Engineering Note Page (ENP-2)

REVISION 2009-10-09

Floor

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 http://www.nascor.ca.

CODE

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

COMPONENT

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

HANDLING AND INSTALLATION

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



MULTIPLE MEMBER CONNECTIONS

Conventional Connections (for uniform distributed loads)

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

Conventional connection notes:

- -Nails to be 3" 10d spiral wire nails.

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

LVL Connections (for uniform distributed loads)

11 7/8" - 14" 16"-18" 4-ply LVL (Top load only) LVL LVL 3 1/4" min 3 1/4" mlr 3 1/4" mir 2 1/2 For side-loaded 4-ply LVL Connections, please consult the engineering calculation 2 1/2 page for the component and the Nascor layout LVL connection notes:

- -Nails to be 3 1/2" spiral wire nails.
 -Nails to be located a minimum of 2 1/2" from the top and bottom of the member, Start all nails a minimum of 2 1/2" in from ends.
- -Nation to be located a finding the common of the men o

Vertical I-Joist Connections (for uniform distributed loads)

9 1/2" - 11 7/8" I-Joist 3-ply I-Joist w/ point load (Joist Hanger) 2-ply 3-ply 4 1/2" SSDS/SDW Screws (Both sides of point load)

Vertical I-Joist connection notes:

- -Nails to be 3" spiral wire nails.
- -Nalls to be located at centre of top and bottom flanges. Start all nalls 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

MULTI-PLY CONNECTION DETAILS

Version 18.40.162 Powered by IStruct™

Ground Floor

40

15

480

360

480

360

360

240

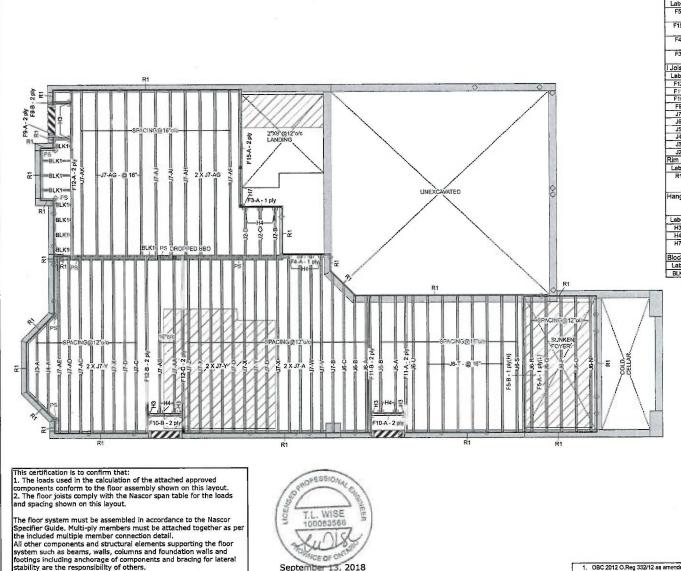
480

240

3/4"

SPF Plywood

Natled & Glued



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

Ground Floor LVL/LSL (Flush)
 Width
 Depth
 Qty
 Plies
 Pcs
 Length

 1.75
 11.875
 2
 14-0-0
 Label Description F5 Forex 2.0E-3000Fb LVL F15 Forex 2.0E-3000Fb LVL Layout Name 1.75 11.875 2 12-0-0 MILLWOOD 2-ELEV 3 F4 Forex 2.0E-3000Fb LVL 6-0-0 Design Method LSD 1.75 11.875 Forex 2.0E-3000Fb LVL Description Joist (Flush) Created Width Depth Qty Plies Pcs Length Label Description June 25, 2018 2 6 16-0-0 F12 NJ 1.5 11.875 Builder 4 14-0-0 GREENPARK F10 NJ 1.5 11.875 4 4-0-0 4 2-0-0 Sales Rep 35 16-0-0 R M 16 14-0-0 Designer F9 NJ 1.5 11.875 2.5 11.875 J7 NJH 2.5 11.875 2.5 11.875 J6 NJH Designer J5 NJH J4 NJH 2 12-0-0 RO 2.5 11.875 2.5 11.875 1 10-0-0 Shipping 1 8-0-0 J3 NJH J2 NJH 25 11.875 Project 3 6-0-0 Rim Board Bullder's Project Width Depth Qty Piles Pcs Length Label Description Kott Lumber Company Norbord Rimboar 1.125 11.875 14 Anderson Blvd Stouffville, Ontarlo 11.875 Canada Hanger K2H7V1 Beam/Girder Supported Member 905-642-4400 Label Pcs Description | Skew Slope | fasteners fasteners Job Path H3 6 LT2-151188 4 10dx1 1/2 2 10dx1 1/2 S:\CUSTOMERS\GREENPARK \MINNISALE HOMES\MODELS \MILLWOOD 2\FLOORS\ELEV 3 H4 11 LT251188 4 10dx1 1/2 2 10dx1 1/2 HUCQ1,81/9-\MILLWOOD 2-ELEV 3.isl SDS Blocking Ground Floor Width Depth Qty Plies Pcs Length Design Method 25 11.875 LinFt Varies 29-0-0 Ruikling Code Label Description BLK1 NJH Building Code NBCC 2010 / OBC NOTES: Floor Loads

- . Framer to verify dimensions on the architectural drawings.
- 1. Framer to verify dimensions on the arcinectural radwings.
 2. Double joict only require filter/backer ply when supporting another member using a face-mounted hanger.
 3. Install 2x4 blooking @ 24-06 under parallel non-load bearing walls.
 4. Install single-ply flush window header along inside face of rimboard/finjoist.
- rimboard/impost.

 Seler to Nascor specifier guide for installation works.

 Sequab blocks recommended to be installed at end bearing on all first level joists which support foading from above exceeding two levels floor or roof.

 Load transfer blocks to be installed under all point loads.
- It shall be the frame'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

Rem 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 aupporting the floor system such as bearns, walls, columns, and foundation walls, and footings including anchorage of components and bracing for lateral stability are the responsibility of Others.

Hatch are represents ceramic tiled floor with an additional dead load

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

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC. 64 Jardin Dr. Suite 3A Date: Rev. 1, 4/26/2018 Project No: 2645 Model: Millwood 2, Elevation 1

Legend

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

- 2. Nascor CCMC 13535-R
- 3. LVL CCMC -14056-R
- 4. CAN/CSA-086-09
- 5. CCMC -12787-R APA PR-L310(C)



PS

Point Load Support Load from Above Wall Wall Opening Norbord Rimboard Plus 1.125 X 11.875 NJ 11.875 NJH 11.875

Forex 2.0E-3000Fb LVL 1.75 X 11.875

Dead

Deflection Joist LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

LL Span U

TL Span L/

LL Cant 2L/

TL Cant 2L/ Decking

Deck Thickness

Fastener Vibration

Deflection Girder



GREENPARK Client:

Address:

Project:

Date: 9/7/2018

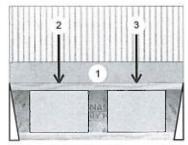
Designer: RO

Job Name: MILLWOOD 2-ELEV 1

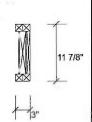
Project #:

2-Ply - PASSED 11.875"

Level: Ground Floor



1 Hanger (LT2-151188) 2 Hanger (LT2-151188) 3'



Wind

0

0

Page 1 of 1

Member Inform	nation		
Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	: Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Bearings and Factored Reactions

Live

282

287

Brg

1

2

Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

106

108

Snow

0

0

Cap. React D/L lb Total Ld. Case Ld. Comb. Bearing Length 2.000" 20% 132 / 423 555 L 1.25D+1.5L Hanger 1.25D+1.5L 2.000" 21% 135 / 431 566 L Hanger

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	401 ft-lb	1'4 1/2"	9020 ft-lb	0.044 (4%)	1.25D+1.5L	L
Unbraced	401 ft-lb	1'4 1/2"	5749 ft-lb	0.070 (7%)	1.25D+1.5L	L
Shear	558 lb	2'10 3/4"	3400 lb	0.164 (16%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/38142)	1'5 9/16"	0.093 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/14284)	1'5 1/2"	0.093 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.003 (L/10392)	1'5 9/16"	0.140 (L/240)	0.020 (2%)	D+L	L

Design Notes

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

lange braced at bearings	5.					
Load Type	Location	Trib Width	Side	Dead	Live	Snow
Tie-In	0-0-0 to 3-0-0	(Span)1-9-8	Тор	15 PSF	40 PSF	0 PSF
Point	0-10-4		Far Face	87 lb	233 lb	0 lb
Point	2-2-4		Far Face	86 lb	229 lb	0 lb
	Load Type Tie-In Point	Tie-In 0-0-0 to 3-0-0 Point 0-10-4	Load Type Location Trib Width Tie-In 0-0-0 to 3-0-0 (Span)1-9-8 Point 0-10-4	Load Type Location Trib Width Side Tie-In 0-0-0 to 3-0-0 (Span)1-9-8 Top Point 0-10-4 Far Face	Load Type Location Trib Width Side Dead Tie-In 0-0-0 to 3-0-0 (Span)1-9-8 Top 15 PSF Point 0-10-4 Far Face 87 lb	Load Type Location Trib Width Side Dead Live Tie-In 0-0-0 to 3-0-0 (Span)1-9-8 Top 15 PSF 40 PSF Point 0-10-4 Far Face 87 lb 233 lb

WCE OF ONTAR September 13, 2018

PROFESSIONAL THE WISE THE

100083566

Wind Comments 0 PSF Pass-Thru Framing Squash Block is requ₩ed al5all 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 inlended application, and to verify the dimensions and loads.

