



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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

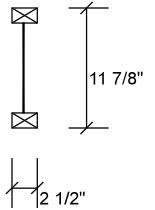
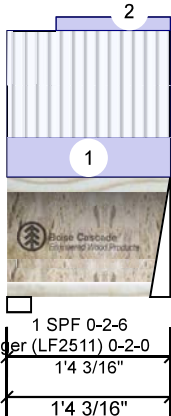
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MHP 23028

F1 AJS 140 11.875" - PASSED



Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	44	19	0	0
2	Vertical	42	21	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	5%	24 / 65	89	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	5%	26 / 62	88	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	20 ft-lb	8 5/16"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Unbraced	20 ft-lb	8 5/16"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Shear	74 lb	1'2 15/16"	2350 lb	0.032 (3%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/184462)	8 3/8"	0.037 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/89698)	8 5/16"	0.037 (L/360)	0.004 (0%)	L	L
TL Defl inch	0.000 (L/60355)	8 5/16"	0.055 (L/240)	0.004 (0%)	D+L	L



Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fill all hanger nailing holes.
- Right Header: SPF, Thickness: 2 1/2"
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-4-3	1-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-14 to 1-4-3		Top	8 PLF	0 PLF	0 PLF	0 PLF	

Notes

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

Lumber

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

chemicals

Handling & Installation

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

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

This design is valid until 4/17/2026

Manufacturer Info

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

Kott Inc.

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





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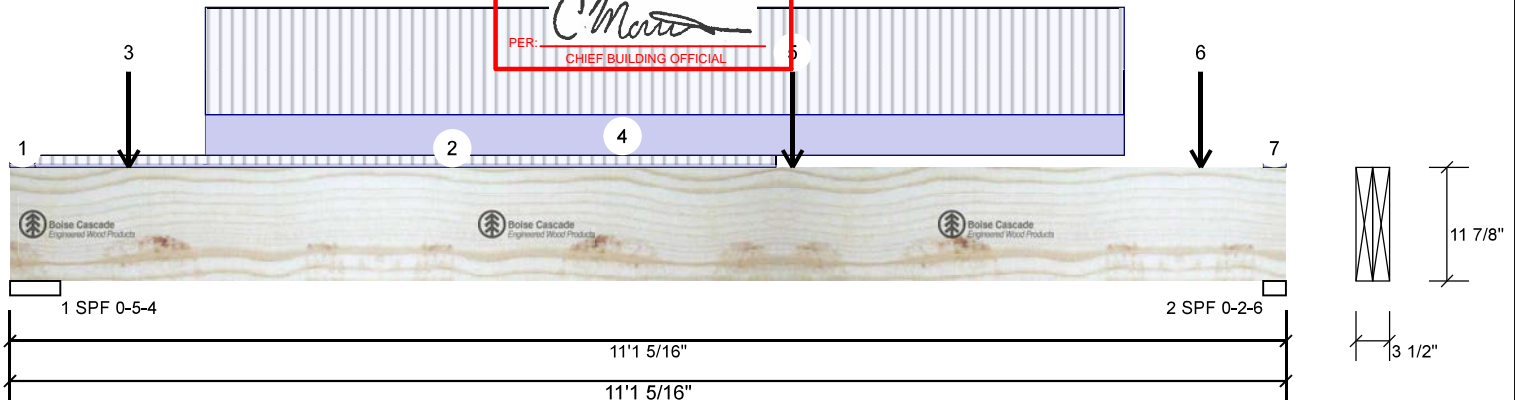
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MHP 23028

F10-A Versa-Lam LVL 2.1E 3100 SP

1,750' X 11,875' 2-Ply
TRUE COPY
OF PERMIT PLANS
Nov 15 2023
PER: [Signature]
CHIEF BUILDING OFFICIAL

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	1816	767	0	0
2	Vertical	1923	814	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	33%	959 / 2724	3682	L	1.25D+1.5L
2 - SPF	2.375"	Vert	76%	1017 / 2885	3902	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10859 ft-lb	6' 9/16"	35392 ft-lb	0.307 (31%)	1.25D+1.5L	L
Unbraced	10859 ft-lb	6' 9/16"	35392 ft-lb	0.307 (31%)	1.25D+1.5L	L
Shear	3884 lb	9'11 1/16"	13217 lb	0.294 (29%)	1.25D+1.5L	L
Perm Defl in.	0.045 (L/2846)	5'8 11/16"	0.353 (L/360)	0.126 (13%)	D	Uniform
LL Defl inch	0.105 (L/1206)	5'8 5/8"	0.353 (L/360)	0.298 (30%)	L	L
TL Defl inch	0.150 (L/847)	5'8 5/8"	0.530 (L/240)	0.283 (28%)	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.



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-10	0-7-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-2-10 to 6-8-0	0-7-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-0-7		Near Face	114 lb	303 lb	0 lb	0 lb	J5
4	Part. Uniform	1-8-7 to 9-8-7		Near Face	118 PLF	314 PLF	0 PLF	0 PLF	
5	Point	6-9-12		Far Face	174 lb	346 lb	0 lb	0 lb	F11

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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MHP 23028

F10-A Versa-Lam LVL 2.1E 3100 SP

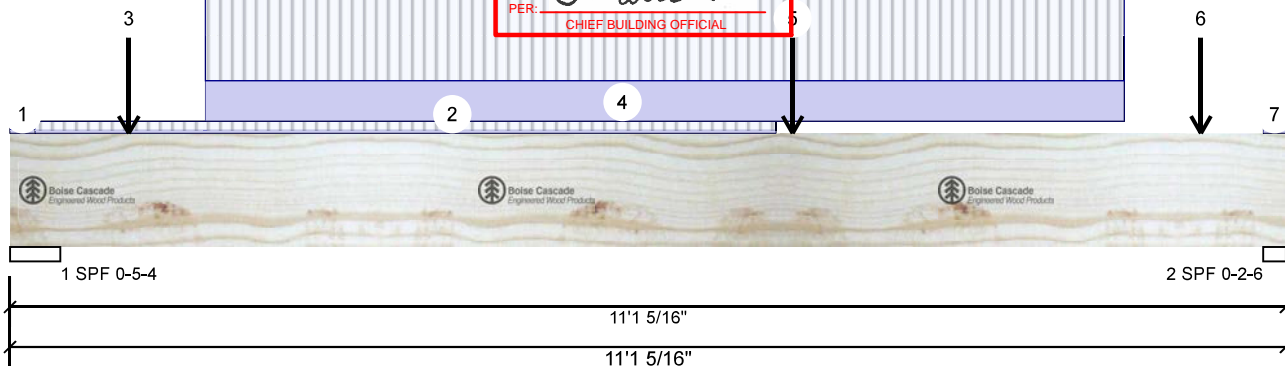
1.750' X 11.875' 2-Ply

PASSED

Level: Ground Floor

REPRODUCTION OF THE CITY OF OSHAWA
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OF PERMIT PLANS
NOV 15 2023

PER: *C. Morte*
CHIEF BUILDING OFFICIAL



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	10-4-7		Near Face	150 lb	399 lb	0 lb	0 lb	J5
7	Tie-In	10-10-15 to 11-1-5	0-11-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				



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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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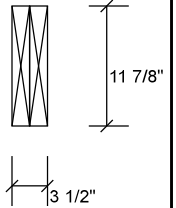
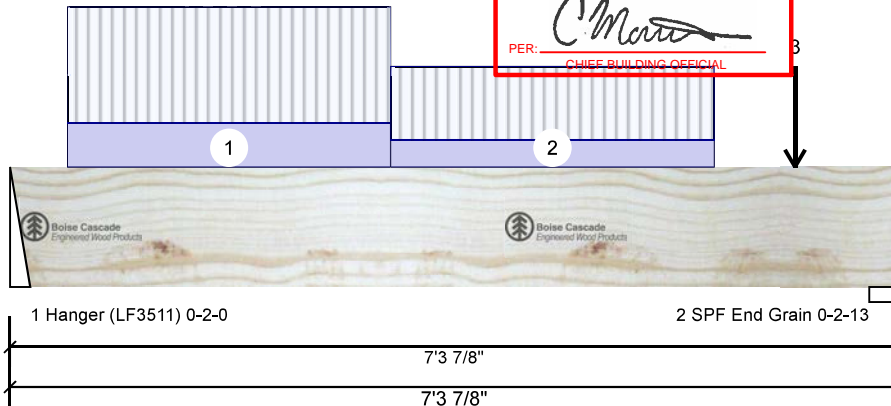
MHP 23028

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

SEPARATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS

Nov 15 2023

PER: *C. Morte*
CHIEF BUILDING OFFICIAL



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	174	0	0
2	Vertical	296	155	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	10%	217 / 520	737	L	1.25D+1.5L
2 - SPF End Grain	2.844"	Vert	6%	194 / 443	637	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1274 ft-lb	3'3 1/4"	35392 ft-lb	0.036 (4%)	1.25D+1.5L	L
Unbraced	1274 ft-lb	3'3 1/4"	35392 ft-lb	0.036 (4%)	1.25D+1.5L	L
Shear	789 lb	6'1 3/16"	13217 lb	0.060 (6%)	1.25D+1.5L	L
Perm Defl in.	0.003 (L/31512)	3'6 13/16"	0.235 (L/360)	0.011 (1%)	D	Uniform
LL Defl inch	0.005 (L/15730)	3'6 5/8"	0.235 (L/360)	0.023 (2%)	L	L
TL Defl inch	0.008 (L/10492)	3'6 11/16"	0.352 (L/240)	0.023 (2%)	D+L	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fill all hanger nailing holes.
- Left Header: DF, Thickness: 3 1/2"
- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top must be continuously laterally braced.
- Bottom must have sheathing attached or be continuously braced.
- 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	0-5-11 to 3-1-11		Far Face	48 PLF	127 PLF	0 PLF	0 PLF	
2	Part. Uniform	3-1-11 to 5-9-11		Far Face	30 PLF	80 PLF	0 PLF	0 PLF	
3	Point	6-5-11		Far Face	34 lb	90 lb	0 lb	0 lb	J1
	Self Weight				12 PLF				

