

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

REVISION 2018-10-17

**Please read all notes prior to installation of the component****DESIGN INFORMATION**

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

The responsibility of the undersigned engineer is only 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 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 transfer blocks. Structural elements such as walls, posts, connectors, and transfer 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 floor joists is to be carried out in accordance with the current edition of the manufacturer's literature available at <http://www.kottgroup.com>.

**CODE**

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

**COMPONENT**

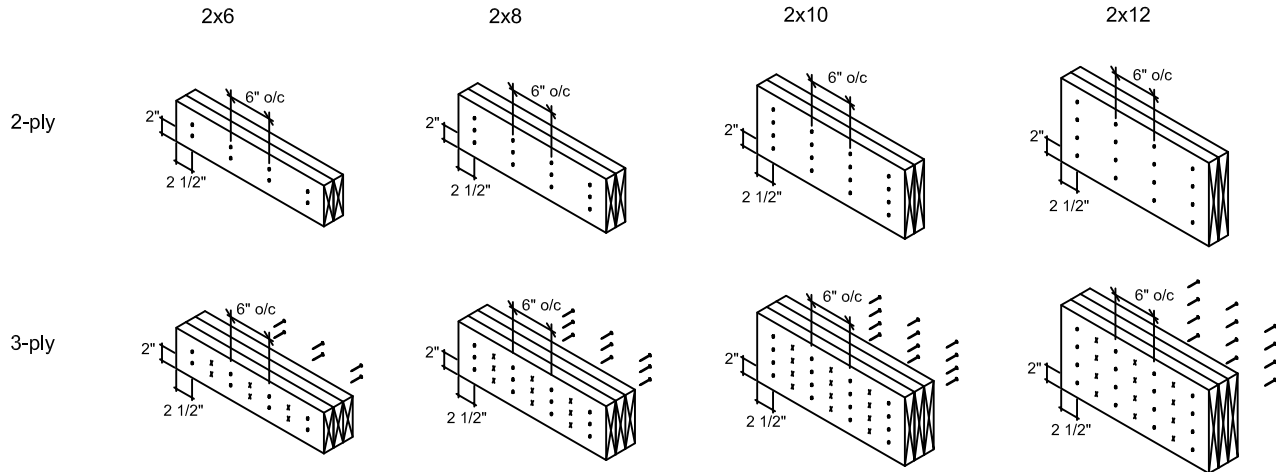
1. The building component used in construction must be the same as indicated on the drawings.
2. The building component must be installed and assembled as per specification shown on the drawing and in accordance with the manufacturer's assembly and installation.
3. Members consisting of multiple plies must be connected as per the document "Multi-ply Connection Details".
4. Pass-thru transfer 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 pre-authorization.



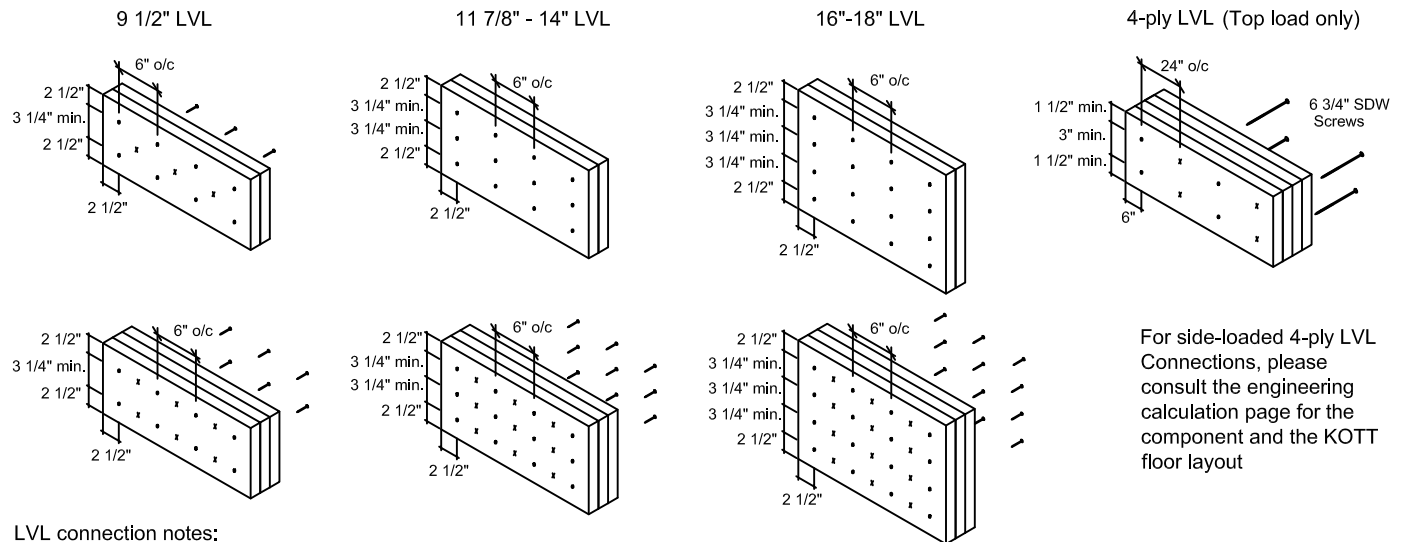
## Conventional Connections



### Conventional connection notes:

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

## LVL Connections



### LVL connection notes:

- LVL ply width is 1-3/4"
- Nails to be 3 1/2" common wire nails.
- Nails to be located 2 1/2" min. from the top and bottom of the member. Start all nails 2 1/2" min. 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.

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

## Multiple Member Connections

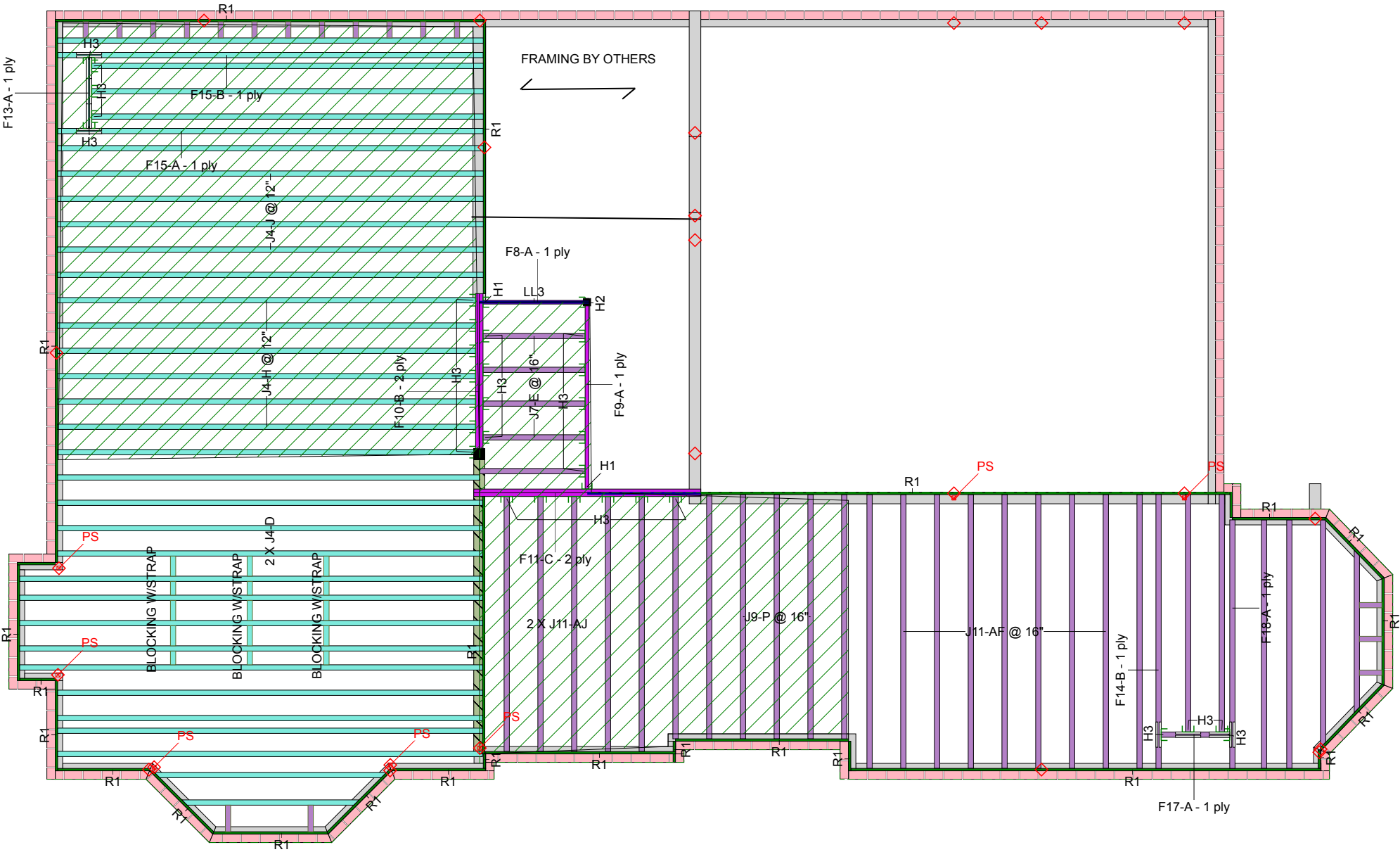
All connections are for uniformly distributed loads.

For multi-ply connections of I-joists, refer to Manufacturer's Installation Guide



KOTT Inc.  
3228 Moodie Drive  
Ottawa, ON  
K2H 7V1  
613-838-2775

Ground Floor



Architectural Drawing Info  
JARDIN DESIGN GROUP INC  
64 JARDIN DR, SUITE 3A  
VAUGHAN, ON, L4K 3P3  
Project # 17-55  
Model: LOT-13 (AMELIA 12 - EL-1)  
Date: AUG 30 2018

JOISTS SPACING 16" O/C  
UNLESS  
NOTED OTHERWISE

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 KOTT span table for the loads and spacing shown on this layout.  
The floor system must be assembled in accordance to the KOTT Specifier Guide. Multi-ply members must be attached together as per the included multiple member connection detail.



