

-		Products			
PlotiD	Length	Product	Plies	Net Qty	Fab Type
J1	18-00-00	9 1/2" NI-40x	1	22	MFD
J1 L	18-00-00	9 1/2" NI-40x	1	1	MFD
J1DJ	18-00-00	9 1/2" NI-40x	2	4	MFD
J2	16-00-00	9 1/2" NI-40x	1	22	MFD
J2DJ	16-00-00	9 1/2" NI-40x	2	4	MFD
J3	14-00-00	9 1/2" NI-40x	1	14	MFD
J4	12-00-00	9 1/2" NI-40x	1	8	MFD
J5	10-00-00	9 1/2" NI-40x	1	2	MFD
J6	6-00-00	9 1/2" NI-40x	1	2	MFD
J7	4-00-00	9 1/2" NI-40x	1	9	MFD
J8	2-00-00	9 1/2" NI-40x	1	4	MFD
B16 H	18-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B1	12-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B2	12-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B3	10-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B4	8-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B5	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B7	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD
B18	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD
B6	4-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD

C	Connector	Summary
Qty	Manuf	Product
2	H1	IUS2.56/9.5
27	H1	IUS2.56/9.5
4	H1	IUS2.56/9.5
8	H1	IUS2.56/9.5
3	H2	HUS1.81/10
1	H4	HGUS410
2	H5	HU312-2

CITY OF HAMILTON Building Division

mit No. 21 - 107 161

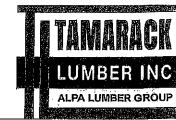
THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE

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

The drawings and/or specifications have been reviewed by FEB 2 6 2021

FOR CHENTOULDING OFFICIAL

DATE



FROM PLAN DATED: AUG 27, 2020

BUILDER: GREENPARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: MOUNTAINASH 6

ELEVATION: 3

LOT: 295

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:** L.D.

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 REC 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 TIL APPLICATION AS PER O.B.C 9.30.6.

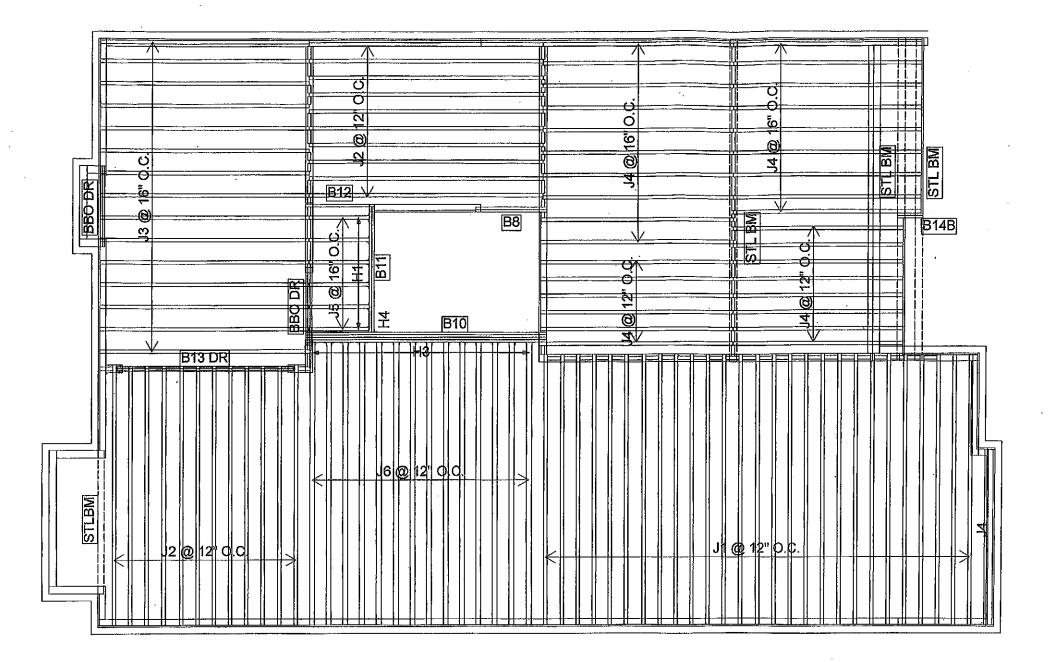
LOADING:

DESIGN LOADS: L/480,000 LIVE LOAD: 40,016/ft² DEAD LOAD: 20,0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2020-09-17

1st FLOOR



	Products								
PlotID	Length	Product	Plies	Net Qty	Fab Type				
J1	18-00-00	9 1/2" NI-40x	1	27	MFD				
J2	16-00-00	9 1/2" NI-40x	1	22	MFD				
J3	14-00-00	9 1/2" NI-40x	1 .	15	MFD				
J4	12-00-00	9 1/2" NI-40x	1	34	MFD				
J5	4-00-00	9 1/2" NI-40x	1	6	MFD				
J6	18-00-00	9 1/2" NI-80	1	14	MFD				
B10	16-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	4	4	MFD				
B13 DR	12-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD				
B11	8-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD				
B12	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	1	1	MFD				
B8	6-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD				
B14B	2-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	2	2	MFD				

C	Connector Summary									
Qty	Manuf	Product								
6	H1	IUS2.56/9.5								
14	H3	IUS3.56/9.5								
1	H4	HGUS410								

CITY OF HAMILTON
Building Division

Permit No. 21-10716

CHES BUILDING OFFICIAL

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

lese drawings and/or specifications have been reviewed by FEB 2 6 2021

DA



FROM PLAN DATED: AUG 27, 2020

BUILDER: GREENPARK HOMES

SITE: RUSSELL GARDENS PH 3

MODEL: MOUNTAINASH 6

ELEVATION: 3

LOT: 295

CITY: WATERDOWN

SALESMAN: MARIO DICIANO

DESIGNER: AJ **REVISION:** L.D.

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. MULTIPL SQUASH BLOCKS REQ'D UNDER CONCENTRATED LOADS, SEE FIGURE 1. CANTILEVERED JOISTS INCLUDING CANT' OVER BRICK REQ. I-JOIST BLOCKING ALOI BEARING AND RIMBOARD CLOSURE AT ENDS. SEE FIGURE 7 TABLES 4 & 5 FOR REINFORCEMENT REQUIREMENTS. FOR HOLES INCLUDING DUCT CHASE AND FIEL **CUT OPENINGS** SEE FIGURE 7 TABLES 1 & OF THE INSTALLATION GUIDE. CERAMIC T 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: 2020-09-16

2nd FLOOR

OPT 5 BEDROOM

NORDIC **STRUCTURES**

COMPANY Apr. 9, 2020 10:01 **PROJECT** J1 1ST FLOOR.wwb

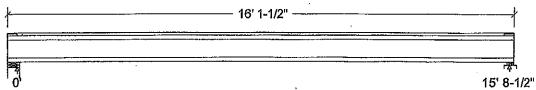
Design Check Calculation Sheet

Nordic Sizer - Canada 7.2

Loads:

	Load	Type	Distribution	Pat-	Location	[ft]	Magnitud	е	Unit
Н				tern	Start	End	Start	End	
Н	Load1	Dead	Full Area				20.00		psf
П	Load2	Live	Full Area				40.00		psf

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



	U		10 0 112
Unfactored: Dead	157		157
Live Factored:	314		314
Total	668	·	668
Bearing: Capacity			
Joist Support	1893 7744		1865 3971
Des ratio		•	
Joist	0.35		0.36
Support	0.09		0.17
Load case	#2		#2
Length	4-3/8		2-3/8
Min req'd	1-3/4		1-3/4
Stiffener	No		No
KD	1.00		1.00
KB support	-		1.00
fcp sup	769		769
Kzcp sup	-		1.09

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

Nordic 9-1/2" NI-40x Floor joist @ 12" o.c.
Supports: 1 - Lumber Wall, No.1/No.2; 2 - Lumber Sill plate, No.1/No.2; Total length: 16' 1-1/2"; Clear span: 15' 6-3/4"; 3/4" nailed and glued OSB sheathing 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 = 668	Vr = 1895	lbs	Vf/Vr = 0.35
Moment(+)	Mf = 2622	Mr = 4824	lbs-ft	Mf/Mr = 0.54
Perm. Defl'n	0.12 = < L/999	0.52 = L/360	in strong	ESSION 0.22
Live Defl'n	0.23 = L/817	0.39 = L/480	in pro	0.59
Total Defl'n	0.35 = L/545	0.79 = L/240	in O	0.44
Bare Defl'n	0.28 = L/684	0.52 = L/360	in 9 / 2	0.53
Vibration	Lmax = 15'-8.5	Lv = 17'-1.8	in 3 (2)	750ULANOS 10.76
Defl'n	= 0.031	= 0.041	144 S.W	TSOULANDS \$ 0.76
DOZE 12			Table 1	

⁷044 NO. TAN 6076 - 20 STRUCTURAL COMPONENT UNIO

WALL UP OF

WoodWorks® Sizer

for NORDIC STRUCTURES

J1 1ST FLOOR.wwb

Nordic Sizer - Canada 7.2

Page 2

				·····		··········				
Additional	Data:								•	
FACTORS:	f/E	KD	KH	KZ	\mathtt{KL}	KT	KS	KN	LC#	
Vr	1895	1.00	1.00	-	_	-	-		#2	
Mr+	4824	1.00	1.00	-	1.000	-	-	-	#2	
EI	218.1 m	lllion	_		_	-	-	-	#2	
CRITICAL LO	DAD COMBI	NATIONS	3 :							
Shear	: LC #2	= 1.25	5D + 1.51	<u>.</u>						
Moment (+) : LC #2	= 1.25	5D + 1.51	<u>L</u>						
Deflection	on: LC #1	= 1.01) (perma	anent)						_
) + 1.0L)					•
	LC #2	= 1.01) + 1.0L	(tota	1)					
			+ 1.0L							
Bearing	: Suppor	ct 1 - J	C.#2 = 3	L.25D +	1.5L					
_			LC #2 = 1							
Load Type					arth,grou					
					ive(stora			f=fire		
Load Pat	terns: s=	3/2 L=I	_+Ls _=r	10 patte	ern load	in this	s span			
	Combinat:	lons (LO	cs) are l	Listed :	in the An	alysis	output	_		
CALCULATI	ONS:							C	ianporms t	O 0BC 2012
Eleff = 3	265.29 lb	-in^2 F	ζ≕ 4.94∈	e06 lbs					N WWW 11 % Pr	n a 1 4 4
"Live" d	eflection	is due	to all r	non-dead	d loads (live, w	ind, sn	ow)	AMENDE	D 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.

NOVINCE OF ONLY

ava 110.74116076 -20 STRUCTURAL COMPONENT ONLY

NORDIC **STRUCTURES**

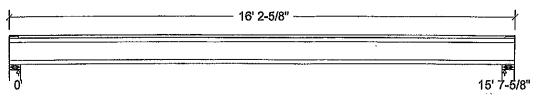
COMPANY Apr. 9, 2020 09:59 **PROJECT** J1 2ND FLOOR.wwb

Design Check Calculation Sheet Nordic Sizer – Canada 7,2

Loads:

١	Load	Туре	Distribution	Pat-	Location	[ft]	Magnitude	€	Unit
П				tern	Start	End	Start	End	ļ į
Ţ	Load1	Dead	Full Area				20.00		psf
H	Load2	Live	Full Area				40.00		psf

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



			
Unfactored: Dead Live	156 313	·	156 313
Factored: Total Bearing:	.664		664.
Capacity			
Joist	1893		1893
Support	7744		7744
Des ratio	i I		
Joist	0.35		0.35
Support	0.09		0.09
Load case			#2
Length	4-3/8	·	4-3/8
Min req'd	1-3/4		1-3/4
Stiffener	Мо		No
KD	1.00		1.00
KB support	-		-
fcp sup	769		769
Kzen sun	I – I		- ,

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

Nordic 9-1/2" NI-40x Floor joist @ 12" o.c.

