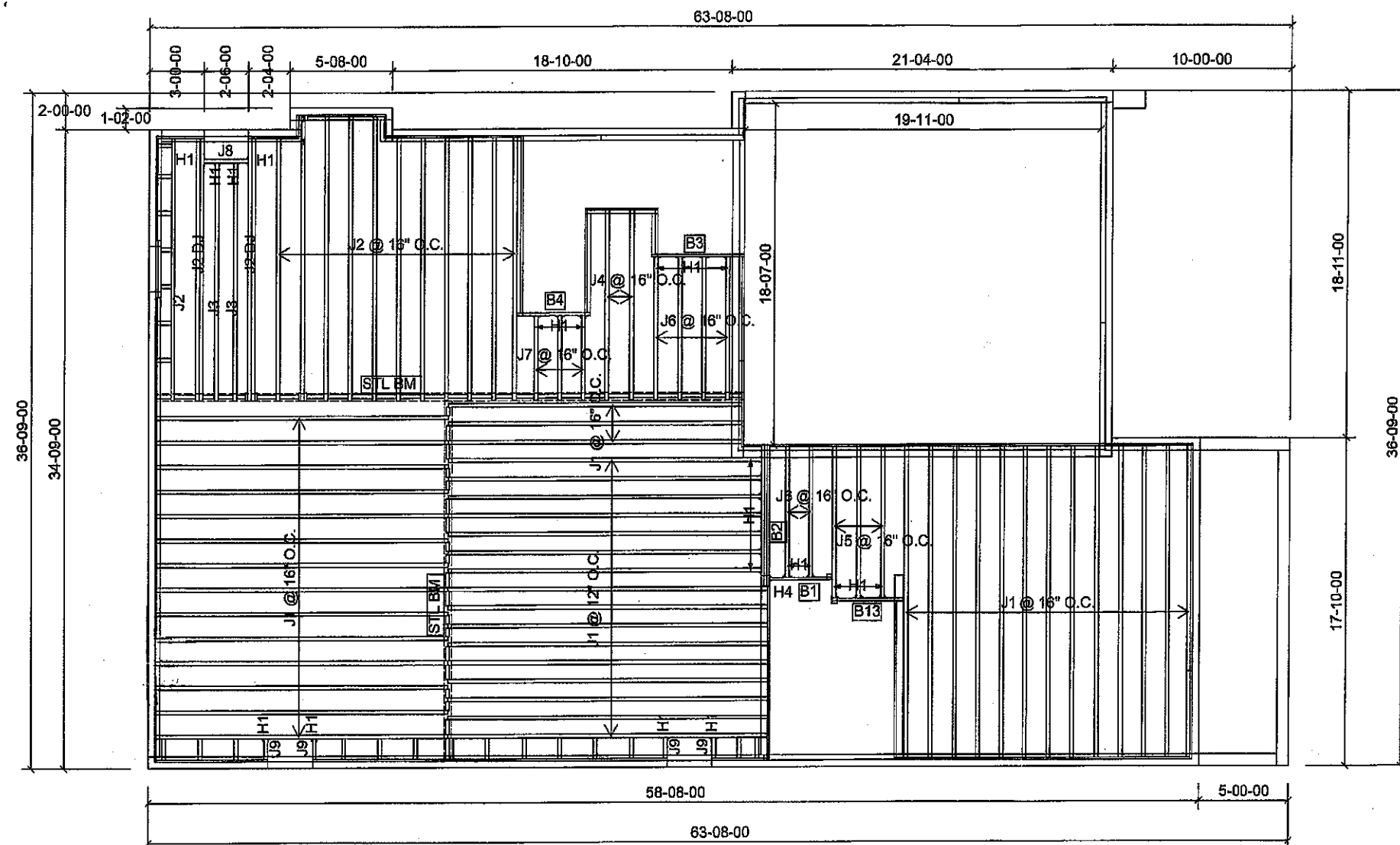




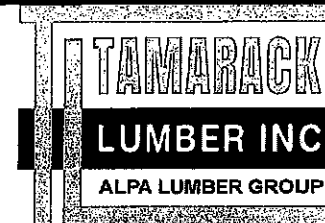
Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	46
J2	16-00-00	11 7/8" NI-40x	1	12
J2 DJ	16-00-00	11 7/8" NI-40x	2	4
J3	14-00-00	11 7/8" NI-40x	1	2
J4	12-00-00	11 7/8" NI-40x	1	2
J5	10-00-00	11 7/8" NI-40x	1	3
J6	8-00-00	11 7/8" NI-40x	1	6
J7	6-00-00	11 7/8" NI-40x	1	3
J8	4-00-00	11 7/8" NI-40x	1	1
J9	2-00-00	11 7/8" NI-40x	1	4
B2	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B3	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B4	6-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B1	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B13	4-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1

Connector Summary		
Qty	Manuf	Product
12	H1	IUS2.56/11.88
3	H1	IUS2.56/11.88
2	H1	IUS2.56/11.88
7	H1	IUS2.56/11.88
6	H1	IUS2.56/11.88
1	H4	HUS1.81/10

THIS STRUCTURE MUST BE
CONSTRUCTED TO MEET OR
EXCEED THE REQUIREMENTS OF
THE CANADIAN BUILDING CODE

RECEIVED
AUG 30 2019

TOWN OF CALEDON
BUILDING SECTION
FILE NO.



FROM PLAN DATED: NOV 2018

BUILDER: GREENPARKHOMES

SITE: LAMBERTS LANE PH.2

MODEL: WOODCROFT 4

ELEVATION: 3

LOT: 56

CITY: CALEDON

SALESMAN: MD

DESIGNER: PL

REVISION:

NOTES:

REFER TO THE NORDIC INSTALLATION GUIDE FOR PROPER STORAGE AND INSTALLATION.

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

LOADING:

DESIGN LOADS: L/480.000

LIVE LOAD: 40.0 lb/ft²

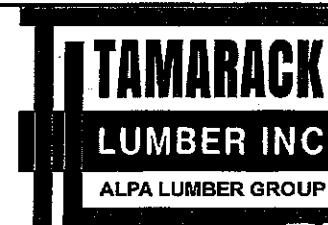
DEAD LOAD: 20.0 lb/ft²

SDL: 27.0 lb/ft²

SUBFLOOR: 3/4" GLUED AND NAILED

DATE: 2019-04-25

1st FLOOR



FROM PLAN DATED: NOV 2018

BUILDER: GREENPARKHOMES

SITE: LAMBERTS LANE PH.2

MODEL: WOODCROFT 4

ELEVATION: 3

LOT:

CITY: CALEDON

SALESMAN: MD

DESIGNER: PL

REVISION:

NOTES:

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

LOADING:

DESIGN LOADS: L/480.000

LIVE LOAD: 40.0 lb/ft²

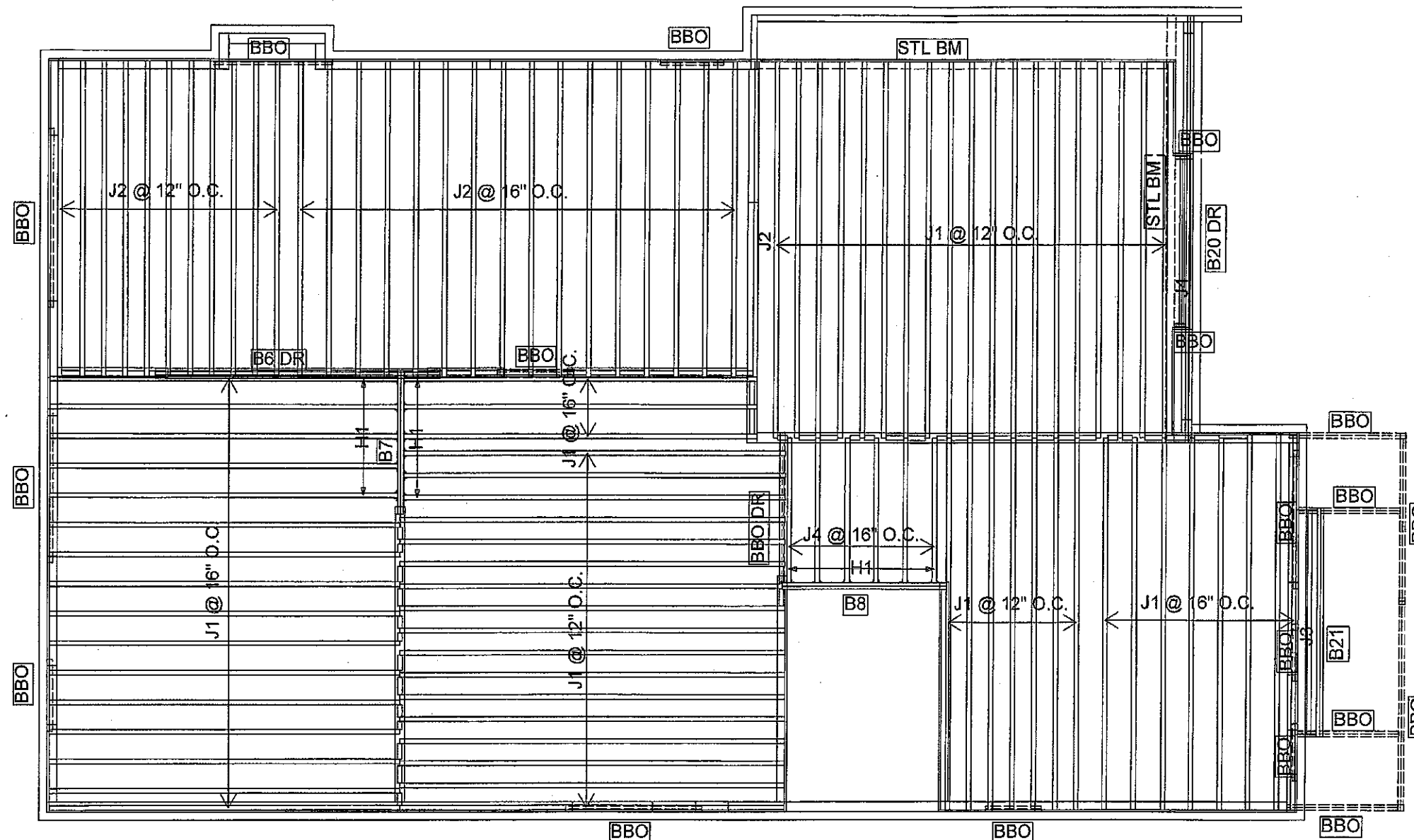
DEAD LOAD: 20.0 lb/ft²

SDL: 27.0 lb/ft²

SUBFLOOR: 5/8" GLUED AND NAILED

DATE: 2019-04-25

2nd FLOOR



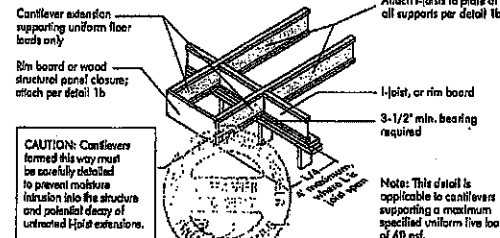
Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-40x	1	70
J2	16-00-00	11 7/8" NI-40x	1	28
J3	12-00-00	11 7/8" NI-40x	1	1
J4	8-00-00	11 7/8" NI-40x	1	7
B6 DR	14-00-00	1-3/4" x 9-1/2" VERSA-LAM® 2.0 3100 SP	3	3
B20 DR	20-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B21	12-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B7	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B8	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
17	H1	IUS2.56/11.88

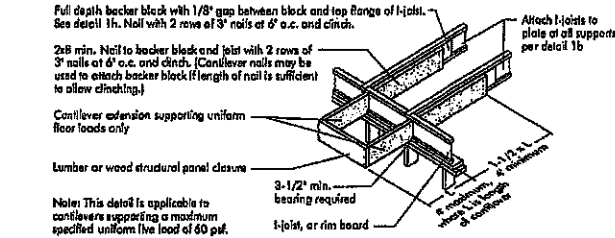
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AUG 30 2019
TOWN OF CALEDON
FILE NO.

CANTILEVER DETAILS FOR BALCONIES (NO WALL LOAD)

36 I-JOIST CANTILEVER DETAIL FOR BALCONIES (No Wall Load)

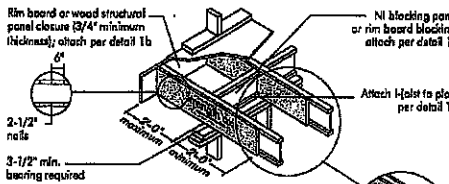


36 LUMBER CANTILEVER DETAIL FOR BALCONIES (No Wall Load)

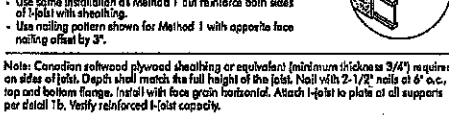


CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD)

4a Method 1 — SHEATHING REINFORCEMENT ONE SIDE



Method 2 — SHEATHING REINFORCEMENT TWO SIDES



4b Alternate Method 2 — DOUBLE I-JOIST

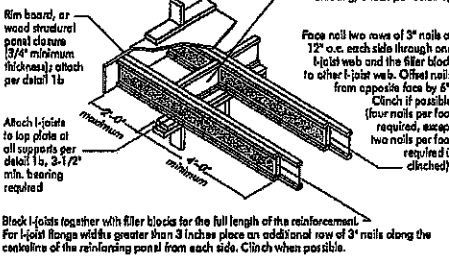


FIGURE 4 (continued)



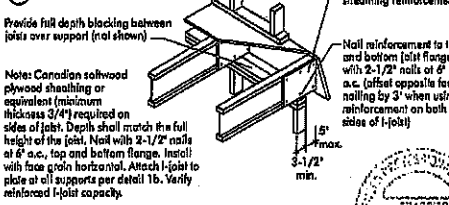
CANTILEVER REINFORCEMENT METHODS ALLOWED

JOIST SPAN (ft)	SHEATHING REINFORCEMENT ONE SIDE		SHEATHING REINFORCEMENT TWO SIDES		DOUBLE I-JOIST	
	1-1/2"	11-7/8"	1-1/2"	11-7/8"	1-1/2"	11-7/8"
9-1/2"	28	30	28	30	28	30
11-7/8"	30	32	30	32	30	32
14'	32	34	32	34	32	34
16'	34	36	34	36	34	36

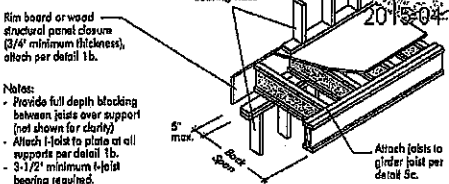
1. N = No reinforcement required.
2. N = NI reinforced with 3/4" wood structural panel on one side only.
3. N = NI reinforced with 3/4" wood structural panel on both sides, or double I-joist.
4. N = Try a deeper joist or closer spacing.
5. Maximum design load shall be 15 psf dead load, 55 psf floor live load, and 80 psf wall load. Wall load is based on 3'-0" maximum width window or door opening.
6. For larger openings, or multiple 3'-0" wide openings spaced less than 6'-0" o.c., additional blocking beneath the opening's cripple studs may be required.
7. Table applies to joists 12" to 24" o.c. that meet the floor span requirements for a design live load of 40 psf and dead load of 15 psf, and a live load deflection limit of L/480. Use 12" o.c. requirements for lesser spacing.
8. Cantilevered joists supporting girder trusses or roof beams may require additional reinforcing.

