

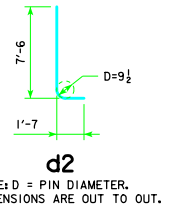
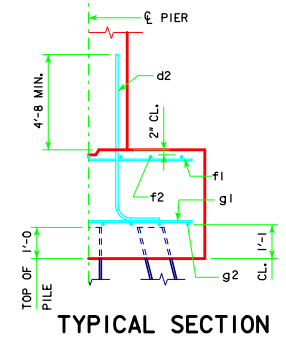
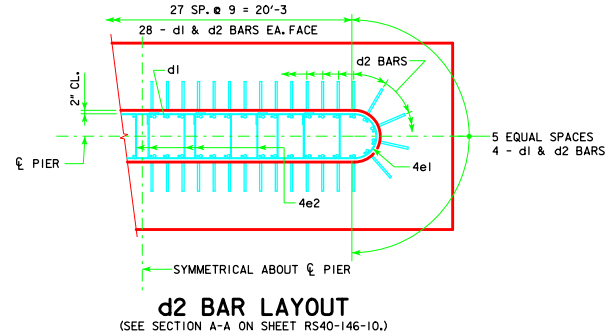
REVISED 05-13 - REVISION FOR LRFD PILE DESIGN.

H IN FT.	CL - CL ABUT. BRG.	PILING (HP10x57)		FOOTING SIZE
		NO. & LAYOUT	① LRFD P _u , STRENGTH I, DES. LOAD (KIPS)	
16 TO 18	160'-0	10A	215	4' x 8' x 27'
	180'-0	11A	216	
	200'-0	12A	211	
	220'-0	13A	218	
	240'-0	14A	216	
	260'-0	14B	219	
	280'-0	16A	212	
	300'-0	16C	210	
	320'-0	17B	212	
	340'-0	18A	211	
19 TO 21	160'-0	11A	210	4' x 8' x 27'
	180'-0	12A	206	
	200'-0	12B	214	
	220'-0	13B	218	
	240'-0	14B	210	
	260'-0	15A	215	
	280'-0	16A	217	
	300'-0	16C	215	
	320'-0	17B	217	
	340'-0	18A	216	
22 TO 24	160'-0	11B	213	4' x 9' x 27'
	180'-0	12B	208	
	200'-0	12C	218	
	220'-0	14A	213	
	240'-0	14B	215	
	260'-0	15A	220	
	280'-0	16C	207	
	300'-0	16C	219	
	320'-0	18A	211	
	340'-0	19A	213	
25 TO 27	160'-0	11C	217	4' x 10' x 27'
	180'-0	12C	212	
	200'-0	13B	213	
	220'-0	14A	218	
	240'-0	15A	211	
	260'-0	16A	212	
	280'-0	16C	211	
	300'-0	17B	214	
	320'-0	18A	215	
	340'-0	19A	216	
28 TO 30	160'-0	12C	204	4' x 10' x 27'
	180'-0	12C	217	
	200'-0	13B	218	
	220'-0	14B	210	
	240'-0	15A	215	
	260'-0	16A	216	
	280'-0	16C	215	
	300'-0	17B	218	
	320'-0	18A	218	
	340'-0	19B	218	
31 TO 33	160'-0	12C	209	4' x 10' x 27'
	180'-0	12D	217	
	200'-0	13C	218	
	220'-0	14B	214	
	240'-0	15A	219	
	260'-0	16B	218	
	280'-0	16C	218	
	300'-0	18A	211	
	320'-0	19A	214	
	340'-0	20A	214	
34 TO 36	160'-0	12D	209	4' x 11' x 27'
	180'-0	13C	211	
	200'-0	14B	204	
	220'-0	14B	218	
	240'-0	16A	211	
	260'-0	17A	214	
	280'-0	17B	213	
	300'-0	18A	214	
	320'-0	19B	215	
	340'-0	20A	216	

H IN FT.	CL - CL ABUT. BRG.	PILING (HP10x57)		FOOTING SIZE
		NO. & LAYOUT	① LRFD P _u , STRENGTH I, DES. LOAD (KIPS)	
37 TO 40	160'-0	12D	215	4' x 11' x 27'
	180'-0	14B	199	
	200'-0	14B	209	
	220'-0	15A	214	
	240'-0	16A	216	
	260'-0	17A	218	
	280'-0	17B	217	
	300'-0	18A	217	
	320'-0	19B	219	
	340'-0	20B	218	

