FORTEWER

FITE Rated LYL MICRIGAM X 3

Level, Garage drop beam 🛭 🕈 🚴 3 piece(s) 1 3/4" x 11 7/8" 2.0E Microllam® LVL

Overall Length: 12' 6"

Left side

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)	2228 @ 4 3/4"	7809 (3.50")	Passed (29%)	-	1.0 D + 1.0 L (Adj Spans)
Shear (lbs)	1682 @ 1' 6 3/8"	11845	Passed (14%)	1.00	1.0 D + 1.0 L (Adj Spans)
Moment (Ft-lbs)	6096 @ 6' 3"	26772	Passed (23%)	1.00	1.0 D + 1.0 L (Alt Spans)
Live Load Defl. (in)	0.083 @ 6' 3"	0.390	Passed (L/999+)		1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.114 @ 6' 3"	0.585	Passed (L/999+)		1.0 D + 1.0 L (Alt Spans)

Member Type : Drop Beam

System: Floor

Building Use: Residential Building Code: IBC 2018 Design Methodology: ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Overhang deflection criteria: LL (2L/360) and TL (2L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

3 50" Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Bearing Length

Available

3.50"

Total

3.50

3.50"

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' 6" o/c	× ·
Bottom Edge (Lu)	12' 6" o/c	

Required

1.50"

601

601

Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 12' 6"	N/A	18.2		-	
1 - Uniform (PSF)	0 to 12' 6" (Front)	6' 6"	12.0	40.0	1.2	Default Load

Member Notes

Supports

1 - Stud wall - SPF

2 - Stud wall - SPF

Basement drop beam, right side

Weyerhaeuser Notes

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Loads to Supports (lbs)

Floor Live

1627

1627

The product application, input design loads, dimensions and support information have been provided by Relxcon LLC

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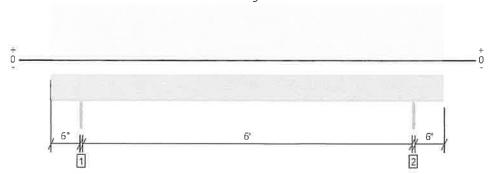
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MEMBER REPORT

Level, Wall from addition to main house 3 piece(s) 2 x 8 M-12 Framer Series™ Lumber

Overall Length: 7' 3"



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)	219 @ 6 3/4"	3814 (1.50")	Passed (6%)	(me);	1.0 D + 1.0 L (Adj Spans)
Shear (lbs)	145 @ 1' 2 3/4"	3806	Passed (4%)	1.00	1.0 D + 1.0 L (Adj Spans)
Moment (Pt-lbs)	279 @ 3' 7 1/2"	5256	Passed (5%)	1.00	1.0 D + 1.0 L (Alt Spans)
Live Load Defl. (in)	0.006 @ 3' 7 1/2"	0.204	Passed (L/999+)		1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.008 @ 3' 7 1/2"	0.306	Passed (L/999+)		1.0 D + 1.0 L (Alt Spans)

System: Wall
Member Type: Header
Building Use: Residential
Building Code: IBC 2018
Design Methodology: ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Overhang deflection criteria: LL (2L/360) and TL (2L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- · Applicable calculations are based on NDS.

	В	earing Leng	th		Loads				
Supports	Total	Available	Required	Dead	Floor Live	Roof Live	Snow	Factored	Accessories
1 - Trimmer - SPF	1.50"	1.50"	1.50"	73	146	5	4	219	None
2 - Trimmer - SPF	1.50"	1.50"	1.50"	73	146	5	4	219	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	7' 3" o/c	
Bottom Edge (Lu)	7' 3" o/c	

Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Floor Live (1.00)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 7' 3"	N/A	8,3	164		=2.2	
1 - Uniform (PSF)	0 to 7' 3"	15	12.0	40.0	1.3	1.2	Default Load

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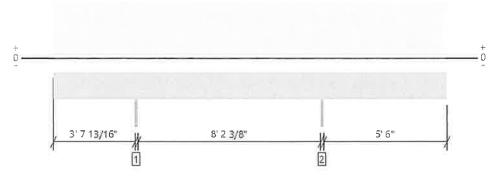
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Level, garage front. header over doors. right side 3 piece(s) 1 3/4" x 11 1/4" 2.0E Microllam® LVL

Overall Length: 17' 7 3/16"



