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

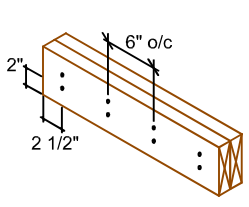
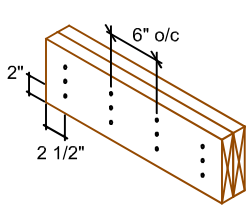
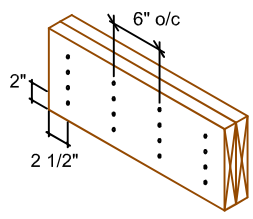
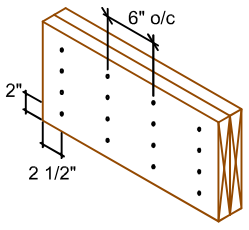
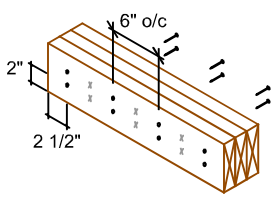
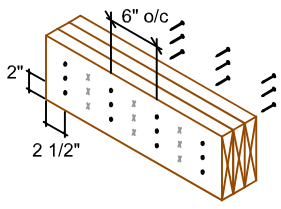
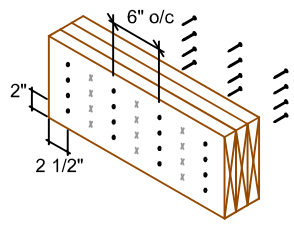
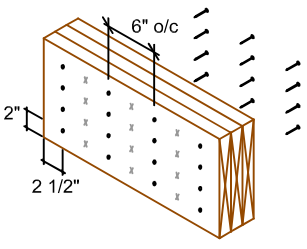
1. The building component used in construction must be the same as indicated on the drawings.
2. The building component must be installed and assembled as per specification shown on the drawing and in accordance with the manufacturer’s assembly and installation.
3. Members consisting of multiple plies 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.

MULTIPLE MEMBER CONNECTIONS

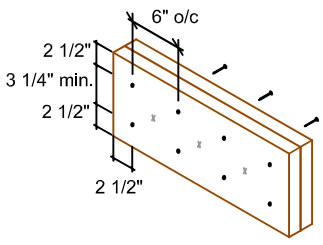
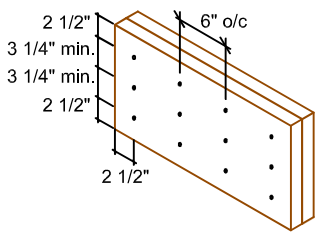
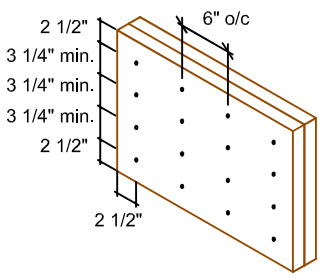
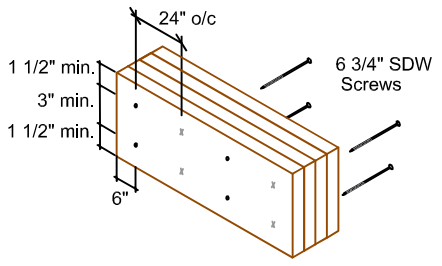
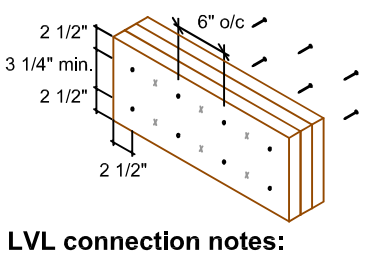
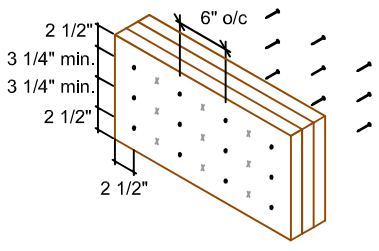
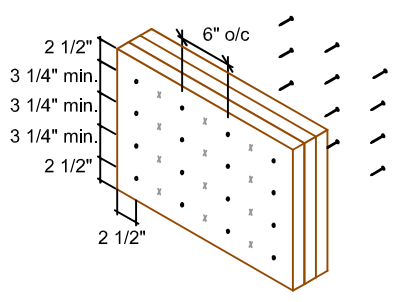
Conventional Connections (for uniform distributed loads)

	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.

