

ASPHALT SHINGLES
FINISHED OVERHANG: 12"
2x6 EXTERIOR WALLS
2x6 FASCIA BOARD
HEEL: R.T.M.C.

DESIGN CONFORMS WITH OBC 2012
OCCUPANCY: RESIDENTIAL | PART: 9
Ss = 31.4 psf | Sr = 8.4 psf

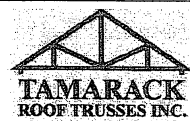
DESIGN LOADS:
TCSL = 25.6 psf
TCDL = 6.0 psf
BCLL = 0.0 psf
BCDL = 7.4 psf

 DENOTES:
CONVENTIONAL
FRAMING

HARDWARE:
LJS26DS - (V)
H2.5T - (I)
LGT3 - (@)

All conventional framing to conform with Part 9 of O.B.C. 2012. Roof rafters that cross over or meet trusses to be min. 2x4 SPF #2 @ 24" o/c with a vertical post to the truss at each cross point. Vertical posts longer than 6' to have lateral bracing so that the distance between the post end points and lateral bracing does not exceed 6'.

M14106



Job Track: **51012**
Plan Log: **203503**
Layout ID: **412868**

Builder / Location:
ROYAL PINE HOMES / RICHMOND HILL
Project: **CENTREFIELD**
Date: 2021-07-01 Sales: **Mario DiCano** Designer: AC

Model / Elevation:
BLOCK 57 / UNITS 13 - 16

Mitek ver 8.4.2.286

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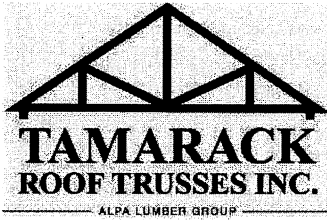
CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

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Per: _____

DELIVERY SHIPLIST



Lumber Yard: TAMARACK LUMBER
 Builder: ROYAL PINE HOMES
 Project: CENTREFIELD
 Location: RICHMOND HILL
 Model: BLOCK 57
 Lot #:
 Elevation: A2 / UNIT16BK283

Job Track: 51012
 PlanLog: 203503
 Layout ID: 412875
 Ref #
 Page: 1 of 2
 Date: 07-08-2021
 Designer: Andrew Conway
 Sales Rep: Mario DiCano

Roof Trusses

PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	1 2-ply	T1 Half Hip Girder	10 / 12	19-05-08	4-01-04	2 x 4 2 x 6	1-03-08	1-07-11 4-01-04	193.91 122.67		
	1	T2 Half Hip	10 / 12	19-05-08	5-01-04	2 x 4	1-03-08	1-07-11 5-01-04	84.99 54.50		
	1	T3 Half Hip	10 / 12	19-05-08	6-01-04	2 x 4	1-03-08	1-07-11 6-01-04	91.07 58.67		
	2	T4 Half Hip	10 / 12	19-05-08	7-01-04	2 x 4	1-03-08	1-07-11 7-01-04	181.47 112.67		
	8	T5 Half Hip	10 / 12	19-05-08	8-01-04	2 x 4	1-03-08	1-07-11 8-01-04	766.42 485.33		
	2	T6 Half Hip	10 / 12	19-05-08	9-01-04	2 x 4	1-03-08	1-07-11 9-01-04	206.88 129.67		
	5	T7 Common	10 / 12	19-05-08	9-07-15	2 x 4	1-03-08	1-07-11 1-05-09	455.71 291.67		
	1	T7G GABLE	10 / 12	19-05-08	9-07-15	2 x 4	1-03-08	1-07-11 1-05-09	98.27 63.83		
	1	T8 Common	10 / 12	9-06-00	5-07-03	2 x 4	1-03-08 1-03-08	1-07-11 1-07-11	43.46 28.83		
	2	T9S Roof Special	10 / 12 6 / 12	9-06-00	5-07-03	2 x 4	1-03-08 1-03-08	1-07-11 1-07-11	95.47 67.33		
	2	T10G GABLE	6 / 12	22-08-08	8-01-04	2 x 4	1-05-00	1-02-00 8-01-04	243.75 153.67		
	2	PB01 Piggyback	10 / 12	11-08-07	2-00-00	2 x 4		2-00-00	75.36 51.33		
	2	PB02 Piggyback	10 / 12	11-08-07	3-00-00	2 x 4		3-00-00	81.28 54.67		
	2	PB03 Piggyback	10 / 12	11-08-07	4-00-00	2 x 4		4-00-00	83.07 54.00		

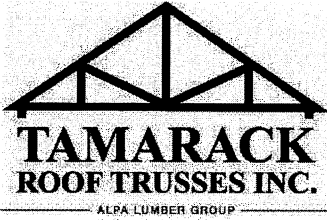
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 BUILDING DIVISION

08/12/2021

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DELIVERY SHIPLIST



Lumber Yard: TAMARACK LUMBER
 Builder: ROYAL PINE HOMES
 Project: CENTREFIELD
 Location: RICHMOND HILL
 Model: BLOCK 57
 Lot #:
 Elevation: A2 / UNIT16BK283

Job Track: 51012
 PlanLog: 203503
 Layout ID: 412875
 Ref #
 Page: 2 of 2
 Date: 07-08-2021
 Designer: Andrew Conway
 Sales Rep: Mario DiCano

Roof Trusses

PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	10	J01 Jack-Open	6 /12	5-10-08	4-01-04	2 x 4	1-03-08	1-02-00 4-01-04	167.94 106.67		
	5	J02 Jack-Open	3.5 /12	5-10-00	2-04-09	2 x 4	1-03-08	3-14 1-09-11	76.06 46.67		
	5	J03 Jack-Open	4 /12	3-07-00	1-11-03	2 x 4	1-03-08	3-15 1-03-04	50.28 33.33		
	2	PB04G GABLE	6 /12	8-10-00	4-05-00	2 x 4		4-05-00	56.15 34.33		

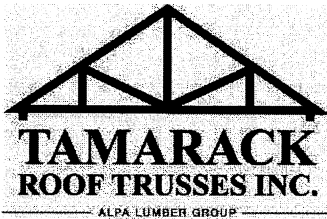
TOTAL # TRUSS= 55 TOTAL BFT OF ALL TRUSSES= 1949.84 BFT. TOTAL WEIGHT OF ALL TRSSES 3051.53 LBS

CITY OF RICHMOND HILL
 BUILDING DIVISION

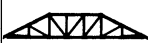


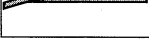
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Per: _____

 <p>TAMARACK ROOF TRUSSES INC. <small>ALPA LUMBER GROUP</small></p>	DELIVERY SHIPLIST					
	Lumber Yard:	TAMARACK LUMBER			Job Track:	51012
	Builder:	ROYAL PINE HOMES			PlanLog:	203503
	Project:	CENTREFIELD			Layout ID:	412876
	Location:	RICHMOND HILL			Ref #	
	Model:	BLOCK 57			Page:	1 of 1
Lot #:				Date:	07-08-2021	
Elevation:	A2 / UNIT15BLK283			Designer:		
				Sales Rep:	Mario DiCano	

Roof Trusses

PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	9	T11 Piggyback Base	6 /12	45-05-00	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	2302.82 1395.00		
	1	T11G GABLE	6 /12	45-05-00	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	272.06 169.67		
	1	T11GA GABLE	6 /12	45-05-00	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	265.46 167.00		
	1 3-ply	T12 Monopitch Girder	10 /12	8-05-08	8-08-04	2 x 4 2 x 8		1-07-11 8-08-04	164.13 108.50		
	2	T13S Scissor	10 /12 6 /12	8-07-00	5-02-10	2 x 4	1-03-08 1-03-08	1-07-11 1-07-11	81.56 52.00		
	1	T14 Monopitch	10 /12	8-03-08	8-06-10	2 x 4	1-03-08	1-07-11 8-06-10	45.99 28.83		
	9	PB06 Piggyback	6 /12	17-08-00	4-05-00	2 x 4			462.27 288.00		
	2	PB06G GABLE	6 /12	17-08-00	4-05-00	2 x 4			101.52 62.00		
	5	J02 Jack-Open	3.5 /12	5-10-00	2-04-09	2 x 4	1-03-08	3-14 1-09-11	76.06 46.67		

TOTAL # TRUSS= 33 TOTAL BFT OF ALL TRUSSES= 2317.67 BFT. TOTAL WEIGHT OF ALL TRSSES 3771.85 LBS

HARDWARE

QTY	TYPE	MODEL	LENGTH
4	Hardware	LJS26DS	
14	Hardware	H2.5T	
2	Hardware	LGT3	

TOTAL NUMBER OF ITEMS= 20

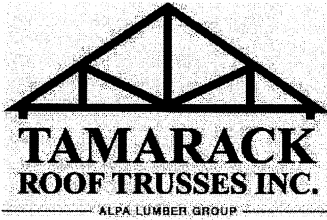
CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

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DELIVERY SHIPLIST



Lumber Yard: TAMARACK LUMBER
 Builder: ROYAL PINE HOMES
 Project: CENTREFIELD
 Location: RICHMOND HILL
 Model: BLOCK 57
 Lot #:
 Elevation: A1 / UNIT14BLK283

Job Track: 51012
 PlanLog: 203503
 Layout ID: 412877
 Ref #
 Page: 1 of 1
 Date: 07-08-2021
 Designer: Andrew Conway
 Sales Rep: Mario DiCano

Roof Trusses

PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	6	T11 Piggyback Base	6 /12	45-05-00	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	1535.21 930.00		
	1	T11G GABLE	6 /12	45-05-00	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	272.06 169.67		
	1	T11GA GABLE	6 /12	45-05-00	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	265.46 167.00		
	3	T11X Piggyback Base	6 /12	45-05-00	8-01-04	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	746.45 453.00		
	1 3-ply	T15 Monopitch Girder	10 /12	8-06-08	8-09-02	2 x 4 2 x 8	1-03-08	1-07-11 8-09-02	171.4 112.50		
	1	T16G GABLE	10 /12	8-05-00	8-07-14	2 x 4	1-03-08	1-07-11 8-07-14	48.26 30.83		
	9	PB06 Piggyback	6 /12	17-08-00	4-05-00	2 x 4			462.27 288.00		
	2	PB06G GABLE	6 /12	17-08-00	4-05-00	2 x 4			101.52 62.00		
	5	J02 Jack-Open	3.5 /12	5-10-00	2-04-09	2 x 4	1-03-08	3-14 1-09-11	76.06 46.67		
	5	J03 Jack-Open	4 /12	3-07-00	1-11-03	2 x 4	1-03-08	3-15 1-03-04	50.28 33.33		

TOTAL # TRUSS= 36

TOTAL BFT OF ALL TRUSSES= 2293

BFT.

TOTAL WEIGHT OF ALL TRSSES 3728.96 LBS

HARDWARE

QTY	TYPE	MODEL	LENGTH
3	Hardware	LJS26DS	
15	Hardware	H2.5T	
2	Hardware	LGT3	

TOTAL NUMBER OF ITEMS= 20

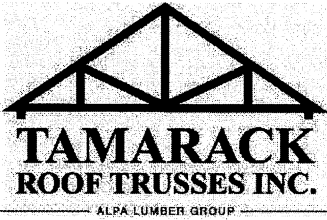
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DELIVERY SHIPLIST



Lumber Yard: TAMARACK LUMBER
 Builder: ROYAL PINE HOMES
 Project: CENTREFIELD
 Location: RICHMOND HILL
 Model: BLOCK 57
 Lot #:
 Elevation: A2 / UNIT13BLK283

Job Track: 51012
 PlanLog: 203503
 Layout ID: 412878
 Ref #
 Page: 1 of 2
 Date: 07-08-2021
 Designer: Andrew Conway
 Sales Rep: Mario DiCano

Roof Trusses

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	8	T5 Half Hip	10 / 12	19-05-08	8-01-04	2 x 4	1-03-08	1-07-11 8-01-04	766.42 485.33		
	2	T6 Half Hip	10 / 12	19-05-08	9-01-04	2 x 4	1-03-08	1-07-11 9-01-04	206.88 129.67		
	2	T10G GABLE	6 / 12	22-08-08	8-01-04	2 x 4	1-05-00	1-02-00 8-01-04	243.75 153.67		
	5	T7 Common	10 / 12	19-05-08	9-07-15	2 x 4	1-03-08	1-07-11 1-05-09	455.71 291.67		
	1	T7G GABLE	10 / 12	19-05-08	9-07-15	2 x 4	1-03-08	1-07-11 1-05-09	98.27 63.83		
	1	T8 Common	10 / 12	9-06-00	5-07-03	2 x 4	1-03-08 1-03-08	1-07-11 1-07-11	43.46 28.83		
	2	T9S Roof Special	10 / 12 6 / 12	9-06-00	5-07-03	2 x 4	1-03-08 1-03-08	1-07-11 1-07-11	95.47 67.33		
	2	PB01 Piggyback	10 / 12	11-08-07	2-00-00	2 x 4		2-00-00	75.36 51.33		
	2	PB02 Piggyback	10 / 12	11-08-07	3-00-00	2 x 4		3-00-00	81.28 54.67		
	2	PB03 Piggyback	10 / 12	11-08-07	4-00-00	2 x 4		4-00-00	83.07 54.00		

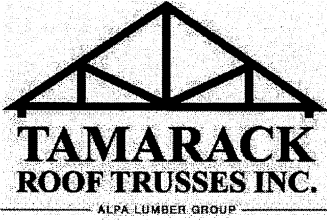
CITY OF RICHMOND HILL
 BUILDING DIVISION

08/12/2021

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DELIVERY SHIPLIST



Lumber Yard: TAMARACK LUMBER
 Builder: ROYAL PINE HOMES
 Project: CENTREFIELD
 Location: RICHMOND HILL
 Model: BLOCK 57
 Lot #:
 Elevation: A2 / UNIT13BLK283

Job Track: 51012
 PlanLog: 203503
 Layout ID: 412878
 Ref #
 Page: 2 of 2
 Date: 07-08-2021
 Designer: Andrew Conway
 Sales Rep: Mario DiCano

Roof Trusses

PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
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	5	J02 Jack-Open	3.5 /12	5-10-00	2-04-09	2 x 4	1-03-08	3-14 1-09-11	76.06 46.67		
	5	J03 Jack-Open	4 /12	3-07-00	1-11-03	2 x 4	1-03-08	3-15 1-03-04	50.28 33.33		
	2	PB04G GABLE	6 /12	8-10-00	4-05-00	2 x 4		4-05-00	56.15 34.33		

TOTAL # TRUSS= 55 TOTAL BFT OF ALL TRUSSES= 1949.84 BFT. TOTAL WEIGHT OF ALL TRSSES 3051.54 LBS

CITY OF RICHMOND HILL
 BUILDING DIVISION

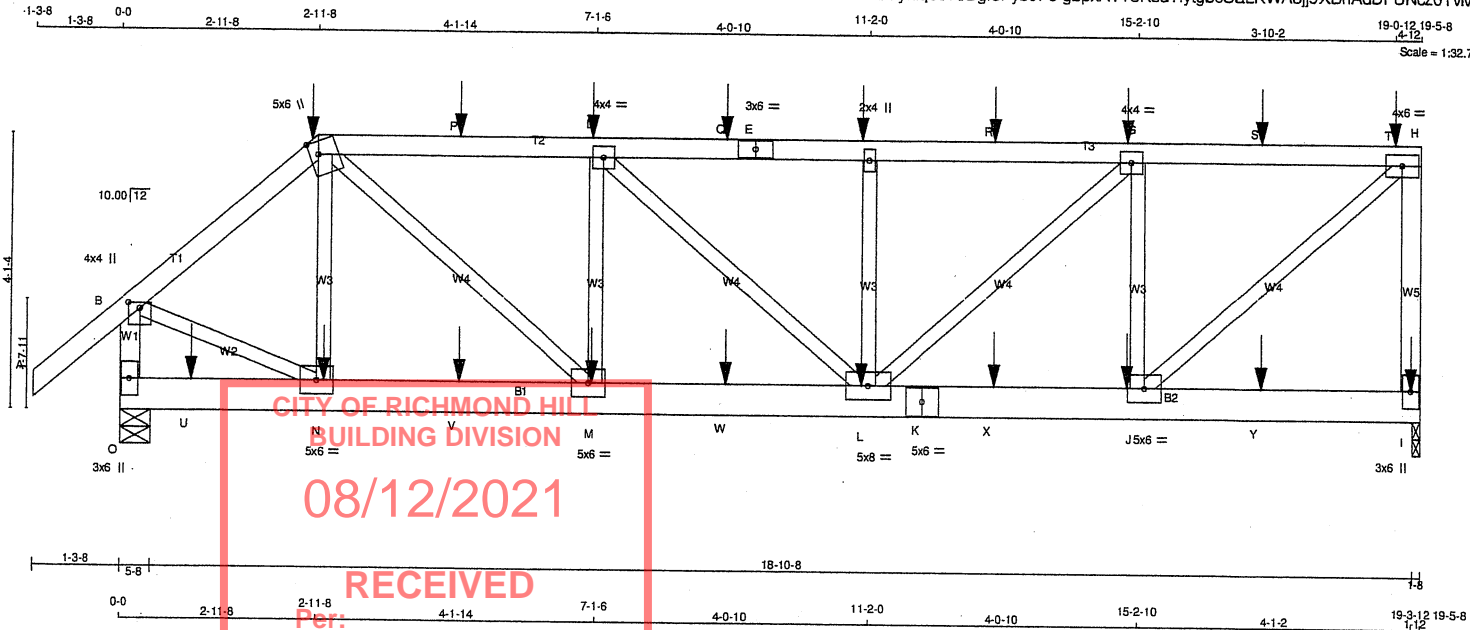
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JOB NAME 412868	TRUSS NAME T1	QUANTITY 2	PLY 2	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

Version 8.420 S Jan 21 2021 MTek Industries, Inc. Thu Jul 1 10:22:31 2021 Page 1
ID:wTM7ioSByniqocTeDgf3Pyb9F8-gbpXA?Y5Ksd?lytgb5SaLKWA8jj9XBhAdFUNczt0Tvm



LUMBER			
N.L.G.A. RULES	SIZE	LUMBER	DESCR.
CHORDS			
A - C	2x4 DRY	No.2	SPF
C - E	2x4 DRY	No.2	SPF
E - H	2x4 DRY	No.2	SPF
O - B	2x4 DRY	No.2	SPF
O - K	2x6 DRY	No.2	SPF
K - I	2x6 DRY	No.2	SPF
ALL WEBS EXCEPT I - H	2x3 DRY	No.2	SPF

DRY: SEASONED LUMBER.
DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD (PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - C	12	SIDE(61.0)
C - E	12	SIDE(61.0)
E - H	12	SIDE(61.0)
O - B	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
O - K	12	SIDE(183.1)
K - I	12	SIDE(183.1)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	
2x4	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.
GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.
TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.
SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERRING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
I	1856	0	1856	0	1-8
O	1936	0	1936	0	5-8

UNFACTORED REACTIONS		1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE		
I	1314	855 / 0	0 / 0	0 / 0	460 / 0	0 / 0
O	1367	910 / 0	0 / 0	0 / 0	457 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) I, O

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.69 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A - B	0 / 41	I - H	-1775 / 0
B - C	-1727 / 0	N - C	-390 / 0
C - P	-2233 / 0	B - N	0 / 1423
P - D	-2233 / 0	J - H	0 / 2216
D - Q	-2268 / 0	C - M	0 / 1237
Q - E	-2268 / 0	J - D	-1324 / 0
E - F	-2268 / 0	M - D	-699 / 0
F - R	-2268 / 0	G - L	0 / 915
R - G	-2268 / 0	D - L	0 / 46
G - S	-1595 / 0	L - F	-542 / 0
S - T	-1595 / 0		
T - H	-1595 / 0		
O - B	-1902 / 0		
O - U	0 / 0		
U - N	0 / 0		
N - V	0 / 1311		
V - M	0 / 1311		
M - W	0 / 2234		
W - L	0 / 2234		
L - K	0 / 1595		
K - X	0 / 1595		
X - J	0 / 1595		
J - Y	-69 / 0		
Y - I	-69 / 0		

SPECIFIED CONCENTRATED LOADS (LBS)		FACE	DIR.	HEEL	CONN.
JT	LOC.	LC1	MAX- MAX+		
C	2-11-8	-25	-25	FRONT	VERT
C	2-11-8	-104	-104	BACK	VERT
C	2-11-8	-105	-105	FRONT	VERT
D	7-0-12	-76	-76	BACK	VERT
F	11-0-12	-76	-76	BACK	VERT
G	15-0-12	-76	-76	BACK	VERT
I	19-3-12	-27	-27	BACK	VERT
J	15-0-12	-21	-21	BACK	VERT
L	11-0-12	-21	-21	BACK	VERT
M	7-0-12	-21	-21	BACK	VERT
N	3-0-12	-21	-21	BACK	VERT
P	5-0-12	-76	-76	BACK	VERT
Q	9-0-12	-76	-76	BACK	VERT
R	13-0-12	-76	-76	BACK	VERT
S	17-0-12	-76	-76	BACK	VERT

DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***
GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.
LOADS WERE DERIVED FROM USER INPUT
NO FURTHER MODIFICATIONS WERE MADE

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 39.0 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

*** NON STANDARD GIRDER ***
ADDTL. USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.64")
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.64")
CALCULATED VERT. DEFL.(TL)= L/999 (0.06")

CSI: TC=0.21/1.00 (F-G:1), BC=0.18/1.00 (L-M:1), WB=0.27/1.00 (H-J:1), SSI=0.14/1.00 (G-H:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (B) (INPUT = 0.90)
JSI METAL= 0.24 (H) (INPUT = 1.00)



Structural component only
DWG# T-2121151

JOB NAME 412868	TRUSS NAME T1	QUANTITY 2	PLY 2	JOB DESC. ROYAL PINE HOMES	DRWG NO.
TRUSS DESC.					

Tamarack Roof Truss, Burlington

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:31 2021 Page 2
ID:wTM7iolSByniqocTeDgf3Pyb9F8-gboxA?Y5Ksd?lvtqb5SaLKWA8ji9XBhAdDFUNcz0Tvm

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
C	TTWW+m	MT20	5.0	6.0	2.25	1.50
D	TMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMW+w	MT20	2.0	4.0		
G	TMWW-t	MT20	4.0	4.0		
H	TMWW-t	MT20	4.0	6.0		
I	BMW1+w	MT20	3.0	6.0		
J, M, N						
J	BMWW-t	MT20	5.0	6.0		
K	BS-t	MT20	5.0	6.0		
L	BMWW-t	MT20	5.0	8.0		
O	BMV1+p	MT20	3.0	6.0		

SPECIFIED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
T	19-0-12	-95	-95	---	BACK	VERT	TOTAL	---	C1
U	1-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
V	5-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
W	9-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
X	13-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1
Y	17-0-12	-21	-21	---	BACK	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

- 1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

**CITY OF RICHMOND HILL
BUILDING DIVISION**

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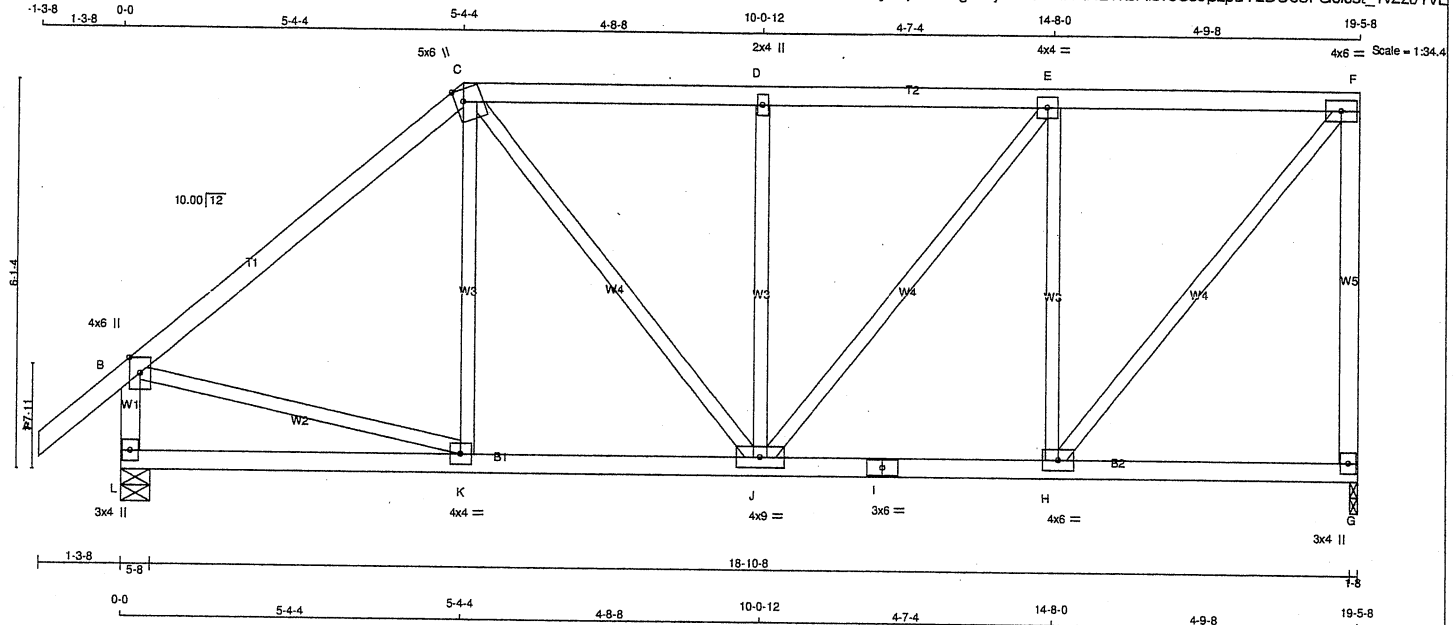


Structural component only
DWG# T-2121151 *mm*

Structural component only
DWG# T-2121152

JOB NAME 412868	TRUSS NAME T3	QUANTITY 2	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington					

Version 8.420 S Jan 21 2021 MITek Industries, Inc. Thu Jul 1 10:22:32 2021 Page 1
ID:wTM7iolSByniqocTeDgf3Pyb9F8-8nKNLYk5Als5Ss9pzuY2DU63FGclJst_1v2z0TVL



LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - F	2x4	DRY	No.2
G - F	2x4	DRY	No.2
L - B	2x4	DRY	No.2
L - I	2x4	DRY	No.2
I - G	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMVW+p	MT20	4.0	6.0 Edge
C	TTWW+m	MT20	5.0	6.0 2.25 1.50
D	TMVW+w	MT20	2.0	4.0
E	TMVW-t	MT20	4.0	4.0
F	TMVW-t	MT20	4.0	6.0
G	BMV1+p	MT20	3.0	4.0
H	BMVW-t	MT20	4.0	6.0
I	BS-t	MT20	3.0	6.0
J	BMVWW-t	MT20	4.0	9.0
K	BMVW-t	MT20	4.0	4.0
L	BMV1+p	MT20	3.0	4.0

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
G	1073	0	1073	0	1-8	1-8	
L	1200	0	1200	0	5-8	5-8	

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
G	759	498 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0
L	846	569 / 0	0 / 0	0 / 0	0 / 0	277 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) G, L

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.62 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO	
A-B	0 / 41	-91.8 -91.8 0.13 (1)	10.00	K-C	-64 / 62
B-C	-952 / 0	-91.8 -91.8 0.51 (1)	5.62	B-K	0 / 751
C-D	-931 / 0	-91.8 -91.8 0.28 (1)	6.04	H-F	0 / 1112
D-E	-932 / 0	-91.8 -91.8 0.29 (1)	6.01	C-J	0 / 321
E-F	-708 / 0	-91.8 -91.8 0.29 (1)	6.25	H-E	-758 / 0
G-F	-1037 / 0	0.0 0.0 0.75 (1)	7.71	J-D	-460 / 0
L-B	-1159 / 0	0.0 0.0 0.12 (1)	7.40	J-E	0 / 361
L-K	0 / 0	-18.5 -18.5 0.12 (4)	10.00		
K-J	0 / 729	-18.5 -18.5 0.19 (1)	10.00		
J-I	0 / 708	-18.5 -18.5 0.17 (1)	10.00		
I-H	0 / 708	-18.5 -18.5 0.17 (1)	10.00		
H-G	0 / 0	-18.5 -18.5 0.10 (4)	10.00		

TOTAL WEIGHT = 2 X 91 = 182 lb

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 25.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 39.0 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55% OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL. (LL) = L/360 (0.65")
CALCULATED VERT. DEFL. (LL) = L/999 (0.03")
ALLOWABLE DEFL. (TL) = L/360 (0.65")
CALCULATED VERT. DEFL. (TL) = L/999 (0.06")

CSI: TC=0.75/1.00 (F-G:1), BC=0.19/1.00 (J-K:1), WB=0.44/1.00 (E-H:1), SSI=0.20/1.00 (E-F:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (H) (INPUT = 0.90)
JSI METAL= 0.50 (B) (INPUT = 1.00)



Structural component only
DWG# T-2121153

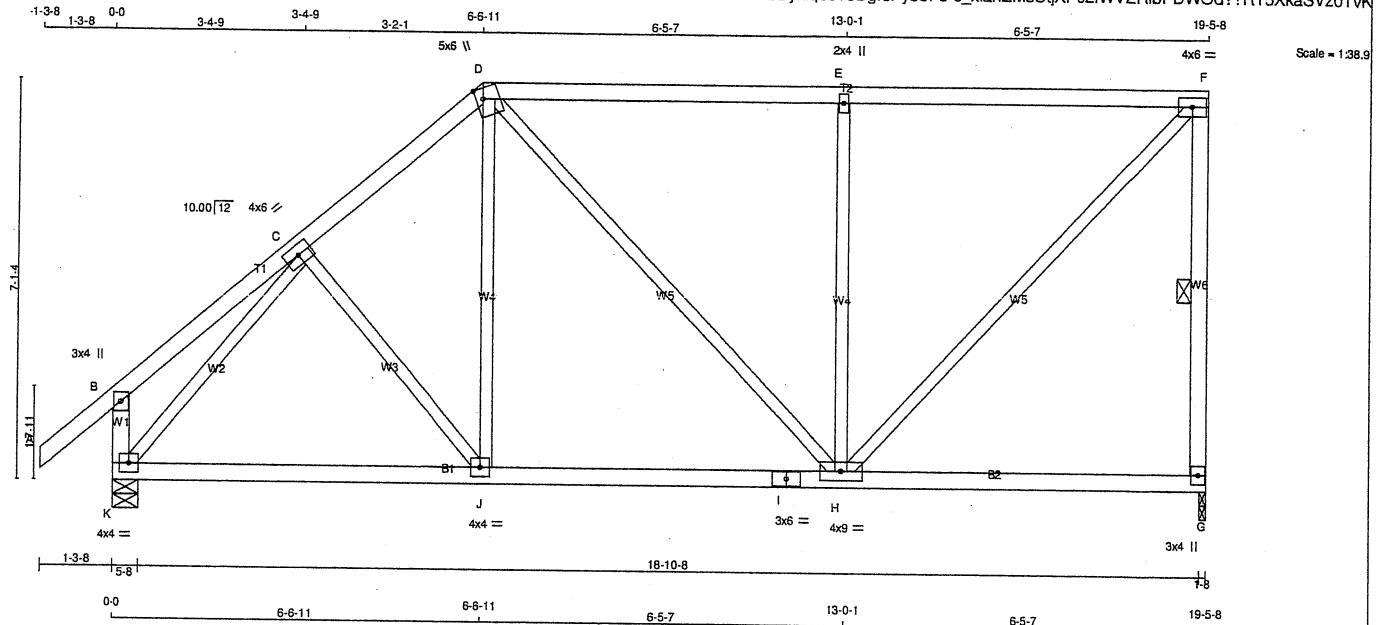
CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

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Per: _____

JOB NAME 412868	TRUSS NAME T4	QUANTITY 4	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington		TRUSS DESC.		Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:33 2021 Page 1	



LUMBER			
N.L.G.A. RULES	SIZE	LUMBER	DESCR.
CHORDS			
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
G - F	2x4	DRY	No.2
K - B	2x4	DRY	No.2
K - I	2x4	DRY	No.2
I - G	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMV+p	MT20	3.0	4.0
C	TMVW-t	MT20	4.0	6.0
D	TTWW+m	MT20	5.0	6.0 2.25 1.50
E	TMVW+w	MT20	2.0	4.0
F	TMVW-t	MT20	4.0	6.0
G	BMV1+p	MT20	3.0	4.0
H	BMVW-t	MT20	4.0	9.0
I	BS-t	MT20	3.0	6.0
J	BMVW-t	MT20	4.0	4.0
K	BMVW-t	MT20	4.0	4.0

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	IN-SX
G	1073	0	1073	0	1-8	1-8	1-8
K	1200	0	1200	0	5-8	5-8	5-8

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN	COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
G	759	498 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0
K	846	569 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	277 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) G, K

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.62 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-G.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		MAX		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT.	LC1	MAX	UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX	UNBRAC LENGTH
FR-TO		FROM	TO	CSI (LC)		FR-TO		FROM	TO
A-B	0 / 41	-91.8	-91.8	0.13 (1)	10.00	C-J	-59 / 20	0.03 (1)	10.00
B-C	0 / 21	-91.8	-91.8	0.15 (1)	10.00	J-D	0 / 177	0.05 (4)	10.00
C-D	-930 / 0	-91.8	-91.8	0.16 (1)	6.21	D-H	0 / 89	0.02 (1)	10.00
D-E	-759 / 0	-91.8	-91.8	0.68 (1)	5.62	H-E	-734 / 0	0.64 (1)	10.00
E-F	-759 / 0	-91.8	-91.8	0.69 (1)	5.62	H-F	0 / 1101	0.25 (1)	10.00
G-F	-1023 / 0	0.0	0.0	0.23 (1)	6.20	K-C	-1167 / 0	0.50 (1)	10.00
K-B	-243 / 0	0.0	0.0	0.03 (1)	7.81				
K-J	0 / 734	-18.5	-18.5	0.24 (4)	10.00				
J-I	0 / 699	-18.5	-18.5	0.24 (4)	10.00				
I-H	0 / 699	-18.5	-18.5	0.24 (4)	10.00				
H-G	0 / 0	-18.5	-18.5	0.17 (4)	10.00				

TOTAL WEIGHT = 4 X 91 = 363 lb

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	8.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	39.0	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL. (LL) = $L/360$ (0.65")
CALCULATED VERT. DEFL. (LL) = $L/999$ (0.03")
ALLOWABLE DEFL. (TL) = $L/360$ (0.65")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.07")

CSI: TC=0.69/1.00 (E-F:1), BC=0.24/1.00 (H-J:4), WB=0.64/1.00 (E-H:1), SSI=0.29/1.00 (E-F:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

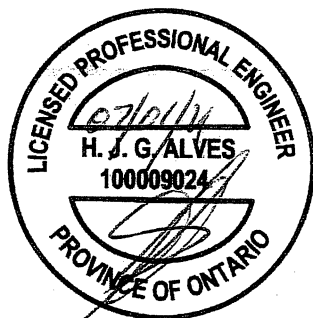
NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (K) (INPUT = 0.90)
JSI METAL= 0.26 (C) (INPUT = 1.00)



Structural component only
DWG# T-2121154

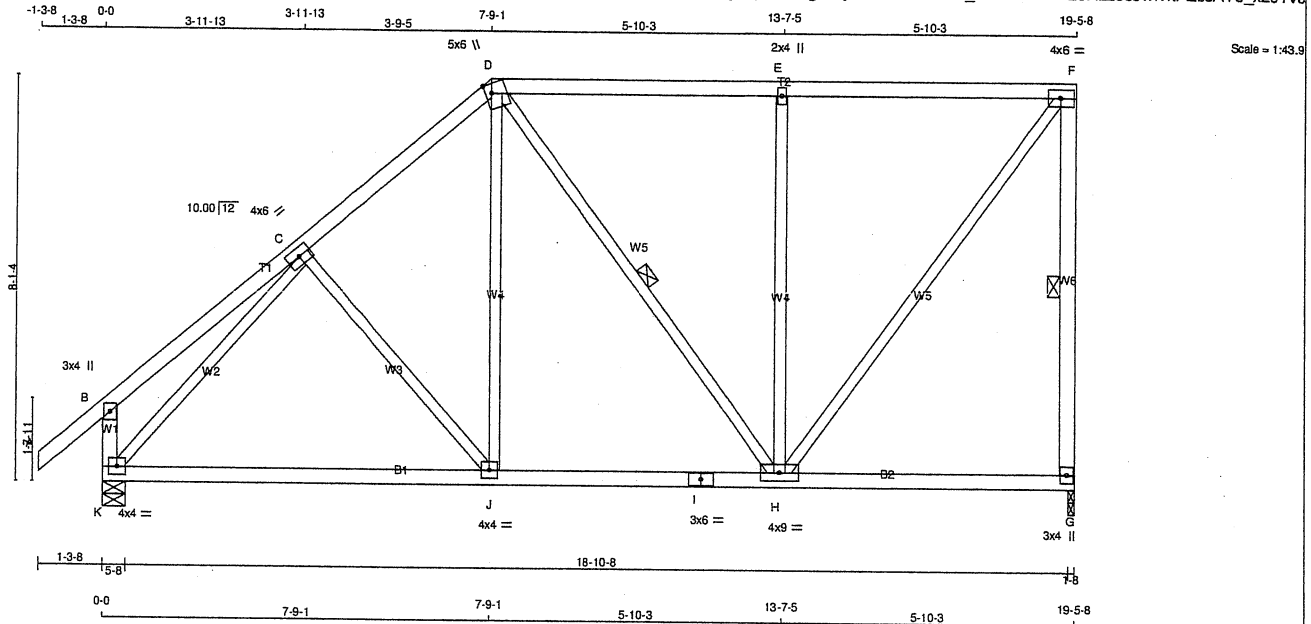
CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

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Per: _____

JOB NAME 412868	TRUSS NAME T5	QUANTITY 16	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	



LUMBER			
N. L. G. A. RULES	SIZE	LUMBER	DESCR.
CHORDS			
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
G - F	2x4	DRY	No.2
K - B	2x4	DRY	No.2
K - I	2x4	DRY	No.2
I - G	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	3.0	4.0		
C	TMVW-t	MT20	4.0	6.0		
D	TTWW+m	MT20	5.0	6.0	2.25	1.50
E	TMVW+w	MT20	2.0	4.0		
F	TMVW-t	MT20	4.0	6.0		
G	BMV1+p	MT20	3.0	4.0		
H	BMVWW-t	MT20	4.0	9.0		
I	BS-t	MT20	3.0	6.0		
J	BMVW-t	MT20	4.0	4.0		
K	BMVW1-t	MT20	4.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED		MAXIMUM FACTORED		INPUT		REQD	
GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
G	1073	0	1073	0	1-8	1-8	
K	1200	0	1200	0	5-8	5-8	

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
G	759	498 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0
K	846	569 / 0	0 / 0	0 / 0	0 / 0	277 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) G, K

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.24 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-G, D-H.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		MEMB.		WEBS	
FR-TO	MEMB.	FORCE (LBS)	VERT. LOAD LC1 MAX (PLF)	CSI (LC)	UNBRAC LENGTH FR-TO	MEMB.	FORCE (LBS)
A-B	0 / 41	-91.8	-91.8	0.13 (1)	10.00	C-J	-144 / 0
B-C	0 / 26	-91.8	-91.8	0.22 (1)	10.00	J-D	0 / 255
C-D	-878 / 0	-91.8	-91.8	0.24 (1)	6.24	D-H	-62 / 0
D-E	-618 / 0	-91.8	-91.8	0.55 (1)	6.25	H-E	-665 / 0
E-F	-619 / 0	-91.8	-91.8	0.55 (1)	6.25	F-F	0 / 1027
G-F	-1026 / 0	0.0	0.0	0.30 (1)	6.20	K-C	-1153 / 0
K-B	-262 / 0	0.0	0.0	0.03 (1)	7.81		
K-J	0 / 748	-18.5	-18.5	0.29 (4)	10.00		
J-I	0 / 656	-18.5	-18.5	0.30 (4)	10.00		
I-H	0 / 656	-18.5	-18.5	0.30 (4)	10.00		
H-G	0 / 0	-18.5	-18.5	0.13 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 25.6	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 39.0	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55% OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.65")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.65")
CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

CSI: TC=0.55/1.00 (E-F:1), BC=0.30/1.00 (H-J:4), WB=0.84/1.00 (E-H:1), SSI=0.26/1.00 (E-F:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX	MIN	MAX	MIN
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.88 (K) (INPUT = 0.90)
JSI METAL = 0.26 (C) (INPUT = 1.00)



Structural component only
DWG# T-2121155

CITY OF RICHMOND HILL
BUILDING DIVISION

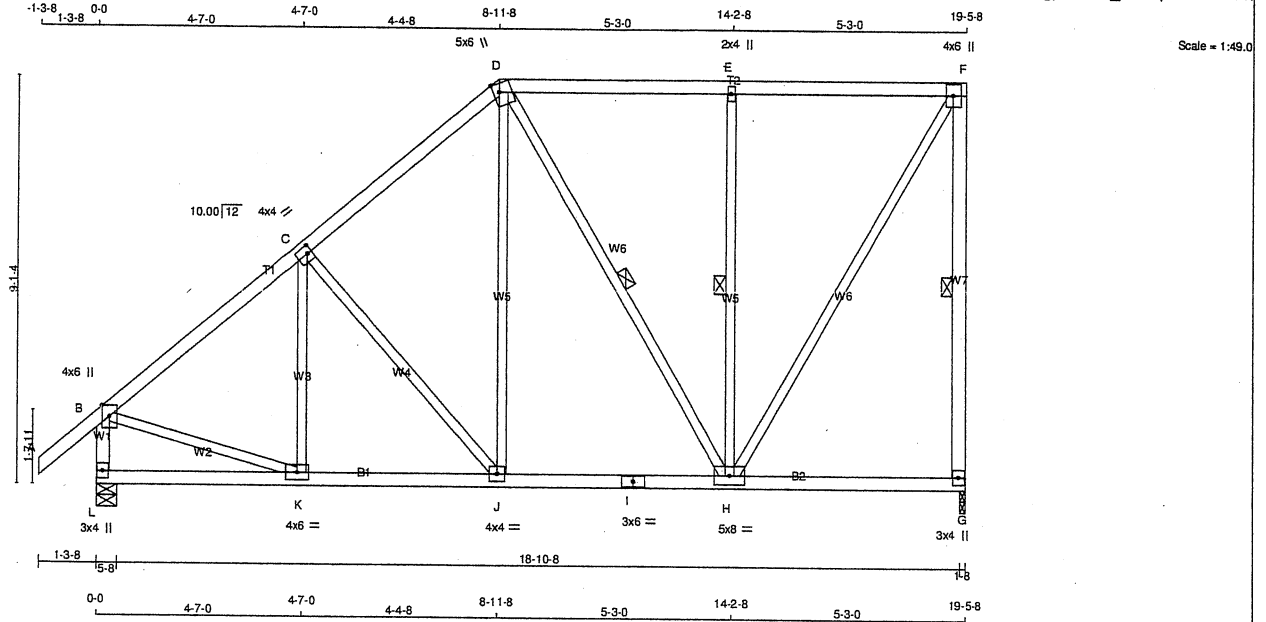
08/12/2021

RECEIVED

Per: _____

JOB NAME 412868	TRUSS NAME T6	QUANTITY 4	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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ID:wTM7iolSBYniqocTeDgf3Pyb9F8-YM2S?MbcN57RmZARqxXWWAgpkK48T_xmYqDhWNz0Tv



TOTAL WEIGHT = 4 X 103 = 414 lb [M]

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
G - F	2x4	DRY	No.2
L - B	2x4	DRY	No.2
L - I	2x4	DRY	No.2
I - G	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			
DRY: SEASONED LUMBER.			

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	Edge
C	TMVW-t	MT20	4.0	4.0	2.00 1.25
D	TTWW+m	MT20	5.0	6.0	2.25 1.50
E	TMVW+w	MT20	2.0	4.0	
F	TMVW+p	MT20	4.0	6.0	
G	BMV1+p	MT20	3.0	4.0	
H	BMVW-t	MT20	5.0	8.0	
I	BS-t	MT20	3.0	6.0	
J	BMVW-t	MT20	4.0	4.0	
K	BMVW-t	MT20	4.0	6.0	
L	BMV1+p	MT20	3.0	4.0	

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	IN-SX
G	1073	0	1073	0	0	1-8	1-8
L	1200	0	1200	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	759	498 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0
L	846	569 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	277 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) G, L

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.83 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-G, D-H, E-H.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 41	-91.8 -91.8	0.13 (1)	10.00	K-C	-132 / 29	0.06 (1)
B-C	-988 / 0	-91.8 -91.8	0.34 (1)	5.83	C-J	-293 / 0	0.25 (1)
C-D	-803 / 0	-91.8 -91.8	0.33 (1)	6.25	J-D	0 / 305	0.07 (1)
D-E	-509 / 0	-91.8 -91.8	0.43 (1)	6.25	D-H	-166 / 0	0.13 (1)
E-F	-509 / 0	-91.8 -91.8	0.43 (1)	6.25	H-E	-598 / 0	0.32 (1)
G-F	-1033 / 0	0.0 0.0	0.40 (1)	6.18	H-F	0 / 988	0.22 (1)
L-B	-1164 / 0	0.0 0.0	0.12 (1)	7.39	B-K	0 / 814	0.18 (1)
L-K	0 / 0	-18.5 -18.5	0.09 (4)	10.00			
K-J	0 / 783	-18.5 -18.5	0.17 (1)	10.00			
J-I	0 / 594	-18.5 -18.5	0.18 (4)	10.00			
I-H	0 / 594	-18.5 -18.5	0.18 (4)	10.00			
H-G	0 / 0	-18.5 -18.5	0.12 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	= 25.6	PSF
DL	= 6.0	PSF
BOT CH. LL	= 0.0	PSF
DL	= 7.4	PSF
TOTAL LOAD	= 39.0	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.65")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.65")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.43/1.00 (E-F:1), BC=0.18/1.00 (H-J:4), WB=0.32/1.00 (E-H:1), SSI=0.23/1.00 (E-F:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX	MIN	MAX	MIN
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.77 (B) (INPUT = 0.90)
JSI METAL= 0.50 (B) (INPUT = 1.00)



Structural component only
DWG# T-2121156

CITY OF RICHMOND HILL
BUILDING DIVISION

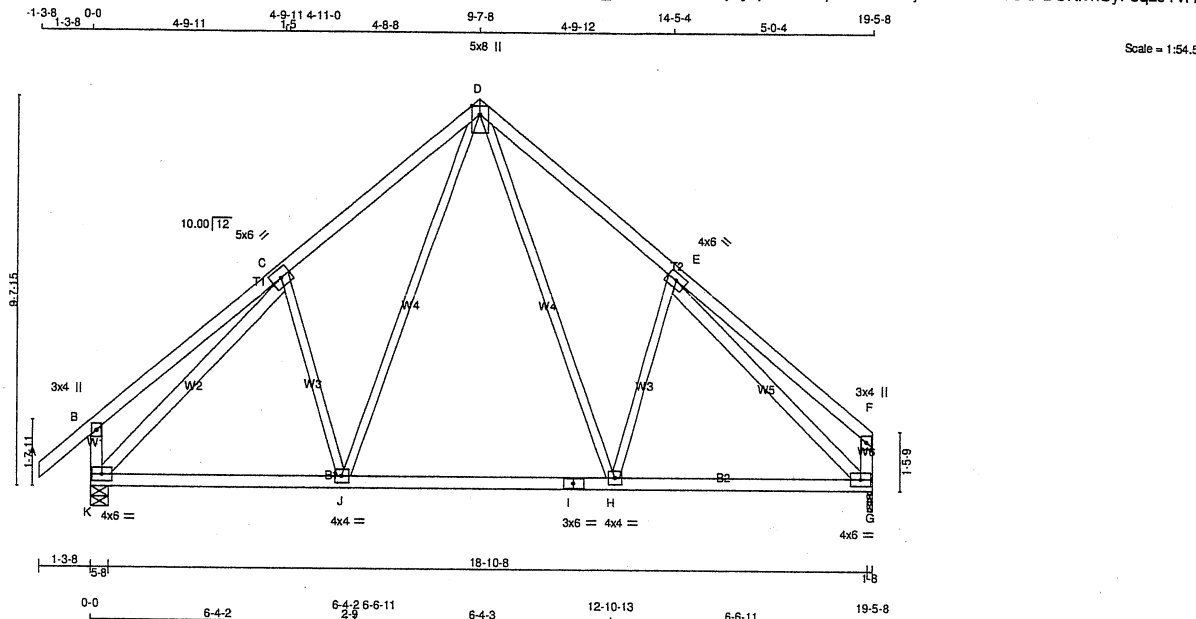
08/12/2021

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Per: _____

JOB NAME 412868	TRUSS NAME T7	QUANTITY 10	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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TOTAL WEIGHT = 10 X 95 = 955 lb (M/F)

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	DRY	LUMBER	DESCR.
A - D	2x4	DRY	No.2			SPF
D - F	2x4	DRY	No.2			SPF
K - B	2x4	DRY	No.2			SPF
G - F	2x4	DRY	No.2			SPF
K - I	2x4	DRY	No.2			SPF
I - G	2x4	DRY	No.2			SPF
ALL WEBS EXCEPT	2x3	DRY	No.2			SPF
K - C	2x4	DRY	No.2			SPF
E - G	2x4	DRY	No.2			SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B - TMV+p	MT20	3.0	4.0				
C - TMVW-t	MT20	5.0	6.0				
D - TTWW+p	MT20	5.0	8.0				Edge
E - TMVW-t	MT20	4.0	6.0				
F - TMV+p	MT20	3.0	4.0				
G - BMVW1-t	MT20	4.0	6.0				
H - BMVW-t	MT20	4.0	4.0				
I - BS-t	MT20	3.0	6.0				
J - BMVW-t	MT20	4.0	4.0				
K - BMVW1-t	MT20	4.0	6.0				

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
GROSS REACTION	GROSS REACTION	DOWN	BRG	BRG
JT VERT	HORZ	HORZ	UPLIFT	IN-SX
K	1200	0	1200	0
G	1073	0	1073	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS	DEAD	SOIL
JT COMBINED	SNOW	LIVE	PERM. LIVE	WIND
K	846	569 / 0	0 / 0	0 / 0
G	759	498 / 0	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) K, G

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.99 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED	FORCE	VERT. LOAD	FACTORED	MAX. UNBRACED	WEBS	MEMB.	MAX. FACTORED	FORCE	MAX. UNBRACED
FR-TO			(LBS)		(PLF)	LENGTH	FR-TO			(LBS)	LENGTH
A-B	0 / 41	-91.8	-91.8	0.13 (1)	10.00	C-J	-272 / 0	0.14 (1)			
B-C	0 / 35	-91.8	-91.8	0.35 (1)	10.00	J-D	0 / 413	0.09 (1)			
C-D	-938 / 0	-91.8	-91.8	0.29 (1)	6.04	D-H	0 / 454	0.10 (1)			
D-E	-957 / 0	-91.8	-91.8	0.30 (1)	5.99	H-E	-308 / 0	0.16 (1)			
E-F	0 / 35	-91.8	-91.8	0.37 (1)	10.00	K-C	-1166 / 0	0.75 (1)			
K-B	-285 / 0	0.0	0.0	0.03 (1)	7.81	E-G	-1174 / 0	0.80 (1)			
G-F	-168 / 0	0.0	0.0	0.02 (1)	7.81						
K-J	0 / 779	-18.5	-18.5	0.24 (4)	10.00						
J-I	0 / 556	-18.5	-18.5	0.23 (4)	10.00						
I-H	0 / 556	-18.5	-18.5	0.23 (4)	10.00						
H-G	0 / 803	-18.5	-18.5	0.25 (4)	10.00						

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	= 25.6	PSF
DL	= 6.0	PSF
BOT CH. LL	= 0.0	PSF
DL	= 7.4	PSF
TOTAL LOAD	= 39.0	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.65")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.03")
ALLOWABLE DEFL.(TL) = $L/360$ (0.65")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.07")

