

		Products			
PlotID	Length	Product	Plies	Net Qty	Fab Type
J1	18-00-00	11 7/8" NI-40x	1	18	MFD
J1DJ	18-00-00	11 7/8" NI-40x	2	8	MFD
J2	16-00-00	11 7/8" NI-40x	1	16	MFD
J3	14-00-00	11 7/8" NI-40x	1	10	MFD
J4	12-00-00	11 7/8" NI-40x	1	7	MFD
J5	8-00-00	11 7/8" NI-40x	1	3	MFD
J6	4-00-00	11 7/8" NI-40x	1	3	MFD
J7	2-00-00	11 7/8" NI-40x	1	7	MFD
B4	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B18	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B6	14-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B3	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B2	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B7	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B5	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B8	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B9	2-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD

	Connecto	r Summary
Qty	Manuf	Product
4	H1	IUS2.56/11.88
21	H1	IUS2.56/11.88
4	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
3	H2	HUS1.81/10
1	H4	HGUS410

CITY OF HAMILTON **Building Division**

THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH THE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW

F BUILDING OFFICIAL

MAR 0 1 2021



FROM PLAN DATED:

BUILDER: GREENPARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: MOUNTAINASH 4

ELEVATION: Z

LOT: 339

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:**

NOTES:

REFER TO THE NORDIC INSTALLATION GUIDE FOR PROPER STORAGE AND

INSTALLATION.

SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. MULTIPLE SQUASH **BLOCKS** REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD CUT OPENINGS SEE FIGURE 7, TABLES 1 & 2. CERAMIC TILE APPLICATION AS PER O.B.C 9.30.6.

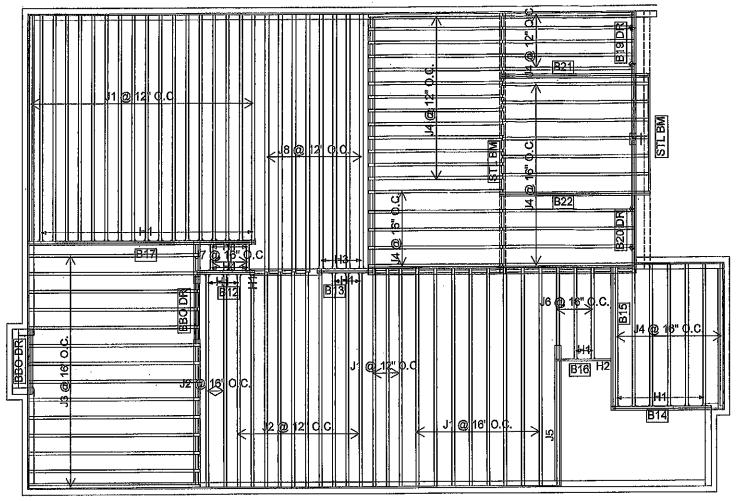
LOADING:

DESIGN LOADS: L/480.000 LIVE LOAD: (40.0 lb/ft² DEAD LOAD: (20.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2020-02-18

1st FLOOR



Products									
PlotID	Length	Product	Plies	Net Qty	Fab Type				
J1	18-00-00	11 7/8" NI-40x	1	29	MFD				
J2	16-00-00	11 7/8" NI-40x	1	12	MFD				
J3	14-00-00	11 7/8" NI-40x	1	14	MFD				
J4	12-00-00	11 7/8" NI-40x	1	40	MFD				
J5	10-00-00	11 7/8" NI-40x	1	1	MFD				
J6	8-00-00	11 7/8" NI-40x	1	3	MFD				
J7	2-00-00	11 7/8" NI-40x	1	3	MFD				
J8	20-00-00	11 7/8" NI-80	1	8	MFD				
B19 DR	10-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD				
B20 DR	10-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD				
B17	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD				
B15	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD				
B21	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD				
B22	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD				
B14	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD				
B16	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1	MFD				
B12	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD				
B13	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2	MFD				

	Connecto	r Summary
Qty	Manuf	Product
2	H1	IUS2.56/11.88
36	``H1	JUS2.56/11.88
1	H2	HUS1.81/10
4	H3	IUS3.56/11.88

CITY OF HAMILTON **Building Division**

21-107110

QUILDING OFFICIAL

THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH HE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW

MAR 0 1 2021



FROM PLAN DATED:

BUILDER: GREENPARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: MOUNTAINASH 4

ELEVATION: 2

LOT: 339

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:**

NOTES:

REFER TO THE NORDIC INSTALLATION **GUIDE** FOR PROPER STORAGE AND INSTALLATION. SQUASH BLOCKS OF 2x4, 2x6, 2x8 #2 S.P.F. REQ'D UNDER INTERIOR UNIFORM LOAD BEARING WALLS. MULTIPLE SQUASH BLOCKS REQ'D UNDER CONCENTRATED LOADS. SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALONG BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIELD **CUT OPENINGS** SEE FIGURE 7 TABLES 1 & 2 OF THE INSTALLATION GUIDE. CERAMIC TILE APPLICATION AS PER O.B.C. 9.30.6

LOADING:

DESIGN LOADS: L/480.000 LIVE LOAD: 40.0 lb/ft2 DEAD LOAD: 20.0 lb/ft2

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2020-02-18

2nd FLOOR

OPTION 5 BEDROOM

NORDIC STRUCTURES

COMPANY Apr. 9, 2020 09:44 PROJECT
J1 1ST FLOOR.wwb

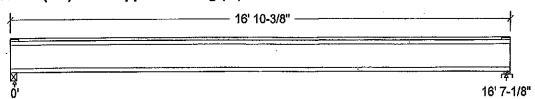
Design Check Calculation Sheet

Nordic Sizer - Canada 7.2

Loads:

	Load	Туре	Distribution	Pat-	Location	[ft]	Magnitude	Unit
				tern	Start	Ènd	Start End	
	Load1	Dead	Full Area				20.00	psf
ľ	Load2	Live	Full Area	, ,		_	40.00	psf

Maximum Reactions (lbs) and Support Bearing (in):



		····
Unfactored: Dead Live Factored:	221 442	221 442
Total	940	940
Bearing:		· · · · · · · · · · · · · · · · · · ·
Capacity	0107	2102
Joist	2137	3981
Support	4036	3201
Des ratio		أميا
Joist	0.44	0.45
Support	0.23	0.24
Load case	#2	#2
Length	2-5/8	2-3/8
Min req'd	1-3/4	1-3/4
Stiffener	No	No
KD	1.00	1.00
KB support	1.00	1.00
fcp sup	769	769
Kzcp sup	1.00	1,09

Nordic 11-7/8" NI-40x Floor Joist @ 16" o.c.

Supports: 1 - Lumber Beam, No.1/No.2; 2 - Lumber Sill plate, No.1/No.2; Total length: 16' 10-3/8"; Clear span: 16' 5-3/8"; 3/4" nailed and glued OSB sheathing This section PASSES the design code check.

Limit States Design using CSA O86-14 and Vibration Criterion:

Shear Vf = 940 Vr = 2336 lbs Vf/Vr = 0.40 Mf = 3901 Mr = 6255 lbs-ft lbs-ft Mf/Mr = 0.62 lbs-ft lb	Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Perm. Defl'n 0.11 = < L/999 0.55 = L/360 in 0.20 Live Defl'n 0.23 = L/879 0.41 = L/480 in 0.55 Total Defl'n 0.34 = L/586 0.83 = L/240 in 0.41 Bare Defl'n 0.27 = L/727 0.55 = L/360 in 0.41 United States of the second of the sec	Shear	Vf = 940			Vf/Vr = 0.40
Perm. Defl'n 0.11 = < L/999 0.55 = L/360 in 0.20 Live Defl'n 0.23 = L/879 0.41 = L/480 in 0.55 Total Defl'n 0.34 = L/586 0.83 = L/240 in 0.41 Bare Defl'n 0.27 = L/727 0.55 = L/360 in 0.41 Vibration Lmax = 16'-7.1 Lv = 18'-1.3 ft 0.420 ft 0.49 Vibration Lmax = 16'-7.1 Lv = 18'-1.3 ft 0.420 ft 0.92 Vibration Lmax = 16'-7.1 Lv = 18'-1.3 ft 0.420 ft 0.49 Vibration Lmax = 16'-7.1 Lv = 18'-1.3 ft 0.420 ft 0.	Moment (+)	Mf = 3901	Mr = 6255		
Total Defl'n 0.34 = L/586 0.83 = L/240 in 0.41 Bare Defl'n 0.27 = L/727 0.55 = L/360 in 0.49 Vibration Lmax = 16'-7.1 Lv = 18'-1.3 ft 0 c varcous AkOS in 92		0.11 = < L/999	0.55 = L/360	in	OFESS/0/V 0.20
Total Defl'n Bare Defl'n Vibration Total Defl'n 0.34	Live Defl'n	0.23 = L/879	0.41 = L/480	in 💞	0.55
Vibration Lmax = 16'-7.1 Lv = 18'-1.3 ft	· •	0.34 = L/586		in //	0.41
	Bare Defl'n	0.27 = L/727	0.55 ⊨ L/360°	in 🖋 🥾	10.49
	Vibration	Lmax = 16'-7.1	Lv = 18'-1.3	ft	LATOOULANDS MD.92
Defl'n = 0.029 = 0.038 in 3. 3. 4. 1. 3. 3. 3. 4. 1. 3. 3. 3. 4. 1. 3. 3. 3. 4. 1. 3. 3. 3. 4. 1. 3. 3. 3. 4. 1. 3. 3. 3. 4. 1. 3. 3. 3. 4. 1. 3. 3. 3. 3. 4. 1. 3. 3. 3. 3. 4. 1. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	Defl'n	= 0.029	= 0.038	in 3.	MISUULANUS \$6.76

WoodWorks® Sizer

for NORDIC STRUCTURES

J1 1ST FLOOR.wwb

Nordic Sizer - Canada 7.2

Page 2

Additiona	l Data:									
FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#	
Vr	2336	1.00	1.00	-	-	-		-	#2	
Mr+	6255	1.00	1.00	-	1.000	-	-	-	#2	
EI	371.1 m	illion	_	-	_	_	-	-	#2	
CRITICAL L										
Shear	: LC #2	= 1.2	5D + 1.5I	Ĺ.						
Moment (+	1 · LC #2	= 1.2	5D + 1.51							
Doflecti	on: LC #1	= 1.0	D (nerma	nent)						
Derrecer			D + 1.0L		1					
			0 + 1.0L	-						
	· ·		D + 1.0L	•	•					
Doomina			LC #2 = 1							
Bearing			LC #2 = 1							
	Suppo	.1 EV		L.ZJD T	1.70	~ d	. F	+housaka		
Load Typ					arth,grou					
					ive(stora			r≈rır∈	•	
Load Pat	terns: s=	:S/2 L=:	L+Ls _≐r	io patt	ern load	in this	s span			
All Load	Combinat	ions (L	Cs) are l	Listed :	in the An	alysis	output			
CALCULATI	ONS:							£	ANBAD <i>i</i> a ya	1 11 11 11 11 11 11 11 11 11 11 11 11 1
	459.76 lb	-in^2	K= 6.18€	06 lbs				., 0	anforms to	0 B C 2 U 1 2
					d loads (live, v	vind, sn	ow)	AMENDED	2020

Design Notes:

- 1. WoodWorks analysis and design are in accordance with the 2015 National Building Code of Canada (NBC), Division B, Part 4, and the CSA O86-14 Engineering Design in Wood standard, Update No. 2 (June 2017).
- 2. Please verify that the default deflection limits are appropriate for your application.
- 3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.
- 4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
- 5. Joists shall be laterally supported at supports and continuously along the compression edge.
- 6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



9W8 NO. TAN 6035 -20 STRUCTURAL COMPONENT ONLY

NORDIC STRUCTURES

COMPANY Apr. 9, 2020 09:44 PROJECT
J1 2ND FLOOR.wwb

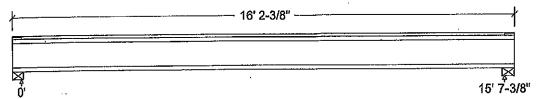
Design Check Calculation Sheet

Nordic Sizer – Canada 7.2

Loads:

Load	Type	Distribution	Pat-	Location	[ft]	Magnitud	.e	Unit
Doda			tern	Start	End	Start	End	
Load1	Dead	Full Area				20.00		psf
Load2	Live	Full Area				40.00		psf

Maximum Reactions (lbs) and Support Bearing (in):



Unfactored: Dead Live	208 416	208 416
Factored: Total Bearing:	885	885
Capacity Joist Support	2336 6734	2336 6734
Des ratio Joist Support	0.38 0.13	0.38 0.13 #2
Load case Length Min req'd	#2 4-3/8 1-3/4	4-3/8 1-3/4
Stiffener KD	No 1.00	No 1.00 1.00
KB support fcp sup Kzcp sup	1.00 769 1.00	769 1.00

Nordic 11-7/8" NI-40x Floor joist @ 16" o.c.

