

Member Report

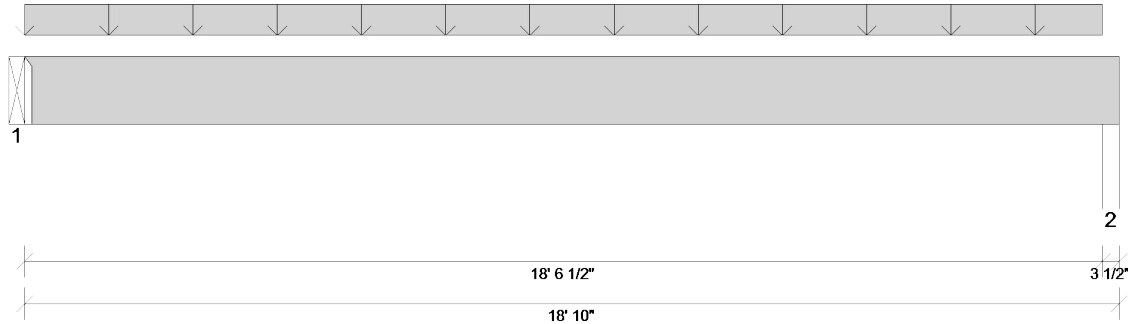
Label: M2-2 | Design Tag: i761

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

Member Type: Beam | Level: 2nd Floor

Design Passed

Product is Sufficient for Application and Loads Described



Building Code: IBC 2021

Design Methodology: ASD

Member Cut Length: 18' 10"

Member Drawing Not to Scale

Design Results:	<u>Design @ Location</u>	<u>Allowed</u>	<u>Result</u>	<u>LDF</u>	<u>Load Combination - (Load Group)</u>
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:

<u>Support</u>	<u>Start : End</u>	<u>Req'd Br'g</u>	<u>Source</u>	<u>Maximum Loads to Supports</u>			
				<u>Dead</u>	<u>Floor Live</u>	<u>Roof Live</u>	<u>Snow</u>
1	0" : -	1.5"	M3-2(i752)	1005 lb	1758 lb	-	-
2	18' 6 1/2" : 18' 10"	1.5"	B6(i26)	1007 lb	1758 lb	-	-

Loads:

<u>Type</u>	<u>Start : End (Side)</u>	<u>Combine</u>	<u>Source</u>	<u>Maximum Loads on Member</u>			
				<u>Dead</u>	<u>Floor Live</u>	<u>Roof Live</u>	<u>Snow</u>
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:

<u>Support</u>	<u>Manufacturer</u>	<u>Model</u>	<u>Nailing Requirements</u>			<u>Min. Seat Length</u>	<u>Other Information</u>
			<u>Top</u>	<u>Face</u>	<u>Member</u>		
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.
- * Load Duration Factors: Dead - 0.90, Floor Live - 1.00, Roof Live - 1.25, Snow - 1.15



Member Report

Label: M2-2 | Design Tag: i761

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

Design Passed

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Member Report

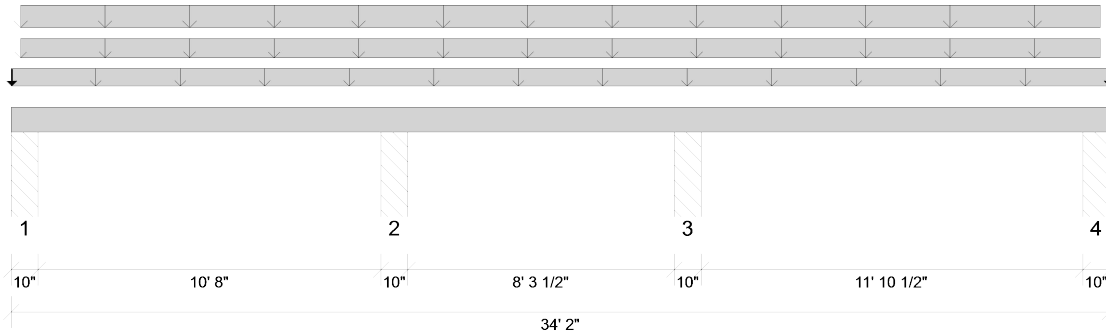
Label: M4-2 | Design Tag: i759

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

Member Type: Beam | Level: 2nd Floor

Design Passed

Product is Sufficient for Application and Loads Described



Building Code: IBC 2021

Design Methodology: ASD

Member Cut Length: 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:

