

5/28/99

BM # 1 R/R SPIKE SET IN 30" SYCAMORE
25.31' S 35° 58' 35.8" E OF -L- 10+00.00
EL 3031.63'

BM # 2 R/R SPIKE SET
IN BASE 36" MAPLE
-L- 13+67.43 33.12' RT
EL 3021.24'

-L-

BM # 4 R/R SPIKE SET
IN HEMLOCK STUMP
51.21' S 72° 20' 57.0" E
OF -L- 18+03.57
EL 3011.67'

PROJECT REFERENCE NO. B-3659	SHEET NO. 5
ROADWAY DESIGN ENGINEER 11-30-04	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 17691	NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 20870
Richard A. Shilling	12-02-04

BEGIN GRADE
-L- STA. 12+50.00
EL. 3023.37'
(INCL. 2 1/2" RESURF.)

PI = 13+32.99
EL = 3,022.03'
VC = 80'
K = 37
DS = 30 mph

PI = 14+43.11
EL = 3,022.62'
VC = 140'
K = 26
DS = 30 mph

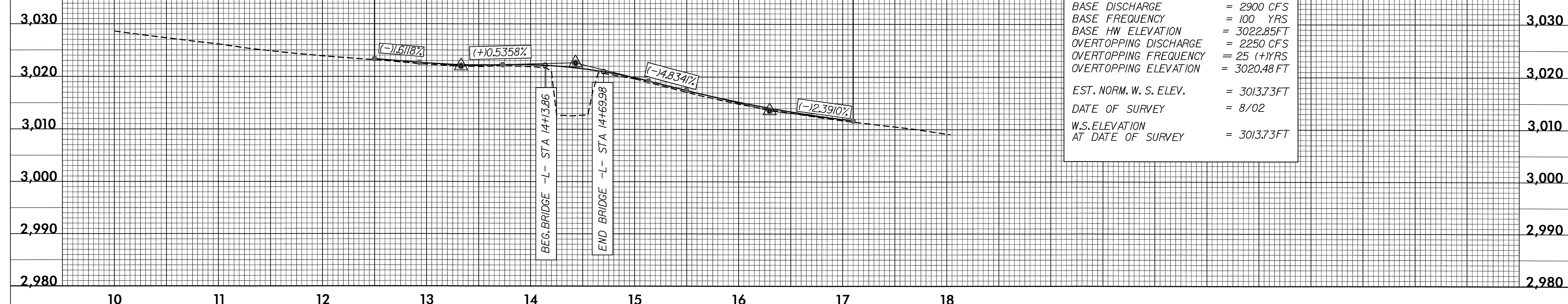
PI = 16+29.70
EL = 3,013.60'
VC = 160'
K = 65
DS = 45 mph

END GRADE
-L- STA. 17+10.00
EL. 3011.68'
(INCL. 2 1/2" RESURF.)

BRIDGE HYDRAULIC DATA

BRIDGE # 112 OVER ALLENS CREEK
SR 1147

DESIGN DISCHARGE	= 2000 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 3019.63FT
BASE DISCHARGE	= 2900 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 3022.85FT
OVERTOPPING DISCHARGE	= 2250 CFS
OVERTOPPING FREQUENCY	= 25 (+)YRS
OVERTOPPING ELEVATION	= 3020.48 FT
EST. NORM. W. S. ELEV.	= 3013.73FT
DATE OF SURVEY	= 8/02
W.S. ELEVATION AT DATE OF SURVEY	= 3013.73FT



BM # 3 R/R SPIKE
SET IN 12" LOCUST
-Y- 10+21.21 27.86' RT
EL 3024.96'

-Y-

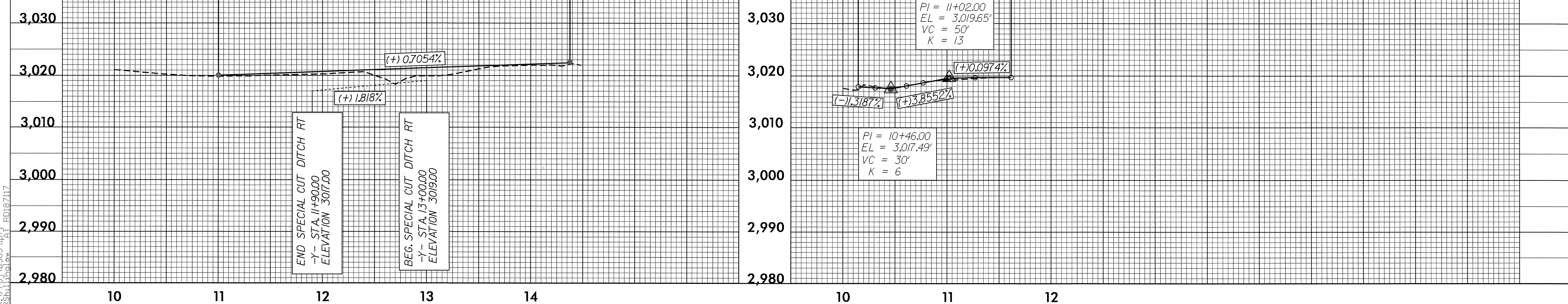
-DR1-

BEGIN GRADE
-Y- STA. 11+00.00
EL. 3020.04'
(INCL. 2 1/2" RESURF.)

END GRADE
-Y- STA. 14+37.68 =
-L- STA. 13+43.36
(11' LT.)
EL. 3022.44'

BEGIN GRADE
-DRI- STA. 10+14.77 =
-L- STA. 15+34.96
EL. 3017.90'
(13.85' RT.)

END GRADE
-DRI- STA. 11+61.65
EL. 3019.71'



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