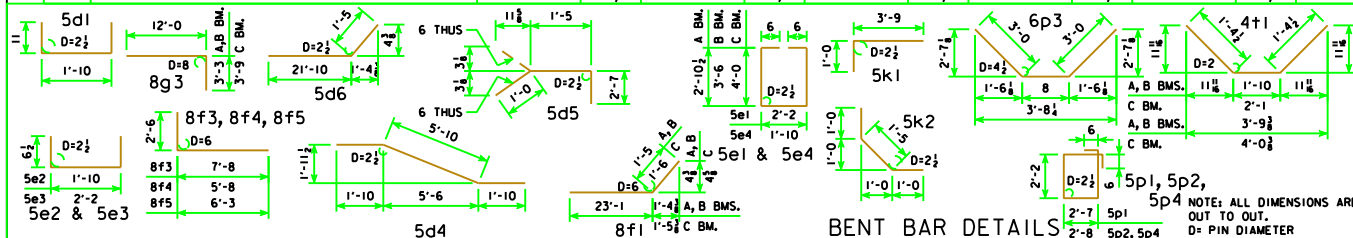


| REINFORCING BAR LIST                 |                                         |       |         | ABUT. BRG.  |           | 138'-10" |         | 151'-4"   |         | 163'-10" |           | 176'-4" |         | 188'-10"  |         | 201'-4" |           | 213'-10" |         | 226'-4" |     | 243'-0" |        |
|--------------------------------------|-----------------------------------------|-------|---------|-------------|-----------|----------|---------|-----------|---------|----------|-----------|---------|---------|-----------|---------|---------|-----------|----------|---------|---------|-----|---------|--------|
| ONE SUPERSTRUCTURE AND TWO ABUTMENTS |                                         |       |         | BEAM SERIES |           | A BEAM   |         | A BEAM    |         | B BEAM   |           | B BEAM  |         | B BEAM    |         | C BEAM  |           | C BEAM   |         | C BEAM  |     | C BEAM  |        |
| BAR                                  | LOCATION                                | SHAPE | NO.     | LENGTH      | WEIGHT    | NO.      | LENGTH  | WEIGHT    | NO.     | LENGTH   | WEIGHT    | NO.     | LENGTH  | WEIGHT    | NO.     | LENGTH  | WEIGHT    | NO.      | LENGTH  | WEIGHT  | NO. | LENGTH  | WEIGHT |
| 601                                  | SLAB TRANSV. TOP & BOT.                 |       | 313     | 42'-10"     | 20,137    | 343      | 42'-10" | 22,067    | 373     | 42'-10"  | 23,997    | 403     | 42'-10" | 25,927    | 433     | 42'-10" | 27,857    | 463      | 42'-10" | 29,787  | 493 | 42'-10" | 31,717 |
| 602                                  | SLAB TRANSV. TOP ENDS                   |       | 26      | VARIES      | 825       | 26       | VARIES  | 825       | 26      | VARIES   | 825       | 26      | VARIES  | 825       | 26      | VARIES  | 825       | 26       | VARIES  | 825     | 26  | VARIES  | 825    |
| 603                                  | SLAB TRANSV. BOT. ENDS                  |       | 26      | VARIES      | 885       | 26       | VARIES  | 885       | 26      | VARIES   | 885       | 26      | VARIES  | 885       | 26      | VARIES  | 885       | 26       | VARIES  | 885     | 26  | VARIES  | 885    |
| 5b1                                  | SLAB LONGITUDINAL, TOP & BOT.           |       | 202     | 40'-0"      | 8,427     | 303      | 40'-0"  | 12,641    | 303     | 40'-0"   | 12,641    | 303     | 40'-0"  | 12,641    | 303     | 40'-0"  | 12,641    | 404      | 40'-0"  | 16,855  | 404 | 40'-0"  | 16,855 |
| 5b2                                  | SLAB LONGITUDINAL, TOP & BOT., ENDS     |       | 202     | 33'-10"     | 7,128     | 202      | 21'-1"  | 4,442     | 202     | 27'-4"   | 5,759     | 202     | 33'-7"  | 7,076     | 202     | 39'-10" | 8,392     | 202      | 27'-1"  | 5,706   | 202 | 33'-4"  | 7,023  |
| 6b3                                  | SLAB LONGITUDINAL, TOP @ PIERS          |       | 92      | 12'-10"     | 1,773     | 92       | 13'-10" | 1,912     | 92      | 14'-10"  | 2,050     |         |         |           |         |         |           |          |         |         |     |         |        |
| 7b3                                  | SLAB LONGITUDINAL, TOP @ PIERS          |       |         |             |           |          |         |           |         |          |           | 92      | 15'-10" | 2,977     | 92      | 17'-0"  | 3,197     | 92       | 18'-0"  | 3,385   |     |         |        |
| 8b3                                  | SLAB LONGITUDINAL, TOP @ PIERS          |       |         |             |           |          |         |           |         |          |           |         |         |           |         |         |           | 92       | 19'-0"  | 4,667   | 92  | 20'-0"  | 4,913  |
| 5d1                                  | PIER DIAPH. ENDS                        |       | 12      | 3'-8"       | 46        | 12       | 3'-8"   | 46        | 12      | 3'-8"    | 46        | 12      | 3'-8"   | 46        | 12      | 3'-8"   | 46        | 12       | 3'-8"   | 46      | 12  | 3'-8"   | 46     |
