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

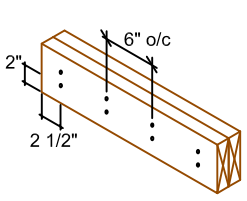
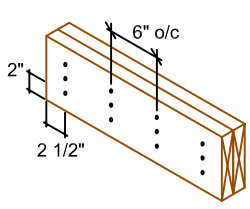
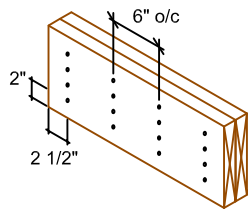
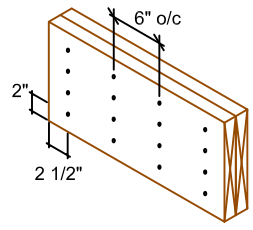
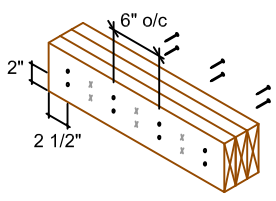
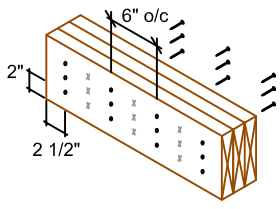
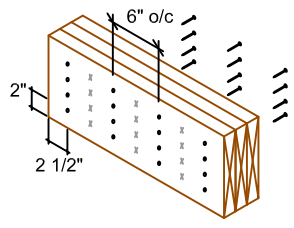
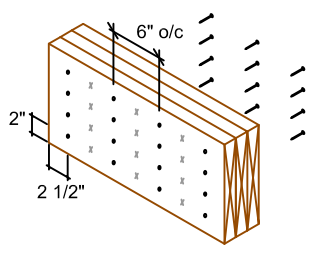
1. The building component used in construction must be the same as indicated on the drawings.
2. The building component must be installed and assembled as per specification shown on the drawing and in accordance with the manufacturer's assembly and installation.
3. Members consisting of multiple plies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

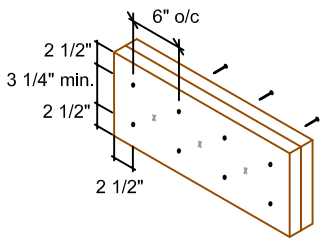
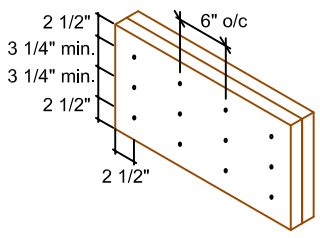
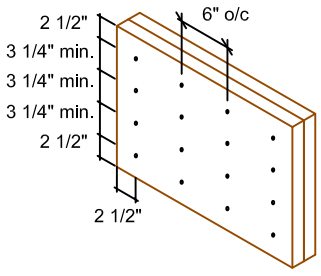
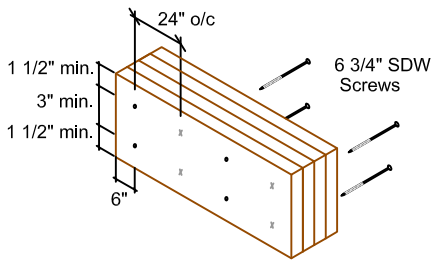
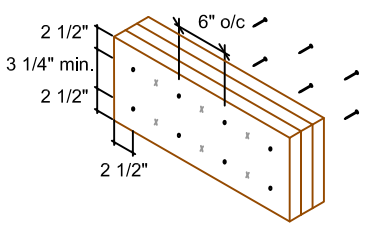
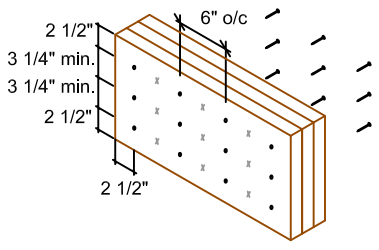
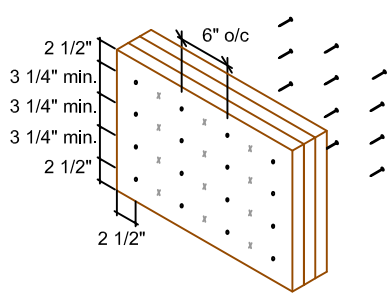
Conventional Connections (for uniform distributed loads)

	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)

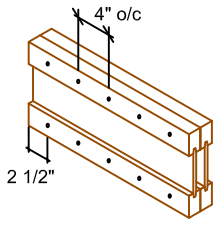
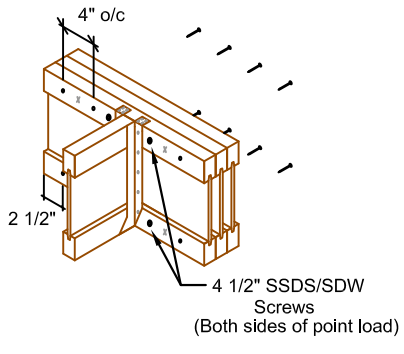
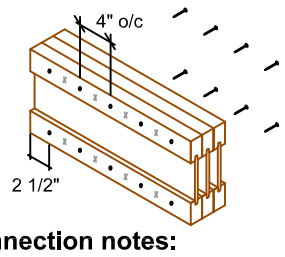
	9 1/2" LVL	11 7/8" - 14" LVL	16"-18" LVL	4-ply (Top load only)
2-ply				
3-ply				

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

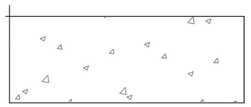
ENG JOB: PT0317-176

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

Type	Qty.	Product	Length
J1	1	NJH12	14' 0"
J2	3	NJH12	10' 0"
J3	1	NJH12	6' 0"
J4	1	NJH12	2' 0"
J5	11	NJ40U12	20' 0"
J6	20	NJ40U12	18' 0"
J7	13	NJ60H12	18' 0"
G1	2	1 3/4x11 7/8 West Fraser 2.0E-	20' 0"
G2	2	NJ12	4' 0"
G3	2	NJ12	4' 0"
G4	1	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G5	2	NJ12	2' 0"
G6	2	NJ12	2' 0"
G7	2	NJ12	20' 0"
G8	2	NJ12	20' 0"
G9	2	NJ12	20' 0"
G10	2	NJ12	20' 0"
G11	2	NJ12	20' 0"
G12	2	1 3/4x11 7/8 West Fraser 2.0E-	20' 0"
R1	11	11 7/8" RIMBOARD	12' 0"

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

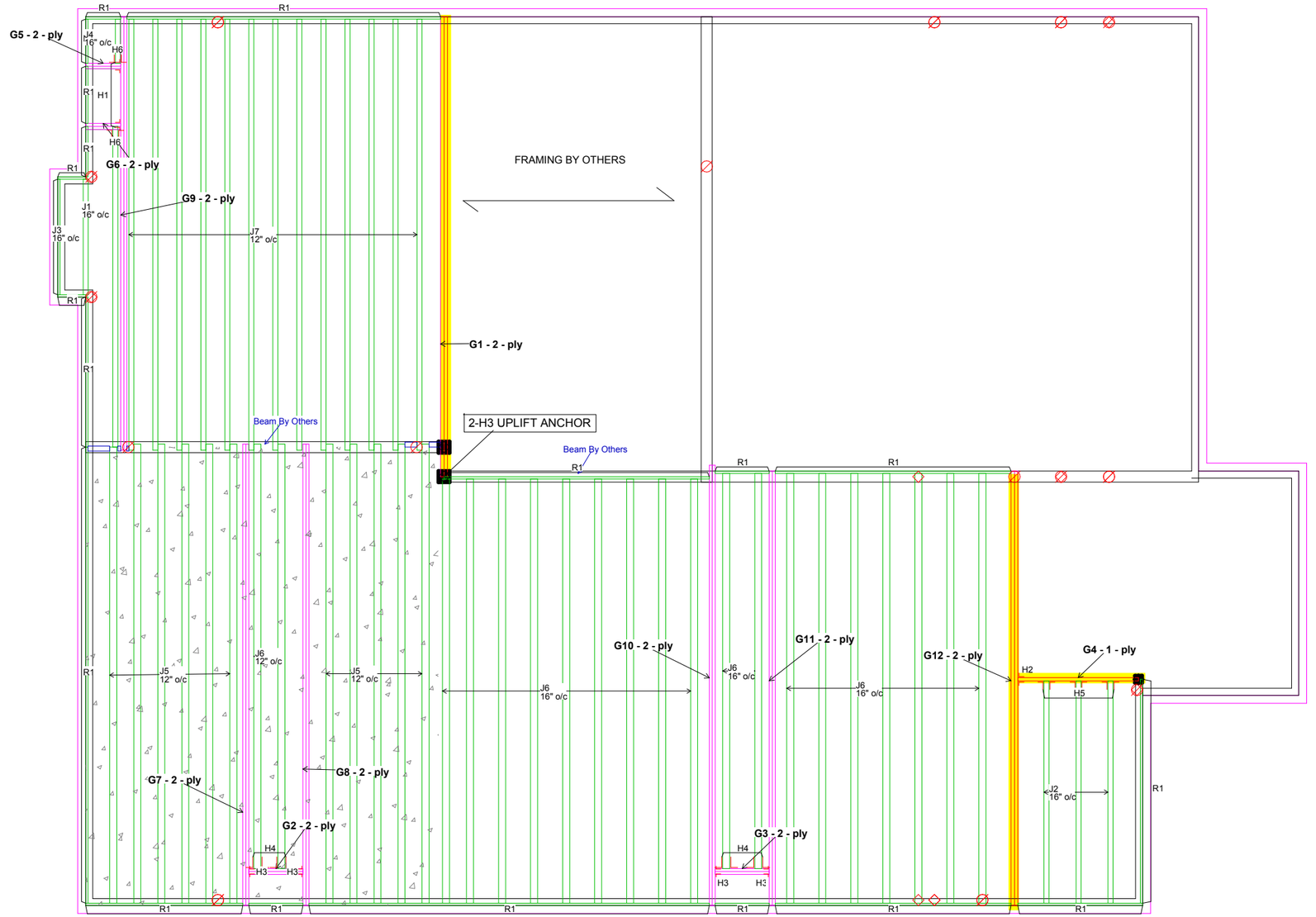
Type	Qty.	Product	Length
XXX	1	NJH12	4' 0"



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

----- Connector List ----

ID#	Qty	Model Number
H1	2	LT151188
H2	1	HUS1.81/10
H3	4	LT2-151188
H4	4	LT351188
H5	3	LT251188
H6	2	LT2-151188
H3	2	UPLIFT ANCHOR



DESIGN ASSUMPTIONS
==========

Loads:(un-factored)
T/C Live: 40 psf B/C Live: 0 psf
T/C Dead: 15 psf B/C Dead: 0 psf
Load Case: Live
Deflection Criteria:
L/480 Live L/360 Total
Building Code: OBC-2012 (Limit States Design
Building Type: Residential
Importance Category: Normal (Part 9)
Design assumes top edge continuously braced, and bottom edge unbraced.
Joist Design Includes CCMC Vibration Check
Subfloor: 3/4" OSB Glued and Nailed
Ceiling: (None)
Blocking: (As Shown)

All Loads are UN-FACTORED Loads

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.

