Engineering Note Page (ENP-2)

REVISION 2021-10-04

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 <u>only</u> 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.
- 5. It is assumed that each LVL beam where not seated in a hanger is attached using (4) four 3-1/4" common spiral nails for up to 5.5" long bearings and using (6) six 3-1/4" common spiral nails for bearings equal to or longer than 5.5", unless indicated otherwise.

HANDLING AND INSTALLATION

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

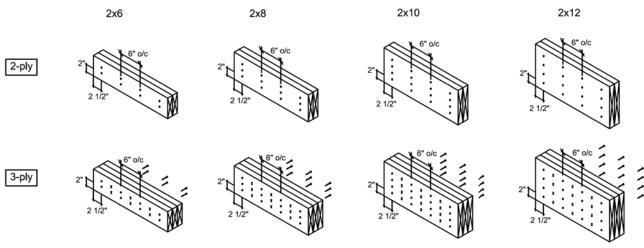


CITY OF RICHMOND HILL BUILDING DIVISION

09/22/2022

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Per: joshua.nabua

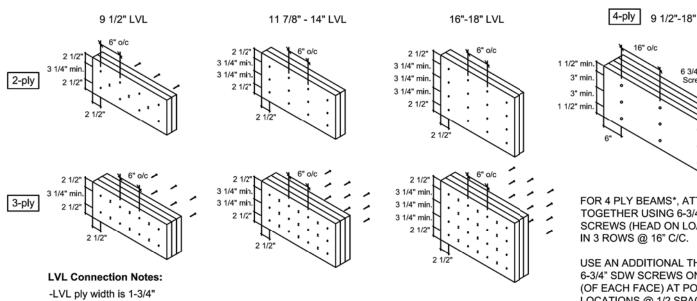
Conventional Connections



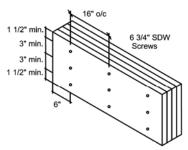
Conventional Connection Notes:

- -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



- -Nails to be 3 1/2" common wire nails.
- -Nails to be located 2 1/2" min. from the top and bottom of the member. Start all nails 2 1/2" min. from ends.
- -Minimum 3 1/4" spacing between rows.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.
- Head of all specified screws must be on the loaded side.



FOR 4 PLY BEAMS*, ATTACH PLIES TOGETHER USING 6-3/4" SDW SCREWS (HEAD ON LOADED SIDE) IN 3 ROWS @ 16" C/C.

USE AN ADDITIONAL THREE (3) 6-3/4" SDW SCREWS ON EACH SIDE (OF EACH FACE) AT POINT LOAD LOCATIONS @ 1/2 SPACING, WHERE APPLICABLE.

*UNLESS NOTED OTHERWISE ON LAYOUT OR CALCULATION SHEET OF BEAM IN THE FLOOR PACKAGE

Multiple Member Connections

All connections are for uniformly distributed loads.

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



KOTTY INF. RICHMOND HILL 3228 Moodle Brive ISION Ottawa, ON K2H7V1/ZZ 613-838-2775

RECEIVED joshua.nabua

Last revised: February 19, 2021

SQB2

F5-A - 1 ply

SQB1

/2 X J3-A & Z

F6-A - 2 ply

F5-B - 1 ply

IM1021-062 Page 3 of 3

LSD (Canada)

40

15

480

240

480

240

480

240

480

240

5/8"

NBCC 2015 / OBC 2012

JOB INFORMATION

ROUNDEL HOMES INC

TERRACOTA 45 1-3

RALPH MIRIGELLO

October 15, 2021

TC451-3 STANDARD

Layout Name

DESIGN CRITERIA

Ground Floor

Design Method

Deflection Joist

Deflection Flush Girder

CCMC References

Boise - 12472-R , 12787-R

3228 Moodie Dr, Ottawa

Deflection Dropped Girder

LL Span L/

TL Span L/

LP - 12412-R

Kott Inc.

orex - 14056-R

Decking

Building Code

Loads

Dead

RICHMOND HILL, ON

Builder

Project

Shipping

Sales Rep

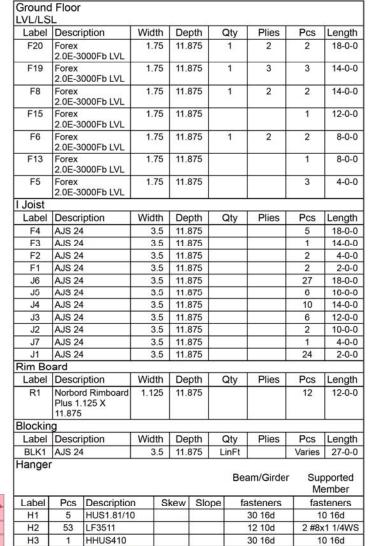
Designer

WC

Plotted

Job Path

GREENPARK



Floor **Deflection Header** Custom

> 14 Anderson Blvd, Uxbridge Contario 613-838-2775 905-642-4400

All blocking to be cut from 12' joists

Label Description

H2.5A

2. 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length

Width Depth

Qty

Plies

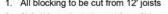
Pcs Length

Legend

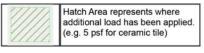
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- 3. Ends of joists to be laterally supported
- 4. Packing of Steel beams and attachment by others

- 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



- 5. Shower and water closet flange 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
- Eng to review and approve the deviation prior to construction.



2 X J1-0 -

_FH1-O

J4-H

J4-I

J5-C

J5-D

J5-E

J4-L F3-A - 1 ply #AL29

H2 5A

2X8 FRAMING

This placement plan is to be used as an installation guide only. It is meant to be used in conjunction with the manufacturers installation guide, the architectural drawings, and not to replace them.11. Framing shown on this layout may deviate from architectural drawings. Arch /

AJS140 I-Joists can be substituted with LP20 I-Joists for 9.5" and 11.875" depths shown on this layout.

1 ply

FH1-K

2 X J6-T

Wall Opening Norbord Rimboard Plus 1,125 X 11.875 AJS 24 11.875 L V L U Forex 2:0E-3000Fb LVL 1.75 X 11.875

CITY OF RICHMOND HILL

Point Load Support

Load from Above

In Hanger Laber Denotes Web Stiffene

Version 21.40.338 Powered by iStruct™ Dataset: 21072801.1545

Ground Floor



Client: Project: Address:

GREENPARK

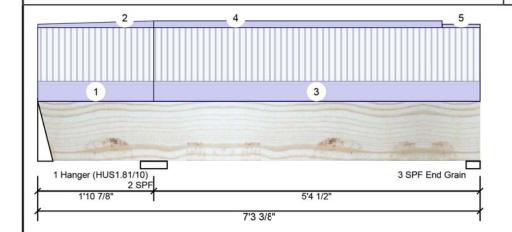
TERRACOTA 45 1-3 RICHMOND HILL, ON 10/14/2021

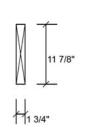
WC Input by:

Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

1.750" X 11.875" - PASSED F13-B Forex 2.0E-3000Fb LVL

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)	E
Plies:	1	Design Method:	LSD	l
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012	l
Deflection LL:	480	Load Sharing:	No	l
Deflection TL:	240	Deck:	Not Checked	l
Importance:	Normal - II	Vibration:	Not Checked	l
General Load				L
Floor Live:	40 PSF			I
Dead:	15 PSF			ľ

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	1	0	0	0
2	Vertical	78	61	0	0
3	Vertical	40	31	0	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-107 ft-lb	1'10 7/8"	17130 ft-lb	0.006 (1%)	1.25D+1.5L	LL
Unbraced	-107 ft-lb	1'10 7/8"	8629 ft-lb	0.012 (1%)	1.25D+1.5L	LL
Pos Moment	90 ft-lb	5' 1/16"	17130 ft-lb	0.005 (1%)	1.25D+1.5L	_L
Unbraced	90 ft-lb	5' 1/16"	17130 ft-lb	0.005 (1%)	1.25D+1.5L	_L
Shear	83 lb	3'1 3/8"	5798 lb	0.014 (1%)	1.25D+1.5L	LL
Perm Defl in.	0.001 (L/114857)	4'7 1/4"	0.174 (L/360)	0.003 (0%)	D	Uniform
LL Defl inch	0.001 (L/90069)	4'7 3/16"	0.130 (L/480)	0.005 (1%)	L	_L
TL Defl inch	0.001 (L/50482)	4'7 1/4"	0.261 (L/240)	0.005 (0%)	D+L	_L

Bearings and Factored Reactions

bearing.	carrigs and ractorea reactions										
Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.				
1 - Hanger	3.000"	Vert	1%	-6 / 24	18 (-40)	L_	0.9D+1.5L (1.25D+1.5L)				
2 - SPF	5.250"	Vert	4%	88 / 134	222	LL	1.25D+1.5L				
3 - SPF End Grain	2.750"	Vert	3%	36 / 56	91	_L	1.25D+1.5L				

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Negligible uplift at end of short span.
- 5 Top must be continuously laterally braced.
- 6 Bottom must be laterally braced at bearings.



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

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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Manufacturer Info Forex APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400





Client: Project: Address: GREENPARK

TERRACOTA 45 1-3

RICHMOND HILL, ON

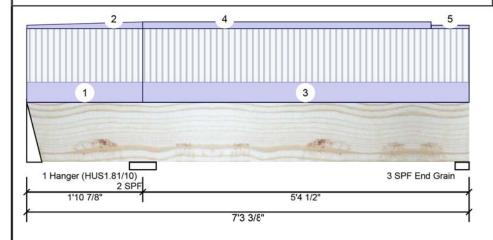
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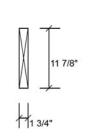
Input by: WC

Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

1.750" X 11.875" - PASSED F13-B Forex 2.0E-3000Fb LVL

Level: Ground Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	Т
1	Tie-In	0-0-0 to 1-10-14	0-4-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Tapered Start	0-0-0		Тор	1 PLF	0 PLF	0 PLF	0 PLF		
	End	1-10-14			2 PLF	0 PLF	0 PLF	0 PLF		
3	Tie-In	1-10-14 to 7-3-6	0-4-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
4	Part. Uniform	1-10-14 to 6-7-14		Тор	2 PLF	0 PLF	0 PLF	0 PLF		
5	Part. Uniform	6-7-15 to 7-3-6		Тор	1 PLF	0 PLF	0 PLF	0 PLF		
	Self Weight				5 PLF					



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

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.

