

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

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

The responsibility of the undersigned engineer is only limited to the calculation of this building component for the loads and conditions shown on this drawing.

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

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

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

Installation of floor joists is to be carried out in accordance with the current edition of the manufacturer's literature available at <http://www.kottgroup.com>.

CODE

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

COMPONENT

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

HANDLING AND INSTALLATION

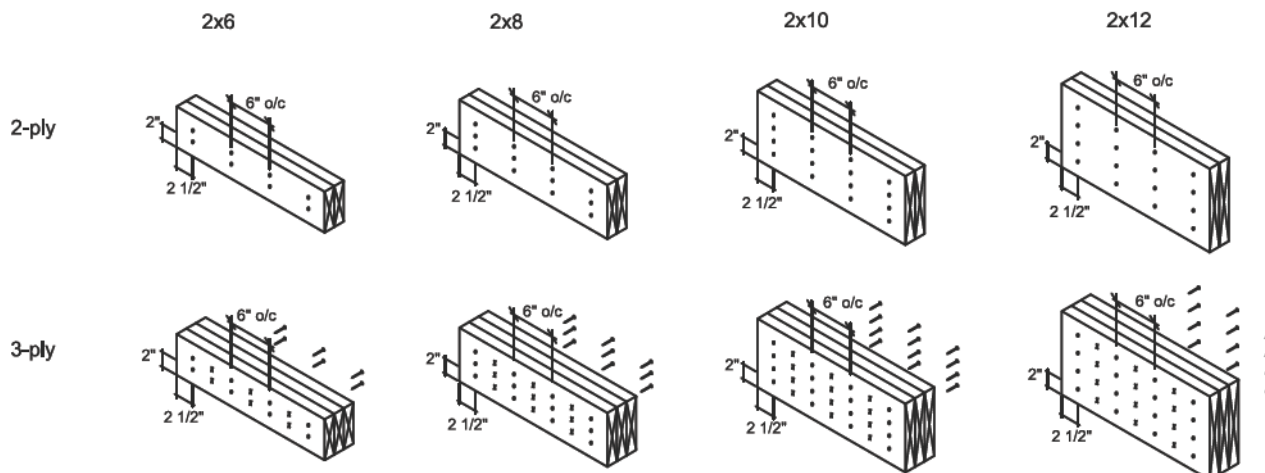
Do not drill any hole, cut or notch a certified building component without a written authorization.



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

Conventional Connections

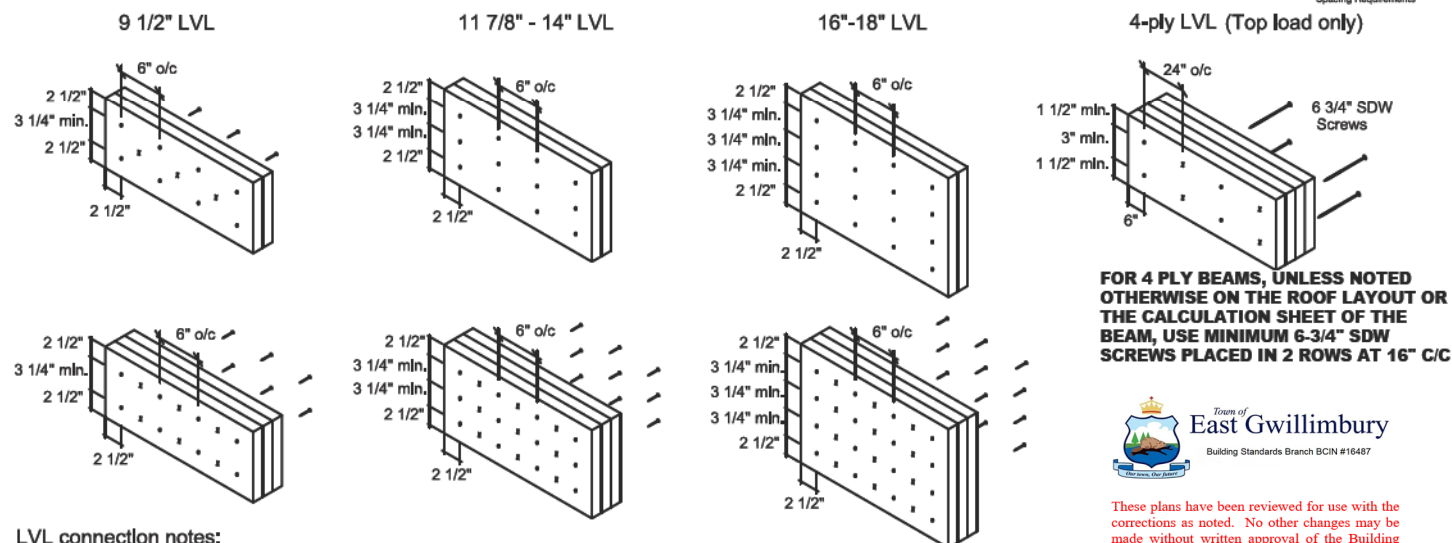


Conventional connection notes:

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

LVL Connections

**HEAD OF ALL SPECIFIED NAILS AND
SCREWS MUST BE ON THE LOADED SIDE**



LVL connection notes:

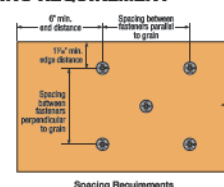
- LVL ply width is 1-3/4"
- Nails to be 3 1/2" common wire nails.
- Nails to be located 2 1/2" min. from the top and bottom of the member.
- Minimum 3 1/4" spacing between rows.
- Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail or screw driven from the opposite side.

SIMPSON SDW SPACING REQUIREMENT

Table 9 — Spacing Requirements

Geometry	Minimum Dimensions (in.)	
	D-J-L	S-P-F
Spacing parallel to grain	6	5
End distance parallel to grain	6	6
Spacing perpendicular to grain	3	2 1/2
Edge distance perpendicular to grain	1 1/2	1 1/2

1. Additional screws may be staggered diagonally between rows.



**FOR 4 PLY BEAMS, UNLESS NOTED
OTHERWISE ON THE ROOF LAYOUT OR
THE CALCULATION SHEET OF THE
BEAM, USE MINIMUM 6-3/4" SDW
SCREWS PLACED IN 2 ROWS AT 16" C/C**



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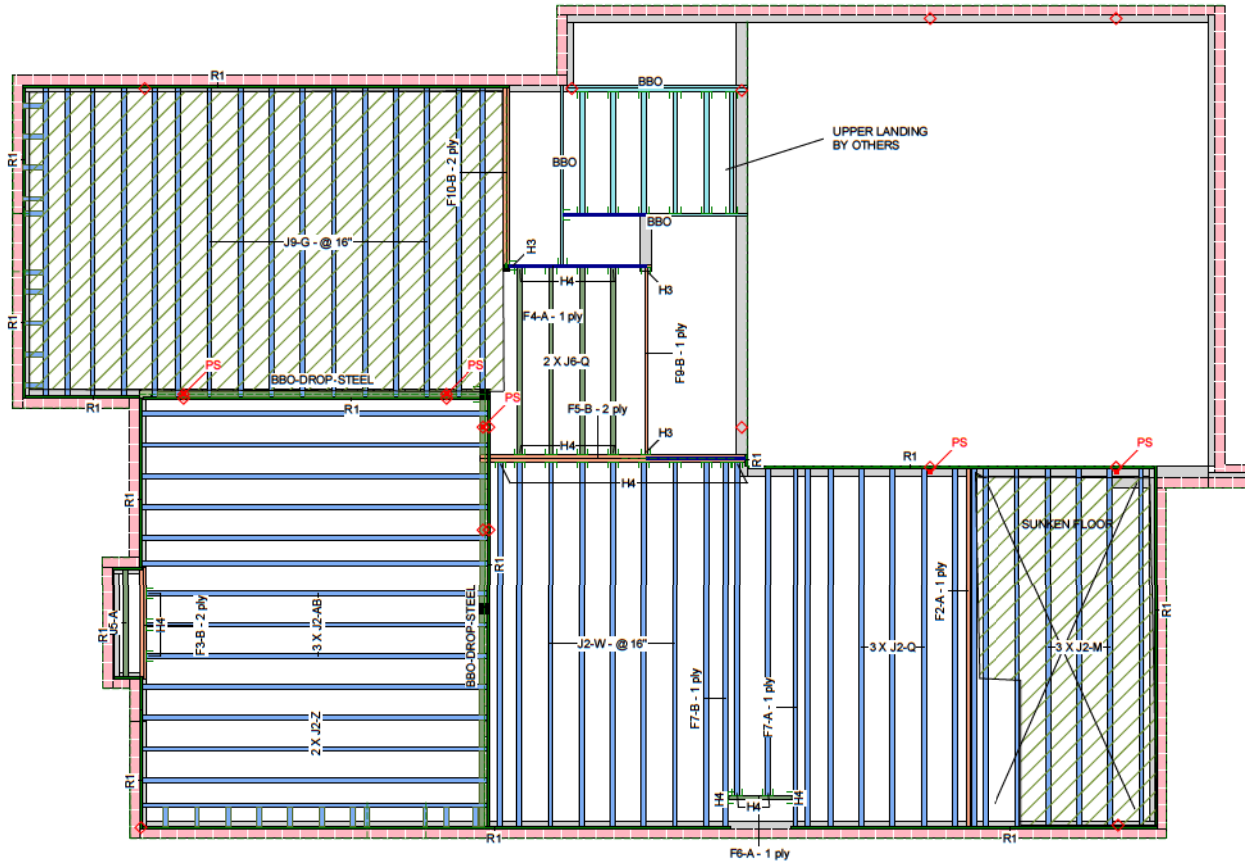
Multiple Member Connections

All connections are for uniformly distributed loads.

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



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



**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.

Ground Floor
LVL/LSL

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F2	Forex 2.0E-3000Fb LVL	1.75	9.5			1	16'-0"
F5	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	12'-0"
F9	Forex 2.0E-3000Fb LVL	1.75	9.5			1	10'-0"
F10	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8'-0"
F4	Forex 2.0E-3000Fb LVL	1.75	9.5			1	8'-0"
F3	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	6'-0"

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
F6	AJS 140	2.5	9.5			1	4-0
J6	AJS 140	2.5	9.5			4	10-0
J5	AJS 140	2.5	9.5			1	6-0
J2	AJS 20	2.5	9.5			37	16-0
J9	AJS 20	2.5	9.5			16	14-0
F7	AJS 20	2.5	9.5			2	16-0











Rim Board							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			15	12-0-0

Blocking							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK3	AJS 140	2.5	9.5	LinFt		Varies	27-0-0
BLK1	AJS 20	2.5	9.5	LinFt		Varies	18-0-0

Hanger					Beam/Girder	Supported Member
Label	Pcs	Description	Skew	Slope	fasteners	fasteners
H1	1	Unknown Hanger				
H1	14	Unknown Hanger				
H3	3	HUS1.81/10			30 16d	10 16d
H4	25	LF259			10 10d	1 #6x1/4WS

1. All blocking to be cut from 12" joists
2. 2' & 4' Lengths to be cut from 8' Length 6' lengths to be cut from 12' Length
3. Ends of joists to be laterally supported
4. Packing of Steel beams and attachment by others
5. Shower and water closet floor locations are approximate only, consult architectural drawing for exact locations
6. Beams identified as "B" are dropped and supplied by others
7. Install 2x4 blocking @ 24" o/c under parallel non loadbearing walls
8. Load transfer blocks to be installed under all point loads
9. Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
10. Hangers and Fasteners to be installed as per manufacturer
11. Framing shown on this layout may deviate from architectural drawings. Architect 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
		AJS 140 9.5
		AJS 20 9.5
		Forex 2.0E-3000Fb LVL 1.75 X 9.5
		1.75 X 9.5
		2.5 X 9.5
		5.25 X 10.25 (Dropped)

JOISTS SPACING 12" O/C
UNLESS
NOTED OTHERWISE

JOB INFORMATION	
Builder	
Project	
Shipping	GREENPARK HOMES TRINAR HALL, EAST GWILLIMBURY, ON
Sales Rep	
Designer	S B
Plotted	December 17, 2020
Layout Name	GLENWAY 2A EL- 1-2-3
Job Path	C:\Data\SAUMIL\GREENPARK HOMES\TRINAR HALL\GLENWAY 2A\FLOOR\EL 1\GLENWAY 2A EL- 1-2-3.dwg
DESIGN CRITERIA	
Ground Floor	
Design Method	LSD (Canada)
Building Code	NBCC 2015 / OBC 2012
Floor	
Loads	
Live	40
Dead	15
Deflection Joist	
LL Span 1/	480
TL Span 1/	360
LL Cant 2L/	480
TL Cant 2L/	360
Deflection Girder	
LL Span 1/	360
TL Span 1/	240
LL Cant 2L/	480
TL Cant 2L/	360
Decking	
Decking	OSB
Thickness	3/4"
Fastener	Nailed & Glued
Vibration	

CCMC References
Boise - 12472-R, 12787-R
LP - 12412-R
Forex - 14056-R

Kott Inc.
3228 Moodie Dr, Ottawa
14 Anderson Blvd, Uxbridge
Ontario
613-838-2775 /
905-642-4400

 **KOTT**



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Zoning			

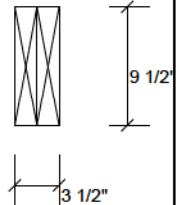
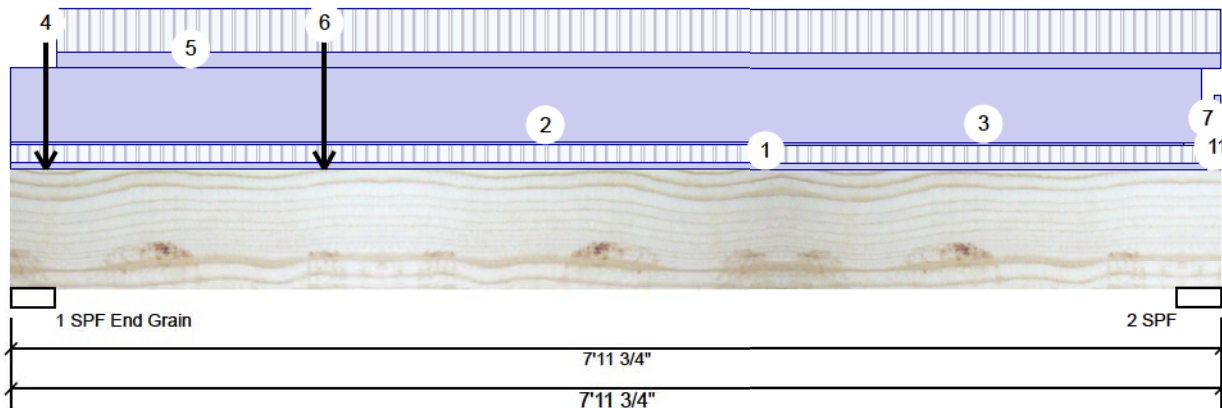
Version 20.40.075 Powered by iStruct™

