Engineering Note Page (ENP-2)

GREENPARK-MINNISALE HOMES-MODEL HEMLOCK 4-1 & 4-2 REVISION 2009-10-09

CK4-1&4-2 EL. 2 - LOT 36R

Please read all notes prior to installation of the component

DESIGN INFORMATION

This building component is certified as an individual component for the loads and conditions shown on the calculation and drawing page.

The responsibility of the undersigned engineer is <u>only</u> limited to the calculation of this building component for the loads and conditions shown on this drawing.

The responsibility of the undersigned is limited to the verification of the structural capacity of the NASCOR floor joists and LVL beams based on placement as shown on the layout. The loads applied are limited to the gravity effects of the specified loads. The structural integrity of the building and the effect of wind, uplift, seismic, lateral or other forces, calculation of adequate support and anchorage of components, as well as the dimensions and design loads used to calculate components are the responsibility of the overall building designer.

Floor joists and OSB rim board are designed to carry uniformly distributed loads only. Point loads should be transferred through the floor cavity with squash blocks. Structural elements such as walls, posts, connectors, and squash blocks are the responsibility of the overall building designer.

The undersigned engineer disclaims any responsibility for damages as a result of being furnished faulty or incorrect information, specifications and/or designs.

Installation of NASCOR joists is to be carried out in accordance with the current edition of the manufacturer's approved literature available at http://www.nascor.ca.

CODE

This building component is designed in accordance with the National Building Code of Canada, the Ontario Building Code, CCMC and Canadian Standards Association guidelines.

COMPONENT

- 1. The building component used in construction must be the same as indicated on the drawings.
- 2. The building component must be installed and assembled as per specification shown on the drawing and in accordance with the manufacturer's assembly and installation.
- 3. Members consisting of multiple plies must be connected as per the document "Multi-ply Connection Details".
- 4. Pass-thru squash block framing is required at all point loads over bearings.

HANDLING AND INSTALLATION

Do not drill any hole, cut or notch a certified building component without a written preauthorization.



2x12

IPLE MEMBER CONNECTIONS

GREENPARK-MINNISALE HOMES-MODEL HEMLOCK 4-1 & 4-2

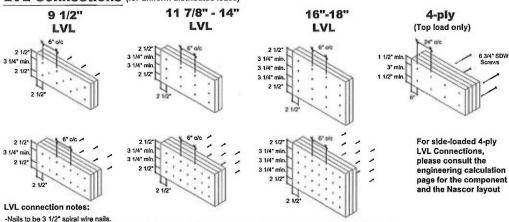
Conventional Connections (for uniform distributed loads)

2x6 2x8 2x10 2-ply 3-ply

Conventional connection notes:

- -Nails to be 3" 10d spiral wire nails.
- -Natis to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
 -Number of rows and spacing as per details shown, unless noted otherwise.
 -"X" represents nail driven from the opposite side.

LVL Connections (for uniform distributed loads)



- -Nalis to be located a minimum of 2 1/2" from the top and bottom of the member. Start all nalis a minimum of 2 1/2" in from ends.
 -Minimum 3 1/4" spacing between rows.
 -Number of rows and spacing as per details shown, unless noted otherwise.
 -"X" represents nall or screw driven from the opposite side.

Vertical I-Joist Connections (for uniform distributed loads)

9 1/2" - 11 7/8" I-Joist 3-ply I-Joist w/ point load (Joist Hanger) 2-ply 3-ply 1/2" SSDS/SDW Screws (Both sides of point load)

Vertical I-Joist connection notes:

- -Nails to be 3" spiral wire nails.
- -Nalls to be located at centre of top and bottom flanges. Start all nalls a minimum of 2 1/2" in from ends.
 -Number of rows and spacing as per details shown, unless noted otherwise.
 "X" represents nail driven from the opposite side.

котт XOTT 3228 Moodle Drive Ottawa, ON K2H 7V1 Ph: 613-838-2775 Fx: 613-838-4751

MULTI -PLY CONNECTION DETAILS

Ground Floor J9-G J9-H J9-I J7-A 10.1 19.1 19-M .

> Legend 1111111

Load from Above Wall Opening Norbard Rimboard Plus 1,125 X 9.5 NJ 9.5 NJ60U 9.5 NJH 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5

- 1. OBC 2012 O.Reg 332/12 as amended
- 2. Nascor CCMC 13535-R
- 3. LVL CCMC -14056-R
- 4. CAN/CSA-086-09
- 5. CCMC -12787-R APA PR-L310(C)

THIS CERTIFICATION IS TO CONFIRM THAT:

1. THE LOADS USED IN THE CALCULATION OF THE ATTACHED APPROVED COMPONENTS CONFORM TO THE FLOOR ASSEMBLY SHOWN ON THIS LAYOUT.

2. THE FLOOR JOISTS COMPLY WITH THE NASCOR SPAN TABLE FOR THE LOADS AND SPACING SHOWN ON THIS LAYOUT.

THE FLOOR SYSTEM MUST BE ASSEMBLED IN ACCORDANCE TO THE NASCOR SPECIFIER GUIDE, MULTI-PLY MEMBERS MUST BE ATTACHED TOGETHER AS PER THE INCLUDED MULTIPLE MEMBER CONNECTION DETAIL.

ALL OTHER COMPONENTS AND STRUCTURAL ELEMENTS SUPPORTING THE FLOOR SYSTEM SUCH AS BEAMS, WALLS, COLUMNS AND FOUNDATION WALLS AND FOOTINGS INCLUDING ANCHORAGE OF COMPONENTS AND BRACING FOR LATERAL STABILITY ARE THE RESPONSIBILITY OF OTHERS.



REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT. **PAGE 3 OF 24**

Ground LVL/LS		:h)								NIACC
Label			Width	Dep	th C	aty	Plies	Pcs	Length	NASC
F3	Forex	DODF6 LVL	1.75		9.5			2	8-0-0	
F2	Forex 2.0E-3	000Fb LVL	1.75	5	9,5			1	6-0-0	Layout Name HEMLOCK 4-1 & 4-2
F17	Forex 2.0E-3	000Fb LVL	1.75		9.5	1	2	2	4-0-0	Design Method LSD
F1	Forex 2.0E-3	000Fb LVL	1.75	9	9.5			1	4-0-0	Description
I Joist ((Flush)									MINNISALE HOMES
Label	Doscr	ption	Width	Dog	oth C	Qty	Plies	Pcs	Length	BRAMPTON, ONT.
FB	NJ	,	1.5	-	9.5	3	2	6	16-0-0	Revised
F7	NJ		1.5	-	9.5	2	2	4	14-0-0	August 13, 2018
F6	LIA		1.5		9.5	2	2	4	4-0-0	Builder
F5	NJ		15	-	9.5	2	2	4	2-0-0	GREENPARK
J9	NJ60U		3.5	-	9.5			14	16-0-0	Sales Rep
J7	NJ60U		3.5	9	9.5			2	14-0-0	RM
J8	NJH		2.5		9,5			8	14-0-0	
J4	NJH		2.5	9	9.5			4	12-0-0	Designer
J3	NJH		2.5		9.5			7	10-0-0	RCO
J2	NJH		2.5		9.5			6	8-0-0	Shipping
J1	NJH		2.5	!	9.5			2	6-0-0	Project
Rim Bo										
Label			Width	Dep	oth (aty	Plies	Pcs	Longth	Builder's Project
R1		d Rimboard 125 X 9.5	1.125	1	9.5			13	12	Kott Lumber Co
Hange	r					Be	am/Girder		pported ember	Stouffville, Ontario Canada L4A 7X4
Label	bel Pcs Description Skow Slope fasteners fasteners	teners	905-642-4400							
H1	6	LT2-159				4	10dx1 1/2	2 1	0dx1 1/2	
นว	15	17750				4	10dy1 1/2	2.1	1dx1 1/2	Job Path

4 10d

4 10dx1 1/2

2 10

4 10

NOTES:

Framer to verify dimensions on the architectural drawings.
 Double joist only require filler/backer ply when supporting another member using a facer-mounted hanger.
 Install 2x4 blocking @ 2x* o/c under parallel non-load bearing walls.
 Install single-ply flush window hadder along instalt face of

rimboard/rimioist.

3 LT359

1 HUCQ1,81/9-SDS H6 2 MIT49.5 H8 1 L90

rmboard/imjoss.
Refer to Nascor specifier guide for installation works.
Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding

all tirst level joists which support coating from active exceeding two levels floor or foof.

7. Load transfer blocks to be installed under all point loads.

8. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

Refer to Multiple Member Connection Detail to ply to ply nailing or

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than ram parallel to joists: 1-1/6 immodard with 2.8.4 block (1715 onget that mid pipt) of 16° do). All other components and structural elements supporting the floor system such as beams, walls, columns, and foundation walls and foolings including encharge of components and bracing for lateral stability are the responsibility of Others.

Hatch area represents ceramic tiled floor with an additional dead load

The framing shown on this layout may deviate from the architectural and structural drawings. Project Engineer to review and approve the deviation to construction.

ARCHITECTURAL DRAWINGS:

VA3 DESIGN 255 Consumers Rd., Suite 120, Toronto, ON Date: Rev.6; July 23,2018

Longtr	Biotini Tori, Sitti
16-0-0	Revised
14-0-0	
4-0-0	
2-0-0	
16-0-0	
14-0-0	
12-0-0	
10-0-0	
8-0-0	
6-0-0	1
	Project
Longth	Builder's Project
12	Kott Lumber Company
	14 Anderson Blvd
	Stouffville, Ontario
ported	Canada
ember	L4A 7X4
teners	905-642-4400
dx1 1/2	
dx1 1/2	
10X 1 1/2	HOME\GREENPARK\MINNISALE
	HOMESIHEMLOCK 41HEMLOCK 4-1
dx1 1/2	VFLOOR\REVHEMLOCK 4-1.isl
	Ground Floor
	Design Method LSD
	Building Code NBCC 2010 / OBC
	Floor
	Loads
	Live 40
	Dead 15
	Deflection Joist
	LL Span L/ 480
	TL Span L/ 360
	LL Cant 2L/ 480
	TL Cant 2L/ 360
	Deflection Girder
	LL Span L/ 360
	i Lapani D
	LL Out LD
	I COUNT NO
	Deck SPF Plywood
	1 monitoso
	Fastoner Nailed & Glued
	Vibration
n prior	

Version 18.40.162 Powered by iStruct**

This layout is to be used as an installation guide only. It is meant to be used in conjunction with the architectural and structural drawings, not to replace them





Client:

GREENPARK

Project: Address:

Date: 8/13/2018

Designer: **RCO**

Job Name: HEMLOCK 4-1

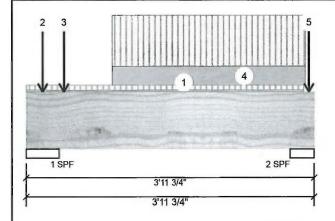
Project #:

