NE0618-022 PAGE 1 OF 30

## **Engineering Note Page (ENP-2)**

**REVISION 2009-10-09** 

## 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 <a href="http://www.nascor.ca">http://www.nascor.ca</a>.

## <u>CODE</u>

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**

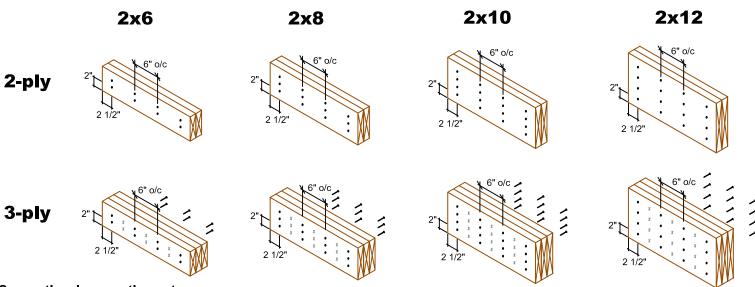
Do not drill any hole, cut or notch a certified building component without a written preauthorization.



NE0618-022 PAGE 2 OF 30

# **MULTIPLE MEMBER CONNECTIONS**

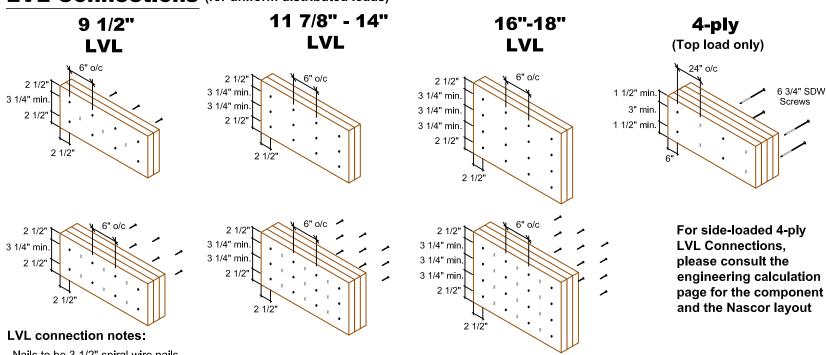
# Conventional Connections (for uniform distributed loads)



## **Conventional connection notes:**

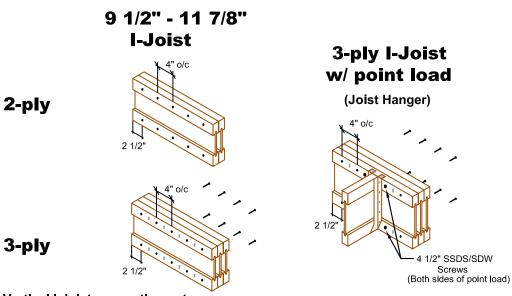
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

# LVL Connections (for uniform distributed loads)



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

# Vertical I-Joist Connections (for uniform distributed loads)

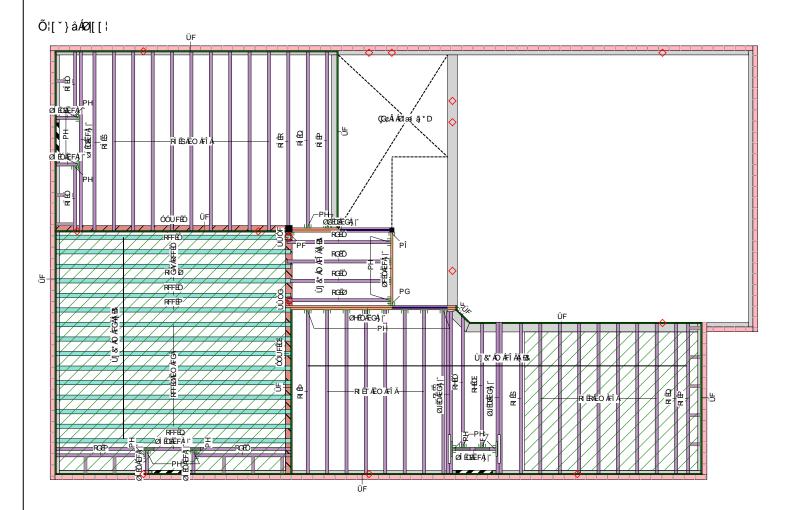


# **Vertical I-Joist connection notes:**

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



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## 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.

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.



# Legend



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### ÞUVÒÙK

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## ΆÖPQYÖÖVWÜŒŚÄÖÜŒY ŒÞÖÚK

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PAGE 4 OF 30 NE0618-022



Client: **GREEN YORK HOMES** 

Address:

Project:

5/31/2018

Designer: RCO

Job Name: LIANA 3 (ELEV.1)

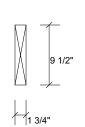
Level: Ground Floor

Project #:

### 1.750" X 9.500" - PASSED Forex 2.0E-3000Fb LVL F1-B

2 1 Hanger (HUS1.81/10) 2 Hanger 5' 5/8'

5' 5/8'



Page 1 of 1

## Member Information

Туре:	Girder	Application:	Floor (Residential)
Plies:	1	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		

## **Unfactored Reactions UNPATTERNED Ib (Uplift)**

	Wind	Snow	Dead	Live	Brg
	0	0	136	338	1
	0	0	127	314	2
0		0	127	314	2

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	716 ft-lb	2'6 7/16"	11362 ft-lb	0.063 (6%)	1.25D+1.5L	L
Unbraced	716 ft-lb	2'6 7/16"	7908 ft-lb	0.091 (9%)	1.25D+1.5L	L
Shear	672 lb	11 3/4"	4638 lb	0.145 (14%)	1.25D+1.5L	L
Perm Defl in.	0.003 (L/17255)	2'6 7/16"	0.156 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.008 (L/6957)	2'6 7/16"	0.156 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.011 (L/4958)	2'6 7/16"	0.234 (L/240)	0.050 (5%)	D+L	L

## **Bearings and Factored Reactions**

Bearing Leng	jth Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - 3.000 Hanger	)" 17%	170 / 507	677	L,	1.25D+1.5L	
2 - 3.000 Hanger	)" 16%	159 / 471	629	L	1.25D+1.5L	

# **Design Notes**

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

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Point	0-4-6		Far Face	48 lb	128 lb	0 lb	0 lb	J2	
2	Part. Uniform	1-0-6 to 3-8-6		Far Face	52 PLF	139 PLF	0 PLF	0 PLF		
3	Point	4-4-6		Far Face	57 lb	153 lb	0 lb	0 lb	J2	
	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 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 ponding

Manufacturer Info

APA: PR-L318







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Simpson Strong-Tie®

Client:

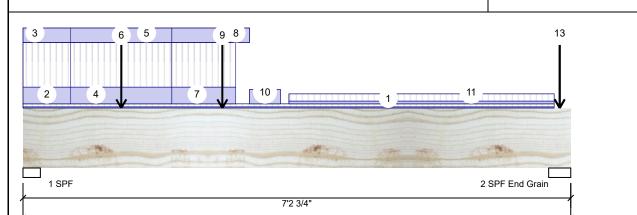
Project: Address: **GREEN YORK HOMES** Date: 5/31/2018 Designer: RCO

Job Name: LIANA 3 (ELEV.1)

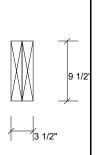
Level: Ground Floor

Project #:

### 1.750" X 9.500" 2-Ply - PASSED F2-A Forex 2.0E-3000Fb LVL



7'2 3/4"



Page 1 of 2

## Member Information

Type:	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		

## **Unfactored Reactions UNPATTERNED Ib (Uplift)**

Brg	Live	Dead	Snow	Wind
1	1088	645	0	0
2	1613	756	0	0

# **Bearings and Factored Reactions**

Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.750"	41%	807 / 1632	2438	L	1.25D+1.5L
2 - SPF End Grain	3.500"	37%	945 / 2419	3364	L	1.25D+1.5L

## **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3003 ft-lb	2'7 9/16"	22724 ft-lb	0.132 (13%)	1.25D+1.5L	L
Unbraced	3003 ft-lb	2'7 9/16"	21802 ft-lb	0.138 (14%)	1.25D+1.5L	L
Shear	1838 lb	11 1/2"	9277 lb	0.198 (20%)	1.25D+1.5L	L
Perm Defl in.	0.014 (L/5673)	3'1 13/16"	0.228 (L/360)	0.060 (6%)	D	Uniform
LL Defl inch	0.024 (L/3355)	3'1 9/16"	0.228 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.039 (L/2108)	3'1 5/8"	0.342 (L/240)	0.110 (11%)	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.



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 7-0-2	(Span)0-10-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-7-9		Тор	92 PLF	246 PLF	0 PLF	0 PLF	J8
3	Part. Uniform	0-0-0 to 0-7-9		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-7-9 to 1-11-9		Тор	92 PLF	246 PLF	0 PLF	0 PLF	J8
5	Part. Uniform	0-7-9 to 1-11-9		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

Continued on page 2...

