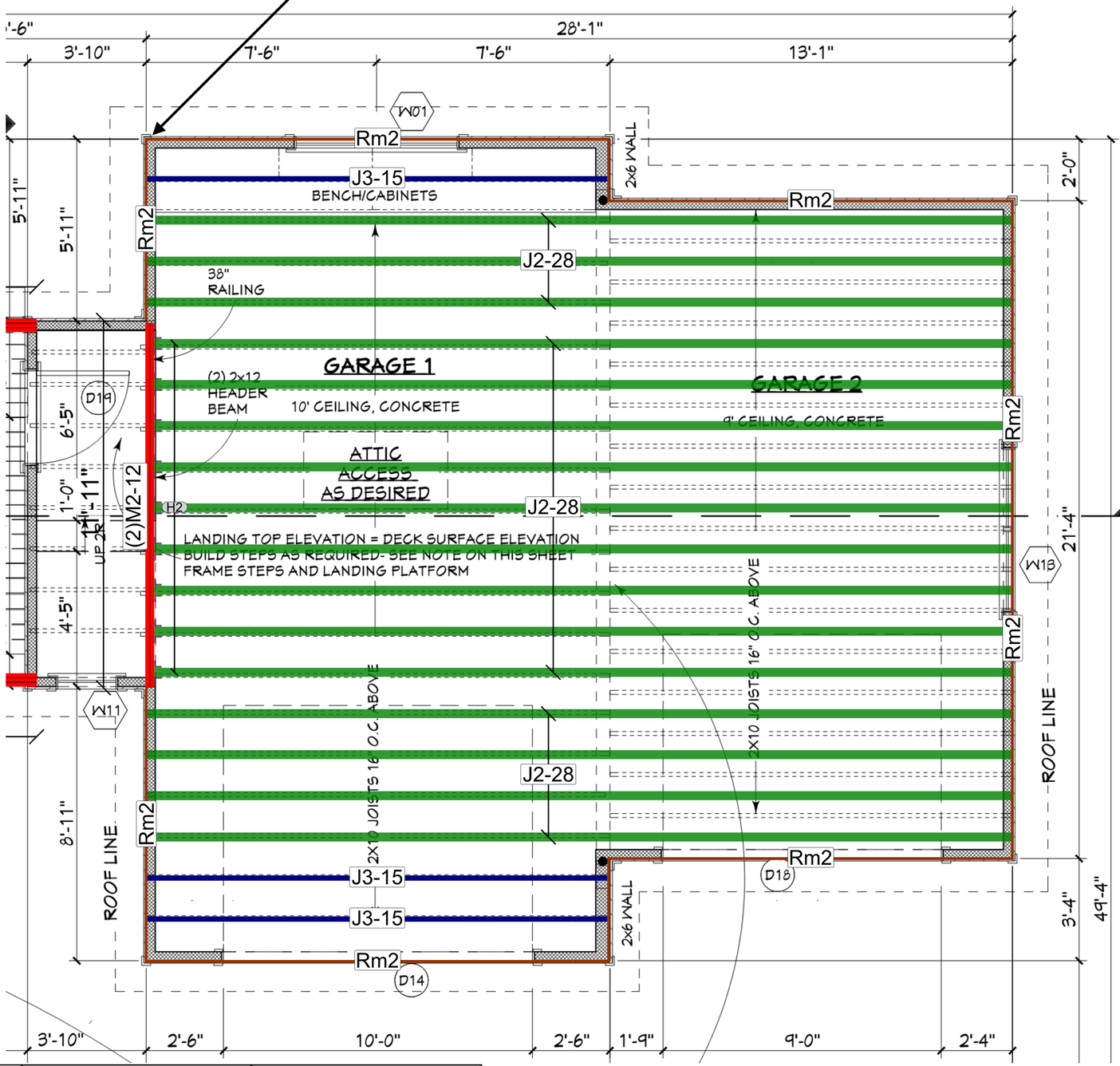
Tag	Qty	Product	Len	Cut Logic
Floor Joist				
J2	16	3-1/2"x16" TJI® 560	28'	16x(1/28)
Floor Joist				
J3	3	2-1/16"x16" TJI® 210	16'	3x(1/15)
Beam				
M2	3	1-3/4"x16" Microllam® LVL	20'	3x(1/19)
M2	3	1-3/4"x16" Microllam® LVL	18'	3x(1/18)
M2	3	1-3/4"x16" Microllam® LVL	16'	3x(1/15)
M2	3	1-3/4"x16" Microllam® LVL	14'	3x(1/14)
M2	2	1-3/4"x16" Microllam® LVL	12'	2x(1/12)
M2	3	1-3/4"x16" Microllam® LVL	6'	3x(1/6)
Rim				
Rm2	7	1-1/8"x16" TJ® Rim Board	16'	7/16
Hanger				
H2	9	MIU3.56/16 Simpson Strong Tie		

Start Framing Here
16" TJI 560's @ 16" O.C.