January 02, 2019

1. OBC 2012 O.Reg 332/12 as amended
2. Nascor CCMC - 13535-R
3. LVL CCMC -12904-R
4. CAN/CSA-O86-09
5. CCMC -12787-R APA PR-L310(C)

Ground Floor LVL/LSL							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F11	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	10-0-0
F10	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	8-0-0
F9	Forex 2.0E-3000Fb LVL	1.75	11.875			1	8-0-0
F8	Forex 2.0E-3000Fb LVL	1.75	11.875			1	6-0-0

I Joist							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F14	LPI 20Plus	2.5	11.875			1	12-0-0
F18	LPI 20Plus	2.5	11.875			1	10-0-0
F17	LPI 20Plus	2.5	11.875			1	4-0-0
J11	LPI 20Plus	2.5	11.875			14	12-0-0
J9	LPI 20Plus	2.5	11.875			11	10-0-0
J8	LPI 20Plus	2.5	11.875			1	8-0-0
J7	LPI 20Plus	2.5	11.875			5	6-0-0
F15	NJ60H	2.5	11.875			2	18-0-0
F13	NJ60H	2.5	11.875			1	4-0-0
J5	NJ60H	2.5	11.875			5	20-0-0
J4	NJ60H	2.5	11.875			22	18-0-0
J3	NJ60H	2.5	11.875			3	16-0-0
J2	NJ60H	2.5	11.875			1	10-0-0
J1	NJ60H	2.5	11.875			1	8-0-0

Rim Board							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875			14	12

Blocking							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK2	LPI 20 Plus	2.5	11.875	LinFt		Varies	13-0-0
BLK1	NJ60H	2.5	11.875	LinFt		Varies	11-0-0

Hanger							
				Beam/Girder		Supported Member	
Label	Pcs	Description	Skew	Slope	fasteners	fasteners	
H1	2	HUS1.81/10			30 16d	10 16d	
H2	1	HUS1.81/10					
H3	31	LF2511			12 10dx1 1/2	1 #8x1 1/4WS	

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


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

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 responsibility of others.

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

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

Legend	
PS	Point Load Support
◇	Load from Above
■	Wall
■	Norbord Rimboard Plus 1.125 X 11.875
■	LPI 20Plus 11.875
■	NJ60H 11.875
■	Forex 2.0E-3000Fb LVL 1.75 X 11.875
■	5.25 X 10.25 (Dropped)



Layout Name  
LOT -13 (AMELIA 12 EL- 1)

Design Method  
LSD

Description  
GREEN YORK HOMES  
GRANELLI HOMES PROJECT  
BRAMPTON, ON

Created  
May 31, 2018

Builder

Sales Rep

Designer  
S B

Shipping

Project

Builder's Project  
**Kott Lumber Company**  
14 Anderson Blvd  
Stouffville, Ontario  
Canada  
L4A 7X4  
905-642-4400

**Ground Floor**

Design Method  
LSD

Building Code  
NBCC 2010 / OBC 2012

**Floor**

Loads

Live  
40

Dead  
15

Deflection Joist

LL Span L/  
480

TL Span L/  
360

LL Cant 2L/  
480

TL Cant 2L/  
360

Deflection Girder

LL Span L/  
360

TL Span L/  
240

LL Cant 2L/  
480

TL Cant 2L/  
360

Decking

Deck  
OSB

Thickness  
3/4"

Fastener  
Nailed & Glued

Vibration



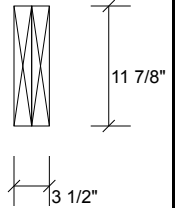
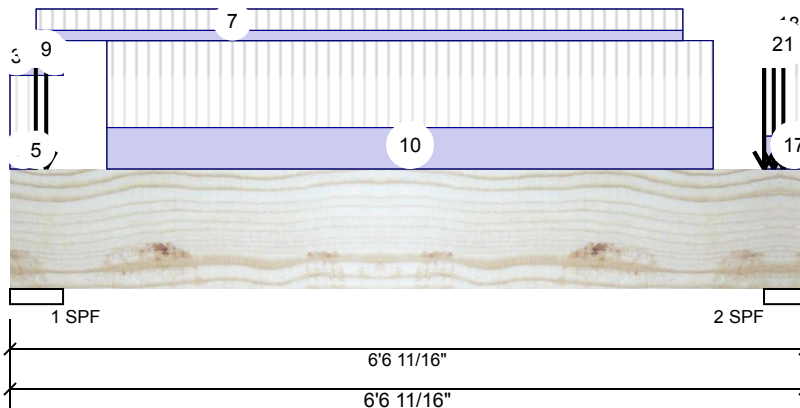


Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 2

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



### 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 lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	3755	1798	0	0
2	2610	1252	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	70%	2247 / 5633	7880	L	1.25D+1.5L
2 - SPF	4.063"	63%	1565 / 3915	5480	L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3714 ft-lb	3'3 3/4"	34261 ft-lb	0.108 (11%)	1.25D+1.5L	L
Unbraced	3714 ft-lb	3'3 3/4"	32638 ft-lb	0.114 (11%)	1.25D+1.5L	L
Shear	2285 lb	5'3 1/2"	11596 lb	0.197 (20%)	1.25D+1.5L	L
Perm Defl in.	0.008 (L/8835)	3'3 7/8"	0.197 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.016 (L/4425)	3'3 7/8"	0.197 (L/360)	0.080 (8%)	L	L
TL Defl inch	0.024 (L/2948)	3'3 7/8"	0.295 (L/240)	0.080 (8%)	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 THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
2	Part. Uniform	0-0-0 to 0-2-9		Top	107 PLF	248 PLF	0 PLF	0 PLF	J4
3	Part. Uniform	0-0-0 to 0-2-9		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Point	0-2-9		Top	1091 lb	2391 lb	0 lb	0 lb	F10 F10 F11 F11
5	Part. Uniform	0-2-9 to 0-2-9		Top	107 PLF	248 PLF	0 PLF	0 PLF	J4
6	Part. Uniform	0-2-9 to 0-5-4		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

Continued on page 2...

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

### Notes

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

### Lumber

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

### Handling & Installation

1. LVL beams must not be used for any other purpose.
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.

5. For flat roofs provide proper drainage to prevent ponding.

### Manufacturer Info

Forex  
APA: PR-L318



**KOTT**

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

**NASCOR**

This design is valid until 10/18/2021



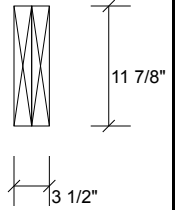
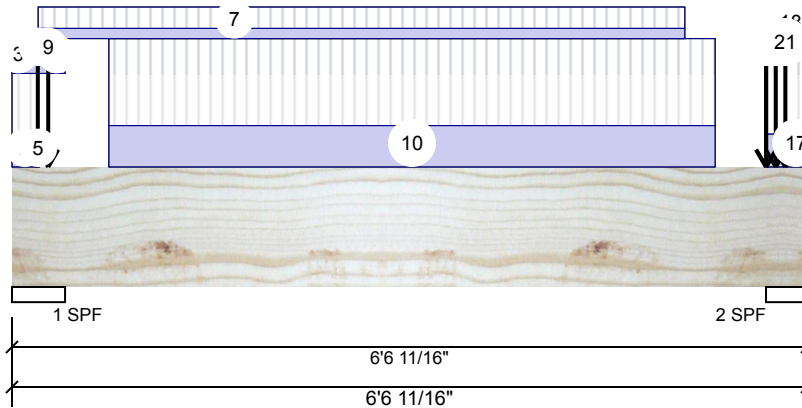


Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

<b>F10-B</b>	<b>Forex 2.0E-3000Fb LVL</b>	<b>1.750" X 11.875"</b>	<b>2-Ply - PASSED</b>	Level: Ground Floor
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Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Part. Uniform	0-2-9 to 5-6-9		Near Face	39 PLF	81 PLF	0 PLF	0 PLF	
9	Point	0-3-9		Far Face	101 lb	229 lb	0 lb	0 lb	J4
10	Part. Uniform	0-9-9 to 5-9-9		Far Face	157 PLF	330 PLF	0 PLF	0 PLF	
16	Point	6-2-10		Top	2 lb	6 lb	0 lb	0 lb	
17	Part. Uniform	6-2-10 to 6-6-11		Top	125 PLF	334 PLF	0 PLF	0 PLF	J4
18	Part. Uniform	6-2-10 to 6-6-11		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
19	Point	6-2-10		Near Face	59 lb	133 lb	0 lb	0 lb	F8
20	Point	6-3-9		Far Face	96 lb	203 lb	0 lb	0 lb	J4
21	Point	6-4-8		Top	518 lb	1155 lb	0 lb	0 lb	F10 F10
	Self Weight				10 PLF				



January 02, 2019

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection  
Detail for ply to ply nailing or bolting  
requirements**

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

## Notes

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

**Lumber**

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

## chemicals

## Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply 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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info
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Forex  
APA: PR-L318

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



# KOTT

**NASCOR**

This design is valid until 10/18/202



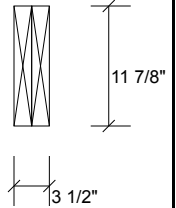
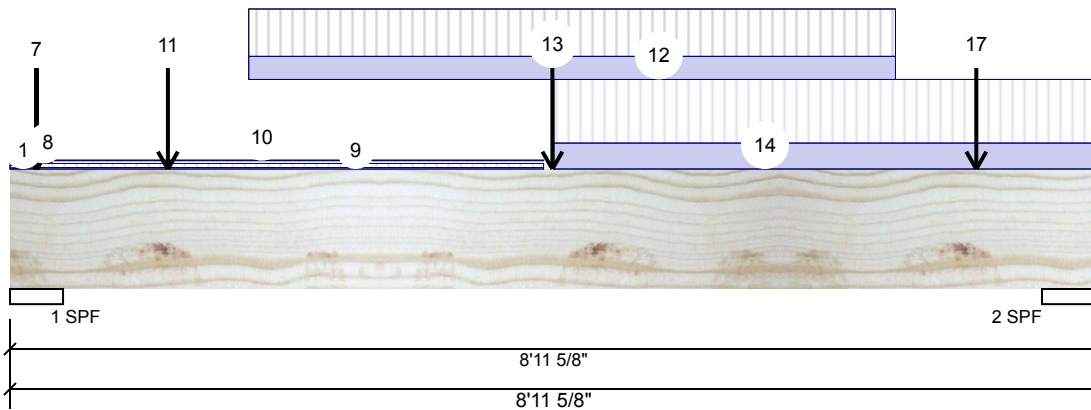


Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 2

**F11-C Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED** Level: Ground Floor



### 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 lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	1357	717	0	0
2	1908	907	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	26%	897 / 2035	2931	L	1.25D+1.5L
2 - SPF	5.500"	34%	1134 / 2862	3996	L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7299 ft-lb	4'8 7/16"	34261 ft-lb	0.213 (21%)	1.25D+1.5L	L
Unbraced	7299 ft-lb	4'8 7/16"	31134 ft-lb	0.234 (23%)	1.25D+1.5L	L
Shear	3228 lb	7'7"	11596 lb	0.278 (28%)	1.25D+1.5L	L
Perm Defl in.	0.025 (L/3939)	4'6 7/8"	0.273 (L/360)	0.090 (9%)	D	Uniform
LL Defl inch	0.051 (L/1942)	4'7 5/16"	0.273 (L/360)	0.190 (19%)	L	
TL Defl inch	0.076 (L/1301)	4'7 3/16"	0.410 (L/240)	0.180 (18%)	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 THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-14	(Span)0-7-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-4-2	(Span)0-4-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-2-10		Top	3 lb	7 lb	0 lb	0 lb	Pass-Thru Framing Squash Block is required at all point loads over bearings
4	Point	0-2-10		Top	2 lb	0 lb	0 lb	0 lb	Refer to Multiple Member Connection Detail for ply nailing or bolting requirements
5	Point	0-2-10		Top	46 lb	113 lb	0 lb	0 lb	

Continued on page 2...

