



TRUE COPY
OF PERMIT PLANS
Oct 30 2023

Chen

Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

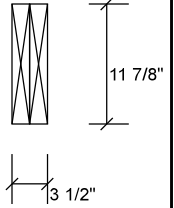
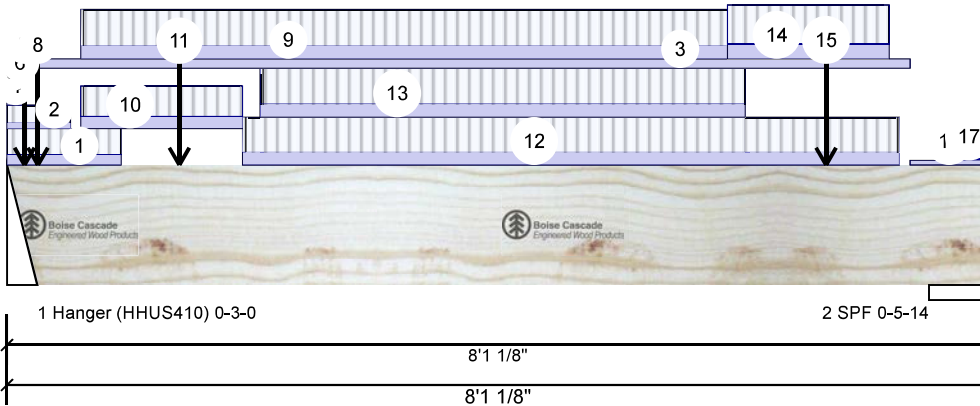
Date: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 STD
Project #:

MHP 23030

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F7-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 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 0-11-5		Top	92 PLF	223 PLF	0 PLF	0 PLF	J6
2	Part. Uniform	0-0-0 to 0-6-5		Top	56 PLF	148 PLF	0 PLF	0 PLF	J6
3	Part. Uniform	0-0-0 to 7-5-6		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-0-0 to 0-1-12		Top	36 PLF	87 PLF	0 PLF	0 PLF	J6
5	Part. Uniform	0-0-0 to 0-1-12		Top	22 PLF	58 PLF	0 PLF	0 PLF	J6
6	Part. Uniform	0-0-0 to 0-1-12		Top	31 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
7	Point	0-1-12		Top	332 lb	806 lb	0 lb	0 lb	F11
	Bearing Length	0-5-8							
8	Point	0-3-1		Near Face	155 lb	413 lb	0 lb	0 lb	J6
9	Part. Uniform	0-7-5 to 5-11-5		Top	117 PLF	312 PLF	0 PLF	0 PLF	J6
10	Part. Uniform	0-7-5 to 1-11-5		Top	107 PLF	263 PLF	0 PLF	0 PLF	J6
11	Point	1-5-1		Near Face	145 lb	387 lb	0 lb	0 lb	J6
12	Part. Uniform	1-11-5 to 7-4-5		Top	113 PLF	301 PLF	0 PLF	0 PLF	J6
13	Part. Uniform	2-1-1 to 6-1-1		Near Face	116 PLF	310 PLF	0 PLF	0 PLF	
14	Part. Uniform	5-11-5 to 7-3-5		Top	127 PLF	340 PLF	0 PLF	0 PLF	J6
15	Point	6-9-1		Near Face	148 lb	394 lb	0 lb	0 lb	J6
16	Part. Uniform	7-5-6 to 8-1-2		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
17	Tie-In	7-7-14 to 8-1-2	0-9-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

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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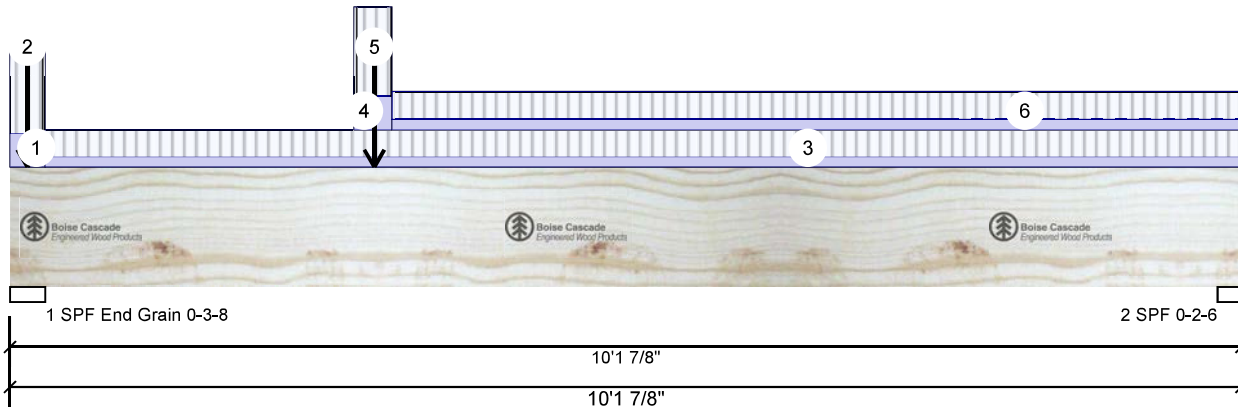
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F8-A Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	682	351	0	0
2	Vertical	313	183	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	11%	439 / 1023	1461	L	1.25D+1.5L
2 - SPF	2.375"	Vert	14%	229 / 470	698	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2264 ft-lb	3'4 7/8"	35392 ft-lb	0.064 (6%)	1.25D+1.5L	L
Unbraced	2264 ft-lb	3'4 7/8"	35392 ft-lb	0.064 (6%)	1.25D+1.5L	L
Shear	847 lb	1'3 3/8"	13217 lb	0.064 (6%)	1.25D+1.5L	L
Perm Defl in. (L/12610)	0.009	4'11 1/16"	0.326 (L/360)	0.029 (3%)	D	Uniform
LL Defl inch	0.017 (L/6919)	4'10 9/16"	0.326 (L/360)	0.052 (5%)	L	L
TL Defl inch	0.026 (L/4468)	4'10 3/4"	0.490 (L/240)	0.054 (5%)	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 7'1 13/16" o.c.
- 7 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-3-8	1-10-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-1-12		Far Face	115 lb	254 lb	0 lb	0 lb	F6
3	Tie-In	0-3-8 to 10-1-14	0-6-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	2-10-0 to 3-1-13	1-10-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Point	3-0-1		Near Face	140 lb	318 lb	0 lb	0 lb	F6

Continued on page 2...

Notes

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Lumber

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

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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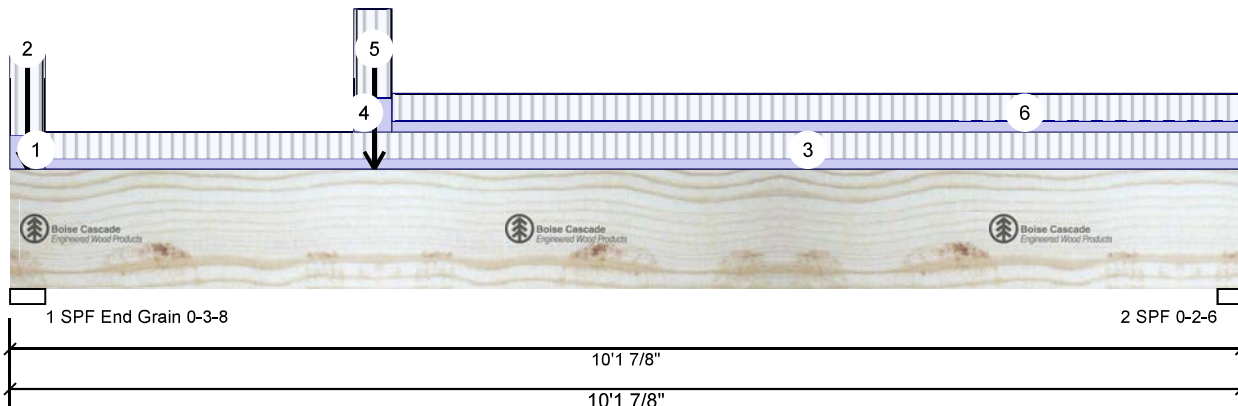
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F8-A Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Tie-In	3-1-13 to 10-1-14	0-6-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