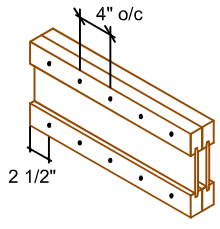
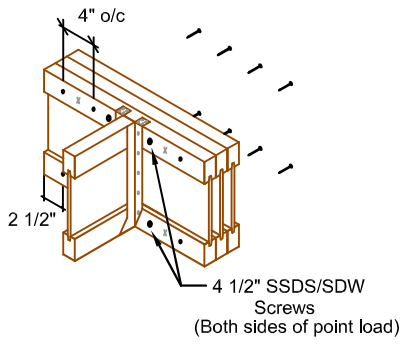
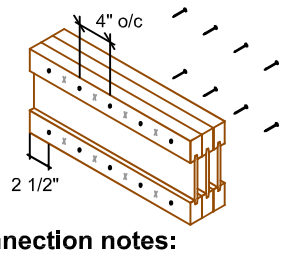
LVL Connections (for uniform distributed loads)

	9 1/2" LVL	11 7/8" - 14" LVL	16"-18" LVL	4-ply (Top load only)
				
				For side-loaded 4-ply LVL Connections, please consult the engineering calculation page for the component and the Nascor layout

LVL connection notes:

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

Vertical I-Joist Connections (for uniform distributed loads)

	9 1/2" - 11 7/8" I-Joist	3-ply I-Joist w/ point load (Joist Hanger)
2-ply		
3-ply		

Vertical I-Joist connection notes:

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

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	13	NJ40U12	18' 0"
J2	3	NJH12	12' 0"
J3	1	NJH12	6' 0"
J4	6	NJH12	4' 0"
J5	8	NJ60U12	20' 0"
J6	36	NJ60H12	18' 0"
G1	1	1-3/4 x 11-7/8 2.0E Global LVL	4' 0"
G2	2	1-3/4 x 11-7/8 2.0E Global LVL	10' 0"
G3	2	NJ12	4' 0"
G4	2	NJ12	18' 0"
G5	2	NJ12	18' 0"
R1	15	11 7/8" RIMBOARD	12' 0"
R2	2	11 7/8" RIMBOARD	12' 0"

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.

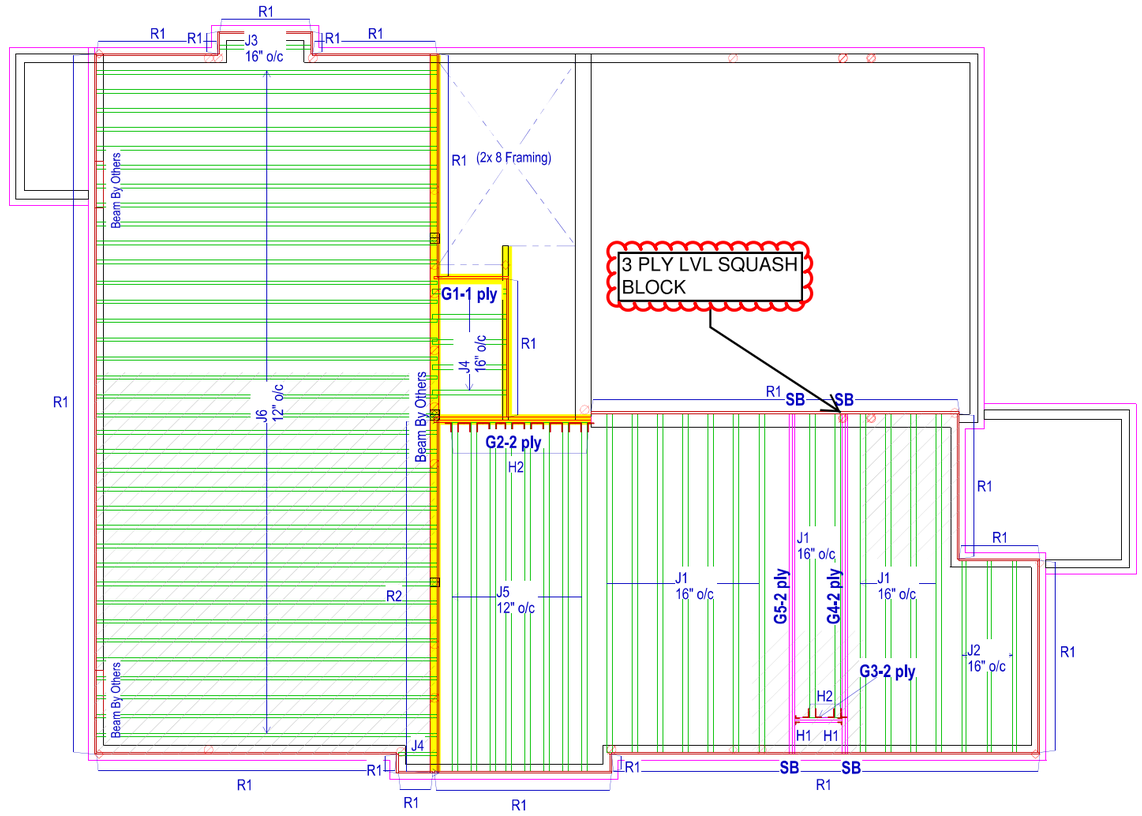
Architectural Drawing Info:
REGION DESIGN INC.
8700 Dufferin St., Concord, ON
Date: July 2016
Project Number: 02-10-08
Model: Lot 119 (Juniper 7)

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.

