

PROJECT REFERENCE NO. 1-5986B	SHEET NO. 83
ROADWAY DESIGN ENGINEER SUSAN C LANCASTER SEAL 027373 SUNGATE DESIGN GROUP, P.A.	HYDRAULICS ENGINEER JOSHUA G. DIXON PROFESSIONAL SEAL 26971 SUNGATE DESIGN GROUP, P.A.
<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p> <p>Michael Baker Engineering, Inc. 8000 Regency Park, Suite 600, Cary, NC 27518, NC License: F-1084</p> <p>SUNGATE DESIGN GROUP, P.A. 100 JONES FRANKLIN ROAD, HAYDEN, NORTH CAROLINA 27032, NC License: S-2080</p>	

**BRIDGE HYDRAULIC DATA**

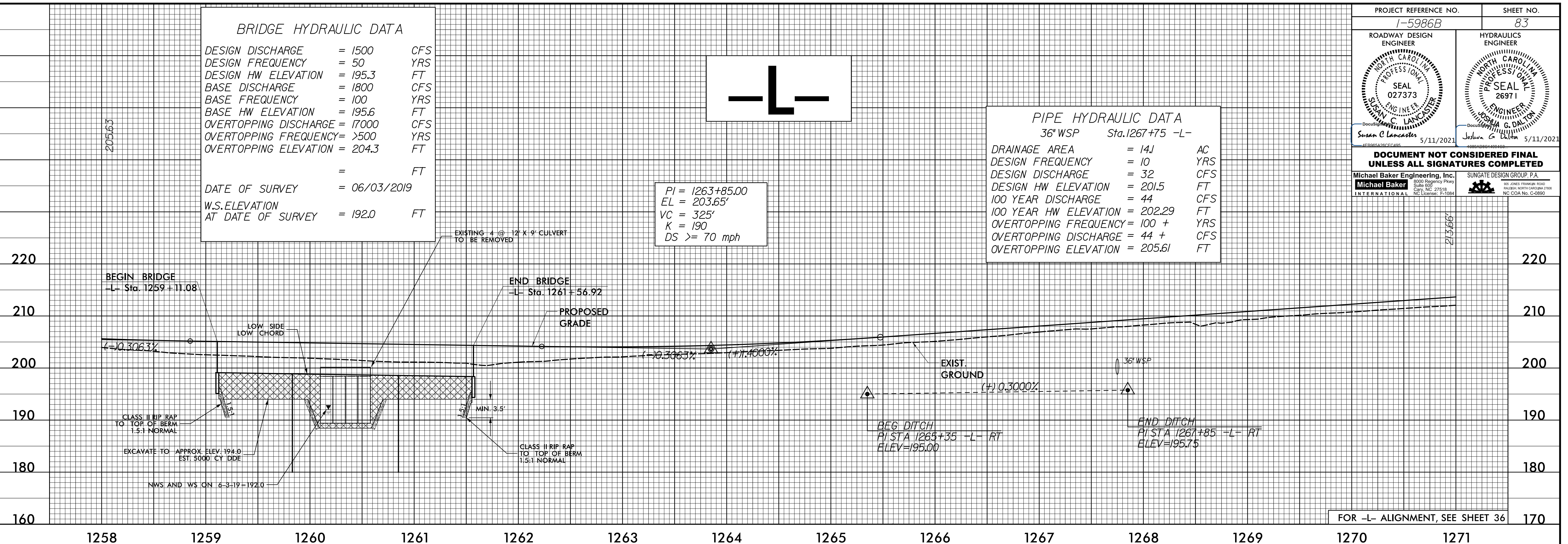
DESIGN DISCHARGE = 1500 CFS  
 DESIGN FREQUENCY = 50 YRS  
 DESIGN HW ELEVATION = 195.3 FT  
 BASE DISCHARGE = 1800 CFS  
 BASE FREQUENCY = 100 YRS  
 BASE HW ELEVATION = 195.6 FT  
 OVERTOPPING DISCHARGE = 17000 CFS  
 OVERTOPPING FREQUENCY = >500 YRS  
 OVERTOPPING ELEVATION = 204.3 FT

