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TIP PROJECT: I-5506

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5506	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

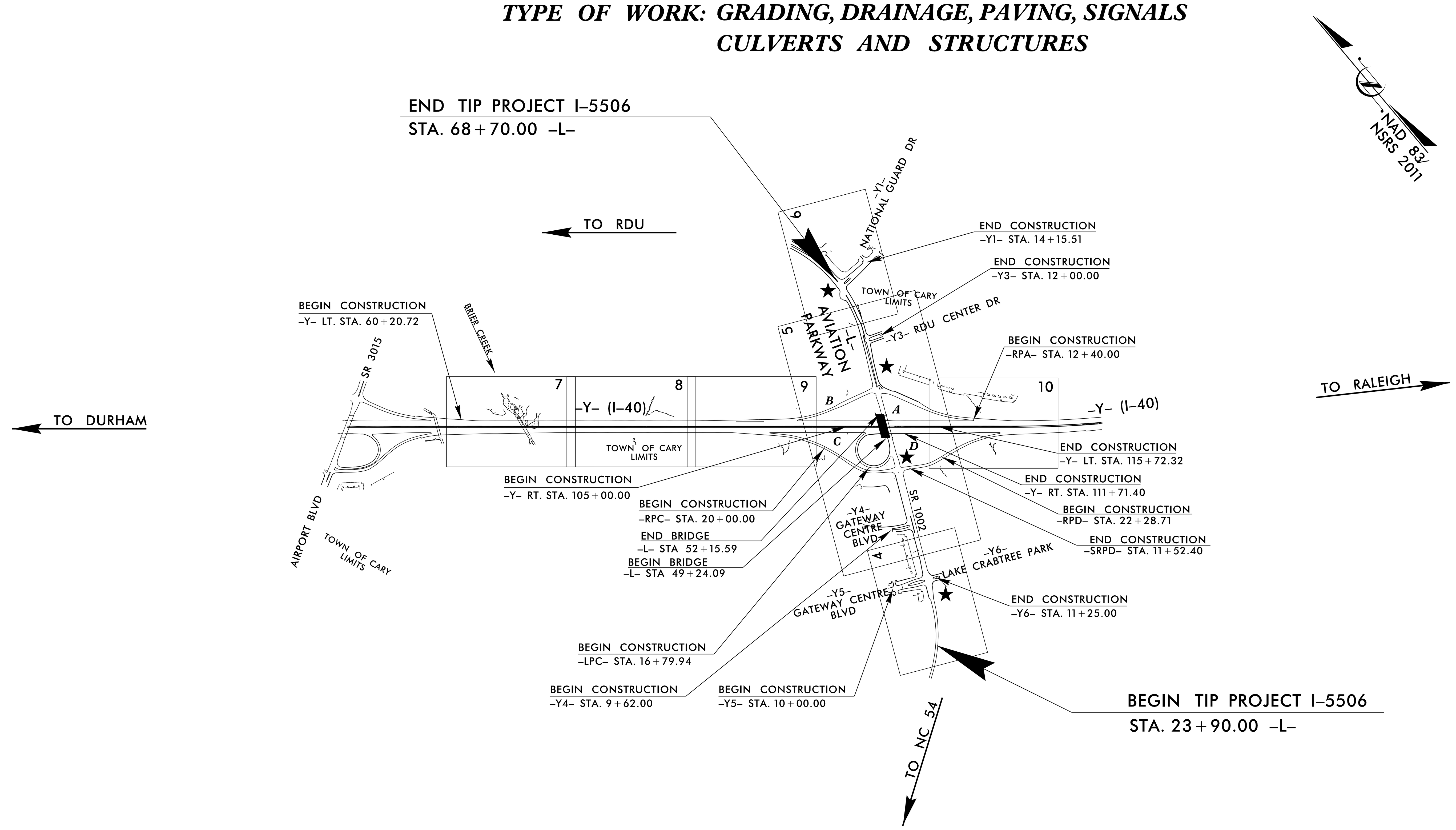
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

WAKE COUNTY

LOCATION: I-40 AND SR 1002 (AVIATION PARKWAY) INTERCHANGE

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



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle/ Coir Fiber Wattle	EW / CFW
	Wattle/ Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
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.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

GRAPHIC SCALE

0
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

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 1, 2016 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared In the Office of:

ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2018 STANDARD SPECIFICATIONS

Designed by:

Noelle Ring	*3456*
NAME	*LEVEL III CERTIFICATION NO.*

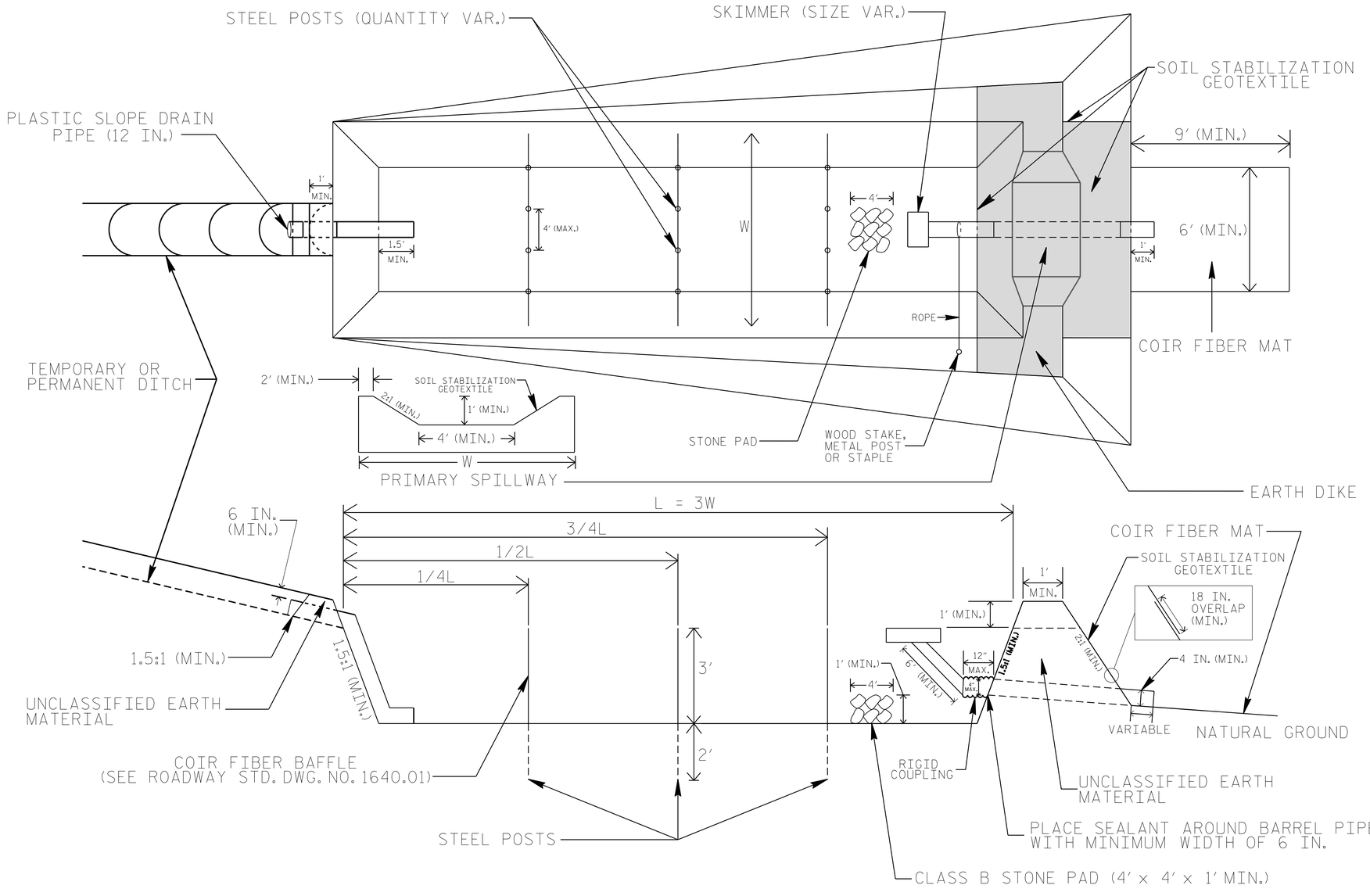
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

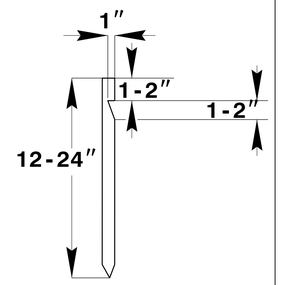
1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type 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.
I-5506	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

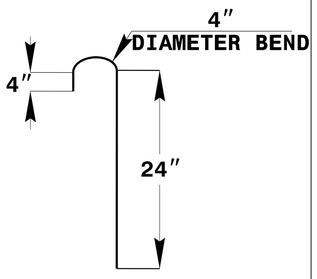
SKIMMER BASIN WITH BAFFLES DETAIL



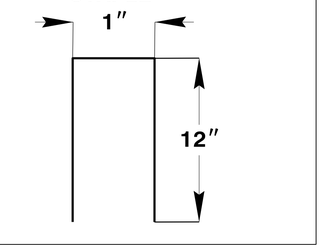
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

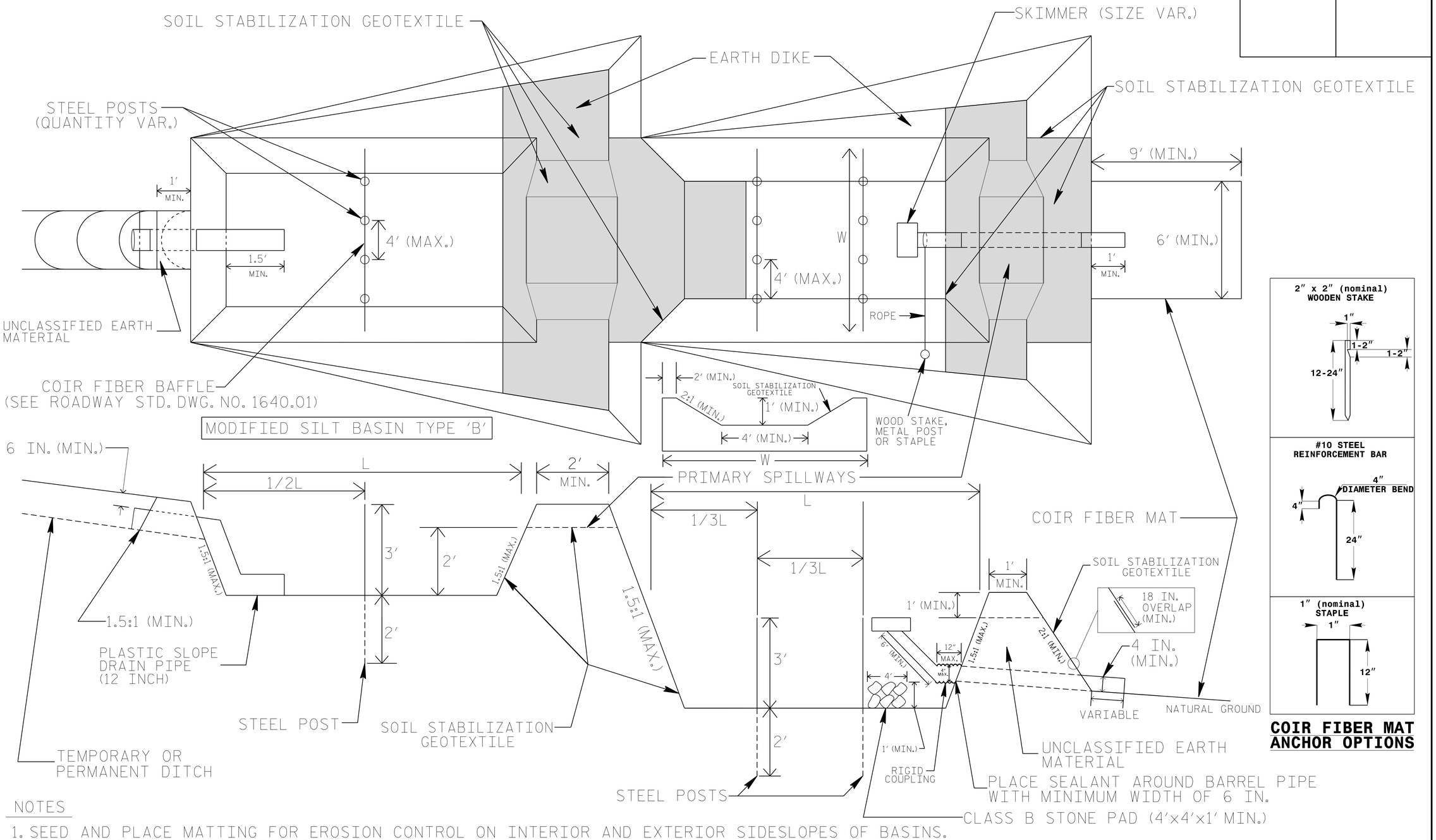
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TIERED SKIMMER BASIN DETAIL



2" x 2" (nominal) WOODEN STAKE

#10 STEEL REINFORCEMENT BAR

1" (nominal) STAPLE

COIR FIBER MAT ANCHOR OPTIONS

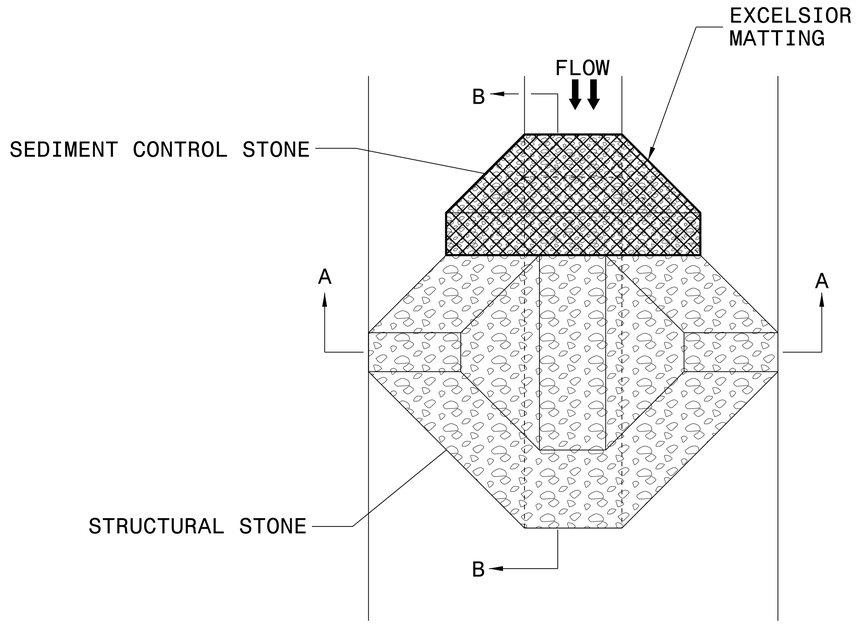
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
4. FOR BASIN DEPTHS OF 3FT., THE MINIMUM BASIN WIDTHS SHALL BE 9 FT.
5. DETERMINE PRIMARY SPILLWAY WEIR LENGTHS (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