### Notes

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

### Lumber

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

### Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply 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

6. For flat roofs provide proper drainage to prevent ponding

### Manufacturer Info

Forex  
APA: PR-L318



This design is valid until 10/18/2021

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



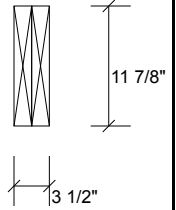
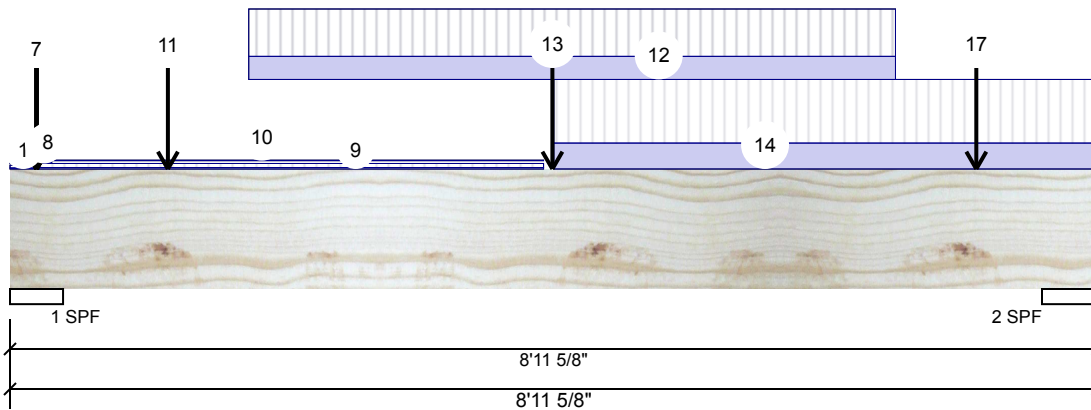


Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 2 of 2

**F11-C Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED** Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	0-2-10		Top	12 lb	28 lb	0 lb	0 lb	J4
7	Point	0-2-10		Top	36 lb	0 lb	0 lb	0 lb	Wall Self Weight
8	Part. Uniform	0-2-12 to 0-4-2		Top	1 PLF	0 PLF	0 PLF	0 PLF	
9	Tie-In	0-2-14 to 4-4-13	(Span)0-10-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
10	Part. Uniform	0-2-14 to 4-4-13		Top	2 PLF	0 PLF	0 PLF	0 PLF	
11	Point	1-3-10		Near Face	110 lb	225 lb	0 lb	0 lb	J11
12	Part. Uniform	1-11-10 to 7-3-10		Near Face	98 PLF	201 PLF	0 PLF	0 PLF	
13	Point	4-5-11		Far Face	154 lb	281 lb	0 lb	0 lb	F9
14	Part. Uniform	4-5-13 to 8-11-10		Top	110 PLF	270 PLF	0 PLF	0 PLF	
17	Point	7-11-10		Near Face	123 lb	251 lb	0 lb	0 lb	J9
	Self Weight				10 PLF				



January 02, 2019

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

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

**Notes**

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

**Lumber**

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

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply 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

6. For flat roofs provide proper drainage to prevent ponding

**Manufacturer Info**

Forex  
APA: PR-L318



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



This design is valid until 10/18/2021





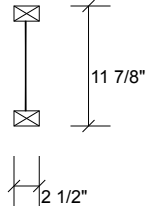
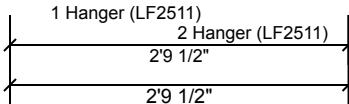
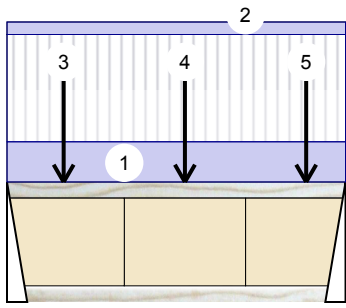
Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

**F13-A NJ60H 11.875" - PASSED**

Level: Ground Floor



### 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	404	192	0	0
2	430	205	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	53%	240 / 606	846	L	1.25D+1.5L
2 - Hanger	2.000"	56%	256 / 645	901	L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	595 ft-lb	1'5 5/8"	7350 ft-lb	0.081 (8%)	1.25D+1.5L	L
Unbraced	595 ft-lb	1'5 5/8"	6470 ft-lb	0.092 (9%)	1.25D+1.5L	L
Shear	896 lb	2'8 1/4"	2350 lb	0.381 (38%)	1.25D+1.5L	L
Perm Defl in. (L/13242)	0.002	1'5 5/8"	0.086 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.005 (L/6309)	1'5 5/8"	0.086 (L/360)	0.060 (6%)	L	L
TL Defl inch	0.007 (L/4273)	1'5 5/8"	0.129 (L/240)	0.060 (6%)	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 braced at bearings.
- 4 Bottom flange braced at bearings.



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	C
1	Tie-In	0-0-0 to 2-9-8	(Span)1-3-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 2-9-8		Top	3 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-5-10		Near Face	113 lb	239 lb	0 lb	0 lb	J3
4	Point	1-5-10		Near Face	145 lb	305 lb	0 lb	0 lb	J3
5	Point	2-5-10		Near Face	104 lb	218 lb	0 lb	0 lb	J3

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

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

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

### Notes

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

### Lumber

1. Dry service conditions, unless noted otherwise
2. Joist not to be treated with fire retardant or corrosive chemicals

### Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. 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

KOTT Inc.  
CCMC: 12787

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



This design is valid until 10/18/2021







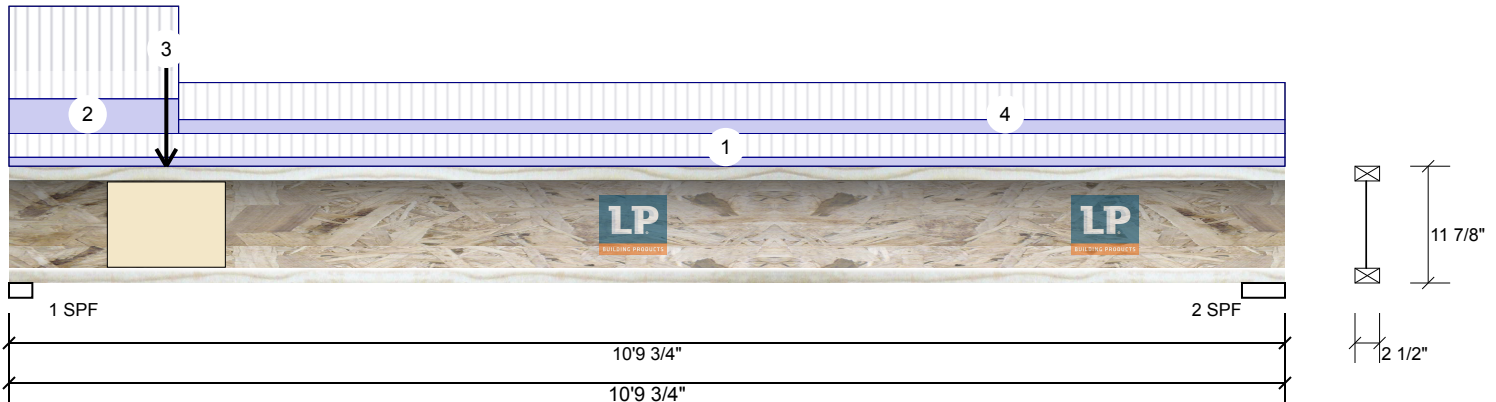
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Address:

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Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

**F14-B LPI 20Plus 11.875" - PASSED**

Level: Ground Floor



### 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	421	158	0	0
2	235	88	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
1 - SPF	2.375"	51% 197 / 632	829 L	1.25D+1.5L
2 - SPF	4.375"	25% 110 / 353	464 L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1287 ft-lb	4'8 1/16"	6250 ft-lb	0.206 (21%)	1.25D+1.5L	L
Shear	810 lb	1 5/8"	2345 lb	0.345 (35%)	1.25D+1.5L	L
Perm Defl in.	0.020 (L/6303)	5' 15/16"	0.346 (L/360)	0.060 (6%)	D	Uniform
LL Defl inch	0.053 (L/2363)	5' 15/16"	0.346 (L/360)	0.150 (15%)	L	L
TL Defl inch	0.072 (L/1719)	5' 15/16"	0.519 (L/240)	0.140 (14%)	D+L	L

### Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.020", Long Term = 0.030"
- 3 See manufacture installation guide note E4 for installation details
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top flange must be laterally braced at a maximum of 8'9" o.c.
- 6 Bottom flange braced at bearings.



