

**MHP 23035****PLEASE READ ALL NOTES PRIOR TO INSTALLATION OF THE COMPONENT**

RESPONSIBILITIES

THE RESPONSIBILITY OF THE UNDERSIGNED ENGINEER IS ONLY LIMITED TO THE CALCULATION OF THIS BUILDING COMPONENT FOR THE LOADS AND CONDITIONS SHOWN ON THIS DRAWING.

THE RESPONSIBILITY OF THE UNDERSIGNED IS LIMITED TO THE VERIFICATION OF THE STRUCTURAL CAPACITY OF THE FLOOR JOISTS AND LVL BEAMS BASED ON PLACEMENT AS SHOWN ON THE LAYOUT. THE LOADS APPLIED ARE LIMITED TO THE GRAVITY EFFECTS OF THE SPECIFIED LOADS. THE STRUCTURAL INTEGRITY OF THE BUILDING AND THE EFFECT OF WIND, UPLIFT, SEISMIC, LATERAL OR OTHER FORCES, CALCULATION OF ADEQUATE SUPPORT AND ANCHORAGE OF COMPONENTS, AS WELL AS THE DIMENSIONS AND DESIGN LOADS USED TO CALCULATE COMPONENTS ARE THE RESPONSIBILITY OF THE OVERALL BUILDING DESIGNER. FLOOR JOISTS AND OSB RIM BOARD ARE DESIGNED TO CARRY UNIFORMLY DISTRIBUTED LOADS ONLY. POINT LOADS SHOULD BE TRANSFERRED THROUGH THE FLOOR CAVITY WITH TRANSFER BLOCKS. STRUCTURAL ELEMENTS SUCH AS WALLS, POSTS, CONNECTORS, AND TRANSFER BLOCKS ARE THE RESPONSIBILITY OF THE OVERALL BUILDING DESIGNER.

THE UNDERSIGNED ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF BEING FURNISHED FAULTY OR INCORRECT INFORMATION, SPECIFICATIONS AND/OR DESIGNS.

COMPONENT DESIGN INFORMATION

1. THIS BUILDING COMPONENT IS CERTIFIED AS AN INDIVIDUAL COMPONENT FOR THE LOADS AND CONDITIONS SHOWN ON THE CALCULATION PAGE BASED ON INFORMATION PROVIDED BY KOTT DESIGN.
2. THE BUILDING COMPONENT USED IN CONSTRUCTION MUST BE THE SAME AS INDICATED ON THE DRAWINGS.
3. UNLESS NOTED OTHERWISE ON THE LAYOUT OR BEAM CALCULATION SHEET, MEMBERS CONSISTING OF MULTIPLE PLIES MUST BE CONNECTED AS PER THE DOCUMENT "MULTIPLE MEMBER CONNECTION DETAILS" SHOWN ON PAGE 2 OF THIS DOCUMENT.
4. PASS-THRU TRANSFER BLOCK FRAMING IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.
5. IT IS ASSUMED THAT EACH LVL BEAM WHERE NOT SEATED IN A HANGER IS ATTACHED USING (4) FOUR 3-1/4" COMMON SPIRAL NAILS FOR UP TO 5.5" LONG BEARINGS AND USING (6) SIX 3-1/4" COMMON SPIRAL NAILS FOR BEARINGS EQUAL TO OR LONGER THAN 5.5", UNLESS INDICATED OTHERWISE.

CODE

THIS BUILDING COMPONENT IS DESIGNED IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA, THE ONTARIO BUILDING CODE, CCMC AND CANADIAN STANDARDS ASSOCIATION GUIDELINES.

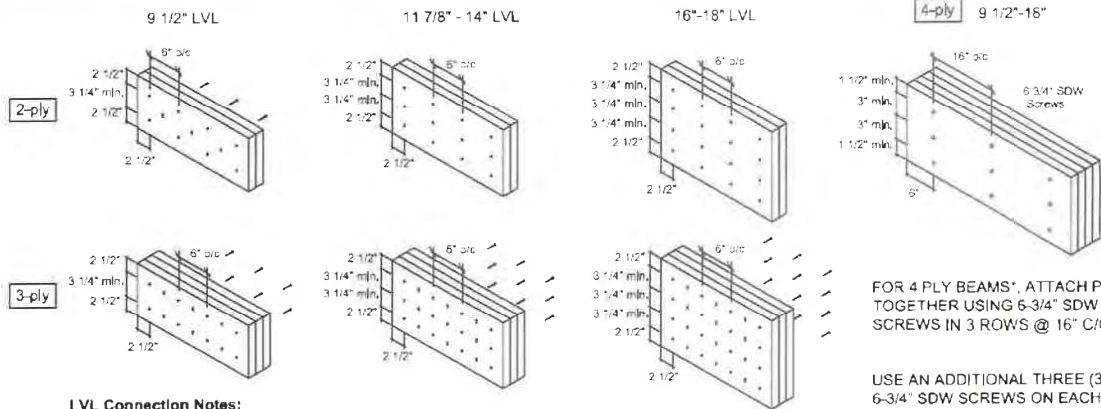
HANDLING AND INSTALLATION

1. DO NOT DRILL ANY HOLE, CUT OR NOTCH A CERTIFIED BUILDING COMPONENT WITHOUT A WRITTEN PRE-AUTHORIZATION.
2. INSTALLATION AND ASSEMBLY OF FLOOR JOISTS AND LVL BEAMS IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUFACTURER'S LITERATURE.

MULTIPLE MEMBER CONNECTIONS FOR BEAMS SHOWN ON KOTT LAYOUTS



MULTIPLE MEMBER CONNECTIONS FOR UNIFORMLY DISTRIBUTED TOP & SIDE LOADED LVL BEAMS SHOWN ON KOTT LAYOUTS



LVL Connection Notes:

- LVL ply width is 1-3/4"
- Nails to be 3 1/2" common wire nails.
- Nails to be located 2 1/2" min. from the top and bottom of the member. Start all nails 2 1/2" min. from ends.
- Minimum 3 1/4" spacing between rows.
- Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.
- Head of all specified screws must be on the loaded side.

FOR 4 PLY BEAMS*, ATTACH PLYS TOGETHER USING 6-3/4" SDW SCREWS IN 3 ROWS @ 16" C/C.