SB: SQUASH BLOCKS



FIRST FLOOR FRAMING

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

ID#	Qty	Model Number
H1	2	LT2-151188
H2	10	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
Design assumes top edge continuously braced,
and bottom edge unbraced.
Joist Design Includes CCMC Vibration Check
Subfloor: 3/4" Canadian softwood plywood Glued and Nailed
Ceiling: (None)
Blocking: (None)

All Loads are UN-FACTORED Loads

NOTES:
1. 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-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: 17-7100
BUILDING: REVIEWED
SCOTT SHERRIFFS JUN 12, 2017
PLANS EXAMINER DATE
Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relives 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 on Ontario, By-laws of the Region of Halton and Town of Milton

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MAY 30, 2017
17-7100
BUILDING DIVISION

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

Project Tag:
MILTON, ONT.

GREENPARK
LECCO RIDGE
LOT 119 (JUNIPER 7 EL2)

Customer#: Salesman#:RM

Time: 09:46 AM
Date: 05/05/17
Designer: RCO
Scale: 1/8" = 1'
License Name:
KEYMARK ENTERPRISES, INC.

File: S:\CUSTOMERS\GREENPARK\LECCO RIDGE\MODELS\LOT 119 JUNIPER 7 EL 2\FLOOR\LOT 119.L05

Member Data

Description: CalcG1
Comments:

Standard Load:
Live Load: 0 PLF
Dead Load: 0 PLF

Building Type: Residential

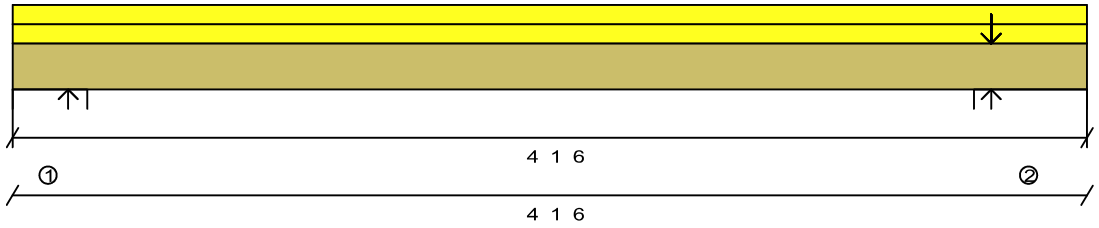
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

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	Other End	Dead Start	Dead End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	4' 1.38"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	4' 1.38"		40		15		Live
Point (LBS)	Top	3' 9.00"			0		47		Live
Point (LBS)	Top	3' 9.00"			0		113		Live
Point (LBS)	Top	3' 9.00"			319		120		Live
Point (LBS)	Top	3' 9.00"			765		287		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"	243#	--
2	4' 1.375"	Wall	N/A	N/A	1.500"	2578#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	118#	53#
2	1202#	620#

Design spans
3' 6.375"

Product: 1-3/4 x 11-7/8 2.0E Global LVL 1 ply

PASSES DESIGN CHECKS

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.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	214.'#	18817.'#	1%	1.98'	Total Load 1.25D+1.5L
Shear	107.#	6608.#	1%	2.87'	Total Load 1.25D+1.5L
TL Deflection	0.0010"	0.1177"	L/999+	1.98'	Total Load D+L
LL Deflection	0.0010"	0.0883"	L/999+	1.98'	Tc

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

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

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MAY 30, 2017
17-7100
BUILDING DIVISION

LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO
08 MAY 2017

RCO
KOTT LUMBER
14 Anderson Blvd.
Uxbridge, ON.
Tel.No. 905-642-4400

Member Data

Description: CalcG2
Comments:

Standard Load:
Live Load: 0 PLF
Dead Load: 0 PLF

Building Type: Residential

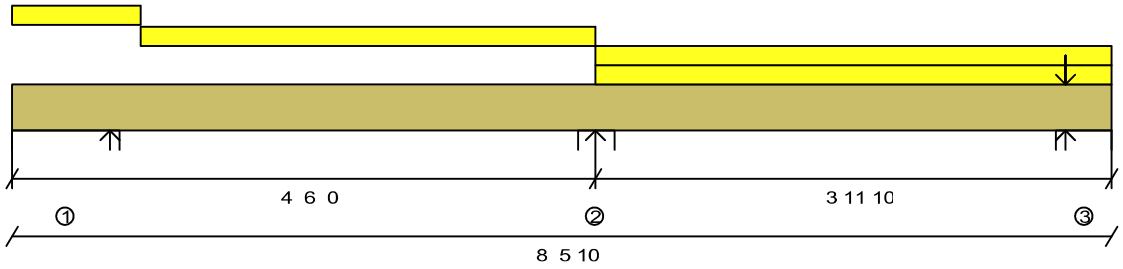
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

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	Other End	Dead Start	Dead End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 0.00"		373		140		Live
Replacement Uniform (PLF)	Top	1' 0.00"	4' 6.00"		617		231		Live
Replacement Uniform (PLF)	Top	4' 6.00"	8' 5.63"		27		10		Live
Replacement Uniform (PLF)	Top	4' 6.00"	8' 5.63"		373		140		Live
Point (LBS)	Top	8' 1.25"			144		73		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	4' 6.000"	Wall	N/A	N/A	1.589"	4672#	--
3	8' 5.625"	Wall	N/A	N/A	1.500"	1499#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	951#	338#
2	2344#	925#
3	777#	267#

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.

