

3.3 2WH-36 Composite Deck

4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 0.907yd³/100ft²



Maximum Unshored Span (in)

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

Gage	Single	Double	Triple
19	11' - 4"	12' - 9"	13' - 3"
18	11' - 7"	13' - 8"	13' - 6"
16	12' - 1"	15' - 1"	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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	383	323	275	237	206	180	158	140	124	111	99	89	80	72	65
	LRFD, φW	612	517	441	379	329	288	253	224	198	177	158	142	127	115	103
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	1748	1721	1684	1651	1623	1598	1575	1566	1548	1531	1516	1502	1489	1485	1474
	PAF Base Steel ≥ .25"	1500	1492	1471	1453	1437	1423	1410	1410	1399	1389	1380	1372	1365	1366	1360
	PAF Base Steel ≥ 0.125"	1481	1475	1455	1438	1422	1409	1397	1397	1387	1378	1370	1362	1355	1357	1351
	#12 Screw Base Steel ≥ .0385"	1463	1458	1439	1423	1409	1396	1385	1386	1377	1368	1360	1353	1347	1349	1343
	Concrete + Deck = 28.5 psf				$I_{cr} = 31.2 \text{ in}^4/\text{ft}$			$M_{no}/\Omega = 22.8 \text{ kip-in/ft}$			$V_n/\Omega = 2.26 \text{ kip/ft}$					
$(I_{cr}+I_u)/2 = 46.8 \text{ in}^4/\text{ft}$				$I_u = 62.4 \text{ in}^4/\text{ft}$			$\phi M_{no} = 34.9 \text{ kip-in/ft}$			$\phi V_n = 4.10 \text{ kip/ft}$						

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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	430	363	310	267	232	203	179	159	141	126	113	100	88	78	69
	LRFD, φW	688	581	496	428	372	325	287	254	226	201	180	162	146	132	119
	L/360	-	-	-	-	-	-	-	-	-	-	-	100	88	78	69
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	1828	1800	1756	1719	1686	1657	1631	1622	1601	1581	1564	1548	1533	1530	1517
	PAF Base Steel ≥ .25"	1544	1537	1512	1491	1472	1456	1442	1442	1430	1419	1408	1399	1390	1393	1385
	PAF Base Steel ≥ 0.125"	1522	1517	1494	1474	1456	1441	1427	1428	1417	1406	1396	1388	1380	1383	1375
	#12 Screw Base Steel ≥ .0385"	1502	1499	1477	1458	1442	1427	1414	1416	1405	1395	1386	1378	1370	1373	1366
	Concrete + Deck = 28.7 psf				$I_{cr} = 34.1 \text{ in}^4/\text{ft}$			$M_{no}/\Omega = 25.5 \text{ kip-in/ft}$			$V_n/\Omega = 2.26 \text{ kip/ft}$					
$(I_{cr}+I_u)/2 = 49 \text{ in}^4/\text{ft}$				$I_u = 64.0 \text{ in}^4/\text{ft}$			$\phi M_{no} = 39.0 \text{ kip-in/ft}$			$\phi V_n = 4.52 \text{ kip/ft}$						

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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	453	382	327	282	245	215	189	168	149	133	116	102	90	79	70
	LRFD, φW	724	612	523	451	392	344	303	268	239	213	191	172	155	140	127
	L/360	-	-	-	-	-	-	-	-	-	-	116	102	90	79	70
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	1869	1840	1793	1753	1718	1687	1660	1651	1628	1607	1588	1571	1555	1553	1539
	PAF Base Steel ≥ .25"	1566	1560	1533	1511	1491	1473	1458	1459	1446	1434	1423	1413	1404	1407	1399
	PAF Base Steel ≥ 0.125"	1542	1538	1513	1492	1473	1457	1442	1444	1432	1420	1410	1401	1392	1396	1388
	#12 Screw Base Steel ≥ .0385"	1523	1520	1496	1476	1458	1443	1429	1432	1420	1409	1399	1390	1382	1386	1379
	Concrete + Deck = 28.8 psf				$I_{cr} = 35.5 \text{ in}^4/\text{ft}$			$M_{no}/\Omega = 26.8 \text{ kip-in/ft}$			$V_n/\Omega = 2.26 \text{ kip/ft}$					
$(I_{cr}+I_u)/2 = 50.1 \text{ in}^4/\text{ft}$				$I_u = 64.7 \text{ in}^4/\text{ft}$			$\phi M_{no} = 41.0 \text{ kip-in/ft}$			$\phi V_n = 4.52 \text{ kip/ft}$						