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.

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 6 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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

FIRST FLOOR FRAMING

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

Project Tag:

JUNIPER 6 EL -1 -2-3

GREEN PARK HOMES
LECCO RIDGE
MILTON,ON

SALESMAN: RM

Time: 03:18 PM
DATE: 10/27/16
Designer: SB
Not Scaled
License Name:
KEYMARK ENTERPRISES, INC.

File: D:\SAUMIL\GREENPARK HOMES\JUNIPER 6\JUNIPER 6-1\F- JU 6 EL 1\flr JU 6 el 1.L05

KeyBeam

CS Beam 2016.7.0.11
kmBeamEngine 2016.7.0.2
Materials Database 1555

Member Data

Description: G1
Comments:

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

Building Type: Residential

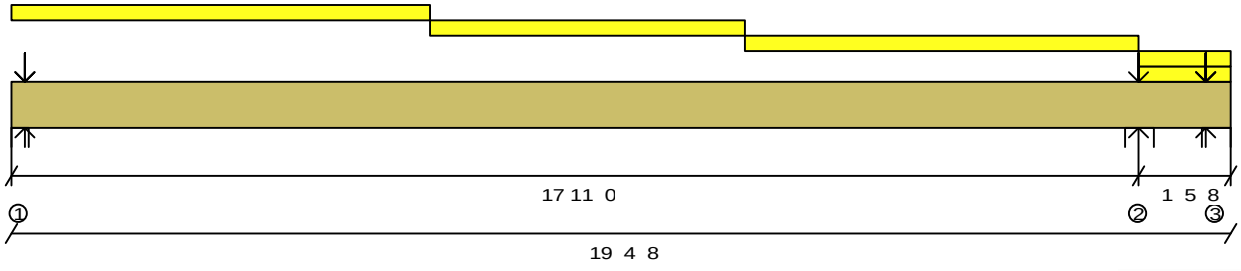
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: G1_05.kyb
Importance Category: Normal (Part 9)

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' 8.00"		27		10		Live
Replacement Uniform (PLF)	Top	6' 8.00"	11' 8.00"		27		10		Live
Replacement Uniform (PLF)	Top	11' 8.00"	17' 11.00"		27		10		Live
Replacement Uniform (PLF)	Top	17' 11.00"	19' 4.50"		27		10		Live
Replacement Uniform (PLF)	Top	17' 11.00"	19' 4.50"		53		60		Live
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			340		0		Snow
Point (LBS)	Top	0' 2.75"			435		320		Live
Point (LBS)	Top	17' 11.00"			592		254		Live
Point (LBS)	Top	18' 11.88"			0		32		Live
Point (LBS)	Top	18' 11.88"			286		116		Live
Point (LBS)	Top	18' 11.88"			306		115		Live



Bearings and Factored Reactions

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	SPF Plate (614psi)	3.500"	1.500"	1758#	--
2	17' 11.000"	Wall	SPF Plate (614psi)	5.500"	1.500"	4376#	--
3	19' 4.500"	Wall	SPF Plate (614psi)	5.500"	1.500"	552#	-1042#

LICENSED PROFESSIONAL ENGINEER
R.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	615#	340#	532#
2	1845#	0#	1288#
3	-324#	0#	-443#

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

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

Design spans
17' 8.375" 1' 0.875"

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 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.
Review gravity uplift reaction force of 1042lbs at bearing 3 and ensure that the structure can resist appropriately.
Compression edge maximum unbraced length calculation is based on ply width.

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	1535.'#	35386.'#	4%	6.68'	Odd Spans 1.25D+1.5L
Negative Moment	2484.'#	35386.'#	7%	17.92'	Total Load 1.25D+1.5L
Negative Unbrcd	2484.'#	17058.'#	14%	17.92'	Total Load 1.25D+1.5L

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

KOTT

Member Data

Description: CalcG2
Comments:

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

Building Type: Residential

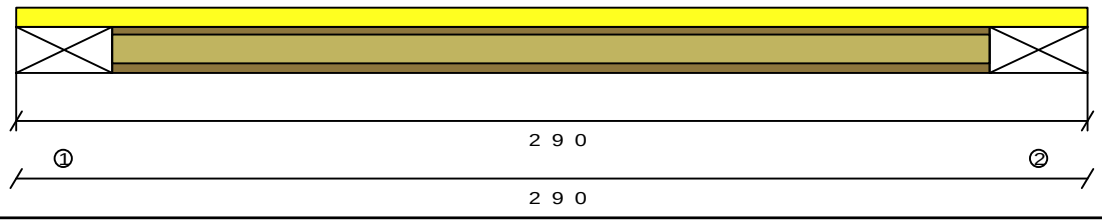
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	2' 9.00"		353		177		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	845#	--
2	2' 9.000"	Girder	N/A	N/A	N/A	845#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	398#	199#
2	398#	199#

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	475.'#	9020.'#	5%	1.38'	Total Load 1.25D+1.5L
Shear	845.#	3400.#	24%	0'	Total Load 1.25D+1.5L
TL Deflection	0.0035"	0.0750"	L/999+	1.38'	Total Load D+L
LL Deflection	0.0023"	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

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

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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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

Member Data

Description: CalcG3
Comments:

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

Building Type: Residential

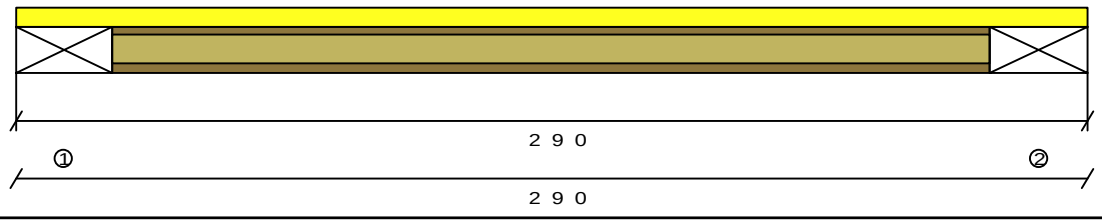
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	2' 9.00"		329		123		Live



Bearings and Factored Reactions

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

Maximum Unfactored Load Case Reactions

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

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

Design spans
2' 3.000"

Product: NJ12 2 ply

PASSES DESIGN CHECKS

Design assumes continuous lateral bracing along the top chord.
Design assumes no lateral bracing along the bottom chord.
Lateral support is required at each bearing.

Limit States Design

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

(Actual is factored load effects, Limit is design resistance)
Control: Shear
Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives
Web stiffener and minimum bearing length requirements at hangared connections depend on the connection style and are not included

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

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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

LICENSED PROFESSIONAL ENGINEER
R.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

SB
Nascor by KOTT
14 Anderson Blvd
Uxbridge, ON
www.nascor.c[illegible]

Member Data

Description: CalcG4
Comments:

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

Building Type: Residential

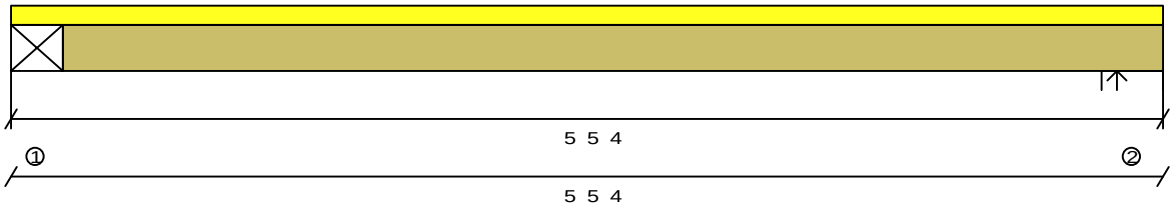
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	5' 5.25"		188		71		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	939#	--
2	5' 5.250"	Wall	N/A	N/A	1.500"	939#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	468#	190#
2	468#	190#

Design spans
4' 11.625"

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	1167.'#	17693.'#	6%	2.73'	Total Load 1.25D+1.5L
Shear	565.#	6908.#	8%	0.26'	Total Load 1.25D+1.5L
TL Deflection	0.0120"	0.1656"	L/999+	2.73'	Total Load D+L
LL Deflection	0.0085"	0.1242"	L/999+	2.73'	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.