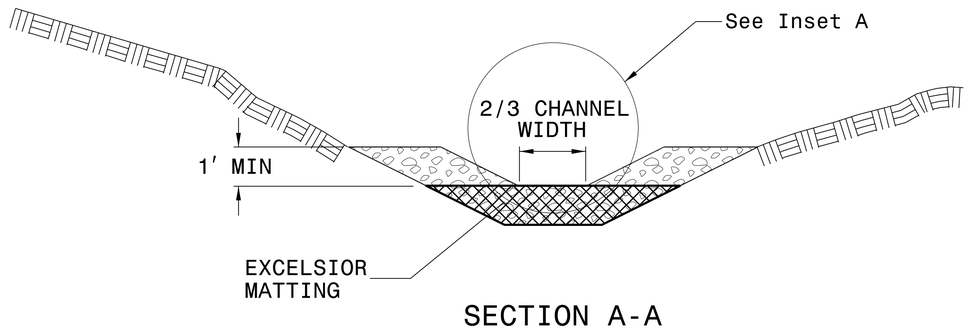
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN



SECTION A-A

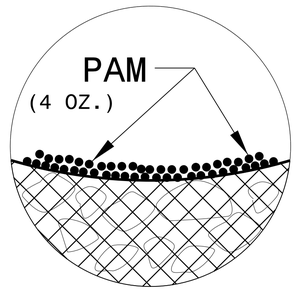
NOTES:

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

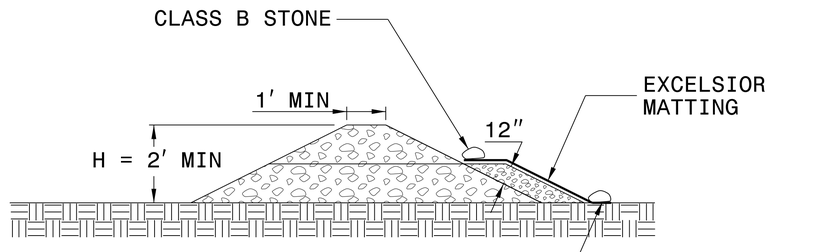
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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

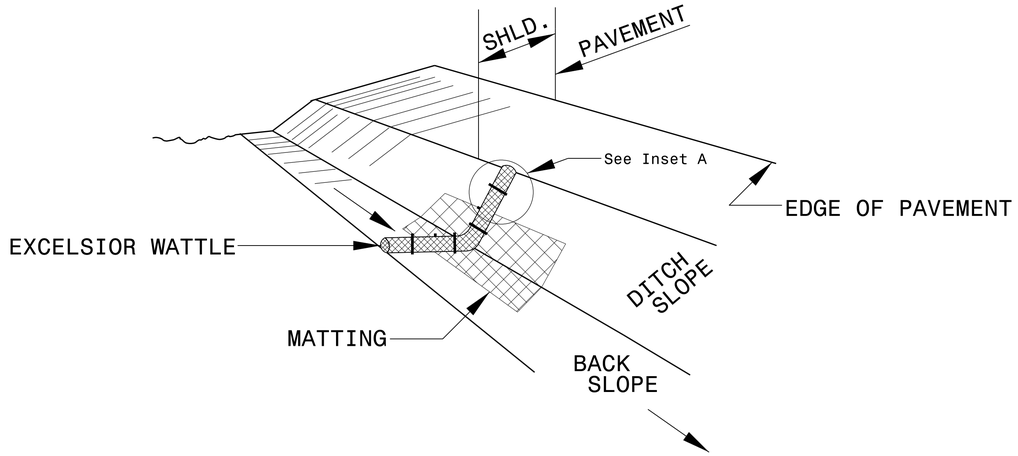


SECTION B-B

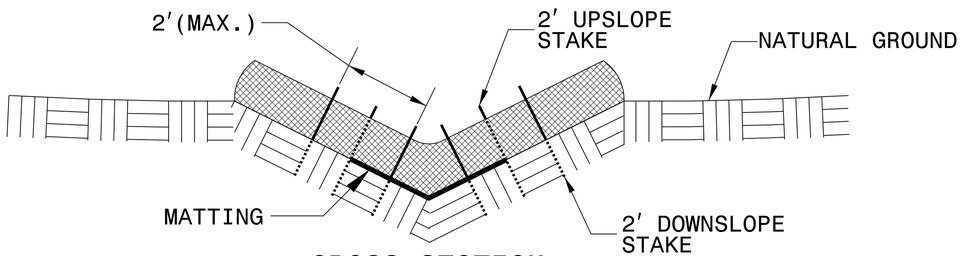
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

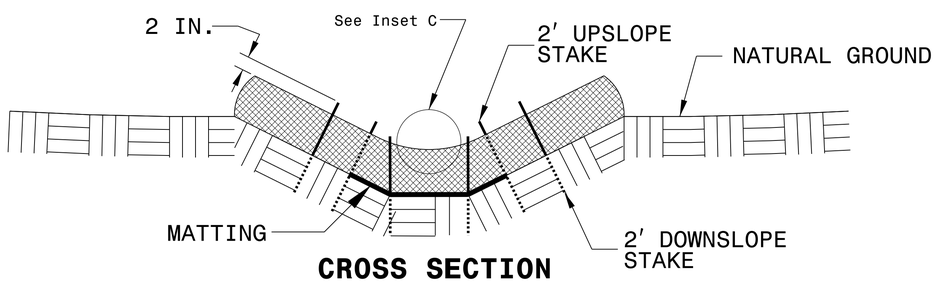
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

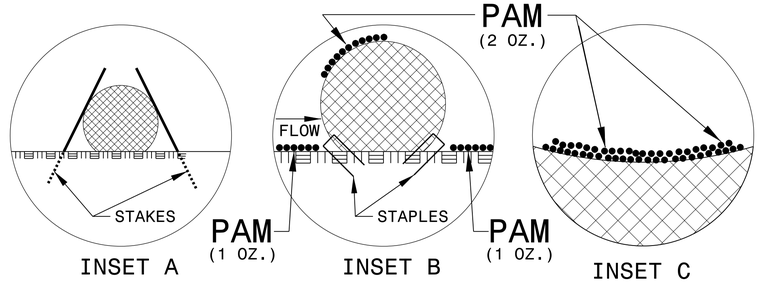
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

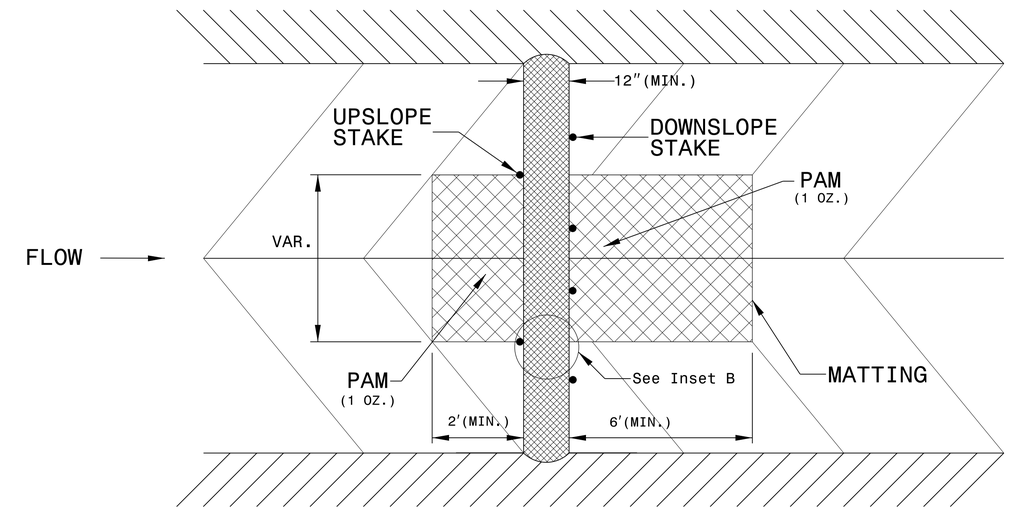
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

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

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





TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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 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.
I-5506	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

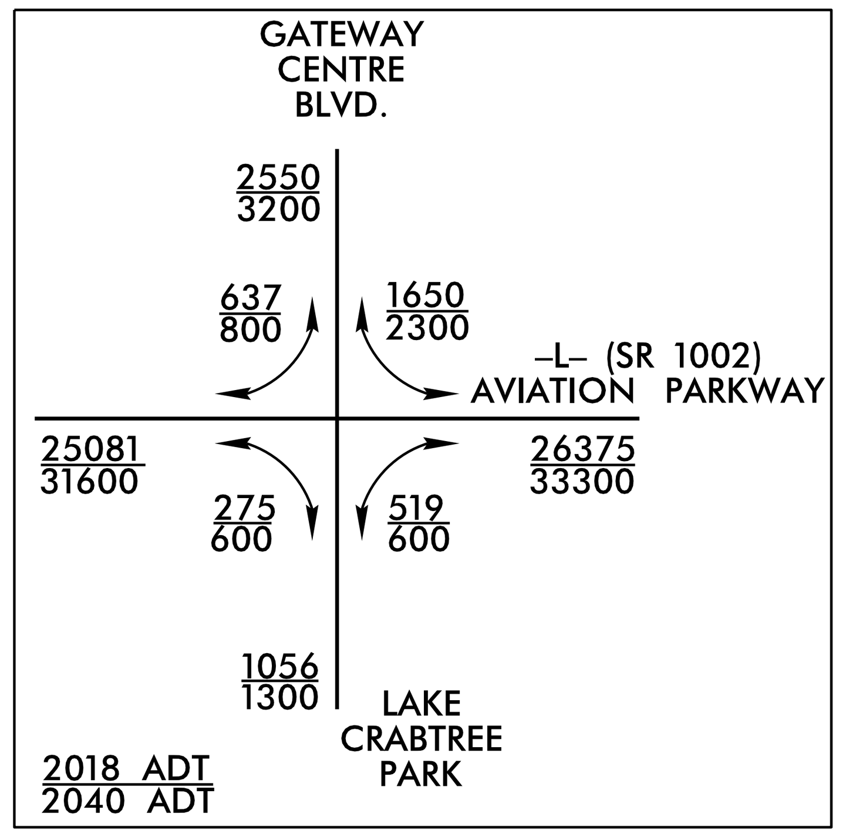
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	28+50	30+60	RT	435
4	-L-	29+50	30+00	LT	175
4	-LPB-	12+90	15+50	LT	960
4	-Y-	68+00	70+50	LT	650
4	-Y-	70+50	74+00	LT	700
5	-L-	59+00	59+50	LT	100
5	-RPA-	20+00	24+00	RT	1965
5	-RPA-	21+50	24+00	LT	560
5	-RPC-	27+80	28+10	RT	170
5	-RPB-	16+30	22+20	RT	2550
5	-RPB-	23+60	24+75	LT	310
5,9	-RPB-	17+60	19+60	LT	490
9	-RPB-	14+00	14+68	LT	210
9	-RPB-	16+30	17+60	LT	620
10	-RPA-	13+50	18+13.5	RT	2050
				SUBTOTAL	11945
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					10655
				TOTAL	22600
				SAY	23000

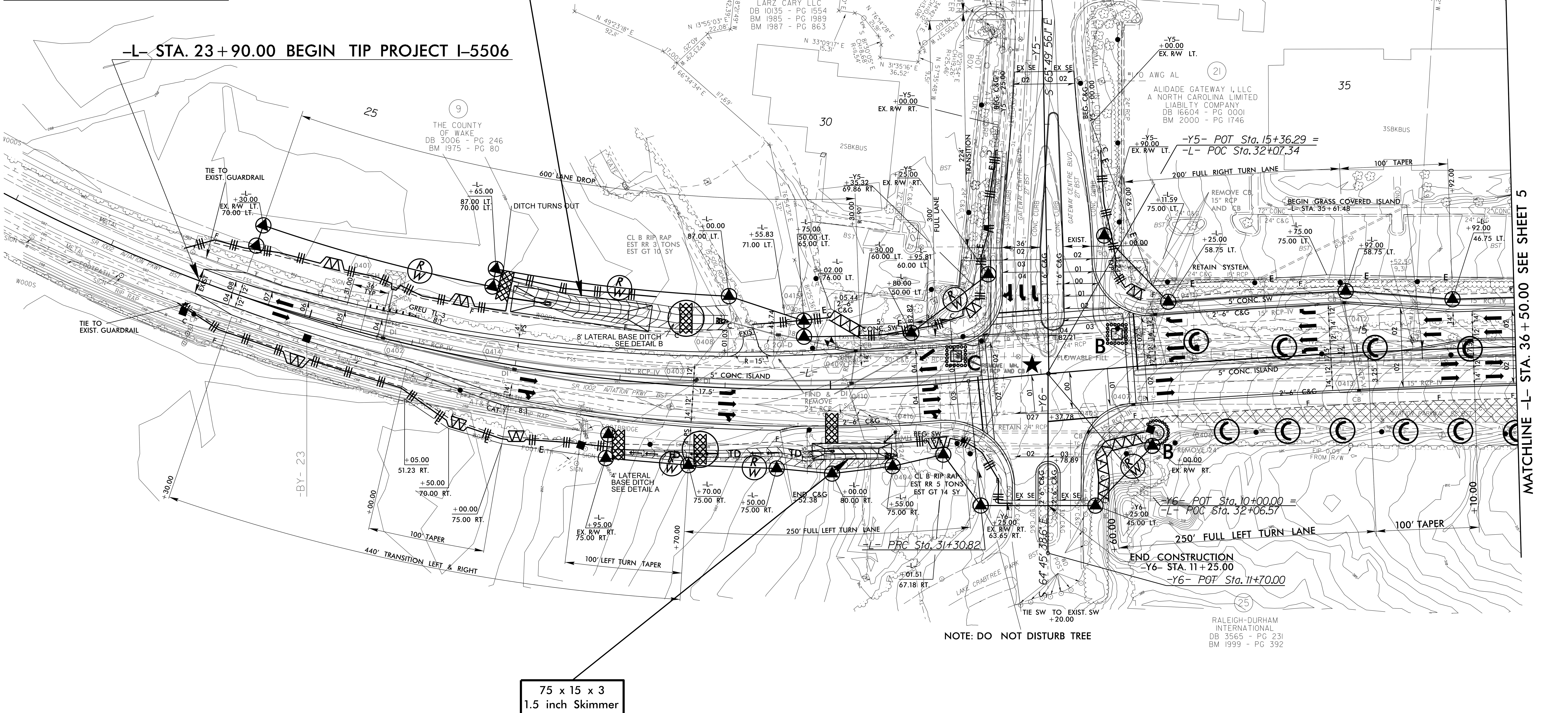
PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
5	-RPA-	18+13.5	19+88	RT	595
5	-RPB-	19+60	21+50	LT	800
5	-RPC-	27+00	27+80	RT	200
5	-LPB-	15+50	18+00	LT	600
				SUBTOTAL	2195
		ADDITIONAL PSRM TO BE INSTALLED			165
				TOTAL	2360
				SAY	2400

PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4





132 x 25 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
13 ft. weir
ID 4.1
-L- STA. 23+90.00 BEGIN TIP PROJECT I-5506
BEGIN CONSTRUCTION
-Y5- STA. 10+00.00
NAD 83/NSRS 2011
-Y5- PT Sta. 11+80.86
-Y5- POT Sta. 15+36.29 =
-L- POC Sta. 32+07.34
200' FULL RIGHT TURN LANE
100' TAPER
BEGIN GRASS COVERED ISLAND
600' LANE DROP
TIE TO EXIST. GUARDRAIL
DITCH TURNS OUT
8' LATERAL BASE DITCH SEE DETAIL B
4' LATERAL BASE DITCH SEE DETAIL A
5" CONC. ISLAND
250' FULL LEFT TURN LANE
100' LEFT TURN TAPER
100' TAPER
440' TRANSITION LEFT & RIGHT
-L- PRC Sta. 31+30.82
-Y6- POT Sta. 10+00.00 =
-L- POC Sta. 32+06.57
END CONSTRUCTION
-Y6- STA. 11+25.00
-Y6- POT Sta. 11+70.00
MATCHLINE -L- STA. 36+50.00 SEE SHEET 5
THE COUNTY OF WAKE
DB 3006 - PG 246
BM 1975 - PG 80
LARZ CARY LLC
DB 10135 - PG 1554
BM 1985 - PG 1989
BM 1987 - PG 863
2300 GATEWAY, LLC
DB 13902 - PG 1116
BM 1987 - PG 863
ALIDADE GATEWAY I, LLC
A NORTH CAROLINA LIMITED LIABILITY COMPANY
DB 16604 - PG 0001
BM 2000 - PG 1746
RALEIGH-DURHAM INTERNATIONAL
DB 3565 - PG 231
BM 1999 - PG 392
75 x 15 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 4.2
NOTE: DO NOT DISTURB TREE

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

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

-Y1- (GATEWAY CENTER BLVD.)
PI Sta 10+90.57
△ = 7° 43' 21.7" (LT)
D = 4° 16' 12.0"
L = 180.86'
T = 90.57'
R = 1,341.82'
SE = EXIST.FT/FT
DS = 40 MPH

-L- (AVIATION PARKWAY)	
PI Sta 26+25.20	PI Sta 34+89.38
△ = 37° 07' 16.9" (LT)	△ = 5° 39' 45.6" (RT)
D = 3° 32' 12.4"	D = 0° 47' 25.0"
L = 1,049.58'	L = 716.53'
T = 543.95'	T = 358.56'
R = 1,620.00'	R = 7,250.00'
SE = 0.04 FT/FT	SE = NC
DS = 50 MPH	DS = 50 MPH

8/17/99

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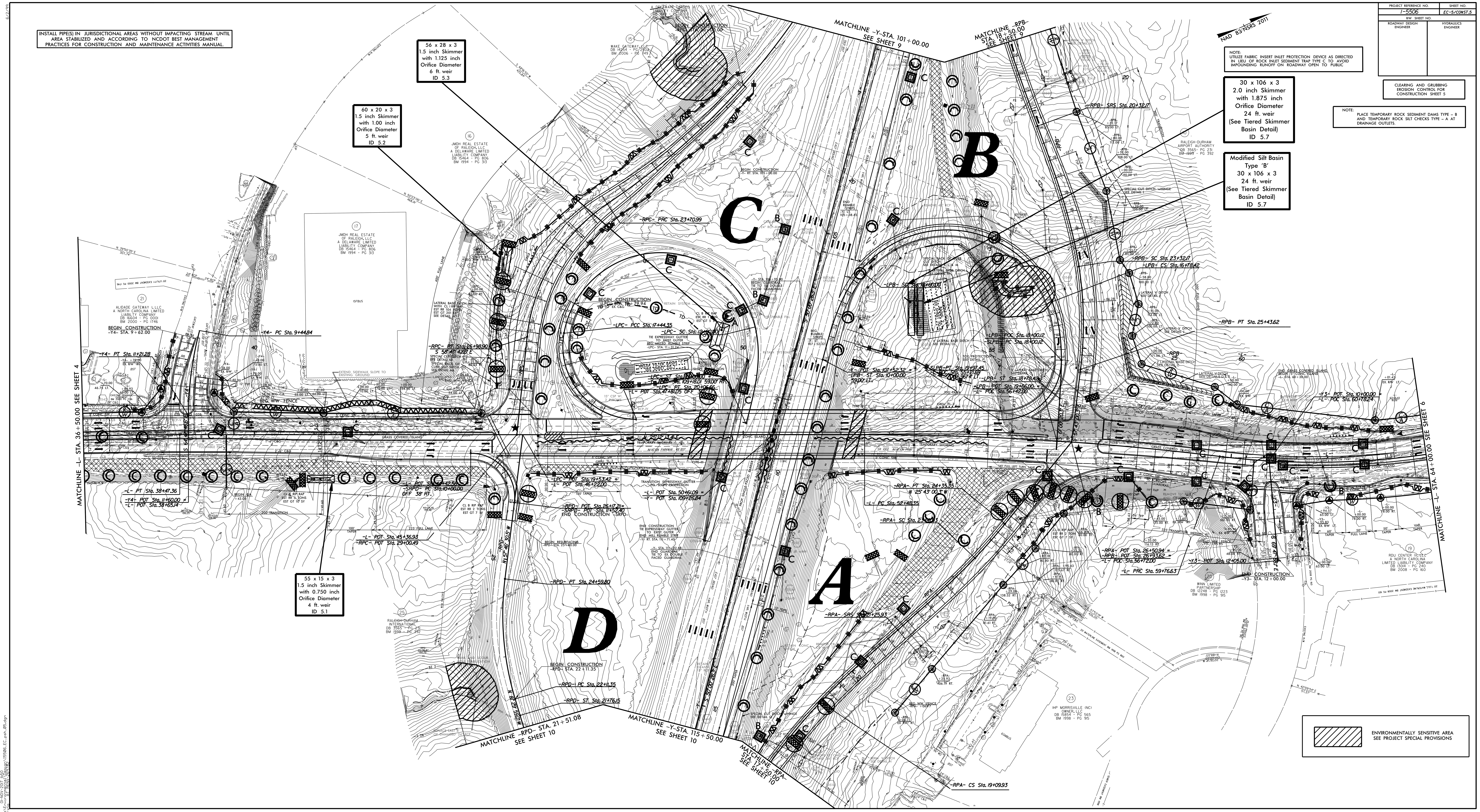


PROJECT REFERENCE NO.
I-5506
SHEET NO.
EC-5/CONST.5
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NAD 83/NSRS 2011
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5
NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICE AS DIRECTED IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C TO AVOID IMPOUNDING RUNOFF ON ROADWAY OPEN TO PUBLIC
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.
INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.
56 x 28 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 5.3
60 x 20 x 3
1.5 inch Skimmer
with 1.00 inch
Orifice Diameter
5 ft. weir
ID 5.2
55 x 15 x 3
1.5 inch Skimmer
with 0.750 inch
Orifice Diameter
4 ft. weir
ID 5.1
30 x 106 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
24 ft. weir
(See Tiered Skimmer Basin Detail)
ID 5.7
Modified Silt Basin
Type 'B'
30 x 106 x 3
24 ft. weir
(See Tiered Skimmer Basin Detail)
ID 5.7
A
B
C
D
MATCHLINE -Y- STA. 101+00.00 SEE SHEET 9
MATCHLINE -RPB- STA. 18+50.00 SEE SHEET 9
MATCHLINE -L- STA. 36+50.00 SEE SHEET 4
MATCHLINE -L- STA. 64+00.00 SEE SHEET 6
MATCHLINE -RPD- STA. 21+51.08 SEE SHEET 10
MATCHLINE -Y- STA. 115+50.00 SEE SHEET 10
MATCHLINE -RPA- STA. 17+50.00 SEE SHEET 10
RALEIGH-DURHAM AIRPORT AUTHORITY
DB 3565- PG 231
BM 1999 - PG 392
ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

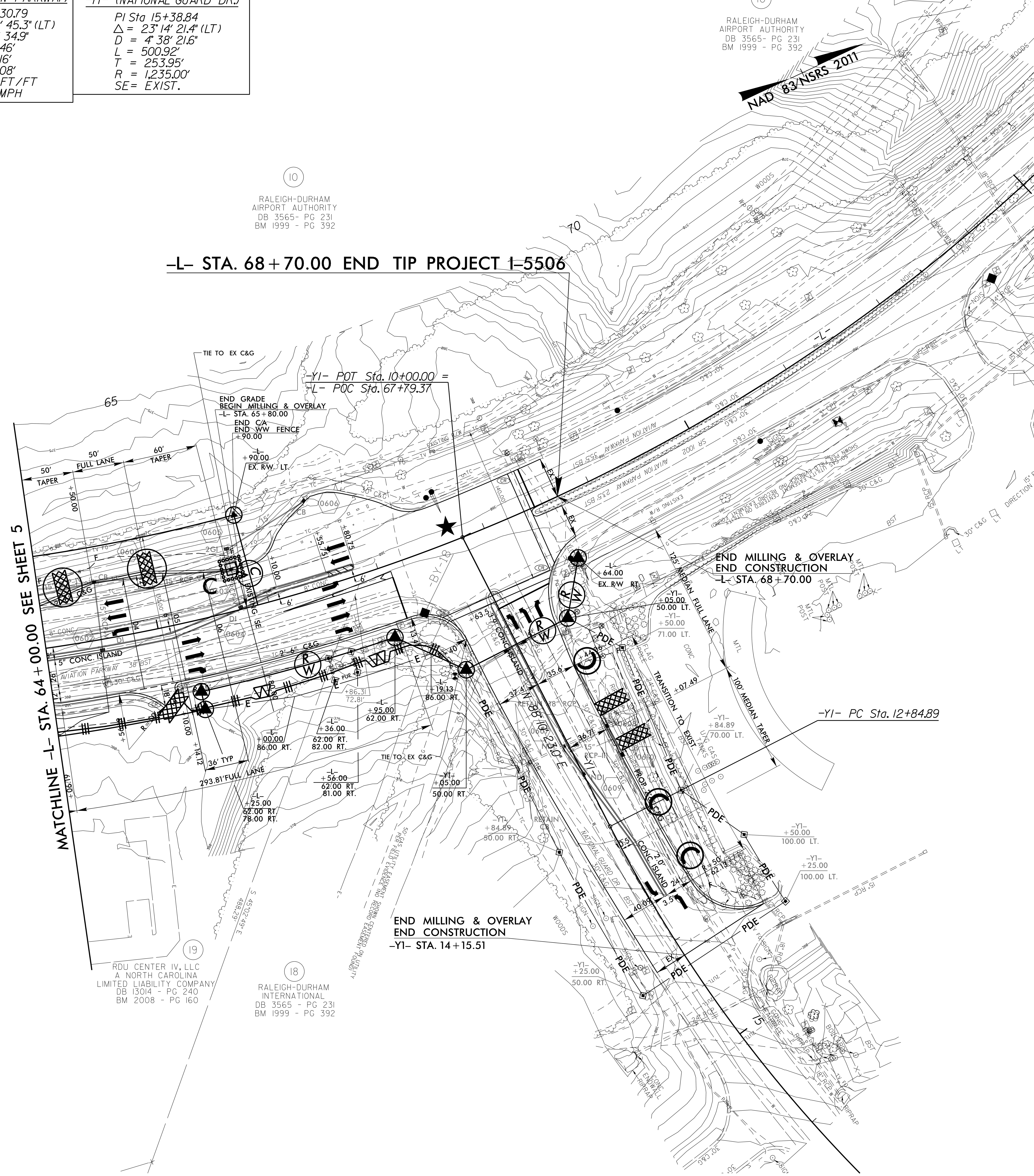
8/17/99

-L- (AVIATION PARKWAY)	-Y1- (NATIONAL GUARD DR.)
PI Sta 73+30.79	PI Sta 15+38.84
△ = 80° 24' 45.3" (LT)	△ = 23° 14' 21.4" (LT)
D = 3° 34' 34.9"	D = 4° 38' 21.6"
L = 2,248.46'	L = 500.92'
T = 1,354.16'	T = 253.95'
R = 1,602.08'	R = 1,235.00'
SE= 0.04 FT/FT	SE= EXIST.
DS = 50 MPH	

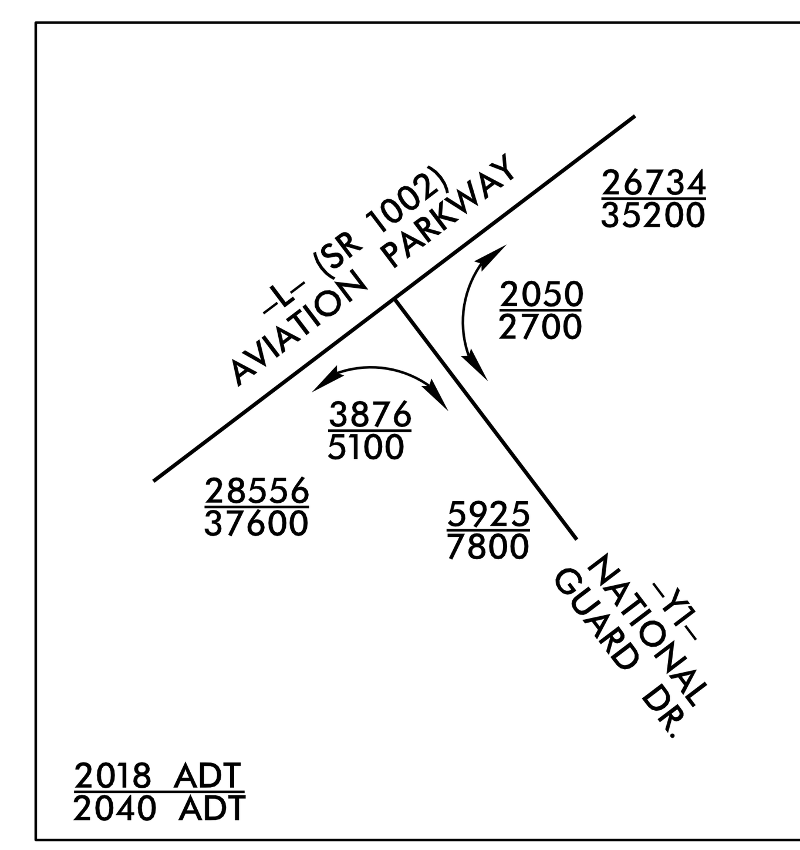
PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-6/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