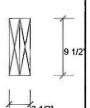
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Member Inforn	nation			Unfactor	red Reac	tions U	NPATTERNI	ED lb (L	Jplift)		
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow	Y .	Wind	
Plies:	2	Design Method:	LSD	1	3366		1381	0		0	
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	1027		414	0		0	
Deflection LL:	360	Load Sharing:	No								
Deflection TL:	240	Deck:	Not Checked								
Importance:	Normal	Vibration:	Not Checked								
General Load											
Floor Live:	40 PSF			Bearings	and Fac	tored F	Reactions				
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total I	Ld. Case	Ld. Com	nb.
				1 - SPF	5.500"	62%	1726 / 5049	6775 I	L	1.25D+1.	.5L
				2-SPF	4.000"	24%	517 / 1541	2059	Ĺ	1.25D+1.	.5L

Analysis Results

Г	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	831 ft-lb	2'1 1/16"	22724 ft-lb	0.037 (4%)	1.25D+1.5L	L
	Unbraced	831 ft-lb	2'1 1/16"	22724 ft-lb	0.037 (4%)	1.25D+1.5L	L
	Shear	1816 lb	1'2 1/4"	9277 lb	0.196 (20%)	1.25D+1.5L	L
	Perm Defl in.	0.001 (L/32006)	2' 13/16"	0.110 (L/360)	0.010 (1%)	D ,	Uniform
	LL Defl inch	0.003 (L/12992)	2' 7/8"	0.110 (L/360)	0.030 (3%)	L	L
	TL Defl inch	0.004 (L/9241)	2' 7/8"	0.166 (L/240)	0.030 (3%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2, THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA

USED IN THE DESIGN OF THIS COMPONENT. REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY

NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-10-0	(Span)1-4-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-2-12		Тор	1074 lb	2663 lb	0 lb	0 lb	C2
3	Point	0-6-5		Far Face	173 lb	386 lb	0 lb	0 lb	J9
4	Part. Uniform	1-2-5 to 3-10-5		Far Face	109 PLF	290 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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

Lumber

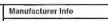
Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

Handling & Installation

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

This design is valid until 7/10/2021

For flat roofs provide proper drainage to prevent ponding



Forex APA: PR-L318







Page 2 of 2

isDesign"

Client: Project:

Address:

GREENPARK

8/13/2018 Date:

RCO Designer:

Job Name: HEMLOCK 4-1

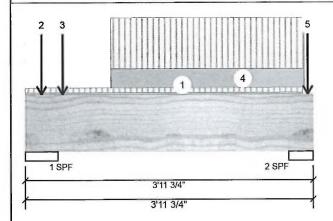
Project #:

Forex 2.0E-3000Fb LVL F17-A

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor



.Continued from page 1

ID Load Type 5 Point

Location Trib Width 3-10-14

Side Near Face Dead 188 lb

Live 468 lb Snow 0 lb Wind Comments 0 lb

F1

Self Weight

8 PLF

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH **BLOCK IS REQUIRED AT ALL** POINT LOADS OVER BEARINGS.

Notes

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

Lumber

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

- chemicals
 Handling & Installation

 1. LVL beams must not be cut or drilled

 2. Refer to manufacture's product information regarding installation requirements, multi-ply fastering idelaits, beam strength values, and code

 3. Damaged Beams must not be used

 4. Design assumes top edge is laterally restrained

 5. Provide lateral support at bearing points to avoid lateral displacement and rotation

This design is valid until 7/10/2021

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318



Member Information

Page 1 of 1



Client:

Project:

Address:

GREENPARK

Date: Designer:

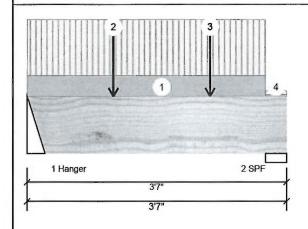
8/13/2018 **RCO**

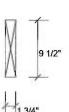
Job Name: HEMLOCK 4-1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED Level: Ground Floor





Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	w ·	Wind
Plies:	1	Design Method:	LSD	1	701		283		0	0
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	684		278		0	0
Deflection LL:	360	Load Sharing:	No						19	
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearing	s and Fac	tored F	Reactions			
Dead:	15 PSF	0		Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1-	3.000"	36%	353 / 1052	1405	L	1.25D+1.5L
		l		Hanger						
Analysis Resul	ts			2-SPF	3.500"	36%	348 / 1027	1374	L	1.25D+1.5L

1	•						
Γ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	1147 ft-lb	1'8 7/16"	11362 ft-lb	0.101 (10%)	1.25D+1.5L	L
	Unbraced	1147 ft-lb	1'8 7/16"	9778 ft-lb	0.117 (12%)	1.25D+1.5L	L
	Shear	1015 lb	2'6 3/4"	4638 lb	0.219 (22%)	1.25D+1.5L	L
	Perm Defl in.	0.003 (L/11424)	1'9 1/16"	0.106 (L/360)	0.030 (3%)	D	Uniform
	LL Defl inch	0.008 (L/4633)	1'9 1/16"	0.106 (L/360)	0.080 (8%)	L	L
	TL Defl inch	0.012 (L/3296)	1'9 1/16"	0.158 (L/240)	0.070 (7%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS **CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA** USED IN THE DESIGN OF THIS COMPONENT.

Unfactored Reactions UNPATTERNED Ib (Uplift)

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



DPROFESSIONAL GA

3 Top braced at bearings.

1 Fill all hanger nailing holes.

2 Girders are designed to be supported on the bottom edge only.

Design Notes

4 Bottom braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-3-8		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
2	Point	1-2-6		Near Face	123 lb	292 lb	0 lb	0 lb	J4
3	Point	2-6-6		Near Face	126 lb	299 lb	0 lb	0 lb	J4
4	Tie-In	3-3-8 to 3-7-0	(Span)0-10-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				4 PLF				

Notes

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

Lumber

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

chemicals

Handling & Installation

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

 Damaged Beams must not be used

 Design assumes top edge is laterally restrained

 Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Forex APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Manufacturer Info L4A 7X4 905-642-4400



GREENPARK Client:

Project: Address:

8/13/2018

RCO Designer:

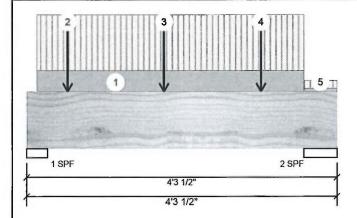
Job Name: HEMLOCK 4-1

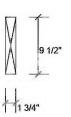
Project #:

Date:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED Level: Ground Floor





Member Information

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

40 PSF 15 PSF Application: Floor (Residential) Design Method:

NBCC 2010 / OBC 2012

Not Checked

Not Checked

Building Code: Load Sharing:

Deck: Vibration: **Unfactored Reactions UNPATTERNED Ib (Uplift)**

Brg	Live	Dead	Snow	Wind
1	970	391	0	0
2	881	350	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF	3.500"	52%	489 / 1456	1945	L	1.25D+1.5L	
2 - SPF	5.500"	30%	437 / 1322	1759	L	1.25D+1.5L	

Analysis Results

Floor Live:

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1695 ft-lb	1'10 7/8"	11362 ft-lb	0.149 (15%)	1.25D+1.5L	L
Unbraced	1695 ft-lb	1'10 7/8"	9238 ft-lb	0.184 (18%)	1.25D+1.5L	L
Shear	1527 lb	1' 1/4"	4638 lb	0.329 (33%)	1.25D+1.5L	L
Perm Defl in.	0.006 (L/7995)	1'11 1/4"	0.122 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.014 (L/3200)	1'11 7/16"	0.122 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.019 (L/2285)	1'11 7/16"	0.183 (L/240)	0.110 (11%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT **CONTAINS SPECIFICATIONS AND CRITERIA** USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



Design Notes

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Top braced at bearings.
- 3 Bottom braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-1-12 to 3-10-0		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
2	Point	0-6-14		Near Face	128 lb	307 lb	0 lb	0 lb	J8
3	Point	1-10-14		Near Face	134 lb	322 lb	0 lb	0 lb	J8
4	Point	3-2-14		Near Face	125 lb	322 lb	0 lb	0 lb	J8
5	Tie-In	3-10-0 to 4-3-8	(Span)1-8-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				4 PLF				

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

Lumber

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

Handling & Installation

- LIVI. beams must not be cut or drilled Refer to manufacturer's product regarding installation requirements, fastening details, beam strength values approvals
- Damaged Beams must not be used

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318









Client: **GREENPARK**

Project:

Address:

Date: 8/13/2018

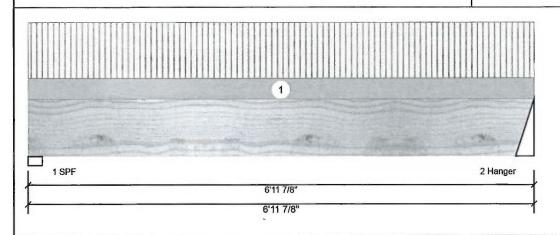
RCO Designer:

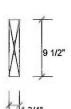
Job Name: HEMLOCK 4-1

Level: Ground Floor

Project #:

1.750" X 9.500" - PASSED Forex 2.0E-3000Fb LVL F3-A





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

15 PSF

Application: Floor (Residential) Design Method: LSD NBCC 2010 / OBC 2012 **Building Code:**

Load Sharing: Deck:

Vibration:

Not Checked Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift) Bra Live Dead Snow

Brg	Live	Dead	Snow	Wind
1	57	35	0	0
2	58	35	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1-SPF	2.375"	5%	43 / 86	129	L	1.25D+1.5L
2 - Hanger	3.000"	3%	44 / 87	131	L	1.25D+1.5L

Analysis Results

Dead:

r	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	206 ft-lb	3'5 5/8"	11362 ft-lb	0.018 (2%)	1.25D+1.5L	L
	Unbraced	206 ft-lb	3'5 5/8"	5592 ft-lb	0.037 (4%)	1.25D+1.5L	L
l	Shear	94 lb	6' 1/8"	4638 lb	0.020 (2%)	1.25D+1.5L	L
	Perm Defl in.	0.002 (L/37066)	3'5 5/8"	0.222 (L/360)	0.010 (1%)	D	Uniform
l	LL Defl inch	0.004 (L/22480)	3'5 5/8"	0.222 (L/360)	0.020 (2%)	L	L
	TL Defl inch	0.006 (L/13993)	3'5 5/8"	0.333 (L/240)	0.020 (2%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH **BLOCK IS REQUIRED AT ALL** POINT LOADS OVER BEARINGS.