HOW MUCH IS YOUR TIME WORTH?

Tired of spending time nailing, screwing or bolting multi-ply beams and columns together? Step up to a solid one-piece solution.

***PARALLAM® PSL* Beams & Columns**

The "solid" choice for framing larger width beams and columns. Pick it up, put it in, keep on framing!

GENERAL NOTES:

- Joists may be shifted up to 3" from on center spacing to avoid hanger interference, flush beams and/or plumbing drops. **DO NOT CUT JOIST FLANGES.**
- All EWP beams have been designed assuming full width support of the members/plies, unless noted otherwise.
- This drawing may contain deviations from the original project documents. It is the responsibility of the contractor to notify the project Design Professional of these deviations to verify conformance with the original design intent of the project.

GENERAL NOTES:

- This layout is intended for the use of TrusJoist engineered wood products only. The substitution of other wood products with this layout is NOT PERMITTED. Please identify the TJI®, TimberStrand® LSL, Microllam® LVL and Parallam® PSL stamps on the product to ensure that this layout is valid for the products actually installed.
- Only header openings and roof loads which affect Weyerhaeuser product sizes have been denoted on this layout. In addition to and 'CS' detail callouts shown, solid blocking and/or squash blocks are required to provide vertical load transfer from all concentrated load locations to foundation below. See Pocket Framers Guide for appropriate detail(s)

Mabus Contractors
McKinney Residence

Garage Layout

These joist placement layouts have been prepared for the specification of TrusJoist products based on project information provided. This service is solely intended for product application assurance, and is not intended as construction advice, or a design professional as determined by the building codes. The designer of record and/or builder/framer is responsible to assure these drawings are compatible with the overall project.

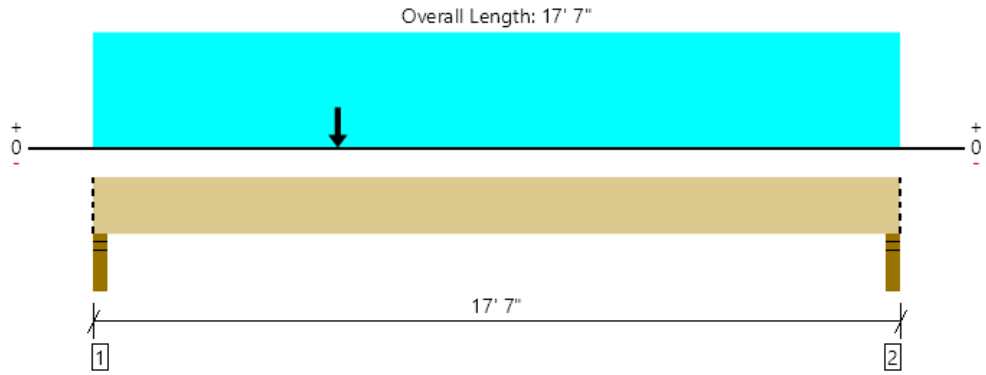
Architectural Date: **10/23/2018**
Structural Date: **10/24/2018**
Estimator: **WHF**
Tracking: **JMP2124**

FORTE WEB

MEMBER REPORT

PASSED

Level, Floor: (3) M2-18 Flush Beam
3 piece(s) 1 3/4" x 16" 2.0E Microllam® LVL



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)	2142 @ 2"	7809 (3.50")	Passed (27%)	--	1.0 D + 0.75 L + 0.75 S (All Spans)
Shear (lbs)	1966 @ 1' 7 1/2"	18354	Passed (11%)	1.15	1.0 D + 0.75 L + 0.75 S (All Spans)
Moment (Ft-lbs)	9525 @ 5' 4"	53672	Passed (18%)	1.15	1.0 D + 0.75 L + 0.75 S (All Spans)
Live Load Defl. (in)	0.071 @ 8' 4 1/2"	0.431	Passed (L/999+)	--	1.0 D + 0.75 L + 0.75 S (All Spans)
Total Load Defl. (in)	0.142 @ 8' 4"	0.863	Passed (L/999+)	--	1.0 D + 0.75 L + 0.75 S (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Snow	Total	
1 - Stud wall - SPF	3.50"	3.50"	1.50"	1081	703	712	2496	Blocking
2 - Stud wall - SPF	3.50"	3.50"	1.50"	706	703	304	1713	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)	17' 7" o/c	
Bottom Edge (Lu)	17' 7" o/c	

