## **Engineering Note Page (ENP-2)**

**REVISION 2009-10-09** 

### Please read all notes prior to installation of the component

### **DESIGN INFORMATION**

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

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

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

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

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

### CODE

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

### **COMPONENT**

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

### HANDLING AND INSTALLATION

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

# JLTIPLE MEMBER CONNECTIONS

### Conventional Connections (for uniform distributed loads)

2-ply

2x6



2x8



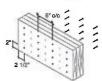


3-ply









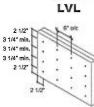
#### Conventional connection notes:

- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
   "X" represents nall driven from the opposite side.

### LVL Connections (for uniform distributed loads)

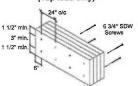
LVL 2 1/2"

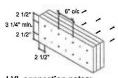


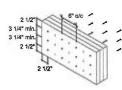


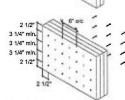
16"-18"

4-ply (Top load only)









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

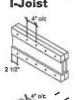
#### LVL connection notes:

- -Nails to be 3 1/2" spiral wire nails.
- -Nalls to be located a minimum of 2 1/2" from the top and bottom of the member. Start all nalls a minimum of 2 1/2" in from ends.
- -Minimum 3 1/4" spacing between rows.
   -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail or screw driven from the opposite side.

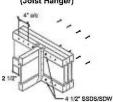
### Vertical I-Joist Connections (for uniform distributed loads)

9 1/2" - 11 7/8" **I-Joist** 

2-ply



3-ply I-Joist w/ point load (Joist Hanger)



Screws (Both sides of point load)

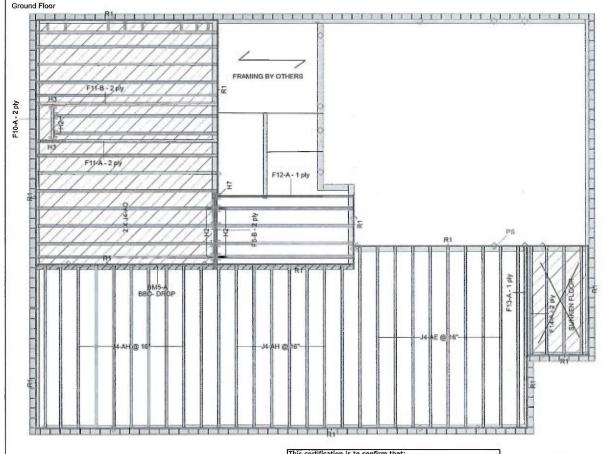
3-ply

Vertical I-Joist connection notes:

- -Nails to be 3" spiral wire nails.
  -Nails to be located at centre of top and bottom flanges. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
   "X" represents nail driven from the opposite side.

3228 Moodle Drive Ottawa, ON K2H 7V1 Ph: 613-838-2775 613-838-4751

CONNECTION DETAILS



Legend Wall NJH 95 Forex 2.0E-3000Fb LVL 1.75 X 9 5

Architectural Drawing Info Point Load Support JARDIN DESIGN GROUP Load from Above 64 JARDIN DR, SUITE 3A VAUGHAN,ON L4K 3P3 Norbord Rimboard Plus 1.125 X 9.5 NIGS

Project # 18-24 Model: LOT-26 (Millwood 1 EL-1) Date: OCT 26, 2018

1. OBC 2012 O.Reg 332/12 as amended

5 25 X 10 25 (Dropped)

- 2. Nascor CCMC 13535-R
- 3. EVL CCMC -12904-R
- 4. CAN/CSA-086-09
- 5. CCMC -12787-R APA PR-L310(C) Version 18.80.219 Powered by iStruct\*\*

JOISTS SPACING 16°O/C UNLESS NOTED OTHERWISE

This certification is to confirm that:

1. The loads used in the calculation of the attached approved components conform to the floor assembly shown on this

2. The floor joists comply with the Nascor span table for the loads and spacing shown on this layout.

The floor system must be assembled in accordance to the Nascor Specifier Guide. Multi-ply members must be attached together as per the included multiple member connection

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.



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

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F12	Forex 2.0E-3000Fb LVL	1.75	9.5			1	12-0-0
F6	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	6-0-0
I Joist							
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F11	NJ	1.5	9.5	2	2	4	14-0-0
F10	NJ	1.5	9.5	1	2	2	4-0-0
F14	NJH	25	9.5	1	2	2	10-0-0
F13	NJH	25	9.5			1	10-0-0
J4	NJH	2.5	9.5			42	14-0-0
J3	NJH	25	9.5			4	12-0-0
J2	NJH	2.5	9.5		16	3	10-0-0
Rim Bo	ard		- 1				
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5			14	12
Blockin	g						430
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	NJH	25	9.5	LinFt		Varies	7-0-0

Label Pcs Description H2 10 LF259 fastener fasteners Skew Slope 10 10d 1 #8x1 1/4\ H3 6 104 10 10d 1 #8x1 1/4WS

Beam/Girder

Supporte

#### H7 NOTES:

- Framer to verify dimensions on the architectural drawings
- Double joist only require filter/backer ply when supporting another member using a face-mounted hanger.
- menuer using a race-mounted nanger.
  Install 2x4 blocking @ 24" of under parallel non-loadbearing walls.
  Install single-ply flush window header along inside face of rimboard/rimiolst.
  Refer to Nascor specifier guide for installation details.
- Squash blacks 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 bolling

Rim perallel to Josts: 1-1/6° rimboard with 2'% block (11/6' longer than nm degth) @ 16° o'c All other components and structural elements supporting the floor system such as beams, walls, columns and floundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of others.

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

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

# NASCO

	12-0-0	
2	6-0-0	Layout Name LOT-26 (MILLWOOD 1 EL-3 OPT 4 BEDRM)
s	Length	Design Method
1	14-0-0	LSD
	4-0-0	Description
2	10-0-0	GREENPARK HOMES
	10-0-0	MINISALE HOME
2	14-0-0	CORP.,BRAMPTON.ON
ı	12-0-0	Created
10-0-0		June 26, 2018
		Builder
cs	Length	
4	12	Sales Rep
		Designer S B
cs	Length	
ies	7-0-0	Shipping
		Project
	pported	Builder's Project
	ember	Kott Lumber Company
	teners	14 Anderson Blvd
	d 1/4WS	Stouffyille, Ontario
	3 10d	Canada

144 7X4 905-642-4400 Ground Floor LSD Design Method Building Code NBCC 2010 / OBC 2012 Floor Loads Live 15 Dead Deflection Joist 480 LL Span L/ 360 TL Span L/

480 LL Cant 2L/ TL Cant 2L/ 360 Deflection Girder LL Span L/ 360 TL Span L/ 240 LL Cant 2L/ 480 TL Cant 2L/ 360 Decking Deck OSB Thickness 3/4" Nailed & G'ued Fastener

Vibration



Client:

Project:

Address:

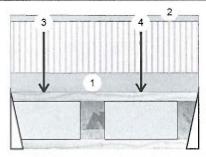
9/10/2018 Date:

SB Designer:

Job Name: MILLWOOD 1 EL-3

Project #:

9.500" 2-Ply - PASSED Level: Ground Floor



1 Hanger (LT2-159) 2 Hanger (LT2-159) 2'7' 2'7"



Page 1 of 1

Member Infoi	rmation		
Туре:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	on: 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		
Doad:	15 DSE		

Brg	Live	Dead	Snow	vvina
1	311	150	0	0
2	262	127	0	0
1				

Unfactored Reactions UNPATTERNED lb (Uplift)

15 PSF					
esults					
Actual	Location	Allowed	Capacity	Comb.	Case
364 ft-lb	1'9 7/16"	7340 ft-lb	0.050 (5%)	1.25D+1.5L	L
364 ft-lb	1'9 7/16"	5436 ft-lb	0.067 (7%)	1.25D+1.5L	L
647 lb	1 1/4"	3080 lb	0.210 (21%)	1.25D+1.5L	L
	Actual 364 ft-lb 364 ft-lb	Actual Location 364 ft-lb 1'9 7/16" 364 ft-lb 1'9 7/16"	Actual Location Allowed 364 ft-lb 1'9 7/16" 7340 ft-lb 364 ft-lb 1'9 7/16" 5436 ft-lb	Actual Location Allowed Capacity 364 ft-lb 1'9 7/16" 7340 ft-lb 0.050 (5%) 364 ft-lb 1'9 7/16" 5436 ft-lb 0.067 (7%)	Actual Location Allowed Capacity Comb. 364 ft-lb 1'9 7/16" 7340 ft-lb 0.050 (5%) 1.25D+1.5L 364 ft-lb 1'9 7/16" 5436 ft-lb 0.067 (7%) 1.25D+1.5L

Perm Defl in. 0.001 1'8 7/16" 0.079 (L/360) 0.010 (1%) D Uniform (L/25061) LL Defl inch 0.002 1'8 3/8" 0.079 (L/360) 0.030 (3%) L (L/12149) TL Defl inch 0.003 (L/8182) 1'8 3/8" 0.119 (L/240) 0.030 (3%) D+L

Bearings and Factored Reactions Cap. React D/L lb Bearing Length Total Ld. Case Ld. Comb. 2.000" 25% 187 / 466 653 L 1.25D+1.5L Hanger 2.000" 21% 159 / 393 552 L 1.25D+1.5L 2 -Hanger



September 17, 2018

### **Design Notes** 1 Fill all hanger nailing holes.

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

1D	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind Comments
1	Tie-In	0-0-0 to 2-7-0	(Span)1-3-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF
2	Part. Uniform	0-0-0 to 2-7-0		Тор	3 PLF	0 PLF	0 PLF	0 PLF
3	Point	0-5-7		Near Face	111 lb	232 lb	0 lb	Passe-Thru Framing Squash Block is
4	Point	1-9-7		Near Face	133 lb	274 lb	0 lb	required at all point loads over bearings
								Defeate Multiple Mambas Compation

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

Celculated 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 Inlended application, and to verify the dimensions and loads. Lumber

Dry service conditions, unless noted otherwise
 Upist not to be treated with fire retardant or corresive

Handling & Installation

and ling & Installation
Librating with the cut or drilled
Refer to latest copy of the Librating product information
details for framing details, stiffener tables, web hole
chart, bridging details, multiply fastering details and
handling/erection details
Damaged Librating with the used
Design assumes top flange to be laterally restrained
by attached sheathing or as specified in engineering
notes.