| 5d2                                  | PIER & ABUT. DIAPH. LONGIT.             |       | 90      | 6'-11"      | 649       | 90       | 6'-11"  | 649       | 90      | 6'-11"   | 649       | 90      | 6'-11"  | 649       | 90      | 6'-11"  | 649       | 90       | 6'-8"   | 626     | 90  | 6'-8"   | 626    |
| 5d3                                  | PIER & ABUT. DIAPH. LONGIT.             |       | 30      | 6'-0"       | 188       | 30       | 6'-0"   | 188       | 30      | 6'-0"    | 188       | 30      | 6'-0"   | 188       | 30      | 6'-0"   | 188       | 30       | 5'-9"   | 180     | 30  | 5'-9"   | 180    |
| 5d4                                  | PIER DIAPH. LONGIT.                     |       | 10      | 9'-6"       | 99        | 10       | 9'-6"   | 99        | 10      | 9'-6"    | 99        | 10      | 9'-6"   | 99        | 10      | 9'-6"   | 99        | 10       | 9'-6"   | 99      | 10  | 9'-6"   | 99     |
| 5d5                                  | ABUT. DIAPH. ENDS                       |       | 12      | 5'-0"       | 63        | 12       | 5'-0"   | 63        | 12      | 5'-0"    | 63        | 12      | 5'-0"   | 63        | 12      | 5'-0"   | 63        | 12       | 5'-0"   | 63      | 12  | 5'-0"   | 63     |
| 5d6                                  | ABUT. DIAPH. LONGIT. B.F.               |       | 16      | 23'-3"      | 388       | 16       | 23'-3"  | 388       | 16      | 23'-3"   | 388       | 16      | 23'-3"  | 388       | 16      | 23'-3"  | 388       | 16       | 23'-3"  | 388     | 16  | 23'-3"  | 388    |
| 5d7                                  | PAVING NOTCH LONGIT.                    |       | 8       | 22'-11"     | 191       | 8        | 22'-11" | 191       | 8       | 22'-11"  | 191       | 8       | 22'-11" | 191       | 8       | 22'-11" | 191       | 8        | 22'-11" | 191     | 8   | 22'-11" | 191    |
| 5d8                                  | ABUT. DIAPH. WING EXT. LONGIT.          |       |         |             |           |          |         |           |         |          |           |         |         |           | 48      | 10'-6"  | 526       | 48       | 10'-6"  | 526     | 48  | 10'-6"  | 526    |
| 5e1                                  | PIER DIAPH. HOOPS                       |       | 40      | 8'-11"      | 372       | 40       | 8'-11"  | 372       | 40      | 10'-2"   | 424       | 40      | 10'-2"  | 424       | 40      | 11'-2"  | 466       | 40       | 11'-2"  | 466     | 40  | 11'-2"  | 466    |
| 5e2                                  | PIER DIAPH. TIES ENDS                   |       | 4       | 2'-11"      | 12        | 4        | 2'-11"  | 12        | 4       | 2'-11"   | 12        | 4       | 2'-11"  | 12        | 4       | 2'-11"  | 12        | 4        | 2'-11"  | 12      | 4   | 2'-11"  | 12     |
| 5e3                                  | PIER DIAPH. TIES                        |       | 40      | 3'-3"       | 136       | 40       | 3'-3"   | 136       | 40      | 3'-3"    | 136       | 40      | 3'-3"   | 136       | 40      | 3'-3"   | 136       | 40       | 3'-3"   | 136     | 40  | 3'-3"   | 136    |
| 5e4                                  | PIER DIAPH. HOOPS ENDS                  |       | 4       | 8'-7"       | 36        | 4        | 8'-7"   | 36        | 4       | 9'-10"   | 41        | 4       | 9'-10"  | 41        | 4       | 10'-10" | 45        | 4        | 10'-10" | 45      | 4   | 10'-10" | 45     |
| 8f1                                  | ABUT. FOOTING LONGIT.                   |       | 36      | 24'-6"      | 2,355     | 36       | 24'-6"  | 2,355     | 36      | 24'-6"   | 2,355     | 36      | 24'-6"  | 2,355     | 36      | 24'-6"  | 2,355     | 36       | 24'-7"  | 2,363   | 36  | 24'-7"  | 2,363  |
| 8f3                                  | ABUT. EXTENSION LONGIT.                 |       |         |             |           |          |         |           |         |          |           |         |         |           | 16      | 10'-2"  | 434       | 16       | 10'-2"  | 434     | 16  | 10'-2"  | 434    |
