

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.

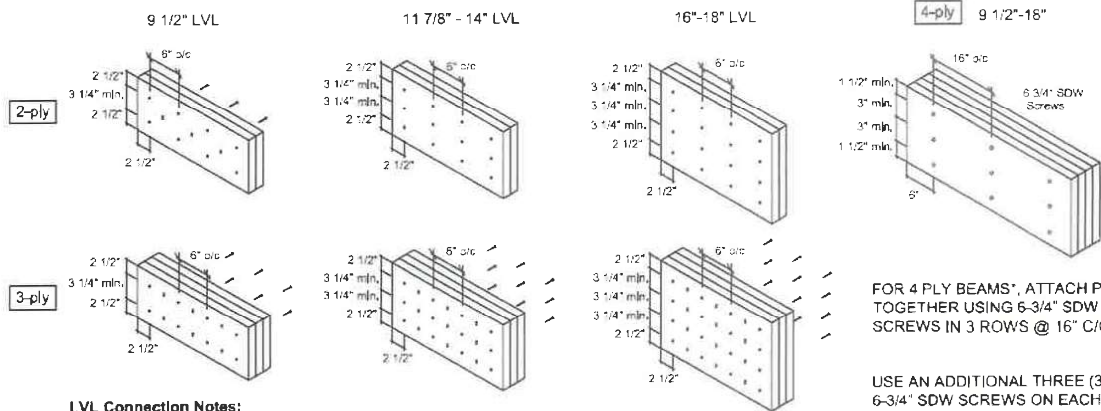
HANDLING AND INSTALLATION

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



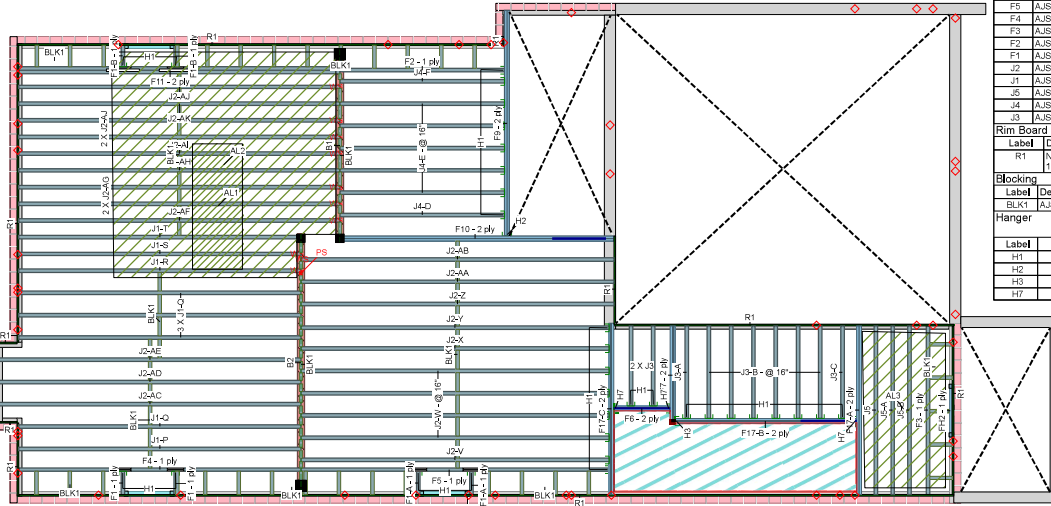
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Last Revised January 13, 2023

ENG-M0723-134-KTZ-GREENPARK-ZADORRA ESTATES-VILLA 5-2

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Ground Floor



Ground Floor LVL/LSL (Flush)							
Label	Description	Width	Depth	Qty	Piles	Pcs	Length
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	18-0
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	14-0
F17	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	3	2	6	12-0
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	6-0
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	4-0
FH2	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875			1	4-0
Joist (Flush)							
Label	Description	Width	Depth	Qty	Piles	Pcs	Length
F11	AJS 140	2.5	11.875	1	2	2	20-0
F5	AJS 140	2.5	11.875			1	20-0
F4	AJS 140	2.5	11.875			1	18-0
F3	AJS 140	2.5	11.875			1	12-0
F2	AJS 140	2.5	11.875			1	10-0
F1	AJS 140	2.5	11.875			6	2-0
J2	AJS 140	2.5	11.875			22	20-0
J1	AJS 140	2.5	11.875			8	18-0
J5	AJS 140	2.5	11.875			3	12-0
J4	AJS 140	2.5	11.875			7	10-0
J3	AJS 140	2.5	11.875			10	8-0
Rim Board							
Label	Description	Width	Depth	Qty	Pcs	Length	
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875		13	12-0	
Blocking							
Label	Description	Width	Depth	Qty	Pcs	Length	
BLK1	AJS 140	2.5	11.875		Varies	92-0	
Hanger							
				Beam/Girder		Supported Member	
Label	Pcs	Description		Fasteners		Fasteners	
H1	32	LF2511		12 10d		1 #8x1 1/4WS	
H2	1	H4US410		30 16d		10 16d	
H3	1	HUC410 (Min)		14 16d		6 10d	
H7	3	LF3511		12 10d		2 #8x1 1/4WS	

JOB INFORMATION	
Builder	GREENPARK
Project	ZADORRA ESTATES OSHAWA, ON
Shipping	
Sales Rep	RALPH MIRIGELLO
Designer	
Plotted	July 19, 2023
Layout Name	VILLA 5-2 STD
Job Path	S:\CUSTOMER\GREENPARK\ZADORRA ESTATES MODELS\BILLA 5-VILLA 5-2F-VILLA 5-2VILLA 5-2 STD.rvt
DESIGN CRITERIA	
Ground Floor	
Design Method	LSD (Canada)
Bulking Code	NBCC 2015 CBC 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. Unbridge Ontario 613-838-2775 / 905-642-4400	
Legend	
WS	Web Stiffener
-WS	In Hanger Label Denotes Web Stiffener
PS	Point Load Support
Q	Load from Above
Wall	Wall
Wall Opening	Wall Opening
Norbord Rimboard Plus 1.125 X 11.875	Norbord Rimboard Plus 1.125 X 11.875
AJS 140 11.875	AJS 140 11.875
Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875	Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875
1.75 X 9.5 (Dropped)	1.75 X 9.5 (Dropped)
5.25 X 8 (Dropped)	5.25 X 8 (Dropped)

Installation Guide



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

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

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

Ground Floor

Installation Guide



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

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

Ground Floor

LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	18-0
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	14-0
F17	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	3	2	6	12-0
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	6-0
F6	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	4-0
FH2	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875			1	4-0

Joist (Flush)

