



NYC Department of Buildings
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Report of Materials and Equipment Acceptance Division

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

MEA 5-03-E Vol. 2

Manufacturer: Temlam Inc., 301, rue l'Harricana, P.O. Box 125, Amos, Quebec, J9T 3A6 Canada

Trade Name(s): Temlam LVL

Product: Laminated veneer lumber (LVL)

Pertinent Code Section(s): 27-617 thru 27-624 and Reference Standards RS 10

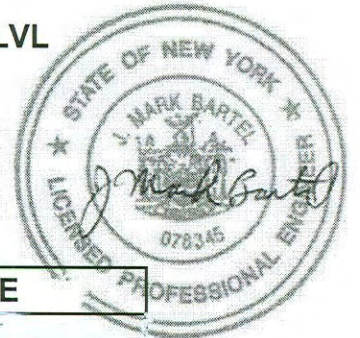
Prescribed Test(s): ASTM D 5456, D 198 and D 4761.

Laboratory: Third-party quality control certification by Intertek Testing Services (ITS), 3210 American Drive, Mississauga, Ontario, Canada L4V 1B3. Extrapolation of material property tables were signed and sealed by J. Mark Bartel, New York State Professional Engineer – License No. 078345.

Test Report(s): Intertek (ITS-ETL SEMKO) Qualification Test Report for 1.8E LVL manufactured at Temlam Inc. – Amos Plant, Report No. 3082339-2006, original issue date, March 3, 2006.

Description: Temlam LVL is a laminated veneer lumber (LVL), a structural composite lumber (SCL) consisting of Aspen veneers laminated with the grain parallel to the length of the member. Temlam LVL is intended primarily for use as floor or roof beams or joists in wood framed construction, but may be used in any structural assembly where their material properties have been used for an engineered design. Temlam LVL is manufactured under controlled conditions under a quality assurance program as outlined in the Quality Control Manual. Intertek Testing Service (ITS) performs periodic third-party inspections of Temlam LVL for quality control and conformance with the Quality Control Manual.

The following tables show the design properties of Temlam LVL



**TABLE 1
TEMLAM LVL ALLOWABLE DESIGN STRESSES**

PROPERTY		DESIGN VALUE	
		Aspen	
		1.8E grade	
F_b	Flexural stress	2850	
E	Modulus of elasticity (psi x 10 ⁶)	1.8	
F_t	Tension parallel to grain (psi)	2000	
$F_{c-parallel}$	Compression parallel to grain (psi)	2900	
$F_{c-perp.}$	Compression perpendicular to grain (psi)	Joist/Beam	550
		Plank	450
F_v	Horizontal Shear (psi)	Joist/Beam	250
		Plank	150

For SI: 1 inch = 25.4 cm, 1 psi = 0.00689 MPa

TABLE 1 NOTES:

- The tabulated flexural stresses are based on loads of a normal duration and a reference depth of 12 inches. For other depths, the tabulated flexural stress shall be adjusted by a size factor adjustment of $(12/d)^{0.25}$ for Aspen Temlam LVL, as shown below:

Aspen:

Depth (inches):	3-1/2	9-1/2	14	18	20	24
Multiply by:	1.35	1.05	0.95	0.90	0.88	0.84

The maximum size factor permitted for depth effect is 1.35 for Aspen Temlam LVL. The size factor derived in this footnote is cumulative with the duration-of-load adjustment factor and the repetitive-member adjustment factor.

- See Figure 1 for illustration of orientation.

- 3) Stresses are permitted to be adjusted for duration of load in accordance with the applicable code.
- 4) Tabulated flexural stress (F_b) shall be permitted to be increased by 4 percent when the member qualifies as a repetitive member as defined in ANSI/AFPA NDS.
- 5) The allowable stresses in Table 1 are based on covered dry conditions of use. Dry conditions of use are those environmental conditions represented by sawn lumber at which the moisture content is less than 16 percent.