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



NAD 83/NSRS 2011
10
RALEIGH-DURHAM
AIRPORT AUTHORITY
DB 3565- PG 231
BM 1999 - PG 392
-L- STA. 68+70.00 END TIP PROJECT I-5506
-Y1- POT Sta. 10+00.00 =
-L- POC Sta. 67+79.37
TIE TO EX C&G
END GRADE
BEGIN MILLING & OVERLAY
-L- STA. 65+80.00
END C/A
END WW FENCE
+90.00
+90.00
EX. R/W LT.
50' TAPER
50' FULL LANE
60' TAPER
MATCHLINE -L- STA. 64+00.00 SEE SHEET 5
5' CONC. ISLAND
AVIATION PARKWAY
END MILLING & OVERLAY
END CONSTRUCTION
-L- STA. 68+70.00
-L- +64.00 EX. R/W RT.
-Y1- PC Sta. 12+84.89
100' MEDIAN TAPER
175' MEDIAN FULL LANE
TRANSITION TO EXIST.
-L- +19.13 86.00 RT.
-L- +00.00 86.00 RT.
-L- +36.00 62.00 RT. 82.00 RT.
-L- +95.00 62.00 RT.
-L- +56.00 62.00 RT. 81.00 RT.
-L- +25.00 62.00 RT. 78.00 RT.
-Y1- +05.00 50.00 RT.
-Y1- +84.89 50.00 RT.
-Y1- +25.00 50.00 RT.
-Y1- +50.00 100.00 LT.
-Y1- +25.00 100.00 LT.
-Y1- +05.00 50.00 LT.
-Y1- +50.00 71.00 LT.
-Y1- +84.89 70.00 LT.
36' TYP
293.81' FULL LANE
TIE TO EX C&G
END MILLING & OVERLAY
END CONSTRUCTION
-Y1- STA. 14+15.51
18
RALEIGH-DURHAM
INTERNATIONAL
DB 3565 - PG 231
BM 1999 - PG 392
19
RDU CENTER IV, LLC
A NORTH CAROLINA
LIMITED LIABILITY COMPANY
DB 13014 - PG 240
BM 2008 - PG 160
PDE
WOODS
65
70



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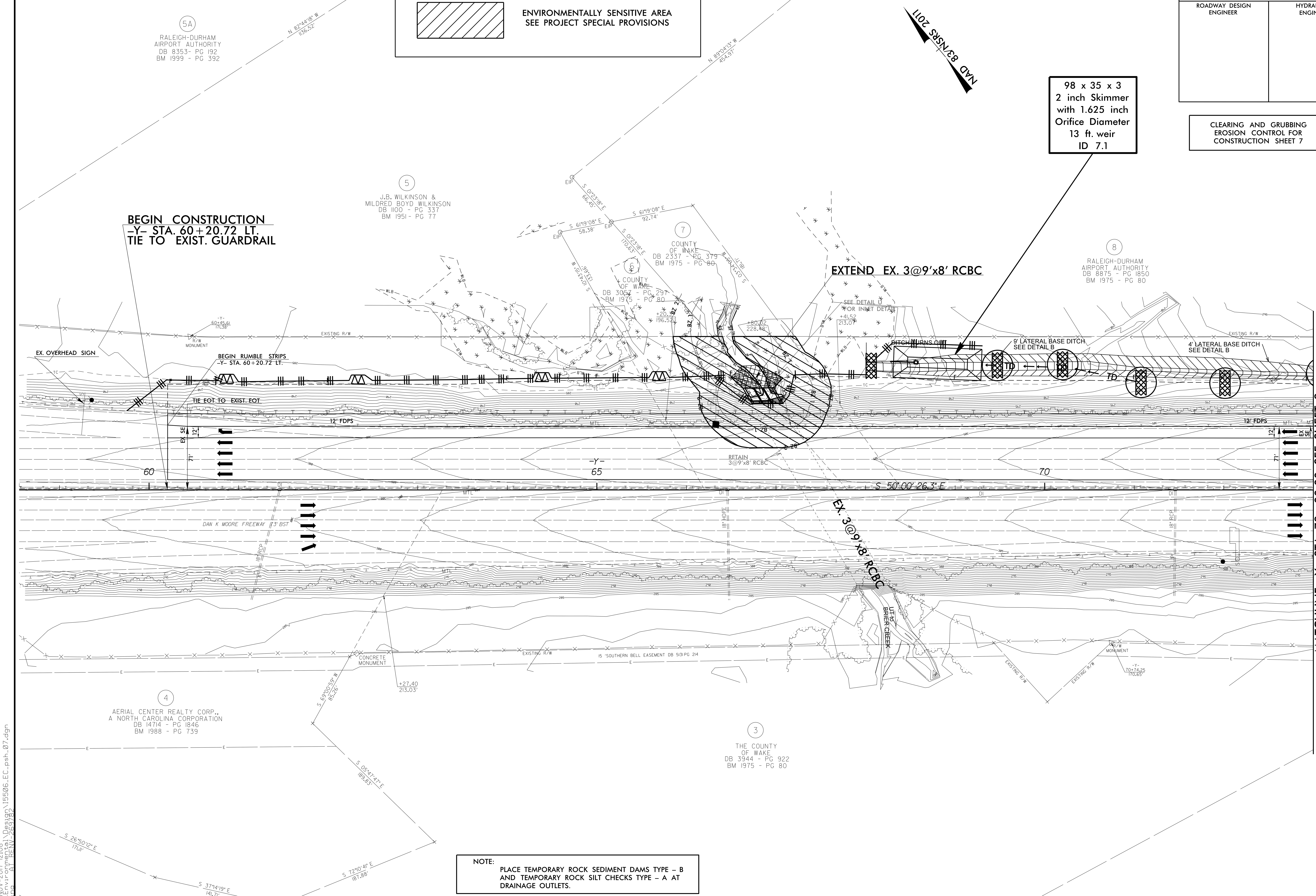
PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-7/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

NAD 83/NSRS 2011

98 x 35 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
13 ft. weir
ID 7.1



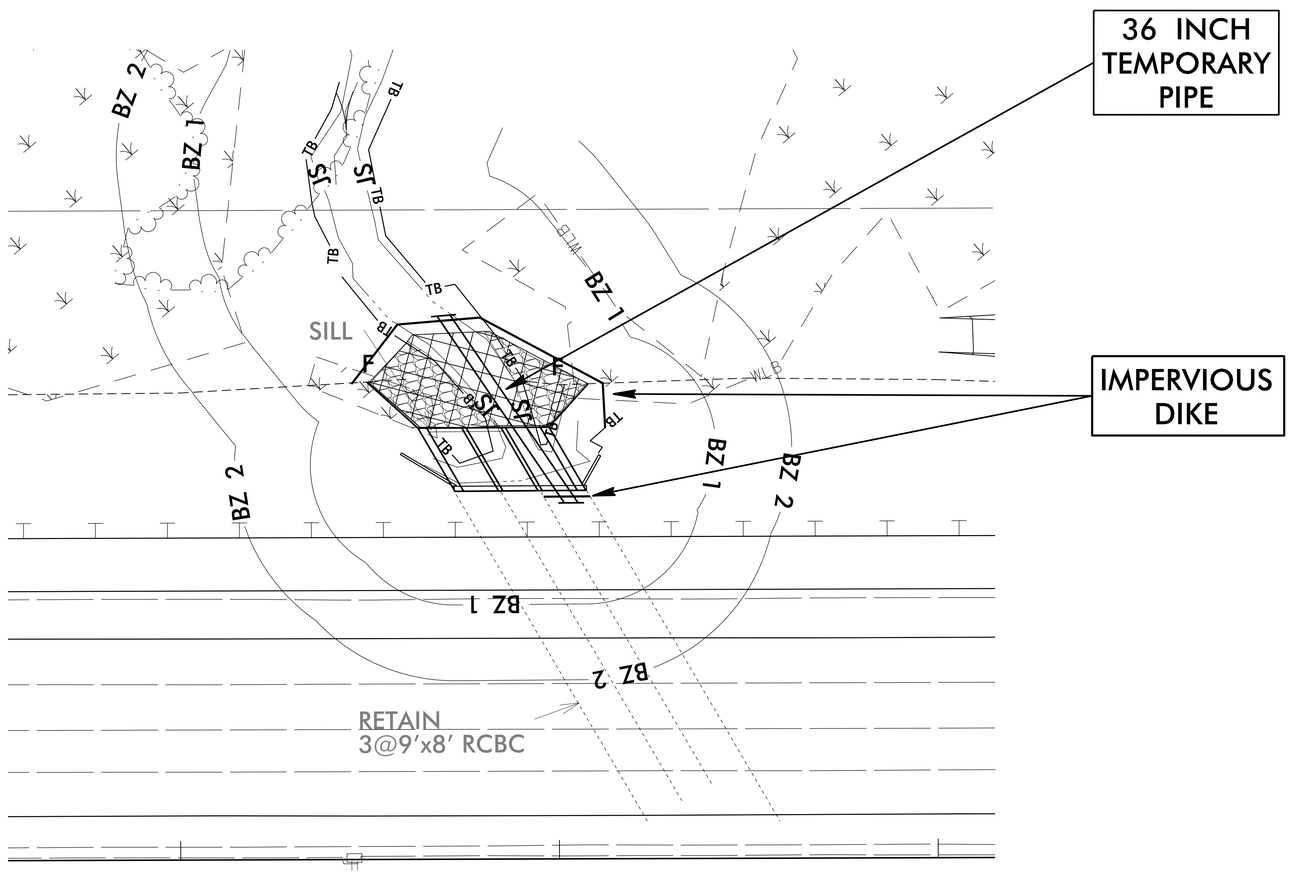
5A
RALEIGH-DURHAM
AIRPORT AUTHORITY
DB 8353- PG 192
BM 1999 - PG 392
5
J.B. WILKINSON &
MILDRED BOYD WILKINSON
DB 1100 - PG 337
BM 1951- PG 77
7
COUNTY
OF WAKE
DB 2337 - PG 379
BM 1975 - PG 80
6
COUNTY
OF WAKE
8
RALEIGH-DURHAM
AIRPORT AUTHORITY
DB 8875 - PG 1850
BM 1975 - PG 80
BEGIN CONSTRUCTION
-Y- STA. 60+20.72 LT.
TIE TO EXIST. GUARDRAIL
EXTEND EX. 3@9'x8' RCBC
SEE DETAIL U
FOR INLET DETAIL
DITCH TURNS OUT
9' LATERAL BASE DITCH
SEE DETAIL B
4' LATERAL BASE DITCH
SEE DETAIL B
EX. OVERHEAD SIGN
BEGIN RUMBLE STRIPS
-Y- STA. 60+20.72 LT.
TIE EOT TO EXIST. EOT
12' FDPS
EXISTING R/W
RETAIN
3@9'x8' RCBC
-Y-
60
65
70
S 50°00' 26.3" E
EX. 3@9'x8' RCBC
DAN K MOORE FREEWAY
UT to BRIER CREEK
CONCRETE MONUMENT
4
AERIAL CENTER REALTY CORP.,
A NORTH CAROLINA CORPORATION
DB 14714 - PG 1846
BM 1988 - PG 739
3
THE COUNTY
OF WAKE
DB 3944 - PG 922
BM 1975 - PG 80
MATCHLINE -Y- STA. 73+00.00 SEE SHEET 8

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

CULVERT CONSTRUCTION SEQUENCE STA. 67+46 –Y–

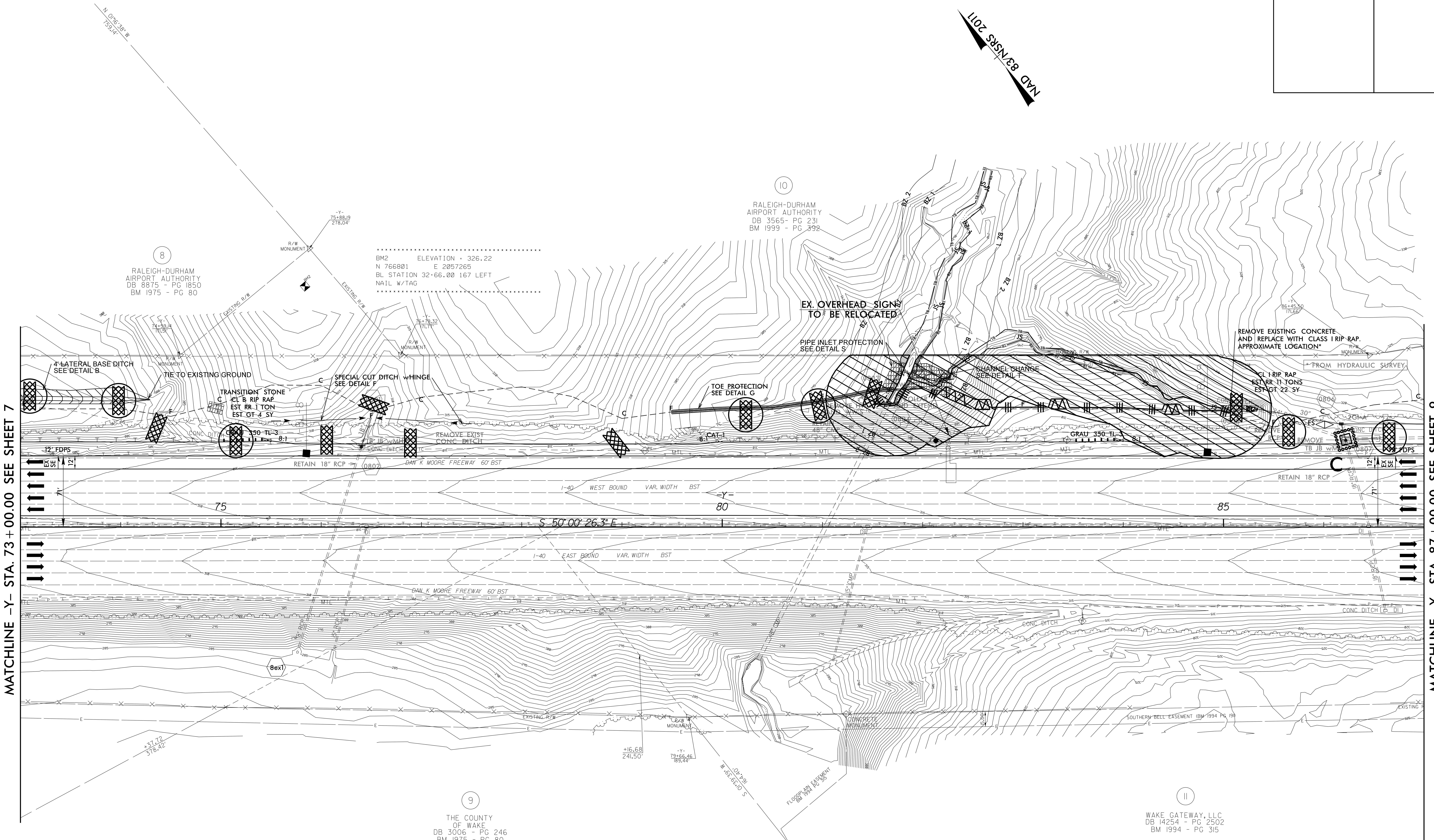
PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-8/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. CONSTRUCT IMPERVIOUS DIKES AND INSTALL 36 INCH TEMPORARY PIPE, DIVERTING FLOW.
3. CONSTRUCT PROPOSED CULVERT EXTENSION.
4. CONSTRUCT FLOODPLAIN BENCH AND BANK STABILIZATION.
5. REMOVE IMPERVIOUS DIKES AND 36 INCH TEMPORARY PIPE, ALLOWING NORMAL FLOW THROUGH THE CULVERT.
6. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), AND COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-9/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8