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
F11	AJS 140	2.5	11.875	1	2	2	20-0
F5	AJS 140	2.5	11.875			1	20-0
F4	AJS 140	2.5	11.875			1	18-0
F3	AJS 140	2.5	11.875			1	12-0
F2	AJS 140	2.5	11.875			1	10-0
F1	AJS 140	2.5	11.875			2	2-0
J7	AJS 140	2.5	11.875			22	20-0
J1	AJS 140	2.5	11.875			8	18-0
J5	AJS 140	2.5	11.875			3	12-0
J4	AJS 140	2.5	11.875			7	10-0
J3	AJS 140	2.5	11.875			10	8-0

Rim Board

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

Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	11.875	Varies		94-0

Hanger

Label	Pcs	Description	fasteners	Supported Member
H1	28	LF2511	12 10d x 1 1/2	1 #6 x 1 1/4 WS
H2	1	HHUS410	30 16d	10 16d
H3	1	HUC410 (Min)	14 16d	6 16d
H7	3	LF2511	12 10d	2 #6 x 1 1/4 WS

JOB INFORMATION

Builder	GREENPARK
Project	ZADORRA ESTATES OSHAWA, ON
Shipping	RALPH MIRIGELLO
Sales Rep	
Designer	
Plotted	July 19, 2023
Layout Name	VILLA 5-2 WOC
Job Path	S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES WOOD\BIVILLA 5\VILLA 5-2F-VILLA 5-2WOC\BIVILLA 5-2 WOC.sld

DESIGN CRITERIA

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

CCMC References

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



Legend

WS	Web Stiffener
-WS	In Hanger Label Denotes Web Stiffener
PS	Point Load Support
PS	Load from Above
W	Wall
W	Wall Opening
Norbord Rimboard Plus 1.125 X 11.875	
AJS 140 11.875	
Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875	
1.75 X 9.5 (Dropped)	
5.25 X 8 (Dropped)	

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

Ground Floor

Installation Guide



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

ENG-M072-134-KTP-GREENPARK-ZADORRA ESTATES-VILLA 5-2

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

Ground Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Files	Pcs	Length
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	18'-0"
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	14'-0"
F17	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	3	2	6	12'-0"
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	6'-0"
FH6	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	4'-0"
F6	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	4'-0"
FH2	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875			1	4'-0"

Joist (Flush)

Label	Description	Width	Depth	Qty	Files	Pcs	Length
F11	AJS 140	2.5	11.875	1	2	2	20'-0"
F5	AJS 140	2.5	11.875			1	20'-0"
F4	AJS 140	2.5	11.875			1	18'-0"
F3	AJS 140	2.5	11.875			1	12'-0"
F2	AJS 140	2.5	11.875			1	10'-0"
F1	AJS 140	2.5	11.875			2	2'-0"
J2	AJS 140	2.5	11.875			22	20'-0"
J1	AJS 140	2.5	11.875			8	18'-0"
J5	AJS 140	2.5	11.875			3	12'-0"
J4	AJS 140	2.5	11.875			7	10'-0"
J3	AJS 140	2.5	11.875			10	6'-0"

Rim Board

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

Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	11.875	LnR1	Varies	94'-0"

Hanger

Label	Pcs	Description	fasteners	fasteners
H1	33	LF3511	12 10d	1 #8x1 1/4WS
H2	1	HHUS410	30 16d	10 16d
H3	1	HUC410 (Min)	14 16d	6 10d
H7	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 19, 2023
Layout Name VILLA 5-2 DC
Job Path S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES WOODSIDE VILLA 5 VILLA 5-2F-VILLA 5-2DC\WILLA 5-2 DC.dwg

DESIGN CRITERIA

Ground Floor	LSD (Canada)
Design Method	NBCC 2015
Building Code	IBC 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

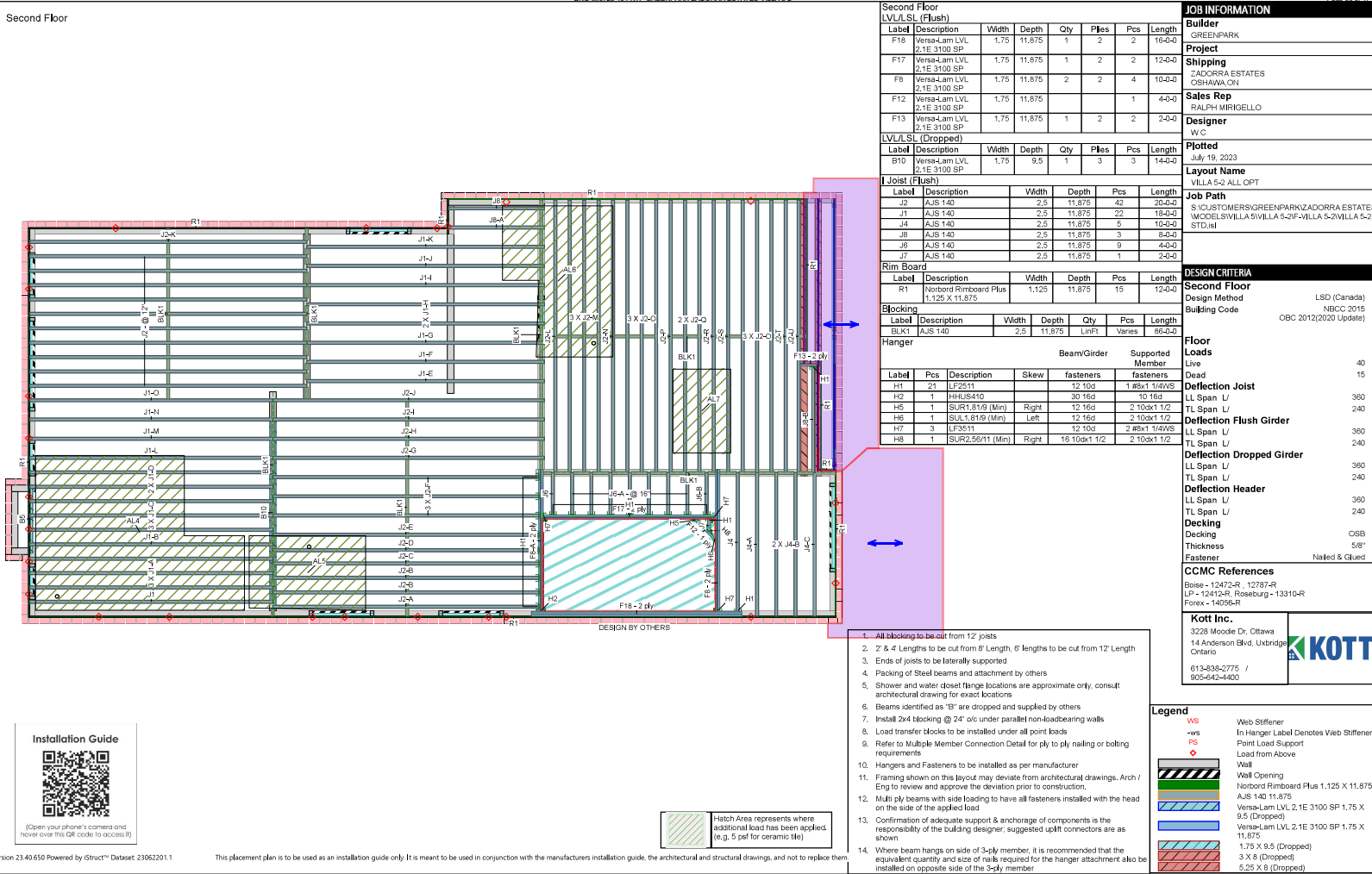
WS	Web Stiffener
-WS	In Hanger Label Denotes Web Stiffener
PS	Point Load Support
○	Load from Above
■	Wall
■	Wall Opening
■	Norbord Rimboard Plus 1.125 X 11.875
■	AJS 140 11.875
■	Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875
■	1.75 X 9.5 (Dropped)
■	5.25 X 8 (Dropped)

