

Graphical Illustration - Not To Scale  
Member Cut Length - 11-07-00  
MemberPitch - 0/12

**Design Information:**

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft <sup>2</sup>	Roof Dead Load:	10.0 lb/ft <sup>2</sup>	Ground Snow Load:	20.0 lb/ft <sup>2</sup>
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft <sup>2</sup>	Roof Live Load:	20.0 lb/ft <sup>2</sup>		
		Unbraced Length	Top: 0-00	Bottom:	1-08-04		

**Design Results:**

	Location	Design	Control	Result	LDF	Load Combination	
Critical Moment (Pos)	7-01-05	8328.20 lb ft	28945.56 lb ft	Passed - 29%	1.00	D + L	
Critical Moment (Neg)	8-08	-250.91 lb ft	28945.56 lb ft	Passed - 1%	1.00	D + L	
Critical Shear	10-01-08	3609.82 lb	9310.00 lb	Passed - 39%	1.00	D + L	
Live Load Deflection	6-02-03	0-01	0-12 (L/360)	Passed - L/999	-	L	
Total Load Deflection	6-02-03	0-02	1-00 (L/240)	Passed - L/999	-	D + L	
Max. Reaction			Supported Mtl	Supporting Mtl			
	8-08	3466.16 lb	24937.62 lb	29093.89 lb	Passed - 14%	1.00	D + L
	11-04-08	3652.68 lb	9187.48 lb	10718.73 lb	Passed - 40%	1.00	D + L

**Design Notes:**

\* Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

**Loading:**

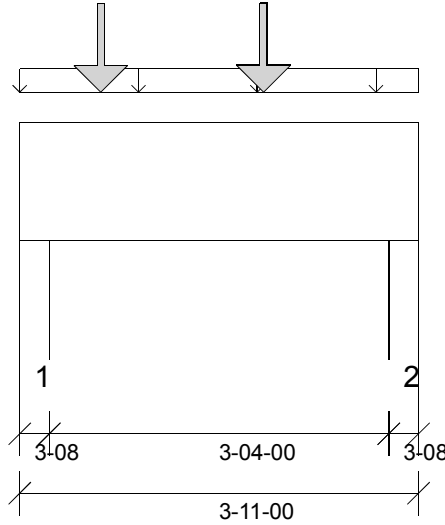
Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0-00	11-07-00	Self Weight	14 lb/ft	-	-	-
Uniform	0-00	6-11-06	FC1 Floor Decking	18 lb/ft	72 lb/ft	-	-
Uniform	3-01-06	11-01-05	Smoothed Load	77 lb/ft	308 lb/ft	-	-
Uniform	6-11-06	9-06-04	FC1 Floor Decking	8 lb/ft	32 lb/ft	-	-
Point	9-06-04	9-06-04	1BM3-2(i1345)	338.00 lb	1267.00/-55.00 lb	-	-
Point	5-00	5-00	FJ16(i1259)	154.00 lb	616.00 lb	-	-
Point	2-05-00	2-05-00	FJ16(i1261)	135.00 lb	538.00 lb	-	-

**Support Information:**

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0-00	9-08	W35(i37)	763.00 lb	2691.00/-10.00 lb	-	-
2	11-03-08	11-07-00	W40(i40)	810.00 lb	2854.00/-45.00 lb	-	-

**Errors, Warnings & Notes:**

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



Graphical Illustration - Not To Scale  
Member Cut Length - 3-11-00  
MemberPitch - 0/12

**Design Information:**

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft <sup>2</sup>	Roof Dead Load:	10.0 lb/ft <sup>2</sup>	Ground Snow Load:	20.0 lb/ft <sup>2</sup>
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft <sup>2</sup>	Roof Live Load:	20.0 lb/ft <sup>2</sup>		
		Unbraced Length	Top: 0-00	Bottom:	1-05-00		

**Design Results:**

	Location	Design	Control	Result	LDF	Load Combination		
Critical Moment (Pos)	2-04-12	769.78 lb ft	28945.56 lb ft	Passed - 3%	1.00	D + L		
Critical Shear	1-05-08	855.61 lb	9310.00 lb	Passed - 9%	1.00	D + L		
Live Load Deflection	1-11-10	0-00	0-12 (L/360)	Passed - L/999	-	L		
Total Load Deflection	1-11-10	0-00	1-00 (L/240)	Passed - L/999	-	D + L		
Max. Reaction	2-08	898.47 lb	Supported Mt	9187.52 lb	10718.78 lb	Passed - 10%	1.00	D + L
	3-08-08	614.22 lb	Supported Mt	9187.63 lb	10718.90 lb	Passed - 7%	1.00	D + L

**Design Notes:**

- \* Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.

