



TREATED TECH GUIDE | DRY USE

# TECH GUIDE

DRY USE  
**PWT TREATED**

TREATED LAMINATED  
VENEER LUMBER

**PWT** FOCUSED ON EWP

**PWT  
TREATED™**  
TREATED RIGHT™  
BY **PWT™**



# PWT Treated LVL

## Treated Laminated Veneer Lumber

### Product Highlights

- PWT Treated LVL is the only manufacturer-treated LVL, and it is covered by a 25-year limited, transferable warranty.
- PWT Treated LVL is protected against damage caused by fungal rot, decay, and wood-destroying insects, including Formosan termites (interior or exterior usage).
- We use a proprietary and CODE APPROVED treatment system and process, utilizing TRU-CORE® technology.

### The Product

- PWT Treated LVL may be used in exterior construction above-ground applications (UC3B) and for components that are difficult to maintain, repair, or replace and that are critical to the performance and safety of the entire system:
  - Deck substructures, sill plates, and fascia
- Treatment is added during the LVL manufacturing process, which fully penetrates throughout each veneer layer, offering complete protection from the inside out.
- No treatment gradient – and double (2X) the preservative retention required in various standards around the world
- Additionally, envelope treated for best surface properties

### Features and Benefits

- **Non-corrosive!**
  - PWT Treated LVL and its chemical additive do not corrode or damage hardware.
  - Choose appropriate coating on connectors for the project conditions.
- Interior use allowed
- Stainable and paintable
- No added VOCs
- Code Reports [ESR-2909](#), [ESR-3834](#), [PR-L329](#), and [FL 39762](#)

### GRADE

2.0E 2800 Fb

### BEAM SIZES

Width	Depth				
1-3/4" x	9-1/2"	11-7/8"	14"	16"	18"
3-1/2" x	9-1/2"	11-7/8"	14"	16"	-
*5-1/4" x	9-1/2"	11-7/8"	14"	16"	-

\*5-1/4" members are industrial grade only; the product must be kept wrapped prior to installation, be flashed on-site, and should be clad when an architectural- or appearance-grade finish is required.

### JOISTS (DIMENSION SIZES)

Width	Depth				
1-1/2" x	3-1/2"	5-1/2"	7-1/4"	9-1/4"	11-1/4"

### Product Identification

- Product has a muted olive tint
- Stamp: "PWT TREATED"
- Special PWT Treated LVL paper wrap



# PWT Treated LVL Reference Design Values

## DRY USE – 100% LOAD DURATION

2.0E 2800Fb PWT Treated LVL	Beam Orientation (psi)	Plank Orientation (psi)
True (Shear-Free) Modulus of Elasticity, $E^{(1)(4)}$ =	2,000,000	2,000,000
Bending (beam), $F_b^{(2)(3)}$ =	2,800	2,800
Horizontal Shear (beam), $F_v$ =	285	150
Compression perpendicular to grain [psi], $F_c^{(1)}$ =	850	650

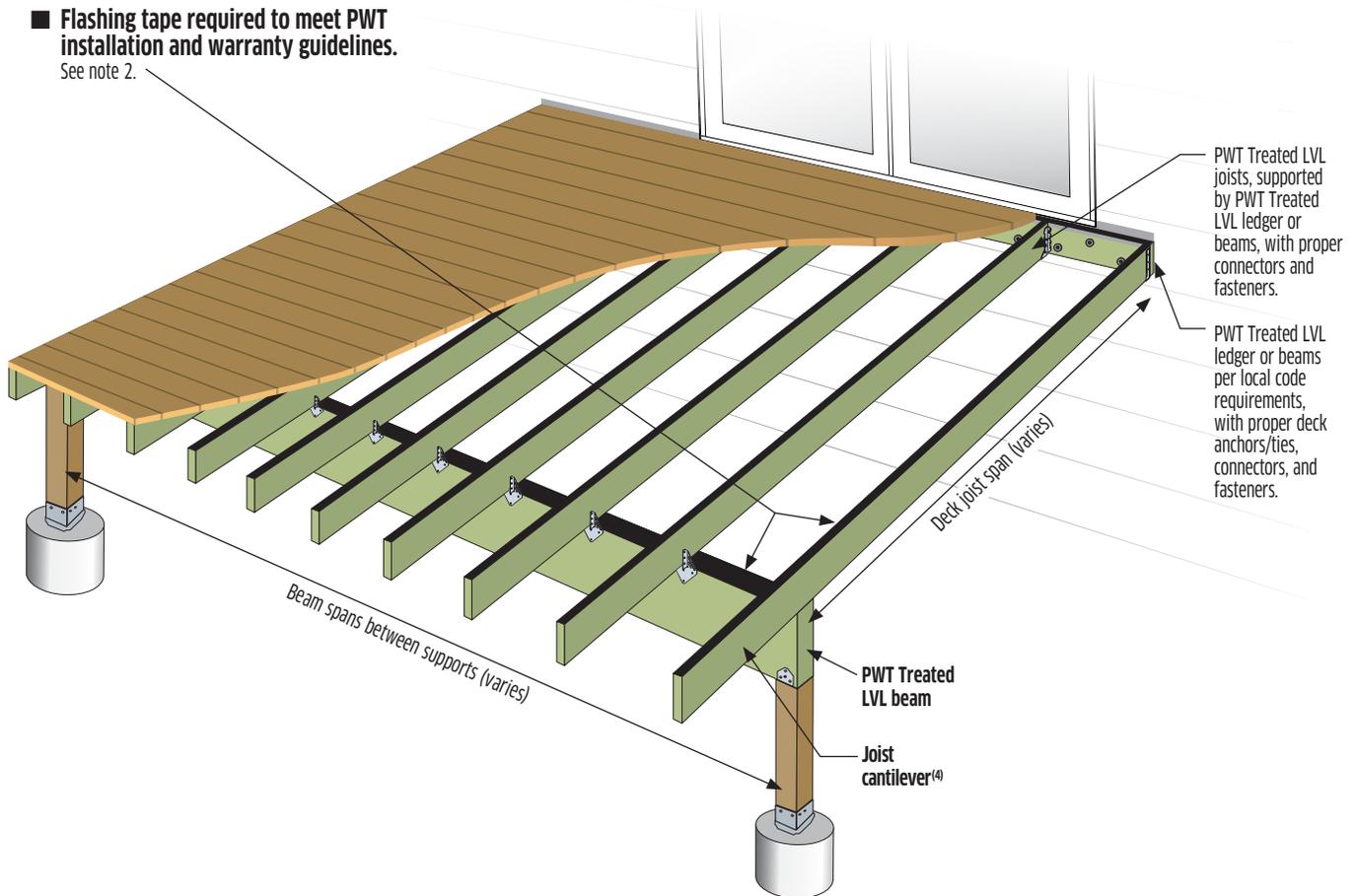
1. Do not adjust for load duration.
2. For Beam Orientation adjust by  $(12/d)^{0.2}$ , where d is the depth of the member [inches]. For Plank Orientation adjust by  $(1.75/d)^{0.33} \leq 1.00$ , where d is the depth of the member [inches].
3. Adjust by 1.04 for repetitive members as defined in the NDS.
4. True(Shear-Free) modulus of elasticity does not account for shear deformation.
5. PWT Treated LVL used as sill plate requires gasket seal.
6. See Product Reports APA [PR-L329](#) and ICC-ES [ESR-2909](#) for additional design criteria

**Note:** Not all exterior conditions are wet-use and not all interior conditions are dry use. See *What are wet use conditions* on our website for more information on this subject.

## SYSTEM COMPARISON

Features	PWT Treated Deck Framing	Ordinary Pressure-Treated Lumber	Steel Deck Framing
25-Year Warranty	YES	NO	YES
Ability to Stain at Time of Installation	YES	Limited Results	NO
Available in Long Lengths	YES	NO	NO
Consistent Dimension (No Planing)	YES	NO	YES
Interior Use	YES	NO	-

■ **Flashing tape required to meet PWT installation and warranty guidelines.**  
See note 2.



### Notes:

1. For diagonal bracing, see *AWC Deck Construction Guide*, visit [pwtewp.com/treated](http://pwtewp.com/treated).
2. For flashing tape recommendations, visit [pwtewp.com/treated](http://pwtewp.com/treated).
3. For fastener and hanger information, visit [strongtie.com/deckcenter](http://strongtie.com/deckcenter).
4. Design conditions outside of the scope of this guide may be designed using the Exacte by PWT software.

