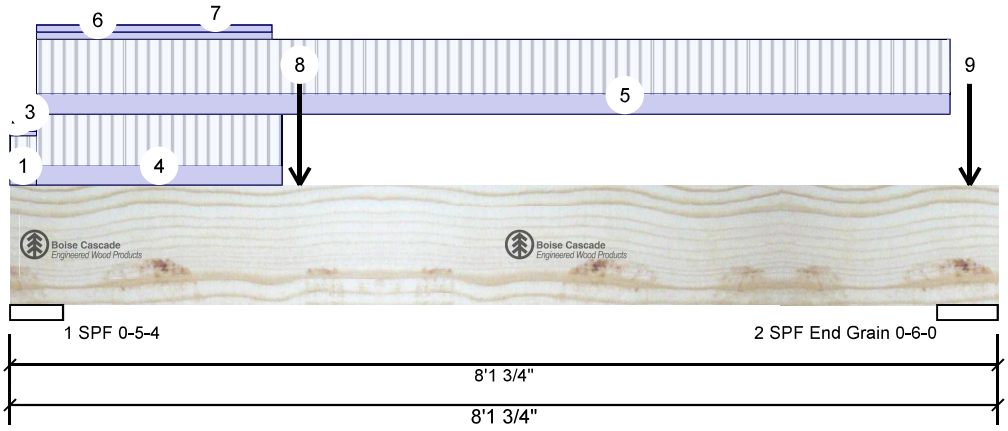
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

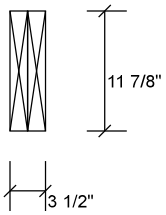
MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
Project #:

F6-A Ve E 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
5	Tie-In	0-2-10 to 7-9-0	0-6-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	0-2-10 to 2-1-15		Top	3 PLF	0 PLF	0 PLF	0 PLF	
7	Part. Uniform	0-2-10 to 2-1-15		Top	3 PLF	0 PLF	0 PLF	0 PLF	
8	Point	2-4-11		Far Face	150 lb	239 lb	0 lb	0 lb	F5
9	Point	7-11-0		Top	365 lb	645 lb	0 lb	0 lb	C3
	Bearing Length	0-3-8							
	Self Weight				12 PLF				

JULY 14, 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

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

MHP 23032

Date: 7/14/2023
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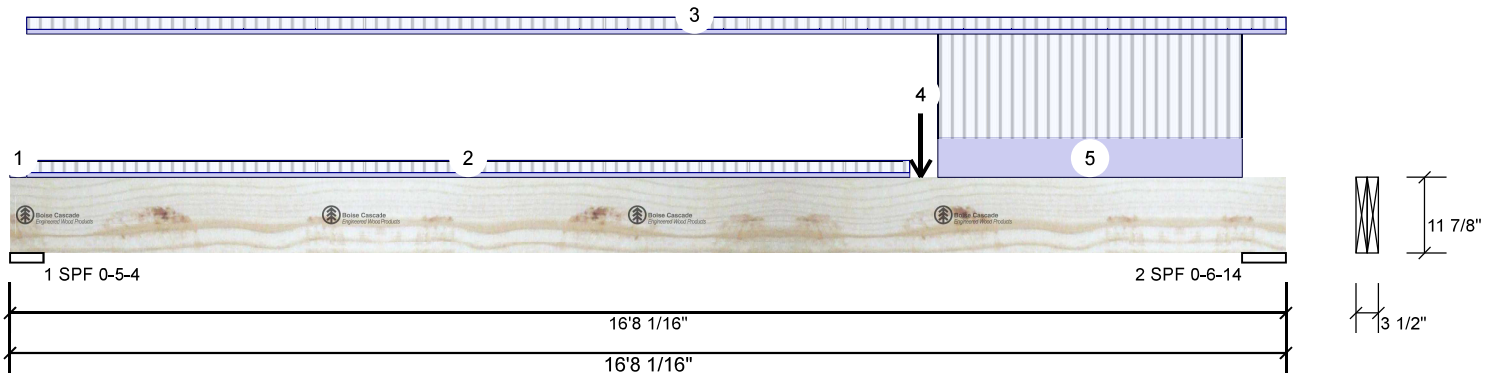
Job Name: ROSE 12-2 STD
Project #:

F8-A Ve E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



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	561	316	0	0
2	Vertical	1248	590	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	11%	395 / 841	1236	L	1.25D+1.5L
2 - SPF	6.875"	Vert	18%	738 / 1872	2610	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7272 ft-lb	11'10 13/16"	35392 ft-lb	0.205 (21%)	1.25D+1.5L	L
Unbraced	7272 ft-lb	11'10 13/16"	35392 ft-lb	0.205 (21%)	1.25D+1.5L	L
Shear	2175 lb	15'1 5/16"	13217 lb	0.165 (16%)	1.25D+1.5L	L
Perm Defl in.	0.072 (L/2643)	8'8 1/2"	0.526 (L/360)	0.136 (14%)	D	Uniform
LL Defl inch	0.140 (L/1354)	8'9 15/16"	0.526 (L/360)	0.266 (27%)	L	L
TL Defl inch	0.212 (L/895)	8'9 1/2"	0.789 (L/240)	0.268 (27%)	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
4 Top loads must be supported equally by all plies.
5 Top must be continuously laterally braced.
6 Bottom must be laterally braced at a maximum of 11'10 13/16" o.c.
7 Lateral slenderness ratio based on full section width.

JULY 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-10	0-6-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-2-10 to 11-9-1	0-6-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-2-10 to 16-8-1	0-6-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	11-10-13		Far Face	202 lb	463 lb	0 lb	0 lb	F4
5	Part. Uniform	12-1-8 to 16-1-3		Top	70 PLF	185 PLF	0 PLF	0 PLF	
	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

Manufacturer Info

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MHP 23032

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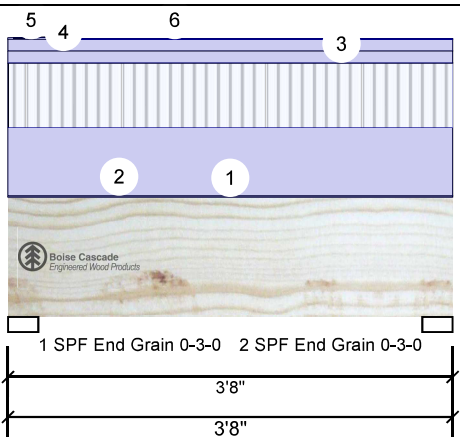
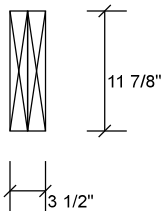
Job Name: ROSE 12-2 STD
Project #:

FH2 Ve E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





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	401	596	0	0
2	Vertical	400	596	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	13%	745 / 601	1346	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	13%	744 / 600	1344	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	993 ft-lb	1'10"	32207 ft-lb	0.031 (3%)	1.25D+1.5L	L
Unbraced	993 ft-lb	1'10"	32207 ft-lb	0.031 (3%)	1.25D+1.5L	L
Shear	1113 lb	2'5 1/8"	12027 lb	0.093 (9%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/41459)	1'10"	0.110 (L/360)	0.009 (1%)	D	Uniform
LL Defl inch	0.001 (L/61771)	1'10"	0.110 (L/360)	0.006 (1%)	L	L
TL Defl inch	0.002 (L/24809)	1'10"	0.165 (L/240)	0.010 (1%)	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 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-8-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
2	Part. Uniform	0-0-0 to 3-8-0		Near Face	229 PLF	217 PLF	0 PLF	0 PLF	J3
3	Part. Uniform	0-0-0 to 3-8-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-0-0 to 3-8-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

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

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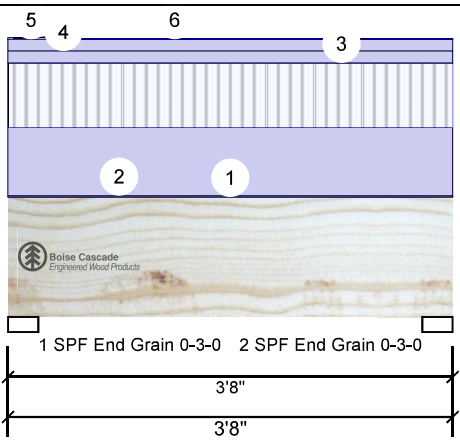

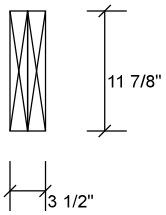

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tapered Start	0-0-0		Near Face	1 PLF	3 PLF	0 PLF	0 PLF	
	End	0-4-9			2 PLF	5 PLF	0 PLF	0 PLF	
6	Tapered Start	0-4-9		Near Face	0 PLF	1 PLF	0 PLF	0 PLF	
	End	3-8-0			0 PLF	1 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 14, 2023

