

55 Day Trading Court

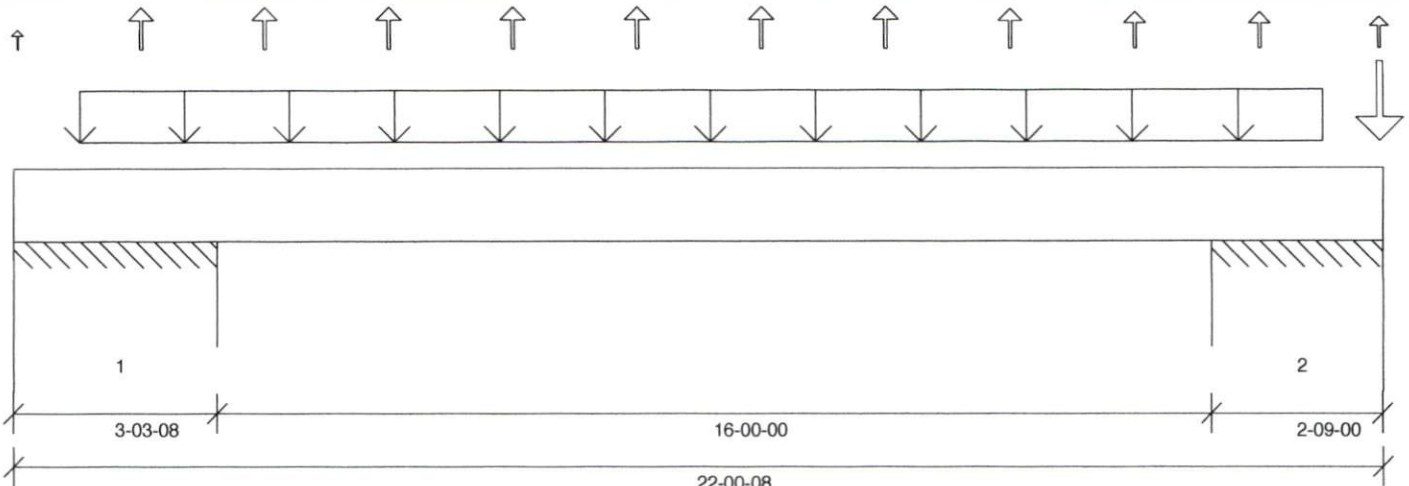


Job: 19020118 layout
 Member Type: Beam | Level: 1st Floor
 Mitek SAPPHIRE™ Structure Version 8.2.0.246.Update9
 Designed by Single Member Design Engine
Member: 2 - 2.0 RigidLam LVL 1-3/4 x 14

Label: BM1-i40

Page: 1 of 6
 Date: 02/25/2019 10:30:30

Status: Design Passed



Graphical Illustration - Not To Scale
 Member Cut Length - 22'- 1/2"
 MemberPitch - 0/12

Design Information:

Building Code: IRC 2012	Floor Dead Load: 10.0 lb/ft²	Roof Dead Load: 10.0 lb/ft²	Ground Snow Load: 0.0 lb/ft²
Design Methodology: ASD	Floor Live Load: 40.0 lb/ft²	Roof Live Load: 20.0 lb/ft²	
	Unbraced Length Top: 1'- 10 1/2"	Bottom: 16'	

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	19'- 5"	8993.83 lb ft	26449.06 lb ft	Passed - 34%	1.25	D + Lr
Critical Moment (Neg)		0.00 lb ft	0.00 lb ft			
Critical Shear	18'- 1 1/2"	3437.69 lb	11841.67 lb	Passed - 29%	1.25	D + Lr
Live Load Deflection	11'- 2 15/16"	0'- 1/16"	N/A (L/480)	Passed - L/999	-	Lr
Total Load Deflection	11'- 2 15/16"	0'- 1/8"	N/A (L/240)	Passed - L/999	-	D + Lr
Max. Reaction			Supported Mt Supporting Mt			
	0'- 1 1/2"	-2634.24 lb	18375.00 lb -	Passed - 15%	1.25	D + Lr
	3'- 2"	6998.88 lb	18375.00 lb 17762.50 lb	Passed - 39%	1.25	D + Lr
	19'- 5"	7675.04 lb	18375.00 lb 17762.50 lb	Passed - 43%	1.25	D + Lr
	21'- 11"	-3125.38 lb	18375.00 lb -	Passed - 18%	1.25	D + Lr

