



**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'- 8 1/2"	Bottom:	8'		

**Design Results:**

	Location	Design	Control	Result	LDF	Load Combination
Critical Moment (Pos)	4'- 1/4"	7746.10 lb ft	15318.75 lb ft	Passed - 51%	1.15	D + 0.75(L + Lr)
Critical Moment (Neg)	0'- 3 1/2"	-490.84 lb ft	15318.75 lb ft	Passed - 3%	1.15	D + 0.75(L + Lr)
Critical Shear	1'- 1 3/4"	3216.16 lb	7198.04 lb	Passed - 45%	1.15	D + 0.75(L + Lr)
Live Load Deflection	4'- 4 11/16"	0'- 1/8"	0'- 3/4" (L/360)	Passed - L/848	-	0.75(L + Lr + 0.6W)
Total Load Deflection	4'- 4 11/16"	0'- 3/16"	0'- 1" (L/240)	Passed - L/446	-	D + 0.75(L + Lr + 0.6W)
Max. Reaction			Supported Mt/ Supporting Mt/			
	0'- 3 1/2"	5036.95 lb	11812.55 lb / 20837.34 lb	Passed - 43%	1.15	D + 0.75(L + Lr)
	0'- 3 1/2"	-141.68 lb	16434.85 lb / -	Passed - 1%	1.60	0.6D + 0.6W
	8'- 5 1/2"	4172.83 lb	11812.53 lb / 20837.30 lb	Passed - 35%	1.15	D + 0.75(L + Lr)
	8'- 5 1/2"	-84.65 lb	16434.82 lb / -	Passed - 1%	1.60	0.6D + 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'	8'- 9"	Self Weight	9 lb/ft	-	-	-
Point	0'- 1/4"	0'- 1/4"	F06(c01)	911.00 lb	637.00 lb	563.00 lb	282.00 lb
Point	2'- 1/4"	2'- 1/4"	F06(c02)	939.00 lb	637.00 lb	594.00 lb	298.00 lb
Point	4'- 1/4"	4'- 1/4"	F06(c03)	939.00 lb	637.00 lb	594.00 lb	298.00 lb
Point	6'- 1/4"	6'- 1/4"	F06(c05)	939.00 lb	636.00 lb	594.00 lb	298.00 lb
Point	8'- 1/4"	8'- 1/4"	F04(c02)	892.00 lb	535.00/-32.00 lb	593.00 lb	297.00 lb

**Support Information:**

Support	Start	End	Source	Maximum Analysis Reactions			
				Dead	Floor Live	Roof Live	Snow
1	0'	0'- 4 1/2"	E2(i4)	2559.00 lb	1726.00/-2.00 lb	1583.00 lb	794.00 lb
2	8'- 4 1/2"	8'- 9"	E3(i48)	2135.00 lb	1356.00/-30.00 lb	1355.00 lb	679.00 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.