

3.3 2WH-36 Composite Deck

4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 0.907yd³/100ft²



2WH-36 4" Slab Depth, 110 pcf LWC

	Gage	Single	Double	Triple	Gage	Single	Double	Triple
Maximum Unshored Span	22	8' - 8"	10' - 0"	10' - 3"	19	11' - 2"	12' - 9"	13' - 1"
	21	9' - 9"	10' - 11"	11' - 3"	18	11' - 6"	13' - 10"	13' - 5"
	20	10' - 7"	11' - 7"	11' - 11"	16	12' - 1"	15' - 1"	14' - 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	406	341	290	249	215	188	164	144	127	113	100	89	80	71	63
	LRFD, φW	612	516	440	379	329	287	252	223	198	176	157	141	127	114	103
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	1711	1686	1659	1634	1613	1595	1578	1568	1555	1543	1531	1521	1512	1507	1499
	PAF Base Steel ≥ .25"	1583	1569	1549	1532	1518	1504	1493	1488	1478	1470	1462	1454	1448	1446	1440
	PAF Base Steel ≥ 0.125"	1564	1551	1533	1517	1503	1491	1480	1476	1467	1459	1451	1444	1438	1437	1431
	#12 Screw Base Steel ≥ .0385"	1439	1436	1426	1417	1410	1403	1397	1397	1392	1388	1383	1380	1376	1377	1374
	Concrete + Deck =	29.2 psf				I _{cr} = 31.2 in ⁴ /ft	ASD	M _{no} /Ω = 23.5 kip-in/ft					V _r /Ω = 2.30 kip/ft			
	(I _{cr} +I _u)/2 =	47.05 in ⁴ /ft				I _u = 62.9 in ⁴ /ft	LRFD	φM _{no} = 34.9 kip-in/ft					φ V _n = 4.13 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	457	385	328	282	244	213	187	165	146	129	115	103	92	83	74
	LRFD, φW	688	581	496	428	372	325	286	253	225	201	180	162	146	131	119
	L/360	-	-	-	-	-	-	-	-	-	-	114	100	88	78	69
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	1807	1776	1741	1712	1686	1663	1642	1629	1613	1598	1584	1572	1560	1553	1544
	PAF Base Steel ≥ .25"	1619	1602	1580	1561	1544	1530	1517	1511	1500	1490	1481	1473	1466	1463	1457
	PAF Base Steel ≥ 0.125"	1597	1582	1561	1544	1528	1514	1502	1497	1487	1478	1469	1462	1455	1453	1447
	#12 Screw Base Steel ≥ .0385"	1433	1430	1421	1412	1405	1399	1393	1393	1388	1384	1380	1376	1373	1374	1371
	Concrete + Deck =	29.4 psf				I _{cr} = 34.1 in ⁴ /ft	ASD	M _{no} /Ω = 26.3 kip-in/ft					V _r /Ω = 2.30 kip/ft			
	(I _{cr} +I _u)/2 =	49.29 in ⁴ /ft				I _u = 64.5 in ⁴ /ft	LRFD	φM _{no} = 39.1 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	493	416	354	305	264	231	203	179	158	141	126	113	101	91	82
	LRFD, φW	742	627	535	462	402	352	310	274	244	218	196	176	159	144	130
	L/360	-	-	-	-	-	-	-	-	157	136	118	103	91	80	71
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	1889	1851	1811	1777	1747	1721	1697	1681	1662	1644	1629	1614	1601	1593	1581
	PAF Base Steel ≥ .25"	1645	1626	1602	1582	1564	1548	1534	1527	1515	1505	1495	1487	1479	1476	1469
	PAF Base Steel ≥ 0.125"	1621	1604	1582	1563	1546	1531	1518	1512	1501	1491	1483	1474	1467	1464	1458
	#12 Screw Base Steel ≥ .0385"	1429	1427	1418	1409	1402	1396	1391	1391	1386	1382	1378	1374	1371	1372	1369
	Concrete + Deck =	29.6 psf				I _{cr} = 36.1 in ⁴ /ft	ASD	M _{no} /Ω = 28.2 kip-in/ft					V _r /Ω = 2.30 kip/ft			
	(I _{cr} +I _u)/2 =	50.8 in ⁴ /ft				I _u = 65.5 in ⁴ /ft	LRFD	φM _{no} = 42.0 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.	2740	4090	5080	6880	9580
	24 in o.c.	2740	4090	5080	6880	7750
	36 in o.c.	2740	4090	5080	5170	5170

