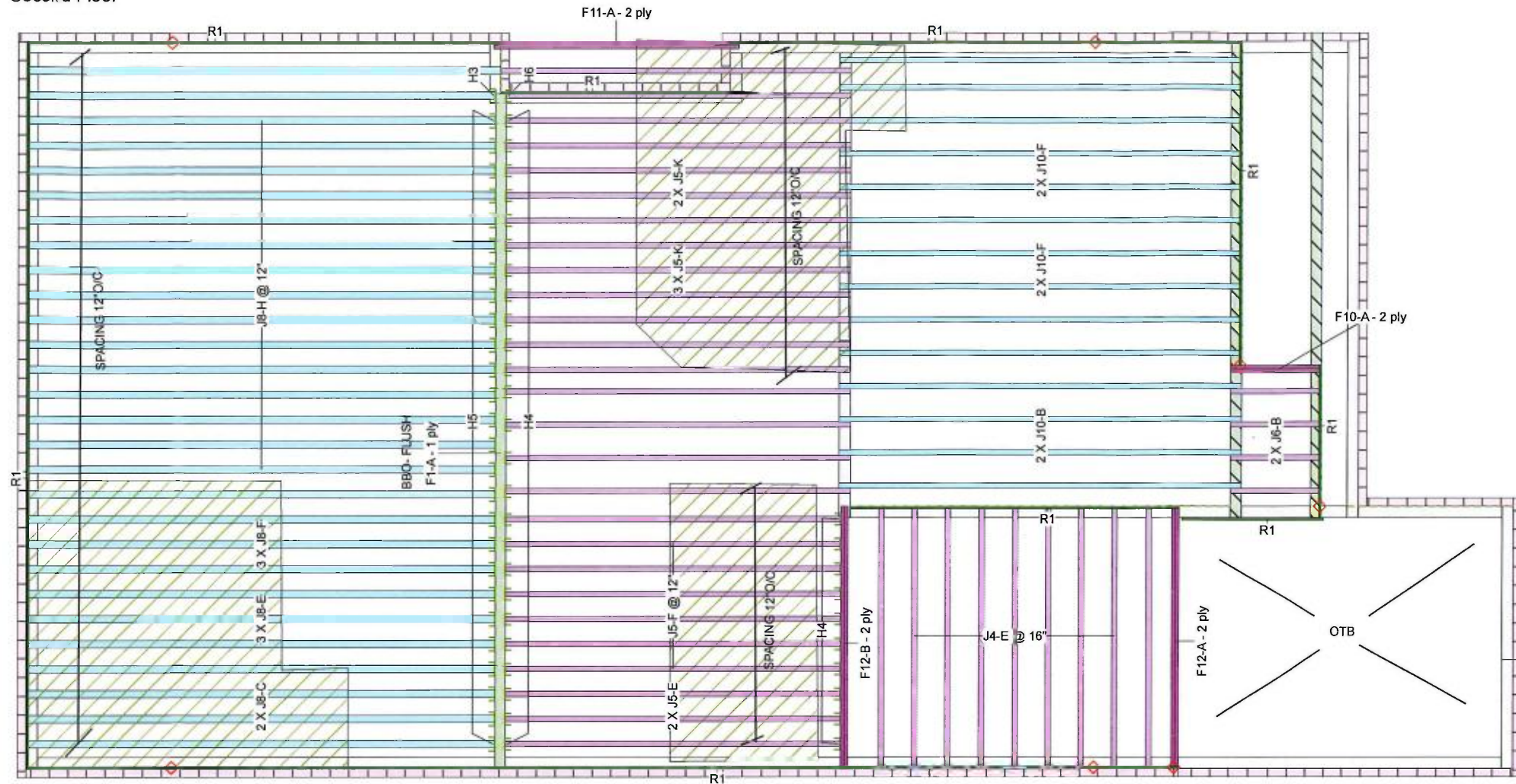


Strong's

Second Floor



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

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

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

JOISTS SPACING 16" O/C UNLESS NOTED OTHERWISE

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

EWP Studio
Simpson Strong-Tie®
Component Solutions™

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

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.

**Second Floor
LVL/LSL**

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F12	Forex 2.0E-3000Fb LVL	1.75	11.875	2	2	4	12-0-0
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	4-0-0

I Joist

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J10	NJ60H	2.5	11.875			14	18-0-0
J8	NJ60U	3.5	11.875			28	20-0-0
J11	NJH	2.5	11.875			1	16-0-0
J5	NJH	2.5	11.875			26	14-0-0
J4	NJH	2.5	11.875			9	12-0-0
J6	NJH	2.5	11.875			4	4-0-0

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

Hanger

		Beam/Girder		Supported Member	
Label	Pcs	Description	Skew	Slope	fasteners
H3	1	HUC410 (Min)			14 16d
H4	35	LF2511			12 10d
H5	26	LF3511			12 10d
H6	1	LF2511			

NOTES:

- 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 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 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	Wall
Norbord Rimboard Plus 1.125 X 11.875	Norbord Rimboard Plus 1.125 X 11.875
NJ60H 11.875	NJ60H 11.875
NJ60U 11.875	NJ60U 11.875
NJH 11.875	NJH 11.875
Forex 2.0E-3000Fb LVL 1.75 X 11.875	Forex 2.0E-3000Fb LVL 1.75 X 11.875
5 X 10.25	5 X 10.25
5.25 X 10.25 (Dropped)	5.25 X 10.25 (Dropped)

Architectural Drawing Info

JARDIN DESIGN GROUP
64 JARDIN DR, SUITE 3A
VAUGHAN, ON L4K 3P3
Project # 17-55
Model: AMELIA 1
Date: MAY 22, 2018 REV : 2

