

PLEASE READ ALL NOTES PRIOR TO INSTALLATION OF THE COMPONENT

RESPONSIBILTIES

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.



MHP 23036

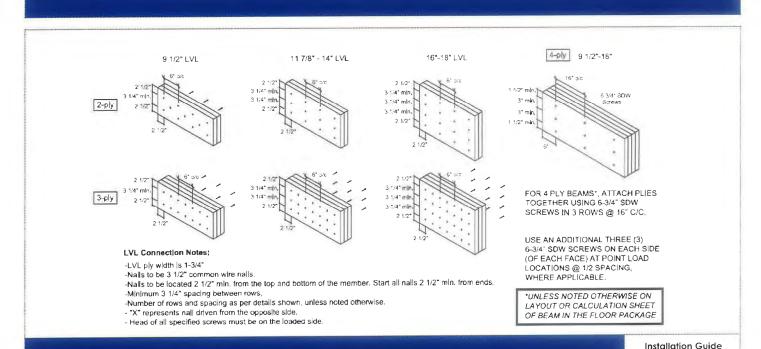
ENG-IM0723-135-KTF-GREENPARK-ZADORRA ESTATES-VILLA 5-3

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

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KOTT

MULTIPLE MEMBER CONNECTIONS FOR BEAMS SHOWN ON KOTT LAYOUTS

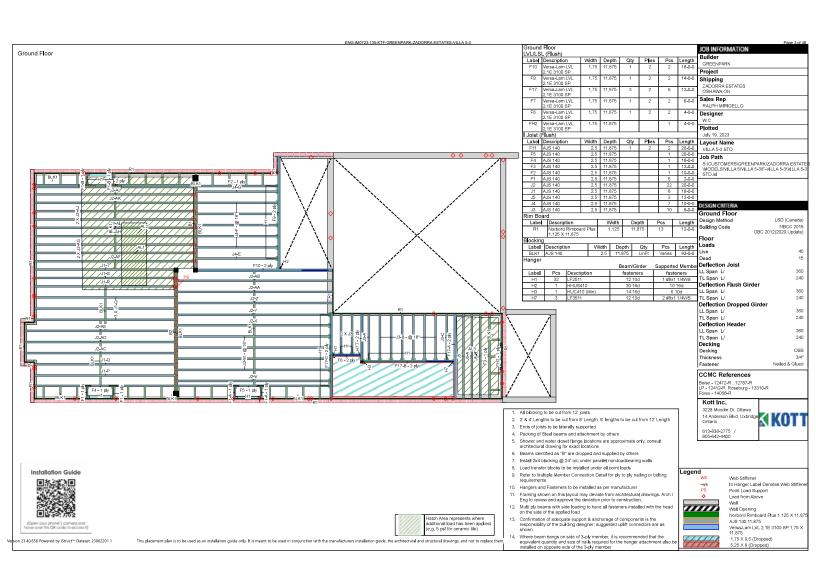


FOR MULTIPLE MEMBER CONNECTION OF BOISE ALLJOISTS REFER TO THE BOISE CASCADE INSTALLATION GUIDE

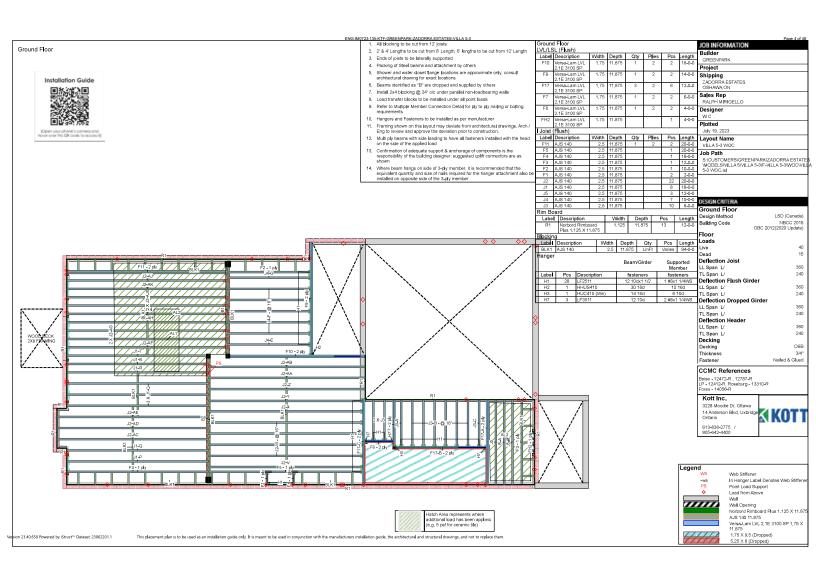


Last Revised January 13, 2023

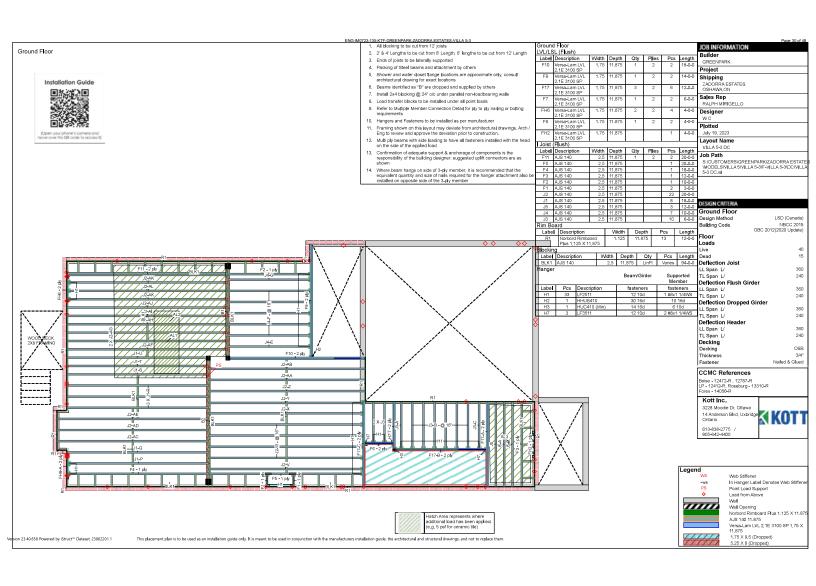




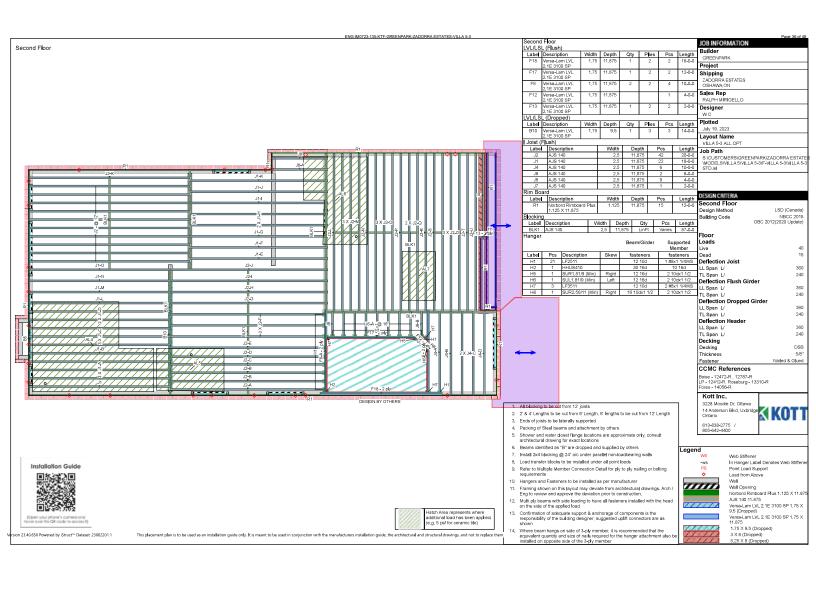












isDesign

Nov 03 e 2023 OR RA ESTATES HAV<mark>VA,ON</mark>

WC Input by:

Job Name: VILLA 5-3 STD

Project #

AJS 140 F1

Level: Ground Floor



11 7/8"

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

|--|

1'4 5/8'

Туре:		Girder
Plies:		1
Moisture Co	ondition:	Dry
Deflection I	LL:	360
Deflection ⁻	ΓL:	240
Importance	:	Normal - II
General Lo	ad	

Floor Live: 40 PSF 15 PSF Dead:

Application: Floor (Residential) Design Method: LSD

Building Code: **NBCC 2015** OBC 2012(2020 Update)

Load Sharing: Not Checked Deck:

Vibration: Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Bearings and Factored Reactions

Dir.

Vert

Vert

Bearing Length

2.000"

1 - SPF 2.375"

2 -

Hanger

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

Cap. React D/L lb

21 / 67

20 / 64

5%

5%

Total Ld. Case

88 L

84 L

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 l b	1 5/8"	2350 lb	0.030 (3%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/230649)	8 1/2"	0.038 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/86493)	8 1/2"	0.038 (L/360)	0.004 (0%)	L	L
TL Defl inch	0.000 (L/62904)	8 1/2"	0.057 (L/240)	0.004 (0%)	D+L	L

I.MATIJEVIC 100528832 NCE OF OF JULY 19, 2023

READ ALL NOTES ON THIS PAGE AND ON THE

USED IN THE DESIGN OF THIS COMPONENT.

