



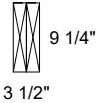
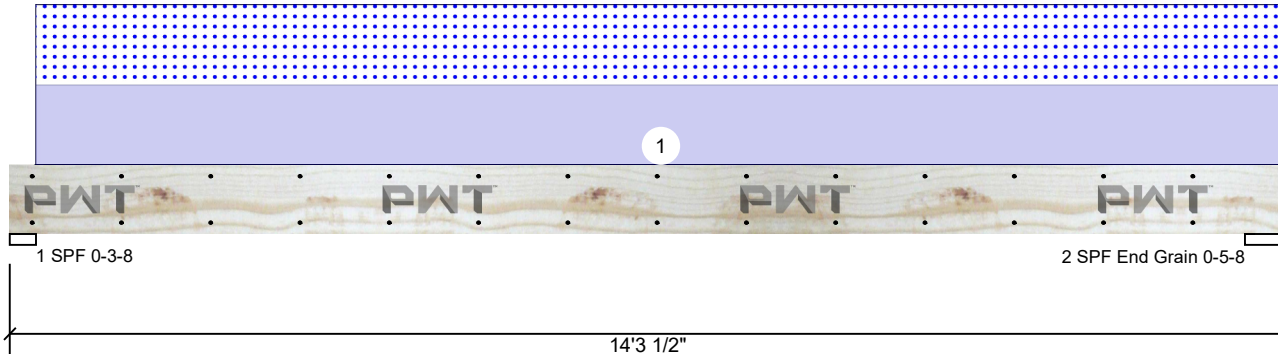
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 1 of 2

DB1 2.0E 2900Fb PWT LVL 1.750" X 9.250" 2-Ply - PASSED

Level: 2nd Flr



Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 360
Deflection TL: 240
Importance: Normal - II
Temperature: Temp <= 100°F
General Load
Floor Live: 40 PSF
Dead: 10 PSF

Application: Floor
Design Method: ASD
Building Code: IRC 2021
Load Sharing: No
Deck: Not Checked

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	946	880	0	0
2	Vertical	0	1007	940	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	35%	946 / 880	1826	L	D+S
2 - SPF	5.500"	Vert	13%	1007 / 940	1947	L	D+S
End Grain							

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6286 ft-lb	7' 3/4"	14278 ft-lb	44%	D+S	L
Shear	1616 lb	1' 3/4"	7074 lb	23%	D+S	L
LL Defl inch	0.232 (L/707)	7' 13/16"	0.456 (L/360)	51%	S	L
TL Defl inch	0.480 (L/342)	7' 13/16"	0.683 (L/240)	70%	D+S	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.248", Long Term = 0.372".
- 3 Fasten all plies using 2 rows of 16d Sinker Nails (.148x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
- 4 Refer to last page of calculations for fasteners required for specified loads.
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be laterally braced at end bearings.
- 8 Bottom must be laterally braced at end bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-3-8 to 14-3-8		Top	130 PLF	0 PLF	130 PLF	0 PLF	0 PLF	R
	Self Weight				9 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtwp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



This design is valid until 9/3/2027



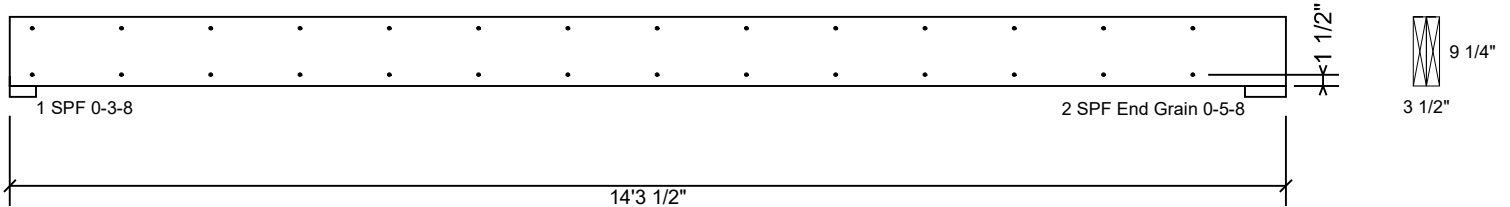
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 2 of 2

DB1 2.0E 2900Fb PWT LVL 1.750" X 9.250" 2-Ply - PASSED

Level: 2nd Flr



Multi-Ply Analysis

Fasten all plies using 2 rows of 16d Sinker Nails (.148x3.25") at 12" o.c.. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	235.2 PLF
Yield Limit per Fastener	117.6 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



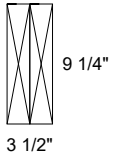
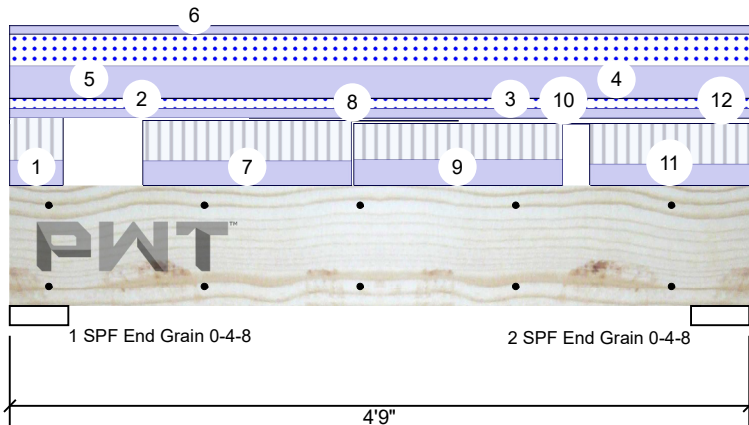
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 1 of 3

HD1 2.0E 2900Fb PWT LVL 1.750" X 9.250" 2-Ply - PASSED

Level: 2nd Flr



Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 360
Deflection TL: 240
Importance: Normal - II
Temperature: Temp <= 100°F
General Load
Floor Live: 40 PSF
Dead: 10 PSF

Application: Floor
Design Method: ASD
Building Code: IRC 2021
Load Sharing: No
Deck: Not Checked

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	814	1906	1116	0	0
2	Vertical	938	1971	1116	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	Vert	28%	1906 / 1448	3354	L	D+0.75(L+S)
2 - SPF End Grain	4.500"	Vert	30%	1971 / 1541	3512	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3168 ft-lb	2'4 7/16"	14278 ft-lb	22%	D+0.75(L+S)	L
Shear	1886 lb	1'1 3/4"	7074 lb	27%	D+0.75(L+S)	L
LL Defl inch	0.014 (L/3550)	2'4 7/16"	0.138 (L/360)	10%	0.75(L+S)	L
TL Defl inch	0.032 (L/1537)	2'4 7/16"	0.206 (L/240)	16%	D+0.75(L+S)	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.018", Long Term = 0.027".
- 3 Fasten all plies using 2 rows of 16d Sinker Nails (.148x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
- 4 Refer to last page of calculations for fasteners required for specified loads.
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be laterally braced at end bearings.
- 8 Bottom must be laterally braced at end bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 0-4-2		Top	287 PLF	480 PLF	0 PLF	0 PLF	0 PLF	J9
2	Tapered Start	0-0-0		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	1-6-5			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 4-9-0		Top	110 PLF	0 PLF	110 PLF	0 PLF	0 PLF	R
4	Part. Uniform	0-0-0 to 4-9-0		Top	5 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
5	Part. Uniform	0-0-0 to 4-9-0		Top	360 PLF	0 PLF	360 PLF	0 PLF	0 PLF	R

Continued on page 2...

