

5/28/99

-L- SB

BM#54 ELEV = 170.46'
TIE SPIKE SET IN 19" OAK
L STA 681+81 - 122' RT

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

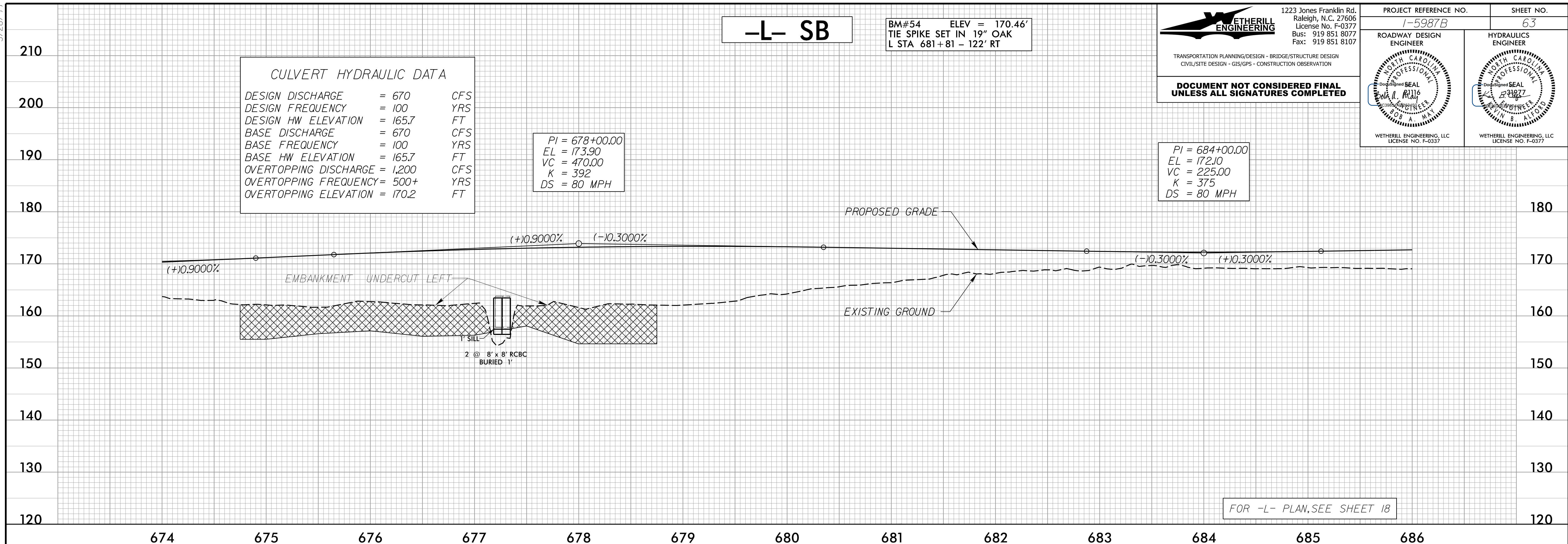
PROJECT REFERENCE NO. <i>1-5987B</i>	SHEET NO. <i>63</i>
ROADWAY DESIGN ENGINEER <i>[Signature]</i>	HYDRAULICS ENGINEER <i>[Signature]</i>
WETHERILL ENGINEERING, LLC LICENSE NO. F-0377	WETHERILL ENGINEERING, LLC LICENSE NO. F-0377

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 670	CFS
DESIGN FREQUENCY	= 100	YRS
DESIGN HW ELEVATION	= 165.7	FT
BASE DISCHARGE	= 670	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 165.7	FT
OVERTOPPING DISCHARGE	= 1,200	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 170.2	FT

PI = 678+00.00
EL = 173.90
VC = 470.00
K = 392
DS = 80 MPH

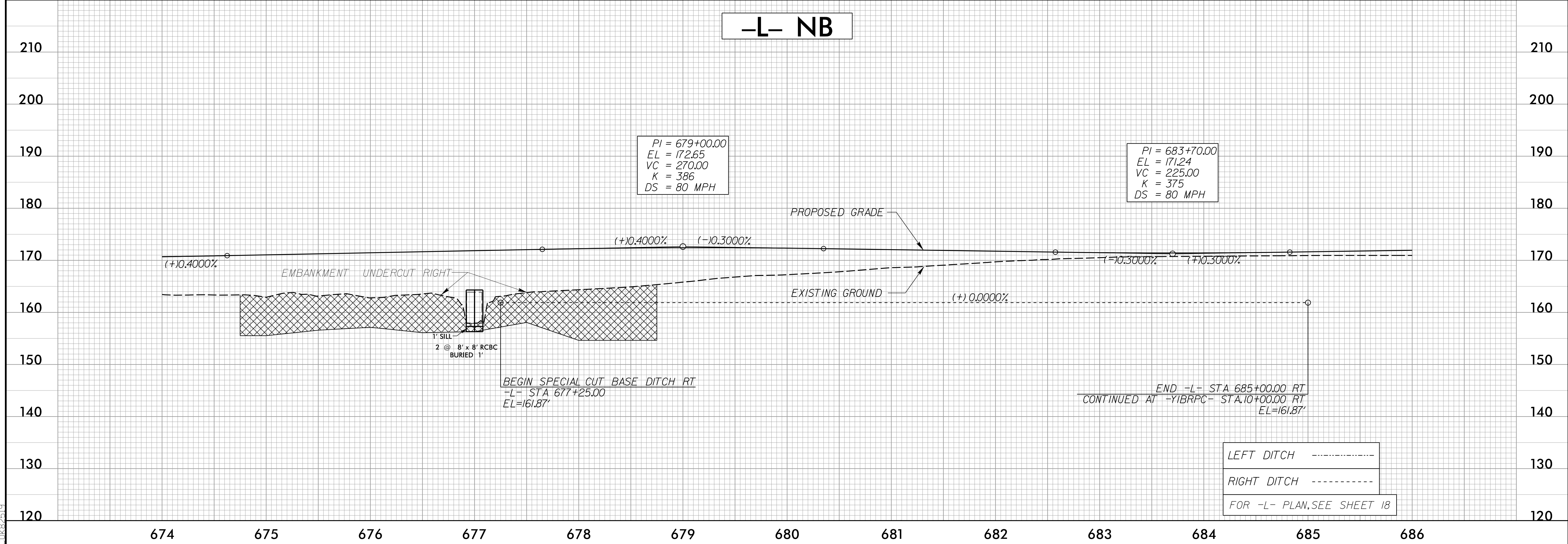
PI = 684+00.00
EL = 172.10
VC = 225.00
K = 375
DS = 80 MPH



-L- NB

PI = 679+00.00
EL = 172.65
VC = 270.00
K = 386
DS = 80 MPH

PI = 683+70.00
EL = 171.24
VC = 225.00
K = 375
DS = 80 MPH



4/16/2002
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