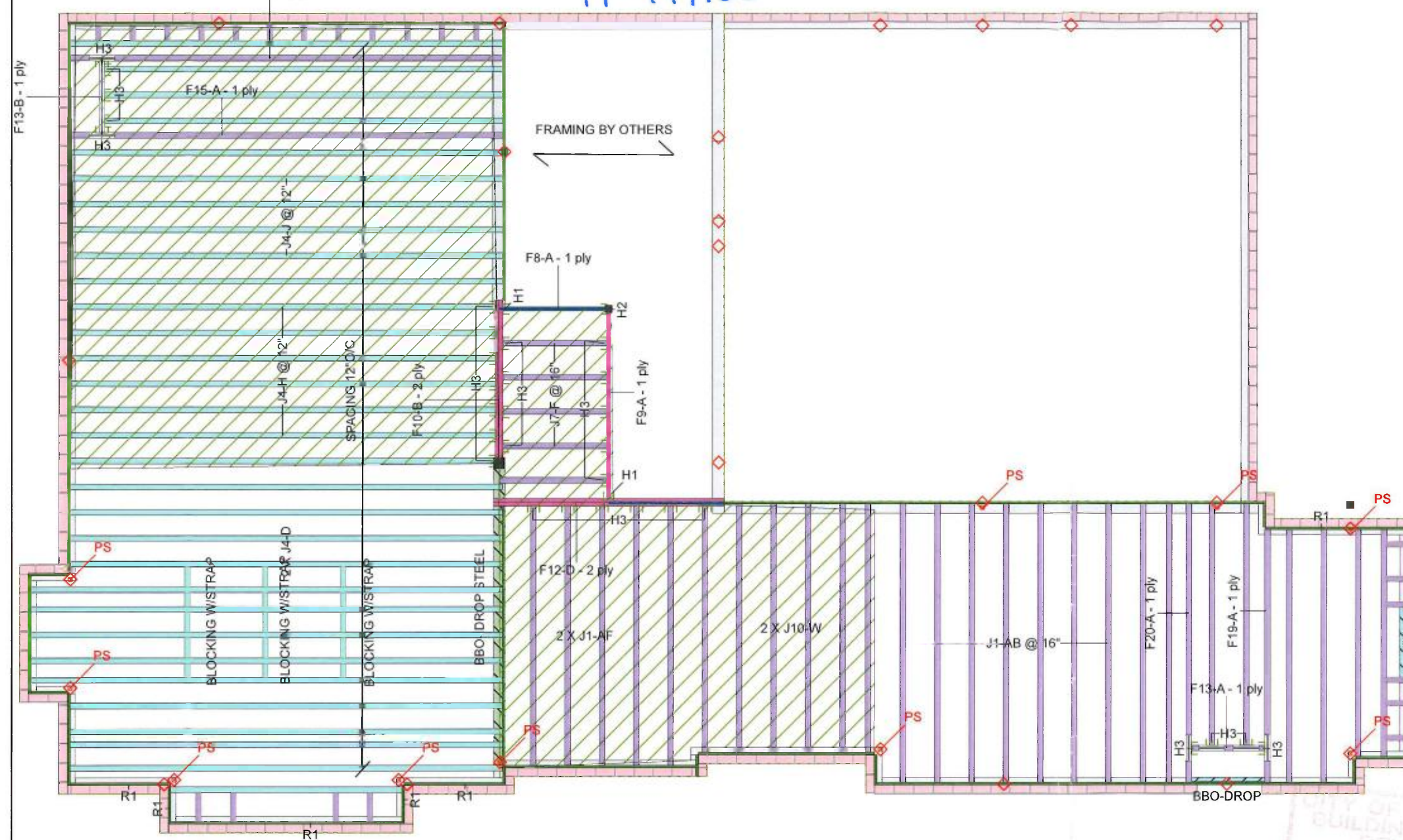


F15-B - 1 ply

19-447155



JARDIN DESIGN GROUP
64 JARDIN DR, SUITE 3A
VAUGHAN, ON L4K 3P3
Project # 17-55
Model: LOT-15 ,AMELIA 12
Date: DEC 21,2018

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)

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.

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.



January 04, 2019

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	
1.75 X 7.5 (Dropped)	
5.25 X 10.25 (Dropped)	

NASCOR

14 Anderson Blvd
Stouffville, Ontario
Canada
L4A 7X4
905-642-4400

Design Method	LSD
Building Code	NBCC 2010 / OBC 2012

Loads	
Live	40
Dead	15

LL Span L/	480
TL Span L/	360
LL Cant 2L/	480
TL Cant 2L/	360

LL Span L/	360
TL Span L/	240
LL Cant 2L/	480
TL Cant 2L/	360

Fastener	Nailed & Glued
----------	----------------

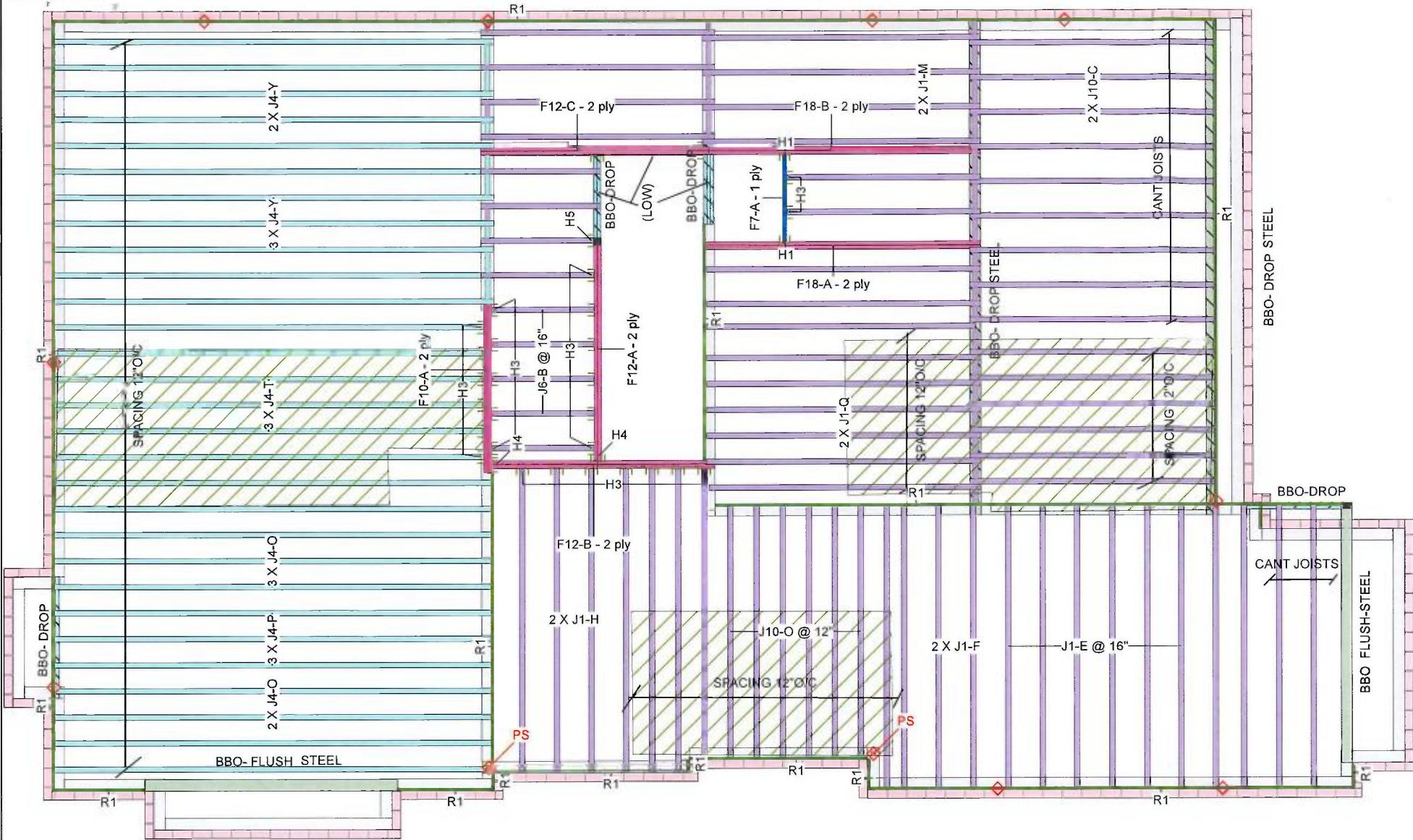
M-2057
LOT 15

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



19-447155-RR.

