

DINING ROOM (Floor Beam)

BC CALC® Member Report

Dry | 1 span | No cant.

November 22, 2019 09:23:53

Build 7295

Job name:

File name:

Address: 246 Scotts Lane

Description:

City, State, Zip: Angier, NC, 27501

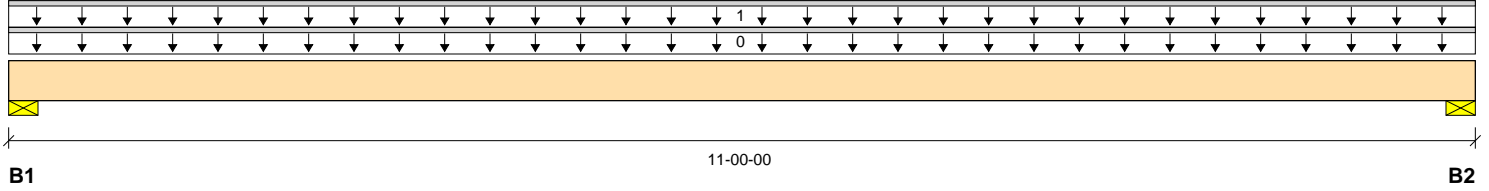
Specifier:

Builder: Lee Johson

Designer: AJ Napier

Code reports: ESR-1040

Company: Builders FirstSource



Total Horizontal Product Length = 11-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"		1062 / 0	996 / 0		
B2, 3-1/2"		1062 / 0	995 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	100%	90%	115%	160%	Roof Live 125%	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	11-00-00	Top		12				00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	11-00-00	Top	181		181			n/a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	5196 ft-lbs	21.2%	115%	1	05-06-00
End Shear	1578 lbs	17.4%	115%	1	01-03-06
Total Load Deflection	L/999 (0.106")	n/a	n/a	1	05-06-00
Live Load Deflection	L/999 (0.051")	n/a	n/a	2	05-06-00
Max Defl.	0.106"	n/a	n/a	1	05-06-00
Span / Depth	10.7				

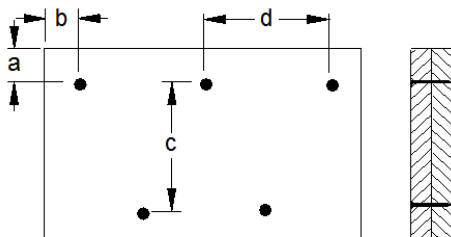
Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	2057 lbs	39.5%	22.4%	Spruce-Pine-Fir
B2	Wall/Plate 3-1/2" x 3-1/2"	2057 lbs	39.5%	22.4%	Spruce-Pine-Fir

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.
- BC CALC® analysis is based on IBC 2009.
- Design based on Dry Service Condition.

Connection Diagram: Full Length of Member



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Specifier:

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Company: Builders FirstSource

Connection Diagram: Full Length of Member

a minimum = 2" c = 7-7/8"
b minimum = 3" d = 12"

Connectors are: 3-1/4 in. Pneumatic Gun 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.

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

GDH (Floor Beam)

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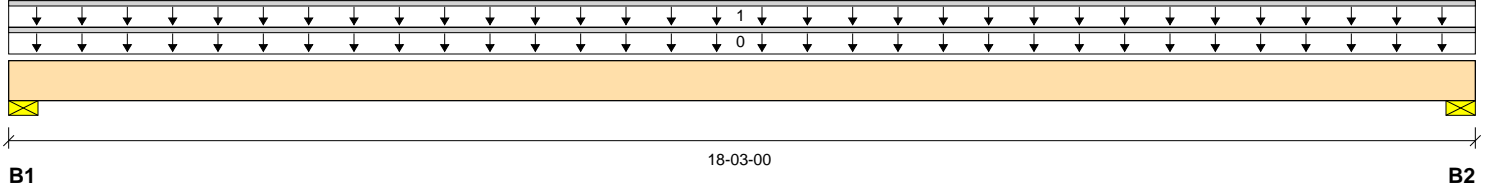
Specifier:

Builder: Lee Johson

Designer: AJ Napier

Code reports: ESR-1040

Company: Builders FirstSource



Total Horizontal Product Length = 18-03-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"		840 / 0	730 / 0		
B2, 3-1/2"		840 / 0	730 / 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	18-03-00	Top		12				00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	18-03-00	Top	80		80			n/a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	6807 ft-lbs	27.8%	115%	1	09-01-08
End Shear	1349 lbs	14.9%	115%	1	01-03-06
Total Load Deflection	L/538 (0.397")	44.6%	n/a	1	09-01-08
Live Load Deflection	L/1156 (0.185")	31.1%	n/a	2	09-01-08
Max Defl.	0.397"	39.7%	n/a	1	09-01-08
Span / Depth	18.0				

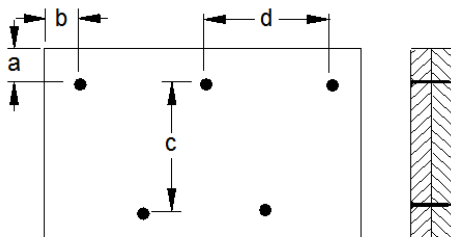
Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	1570 lbs	30.2%	17.1%	Spruce-Pine-Fir
B2	Wall/Plate 3-1/2" x 3-1/2"	1570 lbs	30.2%	17.1%	Spruce-Pine-Fir

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.
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Connection Diagram: Full Length of Member



GDH (Floor Beam)

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BC CALC® Member Report

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Specifier:

Builder: Lee Johson

Designer: AJ Napier

Code reports: ESR-1040

Company: Builders FirstSource

Connection Diagram: Full Length of Member

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Connectors are: 3-1/4 in. Pneumatic Gun Nails

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PATIO DOOR (Floor Beam)

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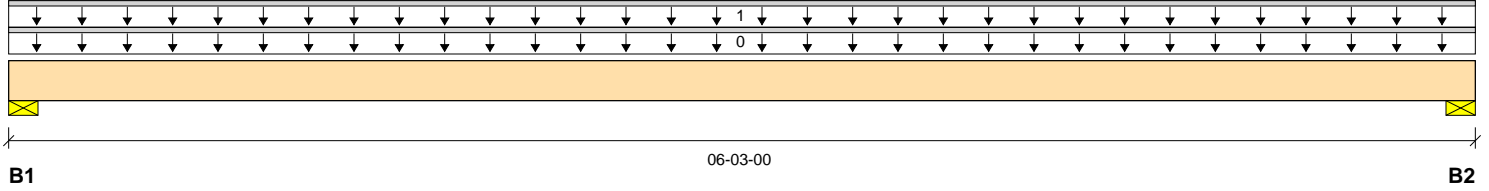
Specifier:

Builder: Lee Johson

Designer: AJ Napier

Code reports: ESR-1040

Company: Builders FirstSource



Total Horizontal Product Length = 06-03-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	Roof Live
B1, 3-1/2"		2069 / 0	2031 / 0		
B2, 3-1/2"		2069 / 0	2031 / 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	06-03-00	Top		12				00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	06-03-00	Top	650		650			n/a

Controls Summary

	Value	% Allowable	Duration	Case	Location
Pos. Moment	5501 ft-lbs	22.5%	115%	1	03-01-08
End Shear	2419 lbs	26.6%	115%	1	01-03-06
Total Load Deflection	L/999 (0.034")	n/a	n/a	1	03-01-08
Live Load Deflection	L/999 (0.017")	n/a	n/a	2	03-01-08
Max Defl.	0.034"	n/a	n/a	1	03-01-08
Span / Depth	5.9				

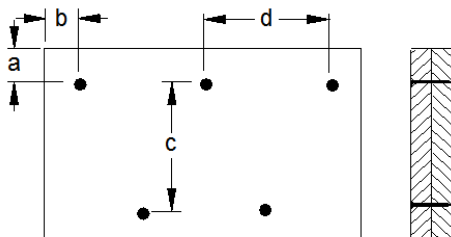
Bearing Supports

	Dim. (LxW)	Value	% Allow Support	% Allow Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	4100 lbs	78.8%	44.6%	Spruce-Pine-Fir
B2	Wall/Plate 3-1/2" x 3-1/2"	4100 lbs	78.8%	44.6%	Spruce-Pine-Fir

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