

Design Information:

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft ²	Roof Dead Load:	10.0 lb/ft ²	Ground Snow Load:	20.0 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: 1'- 8 1/2"	Bottom:	11'- 10 1/2"		

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	5'- 9 1/4"	18598.25 lb ft	21161.10 lb ft	Passed - 88%	1.00	D + L
Critical Moment (Neg)	0'- 2 1/2"	-64.86 lb ft	19839.68 lb ft	Passed - 0%	1.00	D + L
Critical Shear	11'- 2 1/8"	4739.05 lb	8035.42 lb	Passed - 59%	1.00	D + L
Live Load Deflection	6'- 3 9/16"	0'- 3/8"	0'- 3/4" (L/360)	Passed - L/398	-	L
Total Load Deflection	6'- 3 1/2"	0'- 1/2"	0'- 1" (L/240)	Passed - L/283	-	D + L
Max. Reaction	0'- 2 1/2"	5756.60 lb	Supported MtI: 9187.42 lb Supporting MtI: 16206.61 lb	Passed - 63%	1.00	D + L
	12'- 3"	6918.10 lb	9187.48 lb 16206.71 lb	Passed - 75%	1.00	D + L

Design Notes:

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

Loading:

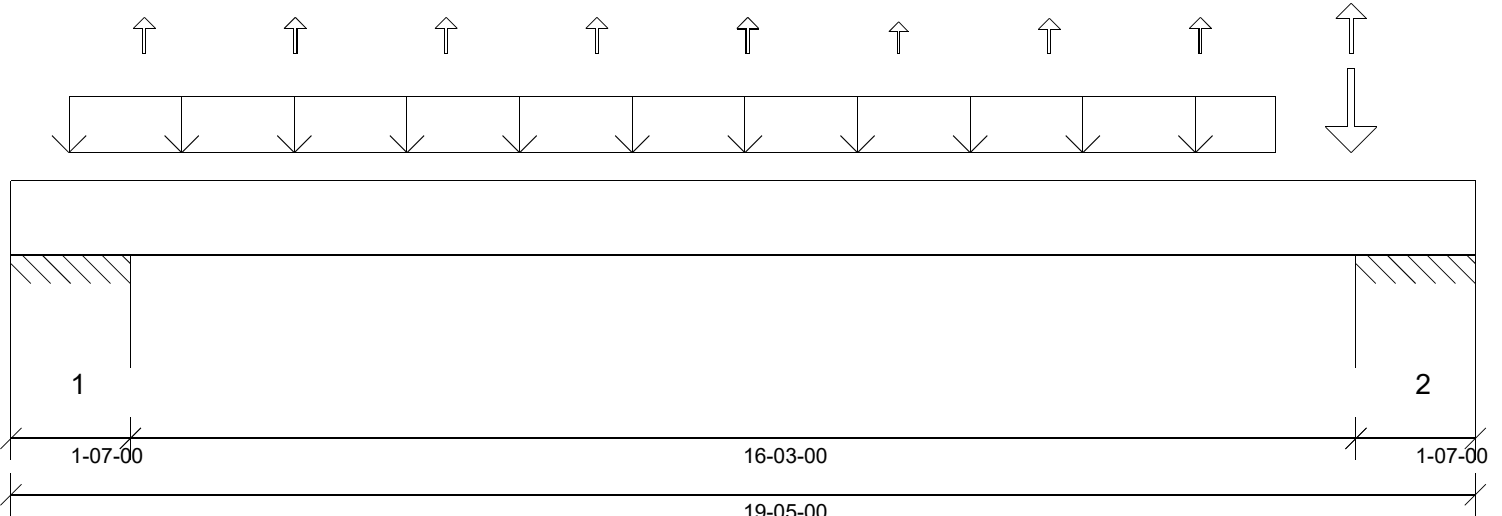
Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	12'- 5 1/2"	Self Weight	11 lb/ft	-	-	-
Point	0'- 1 3/4"	0'- 1 3/4"	BM3(i64)	804.00 lb	230.00 lb	242.00 lb	104.00 lb
Point	1'- 9 1/4"	1'- 9 1/4"	F4(c01)	248.00 lb	651.00 lb	10.00 lb	5.00 lb
Point	3'- 9 1/4"	3'- 9 1/4"	F2GR(c01)	581.00 lb	1333.00 lb	16.00/-3.00 lb	6.00 lb
Point	5'- 9 1/4"	5'- 9 1/4"	F2(c04)	603.00 lb	1593.00 lb	8.00 lb	4.00 lb
Point	7'- 9 1/4"	7'- 9 1/4"	F2(c07)	597.00 lb	1568.00 lb	8.00 lb	4.00 lb
Point	9'- 9 1/4"	9'- 9 1/4"	F2(c02)	597.00 lb	1568.00 lb	8.00 lb	4.00 lb
Point	11'- 9 1/4"	11'- 9 1/4"	F2(c06)	597.00 lb	1568.00 lb	8.00 lb	4.00 lb