Second Floor



Architectural Drawing Info

JARDIN DESIGN GROUP
64 JARDIN DR, SUITE 3A
VAUGHAN, ON L4K 3P3
Project # 17-55
Model: LOT-15, AMELIA 12
Date: DEC 21, 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. 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.



January 04, 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)

Second Floor

LVL/LSL

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F18	Forex 2.0E-3000Fb LVL	1.75	11.875	2	2	4	12-0-0
F12	Forex 2.0E-3000Fb LVL	1.75	11.875	3	2	6	10-0-0
F10	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	8-0-0
F7	Forex 2.0E-3000Fb LVL	1.75	11.875			1	4-0-0

I Joist

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J1	LPI 20Plus	2.5	11.875			34	12-0-0
J10	LPI 20Plus	2.5	11.875			25	10-0-0
J8	LPI 20Plus	2.5	11.875			2	8-0-0
J7	LPI 20Plus	2.5	11.875			4	6-0-0
J6	LPI 20Plus	2.5	11.875			5	4-0-0
J4	NJ60H	2.5	11.875			29	18-0-0

Rim Board

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875			16	12

Hanger

		Beam/Girder		Supported Member	
Label	Pcs	Description	Skew	Slope	fasteners
H1	2	HUS1.81/10			30 16d
H3	26	LF2511			12 10d
H4	2	HGUS410			46 16d
H5	1	HUC312			16 16d
H6	2	Unknown Hanger			6 10dx1 1/2

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	Wall
Norbord Rimboard Plus 1.125 X 11.875	Norbord Rimboard Plus 1.125 X 11.875
LPI 20Plus 11.875	LPI 20Plus 11.875
NJ60H 11.875	NJ60H 11.875
Forex 2.0E-3000Fb LVL 1.75 X 11.875	Forex 2.0E-3000Fb LVL 1.75 X 11.875
1.5 X 7.5 (Dropped)	1.5 X 7.5 (Dropped)
1.5 X 9.5 (Dropped)	1.5 X 9.5 (Dropped)
1.75 X 9.5 (Dropped)	1.75 X 9.5 (Dropped)
5 X 10.25 (Dropped)	5 X 10.25 (Dropped)
5 X 10.25	5 X 10.25
5.25 X 10.25	5.25 X 10.25



Layout Name
LOT 15 (AMELIA 12 EL- 2)

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

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 15



Engineering Note Page (ENP-2)

REVISION 2018-10-17

M-2057
LOT 15**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

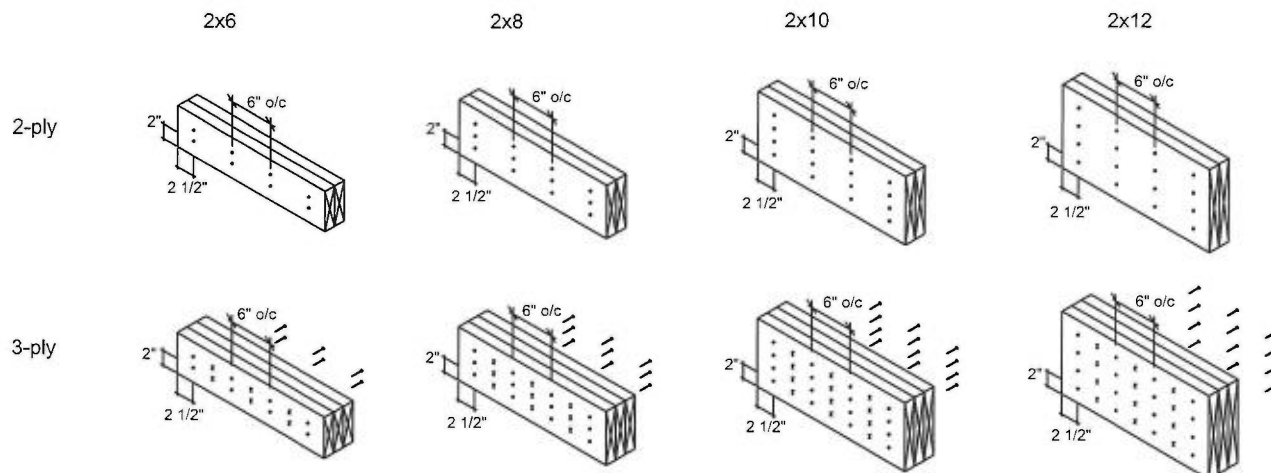
1. The building component used in construction must be the same as indicated on the drawings.
2. The building component must be installed and assembled as per specification shown on the drawing and in accordance with the manufacturer's assembly and installation.
3. Members consisting of multiple plies 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.



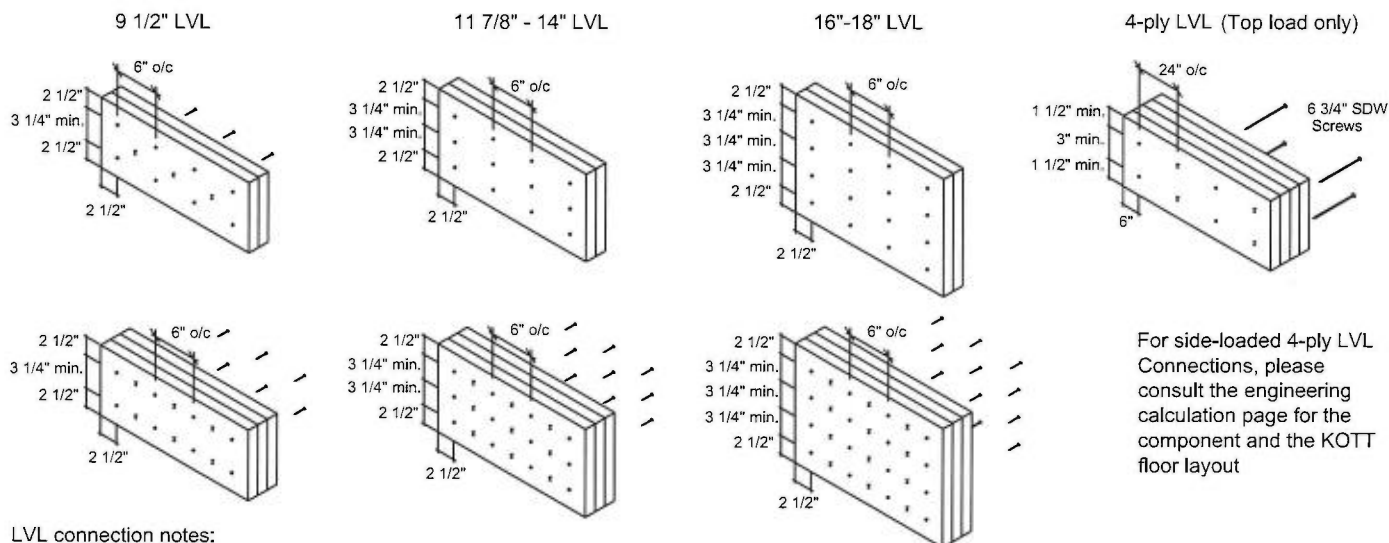
Conventional Connections



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

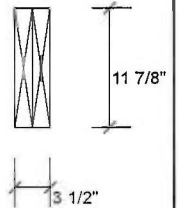
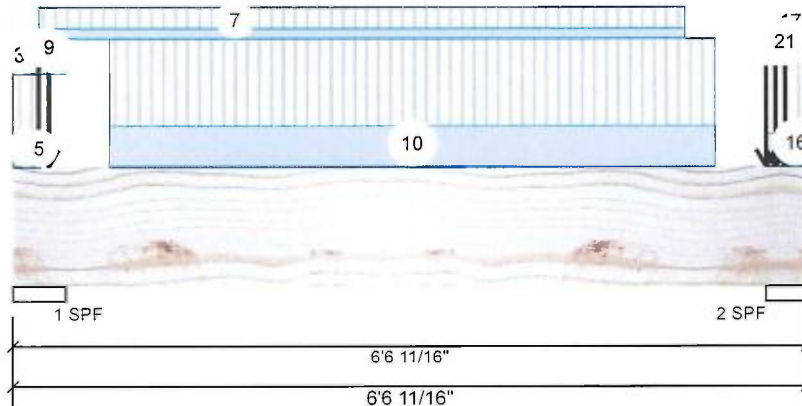
Multiple Member Connections

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

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	3723	1780	0	0
2	2558	1233	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	69%	2225 / 5585	7809	L	1.25D+1.5L
2 - SPF	4.063"	61%	1542 / 3836	5378	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 04, 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	1073 lb	2359 lb	0 lb	0 lb	F10 E10 E12 E12
5	Part. Uniform	0-2-9 to 0-2-9		Top	107 PLF	248 PLF	0 PLF	0 PLF	Pass-Thru Framing Squash Block is required at all point loads over bearings
6	Part. Uniform	0-2-9 to 0-5-4		Top	80 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...