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100076892
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08 MAY 2017

Design spans
3' 8.875" 3' 7.250"

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BUILDING DIVISION

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

PASSES DESIGN CHECKS

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.
The aspect ratio for the determination of the lateral stability factor is based on the total width of the beam in accordance with Section 6.5.6.3.1 and 6.5.6.3.3 of CSA O86-09.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	1554.'#	37634.'#	4%	2.44'	Odd Spans 1.25D+1.5L
Negative Moment	1726.'#	37634.'#	4%	4.5'	Total Load 1.25D+1.5L
Negative Unbrcd	1726.'#	37634.'#	4%	4.5'	Total Load 1.25D+1.5L
Shear	1538.#	13217.#	11%	3.57'	Total Load 1.25D+1.5L
TL Deflection	0.0025"	0.1247"	L/999+	2.44'	Odd Spans D+L
LL Deflection	0.0019"	0.0935"	L/999+	2.44'	Odd Spans 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
Point loads over bearings are NOT included in the Design calculations, but ARE included in the Reaction table

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

RCO
KOTT LUMBER
14 Anderson Blvd.
Uxbridge, ON.
Tel.No. 905-642-4400

Member Data

Description: CalcG3
Comments:

Standard Load:
Live Load: 0 PLF
Dead Load: 0 PLF

Building Type: Residential

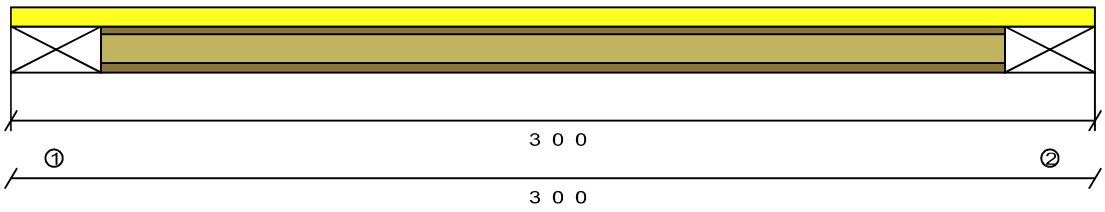
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL

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"		328		144		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	840#	--
2	3' 0.000"	Girder	N/A	N/A	N/A	840#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	410#	180#
2	410#	180#

Design spans
2' 6.000"

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	525.'#	9020.'#	5%	1.5'	Total Load 1.25D+1.5L
Shear	840.#	3400.#	24%	0'	Total Load 1.25D+1.5L
TL Deflection	0.0040"	0.0833"	L/999+	1.5'	Total Load D+L
LL Deflection	0.0028"	0.0625"	L/999+	1.5'	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 hangared connections depend on the connection style and are not included in this design.

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

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14 Anderson Blvd.
Uxbridge, ON.
Tel.No. 905-642-4400

Member Data

Description: CalcG4
Comments:

Standard Load:
Live Load: 0 PLF
Dead Load: 0 PLF

Building Type: Residential

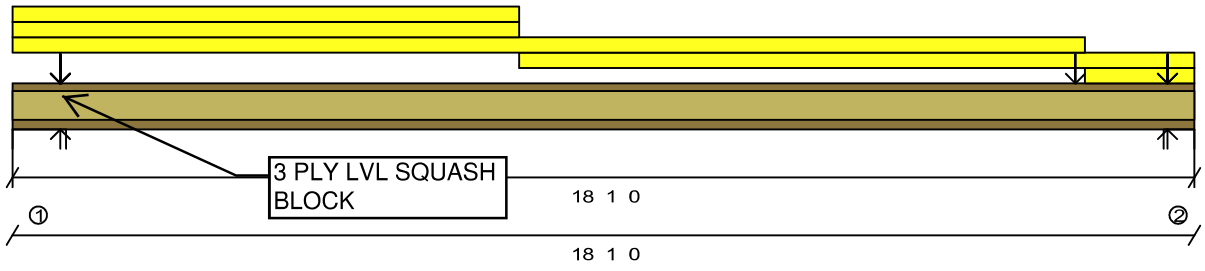
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	Other End	Dead Start	Dead End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	7' 9.00"		0		7		Live
Additional Uniform (PLF)	Top	0' 0.00"	7' 9.00"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	16' 5.00"		27		10		Live
Replacement Uniform (PLF)	Top	7' 9.00"	18' 1.00"		27		10		Live
Replacement Uniform (PLF)	Top	16' 5.00"	18' 1.00"		12		5		Live
Point (LBS)	Top	0' 9.13"			97		36		Live
Point (LBS)	Top	0' 9.13"			193		0		Snow
Point (LBS)	Top	0' 9.13"			0		227		Live
Point (LBS)	Top	0' 9.13"			1287		483		Live
Point (LBS)	Top	0' 9.13"			7906		3283		Live
Point (LBS)	Top	16' 3.50"			410		197		Live
Point (LBS)	Top	17' 8.38"			0		172		Live
Point (LBS)	Top	17' 8.38"			527		0		Snow
Point (LBS)	Top	17' 8.38"			754		674		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"	20072#	--
2	18' 1.000"	Wall	N/A	N/A	1.500"	4110#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	9774#	193#	4251#
2	1565#	527#	1200#