Design Notes:

* Member design assumed proper ply to ply connection. Verify connection between plies according to code specification

Loading:

Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	22'- 1/2"	Self Weight	13 lb/ft	-	-	-
Uniform	1'- 3/4"	21'- 3/4"	Smoothed Load	206 lb/ft	-	222 lb/ft	-
Point	0'- 3/4"	0'- 3/4"	A1GE(c01)	-	-	-1.00 lb	-
Point	2'- 3/4"	2'- 3/4"	A1(c01)	-	-	-7.00 lb	-
Point	4'- 3/4"	4'- 3/4"	A1(c03)	-	-	-7.00 lb	-
Point	6'- 3/4"	6'- 3/4"	A1(c08)	-	-	-7.00 lb	-
Point	8'- 3/4"	8'- 3/4"	A1(c09)	-	-	-7.00 lb	-
Point	10'- 3/4"	10'- 3/4"	A1(c02)	-	-	-7.00 lb	-
Point	12'- 3/4"	12'- 3/4"	A1(c07)	-	-	-7.00 lb	-
Point	14'- 3/4"	14'- 3/4"	A1(c11)	-	-	-7.00 lb	-
Point	16'- 3/4"	16'- 3/4"	A1(c10)	-	-	-7.00 lb	-
Point	18'- 3/4"	18'- 3/4"	A1(c05)	-	-	-7.00 lb	-
Point	20'- 3/4"	20'- 3/4"	A1(c04)	-	-	-7.00 lb	-
Point	21'- 11 3/4"	21'- 11 3/4"	A1(c06)	330.00 lb	-	310.00/-8.00 lb	-

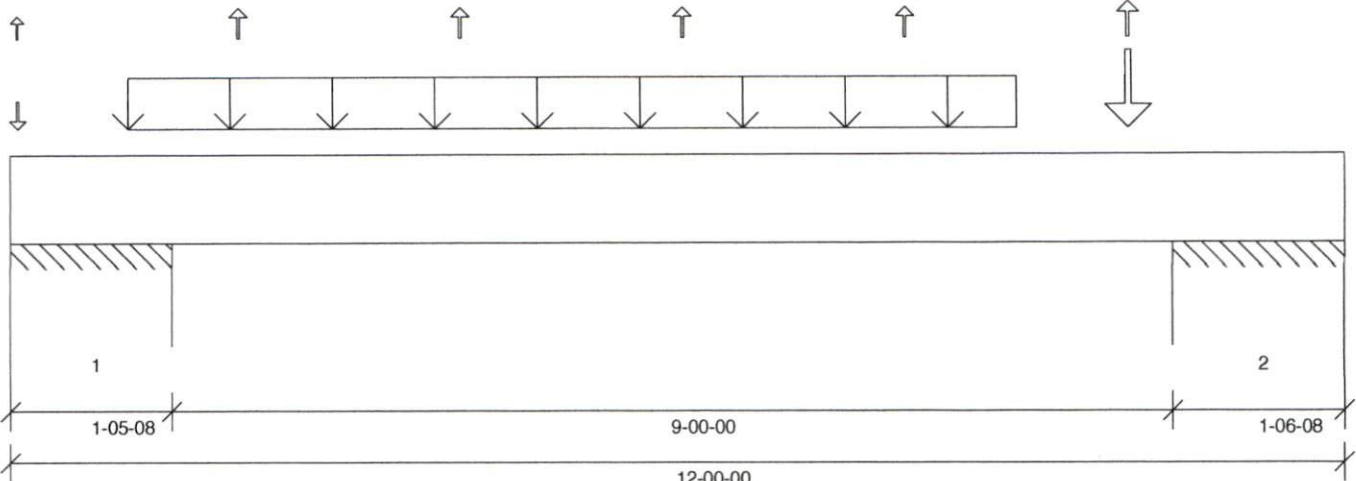
Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	3'- 3 1/2"	E15(39)	3471.00/-1216.00 lb	-	3711.00/-1473.00 lb	-
⇒	0'- 1 1/2"	0'- 1 1/2"	E15(39)	-1216.00 lb	-	178.00/-1417.00 lb	-
⇒	3'- 2"	3'- 2"	E15(39)	3471.00 lb	-	3533.00/-56.00 lb	-
2	19'- 3 1/2"	22'- 1/2"	E14(98)	3811.00/-1328.00 lb	-	4300.00/-1868.00 lb	-
⇒	19'- 5"	19'- 5"	E14(98)	3811.00 lb	-	3881.00/-61.00 lb	-
⇒	21'- 11"	21'- 11"	E14(98)	-1328.00 lb	-	419.00/-1807.00 lb	-

