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

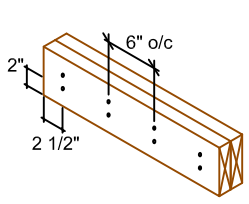
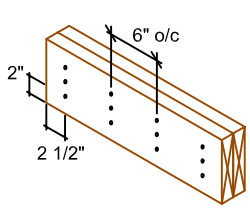
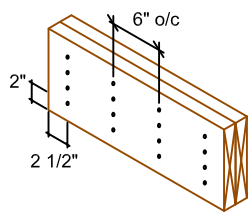
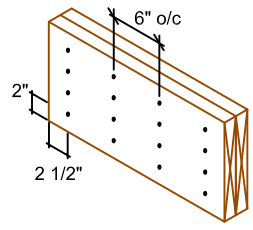
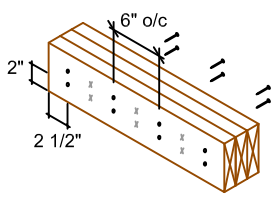
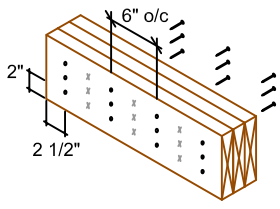
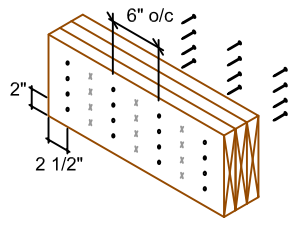
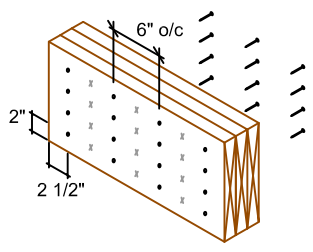
1. The building component used in construction must be the same as indicated on the drawings.
2. The building component must be installed and assembled as per specification shown on the drawing and in accordance with the manufacturer's assembly and installation.
3. Members consisting of multiple plies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

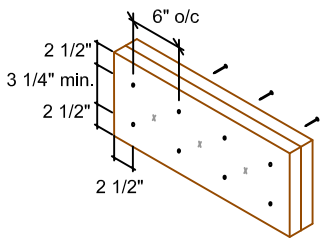
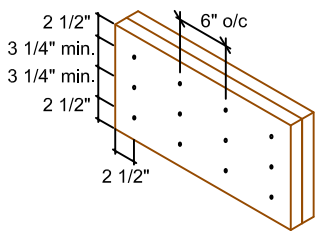
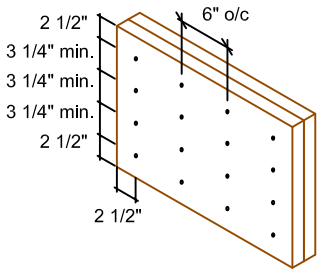
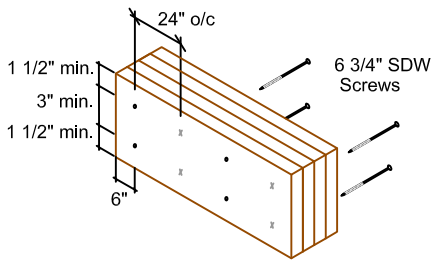
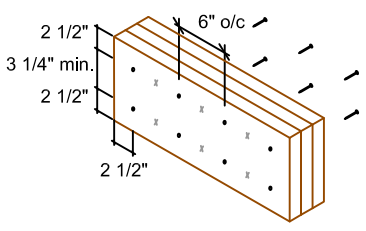
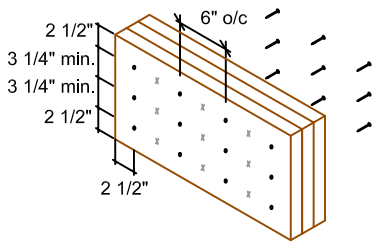
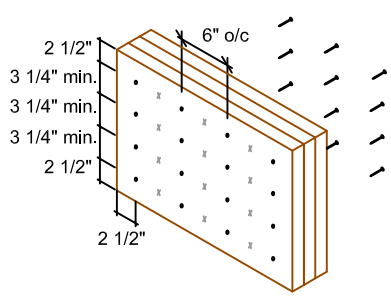
Conventional Connections (for uniform distributed loads)

	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)

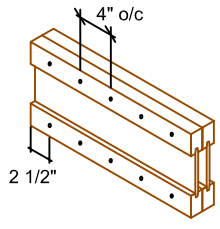
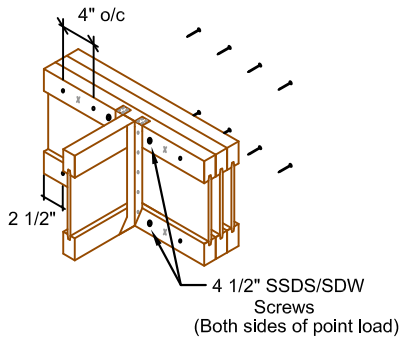
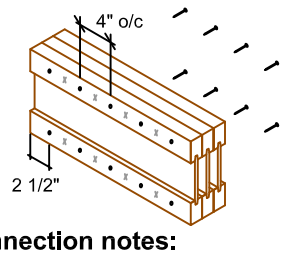
	9 1/2" LVL	11 7/8" - 14" LVL	16"-18" LVL	4-ply (Top load only)
				
				

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

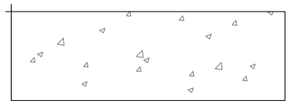
Date: November 30, 2016

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	31	NJH12	18' 0"
J2	2	NJH12	16' 0"
J3	8	NJH12	14' 0"
J4	5	NJH12	12' 0"
J5	10	NJH12	6' 0"
J6	10	NJH12	2' 0"
J7	3	NJ60H12	18' 0"
J8	1	NJ60H12	2' 0"
G1	1	1 3/4x11 7/8 West Fraser 2.0E-	8' 0"
G2	1	1 3/4x11 7/8 West Fraser 2.0E-	12' 0"
G3	1	NJ12	2' 0"
G4	1	NJ12	2' 0"
G5	2	NJ12	4' 0"
G6	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G7	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G8	1	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G9	1	1 3/4x11 7/8 West Fraser 2.0E-	8' 0"
G10	1	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G11	2	1 3/4x11 7/8 West Fraser 2.0E-	14' 0"
G12	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G14	2	NJ12	18' 0"
G15	2	NJ12	18' 0"
G16	2	NJ12	18' 0"
R1	12	11 7/8" RIMBOARD	12' 0"



HATCH AREA INDICATED REPRESENTS CERAMIC TILED FLOOR WITH AN ADDITIONAL DEAD LOAD OF 5.00 PSF

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

PASS-THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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/360 Live L/240 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: (As Shown)

All Loads are UN-FACTORED Loads

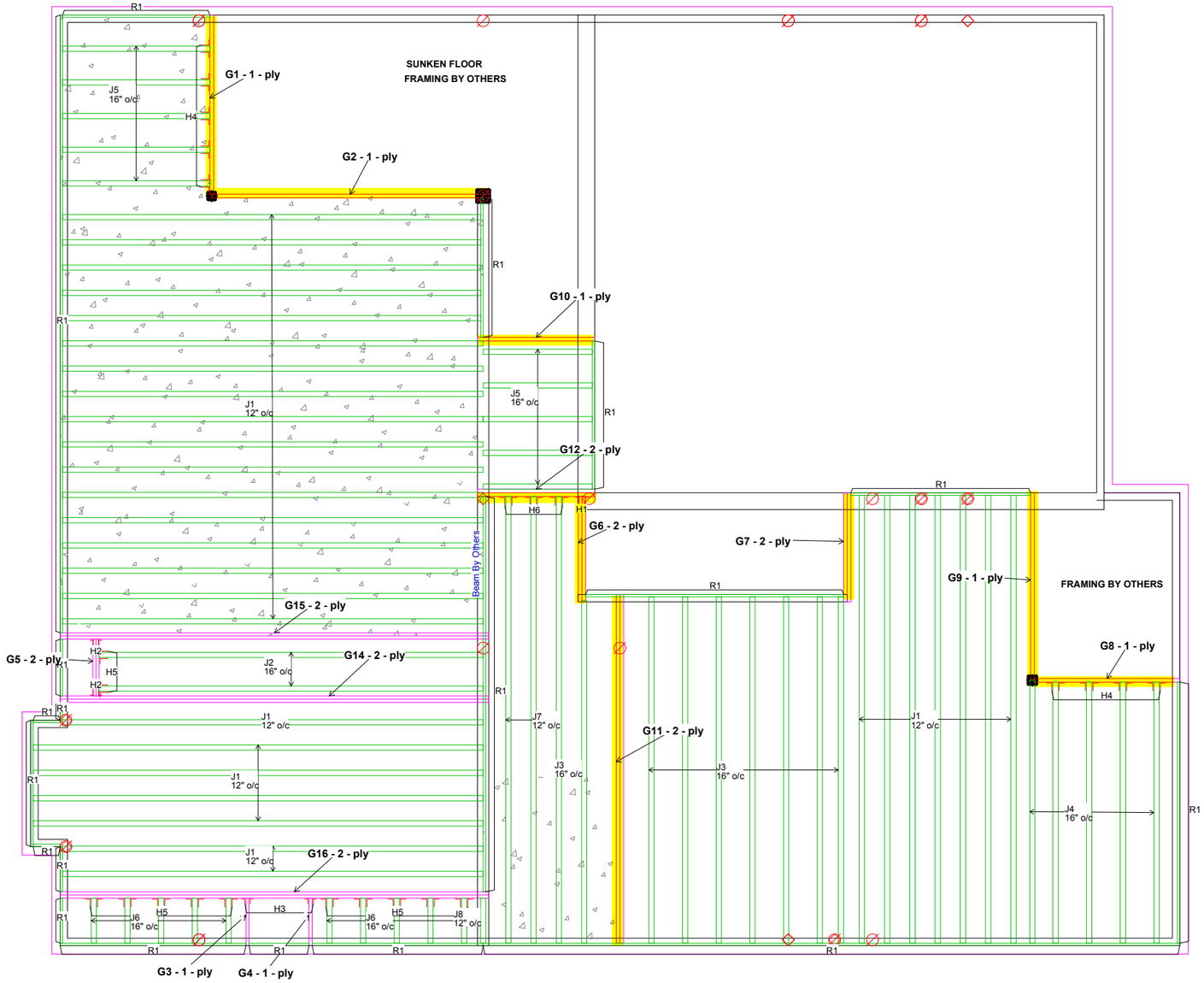
Rim parallel to joists: 1-1/8" rimboard with 2"x4" block (1/16" longer than rim depth) @ 16" o/c. All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability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

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 3 MODEL
BUILDING: REVIEWED
SCOTT SHERRIFFS APR 11, 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

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.

