

## 2.4 3WxH-36 Composite Deck

5" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.080yd<sup>3</sup>/100ft<sup>2</sup>



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	11' - 2"	12' - 0"	12' - 5"
21	12' - 2"	12' - 10"	13' - 4"
20	12' - 7"	13' - 8"	14' - 1"

Gage	Single	Double	Triple
19	13' - 1"	15' - 2"	15' - 3"
18	13' - 6"	16' - 7"	15' - 9"
16	14' - 2"	17' - 8"	16' - 7"

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	276	242	213	189	168	150	134	121	109	98	89	81	73	66	60
	LRFD, φW	442	387	341	302	268	240	215	193	174	157	142	129	117	106	97
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	1711	1686	1663	1654	1635	1618	1602	1588	1575	1571	1560	1550	1540	1531	1522
	PAF Base Steel ≥ .25"	1522	1508	1495	1494	1483	1473	1464	1456	1449	1450	1443	1437	1432	1426	1421
	PAF Base Steel ≥ 0.125"	1507	1494	1482	1482	1471	1462	1454	1446	1439	1441	1434	1429	1423	1418	1413
	#12 Screw Base Steel ≥ .0385"	1493	1481	1469	1470	1460	1452	1444	1436	1430	1432	1426	1420	1415	1411	1406
	Concrete + Deck = 33.8 psf				$I_{cr} = 53.5 \text{ in}^4/\text{ft}$			$M_{no}/\Omega = 30.3 \text{ kip-in/ft}$			$V_n/\Omega = 2.83 \text{ kip/ft}$					
$(I_{cr}+I_u)/2 = 83.9 \text{ in}^4/\text{ft}$				$I_u = 114.4 \text{ in}^4/\text{ft}$			$\phi M_{no} = 46.4 \text{ kip-in/ft}$			$\phi V_n = 4.05 \text{ kip/ft}$						

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
21	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	304	266	235	208	185	166	149	134	121	109	99	90	82	75	68
	LRFD, φW	486	426	375	333	296	265	238	214	193	175	159	144	131	119	109
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	1776	1746	1720	1710	1689	1669	1651	1635	1620	1616	1603	1591	1580	1569	1559
	PAF Base Steel ≥ .25"	1558	1541	1527	1527	1514	1503	1493	1483	1475	1477	1469	1462	1455	1449	1443
	PAF Base Steel ≥ 0.125"	1541	1526	1512	1513	1501	1490	1481	1472	1463	1466	1459	1452	1446	1440	1434
	#12 Screw Base Steel ≥ .0385"	1527	1512	1499	1501	1489	1479	1470	1461	1454	1457	1450	1443	1437	1432	1427
	Concrete + Deck = 34.1 psf				$I_{cr} = 57.4 \text{ in}^4/\text{ft}$			$M_{no}/\Omega = 33.1 \text{ kip-in/ft}$			$V_n/\Omega = 2.86 \text{ kip/ft}$					
$(I_{cr}+I_u)/2 = 87 \text{ in}^4/\text{ft}$				$I_u = 116.5 \text{ in}^4/\text{ft}$			$\phi M_{no} = 50.6 \text{ kip-in/ft}$			$\phi V_n = 4.94 \text{ kip/ft}$						

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	329	289	255	226	202	180	162	146	132	120	109	99	90	82	75
	LRFD, φW	527	462	408	362	322	289	259	234	211	192	174	158	144	132	121
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	1824	1791	1762	1753	1729	1707	1688	1669	1653	1650	1636	1622	1610	1598	1587
	PAF Base Steel ≥ .25"	1585	1567	1550	1552	1538	1525	1514	1503	1494	1497	1489	1481	1473	1466	1460
	PAF Base Steel ≥ 0.125"	1567	1550	1534	1537	1524	1512	1501	1491	1482	1486	1478	1470	1463	1456	1450
	#12 Screw Base Steel ≥ .0385"	1552	1535	1521	1524	1511	1500	1490	1480	1472	1476	1468	1461	1454	1448	1442
	Concrete + Deck = 34.2 psf				$I_{cr} = 61.0 \text{ in}^4/\text{ft}$			$M_{no}/\Omega = 35.6 \text{ kip-in/ft}$			$V_n/\Omega = 2.86 \text{ kip/ft}$					
$(I_{cr}+I_u)/2 = 89.8 \text{ in}^4/\text{ft}$				$I_u = 118.5 \text{ in}^4/\text{ft}$			$\phi M_{no} = 54.5 \text{ kip-in/ft}$			$\phi V_n = 5.73 \text{ kip/ft}$						

# 3WxH-36 Composite Deck 2.4

5" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.080yd<sup>3</sup>/100ft<sup>2</sup>