2WH-36 Composite Deck 2.3

4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 0.907yd³/100ft²



2WH-36 4" Slab Depth, 110 pcf LWC

Maximum Unshored Span		Gage	Single	Double	Triple			Gage	Single	Double	Triple
		22	8' - 8"	10' - 0"	10' - 3"			19	11' - 2"	12' - 9"	13' - 1"
		21	9' - 9"	10' - 11"	11' - 3"			18	11' - 6"	13' - 10"	13' - 5"
		20	10' - 7"	11' - 7"	11' - 11"			16	12' - 1"	15' - 1"	14' - 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	567	478	408	352	306	267	235	208	185	165	148	132	119	108	97
	LRFD, φW	851	720	616	532	463	406	358	318	284	254	228	206	186	169	153
	L/360	-	-	-	-	-	-	228	194	166	144	125	109	96	85	76
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2081	2028	1976	1931	1891	1856	1825	1802	1777	1754	1733	1714	1697	1685	1670
	PAF Base Steel ≥ .25"	1699	1675	1648	1625	1604	1586	1570	1561	1548	1536	1525	1515	1506	1501	1494
	PAF Base Steel ≥ 0.125"	1671	1650	1625	1603	1584	1567	1552	1544	1531	1520	1510	1501	1492	1488	1481
	#12 Screw Base Steel ≥ .0385"	1427	1424	1415	1407	1400	1394	1389	1389	1384	1380	1376	1373	1370	1371	1368
	Concrete + Deck =	30.0	psf			I _{cr} = 40.0	in ⁴ /ft	ASD	M _{no} /Ω =	32.2	kip-in/ft		V _n /Ω = 2.30	kip/ft		
	(I _{cr} +I _u)/2 =	53.86	in ⁴ /ft			I _u = 67.7	in ⁴ /ft	LRFD	φM _{no} =	47.9	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	630	532	455	392	341	299	263	233	207	185	166	150	135	122	110
	LRFD, φW	946	801	685	592	516	453	400	356	317	284	256	231	209	190	173
	L/360	-	-	-	-	340	284	239	203	174	151	131	115	101	89	79
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2274	2207	2142	2085	2036	1992	1954	1924	1893	1865	1839	1815	1794	1778	1759
	PAF Base Steel ≥ .25"	1746	1719	1689	1663	1640	1620	1602	1591	1576	1563	1551	1540	1529	1524	1515
	PAF Base Steel ≥ 0.125"	1715	1690	1662	1638	1617	1598	1581	1571	1557	1545	1534	1523	1514	1509	1501
	#12 Screw Base Steel ≥ .0385"	1427	1424	1415	1407	1400	1394	1389	1389	1384	1380	1376	1373	1370	1371	1368
	Concrete + Deck =	30.3	psf			I _{cr} = 43.2	in ⁴ /ft	ASD	M _{no} /Ω =	35.7	kip-in/ft		V _n /Ω = 2.30	kip/ft		
	(I _{cr} +I _u)/2 =	56.43	in ⁴ /ft			I _u = 69.6	in ⁴ /ft	LRFD	φM _{no} =	53.0	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	765	650	557	481	419	367	324	288	257	230	207	187	169	153	139
	LRFD, φW	1152	976	837	724	632	555	491	437	391	351	317	287	260	237	216
	L/360	-	-	-	453	373	311	262	223	191	165	144	126	111	98	87
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2557	2467	2384	2311	2248	2192	2142	2103	2062	2026	1993	1963	1935	1913	1889
	PAF Base Steel ≥ .25"	1852	1817	1780	1748	1719	1694	1672	1658	1640	1623	1609	1595	1582	1575	1564
	PAF Base Steel ≥ 0.125"	1792	1762	1729	1700	1674	1652	1632	1620	1604	1589	1576	1564	1553	1546	1537
	#12 Screw Base Steel ≥ .0385"	1427	1424	1415	1407	1400	1394	1389	1389	1384	1380	1376	1373	1370	1371	1368
	Concrete + Deck =	31.0	psf			I _{cr} = 49.9	in ⁴ /ft	ASD	M _{no} /Ω =	43.2	kip-in/ft		V _n /Ω = 2.30	kip/ft		
	(I _{cr} +I _u)/2 =	61.83	in ⁴ /ft			I _u = 73.7	in ⁴ /ft	LRFD	φM _{no} =	64.2	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.	2740		4090		5080		6880		9580						
	24 in o.c.	2740		4090		5080		6880		7750						
	36 in o.c.	2740		4090		5080		5170		5170						

3.3 2WH-36 Composite Deck

4 1/2" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.061yd³/100ft²

1 Hour Fire Rating



2WH-36 4 1/2 " Slab Depth, 110 pcf LWC

Maximum Unshored Span		Gage	Single	Double	Triple	Gage	Single	Double	Triple
		22	8' - 3"	9' - 7"	9' - 9"	19	10' - 8"	12' - 3"	12' - 8"
		21	9' - 4"	10' - 5"	10' - 10"	18	11' - 1"	13' - 3"	13' - 0"
		20	10' - 1"	11' - 1"	11' - 5"	16	11' - 8"	14' - 7"	13' - 8"