NAD 83/NSRS 2011
MATCHLINE -Y- STA. 73+00.00 SEE SHEET 7
MATCHLINE -Y- STA. 87+00.00 SEE SHEET 9
RALEIGH-DURHAM AIRPORT AUTHORITY DB 8875 - PG 1850 BM 1975 - PG 80
RALEIGH-DURHAM AIRPORT AUTHORITY DB 3565- PG 231 BM 1999 - PG 392
BM2 ELEVATION = 326.22 N 766801 E 2057265 BL STATION 32+66.00 167 LEFT NAIL W/TAG
EX. OVERHEAD SIGN TO BE RELOCATED
PIPE INLET PROTECTION SEE DETAIL S
TOE PROTECTION SEE DETAIL G
CHANNEL CHANGE SEE DETAIL T
REMOVE EXISTING CONCRETE AND REPLACE WITH CLASS I RIP RAP. APPROXIMATE LOCATION*
CL I RIP RAP EST RR 11 TONS EST GT 22 SY
4' LATERAL BASE DITCH SEE DETAIL B
TIE TO EXISTING GROUND
TRANSITION STONE CL B RIP RAP EST RR 1 TON EST GT 4 SY
SPECIAL CUT DITCH w/HINGE SEE DETAIL F
REMOVE EXIST CONC DITCH
RETAIN 18" RCP
DAN K MOORE FREEWAY 60' BST
I-40 WEST BOUND VAR. WIDTH BST
I-40 EAST BOUND VAR. WIDTH BST
S 50°00' 26.3" E
75
80
85
THE COUNTY OF WAKE DB 3006 - PG 246 BM 1975 - PG 80
WAKE GATEWAY, LLC DB 14254 - PG 2502 BM 1994 - PG 315
SOUTHERN BELL EASEMENT
FLOODPLAIN EASEMENT

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

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.

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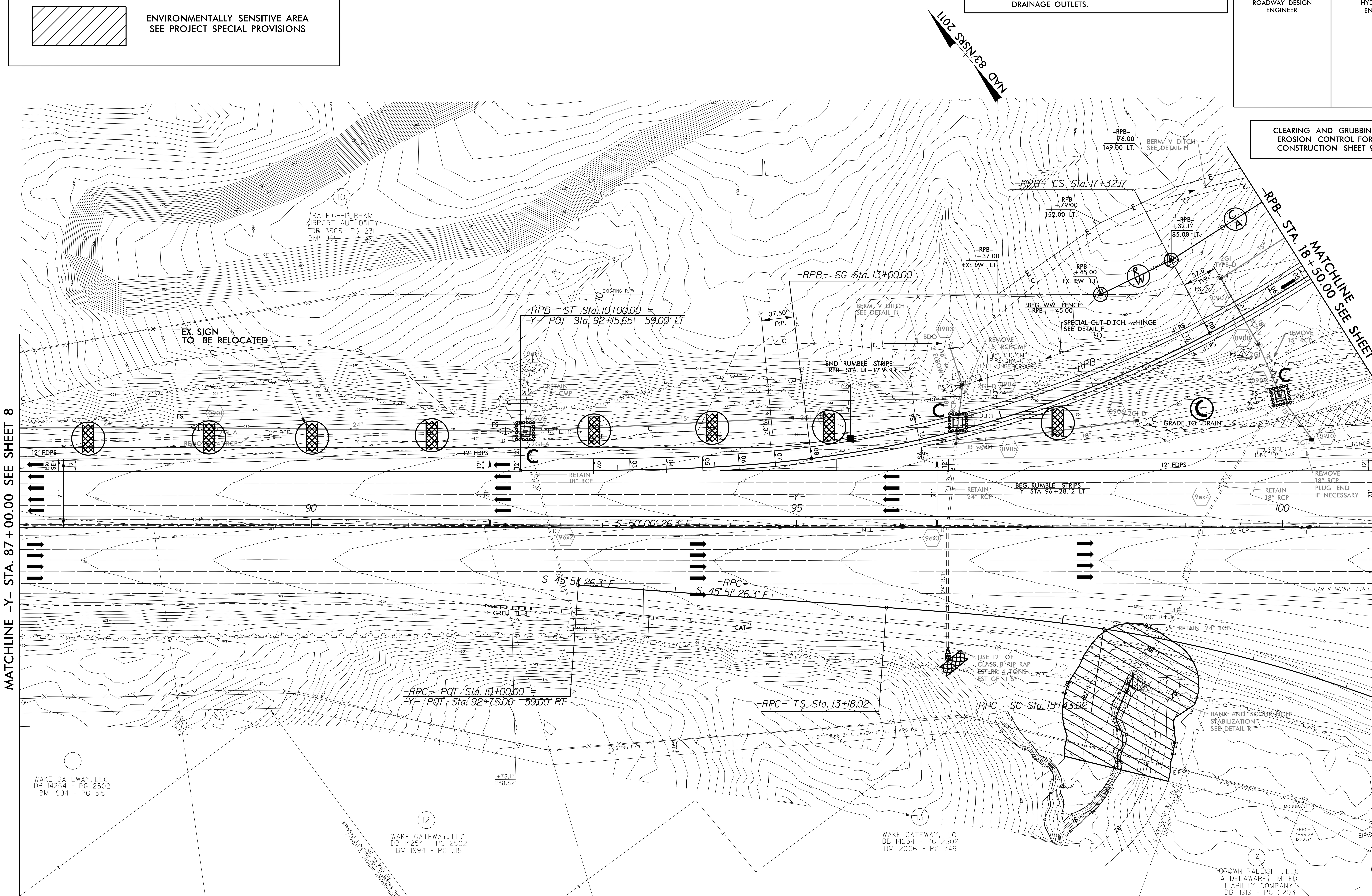
PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-10/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9



NAD 83/NSRS 2011
MATCHLINE -Y- STA. 87+00.00 SEE SHEET 8
MATCHLINE -Y- STA. 101+00.00 SEE SHEET 5
MATCHLINE -RPB- STA. 18+50.00 SEE SHEET 5
RALEIGH-DURHAM AIRPORT AUTHORITY DB 3565- PG 231 BM 1999 - PG 392
EX. SIGN TO BE RELOCATED
-RPB- ST Sta. 10+00.00 =
-Y- POT Sta. 92+15.65 59.00' LT
-RPB- SC Sta. 13+00.00
-RPB- CS Sta. 17+32.17
END RUMBLE STRIPS -RPB- STA. 14+12.91 LT.
BEG. RUMBLE STRIPS -Y- STA. 96+28.12 LT.
SPECIAL CUT DITCH w/HINGE SEE DETAIL F
BERM V DITCH SEE DETAIL H
BEG WW FENCE -RPB- +45.00
GRADE TO DRAIN
S 50°00' 26.3" E
S 45°51' 26.3" E
-RPC- POT Sta. 10+00.00 =
-Y- POT Sta. 92+75.00 59.00' RT
-RPC- TS Sta. 13+18.02
-RPC- SC Sta. 15+43.02
USE 12' OF CLASS B RIP RAP EST 8 TONS EST GE 11 SY
BANK AND SCOUR HOLE STABILIZATION SEE DETAIL R
RETAIN 24" RCP
WAKE GATEWAY, LLC DB 14254 - PG 2502 BM 1994 - PG 315
WAKE GATEWAY, LLC DB 14254 - PG 2502 BM 2006 - PG 749
CROWN-RALEIGH I, LLC A DELAWARE LIMITED LIABILITY COMPANY DB 11919 - PG 2203 BM 2006 - PG 749
DAN K MOORE FREEWAY

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

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

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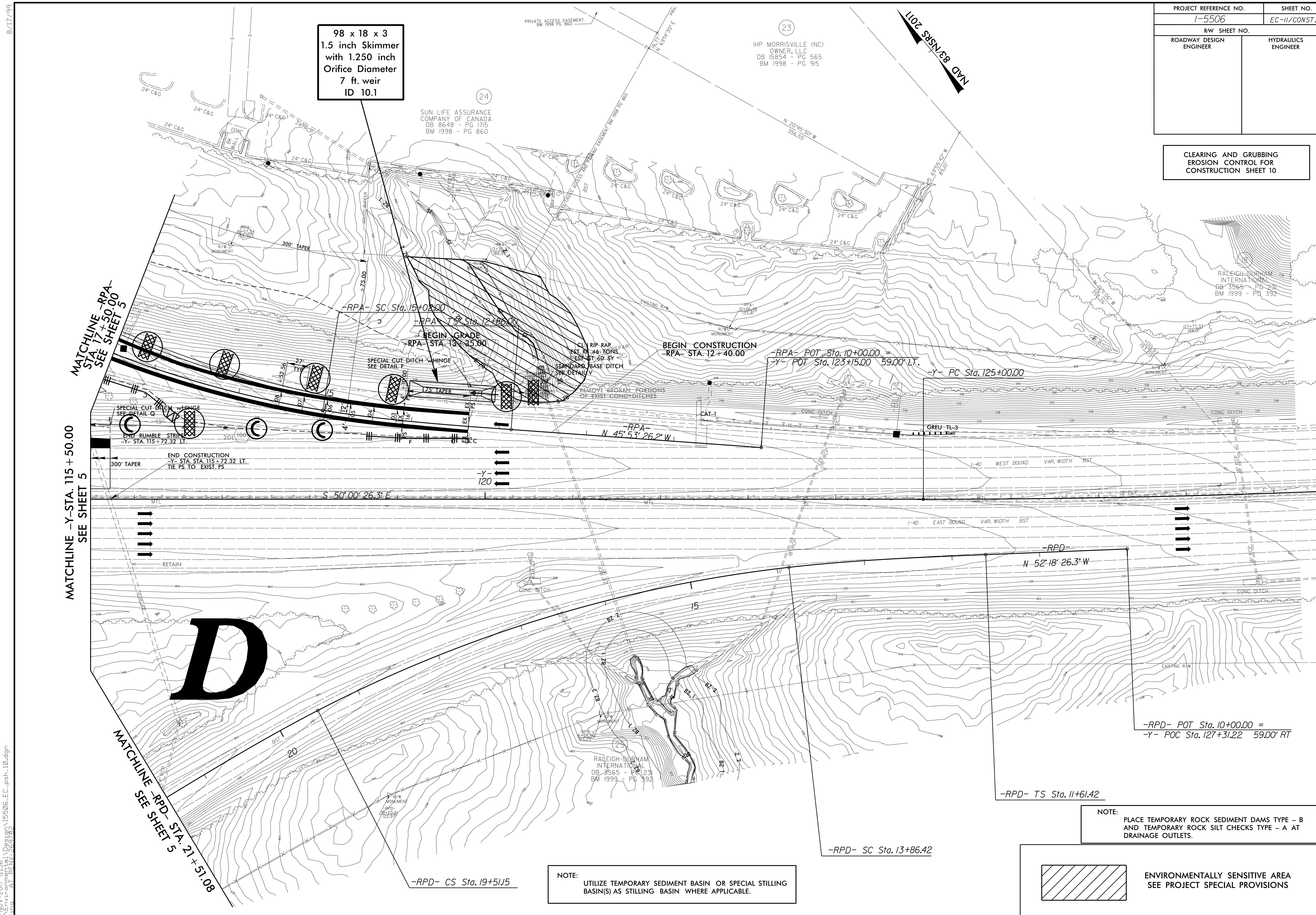
PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-11/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10



98 x 18 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
7 ft. weir
ID 10.1
NAD 83/NSRS 2011
IHP MORRISVILLE (NC) OWNER, LLC DB 15854 - PG 565 BM 1998 - PG 915
SUN LIFE ASSURANCE COMPANY OF CANADA DB 8648 - PG 1715 BM 1998 - PG 860
RALEIGH-DURHAM INTERNATIONAL DB 3565 - PG 231 BM 1999 - PG 392
PRIVATE ACCESS EASEMENT BM 1998 PG 860
-RPA- SC Sta. 15+02.00
-RPA- TS Sta. 12+86.00
BEGIN GRADE -RPA- STA. 13+35.00
BEGIN CONSTRUCTION -RPA- STA. 12+40.00
-RPA- POT Sta. 10+00.00 = -Y- POT Sta. 123+15.00 59.00' LT.
-Y- PC Sta. 125+00.00
CL I RIP RAP EST. 44 TONS EST. 60 SY
STANDARD BASE DITCH SEE DETAIL V
SPECIAL CUT DITCH W/HINGE SEE DETAIL F
SPECIAL CUT DITCH W/HINGE SEE DETAIL Q
REMOVE BROKEN PORTIONS OF EXIST CONC DITCHES
END RUMBLE STRIPS -Y- STA. 115+72.32 LT.
END CONSTRUCTION -Y- STA. 115+72.32 LT. TIE PS TO EXIST. PS
300' TAPER
175' TAPER
-RPA- N 45°53' 26.2" W
S 50°00' 26.3" E
-RPD- N 52°18' 26.3" W
MATCHLINE -RPA- STA. 17+50.00 SEE SHEET 5
MATCHLINE -Y- STA. 115+50.00 SEE SHEET 5
MATCHLINE -RPD- STA. 21+51.08 SEE SHEET 5
-RPD- POT Sta. 10+00.00 = -Y- POC Sta. 127+31.22 59.00' RT
-RPD- TS Sta. 11+61.42
-RPD- SC Sta. 13+86.42
-RPD- CS Sta. 19+51.15
I-40 WEST BOUND VAR. WIDTH BST
I-40 EAST BOUND VAR. WIDTH BST
GREU TL-3
CAT-1
D