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

chemicals

Handling & Installation

Handling & Installation

1. IJoist flanges must not be cut or drifted

2. Refer to latest copy of the IJoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply f

This design i

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
 READ ALL NOTES ON 1

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





GREENPARK Client:

Project: Address:

9/7/2018

RO Designer:

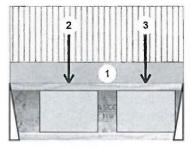
Job Name: MILLWOOD 2-ELEV 1

Project #:

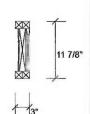
Date:

2-Ply - PASSED NJ 11.875"

Level: Ground Floor



1 Hanger (LT2-151188) 2 Hanger (LT2-151188)



Page 1 of 1

Member Infor	mation	
Type:	Girder	Ap
Plies:	2	De
Moisture Condition	n: Dry	Bu
Deflection LL:	360	Lo
Deflection TL:	240	De
Importance:	Normal	Vib
General Load		
Floor Live:	40 PSF	
Dead:	15 PSF	

plication: Floor (Residential) esign Method: uilding Code: NBCC 2010 / OBC 2012 ad Sharing: eck: Not Checked bration: Not Checked

Unfactored Reactions UNPATTERNED Ib (Uplift) Dead Snow Wind Brg Live 343 129 0 0 1 0 404 152 O 2

Bearings and Factored Reactions Cap. React D/L lb Bearing Length

Ld. Comb. Total Ld. Case 675 L 1.25D+1.5L 161 / 514 2.000" 25% Hanger 2.000" 29% 189 / 606 795 L 1.25D+1.5L Hanger

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	583 ft-lb	1' 1/4"	9020 ft-lb	0.065 (6%)	1.25D+1.5L	L
Unbraced	583 ft-lb	1' 1/4"	5749 ft-lb	0.101 (10%)	1.25D+1.5L	L
Shear	788 lb	2'10 3/4"	3400 lb	0.232 (23%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/27610)	1'1 5/16"	0.093 (L/360)	0.010 (1%)	D	Uniform
LL Defi inch	0.003 (L/10370)	1'1 5/16"	0.093 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.004 (L/7538)	1'1 5/16"	0.140 (L/240)	0.030 (3%)	D+L	L

Design Notes

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

Load Type

Tie-In

Point

Point

- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings



Wind Comments 0 PSF 0 lb J7 Pass Thru Framing Squash Block is

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

required at all point loads over bearings

Notes

ID

2

3

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
 Uplist not to be treated with fire retardant or corrosive

Handling & Installation

Location

1-0-4

2-4-4

0-0-0 to 3-0-0

Trib Width

(Span)1-9-8

Side

Top

Far Face

Far Face

Libelt flanges must not be cut or drilled Refer to latest copy of the Lloist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling terection details Damaged 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

Dead

15 PSF

130 lb

110 lb

Manufacturer Info 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 Nascor by Kott

Live

40 PSF

346 lb

293 lb

Snow

0 PSF

0 lb

0 lb

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: GREENPARK

9/7/2018 Date:

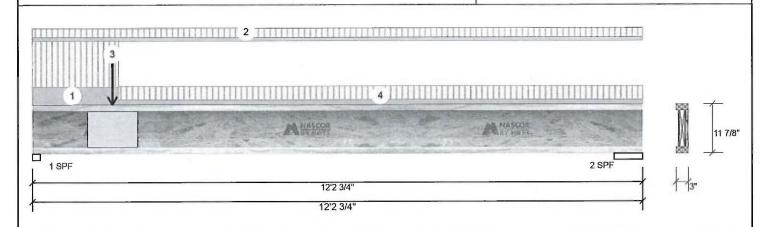
RO Designer:

Job Name: MILLWOOD 2-ELEV 1

Project #

2-Ply - PASSED NJ 11.875"

Level: Ground Floor



Member Infor	mation			Unfactore	ed Reac	tions U	INPATTERNI	ED lb (t	Jplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		Wind
Plies:	2	Design Method:	LSD	1	512		192	0		0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	243		91	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	Reactions			
Dead:	15 PSF			Bearing I	Length	Cap.	React D/L lb	Total I	.d. Case	Ld. Comb.
				1 - SPF	1.875"	38%	240 / 767	1008 l	L	1.25D+1.5L
				2-SPF 6	6.875"	14%	114 / 365	479 I	L	1.25D+1.5L
1 ' 0										

Analysis Results

Π	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	1602 ft-lb	4'6 5/8"	9020 ft-lb	0.178 (18%)	1.25D+1.5L	L
	Unbraced	1602 ft-lb	4'6 5/8"	1617 ft-lb	0.991 (99%)	1.25D+1.5L	L
	Shear	993 lb	1 1/8"	3400 lb	0.292 (29%)	1.25D+1.5L	L
	Perm Defl in.	0.018 (L/7877)	5'6 5/16"	0.388 (L/360)	0.050 (5%)	D	Uniform
	LL Defl inch	0.047 (L/2957)	5'6 5/16"	0.388 (L/360)	0.120 (12%)	L	L
	TL Defl inch	0.065 (L/2150)	5'6 5/16"	0.581 (L/240)	0.110 (11%)	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 5'7" o.c.

5 Bottom flange braced at bearings.



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-8-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-2-12	(Span)0-7-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-7-6		Far Face	108 lb	287 lb	0 lb	0 lb	F10
4	Tie-In	1-8-14 to 12-2-12	(Span)0-11-4	Тор	15 PSF	40 PSF	0 PSF		ru Framing Squash Block is l 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 in-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
 Uolst not to be treated with fire retardant or corrosive

Handling & Installation

- Handiling & Installation

 1. Joist flanges must not be cut or drifted

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

 3. Damaged Joists must not be used

 4. 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 avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
 For 6at roofs proporting
 READ ALL NOTES ON

READ ALL NOTES ON THIS PAGE AND ON THE CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT

Manufacturer Info

Nascor by Kott





Client: **GREENPARK**

Project: Address: Date:

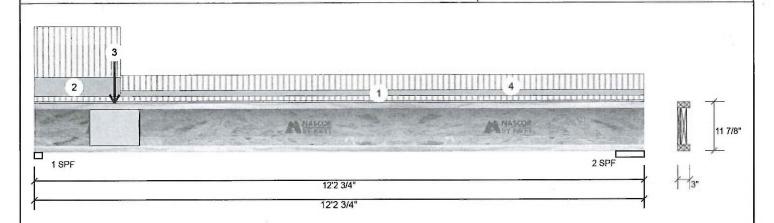
9/7/2018 Designer: RO

Job Name: MILLWOOD 2-ELEV 1

Project #:

11.875" 2-Ply - PASSED NJ

Level: Ground Floor



Member Infor	mation			Unfactor	ed React	ions U	NPATTERN	ED lb (Up	lift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow		Wind
Plies:	2	Design Method:	LSD	1	471		177	0		0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	206		77	0		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 Fac	tored l	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total Ld	. Case	Ld. Comb.
				1 - SPF	1.875"	35%	221 / 707	928 L		1.25D+1.5L
				2-SPF	6.875"	12%	96 / 308	405 L		1.25D+1.5L

Analysis Results

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	1410 ft-lb	4'3 1/4"	9020 ft-lb	0.156 (16%)	1.25D+1.5L	L
	Unbraced	1410 ft-lb	4'3 1/4"	1412 ft-lb	0.998 (100%)	1.25D+1.5L	L
	Shear	915 lb	1 1/8"	3400 lb	0.269 (27%)	1.25D+1.5L	L
	Perm Defl in.	0.015 (L/9004)	5'5 11/16"	0.388 (L/360)	0.040 (4%)	D	Uniform
	LL Defl inch	0.041 (L/3379)	5'5 11/16"	0.388 (L/360)	0.110 (11%)	L	L
	TL Defl inch	0.057 (L/2457)	5'5 11/16"	0.581 (L/240)	0.100 (10%)	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 5'11" o.c.

5 Bottom flange braced at bearings.

	o porton nange	010000 0100000000								
ľ	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	1	Tie-In	0-0-0 to 12-2-12	(Span)0-3-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Tie-In	0-0-0 to 1-8-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	3	Point	1-7-6		Near Face	106 lb	282 lb	0 lb	0 lb	F10
l	4	Tie-In	1-8-14 to 12-2-12	(Span) 0-11-12	Тор	15 PSF	40 PSF	0 PSF		ru Framing Squash Block is 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

Handling & Installation

- ARIGINING & INSERILATION

 Libels flanges must not be cut or drilled

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

 Damaged Libists must not be used

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

This design is

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 pro

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

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1 905-642-4400

TI WISE THE

100083566

September 13, 2018

WCE OF ONTARY

LICEN





Client:

GREENPARK

Project: Address:

9/7/2018 Date:

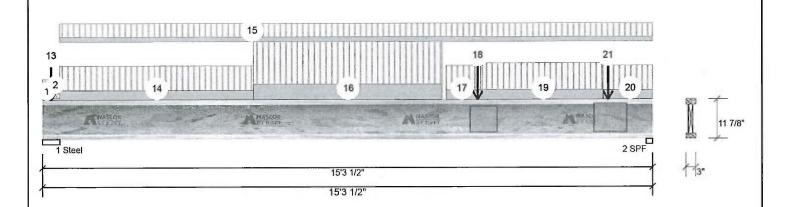
RO Designer:

Job Name: MILLWOOD 2-ELEV 1

Project #:

2-Ply - PASSED NJ 11.875"

Level: Ground Floor



Member Infor	mation			Unfactored F	Reactions	UNPATTERN	ED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	641	269	0	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	539	202	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	l Factored	Reactions		
Dead:	15 PSF			Bearing Leng	th Car	. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - Steel 5.250	389	% 337 / 961	1298 L	1.25D+1.5L
				2 - SPF 1.875	5" 409	% 253 / 809	1061 L	1.25D+1.5L

Analysis Results

r							
l	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	3724 ft-lb	8' 3/16"	9020 ft-lb	0.413 (41%)	1.25D+1.5L	L
	Unbraced	3724 ft-lb	8' 3/16"	3737 ft-lb	0.997 (100%)	1.25D+1.5L	L
	Shear	1052 lb	15'2 3/8"	3400 lb	0.309 (31%)	1.25D+1.5L	L
	Perm Defl in.	0.062 (L/2891)	7'10 3/8"	0.494 (L/360)	0.120 (12%)	D	Uniform
	LL Defl inch	0.164 (L/1083)	7'10 3/8"	0.494 (L/360)	0.330 (33%)	L	L
	TL Defl inch	0.226 (L/788)	7'10 3/8"	0.741 (L/240)	0.300 (30%)	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 3'9" o.c.

5 Bottom	flange braced at bearings	3.								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Tie-In	0-0-0 to 0-5-4	(Span)0-3-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Tie-In	0-0-0 to 0-5-4	(Span)0-8-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
3	Point	0-2-10		Тор	1 lb	3 lb	0 lb	0 lb	J7	
4	Point	0-2-10		Тор	1 lb	4 lb	0 lb	0 ib	J7	
5	Point	0-2-10		Тор	1 lb	3 lb	0 lb	0 lb	J7	
6	Point	0-2-10		Тор	1 lb	0 lb	0 lb	0 lb	Wall Self Weight	
7	Point	0-2-10		Тор	21 lb	56 lb	0 lb	0 lb	J7	

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 Inlended application, and to verify the dimensions and loads.

Continued on page 2...

