

Level			
Member Name	Results (Max UTIL %)	Current Solution	Comments
Garage Door Header	Passed (49% ΔT)	2 piece(s) 1 3/4" x 14" 2.0E Microllam® LVL	

ForteWEB Software Operator	Job Notes
James (Jay) Johnson Weyerhaeuser (910) 495-5383 jay.johnson@weyerhaeuser.com	



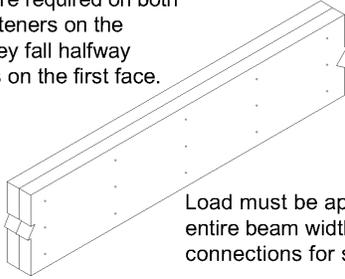
7/8/2025 2:54:53 PM UTC

ForteWEB v3.9

File Name: Sercy - Licata

Top-Loaded Beam

When fasteners are required on both faces, stagger fasteners on the second face so they fall halfway between fasteners on the first face.



Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.

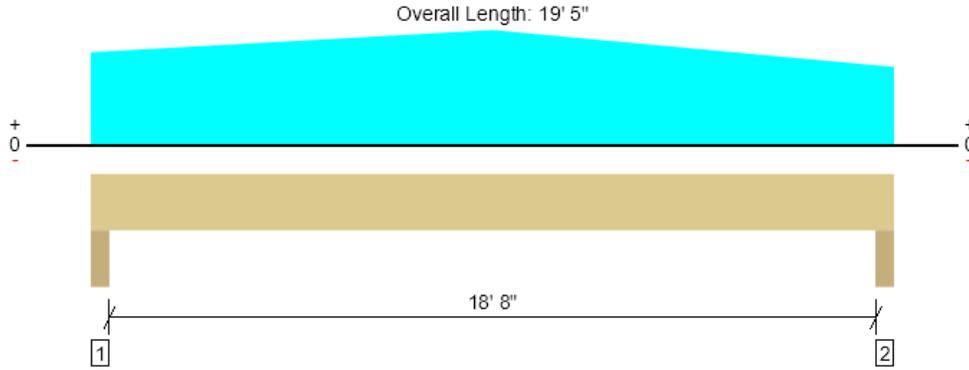
L6

When connecting 4-ply members, nail each ply to the other and offset nail rows by 2" from rows in the ply below.

ForteWEB Software Operator	Job Notes
James (Jay) Johnson Weyerhaeuser (910) 495-5383 jay.johnson@weyerhaeuser.com	



Level, Garage Door Header
2 piece(s) 1 3/4" x 14" 2.OE Microllam® LVL



Drawing is Conceptual. All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal (typ.).

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2334 @ 3"	11419 (4.50")	Passed (20%)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Shear (lbs)	1711 @ 1' 6 1/2"	9310	Passed (18%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	9510 @ 9' 6 15/16"	24258	Passed (39%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.143 @ 9' 8 1/2"	0.631	Passed (L/999+)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Total Load Defl. (in)	0.468 @ 9' 8 1/8"	0.946	Passed (L/485)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)

Member Length : 19' 5"
 System : Floor
 Member Type : Drop Beam
 Building Use : Residential
 Building Code : IBC 2018
 Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)					Accessories
	Total	Available	Required	Dead	Floor Live	Roof Live	Snow	Factored	
1 - Trimmer - SPF	4.50"	4.50"	1.50"	1606	388	583	291	2334	None
2 - Trimmer - SPF	4.50"	4.50"	1.50"	1473	388	583	291	2201	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	15' 7" o/c	
Bottom Edge (Lu)	19' 5" o/c	

•Maximum allowable bracing intervals based on applied load.

Multiple Member Connections								
Type	Location	Fastener		Placement	Rows	O.C.	# of Fasteners	Details
Uniform	0 to 19' 5"	10d (0.128" x 3") or (0.131" x 3") Nail		One Face	4	12"	--	L6

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Roof Live (1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 19' 5"	N/A	14.3	--	--	--	
1 - Uniform (PSF)	0 to 19' 5" (Top)	2'	12.0	20.0	--	--	Floor - Light attic storage
2 - Uniform (PSF)	0 to 19' 5" (Top)	3'	13.4	--	20.0	10.0	Roof
3 - Tapered (PLF)	0 to 9' 8 1/2" (Top)	N/A	60.0 to 120.0	--	--	--	Gable end wall
4 - Tapered (PLF)	9' 8 1/2" to 19' 5" (Top)	N/A	120.0 to 20.0	--	--	--	Gable end wall

• Side loads are assumed to not induce cross-grain tension.

Weyerhaeuser Notes
Weyerhaeuser warrants that the sizing of its products will be in accordance with Weyerhaeuser product design criteria and published design values. Weyerhaeuser expressly disclaims any other warranties related to the software. Use of this software is not intended to circumvent the need for a design professional as determined by the authority having jurisdiction. The designer of record, builder or framer is responsible to assure that this calculation is compatible with the overall project. Accessories (Rim Board, Blocking Panels and Squash Blocks) are not designed by this software. Products manufactured at Weyerhaeuser facilities are third-party certified to sustainable forestry standards. Weyerhaeuser Engineered Lumber Products have been evaluated by ICC-ES under evaluation reports ESR-1153 and ESR-1387 and/or tested in accordance with applicable ASTM standards. For current code evaluation reports, Weyerhaeuser product literature and installation details refer to www.weyerhaeuser.com/woodproducts/document-library .
The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
James (Jay) Johnson Weyerhaeuser (910) 495-5383 jay.johnson@weyerhaeuser.com	



7/8/2025 2:54:53 PM UTC
 ForteWEB v3.9, Engine: V8.4.3.94, Data: V8.1.7.3
 File Name: Sercy - Licata