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	3(i10)	2204.00 lb	3565.00 lb	275.00/-2.00 lb	119.00 lb
2	12'- 2"	12'- 5 1/2"	1(i9)	1959.00 lb	4946.00 lb	25.00/-1.00 lb	12.00 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 - 19'- 5"
 MemberPitch - 0/12

Design Information:

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft ²	Roof Dead Load:	10.0 lb/ft ²	Ground Snow Load:	20.0 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: 1'- 10 1/2"	Bottom:	16'- 3"		

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	9'- 9 1/4"	15470.72 lb ft	24295.56 lb ft	Passed - 64%	1.15	D + Lr
Critical Moment (Neg)	17'- 11 1/2"	-1752.07 lb ft	22741.96 lb ft	Passed - 8%	1.60	D + 0.75(L + S + 0.6W)
Critical Shear	2'- 6 7/8"	3346.11 lb	9240.73 lb	Passed - 36%	1.15	D + Lr
Live Load Deflection	9'- 8 9/16"	0'- 7/16"	0'- 3/4" (L/360)	Passed - L/467	-	Lr
Total Load Deflection	9'- 8 9/16"	0'- 13/16"	0'- 1" (L/240)	Passed - L/247	-	D + Lr
Max. Reaction			Supported Mt/ Supporting Mt/			
	0'- 1 1/2"	2995.50 lb	18375.00 lb / 32413.50 lb	Passed - 16%	1.60	0.6D + 0.6W
	0'- 1 1/2"	-1294.80 lb	18375.00 lb / -	Passed - 7%	1.60	D + 0.75(L + S + 0.6W)
	1'- 5 1/2"	4659.91 lb	18375.00 lb / 32413.50 lb	Passed - 25%	1.60	D + 0.75(L + Lr + 0.6W)
	1'- 5 1/2"	-3589.86 lb	18375.00 lb / -	Passed - 20%	1.60	0.6D + 0.6W
	17'- 11 1/2"	5308.82 lb	18375.00 lb / 32413.50 lb	Passed - 29%	1.60	D + 0.75(L + Lr + 0.6W)
	17'- 11 1/2"	-3173.91 lb	18375.00 lb / -	Passed - 17%	1.60	0.6D + 0.6W
	19'- 3 1/2"	2663.32 lb	18375.00 lb / 32413.50 lb	Passed - 14%	1.60	0.6D + 0.6W
	19'- 3 1/2"	-1305.29 lb	18375.00 lb / -	Passed - 7%	1.60	D + 0.75(L + S + 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'	19'- 5"	Self Weight	11 lb/ft	-	-	-
Uniform	0'- 9 1/4"	16'- 9 1/4"	Smoothed Load	209 lb/ft	-	237 lb/ft	132 lb/ft
Point	1'- 9 1/4"	1'- 9 1/4"	T1(c08)	-	-	-	-
Point	3'- 9 1/4"	3'- 9 1/4"	T1(c07)	-	-	-	-
Point	5'- 9 1/4"	5'- 9 1/4"	T1(c06)	-	-	-	-
Point	7'- 9 1/4"	7'- 9 1/4"	T1(c05)	-	-	-	-
Point	9'- 9 1/4"	9'- 9 1/4"	T1(c09)	-	-	-	-
Point	11'- 9 1/4"	11'- 9 1/4"	T1(c04)	-	-	-	-
Point	13'- 9 1/4"	13'- 9 1/4"	T1(c03)	-	-	-	-
Point	15'- 9 1/4"	15'- 9 1/4"	T1(c02)	-	-	-	-
Point	17'- 9 1/4"	17'- 9 1/4"	T1(c01)	628.00 lb	-	899.00 lb	513.00 lb

Support Information:

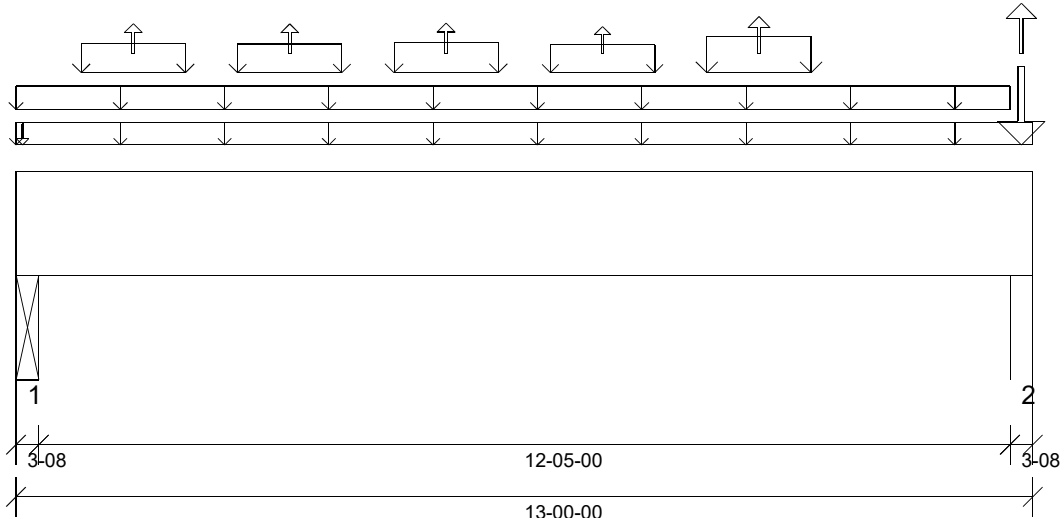
Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	1'- 7"	E12(i33)	1968.00 lb	-	2111.00 lb	1176.00 lb
==>	0'- 1 1/2"	0'- 1 1/2"	E12(i33)	-	-	-	-
==>	1'- 5 1/2"	1'- 5 1/2"	E12(i33)	1968.00 lb	-	2111.00 lb	1176.00 lb
2	17'- 10"	19'- 5"	E11(i8)	2217.00 lb	-	2580.00 lb	1449.00 lb
==>	17'- 11 1/2"	17'- 11 1/2"	E11(i8)	2217.00 lb	-	2580.00 lb	1449.00 lb
==>	19'- 3 1/2"	19'- 3 1/2"	E11(i8)	-	-	-	-

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 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.

- 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 - 13'
 MemberPitch - 0/12

Design Information:

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft ²	Roof Dead Load:	10.0 lb/ft ²	Ground Snow Load:	20.0 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:	12'- 5"		

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	6'- 5 7/16"	3161.15 lb ft	37216.21 lb ft	Passed - 8%	1.00	D + L
Critical Moment (Neg)	12'- 9 1/2"	-34.58 lb ft	42798.63 lb ft	Passed - 0%	1.15	D + Lr
Critical Shear	11'- 4 1/2"	789.36 lb	10826.67 lb	Passed - 7%	1.00	D + L
Live Load Deflection	6'- 6 1/16"	0'	0'- 3/4" (L/360)	Passed - L/999	-	0.75(L + Lr + 0.6W)
Total Load Deflection	6'- 6"	0'- 1/16"	0'- 1" (L/240)	Passed - L/999	-	D + 0.75(L + Lr + 0.6W)
Max. Reaction	0'- 2 1/2"	1033.12 lb	Supported MtI: 9187.57 lb	Passed - 11%	1.00	D + L
	12'- 9 1/2"	1548.55 lb	Supporting MtI: 9187.57 lb	Passed - 30%	1.15	D + 0.75(L + Lr)

Design Notes:

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

Loading:

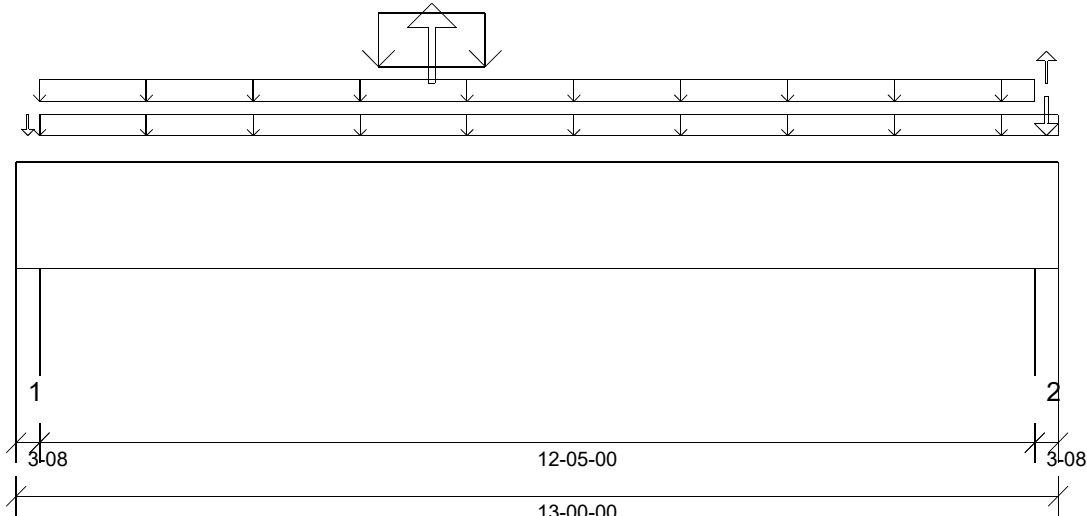
Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	13'	Self Weight	15 lb/ft	-	-	-
Uniform	0'	13'	FC1 Floor Material	9 lb/ft	35 lb/ft	-	-
Uniform	-0'	12'- 8 1/2"	E16(i24)	65 lb/ft	-	-	-
Uniform	0'- 10"	2'- 2"	E16(i24)	55 lb/ft	-	56 lb/ft	25 lb/ft
Uniform	2'- 10"	4'- 2"	E16(i24)	54 lb/ft	-	55 lb/ft	25 lb/ft
Uniform	4'- 10"	6'- 2"	E16(i24)	58 lb/ft	-	60 lb/ft	26 lb/ft
Uniform	6'- 10"	8'- 2"	E16(i24)	38 lb/ft	-	59 lb/ft	18 lb/ft
Uniform	8'- 10"	10'- 2"	E16(i24)	96 lb/ft	-	93 lb/ft	43 lb/ft
Point	0'- 1"	0'- 1"	E16(i24)	-	-	9.00 lb	4.00 lb
Point	1'- 6"	1'- 6"	E16(i24)	-	-	-	-
Point	3'- 6"	3'- 6"	E16(i24)	-	-	-	-
Point	5'- 6"	5'- 6"	E16(i24)	-	-	-	-
Point	7'- 6"	7'- 6"	E16(i24)	-	-	-	-
Point	9'- 6"	9'- 6"	E16(i24)	-	-	-	-
Point	12'- 10 1/4"	12'- 10 1/4"	E17(i29)	305.00 lb	-	240.00 lb	121.00 lb

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	HDR(i63)	804.00 lb	230.00 lb	242.00 lb	104.00 lb
2	12'- 8 1/2"	13'	E3(i40)	1046.00 lb	230.00 lb	438.00 lb	204.00 lb

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Graphical Illustration - Not To Scale
 Member Cut Length - 13'
 MemberPitch - 0/12

Design Information:

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft ²	Roof Dead Load:	10.0 lb/ft ²	Ground Snow Load:	20.0 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: 12'- 5"			

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	5'- 4 15/16"	5876.79 lb ft	42798.63 lb ft	Passed - 14%	1.15	D + Lr
Critical Moment (Neg)	5'- 2 1/4"	-619.77 lb ft	59545.93 lb ft	Passed - 1%	1.60	0.6D + 0.6W
Critical Shear	1'- 7 1/2"	1318.13 lb	12450.67 lb	Passed - 11%	1.15	D + Lr
Live Load Deflection	6'- 1 3/8"	0'	0'- 3/4" (L/360)	Passed - L/999	-	0.6W
Total Load Deflection	6'- 3 3/16"	0'- 1/16"	0'- 1" (L/240)	Passed - L/999	-	D + 0.75(L + Lr + 0.6W)
Max. Reaction			<u>Supported Mt</u> <u>Supporting Mt</u>			
	0'- 2 1/2"	1499.05 lb	9187.32 lb 5206.15 lb	Passed - 29%	1.15	D + 0.75(L + Lr)
	12'- 9 1/2"	1491.25 lb	9187.42 lb 5206.20 lb	Passed - 29%	1.15	D + 0.75(L + 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'	13'	Self Weight	15 lb/ft	-	-	-
Uniform	0'- 3 1/2"	13'	FC1 Floor Material	8 lb/ft	30 lb/ft	-	-
Uniform	0'- 3 1/2"	12'- 8 1/2"	E18(i23)	65 lb/ft	-	-	-
Uniform	4'- 6 1/4"	5'- 10 1/4"	E18(i23)	554 lb/ft	-	554 lb/ft	276 lb/ft
Point	0'- 1 3/4"	0'- 1 3/4"	E19(i28)	30.00 lb	-	-	-
Point	5'- 2 1/4"	5'- 2 1/4"	E18(i23)	-	-	-	-
Point	12'- 10 1/4"	12'- 10 1/4"	E17(i29)	148.00 lb	-	177.00/-27.00 lb	61.00 lb

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	1(i9)	1024.00 lb	189.00 lb	447.00 lb	223.00 lb
2	12'- 8 1/2"	13'	E3(i40)	990.00 lb	197.00 lb	470.00/-27.00 lb	207.00 lb

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