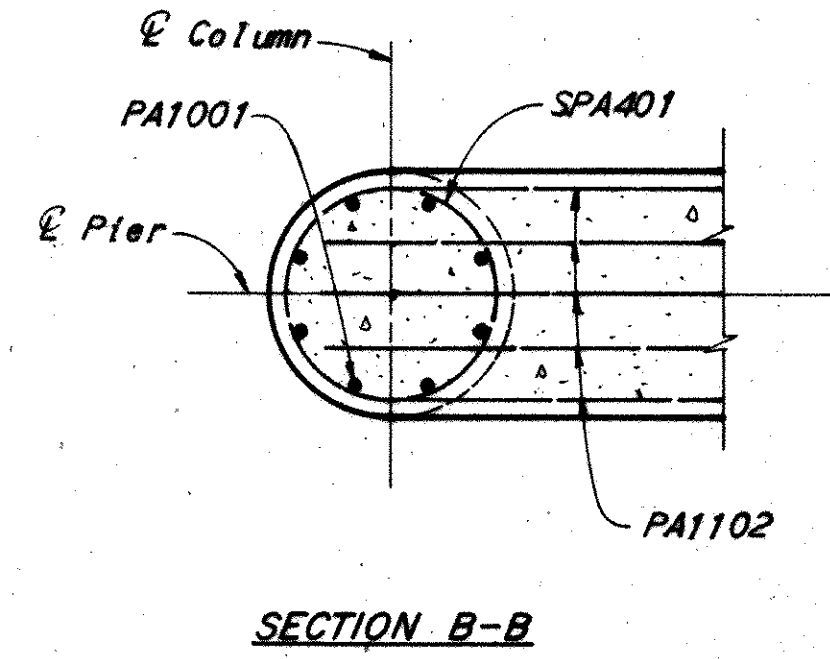
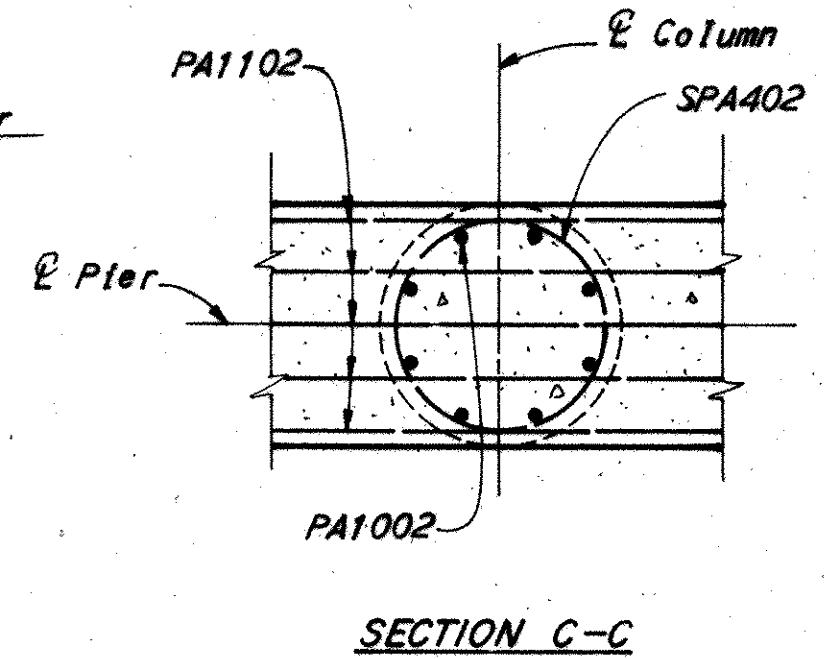
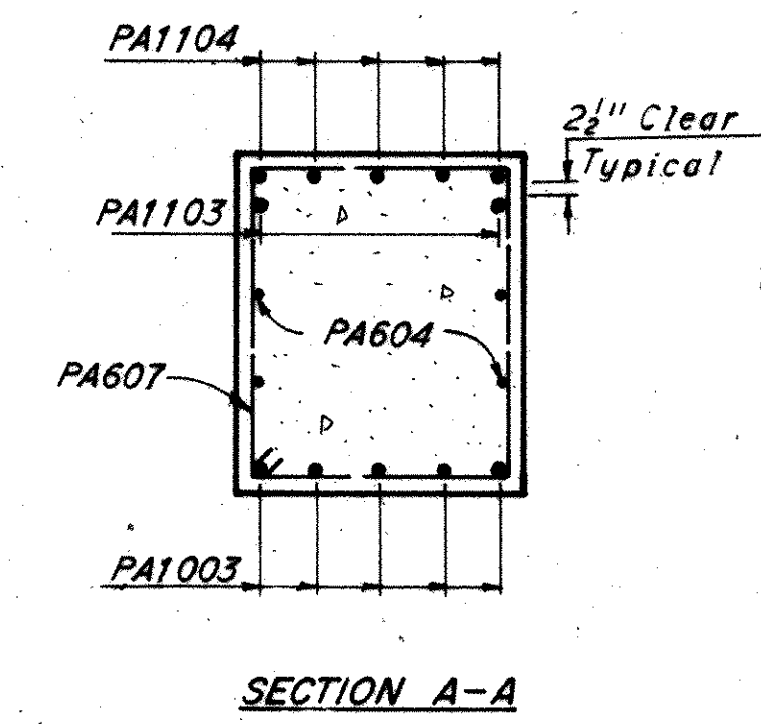
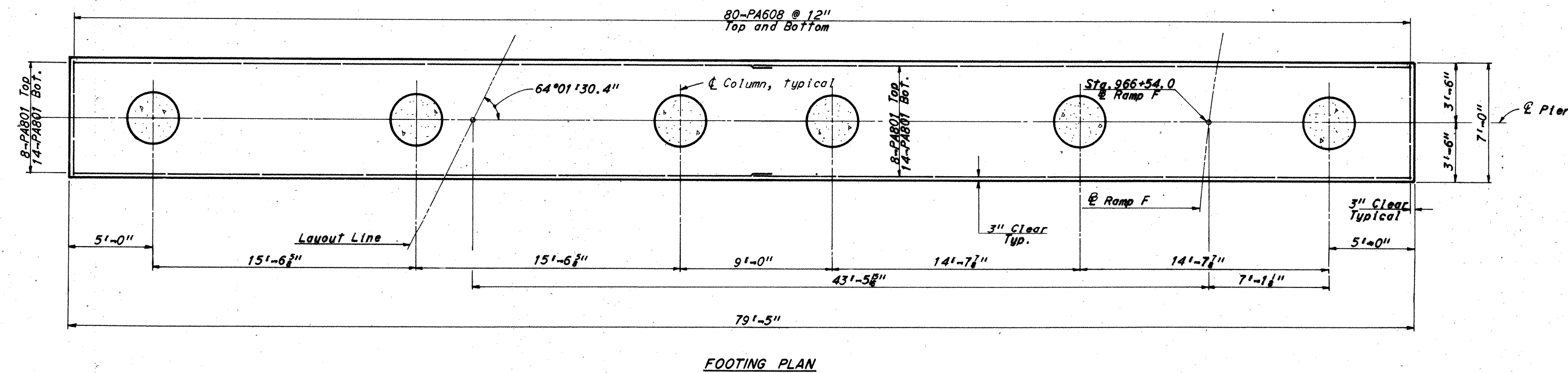
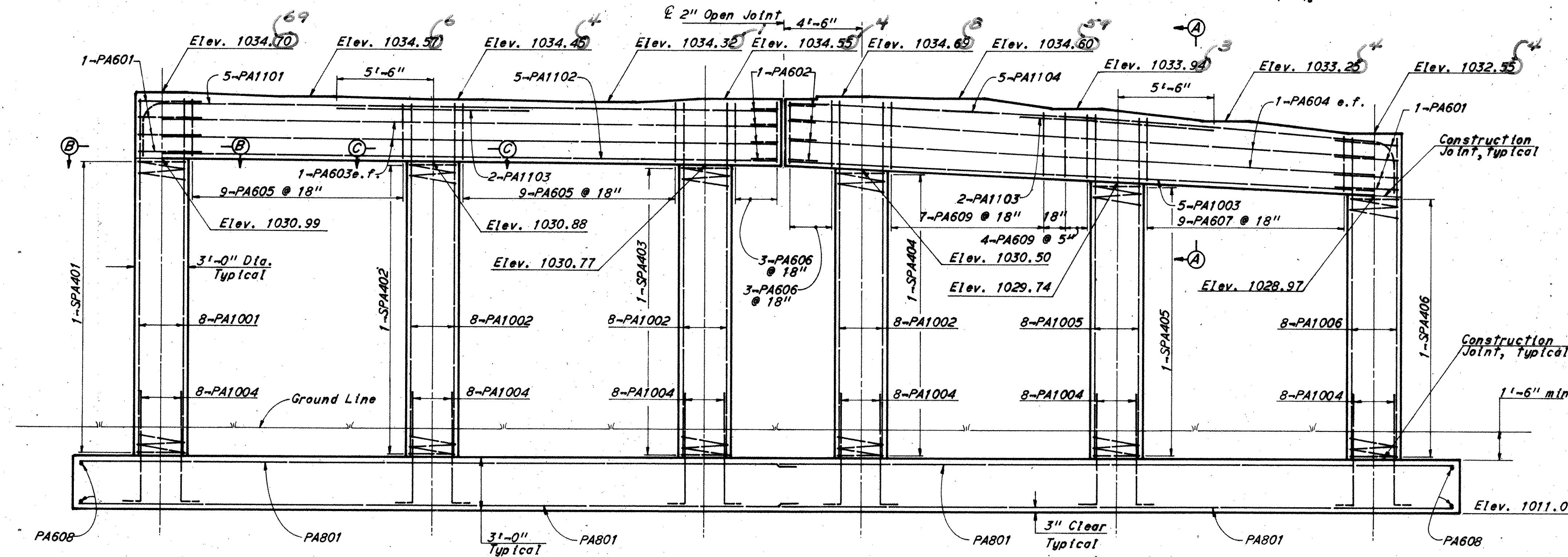
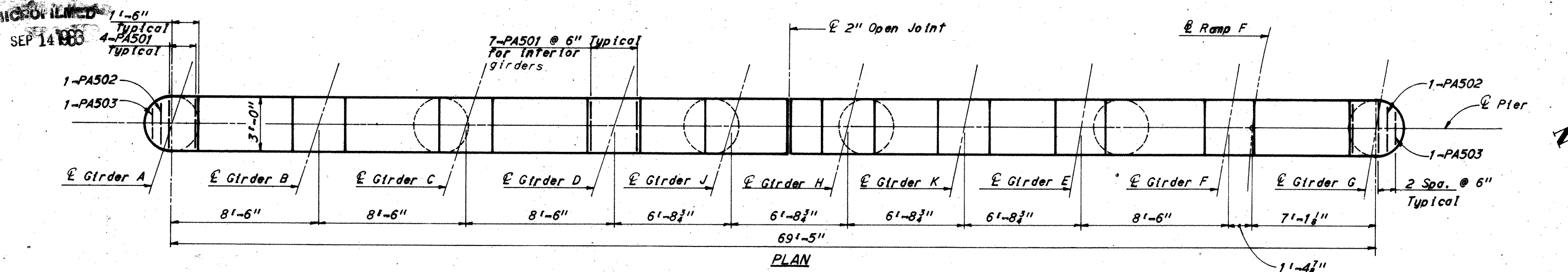


STARK COUNTY  
STA-30-14.12  
STA-77-9.22

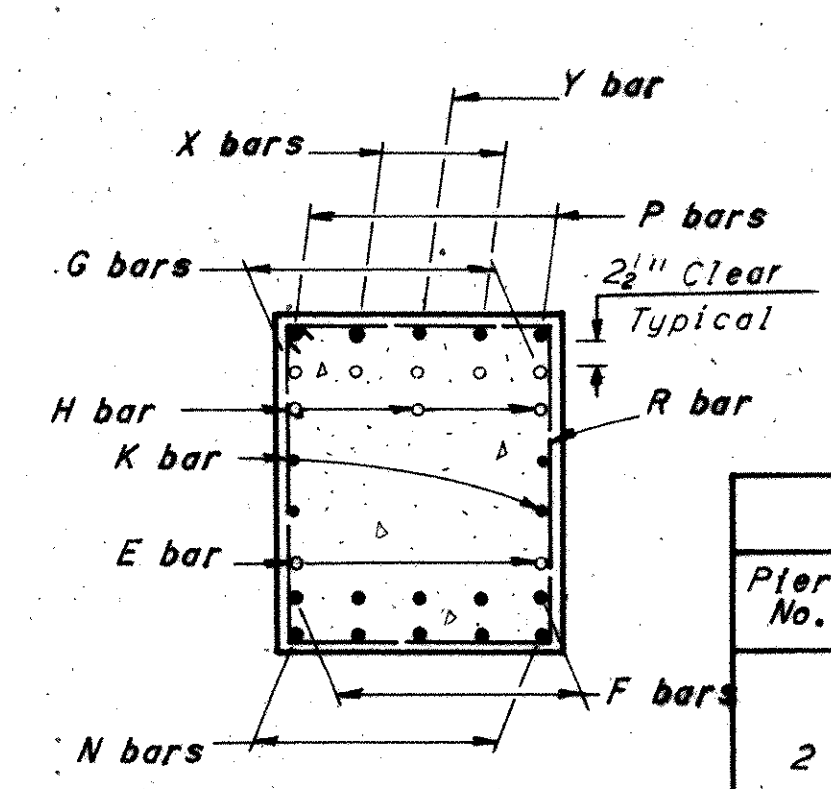
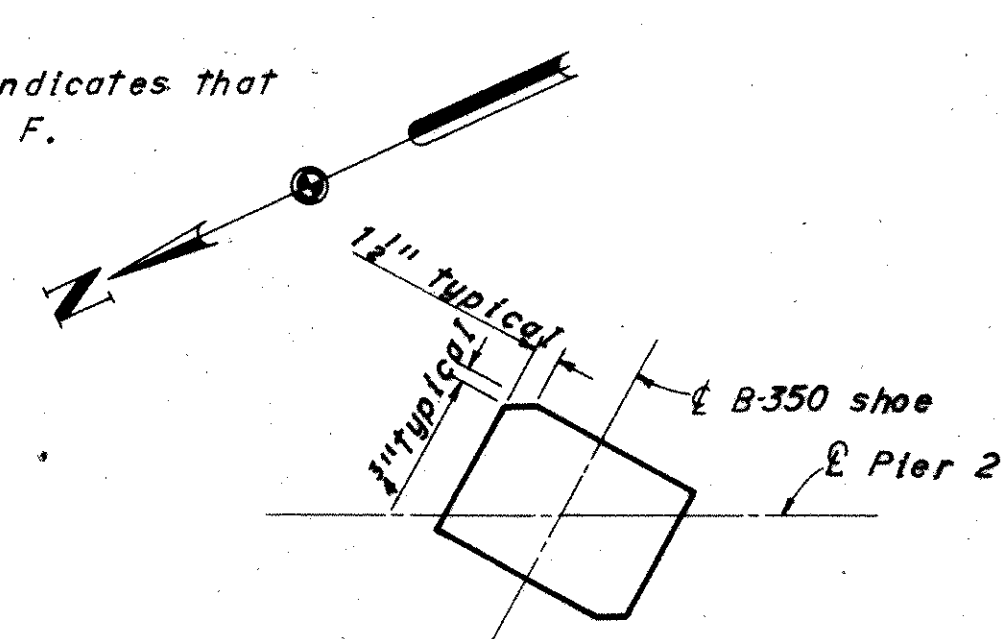
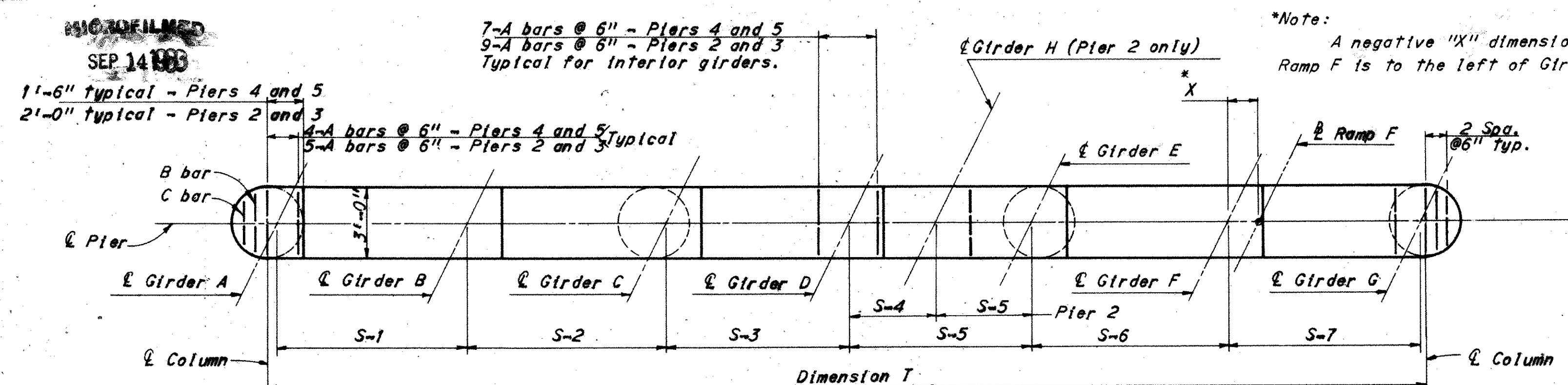
295  
389



Notes:  
PA501, PA502 and PA503 bars shall be placed 2 1/2" below top of cap beam.  
For reinforcement schedule see Sheet 12/14  
For girder angles see Sheet 9/14  
For Bridge 9 footing layout see Sheet 2/14  
e.f. denotes each face.  
All stirrups within 4 feet of E of columns and in cantilever areas of cap beams shall be placed with hooks in the bottom of cap. All other stirrups shall be placed with hooks in the top of cap.

|                                                                                                                                                                             |              |              |               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|---------------|
| H.N.T.S. BRIDGE NO. 9                                                                                                                                                       |              |              |               |
| HOWARD, NEEDLES, TAMMEN & BERGENDOFF 5/14<br>CONSULTING ENGINEERS<br>KANSAS CITY CLEVELAND NEW YORK                                                                         |              |              |               |
| PIER 1<br>RAMP F AND RAMP C OVER<br>MARKET AVE. AND CLEVELAND AVE.<br>BR. NO. STA. 30-1494 STA. 966+03.75<br>SCALE: 1/4" = 1'-0" STA. 971+75.00<br><b>RELOCATED U.S. 30</b> |              |              |               |
| CANTON                                                                                                                                                                      | STARK COUNTY | OHIO         |               |
| DRAWN BY                                                                                                                                                                    | TRACED       | CHECKED      | REVIEWED      |
| DATE 2/13/70                                                                                                                                                                | DATE         | DATE 4/24/70 | DATE 11-20-71 |

