



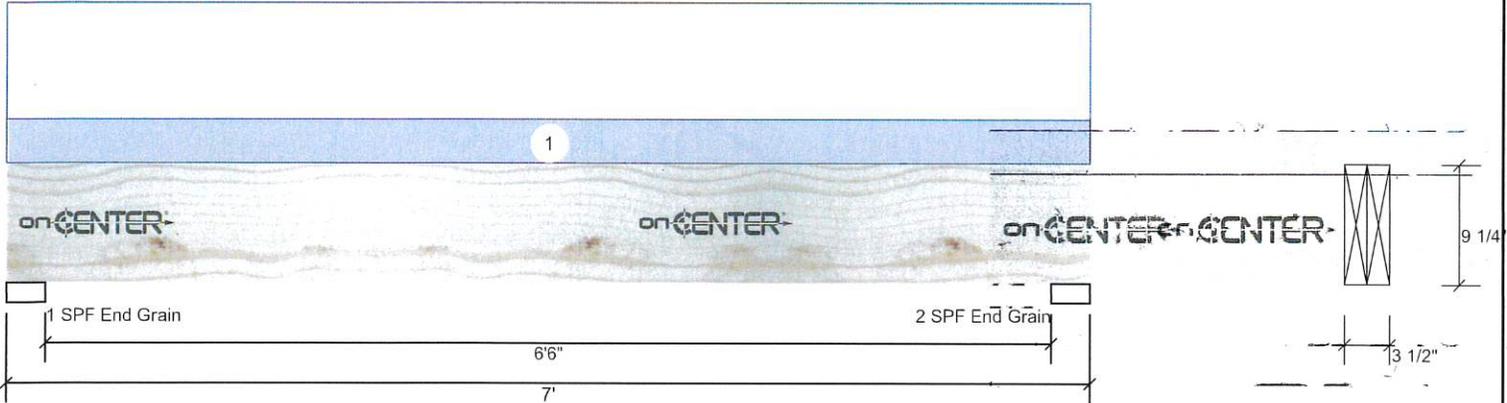






B1 onCENTER 2.0E LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
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	1960	765	0	0	0
2	Vertical	1960	765	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	35%	765 / 1960	2725	L	D+L
2 - SPF End Grain	3.000"	Vert	35%	765 / 1960	2725	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4271 ft-lb	3'6"	13320 ft-lb	0.321 (32%)	D+L	L
Unbraced	4271 ft-lb	3'6"	9762 ft-lb	0.438 (44%)	D+L	L
Shear	1937 lb	5'11 3/4"	6151 lb	0.315 (31%)	D+L	L
LL Defl inch	0.053 (L/1512)	3'6"	0.166 (L/480)	0.317 (32%)	L	L
TL Defl inch	0.073 (L/1088)	3'6"	0.221 (L/360)	0.331 (33%)	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 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at end bearings.
- 6 Bottom must be laterally braced at end bearings.
- 7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Const.	Comments
1	Uniform Self Weight		14'-0-0	Top	0.9 15 PSF 9 PLF	40 PSF	0 PSF	0 PSF	1.25 0 PSF	

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

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/3/2024

Manufacturer Info

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ICC-ES: ESR-2909, ESR-2913,
ESR-1210

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