Notes

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Lumber

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

chemicals

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

- For flat roofs provide proper drainage to prevent ponding

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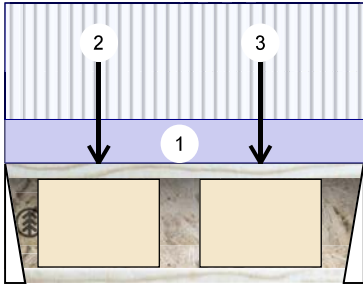
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MHP 23028

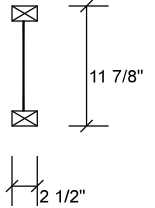
F2 AJS 140 11.875" - PASSED



Level: Ground Floor



1 Hanger (LF2511) 0-2-0
2 Hanger (LF2511) 0-2-0
2'11 1/2"
2'11 1/2"



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	329	123	0	0
2	Vertical	318	119	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	40%	154 / 494	648	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	39%	149 / 476	625	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	449 ft-lb	1'10"	5305 ft-lb	0.085 (8%)	1.25D+1.5L	L
Unbraced	449 ft-lb	1'10"	5305 ft-lb	0.085 (8%)	1.25D+1.5L	L
Shear	642 lb	1 1/4"	2350 lb	0.273 (27%)	1.25D+1.5L	L
Perm Defl in. (L/20162)	0.002	1'6 7/8"	0.092 (L/360)	0.018 (2%)	D	Uniform
LL Defl inch	0.004 (L/7550)	1'6 15/16"	0.092 (L/360)	0.048 (5%)	L	L
TL Defl inch	0.006 (L/5493)	1'6 7/8"	0.138 (L/240)	0.044 (4%)	D+L	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fill all hanger nailing holes.
- Left Header: SPF, Thickness: 2 1/2"
- Right Header: SPF, Thickness: 2 1/2"
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.



JULY 11, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0 to 2-11-8	0-9-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-9-5		Far Face	103 lb	274 lb	0 lb	0 lb	J4
3	Point	2-1-5		Far Face	106 lb	284 lb	0 lb	0 lb	J4

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Lumber

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

chemicals

Handling & Installation

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

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

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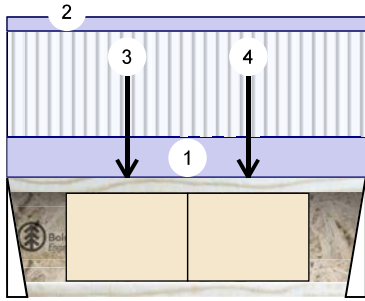
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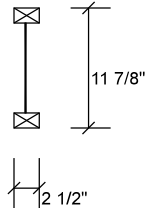
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Level: Ground Floor



1 Hanger (LF2511) 0-2-0
2 Hanger (LF2511) 0-2-0
2'11 1/2"
2'11 1/2"



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	366	187	0	0
2	Vertical	370	195	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	49%	234 / 550	784	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	50%	244 / 555	799	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	670 ft-lb	1'5 11/16"	5305 ft-lb	0.126 (13%)	1.25D+1.5L	L
Unbraced	670 ft-lb	1'5 11/16"	5305 ft-lb	0.126 (13%)	1.25D+1.5L	L
Shear	792 lb	2'10 1/4"	2350 lb	0.337 (34%)	1.25D+1.5L	L
Perm Defl in. (L/10677)	0.003	1'6 3/8"	0.092 (L/360)	0.034 (3%)	D	Uniform
LL Defl inch	0.006 (L/5547)	1'5 1/2"	0.092 (L/360)	0.065 (6%)	L	L
TL Defl inch	0.009 (L/3651)	1'5 13/16"	0.138 (L/240)	0.066 (7%)	D+L	L



JULY 11, 2023

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Fill all hanger nailing holes.
- Left Header: SPF, Thickness: 2 1/2"
- Right Header: SPF, Thickness: 2 1/2"
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-11-8	0-9-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 2-11-8		Top	4 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-11-14		Near Face	161 lb	325 lb	0 lb	0 lb	J5
4	Point	1-11-14		Near Face	176 lb	322 lb	0 lb	0 lb	J5

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

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

chemicals

Handling & Installation

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

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

Manufacturer Info

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

Kott Inc.

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



This design is valid until 4/17/2026



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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

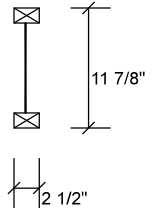
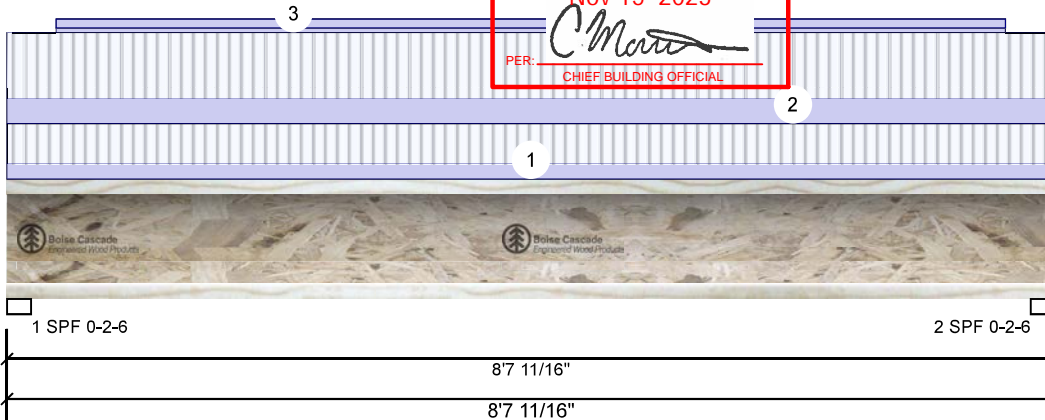
Page 7 of 27

MHP 23028

F3 AJS 140 11.875" - PASSED

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 15 2023

Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	205	100	0	0
2	Vertical	205	100	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	26%	125 / 308	433	L	1.25D+1.5L
2 - SPF	2.375"	Vert	26%	125 / 308	433	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	883 ft-lb	4'3 7/8"	5305 ft-lb	0.166 (17%)	1.25D+1.5L	L
Unbraced	883 ft-lb	4'3 7/8"	5305 ft-lb	0.166 (17%)	1.25D+1.5L	L
Shear	420 lb	1 5/8"	2350 lb	0.179 (18%)	1.25D+1.5L	L
Perm Defl in.	0.011 (L/8763)	4'3 7/8"	0.279 (L/360)	0.041 (4%)	D	Uniform
LL Defl inch	0.023 (L/4390)	4'3 7/8"	0.279 (L/360)	0.082 (8%)	L	L
TL Defl inch	0.034 (L/2925)	4'3 7/8"	0.419 (L/240)	0.082 (8%)	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 bearings.

READ ALL NOTES ON THIS PAGE AND ON THE
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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 8-7-11	0-5-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 8-7-11	0-8-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-14 to 8-2-13		Top	2 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-14 to 8-2-13		Top	4 PLF	0 PLF	0 PLF	0 PLF	

Notes

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

Lumber

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

chemicals

Handling & Installation

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

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

Manufacturer Info

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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

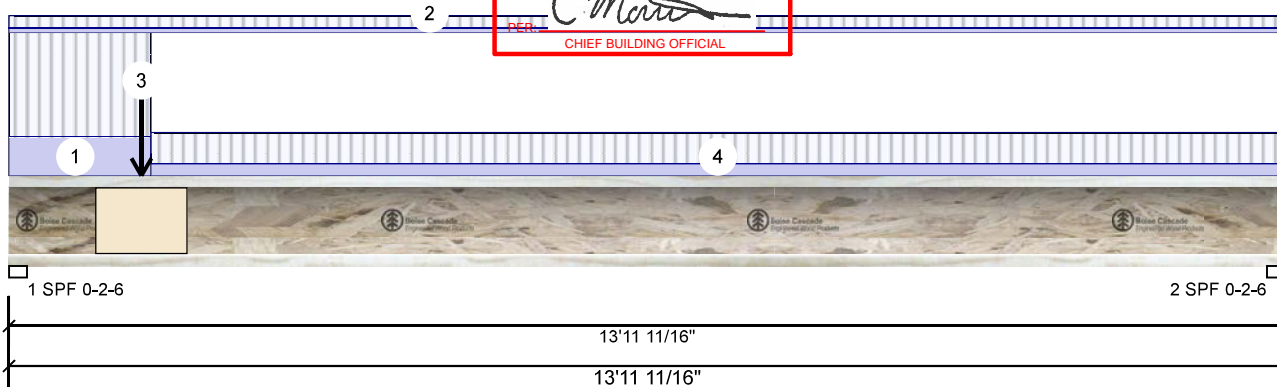
Page 8 of 27

MHP 23028

F4 AJS 140 11.875" - PASSED

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 15 2023

Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	539	202	0	0
2	Vertical	220	83	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	63%	253 / 808	1061	L	1.25D+1.5L
2 - SPF	2.375"	Vert	26%	103 / 330	433	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1730 ft-lb	5'8 11/16"	5305 ft-lb	0.326 (33%)	1.25D+1.5L	L
Unbraced	1730 ft-lb	5'8 11/16"	5305 ft-lb	0.326 (33%)	1.25D+1.5L	L
Shear	1043 lb	1 5/8"	2350 lb	0.444 (44%)	1.25D+1.5L	L
Perm Defl in.	0.041 (L/3964)	6'7 7/16"	0.457 (L/360)	0.091 (9%)	D	Uniform
LL Defl inch	0.111 (L/1486)	6'7 7/16"	0.457 (L/360)	0.242 (24%)	L	
TL Defl inch	0.152 (L/1081)	6'7 7/16"	0.685 (L/240)	0.222 (22%)	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 12'6 5/16" o.c.



