

2.4 3WxH-36 Composite Deck

5" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.080yd³/100ft²



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	10' - 1"	11' - 0"	11' - 4"
21	11' - 0"	11' - 9"	12' - 2"
20	11' - 9"	12' - 6"	12' - 11"

Gage	Single	Double	Triple
19	12' - 3"	13' - 10"	14' - 4"
18	12' - 7"	15' - 2"	14' - 9"
16	13' - 3"	16' - 7"	15' - 7"

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
22	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	282	246	216	190	169	150	134	119	107	96	86	78	70	63	57
	LRFD, φW	451	394	345	304	270	240	214	191	171	154	138	124	112	101	90
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2367	2342	2319	2309	2291	2274	2258	2244	2231	2227	2216	2205	2196	2187	2178
	PAF Base Steel ≥ .25"	2178	2163	2151	2150	2139	2129	2120	2112	2105	2106	2099	2093	2087	2082	2077
	PAF Base Steel ≥ 0.125"	2163	2150	2138	2137	2127	2118	2110	2102	2095	2096	2090	2084	2079	2074	2069
	#12 Screw Base Steel ≥ .0385"	2149	2137	2125	2126	2116	2107	2100	2092	2086	2088	2082	2076	2071	2066	2062
	Concrete + Deck = 44.0 psf				I _{cr} = 39.2 in ⁴ /ft			M _{no} /Ω = 31.6 kip-in/ft			V _n /Ω = 3.30 kip/ft					
(I _{cr} +I _y)/2 = 73.2 in ⁴ /ft				I _y = 107.1 in ⁴ /ft			φM _{no} = 48.4 kip-in/ft			φV _n = 4.76 kip/ft						

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
21	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	311	272	239	211	187	167	149	133	120	108	97	88	79	72	65
	LRFD, φW	498	435	382	337	299	266	238	213	192	172	155	140	127	114	103
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2430	2401	2375	2365	2343	2324	2306	2289	2274	2271	2258	2246	2234	2224	2214
	PAF Base Steel ≥ .25"	2213	2196	2181	2182	2169	2158	2147	2138	2129	2132	2124	2117	2110	2104	2098
	PAF Base Steel ≥ 0.125"	2196	2180	2166	2168	2156	2145	2135	2126	2118	2121	2113	2107	2100	2094	2089
	#12 Screw Base Steel ≥ .0385"	2181	2166	2153	2155	2144	2134	2124	2116	2108	2111	2104	2098	2092	2086	2081
	Concrete + Deck = 44.3 psf				I _{cr} = 42.3 in ⁴ /ft			M _{no} /Ω = 34.6 kip-in/ft			V _n /Ω = 3.82 kip/ft					
(I _{cr} +I _y)/2 = 75.4 in ⁴ /ft				I _y = 108.6 in ⁴ /ft			φM _{no} = 52.9 kip-in/ft			φV _n = 5.66 kip/ft						

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
20	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	338	296	260	230	204	182	163	147	132	119	107	97	88	80	72
	LRFD, φW	541	473	416	368	327	292	261	234	211	190	172	155	141	128	116
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2477	2445	2416	2407	2383	2361	2341	2323	2307	2304	2289	2276	2263	2252	2241
	PAF Base Steel ≥ .25"	2239	2220	2204	2206	2192	2179	2168	2157	2147	2151	2142	2134	2127	2120	2114
	PAF Base Steel ≥ 0.125"	2220	2203	2188	2190	2177	2165	2154	2144	2135	2139	2131	2124	2117	2110	2104
	#12 Screw Base Steel ≥ .0385"	2205	2189	2174	2177	2165	2153	2143	2134	2125	2130	2122	2115	2108	2102	2096
	Concrete + Deck = 44.4 psf				I _{cr} = 45.1 in ⁴ /ft			M _{no} /Ω = 37.3 kip-in/ft			V _n /Ω = 3.82 kip/ft					
(I _{cr} +I _y)/2 = 77.5 in ⁴ /ft				I _y = 110.0 in ⁴ /ft			φM _{no} = 57.1 kip-in/ft			φV _n = 5.73 kip/ft						

3WxH-36 Composite Deck 2.4

5" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.080yd³/100ft²



3W PANELS

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
19	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	394	345	304	270	240	215	192	173	156	141	128	116	106	97	88
	LRFD, φW	630	552	487	431	384	343	308	277	250	226	205	186	170	154	141
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2579	2540	2506	2497	2468	2442	2418	2397	2377	2376	2358	2342	2327	2313	2300
	PAF Base Steel ≥ .25"	2295	2273	2254	2258	2241	2226	2212	2200	2188	2194	2184	2174	2165	2156	2149
	PAF Base Steel ≥ 0.125"	2274	2253	2235	2241	2225	2210	2197	2185	2174	2181	2171	2161	2153	2145	2137
	#12 Screw Base Steel ≥ .0385"	2258	2238	2220	2227	2212	2198	2185	2174	2163	2170	2161	2152	2144	2136	2129
	Concrete + Deck = 44.8 psf					I _{cr} = 50.6 in ⁴ /ft					M _{no} /Ω = 42.9 kip-in/ft			V _n /Ω = 3.82 kip/ft		
(I _{cr} +I _u)/2 = 81.7 in ⁴ /ft					I _u = 112.8 in ⁴ /ft					φM _{no} = 65.7 kip-in/ft			φV _n = 5.73 kip/ft			

