

5/14/99

PROJECT REFERENCE NO. R-3100A	SHEET NO. 31
ROADWAY DESIGN ENGINEER MOTT MACDONALD 1 & E, LLC LICENSE NO. F-0669	HYDRAULICS ENGINEER MOTT MACDONALD 1 & E, LLC LICENSE NO. F-0669
<p>Seal 21102 Seal 025503</p> <p>3/15/2009 3/15/2009</p>	
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p> <p>Prepared in the Office of:</p> <p>M M PO Box 700 Fayetteville, NC 27526 www.mottmac.com/americas</p> <p>McKIM & CREED REGISTERED PROFESSIONAL ENGINEERS 343 NORTH FRONT STREET WILMINGTON, NORTH CAROLINA 28401 TEL: (910) 343-3438 FAX: (910) 343-3832</p>	

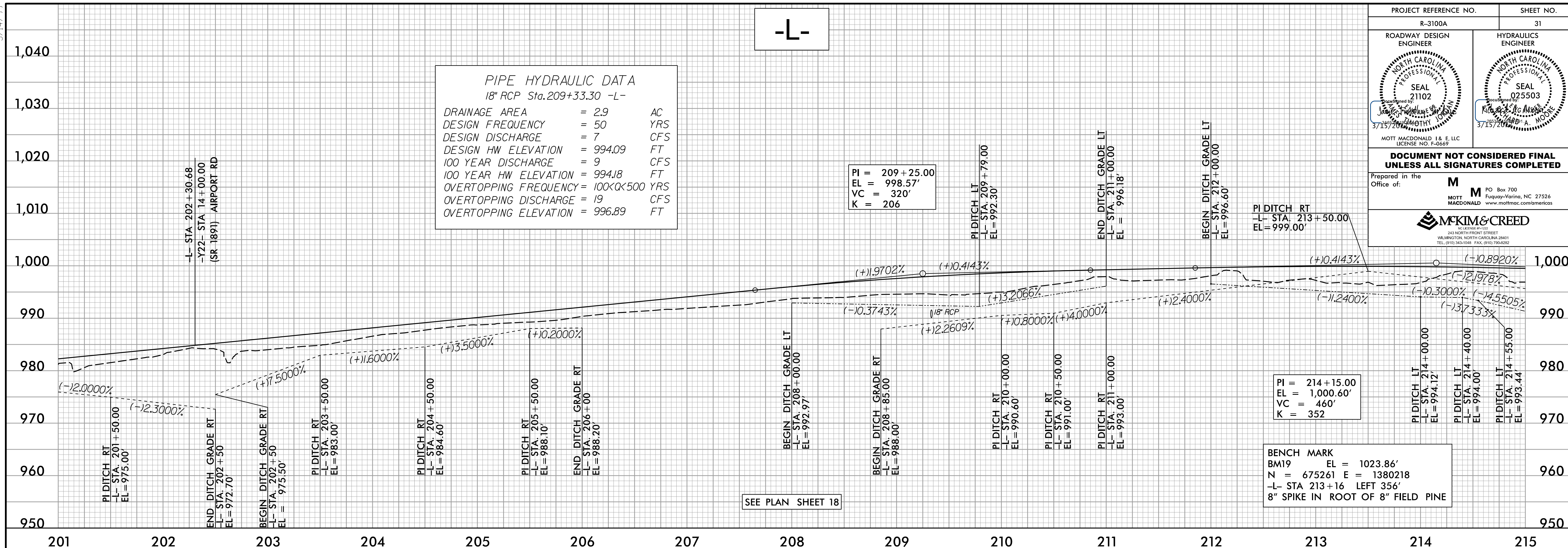
PIPE HYDRAULIC DATA
18" RCP Sta. 209+33.30 -L-

DRAINAGE AREA = 2.9 AC
DESIGN FREQUENCY = 50 YRS
DESIGN DISCHARGE = 7 CFS
DESIGN HW ELEVATION = 994.09 FT
100 YEAR DISCHARGE = 9 CFS
100 YEAR HW ELEVATION = 994.18 FT
OVERTOPPING FREQUENCY = 100<<<500 YRS
OVERTOPPING DISCHARGE = 19 CFS
OVERTOPPING ELEVATION = 996.89 FT