3W PANELS

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
19	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	381	335	296	263	235	210	189	171	155	141	128	117	107	97	87
	LRFD, φW	610	536	473	421	376	337	303	274	248	225	205	187	171	157	144
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	97	87
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	1927	1888	1854	1846	1817	1791	1767	1745	1725	1724	1707	1690	1675	1661	1648
	PAF Base Steel ≥ .25"	1644	1622	1602	1607	1590	1575	1561	1548	1536	1543	1532	1522	1513	1505	1497
	PAF Base Steel ≥ 0.125"	1623	1602	1583	1589	1573	1559	1545	1533	1522	1529	1519	1510	1501	1493	1486
	#12 Screw Base Steel ≥ .0385"	1606	1587	1569	1575	1560	1546	1534	1522	1512	1519	1509	1500	1492	1484	1477
	Concrete + Deck = 34.6 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 95.3 in <sup>4</sup> /ft					I <sub>cr</sub> = 68.1 in <sup>4</sup> /ft I <sub>u</sub> = 122.6 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 40.9 kip-in/ft φM <sub>no</sub> = 62.6 kip-in/ft				V <sub>n</sub> /Ω = 2.86 kip/ft φ V <sub>n</sub> = 5.73 kip/ft		
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	427	375	332	295	264	237	214	193	175	158	141	126	113	101	92
	LRFD, φW	683	601	531	472	422	379	342	309	280	255	233	213	195	179	164
	L/360	-	-	-	-	-	-	-	-	-	158	141	126	113	101	92
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2029	1984	1945	1938	1904	1874	1846	1821	1798	1798	1778	1759	1741	1725	1709
	PAF Base Steel ≥ .25"	1702	1676	1654	1662	1642	1624	1608	1593	1579	1589	1576	1565	1554	1544	1535
	PAF Base Steel ≥ 0.125"	1678	1654	1632	1642	1623	1606	1591	1576	1563	1573	1562	1551	1540	1531	1522
	#12 Screw Base Steel ≥ .0385"	1662	1638	1618	1628	1610	1593	1579	1565	1552	1563	1551	1541	1531	1522	1513
	Concrete + Deck = 34.8 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 100 in <sup>4</sup> /ft					I <sub>cr</sub> = 74.1 in <sup>4</sup> /ft I <sub>u</sub> = 126.2 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 45.5 kip-in/ft φM <sub>no</sub> = 69.6 kip-in/ft				V <sub>n</sub> /Ω = 2.86 kip/ft φ V <sub>n</sub> = 5.73 kip/ft		
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	523	460	408	363	325	292	255	223	196	174	155	138	124	111	101
	LRFD, φW	837	736	652	581	520	468	423	383	348	318	290	266	245	225	208
	L/360	-	-	-	-	-	-	255	223	196	174	155	138	124	111	101
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2253	2194	2142	2141	2096	2056	2020	1987	1957	1963	1936	1911	1887	1866	1845
	PAF Base Steel ≥ .25"	1831	1797	1767	1786	1759	1735	1714	1694	1676	1693	1676	1661	1647	1633	1621
	PAF Base Steel ≥ 0.125"	1785	1754	1727	1747	1723	1700	1680	1662	1645	1664	1648	1634	1620	1608	1596
	#12 Screw Base Steel ≥ .0385"	1786	1755	1727	1748	1723	1701	1681	1662	1645	1664	1649	1634	1621	1608	1596
	Concrete + Deck = 35.5 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 110 in <sup>4</sup> /ft					I <sub>cr</sub> = 86.1 in <sup>4</sup> /ft I <sub>u</sub> = 133.7 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 55.2 kip-in/ft φM <sub>no</sub> = 84.4 kip-in/ft				V <sub>n</sub> /Ω = 2.86 kip/ft φ V <sub>n</sub> = 5.73 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.	2720			4070			5060			6860			9560		
	24 in o.c.	2720			4070			5060			6860			7750		
36 in o.c.	2720			4070			5060			5170			5170			

# 2.4 3WxH-36 Composite Deck

5 1/2" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.235yd<sup>3</sup>/100ft<sup>2</sup>

1 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	10' - 8"	11' - 7"	11' - 11"
21	11' - 8"	12' - 4"	12' - 9"
20	12' - 2"	13' - 1"	13' - 7"

Gage	Single	Double	Triple
19	12' - 8"	14' - 7"	14' - 10"
18	13' - 1"	15' - 11"	15' - 4"
16	13' - 9"	17' - 2"	16' - 2"

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	323	283	249	221	196	175	157	141	128	115	104	95	86	78	71
	LRFD, φW	517	453	399	353	314	281	252	226	204	185	167	152	138	125	114
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2035	2010	1987	1978	1959	1942	1926	1912	1899	1895	1884	1874	1864	1855	1846
	PAF Base Steel ≥ .25"	1846	1832	1819	1818	1807	1797	1788	1780	1773	1774	1767	1761	1756	1750	1745
	PAF Base Steel ≥ 0.125"	1831	1818	1806	1806	1795	1786	1778	1770	1763	1765	1758	1753	1747	1742	1737
	#12 Screw Base Steel ≥ .0385"	1817	1805	1793	1794	1784	1776	1768	1761	1754	1756	1750	1744	1739	1735	1730
	Concrete + Deck =	38.4 psf				I <sub>cr</sub> = 68.9 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 35.3 kip-in/ft		V <sub>n</sub> /Ω = 3.03 kip/ft						
	(I <sub>cr</sub> +I <sub>y</sub> )/2 = 110 in <sup>4</sup> /ft				I <sub>y</sub> = 150.4 in <sup>4</sup> /ft		φM <sub>no</sub> = 54.1 kip-in/ft		φV <sub>n</sub> = 4.34 kip/ft							