ENGINEERING NOTES: EWP-FLOORS. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING

AS IT CONTAINS SPECIFICATIONS AND CRITERIA

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.

Design Notes

- 3 Right Header: SPF, Thickness: 2 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 If sheathing is not attached to the bottom flange, bottom flange must be laterally braced at maximum 2' o.c.

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

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.

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

- Handling & Installation

 1. Loist flanges must not be cut or drilled

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

 3. Damaged bloists must not be used

 4. 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





OF RA ESTATES NO,AVVAF

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Wind

Ld. Comb.

1.25D+1.5L +S

1 25D+1 5L

+S

0

0

23

38

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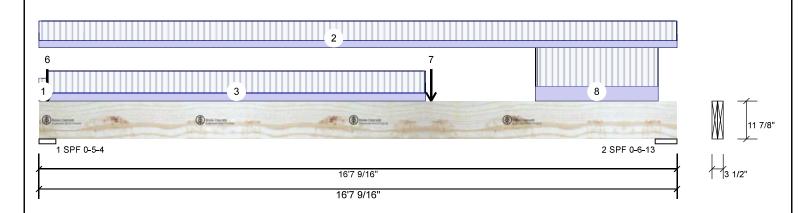
Input by: Job Name: VILLA 5-3 STD

Project #

isDesign

2-Ply - PASSED

Level: Ground Floor



Member Information Unfactored Reactions UNPATTERNED Ib (Uplift) Application: Floor (Residential) Type: Brg Direction Live Dead Snow Plies: 2 Design Method: LSD Vertical 1077 758 1 Moisture Condition: Dry Building Code: **NBCC 2015** 2 Vertica 1176 867 OBC 2012(2020 Update) Deflection LL: 360 Load Sharing: Deflection TL: 240 Not Checked Deck: Importance: Normal - II Vibration: Not Checked General Load Bearings and Factored Reactions Floor Live: 40 PSF 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case 1 - SPF 5.250" Vert 23% 948 / 1638 2586 L 2 - SPF 6.827" Vert 20% 1084 / 1802 2885 L Analysis Results

Ana l ysis	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.



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.

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

Handling & Installation

LVL beams must not be cut or drilled
Refer to manufacturer's product information
regarding installation requirements, multi-ply
fastening details, beam strength values, and code
approvals

Damaged Beams must not be used

Dariga Beams must not be used
Design assumes top edge is laterally restrained
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

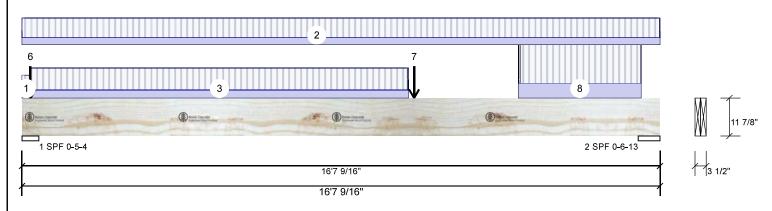
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D Load T	rpe Location	n Trib Width	Side	Dead	Live	Snow	Wind	Comments
Tie-In	0-0-0 to 0-2-1	0-6-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Tie-In	0-0-0 to 16-7-	9 0-7-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Tie-In	0-2-10 to 10-0-1	4 0-8-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Point	0-2-1)	Тор	54 lb	144 l b	0 lb	0 l b	J2
Bearing	Length 0-5-	3						
5 Point	0-2-1)	Тор	26 lb	69 l b	0 lb	0 l b	J1
Bearing	Length 0-5-	3						
S Point	0-2-1)	Тор	61 l b	0 b	0 l b	0 l b	Wall Self Weight
Bearing	Length 0-5-	3						
7 Point	10-2-1)	Far Face	964 l b	1179 l b	61 l b	0 lb	F9
Part. Ui	iform 12-11-3 to 16-1-1	1	Тор	19 PLF	50 PLF	0 PLF	0 PLF	
Self We	ght			12 PLF				



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

Handling & Installation

Handling & Installation

1. IVI 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

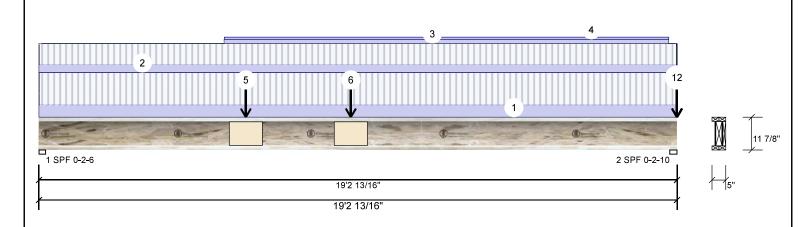
(800) 232-0788 www.bc.com CCMC: 12472

Kott Inc.

