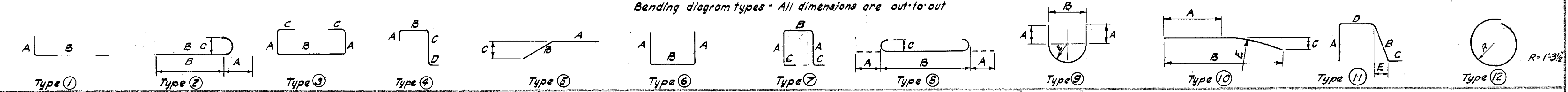


REINFORCING STEEL BAR SCHEDULE

Bending diagram types - All dimensions are out-to-out



| PIERS | | | | | | | | | | |
|-------|-------|------|---------|------|-----------|---------|-----------|-------|---|--------|
| MARK | TOTAL | SIZE | LENGTH | TYPE | A | B | C | D | E | WEIGHT |
| P1101 | 24 | 11 | 13'-11" | 1 | 2'-8" | 11'-7" | | | | 1774 |
| P1102 | 12 | 11 | 38'-2" | Str. | | | | | | 2434 |
| P1103 | 36 | 11 | 31'-5" | 1 | 2'-8" | 29'-1" | | | | 6010 |
| P1104 | 36 | 11 | 14'-4" | Str. | | | | | | 2742 |
| P1001 | 60 | 10 | 15'-0" | Str. | | | | | | 3872 |
| P1002 | 24 | 10 | 29'-8" | Str. | | | | | | 3064 |
| P1003 | 48 | 10 | 17'-3" | 2 | 1'-5" | 15'-10" | 1'-0 1/2" | | | 3562 |
| P901 | 48 | 9 | 22'-6" | Str. | | | | | | 3672 |
| P902 | 48 | 9 | 21'-9" | Str. | | | | | | 3550 |
| P903 | 48 | 9 | 21'-2" | Str. | | | | | | 3441 |
| P904 | 48 | 9 | 20'-10" | Str. | | | | | | 3400 |
| P905 | 48 | 9 | 20'-1" | Str. | | | | | | 3278 |
| P906 | 48 | 9 | 19'-5" | Str. | | | | | | 3169 |
| P907 | 288 | 9 | 6'-6" | 1 | 1'-3 1/4" | 5'-6" | | | | 6364 |
| P601 | 480 | 6 | 9'-0" | 8 | 1'-3" | 7'-8" | 6" | | | 6488 |
| P501 | 564 | 5 | 6'-9" | 6 | 2'-2" | 2'-8" | | | | 3970 |
| P502 | 24 | 5 | 26'-10" | Str. | | | | | | 672 |
| P503 | 48 | 5 | 8'-11" | 9 | 2'-6" | 2'-8" | | 1'-3" | | 446 |

| SPIRAL BARS | | | | | | | |
|-------------|-------|--------|---------|--------|--------------|-----------|--------|
| MARK | TOTAL | SIZE | LENGTH | PITCH | NO. OF TURNS | CORE DIA. | WEIGHT |
| SP401 | 4 | 1/2" φ | 19'-10" | 4 1/2" | 56 | 32" | 1470 |
| SP402 | 4 | 1/2" φ | 19'-1" | 4 1/2" | 54 | 32" | 1417 |
| SP403 | 4 | 1/2" φ | 18'-5" | 4 1/2" | 52 | 32" | 1365 |
| SP404 | 4 | 1/2" φ | 18'-2" | 4 1/2" | 52 | 32" | 1364 |
| SP405 | 4 | 1/2" φ | 17'-5" | 4 1/2" | 50 | 32" | 1311 |
| SP406 | 4 | 1/2" φ | 16'-9" | 4 1/2" | 48 | 32" | 1258 |

