



JOB SUMMARY REPORT
Flush Beam Ceiling Support.4te

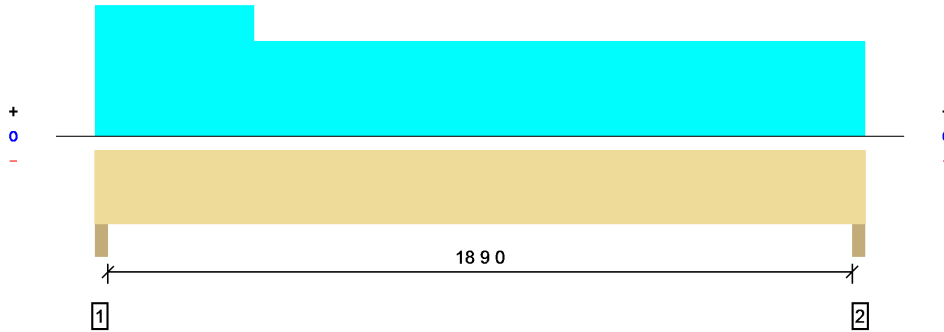
01: Ceiling			
Member Name	Results	Current Solution	Comments
Ceiling: Flush Beam	Passed	2 Piece(s) 1 3/4" x 11 7/8" 1.9E Microllam® LVL	
Free Standing Post	Passed	1 Piece(s) 3 1/2" x 3 1/2" 1.3E TimberStrand® LSL	

Forte Software Operator	Job Notes
K. Hector Girardin TechCAD Services LLC (785) 249-3884 hector@techcadservices.com	Flush Beam for Ceiling Support Randy and Gaye Clark 2324 W 18th Street Emporia, Kansas 66801

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Forte v5.0, Design Engine: V6.4.0.40
Flush Beam Ceiling Support.4te

2 piece(s) 1 3/4" x 11 7/8" 1.9E Microllam® LVL

Overall Length: 19 4 0



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.; Drawing is Conceptual

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2430 @ 0 2 0	8881 (3.50")	Passed (27%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1857 @ 1 3 6	7107	Passed (26%)	0.90	1.0 D (All Spans)
Moment (Ft-lbs)	9994 @ 9 8 0	16063	Passed (62%)	0.90	1.0 D (All Spans)
Live Load Defl. (in)	0.026 @ 8 4 2	0.633	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.754 @ 9 7 8	0.950	Passed (L/302)	--	1.0 D + 1.0 L (All Spans)

 System : Roof
 Member Type : Flush Beam
 Building Use : Residential
 Building Code : IBC
 Design Methodology : ASD
 Member Pitch: 0/12

- Deflection criteria: LL (L/360) and TL (L/240).
- Bracing (Lu): All compression edges (top and bottom) must be braced at 14 3 8 o/c unless detailed otherwise. Proper attachment and positioning of lateral bracing is required to achieve member stability.

Supports	Bearing			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Column - SPF	3.50"	3.50"	1.50"	2141	289	2430	None
2 - Column - SPF	3.50"	3.50"	1.50"	2141	31	2172	None

Loads	Location	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
1 - Uniform (PSF)	0 0 0 to 19 4 0	14 0 0	15.0	-	Attic Dead Load
2 - Uniform (PSF)	0 0 0 to 4 0 0	4 0 0	-	20.0	Attic Live Load

Member Notes

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 Randy and Gaye Clark
 2324 W 18th Street
 Emporia, Kansas 66801

Weyerhaeuser Notes

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The product application, input design loads, dimensions and support information have been provided by TechCAD Services LLC, K. Hector Girardin



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1 piece(s) 3 1/2" x 3 1/2" 1.3E TimberStrand® LSL (See Note below)

Post Height: 8 0 0



Design Results	Actual	Allowed	Result	LDF	Load: Combination
Slenderness	27	50	Passed (55%)	--	--
Compression (lbs)	2719	8350	Passed (33%)	1.00	1.0 D + 1.0 L
Base Bearing (lbs)	2719	5206	Passed (52%)	--	1.0 D + 1.0 L
Bending/Compression	0.29	1	Passed (29%)	1.00	1.0 D + 1.0 L

- Axial load eccentricity for this design is 1/6 of applicable member side dimension.
- Applicable calculations are based on NDS.

Supports	Type	Material
Base	Plate	Spruce-Pine-Fir

Member Type : Free Standing Post

Building Code : IBC

Design Methodology : ASD

Max Unbraced Length	Comments
Full Member Length	No bracing assumed.

Drawing is Conceptual

Vertical Load	Dead (0.90)	Floor Live (1.00)	Comments
1 - Point (lb)	2430	289	

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Note: Use (3) 2x4 SP #2 Studs
Connection
(2) rows 16d (0.131 x 31/4") @ 6" spacing
end distance = 2"
edge distance = 5/8"

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