USE AN ADDITIONAL THREE (3) 6-3/4" SDW SCREWS ON EACH SIDE (OF EACH FACE) AT POINT LOAD LOCATIONS @ 1/2 SPACING, WHERE APPLICABLE.

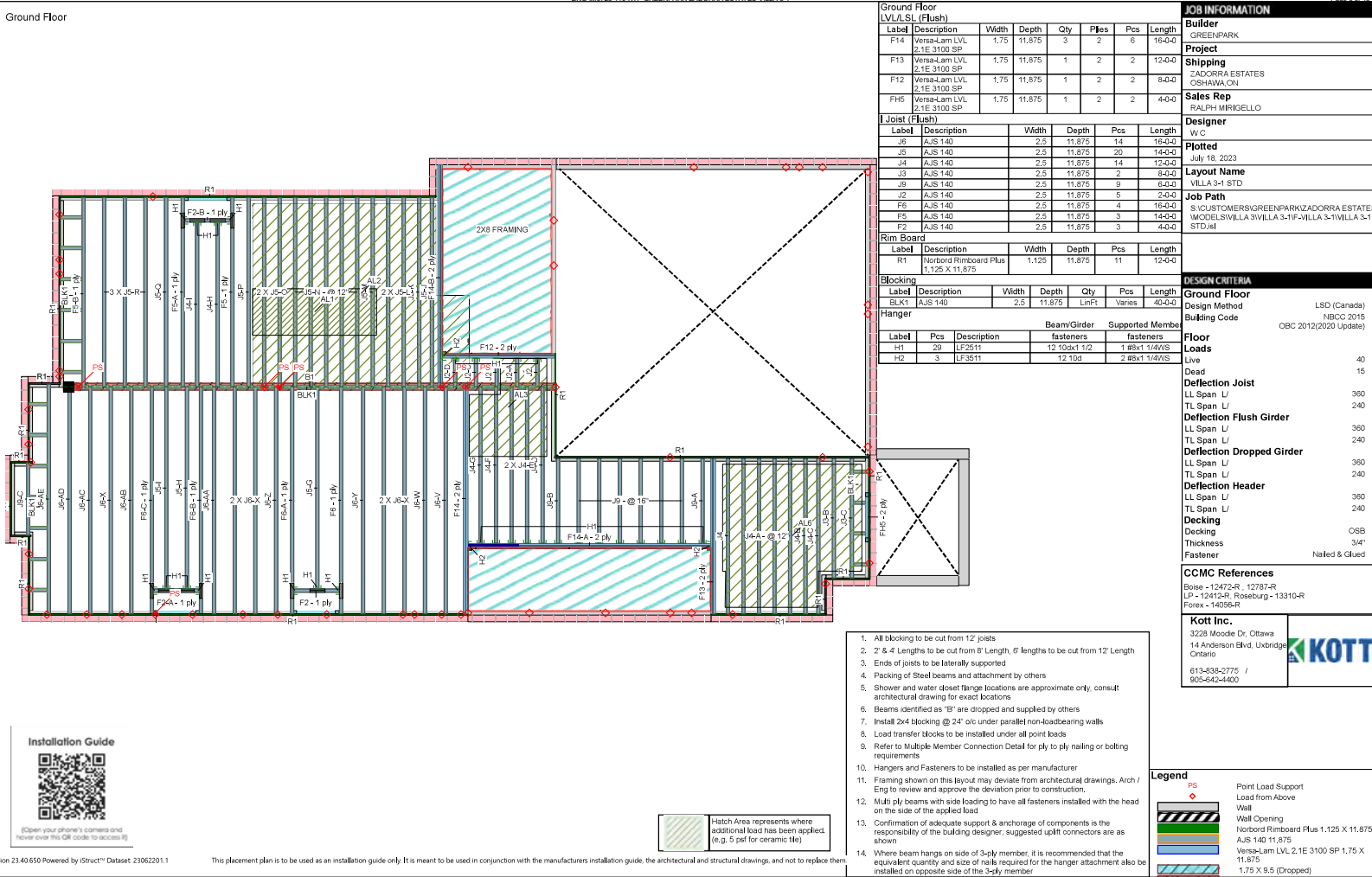
*UNLESS NOTED OTHERWISE ON LAYOUT OR CALCULATION SHEET OF BEAM IN THE FLOOR PACKAGE

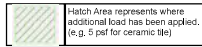
FOR MULTIPLE MEMBER CONNECTION OF BOISE ALLJOISTS REFER TO THE BOISE CASCADE INSTALLATION GUIDE

Installation Guide



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





ENG-M0724-11-KOTT-GREENPARK-ZADORRA ESTATES-VILLA 3-1

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 "BF" are dropped and supplied by others
7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls
8. Load transfer blocks to be installed under all point loads
9. Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
10. Hangers and Fasteners to be installed as per manufacturer
11. Framing shown on this layout may deviate from architectural drawings. Arch / Eng to review and approve the deviation prior to construction.
12. Multi ply beams with side loading to have all fasteners installed with the head on the side of the applied load
13. Confirmation of adequate support & anchorage of components is the responsibility of the building designer; suggested uplift connectors are as shown
14. Where beam hangs on side of 3-ply member, it is recommended that the equivalent quantity and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member

Ground Floor
LV/L/LSL (Flush)

Label	Description	Width	Depth	Qty	Pies	Pcs	Length
F14	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	3	2	6	16-0-0
F13	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	12-0-0
F12	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	8-0-0
FH5	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
J8	AJS 140	2.5	11.875	18	16-0-0
J5	AJS 140	2.5	11.875	22	14-0-0
J4	AJS 140	2.5	11.875	12	12-0-0
J3	AJS 140	2.5	11.875	2	8-0-0
J9	AJS 140	2.5	11.875	9	6-0-0
J2	AJS 140	2.5	11.875	5	2-0-0
F6	AJS 140	2.5	11.875	2	16-0-0
F5	AJS 140	2.5	11.875	1	14-0-0
F2	AJS 140	2.5	11.875	1	4-0-0

Rim Board

Label	Description	Width	Depth	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	11	12-0-0

Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	11.875	LnFt	Vanes	41-0-0

Hanger

		Beam/Girder		Supported Member	
Label	Pcs	Description	fasteners	fasteners	
H1	21	LF2511	12 10dX1 1/2	1 #8x1 1/4WS	
H2	3	LF3511	12 10d	2 #8x1 1/4WS	

