



Double 2 x 8 SP #2
RB01 (Roof Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

June 17, 2024 09:21:25

Build 16959

Job name: 5 Shady Grove

File name:

Address:

Description:

City, State, Zip:

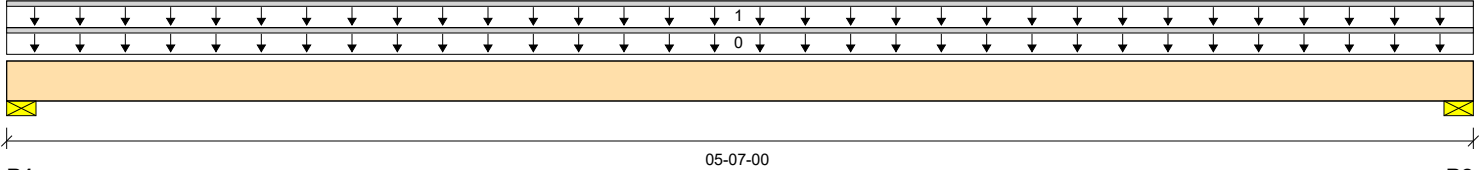
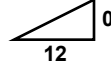
Specifier:

Customer: Furr Construction

Designer: AJ Napier

Code reports: SPIB

Company: Builders FirstSource



Total Horizontal Product Length = 05-07-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"		991 / 0	977 / 0		
B2, 3-1/2"		991 / 0	977 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	05-07-00	Top		5				00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	05-07-00	Front		350	350			n/a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	2315 ft-lbs	99.4%	115%	4	02-09-08
End Shear	1337 lbs	45.8%	115%	4	00-10-12
Total Load Deflection	L/999 (0.082")	n/a	n/a	4	02-09-08
Live Load Deflection	L/999 (0.041")	n/a	n/a	5	02-09-08
Max Defl.	0.082"	n/a	n/a	4	02-09-08
Span / Depth	8.5				

Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3"	1968 lbs	44.1%	33.2%	Spruce-Pine-Fir
B2	Wall/Plate 3-1/2" x 3"	1968 lbs	44.1%	33.2%	Spruce-Pine-Fir

Cautions

For roof members with slope (1/4)/12 or less final design must ensure that ponding instability will not occur.

For roof members with slope (1/2)/12 or less final design must account for Rain-on-Snow surcharge load.

Distributed side-load and/or concentrated side loads exceeds allowable magnitude for connection design. Please consult a technical representative or Professional Engineer for the design of the connection.



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Notes

Design meets Code minimum (L/180) Total load deflection criteria.

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

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

Design based on Dry Service Condition.

The analysis of solid sawn wood members is in accordance with the NDS and is limited to the output shown above. All other support and design for these products, including but not limited to notching, connections, installation, and engineer/architect certification is the responsibility of the project's design professional of record.

BC CALC® analysis is based on IBC 2009.

Calculations assume member is fully braced.

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.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,