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

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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

LICENSED PROFESSIONAL ENGINEER
P.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

SB
Nascor by KOTT
14 Anderson Blvd
Uxbridge, ON
www.nascor.c[illegible]

Member Data

Description: CalcG5
Comments:

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

Building Type: Residential

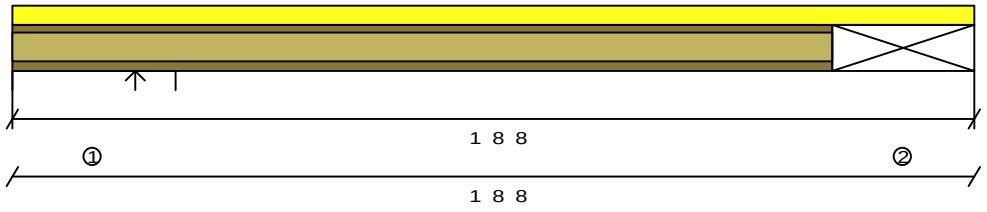
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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' 8.50"		40		15		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"	49#	--
2	1' 8.500"	Girder	N/A	N/A	N/A	49#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	25#	9#
2	25#	9#

Design spans
1' 2.875"

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	15.'#	9020.'#	0%	0.84'	Total Load 1.25D+1.5L
End Reaction	49.#	4100.#	1%	0'	Total Load 1.25D+1.5L
TL Deflection	0.0010"	0.0413"	L/999+	0.84'	Total Load D+L
LL Deflection	0.0010"	0.0310"	L/999+	0.84'	Total Load L

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

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

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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

LICENSED PROFESSIONAL ENGINEER
R.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

SB
Nascor by KOTT
14 Anderson Blvd
Uxbridge, ON
www.nascor.c[illegible]

Member Data

Description: CalcG6
Comments:

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

Building Type: Residential

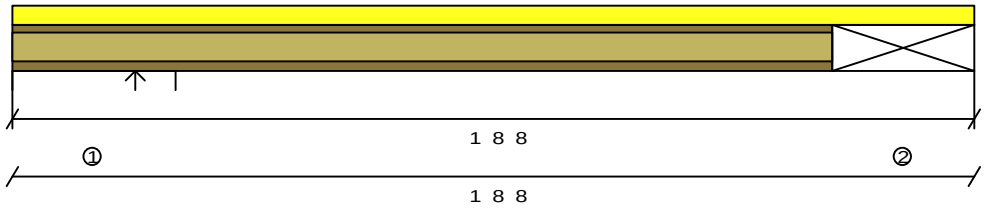
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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' 8.50"		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"	327#	--
2	1' 8.500"	Girder	N/A	N/A	N/A	327#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	166#	62#
2	166#	62#

Design spans
1' 2.875"

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	101.'#	9020.'#	1%	0.84'	Total Load 1.25D+1.5L
End Reaction	327.#	4100.#	7%	0'	Total Load 1.25D+1.5L
TL Deflection	0.0010"	0.0413"	L/999+	0.84'	Total Load D+L
LL Deflection	0.0010"	0.0310"	L/999+	0.84'	Total Load L

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

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

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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

LICENSED PROFESSIONAL ENGINEER
R.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

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

KOTT

Member Data

Description: CalcG7
Comments:

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

Building Type: Residential

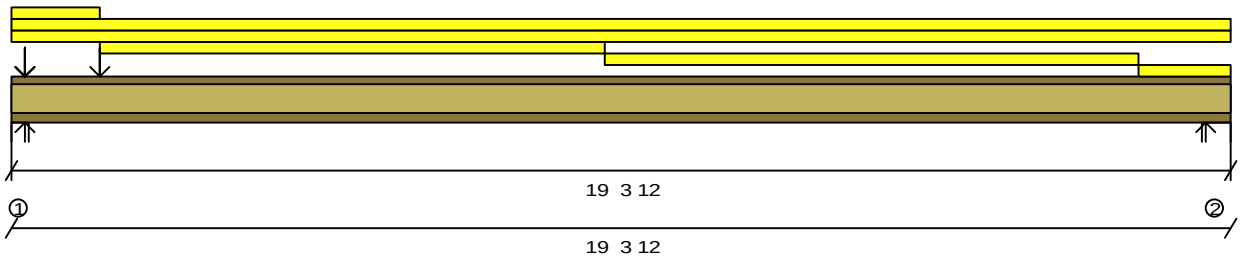
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	19' 3.75"		0		7		Live
Replacement Uniform (PLF)	Top	0' 0.00"	19' 3.75"		27		10		Live
Replacement Uniform (PLF)	Top	1' 5.00"	9' 5.00"		27		10		Live
Replacement Uniform (PLF)	Top	9' 5.00"	17' 10.25"		27		10		Live
Replacement Uniform (PLF)	Top	17' 10.25"	19' 3.75"		27		10		Live
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			340		0		Snow
Point (LBS)	Top	0' 2.75"			453		327		Live
Point (LBS)	Top	1' 5.00"			442		238		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"	3259#	--
2	19' 3.750"	Wall	N/A	N/A	1.500"	1120#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	1345#	340#	857#
2	526#	0#	264#

Design spans
18' 8.500"

Product: NJ12 2 ply

PASSES DESIGN CHECKS

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.

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	5529.'#	9020.'#	61%	9.41'	Total Load 1.25D+1.5L
Shear	1918.#	3400.#	56%	0'	Total Load 1.25D+1.5L
End Reaction	3259.#	4100.#	79%	0'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.5350"	0.6236"	L/419	9.42'	Total Load D+L
LL Deflection	0.3554"	0.4677"	L/631	9.42'	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

SB
Nascor by KOTT
14 Anderson Blvd
Uxbridge, ON
www.nascor.c[illegible]

KOTT

Member Data

Description: CalcG8
Comments:

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

Building Type: Residential

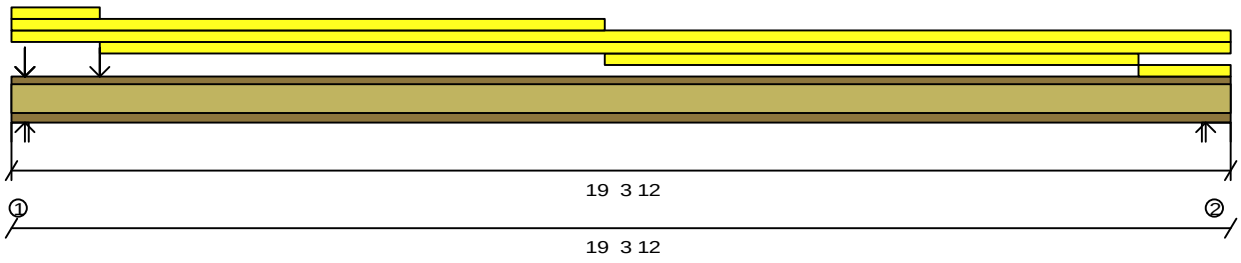
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	9' 5.00"		27		10		Live
Additional Uniform (PLF)	Top	0' 0.00"	19' 3.75"		0		7		Live
Replacement Uniform (PLF)	Top	1' 5.00"	19' 3.75"		27		10		Live
Replacement Uniform (PLF)	Top	9' 5.00"	17' 10.25"		27		10		Live
Replacement Uniform (PLF)	Top	17' 10.25"	19' 3.75"		27		10		Live
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			340		0		Snow
Point (LBS)	Top	0' 2.75"			453		327		Live
Point (LBS)	Top	1' 5.00"			442		238		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"	3259#	--
2	19' 3.750"	Wall	N/A	N/A	1.500"	1120#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	1345#	340#	857#
2	526#	0#	264#

Design spans
18' 8.500"

LICENSED PROFESSIONAL ENGINEER
PAM TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

Product: NJ12 2 ply

PASSES DESIGN CHECKS

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.

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	5529.'#	9020.'#	61%	9.41'	Total Load 1.25D+1.5L
Shear	1918.#	3400.#	56%	0'	Total Load 1.25D+1.5L
End Reaction	3259.#	4100.#	79%	0'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.5350"	0.6236"	L/419	9.42'	Total Load D+L
LL Deflection	0.3554"	0.4677"	L/631	9.42'	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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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

KOTT

Member Data

Description: CalcG9
Comments:

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

Building Type: Residential

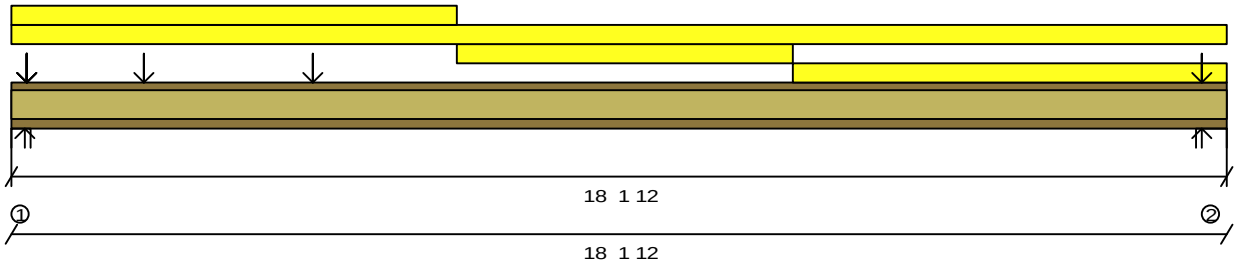
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	6' 8.00"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	18' 1.75"		27		10		Live
Replacement Uniform (PLF)	Top	6' 8.00"	11' 8.00"		27		10		Live
Replacement Uniform (PLF)	Top	11' 8.00"	18' 1.75"		27		10		Live
Point (LBS)	Top	0' 2.75"			65		0		Snow
Point (LBS)	Top	0' 2.75"			0		130		Live
Point (LBS)	Top	0' 2.75"			573		416		Live
Point (LBS)	Top	2' 0.00"			32		23		Live
Point (LBS)	Top	4' 6.00"			212		91		Live
Point (LBS)	Top	17' 9.13"			731		324		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"	2890#	--
2	18' 1.750"	Wall	N/A	N/A	1.500"	2535#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	1230#	65#	810#
2	1254#	0#	524#

Design spans
17' 6.500"

LICENSED PROFESSIONAL ENGINEER
P.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

Product: NJ12 2 ply

PASSES DESIGN CHECKS

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.

