



August 2013

ADDENDUM
 to the 2012 and previous versions of the
Design Values for Wood Construction
 (a supplement to the *National Design Specification® (NDS®) for Wood Construction*)

Table 1C Section Properties of *Western Species* Structural Glued Laminated Timber

Depth d (in.)	Area A (in. ²)	X-X Axis			Y-Y Axis	
		I _x (in. ⁴)	S _x (in. ³)	r _x (in.)	I _y (in. ⁴)	S _y (in. ³)
3-1/2 in. Width					(r_y = 1.010 in.)	
6	21.00	63.00	21.00	1.732	21.44	12.25
7-1/2	26.25	123.0	32.81	2.165	26.80	15.31
9	31.50	212.6	47.25	2.598	32.16	18.38
<u>9-1/4</u>	<u>32.38</u>	<u>230.8</u>	<u>49.91</u>	<u>2.670</u>	<u>33.05</u>	<u>18.89</u>
<u>9-1/2</u>	<u>33.25</u>	<u>250.1</u>	<u>52.65</u>	<u>2.742</u>	<u>33.94</u>	<u>19.40</u>
10-1/2	36.75	337.6	64.31	3.031	37.52	21.44
<u>11-1/4</u>	<u>39.38</u>	<u>415.3</u>	<u>73.83</u>	<u>3.248</u>	<u>40.20</u>	<u>22.97</u>
<u>11-7/8</u>	<u>41.56</u>	<u>488.4</u>	<u>82.26</u>	<u>3.428</u>	<u>42.43</u>	<u>24.24</u>
12	42.00	504.0	84.00	3.464	42.88	24.50
13-1/2	47.25	717.6	106.3	3.897	48.23	27.56
<u>14</u>	<u>49.00</u>	<u>800.3</u>	<u>114.3</u>	<u>4.041</u>	<u>50.02</u>	<u>28.58</u>
15	52.50	984.4	131.3	4.330	53.59	30.63
<u>16</u>	<u>56.00</u>	<u>1195</u>	<u>149.3</u>	<u>4.619</u>	<u>57.17</u>	<u>32.67</u>
16-1/2	57.75	1310	158.8	4.763	58.95	33.69
18	63.00	1701	189.0	5.196	64.31	36.75
19-1/2	68.25	2163	221.8	5.629	69.67	39.81
<u>20</u>	<u>70.00</u>	<u>2333</u>	<u>233.3</u>	<u>5.774</u>	<u>71.46</u>	<u>40.83</u>
21	73.50	2701	257.3	6.062	75.03	42.88
<u>22</u>	<u>77.00</u>	<u>3106</u>	<u>282.3</u>	<u>6.351</u>	<u>78.60</u>	<u>44.92</u>
22-1/2	78.75	3322	295.3	6.495	80.39	45.94
24	84.00	4032	336.0	6.928	85.75	49.00

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Table 1C Section Properties of Western Species Structural Glued Laminated Timber (Cont.)

