

3.3 2WH-36 Composite Deck

4" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 0.907yd³/100ft²



2WH-36 4" Slab Depth, 145 pcf NWC

Maximum Unshored Span		Gage	Single	Double	Triple	Gage		Single	Double	Triple	
		22	7' - 11"	9' - 2"	9' - 4"			19	10' - 2"	11' - 9"	12' - 1"
		21	8' - 11"	10' - 0"	10' - 4"			18	10' - 7"	12' - 8"	12' - 7"
		20	9' - 7"	10' - 7"	10' - 11"			16	11' - 4"	14' - 1"	13' - 3"

22 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	417	350	296	253	218	189	164	143	126	111	97	86	76	67	59	
	LRFD, φW	631	531	452	388	335	292	255	224	198	175	156	139	124	110	99	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	2376	2352	2324	2300	2279	2260	2244	2234	2220	2208	2197	2187	2177	2173	2165	
	PAF Base Steel ≥ .25"	2248	2234	2215	2198	2183	2170	2158	2153	2144	2135	2127	2120	2113	2111	2106	
	PAF Base Steel ≥ 0.125"	2229	2216	2198	2182	2169	2156	2146	2141	2132	2124	2117	2110	2104	2102	2097	
	#12 Screw Base Steel ≥ .0385"	2105	2102	2092	2083	2075	2069	2063	2063	2058	2053	2049	2045	2042	2042	2039	
	Concrete + Deck =	38.0	psf			I _{cr} =	23.1	in ⁴ /ft	ASD	M _{no} /Ω=	24.6	kip-in/ft			V _n /Ω =	3.06	kip/ft
	(I _{cr} +I _u)/2 =	40.97	in ⁴ /ft			I _u =	58.9	in ⁴ /ft	LRFD	φM _{no} =	36.5	kip-in/ft			φ V _n =	4.59	kip/ft

21 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	472	396	337	288	249	216	188	165	145	128	114	101	89	79	70	
	LRFD, φW	713	601	512	440	381	332	291	257	227	202	180	161	144	129	116	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	2473	2441	2407	2377	2351	2328	2308	2295	2278	2263	2250	2237	2226	2219	2209	
	PAF Base Steel ≥ .25"	2284	2267	2245	2227	2210	2195	2182	2176	2165	2156	2147	2139	2131	2129	2122	
	PAF Base Steel ≥ 0.125"	2263	2247	2227	2209	2194	2180	2168	2162	2152	2143	2135	2127	2120	2118	2112	
	#12 Screw Base Steel ≥ .0385"	2099	2096	2086	2078	2071	2064	2059	2059	2054	2049	2045	2042	2039	2039	2036	
	Concrete + Deck =	38.2	psf			I _{cr} =	25.4	in ⁴ /ft	ASD	M _{no} /Ω=	27.5	kip-in/ft			V _n /Ω =	3.06	kip/ft
	(I _{cr} +I _u)/2 =	42.66	in ⁴ /ft			I _u =	60.0	in ⁴ /ft	LRFD	φM _{no} =	41.0	kip-in/ft			φ V _n =	4.59	kip/ft

20 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	510	429	365	313	270	235	205	180	159	141	125	111	99	88	78	
	LRFD, φW	770	649	554	476	413	361	317	279	248	220	197	176	158	142	128	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	2554	2517	2477	2443	2413	2386	2362	2347	2327	2310	2294	2280	2266	2258	2247	
	PAF Base Steel ≥ .25"	2310	2291	2268	2247	2229	2214	2200	2192	2181	2170	2161	2152	2144	2141	2134	
	PAF Base Steel ≥ 0.125"	2287	2269	2247	2228	2212	2197	2184	2177	2167	2157	2148	2140	2133	2130	2123	
	#12 Screw Base Steel ≥ .0385"	2095	2092	2083	2075	2068	2062	2056	2056	2052	2047	2043	2040	2037	2038	2035	
	Concrete + Deck =	38.4	psf			I _{cr} =	26.9	in ⁴ /ft	ASD	M _{no} /Ω=	29.6	kip-in/ft			V _n /Ω =	3.06	kip/ft
	(I _{cr} +I _u)/2 =	43.81	in ⁴ /ft			I _u =	60.7	in ⁴ /ft	LRFD	φM _{no} =	44.1	kip-in/ft			φ V _n =	4.59	kip/ft

All Gages	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
	3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6
		A _s = 0.028 in ² /ft	A _s = 0.058 in ² /ft	A _s = 0.080 in ² /ft	A _s = 0.120 in ² /ft	A _s = 0.180 in ² /ft
	12 in o.c.	3230	4580	5570	7370	10070
	24 in o.c.	3230	4580	5570	7370	7750
	36 in o.c.	3230	4580	5170	5170	5170



2WH-36 Composite Deck 3.3

4" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 0.907yd³/100ft²



2WH-36 4" Slab Depth, 145 pcf NWC

Maximum Unshored Span		Gage	Single	Double		Triple										
		22	7' - 11"	9' - 2"		9' - 4"										
		21	8' - 11"	10' - 0"		10' - 4"										
		20	9' - 7"	10' - 7"		10' - 11"										
Maximum Unshored Span		Gage	Single	Double		Triple										
		19	10' - 2"	11' - 9"		12' - 1"										
		18	10' - 7"	12' - 8"		12' - 7"										
		16	11' - 4"	14' - 1"		13' - 3"										

19 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	590	497	423	363	315	274	241	212	187	166	148	132	118	106	95
	LRFD, φW	888	750	640	552	479	419	369	326	290	259	232	208	187	169	153
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2747	2694	2642	2596	2557	2522	2491	2468	2443	2420	2399	2380	2363	2350	2336
	PAF Base Steel ≥ .25"	2364	2341	2314	2290	2270	2252	2236	2226	2213	2201	2190	2180	2171	2167	2159
	PAF Base Steel ≥ 0.125"	2337	2316	2290	2268	2249	2232	2217	2209	2197	2186	2175	2166	2158	2154	2146
	#12 Screw Base Steel ≥ .0385"	2092	2090	2081	2073	2066	2060	2054	2055	2050	2046	2042	2038	2035	2036	2033
	Concrete + Deck =	38.8 psf				I _{cr} = 30.1 in ⁴ /ft	ASD	M _{no} /Ω=	33.9 kip-in/ft				V _n /Ω = 3.06 kip/ft			
	(I _{cr} +I _u)/2 =	46.15 in ⁴ /ft				I _u = 62.3 in ⁴ /ft	LRFD	φM _{no} =	50.5 kip-in/ft				φ V _n = 4.59 kip/ft			

18 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	658	555	473	407	353	308	271	239	212	189	168	151	135	122	109
	LRFD, φW	990	837	715	617	537	470	414	367	327	292	262	235	212	192	174
	L/360	-	-	-	-	-	-	-	-	-	-	-	148	130	115	102
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2940	2872	2807	2751	2701	2658	2619	2590	2558	2530	2504	2481	2459	2443	2425
	PAF Base Steel ≥ .25"	2411	2385	2354	2328	2305	2285	2267	2256	2242	2228	2216	2205	2195	2190	2181
	PAF Base Steel ≥ 0.125"	2380	2356	2328	2303	2282	2263	2246	2237	2223	2211	2199	2189	2179	2175	2167
	#12 Screw Base Steel ≥ .0385"	2092	2090	2081	2073	2066	2060	2054	2055	2050	2046	2042	2038	2035	2036	2033
	Concrete + Deck =	39.1 psf				I _{cr} = 32.7 in ⁴ /ft	ASD	M _{no} /Ω=	37.7 kip-in/ft				V _n /Ω = 3.06 kip/ft			
	(I _{cr} +I _u)/2 =	48.13 in ⁴ /ft				I _u = 63.6 in ⁴ /ft	LRFD	φM _{no} =	56.0 kip-in/ft				φ V _n = 4.59 kip/ft			