•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 17' 7"	N/A	24.5	--	--	
1 - Uniform (PSF)	0 to 17' 7" (Front)	2'	12.0	40.0	-	Default Load
2 - Point (lb)	5' 4" (Front)	N/A	934	-	1016	PL From Valley

Weyerhaeuser Notes

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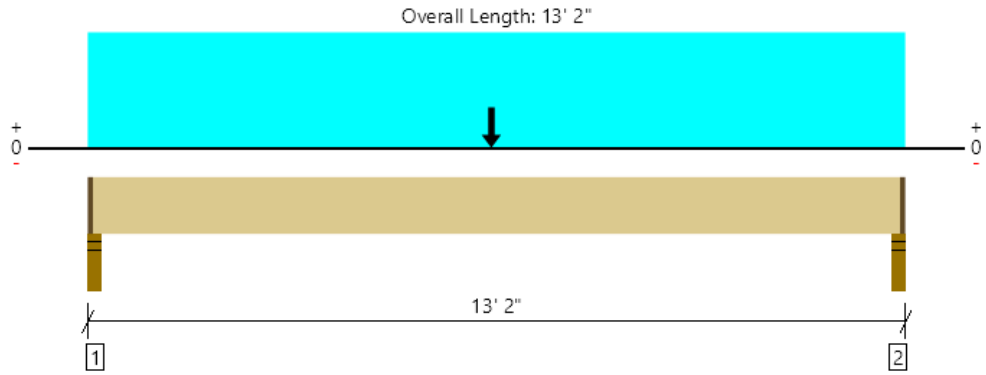
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
John Moore JMP Design Group (919) 522-0182 jmoore@jmpdesigngroup.com	

Weyerhaeuser

7/31/2020 5:00:13 PM UTC
ForteWEB v3.0, Engine: V8.1.2.3, Data: V8.0.0.0
File Name: McKinney Residence

Level, Floor: (3) M2-14 Flush Beam
3 piece(s) 1 3/4" x 16" 2.0E Microllam® LVL



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)	927 @ 2"	5020 (2.25")	Passed (18%)	--	1.0 D + 0.75 L + 0.75 S (All Spans)
Shear (lbs)	749 @ 1' 7 1/2"	15960	Passed (5%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	4514 @ 6' 6"	53672	Passed (8%)	1.15	1.0 D + 0.75 L + 0.75 S (All Spans)
Live Load Defl. (in)	0.012 @ 6' 6"	0.321	Passed (L/999+)	--	1.0 D + 0.75 L + 0.75 S (All Spans)
Total Load Defl. (in)	0.038 @ 6' 6"	0.642	Passed (L/999+)	--	1.0 D + 0.75 L + 0.75 S (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Snow	Total	
1 - Stud wall - SPF	3.50"	2.25"	1.50"	607	263	169	1039	1 1/4" Rim Board
2 - Stud wall - SPF	3.50"	2.25"	1.50"	598	263	165	1026	1 1/4" Rim Board

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

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	13' o/c	
Bottom Edge (Lu)	13' o/c	

•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)	1 1/4" to 13' 3/4"	N/A	24.5	--	--	
1 - Uniform (PSF)	0 to 13' 2" (Front)	1'	12.0	40.0	-	Default Load
2 - Point (lb)	6' 6" (Front)	N/A	730	-	334	PL