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.
Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtwp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



This design is valid until 9/3/2027

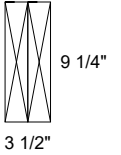
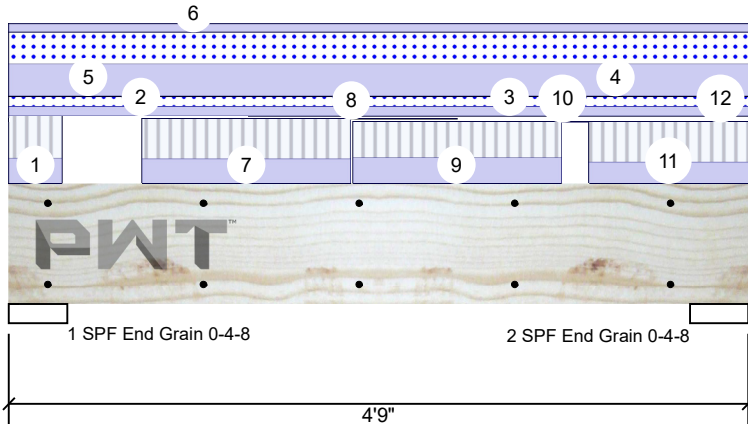


Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

HD1 2.0E 2900Fb PWT LVL 1.750" X 9.250" 2-Ply - PASSED

Level: 2nd Flr



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
6	Part. Uniform	0-0-0 to 4-9-0		Top	96 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
7	Part. Uniform	0-10-5 to 2-2-5		Top	282 PLF	445 PLF	0 PLF	0 PLF	0 PLF	J9
8	Tapered Start	1-6-5		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	2-10-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
9	Part. Uniform	2-2-8 to 3-6-8		Top	295 PLF	399 PLF	0 PLF	0 PLF	0 PLF	J9
10	Tapered Start	2-10-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	4-4-11			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
11	Part. Uniform	3-8-11 to 4-9-0		Top	247 PLF	447 PLF	0 PLF	0 PLF	0 PLF	J9
12	Tapered Start	4-4-11		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	4-9-0			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A.
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



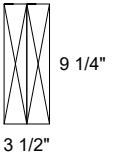
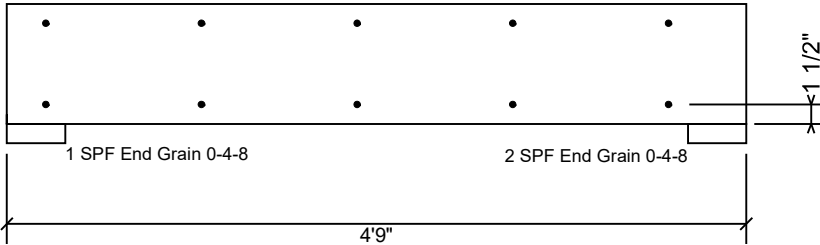
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 3 of 3

HD1 2.0E 2900Fb PWT LVL 1.750" X 9.250" 2-Ply - PASSED

Level: 2nd Flr



Multi-Ply Analysis

Fasten all plies using 2 rows of 16d Sinkers (148x3.25") at 12" o.c.. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	235.2 PLF
Yield Limit per Fastener	117.6 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A.
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



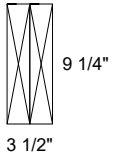
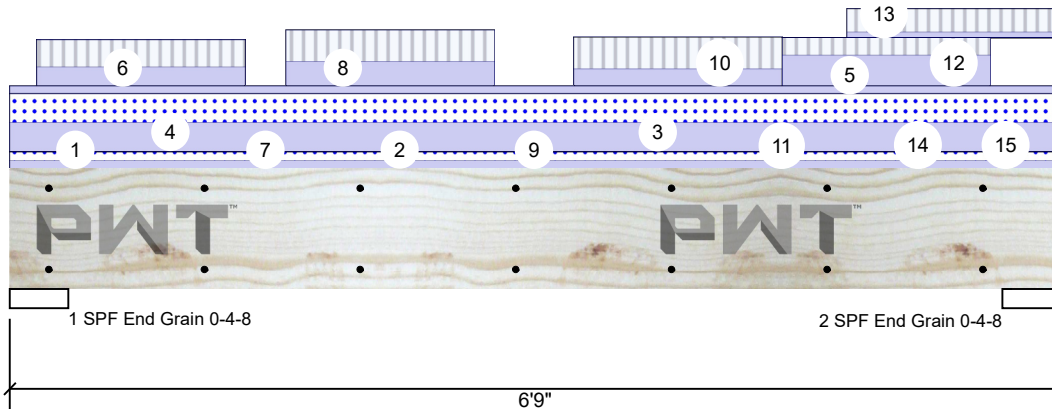
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 1 of 3

HD2-A 2.0E 2900Fb PWT LVL 1.750" X 9.250" 2-Ply - PASSED

Level: 2nd Flr



Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 360
Deflection TL: 240
Importance: Normal - II
Temperature: Temp <= 100°F
General Load
Floor Live: 40 PSF
Dead: 10 PSF

Application: Floor
Design Method: ASD
Building Code: IRC 2021
Load Sharing: No
Deck: Not Checked

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1015	2730	1586	0	0
2	Vertical	1194	2894	1586	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	Vert	40%	2730 / 1951	4681	L	D+0.75(L+S)
2 - SPF End Grain	4.500"	Vert	42%	2894 / 2085	4979	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6586 ft-lb	3'4 7/8"	14278 ft-lb	46%	D+0.75(L+S)	L
Shear	3191 lb	5'7 1/4"	7074 lb	45%	D+0.75(L+S)	L
LL Defl inch	0.050 (L/1458)	3'4 11/16"	0.204 (L/360)	25%	0.75(L+S)	L
TL Defl inch	0.121 (L/609)	3'4 5/8"	0.306 (L/240)	39%	D+0.75(L+S)	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.070", Long Term = 0.106".
- 3 Fasten all plies using 2 rows of 16d Sinker Nails (.148x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
- 4 Refer to last page of calculations for fasteners required for specified loads.
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be laterally braced at end bearings.
- 8 Bottom must be laterally braced at end bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tapered Start	0-0-0		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	0-10-2			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 6-9-0		Top	110 PLF	0 PLF	110 PLF	0 PLF	0 PLF	R
3	Part. Uniform	0-0-0 to 6-9-0		Top	5 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
4	Part. Uniform	0-0-0 to 6-9-0		Top	360 PLF	0 PLF	360 PLF	0 PLF	0 PLF	R
5	Part. Uniform	0-0-0 to 6-9-0		Top	96 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

Continued on page 2...

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.
Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtwp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A.
30097
888-613-5078



This design is valid until 9/3/2027



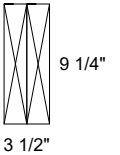
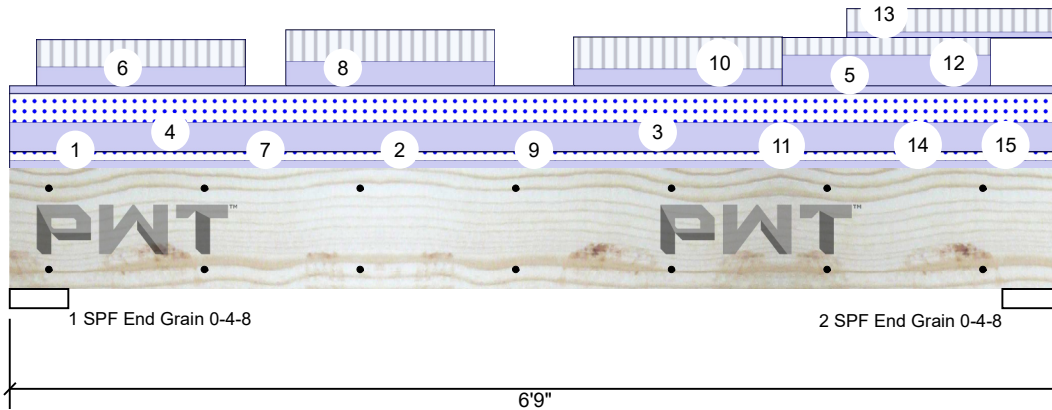
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 2 of 3

HD2-A 2.0E 2900Fb PWT LVL 1.750" X 9.250" 2-Ply - PASSED

Level: 2nd Flr



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
6	Part. Uniform	0-2-2 to 1-6-2		Top	252 PLF	340 PLF	0 PLF	0 PLF	0 PLF	J3
7	Tapered Start	0-10-2		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	2-5-5			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
8	Part. Uniform	1-9-5 to 3-1-5		Top	320 PLF	400 PLF	0 PLF	0 PLF	0 PLF	J3
9	Tapered Start	2-5-5		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	4-3-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
10	Part. Uniform	3-7-8 to 4-11-8		Top	233 PLF	395 PLF	0 PLF	0 PLF	0 PLF	J3
11	Tapered Start	4-3-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	5-7-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
12	Part. Uniform	4-11-8 to 6-3-8		Top	400 PLF	217 PLF	0 PLF	0 PLF	0 PLF	J3
13	Part. Uniform	5-4-8 to 6-8-8		Top	75 PLF	300 PLF	0 PLF	0 PLF	0 PLF	J3
14	Tapered Start	5-7-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	6-0-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
15	Tapered Start	6-0-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	6-9-0			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

