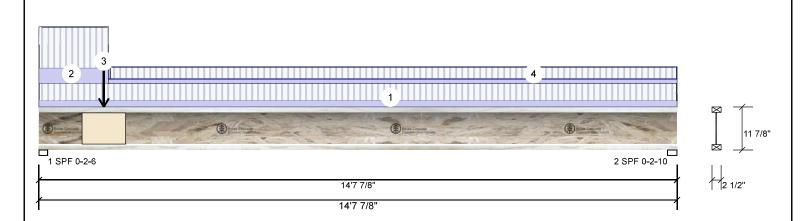
Input 🕢 🥎 🔑 Job Name:

Project #

11 875' CHEF DANG QUAD **AJS 140** F6-C

Level: Ground Floor



Member Inform	ember Information					Unfactored Reactions UNPATTERNED lb (Uplift)					
Туре:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind		
Plies:	1	Design Method:	LSD	1	Vertical	701	262	0	0		
Moisture Condition	: Dry	Building Code:	NBCC 2015	2	Vertical	365	137	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	ings and Fa	actored Rea	ctions				
Dead:	15 PSF			Bea	ring Length	Dir. Cap.	React D/L Ib	Total Ld. Case	Ld. Comb.		
				1 - 9	SPF 2.375"	Vert 82%	328 / 1051	1379 L	1.25D+1.5L		
Analusia Dasule				2 - 9	SPF 2.625"	Vert 41%	171 / 548	719 L	1.25D+1.5L		

Analysis Results

Ana l ysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2804 ft-lb	6'6 1/2"	5305 ft-lb	0.529 (53%)	1.25D+1.5L	L
Unbraced	2804 ft-lb	6'6 1/2"	5305 ft-lb	0.529 (53%)	1.25D+1.5L	L
Shear	1355 lb	1 5/8"	2350 lb	0.577 (58%)	1.25D+1.5L	L
Perm Defl in	0.073 (L/2361)	7' 13/16"	0.479 (L/360)	0.152 (15%)	D	Uniform
LL Defl inch	0.195 (L/885)	7' 13/16"	0.479 (L/360)	0.407 (41%)	L	L
TL Defl inch	0.268 (L/644)	7' 13/16"	0.718 (L/240)	0.373 (37%)	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 13'2" 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.

I D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 14-7-14	0-7-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-7-2	1-7-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-14		Near Face	125 l b	335 lb	0 l b	0 lb	F2
4	Tie-In	1-7-2 to 14-7-14	0-5-9	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 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.

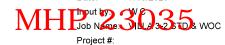
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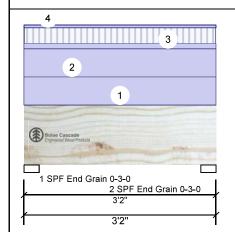


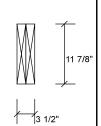
CORPORATION OF THE CITY OF OSHAWA
ENG-M0723-120-KTF-GREENPARK-ZADORRA ESTATES-VILLA 3-2 Client: GREENPARK PERMIT PLANS Project Nov 04 2023



Versa-Lam LVL 2.1E 3100 SP BULD 16750 X 11 875"

2-Ply - PASSED Level: Ground Floor





Member Information Application: Floor (Residential) Type: Plies: 2 Design Method: LSD Moisture Condition: Dry **Building Code: NBCC 2015** OBC 2012(2020 Update) Deflection LL: 360 Load Sharing: Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load Floor Live: 40 PSF 15 PSF Dead:

Unfactored	Reactions	UNPATTERNED I	b (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	35	164	0	0
2	Vertical	35	164	0	0

Analysis Results

Ana l ysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	159 ft-lb	1'7"	23359 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	159 ft-lb	1'7"	23359 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	168 l b	1'2 7/8"	8723 l b	0.019 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/202972)	1'7"	0.093 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/957969)	1'7"	0.093 (L/360)	0.000 (0%)	L	L
TL Defl inch	0.000 (L/167485)	1'7"	0.140 (L/240)	0.001 (0%)	D+L	L

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L I b	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	4%	206 / 52	258	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	4%	206 / 52	258	L	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 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.

I D	Load Type	Location Trib Width	n Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-2-0	Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-2-0	Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tapered Start	0-0-0	Near Face	8 PLF	22 PLF	0 PLF	0 PLF	
	End	3-2-0		8 PLF	22 PLF	0 PLF	0 PLF	

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

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

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





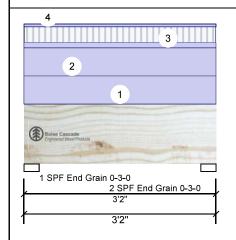
Client: GREENPARK PERMIT PLANS Project Nov 04 2023

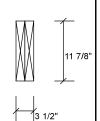


Project #:

Versa-Lam LVL 2.1E 3100 S₽ 8010167501 X 11 875"

2-Ply - PASSED Level: Ground Floor





.Continued from page 1

ID Location Trib Width Side Wind Comments Load Type Dead Live Snow Part. Uniform 0-0-0 to 3-2-0 Near Face 4 PLF 0 PLF 0 PLF 0 PLF Rim Board Self Weight 4

> Self Weight 12 PLF



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 LVL not to be treated with fire retardant or corrosive

Handling & Installation

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

Manufacturer Info Boise Cascade Wood Products

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Kott Inc.