Depth d (in.)	Area A (in. ²)	X-X Axis			Y-Y Axis	
		I _x (in. ⁴)	S _x (in. ³)	r _x (in.)	I _y (in. ⁴)	S _y (in. ³)
5-1/2 in. Width					(r_y = 1.588 in.)	
6	33.00	99.00	33.00	1.732	83.19	30.25
7-1/2	41.25	193.4	51.56	2.165	104.0	37.81
9	49.50	334.1	74.25	2.598	124.8	45.38
<u>9-1/4</u>	<u>50.88</u>	<u>362.7</u>	<u>78.43</u>	<u>2.670</u>	<u>128.2</u>	<u>46.64</u>
<u>9-1/2</u>	<u>52.25</u>	<u>393.0</u>	<u>82.73</u>	<u>2.742</u>	<u>131.7</u>	<u>47.90</u>
10-1/2	57.75	530.6	101.1	3.031	145.6	52.94
<u>11-1/4</u>	<u>61.88</u>	<u>652.6</u>	<u>116.0</u>	<u>3.248</u>	<u>156.0</u>	<u>56.72</u>
<u>11-7/8</u>	<u>65.31</u>	<u>767.5</u>	<u>129.3</u>	<u>3.428</u>	<u>164.6</u>	<u>59.87</u>
12	66.00	792.0	132.0	3.464	166.4	60.50
13-1/2	74.25	1128	167.1	3.897	187.2	68.06
<u>14</u>	<u>77.00</u>	<u>1258</u>	<u>179.7</u>	<u>4.041</u>	<u>194.1</u>	<u>70.58</u>
15	82.50	1547	206.3	4.330	208.0	75.63
<u>16</u>	<u>88.00</u>	<u>1877</u>	<u>234.7</u>	<u>4.619</u>	<u>221.8</u>	<u>80.67</u>
16-1/2	90.75	2059	249.6	4.763	228.8	83.19
18	99.00	2673	297.0	5.196	249.6	90.75
19-1/2	107.3	3398	348.6	5.629	270.4	98.31
<u>20</u>	<u>110.0</u>	<u>3667</u>	<u>366.7</u>	<u>5.774</u>	<u>277.3</u>	<u>100.8</u>
21	115.5	4245	404.3	6.062	291.2	105.9
<u>22</u>	<u>121.0</u>	<u>4880</u>	<u>443.7</u>	<u>6.351</u>	<u>305.0</u>	<u>110.9</u>
22-1/2	123.8	5221	464.1	6.495	312.0	113.4
24	132.0	6336	528.0	6.928	332.8	121.0
25-1/2	140.3	7600	596.1	7.361	353.5	128.6
27	148.5	9021	668.3	7.794	374.3	136.1
28-1/2	156.8	10610	744.6	8.227	395.1	143.7
30	165.0	12380	825.0	8.660	415.9	151.3
31-1/2	173.3	14330	909.6	9.093	436.7	158.8
33	181.5	16470	998.3	9.526	457.5	166.4
34-1/2	189.8	18820	1091	9.959	478.3	173.9
36	198.0	21380	1188	10.39	499.1	181.5

(Portions of Table 1C not shown remain unchanged)

Table 1D Section Properties of Southern Pine Structural Glued Laminated Timber

Depth d (in.)	Area A (in. ²)	X-X Axis			Y-Y Axis	
		I _x (in. ⁴)	S _x (in. ³)	r _x (in.)	I _y (in. ⁴)	S _y (in. ³)
3-1/2 in. Width					(r_y = 1.010 in.)	
5-1/2	19.25	48.53	17.65	1.588	19.65	11.23
6-7/8	24.06	94.78	27.57	1.985	24.56	14.04
8-1/4	28.88	163.8	39.70	2.382	29.48	16.84
<u>9-1/4</u>	<u>32.38</u>	<u>230.8</u>	<u>49.91</u>	<u>2.670</u>	<u>33.05</u>	<u>18.89</u>
<u>9-1/2</u>	<u>33.25</u>	<u>250.1</u>	<u>52.65</u>	<u>2.742</u>	<u>33.94</u>	<u>19.40</u>
9-5/8	33.69	260.1	54.04	2.778	34.39	19.65
11	38.50	388.2	70.58	3.175	39.30	22.46
<u>11-1/4</u>	<u>39.38</u>	<u>415.3</u>	<u>73.83</u>	<u>3.248</u>	<u>40.20</u>	<u>22.97</u>
<u>11-7/8</u>	<u>41.56</u>	<u>488.4</u>	<u>82.26</u>	<u>3.428</u>	<u>42.43</u>	<u>24.24</u>
12-3/8	43.31	552.7	89.33	3.572	44.21	25.27
13-3/4	48.13	758.2	110.3	3.969	49.13	28.07
<u>14</u>	<u>49.00</u>	<u>800.3</u>	<u>114.3</u>	<u>4.041</u>	<u>50.02</u>	<u>28.58</u>
15-1/8	52.94	1009	133.4	4.366	54.04	30.88
<u>16</u>	<u>56.00</u>	<u>1195</u>	<u>149.3</u>	<u>4.619</u>	<u>57.17</u>	<u>32.67</u>
16-1/2	57.75	1310	158.8	4.763	58.95	33.69
17-7/8	62.56	1666	186.4	5.160	63.87	36.49
<u>18</u>	<u>63.00</u>	<u>1701</u>	<u>189.0</u>	<u>5.196</u>	<u>64.31</u>	<u>36.75</u>
19-1/4	67.38	2081	216.2	5.557	68.78	39.30
<u>20</u>	<u>70.00</u>	<u>2333</u>	<u>233.3</u>	<u>5.774</u>	<u>71.46</u>	<u>40.83</u>
20-5/8	72.19	2559	248.1	5.954	73.69	42.11
22	77.00	3106	282.3	6.351	78.60	44.92
23-3/8	81.81	3725	318.7	6.748	83.52	47.72
<u>24</u>	<u>84.00</u>	<u>4032</u>	<u>336.0</u>	<u>6.928</u>	<u>85.75</u>	<u>49.00</u>