JOB INFORMATION

Builder GREENPARK
Project ZADORRA ESTATES OSHAWA, ON
Sales Rep RALPH MIRIGELLO
Designer W.C.
Plotted July 18, 2023
Layout Name VILLA 3-1 WOC
Job Path 8:\CUSTOMERS\GREENPARK\ZADORRA ESTATES WOODRIVILLA 3VILLA 3-1F-VILLA 3-TWOC\VILLA 3-1 WOC.dwg

DESIGN CRITERIA

Ground Floor	LSD (Canada)
Design Method	NBCC 2015
Bulking Code	OBC 2012(2020 Update)

Floor Loads

Live	40
Dead	15
Deflection Joist	
LL Span /	360
TL Span /	240
Deflection Flush Girder	
LL Span /	360
TL Span /	240
Deflection Dropped Girder	
LL Span /	360
TL Span /	240
Deflection Header	
LL Span /	360
TL Span /	240
Decking	
Decking	OSB
Thickness	3/4"
Fastener	Nailed & Glued

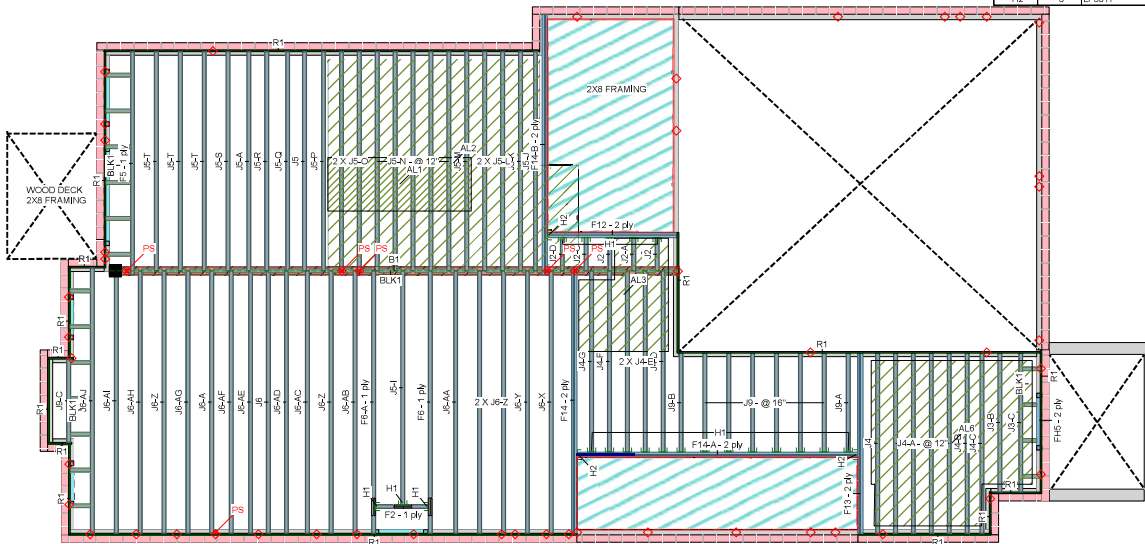
CCMC References

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



Legend

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



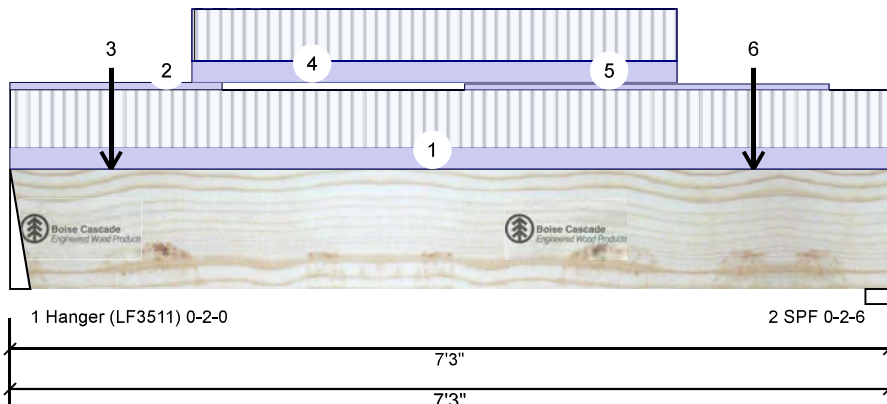
Client: GREENPARK
Project: OF PERMIT PLANS
Add: Nov 04 2023 TATES

Date: 7/18/2023

input by: W.C.
Job Name: VILLA.3-1 STD

Project #:

F12	Versa-Lam LVL 2.1E	3100 SP	1.750" X 11.875"	2-Ply - PASSED	Level: Ground Floor
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Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical	262	159	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015	2	Vertical	255	156	0	0
Deflection LL:	360		OBC 2012(2020 Update)						
Deflection TL:	240	Load Sharing:	No						
Importance:	Normal - II	Deck:	Not Checked						
General Load		Vibration:	Not Checked						
Floor Live:	40 PSF			Bearings and Factored Reactions					
Dead:	15 PSF			Bearing	Length	Dir.	Cap.	React D/L lb	Total Ld. Case Ld. Comb.
				1 - Hanger	2.000"	Vert	8%	199 / 393	592 L 1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1032 ft-lb	3'7 1/2"	35392 ft-lb	0.029 (3%)	1.25D+1.5L	L
Unbraced	1032 ft-lb	3'7 1/2"	35392 ft-lb	0.029 (3%)	1.25D+1.5L	L
Shear	492 lb	1'1 7/8"	13217 lb	0.037 (4%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/34715)	3'7 7/16"	0.234 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.004 (L/20527)	3'7 5/16"	0.234 (L/360)	0.018 (2%)	L	L
TL Defl inch	0.007 (L/12899)	3'7 3/8"	0.351 (L/240)	0.019 (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 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 19, 2023

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

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

Manufacturer Info

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

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



This design is valid until 4/17/2026



CORPORATION OF THE CITY OF OSHAWA
 ENG-M0723-119-K F-GREENPARK-ZADORRA ESTATES-VILLA 3-1
 Client: GREENPARK
 Project: TRUE COPY OF PERMIT PLANS
 Add: Nov 04 2023
 TATES

