

LAMINATED VENEER LUMBER

MASTER PLANK®

1 3/4"

BEAMS &
HEADERS

[1 3/4" THICKNESS]

NER-555

2900 F_b- 2.0 E

Design Values



finnforest

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Specification Guide

- 1.0 GENERAL** MASTER PLANK® is a laminate construction of spruce veneers procured from forests managed and certified under the Finnish Forest Certification System audited by BVQI (Bureau Veritas Quality International) according to the ISO14001 environmental standard and the ISO 9002 quality standard. It is composed of various qualities of veneer arranged to obtain optimum utilization of each veneer to develop maximum strength and reliability. All veneers are oriented with the grain parallel to the long dimension of the billet, and is commonly referred to as **Laminated Veneer Lumber (LVL)**.
- 2.0 INTENDED USE** This product is intended to be used as beams, joists, lintels or rafters under dry conditions of use, and for scaffold plank, staging, bleacher seats, cross arms, ladder rails and other industrial applications.
- 3.0 DIMENSIONS AND COMPOSITION**

Nominal Thickness (inches)	3/4	1-1/8	1-1/4	1-1/2	1-5/8	1-3/4	2	2-1/2	3	3-1/2
Nominal Thickness (mm)	19	28	33	39	42	45	51	63	75	88
Widths	3-5/8" to 24"									
Lengths	8' to 60'									
Number Plies	6	9	11	13	14	15	17	21	25	30
Thickness of Plies	3.0 mm									

MATERIAL

- 4.0 Veneer Plies** Face, back and inner plies are all of the same species and meet Pan European Forest Certification requirements.
- 4.1 Species** Norway Spruce (*Picea abies*)
- 4.2 Grade** The grade shall not be below Grade C, per American Product Standard PS 1.
- 4.3 Thickness** The thickness of each veneer shall be nominal 3.0mm (0.110").

CONSTRUCTION

- 5.0 Glue Bond Requirements** The glue shall meet or exceed American Product Standard PS 1-Exterior Type.
- 6.0 Grain Direction** All veneers shall be oriented with the grain parallel to the long dimension of the billet.
- 7.0 Veneer Joints** All individual veneer joints shall be scarfed and staggered, with a distance between joints of not less than 4" (10.16 cm).
- 8.0 Tolerances**

Thickness	all	± 5/64" (2.0 mm)
Width	< 8" (200 mm)	± 1/16" (1.5 mm)
	8" (200 mm) -24" (600 mm)	± 1/8" (3.0 mm)
	> 24" 600 mm	± 0.5 %
Length	all	± 5/16" (8.0 mm)

MANUFACTURE

9.0 Finished Product

- 9.1 Widths** Widths shall be cut within tolerances given, and with square clean edges, for each order.
- 9.2 Lengths** Lengths shall be cut within tolerances given, and with square clear edges, for each order.
- 9.3 Surface** Surface may be sanded or unsanded as required by order.
- 9.4 Surface** Surface (face) veneer may be grade A (clear) if requested.
- 9.5 Surface** To enhance dimensional stability, seal coating can be provided upon request.

QUALITY CONTROL

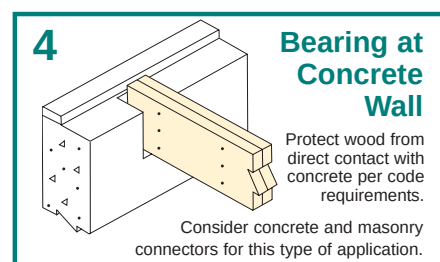
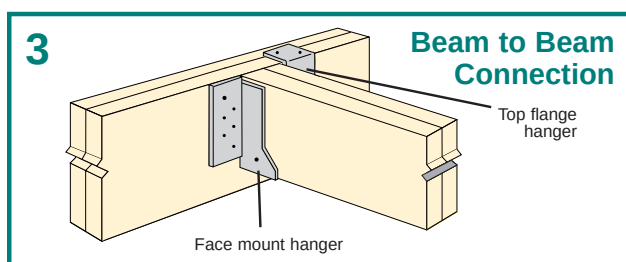
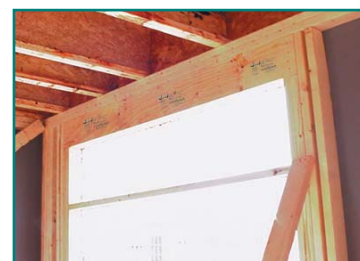
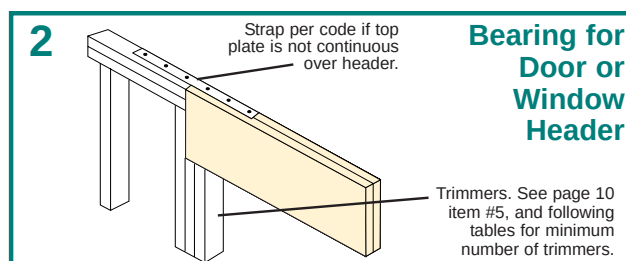
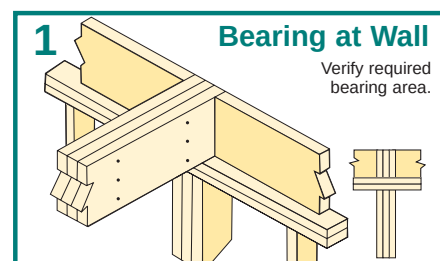
- 10.0 MASTER PLANK** is manufactured under the ISO 9001 quality certification system. Quality control shall be under the supervision of the Technical Research Centre of Finland, Helsinki, Finland.

IDENTIFICATION

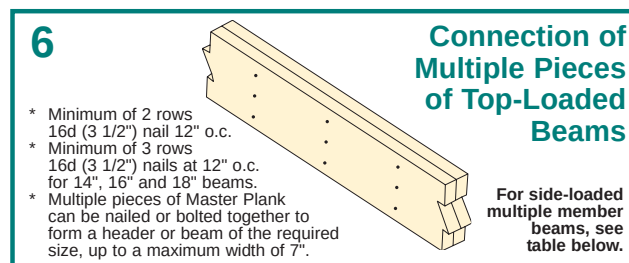
- 11.0 MASTER PLANK** stamp shown on page 5.



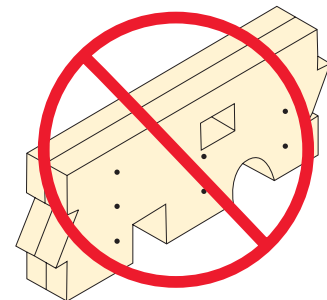
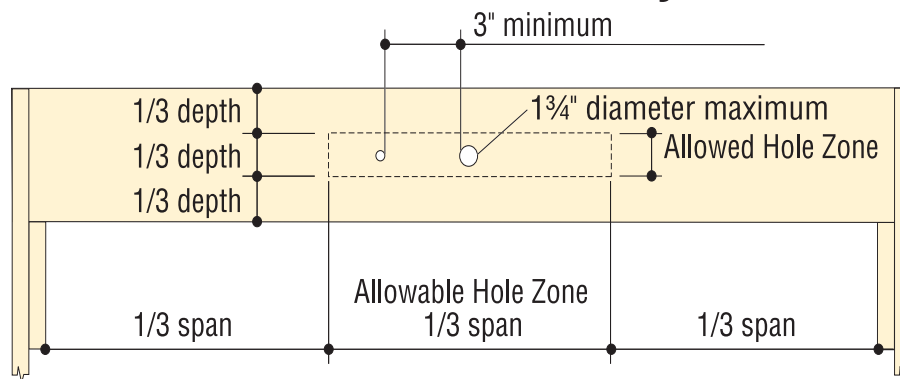
Bearing Information



Bearing Information Continued



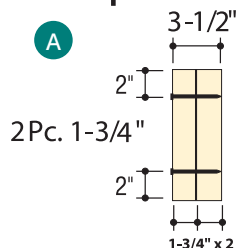
Allowable Holes for Uniformly Loaded Beams



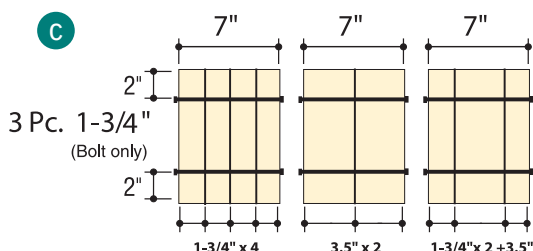
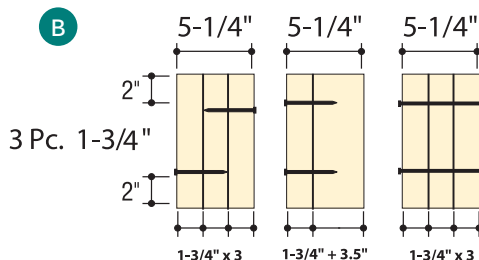
Cutting, notching or drilling holes are NOT allowed, except as noted.