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	491	414	352	302	262	228	200	176	155	138	122	109	97	87	78
	LRFD, φW	741	625	533	459	399	349	307	271	241	214	192	172	155	139	126
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2035	2010	1983	1958	1937	1919	1902	1893	1879	1867	1855	1845	1836	1831	1823
	PAF Base Steel ≥ .25"	1907	1893	1873	1856	1842	1829	1817	1812	1802	1794	1786	1779	1772	1770	1764
	PAF Base Steel ≥ 0.125"	1888	1875	1857	1841	1827	1815	1804	1800	1791	1783	1775	1768	1762	1761	1755
	#12 Screw Base Steel ≥ .0385"	1764	1760	1750	1742	1734	1727	1721	1721	1716	1712	1708	1704	1700	1701	1698
	Concrete + Deck =	33.8 psf				I _{cr} = 42.7 in ⁴ /ft	ASD	M _{no} /Ω=	28.4 kip-in/ft				V _n /Ω = 2.67 kip/ft			
	(I _{cr} +I _u)/2 =	65.6 in ⁴ /ft				I _u = 88.4 in ⁴ /ft	LRFD	φM _{no} =	42.2 kip-in/ft				φ V _n = 4.41 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	554	467	398	342	297	259	227	200	178	158	141	126	113	101	91
	LRFD, φW	833	704	601	519	451	395	348	308	274	245	219	197	178	161	145
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2131	2100	2065	2036	2010	1987	1966	1954	1937	1922	1908	1896	1884	1878	1868
	PAF Base Steel ≥ .25"	1943	1926	1904	1885	1869	1854	1841	1835	1824	1814	1805	1797	1790	1787	1781
	PAF Base Steel ≥ 0.125"	1921	1906	1885	1868	1852	1839	1826	1821	1811	1802	1793	1786	1779	1777	1771
	#12 Screw Base Steel ≥ .0385"	1757	1754	1745	1736	1729	1723	1717	1717	1712	1708	1704	1700	1697	1698	1695
	Concrete + Deck =	34.0 psf				I _{cr} = 46.8 in ⁴ /ft	ASD	M _{no} /Ω=	31.7 kip-in/ft				V _n /Ω = 2.67 kip/ft			
	(I _{cr} +I _u)/2 =	68.63 in ⁴ /ft				I _u = 90.5 in ⁴ /ft	LRFD	φM _{no} =	47.2 kip-in/ft				φ V _n = 5.12 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	597	504	430	370	321	280	246	218	193	172	154	138	124	111	100
	LRFD, φW	898	759	649	560	487	427	376	334	297	266	238	215	194	175	159
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2213	2175	2135	2101	2071	2045	2021	2005	1986	1969	1953	1938	1925	1917	1905
	PAF Base Steel ≥ .25"	1969	1950	1926	1906	1888	1872	1858	1851	1839	1829	1819	1811	1803	1800	1793
	PAF Base Steel ≥ 0.125"	1945	1928	1906	1887	1870	1855	1842	1836	1825	1815	1807	1798	1791	1788	1782
	#12 Screw Base Steel ≥ .0385"	1753	1751	1742	1733	1726	1720	1715	1715	1710	1706	1702	1698	1695	1696	1693
	Concrete + Deck =	34.2 psf				I _{cr} = 49.5 in ⁴ /ft	ASD	M _{no} /Ω=	34.1 kip-in/ft				V _n /Ω = 2.67 kip/ft			
	(I _{cr} +I _u)/2 =	70.7 in ⁴ /ft				I _u = 91.9 in ⁴ /ft	LRFD	φM _{no} =	50.7 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.	3110		4460		5450		7250		9950						
	24 in o.c.	3110		4460		5450		7250		7750						
	36 in o.c.	3110		4460		5170		5170		5170						

2WH-36 Composite Deck 3.3

4 1/2" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume $1.061 \text{ yd}^3 / 100 \text{ ft}^2$

1 Hour Fire Rating



2WH-36 4 1/2 " Slab Depth, 110 pcf LWC

Maximum Unshored Span		Gage	Single	Double	Triple	Gage		Single	Double	Triple	
		22	8' - 3"	9' - 7"	9' - 9"			19	10' - 8"	12' - 3"	12' - 8"
		21	9' - 4"	10' - 5"	10' - 10"			18	11' - 1"	13' - 3"	13' - 0"
		20	10' - 1"	11' - 1"	11' - 5"			16	11' - 8"	14' - 7"	13' - 8"

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	687	580	496	427	371	325	286	253	225	201	180	162	146	132	119		
	LRFD, φW	1032	873	747	646	562	494	436	387	345	309	278	251	227	206	187		
	L/360	-	-	-	-	-	-	-	-	-	200	174	152	134	118	105		
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																	
	Arc Spot Weld 1/2" Effective Dia	2405	2353	2300	2255	2215	2180	2149	2127	2101	2078	2058	2038	2021	2009	1994		
	PAF Base Steel ≥ .25"	2023	2000	1972	1949	1928	1910	1894	1885	1872	1860	1849	1839	1830	1825	1818		
	PAF Base Steel ≥ 0.125"	1995	1974	1949	1927	1908	1891	1876	1868	1855	1844	1834	1825	1816	1812	1805		
#12 Screw Base Steel ≥ .0385"	1751	1748	1739	1731	1724	1718	1713	1713	1708	1704	1700	1697	1694	1695	1692			
Concrete + Deck =		34.5	psf		I _{cr} = 54.9		in ⁴ /ft		ASD		M _{no} /Ω = 39.0		kip-in/ft		V _n /Ω = 2.67		kip/ft	
(I _{cr} +I _u)/2 =		74.85	in ⁴ /ft		I _u = 94.8		in ⁴ /ft		LRFD		φM _{no} = 58.0		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	765	646	553	477	415	364	320	284	253	226	203	183	165	149	135		
	LRFD, φW	1147	972	832	719	627	551	487	433	386	347	312	282	256	232	212		
	L/360	-	-	-	-	-	-	-	282	242	209	182	159	140	124	110		
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																	
	Arc Spot Weld 1/2" Effective Dia	2598	2531	2466	2409	2360	2316	2278	2248	2217	2189	2163	2139	2118	2102	2083		
	PAF Base Steel ≥ .25"	2070	2043	2013	1987	1964	1944	1926	1915	1900	1887	1875	1864	1853	1848	1839		
	PAF Base Steel ≥ 0.125"	2039	2015	1986	1962	1941	1922	1905	1895	1882	1869	1858	1847	1838	1833	1825		
#12 Screw Base Steel ≥ .0385"	1751	1748	1739	1731	1724	1718	1713	1713	1708	1704	1700	1697	1694	1695	1692			
Concrete + Deck =		34.8	psf		I _{cr} = 59.4		in ⁴ /ft		ASD		M _{no} /Ω = 43.2		kip-in/ft		V _n /Ω = 2.67		kip/ft	
(I _{cr} +I _u)/2 =		78.33	in ⁴ /ft		I _u = 97.3		in ⁴ /ft		LRFD		φM _{no} = 64.2		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	891	790	677	585	510	447	395	351	313	281	253	228	207	188	171		
	LRFD, φW	1399	1186	1017	880	768	676	598	532	476	428	386	350	318	290	264		
	L/360	-	-	-	-	-	431	363	309	265	229	199	174	153	135	120		
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																	
	Arc Spot Weld 1/2" Effective Dia	2881	2791	2708	2635	2572	2516	2466	2427	2387	2350	2317	2287	2259	2237	2214		
	PAF Base Steel ≥ .25"	2176	2141	2104	2072	2043	2019	1996	1982	1964	1947	1933	1919	1907	1899	1888		
	PAF Base Steel ≥ 0.125"	2116	2086	2053	2024	1999	1976	1957	1944	1928	1913	1900	1888	1877	1870	1861		
#12 Screw Base Steel ≥ .0385"	1751	1748	1739	1731	1724	1718	1713	1713	1708	1704	1700	1697	1694	1695	1692			
Concrete + Deck =		35.5	psf		I _{cr} = 68.5		in ⁴ /ft		ASD		M _{no} /Ω = 52.3		kip-in/ft		V _n /Ω = 2.67		kip/ft	
(I _{cr} +I _u)/2 =		85.64	in ⁴ /ft		I _u = 102.7		in ⁴ /ft		LRFD		φM _{no} = 77.9		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.	3110				4460				5450				7250				9950						
	24 in o.c.	3110				4460				5450				7250				7750						
	36 in o.c.				3110				4460				5170				5170				5170			