Date: 7/18/2023

Page 2 of 36

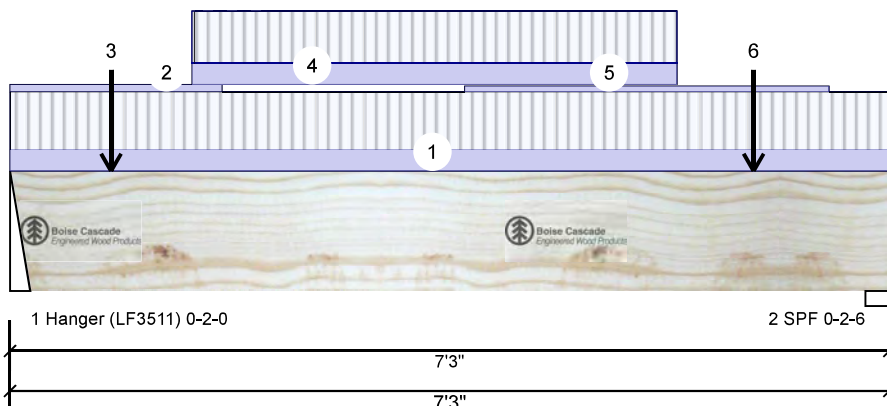
Input by: W.C.

Job Name: VILLA 3-1 STD

Project #:

MHP 23035

F12 Versa-Lam LVL 2.1E 3100 SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 7-3-0	1-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 1-9-0		Top	5 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-10-0		Near Face	20 lb	42 lb	0 lb	0 lb	J2
4	Part. Uniform	1-6-0 to 5-6-0		Near Face	15 PLF	36 PLF	0 PLF	0 PLF	
5	Part. Uniform	3-9-0 to 6-9-1		Top	4 PLF	0 PLF	0 PLF	0 PLF	
6	Point	6-1-10		Near Face	20 lb	41 lb	0 lb	0 lb	J2
	Self Weight				12 PLF				



JULY 19, 2023

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Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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

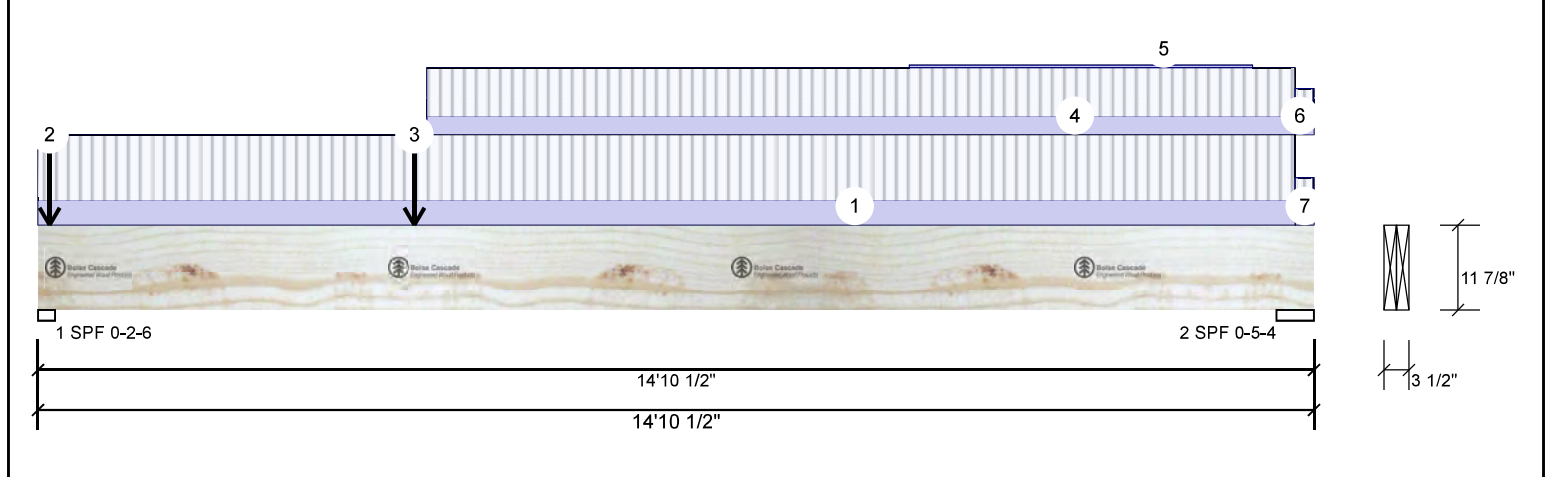
This design is valid until 4/17/2026

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



F14 Versa-Lam LVL 2.1E 3100 SP 1750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



Member Information				Unfactored Reactions UNPATTERNED lb (Uplift)					
Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical	2026	1040	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	712	391	0	0
Deflection LL:	360	Load Sharing:	No	Bearings and Factored Reactions					
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal - II	Vibration:	Not Checked	Bearing	Length	Dir.	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
General Load				1 - SPF	2.375"	Vert	85% 1300 / 3039	4339 L	1.25D+1.5L
Floor Live:	40 PSF			2 - SPF	5.250"	Vert	14% 489 / 1068	1557 L	1.25D+1.5L
Dead:	15 PSF								

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10111 ft-lb	4'4 11/16"	35392 ft-lb	0.286 (29%)	1.25D+1.5L	L
Unbraced	10111 ft-lb	4'4 11/16"	35392 ft-lb	0.286 (29%)	1.25D+1.5L	L
Shear	2463 lb	1'2 1/4"	13217 lb	0.186 (19%)	1.25D+1.5L	L
Perm Defl in.	0.075 (L/2285)	6'10 1/16"	0.479 (L/360)	0.158 (16%)	D	Uniform
LL Defl inch	0.147 (L/1170)	6'9 5/16"	0.479 (L/360)	0.308 (31%)	L	
TL Defl inch	0.223 (L/774)	6'9 9/16"	0.718 (L/240)	0.310 (31%)	D+L	L

Design Notes

1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 2.375.

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 a maximum of 10'5 13/16" o.c.

8 Lateral slenderness ratio based on full section width.

LICENSED PROFESSIONAL ENGINEER
I. MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 19, 2023

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 14-7-14	0-7-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-1-10		Top	435 lb	846 lb	0 lb	0 lb	C3
	Bearing Length	0-3-8							
3	Point	4-4-10		Near Face	600 lb	1314 lb	0 lb	0 lb	F14

Continued on page 2...