CSI: TC=0.37/1.00 (E-F:1), BC=0.25/1.00 (G-H:4),
WB=0.80/1.00 (E-G:1), SS=0.17/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.85 (E) (INPUT = 0.90)
JSI METAL = 0.29 (E) (INPUT = 1.00)



Structural component only
DWG# T-2121157

CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

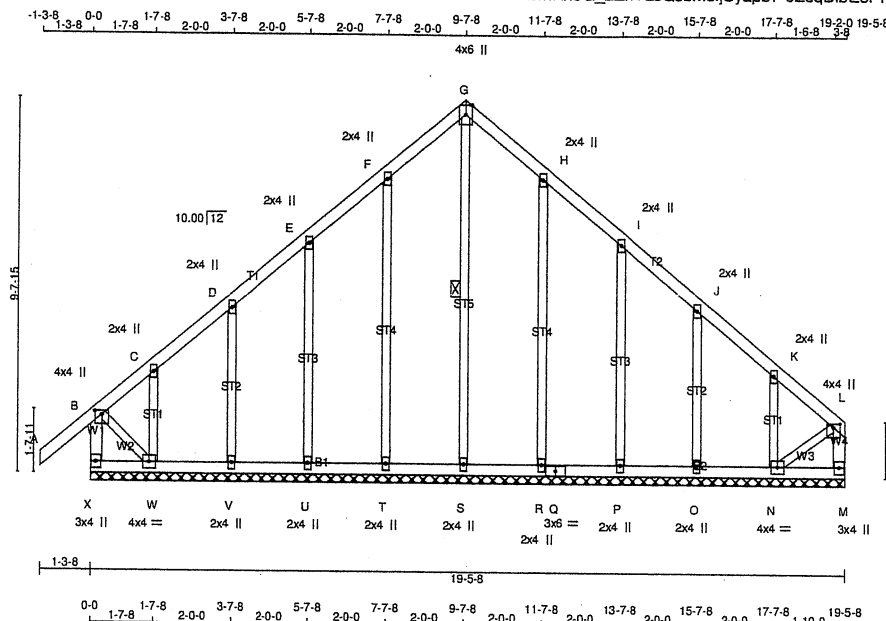
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Per: _____

JOB NAME 412868	TRUSS NAME T7G	QUANTITY 2	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
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Tamarack Roof Truss, Burlington

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Scale = 1:56.5

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - G	2x4	DRY	No.2
G - L	2x4	DRY	No.2
X - B	2x4	DRY	No.2
M - L	2x4	DRY	No.2
X - Q	2x4	DRY	No.2
Q - M	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
ALL GABLE WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
C, D, E, F, H, I, J, K						
C	TMW+w	MT20	2.0	4.0		
G	TTW+p	MT20	4.0	6.0	Edge	
L	TMVW+p	MT20	4.0	4.0	1.00	2.00
M	BMV1+p	MT20	3.0	4.0		
N	BMVW1-t	MT20	4.0	4.0		
O, P, R, S, T, U, V						
O	BMV1+w	MT20	2.0	4.0		
Q	BS-t	MT20	3.0	6.0		
W	BMVW1-t	MT20	4.0	4.0		
X	BMV1+p	MT20	3.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-S.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 41	-91.8 -91.8	0.13 (1)	S-G	-123 / 0	0.08 (1)	
B-C	-74 / 0	-91.8 -91.8	0.12 (1)	T-F	-209 / 0	0.25 (1)	
C-D	-30 / 0	-91.8 -91.8	0.05 (1)	U-E	-173 / 0	0.11 (1)	
D-E	-34 / 0	-91.8 -91.8	0.05 (1)	V-D	-195 / 0	0.06 (1)	
E-F	-25 / 0	-91.8 -91.8	0.05 (1)	W-C	-97 / 0	0.06 (1)	
F-G	-37 / 0	-91.8 -91.8	0.05 (1)	R-H	-208 / 0	0.25 (1)	
G-H	-37 / 0	-91.8 -91.8	0.05 (1)	P-I	-176 / 0	0.11 (1)	
H-I	-26 / 0	-91.8 -91.8	0.05 (1)	O-J	-180 / 0	0.06 (1)	
I-J	-32 / 0	-91.8 -91.8	0.04 (1)	N-K	-185 / 0	0.03 (1)	
J-K	-38 / 0	-91.8 -91.8	0.04 (1)	B-W	0 / 41	0.01 (1)	
K-L	-34 / 0	-91.8 -91.8	0.04 (1)	N-L	0 / 41	0.01 (1)	
X-B	-301 / 0	0.0 0.0	0.03 (1)				
M-L	-113 / 0	0.0 0.0	0.01 (1)				
X-W	0 / 0	-18.5 -18.5	0.01 (4)				
W-V	0 / 29	-18.5 -18.5	0.02 (4)				
V-U	0 / 25	-18.5 -18.5	0.02 (4)				
U-T	0 / 22	-18.5 -18.5	0.02 (4)				
T-S	0 / 19	-18.5 -18.5	0.02 (4)				
S-R	0 / 19	-18.5 -18.5	0.02 (4)				
R-Q	0 / 22	-18.5 -18.5	0.02 (4)				
Q-P	0 / 22	-18.5 -18.5	0.02 (4)				
P-O	0 / 25	-18.5 -18.5	0.02 (4)				
O-N	0 / 29	-18.5 -18.5	0.02 (4)				
N-M	0 / 0	-18.5 -18.5	0.02 (4)				

TOTAL WEIGHT = 2 X 98 = 197 lb

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 39.0 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS
- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.13/1.00 (A-B:1), BC=0.02/1.00 (N-O:4), WB=0.25/1.00 (F-T:1), SS=0.08/1.00 (A-B:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.51 (N) (INPUT = 0.90)
JSI METAL= 0.11 (F) (INPUT = 1.00)



Structural component only
DWG# T-2121158

CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

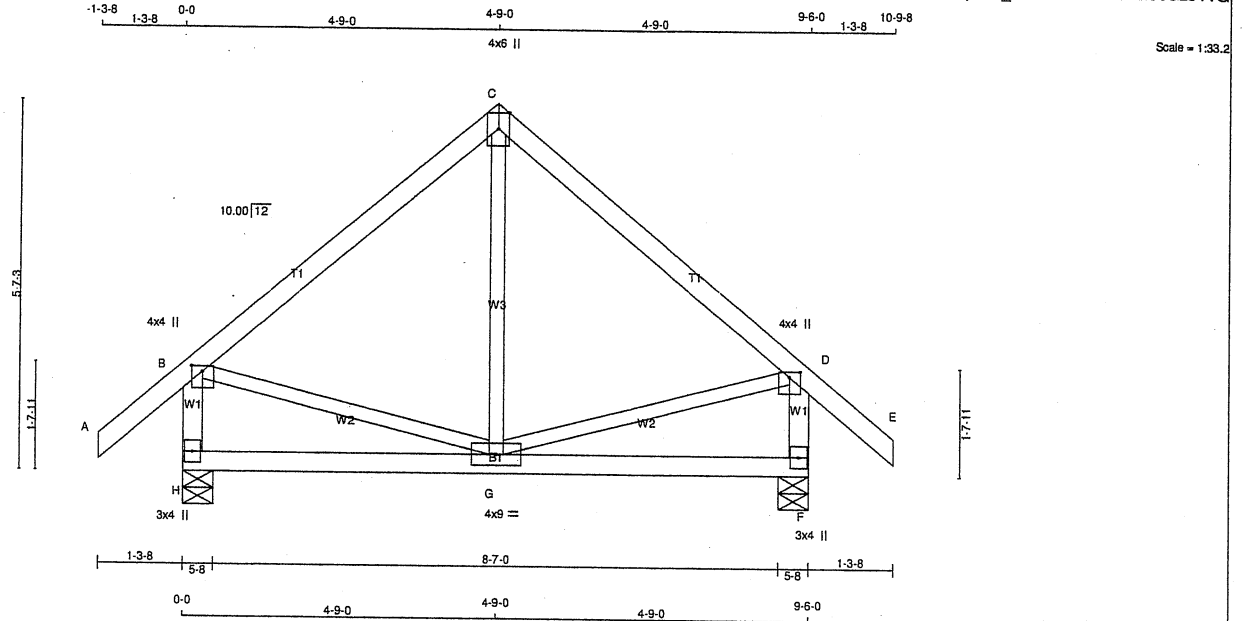
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Per: _____

JOB NAME 412868	TRUSS NAME T8	QUANTITY 2	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
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Tamarack Roof Truss, Burlington

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TOTAL WEIGHT = 2 X 43 = 87 lb
(M/F)

LUMBER				DESCR.
N. L. G. A. RULES	SIZE	LUMBER		
CHORDS				
A - C	2x4 DRY	No.2	SPF	
C - E	2x4 DRY	No.2	SPF	
H - B	2x4 DRY	No.2	SPF	
F - D	2x4 DRY	No.2	SPF	
H - F	2x4 DRY	No.2	SPF	
ALL WEBS	2x3 DRY	No.2	SPF	
EXCEPT				
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	4.0	1.00 2.00
C	TTW+p	MT20	4.0	6.0	Edge
D	TMVW+p	MT20	4.0	4.0	1.00 2.00
F	BMV1+p	MT20	3.0	4.0	
G	BMVWW-t	MT20	4.0	9.0	
H	BMV1+p	MT20	3.0	4.0	

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX	BRG
H	651	0	651	0	0	5-8	5-8	5-8	5-8
F	651	0	651	0	0	5-8	5-8	5-8	5-8

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
H	458	314 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0
F	458	314 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, F

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 41	-91.8 -91.8 0.13 (1)	10.00	G-C	-27 / 72	0.02 (4)	
B-C	-319 / 0	-91.8 -91.8 0.27 (1)	6.25	B-G	0 / 254	0.06 (1)	
C-D	-319 / 0	-91.8 -91.8 0.27 (1)	6.25	G-D	0 / 254	0.06 (1)	
D-E	0 / 41	-91.8 -91.8 0.13 (1)	10.00				
H-B	-617 / 0	0.0 0.0 0.07 (1)	7.81				
F-D	-617 / 0	0.0 0.0 0.07 (1)	7.81				
H-G	0 / 0	-18.5 -18.5 0.12 (4)	10.00				
G-F	0 / 0	-18.5 -18.5 0.12 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	39.0	PSF	

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.32")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.00")
ALLOWABLE DEFL.(TL) = $L/360$ (0.32")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.01")

CSI: TC=0.27/1.00 (C-D:1), BC=0.12/1.00 (G-H:4), WB=0.06/1.00 (B-G:1), SSI=0.13/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.50 (B) (INPUT = 0.90)
JSI METAL = 0.14 (D) (INPUT = 1.00)



Structural component only
DWG# T-2121159

CITY OF RICHMOND HILL
BUILDING DIVISION

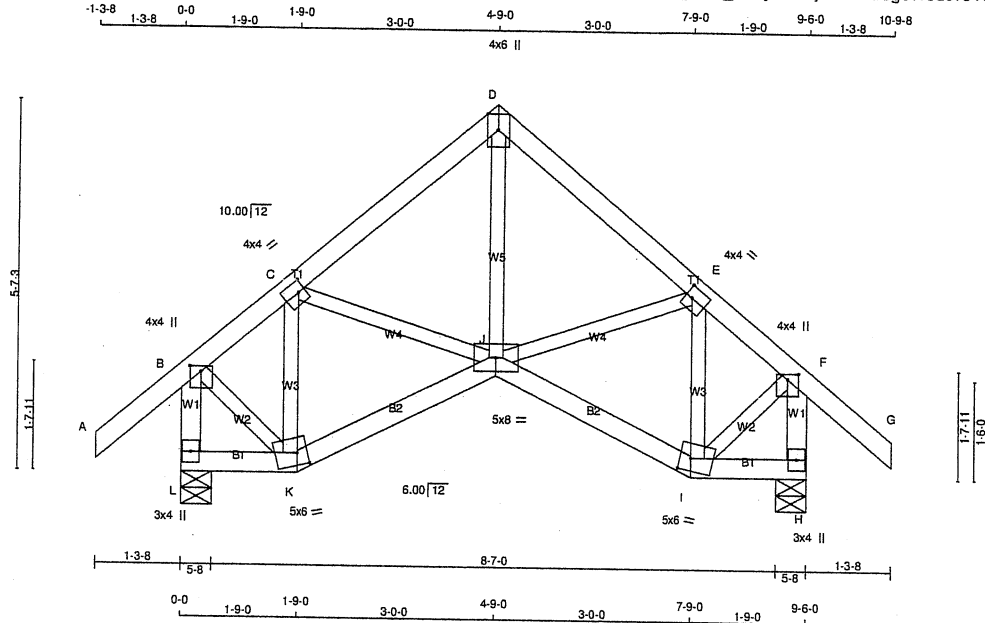
08/12/2021

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Per: _____

JOB NAME 412868	TRUSS NAME T9S	QUANTITY 4	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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Scale = 1:33.2

TOTAL WEIGHT = 4 X 48 = 191 lb [M/F]

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - D	2x4	DRY	No.2
D - G	2x4	DRY	No.2
L - B	2x4	DRY	No.2
H - F	2x4	DRY	No.2
L - K	2x4	DRY	No.2
K - J	2x4	DRY	No.2
J - I	2x4	DRY	No.2
I - H	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			
DRY: SEASONED LUMBER.			

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	4.0	1.00 2.00
C	TMVW-t	MT20	4.0	4.0	2.00 1.25
D	TTW+p	MT20	4.0	6.0	Edge
E	TMVW-t	MT20	4.0	4.0	2.00 1.25
F	TMVW+p	MT20	4.0	4.0	1.00 2.00
H	BMV1+p	MT20	3.0	4.0	
I	BBWW-m	MT20	5.0	6.0	2.25 2.00
J	BBWWW-p	MT20	5.0	8.0	
K	BBWW-m	MT20	5.0	6.0	2.25 2.00
L	BMV1+p	MT20	3.0	4.0	

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	JT	GROSS REACTION	BRG	BRG	BRG	BRG
L	651	DOWN	651	0	0	5-8	5-8
H	651	0	651	0	0	5-8	5-8

UNFACTORED REACTIONS

1ST LC CASE	MAX./MIN. COMPONENT REACTIONS	1ST LC CASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED	JT	COMBINED
L	458	L	458
H	458	H	458

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) L, H

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. (LC)	MEMB.	FORCE (LBS)
FR-TO		FROM	TO	FR-TO	
A-B	0 / 41	-91.8	-91.8 0.13 (1)	J-D	0 / 268
B-C	-354 / 0	-91.8	-91.8 0.09 (1)	J-E	0 / 59
C-D	-414 / 0	-91.8	-91.8 0.11 (1)	I-E	-279 / 0
D-E	-414 / 0	-91.8	-91.8 0.11 (1)	C-J	0 / 59
E-F	-354 / 0	-91.8	-91.8 0.09 (1)	K-C	-279 / 0
F-G	0 / 41	-91.8	-91.8 0.13 (1)	B-K	0 / 328
L-B	-635 / 0	0.0	0.0 0.07 (1)	I-F	0 / 328
H-F	-635 / 0	0.0	0.0 0.07 (1)		
L-K	0 / 0	-18.5	-18.5 0.02 (4)		
K-J	0 / 283	-18.5	-18.5 0.07 (1)		
J-I	0 / 283	-18.5	-18.5 0.07 (1)		
I-H	0 / 0	-18.5	-18.5 0.02 (4)		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 25.6	PSF
DL = 6.0	PSF	
BOT CH.	LL = 0.0	PSF
DL = 7.4	PSF	
TOTAL LOAD = 39.0	PSF	

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL. (LL) = $L/360$ (0.32")
CALCULATED VERT. DEFL. (LL) = $L/999$ (0.01")
ALLOWABLE DEFL. (TL) = $L/360$ (0.32")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.01")

CSI: TC=0.13/1.00 (A-B:1), BC=0.07/1.00 (I-J:1), WB=0.07/1.00 (F-I:1), SS=0.10/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP (DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX. MIN	MAX. MIN	MAX. MIN	MAX. MIN
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.44 (F) (INPUT = 0.90)

JSI METAL= 0.13 (B) (INPUT = 1.00)



CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

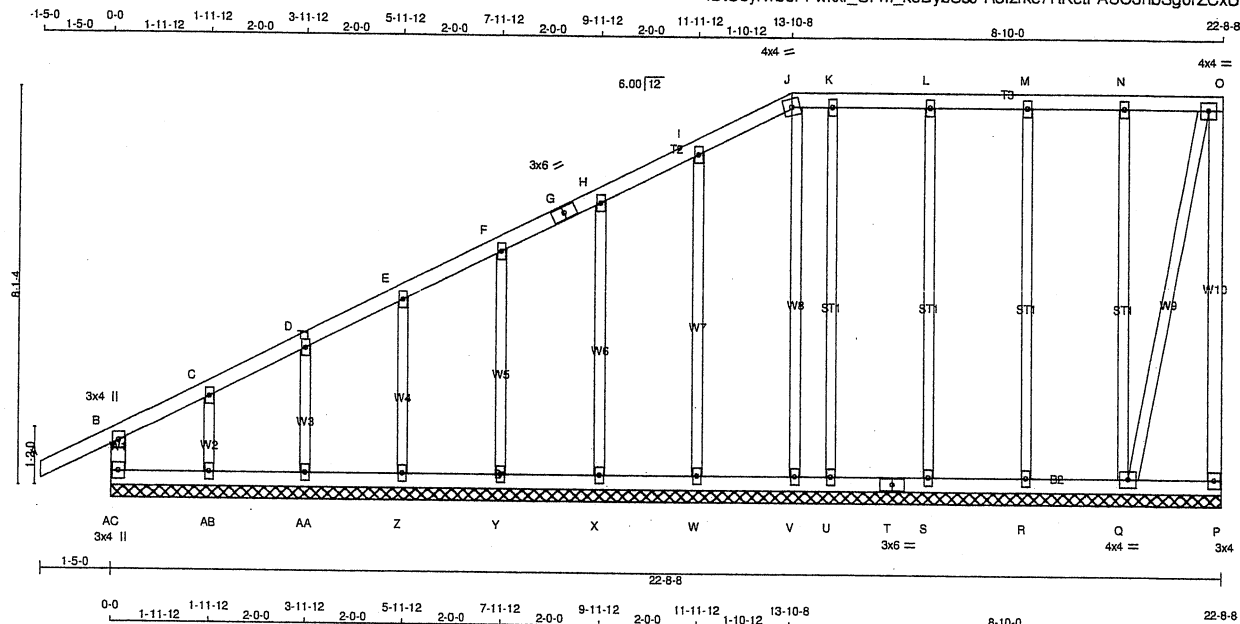
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Per: _____

Structural component only
DWG# T-2121160

JOB NAME 412868	TRUSS NAME T10G	QUANTITY 4	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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Scale = 1/4"=1'-0"

TOTAL WEIGHT = 4 X 122 = 488 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
AC - B	2x4	DRY No.2	SPF
A - G	2x4	DRY No.2	SPF
G - J	2x4	DRY No.2	SPF
J - O	2x4	DRY No.2	SPF
P - O	2x4	DRY No.2	SPF
AC - T	2x4	DRY No.2	SPF
T - P	2x4	DRY No.2	SPF
ALL WEBS	2x3	DRY No.2	SPF
ALL GABLE WEBS	2x3	DRY No.2	SPF
DRY: SEASONED LUMBER.			
GABLE STUDS SPACED AT 2'-0" OC.			

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN Y	X
B TMV+p	MT20	3.0	4.0	
C, D, E, F, H, I, K, L, M, N				
G TMW+w	MT20	2.0	4.0	
H TS-t	MT20	3.0	6.0	
J TTW-m	MT20	4.0	4.0	
O TMVW-t	MT20	4.0	4.0	
P BMV1+p	MT20	3.0	4.0	
Q BMVW1-t	MT20	4.0	4.0	
R, S, U, V, W, X, Y, Z, AA, AB				
R BMV1+w	MT20	2.0	4.0	
T BS-t	MT20	3.0	6.0	
AC BMV1+p	MT20	3.0	4.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
AC-B	-271 / 0	0.0	0.0 0.03 (1)	Q-N	-200 / 0	0.25 (1)	
A-B	0 / 30	-91.8	-91.8 0.14 (1)	R-M	-182 / 0	0.23 (1)	
B-C	-21 / 0	-91.8	-91.8 0.14 (1)	S-L	-190 / 0	0.24 (1)	
C-D	0 / 10	-91.8	-91.8 0.05 (1)	U-K	-149 / 0	0.19 (1)	
D-E	0 / 9	-91.8	-91.8 0.05 (1)	V-J	-95 / 0	0.12 (1)	
E-F	0 / 14	-91.8	-91.8 0.04 (1)	AB-C	-118 / 0	0.02 (1)	
F-G	0 / 16	-91.8	-91.8 0.04 (1)	AA-D	-196 / 0	0.04 (1)	
G-H	0 / 16	-91.8	-91.8 0.04 (1)	Z-E	-179 / 0	0.05 (1)	
H-I	0 / 19	-91.8	-91.8 0.05 (1)	Y-F	-183 / 0	0.07 (1)	
I-J	0 / 13	-91.8	-91.8 0.05 (1)	X-H	-180 / 0	0.11 (1)	
J-K	0 / 20	-91.8	-91.8 0.03 (1)	W-I	-200 / 0	0.18 (1)	
K-L	0 / 20	-91.8	-91.8 0.05 (1)	Q-O	-79 / 0	0.11 (1)	
L-M	0 / 20	-91.8	-91.8 0.05 (1)				
M-N	0 / 20	-91.8	-91.8 0.05 (1)				
N-O	0 / 20	-91.8	-91.8 0.05 (1)				
P-O	0 / 0	0.0	0.0 0.00 (1)				
AC-AB	0 / 0	-18.5	-18.5 0.02 (4)				
AB-AA	-4 / 0	-18.5	-18.5 0.02 (4)				
AA-Z	-9 / 0	-18.5	-18.5 0.01 (4)				
Z-Y	-12 / 0	-18.5	-18.5 0.01 (4)				
Y-X	-14 / 0	-18.5	-18.5 0.01 (4)				
X-W	-16 / 0	-18.5	-18.5 0.02 (4)				
W-V	-18 / 0	-18.5	-18.5 0.02 (4)				
V-U	-20 / 0	-18.5	-18.5 0.01 (4)				
U-T	-20 / 0	-18.5	-18.5 0.02 (4)				
T-S	-20 / 0	-18.5	-18.5 0.02 (4)				
S-R	-20 / 0	-18.5	-18.5 0.02 (4)				
R-Q	-20 / 0	-18.5	-18.5 0.02 (4)				
Q-P	0 / 0	-18.5	-18.5 0.02 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.14/1.00 (A-B:1), BC=0.02/1.00 (Q-R:4), WB=0.25/1.00 (N-Q:1), SS=0.09/1.00 (A-B:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE GRIP (DRY)	SHEAR (PSI)	SECTION (PLI)
MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP = 0.59 (J) (INPUT = 0.90)
JSI METAL = 0.08 (I) (INPUT = 1.00)



Structural component only
DWG# T-2121161

CITY OF RICHMOND HILL
BUILDING DIVISION

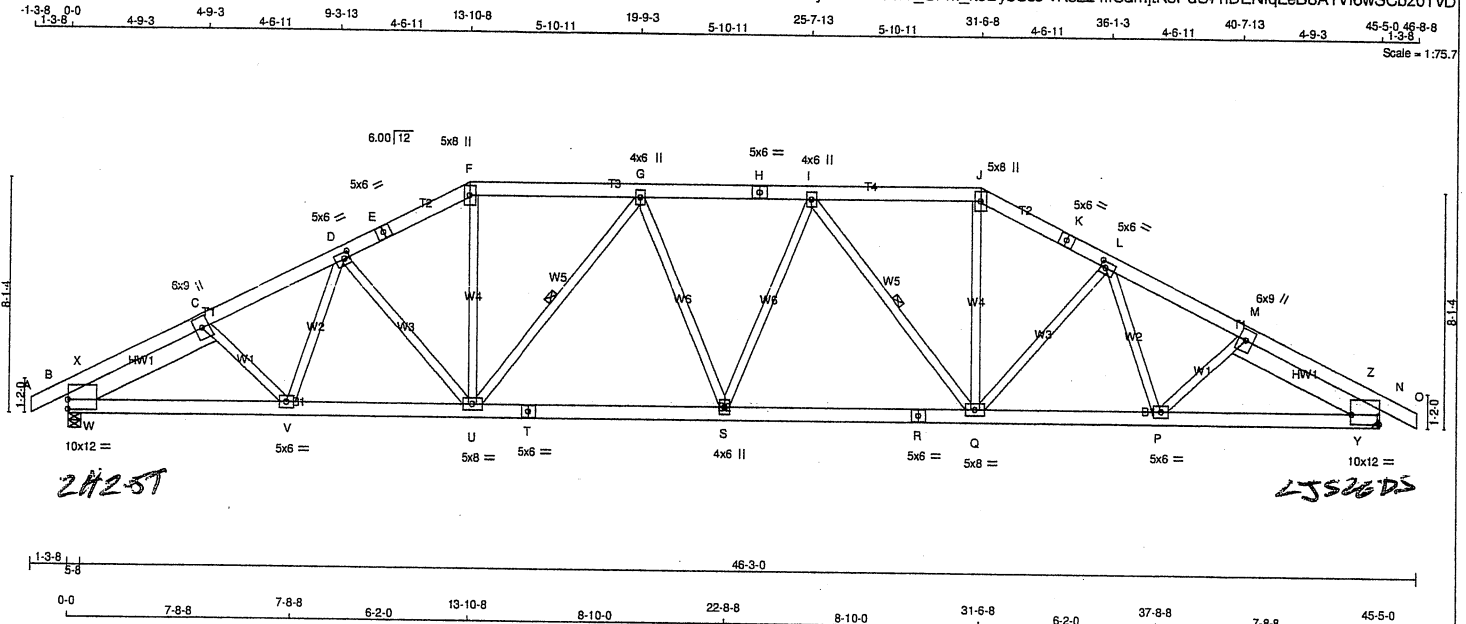
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Per: _____

JOB NAME 412868	TRUSS NAME T11	QUANTITY 15	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington					

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LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - E	2x6	DRY	No.2	SPF	
E - F	2x6	DRY	No.2	SPF	
F - H	2x6	DRY	No.2	SPF	
H - J	2x6	DRY	No.2	SPF	
J - K	2x6	DRY	No.2	SPF	
K - O	2x6	DRY	No.2	SPF	
B - T	2x6	DRY	No.2	SPF	
T - R	2x6	DRY	No.2	SPF	
R - N	2x6	DRY	No.2	SPF	

REINFORCING MEMBERS	SIZE	LUMBER	DESCR.
HW1	2x8	DRY	No.2
HW2	2x8	DRY	No.2

ALL WEBS	SIZE	LUMBER	DESCR.
DRY: SEASONED LUMBER.	2x4	DRY	No.2

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMW1m	MT20	10.0	12.0	4.00		
C	TMBWW-t	MT20	6.0	9.0			
D	TMBWW-t	MT20	5.0	6.0	2.50	2.25	
E, H, K	TS-t	MT20	5.0	6.0			
F	TTW+p	MT20	5.0	8.0			
G	TMBWW-t	MT20	4.0	6.0			
I	TMBWW-t	MT20	4.0	6.0			
J	TTW+p	MT20	5.0	8.0			
L	TMBWW-t	MT20	5.0	6.0	2.50	2.25	
M	TMBWW-t	MT20	6.0	9.0			
N	TMBMW1m	MT20	10.0	12.0	4.00	Edge	
P	TMBWW-t	MT20	5.0	6.0			
Q	TMBWW-t	MT20	5.0	8.0			
R	BS-t	MT20	5.0	6.0			
S	TMBWW-t	MT20	4.0	6.0			
T	BS-t	MT20	5.0	6.0			
U	TMBWW-t	MT20	5.0	8.0			
V	TMBWW-t	MT20	5.0	6.0			

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED	MAXIMUM FACTORED	INPUT	REQD
GROSS REACTION	GROSS REACTION	BRG	BRG
JT VERT	DOWN	UP	IN-SX
B	3675	0	3709
N	3675	0	3709

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT N. MINIMUM BEARING LENGTH AT JOINT N = 4'-0".