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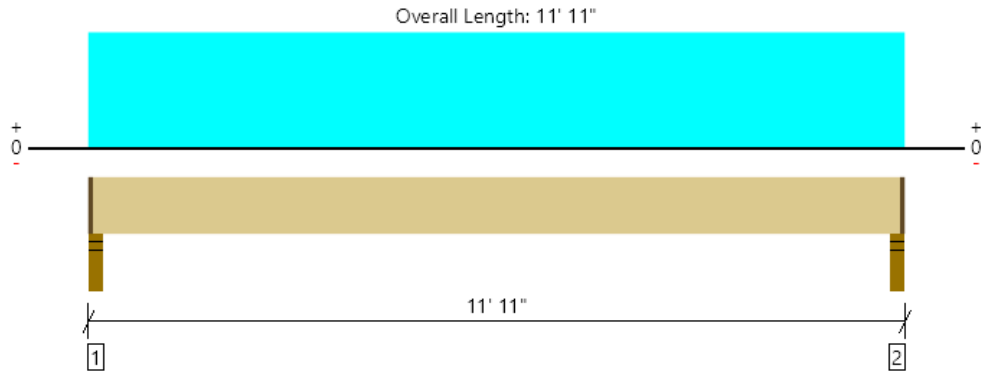
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
John Moore JMP Design Group (919) 522-0182 jmoore@jmpdesigngroup.com	

Weyerhaeuser

Level, Floor: (2) M2-12 Flush Beam
2 piece(s) 1 3/4" x 16" 2.0E Microllam® LVL



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)	3380 @ 2"	3533 (2.38")	Passed (96%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	2497 @ 1' 7 1/2"	10640	Passed (23%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	9666 @ 5' 11 1/2"	31114	Passed (31%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.086 @ 5' 11 1/2"	0.290	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.118 @ 5' 11 1/2"	0.579	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - SPF	3.50"	2.38"	2.27"	930	2503	3433	1 1/8" Rim Board
2 - Stud wall - SPF	3.50"	2.38"	2.27"	930	2503	3433	1 1/8" Rim Board

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

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	11' 9" o/c	
Bottom Edge (Lu)	11' 9" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/8" to 11' 9 7/8"	N/A	16.3	--	
1 - Uniform (PSF)	0 to 11' 11" (Front)	14'	10.0	30.0	Default Load

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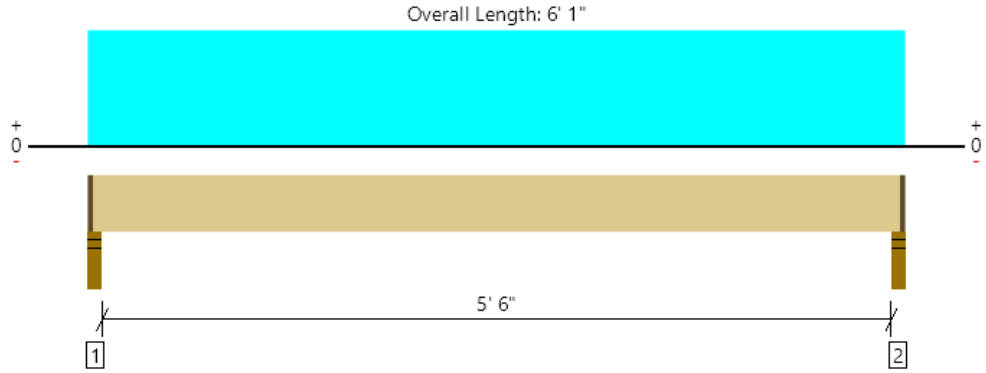
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
John Moore JMP Design Group (919) 522-0182 jmoore@jmpdesigngroup.com	

Weyerhaeuser

Level, Floor: (3) M2-6 Flush Beam
3 piece(s) 1 3/4" x 16" 2.0E Microllam® LVL



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)	645 @ 2"	5020 (2.25")	Passed (13%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	311 @ 1' 7 1/2"	18354	Passed (2%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	907 @ 3' 1/2"	53672	Passed (2%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.002 @ 3' 1/2"	0.144	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.003 @ 3' 1/2"	0.287	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Total	
1 - Stud wall - SPF	3.50"	2.25"	1.50"	270	395	665	1 1/4" Rim Board
2 - Stud wall - SPF	3.50"	2.25"	1.50"	270	395	665	1 1/4" Rim Board

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

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	5' 11" o/c	
Bottom Edge (Lu)	5' 11" 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)	1 1/4" to 5' 11 3/4"	N/A	24.5	--	
1 - Uniform (PSF)	0 to 6' 1" (Front)	6' 6"	10.0	20.0	Default Load

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

ForteWEB Software Operator	Job Notes
John Moore JMP Design Group (919) 522-0182 jmoore@jmpdesigngroup.com	