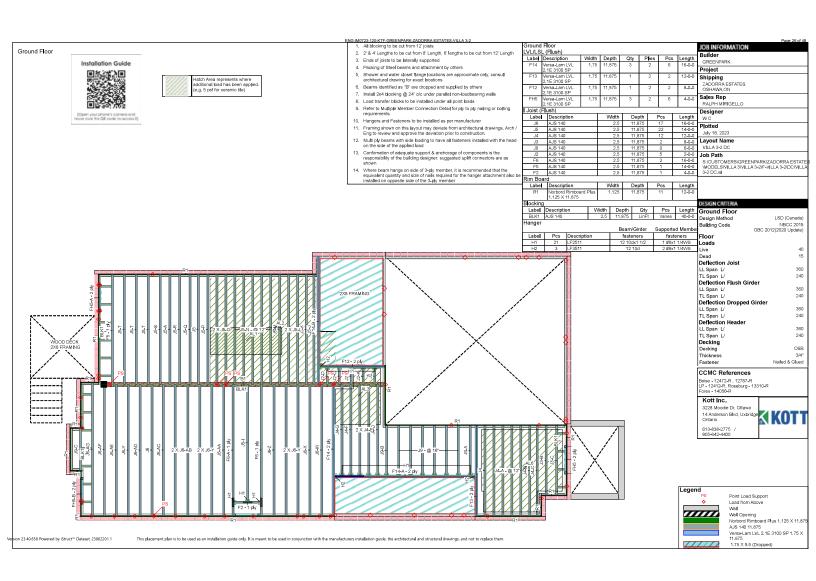
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MHP 23035





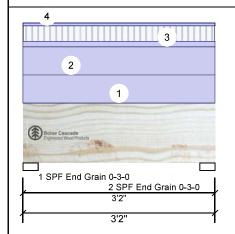
Client: GREENPARK PERMIT PLANS Project Nov 04 2023

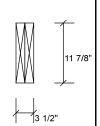


Project #:

Versa-Lam LVL 2.1E 3100 SP BULD 16750 X 11 875"

2-Ply - PASSED Level: Ground Floor





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 PSF		

Unfactored	Reactions	UNPATTERNED Ib	(Uplift)
O I I I I I C C C C C C	I TCG C CI O I I S	OTHER PERSONS	(O P ()

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	35	164	0	0
2	Vertical	35	164	0	0

Analysis Results

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	159 ft-lb	1'7"	23359 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	159 ft-lb	1'7"	23359 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	168 l b	1'2 7/8"	8723 lb	0.019 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/202972)	1'7"	0.093 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/957969)	1'7"	0.093 (L/360)	0.000 (0%)	L	L
TL Defl inch	0.000 (L/167485)	1'7"	0.140 (L/240)	0.001 (0%)	D+L	L

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L I b	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	4%	206 / 52	258	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	4%	206 / 52	258	L	1.25D+1.5L



- 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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Side Dead	Live Snow	Wind Comments	;
Top 40 PLF	0 PLF 0 PLF	0 PLF Wall Self We	eight
Near Face 40 PLF	0 PLF 0 PLF	0 PLF Wall Self We	eight
Near Face 8 PLF	22 PLF 0 PLF	0 PLF	
8 PLF	22 PLF 0 PLF	0 PLF	
7	Top 40 PLF Near Face 40 PLF Near Face 8 PLF	Top 40 PLF 0 PLF 0 PLF Near Face 40 PLF 0 PLF 0 PLF Near Face 8 PLF 22 PLF 0 PLF	Top 40 PLF 0 PLF 0 PLF 0 PLF Wall Self Will Self

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

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

Manufacturer Info Boise Cascade Wood Products

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

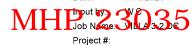
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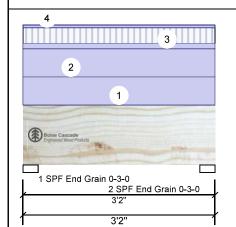


Client: GREENPARK PERMIT PLANS Project Nov 04 2023

Versa-Lam LVL 2.1E 3100 S₽ 8010167501 X 11 875"



2-Ply - PASSED Level: Ground Floor



11 7/8'

.Continued from page 1

ID Location Trib Width Side Load Type Dead Live Snow Wind Comments Part. Uniform 0-0-0 to 3-2-0 Near Face 4 PLF 0 PLF 0 PLF 0 PLF Rim Board Self Weight 4

> Self Weight 12 PLF



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Notes

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 LVL not to be treated with fire retardant or corrosive

Handling & Installation

Handling & Installation

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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

Manufacturer Info

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www.bc.com CCMC: 12472

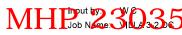
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Client: GREENPARK PERMIT PLANS Project Nov 04 2023

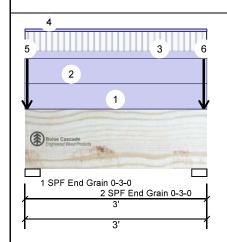


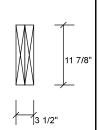
Project #:

Versa-Lam LVL 2.1E 3100 SP BULL 16750 LX 11.875"

2-Ply - PASSED

Level: Ground Floor





Member	Information
Type:	Girder

Type:	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 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	88	390	130	0
2	Vertical	88	460	318	0

Analysis Results

Analysis	Actua l	Location	Allowed	Capacity	Comb.	Case
Moment	156 ft-lb	1'6"	23359 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	156 ft-lb	1'6"	23359 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	177 l b	1'9 1/8"	8723 lb	0.020 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/230204)	1'6"	0.088 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/800767)	1'6"	0.088 (L/360)	0.000 (0%)	L+0.5S	L
TL Defl inch	0.000 (L/178802)	1'6"	0.131 (L/240)	0.001 (0%)	D+L+0.5S	L

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. I	React D/L I b	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	9%	487 / 131	618	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	12%	575 / 565	1139	L	1.25D+1.5S +L



- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 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	Part. Uniform	0-0-0 to 3-0-0	Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-0-0	Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Tapered Start	0-0-0	Near Face	12 PLF	31 PLF	0 PLF	0 PLF	
	End	3-0-0		12 PLF	31 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

- 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

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





Client CREENPARK PERMIT PLANS Project Nov 04 2023

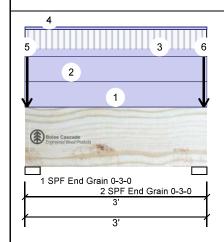
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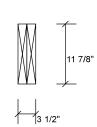
Project #:

Versa-Lam LVL 2.1E 3100 SP BULD 16750 X 11.375"