16 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	809	683	584	503	437	383	337	299	266	237	213	191	172	156	141
	LRFD, φW	1214	1028	879	760	662	581	513	456	407	364	328	296	268	243	221
	L/360	-	-	-	-	-	-	336	285	245	211	184	161	142	125	111
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3222	3133	3049	2977	2913	2857	2808	2768	2728	2692	2658	2628	2600	2579	2555
	PAF Base Steel ≥ .25"	2518	2483	2445	2413	2385	2360	2338	2323	2305	2289	2274	2260	2248	2241	2230
	PAF Base Steel ≥ 0.125"	2458	2427	2394	2365	2340	2318	2298	2286	2269	2255	2241	2229	2218	2212	2202
	#12 Screw Base Steel ≥ .0385"	2092	2090	2081	2073	2066	2060	2054	2055	2050	2046	2042	2038	2035	2036	2033
	Concrete + Deck =	39.8 psf				I _{cr} = 38.1 in ⁴ /ft	ASD	M _{no} /Ω=	45.8 kip-in/ft				V _n /Ω = 3.06 kip/ft			
	(I _{cr} +I _u)/2 =	52.33 in ⁴ /ft				I _u = 66.6 in ⁴ /ft	LRFD	φM _{no} =	68.2 kip-in/ft				φ V _n = 4.59 kip/ft			

All Gages	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width																							
	3/4" Welded Shear Studs				6x6 W1.4xW1.4				6x6 W2.9xW2.9				6x6 W4.0xW4.0				4x4 W4xW4				4x4 W6xW6			
	A _s = 0.028 in ² /ft				A _s = 0.058 in ² /ft				A _s = 0.080 in ² /ft				A _s = 0.120 in ² /ft				A _s = 0.180 in ² /ft							
	12 in o.c.				3230				4580				5570				7370				10070			
	24 in o.c.				3230				4580				5570				7370				7750			
	36 in o.c.				3230				4580				5170				5170				5170			

2W PANELS

3.3 2WH-36 Composite Deck

4½" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.061yd³/100ft²



2WH-36 4 1/2 " Slab Depth, 145 pcf NWC

Maximum Unshored Span		Gage	Single	Double	Triple	Gage		Single	Double	Triple	
		22	7' - 6"	8' - 9"	8' - 10"			19	9' - 9"	11' - 2"	11' - 7"
		21	8' - 6"	9' - 6"	9' - 10"			18	10' - 1"	12' - 1"	12' - 2"
		20	9' - 2"	10' - 1"	10' - 5"			16	10' - 10"	13' - 8"	12' - 10"

22 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"		
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																	
	ASD, W/Ω	504	423	359	307	264	229	200	175	153	135	119	105	93	82	73		
	LRFD, φW	763	642	546	469	406	353	310	272	241	213	190	169	151	135	121		
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																	
	Arc Spot Weld 1/2" Effective Dia	2867	2842	2815	2790	2769	2751	2734	2724	2711	2698	2687	2677	2668	2663	2655		
	PAF Base Steel ≥ .25"	2739	2725	2705	2688	2673	2660	2649	2644	2634	2626	2618	2610	2604	2602	2596		
	PAF Base Steel ≥ 0.125"	2720	2707	2689	2673	2659	2647	2636	2632	2623	2614	2607	2600	2594	2593	2587		
	#12 Screw Base Steel ≥ .0385"	2595	2592	2582	2573	2566	2559	2553	2553	2548	2544	2539	2536	2532	2533	2530		
	Concrete + Deck =	44.0	psf		I _{cr} = 31.5		in ⁴ /ft		ASD		M _{no} /Ω= 29.6		kip-in/ft		V _n /Ω = 3.40		kip/ft	
	(I _{cr} +I _u)/2 =	57.32	in ⁴ /ft		I _u = 83.1		in ⁴ /ft		LRFD		φM _{no} = 44.0		kip-in/ft		φ V _n = 5.08		kip/ft	

21 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"		
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																	
	ASD, W/Ω	571	480	407	349	302	262	229	201	177	157	139	123	109	97	87		
	LRFD, φW	862	726	619	532	461	403	353	312	276	246	219	196	176	158	142		
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																	
	Arc Spot Weld 1/2" Effective Dia	2963	2932	2897	2868	2842	2819	2798	2785	2769	2754	2740	2727	2716	2709	2700		
	PAF Base Steel ≥ .25"	2775	2758	2736	2717	2700	2686	2673	2666	2656	2646	2637	2629	2622	2619	2613		
	PAF Base Steel ≥ 0.125"	2753	2738	2717	2700	2684	2670	2658	2653	2643	2634	2625	2618	2611	2609	2603		
	#12 Screw Base Steel ≥ .0385"	2589	2586	2577	2568	2561	2555	2549	2549	2544	2540	2536	2532	2529	2530	2527		
	Concrete + Deck =	44.3	psf		I _{cr} = 34.7		in ⁴ /ft		ASD		M _{no} /Ω= 33.2		kip-in/ft		V _n /Ω = 3.56		kip/ft	
	(I _{cr} +I _u)/2 =	59.62	in ⁴ /ft		I _u = 84.5		in ⁴ /ft		LRFD		φM _{no} = 49.4		kip-in/ft		φ V _n = 5.35		kip/ft	

20 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"		
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																	
	ASD, W/Ω	617	519	442	379	328	285	250	220	194	172	152	136	121	108	97		
	LRFD, φW	931	786	670	577	500	437	384	339	301	268	240	215	193	173	156		
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																	
	Arc Spot Weld 1/2" Effective Dia	3045	3007	2967	2933	2903	2876	2853	2837	2818	2800	2785	2770	2757	2749	2737		
	PAF Base Steel ≥ .25"	2801	2782	2758	2738	2720	2704	2690	2683	2671	2661	2651	2643	2635	2631	2625		
	PAF Base Steel ≥ 0.125"	2777	2760	2738	2719	2702	2687	2674	2668	2657	2647	2638	2630	2623	2620	2614		
	#12 Screw Base Steel ≥ .0385"	2585	2583	2573	2565	2558	2552	2546	2547	2542	2538	2534	2530	2527	2528	2525		
	Concrete + Deck =	44.4	psf		I _{cr} = 36.9		in ⁴ /ft		ASD		M _{no} /Ω= 35.7		kip-in/ft		V _n /Ω = 3.56		kip/ft	
	(I _{cr} +I _u)/2 =	61.2	in ⁴ /ft		I _u = 85.5		in ⁴ /ft		LRFD		φM _{no} = 53.2		kip-in/ft		φ V _n = 5.35		kip/ft	

All Gages	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width																				
	3/4" Welded Shear Studs	6x6 W1.4xW1.4				6x6 W2.9xW2.9				6x6 W4.0xW4.0				4x4 W4xW4				4x4 W6xW6			
		A _s = 0.028 in ² /ft				A _s = 0.058 in ² /ft				A _s = 0.080 in ² /ft				A _s = 0.120 in ² /ft				A _s = 0.180 in ² /ft			
	12 in o.c.	3720				5070				6060				7860				10560			
	24 in o.c.	3720				5070				6060				7750				7750			
	36 in o.c.	3720				5070				5170				5170				5170			



2WH-36 Composite Deck 3.3

4 1/2" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.061yd³/100ft²



2WH-36 4 1/2" Slab Depth, 145 pcf NWC

Maximum Unshored Span		Gage	Single	Double	Triple											
		22	7' - 6"	8' - 9"	8' - 10"											
		21	8' - 6"	9' - 6"	9' - 10"											
		20	9' - 2"	10' - 1"	10' - 5"											
Gage		Single	Double	Triple												
19	9' - 9"	11' - 2"	11' - 7"													
18	10' - 1"	12' - 1"	12' - 2"													
16	10' - 10"	13' - 8"	12' - 10"													

