

# 3.3 2WH-36 Composite Deck

4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 0.907yd<sup>3</sup>/100ft<sup>2</sup>



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	8' - 10"	9' - 6"	10' - 5"
21	9' - 10"	10' - 8"	11' - 3"
20	10' - 7"	12' - 3"	12' - 7"

Gage	Single	Double	Triple
19	11' - 3"	12' - 9"	13' - 2"
18	11' - 6"	13' - 8"	13' - 6"
16	12' - 1"	15' - 0"	14' - 2"

GA	Vertical Load Span (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"	
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω	461	390	333	287	250	219	193	170	146	126	110	96	85	75	67	
	LRFD, φW	622	525	448	385	334	292	257	227	201	180	160	144	129	116	105	
	L/360	-	-	-	-	-	-	-	-	170	146	126	110	96	85	75	67
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld ½" Effective Dia	1829	1802	1765	1732	1704	1679	1656	1647	1629	1612	1597	1583	1570	1566	1555	
	PAF Base Steel ≥ .25"	1581	1573	1552	1534	1518	1504	1491	1491	1480	1470	1462	1454	1446	1447	1441	
	PAF Base Steel ≥ 0.125"	1562	1556	1536	1519	1503	1490	1478	1478	1468	1459	1451	1443	1437	1438	1432	
	#12 Screw Base Steel ≥ .0385"	1544	1539	1520	1504	1490	1477	1466	1467	1458	1449	1441	1434	1428	1430	1424	
	Concrete + Deck =	29.1 psf				I <sub>cr</sub> = 31.6 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 23.2 kip-in/ft		V <sub>n</sub> /Ω = 2.30 kip/ft							
(I <sub>cr</sub> +I <sub>y</sub> )/2 =	47.3 in <sup>4</sup> /ft				I <sub>y</sub> = 63.0 in <sup>4</sup> /ft		φM <sub>no</sub> = 35.5 kip-in/ft		φV <sub>n</sub> = 4.13 kip/ft								
21	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω	510	431	369	318	277	243	209	177	152	131	114	100	88	78	69	
	LRFD, φW	688	581	496	428	372	325	286	253	225	201	180	162	146	132	119	
	L/360	-	-	-	-	-	-	209	177	152	131	114	100	88	78	69	
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld ½" Effective Dia	1909	1881	1837	1800	1767	1738	1712	1703	1682	1662	1645	1629	1614	1611	1598	
	PAF Base Steel ≥ .25"	1625	1618	1593	1572	1553	1537	1523	1523	1511	1500	1489	1480	1471	1474	1466	
	PAF Base Steel ≥ 0.125"	1603	1598	1575	1555	1537	1522	1508	1509	1498	1487	1477	1469	1461	1464	1456	
	#12 Screw Base Steel ≥ .0385"	1583	1580	1558	1539	1523	1508	1495	1497	1486	1476	1467	1459	1451	1454	1447	
	Concrete + Deck =	29.3 psf				I <sub>cr</sub> = 34.1 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 25.5 kip-in/ft		V <sub>n</sub> /Ω = 2.30 kip/ft							
(I <sub>cr</sub> +I <sub>y</sub> )/2 =	49.25 in <sup>4</sup> /ft				I <sub>y</sub> = 64.4 in <sup>4</sup> /ft		φM <sub>no</sub> = 39.1 kip-in/ft		φV <sub>n</sub> = 4.60 kip/ft								
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω	550	465	398	344	300	255	215	183	157	136	118	103	91	80	71	
	LRFD, φW	742	627	536	462	402	352	310	275	245	219	196	176	159	144	130	
	L/360	-	-	-	-	-	255	215	183	157	136	118	103	91	80	71	
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld ½" Effective Dia	1969	1939	1891	1850	1814	1782	1754	1745	1721	1700	1681	1663	1647	1644	1630	
	PAF Base Steel ≥ .25"	1657	1651	1624	1601	1580	1562	1546	1548	1534	1522	1510	1500	1491	1494	1486	
	PAF Base Steel ≥ 0.125"	1633	1629	1604	1582	1562	1545	1530	1533	1520	1508	1497	1488	1479	1483	1475	
	#12 Screw Base Steel ≥ .0385"	1613	1611	1586	1565	1547	1531	1517	1520	1508	1497	1486	1477	1469	1473	1466	
	Concrete + Deck =	29.4 psf				I <sub>cr</sub> = 36.1 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 27.4 kip-in/ft		V <sub>n</sub> /Ω = 2.30 kip/ft							
(I <sub>cr</sub> +I <sub>y</sub> )/2 =	50.78 in <sup>4</sup> /ft				I <sub>y</sub> = 65.5 in <sup>4</sup> /ft		φM <sub>no</sub> = 42.0 kip-in/ft		φV <sub>n</sub> = 4.60 kip/ft								

# 2WH-36 Composite Deck 2.3

4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 0.907yd<sup>3</sup>/100ft<sup>2</sup>



2W PANELS

GA	Vertical Load Span (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"	
19	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω	631	535	458	395	325	271	228	194	166	144	125	109	96	85	76	
	LRFD, φW	853	722	617	533	464	407	359	319	284	255	229	206	187	169	154	
	L/360	-	-	-	395	325	271	228	194	166	144	125	109	96	85	76	
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld 1/2" Effective Dia	2096	2065	2008	1959	1916	1878	1844	1836	1808	1782	1759	1737	1718	1717	1700	
	PAF Base Steel ≥ .25"	1726	1723	1691	1663	1638	1616	1597	1602	1585	1570	1557	1544	1533	1539	1529	
	PAF Base Steel ≥ 0.125"	1698	1698	1667	1640	1617	1597	1579	1585	1569	1555	1542	1530	1519	1526	1516	
	#12 Screw Base Steel ≥ .0385"	1677	1678	1649	1624	1601	1582	1564	1571	1556	1542	1530	1519	1508	1516	1506	
	Concrete + Deck = 29.7 psf						I <sub>cr</sub> = 40.1 in <sup>4</sup> /ft						M <sub>no</sub> /Ω = 31.4 kip-in/ft	V <sub>n</sub> /Ω = 2.30 kip/ft			
(I <sub>cr</sub> +I <sub>u</sub> )/2 = 53.88 in <sup>4</sup> /ft						I <sub>u</sub> = 67.7 in <sup>4</sup> /ft						φM <sub>no</sub> = 48.0 kip-in/ft	φ V <sub>n</sub> = 4.60 kip/ft				