**Loading:**

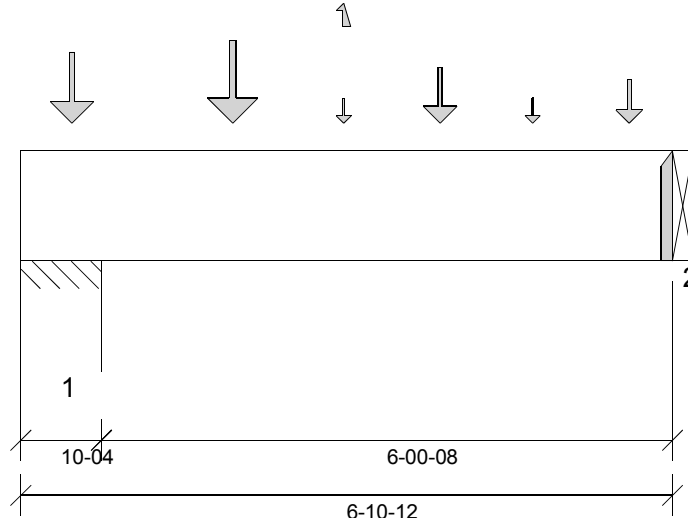
Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0-00	3-11-00	Self Weight	14 lb/ft	-	-	-
Uniform	-0-00	3-11-00	FC1 Floor Decking	3 lb/ft	12 lb/ft	-	-
Point	9-09	9-09	FJ18(i1352)	139.00 lb	556.00 lb	-	-
Point	2-04-12	2-04-12	FJ18(i1365)	140.00 lb	561.00 lb	-	-

**Support Information:**

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0-00	3-08	W40(i40)	202.00 lb	696.00 lb	-	-
2	3-07-08	3-11-00	W41(i41)	145.00 lb	469.00 lb	-	-

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Graphical Illustration - Not To Scale  
Member Cut Length - 6-10-12  
MemberPitch - 0/12

**Design Information:**

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft <sup>2</sup>	Roof Dead Load:	10.0 lb/ft <sup>2</sup>	Ground Snow Load:	20.0 lb/ft <sup>2</sup>
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft <sup>2</sup>	Roof Live Load:	20.0 lb/ft <sup>2</sup>		
		Unbraced Length	Top: 0-00	Bottom:	1-01-08		

**Design Results:**

	Location	Design	Control	Result	LDF	Load Combination	
Critical Moment (Pos)	4-05-04	2640.55 lb ft	28945.56 lb ft	Passed - 9%	1.00	D + L	
Critical Moment (Neg)	9-04	-292.35 lb ft	28945.56 lb ft	Passed - 1%	1.00	D + L	
Critical Shear	2-00-04	1078.97 lb	9310.00 lb	Passed - 12%	1.00	D + L	
Live Load Deflection	3-09-04	0-00	0-12 (L/360)	Passed - L/999	-	L	
Total Load Deflection	3-09-05	0-00	1-00 (L/240)	Passed - L/999	-	D + L	
Max. Reaction			Supported Mtl	Supporting Mtl			
	9-04	3030.81 lb	26840.36 lb	31313.75 lb	Passed - 11%	1.00	D + L
	6-10-12	1609.32 lb	1609.32 lb	0.00 lb	Passed - 100%	1.00	D + L

**Design Notes:**

\* Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.  
\*

**Loading:**

Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0-00	6-10-12	Self Weight	14 lb/ft	-	-	-
Point	6-08	6-08	-	253.00 lb	1010.00 lb	-	-
Point	2-02-14	2-02-14	-	309.00 lb	1238.00 lb	-	-
Point	4-05-04	4-05-04	FJ18(i1350)	177.00 lb	710.00 lb	-	-
Point	6-05-04	6-05-04	FJ18(i1321)	116.00 lb	462.00 lb	-	-
Point	3-05-00	3-05-00	FJ20(i1299)	-	103.00/-75.00 lb	-	-
Point	5-05-00	5-05-00	FJ4(i1341)	24.00 lb	95.00 lb	-	-