DATE OF SURVEY = 06/03/2019  
 W.S. ELEVATION AT DATE OF SURVEY = 192.0 FT

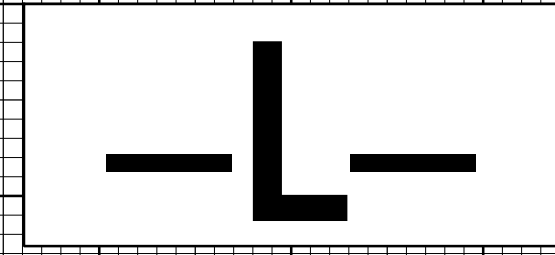
**PIPE HYDRAULIC DATA**  
 36" WSP Sta. 1267+75 -L-

DRAINAGE AREA = 141 AC  
 DESIGN FREQUENCY = 10 YRS  
 DESIGN DISCHARGE = 32 CFS  
 DESIGN HW ELEVATION = 201.5 FT  
 100 YEAR DISCHARGE = 44 CFS  
 100 YEAR HW ELEVATION = 202.29 FT  
 OVERTOPPING FREQUENCY = 100 + YRS  
 OVERTOPPING DISCHARGE = 44 + CFS  
 OVERTOPPING ELEVATION = 205.61 FT

PI = 1263+85.00  
 EL = 203.65'  
 VC = 325'  
 K = 190  
 DS >= 70 mph



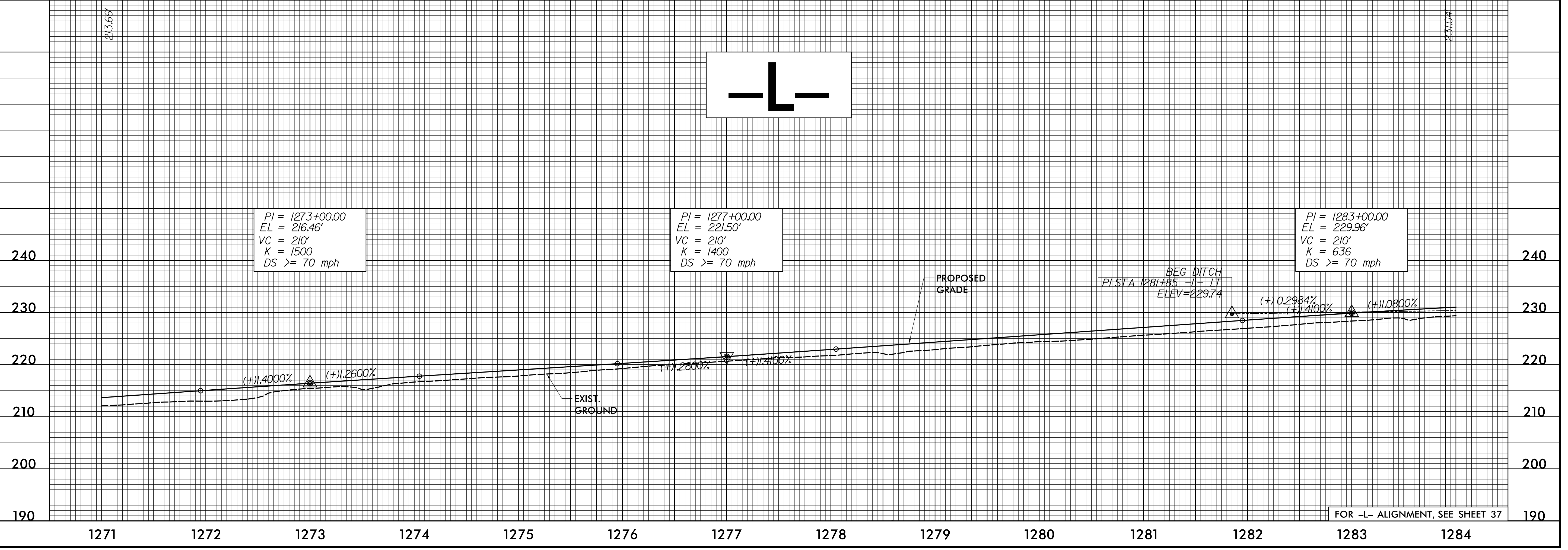
FOR -L- ALIGNMENT, SEE SHEET 36



PI = 1273+00.00  
 EL = 216.46'  
 VC = 210'  
 K = 1500  
 DS >= 70 mph

PI = 1277+00.00  
 EL = 221.50'  
 VC = 210'  
 K = 1400  
 DS >= 70 mph

PI = 1283+00.00  
 EL = 229.96'  
 VC = 210'  
 K = 636  
 DS >= 70 mph



FOR -L- ALIGNMENT, SEE SHEET 37

5/28/19

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