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
21	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	355	311	274	243	217	194	174	157	142	128	116	106	96	88	80
	LRFD, φW	568	498	439	389	347	310	279	251	227	205	186	169	154	141	128
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2100	2070	2044	2035	2013	1993	1975	1959	1944	1940	1927	1915	1904	1893	1884
	PAF Base Steel ≥ .25"	1882	1865	1851	1851	1839	1827	1817	1807	1799	1801	1793	1786	1779	1773	1767
	PAF Base Steel ≥ 0.125"	1865	1850	1836	1837	1825	1814	1805	1796	1787	1790	1783	1776	1770	1764	1758
	#12 Screw Base Steel ≥ .0385"	1851	1836	1823	1825	1813	1803	1794	1785	1778	1781	1774	1767	1761	1756	1751
	Concrete + Deck =	38.7 psf				I <sub>cr</sub> = 74.0 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 38.6 kip-in/ft		V <sub>n</sub> /Ω = 3.26 kip/ft						
	(I <sub>cr</sub> +I <sub>y</sub> )/2 = 114 in <sup>4</sup> /ft				I <sub>y</sub> = 153.1 in <sup>4</sup> /ft		φM <sub>no</sub> = 59.0 kip-in/ft		φV <sub>n</sub> = 5.24 kip/ft							

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	385	338	298	264	236	211	190	171	155	140	128	116	106	97	89
	LRFD, φW	616	540	477	423	377	338	304	274	248	225	204	186	170	155	142
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2148	2115	2087	2077	2053	2031	2012	1994	1977	1974	1960	1946	1934	1922	1911
	PAF Base Steel ≥ .25"	1909	1891	1874	1876	1862	1849	1838	1828	1818	1821	1813	1805	1797	1790	1784
	PAF Base Steel ≥ 0.125"	1891	1874	1858	1861	1848	1836	1825	1815	1806	1810	1802	1794	1787	1780	1774
	#12 Screw Base Steel ≥ .0385"	1876	1859	1845	1848	1835	1824	1814	1804	1796	1800	1792	1785	1778	1772	1766
	Concrete + Deck =	38.8 psf				I <sub>cr</sub> = 78.6 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 41.6 kip-in/ft		V <sub>n</sub> /Ω = 3.26 kip/ft						
	(I <sub>cr</sub> +I <sub>y</sub> )/2 = 117 in <sup>4</sup> /ft				I <sub>y</sub> = 155.6 in <sup>4</sup> /ft		φM <sub>no</sub> = 63.6 kip-in/ft		φV <sub>n</sub> = 6.04 kip/ft							

# 3WxH-36 Composite Deck 2.4

5 1/2" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.235yd<sup>3</sup>/100ft<sup>2</sup>

1 Hour Fire Rating



3W PANELS

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"		
19	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																	
	ASD, W/Ω	446	391	346	308	275	246	222	201	182	165	151	137	126	115	106		
	LRFD, φW	713	626	554	492	439	394	355	321	291	264	241	220	201	184	169		
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																	
	Arc Spot Weld 1/2" Effective Dia	2251	2213	2178	2170	2141	2115	2091	2069	2049	2048	2031	2014	1999	1985	1972		
	PAF Base Steel ≥ .25"	1968	1946	1926	1931	1914	1899	1885	1872	1860	1867	1856	1846	1837	1829	1821		
	PAF Base Steel ≥ 0.125"	1947	1926	1907	1913	1897	1883	1869	1857	1846	1853	1843	1834	1825	1817	1810		
	#12 Screw Base Steel ≥ .0385"	1930	1911	1893	1899	1884	1870	1858	1846	1836	1843	1833	1824	1816	1808	1801		
	Concrete + Deck = 39.2 psf						I <sub>cr</sub> = 87.8 in <sup>4</sup> /ft						M <sub>no</sub> /Ω = 47.7 kip-in/ft					
(I <sub>cr</sub> +I <sub>u</sub> )/2 = 124 in <sup>4</sup> /ft						I <sub>u</sub> = 160.6 in <sup>4</sup> /ft						φM <sub>no</sub> = 73.0 kip-in/ft						φ V <sub>n</sub> = 6.52 kip/ft

Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"			
<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																		
ASD, W/Ω	499	439	388	345	309	277	250	226	206	187	171	156	143	131	119			
LRFD, φW	799	702	621	553	494	444	400	362	329	299	273	250	229	210	193			
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	119			
<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																		
Arc Spot Weld 1/2" Effective Dia	2353	2309	2269	2262	2228	2198	2170	2145	2122	2122	2102	2083	2065	2049	2033			
PAF Base Steel ≥ .25"	2026	2000	1978	1986	1966	1948	1932	1917	1903	1913	1900	1889	1878	1868	1859			
PAF Base Steel ≥ 0.125"	2002	1978	1956	1966	1947	1930	1915	1900	1887	1897	1886	1875	1864	1855	1846			
#12 Screw Base Steel ≥ .0385"	1986	1962	1942	1952	1934	1917	1903	1889	1876	1887	1875	1865	1855	1846	1837			
Concrete + Deck = 39.4 psf						I <sub>cr</sub> = 95.5 in <sup>4</sup> /ft						M <sub>no</sub> /Ω = 53.1 kip-in/ft						V <sub>n</sub> /Ω = 3.26 kip/ft
(I <sub>cr</sub> +I <sub>u</sub> )/2 = 130 in <sup>4</sup> /ft						I <sub>u</sub> = 165.1 in <sup>4</sup> /ft						φM <sub>no</sub> = 81.2 kip-in/ft						φ V <sub>n</sub> = 6.52 kip/ft

Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"			
<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																		
ASD, W/Ω	611	538	477	425	380	342	309	280	255	226	200	179	161	144	131			
LRFD, φW	978	861	763	680	609	548	495	448	408	372	340	312	287	264	244			
L/360	-	-	-	-	-	-	-	-	255	226	200	179	161	144	131			
<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																		
Arc Spot Weld 1/2" Effective Dia	2577	2518	2466	2465	2420	2381	2344	2311	2281	2287	2260	2235	2211	2190	2169			
PAF Base Steel ≥ .25"	2155	2121	2091	2110	2083	2059	2038	2018	2000	2017	2001	1985	1971	1957	1945			
PAF Base Steel ≥ 0.125"	2109	2078	2051	2071	2047	2025	2004	1986	1969	1988	1972	1958	1944	1932	1920			
#12 Screw Base Steel ≥ .0385"	2110	2079	2051	2072	2047	2025	2005	1986	1969	1988	1973	1958	1945	1932	1921			
Concrete + Deck = 40.1 psf						I <sub>cr</sub> = 110.8 in <sup>4</sup> /ft						M <sub>no</sub> /Ω = 64.4 kip-in/ft						V <sub>n</sub> /Ω = 3.26 kip/ft
(I <sub>cr</sub> +I <sub>u</sub> )/2 = 143 in <sup>4</sup> /ft						I <sub>u</sub> = 174.3 in <sup>4</sup> /ft						φM <sub>no</sub> = 98.5 kip-in/ft						φ V <sub>n</sub> = 6.52 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.	3090			4440			5430			7230			9930		
	24 in o.c.	3090			4440			5430			7230			7750		
36 in o.c.	3090			4440			5170			5170			5170			

# 2.4 3WxH-36 Composite Deck

6" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.389yd<sup>3</sup>/100ft<sup>2</sup>



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	10' - 3"	11' - 2"	11' - 6"
21	11' - 2"	11' - 11"	12' - 4"
20	11' - 11"	12' - 8"	13' - 1"

Gage	Single	Double	Triple
19	12' - 4"	14' - 1"	14' - 5"
18	12' - 9"	15' - 4"	14' - 11"
16	13' - 5"	16' - 9"	15' - 9"

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	373	326	288	255	227	203	182	164	148	134	121	110	100	91	83
	LRFD, φW	596	522	460	408	363	324	291	262	236	214	194	176	160	146	133
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2360	2334	2311	2302	2283	2266	2250	2236	2223	2219	2208	2198	2188	2179	2170
	PAF Base Steel ≥ .25"	2170	2156	2143	2142	2131	2121	2113	2104	2097	2098	2092	2085	2080	2074	2069
	PAF Base Steel ≥ 0.125"	2155	2142	2130	2130	2119	2110	2102	2094	2087	2089	2082	2077	2071	2066	2062
	#12 Screw Base Steel ≥ .0385"	2142	2129	2118	2118	2108	2100	2092	2085	2078	2080	2074	2068	2063	2059	2054
	Concrete + Deck = 43.0 psf (I <sub>cr</sub> +I <sub>y</sub> )/2 = 140 in <sup>4</sup> /ft					I <sub>cr</sub> = 87.0 in <sup>4</sup> /ft I <sub>y</sub> = 193.6 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 40.6 kip-in/ft φM <sub>no</sub> = 62.2 kip-in/ft			V <sub>n</sub> /Ω = 3.23 kip/ft φV <sub>n</sub> = 4.66 kip/ft		

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
21	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	409	359	317	281	250	224	201	181	164	149	135	123	112	102	93
	LRFD, φW	655	574	507	449	401	359	322	290	262	238	216	196	179	163	149
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2424	2394	2368	2359	2337	2317	2299	2283	2268	2264	2251	2239	2228	2217	2208
	PAF Base Steel ≥ .25"	2206	2190	2175	2175	2163	2151	2141	2131	2123	2125	2117	2110	2103	2097	2091
	PAF Base Steel ≥ 0.125"	2189	2174	2160	2161	2149	2138	2129	2120	2111	2114	2107	2100	2094	2088	2082
	#12 Screw Base Steel ≥ .0385"	2175	2160	2147	2149	2137	2127	2118	2109	2102	2105	2098	2091	2085	2080	2075
	Concrete + Deck = 43.3 psf (I <sub>cr</sub> +I <sub>y</sub> )/2 = 145 in <sup>4</sup> /ft					I <sub>cr</sub> = 93.4 in <sup>4</sup> /ft I <sub>y</sub> = 196.9 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 44.4 kip-in/ft φM <sub>no</sub> = 67.9 kip-in/ft			V <sub>n</sub> /Ω = 3.68 kip/ft φV <sub>n</sub> = 5.55 kip/ft		

