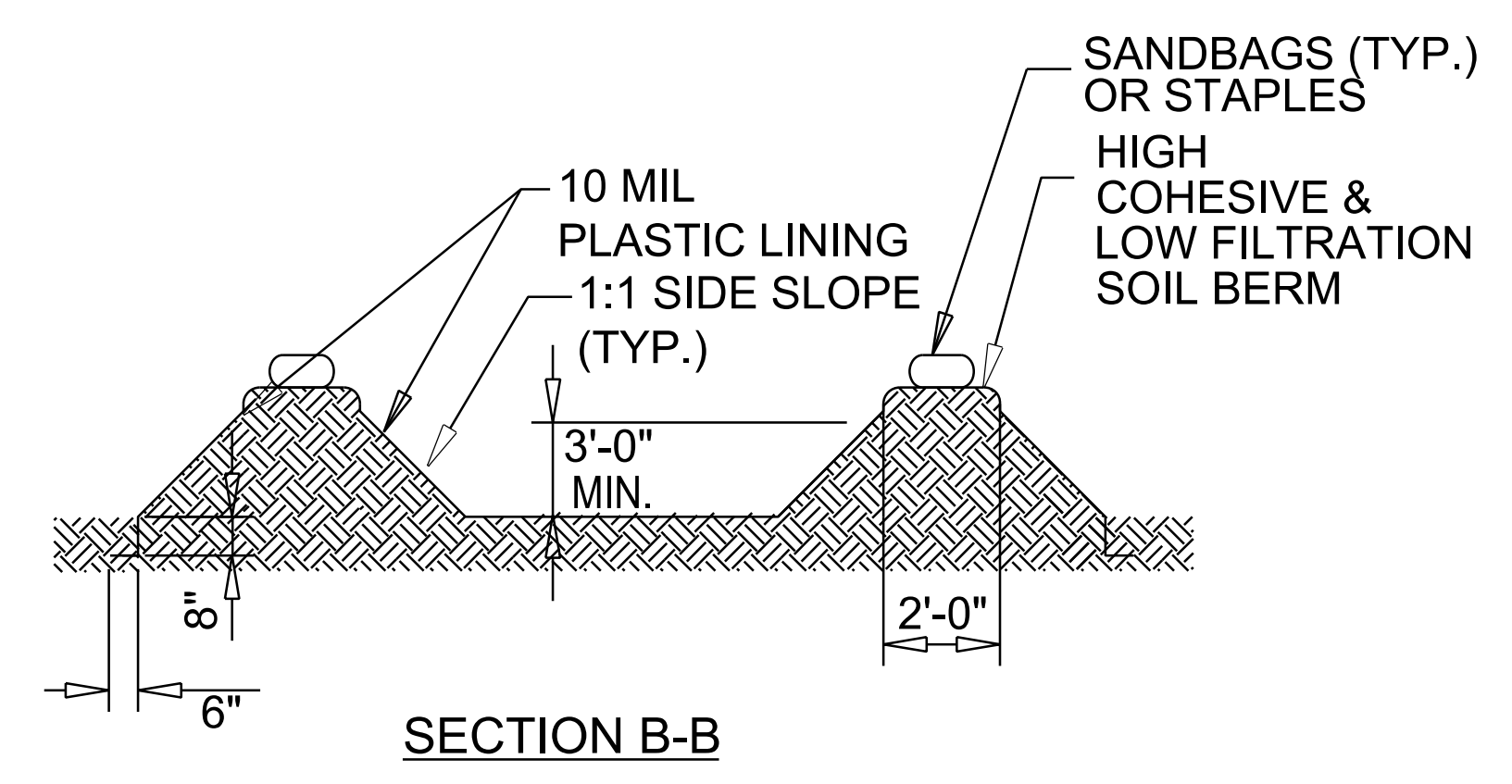
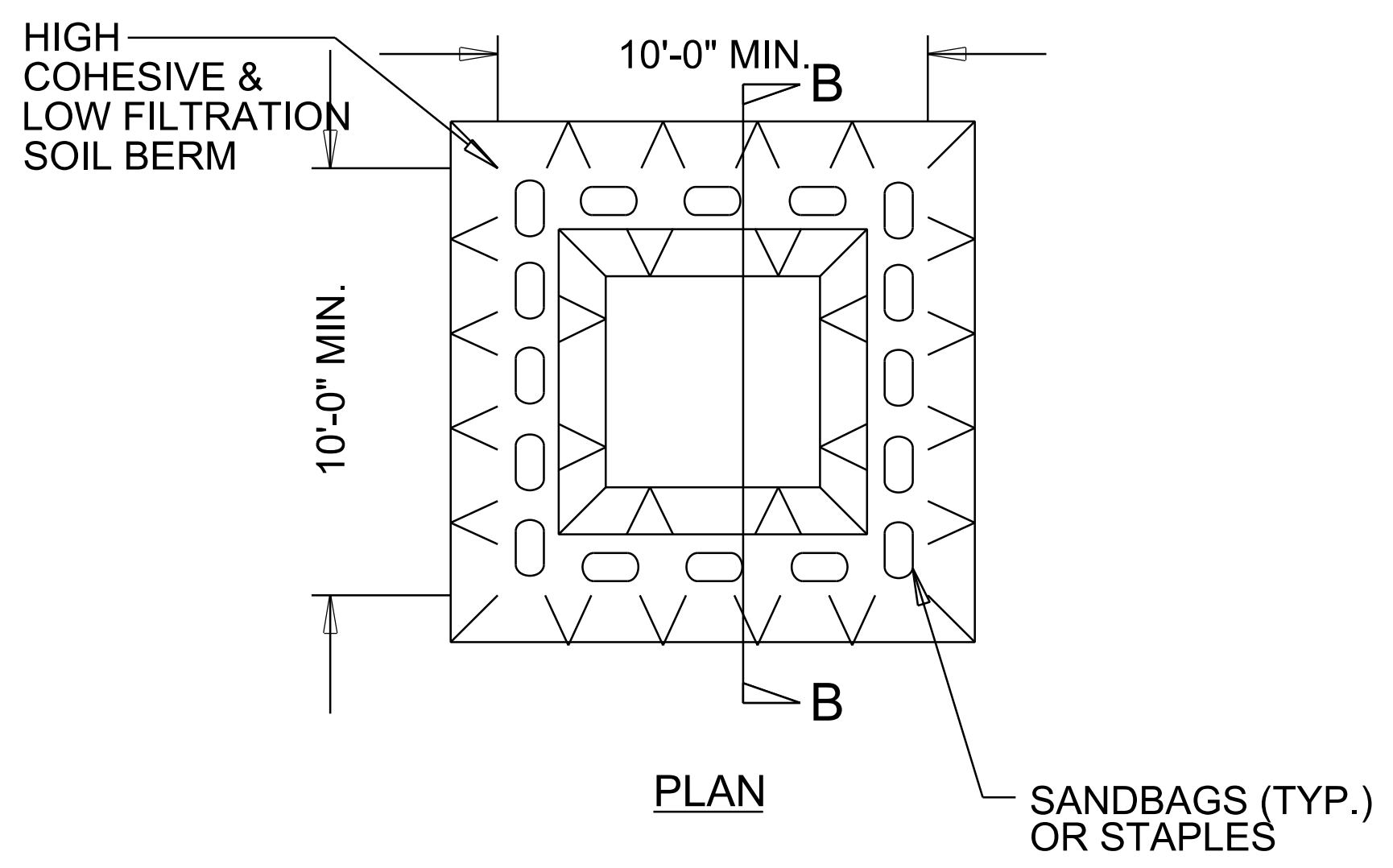
PROJECT REFERENCE NO. <i>U-4015A</i>	SHEET NO. <i>EC-02</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



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.

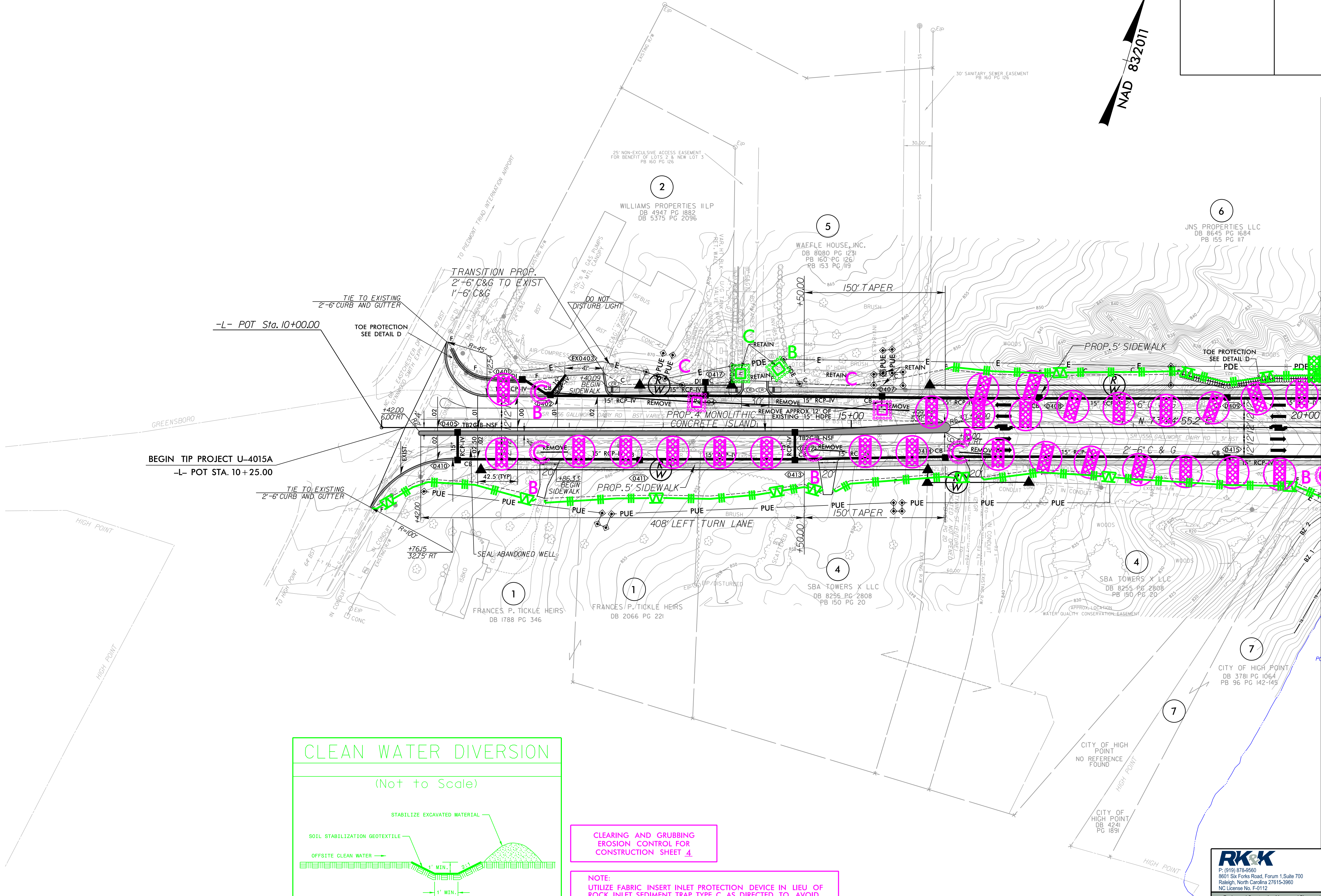
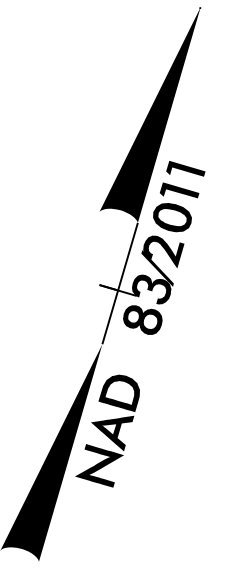
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>U-4015A</i>	SHEET NO. <i>EC-03A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

