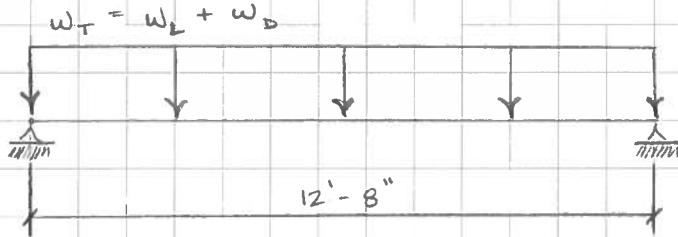


**STRUCTURAL NOTES**

- removal of interior bearing wall
- supporting roof loads
- replace with PSL

ROOF: 25 (LIVE-SNOW) / 19 (DEAD) psf



Tributary Width =  $A_T^w$

$$A_T^w = \frac{13.75}{2} + \frac{12.75}{2}$$

$$= 13.25 \text{ ft}$$

Slope Factor = SF

$$SF = \frac{\sqrt{.4^2 + 12^2}}{12} = 1.054$$

$$W_T = [25 + 19(1.054)] 13.25$$

$$= (332 + 266) \text{ lb/ft}$$

SEE ATTACHED FORTE CALCULATIONS

OPTION 1: Replacement of interior bearing wall only

(minimum) 3' 1/2" x 11 7/8" 2.2E Parallam PSL

OPTION 2: Replacement of interior bearing wall AND 4" x 14" beam

(minimum) 3' 1/2" x 11 7/8" 2.2E Parallam PSL

Job Name FOSTER RESIDENCE

Job Number \_\_\_\_\_

Location Seattle, WA

Sheet \_\_\_\_\_

of \_\_\_\_\_

Technical Representative Justin Maghirang

By 

Date

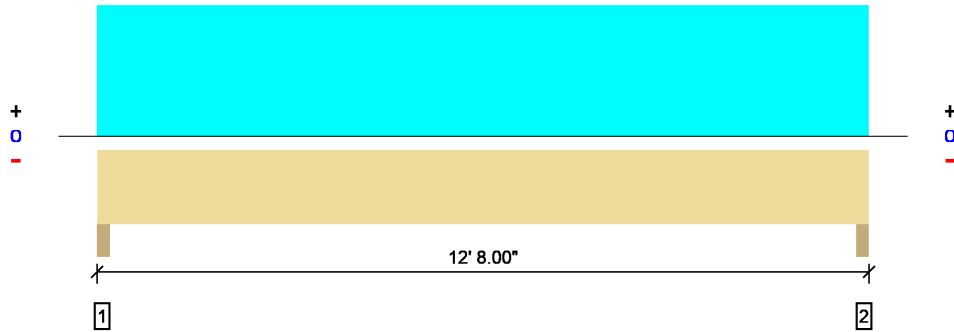
2015/07/09

01: ROOF			
Member Name	Results	Current Solution	Comments
Roof: Drop Beam	Passed	1 Piece(s) 3 1/2" x 11 7/8" 2.2E Parallam® PSL	
Roof: Drop Beam (CONTINUOUS)	Passed	1 Piece(s) 3 1/2" x 11 7/8" 2.2E Parallam® PSL	

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# 1 piece(s) 3 1/2" x 11 7/8" 2.2E Parallam® PSL

Overall Length: 12' 8.00"



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3861 @ 2.00"	9188 (3.50")	Passed (42%)	--	1.0 D + 1.0 Lr (All Spans)
Shear (lbs)	3080 @ 1' 3.38"	10044	Passed (31%)	1.25	1.0 D + 1.0 Lr (All Spans)
Moment (Ft-lbs)	11591 @ 6' 4.00"	24878	Passed (47%)	1.25	1.0 D + 1.0 Lr (All Spans)
Live Load Defl. (in)	0.176 @ 6' 4.00"	0.411	Passed (L/839)	--	1.0 D + 1.0 Lr (All Spans)
Total Load Defl. (in)	0.325 @ 6' 4.00"	0.617	Passed (L/456)	--	1.0 D + 1.0 Lr (All Spans)

System : Roof  
Member Type : Drop Beam  
Building Use : Residential  
Building Code : IBC  
Design Methodology : ASD  
Member Pitch: 0/12

- Deflection criteria: LL (L/360) and TL (L/240).
- Bracing (Lu): All compression edges (top and bottom) must be braced at 12' 8.00" o/c unless detailed otherwise. Proper attachment and positioning of lateral bracing is required to achieve member stability.