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

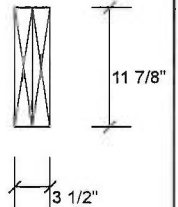
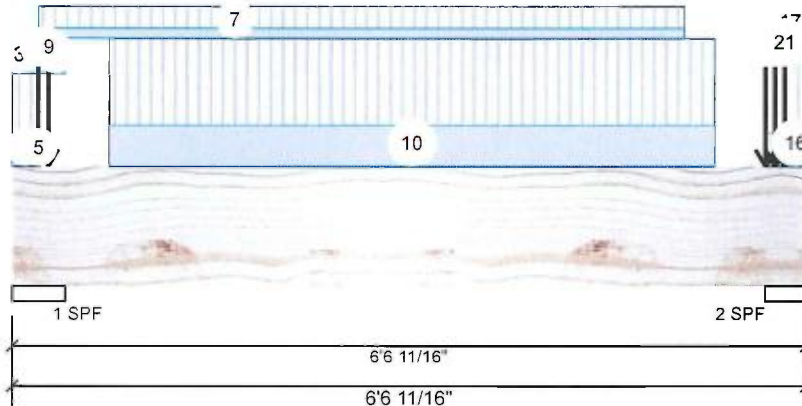
Manufacturer Info

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



F10-B 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	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	Part. Uniform	6-2-10 to 6-6-11		Top	126 PLF	335 PLF	0 PLF	0 PLF	J4
17	Part. Uniform	6-2-10 to 6-6-11		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
18	Point	6-2-10		Top	1 lb	3 lb	0 lb	0 lb	
19	Point	6-2-10		Near Face	41 lb	83 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 04, 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

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

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

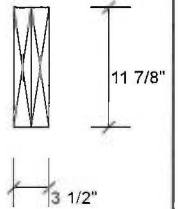
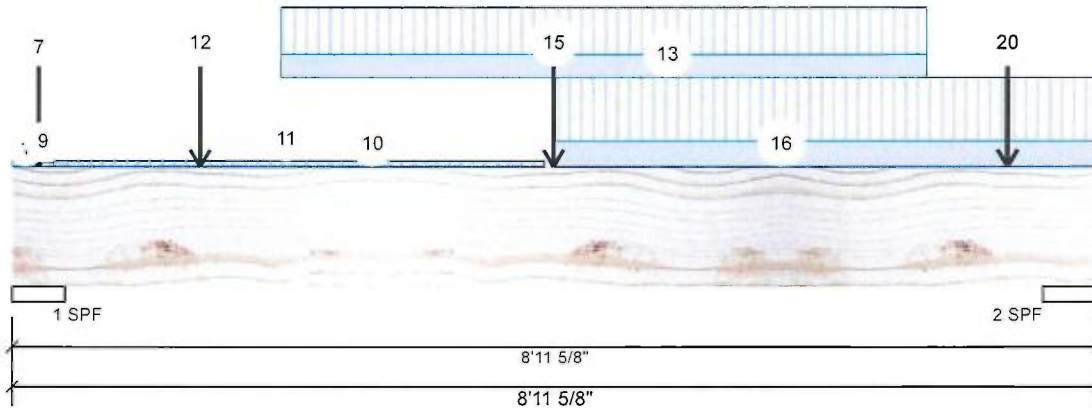
Manufacturer Info

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



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


Member Information

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

Application: Floor (Residential)
Design Method: LSD
Building Code: NBCC 2010 / OBC 2012
Load Sharing: No
Deck: Not Checked
Vibration: Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	1330	706	0	0
2	1958	931	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	25%	883 / 1995	2878	L	1.25D+1.5L
2 - SPF	5.500"	35%	1164 / 2937	4101	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7293 ft-lb	4'8 7/16"	34261 ft-lb	0.213 (21%)	1.25D+1.5L	L
Unbraced	7293 ft-lb	4'8 7/16"	31134 ft-lb	0.234 (23%)	1.25D+1.5L	L
Shear	3333 lb	7'7"	11596 lb	0.287 (29%)	1.25D+1.5L	L
Perm Defl in.	0.025 (L/3941)	4'6 7/8"	0.273 (L/360)	0.090 (9%)	D	Uniform
LL Defl inch	0.051 (L/1944)	4'7 5/16"	0.273 (L/360)	0.190 (19%)	L	
TL Defl inch	0.076 (L/1302)	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 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-2	(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	Wall Self Weight
5	Point	0-2-10		Top	46 lb	113 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 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

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

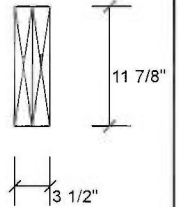
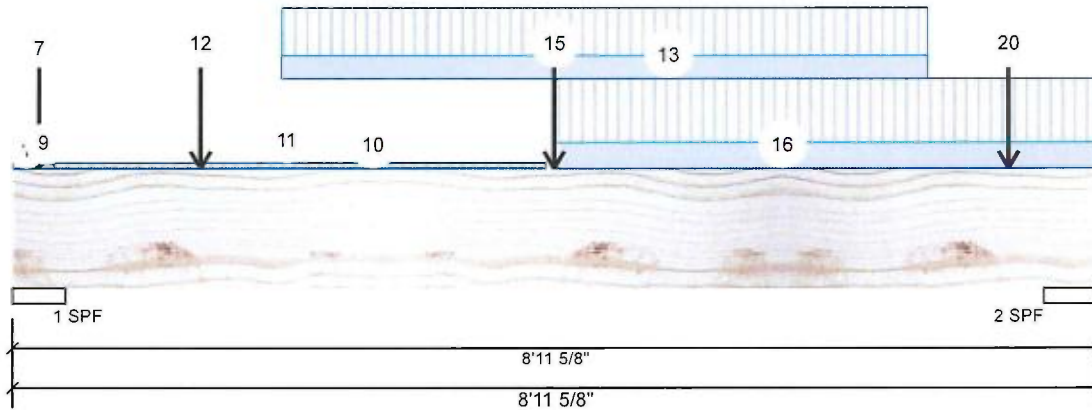
Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400


This design is valid until 10/18/2021



F12-D 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	2 PLF	0 PLF	0 PLF	0 PLF	
9	Part. Uniform	0-2-12 to 0-4-2		Top	1 PLF	0 PLF	0 PLF	0 PLF	
10	Tie-In	0-4-2 to 4-4-13	(Span)0-10-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
11	Part. Uniform	0-4-2 to 4-4-13		Top	2 PLF	0 PLF	0 PLF	0 PLF	
12	Point	1-6-10		Near Face	124 lb	250 lb	0 lb	0 lb	J1
13	Part. Uniform	2-2-10 to 7-6-10		Near Face	98 PLF	201 PLF	0 PLF	0 PLF	
15	Point	4-5-11		Far Face	154 lb	281 lb	0 lb	0 lb	F9
16	Part. Uniform	4-5-13 to 8-11-10		Top	110 PLF	270 PLF	0 PLF	0 PLF	
20	Point	8-2-10		Near Face	122 lb	250 lb	0 lb	0 lb	J10
	Self Weight				10 PLF				