---- Connector List ---

ID#	Qty	Model Number
H1	1	HGUS410
H2	2	LF2-1511
H3	2	LF1511
H4	9	LT251188
H5	12	LF2511
H6	3	LT251188



FIRST FLOOR FRAMING

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 3
BUILDING DIVISION

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

Project Tag:

JUNIPER 3 EL - 1

GREEN PARK HOMES
LECCO RIDGE
MILTON,ON

SALESMAN: RM

Time: 08:36 AM
DATE: 10/26/16
Designer: SB
Not Scaled
License Name:
KEYMARK ENTERPRISES, INC.

File: D:\SAUMIL\GREENPARK HOMES\JUNIPER 3\JUNIPER 3-1\F-JU 3 EL 1\flr JU 3el 1.L05

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

Type	Qty.	Product	Length
J1	31	NJH12	18' 0"
J2	2	NJH12	16' 0"
J3	8	NJH12	14' 0"
J4	5	NJH12	12' 0"
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J6	10	NJH12	2' 0"
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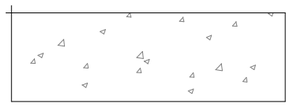
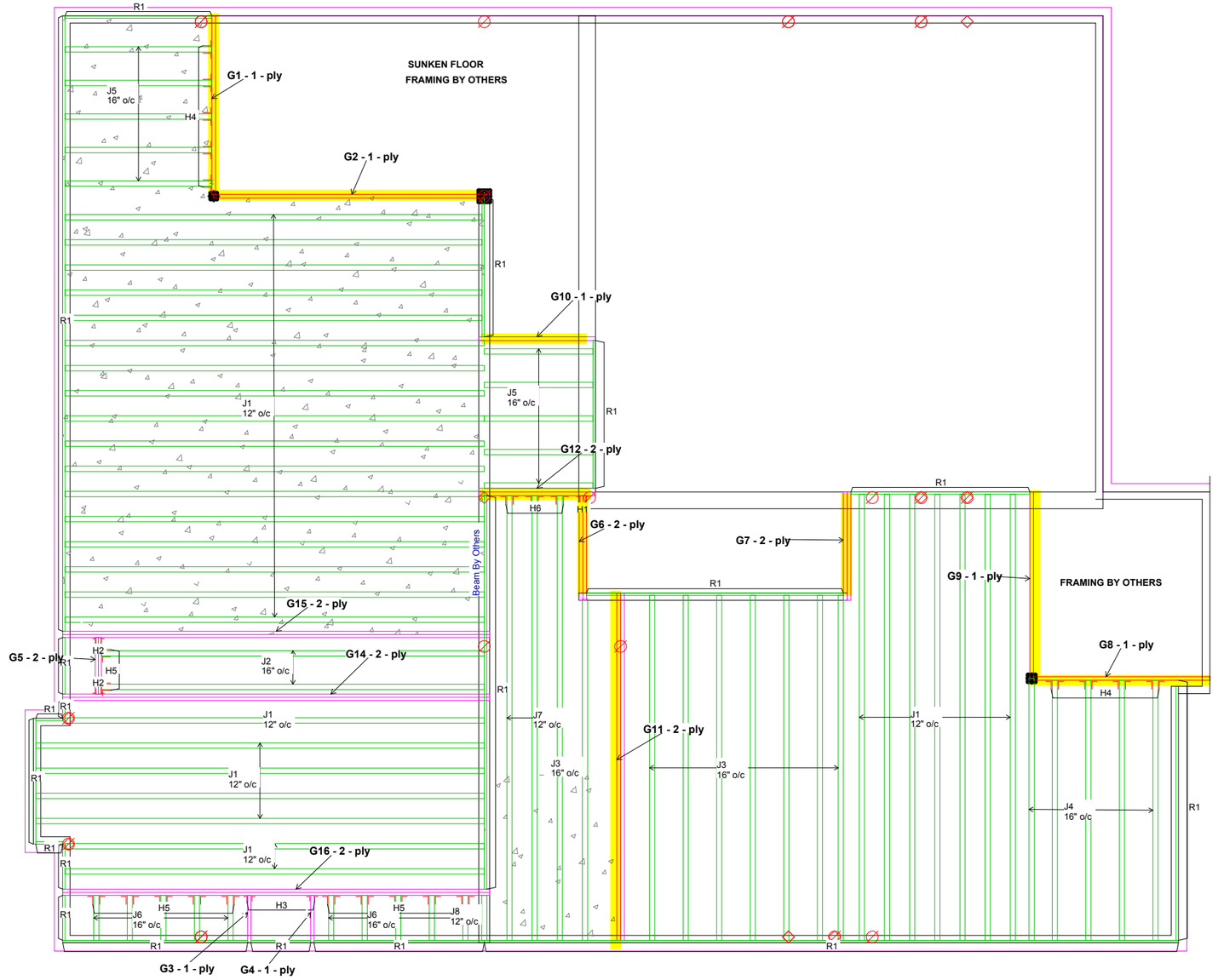
G3	1	NJ12	2' 0"
G4	1	NJ12	2' 0"
G5	2	NJ12	4' 0"
G6	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G7	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G8	1	1 3/4x11 7/8 West Fraser 2.0E-	8' 0"
G9	1	1 3/4x11 7/8 West Fraser 2.0E-	8' 0"
G10	1	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G11	2	1 3/4x11 7/8 West Fraser 2.0E-	14' 0"
G12	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G14	2	NJ12	18' 0"
G15	2	NJ12	18' 0"
G16	2	NJ12	18' 0"
R1	12	11 7/8" RIMBOARD	12' 0"



HATCH AREA INDICATED REPRESENTS CERAMIC TILED FLOOR WITH AN ADDITIONAL DEAD LOAD OF 5.00 PSF

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

PASS-THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



FIRST FLOOR FRAMING

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 3
BUILDING DIVISION

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/360 Live L/240 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: (As Shown)

All Loads are UN-FACTORED Loads

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

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 3 MODEL
BUILDING: REVIEWED
SCOTT SHERRIFFS APR 11, 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

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.

---- Connector List ---

ID#	Qty	Model Number
H1	1	HGUS410
H2	2	LF2-1511
H3	2	LF1511
H4	9	LT251188
H5	12	LF2511
H6	3	LT251188

Member Data

Description: CalcG1
Comments:

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

Building Type: Residential

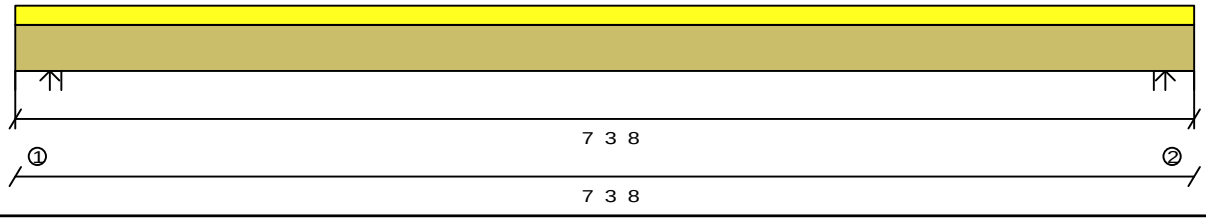
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
Member Weight: 5.9 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' 3.50"		120		60		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"	905#	--
2	7' 3.500"	Wall	N/A	N/A	1.500"	905#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	414#	227#
2	414#	227#

Design spans
6' 10.750"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	1560.'#	17693.'#	8%	3.67'	Total Load 1.25D+1.5L
Shear	645.#	6908.#	9%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.0255"	0.2299"	L/999+	3.67'	Total Load D+L
LL Deflection	0.0165"	0.1724"	L/999+	3.67'	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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TOWN OF MILTON
MAR 29, 2017
JUNIPER 3
BUILDING DIVISION

LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO
24 MAR 2017

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

SB
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

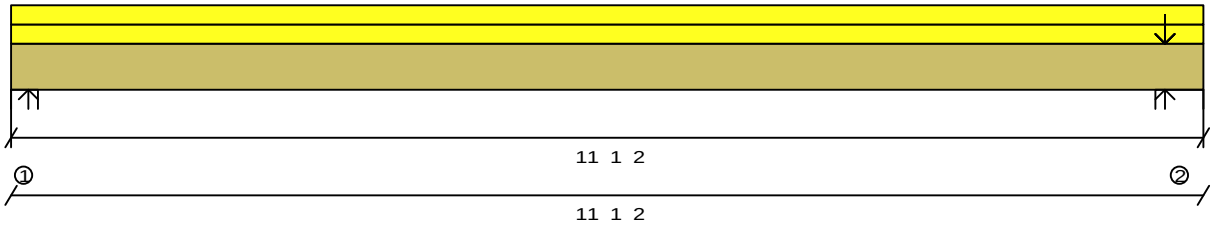
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 5.9 PLF

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	Other End	Dead Start	Dead End	Category
Additional Uniform (PLF)	Top	0' 0.00"	11' 1.13"		0		7		Live
Replacement Uniform (PLF)	Top	0' 0.00"	11' 1.13"		27		10		Live
Point (LBS)	Top	10' 8.75"			0		65		Live
Point (LBS)	Top	10' 8.75"			67		25		Live
Point (LBS)	Top	10' 8.75"			268		123		Live
Point (LBS)	Top	10' 8.75"			1501		739		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"	360#	--
2	11' 1.125"	Wall	N/A	N/A	2.364"	4303#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	141#	119#
2	1976#	1071#