1. This hole chart is for typical beam applications only, and covers uniform loads and span conditions provided in this brochure.
2. **NO** square holes are allowed.
3. For other hole configurations, contact your design professional or supplier for assistance.

Multiple Member Connections for Side-Loaded Beams



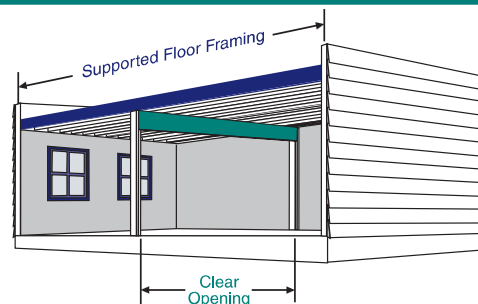
MULTIPLE ASSEMBLY (See diagram)	MAXIMUM UNIFORM LOAD APPLIED TO EITHER OUTSIDE MEMBER (LBS. PER LINEAL FT.)					
	2-rows 16-d (3-1/2") Common Wire @ 12" o.c. or equivalent screws	3-rows 16-d (3-1/2") Common Wire @ 12" o.c. or equivalent screws	2-rows gun nails .131 dia. x 3-1/4" @ 12" o.c.	3-rows gun nails .131 dia. x 3-1/4" @ 12" o.c.	2-rows 1/2" bolts @ 24" o.c. or equivalent screws	2-rows 1/2" bolts @ 12" o.c. or equivalent screws
A	360	540	285	425	400	750
B	360	540	285	425	400	750
C					400	750



1. Specific gravity for nail and bolt design is 0.44.
2. For 2 rows - 16-d nails @ 8" o.c. use 540 plf, 6" o.c. use 720 plf and 4" o.c. use 1080 plf. For 3 rows - 16-d nails @ 8" o.c. use 810 plf, 6" o.c. use 1080 plf and 4" o.c. use 1620 plf.
3. For 2 rows - .131" dia. gun nails @ 8" o.c. use 428 plf, 6" o.c. use 570 plf and 4" o.c. use 855 plf. For 3-rows .131" dia. gun nails @ 8" o.c. use 638 plf, 6" o.c. use 850 plf and 4" o.c. use 1275 plf.
4. For 1/2" bolts spaced 8" o.c. use 1125 plf, 6" o.c. use 1500 plf and for 4" o.c. use 2250 plf.
5. The beam must be sized to carry the applied load, the connection can then be checked for adequacy.
6. For 3 piece members, nailing is specified for both sides.
7. Values listed are for 100% duration. Increase 15% for snow loaded roof conditions and 25% for non-snow loaded roof conditions.
8. All nail and bolting requirements use the 2001 edition of the NDS® as a guideline. NDS® does not purely apply to this connection problem. Bolt design assumes a worst case mode I single or double shear failure. Nail design assumes a worst case mode III failure.
9. For beams greater than 7" wide see a design professional for the bolting and loading requirements.
10. Screws can be used in place of bolts as long as the screw capacity is identical or greater than the 1/2" bolt capacity. See screw manufacturer literature.

Girder Beam Size Selection Tables

1. The top line of each cell indicates the allowable member size for 3.0 inches of bearing. (blue)
2. The bottom line of each cell indicates the allowable member size for 1.5 inches of bearing. (green)
3. The tables provide a size that works for the loading conditions given. If the actual loading conditions you are using are less than those given, use the loading conditions in the table that are closest to, and higher than, those you have and select your header from the table.

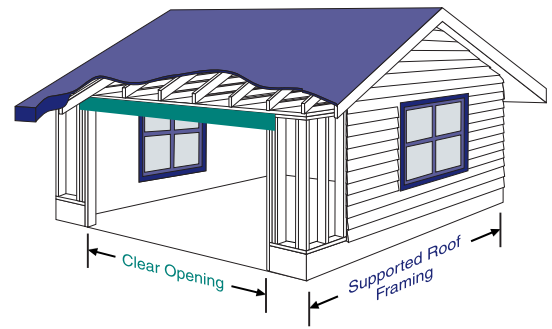


Master Plank Selection Table for Girder Beams

Floor Loading	Clear Opening	Span of Supported Floor Framing						
		20'	24'	26'	28'	30'	32'	36'
Live 40 PSF Dead 12 PSF LDF 1.00	8'	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 11-1/4 3-1/2 x 7-1/4	1-3/4 x 11-7/8 3-1/2 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4
	9'	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4
	10'	1-3/4 x 11-1/4 3-1/2 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/2 5-1/4 x 9-1/4	3-1/2 x 9-1/2 5-1/4 x 9-1/4	3-1/2 x 11-1/4
	11'	1-3/4 x 11-7/8 3-1/2 x 9-1/4	3-1/2 x 9-1/2 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4	3-1/2 x 11-1/4
	12'	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/2	3-1/2 x 11-1/4	3-1/2 x 11-7/8	3-1/2 x 14
	13'	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 11-1/4	3-1/2 x 11-7/8	3-1/2 x 11-7/8	3-1/2 x 14	3-1/2 x 14	5-1/4 x 11-1/4
	14'	3-1/2 x 11-7/8 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14	3-1/2 x 14	3-1/2 x 14	3-1/2 x 14	5-1/4 x 14
	15'	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14	3-1/2 x 14	3-1/2 x 14	5-1/4 x 14	5-1/4 x 14	5-1/4 x 14
	16'	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14	3-1/2 x 16	3-1/2 x 16	5-1/4 x 14	5-1/4 x 14	5-1/4 x 14
	17'	3-1/2 x 14	3-1/2 x 16	3-1/2 x 16	5-1/4 x 14	5-1/4 x 14	5-1/4 x 16	5-1/4 x 16
	18'	3-1/2 x 16	3-1/2 x 16	5-1/4 x 14	5-1/4 x 16	5-1/4 x 16	5-1/4 x 16	5-1/4 x 16
Live 40 PSF Dead 20 PSF LDF 1.00	8'	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 11-1/4 3-1/2 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4
	9'	1-3/4 x 11-1/4 3-1/2 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4
	10'	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/2 5-1/4 x 9-1/4	3-1/2 x 9-1/2 5-1/4 x 9-1/4	3-1/2 x 11-1/4	3-1/2 x 11-1/4	3-1/2 x 11-1/4
	11'	3-1/2 x 9-1/2 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4	3-1/2 x 11-1/4	3-1/2 x 11-7/8	5-1/4 x 11-1/4
	12'	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/2	3-1/2 x 11-1/4	3-1/2 x 11-7/8	3-1/2 x 14	3-1/2 x 14	5-1/4 x 11-1/4
	13'	3-1/2 x 11-1/4 5-1/4 x 11-1/4	3-1/2 x 11-7/8	3-1/2 x 14	3-1/2 x 14	5-1/4 x 11-1/4	5-1/4 x 11-7/8	5-1/4 x 11-7/8
	14'	3-1/2 x 11-7/8 5-1/4 x 11-1/4	3-1/2 x 14	3-1/2 x 14	5-1/4 x 11-7/8	5-1/4 x 11-7/8	5-1/4 x 14	5-1/4 x 14
	15'	3-1/2 x 14	3-1/2 x 14	5-1/4 x 14	5-1/4 x 14	5-1/4 x 14	5-1/4 x 14	5-1/4 x 14
	16'	3-1/2 x 14	3-1/2 x 16	5-1/4 x 14	5-1/4 x 14	5-1/4 x 14	5-1/4 x 14	5-1/4 x 16
	17'	3-1/2 x 16	5-1/4 x 14	5-1/4 x 14	5-1/4 x 16	5-1/4 x 16	5-1/4 x 16	
	18'	3-1/2 x 16	5-1/4 x 16	5-1/4 x 16	5-1/4 x 16	5-1/4 x 16	5-1/4 x 16	

Window, Door and Garage Door Headers Size Selection Tables

1. The top line of each cell indicates the allowable member size for 3.0 inches of bearing. (blue)
2. The bottom line of each cell indicates the allowable member size for 1.5 inches of bearing. (green)
3. The tables provide a size that works for the loading conditions given. If the actual loading conditions you are using are less than those given, use the loading conditions in the table that are closest to, and higher than, those you have and select your header from the table.



