Date:



Client: **GREENPARK** Project:

ZADORRA ESTATES Address:

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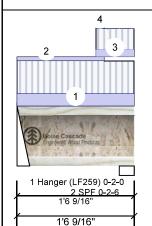
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7/3/2023

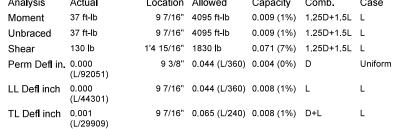
**F1 AJS 140**  9.500" - PASSED

lov 22 2023

Level: Ground Floor



Member Inform	nation				Unf	actore	d React	ions UNP	ATTERNED II	(Upli	ift)	
Туре:	Girder		Application:	Floor (Residential)	Brg	Directi	on	Live	Dead		Snow	Wind
Plies:	1		Design Method:	LSD	1	Vertical	ļ	59	29		0	0
Moisture Condition:	Dry		Building Code:	NBCC 2015	2	Vertical		80	34		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				Bea	rings a	nd Fact	tored Read	tions			
Dead:	15 PSF				Bea	aring Le	ength D	Dir. Cap.	React D/L <b>I</b> b	Total	Ld. Case	Ld. Comb.
					1 -	2.	000" V	/ert 8%	36 / 88	124	L	1.25D+1.5L
					_ Hai	nger						
Analysis Result	S				2 -	SPF 2.	375" V	/ert 10%	43 / 120	163	L	1.25D+1.5L
Analysis Act	ual	Location A	lowed Capac	ity Comb. Case							·	





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.

### **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 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.

<b>I</b> D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-9	1-10-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 1-1-13		Тор	9 PLF	0 PLF	0 PLF	0 PLF	
3	Tie-In	1-0-8 to 1-6-9	1-1-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part. Uniform	1-0-8 to 1-1-13		Тор	6 PLF	0 PLF	0 PLF	0 PLF	

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

# Handling & Installation

- Handling & Installation

  1. Noist flanges must not be cut or drilled

  2. Refer to latest copy of the Lioist product information details for framing details, stifferer tables, web hole chart, bridging details, multi-qly fastening details and handling/erection details

  3. Damaged Lioists must not be used

  4. 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

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.





Address:

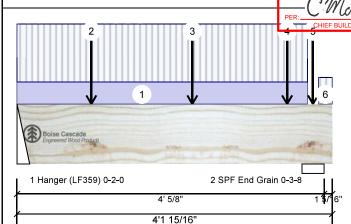
ZADORRA ESTATES ZADO RRARESTATIES THE CITY OF OSHAWA Date: 7/3/2023 W C Input by:

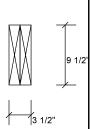
Project :

Versa-Lam LVL 2.1E 3100 SP

OSHAWA,ON TRUE COPY 1.750" X 9.500" 2-Plv - PASSED

Level: Ground Floor





### Member Information

Туре:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015
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 DSF		

# **Unfactored Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	686	278	0	0
2	Vertical	864	352	0	0

### Analysis Results

Ana <b>l</b> ysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	1433 ft-lb	2'3 3/4"	23220 ft-lb	0.062 (6%)	1.25D+1.5L	L_
Unbraced	1433 ft-lb	2'3 3/4"	23220 ft-lb	0.062 (6%)	1.25D+1.5L	L_
Shear	1345 lb	2'11 5/8"	10574 <b>l</b> b	0.127 (13%)	1.25D+1.5L	LL
Perm Defl in.	0.001 (L/30679)	2' 5/16"	0.127 (L/360)	0.012 (1%)	D	Uniform
LL Defl inch	0.004 (L/12293)	2' 5/16"	0.127 (L/360)	0.029 (3%)	L	L_
TL Defl inch	0.005 (L/8776)	2' 5/16"	0.190 (L/240)	0.027 (3%)	D+L	L_
LL Cant	-0.000 (2L/8113)	Rt Cant	0.200 (2L/360)	0.002 (0%)	L	L_
TL Cant	-0.000 (21/5794)	Rt Cant	0.300	0.001 (0%)	D+L	L_

# **Bearings and Factored Reactions**

Bearing	Length	Dir.	Cap. R	eact D/L <b>I</b> b	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	18%	347 / 1029	1376	L_	1.25D+1.5L
2 - SPF End Grain	3.500"	Vert	14%	440 / 1296	1736	LL	1.25D+1.5L



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### 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: 5 1/4"
- 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.

### Notes

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

### Handling & Installation

1. UVL 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

Design assumes top edge is laterally restrained
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





Page 3 of 29



Client: **GREENPARK** Project:

Address:

ZADORRA ESTATES

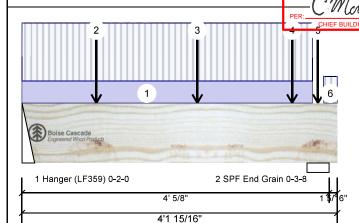
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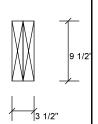
Job Name Project is:

Versa-Lam LVL 2.1E 3100 SP

ZADORRAPESTATESTHE CITY OF OSHAWA OSHAWA, ON TRUE COPY 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-10-0		Тор	57 PLF	150 PLF	0 PLF	0 PLF	
2	Point	0-11-12		Near Face	112 <b>l</b> b	299 lb	0 lb	0 <b>l</b> b	J2
3	Point	2-3-12		Near Face	114 <b>l</b> b	305 lb	0 lb	0 <b>l</b> b	J2
4	Point	3-6-12		Near Face	116 lb	309 lb	0 lb	0 <b>l</b> b	J2
5	Point	3-10-14		Far Face	26 lb	53 lb	0 lb	0 <b>l</b> b	F5
6	Tie-In	3-11-12 to 4-1-15	1-3-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				9 PLF				



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

# Handling & Installation

Handling & Installation

1. UVI beams must not be cut or drilled

2. Refer to manufacturer's product 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

Boise Cascade Wood Products 1111 W. Jefferson St. Boise, ID 83702 (800) 232-0788

www.bc.com CCMC: 12472

Manufacturer Info

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





Page 4 of 29



Client: **GREENPARK** 

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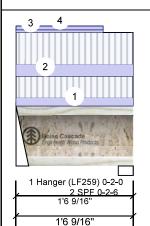
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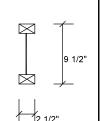
**AJS 140** 

9.500" - PASSED

Nov 22 2023

Level: Ground Floor





### Unfactored Reactions UNPATTERNED Ib (Uplift) Member Information Туре Application: Floor (Residential)

Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015
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		

	omactored redections of the Art Partition is (opinity)											
	Brg	Direction	Live	Dead	Snow	Wind						
	1	Vertical	95	46	0	0						
e)	2	Vertical	99	43	0	0						

### **Bearings and Factored Reactions** Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 2.000" Vert 13% 58 / 142 200 L 1.25D+1.5L Hanger 2 - SPF 2.375" Vert 12% 54 / 148 202 L 1.25D+1.5L

### Analysis Actual Location Allowed Capacity Comb. Case 1.25D+1.5L L Moment 56 ft-lb 9 1/16" 4095 ft-lb 0.014 (1%) Unbraced 56 ft-lb 9 1/16" 4095 ft-lb 0.014 (1%) 1.25D+1.5L L 0.094 (9%) 1.25D+1.5L L 173 lb 1 1/4" 1830 lb Shear Perm Defl in 0.000 9" 0.044 (L/360) 0.006 (1%) D Uniform (L/60070) 0.001 9 1/8" 0.044 (L/360) 0.012 (1%) L LL Defl inch (L/29152) TL Defl inch 0.001 9 1/16" 0.065 (L/240) 0.012 (1%) D+L (L/19627)



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# **Design Notes**

Dead:

Analysis Results

- 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"

15 PSF

- 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.

<b>I</b> D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-9	1-3-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-6-9	1-10-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-0 to 1-1-13		Тор	6 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-0 to 1-1-13		Тор	9 PLF	0 PLF	0 PLF	0 PLF	

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

# Handling & Installation

- Handling & Installation

  1. Noist flanges must not be out or drilled

  2. Refer to latest copy of the IJoist product information
  details for framing details, stiffener tables, web hole
  chart, bridging details, multi-rily 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.

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

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.