2-Ply - PASSED

Level: Ground Floor





Continued	from	page	1

I D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-0-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
5	Point	0-0-6		Тор	228 lb	41 lb	130 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
6	Point	2-11-6		Тор	298 lb	41 lb	318 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
	Self Weight				12 PLF				



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Handling & Installation

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







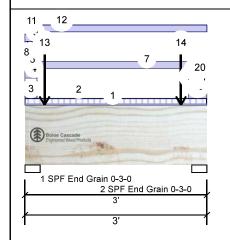
CORPORATION OF THE CITY OF OSHAWA TROLLIN ENG-IM0723-120-K-TF-GREENPARK-ZADORRA ESTATES-VILLA 3-2 Client: GREENPARK PERMIT PLANS Project Nov 04 2023

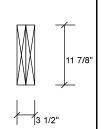
Input 🕢 🥎 🔑 Job Name: Project #

Versa-Lam LVL 2.1E 3100cSPBULD16750X X 11.875"

2-Plv - PASSED

Level: Ground Floor





Member Information

	Type:	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 PSF		
ĺ				
ı				

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	68	517	464	0
2	Vertical	68	325	23	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	203 ft-lb	1'5 11/16"	23005 ft-lb	0.009 (1%)	1.25D+1.5L	L
Unbraced	203 ft-lb	1'5 11/16"	23005 ft-lb	0.009 (1%)	1.25D+1.5L	L
Shear	207 lb	1'9 1/8"	8591 l b	0.024 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/156997)	1'5 13/16"	0.088 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/423218)	1'3 1/2"	0.088 (L/360)	0.001 (0%)	S+0.5L	L
TL Defl inch	0.000 (L/115003)	1'5 1/4"	0.131 (L/240)	0.002 (0%)	D+S+0.5L	L

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. R	React D/L I b	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	15%	646 / 763	1410	L	1.25D+1.5S +L
2 - SPF End Grain	3.000"	Vert	7%	407 / 102	509	L	1.25D+1.5L



- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.
- 2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.
- 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.



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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

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





Client CREENPARK PERMIT PLANS Project Nov 04 2023

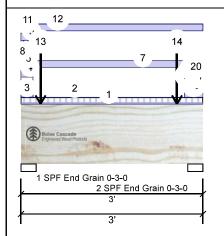
Hout by 3035

Project #:

Versa-Lam LVL 2.1E 3100 SP BUILD 1 G 7 50 X 11.875"

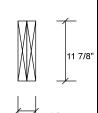
2-Ply - PASSED

Level: Ground Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tapered Start	0-0-0		Near Face	10 PLF	26 PLF	0 PLF	0 PLF	
	End	3-0-0			10 PLF	26 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
3	Part. Uniform	0-0-0 to 0-2-6		Тор	30 PLF	0 PLF	88 PLF	0 PLF	
4	Part. Uniform	0-0-0 to 0-2-6		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
5	Tapered Start	0-0-0		Тор	4 PLF	10 PLF	0 PLF	0 PLF	
	End	0-2-6			4 PLF	10 PLF	0 PLF	0 PLF	
6	Part. Uniform	0-0-0 to 0-2-6		Тор	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
7	Part. Uniform	0-0-0 to 3-0-0		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Part. Uniform	0-0-0 to 0-2-6		Near Face	30 PLF	0 PLF	88 PLF	0 PLF	
9	Part. Uniform	0-0-0 to 0-2-6		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
10	Tapered Start	0-0-0		Near Face	4 PLF	10 PLF	0 PLF	0 PLF	
	End	0-2-6			4 PLF	10 PLF	0 PLF	0 PLF	
11	Part. Uniform	0-0-0 to 0-2-6		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
12	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
13	Point	0-3-14		Тор	333 lb	24 l b	452 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
14	Point	2-6-14		Тор	134 lb	24 b	0 b	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
15	Part. Uniform	2-8-6 to 3-0-0		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
16	Tapered Start	2-8-6		Тор	4 PLF	10 PLF	0 PLF	0 PLF	
	End	3-0-0		_	4 PLF	10 PLF	0 PLF	0 PLF	
17	Part. Uniform	2-8-6 to 3-0-0		Тор	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
18	Part. Uniform	2-8-6 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
19	Tapered Start	2-8-6		Near Face	4 PLF	10 PLF	0 PLF	0 PLF	
	End	3-0-0			4 PLF	10 PLF	0 PLF	0 PLF	
20	Part. Uniform	2-8-6 to 3-0-0		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				12 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

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

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

Kott Inc.

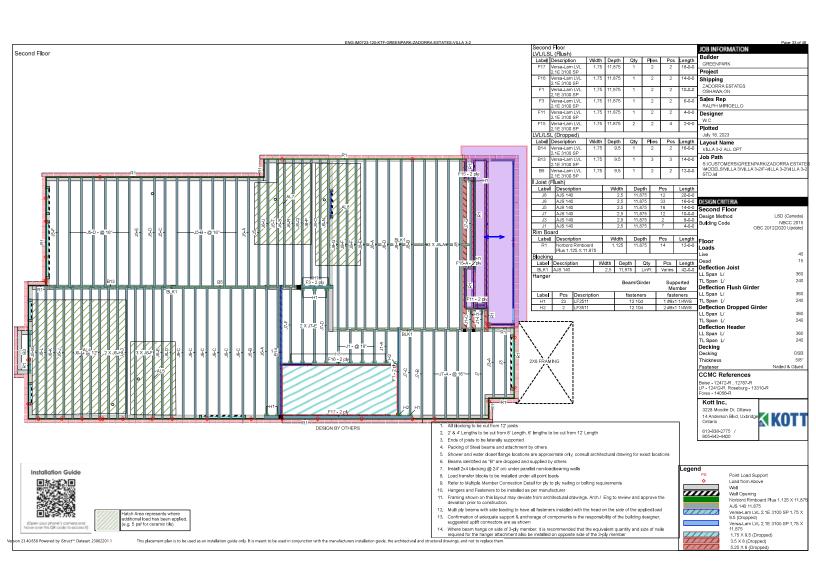
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MHP 23035

