## NE0618-018 PAGE 1 OF 30

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

REVISION 2009-10-09

# Please read all notes prior to installation of the component

GREEN YORK HOMES-BRAMPTON-ON-AMELIA 3 ELE-1-2

# **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.

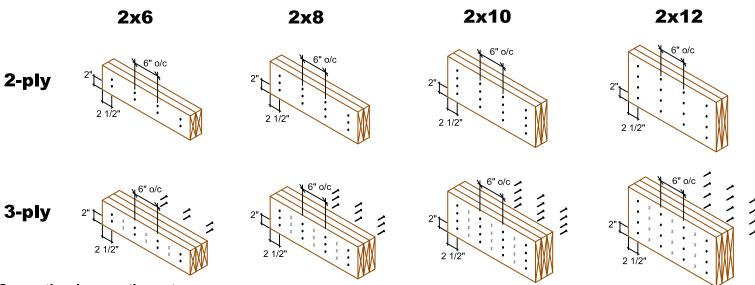


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# LTIPLE MEMBER CONNECTIONS

GREEN YORK HOMES-BRAMPTON-ON-AMELIA 3 ELE-1-2

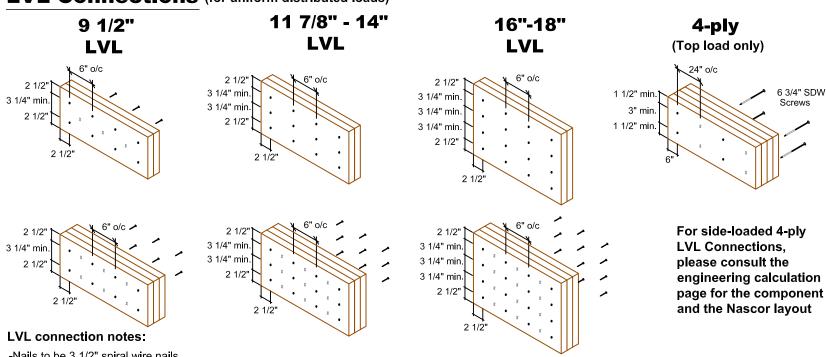
# Conventional Connections (for uniform distributed loads)



## **Conventional connection notes:**

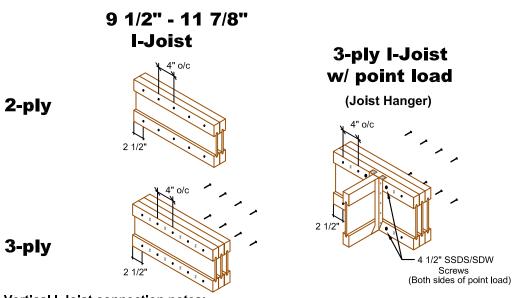
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

# LVL Connections (for uniform distributed loads)



- -Nails to be 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:**

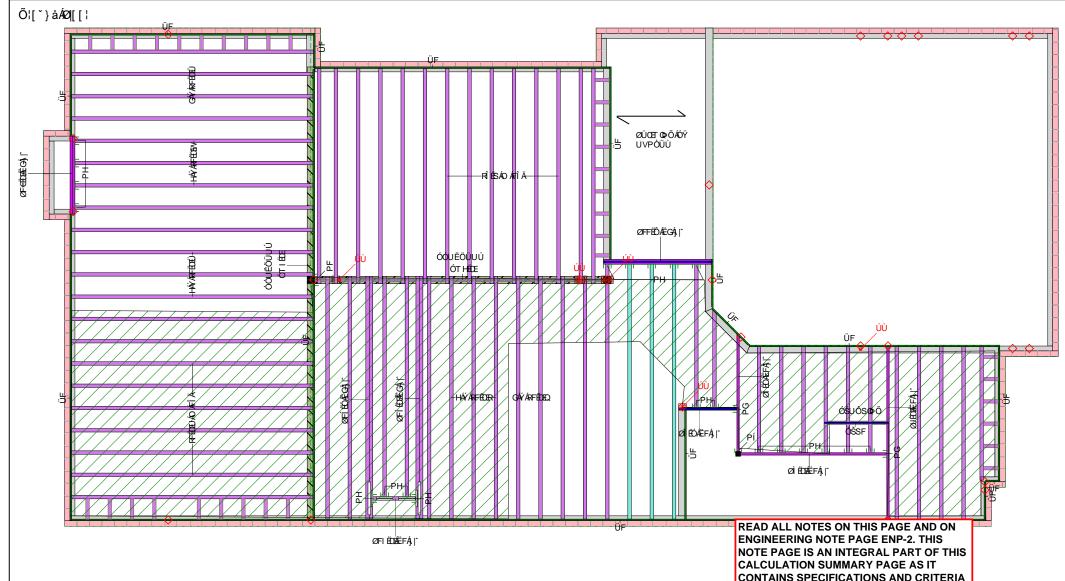
- -Nails to be 3" spiral wire nails.
- -Nails to be located at centre of top and bottom flanges. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.



**MULTI-PLY** CONNECTION **DETAILS** 

> Date: November 30, 2016 Scale: NTS

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



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# **EWP Studio**

Simpson Strong-Tie® Component Solutions™ 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.

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

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

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

N.A. EL-MASRI that Emash Jun 04, 2018 NE0618-018

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**Kott Lumber Company** 

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EWP Studio Version 18.32.085 Powered by iStruct™

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

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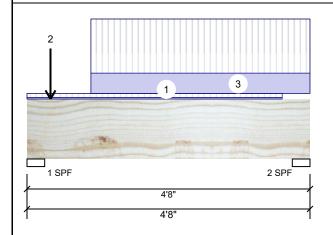
Client: Project: Address:

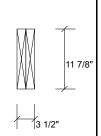
5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

2-Ply - PASSED Level: Ground Floor 1.750" X 11.875" Forex 2.0E-3000Fb LVL F10-A





Page 1 of 1

Member	Information
Type:	Girder

Type:	Girder
Plies:	2
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

Not Checked Deck: Vibration: Not Checked **Unfactored Reactions UNPATTERNED Ib (Uplift)** 

Brg	Live	Dead	Snow	Wind
1	836	336	0	0
2	761	308	0	0

# **Bearings and Factored Reactions**

Bearing Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
1 - SPF 3.500"	22% 419 / 1254	1673 L	1.25D+1.5L
2 - SPF 3.500"	20% 384 / 1141	1526 L	1.25D+1.5L

## **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1441 ft-lb	2'4 3/8"	34261 ft-lb	0.042 (4%)	1.25D+1.5L	L
Unbraced	1441 ft-lb	2'4 3/8"	34261 ft-lb	0.042 (4%)	1.25D+1.5L	L
Shear	2109 lb	1'2 5/8"	11596 lb	0.182 (18%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/28861)	2'4 3/16"	0.140 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.004 (L/11672)	2'4 1/4"	0.140 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.006 (L/8311)	2'4 1/4"	0.210 (L/240)	0.030 (3%)	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.

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 BEARING** 



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-2-8	(Span)1-2-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-4-10		Near Face	139 lb	371 lb	0 lb	0 lb	J1
3	Part. Uniform	1-0-10 to 4-8-0		Near Face	117 PLF	312 PLF	0 PLF	0 PLF	
	Self Weight				10 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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Client: Project: Address:

5/30/2018 Designer: SB

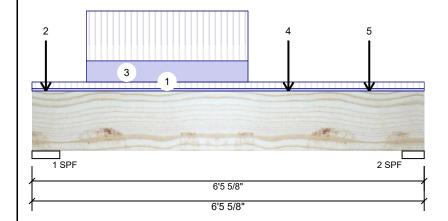
Job Name: AMELIA 3 EL-1 \_4BEDRM

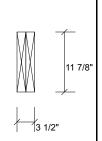
Project #:

Forex 2.0E-3000Fb LVL F11-C

1.750" X 11.875"

2-Ply - PASSED Level: Ground Floor





Wind

Page 1 of 1

## 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)**

1	837	383	0	0
2	823	385	0	0

## **Bearings and Factored Reactions**

Bearing Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
1 - SPF 5.500"	15% 479 / 1256	1735 L	1.25D+1.5L
2 - SPF 4.375"	18% 482 / 1234	1716 L	1.25D+1.5L

