

Member Report

Label: M5-2 | Design Tag: i602 2 piece(s) of 1 3/4" x 9 1/4" 2.0E Microllam® LVL Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described



Building Code: IBC 2021 Design Methodology: ASD Member Cut Length: 7' 0" Member Drawing Not to Scale **Design Results:** Design @ Location Allowed Result <u>LDF</u> Load Combination - (Load Group) Critical Reaction 144 lb @ 6' 10" 9187 lb (3.5") Passed - 2% 1.0 D + 1.0 S - (0) -Shear 106 lb @ 5' 11 1/4" 7074 lb Passed - 2% 1.15 1.0 D + 1.0 S - (0) Moment 236 lb-ft @ 3' 7 1/2" 12884 lb-ft Passed - 2% 1.15 1.0 D + 1.0 S - (0) Live Load Deflection 0.00" @ 3' 7 9/16" 0.21" L/360 Passed - L/999 1.0 D + 1.0 S - (0) -Total Load Deflection 0.32" L/240 Passed - L/999 0.00" @ 3' 7 9/16" -1.0 D + 1.0 S - (0)

Design Notes:

* Top Edge Bracing (Lu): Top compression edge must be braced at 7-00-00 o/c based on loads applied, unless detailed otherwise.

* Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 7-00-00 o/c based on loads applied, unless detailed otherwise.

* Allowed moment does not reflect the adjustment for the beam stability factor.

Supports:					Maximum Load	s to Supports	
Support	Start : End	<u>Req'd Br'g</u>	Source	Dead	Floor Live	Roof Live	Snow
1	0" : 6 1/2"	1.5"	PBO4(i33)	92 lb	-	-	72 lb
2	6' 8 1/2" : 7' 0"	1.5"	E12(i12)	82 lb	-	-	63 lb

Loads:				Maximum Loads on Member			
<u>Type</u>	Start : End (Side)	<u>Combine</u>	Source	Dead	Floor Live	Roof Live	Snow
Self Weight	0" : 7' 0"	-	Self Weight	9 lb/ft	-	-	-
Uniform	-0" : 6' 8 1/2" (Top)	-	PLT23(i79)	16 lb/ft	-	-	20 lb/ft

Errors, Warnings, & Notes:

* If sloping roof loads are applied to this member, the roof dead load has been adjusted for slope.

* The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.

* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.



Member Report

Label: M5-2 | Design Tag: i602

2 piece(s) of 1 3/4" x 9 1/4" 2.0E Microllam® LVL

Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

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Member Report

Wall: E2 | Label: E2_MHd2-2 | Design Tag: i600 2 piece(s) of 1 3/4" x 11 7/8" 2.0E Microllam® LVL

Member Type: HeaderAsDroppedBeam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described



Design Results:	Design @ Location	Allowed	Result	LDF	Load Combination - (Load Group)
Critical Reaction	3888 lb @ 1 1/2"	7875 lb (3")	Passed - 49%	-	1.0 D + 0.75 L + 0.75 S - (0)
Shear	3117 lb @ 1' 2 7/8"	9081 lb	Passed - 34%	1.15	1.0 D + 0.75 L + 0.75 S - (0)
Moment	11668 lb-ft @ 6' 3"	20525 lb-ft	Passed - 57%	1.15	1.0 D + 0.75 L + 0.75 S - (0)
Live Load Deflection	0.19" @ 6' 3"	0.41" L/360	Passed - L/794	-	1.0 D + 0.75 L + 0.75 S - (0)
Total Load Deflection	0.35" @ 6' 3"	0.61" L/240	Passed - L/414	-	1.0 D + 0.75 L + 0.75 S - (0)

Design Notes:

* Top Edge Bracing (Lu): Top compression edge must be braced at 12-03-00 o/c based on loads applied, unless detailed otherwise.

* Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 12-06-00 o/c based on loads applied, unless detailed otherwise.

* Allowed moment does not reflect the adjustment for the beam stability factor.