Supports: All - Lumber Beam, No.1/No.2

Total length: 16' 2-3/8"; Clear span: 15' 5-5/8"; 5/8" nailed and glued OSB sheathing with 1/2" gypsum ceiling

This section PASSES the design code check.

Limit States Design using CSA O86-14 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 885	Vr = 2336	lbs	Vf/Vr = 0.38
Moment(+)	Mf = 3454	Mr = 6255	lbs-ft	Mf/Mr = 0.55
Perm. Defl'n	0.09 = < L/999	0.52 = L/360	in	FESSION 0.18
Live Defl'n	0.18 = < L/999	0.39 = L/480	in por	
Total Defl'n	0.28 = L/676	0.78 = L/240	in /S	0.35 0.42 0.88 0.68
Bare Defl'n	0.22 = L/861	0.52 = L/360	in/9	0.42
Vibration	Lmax = 15'-7.4	Lv = 17'-8.1	1 ++7,6%	ATTOMINATION NO.88
Defl'n	= 0.028	= 0.041	in S.	ATSOULAKOS \$6.68
			. 4.	A STATE OF THE PARTY OF THE PAR

STRUCTURAL COMPONENT ONLY

WoodWorks® Sizer

for NORDIC STRUCTURES

J1 2ND FLOOR.wwb

Nordic Sizer - Canada 7.2

Page 2

Vr	f/E 2336		KH 1.00 1.00	KZ - -	KL - 1.000	KT - -	KS -	KN -	LC# #2 #2	
Mr+ EI CRITICAL LO	6255 371.1 mi OAD COMBI	Lllion		-	1,000	-	-	-	#2	
Shear Moment(+)	: LC #2	= 1.25 $= 1.25$	5D + 1.51 5D + 1.51							
Deflection	LC #2 LC #2	= 1.01 = 1.01 = 1.01) + 1.0L) + 1.0L) + 1.0L	(live (tota (bare	l) joist)					٠.,
Bearing	Suppor	rt 2 - 1	LC #2 = 1 LC #2 = 1	L.25D +	1.5L		•			
	L=liv	e(use,o	ccupancy	Ls=1	arth,grou ive(stora	ge,equi	.pment)	tnquake f=fire	<u>:</u> !	
All Load	Combinat:	S/2 L=1 Lons (Lo	L+Ls _=r Cs) are l	no patt Listed	ern load in the An	in this alysis	output			
CALCULATION EIeff = 4	447.63 lb	-in^2 l is due	K= 6.186 to all r	e06 lbs non-dea	d loads (live, w	ind, sn	ow)	CONFORMS TO	

Design Notes:

1. WoodWorks analysis and design are in accordance with the 2015 National Building Code of Canada (NBC), Division B, Part 4, and the CSA O86-14 Engineering Design in Wood standard, Update No. 2 (June 2017).

2. Please verify that the default deflection limits are appropriate for your application.

3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.

4. Nordic I-joists are listed in CCMC evaluation report 13032-R.

5. Joists shall be laterally supported at supports and continuously along the compression edge.

6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



ows No. YAM 6036-20 STRUCTURAL COMPONENT ONLY

NORDIC STRUCTURES

COMPANY Apr. 9, 2020 09:47 PROJECT
J8 2ND FLOOR.wwb

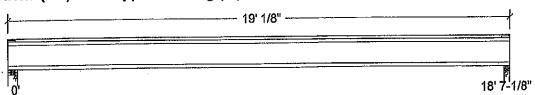
Design Check Calculation Sheet

Nordic Sizer - Canada 7.2

Loads:

Load	 Туре	Distribution	Pat- tern	Location Start	[ft] End	Magnitud Start	e End	Unit
Load1 Load2	 Dead Live	Full Area Full Area				20.00 40.00		psf psf

Maximum Reactions (Ibs) and Support Bearing (in):



Unfactored: Dead Live	186 372	186 372
Factored: Total	790	790
Bearing: Capacity Joist Support Des ratio	2336 10841	2188 5573
Joist Support	0.34 0.07	0.14
Load case Length Min req'd	#2 4-3/8 1-3/4	#2 2-3/8 1-3/4
Stiffener.	No 1.00	No 1.00
KB support	769	769 -

Earing for wall supports is perpendicular-to-grain bearing on top plate. No stud design included.

Nordic 11-7/8" NI-80 Floor joist @ 12" o.c.

Supports: All - Lumber Wall, No.1/No.2

Total length: 19' 1/8"; Clear span: 18' 5-3/8"; 5/8" nailed and glued OSB sheathing with 1/2" gypsum ceiling

This section PASSES the design code check.

Limit States Design using CSA O86-14 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 790	Vr = 2336	lbs	Vf/Vr = 0.34
Moment (+)	Mf = 3673	Mr = 11609	ى lbs-ft	$Mf/M_{\rm F} = 0.32$
Perm. Defl'n	0.10 = < L/999	0.62 = L/360	in 🚜	0.16
Live Defl'n	0.20 = < L/999	0.46 = L/480	in o	0.44
Total Defl'n	0.30 = L/735	0.93 = L/240	in /	41620 6 0.33
Bare Defl'n	0.22 = L/998	0.62 = L/360	in 🖟 🗷	10 36
Vibration	Lmax = 18'-7.1	Lv = 20'-5.8	ft 🎁 🦿	MATSOULANDS 59.91
Defl'n	= 0.027	≈ 0.034	in 🕽 🕉	(1.79
DULL 11			£ 600	CONTRACTOR OF THE PARTY OF THE

NOVE NO. TAME 037 -20
STRUCTURAL
EOMPONENT ONLY

WoodWorks® Sizer

for NORDIC STRUCTURES

J8 2ND FLOOR.wwb

Nordic Sizer - Canada 7.2

Páge 2

Additional Data: FACTORS: f/E	
Vr 2336 1.00 1.00 #2	
VI 2550 1100 1100	
1 44600 400 100 1000 #9	
EI 547.1 million #2	
CRITICAL LOAD COMBINATIONS:	
Shear : LC #2 = 1.25D + 1.5L	
Moment(+): LC $\#2 = 1.25D + 1.5L$	
Deflection: LC #1 = 1.0D (permanent)	
LC # 2 = 1.0D + 1.0L (live)	
LC #2 = 1.0D + 1.0L (total)	
LC #2 = 1.0D + 1.0L (bare joist)	
Bearing : Support 1 - LC #2 = 1.25D + 1.5L	
Support 2 - LC #2 = 1.25D + 1.5L	
Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake	
L=live(use,occupancy) Ls=live(storage,equipment) f=fire	
Load Patterns: s=S/2 L=L+Ls =no pattern load in this span	
All Load Combinations (LCs) are listed in the Analysis output	
CALCULATIONS: GONFORMS TO OBG 20	2
$I_{\text{PToff}} = 613.27 \text{ lb-in}^2 \text{ Km} = 6.18e06 \text{ lbs}$	
"Live" deflection is due to all non-dead loads (live, wind, snow) AMENDED 2020	

Design Notes:

- 1. WoodWorks analysis and design are in accordance with the 2015 National Building Code of Canada (NBC), Division B, Part 4, and the CSA 086-14 Engineering Design in Wood standard, Update No. 2 (June 2017).
- 2. Please verify that the default deflection limits are appropriate for your application.
- 3. Refer to Nordic Structures technical documentation for installation guidelines and construction details.
- 4. Nordic I-joists are listed in CCMC evaluation report 13032-R.
- 5. Joists shall be laterally supported at supports and continuously along the compression edge.
- 6. The design assumptions and specifications have been provided by the client. Any damages resulting from faulty or incorrect information, specifications, and/or designs furnished, and the correctness or accuracy of this information is their responsibility. This analysis does not constitute a record of the structural integrity of the building nor suitability of the design assumptions made. Nordic Structures Is responsible only for the structural adequacy of this component based on the design criteria and loadings shown.



STRUCTURAL COMPONENT 'ONLY





PASSED

February 18, 2020 08:54:51

2ND FLR FRAMING\Dropped Beams\B19A DR(I2421) (Dropped Beam) Dry | 1 span | No cant.

BC CALC® Member Report

Build 7239

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer:

File name:

MOUNTAINASH 4 EL 1.mmdi

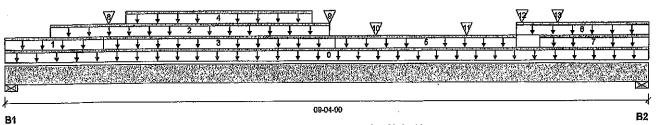
Description: 2ND FLR FRAMING\Dropped Beams\B19A DR(i2421)

Specifier:

Designer:

CCMC 12472-R Code reports:

Company:



Total Horizontal Product Length = 09-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	
B1, 4"	999 / 0	945 / 0	405 / 0	
B2, 5-1/2"	. 1034 / 0	996/0	444 / 0	

loa	ad Summary				:		Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	09-04-00	Top		10			00-00-00
1	R1(i1840)	Unf. Lin. (lb/ft)	L.	00-00-00	01-05-00	Top	-	41			n\a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	00-08-00	04-08-00	Тор	205	103			· n\a
3	R1(i1840)	Unf. Lin. (lb/ft)	L	01-05-00	04-09-00	Тор		81			n\a
4	R1(i1840)	Unf. Lin. (lb/ft)	L	01-09-00	04-05-00	Top	44	40	92		n\a
5	R1(i1840)	Unf. Lin. (lb/ft)	L	04-09-00	07-05-00	Тор		41			n\a
6	R1(i1840)	Unf. Lin. (lb/ft)	L	07-05-00	09-04-00	Top		81			n\a
7	R1(i1840)	Unf, Lin. (lb/ft)	L	07-09-00	09-04-00	Тор	44	40	92		ń\a
8	R1(i1840)	Conc. Pt. (lbs)	L	01-06-00	01-06-00	Top	72	90	151		n \a
9	R1(i1840)	Conc. Pt. (lbs)	L	04-08-00	04-08-00	Top	75	93	156		n\a
10	J4(i1832)	Conc. Pt. (lbs)	L	05-04-00	05-04-00	Top	273	137			n\a
11	J4(i1774)	Conc. Pt. (lbs)	L	06-08-00	06-08-00	Top	273	137			n\a
12	R1(i1840)	Conc. Pt. (lbs)	L.	07-06-00	07-06-00	Тор	72	90	151		n\a
13	J4(11726)	Conc. Pt. (lbs)	L.	08-00-00	08-00-00	Тор	253	126			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	7076 ft-lbs	23220 ft-lbs	30.5%	1	04-05-00
End Shear	3013 lbs	11571 lbs	26.0%	1	01-01-08
Total Load Deflection	L/721 (0,144")	n\a	33.3%	35	04-06-08
Live Load Deflection	L/999 (0.087")	n\a	n\a [.]	51	04-06-08
Max Defl.	0.144"	n\a	n\a	35	04-06-08
Span / Depth	10.9				

Bearing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1 Wall/Plate	4" x 3-1/2"	3084 lbs	16.5%	18.1%	Spruce-Pine-Fir
B2 Wall/Plate	5-1/2" x 3-1/2"	3240 lbs	12,6%	13.8%	Spruce-Pine-Fir



OWO NO. TAN 6038-20 STRUCTURAL COMPONENT ONLY





Passed

2ND FLR FRAMING\Dropped Beams\B19A DR(I2421) (Dropped Beam)

Dry | 1 span | No cant.

February 18, 2020 08:54:51

BC CALC® Member Report Build 7239

Job name:

Address: City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 4 EL 1.mmdl

2ND FLR FRAMING\Dropped Beams\B19A DR(i2421) Description:

Specifier:

Designer:

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

COMPORMS TO OBC 2012

Calculations assume member is fully braced.

