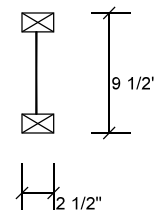


**F1 AJS 140 9.500'**

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	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



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 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  $\geq 3.5$  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: GREENPARK

Project: ZADORRA ESTATES

Address: RIVER 3-3 STD

Date: 6/28/2023

Input by: W C

Job Name: RIVER 3-3 STD

Project #: MHP 23023

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F2

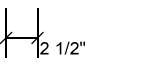
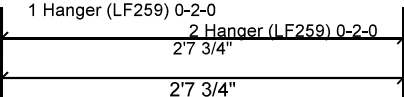
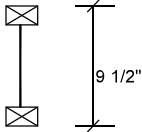
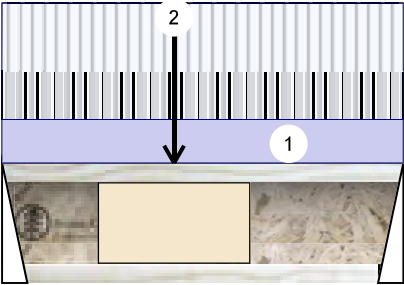
AJS 140

9.500"

PERMIT PLANS

Dec 04, 2023

OFFICIAL



### 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	229	86	0	0
2	Vertical	179	67	0	0

### Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	28%	107 / 343	450	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	22%	84 / 267	351	L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
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. (L/15594)	0.002	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

### 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.



JUNE 29, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-7-12	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

### 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-ply 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

This design is valid until 4/17/2026

### Manufacturer Info

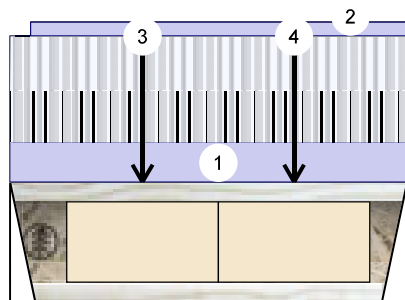
Boise Cascade Wood Products  
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www.bc.com  
CCMC: 12787

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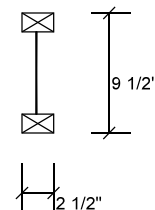


Project #: **MHP 23023**

**- PASSED**



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



### Unfactored Reactions UNPATTERNED lb (Uplift)

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	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.	0.002 (L/16718)	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

- 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.

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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

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  $\geq 3.5$  inches
7. For flat roofs provide proper drainage to prevent ponding

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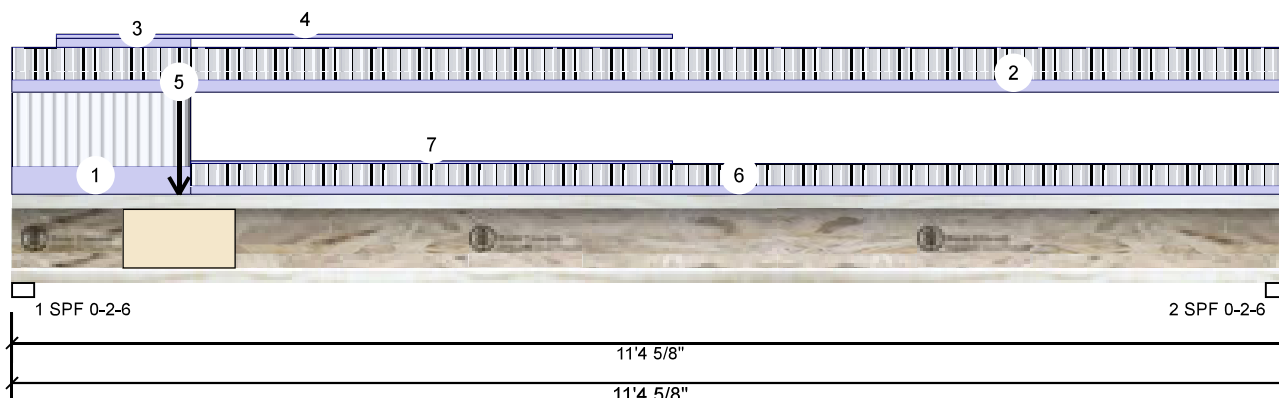
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613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



Project #: **MHP 23023**



Technical drawing of a vertical member. The cross-section is indicated by two vertical lines with a dimension of  $2\frac{1}{2}"$ . The height is indicated by a vertical dimension line with a dimension of  $9\frac{1}{2}"$ .

### Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind		
Plies:	1	Design Method:	LSD	1	Vertical	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	<b>Bearings and Factored Reactions</b>							
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 lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	2.375"	Vert	63%	288 / 155	1043	L	1.25D+1.5L
				2 - SPF	2.375"	Vert	63%	188 / 155	544	L	1.25D+1.5L

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 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.

## 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  $\geq 3.5$  inches
7. For flat roofs provide proper drainage to prevent ponding

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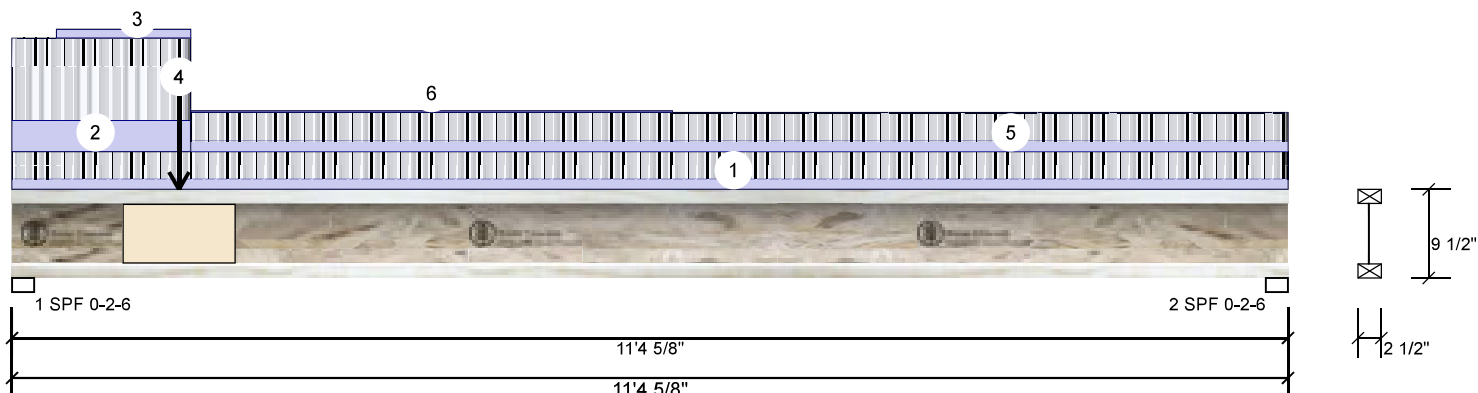
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**F3-A**   **AJS 140**   **9.500"**   **PER: - PASSED**

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	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						
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal - II	Vibration:	Not Checked						
General Load				<b>Bearings and Factored Reactions</b>					
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	57%	250 / 700	950 L 1.25D+1.5L
				2 - GFR	2.375"	Vert	88%	180 / 370	105 L 1.25D+1.5L

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

- 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	

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  $\geq 3.5$  inches
7. For flat roofs provide proper drainage to prevent ponding

### Manufacturer Info

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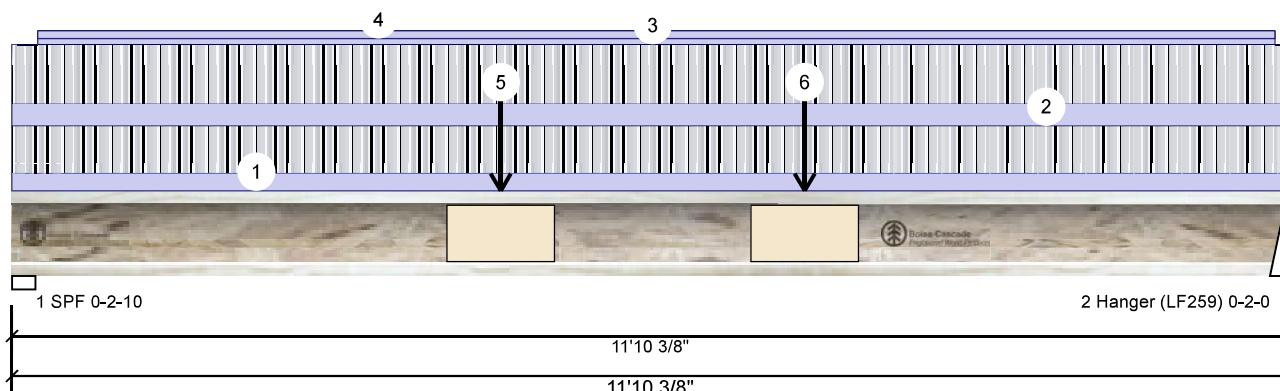


This design is valid until 4/17/2026



F3-B	AJS 140	9.50
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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	367	183	0	0			
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	365	182	0	0			
Deflection LL:	360	Load Sharing:	No	<b>Bearings and Factored Reactions</b>								
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	lb	Total	Ld. Case	Ld. Comb.
<b>Analysis Results</b>				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	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