January 04, 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

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

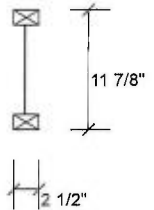
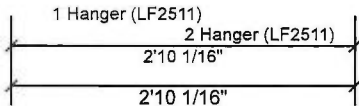
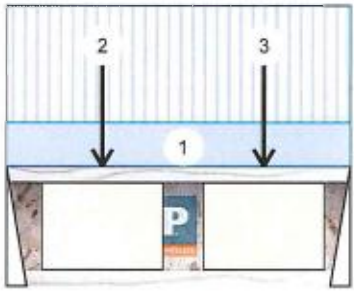


This design is valid until 10/18/2021



F13-A LPI 20Plus 11.875" - PASSED

Level: Ground Floor


Member Information

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

Application: Floor (Residential)
Design Method: LSD
Building Code: NBCC 2010 / OBC 2012
Load Sharing: No
Deck: Not Checked
Vibration: Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	236	89	0	0
2	244	92	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	29%	111 / 355	466 L		1.25D+1.5L
2 - Hanger	2.000"	30%	115 / 366	481 L		1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	307 ft-lb	1'1 11/16"	6250 ft-lb	0.049 (5%)	1.25D+1.5L	L
Shear	475 lb	2'8 13/16"	2345 lb	0.202 (20%)	1.25D+1.5L	L
Perm Defl in. (L/24100)	0.001	1'3 3/4"	0.088 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.003 (L/9050)	1'3 3/4"	0.088 (L/360)	0.040 (4%)	L	L
TL Defl inch	0.005 (L/6580)	1'3 3/4"	0.132 (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 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-10-1	(Span)1-4-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-9-8		Far Face	77 lb	205 lb	0 lb	0 lb	J10
3	Point	2-1-8		Far Face	74 lb	197 lb	0 lb	0 lb	J10

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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Manufacturer Info

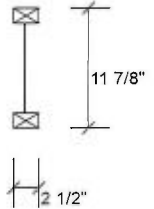
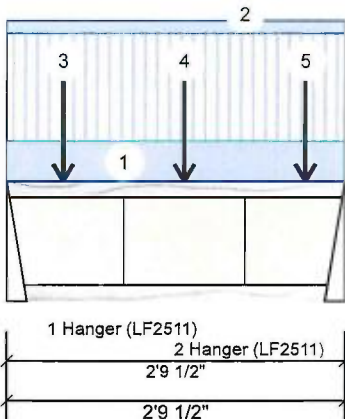
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www.lpcorp.com
CCMC: 12412-R APA: PR-L238C

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



F13-B LPI 20Plus 11.875" - PASSED

Level: Ground Floor


Member Information

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

Application: Floor (Residential)
Design Method: LSD
Building Code: NBCC 2010 / OBC 2012
Load Sharing: No
Deck: Not Checked
Vibration: Not Checked

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"	57%	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"	6250 ft-lb	0.095 (10%)	1.25D+1.5L	L
Shear	896 lb	2'8 1/4"	2345 lb	0.382 (38%)	1.25D+1.5L	L
Perm Defl in. (L/10568)	0.003	1'5 5/8"	0.086 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.006 (L/5035)	1'5 5/8"	0.086 (L/360)	0.070 (7%)	L	L
TL Defl inch	0.009 (L/3410)	1'5 5/8"	0.129 (L/240)	0.070 (7%)	D+L	L

Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.003", Long Term = 0.004"
- 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 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
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
Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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Manufacturer Info

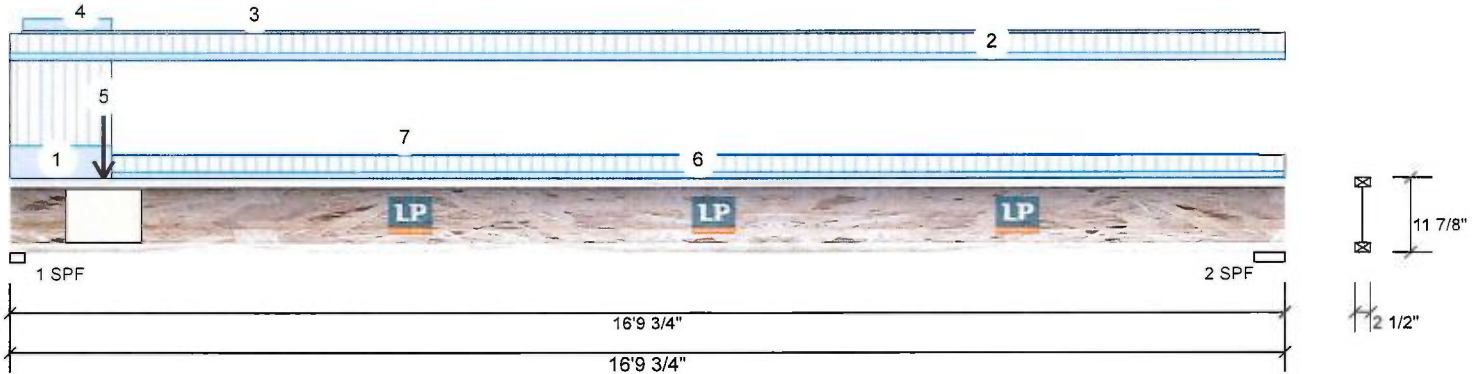
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CCMC: 12412-R APA: PR-L238C

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-842-4400



F15-A LPI 20Plus 11.875" - PASSED

Level: Ground Floor


Member Information

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

Application: Floor (Residential)
Design Method: LSD
Building Code: NBCC 2010 / OBC 2012
Load Sharing: No
Deck: Not Checked
Vibration: Not Checked

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"	83%	391 / 971	1362 L	1.25D+1.5L
2 - SPF	4.875"	28%	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"	6250 ft-lb	0.369 (37%)	1.25D+1.5L	L
Shear	1342 lb	1 5/8"	2345 lb	0.572 (57%)	1.25D+1.5L	L
Perm Defl in.	0.093 (L/2110)	7'11 3/8"	0.544 (L/360)	0.170 (17%)	D	Uniform
LL Defl inch	0.189 (L/1035)	7'11 5/16"	0.544 (L/360)	0.350 (35%)	L	L
TL Defl inch	0.282 (L/695)	7'11 5/16"	0.817 (L/240)	0.350 (35%)	D+L	L

Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.093", Long Term = 0.139"
- 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 6'10" o.c.
- 6 Bottom flange braced at bearings.



January 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
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 PSF	
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 PSF	

Pass-Through 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

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Manufacturer Info

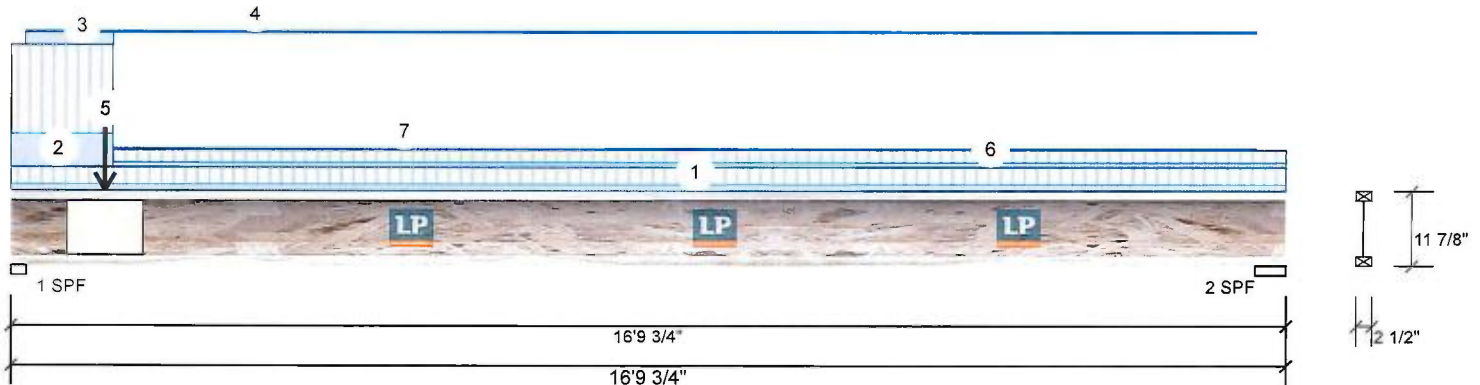
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CCMC: 12412-R APA: PR-L238C

