

Engineering Note Page (ENP-2)

REVISION 2009-10-09

Please read all notes prior to installation of the component

DESIGN INFORMATION

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

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

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

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

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

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

CODE

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

COMPONENT

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

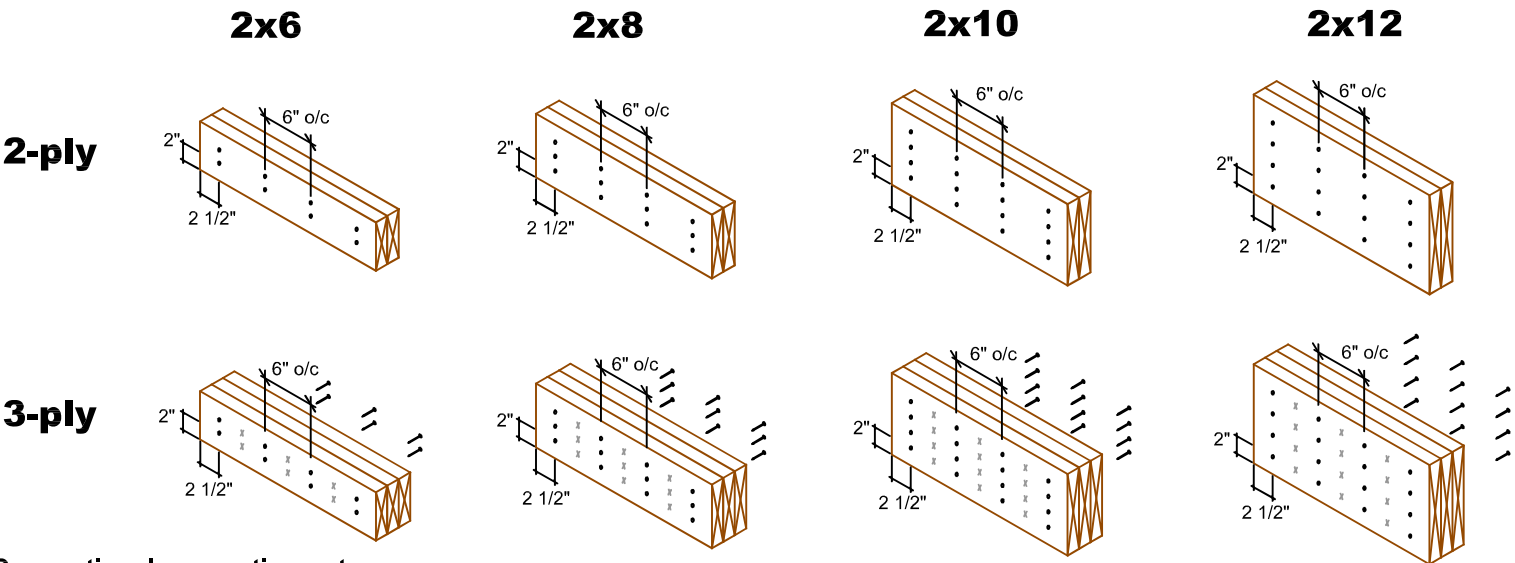
HANDLING AND INSTALLATION

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

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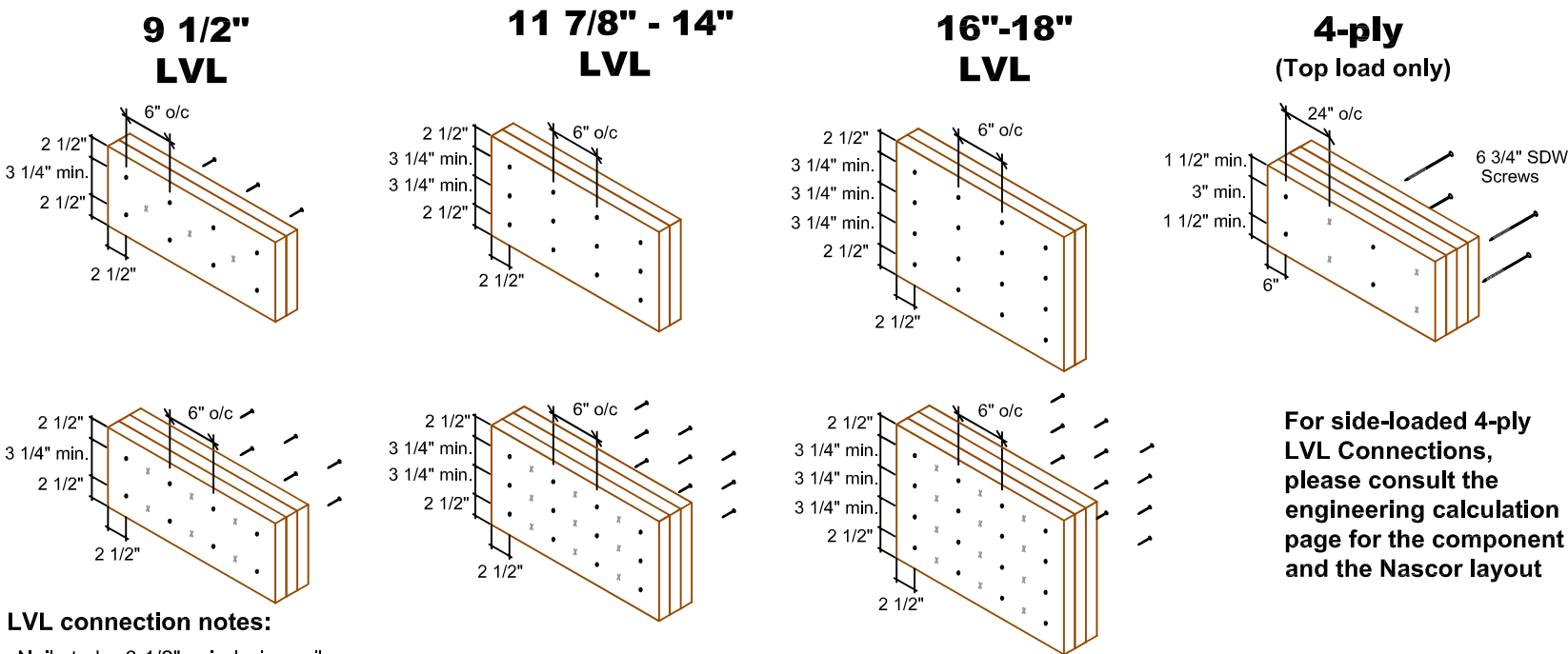
MULTIPLE MEMBER CONNECTIONS

Conventional Connections (for uniform distributed loads)



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

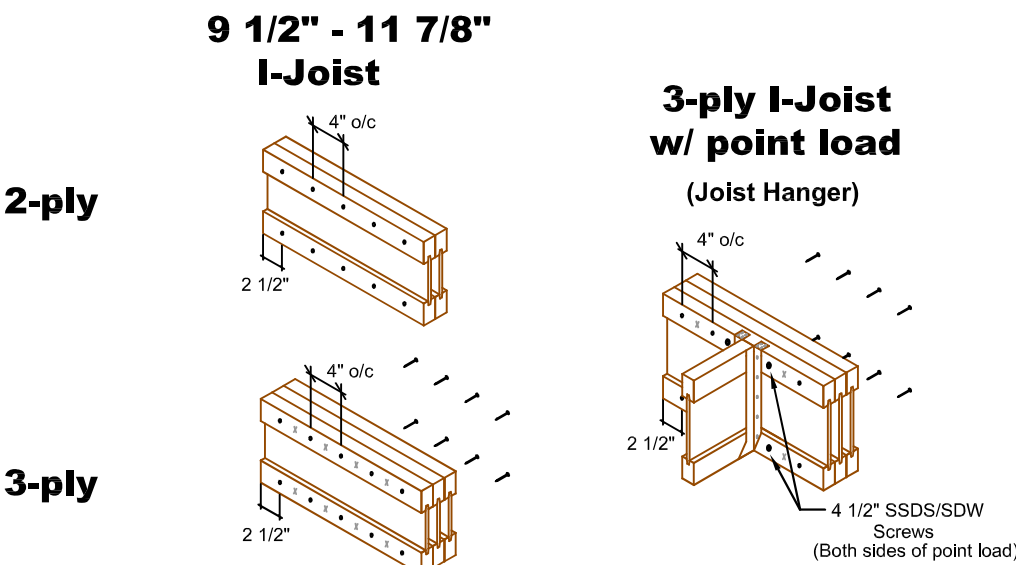
LVL Connections (for uniform distributed loads)



