

Products				
PlotID	Length	Product	Plies	Net Qty
J1	18-00-00	11 7/8" NI-20	1	3
J2	16-00-00	11 7/8" NI-20	1	23
J3	15-00-00	11 7/8" NI-20	1	18
J4	14-00-00	11 7/8" NI-20	1	18
J5	12-00-00	11 7/8" NI-20	1	8
J6	11-00-00	11 7/8" NI-20	1	19
J7	6-00-00	11 7/8" NI-20	1	1
J8	5-00-00	11 7/8" NI-20	1	2
J9	4-00-00	11 7/8" NI-20	1	1
J10	2-00-00	11 7/8" NI-20	1	1
B4	18-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B7	17-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	4
B5	16-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B8	15-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	3	3
B3	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B9	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B2	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B6	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
B1	3-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	1	1
B10	3-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	4
Ca1	142-00-00	1 1/8" x 11 7/8" Rim Board	1	1
Bk1	38-00-00	11 7/8" NI-20	1	1

Connector Summary			
PlotID	Qty	Manuf	Product
H1	3		HGUS410
H2	14		HU310
H3	1		HU9X
H4	2		HUC410
H5	4		LSSR2.56Z
H6	1		LSSR410Z
H7	57		LT251188

RIMBOARD
1- 1/8" X 11 7/8" O.S.B.
SUBFLOOR - 3/4" GLUE & NAILED*
APP - AS PER PLAN
BBO - BEAM BY OTHERS

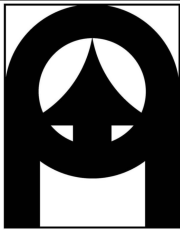
Ceramic tile application as per O.B.C. 9.30.6
Provide I-Joist Blocking between cantilevered joists (along bearing) and rimboard closure at ends.
Blocking panels are required over all interior supports
Squash blocks are required under concentrated loads.

Second Floor Framing

MODEL: 5001-EL.A
- LOT 112

Do not scale - refer to architectural plans for dimensions

SE012582 - SE012596



LUMBER DEALER:		HOME LUMBER		SALES REPRESENTATIVE:	
				Derek	
				DATE:	
				June 15, 2020	
MODEL: 5001					
Gold Park					
Pine Valley					
DRAWN BY:		LOCATION:			
NL		Vaughan			
REVISIONS:					
<div>1</div>					
<div>2</div>					
<div>3</div>					
LEGEND:					
J#		Joist Mark			
B#		Beam Mark			
Ca #		Rimboard			
Bk #		Blocking			
JT / PL		45147/106682			
LI		321253/290681			
LOADING					
Live		40 psf		dead 15 psf	
DEFLECTION CRITERIA					
Live:		L/360		Total L/240	
1		OF		2	

BC CALC® Member Report

Dry | 1 span | No cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 2nd Floor - Supply/BOM\Flush Beams\B1(i32436)

City, Province, Postal Code: Vaughan, ON

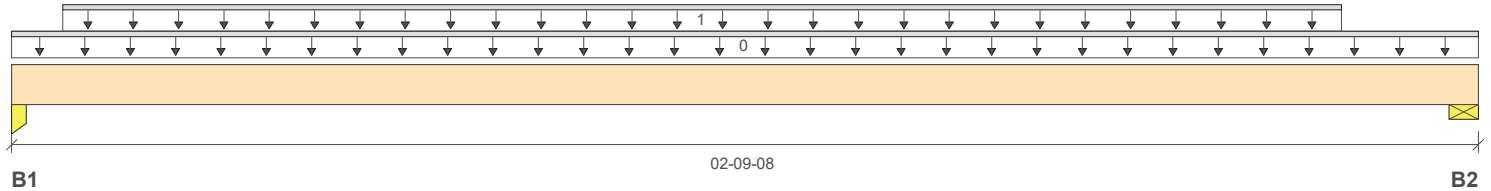
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	4 / 0	10 / 0		
B2, 5-1/2"	4 / 0	11 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live	Dead	Snow	Wind	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	02-09-08	Top	1.00	0.65	1.00	1.15	00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-01-03	02-06-06	Top	3	1			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	6 ft-lbs	11502 ft-lbs	n/a	0	01-03-12
End Shear	0 lbs	-1 lbs	n/a	-1	00-00-00
Span / Depth	2.2				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Column 3-1/2" x 1-3/4"	14 lbs	0.2%	0.3%	Spruce-Pine-Fir
B2	Wall/Plate 5-1/2" x 1-3/4"	15 lbs	0.4%	0.2%	Spruce-Pine-Fir

Notes

Calculations assume unbraced length of Top: 00-00-00, Bottom: 00-00-00.

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). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

SE012582

BC CALC® Member Report

Dry | 1 span | No cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 2nd Floor - Supply/BOM\Flush Beams\B2(i32612)

City, Province, Postal Code: Vaughan, ON

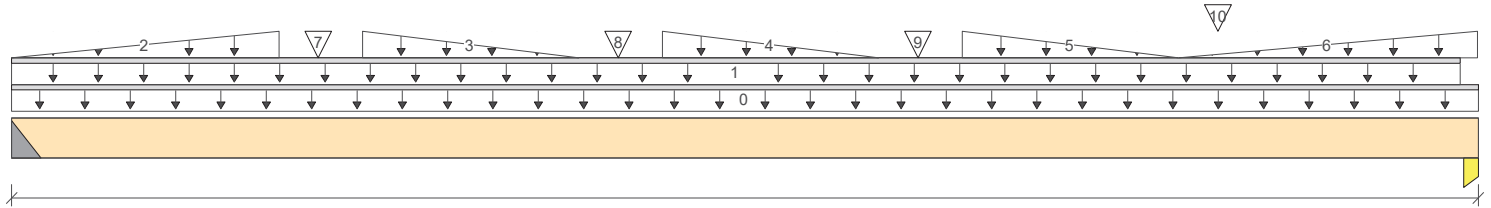
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



B1 **B2**

Total Horizontal Product Length = 07-08-02

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	516 / 0	285 / 0		
B2, 1-11/16"	450 / 0	253 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	07-08-02	Top		12			00-00-00
1	User Load	Unf. Lin. (lb/ft)	L	00-00-00	07-06-15	Top	40	15			n/a
2	FC1 Floor Material	Trapezoidal (lb/ft)	L	00-00-00	01-04-13	Top	0	0			n/a
3	FC1 Floor Material	Trapezoidal (lb/ft)	L	01-10-00	02-11-10	Top	27	13			n/a
4	FC1 Floor Material	Trapezoidal (lb/ft)	L	03-04-14	04-06-07	Top	28	14			n/a
5	FC1 Floor Material	Trapezoidal (lb/ft)	L	04-11-11	06-01-05	Top	0	0			n/a
6	FC1 Floor Material	Trapezoidal (lb/ft)	L	06-01-05	07-08-01	Top	28	14			n/a
7	J7(i32655)	Conc. Pt. (lbs)	L	01-07-04	01-07-04	Top	0	0			n/a
8	J8(i32654)	Conc. Pt. (lbs)	L	03-02-01	03-02-01	Top	14	7			n/a
9	J8(i32833)	Conc. Pt. (lbs)	L	04-08-15	04-08-15	Top	229	114			n/a
10	J9(i32652)	Conc. Pt. (lbs)	L	06-03-12	06-03-12	Top	123	62			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	2106 ft-lbs	35392 ft-lbs	5.9%	1	03-02-02
End Shear	1022 lbs	14464 lbs	7.1%	1	01-01-14
Total Load Deflection	L/999 (0.016")	n/a	n/a	4	03-09-15
Live Load Deflection	L/999 (0.01")	n/a	n/a	5	03-09-15
Max Defl.	0.016"	n/a	n/a	4	03-09-15
Span / Depth	7.6				

Bearing Supports

	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Hanger 2" x 3-1/2"	1131 lbs	n/a	13.2%	LSSR410Z
B2	Column 1-11/16" x 3-1/2"	991 lbs	9.5%	13.5%	Spruce-Pine-Fir

Cautions

Header for the hanger LSSR410Z is a Single 1-3/4" x 11-7/8" LVL Beam.

