



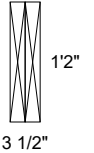
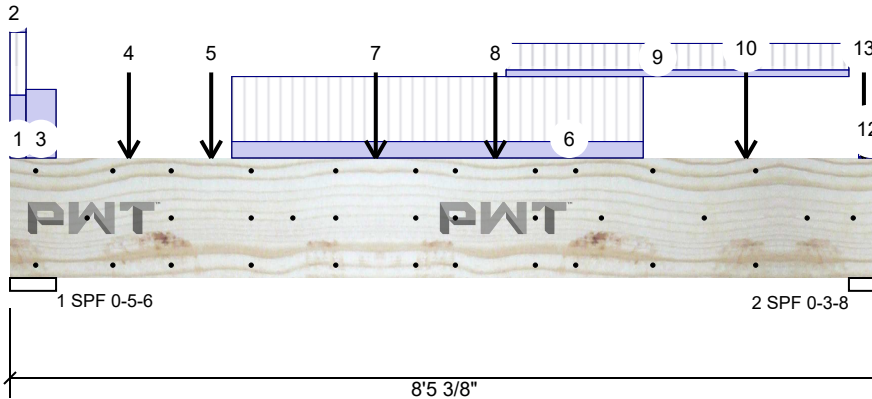
Client: 84 Lumber-Fayetteville #2307
Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

Page 1 of 4

FB2 2.0E 2900Fb PWT LVL 1.750" X 14.000" 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	1211	480	0	0	0
2	Vertical	881	470	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.375"	Vert	21%	480 / 1211	1691	L	D+L
2 - SPF	3.500"	Vert	26%	470 / 881	1351	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3499 ft-lb	3'7 9/16"	26792 ft-lb	13%	D+L	L
Shear	1605 lb	1'7 3/8"	9310 lb	17%	D+L	L
LL Defl inch	0.023 (L/4166)	4'1 1/4"	0.261 (L/360)	9%	L	L
TL Defl inch	0.031 (L/2989)	4'2 1/16"	0.392 (L/240)	8%	D+L	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings.
- Dead Load Deflection: Instant = 0.009", Long Term = 0.013".
- Fasten all plies using 3 rows of 16d Sinker Nails (.148x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
- Refer to last page of calculations for fasteners required for specified loads.
- Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
- Girders are designed to be supported on the bottom edge only.
- Top loads must be supported equally by all plies.
- Top must be laterally braced at end bearings.
- 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 0-1-14		Top	88 PLF	88 PLF	0 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 0-1-14		Top	48 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-1-14 to 0-5-6		Top	96 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Point	1-1-14		Near Face	34 lb	134 lb	0 lb	0 lb	0 lb	J2
5	Point	1-11-8		Far Face	134 lb	529 lb	0 lb	0 lb	0 lb	J4

Continued on page 2...

Notes

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Manufacturer Info

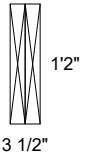
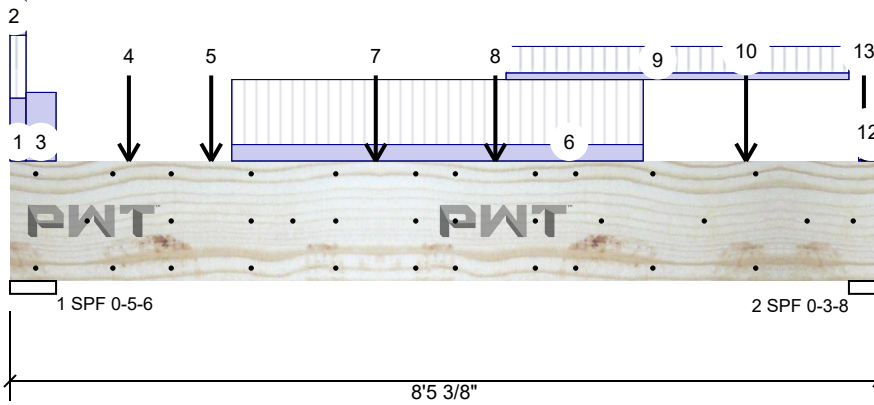
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FB2 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

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	2-1-14 to 6-1-14		Near Face	23 PLF	91 PLF	0 PLF	0 PLF	0 PLF	
7	Point	3-6-11		Far Face	117 lb	461 lb	0 lb	0 lb	0 lb	J4
8	Point	4-8-10		Far Face	232 lb	323 lb	0 lb	0 lb	0 lb	FB4
9	Tie-In	4-9-14 to 8-1-14	0-11-2	Top	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
10	Point	7-1-14		Near Face	35 lb	138 lb	0 lb	0 lb	0 lb	J2
11	Tie-In	8-3-0 to 8-5-6	0-2-2	Top	10 PSF	30 PSF	0 PSF	0 PSF	0 PSF	
12	Tie-In	8-3-0 to 8-5-6	0-9-14	Top	10 PSF	30 PSF	0 PSF	0 PSF	0 PSF	
13	Point	8-3-10		Top	105 lb	0 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-3-8								
	Self Weight				14 PLF					

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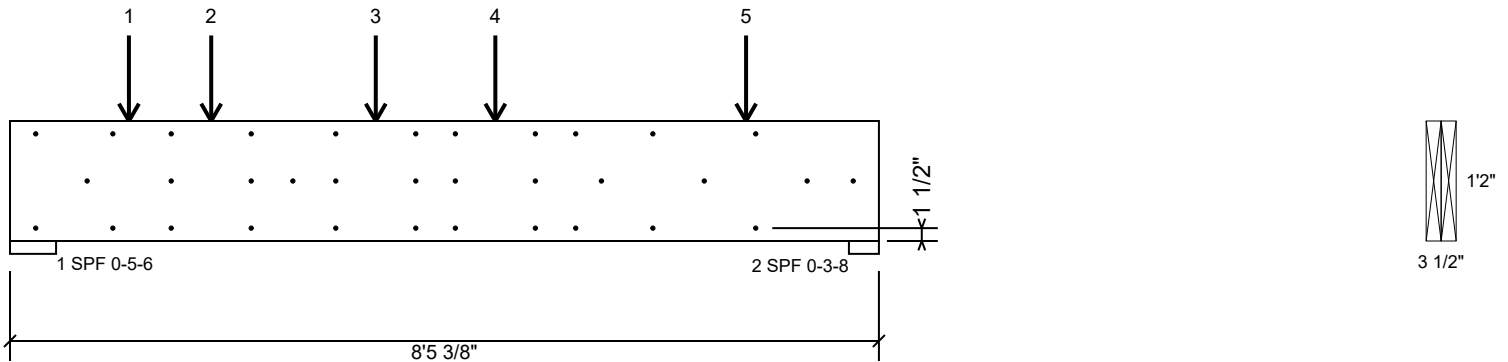
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Project #: CL3281-GR CP 3C-35 WW

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FB2 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

Level: 2nd Flr



Multi-Ply Analysis

Fasten all plies using 3 rows of 16d Sinker Nails (.148x3.25") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	16.2 %
Load	57.0 PLF
Yield Limit per Foot	352.8 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	D+L
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 1-11-8 with a minimum of (6) – 16d Sinker Nails (.148x3.25") in the pattern shown.