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

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

Vertical I-Joist Connections (for uniform distributed loads)



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

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**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

----- Floor Framing Material -----

Type	Qty.	Product	Length
J1	14	NJ40U12	20' 0"
J2	1	NJ40U12	16' 0"
J3	5	NJH12	18' 0"
J4	13	NJH12	16' 0"
J5	4	NJH12	14' 0"
J6	2	NJH12	12' 0"
J7	6	NJH12	10' 0"
J8	2	NJH12	8' 0"
J9	2	NJH12	6' 0"
J10	25	NJ60H12	18' 0"
G1	2	NJ12	4' 0"
G2	2	NJ12	4' 0"
G3	1	1-3/4 x 11-7/8 2.0E Global LVL	4' 0"
G4	1	1-3/4 x 11-7/8 2.0E Global LVL	4' 0"
G5	1	1-3/4 x 11-7/8 2.0E Global LVL	8' 0"
G6	1	1-3/4 x 11-7/8 2.0E Global LVL	20' 0"
G7	1	1-3/4 x 11-7/8 2.0E Global LVL	10' 0"
G8	2	1-3/4 x 11-7/8 2.0E Global LVL	4' 0"
G9	2	1-3/4 x 11-7/8 2.0E Global LVL	4' 0"
G10	2	NJ12	18' 0"
G11	2	NJ12	18' 0"
G14	2	1-3/4 x 11-7/8 2.0E Global LVL	14' 0"
R1	16	11 7/8" RIMBOARD	12' 0"
R2	2	11 7/8" RIMBOARD	12' 0"

All product names are trademarks of their respective owners

----- Connector List -----

ID#	Qty	Model Number
H1	4	LT2-151188
H4	22	LT251188
H5	3	LT351188

DESIGN ASSUMPTIONS

Loads:(un-factored)
T/C Live: 40 psf B/C Live: 0 psf
T/C Dead: 15 psf B/C Dead: 0 psf
Load Case: Live
Deflection Criteria:
L/480 Live L/360 Total
Building Code: OBC-2012 (Limit States Design)

Building Type: Residential Importance Category: Normal (Part 9)
Design assumes top edge continuously braced,
and bottom edge unbraced.
Joist Design Includes CCMC Vibration Check
Subfloor: 3/4" OSB Glued and Nailed
Ceiling: (None)
Blocking: (None)

All Loads are UN-FACTORED Loads

HATCH AREA REPRESENTS
CERAMIC TILED FLOOR WITH AN
ADDITIONAL DEAD LOAD OF 5 PSF



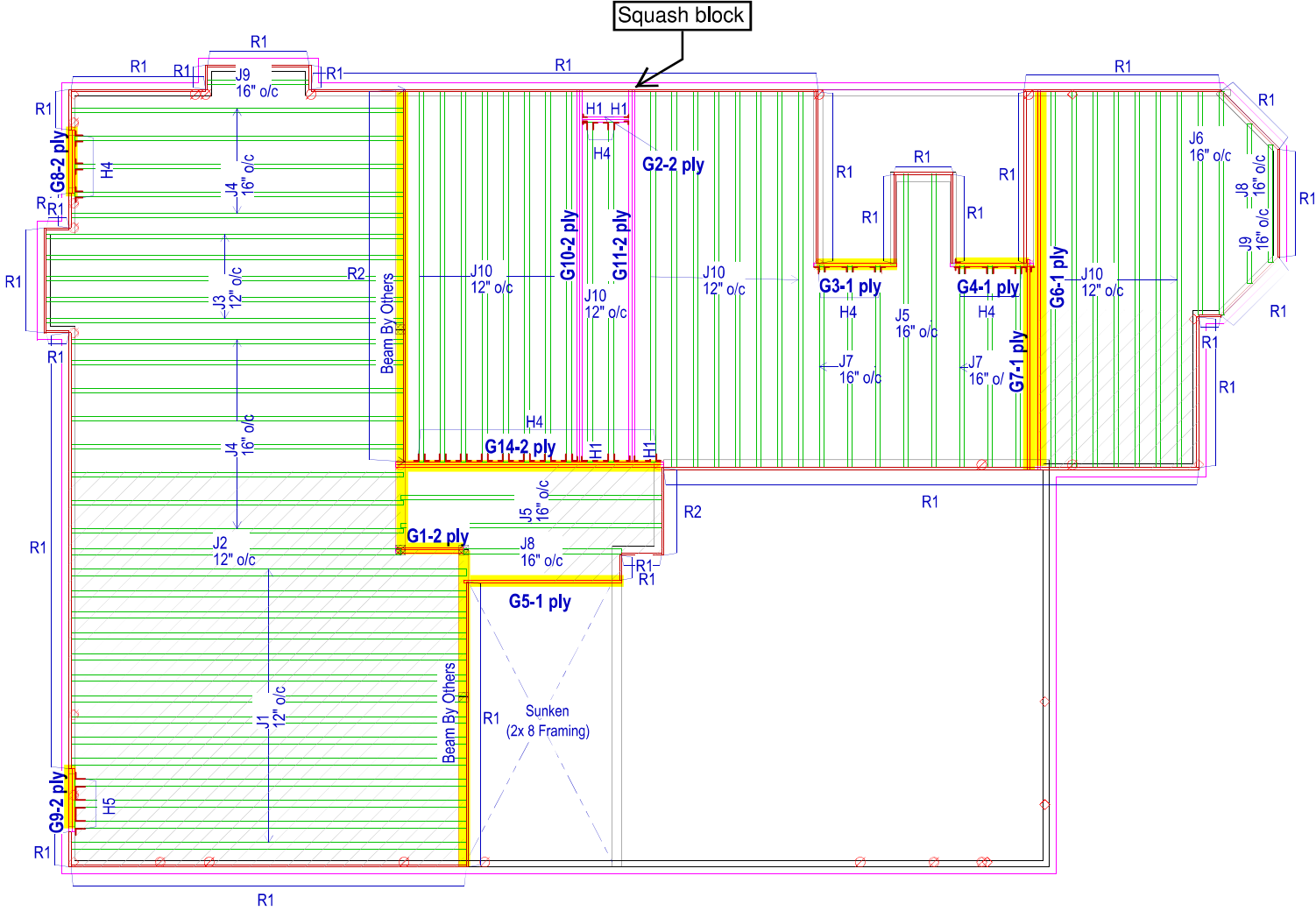
The framing shown on this layout may deviate from the architectural drawing.
Project engineer to review and approve the deviation prior to construction.

Architectural Drawing Info:
REGION DESIGN INC.
8700 Dufferin St., Concord, ON
Date: Rev.1; Apr.2017
Project Number: 02-10-108
Model: Lot 322 (Juniper 9 El3)

Pass-thru framing squash block is required
at all point loads over bearings.

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.
Rim perpendicular to joists: 1-1/8" rimboard with
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.