MICROFILMED  
SEP 14 1983

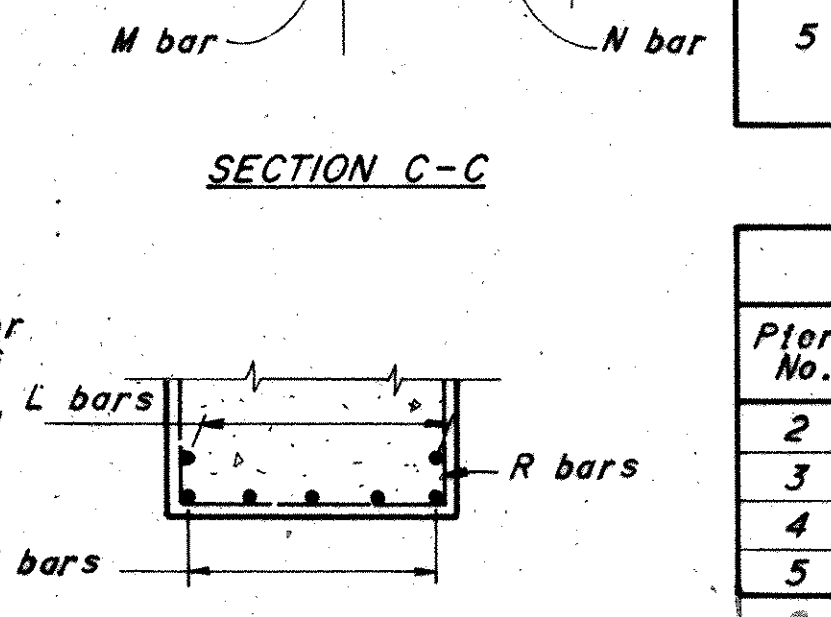
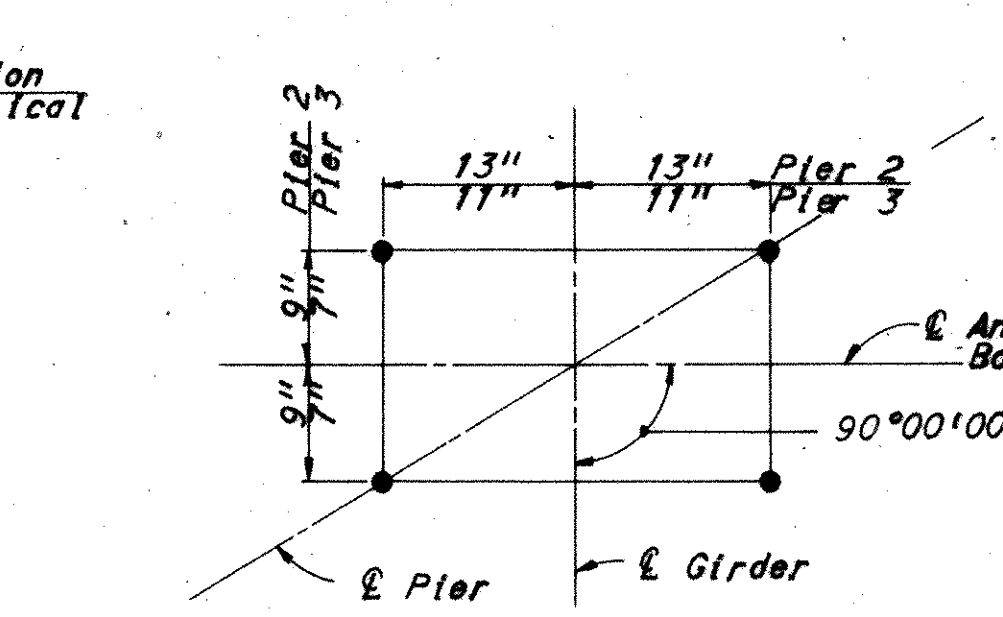
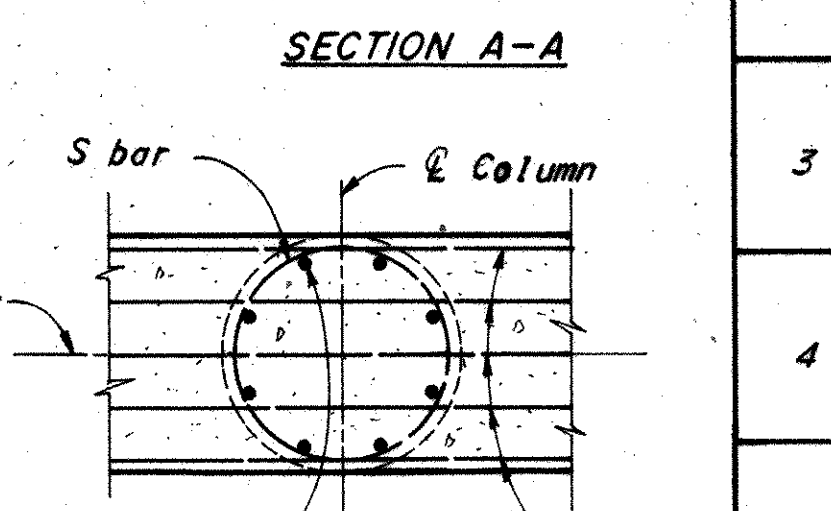
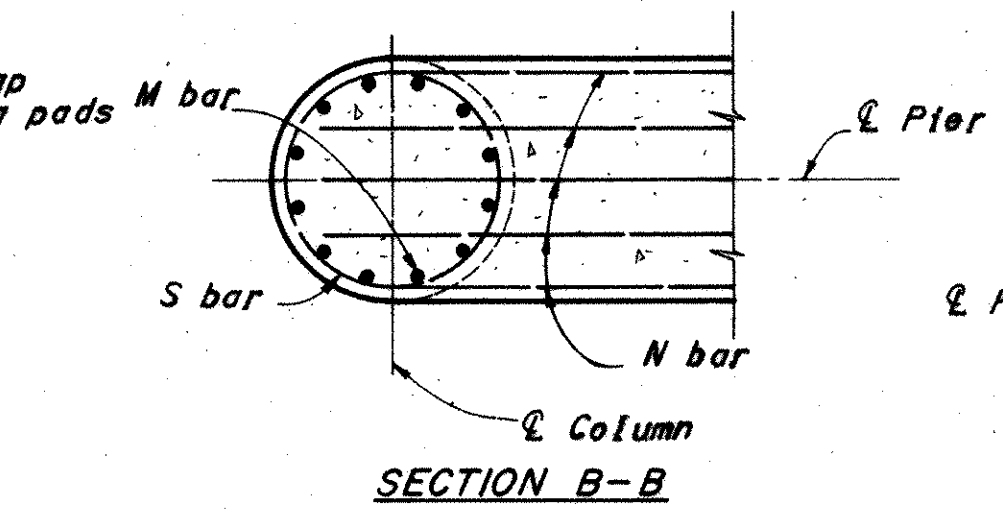
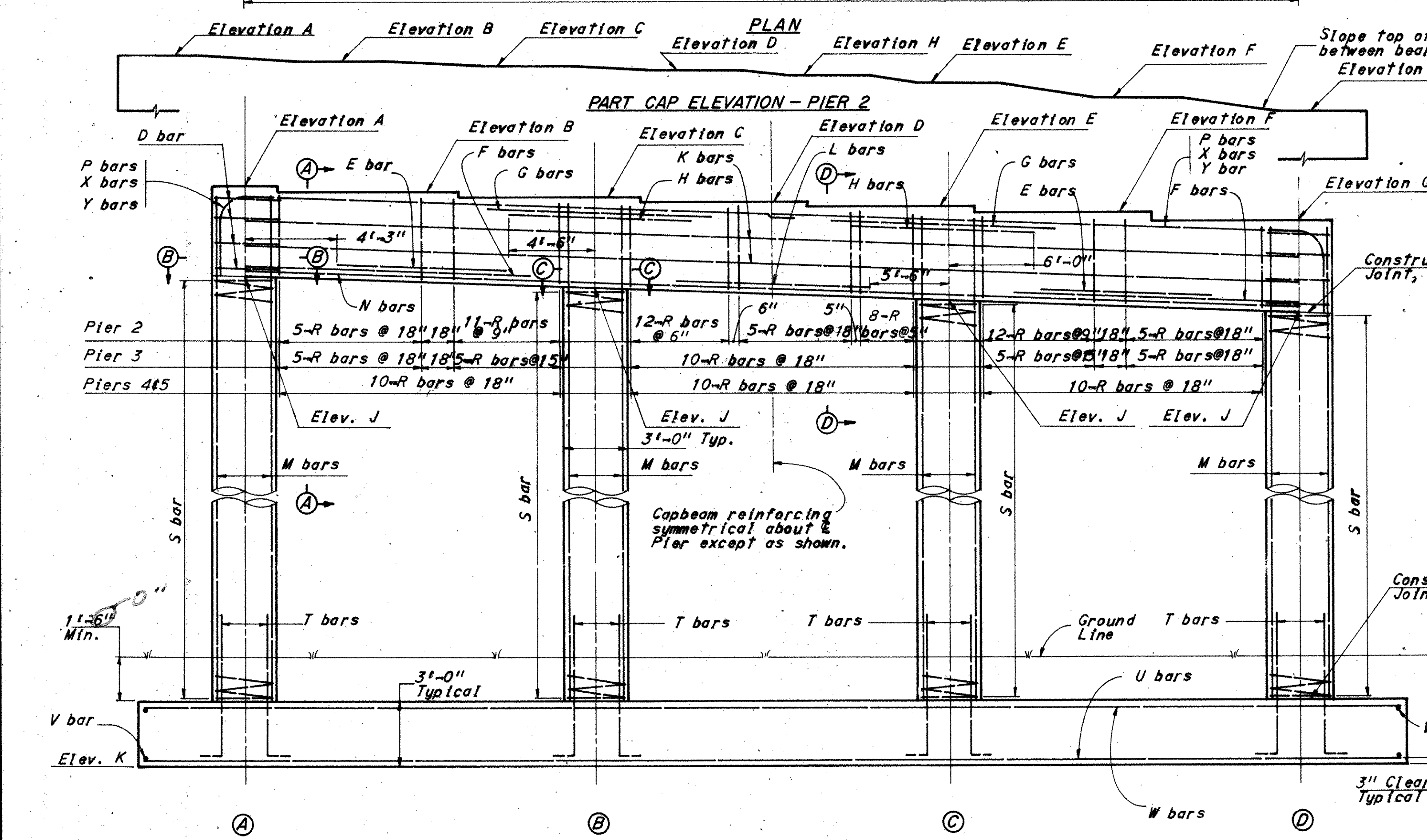


| FED. ROAD DIV. NO. | STATE | FEDERAL AID PROJECT NO. | TYPE FUNDS |
|--------------------|-------|-------------------------|------------|
| 2                  | OHIO  |                         |            |

STARK COUNTY  
STA-30-14.12  
STA-77-9.22

NOTE: The reinf. bars in the top of the cap, Pier 3, shown near the E Pier, shall be placed 4' off of the centerline.

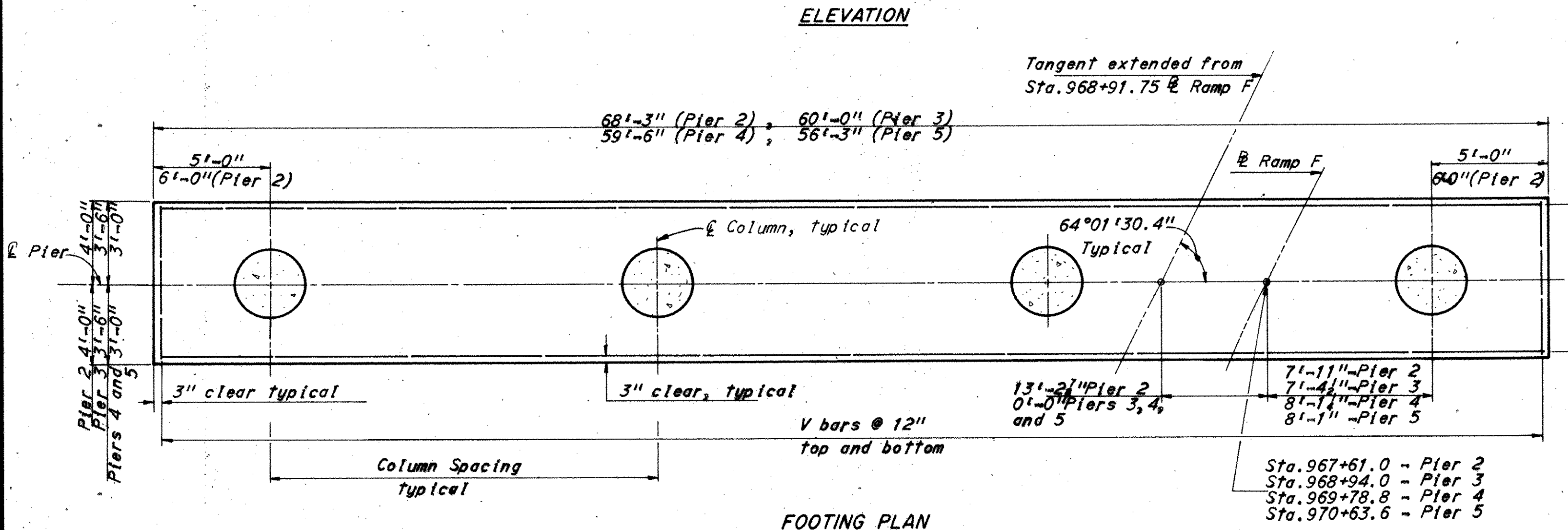
| COLUMN DATA |        |           |                   |          |           |
|-------------|--------|-----------|-------------------|----------|-----------|
| Pier No.    | Column | Elevation | Reinforcing Steel |          |           |
|             |        |           | M bars            | S bar    | T bars    |
| 2           | A      | 1031.95   | 8-PB1101          | 1-SPB401 | 8-PB1103  |
|             | B      | 1030.97   | 8-PB1002          | 1-SPB402 | 8-PB1003  |
|             | C      | 1030.00   | 8-PB1001          | 1-SPB403 | 8-PB1003  |
|             | D      | 1029.02   | 8-PB1102          | 1-SPB404 | 8-PB1103  |
| 3           | A      | 1033.82   | 12-PC1001         | 1-SPC401 | 12-PC1005 |
|             | B      | 1033.21   | 8-PC1002          | 1-SPC402 | 8-PC1005  |
|             | C      | 1032.59   | 8-PC1003          | 1-SPC403 | 8-PC1005  |
|             | D      | 1031.98   | 12-PC1004         | 1-SPC404 | 12-PC1005 |
| 4           | A      | 1034.90   | 12-PD1101         | 1-SPD401 | 12-PD1103 |
|             | B      | 1034.56   | 8-PD1002          | 1-SPD402 | 8-PD1003  |
|             | C      | 1034.23   | 8-PD1001          | 1-SPD403 | 8-PD1003  |
|             | D      | 1033.89   | 12-PD1102         | 1-SPD404 | 12-PD1103 |
| 5           | A      | 1036.31   | 12-PE1001         | 1-SPE401 | 12-PE1005 |
|             | B      | 1036.22   | 8-PE1002          | 1-SPE402 | 8-PE1005  |
|             | C      | 1036.13   | 8-PE1002          | 1-SPE403 | 8-PE1005  |
|             | D      | 1036.04   | 12-PE1004         | 1-SPE404 | 12-PE1005 |



| FOOTING DATA |                |           |                   |          |           |
|--------------|----------------|-----------|-------------------|----------|-----------|
| Pier No.     | Column Spacing | Elevation | Reinforcing Steel |          |           |
|              |                |           | U bars            | V bars   | W bars    |
| 2            | 18'-9"         | 1018.00   | 16-PB1004         | 16-PB601 | 10-PB1004 |
| 3            | 16'-8"         | 1020.00   | 14-PC 901         | 12-PC601 | 9-PC 901  |
| 4            | 16'-6"         | 1022.00   | 14-PD 801         | 12-PD601 | 8-PD 801  |
| 5            | 15'-5"         | 1022.00   | 12-PE 801         | 11-PE601 | 7-PE 801  |

Lap spirals and vertical bars. Extend by 3' at Pier 2, 2' at Piers 3 & 4 and extend spiral only by 1' at Pier 5.

| CAP BEAM REINFORCING STEEL |        |         |         |         |          |          |          |          |         |          |          |          |        |          |          |
|----------------------------|--------|---------|---------|---------|----------|----------|----------|----------|---------|----------|----------|----------|--------|----------|----------|
| Pier No.                   | A bars | B bars  | C bars  | D bars  | E bars   | F bars   | G bars   | H bars   | K bars  | L bars   | N bars   | P bars   | R bars | X bars   | Y bars   |
| 2                          | PB501  | 1-PB502 | 1-PB503 | 1-PB602 | 2-PB1104 | 5-PB1105 | 5-PB1106 | 3-PB1107 | 2-PB603 | 2-PB1108 | 5-PB1109 | 2-PB1110 | PB604  | 2-PB1111 | 1-PB1112 |
| 3                          | PC501  | 1-PC502 | 1-PC503 | 1-PC602 | -        | 2-PC1101 | 3-PC1102 | -        | 2-PC603 | -        | 5-PC1103 | 2-PC1104 | PC604  | 2-PC1105 | 1-PC1106 |
| 4                          | PD501  | 1-PD502 | 1-PD503 | 1-PD602 | -        | 2-PD901  | 2-PD1004 | -        | 2-PD603 | -        | 5-PD1005 | 2-PD1006 | PD604  | 2-PD1007 | 1-PD1008 |
| 5                          | PE501  | 1-PE502 | 1-PE503 | 1-PE602 | -        | 2-PE901  | 2-PE1006 | -        | 2-PE603 | -        | 5-PE1007 | 2-PE1008 | PE604  | 2-PE1009 | 1-PE1003 |



| PIER CAP LAYOUT DATA |           |           |           |              |
|----------------------|-----------|-----------|-----------|--------------|
| Pier No.             | 2         | 3         | 4         | 5            |
| Dimension T          | 56'-3"    | 50'-0"    | 49'-6"    | 46'-3"       |
| Dimension X          | 1'-4 1/2" | 1'-3 1/2" | 0'-2 1/2" | -(0'-4 1/2") |
| Girder A             | A         | A         | A         | A            |
| Elevation A          | 1036.11   | 1037.98   | 1038.95   | 1039.86      |
| S-1                  | 8'-6"     | 8'-5 1/2" | 8'-2 1/2" | 7'-8 1/2"    |
| Girder B             | B         | B         | B         | B            |
| Elevation B          | 1035.88   | 1037.75   | 1038.87   | 1039.80      |
| S-2                  | 8'-6"     | 8'-5 1/2" | 8'-2 1/2" | 7'-8 1/2"    |
| Girder C             | C         | C         | C         | C            |
| Elevation C          | 1035.63   | 1037.51   | 1038.74   | 1039.75      |
| S-3                  | 8'-6"     | 7'-9 1/2" | 8'-2 1/2" | 7'-8 1/2"    |
| Girder D             | D         | D         | D         | D            |
| Elevation D          | 1035.39   | 1037.29   | 1038.59   | 1039.70      |
| S-4                  | 6'-0 1/2" | -         | -         | -            |
| Girder H             | H         | -         | -         | -            |
| Elevation H          | 1035.17   | -         | -         | -            |
| S-5                  | 6'-0 1/2" | 7'-9 1/2" | 8'-2 1/2" | 7'-8 1/2"    |
| Girder E             | E         | E         | E         | E            |
| Elevation E          | 1034.71   | 1037.00   | 1038.43   | 1039.66      |
| S-6                  | 8'-6"     | 8'-5 1/2" | 8'-2 1/2" | 7'-8 1/2"    |
| Girder F             | F         | F         | F         | F            |
| Elevation F          | 1034.07   | 1036.61   | 1038.24   | 1039.62      |
| S-7                  | 8'-6"     | 8'-5 1/2" | 8'-2 1/2" | 7'-8 1/2"    |
| Girder G             | G         | G         | G         | G            |
| Elevation G          | 1033.43   | 1036.22   | 1038.03   | 1039.58      |

Notes:

Special care shall be taken when placing reinforcing steel so as not to interfere with anchor bolt settings. Piers 2 and 3 only. See Sheet 214.

A bars, B bars and C bars shall be placed 2 1/2" below top of cap beam.

For reinforcement schedule see Sheet 12/14

For girder angles see Sheet 9/14

e.f. denotes each face.

All stirrups within 4 feet of E of Column shall be placed with hooks in the bottom of cap.

All others shall be placed with hooks in the top.

H.N.T.B. BRIDGE NO. 9

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
KANSAS CITY CLEVELAND NEW YORK

PIERS 2, 3, 4 AND 5  
RAMP F AND RAMP C OVER  
MARKET AVE. AND CLEVELAND AVE.

