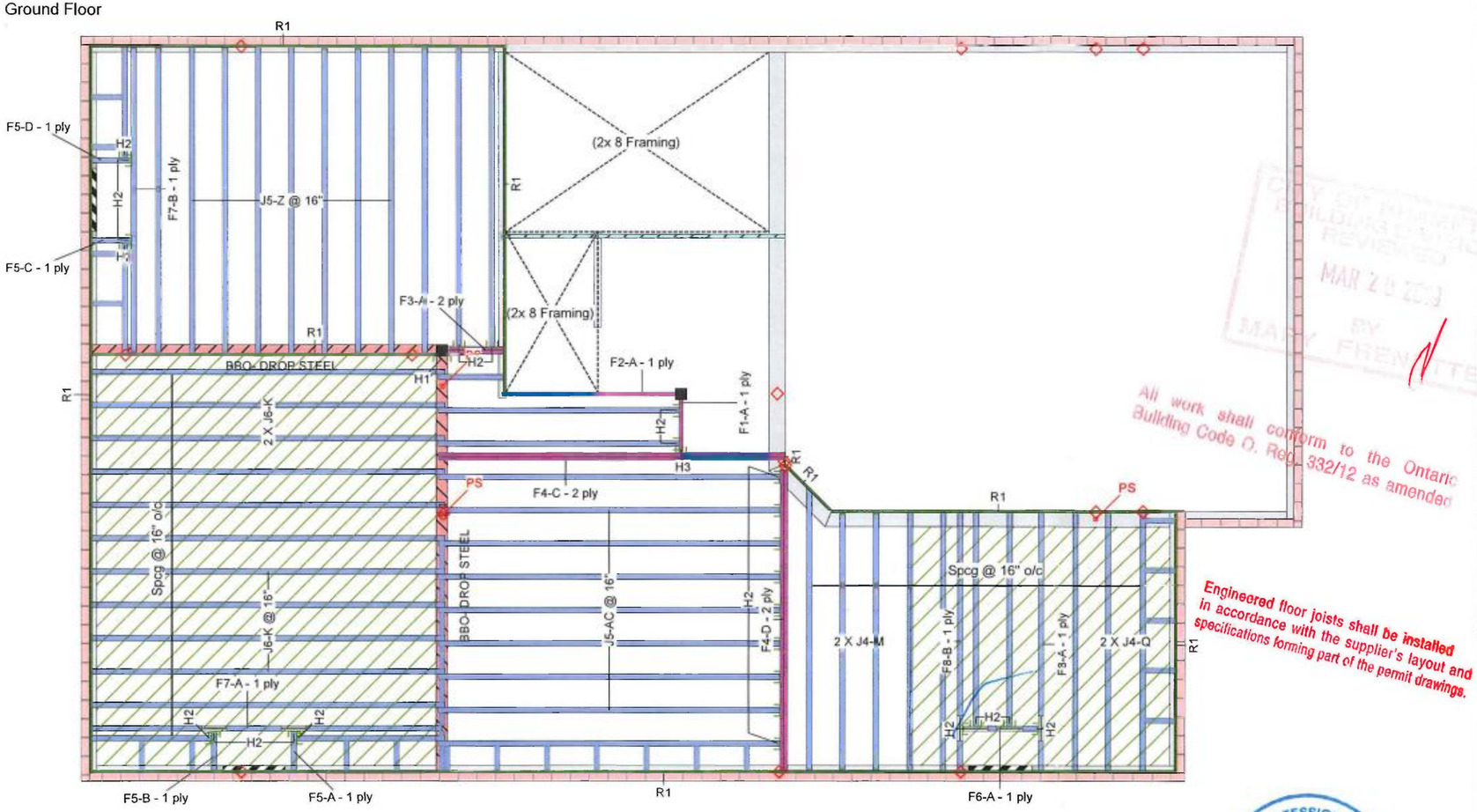
Ground Floor



All work shall conform to the Ontario Building Code O. Reg. 332/12 as amended

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

Ground Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F4	Forex 2.0E-3000Fb LVL	1.75	9.5	2	2	4	14-0-0
F2	Forex 2.0E-3000Fb LVL	1.75	9.5			1	8-0-0
F3	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	4-0-0
F1	Forex 2.0E-3000Fb LVL	1.75	9.5			1	4-0-0

I Joist (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F7	LPI 20Plus	2.5	9.5			2	14-0-0
F8	LPI 20Plus	2.5	9.5			2	12-0-0
F6	LPI 20Plus	2.5	9.5			1	4-0-0
F5	LPI 20Plus	2.5	9.5			4	2-0-0
J6	LPI 20Plus	2.5	9.5			11	16-0-0
J5	LPI 20Plus	2.5	9.5			20	14-0-0
J4	LPI 20Plus	2.5	9.5			8	12-0-0
J3	LPI 20Plus	2.5	9.5			4	10-0-0
J2	LPI 20Plus	2.5	9.5			4	6-0-0
J1	LPI 20Plus	2.5	9.5			1	4-0-0

Rim Board

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			13	12

Blocking

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	LPI 20 Plus	2.5	9.5	LinFt		Varies	29-0-0

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H1	1	Unknown Hanger				
H2	25	LT259			4 10dx1 1/2	2 10dx1 1/2
H3	1	HUS1.81/10			30 16d	10 16d

NOTES:

1. Framer 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-load bearing walls.
4. Install single-ply flush window header along inside face of rimboard/rimjoist.
5. Refer to Nascor specifier guide for installation works.
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"x 4" 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 addtional dead load of 5 PSF

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

Legend

PS ◇	Point Load Support
	Load from Above
	Wall
	Wall Opening
	Norbord Rimboard Plus 1.125 X 9.5
	LPI 20Plus 9.5
	Forex 2.0E-3000Fb LVL 1.75 X 9.5
	0 X 0 (Dropped)
	1.75 X 9.5 (Dropped)
	5.25 X 8 (Dropped)

NASCOR

Layout Name
LOT-18 (LIANA 2 EL-2)
Design Method
LSD
Description
GRANELLI HOMES CORP.
BRAMPTON, ONT.
Created
May 29, 2018
Builder
GREEN YORK HOMES
Sales Rep
RM
Designer
RCO/SB
Shipping
Project
Builder's Project

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

Job Path
GRANELLI HOME CORP\MODELS \LOT 18 LIANA 2-2\FLOOR\LOT-18 (LIANA 2 EL-2).isl

Ground Floor

Design Method	LSD
Building Code	NBCC 2010 / OBC 2012

Floor

Loads	
Live	40
Dead	15
Deflection Joist	
LL Span L/	480
TL Span L/	360
LL Cant 2L/	480
TL Cant 2L/	360
Deflection Girder	
LL Span L/	360
TL Span L/	240
LL Cant 2L/	480
TL Cant 2L/	360
Decking	
Deck	OSB
Thickness	3/4"
Fastener	Nailed & Glued
Vibration	

LICENSED PROFESSIONAL ENGINEER
N.A. EL-MASRI
PROVINCE OF ONTARIO
Jan 22, 2019
ENG.JOB:NE0119-05

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC.
64 Jardin Dr., Suite 3A, Vaughan, ON
Date: Rev.4; Dec 21,2018
Project No: 17-55
Model: lot-18 (Liana 2 el-2)

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)

THIS CERTIFICATION IS TO CONFIRM THAT:

1. THE LOADS USED IN THE CALCULATION OF THE ATTACHED APPROVED COMPONENTS CONFORM TO THE FLOOR ASSEMBLY SHOWN ON THIS LAYOUT.

2. THE FLOOR JOISTS COMPLY WITH THE NASCOR SPAN TABLE FOR THE LOADS AND SPACING SHOWN ON THIS LAYOUT.

THE FLOOR SYSTEM MUST BE ASSEMBLED IN ACCORDANCE TO THE NASCOR SPECIFIER GUIDE. MULTI-PLY MEMBERS MUST BE ATTACHED TOGETHER AS PER THE INCLUDED MULTIPLE MEMBER CONNECTION DETAIL.

ALL OTHER COMPONENTS AND STRUCTURAL ELEMENTS SUPPORTING THE FLOOR SYSTEM SUCH AS BEAMS, WALLS, COLUMNS AND FOUNDATION WALLS AND FOOTINGS INCLUDING ANCHORAGE OF COMPONENTS AND BRACING FOR LATERAL STABILITY ARE THE RESPONSIBILITY OF OTHERS.

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

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

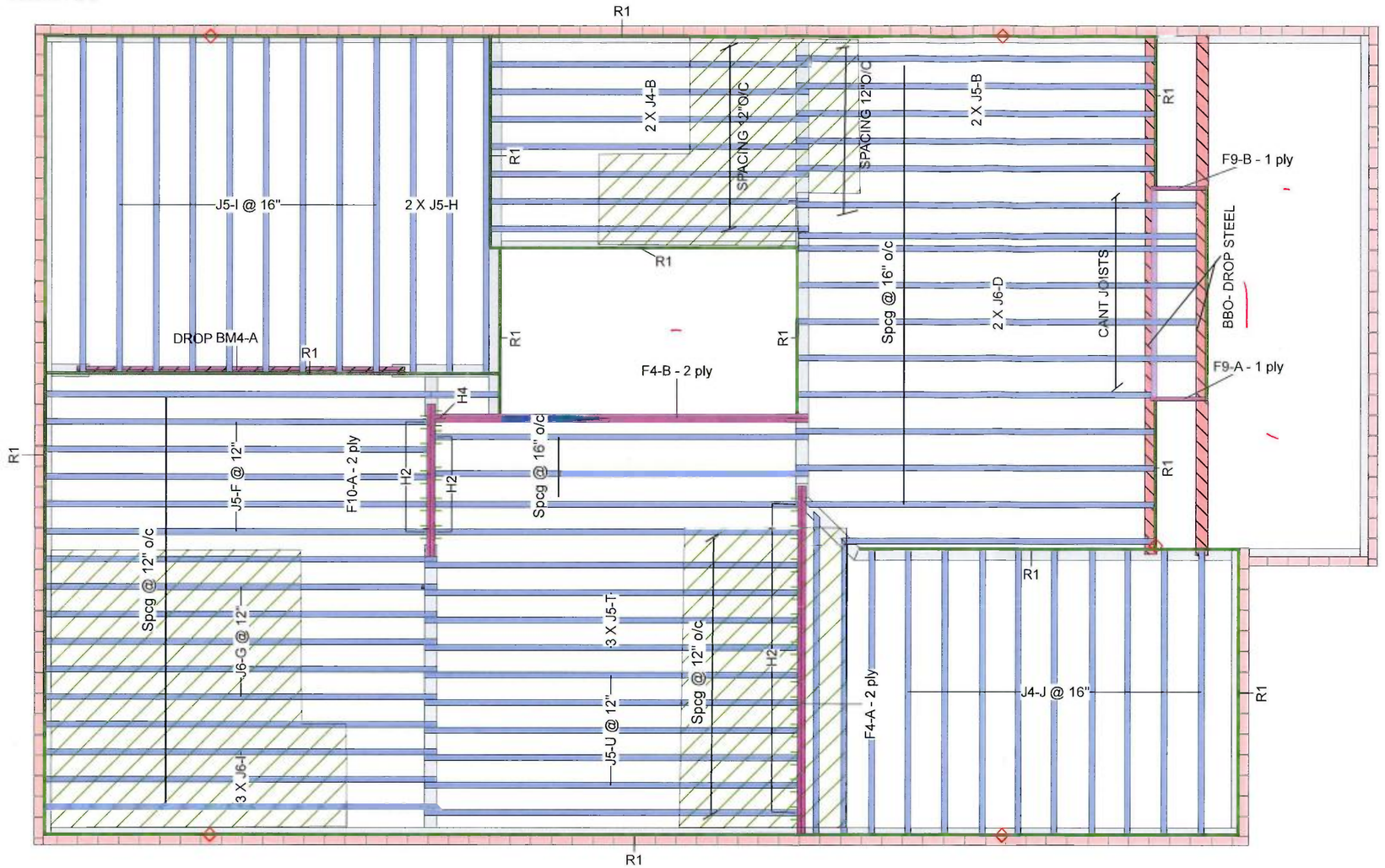
PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