Supports	Bearing			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Roof Live	Total	
1 - Column - DF	3.50"	3.50"	1.50"	1763	2098	3861	None
2 - Column - DF	3.50"	3.50"	1.50"	1763	2098	3861	None

Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Comments
1 - Uniform (PSF)	0 to 12' 8.00"	13' 3.00"	20.0	25.0	Roof Load (per information provided)

## Member Notes

beam intended to replace existing interior bearing wall

## Weyerhaeuser Notes

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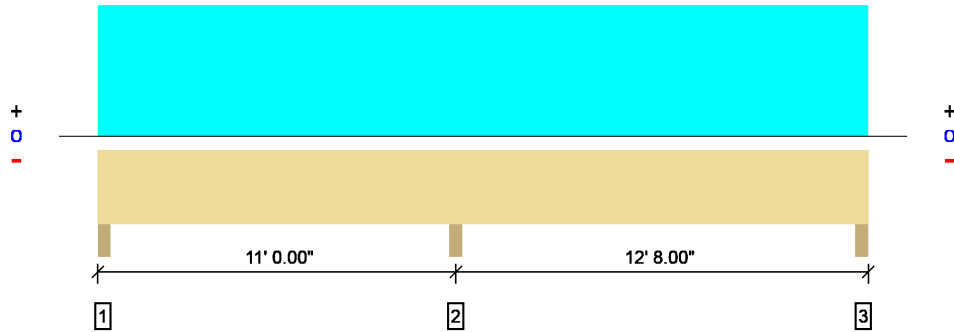
The product application, input design loads, dimensions and support information have been provided by Markee Foster



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Overall Length: 23' 8.00"



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

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	8927 @ 11' 0.00"	9188 (3.50")	Passed (97%)	--	1.0 D + 1.0 Lr (All Spans)
Shear (lbs)	3960 @ 12' 1.63"	10044	Passed (39%)	1.25	1.0 D + 1.0 Lr (All Spans)
Moment (Ft-lbs)	-10531 @ 11' 0.00"	24878	Passed (42%)	1.25	1.0 D + 1.0 Lr (All Spans)
Live Load Defl. (in)	0.114 @ 17' 9.53"	0.417	Passed (L/999+)	--	1.0 D + 1.0 Lr (Alt Spans)
Total Load Defl. (in)	0.196 @ 17' 10.74"	0.625	Passed (L/764)	--	1.0 D + 1.0 Lr (Alt Spans)

System : Roof  
Member Type : Drop Beam  
Building Use : Residential  
Building Code : IBC  
Design Methodology : ASD  
Member Pitch: 0/12

- Deflection criteria: LL (L/360) and TL (L/240).
- Bracing (Lu): All compression edges (top and bottom) must be braced at 23' 8.00" o/c unless detailed otherwise. Proper attachment and positioning of lateral bracing is required to achieve member stability.

Supports	Bearing			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Roof Live	Total	
1 - Column - DF	3.50"	3.50"	1.50"	1110	1481	2591	None
2 - Column - DF	3.50"	3.50"	3.40"	4076	4851	8927	None
3 - Column - DF	3.50"	3.50"	1.50"	1401	1758	3159	None

Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Comments
1 - Uniform (PSF)	0 to 23' 8.00"	13' 3.00"	20.0	25.0	Roof Load (per information provided)

Member Notes
beam intended to replace existing interior bearing wall - option for replacement of existing 4" x 14" beam as well; such that continuous span of two (2) bays

Weyerhaeuser Notes
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