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



F15-B LPI 20Plus 11.875" - PASSED

Level: Ground Floor


Member Information

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

Application: Floor (Residential)
Design Method: LSD
Building Code: NBCC 2010 / OBC 2012
Load Sharing: No
Deck: Not Checked
Vibration: Not Checked

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"	81%	378 / 951	1329	L	1.25D+1.5L
2 - SPF	4.875"	23%	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"	6250 ft-lb	0.318 (32%)	1.25D+1.5L	L
Shear	1310 lb	1 5/8"	2345 lb	0.559 (56%)	1.25D+1.5L	L
Perm Defl in.	0.078 (L/2505)	7'10 1/4"	0.544 (L/360)	0.140 (14%)	D	Uniform
LL Defl inch	0.164 (L/1193)	7'10 1/4"	0.544 (L/360)	0.300 (30%)	L	L
TL Defl inch	0.243 (L/808)	7'10 1/4"	0.817 (L/240)	0.300 (30%)	D+L	L

Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.078", Long Term = 0.117"
- 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 7'4" o.c.
- 6 Bottom flange braced at bearings.



January 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
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 PSF	
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

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Manufacturer Info

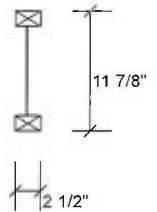
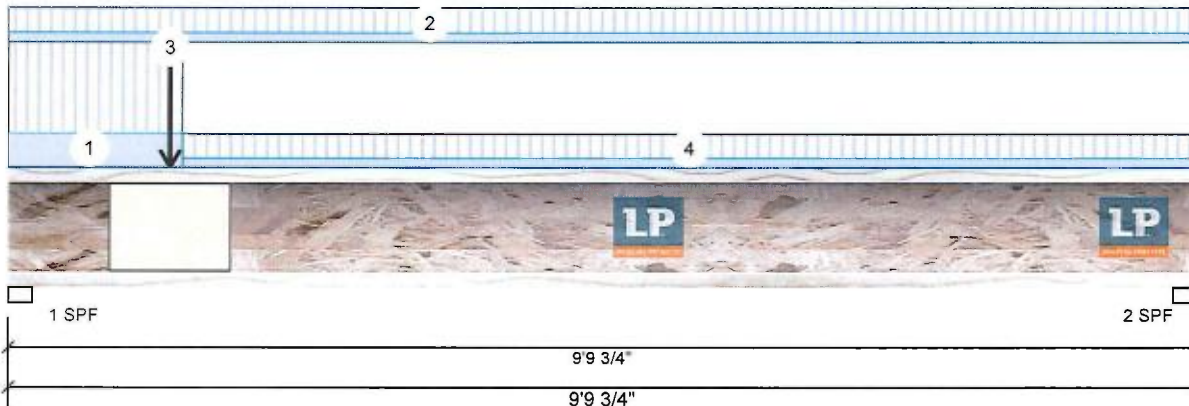
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L4A 7X4
905-642-4400



F19-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	437	164	0	0
2	198	74	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	53%	205 / 656	861 L	1.25D+1.5L
2 - SPF	2.375"	24%	93 / 297	390 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1108 ft-lb	3'10 7/16"	6250 ft-lb	0.177 (18%)	1.25D+1.5L	L
Shear	840 lb	1 5/8"	2345 lb	0.358 (36%)	1.25D+1.5L	L
Perm Defl in.	0.015 (L/7673)	4'6 1/2"	0.318 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.040 (L/2882)	4'6 9/16"	0.318 (L/360)	0.120 (12%)	L	L
TL Defl inch	0.055 (L/2095)	4'6 9/16"	0.477 (L/240)	0.110 (11%)	D+L	L

Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.015", Long Term = 0.022"
- 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 9'3" o.c.
- 6 Bottom flange braced at bearings.



January 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-4	(Span)3-0-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 9-9-12	(Span)0-10-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-4-0		Far Face	92 lb	244 lb	0 lb	0 lb	F13
4	Tie-In	1-5-4 to 9-9-12	(Span)0-9-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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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

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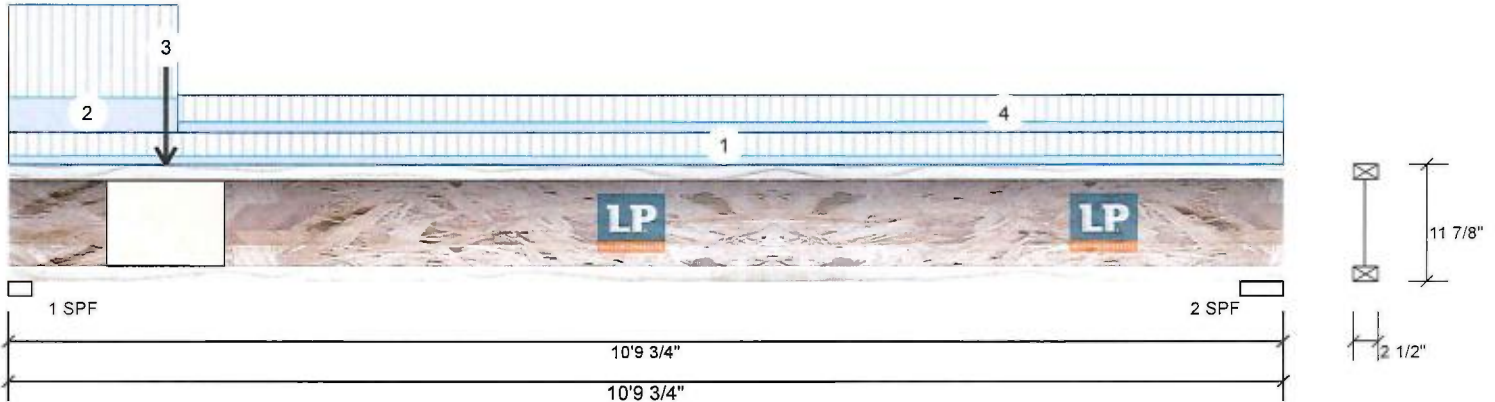
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F20-A LPI 20Plus 11.875" - PASSED

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	445	167	0	0
2	214	80	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	54%	209 / 667	876 L	1.25D+1.5L
2 - SPF	4.375"	23%	100 / 321	421 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1226 ft-lb	4'4 13/16"	6250 ft-lb	0.196 (20%)	1.25D+1.5L	L
Shear	855 lb	1 5/8"	2345 lb	0.365 (36%)	1.25D+1.5L	L
Perm Defl in.	0.019 (L/6615)	5'	0.346 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.050 (L/2484)	5'	0.346 (L/360)	0.140 (14%)	L	L
TL Defl inch	0.069 (L/1806)	5'	0.519 (L/240)	0.130 (13%)	D+L	L

Design Notes

- 1 Provide restraint at supports to ensure lateral stability.
- 2 Dead Load Deflection: Instant = 0.019", Long Term = 0.028"
- 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 8'11" o.c.
- 6 Bottom flange braced at bearings.



January 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-9-12	(Span)0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-5-4	(Span)3-0-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-4-0		Near Face	89 lb	236 lb	0 lb	0 lb	F13
4	Tie-In	1-5-4 to 10-9-12	(Span)0-10-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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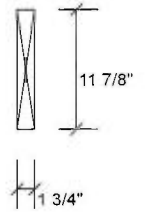
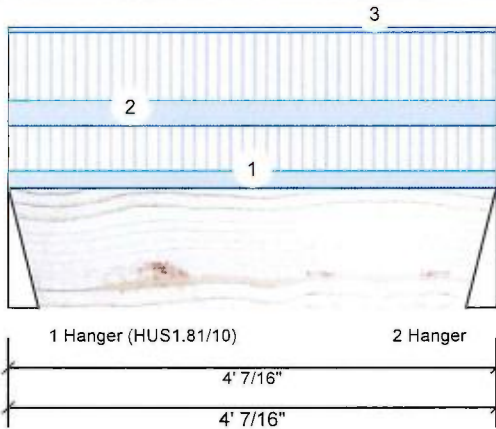
Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
CCMC: 12412-R APA: PR-L238C

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



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	135	66	0	0
2	135	66	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	7% 83 / 202	285 L		1.25D+1.5L
2 - Hanger	3.000"	7% 83 / 202	285 L		1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	236 ft-lb	2' 3/16"	17130 ft-lb	0.014 (1%)	1.25D+1.5L	L
Unbraced	236 ft-lb	2' 3/16"	12143 ft-lb	0.019 (2%)	1.25D+1.5L	L
Shear	119 lb	1'2 1/8"	5798 lb	0.020 (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/37489)	2' 1/4"	0.122 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.002 (L/25138)	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.

