isDesign

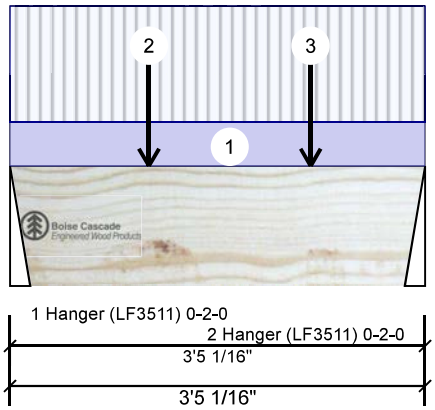
Client: GREENPARK
Project:
Address: ES

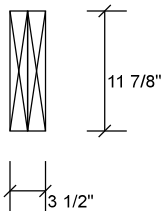
Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

F5-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

MHP 23029





Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	256	117	0	0
2	Vertical	272	123	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	7%	146 / 384	530	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	7%	153 / 408	562	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	483 ft-lb	1'5 1/4"	35392 ft-lb	0.014 (1%)	1.25D+1.5L	L
Unbraced	483 ft-lb	1'5 1/4"	35392 ft-lb	0.014 (1%)	1.25D+1.5L	L
Shear	445 lb	2'3 3/16"	13217 lb	0.034 (3%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/174735)	1'8 3/8"	0.107 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.001 (L/76866)	1'8 3/8"	0.107 (L/360)	0.005 (0%)	L	L
TL Defl inch	0.001 (L/53383)	1'8 3/8"	0.161 (L/240)	0.004 (0%)	D+L	L

JULY 13, 2023

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Design Notes

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

Notes

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

Lumber

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

Handling & Installation

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

This design is valid until 4/17/2026

Manufacturer Info

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

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

KOTT

CSD DRAW DESIGN BUILD

isDesign

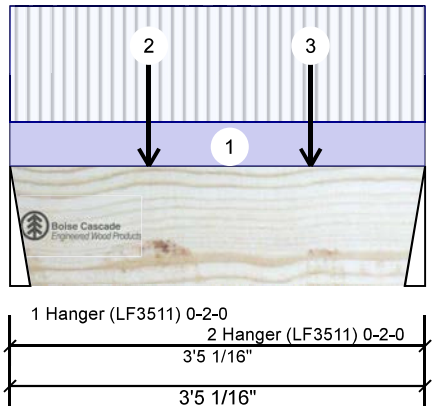
Client: GREENPARK
Project:
Address: ES

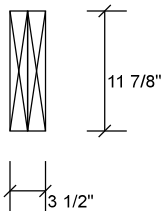
Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

F5-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

MHP 23029





1 Hanger (LF3511) 0-2-0
2 Hanger (LF3511) 0-2-0
3'5 1/16"
3'5 1/16"

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-5-1		Top	19 PLF	50 PLF	0 PLF	0 PLF	
2	Point	1-1-12		Far Face	70 lb	186 lb	0 lb	0 lb	J2
3	Point	2-5-12		Far Face	64 lb	171 lb	0 lb	0 lb	J2
	Self Weight				12 PLF				

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I.MATIJEVIC
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JULY 13, 2023

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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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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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CSD DRAW DESIGN BUILD

isDesign

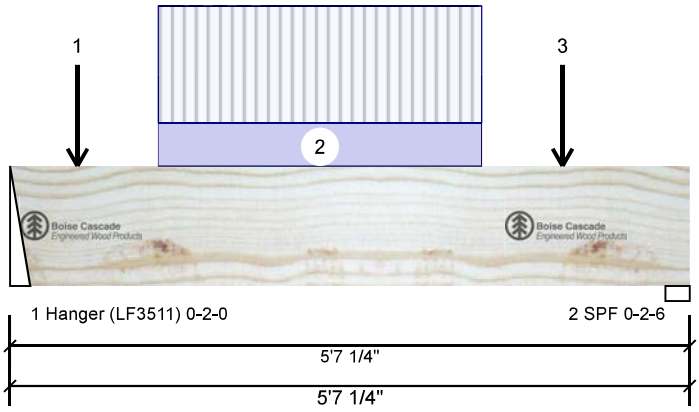
Client: GREENPARK
Project:
Address: ES

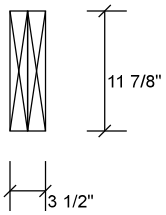
Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

F6 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

MHP 23029





Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	99	70	0	0
2	Vertical	88	66	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	3%	87 / 148	235	L	1.25D+1.5L
2 - SPF	2.393"	Vert	4%	82 / 132	214	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	310 ft-lb	2'9 7/16"	35392 ft-lb	0.009 (1%)	1.25D+1.5L	L
Unbraced	310 ft-lb	2'9 7/16"	35392 ft-lb	0.009 (1%)	1.25D+1.5L	L
Shear	233 lb	1'1 7/8"	13217 lb	0.018 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/133245)	2'9 7/16"	0.179 (L/360)	0.003 (0%)	D	Uniform
LL Defl inch	0.001 (L/92667)	2'9 1/2"	0.179 (L/360)	0.004 (0%)	L	L
TL Defl inch	0.001 (L/54656)	2'9 7/16"	0.268 (L/240)	0.004 (0%)	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Fill all hanger nailing holes.
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JULY 13, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-6-11		Near Face	15 lb	39 lb	0 lb	0 lb	J1
2	Part. Uniform	1-2-11 to 3-10-11		Near Face	14 PLF	38 PLF	0 PLF	0 PLF	
3	Point	4-6-11		Near Face	17 lb	46 lb	0 lb	0 lb	J1
	Self Weight				12 PLF				

Notes

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Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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6. For flat roofs provide proper drainage to prevent ponding

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KOTT

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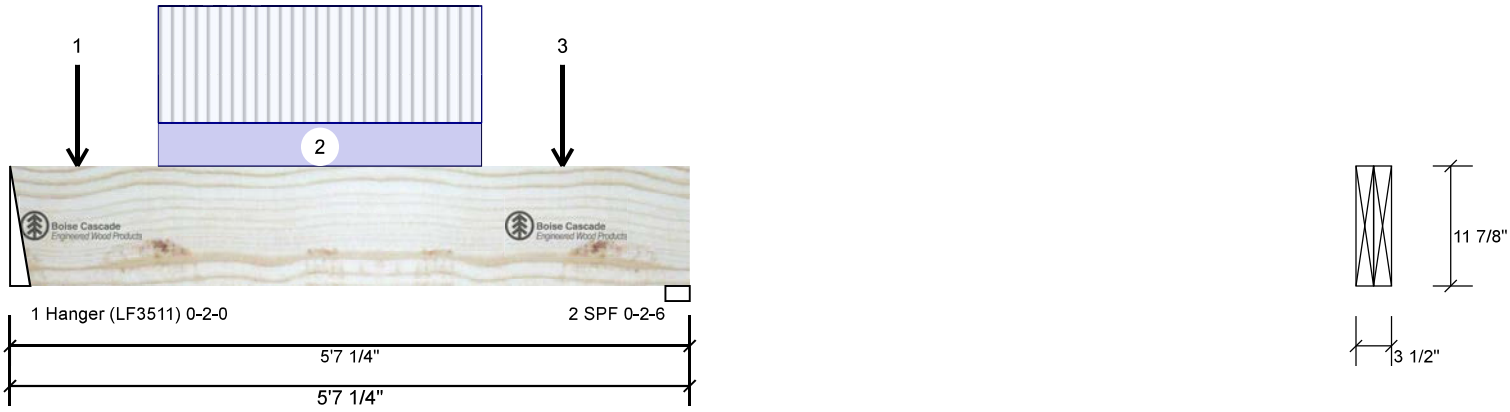
F6-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

MHP 23029



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	520	228	0	0
2	Vertical	465	208	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	14%	285 / 780	1065	L	1.25D+1.5L
2 - SPF	2.393"	Vert	19%	260 / 697	957	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1415 ft-lb	2'9 1/2"	35392 ft-lb	0.040 (4%)	1.25D+1.5L	L
Unbraced	1415 ft-lb	2'9 1/2"	35392 ft-lb	0.040 (4%)	1.25D+1.5L	L
Shear	1062 lb	1'1 7/8"	13217 lb	0.080 (8%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/40218)	2'9 1/2"	0.179 (L/360)	0.009 (1%)	D	Uniform
LL Defl inch	0.004 (L/17519)	2'9 1/2"	0.179 (L/360)	0.021 (2%)	L	L
TL Defl inch	0.005 (L/12203)	2'9 1/2"	0.268 (L/240)	0.020 (2%)	D+L	L

JULY 13, 2023

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Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-6-11		Far Face	77 lb	205 lb	0 lb	0 lb	J4
2	Part. Uniform	1-2-11 to 3-10-11		Far Face	75 PLF	201 PLF	0 PLF	0 PLF	
3	Point	4-6-11		Far Face	92 lb	244 lb	0 lb	0 lb	J4
	Self Weight				12 PLF				