Notes

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Lumber

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

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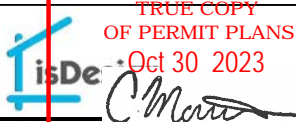
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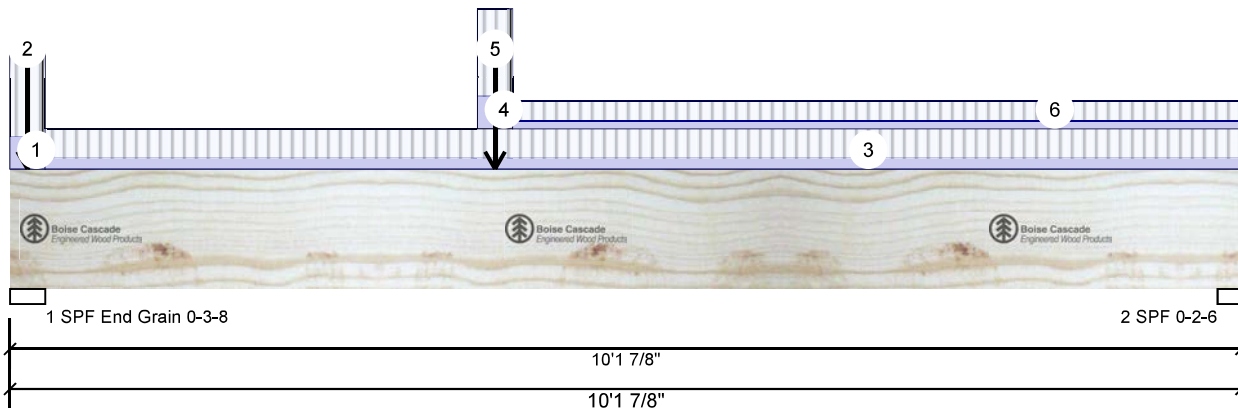


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F8-B Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	614	324	0	0
2	Vertical	325	189	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	Vert	10%	405 / 921	1326	L	1.25D+1.5L
2 - SPF	2.375"	Vert	14%	237 / 488	724	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2526 ft-lb	4'	35392 ft-lb	0.071 (7%)	1.25D+1.5L	L
Unbraced	2526 ft-lb	4'	35392 ft-lb	0.071 (7%)	1.25D+1.5L	L
Shear	738 lb	1'3 3/8"	13217 lb	0.056 (6%)	1.25D+1.5L	L
Perm Defl in. (L/12090)	0.010	4'11 3/4"	0.326 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.018 (L/6621)	4'11 3/8"	0.326 (L/360)	0.054 (5%)	L	L
TL Defl inch	0.027 (L/4278)	4'11 1/2"	0.490 (L/240)	0.056 (6%)	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 6'1 7/8" o.c.
- 7 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-3-8	1-10-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-1-12		Near Face	110 lb	238 lb	0 lb	0 lb	F6
3	Tie-In	0-3-8 to 10-1-14	0-7-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	3-10-4 to 4-1-12	1-10-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Point	4-0-0		Far Face	138 lb	313 lb	0 lb	0 lb	F6

Continued on page 2...

Notes

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Lumber

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chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

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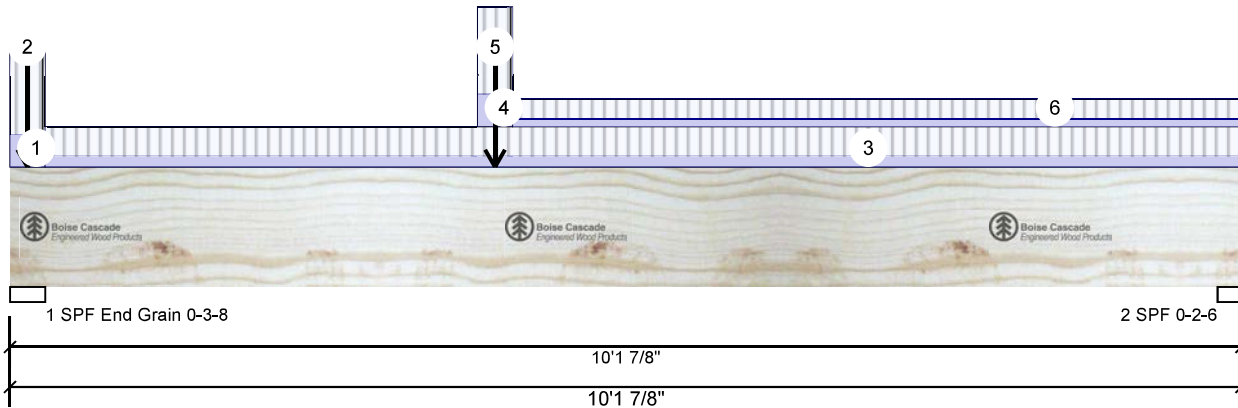
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F8-B Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Tie-In	4-1-12 to 10-1-14	0-5-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

Notes

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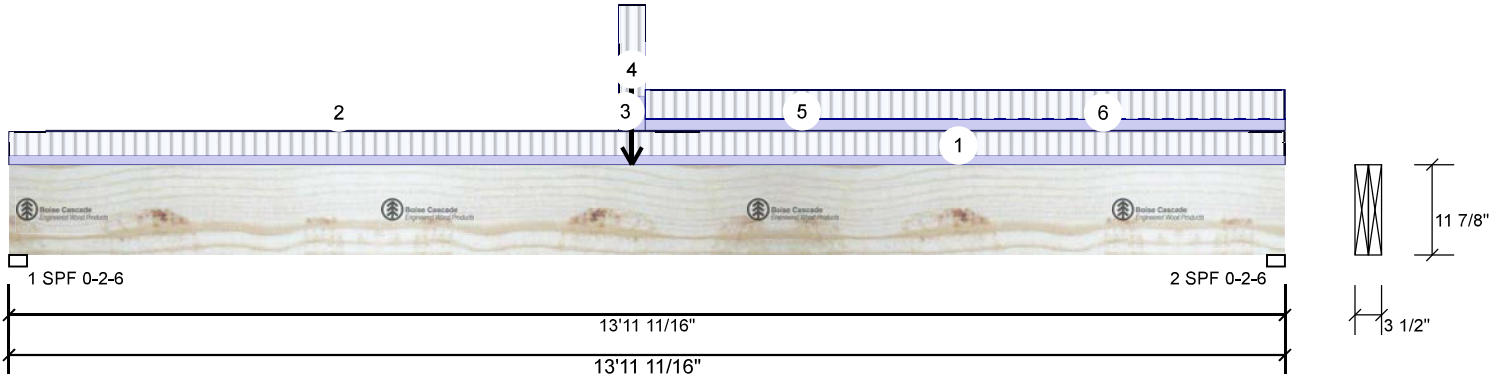
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F9-B Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	346	229	0	0
2	Vertical	423	257	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	16%	287 / 520	806	L	1.25D+1.5L
2 - SPF	2.375"	Vert	19%	322 / 634	956	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4142 ft-lb	6'9 7/8"	35392 ft-lb	0.117 (12%)	1.25D+1.5L	L
Unbraced	4142 ft-lb	6'9 7/8"	35392 ft-lb	0.117 (12%)	1.25D+1.5L	L
Shear	852 lb	12'9 7/16"	13217 lb	0.064 (6%)	1.25D+1.5L	L
Perm Defl in.	0.032 (L/5083)	7' 1/8"	0.457 (L/360)	0.071 (7%)	D	Uniform
LL Defl inch	0.055 (L/3002)	7' 3/8"	0.457 (L/360)	0.120 (12%)	L	L
TL Defl inch	0.087 (L/1887)	7' 1/4"	0.685 (L/240)	0.127 (13%)	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.
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- 5 Top must be continuously laterally braced.
- 6 Bottom must be laterally braced at a maximum of 7'1 13/16" o.c.
- 7 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-11-11	0-5-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-14 to 7-0-14		Top	1 PLF	0 PLF	0 PLF	0 PLF	
3	Tie-In	6-8-2 to 6-11-10	1-10-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	6-9-14		Far Face	138 lb	314 lb	0 lb	0 lb	F6
5	Tie-In	6-11-10 to 13-11-11	0-7-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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Lumber

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chemicals

Handling & Installation

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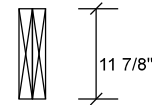
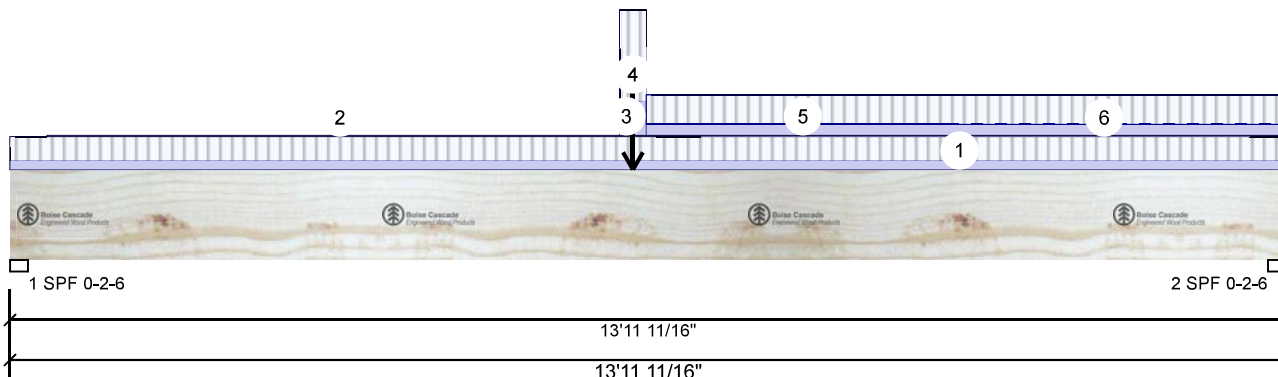
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...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Part. Uniform	7-6-13 to 13-6-13		Top	1 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				