Vertical Load Span (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"		
<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																	
ASD, W/Ω	700	593	508	413	340	284	239	203	174	150	131	115	101	89	79		
LRFD, φW	946	801	686	593	516	453	400	356	318	285	256	231	210	190	173		
L/360	-	-	508	413	340	284	239	203	174	150	131	115	101	89	79		
<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																	
Arc Spot Weld 1/2" Effective Dia	2213	2181	2116	2059	2009	1966	1927	1920	1888	1858	1831	1806	1784	1785	1765		
PAF Base Steel ≥ .25"	1789	1790	1752	1720	1692	1667	1644	1653	1633	1616	1600	1585	1572	1581	1569		
PAF Base Steel ≥ 0.125"	1758	1761	1726	1695	1668	1645	1624	1633	1615	1598	1583	1569	1557	1566	1555		
#12 Screw Base Steel ≥ .0385"	1736	1741	1707	1678	1652	1629	1609	1619	1602	1586	1571	1558	1546	1556	1545		
Concrete + Deck = 30.0 psf						I <sub>cr</sub> = 43.2 in <sup>4</sup> /ft						M <sub>no</sub> /Ω = 34.7 kip-in/ft	V <sub>n</sub> /Ω = 2.30 kip/ft				
(I <sub>cr</sub> +I <sub>u</sub> )/2 = 56.39 in <sup>4</sup> /ft						I <sub>u</sub> = 69.6 in <sup>4</sup> /ft						φM <sub>no</sub> = 53.0 kip-in/ft	φ V <sub>n</sub> = 4.60 kip/ft				

Vertical Load Span (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"		
<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																	
ASD, W/Ω	767	691	554	450	371	309	260	221	190	164	143	125	110	97	86		
LRFD, φW	1139	965	827	716	625	549	486	432	387	347	313	283	257	234	214		
L/360	-	691	554	450	371	309	260	221	190	164	143	125	110	97	86		
<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																	
Arc Spot Weld 1/2" Effective Dia	2473	2443	2359	2285	2221	2164	2114	2113	2070	2032	1996	1964	1935	1941	1915		
PAF Base Steel ≥ .25"	1930	1943	1894	1851	1814	1781	1752	1770	1745	1722	1700	1681	1664	1681	1665		
PAF Base Steel ≥ 0.125"	1873	1890	1844	1805	1771	1741	1714	1734	1710	1689	1669	1651	1635	1653	1638		
#12 Screw Base Steel ≥ .0385"	1871	1888	1843	1804	1770	1740	1713	1733	1709	1688	1668	1651	1634	1653	1637		
Concrete + Deck = 30.6 psf						I <sub>cr</sub> = 49.5 in <sup>4</sup> /ft						M <sub>no</sub> /Ω = 41.5 kip-in/ft	V <sub>n</sub> /Ω = 2.30 kip/ft				
(I <sub>cr</sub> +I <sub>u</sub> )/2 = 61.45 in <sup>4</sup> /ft						I <sub>u</sub> = 73.4 in <sup>4</sup> /ft						φM <sub>no</sub> = 63.5 kip-in/ft	φ V <sub>n</sub> = 4.60 kip/ft				

All Gages	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) for all vertical load spans, WWF Designation or Area of Steel per foot width</b>															
		6x6 W1.4xW1.4			6x6 W2.9xW2.9			6x6 W4.0xW4.0			4x4 W4xW4			4x4 W6xW6		
	3/4" Welded Shear Studs	A <sub>s</sub> = 0.028 in <sup>2</sup> /ft			A <sub>s</sub> = 0.058 in <sup>2</sup> /ft			A <sub>s</sub> = 0.080 in <sup>2</sup> /ft			A <sub>s</sub> = 0.120 in <sup>2</sup> /ft			A <sub>s</sub> = 0.180 in <sup>2</sup> /ft		
	12 in o.c.	2710			4060			5050			6850			9550		
	24 in o.c.	2710			4060			5050			6850			7750		
36 in o.c.	2710			4060			5050			5170			5170			

# 3.3 2WH-36 Composite Deck

4 1/2" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.061yd<sup>3</sup>/100ft<sup>2</sup>

1 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	8' - 5"	9' - 2"	9' - 11"
21	9' - 4"	10' - 4"	10' - 9"
20	10' - 1"	11' - 9"	12' - 2"

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

GA	Vertical Load Span (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"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	558	471	403	348	303	265	234	207	185	165	148	133	118	104	93
	LRFD, φW	752	635	542	467	406	355	312	276	245	218	195	175	158	142	128
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	118	104	93
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2153	2126	2089	2056	2028	2003	1980	1971	1953	1936	1921	1907	1894	1890	1879
	PAF Base Steel ≥ .25"	1905	1897	1876	1858	1842	1828	1815	1815	1804	1794	1786	1778	1770	1772	1765
	PAF Base Steel ≥ 0.125"	1886	1880	1860	1843	1827	1814	1802	1802	1792	1783	1775	1767	1761	1762	1756
	#12 Screw Base Steel ≥ .0385"	1868	1863	1844	1828	1814	1802	1790	1791	1782	1773	1765	1758	1752	1754	1748
	Concrete + Deck = 33.7 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 65.93 in <sup>4</sup> /ft															
					I <sub>cr</sub> = 43.3 in <sup>4</sup> /ft I <sub>u</sub> = 88.6 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 28.0 kip-in/ft φM <sub>no</sub> = 42.8 kip-in/ft			V <sub>n</sub> /Ω = 2.68 kip/ft φ V <sub>n</sub> = 4.42 kip/ft			
21	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	617	522	447	386	336	295	260	231	206	183	159	139	123	108	96
	LRFD, φW	833	704	601	519	451	395	348	308	274	245	219	197	178	161	145
	L/360	-	-	-	-	-	-	-	-	-	183	159	139	123	108	96
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2233	2205	2161	2124	2091	2062	2036	2027	2006	1986	1969	1953	1938	1935	1922
	PAF Base Steel ≥ .25"	1949	1942	1917	1896	1878	1861	1847	1847	1835	1824	1813	1804	1796	1798	1790
	PAF Base Steel ≥ 0.125"	1927	1922	1899	1879	1861	1846	1832	1833	1822	1811	1801	1793	1785	1788	1780
	#12 Screw Base Steel ≥ .0385"	1908	1904	1882	1863	1847	1832	1819	1821	1810	1800	1791	1783	1775	1778	1771
	Concrete + Deck = 33.9 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 68.57 in <sup>4</sup> /ft															
					I <sub>cr</sub> = 46.8 in <sup>4</sup> /ft I <sub>u</sub> = 90.4 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 30.8 kip-in/ft φM <sub>no</sub> = 47.2 kip-in/ft			V <sub>n</sub> /Ω = 2.68 kip/ft φ V <sub>n</sub> = 5.13 kip/ft			
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	666	563	482	417	363	319	282	250	218	189	164	144	126	112	99
	LRFD, φW	899	760	650	561	488	427	377	334	298	266	239	215	194	176	159
	L/360	-	-	-	-	-	-	-	-	218	189	164	144	126	112	99
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2293	2263	2215	2174	2138	2106	2078	2069	2045	2024	2005	1987	1971	1968	1954
	PAF Base Steel ≥ .25"	1981	1975	1948	1925	1904	1886	1870	1872	1858	1846	1834	1824	1815	1818	1810
	PAF Base Steel ≥ 0.125"	1957	1953	1928	1906	1886	1869	1854	1857	1844	1832	1821	1812	1803	1807	1799
	#12 Screw Base Steel ≥ .0385"	1937	1935	1910	1890	1871	1855	1841	1844	1832	1821	1811	1801	1793	1797	1790
	Concrete + Deck = 34.0 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 70.66 in <sup>4</sup> /ft															
					I <sub>cr</sub> = 49.5 in <sup>4</sup> /ft I <sub>u</sub> = 91.8 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 33.2 kip-in/ft φM <sub>no</sub> = 50.8 kip-in/ft			V <sub>n</sub> /Ω = 2.68 kip/ft φ V <sub>n</sub> = 5.36 kip/ft			