M-2057
LOT 18

19-447248.000.00RR.

KOTT

Second Floor



Second Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F4	Forex 2.0E-3000Fb LVL	1.75	9.5	2	2	4	14-0-0
F10	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	6-0-0
F9	Forex 2.0E-3000Fb LVL	1.75	9.5			2	2-0-0

LVL/LSL (Dropped)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BM4	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	12-0-0

I Joist (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J6	LPI 20Plus	2.5	9.5			16	16-0-0
J5	LPI 20Plus	2.5	9.5			41	14-0-0
J4	LPI 20Plus	2.5	9.5			20	12-0-0
J1	LPI 20Plus	2.5	9.5			1	4-0-0

Rim Board

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			17	12

Blocking

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK2	NJH	2.5	9.5	LinFt		Varies	7-0-0

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H2	21	LT259			4 10dx1 1/2	2 10dx1 1/2
H4	1	HGUS410			46 16d	16 16d

NOTES:

1. Framer 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-load bearing walls.
4. Install single-ply flush window header along inside face of rimboard/rimjoist.
5. Refer to Nascor specifier guide for installation works.
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"x 4" 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 addtional dead load of 5 PSF

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

Legend

PS ◇	Point Load Support
	Load from Above
	Wall
	Norbord Rimboard Plus 1.125 X 9.5
	LPI 20Plus 9.5
	Forex 2.0E-3000Fb LVL 1.75 X 9.5 (Dropped)
	Forex 2.0E-3000Fb LVL 1.75 X 9.5
	5.25 X 8 (Dropped)

NASCOR

Layout Name
LOT-18 (LIANA 2 EL-2)

Design Method
LSD

Description
GRANELLI HOMES CORP.
BRAMPTON, ONT.

Created
May 29, 2018

Builder
GREEN YORK HOMES

Sales Rep
RM

Designer
RCO/SB

Shipping

Project

Builder's Project

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

Job Path
GRANELLI HOME CORP\MODELS \LOT 18 LIANA 2-2\FLOOR\LOT-18 (LIANA 2 EL-2).isl

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"

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC.
64 Jardin Dr., Suite 3A, Vaughan, ON
Date: Rev.4; Dec 21,2018
Project No: 17-55
Model: lot-18 (Liana 2 El-2)

1. OBC 2012 O.Reg 332/12 as amended
2. Nascor CCMC - 13535-R
3. LVL CCMC -12904-R
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THIS CERTIFICATION IS TO CONFIRM THAT:

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2. THE FLOOR JOISTS COMPLY WITH THE NASCOR SPAN TABLE FOR THE LOADS AND SPACING SHOWN ON THIS LAYOUT.

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ALL OTHER COMPONENTS AND STRUCTURAL ELEMENTS SUPPORTING THE FLOOR SYSTEM SUCH AS BEAMS, WALLS, COLUMNS AND FOUNDATION WALLS AND FOOTINGS INCLUDING ANCHORAGE OF COMPONENTS AND BRACING FOR LATERAL STABILITY ARE THE RESPONSIBILITY OF OTHERS.

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

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

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

KOTT

M-2057
LOT 18

LICENSED PROFESSIONAL ENGINEER
N.A. EL-MASRI
PROVINCE OF ONTARIO
Jan 22, 2019

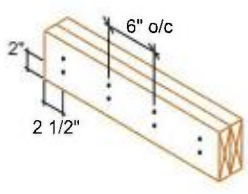
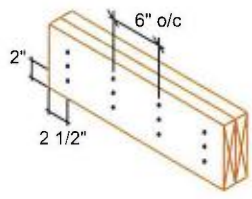
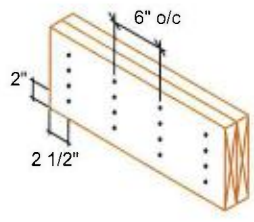
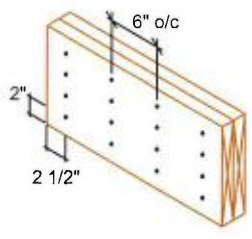
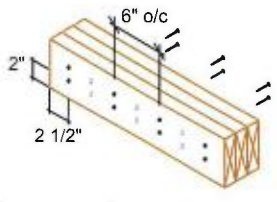
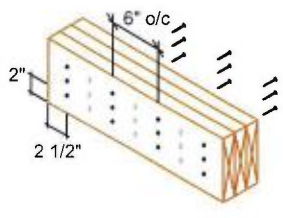
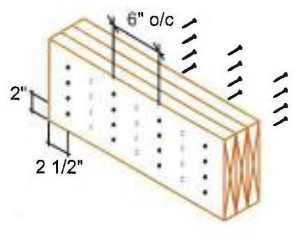
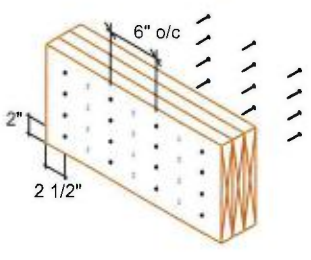
ENG.JOB:NE0119-05

LOT 18 W-2057

MULTIPLE MEMBER CONNECTIONS

GREEN YORK HOMES- LOT 18
(LIANA -2 EL-2)-BRAMPTON-ON

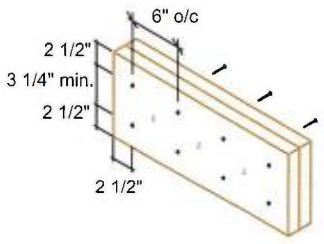
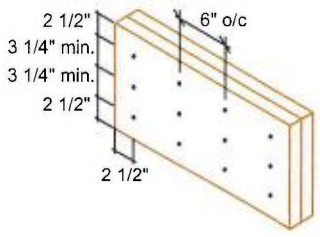
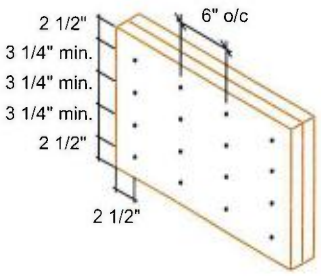
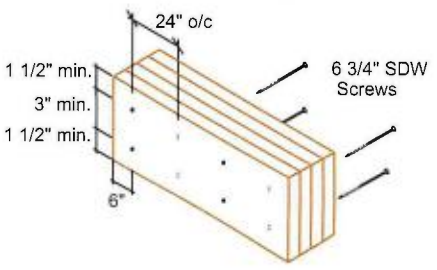
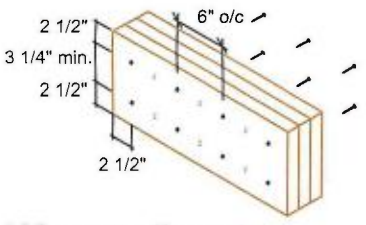
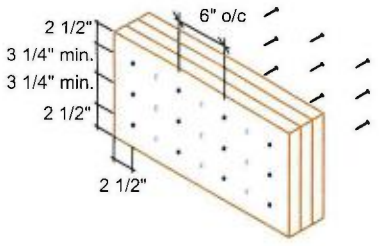
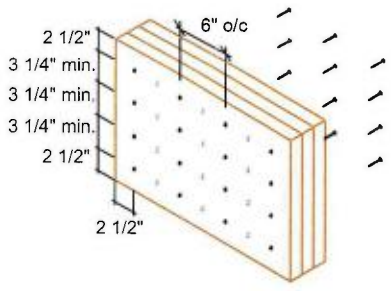
Conventional Connections (for uniform distributed loads)

	2x6	2x8	2x10	2x12
2-ply				
3-ply				

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)

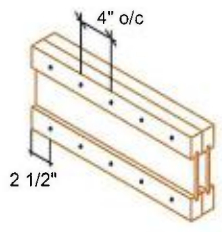
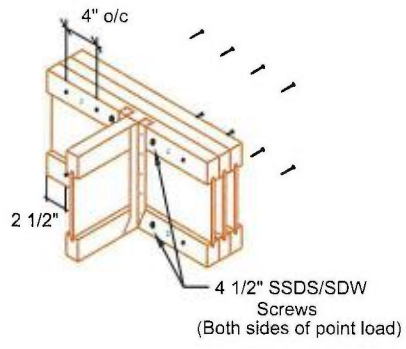
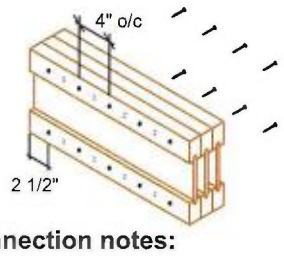
	9 1/2" LVL	11 7/8" - 14" LVL	16"-18" LVL	4-ply (Top load only)
				
				

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

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.