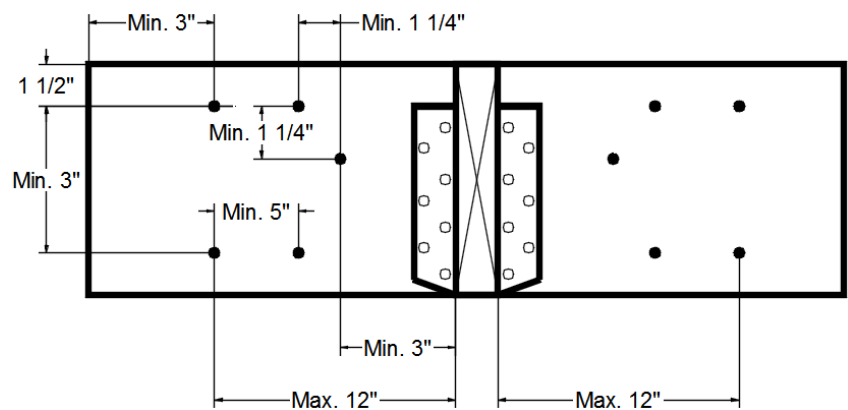
Capacity	47.0 %
Load	331.5lb.
Total Yield Limit	705.4 lb.
C _g	0.9998
C _M	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 3-6-11 with a minimum of (6) – 16d Sinker Nails (.148x3.25") in the pattern shown.

Capacity	41.0 %
Load	289.0lb.
Total Yield Limit	705.4 lb.
C _g	0.9998
C _M	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



Notes

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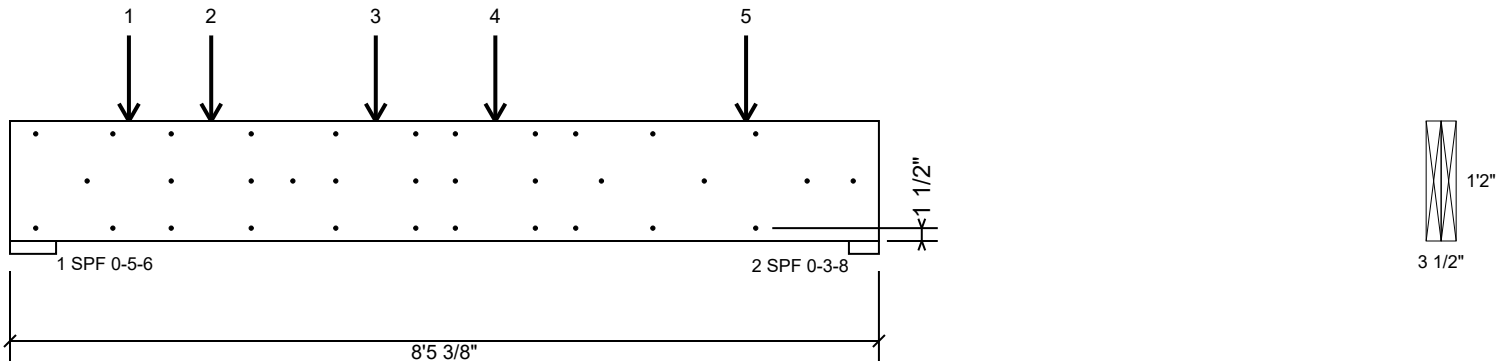
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Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

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Project #: CL3281-GR CP 3C-35 WW

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FB2 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

Level: 2nd Flr



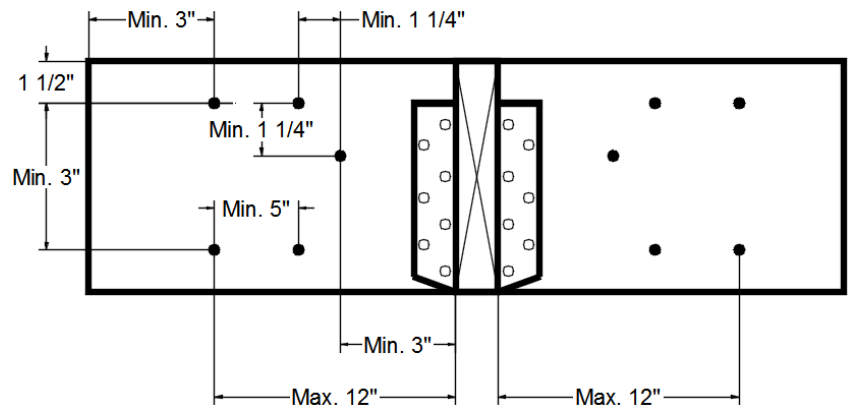
Multi-Ply Analysis

Concentrated Load

Fasten at concentrated side load at 4-8-10 with a minimum of (6) – 16d Sinker Nails (.148x3.25") in the pattern shown.

Capacity	39.3 %
Load	277.5lb.
Total Yield Limit	705.4 lb.
C _g	0.9998
C _m	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



Notes

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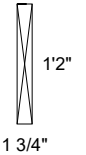
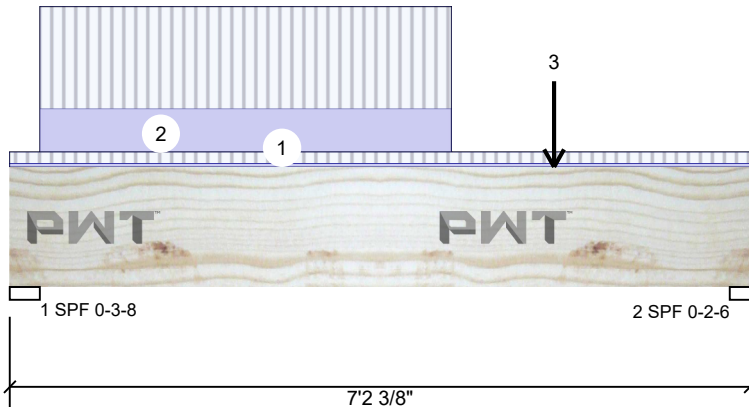
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Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

Page 1 of 1

FB3 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	1092	496	0	0	0
2	Vertical	901	411	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	61%	496 / 1092	1588	L	D+L
2 - SPF	2.375"	Vert	74%	411 / 901	1312	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2703 ft-lb	3'7 3/16"	13396 ft-lb	20%	D+L	L
Shear	1720 lb	5'10"	4655 lb	37%	D+L	L
LL Defl inch	0.028 (L/2890)	3'7 9/16"	0.228 (L/360)	12%	L	L
TL Defl inch	0.041 (L/1989)	3'7 9/16"	0.342 (L/240)	12%	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.013", Long Term = 0.019".
- 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 7-2-6	1-0-3	Top	10 PSF	30 PSF	0 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-3-8 to 4-3-8		Far Face	131 PLF	297 PLF	0 PLF	0 PLF	0 PLF	
3	Point	5-3-8		Far Face	259 lb	586 lb	0 lb	0 lb	0 lb	J8
	Self Weight				7 PLF					