# 2WH-36 Composite Deck 3.3

4 1/2" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.061yd<sup>3</sup>/100ft<sup>2</sup>

1 Hour Fire Rating



GA	Vertical Load Span (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"
19	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	765	648	555	480	419	368	317	270	231	200	174	152	134	118	105
	LRFD, φW	1034	875	749	647	564	495	437	388	346	310	279	251	228	207	188
	L/360	-	-	-	-	-	-	317	270	231	200	174	152	134	118	105
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2420	2389	2332	2283	2240	2202	2168	2160	2132	2106	2083	2061	2042	2041	2024
	PAF Base Steel ≥ .25"	2050	2047	2015	1987	1962	1940	1921	1926	1909	1894	1881	1868	1857	1863	1853
	PAF Base Steel ≥ 0.125"	2022	2022	1991	1965	1941	1921	1903	1909	1893	1879	1866	1854	1843	1850	1840
	#12 Screw Base Steel ≥ .0385"	2001	2002	1973	1948	1925	1906	1889	1895	1880	1866	1854	1843	1832	1840	1830
	Concrete + Deck = 34.3 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 74.86 in <sup>4</sup> /ft					I <sub>cr</sub> = 55.0 in <sup>4</sup> /ft I <sub>u</sub> = 94.8 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 37.9 kip-in/ft φM <sub>no</sub> = 58.1 kip-in/ft				V <sub>n</sub> /Ω = 2.68 kip/ft φ V <sub>n</sub> = 5.36 kip/ft		
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	848	719	616	534	466	394	332	282	242	209	182	159	140	124	110
	LRFD, φW	1147	972	832	719	627	551	487	433	387	347	312	282	256	232	212
	L/360	-	-	-	-	-	394	332	282	242	209	182	159	140	124	110
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2537	2505	2440	2383	2334	2290	2251	2244	2212	2182	2155	2131	2108	2109	2089
	PAF Base Steel ≥ .25"	2113	2114	2076	2044	2016	1991	1968	1977	1957	1940	1924	1909	1896	1905	1893
	PAF Base Steel ≥ 0.125"	2082	2085	2050	2019	1992	1969	1948	1957	1939	1922	1907	1893	1881	1891	1879
	#12 Screw Base Steel ≥ .0385"	2060	2065	2031	2002	1976	1953	1933	1944	1926	1910	1895	1882	1870	1880	1869
	Concrete + Deck = 34.6 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 78.28 in <sup>4</sup> /ft					I <sub>cr</sub> = 59.3 in <sup>4</sup> /ft I <sub>u</sub> = 97.2 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 42.0 kip-in/ft φM <sub>no</sub> = 64.2 kip-in/ft				V <sub>n</sub> /Ω = 2.68 kip/ft φ V <sub>n</sub> = 5.36 kip/ft		
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	893	825	744	623	514	428	361	307	263	227	198	173	152	135	120
	LRFD, φW	1383	1172	1005	870	760	668	591	526	471	423	382	346	314	286	261
	L/360	-	-	-	623	514	428	361	307	263	227	198	173	152	135	120
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2797	2767	2683	2609	2545	2489	2438	2437	2394	2356	2320	2288	2259	2265	2239
	PAF Base Steel ≥ .25"	2254	2267	2218	2175	2138	2106	2076	2094	2069	2046	2025	2005	1988	2005	1989
	PAF Base Steel ≥ 0.125"	2197	2214	2169	2129	2095	2065	2038	2058	2034	2013	1993	1975	1959	1977	1962
	#12 Screw Base Steel ≥ .0385"	2195	2212	2167	2128	2094	2064	2037	2057	2033	2012	1992	1975	1958	1977	1961
	Concrete + Deck = 35.2 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 85.13 in <sup>4</sup> /ft					I <sub>cr</sub> = 68.0 in <sup>4</sup> /ft I <sub>u</sub> = 102.3 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 50.3 kip-in/ft φM <sub>no</sub> = 77.0 kip-in/ft				V <sub>n</sub> /Ω = 2.68 kip/ft φ V <sub>n</sub> = 5.36 kip/ft		
All Gages	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) for all vertical load spans, WWF Designation or Area of Steel per foot width</b>															
	3/4" Welded Shear Studs	6x6 W1.4xW1.4			6x6 W2.9xW2.9			6x6 W4.0xW4.0			4x4 W4xW4			4x4 W6xW6		
		A <sub>s</sub> = 0.028 in <sup>2</sup> /ft			A <sub>s</sub> = 0.058 in <sup>2</sup> /ft			A <sub>s</sub> = 0.080 in <sup>2</sup> /ft			A <sub>s</sub> = 0.120 in <sup>2</sup> /ft			A <sub>s</sub> = 0.180 in <sup>2</sup> /ft		
	12 in o.c.	3080			4430			5420			7220			9920		
24 in o.c.	3080			4430			5420			7220			7750			
36 in o.c.	3080			4430			5170			5170			5170			