Notes

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Lumber

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

Handling & Installation

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

This design is valid until 4/17/2026

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KOTT

CSD DRAW DESIGN BUILD

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Date: 7/12/2023
Input by: W C
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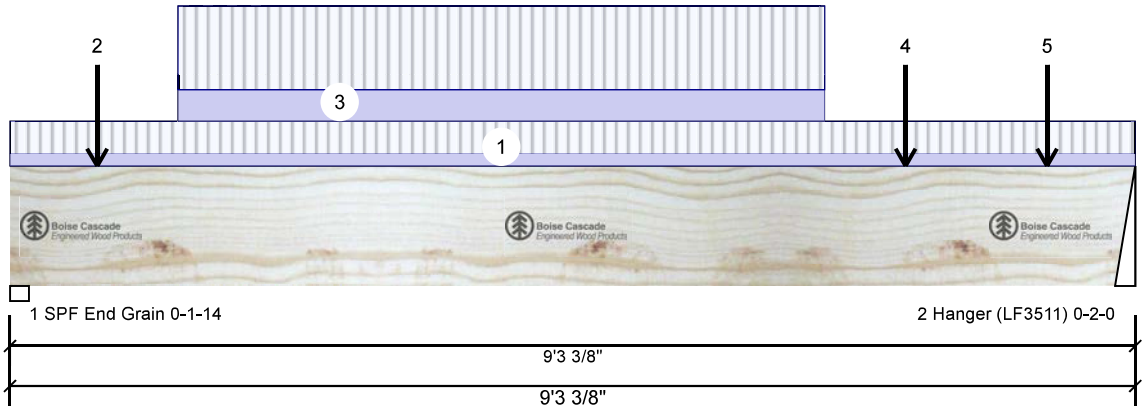
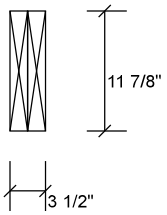
Project #:

F7 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

MHP 23029





Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	1218	511	0	0
2	Vertical	1220	512	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	1.875"	Vert	36%	639 / 1828	2467	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	32%	640 / 1829	2470	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5676 ft-lb	4'7 5/8"	35392 ft-lb	0.160 (16%)	1.25D+1.5L	L
Unbraced	5676 ft-lb	4'7 5/8"	35392 ft-lb	0.160 (16%)	1.25D+1.5L	L
Shear	2292 lb	8'1 1/2"	13217 lb	0.173 (17%)	1.25D+1.5L	L
Perm Defl in.	0.017 (L/6307)	4'7 5/8"	0.303 (L/360)	0.057 (6%)	D	Uniform
LL Defl inch	0.041 (L/2636)	4'7 5/8"	0.303 (L/360)	0.137 (14%)	L	L
TL Defl inch	0.059 (L/1859)	4'7 5/8"	0.454 (L/240)	0.129 (13%)	D+L	L

JULY 13, 2023

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Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 9-3-6	1-11-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-8-10		Far Face	82 lb	218 lb	0 lb	0 lb	J3
3	Part. Uniform	1-4-10 to 6-8-10		Far Face	74 PLF	198 PLF	0 PLF	0 PLF	
4	Point	7-4-10		Far Face	93 lb	247 lb	0 lb	0 lb	J3

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
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4. Design assumes top edge is laterally restrained
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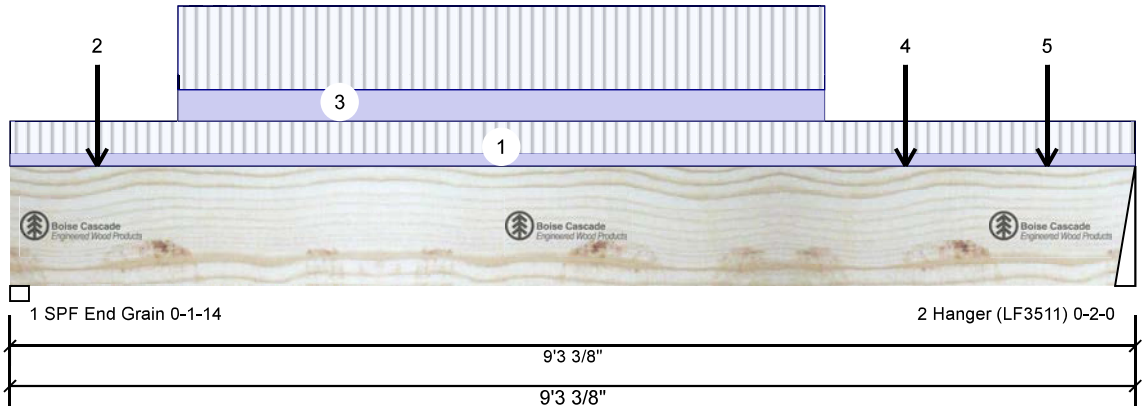

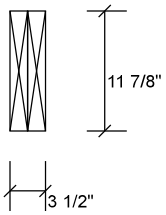

...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Point	8-6-10		Far Face	76 lb	202 lb	0 lb	0 lb	J3
	Self Weight				12 PLF				

LICENSED PROFESSIONAL ENGINEER
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100528832
PROVINCE OF ONTARIO
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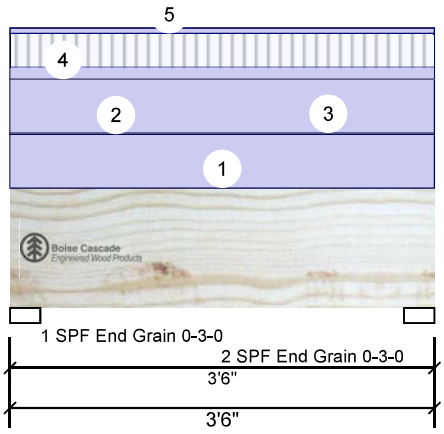
Client: GREENPARK
Project:
Address: ES

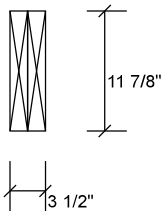
Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

FH2 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

MHP 23029





Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	44	185	0	0
2	Vertical	44	185	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%	232 / 66	297	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	4%	232 / 66	297	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	207 ft-lb	1'9"	24420 ft-lb	0.008 (1%)	1.25D+1.5L	L
Unbraced	207 ft-lb	1'9"	24420 ft-lb	0.008 (1%)	1.25D+1.5L	L
Shear	205 lb	2'3 1/8"	9120 lb	0.023 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/146763)	1'9"	0.104 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/621299)	1'9"	0.104 (L/360)	0.001 (0%)	L	L
TL Defl inch	0.000 (L/118719)	1'9"	0.156 (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.
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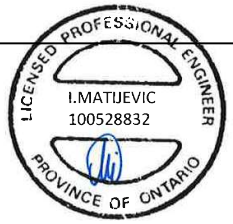

JULY 13, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-6-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 3-6-0		Near Face	1 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 3-6-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Tapered Start	0-0-0		Near Face	9 PLF	25 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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Lumber

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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

KOTT

CSD DRAW DESIGN BUILD

isDesign

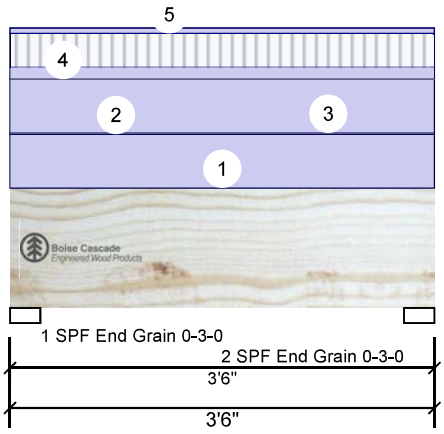
Client: GREENPARK
Project:
Address: ES

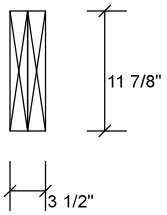
Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

FH2 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

MHP 23029





...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	End	3-6-0			9 PLF	25 PLF	0 PLF	0 PLF	
5	Part. Uniform	0-0-0 to 3-6-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				12 PLF				

JULY 13, 2023

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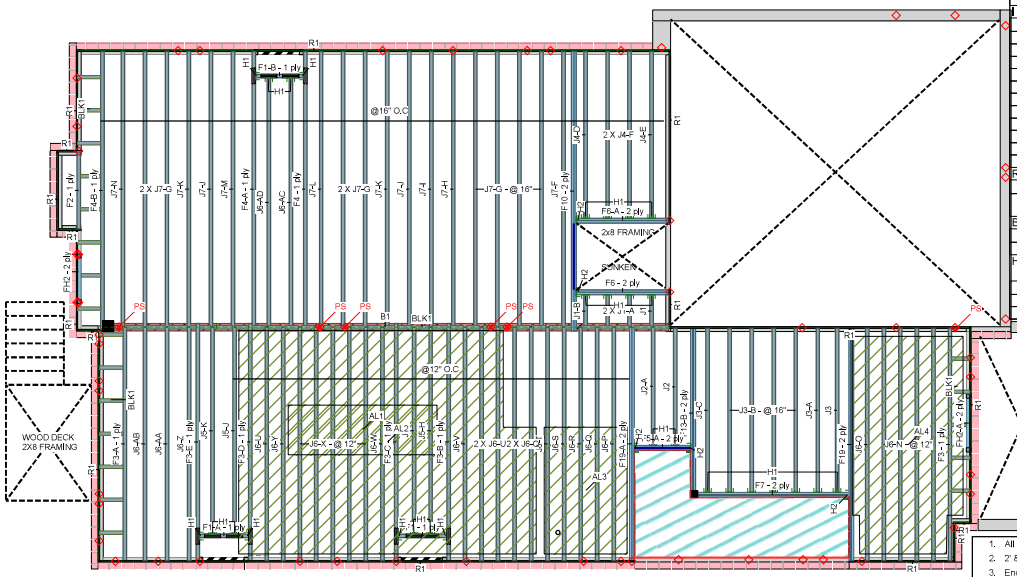
Ground Floor



