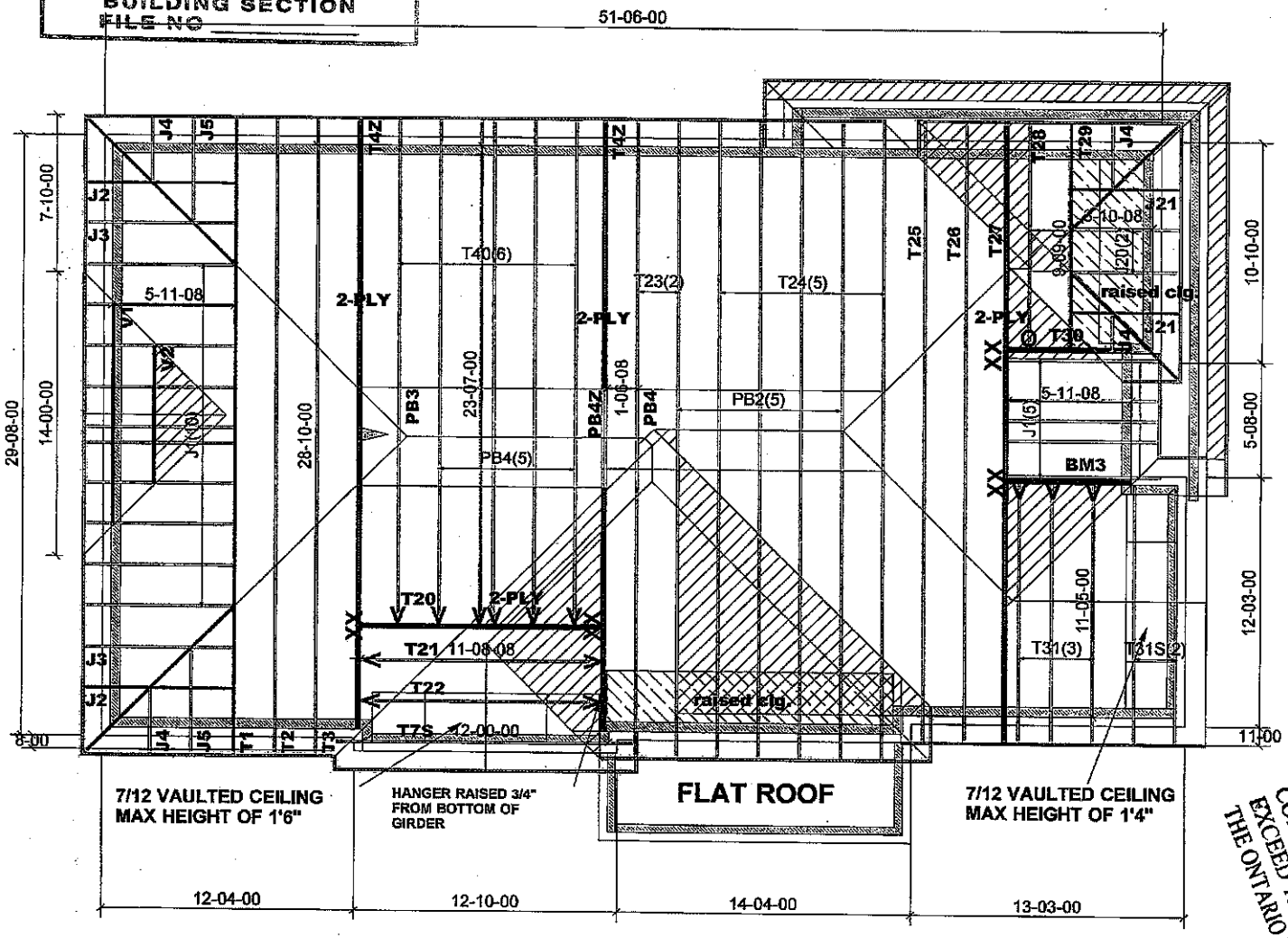


TRUSS PROFILES TO BE VERIFIED BY BUILDING DESIGNER

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) 6pcs
HGUS26-2 (XX) 4pcs
HUC26-2 (@) 1pcs
LUS24 (O) 8pcs

1'4" RAISED CEILING/TOP PLATE
CONV FRM BY OTHERS

T- 180737

COMMENTS:
BM3: 2-2"X10" SPF #2
9/12 PITCH UNLESS NOTED OTHERWISE

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

TAMARACK LUMBER INC.