19 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	714	602	513	441	382	333	292	258	228	203	181	162	145	130	117	
	LRFD, φW	1075	908	776	669	581	509	448	397	353	315	282	254	228	206	187	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	3237	3184	3132	3087	3047	3012	2981	2958	2933	2910	2889	2870	2853	2841	2826	
	PAF Base Steel ≥ .25"	2855	2831	2804	2781	2760	2742	2726	2717	2704	2692	2681	2671	2662	2657	2649	
	PAF Base Steel ≥ 0.125"	2827	2806	2781	2759	2740	2723	2708	2700	2687	2676	2666	2656	2648	2644	2637	
	#12 Screw Base Steel ≥ .0385"	2582	2580	2571	2563	2556	2550	2545	2545	2540	2536	2532	2529	2526	2527	2524	
Concrete + Deck =	44.8	psf		I _{cr} = 41.2		in ⁴ /ft		ASD		M _{no} /Ω= 41.0		kip-in/ft		V _n /Ω = 3.56		kip/ft	
(I _{cr} +I _u)/2 =	64.39	in ⁴ /ft		I _u = 87.6		in ⁴ /ft		LRFD		φM _{no} = 61.0		kip-in/ft		φ V _n = 5.35		kip/ft	

18 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	798	673	574	494	429	375	329	291	258	230	206	184	166	149	134	
	LRFD, φW	1199	1014	867	748	651	570	503	446	397	355	319	287	259	235	213	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	3430	3363	3298	3241	3192	3148	3110	3080	3049	3020	2995	2971	2949	2934	2915	
	PAF Base Steel ≥ .25"	2902	2875	2845	2819	2796	2775	2758	2747	2732	2719	2707	2695	2685	2680	2671	
	PAF Base Steel ≥ 0.125"	2871	2846	2818	2794	2772	2754	2737	2727	2713	2701	2690	2679	2670	2665	2657	
	#12 Screw Base Steel ≥ .0385"	2582	2580	2571	2563	2556	2550	2545	2545	2540	2536	2532	2529	2526	2527	2524	
Concrete + Deck =	45.1	psf		I _{cr} = 44.8		in ⁴ /ft		ASD		M _{no} /Ω= 45.5		kip-in/ft		V _n /Ω = 3.56		kip/ft	
(I _{cr} +I _u)/2 =	67.09	in ⁴ /ft		I _u = 89.4		in ⁴ /ft		LRFD		φM _{no} = 67.7		kip-in/ft		φ V _n = 5.35		kip/ft	

16 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	981	829	709	611	532	466	411	364	324	289	260	234	211	191	173	
	LRFD, φW	1472	1246	1067	923	804	706	624	554	495	444	399	361	327	297	270	
	L/360	-	-	-	-	-	-	-	-	-	-	256	224	197	174	155	
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	3713	3623	3540	3467	3404	3348	3298	3259	3218	3182	3149	3118	3091	3069	3045	
	PAF Base Steel ≥ .25"	3008	2973	2936	2904	2875	2850	2828	2814	2796	2779	2764	2751	2738	2731	2720	
	PAF Base Steel ≥ 0.125"	2948	2918	2884	2856	2830	2808	2788	2776	2760	2745	2732	2720	2709	2702	2693	
	#12 Screw Base Steel ≥ .0385"	2582	2580	2571	2563	2556	2550	2545	2545	2540	2536	2532	2529	2526	2527	2524	
Concrete + Deck =	45.8	psf		I _{cr} = 52.3		in ⁴ /ft		ASD		M _{no} /Ω= 55.5		kip-in/ft		V _n /Ω = 3.56		kip/ft	
(I _{cr} +I _u)/2 =	72.81	in ⁴ /ft		I _u = 93.3		in ⁴ /ft		LRFD		φM _{no} = 82.5		kip-in/ft		φ V _n = 5.35		kip/ft	

All Gages	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width															
	3/4" Welded Shear Studs	6x6 W1.4xW1.4			6x6 W2.9xW2.9			6x6 W4.0xW4.0			4x4 W4xW4			4x4 W6xW6		
		A _s = 0.028 in ² /ft			A _s = 0.058 in ² /ft			A _s = 0.080 in ² /ft			A _s = 0.120 in ² /ft			A _s = 0.180 in ² /ft		
	12 in o.c.	3720			5070			6060			7860			10560		
	24 in o.c.	3720			5070			6060			7750			7750		
	3720			5070			5170			5170			5170			

2W PANELS

3.3 2WH-36 Composite Deck

5" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.215yd³/100ft²



2WH-36 5" Slab Depth, 145 pcf NWC

Maximum Unshored Span		Gage	Single	Double	Triple	Gage		Single	Double	Triple	
		22	7' - 2"	8' - 4"	8' - 6"			19	9' - 4"	10' - 9"	11' - 1"
		21	8' - 1"	9' - 2"	9' - 5"			18	9' - 9"	11' - 7"	11' - 10"
		20	8' - 9"	9' - 8"	10' - 0"			16	10' - 5"	13' - 2"	12' - 6"

22 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	596	500	424	363	313	272	237	207	182	161	142	126	111	99	87	
	LRFD, ϕW	900	758	646	555	480	418	367	323	286	254	226	201	180	161	144	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, ϕS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	3357	3333	3305	3281	3260	3241	3224	3215	3201	3189	3178	3168	3158	3154	3145	
	PAF Base Steel ≥ .25"	3229	3215	3195	3179	3164	3151	3139	3134	3125	3116	3108	3101	3094	3092	3086	
	PAF Base Steel ≥ 0.125"	3210	3197	3179	3163	3149	3137	3126	3122	3113	3105	3098	3091	3085	3083	3078	
	#12 Screw Base Steel ≥ .0385"	3086	3083	3073	3064	3056	3050	3044	3044	3039	3034	3030	3026	3023	3023	3020	
	Concrete + Deck =	50.1	psf			I _{cr} =	41.6	in ⁴ /ft		ASD	M _{no} /Ω=	34.9	kip-in/ft		V _n /Ω =	3.67	kip/ft
	(I _{cr} +I _u)/2 =	77.58	in ⁴ /ft			I _u =	113.5	in ⁴ /ft		LRFD	ϕM _{no} =	51.9	kip-in/ft		ϕ V _n =	5.48	kip/ft

21 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	674	567	482	414	357	311	272	239	211	186	165	147	131	117	104	
	LRFD, ϕW	1018	858	732	630	546	477	419	370	328	292	260	233	209	188	169	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, ϕS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	3454	3422	3388	3358	3332	3309	3289	3276	3259	3244	3230	3218	3206	3200	3190	
	PAF Base Steel ≥ .25"	3265	3248	3226	3207	3191	3176	3163	3157	3146	3137	3128	3120	3112	3109	3103	
	PAF Base Steel ≥ 0.125"	3243	3228	3208	3190	3174	3161	3149	3143	3133	3124	3116	3108	3101	3099	3093	
	#12 Screw Base Steel ≥ .0385"	3079	3077	3067	3059	3052	3045	3039	3040	3035	3030	3026	3023	3019	3020	3017	
	Concrete + Deck =	50.3	psf			I _{cr} =	45.9	in ⁴ /ft		ASD	M _{no} /Ω=	39.1	kip-in/ft		V _n /Ω =	4.09	kip/ft
	(I _{cr} +I _u)/2 =	80.62	in ⁴ /ft			I _u =	115.4	in ⁴ /ft		LRFD	ϕM _{no} =	58.2	kip-in/ft		ϕ V _n =	6.14	kip/ft

20 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	730	615	523	449	389	338	296	261	231	204	182	162	145	129	116	
	LRFD, ϕW	1101	929	792	683	593	518	455	403	357	319	285	255	230	207	187	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, ϕS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	3535	3497	3458	3423	3393	3367	3343	3327	3308	3291	3275	3261	3247	3239	3228	
	PAF Base Steel ≥ .25"	3291	3272	3249	3228	3210	3195	3181	3173	3162	3151	3142	3133	3125	3122	3115	
	PAF Base Steel ≥ 0.125"	3267	3250	3228	3209	3193	3178	3165	3158	3148	3138	3129	3121	3113	3111	3104	
	#12 Screw Base Steel ≥ .0385"	3076	3073	3064	3056	3049	3042	3037	3037	3032	3028	3024	3021	3018	3019	3016	
	Concrete + Deck =	50.5	psf			I _{cr} =	48.7	in ⁴ /ft		ASD	M _{no} /Ω=	42.2	kip-in/ft		V _n /Ω =	4.09	kip/ft
	(I _{cr} +I _u)/2 =	82.71	in ⁴ /ft			I _u =	116.7	in ⁴ /ft		LRFD	ϕM _{no} =	62.7	kip-in/ft		ϕ V _n =	6.14	kip/ft