### Notes

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

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 ponding

Manufacturer Info

APA: PR-L318







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**EWP Studio** Simpson Strong-Tie® Component Solutions™

Continued from page 1

Client: **GREEN YORK HOMES** Project:

Date: Designer:

5/31/2018 RCO

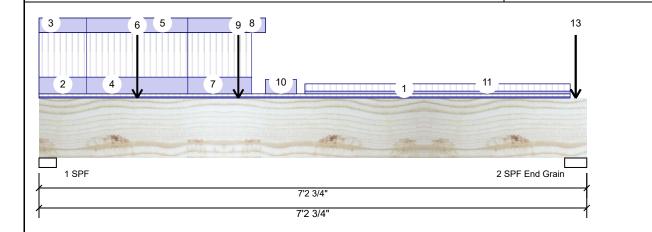
Job Name: LIANA 3 (ELEV.1)

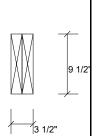
Project #:

1.750" X 9.500" 2-Ply - PASSED Forex 2.0E-3000Fb LVL F2-A

Address:

Level: Ground Floor





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l	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	6	Point	1-3-9		Far Face	121 lb	322 lb	0 lb	0 lb	J8
l	7	Part. Uniform	1-11-9 to 2-9-11		Тор	92 PLF	246 PLF	0 PLF	0 PLF	J8
l	8	Part. Uniform	1-11-9 to 2-11-14		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
l	9	Point	2-7-9		Far Face	93 lb	248 lb	0 lb	0 lb	J8
l	10	Part. Uniform	2-11-14 to 3-4-12		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
l	11	Part. Uniform	3-6-2 to 7-0-2		Тор	15 PLF	40 PLF	0 PLF	0 PLF	
l	12	Point	7-1-0		Near Face	127 lb	314 lb	0 lb	0 lb	F1
l	13	Point	7-1-0		Тор	379 lb	869 lb	0 lb	0 lb	C3
l		Self Weight				8 PLF				

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

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

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

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

## Handling & Installation

Handling & Installation

1. UVI beams must not be cut or drilled

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

Manufacturer Info

APA: PR-L318







NE0618-022 **PAGE 7 OF 30** 



Client: **GREEN YORK HOMES** 

Project: Address:

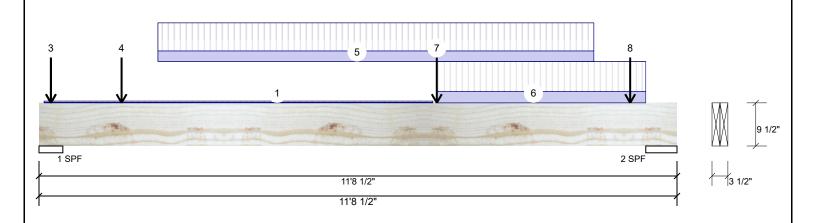
Date: 5/31/2018 Designer: RCO

Job Name: LIANA 3 (ELEV.1)

Project #:

1.750" X 9.500" Forex 2.0E-3000Fb LVL 2-Ply - PASSED F3-B

Level: Ground Floor



Member Infor	mation			Unfactored Reactions UNPATTERNED Ib (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow	Wind	
Plies:	2	Design Method:	LSD	1	1523		642	0	0	
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	2170		865	0	0	
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored F	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total Ld. Case	Ld. Comb.	
				1 - SPF	5.250"	27%	803 / 2285	3088 L	1.25D+1.5L	
Analysis Dasyl				2-SPF	6.875"	29%	1081 / 3255	4335 L	1.25D+1.5L	

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10162 ft-lb	6'11 3/4"	22724 ft-lb	0.447 (45%)	1.25D+1.5L	L
Unbraced	10162 ft-lb	6'11 3/4"	20411 ft-lb	0.498 (50%)	1.25D+1.5L	L
Shear	3978 lb	10'4 7/8"	9277 lb	0.429 (43%)	1.25D+1.5L	L
Perm Defl in.	0.091 (L/1425)	6'	0.361 (L/360)	0.250 (25%)	D	Uniform
LL Defl inch	0.227 (L/571)	6' 1/8"	0.361 (L/360)	0.630 (63%)	L	L
TL Defl inch	0.319 (L/408)	6' 1/8"	0.541 (L/240)	0.590 (59%)	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.



Page 1 of 2

/ Lateral diolide	mood ratio bacca cirr	an occion wiati.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-1-2 to 7-2-12	(Span)0-6-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-2-10		Тор	37 lb	99 lb	0 lb	0 lb	J11
3	Point	0-2-10		Тор	24 lb	0 lb	0 lb	0 lb	Wall Self Weight
4	Point	1-6-3		Near Face	103 lb	276 lb	0 lb	0 lb	J4
5	Part. Uniform	2-2-3 to 10-2-3		Near Face	84 PLF	224 PLF	0 PLF	0 PLF	

Continued on page 2...

### Notes

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

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 ponding

Manufacturer Info

APA: PR-L318







NE0618-022 **PAGE 8 OF 30** 

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** Project:

Date: 5/31/2018 Designer: Address:

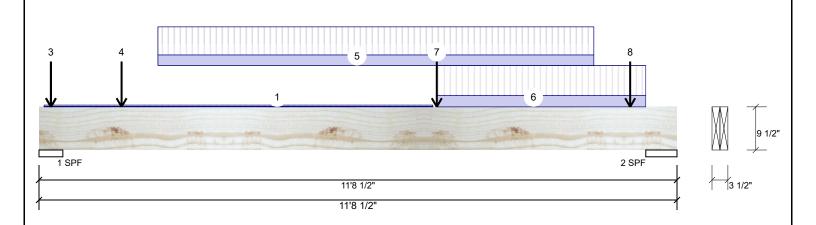
RCO

Job Name: LIANA 3 (ELEV.1)

Project #:

1.750" X 9.500" 2-Ply - PASSED Forex 2.0E-3000Fb LVL F3-B

Level: Ground Floor



Continued	Continued from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Part. Uniform	7-3-10 to 11-1-10		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
7	Point	7-3-10		Far Face	136 lb	338 lb	0 lb	0 lb	F1
8	Point	10-10-3		Near Face	73 lb	195 lb	0 lb	0 lb	J4
	Self Weight				8 PLF				

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

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

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

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

## Handling & Installation

- Handling & Installation

  1. UVI beams must not be cut or drilled

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

Manufacturer Info

APA: PR-L318



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





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**PAGE 9 OF 30** NE0618-022

2

2

Hanger



**EWP Studio** Simpson Strong-Tie® Client: **GREEN YORK HOMES** 

Project: Address:

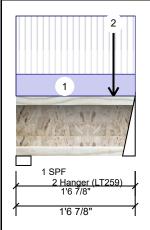
5/31/2018 Designer: RCO

Job Name: LIANA 3 (ELEV.1)

Level: Ground Floor

Project #:

### NJH 9.500" - PASSED F5-A



0

0

Wind

0

0

Page 1 of 1

Member	Information
--------	-------------

Type:	Girder	Application:	Floor (Residential)
Plies:	1	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		

### **Unfactored Reactions UNPATTERNED Ib (Uplift)** Brg Live Dead

23

43

62

115

Bearings	Bearings and Factored Reactions								
Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.			
1 - SPF	2.375"	8%	29 / 93	122	L	1.25D+1.5L			
2 -	2 000"	14%	53 / 173	226	1	1 25D+1 5I			

### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	43 ft-lb	11 9/16"	3830 ft-lb	0.011 (1%)	1.25D+1.5L	L
Unbraced	43 ft-lb	11 9/16"	3779 ft-lb	0.011 (1%)	1.25D+1.5L	L
Shear	213 lb	1'5 5/8"	1580 lb	0.135 (13%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.001 (L/31491)	11 3/8"	0.044 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/22944)	11 3/8"	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 Top flange unbraced.
- 4 Bottom flange braced at bearings.

	3							
ID	Load Type	Location Trib Widt	h Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-14 (Span)3-2	-8 Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-3-7	Far Face	28 lb	76 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. 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
- Handling & Installation
- IARIGHING & INSEGUATION

  Lodist flanges must not be cut or drilled

  Refer to latest copy of the IJoist product information details for framing details, suffiener 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 sheathing or as specified in engineering notes.
- 5. Provide lateral support at bearing points to avoid
- lateral displacement and rotation
  6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
  7. For flat roofs provide proper drainage to prevent populing.

Manufacturer Info

Nascor by Kott







NE0618-022 **PAGE 10 OF 30** 



# **EWP Studio**

Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** 

Project: Address:

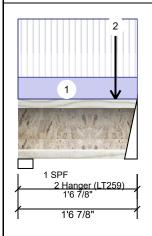
Date: 5/31/2018 Designer: RCO

Job Name: LIANA 3 (ELEV.1)

Level: Ground Floor

Project #:

### 9.500" - PASSED F5-B NJH



	Information
Type:	Girder

Plies:	1
	•
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application: Floor (Residential) Design Method: **Building Code:** NBCC 2010 / OBC 2012 Load Sharing: No

Deck: Not Checked Vibration: Not Checked

## **Unfactored Reactions UNPATTERNED Ib (Uplift)**

1	62	23	0	0
1 2	113	43	0	0

# **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	43 ft-lb	11 1/2"	3830 ft-lb	0.011 (1%)	1.25D+1.5L	L
Unbraced	43 ft-lb	11 1/2"	3779 ft-lb	0.011 (1%)	1.25D+1.5L	L
Shear	210 lb	1'5 5/8"	1580 lb	0.133 (13%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.001 (L/31811)	11 3/8"	0.044 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/23114)	11 3/8"	0.067 (L/240)	0.010 (1%)	D+L	L

