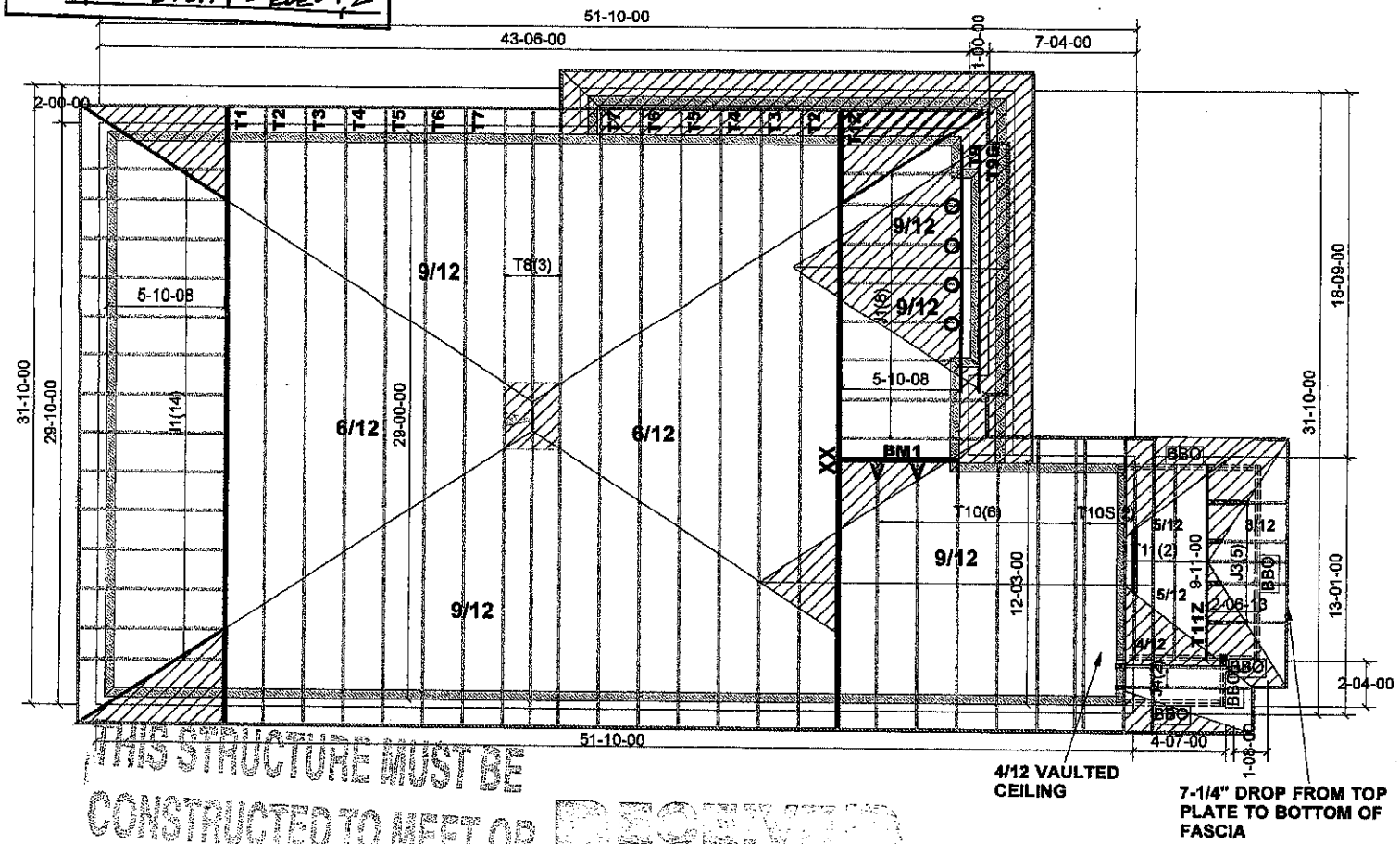
CERTIFIED MODEL

PRE-APPROVED

FOR PERMIT APPLICATION AS PER THE ONTARIO BUILDING CODE
TOWN OF CALEDON BUILDING DIVISION

REVIEWED BY B. J. SNELL
DATE AUG. 7/19
FILE # PRESTON 1 - ELEV 1, 2



THIS STRUCTURE MUST BE CONSTRUCTED TO MEET OR EXCEED THE PROVISIONS OF THE ONTARIO BUILDING CODE

RECEIVED
JUN 13 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO

APPLICANT COPY

TRUSS PROFILES TO BE VERIFIED BY BUILDING DESIGNER

ALL CONVENTIONAL ROOF FRAMING TO CONFORM WITH PART 9 OF THE OBC.
ROOF RAFTERS THAT MEET OR CROSS OVER TRUSSES ARE TO BE 2"X4"SPF@24"O.C. WITH 2"X4"SPF VERTICAL POST TO THE TRUSS UNDER AT EACH CROSS POINT.
POSTS LONGER THAN 6' TO BE LATERALLY BRACED SO THAT THE DISTANCE BETWEEN END POINTS AND BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'.

TRUSSES DESIGNED CONFORM WITH:
ONTARIO BUILDING CODE (2012)
OCCUPANCY: **RESIDENTIAL** | PART: 9

DESIGN LOADS:
CITY: CALEDON
G.S.L.= 37.6 psf
TC DL.= 6 psf
BC LL.= 10.50 psf
BC DL.= 7.00 psf

NOTES:

FIN. OH.:	12"
HEEL TYPE:	R.T.M. CANT.
EXT. WALLS:	2X6
CLAD. TYPE 1:	BRICK/5"
CLAD. TYPE 2:	SIDING/0"
FSC SIZE:	2X6
SHEATHING:	ASPHALT SHINGLE

IF DESIGNED COMMERCIAL, REFERE TO SEALED TRUSS DOCs FOR UPLIFT DESIGN

HARDWARE:

LJS26DS (V) 2pcs
HGUS26-2 (XX) 1pcs
LUS24 (O) 4 pcs

CONV FRM BY OTHERS

T- 180737

COMMENTS:

BM1: 2-2"X10" SPF #2

TAMARACK LUMBER INC.	Job Track: **50120**	Builder / Location: **Greenpark / Caledon**	Model / Elevation: **Preston 1 / Elv. 1**
	Plan Log: **200168**	Project: **Lamberts Lane Home Corp.**	
	Layout ID: **400364**	Date: 2019-01-30 Designer: Brian	

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Mitek ver 8.2.3.229

DELIVERY SHIPLIST

Lumber Yard:	TAMARACK LUMBER	Job Track:	50120
Builder:	Greenpark	PlanLog:	200168
Project:	Lamberts Lane Home Corp.	Layout ID:	400364
Location:	Caledon	Ref #	
Model:	Preston 1	Page:	1 of 2
Lot #:		Date:	01-30-2019
Elevation:	1	Designer:	Brian Faneca
		Sales Rep:	Mario DiCano

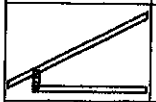
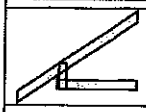
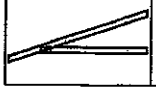
Roof Trusses

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 Hip Girder	9 /12	**29-00-00**	4-01-04	2 x 4 2 x 6	1-03-08 1-03-08	1-06-04 1-06-04	277.77 176.00		
	1 2-ply	T1Z Hip Girder	9 /12	**29-00-00**	4-01-04	2 x 4 2 x 6	1-03-08 1-03-08	1-06-04 1-06-04	277.77 176.00		
	2	T2 Hip	9 /12	**29-00-00**	5-01-04	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	257.01 162.67		
	2	T3 Hip	9 /12	**29-00-00**	6-01-04	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	254.02 162.67		
	2	T4 Hip	9 /12	**29-00-00**	7-01-04	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	249.89 166.33		
	2	T5 Hip	9 /12	**29-00-00**	8-01-04	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	284.41 183.33		
	2	T6 Hip	9 /12	**29-00-00**	9-01-04	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	283.37 181.00		
	2	T7 Hip	9 /12	**29-00-00**	10-01-04	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	275.24 180.00		
	3	T8 Hip	9 /12	**29-00-00**	11-01-04	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	449.62 288.00		
	1	T9 Common Girder	9 /12	**10-02-00**	5-04-00	2 x 4 2 x 6	1-03-08 1-03-08	1-06-04 1-06-04	50.43 32.83		
	1	T9G GABLE	9 /12	**10-02-00**	5-04-00	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	46.57 31.50		
	6	T10 Common	9 /12	**12-03-00**	6-01-06	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	338.76 226.00		
	2	T10S Scissor	9 /12 4 /12	**12-03-00**	6-01-06	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	108.28 72.67		
	2	T11 Common	5 /12	**9-11-00**	2-06-02	2 x 4 2 x 6		5-06 5-06	63.43 38.00		

DELIVERY SHIPLIST

Lumber Yard:	TAMARACK LUMBER	Job Track:	50120
Builder:	Greenpark	PlanLog:	200168
Project:	Lamberts Lane Home Corp.	Layout ID:	400364
Location:	Caledon	Ref #	
Model:	Preston 1	Page:	2 of 2
Lot #:		Date:	01-30-2019
Elevation:	1	Designer:	Brian Faneca
		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	T11Z Common Girder	5 /12	**9-11-00**	2-06-02	2 x 4 2 x 6		5-06 5-06	31.71 19.00		
	22	J1 Jack-Open	6 /12	**5-10-08**	4-01-04	2 x 4	1-03-08	1-02-00 4-01-04	369.48 234.67		
	5	J3 Jack-Open	8 /12	**2-06-13**	2-11-01	2 x 4	1-03-08	9-10 2-06-02	44.21 30.00		
	2	J4 Jack-Open	4 /12	**5-05-08**	2-07-03	2 x 4	1-05-00	3-15 2-01-12	29.2 18.67		

TOTAL # TRUSS= **61** TOTAL BFT OF ALL TRUSSES= **2379.34** BFT. TOTAL WEIGHT OF ALL TRSSES **3691.17** LBS

HARDWARE

QTY	TYPE	MODEL	LENGTH
1	Hardware	HGUS26-2	
2	Hardware	LJS26DS	
4	Hardware	LUS24	

TOTAL NUMBER OF ITEMS= **7**

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200168-400364	T1	1	2	Preston 1	
				TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2018 MiTek Industries, Inc. Tue Feb 5 20:42:02 2019 Page 1

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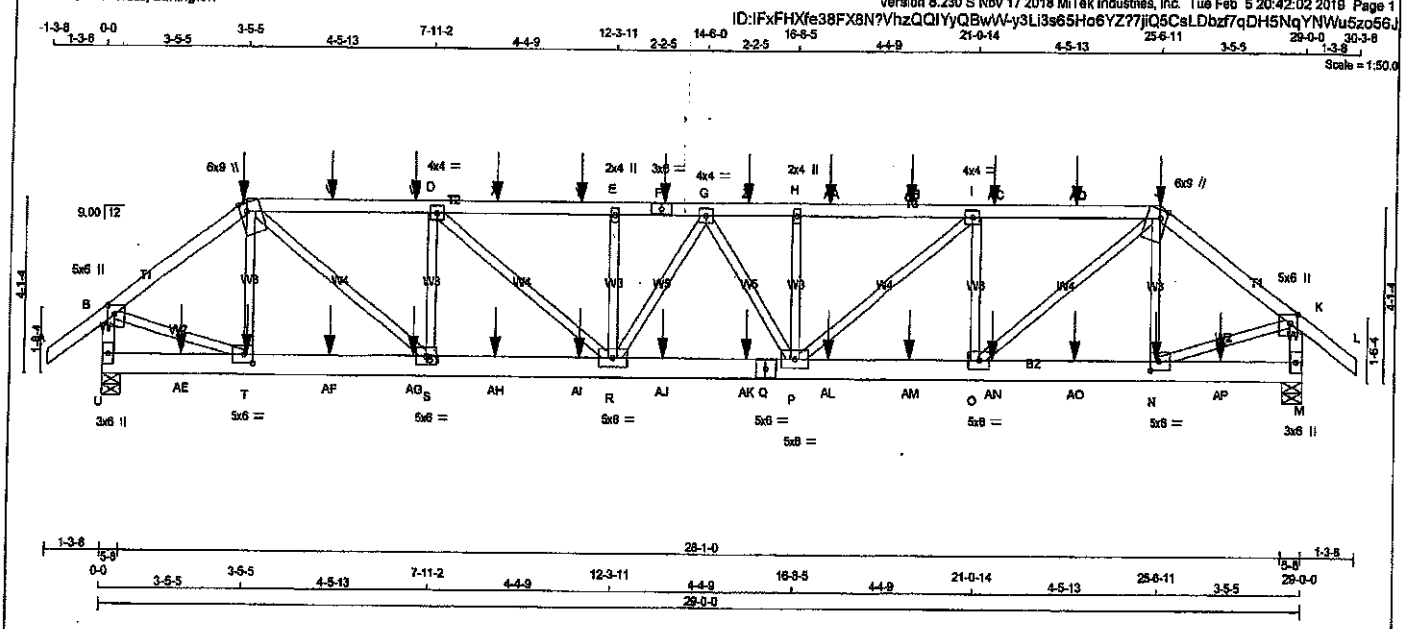

TOTAL WEIGHT = 2 X 139 = 278 lb (M)

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - F	2x4	DRY	No.2	SPF
F - J	2x4	DRY	No.2	SPF
J - L	2x4	DRY	No.2	SPF
U - B	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
U - Q	2x6	DRY	No.2	SPF
Q - M	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	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	1	12	SIDE(61.0)
C- F	1	12	SIDE(61.0)
F- J	1	12	SIDE(61.0)
J- L	1	12	SIDE(61.0)
U- B	1	12	TOP
M- K	1	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
U- Q	2	12	SIDE(183.1)
Q- M	2	12	SIDE(183.1)
WEBS : (0.122"X3") SPIRAL NAILS			
2x3	1	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 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
B	TMWW+p	MT20	5.0	6.0	2.50	2.00
C	TTWW+m	MT20	6.0	9.0	Edge	2.00
D, G, I						
D	TMWW-t	MT20	4.0	4.0		
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
H	TMW+w	MT20	2.0	4.0		
J	TTWW+m	MT20	6.0	9.0	Edge	2.00
K	TMWW+p	MT20	5.0	6.0	2.50	2.00
M	BMV1+p	MT20	3.0	6.0		
N	BMWW-t	MT20	5.0	6.0	2.50	2.50
O	BMWW-t	MT20	5.0	6.0		
P	BMWWW-t	MT20	5.0	8.0		
Q	BS-t	MT20	5.0	6.0		
R	BMWWW-t	MT20	5.0	8.0		
S	BMWW-t	MT20	5.0	6.0		
T	BMWW-t	MT20	5.0	6.0	2.50	2.50
U	BMV1+p	MT20	3.0	6.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
U	3644	0	3644	0	0	5-8	5-8
M	3643	0	3643	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
U	2712	1532 / 0	514 / 0	0 / 0	0 / 0	666 / 0	0 / 0
M	2711	1531 / 0	514 / 0	0 / 0	0 / 0	666 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.43 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.08 (1)	10.00	
B- C	-3827 / 0	-102.1	-102.1	0.18 (1)	4.68	
C- V	-5503 / 0	-102.1	-102.1	0.40 (1)	3.79	
V- W	-5503 / 0	-102.1	-102.1	0.40 (1)	3.79	
W- D	-5503 / 0	-102.1	-102.1	0.40 (1)	3.79	
D- X	-6624 / 0	-102.1	-102.1	0.46 (1)	3.43	
X- Y	-6624 / 0	-102.1	-102.1	0.46 (1)	3.43	
Y- E	-6624 / 0	-102.1	-102.1	0.46 (1)	3.43	
E- F	-6624 / 0	-102.1	-102.1	0.26 (1)	3.62	
F- G	-6624 / 0	-102.1	-102.1	0.26 (1)	3.62	
G- Z	-6622 / 0	-102.1	-102.1	0.26 (1)	3.62	
Z- H	-6622 / 0	-102.1	-102.1	0.26 (1)	3.62	
H- AA	-6622 / 0	-102.1	-102.1	0.46 (1)	3.43	
AA- AB	-6622 / 0	-102.1	-102.1	0.46 (1)	3.43	
AB- I	-6622 / 0	-102.1	-102.1	0.46 (1)	3.43	
I- AC	-5501 / 0	-102.1	-102.1	0.40 (1)	3.79	
AC- AD	-5501 / 0	-102.1	-102.1	0.40 (1)	3.79	
AD- J	-5501 / 0	-102.1	-102.1	0.40 (1)	3.79	
J- K	-3826 / 0	-102.1	-102.1	0.18 (1)	4.69	
K- L	0 / 42	-102.1	-102.1	0.08 (1)	10.00	
U- B	-3578 / 0	0.0	0.0	0.20 (1)	6.20	
M- K	-3577 / 0	0.0	0.0	0.20 (1)	6.20	
U-AE	0 / 0	-38.5	-38.5	0.05 (3)	10.00	
AE- T	0 / 0	-38.5	-38.5	0.05 (3)	10.00	
T-AF	0 / 3036	-38.5	-38.5	0.24 (1)	10.00	
AF-AG	0 / 3036	-38.5	-38.5	0.24 (1)	10.00	
AG- S	0 / 3036	-38.5	-38.5	0.24 (1)	10.00	
S-AH	0 / 5503	-38.5	-38.5	0.42 (1)	10.00	
AH-AI	0 / 5503	-38.5	-38.5	0.42 (1)	10.00	
AI- R	0 / 5503	-38.5	-38.5	0.42 (1)	10.00	
R-AJ	0 / 6698	-38.5	-38.5	0.50 (1)	10.00	
AJ-AK	0 / 6698	-38.5	-38.5	0.50 (1)	10.00	
AK- Q	0 / 6698	-38.5	-38.5	0.50 (1)	10.00	
Q- P	0 / 6698	-38.5	-38.5	0.50 (1)	10.00	
P-AL	0 / 5501	-38.5	-38.5	0.42 (1)	10.00	
AL-AM	0 / 5501	-38.5	-38.5	0.42 (1)	10.00	
AM- O	0 / 5501	-38.5	-38.5	0.42 (1)	10.00	
O-AN	0 / 3035	-38.5	-38.5	0.24 (1)	10.00	
AN-AO	0 / 3035	-38.5	-38.5	0.24 (1)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
T- C	-633 / 0	0.08 (1)
S- D	-1768 / 0	0.40 (1)
D- R	0 / 1473	0.18 (1)
R- E	-548 / 0	0.07 (1)
P- H	-543 / 0	0.07 (1)
P- I	0 / 1472	0.18 (1)
O- I	-1768 / 0	0.22 (1)
O- J	0 / 3201	0.40 (1)
N- J	-633 / 0	0.08 (1)
B- T	0 / 3200	0.40 (1)
N- K	0 / 3199	0.40 (1)
R- G	-145 / 0	0.02 (1)
G- P	-150 / 0	0.02 (1)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

DWG NO: ~~TAM~~ T190 2645
STRUCTURAL COMPONENT ONLY 1/1

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	=	29.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

*** NON STANDARD GIRDER ***
ADDT'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.26")

CSI: TC=0.46/1.00 (D-E:1) , BC=0.50/1.00 (P-R:1) , WB=0.40/1.00 (C-S:1) , SSI=0.20/1.00 (I-J: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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (J) (INPUT = 0.90)
JSI METAL= 0.62 (Q) (INPUT = 1.00)

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T1	1	2	TRUSS DESC.	