Support	Start : End	Req'd Br'g	Source	Maximum Loads to Supports			
				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:

Type	Start : End (Side)	Combine	Source	Maximum Loads on Member			
				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: M4-2 | Design Tag: i759

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

Design Passed

* 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

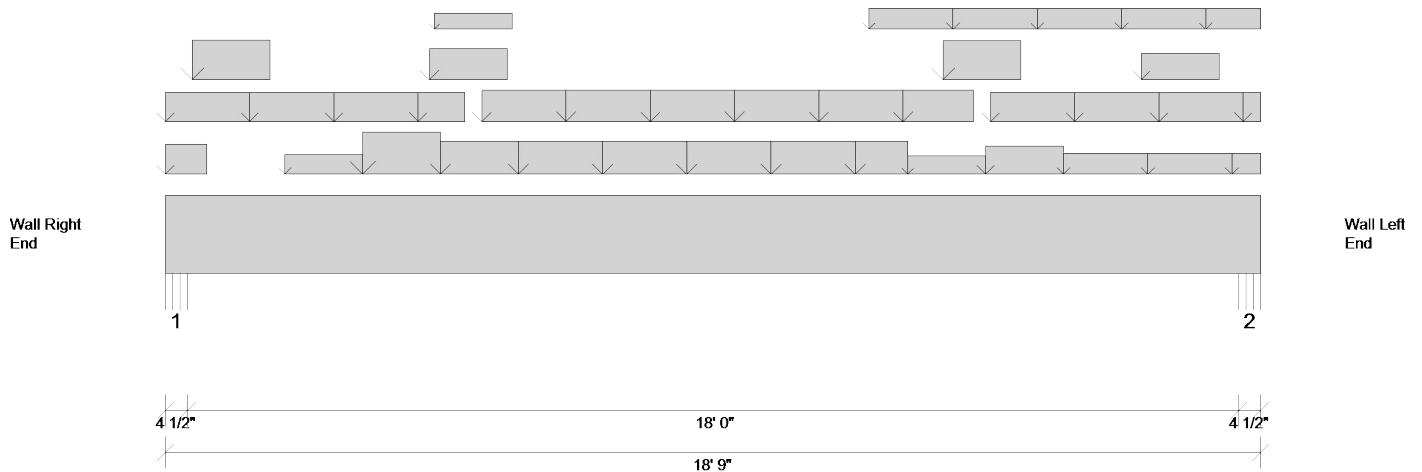
Wall: E13 | Label: E13_MHd1-3 | Design Tag: i755

3 piece(s) of 1 3/4" x 16" 2.0E Microllam® LVL

Member Type: HeaderAsDroppedBeam | Level: 2nd Floor

Design Passed

Product is Sufficient for Application and Loads Described



Building Code: IBC 2021

Design Methodology: ASD

Member Cut Length: 18' 9"

Member Drawing Not to Scale

Design Results:	Design @ Location	Allowed	Result	LDF	Load Combination - (Load Group)
Critical Reaction	9143 lb @ 3"	17719 lb (4.5")	Passed - 52%	-	1.0 D + 0.75 L + 0.75 S - (0)
Shear	6762 lb @ 17' 0 1/2"	15960 lb	Passed - 42%	1.00	1.0 D + 1.0 L - (0)
Moment	37727 lb-ft @ 9' 3 15/16"	46671 lb-ft	Passed - 81%	1.00	1.0 D + 1.0 L - (0)
Live Load Deflection	0.38" @ 9' 4 9/16"	0.61" L/360	Passed - L/573	-	1.0 D + 0.75 L + 0.75 S - (0)
Total Load Deflection	0.75" @ 9' 4 3/8"	0.91" L/240	Passed - L/293	-	1.0 D + 0.75 L + 0.75 S - (0)