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
18	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	443	389	343	304	271	243	218	197	178	162	147	134	122	111	102
	LRFD, φW	709	622	549	487	434	389	349	315	285	258	235	214	195	178	163
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2679	2634	2594	2587	2554	2523	2496	2470	2447	2448	2427	2408	2391	2374	2359
	PAF Base Steel ≥ .25"	2352	2326	2303	2312	2292	2274	2258	2243	2229	2238	2226	2214	2204	2194	2184
	PAF Base Steel ≥ 0.125"	2328	2304	2282	2292	2273	2256	2240	2226	2213	2223	2211	2200	2190	2181	2172
	#12 Screw Base Steel ≥ .0385"	2311	2288	2267	2278	2259	2243	2228	2215	2202	2212	2201	2190	2181	2171	2163
	Concrete + Deck = 45.0 psf					I _{cr} = 55.4 in ⁴ /ft					M _{no} /Ω = 47.9 kip-in/ft			V _n /Ω = 3.82 kip/ft		
(I _{cr} +I _u)/2 = 85.4 in ⁴ /ft					I _u = 115.4 in ⁴ /ft					φM _{no} = 73.2 kip-in/ft			φV _n = 5.73 kip/ft			

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
16	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	546	480	424	377	337	303	273	247	224	204	186	170	155	142	129
	LRFD, φW	874	768	679	604	540	484	436	395	358	326	297	271	248	228	209
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	142	129
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2898	2840	2788	2786	2742	2702	2666	2633	2602	2609	2581	2556	2533	2511	2491
	PAF Base Steel ≥ .25"	2477	2443	2413	2431	2405	2381	2359	2339	2321	2339	2322	2307	2292	2279	2266
	PAF Base Steel ≥ 0.125"	2431	2400	2372	2393	2368	2346	2326	2308	2291	2310	2294	2279	2266	2253	2242
	#12 Screw Base Steel ≥ .0385"	2431	2400	2373	2393	2369	2346	2326	2308	2291	2310	2294	2280	2266	2254	2242
	Concrete + Deck = 45.7 psf					I _{cr} = 64.9 in ⁴ /ft					M _{no} /Ω = 58.3 kip-in/ft			V _n /Ω = 3.82 kip/ft		
(I _{cr} +I _u)/2 = 92.8 in ⁴ /ft					I _u = 120.7 in ⁴ /ft					φM _{no} = 89.2 kip-in/ft			φV _n = 5.73 kip/ft			

All Gages	LRFD - Diaphragm Shear, φS _n (plf / ft) for all vertical load spans, WWF Designation 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.		3200	4550	5540	7340	10040
	24 in o.c.		3200	4550	5540	7340	7750
36 in o.c.		3200	4550	5170	5170	5170	

2.4 3WxH-36 Composite Deck

6" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.389yd³/100ft²



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	9' - 3"	10' - 1"	10' - 5"
21	10' - 1"	10' - 10"	11' - 2"
20	10' - 10"	11' - 6"	11' - 10"

Gage	Single	Double	Triple
19	11' - 7"	12' - 9"	13' - 3"
18	11' - 11"	13' - 11"	14' - 0"
16	12' - 7"	15' - 7"	14' - 9"

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
22	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	380	331	291	257	228	203	181	162	145	131	118	106	96	86	78
	LRFD, φW	607	530	466	411	364	324	289	259	232	209	188	170	153	138	125
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3348	3323	3300	3290	3271	3254	3239	3225	3212	3208	3197	3186	3177	3168	3159
	PAF Base Steel ≥ .25"	3159	3144	3132	3131	3120	3110	3101	3093	3086	3087	3080	3074	3068	3063	3058
	PAF Base Steel ≥ 0.125"	3144	3130	3118	3118	3108	3099	3090	3083	3076	3077	3071	3065	3060	3055	3050
	#12 Screw Base Steel ≥ .0385"	3130	3117	3106	3107	3097	3088	3080	3073	3067	3069	3063	3057	3052	3047	3043
	Concrete + Deck =	56.1 psf		$I_{cr} = 63.6 \text{ in}^4/\text{ft}$				$M_{no}/\Omega = 42.3 \text{ kip-in/ft}$				$V_n/\Omega = 3.85 \text{ kip/ft}$				
	$(I_{cr}+I_u)/2 = 123 \text{ in}^4/\text{ft}$		$I_u = 182.5 \text{ in}^4/\text{ft}$				$\phi M_{no} = 64.8 \text{ kip-in/ft}$				$\phi V_n = 5.57 \text{ kip/ft}$					