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

ENG-M0723-134-KTZ-GREENPARK-ZADORRA ESTATES-VILLA 5-2

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Second Floor

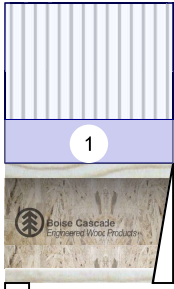




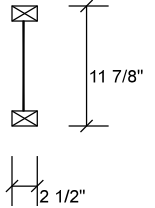
F1 AJS 140

11.875 PASSED

Level: Ground Floor



2 Hanger (LF2511) 0-2-0
1'4 5/8"
1'4 5/8"



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	45	17	0	0
2	Vertical	43	16	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	5%	21 / 67	88	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	5%	20 / 64	84	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	20 ft-lb	8 1/2"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Unbraced	20 ft-lb	8 1/2"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Shear	71 lb	1 5/8"	2350 lb	0.030 (3%)	1.25D+1.5L	L
Perm Defl in. (L/230649)	0.000	8 1/2"	0.038 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/86493)	0.000	8 1/2"	0.038 (L/360)	0.004 (0%)	L	L
TL Defl inch (L/62904)	0.000	8 1/2"	0.057 (L/240)	0.004 (0%)	D+L	L

Design Notes

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



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

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

Notes

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

Lumber

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

chemicals

Handling & Installation

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

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

This design is valid until 4/17/2026

Manufacturer Info

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

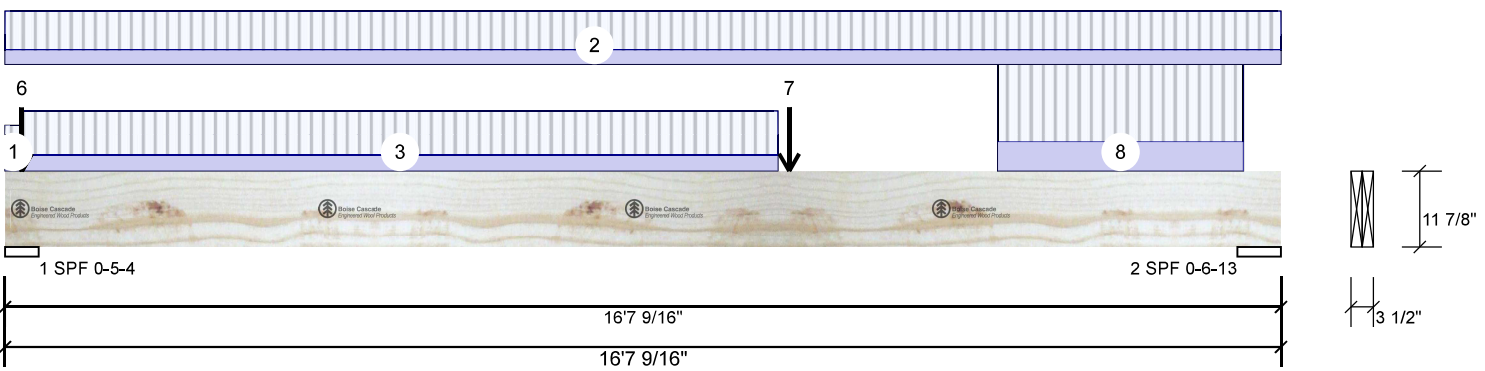
Kott Inc.

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





F10 Versa-Lam LVL 2-1F 3400SP 1.750" 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	1077	758	23	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2	Vertical	1176	867	38	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	23% 948 / 1638	2586 L	1.25D+1.5L +S

Analysis Results						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	14354 ft-lb	10'2 5/8"	35392 ft-lb	0.406 (41%)	1.25D+1.5L +S	L
Unbraced	14354 ft-lb	10'2 5/8"	35392 ft-lb	0.406 (41%)	1.25D+1.5L +S	L
Shear	2694 lb	15' 13/16"	13217 lb	0.204 (20%)	1.25D+1.5L +S	L
Perm Defl in.	0.163 (L/1158)	8'8 1/8"	0.525 (L/360)	0.311 (31%)	D	Uniform
LL Defl inch	0.220 (L/860)	8'7 11/16"	0.525 (L/360)	0.419 (42%)	L+0.5S	L
TL Defl inch	0.383 (L/494)	8'7 7/8"	0.787 (L/240)	0.486 (49%)	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 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 a maximum of 10'2 5/8" o.c.
 - 8 Lateral slenderness ratio based on full section width.