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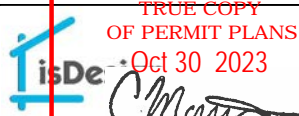
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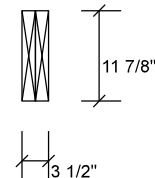
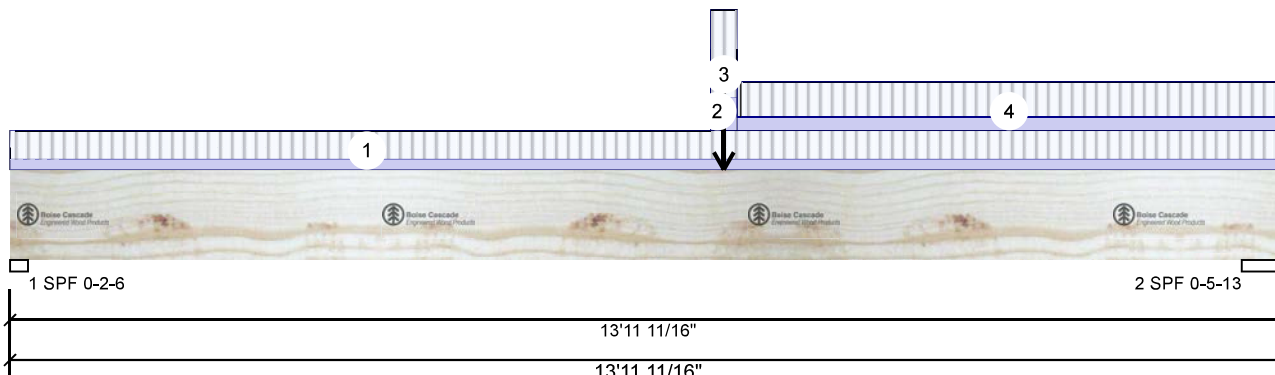


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F9-C Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	321	210	0	0
2	Vertical	478	276	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	15%	263 / 482	745	L	1.25D+1.5L
2 - SPF	5.822"	Vert	8%	344 / 716	1061	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3839 ft-lb	7'9 13/16"	35392 ft-lb	0.108 (11%)	1.25D+1.5L	L
Unbraced	3839 ft-lb	7'9 13/16"	35392 ft-lb	0.108 (11%)	1.25D+1.5L	L
Shear	902 lb	12'6"	13217 lb	0.068 (7%)	1.25D+1.5L	L
Perm Defl in.	0.029 (L/5627)	7'9 13/16"	0.447 (L/360)	0.064 (6%)	D	Uniform
LL Defl inch	0.049 (L/3284)	7'1 7/16"	0.447 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.078 (L/2074)	7'1 1/8"	0.671 (L/240)	0.116 (12%)	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 7'9 13/16" o.c.
- 7 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-11-11	0-7-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	7-8-1 to 7-11-9	1-10-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	7-9-13		Near Face	122 lb	269 lb	0 lb	0 lb	F6
4	Tie-In	7-11-9 to 13-11-1	0-8-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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

Kott Inc.

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



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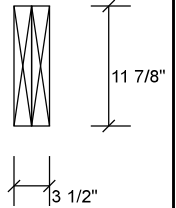
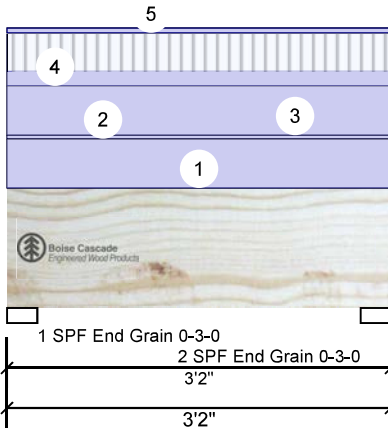
Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 STD & WOC
Project #:

MHP 23030

Page 32 of 43

FH5 Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	49	175	0	0
2	Vertical	49	175	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	4%	219 / 74	293	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	4%	219 / 74	293	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	180 ft-lb	1'7"	25482 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	180 ft-lb	1'7"	25482 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	197 lb	1'2 7/8"	9516 lb	0.021 (2%)	1.25D+1.5L	L
Perm Defl in. (L/190152)	0.000	1'7"	0.093 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/679849)	0.000	1'7"	0.093 (L/360)	0.001 (0%)	L	L
TL Defl inch (L/148592)	0.000	1'7"	0.140 (L/240)	0.002 (0%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-2-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-2-0		Near Face	3 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 3-2-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Tapered Start	0-0-0		Near Face	12 PLF	31 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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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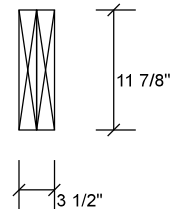
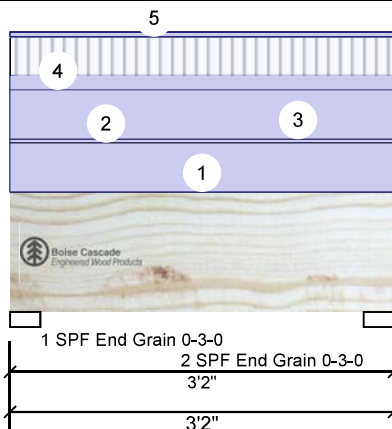
PER: *Chen*

Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 STD & WOC
Project #:

MHP 23030

FH5 Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	End	3-2-0			12 PLF	31 PLF	0 PLF	0 PLF	
5	Part. Uniform	0-0-0 to 3-2-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				12 PLF				

Notes

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

Lumber

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

Handling & Installation

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



This design is valid until 4/17/2026

Ground Floor

Installation Guide



(Open your phone's camera and
hover over this QR code to access it)

ENG-M0721-86-KT-GREENPARK-ZADORRA ESTATES-ROSE 6-3

1. All blocking to be cut from 12" joists
2. 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length
3. Ends of joists to be laterally supported
4. Packing of Steel beams and attachment by others
5. Shower and water closet flange locations are approximate only, consult architectural drawing for exact locations
6. Beams identified as "18" are dropped and supplied by others
7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls
8. Load transfer blocks to be installed under all point loads
9. Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
10. Hangers and Fasteners to be installed as per manufacturer
11. Framing shown on this layout may deviate from architectural drawings. Arch / Eng to review and approve the deviation prior to construction.
12. Multi ply beams with side loading to have all fasteners installed with the head on the side of the applied load
13. Confirmation of adequate support & anchorage of components is the responsibility of the building designer; suggested uplift connectors are as shown
14. Where beam hangs on side of 3-ply member, it is recommended that the equivalent quantity and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member

Ground Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Pies	Pcs	Length
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	16-0
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	14-0
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	12-0
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	10-0
F6	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	3	2	6	4-0
F5	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	4-0

Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
F5	AJS 140	2.5	11.875	4	16-0
F4	AJS 140	2.5	11.875	3	14-0
F2	AJS 140	2.5	11.875	1	6-0
F1	AJS 140	2.5	11.875	2	4-0
J6	AJS 140	2.5	11.875	43	16-0
J5	AJS 140	2.5	11.875	7	14-0
J4	AJS 140	2.5	11.875	6	12-0
J3	AJS 140	2.5	11.875	2	10-0
J2	AJS 140	2.5	11.875	3	8-0
J1	AJS 140	2.5	11.875	1	6-0

Rim Board

Label	Description	Width	Depth	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	15	12-0

Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	11.875	Ln/Ft	Varies	46-0

Hanger

Label	Pcs	Description	Beam/Girder fasteners	Supported Member fasteners
H1	26	F2811	12 10x1 1/2	1 #8x1 1/4WS
H2	1	HHUS410	30 16d	10 16d
H3	2	HUC410 (Min)	14 16d	6 10d
H4	5	LF3511	12 10d	2 #8x1 1/4WS

JOB INFORMATION

Builder GREENPARK
Project ZADORRA ESTATES OSHAWA, ON
Sales Rep RALPH MIRIGELLO
Designer W.C.
Plotted July 13, 2023
Layout Name ROSE 6-3 DC
Job Path S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES MODELS\ROSE 6-3 DC-11