Notes

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

Lumber

1. Dry service conditions, unless noted otherwise

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

Handling & Installation

1. LVL beams must not be cut or drilled

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

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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CCMC: 12472

Kott Inc.

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KOTT

CSD | DRAW DESIGN BUILD

This design is valid until 4/17/2026

Version 23.40.650 Powered by iStruct™ Dataset: 23062201.1

CSD | DRAW DESIGN BUILD



CORPORATION OF THE CITY OF OSHAWA

ENG-M0723-119-K F-GREENPARK-ZADORRA ESTATES-VILLA 3-1

Client: GREENPARK

Date: 7/18/2023

Project: Nov 04 2023

Input by: W.C.

Add: Nov 04 2023

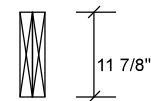
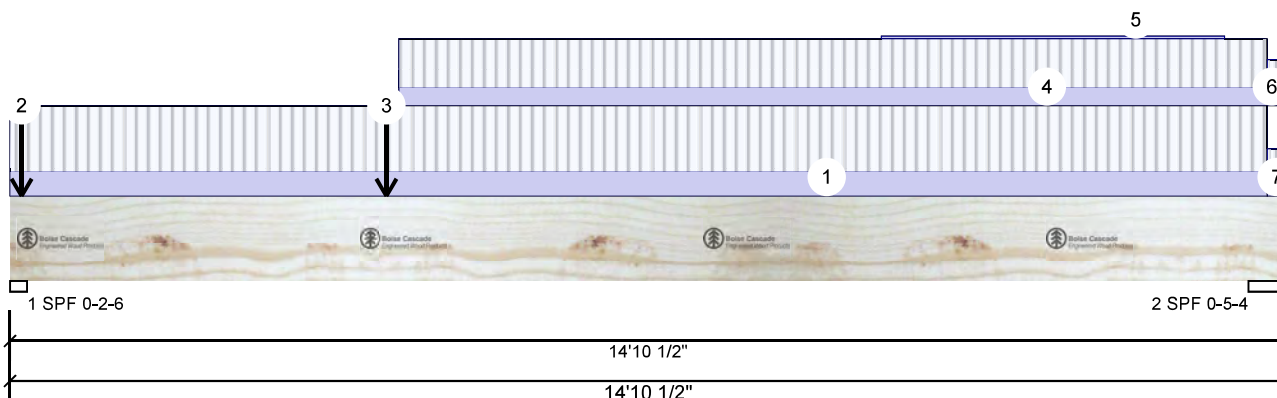
TATES

MHP 23035

Job Name: VILLA 3-1 STD

Project #:

F14 Versa-Lam LVL 2.1E 8100 SP 11.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Tie-In	4-6-6 to 14-7-14	0-5-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Part. Uniform	10-1-14 to 14-1-14		Top	1 PLF	0 PLF	0 PLF	0 PLF	
6	Tie-In	14-7-14 to 14-10-8	0-3-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Tie-In	14-7-14 to 14-10-8	0-4-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				



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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
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CCMC: 12472

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
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Client: GREENPARK

OF PERMIT PLANS

Nov 04 2023

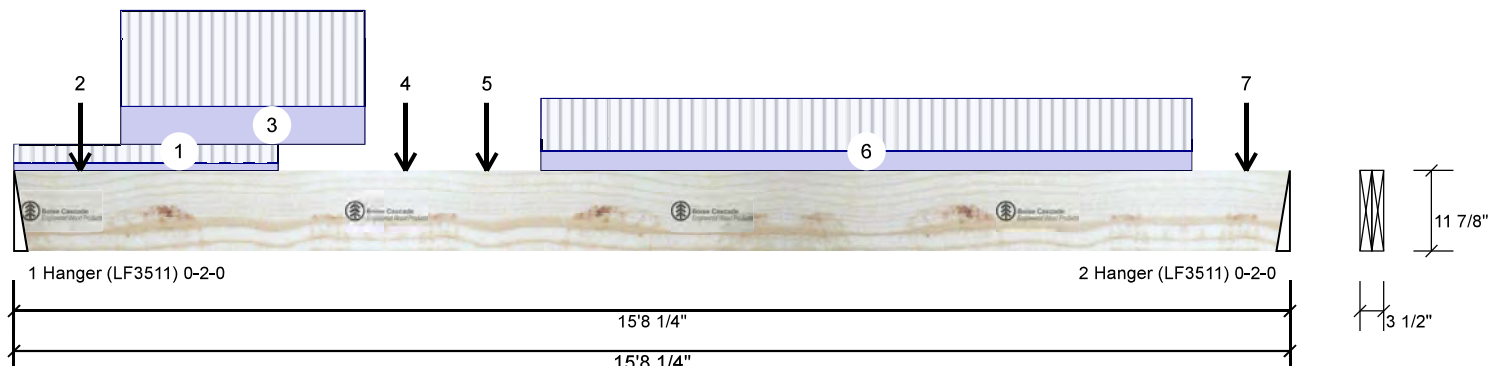
TATES

MHP 23035
Input by: W.C.
Job Name: VILLA 3.1 STD

Project #:

F14-A	Versa-Lam LVL 2.1E	3100 SP	1.750" X 11.875"	2-Ply - PASSED	Level: Ground Floor
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Level: Ground Floor



Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind	
Plies:	2	Design Method:	LSD	1	Vertical	1314	600	0	0	
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	932	444	0	0	
Deflection LL:	360									
Deflection TL:	240	Load Sharing:	No							
Importance:	Normal - II	Deck:	Not Checked							
General Load		Vibration:	Not Checked							
Floor Live:	40 PSF			Bearings and Factored Reactions						
Dead:	15 PSF			Bearing	Length	Dir.	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8377 ft-lb	7' 9/16"	35392 ft-lb	0.237 (24%)	1.25D+1.5L	L
Unbraced	8377 ft-lb	7' 9/16"	35392 ft-lb	0.237 (24%)	1.25D+1.5L	L
Shear	2627 lb	1'1 7/8"	13217 lb	0.199 (20%)	1.25D+1.5L	L
Perm Defl in.	0.080 (L/2309)	7'8 1/8"	0.516 (L/360)	0.156 (16%)	D	Uniform
LL Defl inch	0.172 (L/1079)	7'7 13/16"	0.516 (L/360)	0.334 (33%)	L	L
TL Defl inch	0.253 (L/735)	7'8"	0.774 (L/240)	0.326 (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 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.