Master Plank Selection Table for Window, Door and Garage Door Headers

Roof Loading	Clear Opening	Span of Supported Roof Framing						
		16'	20'	24'	28'	32'	36'	40'
Live 25 PSF Dead 15 PSF LDF 1.15	4'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2
	6'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 7-1/4 1-3/4 x 5-1/2	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 3-1/2 x 5-1/2
	8'	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 9-1/4 1-3/4 x 7-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4
	9'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/2 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4
	10'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/2 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4
	12'	1-3/4 x 11-1/4 1-3/4 x 11-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/2	1-3/4 x 14 3-1/2 x 11-1/4	1-3/4 x 14 3-1/2 x 11-1/4	1-3/4 x 11-1/4 5-1/4 x 9-1/4
	16'	1-3/4 x 14 3-1/2 x 11-1/4	1-3/4 x 16 3-1/2 x 11-7/8	1-3/4 x 16 3-1/2 x 11-7/8	1-3/4 x 16 3-1/2 x 14	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14 5-1/4 x 14
	18'	1-3/4 x 16 3-1/2 x 14	1-3/4 x 18 3-1/2 x 14	1-3/4 x 18 3-1/2 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16
Live 30 PSF Dead 15 PSF LDF 1.15	4'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2
	6'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 7 1/4 1-3/4 x 5-1/2	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 3-1/2 x 5-1/2
	8'	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 9-1/4 1-3/4 x 7-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4
	9'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/2 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4
	10'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4
	12'	1-3/4 x 11-1/4 1-3/4 x 11-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4	1-3/4 x 14 3-1/2 x 9-1/2	1-3/4 x 14 3-1/2 x 11-1/4	1-3/4 x 14 3-1/2 x 11-1/4	1-3/4 x 11-1/4 5-1/4 x 9-1/4
	16'	1-3/4 x 14 3-1/2 x 11-1/4	1-3/4 x 16 3-1/2 x 11-7/8	1-3/4 x 16 3-1/2 x 14	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 16 5-1/4 x 14
	18'	1-3/4 x 16 3-1/2 x 14	1-3/4 x 18 3-1/2 x 14	3-1/2 x 14 3-1/2 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16



MASTER PLANK® VTT Building and Transport Certification Agency

NER-555 2900 F_b - 2.0 E
LAMINATED VENEER LUMBER

finnforest
Finnforest USA
Engineered Wood Division

ME-186-02-E
Accepted for use
City of NY
Dept. of Buildings

Manufactured
in Finland



PRODUCT WARRANTY

Finnforest USA warrants MASTER PLANK® Laminated Veneer Lumber to be free from any defects or errors due to faulty materials or workmanship in the manufacturing process in accordance with our specification.

We further guarantee that MASTER PLANK®, when correctly installed, will meet or exceed their design specifications for the normal life of the structure.

finnforest

Finnforest USA, Engineered Wood Division

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James Gilleran
James Gilleran, Managing Director, Finnforest USA, Engineered Wood Division



Master Plank Selection Table for Window, Door and Garage Door Headers

Floor Loading	Clear Opening	Span of Supported Floor Framing						
		16'	20'	24'	28'	32'	36'	40'
Live 30 PSF Dead 20 PSF LDF 1.15	4'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2
	6'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 7-1/4
	8'	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/2 3-1/2 x 7-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4
	9'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/2 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4
	10'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4	3-1/2 x 9-1/4 3-1/2 x 9-1/4
	12'	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4	1-3/4 x 14 3-1/2 x 9-1/2	1-3/4 x 14 3-1/2 x 11-1/4	1-3/4 x 14 3-1/2 x 11-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 11-1/4
	16'	1-3/4 x 16 3-1/2 x 11-1/4	1-3/4 x 16 3-1/2 x 14	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16
	18'	1-3/4 x 16 3-1/2 x 14	1-3/4 x 18 3-1/2 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16	3-1/2 x 18
Live 40 PSF Dead 15 PSF LDF 1.15	4'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2
	6'	1-3/4 x 7-1/4 1-3/4 x 5-1/2	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 9-1/4 3-1/2 x 7-1/4
	8'	1-3/4 x 9-1/4 1-3/4 x 7-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/2 3-1/2 x 7-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4
	9'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4
	10'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4	3-1/2 x 9-1/2 5-1/4 x 9-1/4
	12'	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4	1-3/4 x 14 3-1/2 x 11-1/4	1-3/4 x 14 3-1/2 x 11-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/2	3-1/2 x 11-1/4 5-1/4 x 11-1/4
	16'	1-3/4 x 16 3-1/2 x 11-7/8	1-3/4 x 16 3-1/2 x 14	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14 5-1/4 x 14	3-1/2 x 16	3-1/2 x 16
	18'	1-3/4 x 18 3-1/2 x 14	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16	3-1/2 x 18	3-1/2 x 18
Live 40 PSF Dead 20 PSF LDF 1.15	4'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2
	6'	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4
	8'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/2 3-1/2 x 7-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4
	9'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4
	10'	1-3/4 x 9-1/2 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4	3-1/2 x 9-1/2 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4
	12'	1-3/4 x 11-7/8 3-1/2 x 9-1/4	1-3/4 x 14 3-1/2 x 9-1/4	1-3/4 x 14 3-1/2 x 11-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/2	3-1/2 x 11-7/8 5-1/4 x 11-1/4	3-1/2 x 11-7/8 5-1/4 x 11-1/4
	16'	1-3/4 x 16 3-1/2 x 11-7/8	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14 5-1/4 x 14	3-1/2 x 16	3-1/2 x 16	3-1/2 x 16
	18'	1-3/4 x 18 3-1/2 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16	3-1/2 x 18	3-1/2 x 18	5-1/4 x 16

2900 F_b- 2.0 E Design Values for 1¾"

Master Plank Code Accepted Design Values — NER-555		
Static Bending	Edge (Beam)- F _b	2900 PSI
Modulus of Elasticity	True E:	2,000,000 PSI
	Apparent E:	1,900,000 PSI
Tension	F _t :	2300 PSI
Compression	Parallel to grain - F _c :	2700 PSI
	Perpendicular to grain - F _c ⊥ :	870 PSI
Shear	Beam - F _v :	320 PSI

The bending size effect factor is (12/d)^{0.15}. This translates into a factor of 1.203 for 3.5 inch, 1.124 for 5.5 inch, 1.078 for 7.25 inch, 1.073 for 7.5 inch, 1.040 for 9.25 inch, 1.036 for 9.5 inch, 1.010 for 11.25 inch, 1.002 for 11.875 inch, 0.977 for 14 inch, 0.958 for 16 inch, and 0.941 for 18 inch depths.

