

**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, SEE STANDARD PIOL.

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

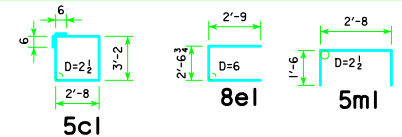
PIER PILES SHALL BE DRIVEN TO VALUES SHOWN IN DESIGN PLANS.

**REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT**

BAR	LENGTH	SHAPE	7 PILE BENT			8 PILE BENT			9 PILE BENT			10 PILE BENT			11 PILE BENT			12 PILE BENT			13 PILE BENT		
			NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
a1	40'-8"		8	9	1106	8	9	1106	8	9	1106	8	9	1106	8	9	1106	8	9	1106	8	9	1106
a2	40'-8"		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	10	700	4	9	553	4	9	553
5c1	12'-8"		42	5	555	44	5	581	56	5	740	56	5	740	62	5	819	46	5	608	50	5	661
8e1	8'-1"		4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86
5m1	5'-8"		8	5	47	8	5	47	8	5	47	8	5	47	8	5	47	8	5	47	8	5	47
5n1	2'-10"		8	5	24	8	5	24	8	5	24	8	5	24	8	5	24	8	5	24	8	5	24
REINFORCING STEEL (LB.)			2805			2831			2990			2990			3216			2858			2911		
STRUCTURAL PILE TYPE																							
CONCRETE (CY)			3			16.8			16.8			16.8			16.8			16.8			16.8		

NOTE: THE REINFORCING STEEL QUANTITY IS TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.  
 NOTE: THE CONCRETE QUANTITY IS TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.  
 NOTE: THE PILE TYPE IS TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.

**BENT BAR DETAILS**

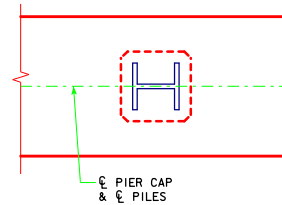


NOTE: ALL DIMENSIONS ARE OUT TO OUT. D=PIN DIAMETER.

**FRICTION OR POINT BEARING PILING**

ABUTMENT BEARING	PIOL TYPE 3		
	NUMBER OF TRESTLE PILES	PILE SIZE	LRFD P <sub>u</sub> STRENGTH I, DES. LOAD (KIPS)
160'-0"	7	HP14x73	173
	7	HP14x89	173
180'-0"	8	HP14x73	165
	7	HP14x89	189
200'-0"	8	HP14x73	178
	7	HP14x89	204
220'-0"	9	HP14x73	173
	7	HP14x89	223
240'-0"	10	HP14x73	171
	8	HP14x89	213
260'-0"	10	HP14x73	185
	9	HP14x89	205
280'-0"	11	HP14x73	180
	9	HP14x89	220
300'-0"	12	HP14x73	178
	10	HP14x89	213
320'-0"	13	HP14x73	175
	11	HP14x89	206
340'-0"	13	HP14x73	184
	11	HP14x89	217

NOTE: P<sub>u</sub> STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.



**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.

LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER <i>Norman E. McQuinn</i>	<b>IOWA DOT</b> Highway Division	
		STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES <b>ROLLED STEEL BEAM BRIDGES</b> OCTOBER, 2014	
		<b>PILE BENT PIERS HP14 PILES</b> 0° SKEW	<b>RS40-099-14</b>