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
21	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	419	366	322	285	253	225	202	181	163	147	132	120	108	98	89
	LRFD, φW	670	586	515	455	404	360	322	289	260	234	212	191	173	157	142
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3411	3382	3356	3346	3324	3304	3286	3270	3255	3252	3239	3226	3215	3205	3195
	PAF Base Steel ≥ .25"	3193	3177	3162	3162	3150	3138	3128	3119	3110	3112	3105	3097	3091	3085	3079
	PAF Base Steel ≥ 0.125"	3177	3161	3147	3148	3136	3126	3116	3107	3099	3102	3094	3088	3081	3075	3070
	#12 Screw Base Steel ≥ .0385"	3162	3147	3134	3136	3125	3114	3105	3097	3089	3092	3085	3079	3073	3067	3062
	Concrete + Deck =	56.4 psf		$I_{cr} = 68.6 \text{ in}^4/\text{ft}$				$M_{no}/\Omega = 46.3 \text{ kip-in/ft}$				$V_n/\Omega = 4.50 \text{ kip/ft}$				
	$(I_{cr}+I_u)/2 = 127 \text{ in}^4/\text{ft}$		$I_u = 184.7 \text{ in}^4/\text{ft}$				$\phi M_{no} = 70.8 \text{ kip-in/ft}$				$\phi V_n = 6.47 \text{ kip/ft}$					

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
20	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	455	399	351	311	276	247	221	199	179	162	146	132	120	109	99
	LRFD, φW	729	638	561	497	442	395	353	318	286	258	234	212	192	175	159
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3458	3426	3397	3387	3363	3342	3322	3304	3287	3285	3270	3257	3244	3233	3222
	PAF Base Steel ≥ .25"	3219	3201	3185	3186	3172	3160	3148	3138	3128	3132	3123	3115	3108	3101	3094
	PAF Base Steel ≥ 0.125"	3201	3184	3169	3171	3158	3146	3135	3125	3116	3120	3112	3104	3097	3091	3085
	#12 Screw Base Steel ≥ .0385"	3186	3170	3155	3158	3146	3134	3124	3115	3106	3110	3103	3095	3089	3082	3077
	Concrete + Deck =	56.5 psf		$I_{cr} = 73.2 \text{ in}^4/\text{ft}$				$M_{no}/\Omega = 50.0 \text{ kip-in/ft}$				$V_n/\Omega = 4.90 \text{ kip/ft}$				
	$(I_{cr}+I_u)/2 = 130 \text{ in}^4/\text{ft}$		$I_u = 186.9 \text{ in}^4/\text{ft}$				$\phi M_{no} = 76.5 \text{ kip-in/ft}$				$\phi V_n = 7.27 \text{ kip/ft}$					

3WxH-36 Composite Deck 2.4

6" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.389yd³/100ft²



3W PANELS

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
19	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	531	465	410	364	324	290	261	235	212	192	174	159	144	132	120
	LRFD, φW	849	744	656	582	519	464	417	376	339	307	279	254	231	211	193
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3560	3521	3486	3478	3449	3423	3399	3378	3358	3357	3339	3323	3308	3294	3281
	PAF Base Steel ≥ .25"	3276	3254	3234	3239	3222	3207	3193	3180	3169	3175	3165	3155	3146	3137	3129
	PAF Base Steel ≥ 0.125"	3255	3234	3216	3221	3205	3191	3178	3166	3155	3162	3152	3142	3134	3126	3118
	#12 Screw Base Steel ≥ .0385"	3239	3219	3201	3208	3193	3179	3166	3155	3144	3151	3142	3133	3124	3117	3110
	Concrete + Deck = 56.9 psf (I _{cr} +I _u)/2 = 137 in ⁴ /ft					I _{cr} = 82.3 in ⁴ /ft I _u = 191.2 in ⁴ /ft				M _{no} /Ω = 57.6 kip-in/ft φM _{no} = 88.1 kip-in/ft				V _n /Ω = 4.90 kip/ft φ V _n = 7.35 kip/ft		
18	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	598	524	463	411	367	329	296	267	242	219	200	182	166	152	139
	LRFD, φW	956	839	741	658	587	526	473	427	387	351	320	291	266	243	223
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3660	3615	3575	3568	3534	3504	3476	3451	3428	3429	3408	3389	3372	3355	3340
	PAF Base Steel ≥ .25"	3333	3307	3284	3292	3273	3255	3238	3223	3210	3219	3207	3195	3185	3175	3165
	PAF Base Steel ≥ 0.125"	3309	3284	3263	3272	3254	3237	3221	3207	3194	3204	3192	3181	3171	3161	3153
	#12 Screw Base Steel ≥ .0385"	3292	3269	3248	3258	3240	3224	3209	3195	3183	3193	3182	3171	3161	3152	3144
	Concrete + Deck = 57.1 psf (I _{cr} +I _u)/2 = 143 in ⁴ /ft					I _{cr} = 90.2 in ⁴ /ft I _u = 195.2 in ⁴ /ft				M _{no} /Ω = 64.3 kip-in/ft φM _{no} = 98.4 kip-in/ft				V _n /Ω = 4.90 kip/ft φ V _n = 7.35 kip/ft		
16	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	737	648	573	510	456	410	369	334	304	276	252	231	212	194	179
	LRFD, φW	1179	1037	917	816	730	656	591	535	486	442	404	369	338	311	286
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3879	3820	3768	3767	3723	3683	3647	3613	3583	3589	3562	3537	3514	3492	3472
	PAF Base Steel ≥ .25"	3458	3424	3394	3412	3386	3362	3340	3320	3302	3320	3303	3287	3273	3260	3247
	PAF Base Steel ≥ 0.125"	3412	3381	3353	3374	3349	3327	3307	3288	3272	3290	3275	3260	3247	3234	3223
	#12 Screw Base Steel ≥ .0385"	3412	3381	3354	3374	3350	3327	3307	3289	3272	3291	3275	3261	3247	3235	3223
	Concrete + Deck = 57.8 psf (I _{cr} +I _u)/2 = 155 in ⁴ /ft					I _{cr} = 105.8 in ⁴ /ft I _u = 203.3 in ⁴ /ft				M _{no} /Ω = 78.4 kip-in/ft φM _{no} = 119.9 kip-in/ft				V _n /Ω = 4.90 kip/ft φ V _n = 7.35 kip/ft		
All Gages	LRFD - Diaphragm Shear, φS_n (plf / ft) for all vertical load spans, WWF Designation 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.	4190			5540			6530			8330			11030		
	24 in o.c.	4190			5540			6530			7750			7750		
36 in o.c.	4190			5170			5170			5170			5170			