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	5090.'#	9020.'#	56%	8.11'	Total Load 1.25D+1.5L
Shear	1316.#	3400.#	38%	0'	Total Load 1.25D+1.5L
End Reaction	2890.#	4100.#	70%	0'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.4289"	0.5847"	L/490	8.99'	Total Load D+L
LL Deflection	0.3086"	0.4385"	L/682	8.99'	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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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

Member Data

Description: CalcG10
Comments:

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

Building Type: Residential

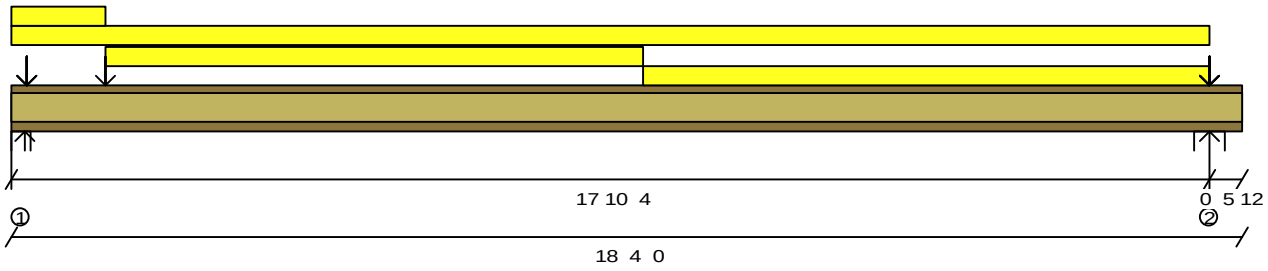
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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' 5.00"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	17' 10.25"		27		10		Live
Replacement Uniform (PLF)	Top	1' 5.00"	9' 5.00"		27		10		Live
Replacement Uniform (PLF)	Top	9' 5.00"	17' 10.25"		27		10		Live
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			340		0		Snow
Point (LBS)	Top	0' 2.75"			434		320		Live
Point (LBS)	Top	1' 5.00"			411		172		Live
Point (LBS)	Top	17' 10.25"			0		32		Live
Point (LBS)	Top	17' 10.25"			0		32		Live
Point (LBS)	Top	17' 10.25"			207		88		Live
Point (LBS)	Top	17' 10.25"			286		107		Live
Point (LBS)	Top	17' 10.25"			286		107		Live
Point (LBS)	Top	17' 10.25"			295		131		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"	2961#	--
2	17' 10.250"	Wall	N/A	N/A	1.500"	3213#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	1266#	340#	713#
2	1571#	0#	686#

Design spans
17' 7.625" 0' 3.625" (right cant)

LICENSED PROFESSIONAL ENGINEER
R.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

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.

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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	4575.'#	9020.'#	50%	8.15'	Total Load 1.25D+1.5L
Shear	1660.#	3400.#	48%	0'	Total Load 1.25D+1.5L
Cant. Shear, Rt	0.#	3400.#	0%	N/A	Total Load 1.25D+1.5L
End Reaction	3213.#	4100.#	78%	17.85'	Total Load 1.25D+1.5L
TL Deflection	0.3923"	0.5878"	L/539	9.04'	Total Load D+L
LL Deflection	0.2842"	0.4409"	L/744	9.04'	Total Load L
TL Defl., Rt.	-0.0196"	0.2000"	2L/370	18.33'	Total Load D+L
LL Defl., Rt.	-0.0142"	0.2000"	2L/510	18.33'	Total Load L

**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.

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

Member Data

Description: CalcG11
Comments:

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

Building Type: Residential

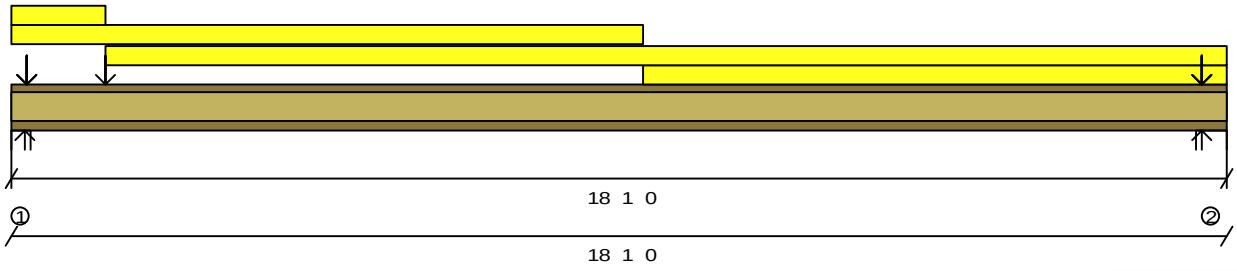
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	9' 5.00"		27		10		Live
Replacement Uniform (PLF)	Top	1' 5.00"	18' 1.00"		27		10		Live
Replacement Uniform (PLF)	Top	9' 5.00"	18' 1.00"		27		10		Live
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			340		0		Snow
Point (LBS)	Top	0' 2.75"			434		320		Live
Point (LBS)	Top	1' 5.00"			411		172		Live
Point (LBS)	Top	17' 8.38"			0		65		Live
Point (LBS)	Top	17' 8.38"			413		176		Live
Point (LBS)	Top	17' 8.38"			571		214		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"	2953#	--
2	18' 1.000"	Wall	N/A	N/A	1.500"	3019#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	1262#	340#	712#
2	1478#	0#	641#

Design spans
17' 5.750"

LICENSED PROFESSIONAL ENGINEER
P.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

Product: NJ12 2 ply

PASSES DESIGN CHECKS

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.

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	4504.'#	9020.'#	49%	8.08'	Total Load 1.25D+1.5L
Shear	1651.#	3400.#	48%	0'	Total Load 1.25D+1.5L
End Reaction	3019.#	4100.#	73%	18.08'	Total Load 1.25D+1.5L
TL Deflection	0.3799"	0.5826"	L/552	8.96'	Total Load D+L
LL Deflection	0.2752"	0.4370"	L/762	8.96'	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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

SB
Nascor by KOTT
14 Anderson Blvd
Uxbridge, ON
www.nascor.c[illegible]

KOTT

Member Data

Description: CalcG12
Comments:

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

Building Type: Residential

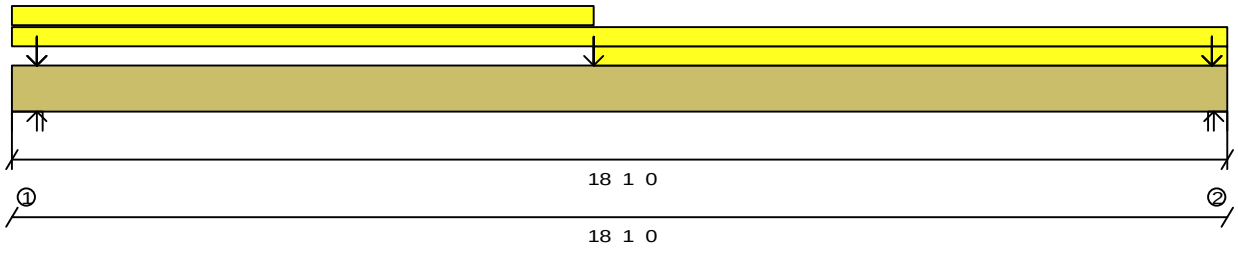
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	8' 8.00"		120		45		Live
Replacement Uniform (PLF)	Top	0' 0.00"	18' 1.00"		27		10		Live
Replacement Uniform (PLF)	Top	8' 8.00"	18' 1.00"		27		10		Live
Point (LBS)	Top	0' 4.63"			0		32		Live
Point (LBS)	Top	0' 4.63"			434		163		Live
Point (LBS)	Top	0' 4.63"			614		396		Live
Point (LBS)	Top	8' 8.00"			487		219		Live
Point (LBS)	Top	17' 10.25"			65		20		Snow
Point (LBS)	Top	17' 10.25"			0		130		Live
Point (LBS)	Top	17' 10.25"			0		130		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"	5046#	--
2	18' 1.000"	Wall	N/A	N/A	1.500"	2263#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	2360#	0#	1205#
2	880#	65#	729#

Design spans
17' 5.750"

LICENSED PROFESSIONAL ENGINEER
P. M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

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	12247.'#	35386.'#	34%	8.67'	Total Load 1.25D+1.5L
Shear	2435.#	13815.#	17%	0.4'	Total Load 1.25D+1.5L
TL Deflection	0.4699"	0.5826"	L/446	8.68'	Total Load D+L
LL Deflection	0.3171"	0.4370"	L/661	8.68'	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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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.c[illegible]

KOTT

ENG JOB: PT0317-176

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

Type	Qty.	Product	Length
J1	2	NJH12	18' 0"
J2	5	NJH12	16' 0"
J3	9	NJH12	14' 0"
J4	25	NJ60U12	20' 0"
J5	34	NJ60H12	18' 0"
G2	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G3	2	1 3/4x11 7/8 West Fraser 2.0E-	4' 0"
G6	2	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
G7	2	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
G8	3	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
R1	12	11 7/8" RIMBOARD	12' 0"

------- Beam & Ledger Material -------

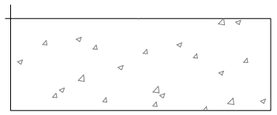
Type	Qty.	Product	Length
B1	3	1 3/4x11 7/8 West Fraser 2.0E-	12' 0"

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/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: (None)