Job Track: **50033**
Plan Log: **200664**
Layout ID: **401822**

Builder / Location: **GREEN PARK HOMES / CALEDON**
Project: **LAMBERT LANE PH.2**
Date: **2019-03-20** Designer: Brian/JG

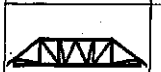
Model / Elevation: **PRESTON 11 / Elv. 2** **Lot 64**

Mitek ver 8.2.3.229

DELIVERY SHIPLIST

Lumber Yard:	TAMARACK LUMBER	Job Track:	50120
Builder:	Greenpark	PlanLog:	200172
Project:	Lamberts Lane Home Corp.	Layout ID:	400374
Location:	Caledon	Ref #	
Model:	Preston 11	Page:	1 of 3
Lot #:	64	Date:	03/12/2019
Elevation:	2	Designer:	Brian Faneca
		Sales Rep:	Mario DiCano

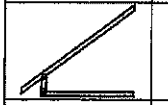
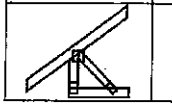
Roof Trusses

PROFILE	QTY / PLY	MARK / TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT / RIGHT	HEEL HEIGHT LEFT / RIGHT	LBS. / BFT.	BUNDLE # / STACK #	LOAD BY / REMARKS
	1	T1 Hip Girder	9 /12	28-10-00	6-00-02	2 x 6	1-03-08 1-03-08	1-06-04 1-06-04	162.3 100.00		
	1	T2 Hip	9 /12	28-10-00	7-05-14	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	126.61 79.17		
	1	T3 Hip	9 /12	28-10-00	8-11-14	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	140.45 88.50		
	2 2-ply	T4Z Hip Girder	9 /12	28-10-00	10-05-14	2 x 4 2 x 6	1-03-08 1-03-08	1-06-04 1-06-04	700.14 428.67		
	6	T40 Piggyback Base	9 /12	23-07-00	10-05-14	2 x 4	1-03-08	1-06-04 5-05-08	754.34 467.00		
	1	T7S Roof Special	9 /12 7 /12	12-00-00	6-00-04	2 x 3 2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	50.01 33.33		
	1 2-ply	T20 Flat Girder	0 /12	11-08-08	5-03-04	2 x 6		5-03-04 5-03-04	156.49 98.00		
	1	T21 Common	9 /12	11-08-08	6-00-04	2 x 4		1-05-02 1-10-00	52.3 33.83		
	1	T22 Roof Special	9 /12 7 /12	11-08-08	6-00-04	2 x 3 2 x 4		1-05-02 1-10-00	45.6 30.00		
	2	T23 Hip	9 /12	28-10-00	10-05-14	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	336.43 207.33		
	5	T24 Roof Special	9 /12	28-10-00	10-05-14	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	796.49 494.17		
	1	T25 Hip	9 /12	27-11-00	8-11-14	2 x 4	1-05-00 1-03-08	1-06-04 1-06-04	131.45 82.67		
	1	T26 Hip	9 /12	27-11-00	7-05-14	2 x 4	1-05-00 1-03-08	1-06-04 1-06-04	124.22 76.83		
	1 2-ply	T27 Hip Girder	9 /12	27-11-00	5-11-14	2 x 4 2 x 6	1-05-00 1-03-08	1-06-04 1-06-04	296.59 187.33		

DELIVERY SHIPLIST

Lumber Yard:	TAMARACK LUMBER	Job Track:	50120
Builder:	Greenpark	PlanLog:	200172
Project:	Lamberts Lane Home Corp.	Layout ID:	400374
Location:	Caledon	Ref #	
Model:	Preston 11	Page:	2 of 3
Lot #:	64	Date:	03/12/2019
Elevation:	2	Designer:	Brian Faneca
		Sales Rep:	Mario DiCano

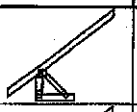
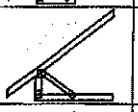
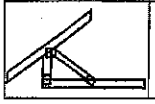
Roof Trusses