AMENDED 2020

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Unbalanced snow loads determined from building geometry were used in selected product's verification.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

PROVIDE3 ROWS OF 3½" ARDOX SPIRAL NAILS @ 12"0/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. Z"LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS



DWG NO. TAN 6038-20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Bolse Cascade Software Is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Bolse Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™ ALLJOIST®, BC RIM BOARD™, BCI®. BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





PASSED

2ND FLR FRAMING\Dropped Beams\B20A DR(I2266) (Dropped Beam)

BC CALC® Member Report

Dry | 1 span | No cant.

February 18, 2020 08:54:51

Bulld 7239

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

CCMC 12472-R

File name:

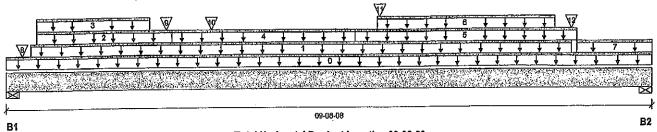
MOUNTAINASH 4 EL 1.mmdl

Description: 2ND FLR FRAMING\Dropped Beams\B20A DR(i2266)

Specifier:

Designer: A

Company:



Total Horizontal Product Length = 09-06-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	1272 / 0	1070 / 0	399 / 0	
B2, 4"	1109 / 0	1043 / 0	462 / 0	••

Los	ad Summary					:	Live	Dead	Snow	Wind	Tributary
Tag		Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	. F	00-00-00	09-06-08	Тор		10	•		00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-04-08	08-04-08	Тор	102	52			n\a
2	R1(l1840)	Unf, Lin. (lb/ft)	L.	00-05-08	02-05-08	Тор		81			n\a
3	R1(11840)	Unf. Lin. (lb/ft)	L	00-05-08	02-01-08	Тор	44	40	92		n\a
4	R1(11840)	Unf. Lin. (lb/ft)	L	02-05-08	05-01-08	Top		41			n\a
5	R1(i1840)	Unf, Lin. (lb/ft)	L	05-01-08	08-05-08	Тор		81			n\a
6	R1(i1840)	Unf. Lin. (lb/ft)	L	05-05-08	08-01-08	Тор	44	40	92		n \a
7	R1(i1840)	Unf. Lin. (lb/ft)	L	08-05-08	09-06-08	Тор		41			n\a
8		Conc. Pt. (lbs)	L	00-02-14	00-02-14	Тор	328	164			n\a
9	R1(i1840)	Conc. Pt. (lbs)	L	02-04-08	02-04-08	Top	75	93	156		n\a
10	J4(i1794)	Conc. Pt. (lbs)	L	03-00-08	03-00-08	Top	273	137			n\a
11	- -(1110-1)	Conc. Pt. (lbs)	L	05-05-14	05-05-14	Top	345	227	151		n\a
12	-	Conc. Pt. (lbs)	L	08-04-08	08-04-08	Тор	348	230	156		n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	7786 ft-lbs	23220 ft-lbs	33.5%	1	05-02-08
End Shear	3399 lbs	11571 lbs	29.4%	1	08-05-00
Total Load Deflection	L/614 (0.179")	n\a	39.1%	35	04-09-00
Live Load Deflection	L/999 (0.108")	n\a	n\a	51	04-09-00
Max Defl.	0.179"	n\a	n\a	35	04-09-00
Span / Depth	11.6				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2" x 3-1/2"	3645 lbs	39.0%	42,7%	Spruce-Pine-Fir
B2	Wall/Plate	4" x 3-1/2"	3430 lbs	18.4%	20.1%	Spruce-Pine-Fir



TWO NO. TAM 6037-20 STRUCTURAL CONFONENT ONLY





PASSED

February 18, 2020 08:54:51

2ND FLR FRAMING\Dropped Beams\B20A DR(I2266) (Dropped Beam)

BC CALC® Member Report

Build 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

Dry | 1 span | No cant.

File name:

MOUNTAINASH 4 EL 1.mmdl

2ND FLR FRAMING\Dropped Beams\B20A DR(I2266)

canfarms to obc 2012

Description: Specifier:

Designer:

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume unbraced length of Top: 00-01-11, Bottom: 00-01-11.

CCMC 12472-R

AMENDED 2020 Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86. Unbalanced snow loads determined from building geometry were used in selected product's

verification.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

PROVIDES ROWS OF 3N" ARDOX SPIRAL NAILS @ /2 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2 LUMBER EDGE/END DISTANCE. DO NOT USE AIR HAILS



STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Passed

2ND FLR FRAMING\Flush Beams\B12(i2257) (Flush Beam)

Dry | 1 span | No cant. **BC CALC® Member Report**

February 18, 2020 08:54:51

Build 7239 Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 4 EL 1.mmdl

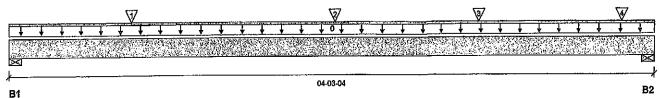
2ND FLR FRAMING\Flush Beams\B12(i2257) Description:

Wind

Specifier:

Designer: ΑJ

Company:



Total Horizontal Product Length = 04-03-04

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 2-3/4"	602/0	326 / 0
B2 4"	903 / 0	477 / 0

d Summary						Live	Dead
	Load Type	Ref.	Start	End	Loc.	1.00	0.65
	Unf. Lin. (lb/ft)	L	00-00-00	04-03-04	Top		12
-	Conc. Pt. (lbs)	L	00-09-12	00-09-12	Top	382	191
•	* -	L	02-01-13	02-01-13	Тор	428	215
.12(12353)	• •	L	03-01-04	03-01-04	Тор	317	158
-	Conc. Pt. (lbs)	L	04-00-10	04-00-10	Тор	378	188
	J2(i2353)	Description Load Type Self-Weight Unf. Lin. (lb/ft) - Conc. Pt. (lbs) - Conc. Pt. (lbs) J2(i2353) Conc. Pt. (lbs)	Description Load Type Ref. Self-Weight Unf. Lin. (lb/ft) L Conc. Pt. (lbs) L Conc. Pt. (lbs) L J2(i2353) Conc. Pt. (lbs) L	Description Load Type Ref. Start Self-Weight Unf. Lin. (lb/ft) L 00-00-00 Conc. Pt. (lbs) L 00-09-12 Conc. Pt. (lbs) L 02-01-13 J2(i2353) Conc. Pt. (lbs) L 03-01-04	Description Load Type Ref. Start End Self-Weight Unf. Lin. (lb/ft) L 00-00-00 04-03-04 - Conc. Pt. (lbs) L 00-09-12 00-09-12 - Conc. Pt. (lbs) L 02-01-13 02-01-13 J2(i2353) Conc. Pt. (lbs) L 03-01-04 03-01-04	Description Load Type Ref. Start End Loc. Self-Weight Unf. Lin. (lb/ft) L 00-00-00 04-03-04 Top Conc. Pt. (lbs) L 00-09-12 00-09-12 Top Conc. Pt. (lbs) L 02-01-13 02-01-13 Top J2(i2353) Conc. Pt. (lbs) L 03-01-04 03-01-04 Top	Description Load Type Ref. Start End Loc. 1.00

Controls Summary	Factored Demand	Factored Resistance	Demand <i>i</i> Resistance	Case	Location
Pos. Moment	1459 ft-lbs	35392 ft-lbs	4.1%	1	02-01-04
End Shear	1045 lbs	14464 lbs	7,2%	1	02-11-06
Total Load Deflection	L/999 (0.003")	n\a	n\a	4	02-01-04
Live Load Deflection	L/999 (0.002")	n\a	n\a	5	02-01-04
Max Defi.	0,003"	n\a	n\a	4	02-01-04
Span / Depth	3.9				

Bearing	ı Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material_
B1	Wall/Plate	2-3/4" x 3-1/2"	1310 lbs	22.1%	11.2%	Spruce-Pine-Fir
B2	Wall/Plate	4" x 3-1/2"	1951 lbs	22.7%	11.4%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBE 2012

Calculations assume member is fully braced.

AMENDED 2020 Resistance Factor phi has been applied to all presented results per CSA O86. BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

PROVIDEジ ROWS OF 3½" ARDOX SPIRAL NAILS @ @ "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2"LUMBER EDGE/END DISTANCE. DONOT USE AIR NAILS owo 111. TAM 6040-20 STRUCTURAL COMPONENT ONLY

ON VICE OF ON

Wind

1.15

Snow 1.00

Tributary

00-00-00 n\a n\a

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. installation of Bolse Cascade engineered wood products must be in accordance with current installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before Installation.

BC CALC®, BC FRAMER® , AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





PASSED

2ND FLR FRAMING\Flush Beams\B13(I2387) (Flush Beam)

Dry | 1 span | No cant.

February 18, 2020 08:54:51

BC CALC® Member Report Bulld 7239

Job name:

Address: City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 4 EL 1.mmdl

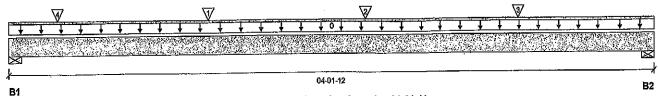
2ND FLR FRAMING\Flush Beams\B13(i2387) Description:

Wind

Specifier:

Designer:

Company:



Total Horizontal Product Length = 04-01-12

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 4"	1278 / 0	664/0
B2, 3-3/4"	1032 / 0	541/0

Las	ad Summary							LIVE	
Tag	_	Load Type	Ref.	Start	End	Loc.		1.00	
0	Self-Weight	Unf. Lin. (lb/ft)	L.	00-00-00	04-01-12	Top			
1	-	Conc. Pt. (lbs)	L	01-03-07	01-03-07	Top		694	- 1
,	-	Conc. Pt. (lbs)	L	02-03-07	02-03-07	Top		694	,
3		Conc. Pt. (lbs)	L	03-03-05	03-03-05	Тор		545	- 2
4	J8(i2418)	Conc. Pt. (lbs)	L	00-03-12	00-03-12	Тор		376	

Controls Summary	Factored Demand	Factored Resistance	Demand <i>i</i> Resistance	Case	Location
Pos. Moment	2393 ft-lbs	35392 ft-lbs	6.8%	1	02-03-00
End Shear	1870 lbs	14464 lbs	12.9%	1	01-03-14
Total Load Deflection	L/999 (0.004")	n\a	n\a	4	02-00-15
Live Load Deflection	L/999 (0.003")	n\a	n\a	5	02-00-15
Max Defl.	0.004"	n\a	n\a	4	02-00-15
Span / Depth	3.7				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	4" x 3-1/2"	2747 lbs	31.9%	16.1%	Spruce-Pine-Fir
B2	Wall/Plate	3-3/4" x 3-1/2"	2224 lbs	27.5%	13.9%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

AMENDED 2020 Resistance Factor phi has been applied to all presented results per CSA 086. BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

PROVIDE3 ROWS OF 3½" ARDOX SPIRAL NAILS @ 8 " 0/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2" LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS



Wind

1.15

Snow

1.00

bead 0.65

12

Tributary

00-00-00

uva no. Tan 6041 -20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Bolse Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of Input CLAPIANS 10 086 2012 must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Gulde and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

> BC CALC®, BC FRAMER® , AJS™ ALLJOIST®, BC RIM BOARD™, BCI®. BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





City, Province, Postal Code: WATERDOWN

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

2ND FLR FRAMING\Flush Beams\B14(i1719) (Flush Beam)

Passed

February 18, 2020 08:54:51

BC CALC® Member Report

Build 7239

Job name: Address:

Customer:

Code reports:

Dry] 1 span | No cant.

File name:

MOUNTAINASH 4 EL 1.mmdl

2ND FLR FRAMING\Fiush Beams\B14(i1719) Description:

Specifier:

Designer:

CCMC 12472-R

Company:

07-05-12 B2 **B**1

Total Horizontal Product Length = 07-05-12

Reaction Summary (Down / Uplift) (lbs)

IZEAGLION OUN	miary (Domin, O	pinity (inde)		
Bearing	Live	Dead	Snow	Wind
B1, 1-3/4"	748 / 0	417 / 0		
B2. 5-1/2"	893 / 0	492 / 0		

Loa	ad Summary						Live	Dead
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	07-05-12	Top		12
1	Smoothed Load	Unf. Lin. (lb/ft)	L	03-07-06	07-05-12	Тор	222	111
2	J4(i1797)	Conc. Pt. (lbs)	L	00-03-06	00-03-06	Тор	206	103
3	J4(1843)	Conc. Pt. (lbs)	L	01-07-06	01-07-06	Top	163	82
4	J4(i2389)	Conc. Pt. (lbs)	L	02-11-06	02-11-06	Тор	413	206

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	3010 ft-lbs	35392 ft-lbs	8.5%	1	02-11-06
End Shear	1337 lbs	14464 lbs	9.2%	1	06-00-06
Total Load Deflection	L/999 (0.019")	n\a	n\a	4	03-07-06
Live Load Deflection	L/999 (0.012")	n\a	n\a	5	03-07-06
Max Defl.	0.019"	n\a	n\a	4	03-07-06
Span / Depth	7.1				

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
	Column	1-3/4" x 3-1/2"	1643 lbs	33.0%	22.0%	Unspecified
B2 1	Wall/Plate	5-1/2" x 3-1/2"	1955 lbs	16.5%	8.3%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CANPARMS TO OBE 2012

Calculations assume member is fully braced.

