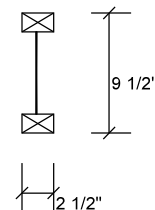


Project #: **MHP 23023**



Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind		
Plies:	1	Design Method:	LSD	1	Vertical	40	17	0	0		
Moisture Condition:	Dry	Building Code:	NBCC 2015	2	Vertical	38	19	0	0		
Deflection LL:	360		OBC 2012(2020 Update)								
Deflection TL:	240	Load Sharing:	No								
Importance:	Normal - II	Deck:	Not Checked								
General Load		Vibration:	Not Checked								
Floor Live:	40 PSF										
Dead:	15 PSF										
				Bearings and Factored Reactions							
				Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	2.375"	Vert	5%	22 / 60	82	L	1.25D+1.5L
				2 - Hanger	2.000"	Vert	5%	24 / 57	81	L	1.25D+1.5L

Analysis Results

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	20 ft-lb	8 1/2"	4095 ft-lb	0.005 (0%)	1.25D+1.5L	L
Unbraced	20 ft-lb	8 1/2"	4095 ft-lb	0.005 (0%)	1.25D+1.5L	L
Shear	69 lb	1'3 3/8"	1830 lb	0.037 (4%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/154179)	8 5/8"	0.038 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/74921)	8 1/2"	0.038 (L/360)	0.005 (0%)	L	L
TL Defl inch	0.000 (L/50421)	8 1/2"	0.057 (L/240)	0.005 (0%)	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 Fill all hanger nailing holes.
- 3 Right Header: SPF, Thickness: 2 1/2"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 6 If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-4-10	1-4-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-12 to 1-4-10		Top	7 PLF	0 PLF	0 PLF	0 PLF	

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. Moist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-**ply** fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length ≥ 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

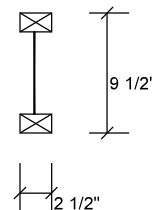
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CCMC: 12787

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3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



Project #: **MHP 23023**

Level: Ground Floor



1 Hanger (LF259) 0-2-0

2 Hanger (LF259) 0-2-0

2'7 3/4"

Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind			
Plies:	1	Design Method:	LSD	1	Vertical	229	86	0	0			
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	179	67	0	0			
Deflection LL:	360	Load Sharing:	No	Bearings and Factored Reactions								
Deflection TL:	240	Deck:	Not Checked									
Importance:	Normal - II	Vibration:	Not Checked									
General Load												
Floor Live:	40 PSF											
Dead:	15 PSF											
				Bearing	Length	Dir.	Cap.	React D/L	Ib	Total	Ld. Case	Ld. Comb.
				1 - Hanger	2.000"	Vert	28%	107 / 343		450	L	1.25D+1.5L

Bearings and Factored Reactions

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	Hanger
Moment	426 ft-lb	1'1 5/8"	4095 ft-lb	0.104 (10%)	1.25D+1.5L	L	
Unbraced	426 ft-lb	1'1 5/8"	4095 ft-lb	0.104 (10%)	1.25D+1.5L	L	
Shear	444 lb	1 1/4"	1830 lb	0.243 (24%)	1.25D+1.5L	L	
Perm Defl in.	0.002 (L/15594)	1'1 5/8"	0.081 (L/360)	0.023 (2%)	D	Uniform	
LL Defl inch	0.005 (L/5837)	1'1 5/8"	0.081 (L/360)	0.062 (6%)	L	L	
TL Defl inch	0.007 (L/4247)	1'1 5/8"	0.122 (L/240)	0.057 (6%)	D+L	L	



JUNE 29, 2023

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- 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 Fill all hanger nailing holes.
- 3 Left Header: SPF, Thickness: 2 1/2"
- 4 Right Header: SPF, Thickness: 2 1/2"
- 5 Girders are designed to be supported on the bottom edge only.
- 6 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 7 If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-7-12	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-1-10		Near Face	122 lb	326 lb	0 lb	0 lb	J2

chemicals

Calculated Structured Designs is responsible **only** of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Handling & Installation

1. IJoist flanges must not be cut or drilled
2. Refer to latest copy of the IJoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged IJoists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length ≥ 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

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This design is valid until 4/17/2026



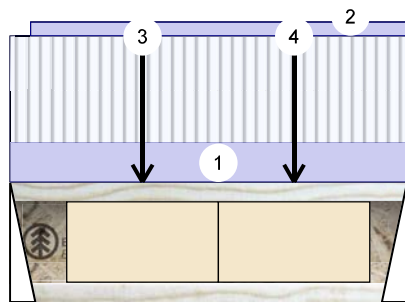
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Project: ZADORRA ESTATES
Address: RIVER 3-1 STD
Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: MHP 23023

Page 3 of 25

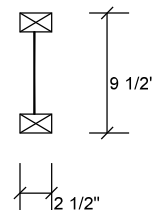
F2-A AJ5 140 9.500"

- PASSED

MHP 23023



1 Hanger (LF259) 0-2-0
2 Hanger (LF259) 0-2-0
2'7 7/16"
2'7 7/16"



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	220	100	0	0
2	Vertical	235	107	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	29%	125 / 330	455	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	31%	134 / 352	486	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	326 ft-lb	10 11/16"	4095 ft-lb	0.080 (8%)	1.25D+1.5L	L
Unbraced	326 ft-lb	10 11/16"	4095 ft-lb	0.080 (8%)	1.25D+1.5L	L
Shear	479 lb	2'6 3/16"	1830 lb	0.262 (26%)	1.25D+1.5L	L
Perm Defl in. (L/16718)	0.002	1'2 5/16"	0.080 (L/360)	0.022 (2%)	D	Uniform
LL Defl inch	0.004 (L/7600)	1'2 1/4"	0.080 (L/360)	0.047 (5%)	L	L
TL Defl inch	0.006 (L/5225)	1'2 5/16"	0.121 (L/240)	0.046 (5%)	D+L	L



JUNE 29, 2023

Design Notes

- 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.
- Fill all hanger nailing holes.
- Left Header: SPF, Thickness: 2 1/2"
- Right Header: SPF, Thickness: 2 1/2"
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-7-7	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-1-10 to 2-7-7		Top	4 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-10-8		Far Face	86 lb	193 lb	0 lb	0 lb	J1
4	Point	1-10-8		Far Face	81 lb	181 lb	0 lb	0 lb	J1

Notes

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Lumber

- Dry service conditions, unless noted otherwise
- Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

- Joist flanges must not be cut or drilled
- Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ty fastening details and handling/erection details
- Damaged Joists must not be used
- Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

- Provide lateral support at bearing points to avoid lateral displacement and rotation
- Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
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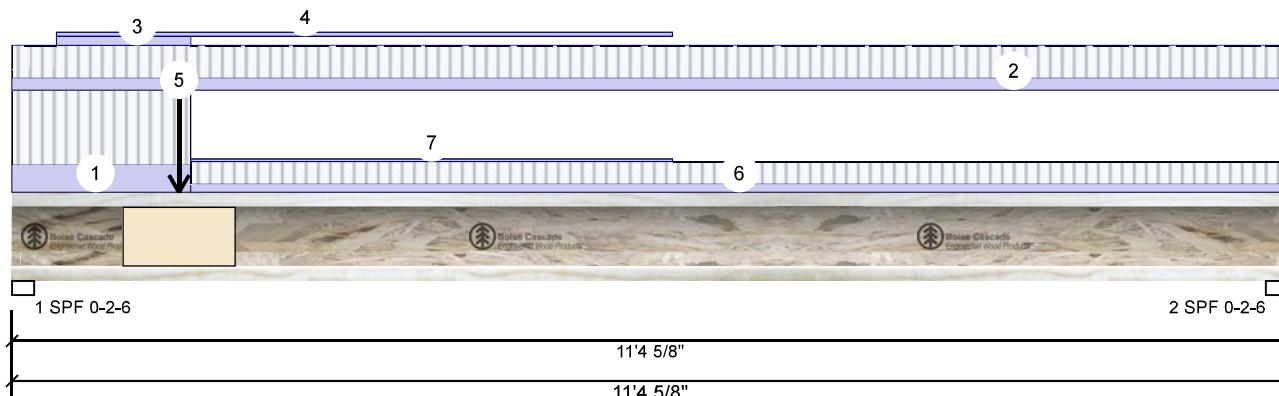
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This design is valid until 4/17/2026



Project #: **MHP 23023**



Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	Vertical	503	231	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	270	111	0	0
Deflection LL:	360	Load Sharing:	No	Bearings and Factored Reactions					
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal - II	Vibration:	Not Checked						
General Load									
Floor Live:	40 PSF								
Dead:	15 PSF								

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1725 ft-lb	4'10 1/16"	4095 ft-lb	0.421 (42%)	1.25D+1.5L	L
Unbraced	1725 ft-lb	4'10 1/16"	4095 ft-lb	0.421 (42%)	1.25D+1.5L	L
Shear	1021 lb	1 5/8"	1830 lb	0.558 (56%)	1.25D+1.5L	L
Perm Defl in.	0.053 (L/2499)	5'4 7/16"	0.371 (L/360)	0.144 (14%)	D	Uniform
LL Defl inch	0.120 (L/1111)	5'5 7/16"	0.371 (L/360)	0.324 (32%)	L	L
TL Defl inch	0.173 (L/769)	5'5 1/8"	0.556 (L/240)	0.312 (31%)	D+L	L