DESIGN CRITERIA

Ground Floor	LSD (Canada)
Design Method	NBCC 2015
Bulking Code	OBC 2012(2020 Update)
Floor Loads	
Live	40
Dead	15
Deflection Joist	
LL Span /	360
TL Span /	240
Deflection Flush Girder	
LL Span /	360
TL Span /	240
Deflection Dropped Girder	
LL Span /	360
TL Span /	240
Deflection Header	
LL Span /	360
TL Span /	240
Decking	
Decking	OSB
Thickness	3/4"
Fastener	Nailed & Glued

CCMC References

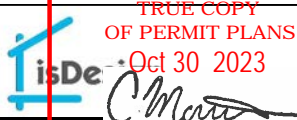
Boise - 12472-R, 12787-R
LP - 12412-R, Roseburg - 13310-R
Forex - 14035-R
Kott Inc.
3228 Wood Dr. Ottawa
14 Anderson Blvd. Unbridge
Ontario
613-838-2775 /
905-642-4400



Legend

PS	Point Load Support
◇	Load from Above
▨	Wall
▧	Wall Opening
▩	Norbord Rimboard Plus 1.125 X 11.875
▪	AJS 140 11.875
▫	Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875
▬	1.75 X 9.5 (Dropped)
▭	5.25 X 8 (Dropped)

Hatch Area represents where
additional load has been applied.
(e.g. 5 psf for ceramic tile)



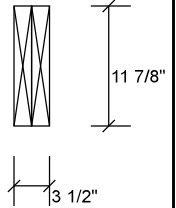
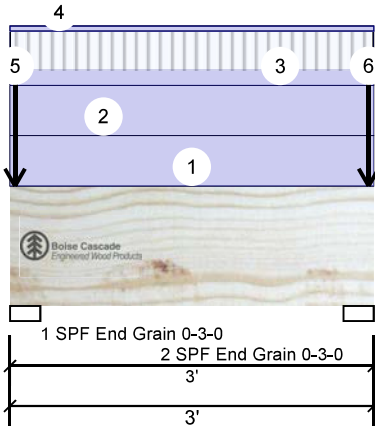
Client: GREENPARK
 Project:
 Address: ZADORRA ESTATES
 OSHAWA, ON

Date: 7/13/2023
 Input by: W C
 Job Name: ROSE 6-3 DC
 Project #:

MHP 23030

Page 1 of 4

Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	88	468	309	0
2	Vertical	88	413	169	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L	lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	12%	585 / 551	1136	L		1.25D+1.5S +L
2 - SPF End Grain	3.000"	Vert	9%	516 / 131	647	L		1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	156 ft-lb	1'6"	23005 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	156 ft-lb	1'6"	23005 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	177 lb	1'9 1/8"	8591 lb	0.021 (2%)	1.25D+1.5L	L
Perm Defl in. (L/230204)	0.000	1'6"	0.088 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/800767)	0.000	1'6"	0.088 (L/360)	0.000 (0%)	L+0.5S	L
TL Defl inch (L/178802)	0.000	1'6"	0.131 (L/240)	0.001 (0%)	D+L+0.5S	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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-0-0		Top	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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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

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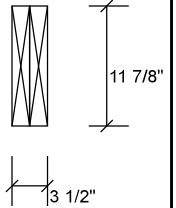
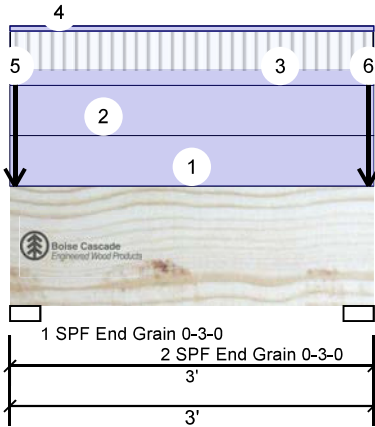
Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 DC
Project #:

MHP 23030

Page 2 of 4

Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-0-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
5	Point	0-0-8		Top	306 lb	41 lb	309 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
6	Point	2-11-8		Top	251 lb	41 lb	169 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
	Self Weight				12 PLF				

Notes

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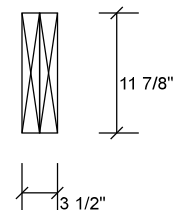
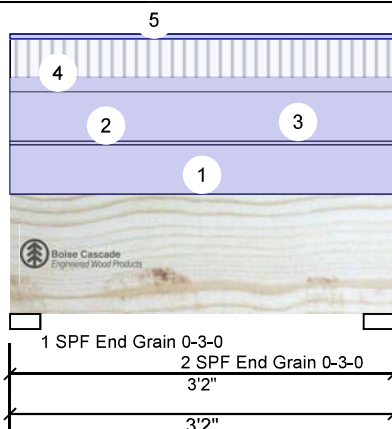
C. Morris

Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ONDate: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 DC
Project #:

MHP 23030

Page 3 of 4

FH5 Versa-Lam LVL 2-4E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	49	175	0	0
2	Vertical	49	175	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	4%	219 / 74	293	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	4%	219 / 74	293	L	1.25D+1.5L

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Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
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Unbraced	180 ft-lb	1'7"	25482 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	197 lb	1'11 1/8"	9516 lb	0.021 (2%)	1.25D+1.5L	L
Perm Defl in. (L/190152)	0.000	1'7"	0.093 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/679849)	0.000	1'7"	0.093 (L/360)	0.001 (0%)	L	L
TL Defl inch (L/148592)	0.000	1'7"	0.140 (L/240)	0.002 (0%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
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- 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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-2-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-2-0		Near Face	3 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 3-2-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Tapered Start	0-0-0		Near Face	12 PLF	31 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.

Lumber

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

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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

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





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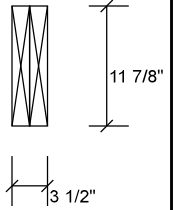
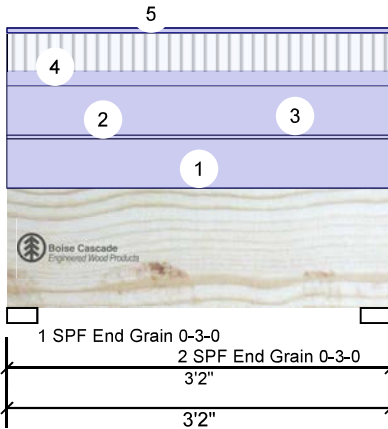
Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 DC
Project #:

MHP 23030

Page 4 of 4

FH5 Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	End	3-2-0			12 PLF	31 PLF	0 PLF	0 PLF	
5	Part. Uniform	0-0-0 to 3-2-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				12 PLF				

Notes

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

Lumber

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

Handling & Installation

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2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
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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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CCMC: 12472

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

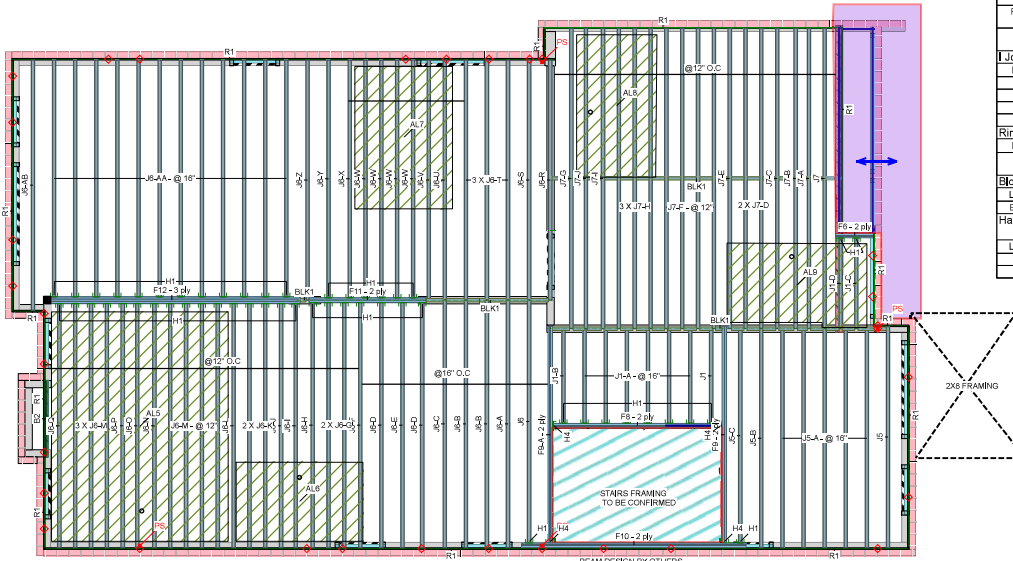


This design is valid until 4/17/2026

ENG-M0721-096-KT2-GREENPARK-ZADORRA ESTATES-ROSE 6-3

Page 53 of 54

Second Floor



Second Floor LVL/L.SL (Flush)							
Label	Description	Width	Depth	Qty	Pies	Pcs	Length
F12	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	3	3	18-0
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	16-0
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	14-0
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	12-0
F11	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	8-0
F6	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	4-0

