Engineering Note Page (ENP-2)

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

REVISION 2009-10-09
BL-1 - LOT 35R

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.



TIPLE MEMBER CONNECTIONS

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

Conventional Connections (for uniform distributed loads)

2x6

2x8

2x10

2x12

2-ply







3-ply









Conventional connection notes:

-Nalls to be 3* 10d spiral wire nalls.

-Nalls 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 nall driven from the opposite side.

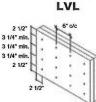
LVL Connections (for uniform distributed loads)

9 1/2"



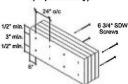
LVL

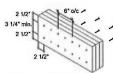
11 7/8" - 14"

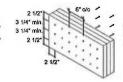


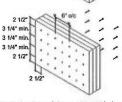
16"-18"

4-ply (Top load only)









For side-loaded 4-ply LVL Connections, please consult the engineering calculation page for the component and the Nascor layout

LVL connection notes:

-Nails to be 3 1/2" spiral wire nails.

-Nalis to be 312 spiral wire hairs.
-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.
-Nalimum 3 1/4* spacing between rows.
-Number of rows and specing 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)

9 1/2" - 11 7/8"

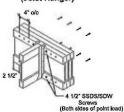
I-Joist





w/ point load (Joist Hanger)

3-ply I-Joist



3-ply

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.

-

3228 Moodle Drive Ottawa, ON K2H 7V1 Ph: 613-838-2775

MULTI -PLY CONNECTION DETAILS

81

JM

JT-A

JB-L

J9-M

Ground Floor

Layout Name HEMLOCK 4-1 & 4-2 Design Method LSD

Description MINNISALE HOMES BRAMPTON, ONT.

August 13, 2018 GREENPARK

Sales Rep RM 4 12-0-0 Designer RCO

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 HOMES\HEMLOCK 4\HEMLOCK 4-1 VFLOOR\REVHEMLOCK 4-1.isl

Building Code NBCC 2010 / OBC

LSD

2012

40

15

480

360

480

360

360

240

480

360

3/4"

4 10dx1 1/2 4 10dx1 1/2 Ground Floor Design Method

> Floor Loads

Live Dead

Deflection Joist LL Span L/ TL Span L/

LL Cant 2L/ TL Cant 2L/ Deflection Girder

LL Span L/ TL Span L LL Cant 2L/ TL Cant 2L/

Decking SPF Plywood Thickness

Fastener Nailed & Glued Vibration

LVL/LSL (Flush) Width Depth | Qty | Plies | Pcs | Length Label Description Forex 2.0E-3000Fb LVL 1.75 Forex 2.0E-3000Fb LVI 6-0-0 Forex 2.0E-3000Fb LVL 4-0-0 F1 Forex 2.0E-3000Fb LVL Joist (Flush) Label Description F8 NJ Width Depth Qty Plies Pcs Length 1.5 9.5 6 16-0-0 Revised F7 NJ 4 14-0-0 F6 NJ 1.5 9.5 4 4-0-0 Builder 4 2-0-0 F5 NJ 15 9.5 9.5 14 16-0-0 J9 NJ60U J7 NJ60U 3.5 9.5 J8 NJH J4 NJH 9.5 8 14-0-0 2.5 9.5 2.5 9,5 J3 NJR 7 10-0-0 6 8-0-0 Shipping J2 NJH 2 6-0-0 Project J1 NJH 2.5 9.5 Rim Board Pcs Length Width Depth Qty Plies Label Description Norbord Rimboard Plus 1,125 X 9.5 R1 1.125 9.5

Hange

Ground Floor

Label Pcs Description
H1 6 LT2-159 Skew Slope fastenors fasteners 4 10dx1 1/2 2 10dx1 1/2 H2 15 LT259 4 10dx1 1/2 2 10dx1 1/2 H3 3 LT359 H4 1 HUCQ1.81/9 2 10dx1 1/2 4 10d

HB 1 L90 NOTES:

Framer to verify dimensions on the architectural drawings. Doubte joist only require filter/backer ply when supporting another member using a face-mounted hanger.
 Install 2x4 blocking @ 24" ofc under parallel non-load bearing walls.

SDS

2 MIT49.5

- 4. Install single-ply flush window header along inside face of
- rimboard/rimjoist. i. Refer to Nascor specifier guide for installation works. i. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exce two levels floor or roof.
- two levels floor of root.

 Load transfer blocks to be installed under all point loads.

 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 bolting requirements.

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

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

ARCHITECTURAL DRAWINGS:

VA3 DESIGN 255 Consumers Rd., Suite 120, Toronto, ON Date: Rev.6; July 23,2018 Project No: 18012 Model: Hemlock 4

Legend 1111111

Load from Above Wall Opening Norbord 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
- A 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.

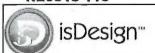
THE FLOOR SYSTEM MUST BE ASSEMBLED IN ACCORDANCE TO THE NASCOR SPECIFIER GUIDE. MULTI-PLY MEMBERS MUST BE ATTACHED TOGETHER AS PER THE INCLUDED MULTIPLE MEMBER CONNECTION DETAIL.

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.



Client:

GREENPARK

Project: Address:

8/13/2018 Date:

Designer: RCO

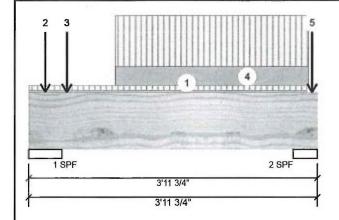
Job Name: HEMLOCK 4-1

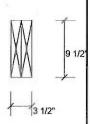
Project #:

F17-A Forex 2.0E-3000Fb LVL 1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor





Wind

0

0

lember Info	rmation			Unfacto	red React	ions U	NPATTERN	ED lb (Uplift)
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow
Plies:	2	Design Method:	LSD	1	3366		1381	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1027		414	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load		N 14 PK - 24 KE						
Floor Live:	40 PSF			Bearings	and Fact	tored F	Reactions	
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total Ld. Case

nalysis Results				New Teach			
	2 - SPF	4.000"	24%	517 / 1541	2059 L	L	1.25D+1.5L
	1 - SPF	5.500"	62%	1726 / 5049	6775	L	1.25D+1.5L
Dead: 15 PSF	Bearing	Length	Cap. I	React D/L lb	Total	Ld. Case	Ld. Comb.

An

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

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

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



/ Latera	Sterideniess ratio based o	ii idii Scollott Matti.								
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...

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.

chemicals Handling & Installation

- LVL beams must not be cut or drilled
 Refer to manufacture's product inform regarding installation requirements, multastenting details, beam strength values, and
- fastening outers, source approvals approvals Demaged 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

This design is valid until 7/10/2021

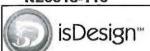
APA: PR-L318

Manufacturer Info

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



Page 2 of 2



Client:

GREENPARK

Project: Address:

Date: 8/13/2018

Designer: **RCO**

Job Name: HEMLOCK 4-1

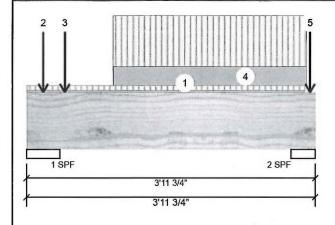
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor



9 1/2

.Continued from page 1

ID Load Type 5 Point

Self Weight

3-10-14

Location Trib Width

Near Face

Dead 188 lb

Live 468 lb Snow 0 lb Wind Comments F1 0 lb

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 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

- tVL beams must not be cut or drilled
 Refer to manufacturer's product information regarding installation requirements, mutti-ply fastening 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

This design is valid until 7/10/2021

APA: PR-L318

Manufacturer Info

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





Client:

GREENPARK

Project: Address: Date:

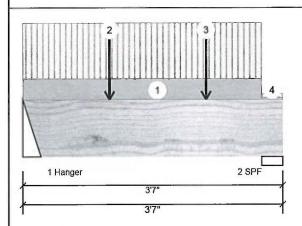
8/13/2018

Designer: **RCO**

HEMLOCK 4-1 Job Name:

Project #.