2WH-36 Composite Deck 2.3

4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 0.907yd³/100ft²



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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	532	450	385	333	290	254	224	193	166	143	125	109	96	85	75
	LRFD, φW	851	720	616	532	463	407	359	318	284	254	229	206	187	169	154
	L/360	-	-	-	-	-	-	-	193	166	143	125	109	96	85	75
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2015	1984	1927	1878	1835	1797	1763	1755	1727	1701	1678	1656	1637	1636	1619
	PAF Base Steel ≥ .25"	1645	1642	1610	1582	1557	1535	1516	1521	1504	1489	1476	1463	1452	1458	1448
	PAF Base Steel ≥ 0.125"	1617	1617	1586	1559	1536	1516	1498	1504	1488	1473	1461	1449	1438	1445	1435
	#12 Screw Base Steel ≥ .0385"	1596	1597	1568	1543	1520	1501	1483	1490	1475	1461	1449	1438	1427	1435	1425
	Concrete + Deck = 29.2 psf (I _{cr} +I _u)/2 = 53.7 in ⁴ /ft					I _{cr} = 40.1 in ⁴ /ft I _u = 67.3 in ⁴ /ft				M _{no} /Ω = 31.3 kip-in/ft φM _{no} = 47.9 kip-in/ft				V _n /Ω = 2.26 kip/ft φ V _n = 4.52 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	585	495	424	367	320	281	237	202	173	150	130	114	100	89	79
	LRFD, φW	936	793	679	587	511	449	397	352	314	282	254	229	208	189	172
	L/360	-	-	-	-	-	-	237	202	173	150	130	114	100	89	79
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2123	2091	2027	1971	1921	1878	1840	1833	1801	1771	1745	1720	1698	1699	1679
	PAF Base Steel ≥ .25"	1703	1704	1667	1635	1607	1582	1560	1568	1549	1531	1516	1501	1488	1497	1485
	PAF Base Steel ≥ 0.125"	1672	1675	1640	1610	1583	1560	1539	1548	1530	1514	1499	1485	1473	1482	1471
	#12 Screw Base Steel ≥ .0385"	1651	1656	1622	1593	1567	1545	1525	1535	1517	1501	1487	1474	1462	1472	1461
	Concrete + Deck = 29.4 psf (I _{cr} +I _u)/2 = 56 in ⁴ /ft					I _{cr} = 43.0 in ⁴ /ft I _u = 69.0 in ⁴ /ft				M _{no} /Ω = 34.3 kip-in/ft φM _{no} = 52.5 kip-in/ft				V _n /Ω = 2.26 kip/ft φ V _n = 4.52 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	708	600	514	445	370	308	260	221	189	164	142	124	110	97	86
	LRFD, φW	1133	960	822	712	621	546	483	430	385	346	312	282	256	233	213
	L/360	-	-	-	-	370	308	260	221	189	164	142	124	110	97	86
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2392	2362	2278	2204	2140	2083	2033	2032	1989	1951	1915	1883	1854	1860	1834
	PAF Base Steel ≥ .25"	1849	1862	1813	1770	1733	1700	1671	1689	1664	1641	1619	1600	1583	1600	1584
	PAF Base Steel ≥ 0.125"	1792	1809	1763	1724	1690	1660	1633	1653	1629	1608	1588	1570	1554	1572	1557
	#12 Screw Base Steel ≥ .0385"	1790	1807	1762	1723	1689	1659	1632	1652	1628	1607	1587	1570	1553	1572	1556
	Concrete + Deck = 30.1 psf (I _{cr} +I _u)/2 = 61.3 in ⁴ /ft					I _{cr} = 49.5 in ⁴ /ft I _u = 73.0 in ⁴ /ft				M _{no} /Ω = 41.2 kip-in/ft φM _{no} = 63.1 kip-in/ft				V _n /Ω = 2.26 kip/ft φ V _n = 4.52 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.	2620			3970			4960			6760			9460		
	24 in o.c.	2620			3970			4960			6760			7750		
36 in o.c.	2620			3970			4960			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



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	8' - 4"	9' - 0"	9' - 10"
21	9' - 5"	10' - 4"	10' - 10"
20	9' - 11"	10' - 11"	11' - 3"

Gage	Single	Double	Triple
19	10' - 10"	12' - 3"	12' - 8"
18	11' - 2"	13' - 1"	13' - 1"
16	11' - 9"	14' - 7"	13' - 9"