Tamarack Roof Truss, Burlington

ID:IFxFHXfe38FX8N?VhzQQIYyQBwW-y3L3s65Ho6YZ?7jIQ5CsLDbzf7qDH5NqYNWu5zo56J

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
AO- N	0 / 3035	-38.5	-38.5	0.24 (1)	10.00
N-AP	0 / 0	-38.5	-38.5	0.05 (3)	10.00
AP- M	0 / 0	-38.5	-38.5	0.05 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-5-5	-50	-56	—	FRONT	VERT	DEAD	—	—
C	3-5-5	-130	-130	—	FRONT	VERT	TOTAL	—	—
C	3-5-5	-285	-285	—	FRONT	VERT	SNOW	—	—
F	13-6-1	-123	-123	—	FRONT	VERT	TOTAL	—	—
J	25-6-11	-50	-56	—	FRONT	VERT	DEAD	—	—
J	25-6-11	-130	-130	—	FRONT	VERT	TOTAL	—	—
J	25-6-11	-285	-285	—	FRONT	VERT	SNOW	—	—
N	25-5-15	-55	-70	—	FRONT	VERT	TOTAL	—	—
T	3-6-1	-55	-70	—	FRONT	VERT	TOTAL	—	—
V	5-6-1	-123	-123	—	FRONT	VERT	TOTAL	—	—
W	7-6-1	-123	-123	—	FRONT	VERT	TOTAL	—	—
X	9-6-1	-123	-123	—	FRONT	VERT	TOTAL	—	—
Y	11-6-1	-123	-123	—	FRONT	VERT	TOTAL	—	—
Z	15-5-15	-123	-123	—	FRONT	VERT	TOTAL	—	—
AA	17-5-15	-123	-123	—	FRONT	VERT	TOTAL	—	—
AB	19-5-15	-123	-123	—	FRONT	VERT	TOTAL	—	—
AC	21-5-15	-123	-123	—	FRONT	VERT	TOTAL	—	—
AD	23-5-15	-123	-123	—	FRONT	VERT	TOTAL	—	—
AE	1-11-4	-55	-70	—	FRONT	VERT	TOTAL	—	—
AF	5-6-1	-55	-70	—	FRONT	VERT	TOTAL	—	—
AG	7-6-1	-55	-70	—	FRONT	VERT	TOTAL	—	—
AH	9-6-1	-55	-70	—	FRONT	VERT	TOTAL	—	—
AI	11-6-1	-55	-70	—	FRONT	VERT	TOTAL	—	—
AJ	13-6-1	-55	-70	—	FRONT	VERT	TOTAL	—	—
AK	15-5-15	-55	-70	—	FRONT	VERT	TOTAL	—	—
AL	17-5-15	-55	-70	—	FRONT	VERT	TOTAL	—	—
AM	19-5-15	-55	-70	—	FRONT	VERT	TOTAL	—	—
AN	21-5-15	-55	-70	—	FRONT	VERT	TOTAL	—	—
AO	23-5-15	-55	-70	—	FRONT	VERT	TOTAL	—	—
AP	27-0-12	-55	-70	—	FRONT	VERT	TOTAL	—	—

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G ALVES
100009024
PROVINCE OF ONTARIO

DWG NO. TAM T1902645
STRUCTURAL
COMPONENT ONLY 2/2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T1Z	1	2	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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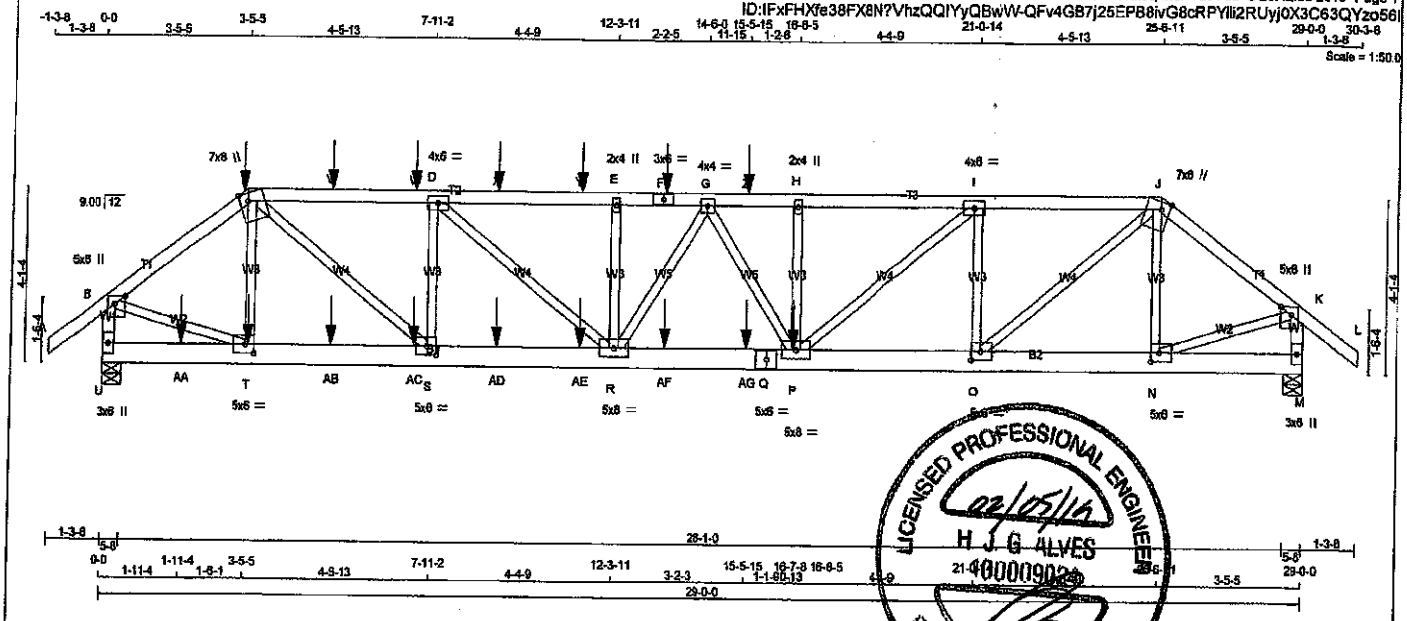

TOTAL WEIGHT = 2 X 139 = 278 lb

[M

LICENSED PROFESSIONAL ENGINEER
02/05/19
H J G ALVES
21-40000902
PROVINCE OF ONTARIO

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - F	2x4	DRY	No.2	SPF
F - J	2x4	DRY	No.2	SPF
J - L	2x4	DRY	No.2	SPF
U - B	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
U - Q	2x6	DRY	No.2	SPF
Q - M	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	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	1	12	SIDE(61.0)
C- F	1	12	SIDE(61.0)
F- J	1	12	SIDE(0.0)
J- L	1	12	TOP
U- B	1	12	TOP
M- K	1	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
U- Q	2	12	SIDE(183.1)
Q- M	2	12	SIDE(183.1)
WEBS : (0.122"X3") SPIRAL NAILS			
2x3	1	6	
H- P	1	6	SIDE(178.7)

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 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
B	TMWW+p	MT20	5.0	6.0	Edge	3.00
C	TTWW+m	MT20	7.0	8.0	Edge	2.50
D	TMWW-t	MT20	4.0	6.0		
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW-t	MT20	4.0	4.0		
H	TMW+w	MT20	2.0	4.0		
I	TMWW-t	MT20	4.0	6.0		
J	TTWW+m	MT20	7.0	8.0	Edge	2.50
K	TMW+p	MT20	5.0	6.0	Edge	3.00
M	BMV1+p	MT20	3.0	6.0		
N	BMWW-t	MT20	5.0	6.0	2.50	2.50
O	BMWW-t	MT20	5.0	6.0	2.50	2.75
P	BMWWW-t	MT20	5.0	8.0		
Q	BS-t	MT20	5.0	6.0		
R	BMWWW-t	MT20	5.0	8.0		
S	BMWW-t	MT20	5.0	6.0	2.50	2.75
T	BMWW-t	MT20	5.0	6.0	2.50	2.50

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
U	3955	0	3955	0	0	5-8	5-8
M	3425	0	3425	0	0	5-8	5-8

UNFACTORED REACTIONS

MAX./MIN. COMPONENT REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
U	2935	1684 / 0	538 / 0	0 / 0	0 / 0	712 / 0	0 / 0
M	2540	1464 / 0	463 / 0	0 / 0	0 / 0	612 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.14 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.08 (1)	10.00	
B- C	-4194 / 0	-102.1	-102.1	0.19 (1)	4.50	
C- V	-6160 / 0	-102.1	-102.1	0.43 (1)	3.57	
V- W	-6160 / 0	-102.1	-102.1	0.43 (1)	3.57	
W- D	-6160 / 0	-102.1	-102.1	0.43 (1)	3.57	
D- X	-7649 / 0	-102.1	-102.1	0.52 (1)	3.14	
X- Y	-7649 / 0	-102.1	-102.1	0.52 (1)	3.14	
Y- E	-7649 / 0	-102.1	-102.1	0.52 (1)	3.14	
E- F	-7649 / 0	-102.1	-102.1	0.30 (1)	3.34	
F- G	-7649 / 0	-102.1	-102.1	0.30 (1)	3.34	
G- Z	-7962 / 0	-102.1	-102.1	0.28 (1)	3.30	
Z- H	-7962 / 0	-102.1	-102.1	0.28 (1)	3.30	
H- I	-7962 / 0	-102.1	-102.1	0.44 (1)	3.19	
I- J	-5846 / 0	-102.1	-102.1	0.31 (1)	3.80	
J- K	-3595 / 0	-102.1	-102.1	0.17 (1)	4.81	
K- L	0 / 42	-102.1	-102.1	0.08 (1)	10.00	
U- B	-3891 / 0	0.0	0.0	0.22 (1)	5.98	
M- K	-3381 / 0	0.0	0.0	0.19 (1)	6.35	
U-AA	0 / 0	-38.5	-38.5	0.05 (3)	10.00	
AA- T	0 / 0	-38.5	-38.5	0.05 (3)	10.00	
T-AB	0 / 3327	-38.5	-38.5	0.26 (1)	10.00	
AB-AC	0 / 3327	-38.5	-38.5	0.26 (1)	10.00	
AC- S	0 / 3327	-38.5	-38.5	0.26 (1)	10.00	
S-AD	0 / 6161	-38.5	-38.5	0.46 (1)	10.00	
AD-AE	0 / 6161	-38.5	-38.5	0.46 (1)	10.00	
AE- R	0 / 6161	-38.5	-38.5	0.46 (1)	10.00	
R-AF	0 / 7897	-38.5	-38.5	0.60 (1)	10.00	
AF-AG	0 / 7897	-38.5	-38.5	0.60 (1)	10.00	
AG- Q	0 / 7897	-38.5	-38.5	0.60 (1)	10.00	
Q- P	0 / 7897	-38.5	-38.5	0.60 (1)	10.00	
P- O	0 / 5846	-38.5	-38.5	0.44 (1)	10.00	
O- N	0 / 2849	-38.5	-38.5	0.22 (1)	10.00	
N- M	0 / 0	-38.5	-38.5	0.04 (2)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
T- C	-719 / 0	0.09 (1)
C- S	0 / 3679	0.46 (1)
S- D	-2079 / 0	0.26 (1)
D- R	0 / 1955	0.24 (1)
R- E	-535 / 0	0.07 (1)
P- H	-360 / 0	0.05 (1)
P- I	0 / 2779	0.34 (1)
O- I	-2308 / 0	0.29 (1)
O- J	0 / 3830	0.48 (1)
N- J	-697 / 0	0.09 (1)
B- T	0 / 3507	0.43 (1)
N- K	0 / 3006	0.37 (1)
R- G	-490 / 0	0.06 (1)
G- P	0 / 128	0.02 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-5-5	-50	-56	—	FRONT	VERT	DEAD	—	—
C	3-5-5	-130	-130	—	BACK	VERT	TOTAL	—	—
C	3-5-5	-285	-285	—	FRONT	VERT	SNOW	—	—

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	=	29.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

*** NON STANDARD GIRDER ***
ADDT'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.19")
ALLOWABLE DEFL.(TL)= L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.31")

CSI: TC=0.52/1.00 (D-E:1) , BC=0.60/1.00 (P-R:1) , WB=0.48/1.00 (J-O:1) , SSI=0.20/1.00 (C-D: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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	786	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (B) (INPUT = 0.90)
JSI METAL= 0.76 (Q) (INPUT = 1.00)

DWG NO. TAM T1902646
STRUCTURAL COMPONENT ONLY
1/2

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T1Z	1	2	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
U	BMV1+p	MT20	3.0	6.0		

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

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
F	13-6-1	-123	-123	—	BACK	VERT	TOTAL	—	—
P	18-7-8	-1379	-1379	—	BACK	VERT	TOTAL	—	—
T	3-6-1	-55	-70	—	BACK	VERT	TOTAL	—	—
V	5-6-1	-123	-123	—	BACK	VERT	TOTAL	—	—
W	7-6-1	-123	-123	—	BACK	VERT	TOTAL	—	—
X	9-6-1	-123	-123	—	BACK	VERT	TOTAL	—	—
Y	11-6-1	-123	-123	—	BACK	VERT	TOTAL	—	—
Z	15-5-15	-123	-123	—	BACK	VERT	TOTAL	—	—
AA	1-11-4	-55	-70	—	BACK	VERT	TOTAL	—	—
AB	5-6-1	-55	-70	—	BACK	VERT	TOTAL	—	—
AC	7-6-1	-55	-70	—	BACK	VERT	TOTAL	—	—
AD	9-6-1	-55	-70	—	BACK	VERT	TOTAL	—	—
AE	11-6-1	-55	-70	—	BACK	VERT	TOTAL	—	—
AF	13-6-1	-55	-70	—	BACK	VERT	TOTAL	—	—
AG	15-5-15	-55	-70	—	BACK	VERT	TOTAL	—	—

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G. ALVES
100009624
PROVINCE OF ONTARIO

DWG NO. TAM T1902646
STRUCTURAL
COMPONENT ONLY 2/2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T2	2	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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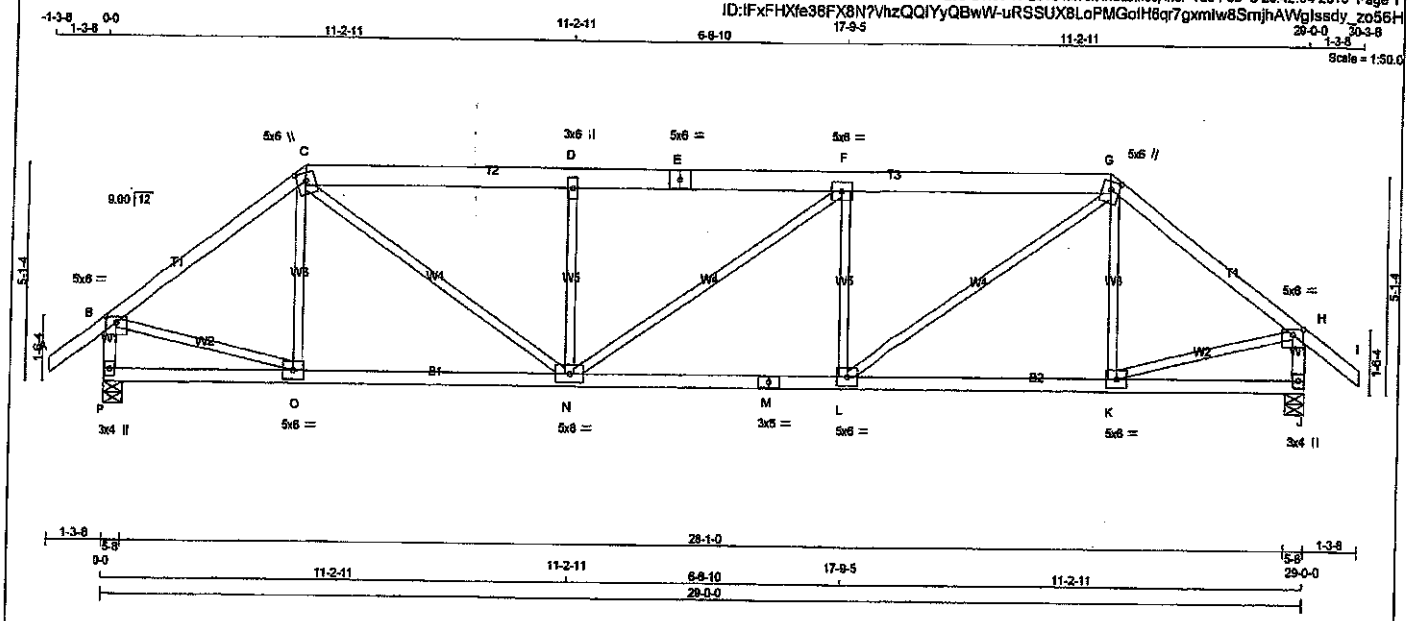

TOTAL WEIGHT = 2 X 129 = 257 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x6	DRY	No.2	SPF
E - G	2x6	DRY	No.2	SPF
G - I	2x4	DRY	No.2	SPF
P - B	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
P - M	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-p	MT20	5.0	6.0	1.50	3.00
C	TTWW+m	MT20	5.0	6.0	2.25	2.50
D	TMW+w	MT20	3.0	6.0		
E	TS-t	MT20	5.0	6.0		
F	TMWW-t	MT20	5.0	6.0		
G	TTWW+m	MT20	5.0	6.0	2.25	2.50
H	TMWW-p	MT20	5.0	6.0	1.50	3.00
J	BMV1+p	MT20	3.0	4.0		
K, L, O						
K	BMWW-t	MT20	5.0	6.0		
M	BS-t	MT20	3.0	6.0		
N	BMWWW-t	MT20	5.0	6.0		
P	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
P	2180	0	2180	0	0	5-8	5-8
J	2180	0	2180	0	0	5-8	5-8