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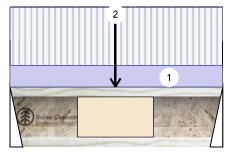
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F2 **AJS 140**  9.500" - PASSED

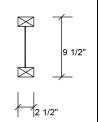
Address:

Nov 22 2023

Level: Ground Floor



1 Hanger (LF259) 0-2-0 2'9 11/16' 2'9 11/16'



### Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015
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		

# **Unfactored Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	209	78	0	0
2	Vertical	206	77	0	0

### Analysis Results

Analysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	467 ft-lb	1'4 11/16"	4095 ft-lb	0.114 (11%)	1.25D+1.5L	L
Unbraced	467 ft-lb	1'4 11/16"	4095 ft-lb	0.114 (11%)	1.25D+1.5L	L
Shear	404 lb	1 1/4"	1830 <b>l</b> b	0.221 (22%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/14633)	1'4 3/4"	0.087 (L/360)	0.025 (2%)	D	Uniform
LL Defl inch	0.006 (L/5497)	1'4 3/4"	0.087 (L/360)	0.065 (7%)	L	L
TL Defl inch	0.008 (L/3996)	1'4 3/4"	0.130 (L/240)	0.060 (6%)	D+L	L

# **Bearings and Factored Reactions**

Bearing	Length	Dir.	Cap. F	React D/L <b>I</b> b	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	26%	98 / 313	411	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	26%	97 / 308	405	L	1.25D+1.5L

# **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.
- 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 2-9-11	0-9-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-4-11		Far Face	121 <b> </b> b	322 lb	0 lb	0 <b>l</b> b	J2

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### Handling & Installation

- Handling & Installation

  1. Noist flanges must not be out or drilled

  2. Refer to latest copy of the Jioist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-rjly fastening details and handling/erection details

  3. Damaged Jioists must not be used

  4. 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 1111 W. Jefferson St. Boise. ID 83702

(800) 232-0788 www.bc.com CCMC: 12787

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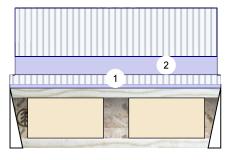
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**AJS 140** 

9.500" - PASSED

Nov 22 2023

Level: Ground Floor



1 Hanger (LF259) 0-2-0 2 Hanger (LF259) 0-2-0 2'9 3/8' 2'9 3/8'

# Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015
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		

**Unfactored Reactions UNPATTERNED lb (Uplift)** 

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	257	96	0	0
2	Vertical	261	97	0	0

### Analysis Results

Ana <b>l</b> ysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	314 ft-lb	1'4 11/16"	4095 ft-lb	0.077 (8%)	1.25D+1.5L	L
Unbraced	314 ft-lb	1'4 11/16"	4095 ft-lb	0.077 (8%)	1.25D+1.5L	L
Shear	488 lb	1 1/4"	1830 <b>l</b> b	0.266 (27%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/20753)	1'4 11/16"	0.086 (L/360)	0.017 (2%)	D	Uniform
LL Defl inch	0.004 (L/7742)	1'4 11/16"	0.086 (L/360)	0.046 (5%)	L	L
TL Defl inch	0.005 (L/5638)	1'4 11/16"	0.129 (L/240)	0.043 (4%)	D+L	L

### **Bearings and Factored Reactions**

Bearing	Length	Dir.	Cap.	React D/L Ib	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	32%	120 / 386	506	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	32%	121 / 391	512	L	1.25D+1.5L

# **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"
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- 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.

0-0-13 to 2-8-13



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

Near Face

### Notes

2

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

# Handling & Installation

- Handling & Installation

  1. Julist flanges must not be out or drilled

  2. Refer to latest copy of the Juoist product information details for framing details. stifferer tables, web hole chart, bridging details, multi-ray fastening details and handling/erection details

  3. Damaged Juoists must not be used

  4. Design assumes too flange to be laterally restrained by attached sheathing or as specified in engineering notes.

161 PLF

60 PLF

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

0 PLF

Boise Cascade Wood Products 1111 W. Jefferson St. Boise. ID 83702

0 PLF

(800) 232-0788 www.bc.com CCMC: 12787

### Kott Inc.

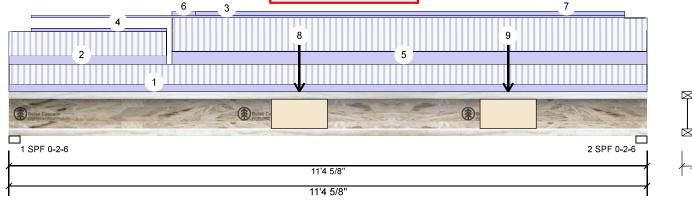
3228 Moodie Dr, Ottawa, Ontario 613-838-2775 / 905-642-4400





Part. Uniform





Member Inform	ation			Unf	actored Rea	actions UNP	ATTERNED I	b (Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	Vertical	332	160	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015	2	Vertical	405	195	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			Bea	rings and Fa	actored Rea	ctions		
Dead:	15 PSF			Bea	aring Length	Dir. Cap.	React D/L lb	Total Ld. Case	Ld. Comb.
				1 -	SPF 2.375"	Vert 42%	200 / 497	697 L	1.25D+1.5L
				2 -	SPF 2.375"	Vert 51%	243 / 608	851 L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2259 ft-lb	5'7 11/16"	4095 ft-lb	0.552 (55%)	1.25D+1.5L	L
Unbraced	2259 ft-lb	5'7 11/16"	4095 ft-lb	0.552 (55%)	1.25D+1.5L	L
Shear	836 lb	11'3"	1830 <b>l</b> b	0.457 (46%)	1.25D+1.5L	L
Perm Defl in.	0.073 (L/1831)	5'9 1/16"	0.371 (L/360)	0.197 (20%)	D	Uniform
LL Defl inch	0.150 (L/891)	5'9 1/16"	0.371 (L/360)	0.404 (40%)	L	L
TL Defl inch	0.223 (L/599)	5'9 1/16"	0.556 (L/240)	0.400 (40%)	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 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 5'2 3/16" 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.

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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	0-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 2-9-12	0-7-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-12 to 10-11-14		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-12 to 2-9-12		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
5	Tie-In	2-10-14 to 11-4-10	0-10-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	2-10-14 to 3-4-0		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
7	Part. Uniform	3-4-0 to 10-11-14		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
Continued on pa	age 2								

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

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

# Handling & Installation

- Handling & Installation

  1. Noist flanges must not be out or drilled

  2. Refer to latest copy of the IJoist product information
  details for framing details, stiffener tables, web hole
  chart, bridging details, multi-rily 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.

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

Boise Cascade Wood Products 1111 W. Jefferson St.

Boise, ID 83702 (800) 232-0788 www.bc.com CCMC: 12787

Manufacturer Info

### Kott Inc.

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





..Continued from page 1

1 SPF 0-2-6

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
8	Point	5-2-3		Near Face	29 lb	59 lb	0 <b>l</b> b	0 lb	F1
9	Point	8-10-15		Near Face	46 lb	95 <b>l</b> b	0 <b>l</b> b	0 <b>l</b> b	F1

11'4 5/8' 11'4 5/8"



2 SPF 0-2-6

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### Notes

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 IJoist not to be treated with fire retardant or corrosive

### Handling & Installation

- Handling & Installation

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  2. Refer to latest copy of the Lioist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-pty fastening details and handling/erection details

  3. Damaged Lioists must not be used

  4. 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 1111 W. Jefferson St. Boise, ID 83702

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Kott Inc.

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

9 1/2"





Page 9 of 29



Client: **GREENPARK** Project:

ZADORRA ESTATES ZADORRAPESTATESTHE CITY OF OSHAWA OSHAWA, ON TRUE COPY Address:

Date: 7/3/2023 W C Input by:

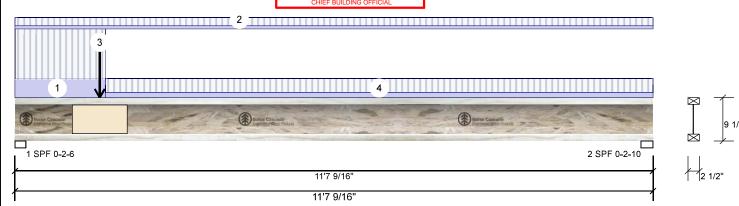
Project :

**AJS 140** F<sub>3</sub>-A

9.500" - PASSED

Nov 22 2023

Level: Ground Floor



Member Infor	mation			Unfactored Reactions UNPATTERNED lb (Uplift)							
Туре:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind		
Plies:	1	Design Method:	LSD	1	Vertical	446	167	0	0		
Moisture Condition: Dry Build		Building Code:	NBCC 2015	2	Vertical	192	72	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			Bear	rings and F	actored Rea	ections				
Dead:	15 PSF			Bea	aring Length	Dir. Cap	. React D/L lb	Total Ld. Case	Ld. Comb.		
				1 -	SPF 2.375"	Vert 53%	6 209 / 670	879 L	1.25D+1.5L		
			2 -	SPF 2.625"	Vert 22%	6 90 / 287	377 L	1.25D+1.5L			

### Analysis Results

Analysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	1297 ft-lb	4'5 3/8"	4095 ft-lb	0.317 (32%)	1.25D+1.5L	L
Unbraced	1297 ft-lb	4'5 3/8"	4095 ft-lb	0.317 (32%)	1.25D+1.5L	L
Shear	860 lb	1 5/8"	1830 lb	0.470 (47%)	1.25D+1.5L	L
Perm Defl in.	0.036 (L/3729)	5'5 1/4"	0.378 (L/360)	0.097 (10%)	D	Uniform
LL Defl inch	0.097 (L/1397)	5'5 1/4"	0.378 (L/360)	0.258 (26%)	L	L
TL Defl inch	0.134 (L/1016)	5'5 1/4"	0.567 (L/240)	0.236 (24%)	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 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 10'1 1/16" 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 1-7-12	1-5-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 11-7-9	0-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-6-8		Far Face	96 lb	257 <b>l</b> b	0 lb	0 lb	F2
4	Tie-In	1-7-12 to 11-7-9	0-5-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

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

### Handling & Installation

- Handling & Installation

  1. Noist flanges must not be out or drilled

  2. Refer to latest copy of the IJoist product information
  details for framing details, stiffener tables, web hole
  chart, bridging details, multi-rily 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.