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 12" O/C,
STAGGERED IN 2 ROWS


BC CALC® Member Report

Dry | 1 span | No cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 2nd Floor - Supply/BOM\Flush Beams\B3(i32442)

City, Province, Postal Code: Vaughan, ON

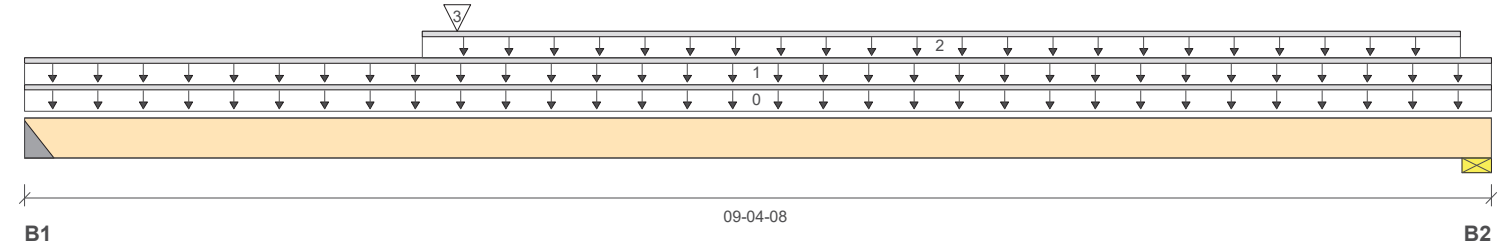
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	751 / 0	422 / 0		
B2, 5-1/2"	563 / 0	319 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	09-04-08	Top		6			00-00-00
1	User Load	Unf. Lin. (lb/ft)	L	00-00-00	09-04-08	Top	80	40			n/a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	02-06-08	09-02-02	Top	3	2			n/a
3	B2(i32612)	Conc. Pt. (lbs)	L	02-09-03	02-09-03	Top	541	298			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	3720 ft-lbs	17696 ft-lbs	21.0%	1	02-09-03
End Shear	1448 lbs	7232 lbs	20.0%	1	01-01-14
Total Load Deflection	L/999 (0.072")	n/a	n/a	4	04-04-09
Live Load Deflection	L/999 (0.046")	n/a	n/a	5	04-04-09
Max Defl.	0.072"	n/a	n/a	4	04-04-09
Span / Depth	9.0				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Hanger 2" x 1-3/4"	1654 lbs	n/a	38.7%	HU9X
B2	Wall/Plate 5-1/2" x 1-3/4"	1242 lbs	21.0%	10.6%	Spruce-Pine-Fir

Cautions

Header for the hanger HU9X is a Double 1-3/4" x 11-7/8" LVL Beam.

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 Calculations assume member is fully braced.
 Hanger Manufacturer: Unassigned
 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). Completeness and accuracy of input must be reviewed and verified by a qualified engineer or other appropriate expert to assure its adequacy, prior to anyone relying on such output as evidence of suitability for a particular application. The output here is based on building code-accepted design properties and analysis methods. Installation of Boise Cascade engineered wood products must be in accordance with current Installation Guide and applicable building codes. To obtain Installation Guide or ask questions, please call (800)232-0788 before installation.

BC CALC®, BC FRAMER®, AJS™, ALLJOIST®, BC RIM BOARD™, BCI®, BOISE GLULAM™, BC FloorValue®, VERSA-LAM®, VERSA-RIM PLUS®,

SE012584

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

2nd Floor - Supply/BOM\Flush Beams\B4(i32426) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 2 spans | R cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 2nd Floor - Supply/BOM\Flush Beams\B4(i32426)

City, Province, Postal Code: Vaughan, ON

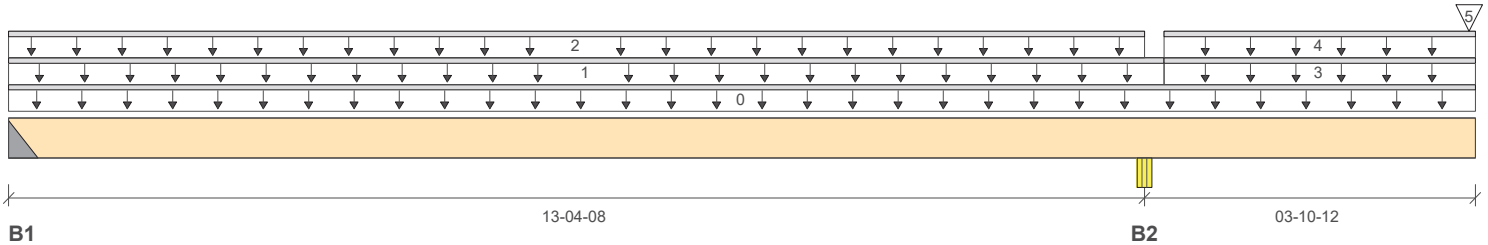
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	285 / 345	45 / 0		
B2, 3-1/2"	2204 / 0	1190 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	17-03-04	Top		12			00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	13-07-04	Top	22	11			n/a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	13-04-08	Top	20	10			n/a
3	User Load	Unf. Lin. (lb/ft)	L	13-07-04	17-03-04	Top	200	75			n/a
4	FC1 Floor Material	Unf. Lin. (lb/ft)	L	13-07-04	17-03-04	Top	23	11			n/a
5	B3(i32442)	Conc. Pt. (lbs)	L	17-02-06	17-02-06	Top	756	425			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	1126 ft-lbs	35392 ft-lbs	3.2%	5	04-11-10
Neg. Moment	-9826 ft-lbs	-35392 ft-lbs	27.8%	1	13-04-08
End Shear	452 lbs	14464 lbs	3.1%	6	01-01-14
Cont. Shear	3333 lbs	14464 lbs	23.0%	1	14-06-02
Total Load Deflection	2xL/380 (0.246")	n/a	63.1%	10	17-03-04
Live Load Deflection	2xL/530 (0.176")	n/a	67.9%	13	17-03-04
Total Neg. Defl.	L/999 (-0.116")	n/a	n/a	10	07-10-15
Max Defl.	-0.116"	n/a	n/a	10	07-10-15
Span / Depth	13.4				



Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1 Hanger	2" x 3-1/2"	484 lbs	n/a	5.7%	HGUS410
B1 Uplift		477 lbs			
B2 Beam	3-1/2" x 3-1/2"	4793 lbs	50.9%	32.1%	Unspecified

Cautions

Uplift of 477 lbs found at bearing B1.