TABLE 2
TEMLAM LVL EQUIVALENT SPECIFIC GRAVITY FOR FASTENERS

LVL Product & Grade	Veneer Species	Equivalent Specific Gravity		
		Nails		Bolts
		Withdrawal Load	Lateral Load	Lateral Load (1/2" Dia., installed perpendicular to gluelines) ⁵
		Nails Installed at Edge or at Wide Face	Nails Installed at Edge ⁴ or at Wide Face	Load Applied Parallel or Perpendicular to Grain of Veneers
Selectem 1.8E	Aspen	0.46	0.43	0.50

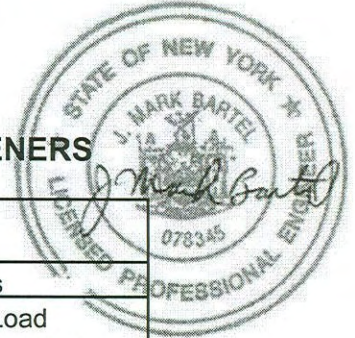


TABLE 1 NOTES:

- 1) Fastener values based on the above equivalent specific gravities are for loads of normal duration. The values may be adjusted for the appropriate duration of load factor in accordance with ANSI/AFPA NDS.
- 2) See Figure 1 for illustration of orientation. See Table 3 for minimum nail spacing requirements
- 3) Bolt spacing shall be in accordance with the applicable model code for solid-sawn lumber.
- 4) Applies to nails loaded parallel to gluelines. Nails installed at edge and loaded laterally perpendicular to gluelines are beyond the scope of this report.
- 5) Bolts installed parallel to gluelines are beyond the scope of this report.