UNFACTORED REACTIONS

MAX./MIN. COMPONENT REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL -
P	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0
J	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.06 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
B- C	-2157 / 0	-102.1	-102.1	0.54 (1)	4.06	
C- D	-3071 / 0	-102.1	-102.1	0.32 (1)	4.52	
D- E	-3071 / 0	-102.1	-102.1	0.32 (1)	4.52	
E- F	-3071 / 0	-102.1	-102.1	0.32 (1)	4.52	
F- G	-3071 / 0	-102.1	-102.1	0.32 (1)	4.52	
G- H	-2157 / 0	-102.1	-102.1	0.54 (1)	4.06	
H- I	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
P- B	-2115 / 0	0.0	0.0	0.22 (1)	5.83	
J- H	-2115 / 0	0.0	0.0	0.22 (1)	5.83	
P- O	0 / 0	-38.5	-38.5	0.22 (3)	10.00	
O- N	0 / 1734	-38.5	-38.5	0.47 (2)	10.00	
N- M	0 / 3071	-38.5	-38.5	0.67 (1)	10.00	
M- L	0 / 3071	-38.5	-38.5	0.67 (1)	10.00	
L- K	0 / 1734	-38.5	-38.5	0.47 (2)	10.00	
K- J	0 / 0	-38.5	-38.5	0.22 (3)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
O- C	-201 / 98	0.07 (1)
K- G	-201 / 98	0.07 (1)
B- O	0 / 1766	0.40 (1)
K- H	0 / 1766	0.40 (1)
L- G	0 / 1661	0.37 (1)
C- N	0 / 1661	0.37 (1)
L- F	-732 / 0	0.26 (1)
N- D	-732 / 0	0.26 (1)
N- F	0 / 1	0.00 (3)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 6.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.23")

CSI: TC=0.54/1.00 (B-C:1) , BC=0.67/1.00 (L-N:1) , WB=0.40/1.00 (H-K:1) , SSI=0.23/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	616	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.96 (M) (INPUT = 1.00)

THIS STRUCTURE MUST BE CONSTRUCTED TO MEET OR EXCEED THE PROVISIONS OF THE ONTARIO BUILDING CODE

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G. ALVES
100008024
PROVINCE OF ONTARIO

DWG NO. TAM 7190 2647
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T3	2	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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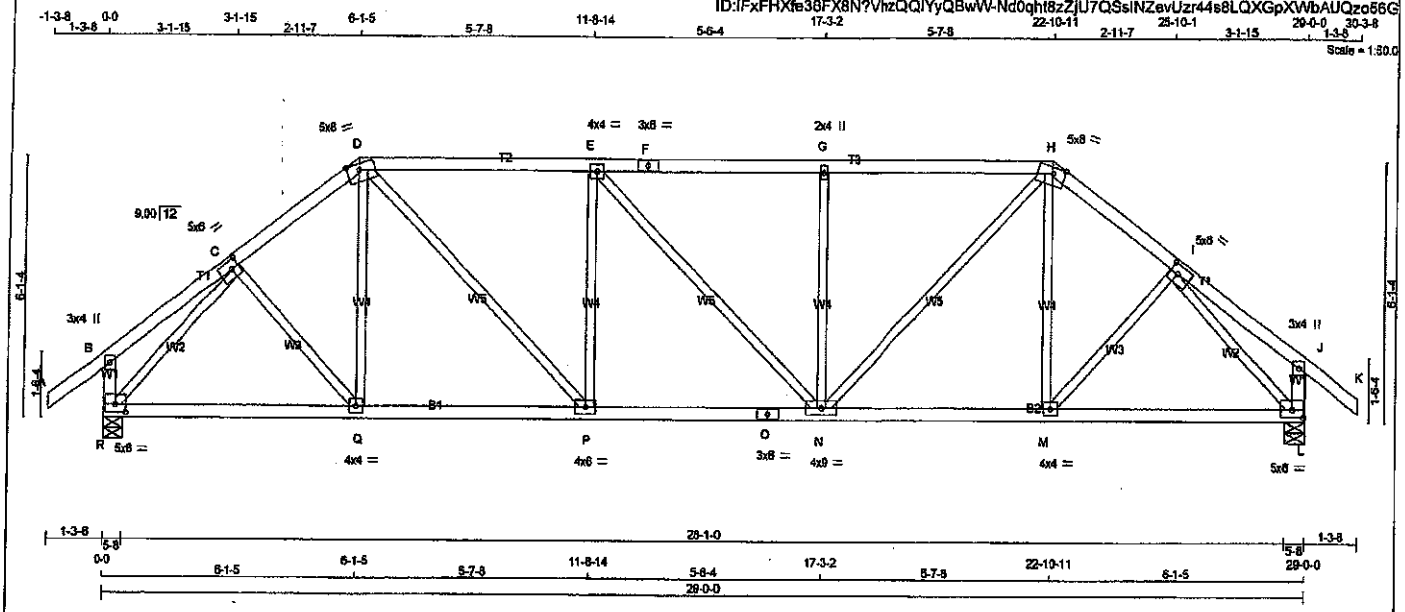

TOTAL WEIGHT = 2 X 127 = 254 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - H	2x4	DRY	No.2	SPF
H - K	2x4	DRY	No.2	SPF
R - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
R - O	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	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	TMWW-t	MT20	5.0	6.0	2.50	2.25
D	TTWW-m	MT20	5.0	8.0	Edge	3.50
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMW+w	MT20	2.0	4.0		
H	TTWW-m	MT20	5.0	8.0	Edge	3.50
I	TMWW-t	MT20	5.0	6.0	2.50	2.25
J	TMV+p	MT20	3.0	4.0		
L	BMVW1-t	MT20	5.0	6.0	2.25	3.00
M	BMWW-t	MT20	4.0	4.0		
N	BMWWW-t	MT20	4.0	9.0		
O	BS-t	MT20	3.0	6.0		
P	BMWW-t	MT20	4.0	6.0		
Q	BMWW-t	MT20	4.0	4.0		
R	BMVW1-t	MT20	5.0	6.0	2.25	3.00

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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
R	2160	0	2160	0	0	5-8	5-8
L	2160	0	2160	0	0	5-8	5-8

UNFACTORED REACTIONS

MAX./MIN. COMPONENT REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0
L	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.74 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B- C	0 / 18	-102.1	-102.1	0.12 (1)	10.00
C- D	-2175 / 0	-102.1	-102.1	0.18 (1)	4.46
D- E	-2517 / 0	-102.1	-102.1	0.59 (1)	3.74
E- F	-2516 / 0	-102.1	-102.1	0.59 (1)	3.74
F- G	-2516 / 0	-102.1	-102.1	0.59 (1)	3.74
G- H	-2515 / 0	-102.1	-102.1	0.59 (1)	3.75
H- I	-2175 / 0	-102.1	-102.1	0.18 (1)	4.46
I- J	0 / 18	-102.1	-102.1	0.12 (1)	10.00
J- K	0 / 42	-102.1	-102.1	0.14 (1)	10.00
R- B	-266 / 0	0.0	0.0	0.03 (1)	7.81
L- J	-266 / 0	0.0	0.0	0.03 (1)	7.81
R- Q	0 / 1569	-38.5	-38.5	0.46 (2)	10.00
Q- P	0 / 1723	-38.5	-38.5	0.49 (2)	10.00
P- O	0 / 2517	-38.5	-38.5	0.51 (1)	10.00
O- N	0 / 2517	-38.5	-38.5	0.51 (1)	10.00
N- M	0 / 1723	-38.5	-38.5	0.49 (2)	10.00
M- L	0 / 1569	-38.5	-38.5	0.46 (2)	10.00

WEBS

MEMB. FR-TO	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C- Q			0 / 212	0.05 (2)
Q- D			0 / 202	0.05 (3)
D- P			0 / 1140	0.26 (1)
P- E			-615 / 0	0.36 (1)
E- N			-2 / 0	0.00 (1)
N- G			-614 / 0	0.36 (1)
N- H			0 / 1137	0.26 (1)
M- H			0 / 202	0.05 (3)
M- I			0 / 212	0.05 (2)
R- C			-2413 / 0	0.82 (1)
I- L			-2413 / 0	0.82 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2016 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.20")

CSI: TC=0.59/1.00 (D-E:1) , BC=0.51/1.00 (N-P:1) , WB=0.82/1.00 (I-L:1) , SSI=0.27/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	768	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

MSI GRIP= 0.87 (L) (INPUT = 0.90)
MSI METAL= 0.78 (O) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G. ALVES
100009824
ONTARIO

DWG NO. TAM T19026648
STRUCTURAL COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T4	2	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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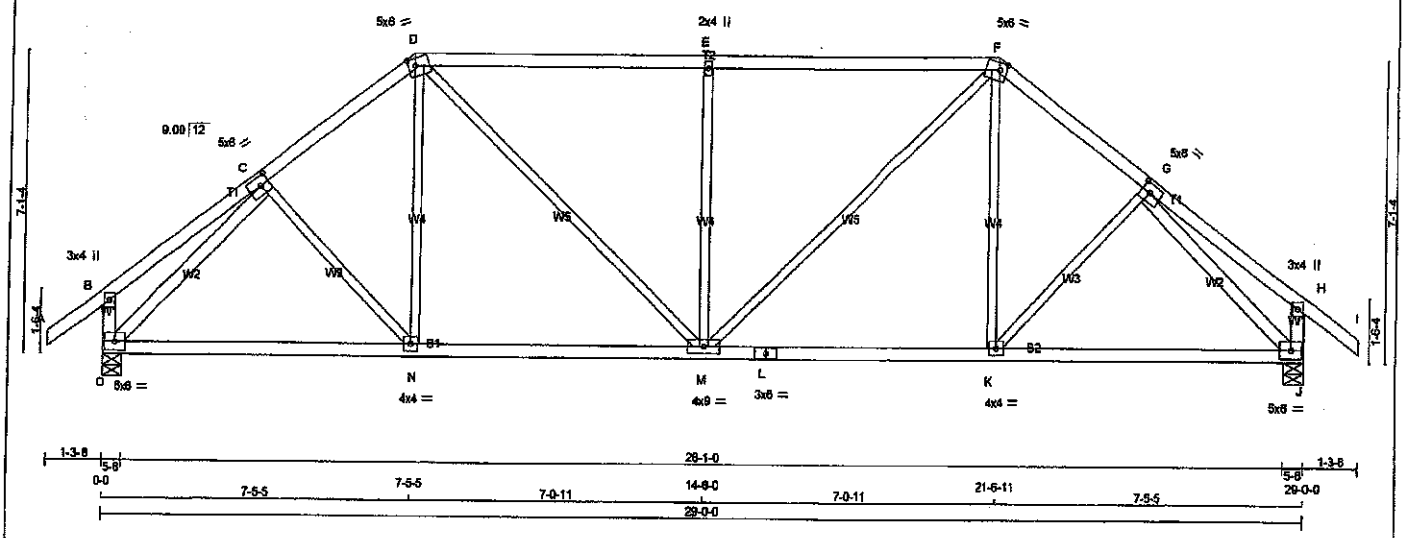

TOTAL WEIGHT = 2 X 128 = 256 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
O - B	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
O - C	2x4	DRY	No.2	SPF
G - J	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	TMWW-t	MT20	5.0	6.0	2.50	2.50
D	TTWW-m	MT20	5.0	6.0	2.00	2.00
E	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	2.00	2.00
G	TMWW-t	MT20	5.0	6.0	2.50	2.50
H	TMV+p	MT20	3.0	4.0		
J	BMVW1-t	MT20	5.0	6.0		
K	BMWW-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMWWW-t	MT20	4.0	9.0		
N	BMWW-t	MT20	4.0	4.0		
O	BMVW1-t	MT20	5.0	6.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
O	2180	0	2180	0	0	5-8	5-8
J	2180	0	2180	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0
J	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.54 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 CSI (LC)	MAX UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B- C	0 / 25	-102.1	-102.1	0.21 (1)	10.00
C- D	-2143 / 0	-102.1	-102.1	0.22 (1)	4.47
D- E	-2276 / 0	-102.1	-102.1	0.77 (1)	3.54
E- F	-2276 / 0	-102.1	-102.1	0.77 (1)	3.54
F- G	-2143 / 0	-102.1	-102.1	0.22 (1)	4.47
G- H	0 / 25	-102.1	-102.1	0.21 (1)	10.00
H- I	0 / 42	-102.1	-102.1	0.14 (1)	10.00
O- B	-288 / 0	0.0	0.0	0.03 (1)	7.81
J- H	-288 / 0	0.0	0.0	0.03 (1)	7.81
O- N	0 / 1655	-38.5	-38.5	0.61 (2)	10.00
N- M	0 / 1695	-38.5	-38.5	0.62 (2)	10.00
M- L	0 / 1695	-38.5	-38.5	0.62 (2)	10.00
L- K	0 / 1695	-38.5	-38.5	0.62 (2)	10.00
K- J	0 / 1655	-38.5	-38.5	0.61 (2)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C- N	0 / 129	0.03 (3)
N- D	0 / 343	0.08 (2)
D- M	0 / 807	0.18 (1)
M- E	-884 / 0	0.77 (1)
M- F	0 / 807	0.18 (1)
K- F	0 / 343	0.08 (2)
K- G	0 / 129	0.03 (3)
O- C	-2427 / 0	0.83 (1)
G- J	-2427 / 0	0.83 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.22")

CSI: TC=0.77/1.00 (E-F:1) , BC=0.62/1.00 (M-N:2) , WB=0.83/1.00 (C-O:1) , SSI=0.35/1.00 (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

AUTOSOLVE HEELS OFF

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (D) (INPUT = 0.90)
JSI METAL= 0.60 (C) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

JUN 13 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO.

DWG NO. TAM T1902645
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T5	2	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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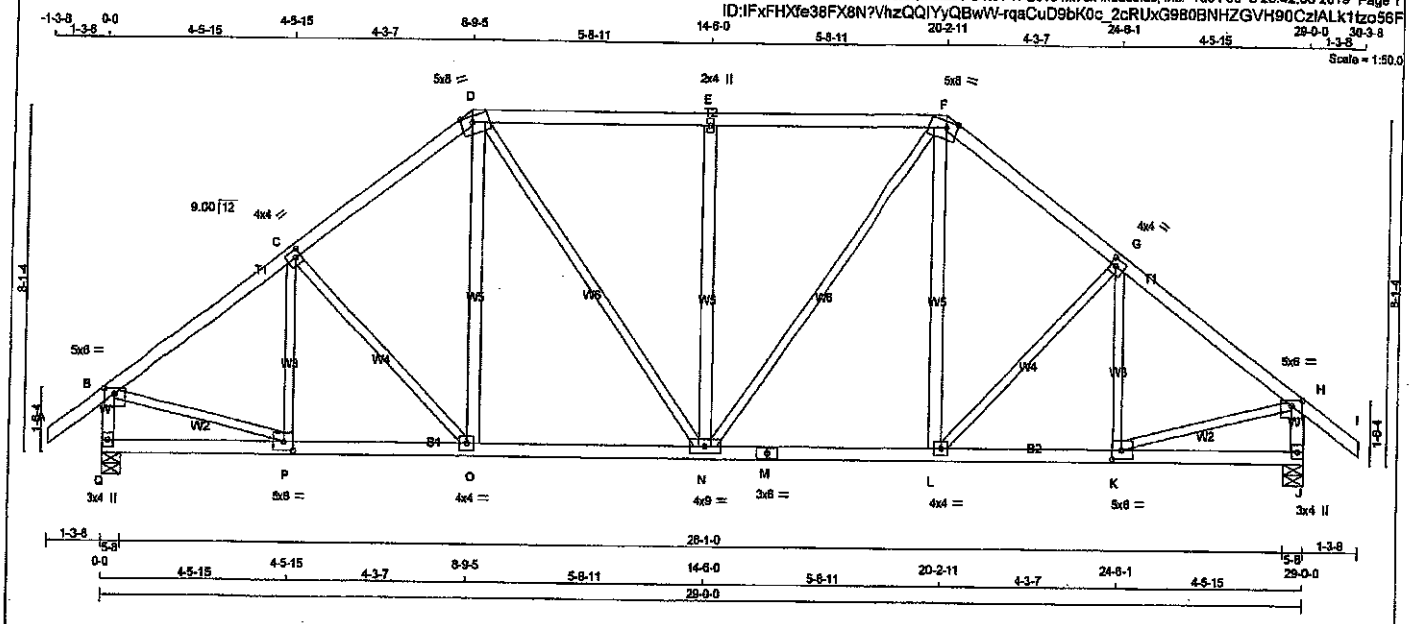

TOTAL WEIGHT = 2 X 142 = 284 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
Q - B	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
Q - M	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
O - D	2x4	DRY	No.2	SPF
N - E	2x4	DRY	No.2	SPF
L - F	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-p	MT20	5.0	6.0	1.50	3.00
C	TMWW-t	MT20	4.0	4.0	2.00	1.50
D	TTWW-m	MT20	5.0	8.0	1.75	3.25
E	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	8.0	1.75	3.25
G	TMWW-t	MT20	4.0	4.0	2.00	1.50
H	TMWW-p	MT20	5.0	6.0	1.50	3.00
J	BMV1+p	MT20	3.0	4.0		
K	BMWW-t	MT20	5.0	6.0	2.50	2.75
L	BMWW-t	MT20	4.0	4.0		
M	BS-I	MT20	3.0	6.0		
N	BMWWW-t	MT20	4.0	9.0		
O	BMWW-t	MT20	4.0	4.0		
P	BMWW-t	MT20	5.0	6.0	2.50	2.75
Q	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
Q	2180	0	2180	0	0	5-8	5-8
J	2180	0	2180	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0
J	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.29 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
B- C	-2168 / 0	-102.1	-102.1	0.31 (1)	4.35	
C- D	-2045 / 0	-102.1	-102.1	0.30 (1)	4.46	
D- E	-1956 / 0	-102.1	-102.1	0.48 (1)	4.29	
E- F	-1956 / 0	-102.1	-102.1	0.48 (1)	4.29	
F- G	-2045 / 0	-102.1	-102.1	0.30 (1)	4.46	
G- H	-2168 / 0	-102.1	-102.1	0.31 (1)	4.35	
H- I	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
Q- B	-2106 / 0	0.0	0.0	0.22 (1)	5.84	
J- H	-2106 / 0	0.0	0.0	0.22 (1)	5.84	
Q- P	0 / 0	-38.5	-38.5	0.13 (3)	10.00	
P- O	0 / 1759	-38.5	-38.5	0.39 (1)	10.00	
O- N	0 / 1613	-38.5	-38.5	0.40 (2)	10.00	
N- M	0 / 1613	-38.5	-38.5	0.40 (2)	10.00	
M- L	0 / 1613	-38.5	-38.5	0.40 (2)	10.00	
L- K	0 / 1759	-38.5	-38.5	0.39 (1)	10.00	
K- J	0 / 0	-38.5	-38.5	0.13 (3)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
P- C	-288 / 24	0.10 (1)
C- O	-219 / 0	0.16 (1)
O- D	0 / 376	0.06 (2)
D- N	0 / 579	0.13 (1)
N- E	-713 / 0	0.84 (1)
N- F	0 / 579	0.13 (1)
L- F	0 / 376	0.06 (2)
L- G	-219 / 0	0.16 (1)
K- G	-288 / 24	0.10 (1)
B- P	0 / 1820	0.41 (1)
K- H	0 / 1820	0.41 (1)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G ALVES
100009024
PROVINCE OF ONTARIO

