

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, TYPES 1, 2 AND 3, SEE STANDARD PIOL.

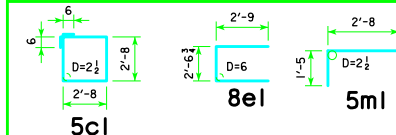
MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

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

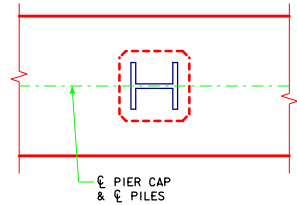
REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	LENGTH	SHAPE	9 PILE BENT			10 PILE BENT			11 PILE BENT			12 PILE BENT			13 PILE BENT			14 PILE BENT			15 PILE BENT			16 PILE BENT								
			NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT						
q1	40'-8	=====	6	9	830	6	9	830	6	9	830	6	9	830	6	9	830	6	9	830	6	9	830	4	9	553						
q2	40'-8	=====	4	8	434	4	8	434	4	8	434	4	8	434	4	8	434	4	8	434	4	8	434	4	8	434	4	8	434			
b1	40'-8	=====	4	9	553	4	9	553	4	9	553	4	9	553	4	9	553	4	9	553	4	9	553	4	8	434	4	8	434			
5c1	11'-8	=====	34	5	414	38	5	462	42	5	511	46	5	560	50	5	608	41	5	499	44	5	535	32	5	389	8	5	46			
8e1	8'-1	=====	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86
5m1	5'-6	=====	8	5	46	8	5	46	8	5	46	8	5	46	8	5	46	8	5	46	8	5	46	8	5	46	8	5	46	8	5	46
5n1	2'-8	=====	8	5	22	8	5	22	8	5	22	8	5	22	8	5	22	8	5	22	8	5	22	8	5	22	8	5	22	8	5	22
REINFORCING STEEL (LB.)			2385			2433			2482			2531			2579			2470			2387			1964								
STRUCTURAL CONCRETE (CY)			-----			-----			14.1			14.0			14.0			13.9			13.9			13.8								
PILE TYPE			1, 2			-----			-----			-----			-----			-----			-----			-----								
PILE TYPE			3			14.5			14.5			14.5			14.5			14.5			14.5			-----								

BENT BAR DETAILS



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



PILE ORIENTATION DETAIL FOR TYPE 3 TRESTLE BENT PILES

E-E ABUTMENT BEARING	FRICTION BEARING PILING			FRICTION OR POINT BEARING PILING		
	PIOL TYPE 1 OR 2			PIOL TYPE 3		
	NUMBER OF TRESTLE PILES	② "K" (INCHES)	③ LRFD PU, STRENGTH I DES. LOAD (KIPS)	NUMBER OF TRESTLE PILES	PILE SIZE	③ LRFD PU, STRENGTH I DES. LOAD (KIPS)
138'-10	13	14	91	9	HP10x57	131
	11	16	107	9	HP12x53	131
151'-4	14	14	89	9	HP10x57	138
	12	16	104	10	HP12x53	124
163'-10	-----	-----	-----	10	HP10x57	134
	-----	-----	-----	10	HP12x53	134
176'-4	-----	-----	-----	10	HP10x57	141
	-----	-----	-----	11	HP12x53	128
188'-10	-----	-----	-----	11	HP10x57	133
	-----	-----	-----	11	HP12x53	133
201'-4	-----	-----	-----	12	HP10x57	136
	-----	-----	-----	13	HP12x53	126
213'-10	-----	-----	-----	12	HP10x57	143
	-----	-----	-----	13	HP12x53	132
226'-4	-----	-----	-----	13	HP10x57	139
	-----	-----	-----	14	HP12x53	129
243'-0	-----	-----	-----	14	HP10x57	136
	-----	-----	-----	15	HP12x53	127

- ① 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.
- ② SEE STANDARD PIOL FOR "K" DIMENSION.
- ③ NOTE: PU, 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.

05-13 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 AUGUST, 2009
		PILE BENT PIERS

H40-46-06

0° SKEW