Design Notes

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top braced at bearings.
- 4 Bottom braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 6-11-14	(Span)0-9-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Colf Weight				A DI E				

Notes

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

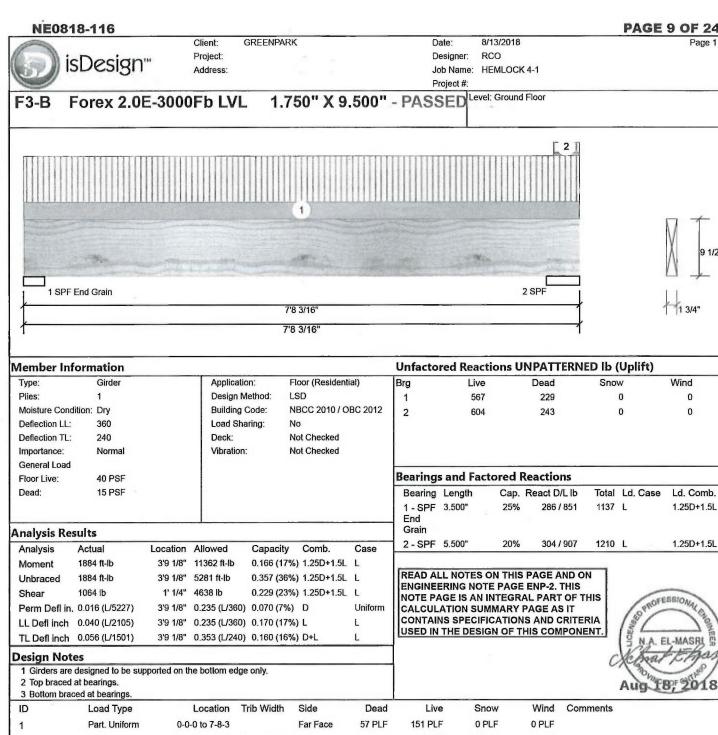
Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

- Handling & Installation
- andling & Installation
 LVL beams must not be cut or drilled
 Refer to manufacturer's product information regarding installation requirements, multi-pt festening defails, beam strength values, and code approvals
 Damaged Beams must not be used
 Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid lateral displacement and rotation

Manufacturer Info Forex APA: PR-L318







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0

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 7-8-3		Far Face	57 PLF	151 PLF	0 PLF	0 PLF	
2	Tie-In	7-3-13 to 7-8-3	(Span)1-7-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				4 PLF				

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

Notes

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

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

Handling & Installation

LVL beams must not be cut or drilled
 Refer to manufacturer's product inform regarding installation requirements, mut fastening details, beam strength values, and

approvals

Damaged Beams must not be used

Design assumes top edge is laterally restrained

Provide lateral support at bearing points to avoid

lateral displacement and rotation

6. For flat roofs provide proper drainage to preven

Manufacturer Info

APA: PR-L318



Client: **GREENPARK**

Project:

Address:

8/13/2018 Date:

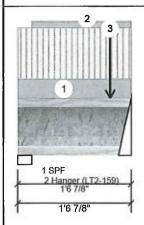
RCO Designer:

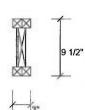
Job Name: HEMLOCK 4-1

Project #:

2-Ply - PASSED NJ 9.500"

Level: Ground Floor





Member Information

Туре:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	

40 PSF

15 PSF

Application: Floor (Residential) Design Method: LSD **Building Code:** NBCC 2010 / OBC 2012

Load Sharing: Deck:

Vibration:

Not Checked Not Checked **Unfactored Reactions UNPATTERNED lb (Uplift)**

Brg	Live	Dead	Snow	Wind
1	65	31	0	0
2	134	66	0	0

Analysis Results

Floor Live:

Dead:

_	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	52 ft-lb	1' 1/16"	7340 ft-lb	0.007 (1%)	1.25D+1.5L	L
	Unbraced	52 ft-lb	1' 1/16"	6912 ft-lb	0.008 (1%)	1.25D+1.5L	L
	Shear	268 lb	1'5 5/8"	3080 lb	0.087 (9%)	1.25D+1.5L	L
	Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
	LL Defl inch	0.000 (L/55254)	11 3/4"	0.044 (L/360)	0.010 (1%)	L	L
	TL Defl inch	0.000	11 11/16"	0.067 (L/240)	0.010 (1%)	D+L	L

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	5%	39 / 98	137	L	1.25D+1.5L
2 - Hanger	2.000"	11%	82 / 201	283	L	1.25D+1.5L

Design Notes

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings.

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT **CONTAINS SPECIFICATIONS AND CRITERIA** USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



Load Type Location Trib Width Side Dead Live Wind Comments Snow

15 PSF 40 PSF 0 PSF 0 PSF Tie-In 0-0-0 to 1-6-14 (Span)3-3-0 1 Top 8 PLF 0 PLF 0 PLF 0 PLF 2 Part. Uniform 0-2-6 to 1-6-14 Top 3 Point 1-3-7 Far Face 47 lb 97 lb 0 lb 0 lb J1

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

Lumber

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

Handling & Installation

andling & Installation

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

Provide lateral support at bearing points to avoid lateral displacement and rotation

Web stiffeners for point load as shown Minimum point toad bearing length>= 3.5 inches
 For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Nascor by Kott





Client: GREENPARK

Project: Address:

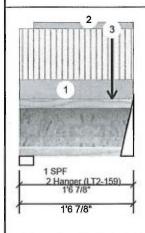
8/13/2018 Date: Designer: **RCO**

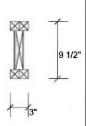
Job Name: HEMLOCK 4-1

Project #:

2-Ply - PASSED 9.500" NJ F5-B

Level: Ground Floor





Mind

Membe	Information
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Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	

Floor Live: 40 PSF 15 PSF Dead:

Floor (Residential)

NBCC 2010 / OBC 2012 No

Deck: Not Checked Not Checked Vibration:

Application:

Design Method: **Building Code:**

Load Sharing:

Unfactored Reactions UNPATTERNED lb (Uplift)

DIG	Live	Dead	SHOW	vviriu
1	65	31	0	0
2	133	66	0	0

Bearings and Factored Reactions

Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	5%	39 / 98	136	L	1.25D+1.5L
2 - Hanger	2.000"	11%	82 / 199	281	L	1.25D+1.5L

Analysis Results

Γ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	_
l	Moment	52 ft-lb	1' 1/16"	7340 ft-lb	0.007 (1%)	1.25D+1.5L	L	
l	Unbraced	52 ft-lb	1' 1/16"	6912 ft-lb	0.008 (1%)	1.25D+1.5L	L	
	Shear	267 lb	1'5 5/8"	3080 lb	0.087 (9%)	1.25D+1.5L	L	
	Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			
	LL Defl inch	0.000 (L/55512)	11 11/16"	0.044 (L/360)	0.010 (1%)	L	L	
	TL Defl inch	0.000	11 11/16"	0.067 (L/240)	0.010 (1%)	D+L	L	

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



Design Notes

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-7 to 1-6-14		Тор	8 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-3-7		Near Face	47 lb	96 lb	0 lb	0 lb	J1

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

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

chemicals

Handling & Installation

- landling & Installation

 I Joist flanges must not be cut or drilled

 Refer to intest copy of the IJoist product information
 defails for framing defails, stiffener tables, web hole
 chart, bridging defails, multiply fastering defails and
 handling/erection defails

 Damaged IJoist must not be used

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

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

Manufacturer Info

Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Ontario 905-642-4400







Project:

Address:

Date: 8/13/2018

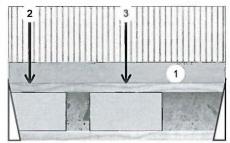
Designer: RCO

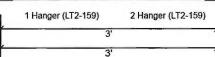
Job Name: HEMLOCK 4-1

Project #:

2-Ply - PASSED 9.500" NJ

Level: Ground Floor







Wind

0

0

Member Information					
Туре:	Girder				
Type: Plies:	2				
Mainten Candition	D				

240

Application: Floor (Residential) Design Method: LSD NBCC 2010 / OBC 2012 **Building Code:** Load Sharing: Deck: Not Checked

Not Checked

Vibration:

Unfactored Reactions UNPATTERNED Ib (Uplift) Brg Live Dead Snow 426 159 0 1 2 266 100 0

Moisture Condition: Dry Deflection LL: Deflection TL: Importance: Normal General Load 40 PSF Floor Live:

15 PSF Dead:

Analysis Results

Bearings and Factored Reactions

Bearin	g Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - Hange	2.000" r	32%	199 / 639	838	L	1.25D+1.5L	
2 - Hange	2.000" r	20%	125 / 399	523	L	1.25D+1.5L	

Analysis Actual Location Allowed Capacity Comb. Case Moment 598 ft-lb 1'7 9/16" 7340 ft-lb 0.081 (8%) 1.25D+1.5L L 598 ft-lb 1'7 9/16" 4678 ft-lb 0.128 (13%) 1.25D+1.5L L Unbraced 831 lb 1 1/4" 3080 lb 0.270 (27%) 1.25D+1.5L L Shear Perm Defl in. 0.002 1'7 9/16" 0.093 (L/360) 0.020 (2%) D Uniform (L/19712) LL Defl inch 0.005 (L/7401) 1'7 9/16" 0.093 (L/360) 0.050 (5%) L L TL Defl inch 0.006 (L/5381) 1'7 9/16" 0.140 (L/240) 0.040 (4%) D+L L

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS **CALCULATION SUMMARY PAGE AS IT** CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH **BLOCK IS REQUIRED AT ALL** POINT LOADS OVER BEARINGS.



Design Notes

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings

o Cottom name	Diacoa at Dominigo.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-0-0	(Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-3-9		Near Face	84 lb	225 lb	0 lb	dl 0	J7
3	Point	1-7-9		Near Face	136 lb	362 lb	0 lb	0 lb	J7

Notes

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

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

Handling & Installation

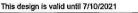
- andling & Installation

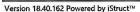
 Lioist flanges must not be cut or drilled
 . Refer to latest copy of the Lioist product information
 details for framing details, stiffener tables, web hole
 chart, bridging details, must help to see that and
 handling/erection details
 . Damaged Lioists must not be used
 . Design assumes top flange to be laterally restrained
 by attached sheathing or as specified in engineering
 notes.
- 5. Provide lateral support at bearing points to avoid lateral displacement and rotation 6. Web stiffeners for point load as shown Minimum poth load bearing length>= 3.5 inches 7. For flat roots provide proper drainage to prevent ponding

Manufacturer Info

Nascor by Kott











Project: Address:

Date: 8/13/2018

Designer: **RCO**

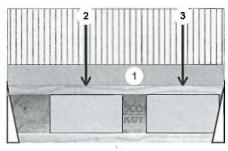
Job Name: HEMLOCK 4-1

Project #:

9.500" NJ

2-Ply - PASSED

Level: Ground Floor



1 Hanger (LT2-159) 2 Hanger (LT2-159)



Wind

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

Member Information

Girder Type: Plies: 2 Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal General Load

40 PSF

15 PSF

Application: Floor (Residential) Design Method: LSD **Building Code:** NBCC 2010 / OBC 2012

Load Sharing: No Deck: Not Checked Vibration: Not Checked

Unfactored Reactions UNPATTERNED Ib (Uplift) Dead Brg Live Snow

283 106 0 0 1 2 353 132 0 0

Cap. React D/L lb

133 / 424

165 / 529

Analysis Results

Floor Live:

Dead:

•	that you ite.	ares .					
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	510 ft-lb	1'1 1/8"	7340 ft-lb	0.070 (7%)	1.25D+1.5L	L
	Unbraced	510 ft-lb	1'1 1/8"	4678 ft-lb	0.109 (11%)	1.25D+1.5L	L
	Shear	687 lb	2'10 3/4"	3080 lb	0.223 (22%)	1.25D+1.5L	L
	Perm Defl in.	0.001 (L/23045)	1'1 3/8"	0.093 (L/360)	0.020 (2%)	D	Uniform
	LL Defl inch	0.004 (L/8640)	1'1 3/8"	0.093 (L/360)	0.040 (4%)	L	L
	TI Deflinch	0.005 (L/6284)	1'1 3/8"	0.140 (L/240)	0.040 (4%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT

21%

27%

Bearings and Factored Reactions

Bearing Length

Hanger

Hanger

2 -

2.000"

2.000"

CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



Total Ld. Case

694 1

Design Notes

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-0-0	(Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-1-2		Far Face	111 lb	296 lb	0 lb	0 lb	J4
3	Point	2-5-2		Far Face	88 lb	235 lb	0 lb	0 lb	J4

Notes

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

Lumber

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

Handling & Installation

- ARMING & INSERICATION

 I Most flanges must not be cut or drifted

 Refer to latest copy of the I Joist product information
 detals for framing detals, stiffener tables, web hole
 chart. bridging detals, multi-ply fastening detals and
 handling/erection detals

 Damaged I Joist must not be used

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

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing lengths—3.5 Inches
 For flat roofs provide proper drainage to prevent

Manufacturer Info

Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Onlario L4A 7X4





Project:

Address:

8/13/2018 Date:

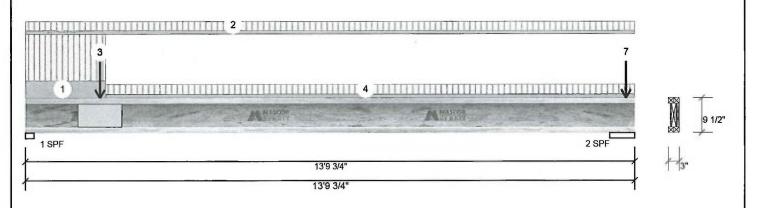
Designer: **RCO**

Job Name: HEMLOCK 4-1

Project #:

9.500" 2-Ply - PASSED NJ F7-A

Level: Ground Floor



Unfactored Reactions UNPAT
Offiactored Reactions Off AT

Туре:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF

15 PSF

Application: Floor (Residential) Design Method: LSD **Building Code:** NBCC 2010 / OBC 2012

Load Sharing:

Deck: Vibration: Not Checked Not Checked

TTERNED Ib (Uplift) Bra Livo Dead Snow

Dig	LIVE	Dead	Ollow	TTILIC
1	578	216	0	0
2	423	219	0	0

Bearings and Factored Reactions

Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	42%	270 / 867	1137	L	1.25D+1.5L
2 - SPF	6.875"	29%	273 / 634	907	L	1.25D+1.5L

Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1835 ft-lb	4'11 5/16"	7340 ft-lb	0.250 (25%)	1.25D+1.5L	L
Unbraced	1835 ft-lb	4'11 5/16"	1848 ft-lb	0.993 (99%)	1.25D+1.5L	L
Shear	1116 lb	1 5/8"	3080 lb	0.362 (36%)	1.25D+1.5L	L
Perm Defl in.	0.043 (L/3654)	6'3 1/2"	0.439 (L/360)	0.100 (10%)	D	Uniform
LL Defl inch	0.115 (L/1369)	6'3 1/2"	0.439 (L/360)	0.260 (26%)	L	L
TL Defl inch	0.159 (L/996)	6'3 1/2"	0.658 (L/240)	0.240 (24%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS **CALCULATION SUMMARY PAGE AS IT** CONTAINS SPECIFICATIONS AND CRITERIA

USED IN THE DESIGN OF THIS COMPONENT. REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY

NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



Wind

Design Notes

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top flange must be laterally braced at a maximum of 4'10" o.c.

2 BOROLL II	lange braced at bearings	S.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 13-9-12	(Span)0-7-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-8-6		Far Face	132 lb	353 lb	0 lb	0 lb	F6
4	Tie-In	1-9-14 to 13-9-12	(Span)0-8-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
5	Point	13-7-6		Тор	1 lb	3 lb	0 lb	0 lb	J8
6	Point	13-7-6		Тор	76 lb	183 lb	0 lb	0 lb	J8
7	Point	13-7-6		Тор	53 lb	0 lb	0 lb	0 lb	Wall Self Weight

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

Lumber

Dry service conditions, unless noted otherwise
 Uplist not to be treated with fire retardard or corrosive

chemicals

Handling & Installation

iandling & Installation

Loist flanges must no be cut or drilled

Refer to latest copy of the Loist product information details for framing details, suffiener tables, web hole chart. bridging details, multi-py fastening details and handling/erection details

Damaged Loists must not be used

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

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

7.

Manufacturer Info

Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Ontario Canada 905-642-4400



This design is valid until 7/10/2021



Client: GREENPARK

Project:

Address:

Date: 8/13/2018

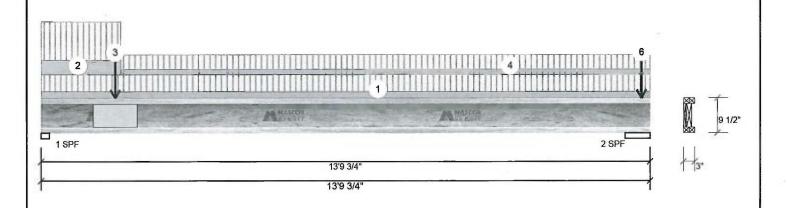
RCO Designer:

Job Name: HEMLOCK 4-1

Project #:

9.500" 2-Ply - PASSED NJ F7-B

Level: Ground Floor



Member Infor	mation			Unfactor	red Reac	tions U	NPATTERNI	ED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	v	Wind
Plies:	2	Design Method:	LSD	1	677		254	0	0	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	783		414		0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked	1						
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored I	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1-SPF	2.375"	50%	317 / 1016	1334	L	1.25D+1.5L
				2-SPF	6.875"	55%	518 / 1175	1693	L	1.25D+1.5L

Analysis Results

Design Notes

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2794 ft-lb	6' 1/16"	7340 ft-lb	0.381 (38%)	1.25D+1.5L	L
Unbraced	2794 ft-lb	6' 1/16"	2827 ft-lb	0.988 (99%)	1.25D+1.5L	L
Shear	1308 lb	1 5/8"	3080 lb	0.425 (42%)	1.25D+1.5L	L
Perm Defl in.	0.066 (L/2383)	6'6 1/16"	0.439 (L/360)	0.150 (15%)	D	Uniform
LL Defl inch	0.177 (L/893)	6'6 1/16"	0.439 (L/360)	0.400 (40%)	L	L
TL Defl inch	0.243 (L/650)	6'6 1/16"	0.658 (L/240)	0.370 (37%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT

CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS

REFER TO MULTIPLE MEMBER TO MEMBER PASS THRU FRAMING SQUASH

	Aug 18, 201
ments	

N.A. E

8

3 Top loads must be support	ed equally by all plies.
4 Top flange must be laterally	y braced at a maximum of 3'11" o.c.

1 Girders are designed to be supported on the bottom edge only.

2 Multiple plies must be fastened together as per manufacturer's details.

5 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-9-12	(Span)1-5-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-8-6		Near Face	106 lb	283 lb	0 lb	0 lb	F6
4	Tie-In	1-9-14 to 13-9-12	(Span)1-2-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
5	Point	13-7-6		Тор	151 lb	367 lb	0 lb	0 lb	J8
6	Point	13-7-6		Тор	107 lb	0 lb	0 lb	0 lb	Wall Self Weight

Notes

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

Dry service conditions, unless noted otherwise
 Uses the treated with fire retardant or corrosive

Handling & Installation

Landling & Installation

I Joist Bianges must not be cut or drilled
Refer to latest copy of the IJoist product information
detals for framing detals, stiffener tables, web hole
thart, bridging detals, multiply fastening details end
handling/erection details
Damaged IJoist must not be used
Design assumes top flange to be laterally restrained
by attached shealthing or as specified in engineering
notes.

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

Manufacturer Info

Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400



This design is valid until 7/10/2021



Client: GREENPARK

Project: Address:

8/13/2018 Date:

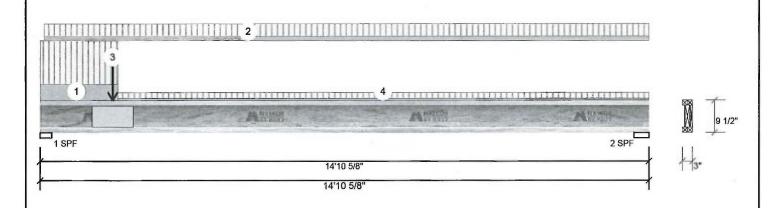
Designer: **RCO**

Job Name: HEMLOCK 4-1

Project #:

9,500" 2-Ply - PASSED F8-A NJ

Level: Ground Floor



Member Infor	mation		- 2	Unfactore	ed Reac	tions U	NPATTERNI	ED lb (U	plift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		Wind
Plies:	2	Design Method:	LSD	1	678		254	0		0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	251		94	0		0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored	Reactions			
Dead:	15 PSF			Bearing L	ength	Cap.	React D/L lb	Total L	.d. Case	Ld. Comb.
				1 - SPF 3	3.500"	45%	317 / 1017	1334 L		1.25D+1.5L
				2-SPF 4	4.375"	16%	118 / 377	495 L		1.25D+1.5L
andlersia Daniel	A									

Analysis Results

Design Notes

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2185 ft-lb	5'5 1/2"	7340 ft-lb	0.298 (30%)	1.25D+1.5L	L .
Unbraced	2185 ft-lb	5'5 1/2"	2202 ft-lb	0.993 (99%)	1.25D+1.5L	L
Shear	1300 lb	2 3/4"	3080 lb	0.422 (42%)	1.25D+1.5L	L
Perm Defl in.	0.060 (L/2850)	6'11 3/8"	0.478 (L/360)	0.130 (13%)	D	Uniform
LL Defl inch	0.161 (L/1067)	6'11 5/16"	0.478 (L/360)	0.340 (34%)	L	L
TL Defl inch	0.222 (L/776)	6'11 5/16"	0.718 (L/240)	0.310 (31%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



4 Top flange must be laterally braced at a maximum of 4'6" o.c. 5 Bottom flange braced at bearings.

Tie-In

3 Top loads must be supported equally by all plies.

1 Girders are designed to be supported on the bottom edge only.

2 Multiple plies must be fastened together as per manufacturer's details.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	(
1	Tie-In	0-0-0 to 1-11-0	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-1-2 to 14-10-10	(Span) 0-10-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-9-8		Far Face	159 lb	426 lb	0 lb	0 lb	1

Notes

4

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

Lumber

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

chemicals.