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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
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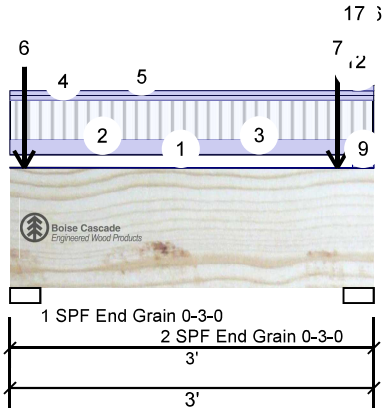
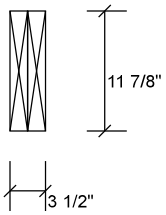
Project #:

FH2 Ve E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





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	1002	815	234	0
2	Vertical	1018	828	242	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	25%	1018 / 1736	2754	L	1.25D+1.5L +S
2 - SPF End Grain	3.000"	Vert	26%	1035 / 1769	2804	L	1.25D+1.5L +S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	757 ft-lb	1'7"	35392 ft-lb	0.021 (2%)	1.25D+1.5L +S	L
Unbraced	757 ft-lb	1'7"	35392 ft-lb	0.021 (2%)	1.25D+1.5L +S	L
Shear	983 lb	1'2 7/8"	13217 lb	0.074 (7%)	1.25D+1.5L +S	L
Perm Defl in.	0.000 (L/96959)	1'6 7/16"	0.088 (L/360)	0.004 (0%)	D	Uniform
LL Defl inch	0.000 (L/65592)	1'6 3/8"	0.088 (L/360)	0.005 (1%)	L+0.5S	L
TL Defl inch	0.001 (L/39125)	1'6 3/8"	0.131 (L/240)	0.006 (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 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 14, 2023

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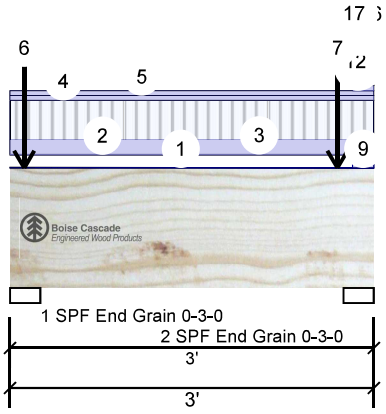

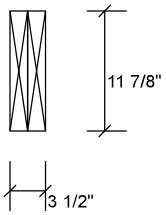

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tapered Start	0-0-0		Near Face	2 PLF	4 PLF	0 PLF	0 PLF	
	End	3-0-0			0 PLF	1 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
3	Part. Uniform	0-0-0 to 3-0-0		Near Face	124 PLF	331 PLF	0 PLF	0 PLF	J4
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	Point	0-1-6		Top	463 lb	480 lb	224 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
7	Point	2-8-6		Top	463 lb	480 lb	224 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
9	Part. Uniform	2-9-14 to 3-0-0		Top	30 PLF	0 PLF	79 PLF	0 PLF	
10	Part. Uniform	2-9-14 to 3-0-0		Top	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
11	Part. Uniform	2-9-14 to 3-0-0		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
12	Part. Uniform	2-9-14 to 3-0-0		Top	78 PLF	169 PLF	0 PLF	0 PLF	J4
14	Part. Uniform	2-9-14 to 3-0-0		Near Face	30 PLF	0 PLF	79 PLF	0 PLF	
15	Part. Uniform	2-9-14 to 3-0-0		Near Face	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
16	Part. Uniform	2-9-14 to 3-0-0		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
17	Part. Uniform	2-9-14 to 3-0-0		Near Face	78 PLF	169 PLF	0 PLF	0 PLF	J4
	Self Weight				12 PLF				

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LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 14, 2023

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CSD DRAW DESIGN BUILD

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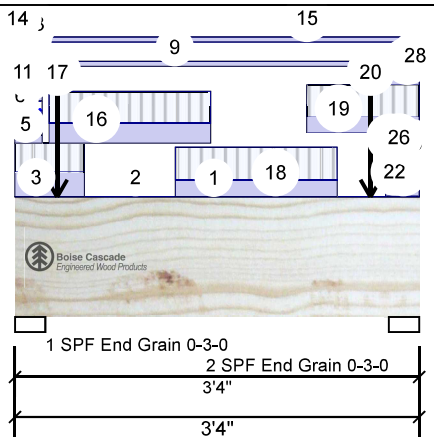
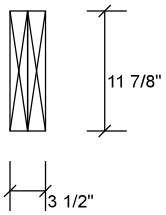
FH2-A 1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





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	1104	1009	287	0
2	Vertical	1085	989	382	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	29%	1262 / 1943	3205	L	1.25D+1.5L +S
2 - SPF End Grain	3.000"	Vert	30%	1237 / 2009	3246	L	1.25D+1.5L +S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1233 ft-lb	1'7 11/16"	35392 ft-lb	0.035 (3%)	1.25D+1.5L +S	L
Unbraced	1233 ft-lb	1'7 11/16"	35392 ft-lb	0.035 (3%)	1.25D+1.5L +S	L
Shear	1419 lb	2'1 1/8"	13217 lb	0.107 (11%)	1.25D+1.5L +S	L
Perm Defl in.	0.001 (L/48181)	1'8"	0.099 (L/360)	0.007 (1%)	D	Uniform
LL Defl inch	0.001 (L/39323)	1'8 1/16"	0.099 (L/360)	0.009 (1%)	L+0.5S	L
TL Defl inch	0.002 (L/21652)	1'8 1/16"	0.148 (L/240)	0.011 (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.
3 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
4 Girders are designed to be supported on the bottom edge only.
5 Multiple plies must be fastened together as per manufacturer's details.
6 Top loads must be supported equally by all plies.
7 Top must be continuously laterally braced.
8 Bottom must have sheathing attached or be continuously braced.
9 Lateral slenderness ratio based on full section width.

JULY 14, 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

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

CSD DRAW DESIGN BUILD

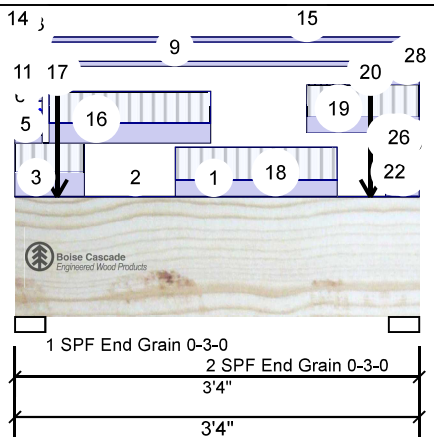
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 DC
Project #:

FH2-A 1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



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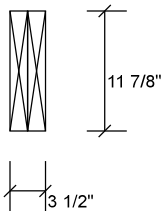

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-4-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
2	Tapered Start	0-0-0		Near Face	0 PLF	1 PLF	0 PLF	0 PLF	
	End	3-0-14			0 PLF	1 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 0-6-14		Near Face	199 PLF	231 PLF	0 PLF	0 PLF	J4
5	Part. Uniform	0-0-0 to 0-2-11		Near Face	63 PLF	168 PLF	0 PLF	0 PLF	J4
6	Part. Uniform	0-0-0 to 0-2-11		Near Face	30 PLF	0 PLF	79 PLF	0 PLF	
7	Part. Uniform	0-0-0 to 0-2-11		Near Face	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Part. Uniform	0-0-0 to 0-2-11		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
9	Part. Uniform	0-0-0 to 3-4-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
11	Part. Uniform	0-0-0 to 0-2-11		Top	63 PLF	168 PLF	0 PLF	0 PLF	J4
12	Part. Uniform	0-0-0 to 0-2-11		Top	30 PLF	0 PLF	79 PLF	0 PLF	
13	Part. Uniform	0-0-0 to 0-2-11		Top	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
14	Part. Uniform	0-0-0 to 0-2-11		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
15	Part. Uniform	0-0-0 to 3-4-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
16	Part. Uniform	0-3-6 to 1-7-6		Near Face	159 PLF	257 PLF	0 PLF	0 PLF	J4
17	Point	0-4-3		Top	425 lb	477 lb	236 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
18	Part. Uniform	1-3-14 to 2-7-14		Near Face	134 PLF	262 PLF	0 PLF	0 PLF	J4
19	Part. Uniform	2-4-14 to 3-4-0		Near Face	126 PLF	257 PLF	0 PLF	0 PLF	J4
20	Point	2-11-3		Top	509 lb	477 lb	398 lb	0 lb	Header Column Header Column
	Bearing Length	0-3-8							
22	Part. Uniform	3-0-11 to 3-4-0		Top	63 PLF	168 PLF	0 PLF	0 PLF	J4
23	Part. Uniform	3-0-11 to 3-4-0		Top	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
24	Part. Uniform	3-0-11 to 3-4-0		Top	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
26	Part. Uniform	3-0-11 to 3-4-0		Near Face	63 PLF	168 PLF	0 PLF	0 PLF	J4
27	Part. Uniform	3-0-11 to 3-4-0		Near Face	45 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
28	Part. Uniform	3-0-11 to 3-4-0		Near Face	2 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
31	Tapered Start	3-0-14		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	