1.750" X 9.500" - PASSED Level: Ground Floor Forex 2.0E-3000Fb LVL



Nember Infor	mation			Unfactored Reactions UNPATTERNED Ib (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	N	Wind
Plies:	1	Design Method:	LSD	1	701		283		0	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	684		278		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 Fact	ored l	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - Hanger	3.000"	36%	353 / 1052	1405	L	1.25D+1.5L
nalysis Resul	lts			2-SPF	3.500"	36%	348 / 1027	1374	L	1.25D+1.5L

Actual 1147 ft-lb	Location 1'8 7/16"		Capacity	Comb.	Case
	1'8 7/16"	11362 ff-lh	0 404 4400()		
444760		11302 11-10	0.101 (10%)	1.25D+1.5L	L
1147 ft-lb	1'8 7/16"	9778 ft-lb	0.117 (12%)	1.25D+1.5L	L
1015 lb	2'6 3/4"	4638 lb	0.219 (22%)	1.25D+1.5L	L
0.003 (L/11424)	1'9 1/16"	0.106 (L/360)	0.030 (3%)	D	Uniform
0.008 (L/4633)	1'9 1/16"	0.106 (L/360)	0.080 (8%)	L	L
0.012 (L/3296)	1'9 1/16"	0.158 (L/240)	0.070 (7%)	D+L	L
	1015 lb 0.003 (L/11424) 0.008 (L/4633)	1015 lb 2'6 3/4" 0.003 1'9 1/16" (L/11424) 0.008 (L/4633) 1'9 1/16"	1015 lb 2'6 3/4" 4638 lb 0.003 1'9 1/16" 0.106 (L/360) (L/11424) 0.008 (L/4633) 1'9 1/16" 0.106 (L/360)	1015 lb 2'6 3/4" 4638 lb 0.219 (22%) 0.003 1'9 1/16" 0.106 (L/360) 0.030 (3%) (L/11424) 0.008 (L/4633) 1'9 1/16" 0.106 (L/360) 0.080 (8%)	1015 lb 2'6 3/4" 4638 lb 0.219 (22%) 1.25D+1.5L 0.003 1'9 1/16" 0.106 (L/360) 0.030 (3%) D (L/11424) 0.008 (L/4633) 1'9 1/16" 0.106 (L/360) 0.080 (8%) 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.



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				

Design Notes

1 Fill all hanger nailing holes.

4 Bottom braced at bearings.

3 Top braced at bearings.

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

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

chemicals Handling & Installation

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

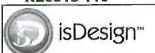
For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario 14A7X4





Client:

GREENPARK

Project: Address:

8/13/2018 Date:

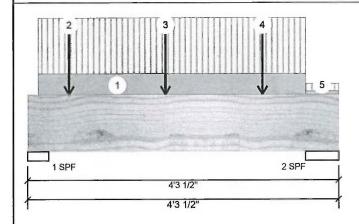
Designer: **RCO**

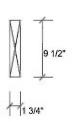
HEMLOCK 4-1 Job Name:

Project #:

Forex 2.0E-3000Fb LVL F2-A

1.750" X 9.500" - PASSED Level: Ground Floor





Mem	DOP	Into	rms	ation
HAICHI	761			

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

40 PSF 15 PSF

Application: Design Method:

Building Code: Load Sharing:

Floor (Residential)

NBCC 2010 / OBC 2012 No

Not Checked Deck: Vibration: Not Checked

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
۰							

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.

Γ	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 intended application, and to verify the dimensions and loads.

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

chemicals

Handling & Installation

- LVI. beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code
- resterning detens, beauti satelight values, and approvals
 Damaged Beams must not be used
 Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Onlario 14A7X4







Client:

GREENPARK

Project: Address: Date:

8/13/2018

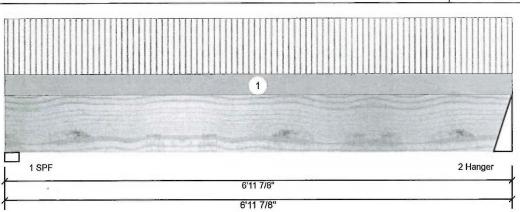
Level: Ground Floor

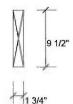
RCO Designer:

Job Name: HEMLOCK 4-1

Project #:

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





Wind

0

0

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

Unfactored Reactions UNPATTERNED Ib (Uplift) Member Information Type: Girder Application: Floor (Residential) Brg Live Dead Snow Plies: Design Method: 1 57 35 0 Moisture Condition: Dry **Building Code:** NBCC 2010 / OBC 2012 58 35 0 2 Deflection LL: 360 Load Sharing: No Deflection TL: 240 Deck: Not Checked Vibration: Not Checked Importance: Normal General Load 40 PSF Bearings and Factored Reactions Floor Live: Cap. React D/L lb 15 PSF Bearing Length Total Ld. Case Dead: 5% 43 / 86 129 L 1 - SPF 2.375" 3% 131 L 2 -3.000" 44 / 87 **Analysis Results** Hanger Comb. Case Location Allowed Capacity Actual Analysis 206 ff-lb 3'5 5/8" 11362 ft-lb 0.018 (2%) 1.25D+1.5L L Moment READ ALL NOTES ON THIS PAGE AND ON

0.037 (4%) 1.25D+1.5L L 3'5 5/8" 5592 ft-lb Unbraced 206 ft-lb 94 lb 6' 1/8" 4638 lb 0.020 (2%) 1.25D+1.5L L Shear Perm Defi in. 0.002 3'5 5/8" 0.222 (L/360) 0.010 (1%) D Uniform (L/37066) LL Defl inch 0.004 3'5 5/8" 0.222 (L/360) 0.020 (2%) L L (L/22480)3'5 5/8" 0.333 (L/240) 0.020 (2%) D+L TL Defl inch 0.006 L (L/13993)

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	
	Self Weight				4 PLF				

Calculated Shuchred Designs is responsible only of the structural adequacy of this component based on like 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

chemicals

Handling & Installation

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

maged Beams must not be used

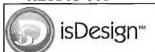
Design assumes top edge is laterally restrain Provide lateral support at bearing points lateral displacement and rotation

For flat roofs provide proper drainage to prevent poorling.