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-11	1-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 13-11-11	0-2-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-7		Far Face	119 lb	318 lb	0 lb	0 lb	F2
4	Tie-In	1-6-11 to 13-11-11	0-5-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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. Joist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

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

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

Manufacturer Info

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CCMC: 12787

Kott Inc.
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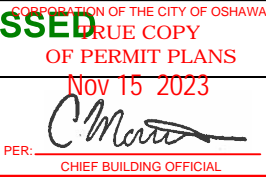
Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

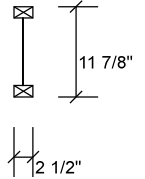
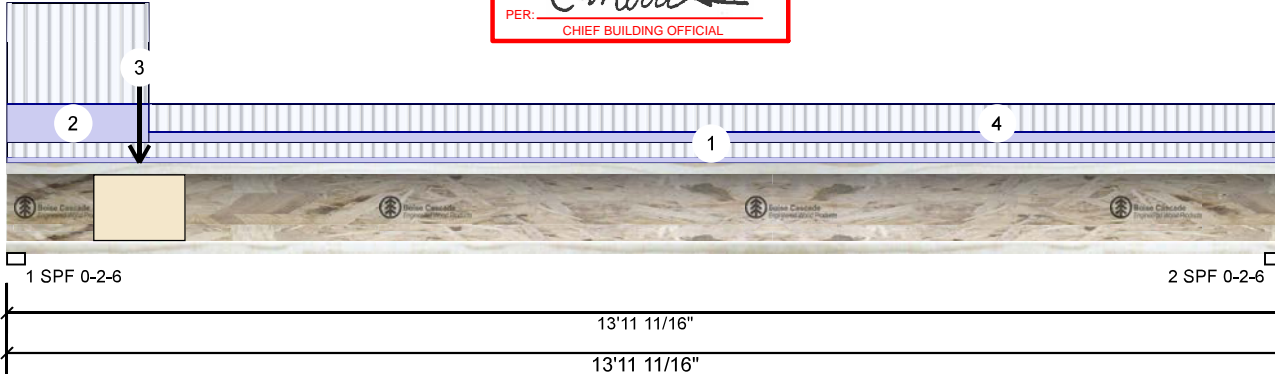
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MHP 23028

F4-A AJ5 140 11.875" - PASSED



Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	552	207	0	0
2	Vertical	221	83	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	64%	258 / 828	1086	L	1.25D+1.5L
2 - SPF	2.375"	Vert	26%	104 / 332	436	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1749 ft-lb	5'8 1/8"	5305 ft-lb	0.330 (33%)	1.25D+1.5L	L
Unbraced	1749 ft-lb	5'8 1/8"	5305 ft-lb	0.330 (33%)	1.25D+1.5L	L
Shear	1066 lb	1 5/8"	2350 lb	0.454 (45%)	1.25D+1.5L	L
Perm Defl in.	0.042 (L/3923)	6'7 5/16"	0.457 (L/360)	0.092 (9%)	D	Uniform
LL Defl inch	0.112 (L/1470)	6'7 5/16"	0.457 (L/360)	0.245 (24%)	L	
TL Defl inch	0.154 (L/1069)	6'7 5/16"	0.685 (L/240)	0.224 (22%)	D+L	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- Bottom flange must be laterally braced at a maximum of 12'6 5/16" o.c.



JULY 11, 2023

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-11-11	0-2-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-6-11	1-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-7		Near Face	123 lb	329 lb	0 lb	0 lb	F2
4	Tie-In	1-6-11 to 13-11-11	0-5-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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

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

chemicals

Handling & Installation

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

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

Manufacturer Info

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

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



This design is valid until 4/17/2026



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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

Page 10 of 27

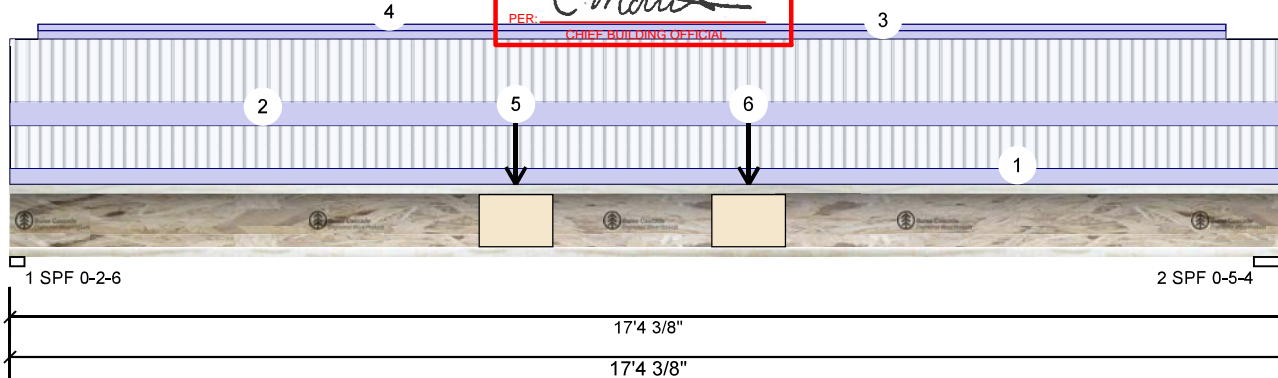
MHP 23028

F5 AJS 140 11.875" - PASSED

CORPORATION OF THE CITY OF OSHAWA
**TRUE COPY
OF PERMIT PLANS**
Nov 15 2023

Level: Ground Floor

PER: *C. M...*
CHIEF BUILDING OFFICIAL



11 7/8"
2 1/2"

Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	472	240	0	0
2	Vertical	484	242	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	60%	300 / 708	1008	L	1.25D+1.5L
2 - SPF	5.250"	Vert	54%	303 / 725	1028	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4432 ft-lb	8'6 7/8"	5305 ft-lb	0.835 (84%)	1.25D+1.5L	L
Unbraced	4432 ft-lb	8'6 7/8"	5305 ft-lb	0.835 (84%)	1.25D+1.5L	L
Shear	995 lb	1 5/8"	2350 lb	0.423 (42%)	1.25D+1.5L	L
Perm Defl in.	0.188 (L/1074)	8'6 11/16"	0.562 (L/360)	0.335 (34%)	D	Uniform
LL Defl inch	0.368 (L/550)	8'6 11/16"	0.562 (L/360)	0.654 (65%)	L	
TL Defl inch	0.556 (L/364)	8'6 11/16"	0.843 (L/240)	0.660 (66%)	D+L	L



Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 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 7'3 3/4" o.c.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 17-4-6	0-6-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 17-4-6	0-9-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-9 to 16-6-9		Top	4 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-9 to 16-6-9		Top	3 PLF	0 PLF	0 PLF	0 PLF	
5	Point	6-10-10		Near Face	21 lb	42 lb	0 lb	0 lb	F1
6	Point	10-0-10		Near Face	21 lb	42 lb	0 lb	0 lb	F1

Notes

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Lumber

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

chemicals

Handling & Installation

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

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

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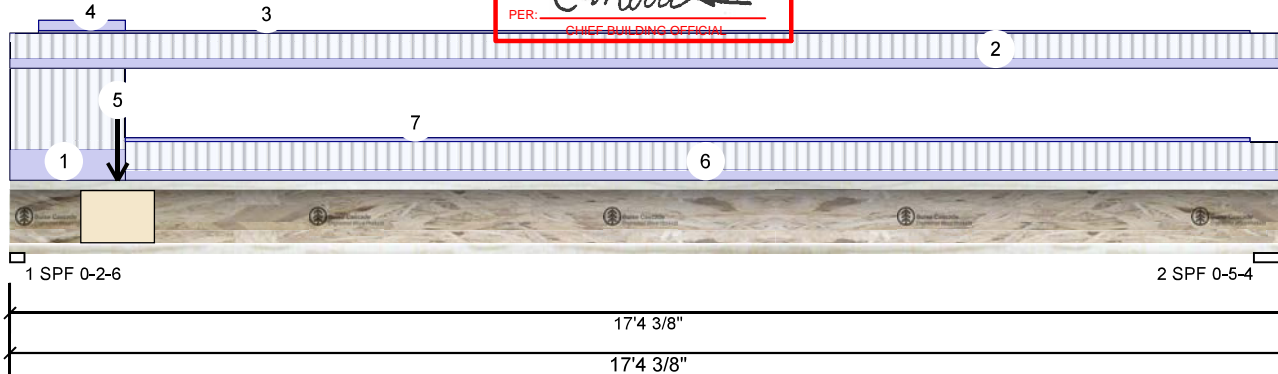
Page 11 of 27

F5-A AJS 140 11.875" - PASSED

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TRUE COPY
OF PERMIT PLANS
Nov 15 2023

MHP 23028

Level: Ground Floor



11 7/8"
2 1/2"

Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	756	376	0	0
2	Vertical	398	195	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	95%	470 / 1135	1605	L	1.25D+1.5L
2 - SPF	5.250"	Vert	44%	244 / 597	841	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3726 ft-lb	7'9 5/8"	5305 ft-lb	0.702 (70%)	1.25D+1.5L	L
Unbraced	3726 ft-lb	7'9 5/8"	5305 ft-lb	0.702 (70%)	1.25D+1.5L	L
Shear	1583 lb	1 5/8"	2350 lb	0.673 (67%)	1.25D+1.5L	L
Perm Defl in.	0.160 (L/1268)	8'3 13/16"	0.562 (L/360)	0.284 (28%)	D	Uniform
LL Defl inch	0.321 (L/631)	8'3 7/8"	0.562 (L/360)	0.571 (57%)	L	L
TL Defl inch	0.480 (L/421)	8'3 7/8"	0.843 (L/240)	0.570 (57%)	D+L	L

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Girders are designed to be supported on the bottom edge only.
- If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- Bottom flange must be laterally braced at a maximum of 15'10 13/16" o.c.