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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

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  $\geq 3.5$  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

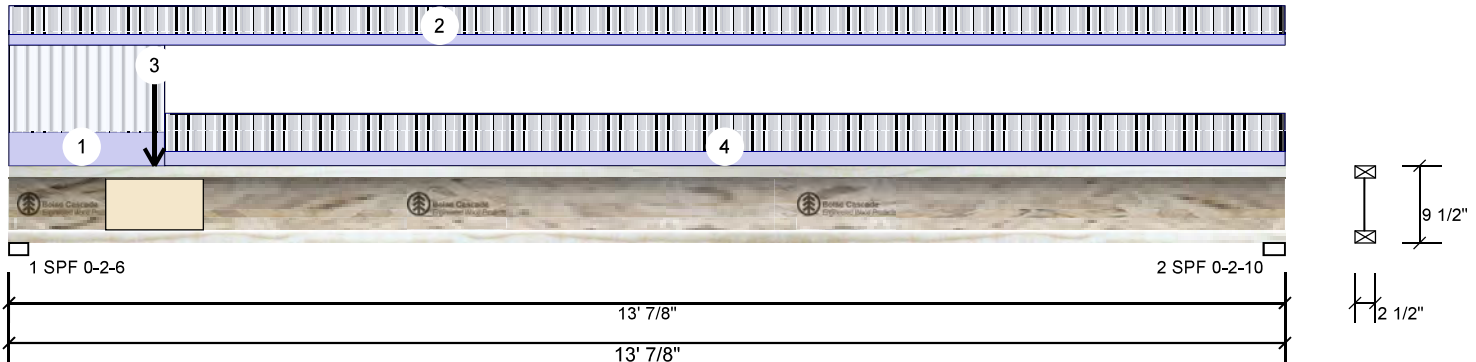


This design is valid until 4/17/2026



**F4 AJS 140 9.500'**

Project #: **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 Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	536	201	0	0
2	Vertical	311	117	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	64%	252 / 804	1056	L	1.25D+1.5L
2 - SPF	2.625"	Vert	36%	146 / 466	612	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2098 ft-lb	5'10 13/16"	4095 ft-lb	0.512 (51%)	1.25D+1.5L	L
Unbraced	2098 ft-lb	5'10 13/16"	4095 ft-lb	0.512 (51%)	1.25D+1.5L	L
Shear	1036 lb	1 5/8"	1830 lb	0.566 (57%)	1.25D+1.5L	L
Perm Defl in.	0.073 (L/2090)	6'3 15/16"	0.426 (L/360)	0.172 (17%)	D	Uniform
LL Defl inch	0.196 (L/784)	6'3 15/16"	0.426 (L/360)	0.459 (46%)	L	L
TL Defl inch	0.269 (L/570)	6'3 15/16"	0.639 (L/240)	0.421 (42%)	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.

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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	1-5-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 13-0-14	0-5-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-14		Far Face	86 lb	229 lb	0 lb	0 lb	F2
4	Tie-In	1-7-2 to 13-0-14	0-7-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	

## 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  $\geq 3.5$  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: RIVER 3-3 STD  
Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #: MHP 23023

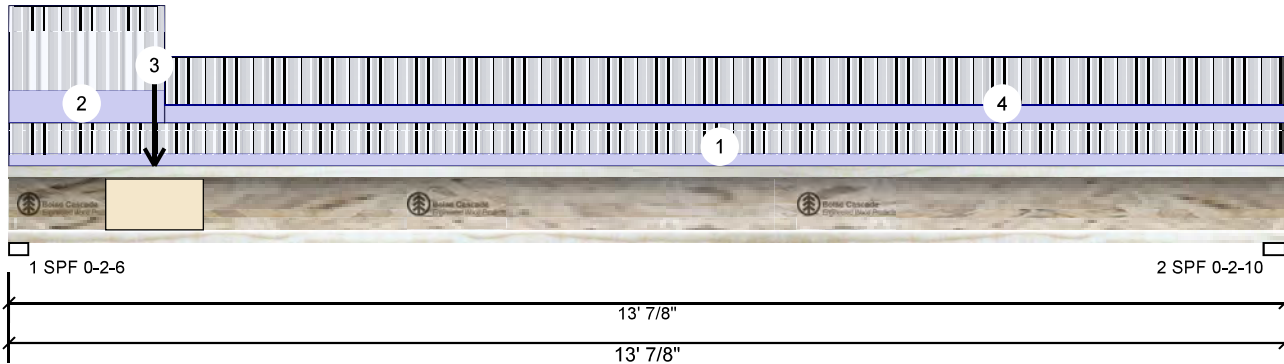
Page 8 of 35

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 CBC 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

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 &amp; 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.

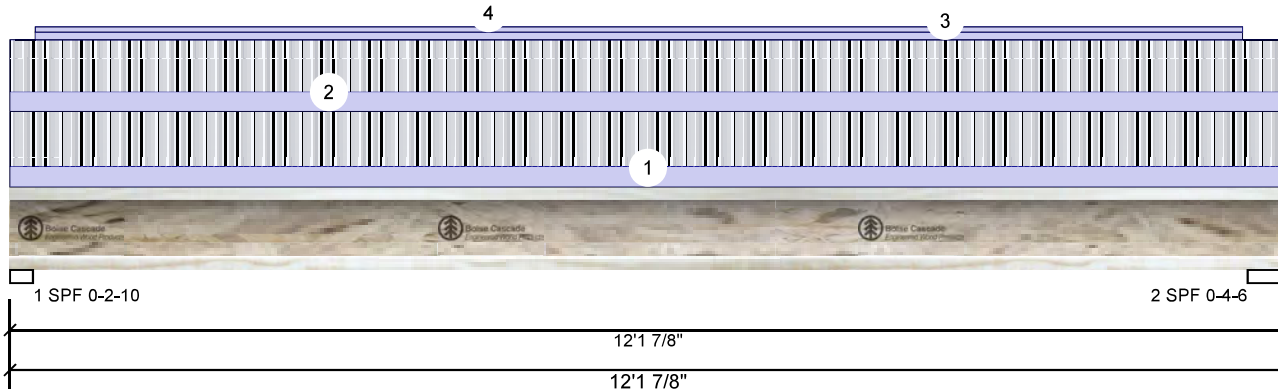
3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400





**F4-B    AJS 140    9.50**

Project #: **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 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

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  $\geq 3.5$  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

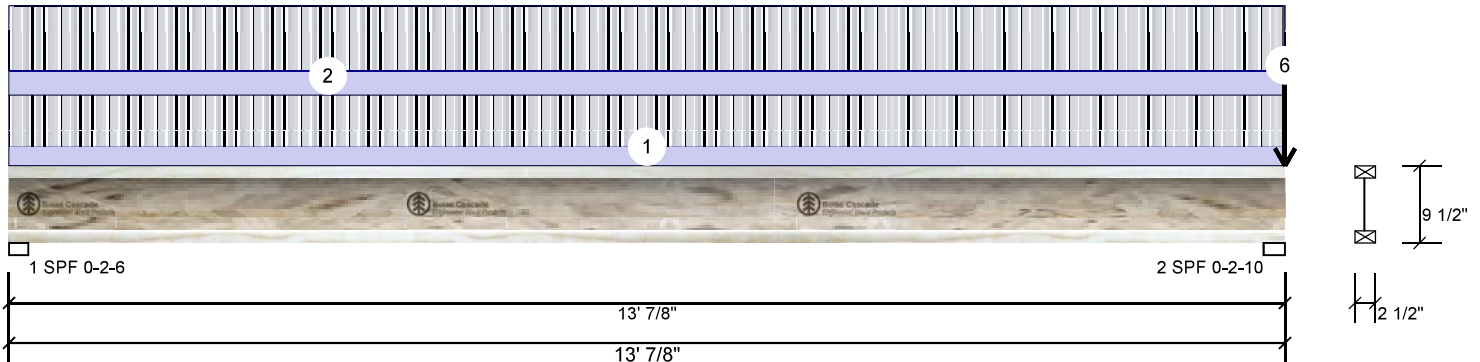


This design is valid until 4/17/2026



**F4-C    AJS 140    9.50**

Project #: **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 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

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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  $\geq 3.5$  inches
7. For flat roofs provide proper drainage to prevent ponding

### Manufacturer Info

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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



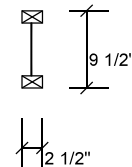
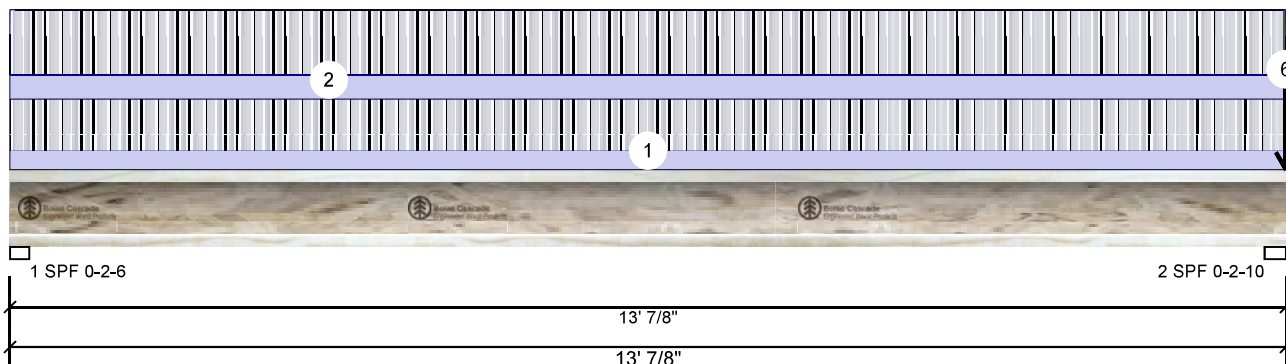


Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 STD  
Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #: MHP 23023

F4-C AJS 140 9.500

PERMIT PLANS  
Dec 04 2023  
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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#### 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

This design is valid until 4/17/2026

#### Manufacturer Info

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(800) 232-0788  
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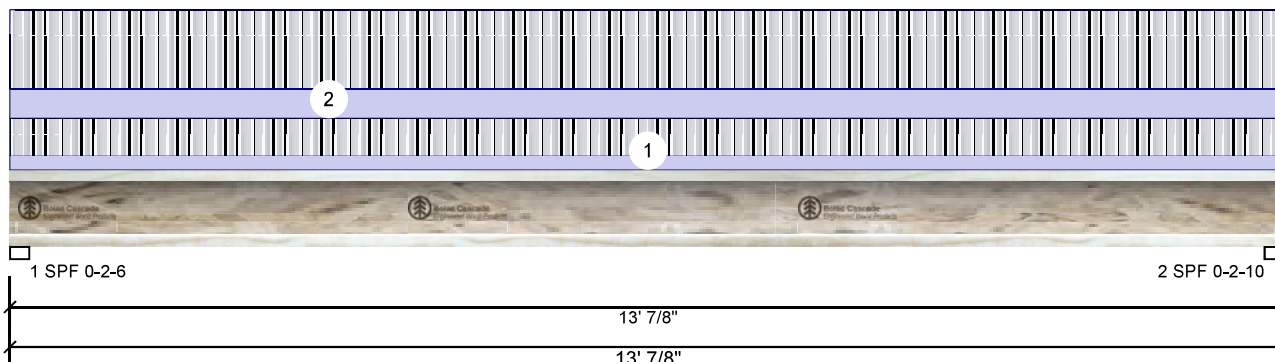




Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: Dec 04 2023

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

Project #: **MHP 23023**



Technical drawing of a vertical member. The member is represented by two vertical lines. At the top and bottom, there are rectangular cross-sections, each divided into four quadrants by a diagonal line. To the right of the member, a dimension line with arrows at both ends indicates a height of  $9\frac{1}{2}$ . Below the member, a dimension line with arrows at both ends indicates a width of  $2\frac{1}{2}$ .

### 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	Load Sharing:	No	<b>Bearings and Factored Reactions</b>					
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	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.

**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	0-4-6	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	

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  $\geq 3.5$  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



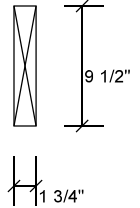
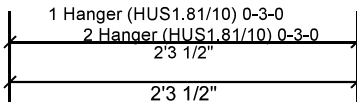
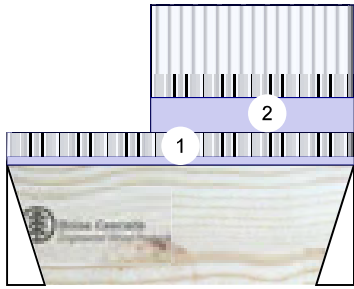
This design is valid until 4/17/2026



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

Page 13 of 35

F5 Versa-Lam LVL 2.1E 3100 SF 1.750' X 9.500" - PASSED



### Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 CBC 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	50	24	0	0
2	Vertical	100	43	0	0

### Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	Vert	2%	30 / 75	105	L	1.25D+1.5L
2 - Hanger	3.000"	Vert	4%	54 / 150	204	L	1.25D+1.5L

### Analysis Results

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. (L/498507)	0.000	1'2 3/8"	0.064 (L/360)	0.001 (0%)	D	Uniform
LL Defl inch (L/219626)	0.000	1'2 7/16"	0.064 (L/360)	0.002 (0%)	L	L
TL Defl inch (L/152460)	0.000	1'2 3/8"	0.096 (L/240)	0.002 (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 Left Header: DF, Thickness: 3 1/2"
- 4 Right Header: DF, Thickness: 1 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.



JUNE 29, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-3-8	0-5-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-11-6 to 2-3-8	1-11-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				5 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. 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

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

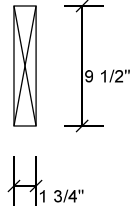
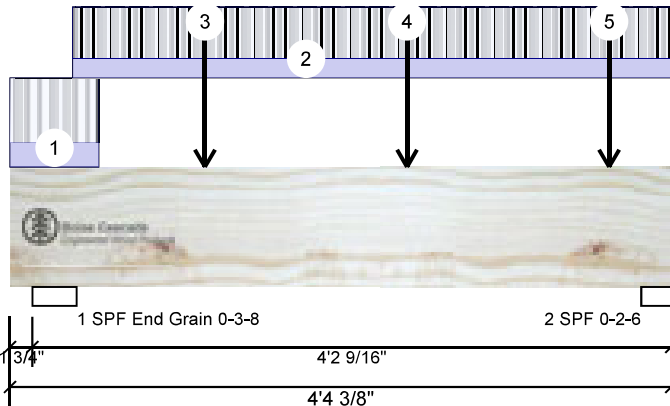




**Client:** GREENPARK  
**Project:** ZADORRA ESTATES  
**Address:** 01-10-2023

Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #: 0300

F6	Versa-Lam LVL 2.1E	3100 SP	1.750" X 9.500" - PASSED	Level: Ground Floor
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## 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	491	195	0	0
2	Vertical	648	253	0	0

## Bearings and Factored Reactions

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 Results

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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USED IN THE DESIGN OF THIS COMPONENT.**

## 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 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...

## 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

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
--



This design is valid until 4/17/2026

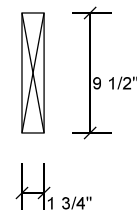
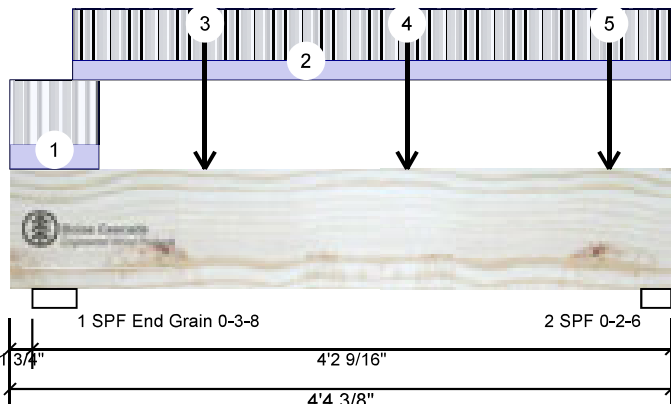


Client: TIGREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 STD  
Dec 04 2023

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

F6 Versa-Lam LVL 2.1E 3100 SP 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

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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

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



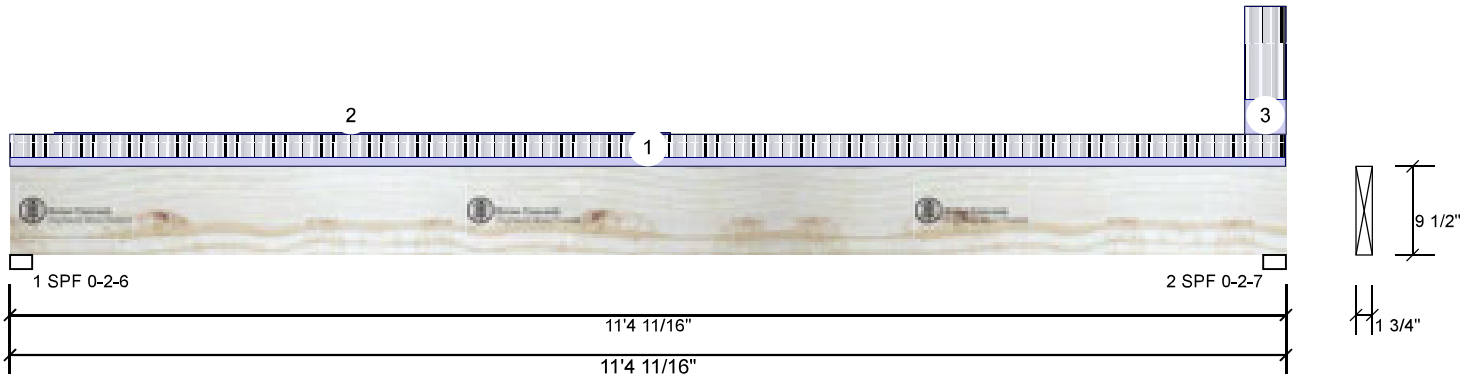


Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: 2100 S. 10th St. #100, Phoenix, AZ 85001

Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #: 0300

Project #: **23023**

F7	Versa-Lam LVL 2.1E	3100 SP	1.750" X 9.500" - PASSED	Level: Ground Floor
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## 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	85	63	0	0
2	Vertical	107	69	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	8%	79 / 128	207	L	1.25D+1.5L
2 - SPF	2.438"	Vert	9%	86 / 161	246	L	1.25D+1.5L

## Analysis Results

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



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 Top must be continuously laterally braced.
- 4 Bottom must be laterally braced at bearings.

