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5/28/99

PROJECT REFERENCE NO.	SHEET NO.
R-5749	12

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 035683 ENGINEER DAVID J. CLODOD
12/8/2017
DocuSign envelope ID: 4F9A282F-7747-4B58-83D7-678B37E4607E
David J. Clodod
DOCUSIGNED BY:
CDM Smith
CDM Smith Inc.
5400 Glenwood Avenue
Suite 400
Raleigh, NC 27612-3228
NC COA No. F-1255

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 18533 ENGINEER A. T. NOTTINGHAM
12/8/2017
DocuSign envelope ID: 4F9A282F-7747-4B58-83D7-678B37E4607E
A.T. Nottingham
DOCUSIGNED BY:
MI Engineering, PLLC
1011 Schaub Drive
Suite 100
Raleigh, NC 27606
NC COA No. P-0971

-YRPA-

BEGIN GRADE
-YRPA- STA. 5+00.00
EL. 55.68'

PI = 6+00.00
EL = 55.58'
VC = 200'
K = 1000
DS = 65 MPH

PI = 8+00.00
EL = 54.98'
VC = 200'
K = 216
DS = 65 MPH

(-)0.1000%
(-)0.3000%
(-)0.3000%
(+)0.6276%
(+)0.2714%
(+)0.6276%
(+)0.7997%

BEG SPEC LAT BASE DITCH
STA 9+50 -YRPA- RT; EL=49.69

END SPEC LAT BASE DITCH
STA.12+30 -YRPA- RT; EL=50.45

PROP. 2 @ 54" RCP

BEG SPEC LAT V DITCH
STA.13+16 -YRPA- LT; EL=50.89

PIPE HYDRAULIC DATA
Structure No.0611 To 0618 -YRPA- Sta.12+65
Structure No.0617 To 0612

DRAINAGE AREA	=	122.8	AC
DESIGN FREQUENCY	=	50	YRS
DESIGN DISCHARGE	=	126	CFS
DESIGN HW ELEVATION	=	54.28	FT
100 YEAR DISCHARGE	=	151	CFS
100 YEAR HW ELEVATION	=	54.69	FT
OVERTOPPING FREQUENCY	=	500	YRS
OVERTOPPING DISCHARGE	=	217	CFS
OVERTOPPING ELEVATION	=	56	FT

DITCH LEGEND
LEFT DITCH — - - — - - -
RIGHT DITCH - - - - - - - - -

UNDERCUT EXCAVATION

SEE SHEET 5 & 6 FOR -YRPA- ALIGNMENT

-YRPA-

END GRADE
-YRPA- STA. 25+61.88
EL. 63.61'

PI = 23+00.00
EL = 64.39'
VC = 300'
K = 323
DS = 65 MPH

BEG SPEC LAT V DITCH
STA.24+00 -YRPA- LT; EL=59.57

(+)0.6276%
(+)0.6276%
(-)0.3000%
(-)2.4000%
(-)1.2778%
(+)0.7997%

END SPEC LAT V DITCH
STA.20+00 -YRPA- LT; EL=56.36

BEG SPEC LAT V DITCH
STA.23+50 -YRPA- RT; EL=59.76

END SPEC LAT V DITCH
STA.25+00 -YRPA- LT; EL=57.09

END SPEC LAT V DITCH
STA.25+30 -YRPA- RT; EL=57.46

PROP. 18" RCP

DITCH LEGEND
LEFT DITCH — - - — - - -
RIGHT DITCH - - - - - - - - -

UNDERCUT EXCAVATION

SEE SHEET 5 AND 8 FOR -YRPA- ALIGNMENT

Invalid expression
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