## **Engineering Note Page (ENP-2)**

**REVISION 2018-10-17** 

## 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 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 transfer blocks. Structural elements such as walls, posts, connectors, and transfer 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 floor joists is to be carried out in accordance with the current edition of the manufacturer's literature available at http://www.kottgroup.com.

## 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 "M Connection Details".
- 4. Pass-thru transfer block framing is required at all point loads over bearings.

HANDLING AND INSTALLATION

HANDLING AND INSTALLATION

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

These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Ontario Building Code, as amephded. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times. authorization.

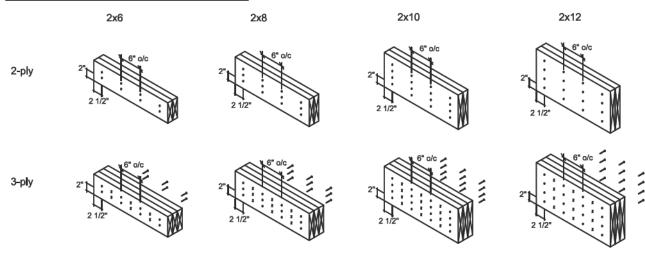
These plans have been reviewed for use with the

East Gwillimbury

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



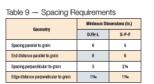
## **Conventional Connections**

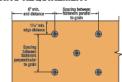


Conventional connection notes:

- -Nails to be 3" long wire nails.
- -Nalls to be located 2" mln. from the top and bottom of the member. Start all nalls 2 1/2" mln. from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nall driven from the opposite side.

#### SIMPSON SDW SPACING REQUIREMENT





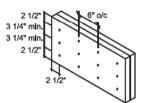
Spacing Requirements

## LVL Connections

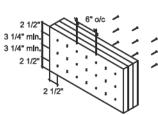
HEAD OF ALL SPECIFIED NAILS AND SCREWS MUST BE ON THE LOADED SIDE

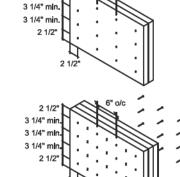
9 1/2" LVL

2 1/2"
3 1/4" min.
2 1/2"



11 7/8" - 14" LVL



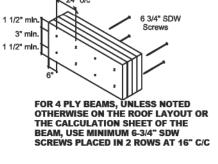


16"-18" LVL

2 1/2"

3 1/4" mln





## LVL connection notes:

2 1/2

- -LVL ply width is 1-3/4"
- -Nalls to be 3 1/2" common wire nalls.
- -Nails to be located 2 1/2" min. from the top and bottom of the member.
- -Minimum 3 1/4" spacing between rows.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nall or screw driven from the opposite side.

# East Gwillimbury Building Standards Branch BCIN #16487

These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

	Discipline	Reviewer	BCIN	Date
_	Building Code	H. Authier	43236	2021-02-08
	Sewage System			
Т	Zoning			

Ottawa, ON K2H 7V1 613-838-2775

KOT

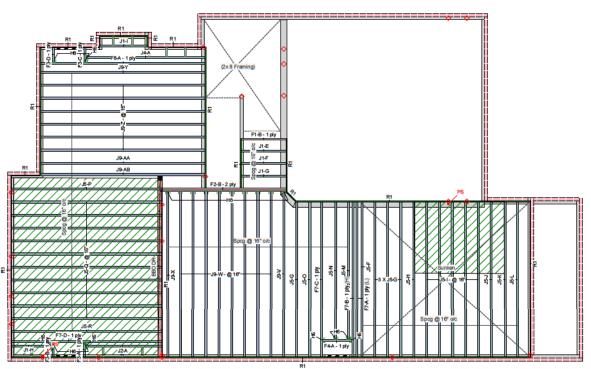
## Multiple Member Connections

All connections are for uniformly distributed loads.

For multi-ply connections of I-joists, refer to Manufacturer's Installation Guide



Ground Floor



READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE EMP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER
CONNECTION DETAIL FOR PLY TO PLY
NAILING OR BOLTING REQUIREMENTS.
PASS THRU FRAMING SQUASH
BLOCK IS REQUIRED AT ALL
POINT LOADS OVER BEARINGS.

Ground Floor JOB INFORMATION LVL/LSL (Flush) Builder Label Description Width Depth Qty Plies Pcs Length GREENPARK 1.75 11.875 F2 Forex 1 2 2 14-0-0 2.0E-3000Fb LVL Project F1 Forex 2.0E-3000Fb LVL 1.75 11.875 6-0-0 Shipping TRINAR HALL I Joist (Flush) EAST GWILLIMBURY, ON. Width Depth Qty Plies Pcs Length Label Description Sales Rep F6 AJS 140 2.5 11.875 2.5 11.875 1 18-0-0 F7 AJS 140 Designer 4 16-0-0 F4 AJS 140 2.5 11.875 2.5 11.875 1 4-0-0 RCO F3 AJS 140 4 2-0-0 Plotted J5 AJS 140 2.5 11.875 29 16-0-0 December 17, 2020 J4 AJS 140 1 14-0-0 2.5 11.875 Layout Name J2 AJS 140 2.5 11.875 1 8-0-0 GLENWAY 3A (ELEV.2) J1 AJS 140 2.5 11.875 5 6-0-0 J9 AJS 20 2.5 11.875 19 18-0-0 Job Path C:\Users\rochavillo\Documents\WORK FROM HOME \GREENPARK\TRINAR HALL\GLENWAY 3A\ELEV 2 Blocking Width Depth Qty Plies Pcs Length Label Description VFLOORVGLENWAY 3A (ELEV.2).isl 2.5 11.875 LinFt BLK1 AJS 140 Varies 9-0-0 Rim Board DESIGN CRITERIA Width Depth Qty Plies Pcs Length Label Description Ground Floor Norbord Rimboard R1 1.125 11.875 16 12-0-0 Design Method LSD (Canada) Plus 1.125 X **Building Code** NBCC 2015 / OBC 2012 11.875 Hanger Floor Beam/Girder Supported Loads Member Live Label Pcs Description Skew Slope fasteners fasteners Dead 15 H6 21 LF2511 **Deflection Joist** 1. All blocking to be cut from 12' joists LL Span L/ 2. 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length TL Span L/ 360 480 3. Ends of joists to be laterally supported LL Cant 2L/ 360 4. Packing of Steel beams and attachment by others TL Cant 2L/ **Deflection Girde** 5. Shower and water doset flange locations are approximate only, consult architectural drawing for exact locations LLSpan L/ 360 6. Beams identified as "B" are dropped and supplied by others TL Span L/ 240 480 Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls LL Cant 2L/ 360 8. Load transfer blocks to be installed under all point loads TL Cant 2L/ 9. Refer to Multiple Member Connection Detail for ply to ply nailing or bolting Decking OSB Decking 10. Hangers and Fasteners to be installed as per manufacturer Thickness 3/4" Fastener Framing shown on this layout may deviate from architectural drawings. Arch / Eng to review and approve the deviation prior to construction. Vibration Legend CCMC References Point Load Support Boise - 12472-R . 12787-R Load from Above LP - 12412-R Wall Forex - 14056-R Wall Opening Norbord Rimboard Plus 1.125 X 11.875 Kott Lumber Company AJS 140 11.875 KOTT 14 Anderson Blvd AJS 20 11.875 Stouffville, Ontario

Canada

L4A 7X4

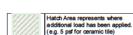
905-642-4400



Forex 2.0E-3000Fb LVL 1.75 X

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Reviewer	BCIN	Date
H. Authier	43236	2021-02-08



Version 19.60.173 Powered by iStruct™

This layout is to be used as an installation guide only. It is meant to be used in conjunction with the architectural and structural drawings, not to replace them



## F3-A

Dry | 1 span | No cant.

Page 4 of 31 **PASSED** 

**BC CALC® Member Report** 

**Build 7364** 

December 17, 2020 22:30:22

Job name: Address:

Customer:

TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl File name:

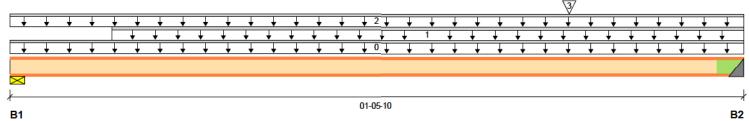
Description: Level - Ground Floor

City, Province, Postal Code:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R Company: **GREENPARK** 



Total Horizontal Product Length = 01-05-10

Position Summany (Down / Halift) (Iba)

Reaction Sur	ililiary (Down / O	pilit) (ibs)			
Bearing	Live	Dead	Snow	Wind	
B1, 2-3/8"	73 / 0	37 / 0			
B2, 2"	145 / 0	74 / 0			

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-02-07	01-05-10	Тор		8			n\a
2		Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор	64	24			n\a
3	J2	Conc. Pt. (lbs)	L	01-01-07	01-01-07	Front	124	62			n\a

		Factored	Demand/		
Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	68 ft-lbs	5305 ft-lbs	1.3%	1	01-01-07
End Reaction	311 lbs	2207 lbs	14.1%	1	01-05-10
End Shear	288 lbs	2350 lbs	12.3%	1	01-03-10
Total Load Deflection	L/999 (0.001")	n\a	n\a	4	01-00-13
Live Load Deflection	L/999 (0")	n\a	n\a	5	01-00-13
Max Defl.	0.001"	n\a	n\a	4	01-00-13
Span / Depth	1.2				

Bear	ing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	155 lbs	4.2%	9.2%	Spruce-Pine-Fir
B2	Hanger	2" x 2-1/2"	311 lbs	14.1%	14.1%	LF2511



#### Cautions

Web stiffeners required at bearing B2.

Hanger LF2511 requires (12) 10dx1.5 face nails, (2) 10dx1.5 joist nails.

Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist



These plans have been reviewed for use with the These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amehded. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

I. Authier	43236	2021-02-08



BLOCK IS REQUIRED AT ALL

POINT LOADS OVER BEARINGS.

READ ALL NOTES ON THIS PAGE AND ON



F3-A

Dry | 1 span | No cant. December 17, 2020 22:30:22

**BC CALC® Member Report Build 7364** 

Job name: Address: TRINAR HALL

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl File name:

Description: Level - Ground Floor

EAST GWILLIMBURY, ON.

City, Province, Postal Code:

Specifier:

READ ALL NOTES ON THIS PAGE AND ON

NOTE PAGE IS AN INTEGRAL PART OF THIS

CONTAINS SPECIFICATIONS AND CRITERIA

USED IN THE DESIGN OF THIS COMPONENT.