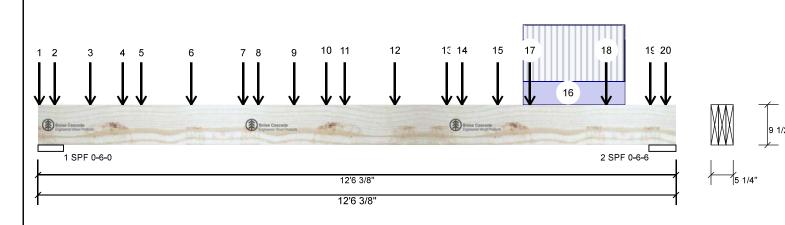


Page 22 of 36

Versa-Lam LVL 2.1E 3100 SP BULDNG750¼ X 9.500"

3-Ply - PASSED

Level: Second Floor



Member Information Unfactored Reactions UNPATTERNED Ib (Uplift) Application: Floor (Residential) Type: Brg Direction Live Dead Snow Wind Plies: 3 Design Method: LSD 3229 Vertical 1444 0 1 0 Moisture Condition: Dry **Building Code: NBCC 2015** 2 Vertical 3152 1364 n 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 6.000"

2 - SPF 6.375"

Vert

Vert

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	18405 ft-lb	6' 5/16"	36222 ft-lb	0.508 (51%)	1.25D+1.5L	L
Unbraced	18405 ft-lb	6' 5/16"	36222 ft-lb	0.508 (51%)	1.25D+1.5L	L
Shear	5830 lb	1'3 1/2"	15860 l b	0.368 (37%)	1.25D+1.5L	L
Perm Defl in.	0.123 (L/1136)	6'2 13/16"	0.387 (L/360)	0.317 (32%)	D	Uniform
LL Defl inch	0.278 (L/501)	6'3"	0.387 (L/360)	0.719 (72%)	L	L
TL Defl inch	0.401 (L/348)	6'2 15/16"	0.581 (L/240)	0.690 (69%)	D+L	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 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam
- 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 be laterally braced at bearings.
- 9 Lateral slenderness ratio based on full section width.



34%

31%

1805 / 4844

1705 / 4727

6649 L

6433 L

1.25D+1.5L

1.25D+1.5L

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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-ply
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

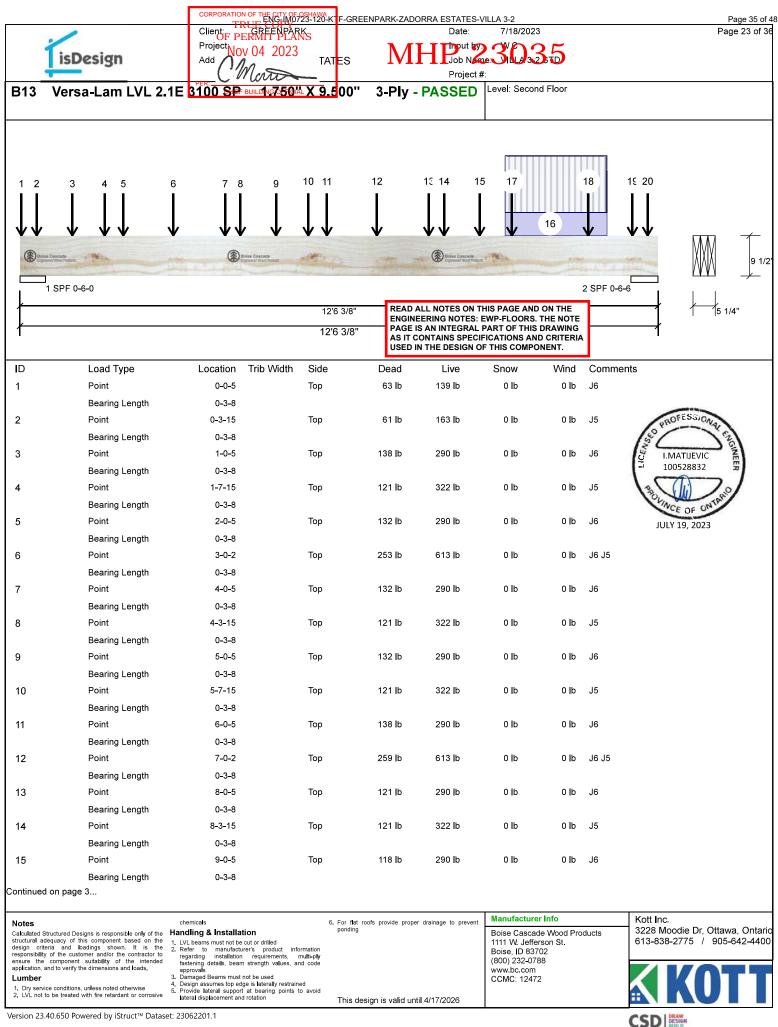
Manufacturer Info

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

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Client CREENPARK PERMIT PLANS Project Nov 04 2023

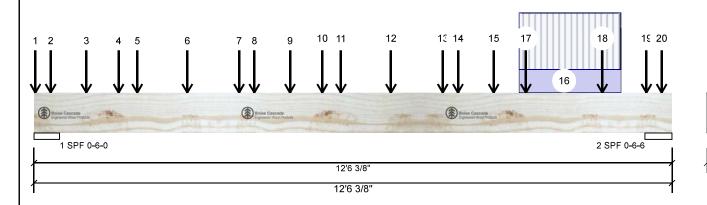
Pout by 3035

Project #:

Versa-Lam LVL 2.1E 3100 S₽ 80101075014 X 9.5 00"