Master Plank Section Properties

Size (inches)	Maximum Moment (ft-lbs)(M)	Maximum Shear (lbs)(V)	Moment of Inertia (in ⁴)(I)	Section Modulus (in ³)(S)	Weight (lbs/ft)
7-1/4	3996	2707	56	15	2.8
9-1/4	6271	3453	115	25	3.6
9-1/2	6588	3547	125	26	3.7
11-1/4	9008	4200	208	37	4.4
11-7/8	9955	4433	244	41	4.6
14	13499	5227	400	57	5.4
16	17282	5973	597	75	6.2
18	21490	6720	851	95	7.0
20	26115	7467	1167	117	7.7
24	36591	8960	2016	168	9.3
M=F _b *S/12		V=F _v A/1.5	I=bd ³ /12	S=bd ² /6	

12" F_b=2900; F_v=265 all depths

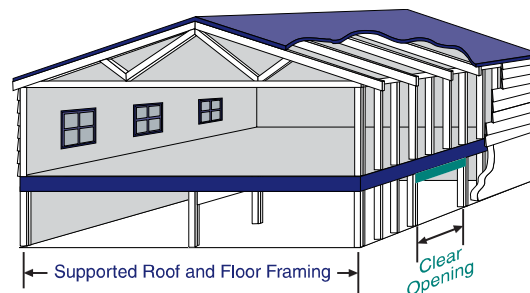
Window, Door and Garage Door Headers Size Selection Tables Continued

Master Plank Selection Table for Window, Door and Garage Door Headers

Roof Loading	Clear Opening	Span of Supported Roof Framing						
		16'	20'	24'	28'	32'	36'	40'
Live 20 PSF Dead 20 PSF LDF 1.25	4'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2
	6'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 5-1/2
	8'	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/2 3-1/2 x 9-1/4
	9'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/2 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4
	10'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/2 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4
	12'	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/2	1-3/4 x 14 3-1/2 x 11-1/4	1-3/4 x 14 3-1/2 x 11-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/2
	16'	1-3/4 x 16 3-1/2 x 11-1/4	1-3/4 x 16 3-1/2 x 11-7/8	1-3/4 x 16 3-1/2 x 14	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16
	18'	1-3/4 x 16 3-1/2 x 14	1-3/4 x 18 3-1/2 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16	3-1/2 x 18
Live 20 PSF Dead 15 PSF LDF 1.25	4'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2
	6'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 7-1/4 1-3/4 x 5-1/2	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 3-1/2 x 5-1/2
	8'	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 9-1/4 1-3/4 x 7-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4
	9'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/2 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4
	10'	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/4 1-3/4 x 9-1/4	1-3/4 x 9-1/2 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4
	12'	1-3/4 x 11-1/4 1-3/4 x 11-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/2	1-3/4 x 14 3-1/2 x 11-1/4	1-3/4 x 14 3-1/2 x 11-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4
	16'	1-3/4 x 14 3-1/2 x 11-1/4	1-3/4 x 16 3-1/2 x 11-7/8	1-3/4 x 16 3-1/2 x 11-7/8	1-3/4 x 16 3-1/2 x 14	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14 5-1/4 x 14
	18'	1-3/4 x 16 3-1/2 x 14	1-3/4 x 18 3-1/2 x 14	1-3/4 x 18 3-1/2 x 1	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16

Two Story

1. The top line of each cell indicates the allowable member size for 3.0 inches of bearing. (blue)
2. The bottom line of each cell indicates the allowable member size for 1.5 inches of bearing. (green)
3. The tables provide a size that works for the loading conditions given. If the actual loading conditions you are using are less than those given, use the loading conditions in the table that are closest to, and higher than, those you have and select your header from the table.

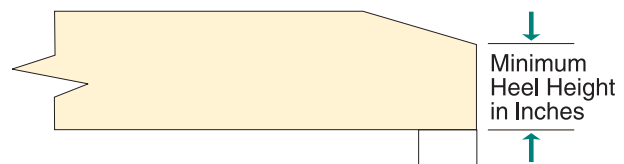


Master Plank Selection Table for Window, Door and Garage Door Headers - Two Story

Loading	Clear Opening	Span of Supported Roof & Floor Framing						
		16'	20'	24'	28'	32'	36'	40'
Roof Live 20 PSF Dead 20 PSF Floor Live 40 PSF Dead 12 PSF LDF 1.15	4'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 5-1/2
	6'	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	3-1/2 x 7-1/4 3-1/2 x 7-1/4
	8'	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4
	9'	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4
	10'	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-7/8 3-1/2 x 9-1/4	3-1/2 x 9-1/2 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4
	12'	1-3/4 x 14 3-1/2 x 11-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/2	3-1/2 x 11-7/8 5-1/4 x 11-1/4	3-1/2 x 11-7/8 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-1/4
	16'	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14
	18'	3-1/2 x 16 5-1/4 x 14	3-1/2 x 18 5-1/4 x 14	3-1/2 x 18 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14	5-1/4 x 18 5-1/4 x 14	5-1/4 x 18 5-1/4 x 14
Roof Live 25 PSF Dead 15 PSF Floor Live 40 PSF Dead 12 PSF LDF 1.15	4'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 5-1/2
	6'	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4
	8'	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4
	9'	1-3/4 x 9-1/2 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/2 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4
	10'	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 14 3-1/2 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4
	12'	1-3/4 x 14 3-1/2 x 11-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 11-1/4	3-1/2 x 11-7/8 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-1/4
	16'	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	5-1/4 x 14 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14
	18'	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 18 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14	5-1/4 x 18 5-1/4 x 14	5-1/4 x 18 5-1/4 x 14
Roof Live 30 PSF Dead 15 PSF Floor Live 40 PSF Dead 12 PSF LDF 1.15	4'	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 1-3/4 x 5-1/2	1-3/4 x 5-1/2 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 5-1/2
	6'	1-3/4 x 7-1/4 1-3/4 x 7-1/4	1-3/4 x 7-1/4 3-1/2 x 5-1/2	1-3/4 x 7-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4
	8'	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 9-1/4 3-1/2 x 7-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 7-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4
	9'	1-3/4 x 9-1/2 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 9-1/2 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4
	10'	1-3/4 x 11-1/4 3-1/2 x 9-1/4	1-3/4 x 11-1/4 3-1/2 x 9-1/4	3-1/2 x 9-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4
	12'	1-3/4 x 14 3-1/2 x 11-1/4	3-1/2 x 11-1/4 5-1/4 x 9-1/4	3-1/2 x 11-1/4 5-1/4 x 11-1/4	3-1/2 x 11-7/8 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-1/4	3-1/2 x 14 5-1/4 x 11-1/4
	16'	3-1/2 x 14 5-1/4 x 11-7/8	3-1/2 x 14 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	5-1/4 x 14 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14
	18'	3-1/2 x 16 5-1/4 x 14	3-1/2 x 16 5-1/4 x 14	3-1/2 x 18 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14	5-1/4 x 16 5-1/4 x 14	5-1/4 x 18 5-1/4 x 14	5-1/4 x 18 5-1/4 x 14

Scarf Cuts

1. This is for bearing on top of trimmers or jack studs only. This table is not for bearing on a top plate.
2. See graphic at right for definition of minimum heel height.



Maximum Reaction and Minimum Heel Height For Scarf Cuts

1-3/4" - 1 Ply									
Depth (in.)	5-1/2	7-1/4	9-1/4	9-1/2	11-1/4	11-7/8	14	16	18
Max. Reaction 1 trimmer (lbs.)	2053	2284	2284	2284	2284	2284	2284	2284	2284
Max. Reaction 2 trimmers (lbs.)	2053	2707	3453	3547	4200	4200	4328	4568	4568
Max. Reaction 3 trimmers (lbs.)	2053	2707	3453	3547	4200	4433	5227	5973	6720
Min. Heel Height 1 trimmer (in.)	5.5	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Min. Heel Height 2 trimmers (in.)	5.5	7.3	9.3	9.5	11.3	11.3	11.6	12.2	12.2
Min. Heel Height 3 trimmers (in.)	5.5	7.3	9.3	9.5	11.3	11.9	14.0	16.0	18.0

3-1/2" - 2 Ply									
Depth (in.)	5-1/2	7-1/4	9-1/4	9-1/2	11-1/4	11-7/8	14	16	18
Max. Reaction 1 trimmer (lbs.)	4107	4568	4568	4568	4568	4568	4568	4568	4568
Max. Reaction 2 trimmers (lbs.)	4107	5413	6907	7093	8400	8657	8657	9135	9135
Max. Reaction 3 trimmers (lbs.)	4107	5413	6907	7093	8400	8867	10453	11947	13440
Min. Heel Height 1 trimmer (in.)	5.5	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Min. Heel Height 2 trimmers (in.)	5.5	7.3	9.3	9.5	11.3	11.6	11.6	12.2	12.2
Min. Heel Height 3 trimmers (in.)	5.5	7.3	9.3	9.5	11.3	11.9	14.0	16.0	18.0