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

Boise Cascade Wood Products 1111 W. Jefferson St. Boise, ID 83702

(800) 232-0788 www.bc.com CCMC: 12787

Manufacturer Info

### Kott Inc.

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







ZADORRA ESTATES ZADORRAPESTATESTHE CITY OF OSHAWA OSHAWA, ON TRUE COPY Date: 7/3/2023 W C Input by:

Project :

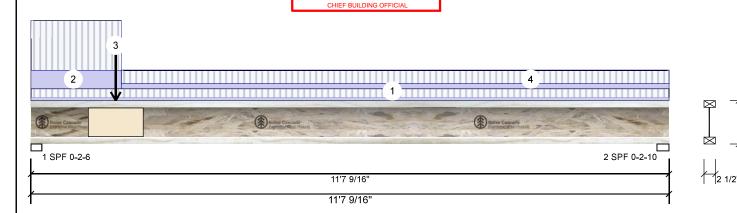
**AJS 140** F<sub>3</sub>-B

9.500" - PASSED

Address:

Nov 22 2023

Level: Ground Floor



Member Infor	mation			Unfa	ctored Rea	ctions UNP	ATTERNED I	b (Uplif	f <b>t</b> )	
Туре:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	;	Snow	Wind
Plies:	1	Design Method:	LSD	1	Vertical	451	168		0	0
Moisture Condition	n: Dry	Building Code:	NBCC 2015	2	Vertical	192	72		0	0
Deflection LL:	360		OBC 2012(2020 Update)							
Deflection TL:	240	Load Sharing:	No							ļ
Importance:	Normal - II	Deck:	Not Checked							ļ
General Load		Vibration:	Not Checked							
Floor Live:	40 PSF			Bear	ings and Fa	actored Rea	ctions			
Dead:	15 PSF			Bea	ring Length	Dir. Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - 8	SPF 2.375"	Vert 54%	210 / 676	886	L	1.25D+1.5L
				2 - 5	SPF 2.625"	Vert 22%	90 / 288	378	L	1.25D+1.5L

### **Analysis Results**

Analysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	1304 ft-lb	4'5 1/8"	4095 ft-lb	0.318 (32%)	1.25D+1.5L	L
Unbraced	1304 ft-lb	4'5 1/8"	4095 ft-lb	0.318 (32%)	1.25D+1.5L	L
Shear	867 <b>l</b> b	1 5/8"	1830 lb	0.474 (47%)	1.25D+1.5L	L
Perm Defl in.	0.037 (L/3715)	5'5 1/4"	0.378 (L/360)	0.097 (10%)	D	Uniform
LL Defl inch	0.098 (L/1389)	5'5 1/4"	0.378 (L/360)	0.259 (26%)	L	L
TL Defl inch	0.135 (L/1011)	5'5 1/4"	0.567 (L/240)	0.237 (24%)	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 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 10'1 1/16" 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 11-7-9	0-3-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-7-12	1-5-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-6-8		Near Face	97 lb	261 lb	0 lb	0 <b>l</b> b	F2
4	Tie-In	1-7-12 to 11-7-9	0-4-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

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

# Handling & Installation

- Handling & Installation

  1. Noist flanges must not be out or drilled

  2. Refer to latest copy of the Jioist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-rjly fastening details and handling/erection details

  3. Damaged Jioists must not be used

  4. 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 1111 W. Jefferson St.

Boise, ID 83702 (800) 232-0788 www.bc.com CCMC: 12787

# Kott Inc.







ZADORRA ESTATES ZADO RRARESTATIES THE CITY OF OSHAWA Address:

Date: 7/3/2023 Input by:

Project :

W C

**AJS 140** F<sub>3</sub>-C

9.500" - PASSED

OSHAWA,ON TRUE COPY lov 22 2023

Level: Ground Floor

2 SPF 0-2-10

11'7 9/16' 11'7 9/16'

Floor (Residential)

OBC 2012(2020 Update)

**NBCC 2015** 

Not Checked

Not Checked

LSD

### Member Information

1 SPF 0-2-6

Type: Plies: Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal - II

General Load Floor Live: 40 PSF Dead: 15 PSF

# **Unfactored Reactions UNPATTERNED lb (Uplift)**

3rg	Direction	Live	Dead	Snow	Wind
1	Vertical	371	139	0	0
2	Vertical	372	139	0	0

# **Bearings and Factored Reactions**

Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 174 / 555 1 - SPF 2.375" Vert 44% 729 L 1.25D+1.5L 2 - SPF 2.625" Vert 43% 174 / 558 732 L 1.25D+1.5L

### Analysis Results

Ana <b>l</b> ysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	2020 ft-lb	5'9 11/16"	4095 ft-lb	0.493 (49%)	1.25D+1.5L	L
Unbraced	2020 ft-lb	5'9 11/16"	4095 ft-lb	0.493 (49%)	1.25D+1.5L	L
Shear	712 <b>l</b> b	1 5/8"	1830 lb	0.389 (39%)	1.25D+1.5L	L
Perm Defl in.	0.056 (L/2429)	5'9 11/16"	0.378 (L/360)	0.148 (15%)	D	Uniform
LL Defl inch	0.149 (L/911)	5'9 11/16"	0.378 (L/360)	0.395 (40%)	L	L
TL Defl inch	0.205 (L/662)	5'9 11/16"	0.567 (L/240)	0.362 (36%)	D+L	L

Application:

Design Method:

**Building Code:** 

Load Sharing:

Deck:

Vibration:

# **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 11-7-9	0-11-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 11-7-9	0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

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

# Handling & Installation

- Handling & Installation

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  4. 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

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.







ZADORRA ESTATES ZADO RRARESTATIES THE CITY OF OSHAWA Date: 7/3/2023 W C Input by:

Project :

**AJS 140** F4

Member Information

15 PSF

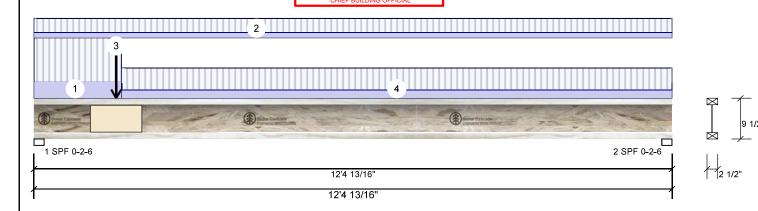
9.500" - PASSED

Address:

lov 22 2023

OSHAWA,ON TRUE COPY

Level: Ground Floor



### Unfactored Reactions UNPATTERNED Ib (Uplift) Application: Floor (Residential) Wind Type: Brg Direction Live Dead Snow Plies: Design Method: LSD 202 Vertical 539 0 1 0 Moisture Condition: Dry **Building Code: NBCC 2015** 2 Vertical 338 127 0 0 OBC 2012(2020 Update) Deflection LL: 360 Load Sharing: Deflection TL: 240 Not Checked Deck: Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** Floor Live: 40 PSF

Bearing Length

1 - SPF 2.375"

Dir.