All Loads are UN-FACTORED Loads

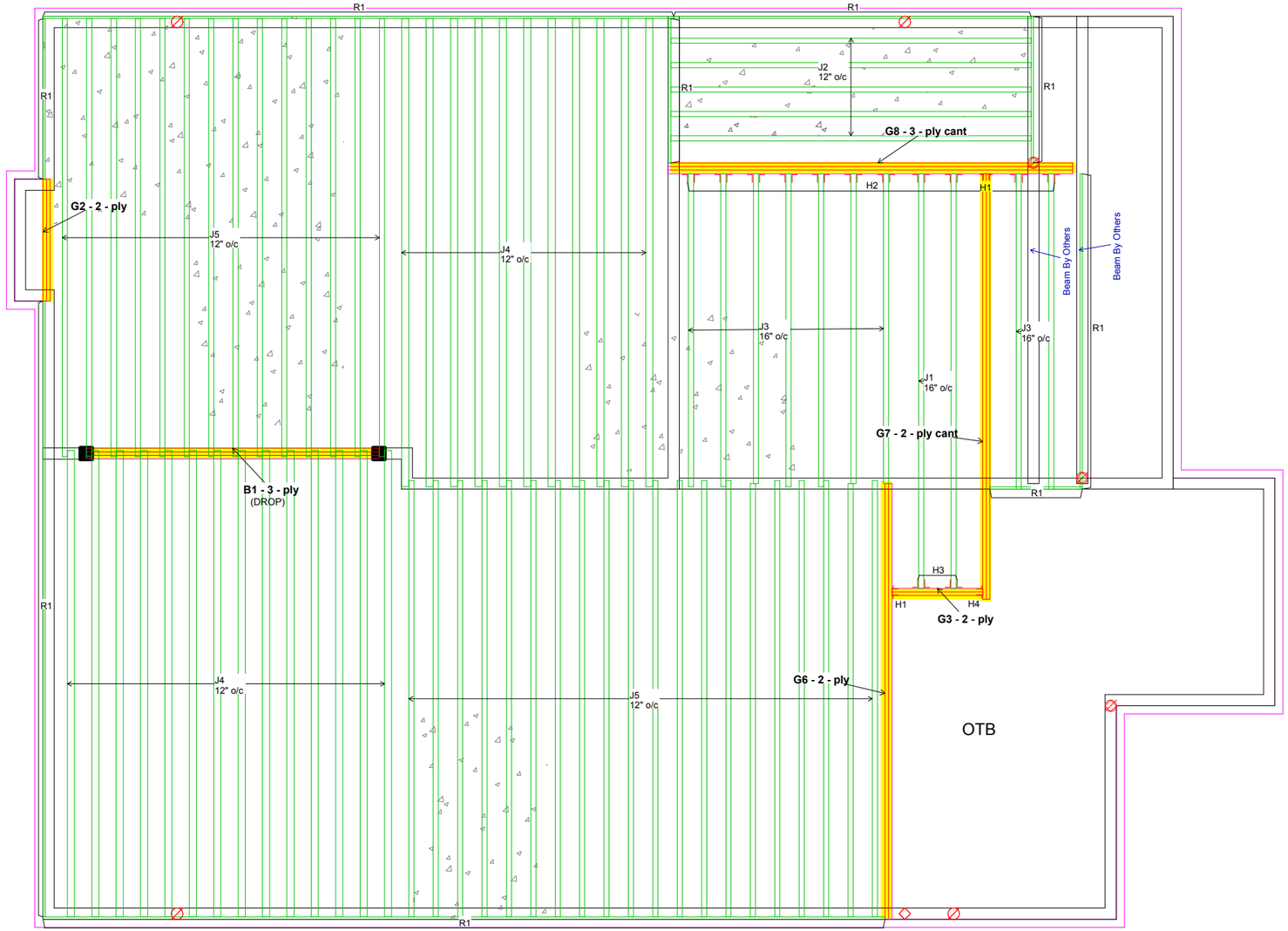
NOTES:
1. Framer to verify dimensions on the architectural drawings.
2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
3. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls.
4. Install single-ply flush window header along inside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



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.



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.

----- Connector List ----

ID#	Qty	Model Number
H1	2	HGUS410
H2	11	LT251188
H3	2	LT251188
H4	1	HUC410

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 6 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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

SECOND FLOOR FRAMING

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

Project Tag:

JUNIPER 6 EL -1 -2

GREEN PARK HOMES
LECCO RIDGE
MILTON,ON

SALESMAN: RM

Time: 03:18 PM
DATE: 10/27/16
Designer: SB
Not Scaled
License Name:
KEYMARK ENTERPRISES, INC.

File: D:\SAUMIL\GREENPARK HOMES\JUNIPER 6\JUNIPER 6-1\F- JU 6 EL 1\flr JU 6 el 1.L10

Member Data

Description: CalcG2
Comments:

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

Building Type: Residential

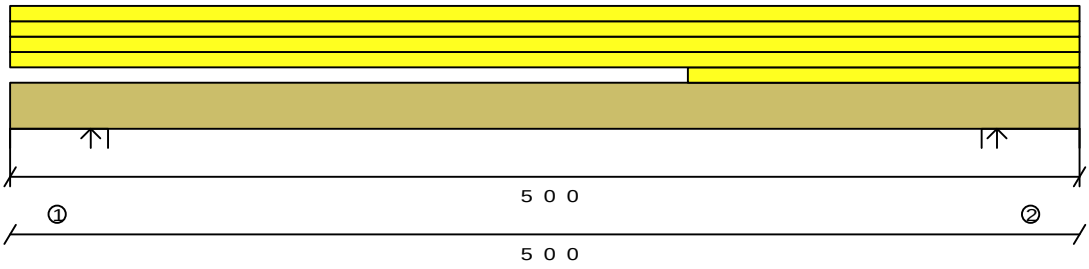
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	5' 0.00"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	5' 0.00"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	5' 0.00"		62		0		Snow
Replacement Uniform (PLF)	Top	0' 0.00"	5' 0.00"		27		108		Live
Additional Uniform (PLF)	Top	3' 2.00"	5' 0.00"		0		7		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"	618#	--
2	5' 0.000"	Wall	N/A	N/A	1.500"	626#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	133#	131#	283#
2	133#	131#	289#

Design spans
4' 2.750"

LICENSED PROFESSIONAL ENGINEER
P.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

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	656.'#	35386.'#	1%	2.5'	Total Load 1.25D+1.5L+1.00*0.5S
Shear	330.#	13815.#	2%	0.4'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.0031"	0.1410"	L/999+	2.5'	Total Load D+L+0.5S
LL Deflection	0.0013"	0.1057"	L/999+	2.5'	Total Load L+0.5S

(Actual is factored load effects, Limit is design resistance)
Bearing length from point load of top loaded beams assumed to be 3.50"
Control: Shear
Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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.c[illegible]

Member Data

Description: CalcG3
Comments:

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

Building Type: Residential

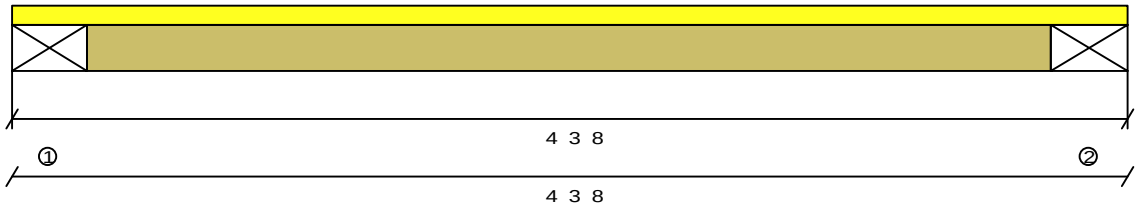
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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' 3.50"		-140		-21		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	31#	-410#
2	4' 3.500"	Girder	N/A	N/A	N/A	31#	-410#

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	-258#	22#
2	-258#	22#

Design spans
3' 8.500"

LICENSED PROFESSIONAL ENGINEER
P.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

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.
Review gravity uplift reaction force of 411lbs at bearing 1 and ensure that the structure can resist appropriately.
Review gravity uplift reaction force of 411lbs at bearing 2 and ensure that the structure can resist appropriately.
Compression edge maximum unbraced length calculation is based on ply width.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	29.'#	23001.'#	0%	2.15'	Total Load 1.4D
Negative Moment	381.'#	35386.'#	1%	2.15'	Total Load 1.25D+1.5L
Negative Unbrcd	381.'#	24096.'#	1%	2.15'	Total Load 1.25D+1.5L
Shear	192.#	13815.#	1%	0.3'	Total Load 1.25D+1.5L
TL Deflection	-0.0014"	0.1236"	L/999+	2.15'	Total Load D+L
LL Deflection	-0.0013"	0.0927"	L/999+	2.15'	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: Negative Unbrcd
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.

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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.c[illegible]
KOTT

Member Data

Description: CalcG6
Comments:

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

Building Type: Residential

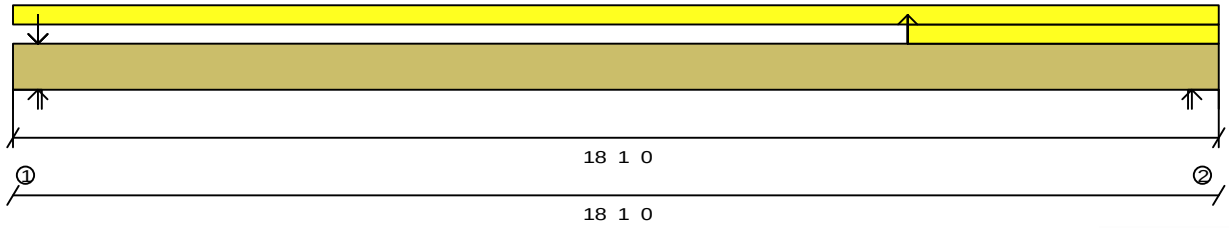
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	18' 1.00"		27		10		Live
Replacement Uniform (PLF)	Top	13' 5.00"	18' 1.00"		27		10		Live
Point (LBS)	Top	0' 4.63"			0		65		Live
Point (LBS)	Top	0' 4.63"			148		148		Live
Point (LBS)	Top	0' 4.63"			340		0		Snow
Point (LBS)	Top	13' 5.00"			-280		-15		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"	1268#	--
2	18' 1.000"	Wall	N/A	N/A	1.500"	779#	-232#