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

6. Web stiffeners for point load as shown Minimum point load bearing langth>= 3.5 inches

7. For flat roofs | READ ALL NOTES ON TI Nascor by Kott

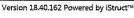
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Manufacturer Info

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



This design



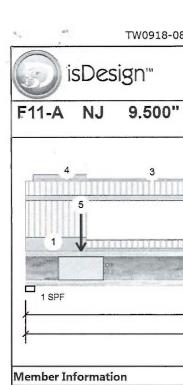


Client:

Project:

Address:

2-Ply - PASSED



Date:

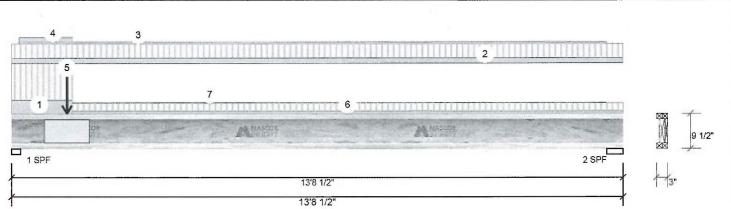
9/10/2018

Designer: SB

Job Name: MILLWOOD 1 EL-3

Project #:

Level: Ground Floor



Member Info		Unfactored Reactions UNPATTERNED Ib (Uplift)									
Туре:	Girder		Application:	Floor (Residential)	Brg	Live		Dead	Snov	N	Wind
Plies:	2		Design Method:	LSD	1	570		278		0	0
Moisture Condition	on: Dry		Building Code:	NBCC 2010 / OBC 2012	2	260		127		0	0
Deflection LL:	360		Load Sharing:	No							
Deflection TL:	240		Deck:	Not Checked							
Importance:	Normal		Vibration:	Not Checked							
General Load						,					
Floor Live:	40 PSF				Bearings	and Fac	tored l	Reactions			
Dead:	15 PSF				Bearing 1	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
					1-SPF	2.375"	45%	347 / 855	1202	L	1.25D+1.5L
			. ]		2-SPF	4,375"	18%	158 / 390	548	L	1.25D+1.5L

#### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1978 ft-lb	5'11 1/16"	7340 ft-lb	0.269 (27%)	1.25D+1.5L	L
Unbraced	1978 ft-lb	5'11 1/16"	1987 ft-lb	0.995 (100%)	1.25D+1.5L	L
Shear	1181 lb	1 5/8"	3080 lb	0.383 (38%)	1.25D+1.5L	L
Perm Defl in.	0.058 (L/2728)	6'6 1/4"	0.442 (L/360)	0.130 (13%)	D	Uniform
LL Defl inch	0.119 (L/1344)	6'6 3/16"	0.442 (L/360)	0.270 (27%)	L	L
TL Defl inch	0.177 (L/900)	6'6 3/16"	0.664 (L/240)	0.270 (27%)	D+L	L

### **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top flange must be laterally braced at a maximum of 4'8" o.c.

5 Bottom flange braced at bearings

O DOMO	in hange braced at bearings.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind Comments
1	Tie-In	0-0-0 to 1-4-6	(Span)2-10-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF
2	Tie-In	0-0-0 to 13-8-8	(Span)1-1-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF
3	Part. Uniform	0-1-15 to 13-4-0		Тор	3 PLF	0 PLF	0 PLF	0 PLF
4	Part. Uniform	0-2-1 to 1-4-6		Тор	7 PLF	0 PLF	0 PLF	Pass-Thru Framing Squash Block is
5	Point	1-2-14		Far Face	150 lb	311 lb	0 lb	required at all point loads over bearings
6	Tie-In	1-4-6 to 13-8-8	(Span)0-6-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF Refer to Multiple Member Connection
7	Part. Uniform	1-4-6 to 13-4-0		Тор	1 PLF	0 PLF	0 PLF	Detail for ply to ply nailing or bolting requirements

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. If 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
 Usolst not to be treated with fire retardant or corrosive

Handling & Installation

arrouting & Installation

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

Demaged IJoist must not be used
Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes. 1.

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

  6. Wab stiffeness for point load as shown Minimum point load bearing length>= 3.5 inches

  7. For flat roofs provide sense delines to consent ponding.

This design is valid

Manufacturer Info

Nascor by Kott

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.







Client: Project: Address: Date: 9/10/2018

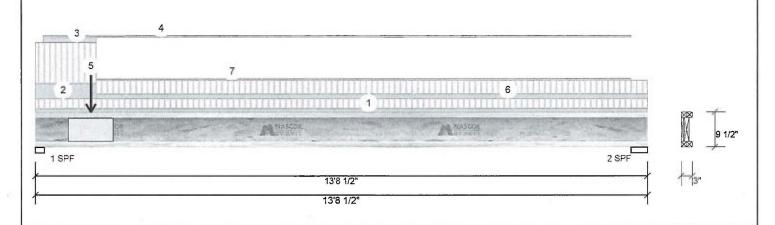
Designer: SB

Job Name: MILLWOOD 1 EL-3

Project #:

9.500" 2-Ply - PASSED NJ

Level: Ground Floor



Vlember Infor	mation			Unfactor	ed React	tions U	NPATTERNI	ED lb (	Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	N	Wind
Plies:	2	Design Method:	LSD	1	505		248		0	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	244		120		0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored F	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
		i i		1-SPF	2.375"	40%	310 / 757	1067	L	1.25D+1.5L
				2 - SPF	4.375"	17%	150 / 365	516	L	1.25D+1.5L

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1837 ft-lb	6' 1/4"	7340 ft-lb	0.250 (25%)	1.25D+1.5L	L
Unbraced	1837 ft-lb	6' 1/4"	1848 ft-lb	0.994 (99%)	1.25D+1.5L	L
Shear	1048 ib	1 5/8"	3080 lb	0.340 (34%)	1.25D+1.5L	L
Perm Defl in.	0.055 (L/2916)	6'6 9/16"	0.442 (L/360)	0.120 (12%)	D	Uniform
LL Defl inch	0.110 (L/1453)	6'6 1/2"	0.442 (L/360)	0.250 (25%)	L	L
TL Defl inch	0.164 (L/970)	6'6 1/2"	0.664 (L/240)	0.250 (25%)	D+L	L

### **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top flange must be laterally braced at a maximum of 4'10" o.c.

5 Bottom flange braced at bearings.



September 17, 2018

D DOLLOTT	harige braced at bearings	•						
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind Comments
1	Tie-In	0-0-0 to 13-8-8	(Span)0-7-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF
2	Tie-In	0-0-0 to 1-4-6	(Span)2-10-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF
3	Part. Uniform	0-2-2 to 1-4-6		Тор	7 PLF	0 PLF	0 PLF	0 PLF
4	Part, Uniform	0-2-2 to 13-4-2		Тор	2 PLF	0 PLF	0 PLF	0 PLF
5	Point	1-2-14		Near Face	127 lb	262 lb	dl 0	Pass-Thru Framing Squash Block is required at all point loads over bearings
6	Tie-In	1-4-6 to 13-8-8	(Span)0-11-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF
7	Part. Uniform	1-4-6 to 13-4-2		Тор	2 PLF	0 PLF	0 PLF	तुर्द्धा to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

#### Notes

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

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

### Handling & Installation

Handling & Installation

1. Ubist finges must not be cut or drilled

2. Refer to latest copy of the Ubist product information details for framing details, stifferent tables, web note chart. bridging details, multi-ply fastering details and handling/erection details

3. Damaged lobists must not be used

4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

Provide lateral support at bearing points to avoid lateral displacement and rotation.
 Web stiffeness for point load as shown Minimum point load bearing length>= 3.5 inches
 For flat roofs provide amount displace to possible ponding.
 READ ALL NOTES.

Manufacturer Info

Nascor by Kott

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. This design is valid





Client:

Project: Address: Date:

SB Designer:

Job Name: MILLWOOD 1 EL-3

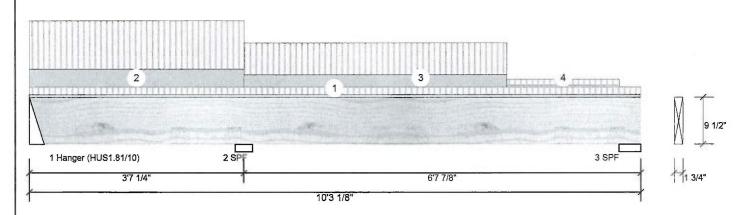
9/10/2018

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED

Level: Ground Floor



Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition	on: 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		

	Unfacto	red Reactions	UNPATTER	NED lb (Uplif	t)
	Brg	Live	Dead	Snow	Wind
	1	171	68	0	0
2	2	670	276	0	0
	3	159	71	0	0

]	Bearing:	s and Fa	ctored l	Reactions			
	Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
	1 - Hanger	3.000"	11%	78 / 363	441 (-30)	L_	1.25D+1.5L
	2 - SPF	3.500"	37%	354 / 1034	1388	LL	1.25D+1.5L
	3 - SPF	4.375"	7%	85 / 246	331	_L	1.25D+1.5L

#### **Analysis Results** Location Allowed Analysis Actual Capacity Comb. Case Neg Moment -717 ft-lb 3'7 1/4" 11362 ft-lb 0.063 (6%) 1.25D+1.5L LL Unbraced -717 ft-lb 3'7 1/4" 10999 ft-lb 0.065 (7%) 1.25D+1.5L LL Pos Moment 582 ft-lb 7' 7/8" 11362 ft-lb 0.051 (5%) 1.25D+1.5L \_L 582 ft-lb 7' 7/8" 7023 ft-lb 0.083 (8%) 1.25D+1.5L \_L Unbraced 4'4 3/4" 4638 lb 0.118 (12%) 1.25D+1.5L LL 548 lb Shear Perm Defl in. 0.004 6'10 5/8" 0.212 (L/360) 0.020 (2%) D Uniform (L/18084) LL Defl inch 0.011 (L/6896) 6'9 15/16" 0.212 (L/360) 0.050 (5%) L L TL Defl inch 0.015 (L/4993) 6'10 3/16" 0.318 (L/240) 0.050 (5%) D+L L



September 17, 2018

D	e	sign	Notes
	1	Fill all	hanger nailing holes

2 Girders are designed to be supported on the bottom edge only.

3 Tie-down connection required at bearing 1 for uplift 30 lb (Combination 0.9D+1.5L, Load Case L).

4 Top braced at bearings.

5 Bottom braced at bearings.

н						- 1			
I	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind Comments
I	1	Tie-In	0-0-0 to 10-3-2	(Span)0-11-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF
I	2	Part. Uniform	0-0-0 to 3-7-4		Тор	45 PLF	120 PLF	0 PLF	Rass-Thru Framing Squash Block is
I	3	Part. Uniform	3-7-4 to 8-0-4		Тор	30 PLF	80 PLF	0 PLF	required at all point loads over bearings
ı	4	Tie-In	8-0-4 to 9-10-12	(Span)0-8-4	Тор	15 PSF	40 PSF	0 PSF	Reper to Multiple Member Connection
		Self Weight				4 PLF			Detail for ply to ply nailing or bolting requirements

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 loader. 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

approvers

Damaged Beams must not be used

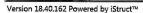
Design assumes top edge is laterally restrained

Provide lateral support at bearing points to avoid

lateral displacement and rotation

Manufacturer Info Forex APA: PR-L318

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.





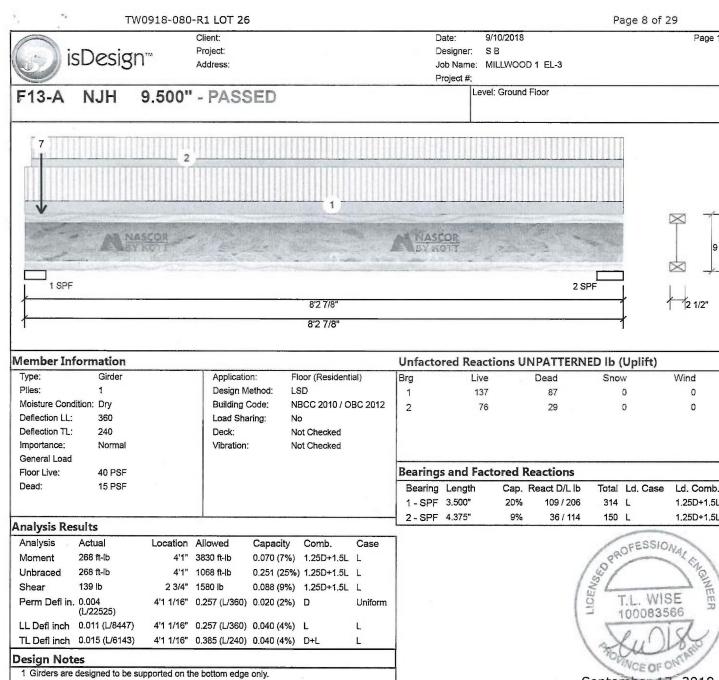
9 1/2"

0

0

1.25D+1.5L

1.25D+1.5L



- 2 Top flange braced at bearings.