FIRST FLOOR FRAMING

- NOTES:
1. Framers 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-loadbearing walls.
 4. Install single-ply flush window header along inside face of rimboard/rimjoist.
 5. Refer to Nascor specifier guide for installation details.
 6. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.
 7. Load transfer blocks to be installed under all point loads.
 8. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

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Nascor by KOTT
14 Anderson Blvd.
Uxbridge, ON.
www.nascor.ca

Project Tag:

MILTON, ONT.

GREENPARK HOMES
LECCO RIDGE
LOT 322 (JUNIPER 9 EL3)

Customer#: Salesman#:RM

Time: 06:52 AM
Date: 05/09/17
Designer: RCO
Scale: 1/8" = 1'
License Name:
KEYMARK ENTERPRISES, INC.

Member Data**Description:** CalcG1**Comments:**

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

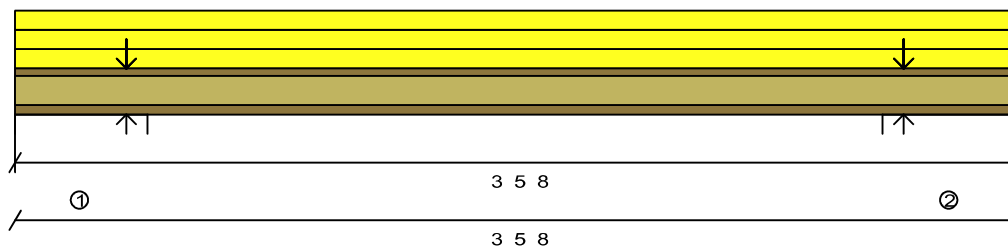
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Building Type: Residential

Importance Category: Normal (Part 9)

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	3' 5.50"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	3' 5.50"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	3' 5.50"		53		60		Live
Point (LBS)	Top	0' 4.63"			4		1		Live
Point (LBS)	Top	0' 4.63"			142		53		Live
Point (LBS)	Top	0' 4.63"			563		294		Live
Point (LBS)	Top	3' 0.88"			0		81		Live
Point (LBS)	Top	3' 0.88"			341		147		Live
Point (LBS)	Top	3' 0.88"			491		184		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1,500"	1849#	--
2	3' 5.500"	Wall	N/A	N/A	1,500"	2113#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	852#	457#
2	975#	520#

Design spans
2' 8.250"

09 MAY 2017

Product: NJ12 2 ply**PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

Lateral support is required at each bearing.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	235.#	9020.#	2%	1.73'	Total Load 1.25D+1.5L
Shear	350.#	3400.#	10%	0'	Total Load 1.25D+1.5L
End Reaction	2113.#	4100.#	51%	3.46'	Total Load 1.25D+1.5L
TL Deflection	0.0019"	0.0896"	L/999+	1.73'	Total Load D+L
LL Deflection	0.0011"	0.0672"	L/999+	1.73'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: Max End React.

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

**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****RECEIVED
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**Passing is defined as when the member, floor joist, beam or girder, shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet. The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

RCO
Nascor by KOTT
14 Anderson Blvd.
Uxbridge, ON.
www.nascor.ca

Member Data**Description: CalcG2**

Comments:

Standard Load:

Live Load: 0 PLF

Dead Load: 0 PLF

Building Type: Residential

Member Type: Girder

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Deflection Criteria: L/480 live, L/360 total

Deck Connection: Nailed

Filename: D:\Users\roc

Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012

0.720" max. LL

Other Loads**Type**

(Description)

Replacement Uniform (PLF)

Side

Top

Begin

0' 0.00"

End

2' 9.00"

Trib.
WidthOther
Start

329

End

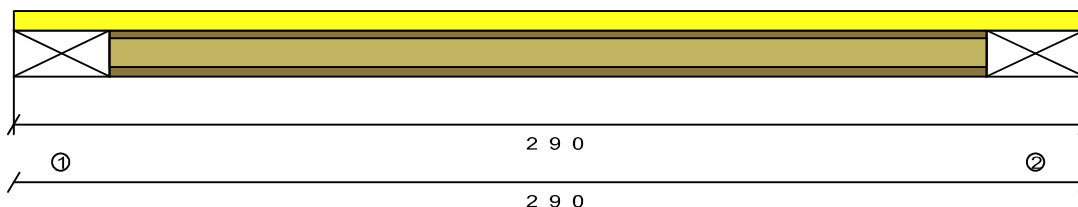
Dead
Start

123

End

Category

Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Girder	N/A	N/A	N/A	728#	--
2	2' 9.000"	Girder	N/A	N/A	N/A	728#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	370#	139#
2	370#	139#

Design spans

2' 3.000"

Product: NJ12 2 ply**PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

Lateral support is required at each bearing.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	410.#	9020.#	4%	1.38'	Total Load 1.25D+1.5L
Shear	728.#	3400.#	21%	0'	Total Load 1.25D+1.5L
TL Deflection	0.0030"	0.0750"	L/999+	1.38'	Total Load D+L
LL Deflection	0.0022"	0.0563"	L/999+	1.38'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: Shear

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

Web stiffener and minimum bearing length requirements at hanged connections depend on the connection style and are not included in this design.

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ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE
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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

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RCO
Nascor by KOTT
14 Anderson Blvd.
Uxbridge, ON.
www.nascor.ca

Member Data**Description:** CalcG3**Comments:****Standard Load:**

Live Load: 0 PLF

Dead Load: 0 PLF

Building Type: Residential**Member Type:** Girder

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Deflection Criteria: L/480 live, L/360 total

Deck Connection: Nailed

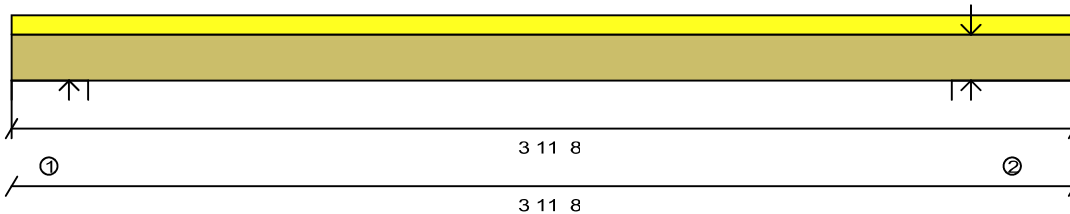
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Importance Category: Normal (Part 9)**Application:** Floor**Building Code:** OBC-2012

0.720" max. LL

Member Weight: 5.0 PLF**Other Loads**

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	3' 11.50"		435		163		Live
Point (LBS)	Top	3' 6.88"			1647		688		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	1447#	--
2	3' 11.500"	Wall	N/A	N/A	3.249"	4777#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	730#	282#
2	2376#	970#

Design spans
3' 4.250"**Product:** 1-3/4 x 11-7/8 2.0E Global LVL 1 ply**PASSES DESIGN CHECKS**Design assumes continuous lateral bracing along the top chord.
Design assumes no lateral bracing along the bottom chord.**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	1213. #	18817. #	6%	1.9'	Total Load 1.25D+1.5L
Shear	593. #	6608. #	8%	2.73'	Total Load 1.25D+1.5L
TL Deflection	0.0035"	0.1118"	L/999+	1.9'	Total Load D+L
LL Deflection	0.0025"	0.0839"	L/999+	1.9'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: Shear

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IS AN INTEGRAL PART OF THIS DRAWING AS IT
CONTAINS SPECIFICATIONS AND CRITERIA USED
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required at all point loads over bearings****Refer to Multiple Member Connection
Detail for ply to ply nailing or bolting
requirements****09 MAY 2017**

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**Passing is defined as when the member, floor joist, beam or girder, shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet. The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