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

Total length: 16' 2-5/8"; Clear span: 15' 5-7/8"; 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 = 664	Vr = 1895	lbs	Vf/Vr = 0.35
Moment (+)	Mf ≈ 2597	Mr = 4824	lbs-ft	Mr = 0.54
Perm. Defl'n	0.12 = < L/999	0.52 = L/360	in seeds	FESSIONA 0.22
Live Defl'n	0.23 = L/808	0.39 = L/480	in Popul	
Total Defl'n	0.35 = L/539	0.78 = L/240	in P	0.59
Bare Defl'n	0.27 = L/694	0.52 = L/360	in/2	0.45
Vibration	$L_{max} = 15'-7.6$	Lv = 16' - 8.5	1 ~ 1 4 4 4 4	large Milo. 94
Defl'n	= 0.034	= 0.041	in 🕱 S.K	ATSOULAKOS \$ 10.94
Derr 11		L		

NOUNCE OF ONTER STRUCTURAL

WoodWorks® Sizer

for NORDIC STRUCTURES

J1 2ND FLOOR.wwb

Nordic Sizer - Canada 7.2

Page 2

Data:											
f/E	KD	KH	KZ	KL	KT	KS	. KN	LC#			
1895	1.00	1.00	-	-	_	-		#2			
4824	1.00	1.00	_	1.000		-	_	#2			
218.1 m	illion	-	_		-	-	-	#2			
: LC #2	= 1.25	5D + 1.51	Ĺ								
: LC #2	= 1.25	5D + 1.51	Ĺ								
n: LC #1	= 1.01) (perma	anent)								
LC #2	= 1.0E	+1.0L	(live)							
: Suppo:	rt 1 - I	JC #2 = 3	L.25D +	1.5L							
Suppo	rt 2 - I	JC #2 = 3	L.25D +	1.5L							
s: D=dead	d W=wir	nd S≕sno	ow H≕ea	arth,grou	ndwate	r E≔ear	thquak	9			
L≕liv	e (use, oc	cupancy)	Ls=1:	ive(stora	ge, equi	ipment)	f=fire	Э			
erns: s≕	s/2 Ľ≕I	.+Ls _=r	no patte	ern load	in this	s span					
Combinat:	ions (LO	ls) are l	Listed :	in the An	alysis	output					
								Canearms	T'A	ane or	119
58.29 lb	-in^2 F	(= 4.94e	edf 80e					O COLUMN DATES	1 ()	000 20	14
flection	1s due	to all m	non-dead	d loads (live, w	vind, sr	low)	AMENI	DEN	2020	
								11.114.44.6	- 12 10		
	1895 4824 218.1 m 2AD COMB : LC #2 : LC #2 LC #2 LC #2 : Suppo Suppo Suppo s: D=dea L=liv erns: s= Combinat DNS: 58.29 lb	f/E KD 1895 1.00 4824 1.00 218.1 million DAD COMBINATIONS : LC #2 = 1.25 :: LC #2 = 1.01 LC #2 = 1.01 LC #2 = 1.01 LC #2 = 1.01 : Support 2 - 1 Support 2 - 1 Support 2 - 1 S: D=dead W=wird L=1ive(use,ood erns: s=S/2 L=1 Combinations (LC DNS: 58.29 lb-in^2	f/E KD KH 1895 1.00 1.00 4824 1.00 1.00 218.1 million - DAD COMBINATIONS: : LC #2 = 1.25D + 1.51 : LC #2 = 1.25D + 1.51 n: LC #1 = 1.0D (perma LC #2 = 1.0D + 1.0L LC #2 = 1.0D + 1.0L LC #2 = 1.0D + 1.0L : Support 1 - LC #2 = 1 Support 2 - LC #2 = 1 s: D=dead W=wind S=snd L=1ive(use,occupancy) erns: s=S/2 L=L+Ls _=1 Combinations (LCs) are 1 DNS: 58.29 lb-in^2 K= 4.946	f/E KD KH KZ 1895 1.00 1.00 - 4824 1.00 1.00 - 218.1 million OAD COMBINATIONS: : LC #2 = 1.25D + 1.5L :: LC #2 = 1.25D + 1.5L n: 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 : Support 1 - LC #2 = 1.25D + Support 2 - LC #2 = 1.25D + s: D=dead W=wind S=snow H=e L=1ive(use,occupancy) Ls=1 erns: s=S/2 L=L+Ls =no patt Combinations (LCs) are listed DNS: 58.29 lb-in^2 K= 4.94e06 lbs	f/E KD KH KZ KL 1895 1.00 1.00 4824 1.00 1.00 - 1.000 218.1 million AD COMBINATIONS: : LC #2 = 1.25D + 1.5L :: LC #2 = 1.25D + 1.5L n: 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 (total) : Support 1 - LC #2 = 1.25D + 1.5L s: Dedead W=wind S=snow H=earth, grou L=1ive(use, occupancy) Ls=live(stora erns: s=S/2 L=L+Ls =no pattern load Combinations (LCs) are listed in the An DNS: 58.29 lb-in^2 K= 4.94e06 lbs	f/E KD KH KZ KL KT 1895 1.00 1.00 4824 1.00 1.00 - 1.000 - 218.1 million AD COMBINATIONS: : LC #2 = 1.25D + 1.5L : LC #2 = 1.25D + 1.5L n: 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) : Support 1 - LC #2 = 1.25D + 1.5L support 2 - LC #2 = 1.25D + 1.5L s: D=dead W=wind S=snow H=earth, groundwater L=live(use, occupancy) Ls=live(storage, equiverns: s=S/2 L=L+Ls = no pattern load in this Combinations (LCs) are listed in the Analysis DNS: 58.29 lb-in^2 K= 4.94e06 lbs	f/E KD KH KZ KL KT KS 1895 1.00 1.00 4824 1.00 1.00 - 1.000 218.1 million AD COMBINATIONS: : LC #2 = 1.25D + 1.5L : LC #2 = 1.25D + 1.5L n: 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 (total) : Support 1 - LC #2 = 1.25D + 1.5L support 2 - LC #2 = 1.25D + 1.5L s: D=dead W=wind S=snow H=earth, groundwater E=ear L=live(use, occupancy) Ls=live(storage, equipment) erns: s=S/2 L=L+Ls =no pattern load in this span Combinations (LCs) are listed in the Analysis output DNS: 58.29 lb-in^2 K= 4.94e06 lbs	f/E KD KH KZ KL KT KS KN 1895 1.00 1.00 -	f/E KD KH KZ KL KT KS KN LC# 1895 1.00 1.00 -	f/E KD KH KZ KL KT KS KN LC# 1895 1.00 1.00 -	f/E KD KH KZ KL KT KS KN LC# 1895 1.00 1.00 -

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.



DVG NO. TAN 6079 -20 STRUCTURAL COMPONENT ONLY

NORDIC **STRUCTURES**

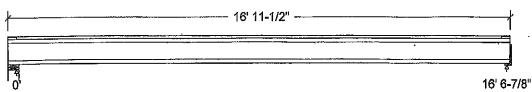
COMPANY Apr. 9, 2020 10:02 **PROJECT** J6 2ND FLOOR.wwb

Design Check Calculation Sheet Nordic Sizer – Canada 7.2

Loads:

	Load	Туре	Distribution	Pat-	Location	[ft]	Magnitude	Unit
				tern	Start	End	Start End	t L
İ	Load1	Dead	Full Area				20.00	psf
	Load2	Live	Full Area				40.00	psf

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



Unfactored:			
Dead	166		166
Live	331		331
Factored:			
Total	704		704
Bearing:			
Capacity			l i
Joist	1893		1893
Support	10841		-
Des ratio	•		
Joist	0.37	•	0.37
Support	0.06		-
Load case	#2		#2
Length	4-3/8		2
Min req'd	1-3/4		1-3/4
Stiffener	No		No
KD	1.00		1.00
KB support		·	
fcp sup	769		-
Kzcp sup			-

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

Nordic 9-1/2" NI-80 Floor joist @ 12" o.c.
Supports: 1 - Lumber Wall, No.1/No.2; 2 - Hanger;
Total length: 16' 11-1/2"; Clear span: 16' 5-1/8"; 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 = 704	Vr = 1895	lbs	Vf/Vr = 0.37
Moment (+)	Mf = 2918	Mr = 8958	lbs-ft	-ccMI/Mr = 0.33
Perm. Defl'n	$0.11 = \langle L/999 \rangle$	0.55 = L/360	in do	0.19
Live Defl'n	0.21 = L/940	0.41 = L/480	in An	0.51
Total Defl'n	0.32 = L/626	0.83 ≈ L/240	in //	41620 0.38
Bare Defl'n	0.24 = L/841	0.55 = L/360	in/#	6 0.43
Vibration	Lmax = 16'-6.9	Lv = 17'-9.5	ft 🗗 👝	ATSOUTZIKOS \$ 0.93
Defl'n	= 0.031	= 0.038	in 3 3.1	0.80
Leri II	1		N as	- Particular and the second se

ONG NO. FAM 6060-20 STRUCTURAL COMPONENT ONLY

NOVINCE OF ONLY

WoodWorks® Sizer

for NORDIC STRUCTURES

J6 2ND FLOOR.wwb

Nordic Sizer - Canada 7.2

Page 2

1										
Additional	l Data:									
FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#	
Vr	1895	1.00	1.00	_	-	-	-	-	#2	
Mr+	8958	1.00	1.00	-	1.000	-			#2	
EI	324.1 m	illion	_	-	-	-	-	- '	#2	
CRITICAL LO	OAD COME	INATIONS	S:							
Shear	: LC #2	= 1.2	5D + 1.5)	Ĺ						
Moment(+)) : LC #2	= 1.2	5D + 1.51	<u>.</u>						
Deflection	on: LC #1	= 1.01	D (perma	anent)						
			D + 1.0L							
			D + 1.0L							
	LC #2	= 1.01	0 + 1.0L	(bare	: joist)					
Bearing	: Suppo	ort 1 - 1	LC #2 = 1	1.25D +	1.5L					
	Suppo	ort 2 - :	LC #2 = :	L.25D +	1.5L		_			
Load Type	es: D=dea	ıd W≕wi:	nd S≂sno	ом Н≕е	arth, grou	indwatei	: E≖ear	thquake		
1	L≕liv	re (use, o	ccupancy)) Ls=1	ive(stora	ge, equi	(pment	r=r1re		
Load Pat	terns: s=	=S/2 L=:	L+Ls _=1	no patt	ern load	in this	s span			
		ions (L	Cs) are 1	listed	in the An	arysis	output		A01100 410 TO	npe 2012
CALCULATI	ONS:								canforms to	UDU ZU 14
Eleff = 3	367.27 lb	o-in^2 1	K= 4.94€	eU6 lbs		9 4	3 . 3		AMENDED	2020
I "I dve" di	eflection	ı is due	to all i	10n-dea	d loads (Ilve, v	una, sn	OW)	RMENUSU	e u a u

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.



DWG NO. TAM 6080-28 STRUCTURAL COMPONENT ONLY





PASSED

2ND FLR FRAMING\Flush Beams\B17D(i3135) (Flush Beam)

BC CALC® Member Report

Dry | 2 spans | L cant.

November 25, 2020 08:03:28

MOUNTAINASH 6 EL 3 LOT 12.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B17D(i3135)

Build 7493 Job name:

Address: City, Province, Postal Code: WATERDOWN

Specifier.

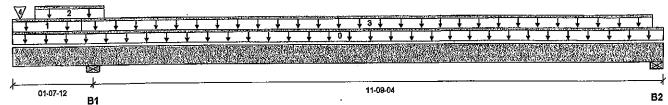
File name:

Company:

Customer: Code reports:

CCMC 12472-R

Designer: ΑJ



Total Horizontal Product Length = 13-05-00

Reaction our	Illiary (Down o	hiiir) (ma)			
Bearing	Live	Dead	Snow	Wind	
B1, 5-1/2"	179 / 0	884 / 0	367 / 0		
B2, 5-1/2"	117/6	38/0	0 / 43		

La	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	13-05-00	Тор		10			00-00-00
1	FC2 Floor Material	Unf. Lin. (ib/ft)	L	00-00-00	01-05-00	Тор	15	7			nla
2	E30(l3261)	Unf. Lin. (lb/ft)	L	00-05-08	01-10-08	Тор		81			n\a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	01-05-00	13-02-04	Тор	20	10			n\a
4	-	Conc. Pt. (lbs)	Ĺ	00-01-13	00-01-13	Тор	33	550 -	324		n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	419 ft-lbs	23220 ft-lbs	1.8%	36	08-10-13
Neg, Moment	-1265 ft-lbs	-15093 ft-lbs	8.4%	0	01-07-12
End Shear	165 lbs	11571 lbs	1.4%	33	12-02-00
Cont. Shear	1246 lbs	11571 lbs	10.8%	37	00-07-08
Total Load Deflection	2xL/1998 (0.029")	n\a	n\a	82	00-00-00
Live Load Deflection	L/999 (-0.016")	n\a	n\a	120	06-06-05
Total Neg. Defl.	L/999 (-0.028")	n\a	n\a	82	05-11-03
Max Defl.	-0.028"	n\a	n\a	82	05-11-03
Span / Dépth	14.4				

Beari	ng Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	5-1/2" x 3-1/2"	1238 lbs	16.1%	8.1%	Spruce-Pine-Fir
B2	Wall/Plate	5-1/2" x 3-1/2"	223 lbs	1.9%	0.9%	Spruce-Plne-Fir

Concentrated side load(s) 2 are closer than 18" from end of member. Please consult a technical representative or Professional of Record.



000 NU. TAN 16095-20 STRUCTURAL COMPONENT ONLY





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B17D(I3135) (Flush Beam)

Dry | 2 spans | L cant.

PASSED

November 25, 2020 08:03:28

BC CALC® Member Report

Build 7493

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

Notes

CCMC 12472-R

File name:

MOUNTAINASH 6 EL 3 LOT 12.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B17D(i3135)

Specifier:

Designer: ΑJ

Company:

Design meets User specified (2xL/240) Total load deflection criteria.

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

CONFORMS TO 033 2112

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.