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 1082 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT N FOR 1082 LBS FACTORED UPLIFT

PROVIDE FOR 195 LBS FACTORED HORIZONTAL REACTION AT JOINT B

UNFACTORED REACTIONS

1ST CASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD
B	2713	1634 / 0	477 / 0	0 / 0	0 / -1073	625 / 0
N	2713	1634 / 0	477 / 0	0 / 0	59 / -1073	625 / 0

HORIZONTAL REACTIONS

B	0 / 0	0 / 0	139 / -139	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B

BRACING

MAX. UNBRACED TOP CHORD LENGTH = 3.53 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-U, I-Q.

LOADING

TOTAL LOAD CASES: (18)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. (PLF)	CSI (LC)	UNBRAC	LENGTH	FR-TO	MEMB.	FORCE (LBS)
FR-TO								
A-B	0 / 1	-115.2	-115.2	0.09 (2)	10.00	C-V	-32 / 371	0.06 (3)
B-X	-4338 / 1145	-115.2	-115.2	0.18 (2)	4.06	V-D	-90 / 264	0.04 (5)
X-C	-2853 / 891	-115.2	-115.2	0.15 (2)	4.85	D-U	-826 / 383	0.53 (2)
C-D	-5520 / 1704	-115.2	-115.2	0.33 (2)	3.55	U-F	-479 / 1736	0.38 (13)
D-E	-5000 / 1604	-115.2	-115.2	0.29 (2)	3.73	F-G	-1448 / 490	0.65 (3)
E-F	-5000 / 1604	-115.2	-115.2	0.29 (2)	3.73	G-S	-167 / 458	0.18 (9)
F-G	-4482 / 1504	-115.2	-115.2	0.36 (1)	3.82	S-I	-167 / 458	0.18 (10)
G-H	-5228 / 1649	-115.2	-115.2	0.41 (1)	3.53	I-Q	-1448 / 490	0.65 (2)
H-I	-5228 / 1649	-115.2	-115.2	0.41 (1)	3.53	Q-J	-479 / 1736	0.38 (14)
I-J	-4482 / 1504	-115.2	-115.2	0.36 (1)	3.82	J-L	-826 / 383	0.53 (3)
J-K	-5000 / 1604	-115.2	-115.2	0.29 (3)	3.73	L-P	-100 / 264	0.04 (6)
K-L	-5000 / 1604	-115.2	-115.2	0.29 (3)	3.73	P-M	-44 / 371	0.06 (2)
L-M	-5520 / 1705	-115.2	-115.2	0.33 (3)	3.55	M-X	-379 / 1962	0.00 (1)
M-Z	-2853 / 893	-115.2	-115.2	0.15 (3)	4.85	W-C	-2918 / 847	0.49 (1)
Z-N	-4338 / 1148	-115.2	-115.2	0.18 (3)	4.06	N-Y	-2918 / 847	0.49 (1)
N-O	0 / 1	-115.2	-115.2	0.09 (3)	10.00	Y-Z	-381 / 1962	0.00 (1)
B-W	-856 / 2550	-39.5	-39.5	0.33 (1)	6.25			
W-V	-1532 / 4864	-39.5	-39.5	0.69 (1)	6.25			
V-U	-1432 / 4893	-39.5	-39.5	0.71 (1)	6.25			
U-T	-1381 / 5160	-39.5	-39.5	0.76 (1)	6.25			
T-S	-1381 / 5160	-39.5	-39.5	0.76 (1)	6.25			
S-R	-1327 / 5160	-39.5	-39.5	0.76 (1)	6.25			
R-Q	-1327 / 5160	-39.5	-39.5	0.76 (1)	6.25			
Q-P	-1237 / 4893	-39.5	-39.5	0.71 (1)	6.25			
P-Y	-1338 / 4864	-39.5	-39.5	0.69 (1)	6.25			
Y-N	-664 / 2550	-39.5	-39.5	0.33 (1)	6.25			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	33.4	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	57.3	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBC 2015

THIS DESIGN COMPLIES WITH:

- PART 4 OF CBC 2018, ABC 2019
- PART 4 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

- SLOPE REDUCTION FACTOR NOT USED
- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 33.4 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (1.51")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.24")
ALLOWABLE DEFL.(TL) = $L/180$ (3.03")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.34")

CSI: TC=0.41/1.00 (G-I), BC=0.76/1.00 (S-U), WB=0.65/1.00 (G-U), SS=0.24/1.00 (I-J)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

SNOW LOAD IMPORTANCE FACTOR = 1.00
WIND LOAD IMPORTANCE FACTOR = 1.00
LIVE LOAD IMPORTANCE FACTOR = 1.00
COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

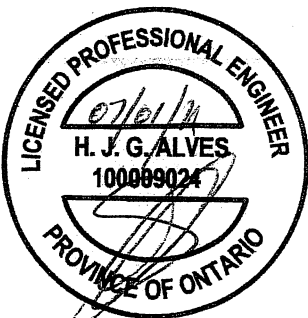
NAIL VALUES

PLATE GRIP (DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.83 (T) (INPUT = 0.90)
JSI METAL = 0.92 (T) (INPUT = 1.00)



Structural component only
DWG# T-2121162

RECEIVED
Per: _____

JOB NAME 412868	TRUSS NAME T11	QUANTITY 15	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:40 2021 Page 2
ID:U6yl?rbeFFwxf UFm koDybSsJ-vKsl 24flCdmjtK3PdU7hDENfqLeB8A1Vi6wSCbz0TvD

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING
AS PER NBCC 4.1.6.2.(8)

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.2} PSF AT {31-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, $C_p C_g$, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE. TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 5.0 PSF AND 5.0 PSF RESPECTIVELY.

**CITY OF RICHMOND HILL
BUILDING DIVISION**

08/12/2021

RECEIVED

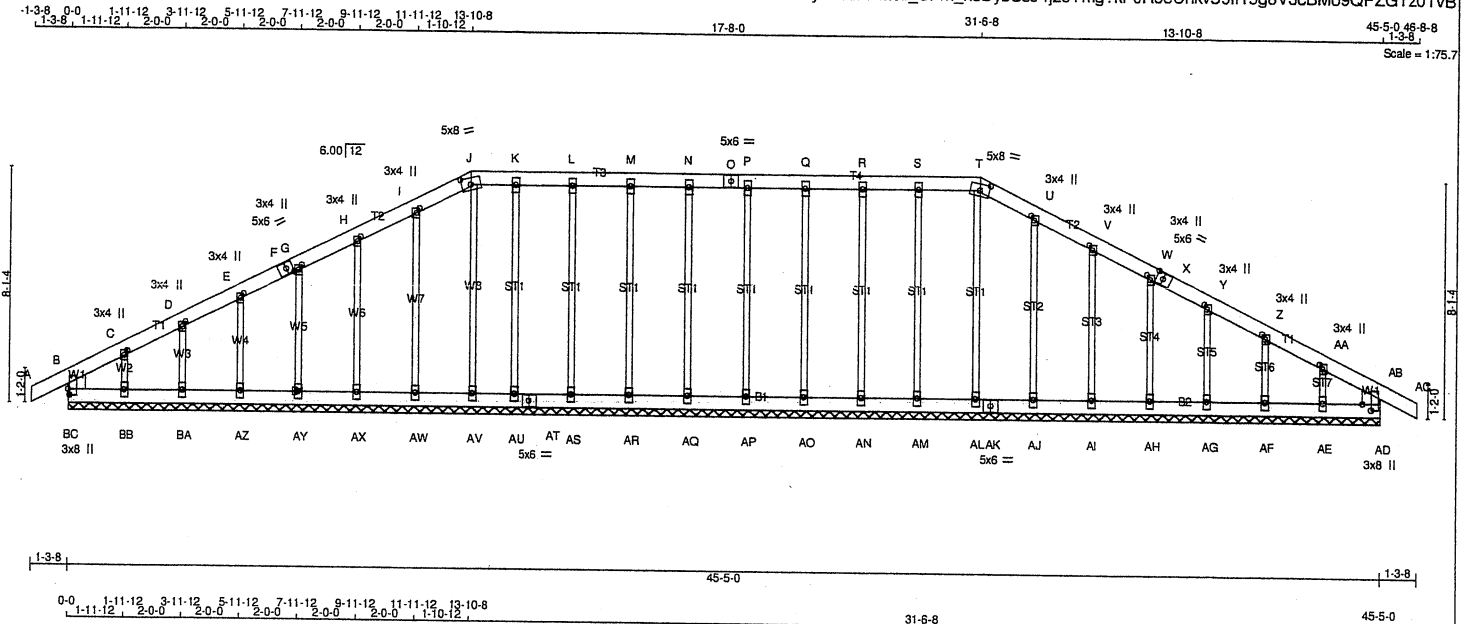
Per: _____



Structural component only
DWG# T-2121162 *ML*

JOB NAME 412868	TRUSS NAME T11G	QUANTITY 2	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington					

Version 8.420 S Jan 21 2021 Mitek Industries, Inc. Thu Jul 1 10:22:42 2021 Page 1
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LUMBER				LUMBER				DESCR.			
N. L. G. A. RULES	CHORDS	SIZE									
BC - B	2x8	DRY	No.2					SPF			
A - F	2x6	DRY	No.2					SPF			
F - J	2x6	DRY	No.2					SPF			
J - O	2x6	DRY	No.2					SPF			
O - T	2x6	DRY	No.2					SPF			
T - X	2x6	DRY	No.2					SPF			
X - AC	2x6	DRY	No.2					SPF			
AD - AB	2x8	DRY	No.2					SPF			
BC - AT	2x6	DRY	No.2					SPF			
AT - AK	2x6	DRY	No.2					SPF			
AK - AD	2x6	DRY	No.2					SPF			
ALL WEBS	2x3	DRY	No.2					SPF			
ALL GABLE WEBS	2x3	DRY	No.2					SPF			
DRY: SEASONED LUMBER.											

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B, AB, AD, BC					
B					
C, D, E, G, H, I, U, V, W, Y, Z, AA					
C TMW+M	MT20	3.0	4.0	2.00	1.25
F TS-t	MT20	5.0	6.0	2.50	2.75
J TTW-m	MT20	5.0	8.0	2.75	4.00
K, L, M, N, P, Q, R, S					
K TMW+M	MT20	3.0	6.0		
O TS-t	MT20	5.0	6.0		
T TTW-m	MT20	5.0	8.0	2.75	4.00
X TS-t	MT20	5.0	6.0	2.50	2.75
AD TBMV1+p	MT20	3.0	8.0	2.50	3.75
AE, AF, AG, AH, AI, AJ, AL, AM, AN, AO, AP, AQ, AR, AS, AU, AV, AW, AX, AY, AZ, BA, BB					
AE BMW1+M	MT20	3.0	6.0		
AK BS-t	MT20	5.0	6.0		
AT BS-t	MT20	5.0	6.0		
BC TBMV1+p	MT20	3.0	8.0	2.50	0.50

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO				FR-TO			
BC-B	-260 / 0	0.0	0.0 0.02 (1)	AL-T	-186 / 0	0.21 (1)	
A-B	0 / 29	-91.8	-91.8 0.06 (1)	AM-S	-190 / 0	0.21 (1)	
B-C	-50 / 0	-91.8	-91.8 0.05 (1)	AN-R	-183 / 0	0.21 (1)	
C-D	-24 / 0	-91.8	-91.8 0.02 (1)	AO-Q	-183 / 0	0.21 (1)	
D-E	-19 / 0	-91.8	-91.8 0.02 (1)	AP-P	-183 / 0	0.21 (1)	
E-F	-13 / 0	-91.8	-91.8 0.02 (1)	AQ-N	-183 / 0	0.21 (1)	
F-G	-13 / 0	-91.8	-91.8 0.02 (1)	AR-M	-184 / 0	0.21 (1)	
G-H	-9 / 0	-91.8	-91.8 0.02 (1)	AS-L	-184 / 0	0.21 (1)	
H-I	-5 / 0	-91.8	-91.8 0.02 (1)	AU-K	-163 / 0	0.18 (1)	
I-J	-3 / 0	-91.8	-91.8 0.02 (1)	AJ-U	-183 / 0	0.14 (1)	
J-K	0 / 0	-91.8	-91.8 0.02 (1)	AI-V	-182 / 0	0.09 (1)	
K-L	0 / 0	-91.8	-91.8 0.02 (1)	AH-W	-182 / 0	0.06 (1)	
L-M	0 / 0	-91.8	-91.8 0.02 (1)	AG-Y	-180 / 0	0.04 (1)	
M-N	0 / 0	-91.8	-91.8 0.02 (1)	AF-Z	-188 / 0	0.03 (1)	
N-O	0 / 0	-91.8	-91.8 0.02 (1)	AE-AA	-137 / 0	0.02 (1)	
O-P	0 / 0	-91.8	-91.8 0.02 (1)	AV-J	-159 / 0	0.18 (1)	
P-Q	0 / 0	-91.8	-91.8 0.02 (1)	BB-C	-137 / 0	0.02 (1)	
Q-R	0 / 0	-91.8	-91.8 0.02 (1)	BA-D	-188 / 0	0.03 (1)	
R-S	0 / 0	-91.8	-91.8 0.02 (1)	AZ-E	-180 / 0	0.04 (1)	
S-T	0 / 0	-91.8	-91.8 0.02 (1)	AY-G	-181 / 0	0.06 (1)	
T-U	-2 / 0	-91.8	-91.8 0.02 (1)	AX-H	-183 / 0	0.10 (1)	
U-V	-5 / 0	-91.8	-91.8 0.02 (1)	AW-I	-184 / 0	0.14 (1)	
V-W	-9 / 0	-91.8	-91.8 0.02 (1)				
W-X	-14 / 0	-91.8	-91.8 0.02 (1)				
X-Y	-14 / 0	-91.8	-91.8 0.02 (1)				
Y-Z	-20 / 0	-91.8	-91.8 0.02 (1)				
Z-AA	-24 / 0	-91.8	-91.8 0.02 (1)				
AA-AB	-51 / 0	-91.8	-91.8 0.05 (1)				
AB-AC	0 / 29	-91.8	-91.8 0.06 (1)				
AD-AB	-260 / 0	0.0	0.0 0.02 (1)				

BC-BB	0 / 33	-18.5	-18.5 0.03 (1)	10.00
BB-BA	0 / 24	-18.5	-18.5 0.01 (1)	10.00
BA-AZ	0 / 17	-18.5	-18.5 0.01 (4)	10.00
AZ-AY	0 / 12	-18.5	-18.5 0.01 (4)	10.00
AY-AX	0 / 8	-18.5	-18.5 0.01 (4)	10.00
AX-AW	0 / 5	-18.5	-18.5 0.01 (4)	10.00
AW-AV	0 / 2	-18.5	-18.5 0.01 (4)	10.00
AV-AU	0 / 0	-18.5	-18.5 0.01 (4)	10.00
AU-AT	0 / 0	-18.5	-18.5 0.01 (4)	10.00
AT-AS	0 / 0	-18.5	-18.5 0.01 (4)	10.00
AS-AR	0 / 0	-18.5	-18.5 0.01 (4)	10.00
AR-AQ	0 / 0	-18.5	-18.5 0.01 (4)	10.00
AQ-AP	0 / 0	-18.5	-18.5 0.01 (4)	10.00
AP-AO	0 / 0	-18.5	-18.5 0.01 (4)	10.00
AO-AN	0 / 0	-18.5	-18.5 0.01 (4)	10.00
AN-AM	0 / 0	-18.5	-18.5 0.01 (4)	10.00
AM-AL	0 / 0	-18.5	-18.5 0.01 (4)	10.00
AL-AK	0 / 2	-18.5	-18.5 0.01 (4)	10.00
AK-AJ	0 / 2	-18.5	-18.5 0.01 (4)	10.00
AJ-AI	0 / 5	-18.5	-18.5 0.01 (4)	10.00

TOTAL WEIGHT = 2 X 272 = 544 lb

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	39.0	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.
(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.06/1.00 (AB-AC:1), BC=0.03/1.00 (AD-AE:1), WB=0.21/1.00 (S-AM:1), SSI=0.07/1.00 (AB-AC:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES	PLATE GRIP (DRY)	PLATE GRIP (WET)	SECTION (PSI)	SECTION (PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	650	371	1747	788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.25 (J) (INPUT = 0.90)
JSI METAL = 0.09 (AD) (INPUT = 1.00)



Structural component only
DWG# T-2121163

CITY OF RICHMOND
BUILDING DIVISION

08/12/2021

RECEIVED

Per: _____

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	ROYAL PINE HOMES	DRWG NO.
412868	T11G	2	1	TRUSS DESC.		

Tamarack Roof Truss, Burlington

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:42 2021 Page 2
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LOADING

TOTAL LOAD CASES: (4)

CHORD'S				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
AI-AH	0 / 8	-18.5 -18.5	0.01 (4)	10.00			
AH-AG	0 / 12	-18.5 -18.5	0.01 (4)	10.00			
AG-AF	0 / 17	-18.5 -18.5	0.01 (4)	10.00			
AF-AE	0 / 25	-18.5 -18.5	0.01 (1)	10.00			
AE-AD	0 / 33	-18.5 -18.5	0.03 (1)	10.00			

CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

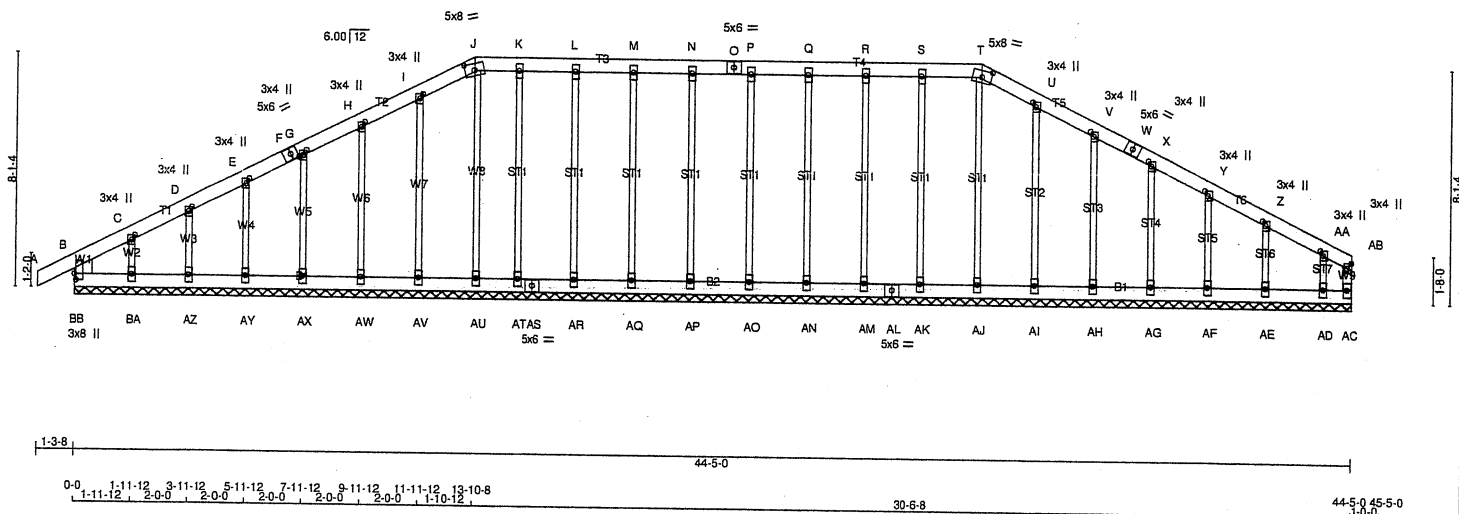
RECEIVED

Per: _____



Structural component only
DWG# T-2121163 *me*

JOB NAME 412868	TRUSS NAME T11GA	QUANTITY 2	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:43 2021 Page 1 ID:U6yi?rbeFFwxf_UFm_koDybSsJ-JvUxH5dVY8IkonzldgOrs?GPYrLeExO496owz0TvA	
<div style="display: flex; justify-content: space-between;"> 1-3-8 0-0 1-11-12 3-11-12 5-11-12 7-11-12 9-11-12 11-11-12 13-10-8 17-8-0 31-6-8 12-10-8 44-5-0 45-5-0 46-8-8 </div> <div style="display: flex; justify-content: space-between;"> 1-3-8 1-11-12 2-0-0 2-0-0 2-0-0 2-0-0 2-0-0 1-10-12 17-8-0 31-6-8 12-10-8 44-5-0 45-5-0 46-8-8 </div>					



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. TOTAL WEIGHT = 2 X 265 = 531 lb

BB- B	2x8	DRY	No.2	SPF
A - F	2x6	DRY	No.2	SPF
F - J	2x6	DRY	No.2	SPF
J - O	2x6	DRY	No.2	SPF
O - T	2x6	DRY	No.2	SPF
T - W	2x6	DRY	No.2	SPF
W - AB	2x6	DRY	No.2	SPF
BB- AS	2x6	DRY	No.2	SPF
AS- AL	2x6	DRY	No.2	SPF
AL- AC	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT AC- AB	2x4	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT	2-0-0	OC.		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
PROVIDE ANCHORAGE AT BEARING JOINT AC FOR 150 LBS. FACTORED UPLIFT BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S).
BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD LC1 MAX (PLF) CSI (LC)	MEMB.	FORCE (LBS) MAX CSI (LC)
FR-TO		FROM TO	FR-TO	
BB-B	-228 / 0	0.0 0.0 0.01 (1)	AJ-T	-168 / 0 0.19 (1)
A-B	0 / 29	-91.8 -91.8 0.06 (1)	AK-S	-212 / 0 0.24 (1)
B-C	-6 / 0	-91.8 -91.8 0.06 (1)	AM-R	-180 / 0 0.20 (1)
C-D	0 / 3	-91.8 -91.8 0.04 (1)	AN-Q	-182 / 0 0.20 (1)
D-E	0 / 22	-91.8 -91.8 0.02 (1)	AO-P	-184 / 0 0.21 (1)
E-F	0 / 25	-91.8 -91.8 0.02 (1)	AP-N	-183 / 0 0.21 (1)
F-G	0 / 25	-91.8 -91.8 0.02 (1)	AQ-M	-184 / 0 0.21 (1)
G-H	0 / 30	-91.8 -91.8 0.02 (1)	AR-L	-190 / 0 0.21 (1)
H-I	0 / 34	-91.8 -91.8 0.03 (1)	AT-K	-169 / 0 0.19 (1)
I-J	0 / 30	-91.8 -91.8 0.02 (1)	AU-U	-200 / 0 0.16 (1)
J-K	0 / 35	-91.8 -91.8 0.02 (1)	AH-V	-181 / 0 0.09 (1)
K-L	0 / 35	-91.8 -91.8 0.02 (1)	AG-X	-181 / 0 0.06 (1)
L-M	0 / 35	-91.8 -91.8 0.02 (1)	AF-Y	-179 / 0 0.04 (1)
M-N	0 / 35	-91.8 -91.8 0.02 (1)	AE-Z	-183 / 0 0.03 (1)
N-O	0 / 35	-91.8 -91.8 0.02 (1)	AD-AA	-166 / 0 0.02 (1)
O-P	0 / 35	-91.8 -91.8 0.02 (1)	AU-J	-152 / 0 0.17 (1)
P-Q	0 / 35	-91.8 -91.8 0.02 (1)	BA-C	-181 / 0 0.03 (1)
Q-R	0 / 35	-91.8 -91.8 0.03 (1)	AZ-D	-153 / 0 0.03 (1)
R-S	0 / 35	-91.8 -91.8 0.03 (1)	AY-E	-187 / 0 0.04 (1)
S-T	0 / 35	-91.8 -91.8 0.03 (1)	AX-G	-181 / 0 0.06 (1)
T-U	0 / 29	-91.8 -91.8 0.03 (1)	AW-H	-182 / 0 0.09 (1)
U-V	0 / 34	-91.8 -91.8 0.03 (1)	AV-I	-198 / 0 0.16 (1)
V-W	0 / 30	-91.8 -91.8 0.02 (1)	AC-AB	0 / 3 0.00 (1)
W-X	0 / 30	-91.8 -91.8 0.02 (1)		
X-Y	0 / 25	-91.8 -91.8 0.02 (1)		
Y-Z	0 / 19	-91.8 -91.8 0.03 (1)		
Z-AA	0 / 12	-91.8 -91.8 0.03 (1)		
AA-AB	0 / 18	-91.8 -91.8 0.03 (1)		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 39.0 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS
- OVERHANG NOT TO BE ALTERED OR CUT OFF.
(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.06/1.00 (A-B:1), BC=0.01/1.00 (AZ-BA:4), WB=0.24/1.00 (S-AK:1), SS=0.07/1.00 (S-T:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP=0.29 (AB) (INPUT = 0.90)
JSI METAL=0.06 (BB) (INPUT = 1.00)