3-Ply - PASSED

Level: Second Floor



Continued from	page 2								
I D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
16	Part. Uniform	9-6-5 to 11-6-5		Тор	118 PLF	290 PLF	0 PLF	0 PLF	
17	Point	9-7-15		Тор	128 lb	343 lb	0 lb	0 lb	J5
	Bearing Length	0-3-8							
18	Point	11-1-15		Тор	121 b	322 lb	0 lb	0 l b	J5
	Bearing Length	0-3-8							
19	Point	12-0-5		Тор	57 l b	139 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
20	Point	12-3-15		Тор	57 lb	151 l b	0 lb	0 lb	J5
	Bearing Length	0-3-8							
	Self Weight				14 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

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







CORPORATION OF THE CITY OF OSHAWA TRUE ENGRAPO 23-120-K F-GREENPARK-ZADORRA ESTATES-VILLA 3-2 Client: CREENPARK OF PERMIT PLANS Project Nov 04 2023

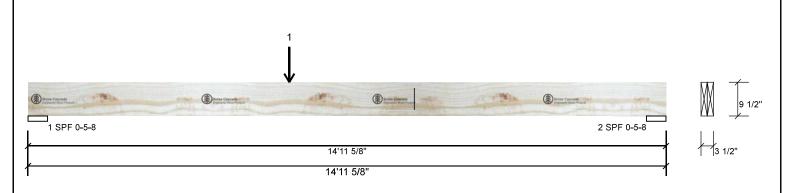
Input ly Job Name: JUA

Project #:

Versa-Lam LVL 2.1E 3100 SP BULD 10750 X 9.5 00"

2-Ply - PASSED

Level: Second Floor



Member Inforn	nation			Unfa	actored Rea	actions	UNP	ATTERNED II	b (Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Direction	L	ive	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical	5	65	330	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015	2	Vertical	3	884	247	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	ings and F	actored	Rea	ctions		
Dead:	15 PSF			Bea	ring Length	Dir.	Cap.	React D/L Ib	Total Ld. Case	Ld. Comb.
				1 - 8	SPF 5.500"	Vert	11%	412 / 848	1260 L	1.25D+1.5L
				2-9	SPF 5.500"	Vert	7%	309 / 576	884 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7003 ft-lb	6'1 9/16"	23220 ft-lb	0.302 (30%)	1.25D+1.5L	L
Unbraced	7003 ft-lb	6'1 9/16"	21693 ft-lb	0.323 (32%)	1.25D+1.5L	L
Shear	1255 lb	1'3"	10574 lb	0.119 (12%)	1.25D+1.5L	L
Perm Defl in	0.098 (L/1740)	7'1 5/8"	0.472 (L/360)	0.207 (21%)	D	Uniform
LL Defl inch	0.177 (L/958)	7' 15/16"	0.472 (L/360)	0.376 (38%)	L	L
TL Defl inch	0.275 (L/618)	7'1 3/16"	0.709 (L/240)	0.388 (39%)	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 laterally braced at a maximum of 8'10 1/16" o.c.
- 6 Bottom must be laterally braced at bearings.
- 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	Point	6-1-9		Тор	435 lb	949 l b	0 l b	0 l b	F16
	Bearing Length	0-3-8							
	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

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







CORPORATION OF THE CITY OF OSHAWA F-GREENPARK-ZADORRA ESTATES-VILLA 3-2 Client: GREENPARK PERMIT PLANS Project Nov 04 2023

input by Job Name: Project #

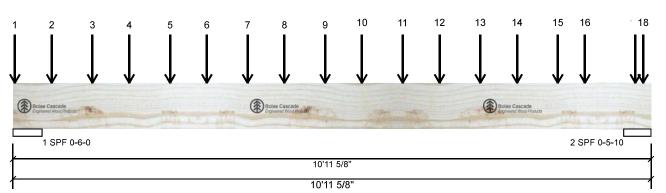
Versa-Lam LVL 2.1E 3100 SPEF BU101750161X 9.500" **B5**

2-Ply - PASSED

2

Vertical

Level: Second Floor



0

Application: Floor (Residential) Type: Plies: 2 Design Method: LSD Moisture Condition: Dry **Building Code: NBCC 2015** OBC 2012(2020 Update) Deflection LL: 360 Load Sharing: Deflection TL: 240 Not Checked Deck: Importance: Normal - II Vibration: Not Checked General Load Floor Live: 40 PSF 15 PSF Dead:

Unfactored Reactions UNPATTERNED lb (Uplift) Brg Direction Live Dead Snow Wind 2831 Vertical 1117 0 1 0

1092

2732

L	Bearings	s and Fa	ctored	Read	ctions			
ſ	Bearing	Length	Dir.	Cap.	React D/L Ib	Total	Ld. Case	Ld. Comb.
l	1 - SPF	6.000"	Vert	44%	1396 / 4247	5643	L	1.25D+1.5L
l	2 - SPF	5.639"	Vert	45%	1365 / 4099	5464	L	1.25D+1.5L +S

Analysis Results

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13502 ft-lb	5'4 3/8"	23220 ft-lb	0.581 (58%)	1.25D+1.5L	L
Unbraced	13502 ft-lb	5'4 3/8"	23220 ft-lb	0.581 (58%)	1.25D+1.5L	L
Shear	4880 lb	1'3 1/2"	10574 lb	0.462 (46%)	1.25D+1.5L	L
Perm Defl in	0.094 (L/1290)	5'5 15/16"	0.337 (L/360)	0.279 (28%)	D	Uniform
LL Defl inch	0.240 (L/507)	5'5 15/16"	0.337 (L/360)	0.710 (71%)	L+0.5S	L
TL Defl inch	0.334 (L/364)	5'5 15/16"	0.506 (L/240)	0.660 (66%)	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 4.5.
- 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 be laterally braced at bearings.
- 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

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





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- LVL beams must not be cut or drilled
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 regarding installation requirements, multi-ply
 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

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This design is valid until 4/17/2026 CSD DESIGN

