

LAKE COUNTY  
LAK-306-474

QUANTITY CALCULATIONS  
BY: DA DATE 9/17/81  
CHKD: KS DATE 10/30/81  
COLPETZER - WOODS CONSULTANTS

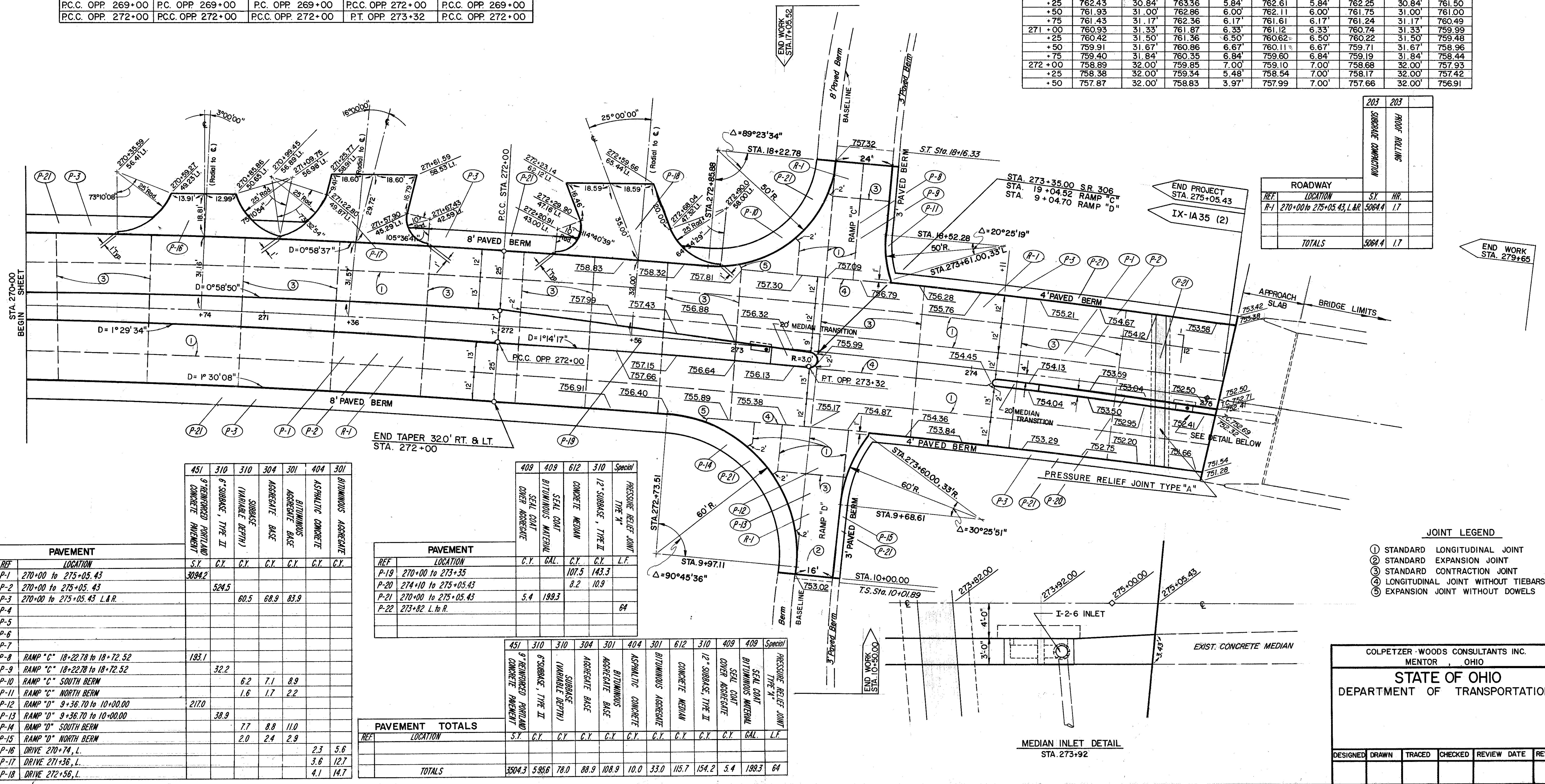
| CURVE DATA                  |                             |                             |                             |                             |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| LT. PAV'T EDGE              | LT. MEDIAN EDGE             | RT. MEDIAN EDGE             | RT. PAV'T EDGE              |                             |
| $\Delta = 2^{\circ}57'00''$ | $\Delta = 2^{\circ}56'44''$ | $\Delta = 4^{\circ}28'23''$ | $\Delta = 1^{\circ}37'54''$ | $\Delta = 4^{\circ}28'37''$ |
| $D = 0^{\circ}58'37''$      | $D = 0^{\circ}58'50''$      | $D = 1^{\circ}29'34''$      | $D = 1^{\circ}14'17''$      | $D = 1^{\circ}30'08''$      |
| $R = 5865.42'$              | $R = 5842.49'$              | $R = 3838.16'$              | $R = 4628.16'$              | $R = 3814.05'$              |
| $T = 151.03'$               | $T = 150.21'$               | $T = 149.90'$               | $T = 65.91'$                | $T = 149.09'$               |
| $L = 301.99'$               | $L = 300.36'$               | $L = 299.64'$               | $L = 131.80'$               | $L = 298.02'$               |
| $E = 1.94'$                 | $E = 1.93'$                 | $E = 2.92'$                 | $E = 0.46'$                 | $E = 2.90'$                 |
| P.C.C. OPP 269+00           | P.C. OPP 269+00             | P.C. OPP 269+00             | P.C.C. OPP 272+00           | P.C.C. OPP 269+00           |
| P.C.C. OPP 272+00           | P.C.C. OPP 272+00           | P.C.C. OPP 272+00           | P.T. OPP 273+32             | P.C.C. OPP 272+00           |