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

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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

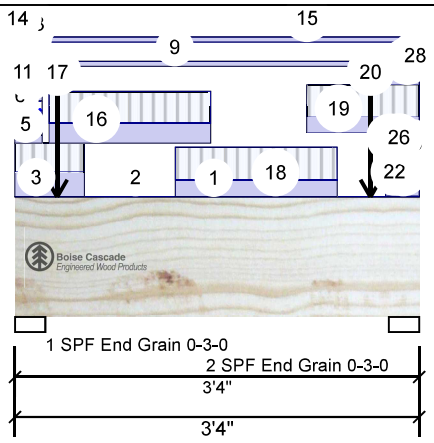
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

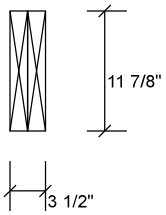
MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 DC
Project #:

FH2-A 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
	End	3-4-0			1 PLF	4 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 14, 2023

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Lumber

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CSD DRAW DESIGN BUILD

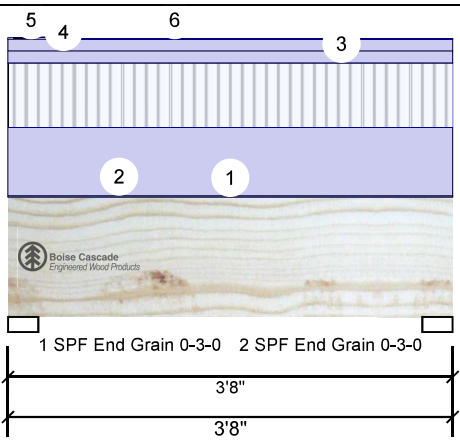
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

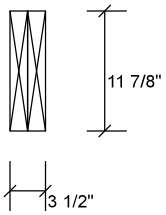
MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 DC
Project #:

FH2-3 1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





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	401	596	0	0
2	Vertical	400	596	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	13%	745 / 601	1346	L	1.25D+1.5L
2 - SPF End Grain	3.000"	Vert	13%	744 / 600	1344	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	993 ft-lb	1'10"	32207 ft-lb	0.031 (3%)	1.25D+1.5L	L
Unbraced	993 ft-lb	1'10"	32207 ft-lb	0.031 (3%)	1.25D+1.5L	L
Shear	1113 lb	2'5 1/8"	12027 lb	0.093 (9%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/41459)	1'10"	0.110 (L/360)	0.009 (1%)	D	Uniform
LL Defl inch	0.001 (L/61771)	1'10"	0.110 (L/360)	0.006 (1%)	L	L
TL Defl inch	0.002 (L/24809)	1'10"	0.165 (L/240)	0.010 (1%)	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 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-8-0		Near Face	4 PLF	0 PLF	0 PLF	0 PLF	Rim Board Self Weight
2	Part. Uniform	0-0-0 to 3-8-0		Near Face	229 PLF	217 PLF	0 PLF	0 PLF	J3
3	Part. Uniform	0-0-0 to 3-8-0		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-0-0 to 3-8-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

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

This design is valid until 4/17/2026

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CCMC: 12472

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

CSD DRAW DESIGN BUILD

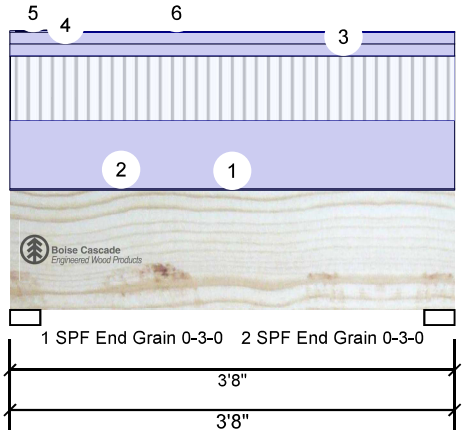
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

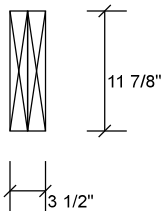
MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 DC
Project #:

FH2-3 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
5	Tapered Start	0-0-0		Near Face	1 PLF	3 PLF	0 PLF	0 PLF	
	End	0-4-9			2 PLF	5 PLF	0 PLF	0 PLF	
6	Tapered Start	0-4-9		Near Face	0 PLF	1 PLF	0 PLF	0 PLF	
	End	3-8-0			0 PLF	1 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				

JULY 14, 2023

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Lumber

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Handling & Installation

1. LVL beams must not be cut or drilled
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3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400

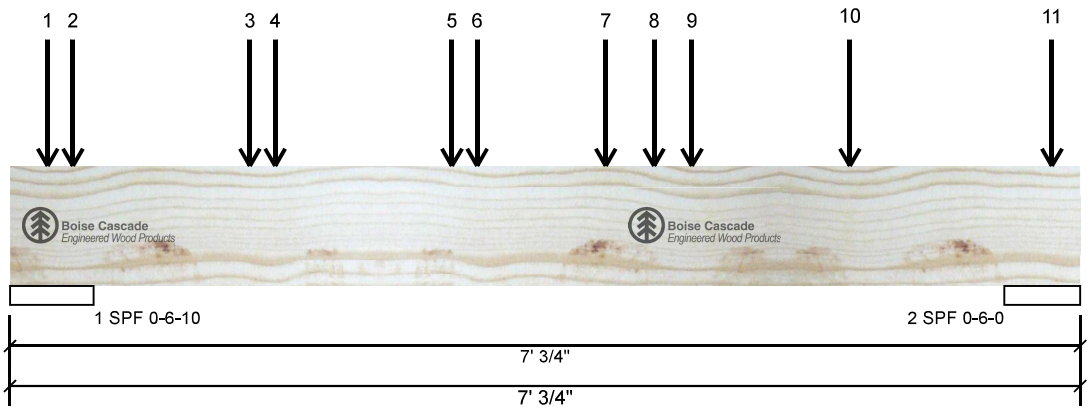
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

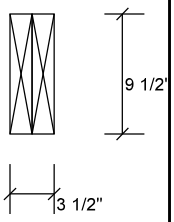
MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
Project #:

B4 **Vers : 3100 SP** **1.750" X 9.500"** **2-Ply - PASSED**

Level: Second Floor





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	2060	857	0	0
2	Vertical	2019	852	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.625"	Vert	29%	1072 / 3090	4162	L	1.25D+1.5L
2 - SPF	6.000"	Vert	32%	1066 / 3028	4094	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6692 ft-lb	3'11 3/16"	23220 ft-lb	0.288 (29%)	1.25D+1.5L	L
Unbraced	6692 ft-lb	3'11 3/16"	23220 ft-lb	0.288 (29%)	1.25D+1.5L	L
Shear	3522 lb	1'4 1/8"	10574 lb	0.333 (33%)	1.25D+1.5L	L
Perm Defl in.	0.018 (L/4027)	3'6 15/16"	0.204 (L/360)	0.089 (9%)	D	Uniform
LL Defl inch	0.042 (L/1732)	3'6 3/4"	0.204 (L/360)	0.208 (21%)	L	L
TL Defl inch	0.061 (L/1211)	3'6 13/16"	0.307 (L/240)	0.198 (20%)	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 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 be laterally braced at bearings.
8 Lateral slenderness ratio based on full section width.

JULY 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-3-0		Top	60 lb	151 lb	0 lb	0 lb	J4
	Bearing Length	0-3-8							
2	Point	0-5-0		Top	63 lb	169 lb	0 lb	0 lb	J4
	Bearing Length	0-3-8							

Continued on page 2...