3 Bottom flange braced at bearings



September 17, 2018

1	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
	1	Tiè-In	0-0-0 to 8-2-14	(Span)0-6-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	2	Tie-In	0-1-2 to 8-2-14	(Span)0-4-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	4	Point	0-2-12		Тор	1 lb	2 lb	0 lb	0 lb	J2
	5	Point	0-2-12		Тор	1 lb	0 lb	0 lb	0 lb	Wall Self Weight
	6	Point	0-2-12		Тор	23 lb	61 lb	0 lb		J2
	7	Point	0-2-12		Тор	34 lb	0 lb	0 lb	require	Thru Framing Squash Block is Wall Self Weight ed at all point loads over bearings

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

#### Notes

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

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

#### chemicals

Handling & Installation

Libert finges must not be cut or drilled Refer to latest copy of the Libist product information details for framing details, stiffener tables, web hole-chart, bridging details, multi-ply festening details and handling/erection details Demaged Libists must not be used

Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

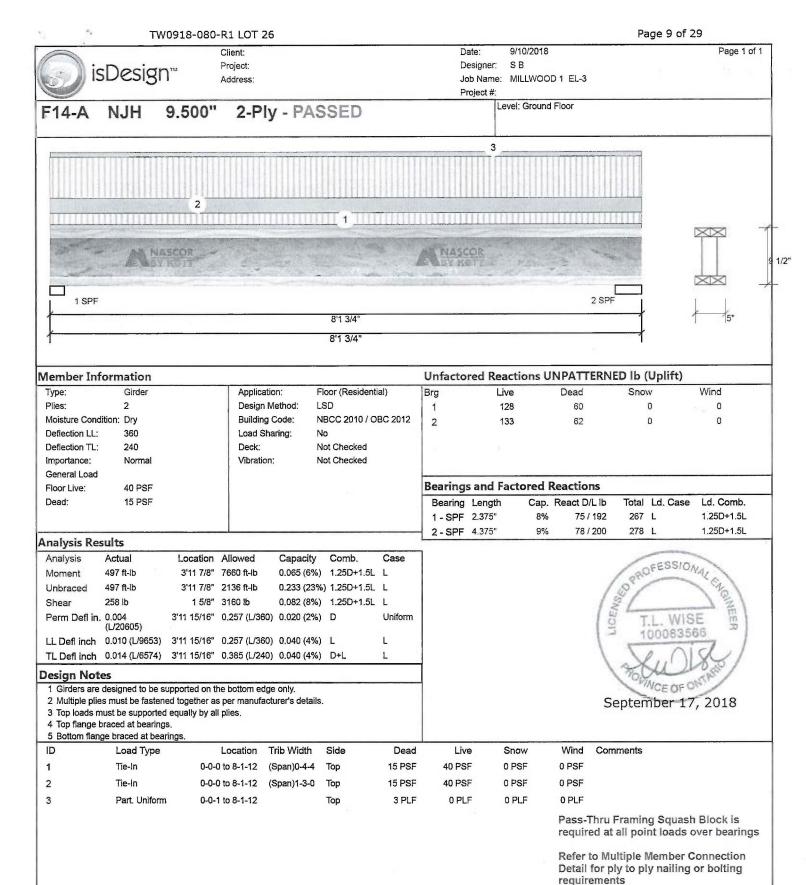
This design is v

 Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
 For flat roofs provider
 READ ALL NOTES O 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.

Manufacturer Info

Nascor by Kott



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
 Upist not to be treated with fire retardant or corrosive

Handling & Installation

ARTILLING o. INSCAILATION
Libels flanges must not be cut or drilled
Refer to letest copy of the Libels product information
details for framing details, stiffaner tables, web hole
chart, bridging details, multi-by fastening details and
handling/erection details
Denaged Libels must not be used
Design assumes top flange to be laterally restrained
by attached sheathing or as specified in engineering
notes.

Provide leteral support at bearing points to avoid lateral displacement and rotation
 (Neb stiffeners for point load as shown Minimum point load bearing lengths: 7.5 latebox
 7. For fat roots provide READ ALL NOTES Opnoting
 PROVINCE PING NOTE

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.

Manufacturer Info

Nascor by Kott

This design is vi





Client:

Project: Address:

9/10/2018 Date:

SB Designer:

Job Name: MILLWOOD 1 EL-3

Project #:

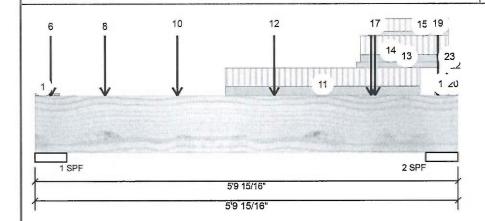
Forex 2.0E-3000Fb LVL

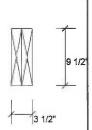
1.750" X 9.500"

2-Ply - PASSED

1

Level: Ground Floor





Wind

0

Page 1 of 2

Member Inforn	nation		
Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 201
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	l Reactions	UNPATTER	NED lb (Uplift)
Brg	Live	Dead	Snow

2	2826	1291	U	U

1324

....

**Bearings and Factored Reactions** 

2962

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1-SPF	5.250"	54%	1655 / 4444	6099	L	1.25D+1.5L	
2-SPF	5.313"	51%	1614 / 4240	5853	L	1.25D+1.5L	

**Analysis Results** 

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	•
Moment	4369 ft-lb	3'3 9/16"	22724 ft-lb	0.192 (19%)	1.25D+1.5L	L	
Unbraced	4369 ft-lb	3'3 9/16"	22724 ft-lb	0.192 (19%)	1.25D+1.5L	L	
Shear	3973 lb	4'7 7/8"	9277 lb	0.428 (43%)	1.25D+1.5L	L	
Perm Defl in.	0.012 (L/5025)	3'1 1/2"	0.169 (L/360)	0.070 (7%)	D	Uniform	
LL Defl inch	0.027 (L/2256)	3'1 11/16"	0.169 (L/360)	0.160 (16%)	L	L	
TL Defl inch	0.039 (L/1557)	3'1 5/8"	0.254 (L/240)	0.150 (15%)	D+L	L	



0

September 17, 2018

### **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.

/ Lateral	slenderness ratio based of	on full section width.
ID	Load Type	Location
1	Tie-In	0-0-0 to 0-4-2

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-2	(Span)1-1-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-2-10		Тор	19 lb	49 lb	0 lb	0 lb	J4
3	Point	0-2-10		Тор	16 lb	0 lb	d1 0	0 lb	Wall Self Weight
4	Point	0-2-10		Тор	656 lb	1548 lb	0 lb	0 lb	BM6 BM6
5	Point	0-2-10		Тор	25 lb	68 lb	0 lb	0 lb	J4

Continued on page 2...

#### Notes

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

### Lumber

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

### Handling & Installation

Articiting & 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 1.

Manufacturer Info Forex APA: PR-L318

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. This design



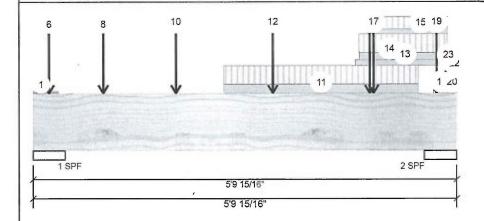
Client: Project: Address: Date: 9/10/2018

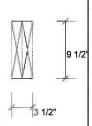
SB Designer:

Job Name: MILLWOOD 1 EL-3

Project #:

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





Page 2 of 2

Continued fa	rom page 1							
ID	Load Type	Location Trib	Width Side	Dead	Live	Snow	Wind	Comments
6	Point	0-2-10	Тор	22 lb	0 lb	0 (6	0 lb	Wall Self Weight
7	Point	0-11-9	Far Face	99 lb	211 lb	0 lb	0 lb	J4
8	Point	0-11-9	Near Face	59 lb	158 lb	0 lb	0 lb	J3
9	Point	1-11-9	Far Face	150 lb	313 lb	0 lb	dt 0	J4
10	Point	1-11-9	Near Face	88 lb	235 lb	0 lb	dI 0	J3
11	Part, Uniform	2-7-9 to 5-3-9	Far Face	130 PLF	268 PLF	0 PLF	0 PLF	
12	Point	3-3-9	Near Face	101 lb	268 lb	0 lb	0 lb	J3
13	Part. Uniform	4-5-3 to 5-8-6	Тор	82 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
14	Part. Uniform	4-5-13 to 5-8-6	Тор	102 PLF	272 PLF	0 PLF	0 PLF	J4
15	Part, Uniform	4-7-1 to 5-8-6	Тор	66 PLF	175 PLF	0 PLF	0 PLF	J3
16	Point	4-7-9	Near Face	85 lb	227 lb	0 lb	0 lb	J3
17	Point	4-8-4	Тор	523 lb	1280 lb	0 lb	0 lb	BM6 BM6
18	Part. Uniform	5-6-1 to 5-8-6	Тор	43 PLF	116 PLF	0 PLF	0 PLF	J3
19	Point	5-6-10	Near Face	51 lb	128 lb	0 lb	di 0	F12
20	Part, Uniform	5-8-6 to 5-9-15	Тор	51 PLF	136 PLF	0 PLF	0 PLF	J4
21	Part. Uniform	5-8-6 to 5-9-15	Тор	22 PLF	58 PLF	0 PLF	0 PLF	J3
22	Part. Uniform	5-8-6 to 5-9-15	Тор	33 PLF	87 PLF	0 PLF	0 PLF	J3
23	Part. Uniform	5-8-6 to 5-9-15	Тор	41 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight			8 PLF				

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

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

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

Lumber
1. Dry service conditions, unless noted otherwise
2. Dry service conditions, unless noted otherwise
3. Dry and to be treated with fire retardant or corrosive

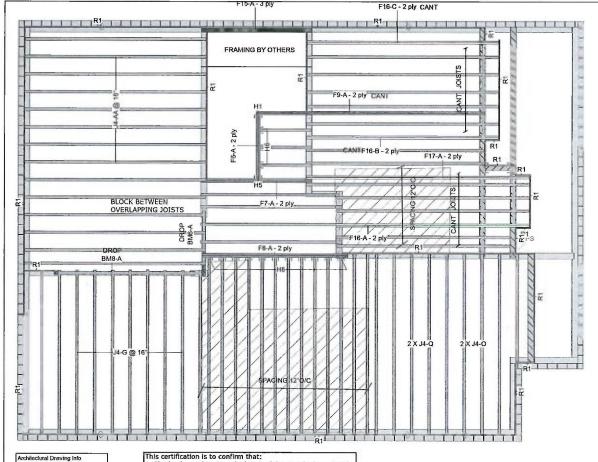
For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4

This design is valid until 7/10/2021



JARDIN DESIGN GROUP 64 JARDIN DR, SUITE 3A VAUGHAN, ON L4K 3P3

Project # 18-24 Model: LOT-26 (Millwood 1 EL- 1) Date: OCT 26, 2018

- 1. OBC 2012 O.Reg 332/12 as amended
- 2. Nascor CCMC 13535-R
- 3. LVL CCMC -12904-R
- 4. CAN/CSA-086-09

5. CCMC -12787-R APA PR-L310(C)

JOISTS SPACING 16'O/C UNLESS NOTED OTHERWISE

Version 18.80.219 Powered by iStruct™

1. The loads used in the calculation of the attached approved components conform to the floor assembly shown on this layout.

2. The floor joists comply with the Nascor span table for the loads and spacing shown on this layout.

The floor system must be assembled in accordance to the Nascor Specifier Guide. Multi-ply members must be attached together as per the included multiple member connection

All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of others.