**Bearings and Factored Reactions** 

Bearing	Length	Сар. кеа	ICT D/L ID	iotai	Ld. Case	La. Comb.	
1 - SPF	2.375"	8%	29 / 92	121	L	1.25D+1.5L	
2 - Hanger	2.000"	14%	53 / 170	223	L	1.25D+1.5L	

# **Design Notes**

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

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

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

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



Wind

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-14	(Span)3-2-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-3-7		Near Face	28 lb	74 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 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

### Handling & Installation

- IARIGHING & INSEGUATION

  Lodist flanges must not be cut or drilled

  Refer to latest copy of the IJoist product information details for framing details, suffiener 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 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 lengthp=3.5 inches
   For flat roofs provide proper drainage to prevent

Manufacturer Info

Nascor by Kott







**PAGE 11 OF 30** NE0618-022



**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** 

Project: Address:

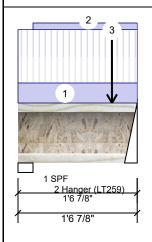
Date: 5/31/2018 Designer: RCO

Job Name: LIANA 3 (ELEV.1)

Level: Ground Floor

Project #:

### 9.500" - PASSED F5-C NJH



Member Into	rma	tio	r
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Girder

Type

Type.	Gildei
Plies:	1
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application: Floor (Residential) Design Method: **Building Code:** NBCC 2010 / OBC 2012 No

Load Sharing: Not Checked Deck: Vibration: Not Checked

## **Unfactored Reactions UNPATTERNED Ib (Uplift)**

Brg	Live	Dead	Snow	Wind
1	70	33	0	0
2	141	69	0	0

## **Bearings and Factored Reactions**

Bearing Length	Cap. Re	eact D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF 2.375"	9%	42 / 106	147	L	1.25D+1.5L	
2 - 2.000" Hanger	19%	87 / 211	298	L	1.25D+1.5L	
папоеі						

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	63 ft-lb	1'1 1/8"	3830 ft-lb	0.016 (2%)	1.25D+1.5L	L
Unbraced	63 ft-lb	1'1 1/8"	3779 ft-lb	0.017 (2%)	1.25D+1.5L	L
Shear	283 lb	1'5 5/8"	1580 lb	0.179 (18%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/47832)	1' 5/8"	0.044 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/23647)	1' 5/8"	0.044 (L/360)	0.020 (2%)	L	L
TL Defl inch	0.001 (L/15824)	1' 5/8"	0.067 (L/240)	0.020 (2%)	D+L	L

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

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

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



## **Design Notes**

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-14	(Span)3-2-8	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	1-2-14		Near Face	54 lb	110 lb	0 lb	0 lb	J2

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

### Handling & Installation

- Handling & Installation

  1. Noist flanges must not be out or drilled

  2. Refer to latest copy of the IJoist product information details for framing details, stifferer 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 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 flat roofs provide proper drainage to prevent populing.

## Manufacturer Info

Nascor by Kott







NE0618-022 PAGE 12 OF 30



## **EWP Studio** Simpson Strong-Tie®

Client: **GREEN YORK HOMES** Project:

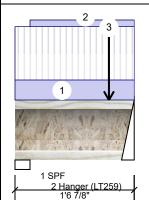
Address:

Date: 5/31/2018 Designer: RCO

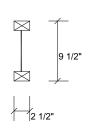
Job Name: LIANA 3 (ELEV.1)

Project #:

### 9.500" - PASSED F5-D NJH



Level: Ground Floor



## **Member Information** Type

1'6 7/8'

туре.	Olluci
Plies:	1
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application: Floor (Residential) Design Method: **Building Code:** NBCC 2010 / OBC 2012 Load Sharing: No

Deck: Not Checked Not Checked

Vibration:

## **Unfactored Reactions UNPATTERNED Ib (Uplift)**

Brg	Live	Dead	Snow	Wind
1	70	33	0	0
2	136	67	0	0

# **Bearings and Factored Reactions**

Bearing Length	Cap. Re	eact D/L lb	Total	Ld. Case	Ld. Comb.	
1 - SPF 2.375"	9%	41 / 104	145	L	1.25D+1.5L	
2 - 2.000" Hanger	18%	84 / 205	288	L	1.25D+1.5L	

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	61 ft-lb	1'1"	3830 ft-lb	0.016 (2%)	1.25D+1.5L	L
Unbraced	61 ft-lb	1'1"	3779 ft-lb	0.016 (2%)	1.25D+1.5L	L
Shear	274 lb	1'5 5/8"	1580 lb	0.173 (17%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/49408)	1' 7/16"	0.044 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/24289)	1' 9/16"	0.044 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/16284)	1' 1/2"	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 Top flange unbraced.
- 4 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-14	(Span)3-2-8	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	1-2-14		Far Face	51 lb	105 lb	0 lb	0 lb	J2

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

## Handling & Installation

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

## Manufacturer Info

Nascor by Kott







**PAGE 13 OF 30** NE0618-022

2

2

2 -

Hanger

2.000"



**EWP Studio** Simpson Strong-Tie® Client:

Project: Address:

**GREEN YORK HOMES** 

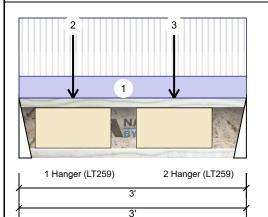
5/31/2018 Designer: RCO

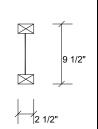
Job Name: LIANA 3 (ELEV.1)

Level: Ground Floor

Project #:

### 9.500" - PASSED F6-A NJH





Wind

0

0

1.25D+1.5L

0

0

459 L

Į!	Member Inforn	nation		
Γ	Type:	Girder	Application:	Floor (Residential)
	Plies:	1	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		

### **Unfactored Reactions UNPATTERNED Ib (Uplift)** Dead Brg Live

97

88

260

233

Bearings ar	nd Factored	Reactions			
Bearing Le	ngth Cap	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - 2.0	00" 32%	122 / 390	512	L	1.25D+1.5L

109 / 350

## **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	360 ft-lb	2' 9/16"	3830 ft-lb	0.094 (9%)	1.25D+1.5L	L
Unbraced	360 ft-lb	2' 9/16"	3411 ft-lb	0.105 (11%)	1.25D+1.5L	L
Shear	505 lb	1 1/4"	1580 lb	0.319 (32%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/16963)	1'8 1/4"	0.093 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.005 (L/6359)	1'8 1/4"	0.093 (L/360)	0.060 (6%)	L	L
TL Defl inch	0.007 (L/4625)	1'8 1/4"	0.140 (L/240)	0.050 (5%)	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.

29%

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.

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Jun 04, 2018	
Juli 94, Zu 10	•

# **Design Notes**

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

ID	Load Type	Location T	Trib Width Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-0-0 (	Span)1-8-11 Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-8-9	Far Face	70 lb	188 lb	0 lb	0 lb	J3
3	Point	2-0-9	Far Face	76 lb	202 lb	0 lb	0 lb	J3

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

### Handling & Installation

- IARIGHING & INSEGUATION

  Lodist flanges must not be cut or drilled

  Refer to latest copy of the IJoist product information details for framing details, suffiener 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 sheathing or as specified in engineering notes.
- 5. Provide lateral support at bearing points to avoid
- lateral displacement and rotation
  6. Web stiffeners for point load as shown Minimum
  point load bearing length ≥ 3.5 inches
  7. For flat roofs provide proper drainage to prevent
  ponding

Manufacturer Info

Nascor by Kott







**PAGE 14 OF 30** NE0618-022

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** 

Project:

Address:

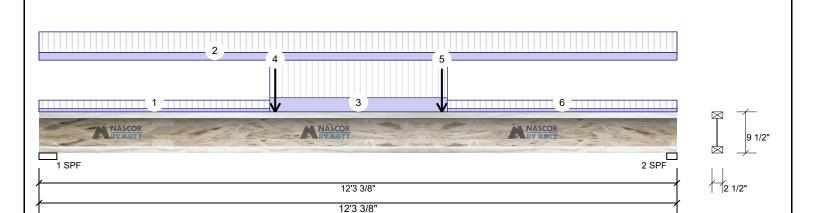
5/31/2018 Designer: RCO

Job Name: LIANA 3 (ELEV.1)

Level: Ground Floor

Project #:

### **NJH** 9.500" - PASSED F7-A



Member Infor	mation			Unfactored Reactions UNPATTERNED lb (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow	Wind	
Plies:	1	Design Method:	LSD	1	327		123	0	0	
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	320		120	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			<b>Bearings</b>	and Fact	tored R	eactions			
Dead:	15 PSF			Bearing L	_ength	Сар.	React D/L lb	Total Ld. Case	Ld. Comb.	
				1 - SPF 4	1.125"	41%	154 / 490	644 L	1.25D+1.5L	
				2-SPF 2	2.375"	40%	150 / 480	630 L	1.25D+1.5L	

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2352 ft-lb	6'2 11/16"	3830 ft-lb	0.614 (61%)	1.25D+1.5L	L
Unbraced	2352 ft-lb	6'2 11/16"	2368 ft-lb	0.993 (99%)	1.25D+1.5L	L
Shear	629 lb	3 3/8"	1580 lb	0.398 (40%)	1.25D+1.5L	L
Perm Defl in.	0.071 (L/2010)	6'2 1/2"	0.395 (L/360)	0.180 (18%)	D	Uniform
LL Defl inch	0.188 (L/756)	6'2 9/16"	0.395 (L/360)	0.480 (48%)	L	L
TL Defl inch	0.259 (L/549)	6'2 9/16"	0.593 (L/240)	0.440 (44%)	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