Notes

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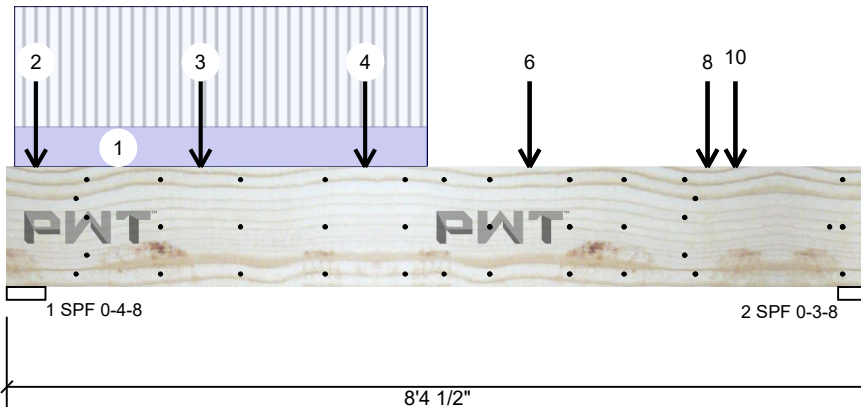
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Address: Lot 35 Winds Way

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Project #: CL3281-GR CP 3C-35 WW

Page 1 of 5

FB2-A 2.0E 2900Fb PWT LVL 1.750" X 14.000" 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	2089	1295	0	0	0
2	Vertical	1336	1068	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.500"	Vert	51%	1295 / 2089	3385	L	D+L
2 - SPF	3.500"	Vert	46%	1068 / 1336	2404	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4766 ft-lb	3'6 3/4"	26792 ft-lb	18%	D+L	L
Shear	2693 lb	6'11"	9310 lb	29%	D+L	L
LL Defl inch	0.028 (L/3304)	4' 5/16"	0.261 (L/360)	11%	L	L
TL Defl inch	0.044 (L/2127)	4'1 5/8"	0.392 (L/240)	11%	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.016", Long Term = 0.024".
- 3 Fasten all plies using 3 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 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
- 6 Girders are designed to be supported on the bottom edge only.
- 7 Top loads must be supported equally by all plies.
- 8 Top must be laterally braced at end bearings.
- 9 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	0-1-0 to 4-1-0		Far Face	66 PLF	199 PLF	0 PLF	0 PLF	0 PLF	
2	Point	0-3-6		Near Face	535 lb	471 lb	0 lb	0 lb	0 lb	J4
3	Point	1-10-10		Near Face	204 lb	526 lb	0 lb	0 lb	0 lb	J4
4	Point	3-5-13		Near Face	193 lb	484 lb	0 lb	0 lb	0 lb	J4
5	Point	5-1-0		Far Face	184 lb	398 lb	0 lb	0 lb	0 lb	J10

Continued on page 2...

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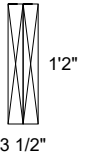
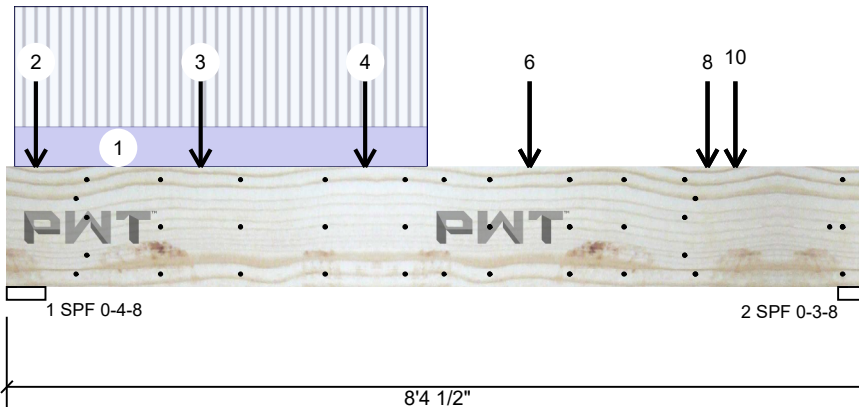
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FB2-A 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

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	Point	5-1-0		Near Face	112 lb	144 lb	0 lb	0 lb	0 lb	J2
7	Point	6-9-12		Top	22 lb	0 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-3-8								
8	Point	6-9-12		Top	9 lb	0 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-3-8								
9	Point	7-1-0		Far Face	595 lb	444 lb	0 lb	0 lb	0 lb	J10
10	Point	7-1-0		Near Face	128 lb	162 lb	0 lb	0 lb	0 lb	J2
	Self Weight				14 PLF					

Notes

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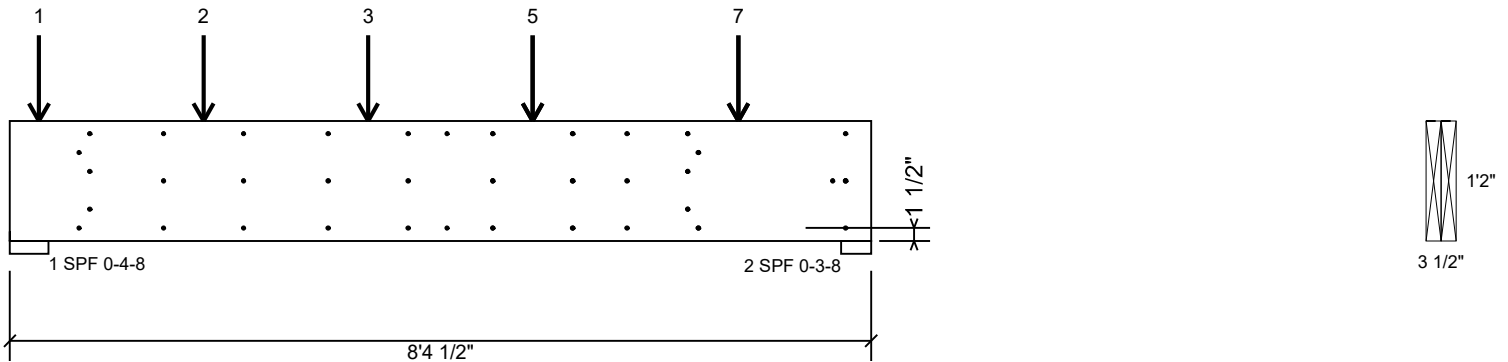
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FB2-A 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

Level: 2nd Flr



Multi-Ply Analysis

Fasten all plies using 3 rows of 16d Sinker Nails (.148x3.25") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	37.6 %
Load	132.5 PLF
Yield Limit per Foot	352.8 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	D+L
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 0-3-6 with a minimum of (5) – 16d Sinker Nails (.148x3.25") in the pattern shown.