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	15 PLF	40 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.



January 04, 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

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

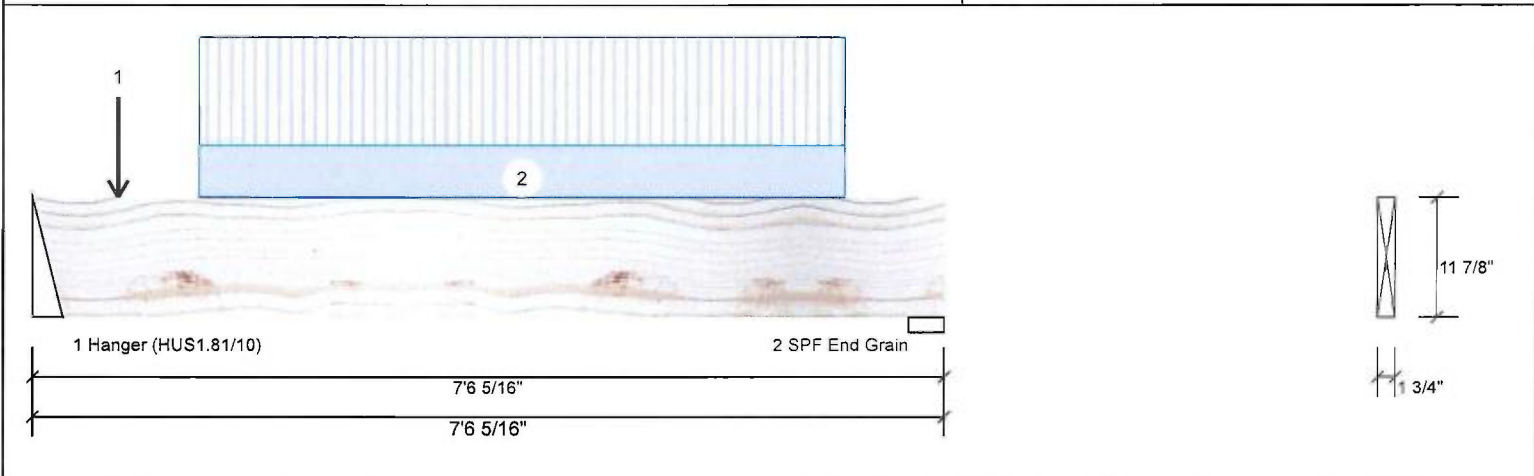
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This design is valid until 10/18/2021



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

Level: Ground Floor




Member Information				Unfactored Reactions UNPATTERNED lb (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind		
Plies:	1	Design Method:	LSD	1	281	154	0	0		
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	241	134	0	0		
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF									
Dead:	15 PSF									
				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	

Analysis Results							Bearings and Factored Reactions			
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	Bearing	Length	Cap. React D/L lb	Total Ld. Case Ld. Comb.
Moment	1087 ft-lb	3'8 13/16"	17130 ft-lb	0.063 (6%)	1.25D+1.5L	L	1 - Hanger	3.000"	16% 192 / 422	614 L 1.25D+1.5L
Unbraced	1087 ft-lb	3'8 13/16"	6326 ft-lb	0.172 (17%)	1.25D+1.5L	L	2 - SPF End Grain	3.500"	12% 168 / 361	529 L 1.25D+1.5L
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

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



January 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wtr
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
	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

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14 Anderson Blvd, Ontario
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NASCOR

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

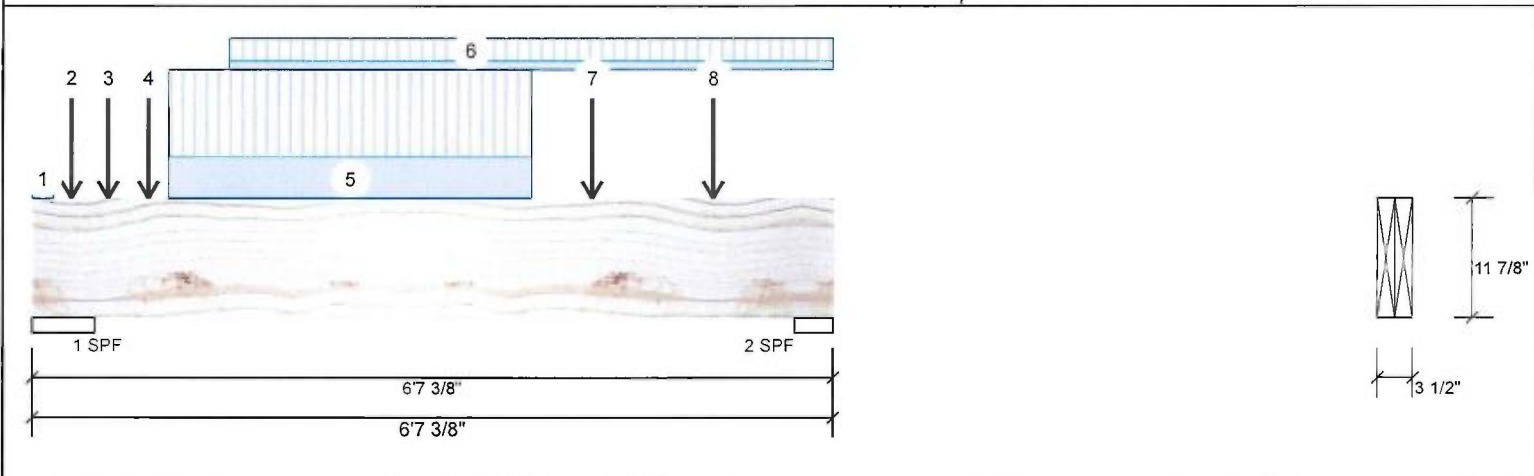
Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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This design is valid until 10/18/2021

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

Level: Second Floor



Member Information				Unfactored Reactions UNPATTERNED lb (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind		
Plies:	2	Design Method:	LSD	1	2149	981	0	0		
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	1155	518	0	0		
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF									
Dead:	15 PSF									
				Bearings and Factored Reactions						
				Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	6.188"	33%	1227 / 3223	4450	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.

LICENSED PROFESSIONAL ENGINEER

I.MATJUEVIC

100528832

PROVINCE OF ONTARIO

January 04, 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	367 lb	841 lb	0 lb	0 lb	F12
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	

Continued on page 2...