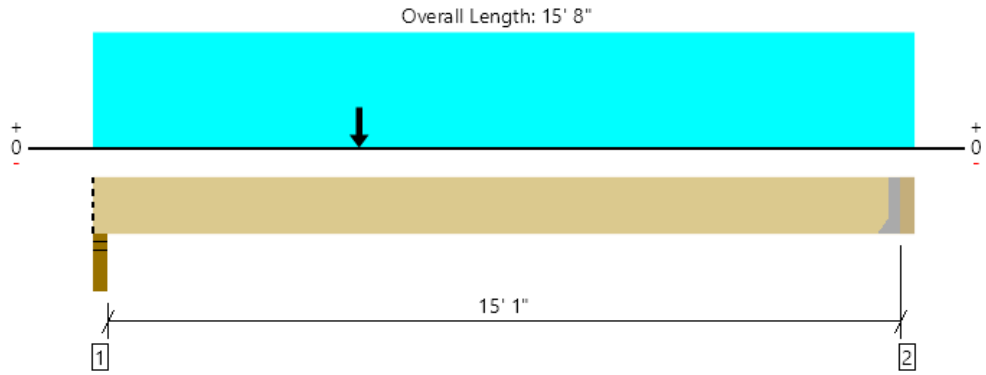
Weyerhaeuser

FORTE WEB

MEMBER REPORT

PASSED

Level, Floor: (3) M2-15 Flush Beam
3 piece(s) 1 3/4" x 16" 2.0E Microllam® LVL



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)	2145 @ 2"	7809 (3.50")	Passed (27%)	--	1.0 D + 0.75 L + 0.75 S (All Spans)
Shear (lbs)	1934 @ 1' 7 1/2"	18354	Passed (11%)	1.15	1.0 D + 0.75 L + 0.75 S (All Spans)
Moment (Ft-lbs)	8997 @ 5' 2"	53672	Passed (17%)	1.15	1.0 D + 0.75 L + 0.75 S (All Spans)
Live Load Defl. (in)	0.054 @ 7' 5 1/2"	0.380	Passed (L/999+)	--	1.0 D + 0.75 L + 0.75 S (All Spans)
Total Load Defl. (in)	0.106 @ 7' 5"	0.760	Passed (L/999+)	--	1.0 D + 0.75 L + 0.75 S (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Snow	Total	
1 - Stud wall - SPF	3.50"	3.50"	1.50"	1050	777	682	2509	Blocking
2 - Hanger on 16" LVL beam	3.50"	Hanger[1]	1.50"	730	790	334	1854	See note [1]

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	15' 5" o/c	
Bottom Edge (Lu)	15' 5" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie						
Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
2 - Face Mount Hanger	HU614	2.50"	N/A	18-10dx1.5	8-10d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 15' 4 1/2"	N/A	24.5	--	--	
1 - Uniform (PSF)	0 to 15' 8" (Front)	2' 6"	12.0	40.0	-	Default Load
2 - Point (lb)	5' 2" (Front)	N/A	934	-	1016	PL From Valley

Weyerhaeuser Notes

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ForteWEB Software Operator	Job Notes
John Moore JMP Design Group (919) 522-0182 jmoore@jmpdesigngroup.com	

Weyerhaeuser

7/31/2020 6:07:49 PM UTC
ForteWEB v3.0, Engine: V8.1.2.3, Data: V8.0.0.0
File Name: McKinney Residence