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

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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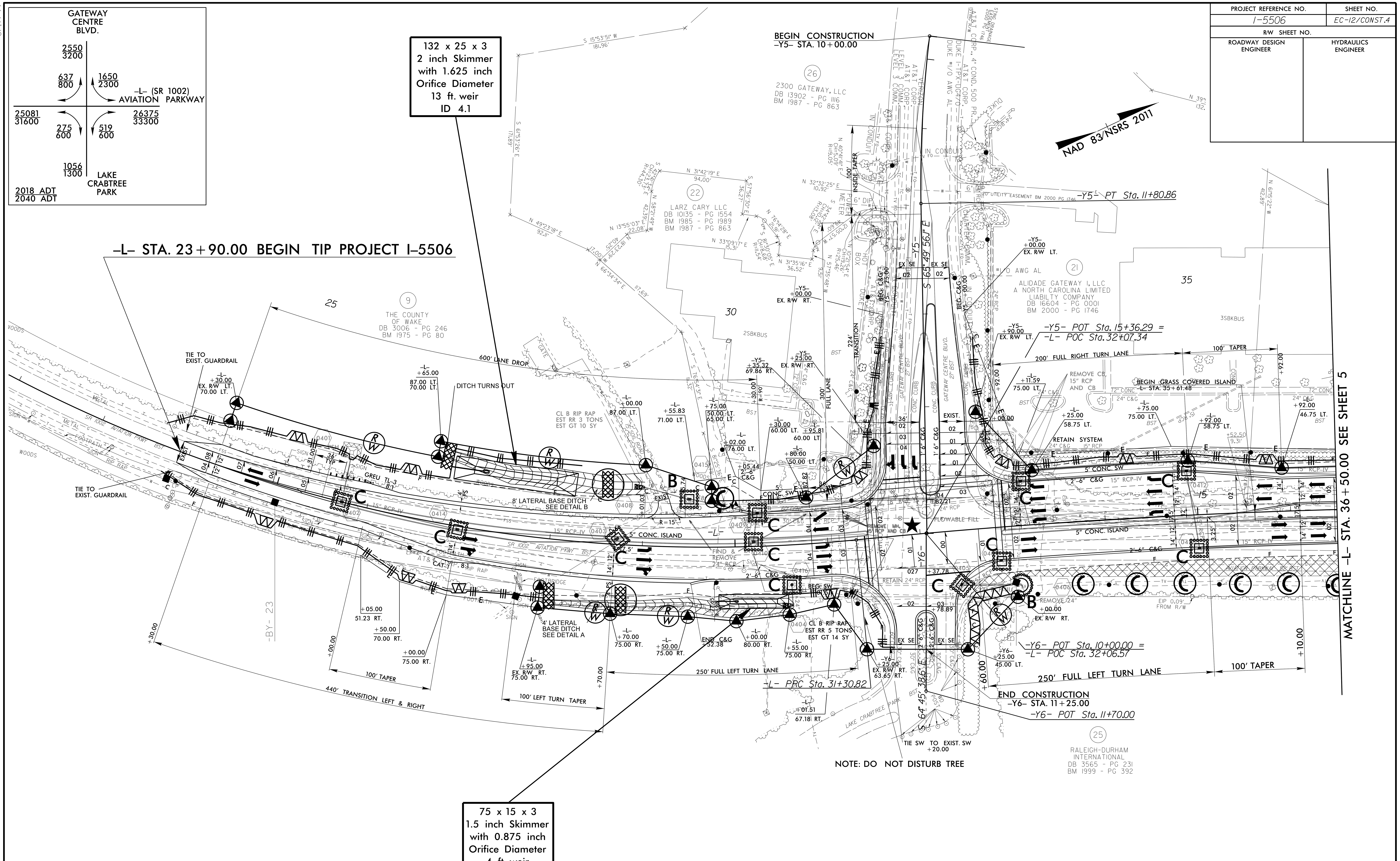
PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-12/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



GATEWAY CENTRE BLVD.
2550
3200
637
800
1650
2300
-L- (SR 1002) AVIATION PARKWAY
25081
31600
275
600
519
600
26375
33300
1056
1300
LAKE CRABTREE PARK
2018 ADT
2040 ADT
132 x 25 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
13 ft. weir
ID 4.1
-L- STA. 23+90.00 BEGIN TIP PROJECT I-5506
BEGIN CONSTRUCTION
-Y5- STA. 10+00.00
2300 GATEWAY, LLC
DB 13902 - PG 1116
BM 1987 - PG 863
LARZ CARY LLC
DB 10135 - PG 1554
BM 1985 - PG 1989
BM 1987 - PG 863
THE COUNTY OF WAKE
DB 3006 - PG 246
BM 1975 - PG 80
ALIDADE GATEWAY I, LLC
A NORTH CAROLINA LIMITED LIABILITY COMPANY
DB 16604 - PG 0001
BM 2000 - PG 1746
NAD 83/NSRS 2011
-Y5- PT Sta. 11+80.86
-Y5- POT Sta. 15+36.29 =
-L- POC Sta. 32+07.34
200' FULL RIGHT TURN LANE
100' TAPER
BEGIN GRASS COVERED ISLAND
-L- STA. 35+61.48
RETAIN SYSTEM
600' LANE DROP
TIE TO EXIST. GUARDRAIL
DITCH TURNS OUT
8' LATERAL BASE DITCH SEE DETAIL B
4' LATERAL BASE DITCH SEE DETAIL A
CL B RIP RAP EST RR 3 TONS EST GT 10 SY
CL B RIP RAP EST RR 5 TONS EST GT 14 SY
5' CONC. ISLAND
5' CONC. SW
100' TAPER
440' TRANSITION LEFT & RIGHT
100' LEFT TURN TAPER
250' FULL LEFT TURN LANE
-L- PRC Sta. 31+30.82
-Y6- POT Sta. 10+00.00 =
-L- POC Sta. 32+06.57
250' FULL LEFT TURN LANE
100' TAPER
END CONSTRUCTION
-Y6- STA. 11+25.00
-Y6- POT Sta. 11+70.00
RALEIGH-DURHAM INTERNATIONAL
DB 3565 - PG 231
BM 1999 - PG 392
TIE SW TO EXIST. SW +20.00
NOTE: DO NOT DISTURB TREE
MATCHLINE -L- STA. 36+50.00 SEE SHEET 5
75 x 15 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 4.2

-Y1- (GATEWAY CENTER BLVD.)
PI Sta 10+90.57
Δ = 7° 43' 21.7" (LT)
D = 4° 16' 12.0"
L = 180.86'
T = 90.57'
R = 1,341.82'
SE = EXIST.FT/FT
DS = 40 MPH

-L- (AVIATION PARKWAY)	
PI Sta 26+25.20	PI Sta 34+89.38
Δ = 37° 07' 16.9" (LT)	Δ = 5° 39' 45.6" (RT)
D = 3° 32' 12.4"	D = 0° 47' 25.0"
L = 1,049.58'	L = 716.53'
T = 543.95'	T = 358.56'
R = 1,620.00'	R = 7,250.00'
SE = 0.04 FT/FT	SE = NC
DS = 50 MPH	DS = 50 MPH

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

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PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-13/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NSRS 2011

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

A

B

C

D

56 x 28 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 5.3

60 x 20 x 3
1.5 inch Skimmer
with 1.00 inch
Orifice Diameter
5 ft. weir
ID 5.2

45 x 12 x 3
ID 5.4

29 x 14 x 3
ID 5.5

30 x 14 x 3
ID 5.6

30 x 106 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
24 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 5.7

Modified Silt Basin
Type 'B'
30 x 106 x 3
24 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 5.7

63 x 18 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 5.8

48 x 24 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
9 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 5.9

Modified Silt Basin
Type 'B'
48 x 24 x 3
9 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 5.9

55 x 15 x 3
1.5 inch Skimmer
with 0.750 inch
Orifice Diameter
4 ft. weir
ID 5.1

63 x 20 x 3
ID 5.10

55 x 18 x 3
ID 5.11

64 x 20 x 3
ID 5.12

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. –L– 47+50 to Sta. 50+00 LT
Sta. –L– 52+00 to 56+00 LT
Sta. 57+00 to 60+00 LT and RT

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. –RPB– 23+00 to Sta. 25+50 LT
Sta. –RPC– 25+00 to 27+00 LT
Sta. –LPB– 18+00 to 19+00 RT

For Slopes Excavated Greater Than 10 feet
Install Matting for Erosion Control on
Entire Slope as Work Allows.

MATCHLINE –Y– STA. 101+00.00 SEE SHEET 9

MATCHLINE –RPB– STA. 18+50.00 SEE SHEET 9

MATCHLINE –L– STA. 36+50.00 SEE SHEET 4

MATCHLINE –L– STA. 64+00.00 SEE SHEET 6

MATCHLINE –RPD– STA. 21+51.08 SEE SHEET 10

MATCHLINE –Y– STA. 115+50.00 SEE SHEET 10

MATCHLINE –RPA– STA. 50+00.00 SEE SHEET 10

BEGIN CONSTRUCTION –L– STA. 9+62.00

END CONSTRUCTION –Y3– STA. 12+00.00

BEGIN CONSTRUCTION –RPD– STA. 22+11.35

BEGIN CONSTRUCTION –RPC– STA. 20+00.00

BEGIN CONSTRUCTION –RPA– STA. 18+50.00

END CONSTRUCTION –SRPD–

END CONSTRUCTION –SRPC–

BEGIN RESURFACING STA. 33+80.00

END RESURFACING STA. 60+00.00

–L– PC Sta. 52+48.35

–L– PT Sta. 38+47.36

–L– POT Sta. 45+36.93

–L– POT Sta. 47+22.63

–L– POT Sta. 50+61.09

–L– POT Sta. 54+50.00 = –L– POT Sta. 38+65.34

–L– POT Sta. 10+00.00 OFF 38 RT.

–RPA– PT Sta. 24+35.93 N 25° 43' 00" W

–RPA– SC Sta. 23+03.93

–RPA– CS Sta. 19+09.93

–RPA– SRS Sta. 20+32.17

–RPA– ST Sta. 18+78.43

–RPA– POC Sta. 56+42.00

–RPA– PT Sta. 26+50.94 = –RPB– POC Sta. 26+93.62 = –L– POC Sta. 56+72.00

–RPB– SC Sta. 23+32.17

–RPB– CS Sta. 16+78.42

–RPB– PT Sta. 25+43.62

–RPC– PRC Sta. 23+70.99

–RPC– PT Sta. 26+98.90

–RPC– PC Sta. 27+00.00

–RPC– SC Sta. 25+98.90

–RPC– ST Sta. 20+56.66

–RPC– PT Sta. 20+56.66

–RPC– POT Sta. 41+81.25 OFF 39.5 LT.

–LPC– PCC Sta. 17+44.35

–LPC– SC Sta. 18+00.00

–LPC– ST Sta. 18+00.00

–LPC– PT Sta. 18+00.00

–LPB– PCC Sta. 18+00.12

–SLPB– PC Sta. 18+00.12

–SLPB– PT Sta. 19+97.45

–LPB– ST Sta. 20+00.00

–Y– PCT Sta. 101+52.53

–LPB– ST Sta. 10+00.00

59.00 LT.

–Y– PT Sta. 107+45.45

–LPB– ST Sta. 109+18.09 59.00 RT.

–Y– PCT Sta. 109+18.09 59.00 RT.