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

 1. IVI, beams must not be cutor drilled

 2. Refer to manufacturer's product information regarding installation equirements, multi-ply fastering 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 rolation

- For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 618-838-2775 DN 905-632-4400



joshua.nabua

This design is valid until 5/24/2024



Client:

GREENPARK

Project:

TERRACOTA 45 1-3 Address:

RICHMOND HILL, ON

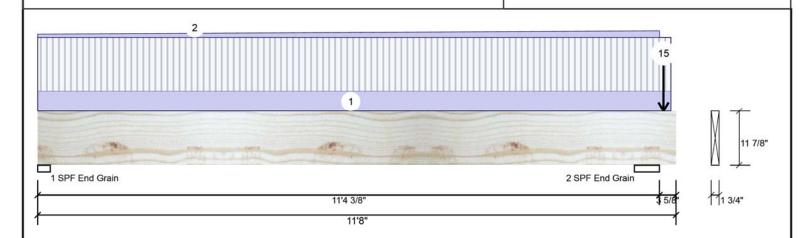
Date: 10/14/2021

WC Input by:

Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

F15-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor



Member Information Type: Application: Floor (Residential) Plies: 1 Design Method: LSD Moisture Condition: Dry Building Code: NBCC 2015 / OBC 2012 Deflection LL: 480 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load 40 PSF Floor Live: 15 PSF Dead:

Unfactored Reaction	UNPATTERNED Ib (Uplift)
---------------------	-------------------------

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	91	67	0 (-2)	0
2	Vertical	147	208	157	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-61 ft-lb	11'4 3/8"	15589 ft-lb	0.004 (0%)	1.25D+1.5S +L	_L
Unbraced	-61 ft-lb	11'4 3/8"	4100 ft-lb	0.015 (2%)	1.25D+1.5S +L	_L
Pos Moment	587 ft-lb	5'7 5/16"	15589 ft-lb	0.038 (4%)	1.25D+1.5L	L_
Unbraced	587 ft-lb	5'7 5/16"	15589 ft-lb	0.038 (4%)	1.25D+1.5L	L_
Shear	180 lb	1'2 5/8"	5624 lb	0.032 (3%)	1.25D+1.5L	L_
Perm Defl in.	0.009 (L/15006)	5'7 7/16"	0.366 (L/360)	0.024 (2%)	D	Uniform
LL Defl inch	0.012 (L/10817)	5'7 13/16"	0.274 (L/480)	0.044 (4%)	L	L_
TL Defl inch	0.021 (L/6286)	5'7 11/16"	0.548 (L/240)	0.038 (4%)	D+L	L_
LL Cant	-0.001 (2L/7606)	Rt Cant	0.200 (2L/480)	0.005 (0%)	L	L_
TL Cant	-0.002 (2L/4821)	Rt Cant	0.300 (2L/240)	0.005 (1%)	D+L	L_

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	2.750"	Vert	7%	84 / 138	221	L_	1.25D+1.5L
2 - SPF End Grain	5.500"	Vert	10%	260 / 382	642	LL	1.25D+1.5S +L



- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top must be continuously laterally braced.
- 5 Bottom must be laterally braced at bearings



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

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.

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

Handling & Installation

- 1. UVL beams must not be cutor drilled
 2. Refer to manufacturer's product information regarding installation requirements, multi-ph fastening details, beam stength values, and codi approvals
 3. Damaged Beams must not be used

- Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid
 lateral displacement and rolation

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Manufacturer Info Forex

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400

oshua.nabua



Client: Project: GREENPARK

Date: 10/14/2021

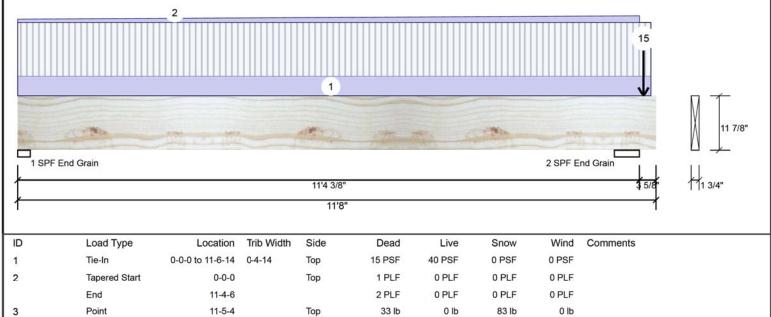
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Address: TERRACOTA 45 1-3 RICHMOND HILL, ON

Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

1.750" X 11.875" - PASSED F15-A Forex 2.0E-3000Fb LVL

Level: Ground Floor



ı	1	Tie-In	0-0-0 to 11-6-14	0-4-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Tapered Start	0-0-0		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
l		End	11-4-6			2 PLF	0 PLF	0 PLF	0 PLF	
l	3	Point	11-5-4		Тор	33 lb	0 lb	83 lb	0 lb	
l		Bearing Length	0-5-8							
l	4	Point	11-5-4		Тор	19 lb	50 lb	0 lb	0 lb	J9
l		Bearing Length	0-5-8							
l	6	Point	11-5-4		Тор	13 lb	0 lb	0 lb	0 lb	Wall Self Weight
l		Bearing Length	0-5-8							
l	7	Point	11-5-4		Тор	13 lb	0 lb	0 lb	0 lb	Wall Self Weight
l		Bearing Length	0-5-8							
l	8	Point	11-5-4		Тор	15 lb	0 lb	36 lb	0 lb	
l		Bearing Length	0-5-8							
l	10	Point	11-5-4		Тор	6 lb	0 lb	0 lb	0 lb	Wall Self Weight
l		Bearing Length	0-5-8							
l	11	Point	11-5-4		Тор	6 lb	0 lb	0 lb	0 lb	Wall Self Weight
l		Bearing Length	0-5-8							
l	12	Point	11-5-4		Тор	15 lb	0 lb	36 lb	0 lb	
l		Bearing Length	0-5-8							
l	14	Point	11-5-4		Тор	6 lb	0 lb	0 lb	0 lb	Wall Self Weight
l		Bearing Length	0-5-8							
l	15	Point	11-5-4		Тор	6 lb	0 lb	0 lb	0 lb	Wall Self Weight
١		Bearing Length	0-5-8							
١		Self Weight				5 PLF			agore:	SSION

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



October 18, 2021

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.

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

 1. IVI, beams must not be cutor drilled

 2. Refer to manufacturer's product information regarding installation equirements, multi-ply fastering 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 rolation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Forex

APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400

joshua.nabua

Version 21.40.338 Powered by iStruct™ Dataset: 21072801.1545



Client: Project: Address: GREENPARK

Date: 9/30/2021

Input by: WC

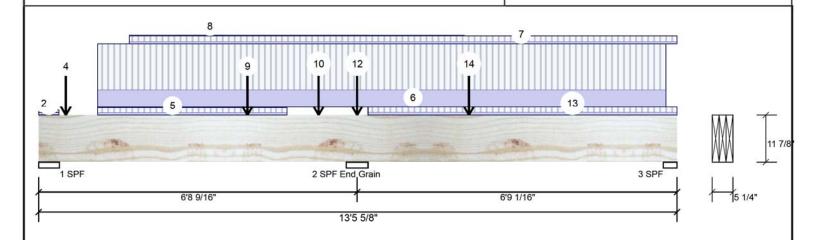
Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

Forex 2.0E-3000Fb LVL F19-A

RICHMOND HILL, ON 1.750" X 11.875"

TERRACOTA 45 1-3

3-Ply - PASSED Level: Ground Floor



Member Inforn	nation			Unfacto	red Rea	ictio
Type: Plies: Moisture Condition: Deflection LL: Deflection TL: Importance: General Load	Girder 3 Dry 480 240 Normal - II	Application: Design Method: Building Code: Load Sharing: Deck: Vibration:	Floor (Residential) LSD NBCC 2015 / OBC 2012 Yes Not Checked Not Checked	1 Ve	rection rtical rtical rtical	
Floor Live: Dead:	40 PSF 15 PSF			Bearing	Length 5.250"	Dir Ve

Anal	ysis	Resu	lts
------	------	------	-----

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-11489 ft-lb	6'8 9/16"	53447 ft-lb	0.215 (21%)	1.25D+1.5L	LL
Pos Moment	9489 ft-lb	9' 13/16"	53447 ft-lb	0.178 (18%)	1.25D+1.5L	_L
Unbraced	9489 ft-lb	9' 13/16"	53447 ft-lb	0.178 (18%)	1.25D+1.5L	_L
Shear	8562 lb	7'11 3/16"	17394 lb	0.492 (49%)	1.25D+1.5L	LL
Perm Defl in.	0.012 (L/6755)	9'7 1/2"	0.218 (L/360)	0.053 (5%)	D	Uniform
LL Defl inch	0.035 (L/2211)	9'7"	0.163 (L/480)	0.217 (22%)	L+0.5S	_L
TL Defl inch	0.047 (L/1666)	9'7 1/8"	0.326 (L/240)	0.144 (14%)	D+L+0.5S	_L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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 Tie-down connection required at bearing 1 for uplift 282 b (Combination 0.9D+1.5L, Load
- 6 Top must be continuously laterally braced.
- 7 Bottom must have sheathing attached or be continuously braced.
- 8 Lateral slenderness ratio based on full section width.

Unfactored	Reactions	UNPATTERNED	lb	(Uplift)	
------------	-----------	-------------	----	----------	--

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	1305	569	0	0
2	Vertical	7937	3328	0 (-1)	0
3	Vertical	1828	757	0	0

Bearings	and	Factored	Reactions
----------	-----	-----------------	-----------

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	Vert	19%	664 / 2595	3258 (-282)	L_	1.25D+1.5L (0.9D+1.5L)
2 - SPF End Grain	5.500"	Vert	77%	4254 / 12176	16431	LL	1.25D+1.5L
3 - SPF	3.500"	Vert	36%	900 / 3163	4063	_L	1.25D+1.5L



October 12, 2021

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

Γ	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	1	Tie-In	0-0-0 to 0-5-2	0-3-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Tie-In	0-0-0 to 0-5-2	0-4-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	3	Point	0-6-14		Far Face	13 lb	29 lb	0 lb	0 lb	J1

Continued on page 2...

Notes

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

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- I. UVL beams must not be cutor drilled
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 Damaged Beams must not be used
- Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid
 lateral displacement and rolation
- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Manufacturer Info Forex APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



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Page 2 of 25



Client: Project: GREENPARK

Date: 9/30/2021

Input by: WC

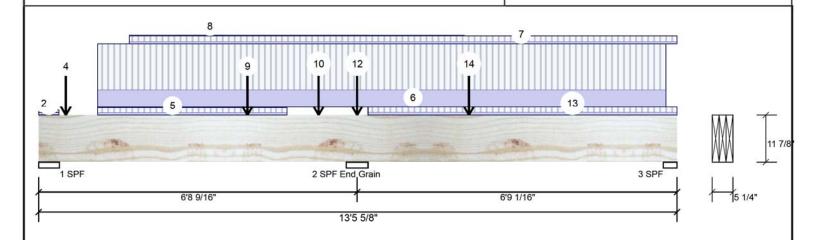
Address: TERRACOTA 45 1-3 RICHMOND HILL, ON

Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

Forex 2.0E-3000Fb LVL F19-A

1.750" X 11.875"

3-Ply - PASSED Level: Ground Floor



Continued from	page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Point	0-6-14		Near Face	93 lb	247 lb	0 lb	0 lb	J6
5	Part. Uniform	1-2-14 to 5-2-14		Far Face	18 PLF	37 PLF	0 PLF	0 PLF	
6	Part. Uniform	1-2-14 to 13-2-14		Near Face	124 PLF	331 PLF	0 PLF	0 PLF	
7	Tie-In	1-10-14 to 13-5-10	1-0-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
8	Tapered Start	1-10-14		Тор	5 PLF	0 PLF	0 PLF	0 PLF	
	End	8-11-11			4 PLF	0 PLF	0 PLF	0 PLF	
9	Point	4-4-10		Тор	1019 lb	2405 lb	0 lb	0 lb	C1
	Bearing Length	0-3-8							
10	Point	5-10-14		Far Face	20 lb	40 lb	0 lb	0 lb	J1
11	Point	6-8-9		Far Face	11 lb	16 lb	0 lb	0 lb	F9
12	Point	6-8-9		Far Face	0 lb	0 lb	-1 lb	0 lb	F9
13	Part. Uniform	6-11-5 to 13-5-10		Тор	20 PLF	40 PLF	0 PLF	0 PLF	
14	Point	9-0-13		Тор	1395 lb	3450 lb	0 lb	0 lb	C1
	Bearing Length	0-3-8							
	Self Weight				14 PLF				



October 12, 2021

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- Handling & Installation
- Handling & Installation

 1. IVI, beams must not be cutor drilled

 2. Refer to manufacturer's product information regarding installation equirements, multi-ply fastering 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 rolation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Forex

Manufacturer Info APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 618-838-2775 D/ 905-632-4400

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Page 3 of 25

Wind

Ld. Comb.

