

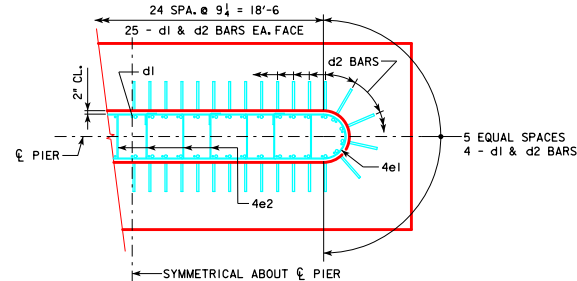
REVISED 05-13 - REVISION FOR LRFD PILE DESIGN.  
 REVISED 10-2016 - ADDED "LRFD P<sub>u</sub> STRENGTH I, DES. LOAD (KIPS)" TO "PILING (HP10x57)" COLUMN HEADING IN THE TABLE ON THE LEFT SIDE OF THE SHEET.  
 CHANGED VERTICAL CLEARANCE OF REBAR #2 TO TOP OF PIER FOOTING TO 3" (WAS 2").

H IN FT.	C - C ABUT. BRG.	PILING (HP10x57)		FOOTING SIZE
		NO. & LAYOUT	LRFD P <sub>u</sub> STRENGTH I, DES. LOAD (KIPS)	
16 TO 18	160'-0	17A	134	4' x 8' x 26'
	180'-0	17A	144	
	200'-0	18A	143	
	220'-0	20A	145	
	240'-0	21C	146	
	260'-0	21F	142	
	280'-0	22A	146	
	300'-0	24A	138	
	320'-0	24A	146	
	340'-0	26A	143	
19 TO 21	160'-0	17A	139	4' x 8' x 26'
	180'-0	18A	139	
	200'-0	19A	143	
	220'-0	21A	146	
	240'-0	21D	144	
	260'-0	21F	145	
	280'-0	23A	145	
	300'-0	24A	141	
	320'-0	25A	144	
	340'-0	26A	146	
22 TO 24	160'-0	17A	143	4' x 8' x 26'
	180'-0	18A	143	
	200'-0	20A	142	
	220'-0	21B	146	
	240'-0	21E	143	
	260'-0	22A	143	
	280'-0	24A	136	
	300'-0	24A	143	
	320'-0	26A	142	
	340'-0	27A	144	
25 TO 27	160'-0	17B	144	4' x 9' x 26'
	180'-0	18B	144	
	200'-0	20B	143	
	220'-0	21C	146	
	240'-0	21E	145	
	260'-0	22A	145	
	280'-0	24A	138	
	300'-0	24A	146	
	320'-0	26A	144	
	340'-0	27A	147	
28 TO 30	160'-0	17C	146	4' x 10' x 26'
	180'-0	18C	146	
	200'-0	20C	144	
	220'-0	21D	144	
	240'-0	21F	144	
	260'-0	23A	144	
	280'-0	24A	140	
	300'-0	25A	144	
	320'-0	26A	146	
	340'-0	28A	145	
31 TO 33	160'-0	18D	139	4' x 11' x 26'
	180'-0	19B	143	
	200'-0	20D	145	
	220'-0	21D	146	
	240'-0	21F	147	
	260'-0	23A	146	
	280'-0	24A	142	
	300'-0	25A	146	
	320'-0	27A	144	
	340'-0	28A	147	
34 TO 36	160'-0	18D	142	4' x 11' x 26'
	180'-0	19B	146	
	200'-0	20E	143	
	220'-0	21E	143	
	240'-0	22A	144	
	260'-0	24A	136	
	280'-0	24A	144	
	300'-0	26A	143	
	320'-0	27A	146	
	340'-0	29A	144	