Page 1 of 1

## **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Top flange must be laterally braced at a maximum of 4'9" o.c.
- 3 Bottom flange braced at bearings.

o Bottom namgo	Bracea at Bearinger								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-5-5	(Span)0-4-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-3-6	(Span)0-11-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	4-5-5 to 7-10-5	(Span)1-8-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	4-6-9		Far Face	43 lb	113 lb	0 lb	0 lb	F5
5	Point	7-9-1		Far Face	43 lb	115 lb	0 lb	0 lb	F5
6	Tie-In	7-10-5 to 12-3-6	(Span)0-4-11	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 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

## Handling & Installation

- IARIGHING & INSEGUATION

  Lodist flanges must not be cut or drilled

  Refer to latest copy of the IJoist product information details for framing details, suffiener 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 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 flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

Nascor by Kott







NE0618-022 **PAGE 15 OF 30** 



Client: **GREEN YORK HOMES** 

Project:

Address:

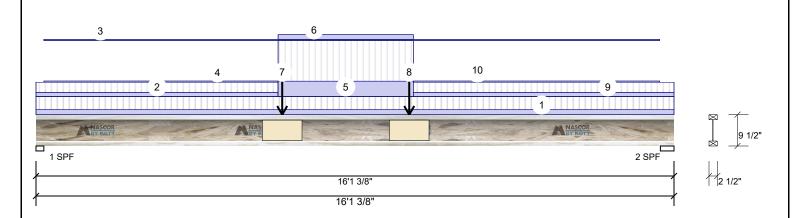
Date: 5/31/2018 Designer: RCO

Job Name: LIANA 3 (ELEV.1)

Level: Ground Floor

Project #:

### **NJH** 9.500" - PASSED F8-A



Member Inform	nation			Unfactored Reactions UNPATTERNED lb (Uplift)							
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind			
Plies:	1	Design Method:	LSD	1	345	167	0	0			
Moisture Condition:	: Dry	Building Code:	NBCC 2010 / OBC 2012	2	342	164	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	tored Reactions					
Dead:	15 PSF			Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.			
				1 - SPF	2.375"	46% 208 / 518	726 L	1.25D+1.5L			
				2-SPF	4.125"	45% 206 / 513	718 L	1.25D+1.5L			

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3768 ft-lb	8' 3/16"	3830 ft-lb	0.984 (98%)	1.25D+1.5L	L
Unbraced	3768 ft-lb	8' 3/16"	3771 ft-lb	0.999 (100%)	1.25D+1.5L	L
Shear	721 lb	1 5/8"	1580 lb	0.456 (46%)	1.25D+1.5L	L
Perm Defl in.	0.221 (L/852)	7'11 5/8"	0.523 (L/360)	0.420 (42%)	D	Uniform
LL Defl inch	0.456 (L/413)	7'11 5/8"	0.523 (L/360)	0.870 (87%)	L	L
TL Defl inch	0.677 (L/278)	7'11 5/8"	0.785 (L/240)	0.860 (86%)	D+L	L

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

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

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



## **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Top flange must be laterally braced at a maximum of 1'5" o.c.

3 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 16-1-6	(Span)0-6-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 6-1-6	(Span)0-5-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-6 to 15-9-1		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-6 to 6-1-6		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
5	Tie-In	6-1-6 to 9-6-6	(Span)1-8-11 to 1-8-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	6-1-6 to 9-6-6		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
7	Point	6-2-10		Near Face	67 lb	136 lb	0 lb	0 lb	F5

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.

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

Handling & Installation

- IARIGHING & INSEGUATION

  Lodist flanges must not be cut or drilled

  Refer to latest copy of the IJoist product information details for framing details, suffiener 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 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 flat roofs provide proper drainage to prevent populing.

## Manufacturer Info

Nascor by Kott







NE0618-022 PAGE 16 OF 30

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** 

Project: Address:

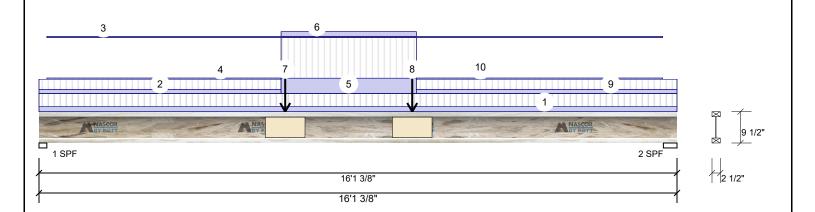
Date: 5/31/2018 Designer: RCO

Job Name: LIANA 3 (ELEV.1)

Project #:

### 9.500" - PASSED F8-A **NJH**

Level: Ground Floor



Continued	from page 1	
ID	Load	

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
8	Point	9-5-2		Near Face	69 lb	141 lb	0 lb	0 lb	F5
9	Tie-In	9-6-6 to 16-1-6	(Span)0-5-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
10	Part. Uniform	9-6-6 to 15-9-1		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
   IJoist not to be treated with fire retardant or corrosive

## Handling & Installation

- Handling & Installation

  1. Noist flanges must not be out or drilled

  2. Refer to latest copy of the IJoist product information details for framing details, stifferer 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 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 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





Page 2 of 2

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**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** 

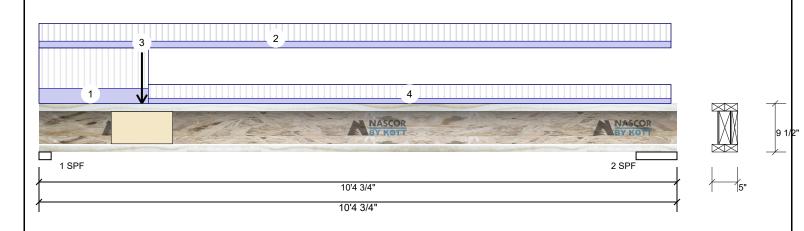
Date: 5/31/2018 Project: Designer: RCO Address:

Job Name: LIANA 3 (ELEV.1)

Project #:

2-Ply - PASSED 9.500" F9-A NJH

Level: Ground Floor



### Member Information **Unfactored Reactions UNPATTERNED Ib (Uplift)** Wind Type: Application: Floor (Residential) Brg Live Dead Plies: 2 Design Method: 535 201 0 O 1 Moisture Condition: Dry **Building Code:** NBCC 2010 / OBC 2012 2 328 123 0 0 Deflection LL: 360 Load Sharing: No Deflection TL: 240 Not Checked Deck: Importance: Normal Vibration: Not Checked General Load **Bearings and Factored Reactions** 40 PSF Floor Live: 15 PSF Dead: Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 2.375" 33% 251 / 802 1053 I 1.25D+1.5L 2 - SPF 8.000" 20% 154 / 492 646 L 1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1673 ft-lb	4'1 3/4"	7660 ft-lb	0.218 (22%)	1.25D+1.5L	L
Unbraced	1673 ft-lb	4'1 3/4"	1685 ft-lb	0.993 (99%)	1.25D+1.5L	L
Shear	1027 lb	1 5/8"	3160 lb	0.325 (32%)	1.25D+1.5L	L
Perm Defl in.	0.018 (L/6275)	4'8 7/16"	0.322 (L/360)	0.060 (6%)	D	Uniform
LL Defl inch	0.049 (L/2357)	4'8 7/16"	0.322 (L/360)	0.150 (15%)	L	L
TL Defl inch	0.068 (L/1713)	4'8 7/16"	0.483 (L/240)	0.140 (14%)	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 flange must be laterally braced at a maximum of 8'7" o.c.

5 Bottom flange braced at bearings

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-9-6	(Span)3-5-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 10-3-9	(Span)1-6-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-8-2		Far Face	88 lb	233 lb	0 lb	0 lb	F6
4	Tie-In	1-9-6 to 10-3-9	(Span)1-1-15	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 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

## Handling & Installation

- andling & Installation
  Libel flagges must not be cut or drilled
  Refer to latest copy of the IJoist product information
  details for framing details, suffener 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 sheathing or as specified in engineering
  notes.
- 5. Provide lateral support at bearing points to avoid
- lateral displacement and rotation
  6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
  7. For flat roofs provide proper drainage to prevent

**Manufacturer Info** 

Nascor by Kott







**PAGE 18 OF 30** NE0618-022

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** 

Designer: Project: Address:

Job Name: LIANA 3 (ELEV.1)

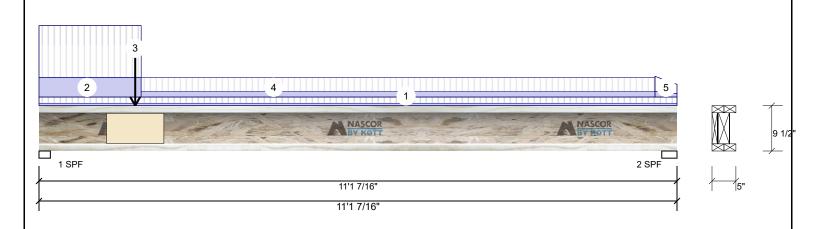
Project #:

2-Ply - PASSED 9.500" F9-B NJH

Level: Ground Floor

5/31/2018

RCO



Member Info	rmation			Unfactore	ed Reacti	ions UNPATTER	NED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	453	169	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	192	72	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 Fact	ored Reactions		
Dead:	15 PSF			Bearing L	_ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 2	2.375"	28% 212 / 679	891 L	1.25D+1.5L
				2-SPF 3	3.188"	12% 90 / 288	377 L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1293 ft-lb	3'10 13/16"	7660 ft-lb	0.169 (17%)	1.25D+1.5L	L
Unbraced	1293 ft-lb	3'10 13/16"	1300 ft-lb	0.994 (99%)	1.25D+1.5L	L
Shear	871 lb	1 5/8"	3160 lb	0.275 (28%)	1.25D+1.5L	L
Perm Defl in.	0.017 (L/7653)	5'1 5/16"	0.359 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.045 (L/2865)	5'1 1/4"	0.359 (L/360)	0.130 (13%)	L	L
TL Defl inch	0.062 (L/2084)	5'1 1/4"	0.539 (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 flange must be laterally braced at a maximum of 9'6" o.c.