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ENGINEERING NOTES: EWP-FLOORS. THE NOTE  
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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 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				

## 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

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

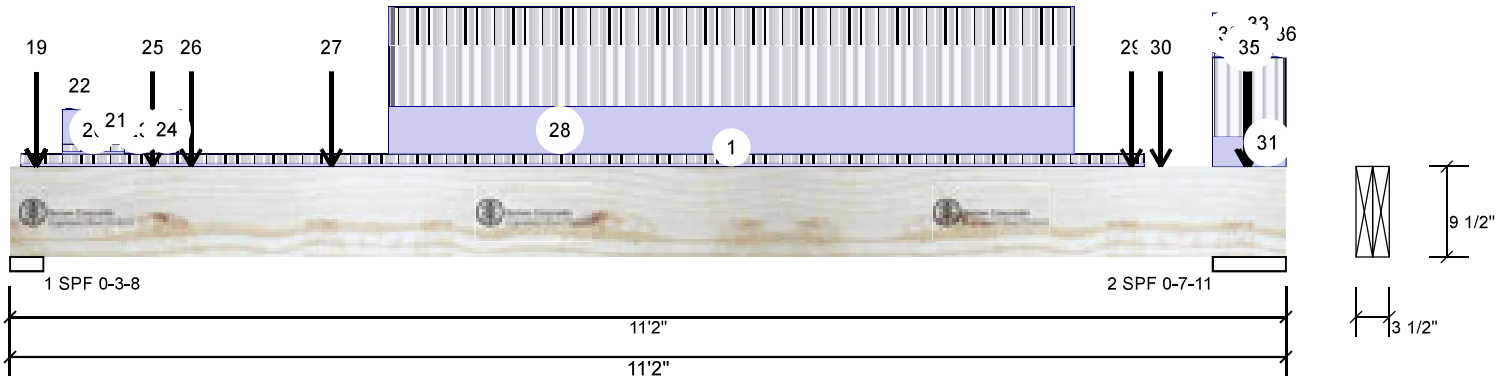




Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: Dec 04 2023

Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #: 0300

F8-B	Versa-Lam LVL 2.1E 3100 SP	1/30" X 9.500"	2-Pl	PASSED	Level: Ground Floor
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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	2512	1362	30	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	73%	1703 / 3798	5501	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

**READ ALL NOTES ON THIS PAGE AND ON THE  
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USED IN THE DESIGN OF THIS COMPONENT.**

## 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



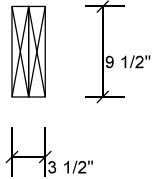
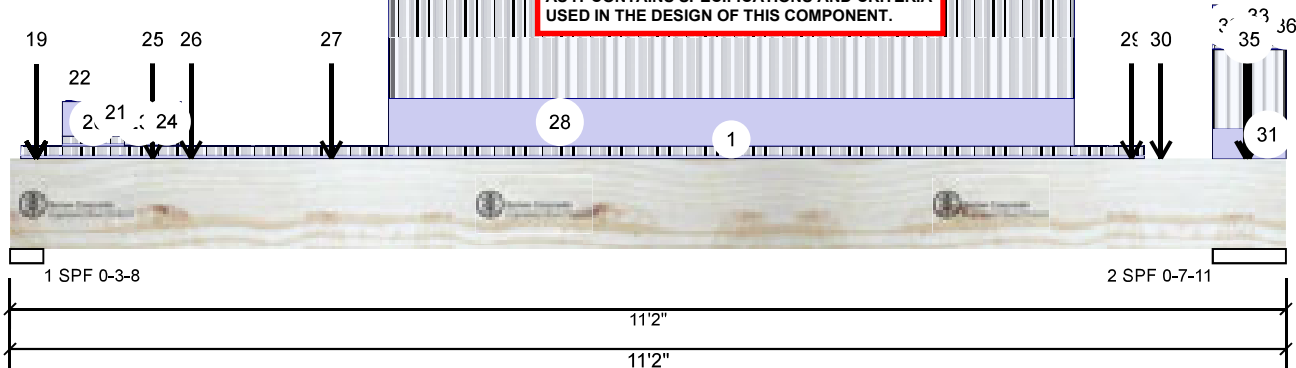
Client: TIGREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 STD  
Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #:  
MHP 23023



JUNE 29, 2023

F8-B Versa-Lam LVL 2.1E 3100 SP 1.750 X 9.500" 2-Ply PASSED LVL 2.1E 3100 SP 1.750 X 9.500"

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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	5 lb	0 lb	14 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	4 lb	0 lb	11 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	2 lb	0 lb	5 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**

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

**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



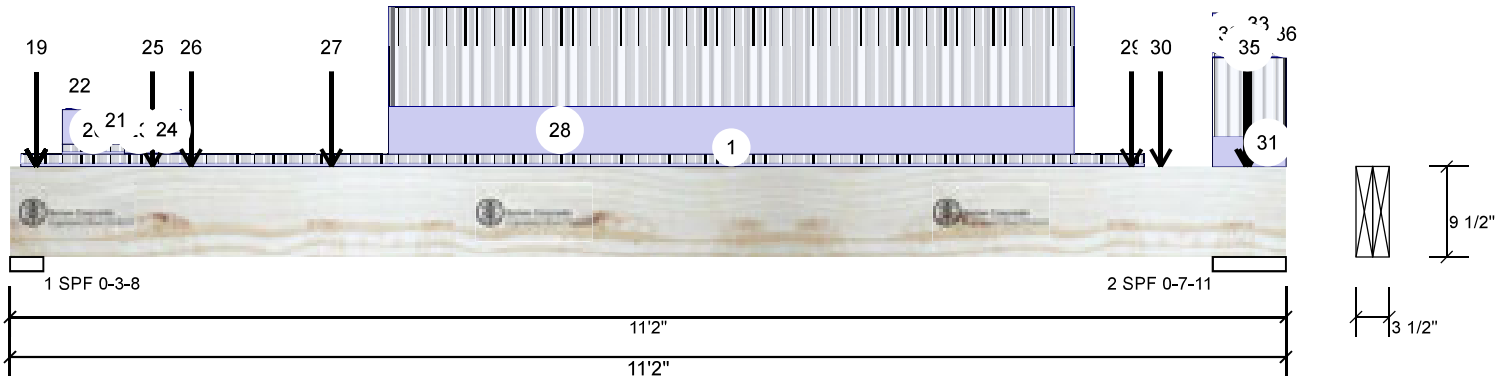
This design is valid until 4/17/2026



Client: TIGREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 STD  
Dec 04 2023  
CHIEF BUILDING OFFICIAL

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

F8-B Versa-Lam LVL 2.1E 3100 SP 1.750 X 9.500" 2-Ply PASSED LVL 2.1E 3100 SP 1.750 X 9.500" 2-Ply PASSED



...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

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

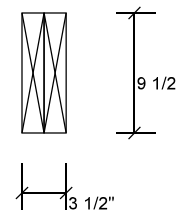
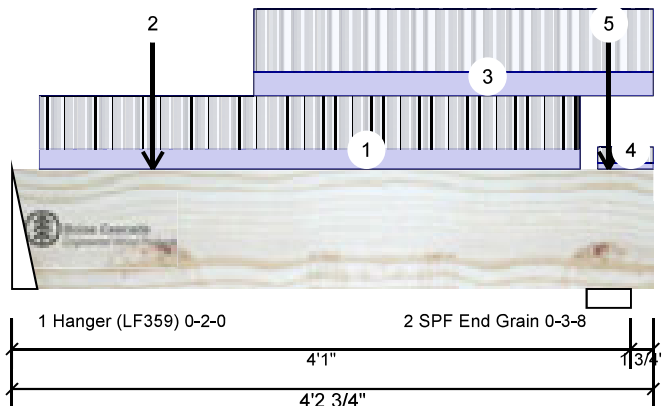
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3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400





F9-B Versa-Lam LVL 2.1E 3100 SP 1,750' x 9.500" 2-PLY **PASSED**



### Unfactored Reactions UNPATTERNED lb (Uplift)

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		

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	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-5 ft-lb	4'1"	15325 ft-lb	0.000 (0%)	1.25D+1.5L	┐L
Pos Moment	1313 ft-lb	2' 7/16"	23220 ft-lb	0.057 (6%)	1.25D+1.5L	L┐
Unbraced	1313 ft-lb	2' 7/16"	23220 ft-lb	0.057 (6%)	1.25D+1.5L	L┐
Shear	1322 lb	11 1/2"	10574 lb	0.125 (13%)	1.25D+1.5L	L┐
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	L┐
TL Defl inch	0.005 (L/9285)	2' 3/16"	0.192 (L/240)	0.026 (3%)	D+L	L┐
LL Cant	-0.000 (2L/8671)	Rt Cant	0.200 (2L/360)	0.002 (0%)	L	L┐
TL Cant	-0.001 (2L/6196)	Rt Cant	0.300 (2L/240)	0.002 (0%)	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 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.