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.48/1.00 (D-E:1) , BC=0.40/1.00 (N-O:2) , WB=0.64/1.00 (E-N:1) , SSI=0.28/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (J) (INPUT = 0.90)
JSI METAL= 0.51 (M) (INPUT = 1.00)

DWG NO. TAM T1102550
STRUCTURAL COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T6	2	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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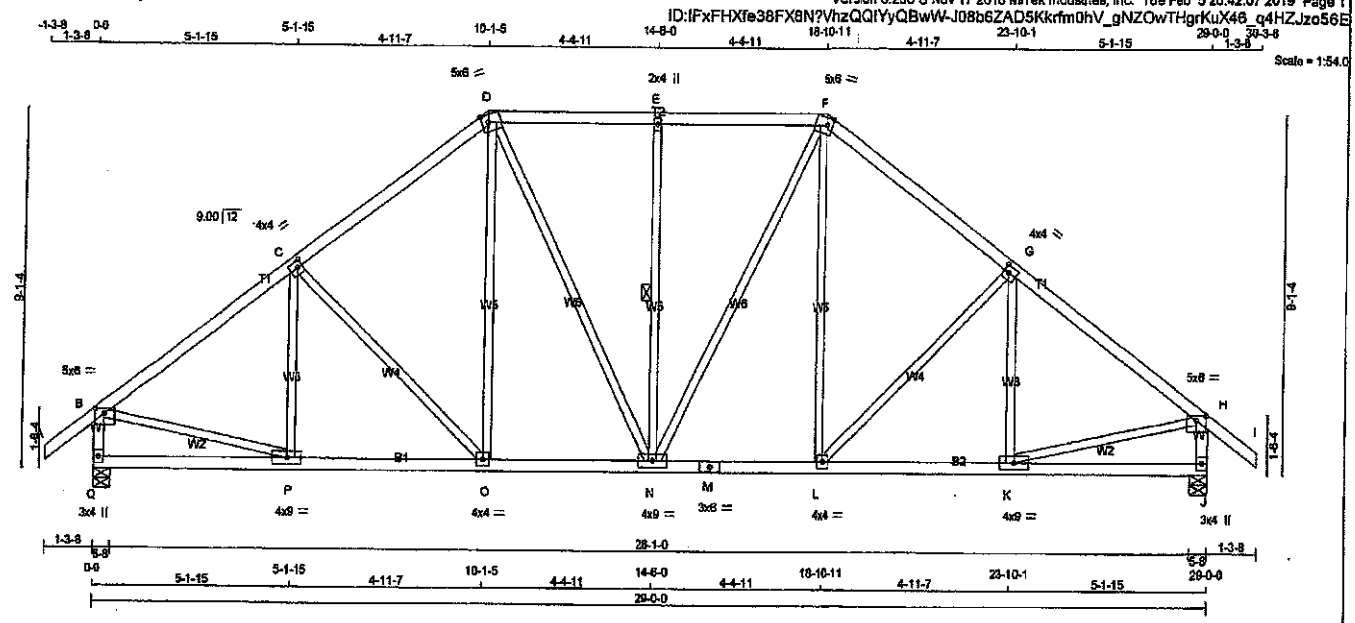

TOTAL WEIGHT = 2 X 142 = 283 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
Q - B	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
Q - M	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-p	MT20	5.0	6.0	1.50	3.00
C	TMWW-t	MT20	4.0	4.0	2.00	1.50
D	TTWW-m	MT20	5.0	6.0	Edge	2.00
E	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	Edge	2.00
G	TMWW-t	MT20	4.0	4.0	2.00	1.50
H	TMWW-p	MT20	5.0	6.0	1.50	3.00
J	BMV1+p	MT20	3.0	4.0		
K	BMWW-t	MT20	4.0	9.0		
L	BMWW-t	MT20	4.0	4.0		
M	BS-t	MT20	3.0	6.0		
N	BMWWW-t	MT20	4.0	9.0		
O	BMWW-t	MT20	4.0	4.0		
P	BMWW-t	MT20	4.0	9.0		
Q	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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
Q	2180	0	2180	0	0	5-8	5-8
J	2180	0	2180	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0
J	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.21 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 E-N.

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

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
B- C	-2198 / 0	-102.1	-102.1	0.42 (1)	4.21	
C- D	-1954 / 0	-102.1	-102.1	0.39 (1)	4.44	
D- E	-1709 / 0	-102.1	-102.1	0.28 (1)	4.82	
E- F	-1709 / 0	-102.1	-102.1	0.28 (1)	4.82	
F- G	-1954 / 0	-102.1	-102.1	0.39 (1)	4.44	
G- H	-2198 / 0	-102.1	-102.1	0.42 (1)	4.21	
H- I	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
Q- B	-2098 / 0	0.0	0.0	0.22 (1)	5.84	
J- H	-2098 / 0	0.0	0.0	0.22 (1)	5.84	
Q- P	0 / 0	-38.5	-38.5	0.19 (3)	10.00	
P- O	0 / 1787	-38.5	-38.5	0.42 (2)	10.00	
O- N	0 / 1535	-38.5	-38.5	0.34 (1)	10.00	
N- M	0 / 1535	-38.5	-38.5	0.34 (1)	10.00	
M- L	0 / 1535	-38.5	-38.5	0.34 (1)	10.00	
L- K	0 / 1787	-38.5	-38.5	0.42 (2)	10.00	
K- J	0 / 0	-38.5	-38.5	0.19 (3)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
P- C	-194 / 98	0.08 (1)
C- O	-364 / 0	0.36 (1)
O- D	0 / 444	0.10 (2)
D- N	0 / 389	0.09 (1)
N- E	-538 / 0	0.28 (1)
N- F	0 / 389	0.09 (1)
L- F	0 / 444	0.10 (2)
L- G	-364 / 0	0.36 (1)
K- G	-194 / 98	0.08 (1)
B- P	0 / 1834	0.41 (1)
K- H	0 / 1834	0.41 (1)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G ALVES
100009024
PROVINCE OF ONTARIO

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.12")

CSI: TC=0.42/1.00 (B-C:1) , BC=0.42/1.00 (O-P:2) , WB=0.41/1.00 (B-P:1) , SSI=0.22/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (P) (INPUT = 0.90)
JSI METAL= 0.50 (M) (INPUT = 1.00)

DWG NO. TAM T1902651
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T7	2	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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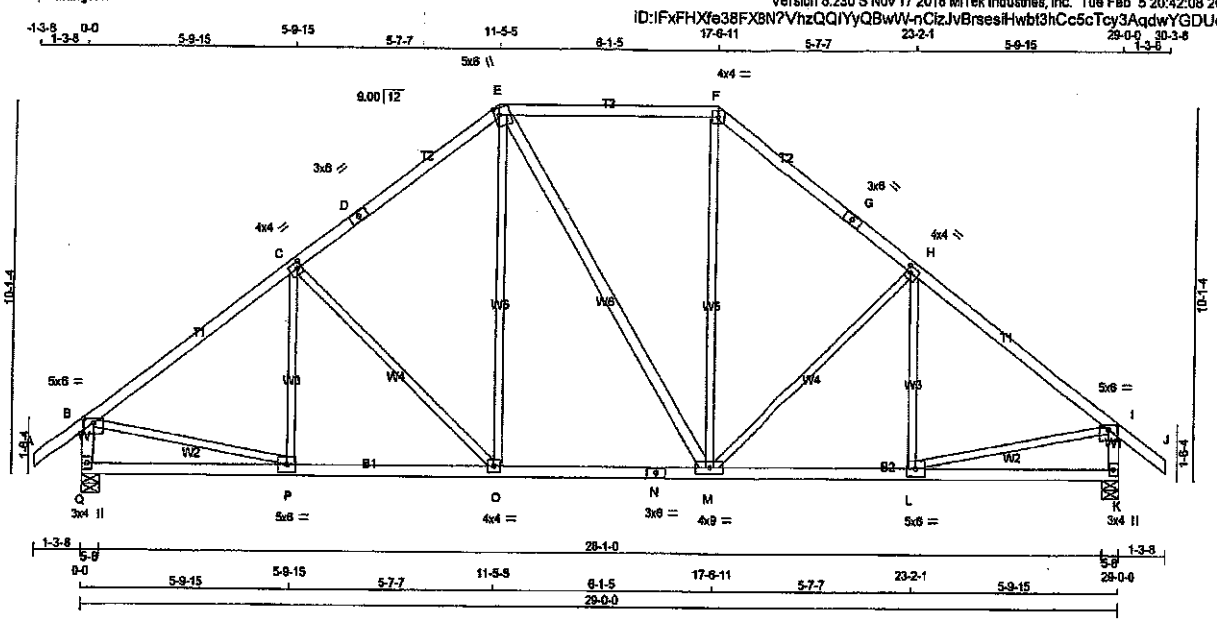

TOTAL WEIGHT = 2 X 138 = 275 lb

[M](F)

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-p	MT20	5.0	6.0	1.50	3.00
C	TMWW-l	MT20	4.0	4.0	2.00	1.50
D	TS-t	MT20	3.0	6.0		
E	TTWW+m	MT20	5.0	6.0	2.25	1.50
F	TTW-l	MT20	4.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMWW-t	MT20	4.0	4.0	2.00	1.50
I	TMWW-p	MT20	5.0	6.0	1.50	3.00
K	BMV1+p	MT20	3.0	4.0		
L	BMWW-l	MT20	5.0	6.0		
M	BMWWW-t	MT20	4.0	9.0		
N	BS-t	MT20	3.0	6.0		
O	BMWW-t	MT20	4.0	4.0		
P	BMWW-t	MT20	5.0	6.0		
Q	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
Q	2180	0	2180	0	0	5-8	5-8
K	2180	0	2180	0	0	5-8	5-8

UNFACTORED REACTIONS

1ST LCASE — MAX./MIN. COMPONENT REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0
K	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.04 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 CSI (LC)	MAX UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B- C	-2209 / 0	-102.1	-102.1	0.55 (1)	4.04
C- D	-1855 / 0	-102.1	-102.1	0.50 (1)	4.38
D- E	-1855 / 0	-102.1	-102.1	0.50 (1)	4.38
E- F	-1454 / 0	-102.1	-102.1	0.52 (1)	4.75
F- G	-1856 / 0	-102.1	-102.1	0.50 (1)	4.38
G- H	-1856 / 0	-102.1	-102.1	0.50 (1)	4.38
H- I	-2209 / 0	-102.1	-102.1	0.55 (1)	4.04
I- J	0 / 42	-102.1	-102.1	0.14 (1)	10.00
Q- B	-2088 / 0	0.0	0.0	0.22 (1)	5.86
K- I	-2087 / 0	0.0	0.0	0.22 (1)	5.86
Q- P	0 / 0	-38.5	-38.5	0.24 (3)	10.00
P- O	0 / 1801	-38.5	-38.5	0.46 (2)	10.00
O- N	0 / 1453	-38.5	-38.5	0.39 (2)	10.00
N- M	0 / 1453	-38.5	-38.5	0.39 (2)	10.00
M- L	0 / 1800	-38.5	-38.5	0.46 (2)	10.00
L- K	0 / 0	-38.5	-38.5	0.23 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
P- C	-123 / 150	0.07 (1)
O- C	-492 / 0	0.65 (1)
O- E	0 / 571	0.13 (2)
E- M	0 / 1	0.00 (2)
M- F	0 / 573	0.13 (2)
M- H	-491 / 0	0.65 (1)
L- H	-125 / 149	0.07 (1)
B- P	0 / 1838	0.41 (1)
L- I	0 / 1838	0.41 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. O/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.55/1.00 (B-C:1) , BC=0.46/1.00 (O-P:2) , WB=0.65/1.00 (C-O:1) , SSI=0.24/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	786	1987	1658

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (F) (INPUT = 0.90)
JSI METAL= 0.46 (N) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G. ALVES
100009020
PROVINCE OF ONTARIO

JUN 13 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO.

DWG NO. TAM 71902652
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T8	3	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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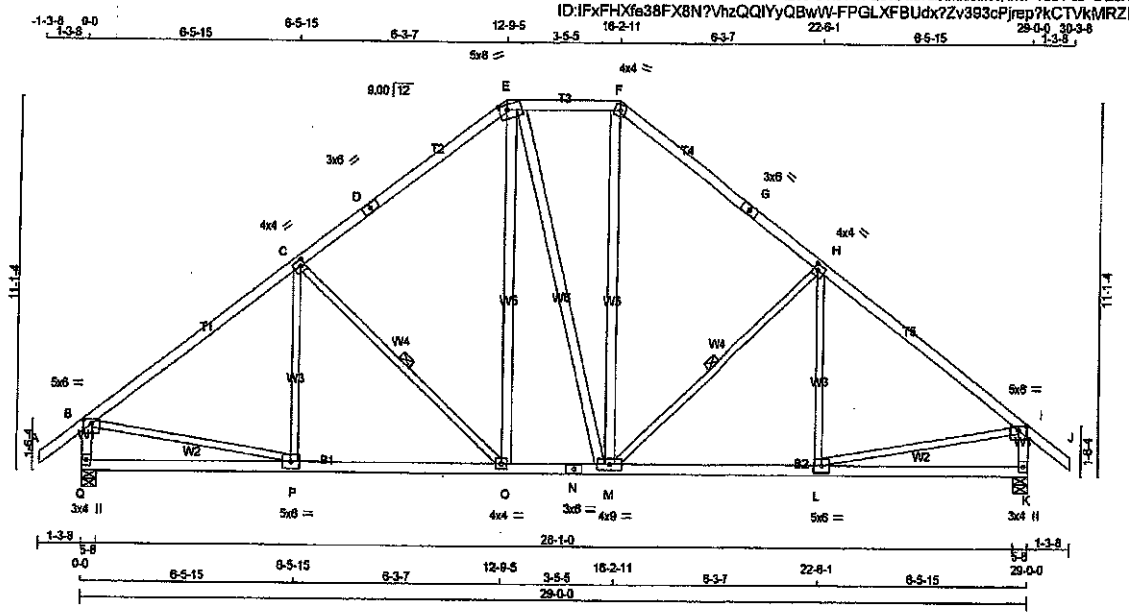

TOTAL WEIGHT = 3 X 150 = 450 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
E - F	2x4	DRY	No.2	SPF
F - G	2x4	DRY	No.2	SPF
G - J	2x4	DRY	No.2	SPF
Q - B	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
Q - N	2x4	DRY	No.2	SPF
N - K	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
O - E	2x4	DRY	No.2	SPF
E - M	2x4	DRY	No.2	SPF
M - F	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-p	MT20	5.0	6.0	1.50	3.00
C	TMWW-t	MT20	4.0	4.0	2.00	1.50
D	TS-t	MT20	3.0	6.0		
E	TTWW-m	MT20	5.0	8.0	1.75	2.75
F	TTW-m	MT20	4.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMWW-t	MT20	4.0	4.0	2.00	1.50
I	TMVW-p	MT20	5.0	6.0	1.50	3.00
K	BMV1+p	MT20	3.0	4.0		
L	BMWW-t	MT20	5.0	6.0		
M	BMWWW-t	MT20	4.0	9.0		
N	BS-t	MT20	3.0	6.0		
O	BMWW-t	MT20	4.0	4.0		
P	BMWW-t	MT20	5.0	6.0		
Q	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
Q	2180	0	2180	0	0	5-8	5-8
K	2180	0	2180	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0
K	1620	922 / 0	305 / 0	0 / 0	0 / 0	394 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.81 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 C-O, H-M.