Manufacturer Info Forex APA: PR-L318

Kott Lumber Company 14 Anderson Blyd, Onlario 905-642-4400





Client:

GREENPARK

Project: Address:

8/13/2018

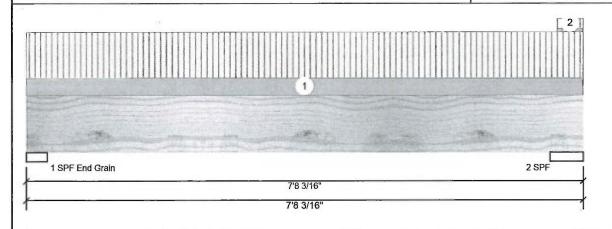
Designer: **RCO** Job Name: HEMLOCK 4-1

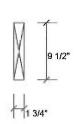
Level: Ground Floor

Date:

Project #:

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





IRAA	mber	100	NEWSON	TIAN
HVIE	muer	11111	31 III G	IUUII

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

Building Code: Load Sharing:

NBCC 2010 / OBC 2012 No

Not Checked Deck: Vibration: Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
Brg 1	567	229	0	0
2	604	243	0	0

Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1884 ft-lb	3'9 1/8"	11362 ft-lb	0.166 (17%)	1.25D+1.5L	L
Unbraced	1884 ft-lb	3'9 1/8"	5281 ft-lb	0.357 (36%)	1.25D+1.5L	L
Shear	1064 lb	1' 1/4"	4638 lb	0.229 (23%)	1.25D+1.5L	L
Perm Defl in.	0.016 (L/5227)	3'9 1/8"	0.235 (L/360)	0.070 (7%)	D	Uniform
LL Defl inch	0.040 (L/2105)	3'9 1/8"	0.235 (L/360)	0.170 (17%)	L	L
TL Defl inch	0.056 (L/1501)	3'9 1/8"	0.353 (L/240)	0.160 (16%)	D+L	L

Bearings and Factored Reactions

2 - SPF 5.500"

Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF End Grain	3.500"	25%	286 / 851	1137	L	1.25D+1.5L	

304 / 907

1210 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.

20%



1.25D+1.5L

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	0-0-0 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.

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

chemicals

Handling & Installation

- LVI. beams must not be cut or drilled Refer to manufacturer's product informati regarding installation requirements, multi-fastening details, beam strength values, and co
- approvals
 Damaged Beams must not be used
 Design essumes top edge is laterally restrained
 Provide lateral support at bearing points to
 lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info APA: PR-L318

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



NJ

F5-A

9.500"

Client:

GREENPARK

2-Ply - PASSED

Project: Address: Date: Designer:

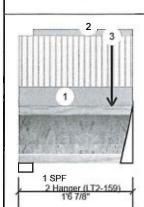
8/13/2018

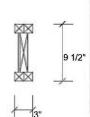
RCO

HEMLOCK 4-1 Job Name:

Project #:

Level: Ground Floor





Wind

0

0

0

Member	Informa	tion

1'6 7/8

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

15 PSF

Application: Design Method:

Building Code:

Load Sharing:

Deck:

Vibration:

Floor (Residential) LSD NBCC 2010 / OBC 2012

No Not Checked Not Checked 1 2

Hanger

Unfactored Reactions UNPATTERNED Ib (Uplift) Brg Live Dead Snow

31

66

65

134

1	Bearing	s and Fac	tored l	Reactions			
Ì	Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
l	1 - SPF	2.375"	5%	39 / 98	137	L	1.25D+1.5L
1	2-	2.000"	11%	82 / 201	283	L	1.25D+1.5I

Analysis Results

Design Notes

Dead:

Г	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
ı	Moment	52 ft-lb	1' 1/16"	7340 ft-lb	0.007 (1%)	1.25D+1.5L	L.
ı	Unbraced	52 ft-lb	1' 1/16"	6912 ft-lb	0.008 (1%)	1.25D+1.5L	L
ı	Shear	268 lb	1'5 5/8"	3080 lb	0.087 (9%)	1.25D+1.5L	L
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 (L/37041)	11 11/16"	0.067 (L/240)	0.010 (1%)	D+L	L

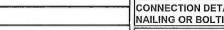
READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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

Manufacturer Info

Nascor by Kott

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



3 Multiple plies must be fastened together as per manufacturer's details. 4 Top loads must be supported equally by all plies.

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

5 Top flange braced at bearings.

1 Fill all hanger nailing holes.

6 Bottom flange braced at bearings.

O DOMOIN	mango pracoa at boarings.								
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	0-2-6 to 1-6-14		Тор	8 PLF	0 PLF	0 PLF	0 PLF	
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 hiended application, and to verify the dimensions and loads.

Handling & Installation

- and limg & Installation.

 Juloist flanger must not be cut or drifled.
 Refer to latest copy of the IJoist product information details for framing details, stiffener tables, web hole-chart. bridging details, multi-ply fastening details and handling/erection details.

 Damaged IJoists 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 lengther—3.5 inches.
 For flat roofs provide proper drainage to prevent ponding.

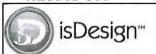
This design is valid until 7/10/2021



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







Client:

GREENPARK

Project: Address:

8/13/2018 Date:

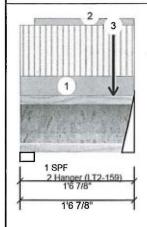
Designer: RCO

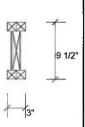
HEMLOCK 4-1 Job Name:

Project #:

2-Ply - PASSED 9.500" F5-B NJ

Level: Ground Floor





Member	Information

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

15 PSF

Application: Design Method:

Vibration:

Building Code:

Floor (Residential) LSD

Not Checked

NBCC 2010 / OBC 2012

Load Sharing: No Not Checked Deck:

Unfactored Reactions UNPATTERNED lb (Uplift)

org	Live	Dead	Show	VVIIIQ
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

Comments

0 lb .11

Analysis Results

Dead:

1	, many sis recourts									
ľ	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	267 lb	1'5 5/8"	3080 lb	0.087 (9%)	1.25D+1.5L	L			
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 (L/37157)	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.

Point

6 Bottom flange braced at bearings. Wind ID Trib Width Side Dead Live Load Type Location Snow 0-0-0 to 1-6-14 15 PSF 40 PSF 0 PSF 0 PSF 1 Tie-In (Span)3-3-0 Top Part. Uniform 0-2-7 to 1-6-14 8 PLF 0 PLF 0 PLF 0 PLF 2 Top

Near Face

3

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
 Upoist not to be treated with fire relandant or corrosive

Handling & Installation

1-3-7

- landling & Installation.

 Loist flanges must not be cut or drilled.
 Refer to latest copy of the Loist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-byly fastening details and handling/erection details.

 Demaged Loist must not be used.
 Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

47 lb

96 lb

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
 Por flat roots provide proper drainage to prevent ponding

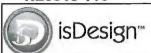
Manufacturer Info Nascor by Kott

0 lb

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







Client:

GREENPARK

Project: Address:

8/13/2018 Date:

Designer: **RCO**

Job Name: HEMLOCK 4-1

Project #:

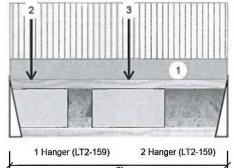
Brg

1

2

2-Ply - PASSED 9.500" NJ F6-A

Level: Ground Floor





Wind

ED PROFESSIONAL PLA

N.A. EL-MASRI, S

T8: 2018

ay

0

0

2 Hanger (LT2-159)
1

Member Information							
Туре:	Girder	Application:	Floor (Residential)				
Plies:	2	Design Method:	LSD				
Moisture Condition:	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							
Floor Live:	40 PSF						
Dead:	15 PSF						

Bearings and Factored Reaction	ons

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

159

100

Snow

Live

426

266

Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 32% 2.000" 199 / 639 838 L 1.25D+1.5L Hanger 125 / 399 2 000" 20% 523 L 1.25D+1.5L Hanger

Analysis Results

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
Unbraced	598 ft-lb	1'7 9/16"	4678 ft-lb	0.128 (13%)	1.25D+1.5L	L
Shear	831 lb	1 1/4"	3080 lb	0.270 (27%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/19712)	1'7 9/16"	0.093 (L/360)	0.020 (2%)	D	Uniform
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.