PROFILE	QTY / PLY	MARK / TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT / RIGHT	HEEL HEIGHT LEFT / RIGHT	LBS. / BFT.	BUNDLE # / STACK #	LOAD BY / REMARKS
	1	T28 Hip	9 /12	**9-09-00**	5-10-02	2 x 4	1-03-08	2-10-04 3-00-08	52.67 34.67		
	1	T29 Hip Girder	9 /12	**10-00-00**	4-05-02	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	47.49 31.17		
	1 2-ply	T30 Roof Special Girder	0 /12	**5-11-08**	1-04-00	2 x 4		1-04-00 1-04-00	40.58 25.67		
	3	T31 Common	9 /12	**11-05-00**	5-09-10	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	146.9 95.00		
	2	T31S Roof Special	9 /12 7 /12	**11-05-00**	5-09-10	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	106.56 68.00		
	1	V1 Valley	9 /12	**10-09-09**	4-00-09	2 x 4			32.43 20.67		
	1	V2 Valley	9 /12	**6-09-09**	2-06-09	2 x 4			17.74 11.00		
	1	PB3 Piggyback	9 /12	**4-11-00**	1-06-00	2 x 4			12.09 8.33		
	6	PB4 Piggyback	9 /12	**4-11-00**	1-10-02	2 x 4			66.37 48.00		
	1 2-ply	PB4Z Piggyback	9 /12	**4-11-00**	1-10-02	2 x 4			22.12 16.00		
	15	J1 Jack-Open	9 /12	**5-11-08**	5-11-14	2 x 4	1-03-08	1-06-04 5-11-14	279.2 180.00		
	2	J2 Jack-Open Girder	9 /12	**1-09-07**	2-10-05	2 x 4	1-03-08 4-02-01	1-06-04 2-10-05	28.62 20.33		
	2	J3 Jack-Open	9 /12	**3-09-07**	4-04-05	2 x 4	1-03-08 2-02-01	1-06-04 4-04-05	34.33 23.00		
	4	J4 Jack-Open	9 /12	**1-09-07**	2-10-05	2 x 4	1-03-08 1-01	1-06-04 2-10-05	37.25 28.00		

DELIVERY SHIPLIST

Lumber Yard:	TAMARACK LUMBER	Job Track:	50120
Builder:	Greenpark	PlanLog:	200172
Project:	Lamberts Lane Home Corp.	Layout ID:	400374
Location:	Caledon	Ref #	
Model:	Preston 11	Page:	3 of 3
Lot #:	64	Date:	03/12/2019
Elevation:	2	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
	2	J5 Jack-Open	9 /12	1-10-08	4-04-05	2 x 4	1-03-08 1-10-15	1-06-04 2-11-02	24.44 16.67		
	2	J20 Jack-Open	9 /12	3-10-08	4-05-02	2 x 4	1-03-08	1-06-04 4-05-02	29.83 20.33		
	2	J21 Jack-Open Girder	9 /12	1-09-07	2-10-05	2 x 4	1-03-08 2-01-01	1-06-04 2-10-05	23.87 17.67		