January 22, 2019

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

Second										
LVL/LS			100 00	I n.	-45	01.	) pr	Pr.	(ı	NASCOR
Label F9	Descr	ption	Width 1.75	De	9.5	Qly	Plies 2	Pcs 2	Length 18-0-0	HADCON
	2.0E-3	000Fb LVL				•	_	_		Layout Name
ВМЗ	Forex 2.0E-3	DOOF6 LVL	1.75		9.5	1	2	2	12-0-0	LOT-26 (MILLWOOD 1 EL-3 OPT 4
F8	Forex 2 DF-3	000Fb LVL	1,75		9.5	1	2	2	12-0-0	BEDRM) Design Method
F15	Forex	000Fb LVL	1.75		9.5	1	3	3	10-0-0	LSD
F7	Forex	000Fb LVL	1.75		9.5	1	2	2	10-0-0	Description GREENPARK HOMES
BM6	Forex	000Fb LVL	1.75		95	1	2	2	6-0-0	MINISALE HOME CORP. BRAMPTON.ON
F6	Forex	000Fb LVL	1.75		9.5	1	2.	2	6-0-0	Created
i Joist	IZ.UE-3	MOOF D LVL	_		-		-			June 26, 2016
	Descr	iption	Width	Dei	oth	Qtv	Plies	Pcs	Length	Builder
F17	NJ		15		9.5	1	2	2	18-0-0	Sales Rep
F16	NJ		1.5		9.5	3	2	6	16-0-0	Designer
J5	NJH		2.5		9.5			- 3	18-0-0	SB
J6	NJH		25		9.5			7	16-0-0	Shipping
J4	HLM		25		9.5			49	14-0-0	Project
J3	NJH		2.5		9.5			4	12-0-0	
J2 J1	NJH		2.5 2.5		9.5			3	10-0-0 4-0-0	Builder's Project
Rim Board			2.0		9.5			3	4-0-0	Kott Lumber Company
	Descr	intion	Width	De	pth Oty Plies Pcs Lend		Length	14 Anderson Blvd		
Rí		d Rimboard	1.125		9.5	City	rites	14	Lengui 12	Stouffville, Ontario
, Ki		Tus 1.125 X 9.5		12	Canada					
Blocking				-			•			L4A 7X4
	Descr	iption	Width	De	pth	Qty	Plies	Pcs	Length	905-642-4400
BLK1	NJ		1.5		9.5	LinFt		Varies	1-0-0	Second Floor
BLK2	NJ		1.5		9.5	LinFt		Varies	2-0-0	Design Method LSD
BLK1	NJH		2.5		9.5	LinFt		Varies	16-0-0	Building Code NBCC 2010 / OBC
BLK2	NJH		2.5		9.5	LinFt		Varies	8-0-0	2012
Hange	7									Floor
						Be	am/Girde		ported	Loads
									ember	Live 40
Label	Pcs	Descriptio		kew	Slo	pe f	asteners		teners	Dead 15
H1	1	HUC410 (N	Ain)	_		_	14 16d	- 6	10d	Deflection Joist
H4	2	Unknown Hanger		ļ						LL Span L/ 480
H5	1	HGUS410	-	$\neg$		+	46 16d	16	3 16d	TL Span L/ 360
H6	14	LT259		-1	-	_	4 10d		dx1 1/2	LL Cant 2L/ 480
NOTES:		111111					7 104	2.10		TL Cant 2L/ 360
HOILS.										Deflection Girder
		rity dimensi								LL Span L/ 360
2. Dout	ble joist	only require g a face-mo	filler/back	er ply	whe	n suppor	ting anoth	er	- 1	TL Span L/ 240
		ocking @ 24			aliel	non-load	hearing wa	alls		LL Cant 2L/ 480
4. Insta	Il single	ply flush wit	ndow hea	der al	ong i	nside fac	e of timbo	ard/rimjoi:	st	TL Cant 2L/ 360
		cor specifier								Decking
		ks recomme upport loads								Deck OSB
7. Load	transfe	r blocks to b	e installe	d und	er all	point loa	ds.	л <b>от 100</b> 1.	- 1	Thickness 5/8*
8. If sha	all be th	framer's re	sponsibifi	ty tha	t floor	r joists ar	nd beams			Fastener Nailed & Glued
are fa	astened	as per the h	anger ma	nufac	turer'	s standa	rds.			Vibration
Refer to		Member Co	nnection	Detai	to pl	ly to ply r	nailing or b	o'ling		Celling: Gypsum 1/2*

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 bled floor with an additional dead load

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

### Legend

Point Load Support Load from Above

Norbord Rimboard Plus 1.125 X 9.5 NJH 95 Forex 2.0E-3000Fb LVL 1.75 X 9.5 Forex 2.0E-3000Fb LVL 1 75 X 9.5

(Dropped)

N.195

5 25 X 10 25 (Dropped



Client: Project: Address: Date: 9/10/2018

Designer: SB

Job Name: MILLWOOD 1 EL-3

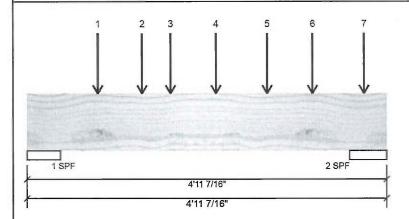
Project #:

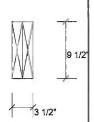
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor





Page 1 of 2

Member Inform	ation			
Type:	Girder		Application:	Floor (Residential)
Plies:	2	1	Design Method:	LSD
Moisture Condition:	Dry	- 1	<b>Building Code:</b>	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	11		
Dead:	15 PSF	100		

#### Unfactored Reactions UNPATTERNED lb (Uplift) Snow Wind Brg Live Dead 1548 656 0 0 2 1280 523 0 0

#### **Bearings and Factored Reactions** Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 1-SPF 5.500" 27% 820 / 2322 3142 L 1.25D+1.5L 653 / 1920 2573 L 1.25D+1.5L 2-SPF 6.094" 20%

Analysis Results

-						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3495 ft-lb	1'11 11/16"	22724 ft-lb	0.154 (15%)	1.25D+1.5L	L
Unbraced	3495 ft-lb	1'11 11/16"	22724 ft-lb	0.154 (15%)	1.25D+1.5L	L
Shear	3023 lb	1'2 1/4"	9277 lb	0.326 (33%)	1.25D+1.5L	L
Perm Defl in.	0.007 (L/7527)	2'2 1/8"	0.137 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.016 (L/3135)	2'2 3/8"	0.137 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.022 (L/2213)	2'2 5/16"	0.205 (L/240)	0.110 (11%)	D+L	L

### Design Notes

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

6 Bottom	braced at bearings.								
7 Lateral sienderness ratio based on full section width.									
ID	Load Type	Location	Trib Width	Side	Dead	Live			
1	Point	0-11-11		Тор	77 lb	206 II			

L	, Lateral ordinas	mood ratio basea sir rail occ	Mon man.							
Γ	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	1	Point	0-11-11		Тор	77 lb	206 lb	di 0	0 lb	J4
l	2	Point	1-7-0		Тор	569 lb	1304 lb	0 lb	0 lb	F8
l	3	Point	1-11-11		Тор	116 lb	310 lb	0 lb	0 lb	J4
l	4	Point	2-7-3		Тор	91 lb	241 lb	0 lb	0 lb	J3
	5	Point	3-3-11		Тор	134 lb	356 lb	0 lb	0 16	J4
Ι.										

Continued on page 2...

#### Notes

Colculated 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

### Handling & Installation

1.

and ling & 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 evoid
lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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.

Kott Lumber Company 14 Anderson Blvd, Ontario L4A 7X4

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100083566

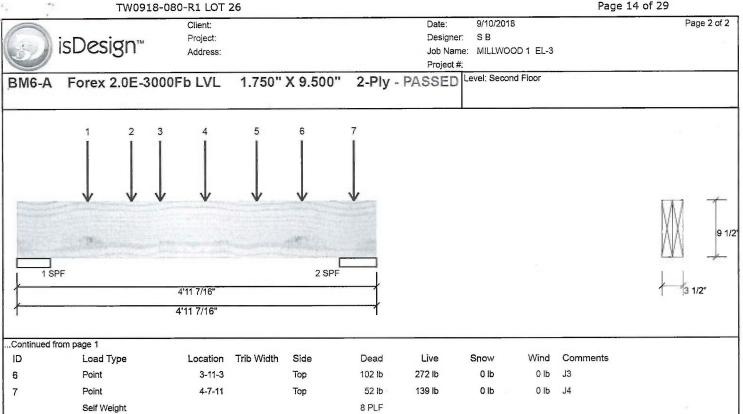
WCE OF ON

September 17, 2018



This design is





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

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

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

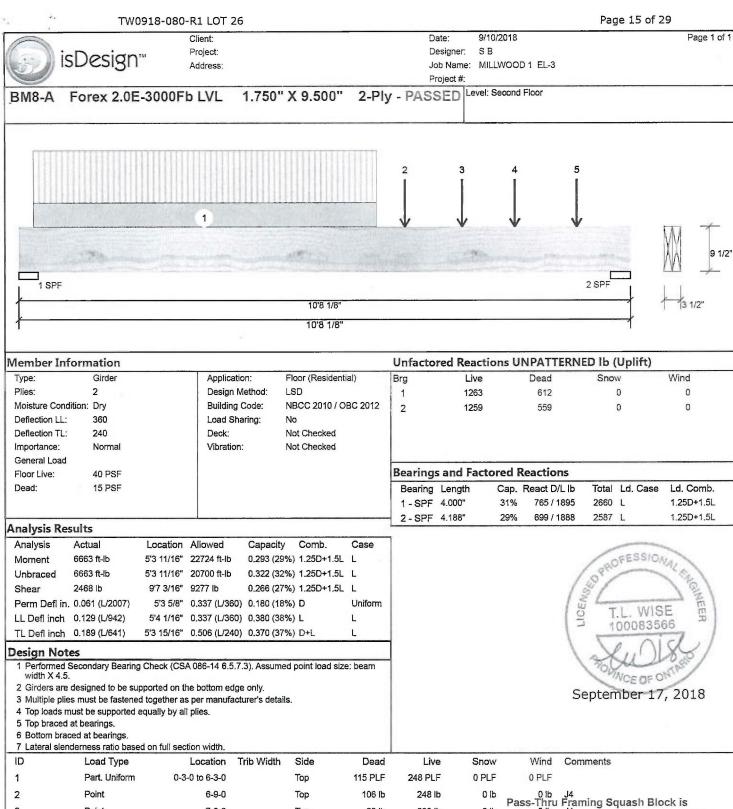
- and ling & Installation
  LVL beams must not be cut or drilled
  Refer to manufacturer's product information
  regarding installation requirements, multi-ply
  fastening details, beam strength values, and code
  approvals
  Damaged Beams must not be used
  Design assumes top edge is laterally restrained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

Forex APA: PR-L318

Manufacturer Info

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

This design is valid until 7/10/2021



Pass-Thru Framing Squash Block is required at all point loads over bearings 3 Point 7-9-0 Top 89 lb 238 lb 0 lb Point 8-8-0 Тор 93 lb 248 lb 0 lb 0 lb Refer to Multiple Member Connection Detail for ply to ply nailing or bolting 5 Point 9-9-0 Top 112 lb 300 lb Self Weight 8 PLF requirements

This design

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
- maged Beams must not be used
- Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

Forex APA: PR-L318

Manufacturer Info

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.



Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4

905-642-4400

isDesign™

Client:

Project:

Address:

9/10/2018 Date:

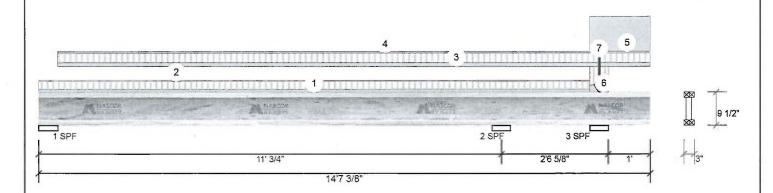
Designer: SB

Job Name: MILLWOOD 1 EL-3

Project #:

2-Ply - PASSED NJ 9.500"

Level: Second Floor



Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Conditi	on: Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
mportance:	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	91	0	0
2	460	216	0	0
3	74	197	87	0

ľ	Bearings and Factored Reactions												
ľ	Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.						
l	1-SPF	5.500"	13%	114 / 274	388	L	1.25D+1.5L						
	2 - SPF	5.250"	21%	270 / 696	966	LL_	1.25D+1.5L						
	3 - SPF	5.250"	16%	246 / 403	649	_LL	1.25D+1.5L +0.5S						

### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-835 ft-lb	11' 3/4"	7340 ft-lb	0.114 (11%)	1.25D+1.5L	LLL
Unbraced	-835 ft-lb	11' 3/4"	5510 ft-lb	0.151 (15%)	1.25D+1.5L	LLL
Pos Moment	831 ft-lb	4'9 13/16"	7340 ft-lb	0.113 (11%)	1.25D+1.5L	L
Unbraced	831 ft-lb	4'9 13/16"	832 ft-lb	0.998 (100%)	1.25D+1.5L	L
Shear	532 lb	11' 3/4"	3080 lb	0.173 (17%)	1.25D+1.5L	LLL
Perm Defl in.	0.015 (L/8397)	5'4"	0.356 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.031 (L/4139)	5'4 3/16"	0.356 (L/360)	0.090 (9%)	L+0.5S	L
TL Defl inch	0.046 (L/2772)	5'4 1/8"	0.533 (L/240)	0.090 (9%)	D+L+0.5S	L
LL Cant	-0.001 (2L/24468)	Rt Cant	0.200 (2L/480)	0.005 (0%)	L+0.5S	LL_
TL Cant	0.001 (2L/35150)	Rt Cant	0.300 (2L/360)	0.002 (0%)	D+L+0.5S	_L

### **Design Notes**

- 1 Warning Note: right cant exceeds 1/3 of back span, wind uplift may need to be checked.
- 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 flange must be laterally braced at a maximum of 6'8" o.c.
- 6 Bottom flange must be laterally braced at a maximum of 6'3" o.c.