JUNE 29, 2023

- 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 Girders are designed to be supported on the bottom edge only.
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at a maximum of 9'10 3/4" o.c.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-7-2	1-5-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 11-4-10	0-7-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-12 to 1-7-2		Top	7 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-12 to 5-10-12		Top	3 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-5-14		Far Face	107 lb	235 lb	0 lb	0 lb	F2
6	Tie-In	1-7-2 to 11-4-10	0-5-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-7-2 to 5-10-12		Top	2 PLF	0 PLF	0 PLF	0 PLF	

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-**ply** fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length ≥ 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

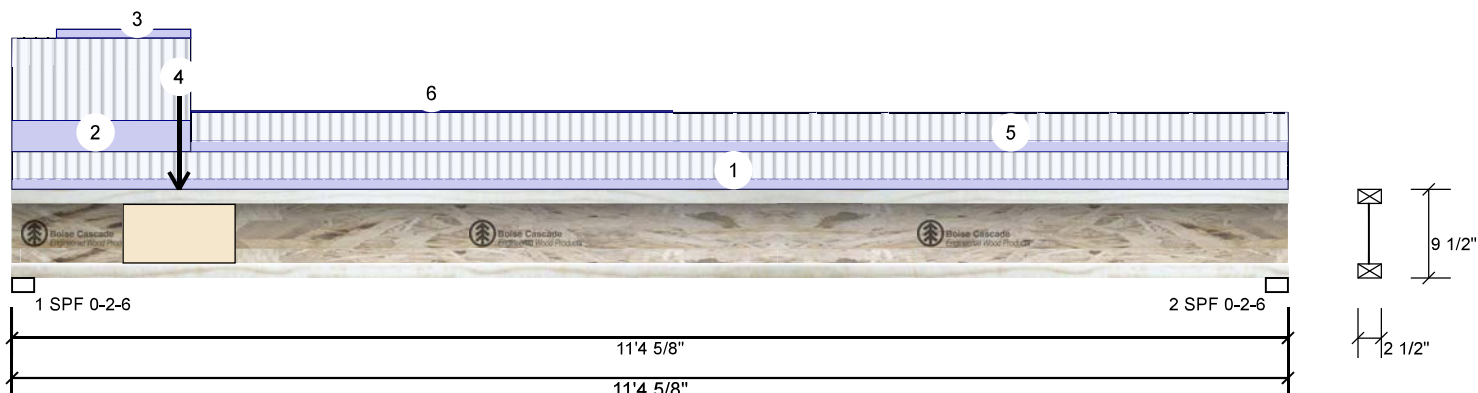
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This design is valid until 4/17/2026

F3-A	AJS 140	9.500"	PER CHIEF BUILDINGS OFFICIAL - PASSED -	MHP	Level: Ground Floor
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Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind				
Plies:	1	Design Method:	LSD	1	Vertical	467	200	0	0				
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	249	97	0	0				
Deflection LL:	360	Load Sharing:	No	Bearings and Factored Reactions									
Deflection TL:	240	Deck:	Not Checked										
Importance:	Normal - II	Vibration:	Not Checked										
General Load													
Floor Live:	40 PSF				Bearing	Length	Dir.	Cap.	React D/L	Ib	Total	Ld. Case	Ld. Comb.
Dead:	15 PSF				1 - SPF	2.375"	Vert	57%	250 / 700		950	L	1.25D+1.5L
					2 - SPF	2.375"	Vert	88%	180 / 370		105	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1554 ft-lb	4'10 3/16"	4095 ft-lb	0.379 (38%)	1.25D+1.5L	L
Unbraced	1554 ft-lb	4'10 3/16"	4095 ft-lb	0.379 (38%)	1.25D+1.5L	L
Shear	930 lb	1 5/8"	1830 lb	0.508 (51%)	1.25D+1.5L	L
Perm Defl in.	0.045 (L/2954)	5'4 3/4"	0.371 (L/360)	0.122 (12%)	D	Uniform
LL Defl inch	0.111 (L/1202)	5'5 3/8"	0.371 (L/360)	0.299 (30%)	L	L
TL Defl inch	0.156 (L/854)	5'5 1/4"	0.556 (L/240)	0.281 (28%)	D+L	L



JUNE 29, 2023

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 Girders are designed to be supported on the bottom edge only.
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at a maximum of 9'10 3/4" o.c.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 11-4-10	0-5-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-7-2	1-5-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-12 to 1-7-2		Top	6 PLF	0 PLF	0 PLF	0 PLF	
4	Point	1-5-14		Near Face	100 lb	220 lb	0 lb	0 lb	F2
5	Tie-In	1-7-2 to 11-4-10	0-5-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	1-7-2 to 5-10-12		Top	1 PLF	0 PLF	0 PLF	0 PLF	

Notes

Calculated Structured Designs is responsible **only** of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. Moist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. IJoist flanges must not be cut or drilled
2. Refer to latest copy of the IJoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-**ply** fastening details and handling/erection details
3. Damaged IJoists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide **lateral** support at bearing points to avoid **lateral** displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length ≥ 3.5 inches
7. For **flat** roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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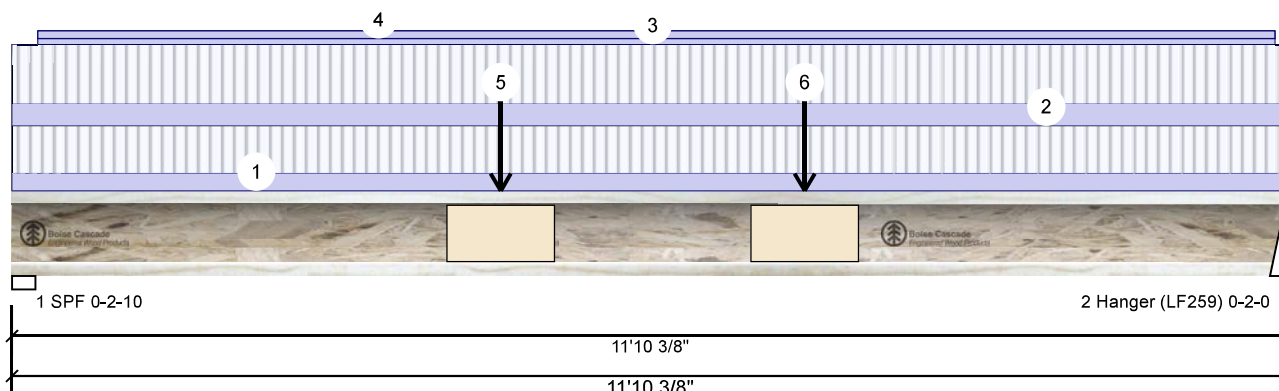
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9.500' REF

PER: **0" - PASSED**
CHIEF BUILDING OFFICIAL

Project #: **MHP 23023**



Technical drawing of a vertical rectangular plate. The drawing shows the front view (top) and the side view (bottom). The front view is a rectangle with a height dimension of $9 \frac{1}{2}"$. The side view is a rectangle with a width dimension of $2 \frac{1}{2}"$. Both views show the plate has a uniform thickness, indicated by the small rectangular features at the ends of the dimension lines.

Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind			
Plies:	1	Design Method:	LSD	1	Vertical	367	183	0	0			
Moisture Condition:	Dry	Building Code:	NBCC 2015	2	Vertical	365	182	0	0			
Deflection LL:	360		OBC 2012(2020 Update)									
Deflection TL:	240	Load Sharing:	No									
Importance:	Normal - II	Deck:	Not Checked									
General Load		Vibration:	Not Checked									
Floor Live:	40 PSF											
Dead:	15 PSF											
				Bearings and Factored Reactions								
				Bearing	Length	Dir.	Cap.	React D/L	lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	2.625"	Vert	46%	228 / 551		779	L	1.25D+1.5L
				2 - Hanger	2.000"	Vert	49%	227 / 547		774	L	1.25D+1.5L

Analysis Results

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2334 ft-lb	5'11 1/2"	4095 ft-lb	0.570 (57%)	1.25D+1.5L	L
Unbraced	2334 ft-lb	5'11 1/2"	4095 ft-lb	0.570 (57%)	1.25D+1.5L	L
Shear	763 lb	11'9 1/8"	1830 lb	0.417 (42%)	1.25D+1.5L	L
Perm Defl in.	0.083 (L/1676)	5'11 1/2"	0.387 (L/360)	0.215 (21%)	D	Uniform
LL Defl inch	0.166 (L/840)	5'11 1/2"	0.387 (L/360)	0.428 (43%)	L	L
TL Defl inch	0.249 (L/560)	5'11 1/2"	0.580 (L/240)	0.429 (43%)	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 Fill all hanger nailing holes.
- 3 Right Header: DF, Thickness: 3 1/2"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 6 Bottom flange must be laterally braced at a maximum of 4'6 1/2" o.c.