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	444	390	344	305	272	244	219	198	179	163	148	135	123	113	103
	LRFD, φW	710	623	550	489	436	391	351	317	287	260	237	216	197	180	165
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2472	2439	2411	2401	2377	2355	2336	2318	2301	2298	2284	2270	2258	2246	2235
	PAF Base Steel ≥ .25"	2233	2215	2198	2200	2186	2174	2162	2152	2142	2146	2137	2129	2121	2115	2108
	PAF Base Steel ≥ 0.125"	2215	2198	2182	2185	2172	2160	2149	2139	2130	2134	2126	2118	2111	2105	2098
	#12 Screw Base Steel ≥ .0385"	2200	2183	2169	2172	2159	2148	2138	2128	2120	2124	2116	2109	2102	2096	2090
	Concrete + Deck = 43.3 psf (I <sub>cr</sub> +I <sub>y</sub> )/2 = 150 in <sup>4</sup> /ft					I <sub>cr</sub> = 99.3 in <sup>4</sup> /ft I <sub>y</sub> = 199.9 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 47.8 kip-in/ft φM <sub>no</sub> = 73.2 kip-in/ft			V <sub>n</sub> /Ω = 3.68 kip/ft φV <sub>n</sub> = 6.35 kip/ft		

# 3WxH-36 Composite Deck 2.4

6" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.389yd<sup>3</sup>/100ft<sup>2</sup>



3W PANELS

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
19	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	514	452	399	355	317	285	257	232	210	191	174	159	146	134	123
	LRFD, φW	823	723	639	568	508	456	410	371	337	306	279	255	233	214	196
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2575	2537	2502	2494	2465	2439	2415	2393	2374	2372	2355	2339	2323	2309	2296
	PAF Base Steel ≥ .25"	2292	2270	2250	2255	2238	2223	2209	2196	2185	2191	2180	2171	2161	2153	2145
	PAF Base Steel ≥ 0.125"	2271	2250	2231	2237	2221	2207	2194	2181	2170	2177	2167	2158	2149	2141	2134
	#12 Screw Base Steel ≥ .0385"	2255	2235	2217	2224	2208	2194	2182	2170	2160	2167	2157	2148	2140	2132	2125
	Concrete + Deck = 43.8 psf					I <sub>cr</sub> = 110.9 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 54.9 kip-in/ft				V <sub>n</sub> /Ω = 3.68 kip/ft	
(I <sub>cr</sub> +I <sub>u</sub> )/2 = 159 in <sup>4</sup> /ft					I <sub>u</sub> = 206.1 in <sup>4</sup> /ft					φM <sub>no</sub> = 84.0 kip-in/ft				φV <sub>n</sub> = 7.35 kip/ft		

	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	577	507	449	399	357	321	289	262	238	217	198	181	166	153	140
	LRFD, φW	923	811	718	639	571	513	463	419	381	347	317	290	266	244	225
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2678	2633	2593	2586	2552	2522	2494	2469	2446	2446	2426	2407	2389	2373	2357
	PAF Base Steel ≥ .25"	2350	2325	2302	2310	2290	2272	2256	2241	2227	2237	2224	2213	2202	2192	2183
	PAF Base Steel ≥ 0.125"	2326	2302	2280	2290	2271	2254	2239	2225	2212	2222	2210	2199	2189	2179	2170
	#12 Screw Base Steel ≥ .0385"	2310	2287	2266	2276	2258	2242	2227	2213	2201	2211	2200	2189	2179	2170	2161
	Concrete + Deck = 44.0 psf					I <sub>cr</sub> = 120.7 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 61.2 kip-in/ft				V <sub>n</sub> /Ω = 3.68 kip/ft	
(I <sub>cr</sub> +I <sub>u</sub> )/2 = 166 in <sup>4</sup> /ft					I <sub>u</sub> = 211.7 in <sup>4</sup> /ft					φM <sub>no</sub> = 93.6 kip-in/ft				φV <sub>n</sub> = 7.35 kip/ft		

	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"	
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω	706	622	551	491	440	396	358	324	295	269	247	226	204	184	166	
	LRFD, φW	1130	994	881	785	704	633	572	519	472	431	394	362	333	307	283	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	204	184	166
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld 1/2" Effective Dia	2901	2842	2790	2789	2745	2705	2668	2635	2605	2611	2584	2559	2535	2514	2493	
	PAF Base Steel ≥ .25"	2479	2445	2415	2434	2407	2383	2362	2342	2324	2341	2325	2309	2295	2281	2269	
	PAF Base Steel ≥ 0.125"	2433	2402	2375	2395	2371	2349	2328	2310	2293	2312	2296	2282	2268	2256	2244	
	#12 Screw Base Steel ≥ .0385"	2434	2403	2375	2396	2371	2349	2329	2310	2294	2312	2297	2282	2269	2256	2245	
	Concrete + Deck = 44.7 psf					I <sub>cr</sub> = 140.1 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 74.2 kip-in/ft				V <sub>n</sub> /Ω = 3.68 kip/ft		
(I <sub>cr</sub> +I <sub>u</sub> )/2 = 182 in <sup>4</sup> /ft					I <sub>u</sub> = 223.0 in <sup>4</sup> /ft					φM <sub>no</sub> = 113.6 kip-in/ft				φV <sub>n</sub> = 7.35 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.	3460			4810			5800			7600			10300		
	24 in o.c.	3460			4810			5800			7600			7750		
36 in o.c.	3460			4810			5170			5170			5170			

# 2.4 3WxH-36 Composite Deck

6 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.466yd<sup>3</sup>/100ft<sup>2</sup>

2 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	10' - 1"	10' - 11"	11' - 4"
21	11' - 0"	11' - 9"	12' - 1"
20	11' - 9"	12' - 5"	12' - 10"