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 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.		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		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	
Lumber 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive chemicals		6. For flat roofs provide proper drainage to prevent ponding		This design is valid until 4/17/2026			



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Client:

Project:

Nov 03 2023

JORRA ESTATES
14VVA, ON

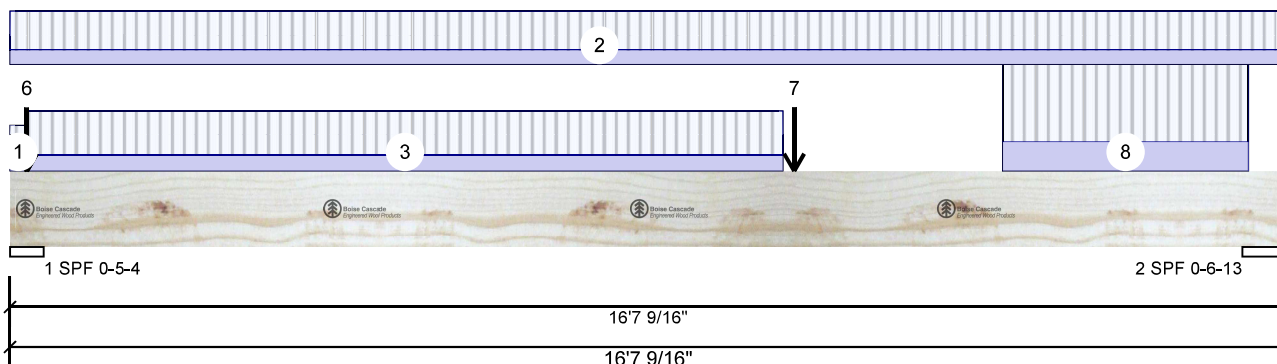
Input by: W C

Job Name: VILLA 5-2 STD

Project #:

Page 3 of 36

F10 Versa-Lam LVL 2-1F 3400 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 0-2-10	0-6-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 16-7-9	0-7-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-2-10 to 10-0-14	0-8-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	0-2-10		Top	54 lb	144 lb	0 lb	0 lb	J2
	Bearing Length	0-5-8							
5	Point	0-2-10		Top	26 lb	69 lb	0 lb	0 lb	J1
	Bearing Length	0-5-8							
6	Point	0-2-10		Top	61 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
7	Point	10-2-10		Far Face	964 lb	1179 lb	61 lb	0 lb	F9
8	Part. Uniform	12-11-3 to 16-1-11		Top	19 PLF	50 PLF	0 PLF	0 PLF	
	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

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
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GREENPARK

JORRA ESTATES

1A/V/A, ON

MHP 23036

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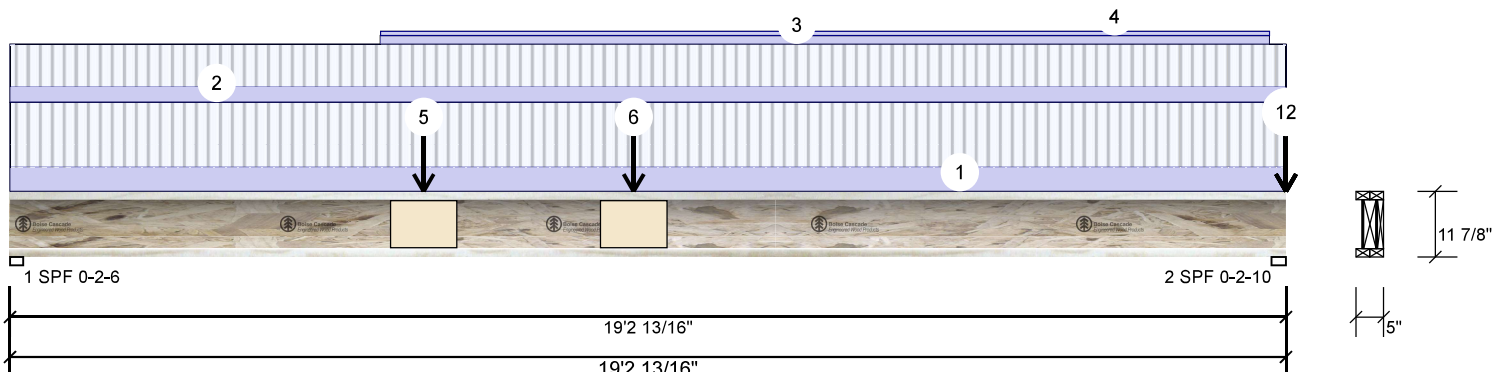
Job Name: VILLA 5-2 STD

Project #:

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F11 AJS 140 11.875 2-Ply - PASSED

Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	535	235	0	0
2	Vertical	1232	608	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	33%	294 / 802	1096	L	1.25D+1.5L
2 - SPF	2.625"	Vert	75%	760 / 1848	2608	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5423 ft-lb	9'4 13/16"	10610 ft-lb	0.511 (51%)	1.25D+1.5L	L
Unbraced	5423 ft-lb	9'4 13/16"	10610 ft-lb	0.511 (51%)	1.25D+1.5L	L
Shear	1083 lb	1 5/8"	4700 lb	0.230 (23%)	1.25D+1.5L	L
Perm Defl in.	0.135 (L/1688)	9'6 15/16"	0.631 (L/360)	0.213 (21%)	D	Uniform
LL Defl inch	0.284 (L/801)	9'6 5/16"	0.631 (L/360)	0.449 (45%)	L	
TL Defl inch	0.418 (L/543)	9'6 1/2"	0.947 (L/240)	0.442 (44%)	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 Top loads must be supported equally by all plies.
- 4 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 5 Bottom flange must be laterally braced at a maximum of 9'10" 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 19-2-13	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 19-2-13	0-6-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	5-6-15 to 18-11-13		Top	4 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	5-7-0 to 18-11-13		Top	2 PLF	0 PLF	0 PLF	0 PLF	
5	Point	6-2-13		Far Face	20 lb	40 lb	0 lb	0 lb	F1
6	Point	9-4-13		Far Face	20 lb	40 lb	0 lb	0 lb	F1

Continued on page 2...

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.

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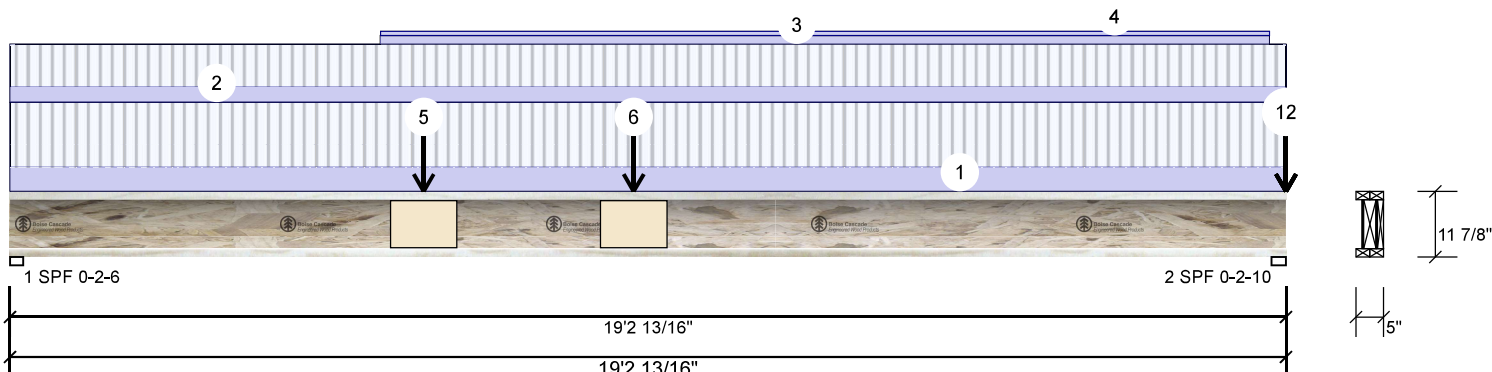
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Input by: W C
Job Name: VILLA 5-2 STD
Project #:

Page 5 of 36

F11 AJS 140 11.875 2-Ply - PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	19-2-13		Top	110 lb	293 lb	0 lb	0 lb	J2
	Bearing Length	0-1-8							
8	Point	19-2-13		Top	94 lb	250 lb	0 lb	0 lb	J1
	Bearing Length	0-1-8							
9	Point	19-2-13		Top	61 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							
10	Point	19-2-13		Top	45 lb	120 lb	0 lb	0 lb	J2
	Bearing Length	0-1-8							
11	Point	19-2-13		Top	18 lb	48 lb	0 lb	0 lb	J1
	Bearing Length	0-1-8							
12	Point	19-2-13		Top	29 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							



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Lumber

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

chemicals

Handling & Installation

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

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

This design is valid until 4/17/2026

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Client: G
Project: Nov 03 2023

Project

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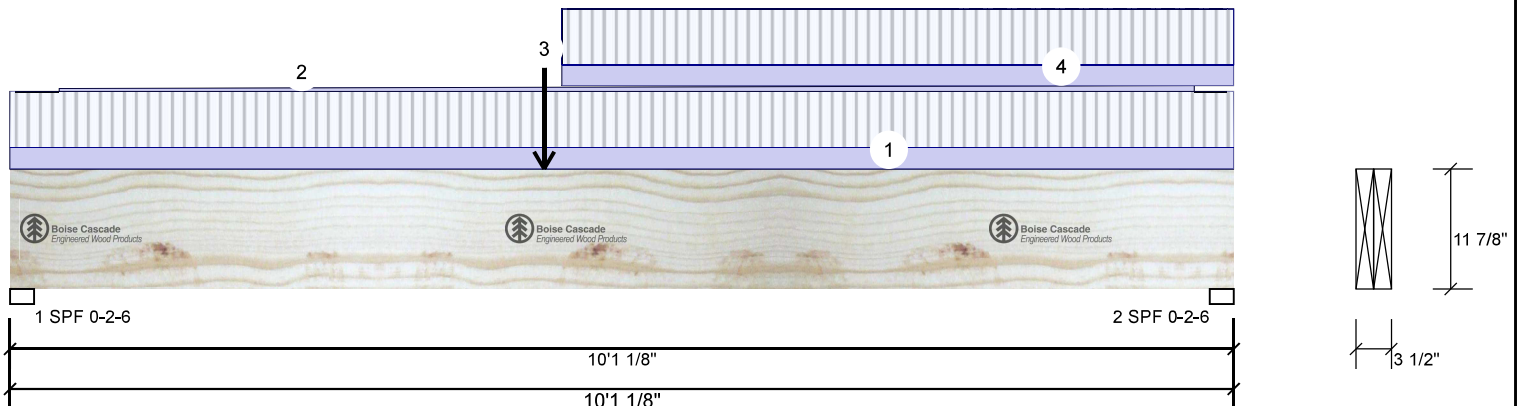
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Job Name: VILLA 5-2 STD

Project #:

F17-A	Versa-Lam LVL	2.1E 3100 SP	1.750" X 11.875"	2-Ply - PASSED	Level: Ground Floor
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Member Information

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

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	510	293	0	0
2	Vertical	474	273	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	22%	366 / 766	1132	L	1.25D+1.5L
2 - SPF	2.375"	Vert	21%	341 / 711	1052	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4294 ft-lb	4'4 7/8"	35392 ft-lb	0.121 (12%)	1.25D+1.5L	L
Unbraced	4294 ft-lb	4'4 7/8"	35392 ft-lb	0.121 (12%)	1.25D+1.5L	L
Shear	1081 lb	1'2 1/4"	13217 lb	0.082 (8%)	1.25D+1.5L	L
Perm Defl in.	0.016 (L/7539)	4'10 15/16"	0.327 (L/360)	0.048 (5%)	D	Uniform
LL Defl inch	0.029 (L/4101)	4'10 3/4"	0.327 (L/360)	0.088 (9%)	L	L
TL Defl inch	0.044 (L/2656)	4'10 3/4"	0.491 (L/240)	0.090 (9%)	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 5'8 1/4" o.c.
- 7 Lateral slenderness ratio based on full section width.

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-1-2	0-6-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tapered Start	0-4-14		Top	1 PLF	0 PLF	0 PLF	0 PLF	
	End	9-9-3			2 PLF	0 PLF	0 PLF	0 PLF	
3	Point	4-4-14		Far Face	315 lb	671 lb	0 lb	0 lb	F17
4	Tie-In	4-6-10 to 10-1-2	0-5-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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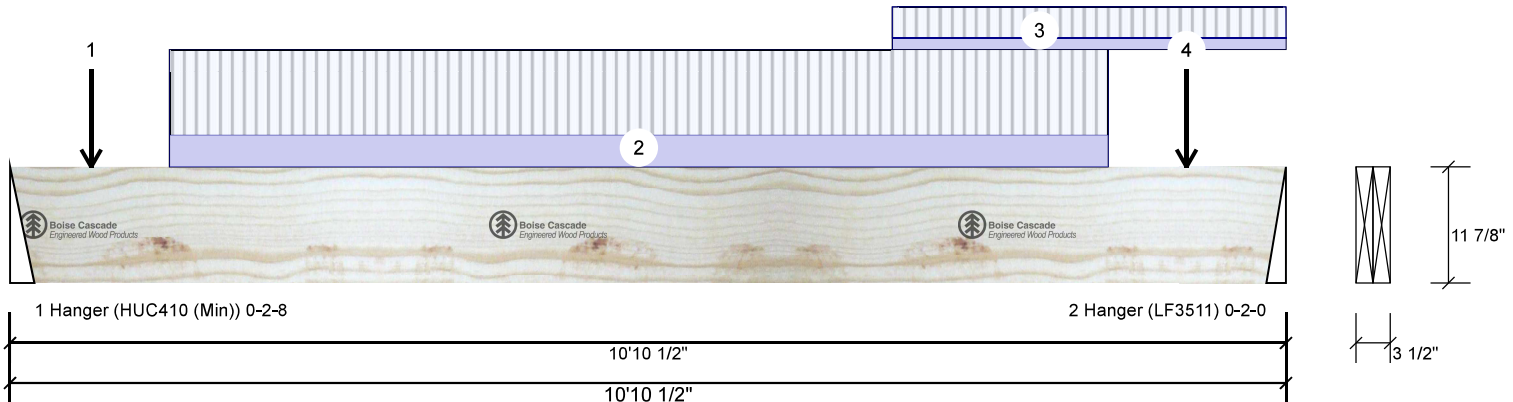


