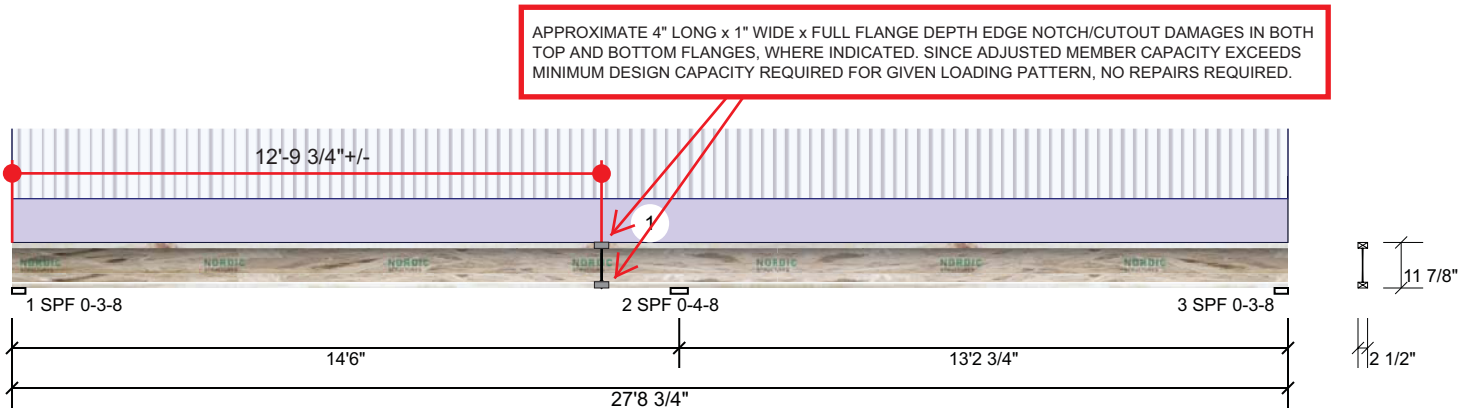
Client:	Caviness & Cates	Date:	12/14/2023
Project:		Input by:	Anthony Williams
Address:	345 Timber Skip Drive Spring Lake, NC	Job Name:	1884 Plan
		Project #:	J0723-3479

FJ-27 NI-40x 11.875" - PASSED

Level: Level



Member Information

Type:	Joist	Application:	Floor
Spacing:	19.2" o.c.	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IRC 2018
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	23/32 APA Rated Sturd-I-FloorOSB Nailed and Glued
Importance:	Normal - II	Vibration:	OK
Temperature:	Temp <= 100°F	Vibration Methodology:	CCMC - CSAO86-19
		Vibration Span:	17-11-14 (79.33%)
		Vibration Span:	17-11-14 (72.27%)

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	373	140	0	0	0
2	Vertical	1079	405	0	0	0
3	Vertical	323	121	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	39%	139 / 415	554	L_	D+L
2 - SPF	4.500"	Vert	45%	406 / 1081	1487	LL	D+L
3 - SPF	3.500"	Vert	35%	121 / 383	504	_L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-1953 ft-lb	14'6"	3760 ft-lb	0.519 (52%)	D+L	LL
Unbraced	-1953 ft-lb	14'6"	1956 ft-lb	0.998 (100%)	D+L	LL
Pos Moment	1620 ft-lb	6'3 9/16"	3760 ft-lb	0.431 (43%)	D+L	L_
Shear	765 lb	14'6"	1480 lb	0.517 (52%)	D+L	LL
LL Defl inch	0.118 (L/1457)	7' 5/8"	0.357 (L/480)	0.329 (33%)	L	L_
TL Defl inch	0.151 (L/1134)	6'11 1/2"	0.476 (L/360)	0.317 (32%)	D+L	L_
LL Bare Defl	0.139 (L/1235)	7' 3/8"	0.476 (L/360)	0.292 (29%)	L	40 PSF L

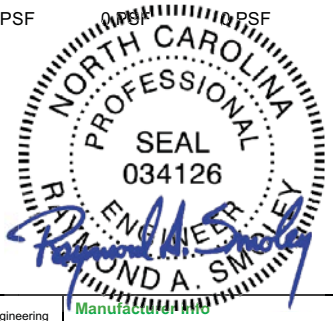
Location Analysis

Analysis Type	Location	Max Value	Ld. Comb.	Ld. Case
Neg Moment	12'9 3/4"	-788 ft-lb	D+L	LL
Shear	12'9 3/4"	616 lb	D+L	LL
Down Defl	12'9 3/4"	0.047	D+L	L_
Up Defl	12'9 3/4"	0.006	D+L	_L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Bottom flange must be laterally braced at a maximum of 5'2" o.c.

ID	Load Type	Location	Trib Width	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		1-7-3	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	



This professional Engineer's Seal on this calculation indicates the suitability of Calculated Structured Designs (CSD) analysis for members, loads, and conditions shown, which are specifically for gravity loads only. The customer has determined the design loads and conditions. I have not been retained as the Engineer of Record, so this Professional Engineer's Seal should not be construed as such. Applicability of structural members for the completed structure shall be the sole responsibility of the Building Designer or Contractor.
14-Dec-23

Notes

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.

Engineered Wood Products

1. Dry service conditions, unless noted otherwise
2. No treatment with fire-retardant or other strength-reducing chemicals.

Handling & Installation

1. Engineered wood products must not be cut or drilled. Damaged products shall not be used.
2. Refer to the latest version of the installation guide for construction details, hole specifications, multiple-member connections, and handling guidelines.
3. Provide lateral support at bearing points to prevent lateral displacement and rotation.
4. For flat roof, provide proper drainage to prevent ponding.
5. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

This design is valid until 6/28/2026

Manufactured into

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