BRICK CANTILEVER DETAILS FOR VERTICAL BUILDING OFFSET (CONCENTRATED WALL LOAD)

5a SHEATHING REINFORCEMENT



5b SET-BACK DETAIL



5c SET-BACK CONNECTION

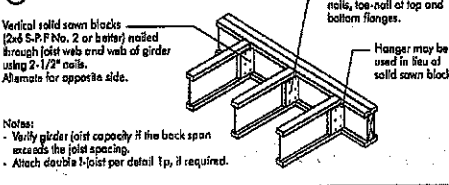


FIGURE 5 (continued)



BRICK CANTILEVER REINFORCEMENT METHODS ALLOWED

JOIST SPAN (ft)	SHEATHING REINFORCEMENT ONE SIDE		SHEATHING REINFORCEMENT TWO SIDES		DOUBLE I-JOIST	
	1-1/2"	11-7/8"	1-1/2"	11-7/8"	1-1/2"	11-7/8"
9-1/2"	28	30	28	30	28	30
11-7/8"	30	32	30	32	30	32
14'	32	34	32	34	32	34
16'	34	36	34	36	34	36

1. N = No reinforcement required.
2. N = NI reinforced with 3/4" wood structural panel on one side only.
3. N = NI reinforced with 3/4" wood structural panel on both sides, or double I-joist.
4. N = Try a deeper joist or closer spacing.
5. Maximum design load shall be 15 psf dead load, 55 psf floor live load, and 80 psf wall load. Wall load is based on 3'-0" maximum width window or door opening.
6. For larger openings, or multiple 3'-0" wide openings spaced less than 6'-0" o.c., additional blocking beneath the opening's cripple studs may be required.
7. Table applies to joists 12" to 24" o.c. that meet the floor span requirements for a design live load of 40 psf and dead load of 15 psf, and a live load deflection limit of L/480. Use 12" o.c. requirements for lesser spacing.
8. Cantilevered joists supporting girder trusses or roof beams may require additional reinforcing.

WEB HOLES

RULES FOR CUTTING HOLES AND DUCT CHASE OPENINGS:

1. The distance between the inside edge of the support and the cantilever of any hole or duct chase opening shall be in compliance with the requirements of Table 1 or 2, respectively.
2. Joist top and bottom flanges must NEVER be cut, notched, or otherwise modified.
3. Whenever possible, field-cut holes should be centered on the middle of the web.
4. The maximum size hole or the maximum depth of a duct chase opening that can be cut into an I-joist web shall equal the clear distance between the flanges of the I-joist minus 1/4 inch. A minimum of 1/8 inch should always be maintained between the top or bottom of the hole or opening and the adjacent I-joist flange.
5. The sides of square holes or largest sides of rectangular holes should not exceed 3/4 of the diameter of the minimum round hole permitted at that location.
6. Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole (or twice the length of the longest side of the longest rectangular hole or duct chase opening) and each hole and duct chase opening shall be sized and located in compliance with the requirements of Tables 1 and 2, respectively.
7. A knockout is not considered a hole, may be utilized anywhere it occurs, and may be ignored for purposes of calculating minimum distances between holes and/or duct chase openings.
8. Holes measuring 1-1/2 inches or smaller shall be permitted anywhere in a cantilevered section of a joist. Holes of greater size may be permitted subject to verification.
9. A 1-1/2 inch hole or smaller can be placed anywhere in the web provided that it meets the requirements of rule number 6 above.
10. All holes and duct chase openings shall be cut in a workman-like manner in accordance with the restrictions listed above and as illustrated in Figure 7.
11. Limit three maximum size holes per span, of which one may be a duct chase opening.
12. A group of round holes at approximately the same location shall be permitted if they meet the requirements for a single round hole circumscribed around them.

TABLE 1 LOCATION OF CIRCULAR HOLES IN JOIST WEBS

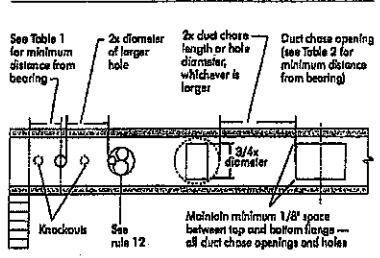
JOIST SPAN (ft)	JOIST DEPTH (in)	MINIMUM DISTANCE FROM FACE OF SUPPORT TO FACE OF HOLE (in)										SPAN ADJUSTMENT (in)
		1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	
9-1/2"	14	10	12	14	16	18	20	22	24	26	28	10
11-7/8"	16	12	14	16	18	20	22	24	26	28	30	12
14'	18	14	16	18	20	22	24	26	28	30	32	14
16'	20	16	18	20	22	24	26	28	30	32	34	16

1. Above table may be used for I-joist spacing of 24 inches on center or less.
2. Hole location distance is measured from inside face of support to center of hole.
3. Distances in this chart are based on uniformly loaded joists.

OPTIONAL:

1. The above table is based on the I-joists used at their maximum span. If the I-joists are placed at less than their full maximum span (see Manufacturer's Table), the minimum distance from the centerline of the hole to the face of any support (D) as given above may be reduced as follows:
- Where:
- D = Distance from the inside face of any support to center of hole, reduced to less than maximum span application (ft).
 - S = Span (ft).
 - D/S = Ratio of actual span to maximum span.
- Then:
- Adjusted D = D x D/S
 - Adjusted S = S x D/S

FIGURE 7 FIELD-CUT HOLE LOCATOR



Knockouts are pre-cut holes provided for the contractor's convenience to install electrical or small plumbing lines. They are 1-1/2 inches in diameter, and are spaced 18 inches on center along the length of the joist. Where possible, it is preferable to use knockouts instead of field-cut holes.

Never drill, cut, or notch the flange, or over-cut the web. Holes in webs should be cut with a sharp saw.

For rectangular holes, avoid over-cutting the corners, as this can cause unnecessary stress concentrations. Slightly rounding the corners is recommended. Starting the rectangular hole by drilling a 1-inch diameter hole in each of the four corners and then making the cuts between the holes is another good method to minimize damage to the I-joist.

TABLE 2 DUCT CHASE OPENING SIZES AND LOCATIONS — Simple Span Only

JOIST SPAN (ft)	MINIMUM DISTANCE FROM FACE OF SUPPORT TO FACE OF HOLE (in)									
	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"
9-1/2"	10	12	14	16	18	20	22	24	26	28
11-7/8"	12	14	16	18	20	22	24	26	28	30
14'	14	16	18	20	22	24	26	28	30	32
16'	16	18	20	22	24	26	28	30	32	34

1. Above table may be used for I-joist spacing of 24 inches on center or less.
2. Duct chase opening location distance is measured from inside face of support to center of opening.
3. The above table is based on simple-span joists only. For other applications, contact your local distributor.
4. Distances based on uniformly loaded floor joists. Verify the span requirements for a design live load of 40 psf and dead load of 15 psf, and a live load deflection limit of L/480. For other applications, contact your local distributor.

INSTALLING THE GLUED FLOOR SYSTEM

1. Wipe any mud, dirt, water, or ice from I-joist flanges before gluing.
2. Snap a chalk line across the I-joist four feet in from the wall for panel edge alignment and as a branding for spacing glue.
3. Spread only enough glue to lay one or two panels at a time, or follow specific recommendations from the glue manufacturer.
4. Lay the first panel with tongue side to the wall, and nail in place. This protects the tongue of the next panel from damage when lapped into place with a block and sledgehammer.
5. Apply a continuous line of glue (about 1/4-inch diameter) to the top flange of a single I-joist. Apply glue in a winding pattern on wide areas, such as with double I-joists.
6. Apply two lines of glue on I-joists where panels butt to ensure proper gluing of each end.
7. After the first row of panels is in place, spread glue in the groove of one or two panels of a time before laying the next row. Glue line may be continuous or spaced, but avoid gaps or voids by applying a thinner line (1/8 inch) then used on I-joist flanges.
8. Top the second row of panels into place, using a block to protect groove edges.
9. Stagger and joints in each succeeding row of panels. A 1/8-inch space between all end joints and 1/8-inch at all edges, including T&G edges, is recommended. (Use a spacer: 1st or on 1-1/2" common nail to ensure accurate and consistent spacing.)
10. Complete all nailing of each panel before glue sets. Check the manufacturer's recommendations for cure time. (Warm weather accelerates glue setting.) Use 2" ring- or screw-shank nails for panels 3/4-inch thick or less, and 2-1/2" ring- or screw-shank nails for thicker panels. Space nails per the table below. Clear nail spacing may be required by some codes, or for diaphragm construction. The finished deck can be walked on right away and will carry construction loads without damage to the glue bond.

FASTENERS FOR SHEATHING AND SUBFLOORING(1)

JOIST SPACING (in)	SHEATHING		SUBFLOORING	
	1-1/2"	11-7/8"	1-1/2"	11-7/8"
16	5/8"	2"	1-3/4"	2"
20	5/8"	2"	1-3/4"	2"
24	3/4"	2"	1-3/4"	2"

1. Fasteners of sheathing and subflooring shall conform to the above table.
2. Staples shall not be less than 1/4-inch in diameter or thickness, with not less than a 3/8-inch crown driven with the crown parallel to framing.
3. Flooring screws shall not be less than 1/8-inch in diameter.
4. Special conditions may impose heavy traffic and concentrated loads that require construction in excess of the minimums shown.
5. Use only adhesives conforming to CAN/CSG-71.26 Standard, Adhesives for Field-Gluing Plywood to Lumber Framing for Floor System, applied in accordance with the manufacturer's recommendations. If OSB panels with sealed surfaces and edges are to be used, use only solvent-based glues; check with panel manufacturer.

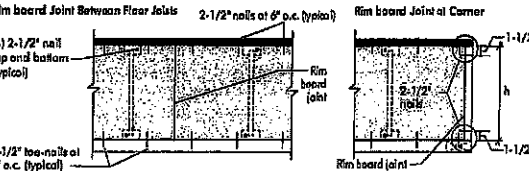
Ref: NRC-CNRC, National Building Code of Canada 2010, Table 9.28.3.5.

IMPORTANT NOTE:

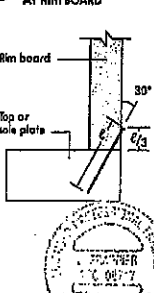
Floor sheathing must be field glued to the I-joist flanges in order to achieve the maximum spans shown in this document. If sheathing is nailed only, I-joist spans must be verified with your local distributor.

RIM BOARD INSTALLATION DETAILS

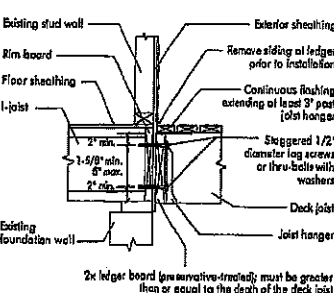
6a ATTACHMENT DETAILS WHERE RIM BOARDS ABUT



6b TOE-NAIL CONNECTION AT RIM BOARD



6c 2X LEDGER TO RIM BOARD ATTACHMENT DETAIL



2015-04-16

PRODUCT WARRANTY

Caledon Cladding Systems warrants that, in accordance with our specifications, these products are free from manufacturing defects in material and workmanship.

Furthermore, Caledon Cladding Systems warrants that our products, when utilized in accordance with our building and installation instructions, will meet or exceed our specifications for the lifetime of the structure.



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AUG 30 2013
TOWN OF CALEDON
BUILDING SECTION
FILE NO.

NORDIC STRUCTURES

COMPANY
TAMARACK LUMBER
3200 NORTH SERVICE ROAD
BURILIGTON ONTARIO
Dec. 6, 2018 09:29

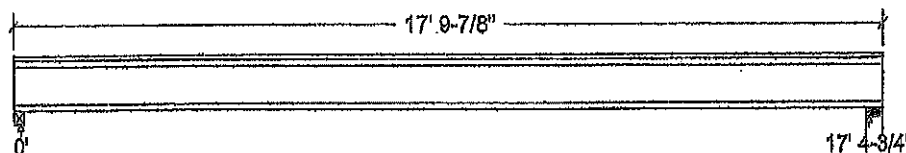
PROJECT
J1 1ST FLOOR UNDER
DINNING ROOM

Design Check Calculation Sheet Nordic Sizer - Canada 7.1

Loads:

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

Maximum Reactions (lbs), Bearing Resistances (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	174		174
Live	348		348
Factored:			
Total	739		739
Bearing:			
Resistance			
Joist	2119		2336
Support	-		7744
Des ratio			
Joist	0.35		0.32
Support	-		0.10
Load case	#2		#2
Length	2-1/2		4-3/8
Mln req'd	1-3/4		1-3/4
Stiffener	No		No
KD	1.00		1.00
KB support	-		1.00
fcp sup	-		769
Kzcp sup	-		

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

Nordic 11-7/8" NI-40x Floor joist @ 12" o.c.

Supports: 1 - Steel Beam, W; 2 - Lumber Wall, No. 1/No. 2;

Total length: 17' 9-7/8"; Clear span: 17' 3"; 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 = 739	Vr = 2336	lbs	Vf/Vr = 0.32
Moment(+)	Mf = 3215	Mr = 6255	lbs-ft	Mf/Mr = 0.51
Perm. Defl'n	0.10 = < L/999	0.58 = L/360	in	0.18
Live Defl'n	0.21 = L/997	0.43 = L/480	in	0.48
Total Defl'n	0.31 = L/664	0.87 = L/240	in	0.36
Bare Defl'n	0.25 = L/850	0.58 = L/360	in	0.42
Vibration	Lmax = 17'-4.8	Lv = 19'-6.3	ft	0.89
Defl'n	= 0.026	= 0.036	in	0.73

AUG 20 2018
TOWN OF CALSON
BUILDING DEPARTMENT
FILE NO.

T-19041774

Additional Data:

FACTORS:	E/E	KD	KH	KZ	KL	KT	KS	KN	LC#
Vr	2336	1.00	1.00	-	-	-	-	-	#2
Mr+	6255	1.00	1.00	-	1.000	-	-	-	#2
EI	371.1 million	-	-	-	-	-	-	-	#2

CRITICAL LOAD COMBINATIONS:Shear : LC #2 = $1.25D + 1.5L$ Moment(+) : LC #2 = $1.25D + 1.5L$

Deflection: LC #1 = 1.0D (permanent)

LC #2 = $1.0D + 1.0L$ (live)LC #2 = $1.0D + 1.0L$ (total)LC #2 = $1.0D + 1.0L$ (bare joist)Bearing : Support 1 - LC #2 = $1.25D + 1.5L$ Support 2 - LC #2 = $1.25D + 1.5L$ Load Types: D=dead W=wind S=snow H=earth,groundwater E=earthquake
L=live(use,occupancy) Ls=live(storage,equipment) f=fire

Load Patterns: s=S/2 L=L+Ls =no pattern load in this span

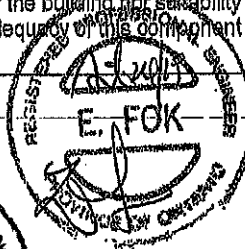
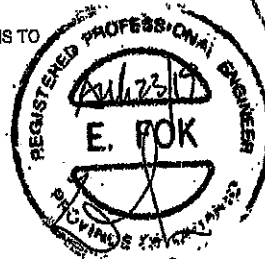
All Load Combinations (LCs) are listed in the Analysis output

CALCULATIONS:Deflection: E_{eff} = 443e06 lb-in² K= 6.18e06 lbs

"Live" deflection = Deflection from all non-dead loads (live, wind, snow...)

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 CGMC 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.

