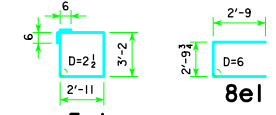


REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

| BAR | LENGTH | SHAPE | 5 PILE BENT | | | 6 PILE BENT | | | 7 PILE BENT | | | 8 PILE BENT | | |
|----------------------------|--------|-------|-------------|------|--------|-------------|------|--------|-------------|------|--------|-------------|------|--------|
| | | | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT |
| a1 | 28'-8" | | 8 | 9 | 780 | 8 | 9 | 780 | 6 | 9 | 585 | 6 | 9 | 585 |
| a2 | 28'-8" | | 4 | 8 | 306 | 4 | 8 | 306 | 4 | 8 | 306 | 4 | 8 | 306 |
| b1 | 28'-8" | | 4 | 8 | 306 | 4 | 8 | 306 | 4 | 8 | 306 | 4 | 8 | 306 |
| 5c1 | 13'-2" | | 26 | 5 | 357 | 27 | 5 | 371 | 26 | 5 | 357 | 30 | 5 | 412 |
| 8e1 | 8'-4" | | 4 | 8 | 89 | 4 | 8 | 89 | 4 | 8 | 89 | 4 | 8 | 89 |
| ① REINFORCING STEEL (L.B.) | | | 1838 | | | 1852 | | | 1643 | | | 1698 | | |
| STRUCTURAL CONCRETE (CY) | | | 3 | | | 12.6 | | | 12.6 | | | 12.6 | | |

BENT BAR DETAILS



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

FRICION OR POINT BEARING PILING

| ABUTMENT BEARING | PILOT TYPE 3 | | |
|------------------|-------------------------|-----------|--|
| | NUMBER OF TRESTLE PILES | PILE SIZE | ② LRFD P _u STRENGTH I, DES. LOAD (KIPS) |
| 138'-10" | 5 | HP14x73 | 175 |
| 151'-4" | 5 | HP14x73 | 184 |
| 163'-10" | 5 | HP14x89 | 184 |
| 176'-4" | 6 | HP14x73 | 165 |
| 188'-10" | 6 | HP14x89 | 198 |
| 201'-4" | 6 | HP14x73 | 172 |
| 213'-10" | 5 | HP14x89 | 207 |
| 226'-4" | 6 | HP14x73 | 180 |
| 243'-0" | 5 | HP14x89 | 216 |
| | 7 | HP14x73 | 170 |
| | 6 | HP14x89 | 199 |
| | 7 | HP14x73 | 179 |
| | 6 | HP14x89 | 208 |
| | 8 | HP14x73 | 165 |
| | 6 | HP14x89 | 219 |
| | 8 | HP14x73 | 173 |
| | 7 | HP14x89 | 198 |

① SEE SHEET H24-24-06 FOR STEP REINFORCING STEEL QUANTITIES AND DETAILS.

② NOTE: P_u STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.

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

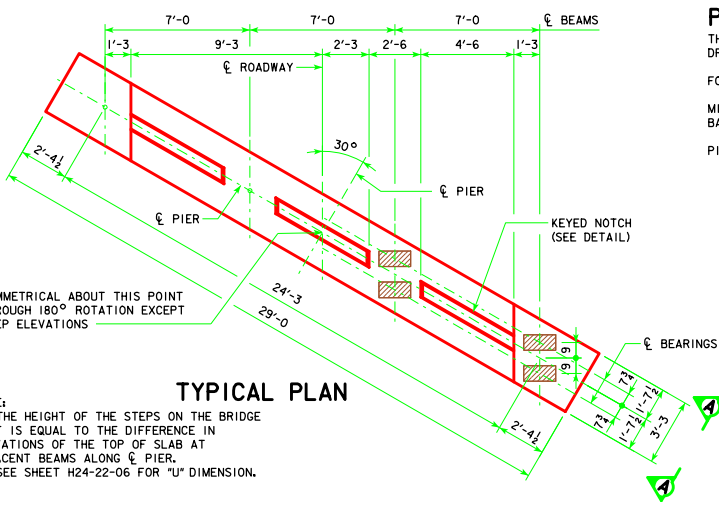
PILE BENT NOTES:

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.

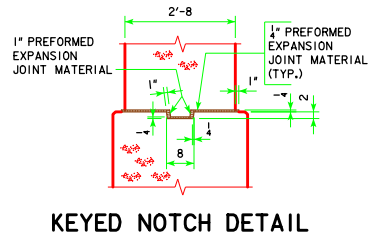
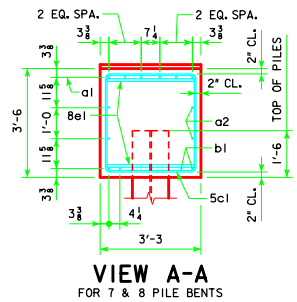
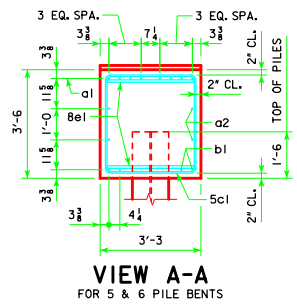
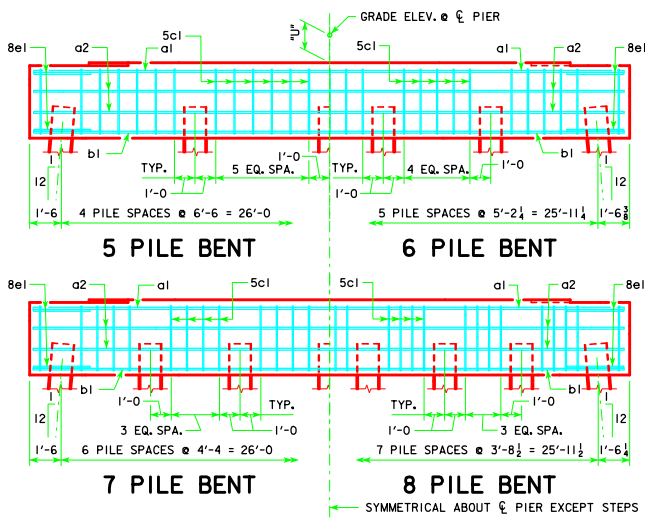
MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

PIER PILES SHALL BE DRIVEN TO VALUES SHOWN IN DESIGN PLANS.



TYPICAL PLAN

NOTE: THE HEIGHT OF THE STEPS ON THE BRIDGE SEAT IS EQUAL TO THE DIFFERENCE IN ELEVATIONS OF THE TOP OF SLAB AT ADJACENT BEAMS ALONG \bar{C} PIER. SEE SHEET H24-22-06 FOR "U" DIMENSION.



REVISED 05-13 - REVISION FOR LRFD PILE DESIGN.

LATEST REVISION DATE
05-13
APPROVED BY BRIDGE ENGINEER
Thomas E. McQuill

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 24' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
DECEMBER, 2006

PILE BENT PIERS
HPI4 PILES
30° SKEW

H24-47-06