TOTAL # TRUSS= **78** TOTAL BFT OF ALL TRUSSES= **3069.34** BFT. TOTAL WEIGHT OF ALL TRSSES **4875.91** LBS

HARDWARE

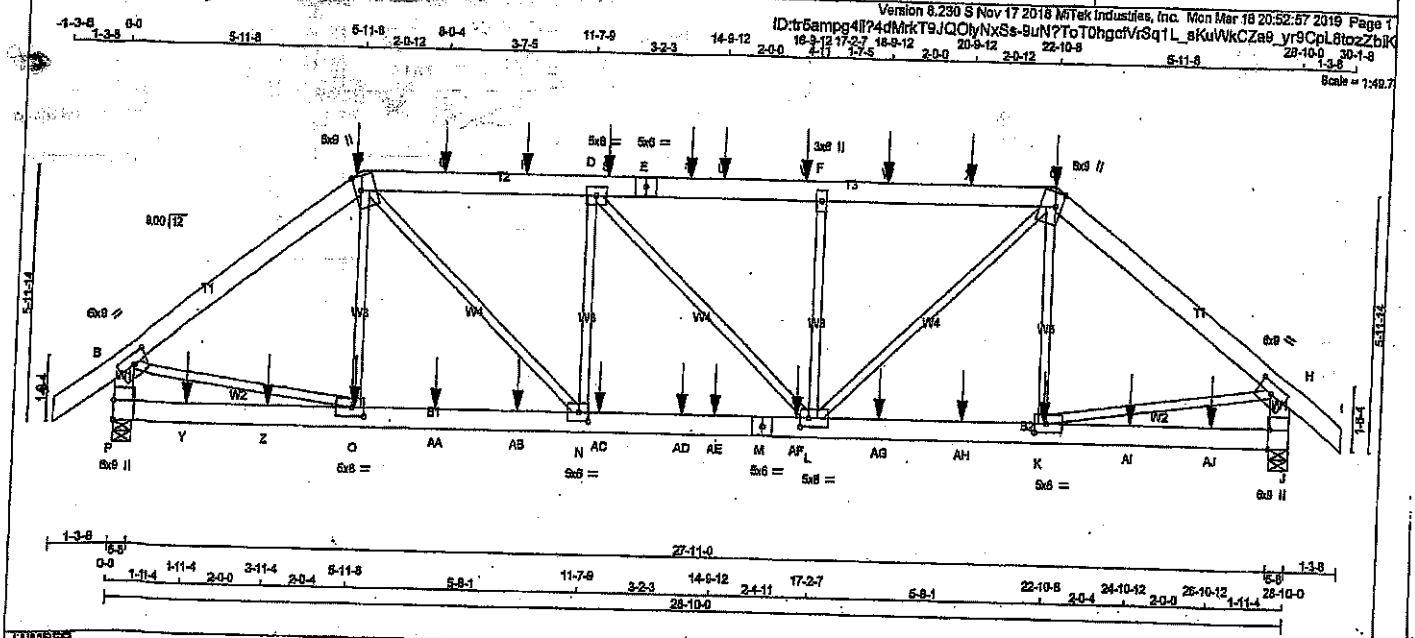
QTY	TYPE	MODEL	LENGTH
4	Hardware	HGUS26-2	
13	Hardware	LJS26DS	
1	Hardware	LUS24	

TOTAL NUMBER OF ITEMS= **18**

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400371	T1	1	1	TRUSS DESC.	

Tamarack Roof Tass, Burlington

Version 8.230 S Nov 17 2018 MiTek Industries, Inc. Mon Mar 18 20:52:57 2019 Page 1
ID:tr5ampg4ll?4dMrkT9JQOlyNxSs-9uN?ToT0hgcfVr3q1L_sKuWkCZa9_yr9CpL6tozZblK



TOTAL WEIGHT = 162 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x6	DRY	No.2	SPF
C - E	2x6	DRY	No.2	SPF
E - G	2x6	DRY	No.2	SPF
G - I	2x6	DRY	No.2	SPF
P - B	2x6	DRY	No.2	SPF
J - H	2x6	DRY	No.2	SPF
P - M	2x6	DRY	No.2	SPF
M - J	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	TMWW-t	MT20	6.0	9.0	2.75	4.50
C	TTWW+m	MT20	6.0	9.0	4.00	1.75
D	TMWW-t	MT20	5.0	6.0		
E	TS-t	MT20	5.0	6.0		
F	TMW+w	MT20	3.0	6.0		
G	TTWW+m	MT20	6.0	9.0	4.00	1.75
H	TMWW-t	MT20	6.0	9.0	2.75	4.50
J	BMV1+t	MT20	6.0	9.0	Edge	0.50
K	BMWW-t	MT20	5.0	6.0	2.50	3.50
L	BMWWW-t	MT20	5.0	6.0	2.50	2.25
M	BS-t	MT20	5.0	6.0		
N	BMWW-t	MT20	5.0	6.0	2.50	2.75
O	BMWW-t	MT20	5.0	6.0	2.50	3.50
P	BMV1+t	MT20	6.0	9.0	5.50	

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	REQRD BRG
P	3425	0	3425	0	0	5-8	5-8
J	3425	0	3425	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	2524	1456 / 0	388 / 0	0 / 0	0 / 0	672 / 0	0 / 0
J	2524	1466 / 0	388 / 0	0 / 0	0 / 0	672 / 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 = 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.