Total weight 70,093

| ABUTMENTS | | | | | | | | | | |
|-----------|-------|------|---------|------|--------|--------|--------|--------|--------------|----------------------------------|
| MARK | TOTAL | SIZE | LENGTH | TYPE | A | B | C | D | E | WEIGHT |
| A1001 | 32 | 10 | 29'-5" | Str. | | | | | | 4051 |
| A801 | 32 | 8 | 29'-11" | Str. | | | | | | 2556 |
| A501 | 32 | 5 | 29'-5" | Str. | | | | | | 982 |
| A502 | 512 | 5 | 6'-7" | 6 | 2'-1" | 2'-8" | | | | 3516 |
| A503 | 80 | 5 | 28'-8" | Str. | | | | | | 2392 |
| A504 | 220 | 5 | 14'-9" | 6 | 6'-8" | 1'-8" | | | | 3385 |
| A505 | 136 | 5 | 3'-4" | Str. | | | | | | 473 |
| A506 | 16 | 5 | 6'-8" | Str. | | | | | | 111 |
| A507 | 16 | 5 | 12'-8" | Str. | | | | | | 211 |
| A508 | 48 | 5 | 4'-10" | 1 | 7 1/2" | 4'-4" | | | | 242 |
| A509 | 32 | 5 | 9'-7" | 6 | 4'-4" | 1'-2" | | | | 320 |
| A510 | 40 | 5 | 6'-10" | 8 | 7" | 5'-8" | 5 1/4" | | | 285 |
| A511 | 40 | 5 | 9'-7" | Str. | | | | | | 400 |
| A512 | 16 | 5 | 5'-1" | Str. | | | | | | 85 |
| A513 | 48 | 5 | 8'-1" | Str. | | | | | | 405 |
| A514 | 16 | 5 | 8'-10" | Str. | | | | | | 147 |
| A515 | 16 | 5 | 14'-10" | Str. | | | | | | 248 |
| A516 | 56 | 5 | 13'-7" | Str. | | | | | | 793 |
| A517 | 112 | 5 | 7'-8" | Str. | | | | | | 896 |
| A518 | 16 | 5 | 4'-6" | Str. | | | | | | 75 |
| A519 | 16 | 5 | 4'-1" | Str. | | | | | | 68 |
| A520 | 80 | 5 | 3'-8" | Str. | | | | | | 306 |
| A521 | 16 | 5 | 3'-9" | Str. | | | | | | 63 |
| A522 | 16 | 5 | 13'-8" | 10 | 1'-7" | 13'-7" | 1'-2" | | 7 1/2 9 1/2" | 228 |
| A523 | 24 | 5 | 3'-3" | 11 | 7 1/2" | 1'-2" | 0 | 1'-9" | 3" | 81 |
| A524 | 24 | 5 | 2'-4" | 1 | 7 1/2" | 1'-10" | | | | 58 |
| A525 | 24 | 5 | 3'-2" | 11 | 7 1/2" | 1'-2" | 0 | 1'-8" | 3" | 79 |
| A526 | 24 | 5 | 2'-3" | 1 | 7 1/2" | 1'-9" | | | | 56 |
| A527 | 24 | 5 | 3'-0" | 11 | 7 1/2" | 1'-2" | 0 | 1'-6" | 3" | 75 |
| A528 | 24 | 5 | 2'-1" | 1 | 7 1/2" | 1'-7" | | | | 52 |
| A529 | 16 | 5 | 2'-9" | 11 | 7 1/2" | 1'-2" | 0 | 1'-3" | 3" | 46 |
| A530 | 16 | 5 | 1'-10" | 1 | 7 1/2" | 1'-4" | | | | 31 |
| A531 | 16 | 5 | 2'-5" | 11 | 7 1/2" | 1'-2" | 0 | 11" | 3" | 40 |
| A532 | 16 | 5 | 1'-6" | 1 | 7 1/2" | 1'-0" | | | | 25 |
| A533 | 8 | 5 | 2'-1" | 11 | 7 1/2" | 1'-2" | 0 | 7" | 3" | 17 |
| A534 | 8 | 5 | 1'-2" | 1 | 7 1/2" | 8" | | | | 10 |
| A401 | 196 | 4 | 5'-1" | 6 | 2'-0" | 1'-4" | | | | 666 |
| A402 | 104 | 4 | 4'-1" | 4 | 1'-2" | 8" | 2'-0" | 6 1/4" | | 284 |
| A403 | 104 | 4 | 3'-1" | 1 | 6 1/4" | 2'-8" | | | | 214 |
| R404 | 32 | 4 | 12'-4" | Str. | | | | | | (Incl. with railing for payment) |

Total weight 23,972

| SUPERSTRUCTURE | | | | | | | | | | |
|----------------|-------|------|---------|------|--------|--------|---------|---|---|-------------------------------------|
| MARK | TOTAL | SIZE | LENGTH | TYPE | A | B | C | D | E | WEIGHT |
| S1101 | 122 | 11 | 29'-0" | Str. | | | | | | 18797 |
| S1102 | 48 | 11 | 15'-0" | Str. | | | | | | 3825 |
| S1103 | 48 | 11 | 9'-0" | Str. | | | | | | 2295 |
| S1001 | 244 | 10 | 29'-0" | Str. | | | | | | 30448 |
| S1002 | 96 | 10 | 14'-6" | Str. | | | | | | 5990 |
| S1003 | 96 | 10 | 9'-0" | Str. | | | | | | 3718 |
| S1004 | 224 | 10 | 40'-0" | Str. | | | | | | 38555 |
| S1005 | 100 | 10 | 26'-0" | Str. | | | | | | 11188 |
| S1006 | 104 | 10 | 18'-6" | Str. | | | | | | 8279 |
| S901 | 224 | 9 | 37'-10" | Str. | | | | | | 28814 |
| S902 | 100 | 9 | 26'-3" | 2 | 1'-3" | 25'-0" | 11 1/4" | | | 8925 |
| S903 | 104 | 9 | 23'-3" | 2 | 1'-3" | 22'-0" | 11 1/4" | | | 8221 |
| S701 | 588 | 7 | 29'-0" | Str. | | | | | | 34854 |
| S601 | 108 | 6 | 18'-9" | Str. | | | | | | 3042 |
| S602 | 108 | 6 | 20'-8" | Str. | | | | | | 3352 |
| S603 | 380 | 6 | 28'-10" | Str. | | | | | | 16171 |
| S501 | 24 | 5 | 18'-9" | Str. | | | | | | 469 |
| S502 | 24 | 5 | 20'-8" | Str. | | | | | | 517 |
| S503 | 692 | 5 | 26'-5" | 3 | 2'-0" | 1'-8" | 7 1/2" | | | 4631 |
| S504 | 692 | 5 | 2'-8" | 6 | 7 1/2" | 1'-8" | | | | 1925 |
| S401 | 588 | 4 | 5'-8" | 7 | 2'-2" | 8" | 6 1/4" | | | 2226 |
| R402 | 112 | 4 | 16'-7" | Str. | | | | | | (Included with railing for payment) |
| R403 | 32 | 4 | 13'-5" | Str. | | | | | | (Included with railing for payment) |

