

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.

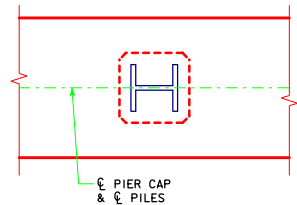
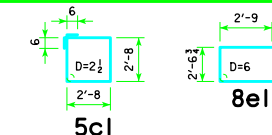
MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

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

REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	LENGTH	SHAPE	10 PILE BENT			12 PILE BENT			14 PILE BENT			16 PILE BENT			18 PILE BENT								
			NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT						
a1	47'-2"		8	9	1283	8	9	1283	6	9	962	6	9	962	6	9	962						
a2	47'-2"		4	8	504	4	8	504	4	8	504	4	8	504	4	8	504						
b1	47'-2"		4	9	641	4	9	641	4	9	641	4	9	641	4	9	641						
5c1	11'-8"		47	5	572	57	5	694	67	5	815	62	5	754	53	5	645						
8e1	8'-1"		4	8	86	4	8	86	4	8	86	4	8	86	4	8	86						
① REINFORCING STEEL (LB.)			3086			3208			3008			2947			2838								
STRUCTURAL CONCRETE (CY)			② PILE TYPE			1, 2			17.0			16.5			16.4			16.3			16.2		
			3			17.0			17.0			17.0			17.0			17.0					

BENT BAR DETAILS



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)	③ LRFD P _u , STRENGTH I, DES. LOAD (KIPS)	NUMBER OF TRESTLE PILES	PILE SIZE	③ LRFD P _u , STRENGTH I, DES. LOAD (KIPS)
160'-0"	14	14	86	10	HP10x57	121
	12	16	101	10	HP12x53	121
180'-0"	14	14	94	10	HP10x57	132
	14	16	94	10	HP12x53	132
200'-0"	16	14	89	10	HP10x57	143
	14	16	102	12	HP12x53	119
220'-0"	--	--	--	12	HP10x57	130
	--	--	--	12	HP12x53	130
240'-0"	--	--	--	12	HP10x57	142
	--	--	--	14	HP12x53	122
260'-0"	--	--	--	14	HP10x57	132
	--	--	--	14	HP12x53	132
280'-0"	--	--	--	14	HP10x57	142
	--	--	--	16	HP12x53	124
300'-0"	--	--	--	16	HP10x57	133
	--	--	--	16	HP12x53	133
320'-0"	--	--	--	16	HP10x57	142
	--	--	--	18	HP12x53	126
340'-0"	--	--	--	18	HP10x57	133
	--	--	--	18	HP12x53	133

- ① SEE SHEET RS40-168-10 FOR STEP REINFORCING STEEL QUANTITIES AND DETAILS.
- 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 SEE STANDARD PIOL FOR "K" DIMENSION.
- ④ NOTE: P_u, 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.

REVISED 05-13 - REVISION FOR LRFD PILE DESIGN.

05-13 LATEST REVISION DATE <i>Thomas E. Mc Donnell</i> APPROVED BY BRIDGE ENGINEER	
	STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES ROLLED STEEL BEAM BRIDGES JUNE, 2010
	<div style="text-align: center;"> PILE BENT PIERS 30° SKEW </div> <div style="text-align: center;"> RS40-109-10 </div>