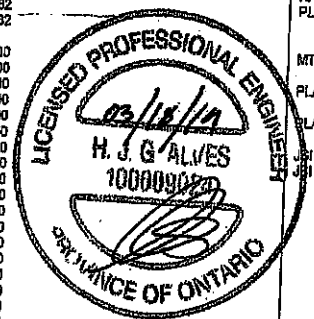
LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 44	-102.1	-102.1	8 (1)	0.08 (1)	10.00
B-C	-3830 / 0	-102.1	-102.1	8 (1)	0.48 (1)	3.92
C-Q	-4393 / 0	-102.1	-102.1	8 (1)	0.51 (1)	3.61
Q-R	-4393 / 0	-102.1	-102.1	8 (1)	0.51 (1)	3.61
R-D	-4393 / 0	-102.1	-102.1	8 (1)	0.51 (1)	3.61
D-S	-4393 / 0	-102.1	-102.1	8 (1)	0.51 (1)	3.62
S-E	-4393 / 0	-102.1	-102.1	8 (1)	0.51 (1)	3.62
E-T	-4393 / 0	-102.1	-102.1	8 (1)	0.51 (1)	3.62
T-U	-4393 / 0	-102.1	-102.1	8 (1)	0.51 (1)	3.62
U-V	-4393 / 0	-102.1	-102.1	8 (1)	0.51 (1)	3.62
V-F	-4393 / 0	-102.1	-102.1	8 (1)	0.51 (1)	3.62
F-W	-4393 / 0	-102.1	-102.1	8 (1)	0.49 (1)	3.65
W-X	-4393 / 0	-102.1	-102.1	8 (1)	0.49 (1)	3.65
X-G	-4393 / 0	-102.1	-102.1	8 (1)	0.49 (1)	3.65
G-H	-3831 / 0	-102.1	-102.1	8 (1)	0.48 (1)	3.92
H-I	0 / 44	-102.1	-102.1	8 (1)	0.08 (1)	10.00
P-B	-3264 / 0	0.0	0.0	8 (1)	0.23 (1)	5.82
J-H	-3265 / 0	0.0	0.0	8 (1)	0.23 (1)	5.82
P-Y	0 / 0	-38.5	-38.5	8 (3)	0.27 (3)	10.00
Y-Z	0 / 0	-38.5	-38.5	8 (3)	0.27 (3)	10.00
Z-O	0 / 0	-38.5	-38.5	8 (3)	0.27 (3)	10.00
O-AA	0 / 3055	-38.5	-38.5	8 (1)	0.55 (1)	10.00
AA-AB	0 / 3055	-38.5	-38.5	8 (1)	0.55 (1)	10.00
AB-N	0 / 3055	-38.5	-38.5	8 (1)	0.55 (1)	10.00
N-AC	0 / 4393	-38.5	-38.5	8 (1)	0.69 (1)	10.00
AC-AD	0 / 4393	-38.5	-38.5	8 (1)	0.69 (1)	10.00
AD-AE	0 / 4393	-38.5	-38.5	8 (1)	0.69 (1)	10.00
AE-M	0 / 4393	-38.5	-38.5	8 (1)	0.69 (1)	10.00
M-AF	0 / 4393	-38.5	-38.5	8 (1)	0.69 (1)	10.00
AF-L	0 / 4393	-38.5	-38.5	8 (1)	0.69 (1)	10.00
L-AG	0 / 3056	-38.5	-38.5	8 (1)	0.55 (1)	10.00
AG-AH	0 / 3056	-38.5	-38.5	8 (1)	0.55 (1)	10.00
AH-K	0 / 3056	-38.5	-38.5	8 (1)	0.55 (1)	10.00
K-AI	0 / 0	-38.5	-38.5	8 (3)	0.27 (3)	10.00
AI-AJ	0 / 0	-38.5	-38.5	8 (3)	0.27 (3)	10.00
AJ-J	0 / 0	-38.5	-38.5	8 (3)	0.27 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C-N	0 / 1864	0.46 (1)
N-D	-1021 / 0	0.51 (1)
D-L	-14 / 0	0.02 (1)
L-F	-1017 / 0	0.51 (1)
L-G	0 / 1849	0.46 (1)
K-G	-92 / 298	0.09 (3)
B-O	0 / 3099	0.77 (1)
K-H	0 / 3100	0.77 (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 8.00/12

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 37.9 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 (0.95")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (0.96")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.25")

CSI: TC=0.51/1.00 (C-D:1) , BC=0.69/1.00 (L-N:1) , WB=0.77/1.00 (H-K:1) , SSI=0.38/1.00 (D-F: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

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.