Ground Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	18-0-0
F19	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	16-0-0
F13	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	12-0-0
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	10-0-0
F6	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	6-0-0
FH2	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	4-0-0
F5	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	4-0-0

Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
J7	AJS 140	2.5	11.875	18	18-0-0
J6	AJS 140	2.5	11.875	28	16-0-0
J5	AJS 140	2.5	11.875	4	14-0-0
J4	AJS 140	2.5	11.875	4	12-0-0
J3	AJS 140	2.5	11.875	7	10-0-0
J2	AJS 140	2.5	11.875	2	8-0-0
J1	AJS 140	2.5	11.875	4	2-0-0
F4	AJS 140	2.5	11.875	3	18-0-0
F3	AJS 140	2.5	11.875	6	16-0-0
F2	AJS 140	2.5	11.875	1	6-0-0
F1	AJS 140	2.5	11.875	3	4-0-0

Rim Board

Label	Description	Width	Depth	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	13	12-0-0

Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	11.875	LinFt	Varies	53-0-0

Hanger

Label	Pcs	Description	Beam/Girder fasteners	Supported Member fasteners
H1	29	LF2511	12.10dx1 1/2	1 #8x1 1/4WS
H2	5	LF3511	12.10d	2 #8x1 1/4WS

JOB INFORMATION

Builder
GREENPARK

Project

Shipping
ZADORRA ESTATES
OSHAWA,ON

Sales Rep
RALPH MIRIGELLO

Designer
W.C

Plotted
July 12, 2023

Layout Name
ROSE 3-3 DC

Job Path
S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES\MODELS\ROSE 3\ROSE 3-3\F-ROSE 3-3\DC\ROSE 3-3 DC.ild

DESIGN CRITERIA

Ground Floor

Design Method	LSD (Canada)
Building Code	NBCC 2015 OBC 2012(2020 Update)

Floor Loads

Live	40
Dead	15

Deflection Joist

LL Span	L/ 360
TL Span	L/ 240

Deflection Flush Girder

LL Span	L/ 360
TL Span	L/ 240

Deflection Dropped Girder

LL Span	L/ 360
TL Span	L/ 240

Deflection Header

LL Span	L/ 360
TL Span	L/ 240

Decking

Decking	OSB
Thickness	3/4"
Fastener	Nailed & Glued

CCMC References
Boise - 12472-R , 12787-R
LP - 12412-R, Roseburg - 13310-R
Forex - 14056-R

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

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

Legend

PS	Point Load Support
	Load from Above
	Wall
	Wall Opening
	Norbord Rimboard Plus 1.125 X 11.875
	AJS 140 11.875
	Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875
	0 X 0 (Dropped)

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

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

isDesign

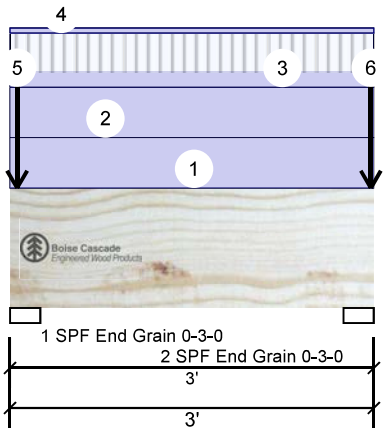
Client: GREENPARK
Project:
Address: ES

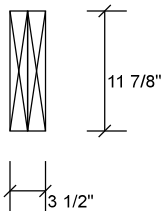
Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 DC
Project #:

FH2 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

MHP 23029





Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	88	458	253	0
2	Vertical	88	458	253	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	11%	572 / 384	956	L	1.25D+1.5L +S
2 - SPF End Grain	3.000"	Vert	11%	572 / 384	956	L	1.25D+1.5L +S

Analysis Results

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

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
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7 Lateral slenderness ratio based on full section width.

JULY 13, 2023

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

Continued on page 2...

Notes

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Lumber

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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
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This design is valid until 4/17/2026

Manufacturer Info

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

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KOTT

CSD DRAW DESIGN BUILD

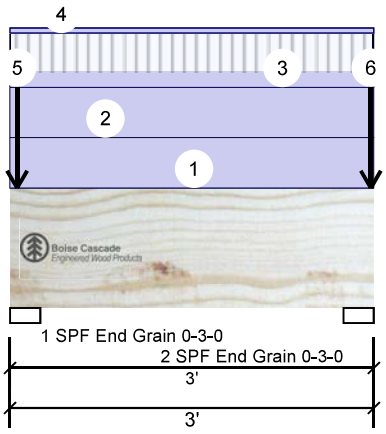
isDesign

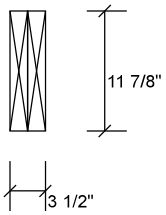
Client: GREENPARK
Project:
Address: ES

Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 DC
Project #:

FH2 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Part. Uniform	0-0-0 to 3-0-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
5	Point	0-0-11		Top	296 lb	41 lb	253 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
6	Point	2-11-11		Top	296 lb	41 lb	253 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
	Self Weight				12 PLF				

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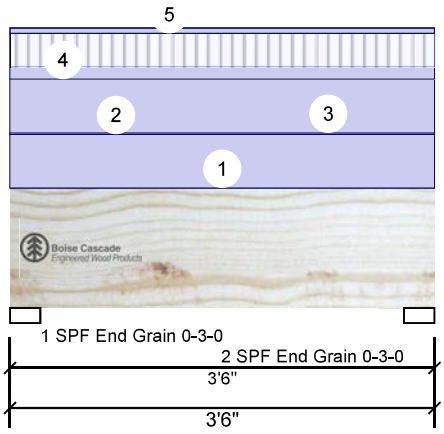
Project:
Address: ES

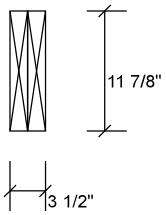
Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 DC
Project #:

FH2-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

MHP 23029





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2	Part. Uniform	0-0-0 to 3-6-0		Near Face	1 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 3-6-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Tapered Start	0-0-0		Near Face	9 PLF	25 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

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

KOTT

CSD DRAW DESIGN BUILD

isDesign

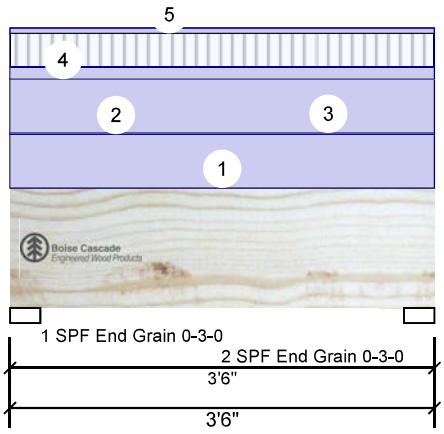
Client: GREENPARK
Project:
Address: ES

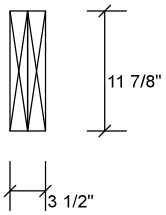
Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 DC
Project #:

FH2-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor

MHP 23029





...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	End	3-6-0			9 PLF	25 PLF	0 PLF	0 PLF	
5	Part. Uniform	0-0-0 to 3-6-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
	Self Weight				12 PLF				

JULY 13, 2023

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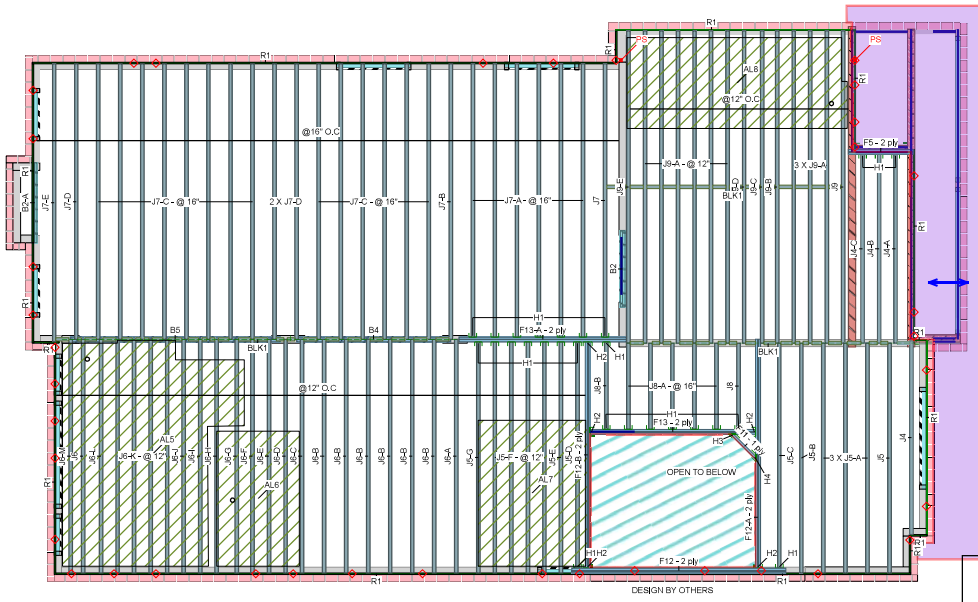
KOTT