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

chemicals

Handling & Installation

- Handling & Installation

 1. IJoist flanges must not be cut or drifled

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

 3. Damaged IJoists 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 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

This design is v



September 13, 2018



Page 2 of 2

Client:

GREENPARK

Project: Address: Date:

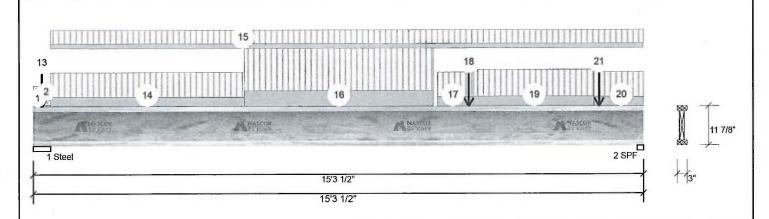
9/7/2018

Designer: RO Job Name: MILLWOOD 2-ELEV 1

Project #:

11.875" 2-Ply - PASSED NJ

Level: Ground Floor



Continued :	from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
8	Point	0-2-10		Тор	22 lb	59 lb	0 lb	0 lb	J7
9	Point	0-2-10		Тор	2 lb	5 lb	0 lb	0 lb	J7
10	Point	0-2-10		Тор	20 lb	0 lb	0 lb	0 lb	Wall Self Weight
11	Point	0-2-10		Тор	9 lb	25 lb	0 lb	0 lb	J7
12	Point	0-2-10		Тор	10 lb	26 lb	0 lb	0 lb	J7
13	Point	0-2-10		Тор	9 lb	0 lb	0 lb	0 lb	Wall Self Weight
14	Tie-In	0-5-4 to 5-3-10	(Span)1-7-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
15	Tie-In	0-5-4 to 15-3-8	(Span) 0-10-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
16	Tie-In	5-3-10 to 10-0-8	(Span)2-9-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
17	Tie-In	10-1-10 to 11-0-10	(Span)1-7-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
18	Point	10-11-2		Far Face	18 lb	49 lb	0 lb	0 lb	F9
19	Tie-In	11-0-10 to 14-0-10	(Span)1-9-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
20	Tie-In	14-0-10 to 15-3-8	(Span)1-7-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
21	Point	14-2-2		Far Face	25 lb	66 lb	0 lb	0 lb	F9

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
 IJoist not to be treated with fire retardant or correct

chemicals

Handling & Installation

Handling & Installation

1. Joist flarges must not be cut or drilled

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

3. Damaged foolists 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 falt roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info

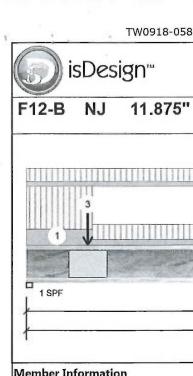
Nascor by Kott

Client:

Project:

Address:

Page 1 of 1



GREENPARK

Date: Designer: 9/7/2018

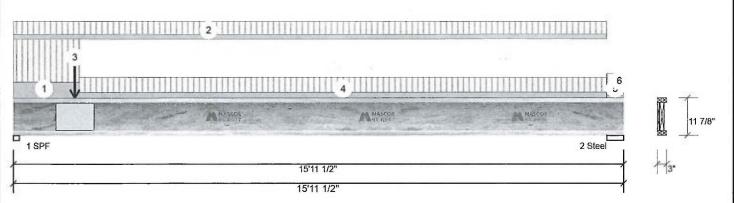
RO

Job Name: MILLWOOD 2-ELEV 1

Project #:

2-Ply - PASSED

Level: Ground Floor



Member Info	rmation			Unfactor	red React	ions U	NPATTERN	ED lb ((Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	w	Wind
Plies:	2	Design Method:	LSD	1	712		267		0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	376		141		0	0
Deflection LL:	360	Load Sharing:	No	1 -						
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearings	and Fact	ored I	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1-SPF	1.875"	53%	334 / 1068	1402	L	1.25D+1.5L
				2 - Steel	5.250"	22%	176 / 563	739	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3112 ft-lb	6'11 1/2"	9020 ft-lb	0.345 (34%)	1.25D+1.5L	L
Unbraced	3112 ft-lb	6'11 1/2"	3135 ft-lb	0.993 (99%)	1.25D+1.5L	L
Shear	1386 lb	1 1/8"	3400 lb	0.408 (41%)	1.25D+1.5L	L
Perm Defl in.	0.057 (L/3233)	7'6 13/16"	0.516 (L/360)	0.110 (11%)	D	Uniform
LL Defl inch	0.153 (L/1213)	7'6 13/16"	0.516 (L/360)	0.300 (30%)	L	L
TL Defl inch	0.211 (L/882)	7'6 13/16"	0.774 (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 4'2" o.c.



September 13, 2018

o bulloni	nange braced at bearing	JS							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-8-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	10
2	Tie-In	0-0-0 to 15-6-4	(Span) 0-11-12 to 0-11-12	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-7-6		Near Face	129 lb	343 lb	0 lb	0 lb	F10
4	Tie-In	1-8-14 to 15-6-4	(Span)1-1-12 to 1-1-12	Тор	15 PSF	40 PSF	0 PSF	required	ru Framing Squash Block is at all point loads over bearings
5	Tie-In	15-6-4 to 15-11-8	(Span)0-5-4	Тор	15 PSF	40 PSF	0 PSF	Referto	Multiple Member Connection
6	Tie-In	15-6-4 to 15-11-8	(Span) 0-10-12	Тор	15 PSF	40 PSF	0 PSF		r ply to ply nailing or bolting

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and leadings 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
 Libist not to be treated with fire retardant or corr

Handling & Installation

- Handling & Installation

 1. Jubist flarges must not be cut or drilled

 2. Refer to latest copy of the IJoist product information detals for framing detals, stifferent tables, web hole charb, bridging detals, multi-ply fastering detals and handling ferection details

 3. Demaged Loists must not be used

 4. Design assumes top flange to be laterally restrained by attached shealthing 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

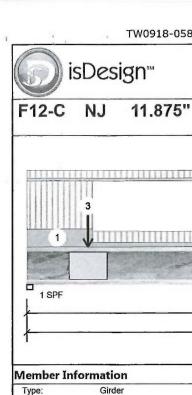
This design is

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





GREENPARK

Project:

Client:

Address:

9/7/2018 Date:

Designer: RO

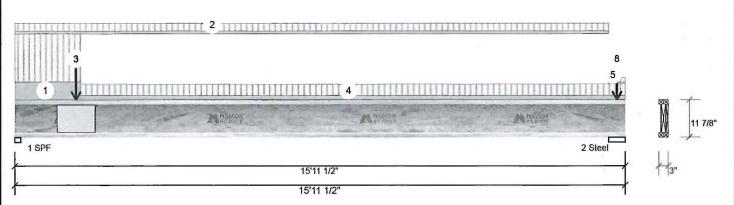
Job Name: MILLWOOD 2-ELEV 1

Project #:

Level: Ground Floor

Unfactored Reactions UNPATTERNED Ib (Uplift)

2-Ply - PASSED



WICHIDE! AITO	mation			omactore				(- Pilley	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	V	Wind
Plies:	2	Design Method:	LSD	1	649		244		0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	417		179		0	0
Deflection LL:	360	Load Sharing:	No	100						
Deflection TL:	240	Deck:	Not Checked	1						
Importance:	Normal	Vibration:	Not Checked	1						
General Load										
Floor Live:	40 PSF			Bearings	and Fac	tored R	leactions			
Dead:	15 PSF			Bearing L	_ength	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
		1		1 - SPF 1	1.875"	48%	305 / 973	1278	L	1.25D+1.5L
				2 - Steel 5	5.250"	25%	223 / 625	849	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2271 ft-lb	6'1 5/8"	9020 ft-lb	0.252 (25%)	1.25D+1.5L	L
Unbraced	2271 ft-lb	6'1 5/8"	2271 ft-lb	1.000 (100%)	1.25D+1.5L	L
Shear	1264 lb	1 1/8"	3400 lb	0.372 (37%)	1.25D+1.5L	L
Perm Defl in.	0.042 (L/4432)	7'4 5/8"	0.516 (L/360)	0.080 (8%)	D	Uniform
LL Defl inch	0.112 (L/1664)	7'4 3/4"	0.516 (L/360)	0.220 (22%)	L	L
TL Defl inch	0.154 (L/1210)	7'4 3/4"	0.774 (L/240)	0.200 (20%)	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.

2 Tie-In 0-0-0 to 15-6-4 (Span)0-6-4 Top 15 PSF to 0-6-4 3 Point 1-7-6 Far Face 152 lb	Live Sno 40 PSF 0 PS 40 PSF 0 PS	SF 0 PSF	Comments
2 Tie-In 0-0-0 to 15-6-4 (Span)0-6-4 Top 15 PSF to 0-6-4 3 Point 1-7-6 Far Face 152 lb 4 Tie-In 1-8-14 to 15-11-8 (Span)0-9-4 Top 15 PSF			
to 0-6-4 3 Point 1-7-6 Far Face 152 lb 4 Tie-In 1-8-14 to 15-11-8 (Span)0-9-4 Top 15 PSF	40 PSF 0 PS	SF 0 PSF	
4 Tie-in 1-8-14 to 15-11-8 (Span)0-9-4 Top 15 PSF			
	404 lb 0	Olb Olb	F10
10 0-5-4	40 PSF 0 PS	SF 0 PSF	
5 Tie-In 15-6-4 to 15-11-8 (Span)0-3-12 Top 15 PSF	40 PSF 0 PS	SF 0 PSF	
6 Point 15-8-14 Top 32 lb	85 lb 0	Olb Olb	J7
Continued on page 2			

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
 Lioist not to be treated with fire retardant or corro

chemicais

Handling & Installation

- andling & Installation.

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

 Damaged Lioist 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 that roofs proportion

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

Manufacturer Info Nascor by Kott

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1 905-642-4400

PROFESSIONAL ENGINEERS

100083566

WCE OF ONT

September 13, 2018



Page 2 of 2

TW0918-058 Page 14 of 34 Client: **GREENPARK** Date: 9/7/2018 isDesign™ Project: Designer: Address: Job Name: MILLWOOD 2-ELEV 1 Project #: Level: Ground Floor 11.875" 2-Ply - PASSED NJ 3 8 5 4 1 2 Steel 1 SPF 15'11 1/2' 15'11 1/2"

_Continued	from	page 1	

l	ID	Load Type	Location Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	7	Point	15-8-14	Тор	30 lb	80 lb	0 lb	0 lb	J7
l	8	Point	15-8-14	Тор	22 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

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design critieria 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
 Upoist not to be treated with fire retardant or corrosive

Handling & Installation

Handling & Installation

1. Joist flanges must not be cut or drilled

2. Refer to latest copy of the IJoist product information details for framing details, stifferen tables, web hole chart. bridging details, multi-ply fastening details and handlingferection details

3. Damaged IJoist 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 proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info

Nascor by Kott

isDesign™

Client:

Project: Address: GREENPARK

9/10/2018 Date:

Designer: RO

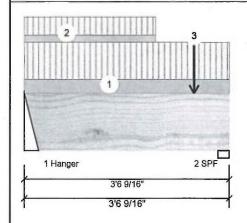
Job Name: MILLWOOD 2-ELEV 1

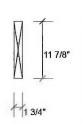
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED

Level: Ground Floor





Page 1 of 1

Member Info	rmation						Unfacto	red React	ions U	NPATTERN	ED lb (Uplift)	
Туре:	Girder		Application	on: F	оог (Residenti	ial)	Brg	Live		Dead	Snov	V	Wind
Plies:	1		Design M	lethod: L	SD		1	555		218		0	0
Moisture Conditi	on: Dry		Building (Code: N	BCC 2010 / O	BC 2012	2	510		201		0	0
Deflection LL:	360		Load Sha	iring: N	0								
Deflection TL:	240		Deck:	N	ot Checked								
Importance:	Normal		Vibration:	. N	ot Checked								
General Load									-				
Floor Live:	40 PSF						Bearing	s and Fact	ored I	Reactions			
Dead:	15 PSF						Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
							1 - Hanger	3.000"	28%	272 / 833	1106	L	1.25D+1.5L
Analysis Resu	lts						2-SPF	2.375"	40%	251 / 765	1016	L	1.25D+1.5L
Analysis A	ctual	Location	Allowed	Capacity	Comb.	Case							
Moment 7	85 ft-lb	1'9 5/16"	17130 ft-lb	0.046 (5%)	1.25D+1.5L	L					/	EFSSIO	The same of the sa
Unbraced 7	85 ft-lb	1'9 5/16"	13259 ft-lb	0.059 (6%)	1.25D+1.5L	L					PR.C	1	PALA
Shear 7	45 lb	2'5 1/16"	5798 lb	0.129 (13%	1.25D+1.5L	L				/	81		131
Perm Defl in.	.001	1'9 7/16"	0.108 (L/360)	0.010 (1%)	D	Uniform				1	8		WALE ROLL

