

Graphical Illustration - Not To Scale
 Member Cut Length - 20'- 11"
 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: 20'- 11"	Bottom:	20'- 11"		

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	10'- 5 1/2"	2182.07 lb ft	18369.23 lb ft	Passed - 12%	1.60	D + 0.75(L + Lr + 0.6W)
Critical Moment (Neg)	2'- 4"	-3269.02 lb ft	18369.23 lb ft	Passed - 18%	1.60	D + 0.75(L + Lr + 0.6W)
Critical Shear	3'- 5 3/8"	1011.23 lb	9240.73 lb	Passed - 11%	1.15	D + 0.75(L + Lr)
Live Load Deflection	10'- 4 5/8"	0'- 1/16"	0'- 3/4" (L/360)	Passed - L/999	-	0.75(L + Lr + 0.6W)
Total Load Deflection	10'- 5"	0'- 1/16"	0'- 1" (L/240)	Passed - L/999	-	D + 0.75(L + Lr + 0.6W)
Max. Reaction			Supported Mt Supporting Mt			
	0'- 1 1/2"	191.22 lb	25565.22 lb 17762.50 lb	Passed - 1%	1.60	0.6D + 0.6W
	0'- 1 1/2"	-1318.94 lb	18375.00 lb -	Passed - 7%	1.15	D + 0.75(L + Lr)
	2'- 4"	2566.61 lb	18375.00 lb 17762.50 lb	Passed - 14%	1.15	D + 0.75(L + Lr)
	2'- 4"	-296.03 lb	25565.22 lb -	Passed - 2%	1.60	0.6D + 0.6W
	18'- 7"	2567.53 lb	18375.00 lb 17762.50 lb	Passed - 14%	1.15	D + 0.75(L + Lr)
	18'- 7"	-298.46 lb	25565.22 lb -	Passed - 2%	1.60	0.6D + 0.6W
	20'- 9 1/2"	173.17 lb	25565.22 lb 17762.50 lb	Passed - 1%	1.60	0.6D + 0.6W
	20'- 9 1/2"	-1311.99 lb	18375.00 lb -	Passed - 7%	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'	20'- 11"	Self Weight	11 lb/ft	-	-	-
Point	0'- 5 1/2"	0'- 5 1/2"	A1GE(c01)	15.00 lb	-0.90 lb	95.00/-97.00 lb	-7.00 lb
Point	2'- 5 1/2"	2'- 5 1/2"	A1GE(c01)	89.00 lb	-7.00 lb	109.00 lb	29.00 lb
Point	4'- 5 1/2"	4'- 5 1/2"	A1GE(c01)	103.00 lb	33.00/-8.00 lb	107.00 lb	27.00 lb
Point	6'- 5 1/2"	6'- 5 1/2"	A1GE(c01)	140.00 lb	93.00 lb	108.00 lb	28.00 lb
Point	8'- 5 1/2"	8'- 5 1/2"	A1GE(c01)	138.00 lb	95.00 lb	108.00 lb	28.00 lb
Point	10'- 5 1/2"	10'- 5 1/2"	A1GE(c01)	134.00 lb	97.00 lb	112.00 lb	30.00 lb
Point	12'- 5 1/2"	12'- 5 1/2"	A1GE(c01)	138.00 lb	95.00 lb	107.00 lb	28.00 lb
Point	14'- 5 1/2"	14'- 5 1/2"	A1GE(c01)	140.00 lb	93.00 lb	108.00 lb	28.00 lb
Point	16'- 5 1/2"	16'- 5 1/2"	A1GE(c01)	103.00 lb	33.00/-8.00 lb	107.00 lb	27.00 lb
Point	18'- 5 1/2"	18'- 5 1/2"	A1GE(c01)	89.00 lb	-7.00 lb	108.00 lb	29.00 lb
Point	20'- 5 1/2"	20'- 5 1/2"	A1GE(c01)	23.00 lb	-0.90 lb	98.00/-82.00 lb	-

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	2'- 5 1/2"	E21(i37)	1331.00/-664.00 lb	655.00/-398.00 lb	1068.00/-503.00 lb	252.00/-132.00 lb
==>	0'- 1 1/2"	0'- 1 1/2"	E21(i37)	-664.00 lb	6.00/-377.00 lb	80.00/-487.00 lb	-132.00 lb
==>	2'- 4"	2'- 4"	E21(i37)	1331.00 lb	649.00/-21.00 lb	988.00/-16.00 lb	252.00 lb
2	18'- 5 1/2"	20'- 11"	E20(i10)	1332.00/-657.00 lb	654.00/-397.00 lb	1070.00/-498.00 lb	253.00/-126.00 lb
==>	18'- 7"	18'- 7"	E20(i10)	1332.00 lb	648.00/-21.00 lb	987.00/-13.00 lb	253.00 lb
==>	20'- 9 1/2"	20'- 9 1/2"	E20(i10)	-657.00 lb	6.00/-376.00 lb	83.00/-485.00 lb	-126.00 lb

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.