LSI GRIP= 0.90 (K) (INPUT = 0.90)
LSI METAL= 0.63 (M) (INPUT = 1.00)

DWG NO. TAM T1905520
STRUCTURAL COMPONENT ONLY 1/2

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400371	T1	1	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

ID:tr5ampg4il?4dMrkT9JQOlyNxSs-9uN7ToT0hgcfVrSq1L_sKuWkCZa9_vr9CpL8tozZbK

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	5-11-8	-463	-463	--	BACK	VERT	TOTAL	--	--
G	22-10-8	-463	-463	--	BACK	VERT	TOTAL	--	--
K	22-9-12	-26	-26	--	BACK	VERT	TOTAL	--	--
O	6-0-4	-26	-26	--	BACK	VERT	TOTAL	--	--
Q	8-0-4	-126	-126	--	BACK	VERT	TOTAL	--	--
R	10-0-4	-126	-126	--	BACK	VERT	TOTAL	--	--
S	12-0-4	-126	-126	--	BACK	VERT	TOTAL	--	--
T	14-0-4	-126	-126	--	BACK	VERT	TOTAL	--	--
U	14-9-12	-126	-126	--	BACK	VERT	TOTAL	--	--
V	16-8-12	-126	-126	--	BACK	VERT	TOTAL	--	--
W	18-8-12	-126	-126	--	BACK	VERT	TOTAL	--	--
X	20-9-12	-126	-126	--	BACK	VERT	TOTAL	--	--
Y	1-11-4	-76	-97	--	BACK	VERT	TOTAL	--	--
Z	3-11-4	-76	-97	--	BACK	VERT	TOTAL	--	--
AA	8-0-4	-26	-26	--	BACK	VERT	TOTAL	--	--
AB	10-0-4	-26	-26	--	BACK	VERT	TOTAL	--	--
AC	12-0-4	-26	-26	--	BACK	VERT	TOTAL	--	--
AD	14-0-4	-26	-26	--	BACK	VERT	TOTAL	--	--
AE	14-9-12	-26	-26	--	BACK	VERT	TOTAL	--	--
AF	16-9-12	-26	-26	--	BACK	VERT	TOTAL	--	--
AG	18-9-12	-26	-26	--	BACK	VERT	TOTAL	--	--
AH	20-9-12	-26	-26	--	BACK	VERT	TOTAL	--	--
AI	24-10-12	-76	-97	--	BACK	VERT	TOTAL	--	--
AJ	26-10-12	-76	-97	--	BACK	VERT	TOTAL	--	--

