



Skeens Consulting Services, LLC

Engineering, Inspections & Design Build

Michael H. Skeens, PE

mike@skeensconsulting.com

423 N. Winnebago Drive

Ph: (816) 806-9719

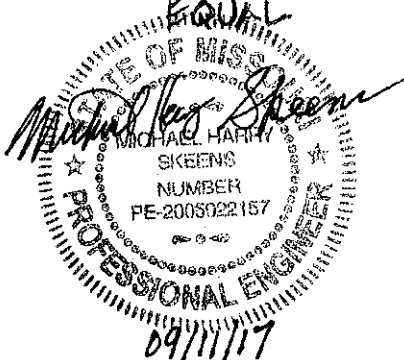
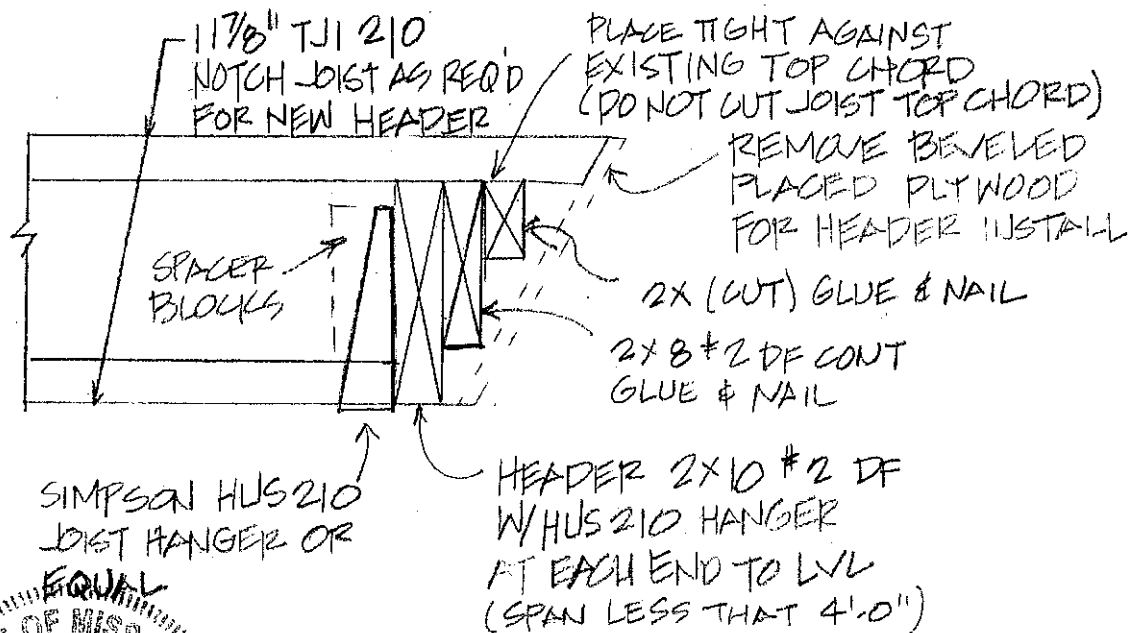
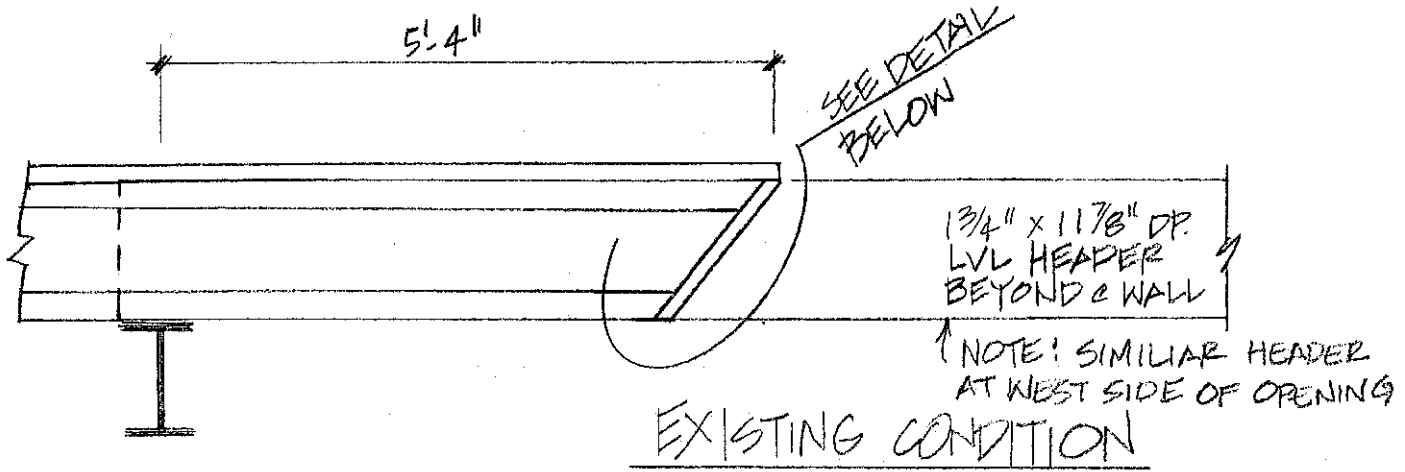
Lake Winnebago, MO 64034