CITY OF RICHMOND
BUILDING DIVISION

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Per: _____

CONTINUED ON PAGE 2



Structural component only
DWG# T-2121164

JOB NAME 412868	TRUSS NAME T11GA	QUANTITY 2	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:43 2021 Page 2
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Edge - INDICATES REFERENCE CORNER OF PLATE
TOUCHES EDGE OF CHORD.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
AH-AG	-26 / 0	-18.5 -18.5	0.01 (4)	6.25			
AG-AF	-22 / 0	-18.5 -18.5	0.01 (4)	6.25			
AF-AE	-17 / 0	-18.5 -18.5	0.01 (4)	6.25			
AE-AD	-10 / 0	-18.5 -18.5	0.01 (4)	6.25			
AD-AC	0 / 0	-18.5 -18.5	0.01 (4)	10.00			



Structural component only
DWG# T-2121164 7/2

CITY OF RICHMOND HILL
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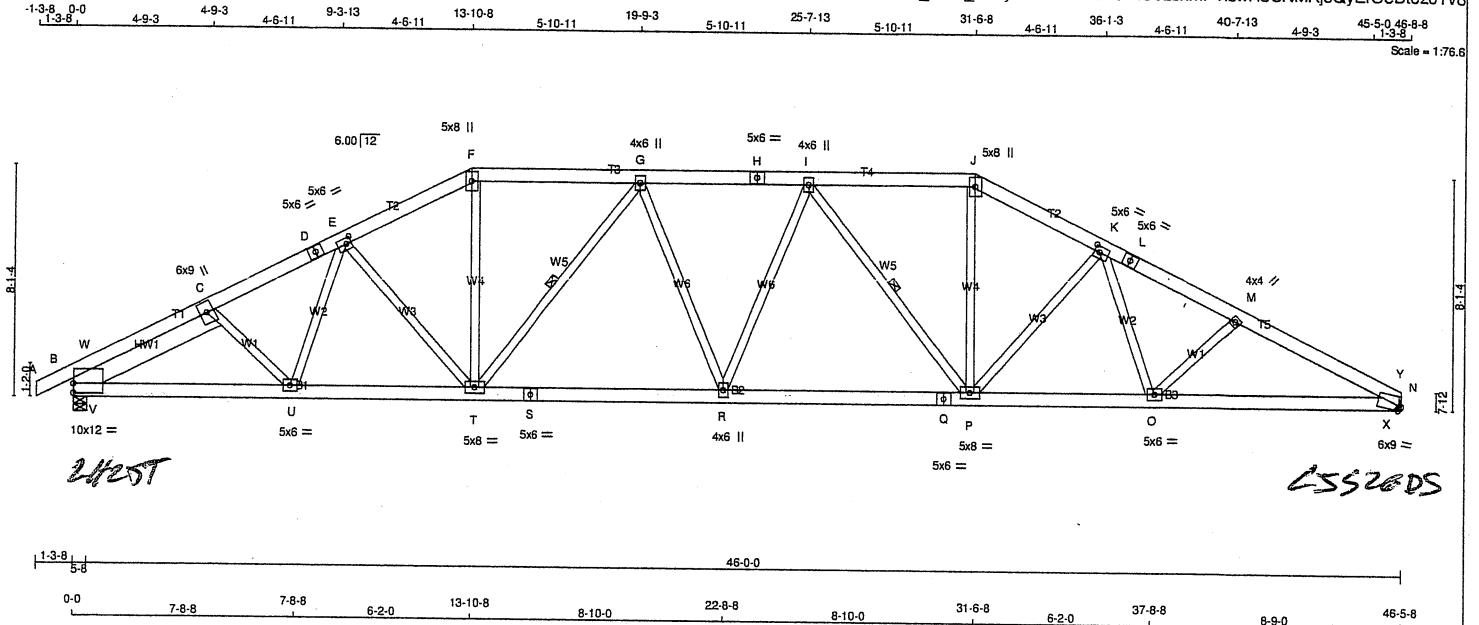
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Per: _____

JOB NAME 412868	TRUSS NAME T11X	QUANTITY 3	PLY 1	JOB DESC. ROYAL PINE HOMES	TRUSS DESC.	DRWG NO.
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Tamarack Roof Truss, Burlington

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LUMBER	N. L. G. A. RULES	SIZE	LUMBER	DESCR.
CHORDS				
A - D	2x6	DRY	No.2	SPF
D - F	2x6	DRY	No.2	SPF
F - H	2x6	DRY	No.2	SPF
H - J	2x6	DRY	No.2	SPF
J - L	2x6	DRY	No.2	SPF
L - N	2x6	DRY	No.2	SPF
N - O	2x6	DRY	No.2	SPF
O - P	2x6	DRY	No.2	SPF
P - N	2x6	DRY	No.2	SPF

REINFORCING MEMBERS	SIZE	LUMBER	DESCR.
HW1	2x8	DRY	No.2
ALL WEBS	2x4	DRY	No.2
DRY: SEASONED LUMBER.			

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE				
B TMBMW-t	MT20	10.0	12.0	4.00
C TMBWW-t	MT20	6.0	9.0	
D, H, L				
D TS-t	MT20	5.0	6.0	
E TMBWW-t	MT20	5.0	6.0	2.50
F TTW-p	MT20	5.0	8.0	
G TMBWW-t	MT20	4.0	6.0	
I TMBWW-t	MT20	4.0	6.0	
J TTW-p	MT20	5.0	8.0	
K TMBWW-t	MT20	5.0	6.0	2.50
M TMBWW-t	MT20	4.0	4.0	
N TMB1-m	MT20	6.0	9.0	Edge 1.00
O TMBWW-t	MT20	5.0	6.0	
P TMBWW-t	MT20	5.0	8.0	
Q BS-t	MT20	5.0	6.0	
R TMBWW-t	MT20	4.0	6.0	
S BS-t	MT20	5.0	6.0	
T TMBWW-t	MT20	5.0	8.0	
U TMBWW-t	MT20	5.0	6.0	

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	UPLIFT
B	3755	0	3763	195
N	3595	0	3622	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT N. MINIMUM BEARING LENGTH AT JOINT N = 3-8.

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 1100 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT N FOR 1050 LBS. FACTORED UPLIFT

PROVIDE FOR 195 LBS. FACTORED HORIZONTAL REACTION AT JOINT B

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT COMBINED	SNOW LIVE PERM. LIVE WIND DEAD SOIL
B	2773 1651 / 0 488 / 0 0 / 0 0 / -1093 639 / 0 0 / 0
N	2663 1571 / 0 488 / 0 0 / 0 77 / -1049 623 / 0 0 / 0

HORIZONTAL REACTIONS	B
B	0 / 0 0 / 0 0 / 0 139 / -138 0 / 0 0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B

BRACING

MAX. UNBRACED TOP CHORD LENGTH = 2.87 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.10 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-T, I-P.

LOADING

TOTAL LOAD CASES: (18)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED HORIZ. LOAD (PLF)	MAX. FACTORED TORSION (PLF)	MAX. FACTORED MOMENT (FT-LB)	MAX. FACTORED DISPLACEMENT (IN)
FR-TO							
A-B	0 / 1	-115.2	-115.2	0.09 (2)	10.00	C-U	-35 / 387 0.06 (3)
B-W	-4428 / 1167	-115.2	-115.2	0.18 (2)	4.03	U-E	-101 / 257 0.04 (5)
W-C	-2902 / 905	-115.2	-115.2	0.15 (2)	4.83	E-T	-817 / 380 0.53 (2)
C-D	-5672 / 1739	-115.2	-115.2	0.33 (2)	3.50	T-F	-495 / 1807 0.39 (13)
D-E	-5672 / 1739	-115.2	-115.2	0.33 (2)	3.50	F-G	-1548 / 519 0.70 (3)
E-F	-5164 / 1642	-115.2	-115.2	0.29 (2)	3.67	G-R	-121 / 543 0.12 (9)
F-G	-4630 / 1538	-115.2	-115.2	0.37 (1)	3.76	R-I	-242 / 399 0.24 (10)
G-H	-5466 / 1719	-115.2	-115.2	0.42 (1)	3.45	I-P	-1378 / 465 0.62 (2)
H-I	-5466 / 1719	-115.2	-115.2	0.42 (1)	3.45	P-J	-528 / 1903 0.42 (14)
I-J	-4815 / 1602	-115.2	-115.2	0.38 (1)	3.69	J-K	-1143 / 470 0.74 (3)
J-K	-5371 / 1713	-115.2	-115.2	0.31 (3)	3.59	K-O	-151 / 651 0.10 (3)
K-L	-6250 / 1913	-115.2	-115.2	0.38 (3)	3.30	O-M	-532 / 311 0.11 (3)
L-M	-6250 / 1913	-115.2	-115.2	0.38 (3)	3.30	M-V	-391 / 2013 0.00 (1)
M-Y	-6641 / 1989	-115.2	-115.2	0.55 (1)	3.02	V-C	-3006 / 867 0.50 (1)
Y-N	-7145 / 1894	-115.2	-115.2	0.52 (1)	2.87	C-X	0 / 871 0.00 (1)
B-V	-869 / 2593	-39.5	-39.5	0.33 (1)	6.25		
V-U	-1561 / 4989	-39.5	-39.5	0.71 (1)	6.25		
U-T	-1464 / 5032	-39.5	-39.5	0.72 (1)	6.25		
T-S	-1429 / 5368	-39.5	-39.5	0.78 (1)	6.25		
S-R	-1429 / 5368	-39.5	-39.5	0.78 (1)	6.25		
R-Q	-1389 / 5430	-39.5	-39.5	0.79 (1)	6.25		
Q-P	-1389 / 5430	-39.5	-39.5	0.79 (1)	6.25		
P-O	-1391 / 5427	-39.5	-39.5	0.78 (1)	6.25		
O-X	-1657 / 5910	-39.5	-39.5	0.86 (1)	6.10		
X-N	-1657 / 5910	-39.5	-39.5	0.86 (1)	6.13		

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBCC 4.1.6.2.(8)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 33.4	PSF
DL = 6.0	PSF	
BOT CH.	LL = 10.5	PSF
DL = 7.4	PSF	
TOTAL LOAD = 57.3	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 4 OF BCBC 2018, ABC 2019
- PART 4 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

- SLOPE REDUCTION FACTOR USED
- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 33.4 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.55")
CALCULATED VERT. DEFL.(LL) = L/999 (0.29")
ALLOWABLE DEFL.(TL) = L/180 (3.10")
CALCULATED VERT. DEFL.(TL) = L/999 (0.41")

CSI: TC=0.55/1.00 (M-Y:1), BC=0.86/1.00 (O-X:1), WB=0.74/1.00 (K-P:3), SSI=0.40/1.00 (N-Y:3)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

SNOW LOAD IMPORTANCE FACTOR = 1.00
WIND LOAD IMPORTANCE FACTOR = 1.00
LIVE LOAD IMPORTANCE FACTOR = 1.00
COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

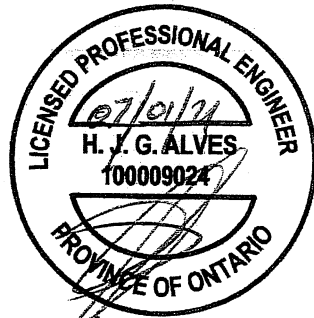
NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (Q) (INPUT = 0.90)
JSI METAL= 0.97 (Q) (INPUT = 1.00)



Structural component only
DWG# T-2121165

CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

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JOB NAME 412868	TRUSS NAME T11X	QUANTITY 3	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.2) PSF AT (31-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE. TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 5.0 PSF AND 5.0 PSF RESPECTIVELY.



Structural component only
DWG# T-2121165 *ML*

CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

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JOB NAME 412868	TRUSS NAME T12	QUANTITY 1	PLY 3	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington					

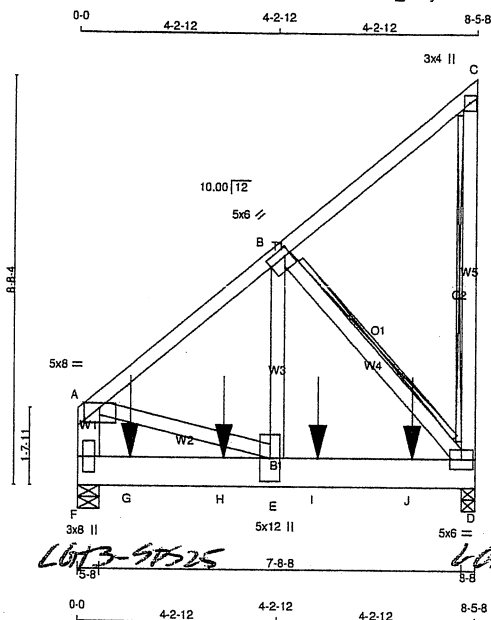
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CITY OF RICHMOND HILL
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Scale = 1:46.7

TOTAL WEIGHT = 3 X 59 = 178 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
D - C	2x4	DRY	No.2	SPF	
F - A	2x6	DRY	No.2	SPF	
F - D	2x8	DRY	No.2	SPF	

ALL WEBS 2x4 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 3 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD (PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A-C 1	12	TOP
C-D 1	12	TOP
F-A 2	12	TOP

BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS

F-D 2 4 SIDE (957.4)

WEBS : (0.122"x3") SPIRAL NAILS

2x4 1 6

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
A	TMWV-p	MT20	5.0	8.0	Edge	
B	TMWV-t	MT20	5.0	6.0	2.00	1.50

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
JT	GROSS REACTION	GROSS REACTION	BRG	BRG
D	VERT 7777	HORZ 0	DOWN 7857	UPLIFT 0
F	8212	0	2445	IN-SX 3-8

PROVIDE ANCHORAGE AT BEARING JOINT D FOR 2445 LBS FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT F FOR 2340 LBS FACTORED UPLIFT

PROVIDE FOR 477 LBS FACTORED HORIZONTAL REACTION AT JOINT F

UNFACTORED REACTIONS	1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW LIVE PERM.LIVE WIND DEAD SOIL
D	5726	3507 / 0 974 / 0 0 / 0 325 / -2372 1298 / 0 0 / 0
F	6045	3700 / 0 1028 / 0 0 / 0 280 / -2332 1371 / 0 0 / 0

HORIZONTAL REACTIONS	F	0 / 0	0 / 0	0 / 0	341 / -225	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) D, F

BRACING
MAX. UNBRACED TOP CHORD LENGTH = 4.63 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

2x6 DRY SPF No.2 T-BRACE AT C-D, B-D

FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING
TOTAL LOAD CASES: (18)

CHORDS	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD LC1 MAX (PLF) CSI (LC)	MEMB.	FORCE (LBS) MAX (LC)
FR-TO	FROM TO	LENGTH FR-TO	FR-TO	LENGTH FR-TO
A-B	-6013 / 1767	-115.2 -115.2 0.19 (2)	E-B	-2461 / 8415 0.45 (3)
B-C	-170 / 194	-115.2 -115.2 0.12 (2)	B-D	-6928 / 2271 0.36 (2)
D-C	-223 / 159	0.0 0.0 0.13 (13)	A-E	-1409 / 4817 0.26 (2)
F-A	-5360 / 1502	0.0 0.0 0.12 (2)		
F-G	-455 / 305	-39.5 -39.5 0.54 (3)		
G-H	-455 / 305	-39.5 -39.5 0.54 (3)		
H-E	-455 / 305	-39.5 -39.5 0.54 (3)		
E-I	-1504 / 4649	-39.5 -39.5 0.68 (2)		
I-J	-1504 / 4649	-39.5 -39.5 0.68 (2)		
J-D	-1504 / 4649	-39.5 -39.5 0.68 (2)		

SPECIFIED CONCENTRATED LOADS (LBS)	JT	LOC.	LC1	MAX.	FACE	DIR.	TYPE	HEEL	CONN.
G	1-1-4	-2700	-2700	615	BACK	VERT	TOTAL	---	C1
H	3-1-4	-2700	-2700	615	BACK	VERT	TOTAL	---	C1
I	5-1-4	-2700	-2700	615	BACK	VERT	TOTAL	---	C1
J	7-1-4	-2700	-2700	615	BACK	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING
AS PER NBCC 4.1.6.2.(8)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 33.4	PSF
DL = 6.0	PSF	
BOT CH.	LL = 10.5	PSF
DL = 7.4	PSF	
TOTAL LOAD = 57.3	PSF	

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 4 OF BCBC 2018, ABC 2019
- PART 4 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS
- SLOPE REDUCTION FACTOR NOT USED
- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 33.4 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.28")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/180 (0.56")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.19/1.00 (A-B:2), BC=0.68/1.00 (D-E:2), WB=0.45/1.00 (B-E:3), SSI=0.89/1.00 (D-E:3)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

SNOW LOAD IMPORTANCE FACTOR = 1.00
WIND LOAD IMPORTANCE FACTOR = 1.00
LIVE LOAD IMPORTANCE FACTOR = 1.00
COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.87 (B) (INPUT = 0.90)
JSI METAL= 0.56 (E) (INPUT = 1.00)



Structural component only
DWG# T-2121166

CONTINUED ON PAGE 2

JOB NAME 412868	TRUSS NAME T12	QUANTITY 1	PLY 3	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
C	TMV+p	MT20	3.0	4.0		
D	BMVW1+t	MT20	5.0	6.0		
E	BMVW+t	MT20	5.0	12.0		
F	BMV1+p	MT20	3.0	8.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

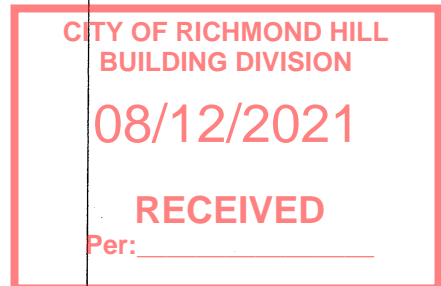
CONNECTION REQUIREMENTS

- 1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.2} PSF AT {31-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE. TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 5.0 PSF AND 5.0 PSF RESPECTIVELY.

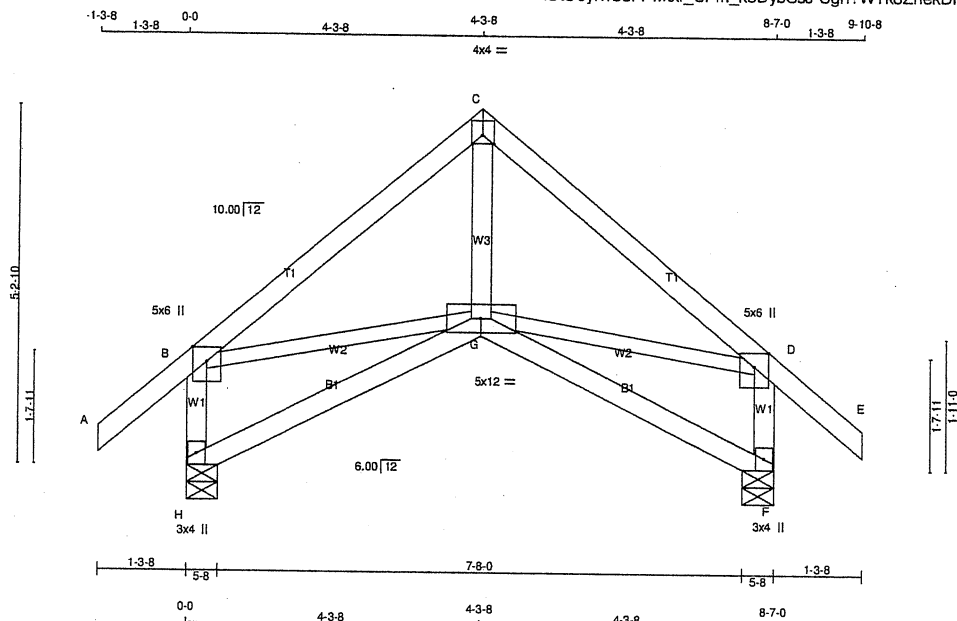


Structural component only
DWG# T-2121166 *m*



JOB NAME 412868	TRUSS NAME T13S	QUANTITY 2	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

Version 8.420 S Jan 21 2021 Mitek Industries, Inc. Thu Jul 1 10:22:47 2021 Page 1
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Scale: 3/8"=1'

TOTAL WEIGHT = 2 X 41 = 82 lb

LUMBER				DESCR.	
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
H - B	2x4	DRY	No.2	SPF	
F - D	2x4	DRY	No.2	SPF	
H - G	2x4	DRY	No.2	SPF	
G - F	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x4	DRY	No.2	SPF	
B - G	2x3	DRY	No.2	SPF	
G - D	2x3	DRY	No.2	SPF	

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	5.0	6.0	Edge
C	TTW-p	MT20	4.0	4.0	1.50 2.00
D	TMVW+p	MT20	5.0	6.0	Edge
F	BMV1+p	MT20	3.0	4.0	
G	BBWW+p	MT20	5.0	12.0	
H	BMV1+p	MT20	3.0	4.0	

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
H	600	0	600	0	5-8	5-8
F	600	0	600	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE	WIND			
H	422	290 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0
F	422	290 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, F

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

FR-TO	CHORDS		FACTORED		MEMB.	WEBS	
	MAX. FACTORED	FORCE	VERT. LOAD LC1	MAX		MAX. FACTORED	FORCE
A-B	0 / 41	-91.8	-91.8	0.13 (1)	10.00	G-C	0 / 180
B-C	-448 / 0	-91.8	-91.8	0.22 (1)	6.25	B-G	0 / 348
C-D	-448 / 0	-91.8	-91.8	0.22 (1)	6.25	G-D	0 / 348
D-E	0 / 41	-91.8	-91.8	0.13 (1)	10.00		
H-B	-561 / 0	0.0	0.0	0.06 (1)	7.81		
F-D	-561 / 0	0.0	0.0	0.06 (1)	7.81		
H-G	0 / 0	-18.5	-18.5	0.10 (4)	10.00		
G-F	0 / 0	-18.5	-18.5	0.10 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	= 25.6 PSF
DL	= 6.0 PSF
BOT CH. LL	= 0.0 PSF
DL	= 7.4 PSF
TOTAL LOAD	= 39.0 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55% OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.29")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.29")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.22/1.00 (B-C:1), BC=0.10/1.00 (G-H:4),
WB=0.08/1.00 (D-G:1), SSI=0.12/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.60 (C) (INPUT = 0.90)
JSI METAL = 0.22 (B) (INPUT = 1.00)



Structural component only
DWG# T-2121167

CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

RECEIVED

Per: _____

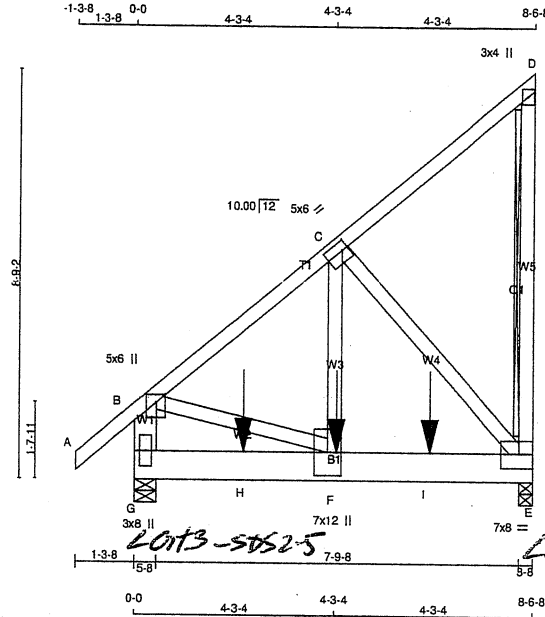
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Structural component only
DWG# T-2121168

JOB NAME 412868	TRUSS NAME T15	QUANTITY 1	PLY 3	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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Scale = 1:47.1

CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

RECEIVED

Per: _____

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - D	2x4	DRY	No.2
E - D	2x4	DRY	No.2
G - B	2x6	DRY	No.2
G - E	2x8	DRY	No.2
ALL WEBS	2x4	DRY	No.2
EXCEPT			
C - E	2x4	DRY	2100F 1.8E

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 3 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD (PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - D 1	12	TOP
D - E 1	12	TOP
G - B 2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
G - E 2	4	SIDE (1158.2)
WEBS : (0.122"x3") SPIRAL NAILS		
2x4 2	5	
E - C 1	6	
F - B 1	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLYS.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLYS FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERRING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
E	6070	0	6150	0
G	6160	0	6267	510

PROVIDE ANCHORAGE AT BEARING JOINT E FOR 1933 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT G FOR 1724 LBS FACTORED UPLIFT

PROVIDE FOR 510 LBS FACTORED HORIZONTAL REACTION AT JOINT G

UNFACTORED REACTIONS

1ST CASE	MAX/MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW
E	4483	2710 / 0
G	4541	2790 / 0

HORIZONTAL REACTIONS

G	0 / 0	0 / 0	0 / 0	364 / -238	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E, G

BRACING

MAX. UNBRACED TOP CHORD LENGTH = 4.82 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

2x6 DRY SPF No.2 T-BRACE AT D-E

FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (18)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 59	-115.2 -115.2	0.06 (2)	F-C	-2191 / 7523	0.40 (3)	
B-C	-5428 / 1581	-115.2 -115.2	0.19 (2)	C-E	-6253 / 2074	0.61 (2)	
C-D	-171 / 196	-115.2 -115.2	0.12 (2)	B-F	-1276 / 4351	0.23 (2)	
E-D	-222 / 159	0.0 0.0	0.13 (13)				
G-B	-5039 / 1395	0.0 0.0	0.11 (2)				
G-H	-488 / 322	-39.5 -39.5	0.41 (2)				
H-F	-488 / 322	-39.5 -39.5	0.41 (2)				
F-I	-1369 / 4202	-39.5 -39.5	0.55 (2)				
I-E	-1369 / 4202	-39.5 -39.5	0.55 (2)				

SPECIFIED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
F	4-3-12	-2645	-2645	594	FRONT	VERT	TOTAL	---	C1
H	2-3-12	-2645	-2645	594	FRONT	VERT	TOTAL	---	C1
I	6-3-12	-2645	-2645	594	FRONT	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING
AS PER NBCC 4.1.6.2.(8)

TOTAL WEIGHT = 3 X 62 = 185 lb

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	33.4	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.4	PSF
TOTAL LOAD	=	57.3	PSF

SPACING = 24.0 IN.C/C

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 4 OF BCBC 2018, ABC 2019
- PART 4 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

- SLOPE REDUCTION FACTOR NOT USED
- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 33.4 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.28")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.03")
ALLOWABLE DEFL.(TL) = $L/180$ (0.57")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.04")

CSI: TC=0.19/1.00 (B-C-2), BC=0.55/1.00 (E-F-2), WB=0.61/1.00 (C-E-2), SSI=0.45/1.00 (F-G-3)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

SNOW LOAD IMPORTANCE FACTOR = 1.00
WIND LOAD IMPORTANCE FACTOR = 1.00
LIVE LOAD IMPORTANCE FACTOR = 1.00
COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)
MAX	MIN	MAX
MT20	650	371
	1747	788
	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.84 (C) (INPUT = 0.90)
JSI METAL = 0.38 (C) (INPUT = 1.00)



Structural component only
DWG# T-2121169

CONTINUED ON PAGE 2

JOB NAME 412868	TRUSS NAME T15	QUANTITY 1	PLY 3	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	2.00	2.25
C	TMVW-t	MT20	5.0	6.0	2.25	1.50
D	TMV+p	MT20	3.0	4.0		
E	BMVW1-t	MT20	7.0	8.0	3.75	3.50
F	BMVW-t	MT20	7.0	12.0		
G	BMV1+p	MT20	3.0	8.0		

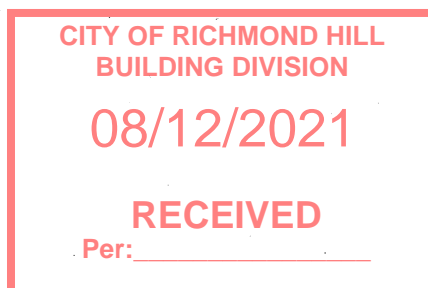
CONNECTION REQUIREMENTS

1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.2) PSF AT (31-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 5.0 PSF AND 5.0 PSF RESPECTIVELY.