# 3.3 2WH-36 Composite Deck

5 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.392yd<sup>3</sup>/100ft<sup>2</sup>

2 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	7' - 11"	8' - 9"	9' - 4"
21	8' - 10"	9' - 9"	10' - 2"
20	9' - 7"	11' - 1"	11' - 6"

Gage	Single	Double	Triple
19	10' - 2"	11' - 6"	11' - 11"
18	10' - 6"	12' - 5"	12' - 6"
16	11' - 2"	13' - 11"	13' - 1"

GA	Vertical Load Span (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"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	712	602	515	445	387	340	300	266	237	212	191	172	155	141	128
	LRFD, φW	961	812	693	598	519	455	400	354	315	281	252	226	204	184	166
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2639	2612	2575	2542	2514	2489	2466	2457	2439	2422	2407	2393	2380	2377	2365
	PAF Base Steel ≥ .25"	2391	2384	2362	2344	2328	2314	2301	2301	2290	2280	2272	2264	2256	2258	2251
	PAF Base Steel ≥ 0.125"	2372	2366	2346	2329	2314	2300	2288	2289	2278	2269	2261	2254	2247	2248	2242
	#12 Screw Base Steel ≥ .0385"	2354	2349	2330	2314	2300	2288	2276	2277	2268	2259	2251	2244	2238	2240	2234
	Concrete + Deck = 40.6 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 102.2 in <sup>4</sup> /ft					I <sub>cr</sub> = 65.2 in <sup>4</sup> /ft I <sub>u</sub> = 139.2 in <sup>4</sup> /ft			M <sub>no</sub> /Ω = 35.6 kip-in/ft φM <sub>no</sub> = 54.5 kip-in/ft			V <sub>n</sub> /Ω = 3.29 kip/ft φV <sub>n</sub> = 4.87 kip/ft				
21	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	789	667	571	494	430	378	334	296	264	237	213	192	174	158	144
	LRFD, φW	1065	900	770	664	578	506	446	395	352	315	283	254	230	208	188
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2719	2691	2647	2610	2577	2548	2522	2513	2492	2472	2455	2439	2424	2421	2408
	PAF Base Steel ≥ .25"	2435	2428	2403	2382	2364	2347	2333	2333	2321	2310	2300	2290	2282	2284	2277
	PAF Base Steel ≥ 0.125"	2413	2408	2385	2365	2347	2332	2318	2320	2308	2297	2288	2279	2271	2274	2266
	#12 Screw Base Steel ≥ .0385"	2394	2390	2368	2349	2333	2318	2305	2307	2296	2286	2277	2269	2261	2264	2258
	Concrete + Deck = 40.7 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 106.2 in <sup>4</sup> /ft					I <sub>cr</sub> = 70.6 in <sup>4</sup> /ft I <sub>u</sub> = 141.8 in <sup>4</sup> /ft			M <sub>no</sub> /Ω = 39.3 kip-in/ft φM <sub>no</sub> = 60.2 kip-in/ft			V <sub>n</sub> /Ω = 3.29 kip/ft φV <sub>n</sub> = 5.58 kip/ft				
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	851	721	617	534	466	409	361	321	287	257	232	209	190	173	154
	LRFD, φW	1151	973	832	719	626	549	484	429	383	343	308	277	251	227	206
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	154
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2779	2749	2701	2660	2624	2592	2564	2555	2531	2510	2491	2473	2457	2454	2440
	PAF Base Steel ≥ .25"	2467	2461	2434	2411	2390	2372	2356	2358	2344	2332	2320	2310	2301	2304	2296
	PAF Base Steel ≥ 0.125"	2443	2439	2414	2392	2372	2355	2340	2343	2330	2318	2308	2298	2289	2293	2285
	#12 Screw Base Steel ≥ .0385"	2423	2421	2397	2376	2357	2341	2327	2330	2318	2307	2297	2287	2279	2283	2276
	Concrete + Deck = 40.9 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 109.4 in <sup>4</sup> /ft					I <sub>cr</sub> = 74.8 in <sup>4</sup> /ft I <sub>u</sub> = 143.9 in <sup>4</sup> /ft			M <sub>no</sub> /Ω = 42.3 kip-in/ft φM <sub>no</sub> = 64.8 kip-in/ft			V <sub>n</sub> /Ω = 3.29 kip/ft φV <sub>n</sub> = 6.16 kip/ft				

# 2WH-36 Composite Deck 3.3

5 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.292yd<sup>3</sup>/100ft<sup>2</sup>

2 Hour Fire Rating



GA	Vertical Load Span (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"
19	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	980	830	712	616	538	473	418	372	333	299	269	235	207	183	163
	LRFD, φW	1325	1122	960	830	724	635	561	499	445	399	360	325	294	267	243
	L/360	-	-	-	-	-	-	-	-	-	-	269	235	207	183	163
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2906	2875	2818	2769	2726	2688	2654	2646	2618	2592	2569	2548	2528	2527	2510
	PAF Base Steel ≥ .25"	2536	2533	2501	2473	2448	2426	2407	2412	2395	2380	2367	2354	2343	2349	2339
	PAF Base Steel ≥ 0.125"	2508	2508	2477	2451	2427	2407	2389	2395	2379	2365	2352	2340	2329	2336	2326
	#12 Screw Base Steel ≥ .0385"	2487	2488	2459	2434	2412	2392	2375	2381	2366	2353	2340	2329	2318	2326	2316
	Concrete + Deck = 41.2 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 115.7 in <sup>4</sup> /ft					I <sub>cr</sub> = 83.2 in <sup>4</sup> /ft I <sub>u</sub> = 148.3 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 48.5 kip-in/ft φM <sub>no</sub> = 74.2 kip-in/ft			V <sub>n</sub> /Ω = 3.29 kip/ft φ V <sub>n</sub> = 6.58 kip/ft			