NASCOR

Layout Name
AMELIA 1 EL-1 & 2

Design Method
LSD

Description
GREEN YORK HOMES

Created
May 25, 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

Second Floor

Design Method LSD
Building Code NBCC 2010 / OBC 2012

Floor

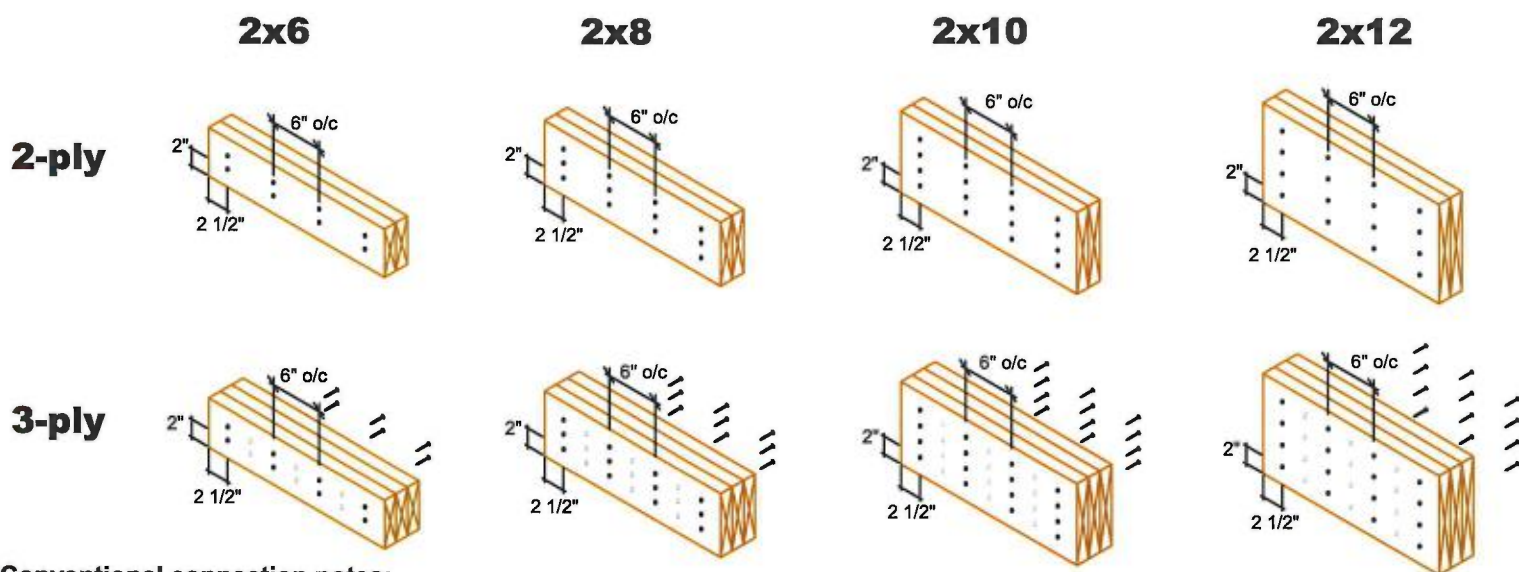
Loads	
Live	40
Dead	15
Deflection Joist	
LL Span L/	480
TL Span L/	360
LL Cant 2L/	480
TL Cant 2L/	360
Deflection Girder	
LL Span L/	360
TL Span L/	240
LL Cant 2L/	480
TL Cant 2L/	360
Decking	
Deck	OSB
Thickness	5/8"
Fastener	Nailed & Glued
Vibration	
Ceiling:	Gypsum 1/2"

M-2057**LOT 3****KOTT****SIMPSON
Strong-Tie**

MULTIPLE MEMBER CONNECTIONS

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

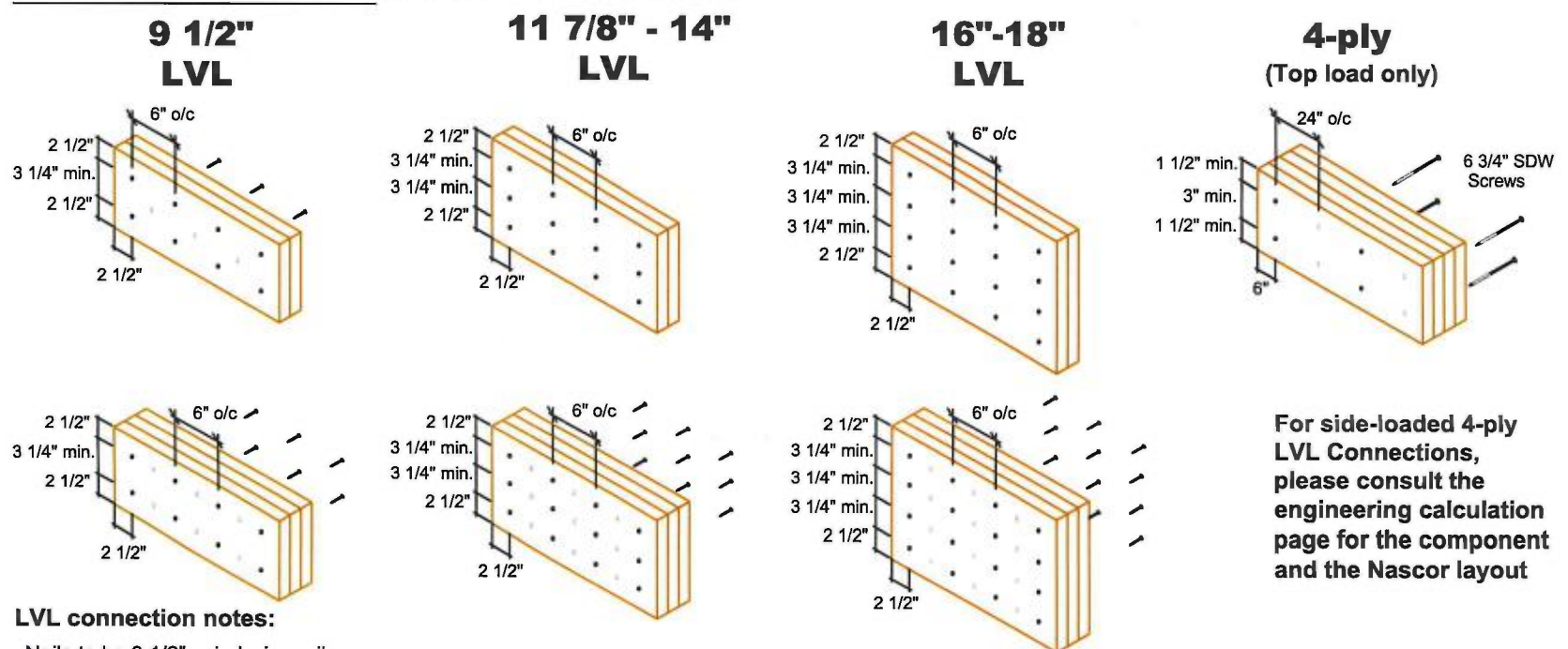
Conventional Connections (for uniform distributed loads)



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)

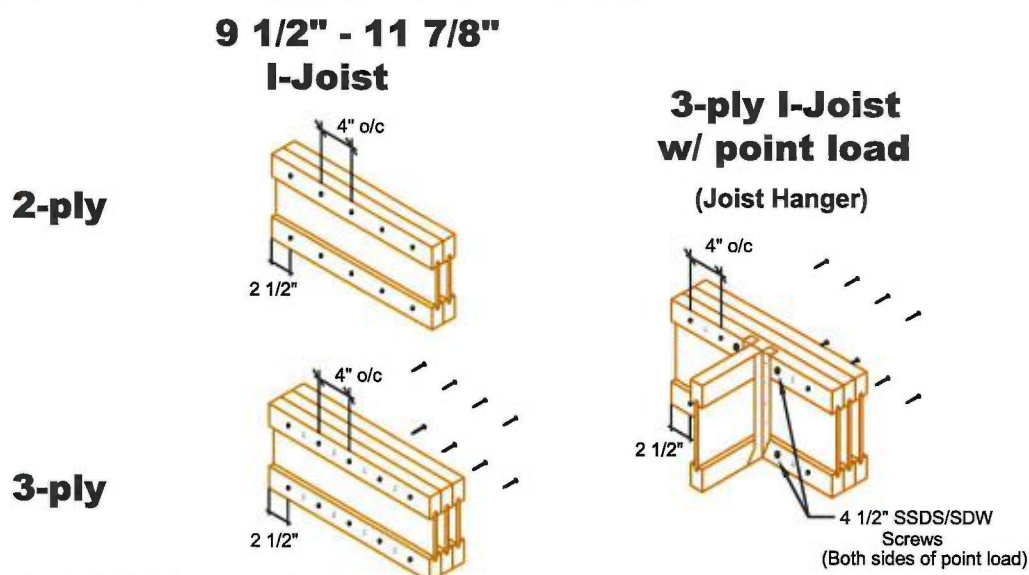


LVL connection notes:

- 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.