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
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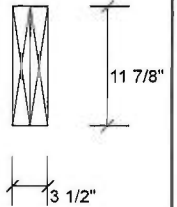
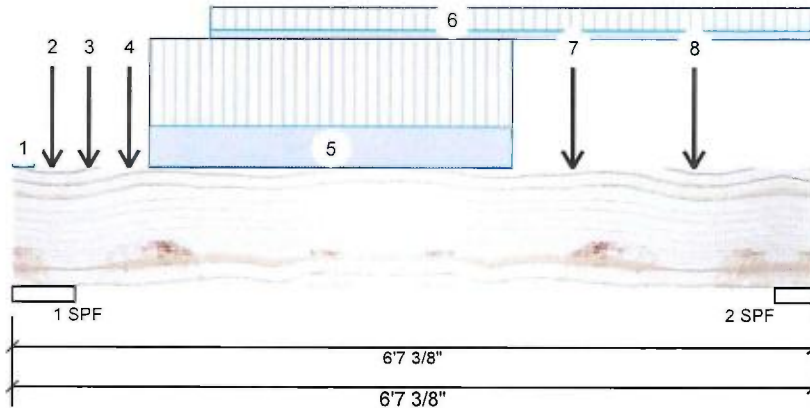
F-GREEN YORK HOMES-GRANELLI HOME CORP-LOT-15

IM0119-019

Date: 1/3/2019
Designer: S B
Job Name: LOT 15 (AMELIA 12 EL- 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
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				



January 04, 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

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
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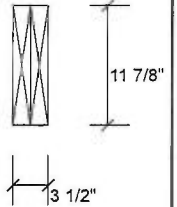
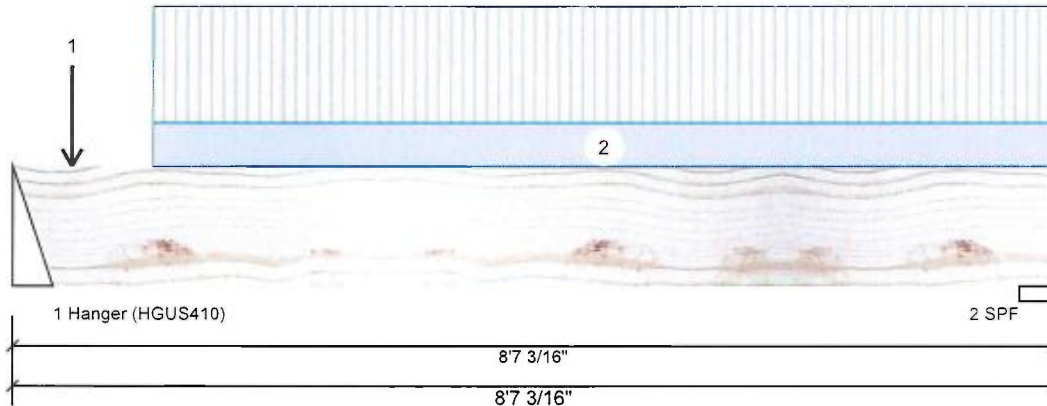
F-GREEN YORK HOMES-GRANELLI HOME CORP-LOT-15

IM0119-019

Date: 1/3/2019
Designer: S B
Job Name: LOT 15 (AMELIA 12 EL- 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	352	172	0	0
2	366	177	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	4.000"	7%	215 / 528	743 L	1.25D+1.5L
2 - SPF	3.500"	10%	221 / 549	770 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1467 ft-lb	4'4 1/8"	34261 ft-lb	0.043 (4%)	1.25D+1.5L	L
Unbraced	1467 ft-lb	4'4 1/8"	31209 ft-lb	0.047 (5%)	1.25D+1.5L	L
Shear	878 lb	1'3 1/8"	11596 lb	0.076 (8%)	1.25D+1.5L	L
Perm Defl in. (L/19415)	0.005	4'3 15/16"	0.270 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch (L/9404)	0.010	4'3 15/16"	0.270 (L/360)	0.040 (4%)	L	L
TL Defl inch (L/6335)	0.015	4'3 15/16"	0.405 (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 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 04, 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 8-7-3		Far Face	32 PLF	86 PLF	0 PLF	0 PLF	
	Self Weight				10 PLF				

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 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

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



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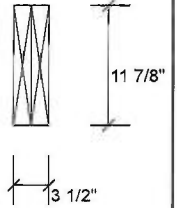
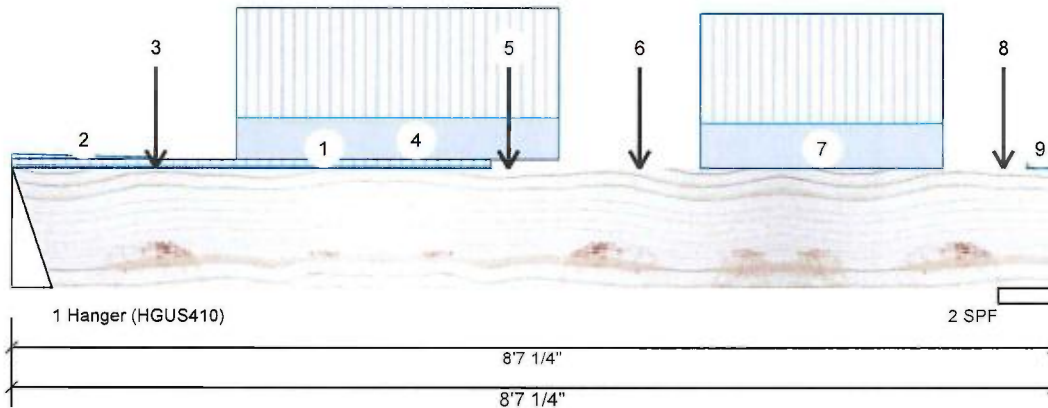
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Address:

Date: 1/3/2019
Designer: S B
Job Name: LOT 15 (AMELIA 12 EL- 2)
Project #:

Page 1 of 2

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	1051	459	0	0
2	992	445	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	4.000"	21%	574 / 1577	2150	L	1.25D+1.5L
2 - SPF	5.500"	17%	557 / 1489	2045	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5129 ft-lb	4'1 1/4"	34261 ft-lb	0.150 (15%)	1.25D+1.5L	L
Unbraced	5129 ft-lb	4'1 1/4"	31329 ft-lb	0.164 (16%)	1.25D+1.5L	L
Shear	2306 lb	1'3 1/8"	11596 lb	0.199 (20%)	1.25D+1.5L	L
Perm Defl in.	0.015 (L/6301)	4'1 1/2"	0.265 (L/360)	0.060 (6%)	D	Uniform
LL Defl inch	0.034 (L/2772)	4'1 1/2"	0.265 (L/360)	0.130 (13%)	L	L
TL Defl inch	0.049 (L/1925)	4'1 1/2"	0.397 (L/240)	0.120 (12%)	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.

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January 04, 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	Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
5	Point	4-1-4		Far Face	172 lb	352 lb	0 lb	0 lb	

Continued on page 2...

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

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This design is valid until 10/18/2021





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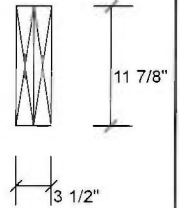
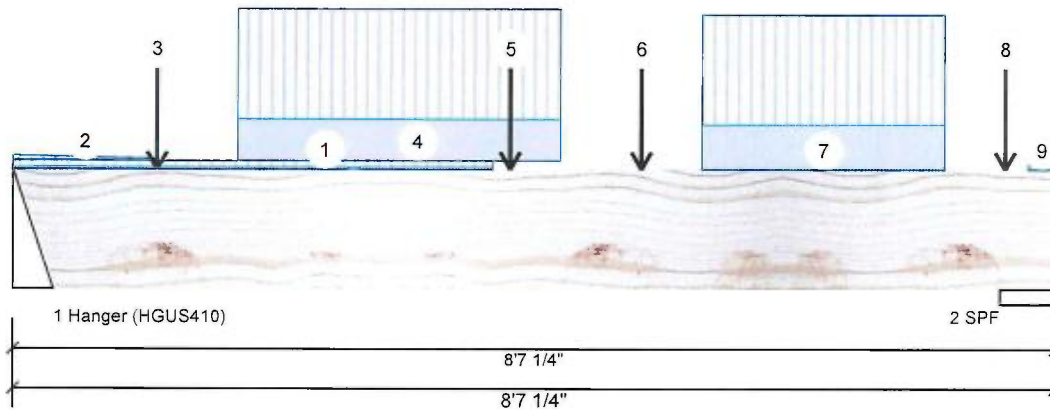
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Designer: S B
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IM0119-019

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F12-B 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	J1
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	J1
9	Tie-In	8-4-8 to 8-7-4	(Span) 0-10-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				