Vert

Vert

### 2 - SPF 2.375" Analysis Results

Analysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	2158 ft-lb	5'7 3/4"	4095 ft-lb	0.527 (53%)	1.25D+1.5L	L
Unbraced	2158 ft-lb	5'7 3/4"	4095 ft-lb	0.527 (53%)	1.25D+1.5L	L
Shear	1040 <b>l</b> b	1 5/8"	1830 lb	0.568 (57%)	1.25D+1.5L	L
Perm Defl in.	0.069 (L/2121)	6' 3/16"	0.404 (L/360)	0.170 (17%)	D	Uniform
LL Defl inch	0.183 (L/795)	6' 3/16"	0.404 (L/360)	0.453 (45%)	L	L
TL DefLinch	0.252 (L/578)	6' 3/16"	0.607 (L/240)	0.415 (41%)	D+L	L

# **Design Notes**

Dead:

- 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

Bottom flange must be laterally braced at a maximum of 10'9 5/8" o.c.



Cap. React D/L lb

252 / 809

158 / 507

64%

40%

Total Ld. Case

1061 L

665 I

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

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	made no fatorany nea									
<b>I</b> D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Tie-In	0-0-0 to 1-8-7	1-6-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Tie-In	0-0-0 to 12-4-13	0-5-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
3	Point	1-7-3		Far Face	77 <b>l</b> b	206 lb	0 <b>l</b> b	0 <b>l</b> b	F2	
4	Tie-In	1-8-7 to 12-4-13	0-9-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF		

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### Handling & Installation

- Handling & Installation

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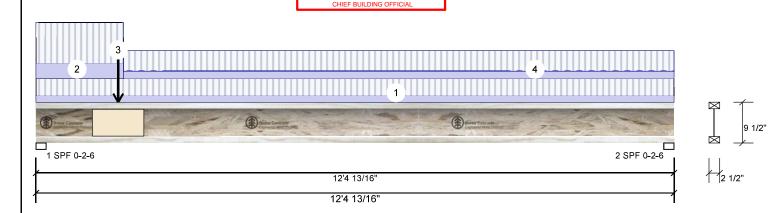
**AJS 140** 

9.500" - PASSED

Nov 22 2023

OSHAWA,ON TRUE COPY

Level: Ground Floor



### Member Information **Unfactored Reactions UNPATTERNED lb (Uplift)** Application: Floor (Residential) Wind Type: Brg Direction Live Dead Snow Plies: Design Method: LSD 573 215 Vertical 0 1 0 Moisture Condition: Dry **Building Code: NBCC 2015** 2 Vertical 369 138 0 0 OBC 2012(2020 Update) Deflection LL: 360 Load Sharing: Deflection TL: 240 Not Checked Deck: Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** Floor Live: 40 PSF 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 2.375" Vert 68% 268 / 861 1129 L 1.25D+1.5L 2 - SPF 2.375" Vert 44% 173 / 554 727 L 1.25D+1.5L

### Analysis Results

Analysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	2343 ft-lb	5'8 1/4"	4095 ft-lb	0.572 (57%)	1.25D+1.5L	L
Unbraced	2343 ft-lb	5'8 1/4"	4095 ft-lb	0.572 (57%)	1.25D+1.5L	L
Shear	1106 lb	1 5/8"	1830 <b>l</b> b	0.604 (60%)	1.25D+1.5L	L
Perm Defl in.	0.074 (L/1956)	6' 3/8"	0.404 (L/360)	0.184 (18%)	D	Uniform
LL Defl inch	0.199 (L/733)	6' 3/8"	0.404 (L/360)	0.491 (49%)	L	L
TL Defl inch	0.273 (L/533)	6' 3/8"	0.607 (L/240)	0.450 (45%)	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 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 10'9 5/8" 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 L	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1 T	Tie-In	0-0-0 to 12-4-13	0-7-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2 T	Tie-In	0-0-0 to 1-8-7	1-6-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3 F	Point	1-7-3		Near Face	78 <b>l</b> b	209 lb	0 lb	0 <b>l</b> b	F2
4 T	Tie-In	1-8-7 to 12-4-13	0-9-0	Тор	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.

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

### Handling & Installation

- Handling & Installation

  1. Noist flanges must not be out or drilled

  2. Refer to latest copy of the IJoist product information
  details for framing details, stiffener tables, web hole
  chart, bridging details, multi-rily 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.

- 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

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.







ZADORRA ESTATES ZADO RRARESTATIES THE CITY OF OSHAWA

OSHAWA,ON TRUE COPY

Date: 7/3/2023 W C Input by:

Project :

**AJS 140** 

9.500" - PASSED

Address:

lov 22 2023

12'1 1/4' 12'1 1/4' Level: Ground Floor

3 1 2 SPF 0-4-6

**Member Information** 

1 SPF 0-2-10

Melliber IIII	milation		
Туре:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condit	ion: Dry	Building Code:	NBCC 2015

Deflection LL: 360 Deflection TL: 240 Importance: Normal - II

General Load Floor Live: 40 PSF 15 PSF Dead:

**Building Code: NBCC 2015** OBC 2012(2020 Update)

Load Sharing: Not Checked Deck:

Vibration: Not Checked

# **Unfactored Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	342	167	0	0
2	Vertical	350	172	0	0

# **Bearings and Factored Reactions**

Bearing L	ength	Dir.	Cap. Rea	act D/L <b>I</b> b	Total	Ld. Case	Ld. Comb.
1 - SPF 2	2.625"	Vert	42%	209 / 512	721	L	1.25D+1.5L
2 - SPF 4	1.375"	Vert	40%	215 / 525	740	L	1.25D+1.5L

Analysis Results

Analysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	2056 ft-lb	5'11 3/4"	4095 ft-lb	0.502 (50%)	1.25D+1.5L	L
Unbraced	2056 ft-lb	5'11 3/4"	4095 ft-lb	0.502 (50%)	1.25D+1.5L	L
Shear	706 <b>l</b> b	11'9 5/8"	1830 lb	0.386 (39%)	1.25D+1.5L	L
Perm Defl in.	0.074 (L/1900)	5'11 13/16"	0.388 (L/360)	0.189 (19%)	D	Uniform
LL Defl inch	0.148 (L/945)	5'11 13/16"	0.388 (L/360)	0.381 (38%)	L	L
TL Defl inch	0.221 (L/631)	5'11 13/16"	0.582 (L/240)	0.380 (38%)	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 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

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.

										_
<b>I</b> D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	_
1	Tie-In	0-0-0 to 12-1-4	0-11-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Tie-In	0-0-0 to 12-1-4	0-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
3	Part. Uniform	0-5-4 to 11-8-14		Тор	2 PLF	0 PLF	0 PLF	0 PLF		
4	Part. Uniform	0-5-6 to 11-8-14		Тор	5 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.

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

### Handling & Installation

- Handling & Installation

  1. Noist flanges must not be out or drilled

  2. Refer to latest copy of the IJoist product information
  details for framing details, stiffener tables, web hole
  chart, bridging details, multi-rily 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.

- 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 populing.

1111 W. Jefferson St. Boise. ID 83702 (800) 232-0788

Manufacturer Info

Boise Cascade Wood Products

www.bc.com CCMC: 12787

### Kott Inc.

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



2

Vertical

Bearing Length

2 - SPF 2.375"

Hanger

3.000"

isDesign

Client: **GREENPARK** Project:

Address:

ZADORRA ESTATES ZADORRAPESTATESTHE CITY OF OSHAWA OSHAWA, ON TRUE COPY

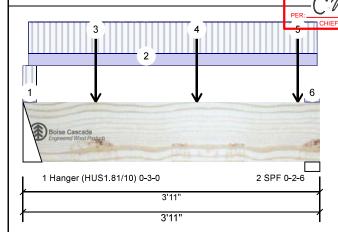
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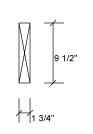
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Versa-Lam LVL 2.1E 3100 SP F5

750" X,9:500" - PASSED

Level: Ground Floor





0

n

Total Ld. Case

1188 L

1964 L

Wind

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

0

0

### Member Information Type: Plies: Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal - II General Load

40 PSF 15 PSF

Application: Floor (Residential) Design Method: LSD

Building Code: **NBCC 2015** OBC 2012(2020 Update)

Load Sharing: Not Checked Deck: Vibration: Not Checked **Unfactored Reactions UNPATTERNED lb (Uplift)** Brg Direction Live Dead Snow 595 237 Vertical 1

945

**Bearings and Factored Reactions** 

Dir.