1.25D+1.5L +S

1.25D+1.5L

0

0

isDesign

Client: Project: Address: GREENPARK

Date: 9/30/2021

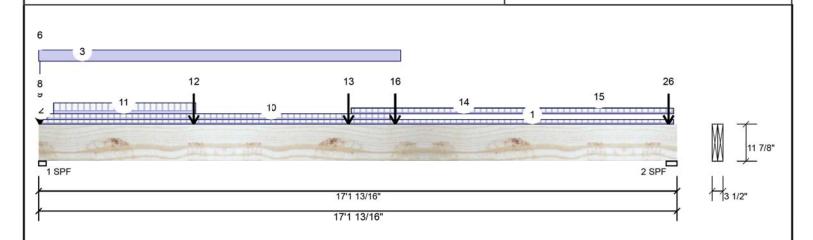
WC Input by:

TERRACOTA 45 1-3 Job Name: TC451-3 STANDARD RICHMOND HILL, ON Project #: ROUNDEL HOMES INC

F20-A Forex 2.0E-3000Fb LVL 1.750" X 11.875"

2-Ply - PASSED

Level: Ground Floor



Member Information Unfactored Reactions UNPATTERNED Ib (Uplift) Type: Application: Floor (Residential) Brg Direction Live Dead Snow Plies: 2 Design Method: LSD 1240 1570 848 1 Vertical Moisture Condition: Dry **Building Code:** NBCC 2015 / OBC 2012 2 Vertical 1190 860 0 Deflection LL: 480 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load Bearings and Factored Reactions 40 PSF Floor Live: 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case 1 - SPF 2.375" Vert 91% 1962 / 2708 4671 L

2 - SPF 3.500"

Vert

38%

Analysis Res	Analysis Results											
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case						
Moment	15387 ft-lb	8'3 13/16"	34261 ft-lb	0.449 (45%)	1.25D+1.5L	L						
Unbraced	15387 ft-lb	8'3 13/16"	34261 ft-lb	0.449 (45%)	1.25D+1.5L	L						
Shear	2951 lb	1'2 1/4"	11596 lb	0.255 (25%)	1.25D+1.5L	L						
Perm Defl in.	0.246 (L/818)	8'3 7/8"	0.560 (L/360)	0.440 (44%)	D	Uniform						
LL Defl inch	0.320 (L/629)	8'6 5/16"	0.420 (L/480)	0.763 (76%)	L+0.5S	L						

Design Notes

TL Defl inch 0.566 (L/356)

1 Performed Secondary Bearing Check (CSA 086-14 6.5.73). Assumed point load size: beam width X 3.5.

8'5 3/16" 0.839 (L/240) 0.675 (67%) D+L+0.5S

- 2 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Multiple plies must be fastened together as per manufacturer's details.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be continuously laterally braced.
- 7 Bottom must be laterally braced at a maximum of 8'10" o.c.
- 8 Lateral slenderness ratio based on full section width



1075 / 1785

2861 L

October 12, 2021

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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 17-0-11	0-7-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-1-2		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-0-0 to 9-8-10		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Part. Uniform	0-0-7 to 0-0-7		Тор	100 PLF	0 PLF	248 PLF	0 PLF	

Continued on page 2...

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 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- LVL beams must not be cut or drilled
 Refer to manufacturer's product information regarding installation requirements, multi-pl
- regarding installation requirements, multi-fastening details, beam strength values, and co 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 rolation

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Manufacturer Info Forex

APA: PR-L318



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Page 4 of 25

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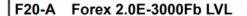
Client: Project: Address:

GREENPARK

Date: 9/30/2021

Input by: WC

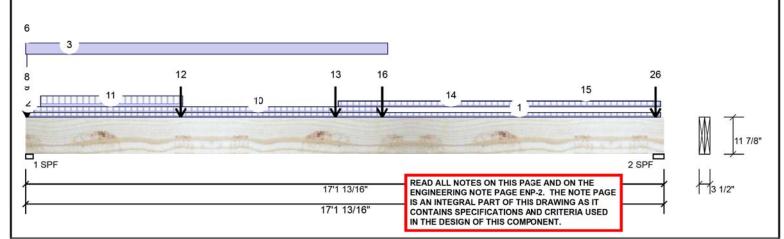
Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC



RICHMOND HILL, ON 1.750" X 11.875"

TERRACOTA 45 1-3

2-Ply - PASSED Level: Ground Floor



	from page 1	825	ATT WAS A ROUND	EroMin	224 30	000	0.	27364 92	5000
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5	Part. Uniform	0-0-7 to 0-0-7		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Tapered Start	0-0-7		Тор	1 PLF	2 PLF	0 PLF	0 PLF	
	End	0-0-7			1 PLF	2 PLF	0 PLF	0 PLF	
7	Part. Uniform	0-0-7 to 0-0-7		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Point	0-0-7		Тор	425 lb	0 lb	848 lb	0 lb	F10 F10
	Bearing Length	0-5-8							
9	Part. Uniform	0-0-7 to 0-0-7		Тор	52 PLF	0 PLF	128 PLF	0 PLF	
10	Tapered Start	0-2-10		Тор	11 PLF	31 PLF	0 PLF	0 PLF	
	End	9-5-3			11 PLF	31 PLF	0 PLF	0 PLF	
11	Part. Uniform	0-4-13 to 4-2-6		Тор	23 PLF	60 PLF	0 PLF	0 PLF	OFESSIO
12	Point	4-1-13		Тор	56 lb	150 lb	0 lb	0 lb	PL1 PRO PRO NAV
	Bearing Length	0-5-8							136
13	Point	8-3-13		Near Face	178 lb	376 lb	0 lb	0 lb	F5 G I.MATIJEVIC
14	Tie-In	8-4-11 to 17-0-11	0-8-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	PL1 PROFESSIONAL FA
15	Part. Uniform	8-4-11 to 16-10-6		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
16	Point	9-6-14		Тор	242 lb	586 lb	0 lb	0 lb	F16 F16 30 LINCE OF ONTARO
	Bearing Length	0-5-8							NCE OF ONT
17	Point	16-11-1		Тор	2 lb	4 lb	0 lb	0 lb	October 12, 2021
	Bearing Length	0-5-8							
18	Point	16-11-1		Тор	3 lb	9 lb	0 lb	0 lb	J6
	Bearing Length	0-5-8							
19	Point	16-11-1		Тор	12 lb	32 lb	0 lb	0 lb	J8
	Bearing Length	0-5-8							
20	Point	16-11-1		Тор	22 lb	0 lb	0 lb	0 lb	Wall Self Weight
	Bearing Length	0-5-8							
21	Point	16-11-1		Тор	2 lb	4 lb	0 lb	0 lb	
	Bearing Length	0-5-8							
22	Point	16-11-1		Тор	17 lb	45 lb	0 lb	0 lb	J8
	2 7 9	7020562							

Notes

23

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.

Point

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

0-5-8

16-11-1

- Handling & Installation

 1. IVI, beams must not be cutor drilled

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 5. Provide lateral support at bearing points to avoid lateral displacement and rolation

- For flat roofs provide proper drainage to prevent ponding

23 lb

Manufacturer Info

0 lb

Forex APA: PR-L318

0 lb



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0 lb Wall Self Weight

Top

This design is valid until 5/24/2024

Bearing Length

Page 5 of 25



Client: Project:

GREENPARK

Date: 9/30/2021

Input by: WC

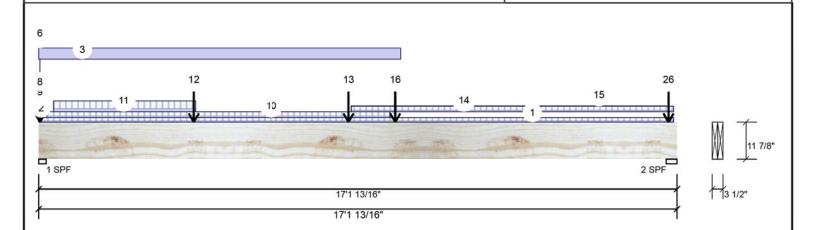
Job Name: TC451-3 STANDARD

ROUNDEL HOMES INC

Address: TERRACOTA 45 1-3 RICHMOND HILL, ON Forex 2.0E-3000Fb LVL 1.750" X 11.875" F20-A

Project #:

2-Ply - PASSED Level: Ground Floor



	Continued fr	om page 2								
	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
		Bearing Length	0-5-8							
	24	Point	16-11-1		Тор	1 lb	4 lb	0 lb	0 lb	
		Bearing Length	0-5-8							
	25	Point	16-11-1		Тор	14 lb	38 lb	0 lb	0 lb	J8
		Bearing Length	0-5-8							
	26	Point	16-11-1		Тор	20 lb	0 lb	0 lb	0 lb	Wall Self Weight
		Bearing Length	0-5-8							
		Self Weight				10 PLF				
- 1	ı									



October 12, 2021

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Notes

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 5. Provide lateral support at bearing points to avoid lateral displacement and rolation

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This design is valid until 5/24/2024

Manufacturer Info Forex

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 618-638-2775 DN \905-6324400

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Page 6 of 25



Client: Project: Address:

GREENPARK

TERRACOTA 45 1-3

RICHMOND HILL, ON

Date: 9/30/2021

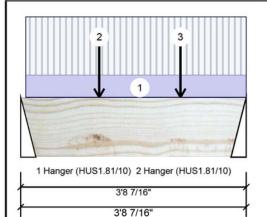
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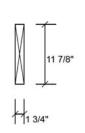
Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

Forex 2.0E-3000Fb LVL F5-A

1.750" X 11.875" - PASSED

Level: Ground Floor





Mamhar	Information	n
MICHIDE	minominatio	ш

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	376	178	0	0
2	Vertical	406	191	0	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	746 ft-lb	1'7 3/8"	17130 ft-lb	0.044 (4%)	1.25D+1.5L	L
Unbraced	746 ft-lb	1'7 3/8"	17130 ft-lb	0.044 (4%)	1.25D+1.5L	L
Shear	628 lb	2'5 9/16"	5798 lb	0.108 (11%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/24257)	1'9 5/16"	0.111 (L/360)	0.015 (1%)	D	Uniform
LL Defl inch	0.003 (L/11567)	1'9 7/16"	0.083 (L/480)	0.041 (4%)	L	L
TL Defl inch	0.005 (L/7832)	1'9 7/16"	0.166 (L/240)	0.031 (3%)	D+L	L

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - Hanger	3.000"	Vert	20%	223 / 565	788	L	1.25D+1.5L	
2 - Hanger	3.000"	Vert	22%	239 / 608	848	L	1.25D+1.5L	

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top must be continuously laterally braced.
- 5 Bottom must have sheathing attached or be continuously braced.