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



Client: GREENPARK HOMES
 Project: TRINAR HALL, EAST GWILLIMBURY, ON
 Address: GREENPARK HOMES
 Date: 12/17/2020
 Input by: S B
 Job Name: GLENWAY 2A EL-1-2-3 -DECK CONDITION
 Project #:

F10-B 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 2015 / 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	2225	1275	0	0
2	494	556	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	54%	1594 / 3338	4931 L	1.25D+1.5L
2 - SPF	3.500"	19%	696 / 741	1437 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3884 ft-lb	2'1 7/8"	22724 ft-lb	0.171 (17%)	1.25D+1.5L	L
Unbraced	3884 ft-lb	2'1 7/8"	21607 ft-lb	0.180 (18%)	1.25D+1.5L	L
Shear	2149 lb	1' 1/4"	9277 lb	0.232 (23%)	1.25D+1.5L	L
Perm Defl in.	0.029 (L/3115)	3'9 7/16"	0.251 (L/360)	0.120 (12%)	D	Uniform
LL Defl inch	0.034 (L/2662)	3'6 5/8"	0.251 (L/360)	0.140 (14%)	L	
TL Defl inch	0.063 (L/1437)	3'7 15/16"	0.376 (L/240)	0.170 (17%)	D+L	L

Design Notes

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 7-10-10	0-6-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 7-8-13		Top	2 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 7-10-3		Top	82 PLF	0 PLF	0 PLF	0 PLF	Wall Self Wt
4	Point	0-2-12		Near Face	522 lb	1270 lb	0 lb	0 lb	F4
5	Tie-In	0-3-10 to 7-11-12	1-2-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	2-0-12		Top	385 lb	924 lb	0 lb	0 lb	F10 F10

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

This design is valid until 4/24/2023



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Zoning			



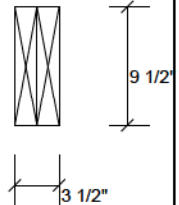
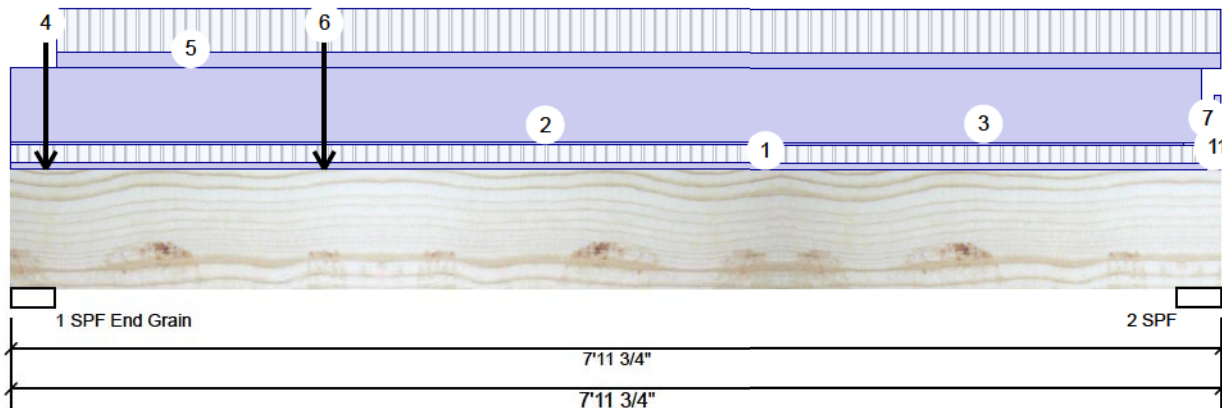


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL-1-2-3 -DECK CONDITION
Project #:

F10-B Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Part. Uniform	7-10-3 to 7-11-3		Top	41 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Part. Uniform	7-11-3 to 7-11-3		Top	9 PLF	6 PLF	21 PLF	0 PLF	
9	Part. Uniform	7-11-3 to 7-11-3		Top	20 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
11	Part. Uniform	7-11-3 to 7-11-12		Top	82 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight				8 PLF				

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

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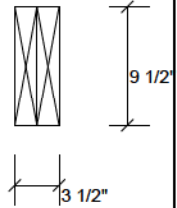
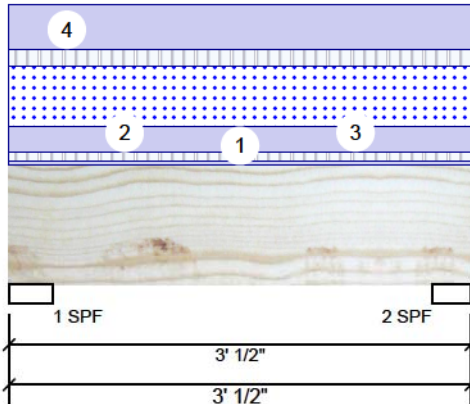


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F11-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor


Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / 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	77	221	169	0
2	75	217	166	0

Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.438"	8%	276 / 330	607	L	1.25D+1.5S +L
2 - SPF	3.090"	9%	271 / 324	595	L	1.25D+1.5S +L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	340 ft-lb	1'6 7/16"	22497 ft-lb	0.015 (2%)	1.25D+1.5S +L	L
Unbraced	340 ft-lb	1'6 7/16"	22497 ft-lb	0.015 (2%)	1.25D+1.5S +L	L
Shear	205 lb	1'3 1/16"	9184 lb	0.022 (2%)	1.25D+1.5S +L	L
Perm Defl in.	0.001 (L/42770)	1'6 7/16"	0.087 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/45616)	1'6 7/16"	0.087 (L/360)	0.010 (1%)	S+0.5L	L
TL Defl inch	0.001 (L/22074)	1'6 7/16"	0.131 (L/240)	0.010 (1%)	D+S+0.5L	L

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-0-8	0-5-2 to 0-5-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-0-8		Top	1 PLF	0 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 3-0-8		Top	47 PLF	33 PLF	110 PLF	0 PLF	

Continued on page 2...

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Lumber

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

chemicals
Handling & Installation

- LVL beams must not be cut or drilled
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Town of
East Gwillimbury
Building Standards Branch BCIN #16487

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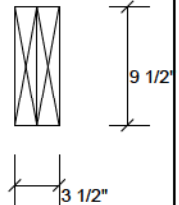
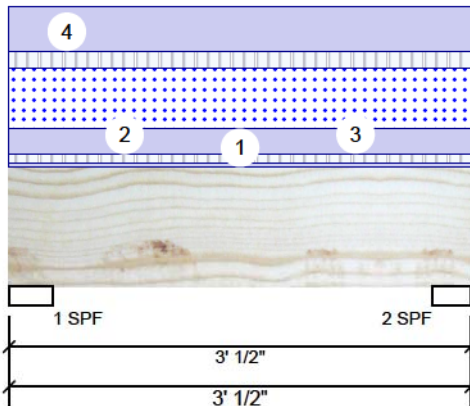
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Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
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2. LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

This design is valid until 4/24/2023

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



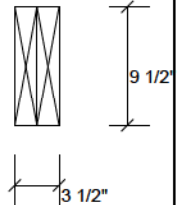
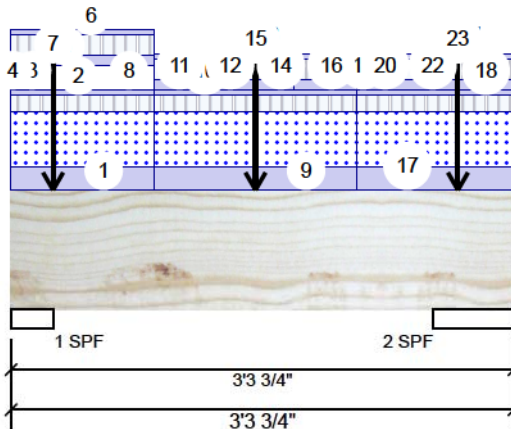
Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL-1-2-3 -DECK CONDITION
Project #:

Page 5 of 13

F11-B 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 2015 / 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	1425	1278	1312	0
2	1632	1488	1542	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.375"	69%	1598 / 3449	5047	L	1.25D+1.5L +S
2 - SPF	6.375"	43%	1860 / 3989	5848	L	1.25D+1.5L +S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2576 ft-lb	1'7 5/16"	22724 ft-lb	0.113 (11%)	1.25D+1.5L +S	L
Unbraced	2576 ft-lb	1'7 5/16"	22724 ft-lb	0.113 (11%)	1.25D+1.5L +S	L
Shear	1664 lb	2' 5/8"	9277 lb	0.179 (18%)	1.25D+1.5L +S	L
Perm Defl in.	0.004 (L/8176)	1'7"	0.087 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.006 (L/5118)	1'7 5/16"	0.087 (L/360)	0.070 (7%)	L+0.5S	L
TL Defl inch	0.010 (L/3148)	1'7 5/16"	0.131 (L/240)	0.080 (8%)	D+L+0.5S	L

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

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



Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 0-11-5		Top	344 PLF	241 PLF	799 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 0-11-5		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Wt
3	Tapered Start	0-0-0		Top	0 PLF	1 PLF	0 PLF	0 PLF	
	End	0-4-5			0 PLF	1 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-0-0 to 0-0-5		Top	116 PLF	236 PLF	0 PLF	0 PLF	J4

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

This design is valid until 4/24/2023



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

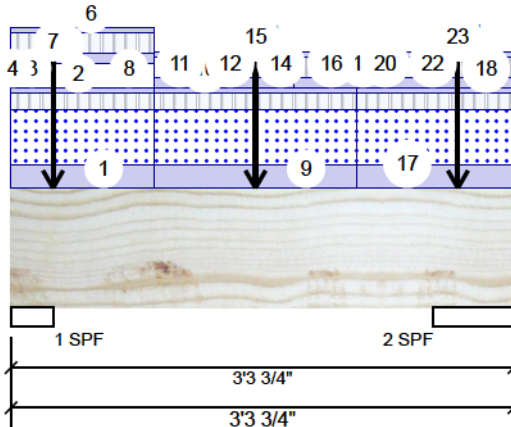




Client: GREENPARK HOMES
 Project: TRINAR HALL, EAST GWILLIMBURY, ON
 Address: GREENPARK HOMES
 Date: 12/17/2020
 Input by: S B
 Job Name: GLENWAY 2A EL-1-2-3 -DECK CONDITION
 Project #:

F11-B Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

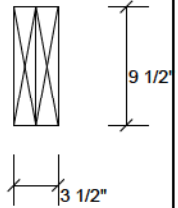
Level: Ground Floor



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



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Part. Uniform	0-0-0 to 0-11-5		Top	140 PLF	297 PLF	0 PLF	0 PLF	J4
6	Part. Uniform	0-0-0 to 0-11-5		Top	82 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
7	Point	0-3-5		Near Face	206 lb	412 lb	89 lb	0 lb	J10
8	Tapered Start	0-4-5		Top	0 PLF	1 PLF	0 PLF	0 PLF	
	End	0-11-5			0 PLF	1 PLF	0 PLF	0 PLF	
9	Part. Uniform	0-11-5 to 2-3-5		Top	344 PLF	241 PLF	799 PLF	0 PLF	
10	Part. Uniform	0-11-5 to 2-3-5		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
11	Tapered Start	0-11-5		Top	0 PLF	1 PLF	0 PLF	0 PLF	
	End	1-4-5			0 PLF	1 PLF	0 PLF	0 PLF	
12	Part. Uniform	0-11-5 to 1-10-5		Top	140 PLF	297 PLF	0 PLF	0 PLF	J4
13	Part. Uniform	0-11-5 to 2-3-5		Top	82 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
14	Tapered Start	1-4-5		Top	0 PLF	1 PLF	0 PLF	0 PLF	
	End	2-3-5			0 PLF	1 PLF	0 PLF	0 PLF	
15	Point	1-7-5		Near Face	145 lb	386 lb	0 lb	0 lb	J10
16	Part. Uniform	1-10-5 to 2-3-5		Top	144 PLF	298 PLF	0 PLF	0 PLF	J4
17	Part. Uniform	2-3-5 to 3-3-12		Top	344 PLF	241 PLF	799 PLF	0 PLF	
18	Part. Uniform	2-3-5 to 3-3-12		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
19	Tapered Start	2-3-5		Top	0 PLF	1 PLF	0 PLF	0 PLF	
	End	2-4-5			0 PLF	1 PLF	0 PLF	0 PLF	
20	Part. Uniform	2-3-5 to 3-3-12		Top	144 PLF	298 PLF	0 PLF	0 PLF	J4
21	Part. Uniform	2-3-5 to 3-3-12		Top	82 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
22	Tapered Start	2-4-5		Top	0 PLF	1 PLF	0 PLF	0 PLF	
	End	3-3-12			0 PLF	1 PLF	0 PLF	0 PLF	
23	Point	2-11-5		Near Face	242 lb	466 lb	119 lb	0 lb	J10
	Self Weight				8 PLF				



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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

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

This design is valid until 4/24/2023

Manufacturer Info

Forex
 APA: PR-L318

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

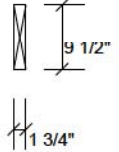
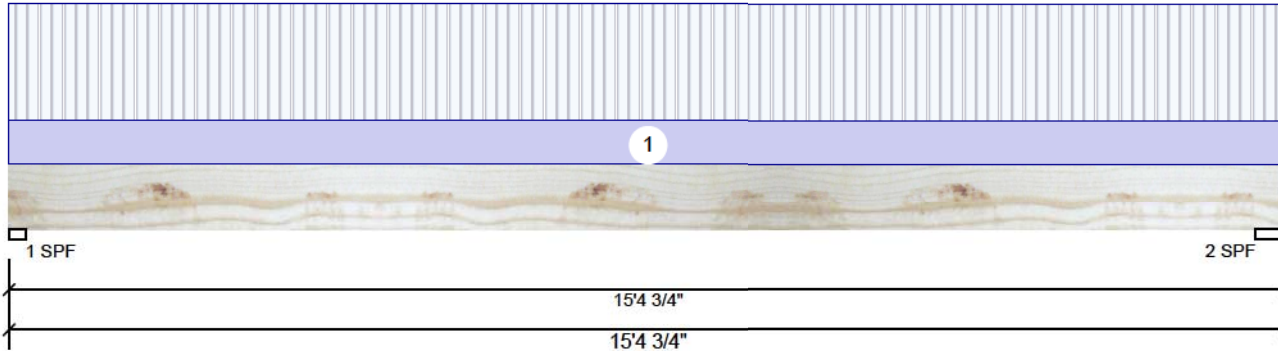


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL-1-2-3 -DECK CONDITION
Project #:

F2-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 2015 / 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	87	62	0	0
2	89	63	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	8%	77 / 131	208 L	1.25D+1.5L
2 - SPF	4.375"	5%	79 / 134	213 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	764 ft-lb	7'7 3/8"	11362 ft-lb	0.067 (7%)	1.25D+1.5L	L
Unbraced	764 ft-lb	7'7 3/8"	2492 ft-lb	0.307 (31%)	1.25D+1.5L	L
Shear	183 lb	11 1/8"	4638 lb	0.039 (4%)	1.25D+1.5L	L
Perm Defl in.	0.038 (L/4712)	7'7 7/16"	0.499 (L/360)	0.080 (8%)	D	Uniform
LL Defl inch	0.054 (L/3333)	7'7 7/16"	0.499 (L/360)	0.110 (11%)	L	
TL Defl inch	0.092 (L/1952)	7'7 7/16"	0.748 (L/240)	0.120 (12%)	D+L	L

Design Notes

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

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 15-4-12	0-3-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	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

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

This design is valid until 4/24/2023



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



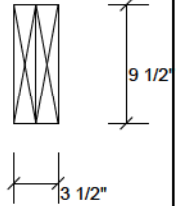
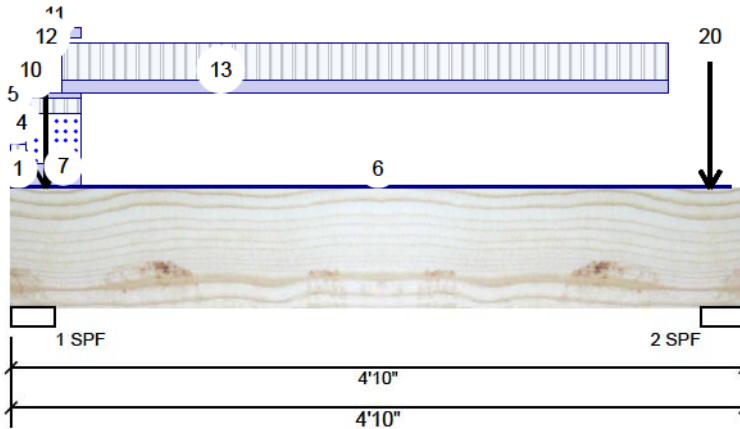


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL-1-2-3 -DECK CONDITION
Project #:

F3-B 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 2015 / 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	1904	1666	1910	0
2	1867	1585	1750	0

Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	91%	2083 / 4769	6852	L	1.25D+1.5S +L
2 - SPF	3.500"	92%	1982 / 4550	6532	L	1.25D+1.5L +S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1459 ft-lb	2'4 13/16"	22724 ft-lb	0.064 (6%)	1.25D+1.5L +S	L
Unbraced	1459 ft-lb	2'4 13/16"	22724 ft-lb	0.064 (6%)	1.25D+1.5L +S	L
Shear	1255 lb	3'9 3/4"	9277 lb	0.135 (14%)	1.25D+1.5L +S	L
Perm Defl in.	0.003 (L/17256)	2'4 7/8"	0.146 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.008 (L/6980)	2'4 15/16"	0.146 (L/360)	0.050 (5%)	L+0.5S	L
TL Defl inch	0.011 (L/4970)	2'4 7/8"	0.219 (L/240)	0.050 (5%)	D+L+0.5S	L

**READ ALL NOTES ON THIS PAGE AND ON
ENGINEERING NOTE PAGE ENP-2. THIS
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**REFER TO MULTIPLE MEMBER TO MEMBER
CONNECTION DETAIL FOR PLY TO PLY
NAILING OR BOLTING REQUIREMENTS.**

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



Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 0-1-2		Top	86 PLF	60 PLF	200 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 0-1-2		Top	20 PLF	0 PLF	0 PLF	0 PLF	Wall Self Wt
4	Part. Uniform	0-0-0 to 0-1-2		Top	72 PLF	149 PLF	0 PLF	0 PLF	J4

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

This design is valid until 4/24/2023



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



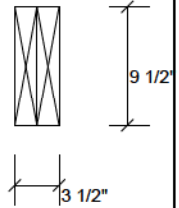
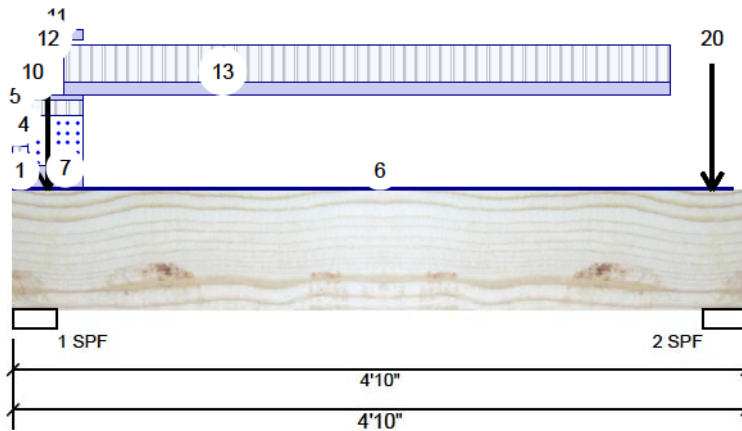


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL-1-2-3 -DECK CONDITION
Project #:

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

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Part. Uniform	0-0-0 to 0-1-2		Top	41 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Tie-In	0-1-2 to 4-8-14	0-4-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	0-1-2 to 0-5-8		Top	172 PLF	120 PLF	400 PLF	0 PLF	
8	Part. Uniform	0-1-2 to 0-5-8		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
10	Part. Uniform	0-1-2 to 0-2-15		Top	144 PLF	298 PLF	0 PLF	0 PLF	J4
11	Part. Uniform	0-1-2 to 0-5-8		Top	82 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
12	Point	0-2-12		Top	1261 lb	1160 lb	1748 lb	0 lb	B3 B3
13	Part. Uniform	0-3-15 to 4-3-15		Near Face	109 PLF	290 PLF	0 PLF	0 PLF	
14	Point	4-7-4		Top	11 lb	27 lb	0 lb	0 lb	J4
15	Point	4-7-4		Top	13 lb	0 lb	0 lb	0 lb	Wall Self Weight
16	Point	4-7-4		Top	1264 lb	1184 lb	1748 lb	0 lb	B3 B3
17	Point	4-7-4		Top	9 lb	22 lb	0 lb	0 lb	J4
18	Point	4-7-4		Top	10 lb	0 lb	0 lb	0 lb	Wall Self Weight
19	Point	4-7-4		Top	16 lb	42 lb	0 lb	0 lb	J4
20	Point	4-7-4		Top	20 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Self Weight				8 PLF				

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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
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4. Design assumes top edge is laterally restrained
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Manufacturer Info

Forex
APA: PR-L318

This design is valid until 4/24/2023



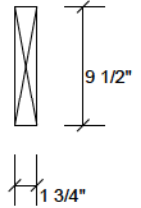
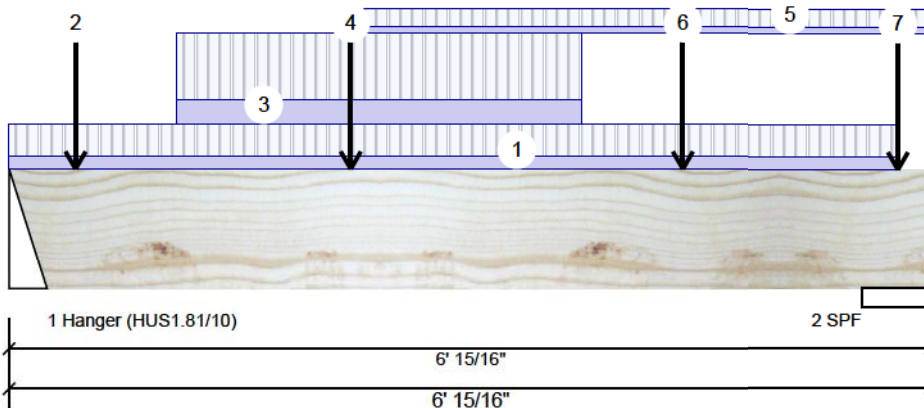


Client: GREENPARK HOMES
 Project: TRINAR HALL, EAST GWILLIMBURY, ON
 Address: GREENPARK HOMES
 TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
 Input by: S B
 Job Name: GLENWAY 2A EL-1-2-3 -DECK CONDITION
 Project #:

F4-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 2015 / 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	1270	522	0	0
2	1055	437	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	66% 652 / 1905	2557	L	1.25D+1.5L
2 - SPF	5.500"	36% 546 / 1583	2129	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3794 ft-lb	2'3"	11362 ft-lb	0.334 (33%)	1.25D+1.5L	L
Unbraced	3794 ft-lb	2'3"	6782 ft-lb	0.559 (56%)	1.25D+1.5L	L
Shear	2398 lb	11 3/4"	4638 lb	0.517 (52%)	1.25D+1.5L	L
Perm Defl in.	0.021 (L/3160)	2'8 3/4"	0.183 (L/360)	0.110 (11%)	D	Uniform
LL Defl inch	0.050 (L/1308)	2'9"	0.183 (L/360)	0.280 (28%)	L	
TL Defl inch	0.071 (L/925)	2'8 7/8"	0.275 (L/240)	0.260 (26%)	D+L	L

Design Notes

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

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 5-10-3		Top	30 PLF	80 PLF	0 PLF	0 PLF	
2	Point	0-5-4		Near Face	92 lb	241 lb	0 lb	0 lb	J6
3	Part. Uniform	1-1-4 to 3-9-4		Near Face	60 PLF	161 PLF	0 PLF	0 PLF	
4	Point	2-3-0		Far Face	327 lb	730 lb	0 lb	0 lb	F13
5	Tie-In	2-3-14 to 6-0-15	1-1-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	4-5-4		Near Face	83 lb	222 lb	0 lb	0 lb	J6
7	Point	5-10-5		Near Face	36 lb	70 lb	0 lb	0 lb	F9
	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

Manufacturer Info

Forex
 APA: PR-L318

This design is valid until 4/24/2023



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



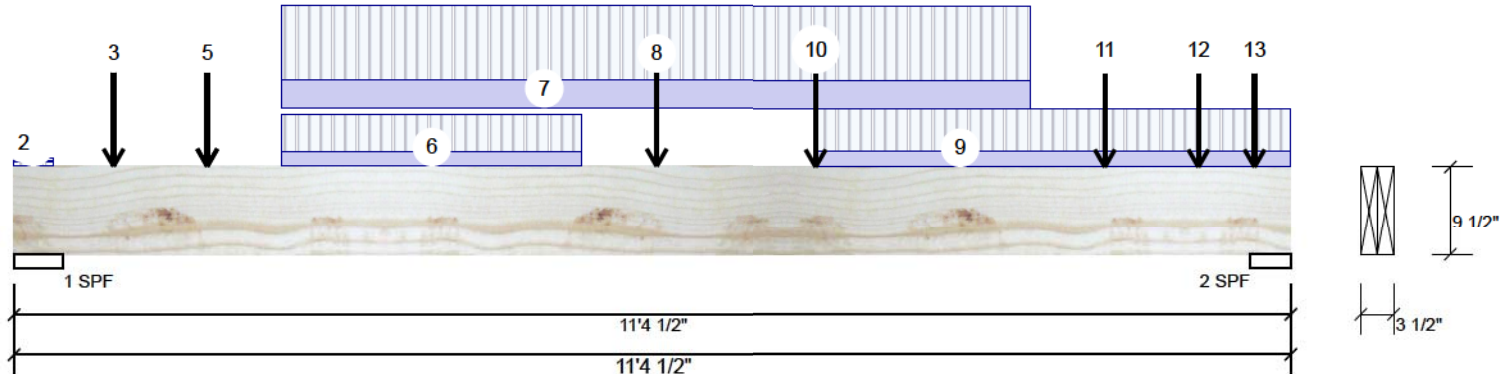


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL-1-2-3 -DECK CONDITION
Project #:

F5-B 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 2015 / 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	2424	958	0	0
2	2653	1066	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	43%	1197 / 3636	4833 L	1.25D+1.5L
2 - SPF	4.375"	56%	1333 / 3980	5312 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13624 ft-lb	5'8 5/8"	22724 ft-lb	0.600 (60%)	1.25D+1.5L	L
Unbraced	13624 ft-lb	5'8 5/8"	20464 ft-lb	0.666 (67%)	1.25D+1.5L	L
Shear	4813 lb	10'3 3/8"	9277 lb	0.519 (52%)	1.25D+1.5L	L
Perm Defl in.	0.120 (L/1066)	5'8 11/16"	0.357 (L/360)	0.340 (34%)	D	Uniform
LL Defl inch	0.304 (L/422)	5'8 11/16"	0.357 (L/360)	0.850 (85%)	L	
TL Defl inch	0.425 (L/302)	5'8 11/16"	0.535 (L/240)	0.790 (79%)	D+L	L

Design Notes

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-2	0-3-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-4-2	0-4-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-10-10		Near Face	78 lb	208 lb	0 lb	0 lb	J10
4	Point	1-8-10		Far Face	105 lb	278 lb	0 lb	0 lb	J6
5	Point	1-8-10		Near Face	127 lb	339 lb	0 lb	0 lb	J10
6	Part. Uniform	2-4-10 to 5-0-10		Far Face	60 PLF	161 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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

Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

This design is valid until 4/24/2023



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

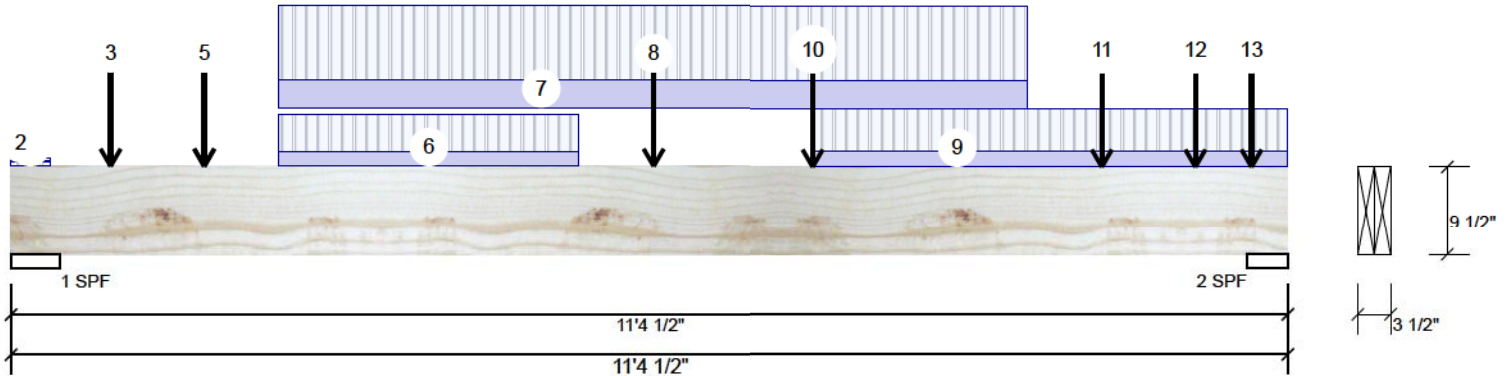


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL-1-2-3 -DECK CONDITION
Project #:

F5-B Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Part. Uniform	2-4-10 to 9-0-10		Near Face	117 PLF	313 PLF	0 PLF	0 PLF	
8	Point	5-8-10		Far Face	83 lb	222 lb	0 lb	0 lb	J6
9	Part. Uniform	7-1-11 to 11-4-8		Top	68 PLF	180 PLF	0 PLF	0 PLF	
10	Point	7-1-11		Far Face	58 lb	114 lb	0 lb	0 lb	F9
11	Point	9-8-10		Near Face	127 lb	339 lb	0 lb	0 lb	J10
12	Point	10-6-10		Near Face	109 lb	239 lb	0 lb	0 lb	F7
13	Point	11-0-10		Near Face	19 lb	51 lb	0 lb	0 lb	J10
	Self Weight				8 PLF				

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Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

This design is valid until 4/24/2023



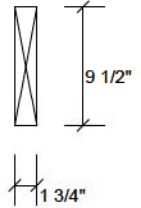
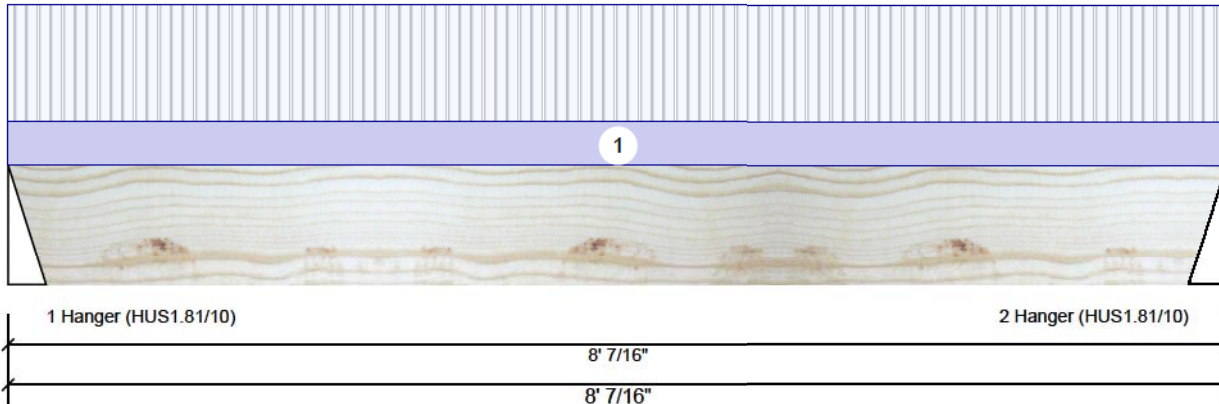


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL-1-2-3 -DECK CONDITION
Project #:

F9-B 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 2015 / 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	114	58	0	0
2	114	58	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	6% 73 / 172	244	L	1.25D+1.5L
2 - Hanger	3.000"	6% 73 / 172	244	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	446 ft-lb	4' 3/16"	11362 ft-lb	0.039 (4%)	1.25D+1.5L	L
Unbraced	446 ft-lb	4' 3/16"	4867 ft-lb	0.092 (9%)	1.25D+1.5L	L
Shear	185 lb	11 3/4"	4638 lb	0.040 (4%)	1.25D+1.5L	L
Perm Defl in. (L/17595)	0.005	4' 1/4"	0.255 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch (L/8952)	0.010	4' 1/4"	0.255 (L/360)	0.040 (4%)	L	L
TL Defl inch (L/5933)	0.015	4' 1/4"	0.383 (L/240)	0.040 (4%)	D+L	L

Design Notes

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 8-0-7	0-8-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				4 PLF				

Notes

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Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

This design is valid until 4/24/2023



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



F6-A

BC CALC® Member Report

Dry | 1 span | No cant.

December 17, 2020 12:23:48

Build 7364

Job name:

File name: C:\Data\SAUMIL\GREENPA... -DECK CONDITION .isl

Address:

GREENPARK HOMES
TRINA...L, EAST GWILLIMBURY, ON

Description: Level - Ground Floor

City, Province, Postal Code:

Specifier:

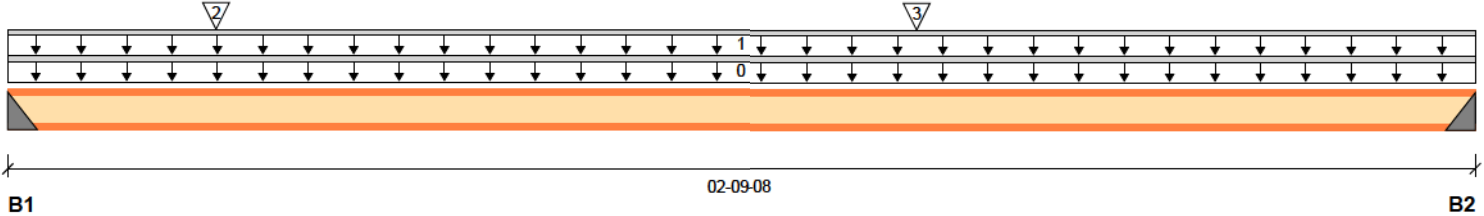
Customer:

Designer: S B

Code reports:

CCMC 12787-R

Company:



Total Horizontal Product Length = 02-09-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	392 / 0	150 / 0		
B2, 2"	278 / 0	107 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	02-09-08	Top	1.00	0.65	1.00	1.15	00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	02-09-08	Top	22	8			n/a
2	J10	Conc. Pt. (lbs)	L	00-04-12	00-04-12	Back	262	98			n/a
3	J10	Conc. Pt. (lbs)	L	01-08-12	01-08-12	Back	346	130			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	503 ft-lbs	4095 ft-lbs	12.3%	1	01-08-12
End Reaction	775 lbs	1588 lbs	48.8%	1	00-00-00
End Shear	767 lbs	1830 lbs	41.9%	1	00-02-00
Total Load Deflection	L/999 (0.008")	n/a	n/a	4	01-08-12
Live Load Deflection	L/999 (0.006")	n/a	n/a	5	01-08-12
Max Defl.	0.008"	n/a	n/a	4	01-08-12
Span / Depth	3.3				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 2" x 2-1/2"	775 lbs	39.8%	48.8%	LF259
B2	Hanger 2" x 2-1/2"	551 lbs	28.3%	34.7%	LF259

Cautions

Hanger LF259 requires (10) 10dx1.5 face nails, (1) #8x1.25 joist nails.

Header for the hanger LF259 is a Single 2-1/2" x 9-1/2" I-joist

Header for the hanger LF259 is a Single 2-1/2" x 9-1/2" I-joist



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

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.

F6-A

Dry | 1 span | No cant.

December 17, 2020 12:23:48

BC CALC® Member Report

Build 7364

Job name:

Address:

GREENPARK HOMES
TRINA...L, EAST GWILLIMBURY, ON

City, Province, Postal Code:

Customer:

Code reports:

CCMC 12787-R

File name:

C:\Data\SAUMIL\GREENPA... -DECK CONDITION .isl

Description:

Level - Ground Floor

Specifier:

Designer:

S B

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Design meets User specified (0.72") Maximum live load deflection criteria.

Calculations assume member is fully braced.

Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to as:

anyone rely evidence of application. building code properties at Installation c engineered y accordance Guide and a obtain Instal questions, p before instal



Town of East Gwillimbury
Building Standards Branch BCIN #16487

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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

BC CALC®, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

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.

F7-A

Dry | 1 span | No cant.

December 17, 2020 12:23:48

BC CALC® Member Report

Build 7364

Job name:

Address: GREENPARK HOMES
TRINA...L, EAST GWILLIMBURY, ON

File name: C:\Data\SAUMIL\GREENPA... -DECK CONDITION .isl

Description: Level - Ground Floor

City, Province, Postal Code:

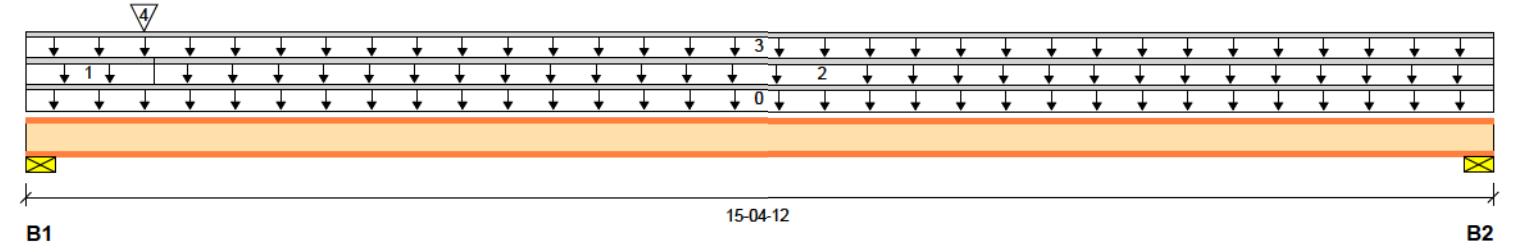
Specifier:

Customer:

Designer: S B

Code reports: CCMC 12787-R

Company:



Total Horizontal Product Length = 15'-04 1/2"

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2-3/8"	559 / 0	231 / 0		
B2, 4-3/8"	282 / 0	125 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-04-12	Top		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	01-04-02	Top	60	23			n/a
2		Unf. Lin. (lb/ft)	L	01-04-02	15-04-12	Top	23	9			n/a
3		Unf. Lin. (lb/ft)	L	00-00-00	15-04-12	Top	10	4			n/a
4	F6	Conc. Pt. (lbs)	L	01-02-14	01-02-14	Back	278	107			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	2268 ft-lbs	5675 ft-lbs	40.0%	1	06-11-13
End Reaction	1127 lbs	1653 lbs	68.2%	1	00-00-00
End Shear	1099 lbs	1830 lbs	60.1%	1	00-02-06
Total Load Deflection	L/577 (0.311")	n/a	41.6%	4	07-04-11
Live Load Deflection	L/830 (0.216")	n/a	43.4%	5	07-04-11
Max Defl.	0.311"	n/a	31.1%	4	07-04-11
Span / Depth	18.9				

Bearing Supports

	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate 2-3/8" x 2-1/2"	1127 lbs	30.9%	68.2%	Spruce-Pine-Fir
B2	Wall/Plate 4-3/8" x 2-1/2"	579 lbs	8.6%	31.3%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live load deflection criteria.
Design meets User specified (1") Maximum Total load deflection criteria.
Design meets User specified (0.72") Maximum live load deflection criteria.
Calculations assume member is fully braced.
Resistance Factor phi has been applied to all presented results per CSA O86.
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.
Design based on Dry Service Condition.
Importance Factor : Normal Part code : Part 9



Disclosure

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Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure anyone relying on the evidence of application of building code provisions and standards. Installation of engineered components must be in accordance with the Guide and a qualified engineer must be obtained for questions, prior to installation.

These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

BC CALC®, ALLJOIST®, BC RIM BOARD™, BCIM®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

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.

F7-B

BC CALC® Member Report

Dry | 1 span | No cant.

December 17, 2020 12:23:48

Build 7364

Job name:

File name: C:\Data\SAUMIL\GREENPA... -DECK CONDITION .isl

Address:

GREENPARK HOMES
TRINA...L, EAST GWILLIMBURY, ON

Description: Level - Ground Floor

City, Province, Postal Code:

Specifier:

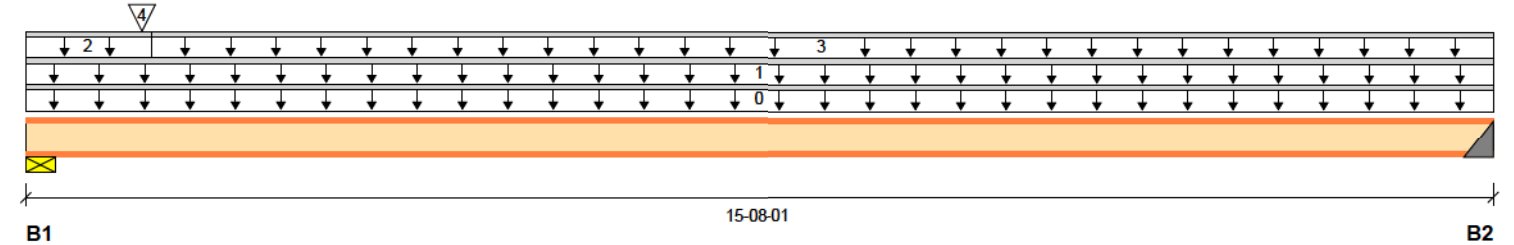
Customer:

Designer: S B

Code reports:

CCMC 12787-R

Company:



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2-3/8"	638 / 0	262 / 0		
B2, 2"	239 / 0	109 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-08-01	Top		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	15-08-01	Top	17	6			n/a
2		Unf. Lin. (lb/ft)	L	00-00-00	01-04-02	Top	60	23			n/a
3		Unf. Lin. (lb/ft)	L	01-04-02	15-08-01	Top	10	4			n/a
4	F6	Conc. Pt. (lbs)	L	01-02-14	01-02-14	Front	392	150			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	2153 ft-lbs	5675 ft-lbs	37.9%	1	06-09-05
End Reaction	1284 lbs	1653 lbs	77.7%	1	00-00-00
End Shear	1254 lbs	1830 lbs	68.5%	1	00-02-06
Total Load Deflection	L/589 (0.314")	n/a	40.7%	4	07-07-05
Live Load Deflection	L/852 (0.217")	n/a	42.2%	5	07-07-05
Max Defl.	0.314"	n/a	31.4%	4	07-07-05
Span / Depth	19.5				

Bearing Supports

	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate 2-3/8" x 2-1/2"	1284 lbs	35.2%	77.7%	Spruce-Pine-Fir
B2	Hanger 2" x 2-1/2"	495 lbs	19.6%	31.2%	LF259

Cautions

Hanger LF259 requires (10) 10d face nails, (1) #8x1.25 joist nails.
Header for the hanger LF259 is a Double 1-3/4" x 9-1/2" LVL beam



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

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F7-B

Dry | 1 span | No cant.

December 17, 2020 12:23:48

BC CALC® Member Report

Build 7364

Job name:

Address: GREENPARK HOMES
TRINA...L, EAST GWILLIMBURY, ON

File name: C:\Data\SAUMIL\GREENPA... -DECK CONDITION .isl

Description: Level - Ground Floor

City, Province, Postal Code:

Specifier:

Customer:

Designer: S B

Code reports: CCMC 12787-R

Company:

Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Design meets User specified (0.72") Maximum live load deflection criteria.

Calculations assume member is fully braced.

Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

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anyone relyi
evidence of
application.

building cod
properties a
Installation c
engineered
accordance
Guide and a
obtain Instal
questions, p
before instal

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

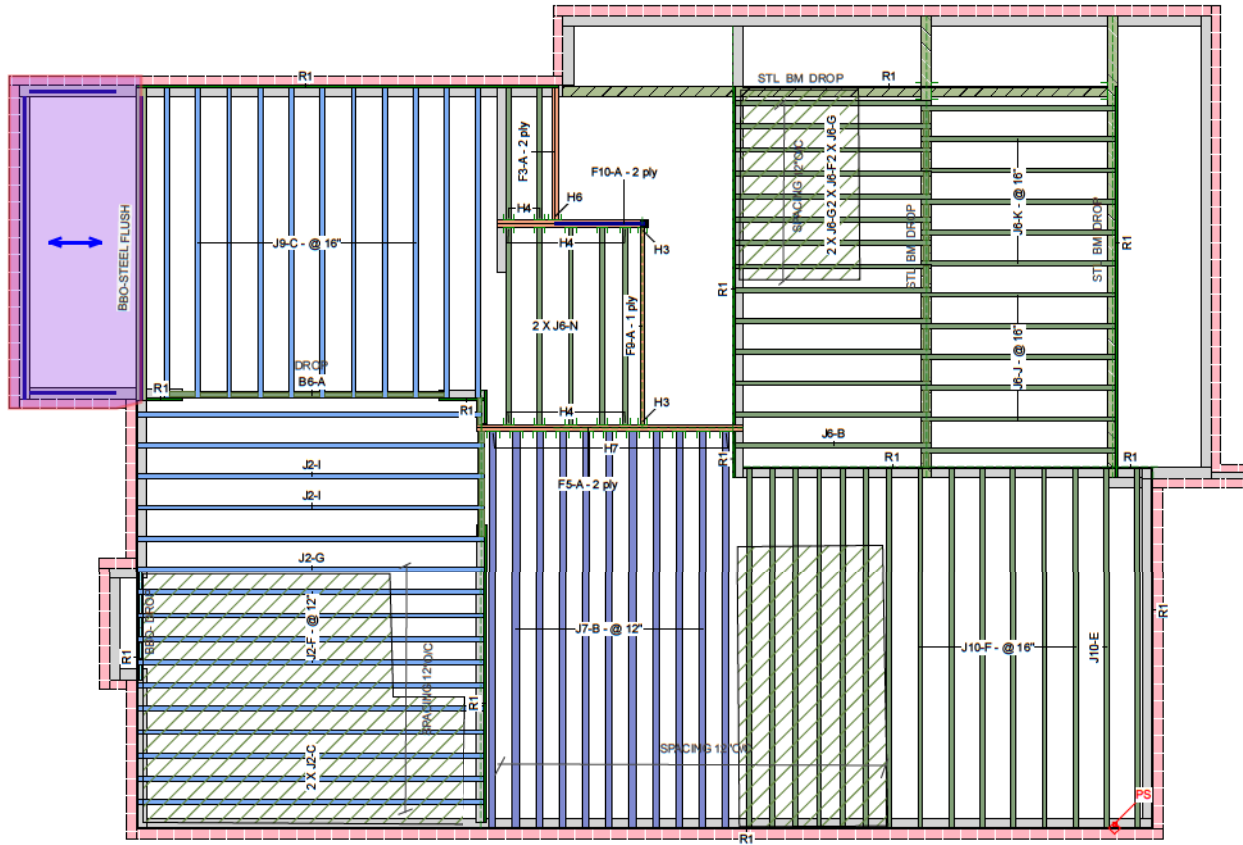
BC CALC®, ALLJOIST®, BC RIM BOARD™, BC®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

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
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USED IN THE DESIGN OF THIS COMPONENT.

NE1220-140
Second Floor



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

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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

Second Floor
LVL/L SL (Flush)

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
F5	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	12-0-0
F9	Forex 2.0E-3000Fb LVL	1.75	9.5			1	10-0-0
F10	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0
F3	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	6-0-0

LVL/L SL (Dropped)

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
B6	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	12-0-0

I Joist (Flush)

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
J10	AJS 140	2.5	9.5			15	16-0-0
J6	AJS 140	2.5	9.5			31	10-0-0
J5	AJS 140	2.5	9.5			2	6-0-0
J2	AJS 20	2.5	9.5			16	16-0-0
J9	AJS 20	2.5	9.5			11	14-0-0
J7	AJS 25	3.5	9.5			11	18-0-0

Rim Board

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			15	12-0-0

Blocking

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
BLK3	AJS 140	2.5	9.5			Varies	26-0-0

Hanger

Label	Pcs	Description	Skew	Slope	fasteners	Supported Member
H1	3	Unknown Hanger				
H3	2	HUS1.81/10			30 16d	10 16d
H4	12	LF259			10 10d	1 #8x1 1/4WS
H6	1	HGUS410			46 16d	16 16d
H7	11	LF359			10 10d	2 #8x1 1/4WS

- All blocking to be cut from 12" joists
- 2' & 4' Lengths to be cut from 8' Length 6' lengths to be cut from 12' Length
- Ends of joists to be laterally supported
- Packing of Steel beams and attachment by others
- Shower and water closet flange locations are approximate only, consult architectural drawing for exact locations
- Beams identified as "B" are dropped and supplied by others
- Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls
- Load transfer blocks to be installed under all point loads
- Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
- Hangers and Fasteners to be installed as per manufacturer
- Framing shown on this layout may deviate from architectural drawings. Arch / Eng 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	
AJS 140 9.5	
AJS 20 9.5	
AJS 25 9.5	
Forex 2.0E-3000Fb LVL 1.75 X 9.5	
Forex 2.0E-3000Fb LVL 1.75 X 9.5 (Dropped)	
1.5 X 9.5 (Dropped)	
1.75 X 9.5 (Dropped)	
5.25 X 10.25 (Dropped)	
5.25 X 10.25	

JOISTS SPACING 12" O/C UNLESS NOTED OTHERWISE

JOB INFORMATION

Builder	
Project	
Shipping	GREENPARK HOMES TRINAR HALL, EAST GWILLIMBURY, ON
Sales Rep	
Designer	S B
Plotted	December 17, 2020
Layout Name	GLENWAY 2A EL- 1
Job Path	C:\Data\SAUML\GREENPARK HOMESTRINAR HALL\GLENWAY 2A\FLOOR\EL 1\GLENWAY 2A EL- 1-2-3.lal

DESIGN CRITERIA

Second Floor	
Design Method	LSD (Canada)
Building Code	NBCC 2015 / OBC 2012

Floor

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

Roof

Loads	
Live	0
Dead	17
Snow	36
Deflection Joist	
LL Span /	360
TL Span /	240
LL Cant 2L/	360
TL Cant 2L/	360
Deflection Girder	
LL Span /	360
TL Span /	240
LL Cant 2L/	360
TL Cant 2L/	360
Decking	
Decking	SPF Plywood
Thickness	5/8"
Fastener	Nailed Only

CCMC References

Boise - 12472-R, 12787-R
LP - 12412-R
Forex - 14056-R

Kott Inc.

3228 Moodie Dr, Ottawa
14 Anderson Blvd, Uxbridge
Ontario

613-838-2775 /
905-642-4400



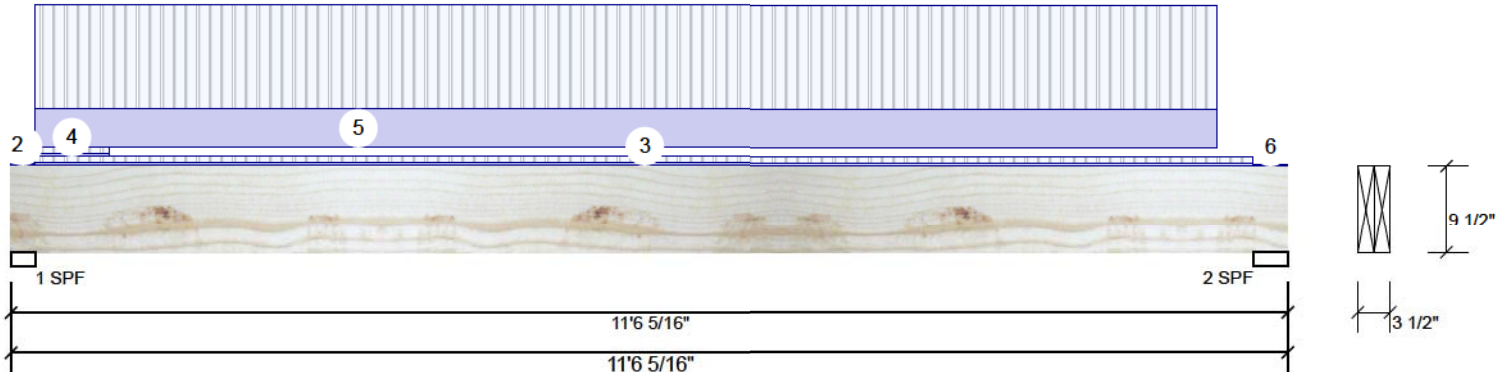


Client: GREENPARK HOMES
 Project: TRINAR HALL, EAST GWILLIMBURY, ON
 Address: GREENPARK HOMES
 TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
 Input by: S B
 Job Name: GLENWAY 2A EL- 1
 Project #:

B6-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 2015 / 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	1561	625	0	0
2	1466	590	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.583"	56%	781 / 2341	3122 L	1.25D+1.5L
2 - SPF	3.750"	36%	737 / 2198	2936 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8704 ft-lb	5'8 1/2"	22724 ft-lb	0.383 (38%)	1.25D+1.5L	L
Unbraced	8704 ft-lb	5'8 1/2"	20280 ft-lb	0.429 (43%)	1.25D+1.5L	L
Shear	2694 lb	10'5 13/16"	9277 lb	0.290 (29%)	1.25D+1.5L	L
Perm Defl in.	0.083 (L/1600)	5'8 9/16"	0.371 (L/360)	0.230 (23%)	D	Uniform
LL Defl inch	0.209 (L/639)	5'8 9/16"	0.371 (L/360)	0.560 (56%)	L	
TL Defl inch	0.292 (L/457)	5'8 9/16"	0.556 (L/240)	0.530 (53%)	D+L	L

Design Notes

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

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tapered Start	0-0-0		Top	1 PLF	2 PLF	0 PLF	0 PLF	
	End	0-2-9			1 PLF	2 PLF	0 PLF	0 PLF	
2	Tapered Start	0-0-0		Top	1 PLF	2 PLF	0 PLF	0 PLF	
	End	0-2-9			1 PLF	2 PLF	0 PLF	0 PLF	
3	Tapered Start	0-2-9		Top	6 PLF	17 PLF	0 PLF	0 PLF	
	End	11-2-9			6 PLF	17 PLF	0 PLF	0 PLF	
4	Tapered Start	0-2-9		Top	6 PLF	17 PLF	0 PLF	0 PLF	

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
 APA: PR-L318

This design is valid until 4/24/2023



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



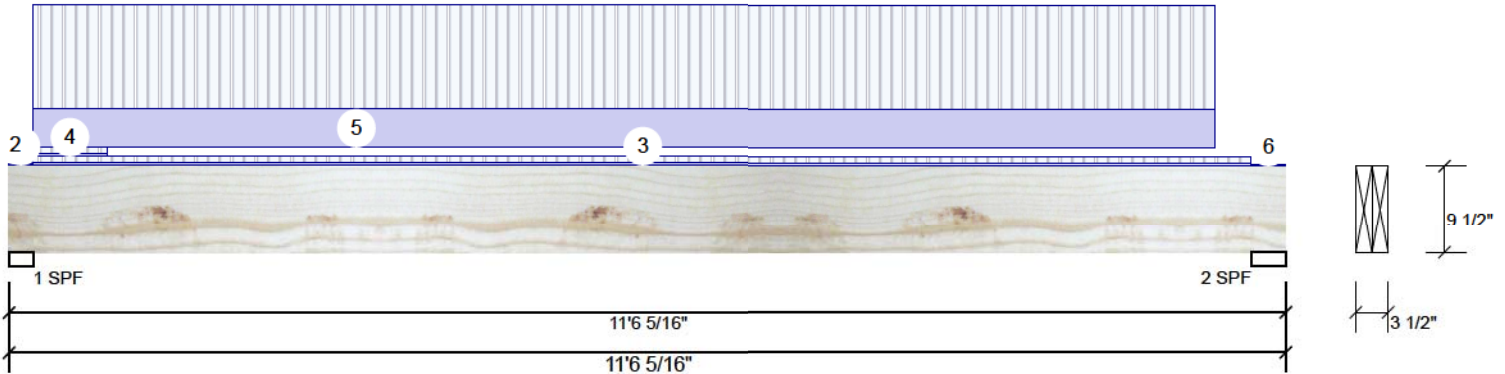


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL- 1
Project #:

B6-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	End	0-10-9			6 PLF	17 PLF	0 PLF	0 PLF	
5	Part. Uniform	0-2-9 to 10-10-9		Top	99 PLF	265 PLF	0 PLF	0 PLF	
6	Tapered Start	11-2-9		Top	1 PLF	2 PLF	0 PLF	0 PLF	
	End	11-6-5			1 PLF	2 PLF	0 PLF	0 PLF	
	Self Weight				8 PLF				

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Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

This design is valid until 4/24/2023

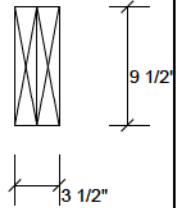
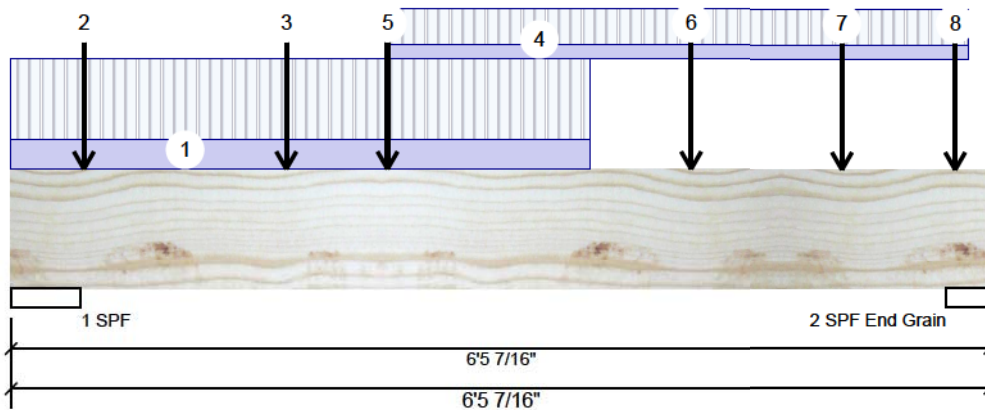
Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL- 1
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 2015 / 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	924	385	0	0
2	1089	455	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	16%	481 / 1386	1867 L	1.25D+1.5L
2 - SPF	3.465"	24%	569 / 1633	2202 L	1.25D+1.5L
End Grain					

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2234 ft-lb	3'2 7/16"	22724 ft-lb	0.098 (10%)	1.25D+1.5L	L
Unbraced	2234 ft-lb	3'2 7/16"	22052 ft-lb	0.101 (10%)	1.25D+1.5L	L
Shear	1538 lb	5'5 1/4"	9277 lb	0.166 (17%)	1.25D+1.5L	L
Perm Defl in.	0.007 (L/9538)	3'3 3/16"	0.194 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.017 (L/4042)	3'3 7/16"	0.194 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.025 (L/2839)	3'3 5/16"	0.292 (L/240)	0.080 (8%)	D+L	L

Design Notes

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-9-12		Near Face	66 PLF	177 PLF	0 PLF	0 PLF	
2	Point	0-5-12		Far Face	55 lb	146 lb	0 lb	0 lb	J5
3	Point	1-9-12		Far Face	41 lb	110 lb	0 lb	0 lb	J5
4	Part. Uniform	2-5-12 to 6-3-12		Top	30 PLF	80 PLF	0 PLF	0 PLF	
5	Point	2-5-12		Far Face	36 lb	38 lb	0 lb	0 lb	F3
6	Point	4-5-12		Near Face	74 lb	197 lb	0 lb	0 lb	J6

Continued on page 2...

