

LP[®] LVL Concrete Forming Beams
Louisiana-Pacific Corporation

PR-L291
Revised October 27, 2011

Product: LP[®] LVL Concrete Forming Beams

LP Building Products, Louisiana-Pacific Corporation, 414 Union Street, Suite 2000, Nashville, Tennessee 37219

(615) 986-5600

www.lpcorp.com

1. Basis of the product report:
 - ASTM D5456-09
 - PFS Corporation Test Report (Louisiana-Pacific Canada Ltd., Golden, British Columbia): 2250F_b - 1.5E Douglas-fir LVL, 2250F_b - 1.5E Lodgepole pine LVL, 2950F_b - 2.0E Douglas-fir LVL
 - APA Reports T2005P-13, T2005P-76A, T2006P-06, T2008P-10, T2008P-31, T2008P-43, T2010P-33, and other qualification data
2. Product description:

LP LVL concrete forming beams are made with wood veneers laminated with grain parallel to the length of the member in accordance with the in-plant manufacturing standards approved by APA. LP LVL concrete forming beams are available in a range of thicknesses (1-1/2 inches to 3-1/2 inches), depths (3-1/2 inches to 11-1/4 inches) and lengths. Refer to the manufacturer's technical guide and a local LP Engineered Wood Products distributor for product availability.
3. Design properties:

Table 1 lists the design properties for LP LVL concrete forming beams. The allowable spans for LP LVL concrete forming beams shall be in accordance with the recommendations provided by Louisiana-Pacific Corporation as published in the *LP LVL Concrete Forming Beam Technical Guide* (Lit. Item LPEW0248) available at www.lpcorp.com/resources/literature/.
4. Product installation:

LP LVL concrete forming beams shall be installed in accordance with the recommendations provided by Louisiana-Pacific Corporation (see link above) and the engineering drawing approved by the engineer of record. Permissible details shall be in accordance with the engineering drawing.
5. Storage, handling, inspection and evaluation:

The storage and handling of LP LVL concrete forming beams shall be in accordance with the recommendations provided by Louisiana-Pacific Corporation (see link above). LP LVL forming beams shall be thoroughly visually inspected by a qualified person to ensure they are new or like-new prior to use. A guide for the evaluation of visual defects and subsequent required action are provided by Louisiana-Pacific Corporation.
6. Limitations:
 - a) LP LVL concrete forming beams shall be designed using the design properties specified in this report.
 - b) LP LVL concrete forming beams are limited to dry service conditions where the average equilibrium moisture content of sawn lumber is less than 16 percent. When LP LVL concrete forming beams are used where the moisture content of sawn lumber will exceed 16 percent for an extended time period, design values shall be multiplied by a wet-service factor provided in Table 2.

- c) LP LVL concrete forming beams shall not be used in wood framed construction as structural members, such as beams or headers.
- d) LP LVL concrete forming beams are produced at the Louisiana-Pacific Canada Ltd. facilities in Golden, British Columbia and the Murphy Engineered Wood Division facilities in Sutherlin, Oregon under a quality assurance program audited by APA.
- e) This report is subject to re-examination in one year.

7. Identification:

LP LVL concrete forming beams described in this report are identified by a label bearing the manufacturer's name (Louisiana-Pacific Corporation or Murphy Engineered Wood Division) and/or trademark, the APA assigned plant number (1066 for the Golden plant and 1089 for the Sutherlin plant), the LVL grade, the APA logo, the report number PR-L291, and a means of identifying the date of manufacture.

Table 1. Design Properties (Allowable Stress Design) for LP LVL Forming Beams ^(a)

Property		2250F _b -1.5E	2600F _b -1.7E	2950F _b -2.0E
Bending (F _b), ^(b) psi	Joist ^(c)	2,250	2,600	2,950
Modulus of Elasticity (MOE), psi	Joist ^(c)	1.50 x 10 ⁶	1.70 x 10 ⁶	2.00 x 10 ⁶
Compression parallel (F _c), psi		2,350	2,350	3,200
Compression perpendicular (F _{c⊥}), psi	Joist ^(c)	750	750	750
Longitudinal shear (F _v), psi	Joist ^(c)	285	285	290

For SI: 1 inch = 25.4 mm, 1 lbf = 4.448 N, 1 psi = 6.9 kPa.

- ^(a) The tabulated values are design values for normal duration of load. The design stresses are limited to conditions in which the equivalent moisture content of sawn lumber is less than 16 percent. When used where the moisture content of sawn lumber will exceed 16 percent for an extended time period, design values shall be multiplied by a wet-service factor provided in Table 2.
- ^(b) The tabulated values are based on a reference depth of 12 inches. For depths less than 12 inches, multiply F_b by $(\frac{12}{d})^{1/9}$. For depths less than 3-1/2 inches, use the adjustment factor for 3-1/2 inches.
- ^(c) Joist = load parallel to glueline.

Table 2. Wet-Service Factors

Bending (F _b)	Modulus of Elasticity (MOE)	Compression parallel (F _c)	Compression perpendicular (F _{c⊥})	Longitudinal shear (F _v)
0.75	0.85	0.75	0.50	0.75

APA – The Engineered Wood Association is an accredited certification body under ISO 65 by Standards Council of Canada (SCC) and an accredited inspection agency by the International Code Council (ICC) International Accreditation Service (IAS) under ISO/IEC 17020. APA is also an accredited testing organization recognized by IAS and SCC under ISO/IEC 17025. APA is a recognized testing laboratory by Miami-Dade County, and a Product Testing Laboratory, Product Quality Assurance Entity, and Product Validation Entity by the Florida Department of Community Affairs (DCA).

**APA – THE ENGINEERED WOOD ASSOCIATION
HEADQUARTERS**

7011 So. 19th St. ▪ Tacoma, Washington 98466
Phone: (253) 565-6600 ▪ Fax: (253) 565-7265 ▪ Internet Address: www.apawood.org

PRODUCT SUPPORT HELP DESK
(253) 620-7400 ▪ E-mail Address: help@apawood.org

DISCLAIMER

APA Product Report® is a trademark of *APA – The Engineered Wood Association*, Tacoma, Washington. The information contained herein is based on the product evaluation in accordance with the references noted in this report. Neither APA, nor its members make any warranty, expressed or implied, or assume any legal liability or responsibility for the use, application of, and/or reference to opinions, findings, conclusions, or recommendations included in this report. Consult your local jurisdiction or design professional to assure compliance with code, construction, and performance requirements. Because APA has no control over quality of workmanship or the conditions under which engineered wood products are used, it cannot accept responsibility of product performance or designs as actually constructed.