Total weight 240,242

SPIRAL NOTES:

The "length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap.
 The "No. of Turns" shown in the steel list for the spiral bars is the "length" divided by the pitch, plus 3 turns, (total number of closed coils), expressed as the nearest whole number.
 Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item S-4.
 If closed coils shall be provided at ends of each spiral unit.
 Four steel channel, tee or angle spacers, weighing approximately 0.68 lbs. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lbs. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

ESTIMATED QUANTITIES ~ 2 BRIDGES

| ITEM | TOTAL | UNIT | DESCRIPTION | SUPERSTR. | ABUTS. | PIER | GENERAL |
|-------|---------|---------|--|-----------|--------|--------|----------|
| E-2 | 874 | Cu Yds | Unclassified Excavation | | 282 | 592 | |
| S-1 | 1,052 | Cu Yds | Class "C" Concrete, Superstructure | 1052 | | | |
| S-1 | 222 | Cu Yds | Class "C" Concrete, Pier Caps & Columns | | | 222 | |
| S-1 | 135 | Cu Yds | Class "E" Concrete, Abuts. Above Footings | | 135 | | |
| S-1 | 267 | Cu Yds | Class "E" Concrete, Footings | | 96 | 171 | |
| S-4 | 334,307 | Lbs. | Reinforcing Steel | 240,242 | 23,972 | 70,093 | |
| S-29 | 32 | Ea. | Scuppers, 4" dia. cast iron or wrought iron pipe | 32 | | | |
| S-14 | 586 | Lin Ft. | Railing (Aluminum Rail & Supports, Concrete Parapet) | | | | 586 |
| S-16 | Lump | Sum | First Test Pile | | | | Lump Sum |
| S-18 | 1,066 | Lin Ft. | Steel Piles 12BP53 | | 1066 | | |
| S-29 | 50 | Cu Yds | Porous Backfill | | 50 | | |
| I-10 | 1,212 | Sq Yds | Crushed Aggregate Slope Protection | | | | 1,212 |
| F-127 | 2 | Ea. | Delineators, Bracket mounted, Type B-1 | | | | 2 |

REPLACEMENT BARS

| MARK | NO. | SIZE | LENGTH | TYPE | WEIGHT |
|--------|-----|--------|--------|------|--------|
| RE1101 | 2 | 11 | 7'-5" | Str. | |
| RE1001 | 6 | 10 | 7'-2" | Str. | |
| RE901 | 4 | 9 | 6'-10" | Str. | |
| RE801 | 1 | 8 | 6'-6" | Str. | |
| RE701 | 2 | 7 | 6'-2" | Str. | |
| RE601 | 2 | 6 | 5'-11" | Str. | |
| RE501 | 2 | 5 | 5'-7" | Str. | |
| RE401 | 1 | 4 | 5'-3" | Str. | |
| RE402 | 1 | 1/2" φ | 5'-3" | 12 | |

REPLACEMENT BARS
 If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test sample as provided in section S-402 need not be furnished and replacement bars will not be required.

BAR SIZE:
 Bar size is indicated in the bar mark, the first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, A401 is a no. 4 size bar and A114 is a no. 11 size bar.

MICHAEL BAKER JR., CONSULTING ENGINEERS
 ROCHESTER, PENNSYLVANIA

REINFORCING STEEL LIST & ESTIMATED QUANTITIES

BRIDGE NO. CUY-I-1631 N & S
 OVER WILSON MILLS ROAD
 STA. 20+96.97 TO 22+43.27
 CUYAHOGA COUNTY

| | | | | | |
|----------|--------|--------|---------|---------------|---------|
| Designed | Drawn | Traced | Checked | Reviewed-Date | Revised |
| H.R.B. | M.H.T. | M.H.T. | J.V.W. | HGH 12-30-58 | |