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

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B- C	-2211 / 0	-102.1	-102.1	0.71 (1)	3.81
C- D	-1738 / 0	-102.1	-102.1	0.63 (1)	4.30
D- E	-1738 / 0	-102.1	-102.1	0.63 (1)	4.30
E- F	-1359 / 0	-102.1	-102.1	0.18 (1)	5.40
F- G	-1739 / 0	-102.1	-102.1	0.63 (1)	4.30
G- H	-1739 / 0	-102.1	-102.1	0.63 (1)	4.30
H- I	-2210 / 0	-102.1	-102.1	0.71 (1)	3.81
I- J	0 / 42	-102.1	-102.1	0.14 (1)	10.00
Q- B	-2080 / 0	0.0	0.0	0.22 (1)	5.87
K- I	-2080 / 0	0.0	0.0	0.22 (1)	5.87
Q- P	0 / 0	-38.5	-38.5	0.32 (3)	10.00
P- O	0 / 1806	-38.5	-38.5	0.55 (2)	10.00
O- N	0 / 1357	-38.5	-38.5	0.33 (1)	10.00
N- M	0 / 1357	-38.5	-38.5	0.33 (1)	10.00
M- L	0 / 1806	-38.5	-38.5	0.54 (2)	10.00
L- K	0 / 0	-38.5	-38.5	0.32 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
P- C	-43 / 221	0.05 (3)
C- O	-626 / 0	0.34 (1)
O- E	0 / 597	0.10 (1)
E- M	0 / 4	0.00 (1)
M- F	0 / 601	0.10 (1)
M- H	-626 / 0	0.33 (1)
L- H	-46 / 219	0.05 (3)
B- P	0 / 1836	0.41 (1)
L- I	0 / 1836	0.41 (1)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G ALVES
100089024
PROVINCE OF ONTARIO

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.97")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (0.97")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.15")

CSI: TC=0.71/1.00 (B-C:1) , BC=0.55/1.00 (O-P:2) , WB=0.41/1.00 (B-P:1) , SSI=0.26/1.00 (H-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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (Q) (INPUT = 0.90)
JSI METAL= 0.46 (N) (INPUT = 1.00)

DWG NO. TAM T1902653
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T9	1	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2018 MiTek Industries, Inc. Tue Feb 5 20:42:10 2019 Page 1
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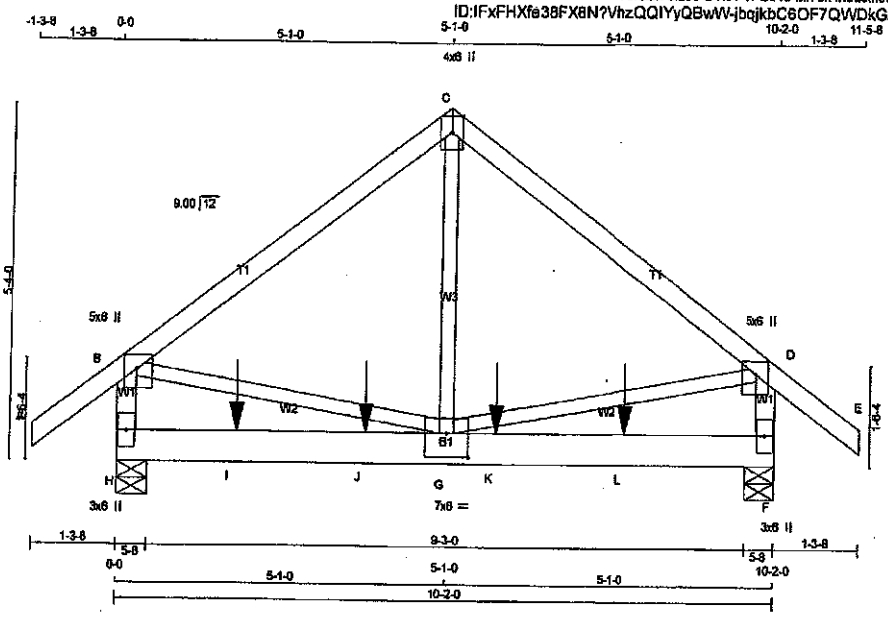

TOTAL WEIGHT = 50 lb

[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
H - B	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
H - F	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	2.50	2.25
C	TTW+p	MT20	4.0	6.0	Edge	
D	TMVW+p	MT20	5.0	6.0	2.50	2.25
F	BMV1+p	MT20	3.0	6.0		
G	BMWWW-I	MT20	7.0	8.0	4.25	4.00
H	BMV1+p	MT20	3.0	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

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
H	2129	0	2129	0	0	5-8	5-8
F	2013	0	2013	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	1549	987 / 0	214 / 0	0 / 0	0 / 0	347 / 0	0 / 0
F	1465	931 / 0	205 / 0	0 / 0	0 / 0	329 / 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 = 4.33 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.15 (1)	10.00	
B- C	-1659 / 0	-102.1	-102.1	0.62 (1)	4.33	
C- D	-1659 / 0	-102.1	-102.1	0.62 (1)	4.33	
D- E	0 / 42	-102.1	-102.1	0.15 (1)	10.00	
H- B	-1686 / 0	0.0	0.0	0.19 (1)	6.36	
F- D	-1686 / 0	0.0	0.0	0.19 (1)	6.36	
H- I	0 / 0	-38.5	-38.5	0.71 (1)	10.00	
I- J	0 / 0	-38.5	-38.5	0.71 (1)	10.00	
J- G	0 / 0	-38.5	-38.5	0.71 (1)	10.00	
G- K	0 / 0	-38.5	-38.5	0.71 (1)	10.00	
K- L	0 / 0	-38.5	-38.5	0.71 (1)	10.00	
L- F	0 / 0	-38.5	-38.5	0.71 (1)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
G- C	0 / 1472	0.36 (1)
B- G	0 / 1359	0.34 (1)
G- D	0 / 1359	0.34 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
I	1-10-1	-608	-608	—	FRONT	VERT	TOTAL	—	—
J	3-10-1	-608	-608	—	FRONT	VERT	TOTAL	—	—
K	5-10-1	-608	-608	—	FRONT	VERT	TOTAL	—	—
L	7-10-1	-608	-608	—	FRONT	VERT	TOTAL	—	—

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.34")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.34")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.62/1.00 (C-D:1) , BC=0.71/1.00 (G-H:1) , WB=0.36/1.00 (C-G:1) , SSI=0.72/1.00 (F-G: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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (D) (INPUT = 0.90)
JSI METAL= 0.35 (C) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G. ALVES
100008624
PROVINCE OF ONTARIO

DWG NO. TAM 7902654
STRUCTURAL COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T9G	1	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2018 MiTek Industries, Inc. Tue Feb 5 20:42:11 2019 Page 1
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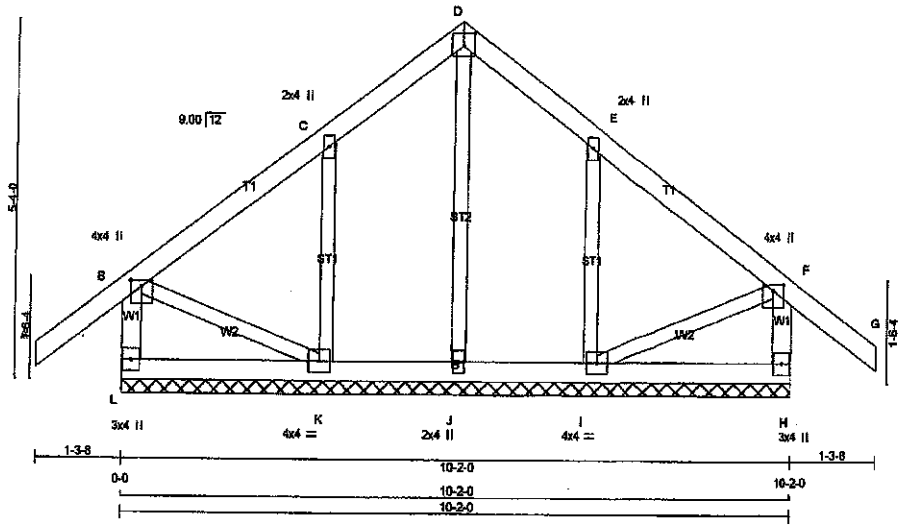

TOTAL WEIGHT = 47 lb

LUMBER
N. L. G. A. RULES

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

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
C	TMW+w	MT20	2.0	4.0		
D	TTW-p	MT20	4.0	4.0	2.25	2.00
E	TMW+w	MT20	2.0	4.0		
F	TMVW+p	MT20	4.0	4.0	1.00	2.00
H	BMV1+p	MT20	3.0	4.0		
I	BMWW1-t	MT20	4.0	4.0		
J	BMW1+w	MT20	2.0	4.0		
K	BMWW1-t	MT20	4.0	4.0		
L	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 = 6.28 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. FR-TO	MAX. FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
L- B	-283 / 0	0.0	0.0	0.03 (1)	7.81
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B- C	-3 / 0	-102.1	-102.1	0.12 (1)	10.00
C- D	-35 / 0	-102.1	-102.1	0.12 (1)	6.25
D- E	-35 / 0	-102.1	-102.1	0.12 (1)	6.25
E- F	-3 / 0	-102.1	-102.1	0.12 (1)	10.00
F- G	0 / 42	-102.1	-102.1	0.14 (1)	10.00
H- F	-283 / 0	0.0	0.0	0.03 (1)	7.81
L- K	0 / 0	-38.5	-38.5	0.07 (3)	10.00
K- J	0 / 8	-38.5	-38.5	0.07 (3)	10.00
J- I	0 / 8	-38.5	-38.5	0.07 (3)	10.00
I- H	0 / 0	-38.5	-38.5	0.07 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
J- D	-117 / 0	0.05 (1)
K- C	-325 / 0	0.08 (1)
I- E	-325 / 0	0.08 (1)
B- K	0 / 17	0.00 (1)
I- F	0 / 17	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.14/1.00 (F-G:1) , BC=0.07/1.00 (I-J:3) , WB=0.08/1.00 (E-I:1) , SSI=0.11/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (C) (INPUT = 0.90)
JSI METAL= 0.17 (C) (INPUT = 1.00)

RECEIVED
JUN 13 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO

LICENSED PROFESSIONAL ENGINEER
Feb 05/19
H. J. G. ALVES
100009824
PROVINCE OF ONTARIO

DWG NO. TAM 7902655
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T10-Cond1	6	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2018 MiTek Industries, Inc. Tue Feb 5 20:42:11 2019 Page 1
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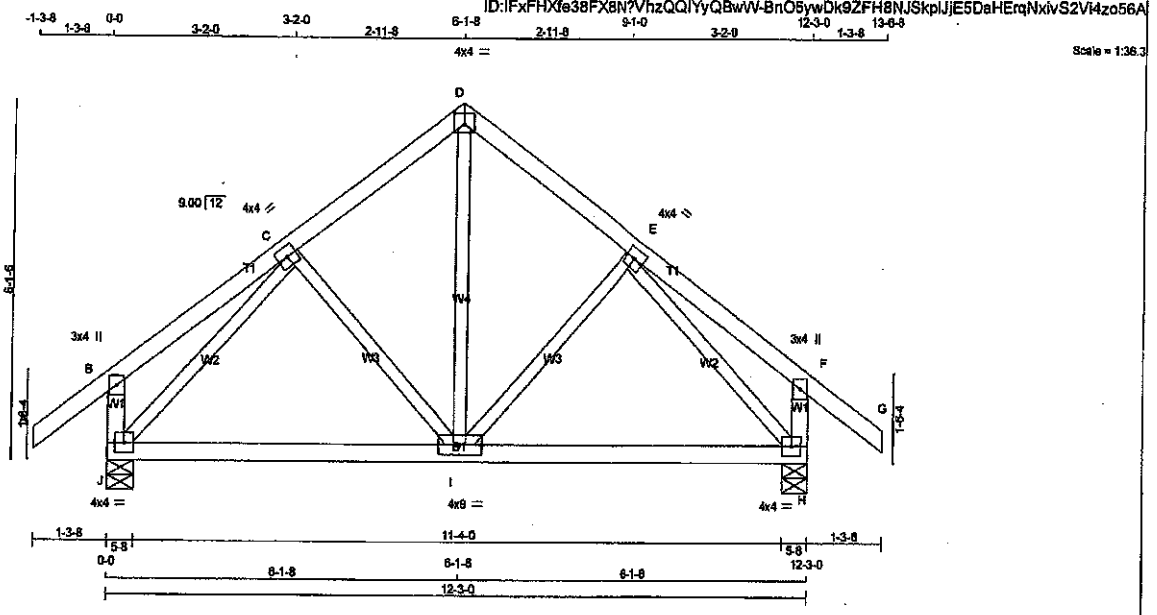

TOTAL WEIGHT = 6 X 56 = 339 lb

[M][F]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
J - B	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	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	TMWW-t	MT20	4.0	4.0		
D	TTW-p	MT20	4.0	4.0	2.25	2.00
E	TMWW-t	MT20	4.0	4.0		
F	TMV+p	MT20	3.0	4.0		
H	BMVW1-t	MT20	4.0	4.0		
I	BMWWW-t	MT20	4.0	9.0		
J	BMVW1-t	MT20	4.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
J	1002	0	1002	0	0	5-8	5-8
H	1002	0	1002	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	740	436 / 0	129 / 0	0 / 0	0 / 0	176 / 0	0 / 0
H	740	436 / 0	129 / 0	0 / 0	0 / 0	176 / 0	0 / 0

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

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
B- C	0 / 21	-102.1	-102.1	0.15 (1)	10.00	
C- D	-627 / 0	-102.1	-102.1	0.11 (1)	6.25	
D- E	-627 / 0	-102.1	-102.1	0.11 (1)	6.25	
E- F	0 / 21	-102.1	-102.1	0.15 (1)	10.00	
F- G	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
J- B	-262 / 0	0.0	0.0	0.03 (1)	7.81	
H- F	-262 / 0	0.0	0.0	0.03 (1)	7.81	
J- I	0 / 569	-38.5	-38.5	0.36 (2)	10.00	
I- H	0 / 569	-38.5	-38.5	0.38 (2)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
I- D	0 / 461	0.11 (1)
I- E	-127 / 29	0.04 (1)
C- I	-127 / 29	0.04 (1)
J- C	-684 / 0	0.29 (1)
E- H	-684 / 0	0.29 (1)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G ALVES
100090024
PROVINCE OF ONTARIO

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.41")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.15/1.00 (B-C:1) , BC=0.38/1.00 (I-J:2) , WB=0.29/1.00 (C-J:1) , SSI=0.16/1.00 (I-J:3)

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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (E) (INPUT = 0.90)
JSI METAL= 0.31 (C) (INPUT = 1.00)

DWG NO. TAM 17402658
STRUCTURAL COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T10-Cond2	6	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2016 MiTek Industries, Inc. Tue Feb 5 20:42:11 2019 Page 1
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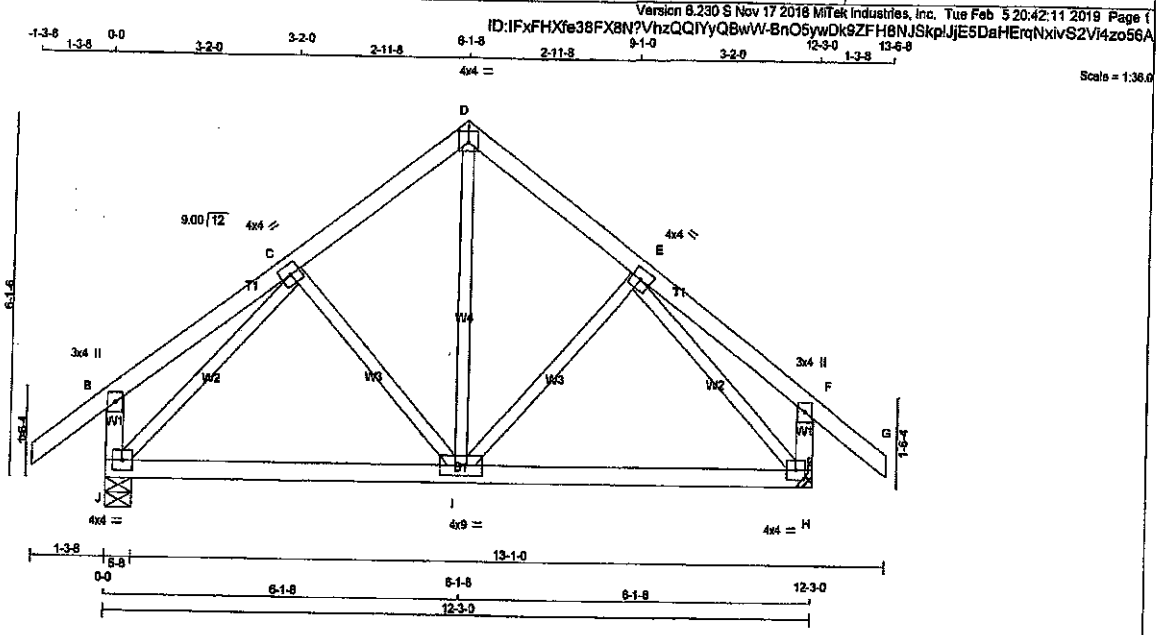

TOTAL WEIGHT = 6 X 56 = 339 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
J - B	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	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	TMWW-t	MT20	4.0	4.0		
D	TTW-p	MT20	4.0	4.0	2.25	2.00
E	TMWW-t	MT20	4.0	4.0		
F	TMV+p	MT20	3.0	4.0		
H	BMVW1-t	MT20	4.0	4.0		
I	BMWWW-t	MT20	4.0	9.0		
J	BMVW1-t	MT20	4.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
J	1002	0	1002	0	0	IN-SX	IN-SX
H	1002	0	1002	0	0	5-8	5-8
						MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	740	436 / 0	129 / 0	0 / 0	0 / 0	176 / 0	0 / 0
H	740	436 / 0	129 / 0	0 / 0	0 / 0	176 / 0	0 / 0

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

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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B- C	0 / 21	-102.1	-102.1	0.15 (1)	10.00
C- D	-627 / 0	-102.1	-102.1	0.11 (1)	6.25
D- E	-627 / 0	-102.1	-102.1	0.11 (1)	6.25
E- F	0 / 21	-102.1	-102.1	0.15 (1)	10.00
F- G	0 / 42	-102.1	-102.1	0.14 (1)	10.00
J- B	-262 / 0	0.0	0.0	0.03 (1)	7.81
H- F	-262 / 0	0.0	0.0	0.03 (1)	7.81
J- I	0 / 569	-38.5	-38.5	0.38 (2)	10.00
I- H	0 / 569	-38.5	-38.5	0.38 (2)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
I- D	0 / 461	0.11 (1)
I- E	-127 / 29	0.04 (1)
C- I	-127 / 29	0.04 (1)
J- C	-864 / 0	0.29 (1)
E- H	-864 / 0	0.29 (1)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G ALVES
100009024
PROVINCE OF ONTARIO

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 6.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.41")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.15/1.00 (B-C:1) , BC=0.38/1.00 (I-J:2) , WB=0.29/1.00 (C-J:1) , SSI=0.16/1.00 (I-J:3)

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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (E) (INPUT = 0.90)
JSI METAL= 0.31 (C) (INPUT = 1.00)

DWG NO. TAM 17902657
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T10S	2	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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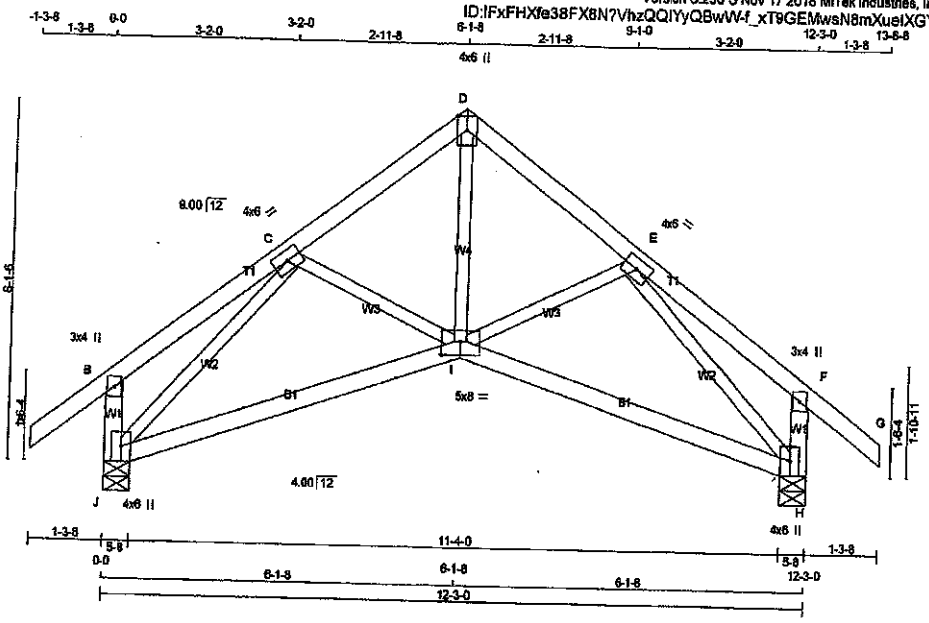