Design Notes:

- * Top Edge Bracing (Lu): Top compression edge must be braced at 7-04-00 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:

Support	Start : End	Req'd Br'g	Source	Maximum Loads to Supports			
				Dead	Floor Live	Roof Live	Snow
1	0" : 4 1/2"	2.32"	Trimmer	4554 lb	3714 lb	-	2386 lb
2	18' 4 1/2" : 18' 9"	2.27"	Trimmer	4346 lb	3701 lb	-	2389 lb

Loads:

Type	Start : End (Side)	Combine	Source	Maximum Loads on Member			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0" : 18' 9"	-	Self Weight	23 lb/ft	-	-	-
Uniform	0" : 5' 1 1/2" (Top)	-	STCa1(i745)	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(i745)	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(i745)	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: i755

3 piece(s) of 1 3/4" x 16" 2.0E Microllam® LVL

Member Type: HeaderAsDroppedBeam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

Design Passed

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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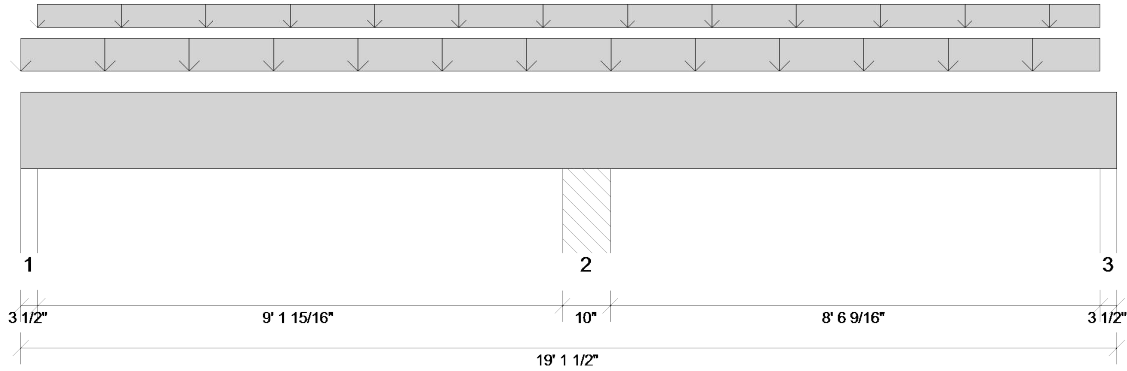
Label: M1-2 | Design Tag: i753

2 piece(s) of 1 3/4" x 16" 2.0E Microllam® LVL

Member Type: Beam | Level: 2nd Floor

Design Passed

Product is Sufficient for Application and Loads Described



Building Code: IBC 2021

Design Methodology: ASD

Member Cut Length: 19' 1 1/2"

Member Drawing Not to Scale

Design Results:	Design @ Location	Allowed	Result	LDF	Load Combination - (Load Group)
Critical Reaction	4883 lb @ 9' 10 7/16"	26250 lb (10")	Passed - 19%	-	1.0 D + 0.75 L + 0.75 S - (0)
Shear	1762 lb @ 8' 1 7/16"	12236 lb	Passed - 14%	1.15	1.0 D + 0.75 L + 0.75 S - (0)
Moment	-4598 lb-ft @ 9' 10 7/16"	35781 lb-ft	Passed - 13%	1.15	1.0 D + 0.75 L + 0.75 S - (0)
Live Load Deflection	0.02" @ 4' 7 5/8"	0.32" L/360	Passed - L/999	-	1.0 D + 0.75 L + 0.75 S - (0)
Total Load Deflection	0.03" @ 4' 6 1/8"	0.49" L/240	Passed - L/999	-	1.0 D + 0.75 L + 0.75 S - (0)

Design Notes:

- * Top Edge Bracing (Lu): Top compression edge must be braced at 19-02-00 o/c based on loads applied, unless detailed otherwise.
- * Bottom Edge Bracing (Lu): Bottom compression edge must be braced at 19-02-00 o/c based on loads applied, unless detailed otherwise.
- * Allowed moment does not reflect the adjustment for the beam stability factor.