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

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

3
101
4502
M-2054

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

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

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

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

CODE

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

COMPONENT

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

HANDLING AND INSTALLATION

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



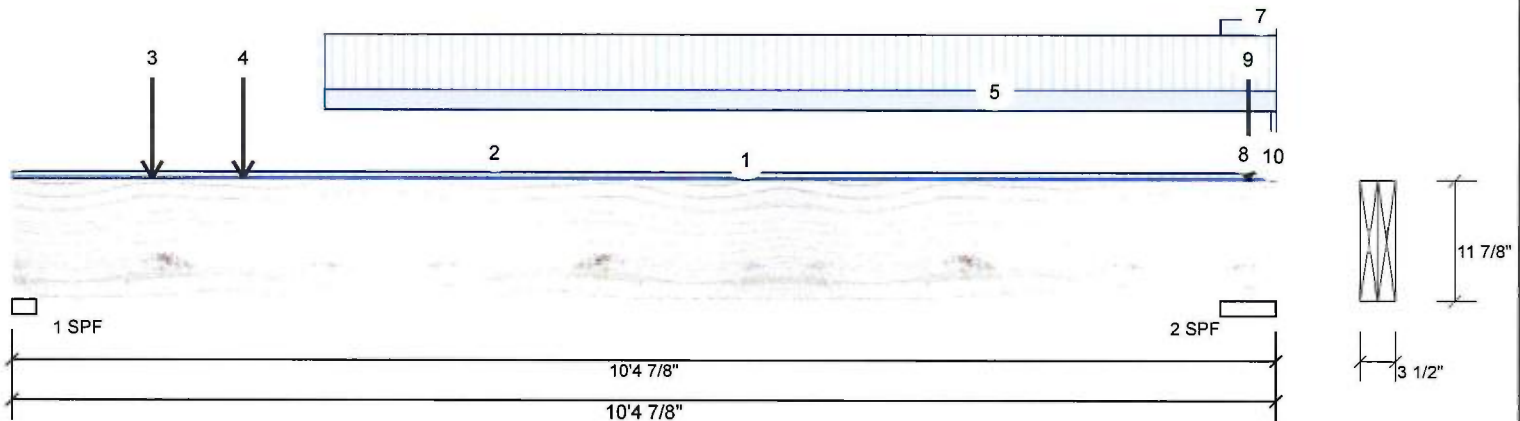
EWP Studio
Simpson Strong-Tie®
Component Solutions™

Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
Project #:

Page 1 of 2

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



Member Information

Type:	Girder	Application:	Floor (Residential)
Ply:	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	1371	577	0	0
2	3192	1447	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	54%	722 / 2057	2779 L	1.25D+1.5L
2 - SPF	5.500"	56%	1808 / 4788	6596 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7380 ft-lb	5' 1 1/16"	34261 ft-lb	0.215 (22%)	1.25D+1.5L	L
Unbraced	7380 ft-lb	5' 1 1/16"	29724 ft-lb	0.248 (25%)	1.25D+1.5L	L
Shear	3247 lb	1' 1 1/2"	11596 lb	0.280 (28%)	1.25D+1.5L	L
Perm Defl in.	0.032 (L/3752)	5' 15/16"	0.329 (L/360)	0.100 (10%)	D	Uniform
LL Defl inch	0.076 (L/1565)	5' 15/16"	0.329 (L/360)	0.230 (23%)	L	L
TL Defl inch	0.107 (L/1104)	5' 15/16"	0.494 (L/240)	0.220 (22%)	D+L	L

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

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

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



Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-3-12	(Span)1-2-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-1-3 to 10-1-3		Top	3 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-1-13		Far Face	99 lb	265 lb	0 lb	0 lb	J5
4	Point	1-10-13		Far Face	106 lb	283 lb	0 lb	0 lb	J5
5	Part. Uniform	2-6-13 to 10-4-14		Far Face	104 PLF	277 PLF	0 PLF	0 PLF	

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





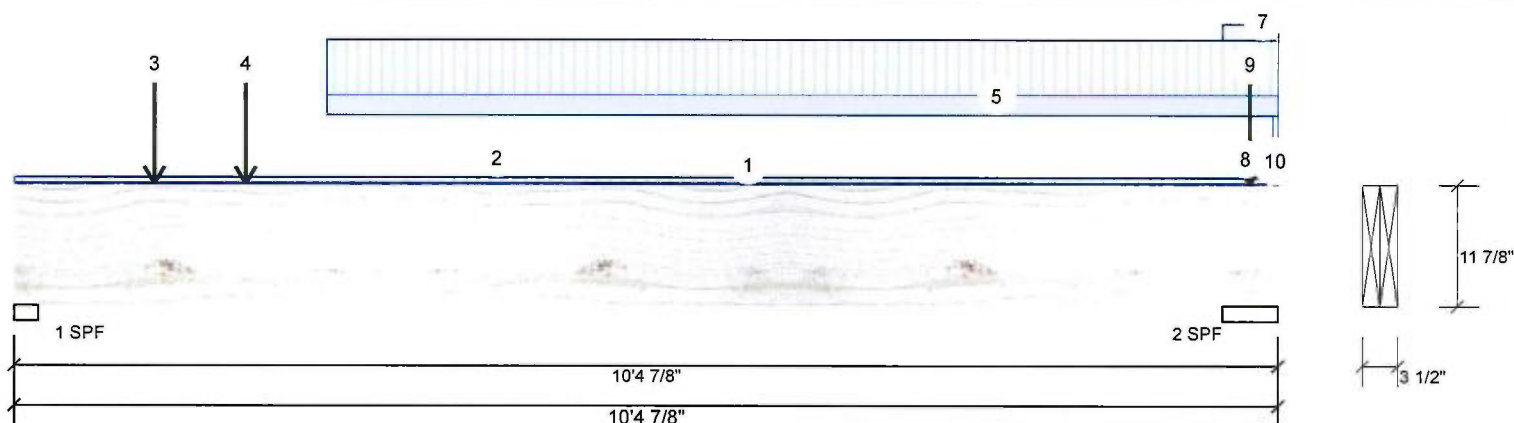
EWP Studio
Simpson Strong-Tie®
Component Solutions™

Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
Project #:

Page 2 of 2

F12-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
7	Part. Uniform	9-11-6 to 10-4-14		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Part. Uniform	10-1-3 to 10-2-4		Top	3 PLF	0 PLF	0 PLF	0 PLF	
9	Point	10-2-2		Top	738 lb	1580 lb	0 lb	0 lb	F12 F12
10	Part. Uniform	10-4-5 to 10-4-14		Top	106 PLF	246 PLF	0 PLF	0 PLF	J5
	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 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





EWP Studio
Simpson Strong-Tie®
Component Solutions™

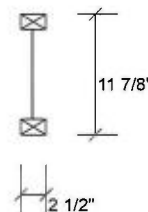
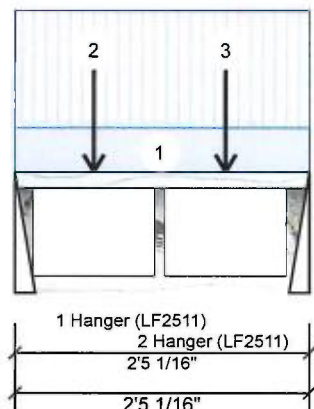
Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
Project #:

Page 1 of 1

F13-A NJH 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	380	142	0	0
2	372	139	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	46%	178 / 570	748 L	1.25D+1.5L
2 - Hanger	2.000"	45%	174 / 558	732 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	415 ft-lb	1'5 7/16"	5390 ft-lb	0.077 (8%)	1.25D+1.5L	L
Unbraced	415 ft-lb	1'5 7/16"	5079 ft-lb	0.082 (8%)	1.25D+1.5L	L
Shear	742 lb	1 1/4"	1810 lb	0.410 (41%)	1.25D+1.5L	L
Perm Defl in. (L/16731)	0.002	1'3 1/2"	0.074 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch (L/6272)	0.004	1'3 7/16"	0.074 (L/360)	0.060 (6%)	L	L
TL Defl inch (L/4562)	0.006	1'3 7/16"	0.111 (L/240)	0.050 (5%)	D+L	L

Design Notes

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

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

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

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-5-1	(Span)1-7-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-7-13		Near Face	125 lb	334 lb	0 lb	0 lb	J7
3	Point	1-8-13		Near Face	128 lb	341 lb	0 lb	0 lb	J7

Notes

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

Lumber

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

Handling & Installation

- LJoist flanges must not be cut or drilled
- Refer to latest copy of the LJoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/interaction details
- Damaged LJoists 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

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





EWP Studio
Simpson Strong-Tie®
Component Solutions™

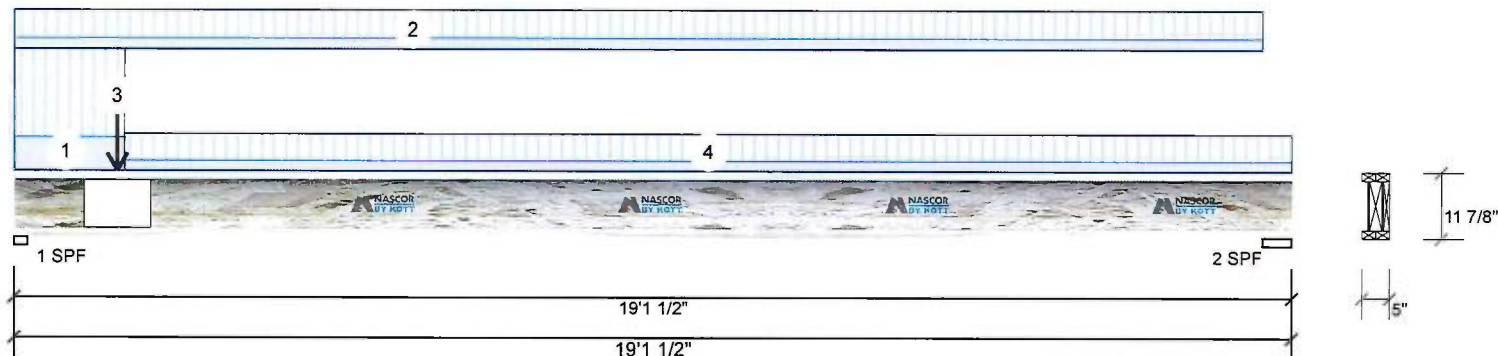
Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
Project #:

Page 1 of 1

F14-A NJH 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	745	279	0	0
2	362	136	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	44%	348 / 1117	1465	L	1.25D+1.5L
2 - SPF	5.250"	20%	170 / 543	713	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3582 ft-lb	8'6 5/8"	10780 ft-lb	0.332 (33%)	1.25D+1.5L	L
Unbraced	3582 ft-lb	8'6 5/8"	3606 ft-lb	0.993 (99%)	1.25D+1.5L	L
Shear	1445 lb	1 5/8"	3620 lb	0.399 (40%)	1.25D+1.5L	L
Perm Defl in.	0.076 (L/2921)	9'1 15/16"	0.620 (L/360)	0.120 (12%)	D	Uniform
LL Defl inch	0.204 (L/1095)	9'1 15/16"	0.620 (L/360)	0.330 (33%)	L	L
TL Defl inch	0.280 (L/796)	9'1 15/16"	0.931 (L/240)	0.300 (30%)	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 flange must be laterally braced at a maximum of 7'1" o.c.
- 5 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-7-12	(Span)2-10-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 18-8-4	(Span)0-10-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-6-8		Far Face	142 lb	380 lb	0 lb	0 lb	F13
4	Tie-In	1-7-12 to 19-1-8	(Span)0-10-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	



Notes

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

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

Nascor by Kott



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





EWP Studio
Simpson Strong-Tie®
Component Solutions™

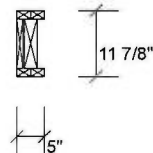
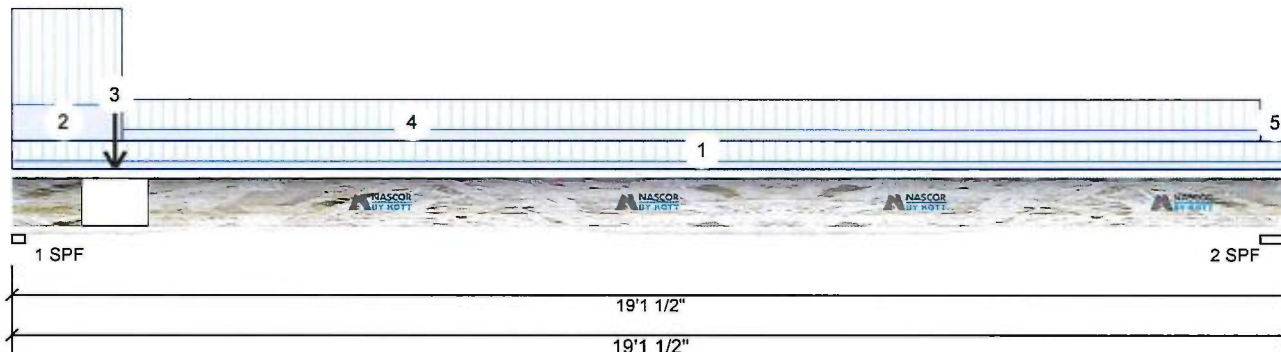
Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
Project #:

Page 1 of 1

F14-B NJH 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	689	258	0	0
2	317	119	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	41%	322 / 1033	1355	L	1.25D+1.5L
2 - SPF	5.250"	17%	148 / 475	623	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3147 ft-lb	8'5 1/8"	10780 ft-lb	0.292 (29%)	1.25D+1.5L	L
Unbraced	3147 ft-lb	8'5 1/8"	3159 ft-lb	0.996 (100%)	1.25D+1.5L	L
Shear	1337 lb	1 5/8"	3620 lb	0.369 (37%)	1.25D+1.5L	L
Perm Defl in.	0.067 (L/3321)	9'1 5/8"	0.620 (L/360)	0.110 (11%)	D	Uniform
LL Defl inch	0.179 (L/1244)	9'1 5/8"	0.620 (L/360)	0.290 (29%)	L	L
TL Defl inch	0.247 (L/905)	9'1 5/8"	0.931 (L/240)	0.270 (27%)	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