## **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2763 ft-lb	3'2 11/16"	34261 ft-lb	0.081 (8%)	1.25D+1.5L	L
Unbraced	2763 ft-lb	3'2 11/16"	32711 ft-lb	0.084 (8%)	1.25D+1.5L	L
Shear	1902 lb	5'2 1/8"	11596 lb	0.164 (16%)	1.25D+1.5L	L
Perm Defl in.	0.005 (L/12838)	3'3 1/4"	0.192 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.012 (L/5833)	3'3 1/16"	0.192 (L/360)	0.060 (6%)	L	L
TL Defl inch	0.017 (L/4011)	3'3 1/8"	0.289 (L/240)	0.060 (6%)	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 BEARING



Ī	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	1	Part. Uniform	0-0-0 to 6-5-10		Тор	15 PLF	40 PLF	0 PLF	0 PLF	
l	2	Point	0-2-12		Тор	1 lb	0 lb	0 lb	0 lb	Wall Self Weight
l	3	Part. Uniform	0-10-12 to 3-6-12		Near Face	129 PLF	305 PLF	0 PLF	0 PLF	
l	4	Point	4-2-12		Near Face	171 lb	387 lb	0 lb	0 lb	J7
l	5	Point	5-6-12		Near Face	94 lb	201 lb	0 lb	0 lb	J4
١		Self Weight				10 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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2



Simpson Strong-Tie® Component Solutions™ Client: Project: Address:

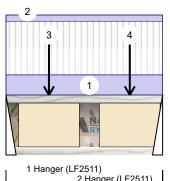
5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

Level: Ground Floor

Project #:

### 11.875" - PASSED F14-A NJH



11 7/8"

Page 1 of 1

	1 Hanger (LF2511)	
	2 Hanger (LF2511)	
1	2'7"	′
_		
1	2'7"	1

15 PSF

Member Inforr	nation		
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		

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

Brg	Live	Dead	Snow	Wind
1	300	146	0	0
2	327	161	0	0

## **Bearings and Factored Reactions**

Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 39% 182 / 450 1.25D+1.5L 1 -2.000" Hanger 1.25D+1.5L

2.000" 43% 201 / 490 691 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** 

# Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	369 ft-lb	8 1/2"	5390 ft-lb	0.068 (7%)	1.25D+1.5L	L
Unbraced	369 ft-lb	8 1/2"	5011 ft-lb	0.074 (7%)	1.25D+1.5L	L
Shear	685 lb	2'5 3/4"	1810 lb	0.379 (38%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/16813)	11 15/16"	0.079 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.003 (L/8203)	11 3/4"	0.079 (L/360)	0.040 (4%)	L	L
TI Defl inch	0.005 (L/5513)	11 13/16"	0.119 (L/240)	0.040 (4%)	D+L	L

## **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

4 Bottom hange braced at bearings.									
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comment
1	Tie-In	0-0-0 to 2-7-0	(Span)1-3-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 2-7-0		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-8-8		Far Face	141 lb	291 lb	0 lb	0 lb	J6
4	Point	2-0-8		Far Face	133 lb	269 lb	0 lb	0 lb	J6



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



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

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Client: Project: Address:

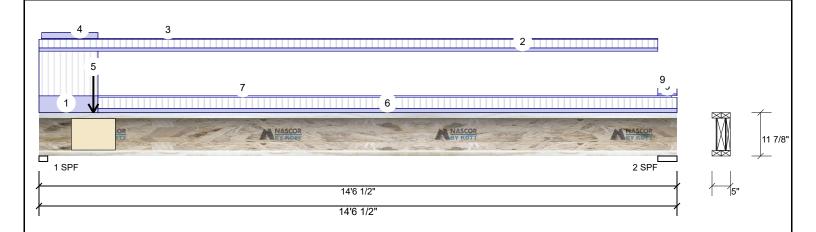
5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

### 2-Ply - PASSED F15-A NJH 11.875"

Level: Ground Floor



Member Infori	mation			Unfactore	ed Reacti	ons UNPATTERNI	D lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	550	270	0	0
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	223	109	0	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings a	and Facto	ored Reactions		
Dead:	15 PSF			Bearing L	_ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 2	2.375"	35% 338 / 825	1163 L	1.25D+1.5L
				2-SPF 5	5.250"	13% 136 / 334	470 L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1833 ft-lb	6'1 1/8"	10780 ft-lb	0.170 (17%)	1.25D+1.5L	L
Unbraced	1833 ft-lb	6'1 1/8"	1845 ft-lb	0.993 (99%)	1.25D+1.5L	L
Shear	1143 lb	1 5/8"	3620 lb	0.316 (32%)	1.25D+1.5L	L
Perm Defl in.	0.029 (L/5870)	6'9 13/16"	0.468 (L/360)	0.060 (6%)	D	Uniform
LL Defl inch	0.059 (L/2871)	6'9 13/16"	0.468 (L/360)	0.130 (13%)	L	L
TL Defl inch	0.087 (L/1928)	6'9 13/16"	0.702 (L/240)	0.120 (12%)	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 BEARING

## **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

5 Dollotti flarige	braced at bearings.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comment
1	Tie-In	0-0-0 to 1-4-2	(Span)3-0-0 to 3-0-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 14-1-4	(Span)0-7-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-10 to 14-1-4		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-12 to 1-4-2		Тор	8 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-2-14		Far Face	161 lb	327 lb	0 lb	0 lb	F14
6	Tie-In	1-4-2 to 14-6-8	(Span)0-9-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-4-2 to 14-5-1		Тор	2 PLF	0 PLF	0 PLF	0 PLF	

Continued on page 2...

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design 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

alteral 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



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



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PAGE 8 OF 30 NE0618-018

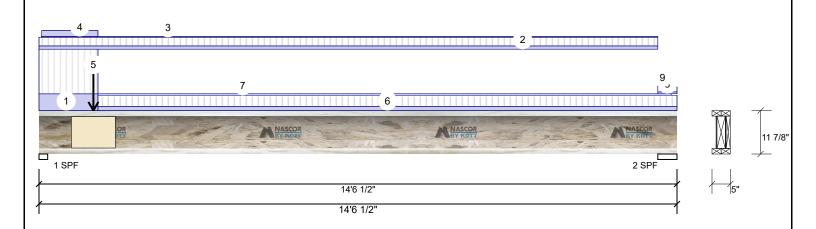
**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: Project: Address: Date: 5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

2-Ply - PASSED F15-A NJH 11.875"

Level: Ground Floor



.Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
8	Tie-In	14-1-4 to 14-6-8	(Span)0-4-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
9	Part. Uniform	14-1-4 to 14-5-1		Тор	1 PLF	0 PLF	0 PLF	0 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
   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







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Client: Project: Address:

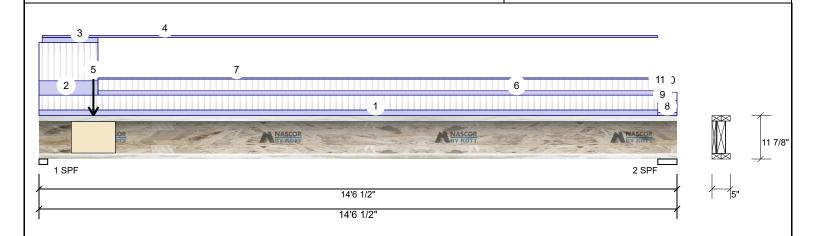
5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

### 2-Ply - PASSED F15-B NJH 11.875"

Level: Ground Floor



nation			Unfactore	ed Reaction	ons UNPATTERN	ED lb (Uplift)	
Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
2	Design Method:	LSD	1	628	309	0	0
Dry	Building Code:	NBCC 2010 / OBC 2012	2	327	162	0	0
360	Load Sharing:	No					
240	Deck:	Not Checked					
Normal	Vibration:	Not Checked					
40 PSF			Bearings a	and Facto	red Reactions		
15 PSF			Bearing L	ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
			1 - SPF 2	2.375"	40% 386 / 942	1329 L	1.25D+1.5L
			2-SPF 5	5.250"	19% 202 / 491	693 L	1.25D+1.5L
	Girder 2 Dry 360 240 Normal	Girder  2 Design Method: Dry Building Code: Load Sharing: Deck: Normal  Vibration:  40 PSF 15 PSF	Girder  Application: Floor (Residential)  Design Method: LSD  Building Code: NBCC 2010 / OBC 2012  Load Sharing: No  Deck: Not Checked  Normal  Vibration: Not Checked	Application: Floor (Residential)   Brg   1	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	2571 ft-lb	6'6 7/16"	10780 ft-lb	0.239 (24%)	1.25D+1.5L	L
Unbraced	2571 ft-lb	6'6 7/16"	2584 ft-lb	0.995 (99%)	1.25D+1.5L	L
Shear	1306 lb	1 5/8"	3620 lb	0.361 (36%)	1.25D+1.5L	L
Perm Defl in.	0.040 (L/4170)	6'11 1/4"	0.468 (L/360)	0.090 (9%)	D	Uniform
LL Defl inch	0.082 (L/2060)	6'11 1/4"	0.468 (L/360)	0.170 (17%)	L	L
TL Defl inch	0.122 (L/1379)	6'11 1/4"	0.702 (L/240)	0.170 (17%)	D+L	L