RCO
Nascor by KOTT
14 Anderson Blvd.
Uxbridge, ON.
www.nascor.ca

Member Data**Description:** CalcG4

Comments:

Standard Load:

Live Load: 0 PLF

Dead Load: 0 PLF

Building Type: Residential

Member Type: Girder

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Deflection Criteria: L/480 live, L/360 total

Deck Connection: Nailed

Filename: D:\Users\roc

Importance Category: Normal (Part 9)

Application: Floor

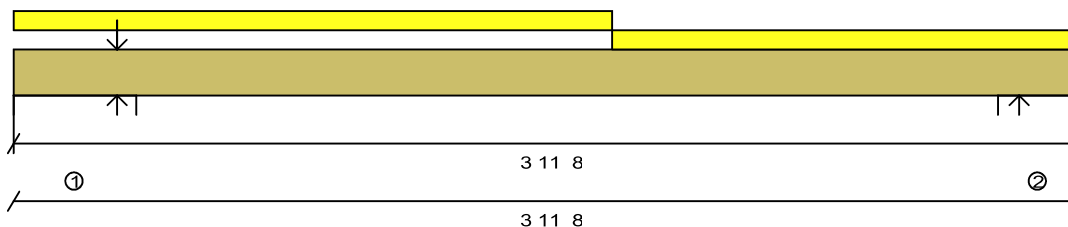
Building Code: OBC-2012

0.720" max. LL

Member Weight: 5.0 PLF

Other Loads**Type****(Description)**

	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	2' 2.75"		435		163		Live
Replacement Uniform (PLF)	Top	2' 2.75"	3' 11.50"		435		163		Live
Point (LBS)	Top	0' 4.63"			1099		488		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	2.521"	3706#	--
2	3' 11.500"	Wall	N/A	N/A	1.500"	1447#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	1829#	770#
2	730#	282#

Design spans

3' 4.250"

Product: 1-3/4 x 11-7/8 2.0E Global LVL 1 ply**PASSES DESIGN CHECKS**Design assumes continuous lateral bracing along the top chord.
Design assumes no lateral bracing along the bottom chord.**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	1213.7	18817.7	6%	2.06'	Total Load 1.25D+1.5L
Shear	593.7	6608.7	8%	0.4'	Total Load 1.25D+1.5L
TL Deflection	0.0035"	0.1118"	L/999+	2.06'	Total Load D+L
LL Deflection	0.0025"	0.0839"	L/999+	2.06'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: Shear

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RCO
Nascor by KOTT
14 Anderson Blvd.
Uxbridge, ON.
www.nascor.ca

Member Data**Description:** CalcG5

Comments:

Standard Load:

Live Load: 0 PLF

Dead Load: 0 PLF

Building Type: Residential

Member Type: Girder

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Deflection Criteria: L/480 live, L/360 total

Deck Connection: Nailed

Filename: D:\Users\roc

Importance Category: Normal (Part 9)

Application: Floor

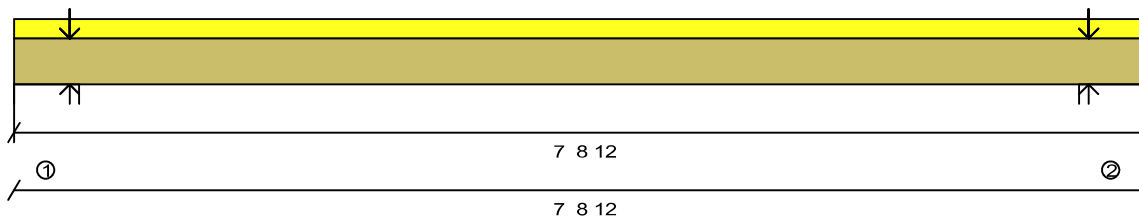
Building Code: OBC-2012

0.720" max. LL

Member Weight: 5.0 PLF

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	7' 8.75"		27		10		Live
Point (LBS)	Top	0' 4.63"			0		51		Live
Point (LBS)	Top	0' 4.63"			182		68		Live
Point (LBS)	Top	0' 4.63"			406		162		Live
Point (LBS)	Top	7' 4.13"			215		81		Live
Point (LBS)	Top	7' 4.13"			291		109		Live
Point (LBS)	Top	7' 4.13"			563		294		Live
Point (LBS)	Top	7' 4.13"			750		392		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	1437#	--
2	7' 8.750"	Wall	N/A	N/A	2.739"	4026#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	681#	333#
2	1911#	927#

Design spans
6' 11.500"**Product: 1-3/4 x 11-7/8 2.0E Global LVL 1 ply****PASSES DESIGN CHECKS**Design assumes continuous lateral bracing along the top chord.
Design assumes no lateral bracing along the bottom chord.**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	356.##	18817.##	1%	3.86'	Total Load 1.25D+1.5L
Shear	146.##	6608.##	2%	0.4'	Total Load 1.25D+1.5L
TL Deflection	0.0045"	0.2319"	L/999+	3.86'	Total Load D+L
LL Deflection	0.0029"	0.1740"	L/999+	3.86'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: Shear

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**Passing is defined as when the member, floor joist, beam or girder, shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet. The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

RCO
Nascor by KOTT
14 Anderson Blvd.
Uxbridge, ON.
www.nascor.ca

Member Data**Description:** CalcG6**Comments:**

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Member Weight: 5.0 PLF

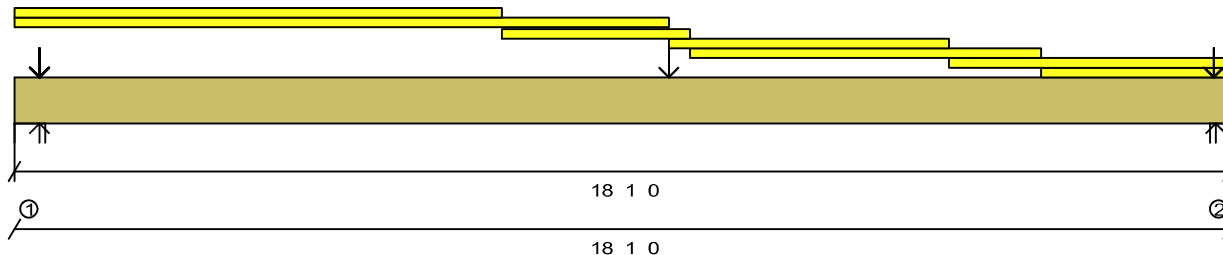
Filename: D:\Users\roc

Building Type: Residential

Importance Category: Normal (Part 9)

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	7' 3.00"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	9' 9.00"		9		3		Live
Replacement Uniform (PLF)	Top	7' 3.00"	10' 0.63"		27		10		Live
Replacement Uniform (PLF)	Top	9' 9.00"	13' 11.00"		27		10		Live
Replacement Uniform (PLF)	Top	10' 0.63"	15' 3.31"		27		10		Live
Replacement Uniform (PLF)	Top	13' 11.00"	18' 1.00"		24		9		Live
Replacement Uniform (PLF)	Top	15' 3.31"	18' 1.00"		27		10		Live
Point (LBS)	Top	0' 4.63"			0		20		Live
Point (LBS)	Top	0' 4.63"			0		40		Live
Point (LBS)	Top	0' 4.63"			0		81		Live
Point (LBS)	Top	0' 4.63"			119		0		Snow
Point (LBS)	Top	0' 4.63"			119		0		Snow
Point (LBS)	Top	0' 4.63"			183		141		Live
Point (LBS)	Top	0' 4.63"			183		141		Live
Point (LBS)	Top	0' 4.63"			475		0		Snow
Point (LBS)	Top	0' 4.63"			732		564		Live
Point (LBS)	Top	9' 9.00"			120		45		Live
Point (LBS)	Top	17' 10.25"			0		162		Live
Point (LBS)	Top	17' 10.25"			376		0		Snow
Point (LBS)	Top	17' 10.25"			872		596		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	2.773"	4077#	--
2	18' 1.000"	Wall	N/A	N/A	2.339"	3439#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead	Pass-Thru Framing Squash Block is required at all point loads over bearings
1	1497#	713#	1181#	
2	1350#	376#	981#	