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Input by: W C
Job Name: VILLA 5-2 STD
Project #:

F17-B Versa-Lam LVL 2.1E-3100-SP 1.750" X 11.875" 2-Ply - PASSED Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	591	285	0	0
2	Vertical	671	315	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.500"	Vert	13%	356 / 886	1243	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	18%	394 / 1007	1401	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3441 ft-lb	5'7 1/2"	35392 ft-lb	0.097 (10%)	1.25D+1.5L	L
Unbraced	3441 ft-lb	5'7 1/2"	35392 ft-lb	0.097 (10%)	1.25D+1.5L	L
Shear	1307 lb	9'8 5/8"	13217 lb	0.099 (10%)	1.25D+1.5L	L
Perm Defl in.	0.016 (L/8106)	5'5 15/16"	0.354 (L/360)	0.044 (4%)	D	Uniform
LL Defl inch	0.033 (L/3842)	5'6 1/16"	0.354 (L/360)	0.094 (9%)	L	
TL Defl inch	0.049 (L/2606)	5'6 1/16"	0.531 (L/240)	0.092 (9%)	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.



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-8-5		Far Face	45 lb	120 lb	0 lb	0 lb	J3
2	Part. Uniform	1-4-5 to 9-4-5		Far Face	41 PLF	110 PLF	0 PLF	0 PLF	
3	Part. Uniform	7-6-4 to 10-10-8		Top	15 PLF	40 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

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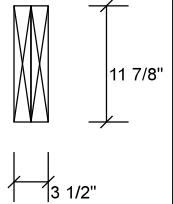
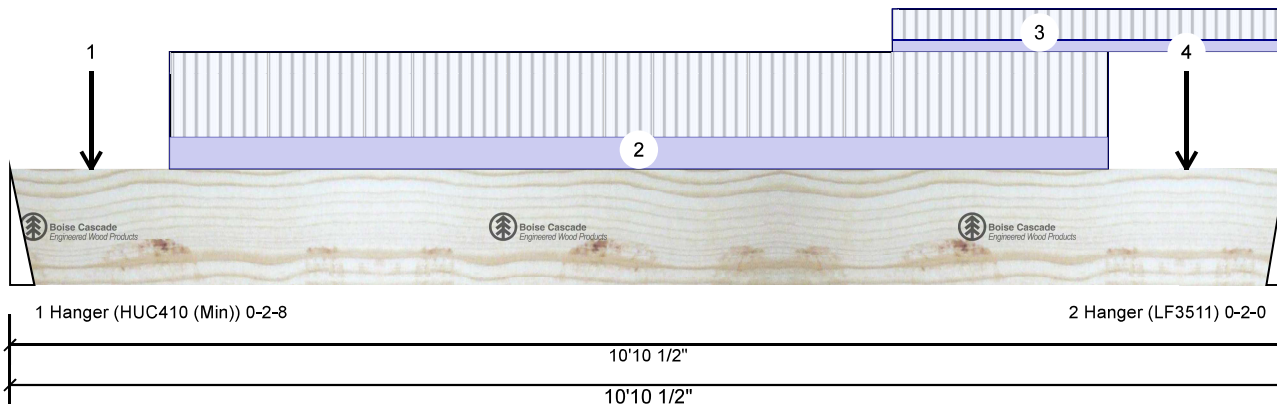
Job Name: VILLA 5-2 STD

Project #:

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F17-B Versa-Lam LVL 2.1E-3100-SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Point	10-0-5		Far Face	48 lb	128 lb	0 lb	0 lb	J3
	Self Weight				12 PLF				



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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

Manufacturer Info

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

Kott Inc.

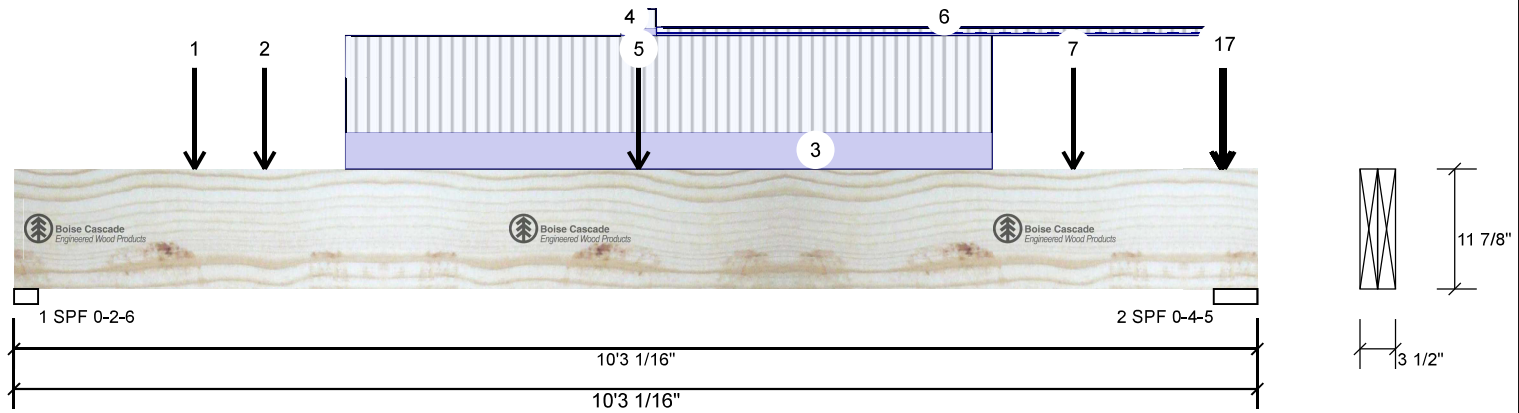
3228 Moodie Dr, Ottawa, Ontario
613-838-2775 / 905-642-4400



CSD | DRAW
DESIGN
BUILD



F17-C Versa-Lam LVL 2.1F-3100-SP	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	1749	725	0	0		
Moisture Condition: Dry	Building Code: NBCC 2015	2	Vertical	4159	1791	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									
Dead: 15 PSF									
				Bearings and Factored Reactions					
		Bearing	Length	Dir.	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
		1 - SPF	2.375"	Vert	69%	907 / 2623	3529	L	1.25D+1.5L
		2 - SPF	4.326"	Vert	91%	2239 / 6239	8478	L	1.25D+1.5L

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10162 ft-lb	5'1 13/16"	35392 ft-lb	0.287 (29%)	1.25D+1.5L	L
Unbraced	10162 ft-lb	5'1 13/16"	35392 ft-lb	0.287 (29%)	1.25D+1.5L	L
Shear	3550 lb	8'10 7/8"	13217 lb	0.269 (27%)	1.25D+1.5L	L
Perm Defl in.	0.035 (L/3368)	5' 11/16"	0.327 (L/360)	0.107 (11%)	D	Uniform
LL Defl inch	0.085 (L/1386)	5' 11/16"	0.327 (L/360)	0.260 (26%)	L	
TL Defl inch	0.120 (L/982)	5' 11/16"	0.491 (L/240)	0.244 (24%)	D+L	L

Design Notes	
1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.325909817651.	
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.	