Hanger B1 cannot handle uplift of -477 lbs.

Header for the hanger HGUS410 is a Double 1-3/4" x 11-7/8" LVL Beam.

Hanger model HGUS410 and seat length were input by the user. Hanger has not been analyzed for adequate capacity.

Concentrated side load(s) 5 are closer than 18" from end of member. Please consult a technical representative or Professional of Record.

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 12" O/C,
STAGGERED IN 2 ROWS

SE012585

BC CALC® Member Report

Dry | 1 span | No cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 2nd Floor - Supply/BOM\Flush Beams\B5(i32505)

City, Province, Postal Code: Vaughan, ON

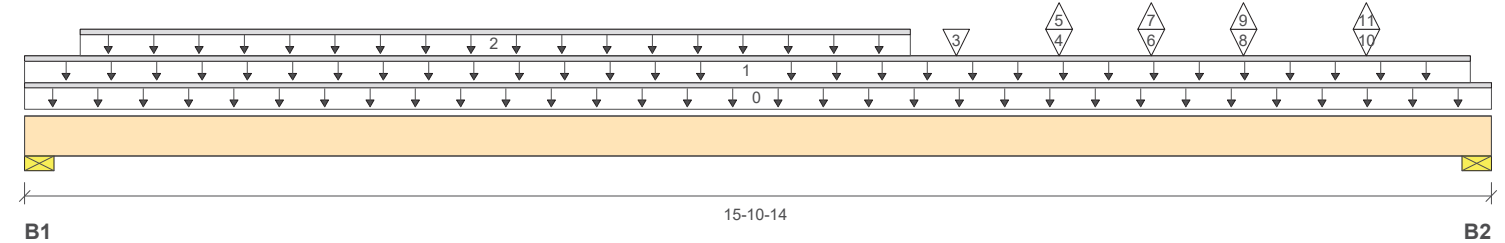
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 4-3/8"	2151 / 107	1138 / 0		
B2, 5-1/2"	2203 / 311	1095 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	15-10-14	Top		12			00-00-00
1	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	15-08-02	Top	21	11			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	00-07-04	09-07-04	Top	271	135			n/a
3	J4(i32884)	Conc. Pt. (lbs)	L	10-01-04	10-01-04	Top	286	143			n/a
4	B4(i32426)	Conc. Pt. (lbs)	L	11-02-10	11-02-10	Top	289	49			n/a
5	B4(i32426)	Conc. Pt. (lbs)	L	11-02-10	11-02-10	Top	-339				n/a
6	J1(i32646)	Conc. Pt. (lbs)	L	12-02-10	12-02-10	Top	273	125			n/a
7	J1(i32646)	Conc. Pt. (lbs)	L	12-02-10	12-02-10	Top	-24				n/a
8	J1(i32647)	Conc. Pt. (lbs)	L	13-02-10	13-02-10	Top	319	146			n/a
9	J1(i32647)	Conc. Pt. (lbs)	L	13-02-10	13-02-10	Top	-26				n/a
10	J1(i32648)	Conc. Pt. (lbs)	L	14-06-10	14-06-10	Top	421	196			n/a
11	J1(i32648)	Conc. Pt. (lbs)	L	14-06-10	14-06-10	Top	-29				n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	18190 ft-lbs	35392 ft-lbs	51.4%	1	08-01-04
End Shear	4515 lbs	14464 lbs	31.2%	1	14-05-08
Total Load Deflection	L/334 (0.547")	n/a	71.9%	6	07-10-04
Live Load Deflection	L/504 (0.362")	n/a	71.4%	8	07-10-04
Max Defl.	0.547"	n/a	n/a	6	07-10-04
Span / Depth	15.4				



Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 4-3/8" x 3-1/2"	4648 lbs	49.3%	24.9%	Spruce-Pine-Fir
B2	Wall/Plate 5-1/2" x 3-1/2"	4674 lbs	39.5%	19.9%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live 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

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 10" O/C,
 STAGGERED IN 2 ROWS

SE012586

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

2nd Floor - Supply/BOM\Flush Beams\B6(i32457) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 2nd Floor - Supply/BOM\Flush Beams\B6(i32457)

City, Province, Postal Code: Vaughan, ON

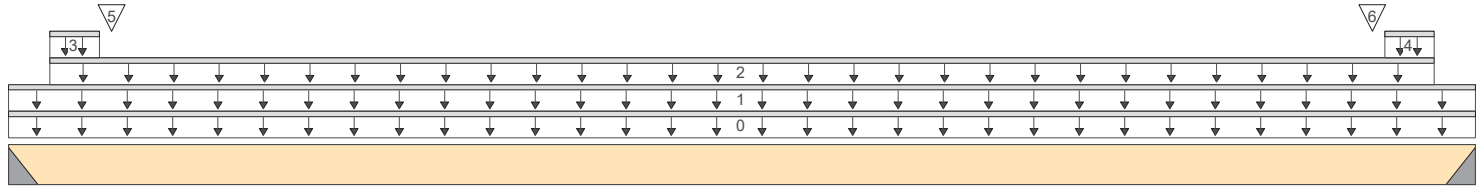
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



B1 B2

Total Horizontal Product Length = 07-05-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 2"	148 / 0	631 / 0	221 / 0	
B2, 2"	148 / 0	631 / 0	221 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	07-05-00	Top		12			00-00-00
1	User Load	Unf. Lin. (lb/ft)	L	00-00-00	07-05-00	Top	40	20			n/a
2	E33(i31018)	Unf. Lin. (lb/ft)	L	00-02-08	07-02-08	Top		101			n/a
3	E33(i31018)	Unf. Lin. (lb/ft)	L	00-02-08	00-05-08	Top			63		n/a
4	E33(i31018)	Unf. Lin. (lb/ft)	L	06-11-08	07-02-08	Top			63		n/a
5	E33(i31018)	Conc. Pt. (lbs)	L	00-06-04	00-06-04	Top		148	205		n/a
6	E33(i31018)	Conc. Pt. (lbs)	L	06-10-12	06-10-12	Top		148	205		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1300 ft-lbs	23005 ft-lbs	5.7%	0	03-08-08
End Shear	699 lbs	9401 lbs	7.4%	0	01-01-14
Total Load Deflection	L/999 (0.013")	n/a	n/a	35	03-08-08
Live Load Deflection	L/999 (0.004")	n/a	n/a	51	03-08-08
Max Defl.	0.013"	n/a	n/a	35	03-08-08
Span / Depth	7.3				

Bearing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1 Hanger	2" x 3-1/2"	884 lbs	n/a	15.9%	HUC410
B2 Hanger	2" x 3-1/2"	884 lbs	n/a	15.9%	HUC410

Cautions

Header for the hanger HUC410 is a Double 1-3/4" x 11-7/8" LVL Beam.