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







Member Inforn	nation	Unfactored Reactions UNPATTERNED lb (Uplift)									
Туре:	Girder	Application:	Floor (Residential)	Brg	Direction	Li	ve	Dead		Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical	5	35	235		0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015	2	Vertical	12	32	608		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			Bea	rings and Fa	actored	Read	ctions			
Dead:	15 PSF			Be	aring Length	Dir.	Cap.	React D/L Ib	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 l b	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	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
- 5 Bottom flange must be laterally braced at a maximum of 9'10" o.c



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5 Dolloin Hange	must be laterally b	raced at a maximum	01 3 10 0.0.						
I D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 19-2-13	0-9-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 19-2-13	0-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	5-6-15 to 18-11-13		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	5-7-0 to 18-11-13		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
5	Point	6-2-13		Far Face	20 lb	40 l b	0 lb	0 lb	F1
6	Point	9-4-13		Far Face	20 lb	40 lb	0 l b	0 l b	F1

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.

- Dry service conditions, unless noted otherwise
 IJoist not to be treated with fire retardant or corrosive
- Handling & Installation
- Handling & Installation

 1. Julist flanges must not be out or drilled

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

 3. Damaged Juoists must not be used

 4. 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

1111 W. Jefferson St. Boise, ID 83702

(800) 232-0788 www.bc.com CCMC: 12787

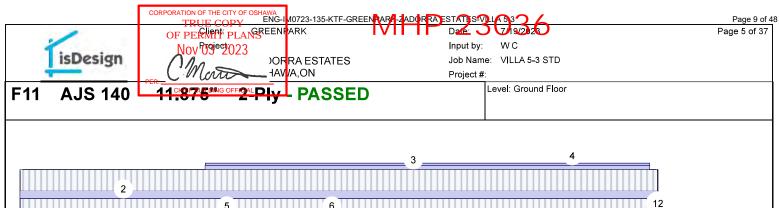
Manufacturer Info

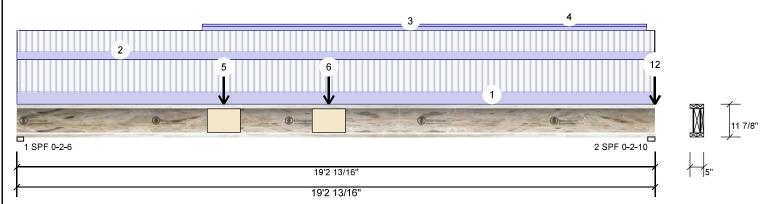
Boise Cascade Wood Products

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



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Notes

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

Handling & Installation

- Handling & Installation

 1. Moist flanges must not be out or drilled

 2. Refer to latest copy of the Lioist product information details for framing details, stifferent ables, web hole chart, bridging details, multi-jay fastening details and handling/erection details

 3. Damaged Lioists must not be used

 4. 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

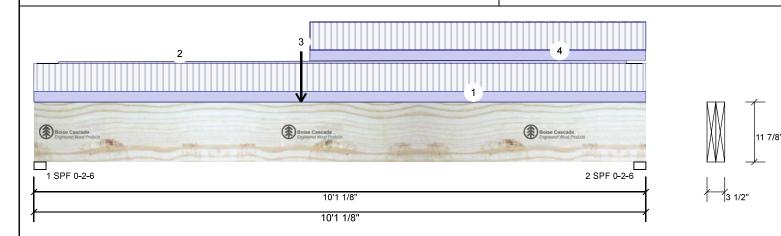
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Kott Inc.