This design is valid until 9/3/2027

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A.
30097
888-613-5078



U.S. LUMBER



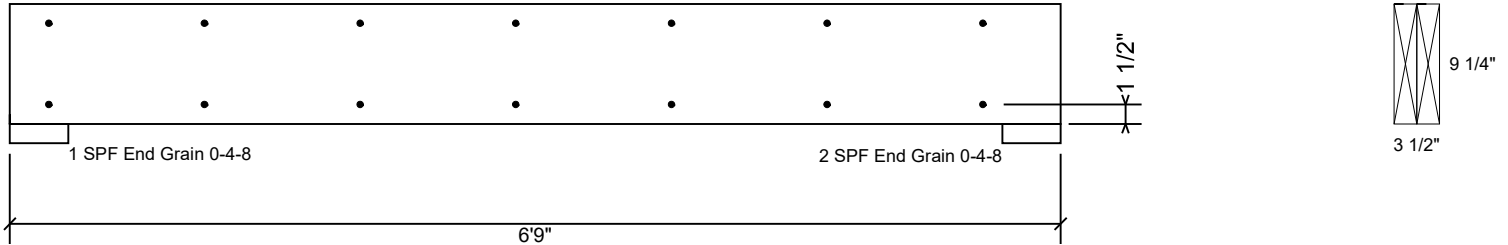
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 3 of 3

HD2-A 2.0E 2900Fb PWT LVL 1.750" X 9.250" 2-Ply - PASSED

Level: 2nd Flr



Multi-Ply Analysis

Fasten all plies using 2 rows of 16d Sinker Nails (.148x3.25") at 12" o.c.. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	235.2 PLF
Yield Limit per Fastener	117.6 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



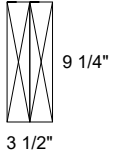
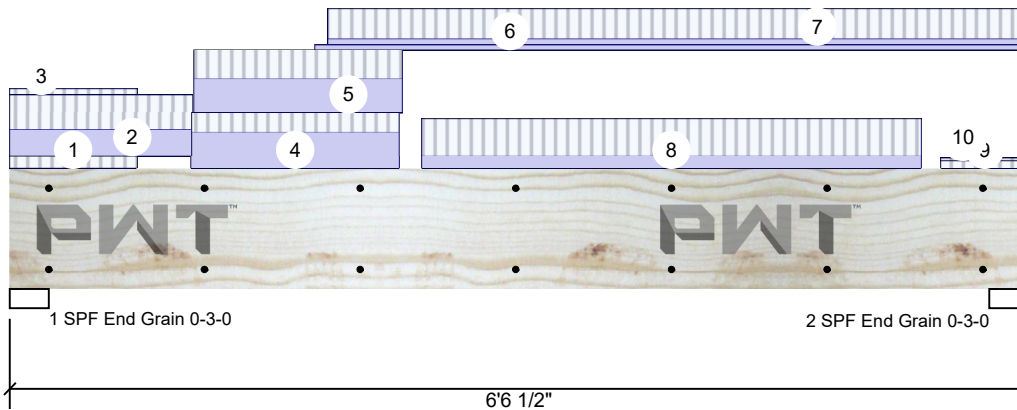
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 1 of 3

HD2-B 2.0E 2900Fb PWT LVL 1.750" X 9.250" 2-Ply - PASSED

Level: 2nd Flr



Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 360
Deflection TL: 240
Importance: Normal - II
Temperature: Temp <= 100°F
General Load
Floor Live: 40 PSF
Dead: 10 PSF

Application: Floor
Design Method: ASD
Building Code: IRC 2021
Load Sharing: No
Deck: Not Checked

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1985 (-53)	1472	0	0	0
2	Vertical	2109 (-18)	1048	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	44%	1472 / 1985	3457	L	D+L
2 - SPF End Grain	3.000"	Vert	40%	1048 / 2109	3157	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5246 ft-lb	3'1 9/16"	12416 ft-lb	42%	D+L	L
Shear	2659 lb	1' 1/4"	6151 lb	43%	D+L	L
LL Defl inch	0.060 (L/1241)	3'3 5/8"	0.206 (L/360)	29%	L	L
TL Defl inch	0.096 (L/767)	3'2 11/16"	0.308 (L/240)	31%	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.037", Long Term = 0.055".
- 3 Fasten all plies using 2 rows of 16d Sinker Nails (.148x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
- 4 Refer to last page of calculations for fasteners required for specified loads.
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be laterally braced at end bearings.
- 8 Bottom must be laterally braced at end bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 0-9-12		Top	-13 PLF	129 PLF	0 PLF	0 PLF	0 PLF	J3
2	Part. Uniform	0-0-0 to 1-2-0		Top	289 PLF	393 PLF	0 PLF	0 PLF	0 PLF	J3
3	Part. Uniform	0-0-0 to 0-9-12		Top	0 PLF	-68 PLF	0 PLF	0 PLF	0 PLF	J3
4	Part. Uniform	1-2-0 to 2-6-0		Top	402 PLF	216 PLF	0 PLF	0 PLF	0 PLF	J3
5	Part. Uniform	1-2-3 to 2-6-3		Top	391 PLF	313 PLF	0 PLF	0 PLF	0 PLF	J9
6	Part. Uniform	1-11-8 to 6-6-8		Top	52 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

Continued on page 2...

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.
Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtwp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



This design is valid until 9/3/2027



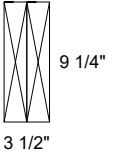
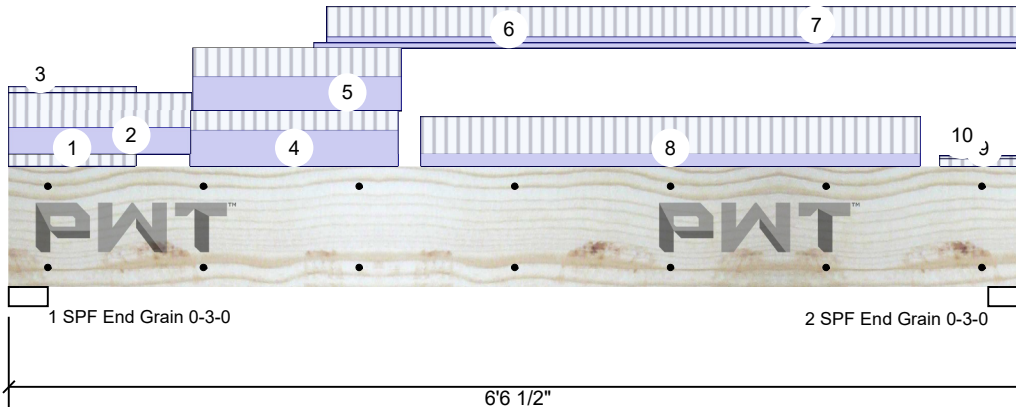
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 2 of 3

HD2-B 2.0E 2900Fb PWT LVL 1.750" X 9.250" 2-Ply - PASSED

Level: 2nd Flr



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
7	Part. Uniform	2-0-8 to 6-6-8		Top	82 PLF	330 PLF	0 PLF	0 PLF	0 PLF	J3
8	Part. Uniform	2-7-13 to 5-10-3		Top	145 PLF	405 PLF	0 PLF	0 PLF	0 PLF	J9
9	Part. Uniform	5-11-13 to 6-6-8		Top	8 PLF	80 PLF	0 PLF	0 PLF	0 PLF	J9
10	Part. Uniform	5-11-13 to 6-6-8		Top	0 PLF	-29 PLF	0 PLF	0 PLF	0 PLF	J9
	Self Weight				9 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A.
30097
888-613-5078



This design is valid until 9/3/2027



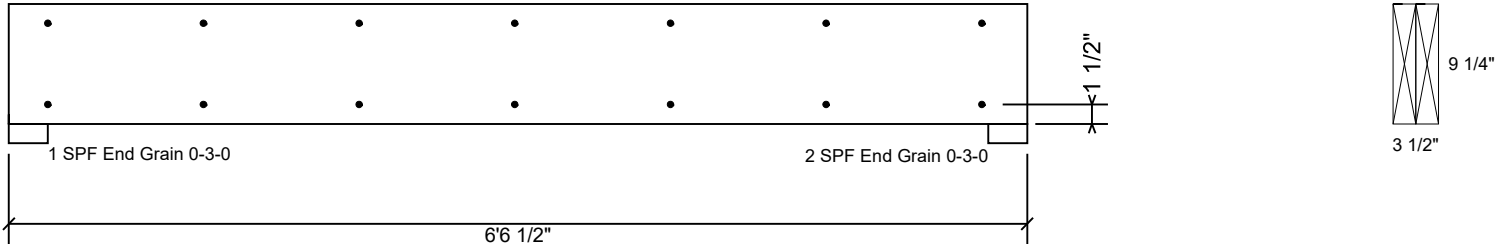
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 3 of 3

HD2-B 2.0E 2900Fb PWT LVL 1.750" X 9.250" 2-Ply - PASSED

Level: 2nd Flr



Multi-Ply Analysis

Fasten all plies using 2 rows of 16d Sinker Nails (.148x3.25") at 12" o.c.. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	235.2 PLF
Yield Limit per Fastener	117.6 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



