
Nyberg Custom Homes LLC

9/3/2025

Dear Recipient:

As requested by the Builder of the residential property located at 2123 NW Killarney Ln, Lee's Summit, MO 64081, I have viewed a photo of the installed double 2x10 header above an exterior door. I have calculated the load of the header and determined that a double 2x10 header is adequate as installed.

A photo of the header is included below for reference, and the calculations for the header's adequacy included. The original design was to install a double 2x12 header, but the double 2x10 header was used due to space restrictions.



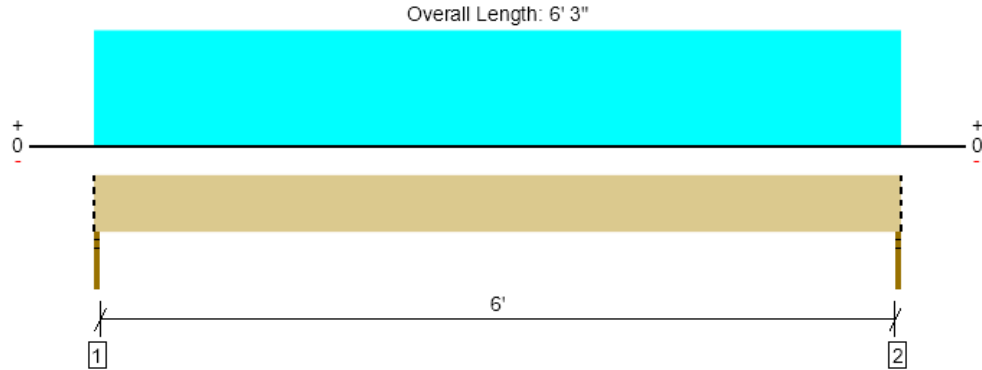
Sincerely,

Daniel Nyberg, P.E.

Nyberg Custom Homes, LLC



Level, Roof: Drop Beam
2 piece(s) 2 x 10 DF No.2



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	897 @ 0	1913 (1.50")	Passed (47%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	640 @ 10 3/4"	3830	Passed (17%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	1402 @ 3' 1 1/2"	4059	Passed (35%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.015 @ 3' 1 1/2"	0.313	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.031 @ 3' 1 1/2"	0.417	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

- Deflection criteria: LL (L/240) and TL (L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Member Length : 6' 3"
System : Roof
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD
Member Pitch : 0/12

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Stud wall - SPF	1.50"	1.50"	1.50"	459	438	897	Blocking
2 - Stud wall - SPF	1.50"	1.50"	1.50"	459	438	897	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	6' 3" o/c	
Bottom Edge (Lu)	6' 3" o/c	

- Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 6' 3"	N/A	7.0	--	
1 - Uniform (PSF)	0 to 6' 3" (Front)	14'	10.0	10.0	Default Load

- Side loads are assumed to not induce cross-grain tension.



Member Notes

PLAN 4365 HEADER OVER SLIDER

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The product application, input design loads, dimensions and support information have been provided by A. K. Designs Inc.

FortewEB Software Operator	Job Notes
Alan Kolster A K Designs Inc (816) 215-0898 alkolster@comcast.net	



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