–Y– PT Sta. 111+31.74

–RPD– PC Sta. 22+11.35

–RPD– ST Sta. 21+76.15

–RPD– PT Sta. 24+59.80

–RPD– PT Sta. 26+17.21= –SRPD– PT Sta. 11+55.40

–Y– PC Sta. 111+72.88

–Y– POT Sta. 10+00.00 = –L– POC Sta. 60+78.24

–Y3– POT Sta. 10+00.00 = –L– POC Sta. 60+78.24

–Y3– POT Sta. 12+05.00

–L– PRC Sta. 59+76.63

–Y4– PC Sta. 9+44.84

–Y4– PT Sta. 11+21.28

–Y4– POT Sta. 11+60.00 = –L– POT Sta. 38+65.34

S 58° 46' 42" E

N 11° 28' 30" W

S 11° 28' 30" E

ALIDADE GATEWAY I, LLC
A NORTH CAROLINA LIMITED LIABILITY COMPANY
DB 16934 - PG 2009
BM 2000 - PG 1746

JMOH REAL ESTATE OF RALEIGH, LLC
A DELAWARE LIMITED LIABILITY COMPANY
DB 15464 - PG 806
BM 1994 - PG 353

WAKE GATEWAY I, LLC
DB 14254 - PG 2509
BM 2006 - PG 749

RALEIGH-DURHAM AIRPORT AUTHORITY
DB 3565 - PG 231
BM 1999 - PG 392

RALEIGH-DURHAM INTERNATIONAL
DB 3565 - PG 231
BM 1999 - PG 392

IMP MORRISVILLE (NC) OWNER, LLC
DB 15854 - PG 565
BM 1998 - PG 96

RDU CENTER IV, LLC
A NORTH CAROLINA LIMITED LIABILITY COMPANY
DB 17204 - PG 592
BM 2008 - PG 160

BYNN LIMITED PARTNERSHIP
DB 12248 - PG 1223
BM 1998 - PG 95

RALEIGH-DURHAM AIRPORT AUTHORITY
DB 3565 - PG 231
BM 1999 - PG 392

RALEIGH-DURHAM AIRPORT AUTHORITY
DB 3565 - PG 231
BM 1999 - PG 392

ISFBUS

GRASS COVERED ISLAND

REMOVE 15" RCP AND 15" RCES

REMOVE 18" RCP AND 18" RCES

REMOVE 24" RCP AND 24" RCES

REMOVE 30" RCP AND 30" RCES

REMOVE 36" RCP AND 36" RCES

REMOVE 42" RCP AND 42" RCES

REMOVE 48" RCP AND 48" RCES

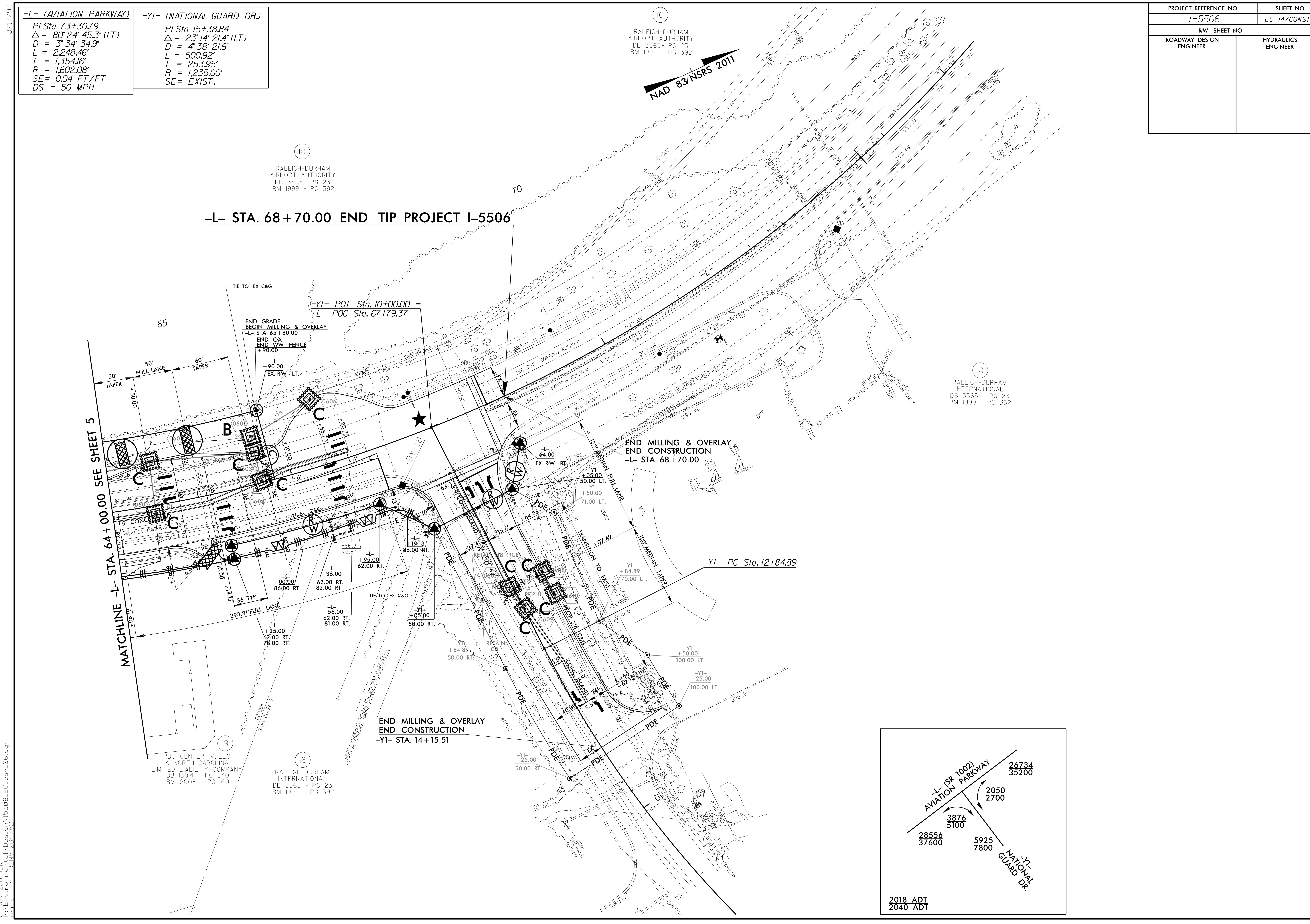
REMOVE

8/17/99

-L- (AVIATION PARKWAY)
PI Sta 73+30.79
△ = 80° 24' 45.3" (LT)
D = 3° 34' 34.9"
L = 2,248.46'
T = 1,354.16'
R = 1,602.08'
SE= 0.04 FT/FT
DS = 50 MPH

-Y1- (NATIONAL GUARD DR.)
PI Sta 15+38.84
△ = 23° 14' 21.4" (LT)
D = 4° 38' 21.6"
L = 500.92'
T = 253.95'
R = 1,235.00'
SE= EXIST.

PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-14/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NAD 83/NSRS 2011
RALEIGH-DURHAM AIRPORT AUTHORITY
DB 3565- PG 231
BM 1999 - PG 392
-L- STA. 68+70.00 END TIP PROJECT I-5506
-Y1- POT Sta. 10+00.00 =
-L- POC Sta. 67+79.37
TIE TO EX C&G
END GRADE
BEGIN MILLING & OVERLAY
-L- STA. 65+80.00
END C/A
END WW FENCE
MATCHLINE -L- STA. 64+00.00 SEE SHEET 5
50' TAPER
50' FULL LANE
60' TAPER
293.81' FULL LANE
36' TYP
END MILLING & OVERLAY
END CONSTRUCTION
-L- STA. 68+70.00
125' MEDIAN FULL LANE
100' MEDIAN TAPER
TRANSITION TO EXIST.
-Y1- PC Sta. 12+84.89
END MILLING & OVERLAY
END CONSTRUCTION
-Y1- STA. 14+15.51
RALEIGH-DURHAM INTERNATIONAL
DB 3565 - PG 231
BM 1999 - PG 392
RDU CENTER IV, LLC
A NORTH CAROLINA
LIMITED LIABILITY COMPANY
DB 13014 - PG 240
BM 2008 - PG 160
-L- (SR 1002) AVIATION PARKWAY
-Y1- NATIONAL GUARD DR.
26734
35200
2050
2700
3876
5100
28556
37600
5925
7800
2018 ADT
2040 ADT

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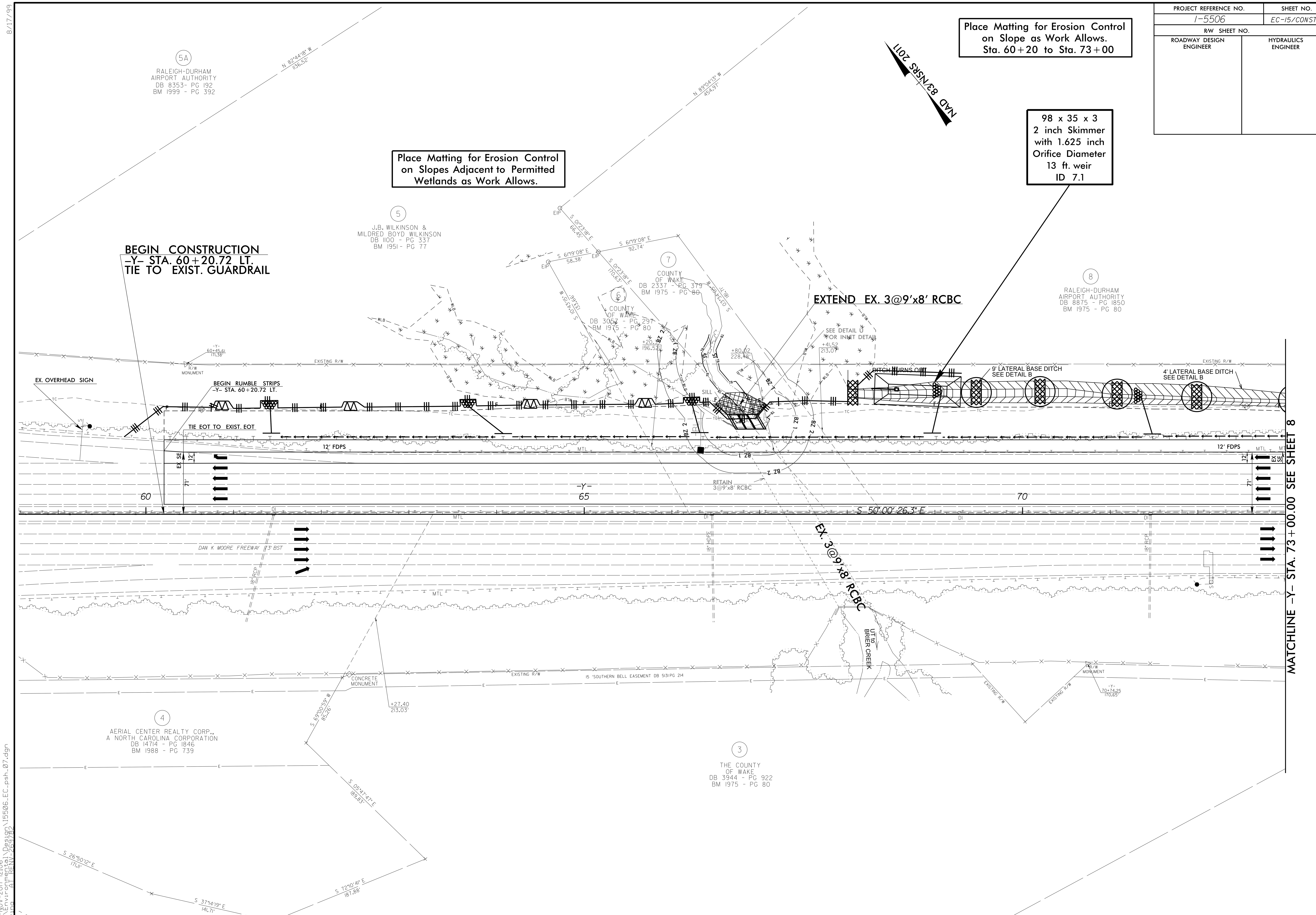
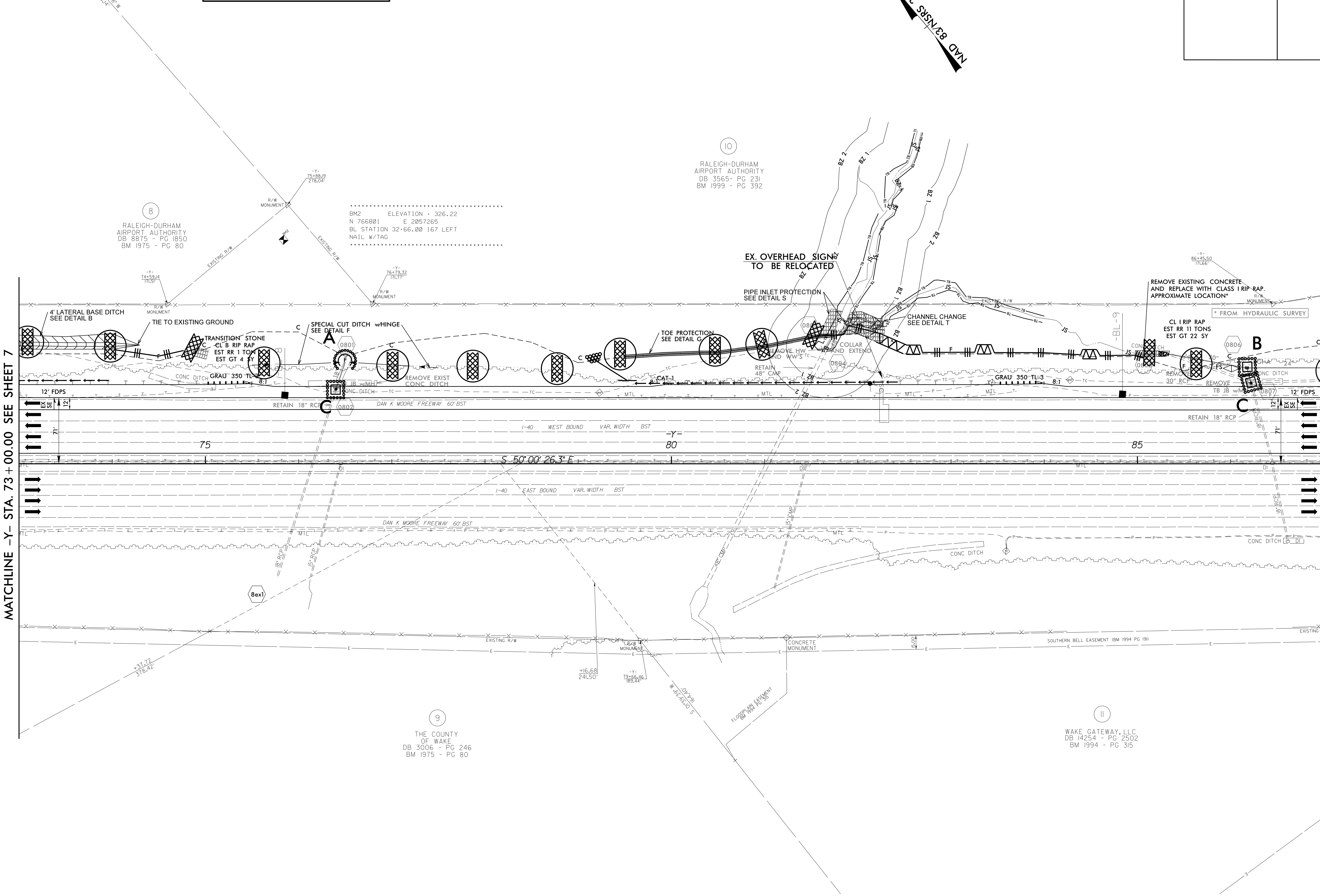


PROJECT REFERENCE NO.
I-5506
SHEET NO.
EC-15/CONST.7
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
Place Matting for Erosion Control on Slope as Work Allows. Sta. 60+20 to Sta. 73+00
NAD 83/NSRS 2011
98 x 35 x 3
2 inch Skimmer
with 1.625 inch
Orifice Diameter
13 ft. weir
ID 7.1
Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.
RALEIGH-DURHAM AIRPORT AUTHORITY DB 8353- PG 192 BM 1999 - PG 392
J.B. WILKINSON & MILDRED BOYD WILKINSON DB 1100 - PG 337 BM 1951- PG 77
COUNTY OF WAKE DB 2337 - PG 379 BM 1975 - PG 80
RALEIGH-DURHAM AIRPORT AUTHORITY DB 8875 - PG 1850 BM 1975 - PG 80
BEGIN CONSTRUCTION
-Y- STA. 60+20.72 LT.
TIE TO EXIST. GUARDRAIL
EXTEND EX. 3@9'x8' RCBC
SEE DETAIL U FOR INLET DETAIL
9' LATERAL BASE DITCH SEE DETAIL B
4' LATERAL BASE DITCH SEE DETAIL B
DITCH TURNS OFF
EX. OVERHEAD SIGN
BEGIN RUMBLE STRIPS -Y- STA. 60+20.72 LT.
TIE EOT TO EXIST. EOT
12' FDPS
RETAIN 3@9'x8' RCBC
-Y-
60
65
70
S 50°00' 26.3" E
DAN K MOORE FREEWAY
EX. 3@9'x8' RCBC
UT to BRIER CREEK
CONCRETE MONUMENT
15' SOUTHERN BELL EASEMENT DB 5131 PG 214
AERIAL CENTER REALTY CORP., A NORTH CAROLINA CORPORATION DB 14714 - PG 1846 BM 1988 - PG 739
THE COUNTY OF WAKE DB 3944 - PG 922 BM 1975 - PG 80
MATCHLINE -Y- STA. 73+00.00 SEE SHEET 8

PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-16/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Place Matting for Erosion Control on Slope as Work Allows.
Sta. 73+00 to Sta. 74+50
Sta. 80+00 tpo 85+00

For Slopes Excavated Greater Than 10 feet Install Matting for Erosion Control on Entire Slope as Work Allows.



