## PILE BENT NOTES:

THESE PIER BENTS ARE DESIGNED FOR USE IN LOCATIONS WHERE ICE AND DRIFT CONDITIONS ARE NOT SEVERE.

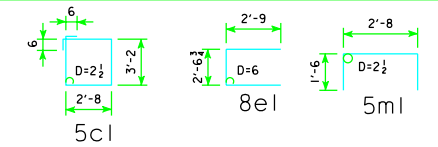
FOR DETAILS OF TRESTLE PILES, SEE STANDARD PIOL.

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

## REINFORCING BAR LIST AND ESTIMATED QUANTITIES PER PILE BENT

| | | | 7 PILE BENT | | | 8 PILE BENT | | | 9 PILE BENT | | | 10 PILE BENT | | | 11 PILE BENT | | | 12 PILE BENT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BAR | LENGTH | SHAPE | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT |
| a1 | 44'-8 | | 8 | 9 | 1215 | 8 | 9 | 1215 | 8 | 9 | 1215 | 8 | 9 | 1215 | 6 | 9 | 911 | 6 | 9 | 911 |
| a2 | 44'-8 | | 4 | 8 | 477 | 4 | 8 | 477 | 4 | 8 | 477 | 4 | 8 | 477 | 4 | 8 | 477 | 4 | 8 | 477 |
| b1 | 44'-8 | | 4 | 10 | 769 | 4 | 9 | 607 | 4 | 9 | 607 | 4 | 9 | 607 | 4 | 8 | 477 | 4 | 8 | 477 |
| 5c1 | 12'-8 | | 38 | 5 | 502 | 37 | 5 | 489 | 42 | 5 | 555 | 47 | 5 | 621 | 42 | 5 | 555 | 46 | 5 | 608 |
| 8e1 | 8'-1 | | 4 | 8 | 86 | 4 | 8 | 86 | 4 | 8 | 86 | 4 | 8 | 86 | 4 | 8 | 86 | 4 | 8 | 86 |
| 5m1 | 5'-8 | | 12 | 5 | 71 | 12 | 5 | 71 | 12 | 5 | 71 | 12 | 5 | 71 | 12 | 5 | 71 | 12 | 5 | 71 |
| 5n1 | 2'-8 | | 12 | 5 | 33 | 12 | 5 | 33 | 12 | 5 | 33 | 12 | 5 | 33 | 12 | 5 | 33 | 12 | 5 | 33 |
| REINFORCING STEEL (LB.) | | | 3153 | | | 2978 | | | 3044 | | | 3110 | | | 2610 | | | 2663 | | |
| STRUCTURAL CONCRETE (CY) | PILE TYPE 3 | | 18.6 | | | 18.6 | | | 18.6 | | | 18.6 | | | 18.6 | | | 18.6 | | |

## BENT BAR DETAILS




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

## FRICTION OR POINT BEARING PILING

PIOL TYPE 3

| ℄-℄ ABUTMENT BEARING | NUMBER OF TRESTLE PILES | PILE SIZE | (1) DES. PILE BRG. (TONS) | (2) LRFD DES. BRG. (KIPS) |
|---|---|---|---|---|
| 138'-10 | 7 | HP14x73 | 62 | 179 |
| | 7 | HP14x89 | 62 | 179 |
| 151'-4 | 8 | HP14x73 | 57 | 165 |
| | 7 | HP14x89 | 65 | 189 |
| 163'-10 | 8 | HP14x73 | 62 | 179 |
| | 7 | HP14x89 | 71 | 205 |
| 176'-4 | 9 | HP14x73 | 57 | 167 |
| | 7 | HP14x89 | 74 | 214 |
| 188'-10 | 9 | HP14x73 | 60 | 174 |
| | 8 | HP14x89 | 68 | 196 |
| 201'-4 | 10 | HP14x73 | 60 | 175 |
| | 8 | HP14x89 | 76 | 219 |
| 213'-10 | 10 | HP14x73 | 64 | 184 |
| | 9 | HP14x89 | 71 | 205 |
| 226'-4 | 11 | HP14x73 | 61 | 176 |
| | 9 | HP14x89 | 74 | 216 |
| 243'-0 | 12 | HP14x73 | 59 | 170 |
| | 10 | HP14x89 | 70 | 204 |

(1) FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.

(2) FOR ESTIMATING PILE LENGTHS USING AASHTO LRFD SPECIFICATIONS.

NOTE: FRICTION BEARING INCLUDES SIDE FRICTION AND END BEARING IN SOIL. POINT BEARING INCLUDES SIDE FRICTION AND POINT BEARING IN ROCK.

11-09
LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 44' ROADWAY, THREE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

MARCH, 2007

PILE BENT PIERS
HP14 PIERS
0° SKEW

H44-41-07

REVISED 11-09 - THIS SHEET WAS ADDED FOR THE 14" PILE OPTION & CAP DEPTH IS 3'-6.