JULY 19, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-2-15		Top	15 PLF	40 PLF	0 PLF	0 PLF	
2	Point	0-9-12		Far Face	78 lb	197 lb	0 lb	0 lb	J4
3	Part. Uniform	1-3-12 to 4-3-12		Far Face	79 PLF	201 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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

Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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

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



This design is valid until 4/17/2026



Client: GREENPARK
Project: OF PERMIT PLANS
Add: Nov 04 2023
TATES

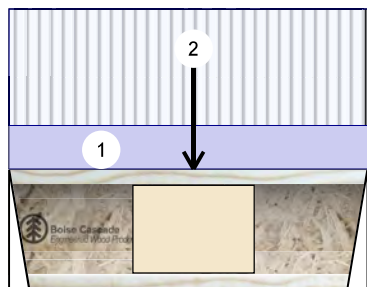
(Signature)

PER: 5" CHIEF BUILDING OFFICIAL

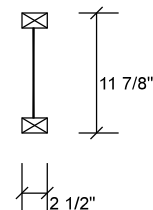
MHP 23035
input by: W.C.
Job Name: VILLA 3.1 STD

F2 AJS 140 11.875

Level: Ground Floor




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



Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind	
Plies:	1	Design Method:	LSD	1	Vertical	245	92	0	0	
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	258	97	0	0	
Deflection LL:	360									
Deflection TL:	240	Load Sharing:	No							
Importance:	Normal - II	Deck:	Not Checked							
General Load		Vibration:	Not Checked							
Floor Live:	40 PSF			Bearings and Factored Reactions						
Dead:	15 PSF			Bearing	Length	Dir.	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.

Bearings and Factored Reactions

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	Hanger
Moment	614 ft-lb	1'6 1/4"	5305 ft-lb	0.116 (12%)	1.25D+1.5L	L	
Unbraced	614 ft-lb	1'6 1/4"	5305 ft-lb	0.116 (12%)	1.25D+1.5L	L	
Shear	501 lb	2'10 1/4"	2350 lb	0.213 (21%)	1.25D+1.5L	L	
Perm Defl in.	0.002 (L/15620)	1'6 5/16"	0.092 (L/360)	0.023 (2%)	D	Uniform	
LL Defl inch	0.006 (L/5840)	1'6 5/16"	0.092 (L/360)	0.062 (6%)	L	L	
TL Defl inch	0.008 (L/4251)	1'6 5/16"	0.137 (L/240)	0.056 (6%)	D+L	L	



JULY 19, 2023

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- 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: SPF, Thickness: 2 1/2"
- 4 Right Header: SPF, Thickness: 2 1/2"
- 5 Girders are designed to be supported on the bottom edge only.
- 6 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 7 If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-11-8	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-6-4		Far Face	154 lb	412 lb	0 lb	0 lb	J5

chemicals

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.

Handling & Installation

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

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


Manufacturer Info

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

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



This design is valid until 4/17/2026

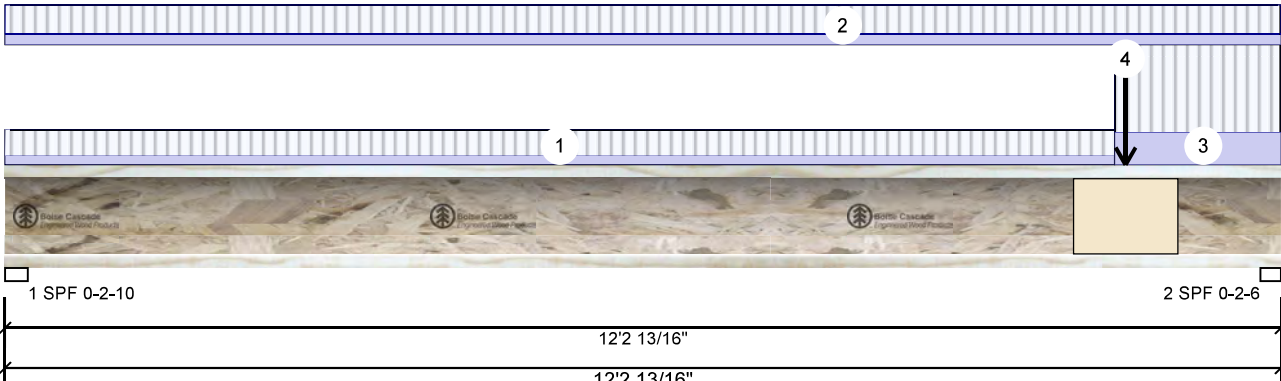


CORPORATION OF THE CITY OF OSHAWA
ENG-M0723-119-K
TRUE COPY OF PERMIT PLANS
Nov 04 2023
PER: [Signature]
GREENPARK
F-GREENPARK-ZADORRA ESTATES-VILLA 3-1

Client: GREENPARK
Project: F-GREENPARK-ZADORRA ESTATES-VILLA 3-1 STD
Add: TATES
Date: 7/18/2023
Input by: W.C.
Job Name: VILLA 3-1 STD
Project #:
MHP 23035

F5 AJS 140 11.875" - PASSED

Level: Ground Floor



Member Information				Unfactored Reactions UNPATTERNED lb (Uplift)					
Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	Vertical	281	105	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	564	211	0	0
Deflection LL:	360	Load Sharing:	No	Bearings and Factored Reactions					
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal - II	Vibration:	Not Checked	Bearing	Length	Dir.	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
General Load				1 - SPF	2.625"	Vert	32% 132 / 422	554 L	1.25D+1.5L
Floor Live:	40 PSF			2 - SPF	2.375"	Vert	66% 264 / 846	1110 L	1.25D+1.5L
Dead:	15 PSF								

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1862 ft-lb	7' 3/8"	5305 ft-lb	0.351 (35%)	1.25D+1.5L	L
Unbraced	1862 ft-lb	7' 3/8"	5305 ft-lb	0.351 (35%)	1.25D+1.5L	L
Shear	1087 lb	12'1 3/16"	2350 lb	0.463 (46%)	1.25D+1.5L	L
Perm Defl in.	0.035 (L/4082)	6'5"	0.398 (L/360)	0.088 (9%)	D	Uniform
LL Defl inch	0.094 (L/1529)	6'5"	0.398 (L/360)	0.235 (24%)	L	
TL Defl inch	0.129 (L/1112)	6'5"	0.597 (L/240)	0.216 (22%)	D+L	L

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

2 Girders are designed to be supported on the bottom edge only.

3 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.