Design spans
10' 6.625"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	949.'#	17693.'#	5%	5.45'	Total Load 1.25D+1.5L
Shear	292.#	6908.#	4%	10.2'	Total Load 1.25D+1.5L
TL Deflection	0.0319"	0.3517"	L/999+	5.45'	Total Load D+L
LL Deflection	0.0173"	0.2638"	L/999+	5.45'	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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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

SB
Nascor by KOTT
14 Anderson Blvd.
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Member Data

Description: CalcG3
Comments:

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

Building Type: Residential

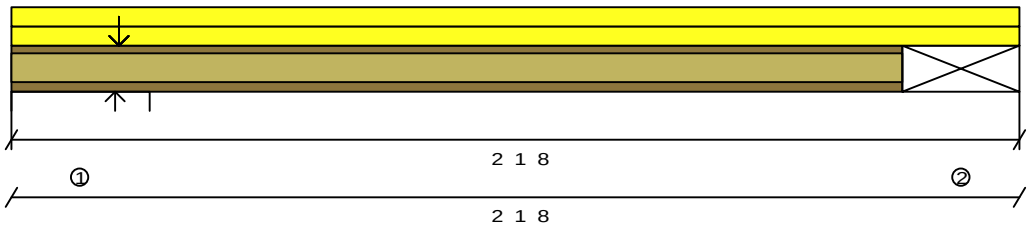
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	Other End	Dead Start	Dead End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	2' 1.50"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	2' 1.50"		27		10		Live
Point (LBS)	Top	0' 2.75"			29		11		Live
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			147		147		Live
Point (LBS)	Top	0' 2.75"			339		0		Snow



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"	999#	--
2	2' 1.500"	Girder	N/A	N/A	N/A	87#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	220#	339#	304#
2	44#	0#	17#

Design spans
1' 7.875"

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Product: NJ12 1 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	36.'#	4510.'#	0%	1.05'	Total Load 1.25D+1.5L
End Reaction	999.#	2050.#	48%	0'	Total Load 1.25D+1.00*1.5S+0.5L
TL Deflection	0.0010"	0.0552"	L/999+	1.05'	Total Load D+L
LL Deflection	0.0010"	0.0414"	L/999+	1.05'	Total Load L

(Actual is factored load effects, Limit is design resistance)
Control: Max End React.
Shear cannot be calculated because member`s length is less then 2d.
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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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: CalcG4
Comments:

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

Building Type: Residential

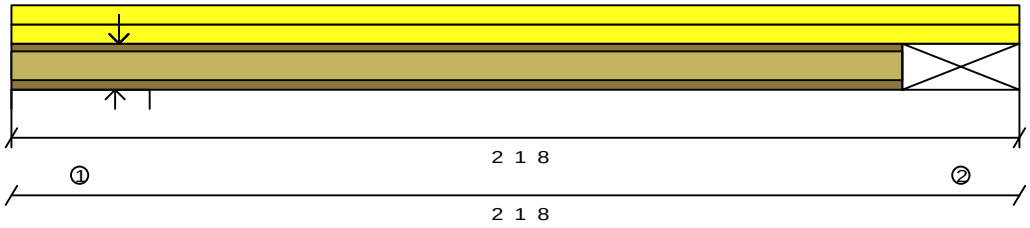
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	Other End	Dead Start	Dead End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	2' 1.50"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	2' 1.50"		27		10		Live
Point (LBS)	Top	0' 2.75"			29		11		Live
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			339		0		Snow
Point (LBS)	Top	0' 2.75"			147		212		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"	999#	--
2	2' 1.500"	Girder	N/A	N/A	N/A	87#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	220#	339#	304#
2	44#	0#	17#

Design spans
1' 7.875"

24 MAR 2017

Product: NJ12 1 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	36.'#	4510.'#	0%	1.05'	Total Load 1.25D+1.5L
End Reaction	999.#	2050.#	48%	0'	Total Load 1.25D+1.00*1.5S+0.5L
TL Deflection	0.0010"	0.0552"	L/999+	1.05'	Total Load D+L
LL Deflection	0.0010"	0.0414"	L/999+	1.05'	Total Load L

(Actual is factored load effects, Limit is design resistance)
Control: Max End React.
Shear cannot be calculated because member`s length is less then 2d.
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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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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Nascor by KOTT
14 Anderson Blvd.
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Member Data

Description: CalcG5
Comments:

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

Building Type: Residential

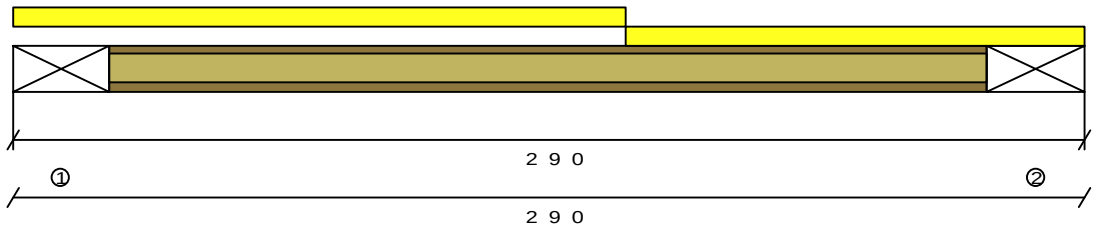
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

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"	1' 6.88"		307		115		Live
Replacement Uniform (PLF)	Top	1' 6.88"	2' 9.00"		307		115		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	679#	--
2	2' 9.000"	Girder	N/A	N/A	N/A	679#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	345#	129#
2	345#	129#

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	382.'#	9020.'#	4%	1.38'	Total Load 1.25D+1.5L
Shear	679.#	3400.#	19%	2.75'	Total Load 1.25D+1.5L
TL Deflection	0.0028"	0.0750"	L/999+	1.38'	Total Load D+L
LL Deflection	0.0020"	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 hangared connections depend on the connection style and are not included in tl

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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: CalcG6
Comments:

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

Building Type: Residential

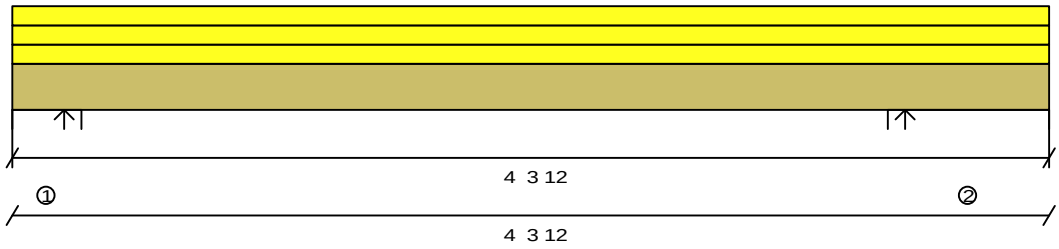
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 11.8 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' 3.75"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	4' 3.75"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	4' 3.75"		240		90		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"	1036#	--
2	4' 3.750"	Wall	N/A	N/A	1.500"	1036#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	513#	213#
2	513#	213#

Design spans
3' 6.000"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	907.'#	35386.'#	2%	1.97'	Total Load 1.25D+1.5L
Shear	450.#	13815.#	3%	2.84'	Total Load 1.25D+1.5L
TL Deflection	0.0032"	0.1167"	L/999+	1.97'	Total Load D+L
LL Deflection	0.0023"	0.0875"	L/999+	1.97'	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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Member Data

Description: CalcG7
Comments:

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

Building Type: Residential

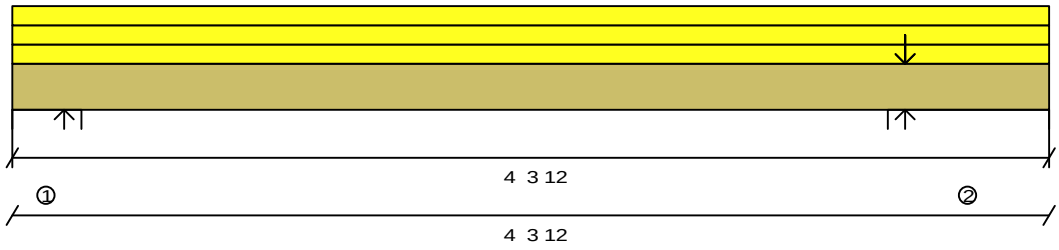
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 11.8 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' 3.75"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	4' 3.75"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	4' 3.75"		210		79		Live
Point (LBS)	Top	3' 8.63"			21		8		Live
Point (LBS)	Top	3' 8.63"			0		32		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"	934#	--
2	4' 3.750"	Wall	N/A	N/A	1.500"	1016#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	461#	194#
2	482#	234#

Design spans
3' 6.000"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	817.'#	35386.'#	2%	1.97'	Total Load 1.25D+1.5L
Shear	406.#	13815.#	2%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.0029"	0.1167"	L/999+	1.97'	Total Load D+L
LL Deflection	0.0020"	0.0875"	L/999+	1.97'	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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Member Data

Description: CalcG8
Comments:

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

Building Type: Residential

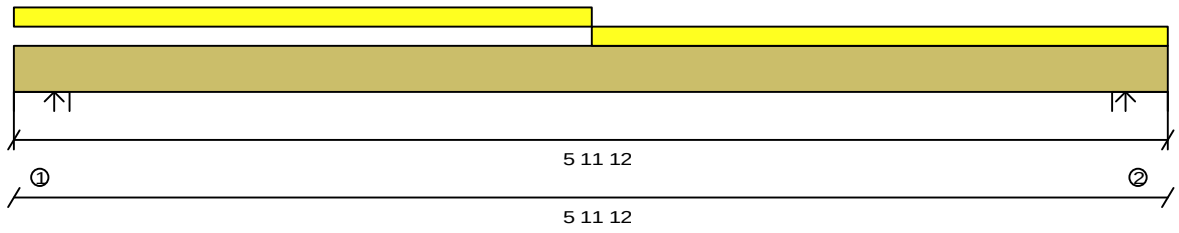
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
Member Weight: 5.9 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' 0.00"		210		79		Live
Replacement Uniform (PLF)	Top	3' 0.00"	5' 11.75"		210		79		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"	1166#	--
2	5' 11.750"	Wall	N/A	N/A	1.500"	1166#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	582#	235#
2	582#	235#