**Joist cantilever lengths in this guide are limited to 2 feet.  
For longer cantilevers, please use the  
Exacte by PWT sizing software.**

# PWT Treated LVL Joist Lengths Improved Performance

DRY USE – 40 PSF LIVE LOAD AND 10 PSF DEAD LOAD – L/480

Product	Nominal Size [in]	Actual Size [in]	With or Without 2' Cantilever		
			Joist Spacing (o.c.)		
			12"	16"	24"
PWT Treated LVL	2 x 6	1-1/2 x 5-1/2	10' 6"	9' 6"	8' 3"
	2 x 8	1-1/2 x 7-1/4	13' 9"	12' 6"	10' 11"
	2 x 10	1-1/2 x 9-1/4	17' 7"	15' 11"	13' 10"
	2 x 12	1-1/2 x 11-1/4	21' 4"	19' 4"	16' 10"
Pressure Treated No. 2 Southern pine	2 x 8	1-1/2 x 7-1/4	12' 4"	11' 1"	9' 1"
	2 x 10	1-1/2 x 9-1/4	15' 2"	13' 2"	10' 9"
	2 x 12	1-1/2 x 11-1/4	17' 10"	15' 6"	12' 8"
Pressure Treated No. 2 Hem-fir (incised)	2 x 8	1-1/2 x 7-1/4	11' 10"	10' 5"	8' 6"
	2 x 10	1-1/2 x 9-1/4	14' 8"	12' 9"	10' 5"
	2 x 12	1-1/2 x 11-1/4	17' 0"	14' 9"	12' 1"

DRY USE – 60 PSF LIVE LOAD AND 10 PSF DEAD LOAD – L/480

Product	Nominal Size [in]	Actual Size [in]	With or Without 2' Cantilever		
			Joist Spacing (o.c.)		
			12"	16"	24"
PWT Treated LVL	2 x 6	1-1/2 x 5-1/2	9' 2"	8' 3"	7' 3"
	2 x 8	1-1/2 x 7-1/4	12' 0"	10' 11"	9' 6"
	2 x 10	1-1/2 x 9-1/4	15' 4"	13' 10"	12' 1"
	2 x 12	1-1/2 x 11-1/4	18' 7"	16' 10"	14' 8"
Pressure Treated No. 2 Southern pine	2 x 8	1-1/2 x 7-1/4	10' 10"	9' 5"	7' 8"
	2 x 10	1-1/2 x 9-1/4	12' 10"	11' 2"	9' 1"
	2 x 12	1-1/2 x 11-1/4	15' 1"	13' 1"	10' 9"
Pressure Treated No. 2 Hem-fir (incised)	2 x 8	1-1/2 x 7-1/4	10' 2"	8' 10"	7' 3"
	2 x 10	1-1/2 x 9-1/4	12' 5"	10' 9"	8' 10"
	2 x 12	1-1/2 x 11-1/4	14' 5"	12' 6"	10' 2"

## Code Minimums

DRY USE – 40 PSF LIVE LOAD AND 10 PSF DEAD LOAD – L/360

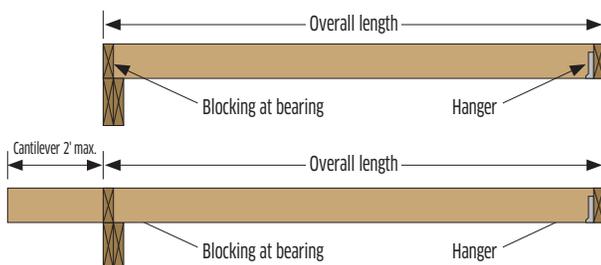
Product	Nominal Size [in]	Actual Size [in]	With or Without 2' Cantilever		
			Joist Spacing (o.c.)		
			12"	16"	24"
PWT Treated LVL	2 x 6	1-1/2 x 5-1/2	11' 6"	10' 6"	9' 2"
	2 x 8	1-1/2 x 7-1/4	15' 2"	13' 9"	12' 0"
	2 x 10	1-1/2 x 9-1/4	19' 4"	17' 7"	15' 4"
	2 x 12	1-1/2 x 11-1/4	23' 6"	21' 4"	18' 7"
Pressure Treated No. 2 Southern pine	2 x 8	1-1/2 x 7-1/4	12' 10"	11' 1"	9' 1"
	2 x 10	1-1/2 x 9-1/4	15' 2"	13' 2"	10' 9"
	2 x 12	1-1/2 x 11-1/4	17' 10"	15' 6"	12' 8"
Pressure Treated No. 2 Hem-fir (incised)	2 x 8	1-1/2 x 7-1/4	12' 1"	10' 5"	8' 6"
	2 x 10	1-1/2 x 9-1/4	14' 8"	12' 9"	10' 5"
	2 x 12	1-1/2 x 11-1/4	17' 0"	14' 9"	12' 1"

DRY USE – 60 PSF LIVE LOAD AND 10 PSF DEAD LOAD – L/360

Product	Nominal Size [in]	Actual Size [in]	With or Without 2' Cantilever		
			Joist Spacing (o.c.)		
			12"	16"	24"
PWT Treated LVL	2 x 6	1-1/2 x 5-1/2	10' 1"	9' 2"	7' 11"
	2 x 8	1-1/2 x 7-1/4	13' 3"	12' 0"	10' 6"
	2 x 10	1-1/2 x 9-1/4	16' 10"	15' 4"	13' 4"
	2 x 12	1-1/2 x 11-1/4	20' 6"	18' 7"	16' 2"
Pressure Treated No. 2 Southern pine	2 x 8	1-1/2 x 7-1/4	10' 10"	9' 5"	7' 8"
	2 x 10	1-1/2 x 9-1/4	12' 10"	11' 2"	9' 1"
	2 x 12	1-1/2 x 11-1/4	15' 1"	13' 1"	10' 9"
Pressure Treated No. 2 Hem-fir (incised)	2 x 8	1-1/2 x 7-1/4	10' 2"	8' 10"	7' 3"
	2 x 10	1-1/2 x 9-1/4	12' 5"	10' 9"	8' 10"
	2 x 12	1-1/2 x 11-1/4	14' 5"	12' 6"	10' 2"

### Notes:

- Spans are the overall length of a simple span. Up to a 2' cantilever can be added to the overall length at one end.
- End bearing length must be at least 1.5".
- Cantilever bearing length must be at least 3".
- Joists require support across their full thickness or width.
- Joist tables are based upon 100% duration of load.
- Use the Exacte by PWT software for conditions outside the scope of this guide.
- Lateral bracing for the compression edge must be provided.
- Provide support to prevent lateral movement and rotation at the bearings.
- The spans for Pressure Treated Dimension Lumber are provided as a reference only. Do not use these spans for specification or design.



## Important!

PWT Treated LVL may be used in severe above-ground UC3B applications. PWT Treated LVL has a moisture content of 6-8% when it leaves the factory. It is imperative that PWT Treated LVL remains protected from precipitation and high humidity until it is installed. Once installed and flashed as stated in the installation guidelines, it will remain dimensionally stable for many years to come.

Installation & Maintenance instructions, on page 18, must be followed.

# PWT Treated LVL Beam Spans Improved Performance

DRY USE – 40 PSF LIVE LOAD AND 10 PSF DEAD LOAD – L/480

Size [in]	Deck Joist Overall Length with 2' Cantilever [ft]						
	6	8	10	12	14	16	18
	Deck Joist Overall Length [ft]						
	10	12	14	16	18	20	22
3-1/2 x 9-1/2	13'-8"	13'-0"	12'-5"	11'-11"	11'-5"	11'-1"	10'-9"
3-1/2 x 11-7/8	17'-1"	16'-2"	15'-5"	14'-10"	14'-3"	13'-9"	13'-4"
3-1/2 x 14	20'-1"	19'-1"	18'-2"	17'-5"	16'-9"	16'-2"	15'-8"
3-1/2 x 16	22'-11"	21'-9"	20'-9"	19'-10"	19'-1"	18'-5"	17'-10"
2-ply 1-3/4 x 18	25'-9"	24'-5"	23'-3"	22'-4"	21'-6"	20'-9"	20'-1"
5-1/4 x 9-1/2	15'-9"	14'-11"	14'-3"	13'-8"	13'-2"	12'-8"	12'-4"
5-1/4 x 11-7/8	19'-7"	18'-7"	17'-9"	17'-0"	16'-4"	15'-10"	15'-4"
5-1/4 x 14	23'-0"	21'-10"	20'-10"	20'-0"	19'-3"	18'-7"	18'-0"
5-1/4 x 16	26'-3"	24'-11"	23'-10"	22'-10"	22'-0"	21'-3"	20'-7"
3-ply 1-3/4 x 18	29'-7"	28'-1"	26'-9"	25'-8"	24'-8"	23'-10"	23'-1"

DRY USE – 60 PSF LIVE LOAD AND 10 PSF DEAD LOAD – L/480

Size [in]	Deck Joist Overall Length with 2' Cantilever [ft]						
	6	8	10	12	14	16	18
	Deck Joist Overall Length [ft]						
	10	12	14	16	18	20	22
3-1/2 x 9-1/2	11'-11"	11'-4"	10'-10"	10'-4"	9'-11"	9'-7"	9'-4"
3-1/2 x 11-7/8	14'-10"	14'-1"	13'-5"	12'-10"	12'-5"	11'-11"	11'-7"
3-1/2 x 14	17'-6"	16'-7"	15'-10"	15'-2"	14'-7"	14'-1"	13'-7"
3-1/2 x 16	19'-11"	18'-11"	18'-0"	17'-3"	16'-7"	16'-0"	15'-6"
2-ply 1-3/4 x 18	22'-5"	21'-3"	20'-3"	19'-5"	18'-8"	18'-0"	17'-5"
5-1/4 x 9-1/2	13'-8"	13'-0"	12'-5"	11'-11"	11'-5"	11'-1"	10'-9"
5-1/4 x 11-7/8	17'-1"	16'-2"	15'-5"	14'-10"	14'-3"	13'-9"	13'-4"
5-1/4 x 14	20'-1"	19'-1"	18'-2"	17'-5"	16'-9"	16'-2"	15'-8"
5-1/4 x 16	22'-11"	21'-9"	20'-9"	19'-10"	19'-1"	18'-5"	17'-10"
3-ply 1-3/4 x 18	25'-9"	24'-5"	23'-3"	22'-4"	21'-6"	20'-9"	20'-1"