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## 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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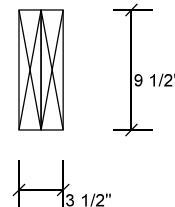
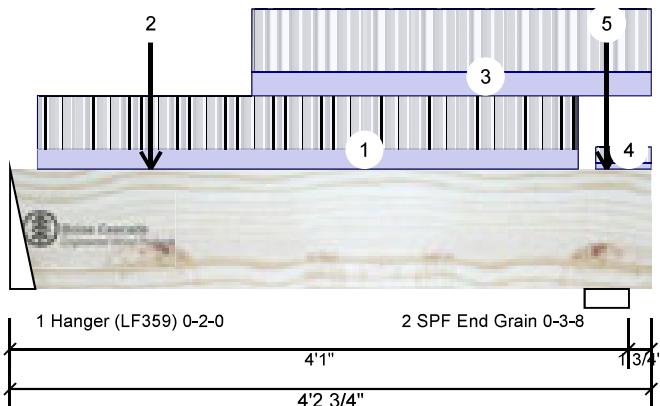
This design is valid until 4/17/2026



Client: TIGREENPARK  
Project: ZADORRA ESTATES  
Address: Dec 04, 2023  
CHIEF BUILDING OFFICIAL

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

F9-B Versa-Lam LVL 2.1E 3100 SP 1.750 X 9.500" 2-Ply PASSED MHP 23023



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				



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

This design is valid until 4/17/2026

#### Manufacturer Info

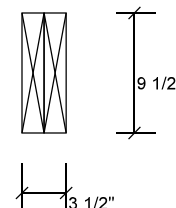
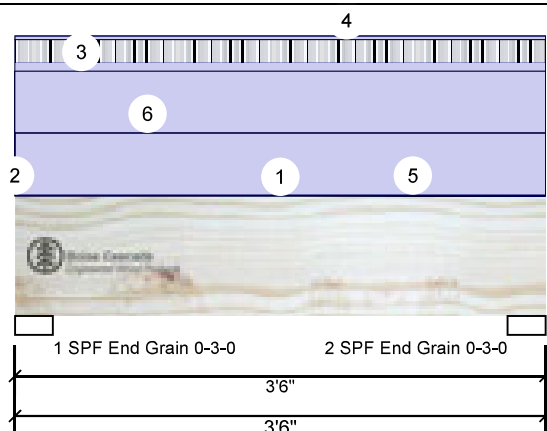
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CCMC: 12472

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





FH5	Versa-Lam LVL 2.1E 3100 SP	1.750" X 9.500"	2-Ply	Level: Ground 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	33	214	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015	2	Vertical	33	213	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						

## 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	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	
2	Part. Uniform	0-0-0 to 0-0-0		Near Face	102 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tapered Start	0-0-0		Near Face	7 PLF	19 PLF	0 PLF	0 PLF	

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

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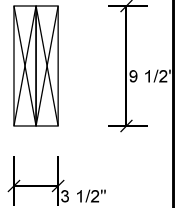
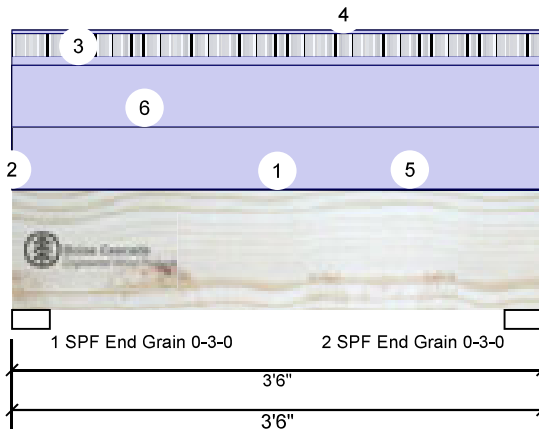






Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 STD  
Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #:  
MHP 23023

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
	End	3-6-0			7 PLF	19 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-0 to 3-6-0		Near Face	3 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
5	Part. Uniform	0-0-0 to 3-6-0		Top	51 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Part. Uniform	0-0-0 to 3-6-0		Near Face	51 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight				9 PLF				



JUNE 29, 2023

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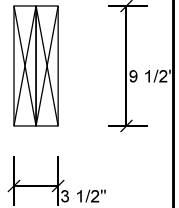
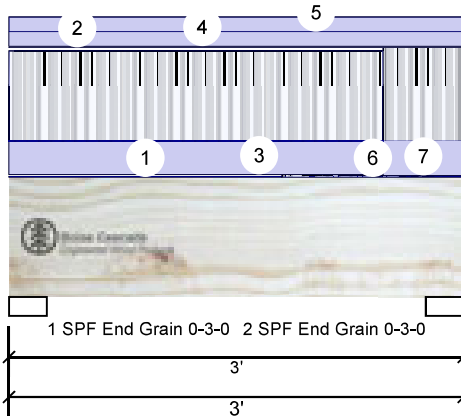
#### Kott Inc.

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





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	380	285	0	0
2	Vertical	386	287	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	8%	356 / 570	926	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	9%	359 / 580	939	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	533 ft-lb	1'6 1/16"	23220 ft-lb	0.023 (2%)	1.25D+1.5L	L
Unbraced	533 ft-lb	1'6 1/16"	23220 ft-lb	0.023 (2%)	1.25D+1.5L	L
Shear	742 lb	1' 1/2"	10574 lb	0.070 (7%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/71456)	1'6"	0.088 (L/360)	0.005 (1%)	D	Uniform
LL Defl inch	0.001 (L/53425)	1'6"	0.088 (L/360)	0.007 (1%)	L	L
TL Defl inch	0.001 (L/30569)	1'6"	0.131 (L/240)	0.008 (1%)	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' o.c.
- 6 Bottom must be laterally braced at a maximum of 3' o.c.
- 7 Lateral slenderness ratio based on full section width.

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USED IN THE DESIGN OF THIS COMPONENT.**

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tapered Start	0-0-0		Near Face	0 PLF	1 PLF	0 PLF	0 PLF	
	End	1-9-10			0 PLF	1 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	3 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
3	Part. Uniform	0-0-0 to 2-5-10		Near Face	95 PLF	252 PLF	0 PLF	0 PLF	J3

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. 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  
613-232-3775 • 1-877-312-1122



This design is valid until 4/17/2026

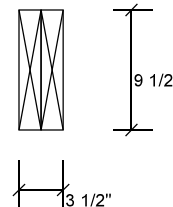
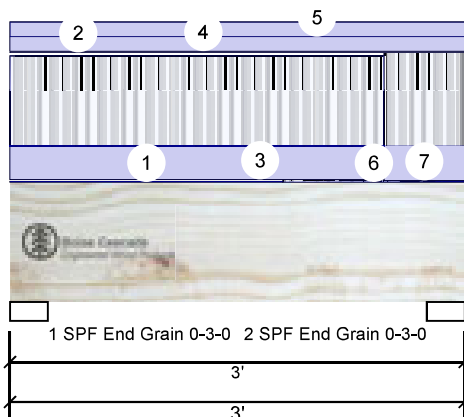


Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 DC  
Dec 04, 2023

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

Page 2 of 2

FH5 Versa-Lam LVL 2.1E 3100 SF 1.750' x 9.500" 2-Ply **MHP 23023**



...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	1-9-10		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
	End	3-0-0			1 PLF	1 PLF	0 PLF	0 PLF	
7	Part. Uniform	2-5-10 to 3-0-0		Near Face	98 PLF	262 PLF	0 PLF	0 PLF	J3
	Self Weight				9 PLF				



JUNE 29, 2023

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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**

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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**

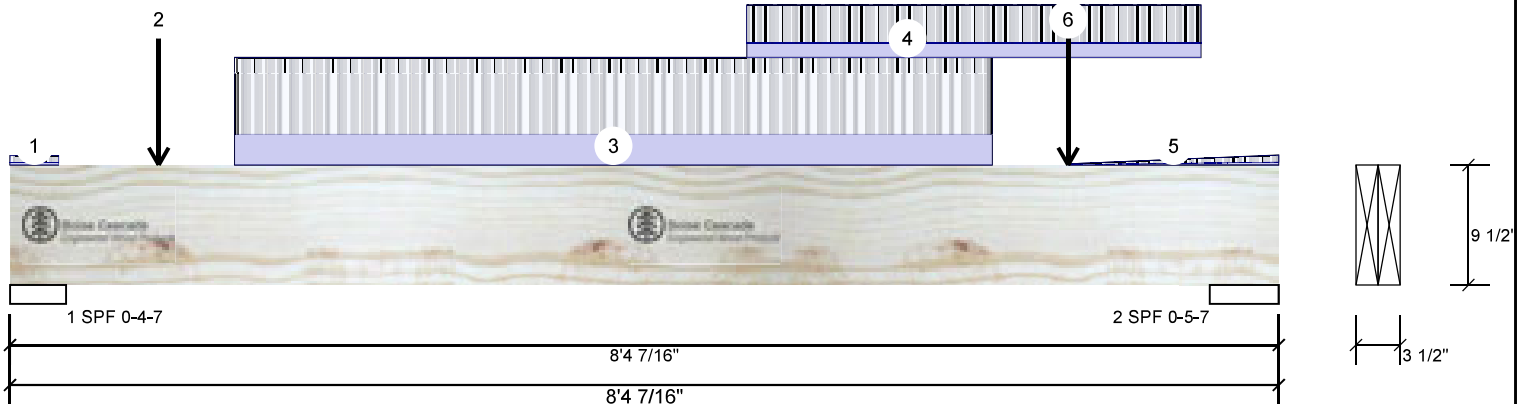
Boise Cascade Wood Products  
1111 W. Jefferson St.  
Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