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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	463	391	333	287	250	218	192	170	151	134	120	108	97	88	79
	LRFD, φW	741	625	534	460	399	349	307	272	241	215	192	173	155	140	127
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2072	2045	2008	1975	1947	1922	1899	1890	1872	1855	1840	1826	1813	1809	1798
	PAF Base Steel ≥ .25"	1824	1816	1795	1777	1761	1747	1734	1734	1723	1713	1705	1697	1689	1691	1684
	PAF Base Steel ≥ 0.125"	1805	1799	1779	1762	1746	1733	1721	1721	1711	1702	1694	1686	1680	1681	1675
	#12 Screw Base Steel ≥ .0385"	1787	1782	1763	1747	1733	1721	1709	1710	1701	1692	1684	1677	1671	1673	1667
	Concrete + Deck = 33.1 psf				I _{cr} = 42.7 in ⁴ /ft			M _{no} /Ω = 27.5 kip-in/ft			V _n /Ω = 2.63 kip/ft					
(I _{cr} +I _y)/2 = 65.2 in ⁴ /ft				I _y = 87.7 in ⁴ /ft			φM _{no} = 42.1 kip-in/ft			φV _n = 4.38 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	520	440	376	324	282	247	217	193	171	153	137	123	111	101	91
	LRFD, φW	833	703	601	518	451	395	348	308	274	245	220	198	178	161	146
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2152	2124	2080	2043	2010	1981	1955	1946	1925	1905	1888	1872	1857	1854	1841
	PAF Base Steel ≥ .25"	1868	1861	1836	1815	1797	1780	1766	1766	1754	1743	1732	1723	1715	1717	1709
	PAF Base Steel ≥ 0.125"	1846	1841	1818	1798	1780	1765	1751	1752	1741	1730	1720	1712	1704	1707	1699
	#12 Screw Base Steel ≥ .0385"	1826	1823	1801	1782	1766	1751	1738	1740	1729	1719	1710	1702	1694	1697	1690
	Concrete + Deck = 33.3 psf				I _{cr} = 46.8 in ⁴ /ft			M _{no} /Ω = 30.8 kip-in/ft			V _n /Ω = 2.63 kip/ft					
(I _{cr} +I _y)/2 = 68.3 in ⁴ /ft				I _y = 89.8 in ⁴ /ft			φM _{no} = 47.1 kip-in/ft			φV _n = 5.09 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	548	463	396	342	297	260	230	204	181	162	145	131	118	107	97
	LRFD, φW	877	741	634	547	476	417	367	326	290	259	233	210	189	171	155
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2193	2164	2118	2077	2042	2011	1984	1975	1952	1931	1912	1895	1879	1877	1863
	PAF Base Steel ≥ .25"	1890	1884	1857	1835	1815	1797	1782	1783	1770	1758	1747	1737	1728	1731	1723
	PAF Base Steel ≥ 0.125"	1867	1862	1838	1816	1797	1781	1766	1769	1756	1745	1734	1725	1716	1720	1712
	#12 Screw Base Steel ≥ .0385"	1847	1844	1821	1800	1783	1767	1753	1756	1744	1733	1723	1714	1706	1710	1703
	Concrete + Deck = 33.4 psf				I _{cr} = 48.6 in ⁴ /ft			M _{no} /Ω = 32.4 kip-in/ft			V _n /Ω = 2.63 kip/ft					
(I _{cr} +I _y)/2 = 69.7 in ⁴ /ft				I _y = 90.7 in ⁴ /ft			φM _{no} = 49.5 kip-in/ft			φV _n = 5.26 kip/ft						

2WH-36 Composite Deck 3.3

4 1/2" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.061yd³/100ft²

1 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	ASD & LRFD - Superimposed Load, W (psf)																
	ASD, W/Ω	645	545	467	403	351	308	272	242	216	193	173	151	133	118	105	
	LRFD, φW	1031	873	747	645	562	494	436	387	345	309	278	251	227	206	188	
	L/360	-	-	-	-	-	-	-	-	-	-	-	173	151	133	118	105
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern																
	Arc Spot Weld 1/2" Effective Dia	2339	2308	2251	2202	2159	2121	2087	2079	2051	2025	2002	1980	1961	1960	1943	
	PAF Base Steel ≥ .25"	1969	1966	1934	1906	1881	1859	1840	1845	1828	1813	1800	1787	1776	1782	1772	
	PAF Base Steel ≥ 0.125"	1941	1941	1910	1884	1860	1840	1822	1828	1812	1798	1785	1773	1762	1769	1759	
	#12 Screw Base Steel ≥ .0385"	1920	1921	1892	1867	1844	1825	1807	1814	1799	1785	1773	1762	1751	1759	1749	
	Concrete + Deck = 33.8 psf						I _{cr} = 55.0 in ⁴ /ft						M _{no} /Ω = 37.8 kip-in/ft	V _n /Ω = 2.63 kip/ft			
(I _{cr} +I _u)/2 = 74.6 in ⁴ /ft						I _u = 94.2 in ⁴ /ft						φM _{no} = 57.9 kip-in/ft	φ V _n = 5.26 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"		
ASD & LRFD - Superimposed Load, W (psf)																	
ASD, W/Ω	710	601	515	445	388	341	301	268	239	208	181	158	139	123	109		
LRFD, φW	1135	961	823	712	621	545	482	428	383	343	309	279	253	230	210		
L/360	-	-	-	-	-	-	-	-	-	208	181	158	139	123	109		
LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern																	
Arc Spot Weld 1/2" Effective Dia	2447	2415	2351	2295	2245	2202	2164	2157	2125	2095	2069	2044	2022	2023	2003		
PAF Base Steel ≥ .25"	2027	2028	1991	1959	1931	1906	1884	1892	1873	1855	1840	1825	1812	1821	1809		
PAF Base Steel ≥ 0.125"	1996	2000	1964	1934	1908	1884	1863	1872	1854	1838	1823	1809	1797	1806	1795		
#12 Screw Base Steel ≥ .0385"	1975	1980	1946	1917	1891	1869	1849	1859	1841	1826	1811	1798	1786	1796	1785		
Concrete + Deck = 34.0 psf						I _{cr} = 59.0 in ⁴ /ft						M _{no} /Ω = 41.5 kip-in/ft	V _n /Ω = 2.63 kip/ft				
(I _{cr} +I _u)/2 = 77.8 in ⁴ /ft						I _u = 96.5 in ⁴ /ft						φM _{no} = 63.5 kip-in/ft	φ V _n = 5.26 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"		
ASD & LRFD - Superimposed Load, W (psf)																	
ASD, W/Ω	859	728	624	541	472	415	360	306	262	227	197	172	152	134	119		
LRFD, φW	1375	1165	999	865	755	664	588	523	468	421	380	344	313	285	260		
L/360	-	-	-	-	-	-	360	306	262	227	197	172	152	134	119		
LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern																	
Arc Spot Weld 1/2" Effective Dia	2716	2686	2602	2528	2464	2408	2357	2356	2313	2275	2239	2207	2178	2184	2158		
PAF Base Steel ≥ .25"	2173	2186	2137	2094	2057	2025	1995	2013	1988	1965	1944	1924	1907	1924	1908		
PAF Base Steel ≥ 0.125"	2116	2133	2087	2048	2014	1984	1957	1977	1953	1932	1912	1894	1878	1896	1881		
#12 Screw Base Steel ≥ .0385"	2114	2131	2086	2047	2013	1983	1956	1976	1952	1931	1911	1894	1877	1896	1880		
Concrete + Deck = 34.6 psf						I _{cr} = 68.0 in ⁴ /ft						M _{no} /Ω = 50.0 kip-in/ft	V _n /Ω = 2.63 kip/ft				
(I _{cr} +I _u)/2 = 84.9 in ⁴ /ft						I _u = 101.8 in ⁴ /ft						φM _{no} = 76.5 kip-in/ft	φ V _n = 5.26 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.	2990				4340				5330				7130		9830	
	24 in o.c.	2990				4340				5330				7130		7750	
36 in o.c.	2990				4340				5170				5170		5170		