## Code Minimums

DRY USE – 40 PSF LIVE LOAD AND 10 PSF DEAD LOAD – L/360

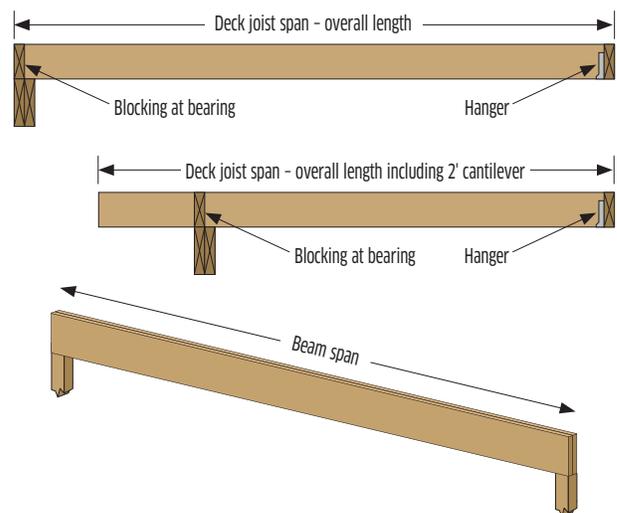
Size [in]	Deck Joist Overall Length with 2' Cantilever [ft]						
	6	8	10	12	14	16	18
	Deck Joist Overall Length [ft]						
	10	12	14	16	18	20	22
3-1/2 x 9-1/2	15'-1"	14'-4"	13'-8"	13'-1"	12'-8"	12'-2"	11'-10"
3-1/2 x 11-7/8	18'-10"	17'-10"	17'-0"	16'-4"	15'-9"	15'-2"	14'-9"
3-1/2 x 14	22'-2"	21'-0"	20'-0"	19'-2"	18'-6"	17'-10"	17'-4"
3-1/2 x 16	25'-3"	24'-0"	22'-10"	21'-11"	21'-1"	20'-4"	19'-9"
2-ply 1-3/4 x 18	28'-5"	26'-11"	25'-8"	24'-7"	23'-8"	22'-11"	22'-2"
5-1/4 x 9-1/2	17'-4"	16'-5"	15'-8"	15'-1"	14'-6"	14'-0"	13'-7"
5-1/4 x 11-7/8	21'-7"	20'-6"	19'-7"	18'-9"	18'-1"	17'-5"	16'-11"
5-1/4 x 14	25'-5"	24'-1"	23'-0"	22'-1"	21'-3"	20'-6"	19'-11"
5-1/4 x 16	29'-0"	27'-6"	26'-3"	25'-2"	24'-3"	23'-5"	22'-8"
3-ply 1-3/4 x 18	32'-7"	30'-11"	29'-6"	28'-3"	27'-3"	26'-4"	25'-6"

DRY USE – 60 PSF LIVE LOAD AND 10 PSF DEAD LOAD – L/360

Size [in]	Deck Joist Overall Length with 2' Cantilever [ft]						
	6	8	10	12	14	16	18
	Deck Joist Overall Length [ft]						
	10	12	14	16	18	20	22
3-1/2 x 9-1/2	13'-2"	12'-6"	11'-11"	11'-5"	11'-0"	10'-7"	10'-3"
3-1/2 x 11-7/8	16'-5"	15'-7"	14'-10"	14'-3"	13'-8"	13'-2"	12'-10"
3-1/2 x 14	19'-3"	18'-4"	17'-5"	16'-9"	16'-1"	15'-6"	15'-0"
3-1/2 x 16	22'-0"	20'-10"	19'-11"	19'-1"	18'-4"	17'-9"	17'-2"
2-ply 1-3/4 x 18	24'-9"	23'-5"	22'-4"	21'-5"	20'-7"	19'-11"	19'-3"
5-1/4 x 9-1/2	15'-1"	14'-4"	13'-8"	13'-1"	12'-8"	12'-2"	11'-10"
5-1/4 x 11-7/8	18'-10"	17'-10"	17'-0"	16'-4"	15'-9"	15'-2"	14'-9"
5-1/4 x 14	22'-2"	21'-0"	20'-0"	19'-2"	18'-6"	17'-10"	17'-4"
5-1/4 x 16	25'-3"	24'-0"	22'-10"	21'-11"	21'-1"	20'-4"	19'-9"
3-ply 1-3/4 x 18	28'-5"	26'-11"	25'-8"	24'-7"	23'-8"	22'-11"	22'-2"

### Notes:

1. Beams spans are defined as overall length, simple spans only.
2. Bearing length must be at least 3.5".
3. Beams require support across their full thickness or width.
4. Beam spans are based upon 100% duration of load.
5. Use the Exact by PWT software for conditions outside the scope of this guide.
6. Lateral bracing for the compression edge must be provided.
7. Provide support to prevent lateral movement and rotation at the bearings.



Installation & Maintenance instructions, on page 18, must be followed.

# PWT Treated LVL Beams Loaded at 100%

## DRY USE – ALLOWABLE UNIFORM LOADS – POUNDS PER LINEAL FOOT

Span (ft)	1-3/4" Beam							
	9-1/2"		11-7/8"		14"		16"	
	LL (plf)	TL (plf)						
	Bearing (in)		Bearing (in)		Bearing (in)		Bearing (in)	
8	628	769	-	1010	-	1248	-	1494
	2.1 / 5.2		2.8 / 6.8		3.5 / 8.4		4.2 / 10.1	
10	337	502	628	763	-	932	-	1102
	1.7 / 4.3		2.6 / 6.5		3.2 / 7.9		3.8 / 9.3	
12	200	297	379	528	599	712	860	873
	1.5 / 3		2.2 / 5.4		3 / 7.2		3.6 / 8.9	
14	128	188	244	361	390	521	566	664
	1.5 / 3		1.7 / 4.3		2.5 / 6.2		3.2 / 7.9	
16	87	126	166	244	267	395	390	506
	1.5 / 3		1.5 / 3.4		2.2 / 5.4		2.8 / 6.9	
18	61	88	118	172	190	280	279	398
	1.5 / 3		1.5 / 3		1.7 / 4.3		2.5 / 6.1	
20			87	125	140	204	207	303
			1.5 / 3		1.5 / 3.5		2.1 / 5.2	
22			65	93	106	153	157	228
			1.5 / 3		1.5 / 3		1.8 / 4.3	
24			51	71	82	117	122	176
			1.5 / 3		1.5 / 3		1.5 / 3.7	
26					65	91	96	137
					1.5 / 3		1.5 / 3.2	
28					52	72	77	109
					1.5 / 3		1.5 / 3	
30							63	88
							1.5 / 3	
32							52	71
							1.5 / 3	
34								
36								

### Table Usage:

1. Select the required Span.
2. Divide the design loads by the desired number of plies to verify each ply of the beam.
3. Select a beam that exceeds the Total Load (TL) and the Live Load (LL).
4. Check the bearing length (End / Intermediate) requirements.

### Design Assumptions:

1. Span is the center-to-center distance between the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for normal (100%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/360.
5. Total deflection has been limited to L/240. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24."
7. Proper bearing must be provided. Bearing lengths are based on the strength of the PWT Treated LVL (850 psi).

### Additional Notes:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load (TL) and the appropriate Live Load (LL) column.
3. Where the Live Load (LL) is blank, the Total Load (TL) governs the design.
4. If connecting multiple plies the member width shall be properly connected. Refer to the multiple-ply connections on page 16.
5. Do not use a product where the values are blank, " ", without further analysis by a design professional.

**Installation & Maintenance instructions, on  
page 18, must be followed.**

# PWT Treated LVL Beams Loaded at 100%

## DRY USE – ALLOWABLE UNIFORM LOADS – POUNDS PER LINEAL FOOT

Span (ft)	3-1/2" Beam or 2-ply									
	9-1/2"		11-7/8"		14"		16"		18"	
	LL (plf) Bearing (in)	TL (plf)								
8	1257	1538	-	2021	-	2497	-	2989	-	3530
	2.1 / 5.2		2.8 / 6.8		3.5 / 8.4		4.2 / 10.1		5 / 11.9	
10	675	1005	1257	1526	-	1864	-	2205	-	2571
	1.7 / 4.3		2.6 / 6.5		3.2 / 7.9		3.8 / 9.3		4.5 / 10.9	
12	401	594	758	1057	1198	1424	1721	1746	-	2021
	1.5 / 3		2.2 / 5.4		3 / 7.2		3.6 / 8.9		4.2 / 10.3	
14	257	377	489	723	780	1043	1132	1328	1561	1643
	1.5 / 3		1.7 / 4.3		2.5 / 6.2		3.2 / 7.9		4 / 9.8	
16	174	252	333	489	535	790	780	1013	1084	1254
	1.5 / 3		1.5 / 3.4		2.2 / 5.4		2.8 / 6.9		3.5 / 8.5	
18	123	176	237	344	381	560	559	797	780	987
	1.5 / 3		1.5 / 3		1.7 / 4.3		2.5 / 6.1		3.1 / 7.6	
20	90	127	174	250	281	409	414	606	579	796
	1.5 / 3		1.5 / 3		1.5 / 3.5		2.1 / 5.2		2.8 / 6.8	
22	68	93	131	186	213	307	314	457	441	646
	1.5 / 3		1.5 / 3		1.5 / 3		1.8 / 4.4		2.5 / 6.1	
24	52	70	102	142	165	235	244	352	343	499
	1.5 / 3		1.5 / 3		1.5 / 3		1.5 / 3.7		2.1 / 5.2	
26			80	110	130	183	193	275	272	392
			1.5 / 3		1.5 / 3		1.5 / 3.2		1.8 / 4.5	
28			64	86	105	145	155	219	219	313
			1.5 / 3		1.5 / 3		1.5 / 3		1.6 / 3.9	
30					85	116	127	176	179	253
					1.5 / 3		1.5 / 3		1.5 / 3.4	
32					70	93	105	143	148	206
					1.5 / 3		1.5 / 3		1.5 / 3	
34					59	76	87	117	124	170
					1.5 / 3		1.5 / 3		1.5 / 3	
36							74	96	105	141
							1.5 / 3		1.5 / 3	

### Table Usage:

1. Select the required Span.
2. Divide the design loads by the desired number of plies to verify each ply of the beam.
3. Select a beam that exceeds the Total Load (TL) and the Live Load (LL).
4. Check the bearing length (End / Intermediate) requirements.