January 04, 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 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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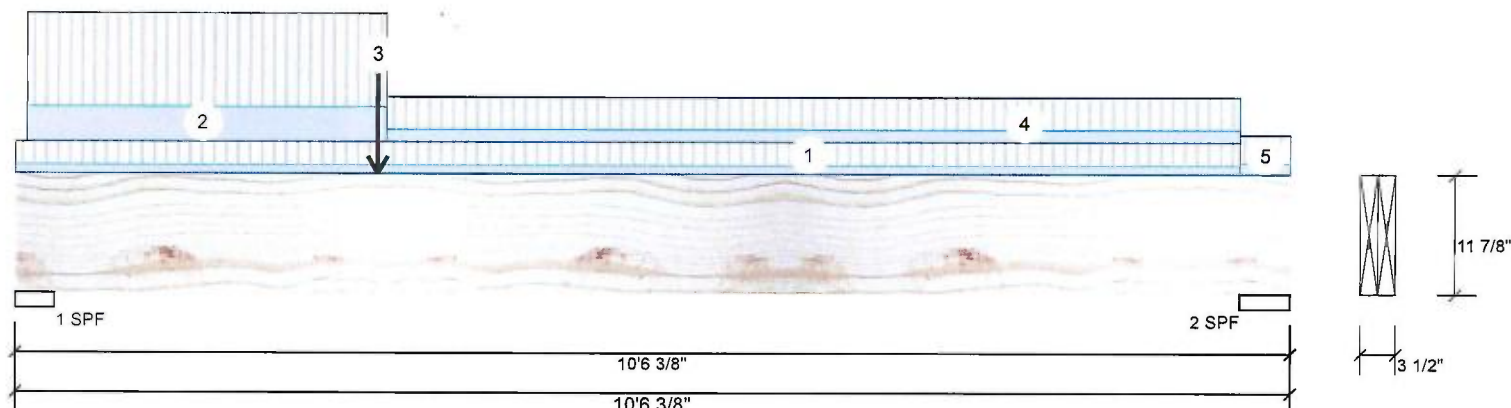
F-GREEN YORK HOMES-GRANELLI HOME CORP-LOT-15

Date: 1/3/2019
Designer: S B
Job Name: LOT 15 (AMELIA 12 EL- 2)
Project #:

IM0119-019

Page 1 of 1

F18-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	828	377	0	0
2	426	217	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.875"	21%	471 / 1242	1713 L	1.25D+1.5L
2 - SPF	5.000"	8%	271 / 640	911 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3866 ft-lb	2'11 15/16"	34261 ft-lb	0.113 (11%)	1.25D+1.5L	L
Unbraced	3866 ft-lb	2'11 15/16"	29686 ft-lb	0.130 (13%)	1.25D+1.5L	L
Shear	1486 lb	1'3"	11596 lb	0.128 (13%)	1.25D+1.5L	L
Perm Defl in.	0.016 (L/7482)	4'9 1/16"	0.331 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.034 (L/3491)	4'8 1/8"	0.331 (L/360)	0.100 (10%)	L	
TL Defl inch	0.050 (L/2380)	4'8 7/16"	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 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-1-6	(Span) 0-10-15	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	270 lb	660 lb	0 lb	0 lb	F7
4	Tie-In	3-0-13 to 10-1-6	(Span) 1-3-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	10-1-6 to 10-6-6	(Span) 1-1-9	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

- 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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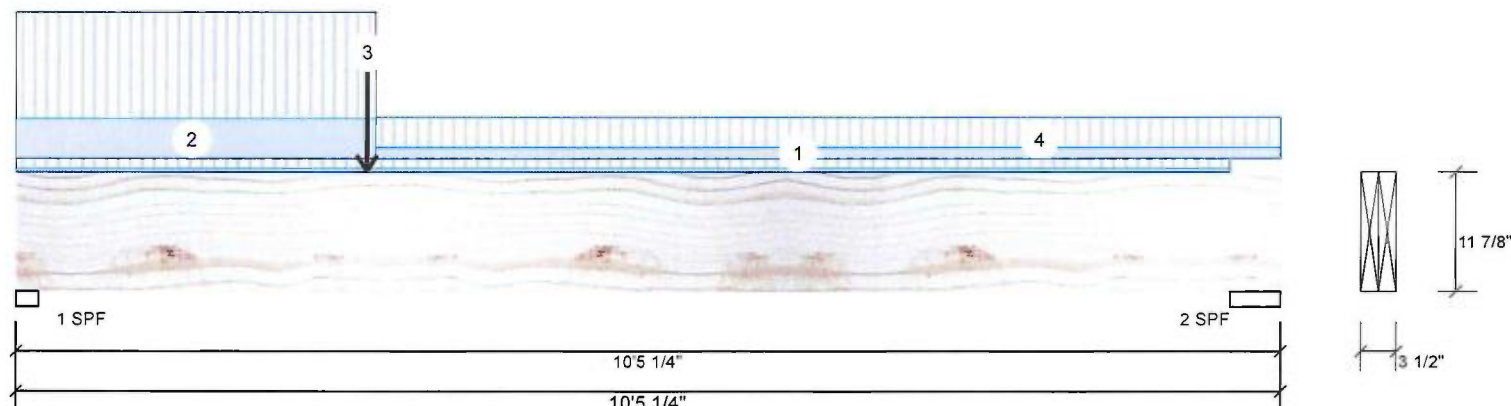
Client:
Project:
Address:

F-GREEN YORK HOMES-GRANELLI HOME CORP-LOT-15

IM0119-019

Date: 1/3/2019
Designer: S B
Job Name: LOT 15 (AMELIA 12 EL- 2)
Project #:

Page 1 of 1

F18-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	744	344	0	0
2	346	187	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.250"	32%	430 / 1116	1546	L	1.25D+1.5L
2 - SPF	5.000"	7%	234 / 520	753	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3579 ft-lb	2'10 13/16"	34261 ft-lb	0.104 (10%)	1.25D+1.5L	L
Unbraced	3579 ft-lb	2'10 13/16"	29647 ft-lb	0.121 (12%)	1.25D+1.5L	L
Shear	1357 lb	1'1 3/8"	11596 lb	0.117 (12%)	1.25D+1.5L	L
Perm Defl in.	0.015 (L/8203)	4'7"	0.332 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.030 (L/3927)	4'5 3/4"	0.332 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.045 (L/2656)	4'6 3/16"	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 04, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-0-4	(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	266 lb	650 lb	0 lb	0 lb	F7
4	Tie-In	2-11-11 to 10-5-4	(Span)1-0-6	Top	15 PSF	40 PSF	0 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-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





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F-GREEN YORK HOMES-GRANELLI HOME CORP-LOT-15

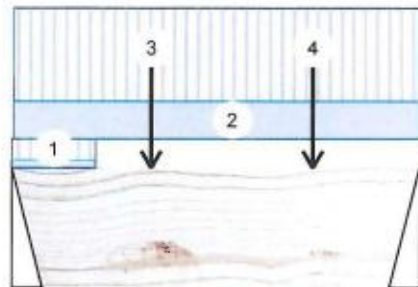
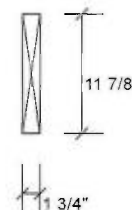
IM0119-019

Date: 1/3/2019
Designer: S B
Job Name: LOT 15 (AMELIA 12 EL- 2)
Project #:

Page 1 of 1

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

Level: Second Floor

1 Hanger (HUS1.81/10)
2 Hanger (HUS1.81/10)
3'4 7/16"
3'4 7/16"**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	660	270	0	0
2	650	266	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	34%	338 / 990	1328	L	1.25D+1.5L
2 - Hanger	3.000"	34%	333 / 975	1307	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	923 ft-lb	1'7 3/16"	17130 ft-lb	0.054 (5%)	1.25D+1.5L	L
Unbraced	923 ft-lb	1'7 3/16"	13790 ft-lb	0.067 (7%)	1.25D+1.5L	L
Shear	662 lb	2'2 5/16"	5798 lb	0.114 (11%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/21560)	1'7 3/4"	0.100 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.004 (L/8783)	1'7 11/16"	0.100 (L/360)	0.040 (4%)	L	L
TL Defl inch	0.006 (L/6241)	1'7 11/16"	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 04, 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	1-1-13		Near Face	71 lb	190 lb	0 lb	0 lb J8
4	Point	2-5-13		Near Face	64 lb	171 lb	0 lb	0 lb J8
	Self Weight				5 PLF			

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Notes

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Lumber

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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 InfoForex
APA: PR-L318Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

This design is valid until 10/18/2021