AMENDED 2020 Resistance Factor phi has been applied to all presented results per CSA O86. BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

PROVIDE 3 ROWS OF 31/2" ARDOX SPIRAL NAILS @ /2 " 0/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2 LUMBER EDGE/END Distance. Bonot USE air nails



Wind.

1.15

Snow

Tributary

00-00-00

n\a

n\a

n\a

n\a

Disclosure

Use of the Bolse Cascade Software Is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





PASSED

2ND FLR FRAMING\Flush Beams\B15(i1830) (Flush Beam)

BC CALC® Member Report

Build 7239 Job name:

Dry | 1 span | No cant.

February 18, 2020 08:54:51

Address: City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 4 EL 1.mmdl

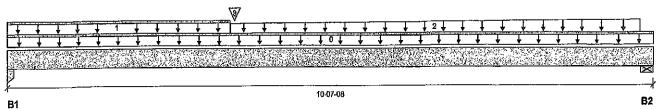
2ND FLR FRAMING\Flush Beams\B16(i1830) Description:

Wind

Specifier:

Designer:

Company:



Total Horizontal Product Length = 10-07-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow
B1, 3-1/2"	501/0	290 / 0	
B2, 5-1/2"	394 / 0	234/0	

Lo	ad Summary			1			LIVO	Deau	SHOW	AAMITTI
Tag		Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	10-07-08	Тор		6		
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	. 00-00-00	03-08-00	Top	3			,
2	FC2 Floor Material	Trapezoidal (lb/ft)	L	03-08-00		Тор	30	15		
_		, , ,			10-04-12		40	20	riselistanist.	fessio/
3	· B16(i1764)	Conc. Pt. (lbs)	L	03-08-14	03-08-14	Тор	647	336		A STATE OF THE PARTY OF THE PAR
		Eas	4auad	Dem	ond!					4162
_	_	rau	tored	Delli	anton			7 6	STATES OF THE PERSONS ASSESSMENT	

Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	3813 ft-lbs	17696 ft-lbs	21.5%	1	03-08-14
End Shear	1096 lbs	7232 lbs	15.2%	1	01-03-06
Total Load Deflection	L/999 (0.085")	n\a	n\a	4	04-11-02
Live Load Deflection	L/999 (0.054")	n\a	n\a	5	04-11-02
Max Defl.	0,085"	n\a	n\a	4	04-11-02
Span / Depth	10.1				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand <i>l</i> Resistance Member	Material
B1	Column	3-1/2" x 1-3/4"	1113 lbs	22.4%	14.9%	Unspecified
B2	Wall/Plate	5-1/2" x 1-3/4"	883 lbs	14.9%	7.5%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086. Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

OWN NO. 7AM6043 -20 STRUCTURAL COMPONENT ONLY

NONINCE OF

Wind

S. KATSOULAKOS

Tributary

00-00-00 n\a n\a

Disclosure

Use of the Bolse Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Gulde and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before Installation.

BC CALC®, BC FRAMER®, AJS™ ALLJOIST®, BCRIM BOARD™, BCI®. BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B16(I1764) (Flush Beam)

Passed

BC CALC® Member Report

Dry | 1 span | No cant.

February 18, 2020 08:54:51

Build 7239

Job name: Address:

Customer:

Code reports:

City, Province, Postal Code: WATERDOWN

CCMC 12472-R

File name:

MOUNTAINASH 4 EL 1.mmdl

2ND FLR FRAMING\Flush Beams\B16(i1764) Description:

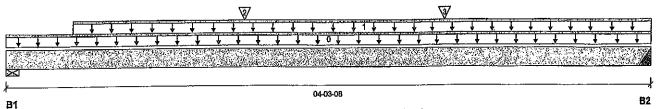
Specifier:

Designer:

Company:

ΑJ

CANDAMS TO OBE 2012



Total Horizontal Product Length = 04-03-08

Reaction Sur	mmary (∪own / ∪	piiit) (ibs)				
Bearing	Live	Dead	Snow	Wind	·	_
B1, 5-1/2"	632 / 0	330/0			•	
B2. 2"	664 / 0	345/0				

LoadS	ummary						Live	Dead	Snow	Wind	Tributary
	cription	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
·	-Weight	Unf. Lin. (lb/ft)	Ľ	00-00-00	04-03-08	Тор		6			00-00-00
1 STA	•	Unf. Lin. (lb/ft)	L	00-05-08	04-03-08	Top	240	120			n\a
	1825)	Conc. Pt. (lbs)	L	01-07-00	01-07-00	Top	181	91			n\a
	1743)	Conc. Pt. (lbs)	L	02-11-00	02-11-00	Тор	191	96	Not the Contract of the Contra	Fessio	n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1419 ft-lbs	17696 ft-lbs	8.0%	1	02-04-00
End Shear	837 lbs	7232 lbs	11.6%	1	01-05-06
Total Load Deflection	L/999 (0.005")	n\a	n\a	4	02-03-08
Live Load Deflection	L/999 (0.004")	n\a	n\a	5	02-03-08
Max Defl.	0.005"	n\a	n\a	4	02-03-08
Span / Depth	3.8				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	5-1/2" x 1-3/4"	1361 lbs	23,0%	11.6%	Spruce-Pine-Fir
B2	Hanger	2" x 1-3/4"	1427 lbs	n\a	33.4%	HUS1.81/10

Cautions

Header for the hanger HUS1.81/10 at B2 is a Single 1-3/4" x 11-7/8" VERSA-LAM® 1.7 2400 DF. Hanger model HUS1.81/10 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

Hanger Manufacturer: Unassigned

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



Disclosure

Use of the Bolse Cascade Software Is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of Input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™, ALLIOIST® , BC RIM BOARD™, BCI® , BOISE GLULAM™, BC FloorValue® , VERSA-LAM®, VERSA-RIM PLUS®,





Passed

2ND FLR FRAMING\Flush Beams\B17(I2170) (Flush Beam)

Dry | 2 spans | No cant.

February 18, 2020 08:54:51

Bulld 7239

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

BC CALC® Member Report

CCMC 12472-R

MOUNTAINASH 4 EL 1.mmdl

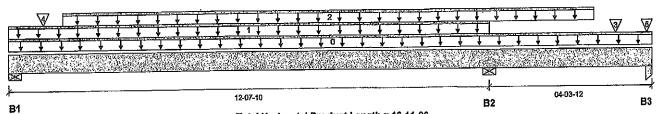
File name: 2ND FLR FRAMING\Flush Beams\B17(i2170) Description:

Wind

Specifier:

Designer: ΑJ

Company:



Total Horizontal Product Length = 16-11-06

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	LÌve	Dead
B1, 4-3/8"	1695 / 16	906 / 0
B2, 5-1/2"	4638 / 0	2482 / 0
B3, 3-1/2"	939 / 1231	0 / 164

	1	d Cummany						Live	Dead	Snow	Wind	Tributary
	Tag	d Summary Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
٠	U	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	16-11-06	Тор		12			00-00-00
	1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	12-07-10	Top	19	9			n\a
	2	Smoothed Load	Unf. Lin. (lb/ft)	L	01-04-14	15-04-14	Top	333	167			n\a
	2		Conc. Pt. (lbs)	Ī.	15-11-09	15-11-09	Top	377	158			n\a
	3	14 (10000)	Conc. Pt. (lbs)	ī	00-10-14	00-10-14	Тор	293	147			n\a
	4	J1(12296)	• •	ī	16-09-10	16-09-10	•	316	158			n\a
	5	J1(i2172)	Conc. Pt. (lbs)	L	10-00-10	10-00-10	٠٠٢	510	, 50			

Controls Summary	Factored Demand	Factored Resistance	Demand <i>i</i> Resistance	Case	Location
Pos. Moment	9514 ft-lbs	35392 ft-lbs	26.9%	2	04-10-14
Neg. Moment	-11329 ft-lbs	-35392 ft-lbs	32.0%	1	12-07-10
End Shear	3318 lbs	14464 lbs	22.9%	2	01-04-04
Cont. Shear	5044 lbs	14464 lbs	34.9%	1	11-05-00
Total Load Deflection	L/934 (0.158")	n\a	25.7%	9	05-10-14
	L/999 (0.104")	n\a	n\a	12	05-10-14
Live Load Deflection	L/999 (-0.014")	n\a	n\a	9	14-04-02
Total Neg. Defl.	0.158"	n\a	n\a	9	05-10-14
Max Defl.		IIIa	ma		00 (0
Span / Depth	12.5				

Bearing Supp	orts Dim. (LxW)	Demand	Demand/ Resistance Support	Demand <i>i</i> Resistance Member	Material
B1 Wall/PI B2 Wall/PI B3 Column B3 Uplift	ate 4-3/8" x 3-1/2" ate 5-1/2" x 3-1/2"	3675 lbs 10059 lbs 1262 lbs 2051 lbs	39.0% 84.9% 12.7%	19.7% 42.8% 8.4%	Spruce-Pine-Fir Spruce-Pine-Fir Unspecified

OWNCE OF ON THE

140 NO. TAM6045 -20 STRUCTURAL COMPONENT ONLY

Cautions

Uplift of 2051 lbs found at bearing B3. (51 M/Son



BC CALC® Member Report



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

2ND FLR FRAMING\Fiush Beams\B17(i2170) (Flush Beam)

Dry | 2 spans | No cant.

February 18, 2020 08:54:51

PASSED

Build 7239

Job name:

Address: City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 4 EL 1.mmdl 2ND FLR FRAMING\Flush Beams\B17(i2170)

Description: Specifier:

Designer:

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012

Calculations assume member is fully braced.

AMENDED 2020

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

PROVIDE 3 ROWS OF 31/4" ARDOX SPIRAL NAILS @ 12_ "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE, DO NOTUSE AIR NAILS PONINCE OF ONTH

OWE NO. TAN 6045-20 STRUCTURAL COMPONENT ONLY

Disclosure.