1.750" X 11.875" Versa-Lam L<mark>VL 2.1Æ-3400∘SP</mark>CIAL Level: Ground Floor 2-Plv - PASSED



Member Information Unfactored Reactions UNPATTERNED lb (Uplift) Application: Floor (Residential) Wind Type: Brg Direction Live Dead Snow Plies: 2 Design Method: LSD 293 Vertical 510 0 1 0 Moisture Condition: Dry Building Code: **NBCC 2015** 2 Vertica 474 273 n 0 OBC 2012(2020 Update) Deflection LL: 360 Load Sharing: Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** 40 PSF Floor Live: 15 PSF Dead: 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	Actua l	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 l b	1'2 1/4"	13217 l b	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	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tapered Start	0-4-14		Тор	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 b	0 lb	0 b	F17
4	Tie-In	4-6-10 to 10-1-2	0-5-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				12 PLF				

Notes

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

Handling & Installation

Handling & Installation

1. IVI 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



Nov 03e2023 isDesign

OF RA ESTATES NO,AVVAF

Job Name: VILLA 5-3 STD

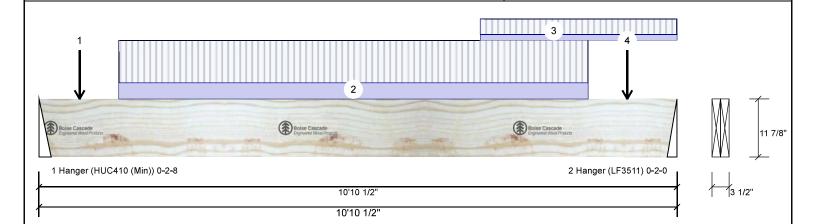
Project #:

Versa-Lam L<mark>VI 2.1 № 3400 SPOAL 1.75</mark>0" X 11.875"

2-Ply - PASSED

Hanger

Level: Ground Floor



Member Inforn	nation			Unfac	tored Rea	ction	s UNPA	TTERNED II	b (Upl	ift)
Туре:	Girder	Application:	Floor (Residential)	Brg I	Direction		Live	Dead		Snov
Plies:	2	Design Method:	LSD	1 1 \	√ertical		591	285		
Moisture Condition: Deflection LL:	Dry 360	Building Code:	NBCC 2015 OBC 2012(2020 Update)	2 \	√ertica l		671	315		
Deflection TL:	240	Load Sharing: Deck:	No Not Checked							
Importance: General Load	Normal - II	Vibration:	Not Checked							
Floor Live:	40 PSF			Bearii	ngs and Fa	actore	d Reac	tions		
Dead:	15 PSF			Beari	ng Length	Dir.	Cap.	React D/L Ib	Total	Ld.
				1 - Hang	2.500" er	Vert	13%	356 / 886	1243	L
Analysis Result	s			2 -	2.000"	Vert	18%	394 / 1007	1401	L

Analysis Results

Analysis	Actua l	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 l b	9'8 5/8"	13217 l b	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	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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-8-5		Far Face	45 lb	120 l b	0 l b	0 l b	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		Тор	15 PLF	40 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 badings 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.

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

Handling & Installation

Handling & Installation

1. UVI beams must not be cut or drilled

2. Refer to manufacturer's product 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

OROFESSION

I.MATIJEVIC 100528832

VCE OF

JULY 19, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: EWP-FLOORS. THE NOTE

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USED IN THE DESIGN OF THIS COMPONENT.

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Kott Inc.

Snow

0

0

Ld. Case

Wind

Ld. Comb. 1.25D+1.5L

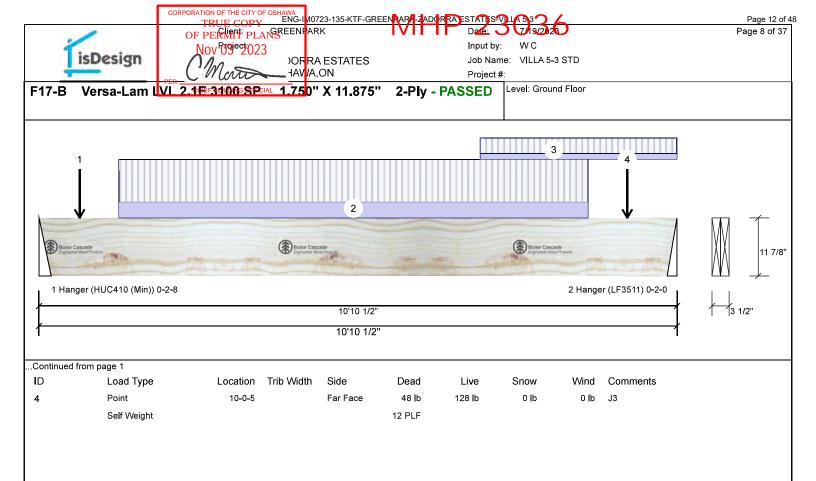
1.25D+1.5L

0

0

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

Handling & Installation

Handling & Installation

1. IVI 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

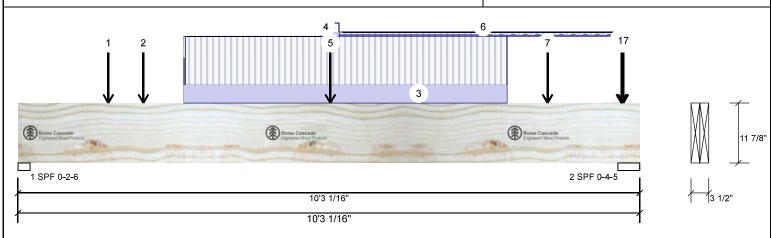
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Kott Inc.