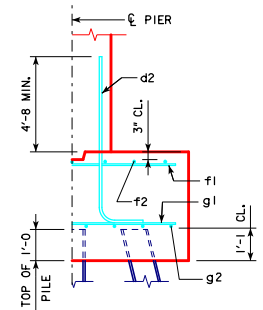
H IN FT.	C - C ABUT. BRG.	PILING (HP10x57)		FOOTING SIZE
		NO. & LAYOUT	LRFD P <sub>u</sub> STRENGTH I, DES. LOAD (KIPS)	
37 TO 40	160'-0	18E	142	4' x 11' x 30'
	180'-0	19C	145	
	200'-0	21D	143	
	220'-0	21E	146	
	240'-0	22A	146	
	260'-0	24A	138	
	280'-0	24A	146	
	300'-0	26A	145	
	320'-0	28A	144	
	340'-0	29A	145	

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 26'	d2	58 - #9 AS SHOWN	9'-1	1791	3037	30.8
	f1	26 - #5 @ 1'-0	7'-8	208		
	f2	8 - #5 @ 1'-0	25'-8	214		
	g1	26 - #6 @ 1'-0	7'-8	299		
	g2	10 - #7 @ 0'-10	25'-8	525		
	d2	58 - #9 AS SHOWN	9'-1	1791		
f1	26 - #5 @ 1'-0	8'-8	235			
f2	9 - #5 @ 1'-0	25'-8	241			
g1	26 - #7 @ 1'-0	8'-8	461			
g2	10 - #7 @ 0'-11	25'-8	525			
d2	58 - #9 AS SHOWN	9'-1	1791	3646	38.5	
f1	26 - #5 @ 1'-0	9'-8	262			
f2	10 - #5 @ 1'-0	25'-8	268			
g1	31 - #8 @ 0'-10	9'-8	800			
g2	10 - #7 @ 1'-0	25'-8	525			
d2	58 - #9 AS SHOWN	9'-1	1791			3758
f1	26 - #5 @ 1'-0	10'-8	289			
f2	11 - #5 @ 1'-0	25'-8	294			
g1	31 - #8 @ 0'-10	10'-8	883			
g2	13 - #6 @ 0'-10	25'-8	501			
d2	58 - #9 AS SHOWN	9'-1	1791	4760	48.9	
f1	30 - #5 @ 1'-0	10'-8	334			
f2	11 - #5 @ 1'-0	29'-8	340			
g1	31 - #8 @ 0'-11	10'-8	883			
g2	14 - #9 @ 0'-9	29'-8	1412			
d2	58 - #9 AS SHOWN	9'-1	1791			5187
f1	30 - #5 @ 1'-0	11'-8	365			
f2	12 - #5 @ 1'-0	29'-8	371			
g1	34 - #9 @ 0'-10	11'-8	1349			
g2	13 - #9 @ 0'-11	29'-8	1311			
d2	58 - #9 AS SHOWN	9'-1	1791	6141	62.2	
f1	30 - #5 @ 1'-0	13'-8	428			
f2	14 - #5 @ 1'-0	29'-8	433			
g1	36 - #9 @ 0'-10	13'-8	1673			
g2	18 - #9 @ 0'-9	29'-8	1816			
d2	58 - #9 AS SHOWN	9'-1	1791			6521
f1	32 - #5 @ 1'-0	13'-8	456			
f2	14 - #5 @ 1'-0	31'-8	462			
g1	38 - #9 @ 0'-10	13'-8	1766			
g2	19 - #9 @ 0'-9	31'-8	2046			

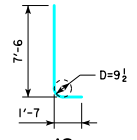
① NOTE: P<sub>u</sub> STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.



**d2 BAR LAYOUT**  
(SEE SECTION A-A ON SHEET RS40-136-10.)



**TYPICAL SECTION**



**d2**  
NOTE: D = PIN DIAMETER.  
DIMENSIONS ARE OUT TO OUT.

**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 RS40-136-10.

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.

10-2016 LATEST REVISION DATE  <i>Thomas E. McQuinn</i> APPROVED BY BRIDGE ENGINEER	
	STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES <b>ROLLED STEEL BEAM BRIDGES</b> JUNE, 2010
	<b>TEE PIER-HP10x57 SRL-1          STEEL PILE FOOTINGS</b>

**RS40-138-10**  
20° SKEW - SHEET 1