All Gages	LRFD - Available Diaphragm Shear Capacity, ϕS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width															
	3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6										
		A _s = 0.028	A _s = 0.058	A _s = 0.080	A _s = 0.120	A _s = 0.180										
		in ² /ft	in ² /ft	in ² /ft	in ² /ft	in ² /ft										
	12 in o.c.	4220	5570	6560	8360	11060										
	24 in o.c.	4220	5570	6560	7750	7750										
	36 in o.c.	4220	5170	5170	5170	5170										



2WH-36 Composite Deck 3.3

5" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.215yd³/100ft²



2WH-36 5" Slab Depth, 145 pcf NWC

Maximum Unshored Span		Gage	Single	Double	Triple	Gage		Single	Double	Triple	
		22	7' - 2"	8' - 4"	8' - 6"			19	9' - 4"	10' - 9"	11' - 1"
		21	8' - 1"	9' - 2"	9' - 5"			18	9' - 9"	11' - 7"	11' - 10"
		20	8' - 9"	9' - 8"	10' - 0"			16	10' - 5"	13' - 2"	12' - 6"

19 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"				
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																			
	ASD, W/Ω	845	713	608	523	453	396	347	307	272	242	216	193	173	156	140				
	LRFD, φW	1272	1075	918	792	689	603	531	471	419	374	336	302	272	246	223				
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																			
	Arc Spot Weld 1/2" Effective Dia	3728	3675	3623	3577	3538	3503	3471	3449	3424	3401	3380	3361	3343	3331	3316				
	PAF Base Steel ≥ .25"	3345	3322	3295	3271	3251	3233	3217	3207	3194	3182	3171	3161	3152	3148	3140				
	PAF Base Steel ≥ 0.125"	3318	3296	3271	3249	3230	3213	3198	3190	3178	3166	3156	3147	3138	3135	3127				
#12 Screw Base Steel ≥ .0385"	3073	3071	3061	3053	3047	3040	3035	3035	3031	3027	3023	3019	3016	3017	3014					
Concrete + Deck =		50.8	psf		I _{cr} = 54.5		in ⁴ /ft		ASD		M _{no} /Ω=		48.4		kip-in/ft		V _n /Ω = 4.09		kip/ft	
(I _{cr} +I _u)/2 =		86.95	in ⁴ /ft		I _u = 119.4		in ⁴ /ft		LRFD		φM _{no} =		72.0		kip-in/ft		φ V _n = 6.14		kip/ft	

18 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"				
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																			
	ASD, W/Ω	945	797	681	586	509	445	391	346	307	274	245	220	198	178	161				
	LRFD, φW	1420	1201	1027	887	772	677	597	530	472	422	379	342	309	280	254				
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																			
	Arc Spot Weld 1/2" Effective Dia	3921	3853	3788	3732	3682	3639	3600	3571	3539	3511	3485	3462	3440	3424	3405				
	PAF Base Steel ≥ .25"	3392	3365	3335	3309	3286	3266	3248	3237	3222	3209	3197	3186	3176	3170	3162				
	PAF Base Steel ≥ 0.125"	3361	3337	3309	3284	3263	3244	3227	3218	3204	3191	3180	3170	3160	3156	3147				
#12 Screw Base Steel ≥ .0385"	3073	3071	3061	3053	3047	3040	3035	3035	3031	3027	3023	3019	3016	3017	3014					
Concrete + Deck =		51.2	psf		I _{cr} = 59.4		in ⁴ /ft		ASD		M _{no} /Ω=		53.8		kip-in/ft		V _n /Ω = 4.09		kip/ft	
(I _{cr} +I _u)/2 =		90.53	in ⁴ /ft		I _u = 121.7		in ⁴ /ft		LRFD		φM _{no} =		80.0		kip-in/ft		φ V _n = 6.14		kip/ft	

16 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"				
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																			
	ASD, W/Ω	1164	984	841	726	632	554	488	433	386	345	310	279	252	228	207				
	LRFD, φW	1746	1479	1266	1095	955	839	741	659	589	528	476	430	390	354	323				
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																			
	Arc Spot Weld 1/2" Effective Dia	4203	4114	4030	3958	3894	3838	3788	3749	3709	3672	3639	3609	3581	3560	3536				
	PAF Base Steel ≥ .25"	3498	3463	3426	3394	3366	3341	3319	3304	3286	3270	3255	3241	3229	3221	3211				
	PAF Base Steel ≥ 0.125"	3439	3408	3375	3346	3321	3299	3279	3266	3250	3236	3222	3210	3199	3193	3183				
#12 Screw Base Steel ≥ .0385"	3073	3071	3061	3053	3047	3040	3035	3035	3031	3027	3023	3019	3016	3017	3014					
Concrete + Deck =		51.9	psf		I _{cr} = 69.5		in ⁴ /ft		ASD		M _{no} /Ω=		65.6		kip-in/ft		V _n /Ω = 4.09		kip/ft	
(I _{cr} +I _u)/2 =		98.12	in ⁴ /ft		I _u = 126.8		in ⁴ /ft		LRFD		φM _{no} =		97.7		kip-in/ft		φ V _n = 6.14		kip/ft	

All Gages	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width																				
	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A _s = 0.028 in ² /ft				6x6 W2.9xW2.9 A _s = 0.058 in ² /ft				6x6 W4.0xW4.0 A _s = 0.080 in ² /ft				4x4 W4xW4 A _s = 0.120 in ² /ft				4x4 W6xW6 A _s = 0.180 in ² /ft			
	12 in o.c.	4220				5570				6560				8360				11060			
	24 in o.c.	4220				5570				6560				7750				7750			
	36 in o.c.	4220				5170				5170				5170				5170			

2W PANELS

3.3 2WH-36 Composite Deck

5 1/2" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.370yd³/100ft²

1 Hour Fire Rating



2WH-36 5 1/2" Slab Depth, 145 pcf NWC

Maximum Unshored Span		Gage	Single	Double		Triple				Gage	Single	Double		Triple			
		22	6' - 11"	8' - 0"	8' - 2"				19	9' - 1"	10' - 4"	10' - 8"					
		21	7' - 10"	8' - 9"	9' - 1"				18	9' - 5"	11' - 2"	11' - 6"					
		20	8' - 5"	9' - 4"	9' - 7"				16	10' - 1"	12' - 8"	12' - 2"					

22 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"					
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																				
	ASD, W/Ω	690	580	492	422	364	316	276	242	213	188	166	147	130	116	103					
	LRFD, ϕW	1043	879	748	643	557	486	426	375	332	295	263	235	210	188	169					
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
	LRFD - Available Diaphragm Shear Capacity, ϕS _n (plf / ft) 36/4 Attachment Pattern																				
	Arc Spot Weld 1/2" Effective Dia	3847	3823	3795	3771	3750	3731	3715	3705	3692	3679	3668	3658	3649	3644	3636					
	PAF Base Steel ≥ .25"	3720	3705	3686	3669	3654	3641	3630	3625	3615	3606	3599	3591	3585	3583	3577					
	PAF Base Steel ≥ 0.125"	3700	3688	3669	3654	3640	3628	3617	3612	3603	3595	3588	3581	3575	3573	3568					
	#12 Screw Base Steel ≥ .0385"	3576	3573	3563	3554	3547	3540	3534	3534	3529	3524	3520	3516	3513	3514	3511					
Concrete + Deck =		56.1	psf		I _{cr} =		53.4	in ⁴ /ft		ASD		M _{no} /Ω=		40.3	kip-in/ft		V _n /Ω =		3.94	kip/ft	
(I _{cr} +I _u)/2 =		102.1	in ⁴ /ft		I _u =		150.9	in ⁴ /ft		LRFD		ϕM _{no} =		59.9	kip-in/ft		ϕ V _n =		5.90	kip/ft	