BR. NO. STA. 30-1494  
SCALE: 1/4"=1'-0"

STA. 966+03.75  
STA. 971+75.00

RELOCATED U.S. 30

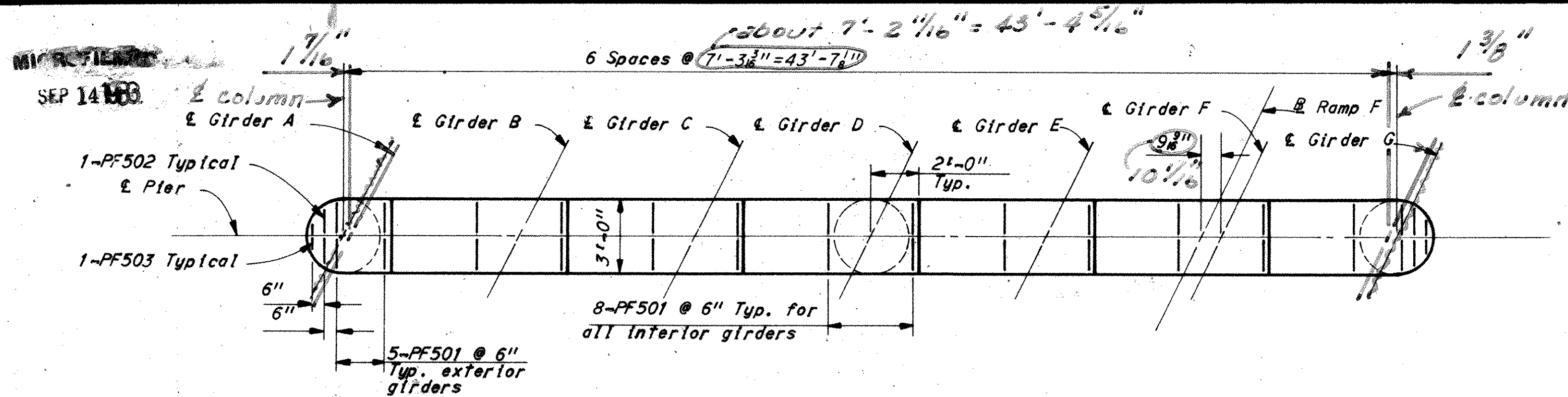
CANTON STARK COUNTY OHIO

Revised 6-11-75 By RAS

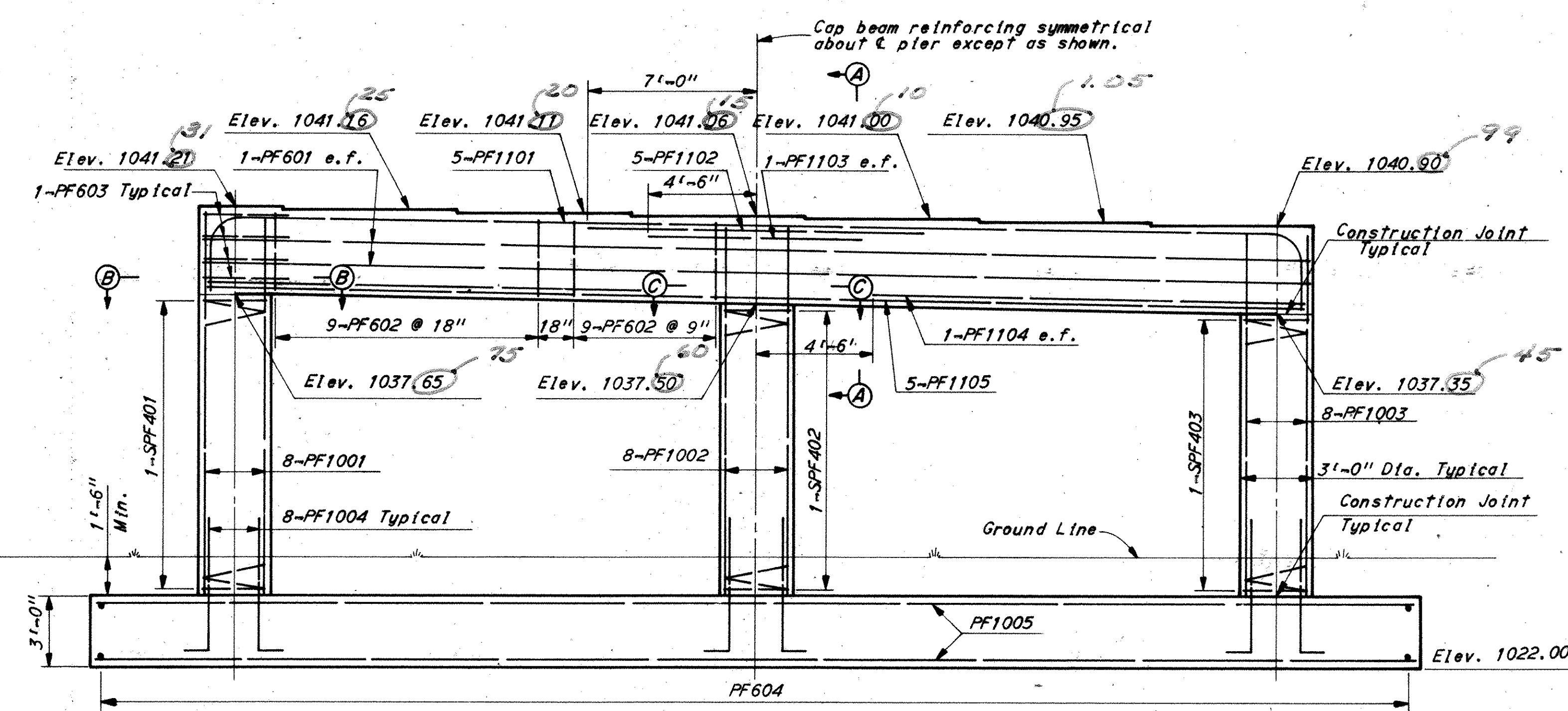
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Revised 3-2-76

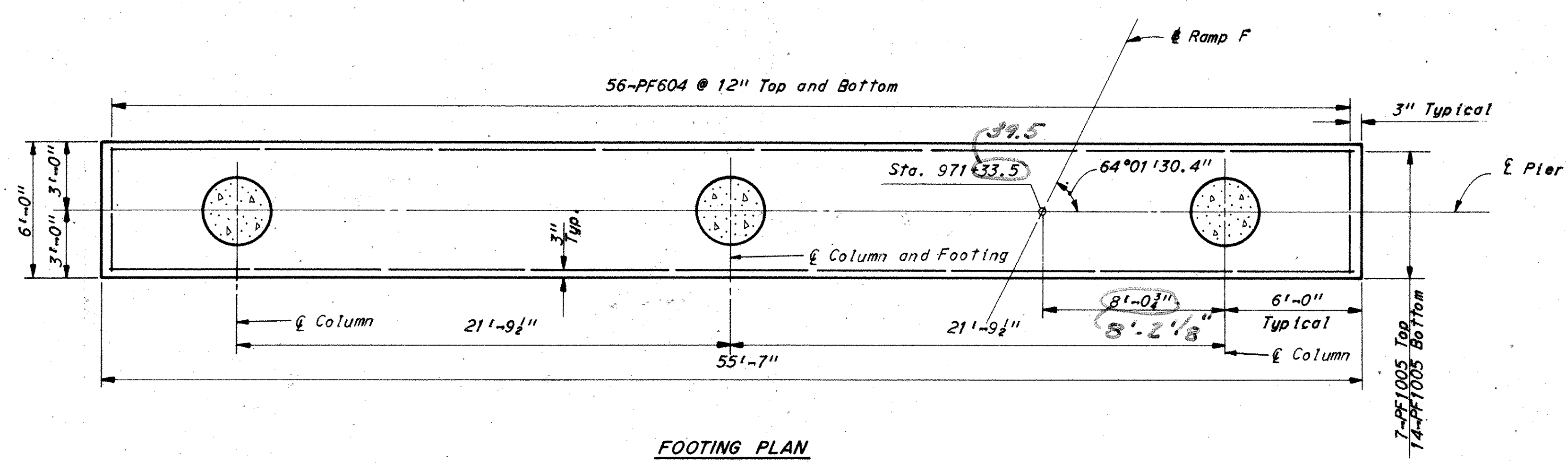
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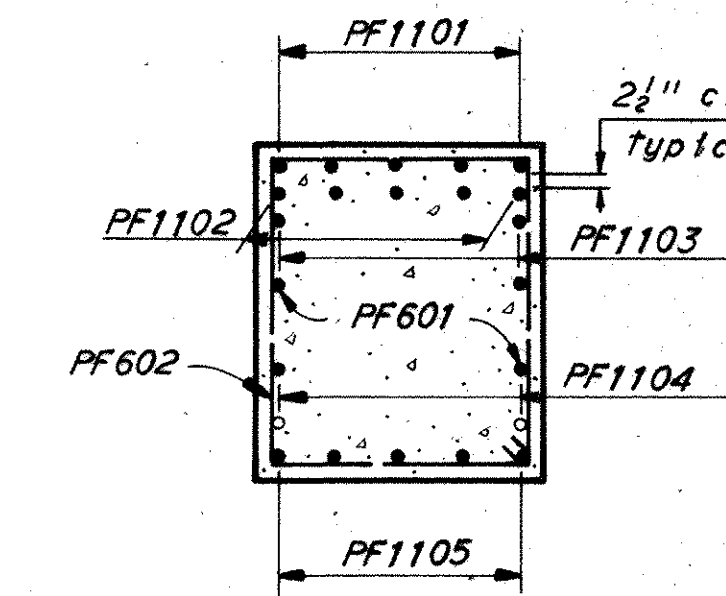
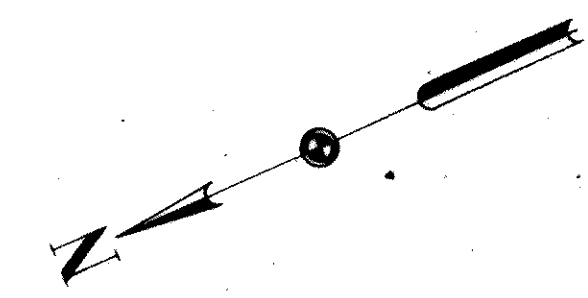
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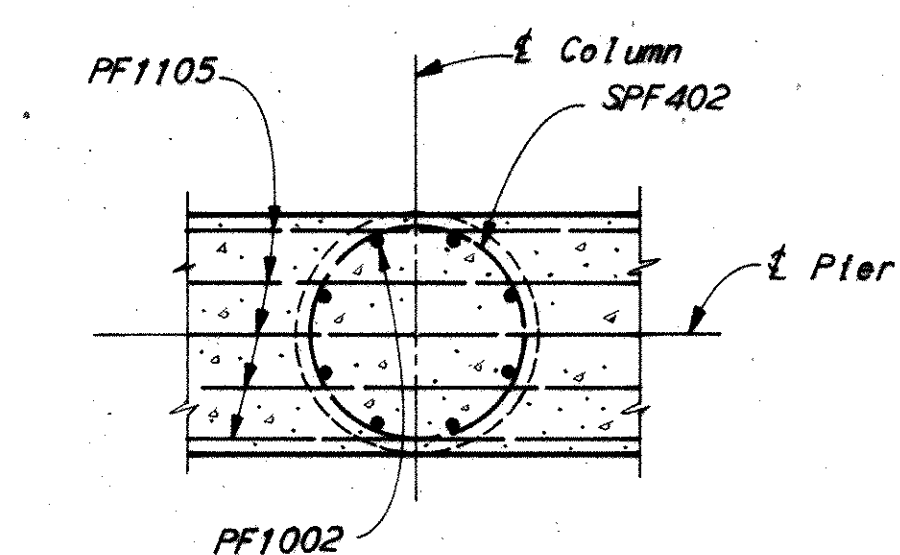
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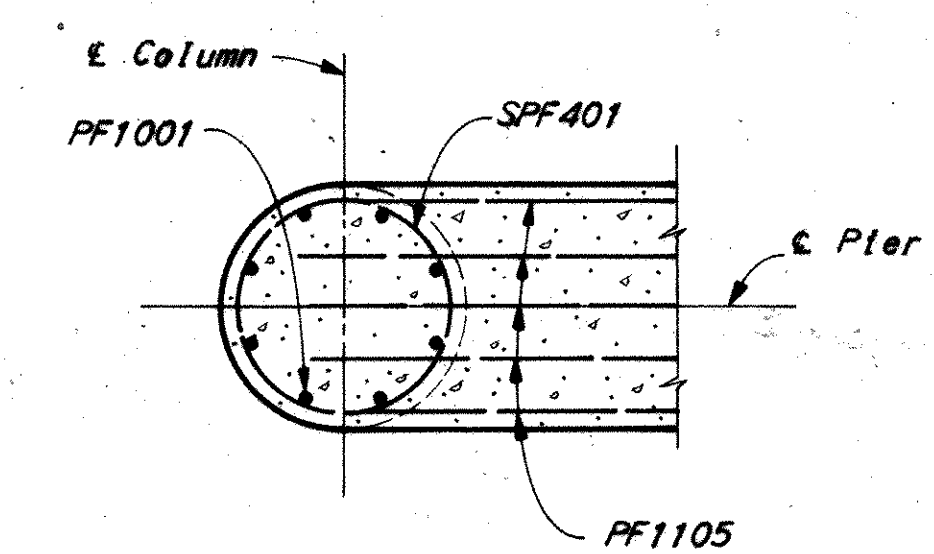
FOOTING PLAN



SECTION A-A



SECTION C-C



SECTION B-B

Notes:  
 PF501, PF502 and PF503 bars shall be placed  $2\frac{1}{2}$ " below top of cap beam.  
 For reinforcement schedule see Sheet 13/14  
 For girder angles see Sheet 9/14  
 e.f. denotes each face.  
 All stirrups within 4 feet of e of columns shall be placed with hooks in the bottom of cap beams. All other stirrups shall be placed with hooks in the top.

Note:  
 1" Preformed Expansion Joint Filler (Item 516) shall be placed at the interface between the pier columns and the concrete slope protection. Included with Concrete Slope Protection for payment.

| FED. ROAD DIV. NO. | STATE | FEDERAL AID PROJECT NO. | TYPE FUNDS |
|--------------------|-------|-------------------------|------------|
| 2                  | OHIO  |                         |            |

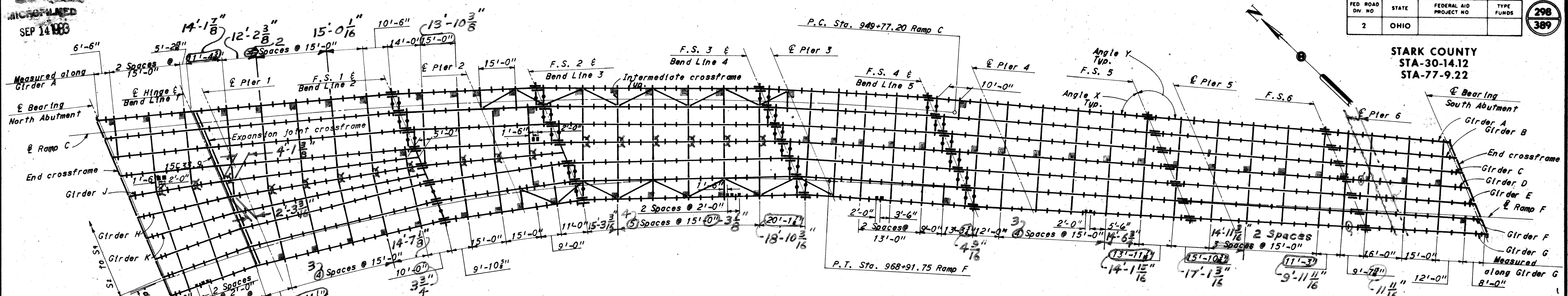
STARK COUNTY  
 STA-30-14.12  
 STA-77-9.22

|                                                                                                |        |                   |               |
|------------------------------------------------------------------------------------------------|--------|-------------------|---------------|
| H.N.T.B. BRIDGE NO. 9                                                                          |        |                   |               |
| HOWARD, NEEDLES, TAMMEN & BERGENDOFF<br>CONSULTING ENGINEERS<br>KANSAS CITY CLEVELAND NEW YORK |        |                   |               |
| PIER 6<br>RAMP F AND RAMP C OVER<br>MARKET AVE. AND CLEVELAND AVE.                             |        |                   |               |
| BR. NO. STA. 30-1494                                                                           |        | STA. 966 + 03.75  |               |
| SCALE: 1/4" = 1'-0"                                                                            |        | STA. 971 + 75.00  |               |
| RELOCATED U.S. 30                                                                              |        |                   |               |
| CANTON                                                                                         |        | STARK COUNTY OHIO |               |
| DRAWN L.O.L.                                                                                   | TRACED | CHECKED D.B.S.    | REVIEWED M.H. |
| DATE 3-9-70                                                                                    | DATE   | DATE 4-27-70      | DATE 11-20-71 |

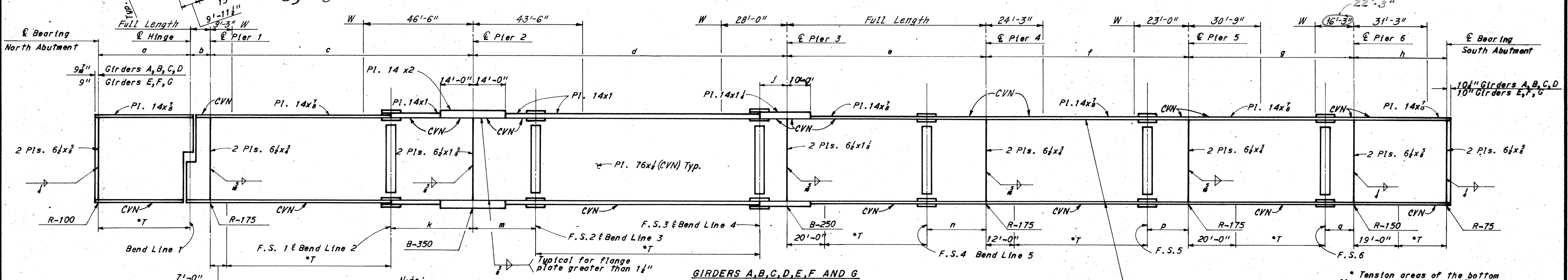
SEP 14 1968

|                       |       |                            |               |            |
|-----------------------|-------|----------------------------|---------------|------------|
| FED. ROAD<br>DIV. NO. | STATE | FEDERAL AID<br>PROJECT NO. | TYPE<br>FUNDS | 298<br>389 |
| 2                     | OHIO  |                            |               |            |

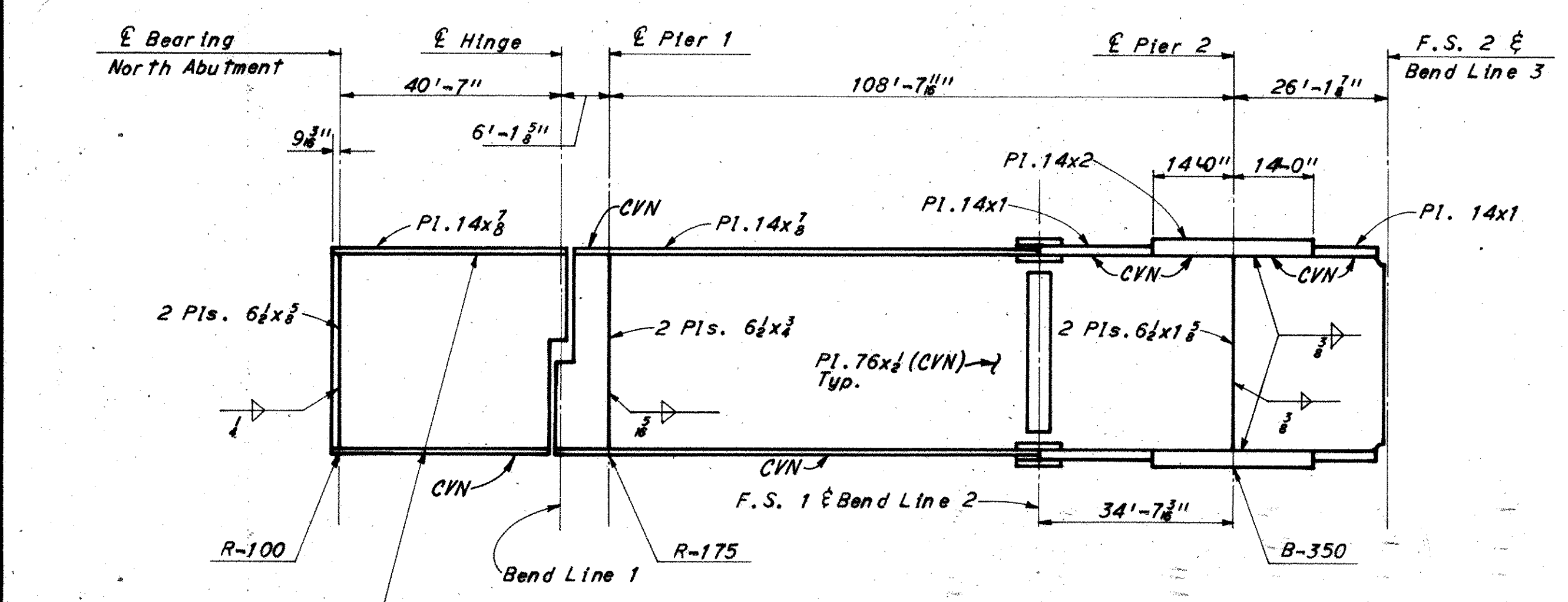
STARK COUNTY  
STA-30-14.12  
STA-77-9.22