Vert

Vert

Cap. React D/L lb

296 / 892

547 / 1417

437

# Analysis Results

Floor Live:

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1191 ft-lb	2'3 1/2"	11610 ft-lb	0.103 (10%)	1.25D+1.5L	L
Unbraced	1191 ft-lb	2'3 1/2"	11610 ft-lb	0.103 (10%)	1.25D+1.5L	L
Shear	1841 <b>l</b> b	2'11 1/8"	5287 lb	0.348 (35%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/19744)	2' 1/4"	0.120 (L/360)	0.018 (2%)	D	Uniform
LL Defl inch	0.005 (L/7936)	2' 1/8"	0.120 (L/360)	0.045 (5%)	L	L
TL Defl inch	0.008 (L/5661)	2' 3/16"	0.180 (L/240)	0.042 (4%)	D+L	L

# I.MATIJEVIC 100528832

21%

77%

JULY 04, 2023

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# **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.
- 2 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 1 3/4"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top must be continuously laterally braced.
- 6 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 0-2-3	1-3-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-14 to 3-10-9		Тор	23 PLF	60 PLF	0 PLF	0 PLF	
3	Point	0-11-8		Near Face	138 lb	368 lb	0 <b>l</b> b	0 lb	J4
4	Point	2-3-8		Near Face	144 lb	384 lb	0 lb	0 lb	J4
5	Point	3-7-8		Near Face	281 lb	546 <b>l</b> b	dl 0	0 <b>l</b> b	J4

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.

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

### Handling & Installation

- LVL beams must not be cut or drilled
   Refer to manufacturer's product information regarding installation requirements, multi-ray fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
  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

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







Address:

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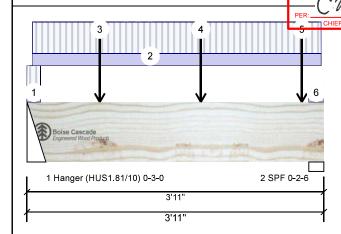
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Versa-Lam LVL 2.1E 3100 SP F5

ZADORRAPESTATESTHE CITY OF OSHAWA OSHAWA, ON TRUE COPY 750" X,9,500"2 - PASSED

Level: Ground Floor



.Continued from page 1

ID Load Type Location Trib Width Side Wind Comments Dead Live Snow 3-8-10 to 3-11-0 0-6-5 15 PSF 40 PSF 0 PSF 0 PSF 6 Tie-In Тор

> Self Weight 5 PLF



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

# Handling & Installation

Handling & Installation

1. UVI beams must not be cut or drilled

2. Refer to manufacturer's product information regarding installation requirements, multi-pty 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

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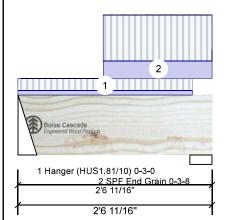
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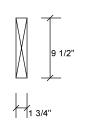
7/3/2023

### Versa-Lam LVL 2.1E 3100 SP F5-A

1.750", X.9.500" - PASSED

Level: Ground Floor





# **Member Information** Type: Plies:

Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal - II

15 PSF

General Load Floor Live: 40 PSF

Application: Floor (Residential)

> Design Method: LSD Building Code: **NBCC 2015** OBC 2012(2020 Update)

Load Sharing:

Not Checked Deck: Vibration: Not Checked **Unfactored Reactions UNPATTERNED lb (Uplift)** 

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	53	26	0	0
2	Vertical	108	47	0	0

# Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	84 ft-lb	1'5"	11610 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	84 ft-lb	1'5"	11610 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	67 <b>l</b> b	1' 1/2"	5287 lb	0.013 (1%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/386720)	1'3 7/8"	0.071 (L/360)	0.001 (0%)	D	Uniform
LL Defl inch	0.000 (L/171614)	1'4"	0.071 (L/360)	0.002 (0%)	L	L
TL Defl inch	0.000 (L/118868)	1'3 15/16"	0.107 (L/240)	0.002 (0%)	D+L	L

### **Bearings and Factored Reactions**

Bearing	Length	Dir.	Cap. Rea	ct D/L <b>I</b> b	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	Vert	2%	32 / 79	111	L	1.25D+1.5L
2 - SPF End Grain	3.500"	Vert	3%	58 / 162	220	L	1.25D+1.5L
			_	AND DESCRIPTION OF THE PERSON.			



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### **Design Notes**

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 3 1/2"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top must be continuously laterally braced.
- 6 Bottom must be laterally braced at a maximum of 2'4 1/2" o.c.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-3-10	0-6-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	1-1-8 to 2-6-11	1-11-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				5 PLF				

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

### Handling & Installation

- 1. UVL 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
- Dariga Beams must not be used
  Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation
- 6. For flat roofs provide proper drainage to prevent ponding

# Manufacturer Info

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

Kott Inc.

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







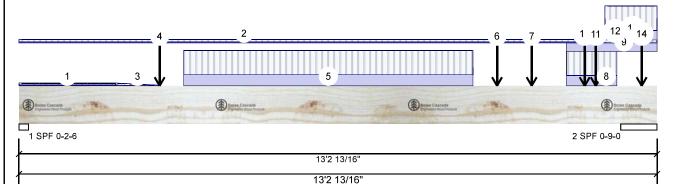
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Project :

Versa-Lam LVL 2.1E 3100 SP

OSHAWA,ON TRUE COPY 1.750" X 9.500"

Level: Ground Floor





# Member Information

Type: Plies: 3 Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal - II

General Load Floor Live: 40 PSF 15 PSF Dead:

Application: Floor (Residential)

Design Method: LSD Building Code: **NBCC 2015** 

OBC 2012(2020 Update) Load Sharing:

Deck: Not Checked Vibration: Not Checked

# **Unfactored Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	2103	1102	0	0
2	Vertical	4119	2226	0	0

### **Bearings and Factored Reactions**

Bearing	Length	Dir.	Cap.	React D/L <b>I</b> b	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	59%	1378 / 3155	4533	L	1.25D+1.5L
2 - SPF	9.028"	Vert	31%	2782 / 6179	8961	L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	15665 ft-lb	6'6 1/16"	36222 ft-lb	0.432 (43%)	1.25D+1.5L	L
Unbraced	15665 ft-lb	6'6 1/16"	36222 ft-lb	0.432 (43%)	1.25D+1.5L	L
Shear	7319 <b>l</b> b	11'8 5/16"	15860 lb	0.461 (46%)	1.25D+1.5L	L
Perm Defl in	0.140 (L/1065)	6'4 13/16"	0.414 (L/360)	0.338 (34%)	D	Uniform
LL Defl inch	0.270 (L/551)	6'4 13/16"	0.414 (L/360)	0.653 (65%)	L	L
TL Defl inch	0.410 (L/363)	6'4 13/16"	0.621 (L/240)	0.661 (66%)	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 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 be laterally braced at a maximum of 2'11" 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	Tie-In	0-0-0 to 2-0-0	0-5-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 11-9-14	0-7-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	2-0-0 to 2-11-0	0-6-0 to 0-1-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	2-11-0		Far Face	598 lb	1174 <b>l</b> b	0 <b>l</b> b	0 <b>l</b> b	J5
5	Part. Uniform	3-5-0 to 9-5-0		Far Face	108 PLF	234 PLF	0 PLF	0 PLF	

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.

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

### Handling & Installation

1. UVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-rily fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used

Design assumes top edge is laterally restrained
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.

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Page 19 of 29



Client: **GREENPARK** Project:

Address:

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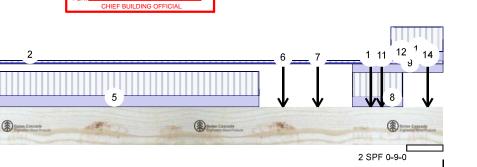
Date: 7/3/2023

Input by:  $W\, C$ Job Name Project #:

Versa-Lam LVL 2.1E 3100 SP

ZADORRAPESTATESTHE CITY OF OSHAWA OSHAWA, ON TRUE COPY 1.750" X 9.500" 3-Ply - PASSED

Level: Ground Floor





Continued from page 1

1 SPF 0-2-6

Continued from page 1									
<b>I</b> D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	9-11-0		Far Face	96 lb	201 <b>l</b> b	0 lb	0 <b>l</b> b	J2
7	Point	10-7-10		Far Face	591 <b>l</b> b	1187 <b>l</b> b	0 lb	0 lb	J5
8	Part. Uniform	11-4-5 to 12-4-13		Тор	99 PLF	234 PLF	0 PLF	0 PLF	J3
9	Part. Uniform	11-4-5 to 13-2-13		Тор	82 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
10	Point	11-8-13		Far Face	289 lb	455 <b>l</b> b	0 lb	0 lb	J5
11	Point	11-11-10		Near Face	278 lb	686 <b>l</b> b	0 lb	0 lb	F11
12	Tapered Start	12-1-6		Тор	8 PLF	21 PLF	0 PLF	0 PLF	
	End	13-2-13			8 PLF	21 PLF	0 PLF	0 PLF	
13	Part. Uniform	12-1-14 to 13-2-13		Тор	90 PLF	239 PLF	0 PLF	0 PLF	
14	Point	12-11-0		Far Face	151 lb	255 <b>l</b> b	0 lb	0 <b>l</b> b	J2
	Self Weight				14 PLF				

13'2 13/16 13'2 13/16"



JULY 04, 2023

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Notice 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.