- 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: 20030057

Member Type: Beam | Level: 1st Floor
MiTek® Structure Version 8.4.1.207.Update10
Designed by Single Member Design Engine

Member: 2 - 2.0 RigidLam DF LVL 1-3/4 x 11-7/8

Label: GDH-i200

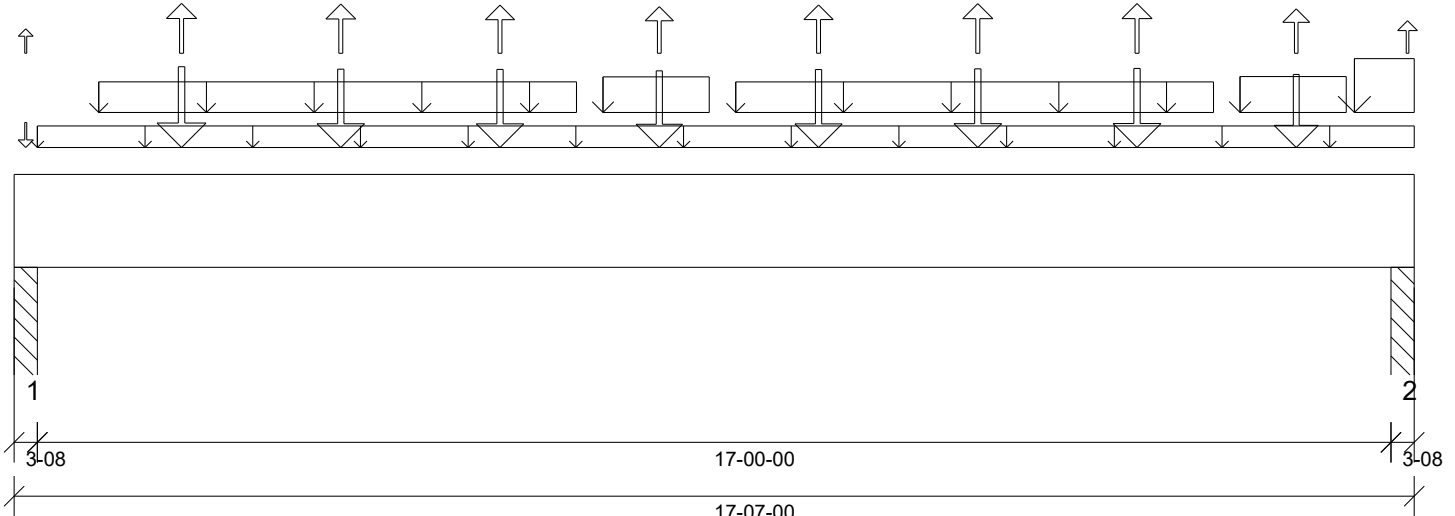
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Status: Design Passed

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



Graphical Illustration - Not To Scale
 Member Cut Length - 17'- 7"
 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:	1'- 8 1/2"		

Loading:

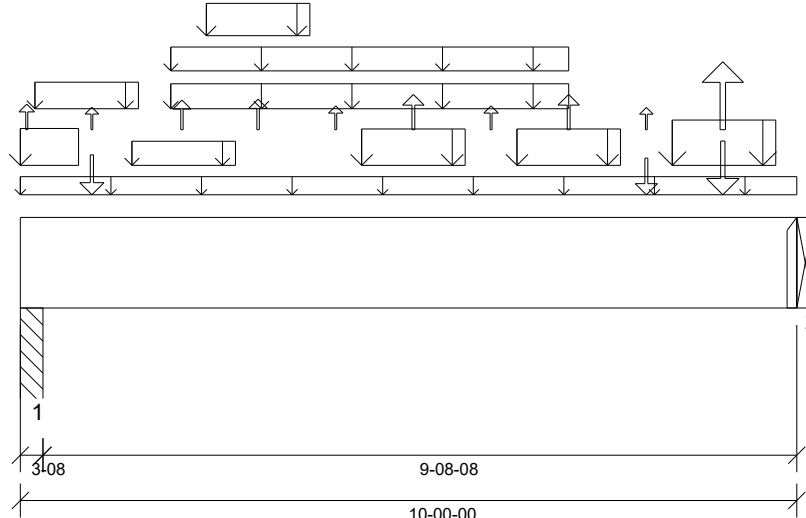
Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	17'- 7"	Self Weight	19 lb/ft	-	-	-
Uniform	0'- 3 1/2"	17'- 7"	13(i85)	65 lb/ft	-	-	-
Uniform	1'- 3/4"	7'- 3/4"	13(i85)	194 lb/ft	-	169 lb/ft	59 lb/ft
Uniform	7'- 4 3/4"	8'- 8 3/4"	13(i85)	287 lb/ft	-	248 lb/ft	86 lb/ft
Uniform	9'- 3/4"	15'- 3/4"	13(i85)	193 lb/ft	-	168 lb/ft	58 lb/ft
Uniform	15'- 4 3/4"	16'- 8 3/4"	13(i85)	291 lb/ft	-	255 lb/ft	89 lb/ft
Uniform	16'- 10"	17'- 7"	13(i85)	650 lb/ft	-	533 lb/ft	185 lb/ft
Point	0'- 1 3/4"	0'- 1 3/4"	E22(i39)	-	-	63.00/-4.00 lb	21.00 lb
Point	2'- 1 1/4"	2'- 1 1/4"	-	439.00 lb	557.00/-0.90 lb	240.00 lb	84.00 lb
Point	4'- 1 1/4"	4'- 1 1/4"	-	427.00 lb	538.00/-0.80 lb	226.00 lb	79.00 lb
Point	6'- 1 1/4"	6'- 1 1/4"	-	436.00 lb	538.00/-0.80 lb	242.00 lb	88.00 lb
Point	8'- 1 1/4"	8'- 1 1/4"	-	430.00 lb	538.00/-0.80 lb	230.00 lb	85.00 lb
Point	10'- 1 1/4"	10'- 1 1/4"	-	437.00 lb	538.00/-0.80 lb	245.00 lb	90.00 lb
Point	12'- 1 1/4"	12'- 1 1/4"	-	435.00 lb	538.00/-0.80 lb	240.00 lb	86.00 lb
Point	14'- 1 1/4"	14'- 1 1/4"	-	432.00 lb	538.00/-0.80 lb	235.00/-0.20 lb	83.00 lb
Point	16'- 1 1/4"	16'- 1 1/4"	-	401.00 lb	476.00/-0.80 lb	203.00 lb	71.00 lb
Point	17'- 6"	17'- 6"	13(i85)	-	-	-	-