### Design Assumptions:

1. Span is the center-to-center distance between the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for normal (100%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/360.
5. Total deflection has been limited to L/240. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24."
7. Proper bearing must be provided. Bearing lengths are based on the strength of the PWT Treated LVL (850 psi).

### Additional Notes:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load (TL) and the appropriate Live Load (LL) column.
3. Where the Live Load (LL) is blank, the Total Load (TL) governs the design.
4. If connecting multiple plies the member width shall be properly connected. Refer to the multiple-ply connections on page 16.
5. Do not use a product where the values are blank, " ", without further analysis by a design professional.

**Installation & Maintenance instructions, on  
page 18, must be followed.**

# PWT Treated LVL Beams Loaded at 100%

## DRY USE – ALLOWABLE UNIFORM LOADS – POUNDS PER LINEAL FOOT

Span (ft)	5-1/4" Beam or 3-ply									
	9-1/2"		11-7/8"		14"		16"		18"	
	LL (plf) Bearing (in)	TL (plf)								
8	1886	2237	-	3032	-	3746	-	4484	-	5295
	2.1 / 5		2.8 / 6.8		3.5 / 8.4		4.2 / 10.1		5 / 11.9	
10	1013	1506	1886	2290	-	2797	-	3308	-	3857
	1.7 / 4.3		2.6 / 6.5		3.2 / 7.9		3.8 / 9.3		4.5 / 10.9	
12	602	890	1137	1586	1797	2136	2582	2619	-	3031
	1.5 / 3		2.2 / 5.4		3 / 7.2		3.6 / 8.9		4.2 / 10.3	
14	386	564	734	1085	1171	1564	1698	1992	2342	2465
	1.5 / 3		1.7 / 4.3		2.5 / 6.2		3.2 / 7.9		4 / 9.8	
16	261	377	500	734	802	1185	1171	1520	1626	1881
	1.5 / 3		1.5 / 3.4		2.2 / 5.4		2.8 / 6.9		3.5 / 8.5	
18	185	263	355	517	572	840	839	1196	1171	1481
	1.5 / 3		1.5 / 3		1.7 / 4.3		2.5 / 6.1		3.1 / 7.6	
20	135	189	261	376	422	614	621	910	869	1195
	1.5 / 3		1.5 / 3		1.5 / 3.5		2.1 / 5.2		2.8 / 6.8	
22	102	139	197	280	320	461	472	686	662	969
	1.5 / 3		1.5 / 3		1.5 / 3		1.8 / 4.4		2.5 / 6.1	
24	79	104	153	213	248	353	366	528	515	749
	1.5 / 3		1.5 / 3		1.5 / 3		1.5 / 3.7		2.1 / 5.2	
26	62	79	120	165	196	275	290	413	409	589
	1.5 / 3		1.5 / 3		1.5 / 3		1.5 / 3.2		1.8 / 4.5	
28			97	129	157	217	233	328	329	470
			1.5 / 3		1.5 / 3		1.5 / 3		1.6 / 3.9	
30			79	102	128	174	190	264	269	379
			1.5 / 3		1.5 / 3		1.5 / 3		1.5 / 3.4	
32			65	81	106	140	157	214	223	310
			1.5 / 3		1.5 / 3		1.5 / 3		1.5 / 3	
34					88	114	131	176	186	255
					1.5 / 3		1.5 / 3		1.5 / 3	
36					75	93	111	145	157	212
					1.5 / 3		1.5 / 3		1.5 / 3	

### Table Usage:

1. Select the required Span.
2. Divide the design loads by the desired number of plies to verify each ply of the beam.
3. Select a beam that exceeds the Total Load (TL) and the Live Load (LL).
4. Check the bearing length (End / Intermediate) requirements.

### Design Assumptions:

1. Span is the center-to-center distance between the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for normal (100%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/360.
5. Total deflection has been limited to L/240. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24."
7. Proper bearing must be provided. Bearing lengths are based on the strength of the PWT Treated LVL (850 psi).

### Additional Notes:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load (TL) and the appropriate Live Load (LL) column.
3. Where the Live Load (LL) is blank, the Total Load (TL) governs the design.
4. If connecting multiple plies the member width shall be properly connected. Refer to the multiple-ply connections on page 16.
5. Do not use a product where the values are blank, " ", without further analysis by a design professional.

Installation & Maintenance instructions, on  
page 18, must be followed.

# PWT Treated LVL Beams Loaded at 115%

## DRY USE – ALLOWABLE UNIFORM LOADS – POUNDS PER LINEAL FOOT

Span (ft)	1-3/4" Beam							
	9-1/2"		11-7/8"		14"		16"	
	LL (plf)	TL (plf)						
	Bearing (in)		Bearing (in)		Bearing (in)		Bearing (in)	
8	-	885	-	1163	-	1437	-	1720
	2.5 / 6		3.2 / 7.9		4 / 9.7		4.9 / 11.6	
10	506	587	-	878	-	1073	-	1269
	2 / 5		3 / 7.4		3.7 / 9.1		4.4 / 10.7	
12	301	397	568	609	-	819	-	1005
	1.6 / 4		2.5 / 6.2		3.4 / 8.3		4.2 / 10.2	
14	193	253	367	446	585	600	-	764
	1.5 / 3		2.2 / 5.3		2.9 / 7.1		3.7 / 9.1	
16	130	170	250	328	401	458	-	583
	1.5 / 3		1.8 / 4.5		2.5 / 6.2		3.2 / 7.9	
18	92	119	177	231	286	360	419	459
	1.5 / 3		1.5 / 3.6		2.2 / 5.5		2.9 / 7.1	
20	67	86	130	168	211	275	310	371
	1.5 / 3		1.5 / 3		1.9 / 4.7		2.6 / 6.4	
22			98	126	160	207	236	305
			1.5 / 3		1.6 / 3.9		2.3 / 5.8	
24			76	96	124	159	183	237
			1.5 / 3		1.5 / 3.3		2 / 4.9	
26			60	75	98	124	145	186
			1.5 / 3		1.5 / 3		1.7 / 4.2	
28					78	98	116	148
					1.5 / 3		1.5 / 3.7	
30					64	79	95	119
					1.5 / 3		1.5 / 3.2	
32							78	97
							1.5 / 3	
34							65	80
							1.5 / 3	
36								

### Table Usage:

1. Select the required Span.
2. Divide the design loads by the desired number of plies to verify each ply of the beam.
3. Select a beam that exceeds the Total Load (TL) and the Live Load (LL).
4. Check the bearing length (End / Intermediate) requirements.

### Design Assumptions:

1. Span is the center-to-center distance between the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for Snow (115%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/240.
5. Total deflection has been limited to L/180. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24."
7. Proper bearing must be provided. Bearing lengths are based on the strength of the PWT Treated LVL (850 psi).

### Additional Notes:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load (TL) and the appropriate Live Load (LL) column.
3. Where the Live Load (LL) is blank, the Total Load (TL) governs the design.
4. If connecting multiple plies the member width shall be properly connected. Refer to the multiple-ply connections on page 16.
5. Do not use a product where the values are blank, " ", without further analysis by a design professional.

**Installation & Maintenance instructions, on  
page 18, must be followed.**

# PWT Treated LVL Beams Loaded at 115%

## DRY USE – ALLOWABLE UNIFORM LOADS – POUNDS PER LINEAL FOOT

Span (ft)	3-1/2" Beam or 2-ply									
	9-1/2"		11-7/8"		14"		16"		18"	
	LL (plf) Bearing (in)	TL (plf)								
8	-	1770	-	2326	-	2874	-	3440	-	3553
	2.5 / 6		3.2 / 7.9		4 / 9.7		4.9 / 11.6		5.1 / 12	
10	1013	1175	-	1757	-	2146	-	2539	-	2839
	2 / 5		3 / 7.4		3.7 / 9.1		4.4 / 10.7		5 / 12	
12	602	795	1137	1218	-	1639	-	2010	-	2326
	1.6 / 4.1		2.5 / 6.2		3.4 / 8.3		4.2 / 10.2		4.9 / 11.8	
14	386	506	734	892	1171	1201	-	1529	-	1892
	1.5 / 3		2.2 / 5.3		2.9 / 7.1		3.7 / 9.1		4.6 / 11.2	
16	261	340	500	656	802	916	-	1167	-	1445
	1.5 / 3		1.8 / 4.5		2.5 / 6.2		3.2 / 7.9		4 / 9.8	
18	185	238	355	463	572	721	839	919	-	1138
	1.5 / 3		1.5 / 3.6		2.2 / 5.5		2.9 / 7.1		3.5 / 8.7	
20	135	172	261	337	422	550	621	742	869	918
	1.5 / 3		1.5 / 3		1.9 / 4.7		2.6 / 6.4		3.2 / 7.9	
22	102	127	197	252	320	414	472	610	662	756
	1.5 / 3		1.5 / 3		1.6 / 3.9		2.3 / 5.8		2.9 / 7.1	
24	79	96	153	193	248	318	366	474	515	633
	1.5 / 3		1.5 / 3		1.5 / 3.3		2 / 4.9		2.6 / 6.5	
26	62	74	120	150	196	249	290	372	409	529
	1.5 / 3		1.5 / 3		1.5 / 3		1.7 / 4.2		2.4 / 6	
28			97	118	157	197	233	297	329	423
			1.5 / 3		1.5 / 3		1.5 / 3.7		2.1 / 5.2	
30			79	94	128	158	190	239	269	343
			1.5 / 3		1.5 / 3		1.5 / 3.2		1.8 / 4.5	
32			65	76	106	129	157	195	223	281
			1.5 / 3		1.5 / 3		1.5 / 3		1.6 / 4	
34					88	105	131	161	186	232
					1.5 / 3		1.5 / 3		1.5 / 3.5	
36					75	87	111	134	157	194
					1.5 / 3		1.5 / 3		1.5 / 3.2	

### Table Usage:

1. Select the required Span.
2. Divide the design loads by the desired number of plies to verify each ply of the beam.
3. Select a beam that exceeds the Total Load (TL) and the Live Load (LL).
4. Check the bearing length (End / Intermediate) requirements.