5-1/4" - 3 Ply									
Depth (in.)	5-1/2	7-1/4	9-1/4	9-1/2	11-1/4	11-7/8	14	16	18
Max. Reaction 1 trimmer (lbs.)	6160	6851	6851	6851	6851	6851	6851	6851	6851
Max. Reaction 2 trimmers (lbs.)	6160	8120	10360	10640	12600	13300	13300	13703	13703
Max. Reaction 3 trimmers (lbs.)	6160	8120	10360	10640	12600	13300	15680	17920	20160
Min. Heel Height 1 trimmer (in.)	5.5	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Min. Heel Height 2 trimmers (in.)	5.5	7.3	9.3	9.5	11.3	11.9	11.9	12.2	12.2
Min. Heel Height 3 trimmers (in.)	5.5	7.3	9.3	9.5	11.3	11.9	14.0	16.0	18.0

Notes for the following Allowable PLF Load Tables (pages 11-13):

1. Floor Systems are designed using LDF=1.0. The Live Load Deflection Limit is 1/360 and the Total Load Deflection Limit is 1/240.
2. Roof Systems are designed using LDF=1.15 or 1.25. The Live Load Deflection Limit is 1/240 and the Total Load Deflection Limit is 1/180.
3. The top line of each table indicates the allowable load carrying capacity in pounds per lineal foot (plf) with a deflection limit based on the total load and includes the weight of the member. (blue)
4. The middle line of each table indicates the allowable load carrying capacity in pounds per lineal foot (plf) with a deflection limit based on the live load. (green)
5. The bottom line of each table indicates the bearing length in inches: 1.5" is one trimmer, 3.0" is two trimmers, 4.5" is three trimmers, etc. (red)
6. Each table shows spans from 6 to 32 feet and includes information for 1-ply, 2-ply and 3-ply conditions.
7. Values provided are the maximum uniform loads in pounds per lineal foot (plf) that can be applied to the beam in addition to its own weight. Allowable plf loads are based on the minimum bearing length required to carry the load. This required bearing length is then converted to the least number of 1.5"-wide trimmers that can be used.
8. Interpolation between clear openings is permitted.
9. For live load deflection factors of L/180 and L/360, multiply the Maximum Live Load figure (row 2) by 1.333 and 0.667, respectively. The result shall not exceed the total load.
10. Design span is assumed to be the clear opening plus 1/2 the actual required bearing length at each end.
11. The bearing lengths show the number of trimmers required at each end of the header or beam based on the maximum plf loads. Shorter bearing lengths may be required with lighter loads, and longer bearing lengths may be required because of the material on which the header or beam is bearing.
12. These tables are for gravity loads only. Consult a professional engineer for wind and seismic load analysis and design.
13. All tables are based on uniform load conditions. Any concentrated load applications must be analyzed separately or converted to an equivalent uniform load.
14. The compression edge of the header or beam must be laterally supported at intervals of 24" or less. In addition, lateral support must be provided at bearing points.
15. Allowable total and live plf loads used to select a header or beam must be equal to or greater than the actual plf loads applied.

Allowable Loads for Master Plank in Pounds per Lineal Foot - Load Duration Factor of 1.00 for Floor Load Conditions

Clear Opening	1-3/4"										3-1/2"										5-1/4"									
	9/4	9/2	11/4	11/8	14	16	18	20	24	Depth (in.)	9/4	9/2	11/4	11/8	14	16	18	20	24	Depth (in.)	9/4	9/2	11/4	11/8	14	16	18	20	24	Depth (in.)
6'	1387 1387 3	1457 1457 3	1993 1993 4.5	2201 2201 6	2846 2846 7.5	3579 3579 9	4474 4474 10.5	5593 5593 13.5	8103 8103 21		2774 2774 3	2914 2914 3	3986 3986 4.5	4402 4402 6	5692 5692 7.5	7157 7157 9	8948 8948 10.5	11186 11186 13.5	16205 16205 21		4161 4161 3	4371 4371 3	6098 6098 4.5	6603 6603 6	8538 8538 7.5	10736 10736 9	13422 13422 10.5	16780 16780 13.5	26856 26856 22.5	
7'	1018 947 3	1070 1026 3	1463 1463 4.5	1617 1617 4.5	2194 2194 6	2751 2751 7.5	3354 3354 9	4066 4066 10.5	5951 5951 16.5		2036 1894 3	2139 2052 3	2926 2926 4.5	3234 3234 4.5	4387 4387 6	5503 5503 7.5	6708 6708 9	8132 8132 10.5	11902 11902 16.5		3054 2842 3	3209 3078 3	4906 4906 4.5	5286 5286 4.5	6706 6706 6	8254 8254 7.5	10062 10062 9	12198 12198 10.5	17896 17896 16.5	
8'	779 635 3	818 687 3	1119 1119 4.5	1237 1237 4.5	1678 1678 6	2149 2149 6	2673 2673 9	3193 3193 10.5	4472 4472 13.5		1558 1269 3	1636 1375 3	2239 2239 4.5	2474 2474 4.5	3357 3357 6	4299 4299 6	5347 5347 9	6386 6386 10.5	8944 8944 13.5		2336 1904 3	2455 2062 3	3863 3425 3	4270 4028 3	5520 5520 4.5	6704 6704 6	8046 8046 7.5	9580 9580 9	13416 13416 10.5	
9'	615 446 3	646 483 3	884 802 3	977 943 3	1325 1325 4.5	1697 1697 6	2111 2111 7.5	2566 2566 9	3576 3576 12		1229 891 3	1292 966 3	1767 1603 3	1953 1886 3	2650 2650 4.5	3394 3394 6	4222 4222 7.5	5132 5132 9	7152 7152 12		1844 1337 3	1937 1448 3	3050 2405 3	3372 2829 3	4574 4574 4.5	5643 5643 6	6702 6702 7.5	7885 7885 9	10728 10728 12	
