



BROADSPAN™

LVL Product Line

Design properties for
LVL header and beam
applications in the U.S.
for residential floor and
roof systems



LVL Product Line

Design Properties

1 3/4" Broadspan 2.0E-3100F_b LVL Allowable Design Values

Design Property	Depth								
	7 1/4"	9 1/4"	9 1/2"	11 1/4"	11 7/8"	14"	16"	18"	24"
Moment (ft.-lbs.)	4280	6710	7049	9631	10642	14422	18454	22936	39010
Shear (lbs.)	2453	3130	3214	3806	4018	4737	5413	6090	8120
Moment of Inertia (in ⁴)	56	115	125	208	244	400	597	851	2016
Weight (lbs./lin. ft.)	3.4	4.4	4.5	5.3	5.6	6.6	7.6	8.5	11.4

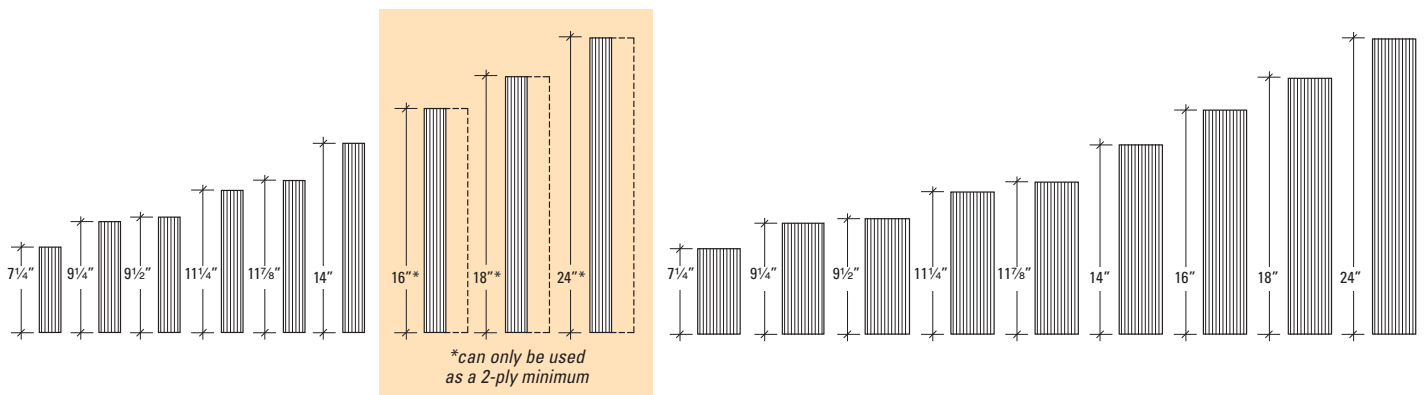
1. Lateral support of beam compression edge is required at intervals of 24" o.c. or closer.
2. Lateral restraint of beam is required at bearing locations.
3. Values are based on 100% load duration.
4. Weight shown is for design. Shipping weights differ.
5. All plies deeper than 14" require multiple plies, or must be full-depth blocked or full-depth restrained at intervals not exceeding 24" o.c.

3 1/2" Broadspan 2.0E-3100F_b LVL Allowable Design Values

Design Property	Depth								
	7 1/4"	9 1/4"	9 1/2"	11 1/4"	11 7/8"	14"	16"	18"	24"
Moment (ft.-lbs.)	8560	13420	14098	19262	21284	28844	36908	45872	78020
Shear (lbs.)	4906	6259	6428	7613	8035	9473	10827	12180	16240
Moment of Inertia (in ⁴)	112	230	250	416	488	800	1194	1702	4032
Weight (lbs./lin. ft.)	6.9	8.8	9.0	10.7	11.3	13.3	15.2	17.1	22.8

1. Lateral support of beam compression edge is required at intervals of 24" o.c. or closer.
2. Lateral restraint of beam is required at bearing locations.
3. Values are based on 100% load duration.
4. Weight shown is for design. Shipping weights differ.

1 3/4" and 3 1/2" Broadspan 2.0E-3100F_b LVL Available Sizes



Referenced dimensions are nominal and are used for design purposes.