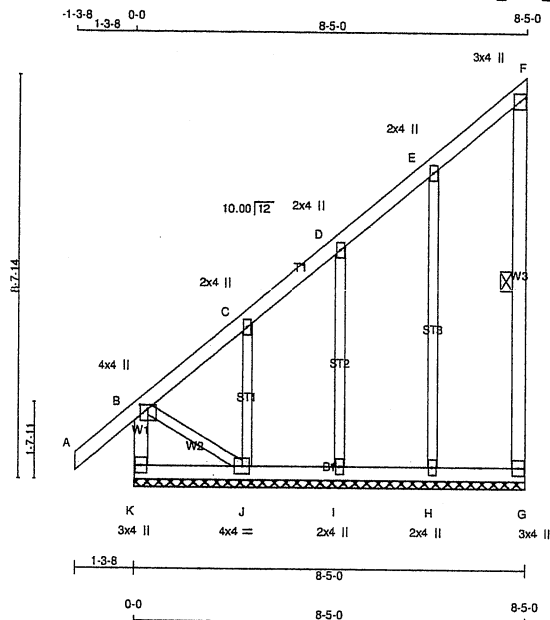


Structural component only
DWG# T-2121169 *me*



JOB NAME 412868	TRUSS NAME T16G	QUANTITY 1	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington		TRUSS DESC.			

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:49 2021 Page 1
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Scale = 1:47.1

TOTAL WEIGHT = 48 lb

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
K - B	2x4	DRY	No.2
A - F	2x4	DRY	No.2
G - F	2x4	DRY	No.2
K - G	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
ALL GABLE WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	4.0	1.00 2.00
C, D, E					
C	TMV+w	MT20	2.0	4.0	
F	TMV+p	MT20	3.0	4.0	
G	BMV1+p	MT20	3.0	4.0	
H	BMV1+w	MT20	2.0	4.0	
I	BMV1+w	MT20	2.0	4.0	
J	BMVW1-t	MT20	4.0	4.0	
K	BMV1+p	MT20	3.0	4.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-G.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
K-B	-230 / 0	0.0	0.0 0.02 (1)	H-E	-209 / 0	7.81	0.17 (1)
A-B	0 / 41	-91.8	-91.8 0.13 (1)	I-D	-164 / 0	10.00	0.07 (1)
B-C	-3 / 0	-91.8	-91.8 0.06 (1)	J-C	-224 / 0	6.25	0.05 (1)
C-D	-15 / 0	-91.8	-91.8 0.06 (1)	B-J	0 / 14	6.25	0.00 (1)
D-E	0 / 0	-91.8	-91.8 0.05 (1)				
E-F	-12 / 0	-91.8	-91.8 0.05 (1)				
G-F	-78 / 0	0.0	0.0 0.03 (1)				
K-J	0 / 0	-18.5	-18.5 0.02 (4)				
J-I	0 / 6	-18.5	-18.5 0.02 (4)				
I-H	0 / 3	-18.5	-18.5 0.02 (4)				
H-G	0 / 0	-18.5	-18.5 0.02 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 39.0 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55% OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.13/1.00 (A-B:1), BC=0.02/1.00 (I-J:4), WB=0.17/1.00 (E-H:1), SSI=0.08/1.00 (A-B:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.17 (B) (INPUT = 0.90)
JSI METAL= 0.12 (C) (INPUT = 1.00)



Structural component only
DWG# T-2121170

CITY OF RICHMOND HILL
BUILDING DIVISION

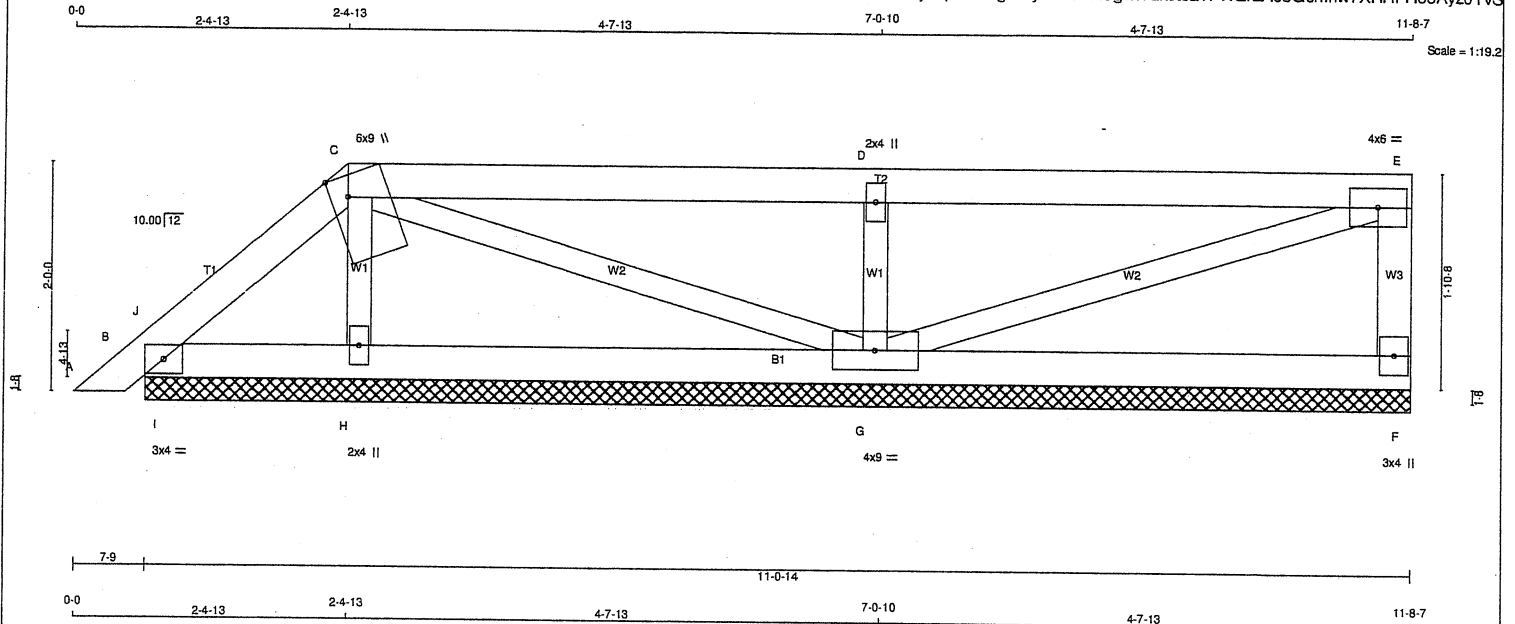
08/12/2021

RECEIVED

Per: _____

JOB NAME 412868	TRUSS NAME PB01	QUANTITY 4	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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LUMBER				DESCR.	
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
F - H	2x4	DRY	No.2	SPF	
B - I	2x4	DRY	No.2	SPF	
ALL WEBS 2x3 DRY No.2				SPF	
DRY: SEASONED LUMBER.					

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-i	MT20	3.0	4.0	
C	TTWW+m	MT20	6.0	9.0	Edge 1.75
D	TMW+w	MT20	2.0	4.0	
E	TMVW-t	MT20	4.0	6.0	
F	BMV1+p	MT20	3.0	4.0	
G	BMVWW1-t	MT20	4.0	9.0	
H	BMV1-w	MT20	2.0	4.0	

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
F	197	0	197	0	0
B	170	0	170	0	0
H	263	0	263	0	0
G	641	0	641	0	0

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
F	139	91/0	0/0
B	117	91/0	0/0
H	188	110/0	0/0
G	452	302/0	0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, B, H, G

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CS (LC)	MEMB.	FORCE (LBS)
FR-TO		FROM	TO	FR-TO	
A-B	0/14	-91.8	-91.8 0.02 (1)	H-C	-181/0
B-J	-32/0	-91.8	-91.8 0.01 (1)	C-G	-28/0
J-C	-54/0	-91.8	-91.8 0.03 (1)	G-D	-533/0
C-D	0/0	-91.8	-91.8 0.34 (1)	D-E	0/0
D-E	0/0	-91.8	-91.8 0.34 (1)	E-F	-112/0
F-E	-162/0	0.0	0.0 0.02 (1)		
B-I	0/38	-18.5	-18.5 0.04 (1)		
I-H	0/38	-18.5	-18.5 0.05 (4)		
H-G	0/26	-18.5	-18.5 0.10 (4)		
G-F	0/0	-18.5	-18.5 0.10 (4)		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 39.0 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55% OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.34/1.00 (D-E:1), BC=0.10/1.00 (G-H:4), WB=0.08/1.00 (D-G:1), SS=0.21/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.27 (D) (INPUT = 0.90)
JSI METAL = 0.11 (D) (INPUT = 1.00)

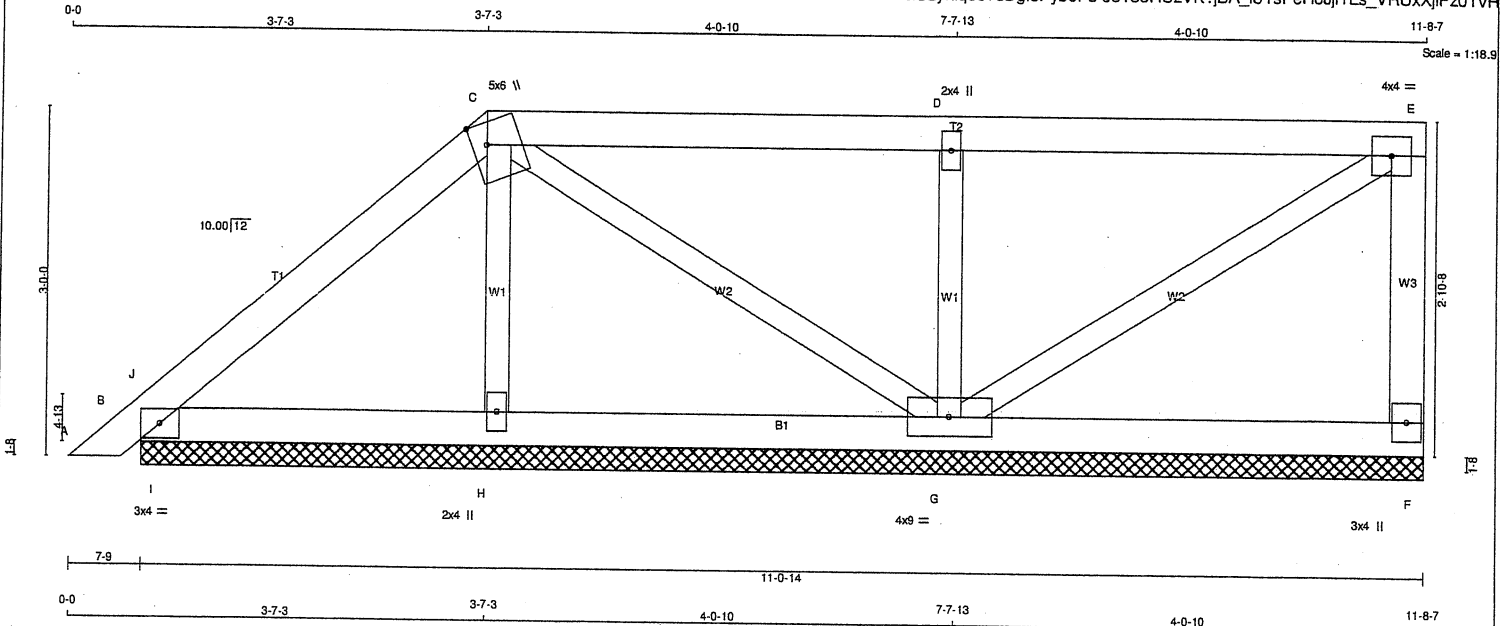


Structural component only
DWG# T-2121145



JOB NAME 412868	TRUSS NAME PB02	QUANTITY 4	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:26 2021 Page 1
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TOTAL WEIGHT = 4 X 41 = 163 lb

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
F - H	2x4	DRY	No.2
B - I	2x4	DRY	No.2
ALL WEBS 2x3 DRY No.2			
DRY: SEASONED LUMBER.			

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-i	MT20	3.0	4.0	
C	TTWW+m	MT20	5.0	6.0	2.25 1.50
D	TMW+w	MT20	2.0	4.0	
E	TMVW-t	MT20	4.0	4.0	
F	BMV1+p	MT20	3.0	4.0	
G	BMVWW1-t	MT20	4.0	9.0	
H	BMV1+w	MT20	2.0	4.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
F	172	0	172	0	0	11-0-14	11-0-14		
B	257	0	257	0	0	11-0-14	11-0-14		
H	260	0	260	0	0	11-0-14	11-0-14		
G	582	0	582	0	0	11-0-14	11-0-14		

UNFACTORED REACTIONS

1ST CASE		MAX / MIN. COMPONENT REACTIONS		PERM. LIVE		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	COMBINED	SNOW	LIVE	PERM. LIVE
F	122	79 / 0	0 / 0	0 / 0	0 / 0	43 / 0	0 / 0				
B	180	130 / 0	0 / 0	0 / 0	0 / 0	50 / 0	0 / 0				
H	186	109 / 0	0 / 0	0 / 0	0 / 0	77 / 0	0 / 0				
G	410	277 / 0	0 / 0	0 / 0	0 / 0	133 / 0	0 / 0				

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, B, H, G

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	MAX. CSI (LC)
FR-TO		FROM TO		FR-TO			
A-B	0 / 14	-91.8 -91.8	0.02 (1)	10.00	H-C	-163 / 0	0.03 (1)
B-J	-20 / 0	-91.8 -91.8	0.04 (1)	6.25	C-G	-69 / 0	0.02 (1)
J-C	-88 / 0	-91.8 -91.8	0.10 (1)	6.25	G-D	-484 / 0	0.08 (1)
C-D	0 / 3	-91.8 -91.8	0.25 (1)	10.00	G-E	-3 / 0	0.00 (1)
D-E	0 / 2	-91.8 -91.8	0.25 (1)	10.00	I-J	-249 / 0	0.00 (1)
F-E	-141 / 0	0.0 0.0	0.02 (1)	7.81			
B-I	0 / 62	-18.5 -18.5	0.09 (1)	10.00			
I-H	0 / 62	-18.5 -18.5	0.09 (1)	10.00			
H-G	0 / 56	-18.5 -18.5	0.08 (4)	10.00			
G-F	0 / 0	-18.5 -18.5	0.07 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	39.0	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.25/1.00 (C-D:1), BC=0.09/1.00 (B-I:1), WB=0.08/1.00 (D-G:1), SS=0.19/1.00 (B-I:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP (DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX	MIN	MAX	MIN
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (D) (INPUT = 0.90)
JSI METAL= 0.10 (D) (INPUT = 1.00)



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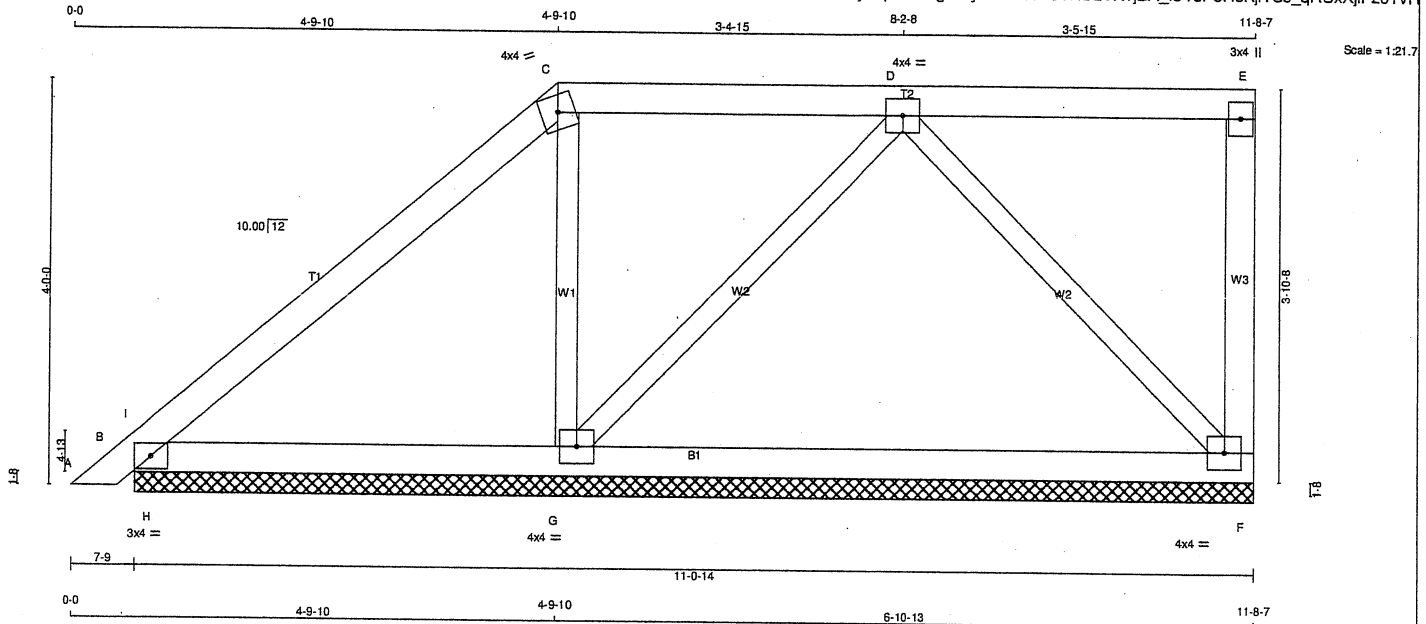
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Per: _____

JOB NAME 412868	TRUSS NAME PB03	QUANTITY 4	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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TOTAL WEIGHT = 4 X 42 = 166 lb [M]

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
F - E	2x4	DRY	No.2	SPF	
B - F	2x4	DRY	No.2	SPF	
ALL WEBS 2x3 DRY No.2 SPF					
DRY: SEASONED LUMBER.					

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0			
C	TTW-m	MT20	4.0	4.0			
D	TMW-W-t	MT20	4.0	4.0			
E	TMV+p	MT20	3.0	4.0			
F	BMVW1-t	MT20	4.0	4.0			
G	BMVW1-t	MT20	4.0	4.0			

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
F	391	0	391	0	0	11-0-14	11-0-14
B	311	0	311	0	0	11-0-14	11-0-14
G	568	0	568	0	0	11-0-14	11-0-14

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
F	COMBINED	SNOW	LIVE			
F	275	190 / 0	0 / 0	0 / 0	85 / 0	0 / 0
B	216	162 / 0	0 / 0	0 / 0	54 / 0	0 / 0
G	406	242 / 0	0 / 0	0 / 0	163 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, B, G

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	FORCE (LBS)
FR-TO		FROM	TO	FR-TO	
A-B	0 / 14	-91.8	-91.8 0.02 (1)	G-C	-224 / 0
B-I	0 / 144	-91.8	-91.8 0.13 (1)	G-D	-233 / 0
I-C	-97 / 0	-91.8	-91.8 0.19 (1)	D-F	-309 / 0
C-D	-57 / 0	-91.8	-91.8 0.18 (1)	H-I	-519 / 0
D-E	0 / 0	-91.8	-91.8 0.18 (1)		
F-E	-122 / 0	0.0	0.0 0.03 (1)		
B-H	0 / 64	-18.5	-18.5 0.18 (1)		
H-G	0 / 64	-18.5	-18.5 0.20 (4)		
G-F	0 / 216	-18.5	-18.5 0.21 (4)		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 25.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 39.0 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55% OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.19/1.00 (C-I:1), BC=0.21/1.00 (F-G:4), WB=0.12/1.00 (D-F:1), SS=0.39/1.00 (B-H:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP (DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.26 (B) (INPUT = 0.90)
JSI METAL= 0.07 (F) (INPUT = 1.00)



Structural component only
DWG# T-2121147

CITY OF RICHMOND HILL
BUILDING DIVISION

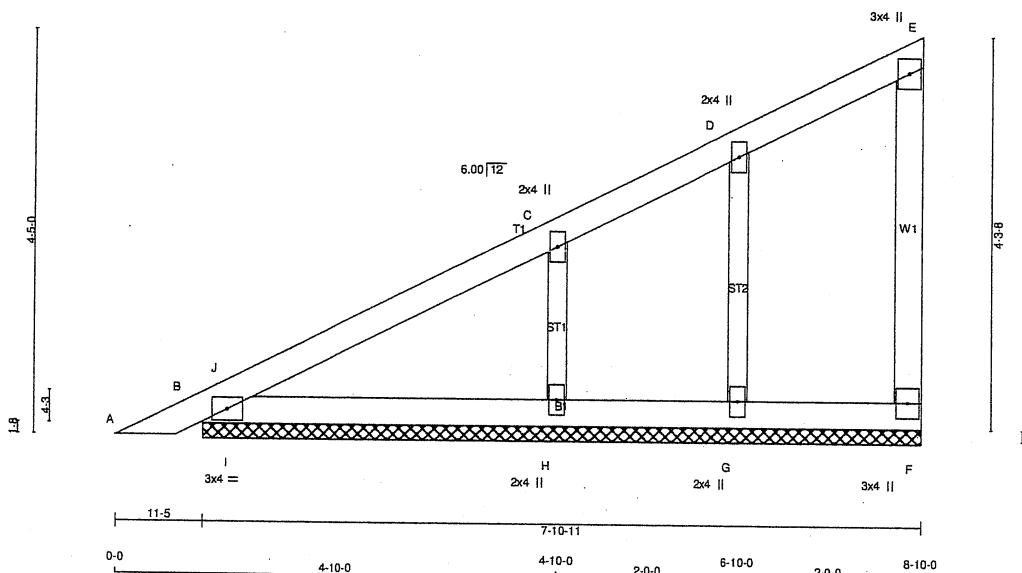
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Per: _____

JOB NAME 412868	TRUSS NAME PB04G	QUANTITY 4	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

Version 8.420 S Jan 21 2021 Mitek Industries, Inc. Thu Jul 1 10:22:27 2021 Page 1
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TOTAL WEIGHT = 4 X 28 = 112 lb [M]

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - E	2x4 DRY	No.2		
F - E	2x4 DRY	No.2		
B - F	2x4 DRY	No.2		

ALL WEBS	2x3 DRY	No.2
ALL GABLE WEBS	2x3 DRY	No.2
DRY: SEASONED LUMBER.		

GABLE STUDS SPACED AT 2-0-0 OC.