- 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	0-3-9		Near Face	84 lb	225 lb	0 lb	0 lb	J7	
3	Point	1-7-9		Near Face	136 lb	362 lb	0 lb	0 lb	J7	

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. If 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

Handling & Installation

- Handling & Installation

 1. Noted Inages must not be cut or drilled

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

 3. Damaged IJoists must not be used

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

- Provide fateral 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 for flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Ontario 14A7X4







Client:

GREENPARK

Project: Address:

8/13/2018 Date:

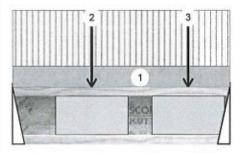
RCO Designer:

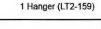
Job Name: HEMLOCK 4-1

Project #:

2-Ply - PASSED NJ 9.500" F6-B

Level: Ground Floor





2 Hanger (LT2-159)

3 3'



m a K	
Mamhar	Information
ITTICITIOCI	monnacion

Type:	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: NBCC 2010 / OBC 2012 **Building Code:** Load Sharing:

Deck: Not Checked Vibration: Not Checked

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	283	106	0	0
2	353	132	0	0

Analysis Results

Floor Live:

Dead:

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
TL Defl inch	0.005 (L/6284)	1'1 3/8"	0.140 (L/240)	0.040 (4%)	D+L	L

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	21%	133 / 424	557	L	1.25D+1.5L
2 - Hanger	2.000"	27%	165 / 529	694	L	1.25D+1.5L

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.

		9								
I) Loa	d Type Locatio	n Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Tie-l	In 0-0-0 to 3-0	0 (Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Poin	it 1-1	-2	Far Face	111 lb	296 lb	0 lb	0 lb	J4	
3	Poin	it 2-5	-2	Far Face	88 lb	235 lb	0 lb	0 lb	J4	

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 corre

chemicals.

Handling & Installation

- andling & Installation.

 Joist flanges must not be cut or drised.
 Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-phy fastening details and handling-frection details.

 Damaged Lobists 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 load bearing length>= 3.5 inches
 For first roofs provide proper drainage to prevent ponding

Nascor by Kott

Manufacturer Info

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







Client:

GREENPARK

Project: Address: Date: Designer:

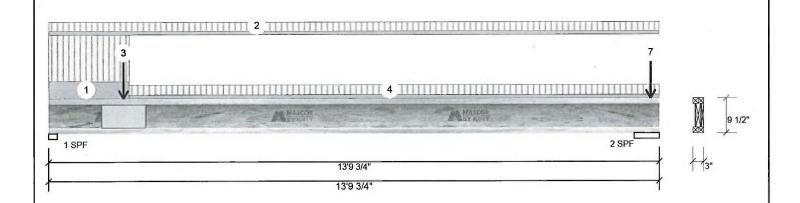
8/13/2018

RCO HEMLOCK 4-1 Job Name:

Project #

9.500" 2-Ply - PASSED NJ F7-A

Level: Ground Floor



Member Infor	nation			Unfactore	d React	ions UI	NPATTERNI	D lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	V	Wind
Plies:	2	Design Method:	LSD	1	578		216		0	0
Moisture Condition	: Dry	Building Code:	NBCC 2010 / OBC 2012	2	423		219		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 a	and Fact	tored R	eactions			
Dead:	15 PSF			Bearing L	ength	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
A . I D										

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Ana	IVSIS	Kesu	ιτs

Design Notes

Т	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.

Unfactored Reactions UNPATTERNED lb (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.



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

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

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 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 inlended application, and to verify the dimensions and loads.

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

chemicals

Handling & Installation

- andling & Installation

 Jiost flanges must not be cut or dilled

 Refer to latest copy of the IJoist product information
 details for training details, sufferer tables, web note
 chart, bridging details, multi-by fastening details and
 handling/erection details

 Damaged IJoists 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 fait roofs provide proper drainage to prevent pondling.

Manufacturer Info

Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Ontario 14A7X4 905-642-4400





Client:

GREENPARK

Project: Address:

8/13/2018 Date:

RCO

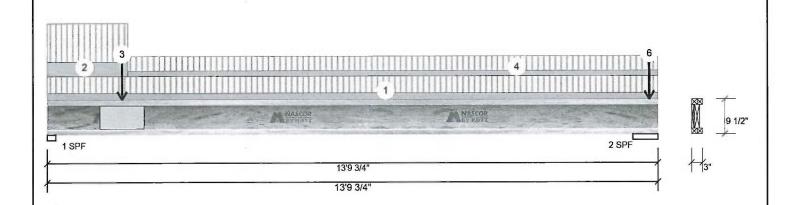
Designer: Job Name: HEMLOCK 4-1

Project #:

9.500" 2-Plv - PASSED NJ **F7-B**

Level: Ground Floor

Unfactored Reactions UNPATTERNED Ib (Uplift)



Member Infor	rmation			Unfactore	d React	ions U	NPATTERNI	ED lb ((Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	W	Wind
Plies:	2	Design Method:	LSD	1	677		254		0	0
Moisture Condition	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							
General Load		The same								
Floor Live:	40 PSF			Bearings a	and Fac	tored l	Reactions			
Dead:	15 PSF			Bearing L	ength	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1-SPF 2	2.375"	50%	317 / 1016	1334	L	1,25D+1,5L
				2-SPF 6	3.875"	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.

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.



3 Top loads must be supported equally by all plies.

4 Top flange must be laterally 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

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

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

chemicals

Handling & Installation

- Handling & Installation

 1. Joist flanges must not be cut or drilled

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

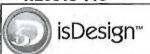
 3. Damaged Lobists must not be used

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

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

Manufacturer Info Nascor by Kott

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



Client:

GREENPARK

Project: Address:

8/13/2018 Date:

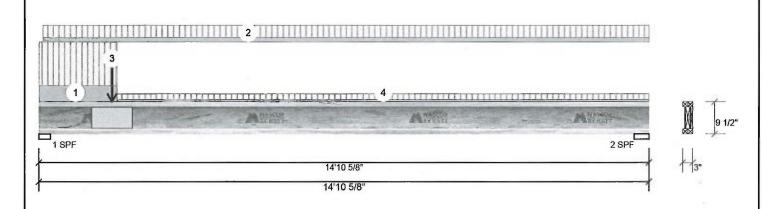
RCO Designer:

Job Name: HEMLOCK 4-1

Project #:

9.500" 2-Ply - PASSED F8-A NJ

Level: Ground Floor



Member Inform	nation			Unfactored Reactions UNPATTERNED Ib (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	W	Wind
Plies:	2	Design Method:	LSD	1	678		254		0	0
Moisture Condition:	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 l	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	3.500"	45%	317 / 1017	1334	L	1.25D+1.5L
				2-SPF	4.375"	16%	118 / 377	495	L	1.25D+1.5L
malucic Docult	c									

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.