Vertical I-Joist Connections (for uniform distributed loads)

	9 1/2" - 11 7/8" I-Joist	3-ply I-Joist w/ point load (Joist Hanger)
2-ply		
3-ply		

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

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

M-2057 LOT 18

Engineering Note Page (ENP-2)

GREEN YORK HOMES- LOT 18
(LIANA -2 EL-2)-BRAMPTON-ON

REVISION 2009-10-09

Please read all notes prior to installation of the component

DESIGN INFORMATION

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

The responsibility of the undersigned engineer is 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.

KOTT

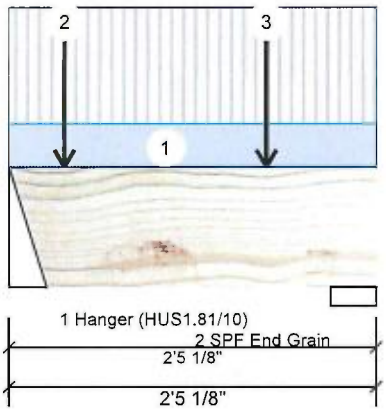
isDesign™

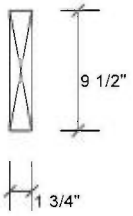
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F1-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - 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	299	116	0	0
2	258	101	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	15%	145 / 449	594	L	1.25D+1.5L
2 - SPF End Grain	3.625"	11%	127 / 387	514	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	214 ft-lb	1'6 7/8"	11362 ft-lb	0.019 (2%)	1.25D+1.5L	L
Unbraced	214 ft-lb	1'6 7/8"	10729 ft-lb	0.020 (2%)	1.25D+1.5L	L
Shear	438 lb	11 3/4"	4638 lb	0.094 (9%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/58713)	1'4 3/8"	0.067 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/23005)	1'4 9/16"	0.067 (L/360)	0.020 (2%)	L	L
TL Defl inch	0.001 (L/16529)	1'4 7/16"	0.100 (L/240)	0.010 (1%)	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.

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.

LICENSED PROFESSIONAL ENGINEER
N.A. EL-MASRI
PROVINCE OF ONTARIO
Jan 22, 2019

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 2-5-2	(Span)3-11-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-4-6		Far Face	65 lb	175 lb	0 lb	0 lb	J3
3	Point	1-8-6		Far Face	72 lb	192 lb	0 lb	0 lb	J3
	Self Weight				4 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

KOTT

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

NASCOR

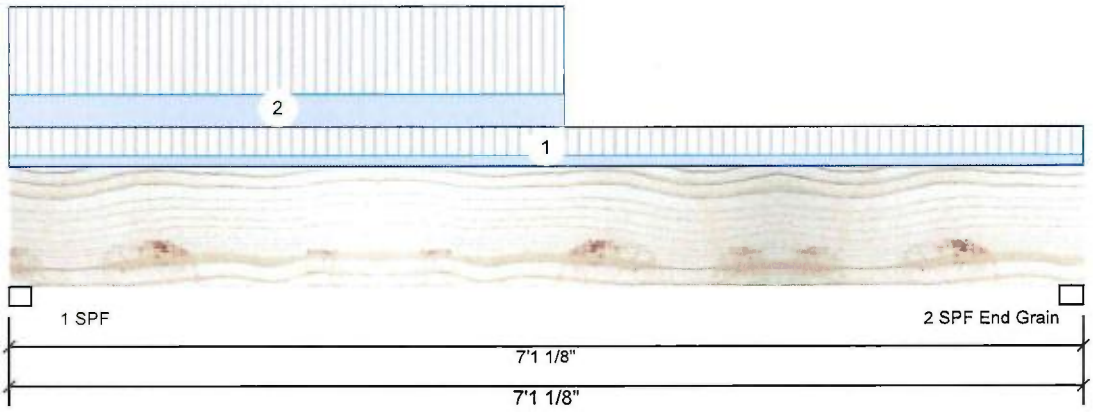
isDesign™

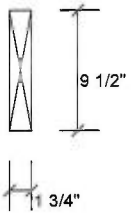
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F2-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - 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	156	72	0	0
2	84	45	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	1.750"	17%	90 / 234	324	L	1.25D+1.5L
2 - SPF End Grain	1.875"	7%	56 / 125	182	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	453 ft-lb	2'11 9/16"	11362 ft-lb	0.040 (4%)	1.25D+1.5L	L
Unbraced	453 ft-lb	2'11 9/16"	5389 ft-lb	0.084 (8%)	1.25D+1.5L	L
Shear	228 lb	10 1/2"	4638 lb	0.049 (5%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/20045)	3'4 1/8"	0.231 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.009 (L/9718)	3'3 1/2"	0.231 (L/360)	0.040 (4%)	L	L
TL Defl inch	0.013 (L/6545)	3'3 11/16"	0.346 (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.

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.

LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO
Jan 22, 2019

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 7-1-2	(Span)0-7-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-8-0		Top	15 PLF	40 PLF	0 PLF	0 PLF	
	Self Weight				4 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

KOTT

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

NASCOR

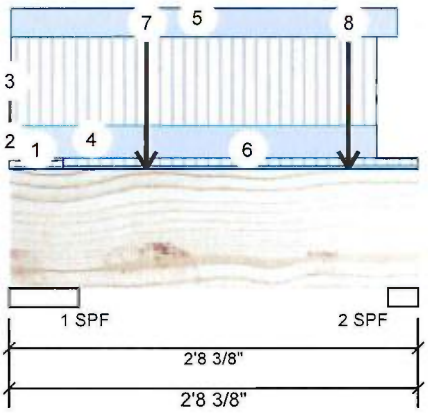
isDesign™

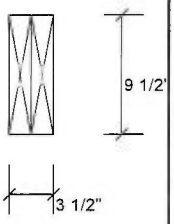
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F3-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 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	669	380	0	0
2	522	292	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	12%	475 / 1003	1478	L	1.25D+1.5L
2 - SPF	2.375"	22%	365 / 783	1149	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	607 ft-lb	1'4 1/8"	22724 ft-lb	0.027 (3%)	1.25D+1.5L	L
Unbraced	607 ft-lb	1'4 1/8"	22724 ft-lb	0.027 (3%)	1.25D+1.5L	L
Shear	728 lb	1'2 1/4"	9277 lb	0.079 (8%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/32360)	1'5 1/8"	0.072 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/18075)	1'4 11/16"	0.072 (L/360)	0.020 (2%)	L	L
TL Defl inch	0.002 (L/11600)	1'4 13/16"	0.108 (L/240)	0.020 (2%)	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.

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.

LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO
Jan 22, 2019

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 0-4-4	(Span)0-10-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-0-2		Top	46 PLF	123 PLF	0 PLF	0 PLF	J5
3	Part. Uniform	0-0-0 to 0-0-2		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-0-2 to 2-5-2		Top	92 PLF	246 PLF	0 PLF	0 PLF	J5
5	Part. Uniform	0-0-2 to 2-6-12		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

Continued on page 2...

Notes

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

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

KOTT

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

NASCOR

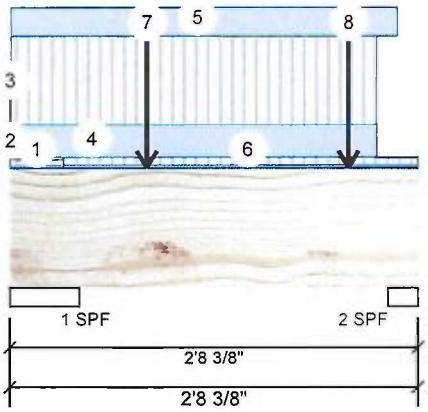
isDesign™

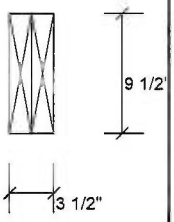
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

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

Level: Ground Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Tie-In	0-4-4 to 2-8-6	(Span)1-0-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Point	0-10-14		Far Face	120 lb	319 lb	0 lb	0 lb	J5
8	Point	2-2-14		Far Face	83 lb	220 lb	0 lb	0 lb	J5
	Self Weight				8 PLF				

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

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

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.

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

KOTT

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

NASCOR

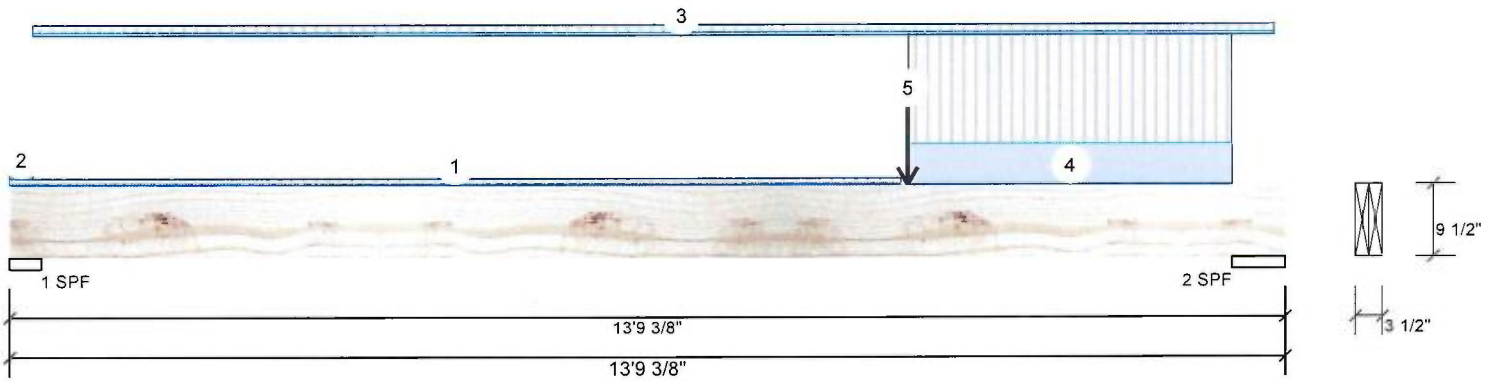
isDesign™

Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F4-C Forex 2.0E-3000Fb LVL 1.750" X 9.500" 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	374	193	0	0
2	1087	464	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.125"	9%	241 / 560	801	L	1.25D+1.5L
2 - SPF	6.875"	15%	580 / 1631	2211	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4654 ft-lb	9'8 1/2"	22724 ft-lb	0.205 (20%)	1.25D+1.5L	L
Unbraced	4654 ft-lb	9'8 1/2"	19392 ft-lb	0.240 (24%)	1.25D+1.5L	L
Shear	1816 lb	12'5 3/4"	9277 lb	0.196 (20%)	1.25D+1.5L	L
Perm Defl in.	0.058 (L/2669)	7'3 7/8"	0.433 (L/360)	0.130 (13%)	D	Uniform
LL Defl inch	0.127 (L/1225)	7'5 1/4"	0.433 (L/360)	0.290 (29%)	L	L
TL Defl inch	0.186 (L/840)	7'4 13/16"	0.649 (L/240)	0.290 (29%)	D+L	L

Design Notes

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

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.

LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO
Jan 22, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 9-7-10	(Span)0-6-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-3-0	(Span)0-7-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-3-0 to 13-7-15	(Span)0-9-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part. Uniform	9-8-8 to 13-2-8		Top	90 PLF	240 PLF	0 PLF	0 PLF	
5	Point	9-8-8		Far Face	116 lb	299 lb	0 lb	0 lb	F1
	Self Weight				8 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

KOTT

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

NASCOR

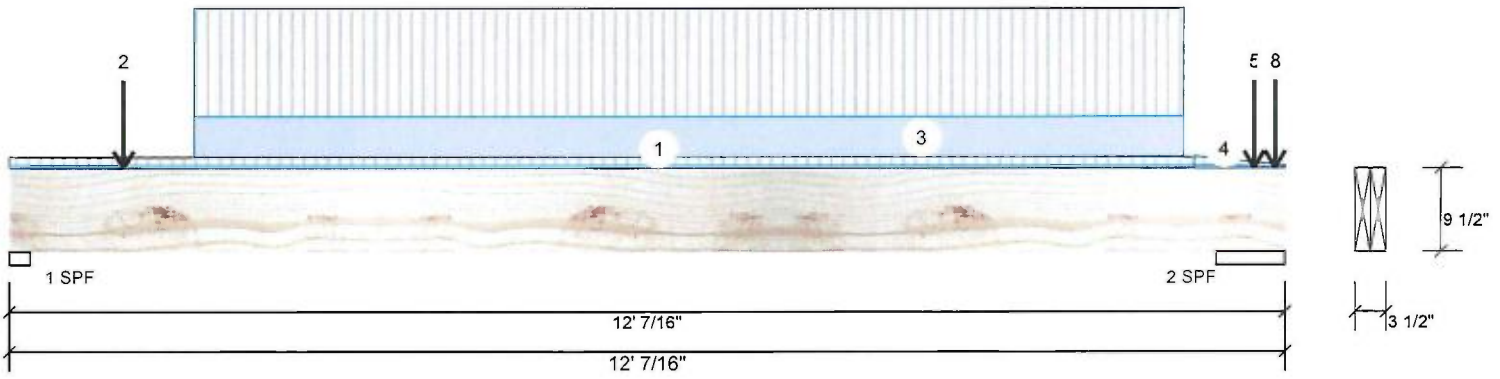
isDesign™

Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F4-D Forex 2.0E-3000Fb LVL 1.750" X 9.500" 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	1545	622	0	0
2	1776	737	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	61%	777 / 2317	3094	L	1.25D+1.5L
2 - SPF	7.754"	21%	921 / 2664	3586	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9242 ft-lb	5'9 9/16"	22724 ft-lb	0.407 (41%)	1.25D+1.5L	L
Unbraced	9242 ft-lb	5'9 9/16"	20195 ft-lb	0.458 (46%)	1.25D+1.5L	L
Shear	3271 lb	11 1/8"	9277 lb	0.353 (35%)	1.25D+1.5L	L
Perm Defl in.	0.092 (L/1482)	5'9 9/16"	0.377 (L/360)	0.240 (24%)	D	Uniform
LL Defl inch	0.229 (L/594)	5'9 9/16"	0.377 (L/360)	0.610 (61%)	L	L
TL Defl inch	0.320 (L/424)	5'9 9/16"	0.566 (L/240)	0.570 (57%)	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.

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.

LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO
Jan 22, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 11-2-3	(Span)1-0-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-0-15		Far Face	124 lb	332 lb	0 lb	0 lb	J5
3	Part. Uniform	1-8-15 to 11-0-15		Far Face	101 PLF	270 PLF	0 PLF	0 PLF	
4	Tie-In	11-2-3 to 12-0-7	(Span)1-1-0 to 0-2-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Point	11-8-15		Far Face	48 lb	128 lb	0 lb	0 lb	J5

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

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

KOTT

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

NASCOR

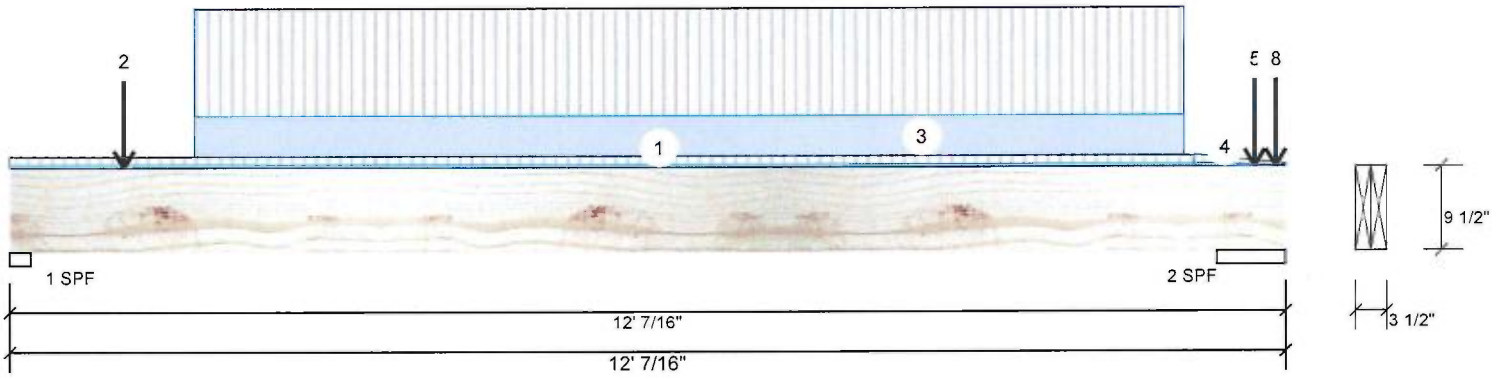
isDesign™

Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO /SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F4-D Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	11-11-5		Top	16 lb	34 lb	0 lb	0 lb	J4
7	Point	11-11-5		Top	25 lb	68 lb	0 lb	0 lb	J5
8	Point	11-11-5		Top	22 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Self Weight				8 PLF				

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

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

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.

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

KOTT

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

NASCOR

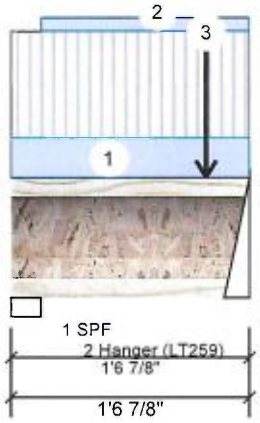
isDesign™

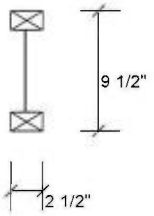
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F5-A LPI 20Plus 9.500" - 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	65	31	0	0
2	135	67	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	8%	39 / 98	136	L	1.25D+1.5L
2 - Hanger	2.000"	18%	84 / 202	286	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	52 ft-lb	1' 1/8"	4670 ft-lb	0.011 (1%)	1.25D+1.5L	L
Shear	272 lb	1'5 5/8"	1990 lb	0.137 (14%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/54318)	11 7/8"	0.044 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/27008)	11 7/8"	0.044 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/18039)	11 7/8"	0.067 (L/240)	0.010 (1%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"
3 Fill all hanger nailing holes.
4 Girders are designed to be supported on the bottom edge only.
5 Top flange braced at bearings.
6 Bottom flange 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.

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.

LICENSED PROFESSIONAL ENGINEER
N.A. EL-MASRI
PROVINCE OF ONTARIO
Jan 22, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-14	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-6 to 1-6-14		Top	8 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-3-7		Near Face	49 lb	99 lb	0 lb	0 lb	J2

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.

KOTT
This design is valid until 10/31/2020

Manufacturer Info

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

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

NASCOR

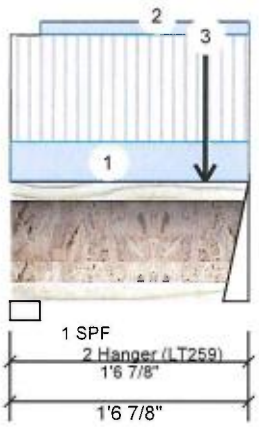
isDesign™

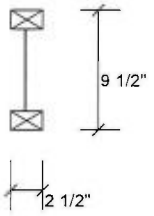
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F5-B LPI 20Plus 9.500" - 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	63	30	0	0
2	120	59	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	8%	37 / 94	131	L	1.25D+1.5L
2 - Hanger	2.000"	16%	74 / 180	254	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	48 ft-lb	11 11/16"	4670 ft-lb	0.010 (1%)	1.25D+1.5L	L
Shear	240 lb	1'5 5/8"	1990 lb	0.121 (12%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/59285)	11 1/2"	0.044 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/29321)	11 1/2"	0.044 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/19618)	11 1/2"	0.067 (L/240)	0.010 (1%)	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.

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.

LICENSED PROFESSIONAL ENGINEER
N.A. EL-MASRI
PROVINCE OF ONTARIO
Jan 22, 2019

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"
3 Fill all hanger nailing holes.
4 Girders are designed to be supported on the bottom edge only.
5 Top flange braced at bearings.
6 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-14	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-6 to 1-6-14		Top	8 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-3-7		Far Face	40 lb	82 lb	0 lb	0 lb	J2

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.