- 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 flange must be laterally braced at a maximum of 7'6" o.c.
- Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 19-1-8	(Span)0-7-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-7-12	(Span)2-10-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-6-8		Near Face	139 lb	372 lb	0 lb	0 lb	F13
4	Tie-In	1-7-12 to 18-8-4	(Span)0-10-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	18-8-4 to 19-1-8	(Span)0-4-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	



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
- Ljoist not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

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



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





EWP Studio
Simpson Strong-Tie®
Component Solutions™

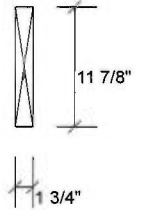
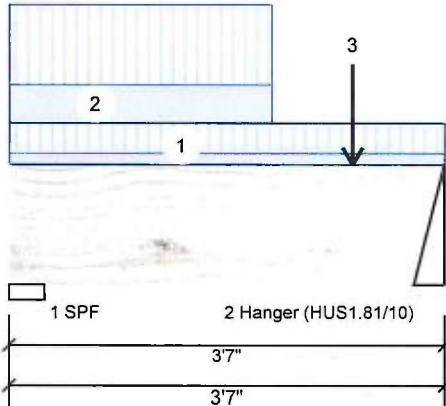
Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
Project #:

Page 1 of 1

F7-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	254	124	0	0
2	207	102	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	14%	155 / 381	535 L	1.25D+1.5L
2 - Hanger	3.000"	11%	127 / 311	438 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	354 ft-lb	1'9"	17130 ft-lb	0.021 (2%)	1.25D+1.5L	L
Unbraced	354 ft-lb	1'9"	13404 ft-lb	0.026 (3%)	1.25D+1.5L	L
Shear	557 lb	2'4 7/8"	5798 lb	0.096 (10%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/50089)	1'9 5/16"	0.105 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/24524)	1'9 5/16"	0.105 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.002 (L/16463)	1'9 5/16"	0.158 (L/240)	0.010 (1%)	D+L	L

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

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

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

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-7-0		Top	15 PLF	40 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 2-1-14		Far Face	51 PLF	105 PLF	0 PLF	0 PLF	
3	Point	2-9-14		Far Face	45 lb	91 lb	0 lb	0 lb	J1
	Self Weight				5 PLF				



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





EWP Studio
Simpson Strong-Tie®
Component Solutions™

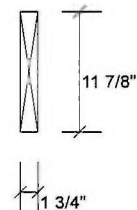
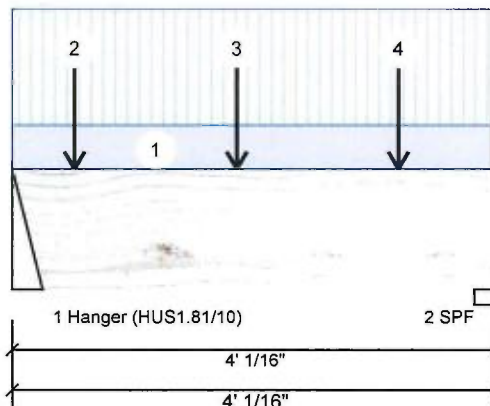
Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
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	700	295	0	0
2	647	273	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	36%	369 / 1050	1418 L	1.25D+1.5L
2 - SPF	2.375"	51%	341 / 971	1312 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1230 ft-lb	1'10 3/16"	17130 ft-lb	0.072 (7%)	1.25D+1.5L	L
Unbraced	1230 ft-lb	1'10 3/16"	12089 ft-lb	0.102 (10%)	1.25D+1.5L	L
Shear	855 lb	1'2 1/8"	5798 lb	0.148 (15%)	1.25D+1.5L	L
Perm Defl in. (L/16552)	0.003	1'11 1/16"	0.123 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.006 (L/7014)	1'11 1/4"	0.123 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.009 (L/4926)	1'11 3/16"	0.184 (L/240)	0.050 (5%)	D+L	L

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

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

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

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-11-7		Top	90 PLF	240 PLF	0 PLF	0 PLF	
2	Point	0-6-3		Far Face	54 lb	113 lb	0 lb	0 lb	J1
3	Point	1-10-3		Far Face	76 lb	157 lb	0 lb	0 lb	J1
4	Point	3-2-3		Far Face	63 lb	129 lb	0 lb	0 lb	J1
	Self Weight				5 PLF				



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





EWP Studio
Simpson Strong-Tie®
Component Solutions™

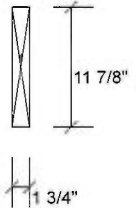
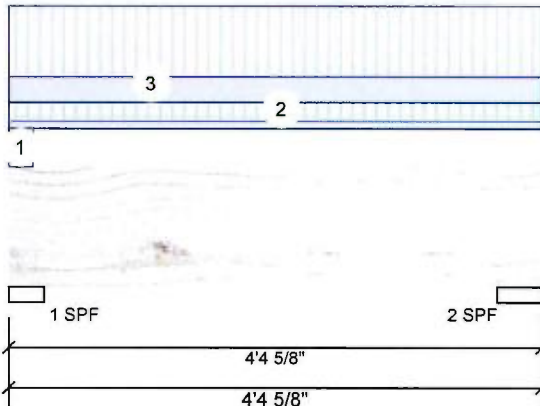
Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
Project #:

Page 1 of 1

F8-B 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	113	53	0	0
2	113	53	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	6%	66 / 169	235 L	1.25D+1.5L
2 - SPF	4.375"	5%	66 / 170	237 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	197 ft-lb	2'1 7/8"	17130 ft-lb	0.012 (1%)	1.25D+1.5L	L
Unbraced	197 ft-lb	2'1 7/8"	11602 ft-lb	0.017 (2%)	1.25D+1.5L	L
Shear	100 lb	1'2 5/8"	5798 lb	0.017 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.001 (L/44414)	2'1 15/16"	0.128 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.002 (L/30243)	2'1 15/16"	0.193 (L/240)	0.010 (1%)	D+L	L

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

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

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

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-6	(Span)0-9-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 4-4-10	(Span)0-6-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-0-0 to 4-4-10		Top	15 PLF	40 PLF	0 PLF	0 PLF	
	Self Weight				5 PLF				



Notes

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





EWP Studio
Simpson Strong-Tie®
Component Solutions™

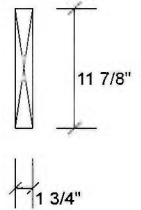
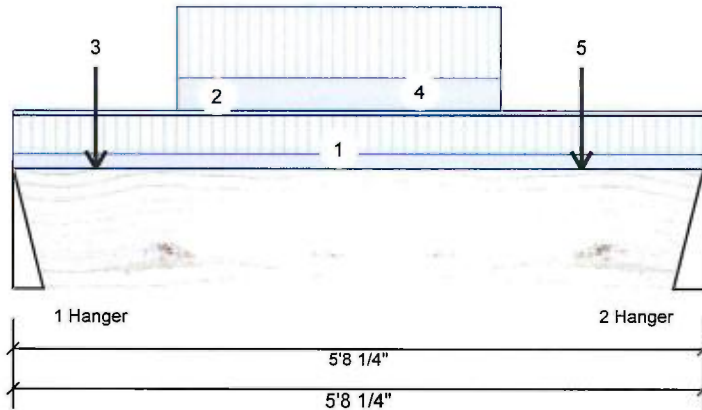
Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
Project #:

Page 1 of 1

F8-C 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	527	274	0	0
2	507	265	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	29%	343 / 790	1133 L	1.25D+1.5L
2 - Hanger	3.000"	28%	331 / 761	1092 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1470 ft-lb	2'10 1/4"	17130 ft-lb	0.086 (9%)	1.25D+1.5L	L
Unbraced	1470 ft-lb	2'10 1/4"	8461 ft-lb	0.174 (17%)	1.25D+1.5L	L
Shear	947 lb	1'2 1/8"	5798 lb	0.163 (16%)	1.25D+1.5L	L
Perm Defl in. (L/11263)	0.006	2'10 3/16"	0.177 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.011 (L/5840)	2'10 3/16"	0.177 (L/360)	0.060 (6%)	L	L
TL Defl inch	0.017 (L/3846)	2'10 3/16"	0.266 (L/240)	0.060 (6%)	D+L	L

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

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

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

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 5-8-4	(Span)3-6-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 5-8-4		Top	9 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-8-3		Far Face	65 lb	132 lb	0 lb	0 lb	J2
4	Part. Uniform	1-4-3 to 4-0-3		Far Face	62 PLF	127 PLF	0 PLF	0 PLF	
5	Point	4-8-3		Far Face	78 lb	157 lb	0 lb	0 lb	J2
	Self Weight				5 PLF				



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

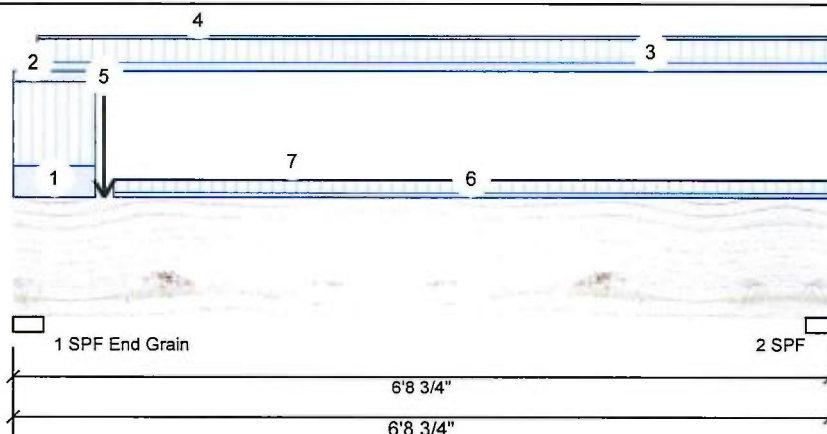


Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

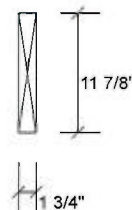


F9-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground 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.

**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	790	361	0	0
2	174	97	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	42%	451 / 1185	1636 L	1.25D+1.5L
2 - SPF	2.375"	15%	122 / 261	383 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	905 ft-lb	1'8 13/16"	17130 ft-lb	0.053 (5%)	1.25D+1.5L	L
Unbraced	905 ft-lb	1'8 13/16"	7020 ft-lb	0.129 (13%)	1.25D+1.5L	L
Shear	1461 lb	1'2 1/8"	5798 lb	0.252 (25%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/17866)	3' 1/4"	0.214 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.008 (L/9140)	2'11 1/8"	0.214 (L/360)	0.040 (4%)	L	L
TL Defl inch	0.013 (L/6048)	2'11 9/16"	0.320 (L/240)	0.040 (4%)	D+L	L

Design Notes

- Girders are designed to be supported on the bottom edge only.
- Top braced at bearings.
- 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 0-8-2	(Span)3-11-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-8-2		Top	10 PLF	0 PLF	0 PLF	0 PLF	
3	Tie-In	0-2-6 to 6-8-12	(Span)1-0-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part. Uniform	0-2-6 to 6-8-11		Top	3 PLF	0 PLF	0 PLF	0 PLF	
5	Point	0-9-0		Near Face	295 lb	700 lb	0 lb	0 lb	F8
6	Tie-In	0-9-14 to 6-8-12	(Span)0-7-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	0-9-14 to 6-8-11		Top	1 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				5 PLF				

**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





EWP Studio
Simpson Strong-Tie®
Component Solutions™

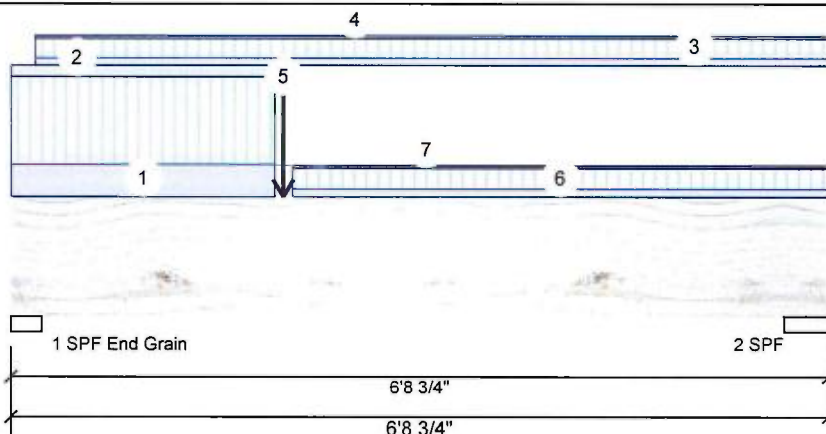
Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
Project #:

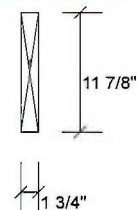
Page 1 of 1

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

Level: Ground 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.



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	335	183	0	0
2	192	112	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	19%	229 / 502	731 L	1.25D+1.5L
2 - SPF	4.375"	9%	140 / 288	428 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1057 ft-lb	2'2 7/8"	17130 ft-lb	0.062 (6%)	1.25D+1.5L	L
Unbraced	1057 ft-lb	2'2 7/8"	7207 ft-lb	0.147 (15%)	1.25D+1.5L	L
Shear	521 lb	1'2 1/8"	5798 lb	0.090 (9%)	1.25D+1.5L	L
Perm Defl in. (L/15834)	0.005	2'11"	0.208 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.009 (L/8720)	2'10 3/8"	0.208 (L/360)	0.040 (4%)	L	L
TL Defl inch	0.013 (L/5623)	2'10 9/16"	0.312 (L/240)	0.040 (4%)	D+L	L

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

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

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-2-0	(Span)3-4-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 2-2-0		Top	9 PLF	0 PLF	0 PLF	0 PLF	
3	Tie-In	0-2-6 to 6-8-12	(Span)0-9-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part. Uniform	0-2-6 to 6-8-8		Top	2 PLF	0 PLF	0 PLF	0 PLF	
5	Point	2-2-14		Far Face	102 lb	207 lb	0 lb	0 lb	F7
6	Tie-In	2-3-12 to 6-8-12	(Span)0-9-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	2-3-12 to 6-8-7		Top	2 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				5 PLF				