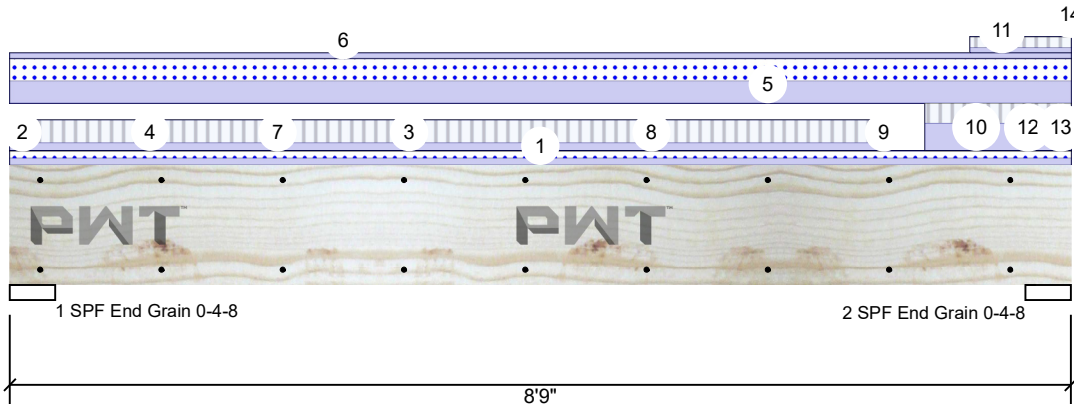
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 1 of 3

HD3 2.0E 2900Fb PWT LVL 1.750" X 11.875" 2-Ply - PASSED

Level: 2nd Flr



Member Information

Type: Girder
Plies: 2
Moisture Condition: Dry
Deflection LL: 360
Deflection TL: 240
Importance: Normal - II
Temperature: Temp <= 100°F
General Load
Floor Live: 40 PSF
Dead: 10 PSF

Application: Floor
Design Method: ASD
Building Code: IRC 2021
Load Sharing: No
Deck: Not Checked

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	1604	3156	2056	0	0
2	Vertical	1607	3547	2056	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	Vert	50%	3156 / 2745	5901	L	D+0.75(L+S)
2 - SPF End Grain	4.500"	Vert	53%	3547 / 2747	6295	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	11130 ft-lb	4'4 1/2"	22888 ft-lb	49%	D+0.75(L+S)	L
Shear	4061 lb	1'4 3/8"	9081 lb	45%	D+0.75(L+S)	L
LL Defl inch	0.077 (L/1268)	4'4 3/8"	0.271 (L/360)	28%	0.75(L+S)	L
TL Defl inch	0.166 (L/586)	4'4 9/16"	0.406 (L/240)	41%	D+0.75(L+S)	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.089", Long Term = 0.134".
- 3 Fasten all plies using 2 rows of 16d Sinker Nails (.148x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
- 4 Refer to last page of calculations for fasteners required for specified loads.
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be laterally braced at end bearings.
- 8 Bottom must be laterally braced at end bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 8-9-0		Top	110 PLF	0 PLF	110 PLF	0 PLF	0 PLF	R
2	Tapered Start	0-0-0		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	0-2-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 8-9-0		Top	5 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
4	Part. Uniform	0-0-0 to 7-2-8		Top	136 PLF	369 PLF	0 PLF	0 PLF	0 PLF	J9
5	Part. Uniform	0-0-0 to 8-9-0		Top	360 PLF	0 PLF	360 PLF	0 PLF	0 PLF	R

Continued on page 2...

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.
Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtwp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

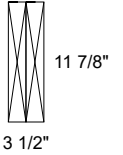
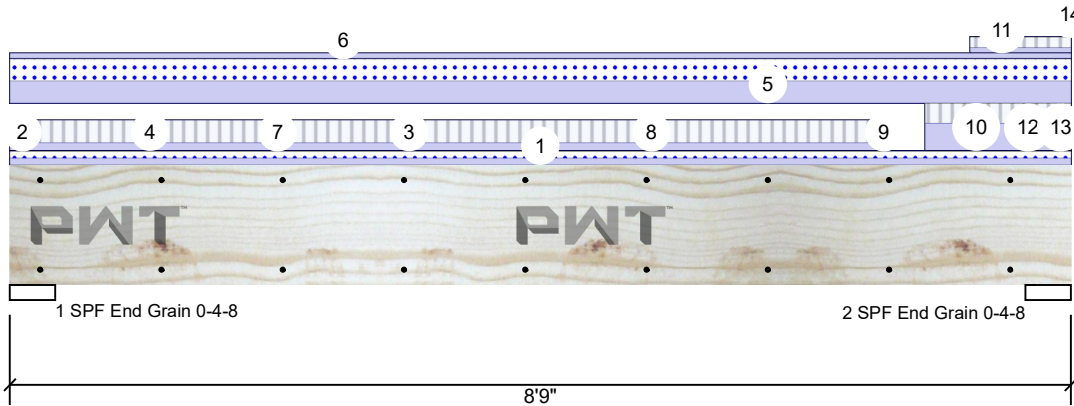
U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A.
30097
888-613-5078



This design is valid until 9/3/2027

HD3 2.0E 2900Fb PWT LVL 1.750" X 11.875" 2-Ply - PASSED

Level: 2nd Flr



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
6	Part. Uniform	0-0-0 to 8-9-0		Top	96 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
7	Tapered Start	0-2-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	4-2-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
8	Tapered Start	4-2-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	6-2-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
9	Tapered Start	6-2-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	8-2-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
10	Part. Uniform	7-6-8 to 8-9-0		Top	453 PLF	331 PLF	0 PLF	0 PLF	0 PLF	J10
11	Part. Uniform	7-11-0 to 8-9-0		Top	89 PLF	167 PLF	0 PLF	0 PLF	0 PLF	J10
12	Tapered Start	8-2-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	8-7-0			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
13	Tapered Start	8-7-0		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	8-9-0			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
14	Part. Uniform	8-8-14 to 8-9-0		Top	202 PLF	338 PLF	0 PLF	0 PLF	0 PLF	J9
	Self Weight				12 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A.
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



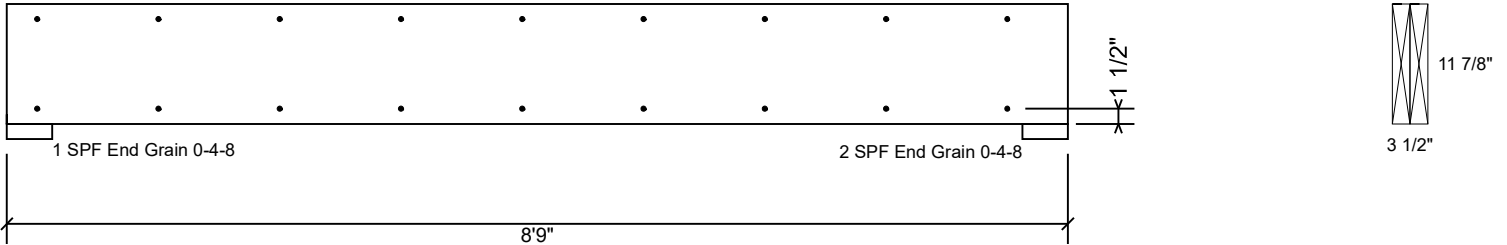
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 3 of 3

HD3 2.0E 2900Fb PWT LVL 1.750" X 11.875" 2-Ply - PASSED

Level: 2nd Flr



Multi-Ply Analysis

Fasten all plies using 2 rows of 16d Sinker Nails (.148x3.25") at 12" o.c.. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	235.2 PLF
Yield Limit per Fastener	117.6 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



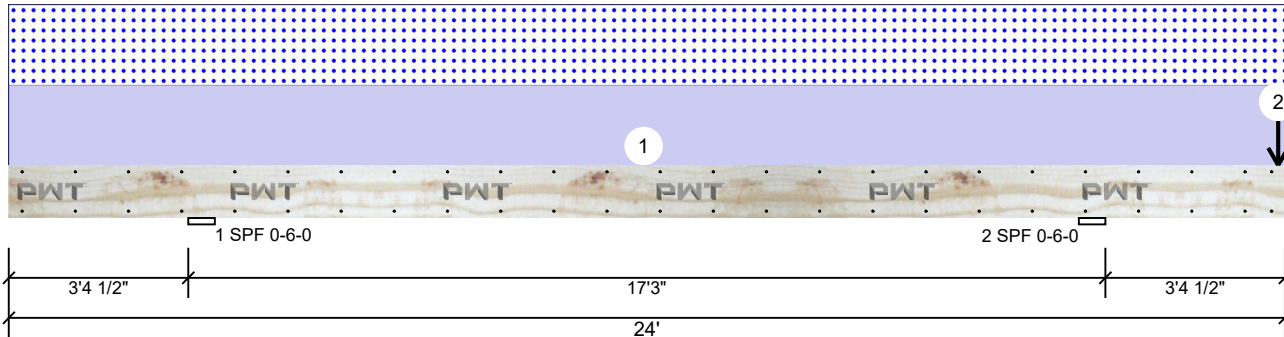
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 2 of 3