3.3 2WH-36 Composite Deck

5" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.125yd³/100ft²



Maximum Unshored Span (in)

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

Gage	Single	Double	Triple
19	10' - 5"	11' - 9"	12' - 2"
18	10' - 8"	12' - 7"	12' - 8"
16	11' - 5"	14' - 2"	13' - 4"

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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	548	462	395	340	296	259	228	201	179	160	143	128	116	104	94
	LRFD, φW	876	740	632	544	473	414	364	322	286	256	229	206	185	167	151
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2396	2369	2332	2299	2271	2246	2223	2214	2196	2179	2164	2150	2137	2133	2122
	PAF Base Steel ≥ .25"	2148	2141	2119	2101	2085	2071	2058	2058	2047	2037	2029	2021	2013	2015	2008
	PAF Base Steel ≥ 0.125"	2129	2123	2103	2086	2071	2057	2045	2045	2035	2026	2018	2011	2004	2005	1999
	#12 Screw Base Steel ≥ .0385"	2111	2106	2087	2071	2057	2045	2033	2034	2025	2016	2008	2001	1995	1997	1991
	Concrete + Deck = 37.7 psf						I _{cr} = 56.6 in ⁴ /ft	M _{no} /Ω = 32.5 kip-in/ft					V _n /Ω = 3.02 kip/ft			
(I _{cr} +I _y)/2 = 87.9 in ⁴ /ft						I _y = 119.3 in ⁴ /ft	φM _{no} = 49.8 kip-in/ft					φV _n = 4.67 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	616	521	445	384	334	293	258	229	204	182	163	147	133	120	109
	LRFD, φW	985	833	712	614	534	468	413	366	326	291	261	235	212	192	174
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2476	2448	2404	2367	2334	2305	2279	2270	2249	2229	2212	2196	2181	2178	2165
	PAF Base Steel ≥ .25"	2192	2185	2160	2139	2121	2104	2090	2090	2078	2067	2056	2047	2039	2041	2034
	PAF Base Steel ≥ 0.125"	2170	2165	2142	2122	2104	2089	2075	2077	2065	2054	2045	2036	2028	2031	2023
	#12 Screw Base Steel ≥ .0385"	2151	2147	2125	2106	2090	2075	2062	2064	2053	2043	2034	2026	2018	2021	2015
	Concrete + Deck = 37.9 psf						I _{cr} = 62.0 in ⁴ /ft	M _{no} /Ω = 36.4 kip-in/ft					V _n /Ω = 3.02 kip/ft			
(I _{cr} +I _y)/2 = 92 in ⁴ /ft						I _y = 122.0 in ⁴ /ft	φM _{no} = 55.7 kip-in/ft					φV _n = 5.38 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	649	549	469	405	353	309	273	242	215	193	173	156	141	128	116
	LRFD, φW	1038	878	751	648	564	494	436	387	345	308	277	249	225	204	185
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2517	2488	2442	2402	2366	2336	2308	2299	2276	2255	2236	2219	2203	2201	2187
	PAF Base Steel ≥ .25"	2214	2208	2181	2159	2139	2121	2106	2107	2094	2082	2071	2061	2052	2055	2047
	PAF Base Steel ≥ 0.125"	2191	2186	2162	2140	2121	2105	2090	2093	2080	2069	2058	2049	2040	2044	2036
	#12 Screw Base Steel ≥ .0385"	2171	2168	2145	2124	2107	2091	2077	2080	2068	2057	2047	2038	2030	2034	2027
	Concrete + Deck = 38.0 psf						I _{cr} = 64.5 in ⁴ /ft	M _{no} /Ω = 38.3 kip-in/ft					V _n /Ω = 3.02 kip/ft			
(I _{cr} +I _y)/2 = 93.9 in ⁴ /ft						I _y = 123.2 in ⁴ /ft	φM _{no} = 58.5 kip-in/ft					φV _n = 5.77 kip/ft				