September 17, 2018

#### 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
 Upolst not to be treated with fire retardant or corresive

#### chemicals

### Handling & Installation

Handling & Installation

1. Joist flanges must not be cut or drilled

2. Rafer to latest copy of the Joist product information details for framing details, stifferer tables, web hole chart, bridging details, multi-ply testening details and handling/eraction details

3. Demaged Joists must not be used

4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

Provide lateral support at bearing points to avoid lateral displacement and rotation.
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
 For flat roofs prov

Nascor by Kott

Manufacturer Info

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.

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

This design is





Client:

Project: Address: Date:

9/10/2018

SB

Page 2 of 2

Designer: Job Name: MILLWOOD 1 EL-3

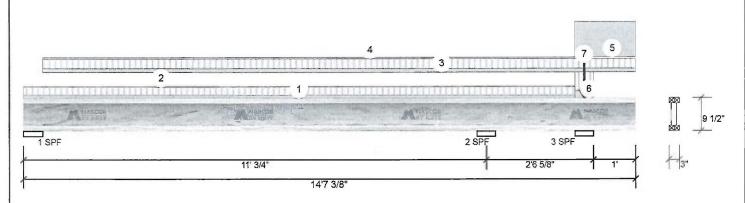
Project #:

NJ

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 13-2-2	(Span) 0-10-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part, Uniform	0-0-0 to 13-2-2		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
3	Tie-In	0-5-8 to 14-7-6	(Span)1-1-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part, Uniform	0-5-8 to 13-2-10		Тор	3 PLF	0 PLF	0 PLF	0 PLF	
5	Part. Uniform	13-2-0 to 14-7-6		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
6	Tie-In	13-2-2 to 13-7-8	(Span)2-1-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
7	Point	13-4-12		Тор	110 lb	149 lb	87 lb	0 lb	F2 F2

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

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

#### Notes

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

#### Lumber

Dry service conditions, unless noted otherwise
 Use to be treated with fire retardant or corrosive

chemicals

Handling & Installation

1. IJolat flanges must not be cut or drilled

2. Refer to latest copy of the IJolat product information details for framing details, sufferer tables, web hole chart, bridging details, multi-ply fastering details and handling/erection details

3. Demaged IJolats must not be used

4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

Provide lateral support at beering points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 Inches
 The fat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer info

Nascor by Kott





Client: Project: Address:

9/10/2018 Date: Designer:

SB Job Name: MILLWOOD 1 EL-3

Project #:

2-SPF 5.250"

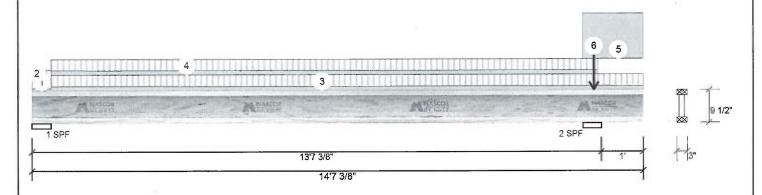
23%

465 / 564

1029 LL

2-Ply - PASSED NJ 9.500"

Level: Second Floor



Member Info	rmation			Unfactore	ed Reacti	ions UNPATTER	NED lb (Uplift	:)
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	
Plies:	2	Design Method:	LSD	1	269	98	0	
Moisture Conditi	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	288	372	264	
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked	1				
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings	and Fact	ored Reactions		
Dead:	15 PSF			Bearing I	_ength	Cap. React D/L lb	Total Ld. Ca	ase
				1-SPE 5	5.500"	17% 122 / 405	527 L	

Ana	lveie	Resu	ite
Ana	IVSIS	Resu	I LS

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-70 ft-lb	13'7 3/8"	4771 ft-lb	0.015 (1%)	1.25D+1.5L	_L
Unbraced	-70 ft-lb	13'7 3/8"	4691 ft-lb	0.015 (1%)	1.25D+1.5L	_L
Pos Moment	1638 ft-lb	6'10 1/8"	7340 ft-lb	0.223 (22%)	1.25D+1.5L	L_
Unbraced	1638 ft-lb	6'10 <b>1</b> /8"	1647 ft-lb	0.994 (99%)	1.25D+1.5L	L_
Shear	540 lb	13'4 3/4"	3080 lb	0.175 (18%)	1.25D+1.5L	LL
Perm Defl in.	0.035 (L/4444)	6'9 15/16"	0.433 (L/360)	0.080 (8%)	D	Uniform
LL Defl inch	0.101 (L/1547)	6'10 3/4"	0.433 (L/360)	0.230 (23%)	L+0.58	L
TL Defl inch	0.136 (L/1148)	6'10 9/16"	0.650 (L/240)	0.210 (21%)	D+L+0.5S	L_
LL Cant	-0.023 (2L/1062)	Rt Cant	0.200 (2L/480)	0.113 (11%)	L+0.5S	L_
TL Cant	-0.029 (2L/817)	Rt Cant	0.300 (2L/360)	0.098 (10%)	D+L+0.5S	L

T.L. WISE 100083566 VCE OF ON September 17, 2018

Wind

0

Ld. Comb.

1.25D+1.5L 1.25D+1.5L

+0.58

#### **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top flange must be laterally braced at a maximum of 5'1" o.c.
- 5 Bottom flange must be laterally braced at a maximum of 6'3" o.c.

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
 Upoist not to be treated with fire retardant or corrosive

Handling & Installation

andling & Installation
Lioist flanges must not be cut or drilled
Refer to latest copy of the Jioist product information
details for framing details, sufferer tables, web note
chart, bridging details, multi-ply fastering details and
handling/erection details
Demaged Loists must not be used
Design assumes top flange to be laterally restrained
by attached sheathing or as specified in engineering
notes.

This design is

Provide lateral support at bearing points to evold lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
 For that roofs proving READ ALL NOTES ON

Manufacturer Info

Nascor by Kott

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.



Page 2 of 2



Client: Project: Address: Date: 9/10/2018 Designer:

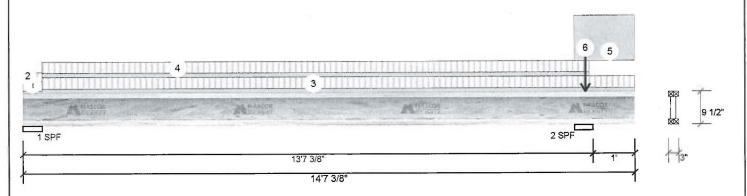
SB

Job Name: MILLWOOD 1 EL-3

Project #:

2-Ply - PASSED NJ F16-B 9.500"

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Tie-In	0-0-0 to 0-5-8	(Span)0-6-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Tie-In	0-0-0 to 0-5-8	(Span)0-9-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
3	Tie-In	0-5-8 to 14-7-6	(Span)1-0-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
4	Tie-In	0-5-8 to 13-6-6	(Span) 0-11-13	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
5	Part. Uniform	13-2-0 to 14-7-6		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
6	Point	13-5-4		Top	145 lb	0 lb	264 lb	0 lb	F3 F3	

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

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

#### Notes

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

### Lumber

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

chemicals

- andling & Installation.

  I Josist flanges must not be cut or drilled
  Refer to latest copy of the Lioist product information details for framing details, sufferer tables, web hole chart. bridging details, multi-py fastering details and handling/erection details.

  Demaged Lioists must not be used
  Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

- Provide lateral support at bearing points to avoid lateral displacement and rotation
   Web stiffeners for point load as shown Minimum point load bearing length= 3.5 inches
   For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info

Nascor by Kott



Client: Project: Address:

9/10/2018 Date: Designer:

SB

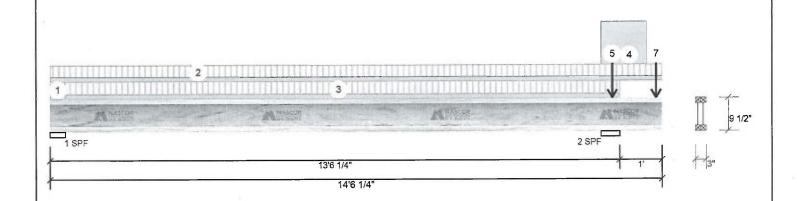
Job Name: MILLWOOD 1 EL-3

Unfactored Reactions UNPATTERNED Ib (Uplift)

Project #:

2-Ply - PASSED NJ 9.500"

Level: Second Floor



Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	N	Wind
Plies:	2	Design Method:	LSD	1	309		111	0 (-1	1)	0
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	331		428	31	9	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked	1						
General Load										
Floor Live:	40 PSF			Bearings	and Fact	ored F	Reactions			
Dead:	15 PSF			Bearing L	_ength	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1-SPF 4	1.375"	20%	139 / 465	604	L_	1.25D+1.5L
				2-SPF 5	5.250"	26%	536 / 656	1191	LL	1.25D+1.5L

Ana	lysis	Resu	lts

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-102 ft-lb	13'6 1/4"	4771 ft-lb	0.021 (2%)	1.25D+1.5L	_L
Unbraced	-102 ft-lb	13'6 1/4"	4691 ft-lb	0.022 (2%)	1.25D+1.5L	_L
Pos Moment	1863 ft-lb	6'8 3/4"	7340 ft-lb	0.254 (25%)	1.25D+1.5L	L_
Unbraced	1863 ft-lb	6'8 3/4"	1875 ft-lb	0.994 (99%)	1.25D+1.5L	L_
Shear	617 lb	13'3 5/8"	3080 lb	0.200 (20%)	1.25D+1.5L +0.5S	LL
Perm Defl in.	0.039 (L/4002)	6'8 7/16"	0.433 (L/360)	0.090 (9%)	D	Uniform
LL Defl inch	0.115 (L/1352)	6'9 5/8"	0.433 (L/360)	0.270 (27%)	L	L_
TL Defl inch	0.154 (L/1010)	6'9 3/8"	0.650 (L/240)	0.240 (24%)	D+L	L_
LL Cant	-0.026 (2L/928)	Rt Cant	0.200 (2L/480)	0.129 (13%)	L	L_
TL Cant	-0.033 (2L/730)	Rt Cant	0.300 (2L/360)	0.110 (11%)	D+L	L_



September 17, 2018

#### **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Top flange must be laterally braced at a maximum of 4'10" o.c.
- 5 Bottom flange must be laterally braced at a maximum of 6'3" o.c.

#### Notes

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

### Lumber

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

#### chemicals

### Handling & Installation

- and ling & Installation.

  I Joist flanges must not be cut or drilled.
  Refer to latest copy of the IJoist product information details for framing details, sufferer tables, web hole-tont. bridging details, multi-phy fastening details and handling/erection details.

  Demaged IJoist must not be used.
  Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes. 1.

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeness for point load as shown Minimum point load bearing length>= 3.5 inches
 For fat roofs provide pronding

Manufacturer Info Nascor by Kott

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.