4 Bottom flange must be laterally braced at a maximum of 10'8 15/16" o.c.



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-7-11	0-5-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-2-13	0-6-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	10-7-11 to 12-2-13	1-7-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	10-8-15		Far Face	106 lb	284 lb	0 lb	0 lb	F2

Notes

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Lumber

1. Dry service conditions, unless noted otherwise

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

Handling & Installation

1. Joist flanges must not be cut or drilled

2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details

3. Damaged Joists must not be used

4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

5. Provide lateral support at bearing points to avoid lateral displacement and rotation

6. Web stiffeners for point load as shown Minimum point load bearing length >= 3.5 inches


7. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info


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

Kott Inc.

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



This design is valid until 4/17/2026

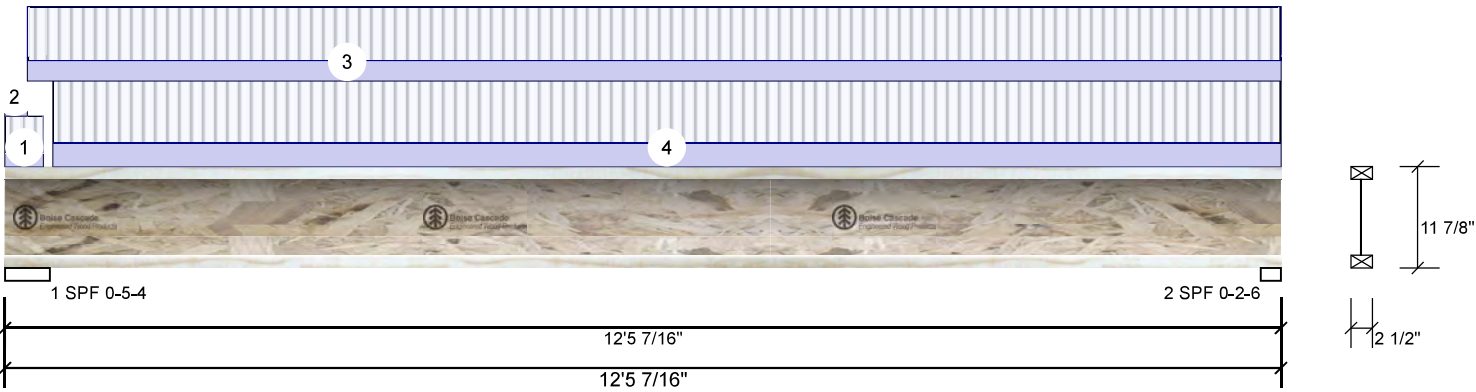


CORPORATION OF THE CITY OF OSHAWA
ENG-M0723-119-K F-GREENPARK-ZADORRA ESTATES-VILLA 3-1
Client: GREENPARK
Project: TRUE COPY OF PERMIT PLANS
Add: Nov 04 2023
PER: CHIEF ENGINEER
TATES
MHP 23035
Date: 7/18/2023
Input by: W.C.
Job Name: VILLA 3-1 STD
Project #:

Page 19 of 48
Page 15 of 36

F5-B AJS 140 11.875" PASSED


Level: Ground Floor



Member Information				Unfactored Reactions UNPATTERNED lb (Uplift)					
Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	Vertical	353	132	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 CBC 2012(2020 Update)	2	Vertical	351	131	0	0
Deflection LL:	360	Load Sharing:	No	Bearings and Factored Reactions					
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal - II	Vibration:	Not Checked						
General Load									
Floor Live:	40 PSF			Bearing	Length	Dir.	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
Dead:	15 PSF			1 - SPF	5.250"	Vert	36% 165 / 530	695 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2015 ft-lb	6'4 3/16"	5305 ft-lb	0.380 (38%)	1.25D+1.5L	L
Unbraced	2015 ft-lb	6'4 3/16"	5305 ft-lb	0.380 (38%)	1.25D+1.5L	L
Shear	675 lb	12'3 13/16"	2350 lb	0.287 (29%)	1.25D+1.5L	L
Perm Defl in.	0.037 (L/3845)	6'4 3/16"	0.398 (L/360)	0.094 (9%)	D	Uniform
LL Defl inch	0.099 (L/1442)	6'4 3/16"	0.398 (L/360)	0.250 (25%)	L	
TL Defl inch	0.137 (L/1049)	6'4 3/16"	0.597 (L/240)	0.229 (23%)	D+L	L



Design Notes

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

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-8	0-5-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-2-10	0-2-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-2-10 to 12-5-7	0-8-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	0-5-10 to 12-5-7	0-9-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

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Lumber

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


Handling & Installation

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


Manufacturer Info

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

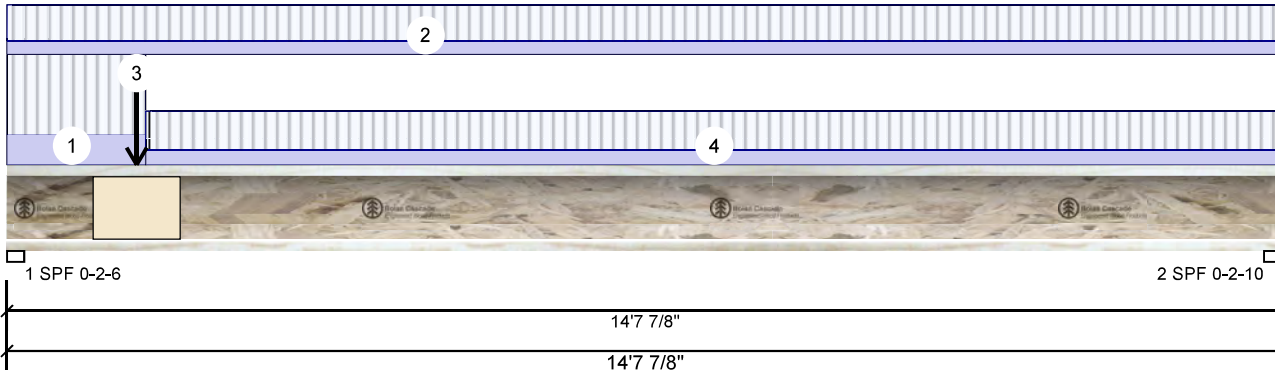
Kott Inc.
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



Version 23.40.650 Powered by iStruct™ Dataset: 23062201.1



Level: Ground Floor



Technical drawing of a vertical rectangular plate. The drawing shows the front and side views. The front view is a rectangle with a height dimension of $11 \frac{7}{8}$ " and a width dimension of $2 \frac{1}{2}$ ". The side view is a rectangle with a height dimension of $11 \frac{7}{8}$ " and a width dimension of $2 \frac{1}{2}$ ".