Design spans
5' 6.500"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	1615.'#	17693.'#	9%	2.99'	Total Load 1.25D+1.5L
Shear	750.#	6908.#	10%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.0191"	0.1847"	L/999+	2.99'	Total Load D+L
LL Deflection	0.0136"	0.1385"	L/999+	2.99'	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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Nascor by KOTT
14 Anderson Blvd.
Uxbridge, ON.
www.nascor.ca

Member Data

Description: CalcG8
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)

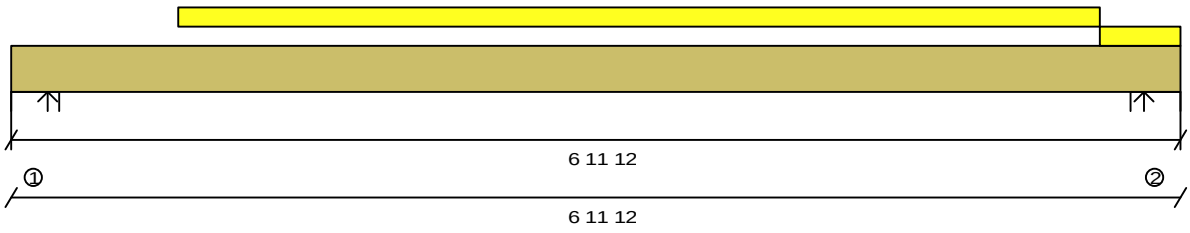
Application: Floor

Building Code: OBC-2012

Member Weight: 5.9 PLF

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	1' 0.00"	6' 6.00"		210		79		Live
Replacement Uniform (PLF)	Top	6' 6.00"	6' 11.75"		210		79		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"	1073#	--
2	6' 11.750"	Wall	N/A	N/A	1.500"	1357#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	533#	219#
2	677#	273#

Design spans
6' 6.500"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	2188.'#	17693.'#	12%	3.49'	Total Load 1.25D+1.5L
Shear	979.#	6908.#	14%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.0325"	0.2181"	L/999+	3.49'	Total Load D+L
LL Deflection	0.0231"	0.1635"	L/999+	3.49'	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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SB
Nascor by KOTT
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

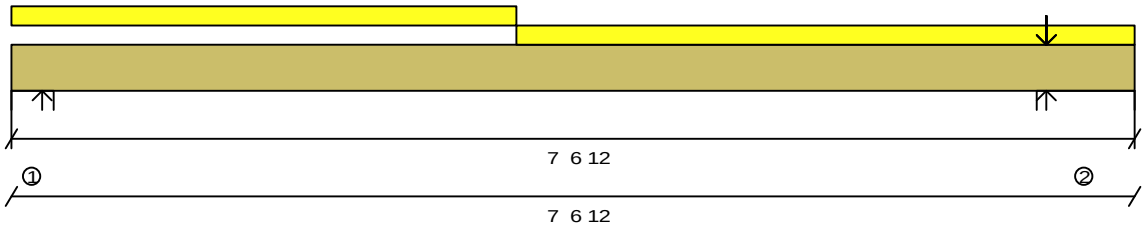
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
Member Weight: 5.9 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' 4.75"		27		10		Live
Replacement Uniform (PLF)	Top	3' 4.75"	7' 6.75"		27		10		Live
Point (LBS)	Top	6' 11.63"			0		32		Live
Point (LBS)	Top	6' 11.63"			165		0		Snow
Point (LBS)	Top	6' 11.63"			355		243		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"	202#	--
2	7' 6.750"	Wall	N/A	N/A	1.500"	1160#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	90#	0#	54#
2	445#	165#	329#

Design spans
6' 9.000"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	341.'#	17693.'#	1%	3.59'	Total Load 1.25D+1.5L
Shear	143.#	6908.#	2%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.0054"	0.2250"	L/999+	3.59'	Total Load D+L
LL Deflection	0.0034"	0.1687"	L/999+	3.59'	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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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

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

Member Data

Description: CalcG10
Comments:

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

Building Type: Residential

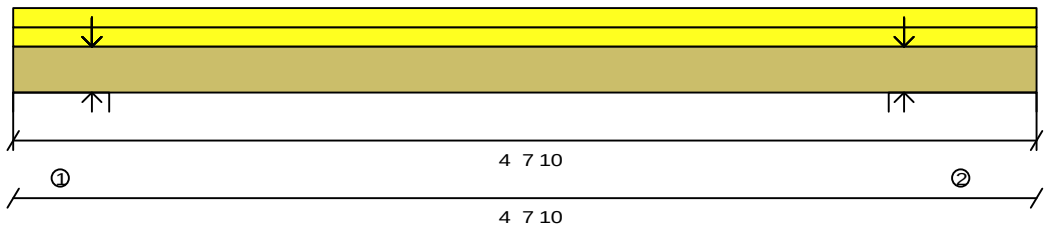
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 5.9 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' 7.63"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	4' 7.63"		40		15		Live
Point (LBS)	Top	0' 4.38"			0		65		Live
Point (LBS)	Top	0' 4.38"			0		65		Live
Point (LBS)	Top	0' 4.38"			67		25		Live
Point (LBS)	Top	0' 4.38"			67		25		Live
Point (LBS)	Top	0' 4.38"			268		101		Live
Point (LBS)	Top	0' 4.38"			268		101		Live
Point (LBS)	Top	4' 0.50"			0		32		Live
Point (LBS)	Top	4' 0.50"			67		25		Live
Point (LBS)	Top	4' 0.50"			214		80		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"	1736#	--
2	4' 7.625"	Wall	N/A	N/A	1.500"	848#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	793#	438#
2	404#	194#

Design spans
3' 8.125"

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Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	234.'#	17693.'#	1%	2.2'	Total Load 1.25D+1.5L
Shear	118.#	6908.#	1%	0.37'	Total Load 1.25D+1.5L
TL Deflection	0.0017"	0.1226"	L/999+	2.2'	Total Load D+L
LL Deflection	0.0012"	0.0919"	L/999+	2.2'	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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Member Data

Description: CalcG11
Comments:

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

Building Type: Residential

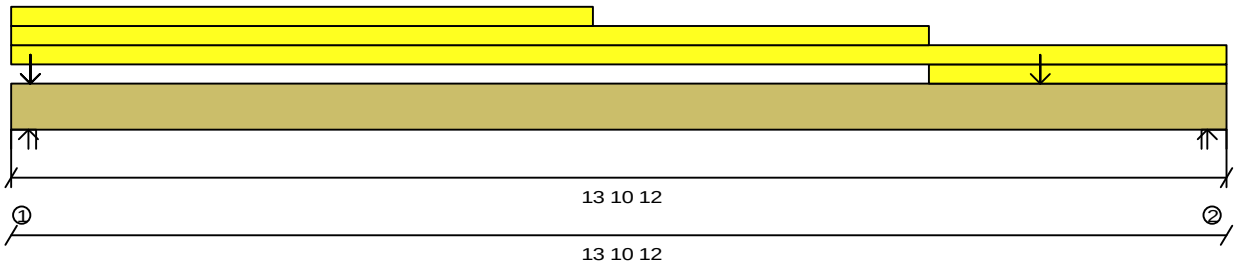
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 11.8 PLF

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	Other End	Dead Start	Dead End	Category
Additional Uniform (PLF)	Top	0' 0.00"	6' 8.00"		0		7		Live
Replacement Uniform (PLF)	Top	0' 0.00"	10' 6.00"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	13' 10.75"		27		10		Live
Replacement Uniform (PLF)	Top	10' 6.00"	13' 10.75"		27		10		Live
Point (LBS)	Top	0' 2.75"			0		130		Live
Point (LBS)	Top	0' 2.75"			678		0		Snow
Point (LBS)	Top	0' 2.75"			671		608		Live
Point (LBS)	Top	11' 9.25"			2696		1264		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"	3911#	--
2	13' 10.750"	Wall	N/A	N/A	1.551"	5647#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	1412#	678#	1163#
2	2673#	0#	1310#

Design spans
13' 5.500"

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Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	10547.'#	35386.'#	29%	11.77'	Total Load 1.25D+1.5L
Shear	5528.#	13815.#	40%	13'	Total Load 1.25D+1.5L
TL Deflection	0.2340"	0.4486"	L/690	7.62'	Total Load D+L
LL Deflection	0.1539"	0.3365"	L/999+	7.62'	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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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: CalcG12
Comments:

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

Building Type: Residential

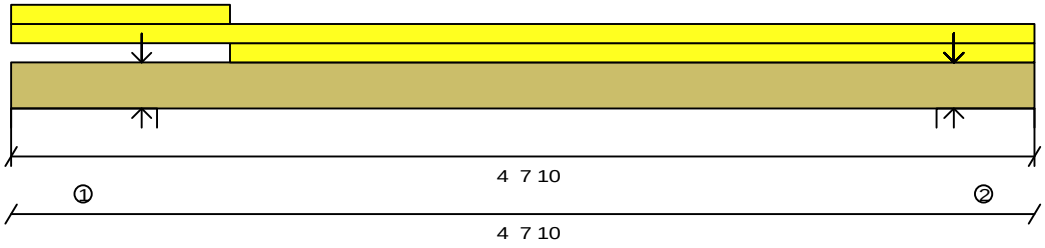
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
Member Weight: 11.8 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"		358		141		Live
Replacement Uniform (PLF)	Top	0' 0.00"	4' 7.63"		27		10		Live
Replacement Uniform (PLF)	Top	1' 0.00"	4' 7.63"		358		141		Live
Point (LBS)	Top	0' 7.13"			192		72		Live
Point (LBS)	Top	4' 3.25"			12		4		Live
Point (LBS)	Top	4' 3.25"			19		7		Live
Point (LBS)	Top	4' 3.25"			9		30		Live
Point (LBS)	Top	4' 3.25"			0		54		Live
Point (LBS)	Top	4' 3.25"			0		65		Live
Point (LBS)	Top	4' 3.25"			67		25		Live
Point (LBS)	Top	4' 3.25"			268		101		Live
Point (LBS)	Top	4' 3.25"			268		101		Live
Point (LBS)	Top	4' 3.25"			298		150		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"	1813#	--
2	4' 7.625"	Wall	N/A	N/A	1.500"	3517#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	900#	371#
2	1649#	835#

Design spans
3' 8.125"

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Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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.