5 Bottom flange braced at bearings

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 11-1-7	(Span)0-4-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-9-6	(Span)3-5-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-8-2		Near Face	97 lb	260 lb	0 lb	0 lb	F6
4	Tie-In	1-9-6 to 10-8-14	(Span)0-11-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	10-8-14 to 11-1-7	(Span) 0-11-14 to 0-7-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

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

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

### Handling & Installation

- anoling & installation
  Lioist flanges must not be cut or drilled
  Refer to latest copy of the IJoist product information
  details for framing details, sulffener tables, web hole
  chart, bridging details, multi-hyl fastening details and
  handling/erection details
  Damaged IJoist 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 flat roofs provide proper drainage to prevent populing.

Manufacturer Info

Nascor by Kott

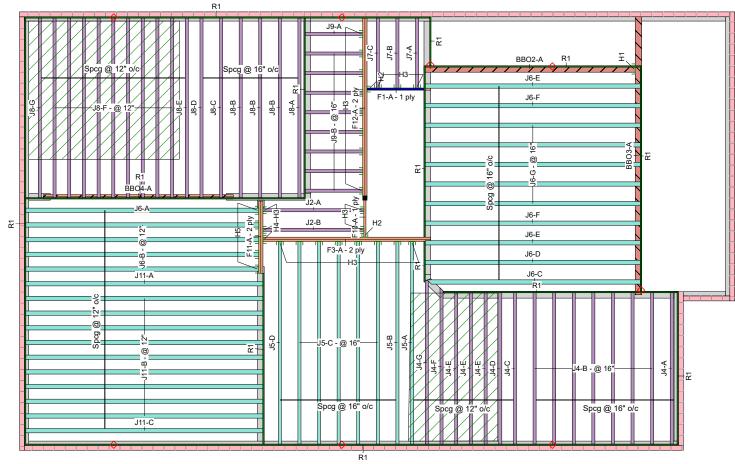






NE0618-022 PAGE 19 OF 30

### Second Floor



## 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.

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



## ARCHITECTURAL DRAWINGS:

64 Jardin Dr., Suite 3A, Vaughan, ON Date: Rev.2; May 22,2018 Project No: 17-55 Model: Liana 3

Legend



Load from Above Wall

NJ60U 9.5 NJH 9.5

- 3. LVL CCMC -14056-R
- 5. CCMC -12787-R APA PR-L310(C)

JARDIN DESIGN GROUP INC.

Norbord Rimboard Plus 1.125 X 9.5 NJ60H 9 5

Forex 2.0E-3000Fb LVL 1.75 X 9.5 (Dropped) Forex 2.0E-3000Fb LVL 1.75 X 9.5

- 1. OBC 2012 O.Reg 332/12 as amended
- 2. Nascor CCMC 13535-R
- 4. CAN/CSA-O86-09

Second											
LVL/LS	_ ` _	,									
Label	Descri	iption	Widt		epth	(	Qty	Plies	Pcs	Length	1
F12	Forex 2.0E-3	000Fb LVL	1.7	75	9.5		1	2	2	14-0-0	Ļ
F3	Forex 2.0E-3	000Fb LVL	1.7	75	9.5		1	2	2	12-0-0	Lá L
F11	Forex 2.0E-3	000Fb LVL	1.7	75	9.5		1	2	2	6-0-0	D
F1	Forex 2.0E-3	000Fb LVL	1.7	75	9.5				1	6-0-0	D
F10		000Fb LVL	1.7	75	9.5				1	4-0-0	E
LVL/LS	L (Dro	pped)		•							Cı
Label	Descri	iption	Widt	th [	epth		Qty	Plies	Pcs	Length	Ī
BBO4	Forex 2.0E-3	000Fb LVL	1.7	75	9.5		1	2	2	14-0-0	Ві
I Joist (	Joist (Flush)										
Label	Descri	iption	Widt	th [	epth	(	Qty	Plies	Pcs	Length	Sa
J5	NJ60H		2	.5	9.5				8	14-0-0	F
J11	NJ60U		3	.5	9.5				11	18-0-0	D
J6	NJ60U		3	.5	9.5				16	16-0-0	] <sub>F</sub>
J8	NJH		2	.5	9.5				17	14-0-0	SI
J4	NJH		2	.5	9.5				15	12-0-0	
J2	NJH		2	.5	9.5				2	8-0-0	Pi
J7	NJH			.5	9.5				3	6-0-0	В
J9	NJH		2	.5	9.5				9	4-0-0	ŀ
Rim Bo											1
Label	Descri		Widt		epth	(	Qty	Plies	Pcs	Length	
R1	1	d Rimboard 125 X 9.5	1.12	25	9.5				19	12	(
Hanger							Bea	am/Girder	Sur	ported	L g
										ember	Jo
Label	Pcs	Description	n	Skew Slope fasteners fasteners			teners	1 6			
H1						  - 					

Label	1 63	Description	OKEW	Slope	lasteriers	lasteriers
H1	1	Unknown				
		Hanger				
H2	2	HUS1.81/10			30 16d	10 16d
H3	24	LT259			4 10dx1 1/2	2 10dx1 1/2
H4	1	HGUS410			46 16d	16 16d
ЦБ	5	LT350			4 104	2 104v1 1/2

## NOTES:

- . Install single-ply flush window header along inside face of
- all first level joists which support loading from above exceeding two levels floor or roof.
- 8. It shall be the framer's responsibility that floor joists and beams are

bolting requirements.

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

### ayout Name JANA 3 (ELEV.1) Design Method Description GRANELLI HOME CORP. BRAMPTON, ONT. created May 29, 2018 Builder **GREEN YORK HOMES** Sales Rep RM esigner) RCO Shipping roject Builder's Project **Kott Lumber Company** 14 Anderson Blvd Stouffville, Ontario Canada L4A 7X4 905-642-4400 lob Path D:\LIsers\rochavillo\WORK FROM HOME\GREEN YORK HOMES \GRANELLI HOME CORP\MODELS \LIANA 3\LIANA 3 ELEV 1\FLOOR Second Floor Design Method Building Code NBCC 2010 / OBC 2012 Floor . Framer to verify dimensions on the architectural drawings. Loads . Double joist only require filler/backer ply when supporting Live another member using a face-mounted hanger. 15 Dead . Install 2x4 blocking @ 24" o/c under parallel non-load bearing walls. Deflection Joist rimboard/rimjoist. 480 LL Span L/ . Refer to Nascor specifier guide for installation works. 360 TL Span L/ 6. Squash blocks recommended to be installed at end bearing on LL Cant 2L/ 480 TL Cant 2L/ 360 . Load transfer blocks to be installed under all point loads. Deflection Girder 360 LL Span L/ fastened as per the hanger manufacturer's standards. TL Span L/ 240 Refer to Multiple Member Connection Detail to ply to ply nailing or 480 LL Cant 2L/ TL Cant 2L/ 360 Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than Decking





Deck

Thickness

Fastener

Vibration

Ceiling:



OSB

5/8'

Nailed & Glued

Gypsum 1/2"

NE0618-022 **PAGE 20 OF 30** 

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** Project:

Address:

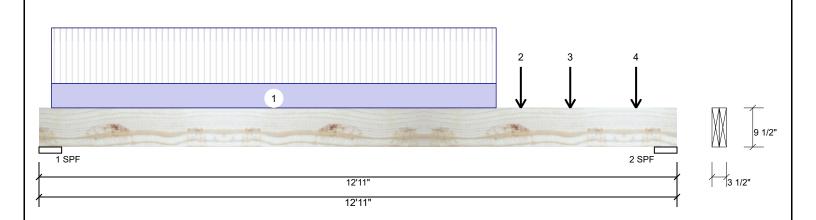
5/31/2018 Designer: RCO

Job Name: LIANA 3 (ELEV.1)

Project #:

Forex 2.0E-3000Fb LVL BBO4-A

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



rmation			Unfactore	ed React	ions UNPATTERN	ED lb (Uplift)	
Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
2	Design Method:	LSD	1	1515	707	0	0
on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1536	676	0	0
360	Load Sharing:	No					
240	Deck:	Not Checked					
Normal	Vibration:	Not Checked					
40 PSF			Bearings a	and Fact	ored Reactions		
15 PSF			Bearing L	_ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
			1 - SPF 5	5.500"	27% 884 / 2273	3156 L	1.25D+1.5L
			2-SPF 5	5.500"	27% 845 / 2304	3148 L	1.25D+1.5L
	Girder 2 2n: Dry 360 240 Normal	Girder 2 Design Method: Building Code: 1 Load Sharing: 240 Deck: Normal Vibration: 40 PSF 15 PSF	Girder 2 Design Method: LSD NBCC 2010 / OBC 2012 Load Sharing: No Deck: Not Checked Vibration: Not Checked  40 PSF 15 PSF	Girder 2 Design Method: LSD 1 Design Method: LSD 2 Design Method: NBCC 2010 / OBC 2012 360 Load Sharing: No 240 Normal Vibration: Not Checked  40 PSF 15 PSF  Bearings 1 - SPF 5 2 - SPF 5	Application: Floor (Residential)   Brg   Live	Application: Floor (Residential)   Brg   Live   Dead	Application: Floor (Residential)   Brg   Live   Dead   Snow

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9326 ft-lb	6'5 3/8"	22724 ft-lb	0.410 (41%)	1.25D+1.5L	L
Unbraced	9326 ft-lb	6'5 3/8"	19820 ft-lb	0.471 (47%)	1.25D+1.5L	L
Shear	2846 lb	11'8 3/4"	9277 lb	0.307 (31%)	1.25D+1.5L	L
Perm Defl in.	0.116 (L/1250)	6'5 5/16"	0.404 (L/360)	0.290 (29%)	D	Uniform
LL Defl inch	0.253 (L/574)	6'5 1/2"	0.404 (L/360)	0.630 (63%)	L	L
TL Defl inch	0.370 (L/393)	6'5 1/2"	0.606 (L/240)	0.610 (61%)	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.