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

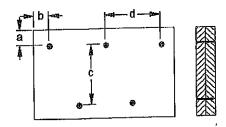
verification.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

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

Connection Diagram: Full Length of Member



a minimum = 2" b minimum = 3" c=5-1/2" d=@ 8"

Calculated Side Load = 227.3 lb/ft

Connectors are: .

wie Gast Nails

3-1/2" ARDOX SPIRAL



DWG NO. TAM 16095-20 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 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®,





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B18D(i3150) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 2 spans | L cant.

November 25, 2020 08:03:28

Build 7493 Job name:

File name: Description: MOUNTAINASH 6 EL 3 LOT 12.mmdl

Address:

City, Province, Postal Code: WATERDOWN

Specifier:

2ND FLR FRAMING\Flush Beams\B18D(i3150)

Customer:

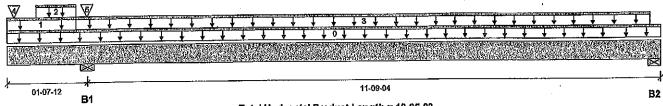
Designer:

ΑJ

Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 13-05-00

Reaction Sun	nmary (Down / Ol	ວແກະ) (ເຄຣ)			
Bearing	Live	Dead	Snow	Wind	
B1, 5-1/2"	222 / 0	906 / 0	387 / 0		
B2, 5-1/2"	117 / 12	34/0	0/45		

10	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
U	Self-Weight	Unf. Lin. (lb/ft)	L,	00-00-00	13-05-00	Тор		10			00-00-00
1	E28(I3262)	Unf. Lin. (lb/ft)	L	00-00-00	01-05-00	Тор		81			n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-07-04	01-05-00	Top	10				n\a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	01-05-00	13-02-04	Тор	20	10			n\a
ن ا		Conc. Pt. (lbs)	L	00-01-13	00-01-13	Top	84	550	342		n\a
4	H-03/130EE/	Conc. Pt. (lbs)	Ī.	01-07-12	01-07-12	Top		24			n\a
ວ	E23(I3255)	CO110. 1 t. (100)	-								

Controls Summary	Factored Demand	Factored Resistance	Demand <i>l</i> Resistance	Case	Location
Pos. Moment	403 ft-lbs	23220 ft-lbs	1.7%	36	08-10-13
Neg, Moment	-2083 ft-lbs	-23220 ft-lbs	9.0%	37	01-07-12
End Shear	159 lbs	11571 lbs	1.4%	33	12-02-00
Cont, Shear	1356 lbs	11571 lbs	11.7%	37	00-07-08
Total Load Deflection	2xL/1998 (0.032")	n\a	n\a	82	00-00-00
Live Load Deflection	L/999 (-0.018")	n\a	n\a	120	06-06-05
Total Neg. Defl.	L/999 (-0.031")	n\a	n\a	82	06-01-00
Max Defl. Span / Depth	-0.031" 14.4	n\a	n\a	82	06-01-00

Dogwing Cumports	Disc // viff)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
Bearing Supports					
B1 Wall/Plate	5-1/2" x 3-1/2"	1268 lbs	16.5%	8.3%	Spruce-Pine-Fir
B2 Wall/Plate	5-1/2" x 3-1/2"	218 lbs	1.8%	0.9%	Spruce-Pine-Fir

Cautions

Concentrated side load(s) 2 are closer than 18" from end of member. Please consult a technical representative or Professional of Record.



048 NO. TAN 16096-20 STRUCTURAL COMPONENT ONLY





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B18D(I3150) (Flush Beam)

PASSED

November 25, 2020 08:03:28

BC CALC® Member Report

Build 7493

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

Dry | 2 spans | L cant.

File name:

MOUNTAINASH 6 EL 3 LOT 12 mmdl

Description: 2ND FLR FRAMING\Flush Beams\B18D(i3150)

CONFORMS TO OBC 2012

AMENDED 2020

Specifier:

Designer: ΑJ

Company:

Notes

Design meets User specified (2xL/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 086.

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

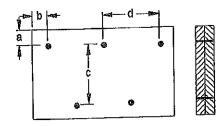
verification.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

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

Connection Diagram: Full Length of Member



a minimum = 2" b minimum = 3"

c = 5-1/2" d=200 6"

Calculated Side Load = 231.8 lb/ft

Connectors are:

3-1/2" ARDOX SPIRAL

. 1



ung ho. Tam 16076-20 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® . .





PASSED

2ND FLR FRAMING\Flush Beams\B19D(i3184) (Flush Beam)

BC CALC® Member Report

Job name:

Dry | 1 span | No cant.

November 25, 2020 08:03:28

Bulld 7493

Address: City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

File name:

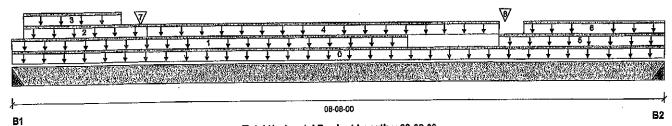
MOUNTAINASH 6 EL 3 LOT 12.mmdi

Description: 2ND FLR FRAMING\Flush Beams\B19D(i3184)

Specifier:

Designer:

Company:



Total Horizontal Product Length = 08-08-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow-	Wind
B1, 2"	78 / 0	528 / 0	301 / 0	
B2, 2"	33/0	523 / 0	311/0	

Los	d 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	08-08-00	Тор		10			00-00-00
1	FC2 Floor Material	Unf. Lln. (lb/ft)	L	00-00-00	05-02-08	Тор	22	11			n\a
,	E29(13263)	Unf. Lin. (lb/ft)	L.	00-02-00	01-09-08	Тор		81			n \a
3	E29(i3263)	Unf. Lin. (lb/ft)	· L	00-02-00	01-05-08	Тор		28	72		n\a
4	E31(13264)	Unf. Lin. (lb/ft)	L	01-09-08	06-05-08	Top		61			n\a
5	E32(i3265)	Unf. Lin. (lb/ft)	L	06-05-08	08-08-00	Тор		81			n\a
6	E32(13265)	Unf. Lin. (lb/ft)	L	06-09-08	08-08-00	Top		28	72		n\a
7	E29(i3263)	Conc. Pt. (lbs)	L	01-08-08	01-08-08	Тор		115	193		n\a
8	E32(13265)	Conc. Pt. (lbs)	L	06-06-08	06-06-08	Тор		114	191		n \ a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1364 ft-lbs	15093 ft-lbs	9.0%	0	04-04-04
End Shear	978 lbs	11571 lbs	8.5%	13	00-11-08
Total Load Deflection	L/999 (0.042")	n\a	n\a	35	04-04-04
Live Load Deflection	L/999 (0.016")	n\a	n\a	51	04-04-04
Max Defl. Span / Depth	0.042"	n\a	n\a	35	04-04-04

Bearing	y Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Hanger	2" x 3-1/2"	1189 lbs	n\a	13.9%	Hanger
B2	Hanger	2" x 3-1/2"	1154 lbs	n\a	13.5%	Hanger

Cautions

Hanger model Hanger was not found. Hanger has not been analyzed for adequate capacity.



and no . Tan 16097 = 20 STRUCTURAL COM, ONEHT ONLY





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B19D(i3184) (Flush Beam)

PASSED

BC CALC® Member Report

Build 7493 Job name:

Customer:

Code reports:

Dry | 1 span | No cant.

November 25, 2020 08:03:28

Address:

City, Province, Postal Code: WATERDOWN

MOUNTAINASH 6 EL 3 LOT 12.mmdl File name: Description:

ΑJ

Specifier:

Company:

2ND FLR FRAMING\Flush Beams\B19D(i3184)

Designer:

CCMC 12472-R

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.

CONFORMS TO OBC 2012

Hanger Manufacturer: Unassigned

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

AMENDED 2020

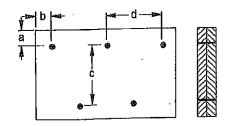
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA 086.

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

Connection Diagram: Full Length of Member



a minimum = 2" b minimum = 3"

c = 5-1/2" d=00000"

Connectors are:

Mails

3-1/2" ARDOX SPIRAL



Bys No. 7AW 16027-20 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 GLULAMM, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,



BC CALC® Member Report

Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B21(I2792) (Flush Beam)

PASSED

Dry | 2 spans | L cant.

August 26, 2020 09:26:19

Build 7493

Job name: . Address:

City, Province, Postal Code: HAMILTON

Customer:

Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 6

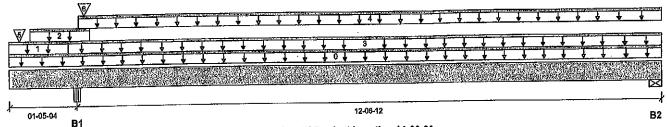
Description: 2ND FLR FRAMING\Flush Beams\B21(i2792)

CH

Specifier:

Designer:

Company:



Total Horizontal Product Length = 14-00-00

wn / Unlift) (lbs)

Reaction Summary	A IDOSANT C	(NOO)			
Bearing	LÌve	Dead	Snow	Wind	
B1, 4-1/2"	278 / 0	799 / 0	805 / 0		
B2. 2-3/4"	255/2	171 / 0	0 / 12		

l ₋ oa	ad Summary						Live	Dead	Snow	AARIO	Tibulary
		Load Type	Ref.	Start	End	Loc.	1.00	0,65	1.00	1.15	22.22.22
-129	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	14-00-00	Тор		10			00-00-00
0	v	Unf. Lin. (lb/ft)	- 1	00-00-00	01-03-00	Top	20	10			n\a
3	FC2 Floor Material	·	•	00-05-08	01-08-08	Top		176	144		n\a
2	E75(i1685)	Unf. Lin. (lb/ft)	-			Top	23	11			n\a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	<u>L</u>	01-03-00	14-00-00	1	20	• •			
4	FC2 Floor Material	Unf. Lin. (lb/ft)	L.	01-05-12	14-00-00	Тор	17	9			n\a
	E86(11925)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Тор		95	67		n\a
5		, ,	ī	01-07-04	01-07-04	Top		255	547		n\a
6	F75(11685)	Conc. Pt. (lbs)	L.	Q1-07-0+	01-01-0-1	100			•		

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1733 ft-lbs	23220 ft-lbs	7.5%	45	07-10-06
Neg. Moment	-520 ft-lbs	-23220 ft-lbs	2.2%	49	01-05-04
End Shear	497 lbs	11571 lbs	4.3%	45	12-11-12
	572 lbs	11571 lbs	4.9%	1	02-05-00
Cont. Shear	L/999 (0.067")	n\a	n\a	108	07-08-06
Total Load Deflection	L/999 (0.042")	n\a	n\a	160	07-08-06
Live Load Deflection	2xL/1998 (-0.023")	n\a	n\a	108	00-00-00
Total Neg. Defl. Max Defl.	0.067"	n\a	n\a	108	07-08-06
Span / Depth	15.7				

Re	aring Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	4-1/2" x 3-1/2"	2485 lbs	29.5%	12.9%	Unspecified
B2	Wall/Plate	2-3/4" x 3-1/2"	596 lbs	10.1%	5.1%	Spruce-Pine-Fir



STRUCTURAL COMPONENT ONLY





PASSED

2ND FLR FRAMING\Flush Beams\B21(I2792) (Flush Beam)

Dry | 2 spans | L cant. **BC CALC® Member Report**

August 26, 2020 09:26:19

Build 7493

Job name:

Address:

City, Province, Postal Code: HAMILTON

.Customer: Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 6

2ND FLR FRAMING\Flush Beams\B21(i2792) Description:

Specifier:

Designer: CH

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.

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.

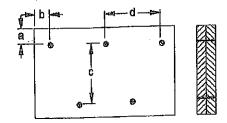
Unbalanced snow loads determined from building geometry were used in selected product's verification.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

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

Connection Diagram: Full Length of Member



a minimum = 2" b minimum = 3"

c = 5-1/2" d= 🕶 8"

Connectors are:

Nails · 1 · · 3.1/2" ARDOX SPIRAL



OWO NO. FAM 12885-20 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 Bolse Cascade engineered wood products must be in accordance with current Installation Guide and applicable bullding 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\B20(I3104) (Flush Beam)

Dry | 2 spans | L cant.