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	393#	340#	407#
2	331#	0#	226#

Design spans
17' 3.750"

LICENSED PROFESSIONAL ENGINEER
P.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

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	2760.'#	35386.'#	7%	9.04'	Total Load 1.25D+1.5L
Negative Moment	1096.'#	35386.'#	3%	13.42'	Total Load 0.9D+1.5L
Negative Unbrcd	1096.'#	5192.'#	21%	13.42'	Total Load 0.9D+1.5L
Shear	661.#	13815.#	4%	16.83'	Total Load 1.25D+1.5L
TL Deflection	0.1166"	0.5771"	L/999+	9.04'	Total Load D+L
LL Deflection	0.0661"	0.4328"	L/999+	9.04'	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: Negative Unbrcd
Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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.c[illegible]

KOTT

Member Data

Description: CalcG7
Comments:

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

Building Type: Residential

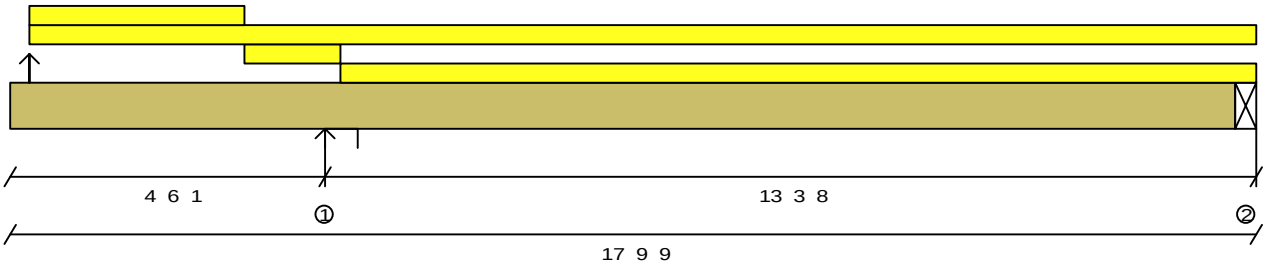
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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' 3.56"	3' 4.19"		120		45		Live
Replacement Uniform (PLF)	Top	0' 3.56"	17' 9.56"		27		10		Live
Replacement Uniform (PLF)	Top	3' 4.19"	4' 8.81"		120		45		Live
Replacement Uniform (PLF)	Top	4' 8.81"	17' 9.56"		27		10		Live
Point (LBS)	Top	0' 3.56"			-280		-15		Live



Bearings and Factored Reactions

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	4' 6.062"	Wall	N/A	N/A	1.500"	2310#	-446#
2	17' 9.562"	Girder	N/A	N/A	N/A	726#	-5#

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	1085#	546#
2	347#	165#

Design spans
4' 6.062" (left cant) 13' 0.000"

LICENSED PROFESSIONAL ENGINEER
PAUL TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

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.
Review gravity uplift reaction force of 446lbs at bearing 1 and ensure that the structure can resist appropriately.
Compression edge maximum unbraced length calculation is based on ply width.

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	2201.'#	35386.'#	6%	11.66'	Even Spans 1.25D+1.5L
Negative Moment	2705.'#	35386.'#	7%	4.51'	Total Load 1.25D+1.5L
Negative Unbrcd	2493.'#	5134.'#	48%	4.51'	Cants Only 0.9D+1.5L
Shear	981.#	13815.#	7%	3.6'	Total Load 1.25D+1.5L
TL Deflection	0.0500"	0.4334"	L/999+	11.01'	Even Spans D+L
LL Deflection	0.0383"	0.3250"	L/999+	11.01'	Even Spans L
TL Defl., Lt.	-0.0605"	0.3003"	2L/999+	0'	Total Load D+L
LL Defl., Lt.	0.0559"	0.2253"	2L/999+	0'	Cants Only 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: Negative Unbrcd
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.

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.c[illegible]

Member Data

Description: CalcG8
Comments:

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

Building Type: Residential

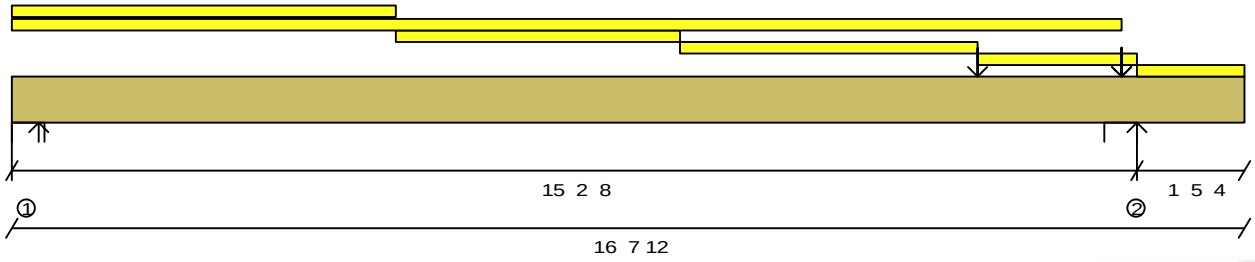
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 17.7 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"	5' 2.50"		258		106		Live
Replacement Uniform (PLF)	Top	0' 0.00"	14' 11.75"		27		10		Live
Replacement Uniform (PLF)	Top	5' 2.50"	9' 0.50"		258		97		Live
Replacement Uniform (PLF)	Top	9' 0.50"	13' 0.50"		210		78		Live
Replacement Uniform (PLF)	Top	13' 0.50"	15' 2.50"		258		97		Live
Replacement Uniform (PLF)	Top	15' 2.50"	16' 7.75"		258		178		Live
Point (LBS)	Top	13' 0.50"			90		56		Live
Point (LBS)	Top	14' 11.75"			48		0		Snow
Point (LBS)	Top	14' 11.75"			21		83		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"	4275#	--
2	15' 2.500"	Wall	N/A	N/A	1.500"	5330#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	2071#	0#	935#
2	2455#	48#	1300#

Design spans
14' 9.875" 1' 5.250" (right cant)

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 3 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	15384.'#	55200.'#	27%	7.8'	Odd Spans 1.25D+1.5L
Negative Moment	653.'#	55200.'#	1%	15.21'	Total Load 1.25D+1.5L
Negative Unbrcd	653.'#	55200.'#	1%	15.21'	Total Load 1.25D+1.5L
Shear	3698.#	20723.#	17%	14.47'	Total Load 1.25D+1.5L
TL Deflection	0.3112"	0.4941"	L/571	7.8'	Odd Spans D+L
LL Deflection	0.2169"	0.3706"	L/819	7.8'	Odd Spans L
TL Defl., Rt.	-0.0894"	0.2000"	2L/386	16.65'	Odd Spans D+L
LL Defl., Rt.	-0.0629"	0.2000"	2L/548	16.65'	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: TL Deflection
Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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.c[illegible]

CS Structure™ 2016.7 [Build 20]
kmBeamEngine 2016.7.0.2
Materials Database 1555

flr JU 6 el 1 - Level 10

ENG JOB: PT0317-176

3-23-17
9:35am
1 of 1

Member Data

Description: CalcB1
Comments:

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

Building Type: Residential

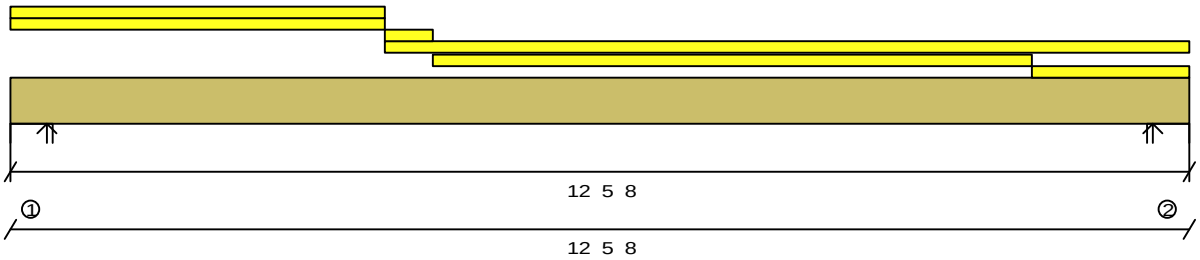
Member Type: Beam
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 17.7 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' 11.50"		358		144		Live
Replacement Uniform (PLF)	Top	0' 0.00"	3' 11.50"		382		143		Live
Replacement Uniform (PLF)	Top	3' 11.50"	4' 5.50"		358		144		Live
Replacement Uniform (PLF)	Top	3' 11.50"	12' 5.50"		382		143		Live
Replacement Uniform (PLF)	Top	4' 5.50"	10' 9.50"		358		174		Live
Replacement Uniform (PLF)	Top	10' 9.50"	12' 5.50"		358		134		Live



Bearings and Factored Reactions

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.612"	8803#	--
2	12' 5.500"	Wall	N/A	N/A	1.620"	8844#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	4324#	1853#
2	4324#	1886#

Design spans
11' 8.250"

LICENSED PROFESSIONAL ENGINEER
R.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 3 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	25918.'#	55200.'#	46%	6.23'	Total Load 1.25D+1.5L
Shear	7380.#	20723.#	35%	11.49'	Total Load 1.25D+1.5L
TL Deflection	0.3389"	0.3896"	L/413	6.23'	Total Load D+L
LL Deflection	0.2354"	0.2922"	L/595	6.23'	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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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.c[illegible]

ENG JOB: PT0317-176

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

Type	Qty.	Product	Length
J1	2	NJH12	18' 0"
J2	5	NJ60H12	18' 0"
J3	9	NJH12	14' 0"
J4	25	NJ60U12	20' 0"
J5	34	NJ60H12	18' 0"
G2	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G3	2	1 3/4x11 7/8 West Fraser 2.0E-	4' 0"
G6	2	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
G7	2	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
G8	3	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
R1	12	11 7/8" RIMBOARD	12' 0"