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-9-12	(Span)0-9-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-5-4	(Span)2-11-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-4-0		Near Face	72 lb	192 lb	0 lb	0 lb	F17
4	Tie-In	1-5-4 to 10-9-12	(Span)1-2-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

### Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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This design is valid until  
10/31/2020

### Manufacturer Info

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Nashville, TN 37219  
(888) 820-0325  
www.lpcorp.com  
CCMC: 12412-R APA: PR-L238C

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

**NASCOR**





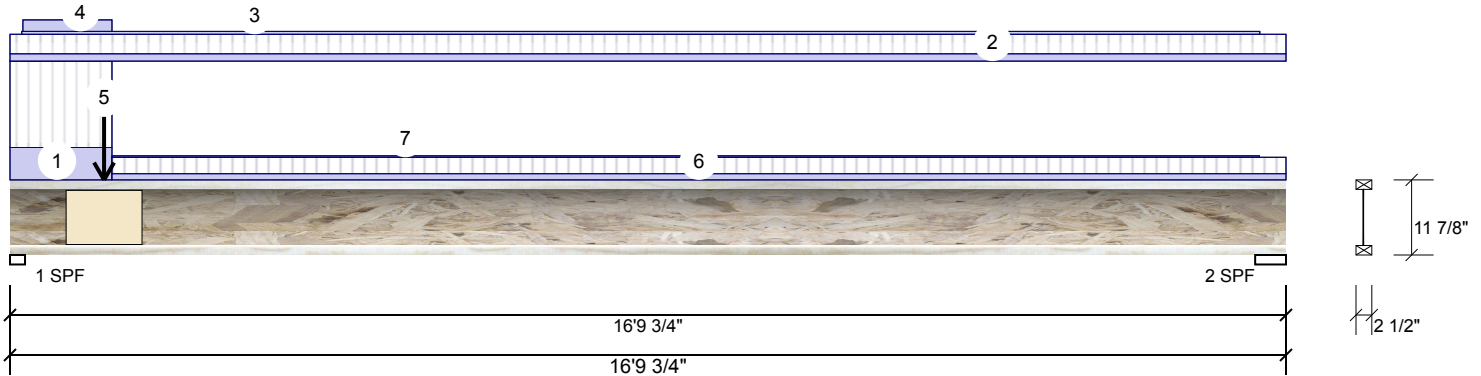
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Date: 12/18/2018  
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Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

**F15-A NJ60H 11.875" - PASSED**

Level: Ground Floor



### 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	647	313	0	0
2	242	118	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
1 - SPF	2.375"	81% 391 / 971	1362 L	1.25D+1.5L
2 - SPF	4.875"	27% 148 / 363	511 L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2308 ft-lb	7'1 5/8"	7350 ft-lb	0.314 (31%)	1.25D+1.5L	L
Unbraced	2308 ft-lb	7'1 5/8"	2322 ft-lb	0.994 (99%)	1.25D+1.5L	L
Shear	1342 lb	1 5/8"	2350 lb	0.571 (57%)	1.25D+1.5L	L
Perm Defl in.	0.075 (L/2618)	7'11 7/16"	0.544 (L/360)	0.140 (14%)	D	Uniform
LL Defl inch	0.153 (L/1285)	7'11 5/16"	0.544 (L/360)	0.280 (28%)	L	L
TL Defl inch	0.227 (L/862)	7'11 3/8"	0.817 (L/240)	0.280 (28%)	D+L	L

### Design Notes

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



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Win
1	Tie-In	0-0-0 to 1-4-2	(Span)3-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF
2	Tie-In	0-0-0 to 16-9-12	(Span)0-8-2	Top	15 PSF	40 PSF	0 PSF	0 PSF
3	Part. Uniform	0-1-14 to 16-5-10		Top	2 PLF	0 PLF	0 PLF	0 PLF
4	Part. Uniform	0-2-1 to 1-4-2		Top	8 PLF	0 PLF	0 PLF	0 PLF
5	Point	1-2-14		Far Face	192 lb	404 lb	0 lb	0 lb F13
6	Tie-In	1-4-2 to 16-9-12	(Span)0-6-14	Top	15 PSF	40 PSF	0 PSF	0 PSF
7	Part. Uniform	1-4-2 to 16-5-9		Top	1 PLF	0 PLF	0 PLF	0 PLF

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

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

### Notes

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

### Lumber

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

### Handling & Installation

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

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

### Manufacturer Info

KOTT Inc.  
CCMC: 12787

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



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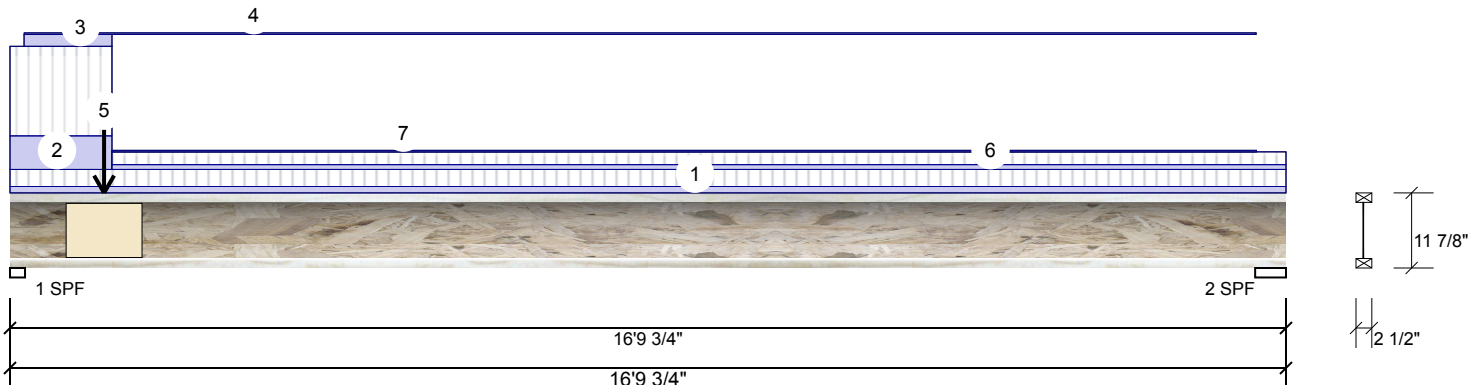
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Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

**F15-B NJ60H 11.875" - PASSED**

Level: Ground Floor

**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	634	302	0	0
2	202	95	0	0

**Bearings and Factored Reactions**

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	79%	378 / 951	1329	L	1.25D+1.5L
2 - SPF	4.875"	22%	119 / 302	421	L	1.25D+1.5L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1986 ft-lb	6'8 3/4"	7350 ft-lb	0.270 (27%)	1.25D+1.5L	L
Unbraced	1986 ft-lb	6'8 3/4"	2003 ft-lb	0.991 (99%)	1.25D+1.5L	L
Shear	1310 lb	1 5/8"	2350 lb	0.557 (56%)	1.25D+1.5L	L
Perm Defl in.	0.063 (L/3108)	7'10 1/4"	0.544 (L/360)	0.120 (12%)	D	Uniform
LL Defl inch	0.132 (L/1480)	7'10 1/4"	0.544 (L/360)	0.240 (24%)	L	
TL Defl inch	0.195 (L/1003)	7'10 1/4"	0.817 (L/240)	0.240 (24%)	D+L	L

**Design Notes**

- Girders are designed to be supported on the bottom edge only.
- Top flange must be laterally braced at a maximum of 7' o.c.
- Bottom flange braced at bearings.

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



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind
1	Tie-In	0-0-0 to 16-9-12	(Span)0-6-14	Top	15 PSF	40 PSF	0 PSF	0 PSF
2	Tie-In	0-0-0 to 1-4-2	(Span)3-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF
3	Part. Uniform	0-2-4 to 1-4-2		Top	8 PLF	0 PLF	0 PLF	0 PLF
4	Part. Uniform	0-2-4 to 16-5-0		Top	1 PLF	0 PLF	0 PLF	0 PLF
5	Point	1-2-14		Near Face	205 lb	430 lb	0 lb	0 lb F13
6	Tie-In	1-4-2 to 16-9-12	(Span)0-5-2	Top	15 PSF	40 PSF	0 PSF	0 PSF
7	Part. Uniform	1-4-2 to 16-5-1		Top	1 PLF	0 PLF	0 PLF	0 PLF

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

**Notes**

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

**Lumber**

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

**chemicals****Handling & Installation**

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

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

**Manufacturer Info**

KOTT Inc.  
CCMC: 12787

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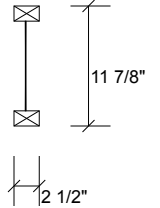
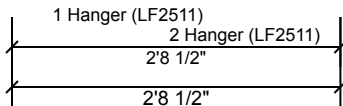
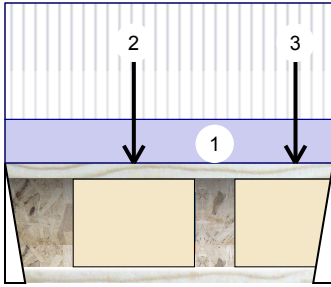
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Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

**F17-A LPI 20Plus 11.875" - PASSED**

Level: Ground Floor


**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	192	72	0	0
2	273	105	0	0

**Bearings and Factored Reactions**

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	24%	90 / 288	378	L	1.25D+1.5L
2 - Hanger	2.000"	34%	131 / 409	540	L	1.25D+1.5L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	332 ft-lb	1' 3/4"	6250 ft-lb	0.053 (5%)	1.25D+1.5L	L
Shear	534 lb	2'7 1/4"	2345 lb	0.228 (23%)	1.25D+1.5L	L
Perm Defl in. (L/22280)	0.001	1' 3/4"	0.083 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.004 (L/8395)	1' 3/4"	0.083 (L/360)	0.040 (4%)	L	L
TL Defl inch	0.005 (L/6098)	1' 3/4"	0.125 (L/240)	0.040 (4%)	D+L	L

**Design Notes**

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.001", Long Term = 0.002"
- 3 Fill all hanger nailing holes.
- 4 See manufacture installation guide note E4 for installation details
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Top flange braced at bearings.
- 7 Bottom flange braced at bearings.