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





Member Inforn	nation		Unfa	actored Rea	actions (JNP.	ATTERNED I I	b (Uplif	t)		
Туре:	Girder	Application:	Floor (Residential)	Brg	Direction	Li	ve	Dead	5	Snow	Wind
Plies:	2	Design Method:	LSD	1	Vertical	17	49	725		0	0
Moisture Condition:	: Dry	Building Code:	NBCC 2015	2	Vertical	41	59	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			Bear	rings and Fa	actored	Rea	ctions			
Dead:	15 PSF			Bea	aring Length	Dir.	Сар.	React D/L lb	Total L	_d. Case	Ld. Comb.
				1 -	SPF 2.375"	Vert	69%	907 / 2623	3529 L	-	1.25D+1.5L
Analonia Danult				2 -	SPF 4.326"	Vert	91%	2239 / 6239	8478 L	-	1.25D+1.5L

Analysis Results

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 l b	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	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.

I D	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 l b	0 lb	0 l b	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	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on page 2...

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

 1. UVI beams must not be cut or drilled

 2. Refer to manufacturer's product 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

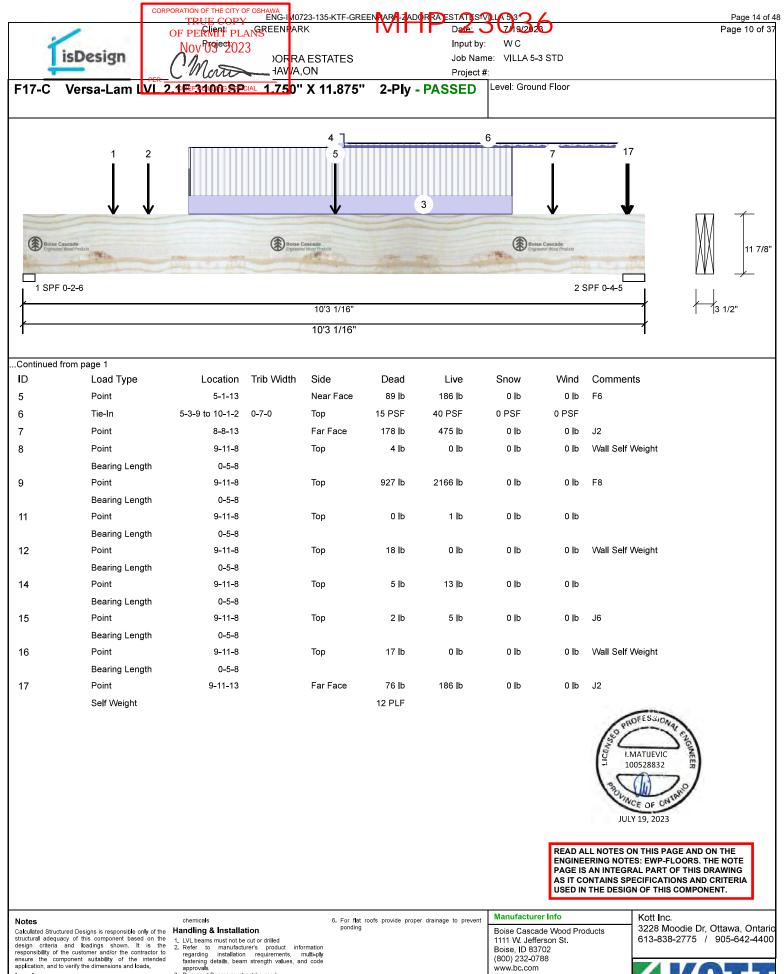
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Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

LVL beams must not be cut or drilled
Refer to manufacturer's product information
regarding installation requirements, multi-ply
fastening details, beam strength values, and code
approvals

approvals
Damaged Beams must not be used
Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation

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CORPORATION OF THE CITY OF OSHAWA
ENG-I M0723-135-KTF-GREEN ARA-ZADO RRA ESTATIS-V) OF PERWIT PLANSREEN ARK Nov 03e2023

OF RA ESTATES NO,AVVAF

WC Input by: Job Name: VILLA 5-3 STD

Project #

AJS 140

Level: Ground Floor



11 7/8"

