

WEIGHTS AND CUBAGES OF STANDARD SUSPENSION-BRIDGE MATERIALS

**1 WEIGHTS AND CUBAGES OF DIMENSION LUMBER REQUIRED
TO CONSTRUCT 300-FOOT STANDARD SUSPENSION FOOTBRIDGE.—**

Part	Overall dimensions per part	Number required	Weight (lb.) ¹		Cubage (cu. ft.)	
			Per unit	Per span	Per unit	Per span
Tower post	2" x 10" x 10' — 0"	44	41.7	1,835	1.39	61.0
Tower sill	2" x 10" x 10' — 0"	16	41.7	667	1.39	22.2
Cross brace	2" x 10" x 10' — 0"	5	41.7	208	1.39	7.0
Diagonal	2" x 10" x 10' — 0"	18	41.7	751	1.39	25.0
Cross piece	2" x 10" x 10' — 0"	5	41.7	208	1.39	7.0
Saddle block	3" x 10" x 0' — 10"	4	5.2	21	0.17	0.7
Back brace	6" x 6" x 20' — 0"	4	150.0	600	5.00	20.0
Back-brace stop	2" x 10" x 1' — 0"	9	2.1	19	0.07	0.6
Siderail	2" x 4" x 10' — 0"	66	16.7	1,103	0.56	36.7
Siderail splice	1" x 4" x 1' — 6"	132	1.3	172	0.04	5.5
Saw-tooth bracing	1" x 6" x 7' — 8"	132	9.6	1,268	0.32	42.2
Toe board	2" x 6" x 10' — 0"	66	25.0	1,650	0.84	55.0
Toe-board splice	1" x 6" x 1' — 6"	132	1.9	253	0.06	8.3
Siderail post	2" x 4" x 4' — 3"	66	7.1	468	0.24	15.9
Knee brace	2" x 4" x 4' — 8"	20	7.8	156	0.26	5.2
Knee-brace filler	2" x 4" x 4' — 8"	20	7.8	156	0.26	5.2
Floor beam	4" x 4" x 11' — 0"	25	36.7	918	1.25	31.2
Stringer	4" x 4" x 11' — 0"	76	36.7	2,790	1.25	95.5
Floor beam	4" x 4" x 5' — 0"	10	8.4	84	0.57	5.7
Floor plank	2" x 6" x 5' — 0"	570	12.5	7,125	0.41	238.0
Rack stick	2" x 2" x 2' — 0"	66	1.7	112	0.06	4.0

¹ Wood weight = 30 pounds per cubic foot.

**2 WEIGHTS AND CUBAGES OF DIMENSION LUMBER REQUIRED
TO CONSTRUCT A 300-FOOT STANDARD LIGHT-EQUIPMENT SUS-
PENSION BRIDGE.—**

Part	Overall dimensions per part	Number required	Weight (lb.) ¹		Cubage (cu. ft.)	
			Per unit	Per span	Per unit	Per span
Tower post	2" x 10" x 10' — 0"	66	41.7	2,750	1.39	92.0
Tower sill	2" x 10" x 10' — 0"	18	41.7	751	1.39	25.0
Cross brace	2" x 10" x 10' — 0"	9	41.7	375	1.39	12.5
Diagonal	2" x 10" x 10' — 0"	18	41.7	751	1.39	25.0
Top cross piece	2" x 10" x 10' — 0"	9	41.7	375	1.39	12.5
Saddle block	3" x 10" x 10"	4	5.2	21	0.17	0.7
Back brace	2" x 10" x 10' — 0"	40	41.7	1,670	1.39	55.6
Back-brace stop	2" x 10" x 1' — 0"	9	4.2	38	0.07	0.6
Siderail	2" x 4" x 10' — 0"	132	16.7	2,200	0.56	74.0
Siderail post	2" x 6" x 3' — 10"	66	9.6	634	0.33	21.8
Saw-tooth bracing	2" x 4" x 5' — 8"	132	9.5	1,255	0.32	41.6
Knee brace	2" x 4" x 4' — 1"	66	6.8	448	0.23	15.3
Toeboard	2" x 6" x 10' — 0"	66	25.0	1,650	0.84	55.5
Toeboard splice	1" x 6" x 1' — 6"	66	2.0	132	0.06	4.0
Floor beam	6" x 6" x 10' — 0"	33	75.0	2,475	2.50	82.5
Stringer	4" x 6" x 11' — 0"	66	55.0	3,630	1.88	124.0
Stringer cleat	2" x 4" x 3½"	132	0.5	66	0.02	0.3
Floor plank	2" x 6" x 5' — 10"	570	14.6	8,320	0.49	279.0
Curb	4" x 4" x 10' — 0"	66	33.4	2,200	1.12	74.0
Splice	1" x 4" x 1' — 6"	132	2.0	264	0.04	5.2
Horizontal sway bracing	2" x 6" x 11' — 6"	33	28.6	944	0.97	32.0
Totals				30,852		1,033.1 ²

¹ Wood weight = 30 pounds per cubic foot.

² 1,033.1 cubic feet = 12,400 board feet.

1,033.1 cubic feet = 26.8 ship tons.

APPENDIX III

3 WEIGHTS AND CUBAGES OF HARDWARE AND CABLE.—A

Standard suspension footbridge.—Cable and hardware weigh approximately 1 ton and have an approximate cubage of 275 cubic feet (6.9 ship tons).

B *Light-equipment suspension bridge.*—Cable and hardware weigh approximately 1.4 tons and have an approximate cubage of 295 cubic feet (7.4 ship tons).

C *Span length.*—Since the main cable is never cut and hardware is shipped as a set the weight and cubage do not vary for various span lengths.