Unfactored Reactions UNPATTERNED Ib (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	Vertical	716	269	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	461	173	0	0
Deflection LL:	360								
Deflection TL:	240	Load Sharing:	No						
Importance:	Normal - II	Deck:	Not Checked						
General Load		Vibration:	Not Checked						
Floor Live:	40 PSF			Bearings and Factored Reactions					
Dead:	15 PSF			Bearing	Length	Dir.	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF	2.375"	Vert	84% 336 / 1074	1410 L	1.25D+1.5L
				2 - SPF	2.625"	Vert	52% 216 / 691	907 L	1.25D+1.5L

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3394 ft-lb	6'10 3/8"	5305 ft-lb	0.640 (64%)	1.25D+1.5L	L
Unbraced	3394 ft-lb	6'10 3/8"	5305 ft-lb	0.640 (64%)	1.25D+1.5L	L
Shear	1386 lb	1 5/8"	2350 lb	0.590 (59%)	1.25D+1.5L	L
Perm Defl in.	0.088 (L/1960)	7'1 15/16"	0.479 (L/360)	0.184 (18%)	D	Uniform
LL Defl inch	0.234 (L/735)	7'1 15/16"	0.479 (L/360)	0.490 (49%)	L	L
TL Defl inch	0.322 (L/535)	7'1 15/16"	0.718 (L/240)	0.449 (45%)	D+L	L



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

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-7-2	1-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 14-7-14	0-8-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-14		Far Face	97 lb	258 lb	0 lb	0 lb	F2
4	Tie-In	1-7-2 to 14-7-14	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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Handling & Installation

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

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

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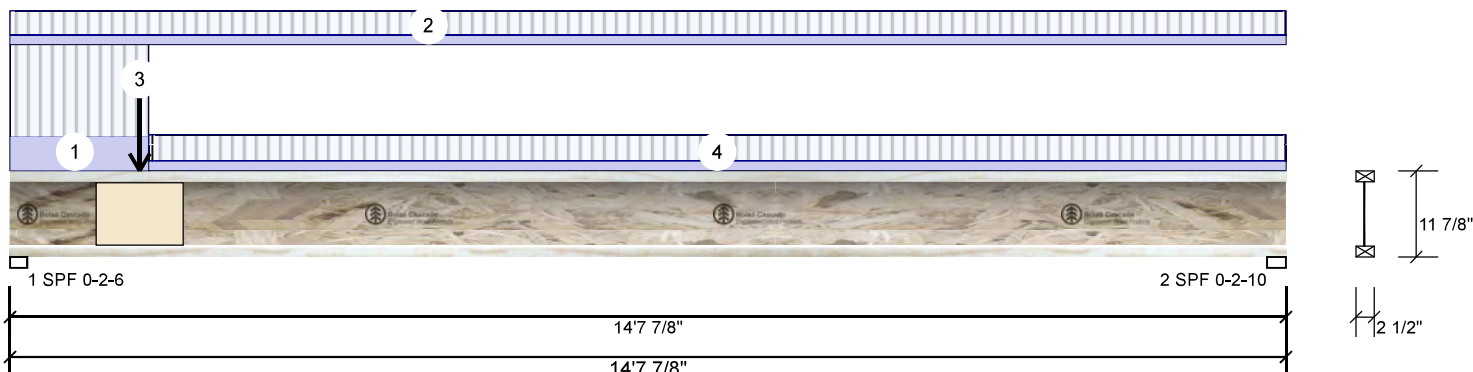


This design is valid until 4/17/2026



MHP Input by: W.C.
Job Name: VILLA 3-1 STD

F6-B	AJS 140	11.875"	PER: [Redacted] CHIEF BUILDING OFFICIAL	Level: Ground Floor
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Unfactored Reactions UNPATTERNED lb (Uplift)

Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind			
Plies:	1	Design Method:	LSD	1	Vertical	633	237	0	0			
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	292	110	0	0			
Deflection LL:	360	Load Sharing:	No	Bearings and Factored Reactions								
Deflection TL:	240	Deck:	Not Checked									
Importance:	Normal - II	Vibration:	Not Checked									
General Load												
Floor Live:	40 PSF				Bearing	Length	Dir.	Cap. React D/L	Ib	Total	Ld. Case	Ld. Comb.
Dead:	15 PSF				1 - SPF	2.375"	Vert	74%	296 / 949	1245	L	1.25D+1.5L
					2 - SPF	2.375"	Vert	88%	187 / 128	575	L	1.25D+1.5L

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2312 ft-lb	6'3 11/16"	5305 ft-lb	0.436 (44%)	1.25D+1.5L	L
Unbraced	2312 ft-lb	6'3 11/16"	5305 ft-lb	0.436 (44%)	1.25D+1.5L	L
Shear	1224 lb	1 5/8"	2350 lb	0.521 (52%)	1.25D+1.5L	L
Perm Defl in.	0.060 (L/2859)	7' 1/8"	0.479 (L/360)	0.126 (13%)	D	Uniform
LL Defl inch	0.161 (L/1071)	7' 1/8"	0.479 (L/360)	0.336 (34%)	L	L
TL Defl inch	0.221 (L/779)	7' 1/8"	0.718 (L/240)	0.308 (31%)	D+L	L



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

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-7-2	1-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 14-7-14	0-5-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-14		Far Face	127 lb	340 lb	0 lb	0 lb	F2
4	Tie-In	1-7-2 to 14-7-14	0-5-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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Handling & Installation

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

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

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This design is valid until 4/17/2026