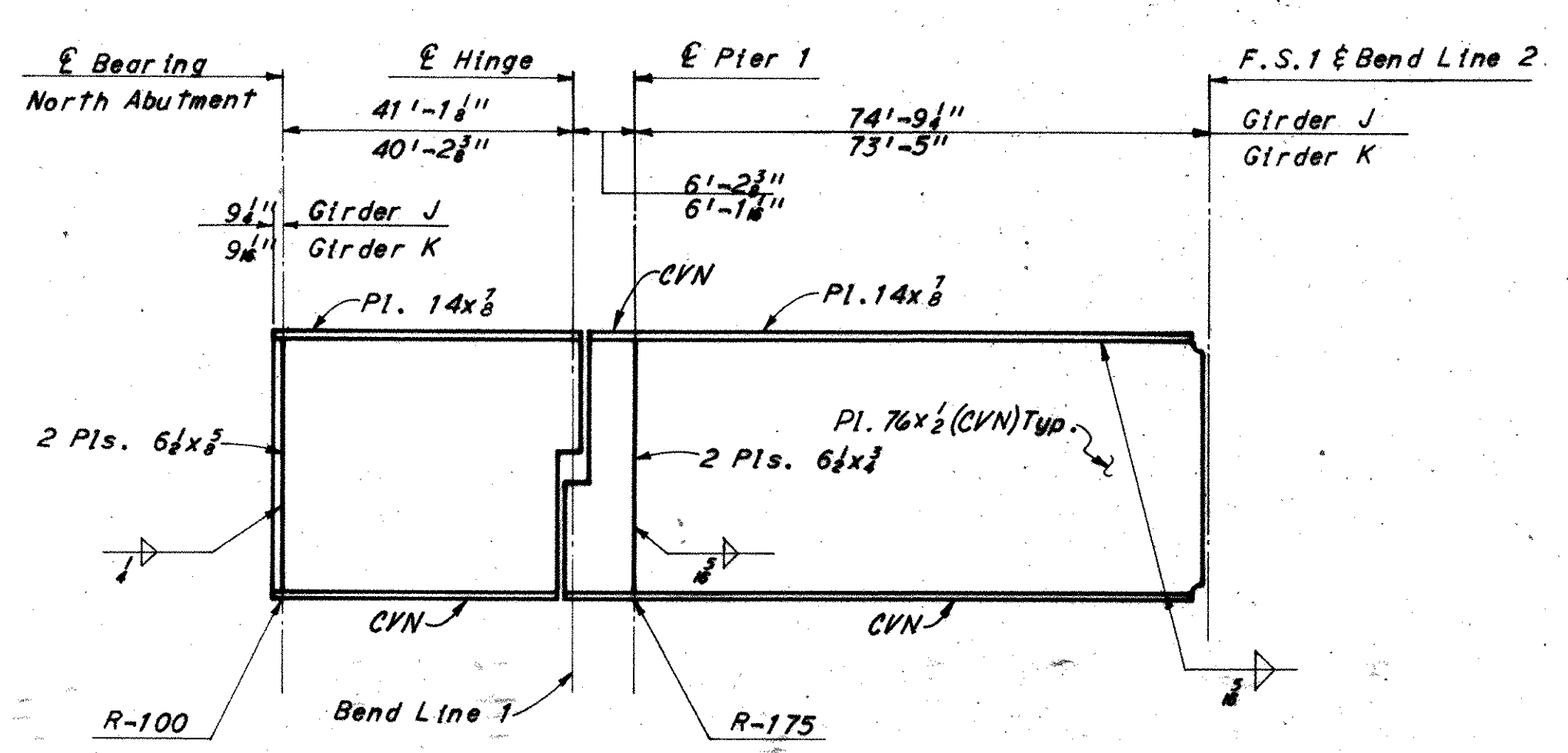
FRAMING PLAN



GIRDERS A, B, C, D, E, F AND G



GIRDER H



GIRDERS J AND K

LEGEND:  
\* Indicates crossframe direction change  
■ Indicates 90°

For notes see sheet 9/14

|                                                                                                |                        |                         |                          |
|------------------------------------------------------------------------------------------------|------------------------|-------------------------|--------------------------|
| H.N.T.B. BRIDGE NO. 9                                                                          |                        | Revised 6-11-75 By RAS  |                          |
| HOWARD, NEEDLES, TAMMEN & BERGENDOFF<br>CONSULTING ENGINEERS<br>KANSAS CITY CLEVELAND NEW YORK |                        |                         |                          |
| FRAMING PLAN                                                                                   |                        |                         |                          |
| RAMP F AND RAMP C OVER<br>MARKET AVE. AND CLEVELAND AVE.                                       |                        |                         |                          |
| BR. NO. STA. 30-1494                                                                           |                        | STA. 966+03.75          |                          |
| SCALE: NO SCALE                                                                                |                        | STA. 971+75.00          |                          |
| RELOCATED U.S. 30                                                                              |                        |                         |                          |
| CANTON                                                                                         |                        | STARK COUNTY OHIO       |                          |
| DRAWN<br>DATE 2-22-69                                                                          | TRACED<br>DATE 4-30-70 | CHECKED<br>DATE 2-22-71 | REVIEWED<br>DATE 7-20-76 |
| 1668                                                                                           |                        | 1668                    |                          |

Revised 9-21-76

RECORDED  
SEP 14 1966

| TABLE OF DIMENSIONS |             |            |             |             |            |            |             |            |            |            |            |            |            |            |             |            |
|---------------------|-------------|------------|-------------|-------------|------------|------------|-------------|------------|------------|------------|------------|------------|------------|------------|-------------|------------|
| Girder              | a           | b          | c           | d           | e          | f          | g           | h          | j          | k          | m          | n          | p          | q          | r           | s          |
| A                   | 41'-8 1/2"  | 61'-3 1/2" | 110'-9 1/2" | 134'-9 1/2" | 85'-3 1/2" | 86'-3"     | 71'-1 1/2"  | 39'-8"     | 12'-0 1/2" | 35'-2 1/2" | 26'-7 1/2" | 25'-5 1/2" | 17'-3 1/2" | 12'-2 1/2" | 77'-2 1/2"  | 33'-6 1/2" |
| B                   | 41'-8 1/2"  | 61'-3 1/2" | 110'-9 1/2" | 134'-9 1/2" | 85'-1 1/2" | 86'-0"     | 70'-10 1/2" | 39'-6 1/2" | 12'-0 1/2" | 35'-2 1/2" | 26'-7 1/2" | 25'-4 1/2" | 17'-2 1/2" | 12'-2 1/2" | 77'-11 1/2" | 33'-5 1/2" |
| C                   | 41'-8 1/2"  | 61'-3 1/2" | 110'-9 1/2" | 134'-9 1/2" | 85'-0 1/2" | 85'-9 1/2" | 70'-8 1/2"  | 39'-5 1/2" | 12'-0 1/2" | 35'-2 1/2" | 26'-7 1/2" | 25'-3 1/2" | 17'-2 1/2" | 12'-1 1/2" | 76'-9 1/2"  | 33'-4 1/2" |
| D                   | 41'-8 1/2"  | 61'-3 1/2" | 110'-9 1/2" | 134'-5 1/2" | 85'-2 1/2" | 85'-6 1/2" | 70'-5 1/2"  | 39'-5 1/2" | 12'-0 1/2" | 35'-2 1/2" | 26'-7 1/2" | 25'-2 1/2" | 17'-1 1/2" | 12'-1 1/2" | 76'-5 1/2"  | 33'-3 1/2" |
| E                   | 39'-11 1/2" | 61'-0 1/2" | 107'-0"     | 133'-0 1/2" | 85'-5"     | 85'-3 1/2" | 70'-3 1/2"  | 39'-2 1/2" | 12'-1 1/2" | 34'-1 1/2" | 25'-9 1/2" | 25'-1 1/2" | 17'-1 1/2" | 12'-0 1/2" | 76'-3 1/2"  | 33'-2 1/2" |
| F                   | 39'-11 1/2" | 61'-0 1/2" | 107'-0"     | 133'-0 1/2" | 85'-3 1/2" | 85'-0 1/2" | 70'-1 1/2"  | 39'-1 1/2" | 12'-1 1/2" | 34'-1 1/2" | 25'-9 1/2" | 25'-0 1/2" | 17'-0 1/2" | 12'-0 1/2" | 76'-1 1/2"  | 33'-1 1/2" |
| G                   | 39'-11 1/2" | 61'-0 1/2" | 107'-0"     | 133'-0 1/2" | 85'-2 1/2" | 84'-9 1/2" | 69'-10 1/2" | 39'-0"     | 12'-1 1/2" | 34'-1 1/2" | 25'-9 1/2" | 25'-0"     | 17'-0"     | 12'-0"     | 75'-10 1/2" | 33'-0"     |

| GIRDER SPACING |                 |             |            |             |            |            |             |            |            |            |            |            |            |            |                 |  |
|----------------|-----------------|-------------|------------|-------------|------------|------------|-------------|------------|------------|------------|------------|------------|------------|------------|-----------------|--|
|                | E Brg. N. Abut. | E Hinge     | E Pier 1   | F.S. 1      | E Pier 2   | F.S. 2     | F.S. 3      | E Pier 3   | F.S. 4     | E Pier 4   | F.S. 5     | E Pier 5   | F.S. 6     | E Pier 6   | E Brg. S. Abut. |  |
| S              | 71'-3 1/2"      | 61'-9 1/2"  | 71'-1 1/2" | 61'-8"      | 71'-1 1/2" | 61'-3 1/2" | 61'-10 1/2" | 71'-2"     | 81'-0 1/2" | 81'-0 1/2" | 81'-0 1/2" | 81'-0 1/2" | 81'-0 1/2" | 81'-0 1/2" | 81'-0 1/2"      |  |
| S <sub>1</sub> | 81'-6"          | 81'-6"      | 81'-6"     | 81'-6"      | 81'-6"     | 81'-6"     | 81'-6"      | 81'-5 1/2" | 81'-4 1/2" | 81'-2 1/2" | 71'-9 1/2" | 71'-8 1/2" | 71'-4 1/2" | 71'-3 1/2" | 71'-0 1/2"      |  |
| S <sub>2</sub> | 81'-6"          | 81'-6"      | 81'-6"     | 81'-6"      | 81'-6"     | 81'-6"     | 81'-6"      | 81'-5 1/2" | 81'-4 1/2" | 81'-2 1/2" | 71'-9 1/2" | 71'-8 1/2" | 71'-4 1/2" | 71'-3 1/2" | 71'-0 1/2"      |  |
| S <sub>3</sub> | 91'-3 1/2"      | 61'-11 1/2" | 61'-8 1/2" | 31'-10 1/2" | 61'-0 1/2" | 41'-8 1/2" | 71'-8 1/2"  | 71'-9 1/2" | 81'-4 1/2" | 81'-2 1/2" | 71'-9 1/2" | 71'-8 1/2" | 71'-4 1/2" | 71'-3 1/2" | 71'-0 1/2"      |  |
| S <sub>4</sub> | 91'-3 1/2"      | 61'-11 1/2" | 61'-8 1/2" | 31'-10 1/2" | 61'-0 1/2" | 41'-8 1/2" | 71'-8 1/2"  | 71'-9 1/2" | 81'-4 1/2" | 81'-2 1/2" | 71'-9 1/2" | 71'-8 1/2" | 71'-4 1/2" | 71'-3 1/2" | 71'-0 1/2"      |  |
| S <sub>5</sub> | 91'-3 1/2"      | 61'-11 1/2" | 61'-8 1/2" | 31'-10 1/2" | 81'-6"     | 81'-6"     | 81'-6"      | 81'-5 1/2" | 81'-4 1/2" | 81'-2 1/2" | 71'-9 1/2" | 71'-8 1/2" | 71'-4 1/2" | 71'-3 1/2" | 71'-0 1/2"      |  |
| S <sub>6</sub> | 91'-3 1/2"      | 61'-11 1/2" | 61'-8 1/2" | 31'-10 1/2" | 81'-6"     | 81'-6"     | 81'-6"      | 81'-5 1/2" | 81'-4 1/2" | 81'-2 1/2" | 71'-9 1/2" | 71'-8 1/2" | 71'-4 1/2" | 71'-3 1/2" | 71'-0 1/2"      |  |
| S <sub>7</sub> | 81'-6"          | 81'-6"      | 81'-6"     | 81'-6"      | 81'-6"     | 81'-6"     |             |            |            |            |            |            |            |            |                 |  |
| S <sub>8</sub> | 81'-6"          | 81'-6"      | 81'-6"     | 81'-6"      |            |            |             |            |            |            |            |            |            |            |                 |  |
| S <sub>9</sub> | 81'-6"          | 81'-6"      | 81'-6"     | 81'-6"      |            |            |             |            |            |            |            |            |            |            |                 |  |

| GIRDER ANGLES X AND Y |       |              |              |              |              |              |              |              |              |              |              |
|-----------------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                       | Angle | Girder A     | Girder B     | Girder C     | Girder D     | Girder E     | Girder F     | Girder G     | Girder H     | Girder J     | Girder K     |
| E Bearing North Abut. | Y     | 107°16'14.5" | 107°16'14.5" | 107°16'14.5" | 107°16'14.5" | 94°12'21.4"  | 94°12'21.4"  | 94°12'21.4"  | 100°52'50.8" | 104°07'13.7" | 97°34'08.8"  |
| E Hinge               | X     | 72°43'45.5"  | 72°43'45.5"  | 72°43'45.5"  | 72°43'45.5"  | 85°47'38.6"  | 85°47'38.6"  | 85°47'38.6"  | 79°07'09.2"  | 75°52'46.3"  | 82°25'51.2"  |
|                       | Y     | 108°00'55.4" | 108°00'55.4" | 108°00'55.4" | 108°00'55.4" | 99°32'38.2"  | 99°32'38.2"  | 99°32'38.2"  | 103°51'24.4" | 105°57'27.5" | 101°43'01.9" |
| E Pier 1              | X     | 71°59'04.6"  | 71°59'04.6"  | 71°59'04.6"  | 71°59'04.6"  | 80°27'21.8"  | 80°27'21.8"  | 80°27'21.8"  | 76°08'35.6"  | 74°02'32.5"  | 78°16'58.1"  |
|                       | Y     | 108°00'55.4" | 108°00'55.4" | 108°00'55.4" | 108°00'55.4" | 99°32'38.2"  | 99°32'38.2"  | 99°32'38.2"  | 103°51'24.4" | 105°57'27.5" | 101°43'01.9" |
| F.S. 1                | X     | 71°59'04.6"  | 71°59'04.6"  | 71°59'04.6"  | 71°59'04.6"  | 80°27'21.8"  | 80°27'21.8"  | 80°27'21.8"  | 76°08'35.6"  | 74°02'32.5"  | 78°16'58.1"  |
|                       | Y     | 110°24'41.4" | 110°24'41.4" | 110°24'41.4" | 110°24'41.4" | 104°51'15.2" | 104°51'15.2" | 104°51'15.2" | 107°40'32.9" |              |              |
| E Pier 2              | X     | 69°35'18.6"  | 69°35'18.6"  | 69°35'18.6"  | 69°35'18.6"  | 75°08'44.8"  | 75°08'44.8"  | 75°08'44.8"  | 72°19'27.1"  |              |              |
|                       | Y     | 110°24'41.4" | 110°24'41.4" | 110°24'41.4" | 110°24'41.4" | 104°51'15.2" | 104°51'15.2" | 104°51'15.2" | 107°40'32.9" |              |              |
| F.S. 2                | X     | 69°35'18.6"  | 69°35'18.6"  | 69°35'18.6"  | 69°35'18.6"  | 75°08'44.8"  | 75°08'44.8"  | 75°08'44.8"  | 72°19'27.1"  |              |              |
|                       | Y     | 113°09'53.0" | 113°09'53.0" | 113°09'53.0" | 113°09'53.0" | 111°44'24.3" | 111°44'24.3" | 111°44'24.3" |              |              |              |
| F.S. 3                | X     | 66°50'07.0"  | 66°50'07.0"  | 66°50'07.0"  | 67°17'02.1"  | 68°15'35.7"  | 68°15'35.7"  | 68°15'35.7"  |              |              |              |
|                       | Y     | 116°02'21.5" | 115°57'44.0" | 115°53'06.1" | 116°23'30.0" | 116°53'37.7" | 116°49'04.2" | 116°44'31.4" |              |              |              |
| E Pier 3              | X     | 63°57'38.5"  | 64°02'16.0"  | 64°06'53.9"  | 63°36'30.0"  | 63°06'22.3"  | 63°10'55.8"  | 63°15'28.6"  |              |              |              |
|                       | Y     | 116°02'21.5" | 115°57'44.0" | 115°53'06.1" | 116°23'30.0" | 116°53'37.7" | 116°49'04.2" | 116°44'31.4" |              |              |              |
| F.S. 4                | X     | 63°57'38.5"  | 64°02'16.0"  | 64°06'53.9"  | 63°36'30.0"  | 63°06'22.3"  | 63°10'55.8"  | 63°15'28.6"  |              |              |              |
|                       | Y     | 117°53'02.2" | 117°34'13.0" | 117°15'17.4" | 116°56'15.3" | 116°37'06.7" | 116°17'51.6" | 115°58'29.8" |              |              |              |
| E Pier 4              | X     | 62°06'57.8"  | 62°25'47.0"  | 62°44'42.6"  | 63°03'44.7"  | 63°22'53.3"  | 63°42'08.4"  | 64°01'30.2"  |              |              |              |
|                       | Y     | 117°53'02.2" | 117°34'13.0" | 117°15'17.4" | 116°56'15.3" | 116°37'06.7" | 116°17'51.6" | 115°58'29.8" |              |              |              |
| F.S. 5                | X     | 62°06'57.8"  | 62°25'47.0"  | 62°44'42.6"  | 63°03'44.7"  | 63°22'53.3"  | 63°42'08.4"  | 64°01'30.2"  |              |              |              |
|                       | Y     | 117°53'02.2" | 117°34'13.0" | 117°15'17.4" | 116°56'15.3" | 116°37'06.7" | 116°17'51.6" | 115°58'29.8" |              |              |              |
| E Pier 5              | X     | 62°06'57.8"  | 62°25'47.0"  | 62°44'42.6"  | 63°03'44.7"  | 63°22'53.3"  | 63°42'08.4"  | 64°01'30.2"  |              |              |              |
|                       | Y     | 117°53'02.2" | 117°34'13.0" | 117°15'17.4" | 116°56'15.3" | 116°37'06.7" | 116°17'51.6" | 115°58'29.8" |              |              |              |
| F.S. 6                | X     | 62°06'57.8"  | 62°25'47.0"  | 62°44'42.6"  | 63°03'44.7"  | 63°22'53.3"  | 63°42'08.4"  | 64°01'30.2"  |              |              |              |
|                       | Y     | 117°53'02.2" | 117°34'13.0" | 117°15'17.4" | 116°56'15.3" | 116°37'06.7" | 116°17'51.6" | 115°58'29.8" |              |              |              |
| E Pier 6              | X     | 62°06'57.8"  | 62°25'47.0"  | 62°44'42.6"  | 63°03'44.7"  | 63°22'53.3"  | 63°42'08.4"  | 64°01'30.2"  |              |              |              |
|                       | Y     | 117°53'02.2" | 117°34'13.0" | 117°15'17.4" | 116°56'15.3" | 116°37'06.7" | 116°17'51.6" | 115°58'29.8" |              |              |              |
| E Bearing South Abut. | X     | 62°06'57.8"  | 62°25'47.0"  | 62°44'42.6"  | 63°03'44.7"  | 63°22'53.3"  | 63°42'08.4"  | 64°01'30.2"  |              |              |              |

Note:  
The gutterline elevations shown have been adjusted for dead load deflections caused by the weight of concrete and wearing course and are the elevations required before the concrete deck is placed. No concrete shall be placed until the screed rails have been set for the entire bridge.

| TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS |                 |         |         |         |          |         |         |         |         |         |         |         |         |         |          |         |         |
|--------------------------------------------|-----------------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|
| Girder                                     | E Brg. N. Abut. | .25     | .50     | .75     | E Pier 1 | .1      | .2      | .3      | .4      | .5      | .6      | .7      | .8      | .9      | E Pier 2 | .25     | .50     |
| E                                          | 1042.33         | 1042.32 | 1042.34 | 1042.40 | 1042.44  | 1042.48 | 1042.54 | 1042.63 | 1042.76 | 1042.91 | 1043.10 | 1043.27 | 1043.45 | 1043.62 | 1043.79  | 1043.90 | 1044.04 |
| F                                          | 1041.63         | 1041.61 | 1041.64 | 1041.70 | 1041.75  | 1041.79 | 1041.85 | 1041.95 | 1042.08 | 1042.25 | 1042.44 | 1042.61 | 1042.80 | 1042.97 | 1043.15  | 1043.26 | 1043.37 |
| G                                          | 1040.92         | 1040.92 | 1040.94 | 1041.00 | 1041.05  | 1041.11 | 1041.20 | 1041.31 | 1041.44 | 1041.59 | 1041.78 | 1041.96 | 1042.15 | 1042.32 | 1042.51  | 1042.61 | 1042.70 |
| H                                          | 1042.74         | 1042.83 | 1043.00 | 1043.09 | 1043.20  | 1043.28 | 1043.36 | 1043.46 | 1043.56 | 1043.67 | 1043.77 | 1043.86 | 1044.00 | 1044.16 | 1044.26  | 1044.32 | 1044.40 |
| * Elevations given are at field splice.    |                 |         |         |         |          |         |         |         |         |         |         |         |         |         |          |         |         |
| Girder                                     | E Brg. N. Abut. | .25     | .50     | .75     | E Pier 1 | .25     | .50     | .75     | F. S. 1 |         |         |         |         |         |          |         |         |
| K                                          | 1043.10         | 1043.03 | 1043.00 | 1043.00 | 1042.99  | 1043.01 | 1043.11 | 1043.30 | 1043.57 |         |         |         |         |         |          |         |         |

| TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS AT GUTTERLINE |                 |         |         |         |          |         |         |         |          |         |         |         |         |         |          |         |         |         |         |
|----------------------------------------------------------|-----------------|---------|---------|---------|----------|---------|---------|---------|----------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|
|                                                          | E Brg. N. Abut. | .25     | .50     | .75     | E Pier 1 | .1      | .2      | .3      | .4       | .5      | .6      | .7      | .8      | .9      | E Pier 2 | .1      | .2      | .3      | .4      |
| Lt. Gutterline                                           | 1042.13         | 1042.41 | 1042.67 | 1042.93 | 1043.20  | 1043.47 | 1043.71 | 1043.94 | 1044.18  | 1044.38 | 1044.57 | 1044.73 | 1044.88 | 1045.05 | 1045.20  | 1045.40 | 1045.58 | 1045.76 | 1045.92 |
| Lt. Median Gutter                                        | 1041.89         | 1042.13 | 1042.37 | 1042.57 | 1042.77  | 1042.96 | 1043.14 | 1043.30 | 1043.48  | 1043.61 | 1043.76 | 1043.92 | 1044.09 | 1044.27 | 1044.47  | 1044.66 | 1044.80 | 1044.96 | 1045.13 |
| Rt. Median Gutter                                        | 1043.18         | 1043.18 | 1043.19 | 1043.21 | 1043.26  | 1043.33 | 1043.42 | 1043.51 | 1043.63  | 1043.73 | 1043.86 | 1043.98 | 1044.13 | 1044.27 | 1044.42  | 1044.59 | 1044.80 | 1045.00 | 1045.14 |
| Rt. Gutterline                                           | 1040.92         | 1040.92 | 1040.94 | 1040.98 | 1041.04  | 1041.13 | 1041.23 | 1041.35 | 1041.49  | 1041.63 | 1041.79 | 1041.95 | 1042.11 | 1042.30 | 1042.48  | 1042.70 | 1042.95 | 1043.20 | 1043.43 |
| * Elevations given are at P.C.C. of curb.                |                 |         |         |         |          |         |         |         |          |         |         |         |         |         |          |         |         |         |         |
|                                                          | E Brg. N. Abut. | .25     | .50     | .75     | E Pier 1 | .25     | .50     | .75     | E Pier 2 | .1      | .2      | .3      | .4      | .5      | .6       | .7      | .8      | .9      |         |
| Lt. Gutterline                                           | 1046.75         | 1046.97 | 1047.18 | 1047.35 | 1047.50  | 1047.66 | 1047.84 | 1048.06 | 1048.36  | 1048.65 | 1048.97 | 1049.26 | 1049.56 | 1049.72 | 1049.89  | 1050.05 | 1050.21 | 1050.37 | 1050.51 |
| Rt. Gutterline                                           | 1044.96         | 1045.36 | 1045.75 | 1046.12 | 1046.53  | 1046.94 | 1047.34 | 1047.72 | 1048.08  | 1048.37 | 1048.68 | 1048.96 | 1049.25 | 1049.43 | 1049.58  | 1049.75 | 1049.91 | 1050.07 | 1050.21 |

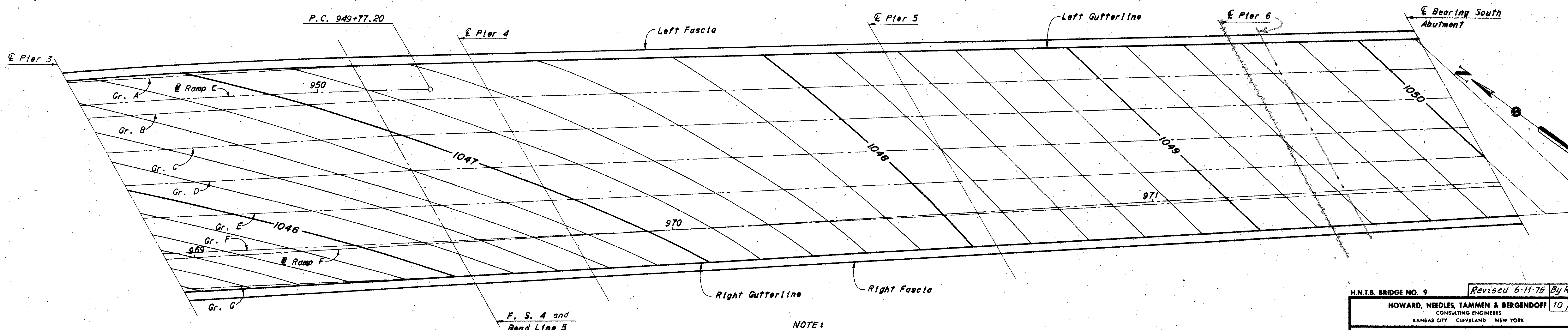
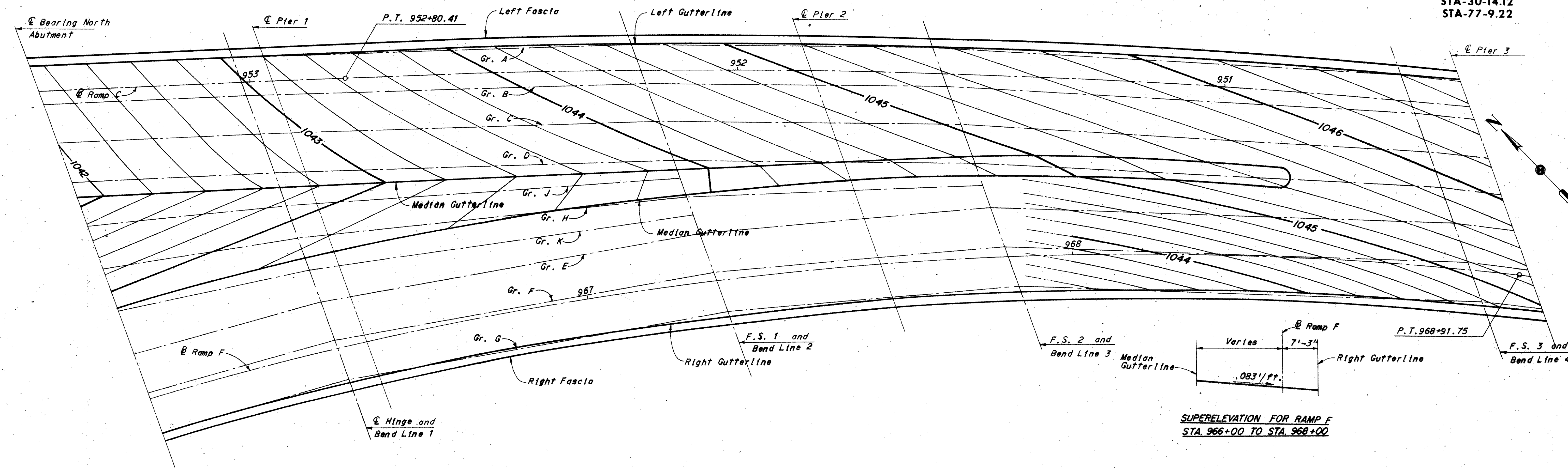
| FED. ROAD DIST. NO. | STATE | FEDERAL AID PROJECT NO. | TYPE FUNDS | 299<br>389 |
|---------------------|-------|-------------------------|------------|------------|
| 2                   | OHIO  |                         |            |            |

MICROFILMED  
SEP 14 1983

| FED. ROAD<br>DIV. NO. | STATE | FEDERAL AID<br>PROJECT NO. | TYPE<br>FUNDS |
|-----------------------|-------|----------------------------|---------------|
| 2                     | OHIO  |                            |               |

300  
389

STARK COUNTY  
STA-30-14.12  
STA-77-9.22



NOTE:  
Contour elevations are for top  
of portland cement concrete.

|                                                                                                |        |                |               |                        |  |
|------------------------------------------------------------------------------------------------|--------|----------------|---------------|------------------------|--|
| H.N.T.B. BRIDGE NO. 9                                                                          |        |                |               | Revised 6-11-75 By RAS |  |
| HOWARD, NEEDLES, TAMMEN & BERGENDOFF<br>CONSULTING ENGINEERS<br>KANSAS CITY CLEVELAND NEW YORK |        |                |               |                        |  |
| CONTOUR PLAN<br>RAMP F AND RAMP C OVER<br>MARKET AVE. AND CLEVELAND AVE.                       |        |                |               |                        |  |
| BR. NO. STA. 30-1494                                                                           |        | STA. 966+03.75 |               |                        |  |
| SCALE: 1" = 10'-0"                                                                             |        | STA. 971+75.00 |               |                        |  |
| RELOCATED U.S. 30                                                                              |        |                |               |                        |  |
| CANTON                                                                                         |        | STARK COUNTY   |               | OHIO                   |  |
| DRAWN: LDE                                                                                     | TRACED | CHECKED: RAS   | REVIEWED: MJK | DATE: 7-28-76          |  |
| DATE: 2-4-69                                                                                   | DATE:  | DATE: 4-27-70  | DATE: 1-20-71 | 1668                   |  |

SEP 14 1983

STARK COUNTY  
STA-30-14.12  
STA-77-9.22

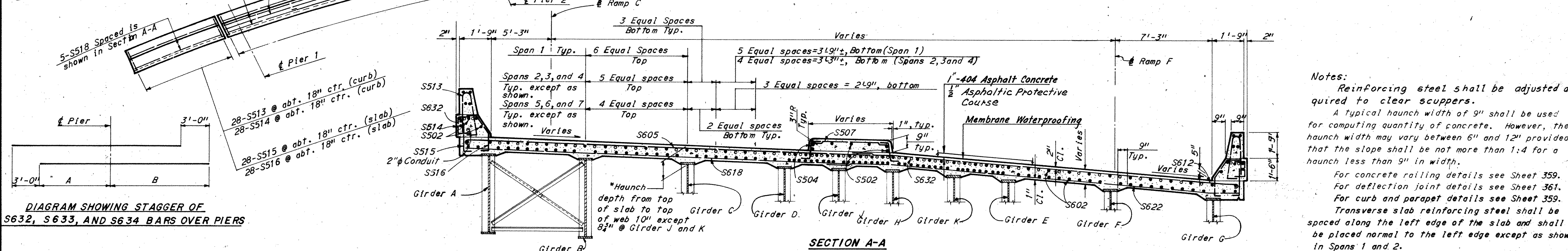
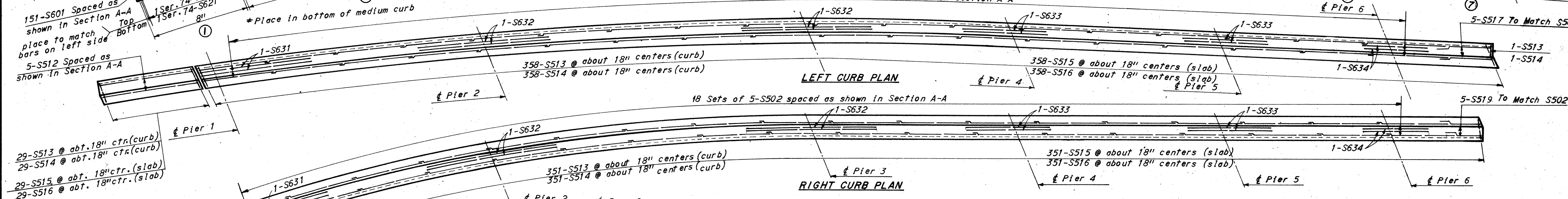
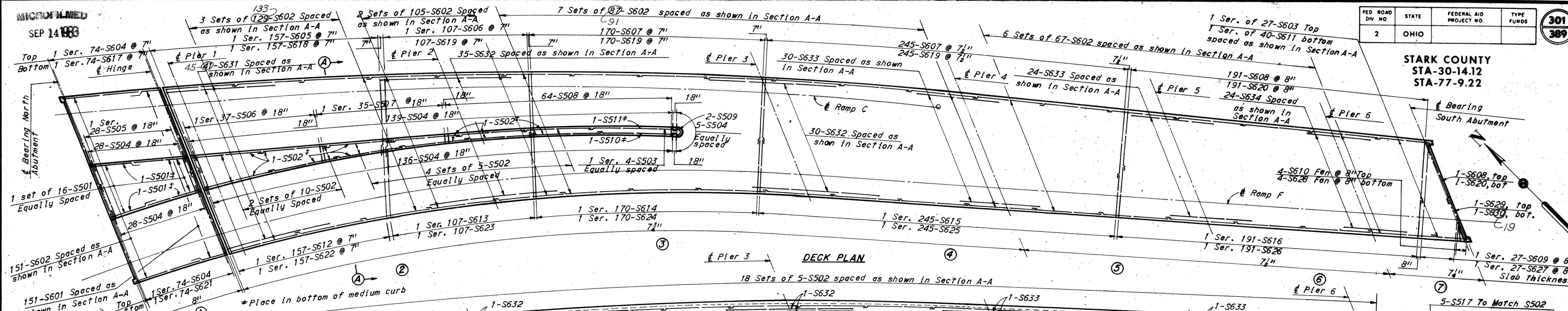
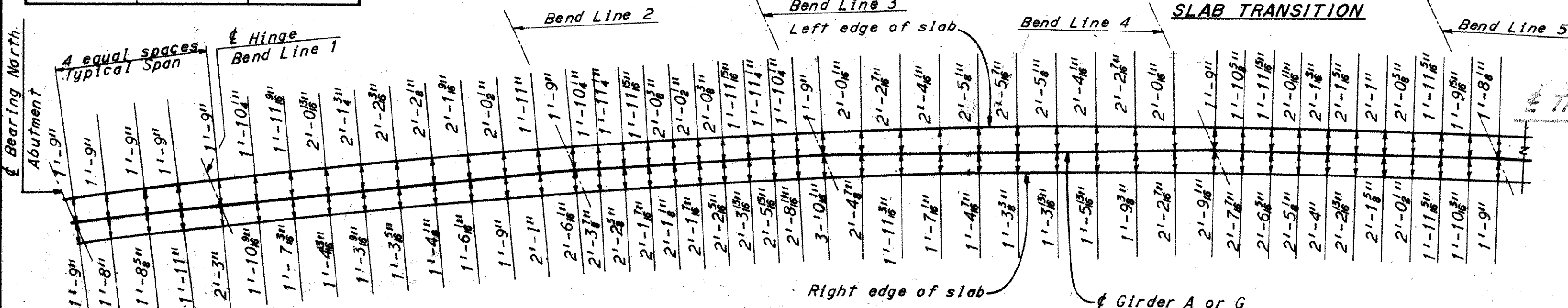


DIAGRAM SHOWING STAGGER OF  
S632, S633, AND S634 BARS OVER PIERS

|        | A         | B      |
|--------|-----------|--------|
| Pier 2 | 25'-6"    | 28'-6" |
| Pier 3 | 21'-6"    | 32'-6" |
| Pier 4 | 17'-6"    | 16'-6" |
| Pier 5 | 2'-10"-6" | 21'-6" |
| Pier 6 | 10'-6"    | 17'-6" |



HORIZONTAL SLAB OFFSETS

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

SECTION A-A

Notes:  
Reinforcing steel shall be adjusted as required to clear scuppers.

A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

For concrete railing details see Sheet 359.

For deflection joint details see Sheet 361.

For curb and parapet details see Sheet 359.

Transverse slab reinforcing steel shall be spaced along the left edge of the slab and shall be placed normal to the left edge except as shown in Spans 1 and 2.

For superelevation data see Sheet 10/14

Concrete shall be placed from the hinged joint to the North Abutment before any concrete is placed from the hinge to Pier 2.

For subdrainage details, see Sheet 365A.

\*This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 511.18 of the Construction and Materials Specifications.

H.N.T.B. BRIDGE NO. 9 Revised 6-11-75 By RAS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
KANSAS CITY CLEVELAND NEW YORK

# DECK PLAN

RAMP F AND RAMP C OVER  
MARKET AVE. AND CLEVELAND AVE.