August 26, 2020 09:26:19

Build 7493

Job name:

Address:

City, Province, Postal Code: HAMILTON

BC CALC® Member Report

Customer: Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 6

Description: 2ND FLR FRAMING\Flush Beams\B20(i3104)

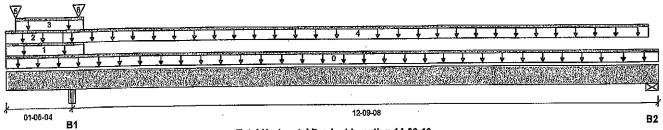
Wind

Specifier:

Designer:

CH





Total Horizontal Product Length = 14-02-12

tion Summani (Down / Unlift) (lbs)

Reaction Sun	HILLIAN A COUNTY OF	Pinity (1~~)		
Bearing	Live	Dead	Snow	
B1. 4-1/2"	139 / 0	702 / 0	782 / 0	
B2, 5-1/2"	127 / 1	113 / 0	0/10	

1.64	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	14-02-12	Top		10			00-00-00
1	E73(i1679)	Unf. Lin. (lb/ft)	L	00-00-00	01-08-08	Тор		100			n\a
9	FC2 Floor Material	Unf, Lin. (lb/ft)	L	00-00-00	01-03-00	Тор	8				n\a
2	E73(11679)	Unf. Lin. (lb/ft)	L	00-02-12	01-08-08	Тор		76	144		n\a
4	FC2 Floor Material	Unf. Lin. (lb/ft)	L	01-03-00	14-00-00	Тор	20	10			n\a
4	E73(i1679)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top		7	.13		n\a
5 6	F73(i1679)	Conc. Pt. (lbs)	L	01-07-04	01-07-04	Тор		255	547		n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	940 ft-lbs	23220 ft-lbs	4.1%	45	08-00-05
Neg. Moment	-417 ft-lbs	-23220 ft-lbs	1.8%	49	01-05-04
End Shear	273 lbs	11571 lbs	2.4%	43	12-11-12
Cont. Shear	342 lbs	11571 lbs	3.0%	1	02-05-00
Total Load Deflection	L/999 (0.036")	n\a	n\a	108	07-08-06
Live Load Deflection	L/999 (0.021")	n\a	n\a	160	07-08-06
	2xL/1998 (-0.012")	n/a	n\a	108	00-00-00
Total Neg. Defl.	0.036"	n\a	n\a	108	07-08-06
Max Defl.		ma			V. VV 22
Span / Depth	15.7				

Reari	ng Supports	Dim. (LxW)	Demand -	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	4-1/2" x 3-1/2"	2190 lbs	26.0%	11.4%	Unspecified
B2	Wall/Plate	5-1/2" x 3-1/2"	332 lbs	2.8%	1.4%	Spruce-Pine-Fir



8W8 NO. 7AM/2686-20 STRUCTURAL COMPONENT ONLY





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B20(I3104) (Flush Beam)

PASSED

August 26, 2020 09:26:19

BC CALC® Member Report

Build 7493

Job name: Address:

City, Province, Postal Code: HAMILTON

Customer: Code reports: CCMC 12472-R

Dry | 2 spans | L cant.

MOUNTAINASH 6 File name:

Description: 2ND FLR FRAMING\Flush Beams\B20(i3104)

Specifier:

CH ·

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 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.

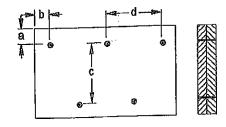
Unbalanced snow loads determined from building geometry were used in selected product's verification.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

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

Connection Diagram: Full Length of Member



a minimum = 2" b minimum = 3" c = 5-1/2" d= 2008"

Connectors are: ...

يعد في د

. Nails 3-1/2" ÁRDOX SPIRAL



6WG NO. TAM /2836-20 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.

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BC CALC® Member Report



Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

B2

1ST FLR FRAMING\Flush Beams\B16 H(i6553) (Flush Beam)

Dry | 1 span | No cant.

September 17, 2020 07:57:48

Build 7493

Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer:

Code reports:

File name:

MOUNTAINASH 6

Description:

1ST FLR FRAMING\Flush Beams\B16 H(i6553)

Specifier:

Designer:

ΑJ Company:

CCMC 12472-R

B1

16-01-08 Total Horizontal Product Length = 16-01-08

Reaction Summary (Down / Uplift) (lbs)

Live 94/0 110/0 B1, 1-7/8" 101/0 B2, 4-1/8" 124/0

1.4	nd Cummaru						Live	Dead	Snow	Wind	Tributary
LO	ad Summary Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
1ay	Self-Weight	Unf. Lin. (lb/ft)	Ĺ,	00-00-00	16-01-08	Тор		5	•		00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L.	00-00-00	16-01-08	Тор	14	., 7			n\a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	10-06-14	16-01-08	Тор	3	1			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1122 ft-lbs	11610 ft-lbs	9.7%	1	08-02-00
End Shear	266 lbs	5785 lbs	4.6%	1	14-11-14
Total Load Deflection	L/1302 (0.145")	n\a	18.4%	4	08-00-03
Live Load Deflection	L/999 (0.079")	n\a	n\a	5	08-00-03
Max Defl.	0.145"	n\a	n\a	4	08-00-03
Span / Depth	19.9				•

Bearin	ng Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	1-7/8" x 1-3/4"	283 lbs	14.0%	7.1%	Spruce-Pine-Fir
B2	Wall/Plate	4-1/8" x 1-3/4"	313 lbs	7.0%	3.6%	/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 AMENDED 2020

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

POVINCE OF OF

owa no , 74m/2867-26 STRUCTURAL Disclosure ONLY

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Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B18(i6765) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

September 17, 2020 07:57:48

Build 7493 Job name: Address:

Address:
City, Province, Postal Code: WATERDOWN

File name: MOUNTAINASH 6

Description: 1ST FLR FRAMING\Flush Beams\B18(i6765)

Specifier:

AJ

Customer: Code reports:

CCMC 12472-R

Designer: Company:

Total Horizontal Product Length = 04-00-14

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 1-3/4"	1009 / 0	535 / 0
B2. 5-1/2"	1207 / 0	662 / 0

Los	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	04-00-14	Тор	•	10			00-00-00
1	J2(i6650)	Conc. Pt. (lbs)	L	00-08-06	00-08-06	Тор	690	345			n\a
,	J2(i6682)	Conc. Pt. (lbs)	L	02-00-06	02-00-06	Тор	751	375			n \a
2	-	Conc. Pt. (lbs)	L.	03-05-10	03-05-10	Тор	733	404			n\a
4	B7(i6767)	Conc. Pt. (lbs)	L	00-00-14	00-00-14	Top	42	33			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	2066 ft-lbs	23220 ft-lbs	8.9%	1	02-00-06
End Shear	1623 lbs	11571 lbs	14.0%	1	00-11-04
Total Load Deflection	L/999 (0.006")	n\a	n\a	4	01-10-12
Live Load Deflection	L/999 (0.004")	n\a	n\a	5	01-10-12
Max Defl.	0.006"	n\a	n\a	4	01-10-12
Span / Depth	4,5				

Reari	ng Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Column	1-3/4" x 3-1/2"	2182 lbs	54.8%	29.2%	Unspecified
B2	Wall/Plate	5-1/2" x 3-1/2"	2637 lbs	22.3%	11.2%	Spruce-Pine-Fir

Cautions

Concentrated side load(s) 2,4 are closer than 18" from end of member, Please consult a technical representative or Professional of Record.

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

S. KATSOULAKOS

S. WATSOULAKOS

OWO HO. TAM 12000 28
STRUCTURAL
COMPONENT ONLY





Passed

1ST FLR FRAMING\Flush Beams\B18(i6765) (Flush Beam) Dry | 1 span | No cant.

September 17, 2020 07:57:48

Build 7493

Job name:

Address:

City, Province, Postal Code: WATERDOWN

BC CALC® Member Report

Customer: Code reports:

CCMC 12472-R

File name:

MOUNTAINASH 6

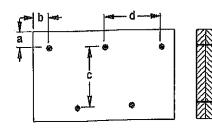
Description: 1ST FLR FRAMING\Flush Beams\B18(i6765)

Specifier:

Designer: ΑJ

Company:

Connection Diagram: Full Length of Member



a minimum = 2" b minimum = 3"

c = 5-1/2"

Calculated Side Load = 52.1 lb/ft

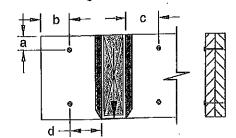
Connectors are:

Nails

2.1/2" ARDOX SPIRAL Connection Diagrams: Concentrated Side Loads

Connection Tag: A

Applies to load tag(s): 3



a minimum = 2"

b minimum = 4"

c minimum = 4" d maximum = 12"

Connectors are: 16d . Nails

3-1/2" ARDOX SPIRAL



OWG NO. TAM 1288-20 STRUCTURAL COMPONENT ONLY

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PASSED

September 17, 2020 07:57:48

1ST FLR FRAMING\Flush Beams\B1(I6766) (Flush Beam)

BC CALC® Member Report

Build 7493 Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

Dry [1 span | No cant.

File name:

MOUNTAINASH 6

Description: 1ST FLR FRAMING\Flush Beams\B1(i6766)

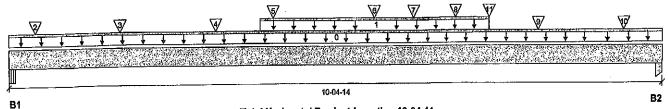
Specifier:

Designer:

ΑJ

Wind

Company:



Total Horizontal Product Length = 10-04-14

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	
B1, 5-1/2"	3601 / 0	1979 / 0	
B2. 2-3/4"	2544 / 0	1352 / 0	

۱۸۰	ad Summary						Live	Dead	Snow	Wind	Tributary
	· ·	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	10-04-14	Тор		10			00-00-00
1	STAIR	Unf. Lin. (lb/ft)	L,	03-11-12	07-07-12	Тор	240	120			n\a
2		Conc. Pt. (lbs)	L	00-05-02	00-05-02	Top	1528	850			n\a
3	J2(i6759)	Conc. Pt. (lbs)	L	01-09-04	01-09-04	Тор	431	215			n\a
· 4	32(10100) -	Conc. Pt. (lbs)	L	03-03-06	03-03-06	Top	522	261			n\a
5	-	Conc. Pt. (lbs)	L	04-02-04	04-02-04	Тор	707	415			n\a
6	_ J2(i6757)	Conc. Pt. (lbs)	L	05-09-04	05-09-04	Тор	295	147			n\a
7	J2(10757) J2DJ(16760)	Conc. Pt. (lbs)	L	06-04-12	06-04-12	Тор	255	127			n\a
7	J2(16756)	Conc. Pt. (lbs)	L	07-01-04	07-01-04	Top	332	166			n\a
8	•	Conc. Pt. (lbs)	Ĺ	08-05-04	08-05-04	qoT	547	273			n\a
9	-	Conc. Pt. (lbs)	Ī.	09-09-04	09-09-04	Top	568	284			n\a
10 11	B5(i6752)	Conc. Pt. (lbs)	Ĺ	07-07-12	07-07-12	Тор		34			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	14154 ft-lbs	23220 ft-lbs	61.0%	1	05-07-04
End Shear	4906 lbs	11571 lbs	42.4%	1	09-04-10
Total Load Deflection	L/342 (0.345")	n\a	70,2%	4	05-03-04
Live Load Deflection	L/526 (0.225")	n\a	68.5%	5	05-03-04
Max Defl. Span / Depth	0.345" 12.4	n\a	n\a ,	4	05-03-04

Rearin	g Supports	Dim. (LxW)	Demand	Demand <i>i</i> Resistance Support	Demand/ Resistance Member	Material
B1	Beam	5-1/2" x 3-1/2"	7875 lbs	95.8%	33.5%	Unspecified
B2	Column	2-3/4" x 3-1/2"	5506 lbs	88.1%	46.9%	Unspecified

Cautions

Concentrated side load(s) 4 are closer than 18" from end of member. Please consult a technical representative or Professional of Record.



046 NO. 4A W 12889-20 STRUCTURAL COMPONENT ONLY





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B1(16766) (Flush Beam)

Passed

September 17, 2020 07:57:48

BC CALC® Member Report

Build 7493 Job name:

Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

Dry | 1 span | No cant.

File name:

MOUNTAINASH 6 Description: 1ST FLR FRAMING\Flush Beams\B1(i6766)

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.

Calculations assume member is fully braced.

COMPORMS TO OBG 2012

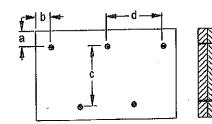
AMENDED 2020

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

Connection Diagram: Full Length of Member



a minimum = 2" b minlmum = 3"

c = 5-1/2" d = 6"

Calculated Side Load = 1012.3 lb/ft

Connectors are:

: Nails

3-1/2" ARDOX SPIRAL



146 ng . FAM 12809-20 STRUCTURAL COMPONENT ONLY

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





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B17(I2700) (Flush Beam)

Passed

BC CALC® Member Report

Dry | 1 span | No cant.

August 26, 2020 09:26:19

Build 7493

Job name: Address:

City, Province, Postal Code: HAMILTON

File name:

MOUNTAINASH 6 EL 3

Description: 1ST FLR FRAMING\Flush Beams\B17(i2700)

Specifier:

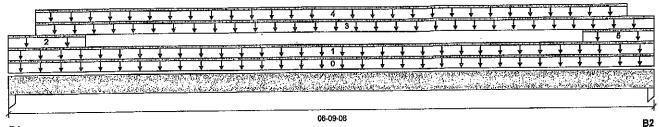
CH

Customer: Code reports:

CCMC 12472-R

Designer:

Company:



B1

Total Horizontal Product Length = 06-09-08

Reaction Summary (Down / Uplift) (lbs)

Dead Live 1073 / 0 538 / 0 B1, 3-1/2" 768/0 B2, 3-1/2" 227 / 0

-00-00
n\a
)-

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1363 ft-lbs	15093 ft-lbs	9.0%	0	03-03-14
End Shear	1010 lbs	7521 lbs	13.4%	0	01-01-00
Total Load Deflection	L/999 (0.019")	n\a	n\a	4	03-04-12
Live Load Deflection	L/999 (0.004")	n\a	n\a	5.	03-03-14
Max Defl.	0.019"	n\a	n\a	4	03-04-12
Span / Depth	8.0				

Bearing	supports	Dim, (LxW)	Demand	Demand <i>i</i> Resistance Support	Demand/ Resistance Member	Material
B1	Column	3-1/2" x 3-1/2"	1503 lbs	23.2%	15.5%	Unspecified
B2	Column	3-1/2" x 3-1/2"	1075 lbs	16.6%	11.1%	Unspecified

Notes

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

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

AMENDED 2020

CONFORMS TO OBC 2012

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 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

TOWNCE OF OHIGH

000 00. VAH12117 -20 STRUCTURAL COMPONENT ONLY





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B17(i2700) (Flush Beam)

PASSED

August 26, 2020 09:26:19

BC CALC® Member Report

Build 7493

Job name:

Address:

City, Province, Postal Code: HAMILTON

Customer: Code reports:

CCMC 12472-R

Dry | 1 span | No cant.