Handling & Installation

landling & Installation

Lodst flanges must not be cut or drilled
Refer to latest copy of the Loist product information
detals for framing detals, stiffener tables, web hote
chart. bridging detals, multi-ply fastering detals and
handling/erection detals

Damaged Loists must not be used

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

1-11-0 to 14-10-10 (Span)0-5-1 Top

15 PSF

40 PSF

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

Manufacturer Info

Nascor by Kott

0 PSF

Kott Lumber Company 14 Anderson Blvd, Ontario 905-642-4400

Comments

F6

0 PSF



This design is valid until 7/10/2021



GREENPARK Client:

Project:

Address:

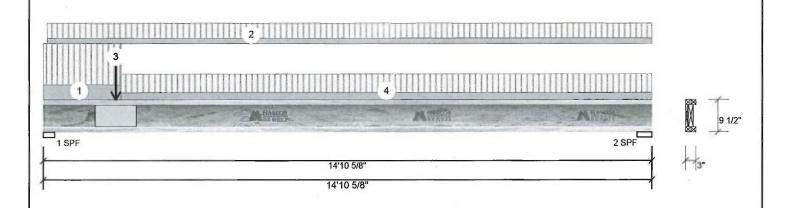
8/13/2018 Date:

Designer: **RCO** Job Name: HEMLOCK 4-1

Project #:

9.500" 2-Ply - PASSED F8-B NJ

Level: Ground Floor



Member Inforn	nation			Unfacto	red Reac	tions U	NPATTERN	ED lb (Upli	ft)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		Wind
Plies:	2	Design Method:	LSD	1	694		260	0		0
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	431		162	0		0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	s and Fac	tored l	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total Ld. (Case	Ld. Comb.
				1 - SPF	3.500"	46%	325 / 1040	1366 L		1.25D+1.5L
1 1 D 1				2-SPF	4.375"	28%	202 / 647	849 L		1.25D+1.5L

Analysis Results

Design Notes

ı	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	3182 ft-lb	6'9 9/16"	7340 ft-lb	0.434 (43%)	1.25D+1.5L	L
ı	Unbraced	3182 ft-lb	6'9 9/16"	3222 ft-lb	0.988 (99%)	1.25D+1.5L	L
	Shear	1330 lb	2 3/4"	3080 lb	0.432 (43%)	1.25D+1.5L	L
ı	Perm Defl in.	0.088 (L/1948)	7'2 5/8"	0.478 (L/360)	0.180 (18%)	D	Uniform
	LL Defl inch	0.236 (L/731)	7'2 5/8"	0.478 (L/360)	0.490 (49%)	L	L
	TL Defl inch	0.324 (L/531)	7'2 5/8"	0.718 (L/240)	0.450 (45%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



4 Top flange must be laterally braced at a maximum of 3'8" o.c. 5 Bottom flance braced at bearing

3 Top loads must be supported equally by all plies.

1 Girders are designed to be supported on the bottom edge only.

2 Multiple plies must be fastened together as per manufacturer's details.

o bottom nange	niaved at nearings								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-11-0	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-1-2 to 14-10-10	(Span)1-2-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-9-8		Near Face	100 lb	266 lb	0 lb	0 lb	F6
4	Tie-In	1-11-0 to 14-10-10	(Span)1-5-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

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

Lumber

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

chemicals

- landling & Installation

 I Joist flanges must not be cut or drilled
 Refer to latest copy of the Jubist product information details for framing details, stiffener tables, web hole chart, bridging details, multiply fastening details and handling/erection details

 Damaged Upists must not be used

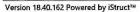
 Design assumes top flange to be laterally restrained by attached shealthing or as specified in engineering notes.

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

This design is valid until 7/10/2021

Manufacturer Info Nascor by Kott









Project: Address:

Date: 8/13/2018

Designer: RCO

Job Name: HEMLOCK 4-1

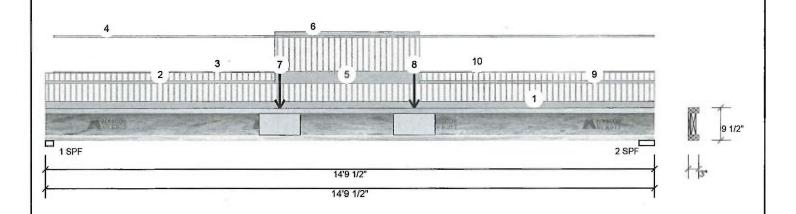
Project #:

9.500" NJ F8-C

2-Ply - PASSED

Level: Ground Floor

Unfactored Reactions UNPATTERNED Ib (Uplift)



				9 9 9 9 9 9 9 9						
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	6 - 15	Dead	Snov	W	Wind
Plies:	2	Design Method:	LSD	1	375		183		0	0
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	380		186		0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearing:	s and Fac	tored	Reactions			
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	2.375"	29%	229 / 562	791	L	1.25D+1.5L
		<u> </u>		2-SPF	4.500"	26%	233 / 570	803	L	1.25D+1.5L

Analysis Results

Design Notes

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3635 ft-lb	7'3 5/8"	7340 ft-lb	0.495 (50%)	1.25D+1.5L	L
Unbraced	3635 ft-lb	7'3 5/8"	3660 ft-lb	0.993 (99%)	1.25D+1.5L	L
Shear	785 lb	14'5 3/4"	3080 lb	0.255 (25%)	1.25D+1.5L	L
Perm Defl in.	0.117 (L/1477)	7'3 3/4"	0.478 (L/360)	0.240 (24%)	D	Uniform
LL Defl inch	0.238 (L/725)	7'3 3/4"	0.478 (L/360)	0.500 (50%)	L	L
TL Defl inch	0.354 (L/486)	7'3 3/4"	0.717 (∐240)	0.490 (49%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS **CALCULATION SUMMARY PAGE AS IT** CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS. N.A. EI Aug 18, 2018

1 Girders are designed to be supported on the bottom edge only. 2 Multiple plies must be fastened together as per manufacturer's details.

3 Top loads must be supported equally by all plies.

4 Top flange must be laterally braced at a maximum of 3'4" o.c.

5 Bottom flange braced at bearings.

Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
Tie-In	0-0-0 to 14-9-8	(Span)0-11-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Tie-In	0-0-0 to 5-6-14	(Span)0-4-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Part. Uniform	0-2-7 to 5-6-14		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
Part. Uniform	0-2-7 to 14-9-8		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
Tie-In	5-6-14 to 9-0-14	(Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Part. Uniform	5-6-14 to 9-0-14		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
Point	5-8-6		Near Face	66 lb	134 lb	0 lb	0 lb	F5
	Tie-In Tie-In Part, Uniform Part, Uniform Tie-In Part, Uniform	Tie-In 0-0-0 to 14-9-8 Tie-In 0-0-0 to 5-6-14 Part. Uniform 0-2-7 to 5-6-14 Part. Uniform 0-2-7 to 14-9-8 Tie-In 5-6-14 to 9-0-14 Part. Uniform 5-6-14 to 9-0-14	Tie-In 0-0-0 to 14-9-8 (Span)0-11-1 Tie-In 0-0-0 to 5-6-14 (Span)0-4-15 Part. Uniform 0-2-7 to 5-6-14 Part. Uniform 0-2-7 to 14-9-8 Tie-In 5-6-14 to 9-0-14 (Span)1-8-15 Part. Uniform 5-6-14 to 9-0-14	Tie-In 0-0-0 to 14-9-8 (Span)0-11-1 Top Tie-In 0-0-0 to 5-6-14 (Span)0-4-15 Top Part. Uniform 0-2-7 to 5-6-14 Top Part. Uniform 0-2-7 to 14-9-8 Top Tie-In 5-6-14 to 9-0-14 (Span)1-8-15 Top Part. Uniform 5-6-14 to 9-0-14 Top Top	Tie-In 0-0-0 to 14-9-8 (Span)0-11-1 Top 15 PSF Tie-In 0-0-0 to 5-6-14 (Span)0-4-15 Top 15 PSF Part. Uniform 0-2-7 to 5-6-14 Top 1 PLF Part. Uniform 0-2-7 to 14-9-8 Top 2 PLF Tie-In 5-6-14 to 9-0-14 (Span)1-8-15 Top 15 PSF Part. Uniform 5-6-14 to 9-0-14 Top 4 PLF	Tie-In 0-0-0 to 14-9-8 (Span)0-11-1 Top 15 PSF 40 PSF Tie-In 0-0-0 to 5-6-14 (Span)0-4-15 Top 15 PSF 40 PSF Part. Uniform 0-2-7 to 5-6-14 Top 1 PLF 0 PLF Part. Uniform 0-2-7 to 14-9-8 Top 2 PLF 0 PLF Tie-In 5-6-14 to 9-0-14 (Span)1-8-15 Top 15 PSF 40 PSF Part. Uniform 5-6-14 to 9-0-14 Top 4 PLF 0 PLF	Tie-In 0-0-0 to 14-9-8 (Span)0-11-1 Top 15 PSF 40 PSF 0 PSF Tie-In 0-0-0 to 5-6-14 (Span)0-4-15 Top 15 PSF 40 PSF 0 PSF Part. Uniform 0-2-7 to 5-6-14 Top 1 PLF 0 PLF 0 PLF Part. Uniform 0-2-7 to 14-9-8 Top 2 PLF 0 PLF 0 PLF Tie-In 5-6-14 to 9-0-14 (Span)1-8-15 Top 15 PSF 40 PSF 0 PSF Part. Uniform 5-6-14 to 9-0-14 Top 4 PLF 0 PLF 0 PLF	Tie-In 0-0-0 to 14-9-8 (Span)0-11-1 Top 15 PSF 40 PSF 0 PSF 0 PSF Tie-In 0-0-0 to 5-6-14 (Span)0-4-15 Top 15 PSF 40 PSF 0 PSF 0 PSF Part. Uniform 0-2-7 to 5-6-14 Top 1 PLF 0 PLF 0 PLF 0 PLF Part. Uniform 0-2-7 to 14-9-8 Top 2 PLF 0 PLF 0 PLF 0 PLF Tie-In 5-6-14 to 9-0-14 (Span)1-8-15 Top 15 PSF 40 PSF 0 PSF 0 PSF Part. Uniform 5-6-14 to 9-0-14 Top 4 PLF 0 PLF 0 PLF 0 PLF

Continued on page 2...