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	1319.'#	35386.'#	3%	2.43'	Total Load 1.25D+1.5L
Shear	663.#	13815.#	4%	3.35'	Total Load 1.25D+1.5L
TL Deflection	0.0049"	0.1226"	L/999+	2.43'	Total Load D+L
LL Deflection	0.0034"	0.0919"	L/999+	2.43'	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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Member Data

Description: CalcG14
Comments:

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

Building Type: Residential

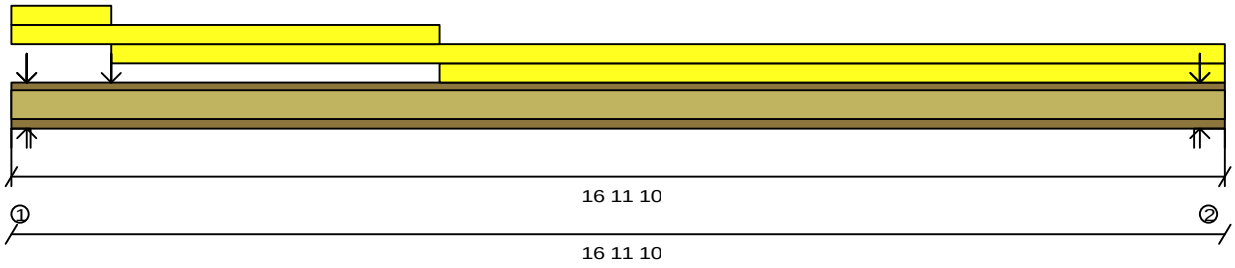
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 5.00"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	6' 0.00"		27		10		Live
Replacement Uniform (PLF)	Top	1' 5.00"	16' 11.63"		27		10		Live
Replacement Uniform (PLF)	Top	6' 0.00"	16' 11.63"		27		10		Live
Point (LBS)	Top	0' 2.75"			49		65		Snow
Point (LBS)	Top	0' 2.75"			290		187		Live
Point (LBS)	Top	1' 5.00"			383		161		Live
Point (LBS)	Top	16' 7.25"			43		146		Live
Point (LBS)	Top	16' 7.25"			536		201		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"	2313#	--
2	16' 11.625"	Wall	N/A	N/A	1.500"	2217#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	1061#	49#	557#
2	1043#	0#	522#

Design spans
16' 4.625"

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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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Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	3986.'#	9020.'#	44%	7.59'	Total Load 1.25D+1.5L
Shear	1540.#	3400.#	45%	0'	Total Load 1.25D+1.5L
End Reaction	2313.#	4100.#	56%	0'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.2986"	0.5462"	L/658	8.41'	Total Load D+L
LL Deflection	0.2162"	0.4096"	L/909	8.41'	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

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

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

Member Data

Description: CalcG15
Comments:

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

Building Type: Residential

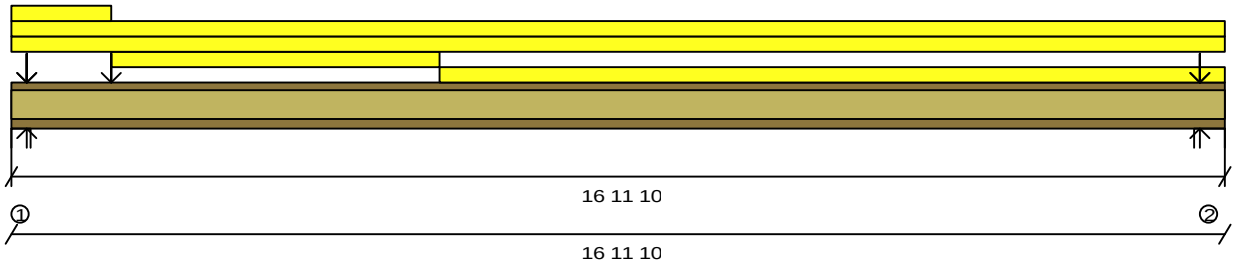
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 5.00"		9		3		Live
Additional Uniform (PLF)	Top	0' 0.00"	16' 11.63"		0		7		Live
Replacement Uniform (PLF)	Top	0' 0.00"	16' 11.63"		27		10		Live
Replacement Uniform (PLF)	Top	1' 5.00"	6' 0.00"		27		10		Live
Replacement Uniform (PLF)	Top	6' 0.00"	16' 11.63"		27		10		Live
Point (LBS)	Top	0' 2.75"			49		65		Snow
Point (LBS)	Top	0' 2.75"			290		187		Live
Point (LBS)	Top	1' 5.00"			383		161		Live
Point (LBS)	Top	16' 7.25"			43		146		Live
Point (LBS)	Top	16' 7.25"			536		201		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"	2381#	--
2	16' 11.625"	Wall	N/A	N/A	1.500"	2285#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	1061#	49#	612#
2	1043#	0#	576#

Design spans
16' 4.625"

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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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Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	4263.'#	9020.'#	47%	7.59'	Total Load 1.25D+1.5L
Shear	1608.#	3400.#	47%	0'	Total Load 1.25D+1.5L
End Reaction	2381.#	4100.#	58%	0'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.3221"	0.5462"	L/610	8.41'	Total Load D+L
LL Deflection	0.2162"	0.4096"	L/909	8.41'	Total Load L

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

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

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

Member Data

Description: CalcG16
Comments:

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

Building Type: Residential

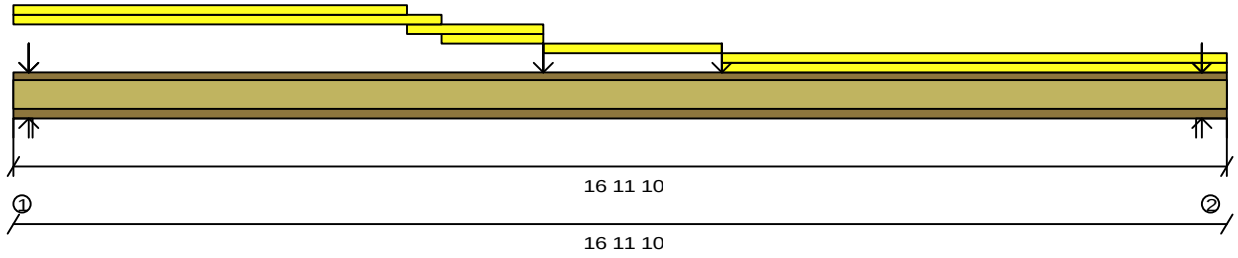
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

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"	5' 6.00"		40		15		Live
Replacement Uniform (PLF)	Top	0' 0.00"	6' 0.00"		27		10		Live
Replacement Uniform (PLF)	Top	5' 6.00"	7' 5.00"		40		15		Live
Replacement Uniform (PLF)	Top	6' 0.00"	7' 5.00"		27		10		Live
Replacement Uniform (PLF)	Top	7' 5.00"	9' 11.00"		9		3		Live
Replacement Uniform (PLF)	Top	9' 11.00"	16' 11.63"		27		10		Live
Replacement Uniform (PLF)	Top	9' 11.00"	16' 11.63"		40		15		Live
Point (LBS)	Top	0' 2.75"			49		0		Snow
Point (LBS)	Top	0' 2.75"			290		252		Live
Point (LBS)	Top	7' 5.00"			0		14		Live
Point (LBS)	Top	9' 11.00"			0		14		Live
Point (LBS)	Top	16' 7.25"			21		73		Live
Point (LBS)	Top	16' 7.25"			268		101		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"	1728#	--
2	16' 11.625"	Wall	N/A	N/A	1.500"	1597#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	766#	49#	444#
2	761#	0#	365#

Design spans
16' 4.625"

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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	3470.'#	9020.'#	38%	7.42'	Total Load 1.25D+1.5L
Shear	954.#	3400.#	28%	0'	Total Load 1.25D+1.5L
End Reaction	1728.#	4100.#	42%	0'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.2653"	0.5462"	L/741	8.41'	Total Load D+L
LL Deflection	0.1861"	0.4096"	L/999+	8.41'	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
Manufacturer's installation guide MUST be consulted to determine if web stiffeners are required at point loads

24 MAR 2017

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

Type	Qty.	Product	Length
J1	36	NJH12	18' 0"
J2	11	NJH12	16' 0"
J3	5	NJH12	14' 0"
J4	13	NJH12	12' 0"
J5	16	NJH12	6' 0"
J6	1	NJH12	2' 0"
J7	8	NJ40U12	18' 0"
G1	2	1 3/4x11 7/8 West Fraser 2.0E-	8' 0"
G2	2	1 3/4x11 7/8 West Fraser 2.0E-	10' 0"
G3	1	1 3/4x11 7/8 West Fraser 2.0E-	4' 0"
G5	2	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
G6	1	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G7	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G8	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
R1	16	11 7/8" RIMBOARD	12' 0"

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

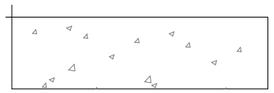
Type	Qty.	Product	Length
XXX	1	NJH12	12' 0"

All product names are trademarks of their respective owners

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/360 Live L/240 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: 5/8" OSB Glued and Nailed
Ceiling: 1/2" gypsum
Blocking: (As Shown)