10'	484 325 3	522 352 3	715 584 3	790 687 3	1072 1072 4.5	1374 1374 6	1709 1709 6	2077 2077 7.5	2912 2912 10.5		968 650 3	1045 704 3	1430 1169 3	1581 1375 3	2145 2145 4.5	2747 2747 6	3417 3417 6	4154 4154 7.5	5823 5823 10.5		1453 975 3	1567 1056 3	2468 1753 3	2729 2062 3	3702 3379 3	4742 4742 4.5	5742 5742 6	6700 6700 7.5	8936 8936 9	
11'	363 244 1.5	393 264 1.5	590 439 3	653 516 3	886 846 4.5	1134 1134 4.5	1411 1411 6	1715 1715 7.5	2405 2405 10.5		726 488 1.5	787 529 1.5	1180 878 3	1305 1033 3	1771 1693 3	2269 2269 4.5	2822 2822 6	3431 3431 7.5	4810 4810 10.5		1089 732 1.5	1180 793 1.5	1965 1317 3	2253 1549 3	3057 2539 3	3916 3790 4.5	4871 4871 7.5	5823 5823 7.5	7656 7656 10.5	
12'	279 188 1.5	302 204 1.5	495 338 3	548 398 3	743 652 3	952 952 4.5	1185 1185 6	1440 1440 6	2020 2020 9		558 376 1.5	605 407 1.5	991 676 3	1095 796 3	1487 1304 3	1905 1905 4.5	2370 2370 6	2881 2881 6	4039 4039 9		837 564 1.5	907 611 1.5	1511 1015 3	1778 1193 3	2567 1956 4.5	3288 2919 4.5	4090 4090 6	4972 4972 7.5	6696 6696 10.5	
13'	219 148 1.5	237 160 1.5	395 266 3	465 313 3	633 513 3	811 765 4.5	1009 1009 4.5	1226 1226 6	1720 1720 9		437 296 1.5	474 320 1.5	790 532 3	931 626 3	1265 1025 4.5	1621 1531 4.5	2017 2017 6	2453 2453 7.5	3439 3439 10.5		656 444 1.5	711 481 1.5	1186 798 3	1396 939 3	2185 1538 4.5	2799 2296 4.5	3482 3269 6	4234 4234 7.5	5936 5936 9	
14'	174 118 1.5	189 128 1.5	316 213 1.5	372 251 3	545 410 3	698 613 4.5	869 869 4.5	1056 1056 6	1482 1482 7.5		349 237 1.5	378 257 1.5	631 426 3	743 501 3	1090 821 4.5	1396 1225 4.5	1738 1738 6	2113 2113 7.5	2963 2963 10.5		523 355 1.5	567 385 1.5	947 639 3	1115 752 3	1833 1231 4.5	2411 1838 6	3000 2617 6	3648 3590 6	5115 5115 9	
15'	141 96 1.5	153 104 1.5	256 173 1.5	301 204 1.5	474 334 3	607 498 4.5	756 709 4.5	919 919 6	1290 1290 7.5		282 193 1.5	306 209 1.5	512 346 1.5	603 407 1.5	948 667 3	1215 996 4.5	1512 1419 4.5	1839 1839 6	2579 2579 7.5		424 289 1.5	460 313 1.5	768 520 3	904 611 3	1488 1001 4.5	2098 1495 4.5	2611 2128 6	3175 2919 6	4453 4453 9	
16'	116 79 1.5	126 86 1.5	210 143 1.5	248 168 1.5	408 275 3	533 410 4.5	664 584 4.5	807 802 7.5	1132 1132 10.5		232 159 1.5	251 172 1.5	420 285 1.5	495 336 1.5	815 550 3	1067 821 4.5	1327 1169 4.5	1614 1603 7.5	2265 2265 10.5		347 238 1.5	377 258 1.5	631 428 1.5	743 503 3	1223 825 4.5	1831 1231 4.5	2293 1753 6	2788 2405 6	3911 3911 9	
17'	96 66 1.5	104 72 1.5	175 119 1.5	206 140 1.5	339 229 3	472 342 4.5	587 487 4.5	714 668 6	1002 1002 9		192 132 1.5	208 143 1.5	349 238 1.5	412 280 1.5	678 459 3	944 684 4.5	1175 975 4.5	1429 1337 7.5	2004 2004 10.5		288 198 1.5	313 215 1.5	524 357 1.5	617 420 3	1017 688 3	1524 1027 4.5	2029 1462 6	2467 2005 6	3461 3461 9	
18'	80 56 1.5	87 60 1.5	146 100 1.5	173 118 1.5	285 193 3	420 288 4.5	523 410 4.5	636 563 6	893 893 9		161 111 1.5	175 121 1.5	293 200 1.5	346 236 1.5	570 386 3	840 577 4.5	1046 821 4.5	1273 1126 7.5	1786 1786 10.5		241 167 1.5	262 181 1.5	439 301 3	518 354 3	855 579 4.5	1281 865 6	1808 1231 6	2199 1689 6	3085 2919 9	
19'	68 47 1.5	74 51 1.5	124 85 1.5	146 100 1.5	242 164 3	362 245 4.5	469 349 4.5	570 479 6	801 801 9		136 95 1.5	147 103 1.5	248 170 1.5	293 200 1.5	483 328 3	725 490 4.5	938 698 4.5	1141 958 7.5	1601 1601 10.5		204 142 1.5	221 154 1.5	372 256 3	439 301 3	725 493 4.5	1087 735 6	1552 1047 6	1971 1436 6	2766 2482 9	
20'	58 41 1.5	63 44 1.5	106 73 1.5	125 86 1.5	206 141 3	310 210 4.5	423 299 4.5	514 410 6	722 709 9		116 81 1.5	126 88 1.5	212 146 1.5	250 172 1.5	413 282 3	620 420 4.5	845 599 4.5	1028 821 7.5	1444 1419 10.5		173 122 1.5	188 132 1.5	317 219 1.5	375 258 1.5	619 422 3	929 631 3	1328 898 3	1777 1231 3	2494 2128 6	
21'	49 35 1.5	54 38 1.5	91 63 1.5	107 74 1.5	178 122 1.5	267 182 3	382 259 4.5	466 355 6	654 613 9		99 70 1.5	108 76 1.5	182 126 1.5	215 148 1.5	355 243 3	534 363 4.5	763 517 4.5	931 709 7.5	1308 1225 10.5		148 105 1.5	161 114 1.5	273 189 1.5	322 223 1.5	533 365 3	801 545 3	1145 776 3	1575 1064 3	2260 1838 6	
22'	43 31 1.5	46 33 1.5	79 55 1.5	93 65 1.5	154 106 3	231 158 4.5	331 225 4.5	424 308 6	595 533 9		85 61 1.5	93 66 1.5	157 110 1.5	186 129 1.5	308 212 3	463 316 4.5	662 450 4.5	848 617 7.5	1190 1066 10.5		128 92 1.5	139 99 1.5	236 165 1.5	278 194 1.5	462 317 3	694 474 3	993 674 3	1367 925 3	2057 1599 6	
23'	37 27 1.5	40 29 1.5	68 48 1.5	81 56 1.5	134 93 3	202 138 4.5	289 197 4.5	387 270 6	544 466 9		74 53 1.5	80 58 1.5	136 96 1.5	161 113 1.5	268 185 3	404 276 4.5	578 394 4.5	774 540 7.5	1088 933 10.5		111 80 1.5	120 87 1.5	205 144 1.5	242 169 1.5	402 278 3	606 415 3	867 590 3	1194 810 3	1880 1399 6	
24'	32 24 1.5	35 25 1.5	60 42 1.5	71 50 1.5	117 81 3	177 122 4.5	254 173 4.5	350 238 6	499 410 9		64 47 1.5	70 51 1.5	119 85 1.5	141 99 1.5	235 163 3	354 243 4.5	507 346 4.5	699 475 7.5	998 821 10.5		96 71 1.5	105 76 1.5	179 127 1.5	212 149 1.5	352 244 3	531 365 3	761 520 3	1049 713 3	1724 1231 6	
2																														