**Support Information:**

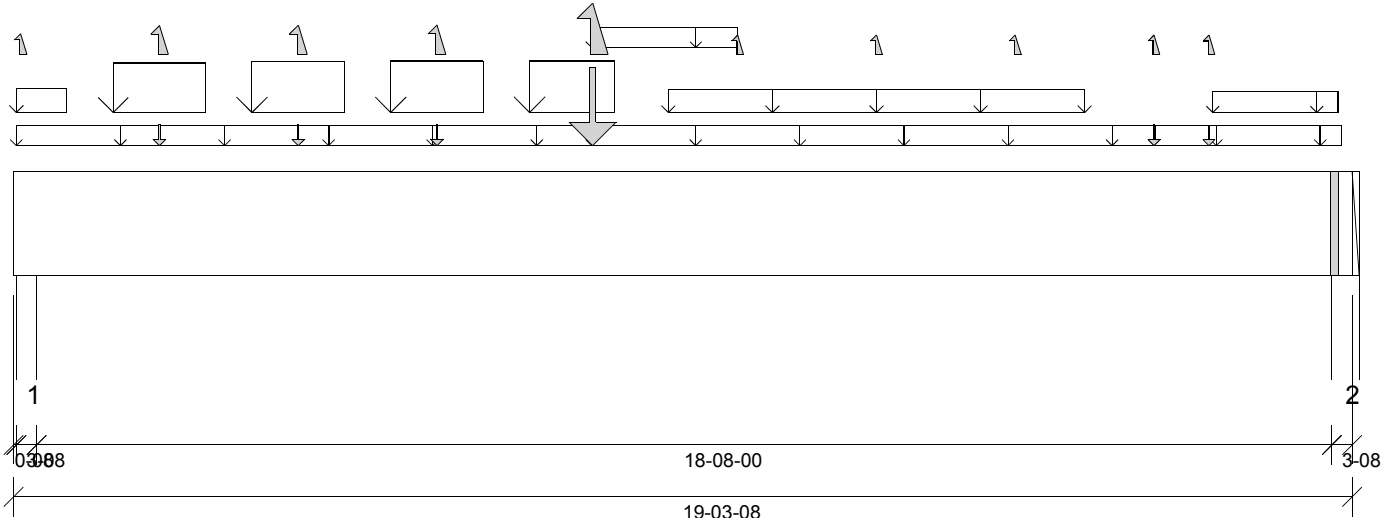
Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0-00	10-04	W39(i39)	646.00 lb	2406.00/-43.00 lb	-	-
2	6-10-12	6-10-12	1BM1-2(i1248)	338.00 lb	1267.00/-55.00 lb	-	-

**Connector Information:**

Support	Manufacturer	Model	Nailing Requirements			Mill Seal Length	Other Information
			Top	Face	Member		
2	Simpson	HHUS410	-	-	-	N/A	Connector manually specified by the user.

**Errors, Warnings & Notes:**

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Graphical Illustration - Not To Scale  
Member Cut Length - 19-03-08  
MemberPitch - 0/12

**Design Information:**

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft <sup>2</sup>	Roof Dead Load:	10.0 lb/ft <sup>2</sup>	Ground Snow Load:	20.0 lb/ft <sup>2</sup>
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft <sup>2</sup>	Roof Live Load:	20.0 lb/ft <sup>2</sup>		
		Unbraced Length Top:	0-08	Bottom:	1-10-08		

**Design Results:**

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	8-04-14	49196.21 lb ft	79170.20 lb ft	Passed - 62%	1.15	D + Lr
Critical Moment (Neg)	8-01-04	-8586.35 lb ft	110149.85 lb ft	Passed - 8%	1.60	0.6D + 0.6W
Critical Shear	1-10-00	8287.82 lb	20648.25 lb	Passed - 40%	1.15	D + Lr
Live Load Deflection	9-03-00	0-04	0-12 (L/360)	Passed - L/828	-	0.75(L + Lr + 0.6W)
Total Load Deflection	9-02-09	0-09	1-00 (L/240)	Passed - L/403	-	D + 0.75(L + Lr + 0.6W)
Max. Reaction			Supported Mt   Supporting Mt			
	3-00	8942.48 lb	13781.29 lb   16078.17 lb	Passed - 65%	1.60	D + 0.75(L + Lr + 0.6W)
	3-00	-1995.99 lb	0.00 lb   -		1.60	0.6D + 0.6W
	19-01-00	5293.45 lb	13781.40 lb   16078.30 lb	Passed - 38%	1.15	D + 0.75(L + Lr)
	19-01-00	-587.04 lb	0.00 lb   -		1.60	0.6D + 0.6W