	Vertical Load Span (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"
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1088	923	791	685	599	527	466	415	372	323	281	246	216	191	170
	LRFD, φW	1473	1248	1069	925	807	709	627	558	498	447	403	365	331	301	275
	L/360	-	-	-	-	-	-	-	-	-	323	281	246	216	191	170
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3023	2991	2926	2869	2820	2776	2737	2731	2698	2668	2641	2617	2594	2595	2575
	PAF Base Steel ≥ .25"	2599	2600	2563	2530	2502	2477	2454	2463	2443	2426	2410	2395	2382	2391	2379
	PAF Base Steel ≥ 0.125"	2568	2571	2536	2505	2478	2455	2434	2443	2425	2408	2393	2379	2367	2377	2365
	#12 Screw Base Steel ≥ .0385"	2546	2552	2518	2488	2462	2440	2419	2430	2412	2396	2381	2368	2356	2366	2355
	Concrete + Deck = 41.5 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 120.9 in <sup>4</sup> /ft					I <sub>cr</sub> = 90.0 in <sup>4</sup> /ft I <sub>u</sub> = 151.9 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 53.7 kip-in/ft φM <sub>no</sub> = 82.2 kip-in/ft			V <sub>n</sub> /Ω = 3.29 kip/ft φ V <sub>n</sub> = 6.58 kip/ft			

	Vertical Load Span (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"
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1096	1012	940	830	725	639	557	473	406	350	305	267	235	208	185
	LRFD, φW	1780	1509	1294	1121	979	861	763	680	608	547	494	448	407	371	339
	L/360	-	-	-	-	-	-	557	473	406	350	305	267	235	208	185
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3283	3254	3169	3095	3031	2975	2924	2923	2880	2842	2807	2774	2745	2751	2725
	PAF Base Steel ≥ .25"	2740	2753	2704	2661	2624	2592	2563	2580	2555	2532	2511	2491	2474	2491	2475
	PAF Base Steel ≥ 0.125"	2683	2700	2655	2615	2581	2551	2524	2544	2520	2499	2479	2461	2445	2463	2448
	#12 Screw Base Steel ≥ .0385"	2681	2698	2653	2614	2580	2550	2523	2543	2520	2498	2479	2461	2444	2463	2447
	Concrete + Deck = 42.1 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 131.3 in <sup>4</sup> /ft					I <sub>cr</sub> = 103.3 in <sup>4</sup> /ft I <sub>u</sub> = 159.3 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 64.6 kip-in/ft φM <sub>no</sub> = 98.8 kip-in/ft			V <sub>n</sub> /Ω = 3.29 kip/ft φ V <sub>n</sub> = 6.58 kip/ft			

All Gages	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) for all vertical load spans, WWF Designation or Area of Steel per foot width</b>										
		6x6 W1.4xW1.4		6x6 W2.9xW2.9		6x6 W4.0xW4.0		4x4 W4xW4		4x4 W6xW6	
	3/4" Welded Shear Studs	A <sub>s</sub> = 0.028 in <sup>2</sup> /ft		A <sub>s</sub> = 0.058 in <sup>2</sup> /ft		A <sub>s</sub> = 0.080 in <sup>2</sup> /ft		A <sub>s</sub> = 0.120 in <sup>2</sup> /ft		A <sub>s</sub> = 0.180 in <sup>2</sup> /ft	
	12 in o.c.	n/a		4990		5980		7780		10480	
	24 in o.c.	n/a		4990		5980		7750		7750	
36 in o.c.	n/a		4990		5170		5170		5170		

2W PANELS

# 3.3 2WH-36 Composite Deck

6 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.61yd<sup>3</sup>/100ft<sup>2</sup>



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	7' - 5"	8' - 3"	8' - 9"
21	8' - 2"	9' - 2"	9' - 6"
20	8' - 11"	10' - 4"	10' - 9"

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

GA	Vertical Load Span (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"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	930	787	673	581	507	444	392	348	311	278	250	226	204	185	169
	LRFD, φW	1255	1061	906	782	680	595	525	465	414	370	332	298	269	243	220
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3287	3260	3223	3190	3162	3137	3115	3105	3087	3070	3055	3041	3028	3025	3013
	PAF Base Steel ≥ .25"	3040	3032	3011	2992	2976	2962	2949	2949	2938	2929	2920	2912	2904	2906	2899
	PAF Base Steel ≥ 0.125"	3020	3014	2994	2977	2962	2948	2937	2937	2927	2917	2909	2902	2895	2896	2890
	#12 Screw Base Steel ≥ .0385"	3002	2997	2979	2962	2948	2936	2925	2925	2916	2907	2899	2892	2886	2888	2882
	Concrete + Deck = 49.7 psf (I <sub>cr</sub> +I <sub>y</sub> )/2 = 168.4 in <sup>4</sup> /ft				I <sub>cr</sub> = 103.1 in <sup>4</sup> /ft I <sub>y</sub> = 233.7 in <sup>4</sup> /ft			M <sub>no</sub> /Ω = 46.4 kip-in/ft φM <sub>no</sub> = 71.0 kip-in/ft			V <sub>n</sub> /Ω = 3.86 kip/ft φV <sub>n</sub> = 5.54 kip/ft					

GA	Vertical Load Span (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"
21	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1031	873	747	646	563	495	437	389	347	311	280	253	230	209	190
	LRFD, φW	1393	1178	1007	870	757	664	586	519	463	414	372	335	303	275	249
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3368	3339	3296	3258	3225	3196	3171	3161	3140	3121	3103	3087	3072	3069	3056
	PAF Base Steel ≥ .25"	3083	3076	3052	3030	3012	2995	2981	2981	2969	2958	2948	2938	2930	2932	2925
	PAF Base Steel ≥ 0.125"	3061	3056	3033	3013	2995	2980	2966	2968	2956	2945	2936	2927	2919	2922	2915
	#12 Screw Base Steel ≥ .0385"	3042	3038	3016	2997	2981	2966	2953	2955	2944	2934	2925	2917	2909	2913	2906
	Concrete + Deck = 49.9 psf (I <sub>cr</sub> +I <sub>y</sub> )/2 = 174.7 in <sup>4</sup> /ft				I <sub>cr</sub> = 111.7 in <sup>4</sup> /ft I <sub>y</sub> = 237.7 in <sup>4</sup> /ft			M <sub>no</sub> /Ω = 51.3 kip-in/ft φM <sub>no</sub> = 78.4 kip-in/ft			V <sub>n</sub> /Ω = 4.17 kip/ft φV <sub>n</sub> = 6.25 kip/ft					