CSD DRAW DESIGN BUILD

MHP 23029

Second Floor



Second Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F12	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	3	2	6	14-0-0
F13	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	12-0-0
F5	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	4-0-0
F11	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875			1	4-0-0

LVL/LSL (Dropped)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
B5	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	14-0-0
B4	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	10-0-0

Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
J9	AJS 140	2.5	11.875	14	20-0-0
J7	AJS 140	2.5	11.875	26	18-0-0
J6	AJS 140	2.5	11.875	22	16-0-0
J5	AJS 140	2.5	11.875	13	14-0-0
J4	AJS 140	2.5	11.875	4	12-0-0
J8	AJS 140	2.5	11.875	7	6-0-0

Rim Board

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

Blocking

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

Hanger

Label	Pcs	Description	Skew	Beam/Girder fasteners	Supported Member fasteners
H1	27	LF2511		12 10d	1 #8x1 1/4WS
H2	5	LF3511		12 10d	2 #8x1 1/4WS
H3	1	SUR1.81/9 (Min)	Right	12 16d	2 10dx1 1/2
H4	1	SUL1.81/9 (Min)	Left	12 16d	2 10dx1 1/2

JOB INFORMATION

Builder
GREENPARK

Project

Shipping
ZADORRA ESTATES
OSHAWA,ON

Sales Rep
RALPH MIRIGELLO

Designer
W.C

Plotted
July 12, 2023

Layout Name
ROSE 3-3 ALL OPT

Job Path
S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES\MODELS\ROSE 3\ROSE 3-3\ROSE 3-3 STD.isl

DESIGN CRITERIA

Second Floor

Design Method	LSD (Canada)
Building Code	NBCC 2015 OBC 2012(2020 Update)

Floor

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

CCMC References
Boise - 12472-R , 12787-R
LP - 12412-R, Roseburg - 13310-R
Forex - 14056-R

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

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

Legend

PS	Point Load Support
	Load from Above
	Wall
	Wall Opening
	Norbord Rimboard Plus 1.125 X 11.875
	AJS 140 11.875
	Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875
	Versa-Lam LVL 2.1E 3100 SP 1.75 X

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

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

isDesign

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Project:
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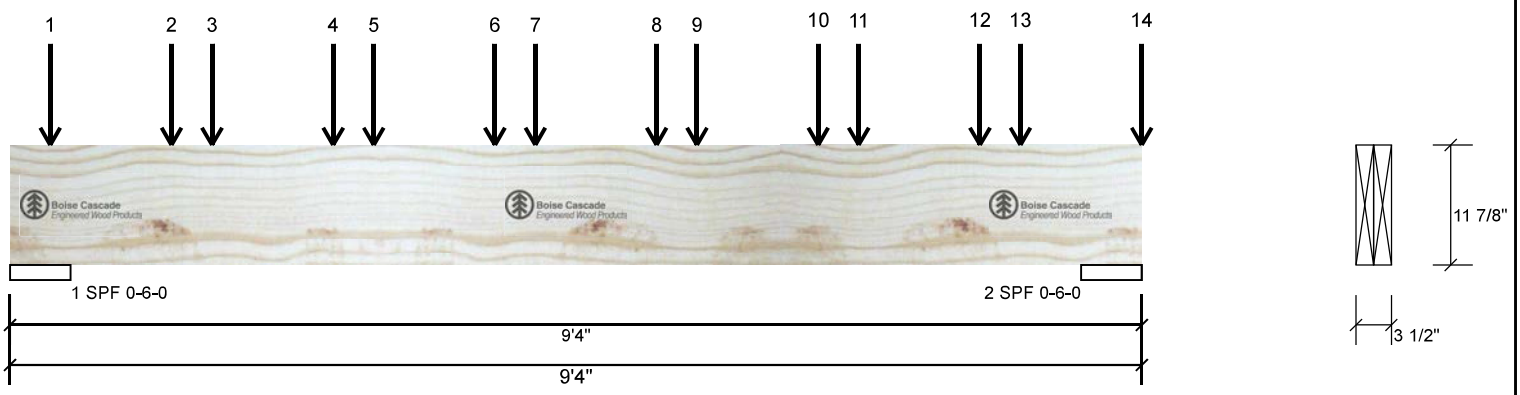
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

B4 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor

MHP 23029



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	2470	985	0	0
2	Vertical	2687	1064	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.000"	Vert	38%	1231 / 3705	4936	L	1.25D+1.5L
2 - SPF	6.000"	Vert	41%	1330 / 4031	5360	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10855 ft-lb	4'4"	35392 ft-lb	0.307 (31%)	1.25D+1.5L	L
Unbraced	10855 ft-lb	4'4"	35392 ft-lb	0.307 (31%)	1.25D+1.5L	L
Shear	4538 lb	1'5 7/8"	13217 lb	0.343 (34%)	1.25D+1.5L	L
Perm Defl in.	0.028 (L/3681)	4'7 15/16"	0.282 (L/360)	0.098 (10%)	D	Uniform
LL Defl inch	0.070 (L/1453)	4'7 15/16"	0.282 (L/360)	0.248 (25%)	L	L
TL Defl inch	0.097 (L/1042)	4'7 15/16"	0.423 (L/240)	0.230 (23%)	D+L	L

Design Notes

1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
3 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
4 Girders are designed to be supported on the bottom edge only.
5 Multiple plies must be fastened together as per manufacturer's details.
6 Top loads must be supported equally by all plies.
7 Top must be continuously laterally braced.
8 Bottom must be laterally braced at bearings.
9 Lateral slenderness ratio based on full section width.

JULY 13, 2023

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www.bc.com
CCMC: 12472

Kott Inc.
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613-838-2775 / 905-642-4400

KOTT

CSD DRAW DESIGN BUILD

isDesign

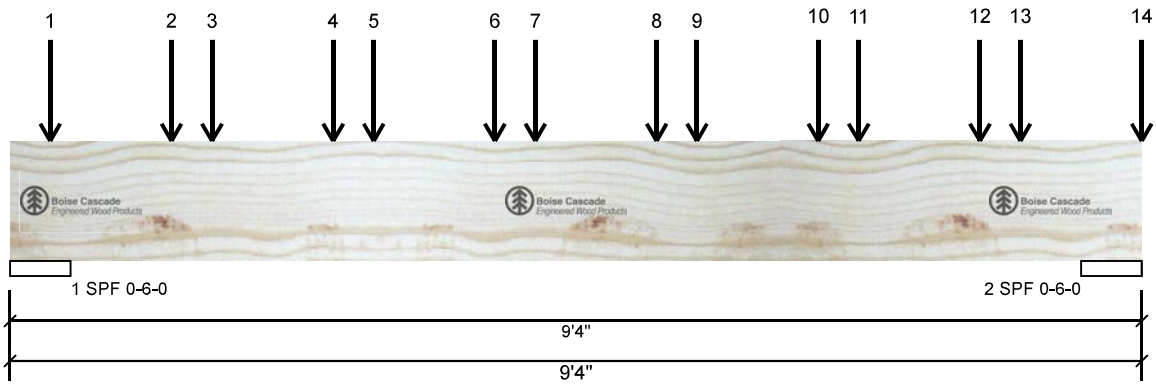
Client: GREENPARK
Project:
Address: ES

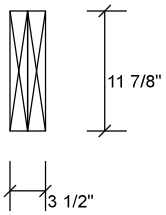
Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

B4 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor

MHP 23029





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-4-0		Top	50 lb	127 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
2	Point	1-4-0		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
3	Point	1-8-0		Top	139 lb	371 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
4	Point	2-8-0		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
5	Point	3-0-0		Top	139 lb	371 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
6	Point	4-0-0		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
7	Point	4-4-0		Top	139 lb	371 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
8	Point	5-4-0		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
9	Point	5-8-0		Top	139 lb	371 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
10	Point	6-8-0		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
11	Point	7-0-0		Top	139 lb	371 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
12	Point	8-0-0		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
13	Point	8-4-0		Top	139 lb	371 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
14	Point	9-4-0		Top	64 lb	170 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
	Self Weight				12 PLF				