Design spans

17' 5.750"

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

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Product: 1-3/4 x 11-7/8 2.0E Global LVL 1 plyDesign assumes continuous lateral bracing along the top chord.
Design assumes no lateral bracing along the bottom chord.RECEIVED
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IN THE DESIGN OF THIS COMPONENT.**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	4523.##	18817.##	24%	9.75'	Total Load 1.25D+1.5L
Shear	890.##	6608.##	13%	16.99'	Total Load 1.25D+1.5L
TL Deflection	0.3412"	0.5826"	L/614	9.12'	Total Load D+L
LL Deflection	0.2325"	0.4370"	L/902	9.12'	Total Load L

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(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: TL Deflection

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

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Member Data**Description:** CalcG7

Comments:

Member Type: Girder

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Deflection Criteria: L/480 live, L/360 total

Deck Connection: Nailed

Filename: D:\Users\roc

Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012

0.720" max. LL

Member Weight: 5.0 PLF

Standard Load:

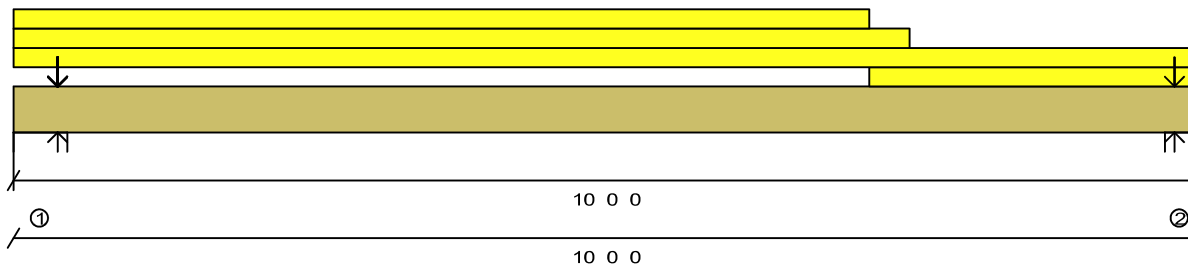
Live Load: 0 PLF

Dead Load: 0 PLF

Building Type: Residential

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	7' 3.00"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	7' 7.00"		0		7		Live
Additional Uniform (PLF)	Top	0' 0.00"	10' 0.00"		27		10		Live
Replacement Uniform (PLF)	Top	7' 3.00"	10' 0.00"		9		3		Live
Point (LBS)	Top	0' 4.63"			0		0		Live
Point (LBS)	Top	0' 4.63"			0		20		Live
Point (LBS)	Top	0' 4.63"			0		101		Live
Point (LBS)	Top	0' 4.63"			119		0		Snow
Point (LBS)	Top	0' 4.63"			183		141		Live
Point (LBS)	Top	0' 4.63"			594		0		Snow
Point (LBS)	Top	0' 4.63"			915		705		Live
Point (LBS)	Top	9' 9.88"			480		180		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	2.455"	3609#	--
2	10' 0.000"	Wall	N/A	N/A	1.500"	1328#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	1265#	713#	1083#
2	648#	0#	285#

Design spans
9' 5.250"

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Product: 1-3/4 x 11-7/8 2.0E Global LVL 1 ply**PASSES DESIGN CHECKS**Design assumes continuous lateral bracing along the top chord.
Design assumes no lateral bracing along the bottom chord.READ ALL NOTES ON THIS PAGE AND ON THE
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	Actual	Limit	Capacity	Location	Loading
Positive Moment	931.7#	18817.7#	4%	5.1'	Total Load 1.25D+1.5L
Shear	313.7#	6608.7#	4%	0.4'	Total Load 1.25D+1.5L
TL Deflection	0.0218"	0.3146"	L/999+	5.1'	Total Load D+L
LL Deflection	0.0130"	0.2359"	L/999+	5.1'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: TL Deflection

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required at all point loads over bearingsRefer to Multiple Member Connection
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Member Data**Description:** CalcG8**Comments:**

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Member Weight: 10.1 PLF

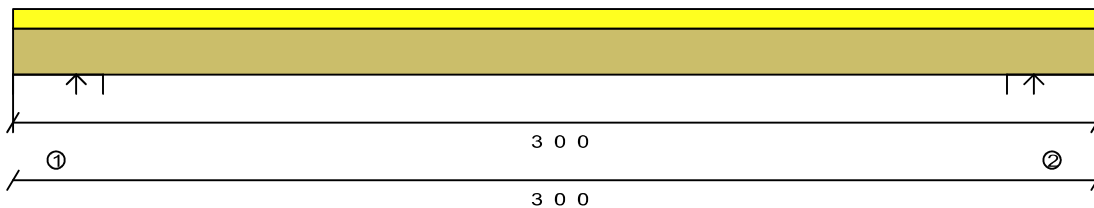
Filename: D:\Users\roc

Building Type: Residential

Importance Category: Normal (Part 9)

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	3' 0.00"		315		118		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	837#	--
2	3' 0.000"	Wall	N/A	N/A	1.500"	837#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	417#	170#
2	417#	170#

Design spans
2' 7.750"**Product: 1-3/4 x 11-7/8 2.0E Global LVL 2 ply****PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

Compression edge maximum unbraced length calculation is based on ply width.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	554. #	37634. #	1%	1.5'	Total Load 1.25D+1.5L
Shear	211. #	13217. #	1%	1.9'	Total Load 1.25D+1.5L
TL Deflection	0.0010"	0.0882"	L/999+	1.5'	Total Load D+L
LL Deflection	0.0010"	0.0661"	L/999+	1.5'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: Shear

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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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



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14 Anderson Blvd.
Uxbridge, ON.
www.nascor.ca

Member Data**Description:** CalcG9**Comments:****Standard Load:**

Live Load: 0 PLF

Dead Load: 0 PLF

Building Type: Residential**Member Type:** Girder

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Deflection Criteria: L/480 live, L/360 total

Deck Connection: Nailed

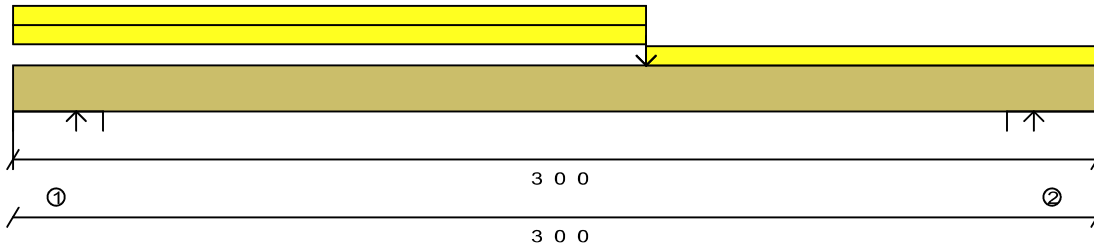
Filename: D:\Users\roc

Importance Category: Normal (Part 9)**Application:** Floor**Building Code:** OBC-2012