File name:

MOUNTAINASH 6 EL 3

Description: 1ST FLR FRAMING\Flush Beams\B17(i2700)

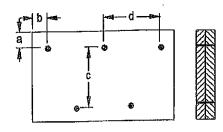
CH

Specifier:

Designer:

Company:

Connection Diagram: Full Length of Member



a minimum = 2" b minimum = 3"

c = 5-1/2" d=@#"@"

Connectors are:

3-1/2" ARDOX SPIRAL



STRUCTURAL COMPONENT ONLY

Disclosure

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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 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

2ND FLR FRAMING\Flush Beams\B18(12803) (Flush Beam)

Dry | 1 span | No cant.

August 26, 2020 09:26:19

Bulld 7493

Job name:

Address: City, Province, Postal Code: HAMILTON

File name:

MOUNTAINASH 6 EL 3

2ND FLR FRAMING\Flush Beams\B18(i2803) Description:

Specifier:

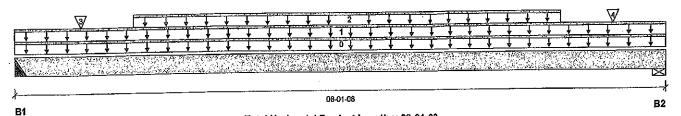
CH

Designer:

Customer: Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 08-01-08

Reaction Su	mmary (Down / U	plift) (IDS)	_	
Bearing	Live	Dead	Snow	Wind
B1 4"	310 / 0	440 / 0		

Bearing	Live	Deau
B1, 4"	310 / 0	440 / 0
B2, 3-1/2"	307 / 0	435 / 0

1 .	al Communication							Live	Dead	Snow	Wind	Tributary
LO8 Tag	ad Summary Description	Load Type	Ref.	Start	End	Loc.	:	1.00	0.65	1.00	1.15	
- nay	Self-Welght	Unf. Lin. (lb/ft)	L	00-00-00	08-01-08	Тор	:		10			00-00-00
4	WALL	Unf. Lin. (lb/ft)	L	00-00-00	08-01-08	Top			60			n\a
1		Unf. Lin. (lb/ft)	L	01-06-00	06-10-00	Тор		82	40			· n\a
2	Smoothed Load	Conc. Pt. (lbs)	1	00-10-00	00-10-00	Top		101	50			n\a
3	J6(i2742)				07-06-00	1-		82	41			n\a
4	J6(l2748)	Conc. Pt. (lbs)	L	07-06-00	07-00-00	rop		62	41			11164

Controls Summary	Factored Demand	Factored Resistance	Demand <i>l</i> Resistance	Case	Location_
Pos. Moment	1874 ft-lbs	23220 ft-lbs	8.1%	1	03-10-00
End Shear	839 lbs	11571 lbs	7.2%	1	01-01-08
Total Load Deflection	L/999 (0.029")	n\a	n\a	4	04-01-00
- * *	L/999 (0.012")	n\a	n\a	5	04-01-00
Live Load Deflection Max Defl. Span / Depth	0,029" 9.6	n\a	nla	4	04-01-00

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Hanger	4" x 3-1/2"	1015 lbs	n\a	5.9%	HGUS410
B2	Wall/Plate	3-1/2" x 3-1/2"	1004 lbs	13.3%	6.7%	Spruce-Pine-Fir

Cautions

Header for the hanger HGUS410 is a Quadruple 1-3/4" x 9-1/2" LVL Beam.

Hanger model HGUS410 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

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: 00-00-00, Bottom: 00-00-00.

CANPORMS TO OBC 2012

Hanger Manufacturer: Unassigned

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



DWG NO. TAM 12/18-20 STRUCTURAL COMPONENT DNLY





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B18(i2803) (Flush Beam)

PASSED

August 26, 2020 09:26:19

BC CALC® Member Report

Build 7493

Job name: Address:

City, Province, Postal Code: HAMILTON

Customer: Code reports:

CCMC 12472-R

Dry | 1 span | No cant.

File name:

MOUNTAINASH 6 EL 3 Description: 2ND FLR FRAMING\Flush Beams\B18(i2803)

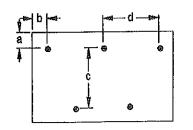
Specifier:

Designer:

Company:

CH

Connection Diagram: Full Length of Member



a minimum = 2" b minimum = 3"

c = 5-1/2"d= 200 B"

Calculated Side Load = 232.3 lb/ft

3-1/2" ARDOX SPIRAL

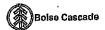


DWG NO. TAN 12/18-20 STRUCTURAL COMPONENT ONLY

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 Gulde and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

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City, Province, Postal Code: HAMILTON

Quadruple 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP

PASSED

August 26, 2020 09:26:19

2ND FLR FRAMING\Flush Beams\B19(i2627) (Flush Beam)

BC CALC® Member Report

Build 7493

Job name: Address:

Dry | 1 span | No cant.

File name:

MOUNTAINASH 6 EL 3

Description:

2ND FLR FRAMING\Flush Beams\B19(i2627)

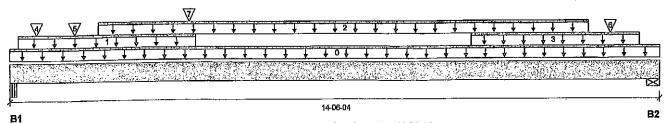
Specifier:

Designer:

Customer: Code reports:

CCMC 12472-R

Company:



Total Horizontal Product Length = 14-06-04

Snow

Reaction Summary (Down / Uplift) (lbs)

Dead Bearing Live 1769 / 0 2856 / 0 B1, 4-1/2" 1798 / 0 3171/0 B2, 5-1/2"

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	14-06-04	Тор		19			00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-02-04	04-01-04	Тор	22	11			n\a
ż	Smoothed Load	Unf. Lin. (lb/ft)	L	01-11-04	12-11-04	Тор	342	170			n\a
3	STAIRS	Unf. Lin. (lb/ft)	L	10-03-04	14-00-12	Тор	240	120			n\a
4	J7(i2837)	Conc. Pt. (lbs)	L	00-07-04	00-07-04	Тор	324	162			n\a
5	J7(i2847)	Conc. Pt. (lbs)	L	01-05-04	01-05-04	Top	305	152			n\a
6	J7(I3121)	Conc. Pt. (lbs)	L	13-05-04	13-05-04	Top	325	162			n\a
7	B18(i2803)	Conc. Pt. (lbs)	L	03-11-08	03-11-08	Тор	301	426			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	21829 ft-lbs	48297 ft-lbs	45.2%	1	07-05-04
End Shear	6416 lbs	23142 lbs	27.7%	1	13-03-04
Total Load Deflection	L/306 (0.542")	n \a	78.6%	4	07-02-04
Live Load Deflection	L/489 (0.339")	n\a	73.6%	5	07-02-04
Max Defl. Span / Depth	0.542" 17.4	n\a	n\a	4	07-02-04

Bearing	supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	4-1/2" x 7"	6495 lbs	38.6%	16.9%	Unspecified
B2	Wall/Plate	5-1/2" x 7"	7004 lbs	29.6%	14.9%	Spruce-Pine-Fir

Notes

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

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

CONFORMS TO OBG 2012

Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-00-00. Resistance Factor phi has been applied to all presented results per CSA O86.

AMENDED 2020

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

Design based on Dry Service Condition.

importance Factor: Normal Part code: Part 9

POVINCE OF ON

698 NO. TAM /2-119 -20 STRUCTURAL COMPONENT ONLY





Passed

August 26, 2020 09:26:19

2ND FLR FRAMING\Flush Beams\B19(i2627) (Flush Beam)

BC CALC® Member Report

Build 7493 Job name:

Customer:

Code reports:

Address: City, Province, Postal Code: HAMILTON

CCMC 12472-R

Dry | 1 span | No cant.

MOUNTAINASH 6 EL 3 File name:

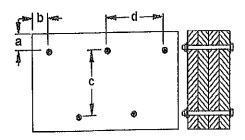
2ND FLR FRAMING\Flush Beams\B19(i2627) Description:

Specifier:

CH

Designer: Company:

Connection Diagram: Full Length of Member



a minimum = 2-1/2" b minimum = 3-1/8"

Calculated Side Load = 731.0 lb/ft Bolts are assumed to be Grade A307 or Grade 2 or higher. Connectors are: 5/8 in. Staggered Through Bolt



646 NO . TAM /2/19 -20 STRUCTURAL COMPONENT ONLY

Disclosure

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Passed

2ND FLR FRAMING\Dropped Beams\B13 DR(I1726) (Dropped Beam)

Dry | 1 span | No cant.

February 10, 2020 11:38:52

Build 7239 Job name:

Address:

City, Province, Postal Code:

BC CALC® Member Report

Customer:

Code reports:

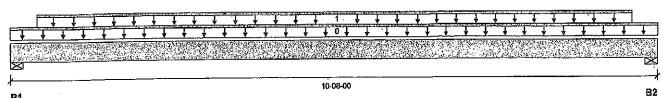
File name:

MOUNTAINASH 6 EL 1.mmdl Description: 2ND FLR FRAMING\Dropped Beams\B13 DR(i1726)

Specifier:

Designer:

Company:



Total Horizontal Product Length = 10-08-00

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 4"	 1619/0	861/0
B2 4"	1618 / 0	861/0

CCMC 12472-R

Load 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	10-08-00	Тор		10			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-05-04	10-02-12	Тор	313	156			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	8926 ft-lbs	23220 ft-lbs	38.4%	1	05-08-12
End Shear	3236 lbs	11571 lbs	28.0%	1	01-01-08
Total Load Deflection	L/523 (0.232")	n\a	45.9%	4	04-11-04
Live Load Deflection	L/800 (0.152")	n\a	45.0%	5	04-11-04
Max Defl.	0.232"	n\a	n\a	4	04-11-04
Snan / Denth	12.8				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	4" x 3-1/2"	3504 lbs	18.8%	20,5%	Spruce-Pine-Fir
B2	Wall/Plate	4" x 3-1/2"	3503 lbs	18.8%	20.5%	Spruce-Pine-Fir



owe no . Tan*6001 -*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.

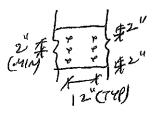
CONFORMS TO OBC 2012

Calculations assume unbraced length of Top: 00-02-08, Bottom: 00-02-08.

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 086.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



PROVIDE 3 ROWS OF 3½" ARDOX SPIRAL NAILS @ /2 " 0/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2"LUMBER EDGE/END DISTANCE, BO NOT USE AIR NAILS

Disclosure

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PASSED

February 10, 2020 11:38:52

2ND FLR FRAMING\Flush Beams\B10(i2111) (Flush Beam)

BC CALC® Member Report Build 7239

Job name:

Address: City, Province, Postal Code:

Customer:

Code reports:

Dry | 1 span | No cant,

File name:

MOUNTAINASH 6 EL 1.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B10(i2111)

Wind

Dead

0.65

19

176

-282

169 406

60

Snow

1.00

Wind

1.15

Tributary

00-00-00

n\a

n\a

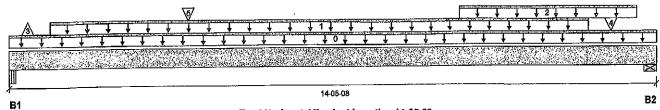
n\a

n\a

Specifier:

Designer:

Company:



Total Horizontal Product Length = 14-05-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 4-1/2"	2574 / 597	1313 / 0
B2, 5-1/2"	2883 / 0	1649 / 0

CCMC 12472-R

10	ad Summary						Live
	Description	Load Type	Ref.	Start	End	Loc.	1.00
0	Self-Weight	Unf. Lin. (lb/ft)	L.	00-00-00	14-05-08	Тор	•
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-11-00	12-11-00	Top	353
2	STAIR	Unf. Lin. (lb/ft)	L	10-00-00	14-00-00	Тор	120
3	J6(i1586)	Conc. Pt. (lbs)	L	00-05-00	00-05-00	Тор	-597
4	J6(i2121)	Conc. Pt. (lbs)	L	13-05-00	13-05-00	Top	338
-	, ,	Conc. Pt. (lbs)	ī	03-11-10	03-11-10	Top	305
5	B11(i2153)	Course to (too)	-				

Controls Summary	Factored Demand	Factored Resistance	Demand <i>l</i> Resistance	Case	Location
Pos. Moment	21228 ft-lbs	48297 ft-lbs	44.0%	1	07-05-00
End Shear	5935 lbs	23142 lbs	25.6%	1	13-02-08
Total Load Deflection	L/317 (0.52")	n\a	75.6%	6	07-02-00
Live Load Deflection	L/508 (0.325")	n\a	70.9%	8	07-02-00
Max Defl.	0.52"	n\a	n\a	6	07-02-00
Span / Depth	17.4				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material .
B1	Beam	4-1/2" x 7"	5502 lbs	28.4%	14.3%	Spruce-Pine-Fir
B2	Wall/Plate	5-1/2" x 7"	6387 lbs	27.0%	13.6%	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.