**ENGINEERING NOTE PAGE ENP-2. THIS** 

CALCULATION SUMMARY PAGE AS IT

**RCO** Designer:

Code reports: CCMC 12787-R GREENPARK Company:

**Notes** 

Customer:

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced. Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

### Disclosure

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Page 5 of 31

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These plans have been reviewed for use with the

These plans have been reviewed for use with the evidence of corrections as noted. No other changes may be application, made without written approval of the Building building cot Zoning By-Law 2018-0-04, as amended, and the properties approved documents must be kept on site at all times. The building permit must be clearly engineered

accordance	Discipline	Reviewer	BCIN	Date
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**BC CALC® Member Report** 

## Single 11-7/8" AJS® 140

### F3-B

Dry | 1 span | No cant. December 17, 2020 22:30:22

**Build 7364** 

Job name: Address: TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl File name:

Description: Level - Ground Floor

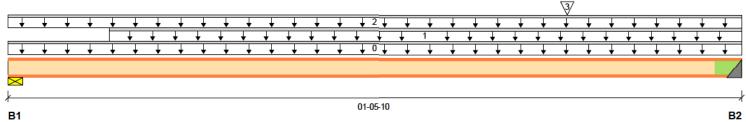
City, Province, Postal Code:

Customer:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R Company: **GREENPARK** 



Total Horizontal Product Length = 01-05-10

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2-3/8"	61 / 0	31 / 0		
B2, 2"	99 / 0	51 / 0		

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор		3			00-00-00
1	_	Unf. Lin. (lb/ft)	L	00-02-07	01-05-10	Тор		8			n\a
2		Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор	64	24			n\a
3	J1	Conc. Pt. (lbs)	L	01-01-07	01-01-07	Back	66	33			n\a

		Factored	Demand/		
Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	46 ft-lbs	5305 ft-lbs	0.9%	1	00-11-08
End Reaction	213 lbs	2207 lbs	9.6%	1	01-05-10
End Shear	189 lbs	2350 lbs	8.1%	1	01-03-10
Total Load Deflection	L/999 (0")	n\a	n\a	4	00-11-05
Live Load Deflection	L/999 (0")	n\a	n\a	5	00-11-05
Max Defl.	0"	n\a	n\a	4	00-11-05
Span / Depth	1.2				

Bear	ing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	131 lbs	3.6%	7.8%	Spruce-Pine-Fir
B2	Hanger	2" x 2-1/2"	213 lbs	9.6%	9.6%	LF2511



POFESSIONA

Cautions Web stiffeners required at bearing B2.

Hanger LF2511 requires (12) 10dx1.5 face nails, (2) 10dx1.5 joist nails.

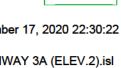
Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist

These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amenhedd. These approved documents must be kept on site at all times. The building permit must be clearly nosted on site at all times. posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

READ ALL NOTES ON THIS PAGE AND ON

ENGINEERING NOTE PAGE ENP-2. THIS



Page 6 of 31 **PASSED** 



**BC CALC® Member Report** 

## Single 11-7/8" AJS® 140

F<sub>3</sub>-B

Dry | 1 span | No cant.

Job name: Address: TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl File name:

Description: Level - Ground Floor

City, Province, Postal Code:

Specifier:

READ ALL NOTES ON THIS PAGE AND ON

NOTE PAGE IS AN INTEGRAL PART OF THIS

CONTAINS SPECIFICATIONS AND CRITERIA

USED IN THE DESIGN OF THIS COMPONENT.

**ENGINEERING NOTE PAGE ENP-2. THIS** 

CALCULATION SUMMARY PAGE AS IT

**RCO** Designer:

Code reports: CCMC 12787-R GREENPARK Company:

### **Notes**

**Build 7364** 

Customer:

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced. Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

### Disclosure

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Page 7 of 31

December 17, 2020 22:30:22

**PASSED** 

These plans have been reviewed for use with the evidence of corrections as noted. No other changes may be application.

Building COL Zoning By-Law 2018-094, as amended, and the properties approved of Coning By-Law 2018-094, as amended, and the properties approved documents must be kept on site at all linstallation times. The building permit must be clearly engineered posted on site at all times.

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accordance	Discipline	Reviewer	BCIN	Date
Guide and a	Building Code	H. Authier	43236	2021-02-08
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F3-C

Dry | 1 span | No cant.

Page 8 of 31 **PASSED** 

December 17, 2020 22:30:22

**BC CALC® Member Report** 

**Build 7364** Job name:

Address:

TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl File name:

Wind

Description: Level - Ground Floor

City, Province, Postal Code: Customer:

Specifier:

Designer: **RCO** 

Code reports: CCMC 12787-R GREENPARK Company:

01-05-10 B2

Total Horizontal Product Length = 01-05-10

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	
B1, 2"	191 / 0	73 / 0	
B2. 2-3/8"	103 / 0	41/0	

Lo	Load Summary						Live	Dead	Snow	Wind	Tributary
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор	64	24			n\a
2	J4	Conc. Pt. (lbs)	L	00-05-05	00-05-05	Front	200	75			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	116 ft-lbs	5305 ft-lbs	2.2%	1	00-05-05
End Reaction	379 lbs	2207 lbs	17.1%	1	00-00-00
End Shear	357 lbs	2350 lbs	15.2%	1	00-02-00
Total Load Deflection	L/999 (0.001")	n\a	n\a	4	00-05-05
Live Load Deflection	L/999 (0.001")	n\a	n\a	5	00-05-05
Max Defl.	0.001"	n\a	n\a	4	00-05-05
Span / Depth	1.2				

Bearing	J Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Hanger	2" x 2-1/2"	379 lbs	17.1%	17.1%	LF2511
B2	Wall/Plate	2-3/8" x 2-1/2"	205 lbs	5.6%	12.2%	Spruce-Pine-Fir

#### Cautions

Web stiffeners required at bearing B1.

Hanger LF2511 requires (12) 10dx1.5 face nails, (2) 10dx1.5 joist nails.

Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist

### **Notes**

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH **BLOCK IS REQUIRED AT ALL** 

POINT LOADS OVER BEARINGS.

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



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Completene must be rev qualified en expert to as

East Gwillimbury

anvone rely evidence of corrections as noted. No other changes may be application.

By Standards Branch. All work must comply with building COt Zoning By-Law 2018-043, as amended, and the properties approved documents must be kept on site at all Installation.

The building permit must be clearly noted on site at all times. These plans have been reviewed for use with the engineered posted on site at all times.

accordance	Discipline	Reviewer	BCIN	Date
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hoforo incte				



F3-D

December 17, 2020 22:30:22

**BC CALC® Member Report** 

Dry | 1 span | No cant.

Page 9 of 31

**PASSED** 

**Build 7364** Job name:

Customer:

Address: TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl

Description: Level - Ground Floor

**RCO** 

Wind

City, Province, Postal Code:

Specifier: Designer:

File name:

Code reports: CCMC 12787-R

**GREENPARK** Company:

01-05-10 **B1** B2

Total Horizontal Product Length = 01-05-10

Snow

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	
B1, 2"	66 / 0	26 / 0	
B2, 2-3/8"	68 / 0	28 / 0	

Load Summary						Live	Dead	Snow	Wind	Tributary	
Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Top	27	10			n\a
2		Unf. Lin. (lb/ft)	L	00-00-00	01-05-10	Top	64	24			n\a

Cantrala Cummanı		Factored	Demand/	_	
Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	34 ft-lbs	5305 ft-lbs	0.6%	1	00-08-10
End Reaction	137 lbs	1684 lbs	8.1%	1	01-05-10
End Shear	101 lbs	2350 lbs	4.3%	1	00-02-00
Total Load Deflection	L/999 (0")	n\a	n\a	4	00-08-10
Live Load Deflection	L/999 (0")	n\a	n\a	5	00-08-10
Max Defl.	0"	n\a	n\a	4	00-08-10
Span / Depth	1.2				

Bearing	y Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Hanger	2" x 2-1/2"	131 lbs	5.9%	5.9%	LF2511
B2	Wall/Plate	2-3/8" x 2-1/2"	137 lbs	3.7%	8.1%	Spruce-Pine-Fir

#### Cautions

Web stiffeners required at bearing B1.

Hanger LF2511 requires (12) 10dx1.5 face nails, (2) 10dx1.5 joist nails.

Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist

#### **Notes**

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY

NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH **BLOCK IS REQUIRED AT ALL** POINT LOADS OVER BEARINGS.

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



## Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA).

Completene must be rev qualified en expert to as

East Gwillimbury

anyone rely evidence of corrections as noted. No other changes may be application.

By Standards Branch. All work must comply with building COt Zoning By-Law 2018-043, as amended, and the properties approved documents must be kept on site at all Installation.

The building permit must be clearly noted on site at all times. These plans have been reviewed for use with the engineered posted on site at all times.

accordance	Discipline	Reviewer	BCIN	Date
Guide and a	Building Code	H. Authier	43236	2021-02-08
obtain Insta	Sewage System			
questions, r				
hefore insta				



**BC CALC® Member Report** 

## Single 11-7/8" AJS® 140

### F4-A

Dry | 1 span | No cant.

December 17, 2020 22:30:22

**Build 7364** 

Job name: Address:

TRINAR HALL

EAST GWILLIMBURY, ON.

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl File name:

Description: Level - Ground Floor

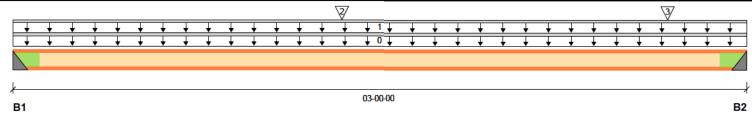
City, Province, Postal Code:

Customer:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R Company: **GREENPARK** 



Total Horizontal Product Length = 03-00-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	284 / 0	110 / 0		
B2. 2"	446 / 0	171 / 0		

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	03-00-00	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	03-00-00	Тор	34	13			n\a
2	J5	Conc. Pt. (lbs)	L	01-04-02	01-04-02	Back	384	144			n\a
3	J5	Conc. Pt. (lbs)	L	02-08-02	02-08-02	Back	243	91			n∖a

Camtuala Sumana		Factored	Demand/		
Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	636 ft-lbs	5305 ft-lbs	12.0%	1	01-04-02
End Reaction	883 lbs	2207 lbs	40.0%	1	03-00-00
End Shear	871 lbs	2350 lbs	37.1%	1	02-10-00
Total Load Deflection	L/999 (0.008")	n\a	n\a	4	01-04-02
Live Load Deflection	L/999 (0.006")	n\a	n\a	5	01-04-02
Max Defl.	0.008"	n\a	n\a	4	01-04-02
Span / Depth	2.8				

Bearir	ng Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Hanger	2" x 2-1/2"	564 lbs	25.5%	25.6%	LF2511
B2	Hanger	2" x 2-1/2"	883 lbs	39.9%	40.0%	LF2511



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**PASSED** 

### Cautions

Web stiffeners required at bearing B1.