Errors, Warnings & Notes:

- * The dead loads used in the design of this member were applied to the structure as sloped dead loads.
- * 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.

- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
 - This report is based on modeled conditions input by the user. Actual field conditions may differ from those shown. These results should be reviewed by a qualified design professional.



Graphical Illustration - Not To Scale
 Member Cut Length - 12'
 Member Pitch - 0/12

Design Information:

Building Code: IRC 2012	Floor Dead Load: 10.0 lb/ft²	Roof Dead Load: 10.0 lb/ft²	Ground Snow Load: 0.0 lb/ft²
Design Methodology: ASD	Floor Live Load: 40.0 lb/ft²	Roof Live Load: 20.0 lb/ft²	
	Unbraced Length Top: 1'- 10 1/2"	Bottom: 9'	

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	1'- 4"	4585.00 lb ft	16776.02 lb ft	Passed - 27%	1.25	D + Lr
Critical Moment (Neg)		0.00 lb ft	0.00 lb ft			
Critical Shear	2'- 3"	2584.79 lb	8035.42 lb	Passed - 32%	1.25	D + Lr
Live Load Deflection	6'- 6 3/4"	0'- 1/16"	N/A (L/480)	Passed - L/999	-	Lr
Total Load Deflection	6'- 6 5/8"	0'- 1/16"	N/A (L/240)	Passed - L/999	-	D + Lr
Max. Reaction			Supported Mt Supporting Mt			
	0'- 1 1/2"	-3703.87 lb	18375.00 lb -	Passed - 21%	1.25	D + Lr
	1'- 4"	6607.72 lb	18375.00 lb 17762.50 lb	Passed - 37%	1.25	D + Lr
	10'- 7"	2290.17 lb	18375.00 lb 17762.50 lb	Passed - 13%	1.25	D + Lr
	10'- 7"	-446.92 lb	18375.00 lb -	Passed - 3%	1.60	0.6D + 0.6W
	11'- 10 1/2"	520.28 lb	18375.00 lb 17762.50 lb	Passed - 3%	1.60	0.6D + 0.6W
	11'- 10 1/2"	-307.87 lb	18375.00 lb -	Passed - 2%	1.60	D + 0.6W

Design Notes:

* Member design assumed proper ply to ply connection. Verify connection between plies according to code specification

Loading:

Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	12'	Self Weight	9 lb/ft	-	-	-
Uniform	1'- 3/4"	9'- 3/4"	Smoothed Load	237 lb/ft	-	226 lb/ft	-
Point	0'- 3/4"	0'- 3/4"	T1GE(c01)	80.00 lb	-	106.00 lb	-
Point	2'- 3/4"	2'- 3/4"	T1(c05)	-	-	-	-
Point	4'- 3/4"	4'- 3/4"	T1(c01)	-	-	-	-
Point	6'- 3/4"	6'- 3/4"	T1(c02)	-	-	-	-
Point	8'- 3/4"	8'- 3/4"	T1(c03)	-	-	-	-
Point	10'- 3/4"	10'- 3/4"	T1(c04)	602.00 lb	-	665.00 lb	-

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	1'- 5 1/2"	E3(i41)	3435.00/-1880.00 lb	-	3313.00/-1850.00 lb	-
⇒	0'- 1 1/2"	0'- 1 1/2"	E3(i41)	-1880.00 lb	-	118.00/-1838.00 lb	-
⇒	1'- 4"	1'- 4"	E3(i41)	3435.00 lb	-	3195.00/-12.00 lb	-
2	10'- 5 1/2"	12'	E2(i21)	1129.00 lb	-	1117.00 lb	-
⇒	10'- 7"	10'- 7"	E2(i21)	1129.00 lb	-	1117.00 lb	-
⇒	11'- 10 1/2"	11'- 10 1/2"	E2(i21)	-	-	-	-

Errors, Warnings & Notes:

- * CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.
- * The dead loads used in the design of this member were applied to the structure as sloped dead loads.
- * 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.