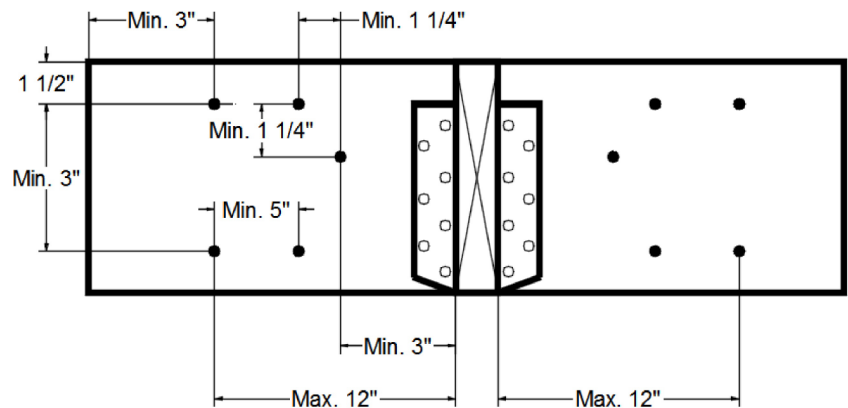
Capacity	85.6 %
Load	503.0lb.
Total Yield Limit	587.8 lb.
C _g	0.9998
C _m	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 1-10-10 with a minimum of (6) – 16d Sinker Nails (.148x3.25") in the pattern shown.

Capacity	51.7 %
Load	365.0lb.
Total Yield Limit	705.4 lb.
C _g	0.9998
C _m	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



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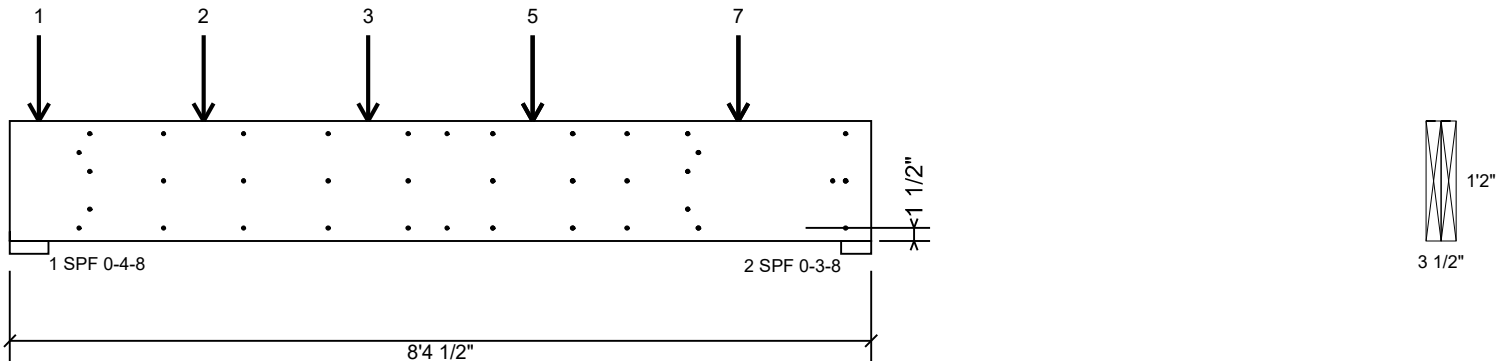
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Level: 2nd Flr



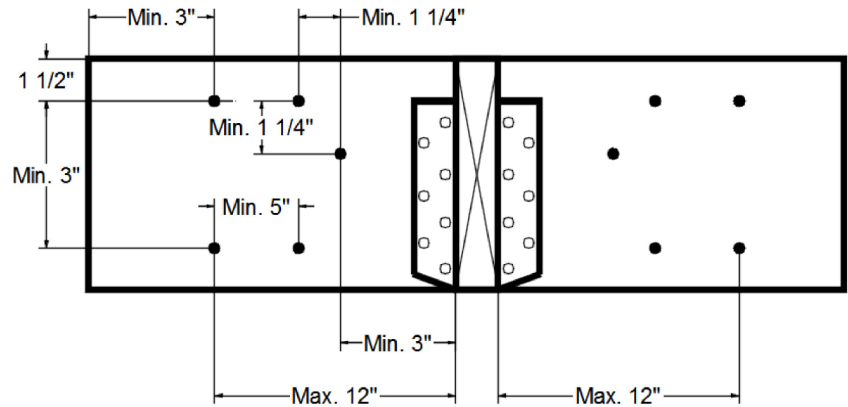
Multi-Ply Analysis

Concentrated Load

Fasten at concentrated side load at 3-5-13 with a minimum of (6) – 16d Sinker Nails (.148x3.25") in the pattern shown.

Capacity	48.0 %
Load	338.5lb.
Total Yield Limit	705.4 lb.
Cg	0.9998
Cm	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



Concentrated Load

Fasten at concentrated side load at 5-1-0 with a minimum of (6) – 16d Sinker Nails (.148x3.25") in the pattern shown.

Capacity	41.3 %
Load	291.0lb.
Total Yield Limit	705.4 lb.
Cg	0.9998
Cm	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
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.

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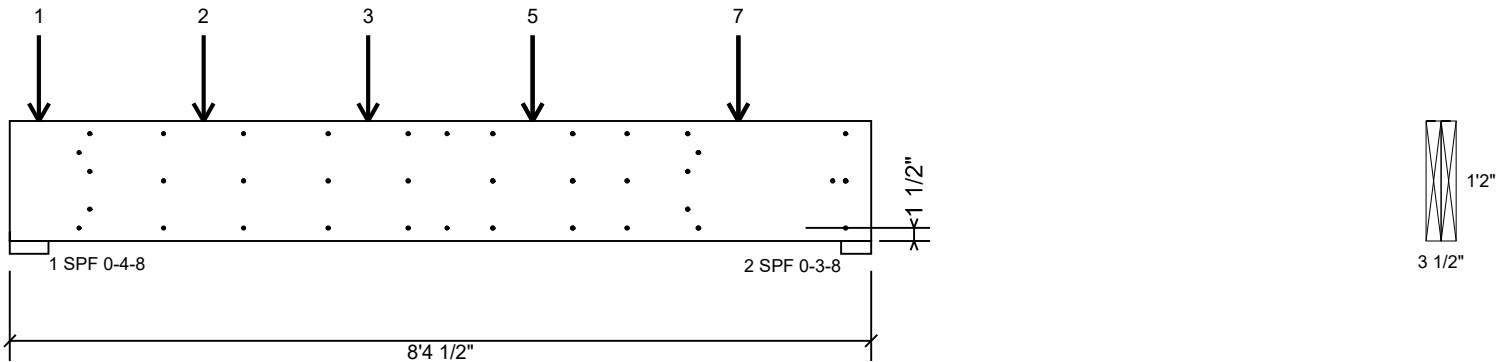
Client: 84 Lumber-Fayetteville #2307
Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

Page 5 of 5

FB2-A 2.0E 2900Fb PWT LVL 1.750" X 14.000" 2-Ply - PASSED

Level: 2nd Flr



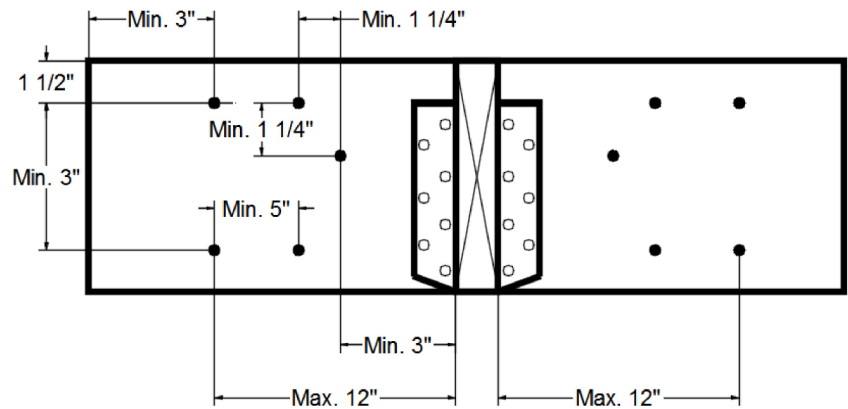
Multi-Ply Analysis

Concentrated Load

Fasten at concentrated side load at 7-1-0 with a minimum of (5) – 16d Sinker Nails (.148x3.25") in the pattern shown.