JUNE 29, 2023

**READ ALL NOTES ON THIS PAGE AND ON THE
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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 11-10-6	0-7-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 11-10-6	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-14 to 11-8-14		Top	3 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-14 to 11-8-14		Top	4 PLF	0 PLF	0 PLF	0 PLF	
5	Point	4-6-8		Near Face	19 lb	38 lb	0 lb	0 lb	F1
6	Point	7-4-7		Near Face	19 lb	38 lb	0 lb	0 lb	F1

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. Moist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-**ply** fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length ≥ 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

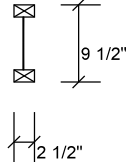
Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12787

Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026

Level: Ground Floor

CSD | DRAW
DESIGN
BUILD

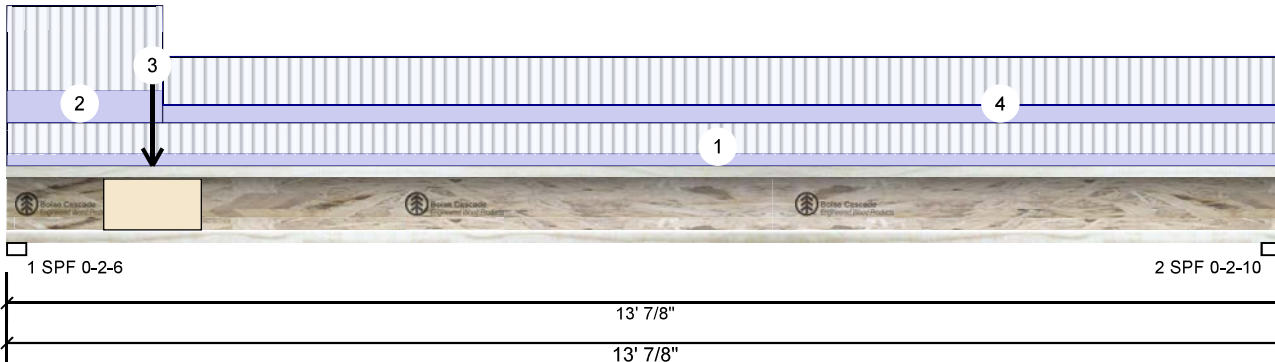


Client: GREENPARK
Project: ZADORRA ESTATES
Address: RIVER 3-1 STD
Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: MHP 23023

Page 8 of 25

F4-A AJS 140 9.500" - PASSED

MHP 23023



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	546	204	0	0
2	Vertical	370	139	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	65%	256 / 818	1074	L	1.25D+1.5L
2 - SPF	2.625"	Vert	43%	174 / 555	729	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2417 ft-lb	6'1 9/16"	4095 ft-lb	0.590 (59%)	1.25D+1.5L	L
Unbraced	2417 ft-lb	6'1 9/16"	4095 ft-lb	0.590 (59%)	1.25D+1.5L	L
Shear	1053 lb	1 5/8"	1830 lb	0.575 (58%)	1.25D+1.5L	L
Perm Defl in.	0.084 (L/1823)	6'4 3/4"	0.426 (L/360)	0.197 (20%)	D	Uniform
LL Defl inch	0.224 (L/684)	6'4 3/4"	0.426 (L/360)	0.527 (53%)	L	
TL Defl inch	0.308 (L/497)	6'4 3/4"	0.639 (L/240)	0.483 (48%)	D+L	L



JUNE 29, 2023

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 Girders are designed to be supported on the bottom edge only.
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at a maximum of 11'7" o.c.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: EWP-FLOORS. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-0-14	0-6-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-7-2	1-5-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-14		Near Face	67 lb	179 lb	0 lb	0 lb	F2
4	Tie-In	1-7-2 to 13-0-14	0-9-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. Joist not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12787

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



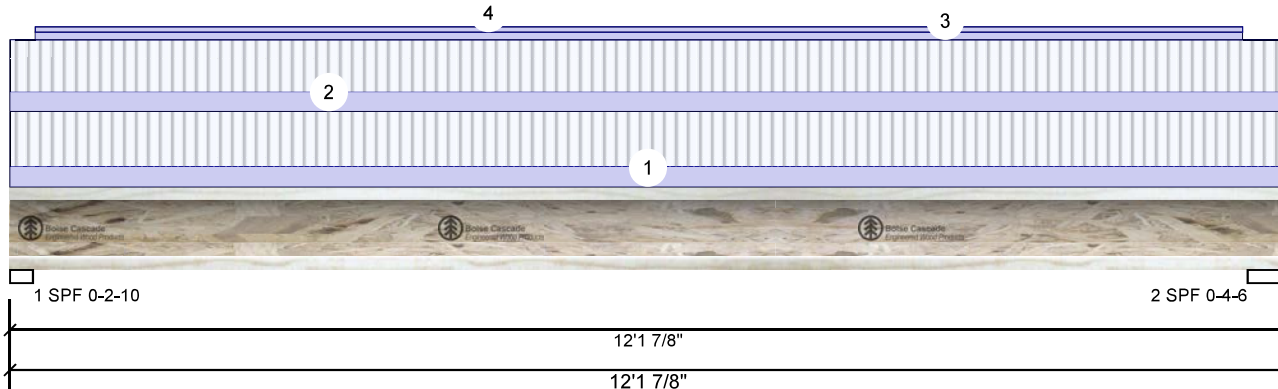


Client: **TRUE COPY**
Project: **GREENPARK**
Address: **OF PERMIT PLANS**
Dec 04 2023
ZADORRA ESTATES

Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: ID 0000

F4-B	AJS 140	9.50
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Project #: **MHP 23023**
Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	247	121	0	0
2	Vertical	253	124	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.625"	Vert	31%	152 / 370	522	L	1.25D+1.5L
2 - SPF	4.375"	Vert	29%	154 / 380	534	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1492 ft-lb	6' 1/16"	4095 ft-lb	0.364 (36%)	1.25D+1.5L	L
Unbraced	1492 ft-lb	6' 1/16"	4095 ft-lb	0.364 (36%)	1.25D+1.5L	L
Shear	510 lb	1 7/8"	1830 lb	0.279 (28%)	1.25D+1.5L	L
Perm Defl in.	0.054 (L/2613)	6' 1/16"	0.390 (L/360)	0.138 (14%)	D	Uniform
LL Defl inch	0.108 (L/1297)	6' 1/16"	0.390 (L/360)	0.278 (28%)	L	L
TL Defl inch	0.162 (L/867)	6' 1/16"	0.585 (L/240)	0.277 (28%)	D+L	L



JUNE 29, 2023

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 Girders are designed to be supported on the bottom edge only.
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at bearings.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-1-14	0-6-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-1-14	0-6-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-14 to 11-8-14		Top	3 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-14 to 11-8-14		Top	2 PLF	0 PLF	0 PLF	0 PLF	

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. Joist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length ≥ 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12787

Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026

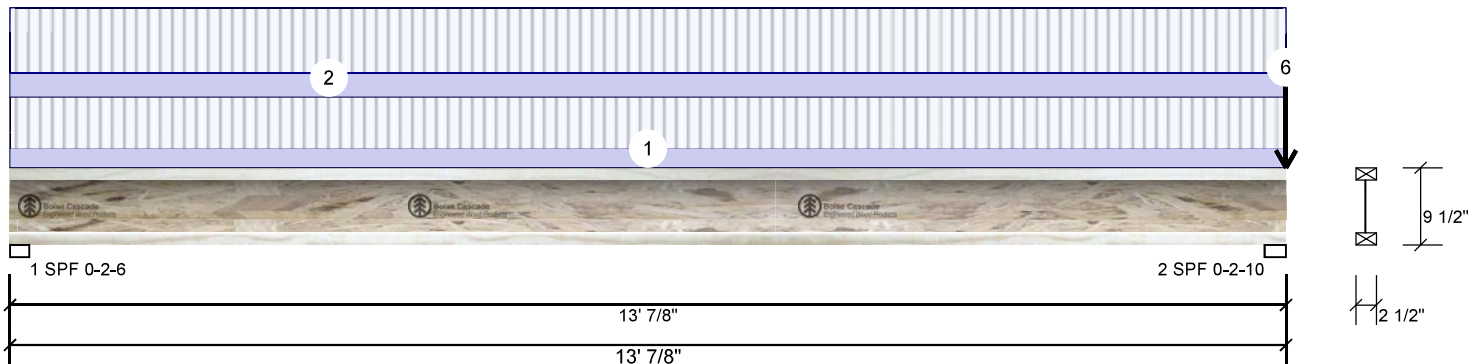


Client: GREENPARK
Project: ZADORRA ESTATES
Address: Dec 04 2023

Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: ID 0000

F4-C	AJS 140	9.50
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Project #: **MHP 23023**
Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	312	117	0	0
2	Vertical	477	223	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	37%	146 / 468	614	L	1.25D+1.5L
2 - SPF	2.625"	Vert	59%	279 / 716	995	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1922 ft-lb	6'6 5/16"	4095 ft-lb	0.469 (47%)	1.25D+1.5L	L
Unbraced	1922 ft-lb	6'6 5/16"	4095 ft-lb	0.469 (47%)	1.25D+1.5L	L
Shear	602 lb	12'11"	1830 lb	0.329 (33%)	1.25D+1.5L	L
Perm Defl in.	0.066 (L/2327)	6'6 5/16"	0.426 (L/360)	0.155 (15%)	D	Uniform
LL Defl inch	0.176 (L/873)	6'6 5/16"	0.426 (L/360)	0.413 (41%)	L	L
TL Defl inch	0.242 (L/635)	6'6 5/16"	0.639 (L/240)	0.378 (38%)	D+L	L