Notes

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Lumber

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Handling & Installation

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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

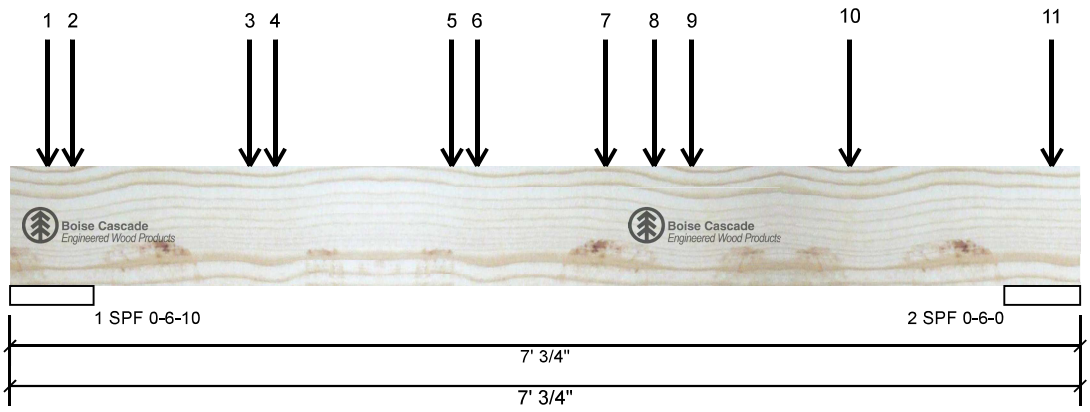
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

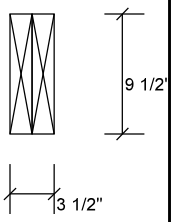
MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
Project #:

B4 Vers : 3100 SP 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
3	Point	1-7-0		Top	165 lb	440 lb	0 lb	0 lb	J4
	Bearing Length	0-3-8							
4	Point	1-9-0		Top	162 lb	432 lb	0 lb	0 lb	J4
	Bearing Length	0-3-8							
5	Point	2-11-0		Top	165 lb	440 lb	0 lb	0 lb	J4
	Bearing Length	0-3-8							
6	Point	3-1-0		Top	132 lb	353 lb	0 lb	0 lb	J4
	Bearing Length	0-3-8							
7	Point	3-11-3		Top	287 lb	471 lb	0 lb	0 lb	F8
	Bearing Length	0-3-8							
8	Point	4-3-0		Top	165 lb	440 lb	0 lb	0 lb	J4
	Bearing Length	0-3-8							
9	Point	4-6-0		Top	68 lb	182 lb	0 lb	0 lb	J3
	Bearing Length	0-3-8							
10	Point	5-6-8		Top	267 lb	711 lb	0 lb	0 lb	J3 J4
	Bearing Length	0-3-8							
11	Point	6-10-8		Top	109 lb	290 lb	0 lb	0 lb	J3 J4
	Bearing Length	0-3-8							
	Self Weight				9 PLF				

JULY 14, 2023

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Notes

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Lumber

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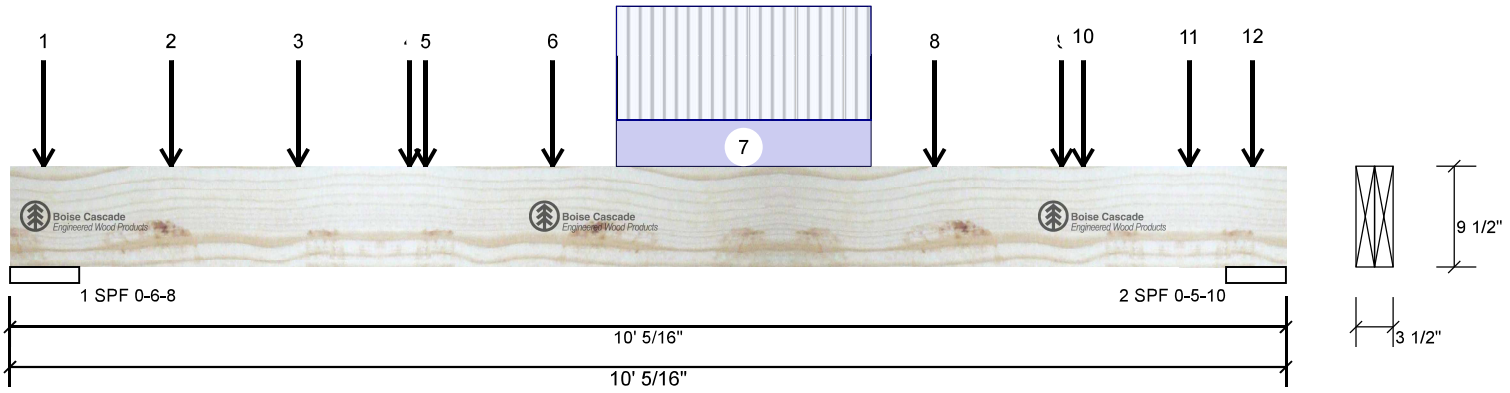
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
Project #:

B7 Vers : 3100 SP 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



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	3041	1296	0	0
2	Vertical	3009	1276	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.521"	Vert	44%	1620 / 4562	6182	L	1.25D+1.5L
2 - SPF	5.652"	Vert	50%	1595 / 4513	6108	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13717 ft-lb	5' 5/8"	23220 ft-lb	0.591 (59%)	1.25D+1.5L	L
Unbraced	13717 ft-lb	5' 5/8"	23220 ft-lb	0.591 (59%)	1.25D+1.5L	L
Shear	5534 lb	1'4"	10574 lb	0.523 (52%)	1.25D+1.5L	L
Perm Defl in.	0.083 (L/1318)	5' 9/16"	0.305 (L/360)	0.273 (27%)	D	Uniform
LL Defl inch	0.196 (L/560)	5' 9/16"	0.305 (L/360)	0.643 (64%)	L	L
TL Defl inch	0.279 (L/393)	5' 9/16"	0.457 (L/240)	0.611 (61%)	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.
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4 Multiple plies must be fastened together as per manufacturer's details.
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6 Top must be continuously laterally braced.
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8 Lateral slenderness ratio based on full section width.

JULY 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-3-3		Top	107 lb	262 lb	0 lb	0 lb	J4 J6
	Bearing Length	0-3-8							
2	Point	1-3-3		Top	265 lb	647 lb	0 lb	0 lb	J4 J6
	Bearing Length	0-3-8							

Continued on page 2...

Notes

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Lumber

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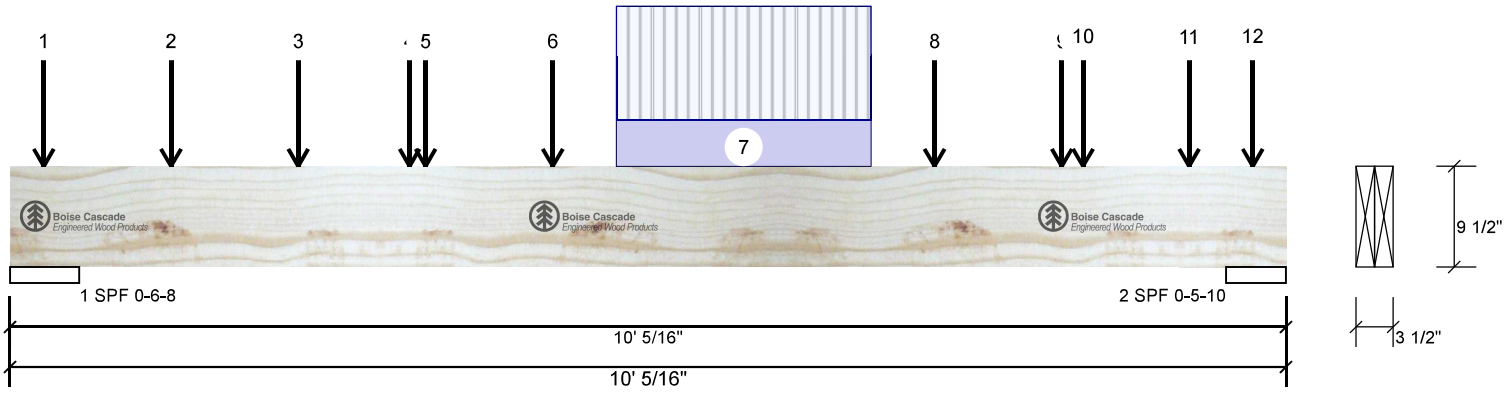
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
Project #:

B7 Vers : 3100 SP 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
3	Point	2-3-3		Top	258 lb	627 lb	0 lb	0 lb	J4 J6
	Bearing Length	0-3-8							
4	Point	3-1-11		Top	124 lb	317 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
5	Point	3-3-3		Top	144 lb	333 lb	0 lb	0 lb	J4
	Bearing Length	0-3-8							
6	Point	4-3-3		Top	275 lb	670 lb	0 lb	0 lb	J4 J6
	Bearing Length	0-3-8							
7	Part. Uniform	4-9-3 to 6-9-3		Top	267 PLF	650 PLF	0 PLF	0 PLF	
8	Point	7-3-3		Top	275 lb	673 lb	0 lb	0 lb	J6 J4
	Bearing Length	0-3-8							
9	Point	8-3-3		Top	142 lb	330 lb	0 lb	0 lb	J4
	Bearing Length	0-3-8							
10	Point	8-5-3		Top	149 lb	396 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
11	Point	9-3-3		Top	142 lb	330 lb	0 lb	0 lb	J4
	Bearing Length	0-3-8							
12	Point	9-9-3		Top	62 lb	165 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
	Self Weight				9 PLF				

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 14, 2023

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CSD DRAW DESIGN BUILD

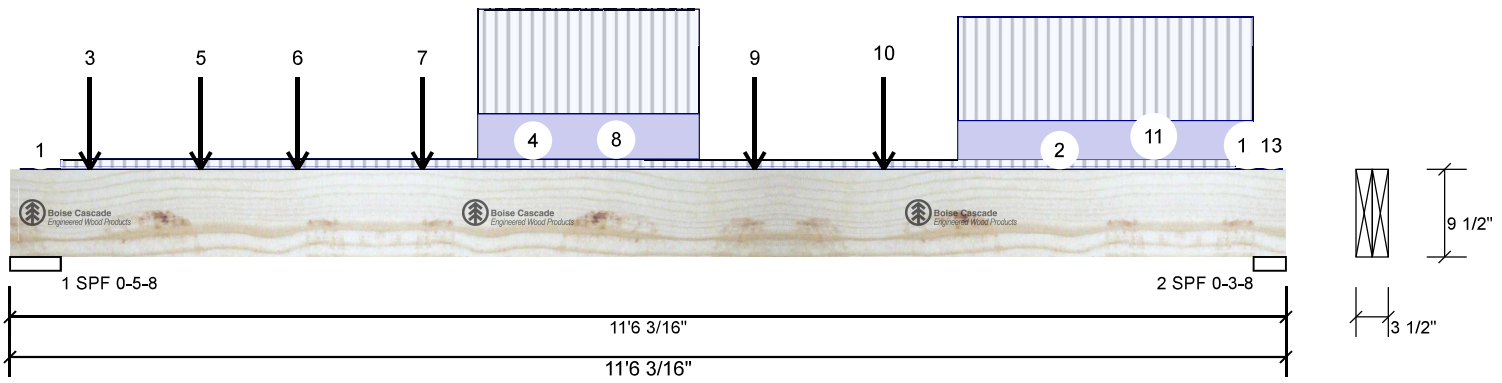
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
Project #:

B7-A V(1E 3100 SP 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



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	1937	880	0	0
2	Vertical	1845	785	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	Vert	34%	1100 / 2905	4005	L	1.25D+1.5L
2 - SPF	3.500"	Vert	50%	981 / 2768	3749	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10524 ft-lb	5'9 3/4"	23220 ft-lb	0.453 (45%)	1.25D+1.5L	L
Unbraced	10524 ft-lb	5'9 3/4"	23220 ft-lb	0.453 (45%)	1.25D+1.5L	L
Shear	3525 lb	1'3"	10574 lb	0.333 (33%)	1.25D+1.5L	L
Perm Defl in.	0.093 (L/1408)	5'9 3/4"	0.363 (L/360)	0.256 (26%)	D	Uniform
LL Defl inch	0.210 (L/622)	5'10 1/8"	0.363 (L/360)	0.579 (58%)	L	L
TL Defl inch	0.303 (L/431)	5'10"	0.545 (L/240)	0.556 (56%)	D+L	L

JULY 14, 2023

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Design Notes

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tapered Start	0-1-2		Top	0 PLF	1 PLF	0 PLF	0 PLF	
	End	0-5-8			0 PLF	1 PLF	0 PLF	0 PLF	
2	Tapered Start	0-5-8		Top	8 PLF	22 PLF	0 PLF	0 PLF	
	End	11-0-11			8 PLF	22 PLF	0 PLF	0 PLF	

Continued on page 2...

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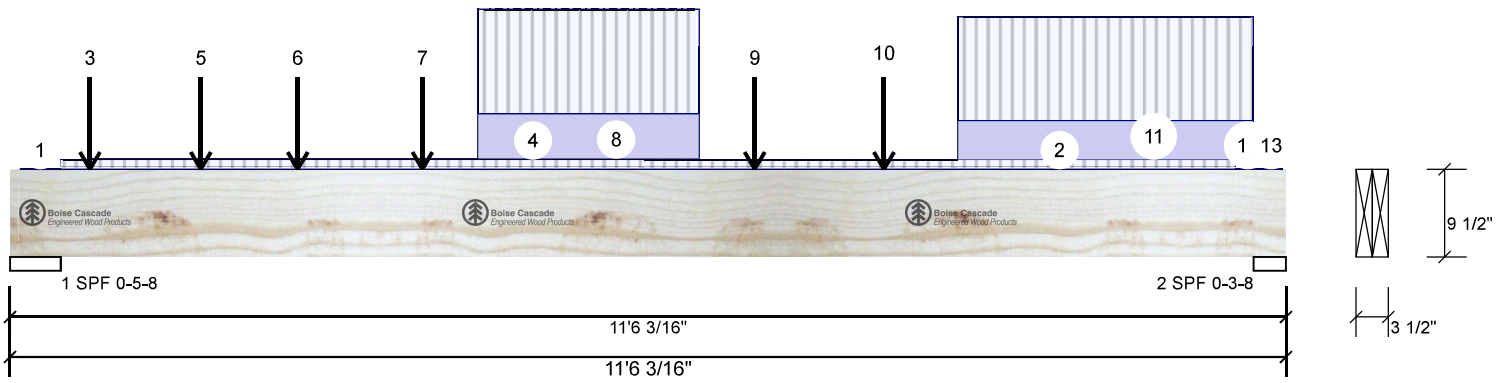
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
Project #:

B7-A V(1E 3100 SP 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
3	Point	0-8-11		Top	138 lb	323 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
4	Part. Uniform	0-8-11 to 5-8-10		Top	3 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-8-11		Top	131 lb	303 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
6	Point	2-7-3		Top	143 lb	323 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
7	Point	3-8-11		Top	150 lb	343 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
8	Part. Uniform	4-2-11 to 6-2-11		Top	138 PLF	323 PLF	0 PLF	0 PLF	
9	Point	6-8-11		Top	147 lb	350 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
10	Point	7-10-11		Top	151 lb	404 lb	0 lb	0 lb	J6
	Bearing Length	0-3-8							
11	Part. Uniform	8-6-11 to 11-2-11		Top	120 PLF	321 PLF	0 PLF	0 PLF	
12	Tapered Start	11-0-11		Top	0 PLF	1 PLF	0 PLF	0 PLF	
	End	11-3-7			0 PLF	1 PLF	0 PLF	0 PLF	
13	Tapered Start	11-3-7		Top	0 PLF	1 PLF	0 PLF	0 PLF	
	End	11-5-12			0 PLF	1 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF				

LICENSED PROFESSIONAL ENGINEER
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Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/14/2023
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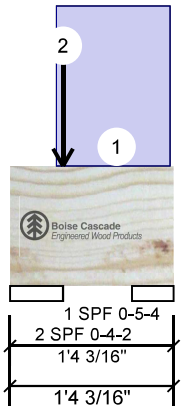
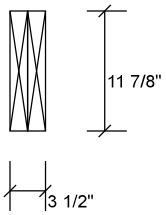
Job Name: ROSE 12-2 STD
Project #:

F10 Ver E 3100 SP **1.750" X 11.875" 2-Ply - PASSED**

Level: Second Floor





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	208	117	0	0
2	Vertical	0	61	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	4%	146 / 312	458	L	1.25D+1.5L
2 - SPF	4.125"	Vert	1%	86 / 0	86	Uniform	1.4D

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9 ft-lb	8 5/8"	23005 ft-lb	0.000 (0%)	1.4D	Uniform
Unbraced	9 ft-lb	8 5/8"	23005 ft-lb	0.000 (0%)	1.4D	Uniform
Shear	39 lb	1'5 1/8"	8591 lb	0.005 (0%)	1.4D	Uniform
Perm Defl in.	0.000 (L/3910920)	8 11/16"	0.023 (L/360)	0.000 (0%)	D	Uniform
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.000 (L/3910920)	8 11/16"	0.035 (L/240)	0.000 (0%)	D+L	L

Design Notes

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7 Lateral slenderness ratio based on full section width.