Use of the Boise Cascade Software Is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of Input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. installation of Boise Cascade engineered wood products must be in accordance with current installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before Installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™ BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



Job name:

Address:



City, Province, Postal Code: WATERDOWN

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Passed

February 18, 2020 08:54:51

1ST FLR FRAMING\Flush Beams\B18(i3879) (Flush Beam)

BC CALC® Member Report

Dry | 2 spans | No cant. **Build 7239**

MOUNTAINASH 4 EL 1.mmdl

File name:

Description: 1STFLR FRAMING\Flush Beams\B18(i3879)

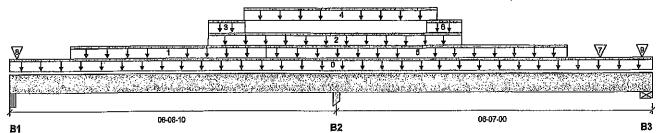
Specifier:

Designer:

Customer: Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 13-03-10

Reaction Summary (Down / Uplift) (lbs)						
Bearing	Live	Dead	Snow	Wind		
B1, 5-1/4"	1388 / 344	605 / 0				
B2, 6"	7432 / 0	4243 / 0		• •		
B3, 5-1/2"	2738 / 310	2808 / 0		1		

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	13-03-10	Тор		12			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L.	01-03-04	05-03-04	Тор	363	182			n\a
2	5(i592)	Unf. Lin. (lb/ft)	L	04-01-02	09-04-02	Тор		81			n\a
3	5(1592)	Unf. Lin. (lb/ft)	L	04-01-02	04-10-02	Тор	1209	638			n\a
4	5(i592)	Unf, Lin. (lb/ft)	L	04-09-14	08-09-14	Тор	698	349			n\a
5	Smoothed Load	Unf. Lin. (lb/ft)	L	05-03-04	11-06-08	Тор	348	174			n\a
6	5(i592)	Unf. Lin. (lb/ft)	L	08-07-02	09-04-02	Top	2107	1087			n\a
7	J2(i3755)	Conc. Pt. (lbs)	L	12-02-08	12-02-08	Тор	522	267			n\a
8	4(1589)	Conc. Pt. (lbs)	L	00-01-14	00-01-14	Тор	178	118			n\a
9	1(1533)	Conc. Pt. (lbs)	L	13-00-14	13-00-14	Top	1208	2139			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	6231 ft-lbs	35392 ft-lbs	17.6%	3	09-04-02
Neg. Moment	-9047 ft-lbs	-35392 ft-lbs	25.6%	1	06-08-10
End Shear	2710 lbs	14464 lbs	18.7%	3	11-10-04
Cont. Shear	7571 lbs	14464 lbs	52.3%	1	07-11-08
Total Load Deflection	L/999 (0.027")	n\a	n\a	10	09-09-08
Live Load Deflection	L/999 (0.02")	n\a	n\a	13	09-09-08
Total Neg. Defl.	L/999 (-0.006")	n\a ⋅	n\a	10	04-10-02
Max Defl.	0.027"	n\a	n\a	10	09-09-08
Span / Depth	6.4		•		

Bearin	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	5-1/4" x 3-1/2"	2838 lbs	28.9%	12.7%	Unspecified
B2.	Column	6" x 3-1/2"	16451 lbs	96.5%	64.2%	Unspecified
В3	Wall/Plate	5-1/2" x 3-1/2"	7617 lbs	64.3%	32.4%	Spruce-Pine-Fir



DWG NO. TAM 6046-20 STRUCTURAL COMPONENT ONLY





Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B18(I3879) (Flush Beam)

Passed

February 18, 2020 08:54:51

BC CALC® Member Report

Bulld 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

Dry | 2 spans | No cant.

MOUNTAINASH 4 EL 1.mmdl

File name: 1ST FLR FRAMING\Flush Beams\B18(i3879)

Description: Specifier:

Designer: AJ

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

AMENDED 2020

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

PROVIDES ROWS OF 31/2" ARDOX SPIRAL NAILS @ 0 " 0/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS



DWG NO. TAM 6046-20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B2(i3880) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 2 spans | L cant.

February 18, 2020 08:54:51

Build 7239

Job name:

File name:

MOUNTAINASH 4 EL 1.mmdl

Address:

Description:

1ST FLR FRAMING\Flush Beams\B2(i3880)

Customer:

City, Province, Postal Code: WATERDOWN

Specifier:

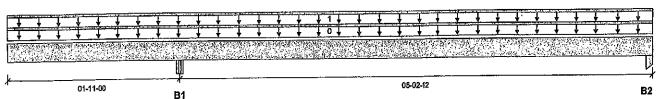
Wind

Code reports:

CCMC 12472-R

Designer:

Company:



Total Horizontal Product Length = 07-01-12

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead		
B1, 5-1/4"	90/0	103/0		
B2, 1-3/4"	49/7	49 / 0		

1.0	ad Cummani						Live	Dead	Snow	Wind	Tributary
≟ O Tag	ad Summary Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	Ĺ	00-00-00	07-01-12	Тор		12			00-00-00
1	FC1 Floor Material	Unf, Lin. (lb/ft)	L	00-00-00	07-01-12	Тор	19	9			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	157 ft-lbs	35392 ft-lbs	0.4%	3	04-07-14
Neg. Moment	-100 ft-lbs	-35392 ft-lbs	0.3%	1	01-11-00
End Shear	73 lbs	14464 lbs	0.5%	3	06-00-02
Cont. Shear	94 lbs	14464 lbs	0.6%	1	03-01-08
Total Load Deflection	L/999 (0.001")	n\a	n\a	10	04-06-13
Live Load Deflection	2xL/1998 (-0")	n\a	n\a	13	00-00-00
Total Neg. Defl.	2xL/1998 (-0")	n\a	n\a	10	00-00-00
Max Defl.	0.001"	n\a	n\a	10	04-06-13
Span / Depth	5.2				

Bearing	y Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	5-1/4" x 3-1/2"	264 lbs	2.7%	1.2%	Unspecified
B2	Column	1-3/4" x 3-1/2"	135 lbs	2.7%	1.8%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets User specified (2xL/360) Live load deflection criteria.

CONFORMS TO OBC 2012

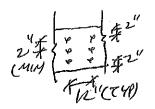
Calculations assume member is fully braced.

AMENDED 2020 Resistance Factor phi has been applied to all presented results per CSA O86. BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

Cantilevers require sheathed bottom flanges, blocking at cantilever support and closure at ends.



PROVIDE3 ROWS OF 31/1 ARDOX SPIRAL NAILS @ 12 " O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE. DO NOT USE AIR NAILS



DWB NO. TAM 6047 -20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. installation of Boise Cascade engineered wood products must be in accordance with current installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Passed

1ST FLR FRAMING\Flush Beams\B3(I3832) (Flush Beam)

Dry | 1 span | No cant.

February 18, 2020 08:54:51

MOUNTAINASH 4 EL 1.mmdl

1ST FLR FRAMING\Fiush Beams\B3(i3832)

BC CALC® Member Report Build 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

CCMC 12472-R

Customer: Code reports:

Description: Specifier:

Designer:

Company:

File name:

11-07-10 B2

В1

Total Horizontal Product Length = 11-07-10

Snow

Reaction Summary (Down / Uplift) (lbs)

LÌve Bearing 108/0 124/0 B1, 1-3/4' 108 / 0 124/0 B2, 1-7/8"

1.0	ad Summary						,	Live	Dead	Snow	Wind	Tributary
Tag	. •	Load Type	:	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)		L	00-00-00	11-07-10	Top		12			00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	•	L	00-00-00	11-07-10	Тор	19	9			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	894 ft-lbs	35392 ft-lbs	2.5%	1	05-09-12
End Shear	255 lbs	14464 lbs	1.8%	1	01-01-10
Total Load Deflection	L/999 (0.016")	n\a	n\a	4	05-09-12
Live Load Deflection	L/999 (0.007")	n\a	n\a	5	05-09-12
Max Defl.	0,016"	n\a	n\a	4	05-09-12
Span / Depth	11.6				

Bearing St	nports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1 Co	umn	1-3/4" x 3-1/2" 1-7/8" x 3-1/2"	316 lbs 317 lbs	6.4% 7.9%	4.2% 4.0%	Unspecified Spruce-Pine-Fir
B2 Wa	II/Plate	1-//6" X 3-1/Z"	317 ID8	1.070	4.070	Optidoo t illo t ti

SOLVINCE OF ON

uwa no . Tam*6048 -* 20 STRUCTURAL COMPONENT ONLY

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Wind

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

AMENDED 2020

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

PROVIDE ROWS OF 31/2" ARDOX SPIRAL NAILS @ /2_" O/C FOR

A MIN.2" LUMBER EDGE/END DISTANCE, DO HOT USE AIR NAILS

MULTI-PLY NAILING, MAINTAIN

Disclosure

CANFORMS TO ORE 2012 Use of the Bolse Cascade Software Is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Bolse Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

> BC CALC®, BC FRAMER®, AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAMM, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Fiush Beams\B4(i3765) (Flush Beam)

Passed

BC CALC® Member Report

Dry | 1 span | No cant.

February 18, 2020 08:54:51

Build 7239

Job name: Address:

Customer:

Code reports:

City, Province, Postal Code: WATERDOWN CCMC 12472-R File name:

MOUNTAINASH 4 EL 1.mmdl

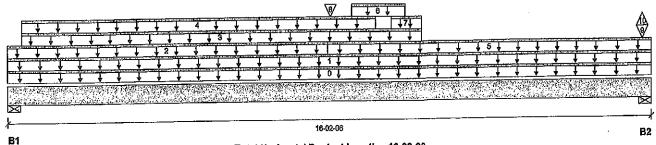
Description: 1ST FLR FRAMING\Flush Beams\B4(f3765)

Wind

Specifier:

Designer:

Company:



Total Horizontal Product Length = 16-02-06

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1. 1-7/8"	1167 / 0	1263 / 0
B2. 5-1/2"	1277 / 5	1062 / 0

Lac	ad Summary						Live	Dead	Snow	Wind	Tributary
_	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
Tag	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	16-02-06	Тор		12			00-00-00
0	FC1 Floor Material	Unf, Lin. (lb/ft)	Ľ	00-00-00	16-02-06	Тор	26	13			n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	Ĺ	00-00-00	08-00-08	Тор	6	3			n\a
3	6(i614)	Unf. Lin. (lb/ft)	Ĺ	00-04-06	10-04-10	Тор		81			n\a
3 4	6(1614)	Unf. Lin.: (lb/ft)	Ĺ	00-04-06	09-02-14	Тор	. 35	23			n\a
5	FC1 Floor Material	Unf. Lin. (lb/ft)	Ĺ	08-00-08	16-02-06	Тор	7	4			n\a
6	6(i614)	Unf. Lin. (lb/ft)	Ĺ	08-07-12	09-11-12	Тор	487	254			n\a
7	6(1614)	Unf. Lin. (lb/ft)	L	09-07-10	10-04-10	Тор	279	139			n\a
8	B5(i3861)	Conc. Pt. (lbs)	Ĺ	08-01-06	08-01-06	Тор	709	365			n\a
	• •	Conc. Pt. (lbs)	Ĺ	15-11-10	15-11-10	Тор	36	² 41			n\a
9 10	2(1532) 2(1532)	Conc. Pt. (lbs)	Ĺ	15-11-10	15-11-10	Тор	-5				n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	18495 ft-lbs	35392 ft-lbs	52.3%	1	08-01-06
End Shear	3234 lbs	14464 lbs	22.4%	1	01-01-12
Total Load Deflection	L/343 (0.549")	n\a	69.9%	6	08-00-08
	L/642 (0.294")	n\a	56.1%	8	08-01-06
Live Load Deflection Max Defl. Span / Depth	0.549" 15.9	n \ a	n\a	6	08-00-08

Bearing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1 Wall/Plate B2 Wall/Plate	1-7/8" x 3-1/2"	3330 lbs	82.5%	41.6%	Spruce-Pine-Fir
	5-1/2" x 3-1/2"	3244 lbs	27.4%	13.8%	Spruce-Pine-Fir



dwg no . Tamboy9 STRUCTURAL COMPONENT ONLY



BC CALC® Member Report



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

PASSED

1ST FLR FRAMING\Flush Beams\B4(i3765) (Flush Beam)

Dry | 1 span | No cant.

February 18, 2020 08:54:51

Build 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 4 EL 1.mmdi

1ST FLR FRAMING\Flush Beams\B4(i3765) Description:

Specifier:

Designer: ΑJ

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

conforms to obe 2012

Calculations assume member is fully braced.

AMENDED 2020

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

PROVIDE3 ROWS OF 3½" ARDOX SPIRAL NAILS @ 12" 0/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS

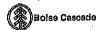


ows no. Yan 6049-20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Bolse Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of Input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



BC CALC® Member Report



Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

PASSED

1ST FLR FRAMING\Flush Beams\B5(i3861) (Flush Beam)

Dry | 1 span | No cant.