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	Point	1-5-14		Far Face	161 lb	429 lb	0 lb	0 lb	F5
2	Point	2-0-13		Far Face	132 lb	351 lb	0 lb	0 lb	J2
3	Part. Uniform	2-8-13 to 8-0-13		Far Face	138 PLF	368 PLF	0 PLF	0 PLF	
4	Tie-In	5-0-1 to 5-3-9	1-10-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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

This design is valid until 4/17/2026

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OF PERMIT PLANS

Nov 09 2023

Client: GREENPARK
Project: VORRA ESTATES
14VVA,ON

MHP 23036

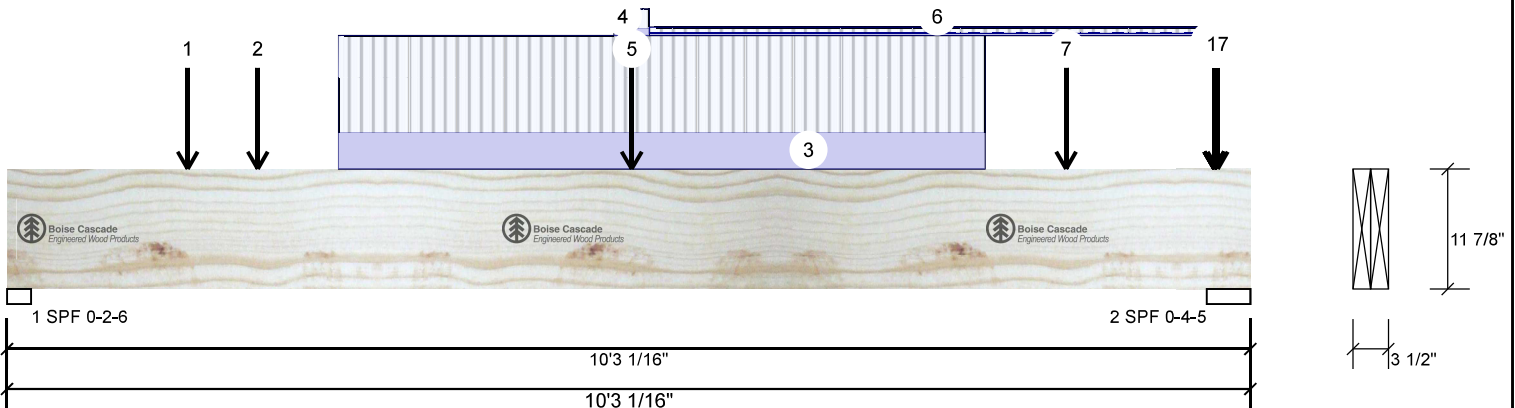
Input by: W C
Job Name: VILLA 5-2 STD
Project #:

Page 10 of 36



F17-C Versa-Lam LVL 2.1E-3100-SP 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Point	5-1-13		Near Face	89 lb	186 lb	0 lb	0 lb	F6
6	Tie-In	5-3-9 to 10-1-2	0-7-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Point	8-8-13		Far Face	178 lb	475 lb	0 lb	0 lb	J2
8	Point	9-11-8		Top	4 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
9	Point	9-11-8		Top	927 lb	2166 lb	0 lb	0 lb	F8
	Bearing Length	0-5-8							
11	Point	9-11-8		Top	0 lb	1 lb	0 lb	0 lb	
	Bearing Length	0-5-8							
12	Point	9-11-8		Top	18 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
14	Point	9-11-8		Top	5 lb	13 lb	0 lb	0 lb	
	Bearing Length	0-5-8							
15	Point	9-11-8		Top	2 lb	5 lb	0 lb	0 lb	J6
	Bearing Length	0-5-8							
16	Point	9-11-8		Top	17 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
17	Point	9-11-13		Far Face	76 lb	186 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

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





TRUE COPY
Client: GREENPARK
Project: Nov 03 2023

PER: *C. M...*
OFFICIAL OFFICE

JORRA ESTATES
14VVA, ON

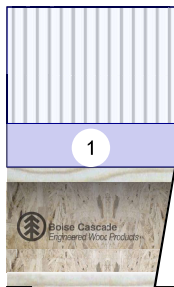
MHP 23036

Input by: W C
Job Name: VILLA 5-2 STD
Project #:

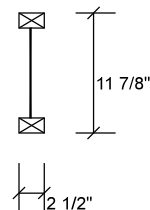
F1-A AJ5 140

11.875 PASSED

Level: Ground Floor



2 Hanger (LF2511) 0-2-0
1'4 5/8"
1'4 5/8"



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	45	17	0	0
2	Vertical	43	16	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	5%	21 / 68	89	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	5%	20 / 65	85	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	21 ft-lb	8 1/2"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Unbraced	21 ft-lb	8 1/2"	5305 ft-lb	0.004 (0%)	1.25D+1.5L	L
Shear	72 lb	1 5/8"	2350 lb	0.031 (3%)	1.25D+1.5L	L
Perm Defl in. (L/229648)	0.000	8 1/2"	0.038 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/86118)	0.000	8 1/2"	0.038 (L/360)	0.004 (0%)	L	L
TL Defl inch (L/62631)	0.000	8 1/2"	0.057 (L/240)	0.004 (0%)	D+L	L



JULY 19, 2023

Design Notes

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

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

Notes

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

Lumber

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

chemicals

Handling & Installation

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

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

This design is valid until 4/17/2026

Manufacturer Info

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

Kott Inc.