CONFORMS TO OBG 2012

Resistance Factor phl 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

FZ/2 BOLT MULTI-PLY MEMBERS USING FZ/2 Z ROWS 1/2 P A 3 07 BOLZS TO CHE WASHERS / NUTS @ 16"0/c. UWG NO.TAM 662-20 STRUCTURAL COMPONENT ONLY Discipsure

ONINCE OF ONE

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.

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Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B11(i2163) (Flush Beam)

PASSED

February 10, 2020 11:38:52

BC CALC® Member Report

Build 7239

Job name: Address:

City, Province, Postal Code:

Customer: Code reports: Dry | 1 span | No cant.

File name:

MOUNTAINASH 6 EL 1.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B11(i2153)

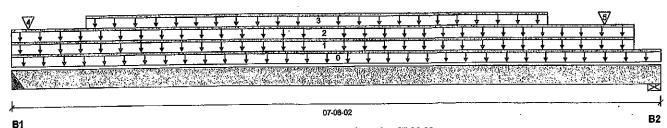
Wind

Live

Specifier:

Designer:

Company:



Total Horizontal Product Length = 07-06-02

Snow

Reaction Summary (Down / Uplift) (lbs)

CCMC 12472-R

Bearing	Live	Dead
B1, 2"	307 / 0	409 / 0
B3 3-3///"	29070	393 / 0

Los	ad Summary								
Tag	•	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00
0	Self-Weight	Unf. Lln. (lb/ft)	L	00-00-00	07-06-02	Тор		10	
1	WALL	Unf. Lin. (lb/ft)	L	00-00-00	07-02-06	Top		60	
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	07-02-06	Тор	6	3	
3	Smoothed Load	Unf. Lin. (lb/ft)	L	00-10-06	06-02-06	Тор	76	38	ARC PROPERTY
4	J5(i1619)	Conc. Pt. (lbs)	L	00-02-06	00-02-06	Тор	70	35 ,	
5	J5(i1506)	Conc. Pt. (lbs)	L	06-10-06	06-10-06	Тор	77	39 /	
Ū	00(11000)	, ,		D	41			13	a €

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1645 ft-lbs	23220 ft-lbs	7.1%	1	03-11-06
End Shear	744 lbs	11571 lbs	6.4%	1	. 06-04-14
Total Load Deflection	L/999 (0.022")	n\a	n\a	4	03-08-06
Live Load Deflection	L/999 (0.009")	n\a	n\a	5	03-08-06
Max Defl.	0.022"	n\a	n\a	4	03-08-06
Span / Depth	9.0				

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Resistance Member	Material
B1	Hanger	2" x 3-1/2"	972 lbs	n\a	11.4%	Hanger
B2	Wall/Plate	3-3/4" x 3-1/2"	926 lbs	11.5%	5.8%	Spruce-Pine-Fir

Cautions

Hanger model Hanger was not found. 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

PROVIDE 3 ROWS OF 3½" ARDOX SPIRAL NAILS @ /2-" O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2" LUMBER EDGE/END DISTANCE, DONOT USE AIR NAILS



Wind

1.15

·Tributary

Snow

Dead

STRUCTURAL COMPONENT ONLY

Disclosure

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> 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 9-1/2" VERSA-LAM® 2.0 3100 SP

passed

2ND FLR FRAMING\Flush Beams\B12(i1651) (Flush Beam)

Dry | 1 span | No cant.

February 10, 2020 11:38:52

Build 7239

Job name:

Address:

City, Province, Postal Code:

Customer:

Code reports:

CCMC 12472-R

File name:

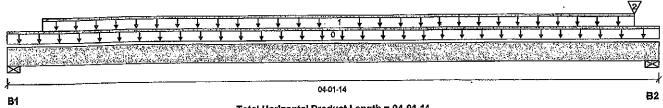
MOUNTAINASH 6 EL 1.mmdl

2ND FLR FRAMING\Flush Beams\B12(I1651) Description:

Specifier:

Designer:

Company:



Total Horizontal Product Length = 04-01-14

Reaction Summary (Down / Uplift) (lbs)

Position	Live	•	Dead
Bearing Bd 5 4 60"	52 / 0		36/0
B1, 5-1/2"			•••
B2, 3-1/2"	51 / 0		35/0

Los	ad Summary						Live	Dead	Snow	Wind	Tributary
	. •	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
n	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-01-14	Тор		5			00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	Ĺ	00-02-12	04-00-02	Тор	27	13			n\a
2	FC2 Floor Material	Conc. Pt. (lbs)	L	04-00-02	04-00-02	Тор	2	1	لئند.	عاد الله والعالم الموثرة الماثلة الموثرة الماثلة الماثلة الماثلة الموثرة الماثلة الماثلة الماثلة الماثلة الماثلة	n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	98 ft-lbs	11610 ft-lbs	0.8%	1	02-01-15
End Shear	57 lbs	5785 lbs	1.0%	1	01-03-00
Total Load Deflection	L/999 (0.001")	n\a	n\a	4	02-01-15
Live Load Deflection	L/999 (0")	n\a	n\a	5	02-01-15
Max Defl.	0.001"	n\a	n\a	4	02-01-15
Span / Depth	4.5				

Bearing Supports	S Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1 Wall/Plate	5-1/2" x 1-3/4"	123 lbs	2.1%	1.0%	Spruce-Pine-Fir
R2 Wall/Plate	3-1/2" x 1-3/4"	121 lbs	3.2%	1.6%	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 O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



DWG NO. TAM 6084-20 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 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®,





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING/Flush Beams/B14(i2151) (Flush Beam)

PASSED

February 10, 2020 11:38:52

BC CALC® Member Report

Build 7239

Job name: Address:

City, Province, Postal Code:

Customer:

Code reports:

Dry | 1 span | No cant.

MOUNTAINASH 6 EL 1.mmdl

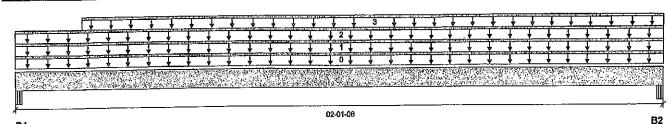
File name: Description: 2ND FLR FRAMING\Flush Beams\B14(i2151)

Wind

Specifier:

Designer:

Company:



B1

Total Horizontal Product Length = 02-01-08

Reaction Summary (Down / Uplift) (lbs)

I TOROLION OW			5
Bearing	Live	Dead	Snow
B1, 2-5/8"	43/0	120 / 0	42 / 0
B2 4-1/8"	55 / 0	138 / 0	47/0

CCMC 12472-R

	ا م	d Summary						Live
		-	Load Type	Ref.	Start	End	Loc.	1.00
_	0	Self-Weight	Unf. Lin. (lb/ft)	Ĺ	00-00-00	02-01-08	Тор	
	1	SNOW	Unf. Lin. (lb/ft)	L	00-00-00	02-01-08	Top	22
	່	WALL	Unf. Lin. (lb/ft)	L	00-00-00	02-01-08	Тор	
	2		Unf. Lin. (lb/ft)	ī	00-02-10	02-01-08	Top	27
	3	FC2 Floor Material	Offic Ent. (ID/IO	-	00 02 10	0	, • p	

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	96 ft-lbs	23220 ft-lbs	0.4%	1	01-00-02
End Shear	2 lbs	7521 lbs	n\a	0	01-00-02
Total Load Deflection	L/999 (0")	n\a	n\a	35	01-00-02
Max Defl.	0"	n\a	n\a	35	01-00-02
Span / Depth	2.1				

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	2-5/8" x 3-1/2"	168 lbs	5.3%	2.3%	Unspecified
B2	Beam	4-1/8" x 3-1/2"	302 lbs	3.9%	1.7%	Unspecified

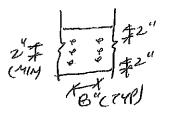
Design meets Code minimum (L/240) Total load deflection criteria.

CONFORMS TO OBC 2012

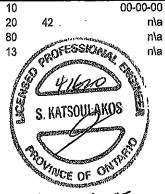
Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA Q86. 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



PROVINE 3 ROWS OF 312" ARDOX SPIRAL NAILS @ 8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2" LUMBER EDGE/END DISTANCE, BONOTUSE AIR NAILS



Wind

1.15

Snow

1.00

Dead

0.65

Tributary

DWB NO. TAM 6095-20 STRUCTURAL COMPONENT ONLY

Disclosure

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PASSED

2ND FLR FRAMING\Flush Beams\B16(i2154) (Flush Beam)

Dry | 1 span | No cant.

February 10, 2020 11:38:52

Build 7239

Job name:

Address:

City, Province, Postal Code:

BC CALC® Member Report

Customer:

Code reports:

CCMC 12472-R

File name:

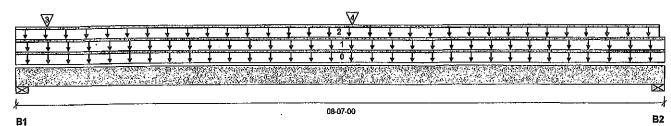
MOUNTAINASH 6 EL 1.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B16(i2154)

Specifier:

Designer:

Company:



Total Horizontal Product Length = 08-07-00

nation Summan, (Down / Linliff) (lhe)

Vegetion annual Aponta abust (199)								
Bearing	Live	Dead	Snow	Wind				
B1, 5-1/2"	184 / 0	517/0	187 / 0					
B2, 5-1/2"	120 / 0	452 / 0	65 / 0					

Loa	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	08-07-00	Тор		10			00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	08-07-00	Тор	20	10			n\a
2	WALL	Unf. Lin. (lb/ft)	L	00-00-00	08-06-01	Тор		80			n\a
3	WINDOW	Conc. Pt. (lbs)	L	00-05-00	00-05-00	Тор	66	60	126		n\a
4	WINDOW	Conc. Pt. (lbs)	L	04-05-00	04-05-00	Тор	66	60	126	all property and the last and t	n\a

Controls Summary	Factored Demand	Factored Resistance	Demand <i>i</i> Resistance	Case	Location
Pos. Moment	1221 ft-lbs	15093 ft-lbs	8.1%	0	04-05-00
End Shear	468 lbs	7521 lbs	6.2%	0	07-04-00
Total Load Deflection	1./999 (0.028")	n\a	n\a	35	04-03-13
Live Load Deflection	L/999 (0.01")	n\a	n\a	51	04-03-13
Max Defl.	0.028"	n\a	n\a	35	04-03-13
Span / Depth	9.8				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	5-1/2" x 3-1/2"	723 lbs	9.4%	4.7%	Spruce-Pine-Fir
B2	Wall/Plate	5-1/2" x 3-1/2"	633 lbs	8.2%	4.1%	Spruce-Pine-Fir

verification.

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

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

PROVIDE 9 ROWS OF 3½" ARDOX SPIRAL NAILS @ /2" D/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE, BONOTUSE AIR NAILS

CONFORMS TO OBG 2012



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.

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NWA NO. TAM 6086-20 STRUCTURAL





PASSED

2ND FLR FRAMING\Flush Beams\B8(i2152) (Flush Beam)

Dry | 1 span | No cant.

February 10, 2020 11:38:52

Build 7239

Job name: Address:

Customer: Code reports:

City, Province, Postal Code:

BC CALC® Member Report

CCMC 12472-R

File name:

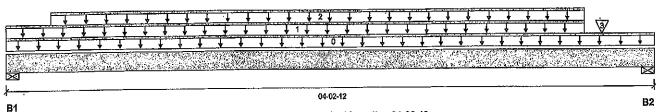
MOUNTAINASH 6 EL 1.mmdl

2ND FLR FRAMING\Flush Beams\B8(i2152) Description:

Specifier:

Designer:

Company:



Total Horizontal Product Length = 04-02-12

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 3-1/2"	41/0	144 / 0
B2. 5-1/2"	36 / 0	143/0

Load Summary		-					Live
	-	Load Type	Ref.	Start	End	Loc.	1.00
n	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-02-12	Тор	
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	03-09-04	Тор	20
2	WALL	Unf. Lin. (lb/ft)	L	00-03-08	03-09-04	Top	
2	,	Conc. Pt. (lbs)	1			•	1
3	FC2 Floor Material	COHO. L.C. (ID9)	-	00-10-10	00 10-10		•

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	181 ft-lbs	15093 ft-lbs	1.2%	0	02-00-06
End Shear	106 lbs	7521 lbs	1.4%	0	01-01-00
Total Load Deflection	L/999 (0.001")	n\a	n\a	4	02-00-06
Live Load Deflection	L/999 (0")	n\a	n\a	5	02-00-06
Max Defl.	0.001"	n\a	n\a	4	02-00-06
Snon / Donth	46				

	Bearing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
_	B1 Wall/Plate	3-1/2" x 3-1/2"	202 lbs	4.1%	2.1%	Spruce-Pine-Fir
Ì	B2 Wall/Plate	5-1/2" x 3-1/2"	201 lbs	2.6%	1.3%	Spruce-Pine-Fir

Notes

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

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

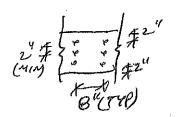
Calculations assume member is fully braced.