GA	Vertical Load Span (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"
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1114	944	808	699	610	536	474	422	377	338	305	276	250	228	208
	LRFD, φW	1506	1274	1090	942	821	720	636	565	504	451	406	366	331	301	274
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3427	3397	3350	3308	3272	3240	3212	3203	3180	3158	3139	3121	3105	3102	3088
	PAF Base Steel ≥ .25"	3115	3109	3082	3059	3038	3020	3004	3006	2992	2980	2969	2958	2949	2952	2944
	PAF Base Steel ≥ 0.125"	3091	3087	3062	3040	3020	3003	2988	2991	2978	2966	2956	2946	2937	2941	2933
	#12 Screw Base Steel ≥ .0385"	3071	3069	3045	3024	3005	2989	2975	2978	2966	2955	2945	2935	2927	2931	2924
	Concrete + Deck = 50.1 psf (I <sub>cr</sub> +I <sub>y</sub> )/2 = 179.8 in <sup>4</sup> /ft				I <sub>cr</sub> = 118.6 in <sup>4</sup> /ft I <sub>y</sub> = 240.9 in <sup>4</sup> /ft			M <sub>no</sub> /Ω = 55.3 kip-in/ft φM <sub>no</sub> = 84.6 kip-in/ft			V <sub>n</sub> /Ω = 4.17 kip/ft φV <sub>n</sub> = 6.82 kip/ft					

# 2WH-36 Composite Deck 3.3

6 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.61yd<sup>3</sup>/100ft<sup>2</sup>



2W PANELS

GA	Vertical Load Span (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"
19	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1284	1089	934	808	706	621	550	490	438	394	356	322	293	267	244
	LRFD, φW	1738	1472	1261	1090	951	835	739	657	587	527	475	429	389	354	323
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3555	3523	3467	3417	3374	3336	3302	3294	3266	3240	3217	3196	3176	3175	3158
	PAF Base Steel ≥ .25"	3184	3181	3149	3121	3096	3074	3055	3060	3044	3028	3015	3002	2991	2997	2987
	PAF Base Steel ≥ 0.125"	3156	3156	3125	3099	3076	3055	3037	3043	3027	3013	3000	2988	2977	2984	2974
	#12 Screw Base Steel ≥ .0385"	3135	3136	3107	3082	3060	3040	3023	3029	3014	3001	2988	2977	2966	2974	2964
	Concrete + Deck = 50.4 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 190 in <sup>4</sup> /ft					I <sub>cr</sub> = 132.3 in <sup>4</sup> /ft I <sub>u</sub> = 247.6 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 63.5 kip-in/ft φM <sub>no</sub> = 97.1 kip-in/ft			V <sub>n</sub> /Ω = 4.17 kip/ft φ V <sub>n</sub> = 7.46 kip/ft			

	Vertical Load Span (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"
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1391	1212	1040	901	787	693	614	547	490	441	399	361	329	300	275
	LRFD, φW	1935	1639	1405	1216	1062	933	826	735	658	591	533	482	438	399	364
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3671	3639	3574	3517	3468	3424	3385	3379	3346	3316	3289	3265	3242	3243	3223
	PAF Base Steel ≥ .25"	3247	3248	3211	3178	3150	3125	3102	3111	3092	3074	3058	3044	3030	3040	3027
	PAF Base Steel ≥ 0.125"	3216	3220	3184	3153	3127	3103	3082	3091	3073	3056	3041	3027	3015	3025	3013
	#12 Screw Base Steel ≥ .0385"	3194	3200	3166	3136	3110	3088	3067	3078	3060	3044	3029	3016	3004	3014	3003
	Concrete + Deck = 50.7 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 198.3 in <sup>4</sup> /ft					I <sub>cr</sub> = 143.4 in <sup>4</sup> /ft I <sub>u</sub> = 253.3 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 70.4 kip-in/ft φM <sub>no</sub> = 107.8 kip-in/ft			V <sub>n</sub> /Ω = 4.17 kip/ft φ V <sub>n</sub> = 8.03 kip/ft			

	Vertical Load Span (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"
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1391	1284	1192	1094	957	844	748	668	599	540	488	437	385	340	303
	LRFD, φW	2346	1990	1707	1479	1293	1138	1008	899	805	725	655	594	540	493	451
	L/360	-	-	-	-	-	-	-	-	-	-	-	437	385	340	303
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3931	3902	3817	3744	3679	3623	3572	3571	3528	3490	3455	3423	3393	3399	3373
	PAF Base Steel ≥ .25"	3388	3401	3352	3310	3272	3240	3211	3229	3203	3180	3159	3139	3122	3139	3123
	PAF Base Steel ≥ 0.125"	3331	3348	3303	3264	3229	3199	3172	3192	3169	3147	3127	3110	3093	3111	3096
	#12 Screw Base Steel ≥ .0385"	3329	3346	3301	3262	3228	3198	3171	3191	3168	3146	3127	3109	3092	3111	3096
	Concrete + Deck = 51.3 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 215.1 in <sup>4</sup> /ft					I <sub>cr</sub> = 165.4 in <sup>4</sup> /ft I <sub>u</sub> = 264.9 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 85.0 kip-in/ft φM <sub>no</sub> = 130.0 kip-in/ft			V <sub>n</sub> /Ω = 4.17 kip/ft φ V <sub>n</sub> = 8.34 kip/ft			

All Gages	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) for all vertical load spans, WWF Designation or Area of Steel per foot width</b>										
		6x6 W1.4xW1.4		6x6 W2.9xW2.9		6x6 W4.0xW4.0		4x4 W4xW4		4x4 W6xW6	
	3/4" Welded Shear Studs	A <sub>s</sub> = 0.028 in <sup>2</sup> /ft		A <sub>s</sub> = 0.058 in <sup>2</sup> /ft		A <sub>s</sub> = 0.080 in <sup>2</sup> /ft		A <sub>s</sub> = 0.120 in <sup>2</sup> /ft		A <sub>s</sub> = 0.180 in <sup>2</sup> /ft	
	12 in o.c.		n/a		5730		6720		8520		11220
	24 in o.c.		n/a		5730		6720		7750		7750
36 in o.c.		n/a		5170		5170		5170		5170	