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

# Handling & Installation

Handling & Installation

1. UVI beams must not be cut or drilled

2. Refer to manufacturer's product information regarding installation requirements, multi-pty 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







ZADORRA ESTATES ZADO RRARESTATIES THE CITY OF OSHAWA Address:

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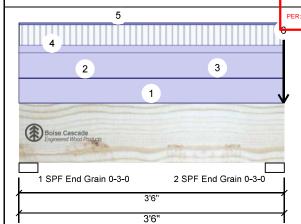
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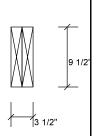
Project :

Versa-Lam LVL 2.1E 3100 SP

OSHAWA,ON TRUE COPY 1.750" X 9.500" 202-Ply - PASSED

Level: Ground Floor





### Member Information

Type:	Giraer
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - I
General Load	

Floor Live: 40 PSF 15 PSF Dead:

### Application: Floor (Residential)

Design Method: LSD

Building Code: **NBCC 2015** OBC 2012(2020 Update)

Load Sharing:

Not Checked Deck:

Vibration: Not Checked

### **Unfactored Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	60	192	0	0
2	Vertical	159	235	0	0

# Analysis Results

Analysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	187 ft-lb	1'9"	15093 ft-lb	0.012 (1%)	1.4D	Uniform
Unbraced	187 ft-lb	1'9"	15093 ft-lb	0.012 (1%)	1.4D	Uniform
Shear	184 <b>l</b> b	2'5 1/2"	6873 lb	0.027 (3%)	1.4D	Uniform
Perm Defl in	0.000 (L/76316)	1'9"	0.104 (L/360)	0.005 (0%)	D	Uniform
LL Defl inch	0.000 (L/245707)	1'9"	0.104 (L/360)	0.001 (0%)	L	L
TL Defl inch	0.001 (L/58230)	1'9"	0.156 (L/240)	0.004 (0%)	D+L	L

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	187 ft-lb	1'9"	15093 ft-lb	0.012 (1%)	1.4D	Uniform
Unbraced	187 ft-lb	1'9"	15093 ft-lb	0.012 (1%)	1.4D	Uniform
Shear	184 lb	2'5 1/2"	6873 <b>l</b> b	0.027 (3%)	1.4D	Uniform
Perm Defl in.	0.000 (L/76316)	1'9"	0.104 (L/360)	0.005 (0%)	D	Uniform
LL Defl inch	0.000 (L/245707)	1'9"	0.104 (L/360)	0.001 (0%)	L	L
TL Defl inch	0.001 (L/58230)	1'9"	0.156 (L/240)	0.004 (0%)	D+L	L

# **Bearings and Factored Reactions**

Bearing Leng	jth Dir.	Cap. F	React D/L <b>I</b> b	Total	Ld. Case	Ld. Comb.
1 - SPF 3.000 End Grain	)" Vert	4%	268 / 0	268	Uniform	1.4D
2 - SPF 3.000 End Grain	)" Vert	6%	293 / 238	531	L	1.25D+1.5L

# **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.



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.

<b>I</b> D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-6-0		Тор	41 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-6-0		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 3-6-0		Near Face	41 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Tapered Start	0-0-0		Near Face	13 PLF	34 PLF	0 PLF	0 PLF	

Continued on page 2...

### Notes

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

Handling & Installation

1. UVL 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

Design assumes top edge is laterally restrained
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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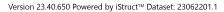
Boise Cascade Wood Products

Manufacturer Info

Kott Inc.

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Page 21 of 29



Client: **GREENPARK** Project:

Address:

ZADORRA ESTATES

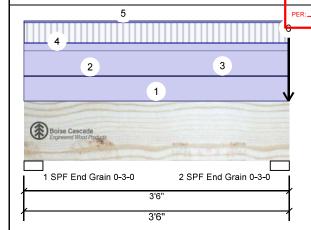
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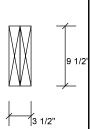
Job Name Project #:

Versa-Lam LVL 2.1E 3100 SP FH5

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Level: Ground Floor





Continued	from	page	1
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<b>I</b> D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	End	3-6-0			13 PLF	34 PLF	0 PLF	0 PLF	
5	Part. Uniform	0-0-0 to 3-6-0		Near Face	3 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
6	Point	3-5-14		Near Face	43 lb	99 lb	0 lb	0 <b>l</b> b	F1
	Self Weight				9 PLF				



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

# Handling & Installation

Handling & Installation

1. IVI 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

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Kott Inc.





Page 1 of 2



Client: **GREENPARK** 

Address:

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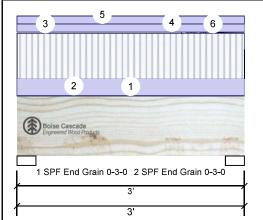
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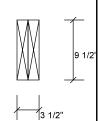
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Versa-Lam LVL 2.1E 3100 SP

OSHAWA,ON TRUE COPY 1.750" X 9.500"

Level: Ground Floor





### Member Information

Type: Plies: 2 Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal - II General Load

Floor Live: 40 PSF 15 PSF Dead:

Application: Floor (Residential)

> Design Method: LSD

Building Code: **NBCC 2015** OBC 2012(2020 Update)

Load Sharing:

Deck: Not Checked Not Checked

Vibration:

# **Unfactored Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	351	272	0	0
2	Vertical	353	273	0	0

### Analysis Results

Analysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	498 ft-lb	1'6"	23220 ft-lb	0.021 (2%)	1.25D+1.5L	L
Unbraced	498 ft-lb	1'6"	23220 ft-lb	0.021 (2%)	1.25D+1.5L	L
Shear	686 <b>l</b> b	1' 1/2"	10574 lb	0.065 (6%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/74772)	1'6"	0.088 (L/360)	0.005 (0%)	D	Uniform
LL Defl inch	0.001 (L/57953)	1'6"	0.088 (L/360)	0.006 (1%)	L	L
TL Defl inch	0.001	1'6"	0.131 (L/240)	0.007 (1%)	D+L	L

(L/32648)

**Bearings and Factored Reactions** Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 3.000" Vert 340 / 527 867 I 1.25D+1.5L End Grain 2 - SPF 3.000" 342 / 529 Vert 871 L 1.25D+1.5L

End

Grain



JULY 04, 2023

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# **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.

ID Load Type Trib Width Live Location Side Dead Snow Wind Comments 3 PLF 0 PLF 0 PLF Part. Uniform 0-0-0 to 3-0-0 0 PLF Rim Board Self Weight 1 Near Face 2 Part Uniform 0-0-0 to 3-0-0 Near Face 87 PLF 233 PLF 0 PLF 0 PLF J2 0 PLF 1 PLF 0 PLF 0 PLF 3 Tapered Start 0-0-0 Near Face 2-2-1 0 PLF 1 PLF 0 PLF 0 PLF End

Notes

Continued on page 2...

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

Handling & Installation

LVL beams must not be cut or drilled
Refer to manufacturer's product information
regarding installation requirements, multi-rity
fastening details, beam strength values, and code
approvals

Damaged Beams must not be used Design assumes top edge is laterally restrained
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.

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Page 2 of 2



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Address:

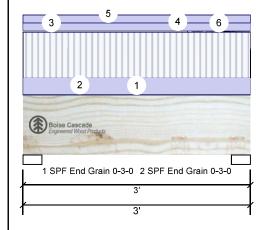
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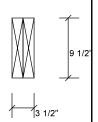
Job Name Project #:

Versa-Lam LVL 2.1E 3100 SP

1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor





### ..Continued from page 1

<b>I</b> D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-0-0		Тор	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	2-2-1		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
	End	3-0-0			1 PLF	2 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF				



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# Handling & Installation

Handling & Installation

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3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Boise Cascade Wood Products 1111 W. Jefferson St.