3.3 2WH-36 Composite Deck

5 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.300yd³/100ft²

2 Hour Fire Rating



2WH-36 5 1/4 " Slab Depth, 110 pcf LWC

	Gage	Single	Double	Triple	Gage	Single	Double	Triple
Maximum Unshored Span	22	7' - 9"	9' - 0"	9' - 2"	19	10' - 1"	11' - 7"	11' - 11"
	21	8' - 9"	9' - 10"	10' - 2"	18	10' - 5"	12' - 6"	12' - 6"
	20	9' - 6"	10' - 5"	10' - 10"	16	11' - 2"	14' - 0"	13' - 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	628	529	451	387	336	293	257	226	200	178	158	141	127	113	102
	LRFD, φW	946	799	682	588	511	447	393	348	309	276	247	222	200	180	163
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2521	2497	2469	2445	2423	2405	2388	2379	2365	2353	2341	2331	2322	2317	2309
	PAF Base Steel ≥ .25"	2393	2379	2359	2342	2328	2315	2303	2298	2288	2280	2272	2265	2258	2256	2250
	PAF Base Steel ≥ 0.125"	2374	2361	2343	2327	2313	2301	2290	2286	2277	2269	2261	2255	2248	2247	2241
	#12 Screw Base Steel ≥ .0385"	2250	2246	2236	2228	2220	2213	2207	2202	2198	2194	2190	2186	2182	2187	2184
	Concrete + Deck =	40.7	psf													
	(I _{cr} +I _u)/2 =	101.8	in ⁴ /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	708	598	510	439	381	332	292	258	229	204	182	163	146	132	119
	LRFD, φW	1066	901	770	664	578	506	446	396	352	315	283	254	230	208	188
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2617	2586	2551	2522	2496	2473	2453	2440	2423	2408	2394	2382	2370	2364	2354
	PAF Base Steel ≥ .25"	2429	2412	2390	2371	2355	2340	2327	2321	2310	2300	2291	2283	2276	2273	2267
	PAF Base Steel ≥ 0.125"	2407	2392	2371	2354	2338	2325	2312	2307	2297	2288	2280	2272	2265	2263	2257
	#12 Screw Base Steel ≥ .0385"	2243	2240	2231	2223	2215	2209	2203	2203	2198	2194	2190	2186	2183	2184	2181
	Concrete + Deck =	40.9	psf													
	(I _{cr} +I _u)/2 =	106.3	in ⁴ /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	765	646	551	475	412	361	317	280	249	222	199	178	160	145	131
	LRFD, φW	1150	972	832	718	625	548	484	429	382	342	307	277	250	227	206
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2699	2661	2622	2587	2557	2531	2507	2491	2472	2455	2439	2424	2411	2403	2391
	PAF Base Steel ≥ .25"	2455	2436	2412	2392	2374	2358	2344	2337	2326	2315	2306	2297	2289	2286	2279
	PAF Base Steel ≥ 0.125"	2431	2414	2392	2373	2356	2342	2328	2322	2311	2302	2293	2285	2277	2274	2268
	#12 Screw Base Steel ≥ .0385"	2240	2237	2228	2220	2212	2206	2201	2201	2196	2192	2188	2185	2181	2182	2179
	Concrete + Deck =	41.1	psf													
	(I _{cr} +I _u)/2 =	109.5	in ⁴ /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	5010	6000	7800	10500										
	24 in o.c.	n/a	5010	6000	7750	7750										
	36 in o.c.	n/a	5010	5170	5170	5170										

2WH-36 Composite Deck 3.3

5 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume $1.300\text{yd}^3/100\text{ft}^2$

