RedBuilt™ Rim Board Specification and Design

Specifying RedBuilt Rim Board allows product to be supplied as either RedLam™ LVL or RedBuilt LSL Rim Board. This allows for flexibility to optimize around product availability and delivery times for specific projects. Properties and capacities for RedBuilt Rim Board use the lowest common denominator of 1.6E RedLam LVL found in ESR-2993 or 1.3E RedBuilt LSL Rim Board found in ESR-1387.

General Properties for Redbuilt Rim Board

Beam/Joist Orientation

- Modulus of elasticity — $E = 1.3 \times 10^6$ psi
- Flexural stress (for 12" depth, d. Multiple F_b by $C_r = (12/d)^{0.092}$ for other depths) — F_b = 1,700 psi
- Equivalent Specific Gravity (for lateral connection design only) — SG = 0.50
- Building code evaluation report references — ICC ESR-2993, ESR-1387

For other product properties and nailing information, consult the code evaluation reports and take the more restrictive value from either report. For more information and product availability, or for situations requiring higher capacity or use of specific material type, contact your RedBuilt representative.

Available Sizes and Allowable Capacity(1)

Product Specification	Available Widths(2)	Available Depths(3)	Available Length	Material may be Supplied as:	Allowable Vertical Load (plf)	Allowable Shear Transfer (plf)
RedBuilt Rim Board	1¼"	9½", 11⅞"	16'	LVL or LSL	4,250	See Footnote 5
		14", 16", 18", 20"		LSL	3,700	
	1½"	9½", 11⅞", 14"(4)	16'	LVL or LSL	4,160	See Footnote 5
		16", 18", 20"		LSL	4,000	
		22", 24"		LSL	3,000	

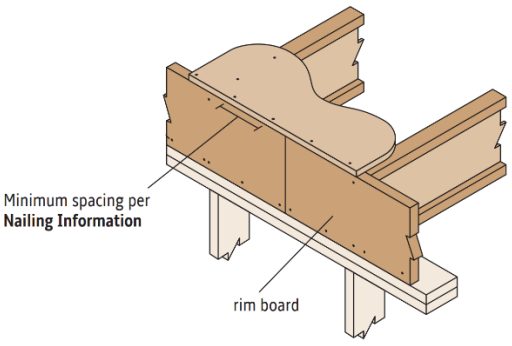
(1) Allowable capacities represent controlling material at maximum depth.
(2) Contact you RedBuilt representative if larger width products are needed.
(3) Depth availability and compatibility matches joist depths up to 24". Rim board has depth tolerances that meet or exceed joist depths to ensure load transfer around the joists. Beam or header products should not be used as rim board.
(4) RedLam LVL is code-approved for 16" depths but is not recommended for use over 14" unless approved by RedBuilt Engineering.
(5) Subject to the minimum nail spacings below, RedBuilt Rim Board products may be designed as permitted by ANSI/AWC Special Design Provisions for Wind and Seismic for wood diaphragms with framing consisting of 2" nominal Douglas-fir larch or southern pine lumber. Product widths of 1½" may be designed as blocked or unblocked diaphragms; 1¼" width product may only be designed as unblocked diaphragms.

Nail Spacing in Edge of RedBuilt Rim Board

RedBuilt Rim Board Product Width	Closest On-Center Spacing Per Row(1)		
	Nail Size		
	8d (0.113"x 2½") 8d (0.131"x 2½") 10d (0.128"x 3") 12d (0.128"x 3¼")	10d (0.148"x 3") 12d (0.148"x 3¼") 16d (0.135"x 3½") 16d (0.148"x 3½")	16d (0.162"x 3½")
1¼"	4"	4"	na(2)
1½"	3"	4"	8"(3)

(1) Maximum number of rows is 2. Rows must be staggered and equally spaced about the centerline.
- Minimum spacing between rows is ½"
- Minimum end distance is 3"; 2½" for 8d nails
- Minimum edge distance is $^3/_8$"

(2) Where product is supplied only as LSL, 6" on-center spacing is allowed and can be reduced to 4" on-center if nail penetration into edge of rim board is $1^3/_8$" or less.
(3) Nail spacing can be reduced to 5" on-center if nail penetration into edge of rim board is $1^3/_8$" or less.



Verify nailing limitations (above) are compatible with specified nailing schedule to ensure proper sizing and selection of product.