Design Notes

LL Defl inch

1 Fill all hanger nailing holes.

(L/26669)

(L/10472) TL Defl inch 0.005 (L/7520)

0.004

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



September 13, 2018

Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
Part. Uniform	0-0-0 to 3-6-9		Тор	79 PLF	210 PLF	0 PLF	0 PLF	
Part. Uniform	0-0-0 to 2-3-3		Near Face	39 PLF	103 PLF	0 PLF	0 PLF	
Point	2-11-3		Near Face	33 lb	87 lb	0 lb	0 lb	J2
Self Weight				5 PLF			Pass-Th	ru Framing So
	Load Type Part. Uniform Part. Uniform Point	Load Type Location Part. Uniform 0-0-0 to 3-6-9 Part. Uniform 0-0-0 to 2-3-3 Point 2-11-3	Load Type Location Trib Width Part. Uniform 0-0-0 to 3-6-9 Part. Uniform 0-0-0 to 2-3-3 Point 2-11-3	Load Type Location Trib Width Side Part. Uniform 0-0-0 to 3-6-9 Top Part. Uniform 0-0-0 to 2-3-3 Near Face Point 2-11-3 Near Face	Load Type Location Trib Width Side Dead Part. Uniform 0-0-0 to 3-6-9 Top 79 PLF Part. Uniform 0-0-0 to 2-3-3 Near Face 39 PLF Point 2-11-3 Near Face 33 lb	Load Type Location Trib Width Side Dead Live Part. Uniform 0-0-0 to 3-6-9 Top 79 PLF 210 PLF Part. Uniform 0-0-0 to 2-3-3 Near Face 39 PLF 103 PLF Point 2-11-3 Near Face 33 lb 87 lb	Load Type Location Trib Width Side Dead Live Snow Part. Uniform 0-0-0 to 3-6-9 Top 79 PLF 210 PLF 0 PLF Part. Uniform 0-0-0 to 2-3-3 Near Face 39 PLF 103 PLF 0 PLF Point 2-11-3 Near Face 33 lb 87 lb 0 lb	Load Type Location Trib Width Side Dead Live Snow Wind Part. Uniform 0-0-0 to 3-6-9 Top 79 PLF 210 PLF 0 PLF 0 PLF Part. Uniform 0-0-0 to 2-3-3 Near Face 39 PLF 103 PLF 0 PLF 0 PLF Point 2-11-3 Near Face 33 lb 87 lb 0 lb 0 lb

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 inlended 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

LVI 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

1'9 3/8" 0.108 (L/360) 0.030 (3%) L

1'9 3/8" 0.161 (L/240) 0.030 (3%) D+L

- testening details, beam strengm values, and code approvals
 Damaged Beams must not be used
 Design assumes top edge is laterally restrained
 Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

This design is v

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.





Client:

Project: Address: GREENPARK

Date: Designer:

RO

Job Name: MILLWOOD 2-ELEV 1

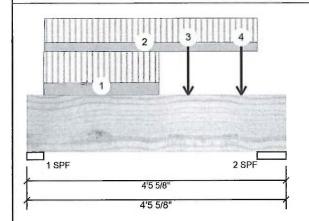
9/7/2018

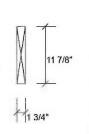
Project #:

Forex 2.0E-3000Fb LVL

1.750" X 11.875" - PASSED

Level: Ground Floor





Page 1 of 1

Vlember Info	rmation			Unfactored	Reaction	ns UNPATTERN	ED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	1024	395	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1099	424	0	0
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 a	nd Factor	ed Reactions		
Dead:	15 PSF	-		Bearing Le	ngth	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 3.5	500"	54% 493 / 1536	2029 L	1.25D+1.5L
				2 - SPF 5.8	375"	34% 529 / 1649	2178 L	1.25D+1.5L

Analysis Results	A	na	Ιv	sis	Re	su	ts
------------------	---	----	----	-----	----	----	----

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2002 ft-lb	2'1 9/16"	17130 ft-lb	0.117 (12%)	1.25D+1.5L	L
Unbraced	2002 ft-lb	2'1 9/16"	11720 ft-lb	0.171 (17%)	1.25D+1.5L	L
Shear	2314 lb	3' 5/8"	5798 lb	0.399 (40%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/10769)	2'1 11/16"	0.127 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.011 (L/4138)	2'1 11/16"	0.127 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.015 (L/2989)	2'1 11/16"	0.191 (L/240)	0.080 (8%)	D+L	L



September 13, 2018

Desi	gn	No	tes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-3-8 to 2-3-8		Near Face	120 PLF	319 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-3-12 to 3-11-12		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
3	Point	2-9-8		Near Face	115 lb	305 lb	0 lb	0 lb	J7
4	Point	3-8-8		Near Face	112 lb	300 lb	0 lb	0 lb	J7
	Self Weight				5 PLF			Pass-Th	ru Framing S

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

LVL beams must not be cut or drilled Refer to manufacturer's product information regarding institutions, multi-ply fastening details, beam strength values, and code approvals Damaged Beams must not be used

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

For flat roofs provide proper drainage to prevent ponding

This design is

Manufacturer Info Forex APA: PR-L318

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1 905-642-4400

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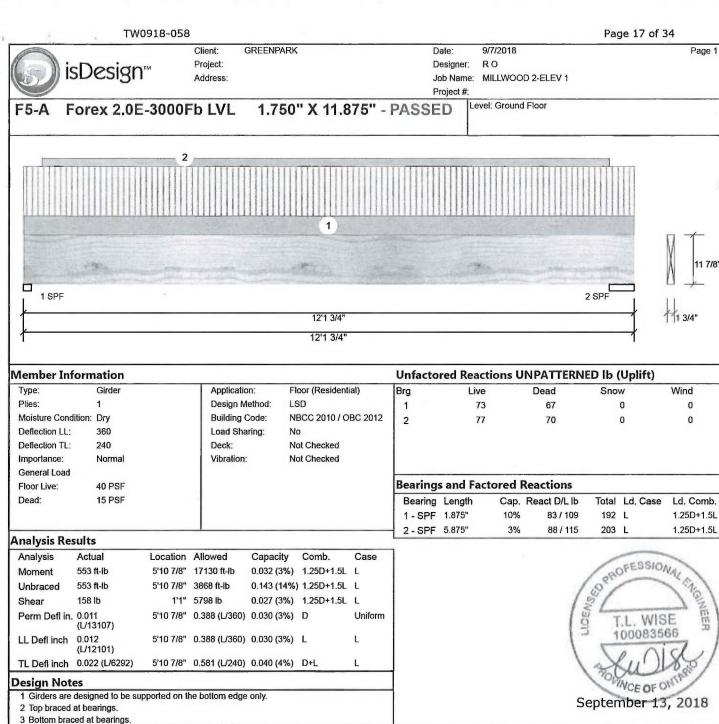
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Ld. Comb.

1.25D+1.5L

1.25D+1.5L



September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-1-12	(Span)0-7-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part, Uniform	0-4-6 to 11-7-15		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				5 PLF				

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

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

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chemicals

Handling & Installation

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maged Beams must not be used

For flat roofs provide proper drainage to prevent ponding

This design is

Manufacturer Info

Forex APA: PR-L318

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TW0918-058 Page 18 of 34 GREENPARK 9/7/2018 Client: Date: Project: RO Designer: isDesign" Address: Job Name: MILLWOOD 2-ELEV 1 Project #: Level: Ground Floor 1.750" X 11.875" - PASSED Forex 2.0E-3000Fb LVL 1 SPF 2 SPF 12'2 3/4' 12'2 3/4" **Unfactored Reactions UNPATTERNED Ib (Uplift)** Member Information Brg Type: Application: Floor (Residential) Live Dead Snow Plies: Design Method: 67 53 0 Moisture Condition: Dry **Building Code:** NBCC 2010 / OBC 2012 0 95 66 2 Deflection LL: 360 Load Sharing: Deflection TL: 240 Deck: Not Checked Vibration: Not Checked Importance: Normal General Load Bearings and Factored Reactions 40 PSF Floor Live: 15 PSF Cap. React D/L lb Dead: Total Ld. Case Bearing Length 67 / 101 8% 168 L 1 - SPF 1.875" 2 - SPF 6.875" 3% 82 / 142 224 L **Analysis Results** Capacity Comb. Case Analysis Actual Location Allowed 0.028 (3%) 1.25D+1.5L L 480 ft-lb 5'10 7/8" 17130 ft-lb Moment Unbraced 480 ft-lb 5'10 7/8" 3868 ft-lb 0.124 (12%) 1.25D+1.5L L 137 lb 1'1" 5798 lb 0.024 (2%) 1.25D+1.5L L Shear Perm Defl in. 0.008 5'10 7/8" 0.388 (L/360) 0.020 (2%) D Uniform (L/16496) 0.011 5'10 7/8" 0.388 (L/360) 0.030 (3%) L L LL Defl inch (L/13065) TL Defl inch 0.019 (L/7290) 5'10 7/8" 0.581 (L/240) 0.030 (3%) D+L **Design Notes** 1 Girders are designed to be supported on the bottom edge only. 2 Top braced at bearings. 3 Rottom braced at bearings.

WISE H 100083566 WCE OF ON

Wind

0

0

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-2-12	(Span)0-6-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	11-9-6 to 12-2-12	(Span)2-6-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

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

Self Weight

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 manufacturers product information
regarding installation requirements, multi-pty
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

5 PLF

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.