Supports:					Maximum Loads to Supports				
Support	Start : End	<u>Req'd Br'g</u>	Source	Dead	Floor Live	Roof Live	Snow		
1	0":3"	1.5"	Trimmer	1855 lb	1017 lb	-	1688 lb		
2	12' 3" : 12' 6"	1.5"	Trimmer	1855 lb	1017 lb	-	1688 lb		

Loads:			Maximum Loads on Member				
<u>Type</u>	Start : End (Side)	<u>Combine</u>	Source	Dead	Floor Live	Roof Live	Snow
Self Weight	0" : 12' 6"	-	Self Weight	11 lb/ft	-	-	-
Uniform	0" : 12' 6" (Top)	-	PLT1(i70)	204 lb/ft	-	-	270 lb/ft
Uniform	0" : 12' 6" (Top)	-	User Load	81 lb/ft	163 lb/ft	-	-

Errors, Warnings, & Notes:

* If sloping roof loads are applied to this member, the roof dead load has been adjusted for slope.

* The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.

* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.



Member Report

Wall: E2 | Label: E2_MHd2-2 | Design Tag: i600

2 piece(s) of 1 3/4" x 11 7/8" 2.0E Microllam® LVL

Member Type: HeaderAsDroppedBeam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

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Member Report

Floor Container: FC1 | Label: T24' | Design Tag: i599 1 piece(s) of 16" TJI® 360 joist

Member Type: FloorJoist | Level: 2nd Floor

Product is Sufficient for Application and Loads Described



22' 9 3/4"

Building Code: IBC 2021	Design Methodology: ASI	Member Cut Leng	gth: 22' 9 3/4"	Member Drawing Not to Scale	
Design Results:	Design @ Location	Allowed	Result	LDF	Load Combination - (Load Group)
Critical Reaction	698 lb @ 22' 8 3/8"	1233 lb (2.38")	Passed - 57%	1.00	1.0 D + 1.0 L - (0)
Shear	746 lb @ 4 3/8"	2190 lb	Passed - 34%	1.00	1.0 D + 1.0 L - (0)
Moment	4241 lb-ft @ 11' 6 3/4"	8405 lb-ft	Passed - 50%	1.00	1.0 D + 1.0 L - (0)
Live Load Deflection	0.34" @ 11' 4 13/16"	0.56" L/480	Passed - L/800	-	1.0 D + 1.0 L - (0)
Total Load Deflection	0.45" @ 11'6"	1.12" L/240	Passed - L/595	-	1.0 D + 1.0 L - (0)
TJ Pro Rating	45	40	Passed		

Decking Material & Attachment: 23/32"x48"x96" Weyerhaeuser Edge Gold Panel (0/24) T&G SF - Glue And Nail

Design Notes:

* Top Edge Bracing (Lu): Top compression edge must be braced at 5-04-00 o/c based on loads applied, unless detailed otherwise.

* Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 22-10-00 o/c based on loads applied, unless detailed otherwise.

* Allowed moment does not reflect the adjustment for the beam stability factor.

* Additional considerations for TJ-Pro[™] Rating include ceiling.

* For TJ-Pro[™] Rating calculation the controlling span is considered to be supported by walls.

* Member design (strength) is based on loads shown in loading section. TJ-Pro™ Rating, if shown, is based on 1-04-00 o.c. spacing.

Supports:				Maximum Loads to Supports				
Support	Start : End	<u>Req'd Br'g</u>	Source	Dead	Floor Live	Roof Live	Snow	
1	0" : 4 3/8"	1.75"	E13(i13)	175 lb	604 lb	-	-	
2	22' 7 3/8" : 22' 9 3/4"	1.75"	B2(i22)	218 lb	482 lb	-	-	

Loads:			Maximum Loads on Member				
Type	Start : End (Side)	Combine	Source	Dead	Floor Live	Roof Live	Snow
Uniform	0" : 22' 9 3/4" (Top)	-	FC1 Floor Decking	13 lb/ft	27 lb/ft	-	-
Uniform	0" : 17' 7 7/16" (Top)	-	FC1 Floor Decking	-	27 lb/ft	-	-
Point	17' 5 11/16" (Top)	-	NB2(i55)	86 lb	-	-	-

Errors, Warnings, & Notes:

* If sloping roof loads are applied to this member, the roof dead load has been adjusted for slope.