2 Hour Fire Rating



2WH-36 5 1/4 " Slab Depth, 110 pcf LWC

Maximum Unshored Span		Gage	Single	Double	Triple	Gage		Single	Double	Triple	
		22	7' - 9"	9' - 0"	9' - 2"			19	10' - 1"	11' - 7"	11' - 11"
		21	8' - 9"	9' - 10"	10' - 2"			18	10' - 5"	12' - 6"	12' - 6"
		20	9' - 6"	10' - 5"	10' - 10"			16	11' - 2"	14' - 0"	13' - 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	882	745	637	549	478	418	369	327	291	260	233	210	189	171	155
	LRFD, φW	1323	1120	959	829	723	634	561	498	445	399	359	324	294	267	243
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2891	2839	2786	2741	2701	2666	2635	2613	2587	2564	2544	2525	2507	2495	2480
	PAF Base Steel ≥ .25"	2509	2486	2459	2435	2415	2396	2380	2371	2358	2346	2335	2325	2316	2312	2304
PAF Base Steel ≥ 0.125"	2481	2460	2435	2413	2394	2377	2362	2354	2341	2330	2320	2311	2302	2298	2291	
#12 Screw Base Steel ≥ .0385"	2237	2234	2225	2217	2210	2204	2199	2199	2195	2190	2187	2183	2180	2181	2178	
Concrete + Deck =	41.4	psf			I _{cr} =	83.1	in ⁴ /ft	ASD	M _{no} /Ω=	49.8	kip-in/ft		V _n /Ω =	3.28	kip/ft	
(I _{cr} +I _u)/2 =	115.8	in ⁴ /ft			I _u =	148.4	in ⁴ /ft	LRFD	φM _{no} =	74.1	kip-in/ft		φ V _n =	6.56	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	982	831	710	613	534	468	413	367	327	293	263	237	214	194	176
	LRFD, φW	1473	1248	1069	925	807	709	627	557	498	447	403	364	331	301	274
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	191	170
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3084	3017	2952	2895	2846	2803	2764	2735	2703	2675	2649	2625	2604	2588	2569
	PAF Base Steel ≥ .25"	2556	2529	2499	2473	2450	2430	2412	2401	2386	2373	2361	2350	2340	2334	2325
PAF Base Steel ≥ 0.125"	2525	2501	2472	2448	2427	2408	2391	2381	2368	2355	2344	2334	2324	2319	2311	
#12 Screw Base Steel ≥ .0385"	2237	2234	2225	2217	2210	2204	2199	2199	2195	2190	2187	2183	2180	2181	2178	
Concrete + Deck =	41.7	psf			I _{cr} =	90.0	in ⁴ /ft	ASD	M _{no} /Ω=	55.3	kip-in/ft		V _n /Ω =	3.28	kip/ft	
(I _{cr} +I _u)/2 =	121	in ⁴ /ft			I _u =	152.1	in ⁴ /ft	LRFD	φM _{no} =	82.2	kip-in/ft		φ V _n =	6.56	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	1093	1009	872	754	658	578	511	454	406	364	328	296	269	244	223
	LRFD, φW	1800	1526	1309	1134	990	872	772	688	616	554	500	453	412	376	343
	L/360	-	-	-	-	-	-	-	-	-	353	307	268	236	209	186
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3367	3278	3194	3121	3058	3002	2952	2913	2873	2836	2803	2773	2745	2723	2700
	PAF Base Steel ≥ .25"	2662	2627	2590	2558	2529	2505	2482	2468	2450	2434	2419	2405	2393	2385	2374
PAF Base Steel ≥ 0.125"	2602	2572	2539	2510	2485	2462	2443	2430	2414	2399	2386	2374	2363	2356	2347	
#12 Screw Base Steel ≥ .0385"	2237	2234	2225	2217	2210	2204	2199	2199	2195	2190	2187	2183	2180	2181	2178	
Concrete + Deck =	42.4	psf			I _{cr} =	104.2	in ⁴ /ft	ASD	M _{no} /Ω=	67.2	kip-in/ft		V _n /Ω =	3.28	kip/ft	
(I _{cr} +I _u)/2 =	132.1	in ⁴ /ft			I _u =	160.0	in ⁴ /ft	LRFD	φM _{no} =	100.0	kip-in/ft		φ V _n =	6.56	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				5010				6000				7800				10500			
	24 in o.c.	n/a				5010				6000				7750				7750			
	36 in o.c.	n/a				5010				5170				5170				5170			

