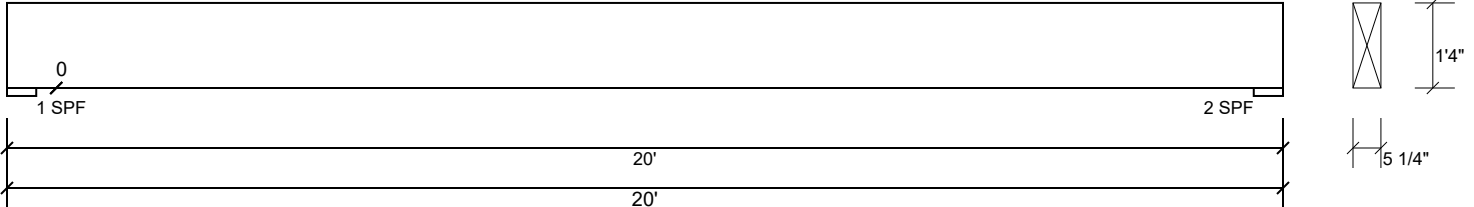


B1 LP-LVL 2900Fb-2.0E 5.250" X 16.000" - PASSED

Level: Level


User Inputs

Design Method:	ASD	Load Sharing:	No	Spans	
Building Code:	IBC/IRC 2015	Importance:	Normal - II	Span 1:	20-0-0
Type:	Girder	Moisture Condition:	Dry	Bearings	
Application:	Floor	Temperature:	Temp <= 100°F	Brg 1:	5.5" SPF
Plies:	1	Decking:	Not Checked	Brg 2:	5.5" SPF
Material Type:	LVL	Defl. LL Span:	L / 480		
Material Name:	LP LVL 2900F-2.0E	Defl. LL Cant:	L / 240		
Depth:	16	Defl. TL Span:	L / 240		
Width:	5.25	Defl. TL Cant:	L / 120		

Analysis Details

Material Properties

Name	E	Fb	Fcp	Fv	G	Density
LP LVL 2900F-2.0E	2E6	2900	750	285	125000	41.2

Resistance Factors

Moment Factor	Shear Factor	Comp Perp Factor	Cr-Bending	Cr-Shear	Load Sharing	Ct	Ct (E)
0.94127771153381	1	1	1	1	No	1	1
Bare EI		Composite EI		Ct (E) (temp. factor for E)			
3.584000E+009		3.584000E+009		1			

Load Combinations Checked for Strength (Factors include importance factor)

Comb. No.	Description	Pattern Count	Cd-Duration	D	L	S	W	C
1	D	1	0.9	1	0	0	0	0
2	D+L	1	1	1	1	0	0	0

Load Combinations Checked for Deflection (Total Loads: Dead + Live Loads)

Comb. No.	Description	Pattern Count	Cd-Duration	D	L	S	W	C
1	D	1	0.9	1	0	0	0	0
2	D+L	1	1	1	1	0	0	0

Load Combinations Checked for Deflection (Live Loads)

Comb. No.	Description	Pattern Count	Cd-Duration	D	L	S	W	C
1	L	1	1	0	1	0	0	0



B1 LP-LVL 2900Fb-2.0E 5.250" X 16.000" - PASSED

Level: Level

Bearing Calculation (MR: Max Reaction)

Brg. No.	Capacity	Input Length	Req'd Length	Reaction	MR Load Comb.	MR Load Case	MR Dead	MR Live	Uplift
1	425	5.5	5.5	6015.3	D+L	L	1815.3	4200	0
2	425	5.5	5.5	6015.3	D+L	L	1815.3	4200	0

Maximum Moment at Each Member

Mem No.	Span No.	Combination	Load Case	Cd	CL	Resist. Factors	Moment	Span-X	Mr	Mr_orig	Ratio
1	Spn 1	D+L	L	1	0.941	0.941	27803	9-7-6	51954	51954	0.5351

Maximum Shear at Each Member

Mem No.	Span No.	Brg No.	Max	Combination	Load Case	Cd	Res...	Fac...	Max Shear	Vr	Ratio
1	Spn 1	2	Yes	D+L	L	1	1	1	4970	15960	0.3114

Maximum Deflection on Span and Cantilever for Total Load (Dead + Live)

Def. Span Desc.	Combination	Load Case	Max Deflection	Span ID	Span-X	Span Analog Length	L / Allowable	L / Actual	Ratio
Critical Span	D+L	L	0.5544	Spn 1	9-7-7	19-2-12	240	416.2	0.5767

Maximum Deflection on Span and Cantilever for Live Load Only

Def. Span Desc.	Combination	Load Case	Max Deflection	Span ID	Span-X	Span Analog Length	L / Allowable	L / Actual	Ratio
Critical Span	L	L	0.3871	Spn 1	9-7-7	19-2-12	480	596.1	0.8053