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

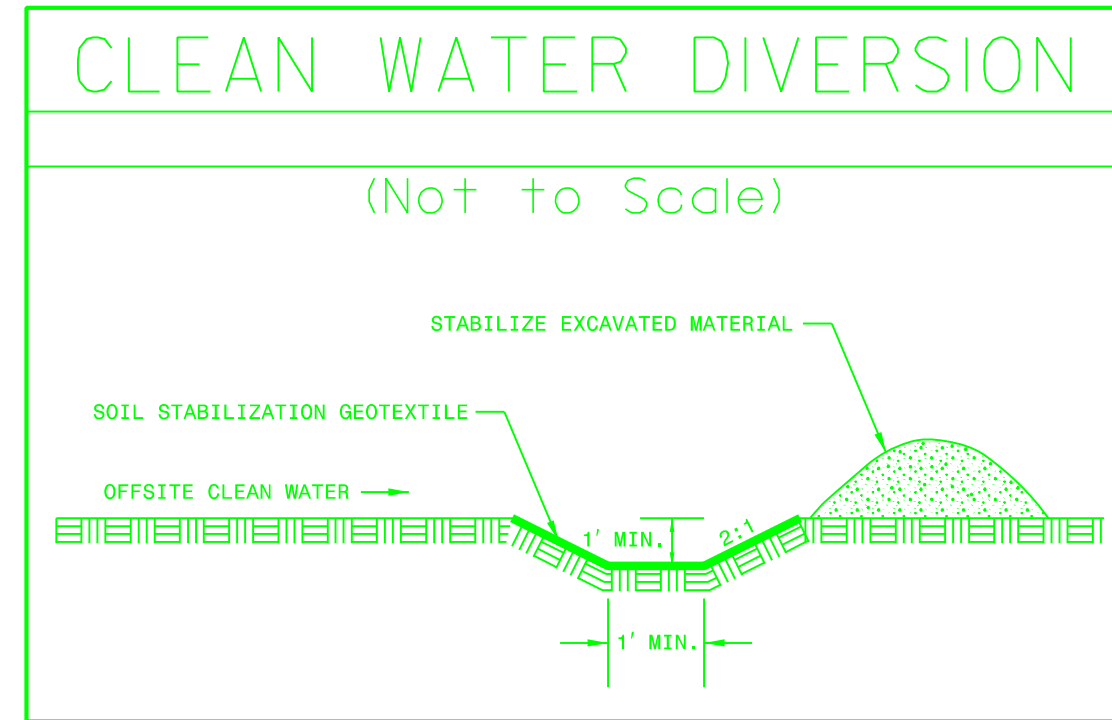
PROJECT REFERENCE NO.	SHEET NO.
U-4015A	EC-04/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BEGIN TIP PROJECT U-4015A
-L- POT STA. 10+25.00

-L- POT Sta. 10+00.00

MATCHLINE -L- STA. 20+00.00
SEE SHEET 5



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

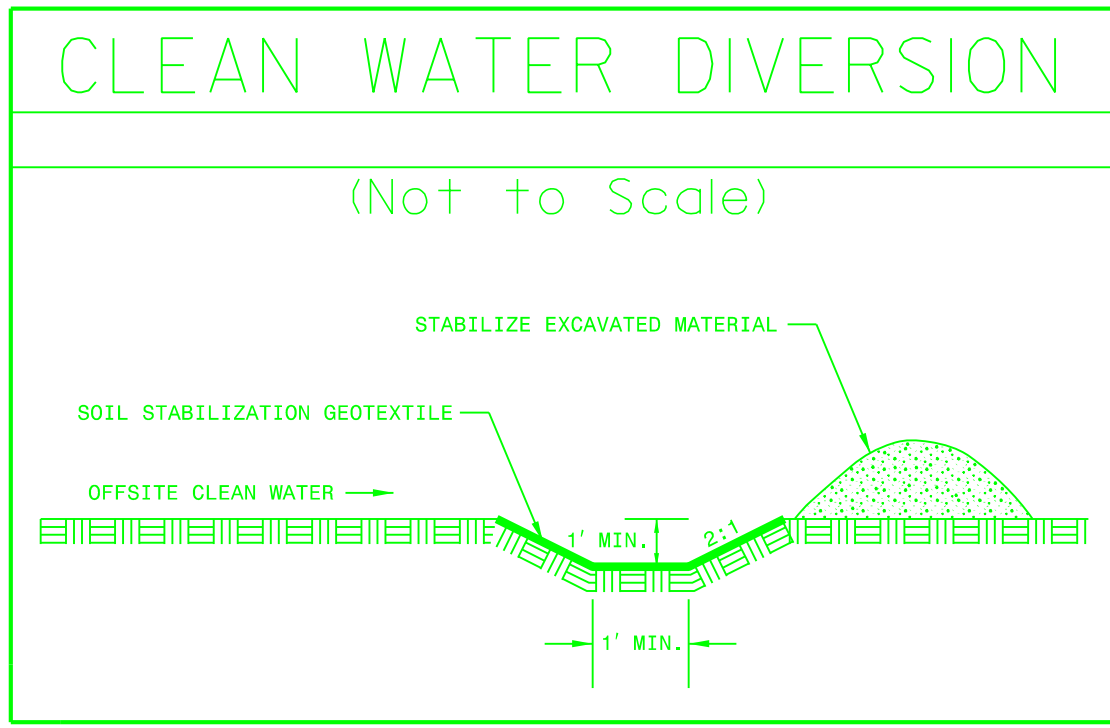
NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF
ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED TO AVOID
IMPOUNDING RUNOFF ON ACTIVE ROADWAY.

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8/17/09

PROJECT REFERENCE NO.	SHEET NO.
U-4015A	EC-05/CONST.05
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER




92 x 31 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
11 ft. weir
ID 5.2

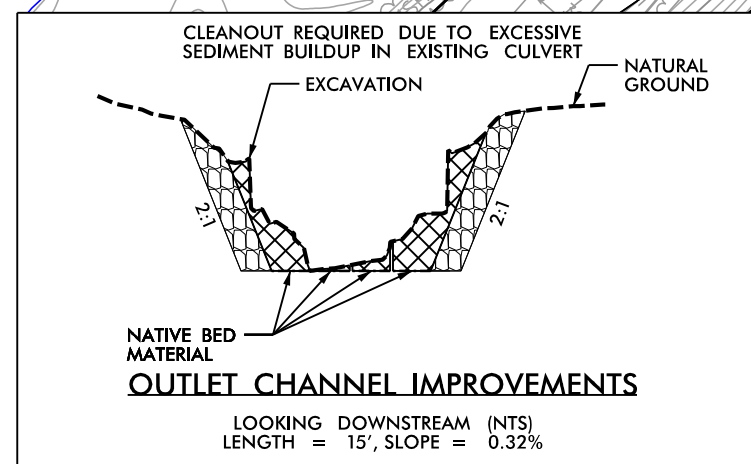
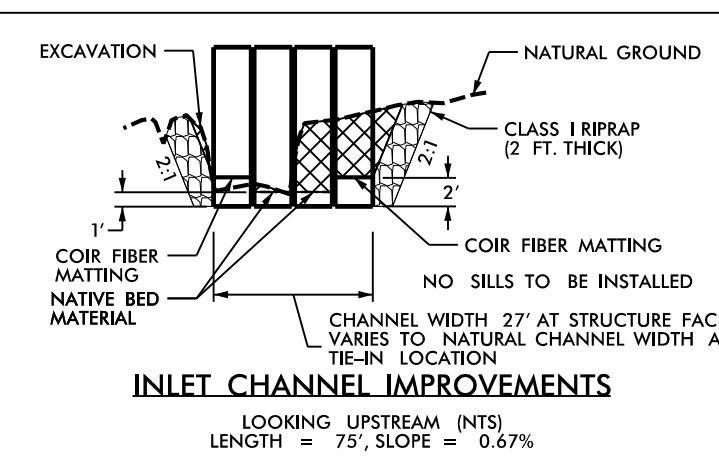
67 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
8 ft. weir
ID 5.1

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF
ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED TO AVOID
IMPOUNDING RUNOFF ON ACTIVE ROADWAY.