* The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.



Member Report

Floor Container: FC1 | Label: T24' | Design Tag: i599

Design Passed

1 piece(s) of 16" TJI® 360 joist

Member Type: FloorJoist | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.

* The TJ-ProTM Rating shown above is based on the default decking for the floor container. Special decking (if used) was not used in determination of the TJ-ProTM Rating.

* Load Duration Factors: Dead - 0.90, Floor Live - 1.00, Roof Live - 1.25, Snow - 1.15

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Member Report

Wall: E13 | Label: E13_MHd1-3 | Design Tag: i595 3 piece(s) of 1 3/4" x 18" 2.0E Microllam® LVL

Member Type: HeaderAsDroppedBeam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described



Critical Reaction	9172 lb @ 3"	17719 lb (4.5")	Passed - 52%	-	1.0 D + 0.75 L + 0.75 S - (0)
Shear	6635 lb @ 16' 10 1/2"	17955 lb	Passed - 37%	1.00	1.0 D + 1.0 L - (0)
Moment	37855 lb-ft @ 9' 3 15/16"	58130 lb-ft	Passed - 65%	1.00	1.0 D + 1.0 L - (0)
Live Load Deflection	0.27" @ 9' 4 9/16"	0.61" L/360	Passed - L/799	-	1.0 D + 0.75 L + 0.75 S - (0)
Total Load Deflection	0.54" @ 9' 4 3/8"	0.91" L/240	Passed - L/407	-	1.0 D + 0.75 L + 0.75 S - (0)

Design Notes:

* Top Edge Bracing (Lu): Top compression edge must be braced at 8-09-00 o/c based on loads applied, unless detailed otherwise.

* Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 18-09-00 o/c based on loads applied, unless detailed otherwise.

* Allowed moment does not reflect the adjustment for the beam stability factor.

Supports:					Maximum Loads to Supports				
Support	Start : End	<u>Req'd Br'g</u>	Source	Dead	Floor Live	Roof Live	Snow		
1	0":4 1/2"	2.33"	Trimmer	4581 lb	3714 lb	-	2386 lb		
2	18' 4 1/2" : 18' 9"	2.27"	Trimmer	4373 lb	3701 lb	-	2389 lb		

Loads: Maxin						on Member	
Type	Start : End (Side)	<u>Combine</u>	Source	Dead	Floor Live	Roof Live	Snow
Self Weight	0" : 18' 9"	-	Self Weight	26 lb/ft	-	-	-
Uniform	0" : 5' 1 1/2" (Top)	-	STCa1(i560)	188 lb/ft	-	-	250 lb/ft
Uniform	0" : 8 1/2" (Top)	-	Smoothed Load	161 lb/ft	309 lb/ft	-	-
Uniform	5 1/2" : 1' 9 1/2" (Top)	-	Smoothed Load	341 lb/ft	461 lb/ft	-	-
Uniform	2' 0 1/2" : 3' 4 1/2" (Top)	-	Smoothed Load	53 lb/ft	88 lb/ft	-	-
Uniform	3' 4 1/2" : 4' 8 1/2" (Top)	-	Smoothed Load	395 lb/ft	484 lb/ft	-	-
Uniform	4' 6 3/16" : 5' 10 3/16" (Top)	-	Smoothed Load	288 lb/ft	183 lb/ft	-	43 lb/ft
Uniform	4' 7 1/4" : 5' 11 1/4" (Top)	-	Smoothed Load	10 lb/ft	-	-	6 lb/ft
Uniform	4' 8 1/2" : 6' 0 1/2" (Top)	-	Smoothed Load	279 lb/ft	259 lb/ft	-	43 lb/ft
Uniform	5' 5" : 13' 10" (Top)	-	STCa1(i560)	268 lb/ft	-	-	249 lb/ft
Uniform	6' 0 1/2" : 12' 8 1/2" (-)	-	Smoothed Load	131 lb/ft	454 lb/ft	-	-
Uniform	12' 8 1/2" : 14' 0 1/2" (Top)	-	Smoothed Load	95 lb/ft	-	-	-
Uniform	13' 3 3/4" : 14' 7 3/4" (Top)	-	Smoothed Load	482 lb/ft	207 lb/ft	-	91 lb/ft
Uniform	14' 0 1/2" : 15' 4 1/2" (Top)	-	Smoothed Load	149 lb/ft	265 lb/ft	-	-
Uniform	14' 1 1/2" : 18' 9" (Top)	-	STCa1(i560)	188 lb/ft	-	-	250 lb/ft
Uniform	15' 4 1/2" : 18' 9" (-)	-	Smoothed Load	179 lb/ft	-	-	-
Uniform	16' 8 1/2" : 18' 0 1/2" (Top)	-	Smoothed Load	-	341 lb/ft	-	-
Tapered	12' 0 1/2" : 18' 9" (-)	-	Smoothed Load	-	165 To 168 lb/ft	-	-