JULY 13, 2023

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KOTT

CSD DRAW DESIGN BUILD

isDesign

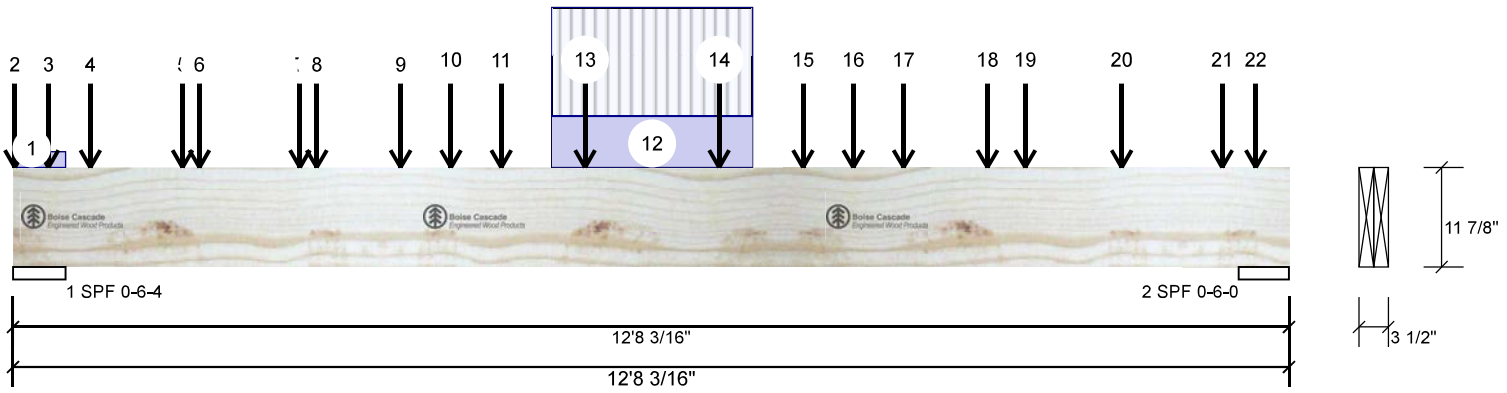
Client: GREENPARK
Project:
Address: ES

Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

B5 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor

MHP 23029



Member Information

Type:	Girder
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Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	3681	1656	0	0
2	Vertical	3642	1567	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.270"	Vert	56%	2069 / 5521	7590	L	1.25D+1.5L
2 - SPF	6.000"	Vert	57%	1959 / 5464	7423	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	21434 ft-lb	6'4 1/16"	35392 ft-lb	0.606 (61%)	1.25D+1.5L	L
Unbraced	21434 ft-lb	6'4 1/16"	35392 ft-lb	0.606 (61%)	1.25D+1.5L	L
Shear	6610 lb	11'2 5/16"	13217 lb	0.500 (50%)	1.25D+1.5L	L
Perm Defl in.	0.113 (L/1253)	6'4 1/8"	0.393 (L/360)	0.287 (29%)	D	Uniform
LL Defl inch	0.259 (L/546)	6'4 1/4"	0.393 (L/360)	0.659 (66%)	L	L
TL Defl inch	0.372 (L/381)	6'4 3/16"	0.589 (L/240)	0.631 (63%)	D+L	L

Design Notes

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LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 13, 2023

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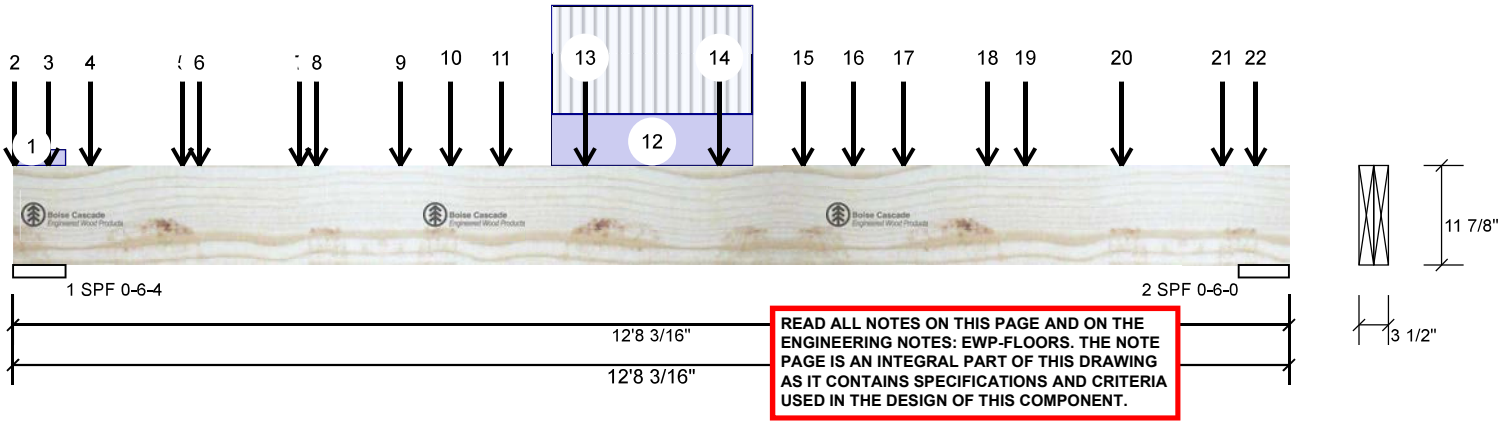
Level: Second Floor

MHP 23029



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 0-6-4		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Point	0-0-4		Top	46 lb	95 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
3	Point	0-4-4		Top	64 lb	172 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
4	Point	0-9-4		Top	129 lb	255 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
5	Point	1-8-4		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
6	Point	1-10-4		Top	142 lb	290 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
7	Point	2-10-4		Top	132 lb	278 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
8	Point	3-0-4		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
9	Point	3-10-4		Top	132 lb	278 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
10	Point	4-4-4		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
11	Point	4-10-4		Top	132 lb	278 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
12	Part. Uniform	5-4-4 to 7-4-4		Top	130 PLF	278 PLF	0 PLF	0 PLF	
13	Point	5-8-4		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
14	Point	7-0-4		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
15	Point	7-10-4		Top	126 lb	278 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
16	Point	8-4-4		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							

Continued on page 3...

Notes

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Lumber

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

Handling & Installation

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

This design is valid until 4/17/2026

Manufacturer Info

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

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

KOTT
CSD DRAW DESIGN BUILD

isDesign

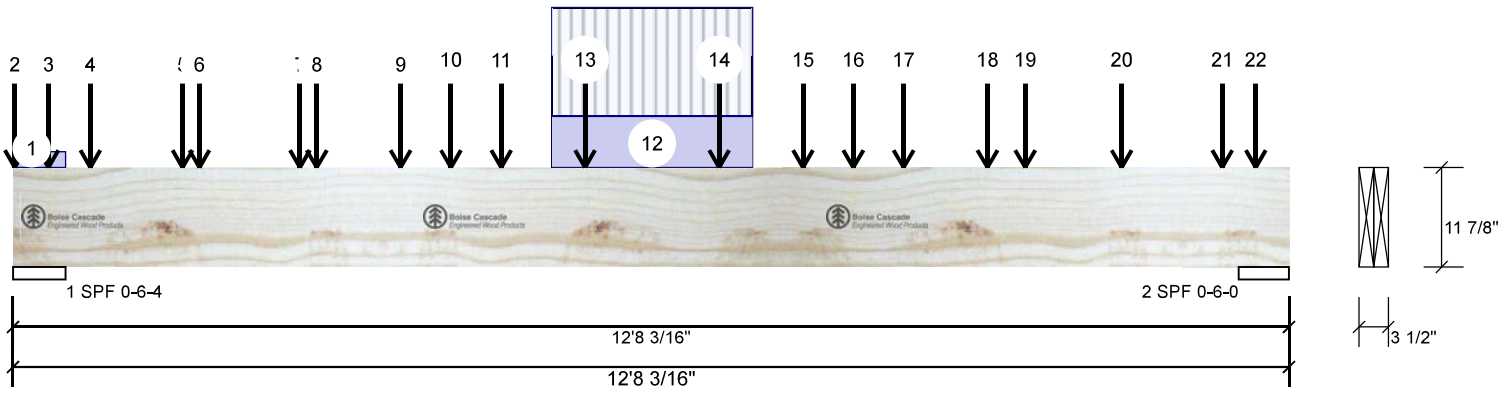
Client: GREENPARK
Project:
Address: ES

Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

B5 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor

MHP 23029



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
17	Point	8-10-4		Top	138 lb	307 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
18	Point	9-8-4		Top	165 lb	439 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
19	Point	10-0-12		Top	141 lb	302 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
20	Point	11-0-4		Top	277 lb	711 lb	0 lb	0 lb	J7 J6
	Bearing Length	0-3-8							
21	Point	12-0-4		Top	114 lb	278 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
22	Point	12-4-4		Top	64 lb	172 lb	0 lb	0 lb	J7
	Bearing Length	0-3-8							
	Self Weight				12 PLF				

JULY 13, 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
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5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

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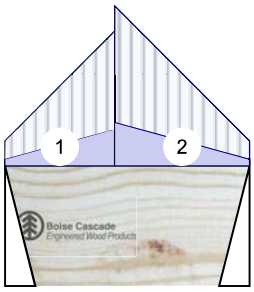
Client: GREENPARK
Project:
Address: ES

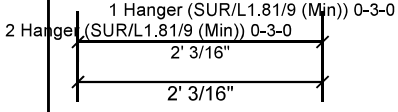
Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

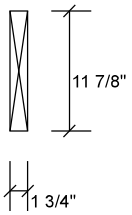
F11 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" - PASSED