JULY 11, 2023

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-13	1-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 17-4-6	0-5-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-10 to 16-10-8		Top	2 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-11 to 1-6-13		Top	8 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-5-9		Far Face	187 lb	366 lb	0 lb	0 lb	F2
6	Tie-In	1-6-13 to 17-4-6	0-6-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-6-13 to 16-10-8		Top	3 PLF	0 PLF	0 PLF	0 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

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

chemicals

Handling & Installation

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

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

Manufacturer Info

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

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



This design is valid until 4/17/2026



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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

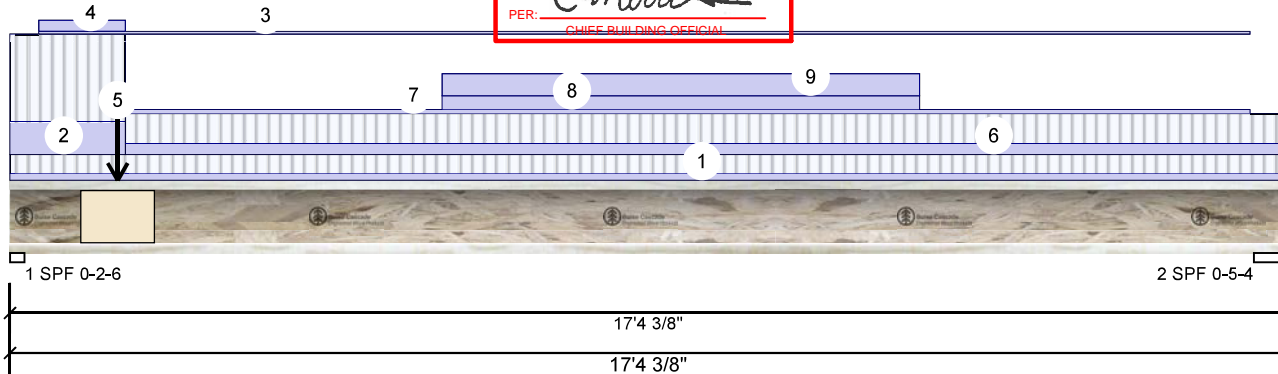
Page 12 of 27

F5-B AJS 140 11.875" - PASSED

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 15 2023

MHP 23028

Level: Ground Floor



11 7/8"
2 1/2"

Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	704	441	0	0
2	Vertical	340	264	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	95%	551 / 1056	1607	L	1.25D+1.5L
2 - SPF	5.250"	Vert	44%	330 / 510	840	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3974 ft-lb	8' 3/8"	5305 ft-lb	0.749 (75%)	1.25D+1.5L	L
Unbraced	3974 ft-lb	8' 3/8"	5305 ft-lb	0.749 (75%)	1.25D+1.5L	L
Shear	1586 lb	1 5/8"	2350 lb	0.675 (67%)	1.25D+1.5L	L
Perm Defl in.	0.240 (L/843)	8'5 5/8"	0.562 (L/360)	0.427 (43%)	D	Uniform
LL Defl inch	0.279 (L/725)	8'3 3/8"	0.562 (L/360)	0.497 (50%)	L	L
TL Defl inch	0.519 (L/390)	8'4 7/16"	0.843 (L/240)	0.616 (62%)	D+L	L



JULY 11, 2023

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 4 Bottom flange must be laterally braced at a maximum of 15'10 13/16" o.c.

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 17-4-6	0-4-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-6-13	1-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-11 to 16-10-8		Top	2 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-11 to 1-6-13		Top	8 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-5-9		Near Face	195 lb	370 lb	0 lb	0 lb	F2
6	Tie-In	1-6-13 to 17-4-6	0-6-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-6-13 to 16-10-8		Top	3 PLF	0 PLF	0 PLF	0 PLF	

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. Joist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

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

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

This design is valid until 4/17/2026

Manufacturer Info

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

Kott Inc.

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





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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

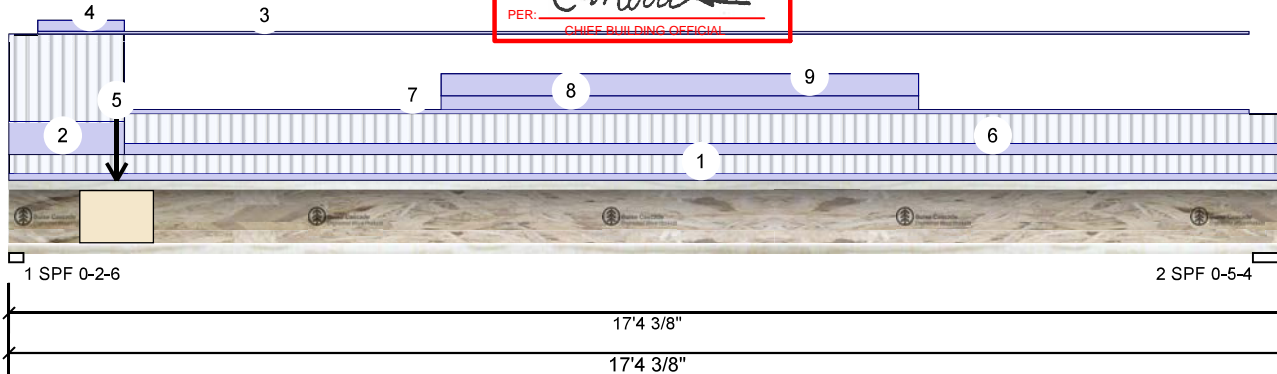
Page 13 of 27

F5-B AJS 140 11.875" - PASSED

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 15 2023

MHP 23028

Level: Ground Floor



11 7/8"
2 1/2"

...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
8	Part. Uniform	5-10-9 to 12-4-9		Top	10 PLF	0 PLF	0 PLF	0 PLF	
9	Part. Uniform	5-10-9 to 12-4-9		Top	16 PLF	0 PLF	0 PLF	0 PLF	



JULY 11, 2023

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Notes

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Lumber

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

chemicals

Handling & Installation

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

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

This design is valid until 4/17/2026

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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

Page 14 of 27

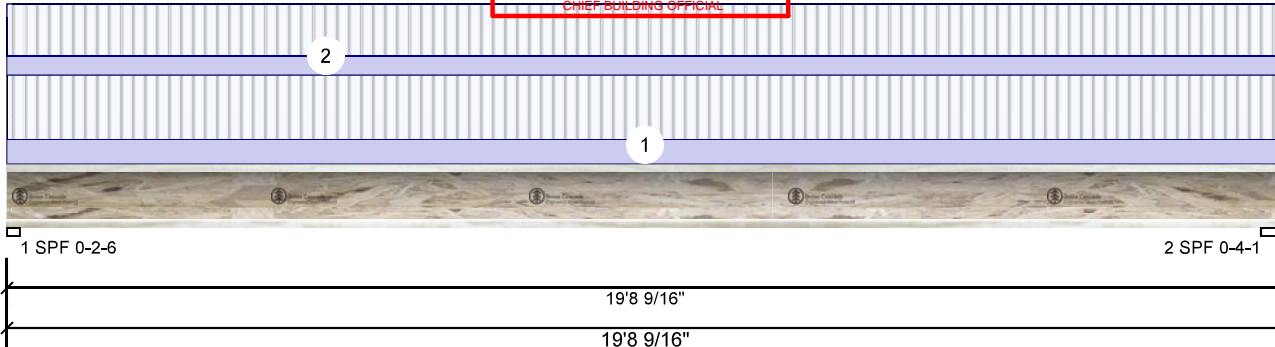
MHP 23028

F6 AJS 140 11.875" - PASSED

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 15 2023

PER:
CHIEF BUILDING OFFICIAL

Level: Ground Floor



11 7/8"

2 1/2"

Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	542	203	0	0
2	Vertical	550	206	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	63%	254 / 813	1067	L	1.25D+1.5L
2 - SPF	4.070"	Vert	57%	258 / 824	1082	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5076 ft-lb	9'9 7/16"	5305 ft-lb	0.957 (96%)	1.25D+1.5L	L
Unbraced	5076 ft-lb	9'9 7/16"	5305 ft-lb	0.957 (96%)	1.25D+1.5L	L
Shear	1052 lb	19'5 1/4"	2350 lb	0.448 (45%)	1.25D+1.5L	L
Perm Defl in.	0.223 (L/1041)	9'9 1/2"	0.643 (L/360)	0.346 (35%)	D	Uniform
LL Defl inch	0.593 (L/390)	9'9 1/2"	0.643 (L/360)	0.922 (92%)	L	
TL Defl inch	0.816 (L/284)	9'9 1/2"	0.965 (L/240)	0.846 (85%)	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 bearings.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 19-8-9	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 19-8-9	0-7-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

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

Lumber

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

chemicals

Handling & Installation

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

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

Manufacturer Info

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

Kott Inc.