Joist (Flush)							
Label	Description	Width	Depth	Pcs	Length		
J7	AJS 140	2.5	11.875	17	20-0		
J8	AJS 140	2.5	11.875	55	16-0		
J5	AJS 140	2.5	11.875	5	14-0		
J1	AJS 140	2.5	11.875	10	6-0		

Rim Board							
Label	Description	Width	Depth	Pcs	Length		
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	15	12-0		

Blocking							
Label	Description	Width	Depth	Qty	Pcs	Length	
BLK1	AJS 140	2.5	11.875	LNFT	Varies	38-0	

Hanger							
Label	Pcs	Description	fasteners	Supported Member	fasteners		
H1	53	LF2511	12 10d	1 #5x1 1/4WS			
H4	4	LF3511	12 10d	2 #5x1 1/4WS			

JOB INFORMATION	
Builder	GREENPARK
Project	ZADORRA ESTATES OSHAWA, ON
Shipping	
Sales Rep	RALPH MIRIGELLO
Designer	
Plotted	July 13, 2023
Layout Name	ROSE 6-3 ALL OPT
Job Path	S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES MODELS\ROSE 6-3\ROSE 6-3\ROSE 6-3 STD.IAI

DESIGN CRITERIA	
Design Method	LSD (Canada)
Building Code	NBCC 2015 CBC 2012(2020 Update)
Floor Loads	
Dead	40
Live	15
Deflection Joist	
LL Span /	360
TL Span /	240
Deflection Flush Girder	
LL Span /	360
TL Span /	240
Deflection Dropped Girder	
LL Span /	360
TL Span /	240
Deflection Header	
LL Span /	360
TL Span /	240
Decking	O&B
Decking Thickness	5/8"
Fastener	Nailed & Glued
CCMC References	
Boise - 12472-R	12787-R
LP - 12412-R	Roseburg - 13310-R
Forex - 14035-R	

Kott Inc.
3228 Woodle Dr. Ottawa
14 Anderson Blvd. Unbridge
Ontario
613-838-2775 /
905-642-4400












- All blocking to be cut from 12' joists
- 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length
- Ends of joists to be laterally supported
- Packing of Steel beams and attachment by others
- Shower and water closet flange locations are approximate only; consult architectural drawing for exact locations
- Beams identified as "B" are dropped and supplied by others
- Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls
- Load transfer blocks to be installed under all point loads
- Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
- Hangers and Fasteners to be installed as per manufacturer
- Framing shown on this layout may deviate from architectural drawings. Arch / Eng to review and approve the deviation prior to construction.
- Multi ply beams with side loading to have all fasteners installed with the head on the side of the applied load.
- Confirmation of adequate support & anchorage of components is the responsibility of the building designer; suggested uplift connectors are as shown.
- Where beam hangs on side of 3-ply member, it is recommended that the equivalent quantity and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member

Hatch Area represents where additional load has been applied (e.g. 5 psf for ceramic tile)

Installation Guide



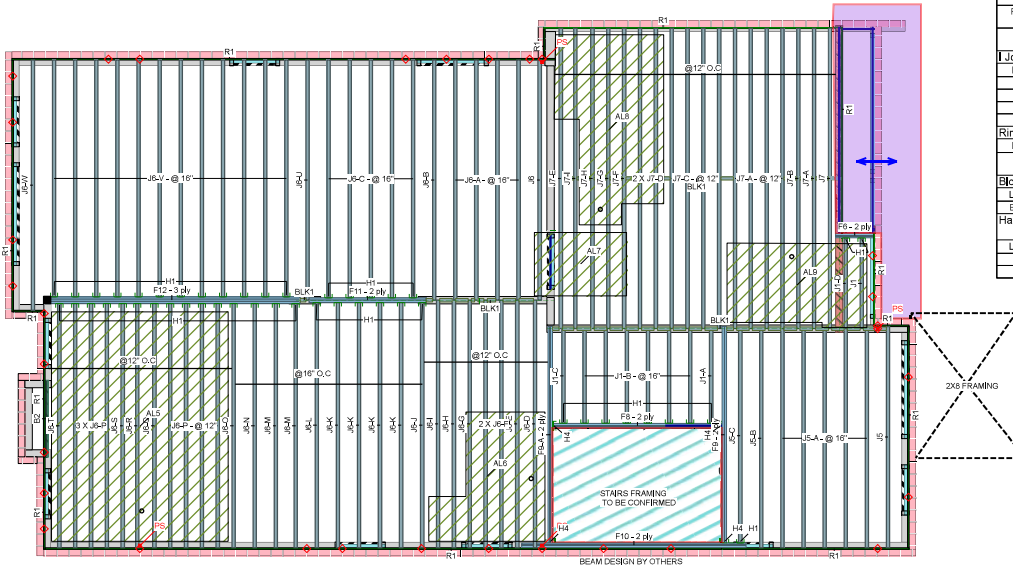
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hover over this QR code to access it)

Legend	
PS	Point Load Support
	Load from Above
	Wall
	Wall Opening
	Norbord Rimboard Plus 1.125 X 11.875
	AJS 140 11.875
	Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875
	1.75 X 9.5 (Dropped)
	1.75 X 11.875 (Dropped)
	5.25 X 8 (Dropped)

ENG-M0721-096-KTZ-GREENPARK-ZADORRA ESTATES-ROSE 6-3

Page 14 of 54

Second Floor



Second Floor LVL/L.SL (Flush)							
Label	Description	Width	Depth	Qty	Pieces	Pcs	Length
F12	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	3	3	18-0-0
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	16-0-0
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	14-0-0
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	12-0-0
F11	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	8-0-0
F6	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	4-0-0

Joist (Flush)							
Label	Description	Width	Depth	Pcs	Length		
J7	AJS 140	2.5	11.875	18	20-0-0		
J8	AJS 140	2.5	11.875	53	16-0-0		
J5	AJS 140	2.5	11.875	8	14-0-0		
J1	AJS 140	2.5	11.875	10	6-0-0		

Rim Board							
Label	Description	Width	Depth	Pcs	Length		
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	15	12-4-0		

Blocking							
Label	Description	Width	Depth	Qty	Pcs	Length	
BLK1	AJS 140	2.5	11.875	LNFT	Varies	36-0-0	

Hanger							
				Beam/Girder		Supported Member	
Label	Pcs	Description		fasteners		fasteners	
H1	49	LF2511		12 10d		1 #8x1 1/4WS	
H4	4	LF3511		12 10d		2 #8x1 1/4WS	

JOB INFORMATION	
Builder	GREENPARK
Project	ZADORRA ESTATES OSHAWA, ON
Shipping	
Sales Rep	RALPH MIRIGELLO
Designer	
Plotted	June 05, 2023
Layout Name	ROSE 6-3 2ND 5 BDRM OPT. ALL
Job Path	S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES MODELS\ROSE 6-3\ROSE 6-3 2ND 5 BDRM OPT\ROSE 6-3 2ND 5 BDRM OPT. ALL

DESIGN CRITERIA	
Second Floor	LSD (Canada)
Design Method	NBCC 2015
Building Code	IBC 2012 (2020 Update)

Floor Loads	
Dead	40
Live	15
Deflection Joist	
LL Span /	360
TL Span /	240
Deflection Flush Girder	
LL Span /	360
TL Span /	240
Deflection Dropped Girder	
LL Span /	360
TL Span /	240
Deflection Header	
LL Span /	360
TL Span /	240
Decking	O&B
Decking Thickness	5/8"
Fastener	Nailed & Glued

CCMC References	
Boise - 12472-R	12787-R
LP - 12412-R	Roseburg - 13310-R
Forex - 14035-R	

Kott Inc.	3228 Wood Dr. Ottawa 14 Anderson Blvd. Unbridge Ontario 613-838-2775 / 905-642-4400
-----------	---



Installation Guide



(Open your phone's camera and
hover over this QR code to access it)

Hatch Area represents where
additional load has been applied.
(e.g. 5 psf for ceramic tile)

- All blocking to be cut from 12' joists
- 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length
- Ends of joists to be laterally supported
- Packing of Steel beams and attachment by others
- Shower and water closet flange locations are approximate only; consult architectural drawing for exact locations
- Beams identified as "B" are dropped and supplied by others
- Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls
- Load transfer blocks to be installed under all point loads
- Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
- Hangers and Fasteners to be installed as per manufacturer
- Framing shown on this layout may deviate from architectural drawings. Arch / Eng to review and approve the deviation prior to construction.
- Multi ply beams with side loading to have all fasteners installed with the head on the side of the applied load.
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- Where beam hangs on side of 3-ply member, it is recommended that the beam's joint quantity and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member