All Loads are UN-FACTORED Loads



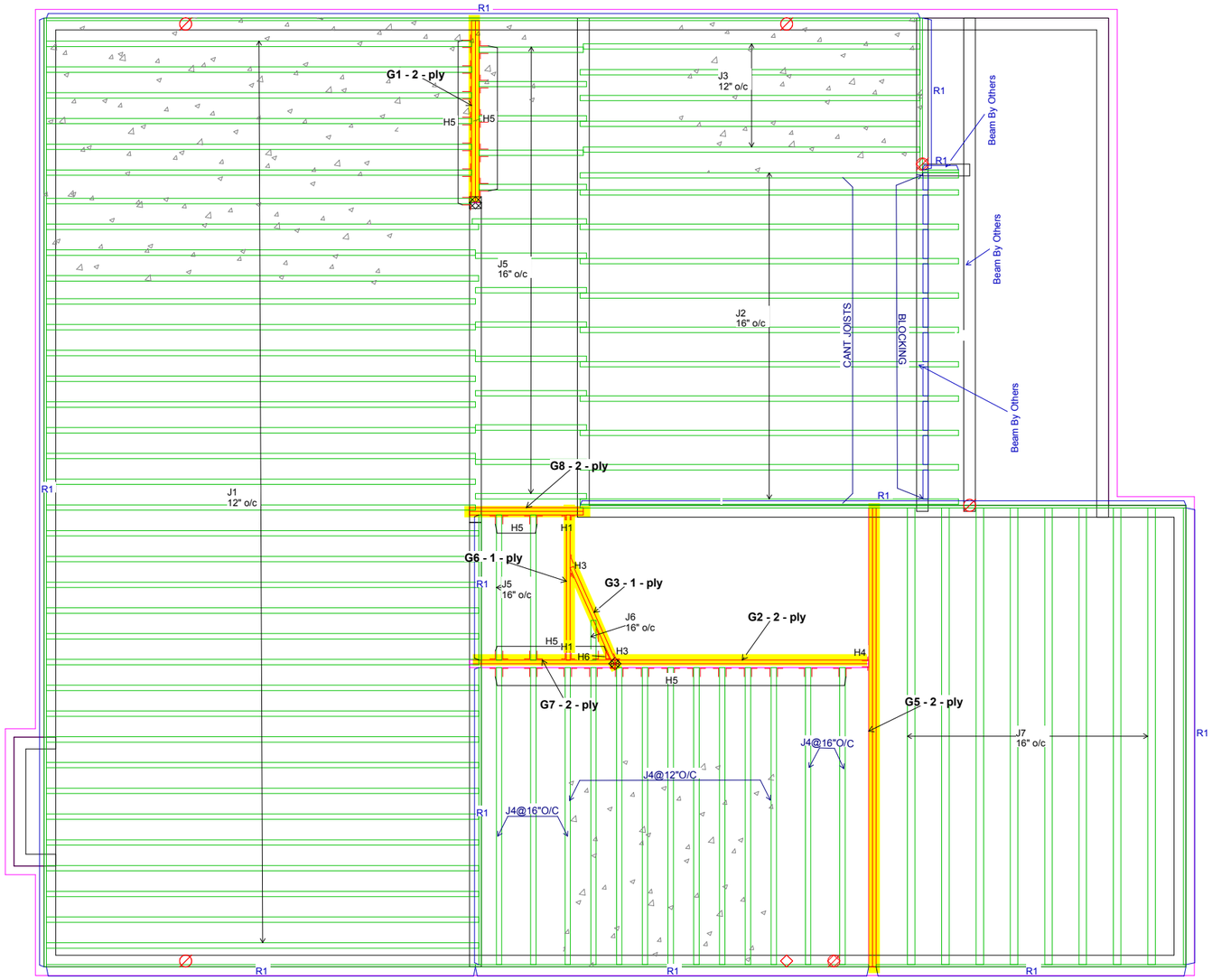
HATCH AREA INDICATED REPRESENTS CERAMIC TILED FLOOR WITH AN ADDITIONAL DEAD LOAD OF 5.00 PSF

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.

---- Connector List ----

ID#	Qty	Model Number
H1	2	HUS1.81/10
H2	1	HU9XSKL65
H3	1	LSSUI25
H4	1	HGUS410
H5	30	LT251188
H6	1	LS90



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.

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

SECOND FLOOR FRAMING

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 3 MODEL
BUILDING: REVIEWED
SCOTT SHERRIFFS APR 11, 2017
PLANS EXAMINER DATE
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BUILDING DIVISION

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

Project Tag:
JUNIPER 3 EL - 1

GREEN PARK HOMES
LECCO RIDGE
MILTON,ON

SALESMAN: RM

Time: 09:31 AM
DATE: 10/26/16
Designer: SB
Not Scaled
License Name:
KEYMARK ENTERPRISES, INC.

File: D:\SAUMIL\GREENPARK HOMES\JUNIPER 3\JUNIPER 3-1\F-JU 3 EL 1\flr JU 3el 1.L10

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

Type	Qty.	Product	Length
J1	36	NJH12	18' 0"
J2	11	NJH12	16' 0"
J3	5	NJH12	14' 0"
J4	13	NJH12	12' 0"
J5	16	NJH12	6' 0"
J6	1	NJH12	2' 0"
J7	8	NJ40U12	18' 0"
J8	1	NJH12	10' 0"
G1	2	1 3/4x11 7/8 West Fraser 2.0E-	8' 0"
G2	2	1 3/4x11 7/8 West Fraser 2.0E-	10' 0"
G3	1	1 3/4x11 7/8 West Fraser 2.0E-	4' 0"
G5	2	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
G6	1	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G7	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G8	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
R1	16	11 7/8" RIMBOARD	12' 0"

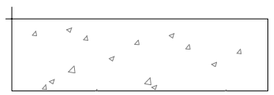
------- Miscellaneous Materials -------

Type	Qty.	Product	Length
XXX	1	NJH12	12' 0"

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/360 Live L/240 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: 5/8" OSB Glued and Nailed
Ceiling: 1/2" gypsum
Blocking: (As Shown)

All Loads are UN-FACTORED Loads



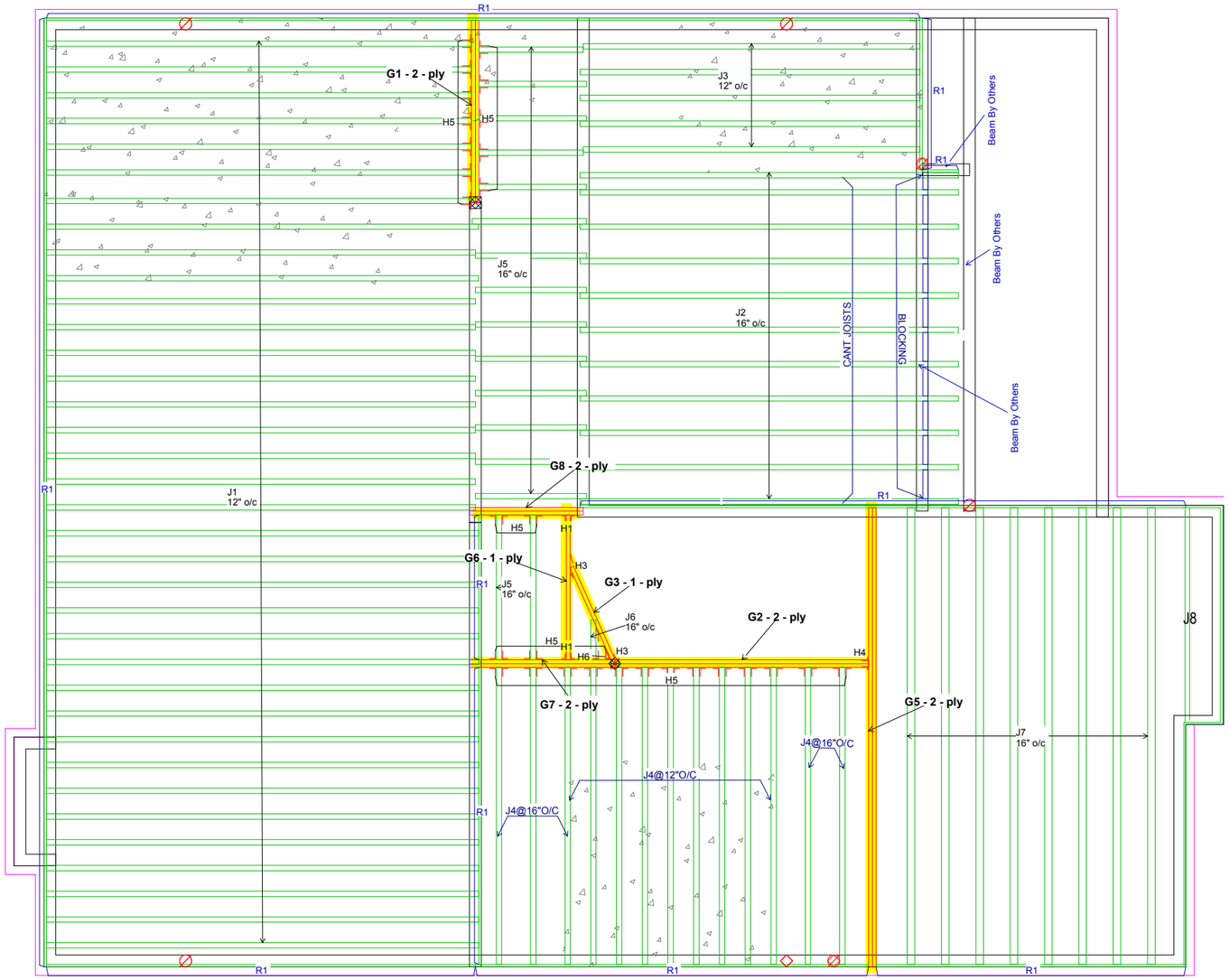
HATCH AREA INDICATED REPRESENTS CERAMIC TILED FLOOR WITH AN ADDITIONAL DEAD LOAD OF 5.00 PSF

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.

---- Connector List ----

ID#	Qty	Model Number
H1	2	HUS1.81/10
H2	1	HU9XSKL65
H3	1	LSSUI25
H4	1	HGUS410
H5	30	LT251188
H6	1	LS90



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.
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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.
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Rim parallel to joists: 1-1/8" rimboard with 2"x4" block (1/16" longer than rim depth) @ 16" o/c.
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SECOND FLOOR FRAMING

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 3 MODEL
BUILDING: REVIEWED
SCOTT SHERRIFFS APR 11, 2017
PLANS EXAMINER DATE
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BUILDING DIVISION

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

Project Tag:

JUNIPER 3 EL - 2

GREEN PARK HOMES
LECCO RIDGE
MILTON,ON

SALESMAN: RM

Time: 09:31 AM
DATE: 10/26/16
Designer: SB
Not Scaled
License Name:
KEYMARK ENTERPRISES, INC.