Broadspan 2.0E-3100F_b LVL Allowable Design Stresses

Modulus of Elasticity	$E = 2.0 \times 10^6$ psi
Bending Stress	$F_b = 3100$ psi
Shear (joist)	$F_v = 290$ psi
Compression Perpendicular to Grain (joist)	$F_{c\perp} = 750$ psi
Compression Parallel to Grain	$F_{c\parallel} = 3000$ psi

NOTES

1. F_b based on 12" depths. For other depths, multiply by $(12/d)^{1/6.5}$. For depths less than 3 1/2", use $d=3.5$ ".
2. Design stresses are based on 100% load duration.
3. $F_{c\perp}$ and E shall not be increased for duration of load.

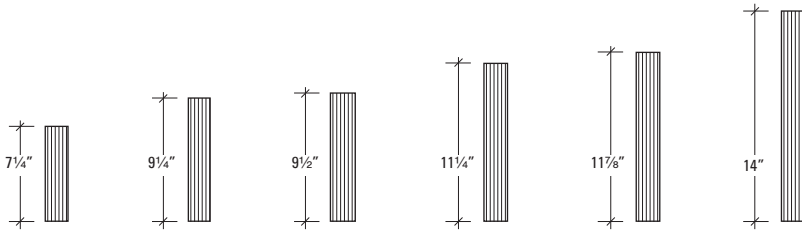
Design Properties

1¾" Broadspan 1.9E-2750F_b LVL Allowable Design Values

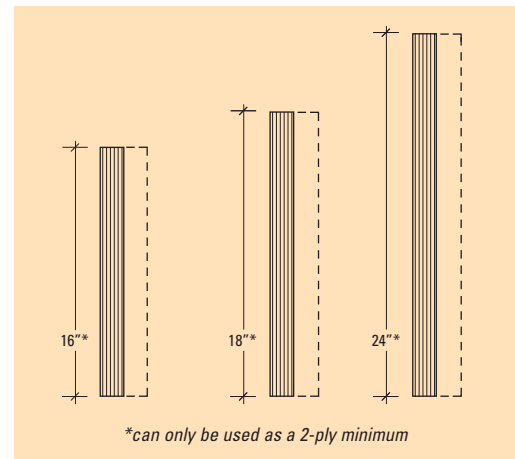
Design Property	Depth								
	7¼"	9¼"	9½"	11¼"	11⅞"	14"	16"	18"	24"
Moment (ft.-lbs.)	3796	5953	6253	8544	9441	12794	16370	20347	34606
Shear (lbs.)	2453	3130	3214	3806	4018	4737	5413	6090	8120
Moment of Inertia (in ⁴)	56	115	125	208	244	400	597	851	2016
Weight (lbs./lin. ft.)	3.4	4.4	4.5	5.3	5.6	6.6	7.6	8.5	11.4

- Lateral support of beam compression edge is required at intervals of 24" o.c. or closer.
- Lateral restraint of beam is required at bearing locations.
- Values are based on 100% load duration.
- Weight shown is for design. Shipping weights differ.
- All plies deeper than 14" require multiple plies, or must be full-depth blocked or full-depth restrained at intervals not exceeding 24" o.c.

1¾" Broadspan 1.9E-2750F_b LVL Available Sizes



Referenced dimensions are nominal and are used for design purposes.



Broadspan 1.9E-2750F_b LVL Allowable Design Stresses

Modulus of Elasticity	$E = 1.9 \times 10^6$ psi
Bending Stress	$F_b = 2750$ psi
Shear (joist)	$F_v = 290$ psi
Compression Perpendicular to Grain (joist)	$F_{c\perp} = 750$ psi
Compression Parallel to Grain	$F_{c\parallel} = 2500$ psi

NOTES

- F_b based on 12" depths. For other depths, multiply by $(12/d)^{1/6.5}$. For depths less than 3½", use $d=3.5$ ".
- Design stresses are based on 100% load duration.
- $F_{c\perp}$ and E shall not be increased for duration of load.

OUR WORD ON WOOD

Georgia-Pacific is committed to increasing our value as your partner in profit and production: By listening to you, we make wood products that deliver to your needs for strength, beauty and workability. Broadspan LVL is covered by a Lifetime Limited Warranty. Please call the toll-free number listed below for a copy, to place an order, or to find out more information.