3.3 2WH-36 Composite Deck

6 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.61yd³/100ft²

3 Hour Fire Rating



2WH-36 6 1/4 " Slab Depth, 110 pcf LWC

	Gage	Single	Double	Triple	Gage	Single	Double	Triple
Maximum Unshored Span	22	7' - 3"	8' - 5"	8' - 7"	19	9' - 5"	10' - 10"	11' - 2"
	21	8' - 2"	9' - 3"	9' - 6"	18	9' - 10"	11' - 8"	11' - 11"
	20	8' - 10"	9' - 9"	10' - 1"	16	10' - 6"	13' - 4"	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	821	692	590	507	440	384	337	297	264	234	209	187	168	151	136
	LRFD, φW	1235	1044	892	769	669	586	516	457	406	363	326	293	264	239	216
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3169	3145	3117	3093	3072	3053	3036	3027	3013	3001	2990	2979	2970	2965	2957
	PAF Base Steel ≥ .25"	3041	3027	3007	2990	2976	2963	2951	2946	2936	2928	2920	2913	2906	2904	2898
	PAF Base Steel ≥ 0.125"	3022	3009	2991	2975	2961	2949	2938	2934	2925	2917	2909	2903	2896	2895	2889
	#12 Screw Base Steel ≥ .0385"	2898	2894	2884	2876	2868	2861	2856	2855	2850	2846	2842	2838	2834	2835	2832
	Concrete + Deck =	49.8 psf				I _{cr} = 101.8 in ⁴ /ft	ASD	M _{no} /Ω =	47.0 kip-in/ft			V _r /Ω =	3.70 kip/ft			
	(I _{cr} +I _u)/2 =	167.7 in ⁴ /ft				I _u = 233.5 in ⁴ /ft	LRFD	φM _{no} =	69.9 kip-in/ft			φ V _n =	5.52 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	927	782	668	575	499	437	384	340	302	269	241	216	194	175	158
	LRFD, φW	1393	1178	1008	870	757	664	586	520	463	414	372	335	303	275	249
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3265	3234	3200	3170	3144	3121	3101	3088	3071	3056	3042	3030	3018	3012	3002
	PAF Base Steel ≥ .25"	3077	3060	3038	3019	3003	2988	2975	2969	2958	2948	2940	2932	2924	2921	2915
	PAF Base Steel ≥ 0.125"	3055	3040	3019	3002	2986	2973	2961	2955	2945	2936	2928	2920	2913	2911	2905
	#12 Screw Base Steel ≥ .0385"	2891	2889	2879	2871	2863	2857	2851	2851	2847	2842	2838	2835	2831	2832	2829
	Concrete + Deck =	50.1 psf				I _{cr} = 111.8 in ⁴ /ft	ASD	M _{no} /Ω =	52.8 kip-in/ft			V _r /Ω =	4.15 kip/ft			
	(I _{cr} +I _u)/2 =	174.9 in ⁴ /ft				I _u = 238.1 in ⁴ /ft	LRFD	φM _{no} =	78.5 kip-in/ft			φ V _n =	6.23 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	1002	846	723	623	542	474	417	369	329	293	263	236	213	192	174
	LRFD, φW	1505	1273	1090	941	820	720	635	564	503	451	405	366	331	300	273
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3347	3309	3270	3235	3205	3179	3155	3139	3120	3103	3087	3072	3059	3051	3040
	PAF Base Steel ≥ .25"	3103	3084	3060	3040	3022	3006	2992	2985	2974	2963	2954	2945	2937	2934	2927
	PAF Base Steel ≥ 0.125"	3079	3062	3040	3021	3004	2990	2977	2970	2959	2950	2941	2933	2925	2922	2916
	#12 Screw Base Steel ≥ .0385"	2888	2885	2876	2868	2861	2854	2849	2849	2844	2840	2836	2833	2829	2830	2827
	Concrete + Deck =	50.2 psf				I _{cr} = 118.6 in ⁴ /ft	ASD	M _{no} /Ω =	56.8 kip-in/ft			V _r /Ω =	4.15 kip/ft			
	(I _{cr} +I _u)/2 =	180 in ⁴ /ft				I _u = 241.4 in ⁴ /ft	LRFD	φM _{no} =	84.5 kip-in/ft			φ V _n =	6.80 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	5750	6740	8540	11240
	24 in o.c.	n/a	5750	6740	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170



2WH-36 Composite Deck 3.3

6 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.61yd³/100ft²

3 Hour Fire Rating



2WH-36 6 1/4" Slab Depth, 110 pcf LWC

Maximum Unshored Span		Gage	Single	Double		Triple											Gage	Single	Double	Triple		
		22	7' - 3"	8' - 5"		8' - 7"											19	9' - 5"	10' - 10"		11' - 2"	
		21	8' - 2"	9' - 3"		9' - 6"											18	9' - 10"	11' - 8"		11' - 11"	
		20	8' - 10"	9' - 9"		10' - 1"											16	10' - 6"	13' - 4"		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	1157	978	837	722	629	551	486	431	384	344	309	278	251	228	207						
	LRFD, φW	1736	1470	1259	1089	950	834	738	656	586	526	474	428	388	353	322						
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																					
	Arc Spot Weld 1/2" Effective Dia	3539	3487	3434	3389	3349	3314	3283	3261	3235	3213	3192	3173	3155	3143	3128						
	PAF Base Steel ≥ .25"	3157	3134	3107	3083	3063	3044	3028	3019	3006	2994	2983	2973	2964	2960	2952						
	PAF Base Steel ≥ 0.125"	3129	3108	3083	3061	3042	3025	3010	3002	2989	2978	2968	2959	2950	2946	2939						
#12 Screw Base Steel ≥ .0385"	2885	2882	2873	2865	2858	2852	2847	2847	2843	2838	2835	2831	2828	2829	2826							
Concrete + Deck =		50.6	psf		I _{cr} = 132.2		in ⁴ /ft		ASD		M _{no} /Ω=		65.2 kip-in/ft		V _n /Ω = 4.15		kip/ft					
(I _{cr} +I _u)/2 =		190.1	in ⁴ /ft		I _u = 248.0		in ⁴ /ft		LRFD		φM _{no} =		97.0 kip-in/ft		φ V _n = 7.44		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	1291	1092	935	808	704	618	545	484	432	387	348	314	285	258	235						
	LRFD, φW	1935	1640	1405	1216	1062	933	826	735	657	591	533	482	438	399	364						
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																					
	Arc Spot Weld 1/2" Effective Dia	3732	3665	3600	3543	3494	3451	3412	3383	3351	3323	3297	3273	3252	3236	3217						
	PAF Base Steel ≥ .25"	3204	3177	3147	3121	3098	3078	3060	3049	3034	3021	3009	2998	2988	2982	2974						
	PAF Base Steel ≥ 0.125"	3173	3149	3121	3096	3075	3056	3039	3029	3016	3003	2992	2982	2972	2967	2959						
#12 Screw Base Steel ≥ .0385"	2885	2882	2873	2865	2858	2852	2847	2847	2843	2838	2835	2831	2828	2829	2826							
Concrete + Deck =		50.9	psf		I _{cr} = 143.5		in ⁴ /ft		ASD		M _{no} /Ω=		72.5 kip-in/ft		V _n /Ω = 4.15		kip/ft					
(I _{cr} +I _u)/2 =		198.6	in ⁴ /ft		I _u = 253.7		in ⁴ /ft		LRFD		φM _{no} =		107.8 kip-in/ft		φ V _n = 8.00		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	1385	1278	1151	996	869	764	676	601	538	483	436	394	358	326	297						
	LRFD, φW	2373	2013	1727	1497	1308	1152	1020	910	815	733	663	601	547	499	457						
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern																					
	Arc Spot Weld 1/2" Effective Dia	4015	3926	3842	3769	3706	3650	3600	3561	3521	3484	3451	3421	3393	3371	3348						
	PAF Base Steel ≥ .25"	3310	3275	3238	3206	3178	3153	3131	3116	3098	3082	3067	3053	3041	3033	3023						
	PAF Base Steel ≥ 0.125"	3250	3220	3187	3158	3133	3110	3091	3078	3062	3047	3034	3022	3011	3005	2995						
#12 Screw Base Steel ≥ .0385"	2885	2882	2873	2865	2858	2852	2847	2847	2843	2838	2835	2831	2828	2829	2826							
Concrete + Deck =		51.6	psf		I _{cr} = 166.8		in ⁴ /ft		ASD		M _{no} /Ω=		88.4 kip-in/ft		V _n /Ω = 4.15		kip/ft					
(I _{cr} +I _u)/2 =		216.5	in ⁴ /ft		I _u = 266.2		in ⁴ /ft		LRFD		φM _{no} =		131.5 kip-in/ft		φ V _n = 8.31		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			5750			6740			8540			11240								
	24 in o.c.	n/a			5750			6740			7750			7750								
	36 in o.c.			n/a			5170			5170			5170			5170						