### Design Assumptions:

1. Span is the center-to-center distance between the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for Snow (115%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/240.
5. Total deflection has been limited to L/180. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24."
7. Proper bearing must be provided. Bearing lengths are based on the strength of the PWT Treated LVL (850 psi).

### Additional Notes:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load (TL) and the appropriate Live Load (LL) column.
3. Where the Live Load (LL) is blank, the Total Load (TL) governs the design.
4. If connecting multiple plies the member width shall be properly connected. Refer to the multiple-ply connections on page 16.
5. Do not use a product where the values are blank, " ", without further analysis by a design professional.

**Installation & Maintenance instructions, on  
page 18, must be followed.**

# PWT Treated LVL Beams Loaded at 115%

## DRY USE – ALLOWABLE UNIFORM LOADS – POUNDS PER LINEAL FOOT

Span (ft)	5-1/4" Beam or 3-ply									
	9-1/2"		11-7/8"		14"		16"		18"	
	LL (plf) Bearing (in)	TL (plf)								
8	-	2655	-	3489	-	4311	-	5160	-	5330
	2.5 / 6		3.2 / 7.9		4 / 9.7		4.9 / 11.6		5.1 / 12	
10	1520	1763	-	2636	-	3219	-	3808	-	4259
	2 / 5		3 / 7.4		3.7 / 9.1		4.4 / 10.7		5 / 12	
12	904	1192	1706	1827	-	2459	-	3016	-	3490
	1.6 / 4.1		2.5 / 6.2		3.4 / 8.3		4.2 / 10.2		4.9 / 11.8	
14	579	759	1102	1338	1757	1802	-	2294	-	2838
	1.5 / 3		2.2 / 5.3		2.9 / 7.1		3.7 / 9.1		4.6 / 11.2	
16	392	510	750	984	1204	1375	-	1751	-	2167
	1.5 / 3		1.8 / 4.5		2.5 / 6.2		3.2 / 7.9		4 / 9.8	
18	277	357	533	695	859	1082	1259	1379	-	1707
	1.5 / 3		1.5 / 3.6		2.2 / 5.6		2.9 / 7.1		3.5 / 8.7	
20	203	258	392	506	633	825	931	1113	1304	1378
	1.5 / 3		1.5 / 3		1.9 / 4.7		2.6 / 6.4		3.2 / 7.9	
22	153	191	296	379	480	621	708	916	994	1134
	1.5 / 3		1.5 / 3		1.6 / 3.9		2.3 / 5.8		2.9 / 7.1	
24	118	145	229	289	372	477	550	711	773	949
	1.5 / 3		1.5 / 3		1.5 / 3.3		2 / 4.9		2.6 / 6.5	
26	93	111	181	225	294	373	435	558	613	793
	1.5 / 3		1.5 / 3		1.5 / 3		1.7 / 4.2		2.4 / 6	
28	75	87	145	177	236	296	350	445	494	635
	1.5 / 3		1.5 / 3		1.5 / 3		1.5 / 3.7		2.1 / 5.2	
30			118	141	193	238	286	359	404	514
			1.5 / 3		1.5 / 3		1.5 / 3.2		1.8 / 4.5	
32			97	114	159	193	236	293	334	421
			1.5 / 3		1.5 / 3		1.5 / 3		1.6 / 4	
34			81	92	133	158	197	242	280	348
			1.5 / 3		1.5 / 3		1.5 / 3		1.5 / 3.5	
36			68	75	112	130	167	201	236	291
			1.5 / 3		1.5 / 3		1.5 / 3		1.5 / 3.2	

### Table Usage:

1. Select the required Span.
2. Divide the design loads by the desired number of plies to verify each ply of the beam.
3. Select a beam that exceeds the Total Load (TL) and the Live Load (LL).
4. Check the bearing length (End / Intermediate) requirements.

### Design Assumptions:

1. Span is the center-to-center distance between the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for Snow (115%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/240.
5. Total deflection has been limited to L/180. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24."
7. Proper bearing must be provided. Bearing lengths are based on the strength of the PWT Treated LVL (850 psi).

### Additional Notes:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load (TL) and the appropriate Live Load (LL) column.
3. Where the Live Load (LL) is blank, the Total Load (TL) governs the design.
4. If connecting multiple plies the member width shall be properly connected. Refer to the multiple-ply connections on page 16.
5. Do not use a product where the values are blank, " ", without further analysis by a design professional.

**Installation & Maintenance instructions, on  
page 18, must be followed.**

# PWT Treated LVL Beams Loaded at 125%

## DRY USE – ALLOWABLE UNIFORM LOADS – POUNDS PER LINEAL FOOT

Span (ft)	1-3/4" Beam							
	9-1/2"		11-7/8"		14"		16"	
	LL (plf)	TL (plf)						
	Bearing (in)		Bearing (in)		Bearing (in)		Bearing (in)	
8	943	962	-	1264	-	1562	-	1777
	2.7 / 6.5		3.5 / 8.5		4.4 / 10.5		5 / 12	
10	506	639	943	955	-	1167	-	1380
	2.2 / 5.4		3.3 / 8.1		4.1 / 9.9		4.9 / 11.7	
12	301	397	568	662	-	891	-	1093
	1.6 / 4		2.7 / 6.7		3.7 / 9		4.6 / 11.1	
14	193	253	367	484	585	653	-	831
	1.5 / 3		2.3 / 5.8		3.2 / 7.8		4 / 9.9	
16	130	170	250	328	401	498	585	635
	1.5 / 3		1.8 / 4.5		2.8 / 6.8		3.5 / 8.6	
18	92	119	177	231	286	375	419	500
	1.5 / 3		1.5 / 3.6		2.3 / 5.8		3.1 / 7.7	
20	67	86	130	168	211	275	310	403
	1.5 / 3		1.5 / 3		1.9 / 4.7		2.8 / 6.9	
22			98	126	160	207	236	307
			1.5 / 3		1.6 / 3.9		2.3 / 5.8	
24			76	96	124	159	183	237
			1.5 / 3		1.5 / 3.3		2 / 4.9	
26			60	75	98	124	145	186
			1.5 / 3		1.5 / 3		1.7 / 4.2	
28					78	98	116	148
					1.5 / 3		1.5 / 3.7	
30					64	79	95	119
					1.5 / 3		1.5 / 3.2	
32							78	97
							1.5 / 3	
34							65	80
							1.5 / 3	
36								

### Table Usage:

1. Select the required Span.
2. Divide the design loads by the desired number of plies to verify each ply of the beam.
3. Select a beam that exceeds the Total Load (TL) and the Live Load (LL).
4. Check the bearing length (End / Intermediate) requirements.

### Design Assumptions:

1. Span is the center-to-center distance between the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for Roof (125%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/240.
5. Total deflection has been limited to L/180. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24."
7. Proper bearing must be provided. Bearing lengths are based on the strength of the PWT Treated LVL (850 psi).

### Additional Notes:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load (TL) and the appropriate Live Load (LL) column.
3. Where the Live Load (LL) is blank, the Total Load (TL) governs the design.
4. If connecting multiple plies the member width shall be properly connected. Refer to the multiple-ply connections on page 16.
5. Do not use a product where the values are blank, " ", without further analysis by a design professional.