Capacity	88.4 %
Load	519.5lb.
Total Yield Limit	587.8 lb.
C _g	0.9998
C _m	1
Yield Limit per Fastener	117.6 lb.
Yield Mode	IV
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



Notes

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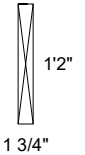
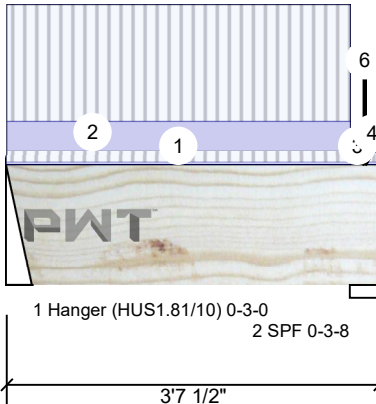
Client: 84 Lumber-Fayetteville #2307
Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

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	470	130	0	0	0
2	Vertical	412	171	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	Vert	15%	130 / 470	600	L	D+L
2 - SPF	3.500"	Vert	22%	171 / 412	583	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	431 ft-lb	1'9 1/2"	13396 ft-lb	3%	D+L	L
Shear	126 lb	2'2"	4655 lb	3%	D+L	L
LL Defl inch	0.002 (L/16270)	1'9 1/2"	0.107 (L/360)	2%	L	L
TL Defl inch	0.003 (L/12743)	1'9 1/2"	0.160 (L/240)	2%	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.001", Long Term = 0.001".
- 3 Fill all hanger nailing holes.
- 4 Left Header: SPF, Thickness: 2 1/2"
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top must be laterally braced at end bearings.
- 7 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 3-4-0	0-6-11	Top	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-4-0		Top	60 PLF	240 PLF	0 PLF	0 PLF	0 PLF	
3	Tie-In	3-4-0 to 3-7-8	0-7-7	Top	10 PSF	30 PSF	0 PSF	0 PSF	0 PSF	
4	Tie-In	3-5-2 to 3-7-8	0-4-9	Top	10 PSF	30 PSF	0 PSF	0 PSF	0 PSF	
5	Point	3-5-12		Top	38 lb	0 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-3-8								
6	Point	3-5-12		Top	16 lb	0 lb	0 lb	0 lb	0 lb	Wall Self Weight

Continued on page 2...

Notes

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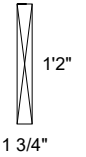
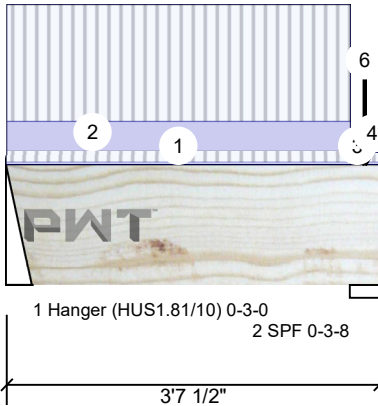


Client: 84 Lumber-Fayetteville #2307
Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

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								
	Self Weight				7 PLF					

Notes

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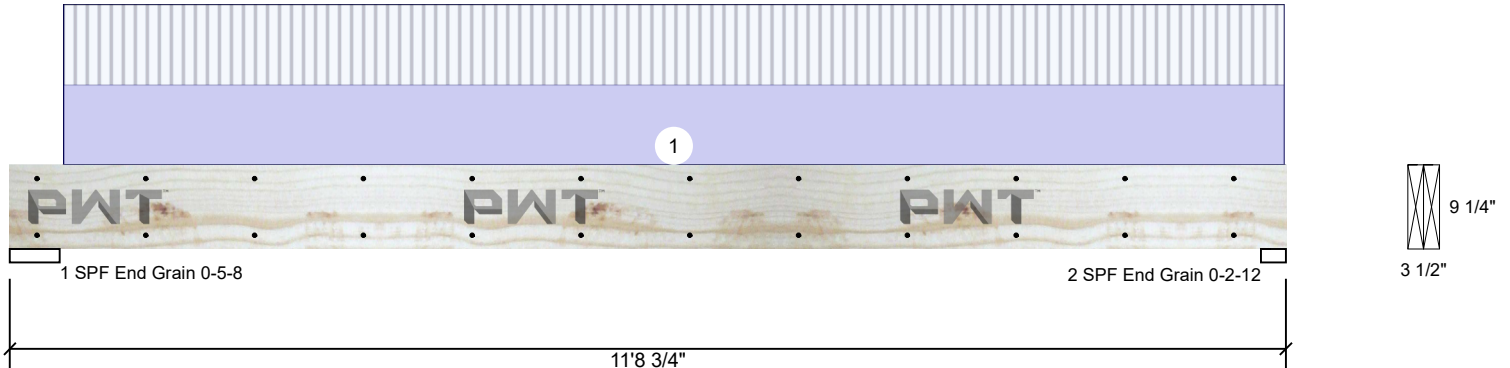
Client: 84 Lumber-Fayetteville #2307
Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

Page 1 of 2

DB5 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	575	631	0	0	0
2	Vertical	602	655	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	5.500"	Vert	8%	631 / 575	1206	L	D+L
2 - SPF End Grain	2.750"	Vert	17%	655 / 602	1256	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3417 ft-lb	5'11 3/4"	12416 ft-lb	28%	D+L	L
Shear	1042 lb	1'2 3/4"	6151 lb	17%	D+L	L
LL Defl inch	0.085 (L/1570)	5'11 3/4"	0.372 (L/360)	23%	L	L
TL Defl inch	0.178 (L/752)	5'11 3/4"	0.558 (L/240)	32%	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.093", Long Term = 0.139".
- 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	0-6-0 to 11-8-8		Top	105 PLF	105 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF					

Notes

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Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