October 12, 2021

Comments

I	1	Part. Uniform	0-1-0 to 3-8-7	Тор	34 PLF	89 PLF	
I	2	Point	1-3-8	Far Face	120 lb	239 lb	
I	3	Point	2-7-8	Far Face	109 lb	221 lb	
ı		Self Weight			5 PLF		

Location Trib Width

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Wind

0 PLF

0 lb J2

0 lb J2

ID

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 Provide lateral support at bearing points to avoid
 lateral displacement and rolation

For flat roofs provide proper drainage to prevent ponding

Dead

Manufacturer Info Forex APA: PR-L318

Snow

0 PLF

0 lb

0 lb

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



This design is valid until 5/24/2024

Page 7 of 25



Client: Project: Address: GREENPARK

TERRACOTA 45 1-3

RICHMOND HILL, ON

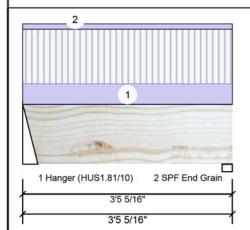
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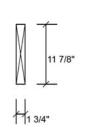
WC Input by:

Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED F5-B

Level: Ground Floor





0

0 0

Member Information						
Туре:	Girder	Application:	Floor (Residential)			
Plies:	1	Design Method:	LSD			
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012			
Deflection LL:	480	Load Sharing:	No			
Deflection TL:	240	Deck:	Not Checked			
Importance:	Normal - II	Vibration:	Not Checked			
General Load						
Floor Live:	40 PSF					
Dead:	15 PSF	1				

	Direction	Live	Dead	Snow	Wind				
1	Vertical	37	26	0	0				

25

Unfactored Reactions UNPATTERNED Ib (Uplift)

35

Vertical

Ī	Bearings and Factored Reactions							
ľ	Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
	1 - Hanger	3.000"	Vert	2%	32 / 56	88	L	1.25D+1.5L
	2 - SPF End Grain	2.004"	Vert	3%	31 / 53	84	L	1.25D+1.5L

PROFESSIONAL

I.MATIJEVIC 100528832

October 12, 2021

Analysis Results

Ī	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	62 ft-lb	1'9 1/8"	17130 ft-lb	0.004 (0%)	1.25D+1.5L	L
	Unbraced	62 ft-lb	1'9 1/8"	17130 ft-lb	0.004 (0%)	1.25D+1.5L	L
	Shear	32 lb	2'3 7/16"	5798 lb	0.006 (1%)	1.25D+1.5L	L
	Perm Defl in.	0.000 (L/226271)	1'9 3/16"	0.105 (L/360)	0.002 (0%)	D	Uniform
	LL Defl inch	0.000 (L/157647)	1'9 3/16"	0.079 (L/480)	0.003 (0%)	L	L
	TL Defl inch	0.000 (L/92913)	1'9 3/16"	0.157 (L/240)	0.003 (0%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top must be continuously laterally braced.
- 5 Bottom must be laterally braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-5-5	0-6-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-5-5		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				5 PLF		READ A	ALL NOTES	ON THIS PAGE

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

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Manufacturer Info Forex

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400

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Page 8 of 25

isDesign

Client: Project: Address:

GREENPARK

TERRACOTA 45 1-3

RICHMOND HILL, ON

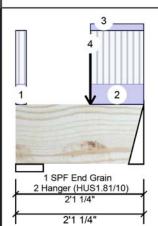
9/30/2021

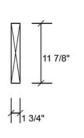
WC Input by:

Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

1.750" X 11.875" - PASSED F5-C Forex 2.0E-3000Fb LVL

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	-1	Design Method:	LSD
Moisture Condition	on: Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF	DEAD ALL NOTES ON THIS	DACE AND ON THE

ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT 15 PSF Dead: CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	56	33	0	0
2	Vertical	92	51	0	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	80 ft-lb	1'2 11/16"	17130 ft-lb	0.005 (0%)	1.25D+1.5L	L
Unbraced	80 ft-lb	1'2 11/16"	17130 ft-lb	0.005 (0%)	1.25D+1.5L	L
Shear	64 lb	1'5 5/16"	5798 lb	0.011 (1%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/145319)	1'2 3/4"	0.051 (L/360)	0.002 (0%)	D	Uniform
LL Defl inch	0.000 (L/80416)	1'2 3/4"	0.038 (L/480)	0.006 (1%)	L	L
TL Defl inch	0.000 (L/51769)	1'2 3/4"	0.076 (L/240)	0.005 (0%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Fill all hanger nailing holes.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Top must be continuously laterally braced.

5 Bottom must have sheathing attached or be continuously braced.

Bea	rings	and	Factored	Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	5.438"	Vert	2%	41 / 85	125	L	1.25D+1.5L
2 - Hanger	3.000"	Vert	5%	64 / 138	202	L	1.25D+1.5L



October 12, 2021

3 BOROTT	must have sheathing attach	cried of be continuou	siy braceu.						
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-1	1-10-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	1-2-11 to 2-1-4	1-10-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	1-2-11 to 2-1-4		Тор	9 PLF	0 PLF	0 PLF	0 PLF	
4	Point	1-2-11		Far Face	37 lb	71 lb	0 lb	0 lb	J7
	Self Weight				5 PLF				

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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

This design is valid until 5/24/2024

Manufacturer Info For flat roofs provide proper drainage to prevent ponding

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400

shua.nabua

Page 9 of 25



F6-A

Client: Project:

GREENPARK

Date:

WC Input by:

Job Name: TC451-3 STANDARD

Address: Forex 2.0E-3000Fb LVL

TERRACOTA 45 1-3 RICHMOND HILL, ON 1.750" X 11.875"

Project #: 2-Ply - PASSED

Brg

1

Direction

Vertical

Bearing Length

2 - SPF 5.500"

Hanger

3.000"

Level: Ground Floor

ROUNDEL HOMES INC

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

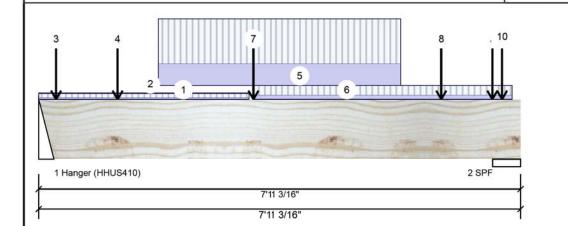
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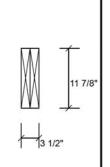
1297

Live

1952

9/30/2021





Member Informatio	n
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Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	240
Importance:	Normal - II
General Load	
Floor Live:	40 PSF

40 PSF 15 PSF Design Method: LSD Building Code: NBCC 2015 / OBC 2012 Load Sharing: No Deck: Not Checked Vibration: Not Checked

Floor (Residential)

Application:

2 Vertical 2877

Bearings and Factored Reactions

Dir.

Vert

Vert

Wind	Snow
0	0
0	0

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

Total Ld. Case

4106 L

5937 L

Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4180 ft-lb	3'9 3/16"	34261 ft-lb	0.122 (12%)	1.25D+1.5L	L
Unbraced	4180 ft-lb	3'9 3/16"	34261 ft-lb	0.122 (12%)	1.25D+1.5L	L
Shear	1894 lb	1'2 7/8"	11596 lb	0.163 (16%)	1.25D+1.5L	L
Perm Defl in.	0.013 (L/6895)	3'10 1/16"	0.245 (L/360)	0.052 (5%)	D	Uniform
LL Defl inch	0.025 (L/3560)	3'10 1/4"	0.184 (L/480)	0.135 (13%)	L	L
TL Defl inch	0.038 (L/2348)	3'10 3/16"	0.367 (L/240)	0.102 (10%)	D+L	L

Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.73). Assumed point load size: beam width X 3.
- 2 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam
- 3 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 4 Fill all hanger nailing holes.
- 5 Girders are designed to be supported on the bottom edge only.
- 6 Multiple plies must be fastened together as per manufacturer's details.
- 7 Top loads must be supported equally by all plies.
- 8 Top must be continuously laterally braced.
- 9 Bottom must have sheathing attached or be continuously braced.
- 10 Lateral slenderness ratio based on full section width.



Cap. React D/L lb

50%

1178 / 2928

1621 / 4316

October 12, 2021

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

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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- 1. UVL beams must not be cutor drilled
 2. Refer to manufacturer's product information regarding installation requirements, multi-ph fastening details, beam stength values, and codi approvals
 3. Damaged Beams must not be used

- Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid
 lateral displacement and rolation
- 6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Forex APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 618-838-2775 D/\905-642-4400



Page 10 of 25



Client: Project: Address: GREENPARK

Date: 9/30/2021

Project #:

Input by: WC

Job Name: TC451-3 STANDARD

Forex 2.0E-3000Fb LVL F6-A

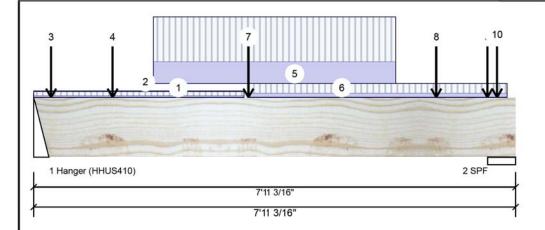
RICHMOND HILL, ON 1.750" X 11.875"

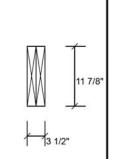
TERRACOTA 45 1-3

2-Ply - PASSED

Level: Ground Floor

ROUNDEL HOMES INC





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Tie-In	0-0-0 to 3-5-7	0-6-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Part. Uniform	0-0-0 to 3-5-6		Тор	3 PLF	0 PLF	0 PLF	0 PLF		
3	Point	0-3-7		Тор	481 lb	1089 lb	0 lb	0 lb	C1	
	Bearing Length	0-3-8								
4	Point	1-3-9		Far Face	148 lb	295 lb	0 lb	0 lb	J3	
5	Part. Uniform	1-11-9 to 5-11-9		Far Face	105 PLF	216 PLF	0 PLF	0 PLF		
6	Part. Uniform	3-6-5 to 7-9-8		Тор	20 PLF	47 PLF	0 PLF	0 PLF		
7	Point	3-6-5		Near Face	51 lb	92 lb	0 lb	0 lb	F5	
8	Point	6-7-9		Far Face	121 lb	252 lb	0 lb	0 lb	J3	
9	Point	7-5-10		Тор	801 lb	1922 lb	0 lb	0 lb	C1	
	Bearing Length	0-3-8								
10	Point	7-7-9		Far Face	20 lb	44 lb	0 lb	0 lb	J3	
	Self Weight				10 PLF					