KOTT
This design is valid until 10/31/2020

Manufacturer Info

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

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

NASCOR

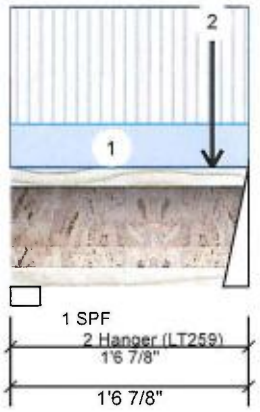
isDesign™

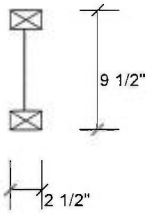
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F5-C LPI 20Plus 9.500" - 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	59	22	0	0
2	115	44	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	7%	28 / 88	116	L	1.25D+1.5L
2 - Hanger	2.000"	14%	55 / 173	227	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	39 ft-lb	11"	4670 ft-lb	0.008 (1%)	1.25D+1.5L	L
Shear	214 lb	1'5 5/8"	1990 lb	0.108 (11%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/33835)	10 7/8"	0.044 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/24562)	10 7/8"	0.067 (L/240)	0.010 (1%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"
3 Fill all hanger nailing holes.
4 Girders are designed to be supported on the bottom edge only.
5 Top flange braced at bearings.
6 Bottom flange 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.

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.

LICENSED PROFESSIONAL ENGINEER
N.A. EL-MASRI
PROVINCE OF ONTARIO
Jan 22, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-14	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-4-0		Near Face	28 lb	73 lb	0 lb	0 lb	J2

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.

KOTT
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Manufacturer Info

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414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
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CCMC: 12412-R APA: PR-L238C

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14 Anderson Blvd, Ontario
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NASCOR

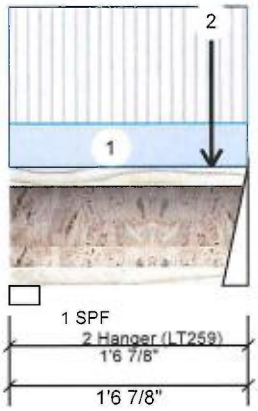
isDesign™

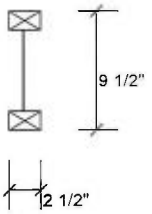
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F5-D LPI 20Plus 9.500" - 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	59	22	0	0
2	118	44	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	7%	28 / 89	116	L	1.25D+1.5L
2 - Hanger	2.000"	15%	55 / 177	231	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	39 ft-lb	11 1/16"	4670 ft-lb	0.008 (1%)	1.25D+1.5L	L
Shear	218 lb	1'5 5/8"	1990 lb	0.110 (11%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/33432)	10 15/16"	0.044 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/24349)	10 15/16"	0.067 (L/240)	0.010 (1%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"
3 Fill all hanger nailing holes.
4 Girders are designed to be supported on the bottom edge only.
5 Top flange braced at bearings.
6 Bottom flange 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.

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LICENSED PROFESSIONAL ENGINEER
N.A. EL-MASRI
PROVINCE OF ONTARIO
Jan 22, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-6-14	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-4-0		Far Face	28 lb	76 lb	0 lb	0 lb	J2

Notes

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NASCOR

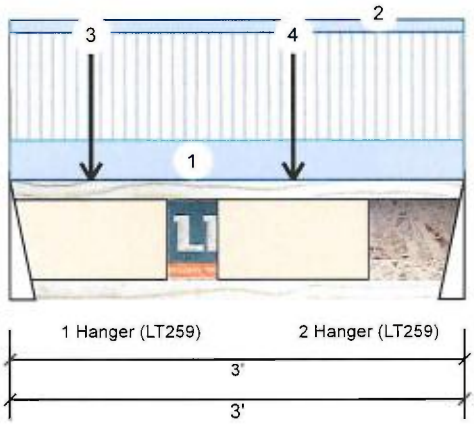
isDesign™

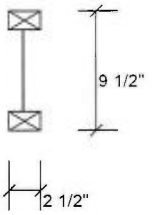
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F6-A LPI 20Plus 9.500" - 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	264	131	0	0
2	209	103	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	36%	164 / 396	559	L	1.25D+1.5L
2 - Hanger	2.000"	28%	129 / 313	442	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	407 ft-lb	1'10 7/16"	4670 ft-lb	0.087 (9%)	1.25D+1.5L	L
Shear	552 lb	1 1/4"	1990 lb	0.277 (28%)	1.25D+1.5L	L
Perm Defl in.	0.003 (L/12219)	1'10 7/16"	0.093 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.006 (L/6031)	1'10 7/16"	0.093 (L/360)	0.060 (6%)	L	L
TL Defl inch	0.008 (L/4038)	1'10 7/16"	0.140 (L/240)	0.060 (6%)	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.

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

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

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LICENSED PROFESSIONAL ENGINEER
N.A. EL-MASRI
PROVINCE OF ONTARIO
Jan 22, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-0-0	(Span)1-8-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-0-0		Top	4 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-6-7		Far Face	80 lb	160 lb	0 lb	0 lb	J3
4	Point	1-10-7		Far Face	103 lb	209 lb	0 lb	0 lb	J3

Notes

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KOTT
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NASCOR

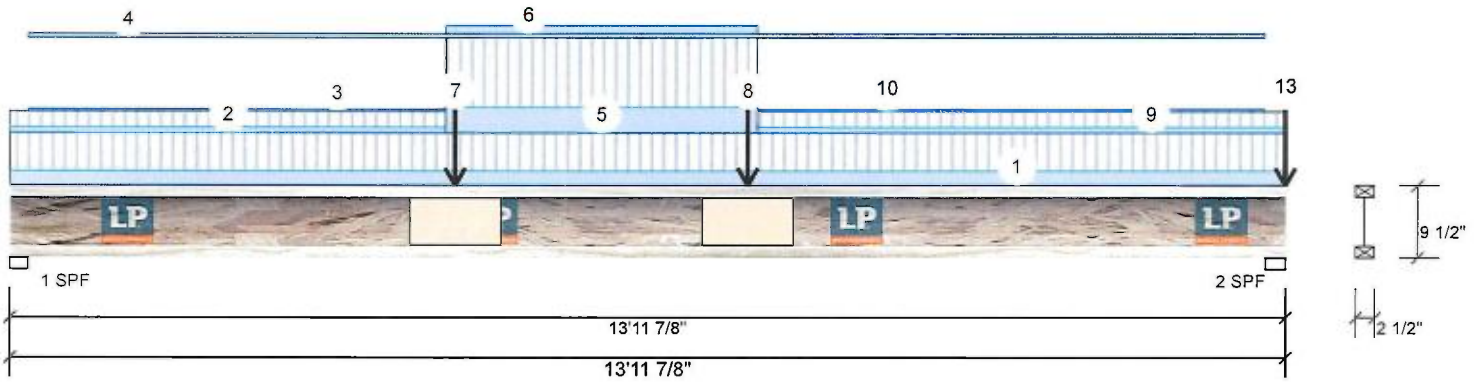
isDesign™

Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F7-A LPI 20Plus 9.500" - 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	370	181	0	0
2	531	272	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	49%	226 / 555	781	L	1.25D+1.5L
2 - SPF	2.625"	70%	340 / 797	1137	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3313 ft-lb	7'1"	4670 ft-lb	0.709 (71%)	1.25D+1.5L	L
Shear	774 lb	1 5/8"	1990 lb	0.389 (39%)	1.25D+1.5L	L
Perm Defl in.	0.152 (L/1079)	6'11 7/16"	0.457 (L/360)	0.330 (33%)	D	Uniform
LL Defl inch	0.311 (L/529)	6'11 3/8"	0.457 (L/360)	0.680 (68%)	L	L
TL Defl inch	0.463 (L/355)	6'11 3/8"	0.685 (L/240)	0.680 (68%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Applied loads over end bearings and loads exceeding 250 lbs over intermediate bearings must be transferred directly to the support by rim board, blocking, squash blocks, or other device.
3 Dead Load Deflection: Instant = 0.152", Long Term = 0.228"
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 must be laterally braced at a maximum of 4'11" o.c.
7 Bottom flange 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.

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.

LICENSED PROFESSIONAL ENGINEER
N.A. EL-MASRI
PROVINCE OF ONTARIO
Jan 22, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 13-11-14	(Span)0-11-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 4-9-6	(Span)0-4-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-6 to 4-9-6		Top	1 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-6 to 13-9-2		Top	2 PLF	0 PLF	0 PLF	0 PLF	
5	Tie-In	4-9-6 to 8-2-6	(Span)1-8-11 to 1-8-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on page 2...

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.

KOTT
This design is valid until 10/31/2020

Manufacturer Info

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

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

NASCOR

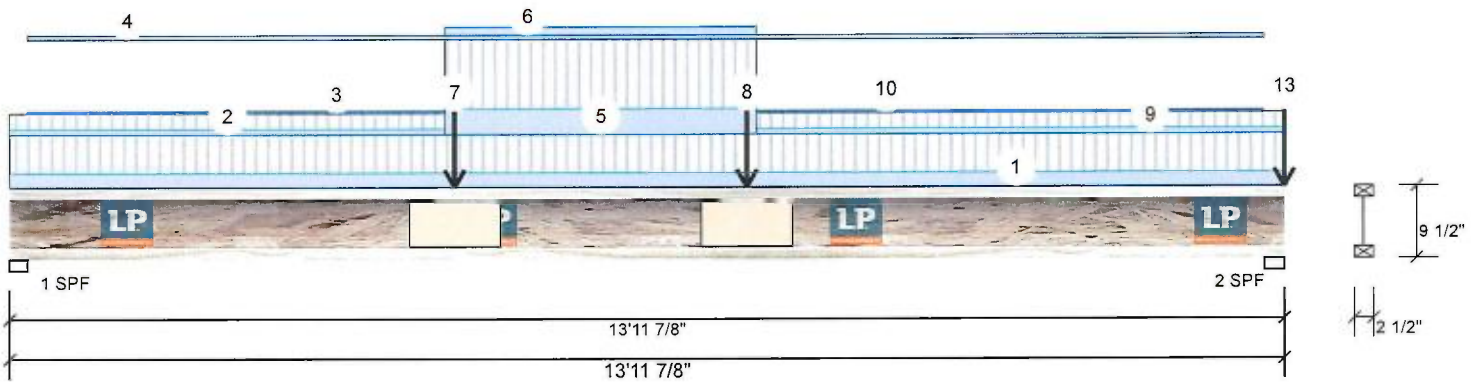
isDesign™

Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F7-A LPI 20Plus 9.500" - PASSED

Level: Ground Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Part. Uniform	4-9-6 to 8-2-6		Top	4 PLF	0 PLF	0 PLF	0 PLF	
7	Point	4-10-10		Near Face	59 lb	120 lb	0 lb	0 lb	F5
8	Point	8-1-2		Near Face	67 lb	135 lb	0 lb	0 lb	F5
9	Tie-In	8-2-6 to 13-11-14	(Span)0-4-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
10	Part. Uniform	8-2-6 to 13-9-2		Top	1 PLF	0 PLF	0 PLF	0 PLF	
11	Point	13-11-14		Top	34 lb	89 lb	0 lb	0 lb	J5
	Bearing Length	0-1-8							
12	Point	13-11-14		Top	41 lb	93 lb	0 lb	0 lb	J6
	Bearing Length	0-1-8							
13	Point	13-11-14		Top	27 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-1-8							

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.