Hanger LF2511 requires (12) 10dx1.5 face nails, (2) 10dx1.5 joist nails.

Web stiffeners required at bearing B2.

Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist

Header for the hanger LF2511 is a Single 2-1/2" x 11-7/8" I-joist



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amenhedd. These approved documents must be kept on site at all times. The building permit must be clearly nosted on site at all times. posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



**BLOCK IS REQUIRED AT ALL** 

POINT LOADS OVER BEARINGS.

ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

READ ALL NOTES ON THIS PAGE AND ON



### F4-A

Dry | 1 span | No cant. December 17, 2020 22:30:22

**BC CALC® Member Report Build 7364** 

City, Province, Postal Code:

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl

Page 11 of 31

**PASSED** 

Job name:

Address:

Customer:

TRINAR HALL

Description: Level - Ground Floor

EAST GWILLIMBURY, ON.

Specifier:

READ ALL NOTES ON THIS PAGE AND ON

NOTE PAGE IS AN INTEGRAL PART OF THIS

CONTAINS SPECIFICATIONS AND CRITERIA

USED IN THE DESIGN OF THIS COMPONENT.

**ENGINEERING NOTE PAGE ENP-2. THIS** 

CALCULATION SUMMARY PAGE AS IT

File name:

**RCO** Designer:

Code reports: CCMC 12787-R

GREENPARK Company:

### **Notes**

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced. Hanger Manufacturer: Simpson Strong-Tie, Inc.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition. Importance Factor: Normal Part code: Part 9

### Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA).

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anyone rely
These plans have been reviewed for use with the These plans have been reviewed for use with the evidence of corrections as noted. No other changes may be application, made without written approval of the Building building cot Zoning By-Law 2018-0-04, as amended, and the properties approved documents must be kept on site at all times. The building permit must be clearly engineered

43236

2021-02-08

accordance	Discipline	Review
Guide and a	Building Code	H. Auth
obtain Insta	Sewage System	
questions, r	Zoning	
hafora insta		



Dry | 1 span | No cant.

Page 12 of 31 **PASSED** 

December 17, 2020 22:30:22

F6-A

**BC CALC® Member Report Build 7364** 

Job name: Address:

Customer:

TRINAR HALL

File name:

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl

Description: Level - Ground Floor

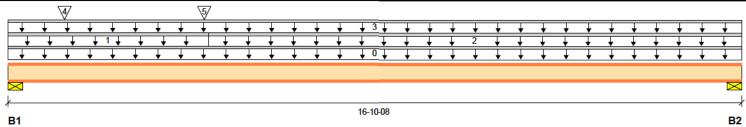
EAST GWILLIMBURY, ON.

City, Province, Postal Code:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R Company: GREENPARK



Total Horizontal Product Length = 16-10-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind	
B1, 2-3/8"	538 / 0	225 / 0			
B2, 4-3/8"	324 / 0	143 / 0			

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	16-10-08	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-00-00	04-07-06	Top	32	12			n\a
2		Unf. Lin. (lb/ft)	L	04-07-06	16-10-08	Тор	11	4			n\a
3		Unf. Lin. (lb/ft)	L	00-00-00	16-10-08	Тор	19	7			n∖a
4	F3	Conc. Pt. (lbs)	L	01-03-10	01-03-10	Back	66	26			n\a
5	F3	Conc. Pt. (lbs)	L	04-06-02	04-06-02	Back	191	73			n\a

READ ALL NOTES ON THIS PAGE AND ON

NOTE PAGE IS AN INTEGRAL PART OF THIS

CONTAINS SPECIFICATIONS AND CRITERIA

USED IN THE DESIGN OF THIS COMPONENT.

ENGINEERING NOTE PAGE ENP-2. THIS

CALCULATION SUMMARY PAGE AS IT

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	3364 ft-lbs	5305 ft-lbs	63.4%	1	06-01-13
End Reaction	1088 lbs	1684 lbs	64.6%	1	00-00-00
End Shear	1067 lbs	2350 lbs	45.4%	1	00-02-06
Total Load Deflection	L/495 (0.399")	n\a	48.5%	4	07-10-04
Live Load Deflection	L/707 (0.279")	n\a	50.9%	5	07-10-04
Max Defl.	0.399"	n\a	39.9%	4	07-10-04
Span / Depth	16.6				

Beari	ng Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	1088 lbs	29.8%	64.6%	Spruce-Pine-Fir
B2	Wall/Plate	4-3/8" x 2-1/2"	666 lbs	9.9%	34.8%	Spruce-Pine-Fir

### **Notes**

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



## Disclosure

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anyone rely evidence of corrections as noted. No other changes may be application building COt Zoning By-Law 2018-043, as amended, and the properties a provided color approved documents must be kept on site at all linstallation times. The building permit must be clearly noted on site at all times. These plans have been reviewed for use with the engineered posted on site at all times.

accordance	Discipline	Reviewer	BCIN	Date
Guide and a	Building Code	H. Authier	43236	2021-02-08
obtain Insta	Sewage System			
questions, r				
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BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

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



## F7-A

Dry | 1 span | No cant.

Page 13 of 31 **PASSED** 

December 17, 2020 22:30:22

**BC CALC® Member Report** 

**Build 7364** Job name:

Address:

Customer:

TRINAR HALL

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl

File name: Description: Level - Ground Floor

EAST GWILLIMBURY, ON.

City, Province, Postal Code:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R **GREENPARK** Company:

15-11-12 B2

Total Horizontal Product Length = 15-11-12

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	` Dead	Snow	Wind
B1, 2-3/8"	145 / 0	74 / 0		
B2 6-7/8"	152 / 0	78 / 0		

	Loa	Load Summary							Dead	Snow	Wind	Tributary
	Tag	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
-	0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Тор		3			00-00-00
	1		Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Top	8	3			n\a
	2		Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Top	10	4			n\a

READ ALL NOTES ON THIS PAGE AND ON

NOTE PAGE IS AN INTEGRAL PART OF THIS

CONTAINS SPECIFICATIONS AND CRITERIA

USED IN THE DESIGN OF THIS COMPONENT.

ENGINEERING NOTE PAGE ENP-2. THIS

CALCULATION SUMMARY PAGE AS IT

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1171 ft-lbs	5305 ft-lbs	22.1%	1	07-09-10
End Reaction	311 lbs	1684 lbs	18.5%	1	00-00-00
End Shear	303 lbs	2350 lbs	12.9%	1	00-02-06
Total Load Deflection	L/999 (0.124")	n\a	n\a	4	07-09-10
Live Load Deflection	L/999 (0.082")	n\a	n\a	5	07-09-10
Max Defl.	0.124"	n\a	n\a	4	07-09-10
Span / Depth	15.5				

Bearing	J Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	311 lbs	8.5%	18.5%	Spruce-Pine-Fir
B2	Wall/Plate	6-7/8" x 2-1/2"	326 lbs	3.1%	17.0%	Spruce-Pine-Fir

## Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



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evidence of corrections as noted. No other changes may be application building COt Zoning By-Law 2018-043, as amended, and the properties a provided color approved documents must be kept on site at all linstallation times. The building permit must be clearly noted on site at all times. These plans have been reviewed for use with the engineered posted on site at all times.

accordance	Discipline	Reviewer	BCIN	Date
Guide and a	Building Code	H. Authier	43236	2021-02-08
obtain Insta	Sewage System			
questions, p				
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**F7-B** 

Dry | 1 span | No cant. December 17, 2020 22:30:22

**BC CALC® Member Report Build 7364** 

Page 14 of 31

**PASSED** 

Job name:

Customer:

Address: TRINAR HALL

EAST GWILLIMBURY, ON.

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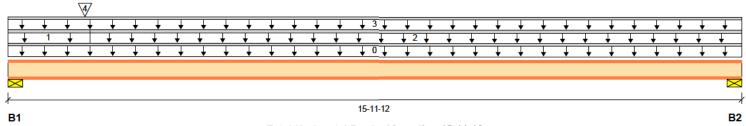
Description: Level - Ground Floor

City, Province, Postal Code:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R GREENPARK Company:



Total Horizontal Product Length = 15-11-12

Reaction Summary (Down / Uplift) (lbs)

Bearing	Ĺive	Dead	Snow	Wind
B1, 2-3/8"	627 / 0	258 / 0		
B2, 6-7/8"	188 / 0	91 / 0		

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Тор		3			00-00-00
1	_	Unf. Lin. (lb/ft)	L	00-00-00	01-09-06	Тор	64	24			n\a
2		Unf. Lin. (lb/ft)	L	01-09-06	15-11-12	Тор	9	3			n\a
3		Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Тор	8	3			n\a
4	F4	Conc. Pt. (lbs)	L	01-08-02	01-08-02	Back	446	171			n\a

READ ALL NOTES ON THIS PAGE AND ON

NOTE PAGE IS AN INTEGRAL PART OF THIS

CONTAINS SPECIFICATIONS AND CRITERIA

USED IN THE DESIGN OF THIS COMPONENT.

ENGINEERING NOTE PAGE ENP-2. THIS

CALCULATION SUMMARY PAGE AS IT

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1956 ft-lbs	5305 ft-lbs	36.9%	1	05-01-11
End Reaction	1263 lbs	1684 lbs	75.0%	1	00-00-00
End Shear	1234 lbs	2350 lbs	52.5%	1	00-02-06
Total Load Deflection	L/888 (0.207")	n\a	27.0%	4	07-01-06
Live Load Deflection	L/1292 (0.142")	n\a	27.9%	5	07-01-06
Max Defl.	0.207"	n\a	20.7%	4	07-01-06
Span / Depth	15.5				

Bearin	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	1263 lbs	34.6%	75.0%	Spruce-Pine-Fir
B2	Wall/Plate	6-7/8" x 2-1/2"	396 lbs	3.7%	20.7%	Spruce-Pine-Fir

## Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



## Disclosure

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Completene must be rev qualified en

East Gwillimbury expert to as

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accordance	Discipline	Reviewer	BCIN	Date
Guide and a	Building Code	H. Authier	43236	2021-02-08
obtain Insta	Sewage System			
questions, r				
hefore insta				



**BC CALC® Member Report** 

## Single 11-7/8" AJS® 140

F7-C

Dry | 1 span | No cant. December 17, 2020 22:30:22

**Build 7364** 

Address:

Customer:

Job name:

TRINAR HALL

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl File name:

Description: Level - Ground Floor

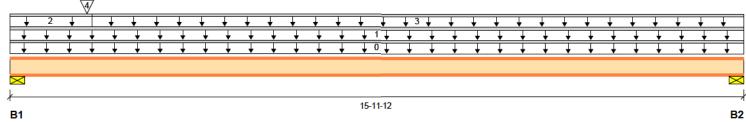
EAST GWILLIMBURY, ON.