2W PANELS

3 Hour Fire Rating



Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 4"	8' - 5"	8' - 7"
	21	8' - 3"	9' - 3"	9' - 7"
	20	8' - 10"	9' - 10"	10' - 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	809	682	581	500	433	378	332	293	260	231	206	184	165	148	133
	LRFD, φW	1217	1028	878	757	659	577	508	450	400	358	321	288	260	235	213
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3128	3104	3076	3052	3031	3012	2996	2986	2973	2960	2949	2939	2929	2925	2917
	PAF Base Steel ≥ .25"	3001	2986	2967	2950	2935	2922	2911	2906	2896	2887	2879	2872	2866	2864	2858
	PAF Base Steel ≥ 0.125"	2981	2968	2950	2935	2921	2909	2898	2893	2884	2876	2869	2862	2856	2854	2849
	#12 Screw Base Steel ≥ .0385"	2857	2854	2844	2835	2828	2821	2815	2815	2810	2805	2801	2797	2794	2795	2792
Concrete + Deck =	49.3	psf			I _{cr} =	99.2	in ⁴ /ft	ASD		M _{no} /Ω=	46.3	kip-in/ft		V _n /Ω =	3.67	kip/ft
(I _{cr} +I _u)/2 =	162.9	in ⁴ /ft			I _u =	226.6	in ⁴ /ft	LRFD		φM _{no} =	68.9	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	913	771	658	566	492	430	378	334	297	265	237	212	191	172	156
	LRFD, φW	1372	1160	992	857	746	654	577	512	456	408	367	330	298	270	246
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3225	3193	3159	3129	3103	3081	3060	3047	3031	3015	3002	2989	2978	2971	2961
	PAF Base Steel ≥ .25"	3037	3020	2998	2979	2962	2948	2935	2928	2918	2908	2899	2891	2884	2881	2874
	PAF Base Steel ≥ 0.125"	3015	2999	2979	2961	2946	2932	2920	2914	2904	2895	2887	2880	2873	2870	2864
	#12 Screw Base Steel ≥ .0385"	2851	2848	2838	2830	2823	2816	2811	2811	2806	2802	2798	2794	2791	2792	2789
Concrete + Deck =	49.5	psf			I _{cr} = 108.9	in ⁴ /ft	ASD		M _{no} /Ω=	52.0	kip-in/ft		V _n /Ω =	4.10	kip/ft	
(I _{cr} +I _u)/2 =	170	in ⁴ /ft			I _u = 231.1	in ⁴ /ft	LRFD		φM _{no} =	77.3	kip-in/ft		φ V _n =	6.19	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	987	833	712	614	533	467	411	364	323	289	259	232	209	189	171	
	LRFD, φW	1482	1254	1073	927	808	709	626	555	495	444	399	360	326	296	269	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft)								36/4 Attachment Pattern								
	Arc Spot Weld 1/2" Effective Dia	3307	3269	3229	3195	3165	3138	3115	3099	3080	3062	3046	3032	3019	3010	2999	
	PAF Base Steel ≥ .25"	3063	3043	3020	2999	2982	2966	2952	2945	2933	2923	2913	2905	2897	2893	2886	
	PAF Base Steel ≥ 0.125"	3039	3022	3000	2981	2964	2949	2936	2930	2919	2909	2900	2892	2885	2882	2875	
	#12 Screw Base Steel ≥ .0385"	2847	2845	2835	2827	2820	2814	2808	2809	2804	2800	2796	2792	2789	2790	2787	
Concrete + Deck =	49.7	psf		I _{cr} = 115.5		in ⁴ /ft		ASD		M _{no} /Ω= 56.0		kip-in/ft		V _n /Ω = 4.10		kip/ft	
(I _{cr} +I _n)/2 =	174.9	in ⁴ /ft		I _u = 234.3		in ⁴ /ft		LRFD		φM _{no} = 83.3		kip-in/ft		φ V _n = 6.76		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 $A_s = 0.028 \text{ in}^2/\text{ft}$	6x6 W2.9xW2.9 $A_s = 0.058 \text{ in}^2/\text{ft}$	6x6 W4.0xW4.0 $A_s = 0.080 \text{ in}^2/\text{ft}$	4x4 W4xW4 $A_s = 0.120 \text{ in}^2/\text{ft}$	4x4 W6xW6 $A_s = 0.180 \text{ in}^2/\text{ft}$
	12 in o.c.	n/a	5710	6700	8500	11200
	24 in o.c.	n/a	5710	6700	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170