Legend	
PS	Point Load Support
Load from Above	
Wall	
Wall Opening	
Norbord Rimboard Plus 1.125 X 11.875	
AJS 140 11.875	
Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875	
1.75 X 9.5 (Dropped)	
1.75 X 11.875 (Dropped)	
5.25 X 8 (Dropped)	



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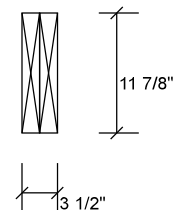
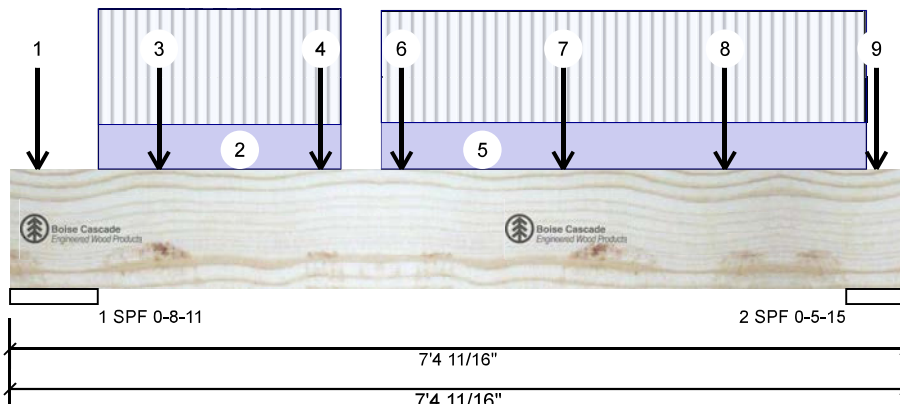
PER: *Chen*

Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 STD
Project #:

MHP 23030

F11 Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	2111	862	0	0
2	Vertical	2073	855	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	8.688"	Vert	23%	1078 / 3167	4245	L	1.25D+1.5L
2 - SPF	5.938"	Vert	33%	1069 / 3109	4178	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5983 ft-lb	3'8 9/16"	35392 ft-lb	0.169 (17%)	1.25D+1.5L	L
Unbraced	5983 ft-lb	3'8 9/16"	35392 ft-lb	0.169 (17%)	1.25D+1.5L	L
Shear	3811 lb	1'8 9/16"	13217 lb	0.288 (29%)	1.25D+1.5L	L
Perm Defl in.	0.009 (L/8503)	3'9 11/16"	0.210 (L/360)	0.042 (4%)	D	Uniform
LL Defl inch	0.022 (L/3494)	3'9 5/8"	0.210 (L/360)	0.103 (10%)	L	
TL Defl inch	0.031 (L/2477)	3'9 5/8"	0.315 (L/240)	0.097 (10%)	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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-2-12		Near Face	82 lb	211 lb	0 lb	0 lb	J6
2	Part. Uniform	0-8-12 to 2-8-12		Near Face	118 PLF	306 PLF	0 PLF	0 PLF	
3	Point	1-2-12		Far Face	148 lb	395 lb	0 lb	0 lb	J6
4	Point	2-6-12		Far Face	133 lb	346 lb	0 lb	0 lb	J6
5	Part. Uniform	3-0-12 to 7-0-12		Far Face	123 PLF	297 PLF	0 PLF	0 PLF	
6	Point	3-2-12		Near Face	136 lb	357 lb	0 lb	0 lb	J6

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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CCMC: 12472

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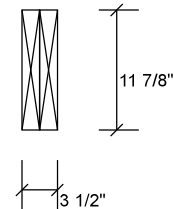
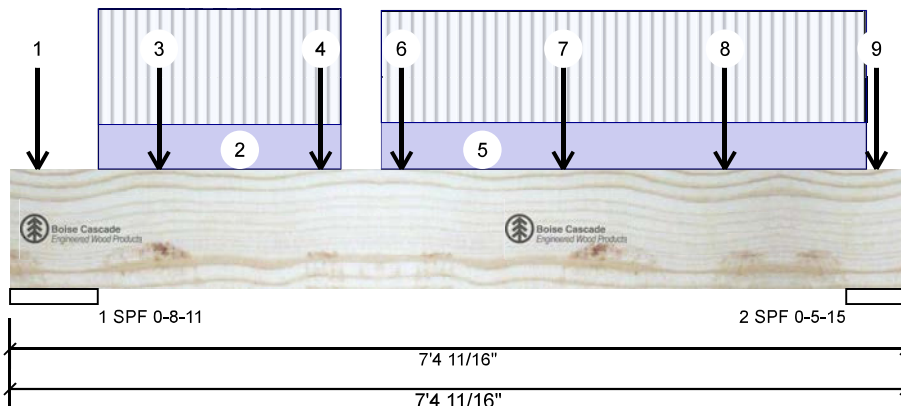
PER: *Chen*

Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 STD
Project #:

MHP 23030

F11 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	4-6-12		Near Face	153 lb	408 lb	0 lb	0 lb	J6
8	Point	5-10-12		Near Face	148 lb	395 lb	0 lb	0 lb	J6
9	Point	7-1-12		Near Face	102 lb	272 lb	0 lb	0 lb	J6
	Self Weight				12 PLF				

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

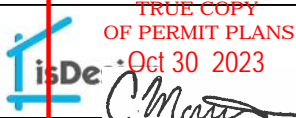
Boise Cascade Wood Products
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3228 Moodie Dr, Ottawa, Ontario
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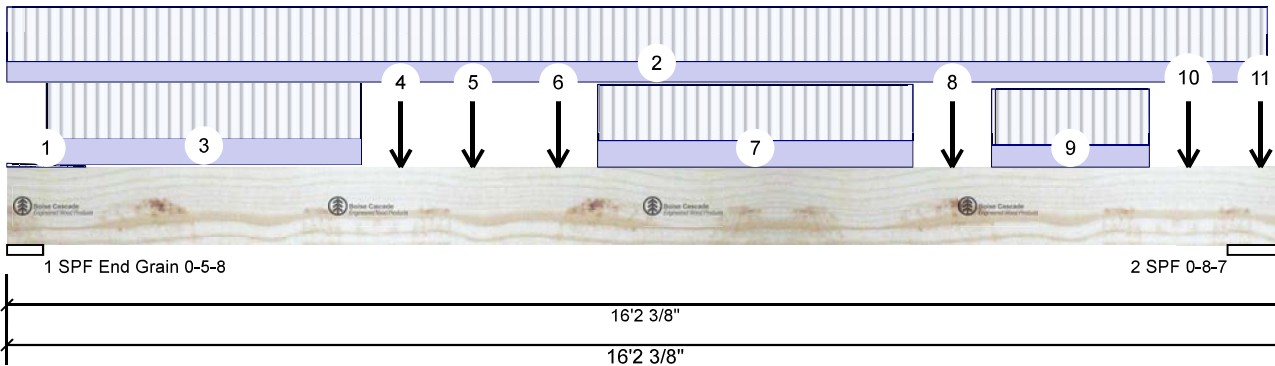


Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 STD
Project #:

MHP 23030

F12 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 3-Ply - PASSED Level: Second Floor

**Member Information**

Type:	Girder	Application:	Floor (Residential)
Plies:	3	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)
Deflection LL:	360	Load Sharing:	Yes
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	4636	2095	0	0
2	Vertical	4947	2149	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	5.500"	Vert	32%	2619 / 6953	9572	L	1.25D+1.5L
2 - SPF	8.447"	Vert	37%	2686 / 7420	10106	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	35497 ft-lb	7'11 1/2"	55212 ft-lb	0.643 (64%)	1.25D+1.5L	L
Unbraced	35497 ft-lb	7'11 1/2"	55212 ft-lb	0.643 (64%)	1.25D+1.5L	L
Shear	9755 lb	14'6 1/16"	19825 lb	0.492 (49%)	1.25D+1.5L	L
Perm Defl in.	0.209 (L/869)	7'11 9/16"	0.505 (L/360)	0.414 (41%)	D	Uniform
LL Defl inch	0.466 (L/391)	7'11 11/16"	0.505 (L/360)	0.922 (92%)	L	L
TL Defl inch	0.675 (L/269)	7'11 11/16"	0.758 (L/240)	0.891 (89%)	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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-0-0	0-4-7 to 0-1-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 16-0-0		Far Face	111 PLF	295 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-6-0 to 4-6-0		Near Face	143 PLF	304 PLF	0 PLF	0 PLF	
4	Point	5-0-0		Near Face	138 lb	292 lb	0 lb	0 lb	J6
5	Point	5-11-0		Near Face	150 lb	304 lb	0 lb	0 lb	J6

Continued on page 2...

