NORDIC ENGINEERED WOOD

Client Jay Scala			Shipping 16 Columbia Rd Portland, Maine
Project Name: Scala	Job#: 002-5236	Quantity 1	Description:

Inspections Division
Date: 11/01/13

Second Floor Joists NI-80 14.000" - PASSED

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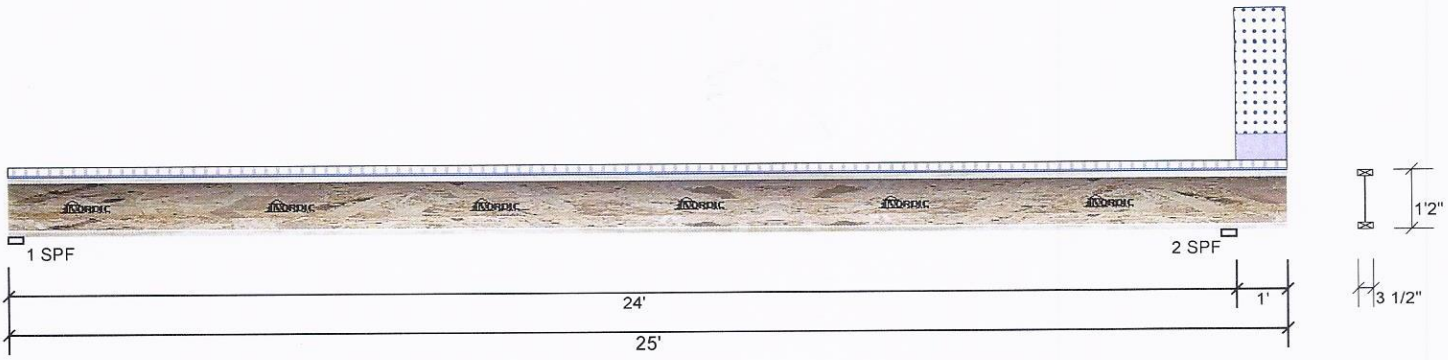
Designer: CB Sylvester



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		
Temperature:	Temp <= 100°F	Vibration:	Not Checked

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 Length	In Analysis	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%)		

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.

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

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. I-Joist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. I-Joist flanges must not be cut or drilled
2. Refer to latest copy of the I-Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged I-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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