Page 1 of 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform 0	-3-1 to 9-3-1		Тор	107 PLF	244 PLF	0 PLF	0 PLF	
2	Point	9-9-1		Тор	92 lb	244 lb	0 lb	0 lb	J8
3	Point	10-9-1		Тор	107 lb	285 lb	0 lb	0 lb	J8
4	Point	12-1-1		Тор	122 lb	326 lb	0 lb	0 lb	J8
	Self Weight				8 PLF				

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

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

### Handling & Installation

- 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 ponding

Manufacturer Info

APA: PR-L318







PAGE 21 OF 30 NE0618-022



Client: **GREEN YORK HOMES** 

Project:

5/31/2018 Designer: RCO

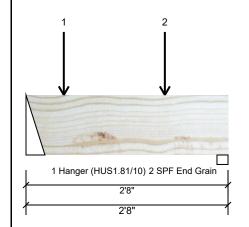
Job Name: LIANA 3 (ELEV.1)

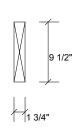
Project #:

### 1.750" X 9.500" - PASSED F10-A Forex 2.0E-3000Fb LVL

Address:

Level: Second Floor





Wind

## Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	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		

## **Unfactored Reactions UNPATTERNED Ib (Uplift)** Brg

1	174	70	0	0
2	139	57	0	0

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	208 ft-lb	1'10"	11362 ft-lb	0.018 (2%)	1.25D+1.5L	L
Unbraced	208 ft-lb	1'10"	10456 ft-lb	0.020 (2%)	1.25D+1.5L	L
Shear	344 lb	11 3/4"	4638 lb	0.074 (7%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/68055)	1'9 1/8"	0.080 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/27103)	1'9 7/8"	0.080 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/19389)	1'9 11/16"	0.120 (L/240)	0.010 (1%)	D+L	L

## **Bearings and Factored Reactions**

Bearing	Length	Cap. Rea	act D/L lb	Total	Ld. Case	Ld. Comb.	
1 - Hanger	3.000"	9%	88 / 261	349	L	1.25D+1.5L	
2 - SPF End Grain	1.750"	12%	71 / 209	280	L	1.25D+1.5L	

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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.



## **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	Point	0-6-0		Far Face	51 lb	136 lb	0 lb	0 lb	J2
2	Point	1-10-0		Far Face	66 lb	177 lb	0 lb	0 lb	J2
	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 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

2 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 ponding

Manufacturer Info

APA: PR-L318







NE0618-022 **PAGE 22 OF 30** 

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** Project:

5/31/2018 Designer: RCO

Brg

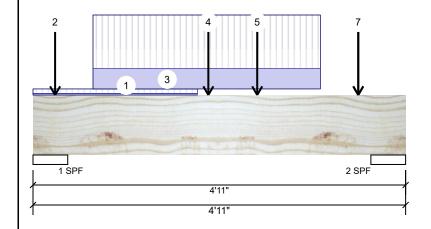
Job Name: LIANA 3 (ELEV.1)

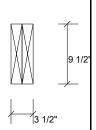
Project #:

1.750" X 9.500" Forex 2.0E-3000Fb LVL 2-Ply - PASSED F11-A

Address:

Level: Second Floor





Wind

Page 1 of 2

## Member Information

Type:	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		

## **Unfactored Reactions UNPATTERNED Ib (Uplift)**

Dead

1	1661	666	0	0
2	1662	664	0	0

# Bearings and Factored Reactions

Live

Bearing Length	Cap. R	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF 5.500"	28%	833 / 2492	3325	L	1.25D+1.5L
2 - SPF 5.500"	28%	830 / 2493	3324	L	1.25D+1.5L

### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4701 ft-lb	2'3 3/4"	22724 ft-lb	0.207 (21%)	1.25D+1.5L	L
Unbraced	4701 ft-lb	2'3 3/4"	22724 ft-lb	0.207 (21%)	1.25D+1.5L	L
Shear	3520 lb	3'8 3/4"	9277 lb	0.379 (38%)	1.25D+1.5L	L
Perm Defl in.	0.008 (L/5989)	2'3 3/4"	0.138 (L/360)	0.060 (6%)	D	Uniform
LL Defl inch	0.021 (L/2406)	2'3 3/4"	0.138 (L/360)	0.150 (15%)	L	L
TL Defl inch	0.029 (L/1716)	2'3 3/4"	0.206 (L/240)	0.140 (14%)	D+L	L

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

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

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



## **Design Notes**

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-2-0	(Span)1-3-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-3-8		Far Face	79 lb	211 lb	0 lb	0 lb	J6
3	Part. Uniform	0-9-8 to 3-9-8		Far Face	119 PLF	316 PLF	0 PLF	0 PLF	
4	Point	2-3-12		Near Face	616 lb	1523 lb	0 lb	0 lb	F3
5	Point	2-11-8		Near Face	51 lb	136 lb	0 lb	0 lb	J2
6	Point	4-3-8		Far Face	108 lb	287 lb	0 lb	0 lb	J6

Continued on page 2...

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

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

Manufacturer Info

APA: PR-L318







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**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** 

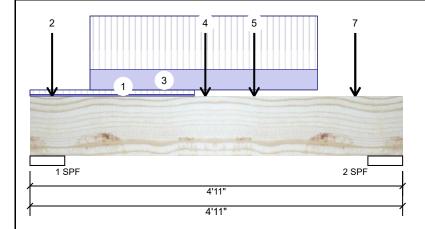
Date: 5/31/2018 Project: Designer: RCO Address:

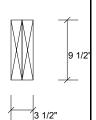
Job Name: LIANA 3 (ELEV.1)

Project #:

1.750" X 9.500" Forex 2.0E-3000Fb LVL 2-Ply - PASSED F11-A

Level: Second Floor





Page 2 of 2

.Continued from page 1

ID Location Trib Width Side Live Wind Comments Load Type Dead Snow Point 4-3-8 Near Face 61 lb 162 lb 0 lb 0 lb 7 Self Weight 8 PLF

> 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.



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

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

## Handling & Installation

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

2 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 ponding

Manufacturer Info

APA: PR-L318







**PAGE 24 OF 30** NE0618-022

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** Project:

Date: 5/31/2018 Designer: RCO

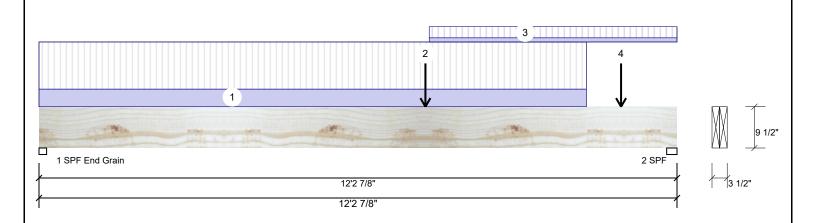
Job Name: LIANA 3 (ELEV.1)

Project #:

1.750" X 9.500" Forex 2.0E-3000Fb LVL 2-Ply - PASSED F12-A

Address:

Level: Second Floor



Grain 2 - SPF 2.375"

### Member Information **Unfactored Reactions UNPATTERNED Ib (Uplift)** Type: Application: Floor (Residential) Brg Live Dead Plies: 2 Design Method: 730 322 O 1 Moisture Condition: Dry **Building Code:** NBCC 2010 / OBC 2012 2 894 386 0 Deflection LL: 360 Load Sharing: No Deflection TL: 240 Not Checked Deck: Importance: Normal Vibration: Not Checked General Load **Bearings and Factored Reactions** 40 PSF Floor Live: 15 PSF Dead: Bearing Length Cap. React D/L lb Total Ld. Case 403 / 1095 1 - SPF 1.750" 33% 1497 I End

Analysis Results	Ana	lysis	Resu	lts
------------------	-----	-------	------	-----

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6660 ft-lb	7'4 15/16"	22724 ft-lb	0.293 (29%)	1.25D+1.5L	L
Unbraced	6660 ft-lb	7'4 15/16"	19870 ft-lb	0.335 (34%)	1.25D+1.5L	L
Shear	1898 lb	11'3 3/4"	9277 lb	0.205 (20%)	1.25D+1.5L	L
Perm Defl in.	0.070 (L/2071)	6'4 7/16"	0.401 (L/360)	0.170 (17%)	D	Uniform
LL Defl inch	0.163 (L/883)	6'4 3/4"	0.401 (L/360)	0.410 (41%)	L	L
TL Defl inch	0.233 (L/619)	6'4 5/8"	0.601 (L/240)	0.390 (39%)	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.