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





F10	Versa-Lam LVL 2.1E 3' 00" SP	1.750" x 9.500"	2-Ply	1-PASSED	Level: Second Floor
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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	927	411	0	0
2	Vertical	1121	484	0	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.438"	Vert	20%	513 / 1391	1904	L	1.25D+1.5L
2 - SPF	5.464"	Vert	19%	605 / 1682	2287	L	1.25D+1.5L

## Analysis Results

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

## 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 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	

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

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

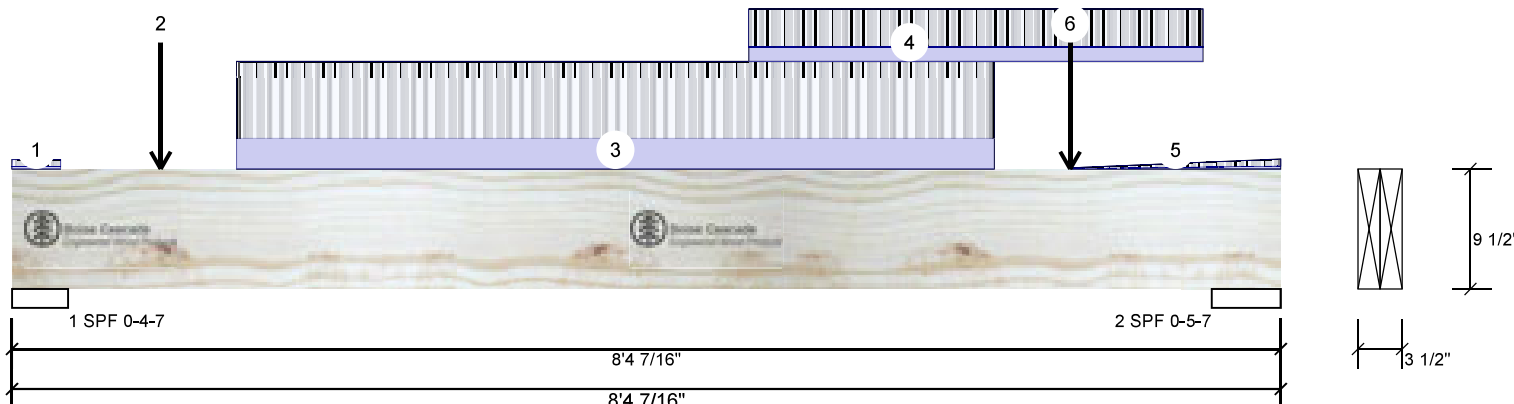
Kott Inc. 3228 Moodie Dr, Ottawa, Ontario
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Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 STD  
Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #: MHP 23023  
MHP 23023  
CHIEF BUILDING OFFICIAL

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				



JUNE 29, 2023

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#### Lumber

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

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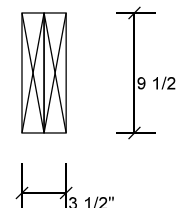
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Boise, ID 83702  
(800) 232-0788  
www.bc.com  
CCMC: 12472

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





Level: Second Floor



### Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	258	363	326	0
2	Vertical	0	52	18	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L	lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.750"	Vert	10%	453 / 747	1200	L		1.25D+1.55L
2 - Hanger	2.000"	Vert	1%	73 / 0	73	Uniform		1.4D

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	12 ft-lb	10 1/16"	15093 ft-lb	0.001 (0%)	1.4D	Uniform
Unbraced	12 ft-lb	10 1/16"	15093 ft-lb	0.001 (0%)	1.4D	Uniform
Shear	48 lb	1'3 1/4"	6873 lb	0.007 (1%)	1.4D	Uniform
Perm Defl in.	0.000 (L/2014580)	10 1/16"	0.028 (L/360)	0.000 (0%)	D	Uniform
LL Defl inch	0.000 (L/5625422)	10"	0.028 (L/360)	0.000 (0%)	S+0.5L	L
TL Defl inch	0.000 (L/1483385)	10 1/16"	0.042 (L/240)	0.000 (0%)	D+S+0.5L	L



JUNE 29, 2023

## Design Notes

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

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## 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





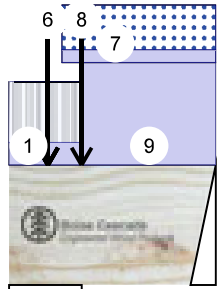
Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 STD  
Dec 04 - 2023

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

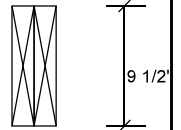
F16 Versa-Lam LVL 2.1E 3' 00" SP 1.750" X 9.500"

2-Ply

MHP 23023



1 SPF 0-5-12  
2 Hanger (LF359) 0-2-0  
1'4 3/8"  
1'4 3/8"



9 1/2"  
3 1/2"

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-12	1-2-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-3-1		Top	135 lb	24 lb	243 lb	0 lb	F18
	Bearing Length	0-5-8							
3	Point	0-3-1		Top	25 lb	0 lb	66 lb	0 lb	
	Bearing Length	0-5-8							
4	Point	0-3-1		Top	43 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
5	Point	0-3-1		Top	9 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
6	Point	0-3-1		Top	8 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
7	Part. Uniform	0-4-3 to 1-4-6		Top	10 PLF	0 PLF	35 PLF	0 PLF	
8	Point	0-5-12		Near Face	93 lb	211 lb	0 lb	0 lb	J1
9	Part. Uniform	0-5-13 to 1-4-6		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight				9 PLF				



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

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

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3228 Moodie Dr, Ottawa, Ontario  
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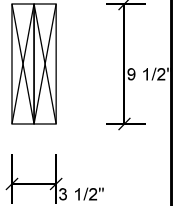
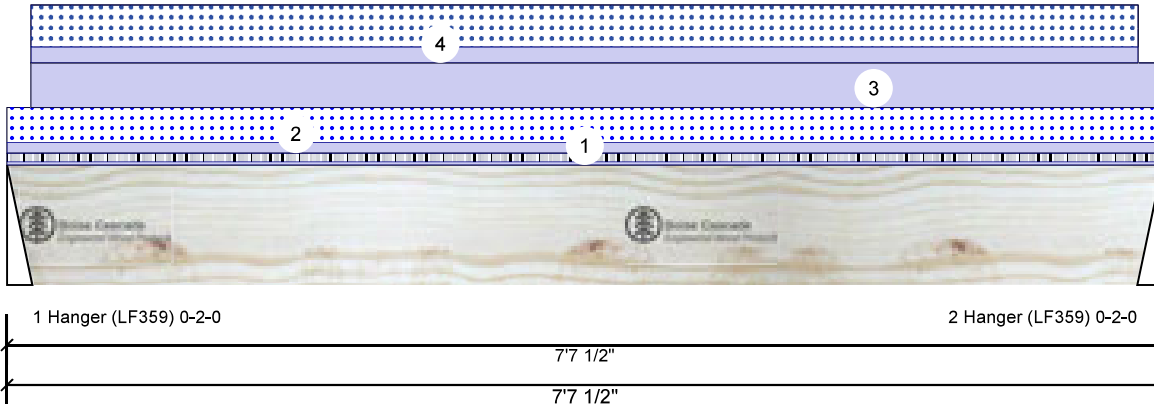


Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: Dec 04 2023

Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #: 0200

Project #

F17	Versa-Lam LVL 2.1E 3' 00" SP	1.75" x 9.50"	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	59	529	514	0
2	Vertical	59	541	514	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	20%	661 / 830	1492	L	1.25D+1.5S +L
2 - Hanger	2.000"	Vert	20%	677 / 830	1507	L	1.25D+1.5S +L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2760 ft-lb	3'9 3/4"	23220 ft-lb	0.119 (12%)	1.25D+1.5S +L	L
Unbraced	2760 ft-lb	3'9 3/4"	23220 ft-lb	0.119 (12%)	1.25D+1.5S +L	L
Shear	1155 lb	11 1/2"	10574 lb	0.109 (11%)	1.25D+1.5S +L	L
Perm Defl in.	0.019 (L/4711)	3'9 3/4"	0.247 (L/360)	0.076 (8%)	D	Uniform
LL Defl inch	0.019 (L/4632)	3'9 3/4"	0.247 (L/360)	0.078 (8%)	S+0.5L	L
TL Defl inch	0.038 (L/2336)	3'9 3/4"	0.371 (L/240)	0.103 (10%)	D+S+0.5L	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 Right Header: DF, Thickness: 3 1/2"
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Multiple plies must be fastened together as per manufacturer's details.
- 7 Top loads must be supported equally by all plies.
- 8 Top must be continuously laterally braced.
- 9 Bottom must be laterally braced at bearings.
- 10 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