 PERMANENT CHANNEL EXCAVATION
TOTAL CHANNEL EXCAVATION = 260 CY
TOTAL CL 1 RIP RAP = 190 TONS
TOTAL GEOTEXTILE FAB. = 200 SY
TOTAL COIR FIBER MATTING = 78 SY

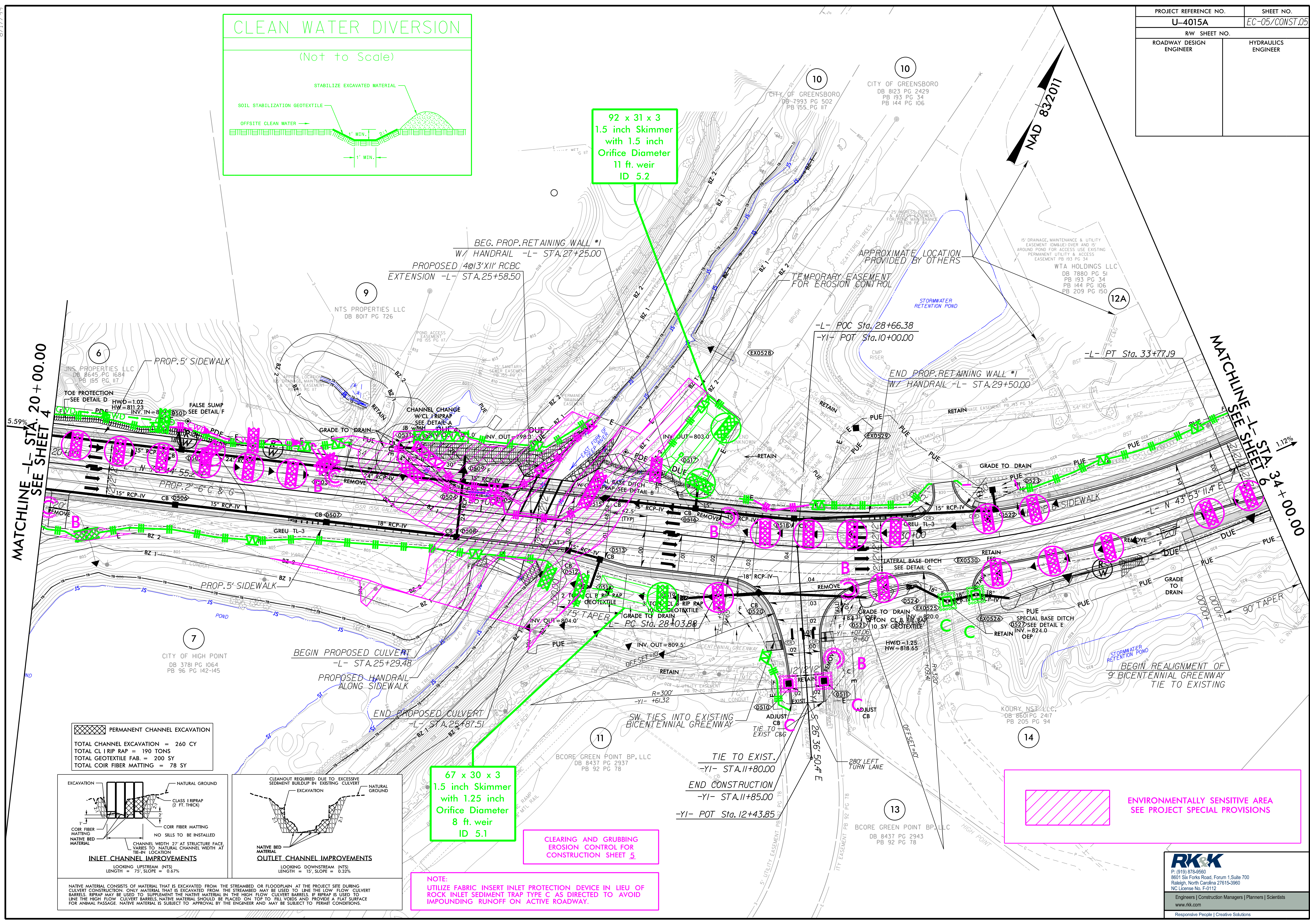


NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAMBED OR FLOODPLAIN AT THE PROJECT SITE DURING CULVERT CONSTRUCTION. ONLY MATERIAL THAT IS EXCAVATED FROM THE STREAMBED MAY BE USED TO LINE THE LOW FLOW CULVERT BARRELS. RIPRAP MAY BE USED TO SUPPLEMENT THE NATIVE MATERIAL IN THE HIGH FLOW CULVERT BARRELS. IF RIPRAP IS USED TO LINE THE HIGH FLOW CULVERT BARRELS, NATIVE MATERIAL SHOULD BE PLACED ON TOP TO FILL VOIDS AND PROVIDE A FLAT SURFACE FOR ANIMAL PASSAGE. NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.

8/17/19

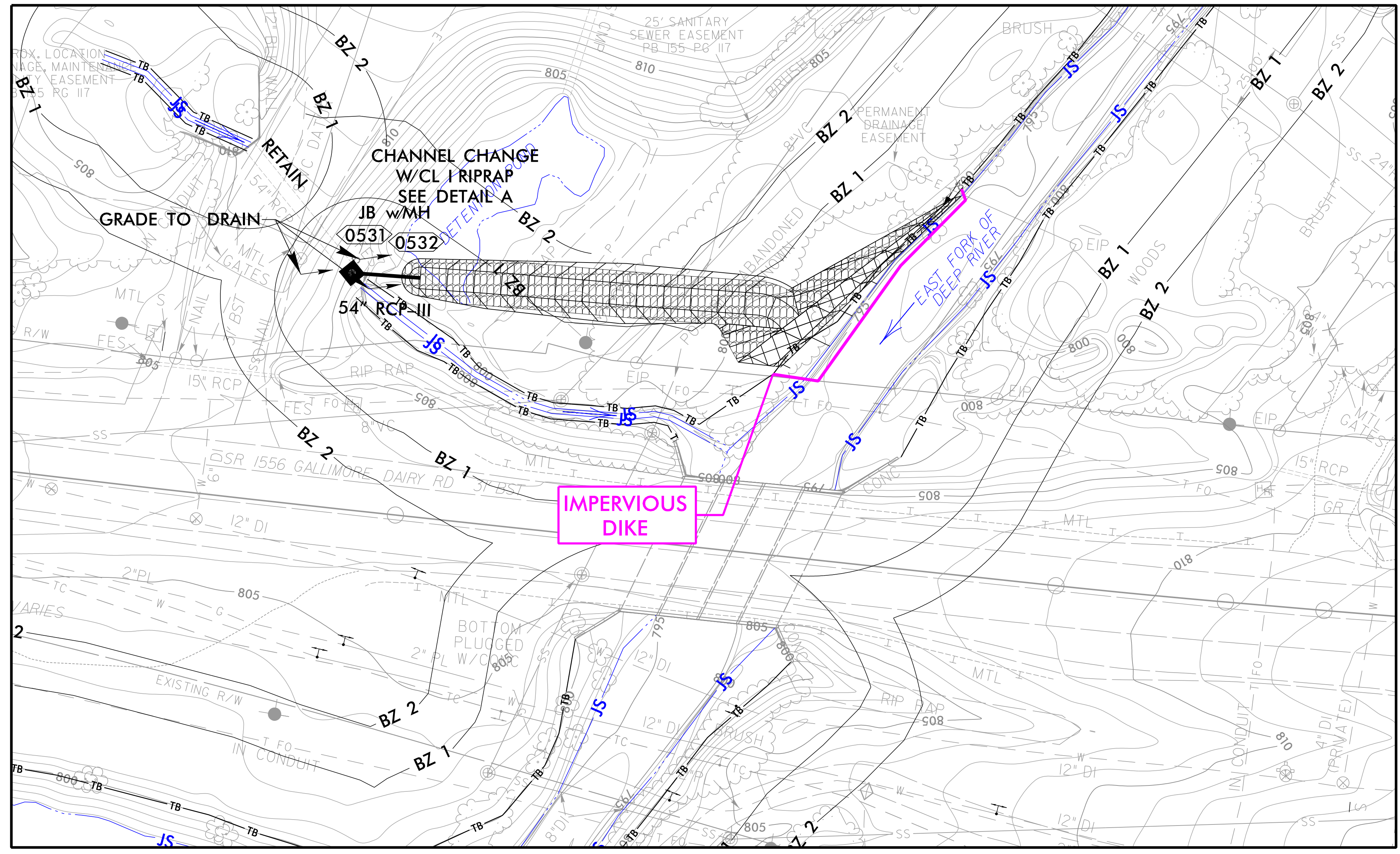
MATCHLINE -L- STA. 20+00.00
SEE SHEET 4

MATCHLINE -L- STA. 34+00.00
SEE SHEET 5



PROJECT REFERENCE NO. R-5709	SHEET NO. EC-05A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