2.4 3WxH-36 Composite Deck

6 1/2" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.543yd³/100ft²

1 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	8' - 11"	9' - 9"	10' - 1"
21	9' - 8"	10' - 5"	10' - 9"
20	10' - 5"	11' - 1"	11' - 5"

Gage	Single	Double	Triple
19	11' - 3"	12' - 4"	12' - 9"
18	11' - 8"	13' - 5"	13' - 8"
16	12' - 3"	15' - 0"	14' - 5"

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
22	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	432	377	331	293	259	231	206	185	166	149	134	121	110	99	89
	LRFD, φW	691	603	530	468	415	370	330	296	265	239	215	194	175	158	143
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3839	3813	3790	3781	3762	3745	3729	3715	3702	3698	3687	3677	3667	3658	3649
	PAF Base Steel ≥ .25"	3649	3635	3622	3621	3610	3600	3592	3583	3576	3577	3571	3564	3559	3553	3548
	PAF Base Steel ≥ 0.125"	3634	3621	3609	3609	3598	3589	3581	3573	3566	3568	3561	3556	3550	3545	3541
	#12 Screw Base Steel ≥ .0385"	3621	3608	3597	3597	3587	3579	3571	3564	3557	3559	3553	3548	3542	3538	3533
	Concrete + Deck = 62.2 psf				I _{cr} = 78.7 in ⁴ /ft			M _{no} /Ω = 48.0 kip-in/ft			V _n /Ω = 4.14 kip/ft					
(I _{cr} +I _y)/2 = 155 in ⁴ /ft				I _y = 231.1 in ⁴ /ft			φM _{no} = 73.5 kip-in/ft			φV _n = 6.01 kip/ft						

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
21	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	476	417	366	324	288	257	230	206	186	167	151	137	124	112	102
	LRFD, φW	762	666	586	519	461	411	368	330	297	268	242	219	198	180	163
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3902	3872	3846	3836	3815	3795	3777	3761	3746	3742	3729	3717	3706	3695	3685
	PAF Base Steel ≥ .25"	3684	3667	3652	3653	3640	3629	3619	3609	3600	3603	3595	3588	3581	3575	3569
	PAF Base Steel ≥ 0.125"	3667	3651	3638	3639	3627	3616	3606	3597	3589	3592	3585	3578	3572	3566	3560
	#12 Screw Base Steel ≥ .0385"	3652	3638	3624	3626	3615	3605	3596	3587	3579	3583	3576	3569	3563	3558	3552
	Concrete + Deck = 62.4 psf				I _{cr} = 84.9 in ⁴ /ft			M _{no} /Ω = 52.5 kip-in/ft			V _n /Ω = 4.80 kip/ft					
(I _{cr} +I _y)/2 = 159 in ⁴ /ft				I _y = 233.8 in ⁴ /ft			φM _{no} = 80.3 kip-in/ft			φV _n = 6.91 kip/ft						

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
20	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	518	454	400	354	315	281	252	227	204	185	167	152	138	125	114
	LRFD, φW	829	726	639	566	504	450	403	362	327	295	267	242	220	200	182
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3949	3916	3887	3878	3854	3832	3812	3794	3778	3775	3760	3747	3735	3723	3712
	PAF Base Steel ≥ .25"	3710	3691	3675	3677	3663	3650	3639	3628	3619	3622	3614	3606	3598	3591	3585
	PAF Base Steel ≥ 0.125"	3692	3674	3659	3662	3648	3636	3626	3616	3607	3611	3602	3595	3588	3581	3575
	#12 Screw Base Steel ≥ .0385"	3676	3660	3645	3649	3636	3625	3614	3605	3596	3601	3593	3586	3579	3573	3567
	Concrete + Deck = 62.5 psf				I _{cr} = 90.6 in ⁴ /ft			M _{no} /Ω = 56.7 kip-in/ft			V _n /Ω = 5.38 kip/ft					
(I _{cr} +I _y)/2 = 163 in ⁴ /ft				I _y = 236.4 in ⁴ /ft			φM _{no} = 86.8 kip-in/ft			φV _n = 7.71 kip/ft						

