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ICA Engineering
5121 Kingdom Way, Suite 100
Raleigh, NC 27607
NC License No: P-0258

METRIC
5m 0 10m

CONST.REV.
R /W REV.

PROJECT REFERENCE NO.	SHEET NO.
R-2413CA	11
R /W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 22606 DAVID C. WALLER ENGINEER
4/8/2015

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 19732 STEPHEN F. KIRCHEN ENGINEER
4/8/2015

RIGHT-OF-WAY FOR THIS PROJECT HAS BEEN ACQUIRED UNDER PROJECT R-2413C

-Y16A-
PI Sta 10+92.200
△ = 79° 38' 56.4" (RT)
L = 34.753
T = 20.847
R = 25.000

NAD 83

TERRY B. NEAL
DB 1441 PG 1393
PB 72 PG 12

TERRY B. NEAL
DB 1441 PG 1393

BRENDA P. ROBERTS
DB 842 PG 1040

PERCY GLENN PAYNE and GAYLE R. PAYNE REVOCABLE LIVING TRUST
DB 1412 PG 1764

102+00 103+00 104+00

-Y16A- PC 10+71.353

BEGIN CONSTRUCTION
-Y16A- POC 10+92.331

S 82°08'50" W 11.752

N 87°23'55" E 105.465

N 85°46'49" E 497.353

-Y16A- PT 11+06.106

11+00

-LREV_END- ST 102+45.658

80m UNIFORM TAPER

+15.768

+15.768

N 4° 19' 05.1" W

3m x 1.5m PSRM

1500 WW

FILL W/FLOWABLE FILL

RETAIN 375mm RCP

RETAIN 375mm RCP

RETAIN 450mm RCP

RETAIN 1500mm RCP

RETAIN 450mm RCP

RETAIN 375mm RCP

RETAIN 375mm RCP

RETAIN 375mm RCP

RETAIN 375mm RCP

N 75° 19' 51.2" E

REMOVE DI

Conv. DI TO JB w/MH

DI

1103

1104

375 RCP-IV

-LREV_END-

MTL GUARDRAIL

-BL- 51

N 4° 39' 49.1" W

1102

1101

-LREV_END- CS 101+85.658

SPECIAL CUT DITCH SEE DETAIL D

RESET 1.2m WW -LREV_END- 99+25.000 TO 101+80.000

N 87° 53' 56.1" E

-LREV_END- POS 101+94.675 =
-Y16A- POT 111+26.762 =
-Y16B- POT 10+00.000

COLLAR AND EXTEND W/450 RCP-III

TOE PROTECTION CLASS 'B' RIP RAP EST 6.6 MTONS EST 16.5 SM GF SEE DETAIL A

END CONSTRUCTION
-Y16B- POT 10+55.267

-Y16B- POT 10+59.033

DIRECTION ONLY

EXISTING R/W

EIP

A&D GREENSBOROUGH,INC.
DB 1190 PG 2161

A&D GREENSBOROUGH,INC.
DB 1190 PG 2158

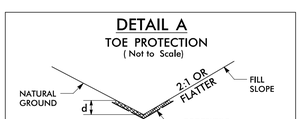
TIMOTHY K. BLANEY and wife, SHARON E. BLANEY
DB 1124 PG 2030

GERALD L. FLOWERS and JANIS A. FLOWERS
DB 917 PG 652

MATCH LINE STA 101+40 -LREV_END- SHEET 10

MATCH LINE STA 104+40 -LREV_END- SHEET 12

DETAIL A
TOE PROTECTION
(Not to Scale)

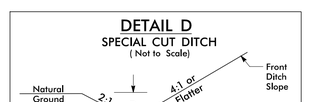


d= 0.3m

Type of Liner= CLASS B Rip Rap

FROM STA. 10+25 TO STA. 10+40 -Y16B- RT.

DETAIL D
SPECIAL CUT DITCH
(Not to Scale)



Min. D= 0.3m

FROM STA. 101+40 TO STA. 101+80 -LREV_END- RT.

-LREV_END-

PIs Sta 99+49.106	PI Sta 100+77.397	PIs Sta 102+05.658
Θs = 0° 19' 21.0"	△ = 20° 19' 40.3" (LT)	Θs = 0° 19' 21.0"
Ls = 60.000	L = 216.552	Ls = 60.000
LT = 40.000	T = 108.291	LT = 40.000
ST = 20.000	R = 5,330.000	ST = 20.000
	Se = NC	
	DS = 110 KMH	

LEGEND

125mm MONOLITHIC CONCRETE ISLAND (KEYED IN)

SEE SHEET 20 FOR -LREV_END- PROFILES
SEE SHEET 24 FOR -Y16A- & -Y16B- PROFILES
SEE SHEET 2B-1 FOR CONC. ISLAND DETAILS
SEE SHEET 2B-2 FOR -Y16A- & -Y16B- INTERSECTION DETAILS

4/7/2015
R-2413CA_rdy_psh11.dgn
ICA ENGINEERING, INC.