Page 2 of 2

DB5 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

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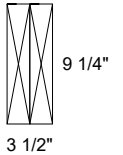
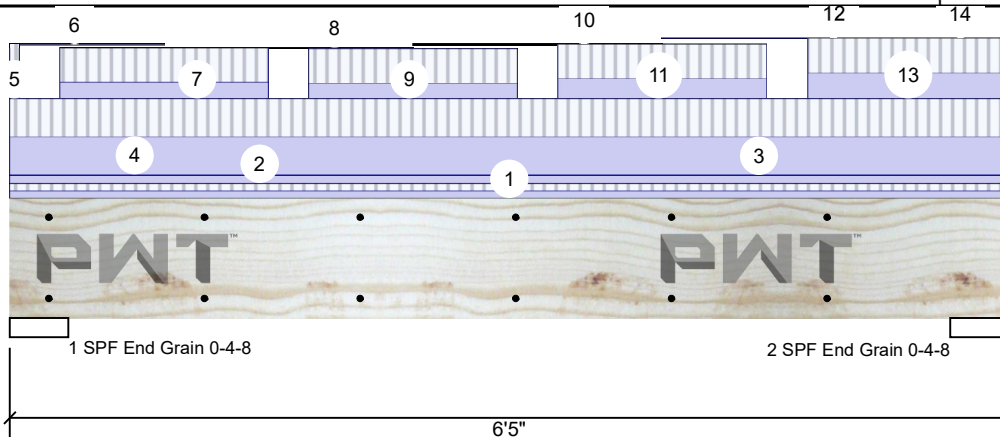
Client: 84 Lumber-Fayetteville #2307
Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Miltzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

Page 1 of 3

HD2 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	2771	2605	0	0	0
2	Vertical	2859	2797	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	Vert	46%	2605 / 2771	5376	L	D+L
2 - SPF End Grain	4.500"	Vert	48%	2797 / 2859	5656	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7142 ft-lb	3'2 5/16"	12416 ft-lb	58%	D+L	L
Shear	3484 lb	1'1 3/4"	6151 lb	57%	D+L	L
LL Defl inch	0.061 (L/1135)	3'2 3/8"	0.193 (L/360)	32%	L	L
TL Defl inch	0.119 (L/584)	3'2 1/2"	0.290 (L/240)	41%	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.058", Long Term = 0.087".
- 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 6-5-0		Top	88 PLF	88 PLF	0 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 6-5-0		Top	96 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-0-0 to 6-5-0		Top	5 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
4	Part. Uniform	0-0-0 to 6-5-0		Top	450 PLF	450 PLF	0 PLF	0 PLF	0 PLF	
5	Part. Uniform	0-0-0 to 0-0-11		Top	238 PLF	406 PLF	0 PLF	0 PLF	0 PLF	J4
6	Tapered Start	0-0-0		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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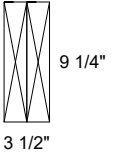
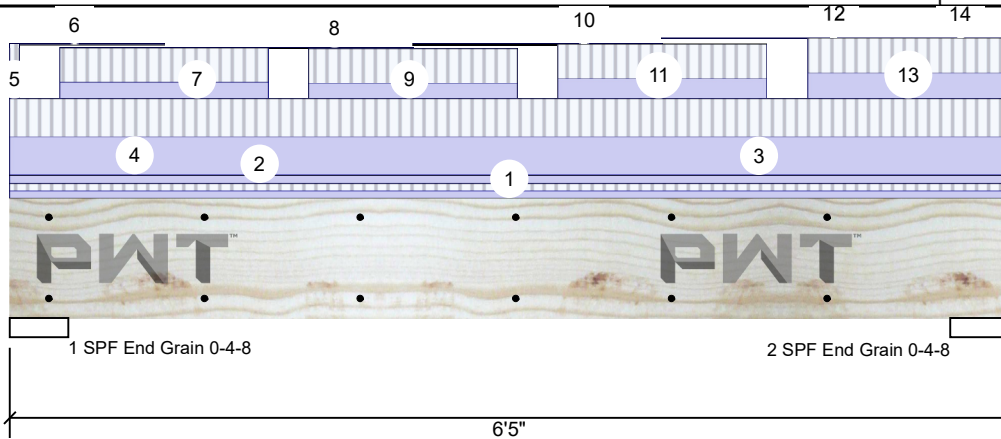
Client: 84 Lumber-Fayetteville #2307
Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

Page 2 of 3

HD2 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
	End	0-11-14			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
7	Part. Uniform	0-3-14 to 1-7-14		Top	196 PLF	406 PLF	0 PLF	0 PLF	0 PLF	J4
8	Tapered Start	0-11-14		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	2-7-2			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
9	Part. Uniform	1-11-2 to 3-3-2		Top	186 PLF	406 PLF	0 PLF	0 PLF	0 PLF	J4
10	Tapered Start	2-7-2		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	4-2-5			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
11	Part. Uniform	3-6-5 to 4-10-5		Top	237 PLF	406 PLF	0 PLF	0 PLF	0 PLF	J4
12	Tapered Start	4-2-5		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	5-9-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
13	Part. Uniform	5-1-8 to 6-5-0		Top	312 PLF	406 PLF	0 PLF	0 PLF	0 PLF	J4
14	Tapered Start	5-9-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	6-5-0			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF					

Notes

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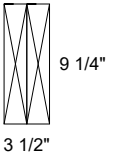
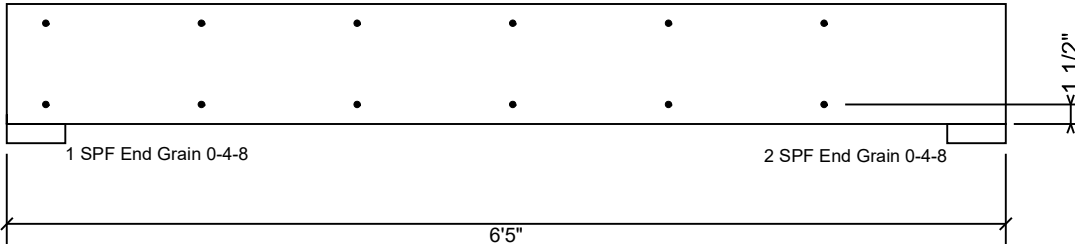
Client: 84 Lumber-Fayetteville #2307
Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

Page 3 of 3

HD2 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

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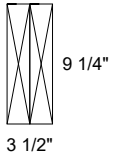
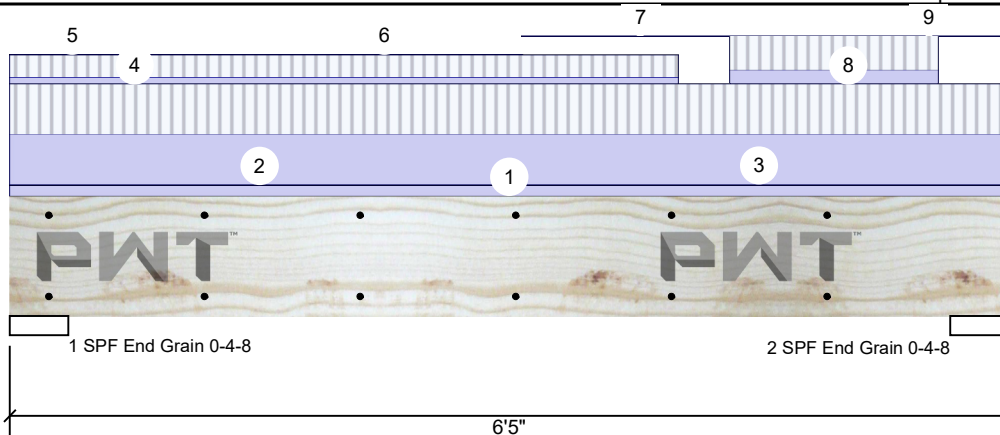
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Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