Notes

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

Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/24/2023

Manufacturer Info

Forex
APA: PR-L318



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



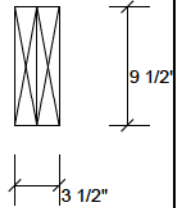
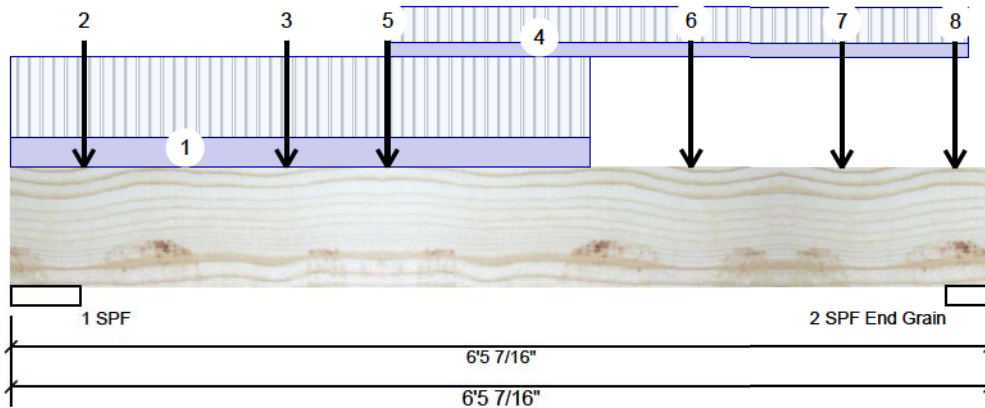


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL- 1
Project #:

F10-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	5-5-12		Near Face	55 lb	148 lb	0 lb	0 lb	J6
8	Point	6-2-11		Near Face	163 lb	392 lb	0 lb	0 lb	F9
	Self Weight				8 PLF				

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Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

This design is valid until 4/24/2023



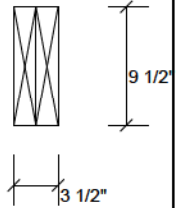
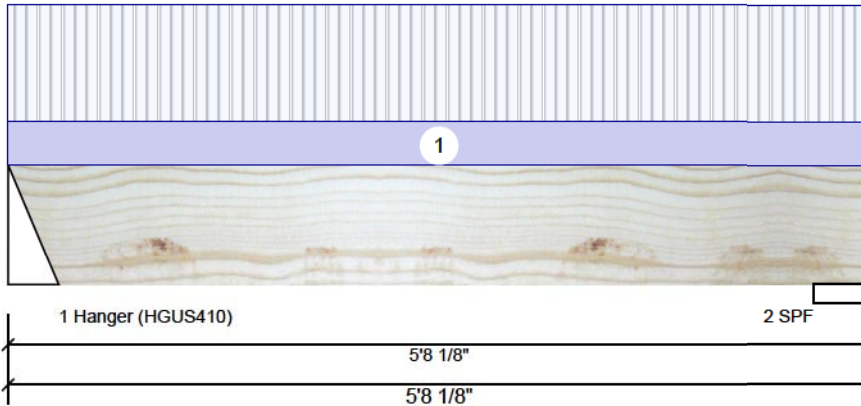


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TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL- 1
Project #:

F3-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 2015 / 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	38	36	0	0
2	38	36	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	4.000"	1%	45 / 56	101 L	1.25D+1.5L
2 - SPF	4.375"	1%	45 / 57	102 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	117 ft-lb	2'9 7/8"	22724 ft-lb	0.005 (1%)	1.25D+1.5L	L
Unbraced	117 ft-lb	2'9 7/8"	22724 ft-lb	0.005 (1%)	1.25D+1.5L	L
Shear	63 lb	4'7"	9277 lb	0.007 (1%)	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/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		

Design Notes

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

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 5-8-2	0-4-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				8 PLF				

Notes

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Lumber

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

chemicals
Handling & Installation

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

Forex
APA: PR-L318

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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



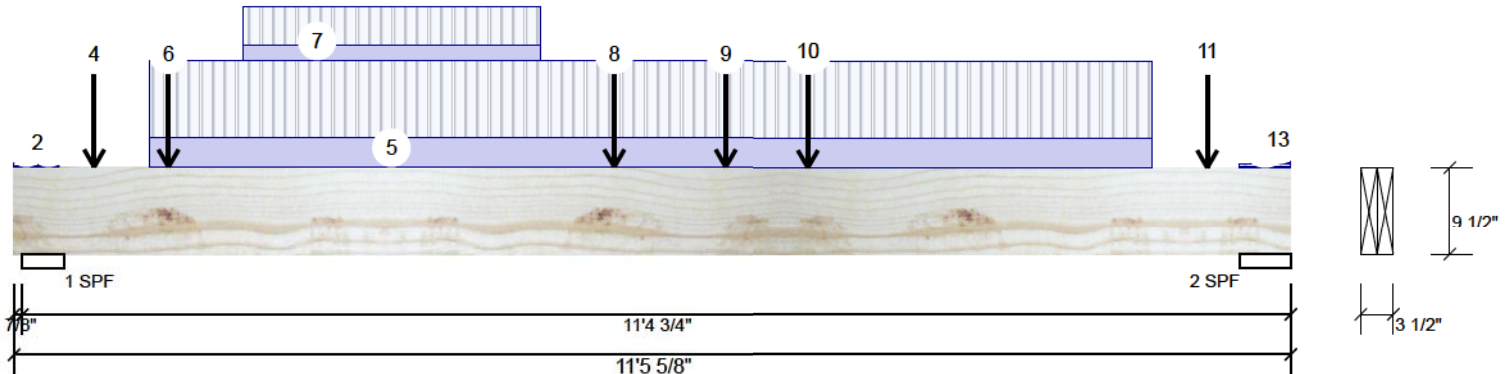


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL- 1
Project #:

F5-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 2015 / 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	2556	1007	0	0
2	2427	964	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.500"	53%	1259 / 3833	5092	LL	1.25D+1.5L
2 - SPF	5.500"	41%	1205 / 3640	4845	_L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	14605 ft-lb	5'6 7/8"	22724 ft-lb	0.643 (64%)	1.25D+1.5L	_L
Unbraced	14605 ft-lb	5'6 7/8"	20415 ft-lb	0.715 (72%)	1.25D+1.5L	_L
Shear	5063 lb	1' 5/8"	9277 lb	0.546 (55%)	1.25D+1.5L	LL
Perm Defl in.	0.130 (L/996)	5'7 7/8"	0.360 (L/360)	0.360 (36%)	D	Uniform
LL Defl inch	0.330 (L/393)	5'7 3/4"	0.360 (L/360)	0.920 (92%)	L	_L
TL Defl inch	0.461 (L/282)	5'7 13/16"	0.541 (L/240)	0.850 (85%)	D+L	_L
LL Cant	-0.007 (2L/266)	Lt Cant	0.200 (2L/480)	0.033 (3%)	L	_L
TL Cant	-0.009 (2L/191)	Lt Cant	0.300 (2L/360)	0.031 (3%)	D+L	_L

Design Notes

- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Top braced at bearings.
- Bottom braced at bearings.
- Lateral slenderness ratio based on full section width.
- Cantilever Upward Deflection Live Load 0.0065849 greater than recommended 0.004
- Cantilever Upward Deflection Total Load 0.009178 greater than recommended 0.005

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Notes

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Lumber

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

chemicals
Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
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- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

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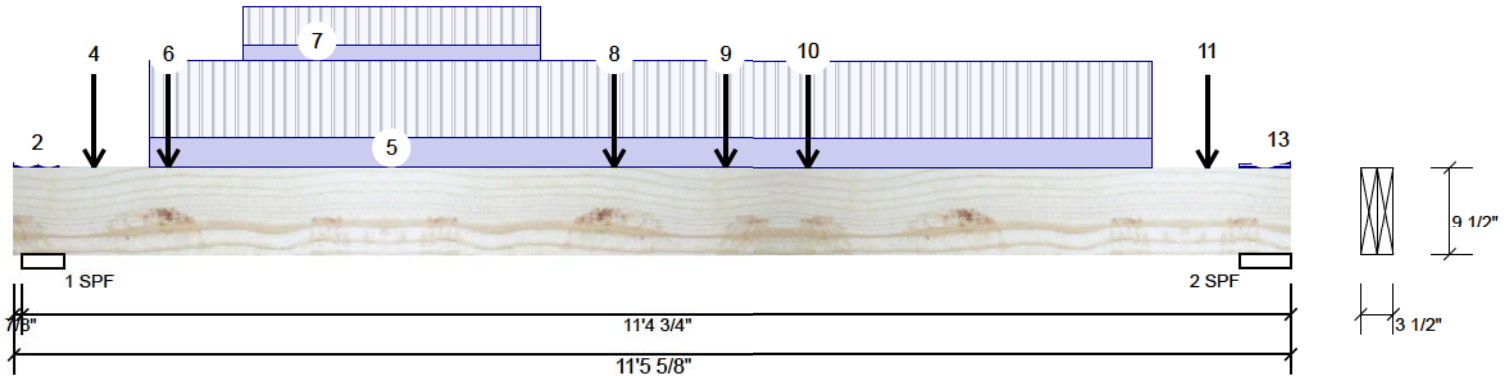


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL- 1
Project #:

F5-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-10	0-3-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-4-6	0-4-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-2-10 to 0-4-13	0-4-8 to 0-1-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	0-8-10		Near Face	84 lb	224 lb	0 lb	0 lb	J7
5	Part. Uniform	1-2-10 to 10-2-10		Near Face	126 PLF	336 PLF	0 PLF	0 PLF	
6	Point	1-4-10		Far Face	81 lb	215 lb	0 lb	0 lb	J6
7	Part. Uniform	2-0-10 to 4-8-10		Far Face	63 PLF	169 PLF	0 PLF	0 PLF	
8	Point	5-4-10		Far Face	74 lb	197 lb	0 lb	0 lb	J6
9	Point	6-4-10		Far Face	55 lb	148 lb	0 lb	0 lb	J6
10	Point	7-1-9		Far Face	163 lb	392 lb	0 lb	0 lb	F9
11	Point	10-8-10		Near Face	117 lb	311 lb	0 lb	0 lb	J7
12	Tie-In	11-0-2 to 11-5-10	0-3-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
13	Tie-In	11-1-5 to 11-5-10	0-4-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				8 PLF				

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NAILING OR BOLTING REQUIREMENTS.**

**PASS THRU FRAMING SQUASH
BLOCK IS REQUIRED AT ALL
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chemicals

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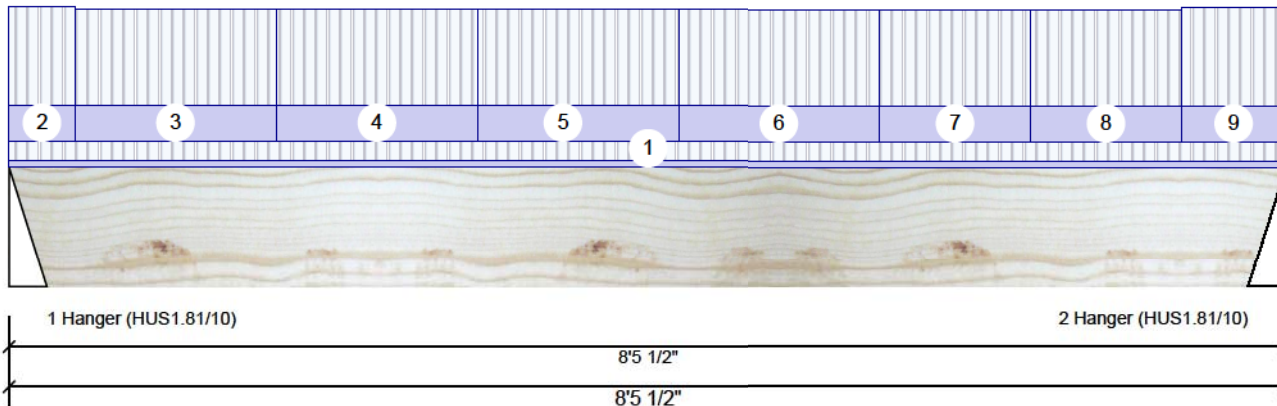


Client:
Project:
Address: GREENPARK HOMES
TRINAR HALL, EAST GWILLIMBURY, ON

Date: 12/17/2020
Input by: S B
Job Name: GLENWAY 2A EL- 1
Project #:

F9-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Second Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / 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	392	163	0	0
2	392	163	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	20%	204 / 587	791 L	1.25D+1.5L
2 - Hanger	3.000"	20%	204 / 588	792 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1526 ft-lb	4'2 3/4"	11362 ft-lb	0.134 (13%)	1.25D+1.5L	L
Unbraced	1526 ft-lb	4'2 3/4"	4612 ft-lb	0.331 (33%)	1.25D+1.5L	L
Shear	607 lb	11 3/4"	4638 lb	0.131 (13%)	1.25D+1.5L	L
Perm Defl in.	0.017 (L/5716)	4'2 13/16"	0.269 (L/360)	0.060 (6%)	D	Uniform
LL Defl inch	0.041 (L/2379)	4'2 13/16"	0.269 (L/360)	0.150 (15%)	L	
TL Defl inch	0.058 (L/1680)	4'2 13/16"	0.404 (L/240)	0.140 (14%)	D+L	L