JULY 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-4-9 to 1-3-13		Top	90 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Point	0-5-4		Far Face	78 lb	208 lb	0 lb	0 lb	J5
	Self Weight				12 PLF				

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KOTT
CSD DRAW DESIGN BUILD

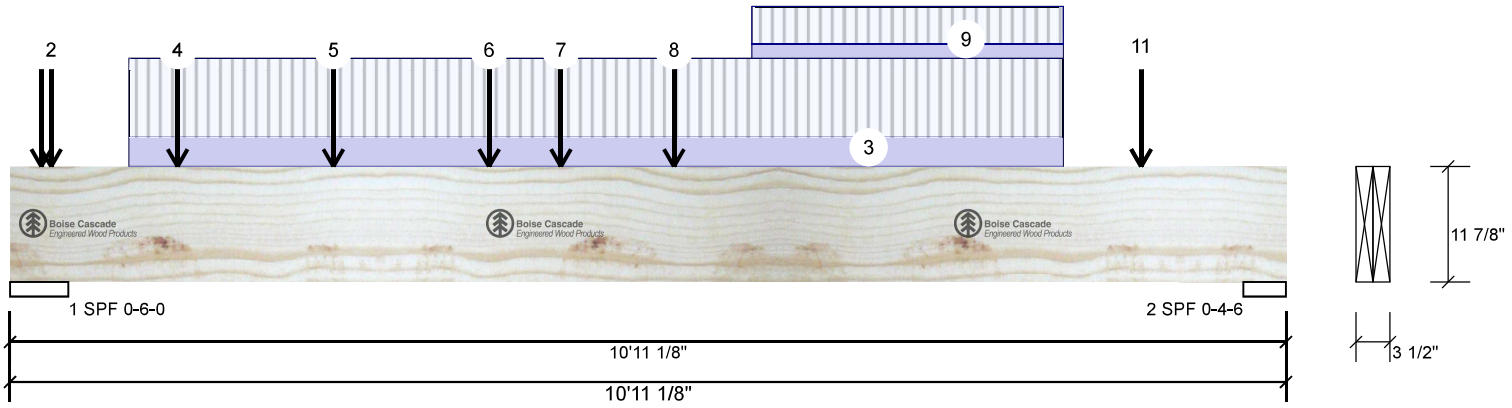
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
Project #:

F11 Ver E 3100 SP **1.750" X 11.875"** **2-Ply - PASSED**

Level: Second Floor



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	2878	1168	0	0
2	Vertical	2354	963	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.000"	Vert	45%	1460 / 4317	5778	L	1.25D+1.5L
2 - SPF	4.375"	Vert	50%	1204 / 3530	4734	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13015 ft-lb	5'6 1/2"	35392 ft-lb	0.368 (37%)	1.25D+1.5L	L
Unbraced	13015 ft-lb	5'6 1/2"	35392 ft-lb	0.368 (37%)	1.25D+1.5L	L
Shear	4992 lb	9'6 7/8"	13217 lb	0.378 (38%)	1.25D+1.5L	L
Perm Defl in.	0.049 (L/2492)	5'6 1/16"	0.340 (L/360)	0.144 (14%)	D	Uniform
LL Defl inch	0.119 (L/1023)	5'6 1/8"	0.340 (L/360)	0.352 (35%)	L	L
TL Defl inch	0.168 (L/725)	5'6 1/8"	0.509 (L/240)	0.331 (33%)	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
4 Top must be continuously laterally braced.
5 Bottom must have sheathing attached or be continuously braced.
6 Lateral slenderness ratio based on full section width.

JULY 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-3-4		Near Face	72 lb	191 lb	0 lb	0 lb	J3
2	Point	0-4-4		Far Face	109 lb	291 lb	0 lb	0 lb	J4
3	Part. Uniform	1-0-4 to 9-0-4		Far Face	123 PLF	327 PLF	0 PLF	0 PLF	
4	Point	1-5-4		Near Face	108 lb	287 lb	0 lb	0 lb	J3
5	Point	2-9-4		Near Face	115 lb	306 lb	0 lb	0 lb	J3
6	Point	4-1-4		Near Face	84 lb	224 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
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

MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
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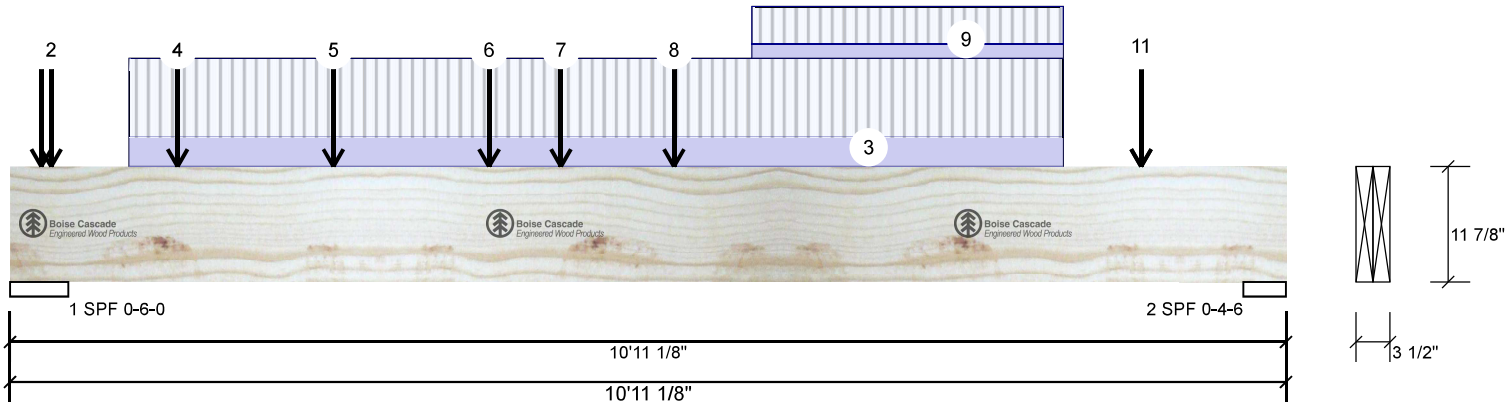
F11 Ver E 3100 SP **1.750" X 11.875" 2-Ply - PASSED**

Level: Second Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	4-8-10		Near Face	70 lb	91 lb	0 lb	0 lb	F11
8	Point	5-8-4		Near Face	68 lb	180 lb	0 lb	0 lb	J2
9	Part. Uniform	6-4-4 to 9-0-4		Near Face	59 PLF	157 PLF	0 PLF	0 PLF	
10	Point	9-8-4		Far Face	161 lb	429 lb	0 lb	0 lb	J4
11	Point	9-8-4		Near Face	74 lb	198 lb	0 lb	0 lb	J2
	Self Weight				12 PLF				

JULY 14, 2023

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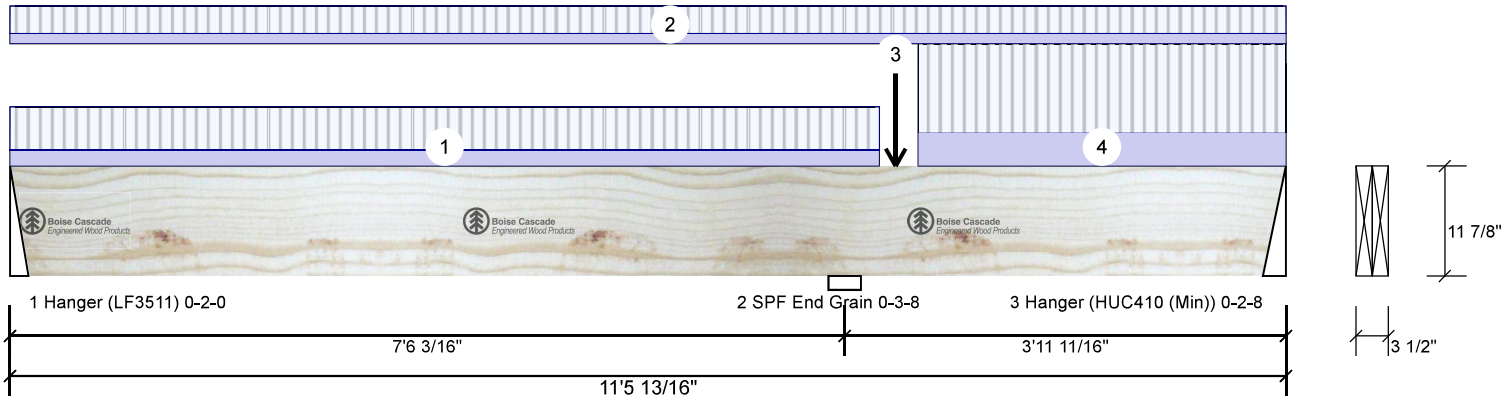
F11-A V IE 3100 SP 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor



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	91	70	0	0
2	Vertical	645	365	0	0
3	Vertical	96	48	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	4%	87 / 152	239	L_	1.25D+1.5L
2 - SPF End Grain	3.500"	Vert	11%	458 / 969	1427	LL	1.25D+1.5L
3 - Hanger	2.500"	Vert	3%	59 / 199	258 (-2)	_L	1.25D+1.5L (0.9D+1.5L)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-527 ft-lb	7'6 3/16"	35392 ft-lb	0.015 (1%)	1.25D+1.5L	LL
Unbraced	-527 ft-lb	7'6 3/16"	32836 ft-lb	0.016 (2%)	1.25D+1.5L	LL
Pos Moment	347 ft-lb	3'1 1/4"	30083 ft-lb	0.012 (1%)	1.25D+1.5L	L_
Unbraced	347 ft-lb	3'1 1/4"	30083 ft-lb	0.012 (1%)	1.25D+1.5L	L_
Shear	991 lb	8'7 13/16"	13217 lb	0.075 (7%)	1.25D+1.5L	LL
Perm Defl in.	0.001 (L/114947)	3'4 1/16"	0.247 (L/360)	0.003 (0%)	D	Uniform
LL Defl inch	0.001 (L/66038)	3'6 5/16"	0.247 (L/360)	0.005 (1%)	L	L_
TL Defl inch	0.002 (L/41979)	3'5 7/16"	0.370 (L/240)	0.006 (1%)	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 Negligible uplift at end of short span.
9 Top must be continuously laterally braced.
10 Bottom must be laterally braced at bearings.
11 Lateral slenderness ratio based on full section width.

JULY 14, 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

This design is valid until 4/17/2026

Manufacturer Info

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www.bc.com
CCMC: 12472

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

CSD DRAW DESIGN BUILD

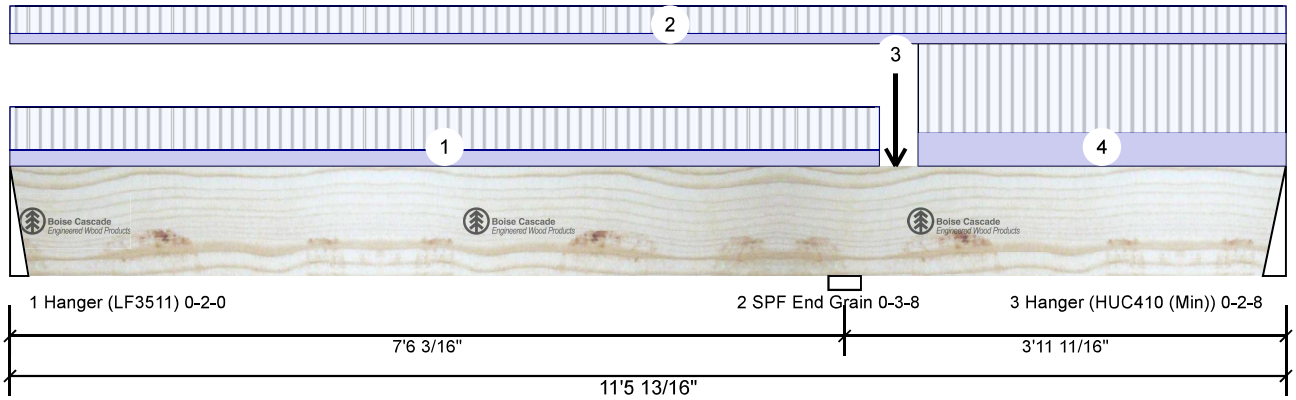
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

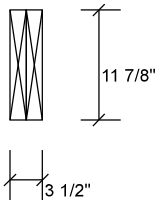
MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
Project #:

F11-A V IE 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 7-9-15	0-5-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 11-5-13	0-3-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	7-11-11		Far Face	188 lb	406 lb	0 lb	0 lb	F5
4	Part. Uniform	8-2-1 to 11-5-13		Top	15 PLF	40 PLF	0 PLF	0 PLF	
	Self Weight				12 PLF				

JULY 14, 2023

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KOTT

CSD DRAW DESIGN BUILD

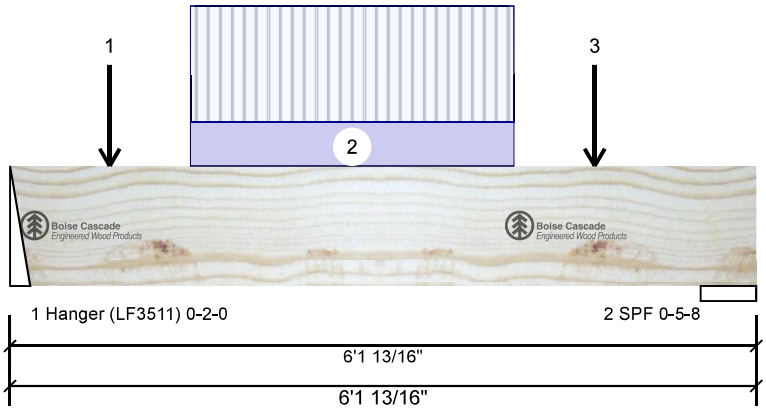
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

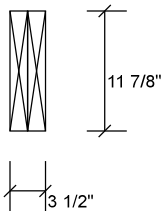
MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
Project #:

F5 **Vers** **3100 SP** **1.750" X 11.875"** **2-Ply - PASSED**

Level: Second Floor





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	406	188	0	0
2	Vertical	384	182	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%	235 / 609	844	L	1.25D+1.5L
2 - SPF	5.500"	Vert	7%	228 / 577	805	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1252 ft-lb	2'11 3/16"	35392 ft-lb	0.035 (4%)	1.25D+1.5L	L
Unbraced	1252 ft-lb	2'11 3/16"	35392 ft-lb	0.035 (4%)	1.25D+1.5L	L
Shear	842 lb	1'1 7/8"	13217 lb	0.064 (6%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/42002)	2'11 3/16"	0.188 (L/360)	0.009 (1%)	D	Uniform
LL Defl inch	0.004 (L/19067)	2'11 3/16"	0.188 (L/360)	0.019 (2%)	L	L
TL Defl inch	0.005 (L/13114)	2'11 3/16"	0.283 (L/240)	0.018 (2%)	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 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 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-9-14		Far Face	68 lb	180 lb	0 lb	0 lb	J2
2	Part. Uniform	1-5-14 to 4-1-14		Far Face	59 PLF	157 PLF	0 PLF	0 PLF	
3	Point	4-9-14		Far Face	72 lb	192 lb	0 lb	0 lb	J2
	Self Weight				12 PLF				

Notes

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Lumber

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

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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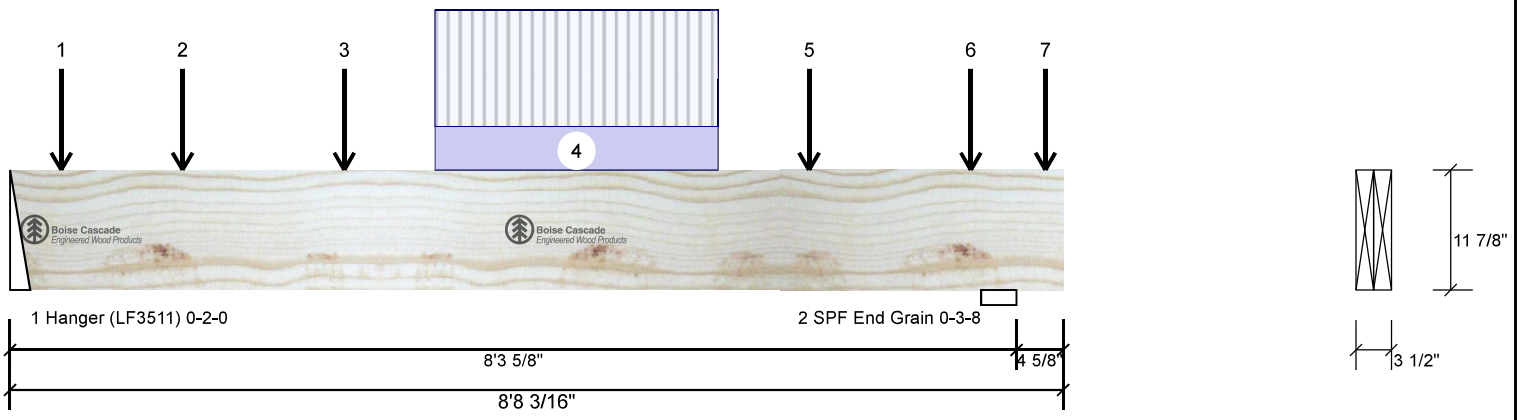
F6 Vers 3100 SP **1.750" X 11.875"** **2-Ply - PASSED**