DESIGN CONFORMS TO
OBC PART 9 2012

T-1904077060

NORDIC STRUCTURES

COMPANY
TAMARACK LUMBER
3269 NORTH SERVICE ROAD
BURLINGTON ONTARIO
Dec. 6, 2018 09:31

PROJECT
J1 1ST FLOOR UNDER FOYER
& OFFICE

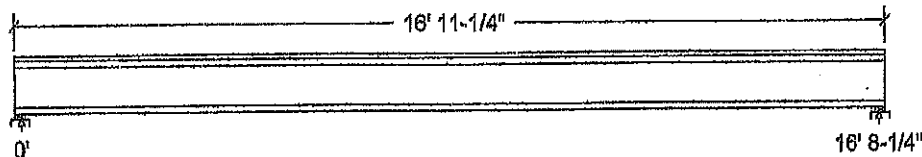
Design Check Calculation Sheet

Nordic Sizer - Canada 7.1

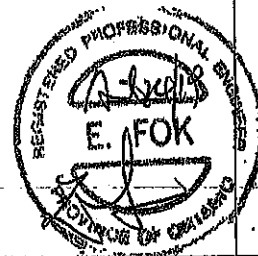
Loads:

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

Maximum Reactions (lbs), Bearing Resistances (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	222		222
Live	445		445
Factored:			
Total	946		946
Bearing:			
Resistance			
Joist	2102		2102
Support	3659		3659
Des ratio			
Joist	0.45		0.45
Support	0.26		0.26
Load case	#2		#2
Length	2-3/8		2-3/8
Min req'd	1-3/4		1-3/4
Stiffener	No		No
KD	1.00		1.00
KB support	1.00		1.00
fop sup	769		769
Kzop sup	1.00		1.00

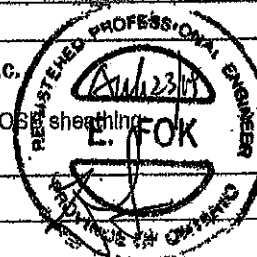


Nordic Joist 11-7/8" NI-40x Floor joist @ 16" o.c.

Supports: All - Lumber Sill plate, No.1/No.2

Total length: 16' 11-1/4"; Clear span: 16' 8-1/2"; 3/4" nailed and glued OSB sheathing

This section PASSES the design code check.



T-1904775

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

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 946	Vr = 2336	lbs	Vf/Vr = 0.40
Moment (+)	Mf = 3945	Mr = 6255	lbs-ft	Mf/Mr = 0.63
Perm. Defl'n	0.12 < L/999	0.56 = L/360	in	0.21
Live Defl'n	0.23 = L/866	0.42 = L/480	in	0.55
Total Defl'n	0.35 = L/577	0.83 = L/240	in	0.42
Bare Defl'n	0.28 = L/716	0.56 = L/360	in	0.50
Vibration	Lmax = 16'-8.3	Lv = 18'-1.3	ft	0.92
Defl'n	= 0.029	= 0.038	in	0.77

Additional Data:

FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#
Vr	2336	1.00	1.00	-	-	-	-	-	#2
Mr+	6255	1.00	1.00	-	1.000	-	-	-	#2
ET	371.1 million	-	-	-	-	-	-	-	#2

CRITICAL LOAD COMBINATIONS:

Shear : LC #2 = 1.25D + 1.5L

Moment (+) : LC #2 = 1.25D + 1.5L

Deflection: LC #1 = 1.0D (permanent)

LC #2 = 1.0D + 1.0L (live)

LC #2 = 1.0D + 1.0L (total)

LC #2 = 1.0D + 1.0L (bare joist)

Bearing : Support 1 - LC #2 = 1.25D + 1.5L

Support 2 - LC #2 = 1.25D + 1.5L

Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake
L=live (use, occupancy) Ls=live (storage, equipment) f=fire

Load Patterns: s=S/2 L=L+Ls =no pattern load in this span

All Load Combinations (LCs) are listed in the Analysis output

CALCULATIONS:

Deflection: E_{eff} = 460e06 lb-in² K = 6.18e06 lbs

"Live" deflection = Deflection from all non-dead loads (live, wind, snow)

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).

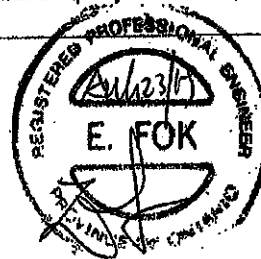
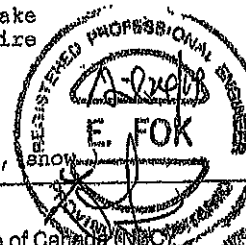
2. Please verify that the default deflection limits are appropriate for your application.

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.

DESIGN CONFORMS TO
OBC PART 9 2012

T-19041756

NORDIC STRUCTURES

COMPANY
TAMARACK LUMBER
9269 NORTH SERVICE ROAD
BURLINGTON ONTARIO
Dec. 6, 2018 09:40

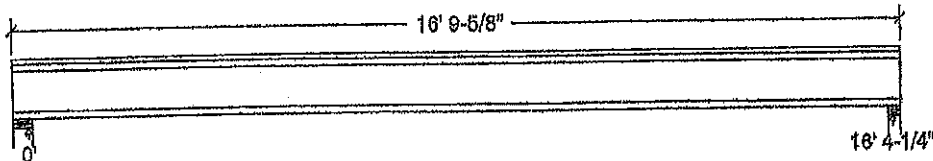
PROJECT
J1 2ND FLOOR ABOVE FOYER

Design Check Calculation Sheet Nordic Sizer - Canada 7.1

Loads:

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

Maximum Reactions (lbs), Bearing Resistances (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	218		218
Live	436		436
Factored:			
Total	927		927
Bearing:			
Resistance			
Joist	2336		2155
Support	7735		4756
Des ratio			
Joist	0.40		0.43
Support	0.12		0.19
Load case	#2		#2
Length	4-3/8		3/4
Min req'd	1-3/4		1/4
Stiffener	No		No
KD	1.00		1.00
KB support	1.00		1.00
fop sup	769		1113
Kzcp sup	1.15		

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

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

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

Total length: 16' 9-5/8"; Clear span: 16' 2-1/2"; 5/8" nailed and glued OSB sheathing with 1/2" gypsum board.

This section PASSES the design code check.

Limit States Design using CSA 086-14 and Vibration Criterion:

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 927	Vr = 2336	lbs	Vf/Vr = 0.40
Moment (+)	Mf = 3789	Mr = 6255	lbs-ft	Mf/Mr = 0.61
Perm. Defl'n	0.11 = < L/999	0.55 = L/360	in	0.20
Live Defl'n	0.22 = L/894	0.41 = L/480	in	0.54
Total Defl'n	0.33 = L/596	0.82 = L/240	in	0.40
Bare Defl'n	0.26 = L/757	0.55 = L/360	in	0.48
Vibration	Lmax = 16'-4.3	Lv = 17'-8.1	ft	0.93
Defl'n	= 0.031	= 0.039	in	0.78

T-1804776

J1 2ND FLOOR ABOVE GARAGE

Nordic Sizer - Canada 7.1

Page 2

Additional Data:

FACTORS:	f/E	KD	KH	KZ	KL	KT	KS	KN	LC#
Vr	2336	1.00	1.00	-	-	-	-	-	#2
Mr+	6255	1.00	1.00	-	1.000	-	-	-	#2
ET	371.1 million	-	-	-	-	-	-	-	#2

CRITICAL LOAD COMBINATIONS:

Shear : LC #2 = 1.25D + 1.5L

Moment (+) : LC #2 = 1.25D + 1.5L

Deflection: LC #1 = 1.0D (permanent)

LC #2 = 1.0D + 1.0L (live)

LC #2 = 1.0D + 1.0L (total)

LC #2 = 1.0D + 1.0L (bare joist)

Bearing : Support 1 - LC #2 = 1.25D + 1.5L

Support 2 - LC #2 = 1.25D + 1.5L

Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake
L=live (use, occupancy) Ls=live (storage, equipment) f=fire

Load Patterns: s=S/2 L=L+Ls =no pattern load in this span

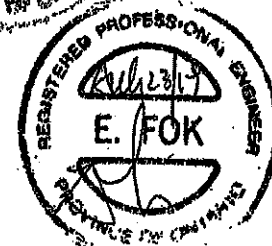
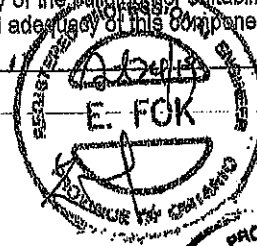
All Load Combinations (LCs) are listed in the Analysis output

CALCULATIONS:Deflection: $E_{\text{eff}} = 433e06 \text{ lb-in}^2$ $K = 6.18e06 \text{ lbs}$

"Live" deflection = Deflection from all non-dead loads (live, wind, snow...)

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 or 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.

DESIGN CONFORMS TO
OBC PART 9 2012

RECEIVED
AUG 30 2013

TOWN OF CALEDON
BUILDING SECTION
FILE NO. _____

T-19047662

NORDIC STRUCTURES

COMPANY
TAMARACK LUMBER
3268 NORTH SERVICE ROAD
BURLINGTON ONTARIO
Dec. 6, 2018 09:35

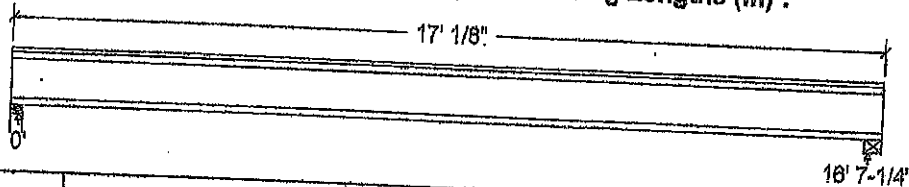
PROJECT
J1 2ND FLOOR ABOVE
GARAGE

Design Check Calculation Sheet Nordic Sizer - Canada 7.1

Loads:

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

Maximum Reactions (lbs), Bearing Resistances (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	166		166
Live	332		332
Factored:			
Total	706		706
Bearing:			
Resistance			
Joist	2155		2155
Support	4756		4756
Des ratio			
Joist	0.33		0.33
Support	0.15		0.15
Load case	#2		#2
Length	2-3/4		2-3/4
Min req'd	1-3/4		1-3/4
Stiffener	No		No
KD	1.00		1.00
KB support	1.00		1.00
fop sup	769		769
Kzop sup	1.13		1.13

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

Nordic Joist 11-7/8" NI-40x Floor Joist @ 12" o.c.
Supports: 1 - Lumber Wall, No. 1/No.2; 2 - Steel Beam, W;
Total length: 17' 1/8"; Clear span: 16' 6-1/2"; 5/8" 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 = 706	Vr = 2336	lbs	Vf/Vr = 0.30
Moment (+)	Mf = 2929	Mr = 6255	lbs-ft	Mf/Mr = 0.47
Perm. Defl'n	0.09 = < L/999	0.55 = L/360	in	0.16
Live Defl'n	0.18 = < L/999	0.42 = L/480	in	0.43
Total Defl'n	0.27 = L/740	0.83 = L/240	in	0.32
Bare Defl'n	0.21 = L/968	0.55 = L/360	in	0.37
Vibration	Lmax = 16'-7.3	Lv = 18'-3.6	ft	0.91
Defl'n	= 0.028	= 0.038	in	0.74

T-1904777

Additional Data:

FACTORS:	F/E	KD	KH	KZ	KL	KT	KS	KN	LC#
Vr	2336	1.00	1.00	-	-	-	-	-	#2
Mr+	6255	1.00	1.00	-	1.000	-	-	-	#2
EI	371.1 million	-	-	-	-	-	-	-	#2

CRITICAL LOAD COMBINATIONS:

Shear : LC #2 = 1.25D + 1.5L
 Moment (+) : LC #2 = 1.25D + 1.5L
 Deflection: LC #1 = 1.0D (permanent)
 LC #2 = 1.0D + 1.0L (live)
 LC #2 = 1.0D + 1.0L (total)
 LC #2 = 1.0D + 1.0L (bare joist)

Bearing : Support 1 - LC #2 = 1.25D + 1.5L
 Support 2 - LC #2 = 1.25D + 1.5L

Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake
 L=live (use, occupancy) Ls=live (storage, equipment) f=fire

Load Patterns: s=S/2 L=L+Ls _=no pattern load in this span
 All Load Combinations (LCs) are listed in the Analysis output

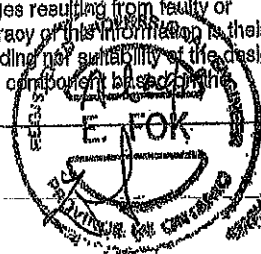
CALCULATIONS:

Deflection: $EI_{eff} = 448e06 \text{ lb-in}^2$ $K = 6.18e06 \text{ lbs}$
 "Live" deflection = Deflection from all non-dead loads (live, wind, snow...)

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 O88-14 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 19032-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.

DESIGN CONFORMS TO
 OBC PART 9 2012



T-1904(7776)

NORDIC STRUCTURES

COMPANY
TAMARACK LUMBER
3289 NORTH SERVICE ROAD
BURRILGTON ONTARIO
Dec. 6, 2018 09:38

PROJECT
J1 2ND FLOOR ABOVE
DINNING ROOM

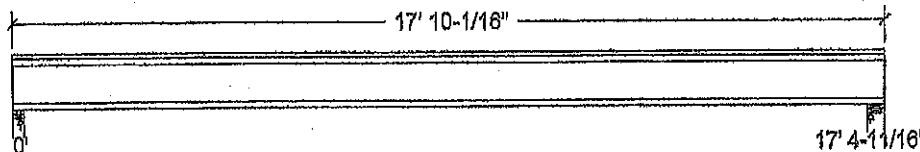
Design Check Calculation Sheet

Nordic Sizer - Canada 7.1

Loads:

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

Maximum Reactions (lbs), Bearing Resistances (lbs) and Bearing Lengths (in) :



Unfactored:			
Dead	174		174
Live	348		348
Factored:			
Total	739		739
Bearing:			
Resistance			
Joist	2155		2336
Support	4756		7744
Des ratio			
Joist	0.34		0.32
Support	0.16		0.10
Load case	#2		#2
Length	2-3/4		4-3/8
Min req'd	1-3/4		1-3/4
Stiffener	No		No
KD	1.00		1.00
KB support	1.00		1.00
fop sup	769		769
Kzcp sup	1.13		1.15

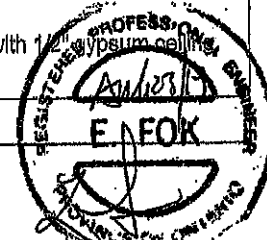
Bearing for wall supports is perpendicular-to-grain bearing on top plate. No stud design required.

Nordic Joist 11-7/8" NI-40x Floor Joist @ 12" o.c.

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

Total length: 17' 10-1/16"; Clear span: 17' 2-15/16"; 5/8" nailed and glued OSB sheathing with 1/2" gypsum ceiling.

This section PASSES the design code check.



RECEIVED
AUG 30 2019

TOWN OF CALEDON
BUILDING SECTION
FILE NO.

T-19041728

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

Criterion	Analysis Value	Design Value	Unit	Analysis/Design
Shear	Vf = 739	Vr = 2336	lbs	Vf/Vr = 0.32
Moment(+)	Mf = 3213	Mr = 6255	lbs-ft	Mf/Mr = 0.51
Perm. Defl'n	0.11 = < L/999	0.58 = L/360	in	0.18
Live Defl'n	0.21 = L/976	0.43 = L/480	in	0.49
Total Defl'n	0.32 = L/651	0.87 = L/240	in	0.37
Bare Defl'n	0.25 = L/850	0.58 = L/360	in	0.42
Vibration	Lmax = 17'-4.7	Lv = 18'-11.1	ft	0.92
Defl'n	= 0.029	= 0.036	in	0.79

Additional Data:

FACTORS:	F/E	KD	KH	KZ	KL	KT	KS	KN	LC#
Vr	2336	1.00	1.00	-	-	-	-	-	#2
Mr+	6255	1.00	1.00	-	1.000	-	-	-	#2
EI	371.1 million	-	-	-	-	-	-	-	#2

CRITICAL LOAD COMBINATIONS:

Shear : LC #2 = 1.25D + 1.5L
 Moment(+) : LC #2 = 1.25D + 1.5L
 Deflection: LC #1 = 1.0D (permanent)
 LC #2 = 1.0D + 1.0L (live)
 LC #2 = 1.0D + 1.0L (total)
 LC #2 = 1.0D + 1.0L (bare joist)

Bearing : Support 1 - LC #2 = 1.25D + 1.5L
 Support 2 - LC #2 = 1.25D + 1.5L

Load Types: D=dead W=wind S=snow H=earth, groundwater E=earthquake
 L=live (use, occupancy) Ls=live (storage, equipment) f=fire

Load Patterns: S=S/2 L=L+Ls _=no pattern load in this span
 All Load Combinations (LCs) are listed in the Analysis output

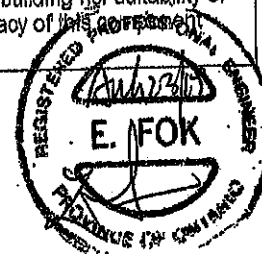
CALCULATIONS:

Deflection: E_leff = 433e06 lb-in² K= 6.18e06 lbs
 "Live" deflection = Deflection from all non-dead loads (live, wind, snow)

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.
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 report, based on the design criteria and loadings shown.