Client CREENPARK PERMIT PLANS Project Nov 04 2023 TATES

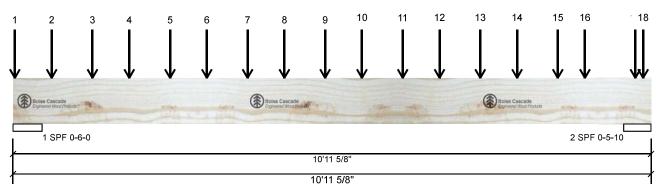
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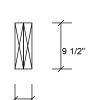
Project #:

Versa-Lam LVL 2.1E 3<mark>100 SP ■ 804 10 1 2.50</mark>0" **B5**

2-Ply - PASSED

Level: Second Floor





Continued from	m page 2								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
16	Point	9-10-0		Тор	106 l b	260 l b	0 l b	0 l b	J5
	Bearing Length	0-3-8							
17	Point	10-8-6		Тор	53 lb	142 l b	0 l b	0 l b	J6
	Bearing Length	0-3-8							
18	Point	10-10-0		Тор	53 lb	117 l b	1 l b	0 l b	J6
	Bearing Length	0-3-8							
	Self Weight				9 PLF				



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Handling & Installation

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

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





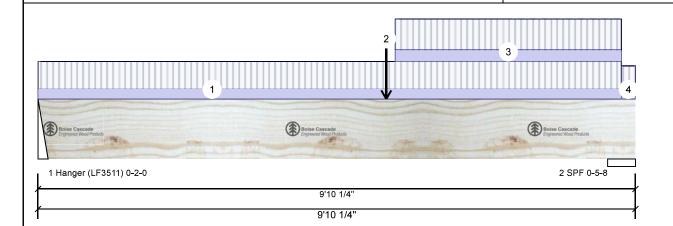
Client: GREENPARK PERMIT PLANS Project Nov 04 2023

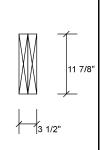
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Versa-Lam LVL 2.1E 3 100 SP == 84.0750 16 X 11.8 75"

2-Ply - PASSED

Level: Second Floor





Ld. Comb.

1.25D+1.5L

1.25D+1.5L

Member Inform	nation
Туре:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	

40 PSF 15 PSF

Floor Live:

Dead:

Application: Floor (Residential) Design Method: LSD Building Code: **NBCC 2015** OBC 2012(2020 Update) Load Sharing: Deck: Not Checked Vibration: Not Checked

Unf	actored Rea	ctions UNPAT	TERNED l b (Uplift)	
Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	366	225	0	0
2	Vertical	558	317	0	0

Cap. React D/L lb

11%

10%

281 / 549

396 / 837

Total Ld. Case

831 L

1232 L

Bearings and Factored Reactions

Dir.

Vert

Vert

Bearing Length

2 - SPF 5.500"

Hanger

2.000"

Analysis Results Analysis Actual Location Allowed Capacity Comb. Case

Moment	3627 ft-lb	5'8 15/16"	35392 ft-lb	0.102 (10%)	1.25D+1.5L	L
Unbraced	3627 ft-lb	5'8 15/16"	35392 ft-lb	0.102 (10%)	1.25D+1.5L	L
Shear	1088 lb	8'4 7/8"	13217 l b	0.082 (8%)	1.25D+1.5L	L
Perm Defl in.	0.012 (L/9128)	5' 3/16"	0.312 (L/360)	0.039 (4%)	D	Uniform
LL Defl inch	0.022 (L/5190)	5' 5/8"	0.312 (L/360)	0.069 (7%)	L	L
TL Defl inch	0.034 (L/3309)	5' 7/16"	0.468 (L/240)	0.073 (7%)	D+L	L

OROFESSION I.MATIJEVIC 100528832 WCE OF

JULY 19, 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.

Design Notes

- 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 be laterally braced at a maximum of 5'8 15/16" o.c.
- 9 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.

I D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 9-7-8	0-7-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	5-8-15		Far Face	293 lb	572 l b	0 l b	0 lb	F16
3	Tie-In	5-10-11 to 9-7-8	0-8-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	9-7-8 to 9-10-4	0-6-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

Notes

Notes

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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

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

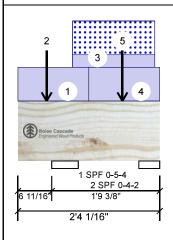


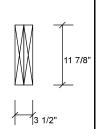


Project #:

2-Ply - PASSED

Level: Second Floor





Member	Information
Type:	Cirdor

Type:	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 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	66	104	18	0
2	Vertical	27	59	29	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L Ib	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	3%	130 / 83	213	L_	1.25D+1.5L
2 - SPF	4.125"	Vert	2%	74 / 75	148	_L	1.25D+1.5L +S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-18 ft-lb	9 5/16"	26544 ft-lb	0.001 (0%)	1.25D+1.5L	L_
Pos Moment	35 ft-lb	1'8 5/16"	28314 ft-lb	0.001 (0%)	1.25D+1.5L +S	_L
Unbraced	35 ft-lb	1'8 5/16"	28314 ft-lb	0.001 (0%)	1.25D+1.5L +S	_L
Shear	111 l b	-(5 3/16")	11631 l b	0.010 (1%)	1.25D+1.5L	L_
Perm Defl in.	0.000 (L/2252513)	1'5 3/4"	0.043 (L/360)	0.000 (0%)	D	Uniform
LL Defl inch	0.000 (L/2479003)	1'6 15/16"	0.043 (L/360)	0.000 (0%)	L+0.5S	_L
TL Defl inch	0.000 (L/1185809)	1'6 1/4"	0.064 (L/240)	0.000 (0%)	D+L+0.5S	_L
LL Cant	-0.000 (2L/3295793)	Lt Cant	0.200 (2L/360)	0.000 (0%)	S+0.5L	_L
TL Cant	0.000 (2L/2373281)	Lt Cant	0.300 (2L/240)	0.000 (0%)	D+L	L_



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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 continuously laterally braced.
- 6 Bottom must have sheathing attached or be continuously braced.
- 7 Lateral slenderness ratio based on full section width.

