



Client Jay Scala

Shipping 16 Columbia Rd  
Portland, Maine

Project Name: Scala

Job#: 002-5236

Quantity 1

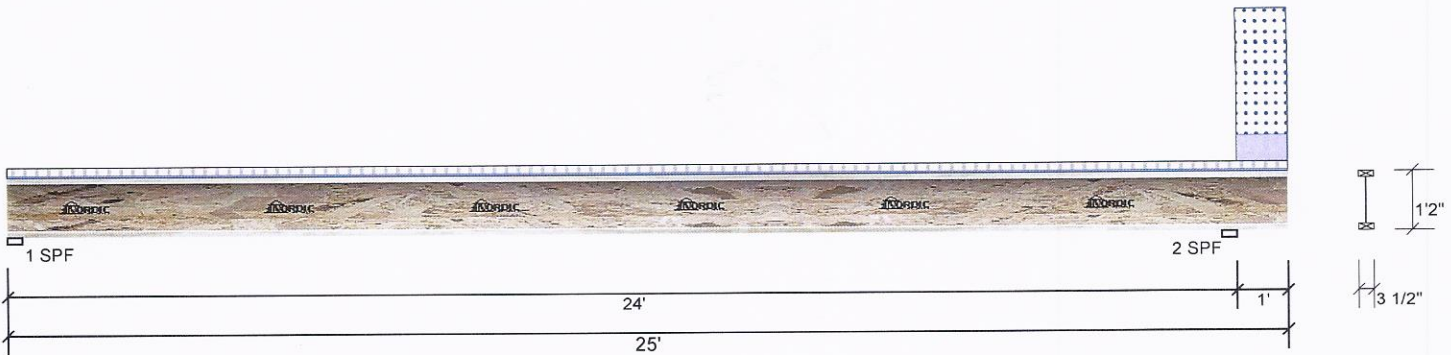
Description:

**Second Floor Joists NI-80 14.000" - PASSED**

10/3/2013 7:21 AM

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Designer: CB Sylvester



Type:	Joist	Application:	Floor
Spacing:	16" o.c.	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012 / IRC
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	3/4" DF Plywood Nailed and Glued
Importance:	Normal	Vibration:	Not Checked
Temperature:	Temp <= 100°F		

Reactions					
Brg	Live	Dead	Snow	Wind	Const
1	640 (480)	157 (118)	-6 (-5)	0 (0)	0 (0)
2	694 (521)	306 (230)	624 (468)	0 (0)	0 (0)

Bearings							
Bearing	Input	In	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	1.750"	55%	157 / 640	797	L_	D+L
2 - SPF	3.500"	1.750"	77%	306 / 989	1295	LL	D+0.75(L+S)

Analysis	Actual	Location	Allowed	Capacity	Load Comb.	Ld. Case
Neg Moment	-377 ft-lb	24'	9666 ft-lb	0.039 (4%)	D+S	_L
Unbraced	-377 ft-lb	24'	11277 ft-lb	0.033 (3%)	D+S	_L
Pos Moment	4591 ft-lb	11'11 7/16"	8405 ft-lb	0.546 (55%)	D+L	_L
Shear	790 lb	23'9 3/8"	1730 lb	0.456 (46%)	D+L	LL
LL Defl inch	0.438 (L/645)	12' 1/16"	0.589 (L/480)	0.740 (74%)	L	_L
TL Defl inch	0.543 (L/521)	11'11 13/16"	1.178 (L/240)	0.460 (46%)	D+L	_L
LL Cant Down	0.009 (L/1379)	Rt Cant	0.033 (L/360)	0.260 (26%)	S	LL
TL Cant Down	0.000 (L/999)		999.000 (L/0)	0.000 (0%)		

ID	Load Type	Location	Trib Width	Dead	Live	Snow	Wind	Const.	Comments
1	Uniform			10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	Floor
2	Part. Uniform	24-0-0 to 25-0-0		130 PLF	0 PLF	611 PLF	0 PLF	0 PLF	Roof

Design OK.  
Design Notes  
1 Bottom flange unbraced.  
2 Upward cantilever deflection 0.064", L/187 in Total Load analysis.  
3 Upward cantilever deflection 0.053", L/227 in Live Load analysis.

**Notes**  
Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.  
**Lumber**  
1. Dry service conditions, unless noted otherwise  
2. Joist not to be treated with fire retardant or

corrosive chemicals  
**Handling & Installation**  
1 Joist flanges must not be cut or drilled  
2 Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details  
3 Damaged Joists must not be used  
4 Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5 Provide lateral support at bearing points to avoid lateral displacement and rotation  
6 Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches  
7 For flat roofs provide proper drainage to prevent ponding

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