BR. NO. STA. 30-1494 STA. 966+03.75

SCALE: 1" = 20'-0" STA. 971+75.00

RELOCATED U.S. 30

CANTON STARK COUNTY OHIO

DRAWN BY DATE 3-21-71

TRACED DATE 3-21-71

CHECKED BY DATE 3-21-71

REVIEWED BY DATE 3-21-71

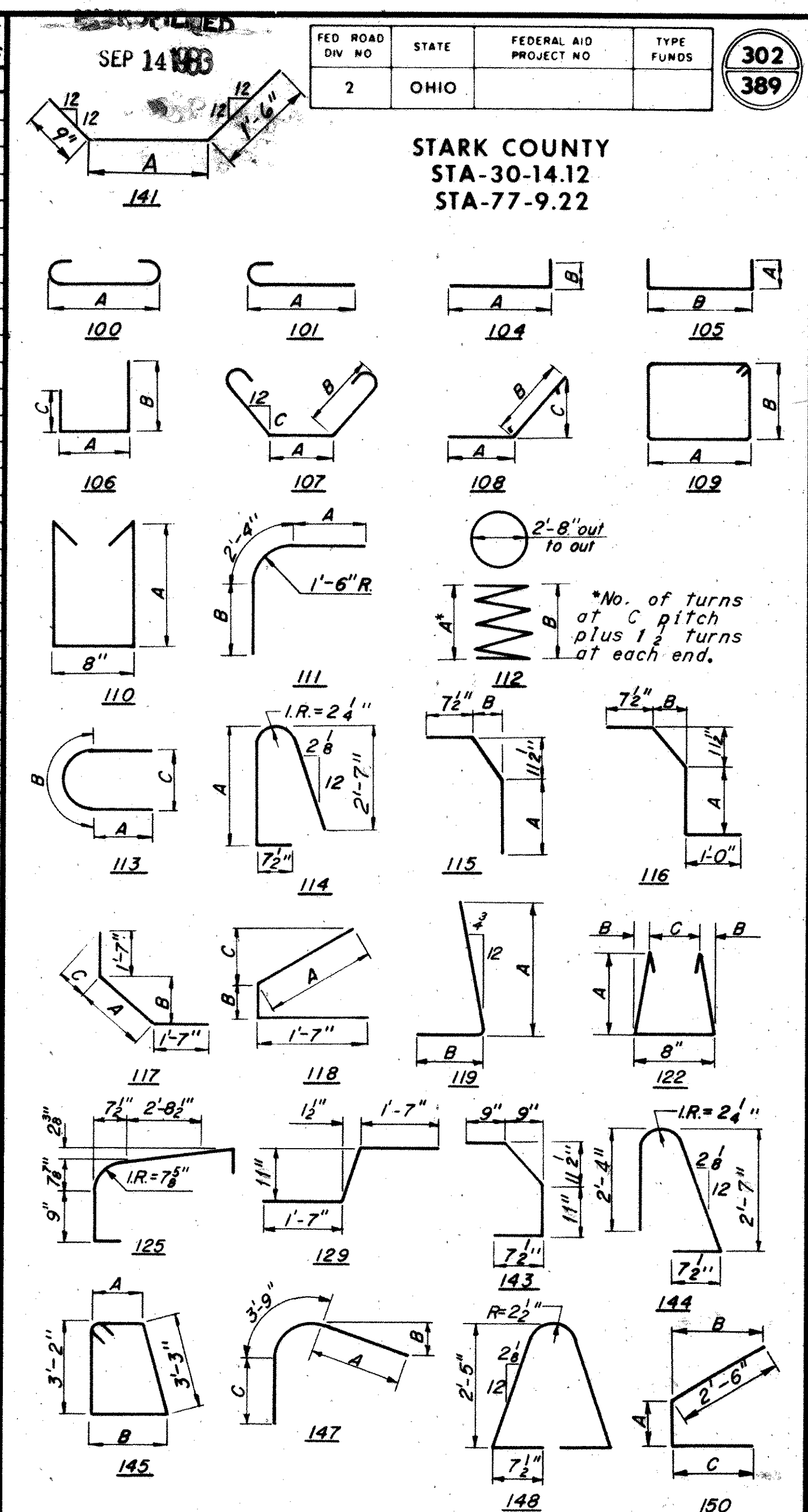
Rev. 7-20-76

Revised 4-28-77

| MARK           | NUMBER | LENGTH  | TYPE | DIMENSIONS |       |       | SERIES INCRE. | WEIGHT POUNDS |
|----------------|--------|---------|------|------------|-------|-------|---------------|---------------|
|                |        |         |      | A          | B     | C     |               |               |
| NORTH ABUTMENT |        |         |      |            |       |       |               |               |
| AA401          | 60     | 3'-5"   | 105  | 1'-0"      | 1'-8" |       |               | 137           |
|                |        |         |      |            |       |       |               |               |
|                |        |         |      |            |       |       |               |               |
|                |        |         |      |            |       |       |               |               |
| AA501          | 11     | 7'-6"   | 108  | 6'-6"      | 1'-0" | 9"    |               | 86            |
| AA502          | 11     | 3'-1"   | 104  | 1'-7"      | 1'-7" |       |               | 35            |
| AA503          | 11     | 9'-0"   | 108  | 8'-0"      | 1'-0" | 8"    |               | 103           |
| AA504          | 11     | 3'-2"   | 108  | 1'-7"      | 1'-7" | 1'-6" |               | 37            |
|                |        |         |      |            |       |       |               |               |
| AA506          | 2      | 30'-9"  | Str. |            |       |       |               | 64            |
| AA507          | 4      | 13'-3"  | 105  | 11'-6"     | 1'-0" |       |               | 55            |
|                |        |         |      |            |       |       |               |               |
|                |        |         |      |            |       |       |               |               |
| AA510          | 20     | 40'-3"  | Str. |            |       |       |               | 840           |
| AA511          | 20     | 41'-0"  | Str. |            |       |       |               | 855           |
| AA512          | 61     | 11'-2"  | 105  | 4'-0"      | 3'-5" |       | 710           | 456           |
| AA513          | 61     | 7'-5"   | 104  | 6'-6"      | 1'-0" |       |               | 472           |
| AA514          | 61     | 8'-4"   | 105  | 1'-7"      | 5'-5" |       |               | 530           |
| AA515          | 23     | 11'-6"  | 109  | 3'-0"      | 2'-6" |       |               | 276           |
| AA516          | 20     | 2'-9"   | Str. |            |       |       |               | 57            |
| AA517          | 22     | 6'-5"   | 114  | 3'-2"      |       |       |               | 147           |
| AA518          | 32     | 2'-2"   | 105  | 7'-2"      | 1'-2" |       |               | 72            |
| AA519          | 4      | 3'-6"   | Str. |            |       |       |               | 15            |
| AA520          | 2      | 4'-0"   | Str. |            |       |       |               | 8             |
| AA521          | 2      | 4'-6"   | Str. |            |       |       |               | 9             |
| AA522          | 2      | 5'-3"   | Str. |            |       |       |               | 11            |
| AA523          | 2      | 6'-0"   | Str. |            |       |       |               | 13            |
| AA524          | 20     | 9'-0"   | Str. |            |       |       |               | 188           |
| AA525          | 4      | 11'-0"  | 108  | 9'-0"      | 2'-0" | 1'-0" |               | 46            |
| AA526          | 28     | 19'-2"  | Str. |            |       |       |               | 560           |
| AA527          | 4      | 15'-0"  | Str. |            |       |       |               | 63            |
| AA528          | 4      | 12'-6"  | Str. |            |       |       |               | 52            |
| AA529          | 12     | 11'-0"  | Str. |            |       |       |               | 138           |
| AA530          | 16     | 13'-0"  | Str. |            |       |       |               | 217           |
| AA531          | 4      | 7'-0"   | Str. |            |       |       |               | 29            |
| AA532          | 4      | 15'-3"  | Str. |            |       |       |               | 64            |
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| AA601          | 61     | 14'-1"  | 106  | 5'-5"      | 6'-6" | 2'-6" |               | 1290          |
| AA602          | 80     | 19'-1"  | 105  | 9'-0"      | 1'-5" |       |               | 2300          |
| AA603          | 54     | 4'-11"  | 105  | 1'-11"     | 1'-5" |       |               | 399           |
| AA604          | 54     | 6'-7"   | 105  | 3'-0"      | 11"   |       |               | 534           |
| AA605          | 26     | 7'-1"   | 105  | 3'-0"      | 1'-5" |       |               | 277           |
| AA606          | 20     | 10'-3"  | 115  | 8'-5"      | 9"    |       |               | 308           |
| AA607          | 2      | 7'-6"   | 115  | 5'-8"      | 9"    |       |               | 23            |
| AA608          | 20     | 18'-10" | 105  | 9'-0"      | 1'-2" |       |               | 566           |
| AA609          | 2      | 7'-7"   | 104  | 6'-9"      | 1'-0" |       |               | 23            |
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| AA701          | 4      | 4'-10"  | 115  | 3'-2"      | 9"    |       |               | 40            |
|                |        |         |      |            |       |       |               |               |
| AA703          | 2      | 5'-4"   | 115  | 3'-8"      | 9"    |       |               | 22            |
| AA704          | 2      | 6'-0"   | 115  | 4'-4"      | 9"    |       |               | 25            |
| AA705          | 2      | 6'-7"   | 115  | 4'-11"     | 9"    |       |               | 27            |
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| AA801          | 14     | 43'-0"  | Str. |            |       |       |               | 1606          |
| AA802          | 2      | 18'-4"  | 104  | 16'-0"     | 2'-6" |       |               | 98            |
| AA803          | 2      | 16'-0"  | Str. |            |       |       |               | 86            |
| AA804          | 2      | 14'-0"  | Str. |            |       |       |               | 75            |
| AA805          | 2      | 18'-6"  | 108  | 16'-0"     | 2'-6" | 2'-5" |               | 99            |
| AA806          | 1      | 16'-9"  | 108  | 14'-3"     | 2'-6" | 2'-5" |               | 45            |
| AA807          | 1      | 14'-3"  | 108  | 11'-9"     | 2'-6" | 2'-5" |               | 38            |
| AA808          | 2      | 14'-0"  | 108  | 11'-6"     | 2'-6" | 2'-5" |               | 75            |
|                |        |         |      |            |       |       |               |               |
| DA801          | 19     | 5'-2"   | 141  | 3'-1"      |       |       |               | 262           |
| DB801          | 19     | 5'-3"   | 141  | 3'-2"      |       |       |               | 266           |
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| MARK           | NUMBER      | LENGTH           | TYPE | DIMENSIONS     |        |        | SERIES INCR. | WEIGHT POUNDS |
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| SOUTH ABUTMENT |             |                  |      |                |        |        |              |               |
| AB401          | 42          | 3'-5"            | 105  | 1'-0"          | 1'-8"  |        |              | 96            |
|                |             |                  |      |                |        |        |              |               |
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| AB501          | 11          | 6'-6"            | 108  | 5'-6"          | 1'-0"  | 11"    |              | 75            |
| AB502          | 8           | 4'-7"            | 118  | 2'-7"          | 6"     | 8"     |              | 38            |
| AB503          | 4           | 4'-4"            | 118  | 1'-7"          | 1'-3"  | 8"     |              | 18            |
| AB504          | 11          | 9'-3"            | 108  | 8'-3"          | 1'-0"  | 8"     |              | 106           |
| AB505          | 12          | 3'-2"            | 108  | 1'-7"          | 1'-7"  | 1'-5"  |              | 40            |
| AB506          | 21          | 44'-6"           | Str. |                |        |        |              | 975           |
| AB507          | 31          | 8'-4"            | 105  | 1'-7"          | 5'-5"  |        |              | 270           |
| AB508          | 31          | 7'-5"            | 104  | 6'-6"          | 1'-0"  |        |              | 240           |
| AB509          | 31          | 7'-0"            | 105  | 1'-11"         | 3'-5"  |        |              | 226           |
| AB510          | 14          | 11'-6"           | 109  | 3'-0"          | 2'-6"  |        |              | 168           |
| AB511          | 1 ser. of 4 | 15'-6"           | 109  | 3'-3" to 5'-0" | 2'-6"  |        | 7"           | 58            |
| AB512          | 1           | 12'-4"           | 109  | 3'-6"          | 2'-6"  |        |              | 13            |
| AB513          | 12          | 8'-3"            | Str. |                |        |        |              | 103           |
| AB514          | 2 Ser. of 7 | 7'-7" to 3'-10"  | Str. |                |        |        | 7 1/2"       | 83            |
| AB515          | 4           | 3'-0"            | Str. |                |        |        |              | 13            |
| AB516          | 6           | 6'-6"            | 104  | 5'-7"          | 1'-0"  |        |              | 41            |
| AB517          | 4           | 18'-4"           | 108  | 6'-10"         | 11'-6" | 4'-9"  |              | 77            |
| AB518          | 4           | 3'-7"            | 108  | 1'-7"          | 2'-0"  | 9"     |              | 15            |
| AB519          | 24          | 22'-8"           | Str. |                |        |        |              | 570           |
| AB520          | 4 Ser. of 5 | 17'-3" to 9'-0"  | Str. |                |        |        | 2'-0 1/2"    | 274           |
| AB521          | 8           | 8'-6"            | Str. |                |        |        |              | 71            |
| AB522          | 8           | 9'-6"            | Str. |                |        |        |              | 79            |
| AB523          | 26          | 6'-5"            | 114  | 3'-2"          |        |        |              | 174           |
| AB524          | 20          | 2'-9"            | Str. |                |        |        |              | 57            |
| AB525          | 36          | 2'-2"            | 105  | 7 1/2"         | 1'-2"  |        |              | 81            |
|                |             |                  |      |                |        |        |              |               |
|                |             |                  |      |                |        |        |              |               |
| AB528          | 4           | 17'-0"           | Str. |                |        |        |              | 71            |
| AB529          | 4           | 7'-0"            | Str. |                |        |        |              | 29            |
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| AB601          | 31          | 14'-3"           | 106  | 5'-5"          | 6'-6"  | 2'-8"  |              | 664           |
| AB602          | 44          | 16'-5"           | 105  | 7'-8"          | 1'-5"  |        |              | 1087          |
| AB603          | 44          | 4'-11"           | 105  | 1'-11"         | 1'-5"  |        |              | 325           |
| AB604          | 44          | 6'-7"            | 105  | 3'-0"          | 11"    |        |              | 435           |
|                |             |                  |      |                |        |        |              |               |
| AB606          | 8           | 6'-10"           | 100  | 5'-6"          |        |        |              | 82            |
| AB607          | 8           | 2'-6"            | Str. |                |        |        |              | 30            |
| AB608          | 6           | 18'-6"           | 105  | 8'-10"         | 1'-2"  |        |              | 167           |
| AB609          | 6           | 19'-2"           | 105  | 9'-2"          | 1'-2"  |        |              | 173           |
| AB610          | 12          | 10'-3"           | 115  | 8'-5"          | 9"     |        |              | 185           |
| AB611          | 2 Ser. of 7 | 5'-10" to 9'-10" | 115  | 4'-2" to 8'-2" | 9"     |        | 8"           | 165           |
| AB612          | 1           | 16'-0"           | 109  | 5'-3"          | 2'-6"  |        |              | 24            |
| AB613          | 1           | 7'-10"           | 104  | 7'-0"          | 1'-0"  |        |              | 12            |
| AB614          | 1           | 7'-6"            | 104  | 6'-8"          | 1'-0"  |        |              | 11            |
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| AB701          | 4           | 4'-9"            | 115  | 3'-1"          | 9"     |        |              | 39            |
| AB703          | 6           | 7'-11"           | 116  | 5'-5"          | 9"     |        |              | 97            |
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| DC801          | 26          | 5'-4"            | 141  | 3'-3"          |        |        |              | 370           |
|                |             |                  |      |                |        |        |              |               |
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| AB801          | 7           | 44'-9"           | Str. |                |        |        |              | 836           |
| AB802          | 2           | 8'-0"            | Str. |                |        |        |              | 43            |
| AB803          | 2           | 12'-6"           | Str. |                |        |        |              | 67            |
| AB804          | 2           | 17'-7"           | 150  | 2'-9"          | 1'-3"  | 12'-6" |              | 94            |
| AB805          | 2           | 9'-6"            | 108  | 7'-0"          | 2'-6"  | 2'-3"  |              | 51            |
| AB806          | 1           | 11'-0"           | 108  | 8'-6"          | 2'-6"  | 2'-3"  |              | 29            |
| AB807          | 1           | 12'-0"           | 108  | 9'-6"          | 2'-6"  | 2'-3"  |              | 32            |
| AB808          | 2           | 14'-0"           | 108  | 11'-6"         | 2'-6"  | 2'-3"  |              | 75            |
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| MARK   | NUMBER | LENGTH  | TYPE | DIMENSIONS |         |        | SERIES INCR. | WEIGH POUND |
|--------|--------|---------|------|------------|---------|--------|--------------|-------------|
|        |        |         |      | A          | B       | C      |              |             |
| PIER 1 |        |         |      |            |         |        |              |             |
| SPA401 | 1      | 396'-3" | 112  | 48.0       | 17'-0"  | 4 1/2" |              | 319         |
| SPA402 | 1      | 394'-5" | 112  | 47.8       | 16'-11" | 4 1/2" |              | 316         |
| SPA403 | 1      | 390'-9" | 112  | 47.3       | 16'-9"  | 4 1/2" |              | 315         |
| SPA404 | 1      | 385'-3" | 112  | 46.7       | 16'-6"  | 4 1/2" |              | 310         |
| SPA405 | 1      | 368'-9" | 112  | 44.7       | 15'-9"  | 4 1/2" |              | 297         |
| SPA406 | 1      | 350'-0" | 112  | 42.4       | 14'-11" | 4 1/2" |              | 282         |
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| PA501  | 64     | 4'-5"   | 105  | 1'-0"      | 2'-8"   |        |              | 295         |
| PA502  | 2      | 3'-11"  | 105  | 1'-0"      | 2'-2"   |        |              | 8           |
| PA503  | 2      | 2'-9"   | 105  | 1'-0"      | 1'-0"   |        |              | 6           |
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| PA601  | 8      | 7'-11"  | 113  | 1'-11"     | 4'-1"   | 2'-7"  |              | 95          |
| PA602  | 8      | 6'-2"   | 105  | 1'-11"     | 2'-8"   |        |              | 74          |
| PA603  | 4      | 35'-3"  | Str. |            |         |        |              | 212         |
| PA604  | 4      | 33'-6"  | Str. |            |         |        |              | 201         |
| PA605  | 24     | 12'-2"  | 109  | 2'-8"      | 3'-2"   |        |              | 438         |
| PA606  | 6      | 12'-8"  | 109  | 2'-8"      | 3'-5"   |        |              | 114         |
| PA607  | 9      | 12'-4"  | 109  | 2'-8"      | 3'-3"   |        |              | 167         |
| PA608  | 80     | 6'-6"   | Str. |            |         |        |              | 780         |
| PA609  | 11     | 13'-2"  | 109  | 2'-8"      | 3'-8"   |        |              | 218         |
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| PA801  | 44     | 41'-0"  | Str. |            |         |        |              | 4820        |
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| PA1001 | 8      | 20'-3"  | Str. |            |         |        |              | 697         |
| PA1002 | 24     | 20'-0"  | Str. |            |         |        |              | 2068        |
| PA1003 | 5      | 33'-6"  | Str. |            |         |        |              | 720         |
| PA1004 | 48     | 6'-9"   | 104  | 6'-0"      | 1'-0"   |        |              | 1395        |
| PA1005 | 8      | 18'-9"  | Str. |            |         |        |              | 645         |
| PA1006 | 8      | 18'-0"  | Str. |            |         |        |              | 620         |
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| PA1101 | 5      | 38'-9"  | 104  | 36'-0"     | 3'-0"   |        |              | 1030        |
| PA1102 | 5      | 35'-3"  | Str. |            |         |        |              | 939         |
| PA1103 | 4      | 11'-0"  | Str. |            |         |        |              | 234         |
| PA1104 | 5      | 36'-3"  | 104  | 33'-6"     | 3'-0"   |        |              | 965         |
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H.N.T.B. BRIDGE NO. 9 Revised 6-11-75 By RAS

HOWARD, NEEDLES, TAMMEN & BERGENDORFF CONSULTING ENGINEERS KANSAS CITY CLEVELAND NEW YORK 12/14

REINFORCEMENT SCHEDULE

RAMP F AND RAMP C OVER  
MARKET AVE. AND CLEVELAND AVE.  
BR. NO. STA. 30-1494 STA. 966 + 03.75  
SCALE: STA. 971 + 75.00