Level: Second Floor

MHP 23029







Member Information

Type:	Girder
Plies:	1
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	14	11	0	0
2	Vertical	14	11	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	Vert	1%	14 / 22	36	L	1.25D+1.5L
2 - Hanger	3.000"	Vert	1%	14 / 22	36	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	15 ft-lb	1' 1/16"	17696 ft-lb	0.001 (0%)	1.25D+1.5L	L
Unbraced	15 ft-lb	1' 1/16"	17696 ft-lb	0.001 (0%)	1.25D+1.5L	L
Shear	6 lb	9 5/16"	6608 lb	0.001 (0%)	0.9D+1.5L	L
Perm Defl in.	0.000 (L/3063274)	1' 1/16"	0.055 (L/360)	0.000 (0%)	D	Uniform
LL Defl inch	0.000 (L/2115102)	1' 1/16"	0.055 (L/360)	0.000 (0%)	L	L
TL Defl inch	0.000 (L/1251191)	1' 1/16"	0.082 (L/240)	0.000 (0%)	D+L	L

Design Notes

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

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 13, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-10-14	0-1-4 to 0-6-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-10-14 to 2-0-3	0-7-15 to 0-1-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				6 PLF				

Notes

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Lumber

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

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
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CCMC: 12472

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isDesign

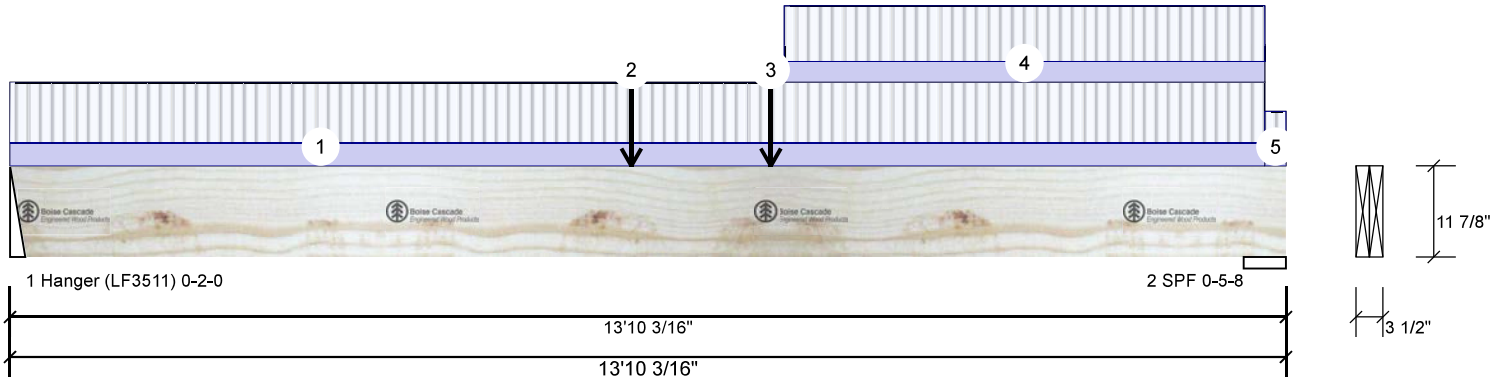
Client: GREENPARK
Project:
Address: ES

Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

F12-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor

MHP 23029



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	403	260	0	0
2	Vertical	600	352	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	12%	325 / 605	930	L	1.25D+1.5L
2 - SPF	5.500"	Vert	11%	440 / 899	1339	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5293 ft-lb	8'3 1/16"	35392 ft-lb	0.150 (15%)	1.25D+1.5L	L
Unbraced	5293 ft-lb	8'3 1/16"	35392 ft-lb	0.150 (15%)	1.25D+1.5L	L
Shear	1206 lb	12'4 13/16"	13217 lb	0.091 (9%)	1.25D+1.5L	L
Perm Defl in.	0.038 (L/4181)	7' 3/4"	0.445 (L/360)	0.086 (9%)	D	Uniform
LL Defl inch	0.065 (L/2475)	7'1 7/16"	0.445 (L/360)	0.145 (15%)	L	L
TL Defl inch	0.103 (L/1555)	7'1 3/16"	0.667 (L/240)	0.154 (15%)	D+L	L

Design Notes

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

JULY 13, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-7-7	0-7-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	6-8-15		Far Face	11 lb	14 lb	0 lb	0 lb	F11
3	Point	8-3-1		Far Face	258 lb	510 lb	0 lb	0 lb	F13
4	Tie-In	8-4-13 to 13-7-7	0-7-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on page 2...

Notes

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Lumber

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

Handling & Installation

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

This design is valid until 4/17/2026

Manufacturer Info

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CCMC: 12472

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KOTT

CSD DRAW DESIGN BUILD

isDesign

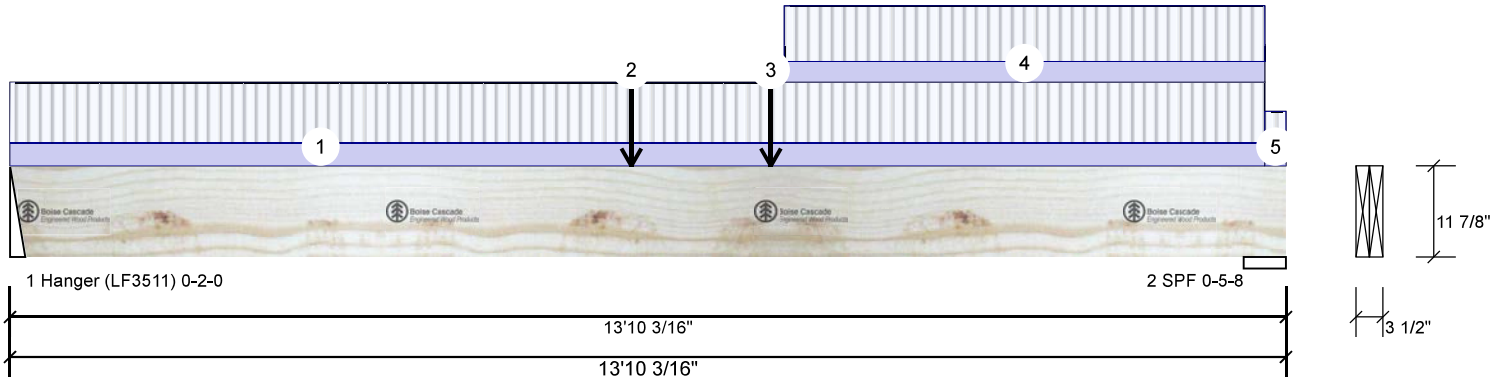
Client: GREENPARK
Project:
Address: ES

Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

F12-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor

MHP 23029



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tie-In	13-7-7 to 13-10-3	0-5-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 13, 2023

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Lumber

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Handling & Installation

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CSD DRAW DESIGN BUILD

isDesign

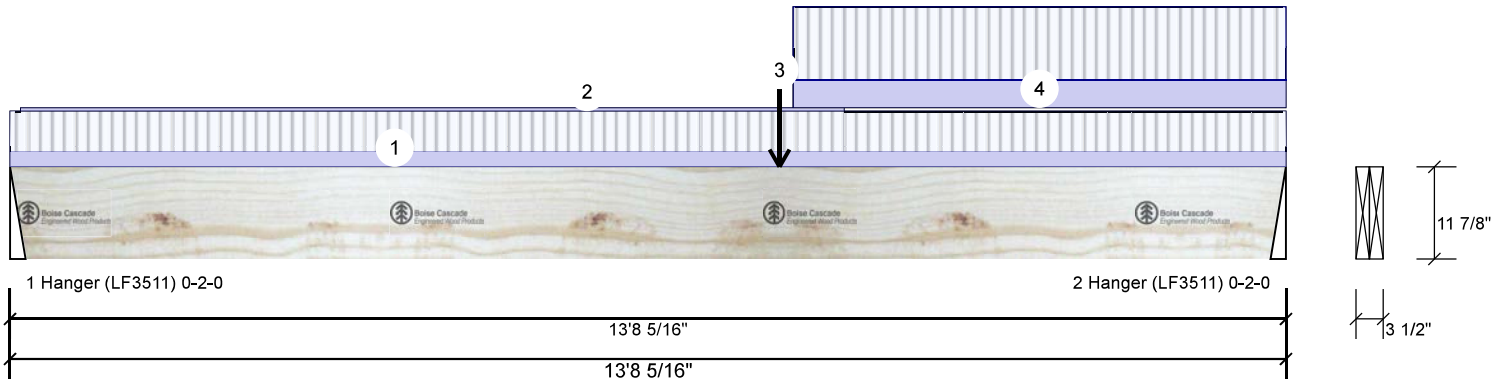
Client: GREENPARK
Project:
Address: ES

Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

F12-B Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor

MHP 23029



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	374	252	0	0
2	Vertical	589	343	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	11%	315 / 561	876	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	17%	429 / 884	1312	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5763 ft-lb	8'3 1/16"	35392 ft-lb	0.163 (16%)	1.25D+1.5L	L
Unbraced	5763 ft-lb	8'3 1/16"	35392 ft-lb	0.163 (16%)	1.25D+1.5L	L
Shear	1230 lb	12'6 7/16"	13217 lb	0.093 (9%)	1.25D+1.5L	L
Perm Defl in.	0.040 (L/4003)	7'2"	0.449 (L/360)	0.090 (9%)	D	Uniform
LL Defl inch	0.070 (L/2326)	7'3"	0.449 (L/360)	0.155 (15%)	L	L
TL Defl inch	0.110 (L/1471)	7'2 5/8"	0.674 (L/240)	0.163 (16%)	D+L	L

Design Notes

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

JULY 13, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-8-5	0-3-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-1-6 to 8-11-6		Top	1 PLF	0 PLF	0 PLF	0 PLF	
3	Point	8-3-1		Near Face	316 lb	674 lb	0 lb	0 lb	F13

Continued on page 2...