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
J - B	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
J - I	2x4	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	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	TMWW-t	MT20	4.0	6.0		
D	TTW+p	MT20	4.0	6.0	Edge	
E	TMWW-t	MT20	4.0	6.0		
F	TMV+p	MT20	3.0	4.0		
H	BVMW1+p	MT20	4.0	6.0		
I	BBWWW-p	MT20	5.0	8.0	2.75	4.00
J	BVMW1+p	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

TOTAL WEIGHT = 2 X 54 = 108 lb [M][F]

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
J	1002	0	1002	0	0	5-8	5-8
H	1002	0	1002	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	740	436 / 0	129 / 0	0 / 0	0 / 0	176 / 0	0 / 0
H	740	436 / 0	129 / 0	0 / 0	0 / 0	176 / 0	0 / 0

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

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B- C	0 / 19	-102.1	-102.1	0.13 (1)	10.00
C- D	-866 / 0	-102.1	-102.1	0.11 (1)	6.25
D- E	-866 / 0	-102.1	-102.1	0.11 (1)	6.25
E- F	0 / 19	-102.1	-102.1	0.13 (1)	10.00
F- G	0 / 42	-102.1	-102.1	0.14 (1)	10.00
J- B	-266 / 0	0.0	0.0	0.03 (1)	7.81
H- F	-266 / 0	0.0	0.0	0.03 (1)	7.81
J- I	0 / 764	-38.5	-38.5	0.41 (2)	10.00
I- H	0 / 764	-38.5	-38.5	0.41 (2)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
I- D	0 / 767	0.17 (1)
I- E	-52 / 55	0.01 (3)
C- I	-52 / 55	0.01 (3)
J- C	-1124 / 0	0.40 (1)
E- H	-1124 / 0	0.40 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. O/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.41")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL) = L/ 846 (0.17")

CSI: TC=0.14/1.00 (A-B:1) , BC=0.41/1.00 (I-J:2) , WB=0.40/1.00 (C-J:1) , SSI=0.12/1.00 (I-J:3)

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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1867	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.67 (J) (INPUT = 0.90)
JSI METAL= 0.27 (C) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G ALVES
100009024
PROVINCE OF ONTARIO

APPROVED
JUN 13 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO

DWG NO. TAM 71902658
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	T11	2	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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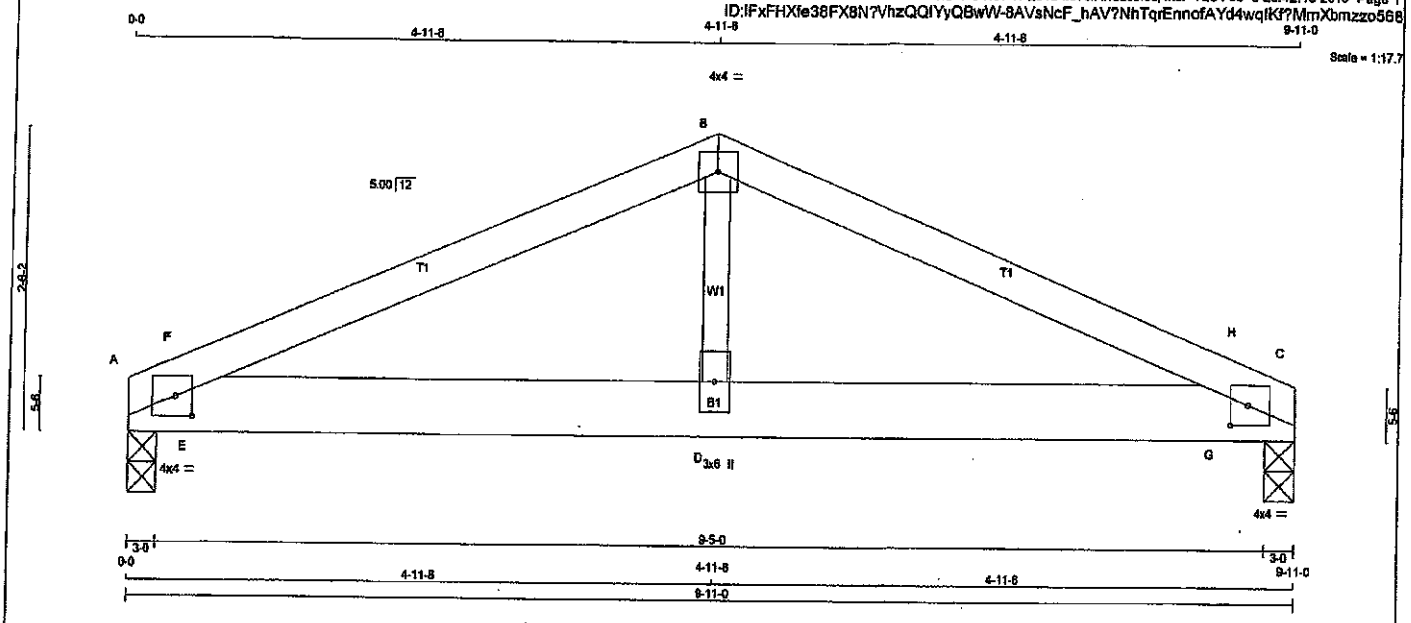

TOTAL WEIGHT = 2 X 32 = 63 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	No.2	SPF
A - C	2x6	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
A	TMB1-I	MT20	4.0	4.0	2.00	1.75
B	TTW-p	MT20	4.0	4.0		
C	TMB1-I	MT20	4.0	4.0	2.00	1.75
D	BMW+w	MT20	3.0	6.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
A	697	0	697	0	0	3-0	3-0
C	697	0	697	0	0	3-0	3-0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
A	521	288 / 0	104 / 0	0 / 0	0 / 0	129 / 0	0 / 0
C	521	288 / 0	104 / 0	0 / 0	0 / 0	129 / 0	0 / 0

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

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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- F	-897 / 0	-102.1	-102.1	0.17 (1)	6.25	
F- B	-989 / 0	-102.1	-102.1	0.24 (1)	5.99	
B- H	-989 / 0	-102.1	-102.1	0.24 (1)	5.99	
H- C	-897 / 0	-102.1	-102.1	0.17 (1)	6.25	
A- E	0 / 901	-38.5	-38.5	0.28 (1)	10.00	
E- D	0 / 901	-38.5	-38.5	0.28 (1)	10.00	
D- G	0 / 901	-38.5	-38.5	0.28 (1)	10.00	
G- C	0 / 901	-38.5	-38.5	0.28 (1)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
D- B	0 / 385	0.09 (2)
E- F	-452 / 0	0.00 (1)
G- H	-452 / 0	0.00 (1)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G ALVES
100009024
PROVINCE OF ONTARIO

DESIGN CRITERIA [M][F]

SPECIFIED LOADS:

TOP CH.	LL =	29.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.33")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.33")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.24/1.00 (B-F:1) , BC=0.28/1.00 (A-E:1) , WB=0.09/1.00 (B-D:2) , SSI=0.27/1.00 (A-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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	768	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.45 (A) (INPUT = 0.90)
JSI METAL= 0.40 (C) (INPUT = 1.00)

DWG NO. TAM T1902659
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200168-400364	T11Z	1	1	Preston 1 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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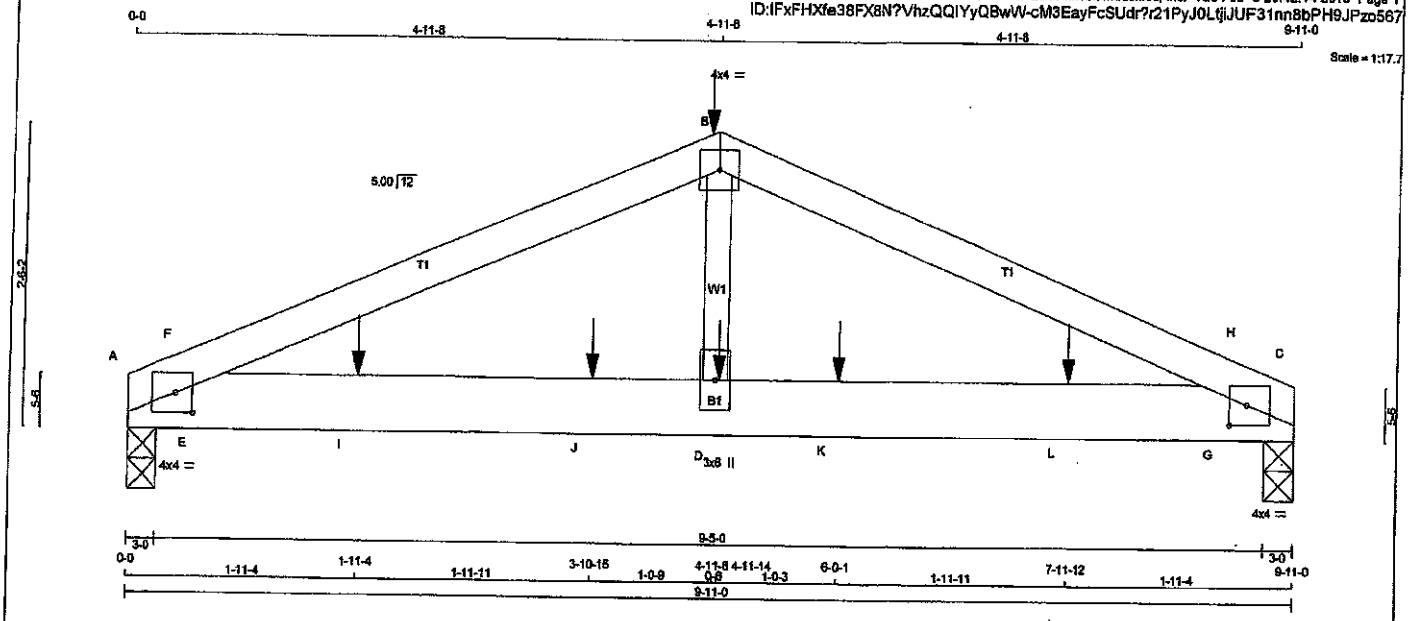

TOTAL WEIGHT = 32 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	No.2	SPF
A - C	2x6	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
A	TMB1-I	MT20	4.0	4.0	2.00	1.75
B	TTW-p	MT20	4.0	4.0		
C	TMB1-I	MT20	4.0	4.0	2.00	1.75
D	BMW+w	MT20	3.0	6.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
A	857	0	857	0	0	3-0	3-0
C	857	0	857	0	0	3-0	3-0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
A	631	379 / 0	108 / 0	0 / 0	0 / 0	144 / 0	0 / 0
C	631	379 / 0	108 / 0	0 / 0	0 / 0	144 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.16 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- F	-1294 / 0	-102.1	-102.1	0.24 (1)	5.34	
F- B	-1370 / 0	-102.1	-102.1	0.31 (1)	5.16	
B- H	-1370 / 0	-102.1	-102.1	0.31 (1)	5.16	
H- C	-1294 / 0	-102.1	-102.1	0.24 (1)	5.34	
A- E	0 / 1253	-38.5	-38.5	0.35 (1)	10.00	
E- I	0 / 1253	-38.5	-38.5	0.35 (1)	10.00	
I- J	0 / 1253	-38.5	-38.5	0.35 (1)	10.00	
J- D	0 / 1253	-38.5	-38.5	0.35 (1)	10.00	
D- K	0 / 1253	-38.5	-38.5	0.35 (1)	10.00	
K- L	0 / 1253	-38.5	-38.5	0.35 (1)	10.00	
L- G	0 / 1253	-38.5	-38.5	0.35 (1)	10.00	
G- C	0 / 1253	-38.5	-38.5	0.35 (1)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
D- B	0 / 363	0.09 (2)
E- F	-415 / 0	0.00 (1)
G- H	-415 / 0	0.00 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
B	4-11-8	-25	-28	—	FRONT	VERT	DEAD	—	—
B	4-11-8	-7	-7	—	FRONT	VERT	TOTAL	—	—
B	4-11-8	-273	-273	—	FRONT	VERT	SNOW	—	—
D	4-11-14	-3	-4	—	FRONT	VERT	TOTAL	—	—
I	1-11-4	-3	-4	—	FRONT	VERT	TOTAL	—	—
J	3-10-15	-3	-4	—	FRONT	VERT	TOTAL	—	—
K	6-0-1	-3	-4	—	FRONT	VERT	TOTAL	—	—
L	7-11-12	-3	-4	—	FRONT	VERT	TOTAL	—	—

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	=	29.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

*** NON STANDARD GIRDER ***
ADDT'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.8 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.33")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.33")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.31/1.00 (B-H:1) , BC=0.35/1.00 (D-G:1) , WB=0.09/1.00 (B-D:2) , SSI=0.29/1.00 (C-G: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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.59 (A) (INPUT = 0.90)
JSI METAL= 0.54 (C) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
02/03/19
H. J. G. ALVES
100000024
PROVINCE OF ONTARIO

DWG NO. TAM 17902660
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	J1-Cond1	22	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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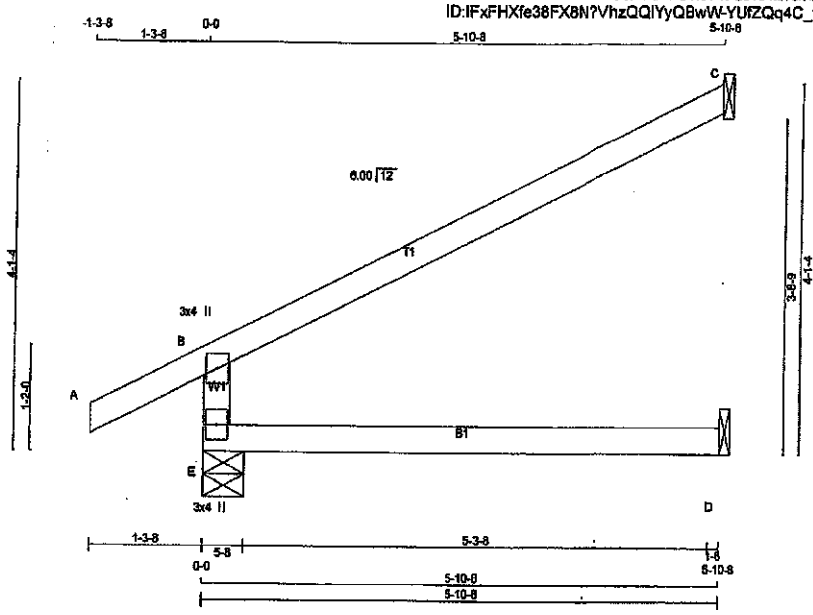

TOTAL WEIGHT = 22 X 17 = 369 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
E - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
E - D	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		
E	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
E	646	0	646	0	0	5-8	5-8
C	225	0	225	0	0	1-8	1-8
D	93	0	119	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37821H FOR CONNECTION TO JOINT(S) C , D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	473	292 / 0	72 / 0	0 / 0	0 / 0	109 / 0	0 / 0
C	154	126 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0
D	85	0 / 0	51 / 0	0 / 0	0 / 0	34 / 0	0 / 0

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

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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
E- B	-513 / 0	0.0	0.0	0.22 (3)	7.81	
A- B	0 / 31	-102.1	-102.1	0.13 (1)	10.00	
B- C	-34 / 0	-102.1	-102.1	0.60 (1)	6.25	
E- D	0 / 0	-36.5	-36.5	0.22 (3)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 942 (0.07")

CSI: TC=0.60/1.00 (B-C:1) , BC=0.22/1.00 (D-E:3) , WB=0.00/1.00 (n/a:0) , SSI=0.26/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.21 (E) (INPUT = 0.90)
JSI METAL= 0.14 (E) (INPUT = 1.00)

RECEIVED
JUN 13 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

DWG NO. TAM 72902661
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200168-400364	J1-Cond2	22	1	Preston 1 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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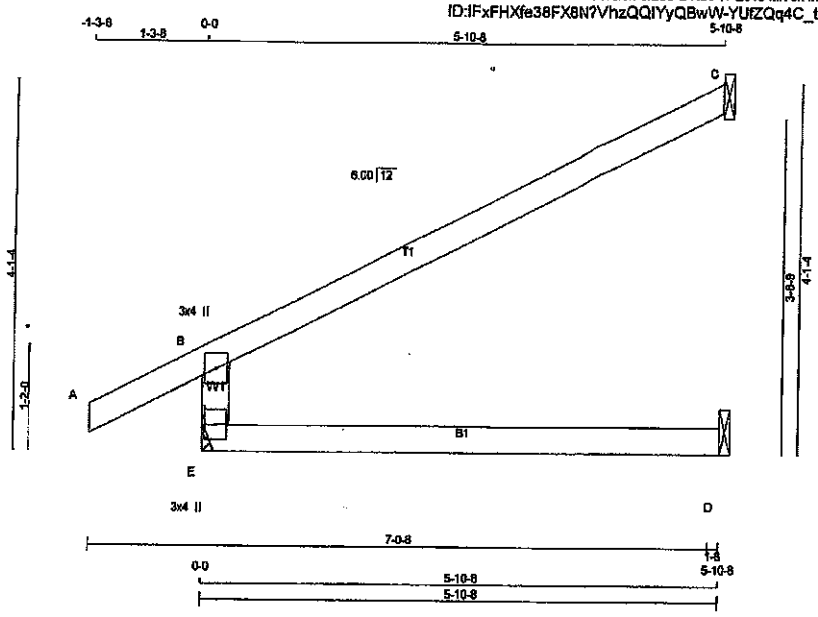

TOTAL WEIGHT = 22 X 17 = 369 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
E - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
E - D	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		
E	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
E	646	0	646	0	0	MECHANICAL	
C	225	0	225	0	0	1-8	1-8
D	93	0	119	0	0	1-8	1-8

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-8.