0.720" max. LL

Member Weight: 10.1 PLF**Other Loads**

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 9.00"		101		0		Snow
Replacement Uniform (PLF)	Top	0' 0.00"	1' 9.00"		794		572		Live
Replacement Uniform (PLF)	Top	1' 9.00"	3' 0.00"		375		188		Live
Point (LBS)	Top	1' 9.00"			193		0		Snow
Point (LBS)	Top	1' 9.00"			803		608		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1,500"	3187#	--
2	3' 0.000"	Wall	N/A	N/A	1,500"	2837#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	1284#	189#	932#
2	1169#	162#	802#

Design spans
2' 7.750"**Product:** 1-3/4 x 11-7/8 2.0E Global LVL 2 ply**PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

Compression edge maximum unbraced length calculation is based on ply width.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	2578.#	37634.#	6%	1.75'	Total Load 1.25D+1.5L+1.00*0.5S
Shear	2036.#	13217.#	15%	1.9'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.0022"	0.0882"	L/999+	1.5'	Total Load D+L+0.5S
LL Deflection	0.0013"	0.0661"	L/999+	1.5'	Total Load L+0.5S

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: Shear

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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Detail for ply to ply nailing or bolting
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www.nascor.ca

Member Data

Description: CalcG10

Comments:

Member Type: Girder

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Deflection Criteria: L/480 live, L/360 total

Deck Connection: Nailed

Filename: D:\Users\roc

Importance Category: Normal (Part 9)

Application: Floor

Standard Load:

Live Load: 0 PLF

Dead Load: 0 PLF

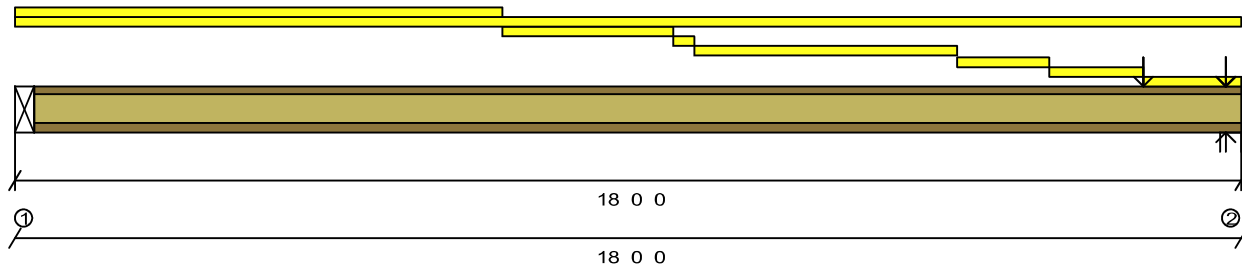
Building Code: OBC-2012

0.720" max. LL

Building Type: Residential

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	7' 2.00"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	18' 0.00"		27		10		Live
Replacement Uniform (PLF)	Top	7' 2.00"	9' 8.00"		27		10		Live
Replacement Uniform (PLF)	Top	9' 8.00"	9' 11.63"		27		10		Live
Replacement Uniform (PLF)	Top	9' 11.63"	13' 10.00"		27		10		Live
Replacement Uniform (PLF)	Top	13' 10.00"	15' 2.31"		27		10		Live
Replacement Uniform (PLF)	Top	15' 2.31"	16' 7.00"		27		10		Live
Replacement Uniform (PLF)	Top	16' 7.00"	18' 0.00"		27		10		Live
Point (LBS)	Top	16' 7.00"			411		172		Live
Point (LBS)	Top	17' 9.25"			601		447		Live
Point (LBS)	Top	17' 9.25"			910		162		Snow



Bearings and Factored Reactions

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Girder	N/A	N/A	N/A	975#	--
2	18' 0.000"	Wall	N/A	N/A	2.041"	3811#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	495#	0#	187#
2	1450#	910#	944#

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Design spans
17' 5.875"

Product: NJ12 2 ply

**NOTE: Web stiffeners are required at point loads > 0#.
Design assumes continuous lateral bracing along the top chord.
Design assumes no lateral bracing along the bottom chord.
Lateral support is required at each bearing.**

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PASSES DESIGN CHECKS

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**

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	4528.>#	9020.>#	50%	9.66'	Total Load 1.25D+1.5L
Shear	1692.>#	3400.>#	49%	18'	Total Load 1.25D+1.5L
End Reaction	3811.>#	4100.>#	92%	18'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.3820"	0.5830"	L/549	9.04'	Total Load D+L
LL Deflection	0.2767"	0.4372"	L/758	9.04'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: Max End React.

Manufacturer's installation guide **MUST** be consulted for multi-ply connection details and alternatives

Manufacturer's installation guide MUST be consulted to determine if web stiffeners are required at point loads

Web stiffener and minimum bearing length requirements at hangared connections depend on the connection style and are not included in this design.

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14 Anderson Blvd.
Uxbridge, ON.
www.nascor.ca

Member Data**Description:** CalcG11**Comments:**

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

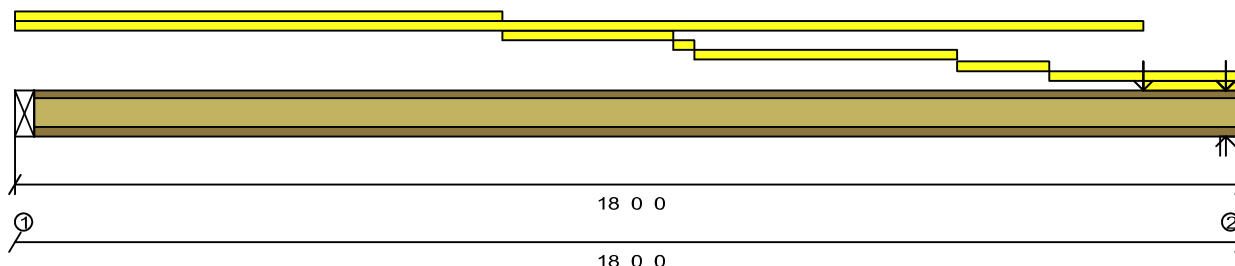
Filename: D:\Users\roc

Building Type: Residential

Importance Category: Normal (Part 9)

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	7' 2.00"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	16' 7.00"		27		10		Live
Replacement Uniform (PLF)	Top	7' 2.00"	9' 8.00"		27		10		Live
Replacement Uniform (PLF)	Top	9' 8.00"	9' 11.63"		27		10		Live
Replacement Uniform (PLF)	Top	9' 11.63"	13' 10.00"		27		10		Live
Replacement Uniform (PLF)	Top	13' 10.00"	15' 2.31"		27		10		Live
Replacement Uniform (PLF)	Top	15' 2.31"	18' 0.00"		27		10		Live
Replacement Uniform (PLF)	Top	16' 7.00"	18' 0.00"		9		3		Live
Point (LBS)	Top	16' 7.00"			411		172		Live
Point (LBS)	Top	17' 9.25"			910		162		Snow
Point (LBS)	Top	17' 9.25"			1110		826		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Girder	N/A	N/A	N/A	974#	--
2	18' 0.000"	Wall	N/A	N/A	1.500"	5006#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	494#	0#	186#
2	1939#	910#	1314#

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Design spans
17' 5.875"**Product: NJ12 2 ply****PASSES DESIGN CHECKS**

NOTE: Web stiffeners are required at point loads > 0#.
NOTE: Pass-thru framing is required at point loads over bearings.
Design assumes continuous lateral bracing along the top chord.
Design assumes no lateral bracing along the bottom chord.
Lateral support is required at each bearing.