**Design Notes:**

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**Loading:**

Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0-00	19-03-08	Self Weight	28 lb/ft	-	-	-
Uniform	0-08	8-04-00	FC1 Floor Decking	-	29 lb/ft	-	-
Uniform	0-08	9-04	W61(i338)	-	-	106 lb/ft	44 lb/ft
Uniform	1-05-04	2-09-04	W61(i338)	512 lb/ft	-	520 lb/ft	218 lb/ft
Uniform	3-05-04	4-09-04	W61(i338)	524 lb/ft	-	543 lb/ft	228 lb/ft
Uniform	5-05-04	6-09-04	W61(i338)	525 lb/ft	-	546 lb/ft	229 lb/ft
Uniform	7-05-04	8-08-00	W61(i338)	552 lb/ft	-	557 lb/ft	234 lb/ft
Uniform	8-04-00	19-01-12	FC1 Floor Decking	-	24 lb/ft	-	-
Uniform	8-04-00	10-05-04	FC1 Floor Decking	-	9 lb/ft	-	-
Uniform	9-05-04	15-05-04	Smoothed Load	30 lb/ft	124 lb/ft	-	-
Uniform	17-03-06	19-01-02	FC1 Floor Decking	-	83 lb/ft	-	-
Point	2-01-04	2-01-04	-	98.00 lb	-	86.00/-4.00 lb	82.00 lb
Point	4-01-04	4-01-04	-	98.00 lb	-	86.00/-4.00 lb	82.00 lb
Point	6-01-04	6-01-04	-	105.00 lb	-	102.00/-5.00 lb	97.00 lb
Point	8-04-03	8-04-03	-	3307.00 lb	122.00 lb	3235.00/-3.70 lb	1255.00 lb
Point	10-05-04	10-05-04	FJ8(i1256)	-	-5.00 lb	-	-
Point	12-05-04	12-05-04	FJ8(i1258)	-	-9.00 lb	-	-
Point	14-05-04	14-05-04	FJ8(i1373)	-	-9.00 lb	-	-
Point	16-05-04	16-05-04	FJ8(i1262)	-	174.00/-6.00 lb	-	-
Point	17-02-12	17-02-12	FJ8(i1367)	-	111.00/-2.00 lb	-	-
Point	1-04	1-04	W61(i338)	-	-	-	-

**Support Information:**

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0-08	4-00	W23(i25)	4668.00 lb	648.00/-9.00 lb	4244.00/-12.00 lb	1836.00 lb
2	19-00-00	19-03-08	W39(i39)	2757.00 lb	1179.00/-22.00 lb	2174.00/-4.00 lb	898.00 lb

**Errors, Warnings & Notes:**

\* CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.

- 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. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.



Job: 22-1334 PARKS BUILDING SUPPLY JSJ-GAVIN II A-WFS #43

Member Type: Beam | Level: 2nd Floor

Designed by Single Member Design Engine

Member: 3 - 1 3/4" x 18" (2.0E 3100) LVL

Label: 1BM4-3-i1202

Page: 5 of 7

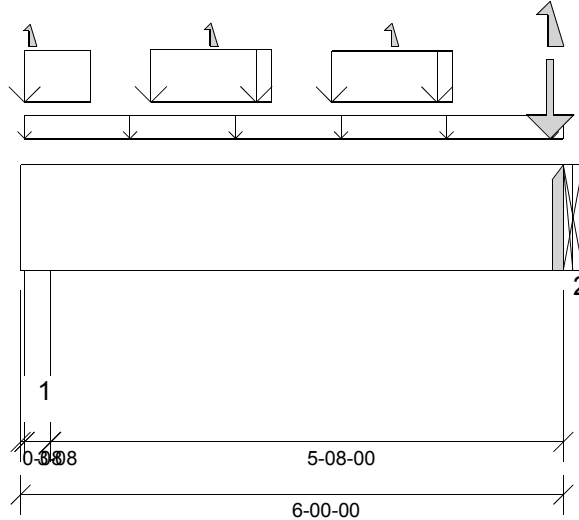
Date: 03/03/2022 09:28:04

Status: Design Passed

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

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Graphical Illustration - Not To Scale  
Member Cut Length - 6-00-00  
MemberPitch - 0/12

**Design Information:**

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft <sup>2</sup>	Roof Dead Load:	10.0 lb/ft <sup>2</sup>	Ground Snow Load:	20.0 lb/ft <sup>2</sup>
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft <sup>2</sup>	Roof Live Load:	20.0 lb/ft <sup>2</sup>		
		Unbraced Length	Top: 0-08	Bottom:	5-08-00		

