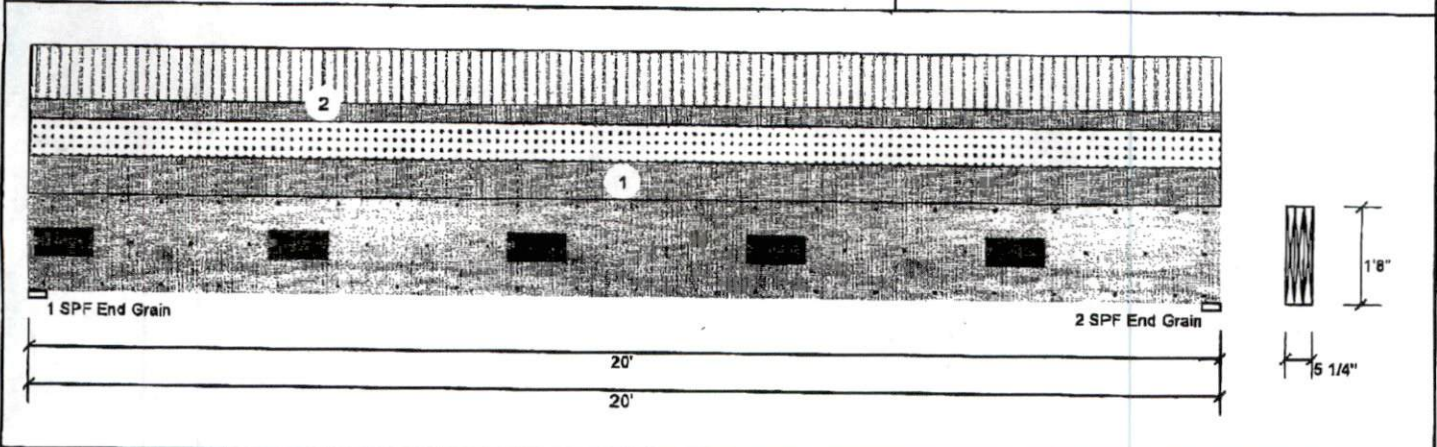


 EWP Studio Simpson Strong-Tie® Component Solutions™	Client: C&R Building Supply Project: Address:	Date: 4/28/2020 Input by: Kristen Haase Job Name: J.Lee-Smith Job Project #:	Page 1 of 2
---	---	---	-------------

B1 2.0E Rigidlam LVL 1.750" X 20.000" 3-Ply - PASSED Level: Level




Member Information		Reactions UNPATTERNED lb (Uplift)					
Type: Girder	Application: Floor	Brg	Live	Dead	Snow	Wind	Const
Plies: 3	Design Method: ASD	1	3700	3977	2467	0	0
Moisture Condition: Dry	Building Code: IBC/IRC 2015	2	3700	3977	2467	0	0
Deflection LL: 480	Load Sharing: Yes						
Deflection TL: 240	Deck: Not Checked						
Importance: Normal							
Temperature: Temp <= 100°F							

Analysis Results						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	36646 ft-lb	10'	68217 ft-lb	0.415 (42%)	D+L	L
Unbraced	41062 ft-lb	10'	41224 ft-lb	0.996 (100%)	D+0.75(L+S)	L
Shear	6222 lb	1'10 3/4"	20300 lb	0.306 (31%)	D+L	L
LL Defl inch	0.217 (L/1082)	10' 1/16"	0.489 (L/480)	0.440 (44%)	0.75(L+S)	L
TL Defl inch	0.403 (L/582)	10' 1/16"	0.977 (L/240)	0.410 (41%)	D+0.75(L+S)	L

- Design Notes**
- 1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
 - 2 Refer to last page of calculations for fasteners required for specified loads.
 - 3 Girders are designed to be supported on the bottom edge only.
 - 4 Top loads must be supported equally by all plies.
 - 5 Top must be laterally braced at a maximum of 5'4 1/2" o.c.
 - 6 Bottom braced at bearings.
 - 7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		12-4-0	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	
2	Uniform		12-4-0	Top	10 PSF	30 PSF	0 PSF	0 PSF	0 PSF	
	Self Weight				28 PLF					

<p>Notes</p> <p>Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.</p> <p>Lumber</p> <ol style="list-style-type: none"> 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with the retardant or preservative 	<p>Handling & Installation</p> <ol style="list-style-type: none"> 1. LVL beams must not be cut or drilled 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals 3. Damaged Beams must not be used 4. Design assumes top edge is laterally restrained 5. Provide lateral support at bearing points to avoid lateral displacement and rotation 	<p>Manufacturer Info</p> <p>Roseburg Forest Products 4500 Riddle By-pass Rd Riddle, OR 97469 (541) 784-4006 www.roseburg.com APA: PR-L289, PR-L270, ICC-ES: ESR-1210</p>	<p>Diamond Hill Plywood 2706 White Horse Rd. SC USA 29611 8668462715</p> 
--	--	---	--

The design is valid until 1/2/2023



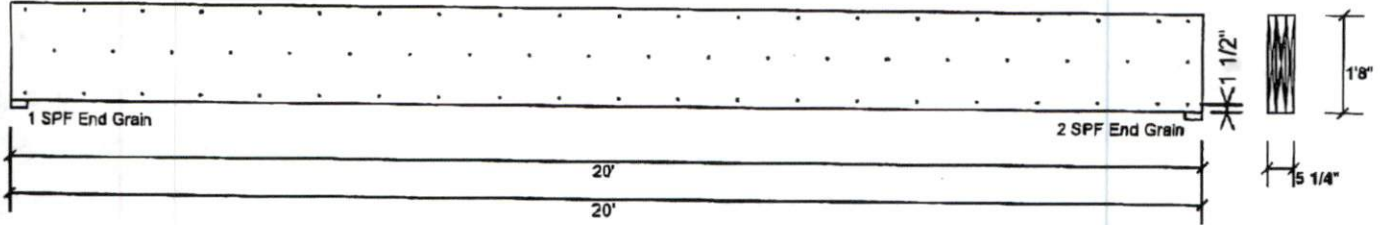


EWP Studio
Simpson Strong-Tie®
Component Solutions™

Client: C&R Building Supply
 Project:
 Address:

Date: 4/28/2020
 Input by: Kristen Haase
 Job Name: J.Lee-Smith Job
 Project #:

B1 2.0E Rigidlam LVL 1.750" X 20.000" 3-Ply - PASSED Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	271.6 PLF
Yield Limit per Fastener	90.5 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes
 Calculated Structural Designs is responsible only of the structural adequacy of the component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber
 1. Dry service conditions, unless noted otherwise
 2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation
 1. LVL beams must not be cut or drilled
 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
 3. Damaged Beams must not be used
 4. Design assumes top edge is laterally restrained
 5. Provide lateral support at bearing points to avoid lateral displacement and rotation

5. For flat roofs provide proper drainage to prevent ponding

This design is valid until 1/2/2023

Manufacturer Info
 Roseburg Forest Products
 4500 Riddle By-pass Rd
 Riddle, OR 97469
 (541) 784-4005
 www.roseburg.com
 APA: PR-L269, PR-L270, ICC-ES:
 ESR-1210

Diamond Hill Plywood
 2706 White Horse Rd, SC
 USA
 29611
 8886462715