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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

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	4514. #	9020. #	50%	9.66'	Total Load 1.25D+1.5L
Shear	1652. #	3400. #	48%	18'	Total Load 1.25D+1.5L
End Reaction	1652. #	4100. #	40%	18'	Total Load 1.25D+1.5L
TL Deflection	0.3808"	0.5830"	L/551	9.04'	Total Load D+L
LL Deflection	0.2758"	0.4372"	L/760	9.04'	Total Load L

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Uxbridge, ON.
www.nascor.ca

(Actual is factored load effects, Limit is design resistance)

Control: TL Deflection

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

Point loads over bearings are NOT included in the Design calculations, but ARE included in the Reaction table

Manufacturer's installation guide MUST be consulted to determine if web stiffeners are required at point loads

Web stiffener and minimum bearing length requirements at hangared connections depend on the connection style and are not included in this design.

READ ALL NOTES ON THIS PAGE AND ON THE
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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

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Member Data**Description:** CalcG14

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Member Weight: 10.1 PLF

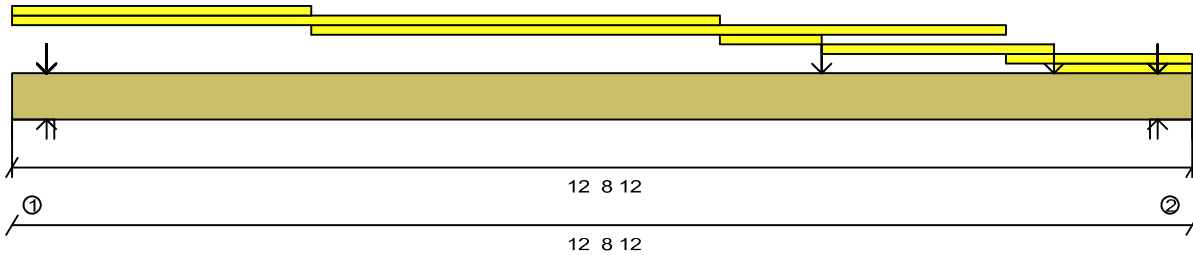
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Building Type: Residential

Importance Category: Normal (Part 9)

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	3' 2.75"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	7' 7.75"		357		134		Live
Replacement Uniform (PLF)	Top	3' 2.75"	10' 8.75"		27		10		Live
Replacement Uniform (PLF)	Top	7' 7.75"	8' 8.75"		357		134		Live
Replacement Uniform (PLF)	Top	8' 8.75"	11' 2.75"		329		123		Live
Replacement Uniform (PLF)	Top	10' 8.75"	12' 8.75"		27		10		Live
Replacement Uniform (PLF)	Top	11' 2.75"	12' 8.75"		357		134		Live
Point (LBS)	Top	0' 4.63"			45		17		Live
Point (LBS)	Top	0' 4.63"			0		69		Live
Point (LBS)	Top	0' 4.63"			0		81		Live
Point (LBS)	Top	0' 4.63"			491		184		Live
Point (LBS)	Top	0' 4.63"			533		200		Live
Point (LBS)	Top	0' 4.63"			630		236		Live
Point (LBS)	Top	0' 4.63"			2191		931		Live
Point (LBS)	Top	8' 8.75"			33		139		Live
Point (LBS)	Top	11' 2.75"			33		139		Live
Point (LBS)	Top	12' 4.13"			490		184		Live
Point (LBS)	Top	12' 4.13"			613		311		Live
Point (LBS)	Top	12' 4.13"			2191		918		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	4.298"	12636#	--
2	12' 8.750"	Wall	N/A	N/A	3.927"	11544#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	6184#	2688#
2	5584#	2534#

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Design spans
11' 11.500"

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Product: 1-3/4 x 11-7/8 2.0E Global LVL 2 ply**PASSES DESIGN CHECKS**

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

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

Compression edge maximum unbraced length calculation is based on ply width.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	14091. #	37634. #	37%	6.36'	Total Load 1.25D+1.5L
Shear	4077. #	13217. #	30%	11.75'	Total Load 1.25D+1.5L
TL Deflection	0.2615"	0.3986"	L/548	6.36'	Total Load D+L
LL Deflection	0.1805"	0.2990"	L/795	6.36'	Total Load L

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(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: TL Deflection

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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----- Floor Framing Material -----

Type	Qty.	Product	Length
J1	19	NJH12	16' 0"
J2	3	NJH12	14' 0"
J3	2	NJH12	12' 0"
J4	8	NJH12	10' 0"
J5	12	NJH12	8' 0"
J6	15	NJ60U12	20' 0"
J7	6	NJ60H12	22' 0"
J8	4	NJ60H12	20' 0"
J9	32	NJ60H12	18' 0"
G1	2	1-3/4 x 11-7/8 2.0E Global LVL	12' 0"
G2	2	1-3/4 x 11-7/8 2.0E Global LVL	14' 0"
G3	3	1-3/4 x 11-7/8 2.0E Global LVL	12' 0"
R1	15	11 7/8" RIMBOARD	12' 0"
R2	4	11 7/8" RIMBOARD	12' 0"
R3	1	11 7/8" RIMBOARD	12' 0"

----- Miscellaneous Materials -----

Type	Qty.	Product	Length
XXX	1	NJH12	10' 0"

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----- Connector List -----

ID#	Qty	Model Number
H1	20	LT251188

DESIGN ASSUMPTIONS

Loads:(un-factored)
T/C Live: 40 psf B/C Live: 0 psf
T/C Dead: 15 psf B/C Dead: 0 psf
Load Case: Live
Deflection Criteria:
L/480 Live L/360 Total
Building Code: OBC-2012 (Limit States Design)

Building Type: Residential Importance Category: Normal
Design assumes top edge continuously braced,
and bottom edge unbraced.
Joist Design Includes CCMC Vibration Check
Subfloor: 5/8" OSB Glued and Nailed
Ceiling: 1/2" gypsum
Blocking: (None)

All Loads are UN-FACTORED Loads

HATCH AREA REPRESENTS
CERAMIC TILED FLOOR WITH AN
ADDITIONAL DEAD LOAD OF 5 PSF



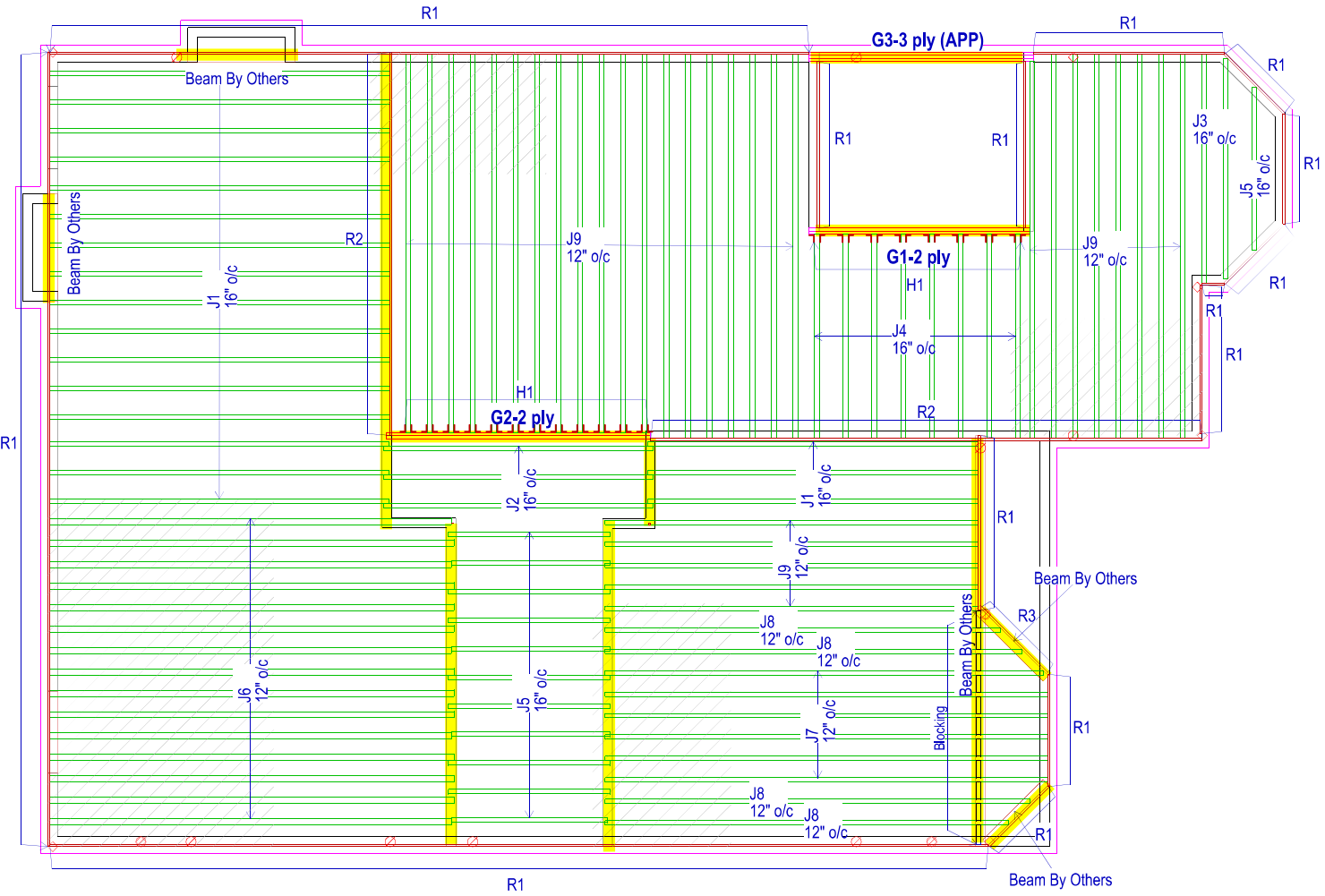
The framing shown on this layout may deviate from the architectural drawing.
Project engineer to review and approve the deviation prior to construction.