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)	778 @ 12' 7/16"	5709 (1.50")	Passed (14%)		1.0 D + 1.0 L (Adj Spans)
Shear (lbs)	323 @ 11' 7/16"	11222	Passed (3%)	1.00	1.0 D + 1.0 L (Adj Spans)
Moment (Pt-lbs)	-1071 @ 12' 7/16"	24206	Passed (4%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.024 @ 17' 7 3/16"	0.371	Passed (2L/999+)		1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.036 @ 17' 7 3/16"	0.556	Passed (2L/999+)	225	1.0 D + 1.0 L (Alt Spans)

System: Wall
Member Type: Header
Building Use: Residential
Building Code: IBC 2018
Design Methodology: ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Overhang deflection criteria: LL (2L/360) and TL (2L/240).
- Right cantilever length exceeds 1/3 member length or 1/2 back span length. Additional bracing should be considered.
- Allowed moment does not reflect the adjustment for the beam stability factor.

	Bearing Length			Loads	to Supports		
Supports	Total	Available	Required	Dead	Floor Live	Factored	Accessories
1 - Trimmer - SPF	1.50"	1.50"	1.50"	200	348	548	None
2 - Trimmer - SPF	1.50"	1.50"	1.50"	314	463	778	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	17" 7" o/c	
Bottom Edge (Lu)	17' 7" o/c	

Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 17' 7 3/16"	N/A	17.2	**	
1 - Uniform (PSF)	0 to 17' 7 3/16"	17	12.0	40.0	Default Load

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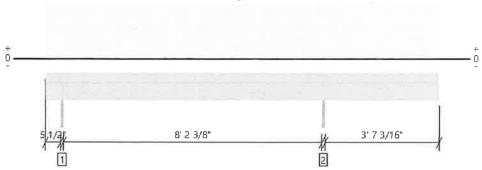
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SOLUTIONS REPORT

Level, garage front. header over doors. Left side Current Solution: 3 piece(s) 1 3/4" x 11 1/4" 2.0E Microllam® LVL

Overall Length: 12' 6 1/8"



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)	597 @ 8' 10 1/8"	5709 (1.50")	Passed (10%)	-	1.0 D + 1.0 L (Adj Spans)
Shear (lbs)	274 @ 7' 10 1/8"	11222	Passed (2%)	1.00	1.0 D + 1.0 L (Adj Spans)
Moment (Ft-lbs)	504 @ 4' 4 3/16"	24206	Passed (2%)	1.00	1.0 D + 1.0 L (Alt Spans)
Live Load Defl. (in)	0.006 @ 12' 6 1/8"	0.244	Passed (2L/999+)	2.75	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.006 @ 12' 6 1/8"	0.366	Passed (2L/999+)		1.0 D + 1.0 L (Alt Spans)

System: Wall
Member Type: Header
Building Use: Residential
Building Code: IBC 2018
Design Methodology: ASD

All Product Solutions					
Depth	Series	Plies	Cost Index		
5 1/4"	3 1/2" 1.8E Parallam® PSL (Plank)	1 1	33.08 *		
11 1/4"	1 3/4" 2.0E Microllam® LVL	3	118.13		

The purpose of this report is for product comparison only. Load and support information necessary for professional design review is not displayed here. Please print an individual Member Report for submittal purposes.

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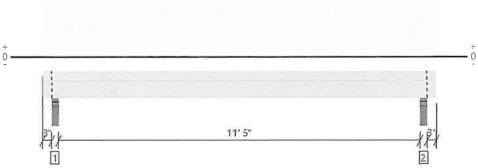


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Level, Garage drop beam 2 right side Current Solution: 3 piece(s) 1 3/4" x 11 7/8" 2.0E Microllam® LVL

Overall Length: 12' 6"



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)	2228 @ 4 3/4"	7809 (3.50")	Passed (29%)	152	1.0 D + 1.0 L (Adj Spans)
Shear (lbs)	1682 @ 1' 6 3/8"	11845	Passed (14%)	1.00	1.0 D + 1.0 L (Adj Spans)
Moment (Pt-lbs)	6096 @ 6' 3"	26772	Passed (23%)	1.00	1.0 D + 1.0 L (Alt Spans)
Live Load Defl. (in)	0.083 @ 6' 3"	0.390	Passed (L/999+)	120	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.114 @ 6' 3"	0.585	Passed (L/999+)		1.0 D + 1.0 L (Alt Spans)

System: Floor Member Type: Drop Beam Building Use: Residential Building Code: IBC 2018 Design Methodology: ASD

All Product Solutions						
Depth	Series	Plies	Cost Index			
9 1/4"	3 1/2" 2.0E Parallam® PSL (East)	1	64.75			
11 7/8"	1 3/4" 2.0E Microllam® LVL	3	124.69			

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