21 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"					
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																				
	ASD, W/Ω	782	658	560	480	415	361	316	278	245	217	193	172	153	137	122					
	LRFD, ϕW	1179	995	849	730	634	554	487	430	381	340	303	272	244	220	198					
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
	LRFD - Available Diaphragm Shear Capacity, ϕS _n (plf / ft) 36/4 Attachment Pattern																				
	Arc Spot Weld 1/2" Effective Dia	3944	3912	3878	3848	3823	3800	3779	3766	3750	3735	3721	3708	3697	3690	3680					
	PAF Base Steel ≥ .25"	3756	3739	3717	3698	3681	3667	3654	3647	3637	3627	3618	3610	3603	3600	3593					
	PAF Base Steel ≥ 0.125"	3734	3718	3698	3680	3665	3651	3639	3634	3624	3614	3606	3599	3592	3589	3583					
	#12 Screw Base Steel ≥ .0385"	3570	3567	3558	3549	3542	3536	3530	3530	3525	3521	3517	3513	3510	3511	3508					
Concrete + Deck =		56.4	psf		I _{cr} =		58.9	in ⁴ /ft		ASD		M _{no} /Ω=		45.3	kip-in/ft		V _n /Ω =		4.42	kip/ft	
(I _{cr} +I _u)/2 =		106	in ⁴ /ft		I _u =		153.2	in ⁴ /ft		LRFD		ϕM _{no} =		67.3	kip-in/ft		ϕ V _n =		6.61	kip/ft	

20 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"					
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																				
	ASD, W/Ω	847	713	607	522	452	394	345	304	269	238	212	189	169	152	136					
	LRFD, ϕW	1276	1077	920	792	688	602	529	468	416	371	332	298	268	242	218					
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
	LRFD - Available Diaphragm Shear Capacity, ϕS _n (plf / ft) 36/4 Attachment Pattern																				
	Arc Spot Weld 1/2" Effective Dia	4026	3988	3948	3914	3884	3857	3834	3818	3799	3781	3765	3751	3738	3730	3718					
	PAF Base Steel ≥ .25"	3782	3762	3739	3719	3701	3685	3671	3664	3652	3642	3632	3624	3616	3612	3605					
	PAF Base Steel ≥ 0.125"	3758	3741	3719	3700	3683	3668	3655	3649	3638	3628	3619	3611	3604	3601	3595					
	#12 Screw Base Steel ≥ .0385"	3566	3564	3554	3546	3539	3533	3527	3528	3523	3519	3515	3511	3508	3509	3506					
Concrete + Deck =		56.5	psf		I _{cr} =		62.6	in ⁴ /ft		ASD		M _{no} /Ω=		48.8	kip-in/ft		V _n /Ω =		4.65	kip/ft	
(I _{cr} +I _u)/2 =		108.7	in ⁴ /ft		I _u =		154.9	in ⁴ /ft		LRFD		ϕM _{no} =		72.6	kip-in/ft		ϕ V _n =		6.98	kip/ft	

All Gages	LRFD - Available Diaphragm Shear Capacity, ϕS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width																				
	3/4" Welded Shear Studs	6x6 W1.4xW1.4				6x6 W2.9xW2.9				6x6 W4.0xW4.0				4x4 W4xW4				4x4 W6xW6			
		A _s = 0.028 in ² /ft				A _s = 0.058 in ² /ft				A _s = 0.080 in ² /ft				A _s = 0.120 in ² /ft				A _s = 0.180 in ² /ft			
	12 in o.c.	n/a				6060				7050				8850				11550			
	24 in o.c.	n/a				6060				7050				7750				7750			
	36 in o.c.	n/a				5170				5170				5170				5170			

2WH-36 Composite Deck 3.3

5 1/2" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume $1.370 \text{ yd}^3 / 100 \text{ ft}^2$

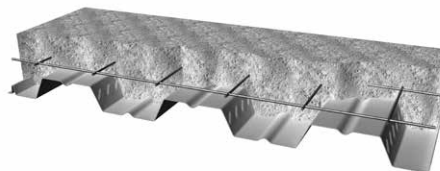
1 Hour Fire Rating



2WH-36 5 1/2 " Slab Depth, 145 pcf NWC

Maximum Unshored Span		Gage	Single		Double		Triple		Gage		Single		Double		Triple		
		22	6' - 11"		8' - 0"		8' - 2"				19	9' - 1"		10' - 4"		10' - 8"	
		21	7' - 10"		8' - 9"		9' - 1"				18	9' - 5"		11' - 2"		11' - 6"	
		20	8' - 5"		9' - 4"		9' - 7"				16	10' - 1"		12' - 8"		12' - 2"	
19 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	981	828	706	608	527	460	405	357	317	282	252	226	203	182	164	
	LRFD, φW	1476	1248	1066	920	801	701	618	548	488	436	391	352	318	288	261	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	4218	4165	4113	4068	4028	3993	3962	3939	3914	3891	3870	3851	3834	3822	3807	
	PAF Base Steel ≥ .25"	3836	3812	3785	3762	3741	3723	3707	3698	3685	3673	3662	3652	3643	3638	3630	
	PAF Base Steel ≥ 0.125"	3808	3787	3762	3740	3721	3704	3689	3680	3668	3657	3647	3637	3629	3625	3618	
#12 Screw Base Steel ≥ .0385"	3563	3561	3552	3544	3537	3531	3525	3526	3521	3517	3513	3510	3507	3508	3505		
Concrete + Deck =		56.9 psf		I _{cr} = 70.2 in ⁴ /ft		ASD		M _{no} /Ω=		56.1 kip-in/ft		V _n /Ω = 4.65 kip/ft					
(I _{cr} +I _u)/2 =		114.2 in ⁴ /ft		I _u = 158.3 in ⁴ /ft		LRFD		φM _{no} =		83.4 kip-in/ft		φ V _n = 6.98 kip/ft					
18 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	1098	927	791	682	592	518	456	403	359	320	286	257	232	209	189	
	LRFD, φW	1649	1395	1194	1031	898	787	695	617	550	492	442	399	361	327	297	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	4411	4343	4278	4222	4173	4129	4091	4061	4030	4001	3976	3952	3930	3914	3896	
	PAF Base Steel ≥ .25"	3883	3856	3826	3799	3777	3756	3738	3728	3713	3700	3687	3676	3666	3661	3652	
	PAF Base Steel ≥ 0.125"	3852	3827	3799	3775	3753	3735	3718	3708	3694	3682	3671	3660	3651	3646	3638	
#12 Screw Base Steel ≥ .0385"	3563	3561	3552	3544	3537	3531	3525	3526	3521	3517	3513	3510	3507	3508	3505		
Concrete + Deck =		57.2 psf		I _{cr} = 76.5 in ⁴ /ft		ASD		M _{no} /Ω=		62.4 kip-in/ft		V _n /Ω = 4.65 kip/ft					
(I _{cr} +I _u)/2 =		118.8 in ⁴ /ft		I _u = 161.2 in ⁴ /ft		LRFD		φM _{no} =		92.8 kip-in/ft		φ V _n = 6.98 kip/ft					
16 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																
	ASD, W/Ω	1354	1145	980	846	736	646	570	505	450	403	362	327	295	267	243	
	LRFD, φW	2031	1721	1474	1275	1112	977	864	768	687	616	556	502	456	415	378	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	4693	4604	4521	4448	4385	4329	4279	4240	4199	4163	4130	4099	4072	4050	4026	
	PAF Base Steel ≥ .25"	3989	3954	3917	3884	3856	3831	3809	3795	3777	3760	3745	3732	3719	3712	3701	
	PAF Base Steel ≥ 0.125"	3929	3899	3865	3837	3811	3789	3769	3757	3741	3726	3713	3701	3689	3683	3673	
#12 Screw Base Steel ≥ .0385"	3563	3561	3552	3544	3537	3531	3525	3526	3521	3517	3513	3510	3507	3508	3505		
Concrete + Deck =		57.9 psf		I _{cr} = 89.7 in ⁴ /ft		ASD		M _{no} /Ω=		76.3 kip-in/ft		V _n /Ω = 4.65 kip/ft					
(I _{cr} +I _u)/2 =		128.7 in ⁴ /ft		I _u = 167.7 in ⁴ /ft		LRFD		φM _{no} =		113.4 kip-in/ft		φ V _n = 6.98 kip/ft					
All Gages	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width																
	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A _s = 0.028 in ² /ft			6x6 W2.9xW2.9 A _s = 0.058 in ² /ft			6x6 W4.0xW4.0 A _s = 0.080 in ² /ft			4x4 W4xW4 A _s = 0.120 in ² /ft			4x4 W6xW6 A _s = 0.180 in ² /ft			
	12 in o.c.	n/a			6060			7050			8850			11550			
	24 in o.c.	n/a			6060			7050			7750			7750			
	36 in o.c.	n/a			5170			5170			5170			5170			

