



Client: Koslowsky
Project: Baptist Grove
Address: Fuquay-Varina NC, 27526

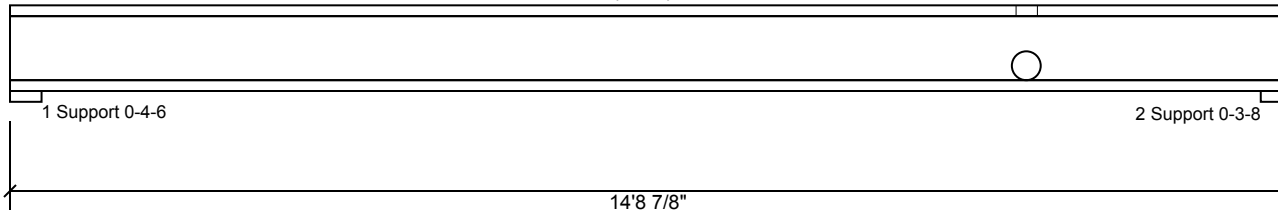
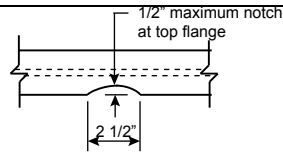
Date: 7/29/2025
Input by: DW
Job Name: Baptist Grove
Project #: 24120144

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J16 (i1409) PJI-40 11.875" - PASSED

Level: 2ND FLOOR

Ticket: EACOM0725-429



Member Information

Type: Joist
Spacing: 19.2" o.c.
Moisture Condition: Dry
Deflection LL: 480
Deflection TL: 240
Importance: Normal - II
Temperature: Temp <= 100°F

Application: Floor
Design Method: ASD
Building Code: IRC 2018
Load Sharing: No
Deck: 3/4 APA Rated Sturd-I-Floor OSB Nailed and Glued

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	296	111	0	0	0
2	Vertical	293	110	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Support	4.375"	Vert	28%	111 / 296	407	L	D+L
2 - Support	3.500"	Vert	29%	110 / 293	403	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1388 ft-lb	7'4 7/8"	3545 ft-lb	39%	D+L	L
Shear	387 lb	4 3/8"	1620 lb	24%	D+L	L
LL Defl inch	0.104 (L/1646)	7'4 7/8"	0.355 (L/480)	29%	L	L
TL Defl inch	0.142 (L/1197)	7'4 7/8"	0.710 (L/240)	20%	D+L	L

Hole Analysis

Hole Type	Location	Size	Capacity	Act Shr.	All. Shr.
Round	H11'8 7/8"	4"	23%	249 lb	1074 lb D+L

Horizontal location H = Horiz to center

Design Notes

- Bearing 1: Support; fcp = 725 psi (user input), Bearing 2: Support; fcp = 725 psi (user input)
- Provide support to prevent lateral movement and rotation at the end bearings.
- Joists are designed to be supported on bottom edge only and across their full width.
- Web Holes: Vertical location may vary and flanges must not be cut.
- Unsupported length Lu based on points of zero moments.
- Bottom flange must be laterally braced at bearings.

Location Analysis

Analysis Type	Location	Max Value	Ld. Comb.	Ld. Case
Pos Moment	11'8 7/8"	872 ft-lb	D+L	L
Shear	11'8 7/8"	249 lb	D+L Hole __LLH__	
Down Defl	11'8 7/8"	0.084	D+L	L

ID	Load Type	Dead 0.9	Live 1
	Uniform	15 PLF	40 PLF



July 29, 2025

Notes

Calculated Structural 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

- Dry service conditions, unless noted otherwise
- Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

- Joist flanges must not be cut or drilled
- 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
- Damaged Joists must not be used
- Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

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

This design is valid until 2/28/2028

Manufacturer Info

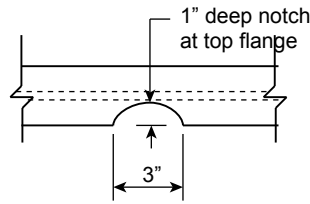
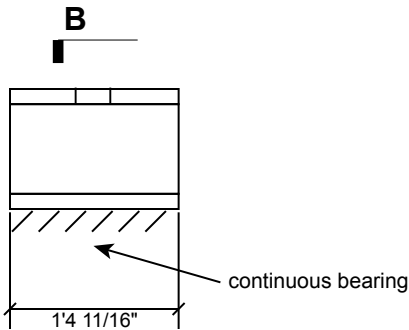
Eacom Timber Corporation
1100 Blvd. West, Suite 2110
Montreal, Quebec
www.eacom.ca
APA: PR-L261, ICC-ES: ESR-1262, ESR-1405

Carter Lumber
298 Harbey Faulk Rd., NC
27332



I-Joist Blocking Penel PJI-40 11.875" - PASSED

Level: 2ND FLOOR
Ticket: EACOM0725-429



DETAIL B
(not to scale)
No repair required.

11 7/8"
2 1/2"

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:	240	Deck:	3/4 APA Rated Sturd-I-FloorOSB Nailed and Glued
Importance:	Normal - II		
Temperature:	Temp <= 100°F		



July 29, 2025

Notes

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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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