Design spans
16' 11.250"

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.

LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO
08 MAY 2017

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	4473.'#	9020.'#	49%	10.08'	Total Load 1.25D+1.5L
Shear	1657.#	3400.#	48%	18.08'	Total Load 1.25D+1.5L
End Reaction	1657.#	4100.#	40%	18.08'	Total Load 1.25D+1.5L
TL Deflection	0.3594"	0.5646"	L/565	9.23'	Total Load D+L
LL Deflection	0.2514"	0.4234"	L/808	9.23'	Total Load L

RCO
KOTT LUMBER
14 Anderson Blvd.
Uxbridge, ON.
Tel.No. 905-642-4400

(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

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

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08 MAY 2017

**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.

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Member Data

Description: CalcG5
Comments:

Standard Load:
Live Load: 0 PLF
Dead Load: 0 PLF

Building Type: Residential

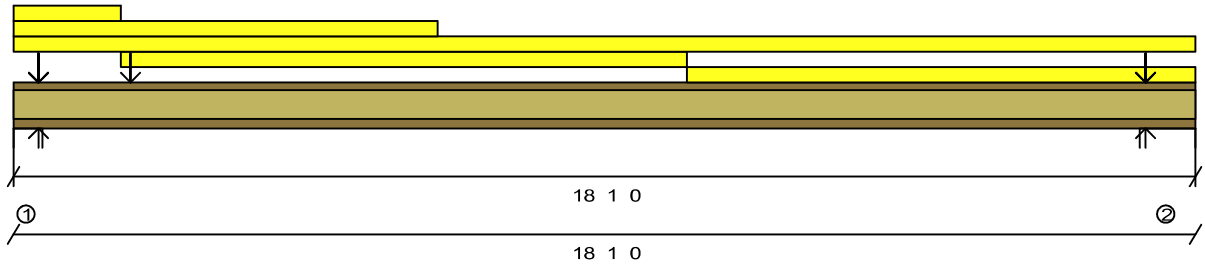
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 8.00"		12		5		Live
Additional Uniform (PLF)	Top	0' 0.00"	6' 6.00"		0		7		Live
Replacement Uniform (PLF)	Top	0' 0.00"	18' 1.00"		27		10		Live
Replacement Uniform (PLF)	Top	1' 8.00"	10' 4.00"		27		10		Live
Replacement Uniform (PLF)	Top	10' 4.00"	18' 1.00"		27		10		Live
Point (LBS)	Top	0' 4.63"			0		172		Live
Point (LBS)	Top	0' 4.63"			434		0		Snow
Point (LBS)	Top	0' 4.63"			621		555		Live
Point (LBS)	Top	1' 9.50"			410		197		Live
Point (LBS)	Top	17' 3.88"			107		40		Live
Point (LBS)	Top	17' 3.88"			0		227		Live
Point (LBS)	Top	17' 3.88"			1420		532		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"	3745#	--
2	18' 1.000"	Wall	N/A	N/A	1.500"	4258#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	1431#	434#	1104#
2	2012#	0#	992#

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Design spans
16' 11.250"

LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO
08 MAY 2017

Product: NJ12 2 ply

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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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	4467.'#	9020.'#	49%	8.01'	Total Load 1.25D+1.5L
Shear	1686.#	3400.#	49%	0'	Total Load 1.25D+1.5L
End Reaction	1686.#	4100.#	41%	0'	Total Load 1.25D+1.5L
TL Deflection	0.3573"	0.5646"	L/568	8.85'	Total Load D+L
LL Deflection	0.2514"	0.4234"	L/808	8.85'	Total Load L

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(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

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

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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.