GREENPARK Client:

Project:

Address:

9/7/2018 Date:

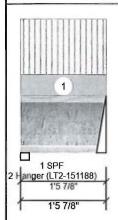
Designer: RO

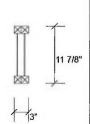
Job Name: MILLWOOD 2-ELEV 1

Project #:

NJ 11.875" 2-Ply - PASSED

Level: Ground Floor





Page 1 of 1

Member Info	rmation			Unfacto	red Reac	tions U	INPATTERNI	ED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	48		18	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	49		18	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			Bearing:	s and Fac	tored	Reactions		
Dead:	15 PSF			Bearing	Length	Сар.	React D/L lb	Total Ld. Case	Ld. Comb.
				1-SPF	1.875"	4%	23 / 72	95 L	1.25D+1.5L

Ana	lysis	Resul	ts
7114	1 7 313	ILCOM	

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	27 ft-lb	8 7/8"	9020 ft-lb	0.003 (0%)	1.25D+1.5L	L
Unbraced	27 ft-lb	8 7/8"	8539 ft-lb	0.003 (0%)	1.25D+1.5L	L
Shear	83 lb	1 1/8"	3400 lb	0.024 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
	Unbraced Shear Perm Defl in. LL Defl inch	Moment 27 ft-lb Unbraced 27 ft-lb	Moment 27 fl-lb 8 7/8" Unbraced 27 fl-lb 8 7/8" Shear 83 lb 1 1/8" Perm Defl in. 0.000 (L/999) 0 LL Defl inch 0.000 (L/999) 0	Moment 27 ft-lb 8 7/8" 9020 ft-lb Unbraced 27 ft-lb 8 7/8" 8539 ft-lb Shear 83 lb 1 1/8" 3400 lb Perm Defl in. 0.000 (L/999) 0 999.000 (L/0) LL Defl inch 0.000 (L/999) 0 999.000 (L/0)	Moment 27 fl-lb 8 7/8" 9020 fl-lb 0.003 (0%) Unbraced 27 fl-lb 8 7/8" 8539 fl-lb 0.003 (0%) Shear 83 lb 1 1/8" 3400 lb 0.024 (2%) Perm Defl in. 0.000 (L/999) 0 999.000 (L/0) 0.000 (0%) LL Defl inch 0.000 (L/999) 0 999.000 (L/0) 0.000 (0%)	Moment 27 ft-lb 8 7/8" 9020 ft-lb 0.003 (0%) 1.25D+1.5L Unbraced 27 ft-lb 8 7/8" 8539 ft-lb 0.003 (0%) 1.25D+1.5L Shear 83 lb 1 1/8" 3400 lb 0.024 (2%) 1.25D+1.5L Perm Defl in. 0.000 (L/999) 0 999.000 (L/0) 0.000 (0%) LL Defl inch LL Defl inch 0.000 (L/999) 0 999.000 (L/0) 0.000 (0%) L

Design Notes

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

2 - Hanger	2.000"	4%	23 / 73	96 L	1.25D+1.5L
				QOFESS	SIONAL
			1	E. C.	18
			LIGE		VISE #1
			1	-	210/

September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

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 bessed 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

Inditing & Installation

I Joist flanges must not be cut or drilled

Refer to latest copy of the I Joist product information details for framing details, suiteliner tables, web hole chart, bridging details, multi-phy fastening details and handling/erection details

Damaged I Joist must not be used

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

This design is

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

6. Web stiffenans for point load as shown Minimum point load bearing length>= 3.5 Inches.

7. For flat roofs provided the provided in the provided i

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

Manufacturer Info

Nascor by Kott

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





GREENPARK Client:

Project: Address:

9/7/2018 Date:

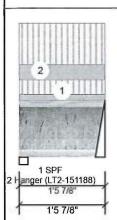
RO Designer:

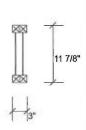
Job Name: MILLWOOD 2-ELEV 1

Project #:

NJ 11.875" 2-Ply - PASSED

Level: Ground Floor

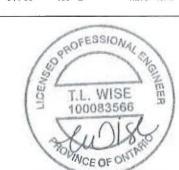




Page 1 of 1

Nember Inform	nation				Unfacto	red React	ions UNPATTER	VED Ib (Uplift)	
Туре:	Girder		Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2		Design Method:	LSD	1	65	24	0	0
Moisture Condition	Dry		Building Code:	NBCC 2010 / OBC 2012	2	66	25	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	s and Fac	tored Reactions		
Dead:	15 PSF				Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
					1-SPF	1.875"	5% 31/98	128 L	1.25D+1.5L
					2-	2.000"	5% 31/99	130 L	1.25D+1.5L
Analysis Result	s				Hanger				
Analysis Act	ual	Location Al	llowed Capaci	ty Comb. Case				-	
Mamont 36	ft lb	8 7/8" 90	120 ft lb 0 004 //	1%) 1.25D+1.5L L				-59910	

	/ Widiyolo	riotaur	Location	1 4101104	-upacit,	0011121		
l	Moment	36 ft-lb	8 7/8"	9020 ft-lb	0.004 (0%)	1.25D+1.5L	L	
l	Unbraced	36 ft-lb	8 7/8"	8539 ft-lb	0.004 (0%)	1.25D+1.5L	L	
	Shear	112 lb	1 1/8"	3400 lb	0.033 (3%)	1.25D+1.5L	L	
l	Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			
l	LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			
١	TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			



September 13, 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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-14	(Span)1-1-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-5-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	

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
 Uplist not to be treated with fire retardant or corrosive

Handling & Installation

- Handling & Installation

 1. Noist flanges must not be cut or drilled

 2. Refer to latest copy of the Lloist product information details for training details, stifferen tables, web hole charb, bridging details, multi-ply fastening details and handling/erection details

 3. Damaged bolists must not be used

 4. 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 avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing an at \$2.5 inches
 For fat roofs provided to the pointing pointing and the pointing pointing and the pointing pointing and the pointing pointing and the pointing and

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

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1 905-642-4400



Version 18.40.162 Powered by iStructTM



11 7/8

isDesign™

2

Client:

Project: Address: GREENPARK

9/10/2018 Date:

Designer: RO

Job Name: MILLWOOD 2-ELEV 1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED Level: Ground Floor

<u></u>		ШШШИ	1)!!!!!!!!!!!!!!				
774		100		130			
] 1 SPF End Grain	2 SPF End Grain				3 S		
3'7 3/4"		6'11 7/8"					

Member Info	rmation		
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	1	

A	nalysis Res	ults					
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Neg Moment	-617 ft-lb	3'7 3/4"	22269 ft-lb	0.028 (3%)	1.4D	Uniform
	Unbraced	-617 ft-lb	3'7 3/4"	22269 ft-lb	0.028 (3%)	1.4D	Uniform
	Pos Moment	521 ft-lb	7'9"	22269 ft-lb	0.023 (2%)	1.4D	Uniform
	Unbraced	521 ft-lb	7'9"	21873 ft-lb	0.024 (2%)	1.4D	Uniform
	Shear	421 lb	4'7 5/8"	7537 lb	0.056 (6%)	1.4D	Uniform
	Perm Defl in.	0.005 (L/17692)	7'3 7/16"	0.230 (L/360)	0.020 (2%)	D	Uniform
	LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		

7'3 3/8" 0.345 (L/240) 0.020 (2%) D+L TL Defl inch 0.006 (L/14724)

Design Notes

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

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	986	484	0	0
2	176	679	0	0
3	52	259	0	0

Bearings and Factored Reactions

Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	24%	578 / 1504	2082	L_	1.25D+1.5L
2 - SPF End Grain	3.500"	17%	995 / 0	995	Uniform	1.4D
3 - SPF	1.875"	13%	348/0	348	Uniform	1.4D



September 13, 2018

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 inlended application, and to verify the dimensions and loads.

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-pty featening details, beam strength values, and code approvals

 Damaged Beams must not be used

 Design assumes top edge is laterally restrained

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

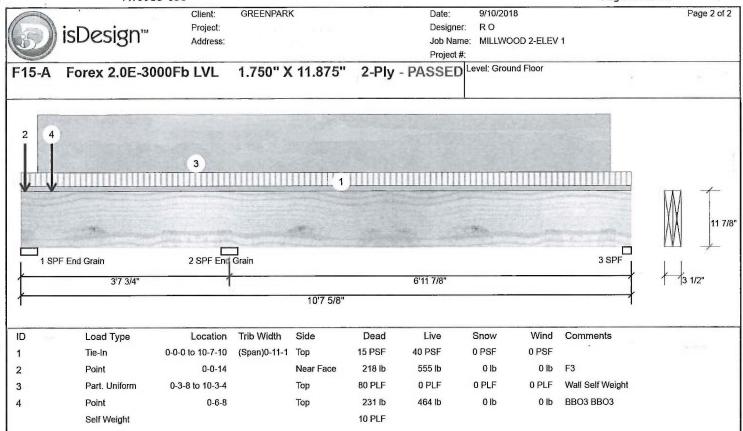
- For flat roofs provide proper drainage to prevent ponding

This design is

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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.



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 critiaria and loadings shoom. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the latendary of the International Component Suitability of the International Component Component Suitability of the International Component Compon

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

chemicals

Handling & Installation

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

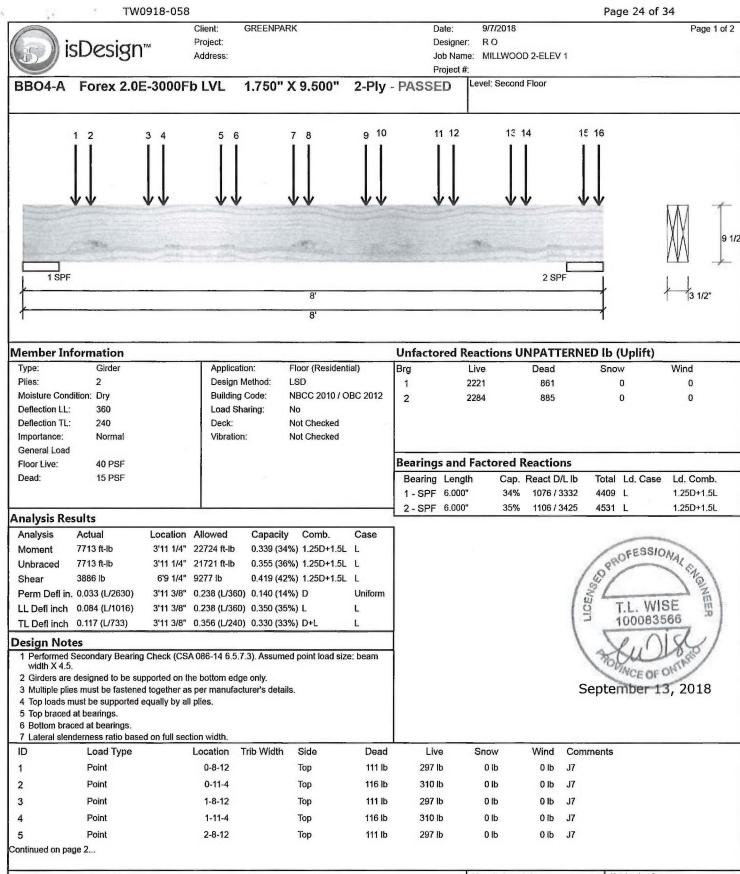
For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Forex

APA: PR-L318

Manufacturer Info



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

Handling & Installation

chemicals

 IVI beams must not be cut or carried.
 Refer to manufacturer's product information regarding installation requirements, multi-physicatening details, beam strength values, and code approvals.

