5/28/99

PROJECT REFERENCE NO.	SHEET NO.
R-3826	16

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 025873 ENGINEER GARY R. LOVERING
11/09/2016
DocuSigned by: Gary Lovering

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 031986 ENGINEER JAMES R. RICE
11/9/2016
DocuSigned by:

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

UNDERCUT EXCAVATION

DITCH LEGEND
LEFT DITCH
RIGHT DITCH

-L-

BEGIN GRADE
-L- STA 12+00.00
ELEV. = 73.46

PI = 15+15.00
EL = 78.26'
VC = 510'
K = 279

PI = 20+95.00
EL = 76.52'
VC = 260'
K = 233

PI = 24+10.00
EL = 79.08'
VC = 260'
K = 181

(+)1.5238%
(-)0.3000%
(+)1.5000%
(+)0.3600%
(-)0.3000%
(+)0.8131%
(-)0.6201%
(-)0.3000%
78.48

BEGIN CUT DITCH
STA: 12+00.00 RT.
EL = 70.67'

END CUT DITCH
STA: 13+00.00 RT.
EL = 72.17'

BEGIN CUT DITCH
STA: 14+00.00 RT.
EL = 73.37'

BEGIN CUT DITCH
STA: 17+00.00 LT.
EL = 74.83'

CUT DITCH
STA: 18+00.00 RT.
EL = 74.81'

BM #10
RR SPIKE IN 24" PINE
-L- STA 18+23.74, 58.64' LT
ELEV. = 78.24

FOR -L- ALIGNMENT-, SEE SHEET 4

11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00

120 110 100 90 80 70 60 50 40 30

-L-

-L- STA 32+44.05 =
-Y- STA 23+53.79

END GRADE (TIE TO EOT -Y-)
-L- STA 32+05.68
ELEV. = 77.85'

BEGIN GRADE (TIE TO EOT -Y-)
-L- STA 32+80.30
ELEV. = 75.57

PI = 26+65.00
EL = 77.50'
VC = 200'
K = 148

PI = 29+40.00
EL = 79.50'
VC = 220'
K = 164

PI = 34+95.00
EL = 79.00'
VC = 355'
K = 162

(-)0.6201%
(+)0.7273%
(-)0.6151%
(+)1.5965%
(-)0.5886%
(+)1.1364%
(-)1.1905%
(-)1.9302%
(+)1.1943%
(-)1.0222%
(-)1.5240%
(+) 0.8875%
(-)1.7000%
(-) 0.5000%
(-) 0.9929%
78.48
76.74
97.55'

24" RCP III
18" RCP III
24" RCP IV

CUT DITCH
STA: 25+50.00 LT.
EL = 72.36'

CUT DITCH
STA: 25+50.00 RT.
EL = 72.58'

CUT DITCH
STA: 24+34 LT.
EL = 71.30'

END CUT DITCH
STA: 26+36.00 RT.
EL = 70.90'

BEGIN CUT DITCH
STA: 26+36.00 RT.
EL = 73.00'

CUT DITCH
STA: 29+00.00 RT.
EL = 76.00'

END CUT DITCH
STA: 30+20.00 LT.
EL = 75.91'

BEGIN DITCH
STA: 30+60.00 LT.
EL = 74.31'

END CUT DITCH
STA: 31+50.00 LT.
EL = 72.19'

END CUT DITCH
STA: 31+50.00 LT
EL = 73.39'

BEGIN CUT DITCH
STA: 33+40.00 RT.
EL = 74.90'

CUT DITCH
STA: 35+00.00 RT.
EL = 76.32'

END CUT DITCH
BEGIN 2' BASE DITCH
STA: 36+80.00 RT.
EL = 73.26'

BEGIN CUT DITCH
STA: 37+50.00 LT.
EL = 75.00'

CUT DITCH
STA: 38+50.00 LT
EL = 74.50'

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO. 0500

DRAINAGE AREA	= 6.3	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 15	CFS
DESIGN HW ELEVATION	= 73.51	FT
100 YEAR DISCHARGE	= 16	CFS
100 YEAR HW ELEVATION	= 73.66	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 37	CFS
OVERTOPPING ELEVATION	= 77.84	FT

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO. 0501

DRAINAGE AREA	= 2.22	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 5.4	CFS
DESIGN HW ELEVATION	= 74.88	FT
100 YEAR DISCHARGE	= 5.8	CFS
100 YEAR HW ELEVATION	= 74.76	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 16	CFS
OVERTOPPING ELEVATION	= 78.21	FT

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO. 0515

DRAINAGE AREA	= 2.53	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 12	CFS
DESIGN HW ELEVATION	= 75.76	FT
100 YEAR DISCHARGE	= 13	CFS
100 YEAR HW ELEVATION	= 75.85	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 35	CFS
OVERTOPPING ELEVATION	= 79.29	FT

FOR -L- ALIGNMENT, SEE SHEET 5

25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00

120 110 100 90 80 70 60 50 40 30

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RS1 (Preliminary Plans)