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



This design is valid



Page 2 of 2



Client: Project: Address: Date: 9/10/2018

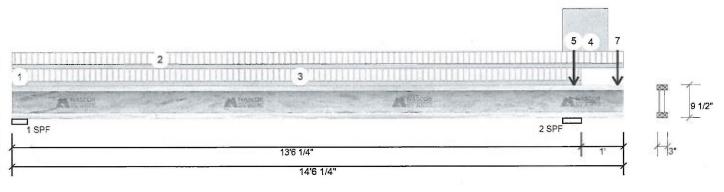
Designer: SB

Job Name: MILLWOOD 1 EL-3

Project #:

9.500" 2-Ply - PASSED NJ

Level: Second Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-6	(Span)1-0-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 14-6-4	(Span)1-1-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	0-4-6 to 13-6-4	(Span)1-2-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part. Uniform	13-0-14 to 14-1-14		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
5	Point	13-4-2		Тор	161 lb	0 lb	299 lb	0 lb	F3 F3
6	Point	14-4-10		Тор	8 lb	0 lb	19 lb	0 lb	
7	Point	14-4-10		Тор	44 lb	0 lb	0 lb	dl 0	Wall Self Weight

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

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

#### Notes

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

### Lumber

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

Handling & Installation

1. Juleit fanges must not be cut or drilled

2. Refer to letest copy of the IJoist product information details for framing details, attifener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details

1. Damaged Joists must not be used

4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Wab stiffeness for point load as shown Minimum point load bearing length>= 3.5 inches
 For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info

Nascor by Kott



Client: Project: Address:

9/10/2018 Date:

SB Designer:

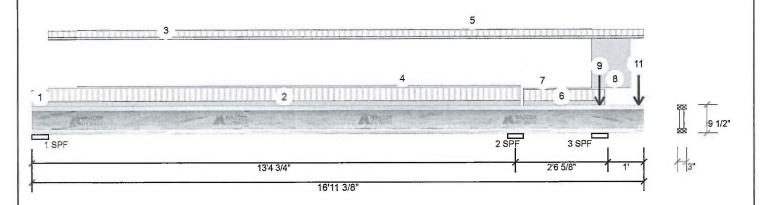
Job Name: MILLWOOD 1 EL-3

Project #:

9.500" NJ

2-Ply - PASSED

Level: Second Floor



Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condit	ion: 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	175	83	0 (0)	0
2	2	482	223	0 (-4)	0
	3	0 (-9)	176	128	0

Bearings	and I	-actored	Reactions
December	I 41-	0	D D/I II

I	Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1	1 - SPF	5.500"	12%	104 / 263	367	L	1.25D+1.5L	
4	2-SPF	5.250"	22%	279 / 727	1006	LL_	1.25D+1.5L	
+	3 - SPF	5.250"	14%	220 / 363	583	_LLL	1.25D+1.5L +0,5S	

Analysis Results Analysis Actual Location Allowed Capacity Comb. Neg Moment -1039 ft-lb 13'4 3/4" 7340 ft-lb 0.142 (14%) 1.25D+1.5L LLL +0.5S0.191 (19%) 1.25D+1.5L LLL -1039 ft-lb 13'4 3/4" 5435 ft-lb Unbraced +0.5S 0.130 (13%) 1.25D+1.5L L Pos Moment 951 ft-lb 5'8 5/8" 7340 ft-lb 0.995 (99%) 1.25D+1.5L L\_ 5'8 5/8" 956 ft-lb Unbraced 951 ft-lb 0.168 (17%) 1.25D+1.5L LLL Shear 518 lb 13'4 3/4" 3080 lb +0.5SPerm Defl in. 0.024 (L/6483) 6'4 3/16" 0.433 (L/360) 0.060 (6%) D Uniform LL Defl inch 0.049 (L/3205) 6'4 5/16" 0.433 (L/360) 0.110 (11%) L TL Defl inch 0.073 (L/2145) 6'4 5/16" 0.650 (L/240) 0.110 (11%) D+L -0.001 Rt Cant 0.200 LL Cant 0.006 (1%) L LL\_ (2L/20851) (2 L/480)TL Cant 0.001 Rt Cant 0.300 0.003 (0%) D+S+0.5L (2L/31246) (2L/360)



### **Design Notes**

- 1 Warning Note: right cant exceeds 1/3 of back span, wind uplift may need to be checked.
- 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 flange must be laterally braced at a maximum of 6'4" o.c.
- 6 Bottom flange must be laterally braced at a maximum of 6'3" o.c.

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
 Ubist not to be treated with fire retardant or corrosive

Handling & Installation

- Andling & Installation
  Libid flanges must not be cut or dilled
  Refer to latest copy of the Libid product information
  details for framing details, suffener tables, web note
  chart, bridging details, multi-ply fastening details and
  handling/rection details
  Damaged Libids must not be used
  Design assumes top flange to be laterally restrained
  by attached sheathing or as specified in engineering
  notes. 1.

- Provide lateral support at bearing points to avoid lateral displacement and rotation.
   Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
   For flat roofs provid
   READ ALL NOTES ON

This design is

Manufacturer Info

Nascor by Kott

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.





Page 2 of 2



Client: Project:

Address:

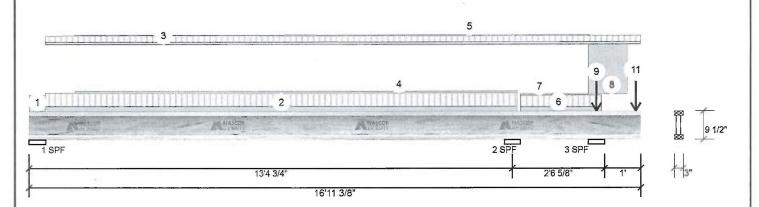
9/10/2018 Date:

SB Designer:

Job Name: MILLWOOD 1 EL-3

Project #:

NJ 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 0-5-8	(Span)0-11-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Tie-In	0-5-8 to 13-6-6	(Span)1-0-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
3	Tie-In	0-5-8 to 16-11-6	(Span)0-6-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
4	Part. Uniform	1-3-1 to 13-6-6		Тор	3 PLF	0 PLF	0 PLF	0 PLF		
5	Part. Uniform	1-3-2 to 15-6-3		Тор	1 PLF	0 PLF	0 PLF	0 PLF		
6	Tie-In	13-7-8 to 15-10-6	(Span)0-11-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
7	Part. Uniform	13-7-8 to 15-6-2		Тор	2 PLF	0 PLF	0 PLF	0 PLF		
8	Part. Uniform	15-6-0 to 16-7-0		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight	
9	Point	15-8-12		Тор	121 lb	149 lb	112 lb	0 lb	F2 F2	
10	Point	16-9-12		Тор	5 lb	0 lb	12 lb	0 lb		
11	Point	16-9-12		Тор	28 lb	0 lb	0 lb	0 lb	Wall Self Weight	

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

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

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
 IJoist not to be treated with fire retardant or corrosive

### Handling & Installation

- nandling & Installation

  1. Lioist flanges must not be cut or drilled

  2. Refer to latest copy of the Lioist product information details for framing details, stiffener tables, web hole chart. bridging details, multi-ply fastening details and handling/erection details

  3. Damaged Loists must not be used

  4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

- Provide lateral support at bearing points to avoid lateral displacement and rotation
   Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
   For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info

Nascor by Kott



Client:

Project: Address: Date: 9/10/2018

Designer: SB

Job Name: MILLWOOD 1 EL-3

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

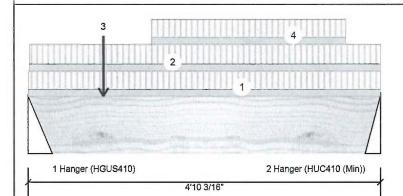
2-Ply - PASSED

Brg

1

2

2 -Hanger Level: Second Floor



4'10 3/16"



Wind

0

0

Page 1 of 1

Member Info	rmation		
Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	on: 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		

Bearing	s and Fac	tored Re	eactions			
Bearing	Length	Cap. F	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	4.000"	10%	268 / 781	1049	L	1.25D+1.5L
2-	2.500"	15%	253 / 736	989	L	1.25D+1.5L

Unfactored Reactions UNPATTERNED Ib (Uplift)

Dead

214

202

Live

521

491

#### Analysis Results Analysis Actual Location Allowed Capacity Comb. Case Moment 1091 ft-lb 2'5 13/16" 22724 ft-lb 0.048 (5%) 1.25D+1.5L L 1091 ft-lb 2'5 13/16" 22724 ft-lb Unbraced 0.048 (5%) 1.25D+1.5L L 791 lb 1' 3/4" 9277 lb 0.085 (9%) 1.25D+1.5L L Shear Perm Defl in. 0.002 2'5 13/16" 0.148 (L/360) 0.020 (2%) D Uniform (L/22723) LL Defl inch 0.006 (L/9302) 2'5 13/16" 0.148 (L/360) 0.040 (4%) L L TL Defl inch 0.008 (L/6600) 2'5 13/16" 0.222 (L/240) 0.040 (4%) D+L



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

T.L. WISE 100083566 100083566 VCE OF O'

Snow

0

0

September 17, 2018

/ Lateral									
ID	Load Type	Location	Trib Width	Side	Dead	Lîve	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-10-3	(Span)3-7-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-3 to 4-10-3	(Span) 3-10-14	Тор	15 PSF	40 PSF	0 PSF		Framing Squash Block is
3	Point	1-0-7		Near Face	34 lb	91 lb	0 lb	required a	t all point loads over bearings
4	Part. Uniform	1-8-7 to 4-4-7		Near Face	27 PLF	72 PLF	0 PLF	Refer Por	ultiple Member Connection
	Self Weight				8 PLF				ply to ply nailing or bolting

This des

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 Lumber

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

Handling & Installation

- LVL beams must not be cut or drilled Refer to menufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code appropriate. 1.
- 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

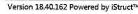
For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

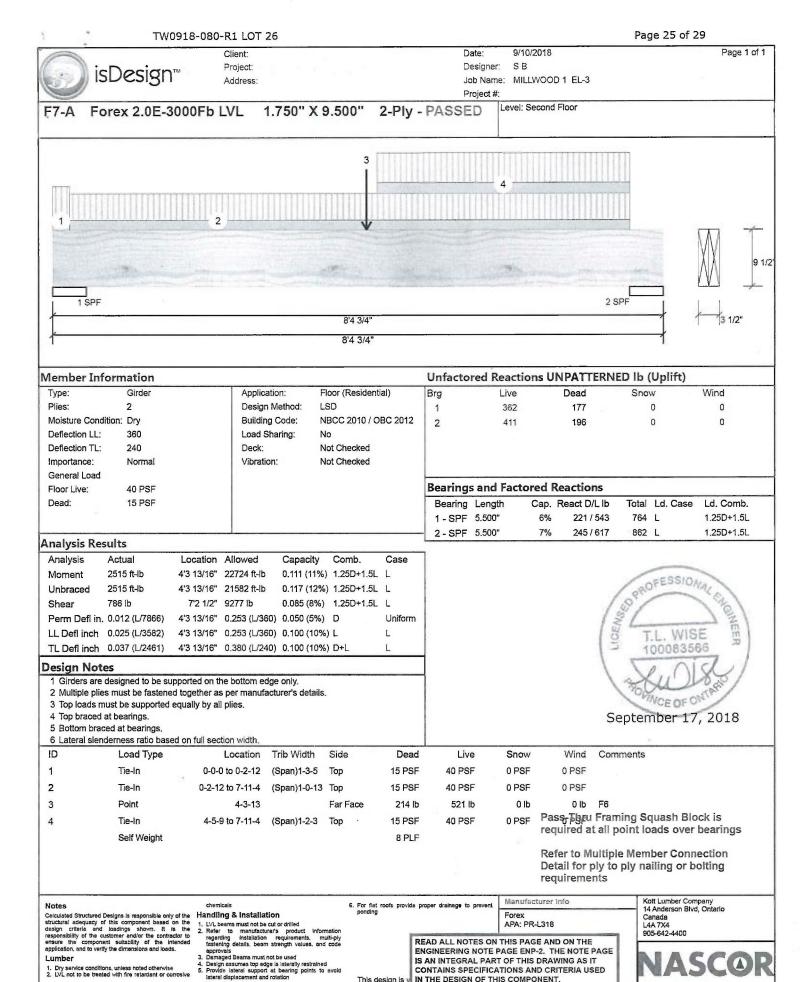
APA: PR-L318

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.