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



SONINCE OF ON

Wind

1.15

Snow

Dead

0,65

10

10

60

Tributary

00-00-00

n\a

n\a n\a

<u>Disclosure</u>

Use of the Bolse Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of Input 614F37MS TO OBC 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 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

February 10, 2020 11:38:52

1ST FLR FRAMING\Flush Beams\B1(i1955) (Flush Beam)

BC CALC® Member Report

Build 7239 Job name:

Address: City, Province, Postal Code:

Customer:

Code reports:

CCMC 12472-R

Dry | 2 spans | No cant.

File name:

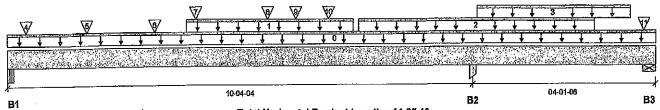
MOUNTAINASH 6 EL 1.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B1(i1955)

Specifier:

Designer:

Company:



Total Horizontal Product Length = 14-05-10

Snow

Reaction Summary (Down / Uplift) (lbs)

 Bearing
 Live
 Dead

 B1, 5-1/4"
 3149 / 27
 1723 / 0

 B2, 4-1/2"
 5407 / 0
 2876 / 0

 B3, 5-1/2"
 4368 / 1288
 3245 / 0

l ۵۶	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	<u> </u>
0	Self-Weight	Unf, Lin, (lb/ft)	<u>L</u>	00-00-00	14-05-10	Тор		10			00-00-00
1	STAIR	Unf. Lin. (lb/ft)	Ĺ	03-11-10	07-07-10	Тор	240	120			n\a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	07-09-02	13-01-02	Тор	323	161			n\a
3	STAIR	Unf. Lin. (lb/ft)	L	10-05-06	13-10-10	Top	240	120			n\a
4	J2(i2040)	Conc. Pt. (lbs)	L	00-05-02	00-05-02	Тор	1454	789			n\a
5	J2(i2099)	Conc. Pt. (lbs)	L	01-09-02	01-09-02	Top	431	215			n\a
6	-	Conc. Pt. (lbs)	L	03-03-04	03-03-04	Тор	522	261			n\a
7	_	Conc. Pt. (lbs)	L	04-02-02	04-02-02	Top	710	417			n\a
8	J2(i2016)	Conc. Pt. (lbs)	L	05-09-02	05-09-02	Тор	295	147			n\a
9	J2DJ(I2081)	Conc. Pt. (lbs)	L	06-04-10	06-04-10	Тор	255	127			n\a
10	J2(i1959)	Conc. Pt. (lbs)	L	07-01-02	07-01-02	Top	332	166			n\a
11	52(11000)	Conc. Pt. (lbs)	L	14-02-06	14-02-06	Top	3733	3598			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	9867 ft-lbs	23220 ft-lbs	42.5%	2	04-05-02
Neg, Moment	-10975 ft-lbs	-23220 ft-lbs	47.3%	1	10-04-04
End Shear	3496 lbs	11571 lbs	30.2%	2	01-02-12
Cont. Shear	5922 lbs	11571 lbs	51.2%	1	09-04-08
Total Load Deflection	L/584 (0.205")	n\a	41.1%	9	04-11-02
Live Load Deflection	L/886 (0.135")	n\a	40.7%	12	04-11-02
Total Neg. Defl.	L/999 (-0,021")	n\a	n\a	9	11-10-09
Max Defl.	0.205"	n\a	n\a	9	04-11-02
Span / Depth	12.6				

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	5-1/4" x 3-1/2"	6878 lbs	70,1%	30.7%	Unspecified
B2	Column	4-1/2" x 3-1/2"	11705 lbs	91.5%	60.9%	Unspecified
DZ			40007 11-	00.00/	4E 00/	Comico Dino Ele
B3	Wall/Plate	5-1/2" x 3-1/2"	10607 lbs	89.6%	45.2%	Spruce-Pine-Fir



UWB NO. TAM*GOBO* -20 Structural Component Only





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B1(i1955) (Flush Beam)

Passed

February 10, 2020 11:38:52

BC CALC® Member Report

Build 7239

Job name: Address:

City, Province, Postal Code:

Customer:

Code reports:

Dry | 2 spans | No cant.

File name:

MOUNTAINASH 6 EL 1.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B1(i1955)

Specifier:

Designer:

Company:

CCMC 12472-R

Notes

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

Design meets Code minimum (L/360) Live toad 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 O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

PROVIDED ROWS OF 312" ARDOX SPIRAL NAILS @ 8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2" LUMBER EDGE/END BLIAN AIA ZOU TON OR BONATELO



DWB NO. TAN 6009-20 STRUCTURAL COMPONENT ONLY

Disclosure

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





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B2(I1994) (Flush Beam)

Passed

Dry | 1 span | No cant.

February 10, 2020 11:38:52

BC CALC® Member Report Bulld 7239

Job name: Address:

City, Province, Postal Code:

Customer: Code reports:

B1

CCMC 12472-R

File name:

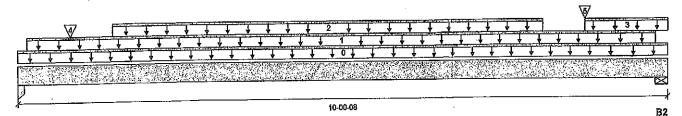
MOUNTAINASH 6 EL 1.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B2(I1994)

Wind

Specifier:

Designer: Company:



Total Horizontal Product Length = 10-00-08

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 1-3/4"	985 / 0	834 / 0
B2 1-7/8"	942 / 0	810 / 0

Live
1.00
210
22
244
262

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	6498 ft-lbs	23220 ft-lbs	28.0%	1	04-09-10
End Shear	2370 lbs	11571 lbs	20.5%	1	09-01-02
_,	L/728 (0.163")	n\a	33.0%	4	05-00-10
Total Load Deflection	L/999 (0.089")	n\a	n\a	5	05-00-10
Live Load Deflection Max Defl.	0.163"	n\a	n\a	4	05-00-10
Snan / Denth	12.5				

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand <i>i</i> Resistance Member	Material
B1	Column	1-3/4" x 3-1/2"	2520 lbs	50.7%	33.7%	Unspecified
B2	Wall/Plate	1-7/8" x 3-1/2"	2426 lbs	60.1%	30.3%	Spruce-Pine-Fir

Notes

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

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

CONFORMS TO OBC 2012

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 086.

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

PROVIDE3 ROWS OF 312" ARDOX SPIRAL NAILS @ /2 " O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2" LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS



Wind

Tributary

Snow

Dead

Disclosure

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PASSED

1ST FLR FRAMING\Flush Beams\B3(i1931) (Flush Beam)

Dry | 1 span | No cant.

February 10, 2020 11:38:52

BC CALC® Member Report Bulld 7239

Job name: Address:

City, Province, Postal Code:

Customer:

Code reports:

File name:

MOUNTAINASH 6 EL 1.mmdl

Description: 1ST FLR FRAMING\Flush Beams\B3(I1931)

Specifier:

CCMC 12472-R

Designer: Company:

\6/	<u>· · · · · · · · · · · · · · · · · · · </u>	₩
		\
		<u>V-G#0-53</u>
}	08-11-12	∤ B2
B1	m 4 All Control Developed Control of Ad 40	NA.

Total Horizontal Product Length = 08-11-12

Reaction Summary (Down / Uplift) (lbs)

1/690flott cair	initially (= outlier of	Daniel	C. C.		
Bearing	Live	Dead	Snow		
B1, 2"	358 / 0	222 / 0			
B2 3-1/2"	810 / 0	999 / 0			

	d Commons						Live	Dead	Snow	Wind	Tributary
LO8 Tag	ad Summary Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
1 ay	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	08-11-12	Тор		10			00-00-00
4	Smoothed Load	Unf. Lin. (lb/ft)	Ĺ	00-10-04	06-02-04	Top	80	40			n\a
ı	J7(j2069)	Conc. Pt. (lbs)	L	00-02-04	00-02-04	Top	67	34			n\a
2		Conc. Pt. (lbs)	L	06-10-04	06-10-04	Top	108	54			n\a
3.	J7(i2079)	Conc. Pt. (lbs)	i	08-07-07	08-07-07	Top	559	830			n\a
4	₩	Colle. L. (188)	-	00 0. 5.					احتتام	-cessi	A. L.

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1714 ft-lbs	23220 ft-lbs	7.4%	1	04-02-04
End Shear	706 lbs	11571 lbs	6.1%	1	07-10-12
Total Load Deflection	L/999 (0.032")	n\a	n\a	4	04-04-04
Live Load Deflection	L/999 (0.02")	n\a	n\a	5	04-04-04
Max Defi.	0.032"	n\a	n\a	4	04-04-04
Span / Denth	10.9				

Rearing	supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Hanger	2" x 3-1/2"	813 lbs	n\a	9.5%	Hanger
B2	Column	3-1/2" x 3-1/2"	2463 lbs	24.8%	16.5%	Unspecified

Hanger model Hanger was not found. 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 unbraced length of Top: 00-00-00, Bottom: 00-00-00. Canforms TO OBC 2012

Hanger Manufacturer: Unassigned

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

PROVIDE 3 ROWS OF 3½" ARDOX SPIRAL NAILS @ 8 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2" LUMBER EDGE/END DISTANCE. DO NOT USE AIR NAILS



DWO NO. TAN 6090-20 STRUCTURAL COMPONENT ONLY

Disclosure 1

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 GLULAMIM, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B4(I2084) (Flush Beam)

PASSED

February 10, 2020 11:38:52

BC CALC® Member Report

Job name:

Build 7239

Address: City, Province, Postal Code:

Customer:

Dry | 1 span | No cant.

MOUNTAINASH 6 EL. 1.mmdi

Wind

Livo

Dead

0.65

5

Snow

1.00

File name:

Description: 1ST FLR FRAMING\Flush Beams\B4(I2084)

Specifier:

Designer:

Code reports:

CCMC 12472-R

Company:

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B1

Total Horizontal Product Length = 06-05-00

Reaction Summary (Down / Uplift) (lbs)

Licaritan Ann	minuty (Donn. of	p, \	
Bearing	Live	Dead	Snow
B1, 2"	344 / 0	618 / 0	
B2, 3-1/2"	167 / 0	496 / 0	

Loa	id Summary						LIVE
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	06-05-00	Тор	
1	3(1760)	Unf. Lin. (lb/ft)	L	00-00-00	06-05-00	Top	
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	06-05-00	Top	19
3	3(1760)	Unf. Lin. (lb/ft)	L.	00-00-00	00-06-06	Top	427
4	3(1760)	Unf. Lin. (lb/ft)	L	00-00-02	06-01-08	Top	20
5	3(1760)	Unf. Lin. (lb/ft)	L	05-08-00	06-05-00	Top	53

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	748 ft-lbs	7546 ft-lbs	9.9%	0	03-01-12
End Shear	594 lbs	3761 lbs	15.8%	0	00-11-08
Total Load Deflection	L/999 (0.02")	n\a	n\a	4	03-01-12
Live Load Deflection	L/999 (0.006")	n\a	n\a	5	03-00-15
Max Defl.	0.02"	n\a	n\a	4	03-01-12
Snan / Donth	77				

Bearing	ı Supports	Dim. (LXW)	Demand	Demand <i>i</i> Resistance Support	Demand/ Resistance Member	Material
B1	Hanger	2" x 1-3/4"	865 lbs	n\a	31.2%	Hanger
B2	Column	3-1/2" x 1-3/4"	694 lbs	21.5%	14.3%	Unspecified

Cautions

Hanger model Hanger was not found. 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.

CONFORMS TO OBC 2012

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

81 n\a 9 n\a 536 n\a 12 192 OLINCE OF ONTE 0114 NOT TAMBO?/ -20

Wind

1.15

Tributary

00-00-00

STRUCTURAL COMMONENT 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 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®,



Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B5(i2038) (Flush Beam)

PASSED

February 10, 2020 11:38:52

BC CALC® Member Report

Build 7239

Job name: Address:

City, Province, Postal Code:

Customer: Code reports:

Dry | 1 span | No cant.