DESCR.	SPF
SPF	
SPF	
SPF	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (FT)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO		FR-TO			
A-B	0 / 17	-91.8 -91.8	0.05 (1)	G-D	-158 / 0	10.00	0.03 (1)
B-J	-17 / 0	-91.8 -91.8	0.02 (4)	H-C	-307 / 0	6.25	0.05 (1)
J-C	-4 / 1	-91.8 -91.8	0.13 (1)	I-J	-172 / 5	10.00	0.00 (1)
C-D	-21 / 0	-91.8 -91.8	0.13 (1)			6.25	
D-E	-5 / 0	-91.8 -91.8	0.05 (1)			10.00	
F-E	-84 / 0	0.0 0.0	0.02 (1)			7.81	
B-I	0 / 14	-18.5 -18.5	0.10 (1)			10.00	
I-H	0 / 14	-18.5 -18.5	0.10 (1)			10.00	
H-G	0 / 4	-18.5 -18.5	0.07 (1)			10.00	
G-F	0 / 0	-18.5 -18.5	0.02 (4)			10.00	

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	= 25.6 PSF
DL	= 6.0 PSF
BOT CH. LL	= 0.0 PSF
DL	= 7.4 PSF
TOTAL LOAD	= 39.0 PSF

SPACING = 24.0 IN C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.13/1.00 (C-D:1), BC=0.10/1.00 (B-I:1), WB=0.05/1.00 (C-H:1), SSI=0.14/1.00 (B-I:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.20 (B) (INPUT = 0.90)

JSI METAL= 0.13 (C) (INPUT = 1.00)

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0			
C	TMW+w	MT20	2.0	4.0			
D	TMW+w	MT20	2.0	4.0			
E	TMV+p	MT20	3.0	4.0			
F	BMV1+p	MT20	3.0	4.0			
G	BMW1+w	MT20	2.0	4.0			
H	BMW1+w	MT20	2.0	4.0			



Structural component only
DWG# T-2121148

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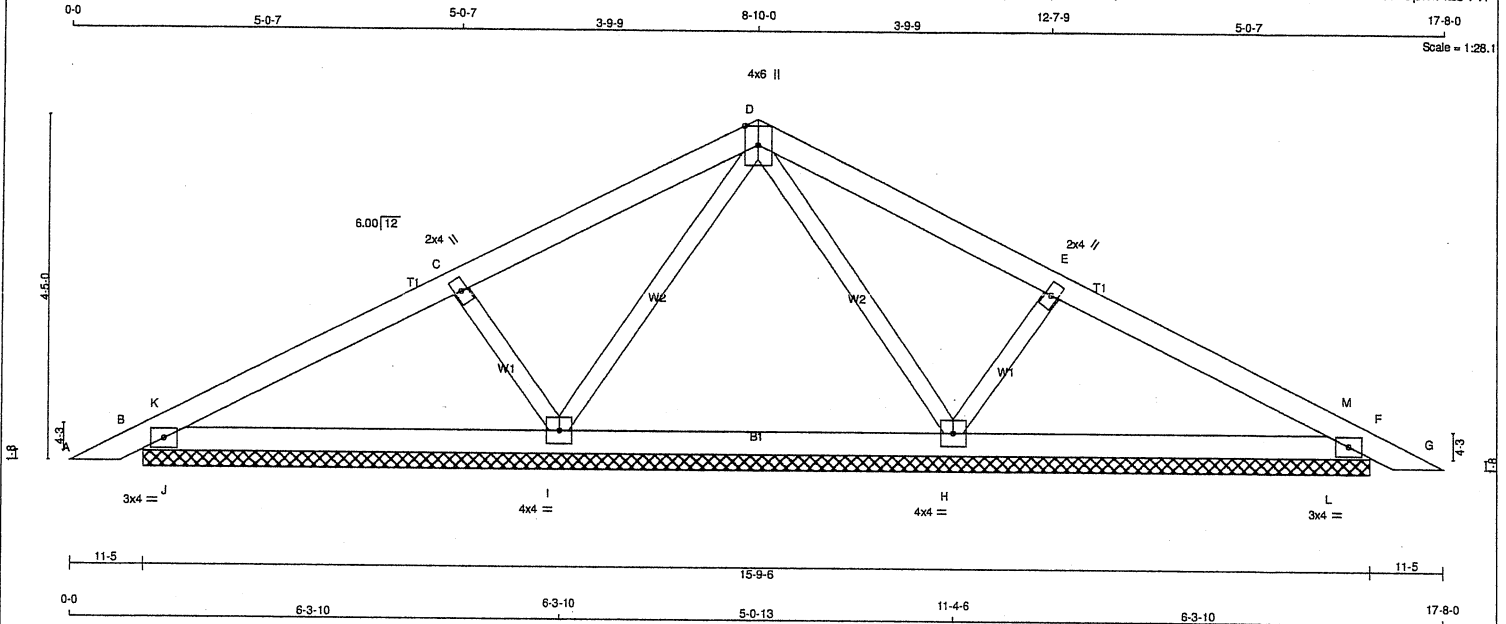
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Per: _____

JOB NAME 412868	TRUSS NAME PB06	QUANTITY 18	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

Version 8.420 S Jan 21 2021 Mitek Industries, Inc. Thu Jul 1 10:22:28 2021 Page 1
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LUMBER

N. L. G. A. RULES

CHORDS	SIZE	DRY	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
B - F	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0		
C	TMW+w	MT20	2.0	4.0		
D	TTWW+p	MT20	4.0	6.0	Edge	
E	TMW+w	MT20	2.0	4.0		
F	TMB1-I	MT20	3.0	4.0		
H	BMW1-I	MT20	4.0	4.0		
I	BMW1-I	MT20	4.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
B	340	0	340	0	15-9-6	15-9-6
F	340	0	340	0	15-9-6	15-9-6
H	610	0	610	0	15-9-6	15-9-6
I	610	0	610	0	15-9-6	15-9-6

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM. LIVE			
B	239	166 / 0	0 / 0	0 / 0	0 / 0	73 / 0	0 / 0
F	239	166 / 0	0 / 0	0 / 0	0 / 0	73 / 0	0 / 0
H	432	283 / 0	0 / 0	0 / 0	0 / 0	149 / 0	0 / 0
I	432	283 / 0	0 / 0	0 / 0	0 / 0	149 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, F, H, I

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING
TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		MAX. UNBRAC LENGTH	MEMB.	WEBS		MAX. UNBRAC LENGTH
	MAX. FACTORED FORCE (LBS)	VERT. LOAD LC1 (PLF)	VERT. LOAD LC1 (PLF)	MAX. FACTORED FORCE (LBS)			MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	
FR-TO						FR-TO			
A-B	0 / 17	-91.8	-91.8	0.05 (1)	10.00	D-H	-197 / 0	0.07 (1)	10.00
B-K	-199 / 0	-91.8	-91.8	0.06 (4)	6.25	H-E	-396 / 0	0.07 (1)	10.00
K-C	-143 / 0	-91.8	-91.8	0.23 (1)	6.25	I-D	-197 / 0	0.07 (1)	10.00
C-D	0 / 54	-91.8	-91.8	0.24 (1)	10.00	C-I	-396 / 0	0.07 (1)	10.00
D-E	0 / 54	-91.8	-91.8	0.24 (1)	10.00	J-K	-69 / 58	0.00 (1)	10.00
E-M	-143 / 0	-91.8	-91.8	0.23 (1)	6.25	L-M	-69 / 58	0.00 (1)	10.00
M-F	-199 / 0	-91.8	-91.8	0.06 (4)	6.25				
F-G	0 / 17	-91.8	-91.8	0.05 (1)	10.00				
B-J	0 / 149	-18.5	-18.5	0.08 (1)	10.00				
J-I	0 / 149	-18.5	-18.5	0.12 (4)	10.00				
I-H	0 / 40	-18.5	-18.5	0.11 (4)	10.00				
H-L	0 / 149	-18.5	-18.5	0.12 (4)	10.00				
L-F	0 / 149	-18.5	-18.5	0.08 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 39.0 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.24/1.00 (C-D:1), BC=0.12/1.00 (I-J:4), WB=0.07/1.00 (D-H:1), SSI=0.15/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747
	788	1987	1873

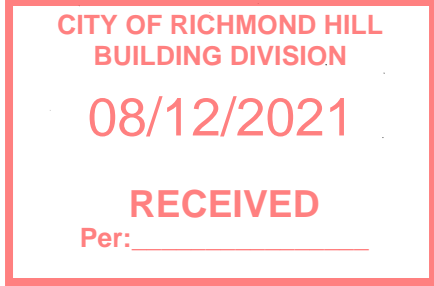
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (B) (INPUT = 0.90)
JSI METAL= 0.08 (E) (INPUT = 1.00)

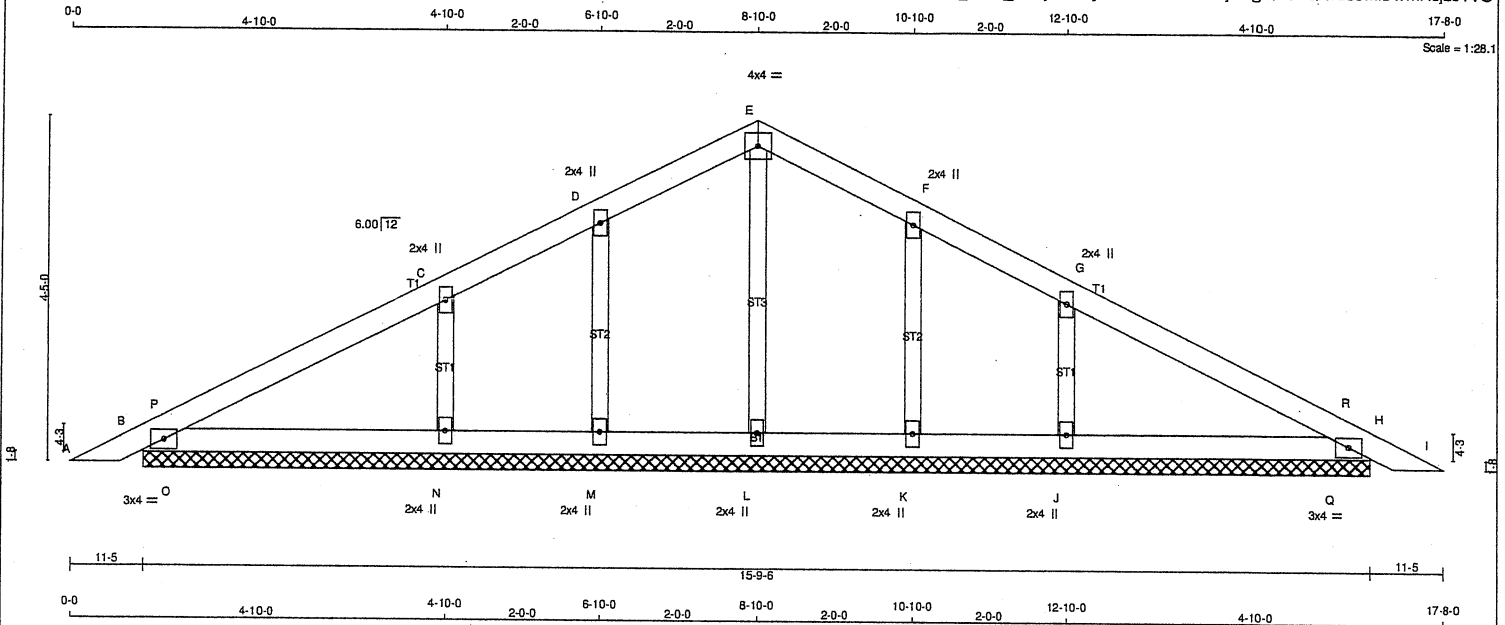


Structural component only
DWG# T-2121149



JOB NAME 412868	TRUSS NAME PB06G	QUANTITY 4	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 1 10:22:29 2021 Page 1
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LUMBER	SIZE	DRY	LUMBER	DESCR.
N. L. G. A. RULES				
CHORDS	2x4	DRY	No.2	SPF
A - E	2x4	DRY	No.2	SPF
E - I	2x4	DRY	No.2	SPF
B - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT	2-0-0	OC.		

PLATES (table is in inches)	TYPE	PLATES	W	LEN	Y	X
JT	TMB1-I	MT20	3.0	4.0		
B	TMB1-I	MT20	3.0	4.0		
C, D, F, G	TMB1-I	MT20	3.0	4.0		
C	TMB1-I	MT20	3.0	4.0		
E	TMB1-I	MT20	3.0	4.0		
H	TMB1-I	MT20	3.0	4.0		
J, K, L, M, N	TMB1-I	MT20	3.0	4.0		
J	TMB1-I	MT20	3.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER
BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)
BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
LOADING
TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	CS1 (LC)	MAX. UNBRAC LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)
FR-TO						FR-TO			
A-B	0 / 17	-91.8	-91.8	0.05 (1)	10.00	L-E	-131 / 0	0.04 (1)	
B-P	-44 / 0	-91.8	-91.8	0.02 (4)	6.25	M-D	-160 / 0	0.03 (1)	
P-C	-44 / 0	-91.8	-91.8	0.13 (1)	6.25	N-C	-306 / 0	0.05 (1)	
C-D	-60 / 0	-91.8	-91.8	0.13 (1)	6.25	K-F	-160 / 0	0.03 (1)	
D-E	-45 / 0	-91.8	-91.8	0.05 (1)	6.25	J-G	-306 / 0	0.05 (1)	
E-F	-45 / 0	-91.8	-91.8	0.05 (1)	6.25	O-P	-171 / 5	0.00 (1)	
F-G	-60 / 0	-91.8	-91.8	0.13 (1)	6.25	Q-R	-171 / 5	0.00 (1)	
G-R	-44 / 0	-91.8	-91.8	0.13 (1)	6.25				
R-H	-44 / 0	-91.8	-91.8	0.02 (4)	6.25				
H-I	0 / 17	-91.8	-91.8	0.05 (1)	10.00				
B-O	0 / 49	-18.5	-18.5	0.10 (1)	10.00				
O-N	0 / 49	-18.5	-18.5	0.10 (1)	10.00				
N-M	0 / 39	-18.5	-18.5	0.07 (1)	10.00				
M-L	0 / 36	-18.5	-18.5	0.02 (4)	10.00				
L-K	0 / 36	-18.5	-18.5	0.02 (4)	10.00				
K-J	0 / 39	-18.5	-18.5	0.07 (1)	10.00				
J-Q	0 / 49	-18.5	-18.5	0.10 (1)	10.00				
Q-H	0 / 49	-18.5	-18.5	0.10 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 39.0 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CS1: TC=0.13/1.00 (G-R:1), BC=0.10/1.00 (H-Q:1), WB=0.05/1.00 (G-J:1), SS=0.14/1.00 (B-O:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.21 (B) (INPUT = 0.90)
JSI METAL= 0.13 (G) (INPUT = 1.00)



Structural component only
DWG# T-2121150

CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

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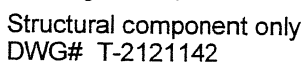
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amarack Roof Truss, Burlington

Version 8.420 S Jan 21 2021 MITek Industries, Inc. Thu Jul 1 10:22:22 2021 Page 1
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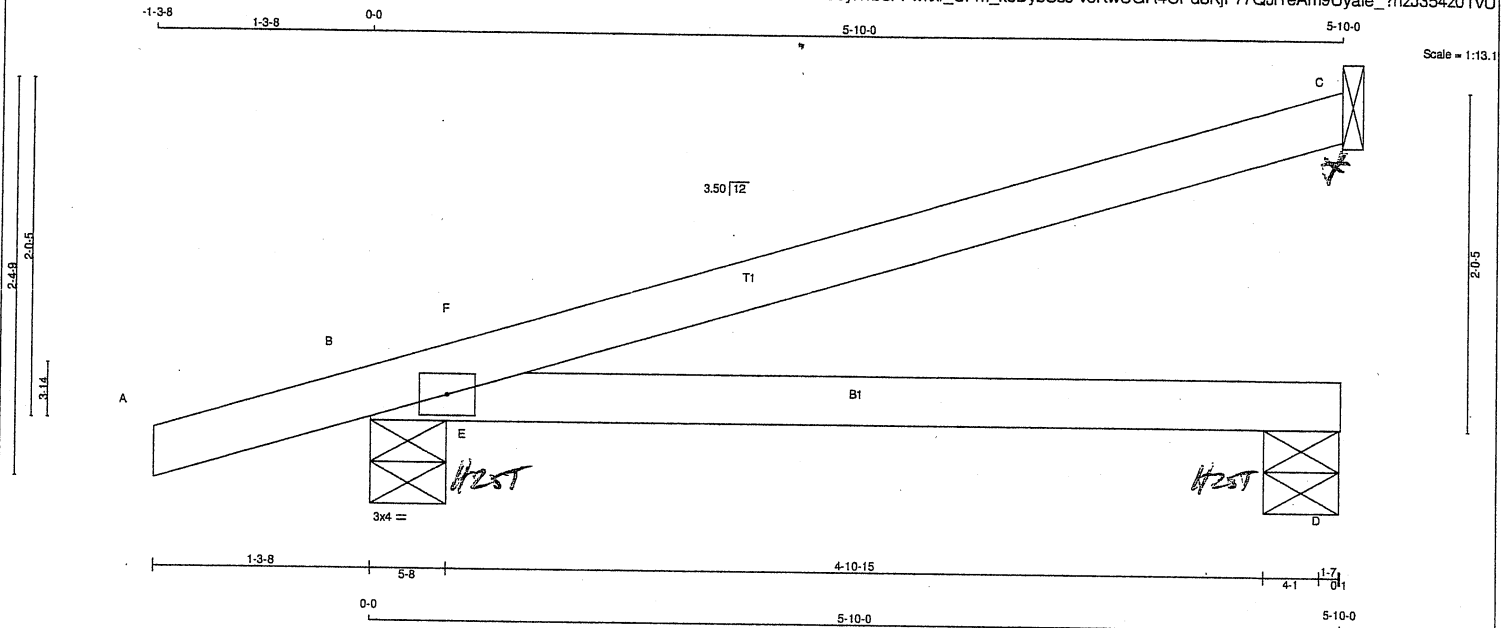
JSI GRIP= 0.18 (E) (INPUT = 0.90)
JSI METAL= 0.13 (B) (INPUT = 1.00)



Per: _____

JOB NAME 412868	TRUSS NAME J02	QUANTITY 20	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER
A - C 2x4 DRY No.2
B - D 2x4 DRY No.2
DRY: SEASONED LUMBER.

PLATES (table is in inches)
JT TYPE PLATES W LEN Y X
B TMB1-I MT20 3.0 4.0

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
JT	233	0	233	121	-113	1-8
C	444	0	444	0	-308	5-8
B	88	0	88	0	-107	5-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C

PROVIDE ANCHORAGE AT BEARING JOINT C FOR 150 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT B FOR 308 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT D FOR 150 LBS FACTORED UPLIFT

PROVIDE FOR 121 LBS FACTORED HORIZONTAL REACTION AT JOINT C

JT	1ST LOOSE COMBINED		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE	WIND			
C	161	125 / 0	0 / 0	0 / 0	0 / -104	36 / 0	0 / 0
B	312	217 / 0	0 / 0	0 / 0	0 / -281	94 / 0	0 / 0
D	66	24 / 0	0 / 0	0 / 0	0 / -103	42 / 0	0 / 0

HORIZONTAL REACTIONS
C --- 0 / 0 0 / 0 0 / 0 86 / 0 0 / 0 0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, D

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (12)

MEMB.	CHORDS		WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)
FR-TO		FROM TO	FR-TO	FROM TO
A-B	0 / 16	-91.8 -91.8 0.11 (1)	10.00	E-F -308 / 100 0.00 (1)
B-F	-17 / 44	-91.8 -91.8 0.08 (12)	6.25	
F-C	0 / 77	-91.8 -91.8 0.40 (1)	10.00	
B-E	0 / 0	-18.5 -18.5 0.29 (1)	10.00	
E-D	0 / 0	-18.5 -18.5 0.29 (1)	10.00	

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.2) PSF AT (15-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE. TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 6.0 PSF AND 7.4 PSF RESPECTIVELY.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 39.0 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/684 (0.10")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/496 (0.14")

CSI: TC=0.40/1.00 (C-F:1), BC=0.29/1.00 (D-E:1), WB=0.00/1.00 (E-F:1), SS=0.24/1.00 (B-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.28 (B) (INPUT = 0.90)
JSI METAL = 0.08 (B) (INPUT = 1.00)



Structural component only
DWG# T-2121143

CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

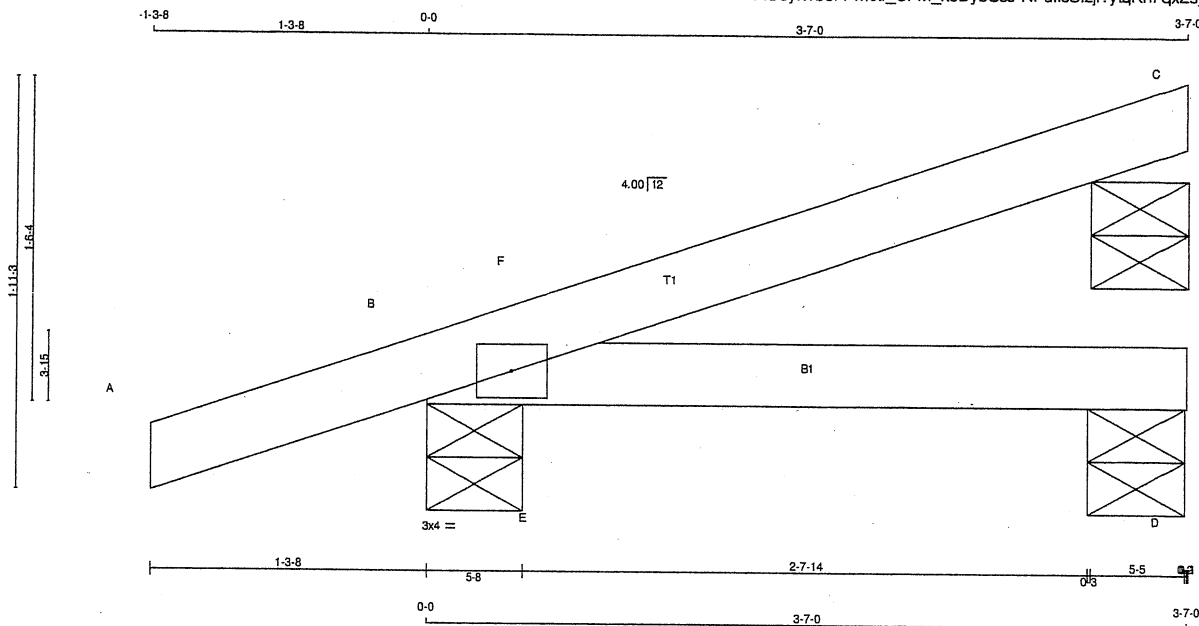
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Per: _____

JOB NAME 412868	TRUSS NAME J03	QUANTITY 15	PLY 1	JOB DESC. ROYAL PINE HOMES	DRWG NO.
Tamarack Roof Truss, Burlington				TRUSS DESC.	

Version 8.420 S Jan 21 2021 MTek Industries, Inc. Thu Jul 1 10:22:24 2021 Page 1
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Scale = 1:10.3



TOTAL WEIGHT = 15 X 10 = 151 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	DRY	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
B - D	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMB1-1	MT20	3.0	4.0

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
C	141	0	141	0	0	5-8 (5-7)	5-8	5-8	5-8
B	320	0	320	0	0	5-8	5-8	5-8	5-8
D	57	0	57	0	0	5-8	5-8	5-8	5-8

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): C

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	
C	98	78 / 0	0 / 0	0 / 0	0 / 0	22 / 0	0 / 0	
B	224	160 / 0	0 / 0	0 / 0	0 / 0	64 / 0	0 / 0	
D	42	16 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) C, B, D

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (5)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX	MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 18	-91.8	-91.8 0.13 (5)	10.00	E-F	-138 / 5	0.00 (1)
B-F	-10 / 0	-91.8	-91.8 0.04 (4)	6.25			
F-C	0 / 2	-91.8	-91.8 0.15 (1)	10.00			
B-E	0 / 0	-18.5	-18.5 0.12 (1)	10.00			
E-D	0 / 0	-18.5	-18.5 0.12 (1)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	39.0	PSF	

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55% OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.15/1.00 (C-F:1), BC=0.12/1.00 (B-E:1),
WB=0.00/1.00 (E-F:1), SSI=0.11/1.00 (B-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX MIN
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.20 (B) (INPUT = 0.90)
JSI METAL= 0.05 (B) (INPUT = 1.00)



Structural component only
DWG# T-2121144

CITY OF RICHMOND HILL
BUILDING DIVISION

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Per: _____



Alves Engineering Services Inc.

5208 Easton road
Burlington, Ontario L7L 6N6
(289) 259 5455

RESPONSABILITIES

- 1-Alves Engineering Services Inc. is responsible for the design of trusses as individual components
- 2-It is the responsibility of others to ascertain that the design loads utilized on this drawing meet or exceed the actual dead load imposed by the structure and the live load imposed by the local building code or the authorities having jurisdictions.
- 3- All dimensions are to be verified by owner, contractor, architect or other authority before manufacture.
- 4- Alves Engineering Services Inc. bears no responsibility for the erection of the trusses. Persons erecting trusses are cautioned to seek professional advice regarding temporary and permanent bracing system. Bracing shown on Alves Engineering Services Inc. drawings is specified for the truss as a single component and forms an integral part of the truss design, but is not meant to represent the only required bracing for that truss when trusses are installed in a series of trusses forming a roof truss system.
- 5- It is the manufactures responsibility to ensure that the trusses are manufactured in conformance with Alves Engineering Services Inc. specifications outlined below.

SPECIFICATIONS

- 1-Truss components sealed by Alves Engineering Services Inc. conform to the relevant sections of the current Building Code of Ontario and Canada (part 4 or part 9) or the current Canadian code for Farm Buildings in accordance with the application specified on the sealed truss component drawing. All truss component design procedures must conform to the current design standard issued by the truss plate institute of Canada (TPIC). All lumber and nailing stresses to conform to the current CSA wood design standard identified on the current Building Code and TPIC.
- 2- Lumber is to be the sizes and grade specified on the truss drawing.
- 3- Moist content of lumber is not to exceed 19% in service unless otherwise specified.
- 4- Plates shall be applied to both faces of the each truss joint and shall be positioned as shown on the truss drawings
- 5- Lumber used on manufacture of trusses is not to be treated with chemicals unless otherwise specified on the truss drawings.
- 6- The top chord is assumed to be continuously laterally braced by the roof sheathing or purlins at intervals specified on the truss drawing but not exceeding 24" c/c for (part 9) and not exceeding 48" for (part 4 or farm design)
- 7- When rigid ceiling is not attached directly to the bottom chord, lateral bracing is required and it should not exceed more than 3m or 10' intervals.
- 8-Refer to Mitek sheet MII7473C REV.10-08 attached for information on symbols, numbering system and General Safety notes.