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 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- Handling & Installation

 1. IVI, beams must not be cutor drilled

 2. Refer to manufacturer's product information regarding installation equirements, multi-ply fastering 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 rolation

For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Forex APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Otlawa, Ontario 613-838-2775 DI \905-632-4400



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Page 11 of 25

isDesign

F8-C

Forex 2.0E-3000Fb LVL

Client: Project: Address: GREENPARK

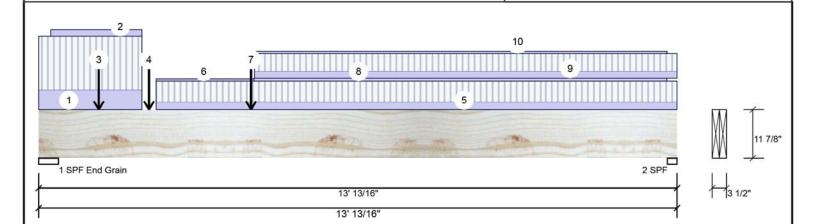
Date: 9/30/2021

Input by: WC

TERRACOTA 45 1-3 Job Name: TC451-3 STANDARD RICHMOND HILL, ON

Project #: 1.750" X 11.875"

Level: Ground Floor 2-Ply - PASSED



Type:	Girder		Application:	Floor (Residential)
Plies:	2		Design Method:	LSD
Moisture Condition:	Dry		Building Code:	NBCC 2015 / OBC 201
Deflection LL:	480		Load Sharing:	No
Deflection TL:	240		Deck:	Not Checked
Importance:	Normal - II		Vibration:	Not Checked
General Load				
Floor Live:	40 PSF			
Dead: 15 PSF		READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED		
Analysis Results	s	IN THE DES	IGN OF THIS COMPO	NENT.

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9690 ft-lb	4'3 15/16"	34261 ft-lb	0.283 (28%)	1.25D+1.5L	L
Unbraced	9690 ft-lb	4'3 15/16"	34261 ft-lb	0.283 (28%)	1.25D+1.5L	L
Shear	4794 lb	1'4 11/16"	11596 lb	0.413 (41%)	1.25D+1.5L	L
Perm Defl in.	0.069 (L/2194)	5'11 11/16"	0.420 (L/360)	0.164 (16%)	D	Uniform
LL Defl inch	0.130 (L/1166)	5'10 3/4"	0.315 (L/480)	0.412 (41%)	L	L
TL Defl inch	0.199 (L/761)	5'11 1/16"	0.630 (L/240)	0.315 (32%)	D+L	L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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 must be continuously laterally braced.
- 6 Bottom must be laterally braced at a maximum of 8'8 7/8' o.c.
- 7 Lateral slenderness ratio based on full section width.

Unfactored Reactions	UNPATTERNED	lb	(Uplift)
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ROUNDEL HOMES INC

Direction	Live	Dead	Snow	Wind
Vertical	2344	1197	0	0
Vertical	760	433	0	0
	Vertical	Vertical 2344	Vertical 2344 1197	Vertical 2344 1197 0

Bearings and Factored Reactions

Bearing	Length	Dir.	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	4.843"	Vert	40%	1497 / 3516	5013	L	1.25D+1.5L
2-SPF	2.375"	Vert	33%	541 / 1141	1682	L	1.25D+1.5L



October 12, 2021

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-1-4	1-10-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-15 to 2-1-4		Тор	9 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-2-11		Near Face	37 lb	72 lb	0 lb	0 lb	J7
4	Point	2-3-0		Near Face	943 lb	1952 lb	0 lb	0 lb	F6
5	Tie-In	2-4-12 to 13-0-13	0-8-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

Notes

Continued on page 2...

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- I. UVL beams must not be cutor drilled
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 Damaged Beams must not be used

- Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid
 lateral displacement and rolation
- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Manufacturer Info Forex

APA: PR-L318



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Page 12 of 25



Continued from page 1

Client: Project: Address:

GREENPARK

Date: 9/30/2021

Input by:

Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

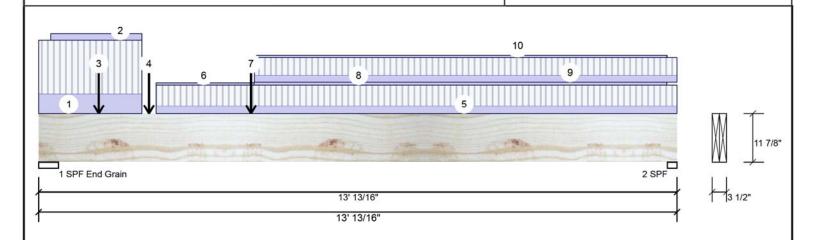
Forex 2.0E-3000Fb LVL F8-C

RICHMOND HILL, ON 1.750" X 11.875"

TERRACOTA 45 1-3

2-Ply - PASSED

Level: Ground Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Part. Uniform	2-4-12 to 4-4-11		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
7	Point	4-3-15		Far Face	191 lb	406 lb	0 lb	0 lb	F5
8	Part. Uniform	4-4-11 to 12-10-5		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
9	Tie-In	4-4-13 to 13-0-13	0-7-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
10	Part. Uniform	4-4-13 to 12-10-6		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				10 PLF				



October 12, 2021

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- Handling & Installation

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 2. Refer to manufacturer's product information regarding installation equirements, multi-ply fastering details, beam strength values, and code approvals

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 4. Design assumes top edge is laterally restrained

 5. Provide lateral support at bearing points to avoid lateral displacement and rolation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

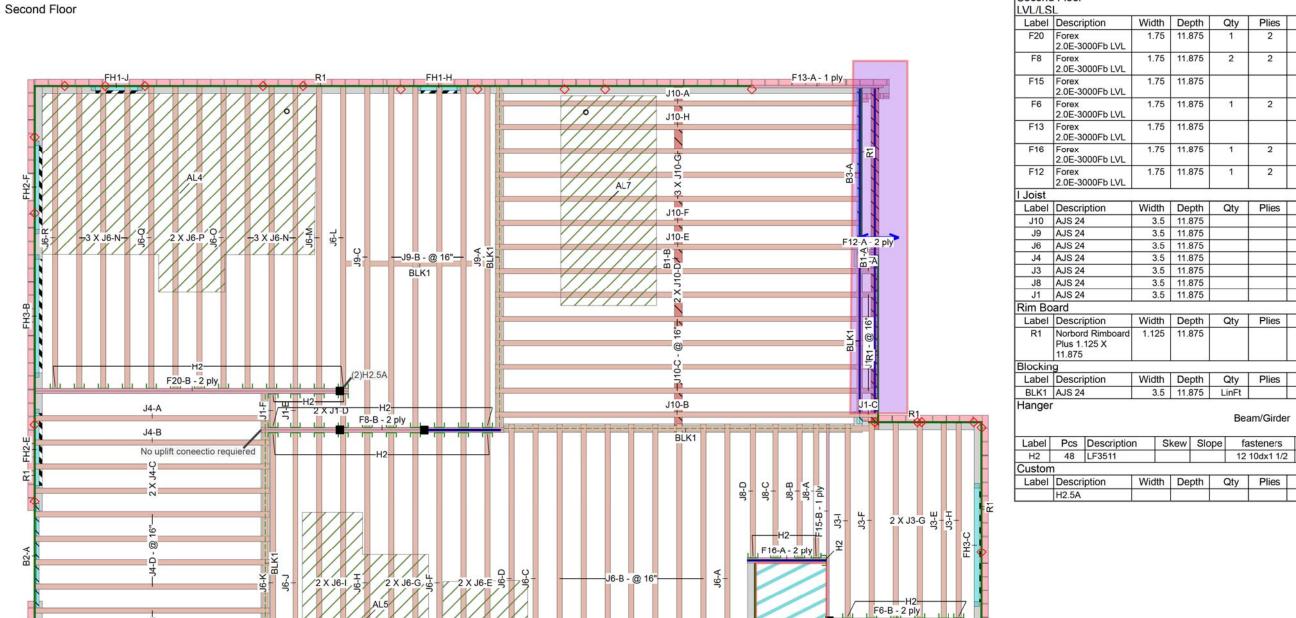
APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 618-638-2775 DN \905-6324400

joshua.nabua

KTF-GREENPARK-ROUNDEL HOMES INC-TERRACOTA 45-1-3 IM1021-062 Page 20 of 32



											IIVI 102
Second		G									JOB INFORMATION
LVL/LS	Descri	intion	Wic	l+h	Depth	1	Qty	Plies	Pcs	Length	Builder
F20	Forex	iption		75	11.875	-	1	2	2	18-0-0	GREENPARK
120		000Fb LVL	1.	1.0	11.075		est.s	-		10-0-0	Project
F8	Forex		1.	75	11.875		2	2	4	14-0-0	ROUNDEL HOMES INC
		000Fb LVL									Shipping
F15	Forex	000Fb LVL	1.	75	11.875				1	12-0-0	TERRACOTA 45 1-3
F6	Forex	UUUFD LVL	-1	75	11.875	\vdash	1	2	2	8-0-0	RICHMOND HILL, ON
10		000Fb LVL	1.	13	11.075		10		_	0-0-0	Sales Rep
F13	Forex		1.	75	11.875				1	8-0-0	RALPH MIRIGELLO
		000Fb LVL				_					Designer
F16	Forex	000Fb LVL	1.	75	11.875		1	2	2	6-0-0	wc
F12	Forex	OOOI D LVL	1.	75	11.875	\vdash	1	2	2	2-0-0	Plotted
		000Fb LVL		7.00							October 15, 2021
l Joist	W-	9			9.	2				9	Layout Name
Label	Descri		Wic		Depth		Qty	Plies	Pcs	Length	TC451-3 STANDARD
J10	AJS 24			3.5	11.875				14	22-0-0	
J9	AJS 24			3.5	11.875				6	20-0-0	Job Path
J6	AJS 24			3.5	11.875	⊢			33	18-0-0	DESIGN CRITERIA
J4	AJS 24			3.5	11.875	-			13	14-0-0	Second Floor
J3 J8	AJS 24			3.5	11.875 11.875	\vdash			6	12-0-0 8-0-0	Design Method
J1	AJS 24			3.5	11.875	\vdash			11	2-0-0	Building Code NBCC
Rim Bo				,,,	11.070	_				2-0-0	1
	Descri	iption	Wic	lth	Depth		Qty	Plies	Pcs	Length	Floor
R1		d Rimboard	1.1		11.875		αι,	1 1100	14	12-0-0	Loads
	Plus 1.	125 X	(4)	561					1000	ANTENES O	Live
	11.875	l i			5						Dead
Blockin	~										Deflection Joist
and the second second second second	Descri		Wic		Depth	_	Qty	Plies	Pcs	Length	LL Span L/
	AJS 24	1		3.5	11.875	L	inFt		Varies	59-0-0	TL Span L/
Hanger	5.5						р.	/0:	. 0		Deflection Flush Girder
							Ве	am/Girde		oported ember	LL Span L/
Label	Pcs	Descriptio	n	CI	kew Sl	оре	f,	asteners	-	teners	TL Span L/
H2	48	LF3511		3	NEW SI	ope	_	10dx1 1/2		1 1/4WS	Deflection Dropped Girder
Custon		12, 0011					12	10001 1/2	2 #0/	. 17440	LL Span L/
	Descri	iption	Wic	ith	Depth	-	Qty	Plies	Pcs	Length	TL Span L/
20001	H2.5A	p			Sopari		,	, ,,,,,,	2		Deflection Header
						_					LL Span L/

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

CCMC References

LSD (Canada) NBCC 2015 / OBC 2012

> 40 15

480

240

480

240

480

240

480

240

OSB

Kott Inc.