| 8f4                                  | ABUT. EXTENSION LONGIT.                 |       |         |             |           |          |         |           |         |          |           |         |         |           | 8       | 8'-2"   | 174       | 8        | 8'-2"   | 174     | 8   | 8'-2"   | 174    |
| 8f5                                  | ABUT. EXTENSION LONGIT.                 |       |         |             |           |          |         |           |         |          |           |         |         |           | 8       | 8'-9"   | 187       | 8        | 8'-9"   | 187     | 8   | 8'-9"   | 187    |
| 8g1                                  | ABUT. VERT.                             |       | 136     | 6'-8"       | 2,421     | 136      | 6'-8"   | 2,421     | 136     | 7'-3"    | 2,633     | 136     | 7'-3"   | 2,633     | 136     | 7'-3"   | 2,633     | 132      | 7'-9"   | 2,731   | 132 | 7'-9"   | 2,731  |
| 8g3                                  | ABUT. DIAPH. VERT. B.F.                 |       | 62      | 15'-3"      | 2,524     | 62       | 15'-3"  | 2,524     | 62      | 15'-3"   | 2,524     | 62      | 15'-3"  | 2,524     | 62      | 15'-3"  | 2,524     | 62       | 15'-9"  | 2,607   | 62  | 15'-9"  | 2,607  |
| 6g4                                  | ABUT. DIAPH. WING EXT. VERT.            |       |         |             |           |          |         |           |         |          |           |         |         |           | 40      | 6'-6"   | 391       | 40       | 6'-6"   | 391     | 40  | 6'-7"   | 396    |
| 5h1                                  | ABUT. WING HORIZ.                       |       | 56      | 6'-8"       | 389       | 56       | 6'-8"   | 389       | 56      | 6'-8"    | 389       | 56      | 6'-8"   | 389       | 56      | 6'-8"   | 389       | 56       | 6'-8"   | 389     | 56  | 6'-8"   | 389    |
| 5h2                                  | ABUT. TO WING ANCHOR                    |       | 56      | 4'-8"       | 273       | 56       | 4'-8"   | 273       | 56      | 4'-8"    | 273       | 56      | 4'-8"   | 273       | 56      | 4'-8"   | 273       | 8        | 4'-8"   | 39      | 8   | 4'-8"   | 39     |
| 5j1                                  | TOP OF SLAB TRANSV. (AT RAIL)           |       | 336     | 6'-3"       | 2,190     | 366      | 6'-3"   | 2,386     | 396     | 6'-3"    | 2,581     | 426     | 6'-3"   | 2,777     | 456     | 6'-3"   | 2,973     | 486      | 6'-3"   | 3,168   | 516 | 6'-3"   | 3,364  |
| 5k1                                  | PAVING NOTCH                            |       | 66      | 4'-9"       | 327       | 66       | 4'-9"   | 327       | 66      | 4'-9"    | 327       | 66      | 4'-9"   | 327       | 66      | 4'-9"   | 327       | 66       | 4'-9"   | 327     | 66  | 4'-9"   | 327    |
| 5k2                                  | PAVING NOTCH                            |       | 66      | 3'-5"       | 235       | 66       | 3'-5"   | 235       | 66      | 3'-5"    | 235       | 66      | 3'-5"   | 235       | 66      | 3'-5"   | 235       | 66       | 3'-5"   | 235     | 66  | 3'-5"   | 235    |
| 5p1                                  | ABUTMENT HOOPS (WOOD/STEEL)             |       | 144/120 | 10'-6"      | 1577/1314 | 104/120  | 10'-6"  | 1399/1314 | 112/120 | 10'-6"   | 1227/1314 | 120/120 | 10'-6"  | 1314/1314 | 120/120 | 10'-6"  | 1314/1314 | 120      | 10'-6"  | 1,314   | 120 | 10'-6"  | 1,314  |
| 5p2                                  | ABUTMENT HOOPS                          |       | 8       | 10'-8"      | 89        | 8        | 10'-8"  | 89        | 8       | 10'-8"   | 89        | 8       | 10'-8"  | 89        | 8       | 10'-8"  | 89        | 24       | 10'-8"  | 267     | 24  | 10'-8"  | 267    |