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

3 Top loads must be supported equally by all plies.

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

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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) 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	F6
4	Tie-In	1-11-0 to 14-10-10	(Span)0-5-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

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

- Handling & Installation

 1. Joist flanges must not be cut or drilled

 2. Refer to latest copy of the Lioist product information details for framing details, stiffner tables, web hole chart, bridging details, multi-ply fastening details end handling/erection details

 3. Damaged Lolais must not be used

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

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

Manufacturer Info

Nascor by Kott

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





Client:

GREENPARK

Project: Address:

8/13/2018 Date:

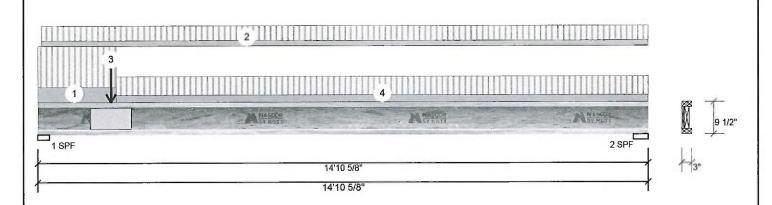
Designer: **RCO**

HEMLOCK 4-1 Job Name:

Project #:

9.500" 2-Ply - PASSED NJ F8-B

_evel: Ground Floor



Nember Inforr	nation			Unfactor	ed Reac	tions U	NPATTERN	ED lb (Uplift)	
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	and Fac	tored I	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
				2-SPF	4.375"	28%	202 / 647	849 L	1.25D+1.5L

Analysis Results

Design Notes

A	nalysis	Actual	Location	Allowed	Capacity	Comb.	Case
٨	/loment	3182 ft-lb	6'9 9/16"	7340 ft-lb	0.434 (43%)	1.25D+1.5L	L
ι	Inbraced	3182 ft-lb	6'9 9/16"	3222 ft-lb	0.988 (99%)	1.25D+1.5L	L
S	Shear	1330 lb	2 3/4"	3080 lb	0.432 (43%)	1.25D+1.5L	L
F	erm Defl in.	0.088 (L/1948)	7'2 5/8"	0.478 (L/360)	0.180 (18%)	D	Uniform
L	L Defl inch	0.236 (L/731)	7'2 5/8"	0.478 (L/360)	0.490 (49%)	L	L
Т	L Defl inch	0.324 (L/531)	7'2 5/8"	0.718 (L/240)	0.450 (45%)	D+L	L

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

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

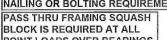
3 Top loads must be supported equally by all plies.

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

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.

BLOCK IS REQUIRED AT ALL POINT LOADS OVER REARINGS



5 Bottom	flange braced at bearir	igs.				I OHI LOND	OUTLIVEL	AITHITOO.	
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 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

- Handling & Installation

 1. Upist flanges must not be cut or drilled

 2. Refer to latest copy of the Libits product information details for framing details, sufferier tables, web hole chart, bridging details, multi-py fostening details end handling/erection details

 3. Damaged lobits must not be used

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

- Provide lateral support at bearing points to avoid taleral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing lengther 3.5 inches
 For fair roofs provide proper drainage to prevent ponding

Manufacturer Info

Nascor by Kott

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



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Aug 18, 2018

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Client:

GREENPARK

Project: Address: Date:

8/13/2018

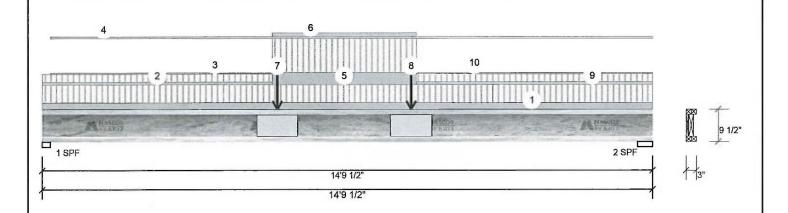
RCO Designer:

Job Name: HEMLOCK 4-1

Project #:

9.500" 2-Ply - PASSED F8-C NJ

Level: Ground Floor



Member Inforr	nation			Unfactored Reactions UNPATTERNED Ib (Uplift)							
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	v	Wind	
Plies:	2	Design Method:	LSD	1	375		183		0	0	
Moisture Condition	: Dry	Building Code:	NBCC 2010 / OBC 2012	2	380		186		0	0	
Deflection LL:	360	Load Sharing:	No	0.75							
Deflection TL:	240	Deck:	Not Checked	į							
Importance:	Normal	Vibration:	Not Checked								
General Load						_					
Floor Live:	40 PSF			Bearings	and Fac	tored	Reactions				
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
				1 - SPF	2.375"	29%	229 / 562	791	L	1.25D+1.5L	
				2-SPF	4.500"	26%	233 / 570	803	L	1.25D+1.5L	

Analysis Results

Design Notes

Г	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 (1/1477)	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 (L/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.



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.

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.

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...

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.

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

chemicals

Handling & Installation

- Handling & Installation

 1. Joist flanges must not be cut or drilled

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

 3. Damaged foliotist must not be used

 4. 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 sittleners for point load as shown Minimum point load bearing length>= 3.5 inches
 7. For flat roofs provide proper drainage to prevent ponding.

Manufacturer Info Nascor by Kott

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



Centinued from page 1

Page 2 of 2



Client:

GREENPARK

Project: Address:

8/13/2018 Date:

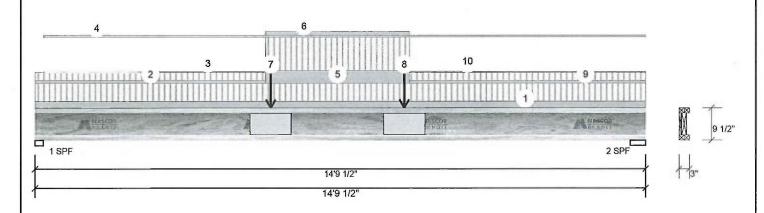
RCO

Designer: Job Name: HEMLOCK 4-1

Project #:

2-Ply - PASSED F8-C NJ 9.500"

Level: Ground Floor



ŀ	Commueu nom p	age i								
ı	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
ı	8	Point	8-11-6		Near Face	66 lb	133 lb	0 lb	0 lb	F5
ı	9	Tie-In	9-0-14 to 14-9-8	(Span)0-4-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
ı	10	Part. Uniform	9-0-14 to 14-9-8		Тор	1 PLF	0 PLF	0 PLF	0 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.

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
 Upist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

- Handling & Installation

 1. Libist flarges must not be cut or drilled

 2. Refer to latest copy of the IJoist product information details for framing details, stifferer tables, web hote chart, bridging details, multi-ply testening details and handling/erection details

 3. Damaged lobists must not be used

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

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

This design is valid until 7/10/2021

Manufacturer Info Nascor by Kott

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

Legend

Load from Above Norbord Rimboard Plus 1.125 X 9.5 NJ40U 9.5 NJ60U 9.5

Forex 2.0E-3000Fb LVL 1.75 X 9.5

NJH 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-1,310(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.