JUNE 29, 2023

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 Girders are designed to be supported on the bottom edge only.
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at bearings.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-0-14	0-6-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 13-0-14	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	13-0-14		Top	32 lb	85 lb	0 lb	0 lb	J3
	Bearing Length	0-1-8							
4	Point	13-0-14		Top	29 lb	79 lb	0 lb	0 lb	J3
	Bearing Length	0-1-8							
5	Point	13-0-14		Top	35 lb	0 lb	0 lb	0 lb	Wall Self Weight

Continued on page 2...

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. Joist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. IJoist flanges must not be cut or drilled
2. Refer to latest copy of the IJoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged IJoists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length ≥ 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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www.bc.com
CCMC: 12787

Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



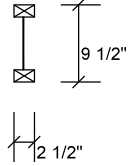
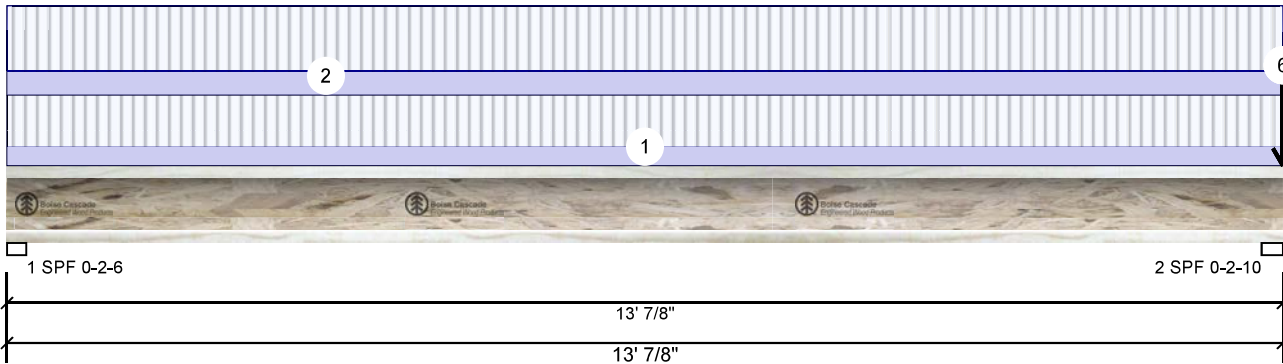
Client: GREENPARK
Project: ZADORRA ESTATES
Address: RIVER 3-1 STD
Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: MHP 23023

Page 11 of 25

F4-C AJS 140 9.500

- PASSED

MHP 23023



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Bearing Length	0-1-8							
	Point	13-0-14		Top	10 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							



JUNE 29, 2023

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Lumber

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5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

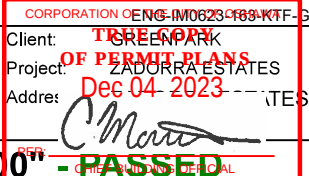
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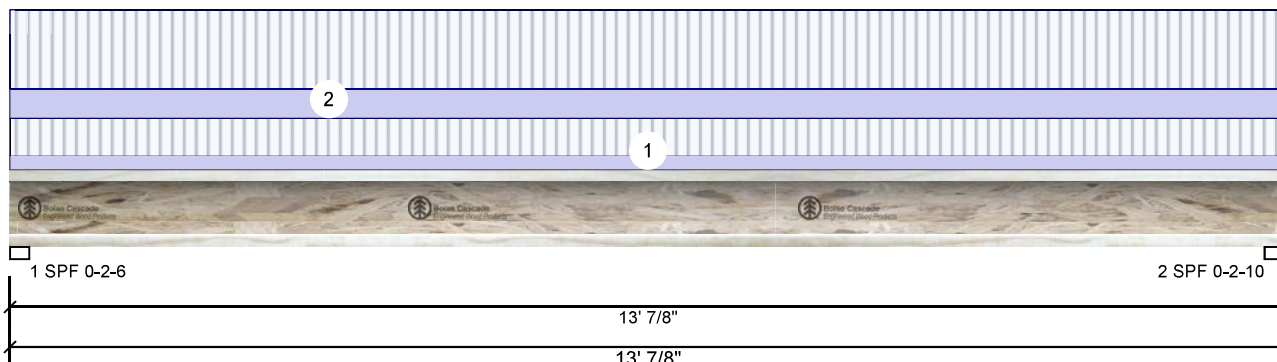
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613-838-2775 / 905-642-4400





Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #:

Project #: **MHP 23023**



9 1/2

2 1/2"

Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind	
Plies:	1	Design Method:	LSD	1	Vertical	296	111	0	0	
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	297	111	0	0	
Deflection LL:	360									
Deflection TL:	240	Load Sharing:	No							
Importance:	Normal - II	Deck:	Not Checked							
General Load		Vibration:	Not Checked							
Floor Live:	40 PSF			Bearings and Factored Reactions						
Dead:	15 PSF			Bearing	Length	Dir.	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	35%	139 / 443	582	L	1.25D+1.5L
2 - SPF	2.625"	Vert	34%	139 / 445	584	L	1.25D+1.5L

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1821 ft-lb	6'6 5/16"	4095 ft-lb	0.445 (44%)	1.25D+1.5L	L
Unbraced	1821 ft-lb	6'6 5/16"	4095 ft-lb	0.445 (44%)	1.25D+1.5L	L
Shear	570 lb	12'11"	1830 lb	0.311 (31%)	1.25D+1.5L	L
Perm Defl in.	0.062 (L/2456)	6'6 5/16"	0.426 (L/360)	0.147 (15%)	D	Uniform
LL Defl inch	0.167 (L/921)	6'6 5/16"	0.426 (L/360)	0.391 (39%)	L	L
TL Defl inch	0.229 (L/670)	6'6 5/16"	0.639 (L/240)	0.358 (36%)	D+L	L



JUNE 29, 2023

- 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 Girders are designed to be supported on the bottom edge only.
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at bearings.

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USED IN THE DESIGN OF THIS COMPONENT.**

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-0-14	0-4-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 13-0-14	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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Handling & Installation

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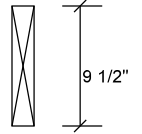


This design is valid until 4/17/2026



Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: 0000

Level: Ground Floor



Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	50	24	0	0
2	Vertical	100	43	0	0

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	70 ft-lb	1'3 1/8"	11610 ft-lb	0.006 (1%)	1.25D+1.5L	L
Unbraced	70 ft-lb	1'3 1/8"	11610 ft-lb	0.006 (1%)	1.25D+1.5L	L
Shear	48 lb	1' 1/2"	5287 lb	0.009 (1%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/498507)	1'2 3/8"	0.064 (L/360)	0.001 (0%)	D	Uniform
LL Defl inch	0.000 (L/219626)	1'2 7/16"	0.064 (L/360)	0.002 (0%)	L	L
TL Defl inch	0.000 (L/152460)	1'2 3/8"	0.096 (L/240)	0.002 (0%)	D+L	L

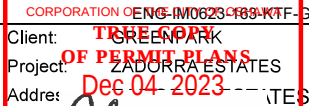


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USED IN THE DESIGN OF THIS COMPONENT.**

- 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 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 3 1/2"
- 4 Right Header: DF, Thickness: 3 3/4"
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top must be continuously laterally braced.
- 7 Bottom must be laterally braced at bearings.