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

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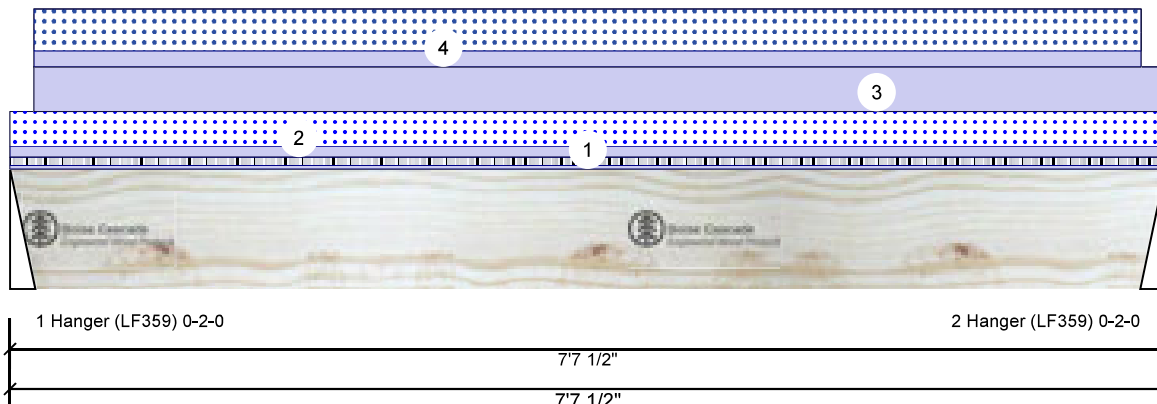
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Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 STD  
Dec 04 2023

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

F17 Versa-Lam LVL 2.1E 3' 00" SP 1.750" X 9.500" 2-Ply **MHP 23023**



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 7-7-8	0-4-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 7-7-8		Top	19 PLF	0 PLF	63 PLF	0 PLF	
3	Part. Uniform	0-1-14 to 7-7-8		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-1-14 to 7-5-9		Top	29 PLF	0 PLF	75 PLF	0 PLF	
5	Part. Uniform	7-7-8 to 7-7-8		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight				9 PLF				



JUNE 29, 2023

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chemicals

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

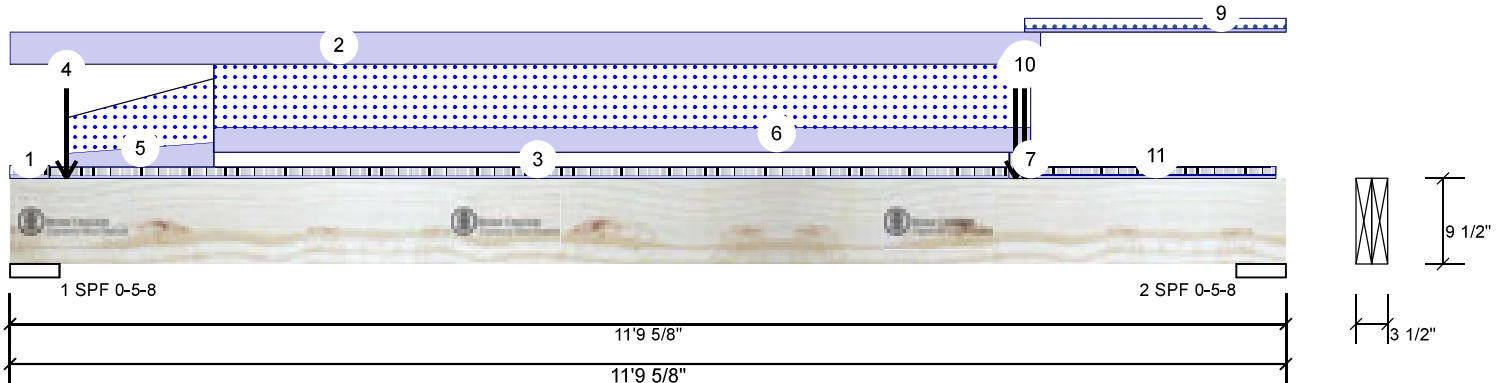




CORPORATION OF THE CITY OF KITCHENER  
 Client: GREENPARK  
 Project: ZADORRA ESTATES  
 Address: Dec 04 - 2023

Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #: 120200

F8 Versa-Lam LVL 2.1E 3100 SP 1.750' x 9.500' 2-Ply - PASS



## 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	124	956	938	0
2	Vertical	127	702	659	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	Vert	23%	1195 / 1531	2726	L	1.25D+1.5S +L
2 - SPF	5.500"	Vert	17%	877 / 1115	1992	L	1.25D+1.5S +L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6669 ft-lb	5'9 3/4"	23220 ft-lb	0.287 (29%)	1.25D+1.5S +L	L
Unbraced	6669 ft-lb	5'9 3/4"	23220 ft-lb	0.287 (29%)	1.25D+1.5S +L	L
Shear	2095 lb	1'3"	10574 lb	0.198 (20%)	1.25D+1.5S +L	L
Perm Defl in.	0.098 (L/1355)	5'10 1/2"	0.367 (L/360)	0.266 (27%)	D	Uniform
LL Defl inch	0.101 (L/1303)	5'10 3/8"	0.367 (L/360)	0.276 (28%)	S+0.5L	L
TL Defl inch	0.199 (L/664)	5'10 7/16"	0.550 (L/240)	0.361 (36%)	D+S+0.5L	L

## Design Notes

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



JUNE 29, 2023

**READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTES: EWP-FLOORS. THE NOTE  
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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

### 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  
613-232-3777 • 1-877-312-1122



This design is valid until 4/17/2026

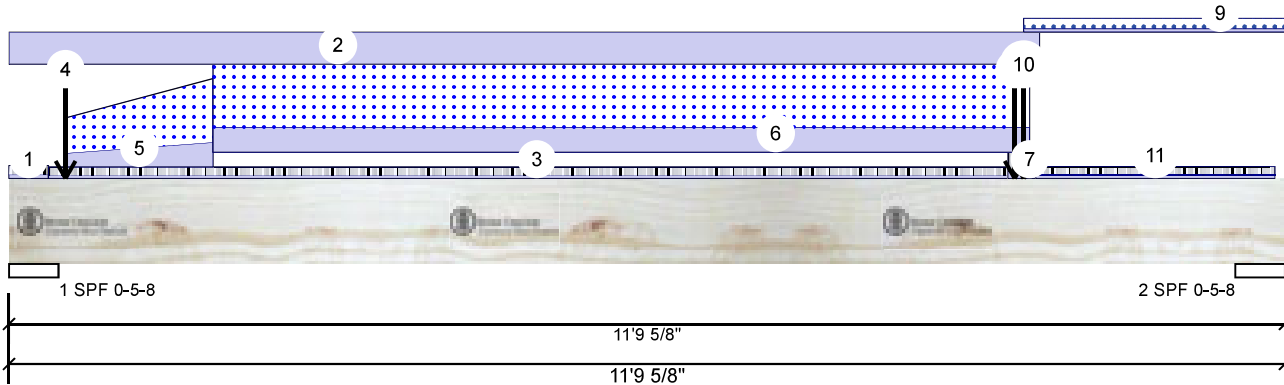


Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 STD  
Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #:  
Dec 04 2023

F8 Versa-Lam LVL 2.1E 3100 SP 1.750' x 9.500'

2-Ply - PASS

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-6	0-6-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 9-6-6		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tie-In	0-4-6 to 9-2-14	0-6-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	0-6-4		Top	83 lb	0 lb	154 lb	0 lb	F11
	Bearing Length	0-5-8							
5	Tapered Start	0-6-4		Top	34 PLF	0 PLF	88 PLF	0 PLF	
	End	1-10-10			61 PLF	0 PLF	159 PLF	0 PLF	
6	Part. Uniform	1-10-10 to 9-5-4		Top	61 PLF	0 PLF	158 PLF	0 PLF	
7	Tie-In	9-2-14 to 9-5-15	1-2-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
8	Point	9-3-10		Top	10 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
9	Part. Uniform	9-4-10 to 11-9-10		Top	8 PLF	0 PLF	26 PLF	0 PLF	
10	Point	9-4-10		Far Face	52 lb	0 lb	18 lb	0 lb	F16
11	Tie-In	9-5-15 to 11-8-8	0-6-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				9 PLF				



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

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



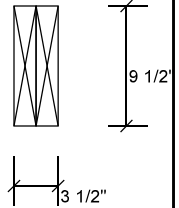
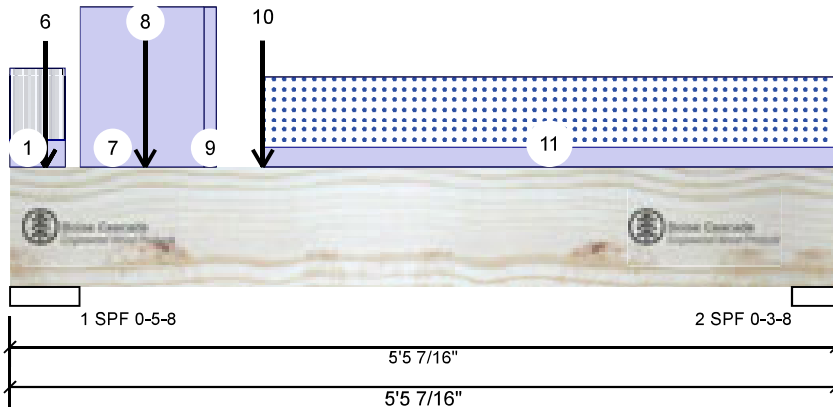


