

BM6-2 (Roof Beam)

Dry | 1 span | No cant.

July 10, 2019 07:26:27

BC CALC® Member Report

Build 7082

Job name: Ellington

File name:

Address:

Description:

City, State, Zip:

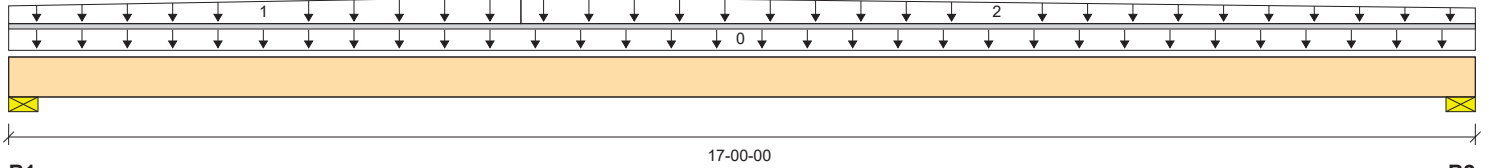
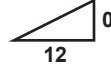
Specifier:

Builder: LAMCO

Designer:

Code reports: ESR-1040

Company: BFS



Total Horizontal Product Length = 17'-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"		959 / 0			
B2, 3-1/2"		893 / 0			

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Roof Live	Tributary
							100%	90%	115%	160%	125%	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	17-00-00	Top	12					00-00-00
1	Gable	Trapezoidal (lb/ft)	L	00-00-00	05-11-04	Top	80					n/a
2	Gable	Trapezoidal (lb/ft)	L	05-11-04	17-00-00	Top	120					n/a
							70					

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	3954 ft-lbs	20.6 %	90%	0	08-02-05
End Shear	920 lbs	12.9 %	90%	0	01-03-06
Total Load Deflection	L/806 (0.246")	22.3 %	n/a	2	08-06-00
Live Load Deflection	L/999 (0.048")	n/a	n/a	5	08-06-00
Max Defl.	0.246"	24.6 %	n/a	2	08-06-00
Span / Depth	16.7				

Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	1228 lbs	n/a	13.4 %	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	1163 lbs	n/a	12.7 %	Unspecified

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.

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.
 Calculations assume member is fully braced.
 BC CALC® analysis is based on IBC 2009.
 Design based on Dry Service Condition.
 Member has no side loads.

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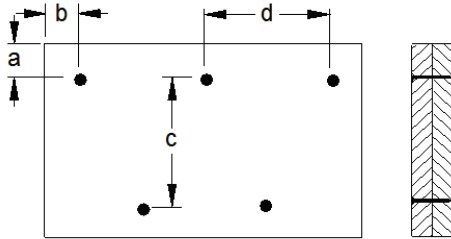
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Connection Diagram: Full Length of Member



a minimum = 2" c = 7-7/8"
 b minimum = 3" d = 24"

Member has no side loads.
 Connectors are: 16d Sinker Nails

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.

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