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

Type	Qty.	Product	Length
J1	10	NJH12	16' 0"
J2	5	NJH12	14' 0"
J3	3	NJH12	12' 0"
J4	7	NJH12	10' 0"
J5	7	NJH12	4' 0"
J6	9	NJ60U12	20' 0"
J7	54	NJ60H12	18' 0"
G1	1	1-3/4 x 11-7/8 2.0E Global LVL	8' 0"
G2	1	1-3/4 x 11-7/8 2.0E Global LVL	4' 0"
G3	1	1-3/4 x 11-7/8 2.0E Global LVL	10' 0"
G4	1	1-3/4 x 11-7/8 2.0E Global LVL	4' 0"
G5	2	1-3/4 x 11-7/8 2.0E Global LVL	10' 0"
R1	15	11 7/8" RIMBOARD	12' 0"
R2	3	11 7/8" RIMBOARD	12' 0"
R3	2	11 7/8" RIMBOARD	12' 0"

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

Type	Qty.	Product	Length
XXX	2	NJH12	16' 0"

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

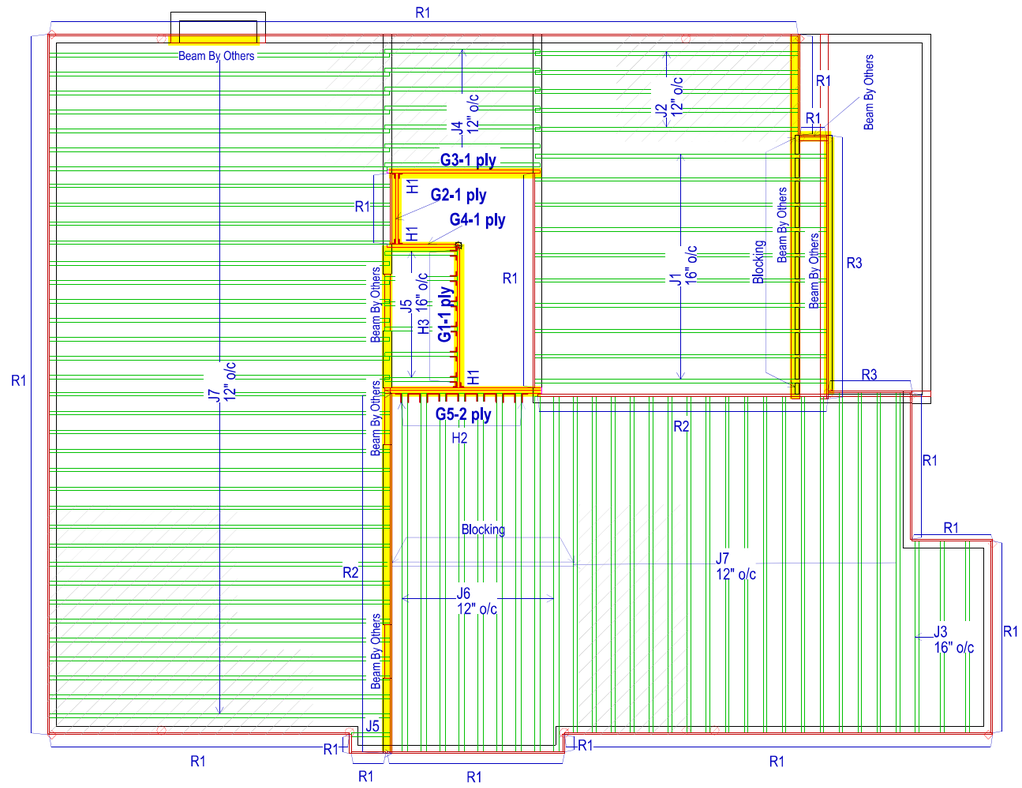
The framing shown on this layout may deviate from the architectural drawing.
Project engineer to review and approve the deviation prior to construction.

Architectural Drawing Info:
REGION DESIGN INC.
8700 Dufferin St., Concord, ON
Date: July 2016
Project Number: 02-10-08
Model: Lot 119 (Juniper 7)

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

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

ID#	Qty	Model Number
H1	3	HUS1.81/10
H2	7	LT351188
H3	6	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" Canadian softwood plywood Glued and Nailed
Ceiling: 1/2" gypsum
Blocking: (None)

All Loads are UN-FACTORED Loads

NOTES:
1. 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-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: 17-7100
BUILDING: REVIEWED
SCOTT SHERRIFFS JUN 12, 2017
PLANS EXAMINER DATE
Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relives 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 on Ontario, By-laws of the Region of Halton and Town of Milton

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

Project Tag:
MILTON, ONT.

GREENPARK
LECCO RIDGE
LOT 119 (JUNIPER 7 EL2)

Customer#: Salesman#:RM

Time: 09:46 AM
Date: 05/05/17
Designer: RCO
Scale: 1/8" = 1'
License Name:
KEYMARK ENTERPRISES, INC.