HD4 2.0E 2900Fb PWT LVL 1.750" X 11.875" 2-Ply - PASSED

Level: 2nd Flr



ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 24-0-0		Top	90 PLF	0 PLF	90 PLF	0 PLF	0 PLF	R
2	Point	23-10-8		Near Face	14 lb	0 lb	0 lb	0 lb	0 lb	DB2
	Self Weight				12 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



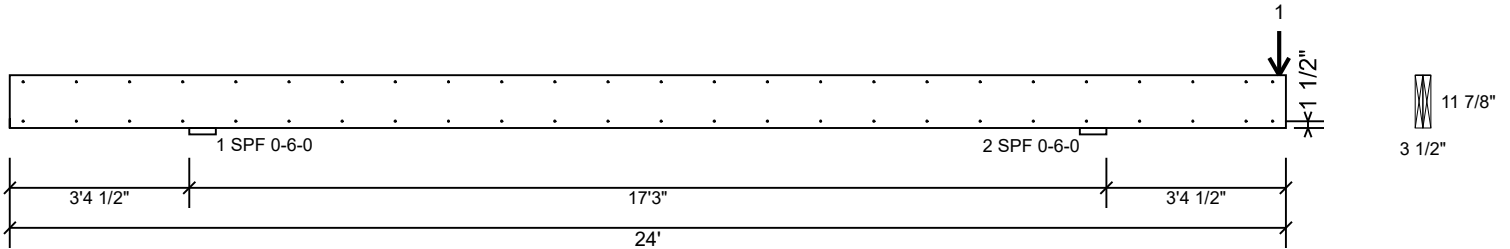
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 3 of 3

HD4 2.0E 2900Fb PWT LVL 1.750" X 11.875" 2-Ply - PASSED

Level: 2nd Flr



Multi-Ply Analysis

Fasten all plies using 2 rows of 16d Sinker Nails (.148x3.25") at 12" o.c.. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	235.2 PLF
Yield Limit per Fastener	117.6 lb.
C _m	1
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



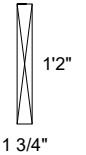
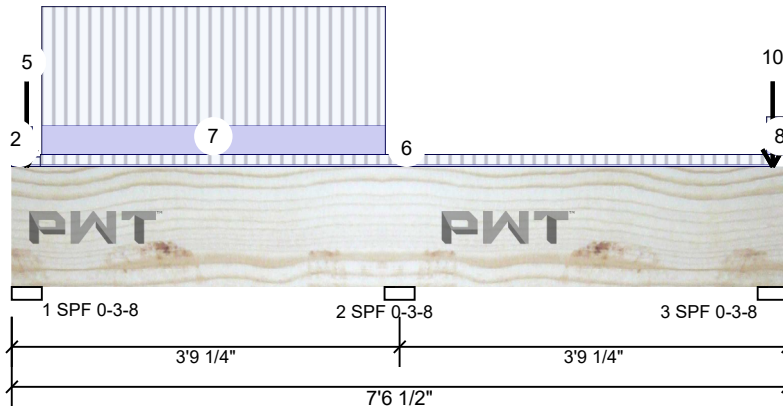
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 1 of 2

FB1 2.0E 2900Fb PWT LVL 1.750" X 14.000" - PASSED

Level: 2nd Flr



Member Information

Type: Girder
Plies: 1
Moisture Condition: Dry
Deflection LL: 360
Deflection TL: 240
Importance: Normal - II
Temperature: Temp <= 100°F
General Load
Floor Live: 40 PSF
Dead: 10 PSF

Application: Floor
Design Method: ASD
Building Code: IRC 2021
Load Sharing: No
Deck: Not Checked

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	229	116	0	0	0
2	Vertical	295	103	0	0	0
3	Vertical	24 (-13)	41	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	13%	112 / 219	330	L_	D+L
2 - SPF	3.500"	Vert	16%	111 / 318	429	LL	D+L
3 - SPF	3.500"	Vert	2%	37 / 23	60	_L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-159 ft-lb	3'9 1/4"	13396 ft-lb	1%	D+L	LL
Pos Moment	218 ft-lb	1'9 3/16"	13396 ft-lb	2%	D+L	L_
Shear	130 lb	2'5 1/2"	4655 lb	3%	D+L	LL
LL Defl inch	0.002 (L/27459)	1'11 11/16"	0.118 (L/360)	1%	L	L_
TL Defl inch	0.002 (L/21218)	1'11 11/16"	0.177 (L/240)	1%	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 Dead Load Deflection: Instant = 0.000", Long Term = 0.001".
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top must be laterally braced at end bearings.
- 5 Bottom must be laterally braced at end bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tie-In	0-0-0 to 0-3-6	0-3-1	Top	10 PSF	30 PSF	0 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-2-6	0-10-3	Top	10 PSF	30 PSF	0 PSF	0 PSF	0 PSF	
3	Point	0-1-12		Top	3 lb	0 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-3-8								
4	Point	0-1-12		Top	20 lb	0 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-3-8								
5	Point	0-1-12		Top	23 lb	0 lb	0 lb	0 lb	0 lb	Wall Self Weight

Continued on page 2...

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.
Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A.
30097
888-613-5078



This design is valid until 9/3/2027



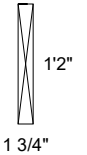
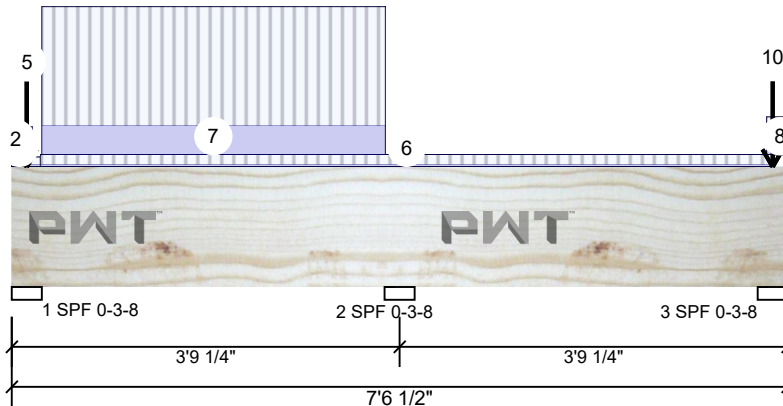
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 2 of 2

FB1 2.0E 2900Fb PWT LVL 1.750" X 14.000" - PASSED

Level: 2nd Flr



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
	Bearing Length	0-3-8								
6	Tie-In	0-3-6 to 7-4-12	0-3-1	Top	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
7	Part. Uniform	0-3-8 to 3-7-8		Top	33 PLF	132 PLF	0 PLF	0 PLF	0 PLF	S
8	Tie-In	7-4-2 to 7-6-8	0-10-3	Top	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
9	Point	7-4-12		Top	8 lb	0 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-3-8								
10	Point	7-4-12		Top	20 lb	0 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-3-8								
	Self Weight				7 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A.
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



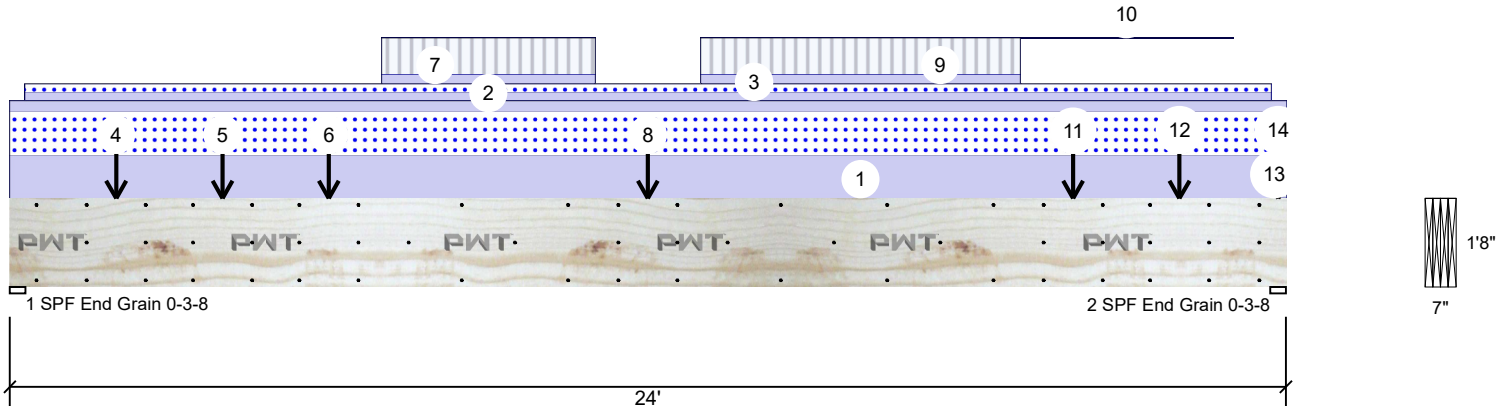
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 1 of 6