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F16	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	16-0-0
F15	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	14-0-0
F14	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0
Joist (Flush)						
Label	Description	Width	Depth	Qty	Piles	Pcs	Length
J6	NJ40U	3.5	9.5			9	16-0-0
J5	NJ40U	3.5	9.5			5	14-0-0
J9	NJ60U	3.5	9,5			15	16-0-0
JB	NJH	2.5	9.5			17	14-0-0
J4	NJH	2.5	9.5			1	12-0-0
J3	NJH	2.5	9,5			7	10-0-0
Rim Bo	ard						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1,125 X 9,5	1.125	9.5			13	12

Skew Slope H2 7 LT259 H3 11 LT359 4 10dx1 1/2 2 10dx1 1/3 4 10d 2 10dx1 1/ H5 2 HGUS410 46 16d 16 16d Unknown

Beam/Girder

fasteners

Supported

Label Pcs Description

Hanger

- Framer to verify dimensions on the architectural drawings.
 Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
- 3. Install 2x4 blocking @ 24* o/c under parallel non-load bearing walls. 4. Install single-ply flush window header along inside face of
- 4. Install single-ply flush window header along inside face of rimboard/impiciet.
 5. Refer to Nascor specifier guide for installation works.
 5. 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.
 7. Load transfer blocks to be installed under all point loads.
- 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 bolting requirements

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than int depth @ 16" old). All other components and structural elements supporting the floor system such as beams, while, columns, and foundation walls and footings including enchorage of components and bracing for laterial 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 prior to construction

ARCHITECTURAL DRAWINGS:

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 NASCOD

23	Length					
23	16-0-0					
5	14-0-0	Layout Name HEMLOCK 4-1 & 4-2				
2	8-0-0	Design Method LSD				
cs	Length	Revised				
)	16-0-0	August 13, 2018				
5	14-0-0	Description				
5	16-0-0	MINNISALE HOMES				
7	14-0-0	BRAMPTON, ONT.				
7	12-0-0	Builder				
7	10-0-0	GREENPARK				
_		Sales Rep				
CS.	Length	RM RM				
3	12	7.0.1				
		Designer				
		RCO				
	ported	Shipping				
	omber	Project				
	teners	Builder's Project				
	dx1 1/2					
2 10	3dx1 1/2	Kott Lumber Company				
1	6 16d	14 Anderson Blvd				

905-642-4400 Job Path D:\Users\rochavillo\WORK FROM HOME\GREENPARKMINNISALE

Stouffville, Ontario Canada 1 4A 7X4

HOMES'HEMLOCK 4\HEMLOCK 4-\FLOOR\REV\HEMLOCK 4-1.isl

Second Floo	or
Design Method	LSC
Building Code	NBCC 2010 / OBC 2012
Floor	
Loads	
Live	40
Dead	15
Deflection Joi:	st
LL Span L/	480
TL Span L/	360
LL Cant 2L/	480
	200

Tt. Cant 2L/ Deflection Girder LL Span L/ 360 TL Span L/ 240 480 LL Cant 2L/ 360 TL Cant 2L/ Decking SPF Plywood Dock Thickness 5/8" Nailed & Glued Fastener Vibration Celling: Gypsum 1/2"



isDesign"

Client^{*} Project:

Address:

GREENPARK

8/13/2018 Date:

Designer: RCO

HEMLOCK 4-1 Job Name:

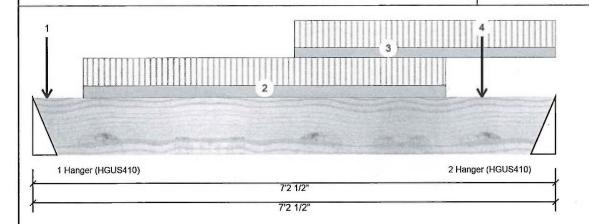
Project #

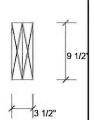
Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED F14-A

> Load Sharing: Deck:

Vibration:

Level: Second Floor





PAGE 21 OF 24

Member miorination							
Type:	Girder						
Plies:	2						
Moisture Condition:	Dry						
Deflection LL:	360						
Deflection TL:	240						
Importance:	Normal						
General Load							
Floor Live:	40 PSF						
Dead:	15 PSF						

Member Information

Application: Floor (Residential) Design Method: **Building Code:**

NBCC 2010 / OBC 2012

Not Checked Not Checked

Unfactor	ed Reactions	UNPATTERNED	lb (Uplift)
Brg	Live	Dead	Snow

Brg	Live	Dead	Snow	vvina
1	1103	473	0	0
2	1457	610	0	0

Bearings and Factored Reactions

Hanger

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	4.000"	22%	591 / 1655	2246	L	1.25D+1.5L
2	4 000"	28%	763 / 2185	2010	1	1 250+1 51

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
Unbraced	4254 ft-lb	4' 1/8"	21846 ft-lb	0.195 (19%)	1.25D+1.5L	L
Shear	2622 lb	6'1 3/4"	9277 lb	0.283 (28%)	1.25D+1.5L	L
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	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

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

NAILING OR BOLTING REQUIREMENTS.



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 braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on full section width.

ID	Load Type	Location Trib W	/idth Side	Dead	Live	Snow	Wind	Comments
1	Point	0-2-6	Near Face	63 lb	169 lb	Q 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 ib	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 inlended application, and to verify the dimensions and loads.

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

chemicals

Handling & Installation

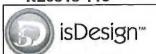
- LVL beams must not be cut or drilled
 Refer to manufacturer's product information
 regarding installation requirements, multi-ply
 fastening details, beam strength values, and code
- Tastering accura-approvals
 Damaged Beams must not be used
 Design assumes top edge is laterally restrained
 Provide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

This design is valid until 7/10/2021

Manufacturer Info APA: PR-L318

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





Client:

GREENPARK

Project: Address:

8/13/2018 Date:

Designer: **RCO**

Job Name: HEMLOCK 4-1

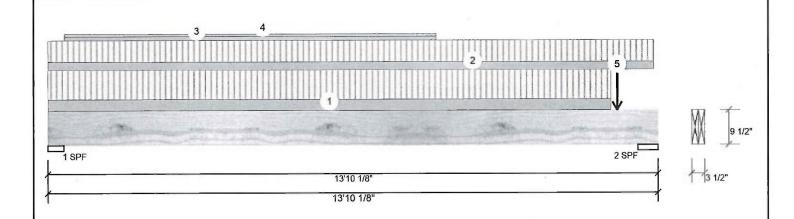
Project #:

Forex 2.0E-3000Fb LVL F15-A

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor



Member Information			Unfactore	Unfactored Reactions UNPATTERNED lb (Uplift)					
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Sn	ow	Wind
Plies:	2	Design Method:	LSD	1	334	209		0	0
Moisture Condition	on: 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 a	and Fact	ored Reaction	ns		
Dead:	15 PSF			Bearing L	ength	Cap. React D	/L lb Tota	Ld. Case	Ld. Comb.
				1 - SPF 4	.375"	8% 261	/ 501 76	1 L	1.25D+1.5L
				2-SPF 5	.500"	29% 934 /	2476 341) L	1.25D+1.5L
1 D									

			_
Λ	l i .	Resu	4-
Ana	IVSIS	Resu	i LS

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
	Unbraced Shear Perm Defl in. LL Defl inch	Moment 2858 ft-lb Unbraced 2858 ft-lb	Moment 2858 ft-lb 8' 15/16" Unbraced 2858 ft-lb 8' 15/16" Shear 3357 lb 12'7 7/8" Perm Defl in. 0.050 (L/3160) 7'1 1/4" LL Defl inch 0.087 (L/1811) 7'2 7/8"	Moment 2858 ft-lb 8' 15/16" 22724 ft-lb Unbraced 2858 ft-lb 8' 15/16" 19311 ft-lb Shear 3357 lb 12'7 7/8" 9277 lb Perm Defl in. 0.050 (L/3160) 7'1 1/4" 0.438 (L/360) LL Defl inch 0.087 (L/1811) 7'2 7/8" 0.438 (L/360)	Moment 2858 ft-lb 8' 15/16" 22724 ft-lb 0.126 (13%) Unbraced 2858 ft-lb 8' 15/16" 19311 ft-lb 0.148 (15%) Shear 3357 lb 12'7 7/8" 9277 lb 0.362 (36%) Perm Defl in. 0.050 (L/3160) 7'1 1/4" 0.438 (L/360) 0.110 (11%) LL Defl inch 0.087 (L/1811) 7'2 7/8" 0.438 (L/360) 0.200 (20%)	Moment 2858 ft-lb 8' 15/16" 22724 ft-lb 0.126 (13%) 1.25D+1.5L Unbraced 2858 ft-lb 8' 15/16" 19311 ft-lb 0.148 (15%) 1.25D+1.5L Shear 3357 lb 12'7 7/8" 9277 lb 0.362 (36%) 1.25D+1.5L Perm Defl in. 0.050 (L/3160) 7'1 1/4" 0.438 (L/360) 0.110 (11%) D LL Defl inch 0.087 (L/1811) 7'2 7/8" 0.438 (L/360) 0.200 (20%) 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 lb (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.