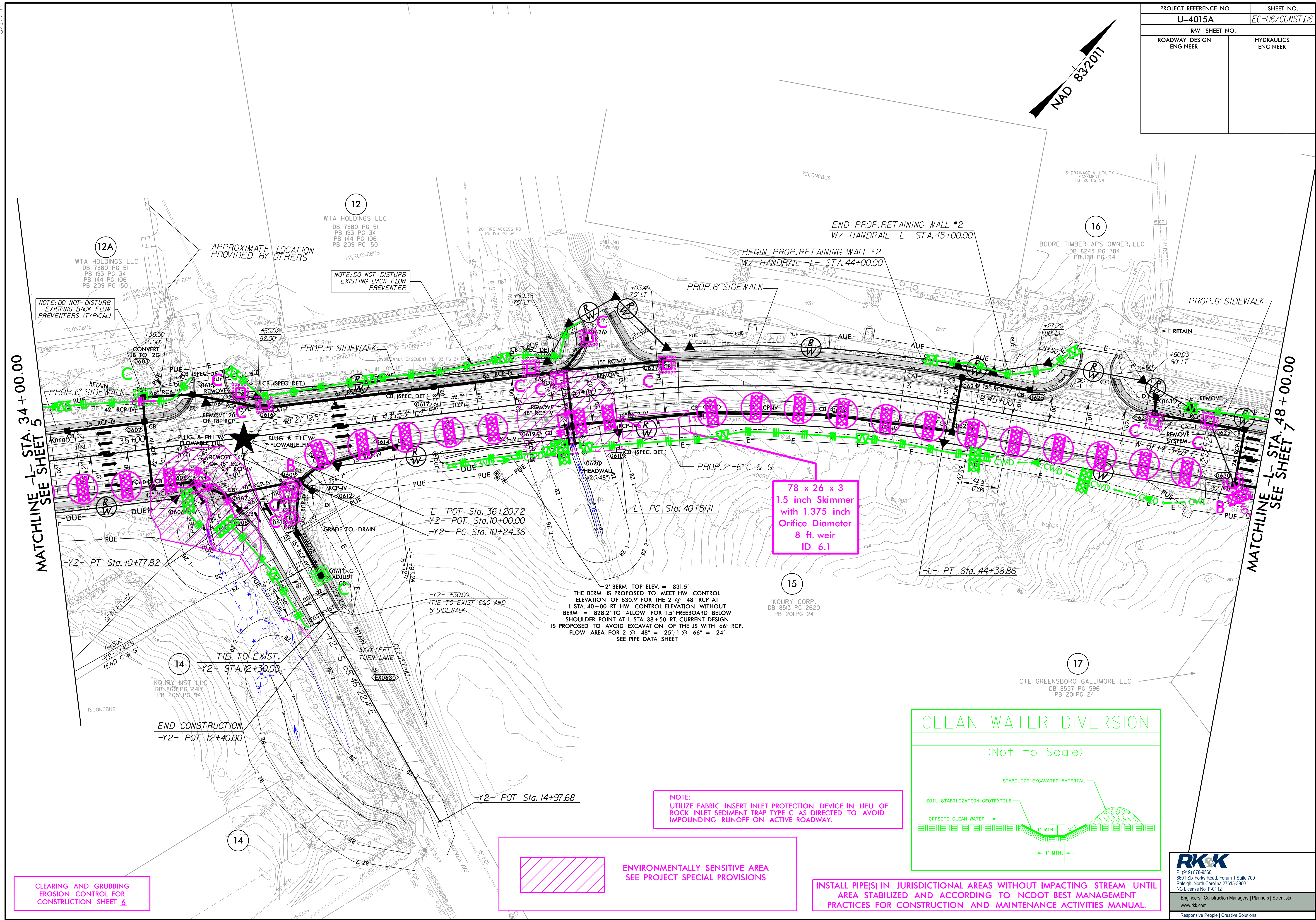
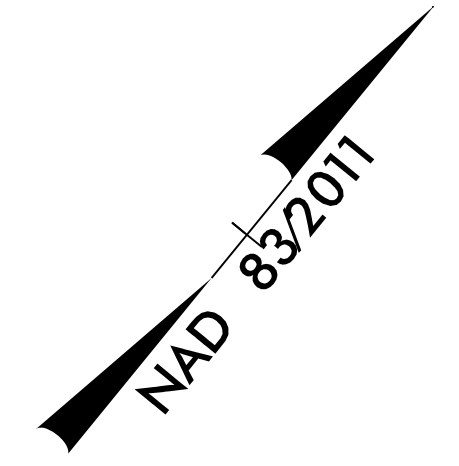
4@13'x11' RCBC EXTENSION INSTALLATION PHASE I STA. 25+58.5 -L-



1. MAINTAIN TRAFFIC ON EXISTING ROADWAY.
2. USE SPECIAL STILLING BASINS TO DEWATER WORK SITE.
3. INSTALL IMPERVIOUS DIKE AS SHOWN TO ISOLATE WEST BANK.
4. COMPLETE CHANNEL AND BANK WORK AND CONSTRUCT PROPOSED LATERAL BASE DITCH.
5. REMOVE IMPERVIOUS DIKE.
6. INSTALL JB W/MH AND 54" RCP-III TO ROUTE FLOW INTO LATERAL BASE DITCH.
7. BEGIN PHASE II.

8/17/2024
R:\317\2024\317\317\317\CADD\PSH\EC-U-4015A-EC.psh05A.dgn
chris.human

PROJECT REFERENCE NO.	SHEET NO.
U-4015A	EC-06/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



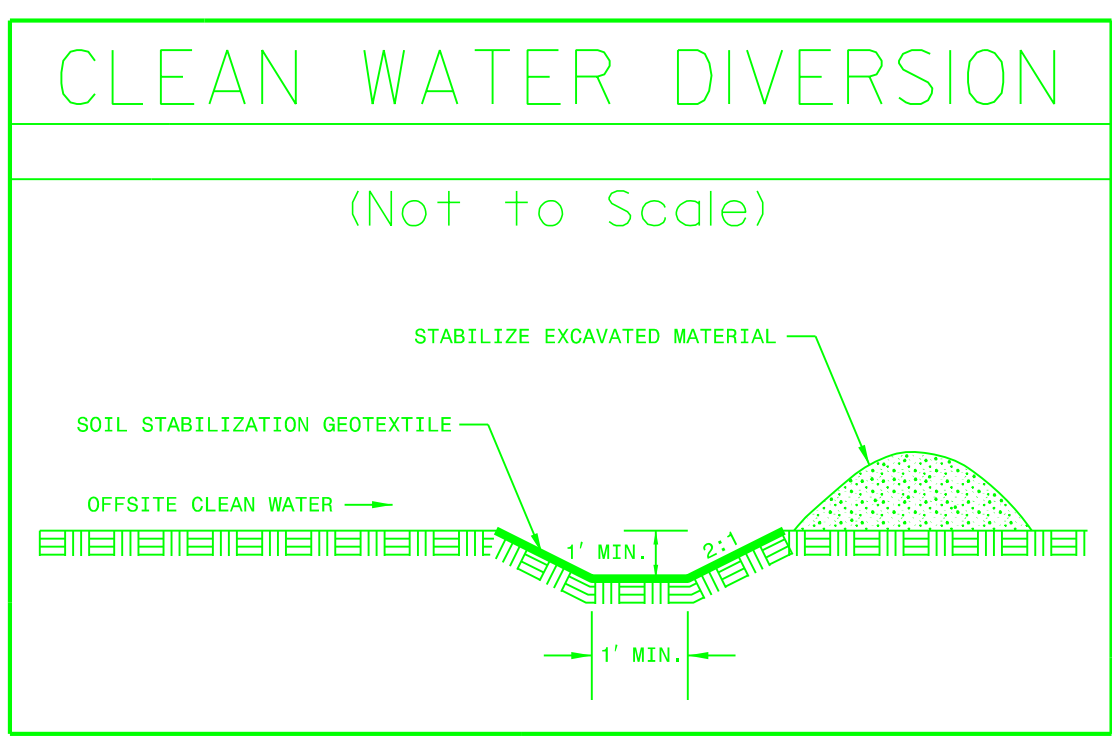
MATCHLINE -L- STA. 34+00.00
SEE SHEET 5

MATCHLINE -L- STA. 48+00.00
SEE SHEET 7

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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.

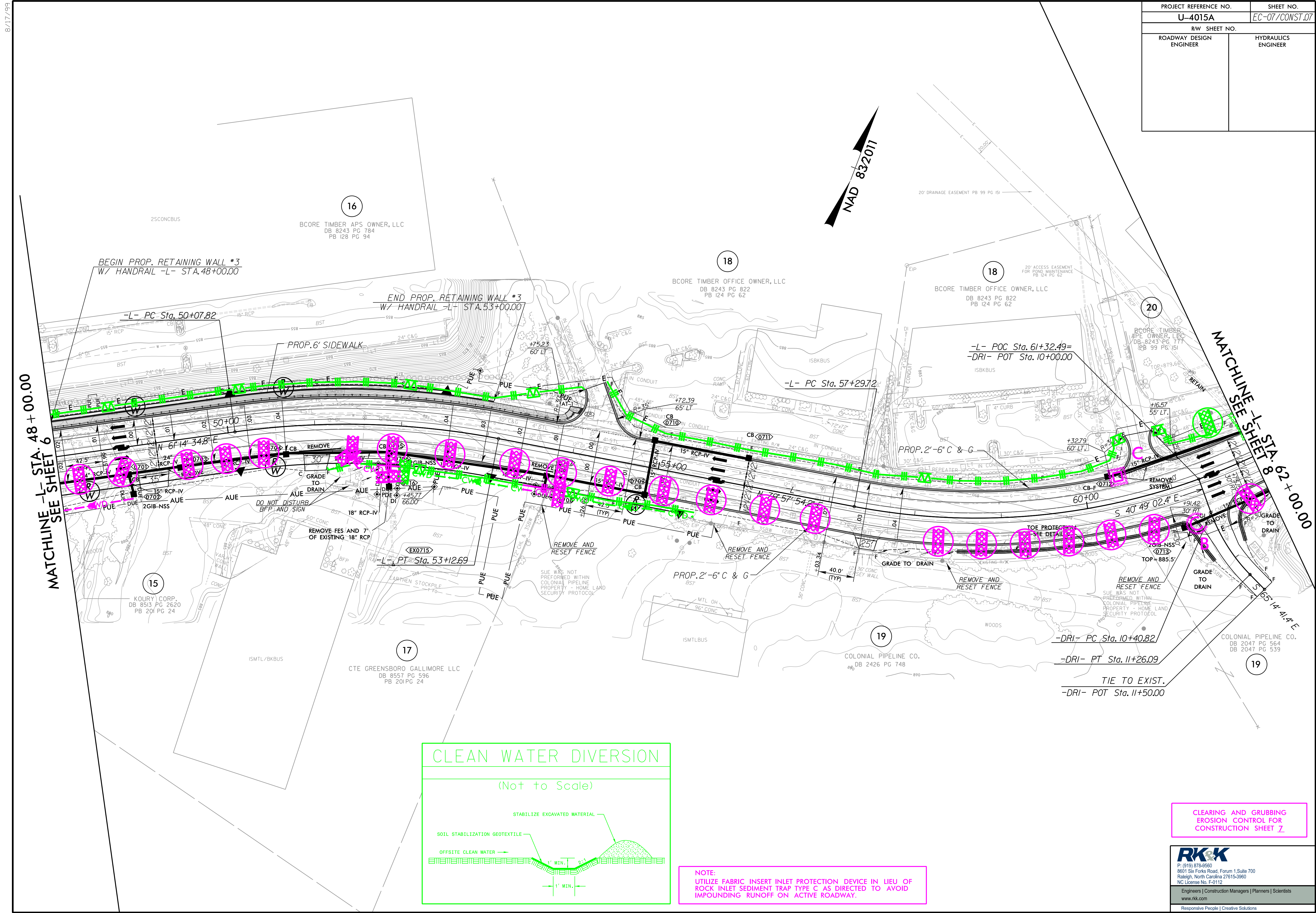


NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF
ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED TO AVOID
IMPOUNDING RUNOFF ON ACTIVE ROADWAY.