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

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

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

## **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 8'3" o.c.

5 Bottom flange braced at bearings

	··· ··gg-	•							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comment
1	Tie-In	0-0-0 to 14-1-4	(Span)1-2-0 to 1-2-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-4-2	(Span)3-0-0 to 3-0-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-14 to 1-4-2		Тор	8 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-15 to 14-1-4		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-2-14		Near Face	146 lb	300 lb	0 lb	0 lb	F14
6	Tie-In	1-4-2 to 14-1-4	(Span)0-11-0 to 0-11-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

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
- 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 lengthp=3.5 inches
   For flat roofs provide proper drainage to prevent

Manufacturer Info Nascor by Kott



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

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

Continued from page 1

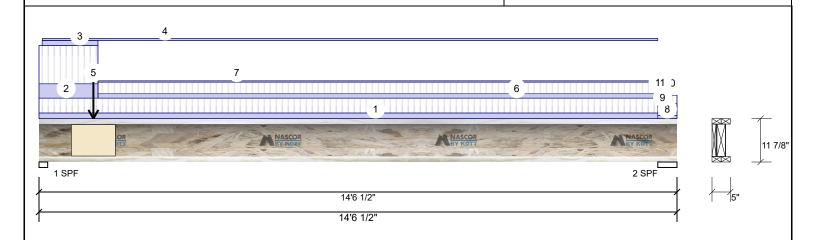
Client: Project: Address: Date: 5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

2-Ply - PASSED F15-B NJH 11.875"

Level: Ground Floor



Continued from page 1									
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Part. Uniform	1-4-2 to 14-1-4		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
8	Tie-In	14-1-4 to 14-6-8	(Span)0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
9	Tie-In	14-1-4 to 14-6-8	(Span)0-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
10	Part. Uniform	14-1-4 to 14-5-5		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
11	Part. Uniform	14-1-4 to 14-5-4		Тор	2 PLF	0 PLF	0 PLF	0 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
 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



Nascor by Kott







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Client: Project: Address:

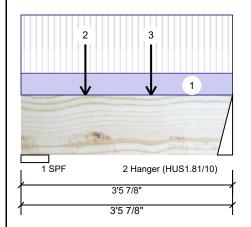
5/30/2018 Designer: SB

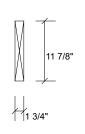
Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

### 1.750" X 11.875" - PASSED Forex 2.0E-3000Fb LVL F6-B

Level: Ground Floor





Page 1 of 1

## Member Information Type: Plies: Moisture Condition: Dry Deflection LL:

360 Deflection TL: 240 Normal General Load

40 PSF 15 PSF

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

Load Sharing: No Not Checked Deck:

Vibration: Not Checked

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

Brg	Live	Dead	Snow	Wind
1	360	170	0	0
2	259	122	0	0

## **Bearings and Factored Reactions**

Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1-SPF 5.500" 13% 213 / 540 753 I 1.25D+1.5L 2 -3.000" 14% 152 / 389 541 L 1.25D+1.5L

Analysis Results

Analysis Actual Comb. Case Location Allowed Capacity Moment 485 ft-lb 1'11 1/4" 17130 ft-lb 0.028 (3%) 1.25D+1.5L L Unbraced 485 ft-lb 1'11 1/4" 13987 ft-lb 0.035 (3%) 1.25D+1.5L L 0.091 (9%) 1.25D+1.5L L Shear 526 lb 1'4 5/8" 5798 lb Perm Defl in. 0.001 1'10 7/16" 0.097 (L/360) 0.010 (1%) D Uniform (L/36212) 0.002 1'10 5/16" 0.097 (L/360) 0.020 (2%) L LL Defl inch (L/17367) TL Defl inch 0.003 1'10 5/16" 0.145 (L/240) 0.020 (2%) D+L L (L/11738)

Hanger

**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 BEARING

## **Design Notes**

Importance:

Floor Live:

Dead:

- 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 Ti	rib Width Side	e Dead	Live	Snow	Wind	Comment
1	Part. Uniform	0-0-0 to 3-5-14	Тор	30 PLF	80 PLF	0 PLF	0 PLF	
2	Point	1-0-12	Far	Face 102 lb	206 lb	0 lb	0 lb	J4
3	Point	2-1-12	Far	Face 69 lb	134 lb	0 lb	0 lb	J2
	Self Weight			5 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



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

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Client: Project: Address:

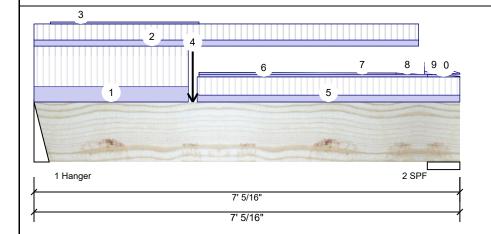
5/30/2018 Designer: SB

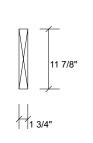
Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

### 1.750" X 11.875" - PASSED Forex 2.0E-3000Fb LVL F7-B

Level: Ground Floor





Page 1 of 2

# Member Information

15 PSF

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		

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

Brg	Live	Dead	Snow	Wind
1	410	199	0	0
2	295	156	0	0

## **Bearings and Factored Reactions**

Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 -	3.000"	22%	248 / 615	864	L	1.25D+1.5L	
Hanger							
2 - SPF	6.438"	9%	195 / 442	637	L	1.25D+1.5L	

Analysis Actual Comb. Case Location Allowed Capacity Moment 1478 ft-lb 2'7 7/16" 17130 ft-lb 0.086 (9%) 1.25D+1.5L L Unbraced 1478 ft-lb 2'7 7/16" 7067 ft-lb 0.209 (21%) 1.25D+1.5L L 0.112 (11%) 1.25D+1.5L L Shear 649 lb 1'2 1/8" 5798 lb Perm Defl in. 0.006 3' 11/16" 0.212 (L/360) 0.030 (3%) D

Uniform (L/11753) LL Defl inch 0.013 (L/5910) 3' 1/8" 0.212 (L/360) 0.060 (6%) L L TL Defl inch 0.019 (L/3933)

3' 5/16" 0.318 (L/240) 0.060 (6%) D+L

**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.

**READ ALL NOTES ON THIS PAGE AND ON** 

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 BEARING** 

## **Design Notes**

Analysis Results

Dead:

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

4 Dolloili braceu	at bearings.								(
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comment
1	Tie-In	0-0-0 to 2-6-9	(Span)3-1-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 6-4-2	(Span)1-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-3-4 to 2-8-10		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
4	Point	2-7-7		Far Face	122 lb	259 lb	0 lb	0 lb	F6
5	Tie-In	2-8-5 to 7-0-5	(Span)1-5-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	2-8-10 to 6-5-14		Тор	4 PLF	0 PLF	0 PLF	0 PLF	

Top

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Continued on page 2...

## Notes

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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.