1½ Hour Fire Rating



Maximum Unshored Span		Gage	Single	Double	Triple	Gage		Single	Double	Triple	
		22	6' - 8"	7' - 9"	7' - 10"			19	8' - 9"	9' - 11"	10' - 3"
		21	7' - 6"	8' - 6"	8' - 9"			18	9' - 1"	10' - 9"	11' - 1"
		20	8' - 1"	9' - 0"	9' - 3"			16	9' - 9"	12' - 3"	11' - 10"

22 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"		
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																	
	ASD, W/Ω	787	662	562	481	416	361	315	277	244	215	191	169	150	134	119		
	LRFD, φW	1189	1002	854	734	636	555	487	429	380	338	301	269	241	216	195		
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																	
	Arc Spot Weld 1/2" Effective Dia	4338	4314	4286	4262	4241	4222	4205	4196	4182	4170	4159	4148	4139	4134	4126		
	PAF Base Steel ≥ .25"	4210	4196	4176	4159	4145	4132	4120	4115	4105	4097	4089	4082	4075	4073	4067		
	PAF Base Steel ≥ 0.125"	4191	4178	4160	4144	4130	4118	4107	4103	4094	4086	4078	4072	4065	4064	4058		
	#12 Screw Base Steel ≥ .0385"	4067	4063	4053	4045	4037	4030	4025	4024	4019	4015	4011	4007	4003	4004	4001		
Concrete + Deck =		62.2	psf		I _{cr} = 66.9		in ⁴ /ft		ASD		M _{no} /Ω= 45.9		kip-in/ft		V _n /Ω = 4.24		kip/ft	
(I _{cr} +I _u)/2 =		131.4	in ⁴ /ft		I _u = 195.9		in ⁴ /ft		LRFD		φM _{no} = 68.2		kip-in/ft		φ V _n = 6.34		kip/ft	

21 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"		
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)																	
	ASD, W/Ω	892	751	639	549	475	413	362	318	281	249	222	197	176	158	141		
	LRFD, φW	1345	1135	968	834	724	633	556	492	436	389	348	312	280	252	228		
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																	
	Arc Spot Weld 1/2" Effective Dia	4434	4403	4369	4339	4313	4290	4270	4257	4240	4225	4211	4199	4187	4181	4171		
	PAF Base Steel ≥ .25"	4246	4229	4207	4188	4172	4157	4144	4138	4127	4117	4109	4101	4093	4090	4084		
	PAF Base Steel ≥ 0.125"	4224	4209	4188	4171	4155	4142	4130	4124	4114	4105	4097	4089	4082	4080	4074		
	#12 Screw Base Steel ≥ .0385"	4060	4058	4048	4040	4032	4026	4020	4020	4016	4011	4007	4004	4000	4001	3998		
Concrete + Deck =		62.4	psf		I _{cr} = 73.8		in ⁴ /ft		ASD		M _{no} /Ω= 51.6		kip-in/ft		V _n /Ω = 4.71		kip/ft	
(I _{cr} +I _u)/2 =		136.3	in ⁴ /ft		I _u = 198.8		in ⁴ /ft		LRFD		φM _{no} = 76.7		kip-in/ft		φ V _n = 7.05		kip/ft	

20 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	967	815	694	596	516	450	395	348	308	274	244	218	195	175	157
	LRFD, φW	1456	1230	1050	905	786	688	605	536	476	425	380	342	308	278	251
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	4516	4478	4439	4404	4374	4348	4324	4308	4289						



2WH-36 Composite Deck 3.3

6" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.54yd³/100ft²

1½ Hour Fire Rating



2WH-36 6" Slab Depth, 145 pcf NWC

Maximum Unshored Span		Gage	Single	Double		Triple		Gage		Single	Double		Triple		
		22	6' - 8"	7' - 9"		7' - 10"				19	8' - 9"	9' - 11"		10' - 3"	
		21	7' - 6"	8' - 6"		8' - 9"				18	9' - 1"	10' - 9"		11' - 1"	
		20	8' - 1"	9' - 0"		9' - 3"				16	9' - 9"	12' - 3"		11' - 10"	

19 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1121	946	807	695	603	527	463	409	363	324	289	259	233	210	189
	LRFD, φW	1686	1425	1219	1052	915	802	707	627	559	500	449	404	365	330	300
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	4708	4656	4603	4558	4518	4483	4452	4430	4404	4382	4361	4342	4324	4312	4297
	PAF Base Steel ≥ .25"	4326	4303	4276	4252	4232	4213	4197	4188	4175	4163	4152	4142	4133	4129	4121
	PAF Base Steel ≥ 0.125"	4298	4277	4252	4230	4211	4194	4179	4171	4158	4147	4137	4128	4119	4115	4108
	#12 Screw Base Steel ≥ .0385"	4054	4051	4042	4034	4027	4021	4016	4016	4012	4007	4004	4000	3997	3998	3995
Concrete + Deck =		62.9 psf				I _{cr} = 88.2 in ⁴ /ft		ASD		M _{no} /Ω= 63.9 kip-in/ft				V _n /Ω = 5.24 kip/ft		
(I _{cr} +I _u)/2 =		146.6 in ⁴ /ft				I _u = 205.1 in ⁴ /ft		LRFD		φM _{no} = 95.1 kip-in/ft				φ V _n = 7.86 kip/ft		

18 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1255	1060	905	780	678	594	523	463	411	367	329	296	266	240	218
	LRFD, φW	1885	1595	1365	1179	1027	901	796	706	630	564	508	458	414	376	342
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	4901	4834	4769	4712	4663	4620	4581	4552	4520	4492	4466	4442	4421	4405	4386
	PAF Base Steel ≥ .25"	4373	4346	4316	4290	4267	4247	4229	4218	4203	4190	4178	4167	4157	4151	4143
	PAF Base Steel ≥ 0.125"	4342	4318	4290	4265	4244	4225	4208	4198	4185	4172	4161	4151	4141	4136	4128
	#12 Screw Base Steel ≥ .0385"	4054	4051	4042	4034	4027	4021	4016	4016	4012	4007	4004	4000	3997	3998	3995
Concrete + Deck =		63.2 psf				I _{cr} = 96.2 in ⁴ /ft		ASD		M _{no} /Ω= 71.2 kip-in/ft				V _n /Ω = 5.24 kip/ft		
(I _{cr} +I _u)/2 =		152.5 in ⁴ /ft				I _u = 208.7 in ⁴ /ft		LRFD		φM _{no} = 105.9 kip-in/ft				φ V _n = 7.86 kip/ft		