Notes

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

Lumber

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

Handling & Installation

- IAIDUINING & INStallation

 I Most flanges must not be cut or drilled

 Refer to latest copy of the I/Joist product information detats for framing details, stiffener tables, web hole chart. bridging details, multi-ply fastening details and handling/erection details

 Damaged I/Joist must not be used

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

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

This design is valid until 7/10/2021

Manufacturer Info

Nascor by Kott





Page 2 of 2



Client: Project:

GREENPARK

Address:

Date: 8/13/2018

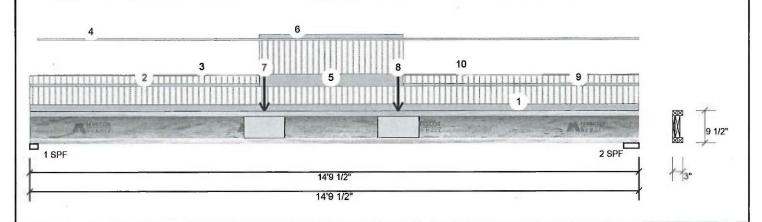
Designer: Job Name: HEMLOCK 4-1

Project #:

F8-C NJ 9,500"

2-Ply - PASSED

Level: Ground Floor



age 1								
Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
Point	8-11-6		Near Face	66 lb	133 lb	0 lb	0 lb	F5
Tie-In	9-0-14 to 14-9-8	(Span)0-4-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
Part. Uniform	9-0-14 to 14-9-8		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
	Load Type Point Tie-In	Load Type Location Point 8-11-6 Tie-In 9-0-14 to 14-9-8	Point 8-11-6 Tie-In 9-0-14 to 14-9-8 (Span)0-4-15	Load Type Location Trib Width Side Point 8-11-6 Near Face Tie-In 9-0-14 to 14-9-8 (Span)0-4-15 Top	Load Type Location Trib Width Side Dead Point 8-11-6 Near Face 66 lb Tie-In 9-0-14 to 14-9-8 (Span)0-4-15 Top 15 PSF	Load Type Location Trib Width Side Dead Live Point 8-11-6 Near Face 66 lb 133 lb Tie-In 9-0-14 to 14-9-8 (Span)0-4-15 Top 15 PSF 40 PSF	Load Type Location Trib Width Side Dead Live Snow Point 8-11-6 Near Face 66 lb 133 lb 0 lb Tie-In 9-0-14 to 14-9-8 (Span)0-4-15 Top 15 PSF 40 PSF 0 PSF	Load Type Location Trib Width Side Dead Live Snow Wind Point 8-11-6 Near Face 66 lb 133 lb 0 lb 0 lb Tie-In 9-0-14 to 14-9-8 (Span)0-4-15 Top 15 PSF 40 PSF 0 PSF 0 PSF

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

Notes

NOISE

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

Lumber

Dry service conditions, unless noted otherwise
 Uoist not to be treated with fire retardant or corre

Handling & Installation

- Handling & Installation

 1. Lioist flanges must not be cut or drilled
 2. Refer to latest copy of the Lioist product information details for farming details, shiftener tables, web hole chart, bridging details, multi-ply fastening details and handlingferection details
 2. Design assumes top flange to be laterally restrained by affached sheathing or as specified in engineering notes.

Manufacturer Info

Nascor by Kott





Second Floor Plush BBO Flush BBC Framing)

Legend

Load from Above Wall Norbord Rimboard Plus 1.125 X 9.5 NJ40U 9.5 NJ60U 9 5 NJH 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5

1. OBC 2012 O.Reg 332/12 as amended

2. Nascor CCMC - 13535-R 3, LVL CCMC -14056-R

4. CAN/CSA-086-09

5. CCMC -12787-R APA PR-L310(C)

THIS CERTIFICATION IS TO CONFIRM THAT:

1. THE LOADS USED IN THE CALCULATION OF THE ATTACHED APPROVED COMPONENTS CONFORM TO THE FLOOR ASSEMBLY SHOWN ON THIS LAYOUT.

2. THE FLOOR JOISTS COMPLY WITH THE NASCOR SPAN TABLE FOR THE LOADS AND SPACING SHOWN ON THIS LAYOUT.

THE FLOOR SYSTEM MUST BE ASSEMBLED IN ACCORDANCE TO THE NASCOR SPECIFIER GUIDE. MULTI-PLY MEMBERS MUST BE ATTACHED TOGETHER AS PER THE INCLUDED MULTIPLE MEMBER CONNECTION DETAIL.

ALL OTHER COMPONENTS AND STRUCTURAL ELEMENTS SUPPORTING THE FLOOR SYSTEM SUCH AS BEAMS, WALLS, COLUMNS AND FOUNDATION WALLS AND FOOTINGS
INCLUDING ANCHORAGE OF COMPONENTS AND BRACING FOR LATERAL STABILITY ARE THE RESPONSIBILITY OF OTHERS.



REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT. LVL/LSL (Flush) Width Depth Qty Plies Pcs Length Label Description F16 Forex 2.0E-3000Fb LVL F15 Forex 2.0E-3000Fb LVL F14 Forex 2.0E-3000Fb LVL 14-0-0 8-0-0 9.5 1SD Joist (Flush) Width | Depth | Pcs Length Label Description Qty Piles 3.5 9 16-0-0 J6 NJ40U J5 NJ40U 9.5 5 14-0-0 15 16-0-0 J9 NJ60U J8 NJH J4 NJH 2.5 9.5 17 14-0-0

2.5 9.5 2.5 9.5 J3 NJH Rim Board Width Depth Oty Plies Pcs Length Label Description 1.125 9,5 R1 Norbord Rimboard Plus 1.125 X 9.5

Boam/Girdor Supported Label Pcs Description Skew Slope fasteners fasteners 4 10dx1 1/2 2 10dx1 1/2 H3 11 LT359 4 10d 2 10dx1 1/2 H5 H7 16 16d 2 HGUS410 46 16d Unknown

NOTES:

Second Floor

- Framer to verify dimensions on the architectural drawings.
- Double joist only require filler/backer pty when supporting another member using a face-mounted hanger.
- . Install 2x4 blocking @ 24" ofc under parallel non-load bearing walls. Install single-ply flush window header along inside face of
- Refer to Nascor specifier guide for installation works.
- Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.

 Loed transfer blocks to be installed under all point loads.
- B. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards

Refer to Multiple Member Connection Detail to ply to ply nailing or

Rim parallel to injets: 1-1/8" rimboard with 2"x 4" block (1/16" longer than rim depth @ 16" o/c). All other components and structural eleme supporting the floor system such as beams, walls, columns, and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of Others.

Hatch area represents ceramic tiled floor with an additional dead load

The framing shown on this layout may deviate from the architectural and structural drawings. Project Engineer to review and approve the deviation prio to construction.

ARCHITECTURAL DRAWINGS:

VA3 DESIGN VA3 DESIGN 255 Consumers Rd., Suite 120, Toronto, ON Date: Rev.2; May 18,2018 Project No: 18012 Model: Hemlock 4

PAGE 20 OF 24

Layout Name HEMLOCK 4-1 & 4-2 Design Method Revised August 13, 2018 Description MINNISALE HOMES BRAMPTON, ONT.

1 12-0-0 Builder 7 10-0-0 GREEN GREENPARK Sales Rep RM

Designer RCO Shipping

roject **Builder's Project** Kott Lumber Company

14 Anderson Blvd Stouffville, Ontario Canada

L4A 7X4 905-642-4400

Job Path D:\Users\rochavillo\WORK FROM HOME\GREENPARK\MINNISALE HOMESHEMLOCK AHEMLOCK 4. \FLOOR\REV\HEMLOCK 4-1.isl

Second Floor Design Method Building Code NBCC 2010 / OBC Floor

Loads Live 40 Dead 15 Deflection Joist LL Span L/ 480 TL Span L/ 360 LL Cant 2L/ 480 TL Cant 2L/ 360 Deflection Girder LL Span L/ 360 TL Span L/ 240

LL Cant 2L/ 460 360 TL Cant 2L/ Decking SPF Plywood Deck Thickness Natied & Glued Fastener Vibration

Celling:

Gypsum 1/2*



Client: Project: Address: **GREENPARK**

Date: 8/13/2018

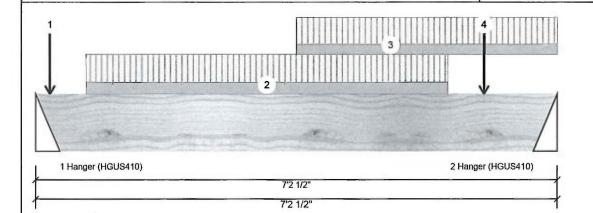
Designer: RCO Job Name: HEMLOCK 4-1

Project #:

Brg

Forex 2.0E-3000Fb LVL

1.750" X 9.500" 2-Ply - PASSED Level: Second Floor





Wind

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load		Contractive.	
Floor Live:	40 PSF		
Dead:	15 PSF		

1	1103	473	0	0
1 2	1457	610	0	0

Dead

Snow

Unfactored Reactions UNPATTERNED Ib (Uplift)

Live

Bearings and Factored Reactions Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 4.000" 22% 591 / 1655 2246 L 1.25D+1.5L Hanger 4.000" 28% 763 / 2185 2949 L 1.25D+1.5L Hanger

Analysis Results Analysis Actual Location Allowed Capacity Comb. Case Moment 4254 ft-lb 4' 1/8" 22724 ft-lb 0.187 (19%) 1.25D+1.5L L 4254 ft-lb 4' 1/8" 21846 ft-lb 0.195 (19%) 1.25D+1.5L L Unbraced 2622 lb 6'1 3/4" 9277 lb 0.283 (28%) 1.25D+1.5L L Shear Perm Defl in. 0.017 (L/4697) 3'9" 0.222 (L/360) 0.080 (8%) D Uniform LL Defl inch 0.040 (L/1997) 3'9 3/16" 0.222 (L/360) 0.180 (18%) L L TL Defl inch 0.057 (L/1401) 3'9 1/8" 0.333 (L/240) 0.170 (17%) D+L

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS **CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA**

USED IN THE DESIGN OF THIS COMPONENT. REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY

NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



Design Notes

1 Fill all hanger nailing holes.

Member Information

- 2 Girders are designed to be supported on the bottom edge only.
- 3 Multiple plies must be fastened together as per manufacturer's details.
- 4 Top loads must be supported equally by all plies.
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-2-6		Near Face	63 lb	169 lb	0 lb	0 lb	J8
2	Part. Uniform	0-8-6 to 5-8-6		Near Face	105 PLF	251 PLF	0 PLF	0 PLF	
3	Part. Uniform	3-7-4 to 7-2-8		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
4	Point	6-2-6		Near Face	116 lb	271 lb	0 lb	0 lb	J8
	Self Weight				8 PLF				

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

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

Handling & Installation

- LVL beams must not be cut or drilled Refer to manufacturer's product Inform regarding installation requirements, mu fastening details, beam strength values, and approvals
- Damaged Beams must not be used

Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation

Manufacturer Info Forex

APA: PR-L318







Client: Project:

Address:

GREENPARK

Date: 8/13/2018

RCO Designer:

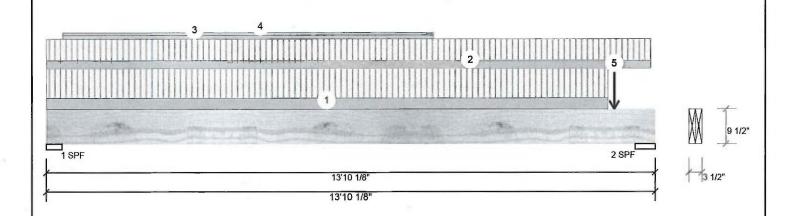
Job Name: HEMLOCK 4-1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



Member Information					Unfactored Reactions UNPATTERNED Ib (Uplift)						
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow	Wind		
Plies:	2	Design Method:	LSD	1	334		209	0	0		
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	1651		747	0	0		
Deflection LL:	360	Load Sharing:	No								
Deflection TL:	240	Deck:	Not Checked								
Importance:	Normal	Vibration:	Not Checked								
General Load									**		
Floor Live:	40 PSF			Bearings	and Fac	tored l	Reactions				
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total Ld. Case	Ld. Comb.		
				1 - SPF	4.375"	8%	261 / 501	761 L	1.25D+1.5L		
			-	2 - SPF	5.500"	29%	934 / 2476	3410 L	1.25D+1.5L		

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2858 ft-lb	8' 15/16"	22724 ft-lb	0.126 (13%)	1.25D+1.5L	L
Unbraced	2858 ft-lb	8' 15/16"	19311 ft-lb	0.148 (15%)	1.25D+1.5L	L
Shear	3357 lb	12'7 7/8"	9277 lb	0.362 (36%)	1.25D+1.5L	L
Perm Defl in.	0.050 (L/3160)	7'1 1/4"	0.438 (L/360)	0.110 (11%)	D	Uniform
LL Defl inch	0.087 (L/1811)	7'2 7/8"	0.438 (L/360)	0.200 (20%)	L	L
TL Defl inch	0.137 (L/1151)	7'2 5/16"	0.657 (L/240)	0.210 (21%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

REFER TO MULTIPLE MEMBER TO MEMBER PASS THRU FRAMING SQUASH

	PR	FESSI	ONAL	\
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1	N.A	EL-N	MASRI	ashi
9	(By	- A	THE PERSON	/
1	lug.	180F	20	[8]

Design Notes

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top braced at bearings.
- 5 Bottom braced at bearings.
- 6 Lateral slenderness ratio based on full section width.