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-8-8	(Span)1-4-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-0-12		Far Face	86 lb	229 lb	0 lb	0 lb	J9
3	Point	2-4-12		Far Face	63 lb	161 lb	0 lb	0 lb	J9

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

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

**Notes**

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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This design is valid until 10/31/2020

**Manufacturer Info**

Louisiana-Pacific Corp  
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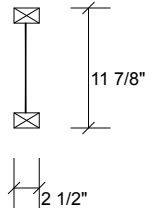
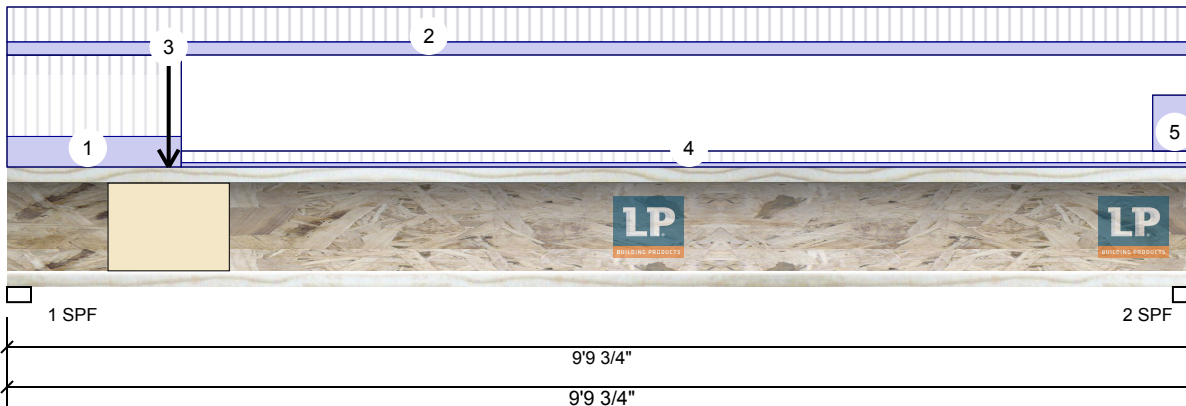
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Page 1 of 1

**F18-A LPI 20Plus 11.875" - PASSED**

Level: Ground Floor



### 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	470	179	0	0
2	202	91	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	57%	223 / 705	928	L	1.25D+1.5L
2 - SPF	2.375"	26%	113 / 303	417	L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1158 ft-lb	3'8 7/8"	6250 ft-lb	0.185 (19%)	1.25D+1.5L	L
Shear	906 lb	1 5/8"	2345 lb	0.386 (39%)	1.25D+1.5L	L
Perm Defl in.	0.016 (L/7308)	4'6 3/16"	0.318 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.041 (L/2770)	4'6 3/16"	0.318 (L/360)	0.130 (13%)	L	L
TL Defl inch	0.057 (L/2009)	4'6 3/16"	0.477 (L/240)	0.120 (12%)	D+L	L

### Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.016", Long Term = 0.024"
- 3 See manufacture installation guide note E4 for installation details
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Top flange must be laterally braced at a maximum of 9'1" o.c.
- 6 Bottom flange braced at bearings.



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind
1	Tie-In	0-0-0 to 1-5-4	(Span)2-11-0	Top	15 PSF	40 PSF	0 PSF	0 PSF
2	Tie-In	0-0-0 to 9-9-12	(Span)1-3-0	Top	15 PSF	40 PSF	0 PSF	0 PSF
3	Point	1-4-0		Far Face	105 lb	273 lb	0 lb	0 lb F17
4	Tie-In	1-5-4 to 9-9-12	(Span)0-5-0	Top	15 PSF	40 PSF	0 PSF	0 PSF
5	Part. Uniform	9-5-6 to 9-9-12		Top	40 PLF	0 PLF	0 PLF	0 PLF

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

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

### Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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This design is valid until  
10/31/2020

### Manufacturer Info

Louisiana-Pacific Corp  
414 Union Street, Suite 2000  
Nashville, TN 37219  
(888) 820-0325  
www.lpcorp.com  
CCMC: 12412-R APA: PR-L238C

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







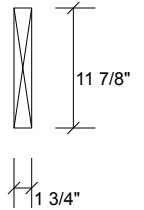
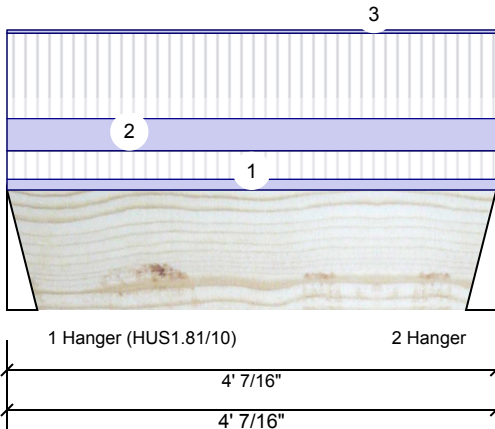
Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

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

Level: Ground Floor



## 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	215	96	0	0
2	215	96	0	0

## Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	11%	121 / 323	444	L	1.25D+1.5L
2 - Hanger	3.000"	11%	121 / 323	444	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	368 ft-lb	2' 3/16"	17130 ft-lb	0.021 (2%)	1.25D+1.5L	L
Unbraced	368 ft-lb	2' 3/16"	12143 ft-lb	0.030 (3%)	1.25D+1.5L	L
Shear	185 lb	1'2 1/8"	5798 lb	0.032 (3%)	1.25D+1.5L	L
Perm Defl in. (L/52355)	0.001	2' 1/4"	0.122 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch (L/23440)	0.002	2' 1/4"	0.122 (L/360)	0.020 (2%)	L	L
TL Defl inch (L/16191)	0.003	2' 1/4"	0.183 (L/240)	0.010 (1%)	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.



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-0-7	(Span)1-4-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 4-0-7		Top	30 PLF	80 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 4-0-7		Top	3 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				5 PLF				

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

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

## Notes

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

## Lumber

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

## chemicals

## Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply 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

6. For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

Forex  
APA: PR-L318

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



This design is valid until 10/18/2021





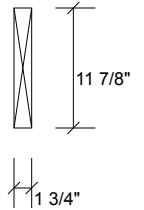
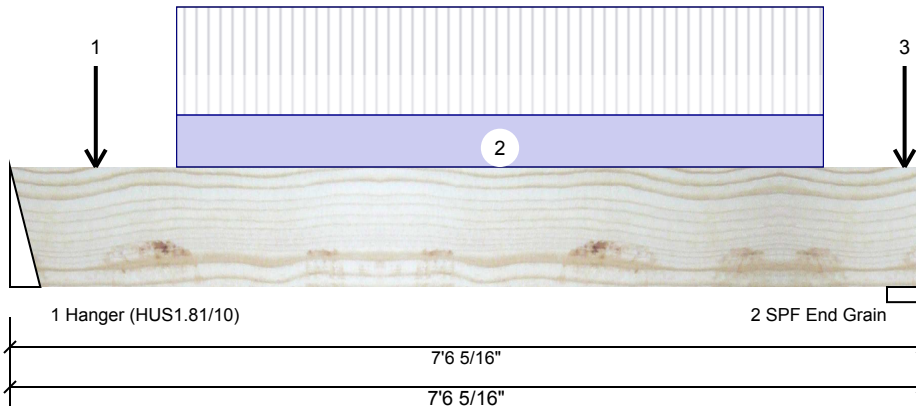
Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

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

Level: Ground Floor


**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	281	154	0	0
2	244	135	0	0

**Bearings and Factored Reactions**

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	16%	192 / 422	614	L	1.25D+1.5L
2 - SPF End Grain	3.500"	12%	169 / 366	534	L	1.25D+1.5L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1087 ft-lb	3'8 13/16"	17130 ft-lb	0.063 (6%)	1.25D+1.5L	L
Unbraced	1087 ft-lb	3'8 13/16"	6326 ft-lb	0.172 (17%)	1.25D+1.5L	L
Shear	676 lb	1'2 1/8"	5798 lb	0.117 (12%)	1.25D+1.5L	L
Perm Defl in. (L/13076)	0.007	3'8 7/8"	0.237 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.012 (L/7091)	3'8 7/8"	0.237 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.019 (L/4598)	3'8 7/8"	0.355 (L/240)	0.050 (5%)	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 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.



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-8-8		Far Face	44 lb	90 lb	0 lb	0 lb	J7
2	Part. Uniform	1-4-8 to 6-8-8		Far Face	39 PLF	81 PLF	0 PLF	0 PLF	
3	Point	7-4-8		Top	1 lb	3 lb	0 lb	0 lb	
	Self Weight				5 PLF				

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

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

**Notes**

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

**Lumber**

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

**chemicals**
**Handling & Installation**

1. LVL beams must not be cut or drilled
  2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
  3. Damaged Beams must not be used
  4. 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**

Forex  
APA: PR-L318

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



This design is valid until 10/18/2021



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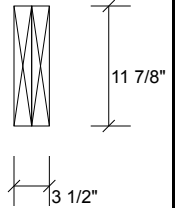
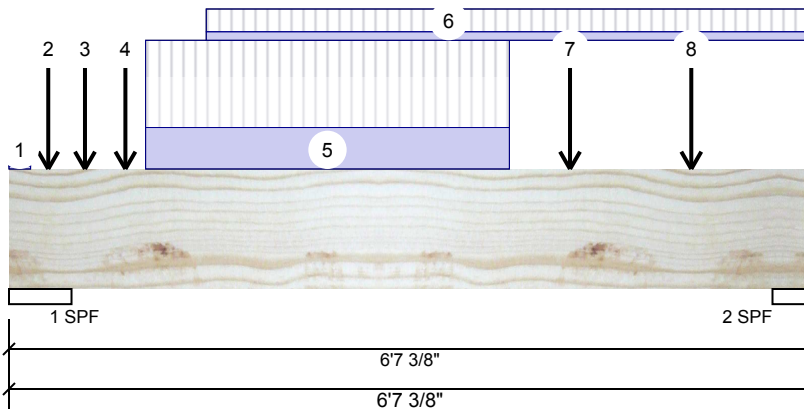


Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 2

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



### 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 lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	2030	932	0	0
2	1155	518	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.188"	32%	1165 / 3045	4210	L	1.25D+1.5L
2 - SPF	3.813"	29%	648 / 1732	2380	L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3687 ft-lb	3'4 7/8"	34261 ft-lb	0.108 (11%)	1.25D+1.5L	L
Unbraced	3687 ft-lb	3'4 7/8"	32638 ft-lb	0.113 (11%)	1.25D+1.5L	L
Shear	2653 lb	1'5 5/16"	11596 lb	0.229 (23%)	1.25D+1.5L	L
Perm Defl in.	0.008 (L/9333)	3'4 13/16"	0.197 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.016 (L/4353)	3'4 15/16"	0.197 (L/360)	0.080 (8%)	L	L
TL Defl inch	0.024 (L/2968)	3'4 7/8"	0.295 (L/240)	0.080 (8%)	D+L	L

### Design Notes

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

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



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-2	(Span)1-4-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-3-14		Near Face	318 lb	722 lb	0 lb	0 lb	F11
3	Point	0-7-8		Far Face	145 lb	326 lb	0 lb	0 lb	J4
4	Point	0-11-8		Near Face	29 lb	78 lb	0 lb	0 lb	J6
5	Part. Uniform	1-1-8 to 4-1-8		Far Face	155 PLF	326 PLF	0 PLF	0 PLF	
6	Part. Uniform	1-7-8 to 6-7-6		Near Face	32 PLF	85 PLF	0 PLF	0 PLF	

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

Continued on page 2...