February 18, 2020 08:54:51

Build 7239

Job name: Address:

File name:

MOUNTAINASH 4 EL 1.mmdl

Description:

1ST FLR FRAMING\Flush Beams\B5(i3861)

City, Province, Postal Code: WATERDOWN Specifier:

Customer: Code reports:

CCMC 12472-R

Designer: ΑJ Company:

∑ 2/	 ₩		
	1 1 1 1 1 1		7 7 7 7 7
		<i>'</i>	·····
1	03-07-04	•	E

Total Horizontal Product Length = 03-07-04

Reaction Su	mmary (Down / D	piiit) (ibs)			
Bearing	Live	Dead	Snow	Wind	
B1, 2"	699 / 0	360 / 0			
B2. 2"	663 / 0	343 / 0			

Load Summary						Live	Dead	Snow	Wind	Tributary
Tag Description	Load Type	Ref.	Start	End	Loc.	1.00	0.66	1.00	1.15	
0 Self-Weight	Unf. Lin. (lb/ft)	L.	00-00-00	03-07-04	Top		6			00-00-00
1 - STAIR	Unf. Lin. (lb/ft)	L	00-00-14	03-07-04	Тор	240	120			n\a
2 J5(i3844)	Conc. Pt. (lbs)	L	00-02-08	-00-02-08	Тор	129	64			n\a
3 J5(i3855)	Conc. Pt. (lbs)	L	01-05-12	01-05-12	Тор	206	103			. n\a
4 J5(I3872)	Conc. Pt. (lbs)	L	02-09-12	02-09-12	Тор	180	90	Was ALO	FESSIO	N. W. n/a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1204 ft-lbs	17696 ft-lbs	6.8%	1	01-07-03
End Shear	684 lbs	7232 lbs	9.5%	1	02-05-06
Total Load Deflection	L/999 (0.004")	n\a	n\a	4	01-09-12
Live Load Deflection	L/999 (0.002")	n\a	n\a	5	01-09-12
Max Defl.	0.004"	n\a	n\a	4	01-09-12
Span / Depth	3.4	•			

	Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material	
•	B1	Hanger	2" x 1-3/4"	1499 lbs	n\a	35.1%	HUS1.81/10	
	B2	Hanger	2" x 1-3/4"	1423 lbs	n \ a	33.3%	HUS1.81/10	

Cautions

Header for the hanger HUS1.81/10 at B1 is a Double 1-3/4" x 11-7/8" VERSA-LAM® 1.7 2400 DF. Hanger model HUS1.81/10 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Header for the hanger HUS1.81/10 at B2 is a Double 1-3/4" x 11-7/8" VERSA-LAM® 1.7 2400 DF.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

AMENDED 2020

Hanger Manufacturer: Unassigned Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



Disclosure Use of the Bolse Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Bolse Cascade engineered wood products must be in CANFORMS TO ORC 2012 accordance with current installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

> BC CALC®, BC FRAMER®, AJS™ ALLJOIST®, BCRIM BOARD™, BCI®, BOISE GLULAMIM, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Passed

February 18, 2020 08:54:51

1ST FLR FRAMING\Flush Beams\B6(i3876) (Flush Beam)

BC CALC® Member Report

Bulld 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

Dry | 1 span | No cant.

MOUNTAINASH 4 EL 1.mmdl

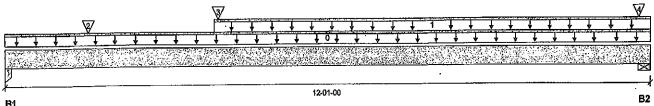
File name: 1ST FLR FRAMING\Flush Beams\B6(i3876)

Description:

Specifier:

Designer:

Company:



Total Horizontal Product Length = 12-01-00

Reaction Summary (Down / Unlift) (lbs)

IZEACTION OUN	mitary (Down - D		5	6 M ff. e.	
Bearing	Live	Dead	Snow	Wind	
B1, 3-1/2"	2577 / 0	1554 / 0		•	
B2, 5-1/2"	772 / 0	520 / 0			

CCMC 12472-R

1 0	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0,65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	Ĺ	0.0-00-00	12-01-00	Тор		12			00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	03-11-02	12-01-00	Top	27	13			n\a
2	-	Conc. Pt. (lbs)	L	01-07-02	01-07-02	Тор	2325	1374			n\a
2	B5(i3861)	Conc. Pt. (lbs)	L	04-00-00	04-00-00	Top	654	338			n\a
ن ا		Conc. Pt. (lbs)	ī	11-10-04	11-10-04	Top	127	95	With O	essio,	ar ana
4	2(1532)	Cono. 1 t. (ino)	-			1-	•		Value School	CHARLES CHARLES	Will Say

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	9181 ft-lbs	35392 ft-lbs	25.9%	1	04-00-00
End Shear	5775 lbs	14464 lbs	39.9%	1	01-03-06
Total Load Deflection	L/995 (0.138")	n\a	24.1%	4	05-04-03
Live Load Deflection	L/999 (0.086")	n\a	n\a	5	05-04-03
Max Defi.	0.138"	n\a	n\a	4	05-04-03
Span / Depth	11.6				

Bearin	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	<u>Material</u>
B1	Column	3-1/2" x 3-1/2"	5808 lbs	58.4%	38.9%	Unspecified
B2	Wall/Plate	5-1/2" x 3-1/2"	1807 lbs	15.3%	7.7%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012

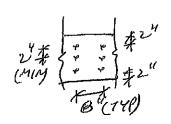
Calculations assume member is fully braced.

AMENDED 2020 Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



PROVIDE 3 ROWS OF 31/2" ARDOX SPIRAL NAILS @ 8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2^{LI}LUMBER EDGE/END DISTANCE.DO NOT USE AIR NAILS



844 NO . TAM 605/ #20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



BC CALC® Member Report



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Passed

1ST FLR FRAMING\Flush Beams\B7(i3864) (Flush Beam)

Dry | 1 span | No cant.

February 18, 2020 08:54:51

Build 7239 Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 4 EL 1.mmdl

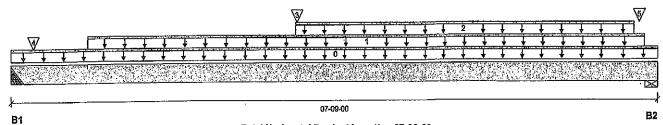
Description: 1ST FLR FRAMING\Flush Beams\B7(i3864)

Wind

Specifier:

Designer:

Company:



Total Horizontal Product Length = 07-09-00

Reaction Summary (Down / Uplift) (lbs)

Keachon oun	minist Andrews at	intel (inde)		
Bearing	Live	Dead	Snow	
B1. 4"	2280 / 0	1354 / 0		
B2 3-1/2"	1726 / 0	976 / 0		

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
Tag		Load Type	Ref.	Start	End	Loc.	1.00	0.66	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	Ĺ	00-00-00	07-09-00	Тор		12			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-11-00	07-07-00	Тор	216	108			. n\a
,	STAIR	Unf. Lin. (lb/ft)	L	03-04-11	07-05-08	Тор	120	60			n\a
3	B9(i3871)	Conc. Pt. (lbs)	L	03-04-14	03-04-14	Тор	63	36			n\a
1	5	Conc. Pt. (lbs)	L	00-03-04	00-03-04	Top	1439	884			n \a
5	E10(i425)	Conc. Pt. (lbs)	L	07-06-04	07-06-04	Тор	545	338			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	4497 ft-lbs	35392 ft-lbs	12.7%	1	04-03-00
End Shear	2014 lbs	14464 lbs	13.9%	1	06-05-10
Total Load Deflection	L/999 (0.03")	n\a	n\a	4	03-11-08
Live Load Deflection	L/999 (0.019")	n\a	n\a	5	03-11-08
Max Defl. Span / Depth	0.03" 7.3	n\a	n\a	4	03-11-08

Bearing	y Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material	
B1	Hanger	4" x 3-1/2"	5113 lbs	n\a	29.9%	HGUS410	
B2	Wali/Plate	3-1/2" x 3-1/2"	3809 lbs	50.5%	25.5%	Spruce-Pine-Fir	

Cautions

Header for the hanger HGUS410 at B1 is a Double 1-3/4" x 11-7/8" VERSA-LAM® 1.7 2400 DF. Hanger model HGUS410 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.



awa no. tam 6052 -20 STRUCTURAL COMPONENT ONLY





Passed

February 18, 2020 08:54:51

1ST FLR FRAMING\Flush Beams\B7(i3864) (Flush Beam) Dry | 1 span | No cant.

BC CALC® Member Report Bulld 7239

Job name: Address:

MOUNTAINASH 4 EL 1.mmdl File name:

Description: 1STFLR FRAMING\Flush Beams\B7(i3864)

Specifier:

Designer:

Customer: Code reports:

CCMC 12472-R

ΑJ Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

City, Province, Postal Code: WATERDOWN

CAMPARMS TO OBC 2012 AMENDED 2020

Hanger Manufacturer: Unassigned

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

PROVIDE 3 ROWS OF 31/2" ARDOX SPIRAL NAILS @8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE, DO HOT USE AIR NAILS



1 W G NO . YANG 052 -28 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Bolse Cascade Software Is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of Input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Bolse Cascade engineered wood products must be in accordance with current installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®. BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





City, Province, Postal Code: WATERDOWN

Single 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

Passed

February 18, 2020 08:54:51

1ST FLR FRAMING\Flush Beams\B8(i3867) (Flush Beam)

BC CALC® Member Report

Build 7239

Job name: Address:

Customer:

В1

Code reports:

Dry | 1 span | No cant.

File name:

MOUNTAINASH 4 EL 1.mmdl

Description:

1ST FLR FRAMING\Flush Beams\B8(i3867)

Specifier:

Designer:

Company:

				صعتين
1	l			l.
	, ,	, ,	7 1	7
	1.00 X 2.00 X			

CCMC 12472-R

03-09-04

B2

Total Horizontal Product Length = 03-09-04

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 5-1/4"	52 / 0	38/0
B2, 3-1/2"	48/0	35/0

Loa	ad Summary	. •					Live	Dead	Snow	Wind	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L.	00-00-00	03-09-04	Тор	_	6			00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	03-09-04	Тор	27	13			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	80 ft-lbs	17696 ft-lbs	0.5%	1	01-11-08
End Shear	34 lbs	7232 lbs	0.5%	1	01-05-02
Total Load Deflection	L/999 (0")	n\a	n\a	4	01-11-08
Live Load Deflection	L/999 (0")	n\a	n\a	5	01-11-08
Max Defi.	0"	n\a	n\a	4	01-11-08
Snan / Depth	3.2				

Bearin	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Column	5-1/4" x 1-3/4"	126 lbs	1.7%	1.1%	Unspecified
B2	Column	3-1/2" x 1-3/4"	116 lbs	2.3%	1.6%	Unspecified

ONINCE OF OF

OWE NO. TAM6053 STRUCTURAL COMPONENT ONLY

Notes

Design meets Code minimum (L/240) Total load deflection criteria. Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012 Calculations assume member is fully braced. Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86. Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™, ALLJOIST® , BC RIM BOARD™, BCI® , BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





passed

February 18, 2020 08:54:51

1ST FLR FRAMING\Flush Beams\B9(i3871) (Flush Beam)

BC CALC® Member Report

Build 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer:

B1

Code reports:

Dry | 1 span | No cant.

File name:

MOUNTAINASH 4 EL 1.mmdl

1ST FLR FRAMING\Flush Beams\B9(i3871) Description:

Specifier:

Designer: AJ

Company:

CCMC 12472-R

01-05-08

Snow

B2

Total Horizontal Product Length = 01-05-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead		
B1, 1-3/4"	8/0	8/0		
B2. 2"	55/0	32/0		

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
Tag		Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L.	00-00-00	01-05-08	Тор		6		÷	00-00-00
1	J6(i3869)	Conc. Pt. (lbs)	L	01-02-04	01-02-04	Тор	63	32		:	n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	20 ft-lbs	17696 ft-lbs	0.1%	1	01-02-04
End Shear	14 lbs	7232 lbs	0.2%	1	01-01-10
Span / Depth	1.3				

opan / Deptn

		•		Dømand/ Resistance	Demand/ Resistance		
Bearir	ng Supports	Dim. (LxW)	Demand	Support	Member	Material	
B1	Column	1-3/4" x 1-3/4"	23 lbs	0.9%	0.6%	Unspecified	
B2	Hanger	2" x 1-3/4"	123 lbs	n\a	2.9%	HUS1.81/10	

Cautions

Header for the hanger HUS1.81/10 at B2 is a Double 1-3/4" x 11-7/8" VERSA-LAM® 1.7 2400 DF. Hanger model HUS1.81/10 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Notes

Calculations assume member is fully braced.

Hanger Manufacturer: Unassigned

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.020

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



BWB NO. TAM 6054 -20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Bolse Cascade Software is subject to the terms of the End User License Agreement (EULA). CANFORMS TO USE 2012 Completeness and accuracy of Input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Bolse Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

> BC CALC®, BC FRAMER® , AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAMIM, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



Passed

February 18, 2020 09:06:05

2ND FLR FRAMING\Dropped Beams\B19 DR(i4489) (Dropped Beam)

BC CALC® Member Report

Build 7239

Job name:

Address: City, Province, Postal Code: WATERDOWN

Code reports:

Customer:

CCMC 12472-R

Dry | 1 span | No cant.