Gage	Single	Double	Triple
19	12' - 2"	13' - 10"	14' - 3"
18	12' - 7"	15' - 1"	14' - 9"
16	13' - 3"	16' - 6"	15' - 7"

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	398	349	308	273	243	217	195	175	158	143	130	118	107	98	89
	LRFD, φW	637	558	492	436	388	347	311	280	253	229	208	188	171	156	142
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2522	2496	2473	2464	2445	2428	2412	2398	2385	2381	2370	2360	2350	2341	2332
	PAF Base Steel ≥ .25"	2332	2318	2305	2304	2293	2283	2275	2266	2259	2260	2254	2247	2242	2236	2231
	PAF Base Steel ≥ 0.125"	2317	2304	2292	2292	2281	2272	2264	2256	2249	2251	2244	2239	2233	2228	2224
	#12 Screw Base Steel ≥ .0385"	2304	2291	2280	2280	2270	2262	2254	2247	2240	2242	2236	2231	2225	2221	2216
	Concrete + Deck = 45.3 psf (I <sub>cr</sub> +I <sub>y</sub> )/2 = 158 in <sup>4</sup> /ft			I <sub>cr</sub> = 97.0 in <sup>4</sup> /ft I <sub>y</sub> = 218.1 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 43.4 kip-in/ft φM <sub>no</sub> = 66.4 kip-in/ft		V <sub>n</sub> /Ω = 3.34 kip/ft φV <sub>n</sub> = 4.82 kip/ft								

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
21	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	438	384	339	300	268	240	215	194	176	159	145	132	120	109	100
	LRFD, φW	700	614	542	481	428	384	345	311	281	255	231	210	192	175	160
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2586	2557	2530	2521	2499	2479	2461	2445	2430	2427	2413	2401	2390	2379	2370
	PAF Base Steel ≥ .25"	2368	2352	2337	2337	2325	2313	2303	2293	2285	2287	2279	2272	2265	2259	2253
	PAF Base Steel ≥ 0.125"	2351	2336	2322	2323	2311	2300	2291	2282	2274	2276	2269	2262	2256	2250	2245
	#12 Screw Base Steel ≥ .0385"	2337	2322	2309	2311	2299	2289	2280	2271	2264	2267	2260	2254	2247	2242	2237
	Concrete + Deck = 45.6 psf (I <sub>cr</sub> +I <sub>y</sub> )/2 = 163 in <sup>4</sup> /ft			I <sub>cr</sub> = 104.2 in <sup>4</sup> /ft I <sub>y</sub> = 221.7 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 47.4 kip-in/ft φM <sub>no</sub> = 72.5 kip-in/ft		V <sub>n</sub> /Ω = 3.89 kip/ft φV <sub>n</sub> = 5.71 kip/ft								

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	475	416	368	327	291	261	235	212	192	174	158	144	132	121	110
	LRFD, φW	759	666	588	522	466	418	376	339	307	279	254	231	211	193	177
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2634	2601	2573	2563	2539	2517	2498	2480	2463	2460	2446	2432	2420	2408	2397
	PAF Base Steel ≥ .25"	2395	2377	2360	2362	2348	2336	2324	2314	2304	2308	2299	2291	2283	2277	2270
	PAF Base Steel ≥ 0.125"	2377	2360	2344	2347	2334	2322	2311	2301	2292	2296	2288	2280	2273	2267	2260
	#12 Screw Base Steel ≥ .0385"	2362	2345	2331	2334	2321	2310	2300	2290	2282	2286	2278	2271	2264	2258	2252
	Concrete + Deck = 45.6 psf (I <sub>cr</sub> +I <sub>y</sub> )/2 = 168 in <sup>4</sup> /ft			I <sub>cr</sub> = 110.8 in <sup>4</sup> /ft I <sub>y</sub> = 225.1 in <sup>4</sup> /ft		M <sub>no</sub> /Ω = 51.1 kip-in/ft φM <sub>no</sub> = 78.1 kip-in/ft		V <sub>n</sub> /Ω = 3.89 kip/ft φV <sub>n</sub> = 6.51 kip/ft								

# 3WxH-36 Composite Deck 2.4

6 1/4" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.466yd<sup>3</sup>/100ft<sup>2</sup>

2 Hour Fire Rating



3W PANELS

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
19	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	550	483	427	380	339	305	275	248	225	205	187	171	156	143	132
	LRFD, φW	880	773	684	608	543	488	439	397	360	328	299	273	250	229	211
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2737	2699	2664	2656	2627	2601	2577	2555	2536	2534	2517	2501	2485	2471	2458
	PAF Base Steel ≥ .25"	2454	2432	2412	2417	2400	2385	2371	2358	2347	2353	2342	2333	2323	2315	2307
	PAF Base Steel ≥ 0.125"	2433	2412	2393	2399	2383	2369	2356	2344	2333	2339	2329	2320	2311	2303	2296
	#12 Screw Base Steel ≥ .0385"	2417	2397	2379	2386	2370	2356	2344	2332	2322	2329	2319	2310	2302	2294	2287
	Concrete + Deck = 46.1 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 178 in <sup>4</sup> /ft					I <sub>cr</sub> = 123.8 in <sup>4</sup> /ft I <sub>u</sub> = 231.9 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 58.7 kip-in/ft φM <sub>no</sub> = 89.8 kip-in/ft				V <sub>n</sub> /Ω = 3.89 kip/ft φ V <sub>n</sub> = 7.79 kip/ft		

