



# Triple 1-3/4" x 9-1/4" VERSA-LAM® LVL 2.1E 3100 SP

PASSED

BC CALC® Member Report

FB01 (Drop Beam) Dry | 1 span | No cant.

December 4, 2024 17:53:19

Build 8931

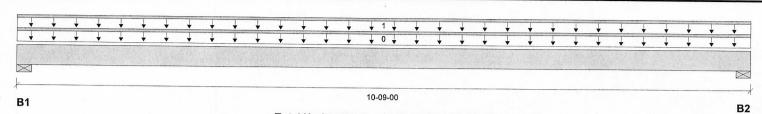
Job name:

Address: City, State, Zip: Customer: File name: Description:

Specifier: Designer: Company:

Code reports:

ESR-1040



### Total Horizontal Product Length = 10-09-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live	
B1, 3-1/2"	2150 / 0	2226 / 0				
B2, 3-1/2"	2150 / 0	2226 / 0				

Lo	ad Summary						Live	Dead	Snow	Wind	Roof	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	100%	90%	115%	160%	Live 125%	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	10-09-00	Top		14				00-00-00
1	40' roof truss	Unf. Lin. (lb/ft)	L	00-00-00	10-09-00	Top	400	400				n\a

Controls Summary	Value	% Allowable	Duration	Case	Location
Pos. Moment	10778 ft-lbs	54.1%	100%	1	05-04-08
End Shear	3511 lbs	38.0%	100%	1	01-00-12
Total Load Deflection	L/402 (0.307")	59.6%	n\a	1	05-04-08
Live Load Deflection	L/819 (0.151")	44.0%	n\a	2	05-04-08
Max Defl.	0.307"	30.7%	n\a	1	05-04-08
Span / Depth	13.4				

Bear	ing Supports	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material	
B1	Wall/Plate	3-1/2" x 5-1/4"	4376 lbs	n\a	31.8%	Unspecified	
B2	Wall/Plate	3-1/2" x 5-1/4"	4376 lbs	n\a	31.8%	Unspecified	

## Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

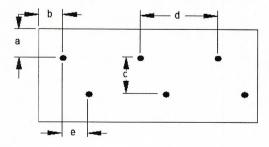
Design meets arbitrary (1") Maximum Total load deflection criteria.

Design based on Dry Service Condition.

BC CALC® analysis is based on IBC 2009.

Calculations assume member is fully braced.

## Connection Diagram: Full Length of Member







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Connection Diagram: Full Length of Member

a minimum = 1-1/2" b minimum = 4"

c = 6-1/4"

d = 24"

e minimum = 1"

Calculated Side Load = 0.0 lb/ft

Install screws from both sides, staggering screws by half of the spacing to avoid splitting.

Connectors are: SDS 1/4 x 3-1/2

#### **Disclosure**

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.