FB2 2.0E 2900Fb PWT LVL 1.750" X 20.000" 4-Ply - PASSED

Level: 2nd Flr



Member Information

Type: Girder
Plies: 4
Moisture Condition: Dry
Deflection LL: 360
Deflection TL: 240
Importance: Normal - II
Temperature: Temp <= 100°F
General Load
Floor Live: 40 PSF
Dead: 10 PSF

Application: Floor
Design Method: ASD
Building Code: IRC 2021
Load Sharing: Yes
Deck: Not Checked

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	3246 (0)	7880	5140	0	0
2	Vertical	2983 (-4)	8206	5811	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	77%	7880 / 6290	14169	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	Vert	81%	8206 / 6595	14802	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	85019 ft-lb	12'	121783 ft-lb	70%	D+0.75(L+S)	L
Shear	12469 lb	1'11 1/2"	30590 lb	41%	D+0.75(L+S)	L
LL Defl inch	0.432 (L/654)	12' 1/16"	0.785 (L/360)	55%	0.75(L+S)	L
TL Defl inch	0.972 (L/291)	12' 1/16"	1.178 (L/240)	83%	D+0.75(L+S)	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.540", Long Term = 0.810".
- 3 Fasten all plies using 3 rows of SDW22634 at 24" o.c. Maximum end distance not to exceed 12".
- 4 Refer to last page of calculations for fasteners required for specified loads.
- 5 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
- 6 Simpson fasteners applied from a single side of the member use tip values where published.
- 7 Girders are designed to be supported on the bottom edge only.
- 8 Top loads must be supported equally by all plies.
- 9 Top must be laterally braced at a maximum of 4'1 1/8" o.c.
- 10 Bottom must be laterally braced at end bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 23-8-8		Top	360 PLF	0 PLF	360 PLF	0 PLF	0 PLF	R
2	Part. Uniform	0-0-0 to 24-0-0		Top	94 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-3-8 to 23-8-8		Top	70 PLF	0 PLF	70 PLF	0 PLF	0 PLF	R
4	Point	2-0-0		Far Face	166 lb	592 lb	0 lb	0 lb	0 lb	J2

Continued on page 2...

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.
Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

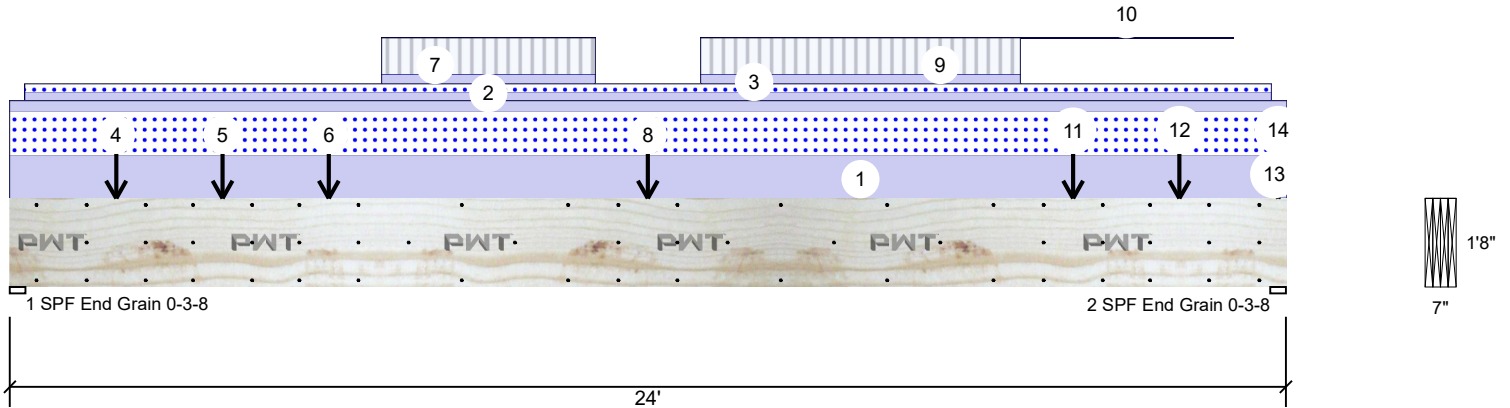
U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



This design is valid until 9/3/2027

FB2 2.0E 2900Fb PWT LVL 1.750" X 20.000" 4-Ply - PASSED

Level: 2nd Flr



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
5	Point	4-0-0		Far Face	167 lb	599 lb	0 lb	0 lb	0 lb	J2
6	Point	6-0-0		Far Face	181 lb	599 lb	0 lb	0 lb	0 lb	J2
7	Part. Uniform	7-0-0 to 11-0-0		Far Face	84 PLF	300 PLF	0 PLF	0 PLF	0 PLF	
8	Point	12-0-0		Far Face	600 lb	599 lb	0 lb	0 lb	0 lb	J2
9	Part. Uniform	13-0-0 to 19-0-0		Far Face	84 PLF	300 PLF	0 PLF	0 PLF	0 PLF	
10	Part. Uniform	19-0-0 to 23-0-0		Far Face	0 PLF	-1 PLF	0 PLF	0 PLF	0 PLF	
11	Point	20-0-0		Far Face	102 lb	417 lb	0 lb	0 lb	0 lb	J3
12	Point	22-0-0		Far Face	99 lb	406 lb	0 lb	0 lb	0 lb	J3
13	Tie-In	23-8-8 to 24-0-0	1-6-0	Top	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
14	Point	23-10-4		Top	535 lb	0 lb	776 lb	0 lb	0 lb	
	Bearing Length	0-3-8								
	Self Weight				40 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
 1850 Park Lane
 Burlington, WA 98233
 (800) 515-7570
 www.pwtewp.com
 ICC-ES: ESR-2909 ESR-2403 APA:
 PR-L233 PR-L280

U.S. Lumber
 2160 Satellite Blvd., Suite 450, GA
 U.S.A
 30097
 888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



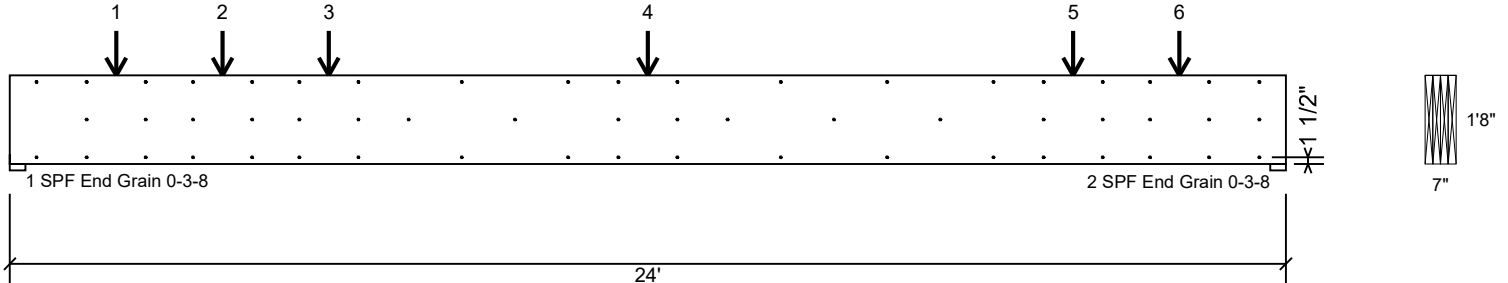
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 3 of 6

FB2 2.0E 2900Fb PWT LVL 1.750" X 20.000" 4-Ply - PASSED

Level: 2nd Flr



Multi-Ply Analysis

Fasten all plies using 3 rows of SDW22634 at 24" o.c. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 12".