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and badings 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. 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

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

www.bc.com CCMC: 12472

Manufacturer Info

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





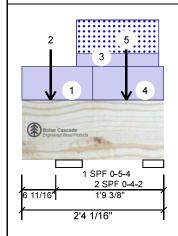
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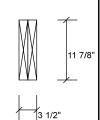
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Project #:

Versa-Lam LVL 2.1E 3100 SR BULL 1/0501/4 X 11.875"

2-Ply - PASSED Level: Second Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 1-2-0		Тор	35 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Point	0-5-11		Near Face	20 l b	52 l b	0 lb	0 l b	J1
3	Part. Uniform	0-10-13 to 2-3-1		Тор	13 PLF	0 PLF	35 PLF	0 PLF	
4	Part. Uniform	1-2-0 to 2-4-1		Тор	35 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
5	Point	1-8-11		Near Face	16 l b	41 l b	0 lb	0 l b	J1
	Self Weight				12 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

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



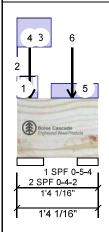


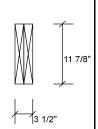
Project #

Versa-Lam LVL 2.1E **8100 SP-BULLING-501ALX 11.**875"

2-Ply - PASSED Level: Second Floor

7/18/2023





Member Infor	mation			Unfa	ctored Rea	actions	S UNPA	TTERNED II	b (Uplif	t)	
Type:	Girder	Application:	Floor (Residential)	Brg	Direction		Live	Dead	5	Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical		45	390		742	0
Moisture Condition Deflection LL:	n: Dry 360	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical		110	75		0	0
Deflection TL: Importance: General Load	240 Normal - II	Load Sharing: Deck: Vibration:	No Not Checked Not Checked								
Floor Live:	40 PSF			Bear	ings and F	actore	d Reac	tions			
Dead:	15 PSF			1	ring Length SPF 5.250"	Dir. Vert	Cap. 15%	React D/L I b 488 / 1158	Total L 1646 L	_d. Case -	Ld. Comb. 1.25D+1.5S +L
Analysis Resul		ation Allowed Canad	ity Comb Coop	2 - 8	SPF 4.125"	Vert	14%	94 / 165	259 L	_	1.25D+1.5L

ı	Analysis	Actua l	Location	Allowed	Capacity	Comb.	Case
	Moment	34 ft-lb	10 15/16"	26898 ft-lb	0.001 (0%)	1.25D+1.5L	L
	Unbraced	34 ft-lb	10 15/16"	26898 ft-lb	0.001 (0%)	1.25D+1.5L	L
	Shear	196 lb	1/16"	10045 lb	0.020 (2%)	1.25D+1.5L	L
	Perm Defl in.	0.000 (L/3013574)	9 15/16"	0.023 (L/360)	0.000 (0%)	D	Uniform
	LL Defl inch	0.000 (L/1654356)	10 15/16"	0.023 (L/360)	0.000 (0%)	L+0.5S	L
	TL Defl inch	0.000 (L/1080872)	10 15/16"	0.034 (L/240)	0.000 (0%)	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 4.125.
- 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 have sheathing attached or be continuously braced.
- 8 Lateral slenderness ratio based on full section width.



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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

This design is valid until 4/17/2026

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

www.bc.com CCMC: 12472

Manufacturer Info

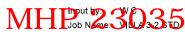
Kott Inc.

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





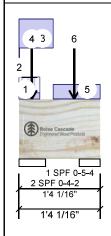
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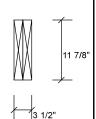


Project #:

Versa-Lam LVL 2.1E 3100 SP-BUL4N7/501/LX 11.875"

2-Ply - PASSED Level: Second Floor





I D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-2	1-1-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-0-2		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-0-0 to 0-6-12		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Point	0-2-9		Тор	314 lb	0 lb	742 l b	0 lb	F18
	Bearing Length	0-5-8							
5	Part. Uniform	0-6-12 to 1-4-1		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Point	0-10-15		Near Face	53 lb	140 l b	0 l b	0 lb	J7
	Self Weight				12 PLF				



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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. 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

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







CORPORATION OF THE CITY OF OSHAWA TENTUE ENIG-IM0723-120-K-F-GREENPARK-ZADORRA ESTATES-VILLA 3-2 Client: CREENPARK OF PERMIT PLANS Project Nov 04 2023

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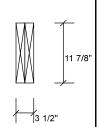
Project #:

Versa-Lam LVL 2.1E 3100 SP BUILD 750 X 11.875"

2-Plv - PASSED

Level: Second Floor





Member Infor	mation			Unfactored Reactions UNPATTERNED lb (Uplift)							
Туре:	Girder	Application:	Floor (Residential)	Brg	Direction	L	ive	Dead		Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical		30	20		0	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2015	2	Vertical		111	49		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	ings and F	actored	l Rea	ctions			
Dead:	15 PSF			Bea	ring Length	Dir.	Сар.	React D/L Ib	Total	Ld. Case	Ld. Comb.
				1-8	SPF 5.250"	Vert	1%	25 / 45	70	L	1.25D+1.5L
				2 - 5	SPF 4.125"	Vert	3%	61 / 166	227	L	1.25D+1.5L

Analysis Results

Ana l ysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	32 ft-lb	10 15/16"	35392 ft-lb	0.001 (0%)	1.25D+1.5L	L
Unbraced	32 ft-lb	10 15/16"	35392 ft-lb	0.001 (0%)	1.25D+1.5L	L
Shear	222 lb	1/16"	13217 l b	0.017 (2%)	1.25D+1.5L	L
Perm Defl ir	0.000 (L/4029645)	10 15/16"	0.023 (L/360)	0.000 (0%)	D	Uniform
LL Defl inch	0.000 (L/1642623)	10 15/16"	0.023 (L/360)	0.000 (0%)	L	L
TL Defl inch	0.000 (L/1166939)	10 15/16"	0.034 (L/240)	0.000 (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 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 must be continuously laterally braced.
- 5 Bottom must have sheathing attached or be continuously braced.
- 6 Lateral slenderness ratio based on full section width.