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	2091	2019	0	0	0
2	Vertical	2066	2046	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	Vert	35%	2019 / 2091	4110	L	D+L
2 - SPF End Grain	4.500"	Vert	35%	2046 / 2066	4112	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5380 ft-lb	3'2 9/16"	12416 ft-lb	43%	D+L	L
Shear	2653 lb	5'3 1/4"	6151 lb	43%	D+L	L
LL Defl inch	0.045 (L/1528)	3'2 1/2"	0.193 (L/360)	24%	L	L
TL Defl inch	0.090 (L/776)	3'2 1/2"	0.290 (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 = 0.044", Long Term = 0.066".
- 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 6-5-0		Top	96 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 6-5-0		Top	5 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
3	Part. Uniform	0-0-0 to 6-5-0		Top	450 PLF	450 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-0 to 4-3-8		Top	67 PLF	201 PLF	0 PLF	0 PLF	0 PLF	J10
5	Tapered Start	0-0-0		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	1-3-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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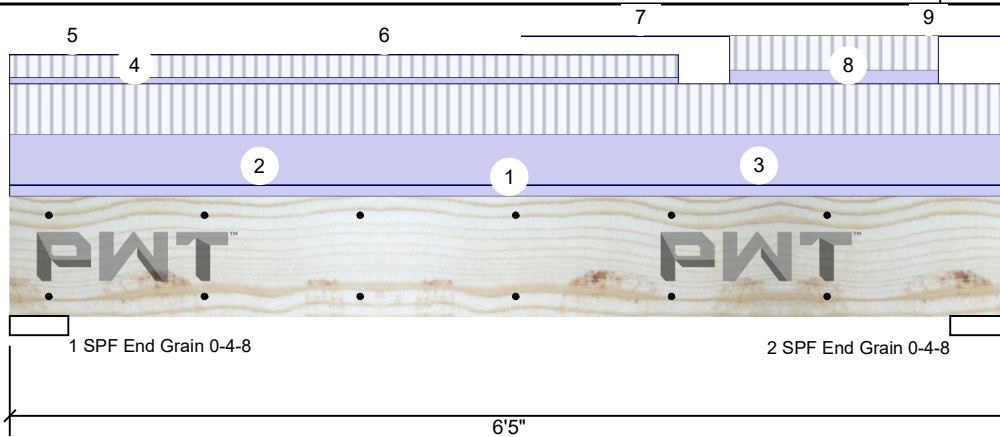
Client: 84 Lumber-Fayetteville #2307
Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

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	Tapered Start	1-3-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	3-3-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
7	Tapered Start	3-3-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	5-3-8			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
8	Part. Uniform	4-7-8 to 5-11-8		Top	137 PLF	300 PLF	0 PLF	0 PLF	0 PLF	J10
9	Tapered Start	5-3-8		Top	0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	End	6-5-0			0 PLF	1 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF					

Notes

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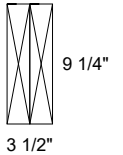
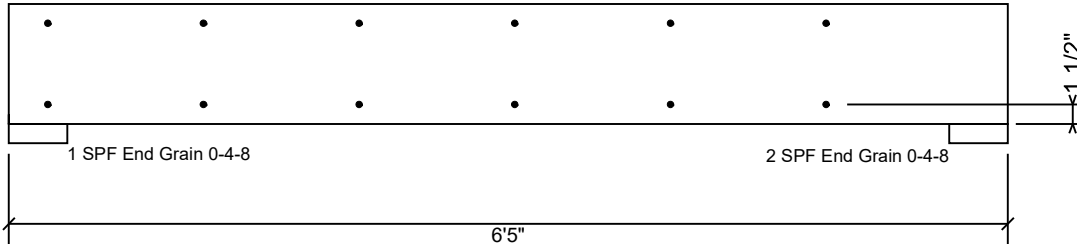
Client: 84 Lumber-Fayetteville #2307
Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

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Project #: CL3281-GR CP 3C-35 WW

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.

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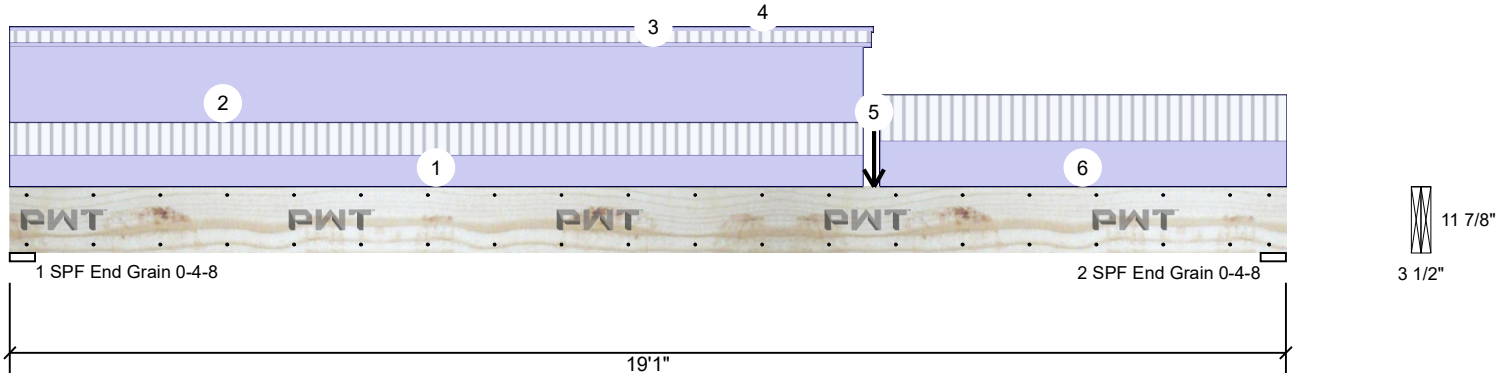
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Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

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	616	1646	145	0	0
2	Vertical	742	1534	312	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	Vert	19%	1646 / 616	2262	L	D+L
2 - SPF End Grain	4.500"	Vert	20%	1534 / 790	2325	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	11434 ft-lb	10'8 11/16"	19902 ft-lb	57%	D+L	L
Shear	2104 lb	17'8 5/8"	7897 lb	27%	D+L	L
LL Defl inch	0.230 (L/965)	10' 7/8"	0.615 (L/360)	37%	0.75(L+S)	L
TL Defl inch	0.757 (L/292)	9'9 11/16"	0.923 (L/240)	82%	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 = 0.528", Long Term = 0.792".
- 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 a maximum of 9'7 15/16" o.c.
- 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 12-9-0		Top	40 PLF	40 PLF	0 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 12-9-0		Top	94 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tapered Start	0-0-0		Top	5 PLF	14 PLF	0 PLF	0 PLF	0 PLF	
	End	12-10-8			5 PLF	14 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-0 to 12-10-14		Top	6 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
5	Point	12-11-1		Top	757 lb	321 lb	457 lb	0 lb	0 lb	PL3 Wall Self Weight FB7

Continued on page 2...