Architectural Drawing Info:
REGION DESIGN INC.
8700 Dufferin St., Concord, ON
Date: Rev.1; Apr.2017
Project Number: 02-10-108
Model: Lot 322 (Juniper 9 EI3)

Pass-thru framing squash block is required
at all point loads over bearings.

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.
Rim perpendicular to joists: 1-1/8" rimboard with
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.



SECOND FLOOR FRAMING

- NOTES:
1. Framers 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-loadbearing walls.
 4. Install single-ply flush window header along inside face of rimboard/rimjoist.
 5. Refer to Nascor specifier guide for installation details.
 6. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.
 7. Load transfer blocks to be installed under all point loads.
 8. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.



TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-7104

BUILDING: REVIEWED
SCOTT SHERRIFFS JUN 13, 2017
PLANS EXAMINER DATE

Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province of Ontario, By-laws of the Region of Halton and Town of Milton.

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Project Tag:

MILTON, ONT.

GREENPARK HOMES
LECCO RIDGE
LOT 322 (JUNIPER 9 EL3)

Member Data**Description:** CalcG1**Comments:****Standard Load:**

Live Load: 0 PLF

Dead Load: 0 PLF

Building Type: Residential**Member Type:** Girder

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Deflection Criteria: L/480 live, L/360 total

Deck Connection: Nailed

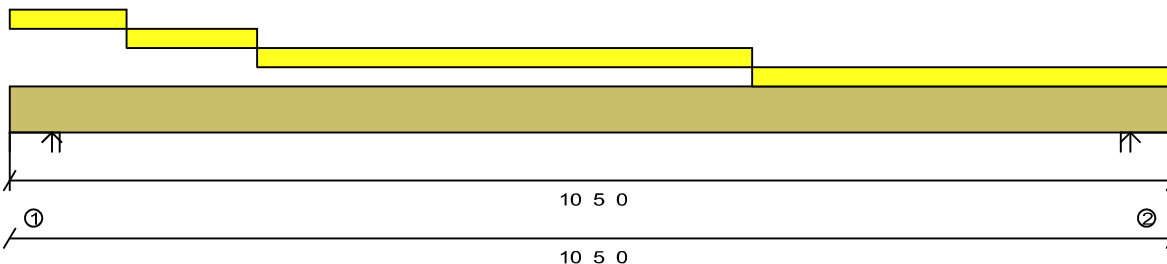
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Importance Category: Normal (Part 9)**Application:** Floor**Building Code:** OBC-2012

0.720" max. LL

Member Weight: 10.1 PLF**Other Loads**

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 0.75"		190		79		Live
Replacement Uniform (PLF)	Top	1' 0.75"	2' 2.75"		190		71		Live
Replacement Uniform (PLF)	Top	2' 2.75"	6' 7.75"		190		71		Live
Replacement Uniform (PLF)	Top	6' 7.75"	10' 5.00"		430		161		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	2156#	--
2	10' 5.000"	Wall	N/A	N/A	1.500"	3188#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	1061#	452#
2	1588#	645#

Design spans
9' 7.750"**Product:** 1-3/4 x 11-7/8 2.0E Global LVL 2 ply**PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

Compression edge maximum unbraced length calculation is based on ply width.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	5952.7#	37634.7#	15%	6.17'	Total Load 1.25D+1.5L
Shear	2337.7#	13217.7#	17%	9.07'	Total Load 1.25D+1.5L
TL Deflection	0.0721"	0.3215"	L/999+	5.21'	Total Load D+L
LL Deflection	0.0510"	0.2411"	L/999+	5.21'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: TL Deflection

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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Detail for ply to ply nailing or bolting
requirements****09 MAY 2017**

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Member Data**Description:** CalcG2

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Member Weight: 10.1 PLF

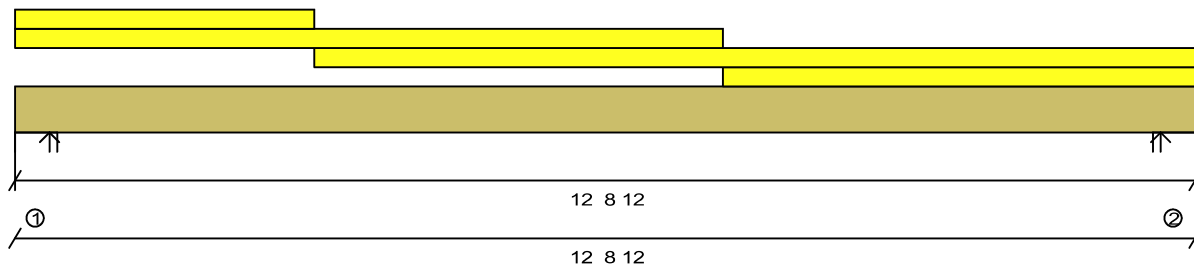
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Building Type: Residential

Importance Category: Normal (Part 9)

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	3' 2.75"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	7' 7.75"		357		138		Live
Replacement Uniform (PLF)	Top	3' 2.75"	12' 8.75"		27		10		Live
Replacement Uniform (PLF)	Top	7' 7.75"	12' 8.75"		357		134		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.572"	4621#	--
2	12' 8.750"	Wall	N/A	N/A	1.566"	4605#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	2295#	944#
2	2295#	931#

Design spans

11' 11.500"

Product: 1-3/4 x 11-7/8 2.0E Global LVL 2 ply**PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

Compression edge maximum unbraced length calculation is based on ply width.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	13800. #	37634. #	36%	6.36'	Total Load 1.25D+1.5L
Shear	3856. #	13217. #	29%	0.4'	Total Load 1.25D+1.5L
TL Deflection	0.2547"	0.3986"	L/563	6.36'	Total Load D+L
LL Deflection	0.1808"	0.2990"	L/793	6.36'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: TL Deflection

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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