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 stenderness ratio based on full section width

o Laterai	Sienderness ratio paseu c	AT THE SECTION WILLIAM.								
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					

Colculated 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

chemicals

Handling & Installation

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

Manufacturer Info APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A7X4 905-642-4400



Client:

Address:

GREENPARK

Project:

Date:

8/13/2018 **RCO**

Page 1 of 2

Designer: Job Name: HEMLOCK 4-1

Project #:

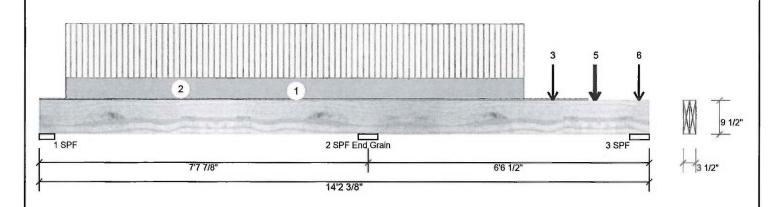
Forex 2.0E-3000Fb LVL F16-A

1.750" X 9.500"

2-Ply - PASSED

End Grain 3 - SPF 5.500"

Level: Second Floor



Member Info	ormation			Unfacto	red Reac	tions U	NPATTERN	ED lb	(Uplift)
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	w
Plies:	2	Design Method:	LSD	1	746		302		0
Moisture Conditi	ion: 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	1					
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
				1-SPF	4.375"	17%	369 / 1266	1635	L_
				2-SPF	5.500"	38%	1360 / 4048	5408	LL

Analysis Results	Ana	lysis	Resul	ts
------------------	-----	-------	-------	----

Ī	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
	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_

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%

865 / 2699

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.



Ld. Comb. 1.25D+1.5L 1.25D+1.5L

1.25D+1.5L

o Lateral s	sienderness ratio based c	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	J9
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
1									

Continued on page 2...

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

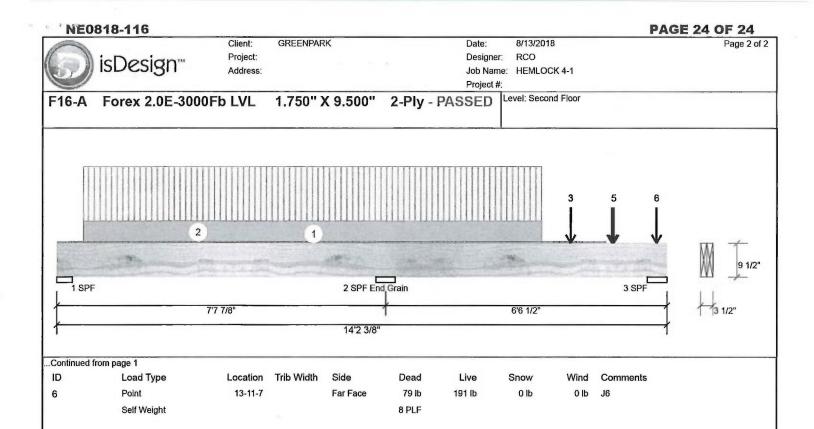
- LVL beams must not be cut or drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code
- approvals
 Damaged Beams must not be used
 Design assumes top edge is laterally restrained
 Provide lateral support at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

6. For flat roofs provide proper drainage to prevent

This design is valid until 7/10/2021

Manufacturer Info Forex APA: PR-L318

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



Notes	
structur design respons ensure	ted Structured Designs is responsible only of the air adequacy of this component based on it criteria and loadings shown. It is the ability of the customer and/or the contractor to the component suitability of the Intende ion, and to verify the dimensions and loads.

Lumber

Handling & Installation

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

Idsuremy vectors, approvals

3. Damaged Beams must not be used

4. Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

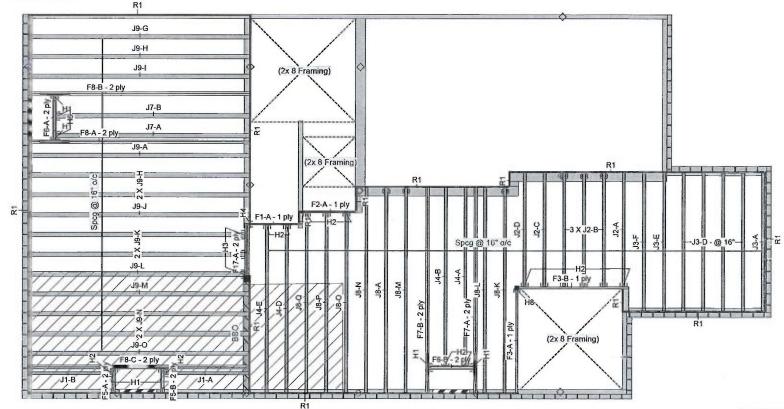
APA: PR-L318

Manufacturer Info

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



Ground Floor



Legend



Load from Above Wall Wall Opening Norbord Rimboard Plus 1,125 X 9,5 NJ 95 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.

CALCULATION SUMMARY PAGE AS IT USED IN THE DESIGN OF THIS COMPONENT.

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

CITY OF BRAMPTON **BUILDING DIVISION** REVIEWED JAN 0 9 2019 MARY FREWETTE

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F3	Forex 2.0E-3000Fb LVL	1.75	9.5			2	8-0-0
F2	Forex 2.0E-3000Fb LVL	1.75	9.5			1	6-0-0
F17	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	4-0-0
F1	Forex 2.0E-3000Fb LVL	1.75	9.5			1	4-0-0
l Joist ((Flush)						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F8	NJ	1.5	9.5	3	2	6	16-0-0
F7	NJ	1.5	9.5	2	2	4	14-0-0
F6	NJ	1.5	9.5	2	2	4	4-0-0
F5	NJ	1.5	9.5	2	2	4	2-0-0
19	NJ60U	3.5	9.5			14	16-0-0
J7	NJ60U	3.5	9.5		1 = 1	2	14-0-0
J8	NJH	2.5	9.5			8	14-0-0
J4	NJH	2.5	9.5			4	12-0-0
J3	NJH	2.5	9.5			7	10-0-0
J2	NJH	2.5	9.5			6	8-0-0
J1	NJH	2.5	9.5			2	6-0-0
Rim Bo	ard		w				
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			13	12

Hanger

					Beam/Girder	Supported Member
Label	Pcs	Description	Skew	Slope	fasteners	fasteners
H1	6	LT2-159			4 10dx1 1/2	2 10dx1 1/2
H2	15	LT259	12		4 10dx1 1/2	2 10dx1 1/2
H3	3	LT359			4 10d	2 10dx1 1/2
H4	1	HUCQ1.81/9- SDS				
H6	2	MIT49.5			4 10dx1 1/2	4 10dx1 1/2
H8	1	1.90				

NOTES:

- 1. Framer to verify dimensions on the architectural drawings.
- 2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
- . Install 2x4 blocking @ 24" o/c under parallel non-load bearing walls. I. Install single-ply flush window header along inside face of
- rimboard/rimioist. 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.
- Load 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 bolting requirements.