File: S:\CUSTOMERS\GREENPARK\LECCO RIDGE\MODELS\LOT 119 JUNIPER 7 EL 2\FLOOR\LOT 119.L10

Member Data

Description: CalcG1
Comments:

Standard Load:
Live Load: 0 PLF
Dead Load: 0 PLF

Building Type: Residential

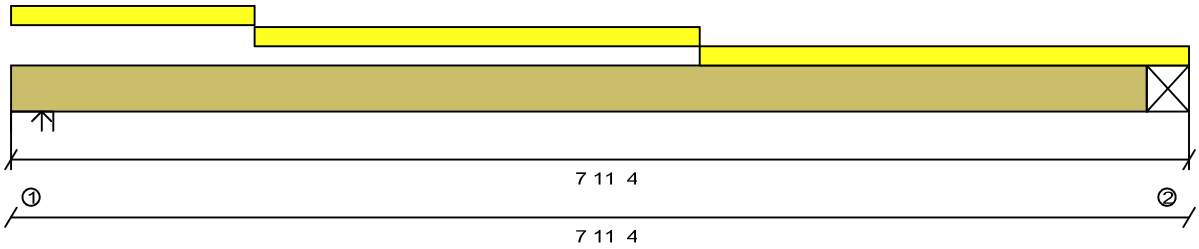
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

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"	1' 7.75"		75		28		Live
Replacement Uniform (PLF)	Top	1' 7.75"	4' 7.75"		75		28		Live
Replacement Uniform (PLF)	Top	4' 7.75"	7' 11.25"		75		28		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"	572#	--
2	7' 11.250"	Girder	N/A	N/A	N/A	572#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	279#	123#
2	279#	123#

Design spans
7' 5.125"

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	1061.'#	18817.'#	5%	3.93'	Total Load 1.25D+1.5L
Shear	419.#	6608.#	6%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.0152"	0.2476"	L/999+	3.93'	Total Load D+L
LL Deflection	0.0105"	0.1857"	L/999+	3.93'	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
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 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

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08 MAY 2017

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KOTT LUMBER
14 Anderson Blvd.
Uxbridge, ON.
Tel.No. 905-642-4400

Member Data

Description: CalcG2
Comments:

Standard Load:
Live Load: 0 PLF
Dead Load: 0 PLF

Building Type: Residential

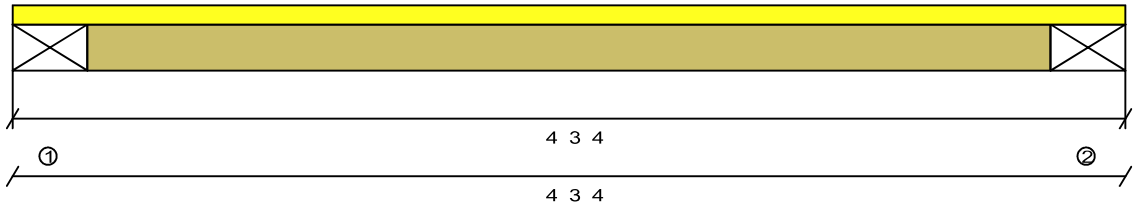
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

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"	4' 3.25"		270		101		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	991#	--
2	4' 3.250"	Girder	N/A	N/A	N/A	991#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	498#	195#
2	498#	195#

Design spans
3' 8.250"

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	914.'#	18817.'#	4%	2.14'	Total Load 1.25D+1.5L
Shear	459.#	6608.#	6%	3.06'	Total Load 1.25D+1.5L
TL Deflection	0.0032"	0.1229"	L/999+	2.14'	Total Load D+L
LL Deflection	0.0023"	0.0922"	L/999+	2.14'	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
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 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

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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
KOTT LUMBER
14 Anderson Blvd.
Uxbridge, ON.
Tel.No. 905-642-4400

Member Data

Description: CalcG3
Comments:

Standard Load:
Live Load: 0 PLF
Dead Load: 0 PLF

Building Type: Residential

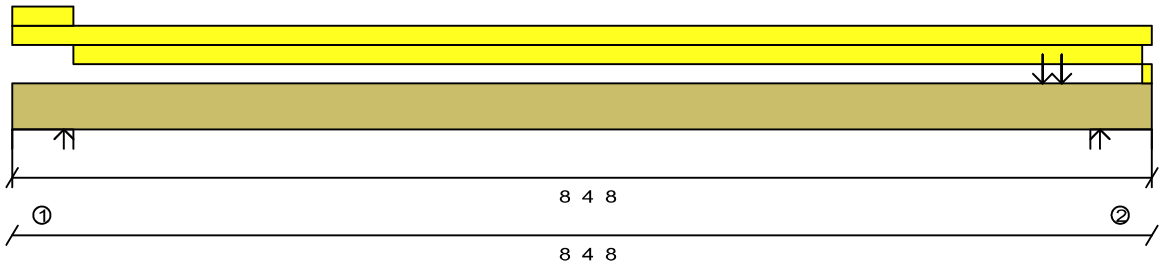
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
Member Weight: 5.0 PLF

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	Other End	Dead Start	Dead End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	0' 5.50"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	8' 4.50"		27		10		Live
Replacement Uniform (PLF)	Top	0' 5.50"	8' 3.63"		13		5		Live
Replacement Uniform (PLF)	Top	8' 3.63"	8' 4.50"		27		10		Live
Point (LBS)	Top	7' 6.75"			231		86		Live
Point (LBS)	Top	7' 8.50"			517		220		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"	385#	--
2	8' 4.500"	Wall	N/A	N/A	1.500"	1760#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	183#	89#
2	866#	369#