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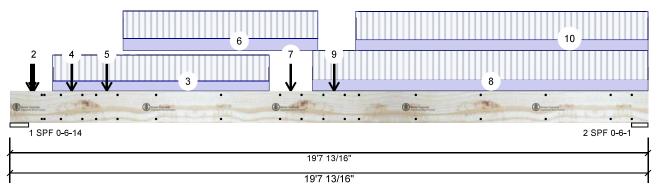
7/3/2023

Versa-Lam LVL 2.1E 3100 SP

OSHAWA,ON TRUE COPY

Level: Second Floor PASSED

Date:



Floor (Residential)

OBC 2012(2020 Update)

**NBCC 2015** 

Not Checked

Not Checked

LSD



Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	4344	1989	0	0
2	Vertical	4533	1974	0	0

# **Bearings and Factored Reactions**

Bearing Length	Dir.	Cap.	React D/L <b>I</b> b	Total	Ld. Case	Ld. Comb.
1 - SPF 6.875"	Vert	30%	2486 / 6516	9002	L	1.25D+1.5L
2 - SPF 6.084"	Vert	35%	2468 / 6799	9266	L	1.25D+1.5L

### Analysis Results

Member Information

Moisture Condition: Dry

Deflection LL:

Deflection TL:

General Load

Importance:

Floor Live:

Dead:

4

360

240

Normal - II

40 PSF 15 PSF

Type: Plies:

Ana <b>l</b> ysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	40924 ft-lb	9'11 13/16"	73615 ft-lb	0.556 (56%)	1.25D+1.5L	L
Unbraced	40924 ft-lb	9'11 13/16"	73615 ft-lb	0.556 (56%)	1.25D+1.5L	L
Shear	9800 <b>l</b> b	1'6 3/4"	26434 lb	0.371 (37%)	1.25D+1.5L	L
Perm Defl in	0.273 (L/823)	9'10 1/4"	0.623 (L/360)	0.437 (44%)	D	Uniform
LL Defl inch	0.611 (L/367)	9'10 11/16"	0.623 (L/360)	0.981 (98%)	L	L
TL Defl inch	0.884 (L/254)	9'10 1/2"	0.935 (L/240)	0.945 (95%)	D+L	L

Application:

Design Method:

Building Code:

Load Sharing:

Deck:

Vibration:

# **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 Fasten all plies using 2 rows of SDW22634 at 24" o.c. Maximum end distance not to exceed
- 3 Refer to last page of calculations for fasteners required for specified loads.
- 4 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is
- 5 Simpson fasteners applied from a single side of the member use tip values where published.
- 6 Girders are designed to be supported on the bottom edge only.
- 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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### Notes

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

# Handling & Installation

LVL beams must not be cut or drilled
Refer to manufacturer's product information
regarding installation requirements, multi-pty
fastening details, beam strength values, and code
approvals

Damaged Beams must not be used Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation 6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Boise Cascade Wood Products 1111 W. Jefferson St.

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Page 23 of 29



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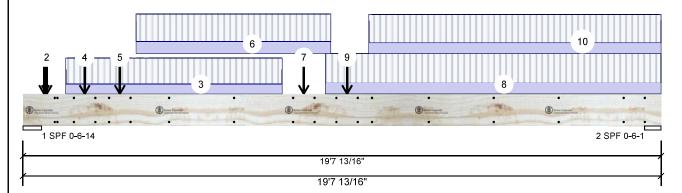
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PASSED Level: Second Floor





ID	Load Type	Location T	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-7-13		Near Face	114 <b>l</b> b	304 lb	0 lb	0 <b>l</b> b	J2
2	Point	0-8-13		Far Face	103 lb	224 lb	0 lb	0 <b>l</b> b	J2
3	Part. Uniform	1-3-13 to 7-11-13		Near Face	80 PLF	212 PLF	0 PLF	0 PLF	
4	Point	1-10-13		Far Face	117 <b>l</b> b	252 lb	0 lb	0 lb	J2
5	Point	2-11-13		Far Face	106 lb	233 lb	0 lb	0 <b>l</b> b	J2
6	Part. Uniform	3-5-13 to 9-5-13		Far Face	99 PLF	224 PLF	0 PLF	0 PLF	
7	Point	8-7-13		Near Face	108 lb	287 lb	0 lb	0 lb	J2
8	Part. Uniform	9-3-13 to 19-7-13		Near Face	90 PLF	239 PLF	0 PLF	0 PLF	
9	Point	9-11-13		Far Face	109 lb	261 lb	0 lb	0 lb	J2
10	Part. Uniform	10-7-13 to 19-7-13		Far Face	87 PLF	232 PLF	0 PLF	0 PLF	
	Self Weight				24 PLF				



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

# Handling & Installation

Handling & Installation

1. UVI beams must not be cut or drilled

2. Refer to manufacturer's product information regarding installation requirements, multi-pty fastening details, beam strength values, and code approvals

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Boise Cascade Wood Products 1111 W. Jefferson St.

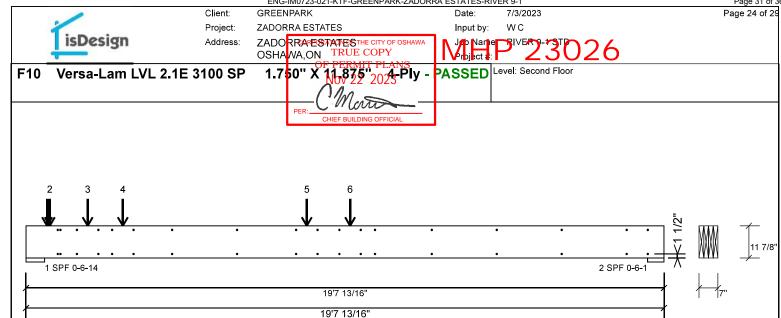
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# Multi-Ply Analysis

Fasten all plies using 2 rows of SDW22634 at 24" o.c., except for regions covered by concentrated load fastening, Maximum end distance not to exceed 12".

Capacity	85.1 %	
Load	353.3 PLF	
Yield Limit per Foot	415.0 PLF	
Yield Limit per Fastener	415.0 lb.	
Yield Mode	Lookup	
Edge Distance	1 1/2"	
Min. End Distance	6"	
Load Combination	1.25D+1.5L	
Duration Factor	1.00	

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.



### Concentrated Load

Fasten at concentrated side load at 0-7-13 with a minimum of (2) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

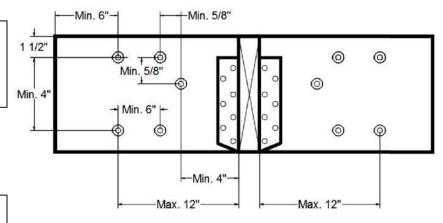
• •	
Capacity Load	45.3 %
Load	448.9lb.
Total Yield Limit	990.0 lb.
Yield Limit per Fastener	495.0 lb.
Yield Mode	Lookup
Load Combination	1.25D+1.5L
Duration Factor	1.00

### **Concentrated Load**

Fasten at concentrated side load at 0-8-13 with a minimum of (2) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

• •	
Capacity	35.2 %
Load	348.6lb.
Total Yield Limit	990.0 lb.
Yield Limit per Fastener	495.0 lb.
Yield Mode	Lookup
Load Combination	1.25D+1.5L
Duration Factor	1.00

### Min/Max fastener distances for Concentrated Side Loads



### Notes

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# Lumber

Dry service conditions, unless noted otherwise
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# Handling & Installation

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  3. Damaged Beams must not be used
- Design assumes top edge is laterally restrained
  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

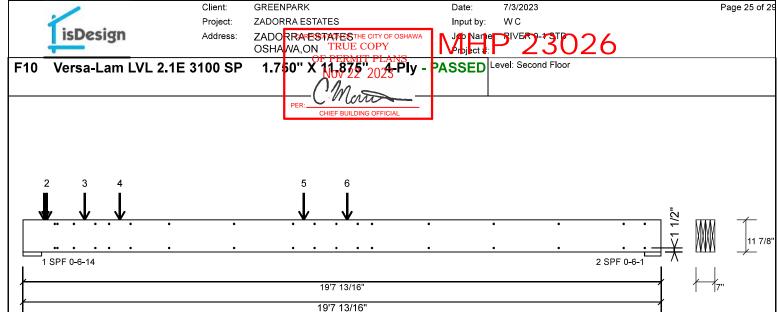
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### Kott Inc. 3228 Moodie Dr. Ottawa, Ontario 613-838-2775 / 905-642-4400





Version 23.40.650 Powered by iStruct™ Dataset: 23062201.1



# Multi-Ply Analysis

# **Concentrated Load**

Fasten at concentrated side load at 1-10-13 with a minimum of (4) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

side of the applica load.	
Capacity Load	19.9 %
Load	393.2lb.
Total Yield Limit	1980.0 lb.
Yield Limit per Fastener	495.0 lb.
Yield Mode	Lookup
Load Combination	1.25D+1.5L
Duration Factor	1.00

# **Concentrated Load**

Fasten at concentrated side load at 2-11-13 with a minimum of (4) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

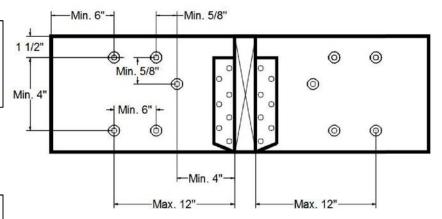
(	Capacity ∟oad	18.3 %
l	_oad	361.5lb.
ŀ	Total Yield Limit	1980.0 lb.
ŀ	Yield Limit per Fastener	495.0 lb.
ŀ	Yield Mode	Lookup
l	_oad Combination	1.25D+1.5L
l	Duration Factor	1.00

### **Concentrated Load**

Fasten at concentrated side load at 8-7-13 with a minimum of (4) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity	21.4 %
Load	424.1lb.
Total Yield Limit	1980.0 lb.
Yield Limit per Fastener	495.0 lb.
Yield Mode	Lookup
Load Combination	1.25D+1.5L
Duration Factor	1.00

### Min/Max fastener distances for Concentrated Side Loads





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.