### Notes

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

### Lumber

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

### chemicals

### Handling & Installation

- 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

- For flat roofs provide proper drainage to prevent ponding

### Manufacturer Info

Forex  
APA: PR-L318

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



This design is valid until 10/18/2021



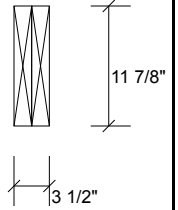
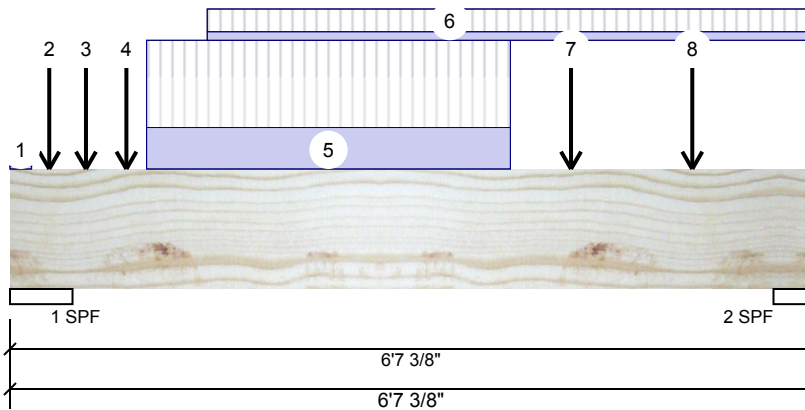


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Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 2 of 2

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



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	4-7-8		Far Face	147 lb	326 lb	0 lb	0 lb	J4
8	Point	5-7-8		Far Face	122 lb	326 lb	0 lb	0 lb	J4
	Self Weight				10 PLF				

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

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

**Notes**

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**Lumber**

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

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply 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

6. For flat roofs provide proper drainage to prevent ponding

**Manufacturer Info**

Forex  
APA: PR-L318

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



This design is valid until 10/18/2021







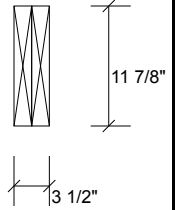
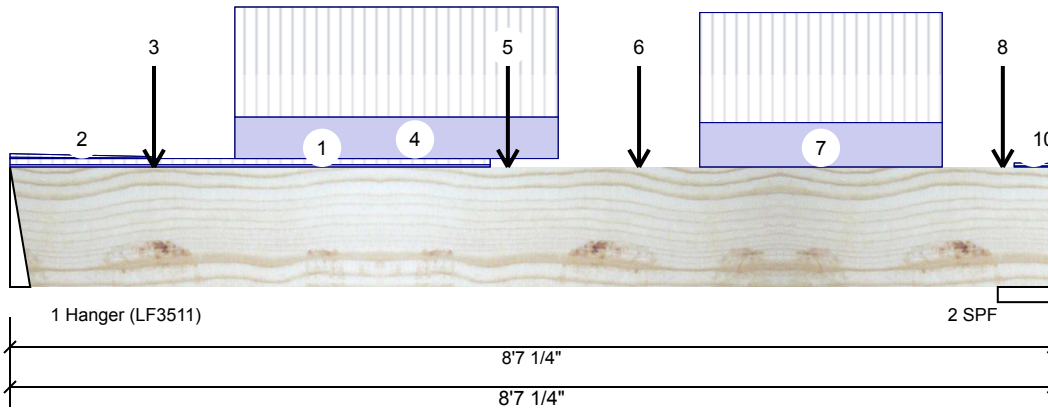
Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 2

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

Level: Second Floor


**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 lb (Uplift)**

Brg	Live	Dead	Snow	Wind
1	1083	477	0	0
2	1067	482	0	0

**Bearings and Factored Reactions**

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	43% 597 / 1624	2221	L	1.25D+1.5L
2 - SPF	5.500"	19% 603 / 1600	2203	L	1.25D+1.5L

**Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5768 ft-lb	4'1 1/4"	34261 ft-lb	0.168 (17%)	1.25D+1.5L	L
Unbraced	5768 ft-lb	4'1 1/4"	31205 ft-lb	0.185 (18%)	1.25D+1.5L	L
Shear	2383 lb	1'1 1/8"	11596 lb	0.206 (21%)	1.25D+1.5L	L
Perm Defl in.	0.018 (L/5535)	4'1 5/16"	0.270 (L/360)	0.070 (7%)	D	Uniform
LL Defl inch	0.039 (L/2465)	4'1 5/16"	0.270 (L/360)	0.150 (15%)	L	L
TL Defl inch	0.057 (L/1705)	4'1 5/16"	0.405 (L/240)	0.140 (14%)	D+L	L

**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.

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



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-11-8	(Span)0-7-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-2-4	(Span)0-4-7 to 0-1-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-2-4		Near Face	106 lb	283 lb	0 lb	0 lb	Pass-Thru Framing Squash Block is required at all point loads over bearings
4	Part. Uniform	1-10-4 to 4-6-4		Near Face	86 PLF	228 PLF	0 PLF	0 PLF	
5	Point	4-1-4		Far Face	227 lb	457 lb	0 lb	0 lb	Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

Continued on page 2...

**Notes**

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

**Lumber**

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

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply 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

6. For flat roofs provide proper drainage to prevent ponding

**Manufacturer Info**

Forex  
APA: PR-L318

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



This design is valid until 10/18/2021



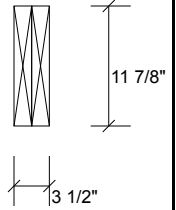
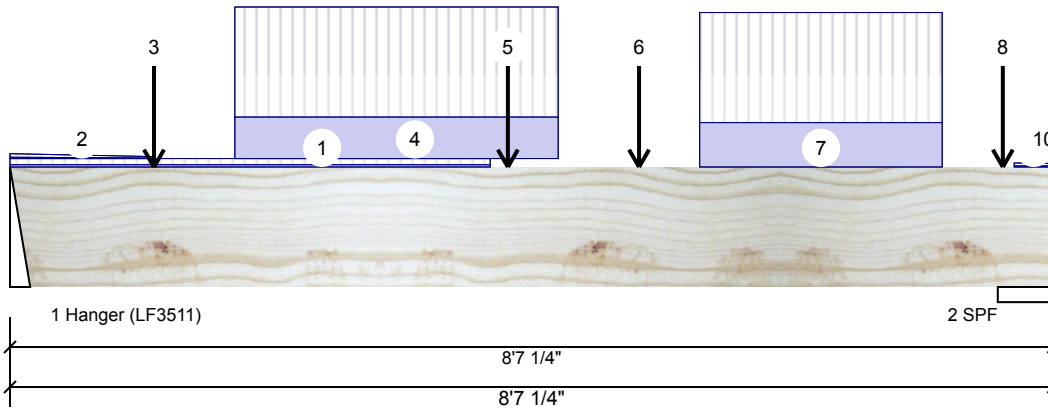


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Project:  
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Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 2 of 2

**F11-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED** Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	5-2-4		Near Face	101 lb	267 lb	0 lb	0 lb	J11
7	Part. Uniform	5-8-4 to 7-8-4		Near Face	92 PLF	228 PLF	0 PLF	0 PLF	
8	Point	8-2-4		Near Face	7 lb	17 lb	0 lb	0 lb	J11
9	Tie-In	8-3-6 to 8-7-4	(Span)0-3-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
10	Tie-In	8-4-8 to 8-7-4	(Span)0-8-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				



January 02, 2019

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**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

**Notes**

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

**Lumber**

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

**Handling & Installation**

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply 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

6. For flat roofs provide proper drainage to prevent ponding

**Manufacturer Info**

Forex  
APA: PR-L318

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



This design is valid until 10/18/2021



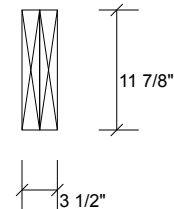
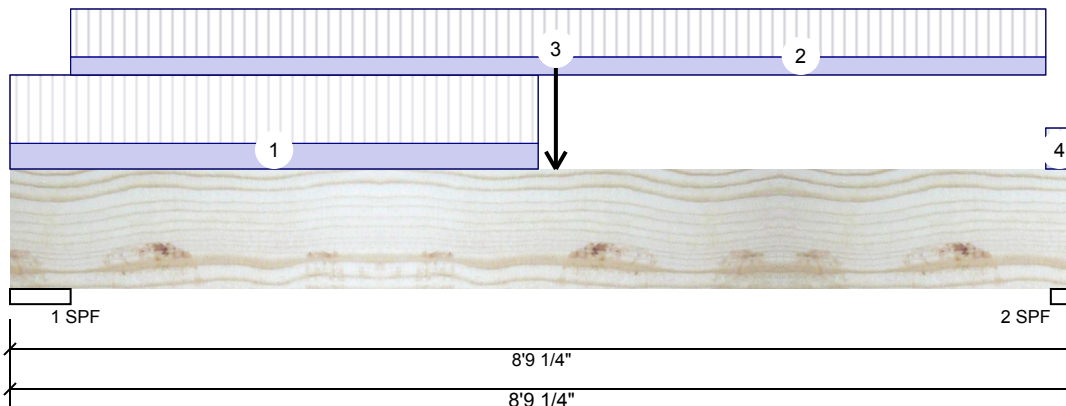


Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

**F11-B Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED** Level: Second Floor



### 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 lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	326	194	0	0
2	284	175	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
1 - SPF	6.000"	6%	243 / 489	732 L 1.25D+1.5L
2 - SPF	2.250"	13%	218 / 426	644 L 1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2373 ft-lb	4'6"	34261 ft-lb	0.069 (7%)	1.25D+1.5L	L
Unbraced	2373 ft-lb	4'6"	31126 ft-lb	0.076 (8%)	1.25D+1.5L	L
Shear	651 lb	1'5 1/8"	11596 lb	0.056 (6%)	1.25D+1.5L	L
Perm Defl in. (L/12337)	0.008	4'6"	0.274 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch (L/6978)	0.014	4'6"	0.274 (L/360)	0.050 (5%)	L	L
TL Defl inch (L/4457)	0.022	4'6"	0.410 (L/240)	0.050 (5%)	D+L	L