Tapered Start

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

2-8-10

- 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

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3 PLF

Manufacturer Info

APA: PR-L318

0 PLF



0 PLF

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NE0618-018 PAGE 13 OF 30

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: Project: Address:

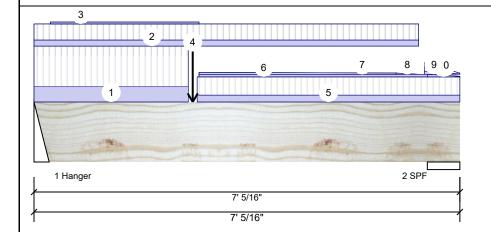
5/30/2018 Designer: SB

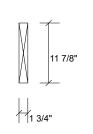
Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

### 1.750" X 11.875" - PASSED F7-B Forex 2.0E-3000Fb LVL

Level: Ground Floor





Continu	.Continued from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	End	5-11-10			2 PLF	0 PLF	0 PLF	0 PLF	
8	Tapered Start	5-11-10		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
	End	6-4-2			0 PLF	0 PLF	0 PLF	0 PLF	
9	Tie-In	6-5-4 to 7-0-5	(Span)0-7-13 to 0-0-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
10	Tapered Start	6-5-14		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
	End	7-0-5			1 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				5 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







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Client: Project: Address:

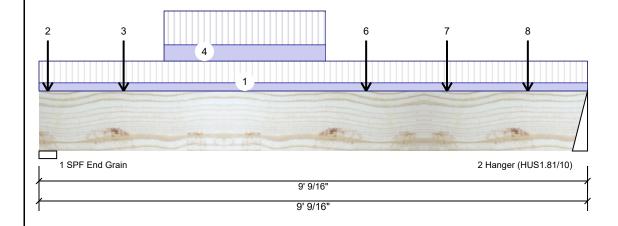
5/30/2018 Designer: SB

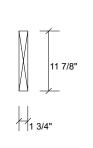
Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

### 1.750" X 11.875" - PASSED Forex 2.0E-3000Fb LVL F8-A

Level: Ground Floor





1.25D+1.5L

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Page 1 of 2

## 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 lb (Uplift)**

Brg	Live	Dead	Snow	Wind
1	1200	535	0	0
2	1290	544	0	0

# Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5061 ft-lb	5'4 3/4"	17130 ft-lb	0.295 (30%)	1.25D+1.5L	L
Unbraced	5061 ft-lb	5'4 3/4"	5210 ft-lb	0.971 (97%)	1.25D+1.5L	L
Shear	2425 lb	7'10 7/16"	5798 lb	0.418 (42%)	1.25D+1.5L	L
Perm Defl in.	0.035 (L/2951)	4'8 1/8"	0.288 (L/360)	0.120 (12%)	D	Uniform
LL Defl inch	0.081 (L/1283)	4'8 9/16"	0.288 (L/360)	0.280 (28%)	L	L
TL Defl inch	0.116 (L/894)	4'8 7/16"	0.432 (L/240)	0.270 (27%)	D+L	L

## **Bearings and Factored Reactions**

Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1-SPF 3.500" 54% 668 / 1800 1.25D+1.5L 2468 I End

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.

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

## **Design Notes**

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

ı	3 Bollotti braced	at bearings.								
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comment
	1	Tie-In	0-0-0 to 9-0-9	(Span)3-11-7 to 3-11-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	2	Point	0-1-12		Тор	110 lb	248 lb	0 lb	0 lb	C4
	3	Point	1-4-12		Far Face	77 lb	158 lb	0 lb	0 lb	J3
	4	Part. Uniform	2-0-12 to 4-8-12		Far Face	59 PLF	123 PLF	0 PLF	0 PLF	
	6	Point	5-4-12		Far Face	126 lb	296 lb	0 lb	0 lb	J3
	7	Point	6-8-12		Far Face	156 lb	393 lb	0 lb	0 lb	J3

Continued on page 2...

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- 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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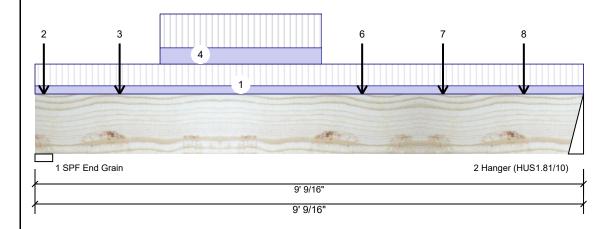
**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: Project: Address: Date: 5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

1.750" X 11.875" - PASSED F8-A Forex 2.0E-3000Fb LVL

Level: Ground Floor



Page 2 of 2

.Continued from page 1

ID Location Trib Width Side Comments Load Type Dead Live Snow Wind Far Face 141 lb 352 lb 0 lb 0 lb 8 Point Self Weight 5 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.

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

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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

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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: Project: Address:

5/30/2018 Designer: SB

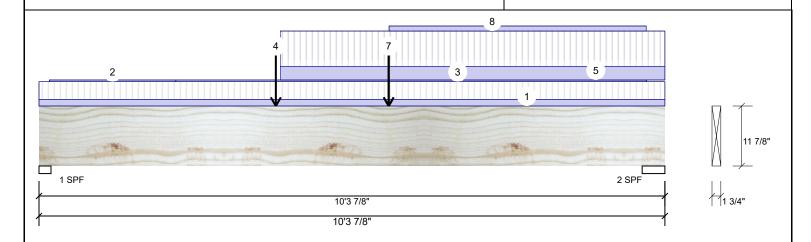
Job Name: AMELIA 3 EL-1 \_4BEDRM

Page 1 of 1

Project #:

### 1.750" X 11.875" - PASSED F9-A Forex 2.0E-3000Fb LVL

Level: Ground Floor



nation			Unfactore	d Reacti	ons UNPATTERN	ED lb (Uplift)	
Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
1	Design Method:	LSD	1	949	425	0	0
Dry	Building Code:	NBCC 2010 / OBC 2012	2	722	334	0	0
360	Load Sharing:	No					
240	Deck:	Not Checked					
Normal	Vibration:	Not Checked					
40 PSF			Bearings a	nd Facto	ored Reactions		
15 PSF			Bearing L	ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
			1 - SPF 2.	.375"	76% 531 / 1424	1955 L	1.25D+1.5L
			2 - SPF 4	.500"	31% 417 / 1083	1501 L	1.25D+1.5L
	1 Dry 360 240 Normal	Girder Application: Design Method: Building Code: Code	Girder Application: Floor (Residential)  1 Design Method: LSD  Dry Building Code: NBCC 2010 / OBC 2012  360 Load Sharing: No  Deck: Not Checked  Normal Vibration: Not Checked	Application: Floor (Residential)   Brg   1	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	7161 ft-lb	3'10 7/8"	17130 ft-lb	0.418 (42%)	1.25D+1.5L	L
Unbraced	7161 ft-lb	3'10 7/8"	7194 ft-lb	0.995 (100%)	1.25D+1.5L	L
Shear	1924 lb	1'1 1/2"	5798 lb	0.332 (33%)	1.25D+1.5L	L
Perm Defl in.	0.054 (L/2188)	4'7 7/8"	0.329 (L/360)	0.160 (16%)	D	Uniform
LL Defl inch	0.123 (L/965)	4'7 11/16"	0.329 (L/360)	0.370 (37%)	L	L
TL Defl inch	0.177 (L/670)	4'7 3/4"	0.494 (L/240)	0.360 (36%)	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 BEARING

## **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Top must be laterally braced at a maximum of 6'3" o.c.

3 Bottom braced	at bearings.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comment C
1	Tie-In	0-0-0 to 10-3-14	(Span)0-6-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-1 to 2-3-1		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	2-3-1 to 10-0-4		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
4	Point	3-10-14		Far Face	544 lb	1290 lb	0 lb	0 lb	F8
5	Tie-In	3-11-12 to 10-3-14	(Span)1-0-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	5-9-3		Тор	48 lb	127 lb	0 lb	0 lb	
7	Point	5-9-3		Тор	4 lb	12 lb	0 lb	0 lb	
8	Part. Uniform	5-9-5 to 10-0-3		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				5 PLF				

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- 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

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  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

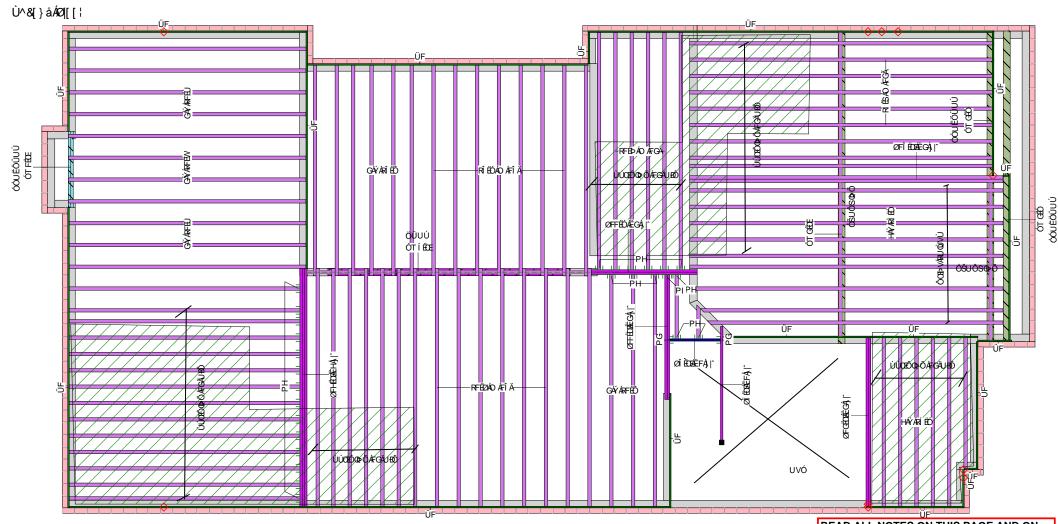


Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400

PROFESSIONAL CHARLES







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**EWP Studio** Simpson Strong-Tie®

Component Solutions™

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

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY

PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL

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.