Supports:

Support	Start : End	Req'd Br'g	Source	Maximum Loads to Supports			
				Dead	Floor Live	Roof Live	Snow
1	0" : 3 1/2"	1.5"	B10(i35)	780 lb	405 / -49 lb	-	763 lb
2	9' 5 7/16" : 10' 3 7/16"	1.86"	PBO7(i46)	2375 lb	1126 lb	-	2151 lb
3	18' 10" : 19' 1 1/2"	1.5"	B6(i26)	670 lb	382 / -64 lb	-	664 lb

Loads:

Type	Start : End (Side)	Combine	Source	Maximum Loads on Member			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0" : 19' 1 1/2"	-	Self Weight	15 lb/ft	-	-	-
Uniform	-0" : 18' 10" (Top)	-	PLT26(i121)	140 lb/ft	-	-	184 lb/ft
Uniform	3 1/2" : 18' 10" (Back)	-	User Load	49 lb/ft	97 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.
- * Load Duration Factors: Dead - 0.90, Floor Live - 1.00, Roof Live - 1.25, Snow - 1.15



Member Report

Label: M1-2 | Design Tag: i753

2 piece(s) of 1 3/4" x 16" 2.0E Microllam® LVL

Member Type: Beam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

Design Passed

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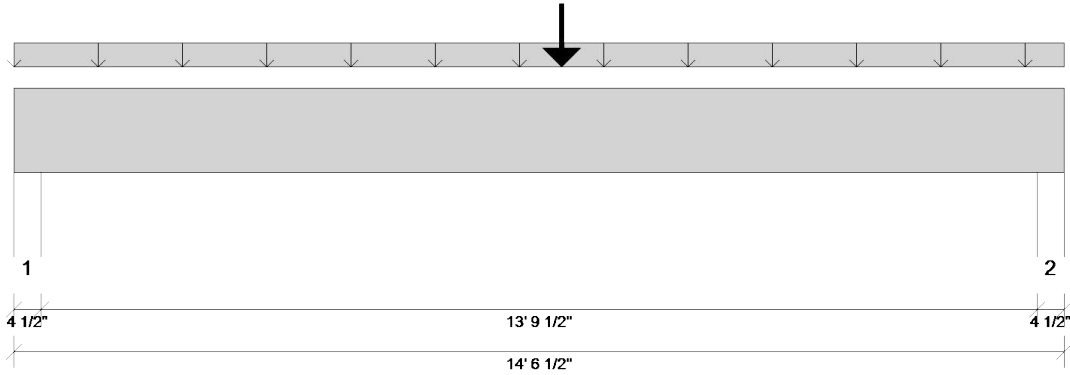
Label: M3-2 | Design Tag: i752

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

Member Type: Beam | Level: 2nd Floor

Design Passed

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

Design Results:	Design @ Location	Allowed	Result	LDF	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)
Total Load Deflection	0.30" @ 7' 7"	0.70" L/240	Passed - L/563	-	1.0 D + 1.0 L - (0)

Design Notes:

- * 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.

Supports:

Support	Start : End	Req'd Br'g	Source	Maximum Loads to Supports			
				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:

Type	Start : End (Side)	Combine	Source	Maximum Loads on Member			
				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)	-	M2-2(i761)	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.
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- * 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



Member Report

Label: M3-2 | Design Tag: i752

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

Design Passed

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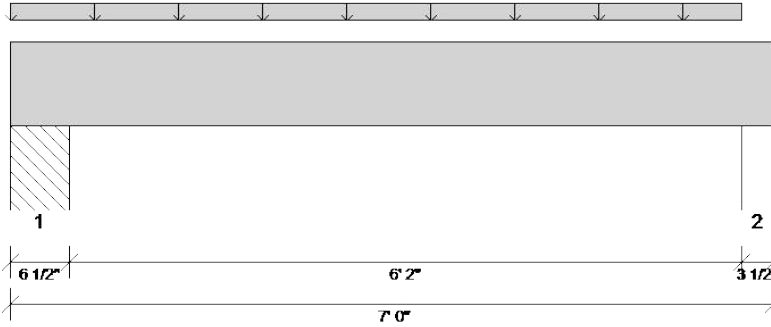
Label: M6-2 | Design Tag: i747

