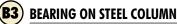
$\mathbf{\omega}$ 

# **BEARING DETAILS**

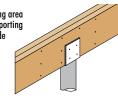
# **B1** BEAM-TO-BEAM CONNECTION

Make sure hanger capacity is appropriate for each application. Hangers must be properly installed to accommodate full capacity.

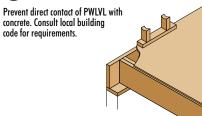




Verify the required bearing area and the ability of the supporting column member to provide adequate strength.

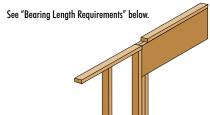






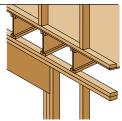


**BEARING ON WOOD COLUMN** 



### B6 WINDOW/DOOR HEADER— 2-STORY TYPICAL

See "Bearing Length Requirements" below.



For multiple-ply PWLVL beam assembly conditions and fastening recommendations, see next page.

# BEARING LENGTH REQUIREMENTS

#### PACIFIC WOODTECH LVL BEARING LENGTH REQUIREMENTS (1)(2)(3)(4)(5)

Support Material		Hem-Fir <sup>(6)</sup>		Southern Pine <sup>(6)</sup>		DF-L <sup>(6)</sup> 625 psi		1.5E PWLVL <sup>(7)</sup> 750 psi		1.8E or 2.0E PWLVL <sup>(6)</sup> 850 psi	
F <sub>C</sub> (psi)		405 psi		565 psi							
LVL Beam Width		13/4"	31/2"	13/4"	31/2"	13/4"	31/2"	13/4"	31/2"	13/4"	31/2"
Reaction [lb]	1000	1½″	1½″	1½″	1½"	1½″	1½″	1½"	1½″	1½″	1½″
	2000	3″	1½″	21/4"	1½″	2″	1½″	13/4"	1½″	1½″	1½″
	3000	41/4"	21/4"	31/4"	13/4"	23/4"	1½"	21/2"	1½"	21/4"	1½"
	4000	53/4"	3″	41/4"	21/4"	3¾"	2″	31/4"	13/4"	23/4"	1½″
	5000	71/4"	3¾"	51/4"	23/4"	43/4"	21/2"	4"	2″	3½"	13/4"
	6000	81/2"	41/4"	61/4"	31/4"	5½″	23/4"	43/4"	21/2"	41/4"	21/4"
	7000	10"	5″	71/4"	3¾"	6½"	31/4"	5½"	23/4"	43/4"	21/2"
	8000		53/4"	81/4"	41/4"	7½"	3¾"	61/4"	31/4"	5½"	23/4"
	9000		6½"	91/4"	43/4"	81/4"	41/4"	7″	31/2"	61/4"	31/4"
	10000		71/4"	101/4"	51/4"	91/4"	43/4"	7¾"	4"	63/4"	3½"
	11000		8″	111/4"	53/4"	101/4"	51/4"	81/2"	41/4"	71/2"	3¾"

Continued in next column

#### Notes:

- 1. The minimum required bearing length is  $1\frac{1}{2}$ ".
- 2. Duration of load factors may not be applied to bearing length requirements.
- 3. All PWLVL beams require support across their full width.
- 4. All PWLVL beams require lateral support at bearing points.

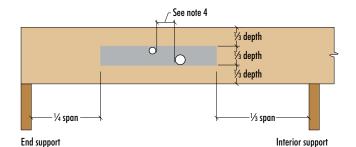
#### PACIFIC WOODTECH LVL BEARING LENGTH REQUIREMENTS (1)(2)(3)(4)(5)

Support Material		Hem-Fir <sup>(6)</sup>		Southern Pine <sup>(6)</sup>		DF-L <sup>(6)</sup>		1.5E PWLVL <sup>(7)</sup>		1.8E or 2.0E PWLVL <sup>(6)</sup>	
F <sub>c⊥</sub> (psi)		405 psi		565 psi		625 psi		750 psi		850 psi	
LVL Beam Width		13/4"	31/2"	13/4"	31/2"	13/4"	31/2"	13/4"	31/2"	13/4"	31/2"
	12000		81/2"		61/4"	11"	5½"	91/4"	43/4"	81/4"	41/4"
	13000		91/4"		63/4"		6"	10"	5″	83/4"	41/2"
	14000		10"		71/4"		6½"	10¾"	5½"	91/2"	43/4"
	15000		103/4"		73/4"		7″	11½″	53/4"	101/4"	51/4"
흩	16000				81/4"		71/2"	121/4"	61/4"	11"	51/2"
ie i	17000				83/4"		8"	13"	61/2"	11½″	53/4"
Reaction [lb]	18000				91/4"		81/4"		7″	121/4"	61/4"
	19000				93/4"		83/4"		71/4"	13"	61/2"
	20000				101/4"		91/4"		73/4"		63/4"
	21000				10¾″		93/4"		8″		71/4"
	22000				111/4"		101/4"		8½"		7½"

- 5. The support member must be sized to carry the load from the PWLVL beam.
- Use these values when the PWLVL beam is supported by a wall plate, sill plate, timber or built-up girder.
- Use these values when the PWLVL beam is supported by the end of a column or connection hardware.

# **HOLE DETAILS**

#### **HOLES IN PWLVL BEAMS**



#### Notes:

- 1. This detail applies only to uniformly loaded, simple and multiple span beams. Cantilevered beams and beams that carry concentrated loads are outside the scope of this detail.
- 2. Square and rectangular holes are not permitted.
- 3. Round holes may be drilled or cut with a hole saw anywhere within the shaded area of the
- 4. The horizontal distance between adjacent holes must be at least two times the size of the larger hole. This restriction also applies to the location of access holes relative to bolt holes in multi-aly beams.
- 5. Do not drill more than three access holes in any four foot long section of beam.
- 6. The maximum round hole diameter permitted is:

PWLVL Beam Depth	5½"	71/4"	9½" to 24"
Maximum Hole Diameter	11/8"	1½"	2"

- These limitations apply to holes drilled for plumbing or wiring access only. The size and location of holes drilled for fasteners are governed by the provisions of the National Design Specification® for Wood Construction.
- 8. Beams deflect under load. Size holes to provide clearance where required.