2' BERM TOP ELEV. = 831.5'
THE BERM IS PROPOSED TO MEET HW CONTROL
ELEVATION OF 830.9' FOR THE 2 @ 48" RCP AT
L STA. 40+00. RT. HW CONTROL ELEVATION WITHOUT
BERM = 828.2' TO ALLOW FOR 1.5' FREEBOARD BELOW
SHOULDER POINT AT L STA. 38+50 RT. CURRENT DESIGN
IS PROPOSED TO AVOID EXCAVATION OF THE IS WITH 66" RCP.
FLOW AREA FOR 2 @ 48" = 25'; 1 @ 66" = 24'
SEE PIPE DATA SHEET

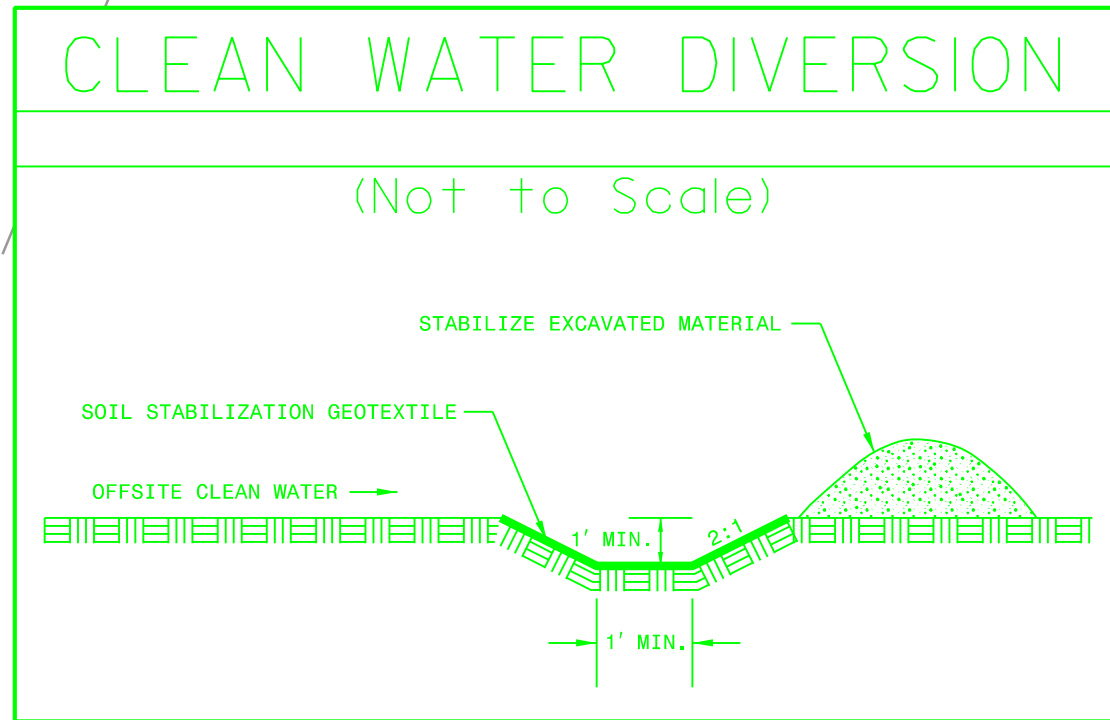
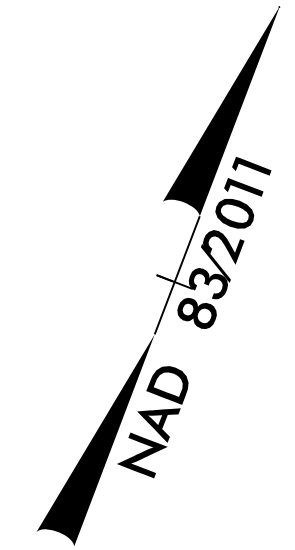
8/17/19

PROJECT REFERENCE NO.	SHEET NO.
U-4015A	EC-07/CONST.07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE - L- STA. 48 + 00.00
SEE SHEET 6

MATCHLINE - L- STA. 86 + 00.00
SEE SHEET 7



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED TO AVOID IMPOUNDING RUNOFF ON ACTIVE ROADWAY.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

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Raleigh, North Carolina 27615-3960
NC License No. F-0112

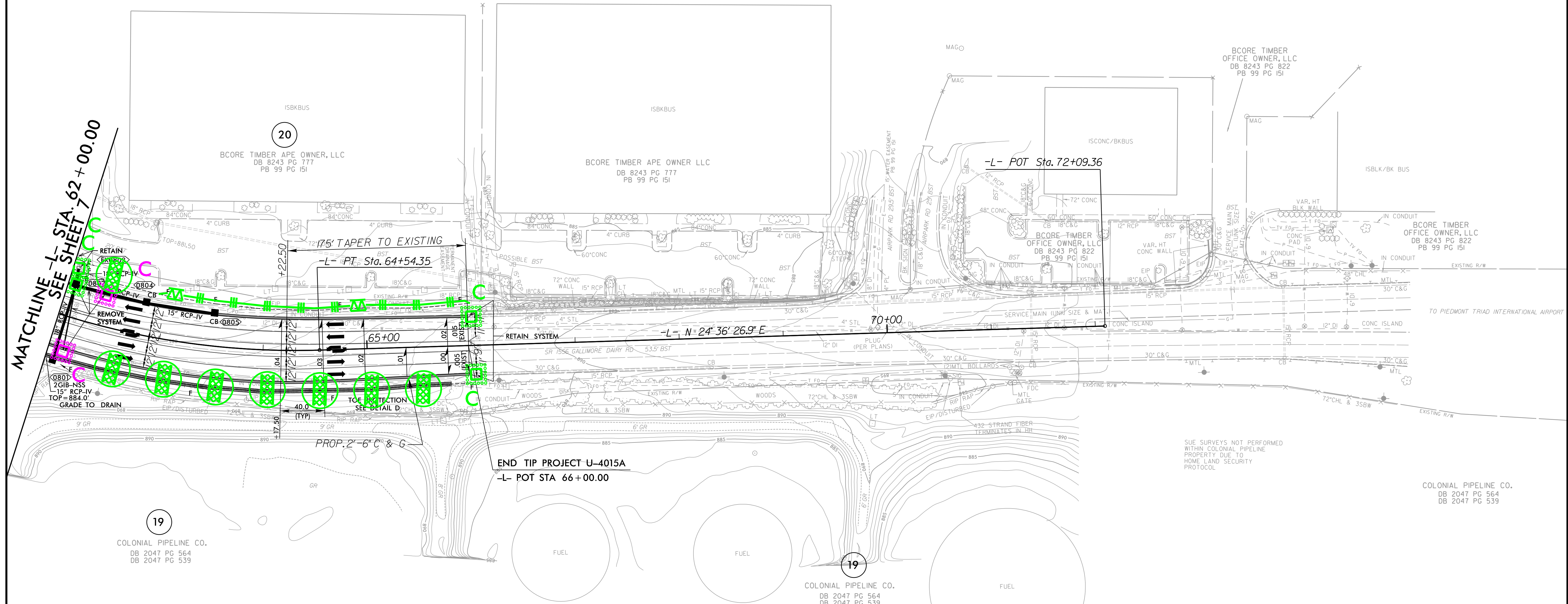
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PROJECT REFERENCE NO.	SHEET NO.
U-4015A	EC-08/CONST.08
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