Member Report

Wall: E13 | Label: E13_MHd1-3 | Design Tag: i595

3 piece(s) of 1 3/4" x 18" 2.0E Microllam® LVL

Member Type: HeaderAsDroppedBeam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

Errors, Warnings, & Notes:

* If sloping roof loads are applied to this member, the roof dead load has been adjusted for slope.

* The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.

* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.

* Load Duration Factors: Dead - 0.90, Floor Live - 1.00, Roof Live - 1.25, Snow - 1.15

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Member Report

Label: M1-2 | Design Tag: i592 2 piece(s) of 1 3/4" x 14" 2.0E Microllam® LVL Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described



18' 10**"**

Building Code: IBC 2021 Design Methodology: ASD		Member Cut Length: 18' 10'			Member Drawing Not to Scale
Design Results:	Design @ Location	Allowed	Result	LDF	Load Combination - (Load Group)
Critical Reaction	2787 lb @ 0"	3938 lb (1.5")	Passed - 71%	-	1.0 D + 1.0 L - (0)
Shear	2439 lb @ 1' 2"	9310 lb	Passed - 26%	1.00	1.0 D + 1.0 L - (0)
Moment	13007 lb-ft @ 9' 4"	24258 lb-ft	Passed - 54%	1.00	1.0 D + 1.0 L - (0)
Live Load Deflection	0.34" @ 9' 4"	0.62" L/360	Passed - L/653	-	1.0 D + 1.0 L - (0)
Total Load Deflection	0.54" @ 9' 4"	0.93" L/240	Passed - L/415	-	1.0 D + 1.0 L - (0)

Design Notes:

* Top Edge Bracing (Lu): Top compression edge must be braced at 12-06-00 o/c based on loads applied, unless detailed otherwise.

* Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 18-10-00 o/c based on loads applied, unless detailed otherwise.

* Allowed moment does not reflect the adjustment for the beam stability factor.

Supports:					Maximum Loads to Supports				
Support	Start : End	<u>Req'd Br'g</u>	Source	Dead	Floor Live	Roof Live	Snow		
1	0" : -	1.5"	M2-2(i579)	1005 lb	1758 lb	-	-		
2	18' 6 1/2" : 18' 10"	1.5"	B6(i26)	1007 lb	1758 lb	-	-		

Loads:				Maximum Loads on Member			
Type	Start : End (Side)	Combine	Source	Dead	Floor Live	Roof Live	Snow
Self Weight	0" : 18' 10"	-	Self Weight	14 lb/ft	-	-	-
Uniform	0" : 18' 6 1/2" (Top)	-	User Load	95 lb/ft	190 lb/ft	-	-

Connector Information:			Nail	Nailing Requirements			
Support	Manufacturer	Model	Тор	Face	Member	Min. Seat Length	Other Information
1	SST	HU416	Not Applicable	20- 16d	8- 10d	1.5"	Minimum seat length reported is based on the design load

Errors, Warnings, & Notes:

* If sloping roof loads are applied to this member, the roof dead load has been adjusted for slope.