3WxH-36 Composite Deck 2.4

6 1/2" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.543yd³/100ft²

2 Hour Fire Rating



3W PANELS

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
19	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	604	530	467	415	369	331	297	268	242	219	199	181	165	151	138
	LRFD, φW	966	847	748	663	591	529	475	429	387	351	319	290	265	242	221
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	4050	4011	3977	3968	3940	3913	3890	3868	3848	3847	3829	3813	3798	3784	3771
	PAF Base Steel ≥ .25"	3767	3744	3725	3730	3713	3697	3684	3671	3659	3666	3655	3645	3636	3628	3620
	PAF Base Steel ≥ 0.125"	3745	3725	3706	3712	3696	3681	3668	3656	3645	3652	3642	3633	3624	3616	3609
	#12 Screw Base Steel ≥ .0385"	3729	3709	3692	3698	3683	3669	3656	3645	3634	3642	3632	3623	3615	3607	3600
	Concrete + Deck = 63.0 psf (I _{cr} +I _u)/2 = 172 in ⁴ /ft					I _{cr} = 101.9 in ⁴ /ft I _u = 241.7 in ⁴ /ft				M _{no} /Ω = 65.4 kip-in/ft φM _{no} = 100.0 kip-in/ft				V _n /Ω = 5.49 kip/ft φ V _n = 8.23 kip/ft		

	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
18	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	681	598	528	469	419	375	338	305	276	251	228	208	190	174	160
	LRFD, φW	1089	956	845	750	670	600	540	488	442	401	365	333	305	279	256
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	4150	4105	4065	4059	4025	3994	3967	3942	3918	3919	3899	3880	3862	3846	3830
	PAF Base Steel ≥ .25"	3823	3797	3774	3783	3763	3745	3729	3714	3700	3710	3697	3686	3675	3665	3656
	PAF Base Steel ≥ 0.125"	3799	3775	3753	3763	3744	3727	3711	3697	3684	3694	3682	3672	3661	3652	3643
	#12 Screw Base Steel ≥ .0385"	3783	3759	3739	3749	3731	3714	3699	3686	3673	3684	3672	3662	3652	3643	3634
	Concrete + Deck = 63.2 psf (I _{cr} +I _u)/2 = 179 in ⁴ /ft					I _{cr} = 111.7 in ⁴ /ft I _u = 246.6 in ⁴ /ft				M _{no} /Ω = 73.1 kip-in/ft φM _{no} = 111.8 kip-in/ft				V _n /Ω = 5.49 kip/ft φ V _n = 8.23 kip/ft		

	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
16	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	840	739	654	582	521	468	422	382	347	316	288	264	242	222	205
	LRFD, φW	1345	1182	1046	931	833	748	675	611	555	505	462	422	387	356	328
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	4369	4311	4259	4257	4213	4173	4137	4104	4073	4080	4053	4028	4004	3983	3962
	PAF Base Steel ≥ .25"	3948	3914	3884	3903	3876	3852	3831	3811	3793	3810	3793	3778	3763	3750	3738
	PAF Base Steel ≥ 0.125"	3902	3871	3844	3864	3840	3817	3797	3779	3762	3781	3765	3751	3737	3725	3713
	#12 Screw Base Steel ≥ .0385"	3903	3872	3844	3864	3840	3818	3798	3779	3762	3781	3766	3751	3738	3725	3713
	Concrete + Deck = 63.9 psf (I _{cr} +I _u)/2 = 194 in ⁴ /ft					I _{cr} = 131.2 in ⁴ /ft I _u = 256.4 in ⁴ /ft				M _{no} /Ω = 89.2 kip-in/ft φM _{no} = 136.4 kip-in/ft				V _n /Ω = 5.49 kip/ft φ V _n = 8.23 kip/ft		

All Gages	LRFD - Diaphragm Shear, φS _n (plf / ft) for all vertical load spans, WWF Designation 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	6030	7020	8820	11520
	24 in o.c.	n/a	6030	7020	7750	7750
36 in o.c.	n/a	5170	5170	5170	5170	

2.4 3WxH-36 Composite Deck

7 1/2" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.852yd³/100ft²

2 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	8' - 4"	9' - 1"	9' - 5"
21	9' - 0"	9' - 9"	10' - 1"
20	9' - 8"	10' - 4"	10' - 8"

Gage	Single	Double	Triple
19	10' - 8"	11' - 6"	11' - 11"
18	11' - 2"	12' - 7"	13' - 0"
16	11' - 9"	14' - 1"	13' - 10"

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
22	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	540	472	415	367	326	290	260	233	209	188	170	154	139	126	114
	LRFD, φW	864	756	664	587	521	464	415	372	335	301	272	246	222	201	182
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	4819	4794	4771	4762	4743	4726	4710	4696	4683	4679	4668	4658	4648	4639	4630
	PAF Base Steel ≥ .25"	4630	4616	4603	4602	4591	4581	4572	4564	4557	4558	4551	4545	4540	4534	4529
	PAF Base Steel ≥ 0.125"	4615	4602	4590	4590	4579	4570	4562	4554	4547	4549	4542	4537	4531	4526	4521
	#12 Screw Base Steel ≥ .0385"	4601	4589	4577	4578	4568	4560	4552	4544	4538	4540	4534	4528	4523	4519	4514
	Concrete + Deck = 74.2 psf				$I_{cr} = 114.4 \text{ in}^4/\text{ft}$			$M_{no}/\Omega = 59.8 \text{ kip-in/ft}$			$V_n/\Omega = 4.76 \text{ kip/ft}$					
$(I_{cr}+I_u)/2 = 234 \text{ in}^4/\text{ft}$				$I_u = 354.1 \text{ in}^4/\text{ft}$			$\phi M_{no} = 91.5 \text{ kip-in/ft}$			$\phi V_n = 6.94 \text{ kip/ft}$						