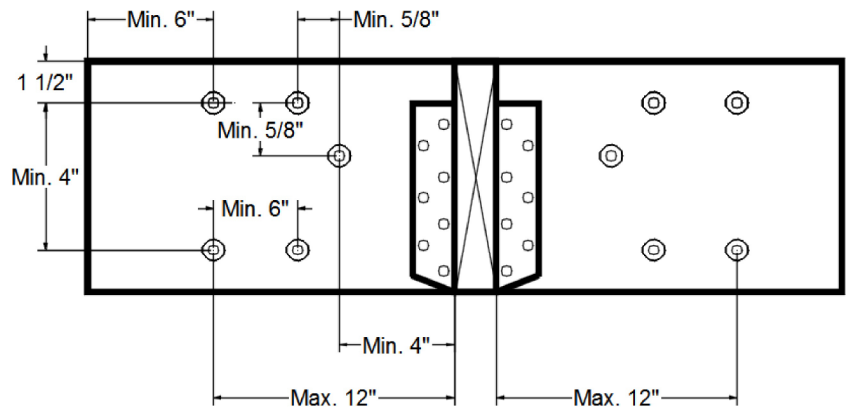
Capacity	64.0 %
Load	288.0 PLF
Yield Limit per Foot	450.0 PLF
Yield Limit per Fastener	300.0 lb.
C _m	1
Yield Mode	Lookup
Edge Distance	1 1/2"
Min. End Distance	6"
Load Combination	D+L
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 2-0-0 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity	23.7 %
Load	568.5lb.
Total Yield Limit	2400.0 lb.
C _g	1.0000
C _m	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtwp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

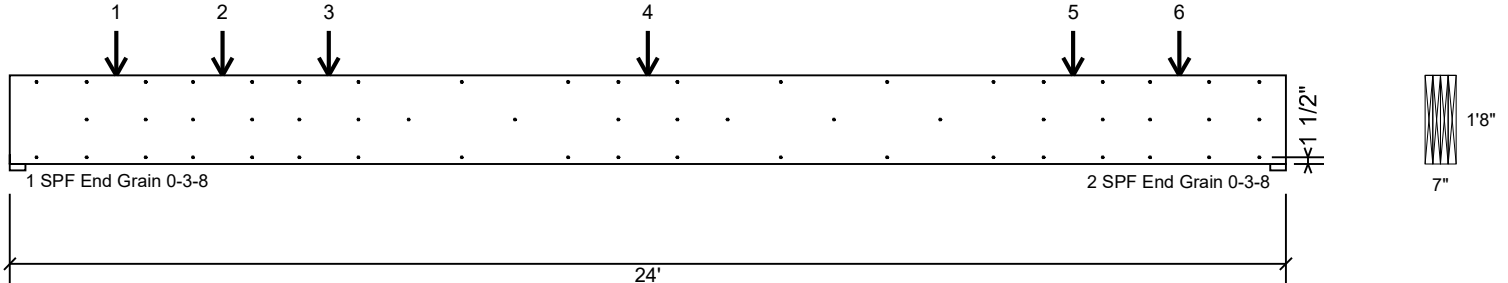
U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A.
30097
888-613-5078



This design is valid until 9/3/2027

FB2 2.0E 2900Fb PWT LVL 1.750" X 20.000" 4-Ply - PASSED

Level: 2nd Flr



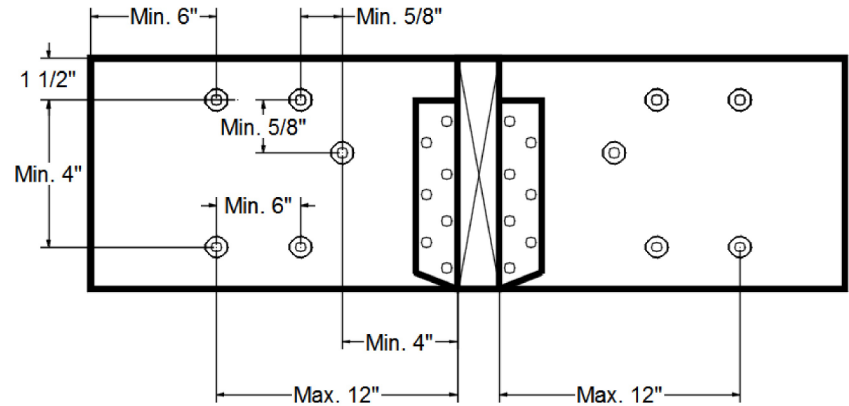
Multi-Ply Analysis

Concentrated Load

Fasten at concentrated side load at 4-0-0 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity	23.9 %
Load	574.5lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
Cm	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



Concentrated Load

Fasten at concentrated side load at 6-0-0 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity	24.4 %
Load	585.0lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
Cm	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtwp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



This design is valid until 9/3/2027



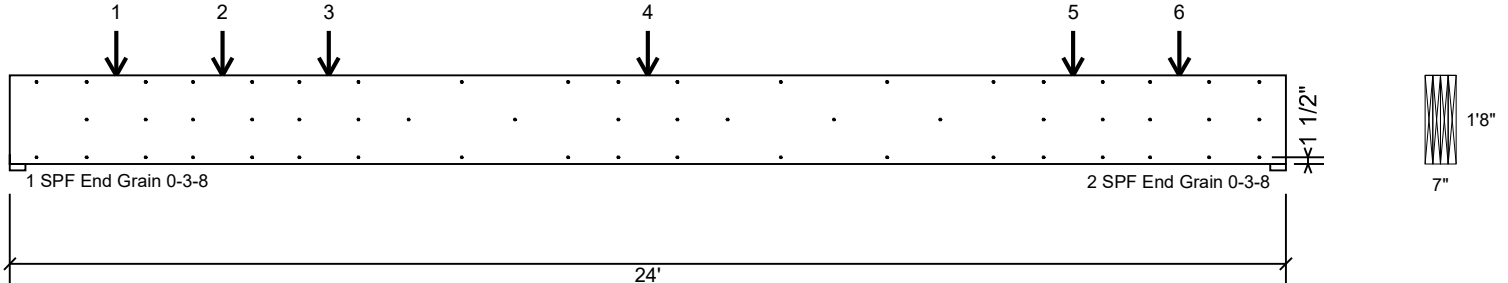
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 5 of 6

FB2 2.0E 2900Fb PWT LVL 1.750" X 20.000" 4-Ply - PASSED

Level: 2nd Flr



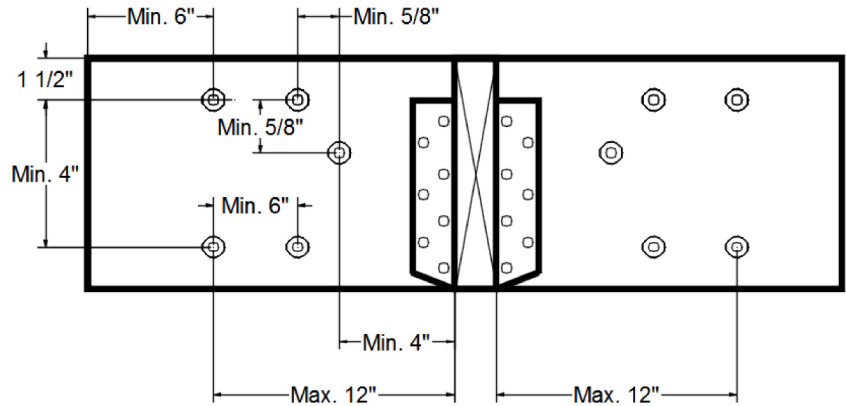
Multi-Ply Analysis

Concentrated Load

Fasten at concentrated side load at 12-0-0 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity	37.5 %
Load	899.3lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
Cm	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



Concentrated Load

Fasten at concentrated side load at 20-0-0 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity	16.2 %
Load	389.3lb.
Total Yield Limit	2400.0 lb.
Cg	1.0000
Cm	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



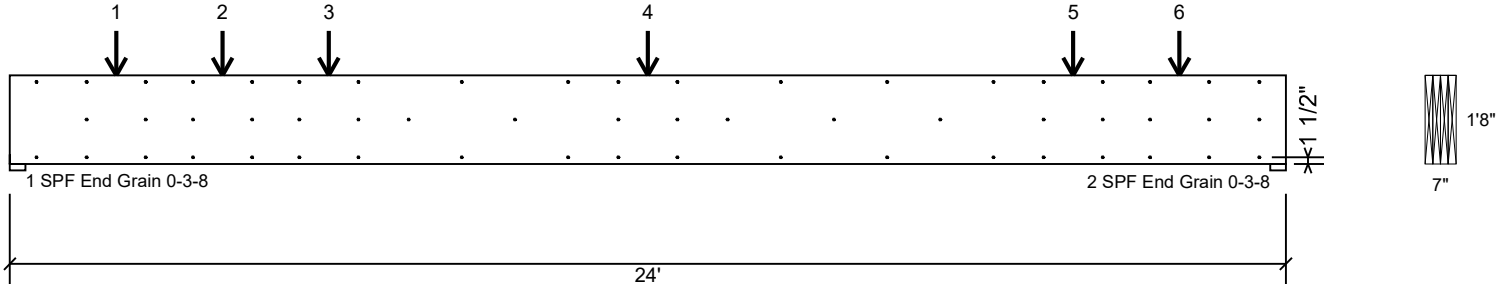
Client: 84 Lumber-Fayetteville #2307
Project: CL2862-CP-3C-GL
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by: Will Evans
Job Name: 202510-82734
Project #: 82734