36%

482 / 1340

1822 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.



Wind

0

0

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

Page 1 of 1

_										
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	1	Part. Uniform	0-0-0 to 10-6-0		Far Face	28 PLF	75 PLF	0 PLF	0 PLF	
	2	Point	7-4-15		Near Face	255 lb	661 lb	0 lb	0 lb	F1
	3	Tie-In	7-5-13 to 12-2-14	(Span)0-10-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	4	Point	11-2-0		Far Face	34 lb	91 lb	0 lb	0 lb	J9
		Self Weight				8 PLF				

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

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

**Manufacturer Info** APA: PR-L318







NE0618-022 PAGE 25 OF 30



Client: **GREEN YORK HOMES** 

Project:

5/31/2018 Designer: RCO

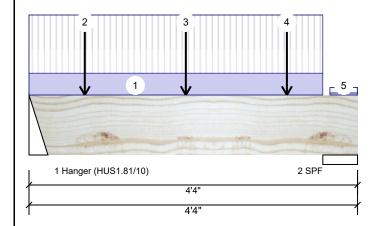
Job Name: LIANA 3 (ELEV.1)

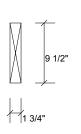
Project #:

### 1.750" X 9.500" - PASSED Forex 2.0E-3000Fb LVL F1-A

Address:

Level: Second Floor





Wind

0

Total Ld. Case

0

Ld. Comb.

Page 1 of 1

### **Member Information** Type: Application: Plies: Design Method: Moisture Condition: Dry **Building Code:** Deflection LL: 360 Load Sharing: Deflection TL: 240 Deck: Importance: Normal Vibration: General Load 40 PSF Floor Live:

### **Unfactored Reactions UNPATTERNED Ib (Uplift)** Brg Live Dead

661

**Bearings and Factored Reactions** 

2	604	235	0	0

Cap. React D/L lb

255

### 15 PSF Dead: Bearing Length 3.000"

A 1 ' A 1 1 1 1' A	 	_						
Analysis Results			2 - SPF	5.500"	20%	294 / 907	1200 L	1.25D+1.5L
			Hanger	3.000	3470	3197992	1311 L	1.23D+1.3L
			4	3.000"	34%	319 / 992	1311 L	1.25D+1.5L

1

Floor (Residential)

Not Checked

Not Checked

No

NBCC 2010 / OBC 2012

Arialysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1179 ft-lb	2' 13/16"	11362 ft-lb	0.104 (10%)	1.25D+1.5L	L
Unbraced	1179 ft-lb	2' 13/16"	9138 ft-lb	0.129 (13%)	1.25D+1.5L	L
Shear	844 lb	11 3/4"	4638 lb	0.182 (18%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/11669)	2' 7/8"	0.125 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.010 (L/4503)	2' 7/8"	0.125 (L/360)	0.080 (8%)	L	L
TL Defl inch	0.014 (L/3249)	2' 7/8"	0.188 (L/240)	0.070 (7%)	D+L	L

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

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** DOINT LOADS OVED BEADINGS

PROFESSIONAL	
Se S	
N.A. EL-MASRI	
Comar Emay	2
Jun 04, 2018	
July 4, 2010	

## **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

+ Dottom braced	at bearings.		FOINT LOADS OVER BEARINGS.						
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-10-8		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
2	Point	0-8-13		Far Face	39 lb	105 lb	0 lb	0 lb	J7
3	Point	2-0-13		Far Face	47 lb	126 lb	0 lb	0 lb	J7
4	Point	3-4-13		Far Face	36 lb	96 lb	0 lb	0 lb	J7
5	Tie-In	3-11-10 to 4-4-0	(Span)1-1-8	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 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
- 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 ponding

**Manufacturer Info** 

APA: PR-L318







NE0618-022 PAGE 26 OF 30

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** 

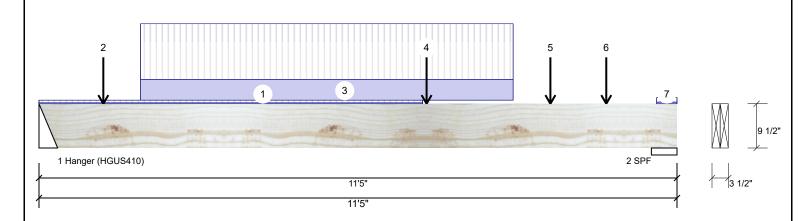
Project: Address: Date: 5/31/2018 Designer: RCO

Job Name: LIANA 3 (ELEV.1)

Project #:

1.750" X 9.500" Forex 2.0E-3000Fb LVL 2-Ply - PASSED F3-A

Level: Second Floor



Member Info	rmation			Unfactored Reactions UNPATTERNED lb (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind		
Plies:	2	Design Method:	LSD	1	1523	616	0	0		
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1514	622	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 Factored Reactions						
Dead:	15 PSF			Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.		
				1 -	4.000"	29% 770 / 2284	3055 L	1.25D+1.5L		
				Hanger						
Analysis Results					5.500"	26% 777 / 2271	3048 L	1.25D+1.5L		
Analysis Results				2 - SPF	5.500"	26% 777 / 2271	3048 L	1.25D+1		

•						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8863 ft-lb	5'10"	22724 ft-lb	0.390 (39%)	1.25D+1.5L	L
Unbraced	8863 ft-lb	5'10"	20442 ft-lb	0.434 (43%)	1.25D+1.5L	L
Shear	3021 lb	10'2 3/4"	9277 lb	0.326 (33%)	1.25D+1.5L	L
Perm Defl in.	0.080 (L/1615)	5'8 3/16"	0.358 (L/360)	0.220 (22%)	D	Uniform
LL Defl inch	0.198 (L/650)	5'8 1/8"	0.358 (L/360)	0.550 (55%)	L	L
TL Defl inch	0.278 (L/464)	5'8 1/8"	0.538 (L/240)	0.520 (52%)	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 braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on full section width.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 6-10-6	(Span)0-7-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-1-13		Near Face	129 lb	344 lb	0 lb	0 lb	J5
3	Part. Uniform	1-9-13 to 8-5-13		Near Face	103 PLF	275 PLF	0 PLF	0 PLF	
4	Point	6-11-4		Far Face	70 lb	174 lb	0 lb	0 lb	F10
5	Point	9-1-13		Near Face	120 lb	321 lb	0 lb	0 lb	J5
6	Point	10-1-13		Near Face	109 lb	268 lb	0 lb	0 lb	J5

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.

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 ponding

Manufacturer Info

APA: PR-L318







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**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** 

Project: Address:

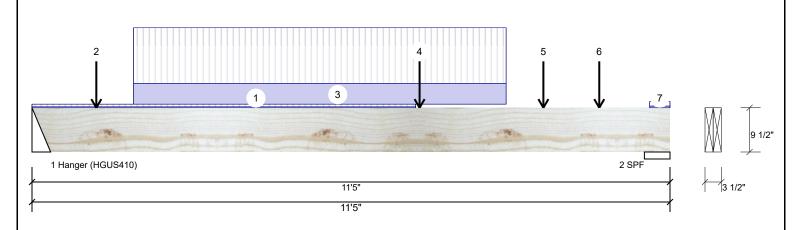
Date: 5/31/2018 Designer: RCO

Job Name: LIANA 3 (ELEV.1)

Project #:

1.750" X 9.500" 2-Ply - PASSED Forex 2.0E-3000Fb LVL F3-A

Level: Second Floor



.Continued from page 1

ID Load Type Location Trib Width Side Wind Comments Dead Live Snow 11-0-10 to 11-5-0 (Span)1-1-3 15 PSF 40 PSF 0 PSF 0 PSF 7 Tie-In Top

Self Weight 8 PLF

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

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

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

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

## Handling & Installation

- IARIGUING & INSTALLATION

  LVL beams must not be cut or drilled

  Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beams trength 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 L4A 7X4 905-642-4400





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## PAGE 28 OF 30

HOME\GREEN YORK HOMES \GRANELLI HOME CORP\MODELS

\LIANA 3\LIANA 3 ELEV 2\FLOOR

### LVL/LSL (Flush) Pcs Length Label Description Width Depth Qty Plies F12 1.75 9.5 2 2 2.0E-3000Fb LVL F3 12-0-0 Forex 1.75 2.0E-3000Fb LVL LIANA 3 (ELEV.2) F11 Forex 1.75 9.5 6-0-0 2 Design Method 2.0E-3000Fb LVL 1.75 6-0-0 Forex Description 2.0E-3000Fb LVL GRANELLI HOME CORP. F10 Forex 1.75 9.5 4-0-0 2.0E-3000Fb LVL BRAMPTON, ONT. F4 Forex 1.75 2-0-0 Created 2.0E-3000Fb LVL May 29, 2018 LVL/LSL (Dropped) Builder Label Description Width Depth Qty Plies Pcs Length GREEN YORK HOMES BBO4 Forex 1.75 9.5 2 14-0-0 2.0E-3000Fb LVL Sales Rep Joist (Flush) RM Pcs Length Label Description Width Depth Qty Plies Designer J5 NJ60H 2.5 9.5 14-0-0 J11 NJ60U 3.5 9.5 17 18-0-0 Shipping J6 NJ60U 3.5 9.5 10 16-0-0 17 14-0-0 Project 2.5 J8 NJH 9.5 J4 NJH 2.5 9.5 15 12-0-0 Builder's Project 2 8-0-0 J2 NJH 2.5 9.5 **Kott Lumber Company** J1 NJH 2.5 9.5 3 6-0-0 14 Anderson Blvd J9 NJH 2.5 9.5 9 4-0-0 Stouffville, Ontario Rim Board Canada Label Description Width Depth Qty Plies Pcs Length I 4A 7X4 Norbord Rimboard 1.125 9.5 Plus 1.125 X 9.5 905-642-4400 Blocking Job Path Label Description Width Depth Qty Plies Pcs Length D:\LIsers\rochavillo\WORK FROM