SALES, UPDATES AND CURRENT INFORMATION The sale of our engineered lumber products is subject to our terms of sale which are available at www.gp.com/tc or upon request. The information in this document may change without notice. Visit our website at www.gp.com/build/broadspan.html for updates and current information or call 1-877-822-4585 to request a current copy.

GENERAL The user is responsible for proper installation of our engineered lumber products. Our engineered lumber products must be installed in strict conformity with our instructions and all applicable building code requirements and other regulations. In addition, if not specifically covered by our installation instructions or construction detail illustrations, the products must be installed in accordance with generally accepted design and construction practices. When installing engineered lumber products, the user must also consider the effects of local climate and geography. We do not warrant and are not responsible for the design and construction of any finished structure or system into which our engineered lumber products may be incorporated or other building components that may be used with our products.

LIMITATION OF REMEDIES AND DAMAGES EXCEPT AS EXPRESSLY STATED IN OUR LIFETIME LIMITED WARRANTY, WE DO NOT MAKE AND HEREBY EXPRESSLY DISCLAIM, ANY AND ALL OTHER REPRESENTATIONS AND WARRANTIES OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF OR AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE EXCLUSIVE REMEDIES FOR BREACH OF WARRANTY, AND AT GP'S SOLE OPTION, ARE REPAIR OF AFFECTED PRODUCT, REPLACEMENT OF AFFECTED PRODUCT OR REIMBURSEMENT OF THE REASONABLE COST OF REPAIR OR REPLACEMENT OF THE AFFECTED PRODUCT. WE SHALL NOT BE RESPONSIBLE UNDER ANY CIRCUMSTANCES FOR LOST PROFITS, DAMAGE TO A STRUCTURE

IN WHICH THE AFFECTED PRODUCT IS INSTALLED, DAMAGE TO OTHER PROPERTY, LOSS OF USE OF THE PRODUCT OR OTHER PROPERTY OR ANY OTHER INDIRECT, INCIDENTAL, EXEMPLARY, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES. IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION, OUR CUMULATIVE LIABILITY TO BUYER SHALL NOT EXCEED THE PURCHASE PRICE FOR THE SPECIFIC PRODUCT GIVING RISE TO THE CLAIM OR CAUSE OF ACTION. WARRANTY CLAIMS SHALL BE DEEMED WAIVED IF THEY ARE NOT SUBMITTED TO US IN WRITING WITHIN THIRTY (30) DAYS AFTER DISCOVERY. OUR ENGINEERED LUMBER PRODUCTS MAY SUPPORT MOLD GROWTH IF EXPOSED TO CERTAIN CONDITIONS, INCLUDING MOISTURE, DAMPNESS, CONDENSATION, HUMIDITY, WATER OR WET CONDITIONS. MOLD, MILDEW, FUNGI, ALGAE, MOSS, BACTERIAL GROWTH, DECAY, ROT OR SIMILAR CONDITIONS ARE NOT MANUFACTURING OR PRODUCT DEFECTS AND WE ASSUME NO RESPONSIBILITY OR LIABILITY FOR SUCH CONDITIONS, REGARDLESS OF CAUSE.

FIRE SAFETY CAUTION Passing a fire test in a controlled laboratory setting and referring to an assembly as having a one-hour, two-hour, or any other fire resistance or protection rating does not mean that either the particular assembly/system will necessarily provide one-hour fire resistance, two-hour fire resistance, or any other specified fire resistance or protection in an actual fire. In the event of an actual fire, you should immediately take any and all actions necessary for your safety and the safety of others without regard for any fire rating of any assembly/system. For more information, please call 1-800-284-5347 or visit www.gp.com/safetyinfo.

HEALTH AND SAFETY CAUTION Georgia-Pacific engineered lumber products are manufactured with phenol-formaldehyde and phenol-resorcinol-formaldehyde adhesives meeting the requirements of ASTM D 5456 or ASTM D 5055. Formaldehyde emissions from products with these adhesives are considered close to background levels and emission measurements are not required. A Material Safety Data Sheet (MSDS) containing potential physical and health hazard information is available from your employer or by contacting the Products Safety and Health Information Department at Georgia-Pacific LLC, P.O. Box 105605, Atlanta, GA 30348-5605, (404) 652-5119 or visit www.gp.com/build/broadspan.html.

Distributed By:



Georgia-Pacific
(877) 822.4585 | www.gp.com/build/broadspan.html