**C. S.R. 306 Curve Data**  
P.I. Sta. = 281+41.09  
 $\Delta = 31^{\circ}18'20''$   
 $D = 1^{\circ}14'10''$   
 $R = 4635.16$   
 $T = 1298.76$   
 $L = 2532.98$   
 $E = 178.52$   
P.C. Sta. = 268+42.33  
P.C.C. Sta. = 293+74.91

**R. Ramp "C" Spiral Data**  
S.T. Sta. = 18+16.33  
P.I. Sta. = 17+17.29  
 $\Delta = 23^{\circ}00'00''$   
 $T_s = 100.96$   
 $E_s = 5.14$   
 $O_s = 11^{\circ}30'$   
 $L_s = 100.00$   
 $p = 1.67$   
 $k = 49.93$

**R. Ramp "D" Spiral Data**  
T.S. Sta. = 10+01.89  
P.I. Sta. = 11+01.98  
 $\Delta = 7^{\circ}00'00''$   
 $T_s = 100.09$   
 $E_s = 2.04$   
 $O_s = 3^{\circ}30'$   
 $L_s = 100.00$   
 $p = 0.51$   
 $k = 49.99$

| STATION | PROFILE GRADE | LT. PAV'T EDGE DIST. | LT. PAV'T EDGE ELEV. | LT. MEDIAN EDGE DIST. | LT. MEDIAN EDGE ELEV. | RT. MEDIAN EDGE DIST. | RT. MEDIAN EDGE ELEV. | RT. PAV'T EDGE DIST. | RT. PAV'T EDGE ELEV. |
|---------|---------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------------|
| 270+00  | 762.93        | 30.67'               | 763.85               | 5.67'                 | 763.10                | 5.67'                 | 762.76                | 30.67'               | 762.01               |
| +25     | 762.43        | 30.84'               | 763.36               | 5.84'                 | 762.61                | 5.84'                 | 762.25                | 30.84'               | 761.50               |
| +50     | 761.93        | 31.00'               | 762.86               | 6.00'                 | 762.11                | 6.00'                 | 761.75                | 31.00'               | 761.00               |
| +75     | 761.43        | 31.17'               | 762.36               | 6.17'                 | 761.61                | 6.17'                 | 761.24                | 31.17'               | 760.49               |
| 271+00  | 760.93        | 31.33'               | 761.87               | 6.33'                 | 761.12                | 6.33'                 | 760.74                | 31.33'               | 759.99               |
| +25     | 760.42        | 31.50'               | 761.36               | 6.50'                 | 760.62                | 6.50'                 | 760.22                | 31.50'               | 759.48               |
| +50     | 759.91        | 31.67'               | 760.86               | 6.67'                 | 760.11                | 6.67'                 | 759.71                | 31.67'               | 758.96               |
| +75     | 759.40        | 31.84'               | 760.35               | 6.84'                 | 759.60                | 6.84'                 | 759.19                | 31.84'               | 758.44               |
| 272+00  | 758.89        | 32.00'               | 759.85               | 7.00'                 | 759.10                | 7.00'                 | 758.68                | 32.00'               | 757.93               |
| +25     | 758.38        | 32.00'               | 759.34               | 5.48'                 | 758.54                | 7.00'                 | 758.17                | 32.00'               | 757.42               |
| +50     | 757.87        | 32.00'               | 758.83               | 3.97'                 | 757.99                | 7.00'                 | 757.66                | 32.00'               | 756.91               |



| ROADWAY |                           | SY     | HR. |
|---------|---------------------------|--------|-----|
| REF.    | LOCATION                  |        |     |
| P-1     | 270+00 to 275+05.43, L.R. | 5064.4 | 1.7 |
| TOTALS  |                           | 5064.4 | 1.7 |