Design Notes

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

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 8-5-8	0-4-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-5-3	1-11-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-5-3 to 1-9-3	1-11-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Tie-In	1-9-3 to 3-1-3	1-11-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	3-1-3 to 4-5-3	1-11-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	4-5-3 to 5-9-3	1-11-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Tie-In	5-9-3 to 6-9-3	1-11-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
8	Tie-In	6-9-3 to 7-9-3	1-11-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
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Manufacturer Info

Forex
APA: PR-L318

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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



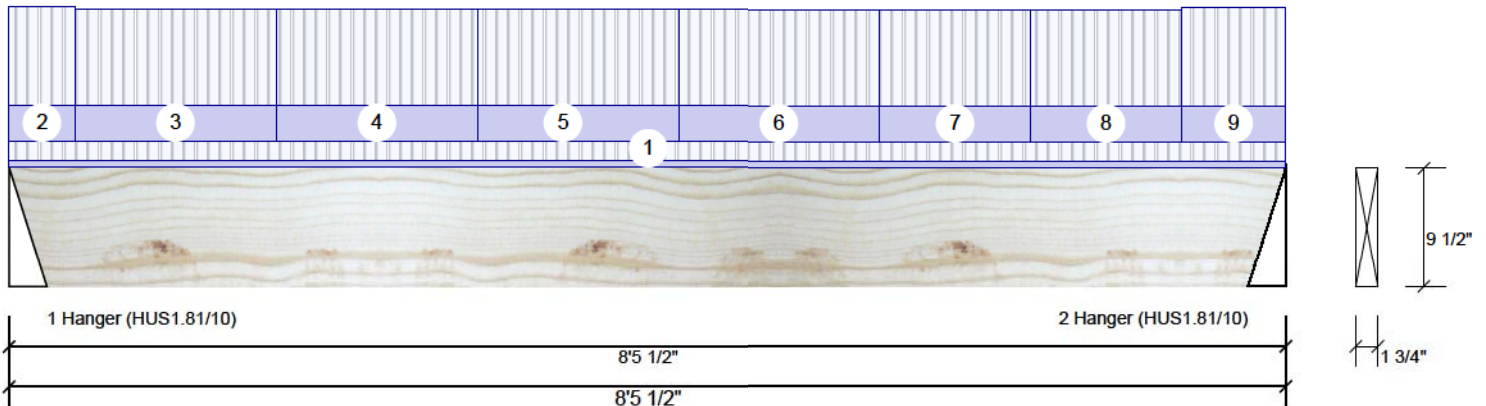


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F9-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
9	Tie-In	7-9-3 to 8-5-8	1-11-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				4 PLF				

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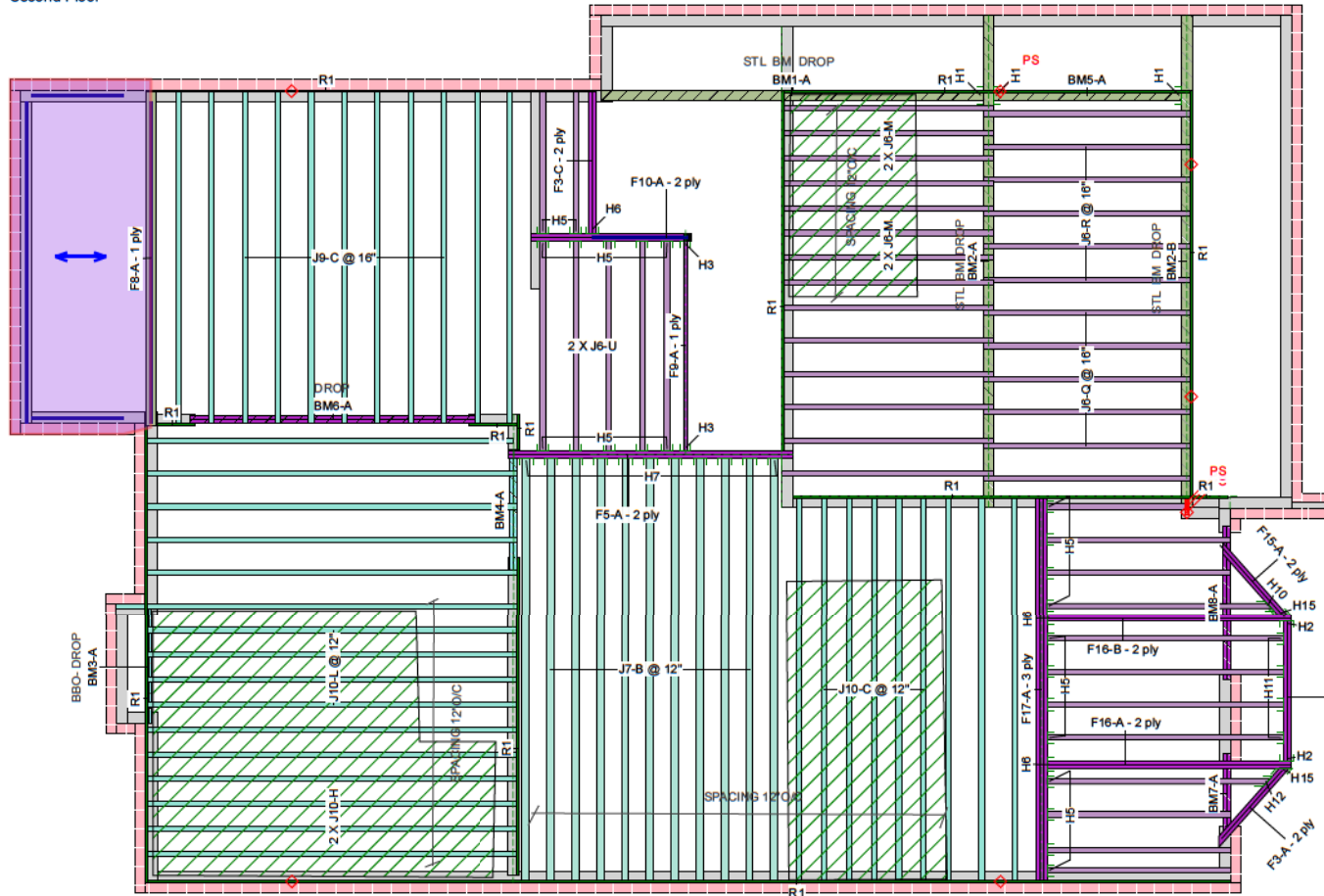
6. For flat roofs provide proper drainage to prevent ponding

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Sewage System			
Zoning			



Legend

PS	Point Load Support
◊	Load from Above
Green	Wall
Blue	Norbord Rimboard Plus 1.125 X 9.5
Orange	NJ40U 9.5
Yellow	NJ60H 9.5
Purple	NJH 9.5
Light Blue	Forex 2.0E-3000Fb LVL 1.75 X 9.5
Dark Blue	Forex 2.0E-3000Fb LVL 1.75 X 9.5 (Dropped)
Light Green	1.5 X 9.5 (Dropped)
Dark Green	1.75 X 9.5 (Dropped)
Light Yellow	5.25 X 10.25 (Dropped)
Dark Yellow	5.25 X 10.25

JOISTS SPACING 16" O/C
UNLESS
NOTED OTHERWISE

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

EWP Studio
Simpson Strong-Tie®
Component Solutions™

EWP Studio Version 18.32.085 Powered by iStruct™

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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

Second Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
F17	Forex 2.0E-3000Fb LVL	1.75	9.5	1	3	3	16-0-0
F5	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	12-0-0
F16	Forex 2.0E-3000Fb LVL	1.75	9.5	2	2	4	10-0-0
F9	Forex 2.0E-3000Fb LVL	1.75	9.5			1	10-0-0
F10	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0
F3	Forex 2.0E-3000Fb LVL	1.75	9.5	3	2	6	6-0-0
F15	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	4-0-0

LVL/LSL (Dropped)

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
BM5	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	12-0-0
BM6	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0
BM7	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	4-0-0

Joist (Flush)

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
J7	NJ40U	3.5	9.5			11	18-0-0
J8	NJ60H	2.5	9.5			1	18-0-0
J10	NJ60H	2.5	9.5			24	16-0-0
J9	NJ60H	2.5	9.5			11	14-0-0
J6	NJH	2.5	9.5			37	10-0-0
J2	NJH	2.5	9.5			5	8-0-0
J5	NJH	2.5	9.5			3	6-0-0

Rim Board

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			14	12

Hanger

Label	Pcs	Description	Skew	Slope	fasteners	Supported Member
H1	3	Unknown Hanger				
H2	2	HUC410 (Min)			14 16d	6 10d
H3	2	HUS1.81/10			30 16d	10 16d
H5	24	IUS2.56/9.5 (Max)			8 10d	2 10dx1 1/2
H6	3	HGUS410			46 16d	16 16d
H7	11	IUS2.56/9.5 (Max)			10 10d	2 10dx1 1/2
H10	1	SUL2.56/9 (Min)	Left		14 16d	2 10dx1 1/2
H11	4	HUB10			14 16d	6 10dx1 1/2
H12	1	SUR2.56/9 (Min)	Right		14 16d	2 10dx1 1/2
H15	1	LSSU410	Right			
H15	1	LSSU410	Left			

NOTES:

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

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

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

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

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

NASCOR

Layout Name
GLENWAY 2A EL-2

Design Method
LSD

Description
GREENPARK HOMES

TRINAR HALL, EAST
GWILLIMBURY, ON

Created
May 14, 2018

Builder

Sales Rep

Designer

S B

Shipping

Project

Builder's Project

Kott Lumber Company

14 Anderson Blvd

Stouffville, Ontario

Canada

L4A 7X4

905-642-4400

Second Floor

Design Method

Building Code

NBCC 2010 / OBC

2012

Floor

Loads

Live

Dead

Deflection Joist

LL Span 1/

TL Span 1/

LL Cant 2/

TL Cant 2/

Deflection Girder

LL Span 1/

TL Span 1/

LL Cant 2/

TL Cant 2/

Decking

Deck

Thickness

Fastener

Vibration

Ceiling:

Gypsum 1/2"

Roof

Loads

Live

Dead

Snow

Deflection Joist

LL Span 1/

TL Span 1/

LL Cant 2/

TL Cant 2/

Deflection Girder

LL Span 1/

TL Span 1/

LL Cant 2/

TL Cant 2/

Decking

Deck

Thickness

Fastener

SPF Plywood

5/8"

Only

SIMPSON

Strong-Tie



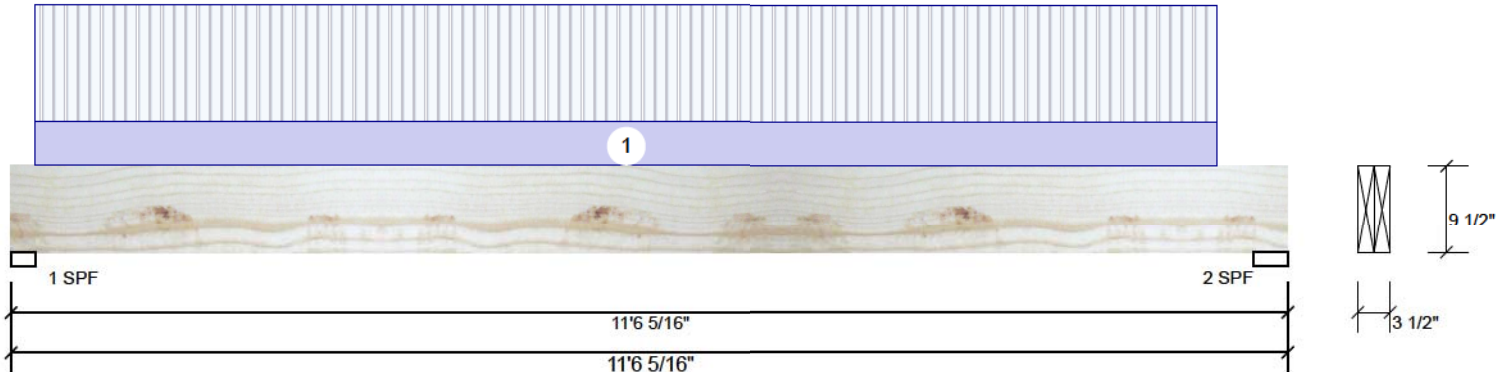
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Client:
Project:
Address:

Date: 5/15/2018
Designer: S B
Job Name: GLENWAY 2A EL- 2
Project #:

Page 1 of 1

BM6-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	1456	587	0	0
2	1371	556	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.583"	52%	734 / 2183	2918 L	1.25D+1.5L
2 - SPF	3.750"	34%	696 / 2057	2752 L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8190 ft-lb	5'8 1/2"	22724 ft-lb	0.360 (36%)	1.25D+1.5L	L
Unbraced	8190 ft-lb	5'8 1/2"	20280 ft-lb	0.404 (40%)	1.25D+1.5L	L
Shear	2536 lb	10'5 13/16"	9277 lb	0.273 (27%)	1.25D+1.5L	L
Perm Defl in.	0.079 (L/1691)	5'8 9/16"	0.371 (L/360)	0.210 (21%)	D	Uniform
LL Defl inch	0.196 (L/680)	5'8 9/16"	0.371 (L/360)	0.530 (53%)	L	
TL Defl inch	0.275 (L/485)	5'8 9/16"	0.556 (L/240)	0.490 (49%)	D+L	L

Design Notes

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-2-9 to 10-10-9		Top	99 PLF	265 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

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			





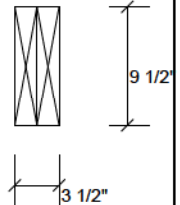
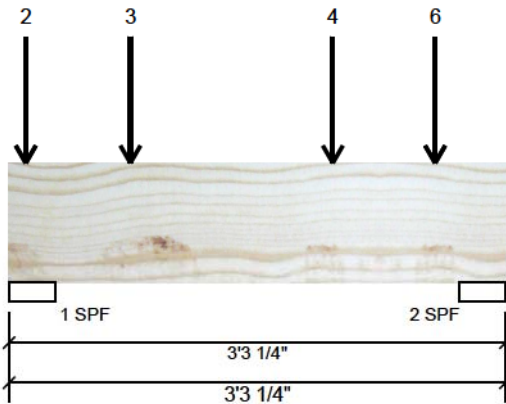
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Project:
Address:

Date: 5/15/2018
Designer: S B
Job Name: GLENWAY 2A EL- 2
Project #:

Page 1 of 2

BM7-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	333 (-18)	309	162	0
2	549 (-75)	839	327	0

Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.625"	12%	386 / 581	966	L	1.25D+1.5L +0.5S
2 - SPF	3.625"	30%	1049 / 987	2036	L	1.25D+1.5L +0.5S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	636 ft-lb	2'1 9/16"	21360 ft-lb	0.030 (3%)	1.25D+1.5L	L
Unbraced	636 ft-lb	2'1 9/16"	21360 ft-lb	0.030 (3%)	1.25D+1.5L	L
Shear	757 lb	2'2 7/8"	8720 lb	0.087 (9%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/28176)	2'1 5/8"	0.093 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/20553)	2' 11/16"	0.093 (L/360)	0.020 (2%)	L+0.5S	L
TL Defl inch	0.003 (L/11892)	2'1 5/16"	0.139 (L/240)	0.020 (2%)	D+L+0.5S	L