This design is

**CONTAINS SPECIFICATIONS AND CRITERIA USED** IN THE DESIGN OF THIS COMPONENT.

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



Client: Project: Address:

9/10/2018 Date:

SB Designer:

Job Name: MILLWOOD 1 EL-3

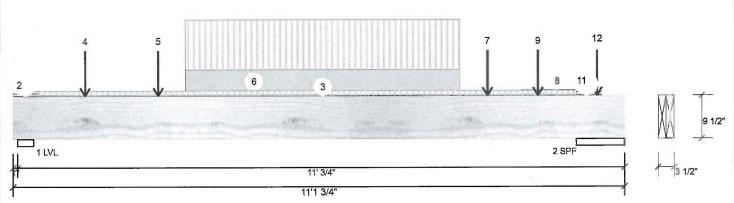
Project #:

Forex 2.0E-3000Fb LVL 1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor

Unfactored Reactions UNPATTERNED Ib (Uplift)



Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	1304	569	0	0
Moisture Condition:	: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1586	695	0	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings a	and Factor	ed Reactions		
Dead:	15 PSF			Bearing L	ength C	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - LVL 3	.500"	29% 712 / 1956	2668 LL	1.25D+1.5L
			,	2-SPF 1	0.502"	14% 868 / 2380	3248 _L	1.25D+1.5L

Analysis Results

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7404 ft-lb	5'3 9/16"	22724 ft-lb	0.326 (33%)	1.25D+1.5L	_L
Unbraced	7404 ft-lb	5'3 9/16"	20708 ft-lb	0.358 (36%)	1.25D+1.5L	_L
Shear	2770 lb	9'6 1/2"	9277 lb	0.299 (30%)	1.25D+1.5L	_L
Perm Defl in.	0.064 (L/1890)	5'3 9/16"	0.337 (L/360)	0.190 (19%)	D	Uniform
LL Defl inch	0.145 (L/837)	5'3 7/16"	0.337 (L/360)	0.430 (43%)	L	_L
TL Defl inch	0.209 (L/580)	5'3 7/16"	0.505 (L/240)	0.410 (41%)	D+L	_L
LL Cant	-0.003 (2L/574)	Lt Cant	0.200 (2L/480)	0.017 (2%)	L	_L
TL Cant	-0.005 (2L/398)	Lt Cant	0.300 (2L/360)	0.017 (2%)	D+L	_L

T.L. WISE 100083566 100083566 WCE OF ON September 17, 2018

### **Design Notes**

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

O Lateral	Sicilacificas fatto pasca	on tan scouon wiati.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Tie-In	0-0-0 to 0-5-8	(Span)0-4-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Tie-In	0-0-0 to 0-5-8	(Span)0-7-5	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
3	Tie-In	0-5-8 to 10-3-4	(Span)1-0-3	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
4	Point	1-3-12		Near Face	122 lb	326 lb	0 lb	0 lb	J4	
1										

Continued on page 2...

Notes

Calculated Structured Designs is responsible only of the structural asseguacy 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

Handling & Installation

andling & Installation
LVL beams must not be cut or drilled
Refer to manufacturer's product information
regarding installation requirements, multi-piy
fastening details, beam strength values, and code
approvels
Demaged Beams must not be used
Design assumes top edge is laterally restrained
Provide lateral support at bearing points to avoid
lateral displacement and rotation 1.

For flat roofs provide proper drainage to prevent ponding

This design is

Manufacturer Info Forex APA: PR-L318

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.

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



Version 18.40.162 Powered by iStruct™



Page 2 of 2



Client:

Project: Address:

9/10/2018 Date:

SB Designer:

Job Name: MILLWOOD 1 EL-3

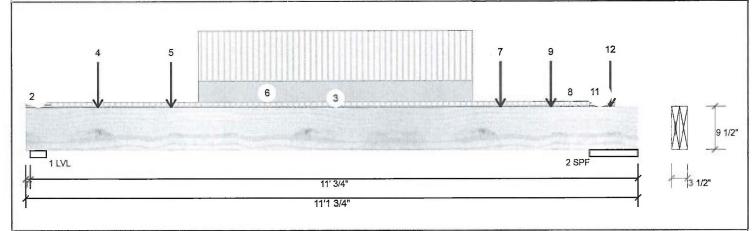
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor



C	ontinued from p	age 1								,
IC	)	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
5		Point	2-7-12		Near Face	124 lb	307 lb	0 lb	0 lb	J4
6		Part. Uniform	3-1-12 to 8-1-12		Near Face	112 PLF	263 PLF	0 PLF	0 PLF	
7	•	Point	8-7-12		Near Face	108 lb	252 lb	0 lb	0 lb	J4
8	,	Part. Uniform	9-3-0 to 10-3-4		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
9		Point	9-6-12		Near Face	102 lb	263 lb	0 lb	0 lb	J4
1	0	Tie-In	10-3-4 to 10-8-12	(Span)0-8-11	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
1	1	Part. Uniform	10-3-4 to 10-8-12		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
1	2	Point	10-7-12		Near Face	80 lb	212 lb	0 lb	0 lb	J4
		Self Weight				8 PLF				

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

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

Notes

NOtes:

Calculated Shuctured 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

Handling & Installation

Handling & Installation

1. IVL beams must not be cut or drilled

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

3. Damagad 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

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA; PR-L318

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

This design is valid until 7/10/2021



Client:

Project: Address: Date: Designer:

9/10/2018 SB

Job Name: MILLWOOD 1 EL-3

Project #:

1-SPF 5.500"

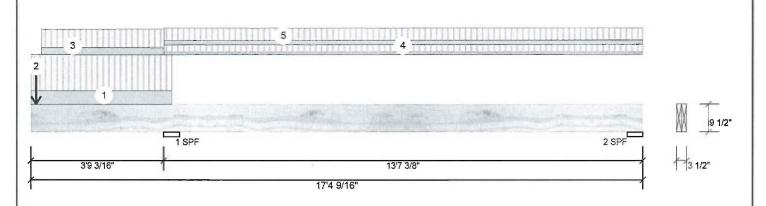
2 - SPF 5.250"

Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Second Floor



Member Info	rmation			Unfactor	ed Reacti	ions UNPATTER	NED lb (Upli	ft)
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	
Plies:	2	Design Method:	LSD	1	1136	534	0	
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	8	46	0	
Deflection LL:	360	Load Sharing:	No	-				
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked	1				
General Load								
Floor Live:	40 PSF			Bearings	and Fact	ored Reactions		
Dead:	15 PSF			Bearing	Lenath	Cap. React D/L II	Total Ld. C	Case

**Analysis Results** 

_	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Allalysis	Actual	Location	Allowed	Capacity	Corns.	Case
	Neg Moment	-4651 ft-lb	3'11 15/16"	22724 ft-lb	0.205 (20%)	1.25D+1.5L	L_
	Unbraced	-4651 ft-lb	3'11 15/16"	19381 ft-lb	0.240 (24%)	1.25D+1.5L	L_
	Pos Moment	783 ft-lb	11'8 1/2"	20451 ft-lb	0.038 (4%)	0.9D+1.5L	_L
	Unbraced	783 ft-lb	11'8 1/2"	18837 ft-lb	0.042 (4%)	0.9D+1.5L	_L
	Shear	1447 lb	2'11 11/16"	9277 lb	0.156 (16%)	1.25D+1.5L	L
	Perm Defl in.	0.014 (L/10786)	7'11 7/8"	0.434 (L/360)	0.030 (3%)	D	Uniform
	LL Defl inch	0.086 (L/1820)	9'5 15/16"	0.434 (L/360)	0.200 (20%)	L	L_
	TL Defl inch	0.099 (L/1572)	9'2 7/8"	0.651 (L/240)	0.150 (15%)	D+L	لي
	LL Cant	0.174 (2L/520)	Lt Cant	0.200 (2L/480)	0.868 (87%)	L	L_
	TL Cant	0.227 (2L/398)	Lt Cant	0.300 (2L/360)	0.756 (76%)	D+L	L_

T.L. WISE 100083566 100083566 NCE OF ON September 17, 2018

2371 LL 333 \_L

(-207)

667 / 1704

58 / 275

20%

3%

Wind 0 0

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

### **Design Notes**

- 1 Girders are designed to be supported on the bottom edge only.
- 2 Multiple plies must be fastened together as per manufacturer's details.
- 3 Top loads must be supported equally by all plies.
- 4 Tie-down connection required at bearing 2 for uplift 207 lb (Combination 0.9D+1.5L, Load Case L\_).
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on full section width.

#### 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 literiaded 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

- and ling & 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

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.



Page 2 of 2



Client:

Project: Address:

9/10/2018 Date:

SB

Designer: Job Name: MILLWOOD 1 EL-3

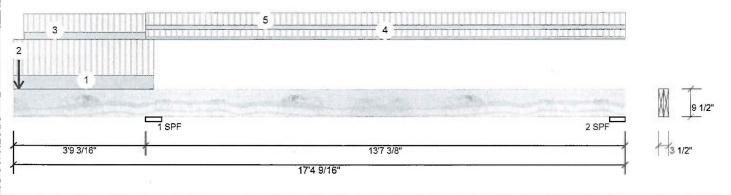
Project #:

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	Part. Uniform	0-0-0 to 3-11-15		Тор	19 PLF	50 PLF	0 PLF	0 PLF		
2	Point	0-1-12		Near Face	202 lb	491 lb	0 lb	0 lb	F6	
3	Tie-In	0-3-8 to 3-9-3	(Span)1-3-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
4	Tie-In	3-9-3 to 17-4-9	(Span)0-6-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
5	Tie-In	3-9-3 to 17-4-9	(Span)0-10-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
	Self Weight				8 PLF					

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

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

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

andling & 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 restreined
Provide lateral support at Dearing points to avoid
lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Forex APA: PR-L318

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

This design is valid until 7/10/2021

GREENPARK HOMES

CORP., BRAMPTON, ON

MINISALE HOME

June 26, 2018

SB

Project

Canada

14A7X4

Floor

Loads

Live

Dead

905-642-4400

**Ground Floor** 

Design Method

Deflection Joist LL Span L/

TL Span L/ LL Cant 2L/

TL Cant 2L/

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

Decking

Fastener Vibration

Deck Thickness

Deflection Girder

**Builder's Project** 

14 Anderson Blvd

Stouffville, Ontario

**Kott Lumber Company** 

Building Code NBCC 2010 / OBC

LSD

2012

40

15

480

360

480

360

360

240

480

360

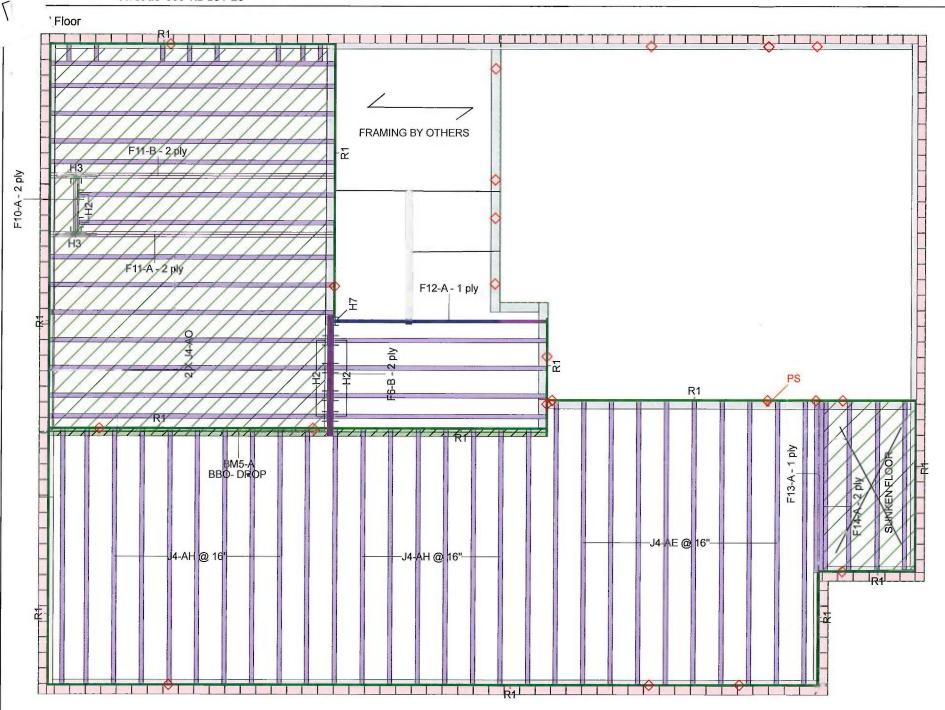
OSB

3/4"

Nailed & Glued

BEDRM)

LOT-26 (MILLWOOD 1 EL-3 OPT 4



Legend Point Load Support Load from Above Norbord Rimboard Plus 1,125 X 9,5 NJ 9.5

Architectural Drawing Info

JARDIN DESIGN GROUP 64 JARDIN DR, SUITE 3A AUGHAN, ON L4K 3P3

Project # 18-24 Model: LOT-26 (Millwood 1 EL- 1) Date: OCT 26, 2018

NJH 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5 5.25 X 10.25 (Dropped)

> JOISTS SPACING 16"O/C NOTED OTHERWISE

This certification is to confirm that:

 The loads used in the calculation of the attached approved components conform to the floor assembly shown on this

2. The floor joists comply with the Nascor span table for the loads and spacing shown on this layout.

The floor system must be assembled in accordance to the Nascor Specifier Guide. Multi-ply members must be attached together as per the included multiple member connection

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.