DESIGN CONFORMS TO
 OBC PART 9 2012



T-190417807



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

PASSED

1ST FLOOR (Flush Beams) B2(18637)

Dry | 1 span | No cant.

April 24, 2019 07:39:03

BC CALCO Member Report

Build 8768

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: COMC 12472-R

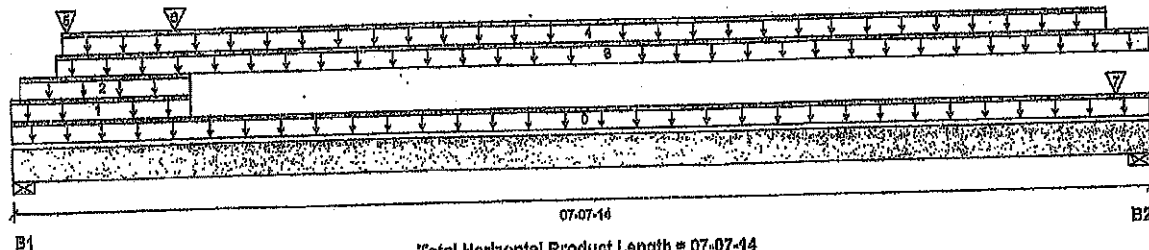
File name: WOODCRAFT 4.mmdl

Description: 1ST FLOOR (Flush Beams) B2(18637)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 07-07-14

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 6-3/4"	4,007 / 0	2,288 / 0		
B2, 3-1/2"	2,785 / 0	1,567 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	07-07-14	Top	18	18			00-00-00
1	20(18637)	Unf. Lin. (lb/ft)	L	00-00-00	01-02-07	Top	866	259			n/a
2	20(18637)	Unf. Lin. (lb/ft)	L	00-00-13	01-02-07	Top	998	638			n/a
3	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-03-14	07-07-14	Top	24	12			n/a
4	Smoothed Load	Unf. Lin. (lb/ft)	L	00-04-06	07-04-06	Top	364	177			n/a
6	B1(18595)	Conc. Pt. (lbs)	L	00-04-12	00-04-12	Top	188	104			n/a
6	20(18637)	Conc. Pt. (lbs)	L	01-01-07	01-01-07	Top	1,024	561			n/a
7	18(1820)	Conc. Pt. (lbs)	L	07-05-02	07-05-02	Top	1,355	786			n/a

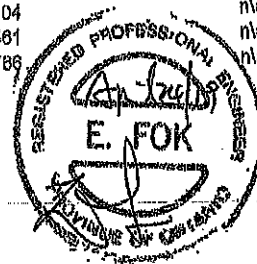
Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	6,146 ft-lbs	55,212 ft-lbs	11.1%	1	03-10-06
End Shear	5,285 lbs	21,896 lbs	24.3%	1	01-06-10
Total Load Deflection	1/999 (0.026")	n/a	n/a	4	03-10-06
Live Load Deflection	1/999 (0.017")	n/a	n/a	5	03-10-06
Max Defl.	0.026"	n/a	n/a	4	03-10-06
Span / Depth	7.0				

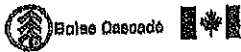
Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 6-3/4" x 6-1/4"	8,846 lbs	58.4%	20.6%	Unspecified
B2	Wall/Plate 3-1/2" x 6-1/4"	6,124 lbs	78.0%	27.3%	Unspecified

DESIGN CONFORMS TO
OBC PART 9 2012

Nail one ply to another with
3 1/2" spiral nails @ 4"
o.c. staggered in 2 rows



T-18041779



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

PASSED

1ST FLOOR Flush Beams B3 (I7921)

Dry | 1 span | No cant.

December 20, 2018 08:30:45

BO CALCO® Member Report

Build 0475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: COMC 12472-R

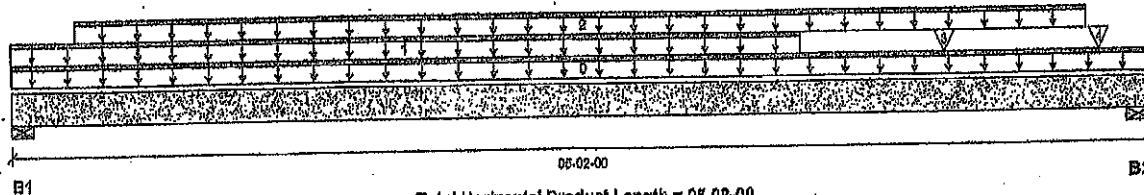
File name: WOODCRAFT 4.mmdl

Description: 1ST FLOOR Flush Beams B3 (I7921)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 05-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	744 / 0	388 / 0		
B2, 3-1/2"	607 / 0	329 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	05-02-00	Top	1.00	0.88	1.00	1.16	00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-00-00	03-08-12	Top	172	86			n/a
2	STAIRS	Unf. Lin. (lb/ft)	L	00-03-08	04-10-08	Top	120	60			n/a
3	J6(I7696)	Conc. Pt. (lbs)	L	04-02-12	04-02-12	Top	176	87			n/a
4	17(I622)	Conc. Pt. (lbs)	L	04-11-04	04-11-04	Top	16				n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1,825 ft-lbs	17,696 ft-lbs	9.2%	1	02-10-12
End Shear	906 lbs	7,232 lbs	12.5%	1	01-03-08
Total Load Deflection	L/999 (0.006")	n/a	n/a	4	02-07-04
Live Load Deflection	L/999 (0.006")	n/a	n/a	5	02-07-04
Max Defl.	0.009"	n/a	n/a	4	02-07-04
Span / Depth	4.8				



Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 1-3/4"	1,699 lbs	81.1%	21.4%	Unspecified
B2	Wall/Plate 3-1/2" x 1-3/4"	1,821 lbs	60.5%	17.7%	Unspecified

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.
 BO CALCO® analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 9

DESIGN CONFORMS TO
OBC PART 9 2012



Disclosure

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 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.

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

T-18041780



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

PASSED

1ST FLOOR Flush Beams B4(17827)

Dry | 1 span | No cant.

December 20, 2018 08:30:45

BC CALCO Member Report

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: COMC 12472-R

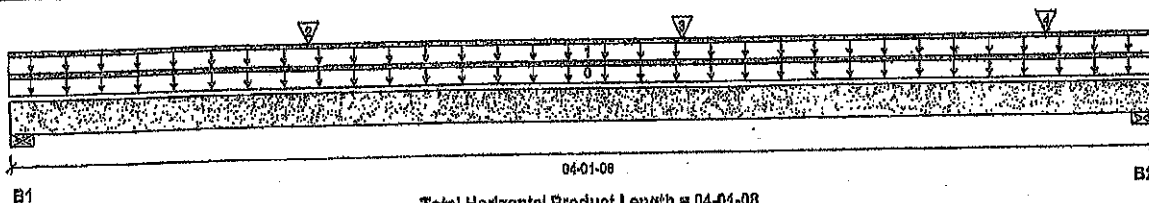
File name: WOODCRAFT 4.mmdl

Description: 1ST FLOOR Flush Beams B4(17827)

Specifier:

Designer: PL

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	148 / 0	210 / 0		
B2, 3-1/2"	218 / 0	245 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	04-01-08	Top	1.00	0.85	1.00	1.15	00-00-00
1	WALL	Unf. Lin. (lb/ft)	L	00-00-00	04-01-08	Top		80			n/a
2	J8(7828)	Conc. Pt. (lbs)	L	01-00-12	01-00-12	Top	115	57			n/a
3	J8(7272)	Conc. Pt. (lbs)	L	02-04-12	02-04-12	Top	124	62			n/a
4	J8(7171)	Conc. Pt. (lbs)	L	03-08-12	03-08-12	Top	122	61			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	477 ft-lbs	17,896 ft-lbs	2.7%	1	02-04-12
End Shear	323 lbs	7,282 lbs	4.5%	1	01-03-08
Total Load Deflection	L/999 (0.002")	n/a	n/a	4	02-01-00
Live Load Deflection	L/999 (0.001")	n/a	n/a	5	02-01-00
Max Defl.	0.002"	n/a	n/a	4	02-01-00
Span / Depth	3.7				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 1-3/4"	484 lbs	18.5%	8.5%	Unspecified
B2	Wall/Plate 3-1/2" x 1-3/4"	632 lbs	24.2%	8.5%	Unspecified

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 CALCO analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 9

DESIGN CONFORMS TO
OBC PART 9 2012



Disclosure

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

T-L90241781



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

PASSED

BC CALCO® Member Report

Build 8766

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: GCMC 12472-R

1ST FLOOR VFlush Beams\B1(18595)

Dry | 1 span | No cant.

April 24, 2019 07:38:03

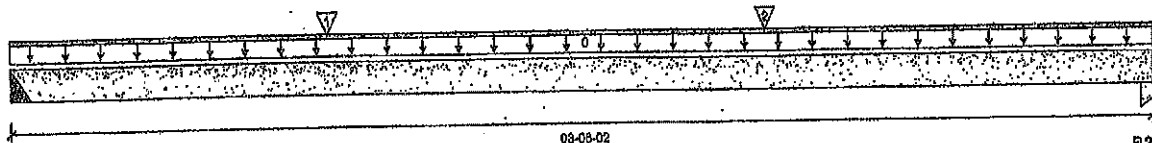
File name: WOODCRAFT 4.mxd

Description: 1ST FLOOR VFlush Beams\B1(18595)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 03-06-02

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3"	198 / 0	110 / 0		
B2, 3-1/2"	179 / 0	100 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-06-02	Top	1.00	0.86	1.00	1.15	00-00-00
1	J8(18881)	Conc. Pt. (lbs)	L	00-11-10	00-11-10	Top	183	82			n/a
2	J8(18597)	Conc. Pt. (lbs)	L	02-03-10	02-03-10	Top	194	87			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	380 ft-lbs	17,698 ft-lbs	2.1%	1	02-03-10
End Shear	354 lbs	7,232 lbs	4.9%	1	02-02-12
Total Load Deflection	L/999 (0.001")	n/a	n/a	4	01-08-13
Live Load Deflection	L/999 (0.001")	n/a	n/a	5	01-08-13
Max Defl.	0.001"	n/a	n/a	4	01-08-13
Span / Depth	3.1				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 3" x 1-3/4"	435 lbs	n/a	6.8%	HUS1.81/10
B2	Column 3-1/2" x 1-3/4"	394 lbs	9.9%	5.3%	Unspecified

Cautions

Header for the hanger HUS1.81/10 at B1 is a Triple 1-3/4" x 11-7/8" VERSA-LAM® 1.7 2400 DF. Hanger model HUS1.81/10 and seat length were input by the user.

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 GSA O86.
BC CALCO® analysis is based on Canadian Limit States Design, as per NBCC 2010 and GSA O86.
Design based on Dry Service Condition.
Importance Factor: Normal Part code: Part 9

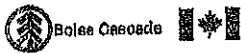
DESIGN CONFORMS TO
CBC PART 9 2012

Disclosure

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

T-19041782



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

PASSED

BC CALC® Member Report

Build 6766

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

Dry | 1 span | No cant.

April 24, 2019 07:39:03

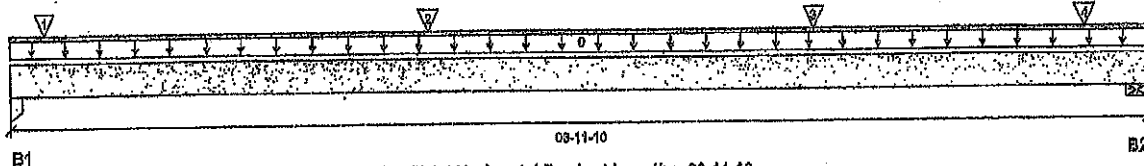
File name: WOODCRAFT 4.mmdl

Description: 1ST FLOOR Flush Beams\B13(18567)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 03-11-10

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	397 / 0	209 / 0		
B2, 6-1/2"	288 / 0	291 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-11-10	Top	1.00	0.85	1.00	1.18	00-00-00
1	J5(18628)	Conc. Pt. (lbs)	L	00-01-08	00-01-08	Top	203	101			n/a
2	J6(18673)	Conc. Pt. (lbs)	L	01-05-08	01-05-08	Top	224	112			n/a
3	J6(18649)	Conc. Pt. (lbs)	L	02-09-08	02-09-08	Top	222	111			n/a
4	21(1708)	Conc. Pt. (lbs)	L	03-08-14	03-08-14	Top	12	150			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	516 ft-lbs	17,686 ft-lbs	2.9%	1	01-05-08
End Shear	416 lbs	7,232 lbs	5.6%	1	01-03-08
Total Load Deflection	L/999 (0.001")	n/a	n/a	4	01-11-01
Live Load Deflection	L/999 (0.001")	n/a	n/a	5	01-11-01
Max Defl.	0.001"	n/a	n/a	4	01-11-01
Span / Depth	3.4				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Column	3-1/2" x 1-3/4"	867 lbs	21.6%	11.6%	Unspecified
B2 Wall/Plate	6-1/2" x 1-3/4"	785 lbs	18.6%	6.5%	Unspecified

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 2010 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 9

DESIGN CONFORMS TO
CBC PART 9 2012

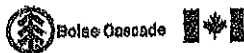


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BC CALC®, BC FRAMER®, AJ6™, ALLJOIST®, BC RIM BOARD™, BCi®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

T-19041783



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

PASSED

BCALGO Member Report

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: GCMC 12472-R

Dry | 1 span | No cent.

December 20, 2018 08:30:45

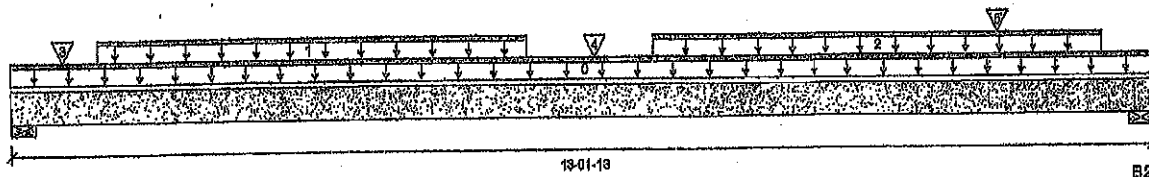
File name: WOODCRAFT 4.mmdl

Description: 2ND FLOOR \Dropped Beams\B6 DR\17852

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 13-01-13

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 6-3/4"	2,067 / 0	1,131 / 0		
B2, 6-1/2"	3,503 / 0	1,881 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	13-01-13	Top	14	144			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-11-13	05-10-13	Top	288	144			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	07-04-01	12-06-13	Top	284	142			n/a
3	J2(17896)	Conc. Pt. (lbs)	L	00-07-01	00-07-01	Top	277	138			n/a
4	J2(17857)	Conc. Pt. (lbs)	L	08-08-01	08-08-01	Top	339	170			n/a
5	B7(17906)	Conc. Pt. (lbs)	L	11-04-00	11-04-00	Top	1,998	1,038			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	14,623 ft-lbs	36,222 ft-lbs	40.1%	1	07-10-13
End Shear	7,349 lbs	17,368 lbs	42.3%	1	11-08-12
Total Load Deflection	L/388 (0.376")	n/a	61.8%	4	08-09-05
Live Load Deflection	L/599 (0.244")	n/a	60.1%	5	08-09-05
Max Defl.	0.376"	n/a	n/a	4	08-09-05
Span / Depth	15.4				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 6-3/4" x 5-1/4"	4,514 lbs	19.7%	10.5%	Unspecified
B2	Wall/Plate 6-1/2" x 5-1/4"	7,606 lbs	34.2%	18.2%	Unspecified

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: 00-08-03, Bottom: 00-08-03.

