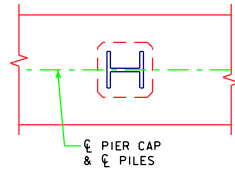


PILE BENT NOTES:

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.



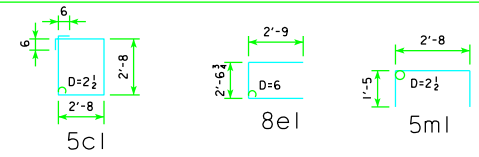
PILE ORIENTATION DETAIL FOR
TYPE 3 TRESTLE BENT PILES

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

REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	LENGTH	SHAPE	7 PILE BENT			8 PILE BENT			9 PILE BENT			10 PILE BENT			11 PILE BENT			12 PILE BENT		
			NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
a1	30'-8"		6	9	626	6	9	626	6	9	626	6	9	626	6	9	626	6	9	626
a2	30'-8"		4	8	328	4	8	328	4	8	328	4	8	328	4	8	328	4	8	328
b1	30'-8"		4	9	417	4	9	417	4	9	417	4	8	328	4	8	328	4	8	328
5c1	11'-8"		26	5	316	30	5	365	34	5	414	29	5	353	32	5	389	35	5	426
8e1	8'-1"		4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86
5m1	5'-6"		4	5	23	4	5	23	4	5	23	4	5	23	4	5	23	4	5	23
5n1	2'-8"		4	5	11	4	5	11	4	5	11	4	5	11	4	5	11	4	5	11
REINFORCING STEEL (LB.)			1807			1856			1905			1755			1791			1828		
STRUCTURAL CONCRETE (CY)	PILE TYPE		1, 2			-----			10.4			10.4			10.3			10.3		
	3		10.8			10.8			10.8			10.8			10.8			10.8		

BENT BAR DETAILS



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

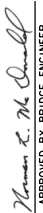
E-E ABUTMENT BEARING	FRICTION BEARING PILING				FRICTION OR POINT BEARING PILING			
	PIOL TYPE 1 OR 2				PIOL TYPE 3			
	NUMBER OF TRESTLE PILES	② "K" (INCHES)	③ DES. PILE BRG. (TONS)	④ LRFD DES. BRG. (KIPS)	NUMBER OF TRESTLE PILES	PILE SIZE	③ DES. PILE BRG. (TONS)	④ LRFD DES. BRG. (KIPS)
138'-10	10	14	32	93	7	HP10x57	46	134
	9	16	36	104	7	HP12x53	46	134
151'-4	11	14	31	89	7	HP10x57	48	141
	9	16	38	109	8	HP12x53	42	123
163'-10	12	14	31	89	8	HP10x57	46	133
	10	16	37	107	8	HP12x53	46	133
176'-4	12	14	32	93	8	HP10x57	48	139
	11	16	35	101	9	HP12x53	43	124
188'-10	11	16	37	106	9	HP10x57	45	130
					9	HP12x53	45	130
201'-4	12	16	37	108	9	HP10x57	50	145
					10	HP12x53	45	130
213'-10	-----	--	--	--	10	HP10x57	47	137
					11	HP12x53	43	124
226'-4	-----	--	--	--	10	HP10x57	50	144
					11	HP12x53	45	131
243'-0	-----	--	--	--	11	HP10x57	48	138
					12	HP12x53	44	126

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 FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.

④ FOR ESTIMATING PILE LENGTHS USING AASHTO LRFD SPECIFICATIONS.

07-10 LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division
		STANDARD DESIGN - 30' ROADWAY, THREE SPAN BRIDGES PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES DECEMBER, 2006
		PILE BENT PIERS 0° SKEW