Notes

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





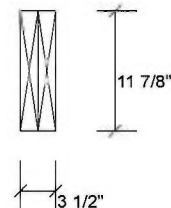
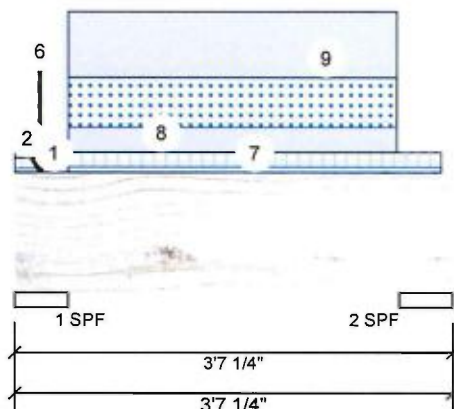
EWP Studio
Simpson Strong-Tie®
Component Solutions™

Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
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	174	515	491	0
2	31	177	82	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	13%	643 / 824	1467 L	1.25D+1.5S +0.5L
2 - SPF	5.250"	3%	247 / 0	247 Uniform	1.4D

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	180 ft-lb	1'9 5/8"	22269 ft-lb	0.008 (1%)	1.4D	Uniform
Unbraced	180 ft-lb	1'9 5/8"	22269 ft-lb	0.008 (1%)	1.4D	Uniform
Shear	77 lb	2'2 7/8"	7537 lb	0.010 (1%)	1.4D	Uniform
Perm Defl in.	0.001 (L/62496)	1'9 5/8"	0.095 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.001 (L/40207)	1'9 5/8"	0.143 (L/240)	0.010 (1%)	D+S+0.5L	L

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

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

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



Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-4	(Span)0-7-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-5-4	(Span)0-8-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-2-8		Top	285 lb	138 lb	397 lb	0 lb	F3 F3
4	Point	0-2-8		Top	5 lb	0 lb	11 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



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





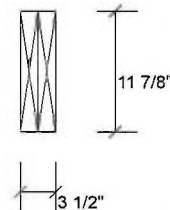
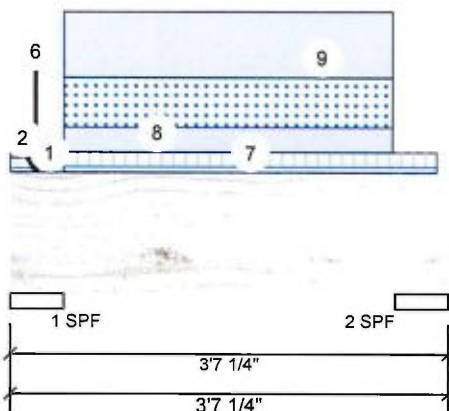
EWP Studio
Simpson Strong-Tie®
Component Solutions™

Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
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
5	Point	0-2-8		Top	7 lb	0 lb	0 lb	0 lb	Wall Self Weight
6	Point	0-2-8		Top	37 lb	0 lb	0 lb	0 lb	Wall Self Weight
7	Tie-In	0-5-4 to 3-6-2	(Span) 0-10-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
8	Part. Uniform	0-5-4 to 3-1-12		Top	30 PLF	0 PLF	61 PLF	0 PLF	
9	Part. Uniform Self Weight	0-5-4 to 3-1-12		Top	80 PLF 10 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 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

Handing & 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





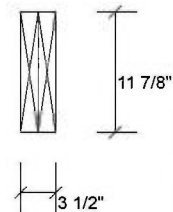
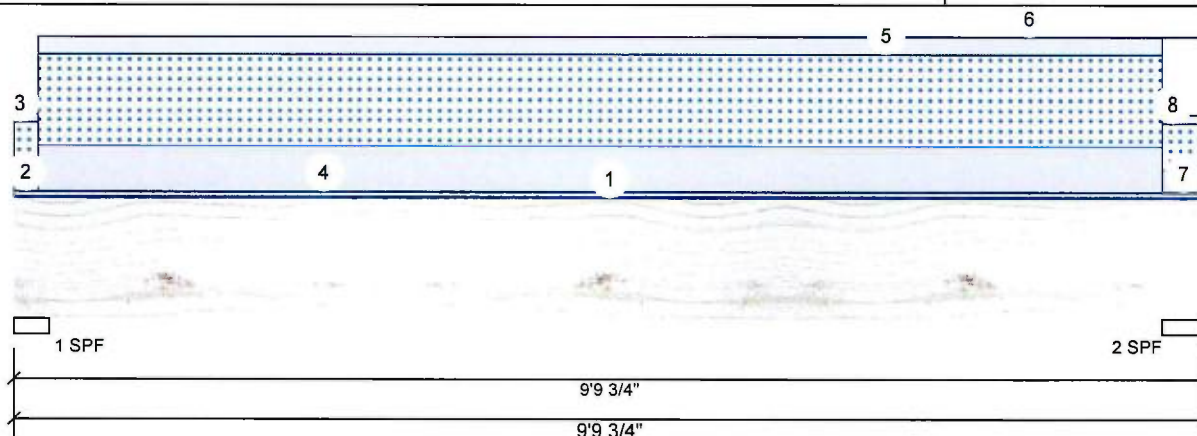
EWP Studio
Simpson Strong-Tie®
Component Solutions™

Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
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	100	1476	2020	0
2	101	1480	2014	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	65%	1845 / 3080	4926 L	1.25D+1.5S +0.5L
2 - SPF	4.250"	54%	1850 / 3071	4922 L	1.25D+1.5S +0.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	11129 ft-lb	4'10 9/16"	34261 ft-lb	0.325 (32%)	1.25D+1.5S +0.5L	L
Unbraced	11129 ft-lb	4'10 9/16"	30244 ft-lb	0.368 (37%)	1.25D+1.5S +0.5L	L
Shear	3774 lb	8'6 3/8"	11596 lb	0.325 (33%)	1.25D+1.5S +0.5L	L
Perm Defl in.	0.062 (L/1788)	4'10 1/2"	0.310 (L/360)	0.200 (20%)	D	Uniform
LL Defl inch	0.087 (L/1277)	4'10 1/2"	0.310 (L/360)	0.280 (28%)	S+0.5L	L
TL Defl inch	0.150 (L/745)	4'10 1/2"	0.465 (L/240)	0.320 (32%)	D+S+0.5L	L

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

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



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
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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 9-9-12	(Span)1-0-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-2-6		Top	106 PLF	0 PLF	212 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 0-2-6		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-2-6 to 9-5-8		Top	211 PLF	0 PLF	423 PLF	0 PLF	
5	Part. Uniform	0-2-6 to 9-5-8		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

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

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





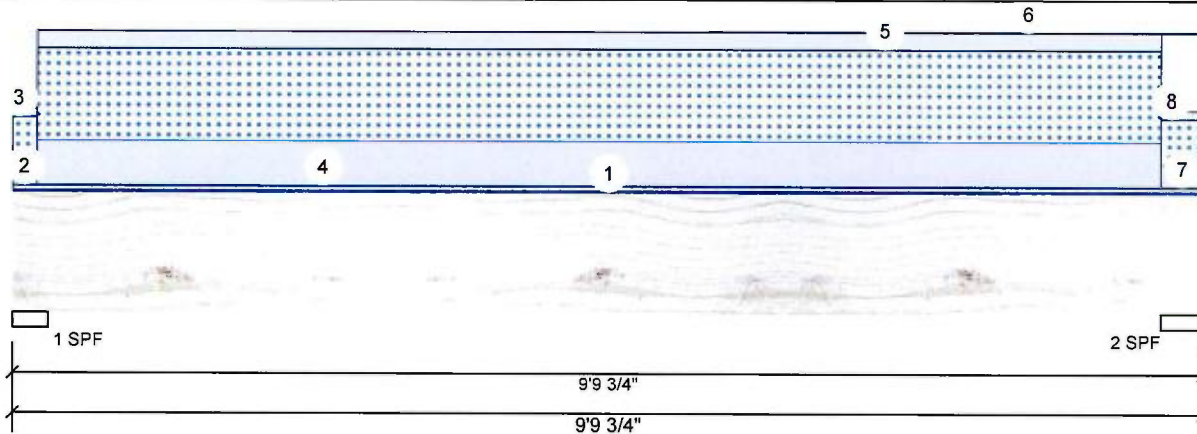
EWP Studio
Simpson Strong-Tie®
Component Solutions™

Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
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	Part. Uniform	5-8-11 to 9-9-12		Top	3 PLF	0 PLF	0 PLF	0 PLF	
7	Part. Uniform	9-5-8 to 9-9-12		Top	106 PLF	0 PLF	212 PLF	0 PLF	
8	Part. Uniform	9-5-8 to 9-9-12		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	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 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

5. 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





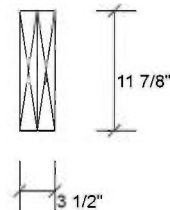
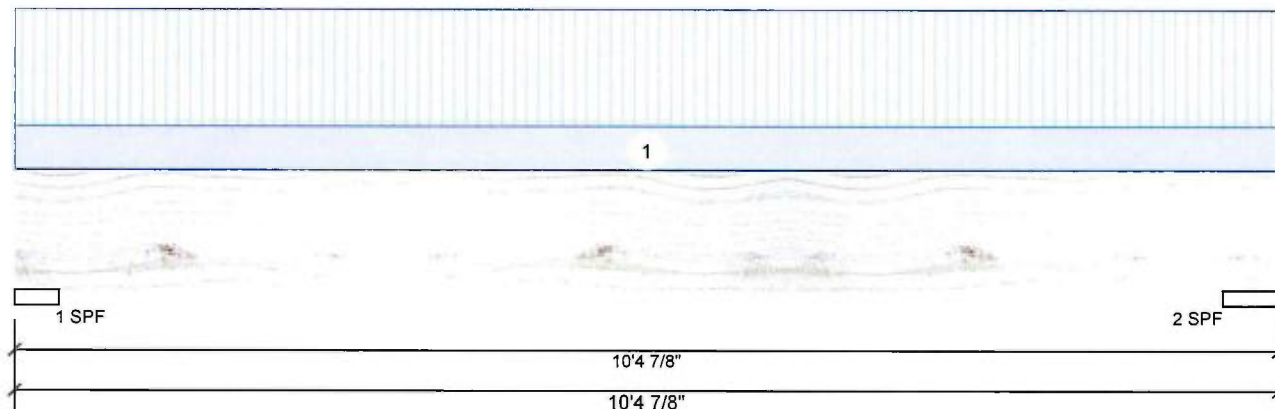
EWP Studio
Simpson Strong-Tie®
Component Solutions™

Client:
Project:
Address:

Date: 5/30/2018
Designer: S B
Job Name: AMELIA 1 EL-1 & 2
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	110	91	0	0
2	112	92	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.375"	3%	113 / 166	279 L	1.25D+1.5L
2 - SPF	5.500"	2%	115 / 169	284 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	637 ft-lb	5'1 7/8"	34261 ft-lb	0.019 (2%)	1.25D+1.5L	L
Unbraced	637 ft-lb	5'1 7/8"	29876 ft-lb	0.021 (2%)	1.25D+1.5L	L
Shear	209 lb	1'3 1/2"	11596 lb	0.018 (2%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/27966)	5'1 7/8"	0.324 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.005 (L/22923)	5'1 7/8"	0.324 (L/360)	0.020 (2%)	L	L
TL Defl inch	0.009 (L/12597)	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 BEARINGS.



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.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-4-14	(Span)1-0-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				

Notes

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



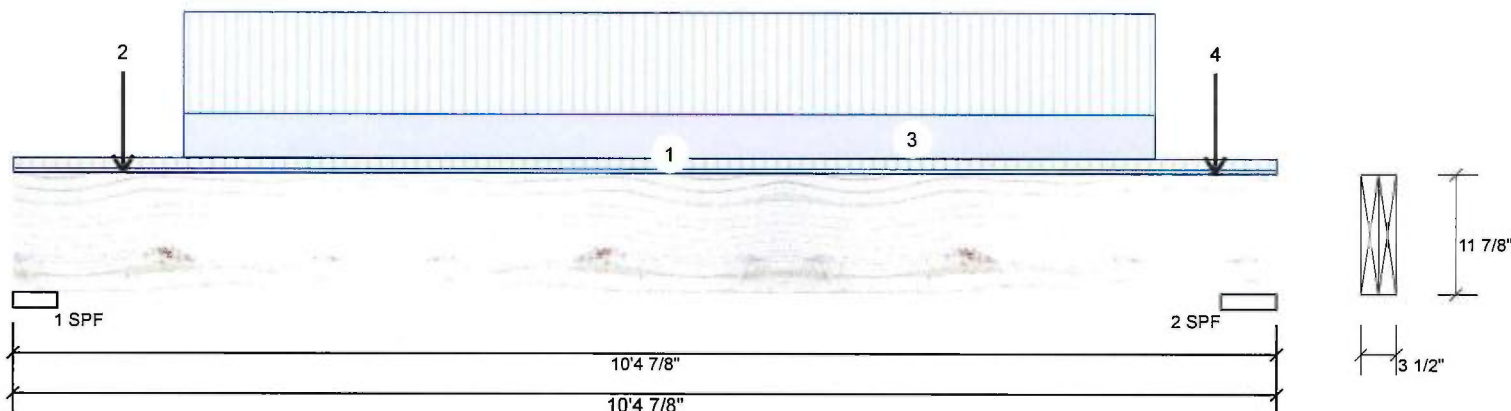
Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400





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

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 Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	1419	664	0	0
2	1580	738	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.375"	31%	830 / 2129	2958	L	1.25D+1.5L
2 - SPF	5.500"	28%	922 / 2370	3292	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7276 ft-lb	5'1 13/16"	34261 ft-lb	0.212 (21%)	1.25D+1.5L	L
Unbraced	7276 ft-lb	5'1 13/16"	29876 ft-lb	0.244 (24%)	1.25D+1.5L	L
Shear	3077 lb	1'3 1/2"	11596 lb	0.265 (27%)	1.25D+1.5L	L
Perm Defl in.	0.033 (L/3555)	5'1 7/8"	0.324 (L/360)	0.100 (10%)	D	Uniform
LL Defl inch	0.070 (L/1656)	5'1 7/8"	0.324 (L/360)	0.220 (22%)	L	L
TL Defl inch	0.103 (L/1130)	5'1 7/8"	0.485 (L/240)	0.210 (21%)	D+L	L

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

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

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



Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-4-14	(Span)1-5-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-10-13		Far Face	115 lb	262 lb	0 lb	0 lb	J5
3	Part. Uniform	1-4-13 to 9-4-13		Far Face	118 PLF	268 PLF	0 PLF	0 PLF	
4	Point	9-10-13		Far Face	128 lb	285 lb	0 lb	0 lb	J5
	Self Weight				10 PLF				

Notes

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