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

BCALGO analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 0

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Nailing schedule applies to both sides of the member.

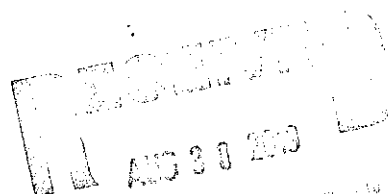
Member has no side loads.

Nail one ply to another with

3 1/2" spiral nails @ 6"

o.c., staggered in 2 rows

DESIGN CONFORMS TO
OBC PART 9 2012



TOWN OF CALEDON
BUILDING DEPARTMENT
FILE NO.



T-19041784



BCALCO Member Report



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

PASSED

2ND FLOOR Flush Beams B7 (I7906)

Dry | 1 span | No cant.

December 20, 2018 08:30:45

BCALCO Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

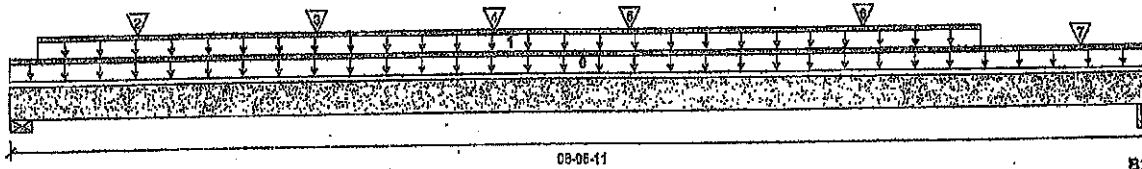
File name: WOODCRAFT 4.mmdl

Description: 2ND FLOOR Flush Beams B7 (I7906)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 06-08-11

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-15/16"	2,012 / 0	1,044 / 0		
B2, 4-3/8"	1,984 / 0	1,031 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	06-06-11	Top	12				00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-02-00	05-08-00	Top	322	181			n/a
2	J1(I6144)	Conc. Pt. (lbs)	L	00-08-14	00-08-14	Top	356	178			n/a
3	J1(I6144)	Conc. Pt. (lbs)	L	01-08-14	01-08-14	Top	356	178			n/a
4	J1(I6015)	Conc. Pt. (lbs)	L	02-08-14	02-08-14	Top	312	156			n/a
5	J1(I4586)	Conc. Pt. (lbs)	L	03-08-00	03-08-00	Top	342	171			n/a
6	J1(I4382)	Conc. Pt. (lbs)	L	04-10-00	04-10-00	Top	415	207			n/a
7		Conc. Pt. (lbs)	L	06-01-00	06-01-00	Top	488	244			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	6,287 ft-lbs	35,392 ft-lbs	17.7%	1	03-06-00
End Shear	3,411 lbs	14,464 lbs	23.6%	1	01-03-13
Total Load Deflection	L/999 (0.028")	n/a	n/a	4	03-02-10
Live Load Deflection	L/999 (0.018")	n/a	n/a	5	03-02-10
Max Defl.	0.028"	n/a	n/a	4	03-02-10
Span / Depth	6.0				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-15/16" x 3-1/2"	4,323 lbs	73.3%	25.7%	Unspecified
B2	Beam 4-3/8" x 3-1/2"	4,263 lbs	31.9%	22.8%	Unspecified

Notes

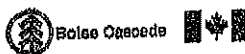
Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Calculations assume member is fully braced.
 Resistance Factor phi has been applied to all presented results per CSA O86.
 BCALCO analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.
 Design based on Dry Service Condition.
 Importance Factor: Normal Part code: Part 9
 Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Nail one ply to another with
 3 1/2" spiral nails @ 4"
 o.c. staggered in 2 rows

DESIGN CONFORMS TO
 CBC PART 9 2012



T-19041785



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

PASSED

BC CALCO Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

2ND FLOOR Flush Beams B8 (16165)

Dry | 1 span | No cant.

December 23, 2018 08:30:45

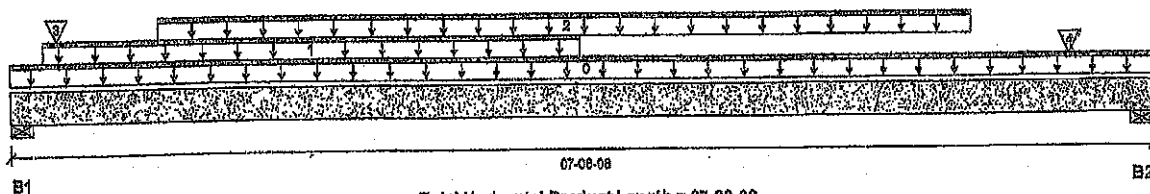
File name: WOODCRAFT 4.mxd

Description: 2ND FLOOR Flush Beams B8 (16165)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 07-08-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2-3/4"	1,132 / 0	811 / 0		
B2, 3-3/4"	714 / 0	403 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	07-08-08	Top	12				00-00-00
1	STAIRS	Unf. Lin. (lb/ft)	L	00-02-11	03-08-11	Top	240	120			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	00-11-12	06-03-12	Top	140	70			n/a
3	J3(16050)	Cono. Pt. (lbs)	L	00-03-12	00-03-12	Top	118	68			n/a
4	J3(16000)	Cono. Pt. (lbs)	L	06-11-12	06-11-12	Top	138	69			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	8,710 ft-lbs	86,382 ft-lbs	10.6%	1	02-11-12
End Shear	1,887 lbs	14,484 lbs	11.7%	1	01-02-10
Total Load Deflection	L/999 (0.024")	n/a	n/a	4	03-07-08
Live Load Deflection	L/999 (0.015")	n/a	n/a	5	03-07-09
Max Defl.	0.024"	n/a	n/a	4	03-07-09
Span / Depth	7.2				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 2-3/4" x 3-1/2"	2,481 lbs	59.9%	21.0%	Unspecified
B2	Wall/Plate 3-3/4" x 3-1/2"	1,575 lbs	28.1%	9.8%	Unspecified

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 CALCO analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Nail one ply to another with
3 1/2" spiral nails @ 31"
o.c. staggered in 2 rows

DESIGN CONFORMS TO
OBC PART 9 2012

AUG 30 2013
TOWN OF CALEDON
BUILDING DEPARTMENT
FILE NO.



T-19041786



Bofco Cascade



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

PASSED

2ND FLOOR Flush Beams B16 DR(10186)

Dry | 1 span | No cant

December 20, 2018 09:52:38

BC CALCO Member Report

Build 0475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

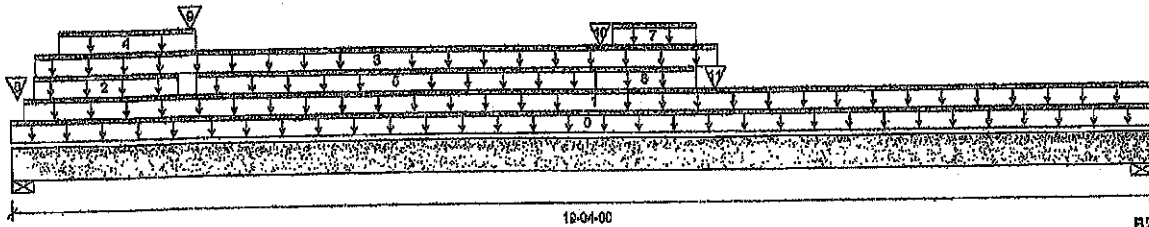
File name: WOODCRAFT 4 ELEV 2.mxd

Description: 2ND FLOOR Flush Beams B16 DR(10186)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 19-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 6-1/2"	1,231 / 0	1,591 / 0	1,954 / 0	
B2, 3-1/2"	670 / 0	1,010 / 0	1,638 / 0	

Load Summary

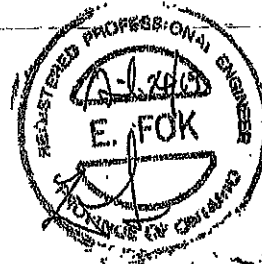
Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	19-04-00	Top	18				00-00-00
1	LOW ROOF	Unf. Lin. (lb/ft)	L	00-02-12	19-04-00	Top	22	20	72		n/a
2	R18(10155)	Unf. Lin. (lb/ft)	L	00-05-00	02-10-00	Top	33	30	108		n/a
3	R18(10155)	Unf. Lin. (lb/ft)	L	00-05-07	11-10-06	Top	15	8			n/a
4	R18(10155)	Unf. Lin. (lb/ft)	L	00-10-08	03-01-08	Top		81			n/a
5	R18(10155)	Unf. Lin. (lb/ft)	L	03-01-08	09-09-08	Top		41			n/a
6	R18(10155)	Unf. Lin. (lb/ft)	L	09-09-08	11-08-00	Top		81			n/a
7	R18(10155)	Unf. Lin. (lb/ft)	L	10-01-00	11-08-00	Top	33	30	108		n/a
8	J1(10175)	Conc. Pt. (lbs)	L	00-01-08	00-01-08	Top	466	251	50		n/a
9	R18(10155)	Conc. Pt. (lbs)	L	03-00-08	03-00-08	Top	120	163	392		n/a
10	R18(10155)	Conc. Pt. (lbs)	L	09-10-08	09-10-08	Top	119	183	391		n/a
11	-	Conc. Pt. (lbs)	L	11-09-14	11-09-14	Top	477	488	934		n/a

Controls Summary	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	25,138 ft-lbs	48,908 ft-lbs	51.4%	13	10-09-08
End Shear	4,473 lbs	21,696 lbs	20.6%	13	01-05-08
Total Load Deflection	L/298 (0.753")	n/a	80.6%	45	09-10-08
Live Load Deflection	L/461 (0.487")	n/a	78.2%	61	09-10-08
Max Defl.	0.753"	n/a	n/a	45	09-10-08
Span / Depth	18.9				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 6-1/2" x 6-1/4"	5,536 lbs	23.6%	15.7%	Unspecified
B2	Wall/Plate 3-1/2" x 6-1/4"	4,054 lbs	27.2%	18.1%	Unspecified

Nail one ply to another with
3 1/2" spiral nails @ 12"
o.c., staggered in 2 rows

DESIGN CONFORMS TO
CBC PART 9 2012



T-19041787



BCBC Canada



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

PASSED

2ND FLOOR Flush Beams B18(18002)

Dry | 1 span | No cant.

December 20, 2018 09:52:38

BC-CALC® Member Report

Build 6475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

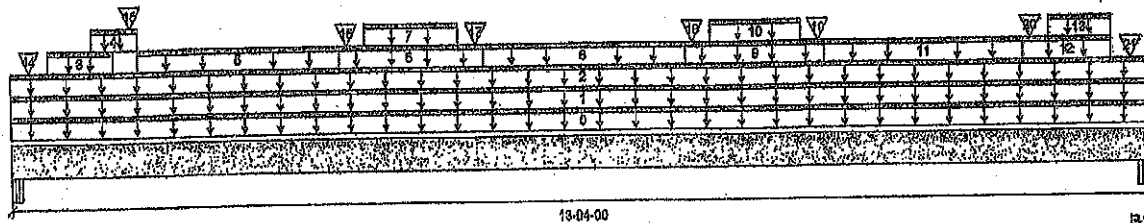
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Description: 2ND FLOOR Flush Beams B18(18002)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 13-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3"	650 / 0	957 / 0	1,511 / 0	
B2, 3"	650 / 0	993 / 0	1,509 / 0	

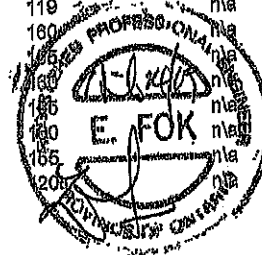
Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.85	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	13-04-00	Top		12			00-00-00
1	LOW ROOF	Unf. Lin. (lb/ft)	L	00-00-00	13-04-00	Top	33	30	108		n/a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	13-04-00	Top	13	7			n/a
3	E76(19317)	Unf. Lin. (lb/ft)	L	00-06-08	01-02-08	Top	33	30	108		n/a
4	E76(19317)	Unf. Lin. (lb/ft)	L	00-11-08	01-08-00	Top		81			n/a
5	E77(19318)	Unf. Lin. (lb/ft)	L	01-08-00	03-10-00	Top		41			n/a
6	E74(19316)	Unf. Lin. (lb/ft)	L	03-10-00	05-06-00	Top		81			n/a
7	E74(19316)	Unf. Lin. (lb/ft)	L	04-01-08	05-02-08	Top	33	30	108		n/a
8	E75(19316)	Unf. Lin. (lb/ft)	L	05-08-00	07-10-00	Top		41			n/a
9	E73(19314)	Unf. Lin. (lb/ft)	L	07-10-00	09-06-00	Top		81			n/a
10	E73(19314)	Unf. Lin. (lb/ft)	L	08-01-08	09-02-08	Top	33	30	108		n/a
11	E72(19303)	Unf. Lin. (lb/ft)	L	09-06-00	11-10-00	Top		41			n/a
12	E68(18086)	Unf. Lin. (lb/ft)	L	11-10-00	12-10-08	Top		81			n/a
13	E68(18086)	Unf. Lin. (lb/ft)	L	12-01-08	12-10-08	Top	33	30	108		n/a
14	E69(18086)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top	36	57	119		n/a
15	E76(19317)	Conc. Pt. (lbs)	L	01-05-00	01-05-00	Top	49	66	160		n/a
16	E74(19315)	Conc. Pt. (lbs)	L	03-11-00	03-11-00	Top	47	66	160		n/a
17	E74(19315)	Conc. Pt. (lbs)	L	06-05-00	05-05-00	Top	49	66	160		n/a
18	E73(19314)	Conc. Pt. (lbs)	L	07-11-00	07-11-00	Top	47	66	160		n/a
19	E73(19314)	Conc. Pt. (lbs)	L	09-05-00	09-05-00	Top	49	66	160		n/a
20	E68(18086)	Conc. Pt. (lbs)	L	11-11-00	11-11-00	Top	47	66	160		n/a
21	E67(18084)	Conc. Pt. (lbs)	L	13-01-04	13-01-04	Top	37	57	160		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	11,286 ft-lbs	35,392 ft-lbs	31.9%	13	08-08-00
End Shear	3,206 lbs	14,464 lbs	22.2%	13	12-01-02
Total Load Deflection	L/801 (0.259")	n/a	40.0%	45	08-08-00
Live Load Deflection	L/945 (0.166")	n/a	38.1%	81	08-08-00
Max Defl.	0.259"	n/a	n/a	45	08-08-00
Span / Depth	13.1				