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Table 1D Section Properties of Southern Pine Structural Glued Laminated Timber (Cont.)

Depth	Area	X-X Axis			Y-Y Axis	
d (in.)	A (in. ²)	I _x (in. ⁴)	S _x (in. ³)	r _x (in.)	I _y (in. ⁴)	S _y (in. ³)
5-1/2 in. Width				(r_y = 1.588 in.)		
6-7/8	37.81	148.9	43.33	1.985	95.32	34.66
8-1/4	45.38	257.4	62.39	2.382	114.4	41.59
9-1/4	<u>50.88</u>	<u>362.7</u>	<u>78.43</u>	<u>2.670</u>	<u>128.2</u>	<u>46.64</u>
9-1/2	<u>52.25</u>	<u>393.0</u>	<u>82.73</u>	<u>2.742</u>	<u>131.7</u>	<u>47.90</u>
9-5/8	52.94	408.7	84.92	2.778	133.4	48.53
11	60.50	610.0	110.9	3.175	152.5	55.46
11-1/4	<u>61.88</u>	<u>652.6</u>	<u>116.0</u>	<u>3.248</u>	<u>156.0</u>	<u>56.72</u>
11-7/8	<u>65.31</u>	<u>767.5</u>	<u>129.3</u>	<u>3.428</u>	<u>164.6</u>	<u>59.87</u>
12-3/8	68.06	868.6	140.4	3.572	171.6	62.39
13-3/4	75.63	1191	173.3	3.969	190.6	69.32
14	<u>77.00</u>	<u>1258</u>	<u>179.7</u>	<u>4.041</u>	<u>194.1</u>	<u>70.58</u>
15-1/8	83.19	1586	209.7	4.366	209.7	76.26
16	<u>88.00</u>	<u>1877</u>	<u>234.7</u>	<u>4.619</u>	<u>221.8</u>	<u>80.67</u>
16-1/2	90.75	2059	249.6	4.763	228.8	83.19
17-7/8	98.31	2618	292.9	5.160	247.8	90.12
18	<u>99.00</u>	<u>2673</u>	<u>297.0</u>	<u>5.196</u>	<u>249.6</u>	<u>90.75</u>
19-1/4	105.9	3269	339.7	5.557	266.9	97.05
20	<u>110.0</u>	<u>3667</u>	<u>366.7</u>	<u>5.774</u>	<u>277.3</u>	<u>100.8</u>
20-5/8	113.4	4021	389.9	5.954	286.0	104.0
22	121.0	4880	443.7	6.351	305.0	110.9
23-3/8	128.6	5854	500.9	6.748	324.1	117.8
24	<u>132.0</u>	<u>6336</u>	<u>528.0</u>	<u>6.928</u>	<u>332.8</u>	<u>121.0</u>
24-3/4	136.1	6949	561.5	7.145	343.1	124.8
26-1/8	143.7	8172	625.6	7.542	362.2	131.7
27-1/2	151.3	9532	693.2	7.939	381.3	138.6
28-7/8	158.8	11030	764.3	8.335	400.3	145.6
30-1/4	166.4	12690	838.8	8.732	419.4	152.5
31-5/8	173.9	14500	916.8	9.129	438.5	159.4
33	181.5	16470	998.3	9.526	457.5	166.4
34-3/8	189.1	18620	1083	9.923	476.6	173.3
35-3/4	196.6	20940	1172	10.32	495.7	180.2

(Portions of Table 1D not shown remain unchanged)