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 12" O/C,
STAGGERED IN 2 ROWS


SE012587

Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

2nd Floor - Supply/BOM\Flush Beams\B7(i32577) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 2 spans | L cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 2nd Floor - Supply/BOM\Flush Beams\B7(i32577)

City, Province, Postal Code: Vaughan, ON

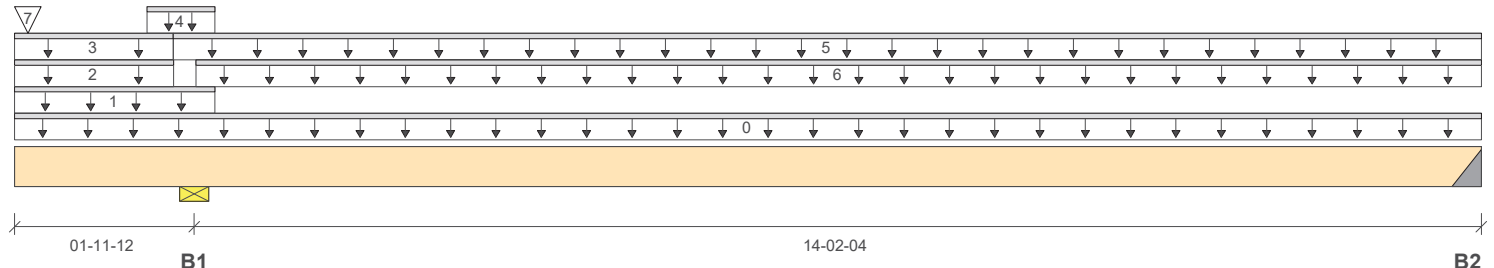
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



Total Horizontal Product Length = 16-02-00

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	473 / 0	1502 / 0	690 / 0	
B2, 2"	268 / 22	115 / 0	0 / 39	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	16-02-00	Top		12			00-00-00
1	E34(i31008)	Unf. Lin. (lb/ft)	L	00-00-00	02-02-08	Top		101			n/a
2	E34(i31008)	Unf. Lin. (lb/ft)	L	00-00-00	01-09-00	Top		28	42		n/a
3	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	01-09-00	Top	20	10			n/a
4	E34(i31008)	Unf. Lin. (lb/ft)	L	01-05-08	02-02-08	Top		312	468		n/a
5	FC1 Floor Material	Unf. Lin. (lb/ft)	L	01-09-00	16-02-00	Top	21	10			n/a
6	FC1 Floor Material	Unf. Lin. (lb/ft)	L	02-00-00	16-02-00	Top	17	8			n/a
7	B6(i32457)	Conc. Pt. (lbs)	L	00-01-12	00-01-12	Top	148	629	226		n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	1514 ft-lbs	35392 ft-lbs	4.3%	45	10-04-12
Neg. Moment	-2089 ft-lbs	-23005 ft-lbs	9.1%	0	01-11-12
End Shear	436 lbs	14464 lbs	3.0%	45	15-00-02
Cont. Shear	1800 lbs	14464 lbs	12.4%	49	00-09-02
Total Load Deflection	2xL/1998 (0.031")	n/a	n/a	122	00-00-00
Live Load Deflection	L/999 (0.034")	n/a	n/a	160	09-01-04
Total Neg. Defl.	L/999 (-0.027")	n/a	n/a	122	06-10-11
Max Defl.	0.03"	n/a	n/a	108	09-10-02
Span / Depth	14.2				



Bearing Supports

	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1	Wall/Plate 5-1/2" x 3-1/2"	3386 lbs	28.6%	14.4%	Spruce-Pine-Fir
B2	Hanger 2" x 3-1/2"	545 lbs	n/a	6.4%	HGUS410

Cautions

Header for the hanger HGUS410 is a Double 1-3/4" x 11-7/8" LVL Beam.

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 12" O/C,
STAGGERED IN 2 ROWS

SE012588

Triple 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

2nd Floor - Supply/BOM\Flush Beams\B8(i32918) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 2nd Floor - Supply/BOM\Flush Beams\B8(i32918)

City, Province, Postal Code: Vaughan, ON

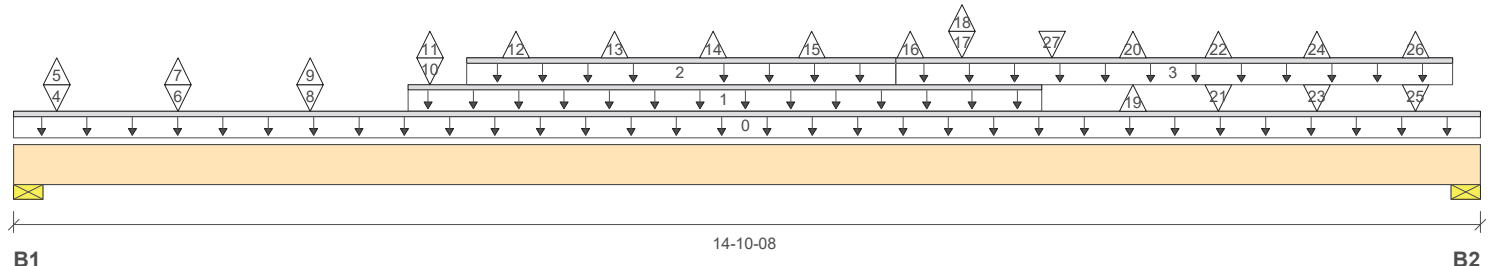
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



Total Horizontal Product Length = 14-10-08

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/2"	3421 / 134	1978 / 0	0 / 8	
B2, 3"	3026 / 67	1786 / 0	0 / 27	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	14-10-08	Top		18			00-00-00
1	User Load	Unf. Lin. (lb/ft)	L	04-00-00	10-05-02	Top		60			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	04-07-02	08-11-06	Top	378	188			n/a
3	Smoothed Load	Unf. Lin. (lb/ft)	L	08-11-06	14-07-02	Top	133	65			n/a
4	J3(i32777)	Conc. Pt. (lbs)	L	00-05-04	00-05-04	Top	296	130			n/a
5	J3(i32777)	Conc. Pt. (lbs)	L	00-05-04	00-05-04	Top	-37				n/a
6	-	Conc. Pt. (lbs)	L	01-08-00	01-08-00	Top	831	397			n/a
7	-	Conc. Pt. (lbs)	L	01-08-00	01-08-00	Top	-37				n/a
8	-	Conc. Pt. (lbs)	L	03-00-01	03-00-01	Top	643	305			n/a
9	-	Conc. Pt. (lbs)	L	03-00-01	03-00-01	Top	-32				n/a
10	-	Conc. Pt. (lbs)	L	04-02-11	04-02-11	Top	605	289			n/a
11	-	Conc. Pt. (lbs)	L	04-02-11	04-02-11	Top	-27				n/a
12	J3(i32710)	Conc. Pt. (lbs)	L	05-01-02	05-01-02	Top	-3				n/a
13	J6(i32808)	Conc. Pt. (lbs)	L	06-01-02	06-01-02	Top	-3				n/a
14	J6(i32708)	Conc. Pt. (lbs)	L	07-01-02	07-01-02	Top	-3				n/a
15	J6(i32870)	Conc. Pt. (lbs)	L	08-01-02	08-01-02	Top	-3				n/a
16	J6(i32775)	Conc. Pt. (lbs)	L	09-01-02	09-01-02	Top	-3				n/a
17	-	Conc. Pt. (lbs)	L	09-07-07	09-07-07	Top	324	162			n/a
18	-	Conc. Pt. (lbs)	L	09-07-07	09-07-07	Top	-3				n/a
19	-	Conc. Pt. (lbs)	L	11-04-03	11-04-03	Top	245	98	-35		n/a
20	-	Conc. Pt. (lbs)	L	11-04-03	11-04-03	Top	-26				n/a
21	-	Conc. Pt. (lbs)	L	12-02-10	12-02-10	Top	271	133			n/a
22	-	Conc. Pt. (lbs)	L	12-02-10	12-02-10	Top	-8				n/a
23	-	Conc. Pt. (lbs)	L	13-02-10	13-02-10	Top	291	143			n/a
24	-	Conc. Pt. (lbs)	L	13-02-10	13-02-10	Top	-8				n/a
25	-	Conc. Pt. (lbs)	L	14-02-10	14-02-10	Top	291	143			n/a
26	-	Conc. Pt. (lbs)	L	14-02-10	14-02-10	Top	-8				n/a
27	J3(i32678)	Conc. Pt. (lbs)	L	10-06-06	10-06-06	Top	250	125			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	25234 ft-lbs	55212 ft-lbs	45.7%	21	07-01-02
End Shear	6965 lbs	21696 lbs	32.1%	21	01-05-06
Total Load Deflection	L/380 (0.451")	n/a	63.2%	56	07-07-02
Live Load Deflection	L/615 (0.279")	n/a	58.6%	83	07-07-02