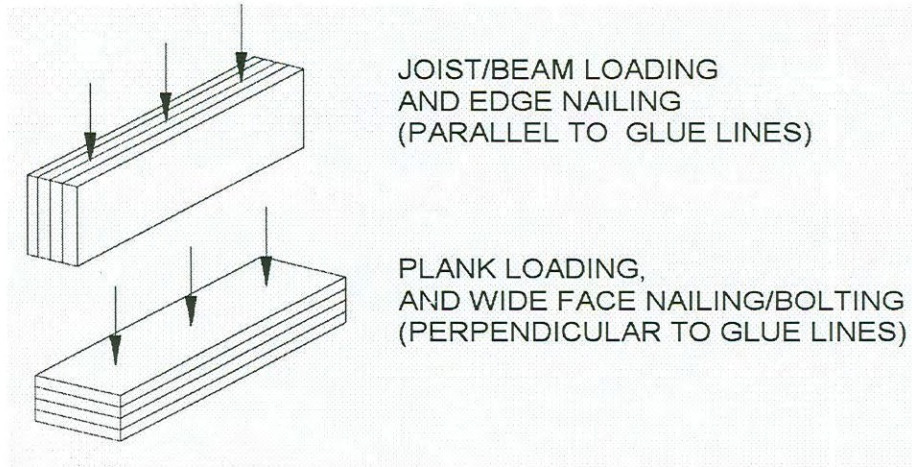


FIGURE 1
TEMLAM LVL ORIENTATION



FIGURE 2
ALLOWABLE ROUND HOLES
FOR UNIFORMLY LOADED TEMLAM LVL BEAMS

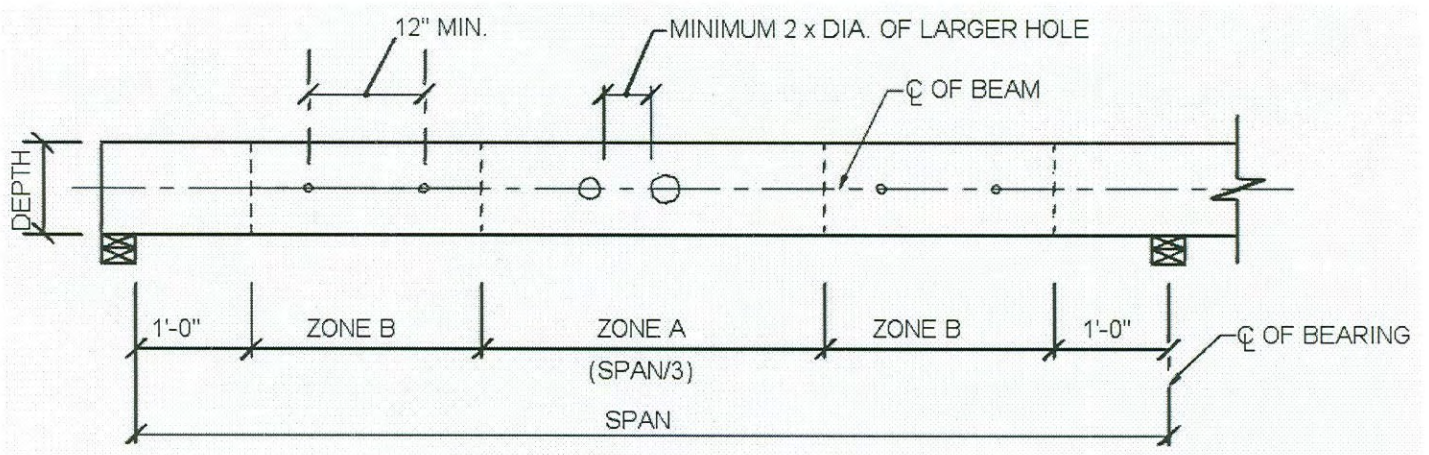


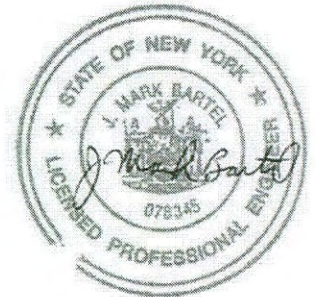
FIGURE 3 NOTES:

- 1) This diagram applies to simple and multi-span applications with uniform loading. Beams must be properly sized using the uniform load tables in the Teamlam LVL User's Guides beam analysis software by Jager Building Systems Inc.

- 2) Only round holes located at the centerline of the beam (depth/2) are permitted as follows:

ZONE A

Maximum Round Hole Diameter (Inches)	Beam Depths (Inches)	Minimum Spacing between holes	Maximum Number of Holes, Zone A
1	5-1/2 to 9-1/4	clear distance between holes shall be two times the diameter of the largest hole	Three
2	9-1/2 to 14		
3	16 to 20		
4	24		



ZONE B

Maximum Round Hole Diameter (Inches)	Beam Depths (Inches)	Minimum Spacing between holes	Maximum Number of Holes, Zone A
3/4	5-1/2 to 24	12 inches o.c.	No. of 3/4" holes limited only by length of Zone B

- 3) Rectangular holes are not allowed.
 4) Other load conditions, hole sizes, or hole configurations, and holes at cantilevers, must be evaluated by a professional registered engineer.

Terms and Conditions- Temlam 1.8E LVL, as described above, is accepted on condition that:

- All uses, locations and installations comply with all the applicable requirements of the New York City Building Code and on further condition that the design provisions and specifications as listed in the above laboratory reports shall apply.
- Structures designed using Temlam LVL shall conform to the manufacturer's specifications except that the appropriate design load(s), deflection limitations(s), and other performance standards of the New York City Building Code shall apply.
- Temlam LVL shall be for interior use only and stamped MEA 5-03-E Volume 2 on each beam.
- Temlam LVL, when stored outdoors or exposed to wet weather conditions during construction, shall be inspected by the user for swelling or warping and be replaced if damaged.

5. The glue used shall not delaminate during a fire.
6. All shipments and deliveries of such material shall be provided with a permanent marking suitably placed, certifying that the materials shipped or delivered is equivalent to those tested and accepted for use, as provided for in Section 27-131 of the New York City Building Code.

Final Acceptance January 8, 2007.

Examined By Donald [Signature]