Notes

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Lumber

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Handling & Installation

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3. Damaged Beams must not be used
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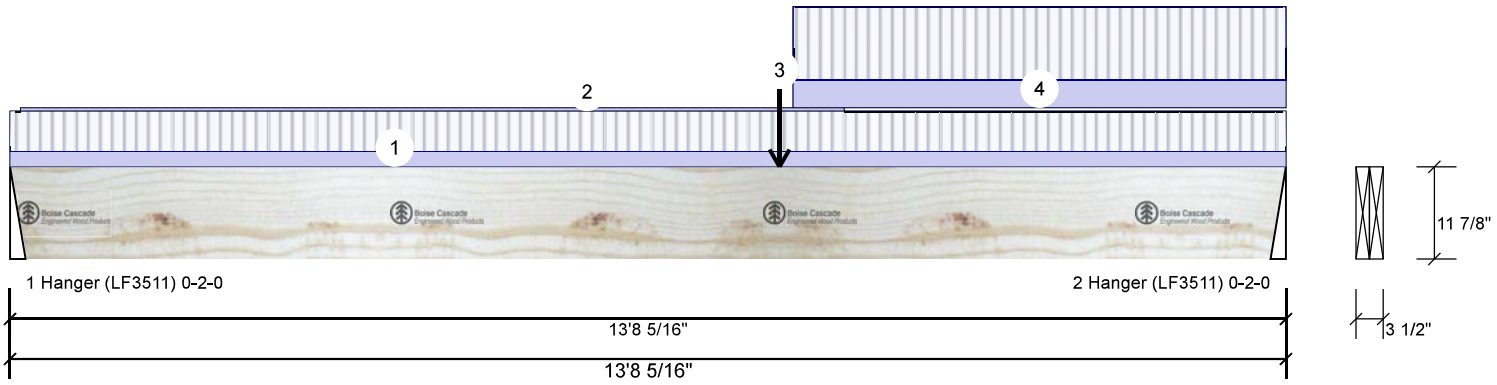

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Tie-In	8-4-13 to 13-8-5	0-6-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 13, 2023

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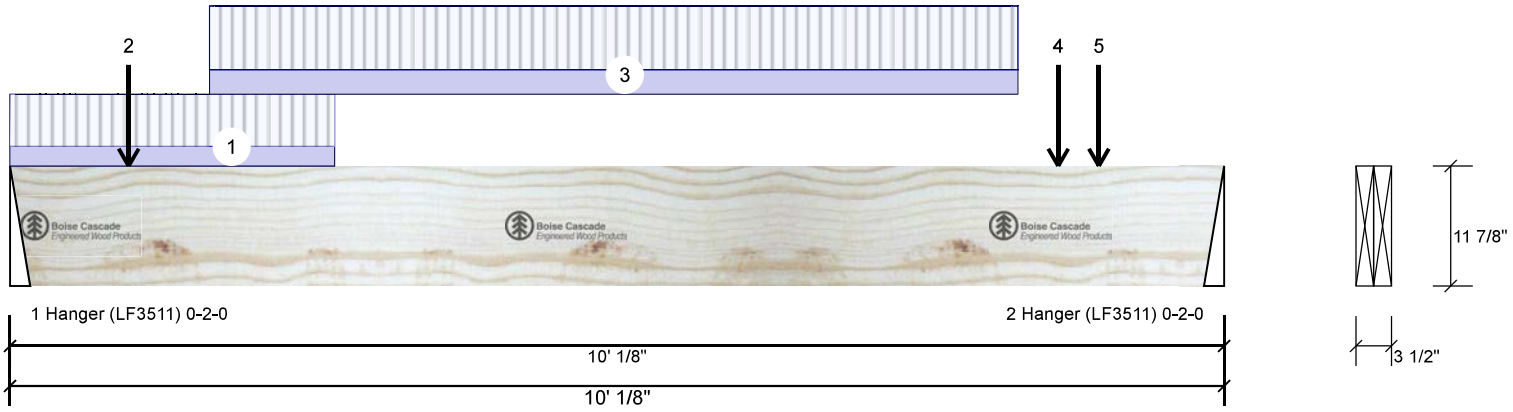
Level: Second Floor

MHP 23029



Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	674	316	0	0
2	Vertical	510	258	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	18%	394 / 1011	1406	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	14%	322 / 766	1088	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2903 ft-lb	4'9 3/16"	35392 ft-lb	0.082 (8%)	1.25D+1.5L	L
Unbraced	2903 ft-lb	4'9 3/16"	35392 ft-lb	0.082 (8%)	1.25D+1.5L	L
Shear	1211 lb	1'1 7/8"	13217 lb	0.092 (9%)	1.25D+1.5L	L
Perm Defl in.	0.012 (L/10169)	4'11 1/2"	0.327 (L/360)	0.035 (4%)	D	Uniform
LL Defl inch	0.024 (L/4919)	4'11 1/4"	0.327 (L/360)	0.073 (7%)	L	L
TL Defl inch	0.035 (L/3315)	4'11 5/16"	0.490 (L/240)	0.072 (7%)	D+L	L

Design Notes

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

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 13, 2023

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Lumber

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

Handling & Installation

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

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

KOTT
CSD DRAW DESIGN BUILD

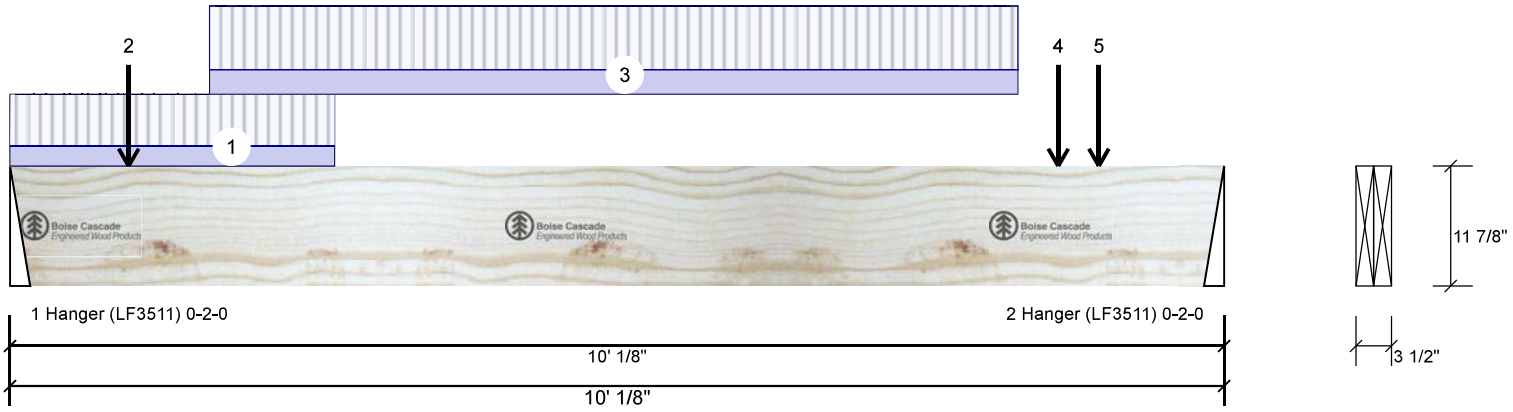
Client: GREENPARK
Project:
Address: ES

Date: 7/12/2023
Input by: W C
Job Name: ROSE 3-3 STD
Project #:

F13 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor

MHP 23029



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 2-8-2		Top	32 PLF	84 PLF	0 PLF	0 PLF	
2	Point	0-11-12		Far Face	49 lb	130 lb	0 lb	0 lb	J8
3	Part. Uniform	1-7-12 to 8-3-12		Far Face	39 PLF	103 PLF	0 PLF	0 PLF	
4	Point	8-7-12		Near Face	11 lb	14 lb	0 lb	0 lb	F11
5	Point	8-11-12		Far Face	49 lb	129 lb	0 lb	0 lb	J8
	Self Weight				12 PLF				