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 8" O/C,
STAGGERED IN 2 ROWS


Double 1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP

2nd Floor - Supply/BOM\Flush Beams\B9(i32482) (Flush Beam)

PASSED

BC CALC® Member Report

Dry | 1 span | No cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 2nd Floor - Supply/BOM\Flush Beams\B9(i32482)

City, Province, Postal Code: Vaughan, ON

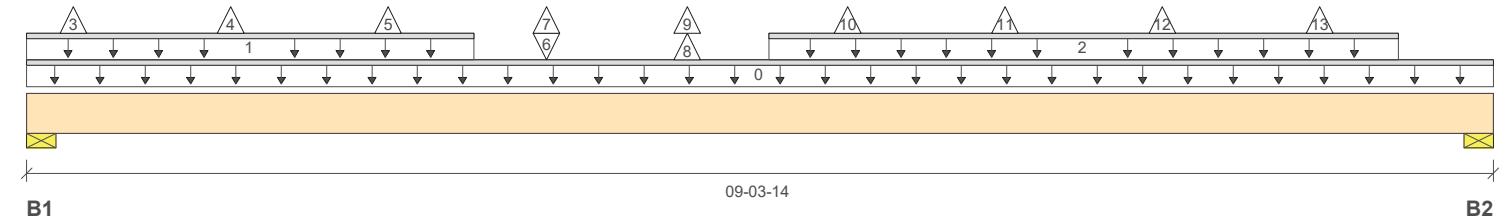
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3"	1981 / 44	1013 / 0	0 / 24	
B2, 4-3/8"	1690 / 26	879 / 0	0 / 20	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	09-03-14	Top		12			00-00-00
1	Smoothed Load	Unf. Lin. (lb/ft)	L	00-00-00	02-10-02	Top	436	213			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	04-08-10	08-08-10	Top	412	204			n/a
3	-	Conc. Pt. (lbs)	L	00-03-09	00-03-09	Top	-8				n/a
4	-	Conc. Pt. (lbs)	L	01-03-09	01-03-09	Top	-8				n/a
5	-	Conc. Pt. (lbs)	L	02-03-09	02-03-09	Top	-8				n/a
6	-	Conc. Pt. (lbs)	L	03-03-10	03-03-10	Top	391	191			n/a
7	-	Conc. Pt. (lbs)	L	03-03-10	03-03-10	Top	-8				n/a
8	-	Conc. Pt. (lbs)	L	04-02-06	04-02-06	Top	395	169	-44		n/a
9	-	Conc. Pt. (lbs)	L	04-02-06	04-02-06	Top	-26				n/a
10	J6(i32695)	Conc. Pt. (lbs)	L	05-02-10	05-02-10	Top	-3				n/a
11	J6(i33145)	Conc. Pt. (lbs)	L	06-02-10	06-02-10	Top	-3				n/a
12	J6(i32693)	Conc. Pt. (lbs)	L	07-02-10	07-02-10	Top	-3				n/a
13	J6(i32692)	Conc. Pt. (lbs)	L	08-02-10	08-02-10	Top	-3				n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	8550 ft-lbs	35392 ft-lbs	24.2%	21	04-02-10
End Shear	3400 lbs	14464 lbs	23.5%	21	01-02-14
Total Load Deflection	L/999 (0.087")	n/a	n/a	56	04-07-02
Live Load Deflection	L/999 (0.058")	n/a	n/a	83	04-07-02
Max Defl.	0.087"	n/a	n/a	56	04-07-02
Span / Depth	8.9				

Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Wall/Plate 3" x 3-1/2"	4238 lbs	65.6%	33.1%	Spruce-Pine-Fir
B2	Wall/Plate 4-3/8" x 3-1/2"	3634 lbs	38.6%	19.5%	Spruce-Pine-Fir

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 10" O/C,
STAGGERED IN 2 ROWS



SE012590

BC CALC® Member Report

Dry | 1 span | No cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 2nd Floor - Supply/BOM\Flush Beams\B10(i32792)

City, Province, Postal Code: Vaughan, ON

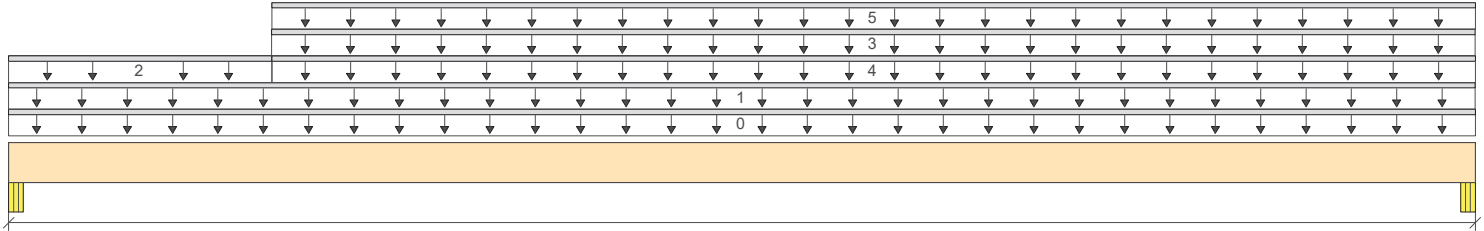
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



02-05-04

B1

B2

Total Horizontal Product Length = 02-05-04

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/4"	17 / 0	250 / 0	144 / 0	
B2, 3-1/2"	16 / 0	266 / 0	192 / 0	

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	02-05-04	Top		12			00-00-00
1	E38(i31017)	Unf. Lin. (lb/ft)	L	00-00-00	02-05-04	Top		101			n/a
2	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	00-05-04	Top	11				n/a
3	E38(i31017)	Unf. Lin. (lb/ft)	L	00-05-04	02-05-04	Top		98	147		n/a
4	User Load	Unf. Lin. (lb/ft)	L	00-05-04	02-05-04	Top		14	21		n/a
5	FC1 Floor Material	Unf. Lin. (lb/ft)	L	00-05-04	02-05-04	Top	14	7			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	233 ft-lbs	35392 ft-lbs	0.7%	13	01-03-08
End Shear	75 lbs	14464 lbs	0.5%	13	01-05-02
Total Load Deflection	L/999 (0")	n/a	n/a	35	01-03-08
Live Load Deflection	L/999 (0")	n/a	n/a	51	01-03-08
Max Defl.	0"	n/a	n/a	35	01-03-08
Span / Depth	1.9				



Bearing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1 Beam	5-1/4" x 3-1/2"	545 lbs	3.9%	2.4%	Unspecified
B2 Beam	3-1/2" x 3-1/2"	637 lbs	6.8%	4.3%	Unspecified

Notes

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

Design meets Code minimum (L/360) Live 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.