# 3.3 2WH-36 Composite Deck

6 3/16" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.582yd<sup>3</sup>/100ft<sup>2</sup>

3 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	7' - 5"	8' - 3"	8' - 9"
21	8' - 3"	9' - 3"	9' - 6"
20	9' - 0"	10' - 5"	10' - 9"

Gage	Single	Double	Triple
19	9' - 7"	10' - 10"	11' - 2"
18	9' - 10"	11' - 7"	11' - 11"
16	10' - 6"	13' - 3"	12' - 7"

GA	Vertical Load Span (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"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	916	775	663	573	499	438	386	343	306	274	247	222	201	183	166
	LRFD, φW	1236	1045	893	770	670	586	517	458	407	364	326	294	265	239	217
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3247	3220	3182	3150	3121	3096	3074	3065	3046	3030	3014	3000	2988	2984	2973
	PAF Base Steel ≥ .25"	2999	2991	2970	2952	2936	2922	2909	2908	2898	2888	2879	2871	2864	2865	2859
	PAF Base Steel ≥ 0.125"	2980	2973	2953	2936	2921	2908	2896	2896	2886	2877	2869	2861	2854	2856	2850
	#12 Screw Base Steel ≥ .0385"	2962	2957	2938	2922	2908	2895	2884	2885	2875	2867	2859	2852	2845	2847	2841
	Concrete + Deck = 49.2 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 163.6 in <sup>4</sup> /ft			I <sub>cr</sub> = 100.4 in <sup>4</sup> /ft I <sub>u</sub> = 226.8 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 45.7 kip-in/ft φM <sub>no</sub> = 70.0 kip-in/ft		V <sub>n</sub> /Ω = 3.83 kip/ft φV <sub>n</sub> = 5.49 kip/ft								

GA	Vertical Load Span (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"
21	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1015	859	736	636	555	487	431	383	342	307	276	249	226	205	187
	LRFD, φW	1372	1160	992	857	746	654	577	512	456	408	366	330	298	270	246
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3327	3298	3255	3218	3185	3156	3130	3121	3099	3080	3062	3046	3032	3028	3016
	PAF Base Steel ≥ .25"	3042	3036	3011	2990	2971	2955	2940	2941	2929	2917	2907	2898	2889	2892	2884
	PAF Base Steel ≥ 0.125"	3020	3015	2992	2972	2955	2939	2926	2927	2915	2905	2895	2886	2878	2881	2874
	#12 Screw Base Steel ≥ .0385"	3001	2998	2976	2957	2940	2926	2913	2915	2904	2894	2885	2876	2869	2872	2865
	Concrete + Deck = 49.3 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 169.7 in <sup>4</sup> /ft			I <sub>cr</sub> = 108.8 in <sup>4</sup> /ft I <sub>u</sub> = 230.7 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 50.5 kip-in/ft φM <sub>no</sub> = 77.3 kip-in/ft		V <sub>n</sub> /Ω = 4.11 kip/ft φV <sub>n</sub> = 6.20 kip/ft								

GA	Vertical Load Span (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"
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1097	929	796	689	601	528	467	415	371	333	300	272	246	224	205
	LRFD, φW	1483	1255	1074	928	808	709	626	556	496	444	400	361	326	296	269
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3386	3357	3309	3268	3232	3200	3172	3163	3139	3118	3098	3081	3064	3062	3047
	PAF Base Steel ≥ .25"	3074	3069	3042	3018	2998	2980	2964	2966	2952	2939	2928	2918	2908	2912	2903
	PAF Base Steel ≥ 0.125"	3051	3047	3021	2999	2980	2963	2948	2951	2938	2926	2915	2905	2896	2901	2892
	#12 Screw Base Steel ≥ .0385"	3031	3028	3004	2983	2965	2949	2934	2938	2926	2914	2904	2895	2886	2891	2883
	Concrete + Deck = 49.5 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 174.7 in <sup>4</sup> /ft			I <sub>cr</sub> = 115.6 in <sup>4</sup> /ft I <sub>u</sub> = 233.9 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 54.4 kip-in/ft φM <sub>no</sub> = 83.3 kip-in/ft		V <sub>n</sub> /Ω = 4.11 kip/ft φV <sub>n</sub> = 6.78 kip/ft								

# 2WH-36 Composite Deck 3.3

6 3/16" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.582yd<sup>3</sup>/100ft<sup>2</sup>

3 Hour Fire Rating



2W PANELS

GA	Vertical Load Span (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"
19	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1265	1072	919	796	695	612	541	482	431	388	350	317	288	263	240
	LRFD, φW	1711	1449	1241	1074	936	823	727	647	578	519	467	422	383	348	318
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3514	3483	3426	3377	3334	3296	3262	3254	3225	3200	3176	3155	3136	3135	3117
	PAF Base Steel ≥ .25"	3143	3141	3108	3080	3056	3034	3015	3020	3003	2988	2974	2962	2950	2957	2946
	PAF Base Steel ≥ 0.125"	3116	3115	3085	3058	3035	3015	2996	3002	2987	2972	2959	2947	2937	2943	2934
	#12 Screw Base Steel ≥ .0385"	3095	3096	3067	3041	3019	3000	2982	2989	2974	2960	2948	2936	2926	2933	2924
	Concrete + Deck = 49.8 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 184.6 in <sup>4</sup> /ft					I <sub>cr</sub> = 128.9 in <sup>4</sup> /ft I <sub>u</sub> = 240.4 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 62.5 kip-in/ft φM <sub>no</sub> = 95.6 kip-in/ft			V <sub>n</sub> /Ω = 4.11 kip/ft φ V <sub>n</sub> = 7.42 kip/ft			

	Vertical Load Span (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"
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1371	1194	1024	887	775	682	605	539	483	434	392	356	324	295	270
	LRFD, φW	1905	1614	1384	1198	1045	919	813	724	647	582	525	475	431	393	359
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3630	3599	3533	3477	3427	3383	3345	3338	3305	3276	3249	3224	3202	3203	3183
	PAF Base Steel ≥ .25"	3206	3208	3170	3138	3109	3084	3062	3070	3051	3034	3018	3003	2990	2999	2987
	PAF Base Steel ≥ 0.125"	3175	3179	3144	3113	3086	3062	3041	3051	3032	3016	3001	2987	2974	2984	2973
	#12 Screw Base Steel ≥ .0385"	3154	3159	3125	3096	3070	3047	3027	3037	3020	3003	2989	2976	2963	2974	2963
	Concrete + Deck = 50.1 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 192.8 in <sup>4</sup> /ft					I <sub>cr</sub> = 139.7 in <sup>4</sup> /ft I <sub>u</sub> = 245.9 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 69.4 kip-in/ft φM <sub>no</sub> = 106.1 kip-in/ft			V <sub>n</sub> /Ω = 4.11 kip/ft φ V <sub>n</sub> = 7.99 kip/ft			