SEE MITEK STANDARD DETAIL 837821H FOR CONNECTION TO JOINT(S) C , D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	473	292 / 0	72 / 0	0 / 0	0 / 0	109 / 0	0 / 0
C	154	128 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0
D	85	0 / 0	51 / 0	0 / 0	0 / 0	34 / 0	0 / 0

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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
E- B	-513 / 0	0.0	0.0	0.18 (3)	7.81
A- B	0 / 31	-102.1	-102.1	0.13 (1)	10.00
B- C	-34 / 0	-102.1	-102.1	0.46 (1)	6.25
E- D	0 / 0	-36.5	-36.5	0.22 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.5	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 942 (0.07")

CSI: TC=0.46/1.00 (B-C:1) , BC=0.22/1.00 (D-E:3) , WB=0.00/1.00 (n/a:0) , SSI=0.26/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.21 (E) (INPUT = 0.90)
JSI METAL= 0.14 (B) (INPUT = 1.00)

RECEIVED
JUN 13 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO.

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

DWG NO. TAM 19902662
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200168-400364	J3	5	1	Preston 1 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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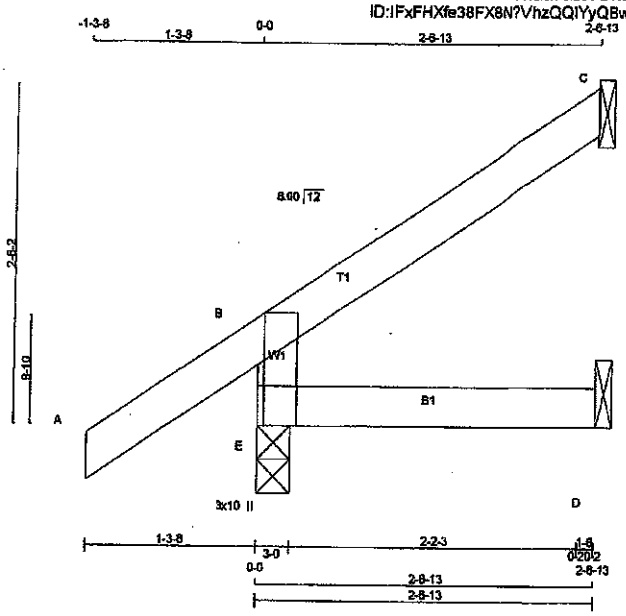

TOTAL WEIGHT = 5 X 9 = 44 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
E - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B						
E						
E	TMBMV1+p	MT20	3.0	10.0	Edge	0.50

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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
E	361	0	361	0	0	3-0	3-0
C	98	0	98	0	0	1-8	1-8
D	42	0	53	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37821H FOR CONNECTION TO JOINT(S) C , D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX /MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	261	173 / 0	31 / 0	0 / 0	0 / 0	57 / 0	0 / 0
C	68	56 / 0	0 / 0	0 / 0	0 / 0	12 / 0	0 / 0
D	38	0 / 0	23 / 0	0 / 0	0 / 0	15 / 0	0 / 0

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

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

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)
E- B	-304 / 0	0.0	0.0	0.04 (3)	
A- B	0 / 39	-102.1	-102.1	0.14 (1)	
B- C	-18 / 0	-102.1	-102.1	0.11 (1)	
E- D	0 / 0	-38.5	-38.5	0.04 (3)	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	MAX. UNBRAC LENGTH
E- B			7.81
A- B			10.00
B- C			6.25
E- D			10.00

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 989 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

CSI: TC=0.14/1.00 (A-B:1) , BC=0.04/1.00 (D-E:3) , WB=0.00/1.00 (n/a:0) , SSI=0.11/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.08 (E) (INPUT = 0.90)
JSI METAL= 0.10 (E) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G. ALVES
100009824
ONTARIO

DWG NO. TAM 17902663
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 1	DRWG NO.
200168-400364	J4	2	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

Version 8.230 S Nov 17 2018 MiTek Industries, Inc. Tue Feb 5 20:42:00 2019 Page 1
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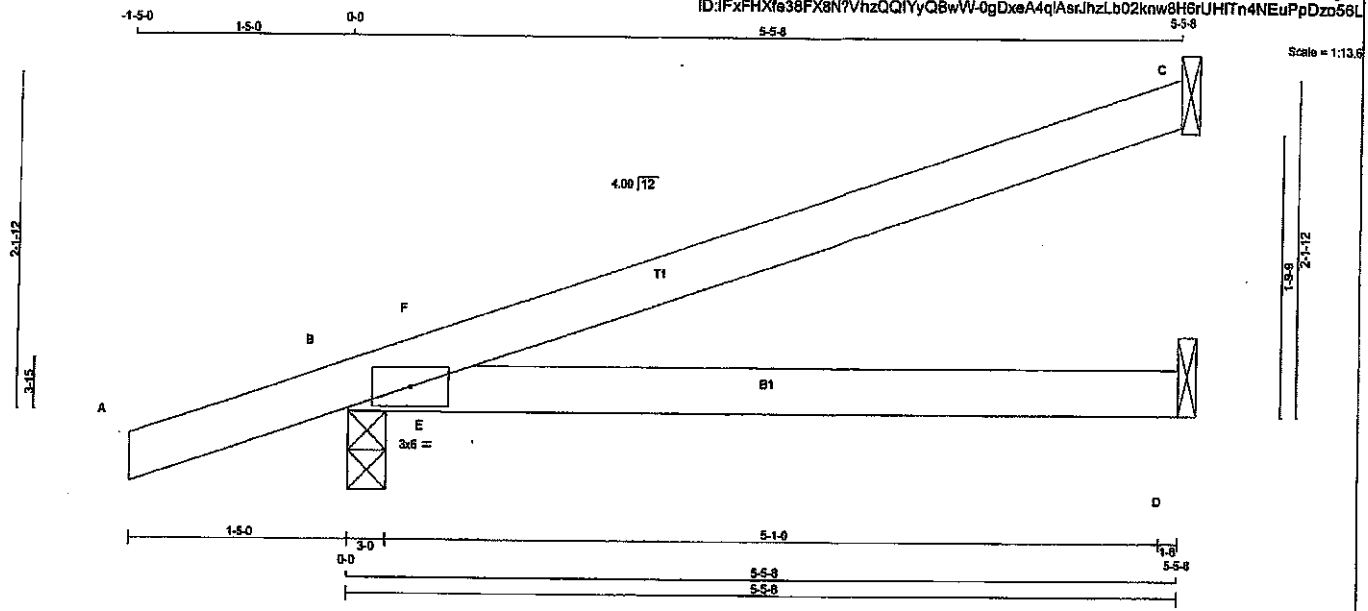


TOTAL WEIGHT = 2 X 15 = 29 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		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-I	MT20	3.0	6.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
C	250	0	250	0	0	1-8	1-8
B	533	0	533	0	0	3-0	3-0
D	133	0	145	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37821H FOR CONNECTION TO JOINT(S) C , D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
C	175	133 / 0	9 / 0	0 / 0	0 / 0	33 / 0	0 / 0
B	389	243 / 0	57 / 0	0 / 0	0 / 0	89 / 0	0 / 0
D	111	25 / 0	49 / 0	0 / 0	0 / 0	38 / 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: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 22	-102.1	-102.1	0.15 (1)	10.00	
B- F	-51 / 0	-102.1	-102.1	0.13 (3)	6.25	
F- C	0 / 6	-102.1	-102.1	0.42 (1)	10.00	
B- E	0 / 0	-38.5	-38.5	0.26 (1)	10.00	
E- D	0 / 0	-38.5	-38.5	0.31 (1)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
E- F	-254 / 122	0.00 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	29.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	10.5	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	52.5	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 37.6 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 842 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 489 (0.13")

CSI: TC=0.42/1.00 (C-F:1) , BC=0.31/1.00 (D-E:1) , WB=0.00/1.00 (E-F:1) , SSI=0.26/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1658

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.21 (B) (INPUT = 0.90)
JSI METAL= 0.08 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
02/05/19
H. J. G ALVES
100009024
PROVINCE OF ONTARIO

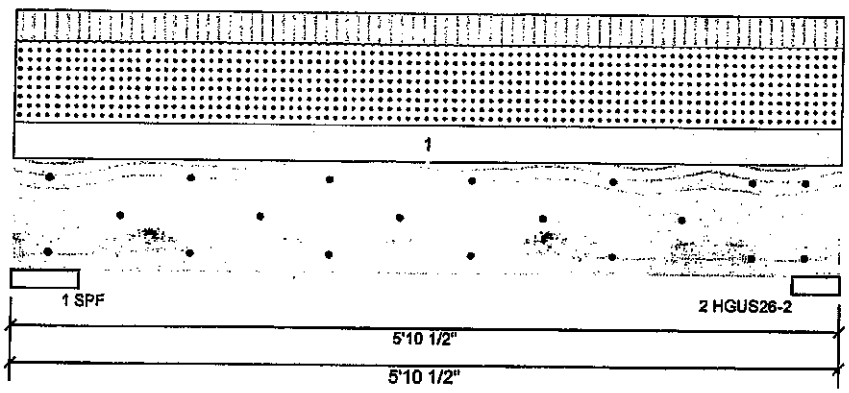
RECEIVED
JUN 13 2019
TOWN OF CALEDON
BUILDING SECTION
FILE NO.

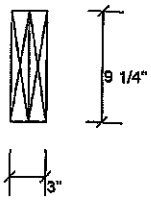
DWG NO. TAM 17902664
STRUCTURAL
COMPONENT ONLY

Client:	Greenpark Homes	Date:	2019-02-05
Project:	Preston 1	Designer:	Brian
Address:	Caledon	Job Name:	Lamberts Lane Homes Corp.
		Project #:	200168

B1 S-P-F #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2015 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	231	273	609	0
2	221	262	584	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	15%	341 / 1145	1486	L	1.25D+1.5S +L
2 - HGUS...	4.000"	19%	327 / 1097	1424	L	1.25D+1.5S +L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1679 ft-lb	3'	6039 ft-lb	0.278 (28%)	1.25D+1.5S +L	L
Unbraced	1679 ft-lb	3'	5236 ft-lb	0.321 (32%)	1.25D+1.5S +L	L
Shear	1290 lb	1'2"	3984 lb	0.324 (32%)	1.25D+1.5S +L	L
Perm Defl in.	0.006 (L/11306)	3'	0.174 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.015 (L/4260)	3'	0.174 (L/360)	0.080 (8%)	S+0.5L	L
TL Defl inch	0.020 (L/3094)	3'	0.174 (L/360)	0.120 (12%)	D+S+0.5L	L

Design Notes

1. Fasten all plies using 3 rows of Pneumatic Gun Nail (.120x3.25") at 12" o.c. Maximum end distance not to exceed 6".
2. Refer to last page of calculations for fasteners required for specified loads.
3. Girders are designed to be supported on the bottom edge only.
4. Top braced at bearings.
5. Bottom braced at bearings.
6. Lateral slenderness ratio based on single ply width.

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100009027
PROVINCE OF ONTARIO

DWG NO. TAM 17202665
STRUCTURAL COMPONENT ONLY 1/2

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Uniform		7-0-0	Near Face	13 PSF	11 PSF	29 PSF	0 PSF	

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TOWN OF CALEDON
BUILDING SECTION
FILE NO.

This design is valid until 2021-12-11

Manufacturer Info

TAMARACK LUMBER
3255 NORTH SERVICE RD, ON
CANADA
(905) 335-1115

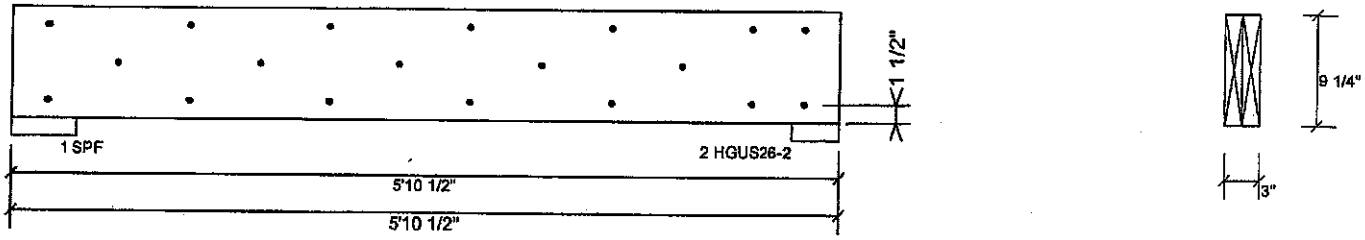
TAMARACK LUMBER INC
ALPA LUMBER GROUP

Version 18.80.245 Powered by iStruct™

isDesign™	Client: Greenpark Homes	Date: 2019-02-05	
	Project: Preston 1	Designer: Brian	
	Address: Caledon	Job Name: Lamberts Lane Homes Corp.	
		Project #: 200168	

B1 S-P-F #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of Pneumatic Gun Nail (.120x3.25") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	72.8 %
Load	247.6 PLF
Yield Limit per Foot	340.0 PLF
Yield Limit per Fastener	113.3 lb.
Yield Mode	g
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	1.25D+1.5S+L
Duration Factor	1.00

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02/05/19
H. J. G ALVES
100009[illegible]
PROVINCE OF ONTARIO

DWG NO: TAM 7190266S
STRUCTURAL
COMPONENT ONLY 2/2

Manufacturer Info	TAMARACK LUMBER 3255 NORTH SERVICE RD, ON CANADA (905) 335-1115

TAMARACK LUMBER INC
ALPA LUMBER GROUP

This design is valid until 2021-12-11

LUL/LUS/LJS/HUS/HHUS/HGUS

SIMPSON Strong-Tie

Standard and Double-Shear Joist Hangers

This product is preferable to similar connectors because of a) easier installation, b) higher capacities, c) lower installed cost, or a combination of these features.

Most hangers in this series have double-shear nailing — an innovation that distributes the load through two points on each joist nail for greater strength. This allows for fewer nails, faster installation, and the use of all common nails for the same connection. (Do not bend or remove tabs)

Double-shear hangers range from the light capacity LUS hangers to the highest capacity HGUS hangers. For medium load truss applications, the HUS offers a lower cost alternative and easier installation than the HGUS hangers, while providing greater load capacity and bearing than the LUS.

Material: See table on pp. 258–259.

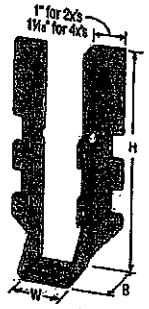
Finish: Galvanized. Some products available in stainless steel or ZMAX® coating; see Corrosion Information, pp. 20–24.

Installation:

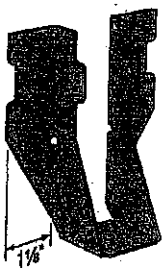
- Use all specified fasteners; see General Notes.
- Nails must be driven at an angle through the joist or truss into the header to achieve the tabulated resistances (except LUL).
- Where 16d commons are specified, 10d commons may be used at 0.83 of the tabulated factored resistance.
- Not designed for welded or nailer applications.
- With single ply 2x carrying members, use 10d x 1½" nails into the header and 10d commons into the joist, and reduce the resistance to 0.64 of the table value where 16d nails are specified and 0.77 where 10d nails are specified.

Options:

- LUS, LJS, LUL and HUS hangers cannot be modified.
- Other sizes available; consult your Simpson Strong-Tie representative.
- See Hanger Options Information on p. 126.

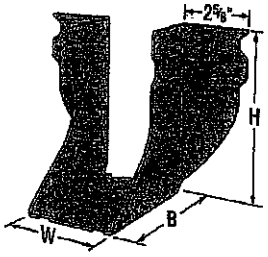


LUS28

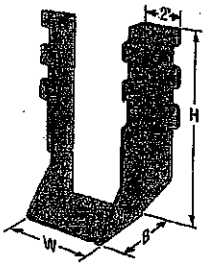


LU26L

HUS210
(HUS26, HUS28, and HHUS similar)



HGUS28-2



HHUS210-2

Double-Shear Nailing Top View

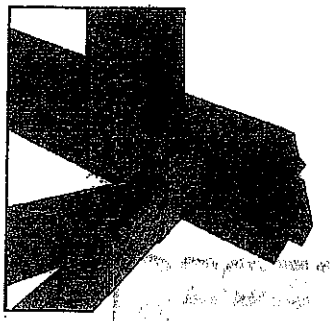
Double-Shear Nailing Side View; Do not bend tab

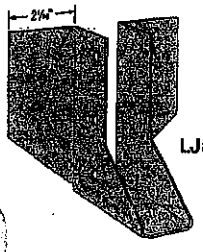
Dome Double-Shear Nailing Side View *(available on some models)*

U.S. Patent 5,603,580

Typical HUS26 Installation with Reduced Heel Height

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





LJS26DS

Plated Truss Connectors

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JUN 13 2019

TOWN OF CALEDON
BUILDING SECTION
FILE NO.

LUL/LUS/LJS/HUS/HHUS/HGUS

SIMPSON Strong-Tie

LICENSED PROFESSIONAL ENGINEER 1/15/18 B. D. BUNTING PROVINCE OF ONTARIO

HHUS/HGUS

See Hanger Options information on pp. 125–127.

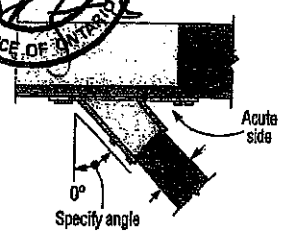
HHUS — Sloped and/or Skewed Seat

- HHUS hangers can be skewed to a maximum of 45° and/or sloped to a maximum of 45°
- For skew only, maximum factored down resistance is 0.85 of the table value
- For sloped only or sloped and skewed hangers, the maximum factored down resistance is 0.72 of the table value
- Uplift resistances for sloped/skewed conditions are 0.62 of the table value
- The joist must be bevel-cut to allow for double-shear nailing

HGUS — Skewed Seat

- HGUS hangers can be skewed only to a maximum of 45°. Factored resistances are:

HGUS Seat Width	Joist	Down Resistance	Uplift
W < 2"	Bevel or square cut	0.62 of table value	0.46 of table value
2" < W < 6"	Bevel cut	0.67 of table value	0.41 of table value
2" < W < 6"	Square cut	0.46 of table value	0.41 of table value
W > 6"	Bevel cut	0.75 of table value	0.41 of table value



Top View HHUS Hanger Skewed Right
(joist must be bevel cut)
All joist nails installed on the outside angle *(non-acute side)*.