Nail one ply to another with
3 1/2" spiral nails @ 12"
o.c. staggered in 2 rows



DESIGN CONFORMS TO
OBC PART 9 2012

T-19041788



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

2ND FLOOR \Dropped Beams\B15 DR\10205\

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

December 20, 2018 09:52:38

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

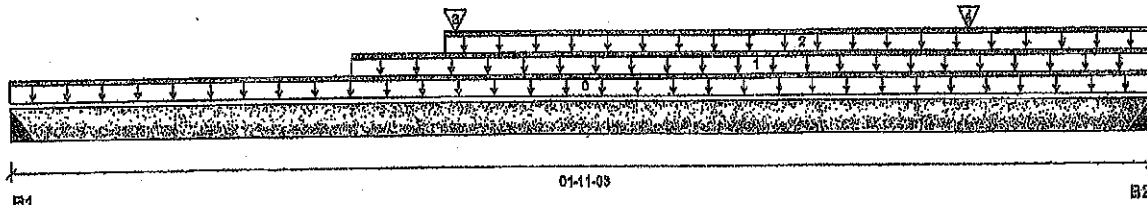
File name: WOODCRAFT 4 ELEV 2.mxd

Description: 2ND FLOOR \Dropped Beams\B15 DR\10205\

Specifier:

Designer: PL

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4"	404 / 0	432 / 0	1,264 / 0	
B2, 4"	463 / 0	427 / 0	802 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-11-03	Top		12			00-00-00
1	LOW ROOF	Unf. Lin. (lb/ft)	L	00-08-16	01-11-02	Top	22	20	72		n/a
2	R10(10160)	Unf. Lin. (lb/ft)	L	00-08-13	01-11-03	Top	33	111	108		n/a
3	-	Conc. Pt. (lbs)	L	00-09-00	00-09-00	Top	574	565	1,839		n/a
4	J10(10149)	Conc. Pt. (lbs)	L	01-07-07	01-07-07	Top	223	112			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1,264 ft-lbs	35,392 ft-lbs	3.6%	13	00-08-01
End Shear	854 lbs	14,484 lbs	5.9%	13	00-07-05
Total Load Deflection	L/999 (0")	n/a	n/a	45	00-10-15
Live Load Deflection	L/999 (0")	n/a	n/a	61	00-10-15
Max Defl.	0"	n/a	n/a	45	00-10-15
Span / Depth	1.4				

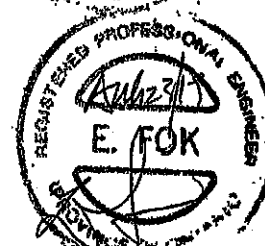
Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Hanger	4" x 3-1/2"	2,638 lbs	n/a	15.4%	HQUS410
B2 Hanger	4" x 3-1/2"	1,968 lbs	n/a	11.6%	HQUS410

Cautions

Hanger model HQUS410 and seat length were input by the user.

Header for the hanger HQUS410 at B2 is a Triple 1-3/4" x 11-7/8" VERSA-LAM® 1.7 2400 DF.

Nail one ply to another with
3 1/2" spiral nails @ 4"
o.c., staggered in 2 rows



DESIGN CONFORMS TO
OBC PART 9 2012

T-19041789



Boise Cascade

**Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP****PASSED****2ND FLOOR Flush Beams B17 (110202)**

Dry | 1 span | No cant.

December 20, 2018 09:52:38

BC CALCO Member Report

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

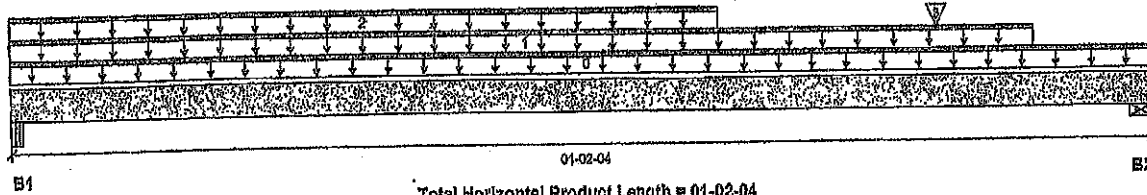
File name: WOODCRAFT 4 ELEV 2.mmdf

Description: 2ND FLOOR Flush Beams B17 (110202)

Specifier:

Designer: PL

Company:

**Reaction Summary (Down / Uplift) (lbs)**

Bearing	Live	Dead	Snow	Wind
B1, 4-5/16"	38 / 0	83 / 0	117 / 0	
B2, 5-1/2"	44 / 0	86 / 0	143 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-02-04	Top	33	12			00-00-00
1	HIGH ROOF	Unf. Lin. (lb/ft)	L	00-00-00	01-00-12	Top	33	30	108		n/a
2	E58 (16319)	Unf. Lin. (lb/ft)	L	00-00-00	00-08-12	Top	33	111	108		n/a
3	E42 (13739)	Conc. Pt. (lbs)	L	00-11-08	00-11-08	Top	21	42	67		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	16 ft-lbs	36,392 ft-lbs	n/a	13	00-08-09
End Shear	102 lbs	14,464 lbs	0.7%	13	00-08-12
Span / Depth	0.5				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Beam	4-5/16" x 3-1/2"	296 lbs	3.7%	1.6%	Unspecified
B2 Wall/Plate	5-1/2" x 3-1/2"	344 lbs	3.3%	1.6%	Unspecified

Notes

Calculations assume member is fully braced.

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

BC CALCO analysis is based on Canadian Limit States Design, as per NBCC 2010 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

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Member has no side loads.

Nail one ply to another with
3 1/2" spiral nails @ 4"
o.c., staggered in 2 rows

DESIGN CONFORMS TO
CBC PART 9 2012



T-19041790



British Columbia



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

2ND FLOOR Flush Beams B20 DR(11548)

Dry | 1 span | No cant

PASSED

December 20, 2018 11:24:41

BC CALCO Member Report

Build 8475

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

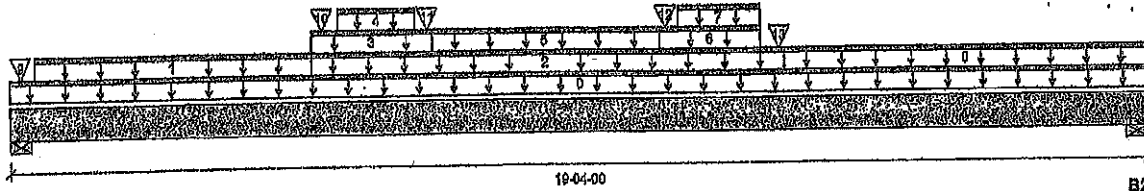
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Description: 2ND FLOOR Flush Beams B20 DR(11548)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 19-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 6-1/2"	614 / 0	864 / 0	1,076 / 0	
B2, 3-1/2"	471 / 0	760 / 0	1,109 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.85	Snow 1.60	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	19-04-00	Top		12			00-00-00
1	LOW ROOF	Unf. Lin. (lb/ft)	L	00-05-08	05-01-08	Top	33	30	108		n/a
2	R18(11553)	Unf. Lin. (lb/ft)	L	05-01-08	13-01-00	Top	10	5			n/a
3	R18(11553)	Unf. Lin. (lb/ft)	L	05-01-08	07-02-00	Top		81			n/a
4	R18(11553)	Unf. Lin. (lb/ft)	L	05-07-00	08-10-08	Top	33	30	108		n/a
6	R18(11553)	Unf. Lin. (lb/ft)	L	07-02-00	11-00-00	Top		41			n/a
6	R18(11553)	Unf. Lin. (lb/ft)	L	11-00-00	12-08-00	Top		81			n/a
7	R18(11553)	Unf. Lin. (lb/ft)	L	11-03-08	12-08-00	Top	33	30	108		n/a
8	LOW ROOF	Unf. Lin. (lb/ft)	L	13-01-00	19-04-00	Top	33	30	108		n/a
9	J1(11534)	Conc. Pt. (lbs)	L	00-02-05	00-02-05	Top	133	67			n/a
10	"	Conc. Pt. (lbs)	L	05-03-09	05-03-09	Top	137	85	91		n/a
11	R18(11553)	Conc. Pt. (lbs)	L	07-01-00	07-01-00	Top	73	100	240		n/a
12	R18(11553)	Conc. Pt. (lbs)	L	11-01-00	11-01-00	Top	72	99	237		n/a
13	"	Conc. Pt. (lbs)	L	12-11-13	12-11-13	Top	137	124	111		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	14,177 ft-lbs	29,445 ft-lbs	48.1%	13	11-01-00
End Shear	2,615 lbs	14,464 lbs	18.1%	13	01-05-08
Total Load Deflection	L/328 (0.883")	n/a	73.1%	45	09-06-12
Live Load Deflection	L/553 (0.406")	n/a	65.1%	61	09-06-12
Max Defl.	0.883"	n/a	n/a	45	09-06-12
Span / Depth	18.9				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 6-1/2" x 3-1/2"	3,002 lbs	19.2%	12.8%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	2,849 lbs	28.6%	19.1%	Unspecified

Nail one ply to another with
3 1/2" spiral nails @ 12"
o.c. staggered in 2 rows

DESIGN CONFORMS TO
OBC PART 9 2012

TOWN OF CALEDON
BUILDING SECTION
FILE NO.

T-19041791



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

PASSED

2ND FLOOR (Flush Beams) B21 (11573)

Dry | 1 span | No cant.

December 20, 2018 11:24:41

BC CALCO® Member Report

Build 6476

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: CCMC 12472-R

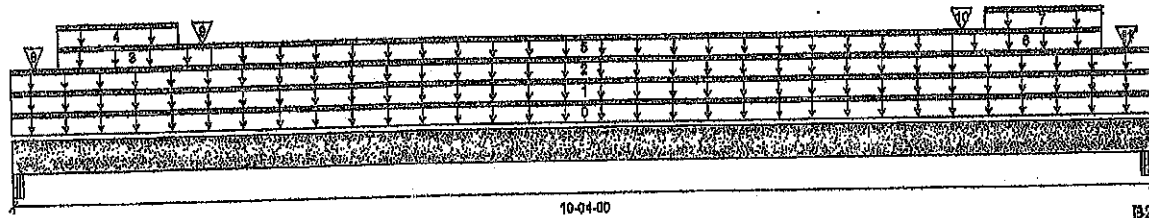
File name: WOODCRAFT 4 ELEV 3.mxd

Description: 2ND FLOOR (Flush Beams) B21 (11573)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 10-04-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3"	406 / 0	727 / 0	1,098 / 0	
B2, 3"	404 / 0	727 / 0	1,097 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	10-04-00	Top	12				00-00-00
1	LOW ROOF	Unf. Lin. (lb/ft)	L	00-00-00	10-04-00	Top	33	30	108		n/a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	10-04-00	Top	13	7			n/a
3	E99(11580)	Unf. Lin. (lb/ft)	L	00-05-08	01-10-00	Top		81			n/a
4	E99(11580)	Unf. Lin. (lb/ft)	L	00-05-08	01-08-08	Top	33	30	108		n/a
5	E99(11587)	Unf. Lin. (lb/ft)	L	01-10-00	08-06-00	Top		41			n/a
6	E94(10661)	Unf. Lin. (lb/ft)	L	08-06-00	09-10-08	Top		81			n/a
7	E94(10661)	Unf. Lin. (lb/ft)	L	08-09-08	09-10-08	Top	33	30	108		n/a
8	E95(10680)	Conc. Pt. (lbs)	L	00-02-12	00-02-12	Top	10	32	31		n/a
9	E99(11580)	Conc. Pt. (lbs)	L	01-09-00	01-09-00	Top	120	163	392		n/a
10	E94(10661)	Conc. Pt. (lbs)	L	08-07-00	08-07-00	Top	119	163	391		n/a
11	E93(10662)	Conc. Pt. (lbs)	L	10-01-04	10-01-04	Top	10	32	31		n/a

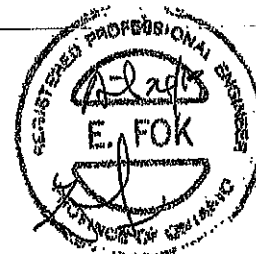
Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	5,271 ft-lbs	35,392 ft-lbs	14.9%	13	05-02-00
End Shear	2,381 lbs	14,464 lbs	16.3%	13	01-02-14
Total Load Deflection	L/999 (0.074")	n/a	n/a	45	05-02-00
Live Load Deflection	L/999 (0.047")	n/a	n/a	61	05-02-00
Max Defl.	0.074"	n/a	n/a	45	05-02-00
Span / Depth	10.1				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Beam	3" x 3-1/2"	2,757 lbs	49.2%	21.6%	Unspecified
B2 Beam	3" x 3-1/2"	2,756 lbs	49.2%	21.6%	Unspecified

Nail one ply to another with
3 1/2" spiral nails @ 12"
o.c. staggered in 2 rows

DESIGN CONFORMS TO
OBC PART 9 2012



T. 9041796



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

PASSED

1ST FLOOR Flush Beams B40(18854)

Dry | 1 span | No cant.

April 24, 2019 07:37:55

BC CALC® Member Report

Build 8766

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports: COMC 12472-R

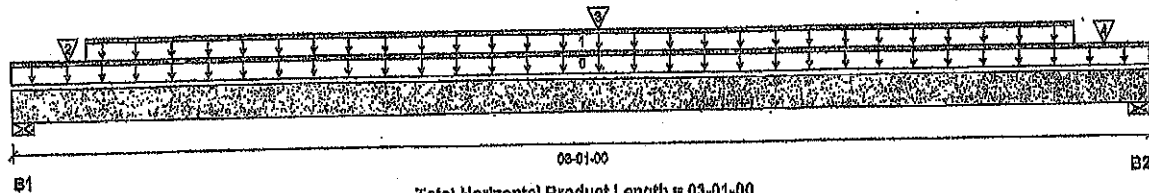
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Description: 1ST FLOOR Flush Beams B40(18854)

Specifier:

Designer: PL

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	1,122 / 0	866 / 0	211 / 0	
B2, 3-1/2"	1,249 / 0	919 / 0	211 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Top	1.00	0.66	1.00	1.15	00-00-00
1	E23(1828)	Unf. Lin. (lb/ft)	L	00-02-08	02-10-08	Top		41			n/a
2	"	Conc. Pt. (lbs)	L	00-01-14	00-01-14	Top	910	677	211		n/a
3	J1(18855)	Conc. Pt. (lbs)	L	01-07-00	01-07-00	Top	489	219			n/a
4	"	Conc. Pt. (lbs)	L	02-11-08	02-11-08	Top	1,022	733	211		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	868 ft-lbs	35,392 ft-lbs	1.9%	1	01-07-00
End Shear	498 lbs	14,464 lbs	3.4%	1	01-08-10
Total Load Deflection	L/999 (0")	n/a	n/a	35	01-08-09
Live Load Deflection	L/999 (0")	n/a	n/a	51	01-08-12
Max Defl.	0"	n/a	n/a	35	01-08-09
Span / Depth	2.7				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	2,869 lbs	64.8%	19.1%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	3,127 lbs	59.8%	20.9%	Unspecified

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 2010 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

Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Nail one ply to another with

3 1/2" spiral nails @ 4"

o.c. staggered in 2 rows

DESIGN CONFORMS TO
OBC PART 9 2012



T-19041793



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

PASSED

1ST FLOOR Flush Beams B41 (18852)

Dry | 1 span | No cant.