------- Beam & Ledger Material -------

Type	Qty.	Product	Length
B1	3	1 3/4x11 7/8 West Fraser 2.0E-	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/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: (None)

All Loads are UN-FACTORED Loads

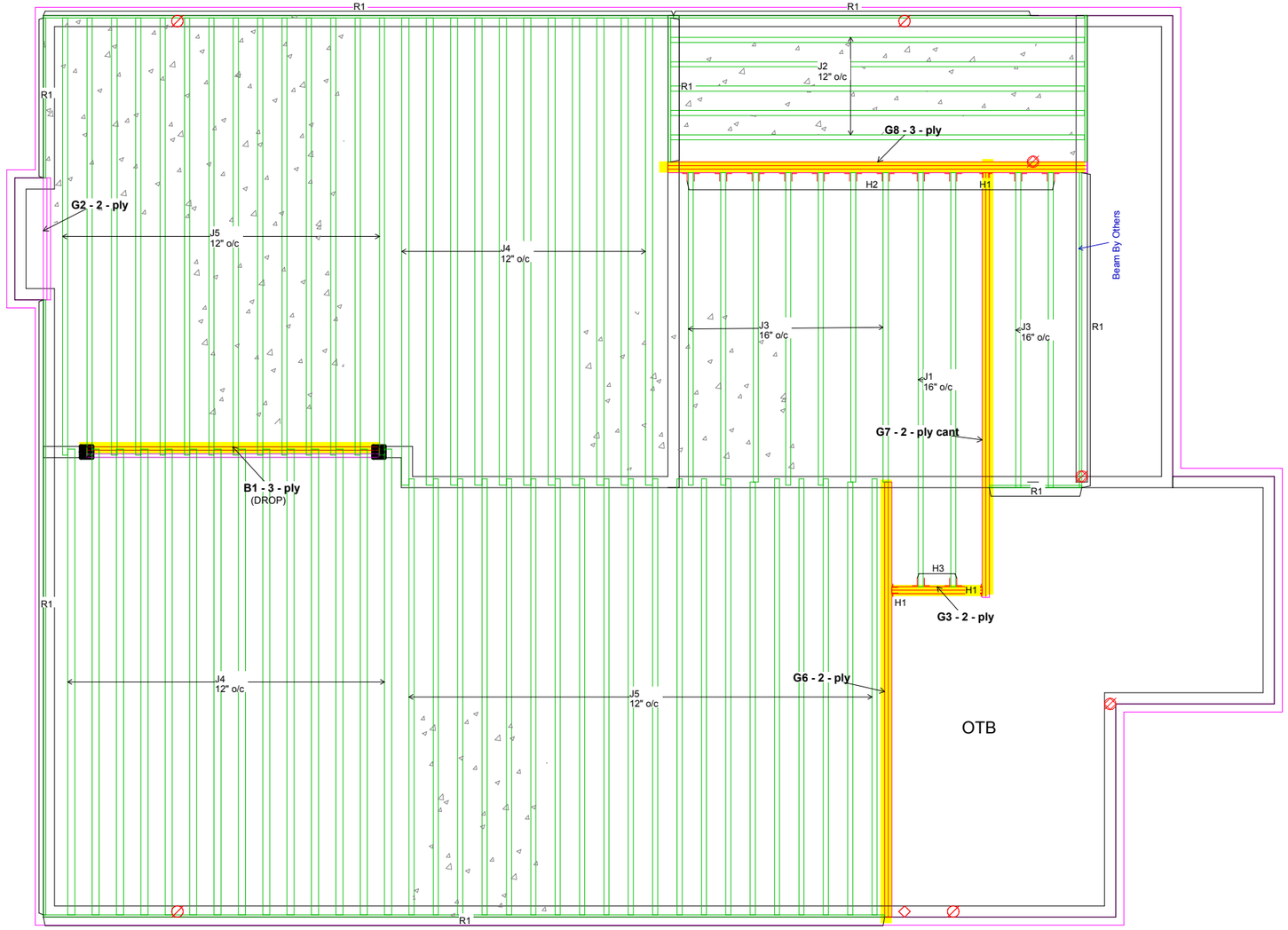
NOTES:
1. Framer to verify dimensions on the architectural drawings.
2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
3. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls.
4. Install single-ply flush window header along inside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

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

HATCH AREA 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.



SECOND FLOOR FRAMING

----- Connector List ----

ID#	Qty	Model Number
H1	2	HGUS410
H2	11	LT251188
H3	2	LT251188
H4	1	HUC410

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 6 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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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

Project Tag:

JUNIPER 6 EL - 3

GREEN PARK HOMES
LECCO RIDGE
MILTON,ON

SALESMAN: RM

Time: 03:18 PM
DATE: 10/27/16
Designer: SB
Not Scaled
License Name:
KEYMARK ENTERPRISES, INC.

File: D:\SAUMIL\GREENPARK HOMES\JUNIPER 6\JUNIPER 6-1\F- JU 6 EL 1\flr JU 6 el 1.L10

Member Data

Description: CalcG2
Comments:

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

Building Type: Residential

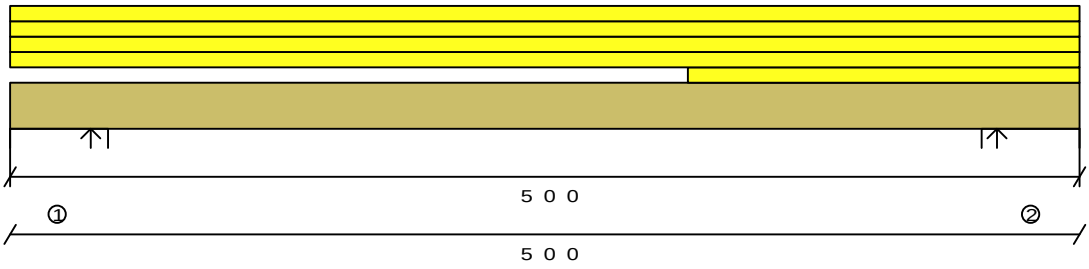
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	5' 0.00"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	5' 0.00"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	5' 0.00"		62		0		Snow
Replacement Uniform (PLF)	Top	0' 0.00"	5' 0.00"		27		108		Live
Additional Uniform (PLF)	Top	3' 2.00"	5' 0.00"		0		7		Live



Bearings and Factored Reactions

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravit Uplif
1	0' 0.000"	Wall	N/A	N/A	1.500"	618#	--
2	5' 0.000"	Wall	N/A	N/A	1.500"	626#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	133#	131#	283#
2	133#	131#	289#

Design spans
4' 2.750"

LICENSED PROFESSIONAL ENGINEER
P.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

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	656.'#	35386.'#	1%	2.5'	Total Load 1.25D+1.5L+1.00*0.5S
Shear	330.#	13815.#	2%	0.4'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.0031"	0.1410"	L/999+	2.5'	Total Load D+L+0.5S
LL Deflection	0.0013"	0.1057"	L/999+	2.5'	Total Load L+0.5S

(Actual is factored load effects, Limit is design resistance)
Bearing length from point load of top loaded beams assumed to be 3.50"
Control: Shear
Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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.c[illegible]

Member Data

Description: CalcG3
Comments:

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

Building Type: Residential

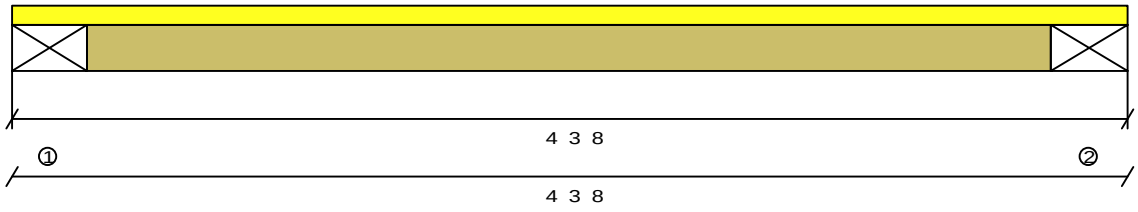
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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' 3.50"		-140		-21		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	31#	-410
2	4' 3.500"	Girder	N/A	N/A	N/A	31#	-410

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	-258#	22#
2	-258#	22#

Design spans
3' 8.500"

LICENSED PROFESSIONAL ENGINEER
PAUL TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

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.
Review gravity uplift reaction force of 411lbs at bearing 1 and ensure that the structure can resist appropriately.
Review gravity uplift reaction force of 411lbs at bearing 2 and ensure that the structure can resist appropriately.
Compression edge maximum unbraced length calculation is based on ply width.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	29.'#	23001.'#	0%	2.15'	Total Load 1.4D
Negative Moment	381.'#	35386.'#	1%	2.15'	Total Load 1.25D+1.5L
Negative Unbrcd	381.'#	24096.'#	1%	2.15'	Total Load 1.25D+1.5L
Shear	192.#	13815.#	1%	0.3'	Total Load 1.25D+1.5L
TL Deflection	-0.0014"	0.1236"	L/999+	2.15'	Total Load D+L
LL Deflection	-0.0013"	0.0927"	L/999+	2.15'	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: Negative Unbrcd
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.