	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	617	542	480	427	382	343	310	281	255	232	212	194	178	164	151
	LRFD, φW	987	868	768	684	612	549	496	449	408	371	339	310	285	262	241
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	2840	2795	2755	2748	2714	2684	2656	2631	2608	2608	2588	2569	2551	2535	2519
	PAF Base Steel ≥ .25"	2512	2487	2464	2472	2452	2434	2418	2403	2389	2399	2386	2375	2364	2354	2345
	PAF Base Steel ≥ 0.125"	2488	2464	2443	2452	2433	2416	2401	2387	2374	2384	2372	2361	2351	2341	2332
	#12 Screw Base Steel ≥ .0385"	2472	2449	2428	2438	2420	2404	2389	2375	2363	2373	2362	2351	2341	2332	2323
	Concrete + Deck = 46.3 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 186 in <sup>4</sup> /ft					I <sub>cr</sub> = 134.8 in <sup>4</sup> /ft I <sub>u</sub> = 238.1 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 65.4 kip-in/ft φM <sub>no</sub> = 100.1 kip-in/ft				V <sub>n</sub> /Ω = 3.89 kip/ft φ V <sub>n</sub> = 7.79 kip/ft		

	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	755	665	589	525	471	424	383	347	316	289	264	242	223	205	186
	LRFD, φW	1209	1064	943	841	753	678	613	556	506	462	423	388	357	329	303
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	186
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3063	3004	2952	2951	2907	2867	2830	2797	2767	2773	2746	2721	2697	2676	2655
	PAF Base Steel ≥ .25"	2641	2607	2577	2596	2569	2545	2524	2504	2486	2503	2487	2471	2457	2443	2431
	PAF Base Steel ≥ 0.125"	2595	2564	2537	2557	2533	2511	2490	2472	2455	2474	2458	2444	2430	2418	2406
	#12 Screw Base Steel ≥ .0385"	2596	2565	2537	2558	2533	2511	2491	2472	2456	2474	2459	2444	2431	2418	2407
	Concrete + Deck = 47.0 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 204 in <sup>4</sup> /ft					I <sub>cr</sub> = 156.5 in <sup>4</sup> /ft I <sub>u</sub> = 250.6 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 79.4 kip-in/ft φM <sub>no</sub> = 121.4 kip-in/ft				V <sub>n</sub> /Ω = 3.89 kip/ft φ V <sub>n</sub> = 7.79 kip/ft		

All Gages	LRFD - Diaphragm Shear, φS <sub>n</sub> (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 <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	



# 2.4 3WxH-36 Composite Deck

7 3/16" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.755yd<sup>3</sup>/100ft<sup>2</sup>

3 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	9' - 5"	10' - 4"	10' - 8"
21	10' - 3"	11' - 0"	11' - 5"
20	11' - 1"	11' - 9"	12' - 1"

Gage	Single	Double	Triple
19	11' - 9"	13' - 1"	13' - 6"
18	12' - 1"	14' - 3"	14' - 2"
16	12' - 9"	15' - 10"	14' - 11"

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	498	437	385	341	304	272	244	220	199	180	164	149	135	124	113
	LRFD, φW	797	699	616	546	487	436	391	352	318	288	262	238	217	198	180
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3129	3104	3081	3071	3052	3035	3020	3006	2993	2989	2978	2967	2958	2949	2940
	PAF Base Steel ≥ .25"	2940	2925	2913	2912	2901	2891	2882	2874	2867	2868	2861	2855	2849	2844	2839
	PAF Base Steel ≥ 0.125"	2925	2911	2899	2899	2889	2880	2871	2864	2857	2858	2852	2846	2841	2836	2831
	#12 Screw Base Steel ≥ .0385"	2911	2898	2887	2888	2878	2869	2861	2854	2848	2850	2844	2838	2833	2828	2824
	Concrete + Deck = 53.9 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 235 in <sup>4</sup> /ft					I <sub>cr</sub> = 140.7 in <sup>4</sup> /ft I <sub>u</sub> = 329.1 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 54.1 kip-in/ft φM <sub>no</sub> = 82.7 kip-in/ft			V <sub>n</sub> /Ω = 3.77 kip/ft φ V <sub>n</sub> = 5.46 kip/ft		
21	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	548	481	424	377	336	301	271	244	221	200	182	166	152	138	127
	LRFD, φW	876	769	679	603	538	481	433	391	353	321	292	266	242	222	203
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3194	3164	3138	3128	3106	3087	3069	3052	3037	3034	3021	3009	2998	2987	2977
	PAF Base Steel ≥ .25"	2976	2959	2944	2945	2932	2921	2910	2901	2892	2895	2887	2880	2873	2867	2861
	PAF Base Steel ≥ 0.125"	2959	2943	2929	2931	2919	2908	2898	2889	2881	2884	2877	2870	2864	2858	2852
	#12 Screw Base Steel ≥ .0385"	2944	2930	2916	2918	2907	2897	2888	2879	2871	2875	2868	2861	2855	2849	2844
	Concrete + Deck = 54.2 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 243 in <sup>4</sup> /ft					I <sub>cr</sub> = 151.3 in <sup>4</sup> /ft I <sub>u</sub> = 334.2 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 59.1 kip-in/ft φM <sub>no</sub> = 90.4 kip-in/ft			V <sub>n</sub> /Ω = 4.43 kip/ft φ V <sub>n</sub> = 6.35 kip/ft		
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	594	522	461	410	366	328	295	267	241	219	200	182	167	153	140
	LRFD, φW	951	835	737	655	585	525	472	426	386	351	320	292	267	244	224
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3241	3209	3180	3171	3147	3125	3105	3087	3071	3068	3053	3040	3027	3016	3005
	PAF Base Steel ≥ .25"	3003	2984	2968	2970	2956	2943	2932	2921	2912	2915	2906	2899	2891	2884	2878
	PAF Base Steel ≥ 0.125"	2985	2967	2952	2954	2941	2929	2918	2909	2899	2904	2895	2888	2881	2874	2868
	#12 Screw Base Steel ≥ .0385"	2969	2953	2938	2942	2929	2918	2907	2898	2889	2894	2886	2879	2872	2866	2860
	Concrete + Deck = 54.2 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 250 in <sup>4</sup> /ft					I <sub>cr</sub> = 161.0 in <sup>4</sup> /ft I <sub>u</sub> = 338.9 in <sup>4</sup> /ft					M <sub>no</sub> /Ω = 63.7 kip-in/ft φM <sub>no</sub> = 97.5 kip-in/ft			V <sub>n</sub> /Ω = 4.75 kip/ft φ V <sub>n</sub> = 7.15 kip/ft		