April 24, 2019 07:37:55

BCALCO Member Report

Build 6766

Job name:

Address:

City, Province, Postal Code: CALEDON

Customer:

Code reports:

CCMC 12472-R

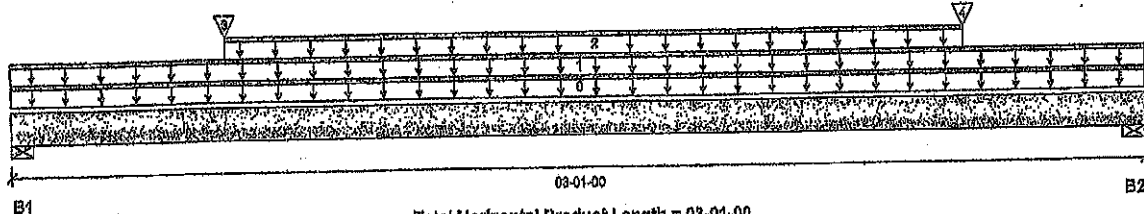
File name: WOODCRAFT 4- WOD.mmdl

Description: 1ST FLOOR Flush Beams B41 (18852)

Specifier:

Designer: PL

Company:



Total Horizontal Product Length = 03-01-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	32 / 0	98 / 0		
B2, 3-1/2"	33 / 0	98 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Top	12	41			00-00-00
1	E28(1886)	Unf. Lin. (lb/ft)	L	00-00-00	03-01-00	Top		10			n/a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-07-00	02-07-00	Top	20	7			n/a
3	Bk1(18824)	Conc. Pt. (lbs)	L	00-07-00	00-07-00	Top	14	6			n/a
4	Bk1(18821)	Conc. Pt. (lbs)	L	02-07-00	02-07-00	Top	12				n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	78 ft-lbs	23,005 ft-lbs	0.3%	0	01-06-08
End Shear	67 lbs	14,464 lbs	0.5%	1	01-09-10
Total Load Deflection	L/999 (0")	n/a	n/a	4	01-06-08
Max Defl.	0"	n/a	n/a	4	01-06-08
Span / Depth	2.7				

Bearing Supports	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3-1/2" x 3-1/2"	137 lbs	4.0%	1.4%	Unspecified
B2	Wall/Plate 3-1/2" x 3-1/2"	137 lbs	4.0%	1.4%	Unspecified

Notes

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

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA 086.

BCALCO analysis is based on Canadian Limit States Design, as per NBCC 2010 and CSA 086.

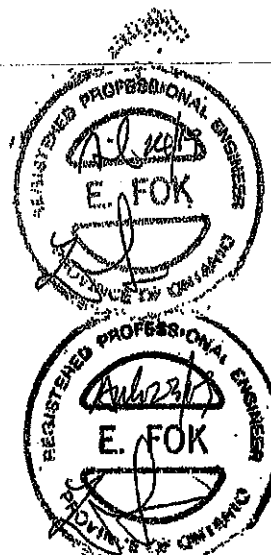
Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 8

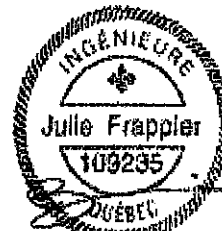
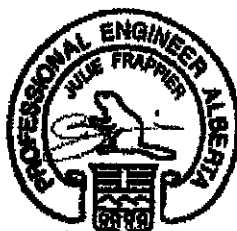
Connection design assumes point load is top-loaded. For connection design of side-loaded point loads, please consult a technical representative or professional of Record.

Nail one ply to another with 3 1/2" spiral nails @ 4" o.c, staggered in 2 rows

DESIGN CONFORMS TO
CBC PART 8 2012



T-19041794



Maximum Floor Spans

Live Load = 40 psf, Dead Load = 15 psf

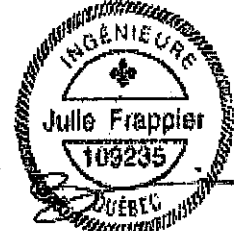
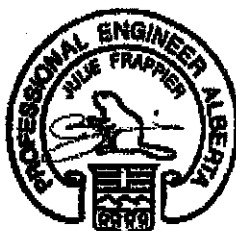
Simple Spans, L/480 Deflection Limit

5/8" OSB G&N Sheathing

Depth	Series	Bare				1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-1"	14'-2"	13'-9"	N/A	15'-7"	14'-8"	14'-2"	N/A
	NI-40x	16'-1"	15'-2"	14'-8"	N/A	16'-7"	15'-7"	15'-1"	N/A
	NI-60	16'-3"	15'-4"	14'-10"	N/A	16'-8"	15'-9"	15'-3"	N/A
	NI-70	17'-1"	16'-1"	15'-6"	N/A	17'-5"	16'-5"	15'-10"	N/A
	NI-80	17'-3"	16'-3"	15'-8"	N/A	17'-8"	16'-7"	16'-0"	N/A
11-7/8"	NI-20	16'-11"	16'-0"	15'-5"	N/A	17'-6"	16'-6"	16'-0"	N/A
	NI-40x	18'-1"	17'-0"	16'-5"	N/A	18'-9"	17'-6"	16'-11"	N/A
	NI-60	18'-4"	17'-3"	16'-7"	N/A	19'-0"	17'-8"	17'-1"	N/A
	NI-70	19'-6"	18'-0"	17'-4"	N/A	20'-1"	18'-7"	17'-9"	N/A
	NI-80	19'-9"	18'-3"	17'-6"	N/A	20'-4"	18'-10"	17'-11"	N/A
14"	NI-90x	20'-4"	18'-9"	17'-11"	N/A	20'-10"	19'-3"	18'-5"	N/A
	NI-40x	20'-1"	18'-7"	17'-10"	N/A	20'-10"	19'-4"	18'-6"	N/A
	NI-60	20'-5"	18'-11"	18'-1"	N/A	21'-2"	19'-7"	18'-9"	N/A
	NI-70	21'-7"	20'-0"	19'-1"	N/A	22'-3"	20'-7"	19'-8"	N/A
	NI-80	21'-11"	20'-3"	19'-4"	N/A	22'-7"	20'-11"	20'-0"	N/A
16"	NI-90x	22'-7"	20'-11"	19'-11"	N/A	23'-3"	21'-6"	20'-6"	N/A
	NI-60	22'-3"	20'-8"	19'-9"	N/A	23'-1"	21'-5"	20'-6"	N/A
	NI-70	23'-6"	21'-9"	20'-9"	N/A	24'-3"	22'-5"	21'-5"	N/A
	NI-80	23'-11"	22'-1"	21'-1"	N/A	24'-8"	22'-10"	21'-9"	N/A
	NI-90x	24'-8"	22'-9"	21'-9"	N/A	25'-4"	23'-5"	22'-4"	N/A

Depth	Series	Mid-Span Blocking				Mid-Span Blocking and 1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	16'-8"	15'-3"	14'-5"	N/A	16'-8"	15'-3"	14'-5"	N/A
	NI-40x	17'-11"	16'-11"	16'-1"	N/A	18'-5"	17'-1"	16'-1"	N/A
	NI-60	18'-2"	17'-1"	16'-4"	N/A	18'-7"	17'-4"	16'-4"	N/A
	NI-70	19'-2"	17'-10"	17'-2"	N/A	19'-7"	18'-3"	17'-7"	N/A
	NI-80	19'-5"	18'-0"	17'-4"	N/A	19'-10"	18'-5"	17'-8"	N/A
11-7/8"	NI-20	19'-6"	18'-1"	17'-3"	N/A	19'-11"	18'-3"	17'-3"	N/A
	NI-40x	21'-0"	19'-6"	18'-6"	N/A	21'-7"	20'-2"	19'-2"	N/A
	NI-60	21'-4"	19'-9"	18'-11"	N/A	21'-11"	20'-4"	19'-6"	N/A
	NI-70	22'-6"	20'-10"	19'-11"	N/A	23'-0"	21'-5"	20'-5"	N/A
	NI-80	22'-9"	21'-1"	20'-1"	N/A	23'-3"	21'-7"	20'-8"	N/A
14"	NI-90x	23'-4"	21'-8"	20'-8"	N/A	23'-10"	22'-2"	21'-2"	N/A
	NI-40x	23'-7"	21'-11"	20'-11"	N/A	24'-3"	22'-7"	21'-7"	N/A
	NI-60	24'-0"	22'-3"	21'-3"	N/A	24'-8"	22'-11"	21'-11"	N/A
	NI-70	25'-3"	23'-4"	22'-3"	N/A	25'-10"	24'-0"	22'-11"	N/A
	NI-80	25'-7"	23'-8"	22'-7"	N/A	26'-2"	24'-4"	23'-2"	N/A
16"	NI-90x	26'-4"	24'-4"	23'-3"	N/A	26'-10"	24'-11"	23'-9"	N/A
	NI-60	26'-5"	24'-6"	23'-4"	N/A	27'-2"	25'-3"	24'-2"	N/A
	NI-70	27'-9"	25'-8"	24'-6"	N/A	28'-5"	26'-5"	25'-2"	N/A
	NI-80	28'-2"	26'-1"	24'-10"	N/A	28'-10"	26'-9"	25'-6"	N/A
	NI-90x	29'-0"	26'-10"	25'-7"	N/A	29'-7"	27'-5"	26'-2"	N/A

- Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 15 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 and a total load deflection limit of L/240.
- Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 5/8 inch for a joist spacing of 19.2 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.
- Minimum bearing length shall be 1-3/4 inches for the end bearings.
- Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.
- This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.
- Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.



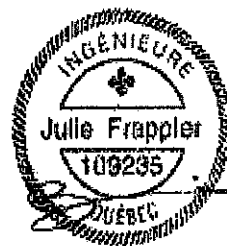
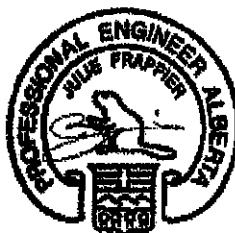
Maximum Floor Spans

Live Load = 40 psf, Dead Load = 15 psf
Simple Spans, L/480 Deflection Limit
3/4" OSB G&N Sheathing

Depth	Series	Bare				1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-10"	15'-0"	14'-5"	13'-5"	16'-4"	15'-5"	14'-6"	13'-5"
	NI-40x	17'-0"	16'-0"	15'-5"	14'-9"	17'-5"	16'-5"	15'-10"	15'-2"
	NI-60	17'-2"	16'-2"	15'-7"	14'-11"	17'-6"	16'-7"	15'-11"	15'-3"
	NI-70	18'-0"	16'-11"	16'-3"	15'-7"	18'-5"	17'-3"	16'-7"	15'-11"
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	16'-1"
11-7/8"	NI-20	17'-10"	16'-10"	16'-2"	15'-6"	18'-6"	17'-4"	16'-9"	16'-1"
	NI-40x	19'-4"	17'-11"	17'-3"	16'-6"	19'-11"	18'-6"	17'-9"	17'-0"
	NI-60	19'-7"	18'-2"	17'-5"	16'-9"	20'-2"	18'-9"	17'-11"	17'-2"
	NI-70	20'-9"	19'-2"	18'-3"	17'-5"	21'-4"	19'-9"	18'-10"	17'-10"
	NI-80	21'-1"	19'-5"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"
14"	NI-90x	21'-8"	20'-0"	19'-1"	18'-0"	22'-2"	20'-6"	19'-6"	18'-6"
	NI-40x	21'-5"	19'-10"	18'-11"	17'-11"	22'-1"	20'-6"	19'-7"	18'-7"
	NI-60	21'-10"	20'-2"	19'-3"	18'-2"	22'-5"	20'-10"	19'-11"	18'-10"
	NI-70	23'-0"	21'-3"	20'-3"	19'-2"	23'-8"	21'-11"	20'-10"	19'-9"
	NI-80	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"	21'-2"	20'-0"
16"	NI-90x	24'-1"	22'-3"	21'-2"	20'-0"	24'-8"	22'-10"	21'-9"	20'-7"
	NI-60	23'-9"	22'-0"	20'-11"	19'-10"	24'-6"	22'-9"	21'-8"	20'-6"
	NI-70	25'-1"	23'-2"	22'-0"	20'-10"	25'-9"	23'-10"	22'-9"	21'-6"
	NI-80	25'-6"	23'-6"	22'-4"	21'-2"	26'-1"	24'-2"	23'-1"	21'-10"
	NI-90x	26'-4"	24'-3"	23'-1"	21'-10"	26'-11"	24'-11"	23'-8"	22'-5"

Depth	Series	Mid-Span Blocking				Mid-Span Blocking and 1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	16'-10"	15'-5"	14'-6"	13'-5"	16'-10"	15'-5"	14'-6"	13'-5"
	NI-40x	18'-8"	17'-2"	16'-3"	15'-2"	18'-10"	17'-2"	16'-3"	15'-2"
	NI-60	18'-11"	17'-6"	16'-6"	15'-5"	19'-2"	17'-6"	16'-6"	15'-5"
	NI-70	20'-0"	18'-7"	17'-9"	16'-7"	20'-5"	18'-11"	17'-10"	16'-7"
	NI-80	20'-3"	18'-10"	17'-11"	16'-10"	20'-8"	19'-3"	18'-2"	16'-10"
11-7/8"	NI-20	20'-1"	18'-5"	17'-5"	16'-2"	20'-1"	18'-5"	17'-5"	16'-2"
	NI-40x	21'-10"	20'-4"	19'-4"	17'-8"	22'-5"	20'-6"	19'-4"	17'-8"
	NI-60	22'-1"	20'-7"	19'-7"	18'-4"	22'-8"	20'-10"	19'-8"	18'-4"
	NI-70	23'-4"	21'-8"	20'-8"	19'-7"	23'-10"	22'-9"	21'-2"	19'-9"
	NI-80	23'-7"	21'-11"	20'-11"	19'-9"	24'-1"	22'-6"	21'-5"	20'-0"
14"	NI-90x	24'-3"	22'-6"	21'-6"	20'-4"	24'-8"	23'-0"	22'-0"	20'-9"
	NI-40x	24'-5"	22'-9"	21'-8"	19'-5"	25'-1"	23'-2"	21'-9"	19'-5"
	NI-60	24'-10"	23'-1"	22'-0"	20'-10"	25'-6"	23'-8"	22'-4"	20'-10"
	NI-70	26'-1"	24'-3"	23'-2"	21'-10"	26'-8"	24'-11"	23'-9"	22'-4"
	NI-80	26'-6"	24'-7"	23'-5"	22'-2"	27'-1"	25'-3"	24'-1"	22'-9"
16"	NI-90x	27'-3"	25'-4"	24'-1"	22'-9"	27'-9"	25'-11"	24'-8"	23'-4"
	NI-60	27'-3"	25'-5"	24'-2"	22'-10"	28'-0"	26'-2"	24'-9"	23'-1"
	NI-70	28'-8"	26'-8"	25'-4"	23'-11"	29'-3"	27'-4"	26'-1"	24'-8"
	NI-80	29'-1"	27'-0"	25'-9"	24'-4"	29'-8"	27'-8"	26'-5"	25'-0"
	NI-90x	29'-11"	27'-10"	26'-6"	25'-0"	30'-6"	28'-5"	27'-2"	25'-8"

- Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 15 psf. The ultimate limit states are based on the factored loads of $1.50L + 1.25D$. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 and a total load deflection limit of L/240.
- Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 3/4 inch for a joist spacing of 24 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.
- Minimum bearing length shall be 1-3/4 inches for the end bearings.
- Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.
- This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.
- Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.