City, Province, Postal Code:

Specifier:

Designer: **RCO** 

Code reports: CCMC 12787-R **GREENPARK** Company:



Total Horizontal Product Length = 15-11-12

Reaction Summary (Down / Uplift) (lbs)

rtouotion ou	minary (Bown / O				
Bearing	Live	Dead	Snow	Wind	
B1, 2-3/8"	731 / 0	297 / 0			
B2, 6-7/8"	468 / 0	196 / 0			

Lo	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Тор		3			00-00-00
1	_	Unf. Lin. (lb/ft)	L	00-00-00	15-11-12	Тор	24	9			n∖a
2		Unf. Lin. (lb/ft)	L	00-00-00	01-09-06	Тор	64	24			n∖a
3		Unf. Lin. (lb/ft)	L	01-09-06	15-11-12	Тор	29	11			n∖a
4	F4	Conc. Pt. (lbs)	L	01-08-02	01-08-02	Front	284	110			n\a

READ ALL NOTES ON THIS PAGE AND ON

NOTE PAGE IS AN INTEGRAL PART OF THIS

CONTAINS SPECIFICATIONS AND CRITERIA

USED IN THE DESIGN OF THIS COMPONENT.

ENGINEERING NOTE PAGE ENP-2. THIS

CALCULATION SUMMARY PAGE AS IT

Controls Summary	F41 B1	Factored	Demand/	0	
Controls Summary	Factored Demand	Resistance	Resistance	Case	Location
Pos. Moment	3677 ft-lbs	5305 ft-lbs	69.3%	1	07-03-11
End Reaction	1468 lbs	1684 lbs	87.1%	1	00-00-00
End Shear	1433 lbs	2350 lbs	61.0%	1	00-02-06
Total Load Deflection	L/467 (0.394")	n\a	51.4%	4	07-08-07
Live Load Deflection	L/662 (0.278")	n\a	54.4%	5	07-08-07
Max Defl.	0.394"	n\a	39.4%	4	07-08-07
Span / Depth	15.5				

Bearing	g Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	1468 lbs	40.2%	87.1%	Spruce-Pine-Fir
B2	Wall/Plate	6-7/8" x 2-1/2"	947 lbs	9.0%	49.4%	Spruce-Pine-Fir

## Notes

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9



Page 15 of 31

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## **Disclosure**

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Completene must be rev qualified en expert to as

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anyone rely evidence of These plans have been reviewed for use with the corrections as noted. No other changes may be application.

made without written approval of the Building Standards Branch. All work must comply with building COC Zoning By-Law 2018-043, as amended, and the properties a contain Building Code, as amelded. These approved documents must be kept on site at all Installation. The building permit must be clearly approved on site at all times. These plans have been reviewed for use with the engineered posted on site at all times.

accordance	Discipline	Reviewer	BCIN	Date
Guide and a	Building Code	H. Authier	43236	2021-02-08
obtain Insta	Sewage System			
	Zoning			
questions, p				
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December 17, 2020 22:30:22

Page 16 of 31

**PASSED** 

**BC CALC® Member Report** 

Dry | 1 span | No cant.

**Build 7364** Job name:

Address:

Customer:

TRINAR HALL

File name:

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl

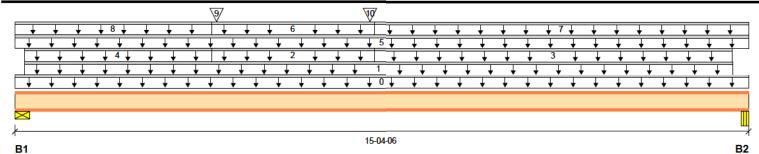
EAST GWILLIMBURY, ON.

Description: Level - Ground Floor

City, Province, Postal Code:

Specifier: **RCO** Designer:

Code reports: CCMC 12787-R Company: **GREENPARK** 



Total Horizontal Product Length = 15-04-06

### Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2-3/8"	424 / 0	234 / 0		
B2, 4-1/8"	361 / 0	202 / 0		

Loa	ad Summary						Live	Dead	Snow	Wind	Tributary
	Description	Load Type	Ref.	Start	End	Loc.	1.00	0.65	1.00	1.15	
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-04-06	Тор		3			00-00-00
1		Unf. Lin. (lb/ft)	L	00-02-06	15-00-06	Тор		3			n\a
2		Unf. Lin. (lb/ft)	L	04-01-06	07-06-06	Тор		4			n\a
3		Unf. Lin. (lb/ft)	L	07-06-06	15-00-05	Тор		1			n\a
4		Unf. Lin. (lb/ft)	L	00-02-06	04-01-06	Тор		1			n\a
5		Unf. Lin. (lb/ft)	L	00-00-00	15-04-06	Тор	21	8			n\a
6		Unf. Lin. (lb/ft)	L	04-01-06	07-06-06	Тор	32	12			n\a
7		Unf. Lin. (lb/ft)	L	07-06-06	15-04-06	Тор	9	3			n\a
8		Unf. Lin. (lb/ft)	L	00-00-00	04-01-06	Тор	9	3			n\a
9	F3	Conc. Pt. (lbs)	L	04-02-10	04-02-10	Front	99	51			n\a
10	F3	Conc. Pt. (lbs)	L	07-05-02	07-05-02	Front	145	74			n\a

Controls Summary	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	3971 ft-lbs	5305 ft-lbs	74.9%	1	07-05-02
End Reaction	928 lbs	1684 lbs	55.1%	1	00-00-00
End Shear	916 lbs	2350 lbs	39.0%	1	00-02-06
Total Load Deflection	L/470 (0.382")	n\a	51.1%	4	07-05-02
Live Load Deflection	L/729 (0.246")	n\a	49.4%	5	07-05-02
Max Defl.	0.382"	n\a	38.2%	4	07-05-02
Span / Depth	15.1				

Bearing	յ Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate	2-3/8" x 2-1/2"	928 lbs	25.4%	55.1%	Spruce-Pine-Fir
B2	Beam	4-1/8" x 2-1/2"	793 lbs	12.5%	41.4%	Spruce-Pine-Fir



These plans have been reviewed for use with the These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amehded. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			



**BC CALC® Member Report** 

City, Province, Postal Code:

## Single 11-7/8" AJS® 140

F7-D

Dry | 1 span | No cant. December 17, 2020 22:30:22

Description: Level - Ground Floor

**Build 7364** Job name:

Address:

Customer:

C:\Users\rochavillo\Docu...\GLENWAY 3A (ELEV.2).isl

Page 17 of 31

**PASSED** 

TRINAR HALL

EAST GWILLIMBURY, ON.

READ ALL NOTES ON THIS PAGE AND ON

NOTE PAGE IS AN INTEGRAL PART OF THIS

CONTAINS SPECIFICATIONS AND CRITERIA

USED IN THE DESIGN OF THIS COMPONENT.

**ENGINEERING NOTE PAGE ENP-2. THIS** 

CALCULATION SUMMARY PAGE AS IT

File name:

Specifier:

**RCO** Designer:

Code reports: CCMC 12787-R GREENPARK Company:

**Notes** 

Design meets Code minimum (L/240) Total load deflection criteria.

Design meets Code minimum (L/360) Live load deflection criteria.

Design meets User specified (1") Maximum Total load deflection criteria.

Calculations assume member is fully braced.

Resistance Factor phi has been applied to all presented results per CSA O86.

BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor: Normal Part code: Part 9

### Disclosure

Use of the Boise Cascade Software is subject to the terms of the End User License Agreement (EULA).

Completene must be rev qualified en expert to as

Teast Gwillimbury

anyone rely
These plans have been reviewed for use with the These plans have been reviewed for use with the evidence of corrections as noted. No other changes may be application, made without written approval of the Building building cot Zoning By-Law 2018-0-04, as amended, and the properties approved documents must be kept on site at all times. The building permit must be clearly engineered

accordance	Discipline
Guide and a	Building Code
obtain Insta	Sewage System
questions, r	Zoning
hoforo ineta	

H. Authier 43236 2021-02-08

before instanduori.

NE1220-150

isDesign

Client: Project: Address:

TRINAR HALL

EAST GWILLIMBURY, ON.

**GREENPARK** 

Date: 12/18/2020

Input by: RCO

Job Name: GLENWAY 3A (ELEV.2)

Project #:

Brg

1

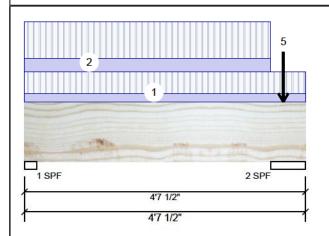
2

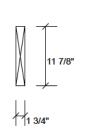
2 - SPF 6.875"

2012

F1-B Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor





Wind

0

0

1.25D+1.5L

Page 18 of 31

#### Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load		32 AA 4 10 A	
Floor Live:	AN DSE		

## Unfactored Reactions UNPATTERNED lb (Uplift)

Dead

61

184

Live

136

332

Bearings and Factored Reactions										
Bearing Length	Cap. React D	/L lb Total L	.d. Case Ld. Comb.							
1 - SPF 2.375"	11% 76	204 281 L	1.25D+1.5L							

230 / 498

Snow

729 I

0

0

## **Analysis Results**

15 PSF

Dead:

•							
Analy	sis	Actual	Location	Allowed	Capacity	Comb.	Case
Mome	ent	261 ft-lb	2'1 1/2"	17130 ft-lb	0.015 (2%)	1.25D+1.5L	L
Unbra	aced	261 ft-lb	2'1 1/2"	11299 ft-lb	0.023 (2%)	1.25D+1.5L	L
Shear	Г	132 lb	3'1 1/2"	5798 lb	0.023 (2%)	1.25D+1.5L	L
Perm	Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL De	fl inch	0.001 (L/33107)	2'1 9/16"	0.133 (L/360)	0.010 (1%)	L	L
TL De	efl inch	0.002 (L/22843)	2'1 9/16"	0.199 (L/240)	0.010 (1%)	D+L	L

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT

10%

PASS THRU FRAMING SQUASH



#### Design Notes

- 1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top braced at bearings.
- 4 Bottom braced at bearings.

CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT. REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. **BLOCK IS REQUIRED AT ALL** POINT LOADS OVER BEARINGS.

Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comment	_
Tie-In	0-0-0 to 4-7-8	0-7-4	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
Part. Uniform	0-0-0 to 4-0-10		Тор	15 PLF	40 PLF	0 PLF	0 PLF		Our
Point	4-3-2		Тор	71 lb	190 lb	0 lb	0 lb	J9	The
Point	4-3-2		Тор	2 lb	5 lb	0 lb	0 lb	J1	mad Stan
Point	4-3-2		Тор	48 lb	0 lb	0 lb	0 lb	Wall Self W	Zoni



nese plans have been reviewed for use with the These plans have been reviewed to the with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amehded. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times. posted on site at all times

Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

Reviewer BCIN Date

Notes

ID

1 2

3

4 5

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended annication and to verify the dimensions and loads.

Self Weight

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corro
- Handling & Installation
- LVL beams must not be cut or drilled
   Refer to manufacturer's product regarding installation requirement fastening details, beam strength value
- maged Beams must not be used
- Daniaged beams must not be used
  Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation

5 PLF

Manufacturer Info

APA: PR-L318

905-642-4400

This design is valid until 10/15/2022

Discipline

NE1220-150 Page 19 of 31 Client: **GREENPARK** Date: 12/18/2020 Project: Input by: RCO isDesign

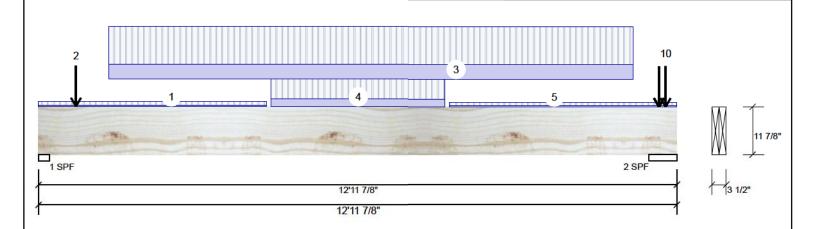
Address: TRINAR HALL

Job Name: GLENWAY 3A (ELEV.2) EAST GWILLIMBURY, ON.

Project #:

1.750" X 11.875" Forex 2.0E-3000Fb LVL 2-Ply - PASSED F2-B

Level: Ground Floor



Member Information				Unfactored Reactions UNPATTERNED Ib (Uplift)				
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	2447	979	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012	2	5402	2242	0	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load					F F 100 (2000) 100 (1000)	Service of the servic		
Floor Live:	40 PSF			Bearings a	and Factored	Reactions		
Dead:	15 PSF			Bearing L	ength Ca	D. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 2	2.625" 87"	% 1224 / 3671	4895 L	1.25D+1.5L
				2-SPF 6	5.875" 74	% 2802 / 8103	10905 L	1.25D+1.5L

**Analysis Results** 

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	16721 ft-lb	6'4 5/16"	34261 ft-lb	0.488 (49%)	1.25D+1.5L	L
Unbraced	16721 ft-lb	6'4 5/16"	27196 ft-lb	0.615 (61%)	1.25D+1.5L	L
Shear	5217 lb	1'1 3/4"	11596 lb	0.450 (45%)	1.25D+1.5L	L
Perm Defl in.	0.101 (L/1468)	6'3 15/16"	0.411 (L/360)	0.250 (25%)	D	Uniform
LL Defl inch	0.253 (L/584)	6'3 15/16"	0.411 (L/360)	0.620 (62%)	L	L
TL Defl inch	0.354 (L/418)	6'3 15/16"	0.616 (L/240)	0.570 (57%)	D+L	L

### **Design Notes**

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

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT. REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

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



7 Lateral slenderness ratio based on full section width. ID Trib Width Load Type Location Side Dead Live Snow Wind Comment Tie-In 0-0-0 to 4-7-10 0-9-5 15 PSF 40 PSF 0 PSF 0 PSF 1 Top 2 Near Face 0 lb **Point** 0 - 9 - 2123 lb 328 lb 0 lb 0 PLF 3 Part. Uniform 1-5-2 to 12-1-2 Near Face 128 PLF 341 PLF 0 PLF 4-8-12 to 8-3-4 0 PLF Part Uniform 68 PLF 180 PLF 0 PI F Top

Top

These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amenhedd. These approved documents must be kept on site at all times. The building permit must be clearly nosted on site at all times. posted on site at all tim

Reviewer BCIN Date

East Gwillimbury

Continued on page 2...

Motoo		
	N	

5

Notes
Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Tie-In

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

8-4-6 to 12-11-14 0-8-5

- LVL beams must not be cut or drilled
   Refer to manufacturer's product regarding installation requirement

40 PSF

15 PSF

Forex APA: PR-L318

Manufacturer Info

0 PSF

0 PSF

Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

CSD DESIGN

Discipline

	approvals
3.	Damaged Beams must not be used
4.	Design assumes top edge is laterally restrained
5.	Provide lateral support at bearing points to avoid

NE1220-150 Page 20 of 31 Client: **GREENPARK** Date: 12/18/2020

isDesign Address:

Project:

TRINAR HALL

EAST GWILLIMBURY, ON.

Input by: RCO

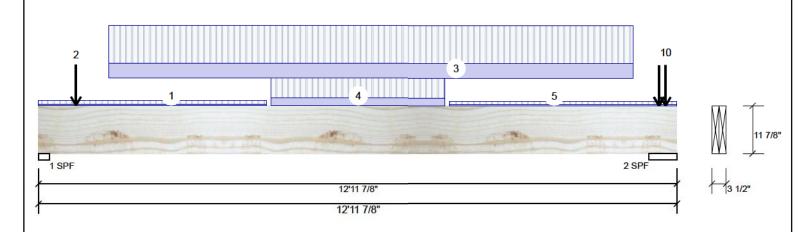
Job Name: GLENWAY 3A (ELEV.2)

Project #:

Forex 2.0E-3000Fb LVL F2-B

1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



Continued fro	om page 1								
ID	Load Type	Location Trib Width	Side	Dead	Live	Snow	Wind	Comments	
6	Point	12-7-8	Тор	1087 lb	2674 lb	0 lb	0 lb	F2 F2	
7	Point	12-7-8	Тор	73 lb	194 lb	0 lb	0 lb	<b>J</b> 9	
8	Point	12-7-8	Тор	57 lb	0 lb	0 lb	0 lb	Wall Self Weight	
9	Point	12-7-8	Тор	5 lb	0 lb	0 lb	0 lb	Wall Self Weight	
10	Point	12-9-2	Near Face	44 lb	106 lb	0 lb	0 lb	J9	
	Self Weight			10 PLF					

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REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

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



corrections as noted. No other changes may be corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amehded. These approved documents must be kept on site at all times. The building permit must be clearly sected on gite at all times. posted on site at all times

## Discipline Reviewer BCIN Date Building Code H. Authier 43236 2021-02-08 Sewage System

905-642-4400



	East Gwillimbury Building Standards Branch BCIN #18487
	These plans have been reviewed for use with the

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design orineria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Notes

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

4. 5.

Handling & Installation

1. IVI. beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used

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

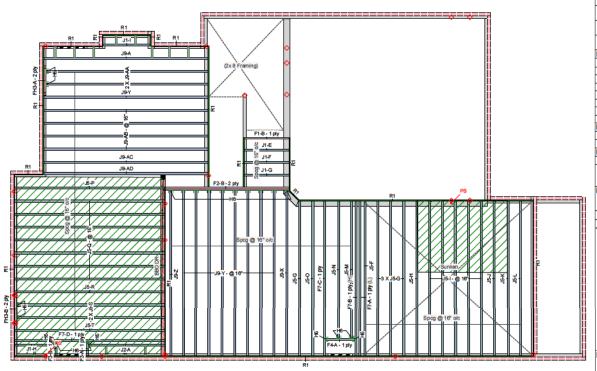
6. For flat roofs provide proper drainage to prevent ponding

Forex APA: PR-L318

Manufacturer Info

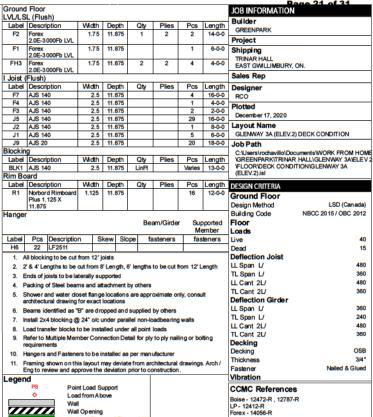
NE1220-150

Ground Floor



READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBEI CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.



Kott Lumber

14 Anderson Blvd

Stouffville, Ontario

KOTT

Company

Canada

L4A 7X4 905-642-4400



Norbord Rimboard Plus 1.125 X 11.875

Forex 2.0E-3000Fb LVL 1.75 X

AJS 140 11.875

AJS 20 11.875

These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

	Discipline	Reviewer	BCIN	Date	
	Building Code	H. Authier	43236	2021-02-08	
	Sewage System				
	Zoning				
-					_

Hatch Area represents where additional load has been applie (e.g. 5 psf for ceramic tile)

Version 19.60.173 Powered by iStruct™

This layout is to be used as an installation guide only. It is meant to be used in conjunction with the architectural and structural drawings, not to replace them

NE1220-150 Page 22 of 31 Client: **GREENPARK** Date: 12/17/2020

Project:

Address:

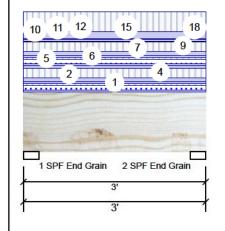
Input by: RCO GLENWAY 3A (ELEV.2) DECK CONDITION

Job Name: Project #:

2-Ply - PASSED Level: Ground Floor FH3-A Forex 2.0E-3000Fb LVL 1.750" X 11.875"

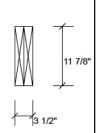
TRINAR HALL

EAST GWILLIMBURY, ON.