PI = 209 + 25.00
EL = 998.57'
VC = 320'
K = 206

PI = 214 + 15.00
EL = 1,000.60'
VC = 460'
K = 352

BENCH MARK
BM19 EL = 1023.86'
N = 675261 E = 1380218
-L- STA 213+16 LEFT 356'
8" SPIKE IN ROOT OF 8" FIELD PINE



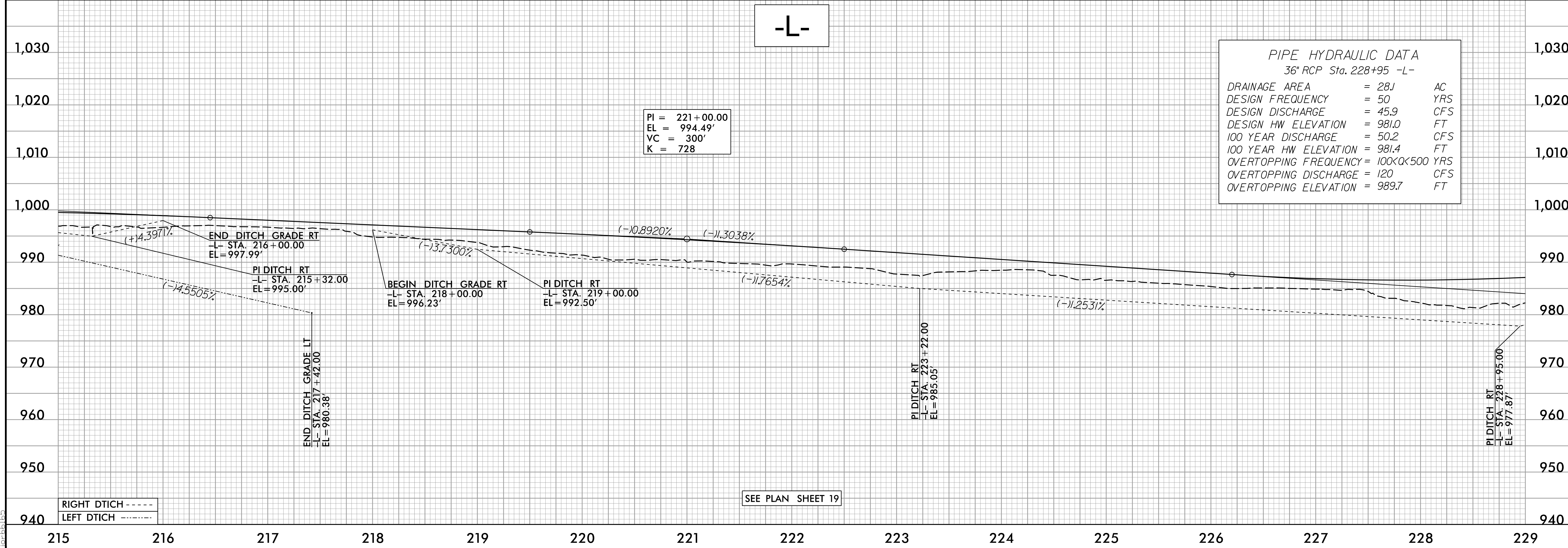
SEE PLAN SHEET 18

-L-

PIPE HYDRAULIC DATA
36" RCP Sta. 228+95 -L-

DRAINAGE AREA = 28.1 AC
DESIGN FREQUENCY = 50 YRS
DESIGN DISCHARGE = 45.9 CFS
DESIGN HW ELEVATION = 981.0 FT
100 YEAR DISCHARGE = 50.2 CFS
100 YEAR HW ELEVATION = 981.4 FT
OVERTOPPING FREQUENCY = 100<<<500 YRS
OVERTOPPING DISCHARGE = 120 CFS
OVERTOPPING ELEVATION = 989.7 FT

PI = 221 + 00.00
EL = 994.49'
VC = 300'
K = 728



SEE PLAN SHEET 19

RIGHT DTICH - - - - -
LEFT DTICH - - - - -

6/19/09 PM P:\Projects\3100A_rdu\psh24-36.dgn