File: D:\SAUMIL\GREENPARK HOMES\JUNIPER 3\JUNIPER 3-1\F-JU 3 EL 1\flr JU 3el 1.L10

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

Type	Qty.	Product	Length
J1	36	NJH12	18' 0"
J2	7	NJH12	16' 0"
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J4	14	NJH12	12' 0"
J5	17	NJH12	6' 0"
J6	1	NJH12	2' 0"
J7	9	NJ40U12	18' 0"
G1	2	1 3/4x11 7/8 West Fraser 2.0E-	8' 0"
G2	2	1 3/4x11 7/8 West Fraser 2.0E-	10' 0"
G3	1	1 3/4x11 7/8 West Fraser 2.0E-	4' 0"
G5	2	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
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G7	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G8	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
R1	16	11 7/8" RIMBOARD	12' 0"

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

Type	Qty.	Product	Length
XXX	1	NJH12	8' 0"

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: 5/8" OSB Glued and Nailed
Ceiling: 1/2" gypsum
Blocking: (As Shown)

All Loads are UN-FACTORED Loads

NOTES:
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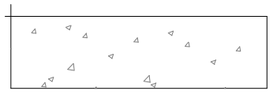

HATCH AREA INDICATED REPRESENTS CERAMIC TILED FLOOR WITH AN ADDITIONAL DEAD LOAD OF 5.00 PSF

PASS-THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.

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

ID#	Qty	Model Number
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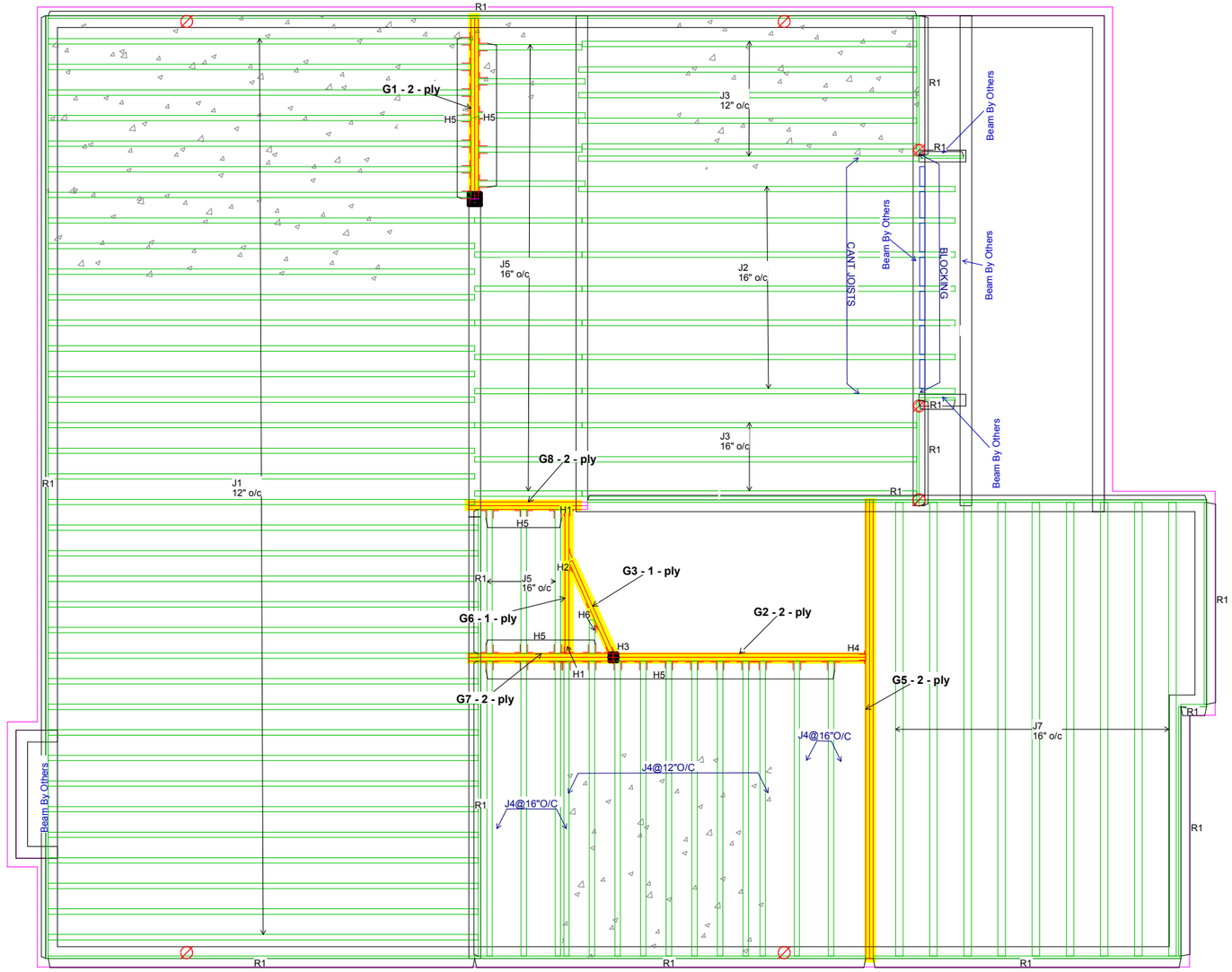
H2	1	HU9X SKL65
H3	1	LSSUI25
H4	1	HGUS410
H5	33	LT251188
H6	1	LS90



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

SECOND FLOOR FRAMING

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 3 MODEL
BUILDING: REVIEWED
SCOTT SHERRIFFS APR 11, 2017
PLANS EXAMINER DATE
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Nascor by KOTT
14 Anderson Blvd.
Uxbridge, ON.
www.nascor.ca

Project Tag:

JUNIPER 3 EL - 3

GREEN PARK HOMES
LECCO RIDGE
MILTON,ON

SALESMAN: RM

Time: 11:50 AM
DATE: 10/26/16
Designer: SB
Not Scaled
License Name:
KEYMARK ENTERPRISES, INC.

File: D:\SAUMIL\GREENPARK HOMES\JUNIPER 3\JUNIPER 3-3\F-JU 3 EL 3\flr JU 3el 3.L10

Member Data

Description: CalcG1
Comments:

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

Building Type: Residential

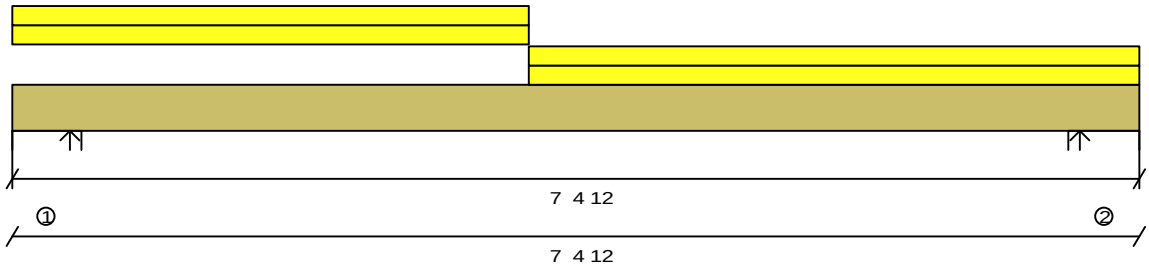
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 11.8 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"	3' 4.75"		84		31		Live
Replacement Uniform (PLF)	Top	0' 0.00"	3' 4.75"		335		154		Live
Replacement Uniform (PLF)	Top	3' 4.75"	7' 4.75"		84		40		Live
Replacement Uniform (PLF)	Top	3' 4.75"	7' 4.75"		335		168		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"	2924#	--
2	7' 4.750"	Wall	N/A	N/A	1.500"	2970#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	1387#	675#
2	1387#	711#

Design spans
6' 7.500"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	4887.'#	35386.'#	13%	3.7'	Total Load 1.25D+1.5L
Shear	2077.#	13815.#	15%	6.35'	Total Load 1.25D+1.5L
TL Deflection	0.0374"	0.2208"	L/999+	3.7'	Total Load D+L
LL Deflection	0.0249"	0.1656"	L/999+	3.7'	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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LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO
24 MAR 2017

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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Nascor by KOTT
14 Anderson Blvd.
Uxbridge, ON.
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Member Data

Description: CalcG2
Comments:

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

Building Type: Residential

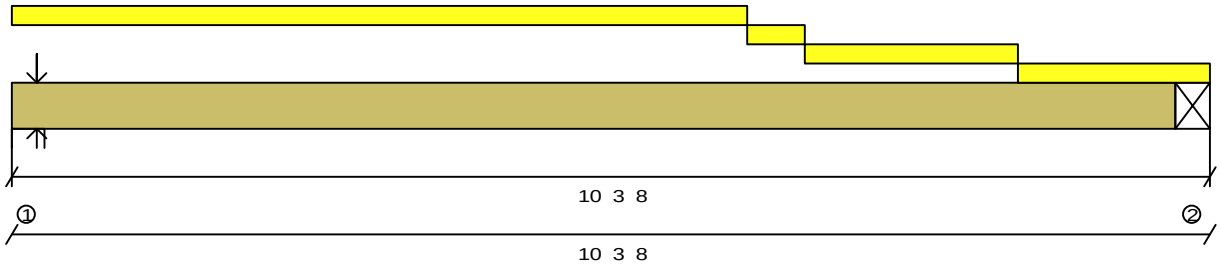
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 11.8 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"	6' 3.75"		235		102		Live
Replacement Uniform (PLF)	Top	6' 3.75"	6' 9.75"		235		88		Live
Replacement Uniform (PLF)	Top	6' 9.75"	8' 7.75"		235		88		Live
Replacement Uniform (PLF)	Top	8' 7.75"	10' 3.50"		235		88		Live
Point (LBS)	Top	0' 2.63"			210		79		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"	2824#	--
2	10' 3.500"	Girder	N/A	N/A	N/A	2371#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	1362#	625#
2	1151#	515#

Design spans
9' 9.375"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	5865.'#	35386.'#	16%	5.11'	Total Load 1.25D+1.5L
Shear	1920.#	13815.#	13%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.0841"	0.3260"	L/999+	5.11'	Total Load D+L
LL Deflection	0.0574"	0.2445"	L/999+	5.11'	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
Minimum bearing length requirements at hangared connections depend on the connection style and are not included in this design.