TL Span L/

Decking Decking

> 3228 Moodie Dr, Ottawa 14 Anderson Blvd, Uxbridge Ontario

613-838-2775 / 905-642-4400

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 flange locations are approximate only, consult architectural drawing for exact locations

6. Beams identified as "B" are dropped and supplied by others

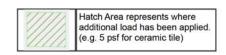
7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls

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

Eng to review and approve the deviation prior to construction.



J4-F

AJS140 I-Joists can be substituted with LP20 I-Joists for 9.5" and 11.875" depths shown on this layout.

This placement plan is to be used as an installation guide only. It is meant to be used in conjunction with the manufacturers installation guide, the architectural drawings, and not to replace them.11. Framing shown on this layout may deviate from architectural drawings. Arch /

Legend CITY OF RICHMOND HILL In Hanger Laber Denotes Web Stiffene -ws PS Point Load Support Coad from Above 2 **\Q** Wall Opening Norbord Rimboard Plus 1 125 X 11.875 AJS 24 12.875 EVED Forex 2:0E-3000Fb LVL 1.75 X 11.875

J10-A

/J10-G

J10-E

J10-D

J10-B

J6-C - @ 16"

F13-A - 1 ply

18-B 18-A

F16-A - 2 ply

F12-A - 2 ply

13-F

2 X J3-G 뜻 - 뜻 -

F6-B - 2 ply

KTF-GREENPARK-ROUNDEL HOMES INC-TERRACOTA 45-1-3 IM1021-062 Page 21 of 32

Second Floor JOB INFORMATION LVL/LSI Builder Label Description Width Depth Qty Plies Pcs Length GREENPARK F20 11.875 18-0-0 Forex 2.0E-3000Fb LVI Project ROUNDEL HOMES INC F8 Forex 2.0E-3000Fb LVL 1.75 11.875 14-0-0 Shipping F15 Forex 1.75 11.875 12-0-0 TERRACOTA 45 1-3 2.0E-3000Fb LVL RICHMOND HILL, ON Forex 2.0E-3000Fb LVL F6 1.75 11.875 2 2 8-0-0 Sales Rep F13 Forex 1.75 11.875 8-0-0 RALPH MIRIGELLO 2.0E-3000Fb LVL Designer F16 Forey 1.75 11.875 2 6-0-0 2.0E-3000Fb LVL WC F12 1.75 11.875 2-0-0 **Plotted** 2.0E-3000Fb LVL October 15, 2021 I Joist Layout Name Label Description Width Depth Qty Plies Pcs Length TC451-3 (5-BDRM OPT.) J10 AJS 24 3.5 11.875 14 22-0-0 Job Path J9 AJS 24 3.5 11.875 6 20-0-0 33 18-0-0 DESIGN CRITERIA J6 AJS 24 3.5 11.875 J4 AJS 24 3.5 11.875 13 14-0-0 Second Floor J3 AJS 24 3.5 11.875 12-0-0 Design Method J8 AJS 24 3.5 11.875 8-0-0 **Building Code** J1 AJS 24 3.5 11.875 11 2-0-0 Rim Board Loads

Label Description Width Depth Qty Plies Pcs Length Norbord Rimboa 1.125 11.875 12-0-0 Plus 1.125 X 11.875 Blocking Label Description Width Depth Qty Plies Pcs Length LL Span L/

BLK1 AJS 24 3.5 11.875 LinFt Varies 59-0-0 Hanger Beam/Girder Supported Member Label Pcs Description Skew Slope fasteners fasteners

H2 48 LF3511 Custom Label Description Width Depth Qty Plies Pcs Length H2.5A

LL Span L/ TL Span L/ Deflection Dropped Girder 12 10dx1 1/2 2 #8x1 1/4WS LL Span L/

TL Span L/ **Deflection Header**

Deflection Joist

Deflection Flush Girder

Live

Dead

TL Span L/

LL Span L/ TL Span L/ Decking

Decking **CCMC References** Boise - 12472-R , 12787-R

LP - 12412-R Forex - 14056-R Kott Inc.

3228 Moodie Dr, Ottawa

613-838-2775 / 905-642-4400

14 Anderson Blvd, Uxbridge Ontario

LSD (Canada)

40

15

480

240

480

240

480

240

480

240

OSB

NBCC 2015 / OBC 2012

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 flange locations are approximate only, consult architectural drawing for exact locations

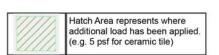
6. Beams identified as "B" are dropped and supplied by others

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

Eng to review and approve the deviation prior to construction.



AJS140 I-Joists can be substituted with LP20 I-Joists for 9.5" and 11.875" depths shown on this layout.

This placement plan is to be used as an installation guide only. It is meant to be used in conjunction with the manufacturers installation guide, the architectural drawings, and not to replace them.11. Framing shown on this layout may deviate from architectural drawings. Arch /

Legend CITY OF RICHMOND HILL In Hanger Laber Denotes Web Stiffene -WS PS Point Load Support 0 Load from Aboye Wall Opening Norbord Rimboard Plus 1,125 X 11.875 AJS 24 11.875 L V L L Forex 2:0E-3000Fb LVL 1.75 X 11.875

F20-B - 2 ply,

No uplift connection requiered

J4-A

J4-B

J4-C

J4-D

/J4-E

-3 X J6-M-

-3 X J9-B- - 4-5Z

2 X J6-H 6

BLK1

F8-B - 2 ply

—3 X J6-J— დ

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Second Floor

10. Hangers and Fasteners to be installed as per manufacturer

Page 15 of 25



Client: Project: Address:

GREENPARK

Date: 9/30/2021

WC Input by:

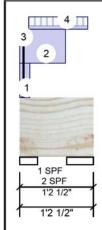
Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

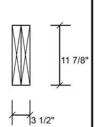
F12-A Forex 2.0E-3000Fb LVL

RICHMOND HILL, ON 1.750" X 11.875"

TERRACOTA 45 1-3

2-Ply - PASSED Level: Second Floor





Member Inform	mation			Unfactored Reactions UNPATTERNED Ib (Uplift)						
Type:	Girder	Application:	Floor (Residential)	Brg	Direction	Live	Dead	Snow	Wind	
Plies:	2	Design Method:	LSD	1	Vertical	8	264	379	0	
Moisture Condition	: Dry	Building Code:	NBCC 2015 / OBC 2012	2	Vertical	12	29	0	0	
Deflection LL:	480	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal - II	Vibration:	Not Checked							
General Load				0.00	F	18 22-741	1000			
Floor Live:	40 PSF			Beari	ngs and Fa	actored Read	ctions			
Dead:	15 PSF			Bear	ing Length	Dir. Cap.	React D/L lb	Total Ld. Case	Ld. Comb.	
				1 - S	PF 3.500"	Vert 12%	329 / 577	906 L	1.25D+1.5S +L	
Analysis Result	ts			2-8	PF 5.250"	Vert 10%	36 / 18	55 L	1.25D+1.5L	

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7 ft-lb	6 5/16"	22269 ft-lb	0.000 (0%)	1.25D+1.5L	L
Unbraced	7 ft-lb	6 5/16"	22269 ft-lb	0.000 (0%)	1.25D+1.5L	L
Shear	39 lb	-(2 5/8")	7537 lb	0.005 (1%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/591393)	6 3/8"	0.020 (L/360)	0.001 (0%)	D	Uniform
LL Defl inch	0.000 (L/2681567)	6 3/8"	0.015 (L/480)	0.000 (0%)	L+0.5S	L
TL Defl inch	0.000 (L/484534)	6 3/8"	0.030 (L/240)	0.000 (0%)	D+L+0.5S	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 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 3 Girders are designed to be supported on the bottom edge only.
- 4 Multiple plies must be fastened together as per manufacturer's details.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be continuously laterally braced.
- 7 Bottom must have sheathing attached or be continuously braced.
- 8 Lateral slenderness ratio based on full section width



October 12, 2021

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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.

- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Forex APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400

oshua.nabua

Page 16 of 25



Client: Project: Address: GREENPARK

TERRACOTA 45 1-3

Date: 9/30/2021

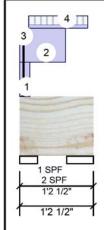
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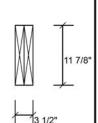
Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

F12-A Forex 2.0E-3000Fb LVL

RICHMOND HILL, ON 1.750" X 11.875"

2-Ply - PASSED Level: Second Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Part. Uniform	0-0-0 to 0-2-0		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
2	Part. Uniform	0-0-0 to 0-9-1		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
3	Point	0-0-12		Тор	200 lb	0 lb	379 lb	0 lb	F11 F11	
	Bearing Length	0-5-8								
4	Tie-In	0-1-12 to 1-1-6	0-6-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
	Self Weight				10 PLF					



October 12, 2021

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- Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- 1. LVL beams must not be cutor 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 roiation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Forex APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 618-838-2775 Dr. 905-642-4400

CSD BUILD joshua.nabua

Page 17 of 25



Client: Project: Address:

GREENPARK

TERRACOTA 45 1-3

RICHMOND HILL, ON

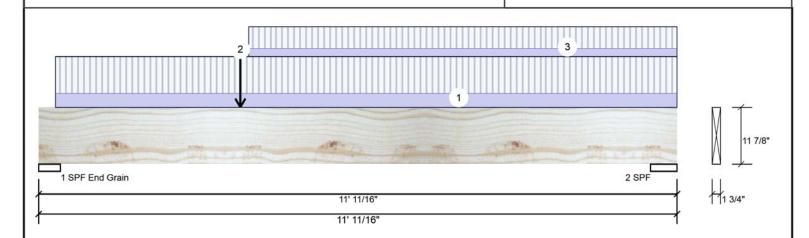
Date: 9/30/2021

WC Input by:

Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED F15-A

Level: Second Floor



Member Information Unfactored Reactions UNPATTERNED Ib (Uplift) Type: Application: Floor (Residential) Brg Direction Live Dead Plies: 1 Design Method: LSD 461 213 1 Vertical Moisture Condition: Dry Building Code: NBCC 2015 / OBC 2012 2 Vertical 327 156 Deflection LL: 480 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Normal - II Vibration: Not Checked General Load **Bearings and Factored Reactions** 40 PSF Floor Live: 15 PSF Dead: Bearing Length Dir. Cap. React D/L lb Total Ld. Case 1 - SPF 4.500" Vert 16% 267 / 691 958 L End Grain Analysis Results 194 / 491 2 - SPF 5.500" Vert 12% 685 L

Comb.