Page 6 of 6

FB2 2.0E 2900Fb PWT LVL 1.750" X 20.000" 4-Ply - PASSED

Level: 2nd Flr



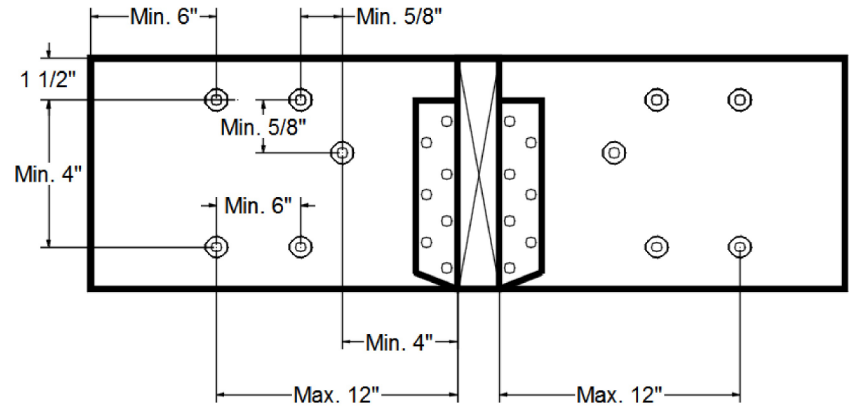
Multi-Ply Analysis

Concentrated Load

Fasten at concentrated side load at 22-0-0 with a minimum of (6) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity	15.8 %
Load	378.8lb.
Total Yield Limit	2400.0 lb.
C _g	1.0000
C _m	1
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Copyright 2023 All rights reserved by Pacific Woodtech Corp 1850 Park Lane, Burlington, WA 98233

This design is valid until 9/3/2027

Manufacturer Info

Pacific Woodtech Corp
1850 Park Lane
Burlington, WA 98233
(800) 515-7570
www.pwtewp.com
ICC-ES: ESR-2909 ESR-2403 APA:
PR-L233 PR-L280

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



U.S. LUMBER



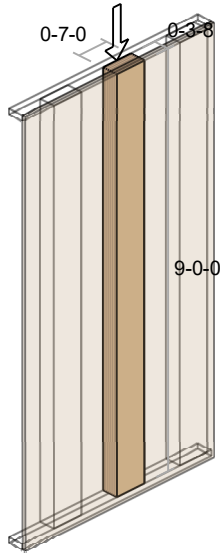
Client: 84 Lumber-Fayetteville #2307
Project:
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by:
Job Name: 202510-82734
Project #: 82734

Page 1 of 1

C1-A Boozer 1.9E Column 3.500" X 7.000" - PASSED

Level: 2nd Flr



Design Method: ASD
Building Code: IRC 2021
Importance: Normal - II
Application: Stud In Wall
Load Sharing: Yes
Spacing: 1-4-0
Unbraced Length: Continuous
Orientation: Plank
Building Type: Enclosed
Zone: Zone 4
Mean Roof Height: 30-0-0
Wind Speed mph: 115
Exposure Category: C
Topographical Feature: Escarpment
Feature Height: 0
Feature Length: 0
Horizontal Offset: 0
Direction: Downwind
Topographical Factor Kzt: 1
Risk Occupancy Category II
LL Deflection Limit: L/360

Design OK.

Design Notes

1. Axial load eccentricity of 1/6 dimension applied only to the direction perpendicular to the wall.
2. Designed in accordance with NDS 2018, ASCE7 and IRC 2021.
3. Top and bottom ends of the member must be supported to prevent lateral movement and rotation.
4. Member must be continuously laterally braced in the wall plane direction.
5. Holes and notches are not allowed in member.
6. Effective length factor 0.85 for slenderness and strength calculations.
7. Design wind load based on leeward pressure 34 PSF. Windward pressure is 32 PSF.

Analysis

Design Properties

	Actual	Allowed	Capacity	Load Combination	E:	1900000	Fc:	2300
Slenderness	30.9	50.0	62%		Ey:	1900000	Fv:	0
Axial (lb.)	14169	27289	52%	D+0.75(L+S)	Fb:	2100	Fvy:	0
Axial + Bending	0.74	1	74%	D+0.75(L+S)	Fby:	2300		
Bearing Steel (lb.)	14229	49000	29%	D+0.75(0.6W+L+S)				
LL Deflection	0.178 (in.) L/605	0.300 (in.) L/360	59%	0.75((0.7)(0.6)W+L+S)				
Lateral Reaction Top	122			D+0.6W				
Lateral Reaction Bot	122			D+0.6W				

Applied Loads

ID	Load Type	Location	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
Axial								
1	Point	9-0-0	7880 lb	3246 lb	5140 lb	0 lb	0 lb	
2	Point	9-0-0	0 lb	0 lb	0 lb	0 lb	0 lb	
Lateral								
3	Uniform		0 PLF	0 PLF	0 PLF	45 PLF	0 PLF	

Manufacturer Info

Boozer Laminated Beam Co
Anniston, AL
www.boozerbeam.com

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027



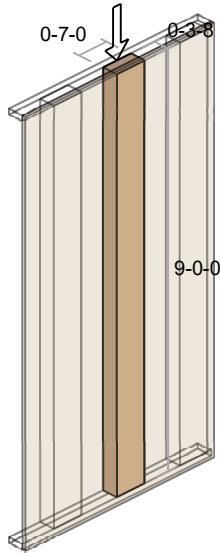
Client: 84 Lumber-Fayetteville #2307
Project:
Address: CL2862-CP-3C-GL

Date: 10/1/2025
Input by:
Job Name: 202510-82734
Project #: 82734

Page 1 of 1

C1-B Boozer 1.9E Column 3.500" X 7.000" - PASSED

Level: 2nd Flr



Design Method: ASD
Building Code: IRC 2021
Importance: Normal - II
Application: Stud In Wall
Load Sharing: Yes
Spacing: 1-4-0
Unbraced Length: Continuous
Orientation: Plank
Building Type: Enclosed
Zone: Zone 4
Mean Roof Height: 30-0-0
Wind Speed mph: 115
Exposure Category: C
Topographical Feature: Escarpment
Feature Height: 0
Feature Length: 0
Horizontal Offset: 0
Direction: Downwind
Topographical Factor Kzt: 1
Risk Occupancy Category II
LL Deflection Limit: L/360

Design OK.

Design Notes

1. Axial load eccentricity of 1/6 dimension applied only to the direction perpendicular to the wall.
2. Designed in accordance with NDS 2018, ASCE7 and IRC 2021.
3. Top and bottom ends of the member must be supported to prevent lateral movement and rotation.
4. Member must be continuously laterally braced in the wall plane direction.
5. Holes and notches are not allowed in member.
6. Effective length factor 0.85 for slenderness and strength calculations.
7. Design wind load based on leeward pressure 34 PSF. Windward pressure is 32 PSF.

Analysis

Design Properties

	Actual	Allowed	Capacity	Load Combination	E:	1900000	Fc:	2300
Slenderness	30.9	50.0	62%		Ey:	1900000	Fv:	0
Axial (lb.)	14802	27289	54%	D+0.75(L+S)	Fb:	2100	Fvy:	0
Axial + Bending	0.81	1	81%	D+0.75(L+S)	Fby:	2300		
Bearing Steel (lb.)	14861	49000	30%	D+0.75(0.6W+L+S)				
LL Deflection	0.186 (in.) L/580	0.300 (in.) L/360	62%	0.75((0.7)(0.6)W+L+S)				
Lateral Reaction Top	122			D+0.6W				
Lateral Reaction Bot	122			D+0.6W				

Applied Loads

ID	Load Type	Location	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
Axial								
1	Point	9-0-0	8206 lb	2983 lb	5811 lb	0 lb	0 lb	
2	Point	9-0-0	0 lb	-4 lb	0 lb	0 lb	0 lb	
Lateral								
3	Uniform		0 PLF	0 PLF	0 PLF	45 PLF	0 PLF	

Manufacturer Info

Boozer Laminated Beam Co
Anniston, AL
www.boozerbeam.com

U.S. Lumber
2160 Satellite Blvd., Suite 450, GA
U.S.A
30097
888-613-5078



U.S. LUMBER

This design is valid until 9/3/2027