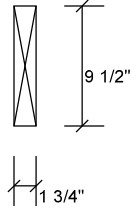


Version 23.40.650 Powered by iStruct™ Dataset: 23040401.276 (embedded)



Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: ID 0000

Level: Ground Floor



Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	491	195	0	0
2	Vertical	648	253	0	0

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	15%	244 / 737	981	LL	1.25D+1.5L
2 - SPF	2.375"	Vert	50%	316 / 972	1288	_L	1.25D+1.5L

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-1 ft-lb	1 3/4"	7546 ft-lb	0.000 (0%)	1.25D+1.5L	L_
Pos Moment	1125 ft-lb	2'7 7/16"	11610 ft-lb	0.097 (10%)	1.25D+1.5L	_L
Unbraced	1125 ft-lb	2'7 7/16"	11610 ft-lb	0.097 (10%)	1.25D+1.5L	_L
Shear	1209 lb	3'4 1/2"	5287 lb	0.229 (23%)	1.25D+1.5L	_L
Perm Defl in.	0.002 (L/19604)	2'3 3/8"	0.131 (L/360)	0.018 (2%)	D	Uniform
LL Defl inch	0.006 (L/7677)	2'3 3/8"	0.131 (L/360)	0.047 (5%)	L	_L
TL Defl inch	0.009 (L/5517)	2'3 3/8"	0.197 (L/240)	0.044 (4%)	D+L	_L
LL Cant	-0.001 (2L/5115)	Lt Cant	0.200 (2L/360)	0.003 (0%)	L	_L
TL Cant	-0.001 (2L/3677)	Lt Cant	0.300 (2L/240)	0.003 (0%)	D+L	_L



JUNE 29, 2023

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- 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 Girders are designed to be supported on the bottom edge only.
- 3 Top must be continuously laterally braced.
- 4 Bottom must have sheathing attached or be continuously braced.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-7-1	1-3-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-15 to 4-4-6		Top	15 PLF	40 PLF	0 PLF	0 PLF	
3	Point	1-3-7		Near Face	116 lb	310 lb	0 lb	0 lb	J3

Continued on page 2...

Calculated Structured Designs is responsible **only** of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



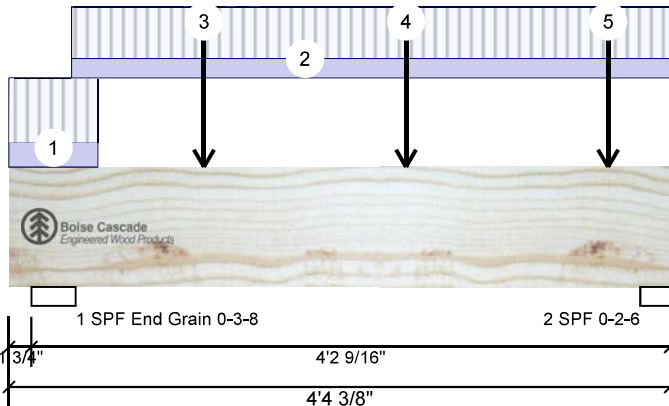
This design is valid until 4/17/2026



Client: GREENPARK
Project: ZADORRA ESTATES
Address: RIVER 3-1 STD
Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: 23023

Page 15 of 25

F6 Versa-Lam LVL 2.1E 3100 SF 1.750" X 9.500" - PASSED MHP 23023



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Point	2-7-7		Near Face	124 lb	330 lb	0 lb	0 lb	J3
5	Point	3-11-7		Near Face	117 lb	312 lb	0 lb	0 lb	J3
	Self Weight				5 PLF				



JUNE 29, 2023

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Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400

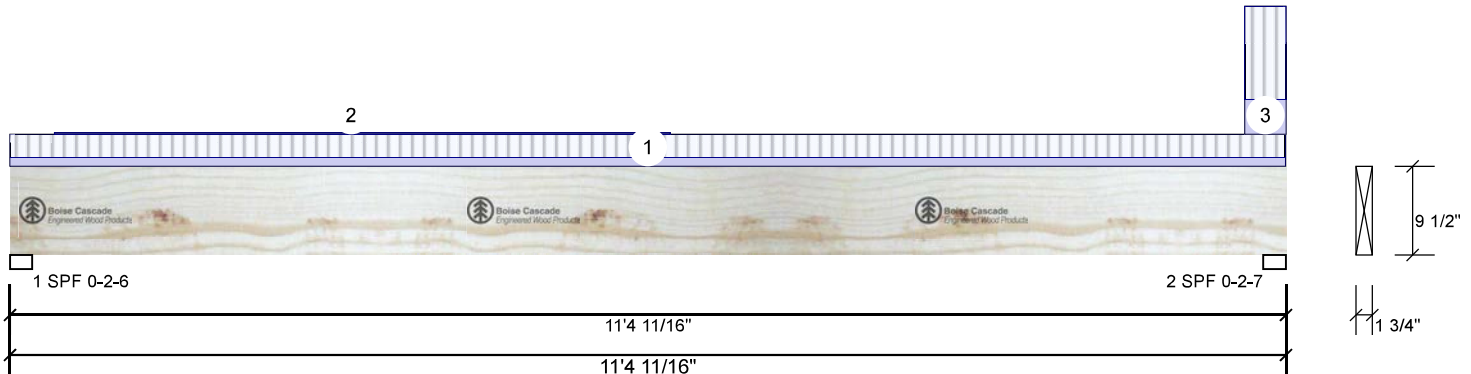




Client: GREENPARK
Project: ZADORRA ESTATES
Address: 10000 100TH AVE S, SUITE 100, BURNING WOODS, OHIO 44132

Date: 6/28/2023
Input by: WC
Job Name: RIVER 3-1 STD
Project #: ID 0000

F7	Versa-Lam LVL 2.1E	3100 SP	1.750" X 9.500" - PASSED	Level: Ground Floor
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Unfactored Reactions UNPATTERNED Ib (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind			
Plies:	1	Design Method:	LSD	1	Vertical	85	63	0	0			
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	107	69	0	0			
Deflection LL:	360	Load Sharing:	No	Bearings and Factored Reactions								
Deflection TL:	240	Deck:	Not Checked									
Importance:	Normal - II	Vibration:	Not Checked									
General Load												
Floor Live:	40 PSF				Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
Dead:	15 PSF				1 - SPF	2.375"	Vert	8%	79 / 128	207	L	1.25D+1.5L
				2 - SPF	2.125"	Vert	8%	86 / 121	212	L	1.25D+1.5L	

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	558 ft-lb	5'7 7/8"	11610 ft-lb	0.048 (5%)	1.25D+1.5L	L
Unbraced	558 ft-lb	5'7 7/8"	11610 ft-lb	0.048 (5%)	1.25D+1.5L	L
Shear	176 lb	11 7/8"	5287 lb	0.033 (3%)	1.25D+1.5L	L
Perm Defl in.	0.014 (L/9290)	5'8 1/16"	0.371 (L/360)	0.039 (4%)	D	Uniform
LL Defl inch	0.020 (L/6739)	5'8 5/16"	0.371 (L/360)	0.053 (5%)	L	L
TL Defl inch	0.034 (L/3906)	5'8 1/4"	0.556 (L/240)	0.061 (6%)	D+L	L



- 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 Girders are designed to be supported on the bottom edge only.
- 3 Top must be continuously laterally braced.
- 4 Bottom must be laterally braced at bearings.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 11-4-10	0-4-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-12 to 5-10-12		Top	1 PLF	0 PLF	0 PLF	0 PLF	
3	Tie-In	11-0-4 to 11-4-11	1-5-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				5 PLF				

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



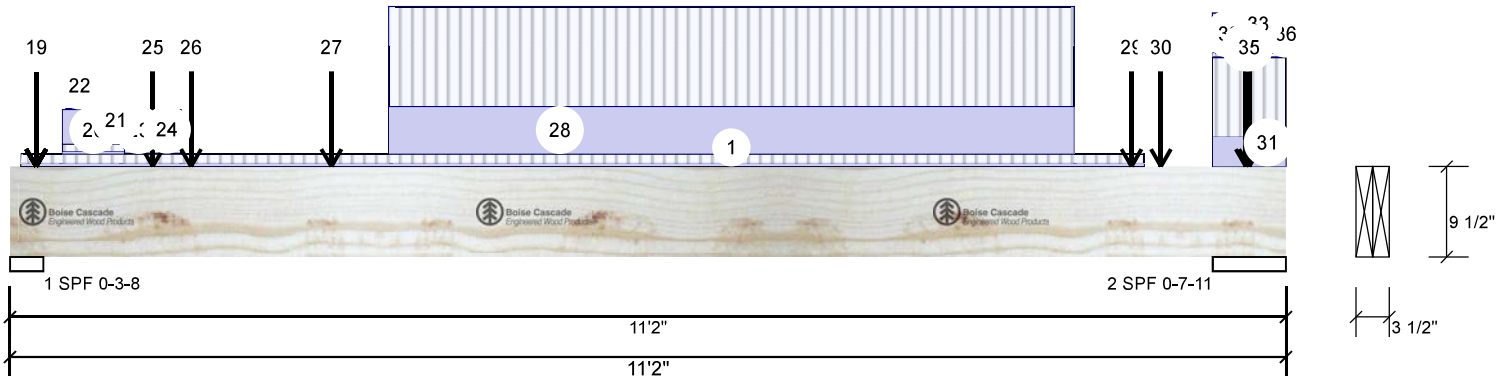
This design is valid until 4/17/2026



Client: GREENPARK
Project: ZADORRA ESTATES
Address: RIVER 3-1 STD
Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: MHP 23023
Dec 04 2023
CHIEF BUILDING OFFICIAL

Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: MHP 23023

F8-A Versa-Lam LVL 2.1E 3100 SP 1.750 X 9.500" 2-Ply PASSED Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	2512	1423	187	0
2	Vertical	3531	1724	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	76%	1779 / 3955	5734	L	1.25D+1.5L +S
2 - SPF	7.688"	Vert	45%	2155 / 5297	7452	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9264 ft-lb	4'11 3/4"	23220 ft-lb	0.399 (40%)	1.25D+1.5L	L
Unbraced	9264 ft-lb	4'11 3/4"	23220 ft-lb	0.399 (40%)	1.25D+1.5L	L
Shear	5215 lb	1'1"	10574 lb	0.493 (49%)	1.25D+1.5L	L
Perm Defl in.	0.084 (L/1488)	5'3 9/16"	0.345 (L/360)	0.242 (24%)	D	Uniform
LL Defl inch	0.167 (L/745)	5'3 5/8"	0.345 (L/360)	0.483 (48%)	L+0.5S	L
TL Defl inch	0.250 (L/496)	5'3 9/16"	0.518 (L/240)	0.484 (48%)	D+L+0.5S	L

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.5.
- 2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 3 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.
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Multiple plies must be fastened together as per manufacturer's details.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be continuously laterally braced.
- 8 Bottom must have sheathing attached or be continuously braced.
- 9 Lateral slenderness ratio based on full section width.



