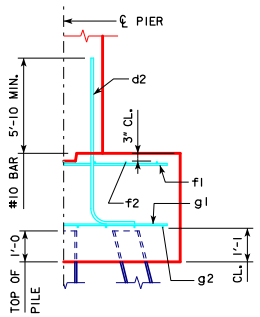
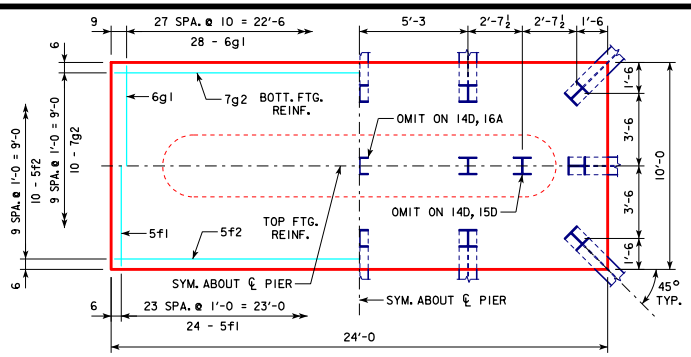
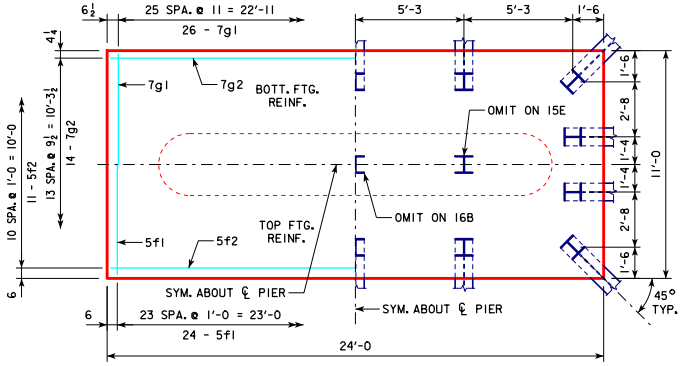