16 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1551	1312	1122	969	844	741	654	580	517	463	416	376	340	308	280
	LRFD, φW	2325	1970	1688	1460	1274	1120	991	881	788	708	638	577	524	477	435
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	5184	5095	5011	4938	4875	4819	4769	4730	4690	4653	4620	4590	4562	4540	4517
	PAF Base Steel ≥ .25"	4479	4444	4407	4375	4347	4322	4300	4285	4267	4251	4236	4222	4210	4202	4192
	PAF Base Steel ≥ 0.125"	4419	4389	4356	4327	4302	4279	4260	4247	4231	4216	4203	4191	4180	4174	4164
	#12 Screw Base Steel ≥ .0385"	4054	4051	4042	4034	4027	4021	4016	4016	4012	4007	4004	4000	3997	3998	3995
Concrete + Deck =		64.0 psf				I _{cr} = 113.0 in ⁴ /ft		ASD		M _{no} /Ω= 87.2 kip-in/ft				V _n /Ω = 5.24 kip/ft		
(I _{cr} +I _u)/2 =		164.9 in ⁴ /ft				I _u = 216.8 in ⁴ /ft		LRFD		φM _{no} = 129.7 kip-in/ft				φ V _n = 7.86 kip/ft		

All Gages	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width																					
	3/4" Welded Shear Studs		6x6 W1.4xW1.4				6x6 W2.9xW2.9				6x6 W4.0xW4.0				4x4 W4xW4				4x4 W6xW6			
			A _s = 0.028 in ² /ft				A _s = 0.058 in ² /ft				A _s = 0.080 in ² /ft				A _s = 0.120 in ² /ft				A _s = 0.180 in ² /ft			
	12 in o.c.		n/a				6550				7540				9340				12040			
	24 in o.c.		n/a				6550				7540				7750				7750			
36 in o.c.		n/a				5170				5170				5170				5170				

2W PANELS

3.3 2WH-36 Composite Deck

6½" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.54yd³/100ft²

2 Hour Fire Rating



2WH-36 6 1/2 " Slab Depth, 145 pcf NWC

	Gage	Single	Double	Triple		Gage	Single	Double	Triple
Maximum Unshored Span	22	6' - 6"	7' - 6"	7' - 7"		19	8' - 6"	9' - 7"	9' - 11"
	21	7' - 3"	8' - 2"	8' - 5"		18	8' - 10"	10' - 5"	10' - 9"
	20	7' - 10"	8' - 8"	9' - 0"		16	9' - 6"	11' - 10"	11' - 7"

22 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	886	745	633	542	469	407	356	312	275	243	216	192	170	152	135
	LRFD, φW	1338	1128	961	827	717	625	549	484	429	382	340	305	273	245	221
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	4828	4804	4776	4752	4731	4712	4696	4686	4673	4660	4649	4639	4629	4625	4617
	PAF Base Steel ≥ .25"	4701	4686	4667	4650	4635	4622	4611	4605	4596	4587	4579	4572	4566	4564	4558
	PAF Base Steel ≥ 0.125"	4681	4668	4650	4634	4621	4609	4598	4593	4584	4576	4569	4562	4556	4554	4549
	#12 Screw Base Steel ≥ .0385"	4557	4554	4544	4535	4528	4521	4515	4515	4510	4505	4501	4497	4494	4495	4492
	Concrete + Deck =	68.2 psf				I _{cr} = 82.0 in⁴/ft	ASD	M _{no} /Ω = 51.5 kip-in/ft					V _n /Ω = 4.54 kip/ft			
	(I _{cr} +I _u)/2 =	165.7 in⁴/ft				I _u = 249.3 in⁴/ft	LRFD	φM _{no} = 76.6 kip-in/ft					φ V _n = 6.79 kip/ft			

21 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1005	846	720	618	535	466	409	360	318	282	251	224	200	179	160
	LRFD, φW	1514	1278	1091	940	816	713	627	555	493	439	393	352	317	286	258
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	4925	4893	4859	4829	4803	4780	4760	4747	4730	4715	4702	4689	4678	4671	4661
	PAF Base Steel ≥ .25"	4737	4719	4698	4679	4662	4648	4635	4628	4618	4608	4599	4591	4584	4581	4574
	PAF Base Steel ≥ 0.125"	4715	4699	4679	4661	4646	4632	4620	4614	4604	4595	4587	4580	4573	4570	4564
	#12 Screw Base Steel ≥ .0385"	4551	4548	4538	4530	4523	4516	4511	4511	4506	4502	4498	4494	4491	4492	4489
	Concrete + Deck =	68.4 psf				I _{cr} = 90.6 in⁴/ft	ASD	M _{no} /Ω = 58.0 kip-in/ft					V _n /Ω = 5.02 kip/ft			
	(I _{cr} +I _u)/2 =	171.7 in⁴/ft				I _u = 252.8 in⁴/ft	LRFD	φM _{no} = 86.2 kip-in/ft					φ V _n = 7.50 kip/ft			

20 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1089	918	782	672	583	508	446	393	348	309	276	247	221	198	178
	LRFD, φW	1640	1385	1183	1020	886	776	683	605	538	480	430	386	348	314	285
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	5007	4969	4929	4895	4865	4838	4815	4799	4780	4762	4746	4732	4719	4710	4699
	PAF Base Steel ≥ .25"	4762	4743	4720	4699	4682	4666	4652	4645	4633	4623	4613	4604	4597	4593	4586
	PAF Base Steel ≥ 0.125"	4739	4721	4700	4680	4664	4649	4636	4630	4619	4609	4600	4592	4585	4582	4575
	#12 Screw Base Steel ≥ .0385"	4547	4545	4535	4527	4520	4514	4508	4509	4504	4500	4496	4492	4489	4490	4487
	Concrete + Deck =	68.6 psf				I _{cr} = 96.5 in⁴/ft	ASD	M _{no} /Ω = 62.5 kip-in/ft					V _n /Ω = 5.40 kip/ft			
	(I _{cr} +I _u)/2 =	175.9 in⁴/ft				I _u = 255.3 in⁴/ft	LRFD	φM _{no} = 93.0 kip-in/ft					φ V _n = 8.07 kip/ft			

All Gages	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
	3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6
		A _s = 0.028 in²/ft	A _s = 0.058 in²/ft	A _s = 0.080 in²/ft	A _s = 0.120 in²/ft	A _s = 0.180 in²/ft
	12 in o.c.	n/a	7050	8040	9840	12540
	24 in o.c.	n/a	7050	7750	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170



2WH-36 Composite Deck 3.3

6½" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.54yd³/100ft²

2 Hour Fire Rating



Maximum Unshored Span	Gage	Single	Double	Triple	Gage	Single	Double	Triple
	22	6' - 6"	7' - 6"	7' - 7"		19	8' - 6"	9' - 7"
	21	7' - 3"	8' - 2"	8' - 5"		18	8' - 10"	10' - 5"
	20	7' - 10"	8' - 8"	9' - 0"		16	9' - 6"	11' - 10"

19 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1264	1067	910	784	681	595	523	463	411	366	328	294	264	238	215
	LRFD, φW	1900	1607	1374	1186	1033	905	799	708	631	565	507	457	413	374	340
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	5199	5146	5094	5049	5009	4974	4943	4920	4895	4872	4851	4832	4815	4803	4788
	PAF Base Steel ≥ .25"	4816	4793	4766	4743	4722	4704	4688	4679	4665	4653	4643	4633	4623	4619	4611
	PAF Base Steel ≥ 0.125"	4789	4768	4742	4721	4701	4684	4669	4661	4649	4638	4628	4618	4610	4606	4598
	#12 Screw Base Steel ≥ .0385"	4544	4542	4533	4525	4518	4512	4506	4507	4502	4498	4494	4491	4487	4488	4486
	Concrete + Deck =	69.0 psf				I _{cr} = 108.5 in⁴/ft	ASD	M _{no} /Ω = 72.0 kip-in/ft		V _n /Ω = 5.83 kip/ft						
	(I _{cr} +I _u)/2 =	184.5 in⁴/ft				I _u = 260.5 in⁴/ft	LRFD	φM _{no} = 107.1 kip-in/ft		φ V _n = 8.71 kip/ft						