Second Floor

BLK1 NJH

Hanger

NOTES:

### Label Pcs Description Skew | Slope | fasteners fasteners H1 Unknown 10 16d H2 2 HUS1.81/10 30 16d Н3 24 LT259 4 10dx1 1/2 2 10dx1 1/2 H4 1 HGUS410 46 16d 16 16d H5 5 LT359

9.5

LinFt

Beam/Girder

2.5

rim depth @ 16" o/c). All other components and structural elements

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

supporting the floor system such as beams, walls, columns, and foundation walls and footings including anchorage of components and

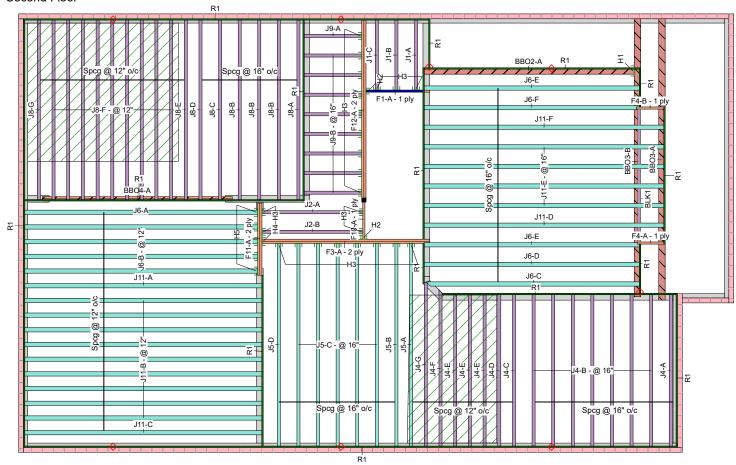
bracing for lateral stability are the responsibility of Others.

### Member Second Floor Design Method Building Code NBCC 2010 / OBC 2012 Floor Loads Live 4 10d 2 10dx1 1/2 15 Dead Deflection Joist 480 II Span I/ 360 TL Span L/ . Framer to verify dimensions on the architectural drawings. LL Cant 2L/ 480 . 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. 360 TL Cant 2L/ Deflection Girder 4. Install single-ply flush window header along inside face of 360 LL Span L/ rimboard/rimjoist. TL Span L/ . Refer to Nascor specifier guide for installation works. 240 6. Squash blocks recommended to be installed at end bearing on 480 LL Cant 2L/ all first level joists which support loading from above exceeding TL Cant 2L/ 360 two levels floor or roof. . Load transfer blocks to be installed under all point loads. Decking 3. It shall be the framer's responsibility that floor joists and beams are OSB Deck fastened as per the hanger manufacturer's standards Thickness 5/8' Fastener Nailed & Glued Refer to Multiple Member Connection Detail to ply to ply nailing or Vibration Ceiling: Gypsum 1/2" Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than

Varies 8-0-0

Supported

Second Floor



## 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.

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.

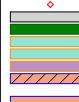
PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS



### ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC. 64 Jardin Dr., Suite 3A, Vaughan, ON Date: Rev.2; May 22,2018 Project No: 17-55 Model: Liana 3

Legend



Wall Norbord Rimboard Plus 1.125 X 9.5 NJ60H 9 5 NJ60U 9.5 NJH 9.5

Load from Above

Forex 2.0E-3000Fb LVL 1.75 X 9.5 (Dropped) 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)

CS	<b>EWP Studio</b>
EWP	Simpson Strong-Tie® Component Solutions™

EWP Studio Version 18.32.085 Powered by iStruct™

NE0618-022 **PAGE 29 OF 30** 



Client:

Project: Address:

**GREEN YORK HOMES** 

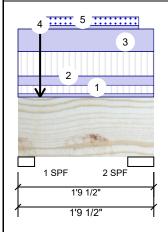
5/31/2018 Designer: RCO

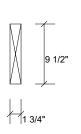
Job Name: LIANA 3 (ELEV.2)

Project #:

### 1.750" X 9.500" - PASSED Forex 2.0E-3000Fb LVL F4-A

Level: Second Floor





### **Member Information Unfactored Reactions UNPATTERNED Ib (Uplift)** Application: Floor (Residential) Wind Type: Brg Live Dead Snow Plies: Design Method: 78 255 323 0 1 Moisture Condition: Dry **Building Code:** NBCC 2010 / OBC 2012 2 90 124 53 0 Deflection LL: 360 Load Sharing: No Deflection TL: 240 Not Checked Deck: Importance: Normal Vibration: Not Checked General Load **Bearings and Factored Reactions** 40 PSF Floor Live: Dead: 15 PSF Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1 - SPF 2.625" 33% 319 / 524 1.25D+1.5S 843 L +0.5L 2 - SPF 4.125" 8% 156 / 135 290 L 1.25D+1.5L **Analysis Results**

,						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	114 ft-lb	6"	11362 ft-lb	0.010 (1%)	1.25D+1.5S +0.5L	L
Unbraced	114 ft-lb	6"	11362 ft-lb	0.010 (1%)	1.25D+1.5S +0.5L	L
Shear	54 lb	8 5/8"	4638 lb	0.012 (1%)	1.25D+1.5S	L
Perm Defl in.	0.000 (L/49777)	8 7/16"	0.045 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.000 (L/43590)	6 3/16"	0.045 (L/360)	0.010 (1%)	S+0.5L	L
TL Defl inch	0.001 (L/23529)	7 1/2"	0.068 (L/240)	0.010 (1%)	D+S+0.5L	L

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

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

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



## **Design Notes**

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top braced at bearings.
- 4 Rottom braced at bearing

ı	4 Bollom bracet	at bearings.								
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	1	Tie-In	0-0-0 to 1-9-8	(Span)1-2-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	2	Tie-In	0-0-0 to 1-9-8	(Span)3-5-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	3	Part. Uniform	0-0-0 to 1-9-8		Тор	64 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	4	Point	0-3-8		Тор	182 lb	0 lb	345 lb	0 lb	F14 F14
	5	Part. Uniform	0-3-10 to 1-7-2		Тор	10 PLF	0 PLF	24 PLF	0 PLF	
		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 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
- 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 ponding

**Manufacturer Info** 

APA: PR-L318







NE0618-022 **PAGE 30 OF 30** 



**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: **GREEN YORK HOMES** 

Project:

Address:

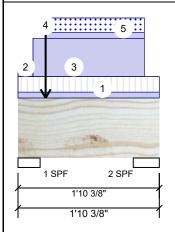
5/31/2018 Designer: RCO

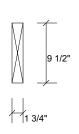
Job Name: LIANA 3 (ELEV.2)

Project #:

### 1.750" X 9.500" - PASSED Forex 2.0E-3000Fb LVL F4-B

Level: Second Floor





Member Information					Unfactored Reactions UNPATTERNED lb (Uplift)							
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		Wind		
Plies:	1	Design Method:	LSD	1	24		231	323		0		
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	25		87	53		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 Factored Reactions								
Dead:	15 PSF			Bearing L	ength	Cap. F	React D/L lb	Total I	Ld. Case	Ld. Comb.		
				1-SPF 3	3.500"	25%	289 / 497	786 I	L	1.25D+1.5S +0.5L		
Analysis Results					.125"	5%	109 / 38	147 I	L	1.25D+1.5L		

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	104 ft-lb	5 1/4"	11362 ft-lb	0.009 (1%)	1.25D+1.5S +0.5L	L
Unbraced	104 ft-lb	5 1/4"	11362 ft-lb	0.009 (1%)	1.25D+1.5S +0.5L	L
Shear	57 lb	9 1/2"	4638 lb	0.012 (1%)	1.25D+1.5S	L
Perm Defl in.	0.000 (L/57884)	9"	0.045 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.000 (L/49057)	5 1/16"	0.045 (L/360)	0.010 (1%)	S+0.5L	L
TL Defl inch	0.001 (L/27348)	7 3/8"	0.068 (L/240)	0.010 (1%)	D+S+0.5L	L

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

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

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



## **Design Notes**

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 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 1-10-6	(Span)1-3-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Part. Uniform	0-0-0 to 0-2-6		Тор	21 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
3	Part. Uniform	0-2-6 to 1-8-0		Тор	64 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
4	Point	0-4-6		Тор	182 lb	0 lb	345 lb	0 lb	F14 F14	
5	Part. Uniform	0-4-8 to 1-8-0		Тор	10 PLF	0 PLF	24 PLF	0 PLF		
	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 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 ponding

Manufacturer Info

APA: PR-L318