**Design Results:**

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	3-09-02	1550.05 lb ft	16643.70 lb ft	Passed - 9%	1.15	D + Lr
Critical Moment (Neg)	4-01-04	-369.93 lb ft	23156.44 lb ft	Passed - 2%	1.60	0.6D + 0.6W
Critical Shear	4-10-00	1132.52 lb	5353.25 lb	Passed - 21%	1.15	D + Lr
Live Load Deflection	3-02-06	0-00	0-12 (L/360)	Passed - L/999	-	0.6W
Total Load Deflection	3-02-08	0-00	1-00 (L/240)	Passed - L/999	-	D + 0.75(L + Lr + 0.6W)
Max. Reaction			Supported Mt/ Supporting Mt/			
	2-04	1069.14 lb	4593.73 lb / 5359.36 lb	Passed - 23%	1.60	D + 0.75(L + Lr + 0.6W)
	2-04	-282.74 lb	0.00 lb / -		1.60	0.6D + 0.6W
	6-00-00	6391.77 lb	6391.77 lb / 0.00 lb	Passed - 100%	1.15	D + Lr
	6-00-00	-761.87 lb	0.00 lb / -		1.60	0.6D + 0.6W

**Design Notes:**

\*

**Loading:**

Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0-00	6-00-00	Self Weight	7 lb/ft	-	-	-
Uniform	0-08	6-00-00	FC1 Floor Decking	11 lb/ft	42 lb/ft	-	-
Uniform	0-08	9-04	W60(i340)	211 lb/ft	-	182 lb/ft	63 lb/ft
Uniform	1-05-04	2-09-04	W60(i340)	180 lb/ft	-	202 lb/ft	70 lb/ft
Uniform	3-05-04	4-09-04	W60(i340)	176 lb/ft	-	185 lb/ft	65 lb/ft
Point	1-04	1-04	W60(i340)	-	-	-	-
Point	2-01-04	2-01-04	W60(i340)	-	-	-	-
Point	4-01-04	4-01-04	W60(i340)	-	-	-	-
Point	5-10-04	5-10-04	W60(i340)	3013.00 lb	-	2975.00/-3.00 lb	1165.00 lb

**Support Information:**

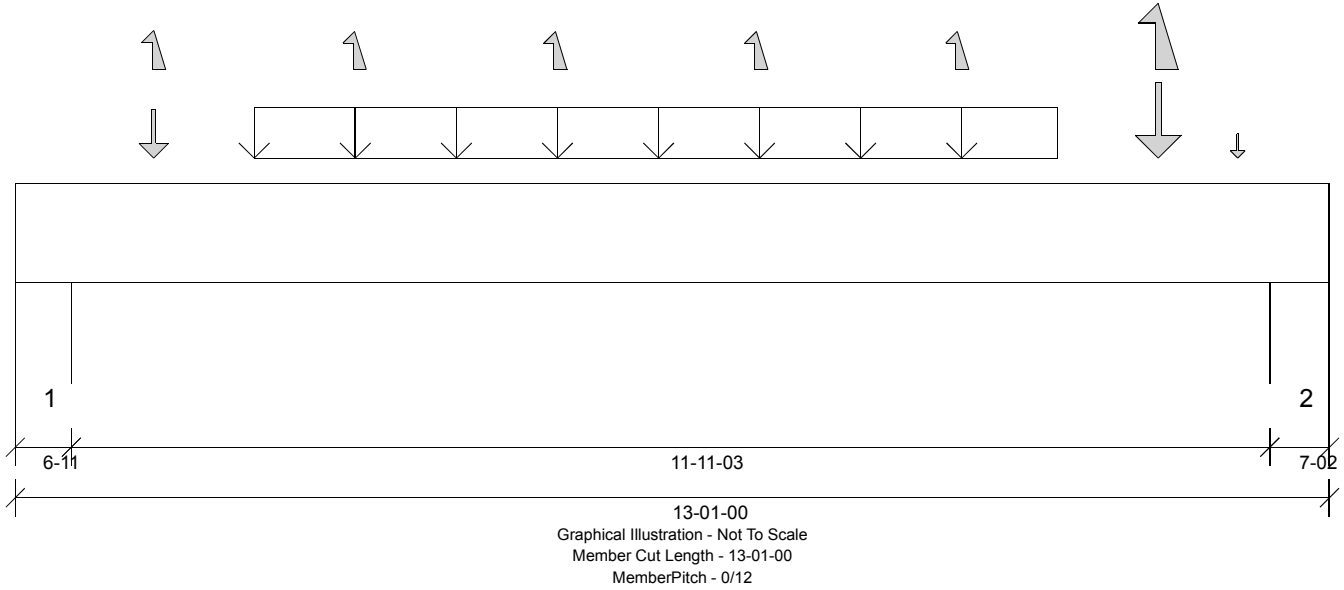
Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0-08	4-00	W34(i26)	440.00 lb	129.00 lb	389.00 lb	135.00 lb
2	6-00-00	6-00-00	1BM4-3(i1202)	3307.00 lb	122.00 lb	3235.00/-3.00 lb	1255.00 lb