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



This design is valid until 4/17/2026



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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

Page 15 of 27

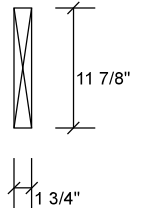
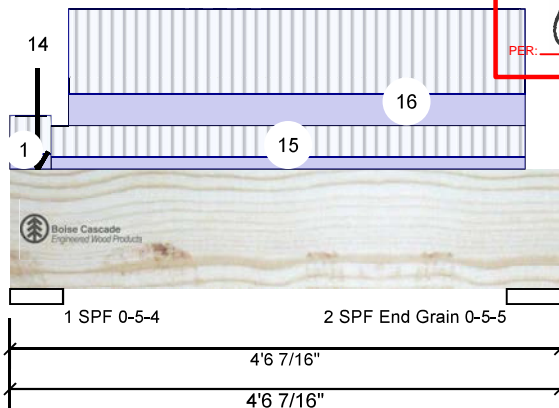
MHP 23028

F8 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875"
TRUE COPY
OF PERMIT PLANS
Nov 15 2023

PASSED

Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	329	173	0	0
2	Vertical	136	65	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	13%	216 / 494	710	L	1.25D+1.5L
2 - SPF	5.313"	Vert	3%	81 / 204	285	L	1.25D+1.5L
End Grain							

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	255 ft-lb	2'3 3/16"	17696 ft-lb	0.014 (1%)	1.25D+1.5L	L
Unbraced	255 ft-lb	2'3 3/16"	17696 ft-lb	0.014 (1%)	1.25D+1.5L	L
Shear	127 lb	1'5 1/8"	6608 lb	0.019 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/143359)	2'3 1/4"	0.126 (L/360)	0.003 (0%)	D	Uniform
LL Defl inch	0.001 (L/66651)	2'3 1/4"	0.126 (L/360)	0.005 (1%)	L	L
TL Defl inch	0.001 (L/45498)	2'3 1/4"	0.189 (L/240)	0.005 (1%)	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 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 Top must be continuously laterally braced.
- 5 Bottom must be laterally braced at bearings.

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-1	0-6-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-2-12		Top	1 lb	2 lb	0 lb	0 lb	J8
	Bearing Length	0-5-8							
4	Point	0-2-12		Top	4 lb	11 lb	0 lb	0 lb	J7

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

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Boise Cascade Wood Products
1111 W. Jefferson St.
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(800) 232-0788
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CCMC: 12472

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613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

Page 16 of 27

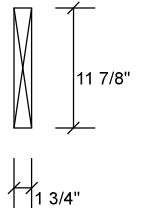
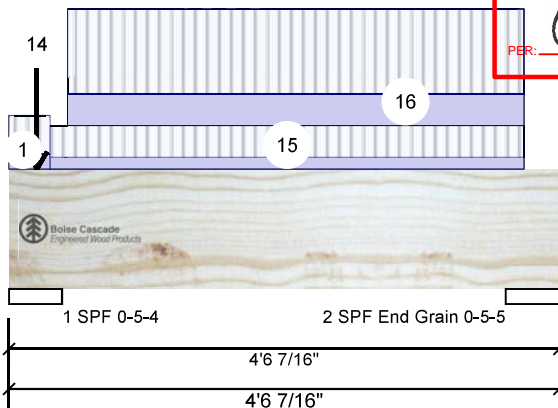
MHP 23028

F8 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875"
TRUE COPY
OF PERMIT PLANS
Nov 15 2023

PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	Bearing Length	0-5-8							
5	Point	0-2-12		Top	2 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
7	Point	0-2-12		Top	6 lb	16 lb	0 lb	0 lb	J8
	Bearing Length	0-5-8							
8	Point	0-2-12		Top	25 lb	67 lb	0 lb	0 lb	J7
	Bearing Length	0-5-8							
9	Point	0-2-12		Top	15 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
11	Point	0-2-12		Top	7 lb	19 lb	0 lb	0 lb	J8
	Bearing Length	0-5-8							
12	Point	0-2-12		Top	30 lb	81 lb	0 lb	0 lb	J7
	Bearing Length	0-5-8							
14	Point	0-2-12		Top	19 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
15	Tie-In	0-4-1 to 4-2-15	0-5-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
16	Part. Uniform	0-5-13 to 4-2-15		Top	19 PLF	50 PLF	0 PLF	0 PLF	
	Self Weight				6 PLF				



JULY 11, 2023

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Notes

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Lumber

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

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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This design is valid until 4/17/2026



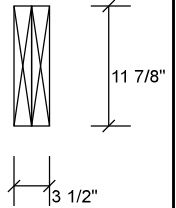
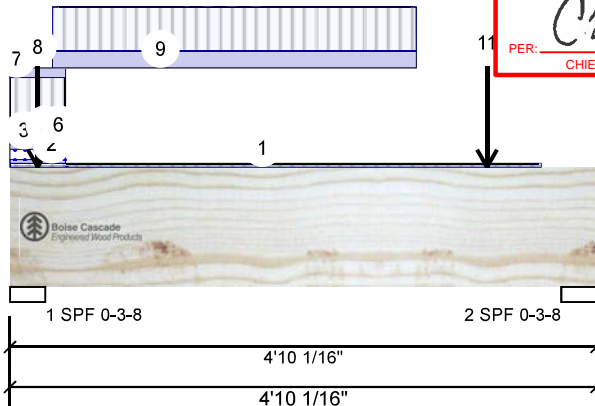
Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

Page 17 of 27

MHP 23028

F9-B Versa-Lam LVL 2.1E 3100 SP 1750" 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	1752	1137	417	0
2	Vertical	887	362	1	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	59%	1421 / 3045	4467	L	1.25D+1.5L +S
2 - SPF	3.500"	Vert	24%	452 / 1331	1784	L	1.25D+1.5L +S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1931 ft-lb	2'5 3/8"	35392 ft-lb	0.055 (5%)	1.25D+1.5L +S	L
Unbraced	1931 ft-lb	2'5 3/8"	35392 ft-lb	0.055 (5%)	1.25D+1.5L +S	L
Shear	2368 lb	3'6 11/16"	13217 lb	0.179 (18%)	1.25D+1.5L +S	L
Perm Defl in.	0.001 (L/36710)	2'5 3/16"	0.146 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.004 (L/14924)	2'5 3/16"	0.146 (L/360)	0.024 (2%)	L+0.5S	L
TL Defl inch	0.005 (L/10610)	2'5 3/16"	0.219 (L/240)	0.023 (2%)	D+L+0.5S	L

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.5.
- 2 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.



JULY 11, 2023

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Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

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613-838-2775 / 905-642-4400



This design is valid until 4/17/2026



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

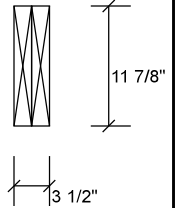
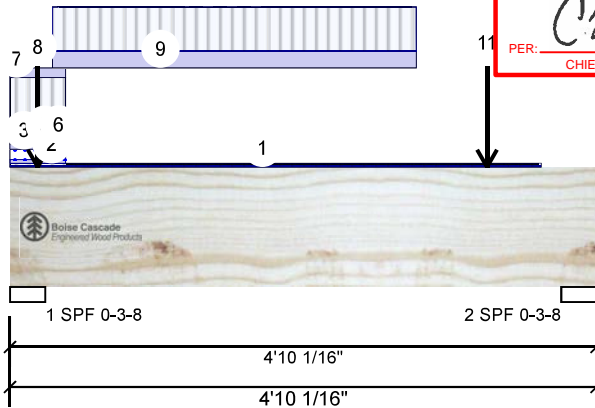
Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

Page 18 of 27

MHP 23028

F9-B Versa-Lam LVL 2.1E 3100 SP 1 750" X 11.875" 2-Ply - PASSED Level: Ground Floor

INCORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
NOV 15 2023
PER: *C. Mante*
CHIEF BUILDING OFFICIAL



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-4-9	0-6-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-5-8		Top	30 PLF	0 PLF	86 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 0-5-8		Top	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
5	Part. Uniform	0-0-0 to 0-5-8		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
6	Part. Uniform	0-0-0 to 0-5-8		Top	148 PLF	395 PLF	0 PLF	0 PLF	J7
7	Part. Uniform	0-0-0 to 0-5-8		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Point	0-2-12		Top	662 lb	752 lb	378 lb	0 lb	B9
	Bearing Length	0-5-8							
9	Part. Uniform	0-4-3 to 3-4-3		Near Face	137 PLF	365 PLF	0 PLF	0 PLF	
11	Point	3-11-3		Near Face	193 lb	516 lb	0 lb	0 lb	J7
	Self Weight				12 PLF				



JULY 11, 2023

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Notes

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Lumber

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

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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

Kott Inc.
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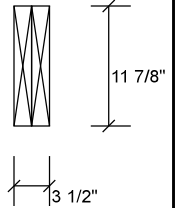
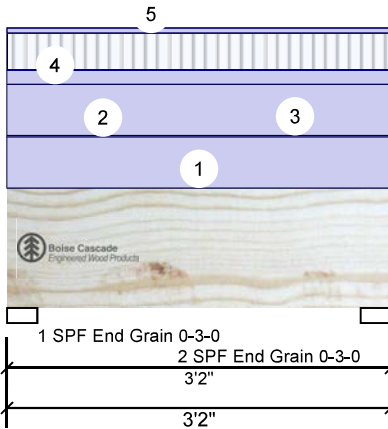
Page 19 of 27

MHP 23028

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	46	171	0	0
2	Vertical	46	171	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%	213 / 69	282	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	4%	213 / 69	282	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	174 ft-lb	1'7"	25128 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	174 ft-lb	1'7"	25128 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	188 lb	1'11 1/8"	9384 lb	0.020 (2%)	1.25D+1.5L	L
Perm Defl in. (L/195443)	0.000	1'7"	0.093 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/726735)	0.000	1'7"	0.093 (L/360)	0.000 (0%)	L	L
TL Defl inch (L/154021)	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.