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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

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





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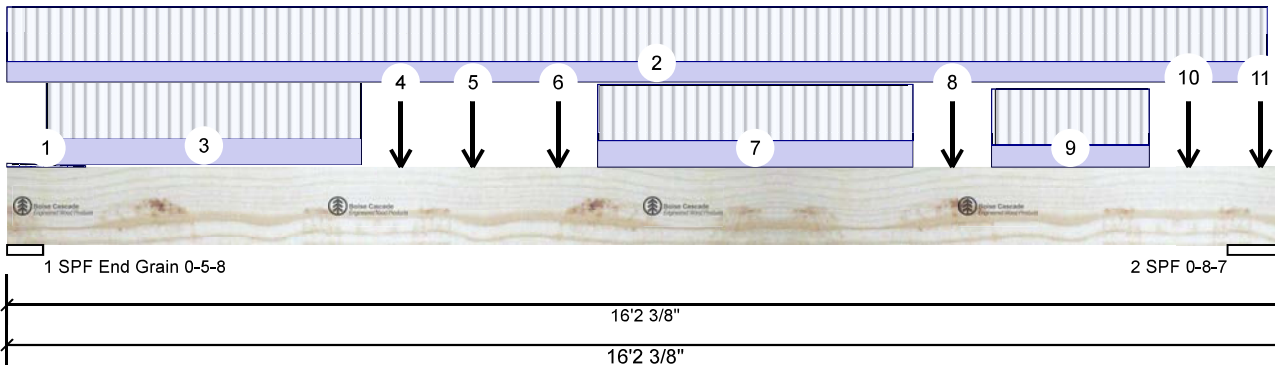
Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 STD
Project #:

MHP 23030

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F12 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 3-Ply - PASSED Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	7-0-0		Near Face	154 lb	317 lb	0 lb	0 lb	J6
7	Part. Uniform	7-6-0 to 11-6-0		Near Face	143 PLF	304 PLF	0 PLF	0 PLF	
8	Point	12-0-0		Near Face	123 lb	304 lb	0 lb	0 lb	J6
9	Part. Uniform	12-6-0 to 14-6-0		Near Face	118 PLF	304 PLF	0 PLF	0 PLF	
10	Point	15-0-0		Near Face	113 lb	292 lb	0 lb	0 lb	J6
11	Point	15-11-0		Near Face	119 lb	304 lb	0 lb	0 lb	J6
	Self Weight				18 PLF				

Notes

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

Lumber

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

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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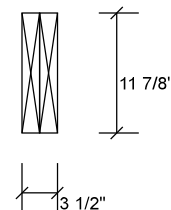
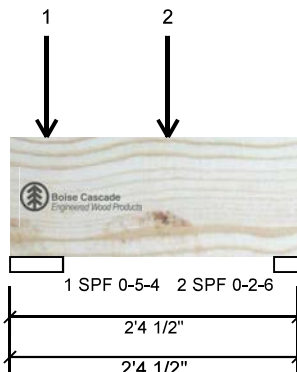
Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 STD
Project #:

MHP 23030

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F6 Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	168	224	60	0
2	Vertical	55	101	38	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	5%	281 / 312	593	L	1.25D+1.5L+S
2 - SPF	2.375"	Vert	5%	126 / 112	238	L	1.25D+1.5S+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	215 ft-lb	1'3 5/8"	31853 ft-lb	0.007 (1%)	1.25D+1.5S +L	L
Unbraced	215 ft-lb	1'3 5/8"	31853 ft-lb	0.007 (1%)	1.25D+1.5S +L	L
Shear	237 lb	1'5 1/8"	11895 lb	0.020 (2%)	1.25D+1.5S +L	L
Perm Defl in.	0.000 (L/336504)	1'3 5/8"	0.062 (L/360)	0.001 (0%)	D	Uniform
LL Defl inch	0.000 (L/430168)	1'3 5/8"	0.062 (L/360)	0.001 (0%)	L+0.5S	L
TL Defl inch	0.000 (L/188807)	1'3 5/8"	0.093 (L/240)	0.001 (0%)	D+L+0.5S	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.

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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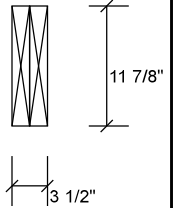
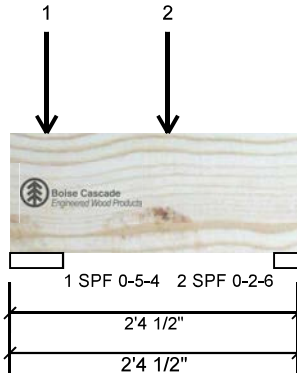
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Address: ZADORRA ESTATES
OSHAWA, ON

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Project #:

MHP 23030

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F6 Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-3-10		Near Face	120 lb	113 lb	21 lb	0 lb	J1
2	Point	1-3-10		Near Face	177 lb	110 lb	77 lb	0 lb	J1
	Self Weight				12 PLF				

Notes

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Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
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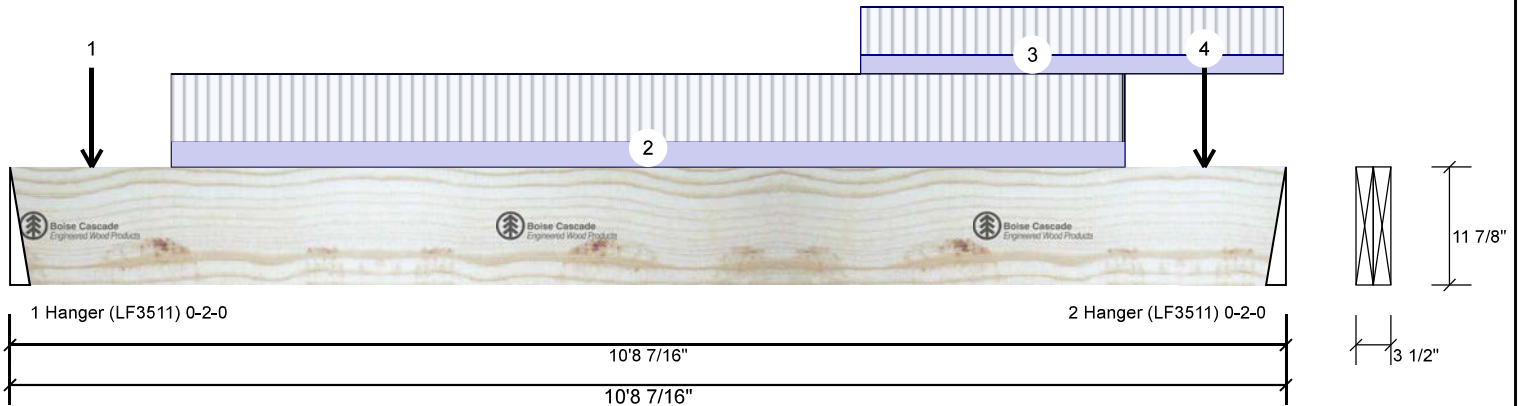
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OSHAWA, ONDate: 7/13/2023
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Job Name: ROSE 6-3 STD
Project #:

MHP 23030

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F8 Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	648	306	0	0
2	Vertical	850	383	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	18%	382 / 972	1354	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	23%	478 / 1275	1753	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3880 ft-lb	5'8 13/16"	35392 ft-lb	0.110 (11%)	1.25D+1.5L	L
Unbraced	3880 ft-lb	5'8 13/16"	35392 ft-lb	0.110 (11%)	1.25D+1.5L	L
Shear	1562 lb	9'6 9/16"	13217 lb	0.118 (12%)	1.25D+1.5L	L
Perm Defl in.	0.017 (L/7402)	5'5 3/16"	0.350 (L/360)	0.049 (5%)	D	Uniform
LL Defl inch	0.037 (L/3409)	5'5 3/8"	0.350 (L/360)	0.106 (11%)	L	
TL Defl inch	0.054 (L/2334)	5'5 5/16"	0.525 (L/240)	0.103 (10%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 3 1/2"
- 4 Right Header: DF, Thickness: 3 1/2"
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Multiple plies must be fastened together as per manufacturer's details.
- 7 Top loads must be supported equally by all plies.
- 8 Top must be continuously laterally braced.
- 9 Bottom must have sheathing attached or be continuously braced.
- 10 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-8-4		Far Face	48 lb	128 lb	0 lb	0 lb	J1
2	Part. Uniform	1-4-4 to 9-4-4		Far Face	44 PLF	118 PLF	0 PLF	0 PLF	
3	Part. Uniform	7-1-10 to 10-8-3		Top	32 PLF	84 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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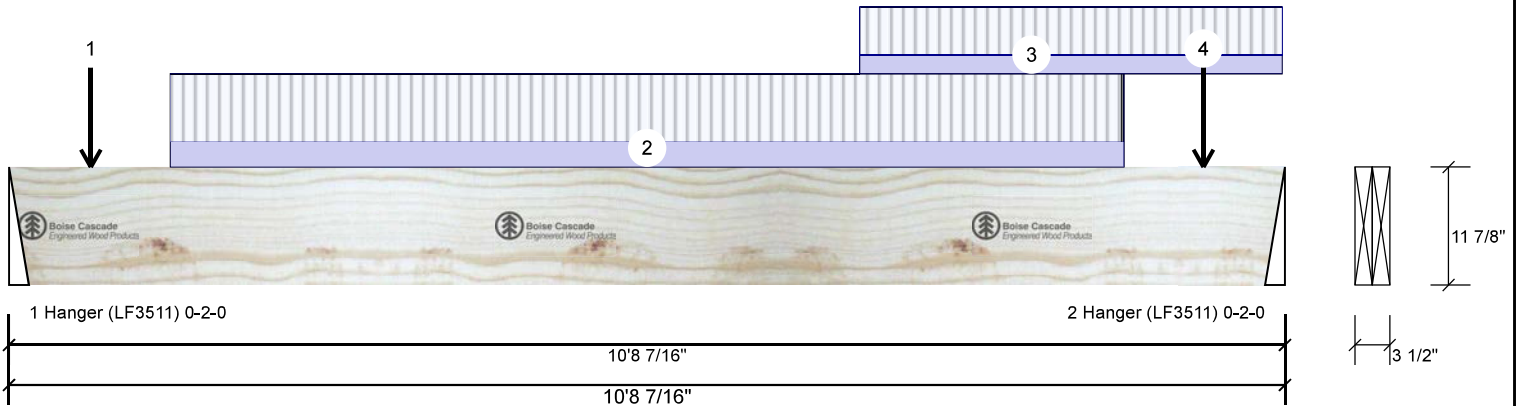
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Address: ZADORRA ESTATES
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Date: 7/13/2023
Input by: W C
Job Name: ROSE 6-3 STD
Project #:

MHP 23030

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F8 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Point	10-0-4		Far Face	48 lb	128 lb	0 lb	0 lb	J1
	Self Weight				12 PLF				

Notes

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

Lumber

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

Handling & Installation

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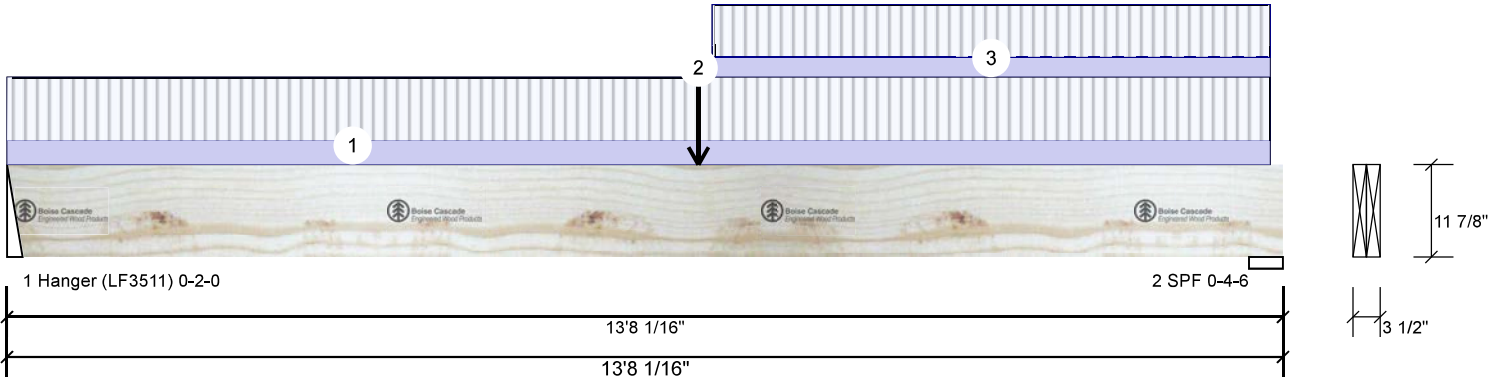


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Job Name: ROSE 6-3 STD
Project #:

MHP 23030

F9 Versa-Lam LVL 2-1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	538	310	0	0
2	Vertical	683	373	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	16%	388 / 807	1195	L	1.25D+1.5L
2 - SPF	4.375"	Vert	16%	467 / 1024	1491	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7243 ft-lb	7'4 15/16"	35392 ft-lb	0.205 (20%)	1.25D+1.5L	L
Unbraced	7243 ft-lb	7'4 15/16"	35392 ft-lb	0.205 (20%)	1.25D+1.5L	L
Shear	1397 lb	12'3 13/16"	13217 lb	0.106 (11%)	1.25D+1.5L	L
Perm Defl in.	0.046 (L/3442)	6'11 1/8"	0.442 (L/360)	0.105 (10%)	D	Uniform
LL Defl inch	0.088 (L/1814)	6'11 1/2"	0.442 (L/360)	0.198 (20%)	L	
TL Defl inch	0.134 (L/1188)	6'11 3/8"	0.663 (L/240)	0.202 (20%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 3 1/2"
- 4 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 7'4 15/16" o.c.
- 9 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-6-7	0-6-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	7-4-15		Far Face	383 lb	850 lb	0 lb	0 lb	F8
3	Tie-In	7-6-11 to 13-6-7	0-5-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

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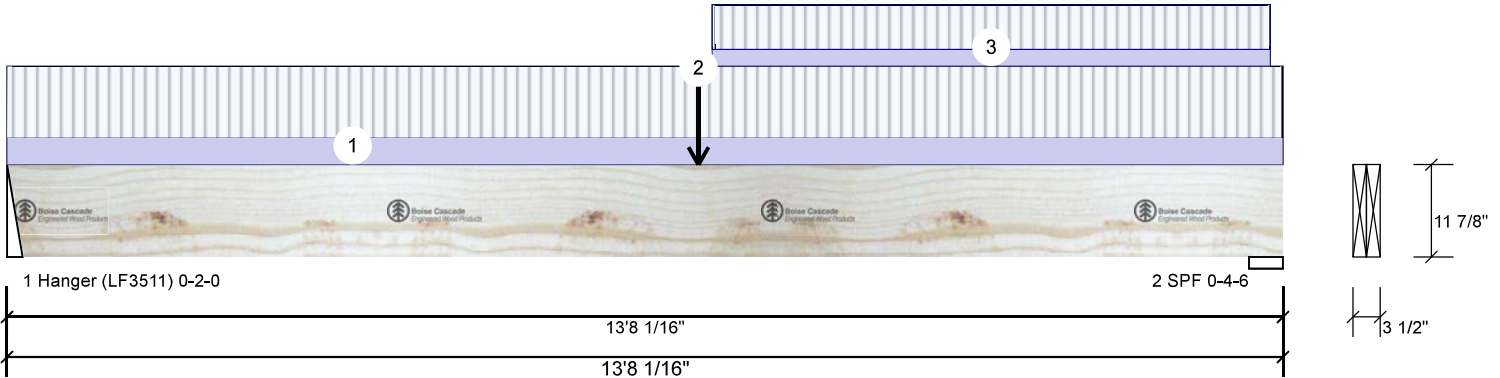
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Client: GREENPARK
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Date: 7/13/2023
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Job Name: ROSE 6-3 STD
Project #:

MHP 23030

F9-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Second Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	492	293	0	0
2	Vertical	620	349	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	14%	366 / 738	1104	L	1.25D+1.5L
2 - SPF	4.375"	Vert	15%	437 / 930	1367	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6217 ft-lb	7'4 15/16"	35392 ft-lb	0.176 (18%)	1.25D+1.5L	L
Unbraced	6217 ft-lb	7'4 15/16"	35392 ft-lb	0.176 (18%)	1.25D+1.5L	L
Shear	1251 lb	12'3 13/16"	13217 lb	0.095 (9%)	1.25D+1.5L	L
Perm Defl in.	0.042 (L/3821)	6'10 15/16"	0.442 (L/360)	0.094 (9%)	D	Uniform
LL Defl inch	0.076 (L/2100)	6'11 5/16"	0.442 (L/360)	0.171 (17%)	L	L
TL Defl inch	0.117 (L/1355)	6'11 3/16"	0.663 (L/240)	0.177 (18%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Left Header: DF, Thickness: 3 1/2"
- 4 Girders are designed to be supported on the bottom edge only.
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- 7 Top must be continuously laterally braced.
- 8 Bottom must be laterally braced at a maximum of 7'4 15/16" o.c.
- 9 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-8-1	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	7-4-15		Near Face	306 lb	648 lb	0 lb	0 lb	F8
3	Tie-In	7-6-11 to 13-6-7	0-5-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

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