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
21	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	596	522	459	407	362	323	289	260	234	211	191	173	157	143	130
	LRFD, φW	954	835	735	651	579	516	463	416	374	338	306	277	251	228	207
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	4883	4853	4827	4817	4795	4776	4758	4741	4726	4723	4710	4698	4686	4676	4666
	PAF Base Steel ≥ .25"	4665	4648	4633	4634	4621	4610	4599	4590	4581	4584	4576	4569	4562	4556	4550
	PAF Base Steel ≥ 0.125"	4648	4632	4618	4620	4608	4597	4587	4578	4570	4573	4566	4559	4552	4547	4541
	#12 Screw Base Steel ≥ .0385"	4633	4618	4605	4607	4596	4586	4576	4568	4560	4564	4557	4550	4544	4538	4533
	Concrete + Deck = 74.5 psf				$I_{cr} = 123.6 \text{ in}^4/\text{ft}$			$M_{no}/\Omega = 65.5 \text{ kip-in/ft}$			$V_n/\Omega = 5.42 \text{ kip/ft}$					
$(I_{cr}+I_u)/2 = 241 \text{ in}^4/\text{ft}$				$I_u = 358.0 \text{ in}^4/\text{ft}$			$\phi M_{no} = 100.2 \text{ kip-in/ft}$			$\phi V_n = 7.84 \text{ kip/ft}$						

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
20	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	649	568	501	444	395	353	317	285	257	233	211	192	174	159	145
	LRFD, φW	1038	910	802	710	632	565	507	456	412	372	338	307	279	254	231
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	4929	4897	4868	4859	4835	4813	4793	4775	4759	4756	4741	4728	4715	4704	4693
	PAF Base Steel ≥ .25"	4691	4672	4656	4658	4644	4631	4620	4609	4600	4603	4594	4586	4579	4572	4566
	PAF Base Steel ≥ 0.125"	4673	4655	4640	4642	4629	4617	4606	4597	4587	4592	4583	4576	4569	4562	4556
	#12 Screw Base Steel ≥ .0385"	4657	4641	4626	4630	4617	4606	4595	4586	4577	4582	4574	4567	4560	4554	4548
	Concrete + Deck = 74.6 psf				$I_{cr} = 132.0 \text{ in}^4/\text{ft}$			$M_{no}/\Omega = 70.8 \text{ kip-in/ft}$			$V_n/\Omega = 6.01 \text{ kip/ft}$					
$(I_{cr}+I_u)/2 = 247 \text{ in}^4/\text{ft}$				$I_u = 361.6 \text{ in}^4/\text{ft}$			$\phi M_{no} = 108.3 \text{ kip-in/ft}$			$\phi V_n = 8.64 \text{ kip/ft}$						

3WxH-36 Composite Deck 2.4

7 1/2" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.852yd³/100ft²

2 Hour Fire Rating



3W PANELS

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"		
19	ASD & LRFD - Superimposed Load, W (psf)																	
	ASD, W/Ω	757	664	586	521	464	416	374	337	305	277	252	229	209	191	175		
	LRFD, φW	1212	1063	938	833	743	666	598	540	488	443	403	367	335	306	280		
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern																	
	Arc Spot Weld 1/2" Effective Dia	5031	4992	4958	4949	4920	4894	4871	4849	4829	4828	4810	4794	4779	4765	4752		
	PAF Base Steel ≥ .25"	4747	4725	4706	4711	4694	4678	4664	4652	4640	4646	4636	4626	4617	4609	4601		
	PAF Base Steel ≥ 0.125"	4726	4706	4687	4693	4677	4662	4649	4637	4626	4633	4623	4614	4605	4597	4590		
	#12 Screw Base Steel ≥ .0385"	4710	4690	4673	4679	4664	4650	4637	4626	4615	4623	4613	4604	4596	4588	4581		
	Concrete + Deck = 75.1 psf						I _{cr} = 148.9 in ⁴ /ft						M _{no} /Ω = 81.7 kip-in/ft					
(I _{cr} +I _u)/2 = 259 in ⁴ /ft						I _u = 369.2 in ⁴ /ft						φM _{no} = 125.0 kip-in/ft						φ V _n = 10.09 kip/ft

Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"			
ASD & LRFD - Superimposed Load, W (psf)																		
ASD, W/Ω	855	751	664	590	527	473	426	385	349	317	289	264	241	221	203			
LRFD, φW	1368	1201	1062	944	843	756	681	615	558	507	462	422	386	354	324			
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern																		
Arc Spot Weld 1/2" Effective Dia	5131	5086	5046	5039	5006	4975	4948	4922	4899	4900	4879	4860	4843	4826	4811			
PAF Base Steel ≥ .25"	4804	4778	4755	4764	4744	4726	4710	4695	4681	4690	4678	4667	4656	4646	4637			
PAF Base Steel ≥ 0.125"	4780	4756	4734	4744	4725	4708	4692	4678	4665	4675	4663	4652	4642	4633	4624			
#12 Screw Base Steel ≥ .0385"	4764	4740	4719	4730	4712	4695	4680	4667	4654	4665	4653	4643	4633	4624	4615			
Concrete + Deck = 75.3 psf						I _{cr} = 163.5 in ⁴ /ft						M _{no} /Ω = 91.5 kip-in/ft						V _n /Ω = 6.73 kip/ft
(I _{cr} +I _u)/2 = 270 in ⁴ /ft						I _u = 376.2 in ⁴ /ft						φM _{no} = 140.0 kip-in/ft						φ V _n = 10.09 kip/ft

Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"			
ASD & LRFD - Superimposed Load, W (psf)																		
ASD, W/Ω	1057	930	823	733	656	590	532	482	438	399	365	334	307	282	260			
LRFD, φW	1691	1488	1317	1173	1050	944	852	771	701	639	584	535	491	451	416			
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern																		
Arc Spot Weld 1/2" Effective Dia	5350	5292	5240	5238	5194	5154	5118	5085	5054	5061	5034	5008	4985	4963	4943			
PAF Base Steel ≥ .25"	4929	4895	4865	4883	4857	4833	4811	4792	4773	4791	4774	4759	4744	4731	4718			
PAF Base Steel ≥ 0.125"	4883	4852	4824	4845	4820	4798	4778	4760	4743	4762	4746	4732	4718	4706	4694			
#12 Screw Base Steel ≥ .0385"	4884	4852	4825	4845	4821	4799	4778	4760	4743	4762	4746	4732	4718	4706	4694			
Concrete + Deck = 75.9 psf						I _{cr} = 192.5 in ⁴ /ft						M _{no} /Ω = 111.8 kip-in/ft						V _n /Ω = 6.73 kip/ft
(I _{cr} +I _u)/2 = 291 in ⁴ /ft						I _u = 390.2 in ⁴ /ft						φM _{no} = 171.1 kip-in/ft						φ V _n = 10.09 kip/ft

All Gages	LRFD - Diaphragm Shear, φS_n (plf / ft) for all vertical load spans, WWF Designation 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			7020			8010			9810			12510		
	24 in o.c.	n/a			7020			7750			7750			7750		
36 in o.c.	n/a			5170			5170			5170			5170			

2.4 3WxH-36 Composite Deck

8 1/4" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 2.083yd³/100ft²

3 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	7' - 11"	8' - 9"	9' - 0"
21	8' - 7"	9' - 4"	9' - 8"
20	9' - 3"	9' - 11"	10' - 3"

Gage	Single	Double	Triple
19	10' - 3"	11' - 0"	11' - 5"
18	10' - 9"	12' - 1"	12' - 5"
16	11' - 5"	13' - 6"	13' - 5"

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
22	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	625	546	480	425	377	336	301	270	243	219	198	179	162	147	133
	LRFD, φW	999	874	769	680	604	538	481	432	389	350	316	286	259	235	213
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	5555	5530	5507	5497	5478	5461	5446	5432	5419	5415	5404	5393	5383	5374	5366
	PAF Base Steel ≥ .25"	5366	5351	5338	5338	5327	5317	5308	5300	5293	5294	5287	5281	5275	5270	5265
	PAF Base Steel ≥ 0.125"	5351	5337	5325	5325	5315	5306	5297	5290	5283	5284	5278	5272	5267	5262	5257
	#12 Screw Base Steel ≥ .0385"	5337	5324	5313	5314	5304	5295	5287	5280	5274	5275	5270	5264	5259	5254	5250
	Concrete + Deck = 83.3 psf (I _{cr} +I _y)/2 = 309 in ⁴ /ft					I _{cr} = 146.3 in ⁴ /ft I _y = 471.8 in ⁴ /ft				M _{no} /Ω = 69.0 kip-in/ft φM _{no} = 105.5 kip-in/ft				V _n /Ω = 5.37 kip/ft φV _n = 7.86 kip/ft		

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
21	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	690	604	532	471	419	374	335	301	272	245	222	202	183	166	151
	LRFD, φW	1104	966	851	753	670	599	536	482	435	393	356	322	293	266	242
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	5618	5589	5563	5553	5531	5511	5493	5477	5462	5459	5446	5433	5422	5412	5402
	PAF Base Steel ≥ .25"	5400	5384	5369	5369	5357	5345	5335	5326	5317	5319	5312	5304	5298	5291	5286
	PAF Base Steel ≥ 0.125"	5384	5368	5354	5355	5343	5333	5323	5314	5306	5309	5301	5294	5288	5282	5277
	#12 Screw Base Steel ≥ .0385"	5369	5354	5341	5343	5332	5321	5312	5304	5296	5299	5292	5286	5280	5274	5269
	Concrete + Deck = 83.6 psf (I _{cr} +I _y)/2 = 317 in ⁴ /ft					I _{cr} = 158.2 in ⁴ /ft I _y = 476.7 in ⁴ /ft				M _{no} /Ω = 75.5 kip-in/ft φM _{no} = 115.6 kip-in/ft				V _n /Ω = 6.03 kip/ft φV _n = 8.76 kip/ft		