JULY 11, 2023

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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	1 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	11 PLF	29 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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Lumber

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Handling & Installation

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6. For flat roofs provide proper drainage to prevent ponding

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www.bc.com
CCMC: 12472

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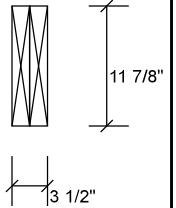
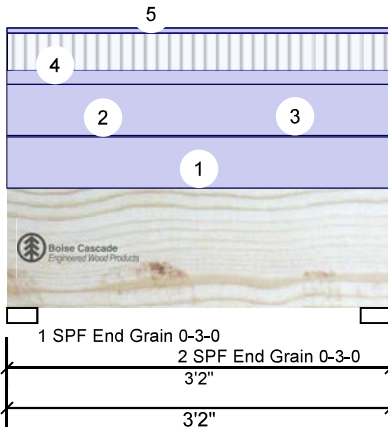
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MHP 23028

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			11 PLF	29 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				



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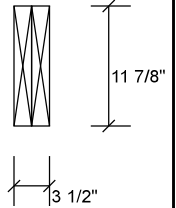
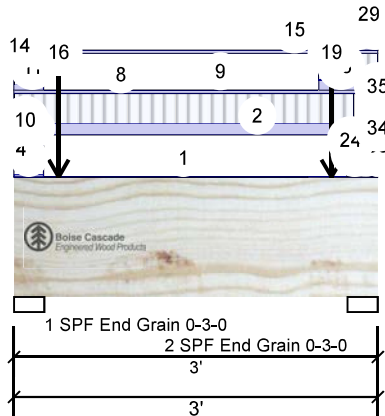
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1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

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Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	1189	839	259	0
2	Vertical	1271	870	259	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	28%	1049 / 2043	3091	L	1.25D+1.5L +S
2 - SPF End Grain	3.000"	Vert	30%	1087 / 2166	3253	L	1.25D+1.5L +S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1060 ft-lb	1'6 1/4"	35392 ft-lb	0.030 (3%)	1.25D+1.5L +S	L
Unbraced	1060 ft-lb	1'6 1/4"	35392 ft-lb	0.030 (3%)	1.25D+1.5L +S	L
Shear	1500 lb	1'2 7/8"	13217 lb	0.114 (11%)	1.25D+1.5L +S	L
Perm Defl in.	0.000 (L/71399)	1'6 1/16"	0.088 (L/360)	0.005 (1%)	D	Uniform
LL Defl inch	0.001 (L/44580)	1'6 1/8"	0.088 (L/360)	0.008 (1%)	L+0.5S	L
TL Defl inch	0.001 (L/27444)	1'6 1/16"	0.131 (L/240)	0.009 (1%)	D+L+0.5S	L

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.
- 2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 3.
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JULY 11, 2023

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

Date: 7/7/2023
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Job Name: ROSE 2-1 DC
Project #

Page 2 of 7

MHP 23028

FH5 Versa-Lam LVL 2.1E 3100 SP

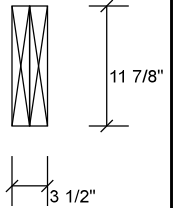
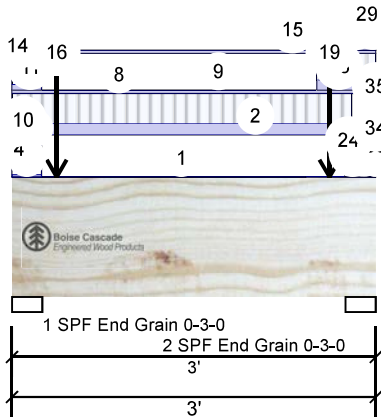
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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tapered Start	0-0-0		Near Face	0 PLF	1 PLF	0 PLF	0 PLF	
	End	2-5-2			0 PLF	1 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 2-9-10		Near Face	147 PLF	392 PLF	0 PLF	0 PLF	J7
3	Part. Uniform	0-0-0 to 0-2-15		Near Face	30 PLF	0 PLF	86 PLF	0 PLF	
4	Part. Uniform	0-0-0 to 0-2-15		Near Face	74 PLF	197 PLF	0 PLF	0 PLF	J7
6	Part. Uniform	0-0-0 to 0-2-15		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
7	Part. Uniform	0-0-0 to 0-2-15		Near Face	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
9	Part. Uniform	0-0-0 to 3-0-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
10	Part. Uniform	0-0-0 to 0-2-15		Top	30 PLF	0 PLF	86 PLF	0 PLF	
11	Part. Uniform	0-0-0 to 0-2-15		Top	74 PLF	197 PLF	0 PLF	0 PLF	J7
13	Part. Uniform	0-0-0 to 0-2-15		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
14	Part. Uniform	0-0-0 to 0-2-15		Top	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
15	Part. Uniform	0-0-0 to 3-0-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
16	Point	0-4-7		Top	397 lb	495 lb	216 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
17	Tapered Start	2-5-2		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
	End	3-0-0			1 PLF	3 PLF	0 PLF	0 PLF	
18	Part. Uniform	2-6-3 to 3-0-0		Near Face	131 PLF	349 PLF	0 PLF	0 PLF	J7
19	Point	2-7-7		Top	397 lb	495 lb	216 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
21	Part. Uniform	2-8-15 to 3-0-0		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
22	Part. Uniform	2-8-15 to 3-0-0		Near Face	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
23	Part. Uniform	2-8-15 to 3-0-0		Near Face	30 PLF	0 PLF	86 PLF	0 PLF	
24	Part. Uniform	2-8-15 to 3-0-0		Near Face	74 PLF	197 PLF	0 PLF	0 PLF	J7
26	Part. Uniform	2-8-15 to 3-0-0		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
27	Part. Uniform	2-8-15 to 3-0-0		Top	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
28	Part. Uniform	2-8-15 to 3-0-0		Top	30 PLF	0 PLF	86 PLF	0 PLF	

Continued on page 3...

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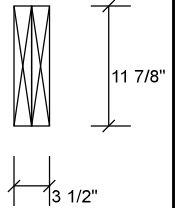
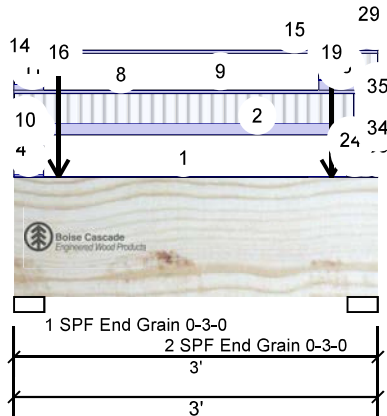
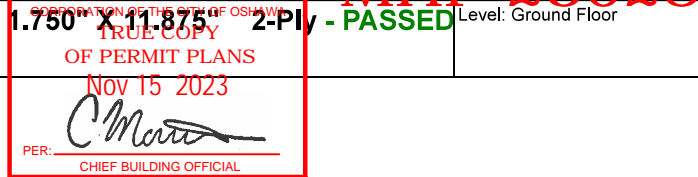
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FH5 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



...Continued from page 2

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
29	Part. Uniform	2-8-15 to 3-0-0		Top	74 PLF	197 PLF	0 PLF	0 PLF	J7
30	Tapered Start	3-0-0		Near Face	0 PLF	1 PLF	0 PLF	0 PLF	
	End	3-0-0			0 PLF	1 PLF	0 PLF	0 PLF	
31	Part. Uniform	3-0-0 to 3-0-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
32	Part. Uniform	3-0-0 to 3-0-0		Near Face	90 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
33	Part. Uniform	3-0-0 to 3-0-0		Near Face	60 PLF	0 PLF	173 PLF	0 PLF	
34	Part. Uniform	3-0-0 to 3-0-0		Near Face	148 PLF	395 PLF	0 PLF	0 PLF	J7
35	Part. Uniform	3-0-0 to 3-0-0		Near Face	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight				12 PLF				



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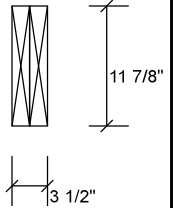
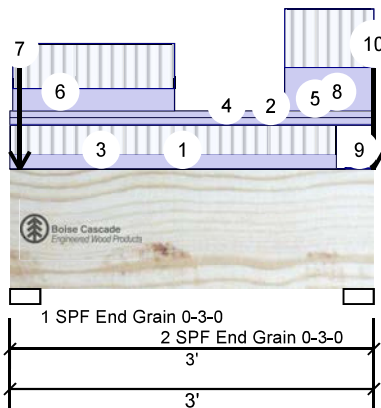
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PER: *C. Morte*
CHIEF BUILDING OFFICIAL



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	1111	980	357	0
2	Vertical	1058	1073	481	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	30%	1226 / 2023	3249	L	1.25D+1.5L +S
2 - SPF End Grain	3.000"	Vert	31%	1341 / 2068	3409	L	1.25D+1.5L +S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	679 ft-lb	1'3 15/16"	35392 ft-lb	0.019 (2%)	1.25D+1.5L	L
Unbraced	679 ft-lb	1'3 15/16"	35392 ft-lb	0.019 (2%)	1.25D+1.5L	L
Shear	1209 lb	1'9 1/8"	13217 lb	0.092 (9%)	1.25D+1.5L	L
Perm Defl in. (L/96263)	0.000	1'5 3/4"	0.088 (L/360)	0.004 (0%)	D	Uniform
LL Defl inch (L/78695)	0.000	1'5 3/8"	0.088 (L/360)	0.005 (0%)	L+0.5S	L
TL Defl inch (L/43304)	0.001	1'5 9/16"	0.131 (L/240)	0.006 (1%)	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.