* The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.

* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.



Member Report

Label: M1-2 | Design Tag: i592

2 piece(s) of 1 3/4" x 14" 2.0E Microllam® LVL

Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

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Member Report

Label: M4-2 | Design Tag: i591 2 piece(s) of 1 3/4" x 9 1/4" 2.0E Microllam® LVL Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described



29' 11"

Building Code: IBC 2021	Design Methodology: ASD	Member Cut Leng	gth: 29'11"	Member Drawing Not to Scale	
Design Results:	Design @ Location	Allowed	Result	LDF	Load Combination - (Load Group)
Critical Reaction	6223 lb @ 9' 3 1/2"	26250 lb (10")	Passed - 24%	-	1.0 D + 0.75 L + 0.75 S - (0)
Shear	2499 lb @ 10' 5 3/4"	7074 lb	Passed - 35%	1.15	1.0 D + 0.75 L + 0.75 S - (0)
Moment	-5922 lb-ft @ 9' 3 1/2"	12884 lb-ft	Passed - 46%	1.15	1.0 D + 0.75 L + 0.75 S - (0)
Live Load Deflection	0.10" @ 14' 11 1/2"	0.38" L/360	Passed - L/999	-	1.0 D + 0.75 L + 0.75 S - (0)
Total Load Deflection	0.16" @ 14' 11 1/2"	0.57" L/240	Passed - L/852	-	1.0 D + 0.75 L + 0.75 S - (0)

Design Notes:

* Top Edge Bracing (Lu): Top compression edge must be braced at 29-11-00 o/c based on loads applied, unless detailed otherwise.

* Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 19-07-00 o/c based on loads applied, unless detailed otherwise.

* Allowed moment does not reflect the adjustment for the beam stability factor.

Supports:	Ipports: Maximum Loads to Supports								
Support	Start : End	<u>Req'd Br'g</u>	Source	Dead	Floor Live	Roof Live	Snow		
1	0" : 3 1/2"	1.5"	E7(i3)	865 lb	473 / -88 lb	-	944 lb		
2	8' 10 1/2" : 9' 8 1/2"	2.37"	PBO5(i41)	2922 lb	1386 lb	-	2958 lb		
3	20' 2 1/2" : 21' 0 1/2"	2.37"	PBO6(i42)	2922 lb	1386 lb	-	2958 lb		
4	29' 7 1/2" : 29' 11"	1.5"	E10(i5)	865 lb	473 / -88 lb	-	944 lb		

Loads:			Maximum Loads on Member				
Type	Start : End (Side)	<u>Combine</u>	Source	Dead	Floor Live	Roof Live	Snow
Self Weight	0" : 29' 11"	-	Self Weight	9 lb/ft	-	-	-
Uniform	3 1/2" : 29' 7 1/2" (Top)	-	PLT24(i82)	192 lb/ft	-	-	253 lb/ft
Uniform	3 1/2" : 29' 7 1/2" (Top)	-	User Load	58 lb/ft	115 lb/ft	-	-

Errors, Warnings, & Notes:

* If sloping roof loads are applied to this member, the roof dead load has been adjusted for slope.

- * The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.
- * Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.



Member Report

Label: M4-2 | Design Tag: i591

2 piece(s) of 1 3/4" x 9 1/4" 2.0E Microllam® LVL

Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

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Member Report

Label: M3-2 | Design Tag: i589 2 piece(s) of 1 3/4" x 9 1/4" 2.0E Microllam® LVL Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described