FOOTING SIZE	REINFORCING STEEL (ONE FOOTING)				TOTAL WEIGHT (L.B.)	STRUCTURAL CONCRETE (CY)
	BAR	NO., SIZE & SPACING	LENGTH	WEIGHT (L.B.)		
4' x 8' x 27'	d2	64 - #9 AS SHOWN	9'-1	1977	3248	32.0
	f1	27 - #5 @ 1'-0	7'-8	216		
	f2	8 - #5 @ 1'-0	26'-8	223		
	g1	27 - #6 @ 1'-0	7'-8	311		
	g2	13 - #6 @ 0'-7 1/2	26'-8	521		
	d2	64 - #9 AS SHOWN	9'-1	1977		
4' x 9' x 27'	f1	27 - #5 @ 1'-0	8'-8	244	3370	36.0
	f2	9 - #5 @ 1'-0	26'-8	250		
	g1	29 - #6 @ 0'-11	8'-8	378		
	g2	13 - #6 @ 0'-8 1/2	26'-8	521		
	d2	64 - #9 AS SHOWN	9'-1	1977		
	f1	27 - #5 @ 1'-0	9'-8	272		
4' x 10' x 27'	f2	10 - #5 @ 1'-0	26'-8	278	3601	40.0
	g1	28 - #7 @ 0'-11 1/2	9'-8	553		
	g2	13 - #6 @ 0'-9 1/2	26'-8	521		
	d2	64 - #9 AS SHOWN	9'-1	1977		
	f1	27 - #5 @ 1'-0	10'-8	300		
	f2	11 - #5 @ 1'-0	26'-8	306		
4' x 11' x 27'	g1	27 - #9 @ 1'-0	10'-8	979	4083	44.0
	g2	13 - #6 @ 0'-10 1/2	26'-8	521		
	d2	64 - #9 AS SHOWN	9'-1	1977		
	f1	27 - #5 @ 1'-0	11'-8	329		
	f2	12 - #5 @ 1'-0	26'-8	334		
	g1	31 - #9 @ 0'-10 1/2	11'-8	1230		
4' x 12' x 27'	g2	13 - #6 @ 0'-11 1/2	26'-8	521	4391	48.0
	d2	64 - #9 AS SHOWN	9'-1	1977		
	f1	29 - #5 @ 1'-0	11'-8	353		
	f2	12 - #5 @ 1'-0	28'-8	359		
	g1	33 - #9 @ 0'-10 1/2	11'-8	1309		
	g2	19 - #8 @ 0'-7 1/2	28'-8	1454		
4' x 13' x 29'	d2	64 - #9 AS SHOWN	9'-1	1977	5787	55.9
	f1	29 - #5 @ 1'-0	12'-8	383		
	f2	13 - #5 @ 1'-0	28'-8	389		
	g1	35 - #9 @ 0'-10	12'-8	1507		
	g2	20 - #8 @ 0'-7 1/2	28'-8	1531		
	d2	64 - #9 AS SHOWN	9'-1	1977		
4' x 14' x 29'	f1	29 - #5 @ 1'-0	13'-8	413	5966	60.1
	f2	14 - #5 @ 1'-0	28'-8	419		
	g1	35 - #9 @ 0'-10	13'-8	1626		
	g2	20 - #8 @ 0'-8 1/2	28'-8	1531		

① NOTE: P_u, STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.



FOOTING NOTES:

THESE FOOTINGS ARE DESIGNED AND DETAILED TO BE USED WITH THE CAP AND COLUMN DETAILS OF THE TEE PIERS AS SHOWN ON SHEET RS40-146-10.

BATTER PILES IN EXTERIOR ROWS 1:4 IN THE DIRECTION SHOWN.

STEEL PILING USED AS POINT BEARING SHALL HAVE A MINIMUM DISTANCE OF APPROXIMATELY 10 FEET FROM BOTTOM OF FOOTING TO TOP OF BEARING ROCK. THE PILE LAYOUTS ARE SUCH THAT THE DISTANCE CENTER TO CENTER OF ADJACENT PILING SHALL NOT EXCEED 8'-0.

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

05-13 LATEST REVISION DATE	APPROVED BY <i>Thomas E. McQuinn</i> BRIDGE ENGINEER	<p>Iowa Department of Transportation Highway Division</p>	<p>STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES</p> <p>ROLLED STEEL BEAM BRIDGES</p> <p>JUNE, 2010</p>		
		<p>TEE PIER-HP10x57 SRL-2 STEEL PILE FOOTINGS</p> <p>30° SKEW - SHEET 1</p>		<p>RS40-151-10</p>	