### Notes

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Handling & Installation

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3. Damageed Beams must not be used

Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

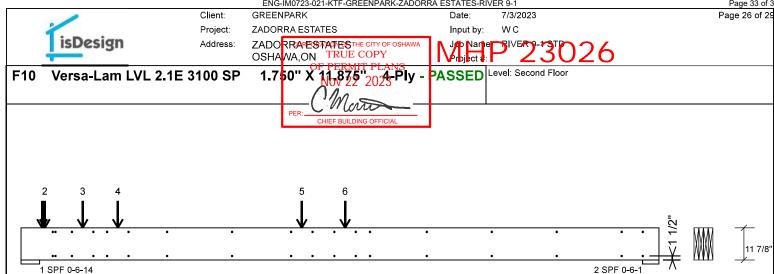
Boise Cascade Wood Products 1111 W. Jefferson St. Boise. ID 83702 (800) 232-0788 www.bc.com CCMC: 12472

Kott Inc.

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







19'7 13/16' 19'7 13/16"

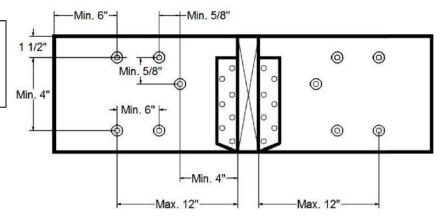
# Multi-Ply Analysis

# **Concentrated Load**

Fasten at concentrated side load at 9-11-13 with a minimum of (4) – SDW22634 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity 20.0 % 395.8lb. Load Total Yield Limit 1980.0 lb. Yield Limit per Fastener 495.0 lb. Yield Mode Lookup Load Combination 1.25D+1.5L Duration Factor 1.00

### Min/Max fastener distances for Concentrated Side Loads





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This design is valid until 4/17/2026

6. For flat roofs provide proper drainage to prevent ponding

# Manufacturer Info

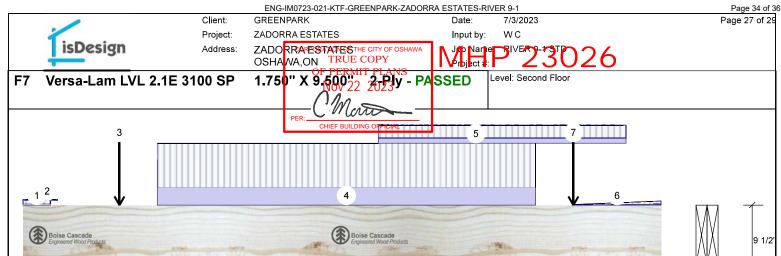
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# Kott Inc.





1.25D+1.5L



### Member Information **Unfactored Reactions UNPATTERNED lb (Uplift)** Application: Floor (Residential) Wind Type: Brg Direction Live Dead Snow Plies: 2 Design Method: LSD 462 Vertical 1040 0 1 0 Moisture Condition: Dry **Building Code: NBCC 2015** 2 Vertical 1234 537 n 0 OBC 2012(2020 Update) Deflection LL: 360 Load Sharing: Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** Floor Live: 40 PSF Dead: 15 PSF Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 5.500" Vert 18% 578 / 1560 2138 L 1.25D+1.5L

2 - SPF 5.500"

Vert

21%

8'5 3/16 8'5 3/16'

### Analysis Results

1 SPF 0-5-8

Analysis	Actua <b>l</b>	Location	Allowed	Capacity	Comb.	Case
Moment	4672 ft-lb	4'5 1/4"	23220 ft-lb	0.201 (20%)	1.25D+1.5L	L
Unbraced	4672 ft-lb	4'5 1/4"	23220 ft-lb	0.201 (20%)	1.25D+1.5L	L
Shear	2361 <b>l</b> b	7'2 3/16"	10574 lb	0.223 (22%)	1.25D+1.5L	L
Perm Defl in.	0.020 (L/4527)	4'3 1/16"	0.255 (L/360)	0.080 (8%)	D	Uniform
LL Defl inch	0.047 (L/1970)	4'3 1/8"	0.255 (L/360)	0.183 (18%)	L	L
TL Defl inch	0.067 (L/1372)	4'3 1/8"	0.382 (L/240)	0.175 (17%)	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 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.



671 / 1851

2523 L

2 SPF 0-5-8

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-6	0-6-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-5-8	0-1-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-3-5		Near Face	113 lb	277 <b>l</b> b	0 lb	0 lb	J4
4	Part. Uniform	1-9-5 to 6-9-5		Near Face	115 PLF	282 PLF	0 PLF	0 PLF	
5	Part. Uniform	4-8-6 to 7-11-10		Тор	32 PLF	84 PLF	0 PLF	0 PLF	

Continued on page 2...

### Notes

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- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- 1. UVL beams must not be cut or drilled
  2. Refer to manufacturer's product information regarding installation requirements, multi-rily fastening details, beam strength values, and code approvals
  3. Damaged Beams must not be used

- Design assumes top edge is laterally restrained
  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

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Handling & Installation

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# Kott Inc.

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





Date:



Client: **GREENPARK** Project:

Address:

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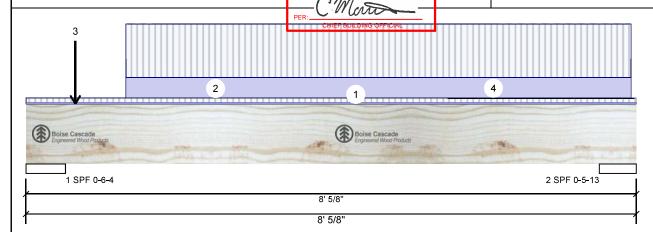
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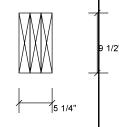
7/3/2023

Versa-Lam LVL 2.1E 3100 SP

1.750" X 9.500" 3-Ply - PASSED

Level: Second Floor





м	em	ber	Into	rmation

Type:	Girder
Plies:	3
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	

40 PSF

15 PSF

Application: Floor (Residential) Design Method: LSD **Building Code: NBCC 2015** Load Sharing: Deck: Not Checked

Vibration:

OBC 2012(2020 Update) Not Checked

# **Unfactored Reactions UNPATTERNED lb (Uplift)**

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	954	420	0	0
2	Vertical	902	399	0	0

# **Bearings and Factored Reactions**

Bearing Leng	th Dir.	Cap.	React D/L Ib	Total	Ld. Case	Ld. Comb.
1 - SPF 6.250	" Vert	10%	525 / 1431	1956	L	1.25D+1.5L
2 - SPF 5.840	" Vert	10%	498 / 1352	1851	L	1.25D+1.5L

### Analysis Results

Floor Live:

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3003 ft-lb	4' 5/8"	36222 ft-lb	0.083 (8%)	1.25D+1.5L	L
Unbraced	3003 ft-lb	4' 5/8"	36222 ft-lb	0.083 (8%)	1.25D+1.5L	L
Shear	2232 <b>l</b> b	1'3 3/4"	15860 lb	0.141 (14%)	1.25D+1.5L	L
Perm Defl in.	0.008 (L/11108)	4' 9/16"	0.239 (L/360)	0.032 (3%)	D	Uniform
LL Defl inch	0.017 (L/4923)	4' 9/16"	0.239 (L/360)	0.073 (7%)	L	L
TL Defl inch	0.025 (L/3411)	4' 9/16"	0.358 (L/240)	0.070 (7%)	D+L	L

# **Design Notes**

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	<b>I</b> D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
	1	Tie-In	0-0-0 to 8-0-10	0-5-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
	2	Part. Uniform	0-0-0 to 5-6-12		Тор	1 PLF	0 PLF	0 PLF	0 PLF		
	3	Point	0-7-13		Far Face	114 <b>l</b> b	304 lb	0 <b>l</b> b	0 <b>l</b> b	J2	
	4	Part. Uniform	1-3-13 to 7-11-13		Far Face	80 PLF	212 PLF	0 PLF	0 PLF		
		Self Weight				14 PLF					

### Notes

Notes

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