CITY OF RICHMOND HILL
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08/12/2021

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T-1800213

Feb 09, 2018

BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

B97791H1

NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL LATERAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	132	147
	3.25	0.144	132	147
	3.50	0.160	159	177
COMMON SPIRAL	3.00	0.122	97	108
	3.25	0.122	97	108
	3.50	0.152	145	162

CITY OF RICHMOND HILL
BUILDING DIVISION

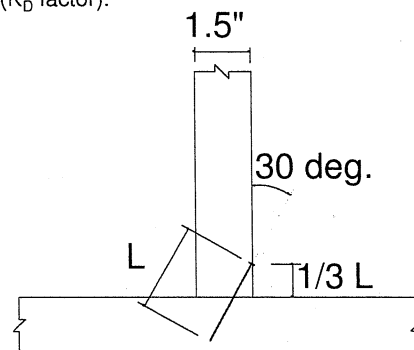
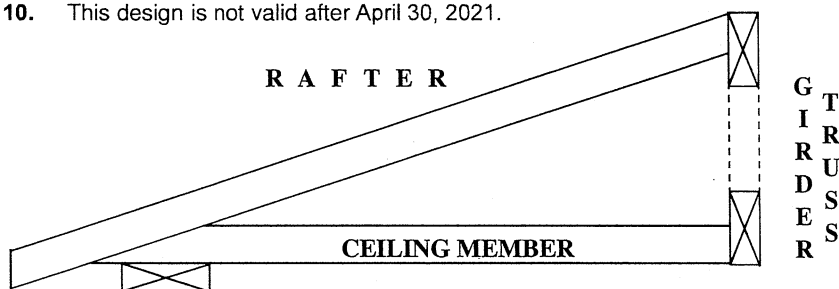
08/12/2021

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Per: _____

NOTES:

1. Rafter and ceiling members may be anchored to top and bottom chords of girder truss by toe-nailing rafter and ceiling members to girder chords provided the reaction does not exceed the lateral capacities in the table. Hangers (specified by others) are required for reactions higher than the maximum toe-nail capacity. Reactions are based on factored loads.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-14, section 12.9.4.1.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in tables below.
5. Nail values in table are based on the following relative lumber densities: G = 0.42 (SPF), G = 0.49 (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See next page for nailing on bearing plate).
7. For loads due to **wind** the nail lateral capacity in this table may be multiplied by 1.15 (K_D factor).
8. Lumber must be dry (< 19% moisture content) at the time of nail installation.
9. Nail values in this table comply with CSA O86-14, section 12.9.4
10. This design is not valid after April 30, 2021.



TOE-NAIL INSTALLATION

Nail type	Common wire	Common spiral	Common wire	Common spiral
Nail dia. (in)	0.160	0.152	0.144	0.122
	(3.5" nail)		(3" and 3.25" nail)	
LUMBER SIZE	MAXIMUM NUMBER OF TOE-NAILS			
2X4 SPF	2	2	3	3
2X4 D. Fir	2	2	2	2
2X6 SPF	4	4	4	5
2X6 D. Fir	3	3	3	4

PEO
Certificate No. 10889485



MiTek® MiTek Canada Inc
100 Industrial Rd.
Bradford, Ontario L3Z 3G7

April 2, 2020

BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

B97791H2

NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL WITHDRAWAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	30	42
	3.25	0.144	32	45
	3.50	0.160	38	52
COMMON SPIRAL	3.00	0.122	26	36
	3.25	0.122	28	40
	3.50	0.152	36	50

Note: If using truss with D. Fir lumber and S-P-F bearing plate, use values in table for S-P-F.

NOTES:

1. Truss chord, rafter, or ceiling members may be anchored to bearing plate by toe-nails, provided that the actual factored uplift force due to **wind** or **earthquake** load does not exceed the withdrawal capacities in the table. Hangers (specified by others) are required for uplift forces that are higher than the maximum toe-nail withdrawal capacity.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-14, section 12.9.5.2.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in table above.
5. Nail values in table are based on the following relative lumber densities: $G = 0.42$ (SPF), $G = 0.49$ (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See drawing on detail B37579H1).
7. Lumber must be dry (< 19% moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-14, section 12.9.5
9. This design is not valid after April 30, 2021.

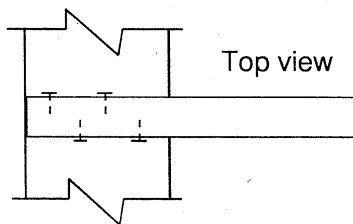
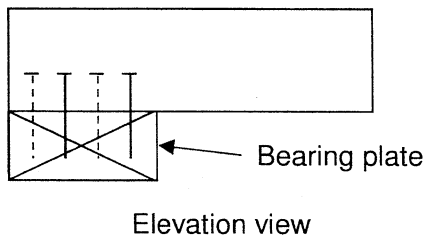
CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

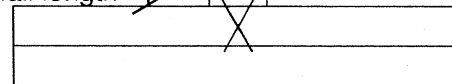
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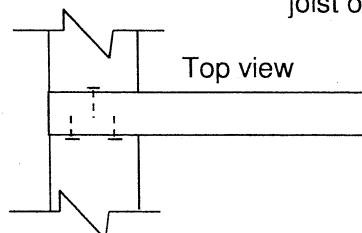
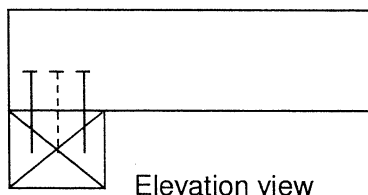
Toe-nailing on 2x6 Bearing Plate



Approx. 1/3
of nail length



Toe-nailing on 2x4 Bearing Plate



PEO
Certificate No. 10889485



MiTek® MiTek Canada Inc
100 Industrial Rd.
Bradford, Ontario L3Z 3G7

April 2, 2020

HUS/LJS – Double Shear Joist Hangers

SIMPSON
Strong-Tie

All hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

Material: See table

Finish: G90 galvanized

Design:

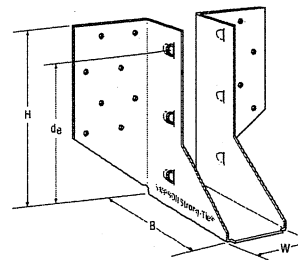
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

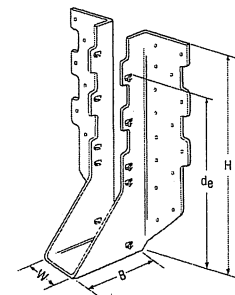
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

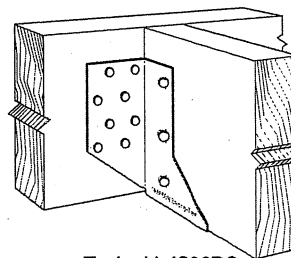
- See current catalogue for options



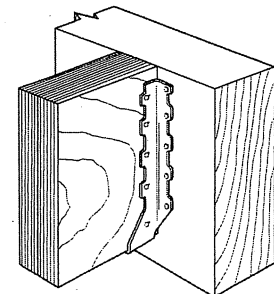
LJS26DS



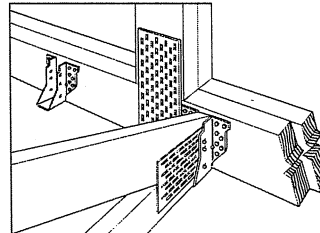
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



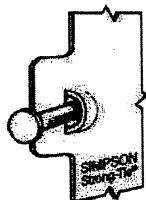
Typical HUS
Installation



Typical HUS Installation
(Truss Designer to provide fastener
quantity for connecting multiple
members together)

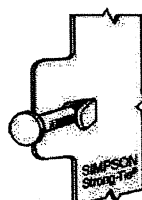
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LJS26DS	18	1½	5	3½	4½	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1½	5½	3	3½	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1½	7½	3	6½	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1½	9½	3	7½	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1½	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

1. d_g is the distance from the seat of the hanger to the highest joist nail.

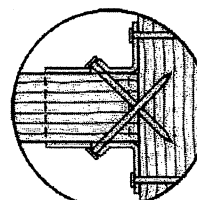


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent
5,603,580



Double Shear Nailing Side View. Do not bend tab back.

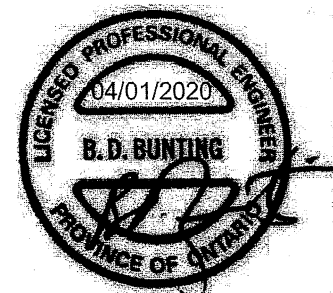


Double Shear Nailing Top View.

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(800) 999-5099
strongtie.com

HGUS – Double Shear Joist Hangers

SIMPSON
Strong-Tie

All HGUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

Material: 12 gauge

Finish: G90 galvanized

Design:

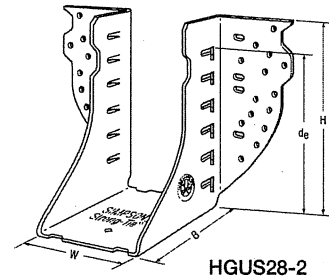
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%.
No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

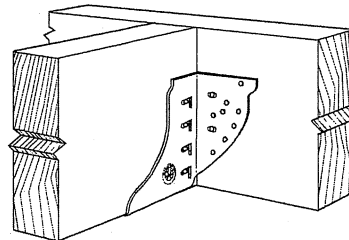
- Use all specified fasteners
- Nails: 16d = 0.162" dia x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

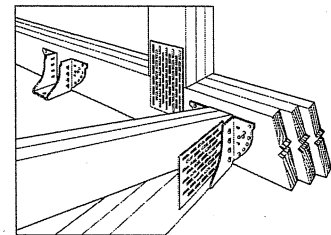
- See current catalogue for options



HGUS28-2



Typical HGUS
Installation

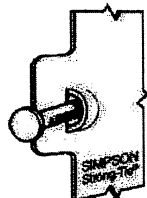


Typical HGUS Installation

(Truss Designer to provide fastener quantity for connecting multiple members together)

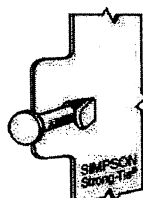
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
HGUS26	12	1½	5¾	5	4½	(20) 16d	(8) 16d	2685	6625	2685	5700
HGUS26-2	12	3¾	5¾	4	4½	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-3	12	4½	5½	4	4½	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-4	12	6¾	5¾	4	4½	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS28	12	1½	7½	5	6½	(36) 16d	(12) 16d	3310	7675	3100	6900
HGUS28-2	12	3¾	7¾	4	6½	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-3	12	4½	7¼	4	6¾	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-4	12	6¾	7¾	4	6½	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS210	12	1½	9½	5	7¾	(46) 16d	(16) 16d	3535	11070	2510	8090
HGUS210-2	12	3¾	9¾	4	8½	(46) 16d	(16) 16d	6840	14015	4855	10270
HGUS210-3	12	4½	9¼	4	8¾	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS210-4	12	6¾	9¾	4	8½	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS212-4	12	6¾	10¾	4	10½	(56) 16d	(20) 16d	7640	14995	5425	10645
HGUS214-4	12	6¾	12¾	4	11½	(66) 16d	(22) 16d	10130	16400	7195	11645

1. d_g is the distance from the seat of the hanger to the highest joist nail.

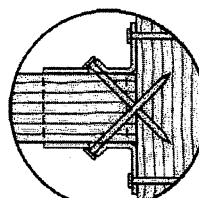


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Side View. Do not bend tab back.

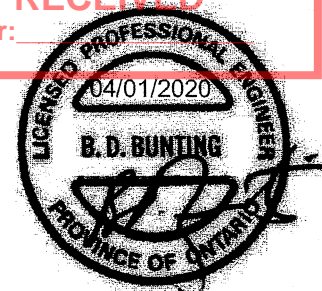


Double Shear Nailing Top View.

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BUILDING DIVISION

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(800) 999-5099
strongtie.com

H – Seismic and Hurricane Ties

SIMPSON
Strong-Tie

The H connector series provides wind and seismic ties for trusses and rafters.

Material: 18 gauge **Finish:** G90 galvanized

Design: • Factored resistances are in accordance with CSA O86-14

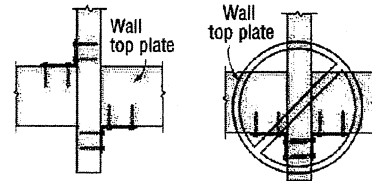
- Factored resistances have been increased 15%. No further increase is permitted.

Installation: • Use all specified fasteners

- Nails: 8d = 0.131" dia. x 2½" long common wire, 8d x 1½" = 0.131" x 1½" long, 10d x 1½" = 0.146" x 1½" long
- H1 can be installed with flanges facing outwards
- Hurricane ties do not replace solid blocking

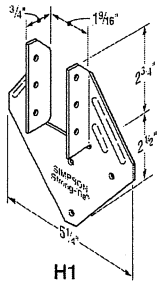
Factored resistances for more than one direction for a single connection cannot be added together. A factored load which can be divided into components in the directions given must be evaluated as follows: Factored Shear/Resisting Shear + Factored Tension/Resisting Tension ≤ 1.0.

Hurricane Tie Installations to Achieve Twice the Load (Top View)

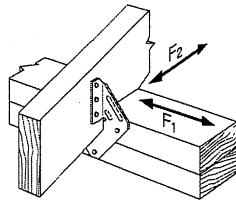


Install diagonally across from each other for minimum 2x truss.

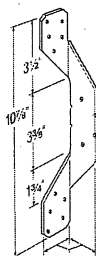
Nailing into both sides of a single ply 2x truss may cause the wood to split.



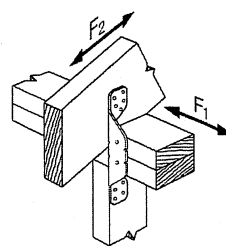
H1



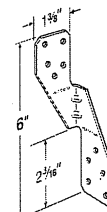
H1 Installation



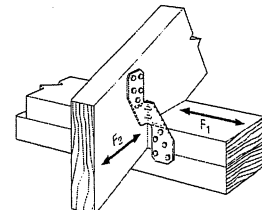
H2A



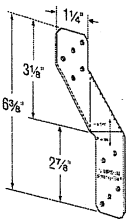
H2A Installation



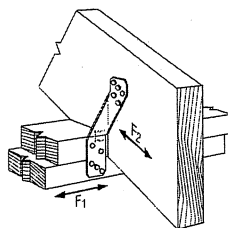
H2.5A



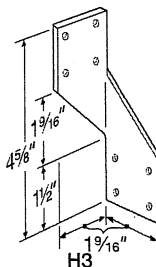
H2.5A Installation



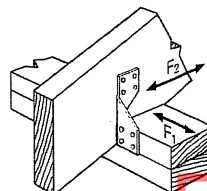
H2.5T



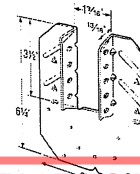
H2.5T Installation
(Nails into both top plates)



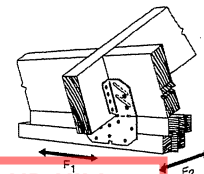
H3



H3 Installation



H10A



H10A Installation

Model No.	Ga.	Fasteners			Factored Resistance (lb.)					
					D.Fir-L			S-P-F		
		To Rafter	To Plates	To Studs	Uplift	Normal		Uplift	Normal	
						F ₁	F ₂		F ₁	F ₂
						(K ₀ =1.15)			(K ₀ =1.15)	
H1	18	(6) 8d x 1½"	(4) 8d	—	740	685	300	680	485	215
H2A	18	(5) 8d x 1½"	(2) 8d x 1½"	(5) 8d x 1½"	830	220	75	590	155	55
H2.5A	18	(5) 8d	(5) 8d	—	805	160	160	755	160	160
H2.5T	18	(5) 8d	(5) 8d	—	835	175	240	740	160	210
H3	18	(4) 8d	(4) 8d	—	740	180	265	615	125	190
H10A	18	(9) 10d x 1½"	(9) 10d x 1½"	—	1735	795	410	1505	565	290

1. Factored resistances have been increased 15% for earthquake or wind loading with no further increase allowed.

2. Factored resistances are for one anchor. A minimum rafter thickness of 2½" must be used when framing anchors are installed on each side of the joist and on the same side of the plate.

3. When cross-grain bending or cross-grain tension cannot be avoided, mechanical reinforcement to resist such forces should be considered.

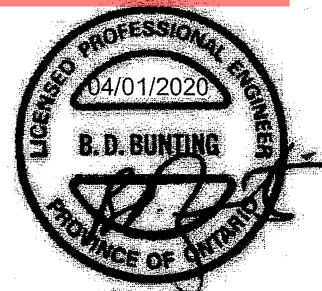
4. Hurricane ties are shown installed on the outside of the wall for clarity. Installation on the inside of the wall is acceptable. For a Continuous Load Path, connections must be on same side of the wall.

CITY OF RICHMOND HILL
BUILDING DIVISION

08/12/2021

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(800) 999-5099
strongtie.com

LUS – Double Shear Joist Hangers

SIMPSON
Strong-Tie

All LUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections.

Material: 18 gauge

Finish: G90 galvanized

Design:

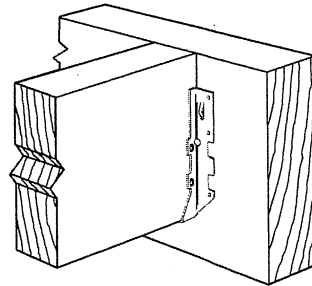
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

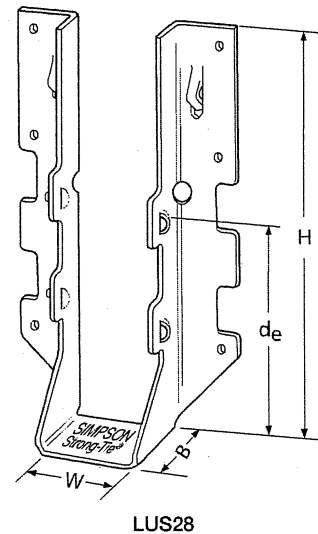
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



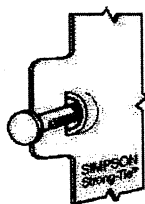
Typical LUS
Installation



LUS28

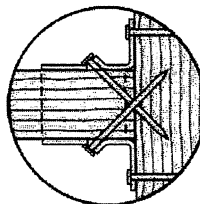
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1 1/16	3 1/8	1 3/4	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 15/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 1/16	4 3/4	1 3/4	3 5/8	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 7/8	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 5/8	4 1/16	2	3 1/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 1/16	6 5/8	1 3/4	3 3/4	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3 1/8	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4 5/8	6 1/4	2	3 1/4	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 1/16	7 15/16	1 3/4	3 7/8	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3 1/8	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4 5/8	8 1/16	2	5 1/4	(8) 16d	(6) 16d	2580	3345	2320	2375

1. d_e is the distance from the seat of the hanger to the highest joist nail.



Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent
5,603,580



Double Shear Nailing
Top View.

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UNITED STATES
DESIGN

For a complete list of products and specifications, visit us online at www.simpsonstrongtie.com.
Simpson Strong-Tie Company, 1901 North Lincoln Avenue, Chicago, IL 60614-1099
Simpson Strong-Tie (Canada) Ltd., 1000 Steeles Ave. E., Unit 100, Scarborough, ON M1V 5K2
Simpson Strong-Tie (Mexico) S de RL de CV, Carretera a Toluca No. 100, Toluca, Mexico 50100
Simpson Strong-Tie (Australia) Pty Ltd, 1000 Steeles Ave. E., Unit 100, Scarborough, ON M1V 5K2

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ONTARIO WOOD TRUSS
FABRICATORS ASSOCIATION

TECH-NOTES

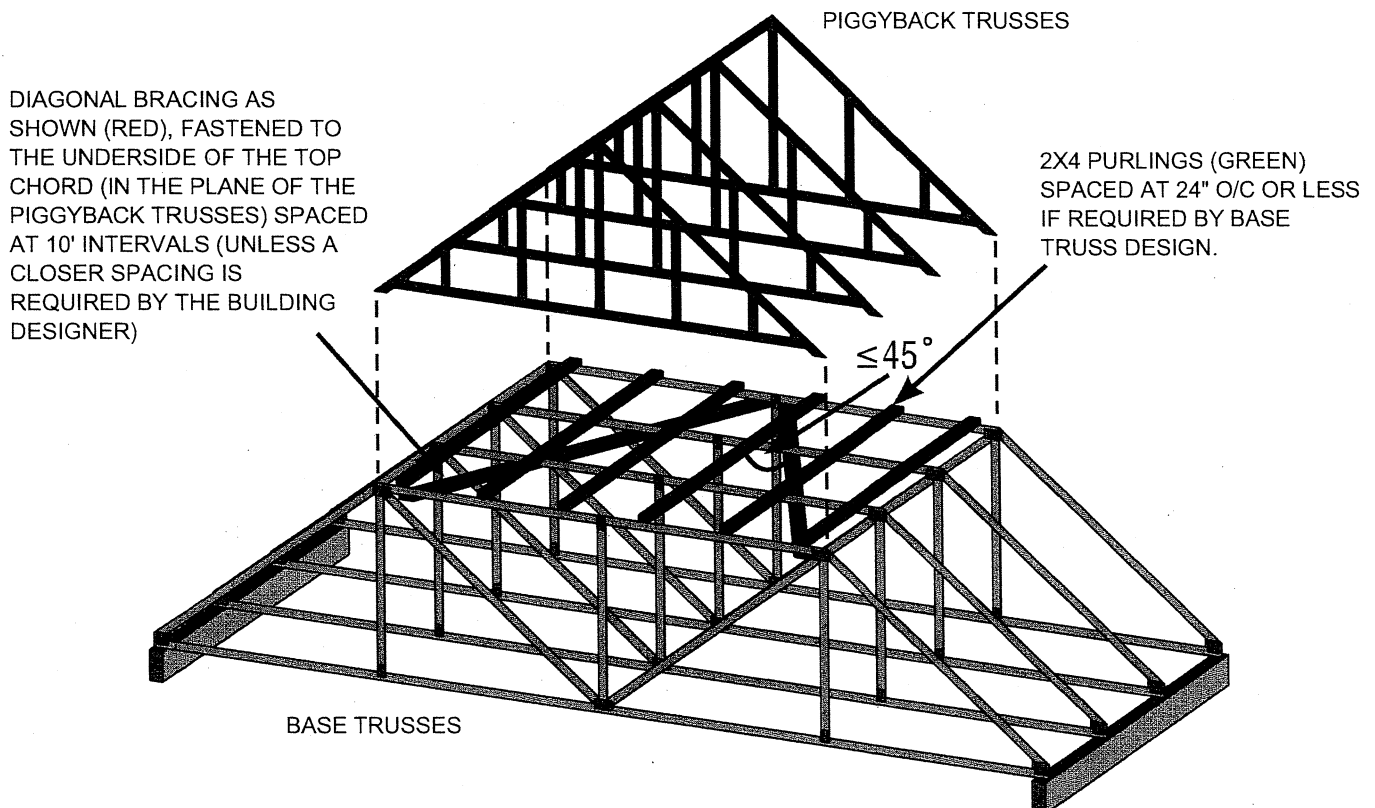
TN 15-001 Piggyback Bracing

Overview:

Where piggybacks are connected overtop of base trusses, 2x4 purlins must be first added to the flat portion of the base truss at a spacing no more than 24" o/c. These purlins not only provide support for the piggyback trusses above, but are required to laterally support the top chord of the base truss which will not have the sheathing directly connected to the flat portion of the base truss. This ensures the top chord, most often in compression, will not buckle laterally.

Further, the purlins in the plane of the flat portion require diagonal bracing to prevent lateral displacement of the purlins themselves where under certain conditions, the trusses may in fact all buckle in the same direction if this additional bracing is not added in the plane of the purlins.

Detail:



NOTE: THE SLOPED PORTION OF THE TOP CHORD OF THE BASE TRUSS AND PIGGYBACK TRUSS IN THIS SKETCH IS ASSUMED TO BE SHEATHED IN ACCORDANCE WITH THE OBC.

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SKETCH FROM BCSI-CANADA 2013

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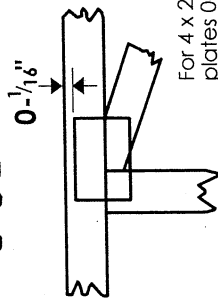
Disclaimer:

OWTFA Tech Notes are intended to provide guidance to the design community both within the membership as well as to third party designers who might benefit from the information. The details have been developed by the OWTFA technical committee and although there may be professional engineers involved in development, the information contained in the tech-note are not intended to be used without having a professional engineer review the information for a specific application. The OWTFA takes no responsibility with respect to the information provided but has developed this tech-note to offer guidance where it is not currently readily available.

Symbols

PLATE LOCATION AND ORIENTATION

Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths or mm. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.



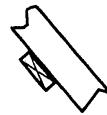
*Plate location details available in Mitek software or upon request.

PLATE SIZE

4 X 4

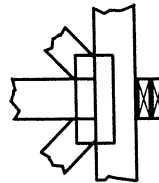
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T, I or Eliminator bracing if indicated.

BEARING



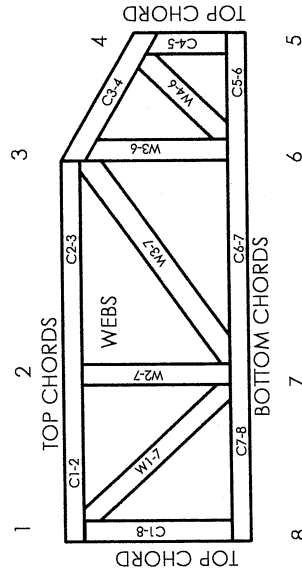
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

Industry Standards:

TPIC: Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses Design Standard for Bracing.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths or mm (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

CCMC Reports:

11996-L, 10319-L, 13270-L, 12691-R

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Mitek Engineering Reference Sheet: MII-7473C rev. 10-'08

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T, I, or Eliminator bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by TPIC.
7. Design assumes trusses will be suitably protected from the environment in accord with TPIC.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with TPIC Quality Criteria.