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
20	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	751	658	580	514	458	409	367	331	299	270	245	223	203	185	169
	LRFD, φW	1201	1052	928	823	733	655	588	529	478	433	392	357	325	296	270
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	5665	5633	5604	5594	5570	5549	5529	5511	5494	5492	5477	5464	5451	5439	5429
	PAF Base Steel ≥ .25"	5426	5408	5392	5393	5379	5367	5355	5345	5335	5339	5330	5322	5315	5308	5301
	PAF Base Steel ≥ 0.125"	5408	5391	5376	5378	5365	5353	5342	5332	5323	5327	5319	5311	5304	5298	5292
	#12 Screw Base Steel ≥ .0385"	5393	5376	5362	5365	5353	5341	5331	5322	5313	5317	5310	5302	5296	5289	5284
	Concrete + Deck = 83.7 psf (I _{cr} +I _y)/2 = 325 in ⁴ /ft					I _{cr} = 169.0 in ⁴ /ft I _y = 481.3 in ⁴ /ft				M _{no} /Ω = 81.7 kip-in/ft φM _{no} = 124.9 kip-in/ft				V _n /Ω = 6.62 kip/ft φV _n = 9.56 kip/ft		

3WxH-36 Composite Deck 2.4

8 1/4" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 2.083yd³/100ft²

3 Hour Fire Rating



3W PANELS

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
19	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	876	769	679	603	538	482	434	392	355	322	293	267	244	223	204
	LRFD, φW	1402	1231	1087	965	861	772	694	627	567	515	468	427	390	357	327
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	5767	5728	5693	5685	5656	5630	5606	5585	5565	5563	5546	5530	5515	5501	5488
	PAF Base Steel ≥ .25"	5483	5461	5441	5446	5429	5414	5400	5387	5376	5382	5371	5362	5353	5344	5336
	PAF Base Steel ≥ 0.125"	5462	5441	5423	5428	5412	5398	5385	5373	5362	5369	5359	5349	5341	5333	5325
	#12 Screw Base Steel ≥ .0385"	5446	5426	5408	5415	5399	5386	5373	5361	5351	5358	5349	5340	5331	5324	5317
	Concrete + Deck = 84.1 psf (I _{cr} +I _u)/2 = 341 in ⁴ /ft					I _{cr} = 190.9 in ⁴ /ft I _u = 490.8 in ⁴ /ft				M _{no} /Ω = 94.3 kip-in/ft φM _{no} = 144.3 kip-in/ft			V _n /Ω = 7.69 kip/ft φ V _n = 11.01 kip/ft			
18	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	991	870	769	684	611	549	494	447	405	368	336	307	281	258	237
	LRFD, φW	1585	1392	1231	1095	978	878	791	715	648	589	537	491	449	412	378
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	5867	5822	5782	5775	5741	5711	5683	5658	5635	5636	5615	5596	5578	5562	5547
	PAF Base Steel ≥ .25"	5540	5514	5491	5499	5480	5462	5445	5430	5417	5426	5414	5402	5391	5382	5372
	PAF Base Steel ≥ 0.125"	5516	5491	5470	5479	5460	5443	5428	5414	5401	5411	5399	5388	5378	5368	5359
	#12 Screw Base Steel ≥ .0385"	5499	5476	5455	5465	5447	5431	5416	5402	5390	5400	5389	5378	5368	5359	5351
	Concrete + Deck = 84.3 psf (I _{cr} +I _u)/2 = 355 in ⁴ /ft					I _{cr} = 210.0 in ⁴ /ft I _u = 499.7 in ⁴ /ft				M _{no} /Ω = 105.8 kip-in/ft φM _{no} = 161.9 kip-in/ft			V _n /Ω = 7.95 kip/ft φ V _n = 11.93 kip/ft			
16	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	1226	1079	956	851	762	685	619	561	510	465	425	389	358	329	303
	LRFD, φW	1962	1726	1529	1362	1219	1096	990	897	815	743	680	623	572	526	485
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	6086	6027	5975	5974	5930	5890	5854	5820	5790	5796	5769	5744	5721	5699	5679
	PAF Base Steel ≥ .25"	5664	5631	5601	5619	5593	5569	5547	5527	5509	5527	5510	5494	5480	5467	5454
	PAF Base Steel ≥ 0.125"	5619	5588	5560	5581	5556	5534	5514	5495	5479	5497	5482	5467	5454	5441	5430
	#12 Screw Base Steel ≥ .0385"	5619	5588	5561	5581	5556	5534	5514	5496	5479	5498	5482	5468	5454	5442	5430
	Concrete + Deck = 85.0 psf (I _{cr} +I _u)/2 = 383 in ⁴ /ft					I _{cr} = 247.7 in ⁴ /ft I _u = 517.6 in ⁴ /ft				M _{no} /Ω = 129.5 kip-in/ft φM _{no} = 198.2 kip-in/ft			V _n /Ω = 7.95 kip/ft φ V _n = 11.93 kip/ft			
All Gages	LRFD - Diaphragm Shear, φS_n (plf / ft) for all vertical load spans, WWF Designation 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			7760			8750			10550			13250		
	24 in o.c.	n/a			7750			7750			7750			7750		
36 in o.c.	n/a			5170			5170			5170			5170			