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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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PROVINCE OF ONTARIO
24 MAR 2017

SB
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

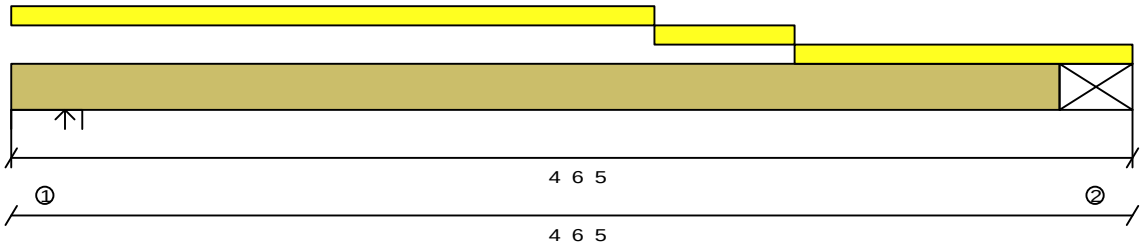
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
Member Weight: 5.9 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' 7.19"		249		93		Live
Replacement Uniform (PLF)	Top	2' 7.19"	3' 1.94"		260		98		Live
Replacement Uniform (PLF)	Top	3' 1.94"	4' 6.31"		268		100		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"	1009#	--
2	4' 6.312"	Girder	N/A	N/A	N/A	1042#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	505#	201#
2	522#	207#

Design spans
4' 0.188"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	1022.'#	17693.'#	5%	2.23'	Total Load 1.25D+1.5L
Shear	516.#	6908.#	7%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.0082"	0.1338"	L/999+	2.23'	Total Load D+L
LL Deflection	0.0059"	0.1004"	L/999+	2.23'	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: Shear
Minimum bearing length requirements at hangared connections depend on the connection style and are not included in this design.

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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

SB
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

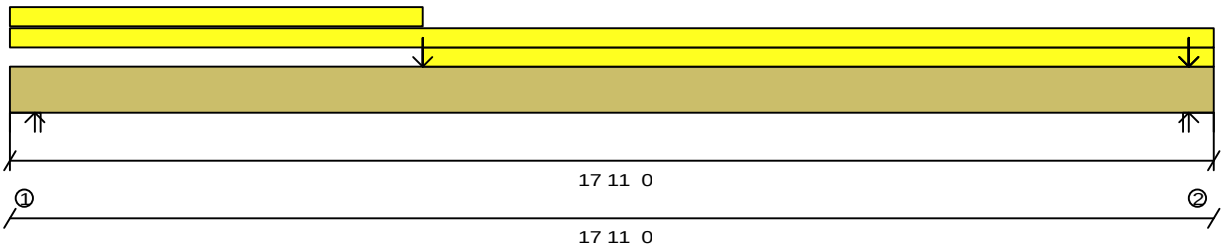
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 11.8 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"	6' 1.75"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	17' 11.00"		27		10		Live
Replacement Uniform (PLF)	Top	6' 1.75"	17' 11.00"		27		10		Live
Point (LBS)	Top	6' 1.75"			1177		537		Live
Point (LBS)	Top	17' 6.38"			0		130		Live
Point (LBS)	Top	17' 6.38"			143		143		Live
Point (LBS)	Top	17' 6.38"			329		0		Snow



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"	2477#	--
2	17' 11.000"	Wall	N/A	N/A	1.500"	2530#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	1154#	0#	597#
2	978#	329#	719#

Design spans
17' 1.750"

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Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	12864.'#	35386.'#	36%	6.15'	Total Load 1.25D+1.5L
Shear	2393.#	13815.#	17%	0.4'	Total Load 1.25D+1.5L
TL Deflection	0.4522"	0.5715"	L/454	8.1'	Total Load D+L
LL Deflection	0.2994"	0.4286"	L/687	8.1'	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
Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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

Member Data

Description: CalcG6
Comments:

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

Building Type: Residential

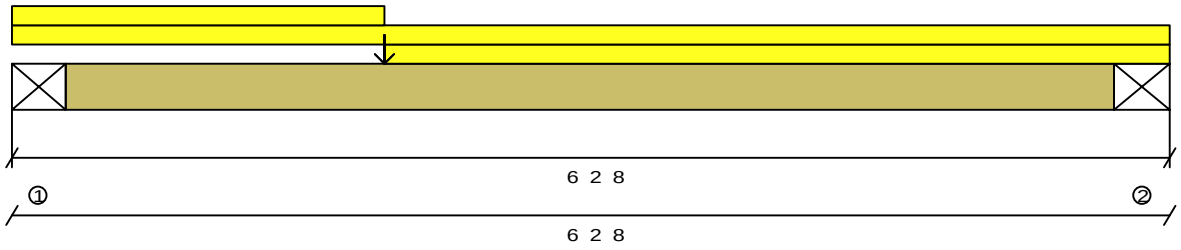
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 5.9 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"	2' 0.06"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	6' 2.50"		27		10		Live
Replacement Uniform (PLF)	Top	2' 0.06"	6' 2.50"		27		10		Live
Point (LBS)	Top	2' 0.06"			471		177		Live
Point (LBS)	Top	2' 0.06"			580		249		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	1732#	--
2	6' 2.500"	Girder	N/A	N/A	N/A	948#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	855#	359#
2	465#	200#

Design spans
5' 7.500"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	2851.'#	17693.'#	16%	2'	Total Load 1.25D+1.5L
Shear	1655.#	6908.#	23%	0.3'	Total Load 1.25D+1.5L
TL Deflection	0.0281"	0.1875"	L/999+	2.82'	Total Load D+L
LL Deflection	0.0198"	0.1406"	L/999+	2.82'	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.

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

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Member Data

Description: CalcG7
Comments:

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

Building Type: Residential

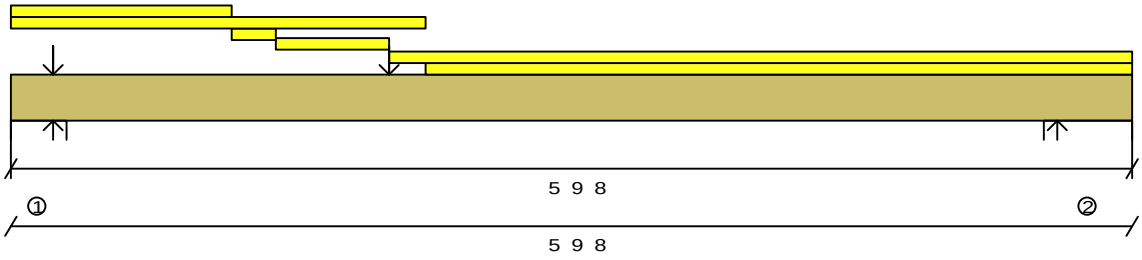
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 11.8 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' 1.75"		22		8		Live
Replacement Uniform (PLF)	Top	0' 0.00"	2' 1.75"		235		102		Live
Replacement Uniform (PLF)	Top	1' 1.75"	1' 4.50"		50		19		Live
Replacement Uniform (PLF)	Top	1' 4.50"	1' 11.50"		68		26		Live
Replacement Uniform (PLF)	Top	1' 11.50"	5' 9.50"		118		44		Live
Replacement Uniform (PLF)	Top	2' 1.75"	5' 9.50"		235		88		Live
Point (LBS)	Top	0' 2.63"			210		79		Live
Point (LBS)	Top	1' 11.50"			182		119		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"	2340#	--
2	5' 9.500"	Wall	N/A	N/A	1.500"	1954#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	1134#	511#
2	959#	412#

Design spans
5' 2.250"

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Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	2682.'#	35386.'#	7%	2.55'	Total Load 1.25D+1.5L
Shear	1389.#	13815.#	10%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.0145"	0.1729"	L/999+	2.81'	Total Load D+L
LL Deflection	0.0100"	0.1297"	L/999+	2.81'	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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Member Data

Description: CalcG8
Comments:

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

Building Type: Residential

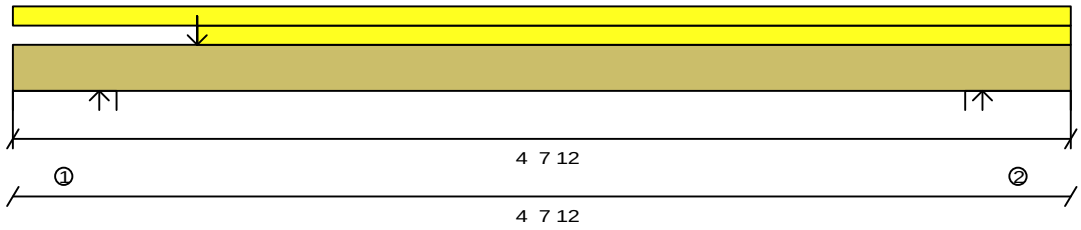
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: S:\CUSTOMERS
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 11.8 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' 7.75"		27		10		Live
Replacement Uniform (PLF)	Top	0' 9.75"	4' 7.75"		118		44		Live
Point (LBS)	Top	0' 9.75"			398		212		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"	1255#	--
2	4' 7.750"	Wall	N/A	N/A	1.500"	671#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	587#	299#
2	322#	151#

Design spans
3' 10.500"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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	749.'#	35386.'#	2%	1.94'	Total Load 1.25D+1.5L
Shear	374.#	13815.#	2%	3.29'	Total Load 1.25D+1.5L
TL Deflection	0.0030"	0.1292"	L/999+	2.32'	Total Load D+L
LL Deflection	0.0020"	0.0969"	L/999+	2.32'	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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