Ground Floor VL/LSL Label Description Width Depth Qty Plies Pcs Length F12 Forex 12-0-0 1.75 9.5 1 2.0E-3000Fb LVL Layout Name F6 1.75 Forex 9.5 2 2 6-0-0 2.0E-3000Fb LVL Joist Pcs Length Design Method Width Depth Label Description Qty Plies F11 NJ 1.5 9.5 2 4 14-0-0 LSD F10 NJ 1.5 9.5 1 2 2 4-0-0 Description F14 NJH 2.5 9.5 2 10-0-0 F13 NJH 2,5 9.5 10-0-0 1 J4 NJH 2.5 9.5 42 14-0-0 J3 NJH 2.5 9.5 4 12-0-0 Created J2 NJH 2.5 9.5 3 10-0-0 Rim Board Builder Label Description Width Depth Qty Plies Pcs Length Norbord Rimboard 1.125 Sales Rep Plus 1.125 X 9.5 Designer Blocking Label Description Width Depth Qty Plies Pcs Length Shipping BLK1 NJH 2.5 9.5 LinFt Varies 7-0-0 Hangei

Beam/Girder Supported Member Label Pcs Description Skew Slope fasteners fasteners H2 10 LF259 10 10d 1 #8x1 1/4WS НЗ 2 LU210-2L 10 10d 6 10d H7 1 LF179 10 10d 1 #8x1 1/4WS

### 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/rimjois
- 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.
- 3. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

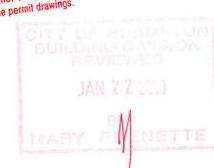
Refer to Multiple Member Connection Detail to ply to ply nailing or bolting

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

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

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



All work shall conform to the Charles Building Code O. Reg. 332/12 as amounted Floor 655 JAN 27 2019 18-413522.000.008Building Division

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5. CCMC -12787-R APA PR-L310(C)

2. Nascor CCMC - 13535-R

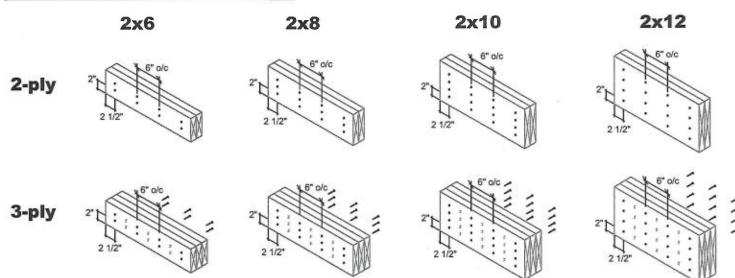
3. LVL CCMC -12904-R 4. CAN/CSA-086-09

1. OBC 2012 O.Reg 332/12 as amended

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

# MULTIPLE MEMBER CONNECTIONS

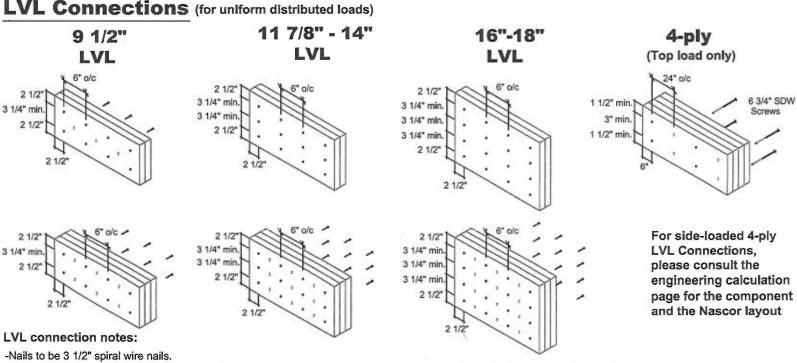
# Conventional Connections (for uniform distributed loads)



### Conventional connection notes:

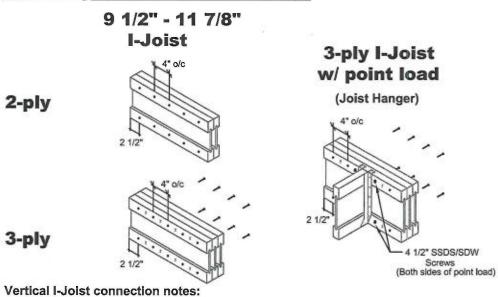
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

# LVL Connections (for uniform distributed loads)



- -Nails to be located a minimum of 2 1/2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Minimum 3 1/4" spacing between rows.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail or screw driven from the opposite side.

# Vertical I-Joist Connections (for uniform distributed loads)



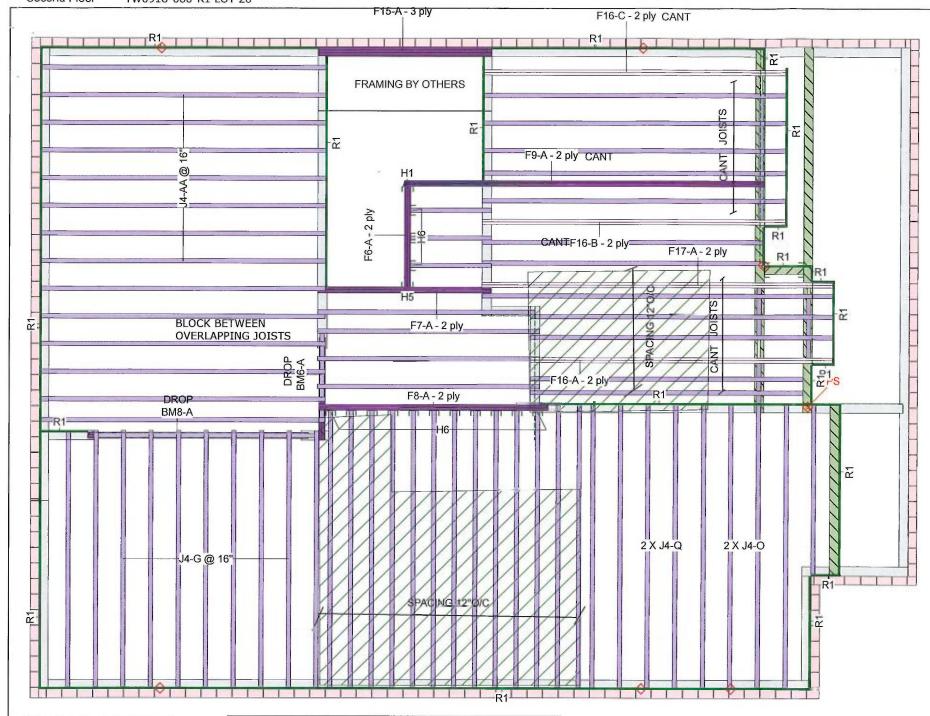
- -Nails to be 3" spiral wire nails.
- -Nails to be located at centre of top and bottom flanges. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

MULTI -PLY CONNECTION **DETAILS** 

Date: November 30, 2016

Scale: NTS

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



Architectural Drawing Info

JARDIN DESIGN GROUP 64 JARDIN DR, SUITE 3A VAUGHAN,ON L4K 3P3

Project # 18-24 Model: LOT-26 (Millwood 1 EL- 1) Date: OCT 26, 2018

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

JOISTS SPACING 16"O/C UNLESS NOTED OTHERWISE

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This certification is to confirm that:

1. The loads used in the calculation of the attached approved components conform to the floor assembly shown on this layout.

2. The floor joists comply with the Nascor span table for the loads and spacing shown on this layout.

The floor system must be assembled in accordance to the Nascor Specifier Guide. Multi-ply members must be attached together as per the included multiple member connection detail.

All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of others.

T.L. WISE 100083566

January 22, 2019

Second Floor LVL/LSL Qty Plies Label Description Width Depth Pcs Length F9 Forex 1.75 9.5 2 2 18-0-0 2.0E-3000Fb LVL Layout Name BM8 Forex 1.75 9.5 2 12-0-0 2.0E-3000Fb LVL LOT-26 (MILLWOOD 1 EL-3 OPT 4 BEDRM 1.75 9.5 12-0-0 Forex 2 2 2.0E-3000Fb LVL Design Method F15 1.75 10-0-0 Forex 9.5 3 3 LSD 2.0E-3000Fb LVL Description F7 Forex 1.75 9.5 2 10-0-0 2 GREENPARK HOMES 2.0E-3000Fb LVL MINISALE HOME BM6 1.75 9.5 2 6-0-0 2 CORP.,BRAMPTON,ON 2.0E-3000Fb LVL F6 Forex 1.75 9.5 2 6-0-0 Created 2 2.0E-3000Fb LVL June 26, 2018 Joist Builder Width Depth Pcs Length Label Description Qty Plies F17 NJ 1.5 9.5 2 18-0-0 Sales Rep F16 NJ 1.5 9.5 3 2 6 16-0-0 Designer J5 NJH 2.5 9.5 1 18-0-0 SB J6 NJH 2.5 16-0-0 9.5 7 Shipping J4 NJH 49 2.5 9.5 14-0-0 Project J3 NJH 2.5 9.5 4 12-0-0 10-0-0 Builder's Project J2 NJH 2.5 9.5 1 J1 NJH 2.5 9.5 3 4-0-0 **Kott Lumber Company** Rim Board 14 Anderson Blvd Label Description Width Depth Qty Plies Pcs Length Stouffville, Ontario R1 Norbord Rimboard 1.125 9.5 14 Canada Plus 1.125 X 9.5 Blocking L4A 7X4 905-642-4400 Label Description Width Depth Qty Plies Pcs Length BLK1 NJ 1.5 9.5 LinFt Varies 1-0-0 Second Floor BLK2 NJ 1.5 9.5 LinFt Varies 2-0-0 LSD Design Method BLK1 NJH 2.5 9.5 LinFt Varies 16-0-0 Building Code NBCC 2010 / OBC BLK2 NJH 2.5 9.5 LinFt Varies 8-0-0 Hanger Floor Beam/Girder Supported Loads Member 40 Live Label Pcs Description Skew Slope fasteners fasteners Dead 15 H1 1 HUC410 (Min) 14 16d 6 10d **Deflection Joist** H4 2 Unknown 480 LL Span L/ Hanger TL Span L/ 360 1 HGUS410 46 16d 16 16d H6 14 LT259 .LL. Cant 2L/ 480 2 10dx1 1/2 4 10d TL Cant 2L/ 360 NOTES: Deflection Girder . Framer to verify dimensions on the architectural drawings. LL Span L/ 360 2. Double joist only require filler/backer ply when supporting another TL Span L/ 240 member using a face-mounted hanger. LL Cant 2L/ 480 3. 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. TL Cant 2L/ 360 Decking 6. Squash blocks recommended to be installed at end bearing on all first level Deck OSB joists which support loading from above exceeding two levels floor or roof. Thickness Load transfer blocks to be installed under all point loads. 5/8" It shall be the framer's responsibility that floor joists and beams Fastener Nailed & Glued are fastened as per the hanger manufacturer's standards. Vibration Refer to Multiple Member Connection Detail to ply to ply nailing or bolting Ceiling: Gypsum 1/2" 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 Hatch area represents ceramic tiled floor with an additional dead load The framing shown on this layout may be deviate from the architectural drawings. Project Engineer to review and approve the deviation prior Legend Point Load Support Load from Above Norbord Rimboard Plus 1.125 X 9.5 NJ 9.5 NJH 9.5

Forex 2.0E-3000Fb LVL 1.75 X 9.5

Forex 2.0E-3000Fb LVL 1.75 X 9.5

5.25 X 10.25 (Dropped)

(Dropped)

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