

PILE BENT NOTES:

THESE PIER BENTS ARE DESIGNED FOR USE WITH STANDARD H40-06 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES IN LOCATIONS WHERE ICE AND DRIFT CONDITIONS ARE NOT SEVERE.

PIER PILES ARE TO BE DRIVEN TO THE DESIGN BEARING VALUE W/O IMPACT.

FOR DETAILS OF TRESTLE PILES, TYPES 1, 2 AND 3, SEE STANDARD P10A.

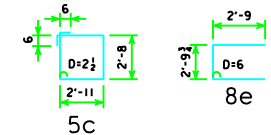
DETAILS SHOWN FOR CONCRETE PILES. FOR ORIENTATION OF STEEL PILES, SEE STANDARD P10A.

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

BAR	SHAPE	10 PILE BENT NO. LENGTH WEIGHT	12 PILE BENT NO. LENGTH WEIGHT	14 PILE BENT NO. LENGTH WEIGHT	16 PILE BENT NO. LENGTH WEIGHT	18 PILE BENT NO. LENGTH WEIGHT	19 PILE BENT NO. LENGTH WEIGHT
9a		6 47'-8 972	6 47'-8 972	6 47'-8 972	4 47'-8 648	4 47'-8 648	4 47'-8 648
8b		8 47'-8 1018	8 47'-8 1018	8 47'-8 1018	8 47'-8 1018	8 47'-8 1018	8 47'-8 1018
5c		38 12'-2 482	46 12'-2 584	54 12'-2 685	47 12'-2 596	36 12'-2 457	38 12'-2 482
8e		4 8'-4 89	4 8'-4 89	4 8'-4 89	4 8'-4 89	4 8'-4 89	4 8'-4 89
4	REINFORCING STEEL (LB.)	2561	2663	2764	2351	2212	2237
STRUCTURAL CONCRETE (CY)	2 PILE TYPE 1, 2	-----	18.1	18.0	17.9	17.8	17.8
	3	18.6	18.6	18.6	18.6	-----	-----

BENT BAR DETAILS



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

C-C ABUTMENT BEARING	FRICTION BEARING PILING				FRICTION OR POINT BEARING PILING			
	P10A TYPE 1 OR 2				P10A TYPE 3			
	NUMBER OF TRESTLE PILES AND SPACING	① "K" (INCHES)	DES. PILE BRG.(TONS) W/O IMPACT	DES. PILE BRG.(TONS) W/O IMPACT	NUMBER OF TRESTLE PILES AND SPACING	① "K" (INCHES)	DES. PILE BRG.(TONS) W/O IMPACT	DES. PILE BRG.(TONS) W/O IMPACT
138'-10	14 PILES @ 3'-5 1/2 CTRS.	14	29	27	10 PILES @ 5'-0 CTRS.	16	41	37
	12 PILES @ 4'-1 CTRS.	16	34	31	10 PILES @ 5'-0 CTRS.	18	41	37
151'-4	14 PILES @ 3'-5 1/2 CTRS.	14	30	28	10 PILES @ 5'-0 CTRS.	16	42	39
	12 PILES @ 4'-1 CTRS.	16	35	33	10 PILES @ 5'-0 CTRS.	18	42	39
163'-10	16 PILES @ 3'-0 CTRS.	14	29	27	10 PILES @ 5'-0 CTRS.	16	46	43
	14 PILES @ 3'-5 1/2 CTRS.	16	33	31	10 PILES @ 5'-0 CTRS.	18	46	43
176'-4	16 PILES @ 3'-0 CTRS.	14	30	28	10 PILES @ 5'-0 CTRS.	16	48	45
	14 PILES @ 3'-5 1/2 CTRS.	16	35	32	12 PILES @ 4'-1 CTRS.	18	40	38
188'-10	18 PILES @ 2'-7 1/2 CTRS.	14	28	27	12 PILES @ 4'-1 CTRS.	16	42	40
	14 PILES @ 3'-5 1/2 CTRS.	16	36	34	12 PILES @ 4'-1 CTRS.	18	42	40
201'-4	19 PILES @ 2'-6 CTRS.	14	30	29	12 PILES @ 4'-1 CTRS.	16	48	45
	16 PILES @ 3'-0 CTRS.	16	36	34	14 PILES @ 3'-5 1/2 CTRS.	18	41	39
213'-10	*19 PILES @ 2'-6 CTRS.	14	32	30	12 PILES @ 4'-1 CTRS.	16	50	47
	18 PILES @ 2'-7 1/2 CTRS.	16	34	32	14 PILES @ 3'-5 1/2 CTRS.	18	43	41
226'-4	*19 PILES @ 2'-6 CTRS.	14	33	31	14 PILES @ 3'-5 1/2 CTRS.	16	45	42
	18 PILES @ 2'-7 1/2 CTRS.	16	35	33	14 PILES @ 3'-5 1/2 CTRS.	18	45	42
243'-0	19 PILES @ 2'-6 CTRS.	16	35	33	14 PILES @ 3'-5 1/2 CTRS.	16	47	44
					16 PILES @ 3'-0 CTRS.	18	41	39

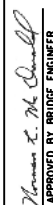
① SEE STANDARD P10A FOR "K" DIMENSION.

② CONCRETE QUANTITIES SHOWN HAVE HAD THE VOLUME OF EMBEDDED PILES DEDUCTED FOR TYPES 1 AND 2 BASED ON 0.8 FT³ PER FOOT OF EMBEDMENT. THE CONCRETE QUANTITIES FOR TYPE 3 PILES DO NOT REQUIRE REDUCTION FOR PILE EMBEDMENT.

③ FOR ESTIMATING PILE LENGTHS AND FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.

④ SEE SHEET H40-24-06 FOR STEP REINFORCING STEEL QUANTITIES AND DETAILS.

* TYPE 2 ONLY.

LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division
		STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES HL93 SUPERSTRUCTURE DECEMBER, 2006 HS25 SUBSTRUCTURE
		PILE BENT DETAILS 30° SKEW
		H40-50-06