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	PBO3(i206)	3965.00 lb	2076.00/-3.00 lb	2274.00/-4.00 lb	800.00 lb
2	17'- 3 1/2"	17'- 7"	PBO4(i210)	4595.00 lb	2185.00/-3.00 lb	2742.00 lb	965.00 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 - 10'
 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:	0'- 11"		

Loading:

Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	10'	Self Weight	13 lb/ft	-	-	-
Uniform	0'	10'	14(i86)	65 lb/ft	-	-	-
Uniform	0'	0'- 9"	14(i86)	477 lb/ft	-	391 lb/ft	136 lb/ft
Uniform	0'- 2 1/4"	1'- 6 1/4"	14(i86)	247 lb/ft	-	168 lb/ft	58 lb/ft
Uniform	1'- 5 1/4"	2'- 9 1/4"	14(i86)	171 lb/ft	-	135 lb/ft	53 lb/ft
Uniform	1'- 11 1/4"	7'- 3/4"	Smoothed Load	124 lb/ft	337 lb/ft	-	-
Uniform	1'- 11 1/4"	7'- 3/4"	Smoothed Load	137 lb/ft	-	138 lb/ft	47 lb/ft
Uniform	2'- 4 3/4"	3'- 8 3/4"	14(i86)	355 lb/ft	-	304 lb/ft	137 lb/ft
Uniform	4'- 4 3/4"	5'- 8 3/4"	14(i86)	407 lb/ft	-	408 lb/ft	184 lb/ft
Uniform	6'- 4 3/4"	7'- 8 3/4"	14(i86)	407 lb/ft	-	408 lb/ft	184 lb/ft
Uniform	8'- 4 3/4"	9'- 8 3/4"	14(i86)	512 lb/ft	-	619 lb/ft	316 lb/ft
Point	0'- 11 1/16"	0'- 11 1/16"	-	182.00 lb	459.00 lb	-	-
Point	2'- 1"	2'- 1"	-	-	-	-3.00 lb	-
Point	4'- 3/4"	4'- 3/4"	T7(c04)	-	-	-3.00 lb	-
Point	6'- 3/4"	6'- 3/4"	T7(c01)	-	-	-3.00 lb	-
Point	8'- 3/4"	8'- 3/4"	T7(c05)	207.00 lb	-	181.00/-2.00 lb	62.00 lb
Point	0'- 1"	0'- 1"	14(i86)	-	-	-	-
Point	3'- 3/4"	3'- 3/4"	14(i86)	-	-	-1.00 lb	-
Point	5'- 3/4"	5'- 3/4"	14(i86)	-	-	-1.00 lb	-
Point	7'- 3/4"	7'- 3/4"	14(i86)	-	-	-1.00 lb	-
Point	9'- 9/16"	9'- 9/16"	-	339.00 lb	401.00/-59.00 lb	152.00/-3.00 lb	52.00/-0.10 lb

Support Information:

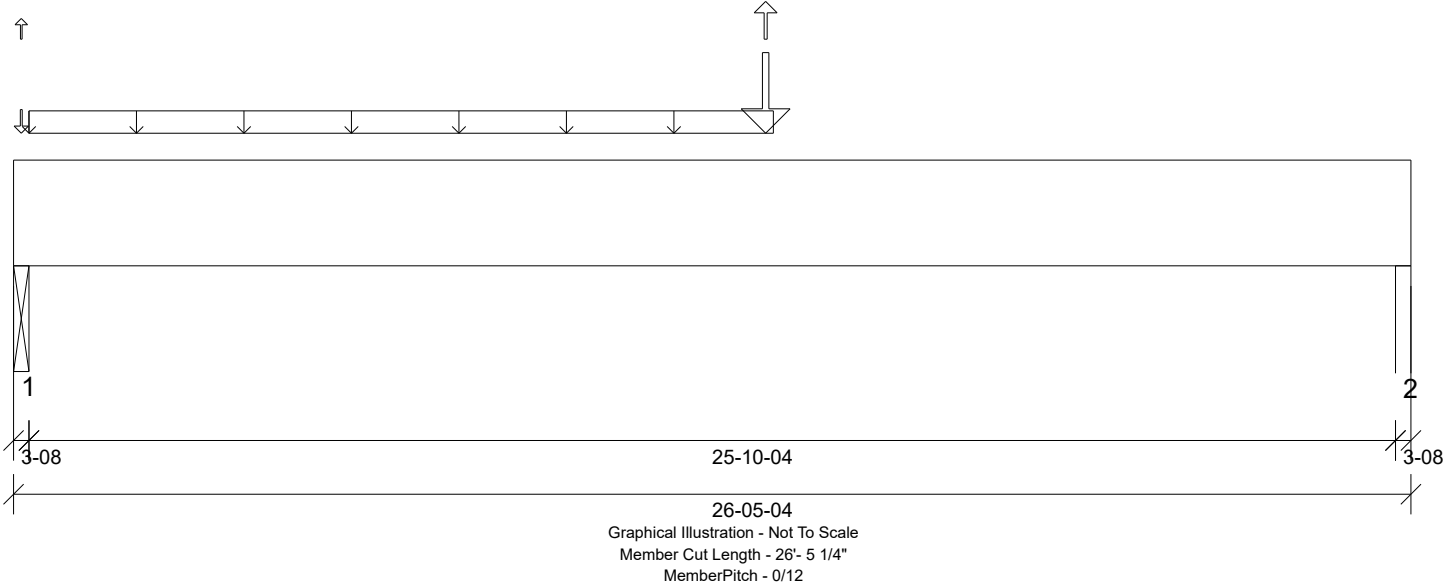
Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	PBO5(i213)	3062.00 lb	1352.00/-5.00 lb	1915.00/-8.00 lb	756.00 lb
2	10'	10'	BM4(i215)	2934.00 lb	1233.00/-54.00 lb	2138.00/-9.00 lb	943.00 lb