Job: 19020118 layout
 Member Type: Beam | Level: 1st Floor
 Mitek SAPHIRE™ Structure Version 8.2.0.246.Update9
 Designed by Single Member Design Engine

Label: BM3-i104

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 Date: 02/25/2019 10:30:31

Member: 3 - 2.0 RigidLam LVL 1-3/4 x 14

Status: Design Passed



Graphical Illustration - Not To Scale
 Member Cut Length - 23'- 6 1/4"
 Member Pitch - 0/12

Design Information:

Building Code: IRC 2012	Floor Dead Load: 10.0 lb/ft²	Roof Dead Load: 10.0 lb/ft²	Ground Snow Load: 0.0 lb/ft²
Design Methodology: ASD	Floor Live Load: 40.0 lb/ft²	Roof Live Load: 20.0 lb/ft²	
	Unbraced Length Top: 14'- 7 1/4"	Bottom: 14'- 3 3/4"	

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	7'- 3/4"	7560.76 lb ft	52958.15 lb ft	Passed - 14%	1.25	D + 0.75(L + Lr)
Critical Moment (Neg)		0.00 lb ft	0.00 lb ft			
Critical Moment (Neg)		0.00 lb ft	0.00 lb ft			
Critical Shear	8'- 4 1/2"	6713.97 lb	17762.50 lb	Passed - 38%	1.25	D + Lr
Live Load Deflection	14'- 5/8"	0'	N/A (L/480)	Passed - L/999	-	0.75(L + Lr + 0.6W)
Total Load Deflection	14'- 4"	0'- 1/16"	N/A (L/240)	Passed - L/999	-	D + 0.75(L + Lr + 0.6W)
Max. Reaction			Supported Mtl Supporting Mtl			
	0'- 2 1/2"	1355.73 lb	15257.79 lb 7809.37 lb	Passed - 17%	1.00	D + L
	0'- 2 1/2"	-457.27 lb	15257.79 lb -	Passed - 6%	1.25	D + Lr
	7'- 3/4"	7718.15 lb	15257.78 lb 7809.36 lb	Passed - 99%	1.00	D + L
	23'- 3 3/4"	389.94 lb	15257.96 lb 7809.46 lb	Passed - 5%	1.25	D + Lr

Design Notes:

* Member design assumed proper ply to ply connection. Verify connection between plies according to code specification

Loading:

Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	23'- 6 1/4"	Self Weight	19 lb/ft	-	-	-
Point	0'- 10"	0'- 10"	F1(c02)	295.00 lb	801.00 lb	-	-
Point	2'- 10"	2'- 10"	F1(c04)	295.00 lb	801.00 lb	-	-
Point	4'- 10"	4'- 10"	F1(c01)	295.00 lb	801.00 lb	-	-
Point	6'- 10"	6'- 10"	F1(c03)	299.00 lb	817.00 lb	-	-
Point	8'- 8 3/8"	8'- 8 3/8"	BM4(i105)	3983.00 lb	413.00 lb	2818.00/3.00 lb	-

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	5(i36)	-82.00 lb	1389.00/61.00 lb	-	-
2	6'- 11"	7'- 2 1/2"	10(i44)	5427.00 lb	2327.00 lb	2523.00/3.00 lb	-
3	23'- 2 3/4"	23'- 6 1/4"	1(i25)	287.00 lb	18.00/39.00 lb	296.00 lb	-

Errors, Warnings & Notes:

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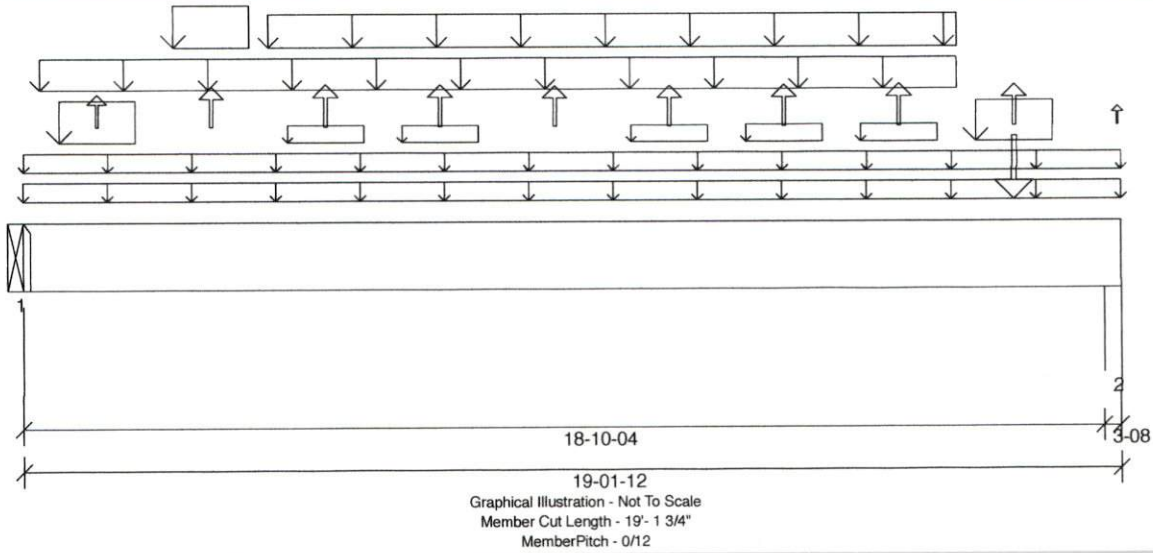
Job: 19020118 layout
 Member Type: Beam | Level: 1st Floor
 Mitek SAPHIRE™ Structure Version 8.2.0.246.Update9
 Designed by Single Member Design Engine

Label: BM4-i105

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 Date: 02/25/2019 10:30:31

Member: 3 - 2.0 RigidLam LVL 1-3/4 x 14

Status: Design Passed



Design Information:

Building Code: IRC 2012	Floor Dead Load: 10.0 lb/ft²	Roof Dead Load: 10.0 lb/ft²	Ground Snow Load: 0.0 lb/ft²
Design Methodology: ASD	Floor Live Load: 40.0 lb/ft²	Roof Live Load: 20.0 lb/ft²	
	Unbraced Length Top: 0'	Bottom: 1'- 10 1/2"	

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	9'- 3 1/2"	33047.09 lb ft	54322.76 lb ft	Passed - 61%	1.25	D + Lr
Critical Moment (Neg)		0.00 lb ft	0.00 lb ft			
Critical Moment (Neg)		0.00 lb ft	0.00 lb ft			
Critical Shear	1'- 2"	6403.55 lb	17762.50 lb	Passed - 36%	1.25	D + Lr
Live Load Deflection	9'- 5 1/2"	0'- 3/8"	N/A (L/480)	Passed - L/596	-	Lr
Total Load Deflection	9'- 5 9/16"	0'- 15/16"	N/A (L/240)	Passed - L/248	-	D + Lr
Max. Reaction	0'	6800.64 lb	6800.64 lb	Supported Mtl	1.25	D + Lr
	18'- 11 1/4"	6701.38 lb	15257.96 lb	Supporting Mtl	1.25	D + Lr

Design Notes:

* Member design assumed proper ply to ply connection. Verify connection between plies according to code specification

Loading:

Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	19'- 1 3/4"	Self Weight	19 lb/ft	-	-	-
Uniform	0'	19'- 1 3/4"	4(i31)	65 lb/ft	-	-	-
Uniform	0'	19'- 1 3/4"	FC1 Floor Material	10 lb/ft	42 lb/ft	-	-
Uniform	0'- 3 1/2"	16'- 3 1/2"	Smoothed Load	157 lb/ft	-	142 lb/ft	-
Uniform	0'- 7 1/2"	1'- 11 1/2"	4(i31)	271 lb/ft	-	250 lb/ft	-
Uniform	2'- 7 1/2"	3'- 11 1/2"	4(i31)	268 lb/ft	-	246 lb/ft	-
Uniform	4'- 3 1/2"	16'- 3 1/2"	-	178 lb/ft	-	164 lb/ft	-
Uniform	4'- 7 1/2"	5'- 11 1/2"	4(i31)	-	-	-	-
Uniform	6'- 7 1/2"	7'- 11 1/2"	4(i31)	-	-	-	-
Uniform	10'- 7 1/2"	11'- 11 1/2"	4(i31)	-	-	-	-
Uniform	12'- 7 1/2"	13'- 11 1/2"	4(i31)	-	-	-	-
Uniform	14'- 7 1/2"	15'- 11 1/2"	4(i31)	-	-	-	-
Uniform	16'- 7 1/2"	17'- 11 1/2"	4(i31)	260 lb/ft	-	232 lb/ft	-
Point	1'- 3 1/2"	1'- 3 1/2"	-	-	-	-1.00 lb	-
Point	3'- 3 1/2"	3'- 3 1/2"	-	-	-	-1.00 lb	-
Point	5'- 3 1/2"	5'- 3 1/2"	-	-	-	-2.00 lb	-
Point	7'- 3 1/2"	7'- 3 1/2"	-	-	-	-	-
Point	9'- 3 1/2"	9'- 3 1/2"	-	-	-	-	-
Point	11'- 3 1/2"	11'- 3 1/2"	-	-	-	-	-
Point	13'- 3 1/2"	13'- 3 1/2"	-	-	-	-	-
Point	15'- 3 1/2"	15'- 3 1/2"	-	-	-	-	-
Point	17'- 3 1/2"	17'- 3 1/2"	-	306.00 lb	-	271.00 lb	-
Point	19'- 1"	19'- 1"	4(i31)	-	-	-	-

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'	BM3(i104)	3983.00 lb	413.00 lb	2818.00/-3.00 lb	-
2	18'- 10 1/4"	19'- 1 3/4"	E12(i18)	3974.00 lb	403.00 lb	2728.00/-1.00 lb	-

- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
 - This report is based on modeled conditions input by the user. Actual field conditions may differ from those shown. These results should be reviewed by a qualified design professional.



Job: 19020118 layout
 Member Type: Beam | Level: 1st Floor
 Mitek SAPPHIRE™ Structure Version 8.2.0.246.Update9
 Designed by Single Member Design Engine

Label: BM4-i105

Page: 5 of 6
 Date: 02/25/2019 10:30:31

Member: 3 - 2.0 RigidLam LVL 1-3/4 x 14

Status: Design Passed

Connector Information:

Support	Manufacturer	Model	Nailing Requirements			Mill Seat Length	Other Information
			Top	Face	Member		
1	N/A	N/A	N/A	N/A	N/A	N/A	Connector has not been designed. No information is available.

Errors, Warnings & Notes:

- * The dead loads used in the design of this member were applied to the structure as sloped dead loads.
- * 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.



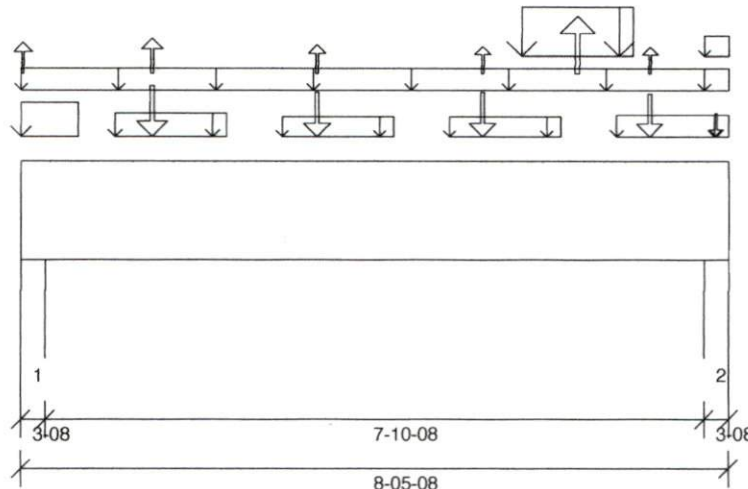
Job: 19020118 layout
 Member Type: Beam | Level: 1st Floor
 MiTek SAPPHIRE™ Structure Version 8.2.0.246.Update9
 Designed by Single Member Design Engine