Maximum Floor Spans

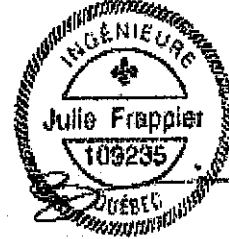
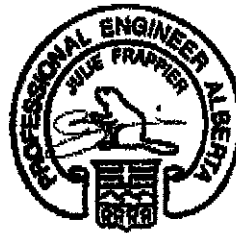
Live Load = 40 psf, Dead Load = 30 psf
Simple Spans, L/480 Deflection Limit
5/8" OSB G&N Sheathing

Depth	Series	Bare				1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-1"	14'-1"	13'-3"	N/A	15'-7"	14'-1"	13'-3"	N/A
	NI-40x	16'-1"	15'-2"	14'-8"	N/A	16'-7"	15'-7"	15'-1"	N/A
	NI-60	16'-3"	15'-4"	14'-10"	N/A	16'-8"	15'-9"	15'-3"	N/A
	NI-70	17'-1"	16'-1"	15'-6"	N/A	17'-5"	16'-5"	15'-10"	N/A
	NI-80	17'-3"	16'-3"	15'-8"	N/A	17'-8"	16'-7"	16'-0"	N/A
11-7/8"	NI-20	16'-11"	16'-0"	15'-5"	N/A	17'-6"	16'-6"	16'-0"	N/A
	NI-40x	18'-1"	17'-0"	16'-5"	N/A	18'-9"	17'-6"	16'-11"	N/A
	NI-60	18'-4"	17'-3"	16'-7"	N/A	19'-0"	17'-8"	17'-1"	N/A
	NI-70	19'-6"	18'-0"	17'-4"	N/A	20'-1"	18'-7"	17'-9"	N/A
	NI-80	19'-9"	18'-3"	17'-6"	N/A	20'-4"	18'-10"	17'-11"	N/A
14"	NI-90x	20'-4"	18'-9"	17'-11"	N/A	20'-10"	19'-3"	18'-5"	N/A
	NI-40x	20'-1"	18'-7"	17'-10"	N/A	20'-10"	19'-4"	18'-6"	N/A
	NI-60	20'-5"	18'-11"	18'-1"	N/A	21'-2"	19'-7"	18'-9"	N/A
	NI-70	21'-7"	20'-0"	19'-1"	N/A	22'-3"	20'-7"	19'-8"	N/A
	NI-80	21'-11"	20'-3"	19'-4"	N/A	22'-7"	20'-11"	20'-0"	N/A
16"	NI-90x	22'-7"	20'-11"	19'-11"	N/A	23'-3"	21'-6"	20'-6"	N/A
	NI-60	22'-3"	20'-8"	19'-9"	N/A	23'-1"	21'-5"	20'-6"	N/A
	NI-70	23'-6"	21'-9"	20'-9"	N/A	24'-3"	22'-5"	21'-5"	N/A
	NI-80	23'-11"	22'-1"	21'-1"	N/A	24'-8"	22'-10"	21'-9"	N/A
	NI-90x	24'-8"	22'-9"	21'-9"	N/A	25'-4"	23'-5"	22'-4"	N/A

Depth	Series	Mid-Span Blocking				Mid-Span Blocking and 1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-7"	14'-1"	13'-3"	N/A	15'-7"	14'-1"	13'-3"	N/A
	NI-40x	17'-9"	16'-1"	15'-1"	N/A	17'-9"	16'-1"	15'-1"	N/A
	NI-60	18'-1"	16'-4"	15'-4"	N/A	18'-1"	16'-4"	15'-4"	N/A
	NI-70	19'-2"	17'-10"	16'-9"	N/A	19'-7"	17'-10"	16'-9"	N/A
	NI-80	19'-5"	18'-0"	17'-1"	N/A	19'-10"	18'-3"	17'-1"	N/A
11-7/8"	NI-20	18'-9"	17'-0"	16'-0"	N/A	18'-9"	17'-0"	16'-0"	N/A
	NI-40x	21'-0"	19'-3"	17'-9"	N/A	21'-3"	19'-3"	17'-9"	N/A
	NI-60	21'-4"	19'-8"	18'-5"	N/A	21'-8"	19'-8"	18'-5"	N/A
	NI-70	22'-6"	20'-10"	19'-11"	N/A	23'-0"	21'-4"	20'-0"	N/A
	NI-80	22'-9"	21'-1"	20'-1"	N/A	23'-3"	21'-7"	20'-5"	N/A
14"	NI-90x	23'-4"	21'-8"	20'-8"	N/A	23'-10"	22'-2"	21'-2"	N/A
	NI-40x	23'-7"	21'-5"	19'-6"	N/A	24'-1"	21'-5"	19'-6"	N/A
	NI-60	24'-0"	22'-3"	21'-0"	N/A	24'-8"	22'-5"	21'-0"	N/A
	NI-70	25'-3"	23'-4"	22'-3"	N/A	25'-10"	24'-0"	22'-9"	N/A
	NI-80	25'-7"	23'-8"	22'-7"	N/A	26'-2"	24'-4"	23'-2"	N/A
16"	NI-90x	26'-4"	24'-4"	23'-3"	N/A	26'-10"	24'-11"	23'-9"	N/A
	NI-60	26'-5"	24'-6"	23'-4"	N/A	27'-2"	24'-10"	23'-4"	N/A
	NI-70	27'-9"	25'-8"	24'-6"	N/A	28'-5"	26'-5"	25'-2"	N/A
	NI-80	28'-2"	26'-1"	24'-10"	N/A	28'-10"	26'-9"	25'-6"	N/A
	NI-90x	29'-0"	26'-10"	25'-7"	N/A	29'-7"	27'-5"	26'-2"	N/A

- Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 30 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 and a total load deflection limit of L/240.
- Spans are based on a composite floor with glued-nailed oriented strand board (OSB) sheathing with a minimum thickness of 5/8 inch for a joist spacing of 19.2 inches or less. The composite floor may include 1/2 inch gypsum ceiling and/or one row of blocking at mid-span with strapping. Strapping shall be minimum 1x4 inch strap applied to underside of joists at blocking line or 1/2 inch gypsum ceiling attached to joists.
- Minimum bearing length shall be 1-3/4 inches for the end bearings.
- Bearing stiffeners are not required when I-joists are used with the spans and spacings given in this table, except as required for hangers.
- This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.
- Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.

OF CALEDON
BUILDING SECTION
FILE NO.



Maximum Floor Spans

Live Load = 40 psf, Dead Load = 30 psf
Simple Spans, L/480 Deflection Limit
3/4" OSB G&N Sheathing

Depth	Series	Bare				1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-7"	14'-2"	13'-4"	12'-4"	15'-7"	14'-2"	13'-4"	12'-4"
	NI-40x	17'-0"	16'-0"	15'-1"	13'-11"	17'-0"	16'-1"	15'-1"	13'-11"
	NI-60	17'-2"	16'-2"	15'-5"	14'-3"	17'-6"	16'-5"	15'-5"	14'-3"
	NI-70	18'-0"	16'-11"	16'-3"	15'-6"	18'-5"	17'-3"	16'-7"	15'-6"
	NI-80	18'-3"	17'-1"	16'-5"	15'-9"	18'-8"	17'-5"	16'-9"	15'-10"
11-7/8"	NI-20	17'-10"	16'-10"	16'-0"	14'-10"	18'-6"	17'-1"	16'-0"	14'-10"
	NI-40x	19'-4"	17'-11"	17'-3"	15'-10"	19'-11"	18'-6"	17'-9"	15'-10"
	NI-60	19'-7"	18'-2"	17'-5"	16'-9"	20'-2"	18'-9"	17'-11"	17'-1"
	NI-70	20'-9"	19'-2"	18'-3"	17'-5"	21'-4"	19'-9"	18'-10"	17'-10"
	NI-80	21'-1"	19'-5"	18'-6"	17'-7"	21'-7"	20'-0"	19'-0"	18'-0"
14"	NI-90x	21'-8"	20'-0"	19'-1"	18'-0"	22'-2"	20'-6"	19'-6"	18'-6"
	NI-40x	21'-5"	19'-10"	18'-11"	17'-5"	22'-1"	20'-6"	19'-6"	17'-5"
	NI-60	21'-10"	20'-2"	19'-3"	18'-2"	22'-5"	20'-10"	19'-11"	18'-10"
	NI-70	23'-0"	21'-3"	20'-3"	19'-2"	23'-8"	21'-11"	20'-10"	19'-9"
	NI-80	23'-5"	21'-7"	20'-7"	19'-5"	24'-0"	22'-3"	21'-2"	20'-0"
16"	NI-90x	24'-1"	22'-3"	21'-2"	20'-0"	24'-8"	22'-10"	21'-9"	20'-7"
	NI-60	23'-9"	22'-0"	20'-11"	19'-10"	24'-6"	22'-9"	21'-8"	20'-6"
	NI-70	25'-1"	23'-2"	22'-0"	20'-10"	25'-9"	23'-10"	22'-9"	21'-6"
	NI-80	25'-6"	23'-6"	22'-4"	21'-2"	26'-1"	24'-2"	23'-1"	21'-10"
	NI-90x	26'-4"	24'-3"	23'-1"	21'-10"	26'-11"	24'-11"	23'-8"	22'-5"
Depth	Series	Mid-Span Blocking				Mid-Span Blocking and 1/2" Gypsum Ceiling			
		On Centre Spacing				On Centre Spacing			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"
9-1/2"	NI-20	15'-7"	14'-2"	13'-4"	12'-4"	15'-7"	14'-2"	13'-4"	12'-4"
	NI-40x	17'-9"	16'-1"	15'-1"	13'-11"	17'-9"	16'-1"	15'-1"	13'-11"
	NI-60	18'-1"	16'-5"	15'-5"	14'-3"	18'-1"	16'-5"	15'-5"	14'-3"
	NI-70	19'-10"	17'-11"	16'-9"	15'-6"	19'-10"	17'-11"	16'-9"	15'-6"
	NI-80	20'-2"	18'-3"	17'-1"	15'-10"	20'-2"	18'-3"	17'-1"	15'-10"
11-7/8"	NI-20	18'-10"	17'-1"	16'-0"	14'-10"	18'-10"	17'-1"	16'-0"	14'-10"
	NI-40x	21'-3"	19'-3"	17'-9"	15'-10"	21'-3"	19'-3"	17'-9"	15'-10"
	NI-60	21'-9"	19'-8"	18'-5"	17'-1"	21'-9"	19'-8"	18'-5"	17'-1"
	NI-70	23'-4"	21'-5"	20'-1"	18'-6"	23'-8"	21'-5"	20'-1"	18'-6"
	NI-80	23'-7"	21'-10"	20'-5"	18'-11"	24'-1"	21'-10"	20'-5"	18'-11"
14"	NI-90x	24'-3"	22'-6"	21'-3"	19'-7"	24'-8"	22'-7"	21'-3"	19'-7"
	NI-40x	24'-2"	21'-5"	19'-6"	17'-5"	24'-2"	21'-5"	19'-6"	17'-5"
	NI-60	24'-9"	22'-5"	21'-0"	19'-6"	24'-9"	22'-5"	21'-0"	19'-6"
	NI-70	26'-1"	24'-3"	22'-9"	21'-0"	26'-8"	24'-3"	22'-9"	21'-0"
	NI-80	26'-6"	24'-7"	23'-3"	21'-6"	27'-1"	24'-10"	23'-3"	21'-6"
16"	NI-90x	27'-3"	25'-4"	24'-1"	22'-4"	27'-9"	25'-10"	24'-3"	22'-4"
	NI-60	27'-3"	24'-11"	23'-5"	21'-7"	27'-6"	24'-11"	23'-5"	21'-7"
	NI-70	28'-8"	26'-8"	25'-3"	23'-4"	29'-3"	26'-11"	25'-3"	23'-4"
	NI-80	29'-1"	27'-0"	25'-9"	23'-10"	29'-8"	27'-6"	25'-10"	23'-10"
	NI-90x	29'-11"	27'-10"	26'-6"	24'-10"	30'-5"	28'-5"	26'-11"	24'-10"

- Maximum clear span applicable to simple-span residential floor construction with a design live load of 40 psf and dead load of 30 psf. The ultimate limit states are based on the factored loads of 1.50L + 1.25D. The serviceability limit states include the consideration for floor vibration, a live load deflection limit of L/480 and a total load deflection limit of L/240.
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- This span chart is based on uniform loads. For applications with other than uniformly distributed loads, an engineering analysis may be required based on the use of the design properties. Tables are based on Limit States Design per CSA O86-09, NBC 2010, and OBC 2012.
- Joists shall be laterally supported at supports and continuously along the compression edge. Refer to technical documentation for installation guidelines and construction details. Nordic I-joists are listed in CCMC evaluation report 13032-R and APA Product Report PR-L274C.



Construction Detail

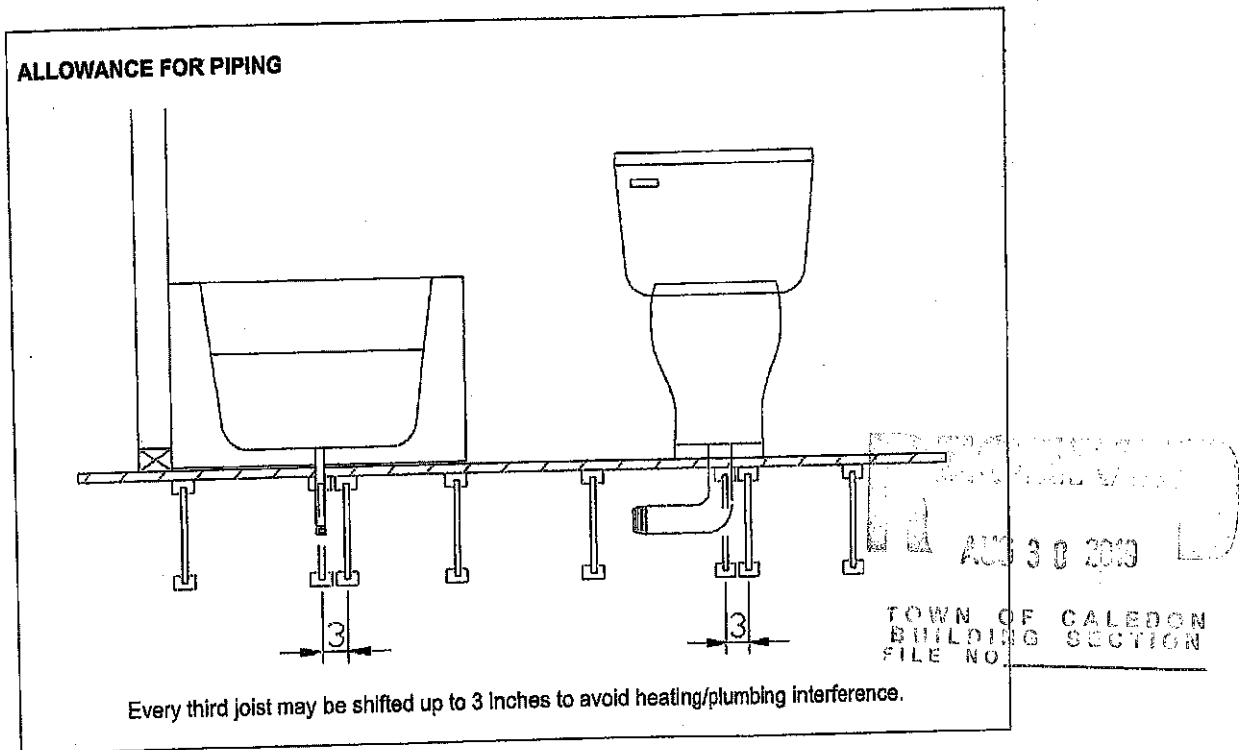
Limit States Design

Allowance for Piping (Installation Notes)

The floor layouts have usually not been checked for heating and/or plumbing interference. On-site adjustment of joists of up to 3 inches is permitted to avoid interferences. When moving a joist, the subfloor thickness shall be checked with code requirements when the joist spacing exceeds 19.2 inches. Except for cutting to length, I-joist flanges should never be cut, drilled, or notched.

Installation of Nordic I-joists shall be as per *Nordic Joist Installation Guide for Residential Floors*. Refer to Tables 1 and 2 for maximum web hole and duct chase openings, respectively. These tables are based on the I-joists being used at their maximum spans. The minimum distance given may be reduced for shorter spans; contact your distributor for additional information.

The detail below shows the 3-inch allowance for piping. Every third joist may be shifted up to 3 inches to avoid heating/plumbing interference. For other applications, please contact your distributor.



Revised April 12, 2012