**Installation & Maintenance instructions, on  
page 18, must be followed.**

# PWT Treated LVL Beams Loaded at 125%

## DRY USE – ALLOWABLE UNIFORM LOADS – POUNDS PER LINEAL FOOT

Span (ft)	3-1/2" Beam or 2-ply									
	9-1/2"		11-7/8"		14"		16"		18"	
	LL (plf) Bearing (in)	TL (plf)								
8	1886	1925	-	2529	-	3125	-	3555	-	3553
	2.7 / 6.5		3.5 / 8.5		4.4 / 10.5		5.1 / 12		5.1 / 12	
10	1013	1278	1886	1911	-	2334	-	2761	-	2839
	2.2 / 5.4		3.3 / 8.1		4.1 / 9.9		4.9 / 11.7		5 / 12	
12	602	795	1137	1324	-	1783	-	2186	-	2363
	1.6 / 4.1		2.7 / 6.7		3.7 / 9.1		4.6 / 11.1		5 / 12	
14	386	506	734	968	1171	1307	-	1663	-	2023
	1.5 / 3		2.3 / 5.8		3.2 / 7.8		4 / 9.9		4.9 / 12	
16	261	340	500	656	802	997	1171	1270	-	1572
	1.5 / 3		1.8 / 4.5		2.8 / 6.8		3.5 / 8.6		4.4 / 10.7	
18	185	238	355	463	572	751	839	1000	1171	1238
	1.5 / 3		1.5 / 3.6		2.3 / 5.8		3.1 / 7.7		3.9 / 9.5	
20	135	172	261	337	422	550	621	807	869	1000
	1.5 / 3		1.5 / 3		1.9 / 4.7		2.8 / 6.9		3.5 / 8.5	
22	102	127	197	252	320	414	472	614	662	823
	1.5 / 3		1.5 / 3		1.6 / 3.9		2.3 / 5.8		3.1 / 7.8	
24	79	96	153	193	248	318	366	474	515	671
	1.5 / 3		1.5 / 3		1.5 / 3.3		2 / 4.9		2.8 / 6.9	
26	62	74	120	150	196	249	290	372	409	529
	1.5 / 3		1.5 / 3		1.5 / 3		1.7 / 4.2		2.4 / 6	
28			97	118	157	197	233	297	329	423
			1.5 / 3		1.5 / 3		1.5 / 3.7		2.1 / 5.2	
30			79	94	128	158	190	239	269	343
			1.5 / 3		1.5 / 3		1.5 / 3.2		1.8 / 4.5	
32			65	76	106	129	157	195	223	281
			1.5 / 3		1.5 / 3		1.5 / 3		1.6 / 4	
34					88	105	131	161	186	232
					1.5 / 3		1.5 / 3		1.5 / 3.5	
36					75	87	111	134	157	194
					1.5 / 3		1.5 / 3		1.5 / 3.2	

### Table Usage:

1. Select the required Span.
2. Divide the design loads by the desired number of plies to verify each ply of the beam.
3. Select a beam that exceeds the Total Load (TL) and the Live Load (LL).
4. Check the bearing length (End / Intermediate) requirements.

### Design Assumptions:

1. Span is the center-to-center distance between the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for Roof (125%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/240.
5. Total deflection has been limited to L/180. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24."
7. Proper bearing must be provided. Bearing lengths are based on the strength of the PWT Treated LVL (850 psi).

### Additional Notes:

1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load (TL) and the appropriate Live Load (LL) column.
3. Where the Live Load (LL) is blank, the Total Load (TL) governs the design.
4. If connecting multiple plies the member width shall be properly connected. Refer to the multiple-ply connections on page 16.
5. Do not use a product where the values are blank, " ", without further analysis by a design professional.

**Installation & Maintenance instructions, on  
page 18, must be followed.**

# PWT Treated LVL Beams Loaded at 125%

## DRY USE – ALLOWABLE UNIFORM LOADS – POUNDS PER LINEAL FOOT

Span (ft)	5-1/4" Beam or 3-ply									
	9-1/2"		11-7/8"		14"		16"		18"	
	LL (plf) Bearing (in)	TL (plf)								
8	2830	2887	-	3794	-	4688	-	5333	-	5330
	2.7 / 6.5		3.5 / 8.5		4.4 / 10.5		5.1 / 12		5.1 / 12	
10	1520	1917	2830	2867	-	3501	-	4141	-	4259
	2.2 / 5.4		3.3 / 8.1		4.1 / 9.9		4.9 / 11.7		5 / 12	
12	904	1192	1706	1987	-	2675	-	3280	-	3545
	1.6 / 4.1		2.7 / 6.7		3.7 / 9.1		4.6 / 11.1		5 / 12	
14	579	759	1102	1453	1757	1960	-	2495	-	3035
	1.5 / 3		2.3 / 5.8		3.2 / 7.8		4 / 9.9		4.9 / 12	
16	392	510	750	984	1204	1496	1757	1905	-	2358
	1.5 / 3		1.8 / 4.5		2.8 / 6.8		3.5 / 8.6		4.4 / 10.7	
18	277	357	533	695	859	1126	1259	1501	1757	1858
	1.5 / 3		1.5 / 3.6		2.3 / 5.8		3.1 / 7.7		3.9 / 9.5	
20	203	258	392	506	633	825	931	1211	1304	1500
	1.5 / 3		1.5 / 3		1.9 / 4.7		2.8 / 6.9		3.5 / 8.5	
22	153	191	296	379	480	621	708	922	994	1235
	1.5 / 3		1.5 / 3		1.6 / 3.9		2.3 / 5.8		3.1 / 7.8	
24	118	145	229	289	372	477	550	711	773	1007
	1.5 / 3		1.5 / 3		1.5 / 3.3		2 / 4.9		2.8 / 6.9	
26	93	111	181	225	294	373	435	558	613	793
	1.5 / 3		1.5 / 3		1.5 / 3		1.7 / 4.2		2.4 / 6	
28	75	87	145	177	236	296	350	445	494	635
	1.5 / 3		1.5 / 3		1.5 / 3		1.5 / 3.7		2.1 / 5.2	
30			118	141	193	238	286	359	404	514
			1.5 / 3		1.5 / 3		1.5 / 3.2		1.8 / 4.5	
32			97	114	159	193	236	293	334	421
			1.5 / 3		1.5 / 3		1.5 / 3		1.6 / 4	
34			81	92	133	158	197	242	280	348
			1.5 / 3		1.5 / 3		1.5 / 3		1.5 / 3.5	
36			68	75	112	130	167	201	236	291
			1.5 / 3		1.5 / 3		1.5 / 3		1.5 / 3.2	

### Table Usage:

1. Select the required Span.
2. Divide the design loads by the desired number of plies to verify each ply of the beam.
3. Select a beam that exceeds the Total Load (TL) and the Live Load (LL).
4. Check the bearing length (End / Intermediate) requirements.

### Design Assumptions:

1. Span is the center-to-center distance between the supports and is valid for simple or equal, continuous span applications.
2. The values in the tables are for uniform loads only.
3. Total Load is for Roof (125%) duration and has been adjusted to account for the self-weight of the member.
4. Live Load deflection has been limited to L/240.
5. Total deflection has been limited to L/180. Long term deflection (creep) has not been considered.
6. These tables assume full lateral support of the compression edge. Full support is considered to be a maximum unbraced length of 24."
7. Proper bearing must be provided. Bearing lengths are based on the strength of the PWT Treated LVL (850 psi).

### Additional Notes:

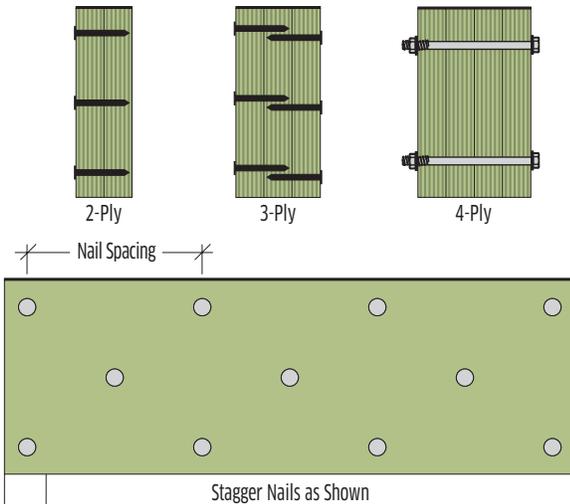
1. The allowable loads represent the capacity of the member in pounds per lineal foot (plf) of length.
2. The designer shall check both the Total Load (TL) and the appropriate Live Load (LL) column.
3. Where the Live Load (LL) is blank, the Total Load (TL) governs the design.
4. If connecting multiple plies the member width shall be properly connected. Refer to the multiple-ply connections on page 16.
5. Do not use a product where the values are blank, " ", without further analysis by a design professional.

**Installation & Maintenance instructions, on  
page 18, must be followed.**

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# PWT Treated Multiple-Ply Beam Assembly Combinations of 1 3/4" Plies

## NAILS AND BOLTS



### ALLOWABLE UNIFORM SIDE LOAD (PLF)

Number of Plies w/ Thickness	3-1/4" x 0.131" Nails		16d Common Nails 3-1/2" x 0.162"	
	2 Rows at 12" o.c.	3 Rows at 12" o.c.	2 Rows at 12" o.c.	3 Rows at 12" o.c.
2-Ply (2-1-3/4")	390	585	565	845
3-Ply (3-1-3/4")	290	435	425	635
4-Ply (4-1-3/4")	Use bolts for this condition (see note 1).			

#### Notes:

- For 1-1/2" thick PWT Treated LVL, the Maximum Uniform Side Loads must be multiplied by 0.86.
- The table values for nails may be doubled for 6" o.c. and tripled for 4" o.c. nail spacings.
- The nail schedules shown apply to both sides of a three-ply beam.
- The table values apply to bolts meeting the requirements of ANSI/ASME Standard B18.2.1. A standard cut washer, or metal plate or strap of equal or greater dimensions, shall be provided between the wood and the bolt head and between the wood and the nut. The distance from the edge of the beam to the bolt holes must be at least 2" for 1-1/2" bolts. Bolt holes shall be the same diameter as the bolt.
- 7" wide beams must be equally loaded from both sides and/or top loaded.
- Beams wider than 7" must be designed by the engineer of record.
- Load duration factors may be applied to the table values.
- For proprietary fastener alternatives, consult the manufacturer's literature.

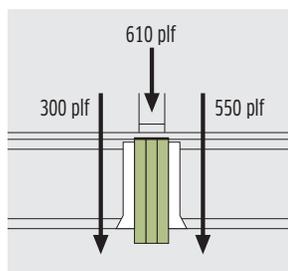
#### Minimum fastener schedule for top-loaded beams:

- 2-ply and 3-ply beams 12" deep or less: 2 rows 3-1/4" x 0.131" at 12" o.c.
- 2-ply and 3-ply beams deeper than 12": 3 rows 3-1/4" x 0.131" at 12" o.c.
- 4-ply, all beam depths: 2 rows 1-1/2" bolts at 24" o.c.