NAD 83/NSRS 2011
MATCHLINE -Y- STA. 73+00.00 SEE SHEET 7
MATCHLINE -Y- STA. 87+00.00 SEE SHEET 9
RALEIGH-DURHAM AIRPORT AUTHORITY DB 8875 - PG 1850 BM 1975 - PG 80
RALEIGH-DURHAM AIRPORT AUTHORITY DB 3565- PG 231 BM 1999 - PG 392
BM2 ELEVATION = 326.22
N 766801 E 2057265
BL STATION 32+66.00 167 LEFT
NAIL W/TAG
4' LATERAL BASE DITCH SEE DETAIL B
TIE TO EXISTING GROUND
TRANSITION STONE CL B RIP RAP EST RR 1 TON EST GT 4 SY
SPECIAL CUT DITCH w/HINGE SEE DETAIL F
REMOVE EXIST CONC DITCH
TOE PROTECTION SEE DETAIL G
EX. OVERHEAD SIGN TO BE RELOCATED
PIPE INLET PROTECTION SEE DETAIL S
CHANNEL CHANGE SEE DETAIL T
REMOVE EXISTING CONCRETE AND REPLACE WITH CLASS I RIP RAP. APPROXIMATE LOCATION*
* FROM HYDRAULIC SURVEY
CL I RIP RAP EST RR 11 TONS EST GT 22 SY
GRAU 350 TL-3
12' FDPS
RETAIN 18" RCP
DAN K MOORE FREEWAY 60' BST
I-40 WEST BOUND VAR. WIDTH BST
I-40 EAST BOUND VAR. WIDTH BST
-Y-
75
80
85
S 50°00' 26.3" E
CONC DITCH
SOUTHERN BELL EASEMENT (BM 1994 PG 191)
CONCRETE MONUMENT
FLOODPLAIN EASEMENT
THE COUNTY OF WAKE DB 3006 - PG 246 BM 1975 - PG 80
WAKE GATEWAY, LLC DB 14254 - PG 2502 BM 1994 - PG 315

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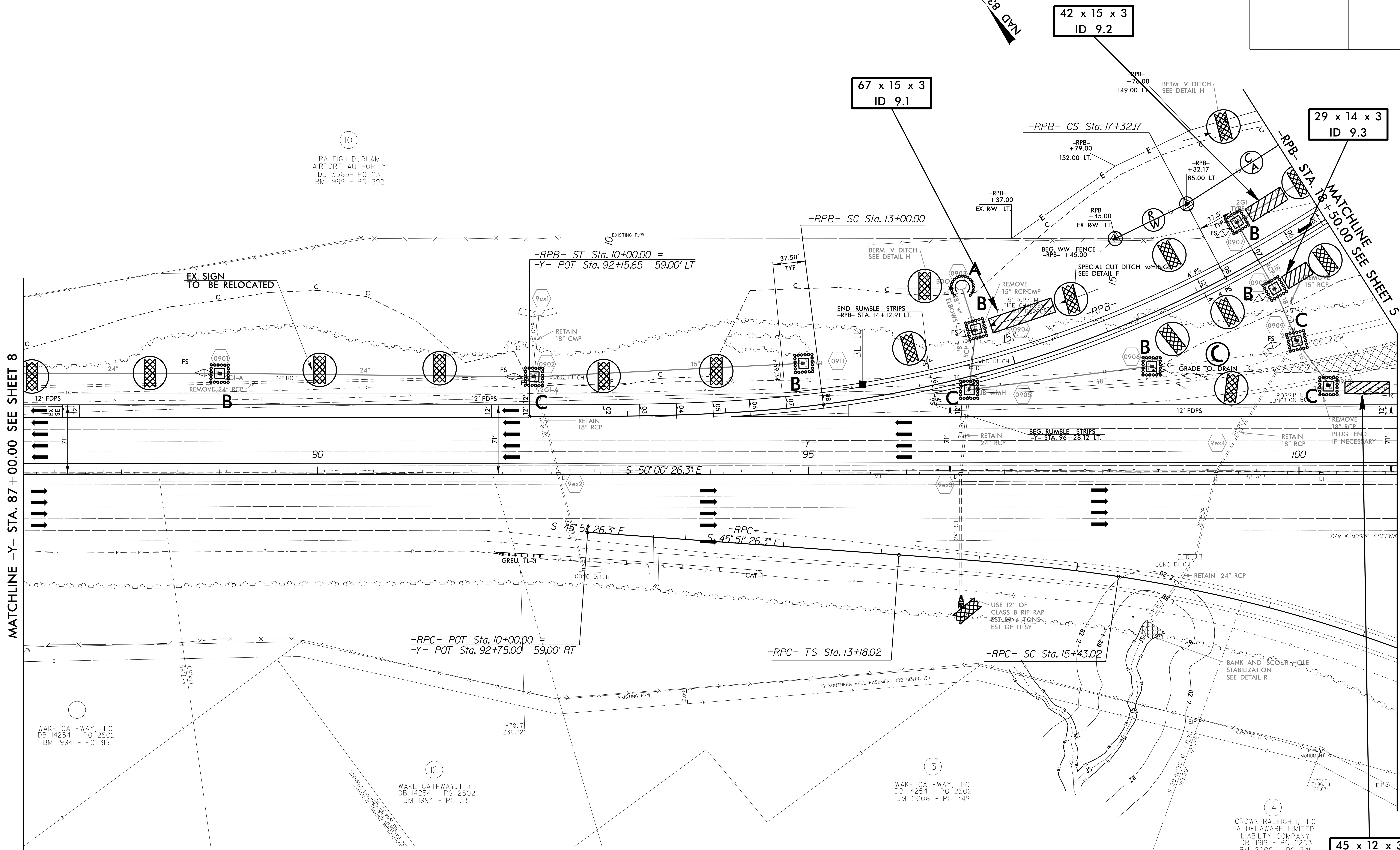
PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-17/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

For Slopes Excavated Greater Than 10 feet Install Matting for Erosion Control on Entire Slope as Work Allows.

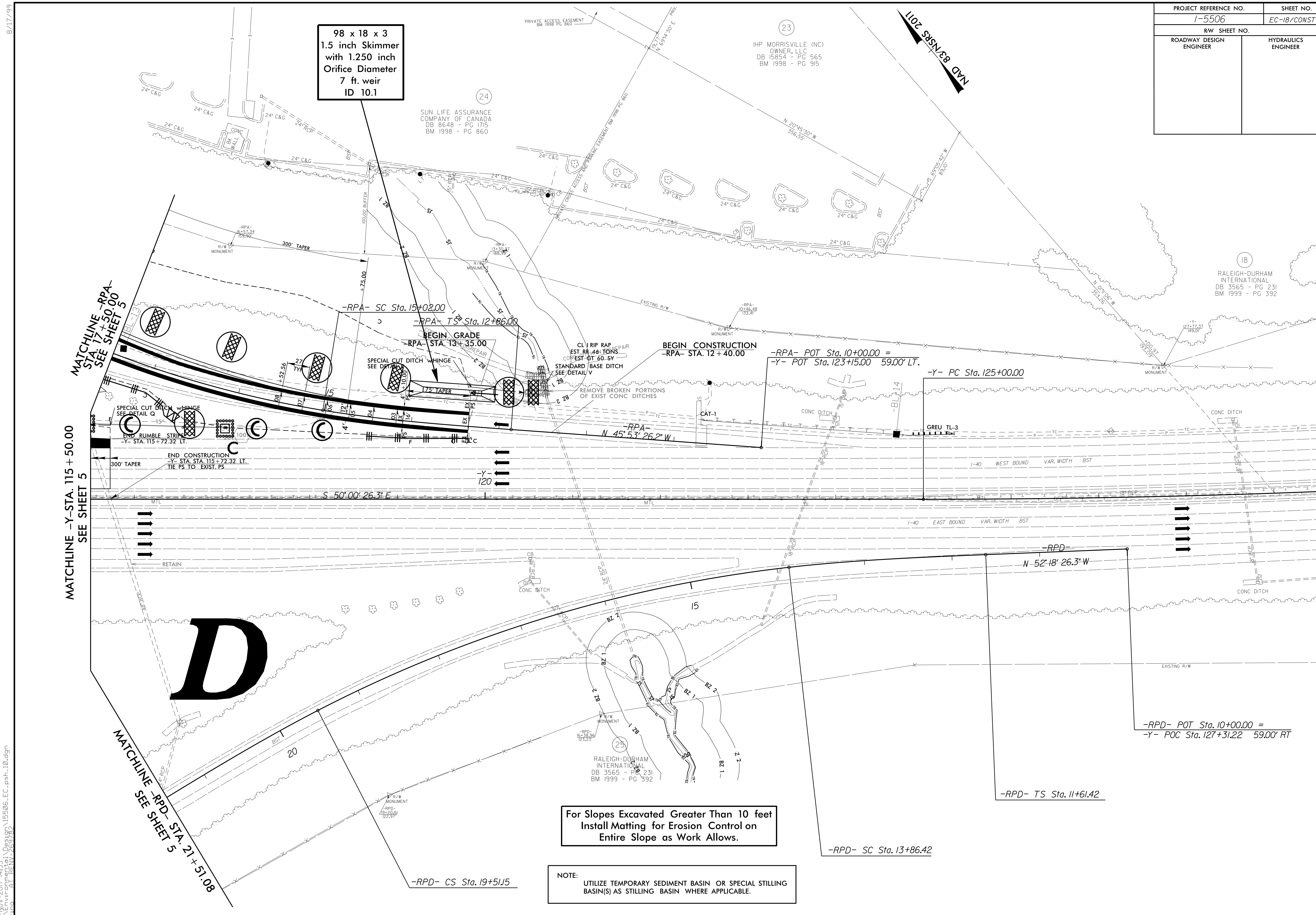


NAD 83/NSRS 2011
42 x 15 x 3
ID 9.2
67 x 15 x 3
ID 9.1
29 x 14 x 3
ID 9.3
45 x 12 x 3
ID 9.4
-RPB- CS Sta. 17+32.17
-RPB- SC Sta. 13+00.00
-RPB- ST Sta. 10+00.00 =
-Y- POT Sta. 92+15.65 59.00' LT
-RPB- STA. 18+50.00 SEE SHEET 5
MATCHLINE -Y- STA. 87+00.00 SEE SHEET 8
MATCHLINE -Y- STA. 101+00.00 SEE SHEET 5
RALEIGH-DURHAM AIRPORT AUTHORITY
DB 3565- PG 231
BM 1999 - PG 392
EX. SIGN TO BE RELOCATED
BERM V DITCH SEE DETAIL H
SPECIAL CUT DITCH w/HINGE SEE DETAIL F
BEG. WW FENCE
END RUMBLE STRIPS -RPB- STA. 14+12.91 LT.
BEG. RUMBLE STRIPS -Y- STA. 96+28.12 LT.
REMOVE 15" RCP/CMP
RETAIN 18" CMP
RETAIN 18" RCP
RETAIN 24" RCP
REMOVE 24" RCP
REMOVE 18" RCP PLUG END IF NECESSARY
GRADE TO DRAIN
S 50°00' 26.3" E
S 45°51' 26.3" E
-RPC- POT Sta. 10+00.00 =
-Y- POT Sta. 92+75.00 59.00' RT
-RPC- TS Sta. 13+18.02
-RPC- SC Sta. 15+43.02
USE 12' OF CLASS B RIP RAP EST 18 TONS EST GF 11 SY
BANK AND SCOUR HOLE STABILIZATION SEE DETAIL R
DAN K MOORE FREEWAY
WAKE GATEWAY, LLC
DB 14254 - PG 2502
BM 1994 - PG 315
WAKE GATEWAY, LLC
DB 14254 - PG 2502
BM 2006 - PG 749
CROWN-RALEIGH I, LLC
A DELAWARE LIMITED LIABILTY COMPANY
DB 11919 - PG 2203
BM 2006 - PG 749

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

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

PROJECT REFERENCE NO.	SHEET NO.
I-5506	EC-18/CONSTJO
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



98 x 18 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
7 ft. weir
ID 10.1
NAD 83/NSRS 2011
IHP MORRISVILLE (NC) OWNER, LLC
DB 15854 - PG 565
BM 1998 - PG 915
SUN LIFE ASSURANCE COMPANY OF CANADA
DB 8648 - PG 1715
BM 1998 - PG 860
RALEIGH-DURHAM INTERNATIONAL
DB 3565 - PG 231
BM 1999 - PG 392
MATCHLINE -RPA- STA. 17+50.00 SEE SHEET 5
MATCHLINE -Y- STA. 115+50.00 SEE SHEET 5
MATCHLINE -RPD- STA. 21+51.08 SEE SHEET 5
-RPA- SC Sta. 15+02.00
-RPA- TS Sta. 12+86.00
BEGIN GRADE -RPA- STA. 13+35.00
BEGIN CONSTRUCTION -RPA- STA. 12+40.00
-RPA- POT Sta. 10+00.00 = -Y- POT Sta. 123+15.00 59.00' LT.
-Y- PC Sta. 125+00.00
CL I RIP RAP EST RR 46 TONS EST GT 60 SY
STANDARD BASE DITCH SEE DETAIL V
REMOVE BROKEN PORTIONS OF EXIST CONC DITCHES
SPECIAL CUT DITCH w/HINGE SEE DETAIL
SPECIAL CUT DITCH w/HINGE SEE DETAIL Q
END RUMBLE STRIPS -Y- STA. 115+72.32 LT.
END CONSTRUCTION -Y- STA. 115+72.32 LT. TIE PS TO EXIST. PS
300' TAPER
175' TAPER
N 45° 53' 26.2" W
S 50° 00' 26.3" E
N 52° 18' 26.3" W
I-40 WEST BOUND VAR. WIDTH BST
I-40 EAST BOUND VAR. WIDTH BST
GREU TL-3
CAT-1
-RPD- POT Sta. 10+00.00 = -Y- POC Sta. 127+31.22 59.00' RT
-RPD- TS Sta. 11+61.42
-RPD- SC Sta. 13+86.42
-RPD- CS Sta. 19+51.15
D

For Slopes Excavated Greater Than 10 feet Install Matting for Erosion Control on Entire Slope as Work Allows.

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

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