15 PSF

isDesign



Wind 0

0

Member Inform	nation		
Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load		22-12-7 (42-2-128-128-128-128-128-128-128-128-128-	
Floor Live:	40 PSF		

	red Reactions	UNPATTERI	NED lb (Uplift)
Brg 1	Live	Dead	Snow
l 1	1083	735	234

736

1084

Bearings and Factored Reactions										
Bearing Length	Cap. R	leact D/L lb	Total L	_d. Case	Ld. Comb.					
1 - SPF 3.000" End Grain	36%	919 / 1858	2777 L	L	1.25D+1.5L +S					
2 - SPF 3.000" End	36%	920 / 1860	2780 L	_	1.25D+1.5L +S					

234

## Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1596 ft-lb	1'6"	34261 ft-lb	0.047 (5%)	1.25D+1.5L +S	L
Unbraced	1596 ft-lb	1'6"	34261 ft-lb	0.047 (5%)	1.25D+1.5L +S	L
Shear	1840 lb	1'2 1/8"	11596 lb	0.159 (16%)	1.25D+1.5L +S	L
Perm Defl in.	0.002 (L/18451)	1'6"	0.088 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.003 (L/11301)	1'6"	0.088 (L/360)	0.030 (3%)	L+0.5S	L
TL Defl inch	0.004 (L/7008)	1'6"	0.131 (L/240)	0.030 (3%)	D+L+0.5S	L

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

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



## Design Notes

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



ID	Load Type Location	on Trib Width Side	e Dead	Live	Snow	Wind	Comment
1	Part. Uniform 0-0-0 to 3-0	-0 Top	34 PLF	24 PLF	78 PLF	0 PLF	co
2	Part. Uniform 0-0-0 to 3-0	-0 Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self W Z
4	Part. Uniform 0-0-0 to 3-0	-0 Top	63 PLF	168 PLF	0 PLF	0 PLF	J9 O
5	Part. Uniform 0-0-0 to 3-0	-0 Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self W po

corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amenhedd. These approved documents must be kept on site at all times. The building permit must be clearly toosted on site at all times. posted on site at all times

These plans have been reviewed for use with the

Continued on page 2...

Notes	chemicals
Calculated Structured Designs is responsible only of the	Handling
structural adequacy of this component based on the	1 IVI boom

coural adequacy or this component based on the ign criteria and loadings shown. It is the sonsibility of the customer and/or the contractor to ure the component suitability of the intended lication, and to verify the dimensions and loads.

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

#### & Installation

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

This design is valid until 10/15/2022

Forex APA: PR-L318

Manufacturer Info

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

905-642-4400



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NE1220-150 Page 23 of 31 Client: **GREENPARK** Date: 12/17/2020

isDesign

Project: Address:

Input by:

RCO

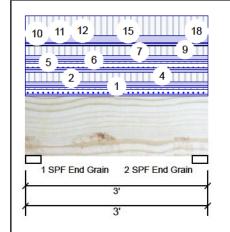
GLENWAY 3A (ELEV.2) DECK CONDITION

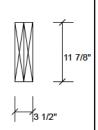
Job Name: Project #:

2-Ply - PASSED Level: Ground Floor 1.750" X 11.875" FH3-A Forex 2.0E-3000Fb LVL

TRINAR HALL

EAST GWILLIMBURY, ON.





Continued f	from page 1								
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Part. Uniform	0-0-0 to 3-0-0		Near Face	34 PLF	24 PLF	78 PLF	0 PLF	
7	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
9	Part. Uniform	0-0-0 to 3-0-0		Near Face	63 PLF	168 PLF	0 PLF	0 PLF	<b>J</b> 9
10	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
11	Tapered Start	0-0-0		Near Face	1 PLF	2 PLF	0 PLF	0 PLF	
	End	1-1-9			2 PLF	5 PLF	0 PLF	0 PLF	
12	Part. Uniform	0-0-0 to 3-0-0		Near Face	125 PLF	334 PLF	0 PLF	0 PLF	J9
15	Tapered Start	1-1-9		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
	End	2-5-9			2 PLF	5 PLF	0 PLF	0 PLF	
18	Tapered Start	2-5-9		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
	End	3-0-0			2 PLF	4 PLF	0 PLF	0 PLF	
	Self Weight				10 PLF				

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

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



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly nosted on site at all times. posted on site at all times

Discipline Reviewer BCIN Date
Building Code H. Authier 43236 2021-02-08 Sewage System

905-642-4400



Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design orineria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Notes

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- 1. IVI, beams must not be out or drilled
  2. Refer to manufacturer's product informati regarding installation requirements, multi-fastening details, beam strength values, and co approvals
  3. Damaged Beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation 4. 5.

Handling & Installation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 10/15/2022

APA: PR-L318

Manufacturer Info

NE1220-150 Page 24 of 31 Client: **GREENPARK** Date: 12/17/2020

2

isDesign Address:

Project:

TRINAR HALL

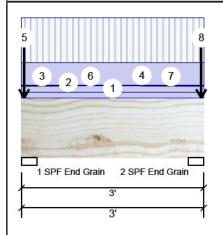
EAST GWILLIMBURY, ON.

Input by:

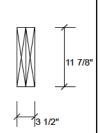
RCO GLENWAY 3A (ELEV.2) DECK CONDITION Job Name:

Project #:

2-Ply - PASSED Level: Ground Floor 1.750" X 11.875" Forex 2.0E-3000Fb LVL



15 PSF



Wind 0

0

Member Information							
Type:	Girder	Application:	Floor (Residential)				
Plies:	2	Design Method:	LSD				
Moisture Conditio	on: Dry	Building Code:	NBCC 2015 / OBC 2012				
Deflection LL:	360	Load Sharing:	No				
Deflection TL:	240	Deck:	Not Checked				
Importance:	Normal	Vibration:	Not Checked				
General Load		104 (10 Y C 10 Y					
Floor Live:	40 PSE						

	red Reactions	UNPATTER	NED lb (Uplift)
Brg 1	Live	Dead	Snow
1	514	446	169

446

169

513

Bearings an	Bearings and Factored Reactions									
Bearing Ler	ngth Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.					
1 - SPF 3.00 End Grain	00" 19%	557 / 940	1497	L	1.25D+1.5L +S					
2 - SPF 3.00 End Grain	00" 19%	557 / 939	1496	L	1.25D+1.5L +S					

### **Analysis Results**

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	657 ft-lb	1'6"	34261 ft-lb	0.019 (2%)	1.25D+1.5L	L
Unbraced	657 ft-lb	1'6"	34261 ft-lb	0.019 (2%)	1.25D+1.5L	L
Shear	940 lb	1'9 7/8"	11596 lb	0.081 (8%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/37791)	1'6"	0.088 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/29305)	1'6"	0.088 (L/360)	0.010 (1%)	L+0.5S	L
TL Defl inch	0.002 (L/16506)	1'6"	0.131 (L/240)	0.010 (1%)	D+L+0.5S	L

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

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



#### **Design Notes**

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comment The
1	Part. Uniform	0-0-0 to 3-0-0		Тор	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self W mad
2	Part. Uniform	0-0-0 to 3-0-0		Near Face	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self W Zon
3	Tapered Start	0-0-0		Near Face	1 PLF	3 PLF	0 PLF	0 PLF	app tim
	End	0-7-9			2 PLF	5 PLF	0 PLF	0 PLF	pos
Continued on pag	e 2								Di

ese plans have been reviewed for use with the uses plants have obeen revelewed not assess may be ade without written approval of the Building andards Branch. All work must comply with ning By-Law 2018-043, as amended, and the stario Building Code, as amended. These proved documents must be kept on site at all nes. The building permit must be clearly sted on site at all times. sted on site at all times

Discipline	rectioner	Den	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design orineria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Notes

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- LVL beams must not be cut or drilled
   Refer to manufacturer's product regarding installation requirement fastening details, beam strength value approvals approvals

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

Manufacturer Info APA: PR-L318

905-642-4400

NE1220-150 Page 25 of 31 Client: **GREENPARK** Date: 12/17/2020

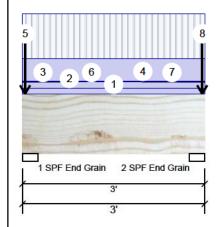
Project: isDesign

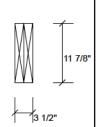
Address: TRINAR HALL Input by: RCO

GLENWAY 3A (ELEV.2) DECK CONDITION Job Name:

EAST GWILLIMBURY, ON. Project #:

2-Ply - PASSED Level: Ground Floor 1.750" X 11.875" Forex 2.0E-3000Fb LVL FH3-B





page 1								·
Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
Part. Uniform	0-0-0 to 3-0-0		Near Face	148 PLF	304 PLF	0 PLF	0 PLF	J5
Point	0-0-8		Тор	87 lb	51 lb	169 lb	0 lb	Header Column Header Column
Tapered Start	0-7-9		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
End	1-11-9			2 PLF	5 PLF	0 PLF	0 PLF	
Tapered Start	1-11-9		Near Face	2 PLF	5 PLF	0 PLF	0 PLF	
End	3-0-0			1 PLF	2 PLF	0 PLF	0 PLF	
Point	2-11-8		Тор	87 lb	51 lb	169 lb	0 lb	Header Column Header Column
Self Weight				10 PLF				
	Part. Uniform Point  Tapered Start End Tapered Start End Point	Part. Uniform         0-0-0 to 3-0-0           Point         0-0-8           Tapered Start         0-7-9           End         1-11-9           Tapered Start         1-11-9           End         3-0-0           Point         2-11-8	Part. Uniform 0-0-0 to 3-0-0 Point 0-0-8  Tapered Start 0-7-9 End 1-11-9 Tapered Start 1-11-9 End 3-0-0 Point 2-11-8	Part. Uniform         0-0-0 to 3-0-0         Near Face           Point         0-0-8         Top           Tapered Start         0-7-9         Near Face           End         1-11-9         Near Face           End         3-0-0         Near Face           Point         2-11-8         Top	Part. Uniform         0-0-0 to 3-0-0         Near Face         148 PLF           Point         0-0-8         Top         87 lb           Tapered Start         0-7-9         Near Face         2 PLF           End         1-11-9         2 PLF           Tapered Start         1-11-9         Near Face         2 PLF           End         3-0-0         1 PLF           Point         2-11-8         Top         87 lb	Part. Uniform         0-0-0 to 3-0-0         Near Face         148 PLF         304 PLF           Point         0-0-8         Top         87 lb         51 lb           Tapered Start         0-7-9         Near Face         2 PLF         5 PLF           End         1-11-9         2 PLF         5 PLF           Tapered Start         1-11-9         Near Face         2 PLF         5 PLF           End         3-0-0         1 PLF         2 PLF           Point         2-11-8         Top         87 lb         51 lb	Part. Uniform         0-0-0 to 3-0-0         Near Face         148 PLF         304 PLF         0 PLF           Point         0-0-8         Top         87 lb         51 lb         169 lb           Tapered Start         0-7-9         Near Face         2 PLF         5 PLF         0 PLF           End         1-11-9         2 PLF         5 PLF         0 PLF           Tapered Start         1-11-9         Near Face         2 PLF         5 PLF         0 PLF           End         3-0-0         1 PLF         2 PLF         0 PLF           Point         2-11-8         Top         87 lb         51 lb         169 lb	Part. Uniform         0-0-0 to 3-0-0         Near Face         148 PLF         304 PLF         0 PLF         0 PLF           Point         0-0-8         Top         87 lb         51 lb         169 lb         0 lb           Tapered Start         0-7-9         Near Face         2 PLF         5 PLF         0 PLF         0 PLF           End         1-11-9         2 PLF         5 PLF         0 PLF         0 PLF           Tapered Start         1-11-9         Near Face         2 PLF         5 PLF         0 PLF         0 PLF           End         3-0-0         1 PLF         2 PLF         0 PLF         0 PLF           Point         2-11-8         Top         87 lb         51 lb         169 lb         0 lb

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT. REFER TO MULTIPLE MEMBER TO MEMBER

CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH **BLOCK IS REQUIRED AT ALL** POINT LOADS OVER BEARINGS.