Level: Second Floor



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	921	394	0	0
2	Vertical	1042	457	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	25%	493 / 1386	1879	L_	1.25D+1.5L
2 - SPF End Grain	3.500"	Vert	17%	571 / 1563	2134	LL	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-50 ft-lb	8'3 5/8"	23005 ft-lb	0.002 (0%)	1.25D+1.5L	_L
Pos Moment	3722 ft-lb	4'1 7/8"	35392 ft-lb	0.105 (11%)	1.25D+1.5L	L_
Unbraced	3722 ft-lb	4'1 7/8"	35392 ft-lb	0.105 (11%)	1.25D+1.5L	L_
Shear	1920 lb	7' 1/4"	13217 lb	0.145 (15%)	1.25D+1.5L	LL
Perm Defl in.	0.009 (L/10700)	4'1 7/16"	0.268 (L/360)	0.034 (3%)	D	Uniform
LL Defl inch	0.021 (L/4531)	4'1 1/2"	0.268 (L/360)	0.079 (8%)	L	L_
TL Defl inch	0.030 (L/3183)	4'1 1/2"	0.403 (L/240)	0.075 (8%)	D+L	L_
LL Cant	-0.003 (2L/2906)	Rt Cant	0.200 (2L/360)	0.016 (2%)	L	L_
TL Cant	-0.005 (2L/2047)	Rt Cant	0.300 (2L/240)	0.015 (2%)	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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4 Girders are designed to be supported on the bottom edge only.
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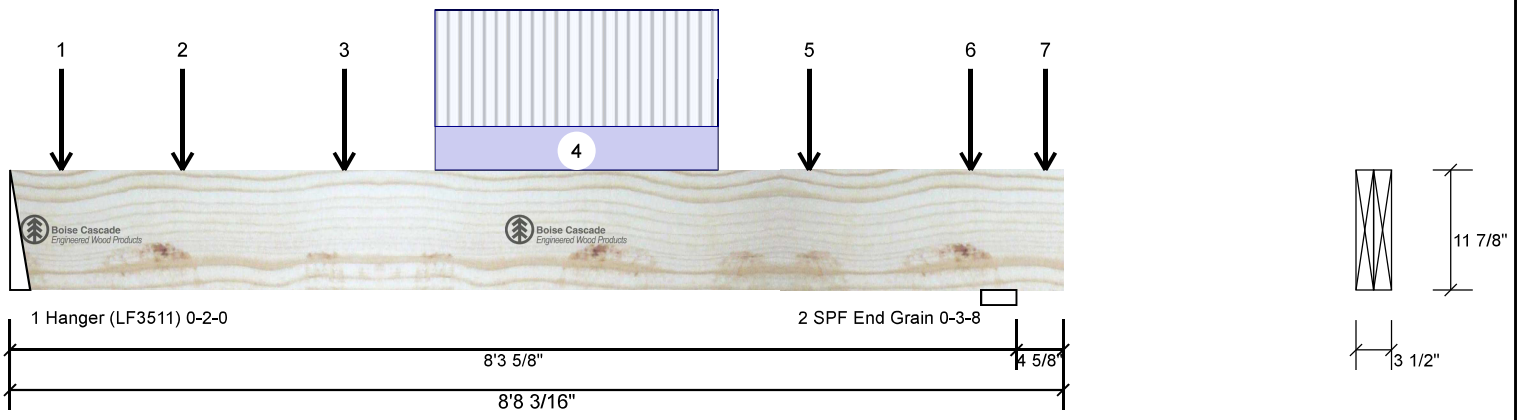
F6 **Vers** **3100 SP** **1.750" X 11.875"** **2-Ply - PASSED**

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-5-1		Far Face	69 lb	183 lb	0 lb	0 lb	J3
2	Point	1-5-1		Far Face	102 lb	272 lb	0 lb	0 lb	J3
3	Point	2-9-1		Far Face	116 lb	308 lb	0 lb	0 lb	J3
4	Part. Uniform	3-6-1 to 5-10-1		Far Face	92 PLF	246 PLF	0 PLF	0 PLF	
5	Point	6-7-1		Far Face	115 lb	306 lb	0 lb	0 lb	J3
6	Point	7-11-1		Far Face	84 lb	224 lb	0 lb	0 lb	J3
7	Point	8-6-7		Far Face	48 lb	96 lb	0 lb	0 lb	F11
	Self Weight				12 PLF				

JULY 14, 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

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

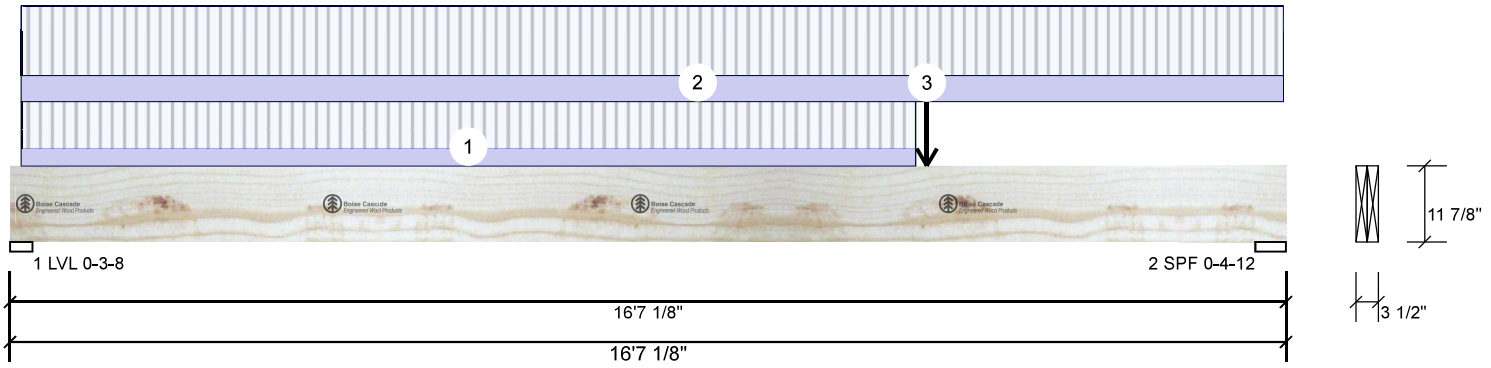
Client: GREENPARK
Project:
Address: ZADORRA ESTATES OSHAWA,ON

MHP 23032

Date: 7/14/2023
Input by: W C
Job Name: ROSE 12-2 STD
Project #:

F8 Vers 3100 SP **1.750" X 11.875"** **2-Ply - PASSED**

Level: Second Floor



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	471	287	0	0
2	Vertical	860	457	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - LVL	3.500"	Vert	8%	359 / 707	1066	L	1.25D+1.5L
2 - SPF	4.778"	Vert	18%	571 / 1290	1862	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7551 ft-lb	11'11 1/16"	35392 ft-lb	0.213 (21%)	1.25D+1.5L	L
Unbraced	7551 ft-lb	11'11 1/16"	35392 ft-lb	0.213 (21%)	1.25D+1.5L	L
Shear	1810 lb	15'2 1/2"	13217 lb	0.137 (14%)	1.25D+1.5L	L
Perm Defl in.	0.074 (L/2604)	8'9"	0.534 (L/360)	0.138 (14%)	D	Uniform
LL Defl inch	0.137 (L/1401)	8'10 9/16"	0.534 (L/360)	0.257 (26%)	L	L
TL Defl inch	0.211 (L/911)	8'10"	0.801 (L/240)	0.264 (26%)	D+L	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Girders are designed to be supported on the bottom edge only.
3. Multiple plies must be fastened together as per manufacturer's details.
4. Top loads must be supported equally by all plies.
5. Top must be continuously laterally braced.
6. Bottom must be laterally braced at a maximum of 11'11 1/16" o.c.
7. Lateral slenderness ratio based on full section width.

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 14, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-1-12 to 11-9-5	0-3-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-1-12 to 16-6-12	0-5-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	11-11-1		Far Face	394 lb	921 lb	0 lb	0 lb	F6
	Self Weight				12 PLF				

Notes

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CSD DRAW DESIGN BUILD