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

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

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



Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-1-5		Top	139 lb	57 lb	134 lb	0 lb	F3
2	Point	0-1-5		Top	0 lb	-12 lb	0 lb	0 lb	F3
3	Point	0-9-9		Top	75 lb	201 lb	0 lb	0 lb	J2
4	Point	2-1-9		Top	101 lb	270 lb	0 lb	0 lb	J6

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			





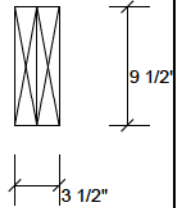
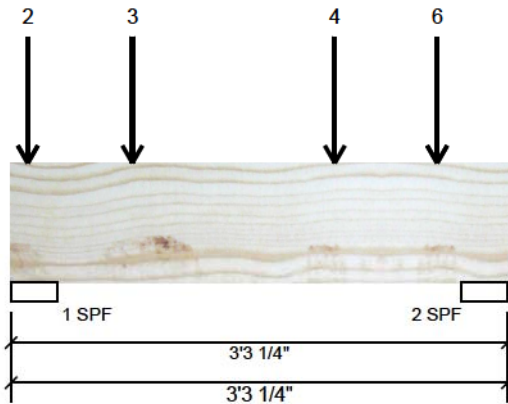
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Address:

Date: 5/15/2018
Designer: S B
Job Name: GLENWAY 2A EL- 2
Project #:

Page 2 of 2

BM7-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Point	2-9-11		Top	808 lb	354 lb	355 lb	0 lb	F16
6	Point	2-9-11		Top	0 lb	-81 lb	0 lb	0 lb	F16
	Self Weight				8 PLF				

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

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			





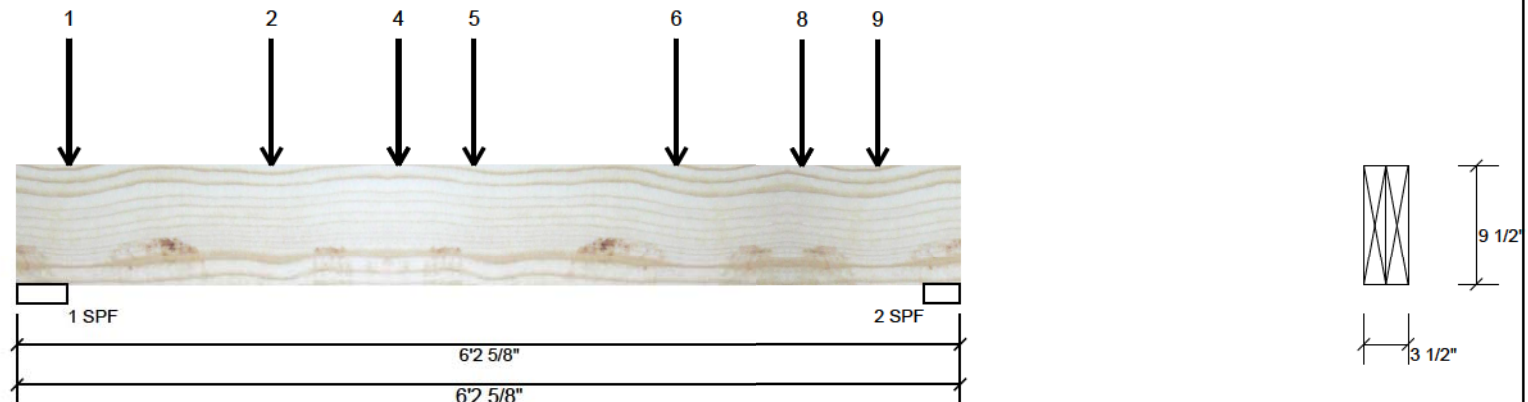
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Client:
Project:
Address:

Date: 5/15/2018
Designer: S B
Job Name: GLENWAY 2A EL- 2
Project #:

Page 1 of 2

BM8-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	982 (-54)	856	279	0
2	780 (-39)	983	523	0

Bearings and Factored Reactions

Bearing	Length	Cap. React	D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.000"	31%	1070 / 1612	2682	L	1.25D+1.5L +0.5S
2 - SPF	2.843"	43%	1228 / 1432	2660	L	1.25D+1.5L +0.5S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4010 ft-lb	2'6 1/8"	22724 ft-lb	0.176 (18%)	1.25D+1.5L +0.5S	L
Unbraced	4010 ft-lb	2'6 1/8"	22066 ft-lb	0.182 (18%)	1.25D+1.5L +0.5S	L
Shear	2398 lb	5'3"	9277 lb	0.259 (26%)	1.25D+1.5L +0.5S	L
Perm Defl in.	0.022 (L/3208)	2'11 3/4"	0.192 (L/360)	0.110 (11%)	D	Uniform
LL Defl inch	0.023 (L/3036)	3' 1/8"	0.192 (L/360)	0.120 (12%)	L+0.5S	L
TL Defl inch	0.044 (L/1560)	3' 1/8"	0.289 (L/240)	0.150 (15%)	D+L+0.5S	L

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



Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-4-2		Top	132 lb	351 lb	0 lb	0 lb	J6
2	Point	1-8-2		Top	107 lb	286 lb	0 lb	0 lb	J6
3	Point	2-6-2		Top	770 lb	314 lb	343 lb	0 lb	F16
4	Point	2-6-2		Top	0 lb	-86 lb	0 lb	0 lb	F16

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

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

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			





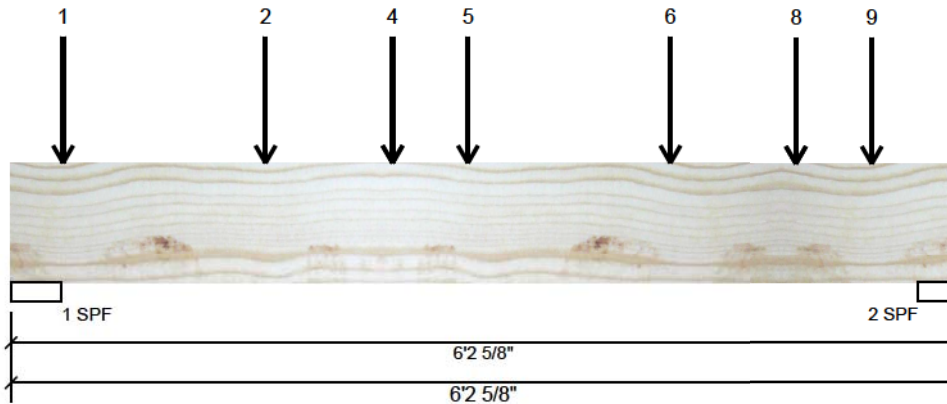
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Date: 5/15/2018
Designer: S B
Job Name: GLENWAY 2A EL- 2
Project #:

Page 2 of 2

BM8-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Point	3-0-2		Top	92 lb	246 lb	0 lb	0 lb	J6
6	Point	4-4-2		Top	74 lb	197 lb	0 lb	0 lb	J2
7	Point	5-2-2		Top	461 lb	182 lb	459 lb	0 lb	F15
8	Point	5-2-2		Top	0 lb	-7 lb	0 lb	0 lb	F15
9	Point	5-8-2		Top	155 lb	186 lb	0 lb	0 lb	J2
	Self Weight				8 PLF				

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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
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6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			





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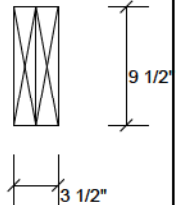
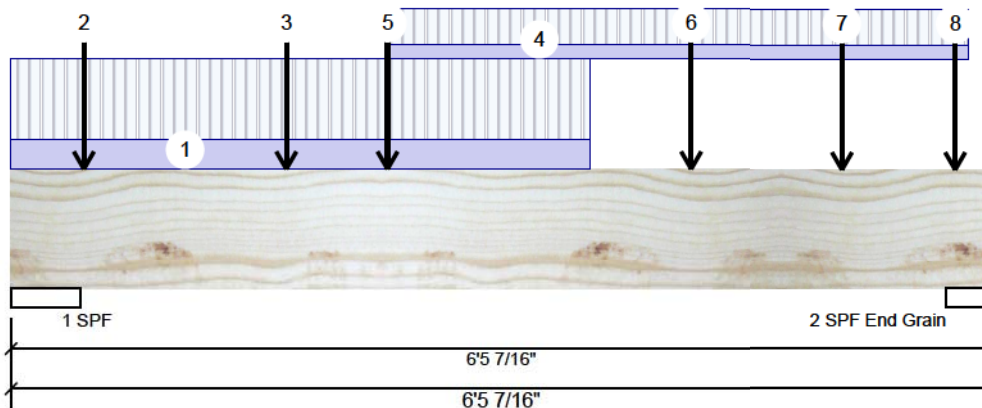
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Date: 5/15/2018
Designer: S B
Job Name: GLENWAY 2A EL- 2
Project #:

Page 1 of 2

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	924	385	0	0
2	1089	455	0	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	16%	481 / 1386	1867 L	1.25D+1.5L
2 - SPF	3.465"	24%	569 / 1633	2202 L	1.25D+1.5L
End Grain					

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2234 ft-lb	3'2 7/16"	22724 ft-lb	0.098 (10%)	1.25D+1.5L	L
Unbraced	2234 ft-lb	3'2 7/16"	22052 ft-lb	0.101 (10%)	1.25D+1.5L	L
Shear	1538 lb	5'5 1/4"	9277 lb	0.166 (17%)	1.25D+1.5L	L
Perm Defl in.	0.007 (L/9538)	3'3 3/16"	0.194 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.017 (L/4042)	3'3 7/16"	0.194 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.025 (L/2839)	3'3 5/16"	0.292 (L/240)	0.080 (8%)	D+L	L

Design Notes

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

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

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

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-9-12		Near Face	66 PLF	177 PLF	0 PLF	0 PLF	
2	Point	0-5-12		Far Face	55 lb	146 lb	0 lb	0 lb	J5
3	Point	1-9-12		Far Face	41 lb	110 lb	0 lb	0 lb	J5
4	Part. Uniform	2-5-12 to 6-3-12		Top	30 PLF	80 PLF	0 PLF	0 PLF	
5	Point	2-5-12		Far Face	36 lb	38 lb	0 lb	0 lb	F3
6	Point	4-5-12		Near Face	74 lb	197 lb	0 lb	0 lb	J6

Continued on page 2...

Notes

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Lumber

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

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318



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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



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Simpson Strong-Tie®
Component Solutions™

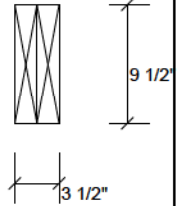
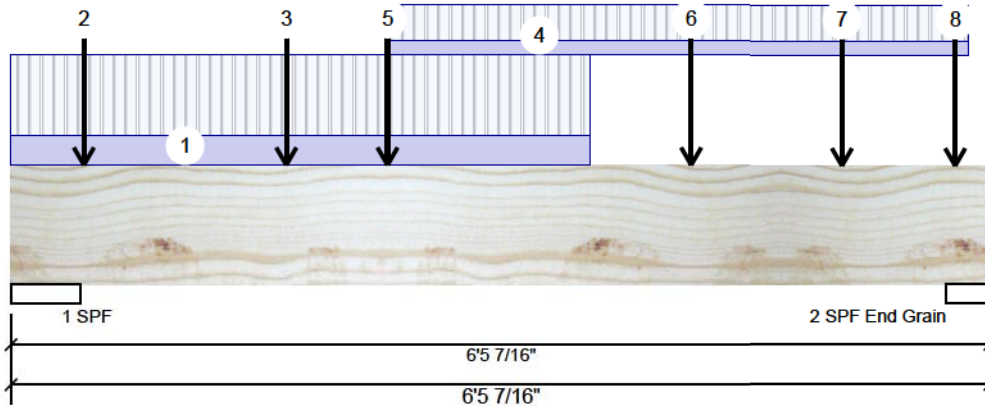
Client:
Project:
Address:

Date: 5/15/2018
Designer: S B
Job Name: GLENWAY 2A EL- 2
Project #:

Page 2 of 2

F10-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	5-5-12		Near Face	55 lb	148 lb	0 lb	0 lb	J6
8	Point	6-2-11		Near Face	163 lb	392 lb	0 lb	0 lb	F9
	Self Weight				8 PLF				

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Lumber

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chemicals

Handling & Installation

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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
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6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex
APA: PR-L318

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



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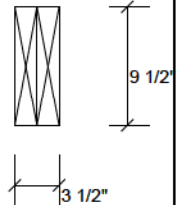
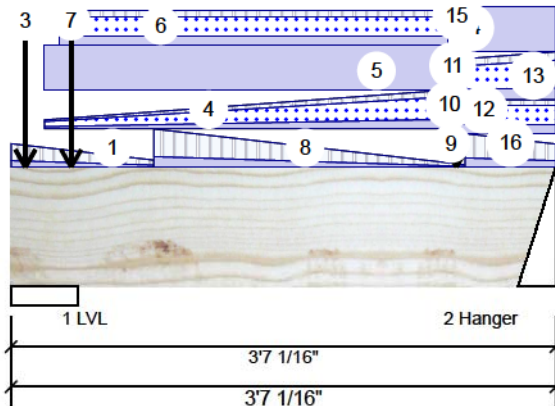
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Level: Second Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
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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	182 (-7)	461	459	0
2	79 (-37)	203	121	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total	Ld. Case	Ld. Comb.
1 - LVL	5.268"	11%	576 / 779	1355 L	1.25D+1.5S+0.5L
2 - Hanger	3.000"	6%	253 / 221	474 L	1.25D+1.5S+0.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	251 ft-lb	1'10 3/16"	18179 ft-lb	0.014 (1%)	1.25D+1.5L	L
Unbraced	251 ft-lb	1'10 3/16"	18179 ft-lb	0.014 (1%)	1.25D+1.5L	L
Shear	162 lb	1'2"	7421 lb	0.022 (2%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/38858)	1'10 1/2"	0.101 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/54658)	1'10 7/8"	0.101 (L/360)	0.010 (1%)	S+0.5L	L
TL Defl inch	0.002 (L/22714)	1'10 5/8"	0.151 (L/240)	0.010 (1%)	D+S+0.5L	L

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Fill all hanger nailing holes.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Multiple plies must be fastened together as per manufacturer's details.
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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-11-4	(Span)1-6-0 to 0-5-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-1-2		Top	26 lb	11 lb	39 lb	0 lb	F11 F11

Continued on page 2...

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Manufacturer Info

Forex
APA: PR-L318



East Gwillimbury
Building Standards Branch BCIN #16487

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