Unbalanced snow loads determined from building geometry were used in selected product's verification.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 4" O/C,
STAGGERED IN 2 ROWS

BC CALC® Member Report

Dry | 1 span | No cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 1st Floor - Supply/BOM\Flush Beams\B11(i32583)

City, Province, Postal Code: Vaughan, ON

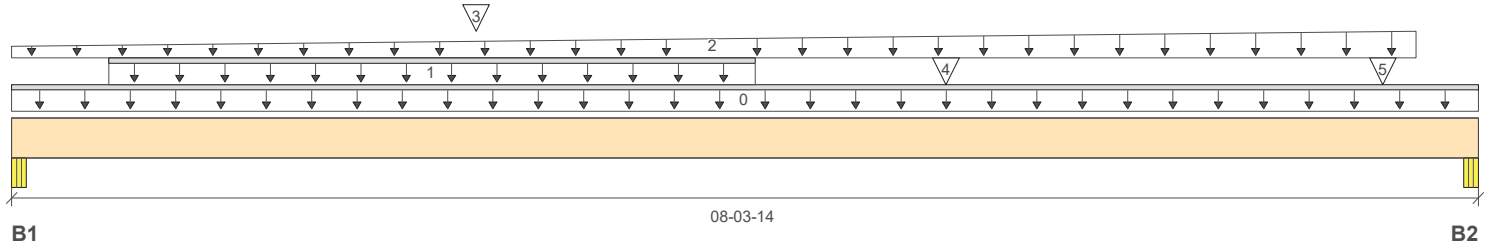
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



Total Horizontal Product Length = 08-03-14

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/4"	1352 / 0	639 / 0		
B2, 5-1/4"	1413 / 0	661 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	08-03-14	Top		6			00-00-00
1	User Load	Unf. Lin. (lb/ft)	L	00-06-10	04-02-10	Top	160	60			n/a
2	Smoothed Load	Trapezoidal (lb/ft)	L	00-00-00	07-11-10	Top	86	47			n/a
							196	89			
3	J5(i32941)	Conc. Pt. (lbs)	L	02-07-10	02-07-10	Top	296	148			n/a
4	J5(i32939)	Conc. Pt. (lbs)	L	05-03-10	05-03-10	Top	494	222			n/a
5	J5(i33058)	Conc. Pt. (lbs)	L	07-09-06	07-09-06	Top	259	118			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	5599 ft-lbs	17696 ft-lbs	31.6%	1	03-11-10
End Shear	2662 lbs	7232 lbs	36.8%	1	01-05-02
Total Load Deflection	L/999 (0.082")	n/a	n/a	4	04-01-02
Live Load Deflection	L/999 (0.056")	n/a	n/a	5	04-01-02
Max Defl.	0.082"	n/a	n/a	4	04-01-02
Span / Depth	7.7				



Bearing Supports

	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1 Beam	5-1/4" x 1-3/4"	2826 lbs	40.0%	25.2%	Unspecified
B2 Beam	5-1/4" x 1-3/4"	2946 lbs	41.7%	26.3%	Unspecified

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
Design meets Code minimum (L/360) Live 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

BC CALC® Member Report

Dry | 1 span | No cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 1st Floor - Supply/BOM\Flush Beams\B12(i32616)

City, Province, Postal Code: Vaughan, ON

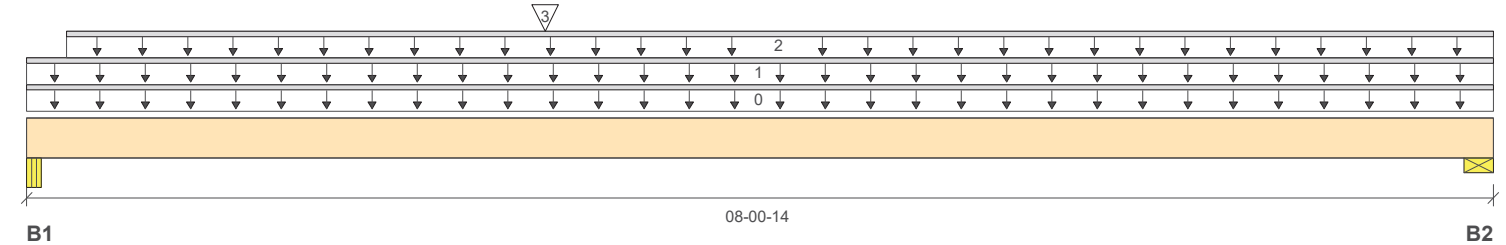
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



Total Horizontal Product Length = 08-00-14

Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 5-1/4"	371 / 0	276 / 0		
B2, 2-3/8"	220 / 0	177 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	08-00-14	Top		12			00-00-00
1	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-00-00	08-00-14	Top	7	4			n/a
2	FC2 Floor Material	Unf. Lin. (lb/ft)	L	00-02-10	08-00-14	Top	13	6			n/a
3	Pt1(i32871)	Conc. Pt. (lbs)	L	02-10-04	02-10-04	Top	433	276			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/Resistance	Case	Location
Pos. Moment	2020 ft-lbs	35392 ft-lbs	5.7%	1	02-10-04
End Shear	825 lbs	14464 lbs	5.7%	1	01-05-02
Total Load Deflection	L/999 (0.013")	n/a	n/a	4	03-11-02
Live Load Deflection	L/999 (0.007")	n/a	n/a	5	03-10-06
Max Defl.	0.013"	n/a	n/a	4	03-11-02
Span / Depth	7.6				



Bearing Supports

	Dim. (LxW)	Demand	Demand/Resistance Support	Demand/Resistance Member	Material
B1	Beam 5-1/4" x 3-1/2"	901 lbs	6.4%	4.0%	Unspecified
B2	Wall/Plate 2-3/8" x 3-1/2"	552 lbs	10.8%	5.4%	Spruce-Pine-Fir

Notes

Design meets Code minimum (L/240) Total load deflection criteria.
 Design meets Code minimum (L/360) Live load deflection criteria.
 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

NAIL ONE PLY TO ANOTHER WITH 3-1/2" SPIRAL NAILS @ 12 O/C,
 STAGGERED IN 2 ROWS

BC CALC® Member Report

Dry | 1 span | No cant.