Notes

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NASCOR

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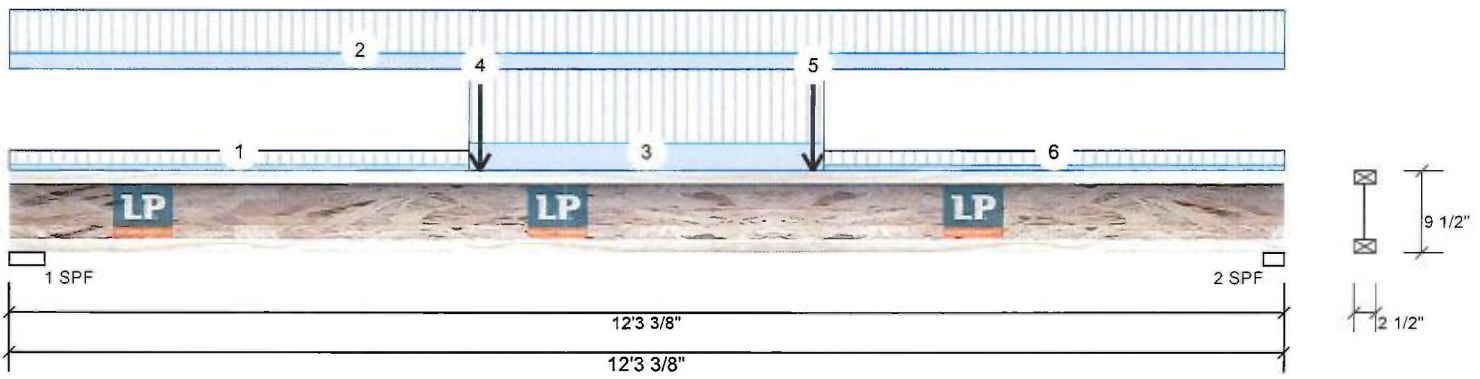
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F7-B LPI 20Plus 9.500" - 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	331	125	0	0
2	324	122	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.125"	37%	156 / 496	652	L	1.25D+1.5L
2 - SPF	2.375"	40%	152 / 486	638	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2390 ft-lb	6'2 3/4"	4670 ft-lb	0.512 (51%)	1.25D+1.5L	L
Shear	637 lb	3 3/8"	1990 lb	0.320 (32%)	1.25D+1.5L	L
Perm Defl in.	0.071 (L/2003)	6'2 1/2"	0.395 (L/360)	0.180 (18%)	D	Uniform
LL Defl inch	0.189 (L/753)	6'2 9/16"	0.395 (L/360)	0.480 (48%)	L	L
TL Defl inch	0.260 (L/547)	6'2 9/16"	0.593 (L/240)	0.440 (44%)	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.

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.

LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO
Jan 22, 2019

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.071", Long Term = 0.107"
3 Girders are designed to be supported on the bottom edge only.
4 Top flange must be laterally braced at a maximum of 5'11" o.c.
5 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead				
1	Tie-In	0-0-0 to 4-5-3	(Span)0-4-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-3-6	(Span) 0-11-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	4-5-3 to 7-10-3	(Span)1-8-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	4-6-7		Far Face	44 lb	115 lb	0 lb	0 lb	F5
5	Point	7-8-15		Far Face	44 lb	118 lb	0 lb	0 lb	F5
6	Tie-In	7-10-3 to 12-3-6	(Span)0-4-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

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KOTT
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Louisiana-Pacific Corp
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CCMC: 12412-R APA: PR-L238C

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905-642-4400

NASCOR

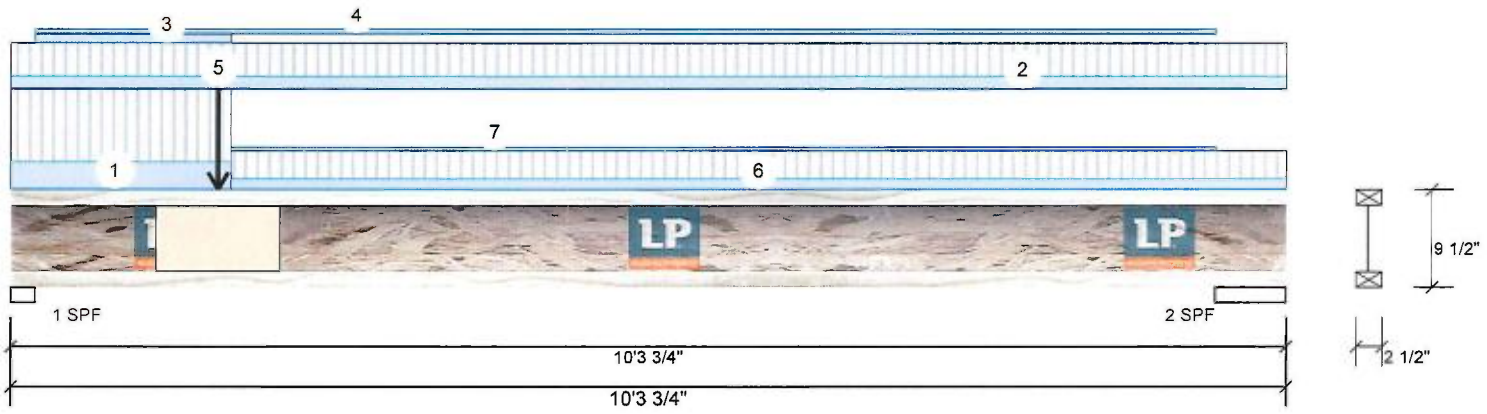
isDesign™

Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F8-A LPI 20Plus 9.500" - 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	505	251	0	0
2	324	160	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	67%	314 / 758	1072	L	1.25D+1.5L
2 - SPF	6.875"	39%	199 / 486	685	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1756 ft-lb	4'2 15/16"	4670 ft-lb	0.376 (38%)	1.25D+1.5L	L
Shear	1047 lb	1 5/8"	1990 lb	0.526 (53%)	1.25D+1.5L	L
Perm Defl in.	0.048 (L/2431)	4'8 3/4"	0.322 (L/360)	0.150 (15%)	D	Uniform
LL Defl inch	0.095 (L/1223)	4'8 11/16"	0.322 (L/360)	0.290 (29%)	L	L
TL Defl inch	0.143 (L/814)	4'8 3/4"	0.483 (L/240)	0.300 (30%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.048", Long Term = 0.072"
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.

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.

LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO
Jan 22, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-9-6	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 10-3-12	(Span)1-5-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-6 to 1-9-6		Top	8 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-6 to 9-8-15		Top	4 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-8-2		Far Face	103 lb	209 lb	0 lb	0 lb	F6
6	Tie-In	1-9-6 to 10-3-12	(Span)1-2-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-9-6 to 9-8-15		Top	3 PLF	0 PLF	0 PLF	0 PLF	

Notes

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KOTT
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Nashville, TN 37219
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CCMC: 12412-R APA: PR-L238C

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905-642-4400

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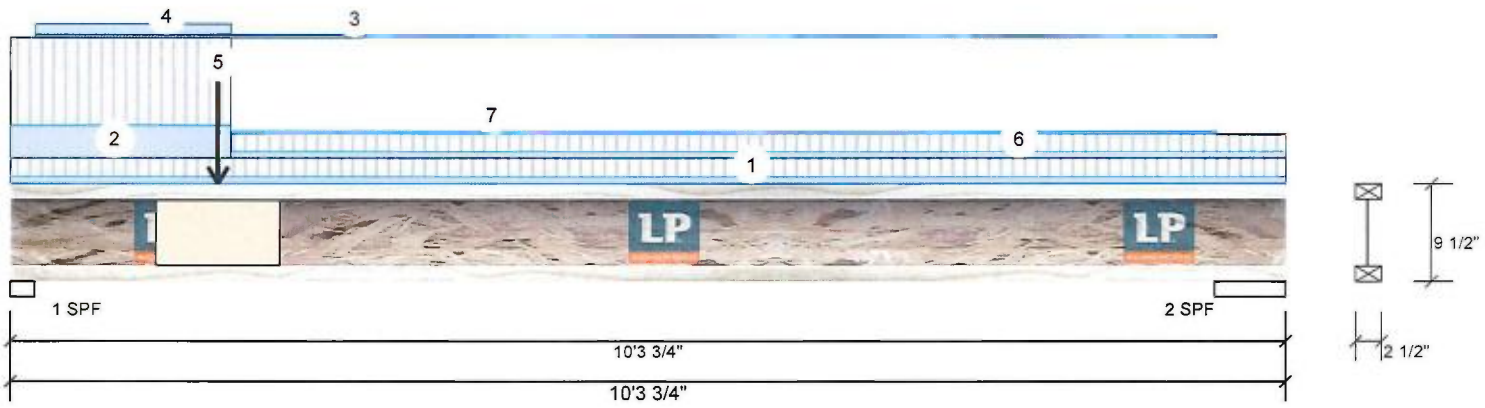
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F8-B LPI 20Plus 9.500" - 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	439	219	0	0
2	192	97	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	58%	274 / 658	932	L	1.25D+1.5L
2 - SPF	6.875"	23%	121 / 288	409	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1272 ft-lb	3'1 13/16"	4670 ft-lb	0.272 (27%)	1.25D+1.5L	L
Shear	911 lb	1 5/8"	1990 lb	0.458 (46%)	1.25D+1.5L	L
Perm Defl in.	0.034 (L/3418)	4'6 3/16"	0.322 (L/360)	0.110 (11%)	D	Uniform
LL Defl inch	0.066 (L/1747)	4'6"	0.322 (L/360)	0.210 (21%)	L	L
TL Defl inch	0.100 (L/1156)	4'6 1/16"	0.483 (L/240)	0.210 (21%)	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.