RELOCATED U.S. 30

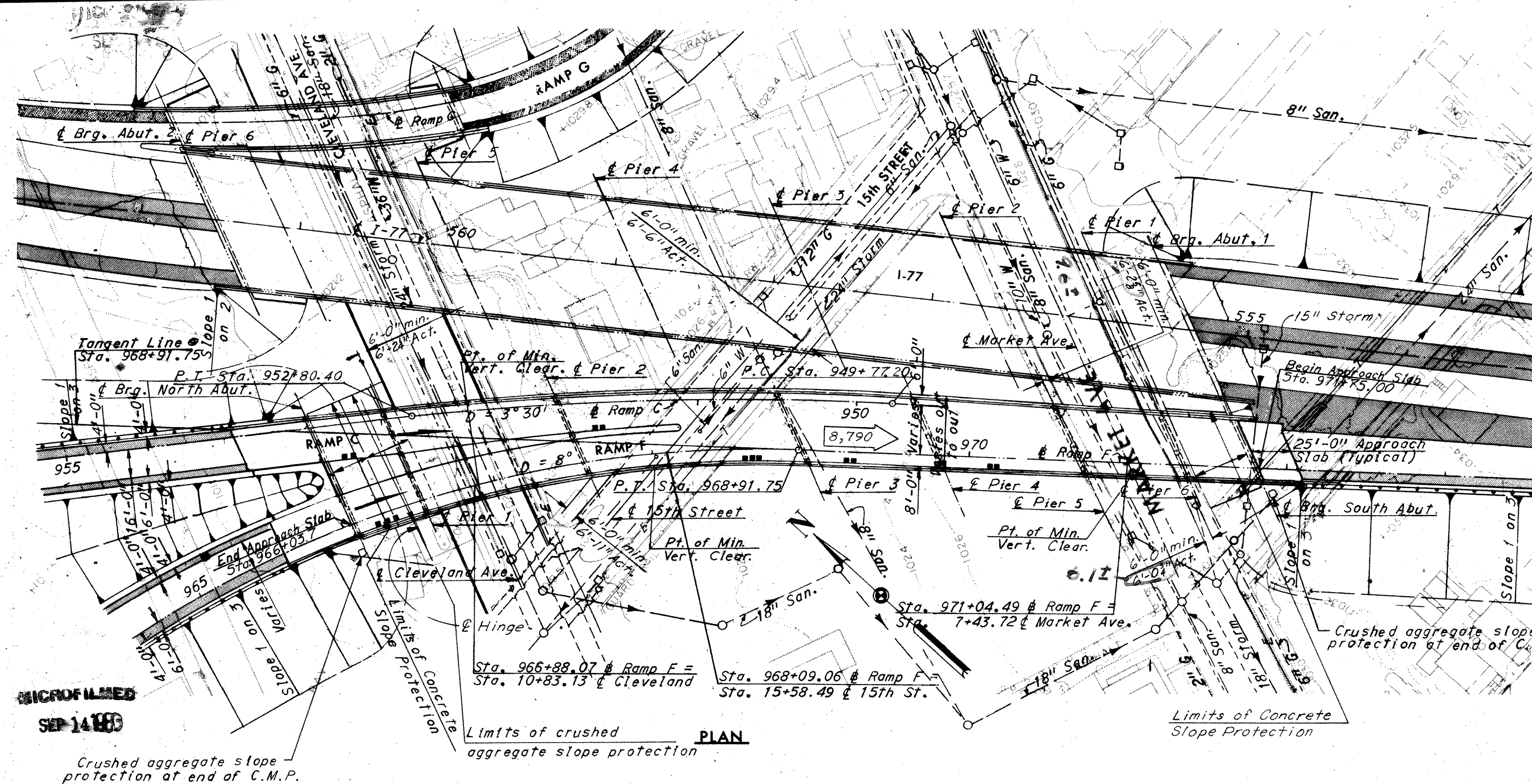
CANTON STARK COUNTY OHIO

DRAWN DGS TRACED DATE 6-29-70 CHECKED DWB DATE 7-7-70 REVIEWED MTX DATE 7-20-71 REVISIONS 1668





STARK COUNTY  
STA-30-14.12  
STA-77-9.22



MICROFILMED  
SEP-14-1983

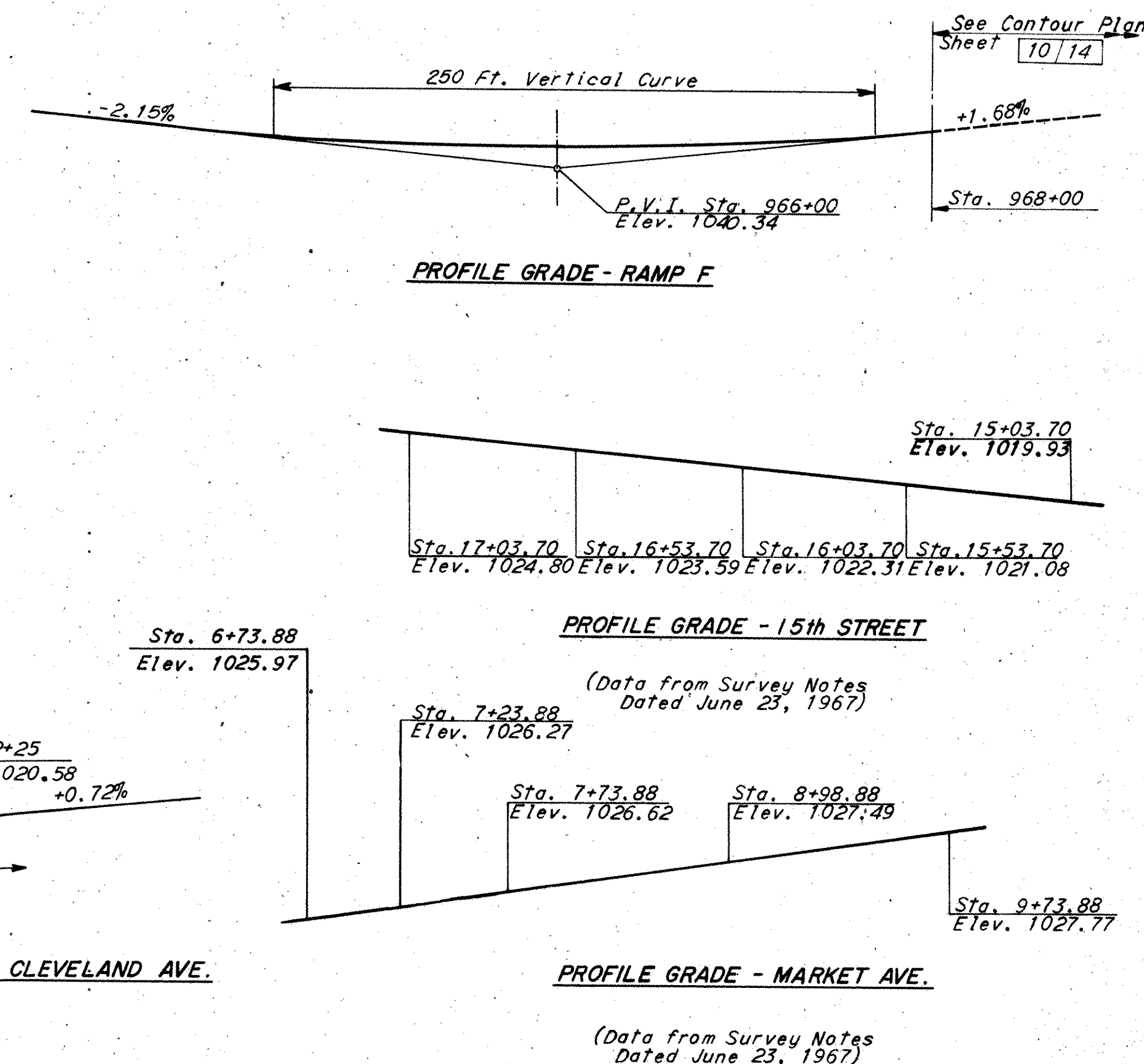
NOTE: Profile grade is at the top of Portland Cement Concrete on the bridge deck and approach slabs. The Contractor shall in a length of 75 feet, make a vertical adjustment in the finished surface of the approach roadway in order to provide a 1/2 inch vertical transition to the higher asphalt concrete roadway surface on the structure and approach slabs.

| EXISTING<br>UTILITY LEGEND |                               |
|----------------------------|-------------------------------|
| 4" G2                      | GAS                           |
| 4" W7                      | WATER                         |
| 16" Storm                  | STORM SEWER                   |
| 8" San                     | SANITARY SEWER                |
| T                          | TELEPHONE                     |
| E                          | POWER LINES                   |
| 4W-E4KV                    | 4 WIRE, PRIMARY<br>4 KILOVOLT |
| 3W-E3                      | 3 WIRE, SECONDARY             |
| W                          | WATER HYDRANT                 |
| o                          | MANHOLE                       |
| □                          | CATCH BASIN                   |

Notes:  
The following items are not included in the bridge plans see roadway plans for details:  
1. Relocation or removal of existing utilities  
2. Approach grading, pavements and slabs.  
3. Guardrails  
■ Denotes Standard Scuppers.  
8,790 Denotes 1987 one way average daily traffic.  
Earthwork limits shown are schematic. Actual slopes shall conform to plan-cross-sections.  
For information not shown see General Plan Sheet 2/14.  
For Estimated Quantities, see Sheet 365C.

HORIZONTAL CURVE DATA

| RAMP F               | RAMP C               |
|----------------------|----------------------|
| P.I. Sta. 966+19.348 | P.I. Sta. 951+29.236 |
| D = 8°00'00.0"       | D = 3°30'00.0"       |
| Δ = 46°16'32.0" Rt.  | Δ = 10°36'44.3" Lt.  |
| R = 716.197          | R = 1637.022         |
| T = 306.042          | T = 152.040          |
| L = 578.444          | L = 303.209          |



**PROPOSED STRUCTURE RAMP F**  
Type: Continuous Welded Girder with Reinforced Concrete Slab.  
Spans: 46.0', 107.0', 133.0', 84.8', 84.8', 75.9', 33.0' (39.0') = 564'-6" Ctr. to Ctr. End Bearing along RAMP F.  
Roadway: Varies; 78.0'± to 39.5'± Face to face of parapets.  
Loading: HS20-44  
Skews: 64°01'30.4" to Tangent Line at Sta. 968+91.75 RAMP F, Rt.  
Wearing Surface: 1 1/2" Asphalt Concrete  
Approach Slab: AS-1-72 (25' Long) (Modified)  
Alignment: 8200' Curve to tangent on RAMP F  
Modify Std. Drwg. AS-1-72 by providing 3" Clear over the top rebars instead of the 2" shown on the Std. Drwg. The jacking holes as called for on Std. Drwg. AS-1-72 are not required.  
H.N.T.S. BRIDGE NO. 9

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
KANSAS CITY CLEVELAND NEW YORK

SITE PLAN

RAMP F AND RAMP C OVER  
MARKET AVE. AND CLEVELAND AVE.

BR. NO. STA. 30-1494 STA. 966+03.75  
SCALE: 1" = 50'-0" STA. 971+75.00

RELOCATED U.S. 30

CANTON STARK COUNTY OHIO

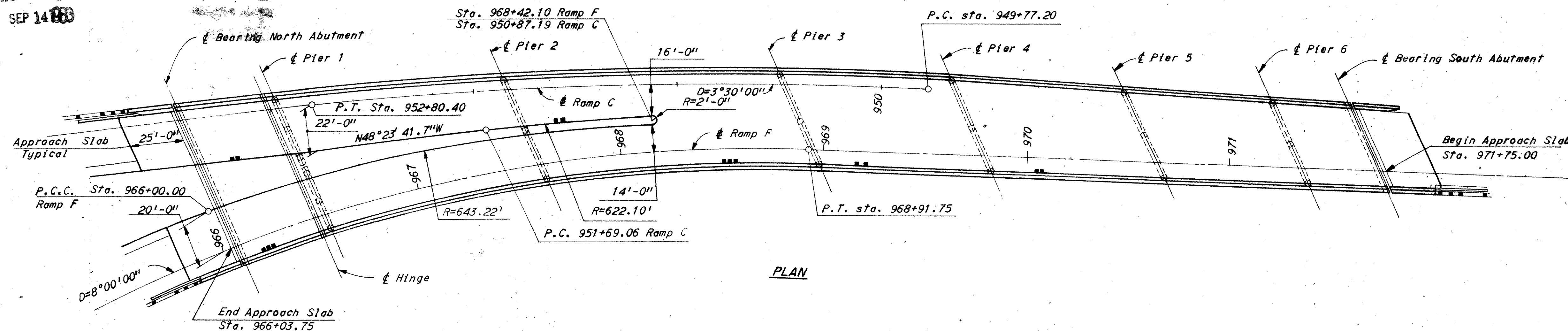
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| DRAWN/DL      | TRACED | CHECKED       | REVIEWED       | REVISED        |
| DATE: 1-22-70 | DATE   | DATE: 5-15-70 | DATE: 11-20-70 | DATE: 10-29-76 |

Revised 7-20-76 Revised 6-11-75 By RAS

SEP 14 1983

| FED. ROAD DIV. NO. | STATE | FEDERAL AID PROJECT NO. | TYPE FUNDS |
|--------------------|-------|-------------------------|------------|
| 2                  | OHIO  |                         |            |

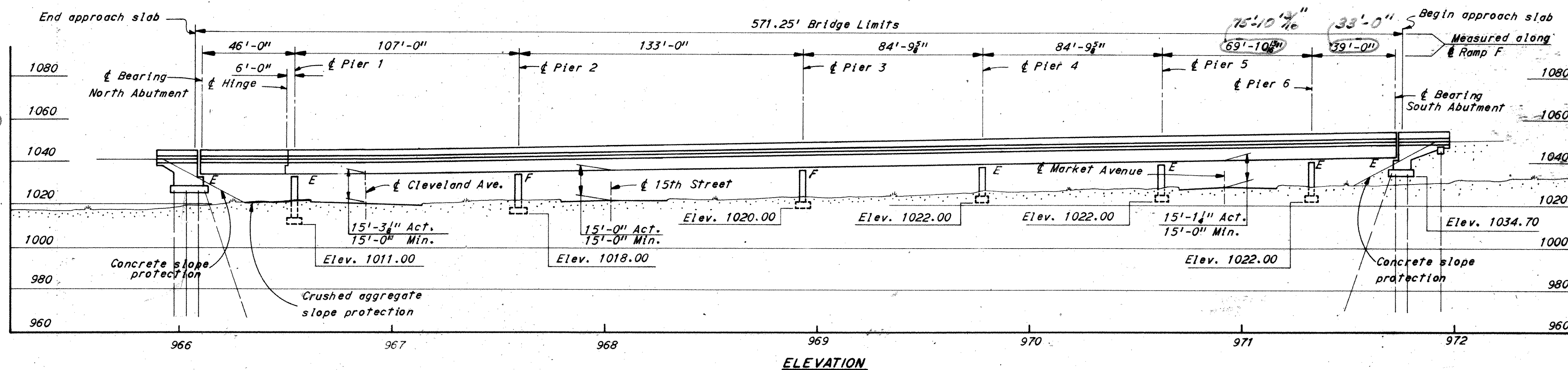
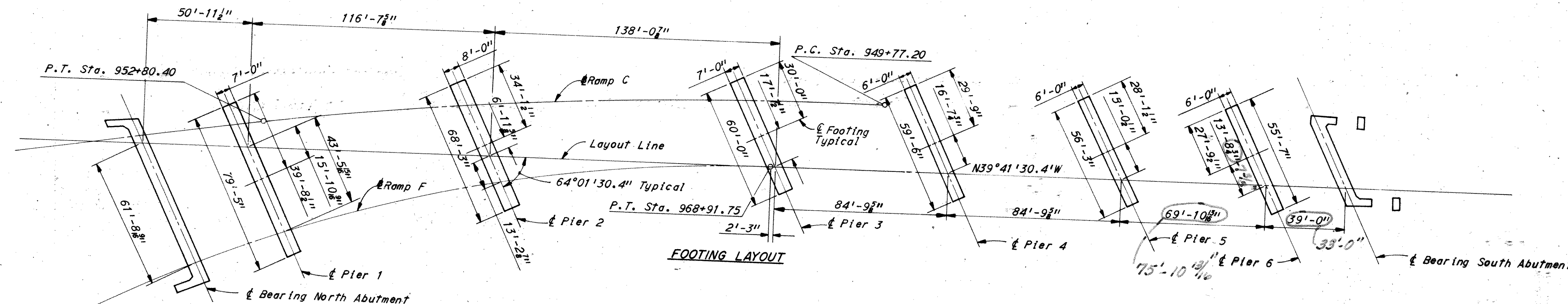
STARK COUNTY  
STA-30-14.12  
STA-77-9.22



| ESTIMATED AVERAGE PAY LENGTH FOR PILING |     |
|-----------------------------------------|-----|
| North Abutment                          | 60' |
| South Abutment                          | 40' |

These estimates are based on boring data and are approximate only. The contractor shall assume full responsibility for length of piling selected for driving.

Notes:  
 ■ Denotes Standard Scupper  
 All piles shall be 12" cast-in-place concrete.  
 For lighting details see Lighting Plans  
 For information not shown see Site Plan, Sheet 1/14



|                                                                                                |        |                        |               |
|------------------------------------------------------------------------------------------------|--------|------------------------|---------------|
| H.N.T.B. BRIDGE NO. 9                                                                          |        | Revised 6-11-75 By RAS |               |
| HOWARD, NEEDLES, TAMMEN & BERGENDOFF<br>CONSULTING ENGINEERS<br>KANSAS CITY CLEVELAND NEW YORK |        |                        |               |
| GENERAL PLAN<br>RAMP F AND RAMP C OVER<br>MARKET AVE. AND CLEVELAND AVE.                       |        |                        |               |
| BR. NO. STA. 30-1494                                                                           |        | STA. 966+03.75         |               |
| SCALE: 1" = 30'-0"                                                                             |        | STA. 971+75.00         |               |
| RELOCATED U.S. 30                                                                              |        |                        |               |
| CANTON                                                                                         |        | STARK COUNTY OHIO      |               |
| DRAWN L.D.                                                                                     | TRACED | CHECKED D.G.S.         | REVIEWED M.F. |
| DATE 5-15-70                                                                                   | DATE   | DATE 6-17-70           | DATE 4-20-71  |
|                                                                                                |        | REVISED 7-20-76        |               |
|                                                                                                |        | 1668                   |               |

