5/28/99

PROJECT REFERENCE NO.	SHEET NO.
B-4461	6

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 020111 ENGINEER MARK K. BOAKYE
DocuSigned by: 5/13/2016

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 12786 ENGINEER STEVEN M. BONDOR
DocuSigned by: Steven M. Bondor, PE 5/13/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–L–

BM2 : SEE SURVEY CONTROL SHEET 1C-1

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 2800	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 172.4	FT
BASE DISCHARGE	= 3900	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 174.10	FT
OVERTOPPING DISCHARGE	= 2247	CFS
OVERTOPPING FREQUENCY	= >10	YRS
OVERTOPPING ELEVATION	= 171.1	FT
DATE OF SURVEY	= 11/20/2013	
W.S. ELEVATION AT DATE OF SURVEY	= 157.6'	FT

BEGIN GRADE
–L– STA. 17+00.00
EL = 172.52'

G.P. ELEV. = 174.26' ℄ –L– STA. 19+12
SKEW = 60 DEGREES
21" CORED SLAB 1@35'
24' CORED SLAB 1@65'
21" CORED SLAB 1@35'

END GRADE
–L– STA. 21+00.00
EL = 173.76'

PI = 17+23.00
EL = 172.65'
VC = 46'
K = 92
V = 45 mph

PI = 18+97.00
EL = 174.52'
VC = 166'
K = 115
V = 55 mph

BEGIN BRIDGE –L– STA. 18+43.06

END BRIDGE –L– STA. 19+80.94

(+)1.0718%

(+)0.5711%

(–)0.3726%

BEGIN RESURFACING
BEGIN CONSTRUCTION
–L– STA. 14+00.00

3.5' MIN TYP.

NWSE = 158.6'

EXCAVATE TO ELEV. 167.0'
400 CY
(STRUCTURE PAY ITEM)

CL. II RIP RAP (STRUCTURE PAY ITEM TYP.) TO TOP OF BERM

EXCAVATE TO ELEV. 167.0'
150 CY
(STRUCTURE PAY ITEM)

WSEL = 157.6'
(11/20/2013)

END RESURFACING
END CONSTRUCTION
–L– STA. 26+00.00

SEE SHEET 4 FOR PLAN VIEW

–LDET–

℄ –LDET– STA. 14+91

G.P. ELEV = 173.65
SKEW = 60 DEGREES
1 @ 80' TEMP BRIDGE

BEGIN GRADE
–LDET– STA. 11+64.00
EL = 171.82'

END GRADE
–LDET– STA. 18+52.00
EL = 174.88'

PI = 12+50.00
EL = 172.11'
VC = 101'
K = 86
V = 45 mph

PI = 13+75.00
EL = 174.00'
VC = 111'
K = 61
V = 45 mph

PI = 16+30.00
EL = 173.24'
VC = 90'
K = 87
V = 45 mph

BEGIN TEMP BRIDGE –LDET– STA. 14+51.00

END TEMP BRIDGE –LDET– STA. 15+31.00

BEGIN SPECIAL CUT DITCH –LDET– STA. 13+30.00 LT EL = 171.07'

END SPECIAL CUT DITCH –LDET– STA. 15+50.00 LT EL = 171.00'

(+)0.3376%

(+)1.5129%

(–)0.3000%

(–)0.3000%

(–)0.5000%

(+)1.4000%

(+)2.8000%

(+)1.1800%

(+)0.7410%

(+)0.4000%

(+)0.4000%

(+)0.4000%

(+)0.6000%

BEGIN SPECIAL CUT DITCH –LDET– STA. 13+50.00 LT EL = 171.05'

PI = 14+20.00 EL = 170.30'

END SPECIAL CUT DITCH –LDET– STA. 14+15.00 LT EL = 170.85'

BEGIN SPECIAL CUT DITCH –LDET– STA. 15+50.00 RT EL = 168.50'

PI = 16+00.00 EL = 170.20'

PI = 16+50.00 EL = 171.20'

PI = 17+00.00 EL = 172.10'

PI = 17+50.00 EL = 172.30'

PI = 18+00.00 EL = 172.50'

PI = 18+50.00 EL = 172.30'

END SPECIAL CUT DITCH –LDET– STA. 19+00.00 RT EL = 173.00'

DITCH LEGEND	
LEFT DITCH	–·–·–·–
RIGHT DITCH	----------

BRIDGE HYDRAULIC DATA FOR TEMP DETOUR BRIDGE

DESIGN DISCHARGE	= 1600	CFS
DESIGN FREQUENCY	= 5	YRS
DESIGN HW ELEVATION	= 169.4	FT
BASE FREQUENCY	= 100	YRS

SEE SHEET 5 FOR PLAN VIEW

22-MAR-2016 09:29
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