June 15, 2020 15:35:08

Build 7493

Job name: 45147(5001a-lot 112)

File name: 321253-A.mmdl

Address: Pine Valley

Description: 1st Floor - Supply/BOM\Flush Beams\B13(i32568)

City, Province, Postal Code: Vaughan, ON

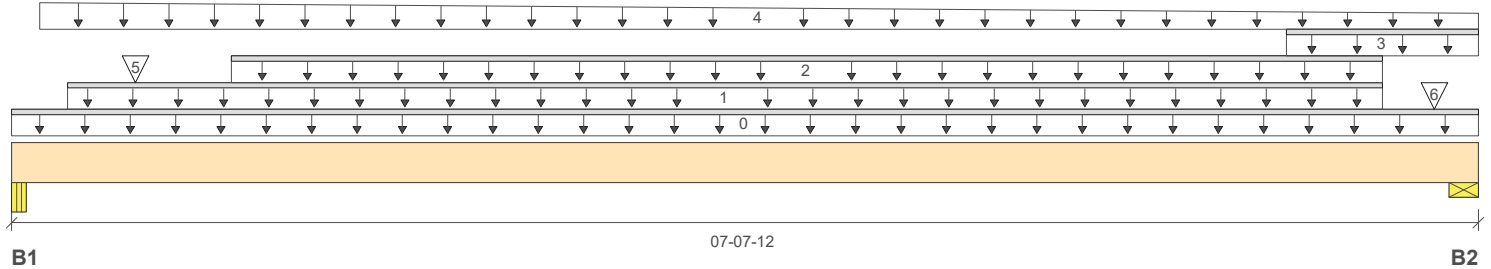
Specifier:

Customer: Gold Park

Designer: NL

Code reports: CCMC 12472-R

Company: Alpa Roof Trusses



Reaction Summary (Down / Uplift) (lbs)

Bearing	Live	Dead	Snow	Wind
B1, 3-1/2"	854 / 0	662 / 0		
B2, 3-1/2"	876 / 0	671 / 0		

Load Summary

Tag	Description	Load Type	Ref.	Start	End	Loc.	Live 1.00	Dead 0.65	Snow 1.00	Wind 1.15	Tributary
0	Self-Weight	Unf. Lin. (lb/ft)	L	00-00-00	07-07-12	Top		6			00-00-00
1	User Load	Unf. Lin. (lb/ft)	L	00-03-08	07-01-12	Top		60			n/a
2	Smoothed Load	Unf. Lin. (lb/ft)	L	01-01-12	07-01-12	Top	243	122			n/a
3	FC2 Floor Material	Unf. Lin. (lb/ft)	L	06-07-12	07-07-12	Top	19				n/a
4	FC2 Floor Material	Trapezoidal (lb/ft)	L	00-01-12		Top	5	3			n/a
					07-07-12		3	1			
5	J3(i33013)	Conc. Pt. (lbs)	L	00-07-12	00-07-12	Top	181	91			n/a
6	1(i31030)	Conc. Pt. (lbs)	L	07-05-00	07-05-00	Top	42	31			n/a

Controls Summary

	Factored Demand	Factored Resistance	Demand/ Resistance	Case	Location
Pos. Moment	3961 ft-lbs	17696 ft-lbs	22.4%	1	03-07-12
End Shear	1886 lbs	7232 lbs	26.1%	1	06-04-06
Total Load Deflection	L/999 (0.054")	n/a	n/a	4	03-09-04
Live Load Deflection	L/999 (0.03")	n/a	n/a	5	03-09-04
Max Defl.	0.054"	n/a	n/a	4	03-09-04
Span / Depth	7.3				



Bearing Supports	Dim. (LxW)	Demand	Demand/ Resistance Support	Demand/ Resistance Member	Material
B1 Beam	3-1/2" x 1-3/4"	2109 lbs	44.8%	28.2%	Unspecified
B2 Wall/Plate	3-1/2" x 1-3/4"	2153 lbs	57.1%	28.8%	Spruce-Pine-Fir

Notes

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

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

Calculations assume member is fully braced.

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

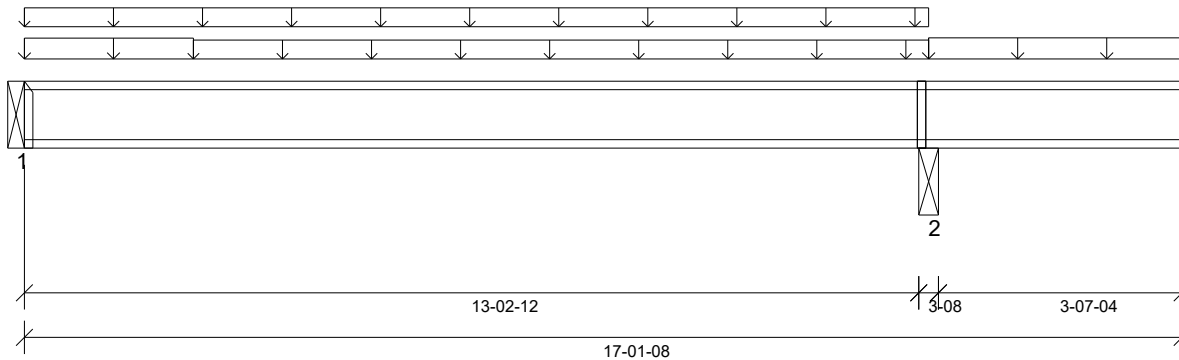
BC CALC® analysis is based on Canadian Limit States Design, as per NBCC 2015 and CSA O86.

Design based on Dry Service Condition.

Importance Factor : Normal Part code : Part 9

Customer: Gold Park Job Address: Pine Valley City: Vaughan Job Track: 45147(5001a-lot 112)	Job Name: 321253-A Level: 2nd Floor - Supply/BOM Label: J1 - i32648 Type: FloorJoist	1 Ply Member 11 7/8" NI-20	Status: Design Passed
---	---	---	------------------------------

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek SAPPHIRE™ Structure Version 8.3.3.247.Update9 Report Version: 2019.11.15 06/15/2020 15:45