# 3WxH-36 Composite Deck 2.4

7 3/16" Total Slab Depth

Light Weight Concrete (110 pcf)

Concrete Volume 1.755yd<sup>3</sup>/100ft<sup>2</sup>

3 Hour Fire Rating



3W PANELS

GA	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
19	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	689	606	536	477	426	383	345	312	284	258	236	215	197	181	167
	LRFD, φW	1103	969	858	763	682	613	552	500	454	413	377	345	316	290	267
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3345	3306	3272	3263	3234	3208	3185	3163	3143	3142	3124	3108	3093	3079	3066
	PAF Base Steel ≥ .25"	3061	3039	3020	3025	3008	2992	2978	2966	2954	2960	2950	2940	2931	2923	2915
	PAF Base Steel ≥ 0.125"	3040	3020	3001	3007	2991	2976	2963	2951	2940	2947	2937	2928	2919	2911	2904
	#12 Screw Base Steel ≥ .0385"	3024	3004	2987	2993	2978	2964	2951	2940	2929	2937	2927	2918	2910	2902	2895
	Concrete + Deck = 54.7 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 264 in <sup>4</sup> /ft					I <sub>cr</sub> = 180.1 in <sup>4</sup> /ft I <sub>u</sub> = 348.7 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 73.3 kip-in/ft φM <sub>no</sub> = 112.2 kip-in/ft			V <sub>n</sub> /Ω = 4.75 kip/ft φ V <sub>n</sub> = 8.61 kip/ft			

	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	774	681	603	537	481	432	390	353	321	293	268	245	225	207	191
	LRFD, φW	1239	1090	965	859	769	692	624	566	514	469	428	392	360	331	305
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3447	3402	3362	3355	3322	3291	3264	3238	3215	3216	3195	3176	3159	3142	3127
	PAF Base Steel ≥ .25"	3120	3094	3071	3080	3060	3042	3026	3011	2997	3006	2994	2982	2972	2962	2953
	PAF Base Steel ≥ 0.125"	3096	3072	3050	3060	3041	3024	3008	2994	2981	2991	2979	2968	2958	2949	2940
	#12 Screw Base Steel ≥ .0385"	3079	3056	3035	3046	3028	3011	2996	2983	2970	2981	2969	2959	2949	2940	2931
	Concrete + Deck = 54.9 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 277 in <sup>4</sup> /ft					I <sub>cr</sub> = 196.5 in <sup>4</sup> /ft I <sub>u</sub> = 357.4 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 81.9 kip-in/ft φM <sub>no</sub> = 125.3 kip-in/ft			V <sub>n</sub> /Ω = 4.75 kip/ft φ V <sub>n</sub> = 9.49 kip/ft			

	Vertical Load Span (in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	950	837	742	662	593	534	483	438	399	365	334	307	282	260	240
	LRFD, φW	1520	1339	1187	1059	949	854	773	701	639	583	534	491	451	416	385
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3670	3612	3560	3558	3514	3474	3438	3405	3374	3381	3354	3328	3305	3283	3263
	PAF Base Steel ≥ .25"	3249	3215	3185	3203	3177	3153	3131	3112	3093	3111	3094	3079	3064	3051	3038
	PAF Base Steel ≥ 0.125"	3203	3172	3144	3165	3140	3118	3098	3080	3063	3082	3066	3052	3038	3026	3014
	#12 Screw Base Steel ≥ .0385"	3204	3172	3145	3165	3141	3119	3098	3080	3063	3082	3066	3052	3038	3026	3014
	Concrete + Deck = 55.6 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 302 in <sup>4</sup> /ft					I <sub>cr</sub> = 228.6 in <sup>4</sup> /ft I <sub>u</sub> = 375.1 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 99.6 kip-in/ft φM <sub>no</sub> = 152.3 kip-in/ft			V <sub>n</sub> /Ω = 4.75 kip/ft φ V <sub>n</sub> = 9.49 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		