2WH-36 Composite Deck 3.3

6 3/16" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.582yd³/100ft²

3 Hour Fire Rating



2WH-36 6 3/16" Slab Depth, 110 pcf LWC

Maximum Unshored Span	Gage	Single	Double	Triple	Gage	Single	Double	Triple
	22	7' - 4"	8' - 5"	8' - 7"		19	9' - 6"	10' - 10"
	21	8' - 3"	9' - 3"	9' - 7"		18	9' - 10"	11' - 9"
	20	8' - 10"	9' - 10"	10' - 2"		16	10' - 7"	13' - 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	1139	963	824	711	619	543	479	424	378	338	304	274	247	224	203
	LRFD, φW	1709	1448	1240	1072	935	822	726	646	577	518	466	422	382	348	317
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3499	3446	3394	3349	3309	3274	3243	3220	3195	3172	3151	3132	3115	3103	3088
	PAF Base Steel ≥ .25"	3116	3093	3066	3043	3022	3004	2988	2979	2965	2953	2943	2933	2924	2919	2911
	PAF Base Steel ≥ 0.125"	3089	3068	3042	3021	3001	2985	2969	2961	2949	2938	2928	2918	2910	2906	2899
	#12 Screw Base Steel ≥ .0385"	2844	2842	2833	2825	2818	2812	2806	2807	2802	2798	2794	2791	2787	2788	2786
	Concrete + Deck =	50.0	psf													
	(I _{cr} +I _u)/2 =	184.7	in ⁴ /ft													
						I _{cr} = 128.7	in ⁴ /ft	ASD	M _{no} /Ω =	64.2	kip-in/ft		V _n /Ω = 4.10	kip/ft		
						I _u = 240.8	in ⁴ /ft	LRFD	φM _{no} =	95.5	kip-in/ft		φ V _n = 7.39	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	1271	1076	921	795	693	608	537	477	425	381	343	309	280	254	231
	LRFD, φW	1905	1614	1384	1198	1045	919	813	724	647	581	524	475	431	393	358
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3692	3624	3559	3503	3454	3410	3371	3342	3311	3282	3256	3233	3211	3195	3177
	PAF Base Steel ≥ .25"	3164	3137	3107	3080	3057	3037	3019	3008	2994	2980	2968	2957	2947	2942	2933
	PAF Base Steel ≥ 0.125"	3133	3108	3080	3056	3034	3015	2999	2989	2975	2963	2951	2941	2932	2927	2919
	#12 Screw Base Steel ≥ .0385"	2844	2842	2833	2825	2818	2812	2806	2807	2802	2798	2794	2791	2787	2788	2786
	Concrete + Deck =	50.3	psf													
	(I _{cr} +I _u)/2 =	193	in ⁴ /ft													
						I _{cr} = 139.7	in ⁴ /ft	ASD	M _{no} /Ω =	71.4	kip-in/ft		V _n /Ω = 4.10	kip/ft		
						I _u = 246.3	in ⁴ /ft	LRFD	φM _{no} =	106.1	kip-in/ft		φ V _n = 7.96	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	1366	1261	1133	981	856	752	665	592	529	475	429	388	352	320	292
	LRFD, φW	2337	1982	1700	1473	1288	1134	1004	895	802	722	652	592	538	491	450
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Available Diaphragm Shear Capacity, φS _n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3974	3885	3801	3729	3666	3610	3560	3521	3480	3444	3411	3380	3352	3331	3307
	PAF Base Steel ≥ .25"	3270	3235	3198	3165	3137	3112	3090	3076	3057	3041	3026	3013	3000	2993	2982
	PAF Base Steel ≥ 0.125"	3210	3180	3146	3117	3092	3070	3050	3038	3022	3007	2994	2981	2970	2964	2954
	#12 Screw Base Steel ≥ .0385"	2844	2842	2833	2825	2818	2812	2806	2807	2802	2798	2794	2791	2787	2788	2786
	Concrete + Deck =	51.0	psf													
	(I _{cr} +I _u)/2 =	210.4	in ⁴ /ft													
						I _{cr} = 162.4	in ⁴ /ft	ASD	M _{no} /Ω =	87.0	kip-in/ft		V _n /Ω = 4.10	kip/ft		
						I _u = 258.5	in ⁴ /ft	LRFD	φM _{no} =	129.5	kip-in/ft		φ V _n = 8.19	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	5710	6700	8500	11200
	24 in o.c.	n/a	5710	6700	7750	7750

All Gages	36 in o.c.	n/a	5170	5170	5170	5170
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2W PANELS