Connector Information:

Support	Manufacturer	Model	Nailing Requirements			Min Seal Length	Other Information
			Top	Face	Member		
2	USP	THD414	-	-	-	N/A	Member design must be completed prior to connector design.

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.



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: 12'- 3/4"	Bottom:	13'- 9 1/2"		

Loading:

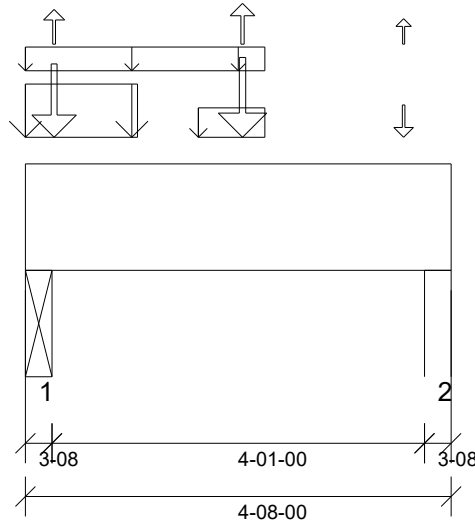
Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	26'- 5 1/4"	Self Weight	22 lb/ft	-	-	-
Uniform	0'- 3 1/2"	14'- 4 1/2"	FC1 Floor Material	7 lb/ft	27 lb/ft	-	-
Point	14'- 2 3/4"	14'- 2 3/4"	BM3(i214)	2934.00 lb	1233.00/-54.00 lb	2138.00/-9.00 lb	943.00 lb
Point	0'- 1 3/4"	0'- 1 3/4"	18(i101)	226.00 lb	-	138.00/-8.00 lb	51.00 lb

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	HDR(i216)	1952.00 lb	847.00/-25.00 lb	1125.00/-12.00 lb	486.00 lb
2	26'- 1 3/4"	26'- 5 1/4"	E8(i18)	1908.00 lb	767.00/-29.00 lb	1151.00/-5.00 lb	508.00 lb

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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Graphical Illustration - Not To Scale
 Member Cut Length - 4'- 8"
 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'- 5 1/2"	Bottom:	1'- 9"		

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	2'- 5 3/4"	2241.33 lb ft	33317.95 lb ft	Passed - 7%	1.15	D + 0.75(L + Lr)
Critical Moment (Neg)	0'- 2 1/2"	-98.38 lb ft	33317.95 lb ft	Passed - 0%	1.15	D + Lr
Critical Shear	3'- 2 1/2"	1142.67 lb	10894.33 lb	Passed - 10%	1.15	D + 0.75(L + Lr)
Live Load Deflection	2'- 3 7/8"	0'	0'- 3/4" (L/360)	Passed - L/999	-	0.75(L + Lr + 0.6W)
Total Load Deflection	2'- 3 15/16"	0'	0'- 1" (L/240)	Passed - L/999	-	D + 0.75(L + Lr + 0.6W)
Max. Reaction	0'- 2 1/2"	3149.52 lb	Supported MtI: 9187.63 lb Supporting MtI: 9187.63 lb	Passed - 34%	1.15	D + 0.75(L + Lr)
	4'- 5 1/2"	1423.70 lb	9187.52 lb 5206.26 lb	Passed - 27%	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:

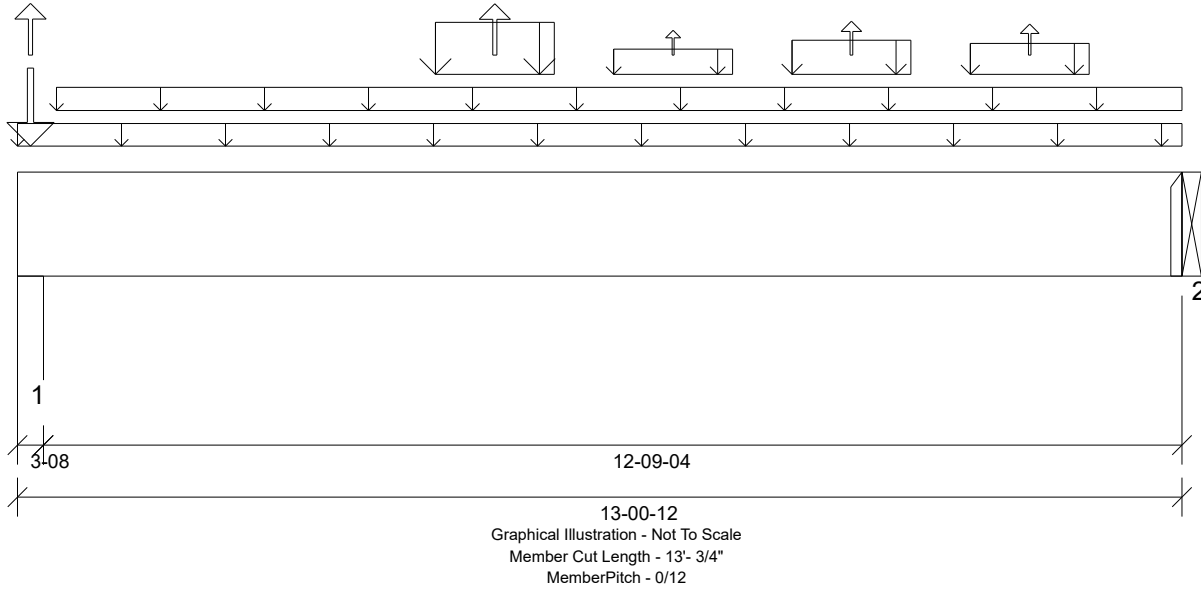
Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	4'- 8"	Self Weight	13 lb/ft	-	-	-
Uniform	-0'	2'- 7 1/2"	18(i101)	65 lb/ft	-	-	-
Uniform	-0'	1'- 2 3/4"	18(i101)	195 lb/ft	-	197 lb/ft	116 lb/ft
Uniform	1'- 10 3/4"	2'- 7 1/2"	18(i101)	49 lb/ft	-	63 lb/ft	33 lb/ft
Point	0'- 3 3/4"	0'- 3 3/4"	-	874.00 lb	571.00 lb	461.00/-32.00 lb	154.00 lb
Point	4'- 1 3/4"	4'- 1 3/4"	T5(c01)	198.00 lb	-	171.00/-12.00 lb	62.00 lb
Point	2'- 4 9/16"	2'- 4 9/16"	-	1180.00 lb	294.00 lb	632.00/-53.00 lb	234.00 lb

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	HDR(i216)	1913.00 lb	708.00 lb	1075.00/-61.00 lb	428.00 lb
2	4'- 4 1/2"	4'- 8"	9(i34)	845.00 lb	157.00 lb	480.00/-36.00 lb	190.00 lb

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



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'- 9 1/4"		

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	6'- 2 1/4"	4476.32 lb ft	33317.95 lb ft	Passed - 13%	1.15	D + 0.75(L + Lr)
Critical Moment (Neg)	0'- 2 1/2"	-40.14 lb ft	33317.95 lb ft	Passed - 0%	1.15	D + Lr
Critical Shear	11'- 10 3/4"	1143.33 lb	10894.33 lb	Passed - 10%	1.15	D + 0.75(L + Lr)
Live Load Deflection	6'- 7 15/16"	0'- 1/16"	0'- 3/4" (L/360)	Passed - L/999	-	0.75(L + Lr + 0.6W)
Total Load Deflection	6'- 7 3/4"	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"	1737.74 lb	9187.42 lb 5206.20 lb	Passed - 33%	1.15	D + 0.75(L + Lr)
	13'- 3/4"	1313.07 lb	3937.50 lb 0.00 lb	Passed - 33%	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'- 3/4"	Self Weight	13 lb/ft	-	-	-
Uniform	-0'	13'- 3/4"	FC1 Floor Material	11 lb/ft	44 lb/ft	-	-
Uniform	0'- 5 1/4"	13'- 3/4"	17(i92)	65 lb/ft	-	-	-
Uniform	4'- 8 1/4"	6'- 1/4"	17(i92)	183 lb/ft	-	211 lb/ft	116 lb/ft
Uniform	6'- 8 1/4"	8'- 1/4"	17(i92)	-	-	92 lb/ft	6 lb/ft
Uniform	8'- 8 1/4"	10'- 1/4"	17(i92)	81 lb/ft	-	97 lb/ft	52 lb/ft
Uniform	10'- 8 1/4"	12'- 1/4"	17(i92)	64 lb/ft	-	74 lb/ft	41 lb/ft
Point	0'- 1 3/4"	0'- 1 3/4"	E23(i59)	333.00 lb	-	301.00/-5.00 lb	176.00 lb
Point	5'- 4 1/4"	5'- 4 1/4"	17(i92)	-	-	-	-
Point	7'- 4 1/4"	7'- 4 1/4"	17(i92)	-	-	-49.00 lb	-
Point	9'- 4 1/4"	9'- 4 1/4"	17(i92)	-	-	-	-
Point	11'- 4 1/4"	11'- 4 1/4"	17(i92)	-	-	-	-

Support Information:

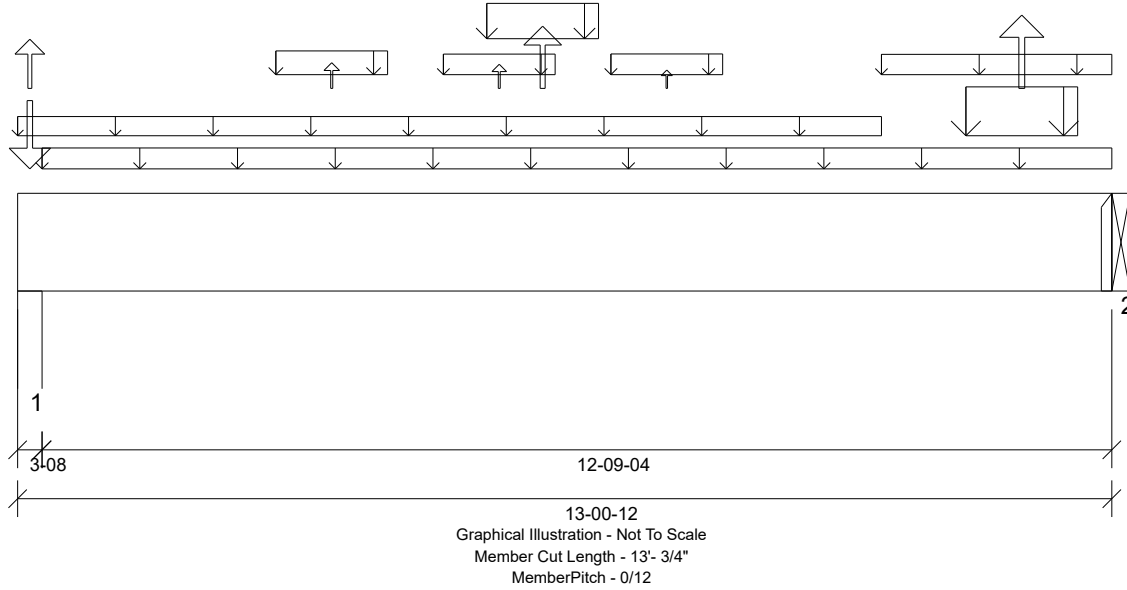
Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	E18(i3)	1095.00 lb	290.00 lb	579.00/-27.00 lb	302.00 lb
2	13'- 3/4"	13'- 3/4"	BM5(i198)	819.00 lb	294.00 lb	353.00/-27.00 lb	160.00 lb

Connector Information:

Support	Manufacturer	Model	Nailing Requirements			Min Seal Length	Other Information
			Top	Face	Member		
2	USP	THD414	-	-	-	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 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.



Design Information:

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft²	Roof Dead Load:	10.0 lb/ft²	Ground Snow Load:	20.0 lb/ft²
Design Methodology:	ASD	Floor Live Load:	40.0 lb/ft²	Roof Live Load:	20.0 lb/ft²		
		Unbraced Length Top:	0'	Bottom:	12'- 9 1/4"		

Design Results:

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	6'- 7"	3650.18 lb ft	33317.95 lb ft	Passed - 11%	1.15	D + 0.75(L + Lr)
Critical Moment (Neg)	0'- 2 1/2"	-25.69 lb ft	33317.95 lb ft	Passed - 0%	1.15	D + Lr
Critical Shear	11'- 10 3/4"	964.59 lb	10894.33 lb	Passed - 9%	1.15	D + 0.75(L + Lr)
Live Load Deflection	6'- 8 1/2"	0'	0'- 3/4" (L/360)	Passed - L/999	-	0.75(L + Lr + 0.6W)
Total Load Deflection	6'- 8 5/16"	0'- 1/16"	0'- 1" (L/240)	Passed - L/999	-	D + 0.75(L + Lr + 0.6W)
Max. Reaction	0'- 2 1/2"	1318.55 lb	9187.52 lb	Passed - 25%	1.15	D + Lr
	13'- 3/4"	1459.74 lb	3937.50 lb	Passed - 37%	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'- 3/4"	Self Weight	13 lb/ft	-	-	-
Uniform	-0'	10'- 3 3/4"	FC1 Floor Material	5 lb/ft	18 lb/ft	-	-
Uniform	0'- 3 1/2"	13'- 3/4"	16(i94)	65 lb/ft	-	-	-
Uniform	3'- 1"	4'- 5"	16(i94)	71 lb/ft	-	38 lb/ft	18 lb/ft
Uniform	5'- 1"	6'- 5"	16(i94)	-	-	-	-
Uniform	5'- 7 3/16"	6'- 11 3/16"	16(i94)	74 lb/ft	-	183 lb/ft	109 lb/ft
Uniform	7'- 1"	8'- 5"	16(i94)	60 lb/ft	-	-	-
Uniform	10'- 3 3/4"	13'- 3/4"	FC1 Floor Material	10 lb/ft	40 lb/ft	-	-
Uniform	11'- 3 7/8"	12'- 7 7/8"	16(i94)	266 lb/ft	-	264 lb/ft	146 lb/ft
Point	0'- 1 3/4"	0'- 1 3/4"	E23(i59)	208.00 lb	-	197.00/-2.00 lb	115.00 lb
Point	3'- 9"	3'- 9"	16(i94)	-	-	-4.00 lb	-
Point	5'- 9"	5'- 9"	16(i94)	-	-	-46.00 lb	-22.00 lb
Point	6'- 3 3/16"	6'- 3 3/16"	16(i94)	-	-	-	-
Point	7'- 9"	7'- 9"	16(i94)	-	-	-0.90 lb	-0.40 lb
Point	11'- 11 7/8"	11'- 11 7/8"	16(i94)	-	-	-	-

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	E18(i3)	926.00 lb	125.00 lb	397.00/-32.00 lb	214.00 lb
2	13'- 3/4"	13'- 3/4"	BM8(i217)	986.00 lb	175.00 lb	451.00/-21.00 lb	243.00 lb

Connector Information:

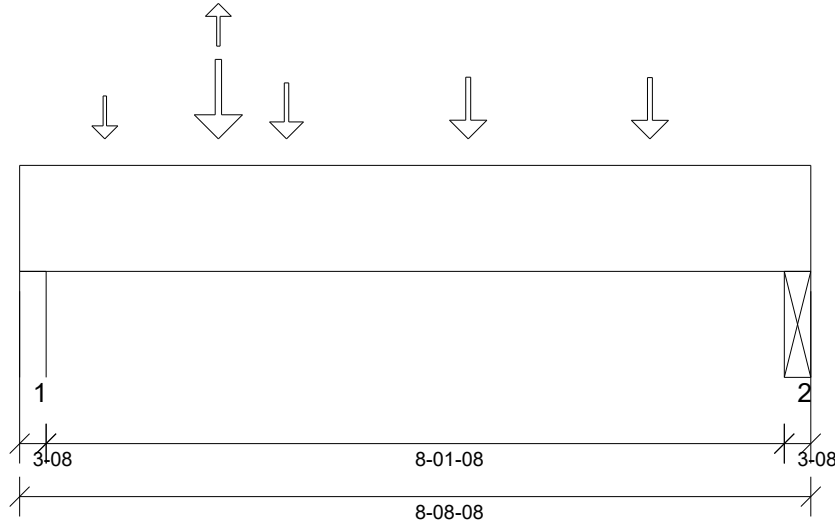
Support	Manufacturer	Model	Nailing Requirements			Min Seal Length	Other Information
			Top	Face	Member		
2	USP	THD414	-	-	-	N/A	Connector has not been designed. No information is available.

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



Graphical Illustration - Not To Scale
 Member Cut Length - 8'- 8 1/2"
 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: 1'- 8 1/2"	

Loading:

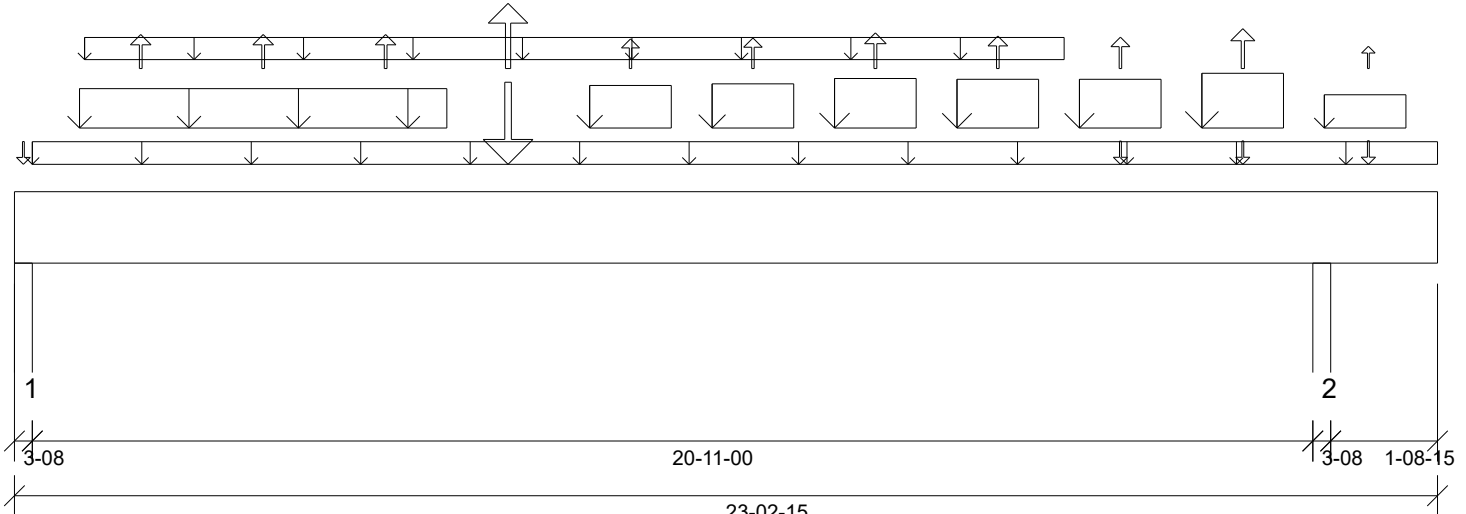
Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	8'- 8 1/2"	Self Weight	13 lb/ft	-	-	-
Point	0'- 11 1/4"	0'- 11 1/4"	-	230.00 lb	609.00 lb	-	-
Point	2'- 2 1/4"	2'- 2 1/4"	-	1161.00 lb	175.00 lb	456.00/-21.00 lb	246.00 lb
Point	2'- 11 1/4"	2'- 11 1/4"	-	371.00 lb	942.00 lb	-	-
Point	4'- 11 1/4"	4'- 11 1/4"	-	413.00 lb	1097.00 lb	6.00 lb	3.00 lb
Point	6'- 11 1/4"	6'- 11 1/4"	-	409.00 lb	1097.00 lb	-	-

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	3(i122)	1653.00 lb	1999.00 lb	351.00/-16.00 lb	189.00 lb
2	8'- 5"	8'- 8 1/2"	HDR(i216)	1043.00 lb	1921.00 lb	115.00/-5.00 lb	62.00 lb

Errors, Warnings & Notes:

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23-02-15
 Graphical Illustration - Not To Scale
 Member Cut Length - 23'- 2 15/16"
 MemberPitch - 0/12

Design Information:

Building Code:	IRC2015	Floor Dead Load:	10.0 lb/ft²	Roof Dead Load:	10.0 lb/ft²	Ground Snow Load:	20.0 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'- 8 1/2"		

Loading:

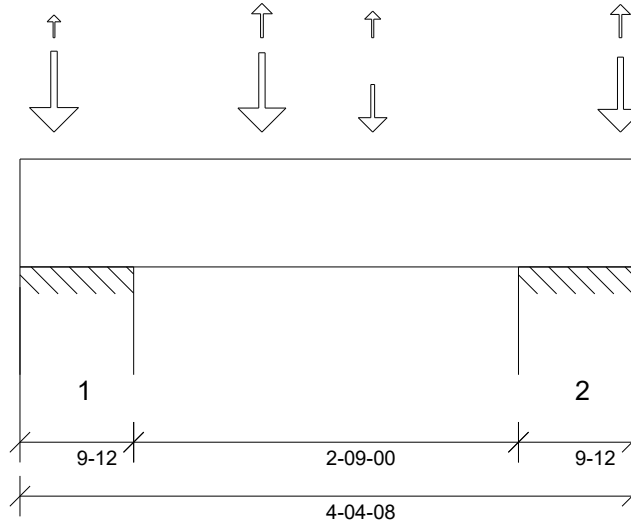
Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	23'- 2 15/16"	Self Weight	26 lb/ft	-	-	-
Uniform	0'- 3 1/2"	23'- 2 15/16"	15(i93)	65 lb/ft	-	-	-
Uniform	1'- 3/4"	7'- 3/4"	15(i93)	251 lb/ft	-	181 lb/ft	63 lb/ft
Uniform	1'- 1 3/4"	17'- 1 3/4"	Smoothed Load	-	50 lb/ft	-	-
Uniform	9'- 4 3/4"	10'- 8 3/4"	15(i93)	337 lb/ft	-	192 lb/ft	67 lb/ft
Uniform	11'- 4 3/4"	12'- 8 3/4"	15(i93)	347 lb/ft	-	212 lb/ft	74 lb/ft
Uniform	13'- 4 3/4"	14'- 8 3/4"	15(i93)	381 lb/ft	-	280 lb/ft	97 lb/ft
Uniform	15'- 4 3/4"	16'- 8 3/4"	15(i93)	376 lb/ft	-	270 lb/ft	94 lb/ft
Uniform	17'- 4 3/4"	18'- 8 3/4"	15(i93)	376 lb/ft	-	270 lb/ft	94 lb/ft
Uniform	19'- 4 3/4"	20'- 8 3/4"	15(i93)	414 lb/ft	-	346 lb/ft	121 lb/ft
Uniform	21'- 4 3/4"	22'- 8 3/4"	15(i93)	275 lb/ft	-	68 lb/ft	23 lb/ft
Point	18'- 13/16"	18'- 13/16"	-	-	96.00/-87.00 lb	-	-
Point	20'- 3/4"	20'- 3/4"	-	-	100.00/-87.00 lb	-	-
Point	22'- 1 3/8"	22'- 1 3/8"	-	-	107.00 lb	-	-
Point	0'- 1 3/4"	0'- 1 3/4"	E22(i39)	-	-	-	-
Point	2'- 3/4"	2'- 3/4"	15(i93)	-	-	-	-
Point	4'- 3/4"	4'- 3/4"	15(i93)	-	-	-	-
Point	6'- 3/4"	6'- 3/4"	15(i93)	-	-	-	-
Point	8'- 3/4"	8'- 3/4"	15(i93)	694.00 lb	-	745.00 lb	260.00 lb
Point	10'- 3/4"	10'- 3/4"	15(i93)	-	-	-	-
Point	12'- 3/4"	12'- 3/4"	15(i93)	-	-	-	-
Point	14'- 3/4"	14'- 3/4"	15(i93)	-	-	-	-
Point	16'- 3/4"	16'- 3/4"	15(i93)	-	-	-	-

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 3 1/2"	1(i21)	3512.00 lb	481.00/-18.00 lb	1933.00/-3.00 lb	676.00 lb
2	21'- 2 1/2"	21'- 6"	2(i22)	4240.00 lb	621.00/-156.00 lb	2096.00 lb	729.00 lb

Errors, Warnings & Notes:

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Graphical Illustration - Not To Scale
 Member Cut Length - 4'- 4 1/2"
 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'- 8 1/2"	Bottom: 4'- 4 1/2"	

Loading:

Type	Start	End	Source	Maximum Load Magnitudes			
				Dead	Floor Live	Roof Live	Snow
Self Weight	0'	4'- 4 1/2"	Self Weight	9 lb/ft	-	-	-
Point	0'- 2 15/16"	0'- 2 15/16"	-	1520.00 lb	3151.00 lb	115.00/-5.00 lb	62.00 lb
Point	1'- 8 3/4"	1'- 8 3/4"	BM4(i215)	1952.00 lb	847.00/-25.00 lb	1125.00/-12.00 lb	486.00 lb
Point	2'- 6 1/4"	2'- 6 1/4"	F7(c01)	872.00 lb	534.00 lb	465.00/-21.00 lb	200.00 lb
Point	4'- 3 1/2"	4'- 3 1/2"	BM5(i198)	1913.00 lb	708.00 lb	1075.00/-61.00 lb	428.00 lb

Support Information:

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 9 3/4"	12(i188)	2940.00 lb	4217.00/-16.00 lb	795.00/-7.00 lb	368.00 lb
2	3'- 6 3/4"	4'- 4 1/2"	11(i36)	3354.00 lb	1023.00/-9.00 lb	1986.00/-92.00 lb	809.00 lb

Errors, Warnings & Notes:

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