### Design Notes

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

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



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-4-4	(Span)0-9-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-6-0 to 8-6-8	(Span)0-6-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	4-6-0		Near Face	226 lb	452 lb	0 lb	0 lb	F12
4	Tie-In	8-6-8 to 8-9-4	(Span)0-4-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

### Notes

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

### Lumber

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

chemicals

### Handling & Installation

- 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

Forex  
APA: PR-L318

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



This design is valid until 10/18/2021



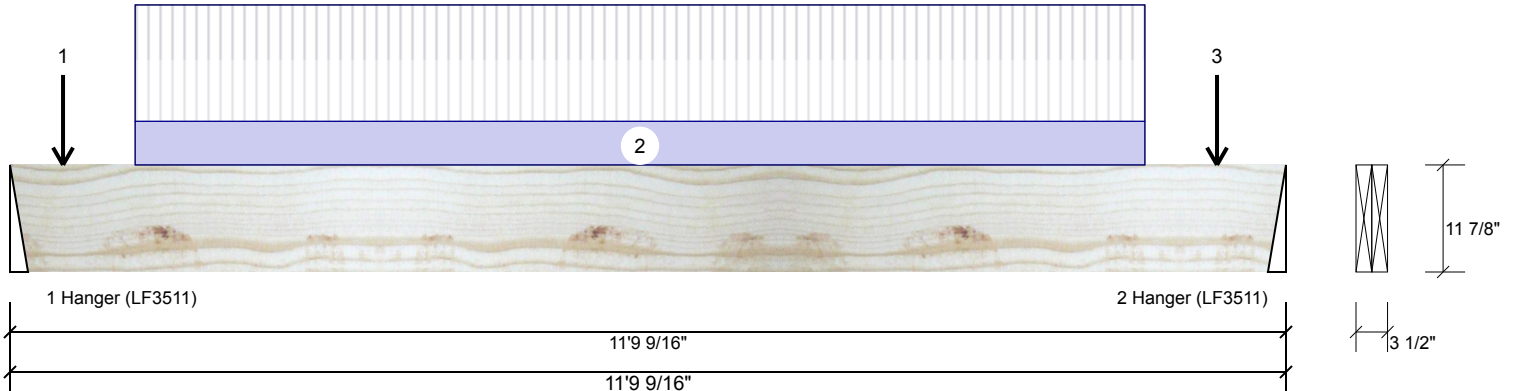


Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

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



### 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 lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	457	227	0	0
2	452	226	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	19% 284 / 686	970	L	1.25D+1.5L
2 - Hanger	2.000"	18% 282 / 678	961	L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2817 ft-lb	5'10 13/16"	34261 ft-lb	0.082 (8%)	1.25D+1.5L	L
Unbraced	2817 ft-lb	5'10 13/16"	28015 ft-lb	0.101 (10%)	1.25D+1.5L	L
Shear	957 lb	1'1 1/8"	11596 lb	0.083 (8%)	1.25D+1.5L	L
Perm Defl in.	0.018 (L/7688)	5'10 13/16"	0.386 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.037 (L/3809)	5'10 13/16"	0.386 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.055 (L/2547)	5'10 13/16"	0.579 (L/240)	0.090 (9%)	D+L	L

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



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-5-14		Far Face	29 lb	78 lb	0 lb	0 lb	J6
2	Part. Uniform	1-1-14 to 10-5-14		Far Face	30 PLF	80 PLF	0 PLF	0 PLF	
3	Point	11-1-14		Far Face	32 lb	85 lb	0 lb	0 lb	J7
	Self Weight				10 PLF				

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

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

### Notes

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

### Lumber

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

### chemicals

### Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply 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

6. For flat roofs provide proper drainage to prevent ponding

### Manufacturer Info

Forex  
APA: PR-L318

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



This design is valid until 10/18/2021



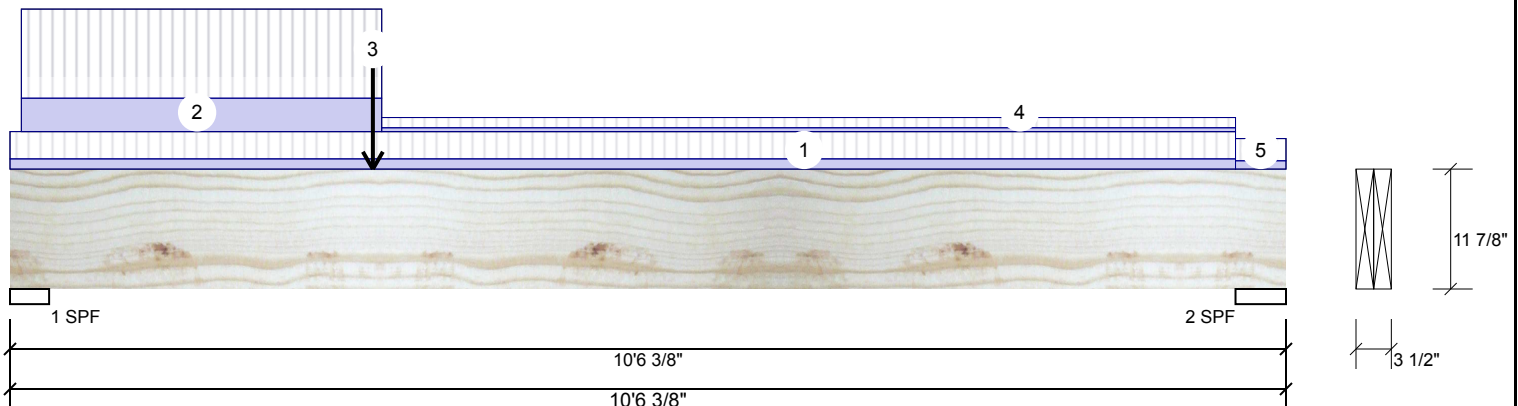


Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

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



### 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 lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	854	386	0	0
2	385	201	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.875"	21%	483 / 1281	1763	L	1.25D+1.5L
2 - SPF	5.000"	8%	251 / 577	829	L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3967 ft-lb	2'11 15/16"	34261 ft-lb	0.116 (12%)	1.25D+1.5L	L
Unbraced	3967 ft-lb	2'11 15/16"	29686 ft-lb	0.134 (13%)	1.25D+1.5L	L
Shear	1526 lb	1'3"	11596 lb	0.132 (13%)	1.25D+1.5L	L
Perm Defl in.	0.016 (L/7566)	4'8 1/4"	0.331 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.034 (L/3536)	4'7 1/8"	0.331 (L/360)	0.100 (10%)	L	
TL Defl inch	0.049 (L/2410)	4'7 1/2"	0.496 (L/240)	0.100 (10%)	D+L	L

### Design Notes

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

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



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-1-6	(Span)1-1-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-1-2 to 3-0-13	(Span)3-7-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	2-11-15		Far Face	295 lb	727 lb	0 lb	0 lb	F7
4	Tie-In	3-0-13 to 10-1-6	(Span)0-5-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	10-1-6 to 10-6-6	(Span)0-10-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				

**Pass Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

### Notes

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

### Lumber

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

### Handling & Installation

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

Forex  
APA: PR-L318

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



This design is valid until 10/18/2021





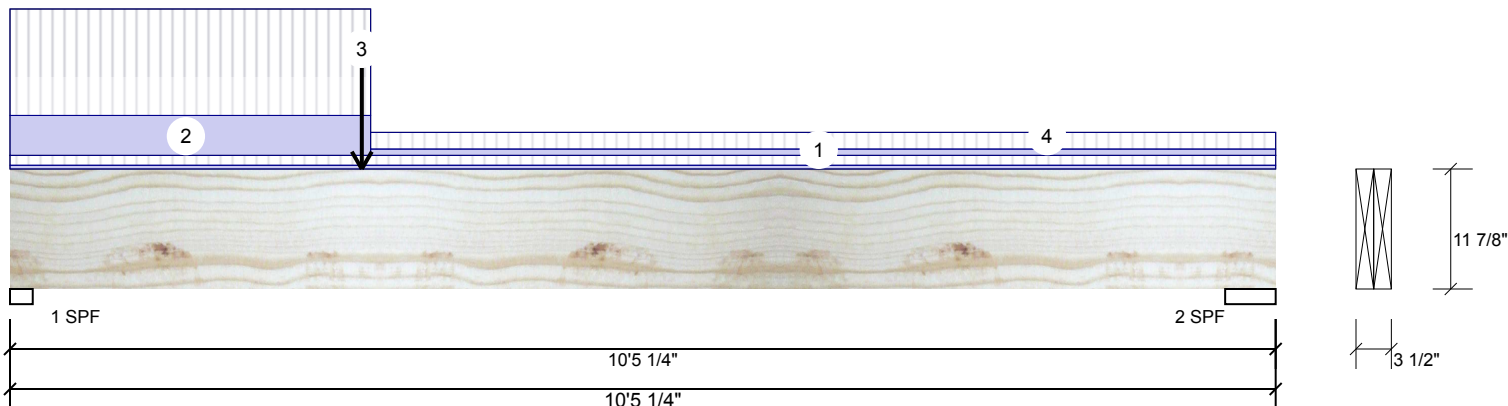


Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

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



### 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 lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	742	344	0	0
2	312	174	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.250"	32%	430 / 1113	1542	L	1.25D+1.5L
2 - SPF	5.000"	6%	218 / 468	686	L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3569 ft-lb	2'10 13/16"	34261 ft-lb	0.104 (10%)	1.25D+1.5L	L
Unbraced	3569 ft-lb	2'10 13/16"	29647 ft-lb	0.120 (12%)	1.25D+1.5L	L
Shear	1353 lb	1'1 3/8"	11596 lb	0.117 (12%)	1.25D+1.5L	L
Perm Defl in.	0.014 (L/8394)	4'6 7/16"	0.332 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.029 (L/4056)	4'5"	0.332 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.044 (L/2735)	4'5 1/2"	0.498 (L/240)	0.090 (9%)	D+L	L

### Design Notes

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



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-5-4	(Span)0-4-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 2-11-11	(Span)3-7-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	2-10-13		Near Face	278 lb	679 lb	0 lb	0 lb	F7
4	Tie-In	2-11-11 to 10-5-4	(Span)0-6-14	Top	15 PSF	40 PSF	0 PSF		
	Self Weight				10 PLF				