## How to Use the Maximum Uniform Side Load Table

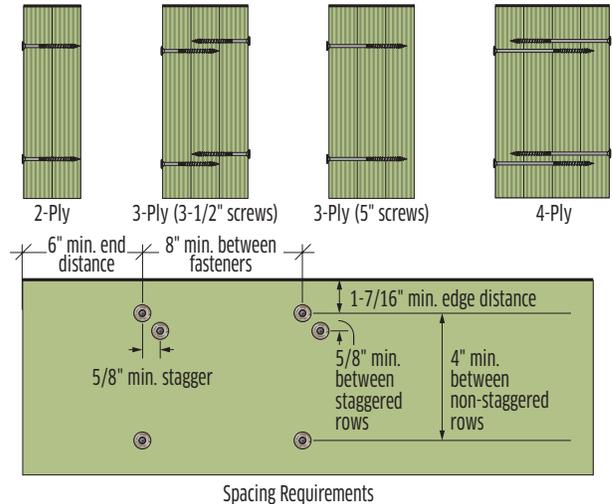
### EXAMPLE: THREE 1-3/4" PLIES LOADED FROM BOTH SIDES AND ABOVE

- Use allowable load tables or Exacte by PWT software to size the beam to carry a total load of (300 + 610 + 550) = 1460 plf.
- Select the row based on the number of plies being designed. 3-Ply (3-1 3/4") for this example. Scan across the row from left to right for a table value greater than 550 plf, which is the greatest side load carried by the beam. The fourth value in the row indicates that 3 rows of 16d common nails at 12" o.c. will accommodate a side load of 635 plf, which is greater than the 550 plf required. Use 3 rows of 16d common nails at 12" o.c., from both sides, to assemble the beam.



All fasteners and carrying hardware must be exterior type and code accepted. See [strongtie.com/deckcenter](http://strongtie.com/deckcenter) for more information.

## STRONG-DRIVE® SDWS TIMBER SCREWS



### ALLOWABLE UNIFORM LOAD APPLIED TO EITHER OUTSIDE MEMBER (PLF)

Number of Plies	Nominal Screw Length [in]	Structural Composite Lumber					
		SDWS Timber Screws @ 12" o.c.		SDWS Timber Screws @ 16" o.c.		SDWS Timber Screws @ 24" o.c.	
		2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows
2-ply	3-1/2	1020	1530	765	1148	510	765
3-ply	3-1/2	765	1148	574	861	383	574
3-ply	5	1215	1823	911	1367	608	911
4-ply	6	1080	1620	810	1215	540	810

#### Notes:

- Each ply is assumed to carry load in proportion to its width.
- Loads may be applied to either the head side and/or point side concurrently.
- Tables are based on Simpson Strong-Tie Fastening Systems Catalog C-F-2019TECHSUP.
- Please consult [strongtie.com](http://strongtie.com) for the latest fastener details and data.

### SCREW DATA

Model No.	Nominal Screw Length [in]	Thread Length [in]
SDWS22312DBB	3-1/2	1-1/2
SDWS22500DB	5	2-3/4
SDWS22600DB	6	2-3/4

#### Notes:

- The SDWS TIMBER screws listed are coated with double-barrier coating that provides corrosion resistance equivalent to hot-dip galvanization, making them suitable for certain exterior and preservative-treated wood applications as described in the evaluation report.

## Installation

- SDWS TIMBER screws install best with a low speed 1/2" drill and a T-40 6-lobe bit. The matched bit included with the screws is recommended for best results.
- Screw heads that are countersunk flush to the wood surface are acceptable if the screw has not spun out.
- Individual screw locations may be adjusted up to 3" to avoid conflicts with other hardware or to avoid lumber defects.

Installation & Maintenance instructions, on page 18, must be followed.

# Fastener Guidelines

## Proper connectors and fasteners:

*Pre-drilling may reduce splitting.*

Appropriate connectors and fasteners must be used for the conditions-of-use to avoid failure due to corrosion or overloading.

In all exterior applications or any other conditions where excess moisture is present, high quality, exterior grade, stainless steel or hot dipped galvanized or durable grade fasteners are required.

### SCREWS

LVL Thickness	LVL Depth	LVL Orientation	Screw Size	Shank Diameter [in]	Minimum End Distance [in]	Minimum Screw Spacing [in]		
1-1/2" Minimum	All	Edge	#7	0.128	0.5	1		
			#8	0.130	0.75	1.5		
			#9	0.134	1.75	3		
			#10 SD Connector*	0.169	0.75	2		
#12 and larger sizes not recommended								
1-3/4" Minimum	7-1/4" Minimum	Edge	#10 SD Connector	0.169	3	3		
			#12	0.175	3	3		
			LedgerLOK	0.230	3	3		
			0.25**	0.250	3	3		
			0.27**	0.270	3	3		
1-1/2" Minimum	All	Face	3/8 x 4" Lag*	0.375	3	3		
			#8	0.130	0.75	2		
			#9	0.134	1.75	3		
			#10 SD Connector	0.169	2.5	5		
1-3/4" Minimum	All	Face	#12	0.175	2.5	4		
			predrilling recommended for larger sizes					
			LedgerLOK	0.230	2.5	3		
			0.25"	0.250	2.5	2		
			0.27**	0.276	2.5	3		
3/8 x 4" Lag*	0.375	3	4					

#### Notes:

1. Edge distance shall be sufficient to prevent splitting.
2. Fastener sizes and closest on-center spacing not specifically described above are beyond the scope of this publication.
3. Assumes self-tapping heads.

\*predrilling required

### NAILS

LVL Thickness	LVL Depth	LVL Orientation	Nail Size	Nail Diameter [in]	Minimum End Distance [in]	Minimum Nail Spacing [in]
1-1/2" Minimum	7-1/4" Minimum	Edge	8d & smaller	0.131	2.5	3
			10d & 12d	0.148	3.5	4
			16d	0.162	3.5	5
	All	Face	12d & smaller	0.148	1.5	3
			16d	0.162	1.5	5

#### Notes:

1. Minimum fastener spacing values apply to a single row of nails driven into the edge of LVL.
2. Edge distance shall be sufficient to prevent splitting
3. Fastener sizes and closest on-center spacing not specifically described above are beyond the scope of this publication.
4. Tabulated closest on-center spacing for face orientation is applicable to nails that are installed in rows parallel to the grain (length) of the LVL. For nails installed in rows perpendicular to the direction of grain (width/depth) of the LVL, the closest on-center spacing for face orientation shall be sufficient to prevent splitting of the LVL.

**Installation & Maintenance instructions, on page 18, must be followed.**

# PWT Treated LVL Requirements for Installation & Maintenance

## 1. Observation and installation:

Before and during construction inspect all components for damage or improper installation.

Except for sill plates, stair stringers, and ledgers, the LVL must be used for permanent construction applications only, above ground, at least 8 inches above the ground and/or ground cover and/or ground vegetation and/or splash zone, completely separated from concrete and other porous materials by using a barrier material impermeable to water in accordance with PWT's Installation Guide. Sill plates must be separated by a sill plate gasket in proper installations to avoid direct contact with concrete and the ground. Ledger must be separated from concrete by sill gasket or self-adhering butyl or rubberized-asphalt flashing. Stair stringers must be installed with a 1" standoff or uplift post base to avoid direct contact with concrete and the ground.

## 2. Preventing trapped moisture:

Fully enclosed exterior structures or assemblies must allow for moisture to escape through proper ventilation. DO NOT wrap exterior PWT Treated LVL with materials that may trap moisture, such as wood, metal, or plastic trim, without proper ventilation and drainage.

## 3. Flashing in exterior applications, including, but not limited to, deck substructures:

Flashing or approved flashing tape is required on any upward horizontal surfaces of the PWT Treated LVL. Flashing tape must have passed design standard AAMA 711-13, Level 3, Class A, perform in high and low temperature extremes, and have minimum UV protection of 90 days of exposure. Deck drainage systems that cover upward horizontal surfaces of PWT Treated LVL joists and beams, preventing wetting from occurring, are acceptable substitutions for flashing on the joists and beams. Proper flashing is required

over ledger boards to meet code. Failure to use proper flashing, approved flashing tape, and/or proper deck drainage systems will void the warranty. Failure to apply flashing in accordance with the manufacturers' written installation instructions and as required by code will void the warranty.

## 4. Maintenance in exterior applications, including, but not limited to, deck substructures:

PWT Treated LVL must not be installed or come in contact with the ground in use in a structure. Regular efforts must be made to remove debris buildup around wood members and metal connectors and fasteners. Mold fungi and mildew cause discoloration of the wood surface, commonly appearing as a colored, fuzzy or powdery surface growth that can quickly spread over surfaces with high moisture levels. Mold and mildew will not impact the strength or stiffness of a wood member, but the presence of mold indicates a high-moisture condition. Excessive moisture content for long periods can cause damage to any exterior-use wood product.

## 5. Proper connectors and fasteners:

Appropriate connectors and fasteners must be used for the conditions-of-use to avoid failure due to corrosion or overloading. In all exterior applications or any other conditions where excess moisture is present, high-quality, exterior-grade, stainless steel or hot-dipped galvanized or durable grade fasteners are required.

## 6. See Installation Guide for a complete list of installation and maintenance instructions. It can be found at [pwtewp.com/treated](http://pwtewp.com/treated).

## 7. PWT Treated LVL that is used in a way that does not satisfy all the requirements above and in the Installation Guide is not covered by this limited warranty.