8/17/19



MATCHLINE -L- STA. 62+00.00
SEE SHEET 7

RETAIN SYSTEM
REMOVE SYSTEM
15\"/>

20

BCORE TIMBER APE OWNER, LLC
DB 8243 PG 777
PB 99 PG 151

BCORE TIMBER APE OWNER LLC
DB 8243 PG 777
PB 99 PG 151

-L- POT Sta. 72+09.36

BCORE TIMBER
OFFICE OWNER, LLC
DB 8243 PG 822
PB 99 PG 151

-L- N 24° 36' 26.9\"/>

END TIP PROJECT U-4015A
-L- POT STA 66+00.00

19

COLONIAL PIPELINE CO.
DB 2047 PG 564
DB 2047 PG 539

COLONIAL PIPELINE CO.
DB 2047 PG 564
DB 2047 PG 539

SUE SURVEYS NOT PERFORMED
WITHIN COLONIAL PIPELINE
PROPERTY DUE TO
HOME LAND SECURITY
PROTOCOL

COLONIAL PIPELINE CO.
DB 2047 PG 564
DB 2047 PG 539

SUE SURVEYS NOT PERFORMED
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PROPERTY DUE TO
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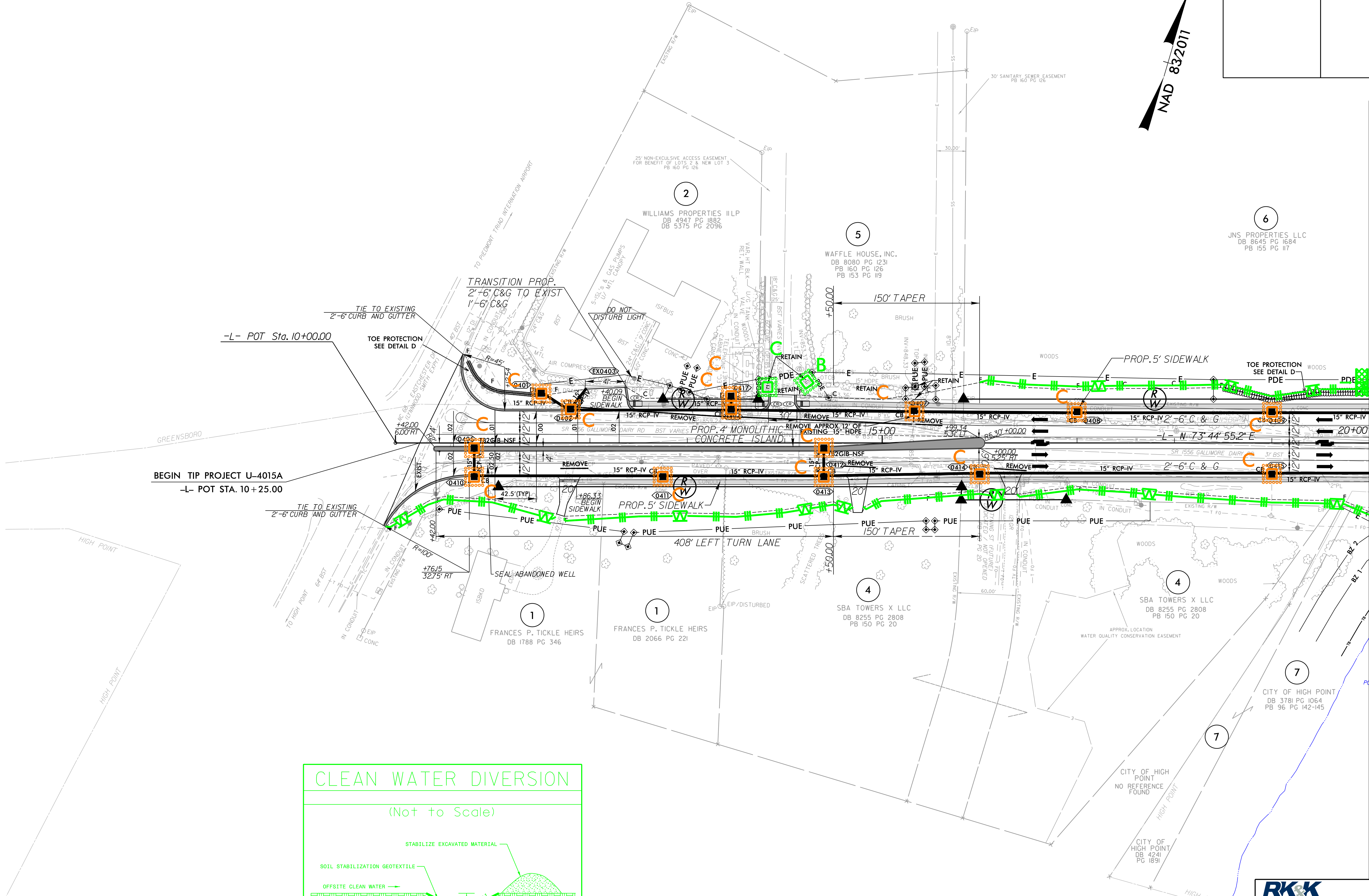
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

NOTE:
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PROJECT REFERENCE NO.	SHEET NO.
U-4015A	EC-09/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

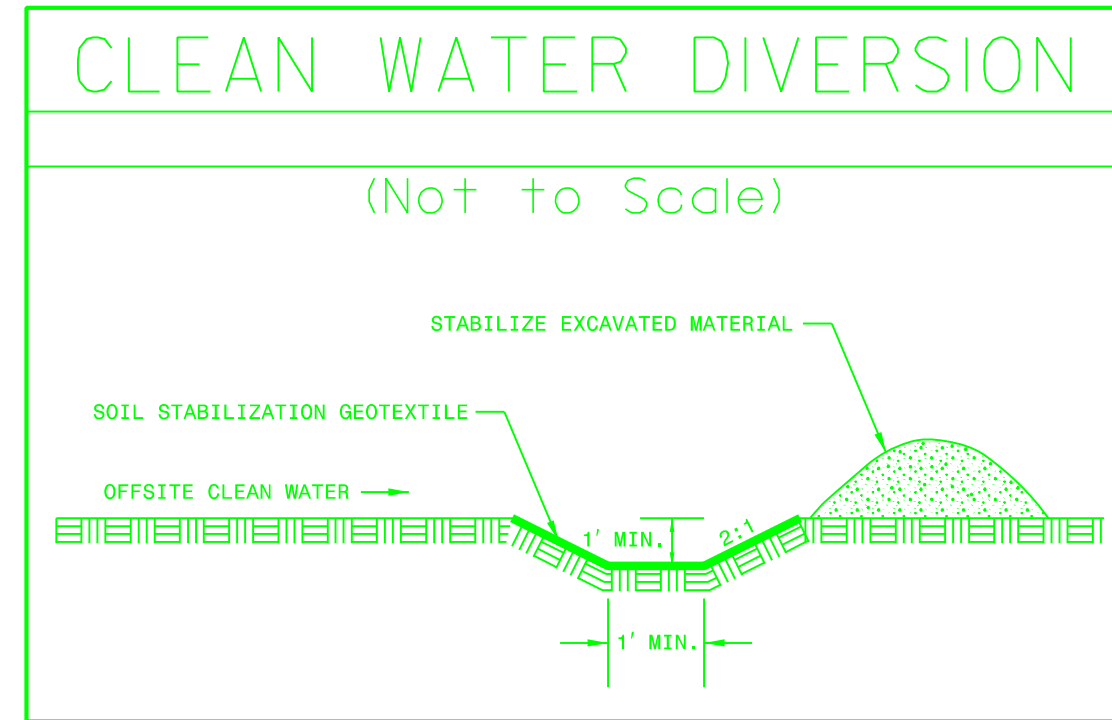
NAD 83/2011



BEGIN TIP PROJECT U-4015A
-L- POT STA. 10+25.00

-L- POT Sta. 10+00.00

MATCHLINE -L- STA. 20+00.00
SEE SHEET 5

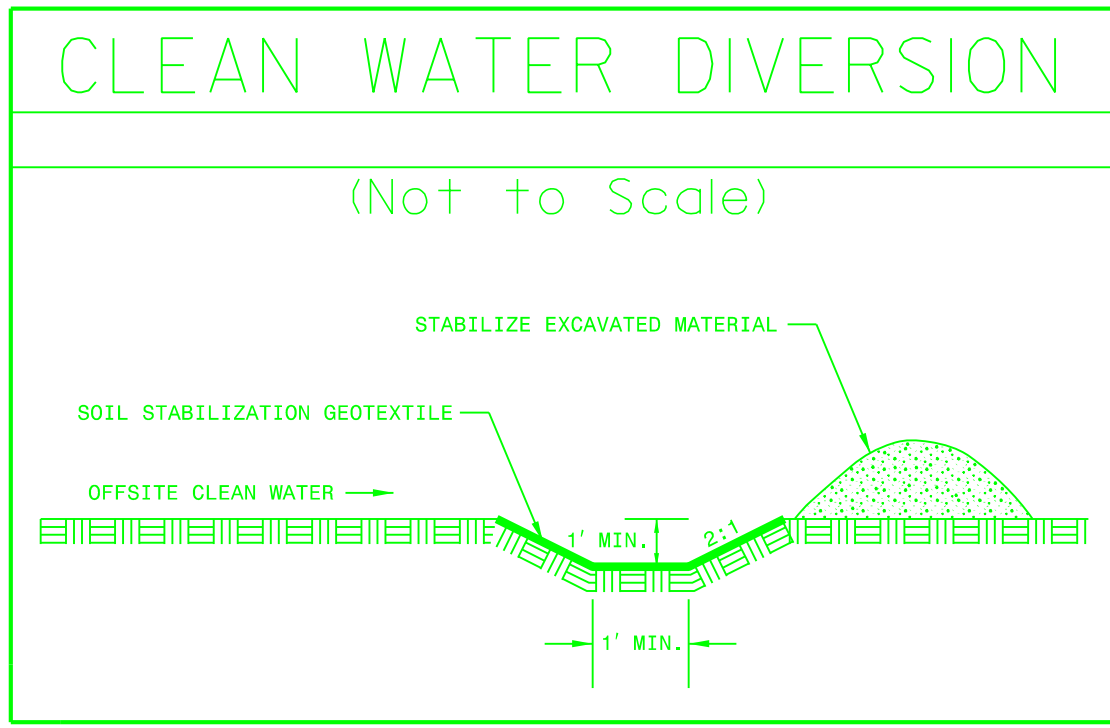


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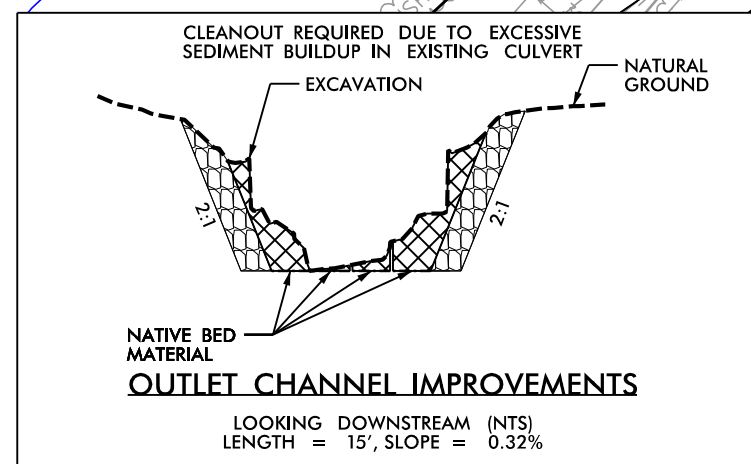
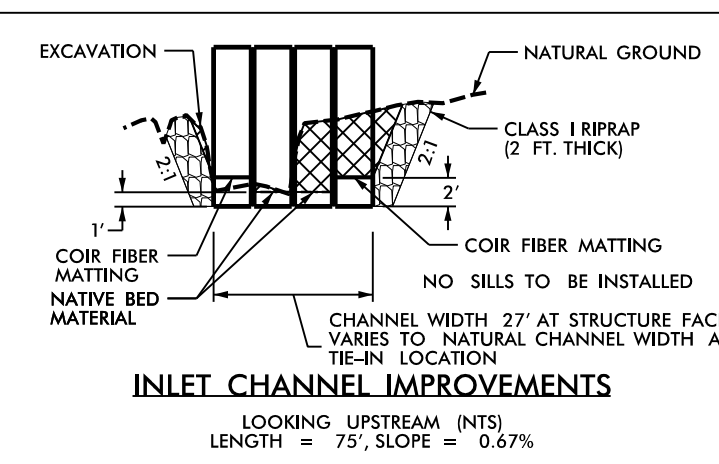