NAILING OR BOLTING REQUIREMENTS.

POINT LOADS OVER BEARINGS

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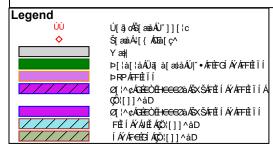
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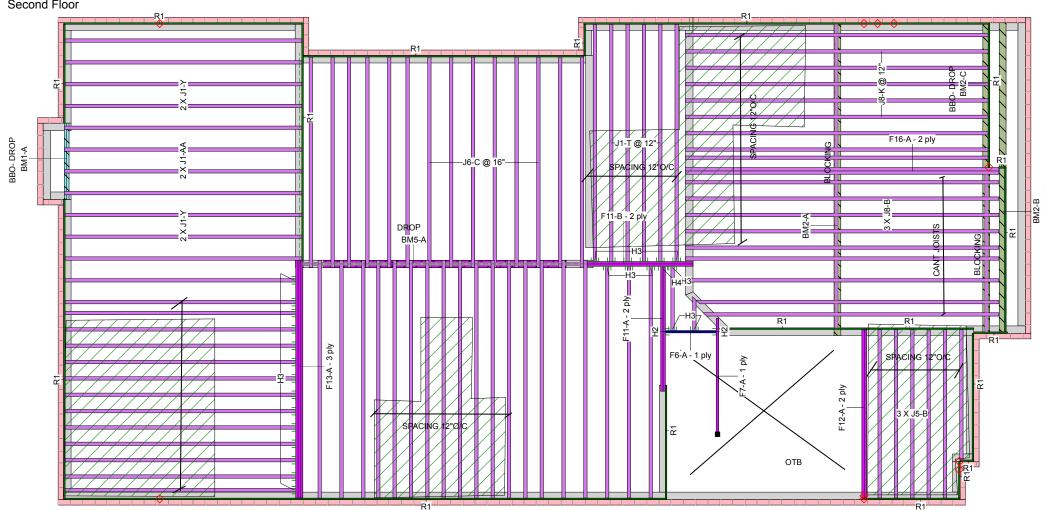
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THIS CERTIFICATION IS TO CONFIRM THAT:

1. THE LOADS USED IN THE CALCULATION OF THE ATTACHED APPROVED COMPONENTS CONFORM TO THE FLOOR ASSEMBLY

2. THE FLOOR JOISTS COMPLY WITH THE NASCOR SPAN TABLE

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

N.A. EL-MASRI hat Enast Jun 04, 2018 NE0618-018

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** 

### Pcs Length Label Description Width Depth Qty Plies F13 1.75 11.875 3 2.0E-3000Fb LVL F12 12-0-0 Forex 1.75 11.875 2.0E-3000Fb LVL AMELIA 3 EL-1 & 2 5BEDRM F11 Forex 1.75 11.875 4 8-0-0 Design Method 2.0E-3000Fb LVL 1.75 11.875 8-0-0 Forex Description 2.0E-3000Fb LVL GREEN YORK HOMES F6 Forex 1.75 | 11.875 4-0-0 2.0E-3000Fb LVL GRANELLI HOMES PROJECT BRAMPTON,ON LVL/LSL (Dropped) Label Description Width Depth Qty Plies Pcs Length Created May 29, 2018 BM5 1.75 11.875 16-0-0 Forex 3 2.0E-3000Fb LVL Builder Joist (Flush) Sales Rep Label Description Width Depth Qty Plies Pcs Length J8 NJH 2.5 11.875 18 20-0-0 Designer J1 NJH 2.5 11.875 50 16-0-0 SB J6 NJH 2.5 11.875 14-0-0 14 Shipping J5 NJH 2.5 11.875 12-0-0 Project J3 NJH 2.5 11.875 1 8-0-0 J9 NJH 2.5 11.875 2 4-0-0 Builder's Project F16 NJH 2.5 11.875 2 20-0-0 Kott Lumber Company Rim Board 14 Anderson Blvd Label Description Width Depth Qty Plies Pcs Length Stouffville, Ontario Norbord Rimboard 1.125 11.875 Canada Plus 1.125 X L4A 7X4 11.875 Blocking 905-642-4400 Plies Pcs Length Label Description Width Depth Qty Second Floor 2.5 11.875 BLK1 NJH LinFt Varies 34-0-0 Design Method Building Code NBCC 2010 / OBC Hanger Beam/Girder Supported Member Floor fasteners Label Pcs Description Skew Slope fasteners \_oads H2 2 HUS1.81/10 30 16d 10 16d I ive

12 10d

46 16d

1 #8x1 1/4WS

16 16d

Dead

Deflection Joist

Deflection Girder

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

Decking

Thickness

Fastener

Vibration

Ceiling:

Deck

# H4 NOTES:

H3

26 LF2511

1 HGUS410

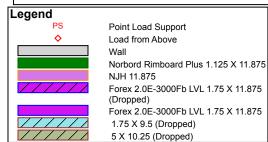
- Framer to verify dimensions on the architectural drawings.
- Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
- Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls. Install single-ply flush window header along inside face of rimboard/rimjoist
- Refer to Nascor specifier guide for installation details.
- Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.
- Load transfer blocks to be installed under all point loads. It shall be the framer's responsibility that floor joists and beams
- are fastened as per the hanger manufacturer's standards.

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

Rim parallel to joists: 1-1/8" rimboard with 2"x4" block (1/16" longer than rim depth) @ 16" o/c. All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the esponsibility of others.

Hatch area represents ceramic tiled floor with an additional dead load

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



SHOWN ON THIS LAYOUT.

FOR THE LOADS AND SPACING SHOWN ON THIS LAYOUT.

**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.

KOTT

Simpson Strong-Tie® Component Solutions™

EWP Studio Version 18.32.085 Powered by iStruct™

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

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

**EWP Studio** 

Architectural Drawing Info

IARDIN DESIGN GROUP

64 JARDIN DR, SUITE 3A

VAUGHAN,ON L4K 3P3

JOISTS SPACING 16"O/C

2 Nascor CCMC - 13535-R 3 LVL CCMC -12904-R

4. CAN/CSA-O86-09

NOTED OTHERWISE

Project # 17-55

Model: AMELIA 3

Date: MAY 22.2018

LSD

2012

40

15

480 360

480

360

360

240

480

360

OSB

5/8"

Nailed & Glued

Gypsum 1/2"

NE0618-018 PAGE 19 OF 30 Page 1 of 2



Client: Project: Address: Date: 5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

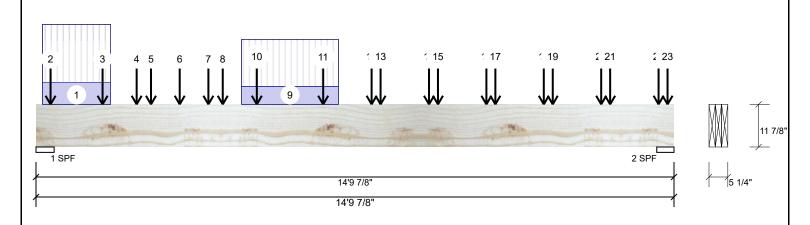
Project #:

Forex 2.0E-3000Fb LVL BM5-A

1.750" X 11.875"

3-Ply - PASSED

Level: Second Floor



Member Infor	mation			Unfactore	d Reacti	ons UNPATTERNE	ED lb (Uplift)		
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind	
Plies:	3	Design Method:	LSD	1	3891	1585	0	0	
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	3817	1541	0	0	
Deflection LL:	360	Load Sharing:	Yes						
Deflection TL:	240	Deck:	Not Checked						
Importance:	Normal	Vibration:	Not Checked						
General Load									
Floor Live:	40 PSF			Bearings a	and Facto	ored Reactions			
Dead:	15 PSF			Bearing L	ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.	
				1 - SPF 5	5.063"	48% 1981 / 5837	7818 L	1.25D+1.5L	
Analosia Dassi				2-SPF 4	.813"	49% 1927 / 5725	7651 L	1.25D+1.5L	