## PWT Treated™ LVL 25-Year Limited Warranty

Please see [pwtewp.com/treated](http://pwtewp.com/treated) for details about PWT Treated's 25-year warranty.

# PWT Treated LVL

## Frequently Asked Questions

- 1. What is PWT Treated LVL and how does the treatment get into the wood?** Pacific Woodtech has teamed up with Kop-Coat to create the only commercially available fully treated LVL. Called “TRU-CORE® technology,” this process was developed to move treatment chemicals through wood; the migration process is accelerated when energy, such as heat from an LVL press, is added.
- 2. What is the difference between PWT Treated LVL and traditional treatment processes?** The difference is that traditional processes use VOCs and/or incising to drive treatment into only the outer 0.4” perimeter of a wood member, while the patented TRU-CORE® technology can drive treatment into the entire member (no gradient) without adding regulated mineral solvents or water-based drivers, which can affect strength and/or void warranties in engineered wood products.
- 3. So you are saying that your process treats the entire wood member uniformly throughout its cross section without adding VOCs or mineral solvents AND retains the full strength of the wood fiber? Yes.**
- 4. What Use Category would this be per the AWPAs?** PWT Treated LVL can be used in exterior construction above-ground applications (UC3B) and for components that are difficult to maintain, repair or replace and are critical to the performance and safety of the entire system.
- 5. What type of applications do you see for PWT Treated LVL?** Any above-ground interior or exterior use such as deck beams and deck joists. It is also a great product for treated sill plates, when used with a foam gasket for separation from the concrete, which is required by code. PWT Treated LVL should not be used in “ground contact.”
- 6. I thought that Douglas-fir LVL does not accept treatment well; is that true?** Many western species, including Douglas-fir, are “refractory species,” which means they have different anatomical properties, such as pore size and structure, making traditional treating processes difficult. However, when you look at the physiology of dry Douglas-fir, you will see that with some modern technology, it can be treated quite easily. Kop-Coat’s TRU-CORE® technology offers full penetration of Douglas-fir using modern preservatives. See [ESR-3834](#) for additional details.
- 7. Is the treatment still “moving” through the wood member after the LVL is shipped?** No, the treatment continues to normalize for about 24 hours after the LVL is pressed. After that time, the process has stabilized within the product.
- 8. Why hasn’t anybody done this before?** Kop-Coat developed the technology and applied for its first patent on this technology in 2004. To date, there are over 90 commercial wood treatment penetration programs across the globe. Other companies have tried to develop similar penetration technologies but have failed.
- 9. Do the active treatment chemicals degrade over time?** All organic molecules degrade over time – regardless of treatment process. The ones selected for TRU-CORE® technology retain their strength for 30 to 60 years in use – this is a significant improvement over traditional treatment processes where only the outer layer of wood fiber is treated.
- 10. How can I tell PWT Treated LVL from untreated LVL?** The LVL will also be stamped/marked “PWT TREATED” and will have a muted olive-colored sealer that is different than the standard Pacific Woodtech “honey brown” sealer on untreated LVL.
- 11. Does PWT Treated LVL have an odor?** There are no solvents or VOCs in the treatment, so the genuine smell of wood is retained.
- 12. Can PWT Treated LVL be used indoors?** Yes, the active chemicals used in the treatment process are below EPA levels for indoor use.
- 13. Do you have an SDS sheet for PWT Treated LVL?** Yes, it is posted on our website.
- 14. Is there any risk when handling PWT Treated LVL? What precautions should be taken?** The risks associated with touching/handling PWT Treated LVL are no worse than those of untreated LVL. Always wear proper PPE per the safety data sheet:
  - Handle in accordance with good industrial hygiene and safety practice.
  - Keep away from open flames, hot surfaces and sources of ignition.
  - Ensure adequate ventilation or use appropriate respiratory protection to avoid wood dust inhalation.
  - Do not eat, drink or smoke when handling this product.
  - Remove and wash contaminated clothing before reuse.
- 15. What would happen if someone were to ingest PWT Treated LVL? What precautions should be taken after such exposure?** The hazards are no worse than those of untreated LVL. Per the SDS: Ingestion is not an expected route of exposure. Rinse mouth. Immediate medical attention is not required.
- 16. Do I have to re-treat cut ends, notches and holes?** No, since PWT Treated LVL is treated throughout the piece (no gradient), retreatment is not necessary. However, it is recommended to recoat cuts with a sealer or paint to minimize swelling, as moisture will wick into end-grain fibers more quickly than edges and faces.
- 17. Can I stain or paint PWT Treated LVL?** Yes, PWT Treated LVL can be stained or painted.
- 18. Do I need flashing?** Proper flashing is required over ledger boards to meet code. Refer to building code requirements for ledger boards. Flashing (metal or plastic) or approved flashing tape is required on any upward horizontal surfaces of the PWT Treated LVL to satisfy the warranty. Flashing tape must have passed design standard AAMA 711-13, Level 3, Class A, perform in high- and low-temperature extremes, and have minimum UV protection of 120 days of exposure. Deck drainage systems that cover upward horizontal surfaces of PWT Treated LVL joists and beams, preventing wetting from occurring, are acceptable substitutions for flashing on the joists and beams. Failure to use proper flashing, approved flashing tape and/or proper deck drainage systems will void the warranty. Failure to apply flashing in accordance to the manufacturers’ written installation instructions and as required by code will void the warranty.
- 19. Can I put cladding over PWT Treated LVL beams and joists?** Cladding is allowed if it will not trap moisture, as this will reduce the performance and life expectancy of even treated wood products.
- 20. How should I dispose of PWT Treated LVL?** PWT Treated LVL can be disposed of in the same manner as untreated LVL.
- 21. I have heard of ACQ (alkaline copper quaternary), copper azole (CA) and MCA (micronized copper azole) for pressure treated wood. What treating chemicals are in PWT Treated LVL?** ACQ, CA and MCA are chemicals used for post-manufacture pressure treating of wood products. PWT Treated LVL uses a PTI-based system. PTI stands for Propiconazole (fungicide), Tebuconazole (fungicide) and Imidacloprid (Insecticide). Our PWT Treated LVL has twice the PTI retentions required for UC3B, with no gradient that you would see in pressure-treated lumber. PTI is very common. It has been around for over 20 years. These PTI protection systems are used for many types of wood products, including decking, fencing, siding, windows, sheathing, flooring, framing and other wood and wood-based building materials.



# Software Tools for PWT Treated LVL

PWT provides designers and specifiers with the superior information services to complement our products by providing software tools that do the math to ensure the right product is used.

With an easy-to-use graphic user interface for entering data and a single click to get a Pass or Fail, Exacte by PWT provides clear results. Our goal with this program is to provide customers with peace of mind when it comes to making decisions about their projects. We want them to know that they are getting the right product for each application in their building.

At PWT, we understand how important it is for specifiers to get the right product for their project every time. With Exacte by PWT, you can have confidence that your project will turn out exactly how you imagined it!

## Exacte by PWT features:

- User-friendly single-member sizing program with impeccable graphics
- Uses the spans and loads to define if a PWT engineered wood product Passes or Fails. Requires little or no training for architects, engineers, designers, inspectors, builders, and technical support specialists to design and specify individual PWT products
- No charge for Exacte single-member users after registration

**exacte** Client: 4/14/2023  
Project: Report by:  
Address: Job Name: Graphics  
Product: PWT

**B4 2.0E 2800Fb PWT Treated LVL 1.750" X 11.875" 2-PLY - PASSED**

**Member Information**

Type	Order	Application	Floor	Reactions PATTERNED lb (Uplift)
Piles	2	Design Method:	ASD	1 Vertical 2054 (1140) 633 0 0 0 0
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015	2 Vertical 5396 1896 0 0 0 0
Deflection LL:	480	Load Sharing:	No	3 Vertical 2054 (1140) 633 0 0 0 0
Deflection TL:	240	Deck:	Not Checked	
Temperature:	Normal - B			
Temp +/-	100°F			

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-5419 ft-lb	7'8"	19234 ft-lb	0.282 (28%)	D+L	LL
Pos Moment	2847 ft-lb	11'8 3/16"	19234 ft-lb	0.200 (20%)	D+L	L
Shear	2813 lb	8'7 3/8"	7827 lb	0.356 (36%)	D+L	LL
LL Defl inch	0.040 (L/2205)	3'8 7/16"	0.183 (L/480)	0.218 (22%)	L	L
TL Defl inch	0.050 (L/1754)	3'7 7/8"	0.368 (L/240)	0.137 (14%)	D+L	L

**Design Notes**

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Dead Load Deflection: Maximum is 0.017". Long Term is 0.015".
3. Fasten all piles using 2 rows of 12d Box nails (12d@3.25") at 12" o.c. Maximum end distance not to exceed 6". Check Nails where possible.
4. Refer to last page of calculations for fasteners required for specified loads.
5. Girders are designed to be supported on the bottom edge only.
6. Top loads must be supported equally by all piles.
7. This must be laterally braced at end bearings.
8. Bottom must be laterally braced at end bearings.

**Notes**

This design is valid until 4/6/2025

**Manufacturer Info**  
Pacific Woodtech Corp  
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Burlington, WA 98233  
206.715.7170  
www.pacificwoodtech.com  
ICC-ES ESR-2059 APA PR-129



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888.707.2285  
pwtewp.com/treated

For product catalog and complete warranty details or for more information on the full line of PWT products or the nearest distributor, visit [pwtewp.com](http://pwtewp.com).

PWT Treated LVL is manufactured in the United States.

**! CAL. PROP 65 WARNING:** Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to [www.P65Warnings.ca.gov/wood](http://www.P65Warnings.ca.gov/wood).

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