| 6p3                                  | ABUT. BOT. AT PILES                     |       |         |             |           |          |         |           |         |          |           |         |         |           | 32      | 6'-8"   | 320       | 32       | 6'-8"   | 320     | 32  | 6'-8"   | 320    |
| 5p4                                  | ABUT. HOOPS AT ENDS                     |       |         |             |           |          |         |           |         |          |           |         |         |           | 8       | 10'-8"  | 89        | 8        | 10'-8"  | 89      | 8   | 10'-8"  | 89     |
| 5s1                                  | WING VERT.                              |       | 56      | VARIES      | 263       | 56       | VARIES  | 263       | 56      | VARIES   | 263       | 56      | VARIES  | 263       | 56      | VARIES  | 263       | 56       | VARIES  | 263     | 56  | VARIES  | 263    |
| 4t1                                  | UNDER BEAMS AT ABUTMENTS                |       | 12      | 4'-7"       | 37        | 12       | 4'-7"   | 37        | 12      | 4'-7"    | 37        | 12      | 4'-7"   | 37        | 12      | 4'-7"   | 37        | 12       | 4'-10"  | 39      | 12  | 4'-10"  | 39     |
| W2                                   | PILE SPIRAL (WOOD/STEEL)*               |       | 26/14   | 38'-6"      | 167/90    | 28/14    | 38'-6"  | 180/90    | 30/14   | 38'-6"   | 193/90    | 32/14   | 38'-6"  | 206/90    | 32/14   | 38'-6"  | 206/90    | 20       | 38'-6"  | 129     | 20  | 38'-6"  | 129    |
|                                      | SPIRAL SPACERS, 1"x1"x 0.70 (WOOD/STL)* |       | 52/28   | 1'-10"      | 67/36     | 56/28    | 1'-10"  | 72/36     | 60/28   | 1'-10"   | 77/36     | 64/28   | 1'-10"  | 82/36     | 64/28   | 1'-10"  | 82/36     | 40       | 1'-10"  | 51      | 40  | 1'-10"  | 51     |
|                                      | *REPOXY COATING NOT REQUIRED            |       |         |             |           |          |         |           |         |          |           |         |         |           |         |         |           |          |         |         |     |         |        |
|                                      | SUB TOTAL W/ WOOD PILES**               |       |         |             | 54,269    |          |         | 57,642    |         |          | 61,597    |         |         | 66,072    |         |         | 69,734    |          |         |         |     |         |        |
|                                      | SUB TOTAL W/ STEEL H-PILES**            |       |         |             | 53,898    |          |         | 57,691    |         |          | 61,540    |         |         | 65,910    |         |         | 69,572    |          |         | 75,738  |     |         | 80,463 |
|                                      | **RAIL REINFORCING NOT INCLUDED         |       |         |             |           |          |         |           |         |          |           |         |         |           |         |         |           |          |         |         |     |         |        |
|                                      | BARRIER RAIL                            |       |         |             | 8,035     |          |         | 8,608     |         |          | 9,167     |         |         | 9,699     |         |         | 10,298    |          |         | 11,256  |     |         | 11,814 |
|                                      | OPEN RAIL                               |       |         |             | 8,284     |          |         | 8,804     |         |          | 9,494     |         |         | 10,184    |         |         | 10,704    |          |         | 12,210  |     |         | 12,668 |

EPOXY COATED REINFORCING



BENT BAR DETAILS

LATEST REVISION DATE

Iowa Department of Transportation  
Highway Division

STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

HL93 SUPERSTRUCTURE DECEMBER, 2006 HS25 SUBSTRUCTURE

DECK & ABUTMENT REINF.

15° SKEW

H40-16-06

APPROVED BY BRIDGE ENGINEER

THOMAS L. MCQUINN

NOTE: ALL DIMENSIONS ARE OUT TO OUT. D= PIN DIAMETER