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	26622 ft-lb	7'9 9/16"	53447 ft-lb	0.498 (50%)	1.25D+1.5L	L
Unbraced	26622 ft-lb	7'9 9/16"	50353 ft-lb	0.529 (53%)	1.25D+1.5L	L
Shear	6935 lb	13'5 15/16"	17394 lb	0.399 (40%)	1.25D+1.5L	L
Perm Defl in.	0.141 (L/1199)	7'5 1/16"	0.471 (L/360)	0.300 (30%)	D	Uniform
LL Defl inch	0.350 (L/485)	7'5 1/4"	0.471 (L/360)	0.740 (74%)	L	L
TL Defl inch	0.491 (L/345)	7'5 1/8"	0.706 (L/240)	0.700 (70%)	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 BEARING** 



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Part. Uniform	0-1-13 to 1-8-13		Тор	139 PLF	363 PLF	0 PLF	0 PLF		
2	Point	0-4-1		Тор	54 lb	138 lb	0 lb	0 lb	J1	
3	Point	1-6-9		Тор	99 lb	265 lb	0 lb	0 lb	J6	
4	Point	2-4-1		Тор	111 lb	285 lb	0 lb	0 lb	J1	
5	Point	2-8-1		Тор	115 lb	306 lb	0 lb	0 lb	J6	

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







NE0618-018 PAGE 20 OF 30 Page 2 of 2

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: Project: Address:

5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

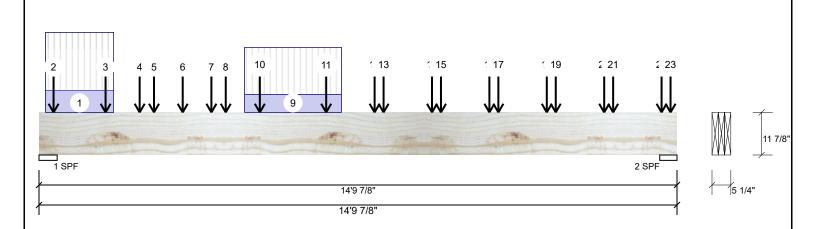
Project #:

BM5-A Forex 2.0E-3000Fb LVL

1.750" X 11.875"

3-Ply - PASSED

Level: Second Floor



.Continued	from page 1							
ID	Load Type	Location Trib V	Vidth Side	Dead	Live	Snow	Wind	Comments
6	Point	3-4-1	Тор	112 lb	286 lb	0 lb	0 lb	J1
7	Point	4-0-1	Тор	115 lb	306 lb	0 lb	0 lb	J6
8	Point	4-4-1	Тор	112 lb	285 lb	0 lb	0 lb	J1
9	Part. Uniform	4-9-5 to 7-0-5	Тор	112 PLF	296 PLF	0 PLF	0 PLF	
10	Point	5-1-9	Тор	115 lb	306 lb	0 lb	0 lb	J6
11	Point	6-8-1	Тор	142 lb	378 lb	0 lb	0 lb	J1
12	Point	7-9-9	Тор	125 lb	334 lb	0 lb	0 lb	J6
13	Point	8-0-1	Тор	142 lb	378 lb	0 lb	0 lb	J1
14	Point	9-1-9	Тор	125 lb	334 lb	0 lb	0 lb	J6
15	Point	9-4-1	Тор	142 lb	378 lb	0 lb	0 lb	J1
16	Point	10-5-9	Тор	125 lb	334 lb	0 lb	0 lb	J6
17	Point	10-8-1	Тор	142 lb	378 lb	0 lb	0 lb	J1
18	Point	11-9-9	Тор	125 lb	334 lb	0 lb	0 lb	J6
19	Point	12-0-1	Тор	142 lb	378 lb	0 lb	0 lb	J1
20	Point	13-1-9	Тор	125 lb	334 lb	0 lb	0 lb	J6
21	Point	13-4-1	Тор	142 lb	378 lb	0 lb	0 lb	J1
22	Point	14-5-9	Тор	62 lb	165 lb	0 lb	0 lb	J6
23	Point	14-8-1	Тор	70 lb	187 lb	0 lb	0 lb	J1
	Self Weight			14 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







NE0618-018 PAGE 21 OF 30



Client: Project: Address:

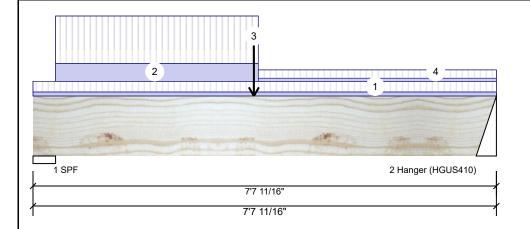
5/30/2018 Designer: SB

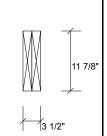
Job Name: AMELIA 3 EL-1 \_4BEDRM

Level: Second Floor

Project #

1.750" X 11.875" 2-Ply - PASSED F11-A Forex 2.0E-3000Fb LVL





Page 1 of 1

iviember	intormation
Type:	Girder

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

40 PSF 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 lb (Uplift)**

Brg	Live	Dead	Snow	Wind
1	489	224	0	0
2	372	179	0	0

## Bearings and Factored Reactions

Bearing I	Length	Cap. Rea	act D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF 4	4.467"	11%	280 / 733	1013	L	1.25D+1.5L
2 - 4 Hanger	4.000"	8%	224 / 558	782	L	1.25D+1.5L

## Analysis Results

Floor Live:

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2402 ft-lb	3'7 11/16"	34261 ft-lb	0.070 (7%)	1.25D+1.5L	L
Unbraced	2402 ft-lb	3'7 11/16"	31940 ft-lb	0.075 (8%)	1.25D+1.5L	L
Shear	838 lb	1'3 9/16"	11596 lb	0.072 (7%)	1.25D+1.5L	L
Perm Defl in.	0.006 (L/15375)	3'7 3/4"	0.235 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.012 (L/6820)	3'7 3/4"	0.235 (L/360)	0.050 (5%)	L	L
TI Deflinch	0.018 (L/4725)	3'7 3/4"	0.353 (L/240)	0.050 (5%)	D+L	L

**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.

READ ALL NOTES ON THIS PAGE AND ON

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

**BLOCK IS REQUIRED AT ALL** 

Snow

0 PSF

0 PSF

0 PSF

0 lb

# **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.

Load Type

Tie-In

Tie-In

Point

Tie-In

Self Weight

PASS THRU FRAMING SQUASH POINT LOADS OVER BEARINGS

	Jun 04, 2018	
Comments		
F6		

ED PROFESSIONAL

**EL-MASRI** 

ID

2

3

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

Location

3-7-11

0-0-0 to 7-7-11

0-4-7 to 3-8-9

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

3-8-9 to 7-7-11 (Span)0-7-0 Top

Trib Width

(Span)0-9-0

(Span)3-4-0

Side

Top

Top

Near Face

Dead

15 PSF

15 PSF

187 lb

15 PSF

10 PLF

Damaged Beams must not be used

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

**Manufacturer Info** 6. For flat roofs provide proper drainage to prevent ponding

I ive

40 PSF

40 PSF

477 lb

40 PSF

APA: PR-L318



Wind

0 PSF

0 PSF

0 PSF

0 lb





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Client: Project: Address:

5/30/2018 Designer: SB

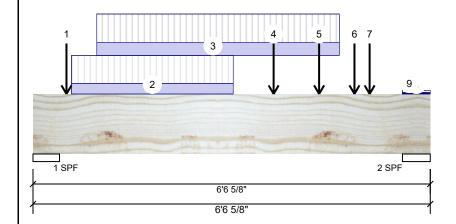
Job Name: AMELIA 3 EL-1 \_4BEDRM

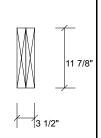
Project #:

F11-B Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED Level: Second Floor





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	vvina
1	1641	715	0	0
2	1474	665	0	0

## **Bearings and Factored Reactions**

Bearing Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
1 - SPF 5.250"	30% 894 / 2461	3355 L	1.25D+1.5L
2 - SPF 5.500"	26% 831 / 2211	3043 L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4870 ft-lb	3'3 5/8"	34261 ft-lb	0.142 (14%)	1.25D+1.5L	L
Unbraced	4870 ft-lb	3'3 5/8"	32706 ft-lb	0.149 (15%)	1.25D+1.5L	L
Shear	3588 lb	5'2"	11596 lb	0.309 (31%)	1.25D+1.5L	L
Perm Defl in.	0.009 (L/7425)	3'3 5/8"	0.193 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.021 (L/3252)	3'3 7/16"	0.193 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.031 (L/2262)	3'3 1/2"	0.289 (L/240)	0.110 (11%)	D+L	L