JUNE 29, 2023

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Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

This design is valid until 4/17/2026

Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



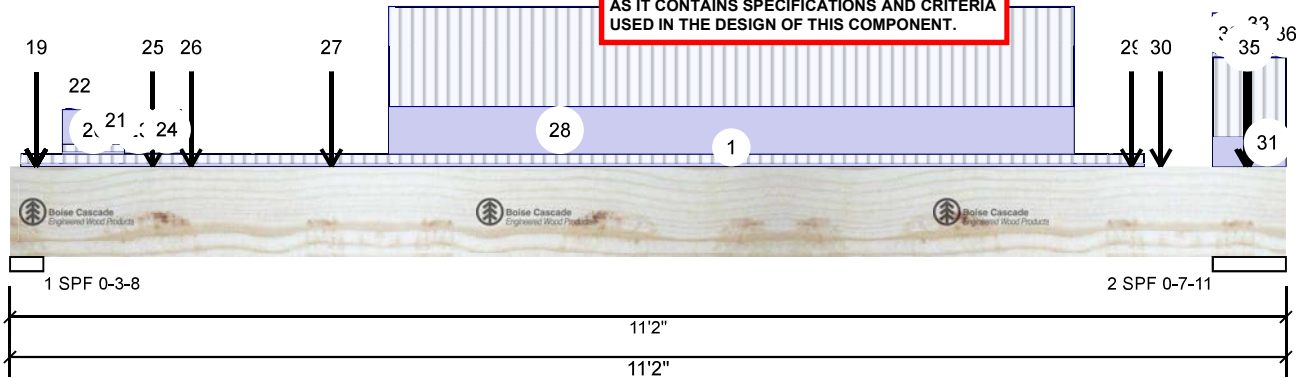


Client: GREENPARK
Project: ZADORRA ESTATES
Address: RIVER 3-1 STD
Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #:
MHP 23023
PASSED
CHIEF BUILDING OFFICIAL



F8-A Versa-Lam LVL 2.1E 3100 SP 1.750 X 9.500" 2-Ply Level: Ground Floor

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-1-2 to 9-11-2	0-6-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-2-12		Top	34 lb	0 lb	88 lb	0 lb	
	Bearing Length	0-5-8							
4	Point	0-2-12		Top	2 lb	5 lb	0 lb	0 lb	J3
	Bearing Length	0-5-8							
5	Point	0-2-12		Top	16 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
6	Point	0-2-12		Top	1 lb	0 lb	0 lb	0 lb	Rim Board Self Weight
	Bearing Length	0-5-8							
7	Point	0-2-12		Top	16 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
8	Point	0-2-12		Top	26 lb	0 lb	67 lb	0 lb	
	Bearing Length	0-5-8							
10	Point	0-2-12		Top	2 lb	5 lb	0 lb	0 lb	
	Bearing Length	0-5-8							
11	Point	0-2-12		Top	12 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
12	Point	0-2-12		Top	1 lb	0 lb	0 lb	0 lb	Rim Board Self Weight
	Bearing Length	0-5-8							
13	Point	0-2-12		Top	12 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
14	Point	0-2-12		Top	12 lb	0 lb	32 lb	0 lb	
	Bearing Length	0-5-8							
16	Point	0-2-12		Top	1 lb	2 lb	0 lb	0 lb	
	Bearing Length	0-5-8							
17	Point	0-2-12		Top	6 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
19	Point	0-2-12		Top	6 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
20	Tapered Start	0-5-8		Top	6 PLF	17 PLF	0 PLF	0 PLF	

Continued on page 3...

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



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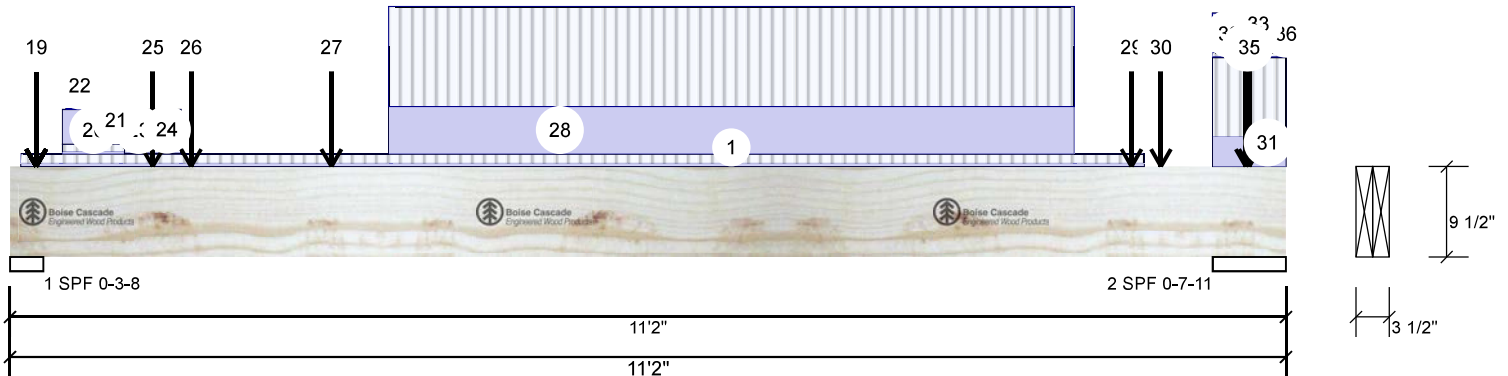


Client: GREENPARK
Project: ZADORRA ESTATES
Address: RIVER 3-1 STD
Dec 04 2023

Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #:

Page 19 of 25

F8-A Versa-Lam LVL 2.1E 3100 SP 1.750 X 9.500" 2-Ply MHP 23023



...Continued from page 2

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	End	1-0-0			6 PLF	17 PLF	0 PLF	0 PLF	
21	Part. Uniform	0-5-8 to 1-6-0		Top	82 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
22	Part. Uniform	0-5-14 to 1-0-0		Top	2 PLF	0 PLF	0 PLF	0 PLF	
23	Part. Uniform	1-0-0 to 1-6-0		Top	1 PLF	0 PLF	0 PLF	0 PLF	
24	Tapered Start	1-0-0		Top	3 PLF	9 PLF	0 PLF	0 PLF	
	End	1-6-0			3 PLF	9 PLF	0 PLF	0 PLF	
25	Point	1-3-0		Top	603 lb	1359 lb	0 lb	0 lb	B2
	Bearing Length	0-5-8							
26	Point	1-7-0		Far Face	182 lb	365 lb	0 lb	0 lb	F3
27	Point	2-9-12		Far Face	128 lb	263 lb	0 lb	0 lb	J2
28	Part. Uniform	3-3-12 to 9-3-12		Far Face	112 PLF	236 PLF	0 PLF	0 PLF	
29	Point	9-9-12		Far Face	126 lb	236 lb	0 lb	0 lb	J2
30	Point	10-0-14		Near Face	257 lb	633 lb	0 lb	0 lb	F9
31	Part. Uniform	10-6-4 to 11-2-0		Top	70 PLF	187 PLF	0 PLF	0 PLF	J3
32	Tapered Start	10-6-4		Top	3 PLF	9 PLF	0 PLF	0 PLF	
	End	11-2-0			3 PLF	9 PLF	0 PLF	0 PLF	
33	Part. Uniform	10-6-4 to 11-2-0		Top	82 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
34	Point	10-9-12		Far Face	103 lb	165 lb	0 lb	0 lb	J2
35	Point	10-10-2		Top	553 lb	1243 lb	0 lb	0 lb	B2
	Bearing Length	0-5-8							
36	Tapered Start	11-2-0		Top	6 PLF	17 PLF	0 PLF	0 PLF	
	End	11-2-0			6 PLF	17 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF				