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.

LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO
Jan 22, 2019

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.034", Long Term = 0.051"
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 7'11" o.c.
6 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-3-12	(Span)0-8-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-9-6	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-6 to 9-9-0		Top	2 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-6 to 1-9-6		Top	8 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-8-2		Near Face	131 lb	264 lb	0 lb	0 lb	F6
6	Tie-In	1-9-6 to 10-3-12	(Span)0-7-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-9-6 to 9-9-0		Top	2 PLF	0 PLF	0 PLF	0 PLF	

Notes

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NASCOR

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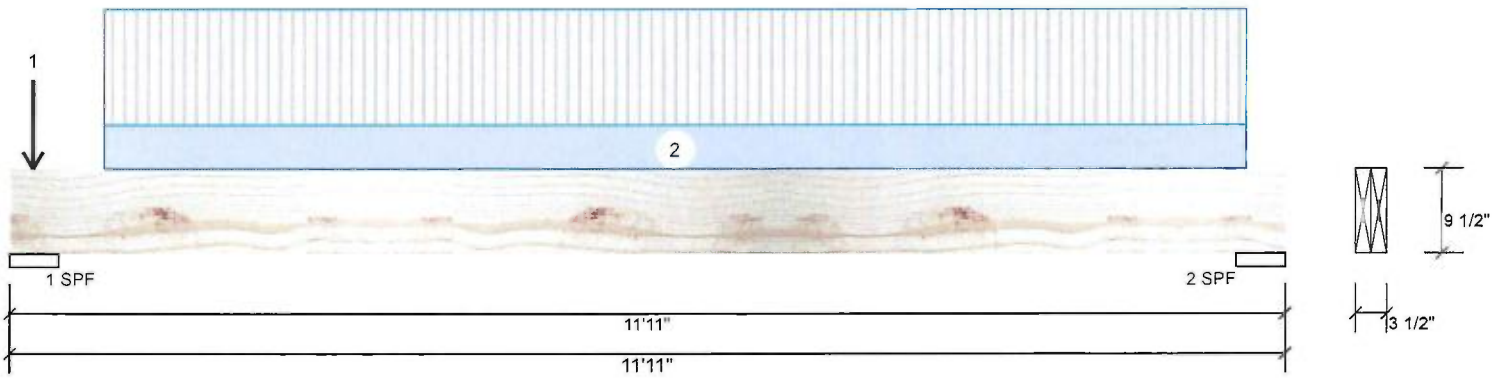
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

BM4-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 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	1378	565	0	0
2	1362	559	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	23%	706 / 2068	2774	L	1.25D+1.5L
2 - SPF	5.500"	23%	699 / 2043	2742	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7560 ft-lb	5'11 5/8"	22724 ft-lb	0.333 (33%)	1.25D+1.5L	L
Unbraced	7560 ft-lb	5'11 5/8"	20280 ft-lb	0.373 (37%)	1.25D+1.5L	L
Shear	2345 lb	1'2 1/4"	9277 lb	0.253 (25%)	1.25D+1.5L	L
Perm Defl in.	0.074 (L/1812)	5'11 9/16"	0.371 (L/360)	0.200 (20%)	D	Uniform
LL Defl inch	0.180 (L/740)	5'11 9/16"	0.371 (L/360)	0.490 (49%)	L	L
TL Defl inch	0.254 (L/525)	5'11 9/16"	0.556 (L/240)	0.460 (46%)	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.

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.

LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO Jan 22, 2019

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-2-10		Top	52 lb	138 lb	0 lb	0 lb	J5
2	Part. Uniform	0-10-10 to 11-6-10		Top	92 PLF	244 PLF	0 PLF	0 PLF	
	Self Weight				8 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

KOTT

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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NASCOR

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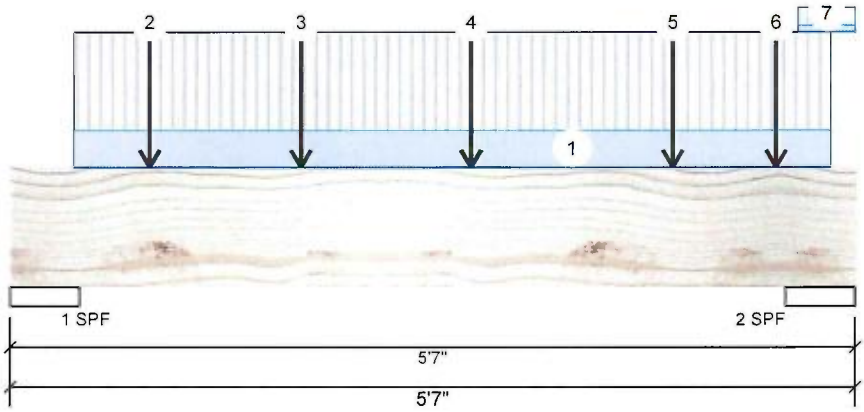
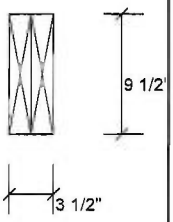
Client: GREEN YORK HOMES
Project:
Address:

Date: 1/16/2019
Designer: RCO/SB
Job Name: LOT-18 (LIANA 2 EL-2)
Project #:

F10-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 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	1315	519	0	0
2	1964	809	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	22%	649 / 1973	2622	L	1.25D+1.5L
2 - SPF	5.500"	33%	1012 / 2947	3959	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3183 ft-lb	3' 9/16"	22724 ft-lb	0.140 (14%)	1.25D+1.5L	L
Unbraced	3183 ft-lb	3' 9/16"	22724 ft-lb	0.140 (14%)	1.25D+1.5L	L
Shear	3768 lb	4'4 3/4"	9277 lb	0.406 (41%)	1.25D+1.5L	L
Perm Defl in.	0.007 (L/7855)	2'10 1/8"	0.160 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.019 (L/3082)	2'10 1/8"	0.160 (L/360)	0.120 (12%)	L	L
TL Defl inch	0.026 (L/2214)	2'10 1/8"	0.240 (L/240)	0.110 (11%)	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.

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.

LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO Jan 22, 2019

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	Part. Uniform	0-5-1 to 5-5-1		Far Face	104 PLF	276 PLF	0 PLF	0 PLF	
2	Point	0-11-1		Near Face	112 lb	292 lb	0 lb	0 lb	J5
3	Point	1-11-1		Near Face	105 lb	281 lb	0 lb	0 lb	J5
4	Point	3-0-9		Near Face	123 lb	327 lb	0 lb	0 lb	J5
5	Point	4-4-9		Near Face	100 lb	268 lb	0 lb	0 lb	J5
6	Point	5-0-12		Near Face	319 lb	713 lb	0 lb	0 lb	F4

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

KOTT

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

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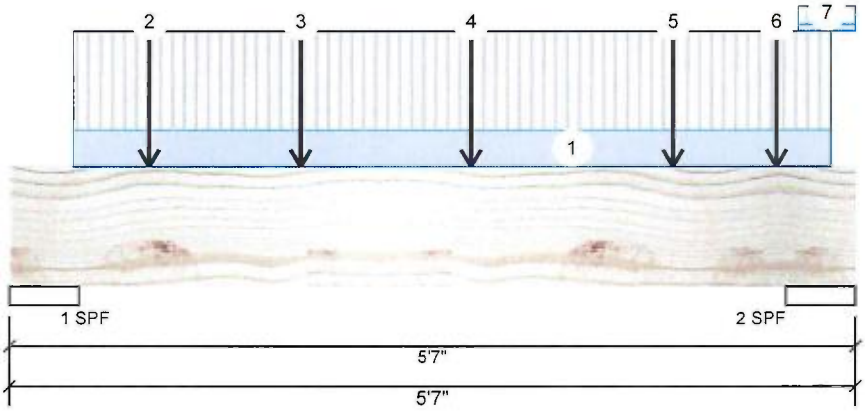
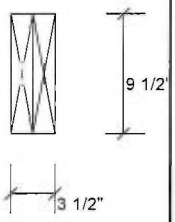
Level: Second Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Tie-In	5-2-8 to 5-7-0	(Span)2-6-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				8 PLF				

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

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

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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
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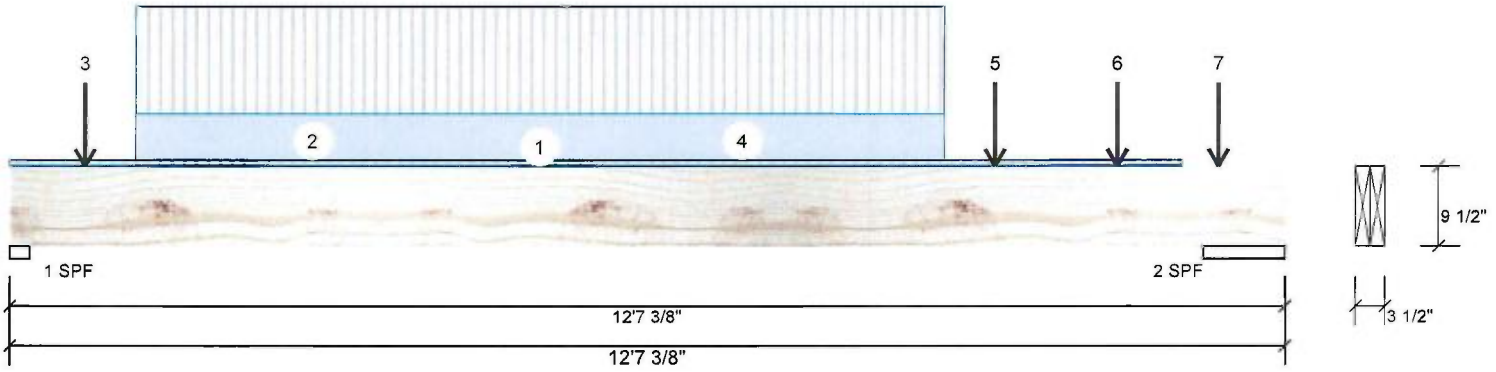