Allowable Loads for Master Plank in Pounds per Lineal Foot - Load Duration Factor of 1.15 Snow Load Conditions

Clear Opening	1-3/4"									3-1/2"									5-1/4"								
	Depth (in.)									Depth (in.)									Depth (in.)								
	9/4	9/2	11/4	11/8	14	16	18	20	24	9/4	9/2	11/4	11/8	14	16	18	20	24	9/4	9/2	11/4	11/8	14	16	18	20	24
6'	1595	1676	2292	2532	3274	4116	5146	6433	9319	3191	3352	4585	5064	6548	8232	10292	12866	18639	4786	5029	7014	7596	9821	12348	15438	19300	30888
	1595	1676	2292	2532	3274	4116	5146	6433	9319	3191	3352	4585	5064	6548	8232	10292	12866	18639	4786	5029	7014	7596	9821	12348	15438	19300	30888
7'	1171	1231	1683	1860	2523	3165	3858	4677	6845	2343	2461	3366	3721	5047	6330	7716	9354	13689	3514	3692	5643	6080	7714	9495	11574	14030	20584
	1171	1231	1683	1860	2523	3165	3858	4677	6845	2343	2461	3366	3721	5047	6330	7716	9354	13689	3514	3692	5643	6080	7714	9495	11574	14030	20584
8'	896	941	1288	1423	1931	2473	3075	3673	5144	1792	1883	2576	2847	3862	4945	6151	7346	10288	2688	2824	4445	4913	6350	7712	9255	11020	15432
	896	941	1288	1423	1931	2473	3075	3673	5144	1792	1883	2576	2847	3862	4945	6151	7346	10288	2688	2824	4445	4913	6350	7712	9255	11020	15432
9'	707	743	1017	1124	1525	1953	2429	2952	4113	1415	1486	2033	2248	3049	3905	4857	5904	8227	2122	2230	3509	3879	5262	6491	7710	9071	12340
	668	724	1017	1124	1525	1953	2429	2952	4113	1337	1448	2033	2248	3049	3905	4857	5904	8227	2005	2173	3509	3879	5262	6491	7710	9071	12340
10'	572	601	823	910	1234	1581	1966	2390	3350	1145	1203	1646	1819	2468	3161	3932	4779	6699	1717	1804	2840	3140	4260	5455	6606	7708	10280
	487	528	823	910	1234	1581	1966	2390	3350	975	1056	1646	1819	2468	3161	3932	4779	6699	1462	1584	2630	3093	4260	5455	6606	7708	10280
11'	472	496	679	751	1019	1305	1624	1974	2767	945	993	1359	1502	2038	2611	3247	3948	5534	1417	1489	2345	2593	3518	4506	5605	6700	8808
	366	397	659	751	1019	1305	1624	1974	2767	732	793	1317	1502	2038	2611	3247	3948	5534	1098	1190	1976	2324	3518	4506	5605	6700	8808
12'	373	404	570	630	856	1096	1363	1657	2324	746	808	1140	1261	1711	2192	2727	3315	4647	1119	1212	1969	2177	2954	3783	4706	5721	7704
	282	306	507	597	856	1096	1363	1657	2324	564	611	1015	1193	1711	2192	2727	3315	4647	846	917	1522	1790	2933	3783	4706	5721	7704
13'	293	317	485	537	728	933	1161	1411	1979	585	634	971	1073	1457	1866	2322	2822	3957	878	951	1585	1853	2515	3221	4007	4872	6830
	222	240	399	469	728	933	1161	1411	1979	444	481	798	939	1457	1866	2322	2822	3957	665	721	1197	1408	2307	3221	4007	4872	6830
14'	234	253	418	462	627	804	1000	1216	1705	467	507	836	924	1255	1607	2000	2432	3410	701	760	1267	1491	2166	2775	3453	4198	5886
	178	192	320	376	616	804	1000	1216	1705	355	385	639	752	1231	1607	2000	2432	3410	533	577	959	1127	1847	2757	3453	4198	5886
15'	189	205	343	402	546	699	870	1058	1484	379	411	685	804	1092	1399	1741	2117	2968	568	616	1028	1210	1885	2445	3006	3654	5124
	144	156	260	306	501	699	870	1058	1484	289	313	520	611	1001	1399	1741	2117	2968	433	469	779	917	1502	2212	3006	3654	5124
16'	155	169	282	332	479	614	764	929	1304	311	337	563	663	958	1228	1528	1859	2607	466	506	845	995	1636	2121	2639	3209	4501
	119	129	214	252	412	614	764	929	1304	238	258	428	503	825	1228	1528	1859	2607	357	387	642	755	1237	1847	2630	3209	4501
17'	129	140	234	276	424	543	676	822	1154	258	280	468	552	848	1087	1353	1645	2307	387	420	702	827	1361	1877	2336	2840	3984
	99	107	178	210	344	513	676	822	1154	198	215	357	420	688	1027	1353	1645	2307	298	322	535	630	1032	1540	2193	2840	3984
18'	108	117	197	232	378	484	603	733	1028	217	235	393	463	755	968	1205	1466	2056	325	352	590	695	1145	1672	2082	2531	3551
	84	91	150	177	290	432	603	733	1028	167	181	301	354	579	865	1205	1466	2056	251	272	451	530	869	1297	1847	2531	3551
19'	92	99	167	196	324	434	540	657	922	183	199	333	393	647	868	1080	1314	1844	275	298	500	589	971	1454	1866	2270	3185
	71	77	128	150	246	368	524	657	922	142	154	256	301	493	735	1047	1314	1844	213	231	383	451	739	1103	1571	2155	3185
20'	78	85	142	168	277	391	487	592	831	156	170	285	336	554	782	974	1185	1663	234	254	427	503	831	1245	1683	2047	2872
	61	66	110	129	211	315	449	592	831	122	132	219	258	422	631	898	1185	1663	183	198	329	387	634	946	1347	1847	2872
21'	67	73	122	144	238	354	441	537	753	134	146	245	289	477	708	882	1073	1507	201	218	367	433	715	1073	1524	1854	2602
	53	57	95	111	182	272	388	532	753	105	114	189	223	365	545	776	1064	1507	158	171	284	334	547	817	1163	1596	2602
22'	58	63	106	125	207	310	401	488	686	116	126	212	250	414	621	803	977	1371	174	189	318	375	620	931	1331	1688	2369
	46	50	82	97	159	237	337	463	686	92	99	165	194	317	474	674	925	1371	137	149	247	291	476	711	1012	1388	2369
23'	50	55	92	109	180	271	367	446	627	101	109	184	218	361	542	733	892	1253	151	164	277	327	541	813	1162	1543	2165
	40	43	72	85	139	207	295	405	627	80	87	144	169	278	415	590	810	1253	120	130	216	254	417	622	885	1215	2099
24'	44	48	81	95	158	238	336	409	575	88	95	161	191	316	476	673	819	1150	132	143	242	286	475	713	1021	1405	1987
	35	38	63	75	122	182	260	356	575	71	76	127	149	244	365	520	713	1150	106	115	190	224	367	547	779	1069	1847
25'	38	42	71	84	139	210	300	377	529	77	84	142	168	279	420	601	753	1058	115	125	213	252	418	629	901	1241	1829
	31	34	56	66	108	161	230	315	529	62	68	112	132	216	323	460	631	1058	94	101	168	198	324	484	689	946	1634
26'	34	37	63	74	123	186	266	348	489	68	74	125	148	247	372	533	695	977	101	110	188	223	370	558	799	1101	1689
	28	30	50	59	96	143	204	280	484	55	60	100	117	192	287	409	561	969	83	90	150	176	288	430	613	841	1453
27'	30	33	56	66	110	165	237	322	452	60	65	111	132	219	331												

Allowable Loads for Master Plank in Pounds per Lineal Foot - Load Duration Factor of 1.25 Construction Loads