DESIGN INFORMATION		ANALYSIS RESULTS						
Building Code: NBCC 2015, Part9 BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment) Design Methodology: LSD Service Condition: Dry System Live Load: 40.0 psf System Dead Load: 20.0 psf System Spacing: 16" c.c LL Deflection Limit: L/360, TL Deflection Limit: L/240,		Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
		Factored Pos. Moment:	6'- 5 1/16"	1.25D + 1.5L	1.00	2495 lb ft	5580 lb ft	Passed - 45%
		Factored Neg. Moment:	13'- 4 1/2"	1.25D + 1.5L	0.81	828 lb ft	4509 lb ft	Passed - 18%
		Factored Shear:	0'- 1/16"	1.25D + 1.5L	1.00	852 lb	2240 lb	Passed - 38%
		Live Load (LL) Pos. Defl.:	6'- 7 7/8"	L		0.141"	L/360	Passed - L/999
		Total Load (TL) Pos. Defl.:	6'- 7 1/8"	D + L		0.199"	L/240	Passed - L/796
		Bare Joist Deflection:	6'- 8 1/4"	L		0.170"	L/360	Passed - L/932
		Vibration Controlled Span:	-	-		13'- 2 3/4"	17'- 7"	75%
SUPPORT AND REACTION INFORMATION								
ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	1-12	1.25D + 1.5L	1.00	877 lb		1970 lb	-	Passed - 45%
2	3-08	1.25D + 1.5L	1.00	1265 lb		4740 lb	6729 lb	Passed - 27%
CONNECTOR INFORMATION								
ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories					
1	LT251188		Connector has not been designed. Connector to be specified by others..					
* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.								
SPECIFIED LOADS								
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Uniform	0'	13'- 4 1/2"	FC1 Floor Material	Top	13.00 lb/ft	27.00 lb/ft	-	-
Uniform	0'	2'- 6"	FC1 Floor Material	Top	25.00 lb/ft	50.00 lb/ft	-	-
Uniform	2'- 6"	13'- 4 1/2"	FC1 Floor Material	Top	13.00 lb/ft	27.00 lb/ft	-	-
Uniform	13'- 4 1/2"	17'- 1 1/2"	FC1 Floor Material	Top	27.00 lb/ft	53.00 lb/ft	-	-
UNFACTORED REACTIONS								
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)	
1	0'	0'	B5(i32505)	196.00 lb	421.00/-29.00 lb	-	-	
2	13'- 2 3/4"	13'- 6 1/4"	APP(DROP)(i31047)	298.00 lb	595.00 lb	-	-	
DESIGN NOTES								
<ul style="list-style-type: none">• The dead loads used in the design of this member were applied to the structure as projected dead loads.• Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.• Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.• Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.• This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.• Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.• Design for vibration control is based on the concluding report: "Development of Design Procedures for Vibration Controlled Spans Using Engineered Wood Members," dated Sep-04-97.• The deflection at the cantilever for either live and/or total loads is less than 3/8" and therefore has been excluded from the deflection ratio considerations.								

<

Floor Assembly Requirements:

Subfloor: 3/4" OSB Plywood
Connection: Glued And Nailed
Ceiling: 1/2" Gypsum
Blocking: None
Bridging: None
Strapping: None

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 0' Bottom: 0'

Required Factored Resistance of Support:

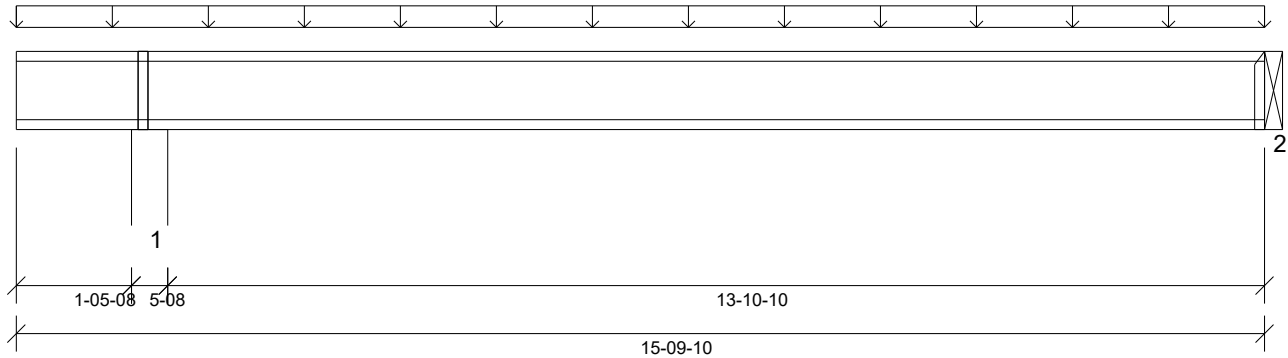
- 769 psi Beam @ 0'
- 769 psi Beam @ 13'- 4 1/2"



SE012595

Customer: Gold Park Job Address: Pine Valley City: Vaughan Job Track: 45147(5001a-lot 112)	Job Name: 321253-A Level: 2nd Floor - Supply/BOM Label: J2 - i32683 Type: FloorJoist	1 Ply Member 11 7/8" NI-20	Status: Design Passed
---	---	---	------------------------------

Graphical Illustration Not to Scale. Pitch: 0/12 Designed by: MiTek SAPPHIRE™ Structure Version 8.3.3.247.Update9 Report Version: 2019.11.15 06/15/2020 15:45



DESIGN INFORMATION		ANALYSIS RESULTS						
Building Code: NBCC 2015, Part9 BCBC 2018, ABC 2019, OBC 2012 (2019 Amendment) Design Methodology: LSD Service Condition: Dry System Live Load: 40.0 psf System Dead Load: 20.0 psf System Spacing: 12" c.c LL Deflection Limit: L/360, TL Deflection Limit: L/240,		Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
		Factored Pos. Moment:	8'- 9 7/16"	1.25D + 1.5L	1.00	2093 lb ft	5580 lb ft	Passed - 38%
		Factored Neg. Moment:	1'- 8 1/4"	1.25D + 1.5L	0.69	163 lb ft	3864 lb ft	Passed - 4%
		Factored Shear:	15'- 9 9/16"	1.25D + 1.5L	1.00	596 lb	2240 lb	Passed - 27%
		Live Load (LL) Pos. Defl.:	8'- 8 15/16"	L		0.130"	L/360	Passed - L/999
		Total Load (TL) Pos. Defl.:	8'- 9 1/8"	D + L		0.192"	L/240	Passed - L/867
		Bare Joist Deflection:	8'- 8 15/16"	L		0.157"	L/360	Passed - L/999
		Vibration Controlled Span:	-	-		13'- 10 5/8"	18'- 8 1/2"	74%
SUPPORT AND REACTION INFORMATION								
ID	Input Bearing Length	Controlling Load Combination	LDF	Factored Downward Reaction	Factored Uplift Reaction	Factored Resistance of Member	Factored Resistance of Support	Result
1	5-08	1.25D + 1.5L	1.00	780 lb		5070 lb	8459 lb	Passed - 15%
2	1-12	1.25D + 1.5L	1.00	615 lb		1970 lb	-	Passed - 31%
CONNECTOR INFORMATION								
ID	Part No.	Manufacturer	Other Information or Requirement for Reinforcement Accessories					
2	LT251188		Connector has not been designed. Connector to be specified by others..					
* Connectors: Refer to manufacturer's specifications, fasteners requirements and installation instruction.								
SPECIFIED LOADS								
Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Wind (W)
Uniform	0'	15'- 9 5/8"	FC1 Floor Material	Top	20.00 lb/ft	40.00 lb/ft	-	-
UNFACTORED REACTIONS								
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Wind (W)	
1	1'- 5 1/2"	1'- 11"	E3(i30981)	184.00 lb	367.00 lb	-	-	
2	15'- 9 5/8"	15'- 9 5/8"	B8(i32918)	143.00 lb	291.00/-5.00 lb	-	-	
DESIGN NOTES								
<ul style="list-style-type: none">• The dead loads used in the design of this member were applied to the structure as projected dead loads.• Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.• A load bearing wall is supported by the I-joist at a location where the I-joist is supported by a member below. Please see manufacturer installation guidelines for requirements of blocking/squash blocks.• Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.• Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.• This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.• Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.• Design for vibration control is based on the concluding report: "Development of Design Procedures for Vibration Controlled Spans Using Engineered Wood Members," dated Sep-04-97.• The deflection at the cantilever for either live and/or total loads is less than 3/8" and therefore has been excluded from the deflection ratio considerations.								

<

SE012596