18 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1416	1196	1022	881	766	671	591	523	465	416	373	335	302	273	247
	LRFD, φW	2126	1799	1540	1331	1159	1017	899	798	712	638	574	518	469	426	387
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	5392	5324	5259	5203	5154	5110	5071	5042	5011	4982	4956	4933	4911	4895	4877
	PAF Base Steel ≥ .25"	4864	4837	4806	4780	4757	4737	4719	4708	4694	4680	4668	4657	4647	4642	4633
	PAF Base Steel ≥ 0.125"	4833	4808	4780	4756	4734	4715	4699	4689	4675	4663	4651	4641	4632	4627	4619
	#12 Screw Base Steel ≥ .0385"	4544	4542	4533	4525	4518	4512	4506	4507	4502	4498	4494	4491	4487	4488	4486
	Concrete + Deck =	69.3 psf				I _{cr} = 118.5 in⁴/ft	ASD	M _{no} /Ω = 80.2 kip-in/ft		V _n /Ω = 5.85 kip/ft						
	(I _{cr} +I _u)/2 =	191.7 in⁴/ft				I _u = 265.0 in⁴/ft	LRFD	φM _{no} = 119.3 kip-in/ft		φ V _n = 8.77 kip/ft						

16 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1752	1482	1268	1096	955	838	740	657	586	525	472	426	385	350	318
	LRFD, φW	2626	2225	1907	1650	1440	1266	1120	997	891	801	722	654	593	540	493
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	5674	5585	5501	5429	5365	5309	5260	5220	5180	5144	5110	5080	5052	5031	5007
	PAF Base Steel ≥ .25"	4970	4935	4897	4865	4837	4812	4790	4775	4757	4741	4726	4713	4700	4693	4682
	PAF Base Steel ≥ 0.125"	4910	4879	4846	4817	4792	4770	4750	4738	4722	4707	4694	4681	4670	4664	4654
	#12 Screw Base Steel ≥ .0385"	4544	4542	4533	4525	4518	4512	4506	4507	4502	4498	4494	4491	4487	4488	4486
	Concrete + Deck =	70.0 psf				I _{cr} = 139.5 in⁴/ft	ASD	M _{no} /Ω = 98.4 kip-in/ft		V _n /Ω = 5.85 kip/ft						
	(I _{cr} +I _u)/2 =	207.2 in⁴/ft				I _u = 274.9 in⁴/ft	LRFD	φM _{no} = 146.3 kip-in/ft		φ V _n = 8.77 kip/ft						

All Gages	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width															
	3/4" Welded Shear Studs				6x6 W1.4xW1.4				6x6 W2.9xW2.9				6x6 W4.0xW4.0			
	A _s = 0.028 in²/ft				A _s = 0.058 in²/ft				A _s = 0.080 in²/ft				A _s = 0.120 in²/ft			
	12 in o.c.	n/a				7050				8040				9840		
	24 in o.c.	n/a				7050				7750				7750		

All Gages	3/4" Welded Shear Studs				6x6 W1.4xW1.4				6x6 W2.9xW2.9				6x6 W4.0xW4.0			
	A _s = 0.028 in²/ft				A _s = 0.058 in²/ft				A _s = 0.080 in²/ft				A _s = 0.120 in²/ft			
	36 in o.c.	n/a				5170				5170				5170		

2W PANELS

7 1/4" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume $1.910 \text{ yd}^3 / 100 \text{ ft}^2$

3 Hour Fire Rating



2WH-36 7 1/4 " Slab Depth, 145 pcf NWC

100 V3.1 • Composite and Non-Composite Deck Catalog



2WH-36 Composite Deck 3.3

7 1/4" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.910yd³/100ft²

3 Hour Fire Rating



2WH-36 7 1/4" Slab Depth, 145 pcf NWC

Maximum Unshored Span	Gage	Single	Double	Triple	Gage	Single	Double	Triple
	22	6' - 2"	7' - 2"	7' - 3"		19	8' - 2"	9' - 2"
	21	6' - 11"	7' - 10"	8' - 1"		18	8' - 6"	9' - 11"
	20	7' - 5"	8' - 3"	8' - 7"		16	9' - 2"	11' - 4"

19 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1482	1252	1068	921	800	699	615	544	484	431	386	347	312	281	254
	LRFD, φW	2227	1884	1612	1392	1212	1063	938	832	742	664	597	538	487	441	401
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	5934	5882	5829	5784	5744	5709	5678	5656	5630	5608	5587	5568	5550	5538	5523
	PAF Base Steel ≥ .25"	5552	5529	5502	5478	5458	5440	5423	5414	5401	5389	5378	5368	5359	5355	5347
	PAF Base Steel ≥ 0.125"	5525	5503	5478	5456	5437	5420	5405	5397	5385	5373	5363	5354	5345	5342	5334
	#12 Screw Base Steel ≥ .0385"	5280	5278	5268	5260	5254	5247	5242	5242	5238	5234	5230	5226	5223	5224	5221
	Concrete + Deck =	78.0 psf				I _{cr} = 143.5 in ⁴ /ft	ASD		M _{no} /Ω =	84.3 kip-in/ft		V _n /Ω =	6.34 kip/ft			
	(I _{cr} +I _u)/2 =	252.5 in ⁴ /ft				I _u = 361.5 in ⁴ /ft	LRFD		φM _{no} =	125.3 kip-in/ft		φ V _n =	9.48 kip/ft			

18 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1661	1404	1200	1035	900	789	695	616	548	490	439	395	357	323	292
	LRFD, φW	2494	2111	1807	1562	1362	1195	1056	938	838	751	676	610	553	502	457
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	6127	6060	5995	5939	5889	5846	5807	5778	5746	5718	5692	5668	5647	5631	5612
	PAF Base Steel ≥ .25"	5599	5572	5542	5516	5493	5473	5455	5444	5429	5416	5404	5393	5383	5377	5369
	PAF Base Steel ≥ 0.125"	5568	5544	5516	5491	5470	5451	5434	5425	5411	5398	5387	5377	5367	5363	5354
	#12 Screw Base Steel ≥ .0385"	5280	5278	5268	5260	5254	5247	5242	5242	5238	5234	5230	5226	5223	5224	5221
	Concrete + Deck =	78.3 psf				I _{cr} = 156.9 in ⁴ /ft	ASD		M _{no} /Ω =	93.9 kip-in/ft		V _n /Ω =	6.72 kip/ft			
	(I _{cr} +I _u)/2 =	262.2 in ⁴ /ft				I _u = 367.4 in ⁴ /ft	LRFD		φM _{no} =	139.7 kip-in/ft		φ V _n =	10.04 kip/ft			

16 ga.	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	2059	1743	1492	1289	1124	986	871	774	691	619	557	503	456	414	376
	LRFD, φW	3086	2615	2242	1941	1694	1490	1319	1174	1050	944	851	771	700	638	583
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	6410	6321	6237	6165	6101	6045	5995	5956	5916	5879	5846	5816	5788	5767	5743
	PAF Base Steel ≥ .25"	5705	5670	5633	5601	5573	5548	5526	5511	5493	5477	5462	5448	5436	5428	5418
	PAF Base Steel ≥ 0.125"	5646	5615	5582	5553	5528	5506	5486	5473	5457	5442	5429	5417	5406	5400	5390
	#12 Screw Base Steel ≥ .0385"	5280	5278	5268	5260	5254	5247	5242	5242	5238	5234	5230	5226	5223	5224	5221
	Concrete + Deck =	79.1 psf				I _{cr} = 185.3 in ⁴ /ft	ASD		M _{no} /Ω =	115.5 kip-in/ft		V _n /Ω =	6.87 kip/ft			
	(I _{cr} +I _u)/2 =	282.9 in ⁴ /ft				I _u = 380.5 in ⁴ /ft	LRFD		φM _{no} =	171.8 kip-in/ft		φ V _n =	10.31 kip/ft			

All Gages	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width															
	3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6										
		A _s = 0.028 in ² /ft	A _s = 0.058 in ² /ft	A _s = 0.080 in ² /ft	A _s = 0.120 in ² /ft	A _s = 0.180 in ² /ft										
	12 in o.c.	n/a	7790	8780	10580	13280										
	24 in o.c.	n/a	7750	7750	7750	7750										
	36 in o.c.	n/a	5170	5170	5170	5170										

2W PANELS