

Project: Gaston II

Location: FL2 Header Bedroom #3 (2)1.75X9.25 LVL
Multi-Loaded Multi-Span Beam
[2015 International Building Code(2015 NDS)]
(2) 1.75 IN x 9.25 IN x 6.33 FT
1.9E-2600F - APA EWS LVL Stress Classes
Section Adequate By: 181.1%
Controlling Factor: Shear



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StruCalc Version 10.0.1.6

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CAUTIONS

* Laminations are to be fully connected to provide uniform transfer of loads to all members

DEFLECTIONS

Center

Live Load 0.06 IN L/1353
Dead Load 0.00 in
Total Load 0.06 IN L/1334
Live Load Deflection Criteria: L/360 Total Load Deflection Criteria: L/240

REACTIONS

A B

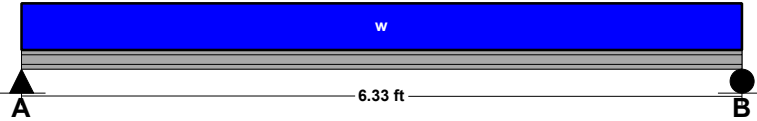
Live Load 2159 lb 2159 lb
Dead Load 30 lb 30 lb
Total Load 2189 lb 2189 lb
Bearing Length 0.89 in 0.89 in

BEAM DATA

Center

Span Length 6.33 ft
Unbraced Length-Top 0 ft
Unbraced Length-Bottom 6.33 ft
Live Load Duration Factor 1.00
Notch Depth 0.00

LOADING DIAGRAM



MATERIAL PROPERTIES

1.9E-2600F - APA EWS LVL Stress Classes

	<u>Base Values</u>	<u>Adjusted</u>
Bending Stress:	Fb = 2600 psi Cd=1.00 CF=1.03	Fb' = 2686 psi
Shear Stress:	Fv = 285 psi Cd=1.00	Fv' = 285 psi
Modulus of Elasticity:	E = 1900 ksi	E' = 1900 ksi
Comp. \perp to Grain:	Fc - \perp = 700 psi	Fc - \perp ' = 700 psi

UNIFORM LOADS

Center

Uniform Live Load 682 plf
Uniform Dead Load 0 plf
Beam Self Weight 9 plf
Total Uniform Load 691 plf

Controlling Moment: 3463 ft-lb
3.16 Ft from left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2
Controlling Shear: 2188 lb
At left support of span 2 (Center Span)
Created by combining all dead loads and live loads on span(s) 2

Comparisons with required sections:	<u>Req'd</u>	<u>Provided</u>
Section Modulus:	15.47 in3	49.91 in3
Area (Shear):	11.52 in2	32.38 in2
Moment of Inertia (deflection):	61.44 in4	230.84 in4
Moment:	3463 ft-lb	11172 ft-lb
Shear:	2188 lb	6151 lb