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JUNE 29, 2023

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

This design is valid until 4/17/2026

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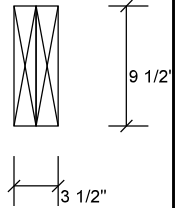
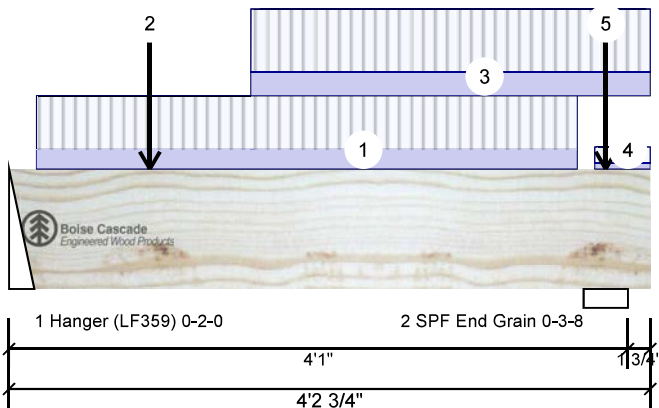




Client: GREEN ARK
Project: ZADORRA ESTATES
Address: Dec 04 2023

Date: 6/28/2023
Input by: WC
Job Name: RIVER 3-1 STD
Project #: ID 0000

F9	Versa-Lam LVL 2.1E 3100 SP	1.750' x 9.500'	2-Ply - PASSED	Level: Ground Floor
----	----------------------------	-----------------	----------------	---------------------



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	633	257	0	0
2	Vertical	789	322	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	17%	322 / 950	1272	L_	1.25D+1.5L
2 - SPF End Grain	3.500"	Vert	12%	403 / 1184	1587	LL	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-5 ft-lb	4'1"	15325 ft-lb	0.000 (0%)	1.25D+1.5L	┐
Pos Moment	1313 ft-lb	2' 7/16"	23220 ft-lb	0.057 (6%)	1.25D+1.5L	┐
Unbraced	1313 ft-lb	2' 7/16"	23220 ft-lb	0.057 (6%)	1.25D+1.5L	┐
Shear	1322 lb	11 1/2"	10574 lb	0.125 (13%)	1.25D+1.5L	┐
Perm Defl in.	0.001 (L/32418)	2' 3/16"	0.128 (L/360)	0.011 (1%)	D	Uniform
LL Defl inch	0.004 (L/13011)	2' 3/16"	0.128 (L/360)	0.028 (3%)	L	┐
TL Defl inch	0.005 (L/9285)	2' 3/16"	0.192 (L/240)	0.026 (3%)	D+L	┐
LL Cant	-0.000 (2L/8671)	Rt Cant	0.200 (2L/360)	0.002 (0%)	L	┐
TL Cant	-0.001 (2L/6196)	Rt Cant	0.300 (2L/240)	0.002 (0%)	D+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 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 3 1/2"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Multiple plies must be fastened together as per manufacturer's details.
- 6 Top loads must be supported equally by all plies.
- 7 Top must be continuously laterally braced.
- 8 Bottom must have sheathing attached or be continuously braced.
- 9 Lateral slenderness ratio based on full section width.



JUNE 29, 2023

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Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



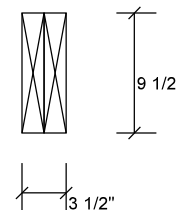
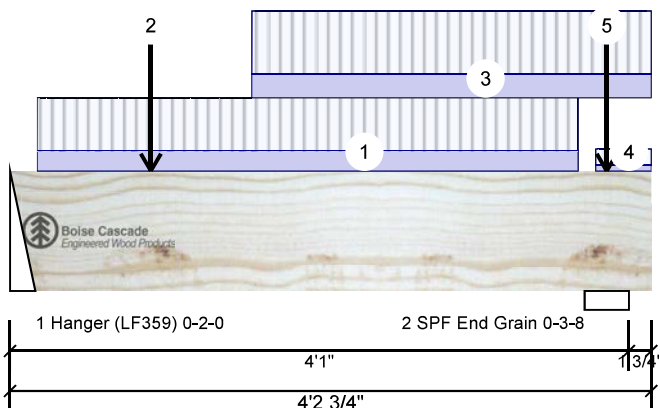
Client: GREENPARK
Project: ZADORRA ESTATES
Address: RIVER 3-1 STD
Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #:
MHP 23023

Page 21 of 25

F9 Versa-Lam LVL 2.1E 3100 SP 1.750' X 9.500'

2-Ply - PASSED

Level: Ground Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-2-3 to 3-9-0		Top	63 PLF	167 PLF	0 PLF	0 PLF	
2	Point	0-11-2		Near Face	89 lb	236 lb	0 lb	0 lb	J1
3	Part. Uniform	1-7-2 to 4-2-12		Near Face	74 PLF	198 PLF	0 PLF	0 PLF	
4	Tie-In	3-10-6 to 4-2-12	1-3-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Point	3-11-4		Far Face	24 lb	50 lb	0 lb	0 lb	F5
	Self Weight				9 PLF				



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Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



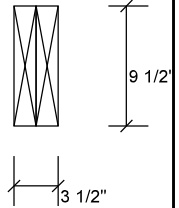
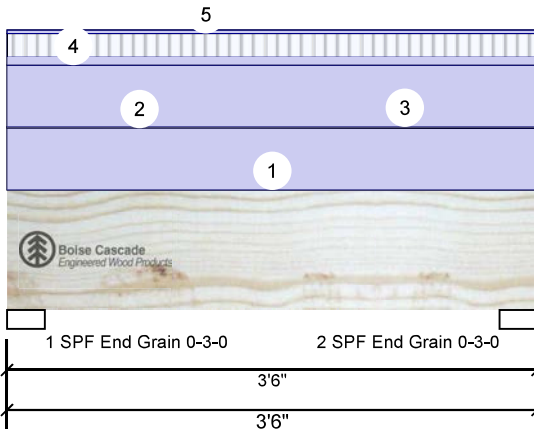
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Client: GREEN PARK
Project: ZADORRA ESTATES
Address: Dec 04 2023

Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: ID 0000

FH5	Versa-Lam LVL 2.1E 3	100 SP	1.750" X 9.500"	2-Ply	23023
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Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	33	214	0	0
2	Vertical	33	213	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	4%	267 / 50	317	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	4%	266 / 50	316	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	221 ft-lb	1'9"	15093 ft-lb	0.015 (1%)	1.25D+1.5L	L
Unbraced	221 ft-lb	1'9"	15093 ft-lb	0.015 (1%)	1.25D+1.5L	L
Shear	221 lb	2'5 1/2"	6873 lb	0.032 (3%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/68494)	1'9"	0.104 (L/360)	0.005 (1%)	D	Uniform
LL Defl inch	0.000 (L/439686)	1'9"	0.104 (L/360)	0.001 (0%)	L	L
TL Defl inch	0.001 (L/59262)	1'9"	0.156 (L/240)	0.004 (0%)	D+L	L



JUNE 29, 2023

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 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be laterally braced at a maximum of 3'6" o.c.
- 6 Bottom must be laterally braced at a maximum of 3'6" o.c.
- 7 Lateral slenderness ratio based on full section width.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-6-0		Top	51 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Tapered Start	0-0-0		Near Face	1 PLF	0 PLF	0 PLF	0 PLF	
	End	3-6-0			0 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 3-6-0		Near Face	51 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

Continued on page 2...

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
Boise, ID 83702
(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc. 3228 Moodie Dr, Ottawa, Ontario
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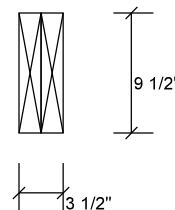
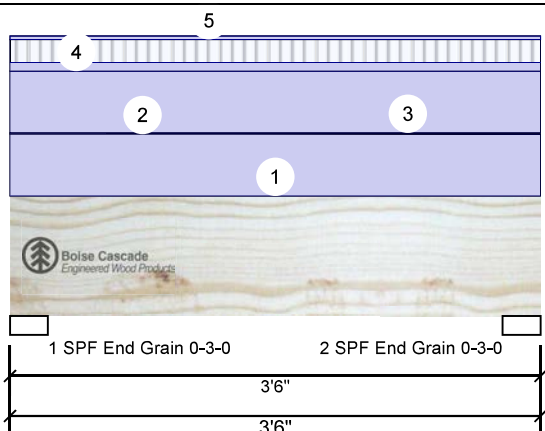
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Client: GREENPARK
Project: ZADORRA ESTATES
Address: RIVER 3-1 STD
Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #:
MHP 23023

Page 23 of 25

FH5 Versa-Lam LVL 2.1E 3100 SP 1.750' X 9.500" 2-Ply PASSED Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Tapered Start	0-0-0		Near Face	7 PLF	19 PLF	0 PLF	0 PLF	
	End	3-6-0			7 PLF	19 PLF	0 PLF	0 PLF	
5	Part. Uniform	0-0-0 to 3-6-0		Near Face	3 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				9 PLF				



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Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

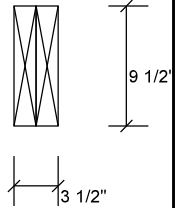
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(800) 232-0788
www.bc.com
CCMC: 12472

Kott Inc.

