Boise Cascade

Double 1-3/4" x 11-1/4" VERSA-LAM® 2.0 3100 SP

Floor Beam\FB01

Dry | 1 span | No cantilevers | 0/12 slope

Tuesday, February 18, 2014

BC CALC® Design Report - US

Build 2627
Job Name:
Address:
City, State, Zip: ,
Customer:
Code reports: ESR-1040

No POST

File Name: BC CALC Project
Description: Designs\FB01
Specifier:
Designer:
Company:
Misc:

Total Horizontal Product Length = 12-06-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B0, 3-1/2"	1,313 / 0	728 / 0			1,969 / 0
B1, 3-1/2"	1,313 / 0	728 / 0			1,969 / 0

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Live 100%	Dead 90%	Snow 115%	Wind 160%	Roof Live 125%	Trib.
1	Standard Load	Unf. Area (lb/ft^2)	L	00-00-00	12-06-00	40	10				05-03-00
2	ROOF LOAD	Unf. Area (lb/ft^2)	L	00-00-00	12-06-00		10			60	05-03-00

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	9,247 ft-lbs	38.5%	125%	3	06-03-00
End Shear	2,561 lbs	27.4%	125%	3	01-02-12
Total Load Defl.	L/497 (0.291")	48.3%	n/a	3	06-03-00
Live Load Defl.	L/644 (0.224")	55.9%	n/a	6	06-03-00
Max Defl.	0.291"	29.1%	n/a	3	06-03-00
Span / Depth	12.8	n/a	n/a	0	00-00-00

Bearing Supports

		Dim. (L x W)	Value	% Allow Support	% Allow Member	Material
B0	Post	3-1/2" x 3-1/2"	3,188 lbs	n/a	34.7%	Unspecified
B1	Post	3-1/2" x 3-1/2"	3,188 lbs	n/a	34.7%	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.
Calculations assume Member is Fully Braced.
Design based on Dry Service Condition.
Deflections less than 1/8" were ignored in the results.

Disclosure

Completeness and accuracy of input must be verified by anyone who would rely on output as evidence of suitability for particular application. Output here based on building code-accepted design properties and analysis methods. Installation of BOISE 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.\n\nBC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, SIMPLE FRAMING SYSTEM®, VERSA-LAM®, VERSA-RIM PLUS®, VERSA-RIM®, VERSA-STRAND®, VERSA-STUD® are trademarks of Boise Cascade Wood Products L.L.C.

Connection Diagram

a minimum = 2" c = 7-1/4"
b minimum = 3" d = 24"

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

Inspections Division
Date: 03/17/14