Damaged Beams must not be used
 Dasign assumes too edge is laterally re-

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

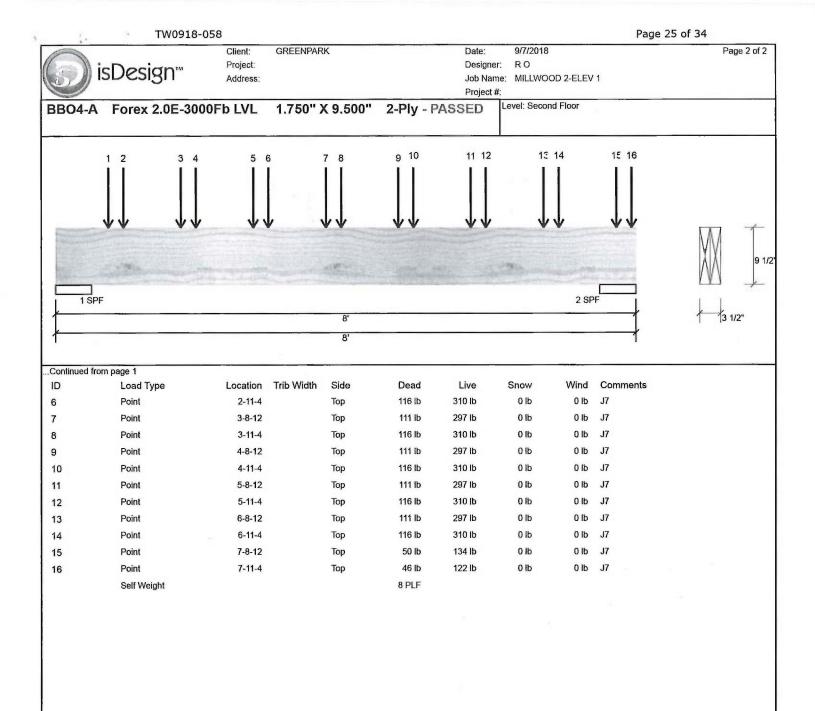
6. For flat roofs provide proper drainage to preven

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.





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 wrifty the dimensions and loads.

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

chemicals

Handling & Installation

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

For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info

Forex APA: PR-L318

isDesign™

Client:

Project: Address: GREENPARK

9/7/2018 Date: Designer:

RO

Job Name: MILLWOOD 2-ELEV 1

Project #

Forex 2.0E-3000Fb LVL

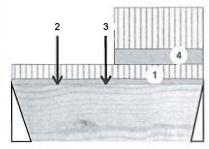
1.750" X 11.875"

2-Ply - PASSED

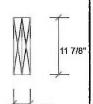
Brg

2

Level: Second Floor



1 Hanger (HGUS410) 2 Hanger (HUC410 (Min)) 3'3 3/4 3'3 3/4"



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		925-410.00	
Floor Live:	40 PSF		
Dead:	15 PSF		

Bearings and Factored Reactions

Live

150

169

Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

83

88

Snow

0

0

Cap. React D/L lb Total Ld. Case Ld. Comb. Bearing Length 1.25D+1.5L 104 / 225 329 L 4.000" 3% Hanger 2.500" 6% 110 / 253 363 L 1.25D+1.5L Hanger

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	246 ft-lb	1'7 1/2"	34261 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	246 ft-lb	1'7 1/2"	34261 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	246 lb	1'3 1/8"	11596 lb	0.021 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.001 (L/46486)	1'7 3/4"	0.145 (L/240)	0.010 (1%)	D+L	L

Design Notes

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

Latera	Oldfiddiffiddd fatto Bacca	on run occuent maur.					
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow
1	Tie-In	0-0-0 to 3-3-12	(Span)1-4-8	Тор	15 PSF	40 PSF	0 PSF
2	Point	0-9-7		Near Face	26 lb	70 lb	0 lb
3	Point	1-7-8		Near Face	33 lb	35 lb	0 lb
4	Tie-In	1-9-4 to 3-3-12	(Span) 3-11-13	Тор	15 PSF	40 PSF	0 PSF
	Self Weight				10 PLF		

Wind Comments 0 PSF 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

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

chemicals

Handling & Installation

L. IVI. beams must not be cut or drifted
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code

approvals

Damaged Beams must not be used

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

For flat roofs provide proper drainage to prevent ponding

This design i

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 905-642-4400

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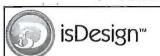
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September 13, 2018

Version 18.40.162 Powered by iStructⁿ





Client:

Address:

Project:

GREENPARK

Date: Designer:

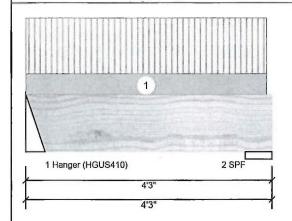
9/7/2018

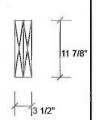
RO Job Name: MILLWOOD 2-ELEV 1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 11.875" 2-Ply - PASSED Level: Second Floor





Page 1 of 1

Viember Inf	ormation						Unfacto	red React	ions UN	IPATTER	NED lb (Uplift)	
Туре:	Girder		Applica	tion:	Floor (Residen	tial)	Brg	Live		Dead	Snow	Wind
Plies:	2		Design	Method:	LSD		1	35		33	0	0
Moisture Condi	ition: Dry		Buildin	g Code:	NBCC 2010 / C	BC 2012	2	35		34	0	0
Deflection LL:	360		Load S	haring:	No							
Deflection TL:	240		Deck:		Not Checked							
Importance:	Normal		Vibratio	on:	Not Checked							
General Load							- ·	1				
Floor Live:	40 PSF							s and Fact				
Dead:	15 PSF						Bearing	_		React D/L II		Ld. Comb.
							1 - Hanger	4.000"	1%	41 / 5	2 93 L	1.25D+1.5L
Analysis Res	ults						2-SPF	5.500"	1%	43 / 5	3 95 L	1.25D+1.5L
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case						-
Moment	72 ft-lb	2' 3/4"	34261 ft-lb	0.002 (0%) 1.25D+1.5L	L					OFESSIO	NA.
Unbraced	72 ft-lb	2' 3/4"	34261 ft-lb	0.002 (0%) 1.25D+1.5L	L					100	10
Shear	36 lb	1'3 1/8"	11596 lb	0.003 (0%) 1.25D+1.5L	L					T.L. WI 100083	151
Perm Defl in.	0.000 (L/999)	0	999.000 (L/	0) 0.000 (0%)						1 3 L	OF m
LL Defl inch	0.000 (L/999)	0	999.000 (L/	0) 0.000 (0%)						9 T.L. WI	SE m
TL Defl inch	0.000 (L/999)	0	999.000 (L/	0) 0.000 (0%)					3	100083	000
Design Note							Ţ				1 skul	881
	er nailing holes. designed to be su	unanta dan ti	a hattam ad								2000	CALLES!
	s must be fastene				8						NCEOF	
	ust be supported			state o detail	J.						September 1	3, 2018
5 Top braced a		. , ,										
	ed at bearings.						l					
7 Lateral slend	derness ratio base	ed on full sect	ion width.									
ID	Load Type		Location	Trib Width	Side	Dead	Live				omments	
1	Tie-In	0-0-0	to 4-1-14	(Span)0-10-1	Тор	15 PSF	40 PS	F 0 PS	SF	0 PSF		
	Self Weight					10 PLF						
											Framing Squash I	

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 inlended application, and to verify the dimensions and loads.

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

Handling & Installation

and lling & Installation.

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

For flat roofs provide proper drainage to prevent ponding

This design is

Manufacturer Info Forex APA: PR-L318

requirements

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE EMP-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 K2H7V1 905-642-4400



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

Client:

GREENPARK

Project: Address:

Date: 9/7/2018

Designer: RO

Job Name: MILLWOOD 2-ELEV 1

Project #:

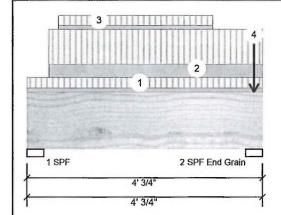
Forex 2.0E-3000Fb LVL

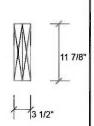
1.750" X 11.875"

2-Ply - PASSED

2

Level: Second Floor





Wind 0

0

0

Page 1 of 1

Member Infor	mation		
Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	n: 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 Reaction	UNPATTER	NED lb (Uplift)
Brg	Live	Dead	Snow	
1	643	260	0	

375

885

Bearing:	s and Fa	ctored	Reactions			
Bearing	Length	Сар.	React D/L lb	Total	Ld. Case	Ld. Comb.
1-SPF	3.500"	17%	325 / 965	1289	L	1.25D+1.5L
2 - SPF End Grain	3.500"	20%	469 / 1328	1797	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1215 ft-lb	2' 5/16"	34261 ft-lb	0.035 (4%)	1.25D+1.5L	L
Unbraced	1215 ft-lb	2' 5/16"	34261 ft-lb	0.035 (4%)	1.25D+1.5L	L
Shear	711 lb	2'10 1/8"	11596 lb	0.061 (6%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/34561)	2' 5/16"	0.120 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.003 (L/13799)	2' 5/16"	0.120 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.004 (L/9862)	2' 5/16"	0.180 (L/240)	0.020 (2%)	D+L	L

Design Notes

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

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8	GIZ
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Lunis	4/
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September 13, 20	18

o Laterars	sienderness ratio based t	on full section wider.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-0-12	(Span)3-7-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-8 to 4-0-12		Тор	90 PLF	240 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-6-8 to 3-2-8		Near Face	25 PLF	68 PLF	0 PLF	Passett	ru Framing Squash Block is
4	Point	3-11-0		Near Face	88 lb	169 lb	0 lb	required	d at all point loads over bearings
	Self Weight				10 PLF				Multiple Member Connection or ply to ply nailing or bolting nents

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

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 defails, 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.

Kott Lumber Company 14 Anderson Blvd, Ontario Canada K2H7V1 905-642-4400

This design is



Client: **GREENPARK**

Project: Address: Date: 9/7/2018 Designer:

RO

Job Name: MILLWOOD 2-ELEV 1

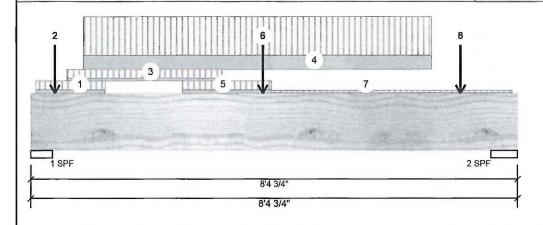
Project #:

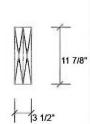
Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED

Level: Second Floor





Page 1 of 2

Member	Intorn	nation

Mieninei Inio	mation		
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		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	1594	649	0	0
2	1377	568	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1-SPF	4.500"	33%	811 / 2391	3202	L	1.25D+1.5L	
2-SPF	5.500"	23%	710 / 2066	2776	L	1.25D+1.5L	

Analysis Results

Dead:

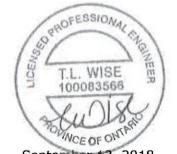
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
	Moment	5966 ft-lb	4'	34261 ft-lb	0.174 (17%)	1.25D+1.5L	L
	Unbraced	5966 ft-lb	4'	31511 ft-lb	0.189 (19%)	1.25D+1.5L	L
	Shear	3035 lb	7' 1/8"	11596 lb	0.262 (26%)	1.25D+1.5L	L
	Perm Defl in.	0.016 (L/5638)	4' 3/4"	0.256 (L/360)	0.060 (6%)	D	Uniform
	LL Defl inch	0.040 (L/2325)	4' 13/16"	0.256 (L/360)	0.150 (15%)	L	L
	TL Defl inch	0.056 (L/1646)	4' 13/16"	0.384 (L/240)	0.150 (15%)	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.

