5/28/99

PROJECT REFERENCE NO.	SHEET NO.
BR-0046	5

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 027771 ENGINEER MATTHEW B COPPS

DocuSigned by: Matthew Copps 8/15/2023

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022000 ENGINEER WILLIAM G CAIL

DocuSigned by: William Cail 8/15/2023

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BEGIN MILL & OVERLAY
–L– STA. 20+00.00

BEGIN GRADE
END MILL & OVERLAY
–L– STA. 21+00.00
EL. 57.56'

PI = 24+25.00
EL = 58.90'
VC = 164'
K = 157

PI = 26+00.00
EL = 57.79'
VC = 186'
K = 902

END GRADE
–L– STA. 27+00.00
EL. 57.36'

(+)0.4110%

(–)0.6353%

(–)0.4290%

100YR = 56.3
50YR = 55.5

4' EB CAPS

3.5' KEY-IN TYPICAL

OWS 47.9
FEB. 27, 2020

CLASS II RIP RAP

CLASS II RIP RAP

EXCAVATE TO ELE. 48.0
EST. 460 CY

EXCAVATE TO ELE. 48.0
EST. 380 CY

*EXCAVATION AND CLASS II RIP-RAP ARE STRUCTURE PAY ITEMS

℄ –L– STA 24+30
1@50', 1@60', 1@50' 36"PSG
SKEW = 90
ELEV = 58.7'

BM3 ELEVATION = 54.76'
N 388284 E 2190654
–L– STATION 28+83 28' RIGHT
SPIKE IN POWER POLE

BRIDGE 022 HYDRAULIC DATA

DESIGN DISCHARGE	=	10720	CFS
DESIGN FREQUENCY	=	50	YRS
DESIGN HW ELEVATION	=	55.3	FT
BASE DISCHARGE	=	13170	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	56.1	FT
OVERTOPPING DISCHARGE	=	16000	CFS
OVERTOPPING FREQUENCY	<	500	YRS
OVERTOPPING ELEVATION	=	57.18*	FT

*OVERTOPPING ELEVATION = 56.8' @ –L– STA 15+00

DATE OF SURVEY = 02–27–2020

W.S. ELEVATION AT DATE OF SURVEY = 47.9 FT

–DET–

BEGIN GRADE
–DET– STA. 12+27.25
EL. 56.96'

PI = 13+03.00
EL = 57.11'
VC = 150'
K = 225

PI = 15+34.00
EL = 56.03'
VC = 150'
K = 185

PI = 21+43.00
EL = 58.13'
VC = 162'
K = 176

PI = 22+99.00
EL = 57.34'
VC = 150'
K = 175

(+)0.2000%

(–)0.4666%

(+)0.3444%

(+)0.3444%

(–)0.5057%

(+)0.3510%

10YR = 53.9

OWS 47.9
FEB. 27, 2020

3.5' KEY-IN TYPICAL

CLASS II RIP RAP

CLASS II RIP RAP

*EXCAVATION AND CLASS II RIP-RAP ARE STRUCTURE PAY ITEMS

℄ –DET– STA 18+25
174' BRIDGE
SKEW = 90
ELEV = 57.0'

BM3 ELEVATION = 54.76'
N 388284 E 2190654
–L– STATION 28+83 28' RIGHT
SPIKE IN POWER POLE

END GRADE
–DET– STA. 23+74.05
EL. 57.60'

BRIDGE 022–DET HYDRAULIC DATA

DESIGN DISCHARGE	=	10720	CFS
DESIGN FREQUENCY	=	10	YRS
DESIGN HW ELEVATION	=	53.9	FT
BASE DISCHARGE	=	13170	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	56.7	FT
OVERTOPPING DISCHARGE	=	17240	CFS
OVERTOPPING FREQUENCY	=	500	YRS
OVERTOPPING ELEVATION	=	57.9*	FT

*OVERTOPPING ELEVATION = 56.18' @ –DET– STA 15+45

DATE OF SURVEY = 02–27–2020

W.S. ELEVATION AT DATE OF SURVEY = 47.9 FT

STRUCTURE EXCAVATION

FOR –L– ALIGNMENT, SEE SHEET 4

FOR –L_DET– ALIGNMENT, SEE SHEET 2B–1 & 2B–2

12-SEP-2023 15:30
K:\Projects\BR0046_Rdy_PFL05.dgn
$$$$USERNAME$$$$

BR0046_Rdy_PFL05.dgn 9/12/2023 3:30:32 PM