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly nosted on site at all times. posted on site at all times.

### Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design orineria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

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

Handling & Installation

1. IVI, beams must not be out or drilled
2. Refer to manufacturer's product informati regarding installation requirements, multi-fastening details, beam strength values, and co approvals
3. Damaged Beams must not be used

Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation 4. 5.

6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex

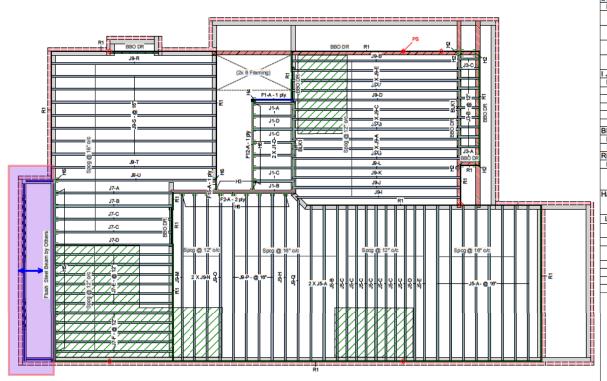
APA: PR-L318

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

905-642-4400



Second Floor



READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO ME CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS. PASS THRU FRAMING SQUASH BLOCK IS REQUIRED AT ALL



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	H. Authier	43236	2021-02-08
0 0 1			
Sewage System			
Zoning			

JOB INFORMATION LVL/LSL (Flush) Builder Label Description Width Depth Qty Plies Pcs Length GREENPARK 1.75 11.875 F2 Forex 2 2 14-0-0 2.0E-3000Fb LVL Project F12 1.75 11.875 10-0-0 Shipping 2.0E-3000Fb LVL TRINAR HALL EAST GWILLIMBURY, ON. 2.0E-3000Fb LVL F15 Forex 2.0E-3000Fb LVL Sales Rep 1.75 11.875 2-0-0 Designer Joist (Flush) RCO Label Description Width Depth Qty Plies Pcs Length Plotted J5 AJS 140 2.5 11.875 20 16-0-0 December 17, 2020 J7 AJS 140 2.5 11.875 16 12-0-0 J1 AJS 140 2.5 11.875 7 6-0-0 Layout Name 11 4-0-0 J3 AJS 140 2.5 11.875 GLENWAY 3A (ELEV.2) J9 AJS 20 2.5 11.875 35 18-0-0 Job Path Blocking C:\Users\rochavillo\Documents\WORK FROM HOME \GREENPARK\TRINAR HALL\GLENWAY 3A\ELEV 2 Label Description Width Depth Qty Plies Pcs Length BLK1 AJS 140 2.5 11.875 LinPt Varies 13-0-0 VFLOOR/GLENWAY 3A (ELEV.2).isl Rim Board **DESIGN CRITERIA** Label Description 
 Label
 Description
 Width
 Depth
 Qty
 Plies
 Pcs
 Length

 R1
 Norbord Rimboard
 1.125
 11.875
 17
 12-0-0
 Second Floor Plus 1.125 X Design Method LSD (Canada) 11.875 **Building Code** NBCC 2015 / OBC 2012 Hanger Beam/Girder Supported Floor Member Loads Label Pcs Description Skew Slope fasteners fasteners H2 5 Unknown Hanger 15 Dead **Deflection Joist** H3 2 HUS1.81/10 30 16d 10 16d 480 HUCQ1.18/9-LL Span L/ TL Span L/ 360 16 LF2511 1 #8x1 1/4WS LL Cant 2L/ H5 12 10d 480 H6 1 LF2511 TL Cant 2L/ 360 1 LF2511 H6 **Deflection Girden** H6 16 LF2511 LL Span L/ 360 1. All blocking to be cut from 12' joists 240 TL Span L/ 2. 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length 480 LL Cant 2L/ 3. Ends of joists to be laterally supported TL Cant 2L/ 360 4. Packing of Steel beams and attachment by others Decking 5. Shower and water doset flange locations are approximate only, consult Decking SPF Plywood architectural drawing for exact locations Thickness 6. Beams identified as "B" are dropped and supplied by others Nailed & Glued Fastener 7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls Vibration 8. Load transfer blocks to be installed under all point loads

Legend

Second Floor

Point Load Support Load from Above Wall Opening Norbord Rimboard Plus 1.125 X 11.875 AJS 140 11.875 AJS 20 11.875 Forex 2.0E-3000Fb LVL 1.75 X 11.875

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

Framing shown on this layout may deviate from architectural drawings. Architectural to review and approve the deviation prior to construction.

10. Hangers and Fasteners to be installed as per manufacturer

Kott Lumbe Company KOTT 14 Anderson Blvd Stouffville Ontario L4A 7X4

Ceiling:

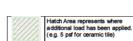
P - 12412-R

Canada

905-642-4400

Forex - 14056-R

**CCMC References** Boise - 12472-R , 12787-R Gypsum 1/2"



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This layout is to be used as an installation guide only. It is meant to be used in conjunction with the architectural and structural drawings, not to replace them

NE1220-150 Page 27 of 31 Client: **GREENPARK** Date: 12/17/2020 Project: Input by: RCO isDesign Address: TRINAR HALL Job Name: GLENWAY 3A (ELEV.2) EAST GWILLIMBURY, ON. Project #: Level: Second Floor Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED F12-A 5 4 3 1 Hanger (HUS1.81/10) 2 SPF End Grain 9'4 11/16 9'4 11/16' Unfactored Reactions UNPATTERNED lb (Uplift) Member Information Application: Brg Live Dead Snow Wind Type: Floor (Residential) Plies: 1 Design Method: 695 285 0 0 1 Moisture Condition: Dry **Building Code:** NBCC 2015 / OBC 2012 0 715 293 0 2 Deflection LL: 360 Load Sharing: No Deflection TL: 240 Deck: Not Checked Importance: Vibration: Not Checked Normal General Load Bearings and Factored Reactions Floor Live: 40 PSF 15 PSF Dead: Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 356 / 1043 1398 L 1.25D+1.5L 3.000" Hanger Analysis Results 2 - SPF 3.500" 32% 366 / 1072 1438 L 1.25D+1.5L **End** Grain READ ALL NOTES ON THIS PAGE AND ON ADPROFESSIONAL ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3129 ft-lb	4'8"	17130 ft-lb	0.183 (18%)	1.25D+1.5L	L
Unbraced	3129 ft-lb	4'8"	5011 ft-lb	0.624 (62%)	1.25D+1.5L	L
Shear	1236 lb	1'2 1/8"	5798 lb	0.213 (21%)	1.25D+1.5L	L
Perm Defl in.	0.022 (L/4806)	4'8 1/16"	0.299 (L/360)	0.070 (7%)	D	Uniform
LL Defl inch	0.055 (L/1968)	4'8 1/16"	0.299 (L/360)	0.180 (18%)	L	L
TL Defl inch	0.077 (L/1396)	4'8 1/16"	0.449 (L/240)	0.170 (17%)	D+L	L

### **Design Notes**

ID

1 2

3

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top braced at bearings.
- 4 Bottom brad

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3129 ft-lb	4'8"	17130 ft-lb	0.183 (18%)	1.25D+1.5L	L
Unbraced	3129 ft-lb	4'8"	5011 ft-lb	0.624 (62%)	1.25D+1.5L	L
Shear	1236 lb	1'2 1/8"	5798 lb	0.213 (21%)	1.25D+1.5L	L
Perm Defl in.	0.022 (L/4806)	4'8 1/16"	0.299 (L/360)	0.070 (7%)	D	Uniform
LL Defl inch	0.055 (L/1968)	4'8 1/16"	0.299 (L/360)	0.180 (18%)	L	L
TL Defl inch	0.077 (L/1396)	4'8 1/16"	0.449 (L/240)	0.170 (17%)	D+L	L

d at bearings. aced at bearings.					POINT LOAD	S OVER BEAR	INGS.		
Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Commer	nts
Tie-In	0-0-0 to 1-1-13	1-10-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
Point	0-11-7		Near Face	37 lb	99 lb	0 lb	0 lb	J1	5
Tie-In	1-1-13 to 9-4-11	1-10-6	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
Part. Uniform	1-7-7 to 8-3-7		Near Face	31 PLF	81 PLF	0 PLF	0 PLF		The
Point	8-11-7		Near Face	26 lb	69 lb	0 lb	0 lb	J1	cor



Dec 21, 2020

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Discipline	Keviewei	BCIN	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

905-642-4400

Notes

structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended

Self Weight

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corn
- **Handling & Installation**

naged Beams m

- LVL beams must not be cut or drilled
   Refer to manufacturer's product regarding installation requirement
- Daniaged beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

5 PLF

USED IN THE DESIGN OF THIS COMPONENT. REFER TO MULTIPLE MEMBER TO MEMBER

Manufacturer Info

APA: PR-L318

CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

PASS THRU FRAMING SQUASH

**BLOCK IS REQUIRED AT ALL** 



NE1220-150

isDesign

Client:

Project: Address: **GREENPARK** 

EAST GWILLIMBURY, ON.