15 PSF

- 4 Top braced at bearings.
- 5 Bottom braced at bearings.
- 6 Lateral slenderness ratio based on full section width



September 13, 2018

O Lateral	sicilaciness ratio basca i	on jun section main.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-1-0 to 1-3-8	(Span)3-7-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-5-0		Near Face	77 lb	205 lb	0 lb	0 ib	J7
3	Part. Uniform	0-7-8 to 3-3-8		Far Face	25 PLF	68 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-11-0 to 6-11-0		Near Face	115 PLF	308 PLF	0 PLF	0 PLF	
5	Tie-In	2-7-8 to 4-1-12	(Span)3-7-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	4-0-0		Far Face	83 lb	150 lb	0 lb	0 lb	F6

Continued on page 2...

Notes

Calcurated 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

- HANGING & Installation

 1. UVL 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. Damaged Beams must not be used

 4. Design assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

This design I

Manufacturer Info

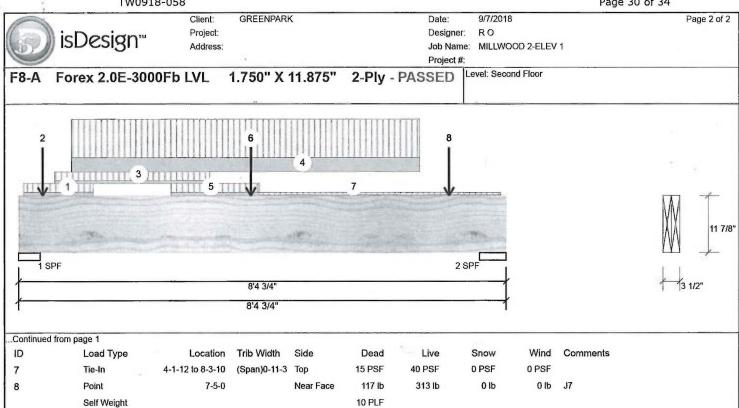
Forex APA: PR-L318

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

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

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design critieria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, not to verify the dimensions and loads. Lumber

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

For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info APA: PR-L318

isDesign™

GREENPARK Client:

Project: Address:

Date: 9/7/2018

Designer: RO

Job Name: MILLWOOD 2-ELEV 2

Project #

Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED Level: Second Floor

Page 1 of 1

	3
1	2
	1 Steel 2 SPF
	1'6 1/8" 1'6 1/8"

Member Inforn	nation			Unfactored	Reactions	UNPATTERN	ED lb (Uplift)	
Туре:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	72	103	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	61	53	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 an	d Factore	d Reactions		
Dead:	15 PSF			Bearing Ler	ngth Ca	p. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - Steel 5.2	50"	2% 129 / 108	237 L	1.25D+1.5L
	·			2 - SPF 2.3	75"	8% 66 / 92	158 L	1.25D+1.5L

Analysis Results

	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	Ī
	Moment	78 ft-lb	10"	33233 ft-lb	0.002 (0%)	1.25D+1.5L	L	
	Unbraced	78 ft-lb	10"	33233 ft-lb	0.002 (0%)	1.25D+1.5L	L	
	Shear	107 lb	1'4 3/8"	11248 lb	0.009 (1%)	0.9D+1.5L	L	
	Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			
	LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			
	TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			
-								_

Design Notes

- 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



September 13, 2018

O Lateral	Sicilidettiess tallo pased o	on full section width.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 0-4-0		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-4-0 to 1-1-12		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Point	0-10-0		Near Face	50 lb	133 lb	0 lb	0 lb	J10
	Self Weight				10 PLF				nru Framing Squash Block is d 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 nesure the component suitability of the inlended application, and to verify the dimensions and loads. Lumber

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

chemicals

Handling & Installation

LVI 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

pastering details, beart suerign values, and code approvals

Denign assumes top edge is laterally restrained

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

For flat roofs provide proper drainage to prevent ponding

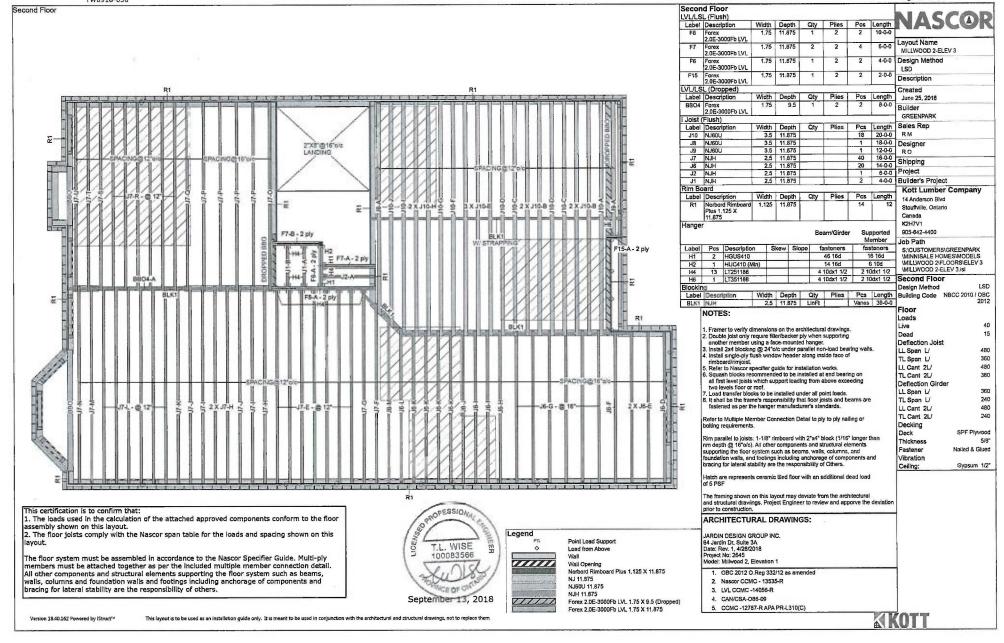
This design

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.







Client:

Project: Address: **GREENPARK**

Date: 9/7/2018 RO Designer:

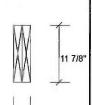
Job Name: MILLWOOD 2-ELEV 3

Project #:

F15-A Forex 2.0E-3000Fb LVL

1.750" X 11.875"

2-Ply - PASSED Level: Second Floor



Page 1 of 1

The last temperature of the la	3	
1	2	9
TENESS.		
	1 SPF 2 SPF	1
+	1'3 1/4"	ł

Member Info	rmation			Unfactor	red Reac	tions U	INPATTERN!	ED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	V	Wind
Plies:	2	Design Method:	LSD	1	108		101		0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	65		41		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	Reactions			
Dead:	15 PSF			Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF	5.250"	3%	126 / 162	288	L	1.25D+1.5L
				2-SPF	3.500"	2%	52 / 98	149	L	1.25D+1.5L

Analysis Results

	•							
	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	
	Moment	58 ft-lb	7 1/2"	34261 ft-lb	0.002 (0%)	1.25D+1.5L	L	
	Unbraced	58 ft-lb	7 1/2"	34261 ft-lb	0.002 (0%)	1.25D+1.5L	L	
	Shear	190 lb	1'4 3/8"	11596 lb	0.016 (2%)	1.25D+1.5L	L	
	Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			
	LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			
	TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)			
_								_

Design Notes

- 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.



September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 0-1-8		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-1-8 to 0-9-12		Тор	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Point	0-7-8		Far Face	65 lb	173 lb	0 lb	0 lb	J9
	Self Weight				10 PLF				nru Framing Squash Block is d 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 inlended 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

- andling & Installation.

 LVL beams must not be cut or drilled.
 Refer to manufacturer's product information regarding installation requirements, mutil-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.

This design

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.





Ground Floor

Layout Name

Design Method

Description

June 25, 2018

GREENPARK

Sales Rep

Designer

Shipping

Project

Canada

K2H7V1

905-642-4400

Builder's Project

14 Anderson Blvd

Stouffville, Ontario

Kott Lumber Company

Created

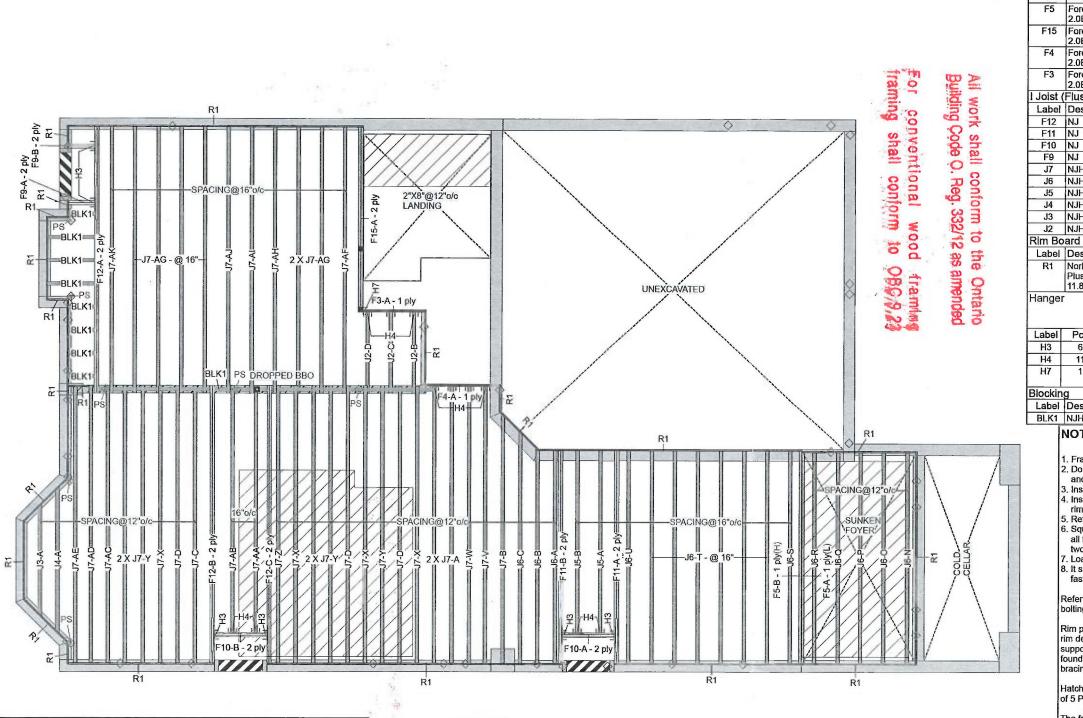
Builder

RM

RO

LSD

MILLWOOD 2-ELEV 3



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.



