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5/14/93

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NC License # F-1333
Formerly Mulkey Engineers & Consultants

PROJECT REFERENCE NO.	SHEET NO.
17BP.4.R.69	5

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 15759 ENGINEER STEPHEN C. BROWNE
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1/20/2017

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029984 ENGINEER DAVID P. BOCKER
DocuSigned by: David P. Bocker
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1/20/2017

TBM#1
-BL- STA 10+59.44
OS 87.34' RT
ELEV.=183.40'
RR SPIKE IN BASE
OF 18" SWEET GUM

TBM#2
-BL- STA 15+51.41
OS 109.29' LT
ELEV.=189.27'
RR SPIKE IN BASE
OF 15" SWEET GUM

BEGIN PROPOSED GRADE
-L- STA.10+20.00
ELEV = 191.24

BEGIN BRIDGE
-L- STA.12+70.00

END BRIDGE
-L- STA.13+70.00

END PROPOSED GRADE
-L- STA.16+20.00
ELEV = 189.84

PI = 11+31.00
EL = 189.02'
VC = 220'
K = 129
D.S. = 55 MPH

STA 13+20.00 -L-
1@ 40" (12'), 1@ 60" (24')
CORED SLAB BRIDGE
G.P. ELEV. 188.45'
SKEW = 120°

PI = 14+88.58
EL = 187.94'
VC = 195'
K = 112
D.S. = 50 MPH

(-)2.0047%
(-)0.3007%
(-)0.3007%
(+)1.4425%

EXCAVATE BERM TO EL 181.0'
EXCAVATE BERM TO EL 181.6
1.5:1 SLOPE
CLASS "II" RIPRAP KEYED 3.5 FT DEEP
1.5:1 SLOPE
CLASS "II" RIPRAP KEYED 3.5 FT DEEP

190.67
189.98
189.28
188.87
188.66
188.51
188.36
188.21
188.21
188.44
188.88
189.55

200
190
180
170
160

10
11
12
13
14
15
16

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	=	650	CFS
DESIGN FREQUENCY	=	25	YRS
DESIGN HW ELEVATION	=	183.1	FT
BASE DISCHARGE	=	1,000	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	183.69	FT
OVERTOPPING DISCHARGE	=	4,241	CFS
OVERTOPPING FREQUENCY	>	500	YRS
OVERTOPPING ELEVATION	=	188.4	FT
DATE OF SURVEY	=	11/11/2015	
W.S. ELEVATION AT DATE OF SURVEY	=	178.1	FT

NOTE: FOR -L- PLAN SEE SHEET 4

1/20/2017
R:\Roadway\Proj\Nash 62_RDY_PFL.dgn
jbanks