М	em	ber	Info	rma	tion
141	CIII	vei	11110	HILLIC	UVII

1'4 5/8'

Type:	Girder
Plies:	1
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	

Floor Live: 40 PSF 15 PSF Dead:

Application: Floor (Residential) Design Method: LSD

> Building Code: **NBCC 2015** OBC 2012(2020 Update)

Load Sharing: Not Checked Deck:

Vibration: Not Checked

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. Reac	t D/L l b	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	Vert	5%	21 / 68	89	L	1.25D+1.5L
2 -	2.000"	Vert	5%	20 / 65	85	L	1.25D+1.5L
Hanger							

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 l b	1 5/8"	2350 lb	0.031 (3%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/229648)	8 1/2"	0.038 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/86118)	8 1/2"	0.038 (L/360)	0.004 (0%)	L	L
TL Defl inch	0.000 (L/62631)	8 1/2"	0.057 (L/240)	0.004 (0%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Right Header: SPF, Thickness: 2 1/2"

Tie-In

- 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.									
I D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments

Top

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.

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

Handling & Installation

0-0-0 to 1-4-10 1-7-1

- Handling & Installation

 1. Noist flanges must not be cut or drilled

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

 3. Damaged Juoists must not be used

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

15 PSF

40 PSF

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



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.

Manufacturer Info

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0 PSF

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0 PSF

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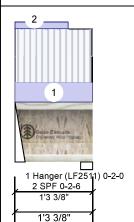
Job Name: VILLA 5-3 STD

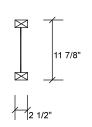
Project #

AJS 140

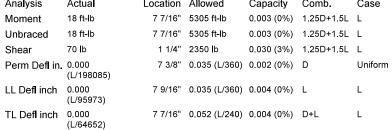
NO,AVVAF

Level: Ground Floor





Unfactored Reactions UNPATTERNED lb (Uplift) Member Information Application: Floor (Residential) Type: Brg Direction Live Dead Snow Wind Plies: Design Method: LSD Vertical 40 20 0 1 0 Moisture Condition: Dry Building Code: **NBCC 2015** 2 Vertical 42 18 n 0 OBC 2012(2020 Update) Deflection LL: 360 Load Sharing: Deflection TL: 240 Not Checked Deck: Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** Floor Live: 40 PSF 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case Ld. Comb. 2.000" Vert 5% 24 / 60 84 L 1.25D+1.5L Hanger Analysis Results 2 - SPF 2.375" Vert 5% 22 / 63 85 L 1.25D+1.5L Location Allowed Analysis Actual Capacity Comb. Case 7 7/16" 5305 ft-lb 0.003 (0%) Moment 18 ft-lb 1.25D+1.5L L





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Design Notes

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

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	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part Uniform	0-0-0 to 0-10-8		Ton	8 PI F	0 PI F	0 PLF	0 PLF	

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

Handling & Installation

- Handling & Installation

 1. Noist flanges must not be out or drilled

 2. Refer to latest copy of the IJoist product information
 details for framing details, stiffener tables, web hole
 chart, bridging details, multi-rily 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.

- 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

This design is valid until 4/17/2026

Manufacturer Info

Boise Cascade Wood Products 1111 W. Jefferson St. Boise. ID 83702

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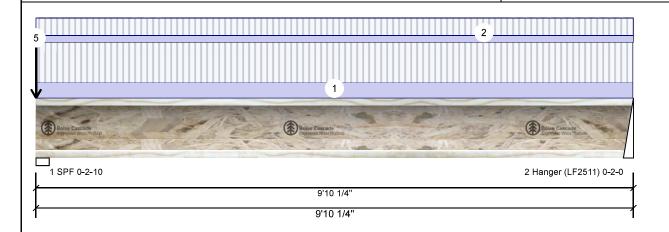


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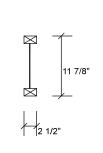
Project #

F2 **AJS 140**

Level: Ground Floor



NO,AVVAF



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

Application: Floor (Residential) Design Method: LSD Building Code: **NBCC 2015** OBC 2012(2020 Update) Load Sharing: Not Checked Deck: Vibration: Not Checked

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 -2.000" Vert 26% 101 / 324 425 L 1.25D+1.5L Hanger

Analysis Results

Ana l ysis	Actua l	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 l b	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	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.



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o bottom hange mast	be laterally bracea	at bearings.
ID Loa	d Type	Location

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	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 9-10-4	0-4-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-0-0		Тор	48 lb	127 l b	0 l b	0 lb	J2
	Bearing Length	0-1-8							
4	Point	0-0-0		Тор	41 lb	108 lb	0 l b	0 l b	J1

Continued on page 2...