92 x 31 x 3
1.5 inch Skimmer
with 1.5 inch
Orifice Diameter
11 ft. weir
ID 5.2

67 x 30 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
8 ft. weir
ID 5.1

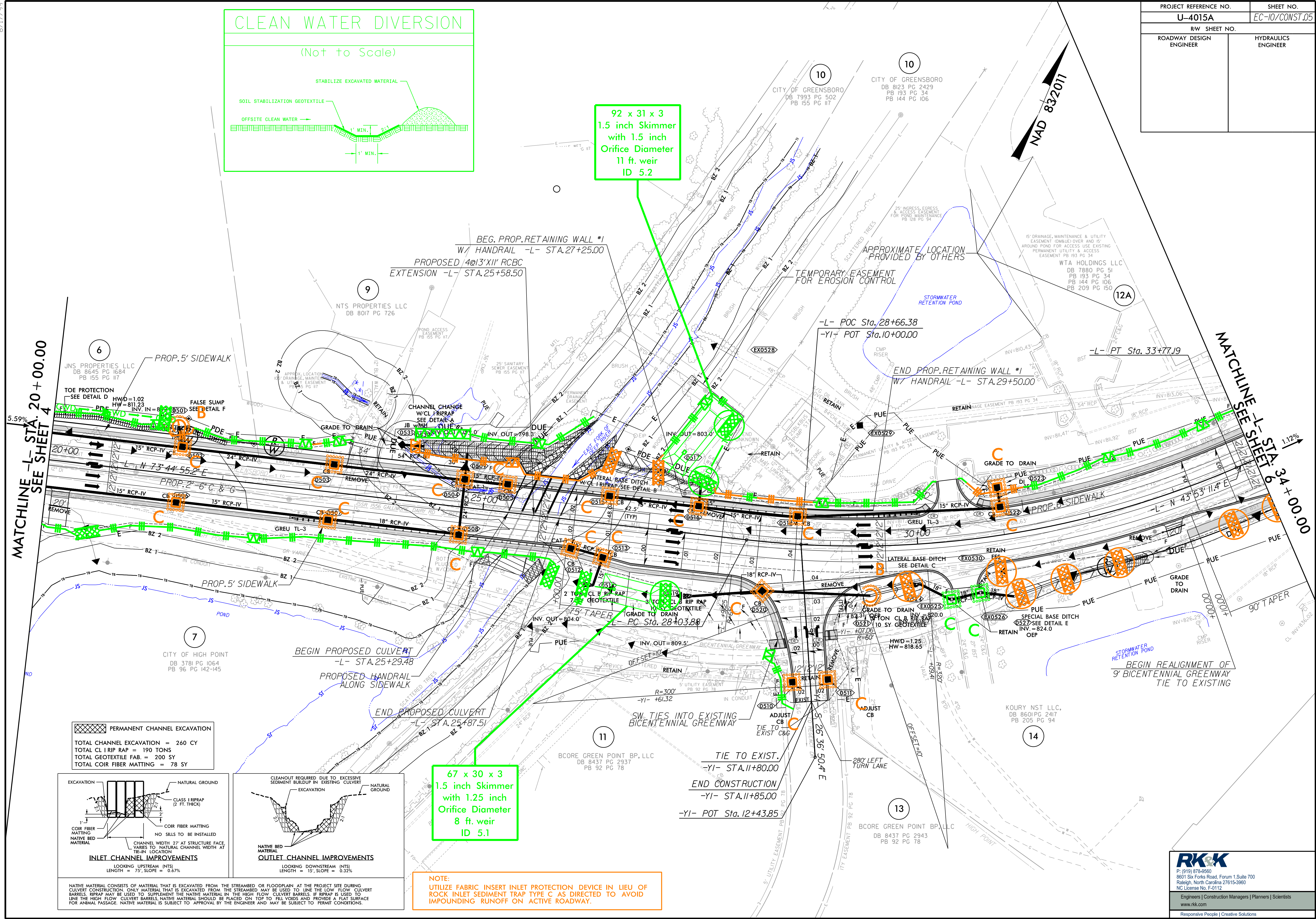
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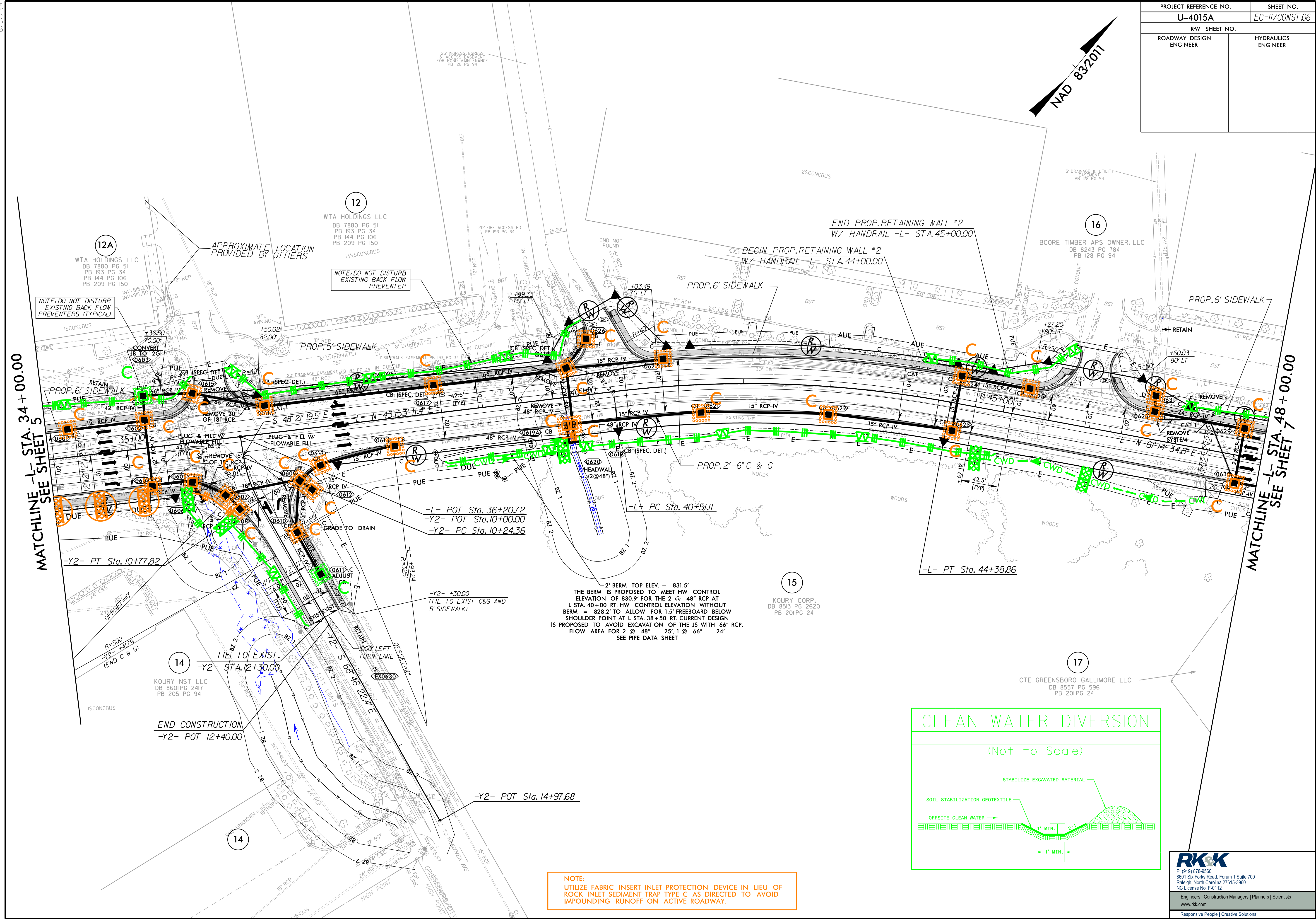
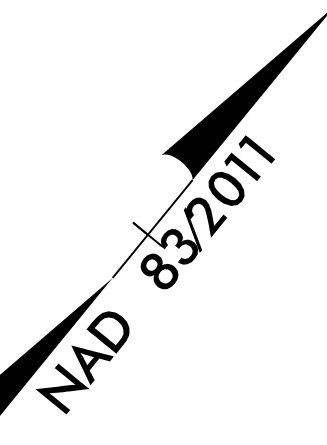