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

**PASS F thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

### Notes

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

### Lumber

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

### chemicals

### Handling & Installation

- 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

- For flat roofs provide proper drainage to prevent ponding

### Manufacturer Info

Forex  
APA: PR-L318

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



This design is valid until 10/18/2021





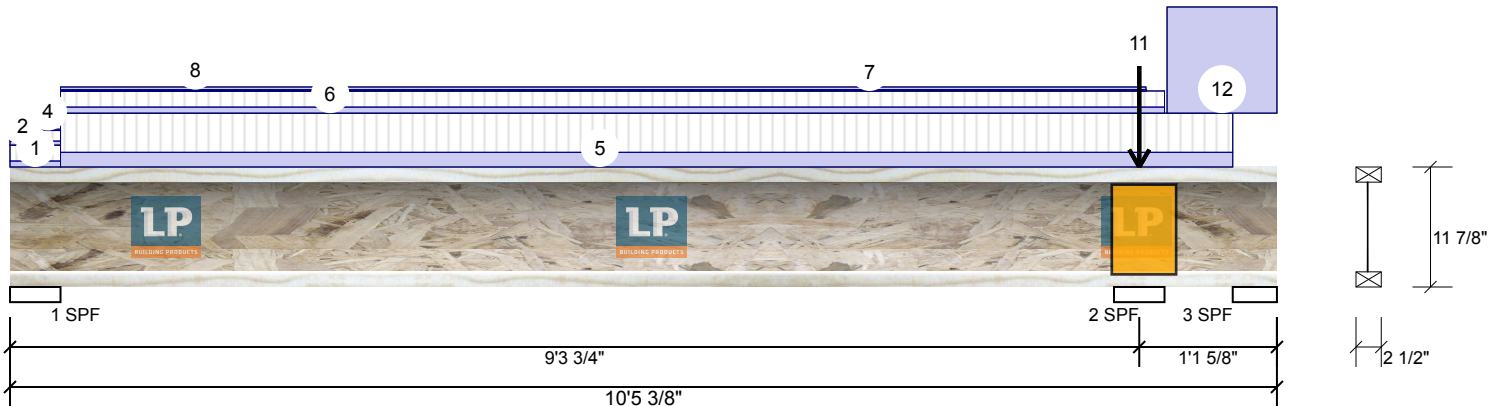
Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 2

**F14-A LPI 20Plus 11.875" - PASSED**

Level: Second Floor



### 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	174	75	0	0
2	415	328	224	0
3	0 (-184)	(-26)	0	0

### Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.000"	17%	80 / 225	305	L <sub>1</sub>	1.25D+1.5L
2 - SPF	5.000"	43%	568 / 1166	1734	LL	1.25D+1.5L +0.5S
3 - SPF	4.375"	47%	-198 / -667	-865	L <sub>1</sub>	1.25D+1.5L (-865)

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-783 ft-lb	9'3 3/4"	6250 ft-lb	0.125 (13%)	1.25D+1.5L	LL
Pos Moment	507 ft-lb	3'9 3/4"	6250 ft-lb	0.081 (8%)	1.25D+1.5L	L <sub>1</sub>
Shear	990 lb	9'3 3/4"	2345 lb	0.422 (42%)	1.25D+1.5L	LL
Perm Defl in.	0.010 (L/11145)	4'8 9/16"	0.299 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.022 (L/4841)	4'8 7/16"	0.299 (L/360)	0.070 (7%)	L+0.5S	L <sub>1</sub>
TL Defl inch	0.032 (L/3375)	4'8 1/2"	0.448 (L/240)	0.070 (7%)	D+L+0.5S	L <sub>1</sub>

### Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Applied loads over end bearings and loads exceeding 250 lbs over intermediate bearings must be transferred directly to the support by rim board, blocking, squash blocks, or other device.
- 3 Dead Load Deflection: Instant = 0.010", Long Term = 0.014"
- 4 Girders are designed to be supported on the bottom edge only.
- 5 Tie-down connection required at bearing 3 for uplift 865 lb (Combination 1.25D+1.5L, Load Case L<sub>1</sub>).
- 6 Top flange braced at bearings.
- 7 Bottom flange braced at bearings.



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-0	(Span)0-7-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	Pass Thru Framing Squash Block is required at all point loads over bearings
2	Tie-In	0-0-0 to 0-5-0	(Span)0-4-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part. Uniform	0-0-0 to 0-5-0		Top	1 PLF	0 PLF	0 PLF	0 PLF	Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

Continued on page 2...

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

### Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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This design is valid until  
10/31/2020

### Manufacturer Info

Louisiana-Pacific Corp  
414 Union Street, Suite 2000  
Nashville, TN 37219  
(888) 820-0325  
www.lpcorp.com  
CCMC: 12412-R APA: PR-L238C

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





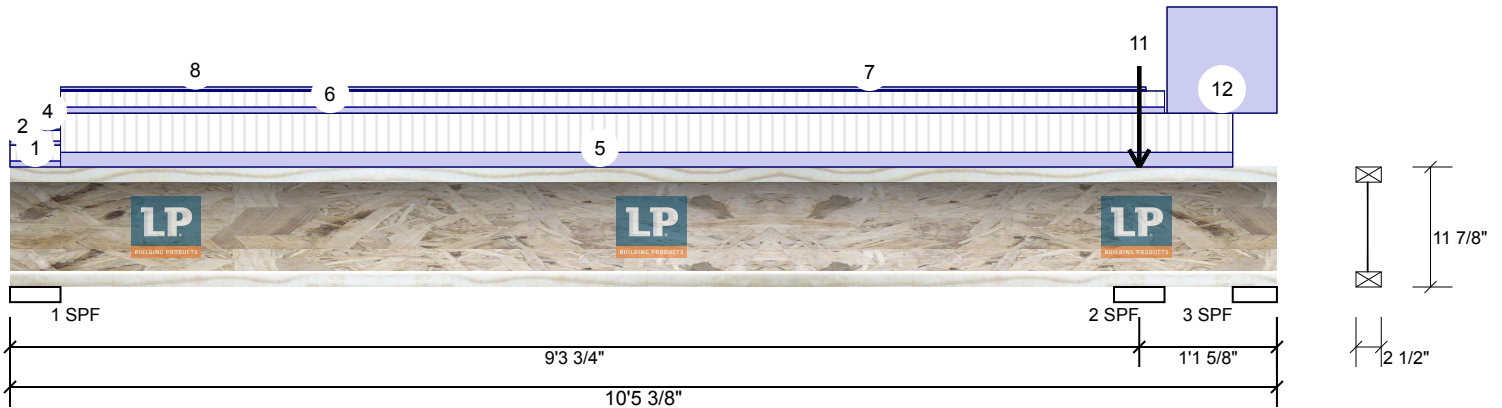
Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 2 of 2

**F14-A LPI 20Plus 11.875" - PASSED**

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Tie-In	0-5-0 to 10-1-0	(Span)1-5-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	0-5-0 to 9-6-4	(Span)0-7-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Tapered Start	0-5-0		Top	0 PLF	0 PLF	0 PLF	0 PLF	
	End	9-4-7			1 PLF	0 PLF	0 PLF	0 PLF	
8	Part. Uniform	0-5-0 to 9-4-7		Top	2 PLF	0 PLF	0 PLF	0 PLF	
9	Point	9-3-12		Top	108 lb	0 lb	224 lb	0 lb	F3 F3
	Bearing Length	0-3-0							
10	Point	9-3-12		Top	21 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-3-0							
11	Point	9-3-12		Top	1 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-3-0							
12	Part. Uniform	9-6-8 to 10-5-6		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight



January 02, 2019

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

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

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

**Notes**

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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This design is valid until  
10/31/2020

**Manufacturer Info**

Louisiana-Pacific Corp  
414 Union Street, Suite 2000  
Nashville, TN 37219  
(888) 820-0325  
www.lpcorp.com  
CCMC: 12412-R APA: PR-L238C

Kott Lumber Company  
14 Anderson Blvd, Ontario  
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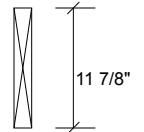
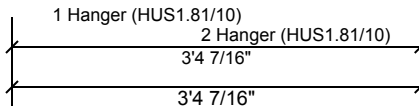
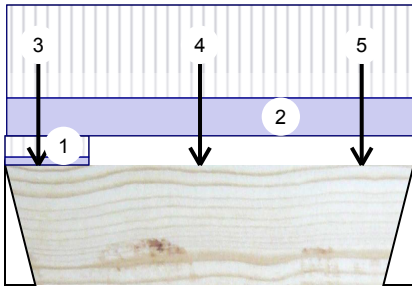
Client:  
Project:  
Address:

Date: 12/18/2018  
Designer: S B  
Job Name: LOT -13 (AMELIA 12 EL- 1)  
Project #:

Page 1 of 1

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

Level: Second Floor



## 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	727	295	0	0
2	679	278	0	0

## Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	37%	368 / 1090	1458	L	1.25D+1.5L
2 - Hanger	3.000"	35%	347 / 1019	1366	L	1.25D+1.5L

## Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	947 ft-lb	1'7 5/16"	17130 ft-lb	0.055 (6%)	1.25D+1.5L	L
Unbraced	947 ft-lb	1'7 5/16"	13790 ft-lb	0.069 (7%)	1.25D+1.5L	L
Shear	736 lb	1'2 1/8"	5798 lb	0.127 (13%)	1.25D+1.5L	L
Perm Defl in. (L/21549)	0.002	1'7 5/16"	0.100 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.004 (L/8786)	1'7 5/16"	0.100 (L/360)	0.040 (4%)	L	L
TL Defl inch	0.006 (L/6241)	1'7 5/16"	0.150 (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 braced at bearings.
- 4 Bottom braced at bearings.



January 02, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind
1	Tie-In	0-0-0 to 0-8-5	(Span)3-1-0	Top	15 PSF	40 PSF	0 PSF	0 PSF
2	Part. Uniform	0-0-3 to 3-4-7		Top	110 PLF	270 PLF	0 PLF	0 PLF
3	Point	0-3-5		Near Face	47 lb	127 lb	0 lb	0 lb J8
4	Point	1-7-5		Near Face	72 lb	192 lb	0 lb	0 lb J8
5	Point	2-11-5		Near Face	52 lb	138 lb	0 lb	0 lb J8
	Self Weight				5 PLF			

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

**Pass-Thru Framing Squash Block is required at all point loads over bearings**

**Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements**

## Notes

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

## Lumber

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

## chemicals

## Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained

6. For flat roofs provide proper drainage to prevent ponding

## Manufacturer Info

Forex  
APA: PR-L318

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This design is valid until 10/18/2021