Standard and Double-Shear Joist Hangers (cont.)

These products are available with additional corrosion protection. For more information, see p. 24.

These products are approved for installation with the Strong-Drive® SD Connector screw. See pp. 32–34 for more information.

Model No.	Ga.	Dimensions (in.) W	H	B	d_e[3]	Fasteners Header	Joist	Factored Resistance U.F.S. Uplift (Kᴅ = 1.15) lb. / kN	S.D.F. Uplift (Kᴅ = 1.15) lb. / kN	S.D.F. Normal (Kᴅ = 1.00) lb. / kN
Single 2x Sizes										
LUS24	18	1 9/16	3 1/8	1 3/4	2 1/4	(4) 10d	(2) 10d	710 / 3.16	1625 / 7.23	645 / 2.87	1155 / 5.14
LU24L	22	1 9/16	3	1 5/8	2 11/16	(4) 10d	(2) 10d x 1 1/2"	380 / 1.69	1020 / 4.54	320 / 1.42	725 / 3.22
LU26L	22	1 9/16	5	1 5/8	4 3/8	(8) 10d	(4) 10d x 1 1/2"	720 / 3.20	1605 / 7.14	645 / 2.87	1140 / 5.07
LUS26	18	1 9/16	4 1/4	1 3/4	3 3/4	(4) 10d	(4) 10d	1420 / 6.32	2170 / 9.65	1290 / 5.74	1630 / 7.25
HUS26	16	1 5/8	5 5/8	3	3 15/16	(14) 16d	(6) 16d	2705 / 12.03	4940 / 21.97	2065 / 9.20	3875 / 17.24
LUS26DS	18	1 9/16	5	3 1/2	4 5/8	(18) 16d	(6) 16d	2055 / 9.14	4265 / 18.97	1460 / 6.49	4115 / 18.31
HGUS26	12	1 5/8	5 5/8	5	4 1/4	(26) 16d	(8) 16d	2685 / 11.94	6625 / 29.47	2695 / 11.96	5700 / 25.35
LU28L	20	1 9/16	6 3/4	1 5/8	5 3/4	(8) 10d	(6) 10d x 1 1/2"	1140 / 5.07	2185 / 9.72	1020 / 4.54	1550 / 6.89
LUS28	18	1 9/16	6 5/8	1 3/4	3 3/4	(6) 10d	(4) 10d	1420 / 6.32	2520 / 11.21	1290 / 5.74	1790 / 7.96
HUS28	16	1 5/8	7 1/16	3	6 3/16	(22) 16d	(8) 16d	3605 / 16.03	5365 / 23.86	2675 / 11.90	4345 / 19.33
HGUS28	12	1 5/8	7 1/4	5	6 3/4	(36) 16d	(12) 16d	3310 / 14.72	7675 / 34.14	3310 / 14.74	6900 / 30.73
LU210L	20	1 9/16	8	1 5/8	7 5/8	(10) 10d	(6) 10d x 1 1/2"	1140 / 5.07	2495 / 11.10	1020 / 4.54	1770 / 7.87
LUS210	18	1 9/16	7 11/16	1 3/4	3 3/4	(8) 10d	(4) 10d	1420 / 6.32	2785 / 12.39	1290 / 5.74	2210 / 9.83

1. Factored uplift resistances have been increased 15% for wind or earthquake loading; no further increase is allowed.
2. Designer must ensure that hanger is compatible with truss when reduced heel height is used.
3. d_e is the distance from the bearing seat to the top joist nail.
4. Resistances shown require a minimum 2-ply girder truss. For fastening to single-ply truss request technical bulletin T-C-N10TRSSCN and/or see installation notes.
5. Nails: 16d = 0.162" dia. x 3 1/2" long. See pp. 27–28 for other nail sizes and information.

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THIS STRUCTURE MUST BE CONSTRUCTED TO MEET OR EXCEED THE PROVISIONS OF THE ONTARIO BUILDING CODE

Face-Mount Hangers

SIMPSON Strong-Tie®

These products are available with additional corrosion protection. For more information, see p. 24.

These products are approved for installation with the Strong-Drive® SD Connector screw. See pp. 32–34 for more information.

Model No.	Ga.	Dimensions (in.) W	H	B	d_B[3]	Fasteners Header	Joist	Factored Resistance D.F.-L. Uplift (K_D = 1.15) lb. kN	D.F.-L. Normal (K_D = 1.00) lb. kN	S-P-F Uplift (K_D = 1.15) lb. kN	S-P-F Normal (K_D = 1.00) lb. kN
Double 2x Sizes											
LUS24-2	18	3⅛	3⅛	2	1½	(4) 16d	(2) 16d	635	2020	590	1435
								2.82	8.98	2.62	6.38
LUS26-2	18	3⅛	4⅞	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
								7.65	11.54	6.87	8.54
HHUS26-2	14	3⅝	5⅝	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
								12.68	32.63	9.20	23.15
HGUS26-2	12	3⅝	5⅞	4	4⅛	(20) 16d	(8) 16d	4385	8950	3110	6355
								19.51	39.81	13.83	28.27
LUS28-2	18	3⅛	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
								7.65	14.79	6.87	11.45
HHUS28-2	14	3⅝	7⅝	3	6⅛	(22) 16d	(8) 16d	3765	8940	2675	6345
								16.75	39.77	11.90	28.22
HGUS28-2	12	3⅝	7⅞	4	6⅛	(36) 16d	(12) 16d	6070	12980	4310	9215
								27.00	57.74	19.17	40.99
LUS210-2	18	3⅛	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
								11.48	20.02	10.32	14.21
HHUS210-2	14	3⅝	9⅝	3	8	(30) 16d	(10) 16d	4670	9860	4235	7000
								20.77	43.87	18.84	31.14
HGUS210-2	12	3⅝	9⅞	4	8⅛	(46) 16d	(16) 16d	6840	14015	4855	10270
								30.43	62.34	21.60	45.69
Triple 2x Sizes											
HGUS26-3	12	4 15/16	5½	4	4⅛	(20) 16d	(8) 16d	4385	8950	3110	6355
								19.51	39.81	13.83	28.27
HGUS28-3	12	4 15/16	7⅛	4	6⅛	(36) 16d	(12) 16d	6070	12980	4310	9215
								27.00	57.74	19.17	40.99
HHUS210-3	14	4 15/16	9	3	7 5/16	(30) 16d	(10) 16d	4670	9670	4235	6865
								20.77	43.01	18.84	30.54
HGUS210-3	12	4 15/16	9⅛	4	8⅛	(46) 16d	(16) 16d	6840	14645	4855	10400
								30.43	65.14	21.60	46.26
Quadruple 2x Sizes											
HGUS26-4	12	6 9/16	5⅞	4	4⅛	(20) 16d	(8) 16d	4385	8950	3110	6355
								19.51	39.81	13.83	28.27
HGUS28-4	12	6 9/16	7⅞	4	6⅛	(36) 16d	(12) 16d	6070	12980	4310	9215
								27.00	57.74	19.17	40.99
HHUS210-4	14	6⅝	8⅝	3	7 5/16	(30) 16d	(10) 16d	4670	10155	4235	7210
								20.77	45.17	18.84	32.07
HGUS210-4	12	6 9/16	9 1/16	4	8⅛	(46) 16d	(16) 16d	6840	14645	4855	10400
								30.43	65.14	21.60	46.26
HGUS212-4	12	6 9/16	10⅝	4	10⅛	(56) 16d	(20) 16d	7640	14995	5425	10645
								33.98	66.70	24.13	47.35
HGUS214-4	12	6 9/16	12⅝	4	11⅛	(66) 16d	(22) 16d	10130	16400	7195	11645
								45.06	72.95	32.00	51.80
4x Sizes											
LUS46	18	3 9/16	4¾	2	3⅞	(4) 16d	(4) 16d	1720	2595	1545	1920
								7.65	11.54	6.87	8.54
HHUS46	14	3⅝	5¼	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
								11.30	32.63	9.20	23.15
HGUS46	12	3⅝	5¼	4	4⅛	(20) 16d	(8) 16d	4385	8950	3110	6355
								19.51	39.81	13.83	28.27
LUS48	18	3 9/16	6¾	2	3⅞	(6) 16d	(4) 16d	1720	3325	1545	2575
								7.65	14.79	6.87	11.45
HHUS48	14	3⅝	7⅛	3	6⅛	(22) 16d	(8) 16d	3765	8940	2675	6345
								16.75	39.77	11.90	28.22
HGUS48	12	3⅝	7⅞	4	6⅛	(36) 16d	(12) 16d	6070	12980	4310	9215
								27.00	57.74	19.17	40.99
LUS410	18	3 9/16	8¾	2	5 9/16	(8) 16d	(6) 16d	2580	4500	2320	3195
								11.48	20.02	10.32	14.21
HGUS410	12	3⅝	9	4	8⅛	(46) 16d	(16) 16d	6840	14015	4855	10270
								30.43	62.34	21.60	45.69
HGUS412	12	3⅝	10 7/16	4	10⅛	(56) 16d	(20) 16d	7640	14995	5425	10645
								33.98	66.70	24.13	47.35
HGUS414	12	3⅝	12 7/16	4	11⅛	(66) 16d	(22) 16d	10130	16400	7195	11645
								45.06	72.95	32.00	51.80

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Plated Truss Connectors

See footnotes on p. 258.

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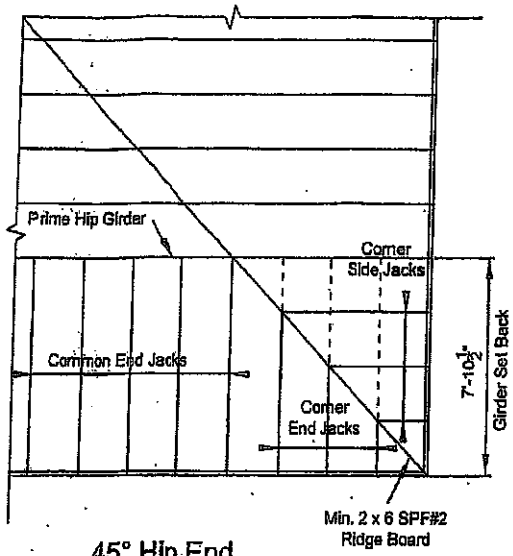

45° Hip End

LUMBER SPECIFICATION

TOP CHORD : 2 x 4 SPF#2
BOTTOM CHORD : 2 x 4 SPF#2
WEBS : 2 x 3 SPF#2
UNLESS OTHERWISE SHOWN

DESIGN LOAD

TOP CHORD SNOW LOAD	:	40.5 P.S.F.
TOP CHORD DEAD LOAD	:	3.0 P.S.F.
BOTTOM CHORD LIVE LOAD	:	0.0 P.S.F.
BOTTOM CHORD DEAD LOAD	:	7.0 P.S.F.
TOTAL LOAD		50.5 P.S.F

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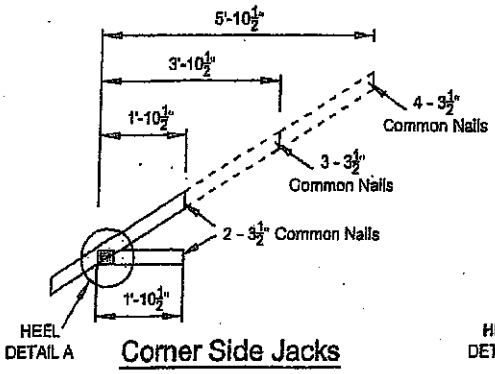
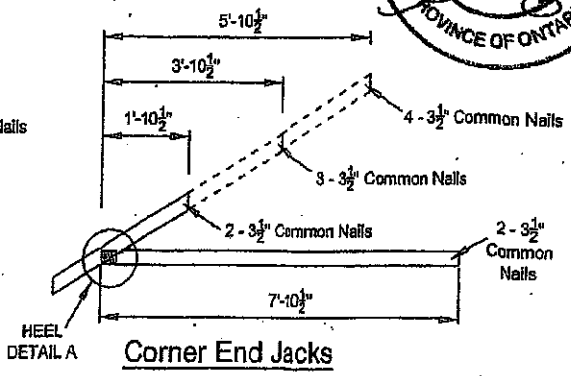
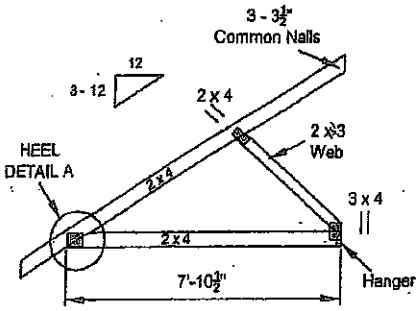
06/11/2018
H.J.G. ALVES
PROVINCE OF ONTARIO



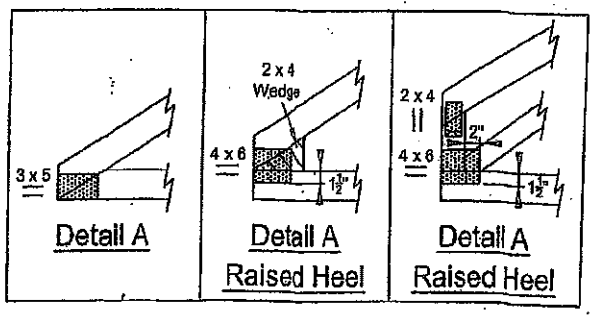
Corner Side Jacks



Corner End Jacks

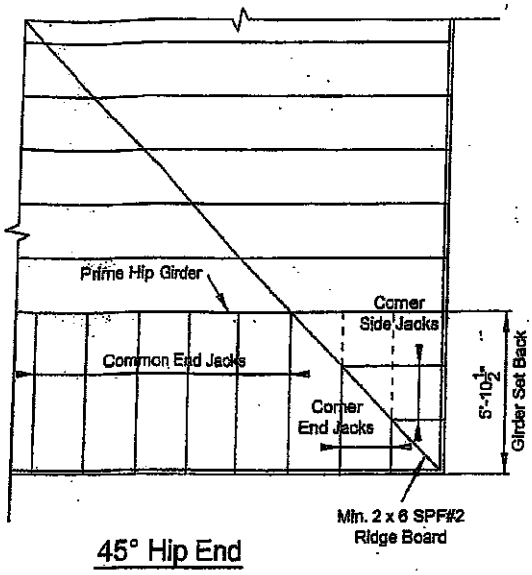


Common End Jacks



NOTE: DESIGN CONFORMS TO PART 9, O.B.C. 2012 (L.S.D. DESIGN)

T-1800217



45° Hip End

LUMBER SPECIFICATION

TOP CHORD	:	2 x 4 SPF#2
BOTTOM CHORD	:	2 x 4 SPF#2
WEBS	:	2 x 3 SPF#2

UNLESS OTHERWISE SHOWN

DESIGN LOAD

TOP CHORD SNOW LOAD	:	40.5 P.S.F.
TOP CHORD DEAD LOAD	:	3.0 P.S.F.
BOTTOM CHORD LIVE LOAD	:	0.0 P.S.F.
BOTTOM CHORD DEAD LOAD	:	7.0 P.S.F.
TOTAL LOAD	:	50.5 P.S.F

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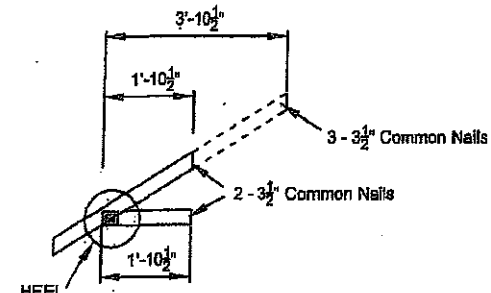
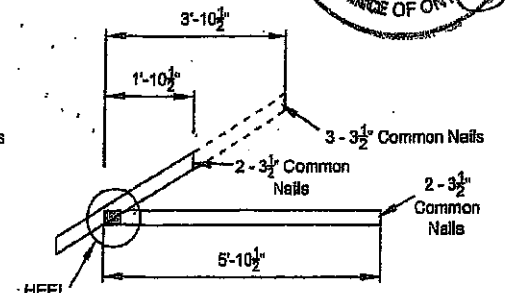
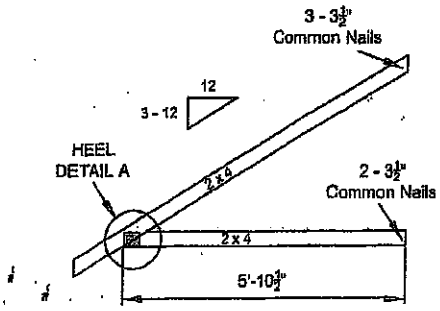


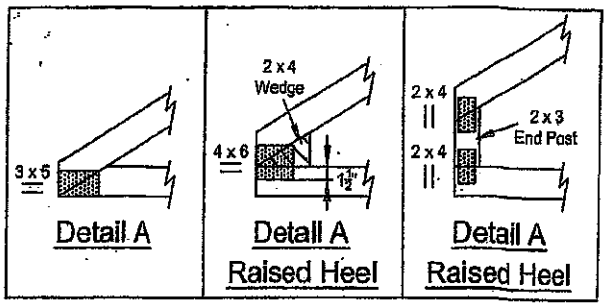
Corner Side Jacks



Corner End Jacks



Common End Jacks



NOTE: DESIGN CONFORMS TO PART 9, O.B.C. 2012 (L.S.D. DESIGN)

T-1800216

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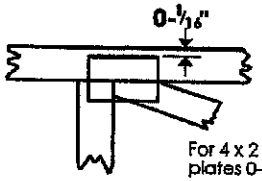
TOWN OF CALEDON
BUILDING SECTION
FILE NO

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 0-1/16" 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

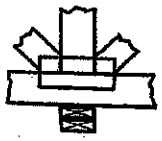
4 x 4

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

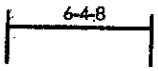


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

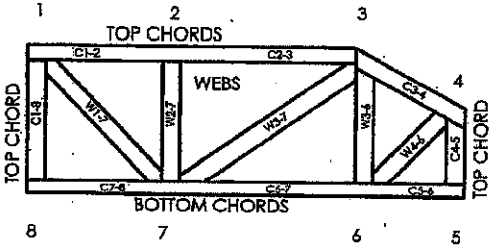
Industry Standards:

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

Numbering System



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.

Alves Engineering Services Inc.
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Burlington, Ontario L7L 6N6
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06/11/18
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PROVINCE OF ONTARIO

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.

T-1800218 Feb 09, 2018