Capacity



Actual

Analysis

Moment 0.162 (16%) 1.25D+1.5L L 2776 ft-lb 3'5 3/4" 17130 ft-lb 2776 ft-lb 3'5 3/4" 17130 ft-lb 0.162 (16%) 1.25D+1.5L L 0.157 (16%) 1.25D+1.5L L 909 lb 1'4 3/8" 5798 lb Shear Perm Defl in. 0.025 (L/5064) 5' 13/16" 0.345 (L/360) 0.071 (7%) D LL Defl inch 0.054 (L/2317) 5' 3/8" 0.259 (L/480) 0.207 (21%) L L

Location Allowed

TL Defl inch 0.078 (L/1590) 5' 7/16" 0.518 (L/240) 0.151 (15%) D+L

Uniform

Case

PROFESSIONAL I.MATIJEVIC 100528832 VINCE OF

Snow

0

0

Wind

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

0

0

October 12, 2021

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top must be continuously laterally braced.

4 Bottom must be laterally braced at a maximum of 7'7" o.c.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-3-8 to 11-0-11	0-6-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	3-5-12		Far Face	191 lb	454 lb	0 lb	0 lb	F16
3	Tie-In	3-7-8 to 11-0-11	0-3-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				5 PLF				

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- Handling & Installation
- LVL beams must not be cut or drilled
 Refer to manufacturer's product informatio regarding installation requirements, multi-pl details, beam strength values, and co
- naged Beams must not be used
- Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid
 lateral displacement and rolation

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Manufacturer Info Forex

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontari 618-838-2775 D/\905-642-4400

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Page 18 of 25



Client: Project: Address:

GREENPARK

Date: 9/30/2021

WC Input by:

Job Name: TC451-3 STANDARD Project #: ROUNDEL HOMES INC

Forex 2.0E-3000Fb LVL F16-A

RICHMOND HILL, ON 1.750" X 11.875"

TERRACOTA 45 1-3

2-Ply - PASSED Level: Second Floor

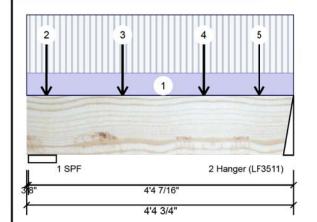
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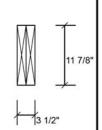
2

Hanger

Vertical

Vertical





0

0

Wind

0

0

Member Info			
Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	on: Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF	1	

Unfactored Reactions UNPATTERNED Ib (Uplift) Brg Direction Live Dead Snow

586

454

Bearings and Factored Reactions										
Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.			
1 - SPF	5.500"	Vert	10%	303 / 878	1181	LL	1.25D+1.5L			
2 -	2 000"	Vert	18%	239 / 681	920	1	1 25D+1 5I			

242

191

Analysis Results

Dead:

15 PSF

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	894 ft-lb	2'4 5/16"	34261 ft-lb	0.026 (3%)	1.25D+1.5L	_L
Unbraced	894 ft-lb	2'4 5/16"	34261 ft-lb	0.026 (3%)	1.25D+1.5L	_L
Shear	714 lb	3'2 7/8"	11596 lb	0.062 (6%)	1.25D+1.5L	_L
Perm Defl in.	0.001 (L/44783)	2'3 5/8"	0.135 (L/360)	0.008 (1%)	D	Uniform
LL Defl inch	0.003 (L/18817)	2'3 5/8"	0.101 (L/480)	0.026 (3%)	L	_L
TL Defl inch	0.004 (L/13249)	2'3 5/8"	0.202 (L/240)	0.018 (2%)	D+L	_L
LL Cant	-0.000 (2L/22776)	Lt Cant	0.200 (2L/480)	0.000 (0%)	L	_L
TL Cant	-0.000 (2L/16053)	Lt Cant	0.300 (2L/240)	0.000 (0%)	D+L	_L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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.
- 5 Top loads must be supported equally by all plies.
- 6 Top must be continuously laterally braced.
- 7 Bottom must have sheathing attached or be continuously braced.
- 8 Lateral slenderness ratio based on full section width.



October 12, 2021

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Notes

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 LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- I. UVL beams must not be cutor drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam stength 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 rolation

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Manufacturer Info Forex

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 613-838-2775 D/\905-642-4400

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Page 19 of 25



Client: Project: Address:

GREENPARK

Date: 9/30/2021

Project #:

Input by: WC

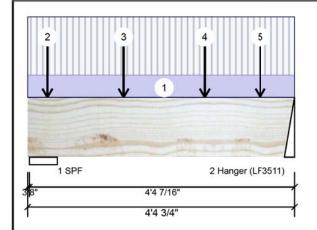
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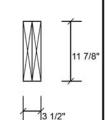
Forex 2.0E-3000Fb LVL F16-A

RICHMOND HILL, ON 1.750" X 11.875"

TERRACOTA 45 1-3

2-Ply - PASSED Level: Second Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 4-4-12		Тор	34 PLF	89 PLF	0 PLF	0 PLF	
2	Point	0-3-14		Far Face	71 lb	190 lb	0 lb	0 lb	J8
3	Point	1-6-14		Far Face	69 lb	185 lb	0 lb	0 lb	J8
4	Point	2-10-14		Far Face	60 lb	161 lb	0 lb	0 lb	J8
5	Point	3-9-14		Far Face	42 lb	112 lb	0 lb	0 lb	J8
	Self Weight				10 PLF				



October 12, 2021

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- 1. LVL beams must not be cutor 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 roiation

- For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Forex

Manufacturer Info

APA: PR-L318

3228 Moodie Dr. Otlawa, Ontario 613-838-2775 DI \905-632-4400

CSDT BUILD joshua.nabua

Page 5 of 6



Client: Project: Address:

GREENPARK

TERRACOTA 45 1-3

Date: 10/14/2021

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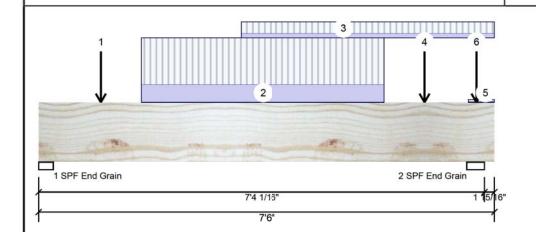
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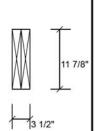
F6-B Forex 2.0E-3000Fb LVL

RICHMOND HILL, ON 1.750" X 11.875"

2-Ply - PASSED

Level: Second Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	731	311	0	0
2	Vertical	1050	432	0	0
l					

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2 ft-lb	7'4 1/16"	26038 ft-lb	0.000 (0%)	1.25D+1.5L	_L
Pos Moment	2957 ft-lb	3'9 3/4"	34261 ft-lb	0.086 (9%)	1.25D+1.5L	L_
Unbraced	2957 ft-lb	3'9 3/4"	34261 ft-lb	0.086 (9%)	1.25D+1.5L	L_
Shear	1511 lb	6' 11/16"	11596 lb	0.130 (13%)	1.25D+1.5L	LL
Perm Defl in.	0.007 (L/11693)	3'8 13/16"	0.234 (L/360)	0.031 (3%)	D	Uniform
LL Defl inch	0.017 (L/4890)	3'8 7/8"	0.175 (L/480)	0.098 (10%)	L	L_
TL Defl inch	0.024 (L/3448)	3'8 13/16"	0.351 (L/240)	0.070 (7%)	D+L	L_
LL Cant	-0.001 (2L/3956)	Rt Cant	0.200 (2L/480)	0.005 (0%)	L	L_
TL Cant	-0.001 (2L/2793)	Rt Cant	0.300 (2L/240)	0.005 (0%)	D+L	L_

Bearings and Factored Reactions

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	2.875"	Vert	20%	389 / 1097	1486	L_	1.25D+1.5L
2 - SPF End Grain	3.500"	Vert	23%	540 / 1575	2115	LL	1.25D+1.5L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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 must be continuously laterally braced.
- 6 Bottom must have sheathing attached or be continuously braced.
- 7 Lateral slenderness ratio based on full section width.



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Notes

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 lateral displacement and rolation

6. For flat roofs provide proper drainage to prevent

This design is valid until 5/24/2024

Manufacturer Info Forex APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



Page 6 of 6



Client: Project: Address:

GREENPARK

Date:

10/14/2021

Input by: WC

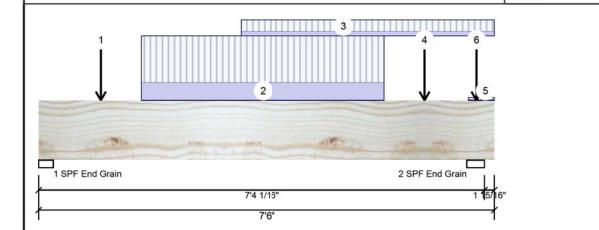
TERRACOTA 45 1-3 Job Name: TC451-3 STANDARD RICHMOND HILL, ON Project #: ROUNDEL HOMES INC

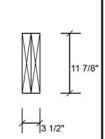
Forex 2.0E-3000Fb LVL F6-B

1.750" X 11.875"

2-Ply - PASSED

Level: Second Floor





ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	1-0-4		Far Face	96 lb	255 lb	0 lb	0 lb	J3
2	Part. Uniform	1-8-4 to 5-8-4		Far Face	80 PLF	212 PLF	0 PLF	0 PLF	
3	Part. Uniform	3-3-14 to 7-6-0		Тор	20 PLF	52 PLF	0 PLF	0 PLF	
4	Point	6-4-4		Far Face	87 lb	232 lb	0 lb	0 lb	J3
5	Tie-In	7-0-14 to 7-6-0	0-2-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	7-2-8		Far Face	84 lb	225 lb	0 lb	0 lb	J3
l	Self Weight				10 PLF				



October 18, 2021

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For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

Forex

Manufacturer Info

APA: PR-L318

3228 Moodie Dr. Otlawa, Ontario 613-838-2775 DI \905-632-4400

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Page 22 of 25



Client: Project: Address: GREENPARK

Date: 9/30/2021

Project #:

Input by: WC

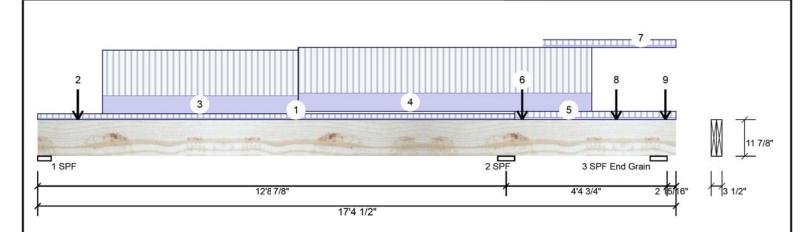
Job Name: TC451-3 STANDARD

F20-B Forex 2.0E-3000Fb LVL RICHMOND HILL, ON 1.750" X 11.875"