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Level: Second Floor

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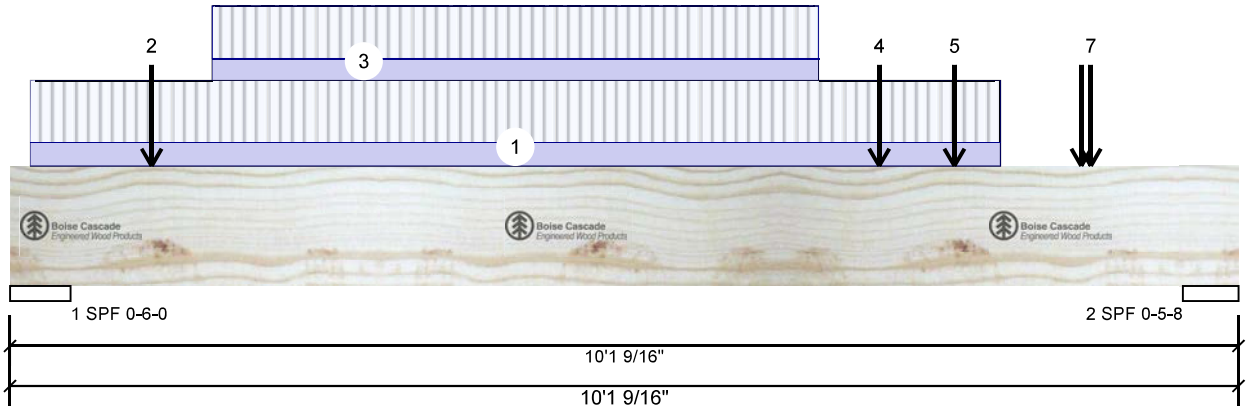

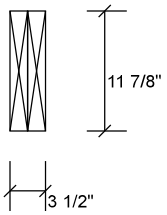

Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	2928	1229	0	0
2	Vertical	2778	1231	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.000"	Vert	46%	1536 / 4392	5928	L	1.25D+1.5L
2 - SPF	5.500"	Vert	48%	1539 / 4167	5706	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13831 ft-lb	5'2 3/8"	35392 ft-lb	0.391 (39%)	1.25D+1.5L	L
Unbraced	13831 ft-lb	5'2 3/8"	35392 ft-lb	0.391 (39%)	1.25D+1.5L	L
Shear	6337 lb	8'8 3/16"	13217 lb	0.479 (48%)	1.25D+1.5L	L
Perm Defl in.	0.045 (L/2463)	5'1 9/16"	0.310 (L/360)	0.146 (15%)	D	Uniform
LL Defl inch	0.105 (L/1058)	5'1 5/16"	0.310 (L/360)	0.340 (34%)	L	L
TL Defl inch	0.151 (L/740)	5'1 7/16"	0.465 (L/240)	0.324 (32%)	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
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4 Top must be continuously laterally braced.
5 Bottom must have sheathing attached or be continuously braced.
6 Lateral slenderness ratio based on full section width.

JULY 13, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-2-0 to 8-2-0		Far Face	123 PLF	327 PLF	0 PLF	0 PLF	
2	Point	1-2-0		Near Face	127 lb	322 lb	0 lb	0 lb	J5
3	Part. Uniform	1-8-0 to 6-8-0		Near Face	115 PLF	276 PLF	0 PLF	0 PLF	
4	Point	7-2-0		Near Face	95 lb	222 lb	0 lb	0 lb	J5
5	Point	7-9-7		Near Face	343 lb	589 lb	0 lb	0 lb	F12
6	Point	8-10-0		Far Face	168 lb	449 lb	0 lb	0 lb	J7

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
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6. For flat roofs provide proper drainage to prevent ponding

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CSD DRAW DESIGN BUILD

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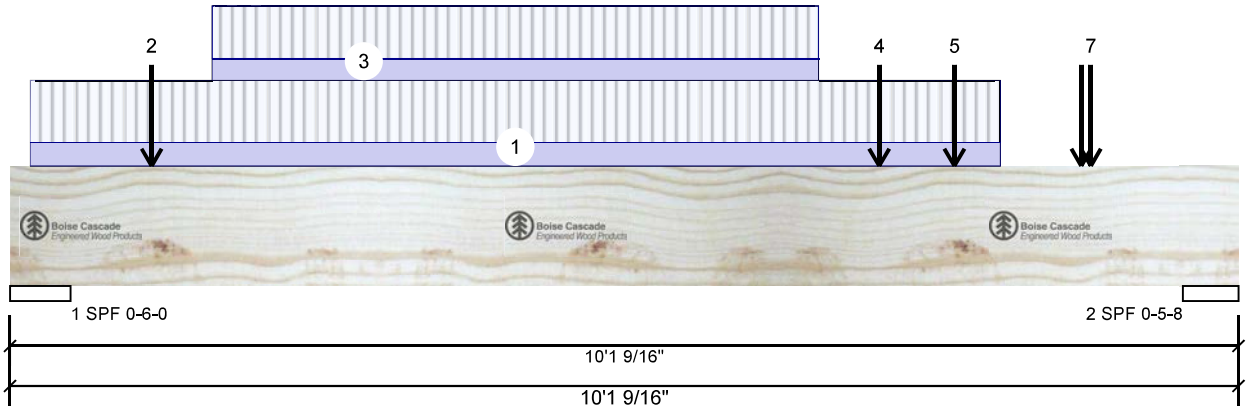
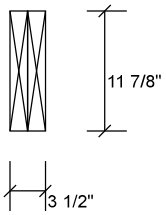
Project #:

F13-A Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor

MHP 23029





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	8-10-15		Near Face	48 lb	128 lb	0 lb	0 lb	J8
	Self Weight				12 PLF				

JULY 13, 2023

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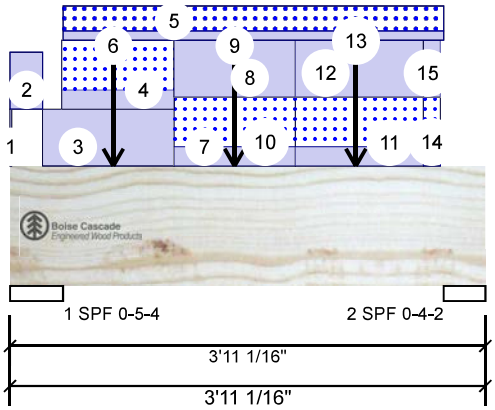
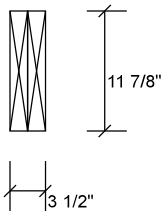
Project #:

F5 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor

MHP 23029





Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2015 OBC 2012(2020 Update)
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	392	395	166	0
2	Vertical	321	328	163	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	11%	494 / 754	1248	L	1.25D+1.5L +S
2 - SPF	4.125"	Vert	12%	411 / 644	1055	L	1.25D+1.5L +S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1012 ft-lb	1'10 1/4"	35392 ft-lb	0.029 (3%)	1.25D+1.5L +S	L
Unbraced	1012 ft-lb	1'10 1/4"	35392 ft-lb	0.029 (3%)	1.25D+1.5L +S	L
Shear	943 lb	1'5 1/8"	13217 lb	0.071 (7%)	1.25D+1.5L +S	L
Perm Defl in.	0.001 (L/62236)	1'11 7/8"	0.109 (L/360)	0.006 (1%)	D	Uniform
LL Defl inch	0.001 (L/47136)	1'11 5/8"	0.109 (L/360)	0.008 (1%)	L+0.5S	L
TL Defl inch	0.001 (L/26823)	1'11 3/4"	0.163 (L/240)	0.009 (1%)	D+L+0.5S	L

Design Notes

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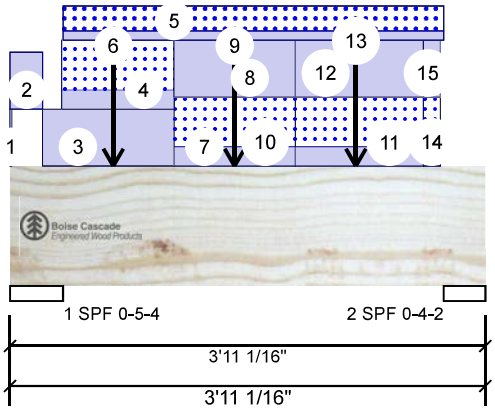

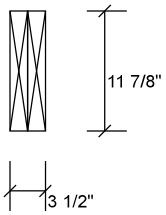

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 0-0-3		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-0-0 to 0-3-4		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-3-4 to 1-4-4		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-5-2 to 1-4-4		Top	27 PLF	0 PLF	70 PLF	0 PLF	
5	Part. Uniform	0-5-4 to 3-6-15		Top	13 PLF	0 PLF	35 PLF	0 PLF	
6	Point	0-10-4		Near Face	92 lb	246 lb	0 lb	0 lb	J4
7	Part. Uniform	1-4-4 to 1-10-4		Top	27 PLF	0 PLF	70 PLF	0 PLF	
8	Part. Uniform	1-4-4 to 2-4-4		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
9	Point	1-10-4		Near Face	85 lb	227 lb	0 lb	0 lb	J4
10	Part. Uniform	1-10-4 to 2-4-4		Top	27 PLF	0 PLF	70 PLF	0 PLF	
11	Part. Uniform	2-4-4 to 3-4-15		Top	27 PLF	0 PLF	70 PLF	0 PLF	
12	Part. Uniform	2-4-4 to 3-4-15		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
13	Point	2-10-4		Near Face	90 lb	240 lb	0 lb	0 lb	J4
14	Part. Uniform	3-4-15 to 3-6-9		Top	27 PLF	0 PLF	70 PLF	0 PLF	
15	Part. Uniform	3-4-15 to 3-6-9		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight				12 PLF				

JULY 13, 2023

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