Design spans
7' 7.250"

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	876.'#	18817.'#	4%	4.95'	Total Load 1.25D+1.5L
Shear	300.#	6608.#	4%	0.4'	Total Load 1.25D+1.5L
TL Deflection	0.0135"	0.2535"	L/999+	4.19'	Total Load D+L
LL Deflection	0.0092"	0.1901"	L/999+	4.19'	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

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

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08 MAY 2017

RCO
KOTT LUMBER
14 Anderson Blvd.
Uxbridge, ON.
Tel.No. 905-642-4400

Member Data

Description: CalcG4
Comments:

Standard Load:
Live Load: 0 PLF
Dead Load: 0 PLF

Building Type: Residential

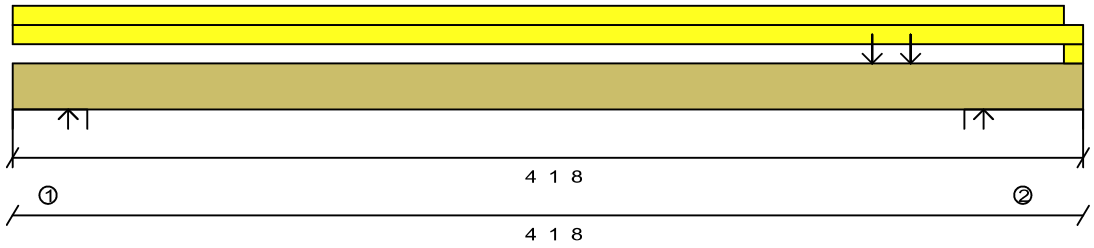
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
Member Weight: 5.0 PLF

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	Other End	Dead Start	Dead End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	4' 0.63"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	4' 1.50"		27		10		Live
Replacement Uniform (PLF)	Top	4' 0.63"	4' 1.50"		27		10		Live
Point (LBS)	Top	3' 3.75"			540		202		Live
Point (LBS)	Top	3' 5.50"			517		220		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"	347#	--
2	4' 1.500"	Wall	N/A	N/A	1.500"	2036#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	169#	74#
2	1013#	413#

Design spans
3' 6.250"

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	709.'#	18817.'#	3%	3.31'	Total Load 1.25D+1.5L
Shear	272.#	6608.#	4%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.0018"	0.1174"	L/999+	2.16'	Total Load D+L
LL Deflection	0.0013"	0.0880"	L/999+	2.16'	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

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

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TOWN OF MILTON
MAY 30, 2017
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BUILDING DIVISION

LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO
08 MAY 2017

RCO
KOTT LUMBER
14 Anderson Blvd.
Uxbridge, ON.
Tel.No. 905-642-4400

Member Data

Description: CalcG5
Comments:

Standard Load:
Live Load: 0 PLF
Dead Load: 0 PLF

Building Type: Residential

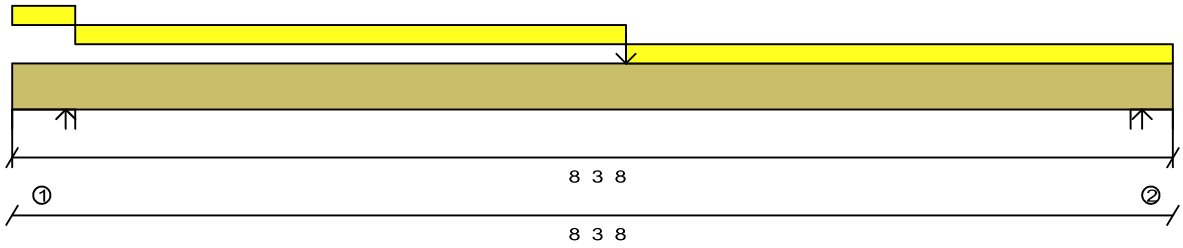
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

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"	0' 5.50"		387		145		Live
Replacement Uniform (PLF)	Top	0' 5.50"	4' 4.75"		387		145		Live
Replacement Uniform (PLF)	Top	4' 4.75"	8' 3.50"		387		145		Live
Point (LBS)	Top	4' 4.75"			281		158		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"	3271#	--
2	8' 3.500"	Wall	N/A	N/A	1.500"	3298#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	1621#	672#
2	1633#	679#

Design spans
7' 8.250"

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.
The aspect ratio for the determination of the lateral stability factor is based on the total width of the beam in accordance with Section 6.5.6.3.1 and 6.5.6.3.3 of CSA O86-09.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	6894.'#	37634.'#	18%	4.4'	Total Load 1.25D+1.5L
Shear	2532.#	13217.#	19%	7.3'	Total Load 1.25D+1.5L
TL Deflection	0.0509"	0.2563"	L/999+	4.23'	Total Load D+L
LL Deflection	0.0358"	0.1922"	L/999+	4.23'	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

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

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