**Client:** GREENPARK  
**Project:** ZADORRA ESTATES  
**Address:** 01-10-2023

Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #: 190000

**F9 Versa-Lam LVL 2.1E 3100 SP 1.750 x 9.500**

Project #: **MHP 23023**



## 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	322	788	634	0
2	Vertical	32	206	222	0

## Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	Vert	19%	985 / 1273	2258	L	1.25D+1.5S +L
2 - SPF	3.500"	Vert	8%	258 / 365	623	L	1.25D+1.5S +L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1667 ft-lb	1'8"	23220 ft-lb	0.072 (7%)	1.25D+1.5S +L	L
Unbraced	1667 ft-lb	1'8"	23220 ft-lb	0.072 (7%)	1.25D+1.5S +L	L
Shear	1435 lb	1'3"	10574 lb	0.136 (14%)	1.25D+1.5S +L	L
Perm Defl in.	0.004 (L/14767)	2'6 3/8"	0.161 (L/360)	0.024 (2%)	D	Uniform
LL Defl inch	0.004 (L/14206)	2'6 3/4"	0.161 (L/360)	0.025 (3%)	S+0.5L	L
TL Defl inch	0.008 (L/7241)	2'6 9/16"	0.241 (L/240)	0.033 (3%)	D+S+0.5L	L

## Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 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.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Multiple plies must be fastened together as per manufacturer's details.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be laterally braced at a maximum of 3'9 3/8" o.c.
- 7 Bottom must be laterally braced at a maximum of 3'9 3/8" o.c.
- 8 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





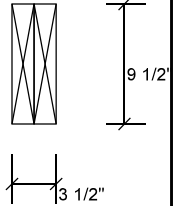
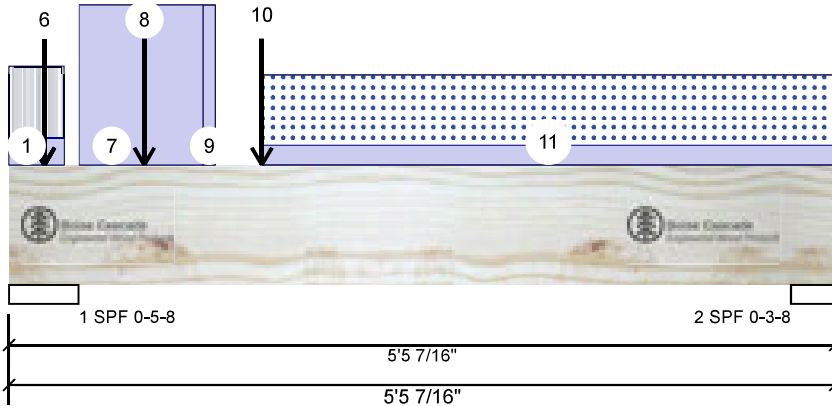
Client: GREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 STD  
Date: 6/28/2023  
Input by: W C  
Job Name: RIVER 3-3 STD  
Project #: MHP 23023

Page 33 of 35

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

2-Ply - PASS

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-6	0-10-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-2-13		Top	6 lb	0 lb	16 lb	0 lb	
	Bearing Length	0-5-8							
3	Point	0-2-13		Top	30 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
4	Point	0-2-13		Top	12 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
5	Point	0-2-13		Top	154 lb	121 lb	194 lb	0 lb	F15
	Bearing Length	0-5-8							
6	Point	0-2-13		Top	25 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
7	Part. Uniform	0-5-9 to 1-3-6		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Point	0-10-11		Near Face	60 lb	161 lb	0 lb	0 lb	J4
9	Part. Uniform	1-3-6 to 1-4-5		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
10	Point	1-8-0		Near Face	541 lb	59 lb	514 lb	0 lb	F17
11	Part. Uniform	1-8-0 to 5-5-7		Top	10 PLF	0 PLF	35 PLF	0 PLF	
	Self Weight				9 PLF				



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

## Handling &amp; 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  
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www.bc.com  
CCMC: 12472

Kott Inc.

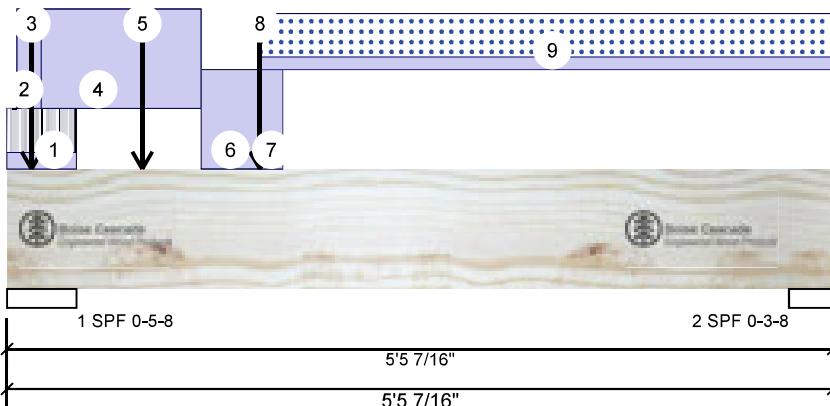
3228 Moodie Dr, Ottawa, Ontario  
613-838-2775 / 905-642-4400





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

F9-A Versa-Lam LVL 2.1E 3 100 SP 1.750 X 9.500" 2-Ply PASSED



### 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	235	651	469	0
2	Vertical	32	212	222	0

### Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	Vert	15%	813 / 939	1752	L	1.25D+1.5S +L
2 - SPF	3.500"	Vert	8%	265 / 365	631	L	1.25D+1.5S +L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1692 ft-lb	1'8"	22987 ft-lb	0.074 (7%)	1.25D+1.5S +L	L
Unbraced	1692 ft-lb	1'8"	22987 ft-lb	0.074 (7%)	1.25D+1.5S +L	L
Shear	1458 lb	1'3"	10468 lb	0.139 (14%)	1.25D+1.5S +L	L
Perm Defl in.	0.004 (L/14279)	2'6 5/16"	0.161 (L/360)	0.025 (3%)	D	Uniform
LL Defl inch	0.004 (L/14206)	2'6 3/4"	0.161 (L/360)	0.025 (3%)	S+0.5L	L
TL Defl inch	0.008 (L/7121)	2'6 9/16"	0.241 (L/240)	0.034 (3%)	D+S+0.5L	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 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 3'9 3/8" o.c.
- 6 Bottom must be laterally braced at a maximum of 3'9 3/8" o.c.
- 7 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

This design is valid until 4/17/2026

### Manufacturer Info

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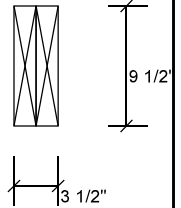
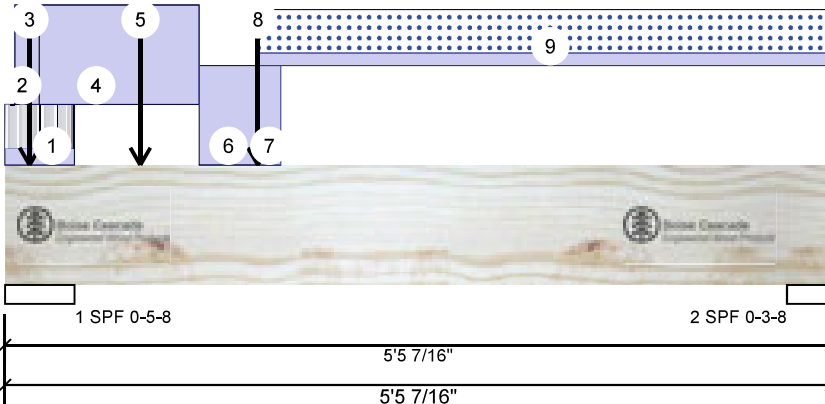




Client: TIGREENPARK  
Project: ZADORRA ESTATES  
Address: RIVER 3-3 STD  
Dec 04, 2023

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

F9-A Versa-Lam LVL 2.1E 3100 SP 1.750 X 9.500" 2-Ply PASSED MHP 23023



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-8	0-10-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-13 to 0-2-11		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Point	0-1-15		Top	38 lb	31 lb	45 lb	0 lb	F15
	Bearing Length	0-5-8							
4	Part. Uniform	0-2-11 to 1-3-6		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
5	Point	0-10-11		Far Face	60 lb	161 lb	0 lb	0 lb	J4
6	Part. Uniform	1-3-6 to 1-8-0		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
7	Part. Uniform	1-8-0 to 1-9-13		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Point	1-8-0		Far Face	529 lb	59 lb	514 lb	0 lb	F17
9	Part. Uniform	1-8-0 to 5-5-7		Top	10 PLF	0 PLF	35 PLF	0 PLF	
	Self Weight				9 PLF				



JUNE 29, 2023

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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

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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
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5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

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