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

Member Type: Beam | Level: 2nd Floor

Design Passed

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	LDF	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 9/16"	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	0.00" @ 3' 7 9/16"	0.32" L/240	Passed - L/999	-	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:

Support	Start : End	Req'd Br'g	Source	Maximum Loads to Supports			
				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:

Type	Start : End (Side)	Combine	Source	Maximum Loads on Member			
				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:

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- * 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



Member Report

Label: M6-2 | Design Tag: i747

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

Design Passed

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Member Report

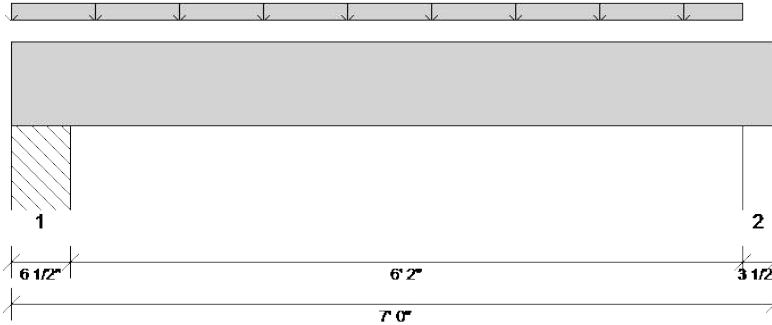
Label: M6-2 | Design Tag: i740

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

Member Type: Beam | Level: 2nd Floor

Design Passed

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	LDF	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 9/16"	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	0.00" @ 3' 7 9/16"	0.32" L/240	Passed - L/999	-	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:

Support	Start : End	Req'd Br'g	Source	Maximum Loads to Supports			
				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:

Type	Start : End (Side)	Combine	Source	Maximum Loads on Member			
				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.
- * Load Duration Factors: Dead - 0.90, Floor Live - 1.00, Roof Live - 1.25, Snow - 1.15



Member Report

Label: M6-2 | Design Tag: i740

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

Design Passed

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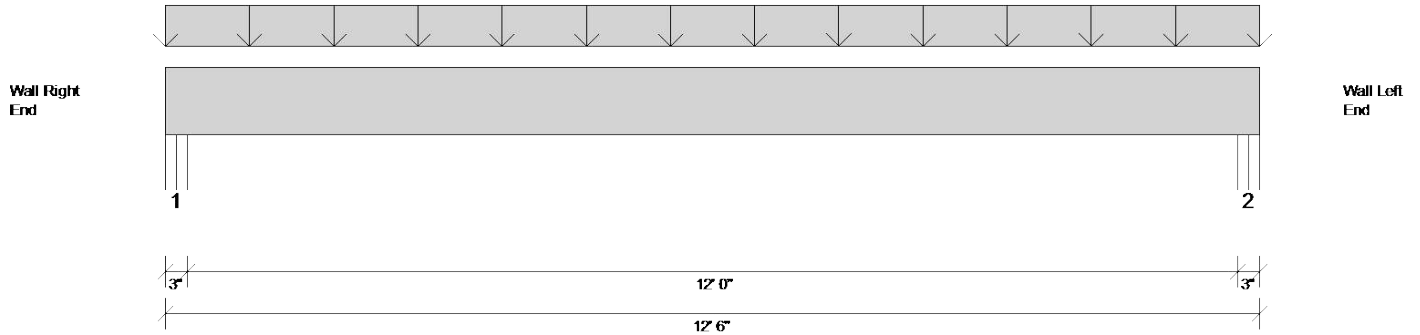