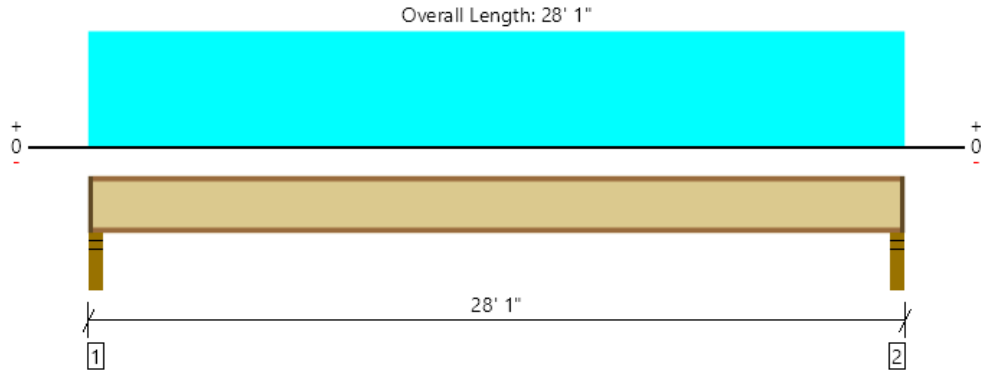
FORTE WEB

MEMBER REPORT

FAILED

Level, Floor: Joist

1 piece(s) 16" TJI® 560 @ 12" OC



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)	418 @ 2 1/2"	1429 (2.38")	Passed (29%)	1.00	1.0 D + 1.0 L (All Spans)
Shear (lbs)	413 @ 3 1/2"	2710	Passed (15%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	2870 @ 14' 1/2"	12925	Passed (22%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.214 @ 14' 1/2"	0.692	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.321 @ 14' 1/2"	1.383	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
TJ-Pro™ Rating	37	40	Failed	--	--

System : Floor
Member Type : Joist
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- A structural analysis of the deck has not been performed.
- Deflection analysis is based on composite action with a single layer of 23/32" Weyerhaeuser Edge™ Panel (24" Span Rating) that is glued and nailed down.
- Additional considerations for the TJ-Pro™ Rating include: None.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - SPF	3.50"	2.38"	1.75"	140	281	421	1 1/8" Rim Board
2 - Stud wall - SPF	3.50"	2.38"	1.75"	140	281	421	1 1/8" Rim Board

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

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' 6" o/c	
Bottom Edge (Lu)	27' 11" o/c	

•TJI joists are only analyzed using Maximum Allowable bracing solutions.
•Maximum allowable bracing intervals based on applied load.

Vertical Load	Location (Side)	Spacing	Dead (0.90)	Floor Live (1.00)	Comments
1 - Uniform (PSF)	0 to 28' 1"	12"	10.0	20.0	Default Load

Weyerhaeuser Notes

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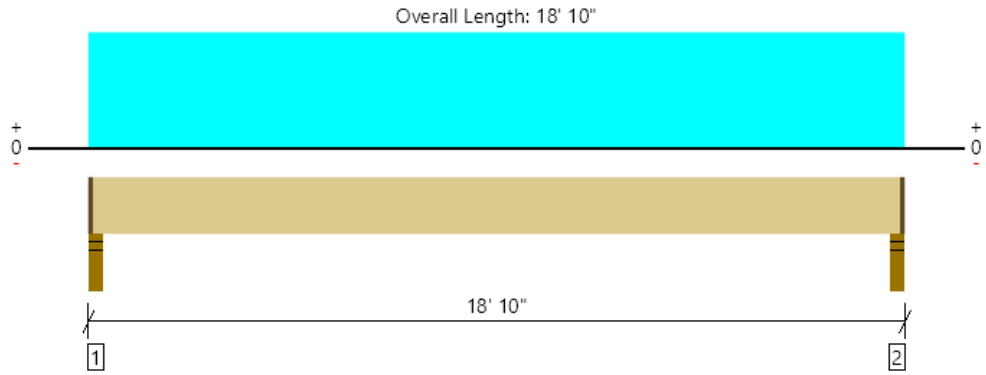
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
John Moore JMP Design Group (919) 522-0182 jmoore@jmpdesigngroup.com	

Weyerhaeuser

7/31/2020 5:30:15 PM UTC
ForteWEB v3.0, Engine: V8.1.2.3, Data: V8.0.0.0
File Name: McKinney Residence

Level, Floor: (3) M2-19 Flush Beam
3 piece(s) 1 3/4" x 16" 2.0E Microllam® LVL



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)	2046 @ 2"	5299 (2.38")	Passed (39%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1710 @ 1' 7 1/2"	18354	Passed (9%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	9390 @ 9' 5"	53672	Passed (17%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.103 @ 9' 5"	0.463	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.174 @ 9' 5"	0.925	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Total	
1 - Stud wall - SPF	3.50"	2.38"	1.50"	840	1224	2064	1 1/8" Rim Board
2 - Stud wall - SPF	3.50"	2.38"	1.50"	840	1224	2064	1 1/8" Rim Board

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

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	18' 8" o/c	
Bottom Edge (Lu)	18' 8" 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)	1 1/8" to 18' 8 7/8"	N/A	24.5	--	
1 - Uniform (PSF)	0 to 18' 10" (Front)	6' 6"	10.0	20.0	Default Load

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