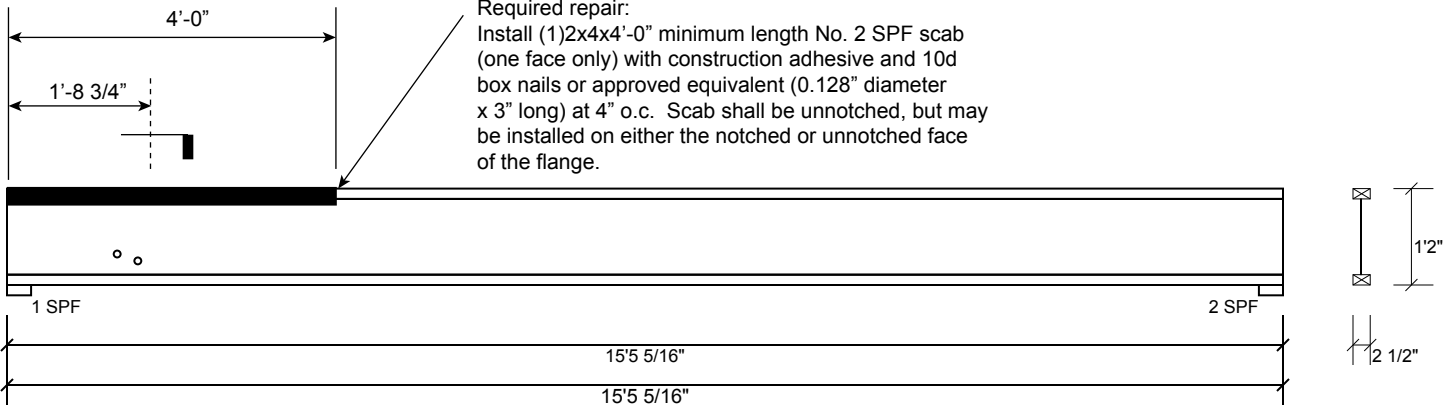


# J16 PJI-40 14.000" - PASSED

Level: Level  
 Ticket: EACOM0922-175



## 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:	IBC/IRC 2015
Load Sharing:	No
Deck:	Not Checked

## Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	494	124	0	0	0
2	Vertical	494	124	0	0	0

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2245 ft-lb	7'8 5/8"	4270 ft-lb	0.526 (53%)	D+L	L
Unbraced	2245 ft-lb	7'8 5/8"	2266 ft-lb	0.991 (99%)	D+L	L
Shear	599 lb	2 3/4"	1815 lb	0.330 (33%)	D+L	L
LL Defl inch	0.174 (L/1032)	7'8 11/16"	0.375 (L/480)	0.465 (47%)	L	L
TL Defl inch	0.218 (L/825)	7'8 11/16"	0.749 (L/240)	0.291 (29%)	D+L	L

## Bearings

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	41%	124 / 494	618	L	D+L
2 - SPF	3.500"	Vert	41%	124 / 494	618	L	D+L

## Hole Analysis

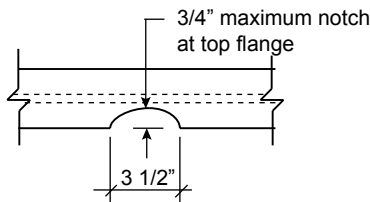
Hole Type	Location	Size	Ratio	Act Shr.	All. Shr.
Round	H1'4"	1"			
Round	H1'7"	1"			

## 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 Web Holes: Vertical location may vary and flanges must not be cut. Effective hole dia. <= 1.5" not analyzed.
- 3 Top flange must be laterally braced at a maximum of 6'2" o.c.
- 4 Bottom flange must be laterally braced at bearings.

## Horizontal location H = Horiz to center

ID	Load Type	Trib Width	Dead	Live
	Uniform	1-7-3	0.9	1
			10 PSF	40 PSF



**DETAIL A**  
 (not to scale)  
 Repair is required as shown.



September 29, 2022

## 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

## Manufacturer Info

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

Kempsville Building Material  
 298 Harvey Faulk Road, N.C.  
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This design is valid until 11/3/2024