2WH-36 Composite Deck 3.3

5" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.125yd³/100ft²



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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	764	647	554	479	417	366	324	288	257	230	207	187	169	154	140
	LRFD, φW	1223	1035	886	766	668	586	518	460	411	368	331	299	271	246	224
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2663	2632	2575	2526	2483	2445	2411	2403	2375	2349	2326	2305	2285	2284	2267
	PAF Base Steel ≥ .25"	2293	2290	2258	2230	2205	2183	2164	2169	2152	2137	2124	2111	2100	2106	2096
	PAF Base Steel ≥ 0.125"	2265	2265	2234	2208	2184	2164	2146	2152	2136	2122	2109	2097	2086	2093	2083
	#12 Screw Base Steel ≥ .0385"	2244	2245	2216	2191	2168	2149	2132	2138	2123	2110	2097	2086	2075	2083	2073
	Concrete + Deck = 38.3 psf (I _{cr} +I _u)/2 = 100 in ⁴ /ft					I _{cr} = 73.0 in ⁴ /ft I _u = 127.7 in ⁴ /ft				M _{no} /Ω = 44.8 kip-in/ft φM _{no} = 68.5 kip-in/ft				V _n /Ω = 3.02 kip/ft φ V _n = 6.04 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	842	713	611	528	461	405	358	318	285	255	230	208	187	165	147
	LRFD, φW	1347	1141	977	845	737	648	573	509	455	409	368	333	302	275	250
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	187	165	147
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2771	2740	2675	2619	2570	2526	2488	2481	2449	2419	2393	2368	2346	2347	2327
	PAF Base Steel ≥ .25"	2351	2352	2315	2283	2255	2230	2208	2216	2197	2179	2164	2149	2136	2145	2133
	PAF Base Steel ≥ 0.125"	2320	2324	2289	2258	2232	2208	2187	2197	2178	2162	2147	2133	2121	2130	2119
	#12 Screw Base Steel ≥ .0385"	2299	2304	2270	2241	2215	2193	2173	2183	2165	2150	2135	2122	2110	2120	2109
	Concrete + Deck = 38.6 psf (I _{cr} +I _u)/2 = 105 in ⁴ /ft					I _{cr} = 78.5 in ⁴ /ft I _u = 130.7 in ⁴ /ft				M _{no} /Ω = 49.2 kip-in/ft φM _{no} = 75.2 kip-in/ft				V _n /Ω = 3.02 kip/ft φ V _n = 6.04 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	1007	866	743	643	562	494	438	390	349	304	265	232	204	180	160
	LRFD, φW	1634	1386	1188	1029	899	791	700	624	558	502	453	411	373	340	311
	L/360	-	-	-	-	-	-	-	-	-	304	265	232	204	180	160
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3040	3010	2926	2852	2788	2732	2681	2680	2637	2599	2564	2531	2502	2508	2482
	PAF Base Steel ≥ .25"	2497	2510	2461	2418	2381	2349	2319	2337	2312	2289	2268	2248	2231	2248	2232
	PAF Base Steel ≥ 0.125"	2440	2457	2412	2372	2338	2308	2281	2301	2277	2256	2236	2218	2202	2220	2205
	#12 Screw Base Steel ≥ .0385"	2438	2455	2410	2371	2337	2307	2280	2300	2277	2255	2235	2218	2201	2220	2204
	Concrete + Deck = 39.2 psf (I _{cr} +I _u)/2 = 114 in ⁴ /ft					I _{cr} = 90.5 in ⁴ /ft I _u = 137.6 in ⁴ /ft				M _{no} /Ω = 59.3 kip-in/ft φM _{no} = 90.8 kip-in/ft				V _n /Ω = 3.02 kip/ft φ V _n = 6.04 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.	3360	4710	5700	7500	10200
	24 in o.c.	3360	4710	5700	7500	7750
36 in o.c.	3360	4710	5170	5170	5170	

3.3 2WH-36 Composite Deck

5 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.392yd³/100ft²

2 Hour Fire Rating



Maximum Unshored Span (in)