File name:

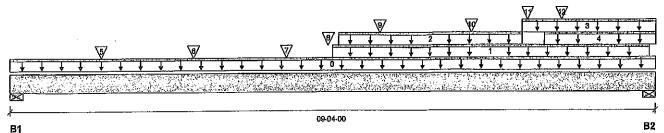
MOUNTAINASH 4 EL 2.mmdl

2ND FLR FRAMING\Dropped Beams\B19 DR(i4489)

Description: Specifier:

Designer:

Company:



Total Horizontal Product Length = 09-04-00

Reaction Summary (Down / Uplift) (lbs)

I TOUCHOIL OUI	minary (powers ab	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Bearing	Live	Dead	Snow	Wind
B1, 4"	1206 / 0	1090 / 0	524 / 0	
B2, 5-1/2"	1274 / 0	1230 / 0	780 / 0	

Los	ad Summary		÷				Live	Dead	Snow	-Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L.	00-00-00	09-04-00	Тор		10			00-00-00
1	ROOF	Unf. Lin. (lb/ft)	L	04-08-00	09-02-14	Тор	33	30	63		n\a
2	R1(i4465)	Unf, Lin, (lb/ft)	Ł	04-09-00	07-05-00	Top		41			ˈn\a
3	R1(i4465)	Unf. Lin. (lb/ft)	L	07-05-00	09-04-00	Top		81			n\a
4	R1(i4465)	Unf. Lin. (lb/ft)	L.	07-09-00	09-04-00	Top	44	40	92		n\a
5	J4(14437)	Conc. Pt. (lbs)	L	01-04-00	01-04-00	Тор	414	342	170		n\a
6	J4(14460)	Conc. Pt. (lbs)	L	02-08-00	02-08-00	Тор	394	331	127		n\a
7	J4(i4484)	Conc. Pt. (lbs)	L	04-00-00	04-00-00	Тор	286	237	87		n\a
8	B21(I4467)	Conc. Pt. (lbs)	L	04-07-04	04-07-04	Top	282	331	197		n\a
9	J4(14447)	Conc. Pt. (lbs)	L	05-04-00	05-04-00	Top	244	136	69		n\a
10	J4(I4129)	Conc. Pt. (lbs)	L	06-08-00	06-08-00	Top	273	137			n\a
11	R1(14465)	Conc. Pt. (lbs)	L	07-06-00	07-06-00	Тор	72	90	151		n\a
12	J4(i3973)	Conc. Pt. (lbs)	L	08-00-00	08-00-00	Тор	286	156	69		n\a ≱∖

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	9223 ft-lbs	23220 ft-lbs	39.7%	1	04-07-04
End Shear	3683 lbs	11571 lbs	31,8%	1	01-01-08
Total Load Deflection	L/561 (0.185")	n\a	42.8%	35	04-07-04
Live Load Deflection	L/999 (0.114")	n\a	n\a	51	04-07-04
Max Defl.	0.185"	n\a	n\a	35	04-07-04
Span / Depth	10.9				

	Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
-	B1	Wall/Plate	4" x 3-1/2"	3696 lbs	32.5%	21.6%	Spruce-Pine-Fir
	B2	Wall/Plate	5-1/2" x 3-1/2"	4227 lbs	16.5%	18.0%	Spruce-Pine-Fir



HWU NO . TAM 6055 STRUCTURAL COMPONENT ONLY





Passed

February 18, 2020 09:06:05

2ND FLR FRAMING\Dropped Beams\B19 DR(i4489) (Dropped Beam) Dry [1 span | No cant.

BC CALC® Member Report

Build 7239 Job name:

Address:

Customer: Code reports:

City, Province, Postal Code: WATERDOWN

CCMC 12472-R

MOUNTAINASH 4 EL. 2.mmdl

File name: 2ND FLR FRAMING\Dropped Beams\B19 DR(i4489)

Description: Specifier:

Designer:

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CONFORMS TO OBC 2012

Calculations assume unbraced length of Top: 01-01-08, Bottom: 01-01-08.

Resistance Factor phi has been applied to all presented results per CSA O86.

AMENDED 2020

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Unbalanced snow loads determined from building geometry were used in selected product's

verification.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

PROVIDE3 ROWS OF 3½" ARDOX SPIRAL NAILS @ 8 "O/6 FOR MULTI-PLY WAILING, MAINTAIN A MIN. 2 LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS



DWG NO . TAN 6055 -20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Passed

2ND FLR FRAMING\Dropped Beams\B20 DR(i4444) (Dropped Beam)

BC CALC® Member Report

Dry | 1 span | No cant.

February 18, 2020 09:06:05

Build 7239

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

CCMC 12472-R

File name:

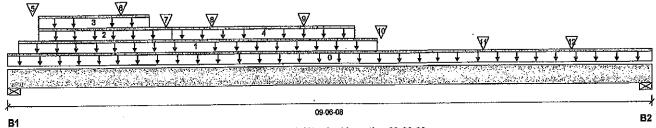
MOUNTAINASH 4 EL 2.mmdl

2ND FLR FRAMING\Dropped Beams\B20 DR(i4444) Description:

Specifier:

Designer: ΑJ

Company:



Total Horizontal Product Length = 09-06-08

Reaction Summary (Down / Uplift) (lbs)

Meachon on	MINIMA IDOMAN OF	,,,,,, (,,~+)		
Bearing	Live	Dead	Snow	Wind
B1, 2"	1316 / 0	1199 / 0	738 / 0	
B2, 4"	1285 / 0	1195 / 0	623 / 0	

Los	ad Summary				;		Live	Dead	Snow	. Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	09-06-08	Тор		10			00-00-00
1	ROOF	Unf. Lin. (lb/ft)	L	00-02-00	05-05-08	Тор	33	30	63		n\a
2	R1(I4438)	Unf. Lin. (lb/ft)	L	00-05-08	02-05-08	Тор		81			n\a
3	R1(i4438)	Unf. Lin. (lb/ft)	L.	00-05-08	02-01-08	Top	44	40	92		n\a
4	R1(14438)	Unf. Lin. (lb/ft)	L	02-05-08	05-01-08	Тор		4 1			nļa
5	J4(j4000)	Conc. Pt. (lbs)	L	00-04-08	00-04-08	Тор	174	87 .			n\a
6	J4(i3957)	Conc. Pt. (lbs)	L	01-08-08	01-08-08	Тор	303	165	69		n\a
7	R1(14438)	Conc. Pt. (lbs)	L	02-04-08	02-04-08	Тор	75	93	156		n\a
8	J4(j4129)	Conc. Pt. (lbs)	L	03-00-08	03-00-08	Тор	273	137			n \a
9	J4(i4461)	Conc. Pt. (lbs)	Ł	04-04-08	04-04-08	Тор	295	161	69		n\a
10		Conc. Pt. (lbs)	Ĺ.	05-06-03	05-06-03	Тор	430	478	260		n\a
11	J4(i4479)	Conc. Pt. (lbs)	L	07-00-08	07-00-08	Тор	371	320	125		n\a
12	J4(i4471)	Conc. Pt. (lbs)	L	08-04-08	08-04-08	Тор	427	362	195		n\a

Controls Summary	Factored Demand	Factored Resistance	Demand <i>l</i> Resistance	Case	Location
Pos. Moment	9800 ft-lbs	23220 ft-lbs	42.2%	1	04-09-00
End Shear	4031 lbs	11571 lbs	34.8%	1	08-05-00
Total Load Deflection	L/482 (0.228")	n\a	49.8%	35 .	04-09-00
Live Load Deflection	L/777 (0.142")	n\a	46.3%	51	04-09-00
Max Defl.	0.228"	n\a	n \a	35	04-09-00
Span / Depth	11.6				

Bearin	g Supports	Dlm. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2" x 3-1/2"	4211 lbs	45.1%	49.3%	Spruce-Pine-Fir
B2	Wall/Plate	4" x 3-1/2"	4044 lbs	35,6%	23.7%	Spruce-Pine-Fir



040 NO. TAM 6056 -20 STRUCTURAL COMPONENT ONLY





Passed

2ND FLR FRAMING\Dropped Beams\B20 DR(i4444) (Dropped Beam)

Dry | 1 span | No cant.

February 18, 2020 09:06:05

BC CALC® Member Report Bulld 7239

Job name:

File name:

MOUNTAINASH 4 EL 2.mmdl

Address: City, Province, Postal Code: WATERDOWN

Description: 2ND FLR FRAMING\Dropped Beams\B20 DR(I4444)

Specifier:

ΑJ

Customer:

Designer:

Code reports:

CCMC 12472-R

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria. Design meets Code minimum (L/360) Live load deflection criteria.

COMPORMS TO OBC 2012

Calculations assume unbraced length of Top: 01-02-04, Bottom: 01-02-04.

Resistance Factor phi has been applied to all presented results per CSA O86.

AMENDED 2020

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Unbalanced snow loads determined from building geometry were used in selected product's

verification.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

PROVIDE 3 ROWS OF 312" ARDOX SPIRAL NAILS @ 8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE. DO NOT USE AIR NAILS



and No. 7AM 6056 -20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Bolse Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Bolse Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™. ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Passed

February 18, 2020 09:06:05

2ND FLR FRAMING\Flush Beams\B21(i4467) (Flush Beam)

BC CALC® Member Report

Bulld 7239

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

Dry | 2 spans | No cant.

File name:

MOUNTAINASH 4 EL 2.mmdl

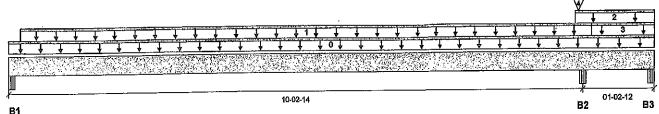
2ND FLR FRAMING\Flush Beams\B21(i4467) Description:

Wind

Specifier:

Designer:

Company:



Total Horizontal Product Length = 11-05-10

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow
B1. 5-1/4"	105 / 0	103/0	0/0
B2, 3-1/2"	620 / 0	650 / 0	206 / 0
B3, 5-1/4"	38 / 350	0 / 293	50/0

CCMC 12472-R

	1 00	d Cummanı						- ;	Live	Dead	Snow	Wind	Tributary
Load Summary Tag Description		Description	Load Type	Ref.	Start	End	Loc.		1.00	0.65	1.00	1.15	
	n n	Self-Weight	Unf. Lin. (lb/ft)	Ļ	00-00-00	11-05-10	Тор			12			00-00-00
	1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-02-10	10-04-10	Top		27	13			n\a
	י ר	ROOF	Unf. Lin. (lb/ft)	L.	10-01-02	11-05-10	Тор		33	30	63		n\a
	2		Unf. Lin. (lb/ft)	ī	10-04-10	11-05-10	αοΤ		15	7			n\a
	3	FC2 Floor Material	• •	ī	10-01-14	10-01-14	Τορ		81	136	169		n∖a
	4	E21(i1667)	Conc. Pt. (lbs)	L.	10-01-1-	10-01-14	,υp		٠.	, 50			

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	517 ft-lbs	35392 ft-lbs	1.5%	44	04-02-04
Neg. Moment	-806 ft-lbs	-35392 ft-lbs	2.3%	1	10-02-14
End Shear	919 lbs	14464 lbs	6.4%	44	11-00-06
Cont. Shear	998 lbs	14464 lbs	6.9%	19	10-04-10
Total Load Deflection	<u>1</u> /999 (0.005")	n\a	n\a	107	04-08-00
Live Load Deflection	L/999 (0.003")	n\a	n\a	.159	04-08-00
Total Neg. Defl.	L/999 (-0")	n\a	n\a	107	10-07-03
Max Defl.	0.005"	n\a	n\a	107	04-08-00
Snan / Denth	10.0				

8	learing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Resistance Member	Material
B		5-1/4" x 3-1/2"	287 lbs	2.9%	1.3%	Unspecified
B		3-1/2" x 3-1/2"	1948 lbs	13.0%	13.0%	VL 2.0 3100 SP
B		5-1/4" x 3-1/2"	0 lbs	n\a	n\a	Unspecified
В		•	892 lbs			

Uplift of 892 lbs found at bearing B3. (SIMPSON)



STRUCTURAL COMPONENT ONLY





Passed

2ND FLR FRAMING\Flush Beams\B21(i4467) (Flush Beam)

BC CALC® Member Report

Dry | 2 spans | No cant.

February 18, 2020 09:06:05

Bulld 7239

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 4 EL 2.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B21(i4467)

Specifier:

Designer:

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CANFORMS TO OBC 2012

Calculations assume member is fully braced.