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613-838-2775 / 905-642-4400



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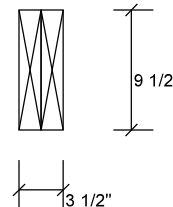
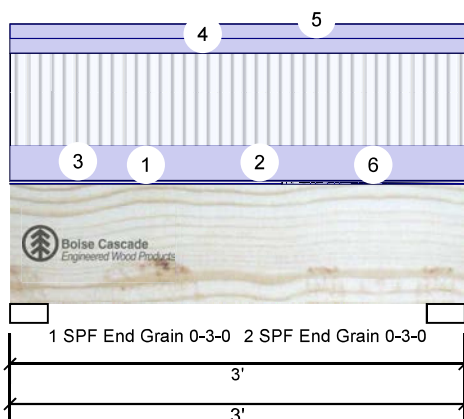




Client: GREENPARK
Project: ZADORRA ESTATES
Address: RIVER 3-1 DC
Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 DC
Project #:
MHP 23023

Page 2 of 2

FH5 Versa-Lam LVL 2.1E 3100 SP 1.750" x 9.500" 2-Ply PASSED Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-0-0		Top	41 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
5	Part. Uniform	0-0-0 to 3-0-0		Near Face	41 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Tapered Start	1-9-8		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
	End	3-0-0			0 PLF	1 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF				



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Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
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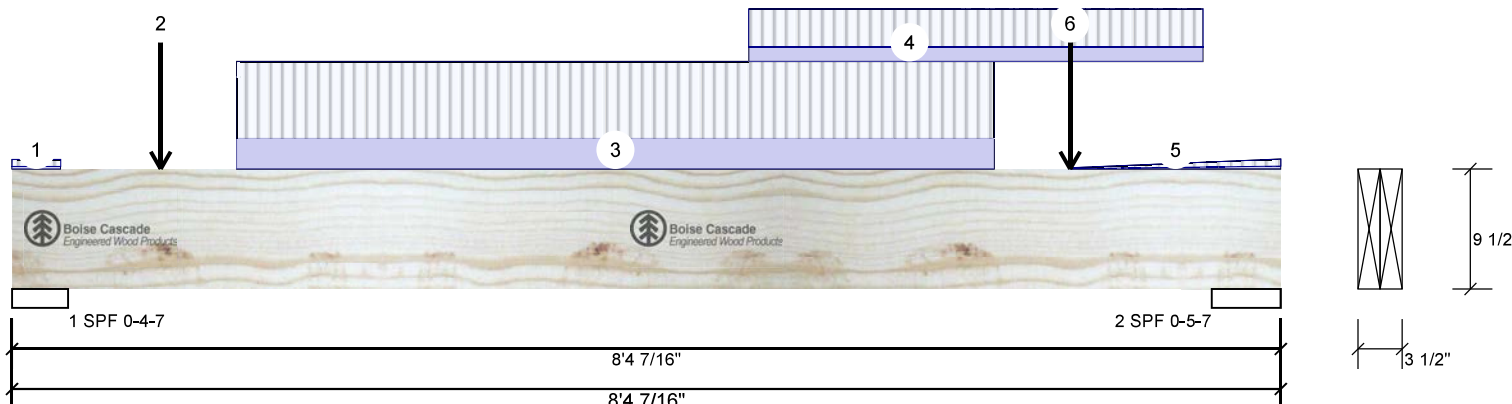
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613-838-2775 / 905-642-4400





F10	Versa-Lam LVL 2.1E 3'00" SP	1.750" x 9.500"	2-Ply	Level: Second Floor
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Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind		
Plies:	2	Design Method:	LSD	1	Vertical	927	411	0	0		
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	1121	484	0	0		
Deflection LL:	360	Load Sharing:	No	Bearings and Factored Reactions							
Deflection TL:	240	Deck:	Not Checked								
Importance:	Normal - II	Vibration:	Not Checked								
General Load											
Floor Live:	40 PSF			Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
Dead:	15 PSF			1 - SPF	4.438"	Vert	20%	513 / 1391	1904	L	1.25D+1.5L

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4195 ft-lb	4'5 1/2"	23220 ft-lb	0.181 (18%)	1.25D+1.5L	L
Unbraced	4195 ft-lb	4'5 1/2"	23220 ft-lb	0.181 (18%)	1.25D+1.5L	L
Shear	2073 lb	7'1 1/2"	10574 lb	0.196 (20%)	1.25D+1.5L	L
Perm Defl in.	0.018 (L/5039)	4'2 3/8"	0.256 (L/360)	0.071 (7%)	D	Uniform
LL Defl inch	0.042 (L/2179)	4'2 9/16"	0.256 (L/360)	0.165 (17%)	L	L
TL Defl inch	0.061 (L/1521)	4'2 7/16"	0.384 (L/240)	0.158 (16%)	D+L	L



JUNE 29, 2023

- 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 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top must be continuously laterally braced.
- 6 Bottom must have sheathing attached or be continuously braced.
- 7 Lateral slenderness ratio based on full section width.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-3-14	0-6-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-11-12		Near Face	81 lb	200 lb	0 lb	0 lb	J3
3	Part. Uniform	1-5-12 to 6-5-12		Near Face	97 PLF	241 PLF	0 PLF	0 PLF	
4	Part. Uniform	4-10-5 to 7-10-5		Top	45 PLF	120 PLF	0 PLF	0 PLF	
5	Tie-In	6-11-12 to 8-4-7	0-0-14 to 0-6-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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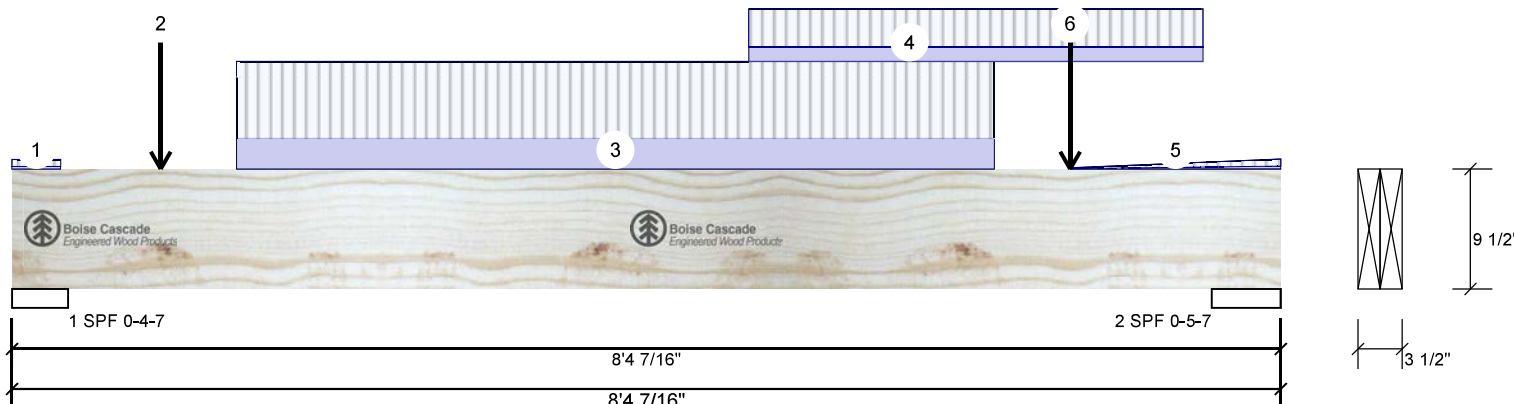
Notes Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads. Lumber 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive chemicals	Handling & Installation 1. LVL beams must not be cut or drilled 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals 3. Damaged Beams must not be used 4. Design assumes top edge is laterally restrained 5. Provide lateral support at bearing points to avoid lateral displacement and rotation	6. For flat roofs provide proper drainage to prevent ponding This design is valid until 4/17/2026	Manufacturer Info	Kott Inc. 3228 Moodie Dr, Ottawa, Ontario 613-838-2775 / 905-642-4400
			Boise Cascade Wood Products 1111 W. Jefferson St. Boise, ID 83702 (800) 232-0788 www.bc.com CCMC: 12472	



Client: GREENPARK
Project: ZADORRA ESTATES
Address: RIVER 3-1 STD
Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: 23023
MHP 23023
Dec 04 2023
CHIEF BUILDING OFFICIAL

Date: 6/28/2023
Input by: W C
Job Name: RIVER 3-1 STD
Project #: 23023
MHP 23023
Dec 04 2023
CHIEF BUILDING OFFICIAL

F10 Versa-Lam LVL 2.1E 3' 00 SP 1.750 X 9.500" 2-Ply PASSED Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	6-11-12		Near Face	105 lb	259 lb	0 lb	0 lb	J3
	Self Weight				9 PLF				



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Lumber

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chemicals

Handling & Installation

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3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

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