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

Gage	Single	Double	Triple
19	10' - 3"	11' - 7"	11' - 11"
18	10' - 6"	12' - 5"	12' - 6"
16	11' - 3"	14' - 0"	13' - 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	591	499	426	368	319	280	246	218	194	173	155	139	125	113	102
	LRFD, φW	946	799	682	588	511	447	394	348	310	277	248	223	201	181	164
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2558	2531	2494	2461	2433	2408	2385	2376	2358	2341	2326	2312	2299	2295	2284
	PAF Base Steel ≥ .25"	2310	2303	2281	2263	2247	2233	2220	2220	2209	2199	2191	2183	2175	2177	2170
	PAF Base Steel ≥ 0.125"	2291	2285	2265	2248	2233	2219	2207	2207	2197	2188	2180	2173	2166	2167	2161
	#12 Screw Base Steel ≥ .0385"	2273	2268	2249	2233	2219	2207	2195	2196	2187	2178	2170	2163	2157	2159	2153
	Concrete + Deck = 40.0 psf (I _{cr} +I _y)/2 = 101 in ⁴ /ft					I _{cr} = 64.4 in ⁴ /ft I _y = 137.7 in ⁴ /ft				M _{no} /Ω = 35.1 kip-in/ft φM _{no} = 53.7 kip-in/ft				V _n /Ω = 3.22 kip/ft φV _n = 4.82 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	665	562	481	415	361	316	279	247	220	197	177	159	144	130	118
	LRFD, φW	1064	900	769	664	578	506	446	396	352	315	283	255	230	208	189
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2638	2610	2566	2529	2496	2467	2441	2432	2411	2391	2374	2358	2343	2340	2327
	PAF Base Steel ≥ .25"	2354	2347	2322	2301	2283	2266	2252	2252	2240	2229	2218	2209	2201	2203	2196
	PAF Base Steel ≥ 0.125"	2332	2327	2304	2284	2266	2251	2237	2239	2227	2216	2207	2198	2190	2193	2185
	#12 Screw Base Steel ≥ .0385"	2313	2309	2287	2268	2252	2237	2224	2226	2215	2205	2196	2188	2180	2183	2177
	Concrete + Deck = 40.2 psf (I _{cr} +I _y)/2 = 106 in ⁴ /ft					I _{cr} = 70.6 in ⁴ /ft I _y = 140.7 in ⁴ /ft				M _{no} /Ω = 39.3 kip-in/ft φM _{no} = 60.1 kip-in/ft				V _n /Ω = 3.22 kip/ft φV _n = 5.53 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	701	593	507	438	381	334	295	261	233	209	187	169	153	138	126
	LRFD, φW	1122	949	811	700	610	535	472	418	373	334	300	270	244	221	201
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2679	2650	2604	2564	2528	2498	2470	2461	2438	2417	2398	2381	2365	2363	2349
	PAF Base Steel ≥ .25"	2376	2370	2343	2321	2301	2283	2268	2269	2256	2244	2233	2223	2214	2217	2209
	PAF Base Steel ≥ 0.125"	2353	2348	2324	2302	2283	2267	2252	2255	2242	2231	2220	2211	2202	2206	2198
	#12 Screw Base Steel ≥ .0385"	2333	2330	2307	2286	2269	2253	2239	2242	2230	2219	2209	2200	2192	2196	2189
	Concrete + Deck = 40.3 psf (I _{cr} +I _y)/2 = 108 in ⁴ /ft					I _{cr} = 73.5 in ⁴ /ft I _y = 142.2 in ⁴ /ft				M _{no} /Ω = 41.3 kip-in/ft φM _{no} = 63.2 kip-in/ft				V _n /Ω = 3.22 kip/ft φV _n = 5.92 kip/ft		