Member Report

Wall: E24 | Label: E24_MHd2-3 | Design Tag: i738
3 piece(s) of 1 3/4" x 9 1/4" 2.0E Microllam® LVL
 Member Type: HeaderAsDroppedBeam | Level: 2nd Floor

Design Passed

Product is Sufficient for Application and Loads Described



Building Code: IBC 2021 Design Methodology: ASD Member Cut Length: 12' 6" Member Drawing Not to Scale

Design Results:	Design @ Location	Allowed	Result	LDF	Load Combination - (Load Group)
Critical Reaction	3051 lb @ 1 1/2"	11813 lb (3")	Passed - 26%	-	1.0 D + 1.0 S - (0)
Shear	2553 lb @ 1' 0 1/4"	10611 lb	Passed - 24%	1.15	1.0 D + 1.0 S - (0)
Moment	9157 lb-ft @ 6' 3"	19327 lb-ft	Passed - 47%	1.15	1.0 D + 1.0 S - (0)
Live Load Deflection	0.21" @ 6' 3"	0.41" L/360	Passed - L/701	-	1.0 D + 1.0 S - (0)
Total Load Deflection	0.38" @ 6' 3"	0.61" L/240	Passed - L/388	-	1.0 D + 1.0 S - (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 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:

Support	Start : End	Req'd Br'g	Source	Maximum Loads to Supports			
				Dead	Floor Live	Roof Live	Snow
1	0" : 3"	1.5"	Trimmer	1359 lb	-	-	1688 lb
2	12' 3" : 12' 6"	1.5"	Trimmer	1359 lb	-	-	1688 lb

Loads:

Type	Start : End (Side)	Combine	Source	Maximum Loads on Member			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0" : 12' 6"	-	Self Weight	13 lb/ft	-	-	-
Uniform	0" : 12' 6" (Top)	-	PLT1(i70)	204 lb/ft	-	-	270 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.
- * Load Duration Factors: Dead - 0.90, Floor Live - 1.00, Roof Live - 1.25, Snow - 1.15



Member Report

Wall: E24 | Label: E24_MHd2-3 | Design Tag: i738

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

Member Type: HeaderAsDroppedBeam | Level: 2nd Floor

Product is Sufficient for Application and Loads Described

Design Passed

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Member Report

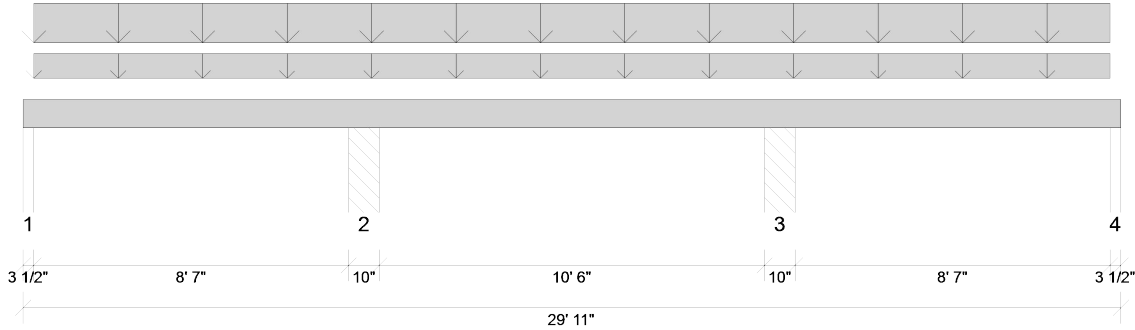
Label: M5-2 | Design Tag: i722

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

Member Type: Beam | Level: 2nd Floor

Design Passed

Product is Sufficient for Application and Loads Described



Building Code: IBC 2021

Design Methodology: ASD

Member Cut Length: 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:

Support	Start : End	Req'd Br'g	Source	Maximum Loads to Supports			
				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:

Type	Start : End (Side)	Combine	Source	Maximum Loads on Member			
				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.
- * Load Duration Factors: Dead - 0.90, Floor Live - 1.00, Roof Live - 1.25, Snow - 1.15



Member Report

Label: M5-2 | Design Tag: i722

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

Design Passed

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