Label: BM5-i106

Page: 6 of 6
 Date: 02/25/2019 10:30:32

Member: 2 - 2.0 RigidLam LVL 1-3/4 x 14

Status: Design Passed



Graphical Illustration - Not To Scale
 Member Cut Length - 8'-5 1/2"
 MemberPitch - 0/12

Design Information:

Building Code:	IRC 2012	Floor Dead Load:	10.0 lb/ft ²	Roof Dead Load:	10.0 lb/ft ²	Ground Snow Load:	0.0 lb/ft ²
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft ²	Roof Live Load:	20.0 lb/ft ²		
		Unbraced Length Top:	0'	Bottom:	1'-10 1/2"		

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	5'-3 1/8"	2381.21 lb ft	36215.18 lb ft	Passed - 7%	1.25	D + Lr
Critical Moment (Neg)		0.00 lb ft	0.00 lb ft			
Critical Moment (Neg)		0.00 lb ft	0.00 lb ft			
Critical Shear	7'	949.71 lb	11841.67 lb	Passed - 8%	1.25	D + Lr
Live Load Deflection	4'-4 7/16"	0'	N/A (L/480)	Passed - L/999	-	Lr
Total Load Deflection	4'-4 1/8"	0'	N/A (L/240)	Passed - L/999	-	D + Lr
Max. Reaction	0'-2 1/2"	1221.35 lb	10171.87 lb	Passed - 23%	1.25	D + Lr
	8'-3"	1578.24 lb	10171.88 lb	Passed - 30%	1.25	D + Lr

Design Notes:

* Member design assumed proper ply to ply connection. Verify connection between plies according to code specification

Loading:

Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	8'-5 1/2"	Self Weight	13 lb/ft	-	-	-
Uniform	-0'	8'-5 1/2"	E18(30)	65 lb/ft	-	-	-
Uniform	-0'	0'-8 1/4"	E18(30)	105 lb/ft	-	164 lb/ft	-
Uniform	1'-1 1/2"	2'-5 1/2"	E18(30)	52 lb/ft	-	42 lb/ft	-
Uniform	3'-1 1/2"	4'-5 1/2"	E18(30)	25 lb/ft	-	-	-
Uniform	5'-1 1/2"	6'-5 1/2"	E18(30)	35 lb/ft	-	-	-
Uniform	5'-11 13/16"	7'-3 13/16"	E18(30)	235 lb/ft	-	318 lb/ft	-
Uniform	7'-1 1/2"	8'-5 1/2"	E18(30)	67 lb/ft	-	-	-
Uniform	8'-2"	8'-5 1/2"	FC1 Floor Material	-	43 lb/ft	-	-
Point	0'-1/4"	0'-1/4"	E18(30)	-	-	-	-
Point	1'-6 13/16"	1'-6 13/16"	-	78.00 lb	-	178.00 lb	-
Point	3'-6 1/2"	3'-6 1/2"	-	60.00 lb	-	146.00/-14.00 lb	-
Point	5'-6 1/4"	5'-6 1/4"	T3(c02)	60.00 lb	-	146.00 lb	-
Point	6'-7 13/16"	6'-7 13/16"	E18(30)	-	-	-	-
Point	7'-6 1/4"	7'-6 1/4"	T3(c04)	56.00 lb	-	138.00 lb	-
Point	8'-3 3/4"	8'-3 3/4"	FC1 Floor Material	48.00 lb	-	-	-

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'-3 1/2"	6(35)	685.00 lb	-	543.00/-8.00 lb	-
2	8'-2"	8'-5 1/2"	7(37)	903.00 lb	13.00 lb	669.00/-6.00 lb	-

Errors, Warnings & Notes:

- * The dead loads used in the design of this member were applied to the structure as sloped dead loads.
- * 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.