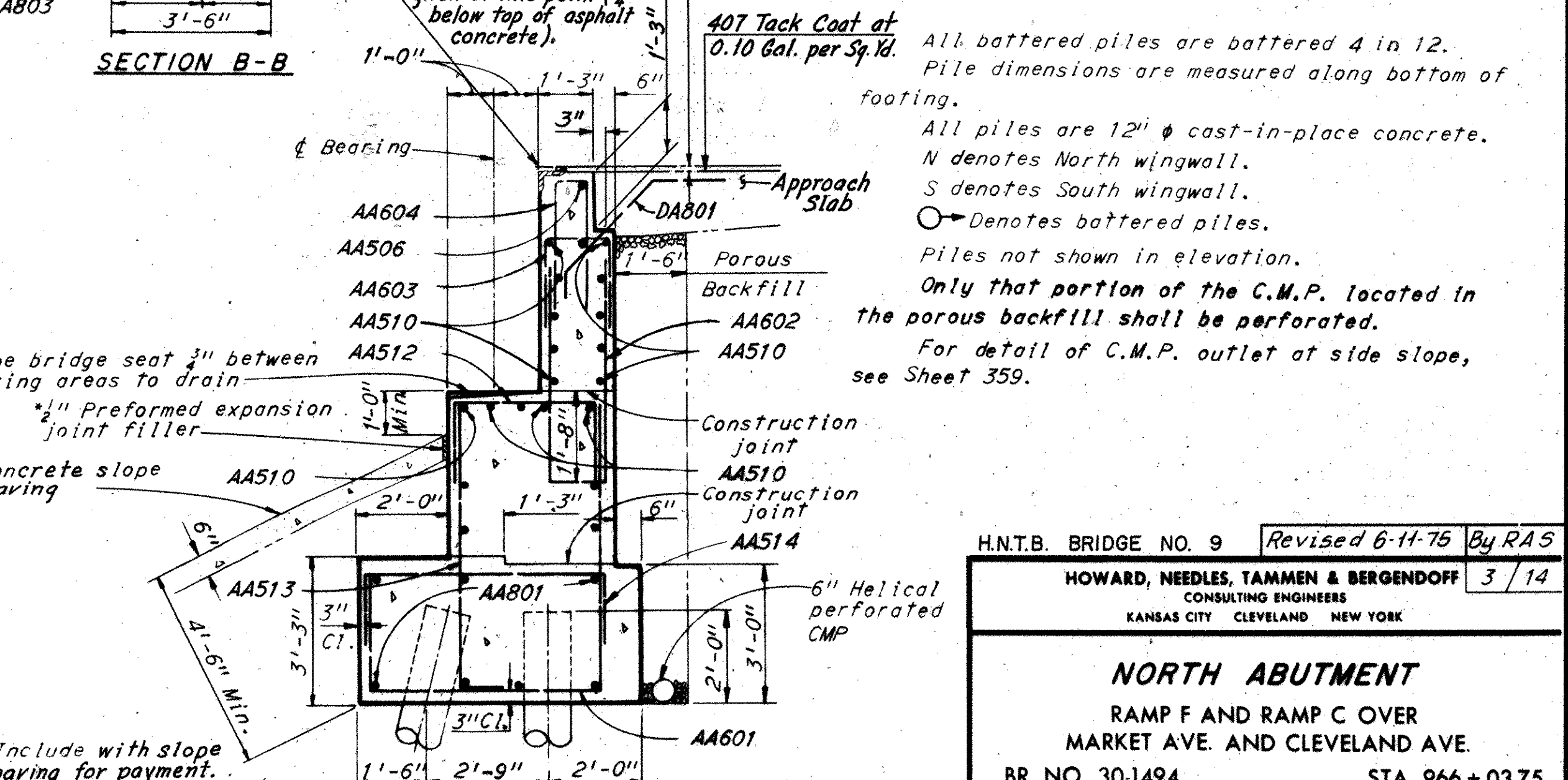
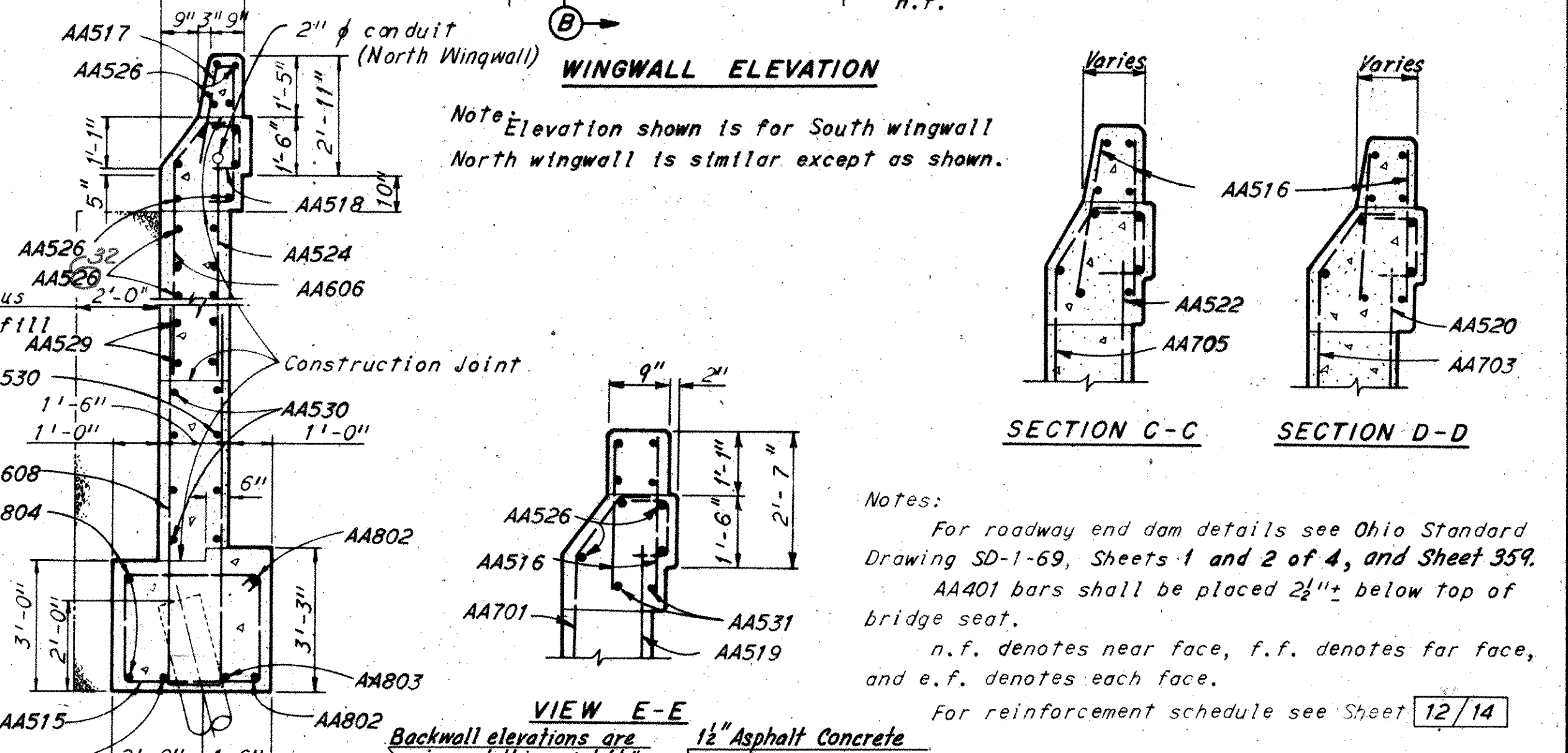
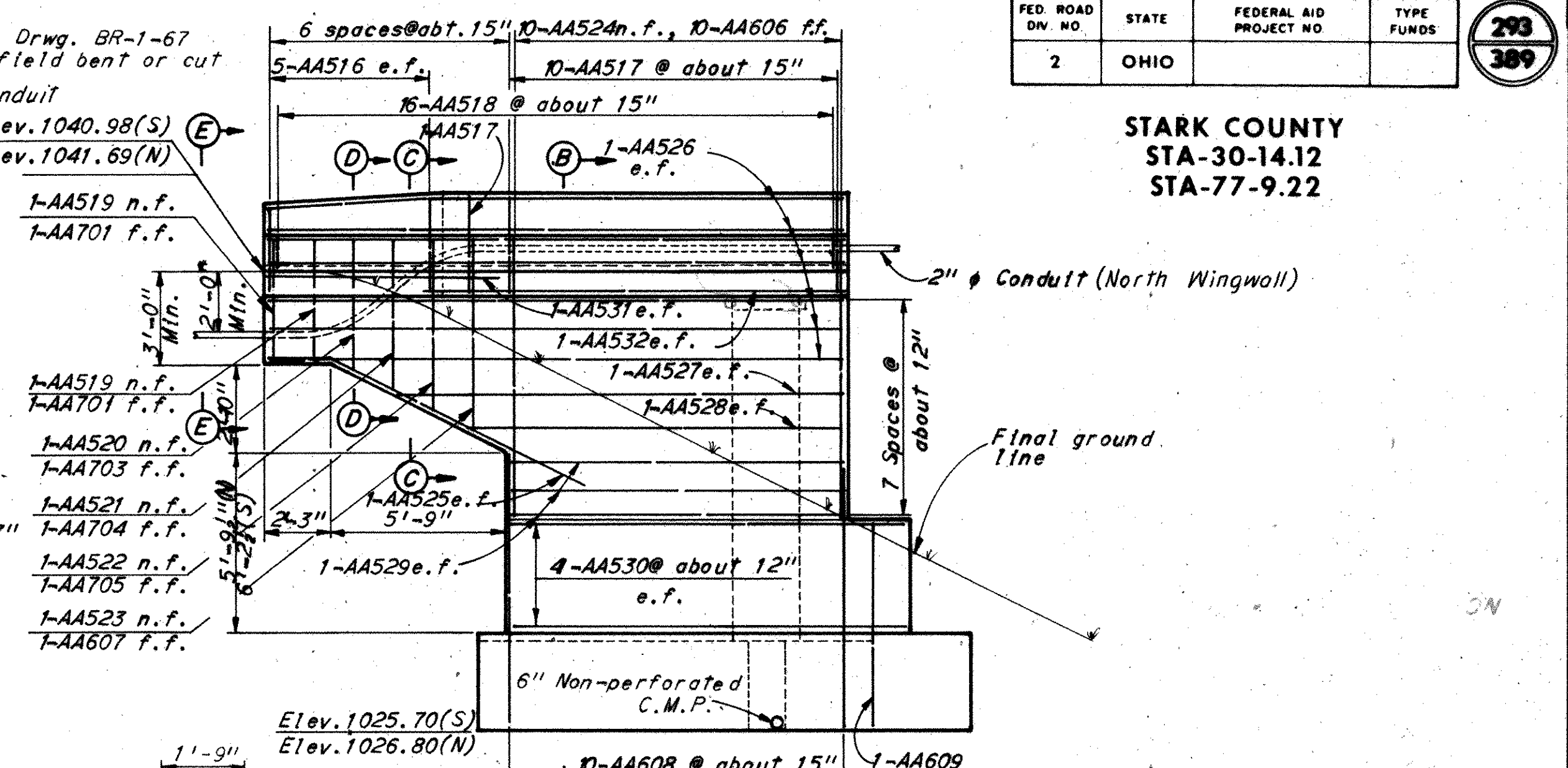
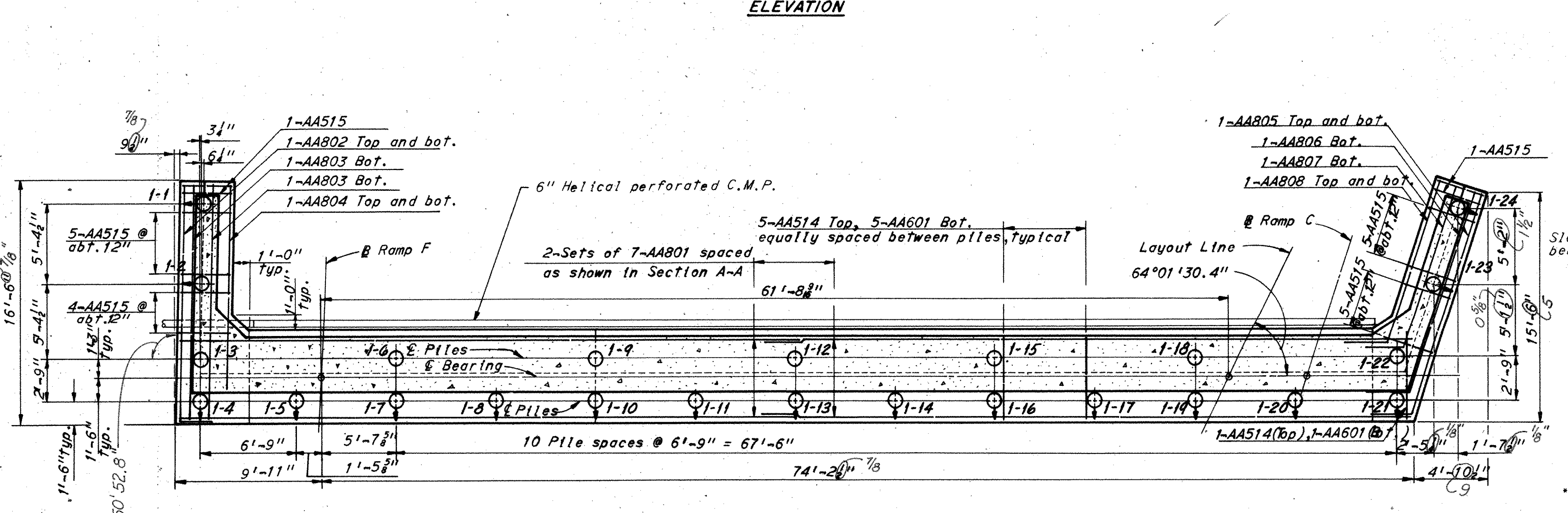
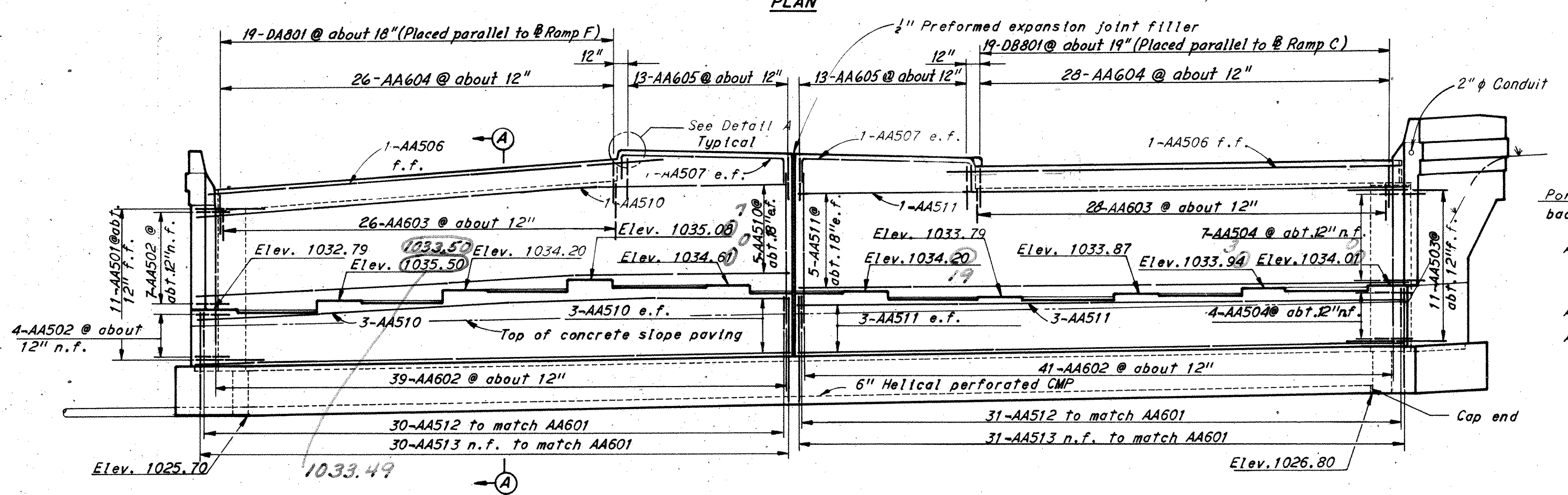
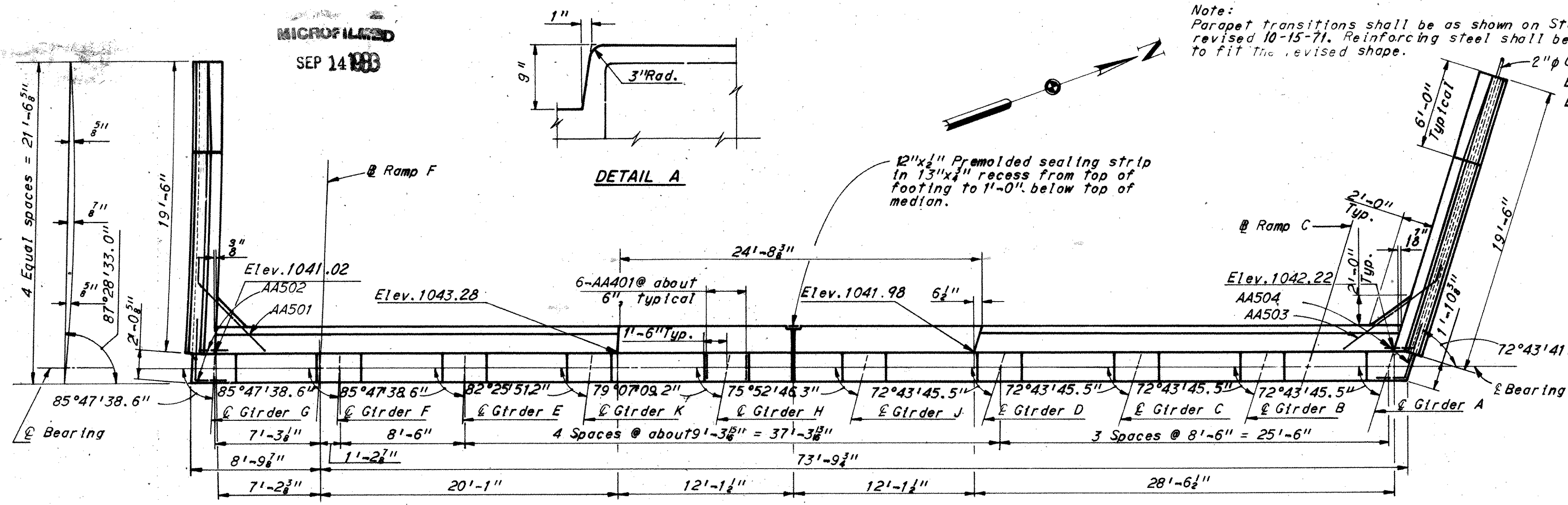
MICROFILMED  
SEP 14 1983

| FED. ROAD DIST. NO. | STATE | FEDERAL AID PROJECT NO. | TYPE FUNDS |
|---------------------|-------|-------------------------|------------|
| 2                   | OHIO  |                         |            |

293  
389

STARK COUNTY  
STA-30-14.12  
STA-77-9.22

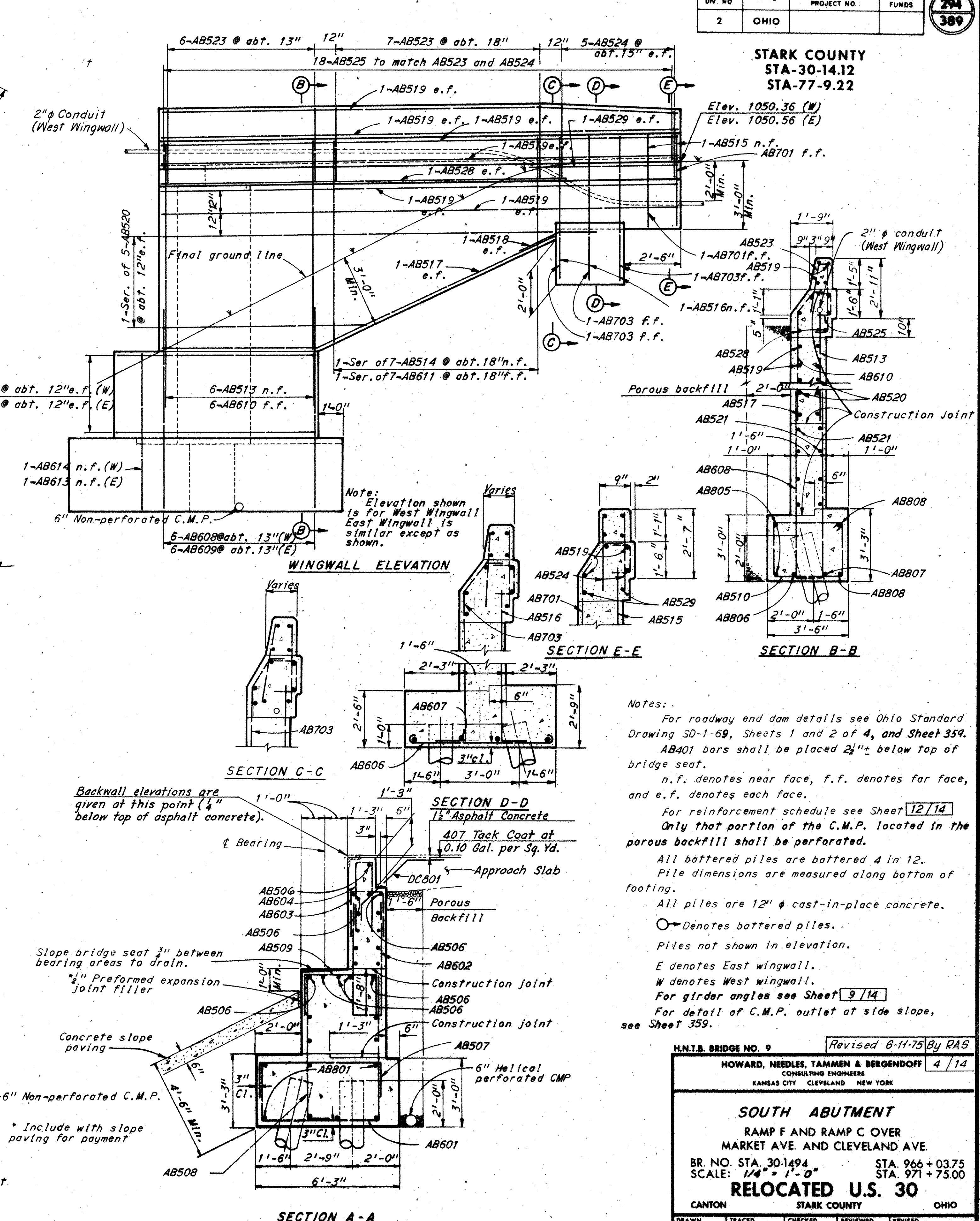
Note:  
Parapet transitions shall be as shown on Std. Drwg. BR-1-67  
revised 10-15-71. Reinforcing steel shall be field bent or cut  
to fit the revised shape.



Notes:  
For roadway end dam details see Ohio Standard  
Drawing SD-1-69, Sheets 1 and 2 of 4, and Sheet 359.  
AA401 bars shall be placed 2 1/2" below top of  
bridge seat.  
n.f. denotes near face, f.f. denotes far face,  
and e.f. denotes each face.  
For reinforcement schedule see Sheet 12/14

All battered piles are battered 4 in 12.  
Pile dimensions are measured along bottom of  
footing.  
All piles are 12"  $\phi$  cast-in-place concrete.  
N denotes North wingwall.  
S denotes South wingwall.  
O denotes battered piles.  
Piles not shown in elevation.  
Only that portion of the C.M.P. located in  
the porous backfill shall be perforated.  
For detail of C.M.P. outlet at side slope,  
see Sheet 359.

|                                                                                                                       |                 |                  |
|-----------------------------------------------------------------------------------------------------------------------|-----------------|------------------|
| H.N.T.B. BRIDGE NO. 9                                                                                                 | Revised 6-11-75 | By RAS           |
| HOWARD, NEEDLES, TAMMEN & BERGENDOFF<br>CONSULTING ENGINEERS<br>KANSAS CITY CLEVELAND NEW YORK                        |                 |                  |
| NORTH ABUTMENT<br>RAMP F AND RAMP C OVER<br>MARKET AVE. AND CLEVELAND AVE.<br>BR. NO. 30-1494<br>SCALE: 3/16" = 1'-0" |                 |                  |
| STA. 966+03.75<br>STA. 971+75.00<br>RELOCATED U.S. 30                                                                 |                 |                  |
| CANTON                                                                                                                | STARK COUNTY    | OHIO             |
| DRAWN<br>DATE                                                                                                         | TRACED<br>DATE  | CHECKED<br>DATE  |
| ASS<br>4-9-70                                                                                                         | MSK<br>11-20-71 | REVIEWED<br>DATE |
| Revised 4-28-77                                                                                                       |                 |                  |



Notes:

For roadway end dam details see Ohio Standard Drawing SD-1-69, Sheets 1 and 2 of 4, and Sheet 359.

AB401 bars should be placed  $2\frac{1}{2}"$  below top of bridge seat.

n.f. denotes near face, f.f. denotes far face, and e.f. denotes each face.

For reinforcement schedule see Sheet 12/14

Only that portion of the C.M.P. located in the porous backfill shall be perforated.

All battered piles are battered 4 in 12.

Pile dimensions are measured along bottom of footing.

All piles are 12"  $\phi$  cast-in-place concrete.

 Denotes battered piles.

Piles not shown in elevation.

E denotes East wingwall.

W denotes West wingwall.

For girder angles see Sheet 9/14

For detail of C.M.P. outlet at side slope, see Sheet 359.

H.N.T.B. BRIDGE NO. 9 Revised 6-11-75 By RAS

**HOWARD, NEEDLES, TAMMEN & BERGENDOFF** 4 / 14

CONSULTING ENGINEERS

KANSAS CITY CLEVELAND NEW YORK

**SOUTH ABUTMENT**

RAMP F AND RAMP C OVER  
MARKET AVE. AND CLEVELAND AVE.

BR. NO. STA. 30-1494 STA. 966 + 03.75  
SCALE: 1/4" = 1'-0" STA. 971 + 75.00

**RELOCATED U.S. 30**

| CANTON      |        | STARK COUNTY |               | OHIO    |      |
|-------------|--------|--------------|---------------|---------|------|
| DRAWN       | TRACED | CHECKED      | REVIEWED      | REVISED |      |
| KSS         |        | DWB          | MJK           | 7-20-76 |      |
| DATE 2-5-77 | DATE   | DATE 6-5-77  | DATE 11-20-71 |         | 1668 |