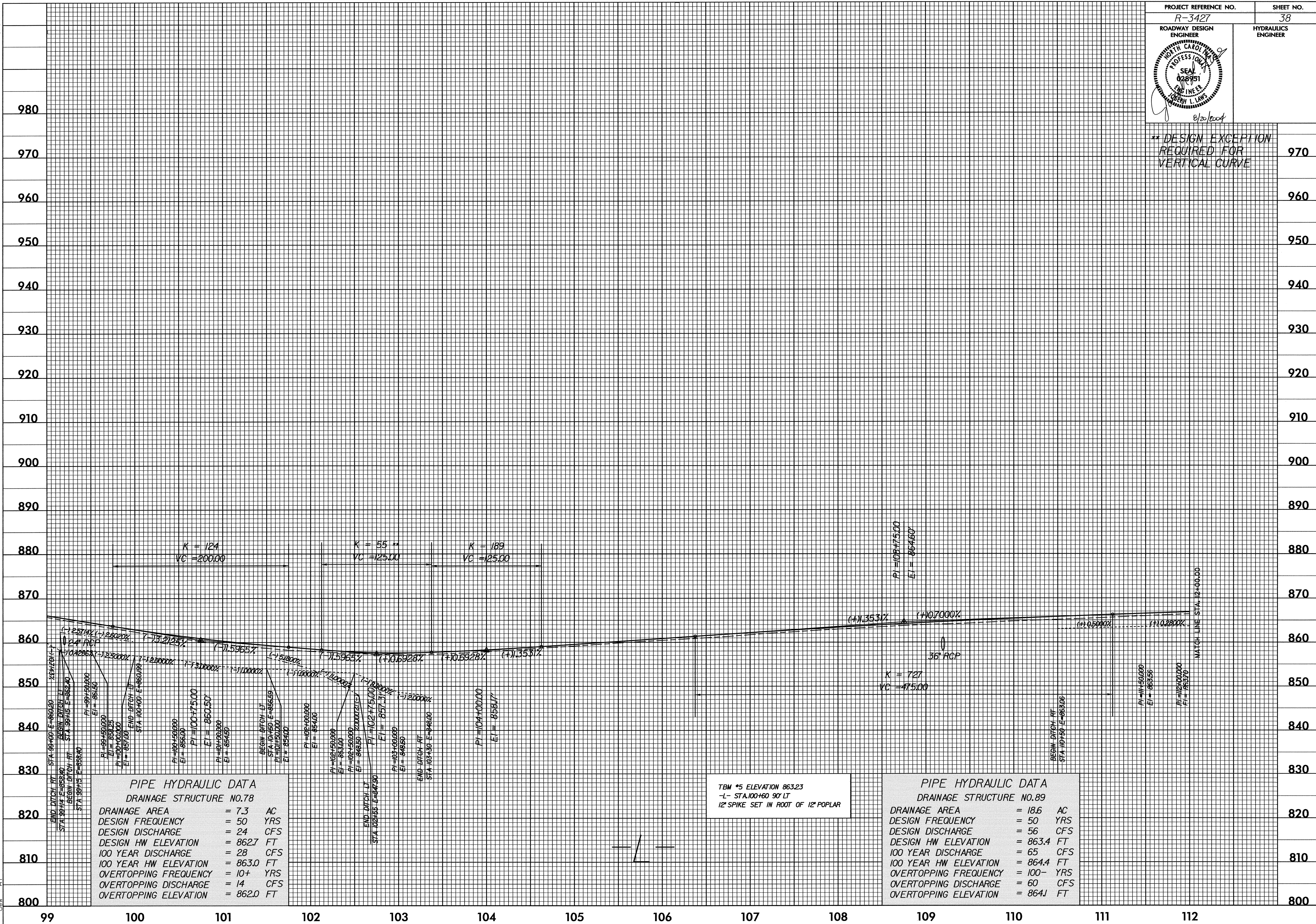


5/14/99

PROJECT REFERENCE NO. R-3427	SHEET NO. 38
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 028951 GREEN L. LAW	HYDRAULICS ENGINEER

8/20/2007

** DESIGN EXCEPTION REQUIRED FOR VERTICAL CURVE



PIPE HYDRAULIC DATA	
DRAINAGE STRUCTURE NO.78	
DRAINAGE AREA	= 7.3 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 24 CFS
DESIGN HW ELEVATION	= 862.7 FT
100 YEAR DISCHARGE	= 28 CFS
100 YEAR HW ELEVATION	= 863.0 FT
OVERTOPPING FREQUENCY	= 10+ YRS
OVERTOPPING DISCHARGE	= 14 CFS
OVERTOPPING ELEVATION	= 862.0 FT

TBM #5 ELEVATION 863.23
 -L- STA.100+60 90' LT
 12" SPIKE SET IN ROOT OF 12" POPLAR

PIPE HYDRAULIC DATA	
DRAINAGE STRUCTURE NO.89	
DRAINAGE AREA	= 18.6 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 56 CFS
DESIGN HW ELEVATION	= 863.4 FT
100 YEAR DISCHARGE	= 65 CFS
100 YEAR HW ELEVATION	= 864.4 FT
OVERTOPPING FREQUENCY	= 100- YRS
OVERTOPPING DISCHARGE	= 60 CFS
OVERTOPPING ELEVATION	= 864.1 FT

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