VMENDED 3030

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086. Unbalanced snow loads determined from building geometry were used in selected product's

verification.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

PROVIDE 3ROWS OF 3½" ARDOX SPIRAL NAILS @/2 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2" LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS



1WG NO. TAM 6057 -20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER® , AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





PASSED

2ND FLR FRAMING\Flush Beams\B22(i4454) (Flush Beam)

Dry | 2 spans | No cant.

February 18, 2020 09:06:05

BC CALC® Member Report Build 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

CCMC 12472-R

File name:

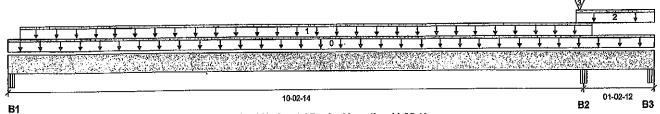
MOUNTAINASH 4 EL 2.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B22(I4454)

Specifier:

Designer: ΑJ

Company:



Total Horizontal Product Length = 11-05-10

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow		
B1. 5-1/4"	211/0	156 / 0	0/0		
B2, 3-1/2"	1088 / 0	876 / 0	118/0		
B3, 5-1/4"	27 / 699	0 / 474	50 / 0		

Load Summary							Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	11-05-10	Тор	·	12			00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-02-10	10-04-10	Тор	53	27		•	n\a
9	ROOF	Unf. Lin. (lb/ft)	L	10-01-02	11-05-10	Тор	33	30	63		n\a
3	E19(i1665)	Conc. Pt. (lbs)	L	10-01-14	10-01-14	Тор	39	107	81		n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	926 ft-lbs	35392 ft-lbs	2.6%	44	04-02-04
Neg. Moment	-1440 ft-lbs	-35392 ft-lbs	4.1%	1	10-02-14
End Shear	1664 lbs	14464 lbs	11.5%	44	11-00-06
Cont. Shear	1731 lbs	14464 lbs	12.0%	1	10-04-10
Total Load Deflection	L/999 (0.009")	n\a	n\a	107	04-08-00
Live Load Deflection	L/999 (0.005")	n\a	n\a	159	04-08-00
Total Neg. Defl.	L/999 (-0")	n\a	n\a	107	10-07-03
Max Defl.	0.009"	n\a	n\a	107	04-08-00
Span / Depth	10.0				

Bearing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material_
B1 Beam B2 Beam B3 Beam B3 Unlift	5-1/4" x 3-1/2" 3-1/2" x 3-1/2" 5-1/4" x 3-1/2"	511 lbs 2845 lbs 0 lbs 1641 lbs	5.2% 19.0% n\a	2,3% 19,0% n\a	Unspecified VL 2.0 3100 SP Unspecified

Cautions

Uplift of 1641 lbs found at bearing B3. (SIMPSON 2-H2-57 + 4-3/2" AMDONE SINAL TOE-NAILS @ 07. B3).



DWG NO. TAM*6058-*20 STRUCTURAL COMPONENT ONLY





2ND FLR FRAMING\Flush Beams\B22(i4454) (Flush Beam)

Dry | 2 spans | No cant.

February 18, 2020 09:06:05

Passed

Build 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

BC CALC® Member Report

Customer:

Code reports:

File name:

MOUNTAINASH 4 EL 2.mmdl

Description:

2ND FLR FRAMING\Flush Beams\B22(i4454)

Specifier:

Designer:

Company:

Notes

CCMC 12472-R

CONFORMS TO DBC 2012

Design meets Code minimum (L/360) Live load deflection criteria. Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

Design meets Code minimum (L/240) Total load deflection criteria.

AMENDED 2020

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Unbalanced snow loads determined from building geometry were used in selected product's

verification.

Design based on Dry Service Condition. Importance Factor : Normal Part code : Part 9

PROVIDE3 ROWS OF 3½" ARDOX Spiral nails @ /2_" O/G for MULTI-PLY NAILING, MAINTAIN A MIN.2"LUMBER EDGE/END DISTANCE, DO HOY USE AIR NAILS



uwa no . TAM 6056-2 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Bolse Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Passed

2ND FLR FRAMING\Flush Beams\B22(i4484) (Flush Beam)

Dry | 2 spans | No cant.

February 18, 2020 09:19:26

Build 7239

Job name:

Address:

City, Province, Postal Code: WATERDOWN

BC CALC® Member Report

Customer:

Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 4 EL 3 OPT.mmdl

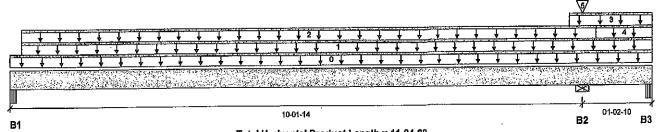
Description: 2ND FLR FRAMING\Flush Beams\B22(i4484)

Specifier:

Designer:

Wind

Company:



Total Horizontal Product Length = 11-04-08

Reaction Summary (Down / Uplift) (lbs)

I TONOTION ON	intition & franchistic and		
Bearing	Live	Dead	Snow
B1. 5-1/4"	105 / 0	102/0	0/0
B2, 5-1/2"	504 / 0	494 / 0	46 / 0
B3, 4-1/8"	34/311	0/260	46 / 0

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
Tag		Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	11-04-08	Тор		12			00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-02-10	11-04-08	Тор	7	4			n\a
,	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-02-10	10-04-10	Тор	20	10			n\a
3	ROOF	Unf. Lin. (lb/ft)	L	09-11-02	11-04-08	Тор	33	30	63		n\a
4	FC2 Floor Material	Unf. Lin. (lb/ft)	L	10-04-10	11-04-08	Тор	6	3			n\a
5	E20(i1666)	Conc. Pt. (lbs)	L.	10-01-14	10-01-14	Тор		14			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	511 ft-lbs	35392 ft-lbs	1.4%	44	04-01-08
Neg, Moment	-788 ft-lbs	-35392 ft-lbs	2.2%	1	10-01-14
End Shear	813 lbs	14464 lbs	5.6%	44	11-00-06
Cont. Shear	886 lbs	14464 lbs	6.1%	1	10-04-10
Total Load Deflection	L/999 (0.005")	n\a	n\a	107	04-07-02
Live Load Deflection	L/999 (0.003")	n\a	n\a	159	04-07-02
Total Neg. Defl.	L/999 (-0")	n\a	n\a	107	10-06-09
Max Defl.	0.005"	n\a	n\a	107	04-07-02
Snan / Denth	9.9				

Beari	ing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	5-1/4" x 3-1/2"	285 lbs	2.9%	1.3%	Unspecified
B2	Wall/Plate	5-1/2" x 3-1/2"	1420 lbs	12.0%	6.0%	Spruce-Pine-Fir
B3	Beam	4-1/8" x 3-1/2"	0 lbs	n\a	n\a	Unspecified
B3	Unlift		792 lbs			

Uplift of 792 lbs found at bearing B3. (SIMPSON 2-42-54 @ 07- 33)



COMPONENT ONLY





Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B22(I4484) (Flush Beam)

Passed

BC CALC® Member Report

Dry | 2 spans | No cant.

February 18, 2020 09:19:26

Bulld 7239

Job name:

File name:

Address:

City, Province, Postal Code: WATERDOWN

Description:

MOUNTAINASH 4 EL 3 OPT.mmdl 2ND FLR FRAMING\Flush Beams\B22(i4484)

Customer: Code reports:

Specifier:

ΑJ

CCMC 12472-R

Designer: Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

CANPORMS TO OBO 2012

Calculations assume member is fully braced.

AMENDED 2020

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Unbalanced snow loads determined from building geometry were used in selected products

verification.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

PROVIDE 3 ROWS OF 3½" ARDOX SPIRAL NAILS @ /2-" O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS



dus no. Fam 6059 : 48 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Boise Cascade Software Is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALCO, BC FRAMERO , AJSTM ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



BC CALC® Member Report



Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

PASSED

Tributary

00-00-00 n\a n\a

1ST FLR FRAMING\Flush Beams\B1A(i4890) (Flush Beam)

Dry I 1 span | No cant.

April 16, 2020 07:54:23

Build 7239

Job name:

Address: City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

CCMC 12472-R

File name:

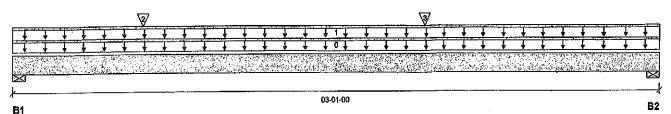
MOUNTAINASH 4 EL 1 DECK CONDITION.mmdl 1ST FLR FRAMING\Flush Beams\B1A(i4890)

Description:

Specifier:

Designer: Company:

Wind



Total Horizontal Product Length = 03-01-00

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 3"	818 / 0	552 / 0
B2, 3"	689 / 0	487 / 0

Load S	Summary						Live	Dead	Snow	Wind
Tag Des		Load Type Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
	if-Weight	Unf. Lin. (lb/ft)	Ĺ	00-00-00	03-01-00	Тор	-	12		
	(1429)	Unf, Lin. (lb/ft)	L	00-00-00	03-01-00	Тор	262	212		
	(14853)	Conc. Pt. (lbs)	L	00-07-08	00-07-08	Top	349	174		
	(i4853)	Conc. Pt. (lbs)	L	01-11-08	01-11-08	Тор	349	174	de Carres	ESS/

Controls Summary	Factored Demand	Factored Resistance	Demand <i>i</i> Resistance	Case	Location
Pos. Moment	1140 ft-lbs	35392 ft-lbs	3.2%	1	01-08-12.
End Shear	722 lbs	14464 lbs	5.0%	1	01-10-02
Total Load Deflection	L/999 (0.001")	n\a	n\a	4	01-06-08
Live Load Deflection	L/999 (0.001")	n\a	n\a	5	01-06-08
Max Defl.	0.001"	n\a	n\a	4	01-06-08
Span / Depth	2.7				

Bear	ing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material	
B1	Wall/Plate	3" x 3-1/2"	1917 lbs	29.7%	15.0%	Spruce-Pine-Fir	
B2	Wall/Plate	3" x 3-1/2"	1643 lbs	25.4%	12.8%	Spruce-Pine-Fir	

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. AMENDED 2020 BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



PROVIDE3 ROWS OF 31/2" ARDOX SPIRAL NAILS @ 8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE, DO HOT USE AIR HAILS

CONFORMS TO OBC 2012



Disclosure

Use of the Boise Cascade Software Is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of Input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of sultability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





PASSED

1ST FLR FRAMING\Flush Beams\B1B(I4889) (Flush Beam)

BC CALC® Member Report

Build 7239 Job name:

Dry | 1 span | No cant.

April 16, 2020 07:54:23

Address:

City, Province, Postal Code: WATERDOWN

Customer:

CCMC 12472-R Code reports:

File name:

MOUNTAINASH 4 EL 1 DECK CONDITION.mmdl 1ST FLR FRAMING\Flush Beams\B1B(i4889)

Description:

Specifier: Designer:

Wind

Company:

1	 	4 4 4 4 4
1 1 1 1 1 1 1 1 1 1 1 1		* * * * *

В1

Total Horizontal Product Length = 03-01-00

Snow

Reaction Summary (Down / Uplift) (Ibs)

Bearing	Live	Dead
B1, 3"	79/0	192/0
B2, 3"	79/0	192 / 0

Le	oad Summary						Live	Dead	Snow	Wind	Tributary
Ta	-	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Тор		12			00-00-00
1	E5(1427)	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Тор	25	99			n\a
2	FC1 Floor Material	Unf, Lin. (lb/ft)	L	00-00-00	03-01-00	Тор	27	13			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	160 ft-lbs	23005 ft-lbs	0.7%	0	01-06-08
End Shear	53 lbs	9401 lbs	0.6%	0	01-02-14
Total Load Deflection	L/999 (0")	n\a	n\a	4	01-06-08
Live Load Deflection	L/999 (0")	n\a	n\a	5	01-06-08
Max Defl.	0"	n\a	n\a	4	01-06-08
Span / Depth	2.7				

Bearing	Supports	Dim. (LxW)	Demand.	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	3" x 3-1/2"	268 bs	6.4%	3.2%	Spruce-Pine-Fir
B2	Wall/Plate	3" x 3-1/2"	268 lbs	6.4%	3.2%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86. BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

PROVIDE 3 ROWS OF 3%" ARDOX SPIRAL NAILS @8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2 LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS

CONFORMS TO OBC 2012



DVS NO. FAM 6061 =20 STRUCTURAL COMPONENT ONLY

Disclosure

Use of the Bolse Cascade Software Is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of Input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Bolse Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™ ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,