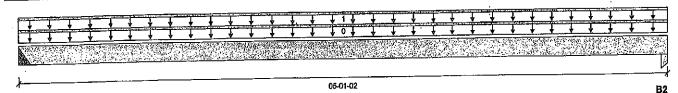
MOUNTAINASH 6 EL 1.mmdl

File name: Description: 1ST FLR FRAMING\Flush Beams\B5(i2038)

Specifier:

Designer:

Company:



Total Horizontal Product Length = 05-01-02

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 2"	44 / 0	34/0
B2, 1-3/4"	44 / 0	34/0

CCMC 12472-R

_							Live	Dead	Snow	Wind	Tributary
	ad Summary	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
Tag	Description	Unf. Lin. (lb/ft)	ī	00-00-00	05-01-02	Top		5			00-00-00
0	Self-Weight	• •	1	00-00-00	05-01-02	Top	17	a			n\a
1	FC1 Floor Material	Unf. Lin. (lb/ft)	Ł	00-00-00	00-01-02	TOP	17	U			

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Market Street,	129 ft-lbs	11610 ft-lbs	1.1%	1	02-06-11
Pos. Moment	68 lbs	5785 lbs	1.2%	1	00-11-08
End Shear	L/999 (0.002")	n\a	n\a	4	02-06-11
Total Load Deflection	L/999 (0.002)	n\a	n\a	5	02-06-11
Live Load Deflection Max Defl.	0.002"	n\a	n\a	4	02-06-11
Span / Depth	6.2				

Donring	Supports	Dim. (LxW).	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Hanger	2" x 1-3/4"	109 lbs	n\a	2.6%	Hanger
B2	Column	1-3/4" x 1-3/4"	108 lbs	4.4%	2.9%	Unspecified

Hanger model Hanger was not found. 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.

canparms to obe 2012

Hanger Manufacturer: Unassigned 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



848 NO. TAN 6092—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 BOARDTM, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,





Single 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B6(i2036) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

February 10, 2020 11:38:52

Bulld 7239

Job name: Address:

City, Province, Postal Code:

Customer:

Code reports:

File name:

MOUNTAINASH 6 EL 1.mmdl

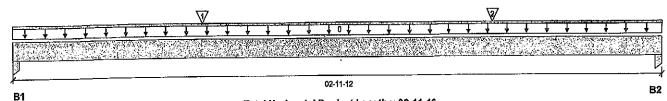
Déscription:

1ST FLR FRAMING\Flush Beams\B6(i2036)

Specifier:

Designer:

Company: CCMC 12472-R



Total Horizontal Product Length = 02-11-12

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 3-1/2"	113 / 0	64/0
B2. 3-1/2"	119/0	67 / 0

l o	ad Summary	- •					Live	Dead	Snow	Wind	Tributary
Tag		Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
708	Self-Weight	Unf. Lin. (lb/ft)	Į.	00-00-00	02-11-12	Тор		5			00-00-00
4	• • • • •	Conc. Pt. (lbs)	L	00-10-06	00-10-06	Top	118	59			n\a
1	J6(i1935)	Conc. Pt. (lbs)	ī	02-02-06	02-02-06	Тор	114	57			n\a
2	J6(i2002)	Conc. F. Chos	-	Q L	02 02 00	. • [-			<u>ع</u> ىر	THE PERSON NAMED IN	WASTES.

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	157 ft-lbs	11610 ft-lbs	1.3%	1	00-10-11
End Shear	174 lbs	5785 lbs	3.0%	1	01-01-00
Total Load Deflection	L/999 (0.001")	n\a	n \ a	4	01-05-14
Live Load Deflection	L/999 (0")	n\a	n\a	5	01-05-14
Max Defl.	0.001"	n\a	n\a	4	01-05-14
Span / Depth	3.2	•			

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Column	3-1/2" x 1-3/4"	249 lbs	5.0%	3.3%	Unspecified
B2	Column	3-1/2" x 1-3/4"	261 lbs	5.3%	3.5%	Unspecified

846 no . tam 6093-20 STRUCTURAL COMPONENT ONLY

OVINCE OF ON

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.

CONFORMS TO OBC 2012

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

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





Passed

February 10, 2020 11:38:52

1ST FLR FRAMING\Flush Beams\B7(12063) (Flush Beam)

BC CALC® Member Report

Build 7239 Job name: Address:

City, Province, Postal Code:

Customer:

Code reports:

Dry | 1 span | No cant.

File name:

MOUNTAINASH 6 EL 1.mmdl

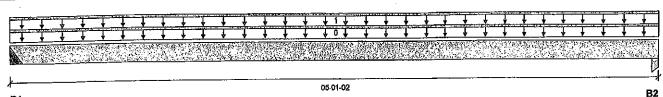
Description: 1ST FLR FRAMING\Flush Beams\B7(i2063)

Wind

Specifier:

Designer:

CCMC 12472-R Company:



Total Horizontal Product Length = 05-01-02

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 2"	40 / 0	32 / 0
B2, 1-3/4"	40 / 0	32/0

	ad Summary Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
Tag O	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	05-01-02	Тор		5 .	•		00-00-00
1	FC1 Floor Material	Unf, Lin. (lb/ft) .	L	00-00-00	05-01-02	Тор	16	8			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand <i>i</i> Resistance	Case	Location
Pos. Moment	118 ft-lbs	11610 ft-lbs	1.0%	1	02-06-11
End Shear	63 lbs	5785 lbs	1.1%	1	00-11-08
Total Load Deflection	L/999 (0.001")	n\a	n\a	4	02-06-11
Live Load Deflection	L/999 (0.001")	n\a	n\a	5	02-06-11
Max Defl.	0.001"	n\a	n\a	4	02-06-11
Snan / Depth	6.2				

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Resistance Member	Material	
B1	Hanger	2" x 1-3/4"	100 lbs	n\a	2.3%	Hanger	
B2	Column	1-3/4" x 1-3/4"	99 lbs	4.0%	2.7%	Unspecified	

Cautions

Hanger model Hanger was not found. 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.

canforms to obc 2012

Hanger Manufacturer: Unassigned

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

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 bullding code-accepted design properties and analysis methods. Installation of Bolse 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.

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unu no. tam 6094 -20 STRUCTURAL COMPONENT ONLY





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 2ND FLR FRAMING\Flush Beams\B14B(i2247) (Flush Beam)

Passed

BC CALC® Member Report

Dry | 1 span | No cant.

February 10, 2020 12:41:53

Build 7239

Customer:

Code reports:

Job name:

Address: City, Province, Postal Code: WATERDOWN

CCMC 12472-R

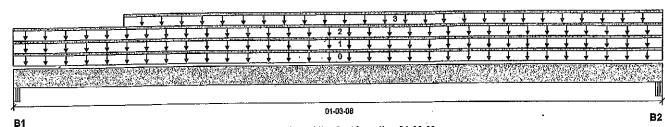
File name:

MOUNTAINASH 6 EL 2.mmdl

Description: 2ND FLR FRAMING\Flush Beams\B14B(i2247)

Specifier:

Designer: Company:



Total Horizontal Product Length = 01-03-08

Summary (Down / Unlift) (lbs)

Reaction Sun	IIIII AI Y LO VIII I O		_	
Bearing	Live	Dead	Snow	Wind
B1. 2-5/8"	12/0	59 / 0	23/0	
B2. 5-1/4"	17/0	83 / 0	32/0	

1	- d Cummons	* }					Live	Dead	Snow	Wind	Tribu
LO: Tag	ad Summary Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lln. (lb/ft)	L	00-00-00	01-03-08	Тор		10			00-00
1	SNOW	Unf. Lin. (lb/ft)	L	00-00-00	01-03-08	Top	22	20	42		
2	WALL	Unf. Lin. (lb/ft)	L	00-00-00	01-03-08	Тор		80-	المستنجع	OFESS/	ON.
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-02-10	01-03-08	Тор	1		No.	A STATE OF THE PARTY OF THE PAR	Market 1
			* 4	Dam	andl					416	123

Controls Summary	Factored Demand	Factored Resistance	Demand <i>i</i> Resistance	Case	Location
Pos. Moment	11 ft-lbs	15093 ft-lbs	n\a	0	00-06-07
End Shear	49 lbs	7521 lbs	0.6%	0	00-02-10
Span / Depth	1.0		-		

Bearin	g Supports	Dim. (ExW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Beam	2-5/8" x 3-1/2"	82 lbs	2.6%	1.1%	Unspecified
B2	Beam	5-1/4" x 3-1/2"	116 lbs	1.8%	0.8%	Unspecified

Notes

verification.

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

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

CONFORMS TO OBG 2012

AMENDED 2020

PROVIDE 3 ROWS OF 31/2" ARDOX SPIRAL NAILS @ 7 "O/C FOR MULTI-PLY NAILING, MAINTAIN A MIN.2" LUMBER EDGE/END Distance. Do not use air nails OWE NO. TAMBOST -20 STRUCTURAL COMPONENT ONLY

Tributary

00-00-00 n\a

n\a

Disclosure

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





Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B1A(i2350) (Flush Beam)

passed

April 16, 2020 08:43:03

BC CALC® Member Report

Build 7239

Job name: Address:

City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

Dry | 1 span | No cant.

File name:

MOUNTAINASH 6 EL 1 DECK CONDITION.mmdl

1ST FLR FRAMING\Flush Beams\B1A(i2350) Description:

Specifier:

Designer: ΑJ

Company:

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			210.17	1,514,0	OR MENTE	4 4 8 8 2
Manager and American State of the State of t						-
	03-01-0	0				

Total Horizontal Product Length = 03-01-00

Reaction Sur	nmary (Down / L	າວາແນ (ເຄຣ)				
Bearing	Live	Dead	Snow	Wind	·	
B1, 3"	41 / 0	160 / 0			· ·	
B2, 3"	41/0	160 / 0				

1	oad Summary						Live	Dead	Snow	Wind	Tributary
	ag Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
- ' '	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Тор		10			00-00-00
4	E3(i585)	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Top		81			n\a
۱ م	FC1 Floor Material	Unf. Lin. (lb/ft)	l.	00-00-00	03-01-00	Top	27	13	.e.delana	and the state of t	n\a
2	PC I FIOOI Material	Othi Ann (Inity	_			•			MAN TOFE	SS/On	A STATE OF THE STA

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	133 ft-lbs	15093 ft-lbs	0.9%	0	01-06-08
End Shear	73 lbs	7521 lbs	1.0%	0	01-00-08
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	3.4				

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	<u>Material</u>
B1	Wall/Plate	3" x 3-1/2"	224 lbs	5.3%	2.7%	Spruce-Pine-Fir
B2	Mall/Plate	3" x 3-1/2"	224 lbs	5.3%	2.7%	Spruce-Pine-Fir

Notes

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

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

CAMPORMS TO OBC 2012

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA 086. 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 3½" ARDOX SPIRAL NAILS @ 8 "O/G FOR MULTI-PLY NAILING, MAINTAIN A MIN. 2"LUMBER EDGE/END DISTANCE BONOTUSE AIR NAILS



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Double 1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP 1ST FLR FRAMING\Flush Beams\B1B(i2351) (Flush Beam)

Passed

BC CALC® Member Report

Build 7239

Dry | 1 span | No cant.

April 16, 2020 08:43:03

Job name:

Address: City, Province, Postal Code: WATERDOWN

Customer: Code reports:

CCMC 12472-R

File name: MOUNTAINASH 6 EL 1 DECK CONDITION.mmdl

Dead

0.65

10 216

173

173 173

Snow

Wind

1.15

ROFESSIONAL

Tributary

00-00-00

n\a

n\a

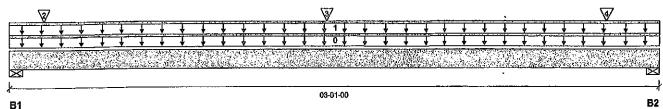
Description: 1ST FLR FRAMING\Flush Beams\B1B(i2351)

Specifier:

Designer.

AJ

Company:



Total Horizontal Product Length = 03-01-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead
B1, 3"	938 / 0	610 / 0
B2, 3"	928 / 0	604 / 0

Loa	ad Summary						FIAG	
	Description	Load Type	Ref.	Start	End	Loc.	1.00	(
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Тор		•
1	E9(i588)	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Тор	270	:
2	J3(i2302)	Conc. Pt. (lbs)	L	00-02-00	00-02-00	Тор	345	•
3	J3(i2284)	Conc. Pt. (lbs)	L	01-06-00	01-06-00	Top	345	•
4	J3(12227)	Conc. Pt. (lbs)	L	02-10-00	02-10-00	Тор	345	•

Controls Summary	Factored Demand	∖Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1125 ft-lbs	23220 ft-lbs	4.8%	1	01-06-00
End Shear	721 lbs	11571 lbs	6.2%	1	01-00-08
Total Load Deflection	L/999 (0.002")	n\a	n\a	4	01-06-07
Live Load Deflection	L/999 (0.001")	n\a	n\a	5	01-06-07
Max Defl.	0.002"	n\a	n\a	4	01-06-07
Span / Depth	3.4				-

Bearing	Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	3" x 3-1/2"	2170 lbs	33.6%	16.9%	Spruce-Pine-Fir
·B2	Wall/Plate	3" x 3-1/2"	2147 lbs	33.2%	16.8%	Spruce-Pine-Fir

Notes

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

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

CINFORMS 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"LUMBER EDGE/END DISTANCE, DO NOT USE AIR NAILS



ON INCE OF ONLY

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