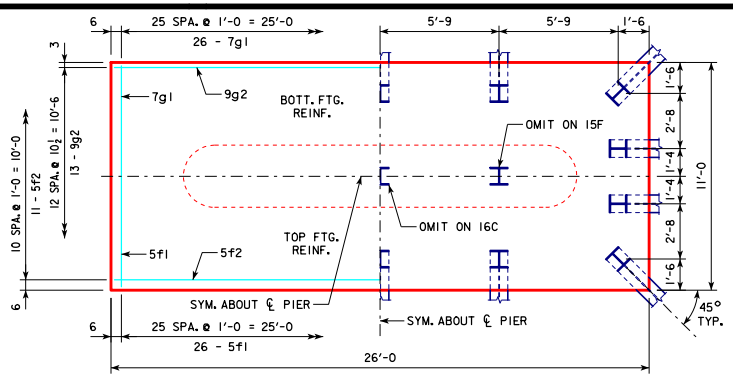

## TYPICAL SECTION



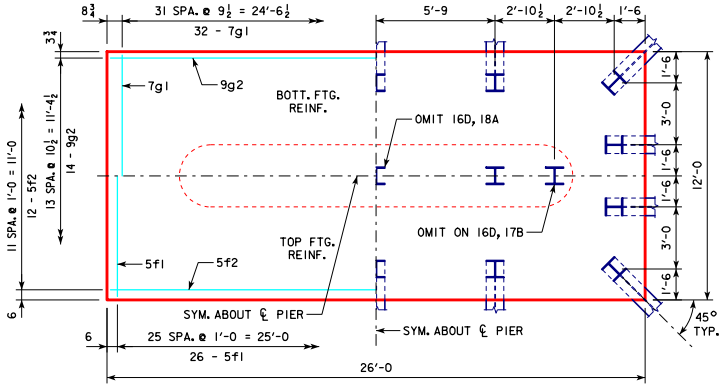

## 4'-0 x 10'-0 x 24'-0 FOR 14D, 15D & 16A




## 4'-0 x 11'-0 x 24'-0 FOR 15E & 16B



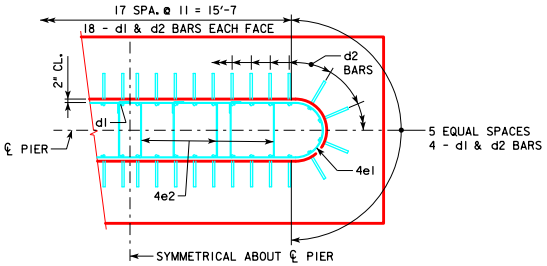

## 4'-0 x 11'-0 x 26'-0 FOR 15F, 16C & 17A




## 4'-0 x 12'-0 x 26'-0 FOR 16D, 17B & 18A

| H IN FT. | ℄ - ℄ ABUT. BRG. | PILING (HP10x57) NO. & LAYOUT | ① LRFD Pu, STRENGTH I, DES. LOAD (KIPS) | FOOTING SIZE |
|---|---|---|---|---|
| 25 TO 27 | 201'-4 | 14D | 142 | 4' x 10' x 24' |
| | 213'-10 | 15D | 141 | |
| | 226'-4 | 15D | 145 | |
| | 243'-0 | 16A | 138 | |
| 28 TO 30 | 201'-4 | 15E | 134 | 4' x 11' x 24' |
| | 213'-10 | 15E | 138 | |
| | 226'-4 | 15E | 142 | |
| | 243'-0 | 16B | 139 | |
| 31 TO 33 | 201'-4 | 15E | 141 | 4' x 11' x 24' |
| | 213'-10 | 15E | 145 | |
| | 226'-4 | 16B | 141 | |
| | 243'-0 | 16B | 144 | |
| 34 TO 36 | 201'-4 | 15F | 145 | 4' x 11' x 26' |
| | 213'-10 | 16C | 141 | |
| | 226'-4 | 16C | 145 | |
| | 243'-0 | 17A | 142 | |
| 37 TO 40 | 201'-4 | 16D | 144 | 4' x 12' x 26' |
| | 213'-10 | 17B | 143 | |
| | 226'-4 | 17B | 147 | |
| | 243'-0 | 18A | 140 | |

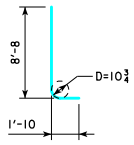
| FOOTING SIZE | REINFORCING STEEL (ONE FOOTING) BAR | NO., SIZE & SPACING | LENGTH | WEIGHT (LB.) | TOTAL WEIGHT (LB.) | STRUCTURAL CONCRETE (CY) |
|---|---|---|---|---|---|---|
| 4' x 10' x 24' | d2 | 44 - #10 AS SHOWN | 10'-6 | 1988 | 3368 | 35.6 |
| | f1 | 24 - #5 @ 1'-0 | 9'-8 | 242 | | |
| | f2 | 10 - #5 @ 1'-0 | 23'-8 | 247 | | |
| | g1 | 28 - #6 @ 0'-10 | 9'-8 | 407 | | |
| | g2 | 10 - #7 @ 1'-0 | 23'-8 | 484 | | |
| 4' x 11' x 24' | d2 | 44 - #10 AS SHOWN | 10'-6 | 1988 | 3771 | 39.1 |
| | f1 | 24 - #5 @ 1'-0 | 10'-8 | 267 | | |
| | f2 | 11 - #5 @ 1'-0 | 23'-8 | 272 | | |
| | g1 | 26 - #7 @ 0'-11 | 10'-8 | 567 | | |
| | g2 | 14 - #7 @ 0'-9½ | 23'-8 | 677 | | |
| 4' x 11' x 26' | d2 | 44 - #10 AS SHOWN | 10'-6 | 1988 | 4272 | 42.4 |
| | f1 | 26 - #5 @ 1'-0 | 10'-8 | 289 | | |
| | f2 | 11 - #5 @ 1'-0 | 25'-8 | 294 | | |
| | g1 | 26 - #7 @ 1'-0 | 10'-8 | 567 | | |
| | g2 | 13 - #9 @ 0'-10½ | 25'-8 | 1134 | | |
| 4' x 12' x 26' | d2 | 44 - #10 AS SHOWN | 10'-6 | 1988 | 4610 | 46.2 |
| | f1 | 26 - #5 @ 1'-0 | 11'-8 | 316 | | |
| | f2 | 12 - #5 @ 1'-0 | 25'-8 | 321 | | |
| | g1 | 32 - #7 @ 0'-9½ | 11'-8 | 763 | | |
| | g2 | 14 - #9 @ 0'-10½ | 25'-8 | 1222 | | |




## d2 BAR LAYOUT

(SEE SECTION A-A ON SHEET H24-64-06.)

① NOTE: PU, STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.




## d2

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

## FOOTING NOTES:

THESE FOOTINGS ARE DESIGNED AND DETAILED TO BE USED WITH THE CAP AND COLUMN DETAILS OF THE TEE PIERS AS SHOWN ON SHEET H24-64-06.

BATTER PILES IN EXTERIOR ROWS 1:4 IN THE DIRECTION SHOWN.

STEEL PILING USED AS POINT BEARING SHALL HAVE A MINIMUM DISTANCE OF APPROXIMATELY 10 FEET FROM BOTTOM OF FOOTING TO TOP OF BEARING ROCK. THE PILE LAYOUTS ARE SUCH THAT THE DISTANCE CENTER TO CENTER OF ADJACENT PILING SHALL NOT EXCEED 8'-0.

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

09-2016 LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 24' ROADWAY, THREE SPAN BRIDGE

# PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

DECEMBER, 2006

## TEE PIER-HP10x57 SRL-I STEEL PILE FOOTINGS

30° SKEW - H=25' TO 40'

H24-66-06

REVISED 05-13 - REVISION FOR LRFD PILE DESIGN.
REVISED 09-2016 - CHANGED VERTICAL CLEARANCE OF REBAR "f2" TO TOP OF PIER FOOTING TO 3" (WAS 2").