2WH-36 Composite Deck 3.3

5 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.292yd³/100ft²

2 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	826	699	599	518	451	396	350	311	278	249	224	203	184	167	152
	LRFD, φW	1321	1119	958	828	722	634	560	498	445	399	359	324	294	267	243
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	2825	2794	2737	2688	2645	2607	2573	2565	2537	2511	2488	2467	2447	2446	2429
	PAF Base Steel ≥ .25"	2455	2452	2420	2392	2367	2345	2326	2331	2314	2299	2286	2273	2262	2268	2258
	PAF Base Steel ≥ 0.125"	2427	2427	2396	2370	2346	2326	2308	2314	2298	2284	2271	2259	2248	2255	2245
	#12 Screw Base Steel ≥ .0385"	2406	2407	2378	2353	2331	2311	2294	2300	2285	2272	2259	2248	2237	2245	2235
	Concrete + Deck = 40.6 psf (I _{cr} +I _u)/2 = 115 in ⁴ /ft					I _{cr} = 83.2 in ⁴ /ft I _u = 147.2 in ⁴ /ft				M _{no} /Ω = 48.4 kip-in/ft φM _{no} = 74.0 kip-in/ft				V _n /Ω = 3.22 kip/ft φ V _n = 6.44 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"	
ASD & LRFD - Superimposed Load, W (psf)																
ASD, W/Ω	910	771	661	572	499	438	388	345	308	277	249	225	205	186	169	
LRFD, φW	1457	1234	1057	915	798	701	620	552	493	443	399	361	327	298	272	
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	169	
LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern																
Arc Spot Weld 1/2" Effective Dia	2933	2902	2837	2781	2732	2688	2650	2643	2611	2581	2555	2530	2508	2509	2489	
PAF Base Steel ≥ .25"	2513	2514	2477	2445	2417	2392	2370	2378	2359	2341	2326	2311	2298	2307	2295	
PAF Base Steel ≥ 0.125"	2482	2486	2451	2420	2394	2370	2349	2359	2340	2324	2309	2295	2283	2292	2281	
#12 Screw Base Steel ≥ .0385"	2461	2466	2432	2403	2377	2355	2335	2345	2327	2312	2297	2284	2272	2282	2271	
Concrete + Deck = 40.9 psf (I _{cr} +I _u)/2 = 120 in ⁴ /ft					I _{cr} = 89.5 in ⁴ /ft I _u = 150.6 in ⁴ /ft				M _{no} /Ω = 53.1 kip-in/ft φM _{no} = 81.3 kip-in/ft				V _n /Ω = 3.22 kip/ft φ V _n = 6.44 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"	
ASD & LRFD - Superimposed Load, W (psf)																
ASD, W/Ω	1074	937	804	696	608	535	474	422	378	340	304	266	234	207	184	
LRFD, φW	1769	1500	1286	1114	973	856	758	676	605	544	491	445	405	369	338	
L/360	-	-	-	-	-	-	-	-	-	-	304	266	234	207	184	
LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern																
Arc Spot Weld 1/2" Effective Dia	3202	3173	3088	3014	2950	2894	2843	2842	2799	2761	2726	2693	2664	2670	2644	
PAF Base Steel ≥ .25"	2659	2672	2623	2580	2543	2511	2482	2499	2474	2451	2430	2410	2393	2410	2394	
PAF Base Steel ≥ 0.125"	2602	2619	2574	2534	2500	2470	2443	2463	2439	2418	2398	2380	2364	2382	2367	
#12 Screw Base Steel ≥ .0385"	2600	2617	2572	2533	2499	2469	2442	2462	2439	2417	2397	2380	2363	2382	2366	
Concrete + Deck = 41.5 psf (I _{cr} +I _u)/2 = 131 in ⁴ /ft					I _{cr} = 103.3 in ⁴ /ft I _u = 158.4 in ⁴ /ft				M _{no} /Ω = 64.2 kip-in/ft φM _{no} = 98.2 kip-in/ft				V _n /Ω = 3.22 kip/ft φ V _n = 6.44 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.	3550	4900	5890	7690	10390
	24 in o.c.	3550	4900	5890	7690	7750
36 in o.c.	3550	4900	5170	5170	5170	

3.3 2WH-36 Composite Deck

6 3/16" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.582yd³/100ft²

3 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	7' - 4"	8' - 2"	8' - 8"
21	8' - 3"	9' - 3"	9' - 7"
20	8' - 9"	9' - 8"	10' - 0"

Gage	Single	Double	Triple
19	9' - 7"	10' - 10"	11' - 2"
18	9' - 11"	11' - 7"	11' - 11"
16	10' - 7"	13' - 4"	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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	760	642	549	473	412	361	318	281	250	224	201	180	163	147	133
	LRFD, φW	1216	1028	878	758	659	577	508	450	401	358	321	289	260	235	213
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3166	3139	3101	3069	3040	3015	2993	2984	2965	2949	2933	2919	2907	2903	2892
	PAF Base Steel ≥ .25"	2918	2910	2889	2871	2855	2840	2828	2827	2817	2807	2798	2790	2783	2784	2778
	PAF Base Steel ≥ 0.125"	2899	2892	2872	2855	2840	2827	2815	2815	2805	2796	2788	2780	2773	2775	2769
	#12 Screw Base Steel ≥ .0385"	2881	2876	2857	2841	2827	2814	2803	2804	2794	2786	2778	2771	2764	2766	2760
	Concrete + Deck = 48.6 psf (I _{cr} +I _y)/2 = 162 in ⁴ /ft			I _{cr} = 99.2 in ⁴ /ft I _y = 224.0 in ⁴ /ft		M _{no} /Ω = 45.0 kip-in/ft φM _{no} = 68.8 kip-in/ft		V _n /Ω = 3.78 kip/ft φV _n = 5.42 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	856	724	619	535	466	408	360	320	285	255	229	207	187	169	154
	LRFD, φW	1370	1159	991	856	745	653	576	511	456	408	367	330	299	271	246
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3246	3217	3174	3137	3104	3075	3049	3040	3018	2999	2981	2965	2951	2947	2935
	PAF Base Steel ≥ .25"	2961	2955	2930	2909	2890	2874	2859	2860	2848	2836	2826	2817	2808	2811	2803
	PAF Base Steel ≥ 0.125"	2939	2934	2911	2891	2874	2858	2845	2846	2834	2824	2814	2805	2797	2800	2793
	#12 Screw Base Steel ≥ .0385"	2920	2917	2895	2876	2859	2845	2832	2834	2823	2813	2804	2795	2788	2791	2784
	Concrete + Deck = 48.8 psf (I _{cr} +I _y)/2 = 169 in ⁴ /ft			I _{cr} = 108.8 in ⁴ /ft I _y = 228.5 in ⁴ /ft		M _{no} /Ω = 50.4 kip-in/ft φM _{no} = 77.2 kip-in/ft		V _n /Ω = 4.02 kip/ft φV _n = 6.13 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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	903	764	654	565	492	432	381	338	302	270	243	219	198	180	164
	LRFD, φW	1445	1223	1046	904	787	691	610	541	483	432	389	351	317	288	262
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3287	3257	3211	3171	3136	3105	3078	3069	3046	3025	3006	2989	2973	2970	2956
	PAF Base Steel ≥ .25"	2983	2977	2951	2928	2908	2891	2875	2877	2864	2851	2840	2830	2821	2825	2816
	PAF Base Steel ≥ 0.125"	2960	2956	2931	2910	2891	2875	2860	2862	2850	2838	2828	2818	2810	2814	2806
	#12 Screw Base Steel ≥ .0385"	2940	2938	2914	2894	2876	2861	2847	2850	2838	2827	2817	2808	2800	2804	2797
	Concrete + Deck = 48.9 psf (I _{cr} +I _y)/2 = 172 in ⁴ /ft			I _{cr} = 113.4 in ⁴ /ft I _y = 230.7 in ⁴ /ft		M _{no} /Ω = 53.1 kip-in/ft φM _{no} = 81.2 kip-in/ft		V _n /Ω = 4.02 kip/ft φV _n = 6.52 kip/ft								