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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.c[illegible]

Member Data

Description: CalcG6
Comments:

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

Building Type: Residential

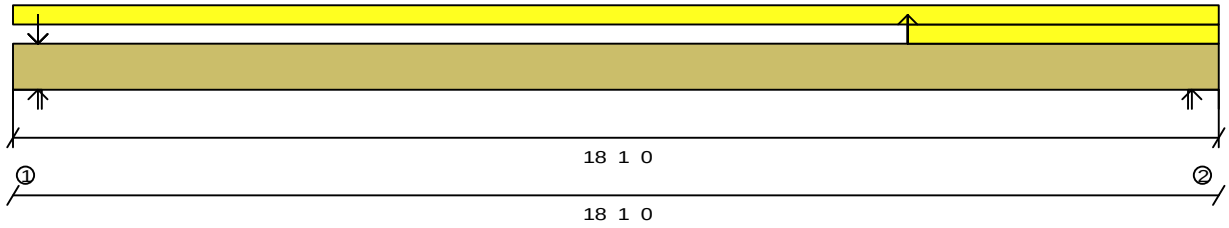
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total 0.720" max. LL
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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"	18' 1.00"		27		10		Live
Replacement Uniform (PLF)	Top	13' 5.00"	18' 1.00"		27		10		Live
Point (LBS)	Top	0' 4.63"			0		65		Live
Point (LBS)	Top	0' 4.63"			148		148		Live
Point (LBS)	Top	0' 4.63"			340		0		Snow
Point (LBS)	Top	13' 5.00"			-280		-15		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"	1268#	--
2	18' 1.000"	Wall	N/A	N/A	1.500"	779#	-232

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	393#	340#	407#
2	331#	0#	226#

Design spans
17' 3.750"

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	2760.'#	35386.'#	7%	9.04'	Total Load 1.25D+1.5L
Negative Moment	1096.'#	35386.'#	3%	13.42'	Total Load 0.9D+1.5L
Negative Unbrcd	1096.'#	5192.'#	21%	13.42'	Total Load 0.9D+1.5L
Shear	661.#	13815.#	4%	16.83'	Total Load 1.25D+1.5L
TL Deflection	0.1166"	0.5771"	L/999+	9.04'	Total Load D+L
LL Deflection	0.0661"	0.4328"	L/999+	9.04'	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: Negative Unbrcd
Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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.c[illegible]

Member Data

Description: CalcG7
Comments:

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

Building Type: Residential

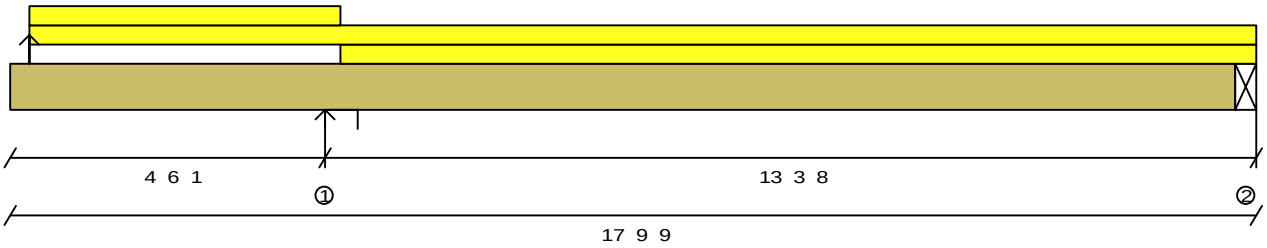
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

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' 3.56"	4' 8.81"		120		45		Live
Replacement Uniform (PLF)	Top	0' 3.56"	17' 9.56"		27		10		Live
Replacement Uniform (PLF)	Top	4' 8.81"	17' 9.56"		27		10		Live
Point (LBS)	Top	0' 3.56"			-280		-15		Live



Bearings and Factored Reactions

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	4' 6.062"	Wall	N/A	N/A	1.500"	2310#	-446#
2	17' 9.562"	Girder	N/A	N/A	N/A	726#	-5#

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	1085#	546#
2	347#	165#

Design spans
4' 6.062" (left cant) 13' 0.000"

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.
Review gravity uplift reaction force of 446lbs at bearing 1 and ensure that the structure can resist appropriately.
Compression edge maximum unbraced length calculation is based on ply width.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	2201.'#	35386.'#	6%	11.66'	Even Spans 1.25D+1.5L
Negative Moment	2705.'#	35386.'#	7%	4.51'	Total Load 1.25D+1.5L
Negative Unbrcd	2493.'#	5134.'#	48%	4.51'	Cants Only 0.9D+1.5L
Shear	981.#	13815.#	7%	3.6'	Total Load 1.25D+1.5L
TL Deflection	0.0500"	0.4334"	L/999+	11.01'	Even Spans D+L
LL Deflection	0.0383"	0.3250"	L/999+	11.01'	Even Spans L
TL Defl., Lt.	-0.0605"	0.3003"	2L/999+	0'	Total Load D+L
LL Defl., Lt.	0.0559"	0.2253"	2L/999+	0'	Cants Only 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: Negative Unbrcd
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.

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.com

Member Data

Description: CalcG8
Comments:

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

Building Type: Residential

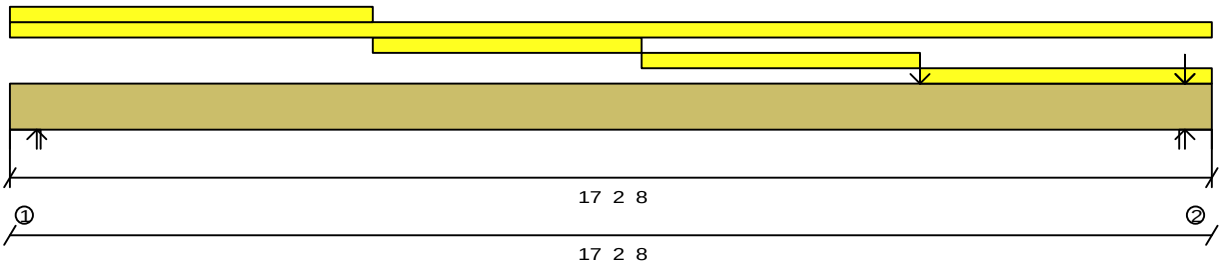
Member Type: Girder
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 17.7 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"	5' 2.50"		258		106		Live
Replacement Uniform (PLF)	Top	0' 0.00"	17' 2.50"		27		10		Live
Replacement Uniform (PLF)	Top	5' 2.50"	9' 0.50"		258		97		Live
Replacement Uniform (PLF)	Top	9' 0.50"	13' 0.50"		210		78		Live
Replacement Uniform (PLF)	Top	13' 0.50"	17' 2.50"		258		97		Live
Point (LBS)	Top	13' 0.50"			90		55		Live
Point (LBS)	Top	16' 9.88"			49		0		Snow
Point (LBS)	Top	16' 9.88"			22		86		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"	4754#	--
2	17' 2.500"	Wall	N/A	N/A	1.500"	4876#	--

Maximum Unfactored Load Case Reactions

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

	Live	Snow	Dead
1	2295#	0#	1049#
2	2309#	49#	1110#

Design spans
16' 5.250"

LICENSED PROFESSIONAL ENGINEER
R.M. TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 3 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	19046.'#	55200.'#	34%	8.6'	Total Load 1.25D+1.5L
Shear	4165.#	20723.#	20%	0.4'	Total Load 1.25D+1.5L
TL Deflection	0.4711"	0.5479"	L/418	8.6'	Total Load D+L
LL Deflection	0.3249"	0.4109"	L/607	8.6'	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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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.c[illegible]

CS Structure™ 2016.7 [Build 20]
kmBeamEngine 2016.7.0.2
Materials Database 1555

flr JU 6 el 3 - Level 10

ENG JOB: PT0317-176 3-29-17
8:59am
1 of 1

Member Data

Description: CalcB1
Comments:

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

Building Type: Residential

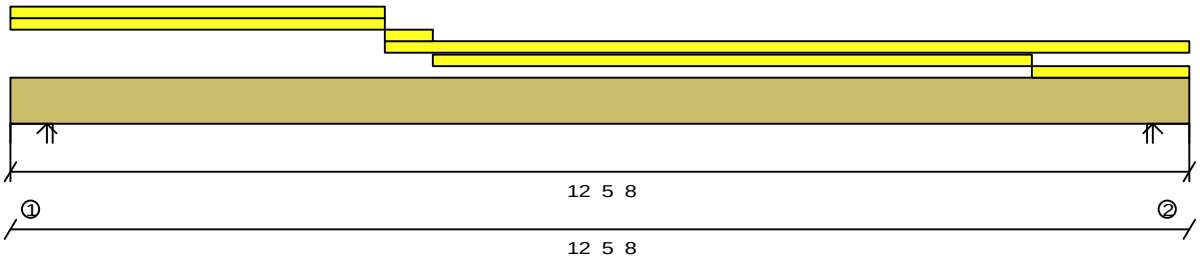
Member Type: Beam
Top Lateral Bracing: Continuous
Bottom Lateral Bracing: None
Moisture Condition: Dry
Deflection Criteria: L/480 live, L/360 total
Deck Connection: Nailed
Filename: D:\SAUMIL\GR
Importance Category: Normal (Part 9)

Application: Floor

Building Code: OBC-2012
0.720" max. LL
Member Weight: 17.7 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' 11.50"		358		144		Live
Replacement Uniform (PLF)	Top	0' 0.00"	3' 11.50"		382		143		Live
Replacement Uniform (PLF)	Top	3' 11.50"	4' 5.50"		358		144		Live
Replacement Uniform (PLF)	Top	3' 11.50"	12' 5.50"		382		143		Live
Replacement Uniform (PLF)	Top	4' 5.50"	10' 9.50"		358		174		Live
Replacement Uniform (PLF)	Top	10' 9.50"	12' 5.50"		358		134		Live



Bearings and Factored Reactions

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.612"	8803#	--
2	12' 5.500"	Wall	N/A	N/A	1.620"	8844#	--

Maximum Unfactored Load Case Reactions

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

	Live	Dead
1	4324#	1853#
2	4324#	1886#

Design spans
11' 8.250"

LICENSED PROFESSIONAL ENGINEER
PAUL TREVISAN
100136551
March 23rd, 2017
PROVINCE OF ONTARIO

Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 3 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	25918.'#	55200.'#	46%	6.23'	Total Load 1.25D+1.5L
Shear	7380.#	20723.#	35%	11.49'	Total Load 1.25D+1.5L
TL Deflection	0.3389"	0.3896"	L/413	6.23'	Total Load D+L
LL Deflection	0.2354"	0.2922"	L/595	6.23'	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

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 6
BUILDING DIVISION

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.c[illegible]