O Lucoidi	Dictiacinioso rano bassa c	mi idii oodaaan maan.			1				
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0 0 0 to 12-9-4	(Span)1-1-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 13-9-0	(Span)0-10-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-4-9 to 8-9-13		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-4-9 to 8-9-13		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
5	Point	12-11-0		Far Face	610 lb	1457 lb	0 lb	0 lb	F14
	Self Weight				8 PLF				

Notes

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

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

 LVL beams must not be cut or drilled

 Refer to manufacturer's product information
 regarding installation requirements, multi-ply
 festening details, beam strength values, and code
 approvals

 Dameged Beams must not be used

- Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

This design is valid until 7/10/2021

Forex

APA: PR-L318

Manufacturer Info





Project:

Address:

Date: 8/13/2018

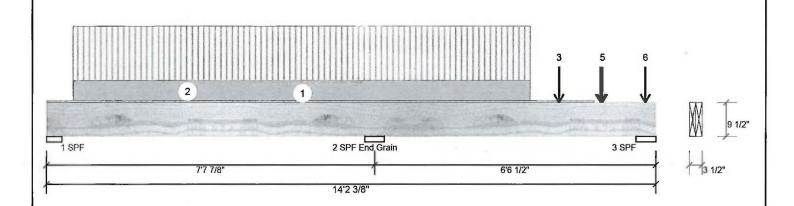
Designer: **RCO**

Job Name: HEMLOCK 4-1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" 2-Ply - PASSED Level: Second Floor



Member Info	rmation			Unfacto	red React	tions U	NPATTERN	ED IP ((Uplift
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	w
Plies:	2	Design Method:	LSD	1	746		302		0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	2663		1074		0
Deflection LL:	360	Load Sharing:	No	3	1644		700		0
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal	Vibration:	Not Checked						
General Load									
Floor Live:	40 PSF			Bearing:	s and Fac	tored I	Reactions		
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total	Ld. Ca
				1 - SPF	4.375"	17%	369 / 1266	1635	L_

Ana	lysis	Resu	ts
-----	-------	------	----

Γ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Neg Moment	-3841 ft-lb	7'7 7/8"	22724 ft-lb	0.169 (17%)	1.25D+1.5L	LL
	Unbraced	-3841 ft-lb	7'7 7/8"	22724 ft-lb	0.169 (17%)	1.25D+1.5L	LL
	Pos Moment	3116 ft-lb	11'11 7/16"	22724 ft-lb	0.137 (14%)	1.25D+1.5L	_L
l	Unbraced	3116 ft-lb	11'11 7/16"	22724 ft-lb	0.137 (14%)	1.25D+1.5L	_L
	Shear	3612 lb	13' 1/8"	9277 lb	0.389 (39%)	1.25D+1.5L	L
	Perm Defl in.	0.010 (L/9038)	3'7"	0.245 (L/360)	0.040 (4%)	D	Uniform
	LL Defl inch	0.034 (L/2632)	3'9 11/16"	0.245 (L/360)	0.140 (14%)	L	L_
	TL Defl inch	0.043 (L/2040)	3'9 1/8"	0.368 (L/240)	0.120 (12%)	D+L	L_
۲							

Design Notes

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top braced at bearings.
- 5 Bottom braced at bearings.

6 Lateral slenderness ratio based on full section width

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT **CONTAINS SPECIFICATIONS AND CRITERIA** USED IN THE DESIGN OF THIS COMPONENT.

30%

1360 / 4048

865 / 2699

5408 LL

3563 _L

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

2-SPF 5.500"

3 - SPF 5.500"

End Grain



Ld. Comb. 1.25D+1.5L

1.25D+1.5L

1.25D+1.5L

6 Lateral	sienderness ratio based o	on full section width.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-9-4	(Span)0-4-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-7-7 to 11-3-7		Far Face	107 PLF	286 PLF	0 PLF	0 PLF	
3	Point	11-11-7		Far Face	125 lb	334 lb	0 lb	0 lb	19
4	Point	12-11-0		Near Face	473 lb	1103 lb	0 lb	0 lb	F14
5	Point	12-11-7		Far Face	116 lb	286 lb	0 lb	0 lb	J6

Continued on page 2...

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

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

Handling & Installation

- andling & Installation
 LVL beams must not be cut or drilled
 Refer to manufacturer's product information regarding installation requirements, multi-pit distenting details, beam strength values, and code approvals
 Damaged Beams must not be used
 Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid lateral displacement and rotation

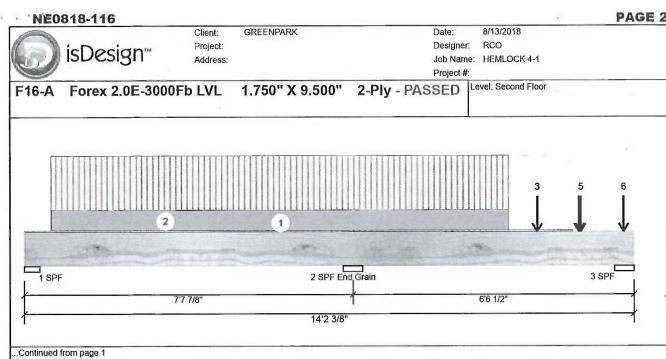
For flat roofs provide proper drainage to prevent ponding

APA: PR-L318

Manufacturer Info



Page 2 of 2



Continued fron	n page 1									
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
6	Point	13-11-7		Far Face	79 lb	191 lb	0 lb	0 lb	J6	
	Self Weight				8 PLF					

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

Lumber

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

chemicals

Handling & Installation

1. LVL beams must not be cut or drilled

2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastering details, beam strength values, and code

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

5. Provide lateral support at bearing points to avoid isteral displacement and rotation

This design is valid until 7/10/2021

Manufacturer Info For flat roofs provide proper drainage to prevent ponding

Forex APA: PR-L318





CITY OF BRAMPTO BUILDING DIVISION REVIEWED

All work shall conform to the Ontari

Engineered floor joists shall be installed Engineered moor joists snall be installed in accordance with the supplier's layout and sbecifications forming batt of the bermit grawings

Legend



Load from Above Wall Wall Opening Norbord Rimboard Plus 1.125 X 9.5 NJ 9.5 NJ60U 9.5 NJH 9.5

- 1. OBC 2012 O.Reg 332/12 as amended
- 3. LVL CCMC -14056-R
- 5. CCMC -12787-R APA PR-L310(C)

THIS CERTIFICATION IS TO CONFIRM THAT:

- 1. THE LOADS USED IN THE CALCULATION OF THE ATTACHED APPROVED COMPONENTS CONFORM TO THE FLOOR ASSEMBLY SHOWN ON THIS LAYOUT.
- 2. THE FLOOR JOISTS COMPLY WITH THE NASCOR SPAN TABLE FOR THE LOADS AND SPACING SHOWN ON THIS LAYOUT.

THE FLOOR SYSTEM MUST BE ASSEMBLED IN ACCORDANCE TO THE NASCOR SPECIFIER GUIDE, MULTI-PLY MEMBERS MUST BE ATTACHED TOGETHER AS PER THE INCLUDED MULTIPLE MEMBER CONNECTION DETAIL.

ALL OTHER COMPONENTS AND STRUCTURAL ELEMENTS SUPPORTING THE FLOOR SYSTEM SUCH AS BEAMS, WALLS, COLUMNS AND FOUNDATION WALLS AND FOOTINGS INCLUDING ANCHORAGE OF COMPONENTS AND BRACING FOR LATERAL STABILITY ARE THE RESPONSIBILITY OF OTHERS.



REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH

BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS **CALCULATION SUMMARY PAGE AS IT** CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Version 18.40.162 Powered by iStruct^{ng} This layout is to be used as an installation guide only. It is meant to be used in conjunction with the architectural and structural drawings, not to replace them JAN 05 2019

Ground Floor VL/LSL (Flush)

Label Description

Width Depth

Qty

Plies

Pcs Length

MARY FREN

Building Code O. Reg. 332/12 as amende Hanger

Forex 2.0E-3000Fb LVL 1.75 X 9.5

2. Nascor CCMC - 13535-R

4. CAN/CSA-086-09

F3 Forex 1.75 9.5 2 2.0E-3000Fb LVL Layout Name F2 6-0-0 Forex 1.75 9.5 HEMLOCK 4-1 & 4-2 2.0E-3000Fb LVL F17 1.75 9,5 Forex 2 2 4-0-0 Design Method 2.0E-3000Fb LVL LSD F1 1.75 4-0-0 Forex 95 2.0E-3000Fb LVL Description MINNISALE HOMES Joist (Flush) BRAMPTON, ONT. Label Description Width Qty Plies Pcs Length Depth F8 NJ 1.5 9.5 2 6 16-0-0 Revised F7 NJ 1.5 9.5 4 14-0-0 August 13, 2018 F6 NJ 1,5 9.5 2 4 4-0-0 Builder F5 NJ 1.5 9.5 2-0-0 GREENPARK J9 NJ60U 3.5 9.5 14 16-0-0 Sales Rep J7 NJ60U 3.5 9.5 2 14-0-0 RM J8 NJH 2.5 9,5 8 14-0-0 J4 NJH 4 12-0-0 Designer 2.5 9.5 J3 NJH 2.5 9.5 7 10-0-0 RCO J2 NJH 2.5 9.5 6 8-0-0 Shipping J1 NJH 2.5 9.5 2 6-0-0 Project Rim Board **Builder's Project** Pcs Length Label Description Width Depth Qty Plies R1 Norbord Rimboard 1.125 Kott Lumber Company 9.5 13 Plus 1.125 X 9.5 14 Anderson Blvd Stouffville, Ontario Beam/Girder Supported Canada Member 14A7X4 Label Pcs Description Skew Slope fasteners fasteners 905-642-4400 H1 6 LT2-159 4 10dx1 1/2 2 10dx1 1/2 Job Path H2 15 LT259 4 10dx1 1/2 2 10dx1 1/2 НЗ D:\Users\rochavillo\WORK FROM 3 LT359 4 10d 2 10dx1 1/2 HOME\GREENPARK\MINNISALE 1 HUCQ1.81/9-HOMES\HEMLOCK 4\HEMLOCK 4-SDS \FLOOR\REV\HEMLOCK 4-1.isl H6 2 MIT49.5 4 10dx1 1/2 4 10dx1 1/2 **Ground Floor** H8 1 L90 Design Method LSD NOTES: Building Code NBCC 2010 / OBC Framer to verify dimensions on the architectural drawings. 2012 2. Double joist only require filler/backer ply when supporting Floor another member using a face-mounted hanger. Loads Install 2x4 blocking @ 24" o/c under parallel non-load bearing walls. Live 40 4. Install single-ply flush window header along inside face of

Refer to Multiple Member Connection Detail to ply to ply nailing or

. Squash blocks recommended to be installed at end bearing on

all first level joists which support loading from above exceeding

8. It shall be the framer's responsibility that floor joists and beams are

. Refer to Nascor specifier guide for installation works.