Notes

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

- Handling & Installation
- Handling & Installation

 1. Noist flanges must not be out or drilled

 2. Refer to latest copy of the IJoist product information
 details for framing details, stiffener tables, web hole
 chart, bridging details, multi-rily 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.

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

This design is valid until 4/17/2026

Manufacturer Info

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Kott Inc.





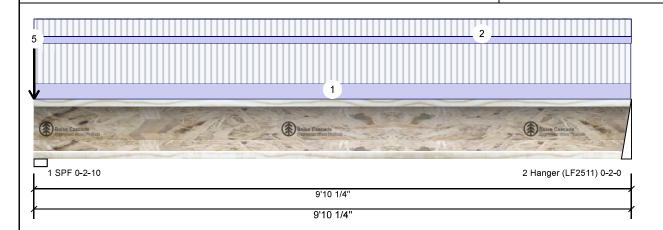
Project #:

isDesign

F2

AJS 140

Level: Ground Floor



HAV<mark>VA,ON</mark>

11 7/8"

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		Тор	27 lb	0 lb	0 l b	0 lb	Wall Self Weight
	Bearing Length	0-1-8							



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

Handling & Installation

- Handling & Installation

 1. Moist flanges must not be out or drilled

 2. Refer to latest copy of the Lioist product information details for framing details, stifferent ables, web hole chart, bridging details, multi-jay fastening details and handling/erection details

 3. Damaged Lioists must not be used

 4. 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

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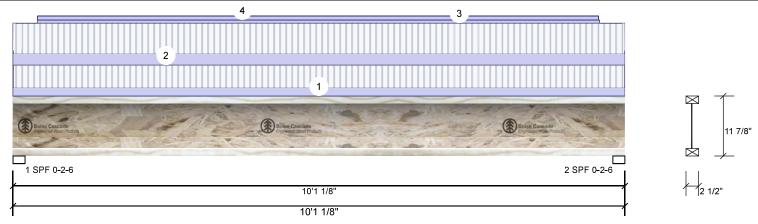
CORPORATION OF THE CITY OF OSHAWA
ENG-I M0723-135-KTF-GREEN ARA-ADORRA ESTATISS-VI OF PERWIT PLANSREEN ARK Nov 03e2023 OF RA ESTATES HAVVA,ON

WC Input by:

Job Name: VILLA 5-3 STD Project #

F3 **AJS 140**

Level: Ground Floor



Member Information

Туре:	Girder
Plies:	1
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal - II
General Load	

40 PSF

15 PSF

Application: Floor (Residential) Design Method: LSD

Building Code: **NBCC 2015** OBC 2012(2020 Update)

Load Sharing: Not Checked Deck: Vibration: Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	264	132	0	0
2	Vertical	264	131	0	0

Bearings and Factored Reactions

Bearing Len	gth Dir.	Cap. R	eact D/L I b	Total	Ld. Case	Ld. Comb.
1 - SPF 2.37	5" Vert	33%	164 / 397	561	L	1.25D+1.5L
2 - SPF 2.37	5" Vert	33%	164 / 397	561	L	1.25D+1.5L

Analysis Results

Floor Live:

Dead:

Analysis	Actua l	Location	Allowed	Capacity	Comb.	Case
Moment	1348 ft-lb	5' 9/16"	5305 ft-lb	0.254 (25%)	1.25D+1.5L	L
Unbraced	1348 ft-lb	5' 9/16"	5305 ft-lb	0.254 (25%)	1.25D+1.5L	L
Shear	547 l b	1 5/8"	2350 lb	0.233 (23%)	1.25D+1.5L	L
Perm Defl in.	0.023 (L/5220)	5' 9/16"	0.327 (L/360)	0.069 (7%)	D	Uniform
LL Defl inch	0.044 (L/2653)	5' 9/16"	0.327 (L/360)	0.136 (14%)	L	L
TL Defl inch	0.067 (L/1759)	5' 9/16"	0.491 (L/240)	0.136 (14%)	D+L	L

Design Notes

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



READ ALL NOTES ON THIS PAGE AND ON THE 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.

I D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-1-2	0-6-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 10-1-2	0-9-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-14 to 9-8-2		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-14 to 9-7-14		Тор	4 PLF	0 PLF	0 PLF	0 PLF	

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.

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

Handling & Installation

- Handling & Installation

 1. Noist flanges must not be out or drilled

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

 3. Damaged Jioists must not be used

 4. 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

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