Project: Stairway header required for
minimum headroom clearances

Location: 1324
~~1324~~ Brandywine Road, L.S. MO

Client: Pfeifer Homes, Inc.

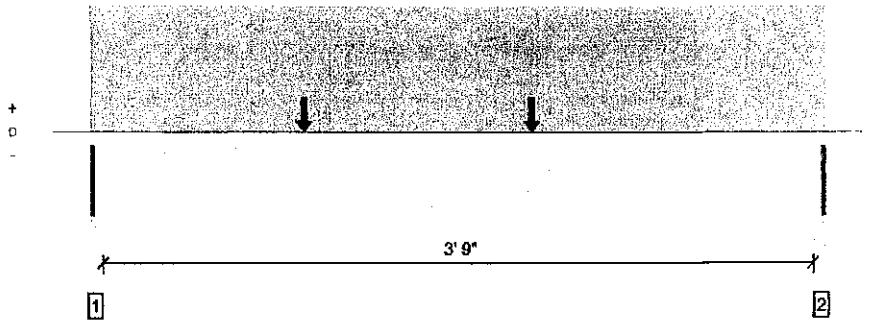
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EDGE REINFORCEMENT
MAINTAIN CODE REQUIRED CLEARANCES

1 piece(s) 2 x 10 Douglas Fir-Larch No. 2

Overall Length: 4' 4"



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	242 @ 2"	1434 (2.25")	Passed (17%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	208 @ 1' 3/4"	1665	Passed (12%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	276 @ 2' 7"	1765	Passed (16%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.004 @ 2' 1 11/16"	0.100	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.005 @ 2' 1 3/4"	0.200	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2012
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Top Edge Bracing (Lu): Top compression edge must be braced at 4' 2" o/c unless detailed otherwise.
- Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 4' 2" o/c unless detailed otherwise.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Beam - SPF	3.50"	2.25"	1.50"	77	169	246	1 1/4" Rim Board
2 - Beam - SPF	3.50"	2.25"	1.50"	77	131	208	1 1/4" Rim Board

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/4" to 4' 2 3/4"	N/A	3.5		
1 - Uniform (PSF)	0 to 4' 4" (Front)	2' 8"	12.0	-	Residential - Living Areas
2 - Point (lb)	1' 3" (Front)	N/A	-	150	
3 - Point (lb)	2' 7" (Front)	N/A	-	150	

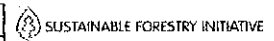
Member Notes

1321 Brandywine Road
Lees Summit, MO
Pfeiffer Homes Inc.
Rick Holbrooke

Weyerhaeuser Notes

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The product application, input design loads, dimensions and support information have been provided by Forte Software Operator



Forte Software Operator Michael Steens Student Consulting Services, LLC (816) 805-9719 msteens@scsdesign.com	Job Notes
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