Load transfer blocks to be installed under all point loads.

fastened as per the hanger manufacturer's standards.

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than rim depth @ 16" o/c). All other components and structural elements supporting the floor system such as beams, walls, columns, and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of Others

Hatch area represents ceramic tiled floor with an additional dead load of 5 PSF

The framing shown on this layout may deviate from the architectural and structural drawings. Project Engineer to review and approve the deviation prior to construction

ARCHITECTURAL DRAWINGS

VA3 DESIGN

rimboard/rimioist.

two levels floor or roof.

255 Consumers Rd., Suite 120, Toronto, ON Date: Rev.6; July 23,2018 Project No: 18012

Model: Hemlock 4

Dead

Deflection Joist

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

Decking

Thickness

Fastener

Vibration

Deck

Deflection Girder

PAGE 3 OF 24

18-41/411.000.00RR FLOOR JOIST



15

480

360

480

360

360

240

480

360

3/4"

SPF Plywood

Nailed & Glued

Second Floor Flush BBO R1 BBO Flush BBO 11111111111111111 (2x 8 Framing) J4-C F14-A - 2 pty

Legend

Load from Above Norbord Rimboard Plus 1.125 X 9.5 NJ40U 9.5 NJ60U 9.5 **NJH 9.5** Forex 2.0E-3000Fb LVL 1.75 X 9.5

- 1. OBC 2012 O.Reg 332/12 as amended
- 2. Nascor CCMC 13535-R
- 3. LVL CCMC -14056-R
- 4. CAN/CSA-086-09
- 5. CCMC -12787-R APA PR-L310(C)

THIS CERTIFICATION IS TO CONFIRM THAT:

- 1. THE LOADS USED IN THE CALCULATION OF THE ATTACHED APPROVED COMPONENTS CONFORM TO THE FLOOR ASSEMBLY SHOWN ON THIS LAYOUT.
- 2. THE FLOOR JOISTS COMPLY WITH THE NASCOR SPAN TABLE FOR THE LOADS AND SPACING SHOWN ON THIS LAYOUT.

THE FLOOR SYSTEM MUST BE ASSEMBLED IN ACCORDANCE TO THE NASCOR SPECIFIER GUIDE. MULTI-PLY MEMBERS MUST BE ATTACHED TOGETHER AS PER THE INCLUDED MULTIPLE MEMBER CONNECTION DETAIL.

ALL OTHER COMPONENTS AND STRUCTURAL ELEMENTS SUPPORTING THE FLOOR SYSTEM SUCH AS BEAMS, WALLS, COLUMNS AND FOUNDATION WALLS AND FOOTINGS INCLUDING ANCHORAGE OF COMPONENTS AND BRACING FOR LATERAL STABILITY ARE THE RESPONSIBILITY OF OTHERS.



REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

READ ALL NOTES ON THIS PAGE AND ON **ENGINEERING NOTE PAGE ENP-2. THIS** NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT **CONTAINS SPECIFICATIONS AND CRITERIA** USED IN THE DESIGN OF THIS COMPONENT.

										PAGE 20	OF 24
Second						1/27					
	SL (Flu		1			~	1		(, u	MIAC	COR
	Descr		Width	De	pth	Qty	Plies	Pcs	Length	MAS	COL
F16	Forex 2.0E-3	3000Fb LVL	1.75		9.5	1	2	2	16-0-0		
F15	Forex		1.75		9.5	1	2	2	14-0-0	Layout Name HEMLOCK 4-1 &	4-2
F14	Forex		1.75		9.5	1	2	2	8-0-0	Design Method	-
Joist	(Flush)							-	.1	LSD	
Label	` '	-	Width	De	pth	Qty	Plies	Pcs	Length	Revised	
J6	NJ40L	<u>י</u>	3.5		9.5			9	16-0-0	August 13, 2018	
J5	NJ40U		3.5		9.5			5	14-0-0		
J9	NJ60U	J	3.5		9.5		-	15	16-0-0		
J8 J4	NJH	-	2.5	_	9.5		\vdash	17	14-0-0		•
J3 ·			2.5	_	9.5		+ -	7	10-0-0		
Rim Bo				_	0.0			-	1000	ONLEN AND	
	Descr	ription	Width	De	pth	Qty	Plies	Pcs	Length	Sales Rep	
R1	Norbor	rd Rimboard	-	_	9.5			13	12	RM	
	Plus 1.	.125 X 9.5		L_,						Designer	
Hanger	r					-		-		RCO	
						Ве	am/Girder		pported lember	Shipping	
Label	Pcs	Descriptio	n S	kew	Slop	¬ f	asteners		steners	Project	
H2	7	LT259	1 0.	YEAA	Slob	_	10dx1 1/2	_	0dx1 1/2	Builder's Project	
H3	11	LT359				+	4 10d	_	0dx1 1/2	Kott Lumber	Company
H5	2	HGUS410					46 16d		16 16d	14 Anderson Blvd	
H7	1	Unknown								Stouffville, Ontario	
		Hanger	$\overline{}$							Canada	
NOTES:	:									L4A 7X4	
1. Fram	er to ve	rify dimensio	ns on the	arch	itectura	al drawi	ngs.			905-642-4400	
2. Doubl-	le joist o	only require fi	iler/backe	r ply	when s	supporti				Job Path	
		ber using a facking @ 24"					earing wal	le		D:\Users\rochavillo	
4. Install	I single-p	ply flush wind						.5.		HOME\GREENPA	RK\MINNISALE K 4\HEMLOCK 4-1
	ard/rimjo			- 6-10						\FLOOR\REV\HEN	
		cor specifier g s recommen					aring on			Second Floor	
all firs	st level jo	oists which su								Design Method	LSD
two le	evels floo	or or roof.								Building Code N	
		blocks to be framer's res						۵		Dunaning Code	2012
		er the hange					1 Dealing an	3		Floor	
										Loads	
Refer to bolting re		e Member Co nents	nnection	Detai	to ply	to ply n	iailing or			Live	40
										Dead	15
		oists: 1-1/8" r							1	Deflection Joist	
		" o/c). All oth loor system s							670	LL Span L/	480
		and footings						ıd		TL Span L/	360
		al stability are						4		LL Cant 2L/	480
∐atch ar	roa ronn	esents ceram	ois tilad fla	- OF W	th on a	delions	doed lose	an .		TL Cant 2L/	360
of 5 PSF		sents ceran	IIC illeu no	OI WI	(f) an a	Quilona	il Geau ivau	1		Deflection Girder	
										LL Span L/	360
		own on this la							- melas	TL Span L/	240
to constr		rawings. Proj	ect Engar	ser to	Hevier	/ allu a	pprove me	deviation	y buo!	LL Cant 2L/	480
										TL Cant 2L/	360
ARCHIT	ECTUR	AL DRAWIN	GS:					1		Decking	CDC Dlawood
VA3 DES	SIGN							- 1		Deck	SPF Plywood
		Rd., Suite 12	20, Toront	10,0	4			- 1		Thickness	5/8"
Date: Re	ev.2; May	y 18,2018								Fastener	Nailed & Glued
Project N Model: H										Vibration Ceiling:	Gypsum 1/2"
MODGEL.	ICHINOCK	. **								r Cellina:	GVOSUIII 1/2

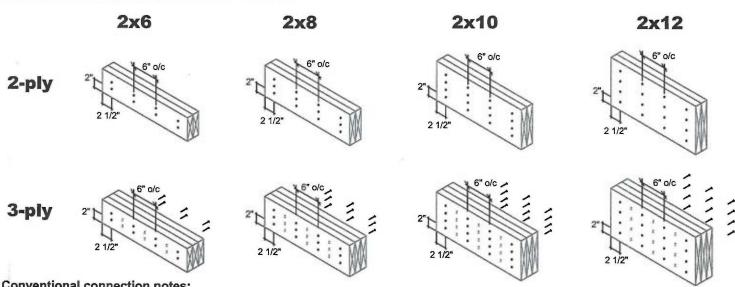


LTIPLE MEMBER CONNECTIONS

MODEL HEMLOCK 4-1 & 4-2

36R EL. 2 -

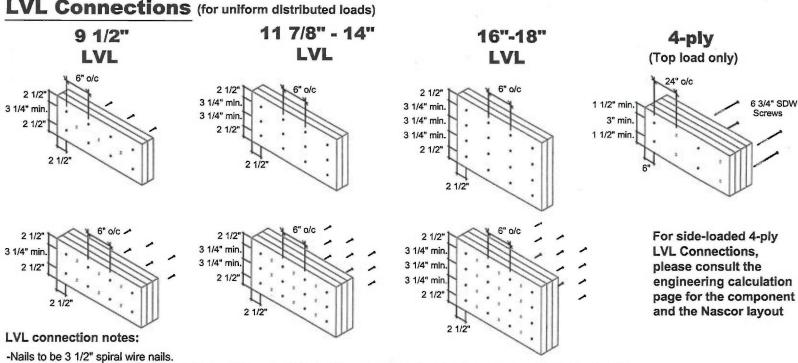
Conventional Connections (for uniform distributed loads)



Conventional connection notes:

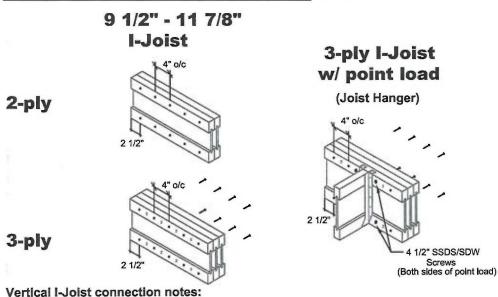
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

LVL Connections (for uniform distributed loads)



- -Nails to be located a minimum of 2 1/2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Minimum 3 1/4" spacing between rows.
- -Number of rows and spacing as per details shown, unless noted otherwise. - "X" represents nail or screw driven from the opposite side.

Vertical I-Joist Connections (for uniform distributed loads)



Vertical I-Joist connection notes:

- -Nails to be 3" spiral wire nails.
- -Nails to be located at centre of top and bottom flanges. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.



KOTT 3228 Moodle Drive Ottawa, ON **K2H7V1** Ph: 613-838-2775 Fx: 613-838-4751

MULTI-PLY CONNECTION **DETAILS**

Date: November 30, 2016

Scale: NTS