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8/17/19



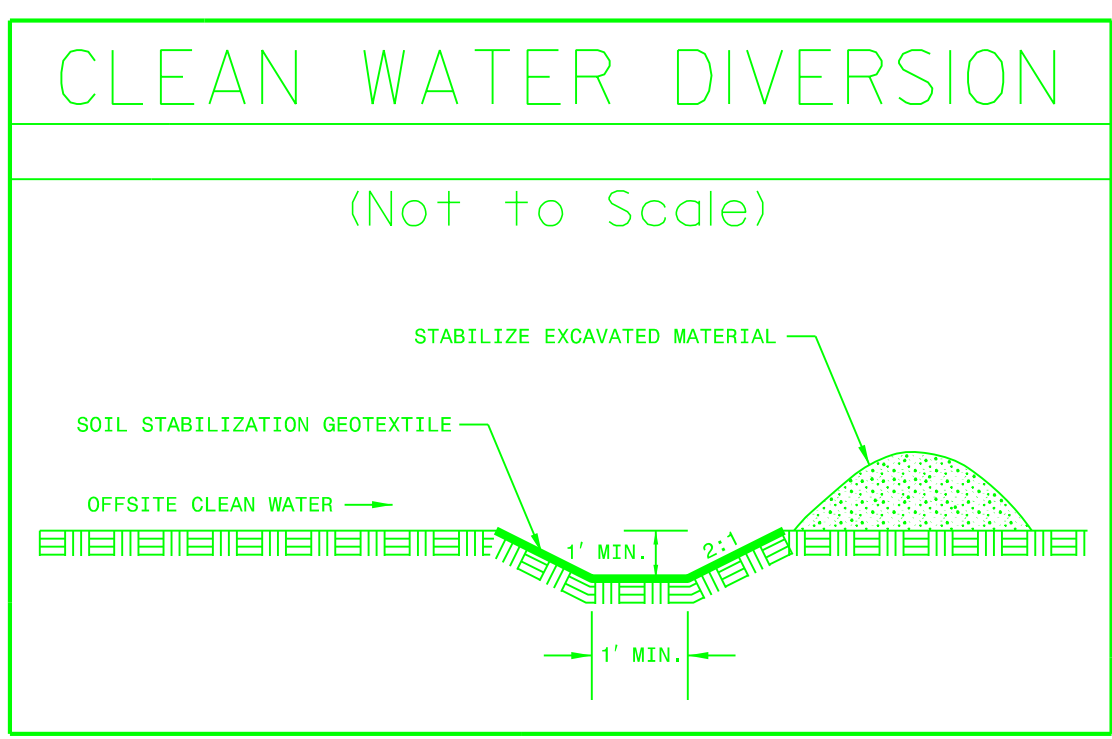
PROJECT REFERENCE NO.	SHEET NO.
U-4015A	EC-II/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE -L- STA. 34+00.00
SEE SHEET 5

MATCHLINE -L- STA. 48+00.00
SEE SHEET 7

2' BERM TOP ELEV. = 831.5'
THE BERM IS PROPOSED TO MEET HW CONTROL ELEVATION OF 830.9' FOR THE 2 @ 48" RCP AT STA. 40+00. RT. HW CONTROL ELEVATION WITHOUT BERM = 828.2' TO ALLOW FOR 1.5' FREEBOARD BELOW SHOULDER POINT AT L STA. 38+50. RT. CURRENT DESIGN IS PROPOSED TO AVOID EXCAVATION OF THE IS WITH 66" RCP. FLOW AREA FOR 2 @ 48" = 25'; 1 @ 66" = 24' SEE PIPE DATA SHEET



NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED TO AVOID IMPOUNDING RUNOFF ON ACTIVE ROADWAY.

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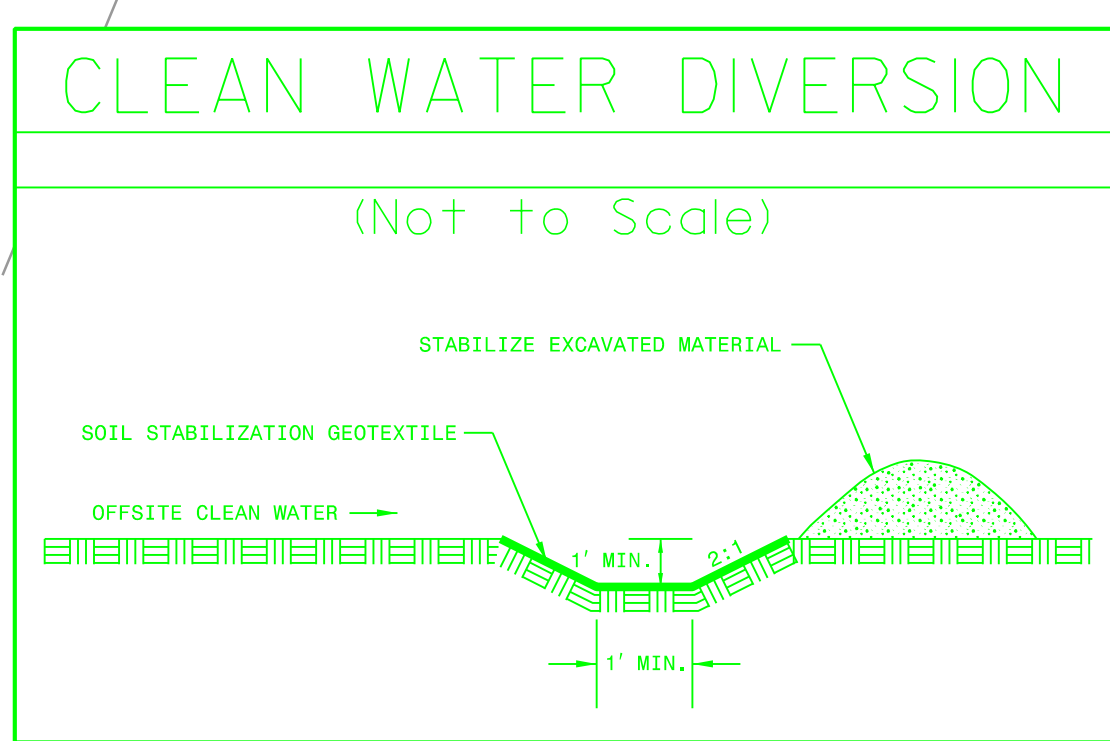
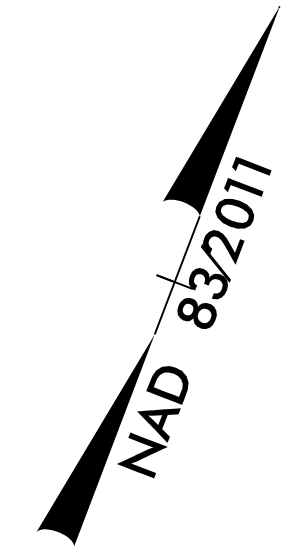
PROJECT REFERENCE NO.	SHEET NO.
U-4015A	EC-12/CONST.07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/19



MATCHLINE - L- STA. 48 + 00.00
SEE SHEET 6

MATCHLINE - L- STA. 862 + 00.00
SEE SHEET 18

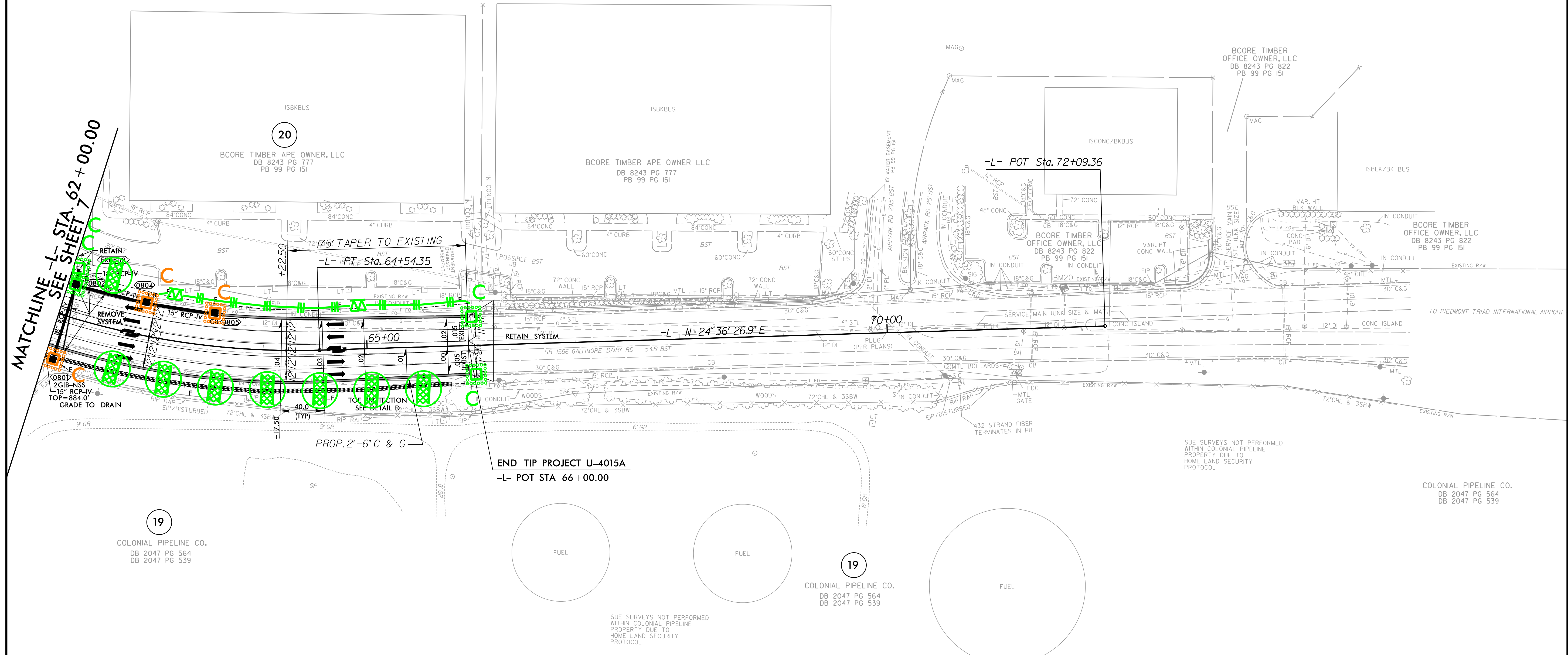


NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED TO AVOID IMPOUNDING RUNOFF ON ACTIVE ROADWAY.

PROJECT REFERENCE NO.	SHEET NO.
U-4015A	EC-13/CONST.08
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



8/17/09



MATCHLINE -L- STA. 62+00.00
SEE SHEET 7

REMOVE SYSTEM

RETAIN SYSTEM

72\"/>

72\"/>

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19
COLONIAL PIPELINE CO.
DB 2047 PG 564
DB 2047 PG 539

END TIP PROJECT U-4015A
-L- POT STA 66+00.00

FUEL

FUEL

19
COLONIAL PIPELINE CO.
DB 2047 PG 564
DB 2047 PG 539

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PROPERTY DUE TO
HOME LAND SECURITY
PROTOCOL

COLONIAL PIPELINE CO.
DB 2047 PG 564
DB 2047 PG 539

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN LIEU OF
ROCK INLET SEDIMENT TRAP TYPE C AS DIRECTED TO AVOID
IMPOUNDING RUNOFF ON ACTIVE ROADWAY.

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