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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

September 13, 2018

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

2. Nascor CCMC - 13535-R

3. LVL CCMC -14056-R 4. CAN/CSA-086-09

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

111111

Job Path 4 10dx1 1/2 2 10dx1 1/2 S:\CUSTOMERS\GREENPARK 4 10dx1 1/2 2 10dx1 1/2 \MINNISALE HOMES\MODELS \MILLWOOD 2\FLOORS\ELEV 3 \MILLWOOD 2-ELEV 3.isl **Ground Floor** Design Method LSD 2.5 11.875 LinFt Building Code NBCC 2010 / OBC Floor Loads 40 Live another member using a face-mounted hanger. 15 Dead **Deflection Joist** LL Span L/ 480 TL Span L/ 360 LL Cant 2L/ 480 TL Cant 2L/ 360 **Deflection Girder** 360 LL Span L/ fastened as per the hanger manufacturer's standards. TL Span L/ 240 LL Cant 2L/ 480 TL Cant 2L/ 240 Decking Deck SPF Plywood Thickness 3/4" Fastener Nailed & Glued Hatch are represents ceramic tiled floor with an additional dead load LOT 18

Beam/Girder Supported Member Pcs Description Skew Slope fasteners fasteners Н3 6 LT2-151188 11 LT251188 H7 HUCQ1.81/9

Width Depth Qty Plies

Width Depth

1.75 11.875

Width Depth

1.5 11.875

1.5 11.875

1.5 11.875

1.5 11.875

2.5 11.875

2.5 11.875

2.5 11.875

2.5 11.875

2.5 11.875

1.125 11.875

11.875

2.5

1.75

1.75

Qty Plies

Plies

2

2

2

Qty 3

2

Pcs Length

Pcs Length

6 16-0-0

4 14-0-0

35 16-0-0

16 14-0-0

1 10-0-0

1 8-0-0

3 6-0-0

Pcs Length

12

4

12-0-0

6-0-0

4-0-0

4-0-0

2-0-0

12-0-0

2

Blocking Label Description Width Depth Qty Plies Pcs Length BLK1 NJH

NOTES:

Ground Floor VL/LSL (Flush) Label Description

Forex

Forex

Forex

Label Description

F3 Forex

Joist (Flush)

F12 NJ

F11 NJ

F10 NJ

F9 NJ

J7 NJH

.16 N.1H

J5 NJH

J4 NJH

J3 NJH

J2 NJH

Label Description

R1 Norbord Rimboa

Plus 1.125 X

2.0E-3000Fb LVL

2.0E-3000Fb LVL

2.0E-3000Fb LVL

2.0E-3000Fb LVL

F5

F15

F4

Framer to verify dimensions on the architectural drawings.
 Double joist only require filler/backer ply when supporting

. Install 2x4 blocking @ 24"o/c under parallel non-load bearing walls. . Install single-ply flush window header along inside face of

rimboard/rimjoist. Refer to Nascor specifier guide for installation works. . Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding

two levels floor or roof. Load transfer blocks to be installed under all point loads. . It shall be the frame's responsibility that floor joists and beams are

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

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

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

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC. 64 Jardin Dr, Suite 3A Date: Rev. 1, 4/26/2018 Project No: 2645 Model: Millwood 2, Elevation 1

Legend

Point Load Support Load from Above

Wall Opening Norbord Rimboard Plus 1.125 X 11.875

NJ 11.875 NJH 11.875 Forex 2.0E-3000Fb LVL 1.75 X 11.875

CITY OF BRAMPTON

BUILDING DIVISION

REVIEWED

JAN 8 3 2019

MARK DERKSEN

18-331274-000-00 RR_FLOOR

Second Floor

MILLWOOD 2-ELEV 3

Kott Lumber Company

MINNISALE HOMES/MODELS

Building Code NBCC 2010 / OBC

LSD

2012

40

15

480

360

480

360

360

240

480

240

5/8"

SPF Plywood

Nailed & Glued

14 Anderson Blvd

Stouffville, Ontario

Canada

Floor

Loads

Live

Dead

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

Thickness

Fastener

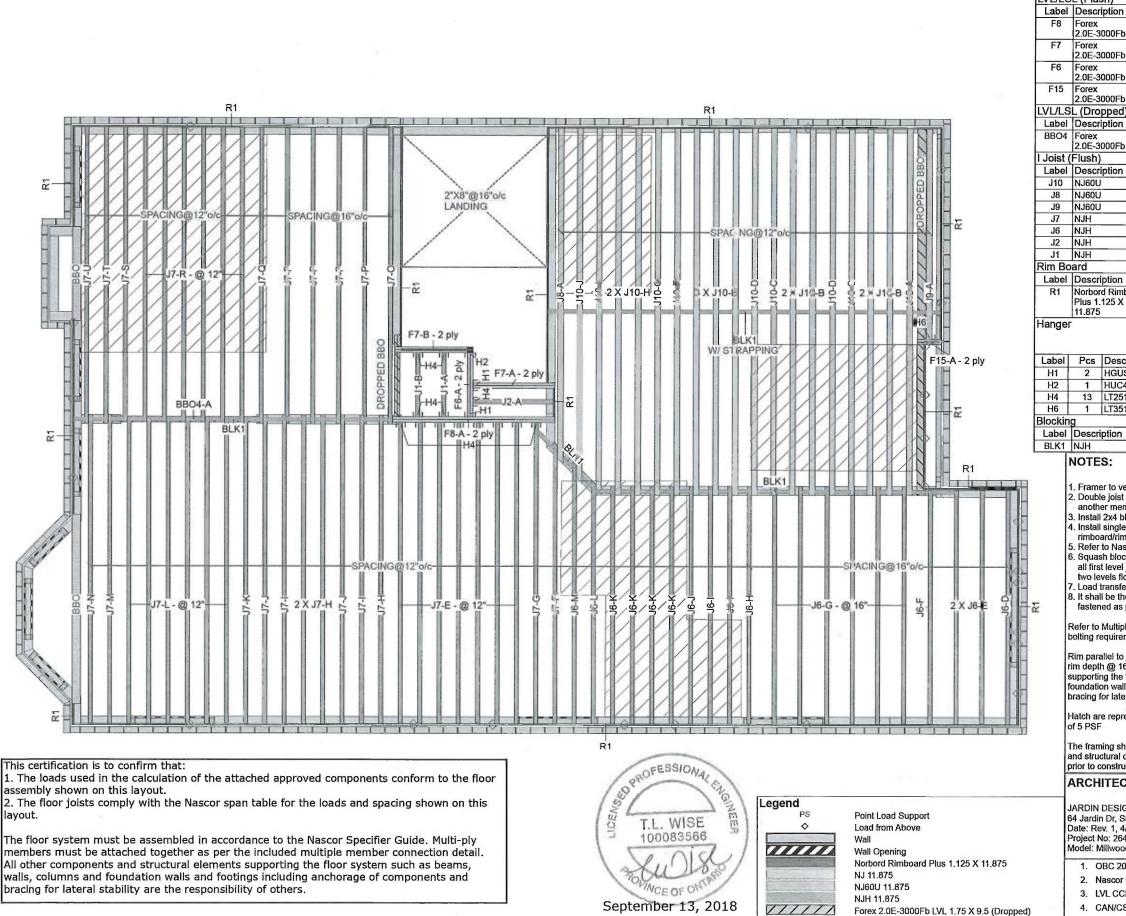
Deck

Deflection Girder

Pcs Length

Varies 39-0-0

LSD



Second Floor LVL/LSL (Flush) Label Description Width Depth Qty Plies Pcs Length F8 Forex 1.75 11.875 2 2.0E-3000Fb LVL Layout Name F7 1.75 Forex 11 875 6-0-0 2.0E-3000Fb LVL F6 Forex 1.75 11.875 2 4-0-0 Design Method 2 2.0E-3000Fb LVL F15 Forex 1.75 11.875 2-0-0 2.0E-3000Fb LVL Description LVL/LSL (Dropped) Created Label Description Width Depth Qty Plies Pcs Length June 25, 2018 BBO4 Forex 1.75 9.5 2 8-0-0 Builder 2.0E-3000Fb LVL GREENPARK Joist (Flush) Label Description Width Depth Qty Plies Pcs Length Sales Rep J10 NJ60U 3.5 11.875 RM 18 20-0-0 J8 NJ60U 3.5 11.875 1 18-0-0 Designer J9 NJ60U 3.5 11.875 1 12-0-0 RO J7 NJH 2.5 11.875 40 16-0-0 Shipping J6 NJH 2.5 11.875 20 14-0-0 J2 NJH Project 2.5 11.875 1 6-0-0 J1 NJH 2.5 11.875 2 4-0-0 **Builder's Project** Rim Board Pcs Length Label Description Width Depth Qty Plies Norhord Rimboar 1.125 11.875 Plus 1.125 X 11.875 K2H7V1 Hanger Beam/Girder Supported 905-642-4400 Member Job Path Label Pcs Description Skew Slope fasteners fasteners S:\CUSTOMERS\GREENPARK H1 2 HGUS410 46 16d 16 16d 1 HUC410 (Min) \MILLWOOD 2\FLOORS\ELEV 3 14 16d 6 10d 13 LT251188 \MILLWOOD 2-ELEV 3.isl H4 4 10dx1 1/2 2 10dx1 1/2 H6 1 LT351188 4 10dx1 1/2 2 10dx1 1/2 Second Floor Blocking Design Method

NOTES:

- . Framer to verify dimensions on the architectural drawings. 2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger
- 3. Install 2x4 blocking @ 24"o/c under parallel non-load bearing walls. 4. Install single-ply flush window header along inside face of rimboard/rimjoist.

Width Depth Qty Plies

2.5 11.875 LinFt

- Refer to Nascor specifier guide for installation works.
- 6. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof
- Load transfer blocks to be installed under all point loads.
- 8. It shall be the frame's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

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

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

Hatch are represents ceramic tiled floor with an additional dead load

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

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC. 64 Jardin Dr, Suite 3A Date: Rev. 1, 4/26/2018 Project No: 2645 Model: Millwood 2, Elevation 1

- 1. OBC 2012 O.Reg 332/12 as amended
- 2. Nascor CCMC 13535-R
- 3. LVI CCMC -14056-R
- 4. CAN/CSA-086-09

Forex 2.0E-3000Fb LVL 1.75 X 11.875

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

Vibration Gypsum 1/2"

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MULTIPLE MEMBER CONNECTIONS

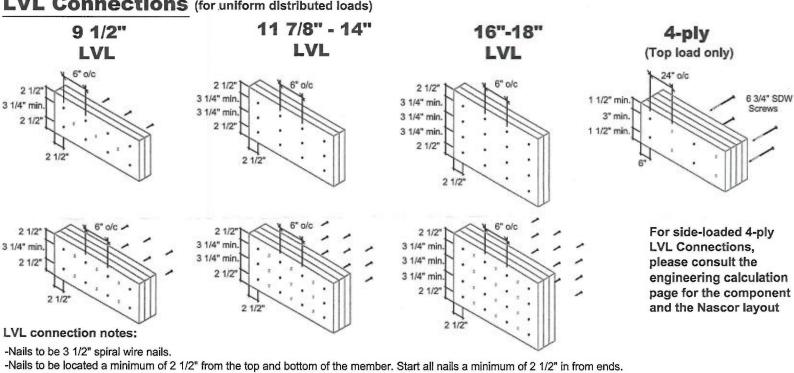
Conventional Connections (for uniform distributed loads)

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

Conventional connection notes:

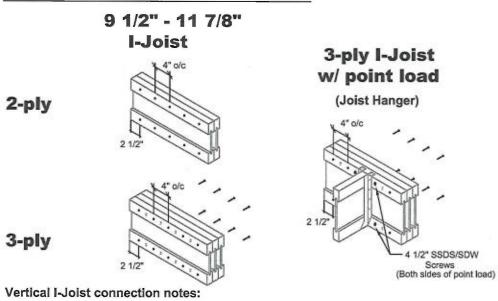
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

LVL Connections (for uniform distributed loads)



- -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

Fx: 613-838-4751