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I D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-10-15		Far Face	53 lb	141 l b	0 lb	0 l b	J7
	Self Weight				12 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

Manufacturer Info

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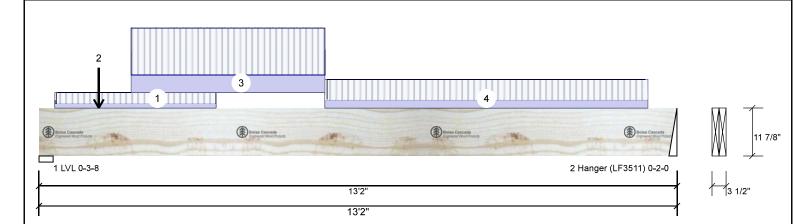


CORPORATION OF THE CITY OF OSHAWA

F-GREENPARK-ZADORRA ESTATES-VILLA 3-2 Client: GREENPARK PERMIT PLANS Project Nov 04 2023

input by Job Name: Project #

2-Ply - PASSED Level: Second Floor



Member Information **Unfactored Reactions UNPATTERNED lb (Uplift)** Application: Floor (Residential) Type: Brg Direction Live Dead Snow Plies: 2 Design Method: LSD 435 Vertical 949 0 1 Moisture Condition: Dry Building Code: **NBCC 2015** 2 Vertica 572 293 n 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 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - LVL 3.500" Vert 15% 543 / 1424 1967 L 1.25D+1.5L 2 -2.000" Vert 16% 366 / 859 1225 L 1.25D+1.5L Analysis Results Hanger

Analysis	Actua l	Location	Allowed	Capacity	Comb.	Case
Moment	5166 ft-lb	5'5 3/4"	35392 ft-lb	0.146 (15%)	1.25D+1.5L	L
Unbraced	5166 ft-lb	5'5 3/4"	35392 ft-lb	0.146 (15%)	1.25D+1.5L	L
Shear	1959 lb	1'3 3/8"	13217 l b	0.148 (15%)	1.25D+1.5L	L
Perm Defl in.	0.034 (L/4569)	6'5 3/8"	0.428 (L/360)	0.079 (8%)	D	Uniform
LL Defl inch	0.071 (L/2174)	6'4 5/8"	0.428 (L/360)	0.166 (17%)	L	L
TL Defl inch	0.105 (L/1473)	6'4 7/8"	0.642 (L/240)	0.163 (16%)	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 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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I D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-3-14 to 3-7-14		Тор	15 PLF	40 PLF	0 PLF	0 PLF	
2	Point	1-2-13		Far Face	87 l b	231 l b	0 l b	0 lb	J7
3	Part. Uniform	1-10-13 to 5-10-13		Far Face	62 PLF	166 PLF	0 PLF	0 PLF	
4	Part. Uniform	5-10-13 to 12-6-13		Far Face	28 PLF	74 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				

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

Wind

0

0



CORPORATION OF THE CITY OF OSHAWA TOTAL ENGLINO 723-120-KT F-GREENPARK-ZADORRA ESTATES-VILLA 3-2 Client: GREENPARK PERMIT PLANS Project Nov 04 2023

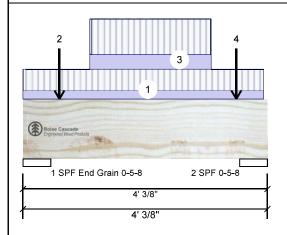
7/18/2023 Input 🕢 🥎 🔑 Job Name:

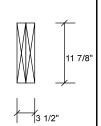
Project #:

Versa-Lam LVL 2.1E 3 100 SPIEF BULD 750 X 11.8 75"

2-Ply - PASSED

Level: Second Floor





Wind

0

0

Page 36 of 36

Member Inform	nation		
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 PSF		

Unfa	actored R	eactions UNPA	TTERNED Ib	(Uplift)
Brg	Direction	Live	Dead	Snow

866

2	Vertical	899	400	0	0

374

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1161 ft-lb	2' 1/4"	35392 ft-lb	0.033 (3%)	1.25D+1.5L	L
Unbraced	1161 ft-lb	2' 1/4"	35392 ft-lb	0.033 (3%)	1.25D+1.5L	L
Shear	1669 l b	1'5 3/8"	13217 l b	0.126 (13%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/74972)	2' 1/4"	0.108 (L/360)	0.005 (0%)	D	Uniform
LL Defl inch	0.001 (L/32464)	2' 1/4"	0.108 (L/360)	0.011 (1%)	L	L
TL Defl inch	0.002 (L/22655)	2' 1/4"	0.162 (L/240)	0.011 (1%)	D+L	L

Bearings and Factored Reactions

Vertical

_	Jean ings	aliu ra	ctoreu	Neac	uous			
	Bearing	Length	Dir.	Cap.	React D/L I b	Total	Ld. Case	Ld. Comb.
	1 - SPF End Grain	5.500"	Vert	9%	468 / 1298	1766	L	1.25D+1.5L
	2 - SPF	5.500"	Vert	16%	500 / 1349	1848	L	1.25D+1.5L



JULY 19, 2023

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o Latola	ojonidomiodo idilo bacca i	on ran occaon wat.	I						
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-11-10		Near Face	63 PLF	167 PLF	0 PLF	0 PLF	
2	Point	0-7-3		Far Face	117 l b	278 l b	0 l b	0 l b	J6
3	Part. Uniform	1-1-3 to 3-1-3		Far Face	115 PLF	273 PLF	0 PLF	0 PLF	
4	Point	3-6-3		Far Face	129 l b	278 l b	0 lb	0 lb	J6
	Self Weight				12 PLF				

Notes

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- Handling & Installation

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