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

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

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

## **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 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	Point	0-6-10		Far Face	111 lb	256 lb	0 lb	0 lb	J1
	2	Part. Uniform	0-7-10 to 3-3-10		Near Face	105 PLF	280 PLF	0 PLF	0 PLF	
	3	Part. Uniform	1-0-10 to 5-0-10		Far Face	127 PLF	286 PLF	0 PLF	0 PLF	
	4	Point	3-11-10		Near Face	111 lb	296 lb	0 lb	0 lb	J1
	5	Point	4-8-10		Near Face	179 lb	372 lb	0 lb	0 lb	F11
	6	Point	5-3-10		Near Face	25 lb	67 lb	0 lb	0 lb	J9
C	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







NE0618-018 PAGE 23 OF 30

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: Project: Address: Date: 5/30/2018 Designer:  $\mathsf{S}\,\mathsf{B}$ 

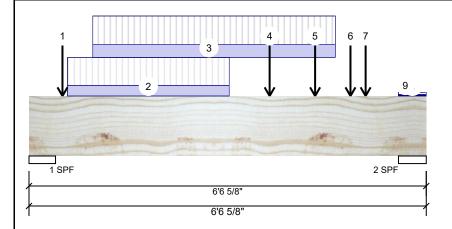
Job Name: AMELIA 3 EL-1 \_4BEDRM

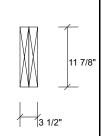
Project #:

Forex 2.0E-3000Fb LVL F11-B

1.750" X 11.875"

2-Ply - PASSED Level: Second Floor





Page 2 of 2

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Continued	trom	page	1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	5-6-10		Far Face	99 lb	221 lb	0 lb	0 lb	J1
8	Tie-In	6-1-2 to 6-6-10	(Span)0-3-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
9	Tie-In	6-1-2 to 6-6-10	(Span)1-0-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 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







NE0618-018 PAGE 24 OF 30



Client: Project: Address:

5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

Page 1 of 1

11 7/8'

Project #:

2-Ply - PASSED Level: Second Floor 1.750" X 11.875" Forex 2.0E-3000Fb LVL F12-A

Application:

Design Method:

**Building Code:** 

Load Sharing:

Deck:

Vibration:

2 1

\_ 1 SPF 2 SPF 10'3 3/4" 10'3 3/4"

Floor (Residential)

Not Checked

Not Checked

No

NBCC 2010 / OBC 2012

Member	Information
Type:	Girder
	_

Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal

General Load Floor Live: 40 PSF Dead: 15 PSF

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

Brg	Live	Dead	Snow	Wind
Brg 1	97	91	0	0
2	97	91	0	0

# **Bearings and Factored Reactions**

Bearing Length	Cap. Re	eact D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF 4.375"	3%	113 / 146	259	L	1.25D+1.5L
2 - SPF 4.375"	3%	113 / 146	259	L	1.25D+1.5L

Comments

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	592 ft-lb	5'1 7/8"	34261 ft-lb	0.017 (2%)	1.25D+1.5L	L
Unbraced	592 ft-lb	5'1 7/8"	29876 ft-lb	0.020 (2%)	1.25D+1.5L	L
Shear	194 lb	9' 1/4"	11596 lb	0.017 (2%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/27908)	5'1 7/8"	0.324 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.004 (L/26047)	5'1 7/8"	0.324 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.009 (L/13473)	5'1 7/8"	0.485 (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 BEARING

## **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.

Self Weight

- 4 Top braced at bearings.
- 5 Bottom braced at bearings

o Bottom bracoa	at Doarnigo.				I					
6 Lateral slenderness ratio based on full section width.										
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind		
1	Tie-In	0-0-0 to 10-3-12	(Span)0-11-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Part. Uniform	0-2-5 to 10-3-12		Тор	1 PLF	0 PLF	0 PLF	0 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

10 PLF

**Manufacturer Info** 

APA: PR-L318



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

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Client: Project: Address:

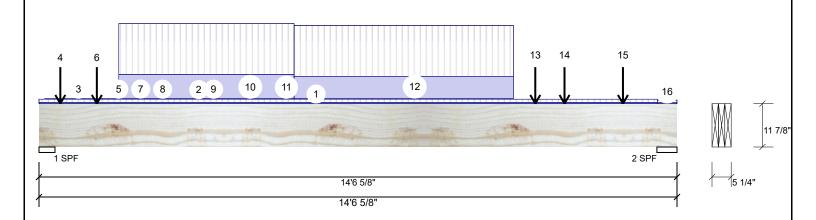
5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

Page 1 of 2

Project #

3-Ply - PASSED Level: Second Floor 1.750" X 11.875" Forex 2.0E-3000Fb LVL F13-A



Member Info	rmation			Unfactore	d Reaction	ons UNPATTERNI	D lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	3	Design Method:	LSD	1	2079	1064	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	2002	945	0	0
Deflection LL:	360	Load Sharing:	Yes					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings a	and Facto	ored Reactions		
Dead:	15 PSF			Bearing L	ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 4	.375"	31% 1330 / 3118	4449 L	1.25D+1.5L
				2-SPF 5	.500"	24% 1181 / 3003	4185 L	1.25D+1.5L
Analysis Posu	l+c							

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	14991 ft-lb	7'2 3/8"	53447 ft-lb	0.280 (28%)	1.25D+1.5L	L
Unbraced	14991 ft-lb	7'2 3/8"	50470 ft-lb	0.297 (30%)	1.25D+1.5L	L
Shear	4377 lb	1'3 1/2"	17394 lb	0.252 (25%)	1.25D+1.5L	L
Perm Defl in.	0.089 (L/1875)	7'2 5/16"	0.462 (L/360)	0.190 (19%)	D	Uniform
LL Defl inch	0.180 (L/922)	7'2 7/8"	0.462 (L/360)	0.390 (39%)	L	L
TL Defl inch	0.269 (L/618)	7'2 5/8"	0.693 (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.

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 BEARING

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 14-1-4	(Span)0-10-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-1-9 to 5-11-10		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-1-9 to 1-3-13		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
4	Point	0-5-13		Far Face	92 lb	190 lb	0 lb	0 lb	J1
5	Part. Uniform	1-3-13 to 2-3-13		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
6	Point	1-3-13		Far Face	123 lb	255 lb	0 lb	0 lb	J1 (
Continued on pa	ge 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



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



Jun 04, 2018



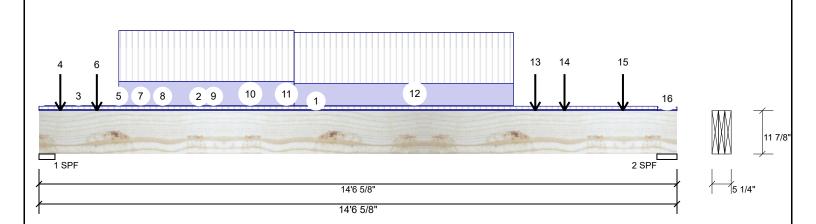
NE0618-018 PAGE 26 OF 30 Page 2 of 2

**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: Project: Address: Date: 5/30/2018 Designer:  $\mathsf{S}\,\mathsf{B}$ 

Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

3-Ply - PASSED Level: Second Floor 1.750" X 11.875" Forex 2.0E-3000Fb LVL F13-A



Continued from p	age 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Part. Uniform	1-9-13 to 5-9-13		Far Face	132 PLF	278 PLF	0 PLF	0 PLF	
8	Part. Uniform	2-3-13 to 3-3-13		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
9	Part. Uniform	3-3-13 to 4-3-13		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
10	Part. Uniform	4-3-13 to 5-3-13		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
11	Part. Uniform	5-3-13 to 5-11-10		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
12	Part. Uniform	5-9-13 to 10-9-13		Far Face	122 PLF	278 PLF	0 PLF	0 PLF	
13	Point	11-3-13		Far Face	93 lb	232 lb	0 lb	0 lb	J1
14	Point	11-11-13		Far Face	104 lb	278 lb	0 lb	0 lb	J1
15	Point	13-3-13		Far Face	139 lb	371 lb	0 lb	0 lb	J1
16	Tie-In	14-1-4 to 14-6-10	(Span)0-8-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				14 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







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Client: Project: Address:

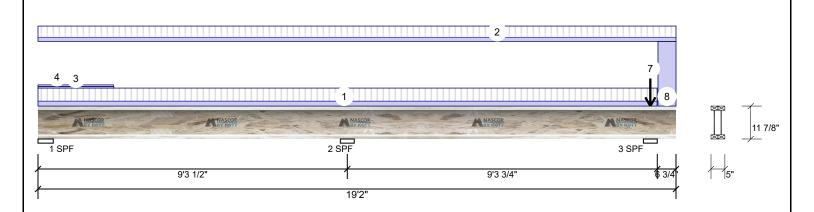
5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

### 2-Ply - PASSED NJH 11.875" F16-A

Level: Second Floor



ŀ	Member Inform	nation		
ſ	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		
l				

Unfactored	Reactions	<b>UNPATTERNED Ib</b>	(Unlift)
Olliactol <del>c</del> u	Neactions	OIAL WILLIAMS IN	CPILL

Brg	Live	Dead	Snow	Wind
1	116	52	1	0
2	323	117	0 (-4)	0
3	331	338	201	0

## **Bearings and Factored Reactions**

I	Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
I	1 - SPF	5.500"	7%	65 / 196	261	L	1.25D+1.5L
1	2 - SPF	5.000"	9%	146 / 492	638	LL_	1.25D+1.5L
	3 - SPF	5.000"	29%	422 / 619	1041	_LL	1.25D+1.5L +0.5S

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-519 ft-lb	9'3 1/2"	10780 ft-lb	0.048 (5%)	1.25D+1.5L	LL_
Unbraced	-316 ft-lb	9'3 1/2"	2074 ft-lb	0.152 (15%)	1.25D+1.5L	L
Pos Moment	442 ft-lb	4'2 11/16"	9486 ft-lb	0.047 (5%)	1.25D+1.5L	L
Unbraced	442 ft-lb	4'2 11/16"	2904 ft-lb	0.152 (15%)	1.25D+1.5L	L
Shear	656 lb	18'7 1/4"	2860 lb	0.229 (23%)	1.25D+1.5S	L
Perm Defl in.	0.002 (L/45086)	4'5 9/16"	0.297 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.008 (L/13922)	4'8 7/16"	0.297 (L/360)	0.030 (3%)	L+0.5S	L_L
TL Defl inch	0.010 (L/10644)	4'7 3/4"	0.445 (L/240)	0.020 (2%)	D+L+0.5S	L_L
LL Cant	-0.001 (2L/11527)	Rt Cant	0.200 (2L/480)	0.006 (1%)	L	_L_
TL Cant	0.001 (2L/11390)	Rt Cant	0.300 (2L/360)	0.004 (0%)	D+L+0.5S	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 flange unbraced.
- 5 Bottom flange braced at 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

- 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 lengthp=3.5 inches
   For flat roofs provide proper drainage to prevent

Manufacturer Info Nascor by Kott

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

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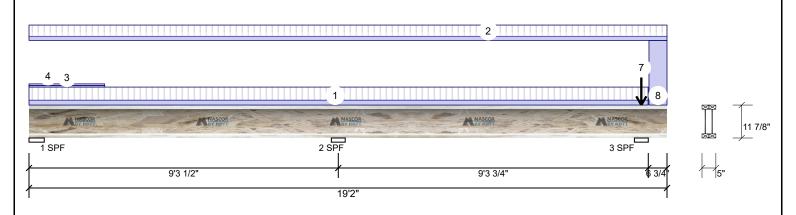
**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: Project: Address: Date: 5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

Project #:

2-Ply - PASSED 11.875" F16-A NJH

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 18-7-3	(Span)0-9-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 19-2-0	(Span)0-8-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-0 to 2-3-5		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-0 to 2-3-5		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
5	Point	18-4-12		Тор	199 lb	204 lb	197 lb	0 lb	F2 F2
6	Point	18-4-12		Тор	7 lb	0 lb	0 lb	0 lb	Wall Self Weight
7	Point	18-4-12		Тор	36 lb	0 lb	0 lb	0 lb	Wall Self Weight
8	Part. Uniform	18-7-8 to 19-2-0		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

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
 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







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Project: Address:

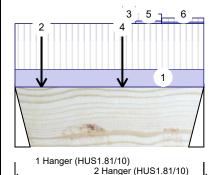
5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

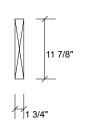
Project #:

### 1.750" X 11.875" - PASSED Forex 2.0E-3000Fb LVL F6-A

Level: Second Floor



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.



Wind

0

0

	2 Hanger (HUS1.81/10)	
1 1	3'1 3/8"	,
1	3'1 3/8"	1

15 PSF

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						

**Unfactored Reactions UNPATTERNED Ib (Uplift)** Brg Live Dead 477 187 0 1

176

## **Bearings and Factored Reactions** Bearing Length Cap. React D/L lb

449

Total Ld. Case Ld. Comb. 3.000" 233 / 716 1.25D+1.5L 949 L Hanger 2 -23%

Hanger

2

3.000" 220 / 674 894 L 1.25D+1.5L

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.** 



# Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	568 ft-lb	1'8 1/8"	17130 ft-lb	0.033 (3%)	1.25D+1.5L	L
Unbraced	568 ft-lb	1'8 1/8"	14337 ft-lb	0.040 (4%)	1.25D+1.5L	L
Shear	386 lb	1'2 1/8"	5798 lb	0.067 (7%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/35583)	1'7 9/16"	0.091 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/13914)	1'7 9/16"	0.091 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.003 (L/10003)	1'7 9/16"	0.137 (L/240)	0.020 (2%)	D+L	L

## **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

i Dottoili biacca	i at boaringo.									
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Part. Uniform	0-0-0 to 3-1-6		Тор	90 PLF	240 PLF	0 PLF	0 PLF		
2	Point	0-5-4		Far Face	28 lb	74 lb	0 lb	0 lb	J9	
3	Tie-In	1-9-4 to 1-11-14	(Span)3-1-11 to 3-1-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
4	Point	1-9-4		Far Face	23 lb	61 lb	0 lb	0 lb	J9	
5	Tie-In	1-11-14 to 2-5-0	(Span)1-9-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
6	Tie-In	2-5-0 to 3-1-6	(Span)1-0-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
	Self Weight				5 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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**EWP Studio** Simpson Strong-Tie® Component Solutions™ Client: Project: Address:

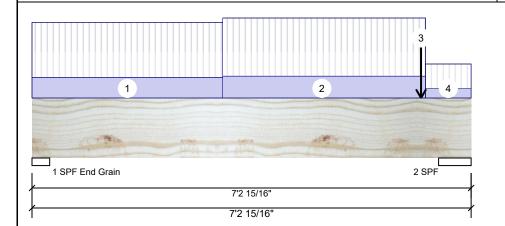
5/30/2018 Designer: SB

Job Name: AMELIA 3 EL-1 \_4BEDRM

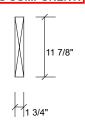
Project #:

### 1.750" X 11.875" - PASSED Forex 2.0E-3000Fb LVL F7-A

Level: Second Floor



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



Page 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	Snow	Wind
1	248	110	0	0
2	643	266	0	0

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	884 ft-lb	3'10 9/16"	17130 ft-lb	0.052 (5%)	1.25D+1.5L	L
Unbraced	884 ft-lb	3'10 9/16"	6876 ft-lb	0.129 (13%)	1.25D+1.5L	L
Shear	1154 lb	5'9 3/8"	5798 lb	0.199 (20%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/19225)	3'7 3/4"	0.218 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.009 (L/8390)	3'7 15/16"	0.218 (L/360)	0.040 (4%)	L	L
TL Defl inch	0.013 (L/5841)	3'7 7/8"	0.327 (L/240)	0.040 (4%)	D+L	L

# **Bearings and Factored Reactions**

l	Bearing	Length	Cap. Re	act D/L lb	Total	Ld. Case	Ld. Comb.
l	1 - SPF	3.500"	11%	138 / 372	510	L	1.25D+1.5L
1	End						
l	Grain						
1	2 - SPF	6.438"	19%	333 / 965	1298	L	1.25D+1.5L
_							

# **Design Notes**

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

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 3-1-12	(Span)3-1-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	3-1-12 to 6-5-14	(Span)3-4-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	6-5-0		Far Face	176 lb	449 lb	0 lb	0 lb	F6
4	Tie-In	6-5-14 to 7-2-15	(Span)1-5-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				5 PLF				

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