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P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
B-5156	6

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 036436 — JEFFREY W. MOORE — 3/8/2024

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 053547 — DAVID L. HURSEY — 3/7/2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BRIDGE HYDRAULIC DATA
BRIDGE 700028

DESIGN DISCHARGE	=	6030 CFS
DESIGN FREQUENCY	=	50 YR
DESIGN HW ELEVATION	=	9.6 FT
BASE DISCHARGE	=	7590 CFS
BASE FREQUENCY	=	100 YR
BASE HW ELEVATION	=	10.9 FT
OVERTOPPING DISCHARGE	=	12000 CFS
OVERTOPPING FREQUENCY	=	500+ YR
OVERTOPPING ELEVATION	=	12.8
DATE OF SURVEY	=	02/06/19
W.S.ELEVATION AT DATE OF SURVEY	=	2.0 FT

BM#1
ELEV = 8.21'
-L- STATION 24+37.93
153.89' RIGHT
N 252204 E 2293845
TIE SPIKE SET IN 24" PINE

BEGIN GRADE
-L- STA 12+10.00
ELEV = 12.57'
MILL NOTCH TO KEY-IN
TIE TO EXIST PAVEMENT

BEGIN BRIDGE
-L- STA 21+88.00
ELEV = 18.20'

END BRIDGE
-L- STA 23+93.00
ELEV = 17.59'

PROPOSED GRADE

PI = 17+60.00
EL = 14.22'
VC = 180'
K = 257

PI = 22+83.00
EL = 19.45'
VC = 380'
K = 152

(+)0.3000% (+)1.0000% (+)0.30% (+)1.0000% (-)1.5000%

BEGIN TEMPORARY SPECIAL DITCH GRADE RT
-L- STA 19+00
ELEV = 12.73'

UNDERCUT EXCAVATION FOR EMBANKMENT STABILITY
-L- STA 21+25 TO 22+05

END TEMPORARY SPECIAL DITCH GRADE RT
-L- STA 21+88
ELEV = 11.86'

CL-II RIP-RAP

EXIST GROUND

CL-II RIP-RAP
100-YR W.S.EL.= 10.9'
DESIGN (50-YR) W.S.EL.= 9.6'
W.S.EL.(02-06-19) = 2.0'

-L- (NC 210)

SEE SHEET NO.4 FOR -L- PLAN

TEMPORARY SPECIAL DITCH GRADE RIGHT
TEMPORARY SPECIAL DITCH GRADE LEFT

BM2 ELEVATION= 23.72'
-L- STA 37+12.00
N 53°07'23.5" DIST 217.96'
TIE SPIKE SET IN 24" OAK

END GRADE
-L- STA 32+82.00
ELEV = 17.30'
MILL NOTCH TO KEY-IN
TIE TO EXIST PAVEMENT

PROPOSED GRADE

PI = 27+55.00
EL = 12.37'
VC = 360'
K = 140

PI = 30+43.00
EL = 15.47'
VC = 180'
K = 579

(-)1.5000% (+)0.50% (+)1.0764% (+)1.0764% (+)0.7657%

BEGIN SPECIAL DITCH GRADE LT
-L- STA 26+75
ELEV = 9.33'

END SPECIAL DITCH GRADE LT
-L- STA 27+50
ELEV = 9.70'

EXIST GROUND

-L- (NC 210)

SEE SHEET NO.5 FOR -L- PLAN

3/7/2024