TERRACOTA 45 1-3

2-Ply - PASSED Level: Second Floor

ROUNDEL HOMES INC



Member Inform	nation			1
Type:	Girder	Application:	Floor (Residential)	TE
Plies:	2	Design Method:	LSD	1
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012	1
Deflection LL:	480	Load Sharing:	No	1
Deflection TL:	240	Deck:	Not Checked	1
Importance:	Normal - II	Vibration:	Not Checked	1
General Load				ŀ
Floor Live:	40 PSF			ŀ
Dead:	15 PSF			r
				1
		1		-

Unfactored	Reactions	UNPATTERNED II	(Unlift)
Ulliactoreu	Reactions	OINFALLERINED IL	J (Opinic)

Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	1785	781	0	0
2	Vertical	4679	2039	0	0
3	Vertical	0 (-2)	(-37)	0	0

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-11129 ft-lb	12'8 7/8"	34261 ft-lb	0.325 (32%)	1.25D+1.5L	LL_
Pos Moment	9359 ft-lb	5'4 1/4"	34261 ft-lb	0.273 (27%)	1.25D+1.5L	L_L
Unbraced	9359 ft-lb	5'4 1/4"	34261 ft-lb	0.273 (27%)	1.25D+1.5L	L_L
Shear	4600 lb	11'6 1/4"	11596 lb	0.397 (40%)	1.25D+1.5L	LL_
Perm Defl in.	0.058 (L/2556)	6' 5/16"	0.414 (L/360)	0.141 (14%)	D	Uniform
LL Defl inch	0.137 (L/1089)	6' 9/16"	0.311 (L/480)	0.441 (44%)	L	L_L
TL Defl inch	0.195 (L/764)	6' 1/2"	0.622 (L/240)	0.314 (31%)	D+L	L_L
LL Cant	0.001 (2L/8775)	Rt Cant	0.200 (2L/480)	0.003 (0%)	L	L_L
TL Cant	0.001 (2L/7813)	Rt Cant	0.300 (2L/240)	0.002 (0%)	D+L	L_L

Bearings and Factored Reactions

9				CONTRACTOR CONTRACTOR			
Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.400"	Vert	38%	956 / 2650	3606	L_L	1.25D+1.5L
2 - SPF	5.500"	Vert	83%	2628 / 7237	9864	LL_	1.25D+1.5L
3 - SPF End Grain	5.500"	Vert	12%	-76 / 1713	1636 (-1292)	_LL	0.9D+1.5L (1.25D+1.5L)



- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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 Tie-down connection required at bearing 3 for uplift 1292 lb (Combination 1.25D+1.5L, Load
- 6 Top must be continuously laterally braced.
- 7 Bottom must have sheathing attached or be continuously braced.
- 8 Lateral slenderness ratio based on full section width.



October 12, 2021

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This design is valid until 5/24/2024

Forex APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



Page 23 of 25



Client: Project: Address:

GREENPARK

Date: 9/30/2021

Input by:

Project #:

Job Name: TC451-3 STANDARD

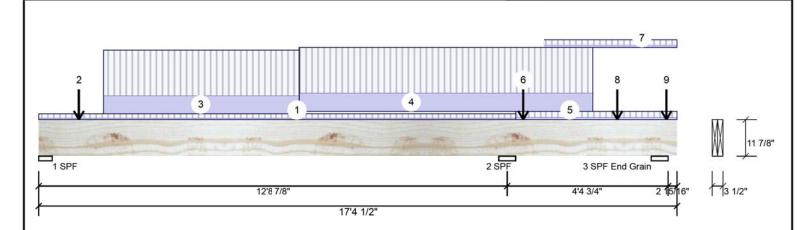
Forex 2.0E-3000Fb LVL F20-B

RICHMOND HILL, ON 1.750" X 11.875"

TERRACOTA 45 1-3

2-Ply - PASSED Level: Second Floor

ROUNDEL HOMES INC



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-11-10	0-9-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-1-1		Far Face	168 lb	409 lb	0 lb	0 lb	J6
3	Part. Uniform	1-9-1 to 7-1-1		Far Face	136 PLF	331 PLF	0 PLF	0 PLF	
4	Part. Uniform	7-1-1 to 15-1-1		Far Face	138 PLF	331 PLF	0 PLF	0 PLF	
5	Tie-In	12-11-10 to 17-4-8	1-0-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	13-2-1		Near Face	9 lb	23 lb	0 lb	0 lb	J1
7	Part. Uniform	13-9-1 to 17-4-8		Near Face	15 PLF	41 PLF	0 PLF	0 PLF	
8	Point	15-9-1		Far Face	171 lb	442 lb	0 lb	0 lb	J6
9	Point	17-1-1		Far Face	166 lb	442 lb	0 lb	0 lb	J6
	Self Weight				10 PLF				



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Forex

Manufacturer Info

APA: PR-L318

3228 Moodie Dr. Ottawa, Ontario 618-838-2775D/\905-642-4400

CSD BUILD joshua.nabua

Page 24 of 25



Client: Project: Address:

GREENPARK

Date: 9/30/2021

Input by: WC

Job Name: TC451-3 STANDARD

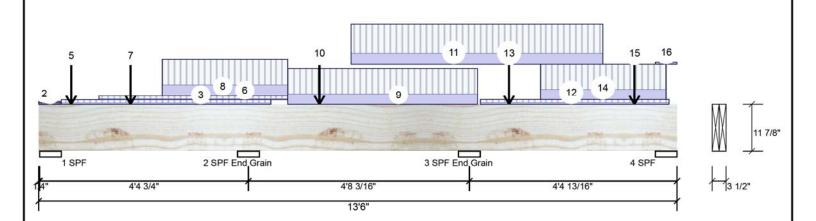
Forex 2.0E-3000Fb LVL 1.750" X 11.875" F8-B

TERRACOTA 45 1-3 RICHMOND HILL, ON

Project #: 2-Ply - PASSED

Level: Second Floor

ROUNDEL HOMES INC



Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	n: Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Analysis	Results
----------	---------

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-3023 ft-lb	9'1 3/16"	34261 ft-lb	0.088 (9%)	1.25D+1.5L	L_LL
Pos Moment	2135 ft-lb	11'4 3/16"	34261 ft-lb	0.062 (6%)	1.25D+1.5L	_L_L
Unbraced	2135 ft-lb	11'4 3/16"	34261 ft-lb	0.062 (6%)	1.25D+1.5L	_L_L
Shear	3420 lb	5'7 5/8"	11596 lb	0.295 (29%)	1.25D+1.5L	_LL_
Perm Defl in.	0.003 (L/18604)	6'9 1/16"	0.156 (L/360)	0.019 (2%)	D	Uniform
LL Defl inch	0.009 (L/6055)	6'9 3/8"	0.117 (L/480)	0.079 (8%)	L	L_L_
TL Defl inch	0.012 (L/4568)	6'9 1/4"	0.234 (L/240)	0.053 (5%)	D+L	L L
LL Cant	-0.000 (2L/12470)	Lt Cant	0.200 (2L/480)	0.000 (0%)	L	_L_L
TL Cant	-0.000 (2L/9333)	Lt Cant	0.300 (2L/240)	0.000 (0%)	D+L	_L_L

Design Notes

- 1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- 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 Tie-down connection required at bearing 1 for uplift 71 lb (Combination 0.9D+1.5L, Load Case __L_).
- 6 Top must be continuously laterally braced.
- 7 Bottom must have sheathing attached or be continuously braced.
- 8 Lateral slenderness ratio based on full section width.

Unfactored Reactions UNPATTERNED Ib (Uplift)

	ASSURE THE RESERVE OF STREET		TO A SECTION AND A PROPERTY OF THE SECTION AND A SEC	Service Control of the Control of th	
Brg	Direction	Live	Dead	Snow	Wind
1	Vertical	526	221	0	0
2	Vertical	2405	1019	0	0
3	Vertical	3450	1395	0	0
4	Vertical	1174	482	0	0

Bearings and Factored Reactions

Dearing.	bearings and ractored Reactions								
Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.		
1 - SPF	5.500"	Vert	12%	270 / 979	1249 (-71)	LL_	1.25D+1.5L (0.9D+1.5L)		
2 - SPF End Grain	5.500"	Vert	36%	1265 / 3943	5208	_LL_	1.25D+1.5L		
3 - SPF End Grain	5.500"	Vert	51%	1782 / 5511	7292	L_LL	1.25D+1.5L		
4 - SPF	5.500"	Vert	22%	580 / 1992	2572	_L_L	1.25D+1.5L		



October 12, 2021

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Forex APA: PR-L318

Manufacturer Info

3228 Moodie Dr. Ottawa, Ontario 61B-838-2775 D/\905-642-4400



Page 25 of 25

isDesign

F8-B

Forex 2.0E-3000Fb LVL

Client: Project:

GREENPARK

Date:

9/30/2021 Input by: WC

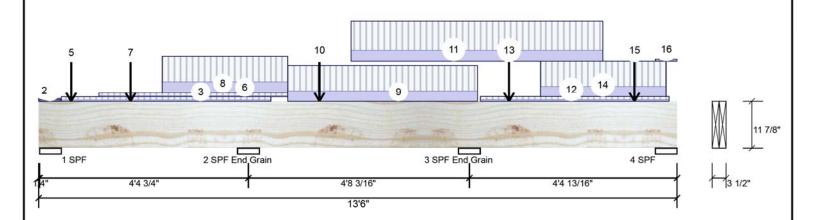
Job Name: TC451-3 STANDARD

Address: TERRACOTA 45 1-3

RICHMOND HILL, ON Project #: 1.750" X 11.875"

Level: Second Floor 2-Ply - PASSED

ROUNDEL HOMES INC



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-12	0-3-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-5-12	0-4-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-5-12 to 4-10-11	1-0-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	0-8-3		Far Face	9 lb	23 lb	0 lb	0 lb	J1
5	Point	0-8-3		Near Face	90 lb	240 lb	0 lb	0 lb	J6
6	Part. Uniform	1-3-3 to 5-3-3		Far Face	14 PLF	37 PLF	0 PLF	0 PLF	
7	Point	1-11-3		Near Face	164 lb	426 lb	0 lb	0 lb	J6
8	Part. Uniform	2-7-3 to 5-3-3		Near Face	143 PLF	330 PLF	0 PLF	0 PLF	
9	Part. Uniform	5-3-3 to 9-3-3		Near Face	137 PLF	330 PLF	0 PLF	0 PLF	
10	Point	5-11-3		Far Face	185 lb	492 lb	0 lb	0 lb	J9
11	Part. Uniform	6-7-3 to 11-11-3		Far Face	140 PLF	375 PLF	0 PLF	0 PLF	
12	Part. Uniform	9-3-15 to 13-4-0		Тор	20 PLF	40 PLF	0 PLF	0 PLF	
13	Point	9-11-3		Near Face	169 lb	439 lb	0 lb	0 lb	J6
14	Part. Uniform	10-7-3 to 13-3-3		Near Face	133 PLF	330 PLF	0 PLF	0 PLF	
15	Point	12-7-3		Far Face	126 lb	336 lb	0 lb	0 lb	J9
16	Tie-In	13-0-8 to 13-6-0	0-5-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				



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3228 Moodie Dr. Ottawa, Ontario 618-838-2775 DN \905-6324400



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