TRINAR HALL

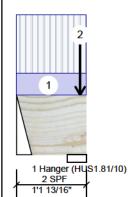
Date: 12/17/2020 Input by: RCO

Job Name: GLENWAY 3A (ELEV.2)

Project #:

F15-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Second Floor



Page 28 of 31

Mem	ber In	ıform	ation
IVICIII	<b>JCI II</b>		ution

1'1 13/16"

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		

#### Unfactored Reactions UNPATTERNED lb (Uplift) Bra Live Dead

Brg	Live	Dead	Snow	Wind
1	41	18	0	0
2	195	76	0	0

## **Analysis Results**

**15 PSF** 

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	10 ft-lb	6 1/2"	17130 ft-lb	0.001 (0%)	1.25D+1.5L	L
Unbraced	10 ft-lb	6 1/2"	17130 ft-lb	0.001 (0%)	1.25D+1.5L	L
Shear	56 lb	1'2 1/8"	5798 lb	0.010 (1%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		

## **Bearings and Factored Reactions**

Bearing	Length	Cap. Rea	ct D/L lb	Total	Ld. Case	Ld. Comb.	
1-	3.000"	2%	22 / 61	83	L	1.25D+1.5L	
Hanger							
2 SDE	3.813"	9%	95 / 292	387	1	1.25D+1.5I	

## **Design Notes**

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.
- 3 Top braced at bearings.
- 4 Bottom braced at bearings

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

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



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-1-13	1-10-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-0-9		Far Face	56 lb	149 lb	0 lb	0 lb	J9
	Self Weight				5 PLF				_ (



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•	Oles	

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corrosive
- Handling & Installation
- LVL beams must not be cut or drilled
   Refer to manufacturer's product regarding installation requirement fastening details, beam strength value approvals
   Damaged Beams must not be used
- Daniaged beams must not be used
  Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation
- For flat roofs provide proper drainage to prever ponding

This design is valid until 10/15/2022

nt	Manufacturer Info					
	Forex APA: PR-L318					

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02-08

905-642-4400



CSD DESIGN

Version 19.60.173 Powered by iStruct™

NE1220-150 Client: **GREENPARK** Date: 12/17/2020

EAST GWILLIMBURY, ON.

isDesign

Project:

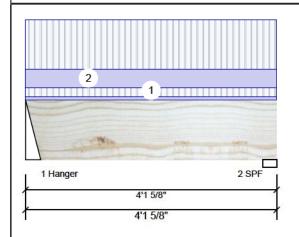
Address: TRINAR HALL Input by: RCO

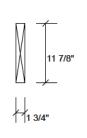
Job Name: GLENWAY 3A (ELEV.2)

Project #:

1.750" X 11.875" - PASSED Forex 2.0E-3000Fb LVL

Level: Second Floor





Ld. Comb.

1.25D+1.5L

1.25D+1.5L

Page 29 of 31

Member Information							
Type:	Girder	Application:	Floor (Residential)				
Plies:	1	Design Method:	LSD				
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012				
Deflection LL:	360	Load Sharing:	No				
Deflection TL:	240	Deck:	Not Checked				
Importance:	Normal	Vibration:	Not Checked				
General Load		2,447,244,264,264					
Floor Live:	40 PSF						

Brg	Live	Dead	Snow	Wind
1	98	47	0	0
2	97	46	0	0

Cap. React D/L lb

Wind

0 PSF

0 PLF

Unfactored Reactions UNPATTERNED Ib (Uplift)

#### 58 / 147 3.000" 5% 206 I Hanger Analysis Results 2 - SPF 2.750" 7% 58 / 146 204 L Location Allowed Capacity Comb **Analysis** Actual Case 177 ft-lb 0.010 (1%) 1.25D+1.5L L Moment 2' 15/16" 17130 ft-lb READ ALL NOTES ON THIS PAGE AND ON

2' 15/16" 11809 ft-lb Unbraced 177 ft-lb 0.015 (1%) 1.25D+1.5L L Shear 89 lb 1'2 1/8" 5798 lb 0.015 (2%) 1.25D+1.5L L Perm Defl in. 0.000 (L/999) 0 999.000 (L/0) 0.000 (0%) LL Defl inch 0.001 2'1" 0.126 (L/360) 0.010 (1%) L L (L/49670) TL Defl inch 0.001 2'1" 0.189 (L/240) 0.010 (1%) D+L L (L/33657)

ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

Snow

0 PSF

0 PLF

Bearings and Factored Reactions

Bearing Length

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

Live



Total Ld. Case

#### Design Notes

Dead:

- 1 Fill all hanger nailing holes.
- 2 Girders are designed to be supported on the bottom edge only.

15 PSF

- 3 Top braced at bearings.
- 4 Bottom braced at bearings. ID Load Type

1	Tie-In	0-0-0 to 4-1-10	0-2-3	Тор	15 PSF
2	Part. Uniform	0-0-0 to 4-1-10		Тор	15 PLF
	Self Weight				5 PLF



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amenhedd. These approved documents must be kept on site at all times. The building permit must be clearly nosted on site at all times. posted on site at all times

Discipline	rectioner	Den	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

905-642-4400



1	Tie-In	0-0-0 to 4-1-10	0-2-3	Тор	15 PSF	40 PSF
2	Part. Uniform	0-0-0 to 4-1-10		Тор	15 PLF	40 PLF
	Self Weight				5 PLF	

Location

Trib Width

Side

Manufacturer Info Forex

Dead

APA: PR-L318

structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended

Notes

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

**Handling & Installation** 

- LVL beams must not be cut or drilled
   Refer to manufacturer's product regarding installation requirement fastening details, beam strength valu naged Beams m
- Daniaged beams must not be used
  Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid
  lateral displacement and rotation

NE1220-150 Page 30 of 31 Client: **GREENPARK** Date: 12/17/2020

Project:

isDesign

Address: TRINAR HALL

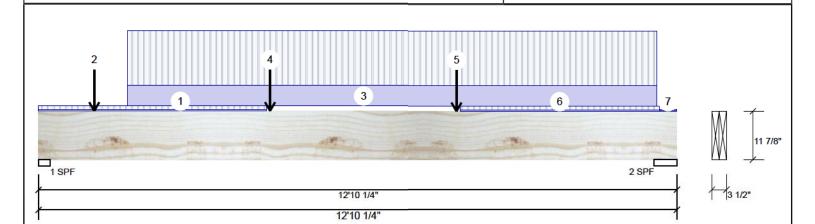
EAST GWILLIMBURY, ON.

Input by: RCO

Job Name: GLENWAY 3A (ELEV.2) Level: Second Floor

Project #:

1.750" X 11.875" Forex 2.0E-3000Fb LVL 2-Ply - PASSED



Member Inforn	nation			Unfactore	d Reactio	ns UNPATTERNE	D lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	2339	954	0	0
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012	2	2674	1087	0	0
Deflection LL:	360	Load Sharing:	No	100				
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load					Fig. 100, 100 to			
Floor Live:	40 PSF			Bearings a	and Facto	red Reactions		
Dead:	15 PSF			Bearing L	ength	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1 - SPF 2	.750"	79% 1193 / 3509	4702 L	1.25D+1.5L
				2-SPF 5	.500"	45% 1359 / 4012	5371 L	1.25D+1.5L

#### Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	16468 ft-lb	6'11 3/16"	34261 ft-lb	0.481 (48%)	1.25D+1.5L	L
Unbraced	16468 ft-lb	6'11 3/16"	27232 ft-lb	0.605 (60%)	1.25D+1.5L	L
Shear	5297 lb	1'1 7/8"	11596 lb	0.457 (46%)	1.25D+1.5L	L
Perm Defl in	0.102 (L/1449)	6'5 1/4"	0.410 (L/360)	0.250 (25%)	D	Uniform
LL Defl inch	0.251 (L/588)	6'5 1/4"	0.410 (L/360)	0.610 (61%)	L	L
TL Defl inch	0.353 (L/418)	6'5 1/4"	0.615 (L/240)	0.570 (57%)	D+L	L

### **Design Notes**

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

al clandarnace ratio based on full section width

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT. REFER TO MULTIPLE MEMBER TO MEMBER CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

Manufacturer Info

APA: PR-L318

Forex

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



6 Lateral siende	erness rauo based on	Tuli section wiath.							
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comment
1	Tie-In	0-0-0 to 4-7-0	0-7-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-1-7		Near Face	165 lb	429 lb	0 lb	0 lb	J9 🧺
3	Part. Uniform	1-9-7 to 12-5-7		Near Face	129 PLF	342 PLF	0 PLF	0 PLF	Th
4	Point	4-7-14		Far Face	18 lb	41 lb	0 lb	0 lb	F15 ma
5	Point	8-5-0		Far Face	285 lb	695 lb	0 lb	0 lb	F12 Zo
6	Tie-In	8-5-14 to 12-6-0	0-6-10	Тор	15 PSF	40 PSF	0 PSF	0 PSF	ap <sub>l</sub> tim
Continued on page	2								pos

₹ East Gwillimbury

These plans have been reviewed for use with the received the same to the seem and the control of the suiding standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amépaded. These proproved documents must be kept on site at all times. The building permit must be clearly posted on site at all times. oosted on site at all times

Discipline	rectioner	Den	Date
Building Code	H. Authier	43236	2021-02-08
Sewage System			
Zoning			

905-642-4400

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N	otes	

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- Dry service conditions, unless noted otherwise
   LVL not to be treated with fire retardant or corro
- Handling & Installation
- 1. IVI, beams must not be cut or drilled
  2. Refer to manufacturer's product informati regarding installation requirements, multi-fastening details, beam strength values, and co approvals
  3. Damaged Beams must not be used

- Daniaged beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation



NE1220-150 Page 31 of 31 Client: **GREENPARK** Date: 12/17/2020 Page 8 of 8 Project: Input by: RCO isDesign Address: TRINAR HALL Job Name: GLENWAY 3A (ELEV.2) EAST GWILLIMBURY, ON. Project #: Level: Second Floor 1.750" X 11.875" Forex 2.0E-3000Fb LVL 2-Ply - PASSED F2-A 2 4 5 3 1 6 7 1 SPF 2 SPF 12'10 1/4" 12'10 1/4" .Continued from page 1 ID Location Trib Width Side Dead Live Snow Wind Comments Load Type 7 15 PSF 40 PSF 0 PSF 0 PSF Tie-In 12-6-0 to 12-10-4 0-2-10 Top Self Weight 10 PLF READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-2. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS CALCULATION SUMMARY PAGE AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

REFER TO MULTIPLE MEMBER TO MEMBER

CONNECTION DETAIL FOR PLY TO PLY NAILING OR BOLTING REQUIREMENTS.

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



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## Discipline Reviewer BCIN Date Building Code H, Authier 43236 2021-02-08 Sewage System

905-642-4400



These plans have been reviewed for use with the

### Notes

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   3. Damaged Beams must not be used
  - Daniaged beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation
- 4. 5.

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 10/15/2022

Forex

Manufacturer Info

APA: PR-L318