END PROJECT STA. 275+05.43  
IX-1A35 (2)

APPROACH BRIDGE LIMITS

SEE DETAIL BELOW

END WORK STA. 279+65

- JOINT LEGEND**
- ① STANDARD LONGITUDINAL JOINT
  - ② STANDARD EXPANSION JOINT
  - ③ STANDARD CONTRACTION JOINT
  - ④ LONGITUDINAL JOINT WITHOUT TIEBARS
  - ⑤ EXPANSION JOINT WITHOUT DOWELS

| REF. | LOCATION                      | S.Y.   | C.Y.  | C.Y. | C.Y. | C.Y. | C.Y. |
|------|-------------------------------|--------|-------|------|------|------|------|
| P-1  | 270+00 to 275+05.43           | 3094.2 |       |      |      |      |      |
| P-2  | 270+00 to 275+05.43           |        | 524.5 |      |      |      |      |
| P-3  | 270+00 to 275+05.43 L.R.      |        |       | 60.5 | 68.9 | 83.9 |      |
| P-4  |                               |        |       |      |      |      |      |
| P-5  |                               |        |       |      |      |      |      |
| P-6  |                               |        |       |      |      |      |      |
| P-7  |                               |        |       |      |      |      |      |
| P-8  | RAMP "C" 18+22.78 to 18+72.52 | 193.1  |       |      |      |      |      |
| P-9  | RAMP "C" 18+22.78 to 18+72.52 |        | 32.2  |      |      |      |      |
| P-10 | RAMP "C" SOUTH BERM           |        |       | 6.2  | 7.1  | 8.9  |      |
| P-11 | RAMP "C" NORTH BERM           |        |       | 1.6  | 1.7  | 2.2  |      |
| P-12 | RAMP "D" 9+36.70 to 10+00.00  | 217.0  |       |      |      |      |      |
| P-13 | RAMP "D" 9+36.70 to 10+00.00  |        | 38.9  |      |      |      |      |
| P-14 | RAMP "D" SOUTH BERM           |        |       | 7.7  | 8.8  | 11.0 |      |
| P-15 | RAMP "D" NORTH BERM           |        |       | 2.0  | 2.4  | 2.9  |      |
| P-16 | DRIVE 270+74, L.              |        |       |      |      | 2.3  | 5.6  |
| P-17 | DRIVE 271+36, L.              |        |       |      |      | 3.6  | 12.7 |
| P-18 | DRIVE 272+56, L.              |        |       |      |      | 4.1  | 14.7 |

| REF. | LOCATION            | C.Y. | GAL.  | C.Y.  | C.Y. | L.F. |
|------|---------------------|------|-------|-------|------|------|
| P-19 | 270+00 to 273+35    |      | 107.5 | 143.3 |      |      |
| P-20 | 274+10 to 275+05.43 |      |       | 8.2   | 10.9 |      |
| P-21 | 270+00 to 275+05.43 | 5.4  | 189.3 |       |      |      |
| P-22 | 273+82 L. to R.     |      |       |       |      | 64   |

| REF.                   | LOCATION | S.Y.   | C.Y. | C.Y. | C.Y. | C.Y.  | C.Y. | C.Y. | C.Y.  | GAL.  | L.F. |       |
|------------------------|----------|--------|------|------|------|-------|------|------|-------|-------|------|-------|
| <b>PAVEMENT TOTALS</b> |          |        |      |      |      |       |      |      |       |       |      |       |
| TOTALS                 |          | 3504.3 | 5856 | 78.0 | 88.9 | 108.9 | 10.0 | 33.0 | 115.7 | 154.2 | 5.4  | 189.3 |

COLPETZER - WOODS CONSULTANTS INC.  
MENTOR, OHIO

**STATE OF OHIO**  
DEPARTMENT OF TRANSPORTATION

|          |       |        |         |             |         |
|----------|-------|--------|---------|-------------|---------|
| DESIGNED | DRAWN | TRACED | CHECKED | REVIEW DATE | REVISED |
|          |       |        |         |             |         |