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

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 255 Consumers Rd., Suite 120, Toronto, ON Date: Rev.6; July 23,2018 Project No: 18012 Model: Hemlock 4

All work shall conform to the Ontario Building Code O. Reg. 332/12 as amended

Engineered floor joists shall be installed in accordance with the supplier's layout and specifications forming part of the permit drawings.

Layout Name HEMLOCK 4-1 & 4-2 Design Method LSD Description MINNISALE HOMES BRAMPTON, ONT. Revised August 13, 2018 Builder **GREENPARK** Sales Rep Designer **RCO** Shipping Project 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 HOMES\HEMLOCK 4\HEMLOCK 4-\FLOOR\REV\HEMLOCK 4-1.isl **Ground Floor** LSD

Design Method Building Code NBCC 2010 / OBC

Floor Loads Live Dead

Vibration

Deflection Joist LL Span L/ TL Span L/ LL Cant 2L/

40

15

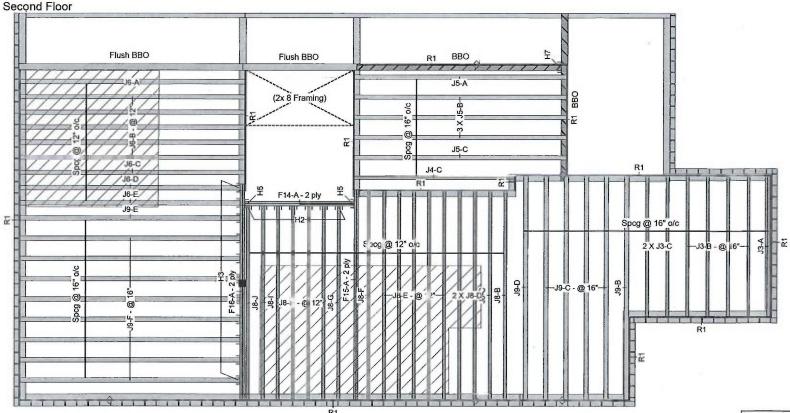
480

360

480

TL Cant 2L/ 360 Deflection Girder LL Span L/ 360 TL Span L/ 240 LL Cant 2L/ TL Cant 2L/ 360

Decking SPF Plywood Deck Thickness Nailed & Glued Fastener



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-O86-09
- 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.

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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.

Label	Description	Width	Depth	Qty	Plies	Pcs	Length	н
F16	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	16-0-0	
F15	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	14-0-0	1
F14	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0	I
I Joist (Flush)							1.
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	1
J6	NJ40U	3.5	9.5			9	16-0-0	L
J5	NJ40U	3.5	9.5			5	14-0-0	1
J9	NJ60U	3.5	9.5			15	16-0-0	1
J8	NJH	2.5	9.5			17	14-0-0	1
J4	NJH	2.5	9.5			1	12-0-0	E
J3	NJH	2.5	9.5			7	10-0-0	1
Rim Bo	ard	100] ;
Label	Description	Width	Depth	Qty	Plies	Pcs	Length	1,
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			13	12	1

					Beam/Girder	Supported Member
Label	Pcs	Description	Skew	Slope	fasteners	fasteners
H2	7	LT259			4 10dx1 1/2	2 10dx1 1/2
Н3	11	LT359			4 10d	2 10dx1 1/2
H5	2	HGUS410			46 16d	16 16d
H7	1	Unknown Hanger				

- Framer to verify dimensions on the architectural drawings.
- 2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
- . Install 2x4 blocking @ 24" o/c under parallel non-load bearing walls.
- 1. Install single-ply flush window header along inside face of rimboard/rimjoist.
- . 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. Load transfer blocks to be installed under all point loads.
- 3. 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 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 addtional dead load

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

16-0-0	
14-0-0	Layout Name HEMLOCK 4-1 & 4-2
8-0-0	Design Method LSD
T	Revised
Length	
16-0-0	August 13, 2018
14-0-0	Description
16-0-0	MINNISALE HOMES
14-0-0	BRAMPTON, ONT.
12-0-0	Builder
10-0-0	GREENPARK
	Sales Rep
Length	Odies Nep

Designer **RCO**

Shipping Project

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 HOMES\HEMLOCK 4\HEMLOCK 4-\FLOOR\REV\HEMLOCK 4-1.isl

Second Floor Design Method

Building Code NBCC 2010 / OBC 2012 Floor Loads

40

15

480

360

480

360

360

240

480

Live Dead Deflection Joist LL Span L/ TL Span L/

LL Cant 2L/ TL Cant 2L/ Deflection Girder LL Span L/ TL Span L/ LL Cant 2L/

TL Cant 2L/ 360 Decking Deck SPF Plywood Thickness

Nailed & Glued Fastener Vibration

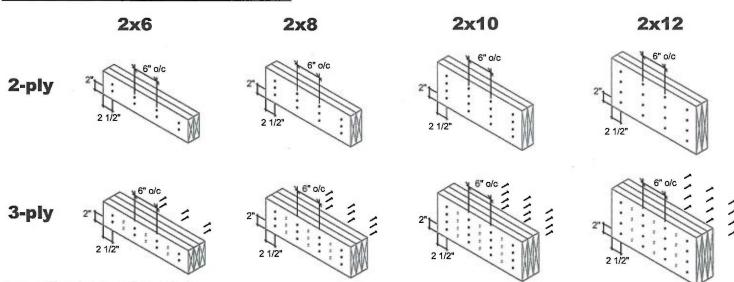


MULTIPLE MEMBER CONNECTIONS

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

EL. 1 -LOT 35R

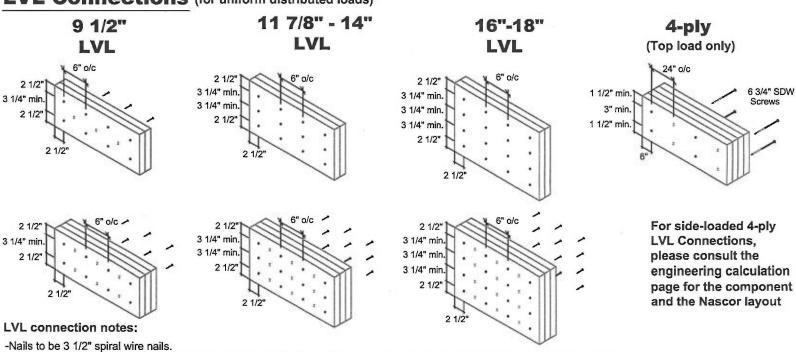
Conventional Connections (for uniform distributed loads)



Conventional connection notes:

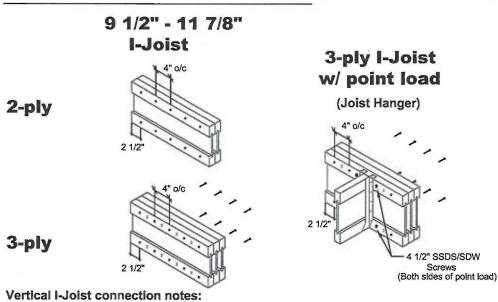
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

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)



- -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.



MULTI -PLY CONNECTION DETAILS

> Date: November 30, 2016 Scale: NTS

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