JULY 11, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tapered Start	0-0-0		Near Face	0 PLF	1 PLF	0 PLF	0 PLF	
	End	2-9-3			0 PLF	1 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 2-8-5		Near Face	84 PLF	172 PLF	0 PLF	0 PLF	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

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/17/2026

Manufacturer Info

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

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





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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 DC
Project #

Page 5 of 7

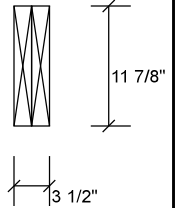
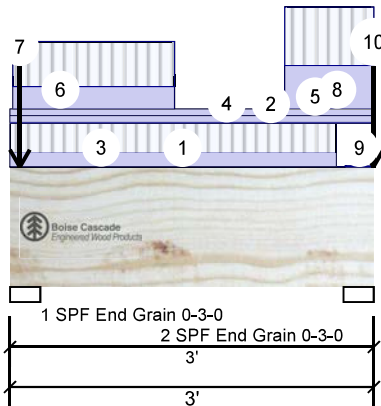
MHP 23028

FH5-A Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

REPRODUCTION OF THE PERMIT OF OSHAWA
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OF PERMIT PLANS
Nov 15 2023
PER: *C. M. ...*
CHIEF BUILDING OFFICIAL



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-0-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
5	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Part. Uniform	0-0-5 to 1-4-5		Near Face	130 PLF	265 PLF	0 PLF	0 PLF	J6
7	Point	0-1-0		Top	557 lb	548 lb	357 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
8	Part. Uniform	2-3-3 to 3-0-0		Near Face	253 PLF	344 PLF	0 PLF	0 PLF	J6
9	Tapered Start	2-9-3		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
	End	3-0-0			1 PLF	4 PLF	0 PLF	0 PLF	
10	Point	3-0-0		Top	623 lb	548 lb	481 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
	Self Weight				12 PLF				



JULY 11, 2023

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Notes

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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
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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www.bc.com
CCMC: 12472

This design is valid until 4/17/2026

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





Client: GREENPARK
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Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 DC
Project #

Page 6 of 7

MHP 23028

FH5-B Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply

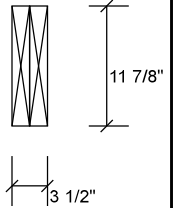
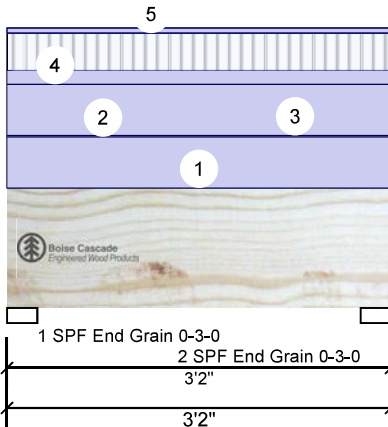
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Level: Ground Floor

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OF PERMIT PLANS

Nov 15 2023

PER: *C. Mante*
CHIEF BUILDING OFFICIAL



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	46	171	0	0
2	Vertical	46	171	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%	213 / 69	282	L		1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	4%	213 / 69	282	L		1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	174 ft-lb	1'7"	25128 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	174 ft-lb	1'7"	25128 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	188 lb	1'11 1/8"	9384 lb	0.020 (2%)	1.25D+1.5L	L
Perm Defl in. (L/195443)	0.000	1'7"	0.093 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/726735)	0.000	1'7"	0.093 (L/360)	0.000 (0%)	L	L
TL Defl inch (L/154021)	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.
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JULY 11, 2023

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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	1 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	11 PLF	29 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

This design is valid until 4/17/2026

Manufacturer Info

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www.bc.com
CCMC: 12472

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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 DC
Project #

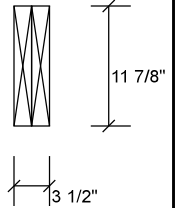
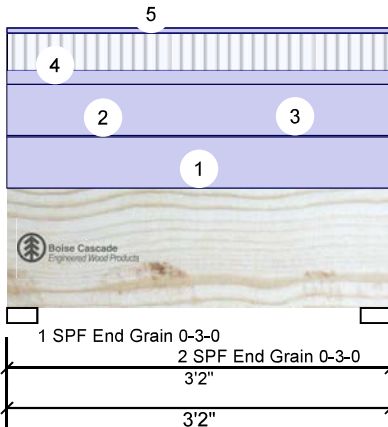
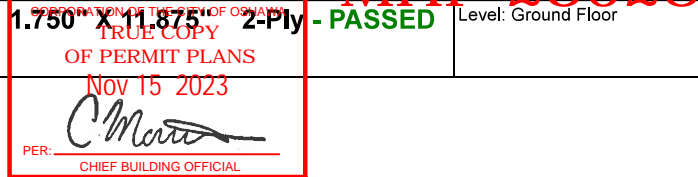
Page 7 of 7

FH5-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
	End	3-2-0			11 PLF	29 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				



JULY 11, 2023

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Notes

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Lumber

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

chemicals**Handling & Installation**

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Project #

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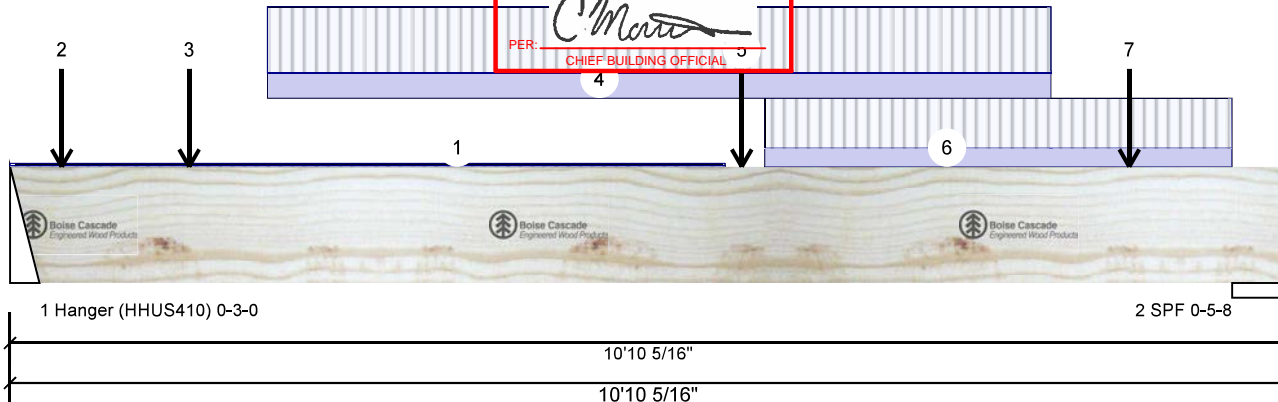
MHP 23028

F10 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Second Floor

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OF PERMIT PLANS

Nov 15 2023

PER: *C. Morte*
CHIEF BUILDING OFFICIAL



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	2501	1044	0	0
2	Vertical	3225	1335	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	Vert	44%	1305 / 3751	5056	L	1.25D+1.5L
2 - SPF	5.500"	Vert	55%	1669 / 4837	6506	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	18227 ft-lb	6'2 3/4"	35392 ft-lb	0.515 (52%)	1.25D+1.5L	L
Unbraced	18227 ft-lb	6'2 3/4"	35392 ft-lb	0.515 (52%)	1.25D+1.5L	L
Shear	6033 lb	9'4 15/16"	13217 lb	0.456 (46%)	1.25D+1.5L	L
Perm Defl in.	0.065 (L/1895)	5'6 1/16"	0.342 (L/360)	0.190 (19%)	D	Uniform
LL Defl inch	0.155 (L/793)	5'6 1/16"	0.342 (L/360)	0.454 (45%)	L	
TL Defl inch	0.221 (L/559)	5'6 1/16"	0.514 (L/240)	0.429 (43%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 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.
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JULY 11, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 6-1-0	0-3-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-5-5		Near Face	95 lb	253 lb	0 lb	0 lb	J6
3	Point	1-6-5		Near Face	145 lb	386 lb	0 lb	0 lb	J6
4	Part. Uniform	2-2-5 to 8-10-5		Near Face	120 PLF	320 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
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This design is valid until 4/17/2026

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Page 22 of 27

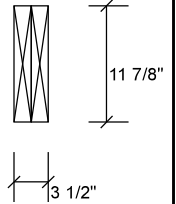
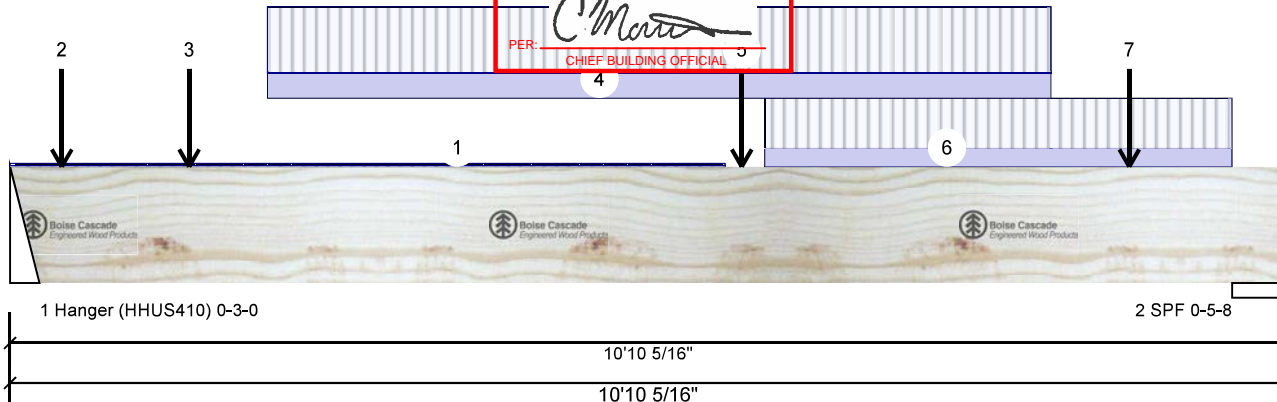
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F10 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Second Floor

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OF PERMIT PLANS

NOV 15 2023

PER: *C. Morte*
CHIEF BUILDING OFFICIAL



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Point	6-2-12		Far Face	660 lb	1485 lb	0 lb	0 lb	F12
6	Part. Uniform	6-5-1 to 10-4-12		Top	90 PLF	240 PLF	0 PLF	0 PLF	
7	Point	9-6-5		Near Face	167 lb	445 lb	0 lb	0 lb	J6
	Self Weight				12 PLF				



JULY 11, 2023

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Page 23 of 27

MHP 23028

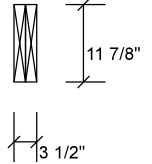
F12 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor

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Nov 15 2023

PER: *C. Morte*
CHIEF BUILDING OFFICIAL



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	1485	660	0	0
2	Vertical	1836	807	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	Vert	27%	824 / 2227	3051	L	1.25D+1.5L
2 - SPF	4.375"	Vert	40%	1008 / 2753	3762	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	12579 ft-lb	9' 5/8"	35392 ft-lb	0.355 (36%)	1.25D+1.5L	L
Unbraced	12579 ft-lb	9' 5/8"	35392 ft-lb	0.355 (36%)	1.25D+1.5L	L
Shear	3547 lb	14'11 11/16"	13217 lb	0.268 (27%)	1.25D+1.5L	L
Perm Defl in.	0.122 (L/1555)	8'3 5/8"	0.528 (L/360)	0.231 (23%)	D	Uniform
LL Defl inch	0.275 (L/691)	8'3 3/4"	0.528 (L/360)	0.521 (52%)	L	
TL Defl inch	0.397 (L/478)	8'3 11/16"	0.792 (L/240)	0.502 (50%)	D+L	L

Design Notes

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



JULY 11, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0 to 11-5-1	1-11-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-5-1		Far Face	43 lb	116 lb	0 lb	0 lb	J2
3	Point	1-9-1		Far Face	62 lb	165 lb	0 lb	0 lb	J2
4	Part. Uniform	2-5-1 to 14-5-1		Far Face	28 PLF	74 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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Lumber

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

chemicals

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

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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

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



This design is valid until 4/17/2026



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

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

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MHP 23028

F12 Versa-Lam LVL 2.1E 3100 SP

1.750" X 11.875" 2-Ply - PASSED

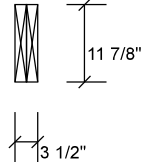
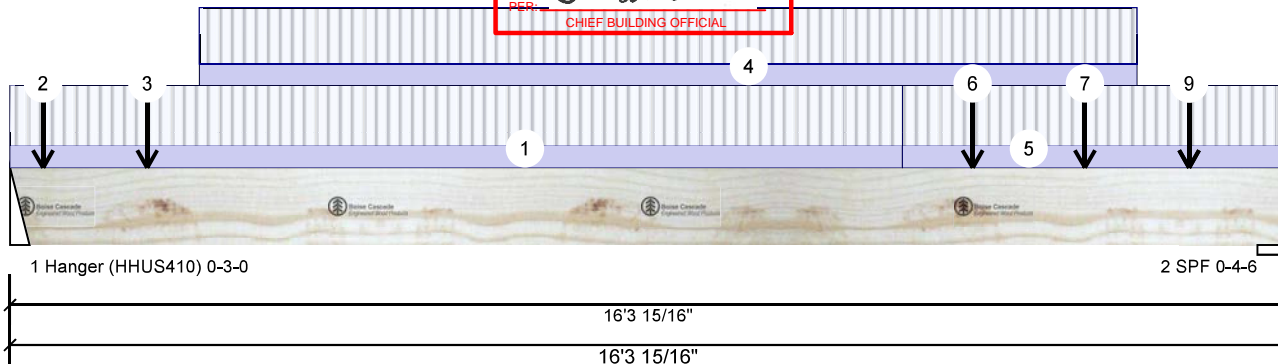
Level: Second Floor

TRUE COPY

NOV 15 2023

C. Mante

CHIEF BUILDING OFFICIAL



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tie-In	11-5-1 to 16-3-15	1-11-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	12-3-13		Near Face	236 lb	563 lb	0 lb	0 lb	F9
7	Point	13-9-1		Near Face	44 lb	116 lb	0 lb	0 lb	J1
8	Point	15-1-1		Far Face	34 lb	90 lb	0 lb	0 lb	J8
9	Point	15-1-1		Near Face	38 lb	102 lb	0 lb	0 lb	J1
	Self Weight				12 PLF				



JULY 11, 2023

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Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

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





Client: GREENPARK
Project:
Address: ZADORRA ESTATES
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Date: 7/7/2023
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Job Name: ROSE 2-1 STD
Project #

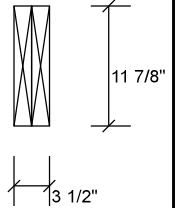
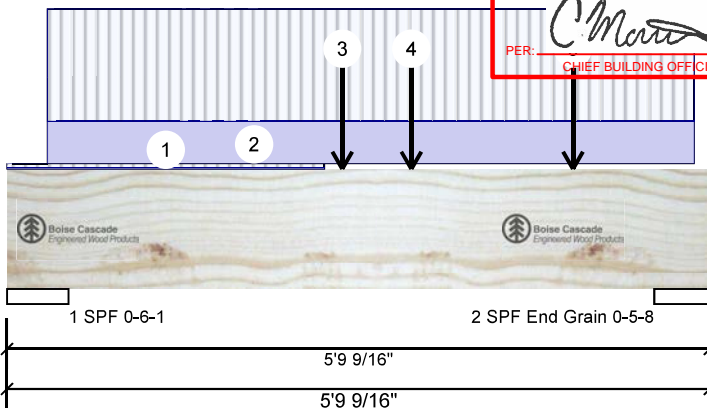
Page 25 of 27

MHP 23028

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

INCORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 15 2023

PER:
CHIEF BUILDING OFFICIAL



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	2299	953	0	0
2	Vertical	2316	952	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.080"	Vert	35%	1191 / 3449	4640	L	1.25D+1.5L
2 - SPF	5.500"	Vert	23%	1190 / 3473	4664	L	1.25D+1.5L
End Grain							

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8676 ft-lb	2'9 3/16"	35392 ft-lb	0.245 (25%)	1.25D+1.5L	L
Unbraced	8676 ft-lb	2'9 3/16"	35392 ft-lb	0.245 (25%)	1.25D+1.5L	L
Shear	4483 lb	1'5 15/16"	13217 lb	0.339 (34%)	1.25D+1.5L	L
Perm Defl in.	0.007 (L/8449)	2'10 1/4"	0.165 (L/360)	0.043 (4%)	D	Uniform
LL Defl inch	0.017 (L/3490)	2'10 1/4"	0.165 (L/360)	0.103 (10%)	L	
TL Defl inch	0.024 (L/2470)	2'10 1/4"	0.248 (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 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.



JULY 11, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-7-7	0-3-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-0 to 5-8-0		Far Face	126 PLF	336 PLF	0 PLF	0 PLF	
3	Point	2-9-3		Near Face	1044 lb	2501 lb	0 lb	0 lb	F10
4	Point	3-4-0		Near Face	43 lb	116 lb	0 lb	0 lb	J2
5	Point	4-8-0		Near Face	66 lb	175 lb	0 lb	0 lb	J2
	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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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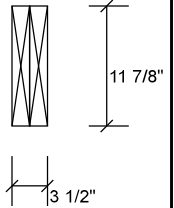
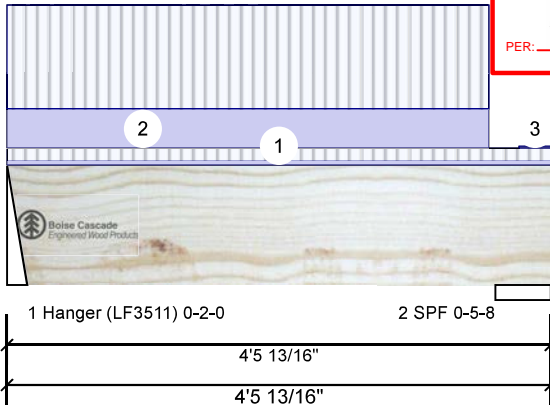
Client: GREENPARK
Project:
Address: ZADORRA ESTATES
OSHAWA, ON

Date: 7/7/2023
Input by: W C
Job Name: ROSE 2-1 STD
Project #

Page 26 of 27

MHP 23028

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	563	236	0	0
2	Vertical	520	224	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	15%	295 / 845	1140	L	1.25D+1.5L
2 - SPF	5.500"	Vert	9%	280 / 780	1060	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1078 ft-lb	2'1 1/8"	35392 ft-lb	0.030 (3%)	1.25D+1.5L	L
Unbraced	1078 ft-lb	2'1 1/8"	35392 ft-lb	0.030 (3%)	1.25D+1.5L	L
Shear	527 lb	3' 7/16"	13217 lb	0.040 (4%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/70228)	2'1 1/8"	0.133 (L/360)	0.005 (1%)	D	Uniform
LL Defl inch	0.002 (L/29433)	2'1 1/8"	0.133 (L/360)	0.012 (1%)	L	L
TL Defl inch	0.002 (L/20741)	2'1 1/8"	0.199 (L/240)	0.012 (1%)	D+L	L

Design Notes

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



JULY 11, 2023

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Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
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- Damaged Beams must not be used
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- For flat roofs provide proper drainage to prevent ponding

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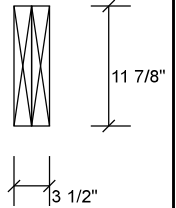
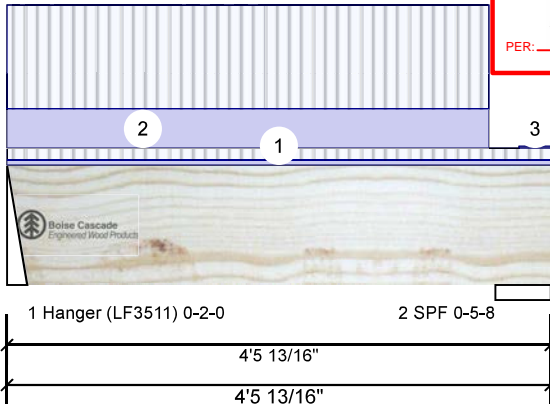
MHP 23028

F9-A 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	Tie-In	0-0-0 to 4-5-13	0-8-10 to 0-8-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-11-11		Top	90 PLF	240 PLF	0 PLF	0 PLF	
3	Part. Uniform	4-2-11 to 4-5-13		Top	4 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				



JULY 11, 2023

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