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

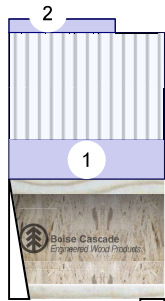




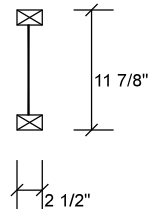
F1-B AJS 140

11.875 PASSED

Level: Ground Floor



1 Hanger (LF2511) 0-2-0
2 SPF 0-2-6
1'3 3/8"
1'3 3/8"



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	40	20	0	0
2	Vertical	42	18	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	Vert	5%	24 / 60	84	L	1.25D+1.5L
2 - SPF	2.375"	Vert	5%	22 / 63	85	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	18 ft-lb	7 7/16"	5305 ft-lb	0.003 (0%)	1.25D+1.5L	L
Unbraced	18 ft-lb	7 7/16"	5305 ft-lb	0.003 (0%)	1.25D+1.5L	L
Shear	70 lb	1 1/4"	2350 lb	0.030 (3%)	1.25D+1.5L	L
Perm Defl in. (L/198085)	0.000	7 3/8"	0.035 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch (L/95973)	0.000	7 9/16"	0.035 (L/360)	0.004 (0%)	L	L
TL Defl inch (L/64652)	0.000	7 7/16"	0.052 (L/240)	0.004 (0%)	D+L	L



JULY 19, 2023

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Left Header: SPF, Thickness: 5"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 6 If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

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

Notes

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

Lumber

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

chemicals

Handling & Installation

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

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

This design is valid until 4/17/2026

Manufacturer Info

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

Kott Inc.

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



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Nov 03 2023

Client: GREENPARK

Project:

JORRA ESTATES
14V/A, ON

Input by: W C

Job Name: VILLA 5-2 STD

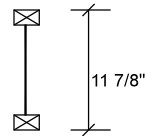
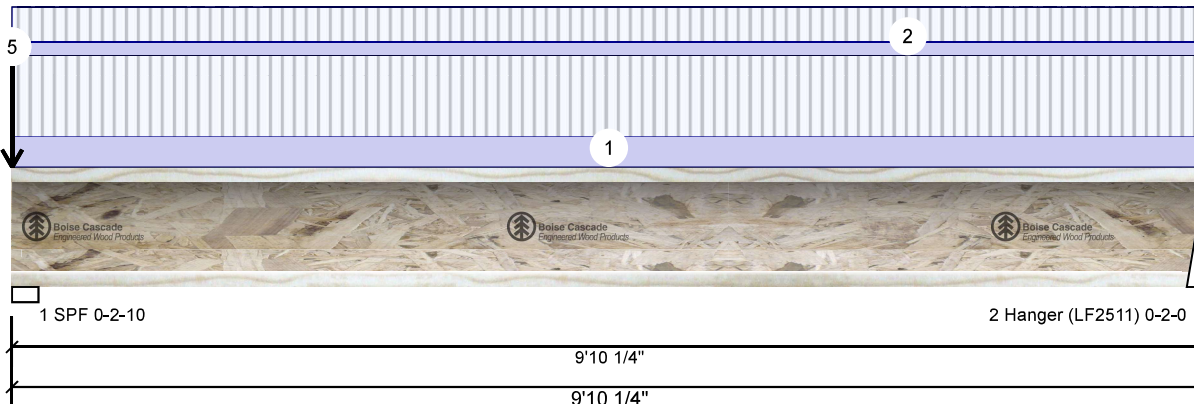
Project #:

Page 13 of 36

F2 AJS 140

11.875 PASSED

Level: Ground Floor



Member Information

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

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	453	198	0	0
2	Vertical	216	81	0	0

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.625"	Vert	53%	247 / 680	927	L	1.25D+1.5L
2 - Hanger	2.000"	Vert	26%	101 / 324	425	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	998 ft-lb	4'11 7/16"	5305 ft-lb	0.188 (19%)	1.25D+1.5L	L
Unbraced	998 ft-lb	4'11 7/16"	5305 ft-lb	0.188 (19%)	1.25D+1.5L	L
Shear	416 lb	1 7/8"	2350 lb	0.177 (18%)	1.25D+1.5L	L
Perm Defl in.	0.013 (L/8930)	4'11 7/16"	0.320 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.034 (L/3349)	4'11 7/16"	0.320 (L/360)	0.108 (11%)	L	
TL Defl inch	0.047 (L/2435)	4'11 7/16"	0.480 (L/240)	0.099 (10%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Right Header: DF, Thickness: 3 1/2"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 If sheathing is not attached to the top flange, top flange must be laterally braced at maximum 2' o.c.
- 6 Bottom flange must be laterally braced at bearings.



JULY 19, 2023

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 9-10-2	0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 9-10-4	0-4-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-0-0		Top	48 lb	127 lb	0 lb	0 lb	J2
	Bearing Length	0-1-8							
4	Point	0-0-0		Top	41 lb	108 lb	0 lb	0 lb	J1

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

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

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

This design is valid until 4/17/2026

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Project:

GREENPARK
JORRA ESTATES
14VA/ON

MHP 23036

Input by: W C

Job Name: VILLA 5-2 STD

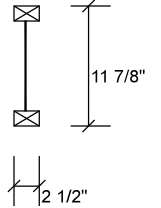
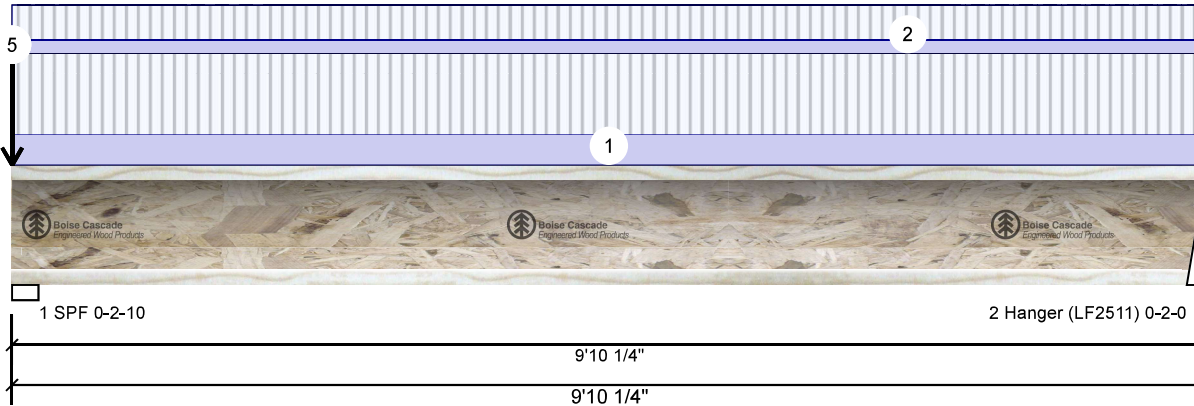
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F2 AJS 140

11.875 PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	Bearing Length	0-1-8							
5	Point	0-0-0		Top	27 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							



JULY 19, 2023

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Notes

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