	Vertical Load Span (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"
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1371	1266	1176	1077	942	830	737	657	589	531	481	425	374	331	294
	LRFD, φW	2310	1959	1681	1456	1273	1120	993	885	793	713	644	584	532	485	444
	L/360	-	-	-	-	-	-	-	-	-	-	-	425	374	331	294
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3890	3861	3776	3703	3639	3582	3532	3531	3488	3449	3414	3382	3353	3359	3333
	PAF Base Steel ≥ .25"	3348	3360	3311	3269	3232	3199	3170	3188	3162	3139	3118	3099	3081	3099	3082
	PAF Base Steel ≥ 0.125"	3290	3307	3262	3223	3189	3159	3132	3152	3128	3106	3087	3069	3053	3071	3056
	#12 Screw Base Steel ≥ .0385"	3289	3306	3261	3222	3188	3158	3131	3151	3127	3106	3086	3068	3052	3070	3055
	Concrete + Deck = 50.7 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 209.1 in <sup>4</sup> /ft					I <sub>cr</sub> = 161.0 in <sup>4</sup> /ft I <sub>u</sub> = 257.2 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 83.7 kip-in/ft φM <sub>no</sub> = 128.0 kip-in/ft			V <sub>n</sub> /Ω = 4.11 kip/ft φ V <sub>n</sub> = 8.23 kip/ft			

All Gages	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) for all vertical load spans, WWF Designation or Area of Steel per foot width</b>										
		6x6 W1.4xW1.4		6x6 W2.9xW2.9		6x6 W4.0xW4.0		4x4 W4xW4		4x4 W6xW6	
	3/4" Welded Shear Studs	A <sub>s</sub> = 0.028 in <sup>2</sup> /ft		A <sub>s</sub> = 0.058 in <sup>2</sup> /ft		A <sub>s</sub> = 0.080 in <sup>2</sup> /ft		A <sub>s</sub> = 0.120 in <sup>2</sup> /ft		A <sub>s</sub> = 0.180 in <sup>2</sup> /ft	
	12 in o.c.		n/a		5680		6670		8470		11170
	24 in o.c.		n/a		5680		6670		7750		7750
36 in o.c.		n/a		5170		5170		5170		5170	



**2WHF-36 Cellular Shoring Table**

Total Slab Depth (in)	110 pcf Light Weight Concrete					
	Volume cy/100sf	Gage	Slab and Deck psf	Maximum Unshored Span		
				Single	Double	Triple
4	0.907	20/20	30.6	11'-6"	13'-2"	12'-7"
		20/18	31.0	11'-8"	13'-4"	12'-8"
		20/16	31.5	11'-8"	13'-6"	12'-8"
		18/20	31.2	13'-0"	14'-11"	13'-4"
		18/18	31.7	13'-2"	15'-1"	13'-4"
		18/16	32.2	13'-3"	15'-4"	13'-4"
		16/20	31.9	13'-6"	16'-2"	13'-4"
		16/18	32.4	13'-9"	16'-7"	13'-4"
		16/16	32.9	13'-10"	16'-10"	13'-4"
4½ 1 Hour Fire Rating	1.061	20/20	35.1	11'-0"	12'-7"	12'-1"
		20/18	35.6	11'-1"	12'-10"	12'-2"
		20/16	36.1	11'-2"	13'-0"	12'-2"
		18/20	35.8	12'-7"	14'-3"	13'-4"
		18/18	36.3	12'-9"	14'-6"	13'-4"
		18/16	36.8	12'-10"	14'-8"	13'-4"
		16/20	36.5	13'-1"	15'-8"	13'-4"
		16/18	36.9	13'-4"	16'-1"	13'-4"
16/16	37.5	13'-5"	16'-4"	13'-4"		
5	1.215	20/20	39.7	10'-6"	12'-2"	11'-7"
		20/18	40.2	10'-8"	12'-4"	11'-8"
		20/16	40.7	10'-8"	12'-6"	11'-9"
		18/20	40.4	12'-2"	13'-9"	13'-4"
		18/18	40.9	12'-4"	14'-0"	13'-4"
		18/16	41.4	12'-6"	14'-2"	13'-4"
		16/20	41.0	12'-8"	15'-3"	13'-4"
		16/18	41.5	12'-11"	15'-7"	13'-4"
16/16	42.0	13'-1"	15'-8"	13'-4"		
5¼ 2 Hour Fire Rating	1.292	20/20	42.0	10'-4"	11'-11"	11'-5"
		20/18	42.5	10'-5"	12'-1"	11'-6"
		20/16	43.0	10'-6"	12'-3"	11'-6"
		18/20	42.7	12'-1"	13'-6"	13'-4"
		18/18	43.1	12'-3"	13'-9"	13'-4"
		18/16	43.7	12'-4"	13'-11"	13'-4"
		16/20	43.3	12'-7"	14'-11"	13'-4"
		16/18	43.8	12'-9"	15'-3"	13'-4"
16/16	44.3	12'-11"	15'-5"	13'-4"		
6⅙ 3 Hour Fire Rating	1.582	20/20	50.6	9'-8"	11'-2"	10'-8"
		20/18	51.1	9'-9"	11'-5"	10'-10"
		20/16	51.6	9'-10"	11'-6"	10'-10"
		18/20	51.3	11'-6"	12'-8"	13'-0"
		18/18	51.7	11'-8"	12'-11"	13'-2"
		18/16	52.3	11'-10"	13'-1"	13'-2"
		16/20	51.9	12'-0"	14'-1"	13'-4"
		16/18	52.4	12'-3"	14'-4"	13'-4"
16/16	52.9	12'-4"	14'-6"	13'-4"		

Shaded area the span is governed by maximum deck panel length of 40 feet; 20 feet for double span, 13 feet 4 inches for triple span.

2W PANELS