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



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	ASD & LRFD - Superimposed Load, W (psf)															
	ASD, W/Ω	1066	903	774	669	584	513	453	403	360	323	291	263	239	217	198
	LRFD, φW	1706	1445	1238	1071	934	821	726	645	576	517	466	422	382	348	317
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
	Arc Spot Weld 1/2" Effective Dia	3433	3402	3345	3296	3253	3215	3181	3173	3144	3119	3095	3074	3055	3054	3036
	PAF Base Steel ≥ .25"	3062	3060	3027	2999	2975	2953	2934	2939	2922	2907	2893	2881	2869	2876	2865
	PAF Base Steel ≥ 0.125"	3035	3034	3004	2977	2954	2933	2915	2921	2905	2891	2878	2866	2856	2862	2853
	#12 Screw Base Steel ≥ .0385"	3014	3015	2986	2960	2938	2919	2901	2908	2893	2879	2867	2855	2845	2852	2843
	Concrete + Deck = 49.2 psf (I _{cr} +I _u)/2 = 184 in ⁴ /ft					I _{cr} = 128.9 in ⁴ /ft I _u = 238.4 in ⁴ /ft				M _{no} /Ω = 62.3 kip-in/ft φM _{no} = 95.3 kip-in/ft			V _n /Ω = 4.02 kip/ft φ V _n = 7.59 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"
ASD & LRFD - Superimposed Load, W (psf)															
ASD, W/Ω	1177	998	855	740	646	568	503	447	400	359	324	293	266	243	222
LRFD, φW	1884	1596	1368	1184	1034	909	804	716	640	575	519	470	426	388	355
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	3541	3509	3444	3388	3339	3296	3257	3251	3218	3189	3162	3138	3116	3116	3097
PAF Base Steel ≥ .25"	3121	3122	3084	3052	3024	2999	2977	2986	2966	2949	2933	2919	2906	2915	2903
PAF Base Steel ≥ 0.125"	3090	3093	3058	3028	3001	2978	2957	2966	2948	2932	2917	2903	2890	2900	2889
#12 Screw Base Steel ≥ .0385"	3068	3073	3040	3011	2985	2963	2943	2953	2935	2919	2905	2892	2880	2890	2879
Concrete + Deck = 49.5 psf (I _{cr} +I _u)/2 = 191 in ⁴ /ft					I _{cr} = 138.9 in ⁴ /ft I _u = 243.6 in ⁴ /ft				M _{no} /Ω = 68.6 kip-in/ft φM _{no} = 104.9 kip-in/ft			V _n /Ω = 4.02 kip/ft φ V _n = 8.04 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"
ASD & LRFD - Superimposed Load, W (psf)															
ASD, W/Ω	1341	1217	1044	905	790	696	617	550	492	443	400	363	330	302	276
LRFD, φW	2295	1947	1670	1447	1265	1113	987	879	788	709	641	581	529	483	442
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Diaphragm Shear, φS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	3809	3780	3695	3622	3558	3501	3451	3450	3407	3368	3333	3301	3272	3278	3252
PAF Base Steel ≥ .25"	3267	3279	3230	3188	3151	3118	3089	3107	3081	3058	3037	3018	3000	3018	3001
PAF Base Steel ≥ 0.125"	3209	3226	3181	3142	3108	3078	3051	3071	3047	3025	3006	2988	2972	2990	2975
#12 Screw Base Steel ≥ .0385"	3208	3225	3180	3141	3107	3077	3050	3070	3046	3025	3005	2987	2971	2989	2974
Concrete + Deck = 50.1 psf (I _{cr} +I _u)/2 = 208 in ⁴ /ft					I _{cr} = 161.0 in ⁴ /ft I _u = 255.5 in ⁴ /ft				M _{no} /Ω = 83.1 kip-in/ft φM _{no} = 127.2 kip-in/ft			V _n /Ω = 4.02 kip/ft φ V _n = 8.04 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	5590	6580	8380	11080
	24 in o.c.	n/a	5590	6580	7750	7750
36 in o.c.	n/a	5170	5170	5170	5170	