**Connector Information:**

Support	Manufacturer	Model	Nailing Requirements			Min Seal Length	Other Information
			Top	Face	Member		
2		IUS1.81/14	-	-	-	N/A	Connector manually specified by the user.

**Errors, Warnings & Notes:**

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- \* The member graphic, dimensions, and locations shown on this report are based on the centerline of the member.
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**Design Information:**

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft <sup>2</sup>	Roof Dead Load:	10.0 lb/ft <sup>2</sup>	Ground Snow Load:	20.0 lb/ft <sup>2</sup>
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft <sup>2</sup>	Roof Live Load:	20.0 lb/ft <sup>2</sup>		
		Unbraced Length	Top: 1-10-08	Bottom:	1-10-08		

**Design Results:**

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	7-04-09	13052.28 lb ft	24437.95 lb ft	Passed - 53%	1.15	D + Lr
Critical Moment (Neg)	7-04-09	-4744.21 lb ft	34000.63 lb ft	Passed - 14%	1.60	0.6D + 0.6W
Critical Shear	11-06-00	5243.11 lb	9081.41 lb	Passed - 58%	1.15	D + Lr
Live Load Deflection	6-07-04	0-04	0-12 (L/360)	Passed - L/587	-	0.6W
Total Load Deflection	6-07-00	0-06	1-00 (L/240)	Passed - L/385	-	D + 0.75(L + Lr + 0.6W)
Max. Reaction			<u>Supported MtI</u>	<u>Supporting MtI</u>		
	5-11	4313.74 lb	17586.81 lb	20517.95 lb	Passed - 25%	1.60 D + 0.75(L + Lr + 0.6W)
	5-11	-1489.57 lb	0.00 lb	-	1.60	0.6D + 0.6W
	12-06-14	5362.32 lb	18673.47 lb	21785.72 lb	Passed - 29%	1.60 D + 0.75(L + Lr + 0.6W)
	12-06-14	-1991.29 lb	0.00 lb	-	1.60	0.6D + 0.6W

**Design Notes:**

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**Loading:**

Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0-00	13-01-00	Self Weight	12 lb/ft	-	-	-
Uniform	2-04-09	10-04-09	Smoothed Load	327 lb/ft	-	321 lb/ft	135 lb/ft
Point	1-04-09	1-04-09	A3(c01)	673.00 lb	-	679.00 lb	284.00 lb
Point	3-04-09	3-04-09	A3(c02)	-	-	-	-
Point	5-04-09	5-04-09	A4(c01)	-	-	-0.80 lb	-
Point	7-04-09	7-04-09	A4(c02)	-	-	-0.70 lb	-
Point	9-04-09	9-04-09	A4(c03)	-	-	-0.70 lb	-
Point	11-04-09	11-04-09	A4(c04)	1048.00 lb	-	1428.00/-2.00 lb	599.00 lb
Point	12-02-01	12-02-01	A5A(c01)	333.00 lb	-	-	-

**Support Information:**

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0-00	6-11	-	2157.00 lb	-	2085.00/-1.00 lb	874.00 lb
++>	2-02	2-02	W49(i343)	1360.00 lb	-	1315.00/-1.00 lb	551.00 lb
++>	6-00	6-00	W50(i333)	797.00 lb	-	770.00 lb	323.00 lb
2	12-05-14	13-01-00	-	2673.00 lb	-	2590.00/-3.00 lb	1086.00 lb
++>	12-06-10	12-06-10	W52(i339)	930.00 lb	-	901.00/-1.00 lb	378.00 lb
++>	12-10-11	12-10-11	W53(i345)	1743.00 lb	-	1689.00/-2.00 lb	708.00 lb

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