Notes

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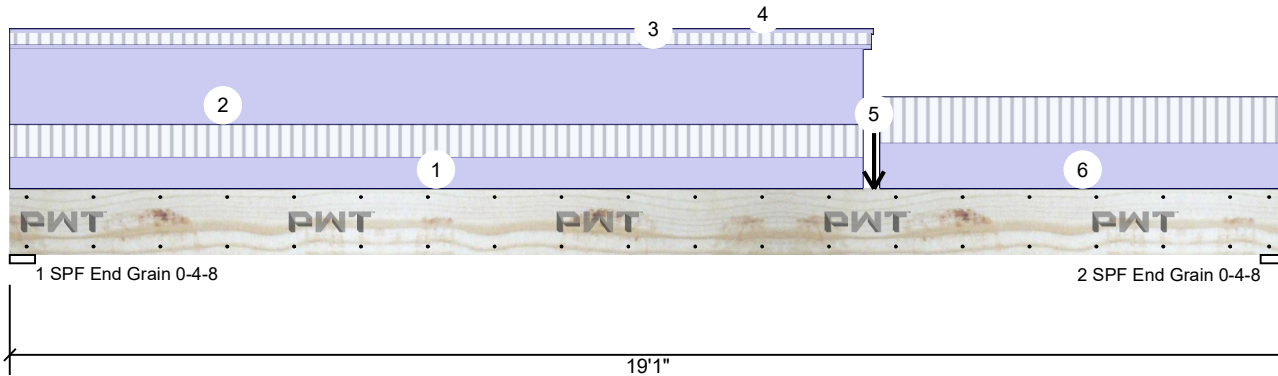
Client: 84 Lumber-Fayetteville #2307
Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

Page 2 of 3

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
	Bearing Length	0-3-8								
6	Part. Uniform	13-0-2 to 19-1-0		Top	57 PLF	57 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF					

Notes

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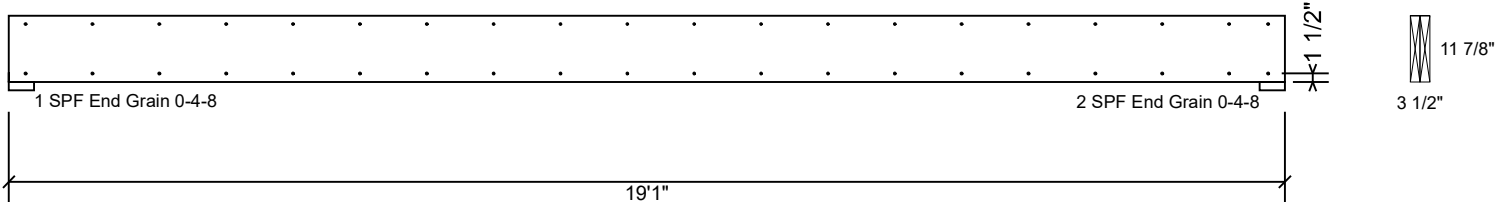
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Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

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.

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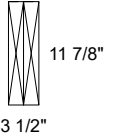
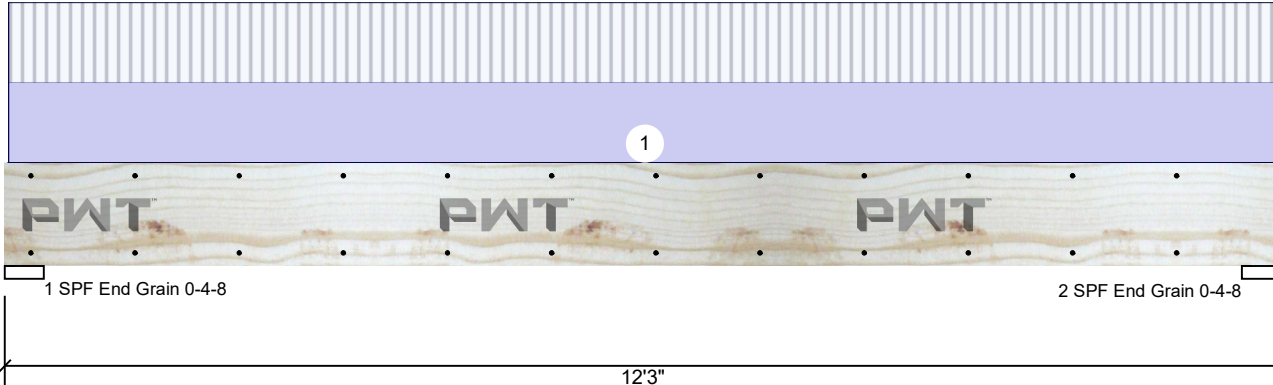
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Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

Page 1 of 2

HD4 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	1302	1375	0	0	0
2	Vertical	1311	1384	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.500"	Vert	23%	1375 / 1302	2677	L	D+L
2 - SPF End Grain	4.500"	Vert	23%	1384 / 1311	2694	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7431 ft-lb	6'1 1/2"	19902 ft-lb	37%	D+L	L
Shear	2094 lb	1'4 3/8"	7897 lb	27%	D+L	L
LL Defl inch	0.100 (L/1394)	6'1 1/2"	0.388 (L/360)	26%	L	L
TL Defl inch	0.206 (L/678)	6'1 1/2"	0.581 (L/240)	35%	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings.
- 2 Dead Load Deflection: Instant = 0.106", Long Term = 0.158".
- 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	0-0-8 to 12-3-0		Top	214 PLF	214 PLF	0 PLF	0 PLF	0 PLF	
	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.
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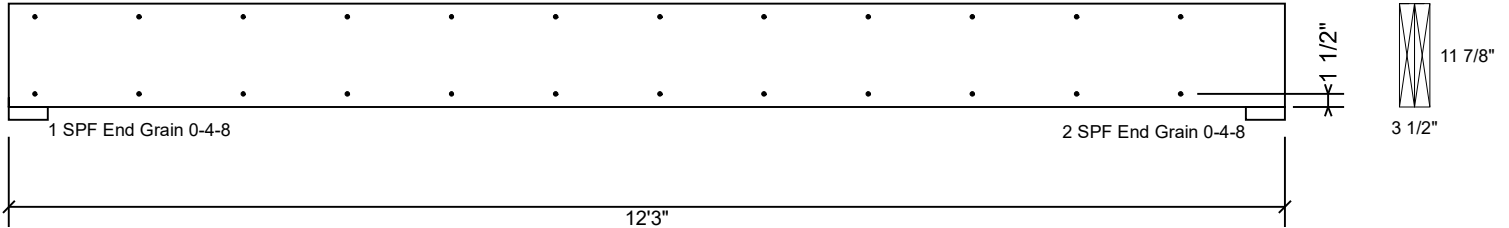
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Project: Caviness Land - CL3281
Address: Lot 35 Winds Way

Date: 11/15/2024
Input by: Kyle Militzer
Job Name: CL3281-GR CP 3C-35 WW
Project #: CL3281-GR CP 3C-35 WW

Page 2 of 2

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.

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