

PILE BENT NOTES:

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

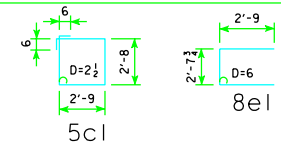
FOR DETAILS OF TRESTLE PILES, TYPES 1, 2 AND 3, SEE STANDARD PIOL.

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

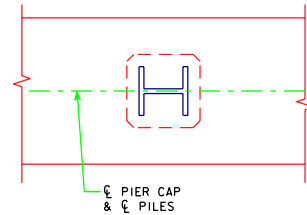
REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	LENGTH	SHAPE	10 PILE BENT			11 PILE BENT			12 PILE BENT			13 PILE BENT			14 PILE BENT			15 PILE BENT			16 PILE BENT			17 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
a1	46'-8		8	9	1269	6	9	952	6	9	952	6	9	952	6	9	952	6	9	952	6	9	952	4	9	635
a2	46'-8		4	8	498	4	8	498	4	8	498	4	8	498	4	8	498	4	8	498	4	8	498	4	8	498
b1	46'-8		4	9	635	4	9	635	4	9	635	4	9	635	4	9	635	4	9	635	4	8	498	4	8	498
5c1	11'-10		38	5	489	42	5	518	46	5	568	50	5	617	54	5	666	58	5	716	47	5	580	50	5	617
8e1	8'-2		4	8	87	4	8	87	4	8	87	4	8	87	4	8	87	4	8	87	4	8	87	4	8	87
① REINFORCING STEEL (LB.)			2958			2690			2740			2789			2838			2888			2615			2335		
STRUCTURAL ② PILE TYPE			-----			-----			16.8			16.8			16.7			16.7			16.6			16.6		
CONCRETE (CY)			17.4			17.4			17.4			17.4			17.4			17.4			17.4			-----		

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	③ "K" (INCHES)	④ DES. PILE BRG. (TONS)	⑤ LRFD DES. BRG. (KIPS)	NUMBER OF TRESTLE PILES	PILE SIZE	④ DES. PILE BRG. (TONS)	⑤ LRFD DES. BRG. (KIPS)
138'-10	14	14	31	90	10	HP10x57	43	126
	12	16	36	105	10	HP12x53	43	126
151'-4	14	14	33	95	10	HP10x57	46	133
	13	16	35	102	10	HP12x53	46	133
163'-10	16	14	31	90	10	HP10x57	50	144
	14	16	35	103	11	HP12x53	45	131
176'-4	16	14	32	94	11	HP10x57	47	137
	14	16	37	108	12	HP12x53	43	126
188'-10	17	14	32	93	11	HP10x57	49	143
	15	16	36	105	12	HP12x53	45	131
201'-4	17	16	36	104	13	HP10x57	47	136
					14	HP12x53	43	126
213'-10	17	16	38	109	13	HP10x57	49	143
					14	HP12x53	46	132
226'-4	-----	--	--	--	14	HP10x57	48	139
					15	HP12x53	45	130
243'-0	-----	--	--	--	15	HP10x57	47	137
					16	HP12x53	44	128

- SEE SHEET H44-17-07 FOR STEP REINFORCING STEEL QUANTITIES AND DETAILS.
- 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.
- SEE STANDARD PIOL FOR "K" DIMENSION.
- FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.
- 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.

LATEST REVISION DATE 11-09	APPROVED BY BRIDGE ENGINEER <i>Thomas E. McQuinn</i>	 Iowa Department of Transportation Highway Division	
		STANDARD DESIGN - 44' ROADWAY, THREE SPAN BRIDGE PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES MARCH, 2007	
		PILE BENT PIERS 15° SKEW	H44-43-07