Building Code: IBC 2021	Design Methodology: ASD	Member Cut Leng	gth: 34' 2"	Member Drawing Not to Scale	
Design Results:	Design @ Location	Allowed	Result	LDF	Load Combination - (Load Group)
Critical Reaction	2615 lb @ 21' 0 1/2"	26250 lb (10")	Passed - 10%	-	1.0 D + 0.75 L + 0.75 S - (0)
Shear	1278 lb @ 22' 2 3/4"	7074 lb	Passed - 18%	1.15	1.0 D + 0.75 L + 0.75 S - (0)
Moment	-2890 lb-ft @ 21' 0 1/2"	12884 lb-ft	Passed - 22%	1.15	1.0 D + 0.75 L + 0.75 S - (0)
Live Load Deflection	0.08" @ 27' 7 3/4"	0.41" L/360	Passed - L/999	-	1.0 D + 0.75 L + 0.75 S - (0)
Total Load Deflection	0.16" @ 27' 8 1/2"	0.62" L/240	Passed - L/907	-	1.0 D + 0.75 L + 0.75 S - (0)

Design Notes:

* Top Edge Bracing (Lu): Top compression edge must be braced at 34-02-00 o/c based on loads applied, unless detailed otherwise.

* Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 34-02-00 o/c based on loads applied, unless detailed otherwise.

* Allowed moment does not reflect the adjustment for the beam stability factor.

Supports: Maximum Loads to Supports							
Support	Start : End	<u>Req'd Br'g</u>	Source	Dead	Floor Live	Roof Live	Snow
1	0" : 10"	1.5"	PBO4(i33)	591 lb	187 / -12 lb	-	496 lb
2	11' 6" : 12' 4"	1.5"	PBO3(i32)	1218 lb	430 lb	-	1065 lb
3	20' 7 1/2" : 21' 5 1/2"	1.5"	PBO2(i31)	1377 lb	463 lb	-	1174 lb
4	33' 4" : 34' 2"	1.5"	PBO1(i30)	642 lb	200 / -10 lb	-	535 lb

Loads:				Maximum Loads on Member				
Type	Start : End (Side)	Combine	Source	Dead	Floor Live	Roof Live	Snow	
Self Weight	0" : 34' 2"	-	Self Weight	9 lb/ft	-	-	-	
Uniform	-0" : 34' 2" (Top)	-	PLT22(i80)	16 lb/ft	-	-	20 lb/ft	
Uniform	3 1/2" : 33' 10 1/2" (Top)	-	PLT22(i80)	54 lb/ft	-	-	72 lb/ft	
Uniform	3 1/2" : 33' 10 1/2" (Top)	-	User Load	34 lb/ft	34 lb/ft	-	-	
Point	1/4" (Top)	-	PLT22(i80)	4 lb	-	-	6 lb	
Point	34' 1 3/4" (Top)	-	PLT22(i80)	4 lb	-	-	6 lb	

Errors, Warnings, & Notes:

* If sloping roof loads are applied to this member, the roof dead load has been adjusted for slope.

* The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.



Member Report

Label: M3-2 | Design Tag: i589

2 piece(s) of 1 3/4" x 9 1/4" 2.0E Microllam® LVL

Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.

* Load Duration Factors: Dead - 0.90, Floor Live - 1.00, Roof Live - 1.25, Snow - 1.15

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Member Report

Label: M2-2 | Design Tag: i579 2 piece(s) of 1 3/4" x 14" 2.0E Microllam® LVL Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described



Building Code: IBC 2021 Design Methodology: ASD Member Cut Length: 14' 6 1/2" Member Drawing Not to Scale Allowed **Design Results:** Design @ Location Result <u>LDF</u> Load Combination - (Load Group) Critical Reaction 2708 lb @ 14' 3 1/2" 11813 lb (4.5") Passed - 23% 1.0 D + 1.0 L - (0) -Shear 2440 lb @ 13' 0" 9310 lb Passed - 26% 1.00 1.0 D + 1.0 L - (0) Moment 13960 lb-ft @ 7' 7" 24258 lb-ft Passed - 58% 1.00 1.0 D + 1.0 L - (0) Live Load Deflection 0.19" @ 7' 7" 0.47" L/360 Passed - L/898 1.0 D + 1.0 L - (0) -

Passed - L/563

-

0.70" L/240

Design Notes:

Total Load Deflection

* Top Edge Bracing (Lu): Top compression edge must be braced at 11-05-00 o/c based on loads applied, unless detailed otherwise.

* Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 14-07-00 o/c based on loads applied, unless detailed otherwise.

* Allowed moment does not reflect the adjustment for the beam stability factor.

0.30" @ 7' 7"

Supports:					Maximum Loads to Supports				
Support	Start : End	<u>Req'd Br'g</u>	Source	Dead	Floor Live	Roof Live	Snow		
1	0":4 1/2"	1.5"	B10(i35)	966 lb	1614 lb	-	-		
2	14' 2" : 14' 6 1/2"	1.5"	B8(i36)	1010 lb	1692 lb	-	-		

Loads:		Maximum Loads on Member					
Type	Start : End (Side)	<u>Combine</u>	Source	Dead	Floor Live	Roof Live	Snow
Self Weight	0" : 14' 6 1/2"	-	Self Weight	14 lb/ft	-	-	-
Uniform	0" : 14' 6 1/2" (Top)	-	User Load	53 lb/ft	106 lb/ft	-	-
Point	7' 7" (Back)	-	M1-2(i592)	1005 lb	1758 lb	-	-

Errors, Warnings, & Notes:

* If sloping roof loads are applied to this member, the roof dead load has been adjusted for slope.

* The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.

* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.

* Load Duration Factors: Dead - 0.90, Floor Live - 1.00, Roof Live - 1.25, Snow - 1.15

1.0 D + 1.0 L - (0)



Member Report

Label: M2-2 | Design Tag: i579

2 piece(s) of 1 3/4" x 14" 2.0E Microllam® LVL

Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

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Member Report

Label: M5-2 | Design Tag: i564 2 piece(s) of 1 3/4" x 9 1/4" 2.0E Microllam® LVL Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described



Building Code: IBC 2021 Design Methodology: ASD Member Cut Length: 7' 0" Member Drawing Not to Scale **Design Results:** Design @ Location Allowed Result <u>LDF</u> Load Combination - (Load Group) Critical Reaction 144 lb @ 6' 10" 9187 lb (3.5") Passed - 2% 1.0 D + 1.0 S - (0) -Shear 106 lb @ 5' 11 1/4" 7074 lb Passed - 2% 1.15 1.0 D + 1.0 S - (0) Moment 236 lb-ft @ 3' 7 1/2" 12884 lb-ft Passed - 2% 1.15 1.0 D + 1.0 S - (0) Live Load Deflection 0.00" @ 3' 7 9/16" 0.21" L/360 Passed - L/999 1.0 D + 1.0 S - (0) -Total Load Deflection 0.32" L/240 Passed - L/999 0.00" @ 3' 7 9/16" -1.0 D + 1.0 S - (0)

Design Notes:

* Top Edge Bracing (Lu): Top compression edge must be braced at 7-00-00 o/c based on loads applied, unless detailed otherwise.

* Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 7-00-00 o/c based on loads applied, unless detailed otherwise.

* Allowed moment does not reflect the adjustment for the beam stability factor.

Supports:				Maximum Loads to Supports				
Support	Start : End	<u>Req'd Br'g</u>	Source	Dead	Floor Live	Roof Live	Snow	
1	0" : 6 1/2"	1.5"	PBO1(i30)	92 lb	-	-	72 lb	
2	6' 8 1/2" : 7' 0"	1.5"	E12(i12)	82 lb	-	-	63 lb	

Loads:				Maximum Loads on Member			
<u>Type</u>	Start : End (Side)	Combine	Source	Dead	Floor Live	Roof Live	Snow
Self Weight	0" : 7' 0"	-	Self Weight	9 lb/ft	-	-	-
Uniform	0" : 6' 8 1/2" (Top)	-	PLT21(i81)	16 lb/ft	-	-	20 lb/ft

Errors, Warnings, & Notes:

* If sloping roof loads are applied to this member, the roof dead load has been adjusted for slope.

* The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.

* Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.



Member Report

Label: M5-2 | Design Tag: i564

2 piece(s) of 1 3/4" x 9 1/4" 2.0E Microllam® LVL

Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

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