

-L-		
Pls Sta 299+93.245	PI Sta 302+60.915	Pls Sta 305+24.736
$\theta_s = 2^\circ 33' 28.3"$	$\Delta = 18^\circ 20' 28.0" (RT)$	$\theta_s = 2^\circ 33' 28.3"$
$L_s = 125.000$	$L = 448.158$	$L_s = 125.000$
$LT = 83.342$	$L = 226.012$	$LT = 83.342$
$ST = 41.675$	$R = 1,400.000$	$ST = 41.675$
	$SE = 4\%$	

-L-LT	
PI Sta 304+62.064	Pls Sta 305+25.799
$\Delta = 1^\circ 47' 16.1" (RT)$	$\theta_s = 2^\circ 31' 56.4"$
$L = 441.24$	$L_s = 125.000$
$L = 220.64$	$LT = 83.342$
$R = 1,414.00$	$ST = 41.674$
$SE = 4\%$	

-L-RT	
PI Sta 304+61.001	Pls Sta 305+23.673
$\Delta = 1^\circ 44' 10.6" (RT)$	$\theta_s = 2^\circ 35' 01.9"$
$L = 41.998$	$L_s = 125.000$
$L = 21.001$	$LT = 83.342$
$R = 1,385.900$	$ST = 41.675$
$SE = 4\%$	

**METRICS**

CONST. REV. \_\_\_\_\_  
RW REV. \_\_\_\_\_

PROJECT REFERENCE NO. **R 513C** SHEET NO. **19**

R/W SHEET NO.

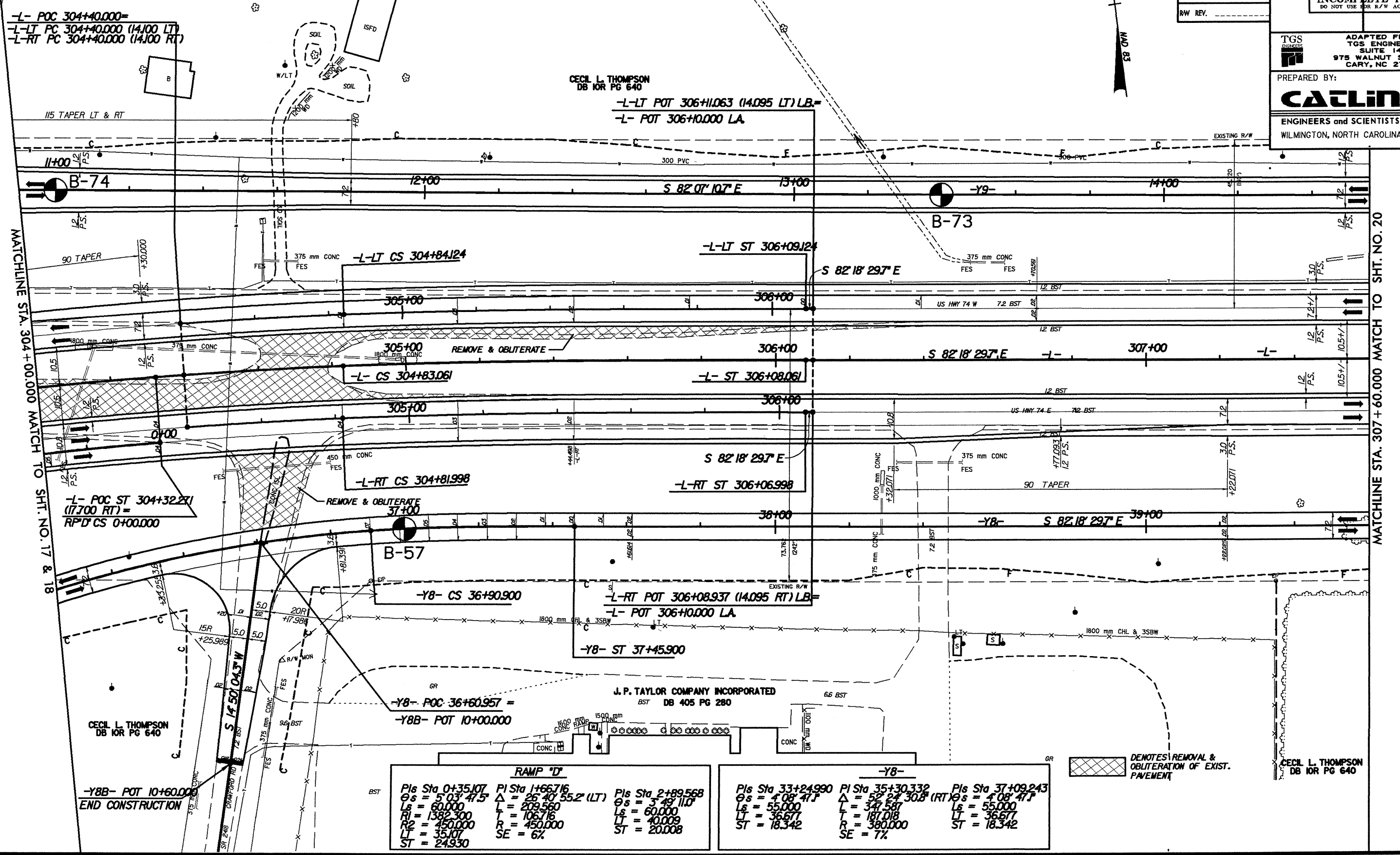
ROADWAY DESIGN ENGINEER \_\_\_\_\_ HYDRAULICS ENGINEER \_\_\_\_\_

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

**INCOMPLETE PLANS**  
DO NOT USE FOR R/W ACQUISITION

TGS ENGINEERS  
ADAPTED FROM:  
TGS ENGINEERS  
SUITE 141  
975 WALNUT STREET  
CARY, NC 27511

PREPARED BY:  
**CALIN**  
ENGINEERS and SCIENTISTS  
WILMINGTON, NORTH CAROLINA



RAMP 'D'		
Pls Sta 0+35.107	PI Sta 1+66.716	Pls Sta 2+89.568
$\theta_s = 5^\circ 03' 47.5"$	$\Delta = 26^\circ 40' 55.2" (LT)$	$\theta_s = 5^\circ 49' 11.0"$
$L_s = 60.000$	$L = 209.560$	$L_s = 60.000$
$R_1 = 1382.300$	$L = 106.716$	$LT = 40.009$
$R_2 = 450.000$	$R = 450.000$	$ST = 20.008$
$LT = 35.107$	$SE = 6\%$	
$ST = 24.930$		

-Y8-		
Pls Sta 33+24.990	PI Sta 35+30.332	Pls Sta 37+09.243
$\theta_s = 4^\circ 08' 47.1"$	$\Delta = 52^\circ 24' 30.8" (RT)$	$\theta_s = 4^\circ 08' 47.1"$
$L_s = 55.000$	$L = 347.567$	$L_s = 55.000$
$LT = 36.677$	$L = 187.018$	$LT = 36.677$
$ST = 18.342$	$R = 380.000$	$ST = 18.342$
	$SE = 7\%$	

DENOTES REMOVAL & OBLITERATION OF EXIST. PAVEMENT

CECIL L. THOMPSON  
DB IOR PG 640

MATCHLINE STA. 304+00.000 MATCH TO SHT. NO. 17 & 18

MATCHLINE STA. 307+60.000 MATCH TO SHT. NO. 20