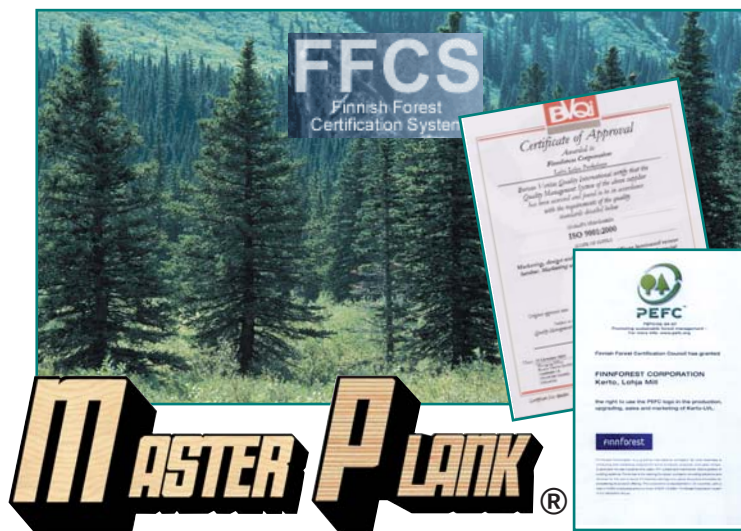
Clear Opening	1-3/4"										3-1/2"										5-1/4"									
	Depth (in.)										Depth (in.)										Depth (in.)									
	9/4	9/2	11/4	11/8	14	16	18	20	24	9/4	9/2	11/4	11/8	14	16	18	20	24	9/4	9/2	11/4	11/8	14	16	18	20	24			
6'	1734	1822	2492	2752	3559	4475	5594	6993	10130	3469	3644	4984	5505	7118	8949	11188	13986	20261	5203	5467	7625	8257	10677	13424	16782	20980	33576			
	1734	1822	2492	2752	3559	4475	5594	6993	10130	3469	3644	4984	5505	7118	8949	11188	13986	20261	5203	5467	7625	8257	10677	13424	16782	20980	33576			
7'	1273	1338	1830	2023	2743	3441	4194	5084	7441	2547	2676	3660	4045	5487	6881	8388	10168	14881	3820	4014	6135	6610	8386	10322	12582	15252	22376			
	1273	1338	1830	2023	2743	3441	4194	5084	7441	2547	2676	3660	4045	5487	6881	8388	10168	14881	3820	4014	6135	6610	8386	10322	12582	15252	22376			
8'	974	1024	1400	1548	2099	2688	3343	3993	5592	1948	2047	2800	3095	4198	5376	6686	7986	11184	2923	3071	4832	5341	6903	8384	10062	11980	16776			
	952	1024	1400	1548	2099	2688	3343	3993	5592	1904	2047	2800	3095	4198	5376	6686	7986	11184	2855	3071	4832	5341	6903	8384	10062	11980	16776			
9'	769	808	1105	1222	1658	2123	2640	3209	4472	1538	1616	2211	2444	3315	4246	5281	6418	8944	2307	2424	3815	4217	5721	7057	8382	9862	13416			
	668	724	1105	1222	1658	2123	2640	3209	4472	1337	1448	2211	2444	3315	4246	5281	6418	8944	2005	2173	3608	4217	5721	7057	8382	9862	13416			
10'	622	654	895	989	1342	1718	2137	2598	3642	1245	1308	1789	1978	2684	3437	4275	5196	7283	1867	1962	3088	3414	4631	5931	7182	8380	11176			
	487	528	877	989	1342	1718	2137	2598	3642	975	1056	1753	1978	2684	3437	4275	5196	7283	1462	1584	2630	3093	4631	5931	7182	8380	11176			
11'	485	526	739	817	1108	1419	1765	2146	3008	970	1051	1477	1633	2216	2839	3531	4292	6016	1455	1577	2550	2819	3825	4899	6093	7284	9576			
	366	397	659	775	1108	1419	1765	2146	3008	732	793	1317	1549	2216	2839	3531	4292	6016	1098	1190	1976	2324	3808	4899	6093	7284	9576			
12'	373	404	620	686	930	1192	1482	1802	2526	746	808	1240	1371	1861	2383	2965	3604	5053	1119	1212	2018	2367	3212	4114	5117	6220	8376			
	282	306	507	597	930	1192	1482	1802	2526	564	611	1015	1193	1861	2383	2965	3604	5053	846	917	1522	1790	2933	4114	5117	6220	8376			
13'	293	317	528	584	792	1015	1262	1535	2152	585	634	1056	1167	1584	2029	2525	3069	4303	878	951	1585	1865	2735	3503	4358	5297	7426			
	222	240	399	469	769	1015	1262	1535	2152	444	481	798	939	1538	2029	2525	3069	4303	665	721	1197	1408	2307	3444	4358	5297	7426			
14'	234	253	422	497	682	874	1088	1322	1854	467	507	844	994	1365	1748	2175	2644	3708	701	760	1267	1491	2356	3018	3755	4565	6400			
	178	192	320	376	616	874	1088	1322	1854	355	385	639	752	1231	1748	2175	2644	3708	503	577	959	1127	1847	2757	3755	4565	6400			
15'	189	205	343	403	594	761	947	1151	1614	379	411	685	807	1187	1521	1893	2302	3228	568	616	1028	1210	1988	2627	3268	3974	5572			
	144	156	260	306	501	747	947	1151	1614	289	313	520	611	1001	1495	1893	2302	3228	433	469	779	917	1502	2242	3192	3974	5572			
16'	155	169	282	332	521	668	831	1011	1418	311	337	563	663	1042	1336	1662	2021	2835	466	506	845	995	1636	2307	2870	3490	4894			
	119	129	214	252	412	616	831	1011	1418	238	258	428	503	825	1231	1662	2021	2835	357	387	642	755	1237	1847	2630	3490	4894			
17'	129	140	234	276	454	591	736	895	1255	258	280	468	552	908	1182	1471	1789	2510	387	420	702	827	1361	2037	2541	3089	4333			
	99	107	178	210	344	513	731	895	1255	198	215	357	420	688	1027	1462	1789	2510	298	322	535	630	1032	1540	2193	3008	4333			
18'	108	117	197	232	382	527	655	797	1118	217	235	393	463	763	1053	1311	1594	2237	325	352	590	695	1145	1713	2264	2753	3862			
	84	91	150	177	290	432	616	797	1118	167	181	301	354	579	865	1231	1594	2237	251	272	451	530	869	1297	1847	2534	3862			
19'	92	99	167	196	324	472	588	715	1003	183	199	333	393	647	944	1175	1430	2006	275	298	500	589	971	1454	2030	2469	3464			
	71	77	128	150	246	368	524	715	1003	142	154	256	301	493	735	1047	1430	2006	213	231	383	451	739	1103	1571	2155	3464			
20'	78	85	142	168	277	415	530	644	904	156	170	285	336	554	830	1060	1289	1809	234	254	427	503	831	1245	1777	2226	3124			
	61	66	110	129	211	315	449	616	904	122	132	219	258	422	631	898	1231	1809	183	198	329	387	634	946	1347	1847	3124			
21'	67	73	122	144	238	358	480	584	819	134	146	245	289	477	715	960	1168	1639	201	218	367	433	715	1073	1533	2017	2831			
	53	57	95	111	182	272	388	532	819	105	114	189	223	365	545	776	1064	1639	158	171	284	334	547	817	1163	1596	2757			
22'	58	63	106	125	207	310	437	531	746	116	126	212	250	414	621	874	1063	1492	174	189	318	375	620	931	1331	1830	2577			
	46	50	82	97	159	237	337	463	746	92	99	165	194	317	474	674	925	1492	137	149	247	291	476	711	1012	1388	2398			
23'	50	55	92	109	180	271	387	486	682	101	109	184	218	361	542	775	971	1364	151	164	277	327	541	813	1162	1599	2356			
	40	43	72	85	139	207	295	405	682	80	87	144	169	278	415	590	810	1364	120	130	216	254	417	622	885	1215	2099			
24'	44	48	81	95	158	238	340	445	625	88	95	161	191	316	476	680	891	1251	132	143	242	286	475	713	1021	1405	2162			
	35	38	63	75	122	182	260	356	616	71	76	127	149	244	365	520	713	1231	106	115	190	224	367	547	779	1069	1847			
25'	38	42	71	84	139	210	300	410	576	77	84	142	168	279	420	601	820	1152	115	125	213	252	418	629	901	1241	1990			
	31	34	56	66	108	161	230	315	545	62	68	112	132	216	323	460	631	1090	94	101	168	198	324	484	689	946	1634			
26'	34	37	63	74	123	186	266	367	532	68	74	125	148	247	372	533	734	1064	101	110	188	223	370	558	799	1101	1838			
	28	30	50	59	96	143	204	280	484	55	60	100	117	192	287	409	561	969	83	90	150	176	288	430	613	841	1453			
27'	30	33	56	66	110	165	237	327	493	60	65	111	132	219	331	474	654	985	90	98	167	197	329	496	711	981	1703			
	25	27	45	52	86	128	182	250	432	50	54	89	105	172	256	365	501	865	74	80	134	157	258	384	547	751	1297			
28'	26	29	49	59	98	148	212	292	457	53	58	99	117	196	295	424	585	915	79	86	148	176	294	443	636	877	1527			
	22	24	40	47	77	115	164	224	388	44	48	80	94	154	230	327	449	776	67	72	120	141	231	345	491	673	1163			
29'	23	26	44	52	88	132	190	262	426	47	51	88	105	175	265	380	525	852	70	77	132	157	263	397	571	787	1372			
	20	22	36	42	69	103	147	202	349	40	43	72	85	139	207	294	404	698	60	65	108	127	208	310	442	606	1047			
30'	21	23	39	47	79	119	171	236	397	42	46	79	94	157	238	342	473	795	63	69	118	141	236	357	514	709	1237			
	18	20	32	38	63	93	133	182	315	36	39	65	76	125	187	266	365	631	54	59	97	115	188	280	399	547	946			
32'	17	18	32	38	64	97	140	194	338	33	36	64	76	128	194	280	387	676	50	55	96	114	192	292	420	581	1015			
	15	16	27	31	52	77	110	150	260	30	32	54	63	103	154	219	301	520	45	48	80									

Finnforest Corporation is a growing international business producing and marketing engineered wood products, plywood and solid sawn wood. Our customers include industrial end-users, DIY outlets and suppliers of building systems. We are the leading European company providing solutions and services for the use of wood. Our mission is to serve our customers better by broadening our product offerings. Finnforest is represented in 20 countries, and has over 8,000 employees. Finnforest Corporation is a core business of the Metsäliitto Group.

Metsäliitto is comprised of over 130,000 forest owners who own over half of the private forest in Finland. This relationship guarantees the availability of high quality raw materials for MASTER PLANK LVL production.



Plant One (left) Punkaharju, Finland. Plant Two (right) Lohja, Finland.



MASTER PLANK is a significant part of Finnforest's operations. The MASTER PLANK mills are surrounded by many of Finland's lush spruce forests managed and certified under the Finnish Forest Certification System (FFCS) audited by Bureau Veritas Quality International (BVQI) according to the ISO 14001 environmental standard and the ISO 9002 quality standard. This certification has been approved by the European forest certification system Pan European Forest Certification (PEFC). We take great pride in our managed forest system since we know without our work in this area our success would be limited. Our forests are very productive and meet the varied needs of species habitat, recreation and forestry.

Finnforest Company markets its products worldwide. Distribution in the U.S. and Canada is through Finnforest USA, Engineered Wood Division, located in Roseville, Michigan.

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www.ffcs-finland.org • www.pefc.org

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Finnforest USA, Engineered Wood Division

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