Member Information

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	1567	722	0	0
2	1790	804	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	64%	902 / 2351	3253	L	1.25D+1.5L
2 - SPF	9.714"	18%	1005 / 2685	3690	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9822 ft-lb	6'	22724 ft-lb	0.432 (43%)	1.25D+1.5L	L
Unbraced	9822 ft-lb	6'	20006 ft-lb	0.491 (49%)	1.25D+1.5L	L
Shear	3223 lb	11 1/8"	9277 lb	0.347 (35%)	1.25D+1.5L	L
Perm Defl in.	0.115 (L/1224)	6' 1/16"	0.391 (L/360)	0.290 (29%)	D	Uniform
LL Defl inch	0.251 (L/561)	6'	0.391 (L/360)	0.640 (64%)	L	L
TL Defl inch	0.366 (L/385)	6' 1/16"	0.587 (L/240)	0.620 (62%)	D+L	L

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

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LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO Jan 22, 2019

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 11-7-2	(Span)0-6-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-7 to 11-1-5		Top	1 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-8-15		Far Face	104 lb	238 lb	0 lb	0 lb	J5
4	Part. Uniform	1-2-15 to 9-2-15		Far Face	114 PLF	266 PLF	0 PLF	0 PLF	
5	Point	9-8-15		Far Face	128 lb	294 lb	0 lb	0 lb	J5
6	Point	10-11-7		Far Face	123 lb	292 lb	0 lb	0 lb	J5

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

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

KOTT

This design is valid until 10/18/2021

Manufacturer Info

Forex
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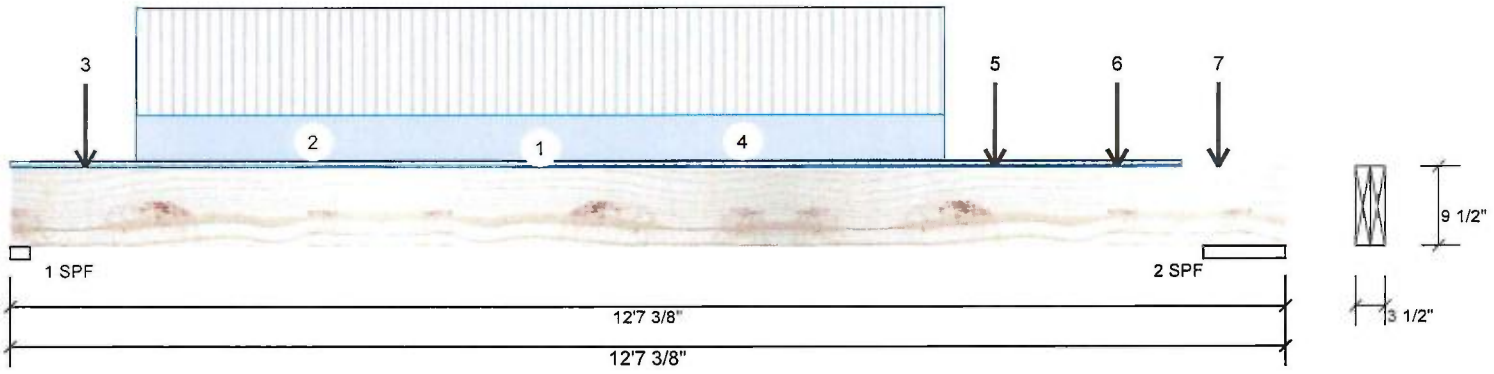

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	11-11-7		Far Face	105 lb	281 lb	0 lb	0 lb	J5
	Self Weight				8 PLF				

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

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Lumber

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Handling & Installation

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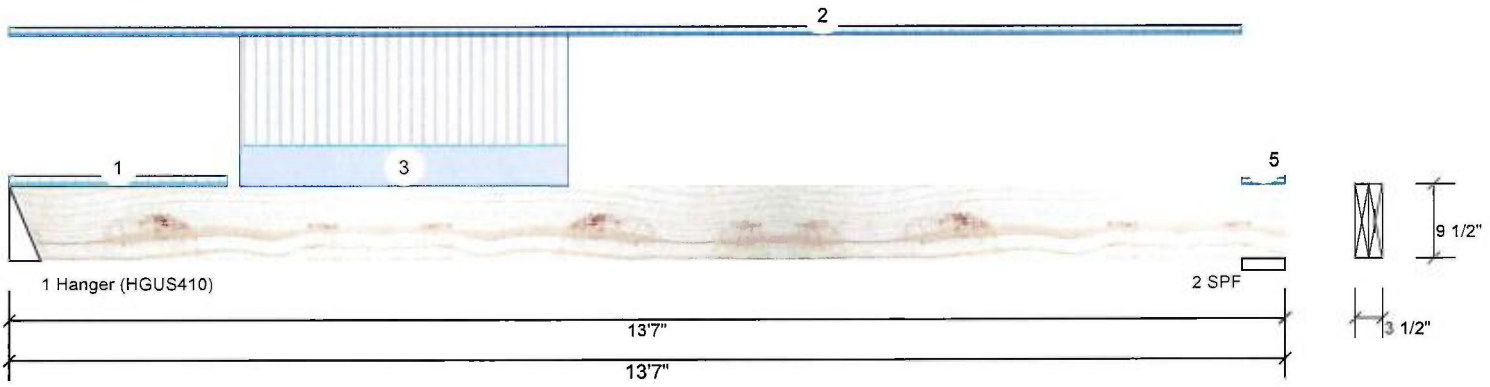

Member Information

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	713	319	0	0
2	356	186	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	4.000"	14%	398 / 1070	1468	L	1.25D+1.5L
2 - SPF	5.500"	6%	232 / 535	767	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4658 ft-lb	5' 1/8"	22724 ft-lb	0.205 (20%)	1.25D+1.5L	L
Unbraced	4658 ft-lb	5' 1/8"	19429 ft-lb	0.240 (24%)	1.25D+1.5L	L
Shear	1393 lb	1' 3/4"	9277 lb	0.150 (15%)	1.25D+1.5L	L
Perm Defl in.	0.058 (L/2674)	6'2 5/8"	0.431 (L/360)	0.130 (13%)	D	Uniform
LL Defl inch	0.128 (L/1212)	6'1 5/16"	0.431 (L/360)	0.300 (30%)	L	L
TL Defl inch	0.186 (L/834)	6'1 3/4"	0.646 (L/240)	0.290 (29%)	D+L	L

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

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LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO Jan 22, 2019

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-3-14	(Span)0-10-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 13-1-8	(Span)0-8-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	2-5-7 to 5-11-7		Top	90 PLF	240 PLF	0 PLF	0 PLF	
4	Tie-In	13-1-8 to 13-7-0	(Span)0-5-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	13-2-10 to 13-7-0	(Span)0-10-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				8 PLF				

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

KOTT

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Manufacturer Info

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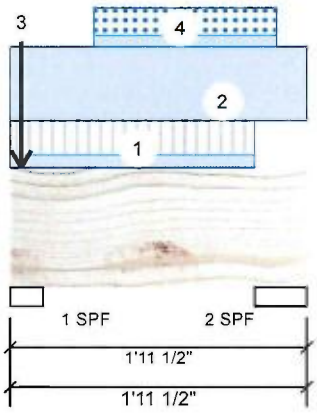

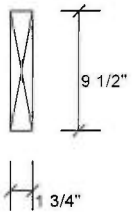

Member Information

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	184	324	365	0
2	21	86	19	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.625"	41%	406 / 639	1045	L	1.25D+1.5S +0.5L
2 - SPF	4.125"	4%	121 / 0	121	Uniform	1.4D

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	35 ft-lb	11 1/16"	7385 ft-lb	0.005 (0%)	1.4D	Uniform
Unbraced	35 ft-lb	11 1/16"	7285 ft-lb	0.005 (0%)	1.4D	Uniform
Shear	8 lb	10 5/8"	4638 lb	0.002 (0%)	1.25D+1.5S +0.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		

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

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

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Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-7-6	(Span)1-5-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 1-11-8		Top	64 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Point	0-0-14		Top	248 lb	157 lb	355 lb	0 lb	F11 F11
4	Part. Uniform	0-6-10 to 1-9-2		Top	10 PLF	0 PLF	24 PLF	0 PLF	
	Self Weight				4 PLF				

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

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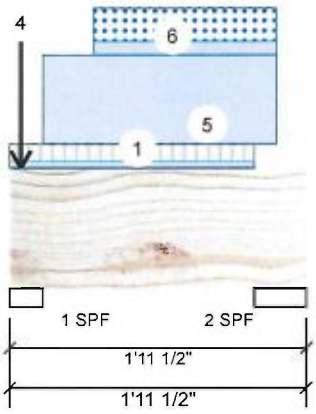
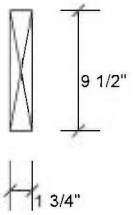
Level: Second Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	168	317	370	0
2	9	69	19	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.625"	41%	396 / 639	1035	L	1.25D+1.5S +0.5L
2 - SPF	4.125"	3%	97 / 0	97	Uniform	1.4D

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	33 ft-lb	11 1/16"	7385 ft-lb	0.004 (0%)	1.4D	Uniform
Unbraced	33 ft-lb	11 1/16"	7285 ft-lb	0.004 (0%)	1.4D	Uniform
Shear	7 lb	10 5/8"	4638 lb	0.002 (0%)	1.25D+1.5S +0.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		

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.

LICENSED PROFESSIONAL ENGINEER N.A. EL-MASRI PROVINCE OF ONTARIO
Jan 22, 2019

Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-7-6	(Span)0-7-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-0-14		Top	250 lb	157 lb	360 lb	0 lb	F11 F11
3	Point	0-0-14		Top	5 lb	0 lb	0 lb	0 lb	Wall Self Weight
4	Point	0-0-14		Top	5 lb	0 lb	0 lb	0 lb	Wall Self Weight
5	Part. Uniform	0-2-10 to 1-9-2		Top	64 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Part. Uniform	0-6-10 to 1-9-2		Top	10 PLF	0 PLF	24 PLF	0 PLF	
	Self Weight				4 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

KOTT

This design is valid until 10/18/2021

Manufacturer Info

Forex
APA: PR-L318

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

NASCOR