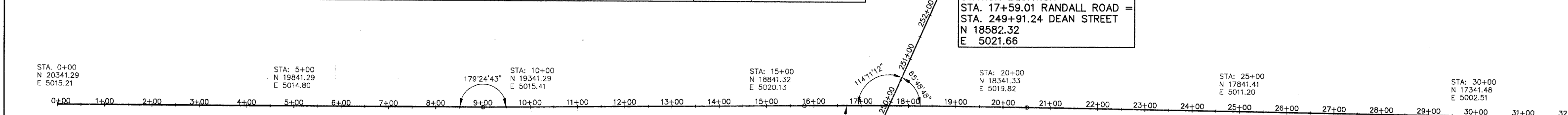
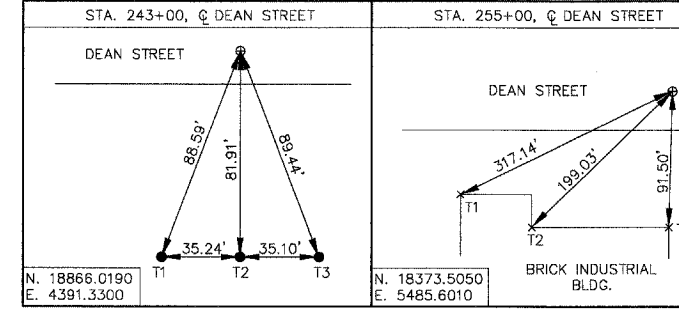
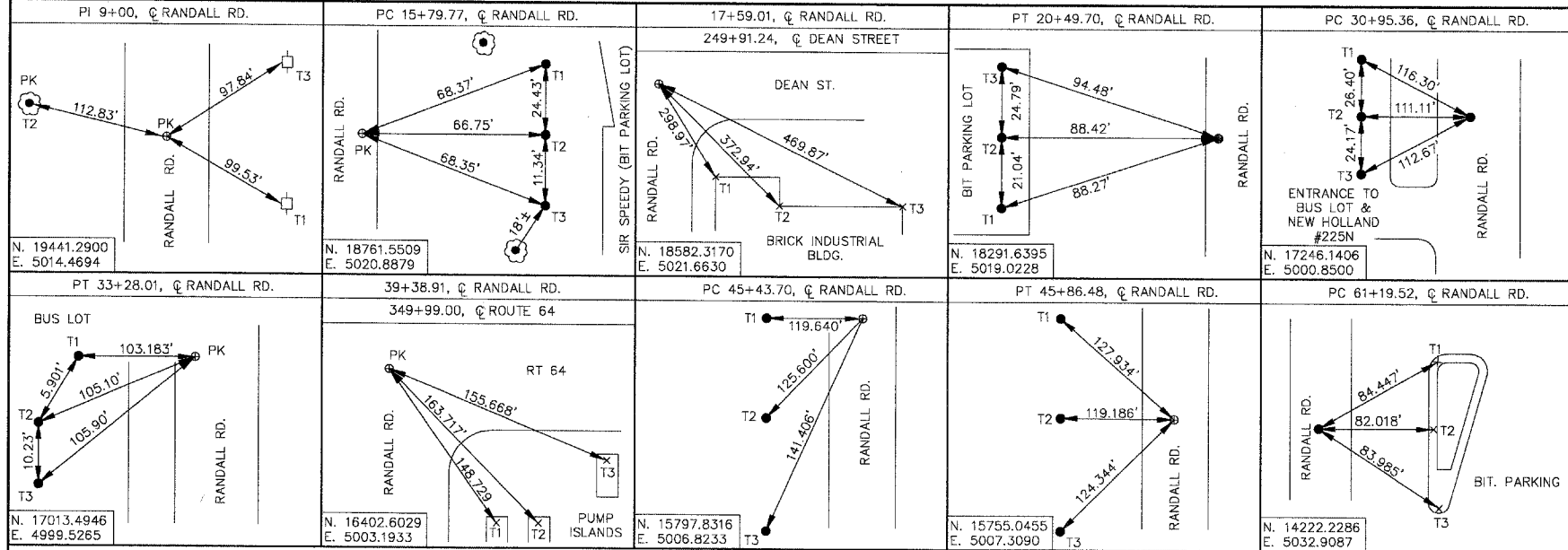


| | | | |
|--|----------------|--------|-------------|
| F.A.P. ROUTE | COUNTY SECTION | COUNTY | TOTAL SHTS. |
| 99-00243-00-PV | 83782 | KANE | 268 |
| ALIGNMENT, TIES AND BENCHMARKS | | | |
| F.H.W.A. REG. 5 ILLINOIS PROJECT F-0336(C) | | | |



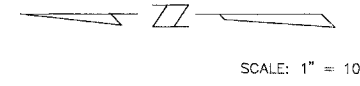
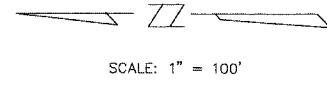
STATION EQUATION
 STA. 17+59.01 RANDALL ROAD =
 STA. 249+91.24 DEAN STREET
 N 18582.32
 E 5021.66

RANDALL ROAD Q CURVE #2
 INCLUDED ANGLE = 01°-20'-23"
 RADIUS = 9950.00'
 TANGENT LENGTH = 116.33'
 ARC LENGTH = 232.66'
 CHORD LENGTH = 232.65'
 EXTERNAL SECANT = 0.68'
 MID ORDINATE = 0.68'
 DEGREE OF CURVE = 00°-34'-33"
 PC STA. = 30+95.36
 PT STA. = 33+28.01

RANDALL ROAD Q CURVE #1
 INCLUDED ANGLE = 01°-32'-13"
 RADIUS = 17520.00'
 TANGENT LENGTH = 234.98'
 ARC LENGTH = 469.93'
 CHORD LENGTH = 469.92'
 EXTERNAL SECANT = 1.58'
 MID ORDINATE = 1.58'
 DEGREE OF CURVE = 00°-19'-37"
 PC STA. = 15+79.77
 PT STA. = 20+49.70

RANDALL ROAD Q CURVE #3
 INCLUDED ANGLE = 00°-36'-46"
 RADIUS = 4000.00'
 TANGENT LENGTH = 21.39'
 ARC LENGTH = 42.79'
 CHORD LENGTH = 42.79'
 EXTERNAL SECANT = 0.05'
 MID ORDINATE = 0.06'
 DEGREE OF CURVE = 01°-25'-57"
 PC STA. = 45+43.70
 PT STA. = 45+86.48

RANDALL ROAD Q CURVE #4
 INCLUDED ANGLE = 01°-39'-31"
 RADIUS = 20000.00'
 TANGENT LENGTH = 289.52'
 ARC LENGTH = 579.00'
 CHORD LENGTH = 578.98'
 EXTERNAL SECANT = 2.10'
 MID ORDINATE = 2.10'
 DEGREE OF CURVE = 00°-17'-11"
 PC STA. = 61+19.52
 PT STA. = 66+98.52



NOTE: SEE NEXT SHEET FOR BENCHMARKS