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

DWG NO. TAM T905520
STRUCTURAL
COMPONENT ONLY 2/2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400371	T2	1	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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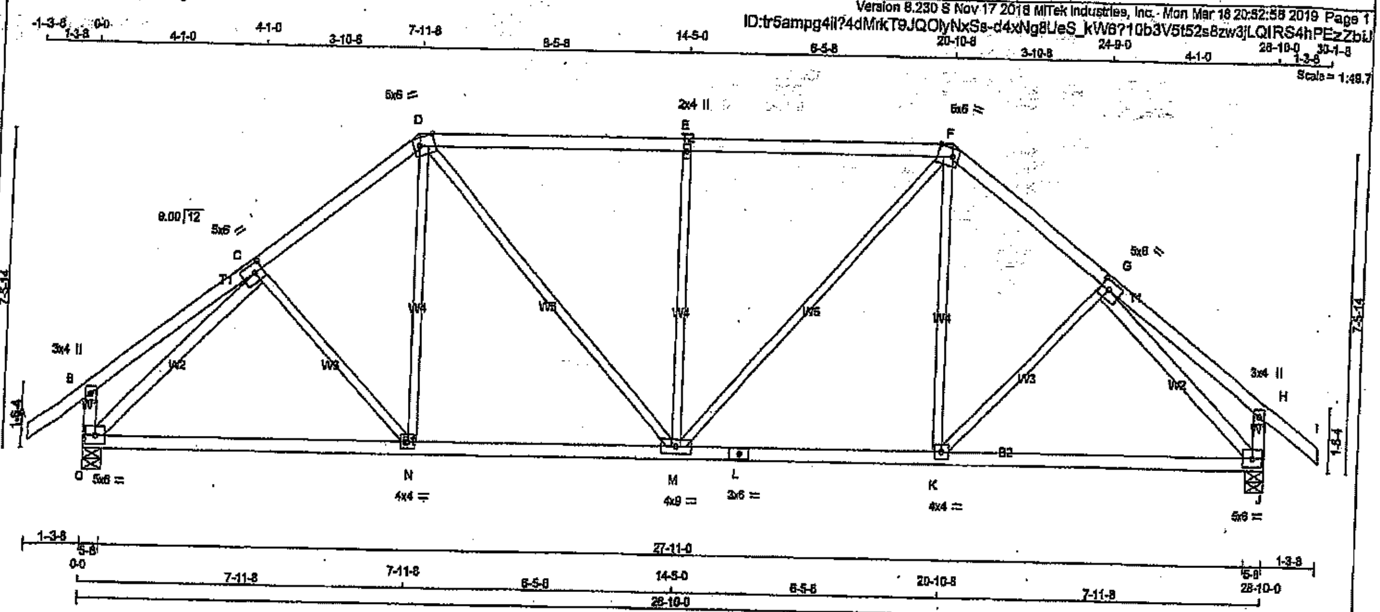

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - 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	Edge	4.25
E	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	Edge	4.25
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		

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
O	2168	0	2168	0	0	5-8	5-8
J	2168	0	2168	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1611	917 / 0	303 / 0	0 / 0	0 / 0	391 / 0	0 / 0
J	1611	917 / 0	303 / 0	0 / 0	0 / 0	391 / 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 = 3.93 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 / 27	-102.1	-102.1	0.25 (1)	10.00
C-D	-2103 / 0	-102.1	-102.1	0.25 (1)	4.47
D-E	-2110 / 0	-102.1	-102.1	0.63 (1)	3.93
E-F	-2110 / 0	-102.1	-102.1	0.63 (1)	3.93
F-G	-2103 / 0	-102.1	-102.1	0.25 (1)	4.47
G-H	0 / 27	-102.1	-102.1	0.25 (1)	10.00
H-I	0 / 42	-102.1	-102.1	0.14 (1)	10.00
O-B	-297 / 0	0.0	0.0	0.03 (1)	7.81
J-H	-297 / 0	0.0	0.0	0.03 (1)	7.81
O-N	0 / 1659	-38.5	-38.5	0.64 (2)	10.00
N-M	0 / 1662	-38.5	-38.5	0.65 (2)	10.00
M-L	0 / 1662	-38.5	-38.5	0.65 (2)	10.00
L-K	0 / 1662	-38.5	-38.5	0.65 (2)	10.00
K-J	0 / 1659	-38.5	-38.5	0.64 (2)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C-N	-3 / 112	0.03 (3)
N-D	0 / 387	0.09 (2)
D-M	0 / 671	0.15 (1)
M-E	-807 / 0	0.82 (1)
M-F	0 / 671	0.15 (1)
K-F	0 / 387	0.09 (2)
K-G	-3 / 112	0.03 (3)
O-C	-2408 / 0	0.94 (1)
G-J	-2408 / 0	0.94 (1)

TOTAL WEIGHT = 130 lb

[MI]F]

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 (0.95")
CALCULATED VERT. DEFL.(LL) = L/999 (0.17")
ALLOWABLE DEFL.(TL)= L/360 (0.95")
CALCULATED VERT. DEFL.(TL) = L/999 (0.28")

CSI: TC=0.63/1.00 (D-E:1), BC=0.65/1.00 (M-N:2), WB=0.94/1.00 (C-O:1), SSI=0.32/1.00 (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	789	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.66 (O) (INPUT = 0.90)
JSI METAL= 0.58 (G) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100009027
PROVINCE OF ONTARIO

DWG NO. TAM 1905521
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400371	T3	1	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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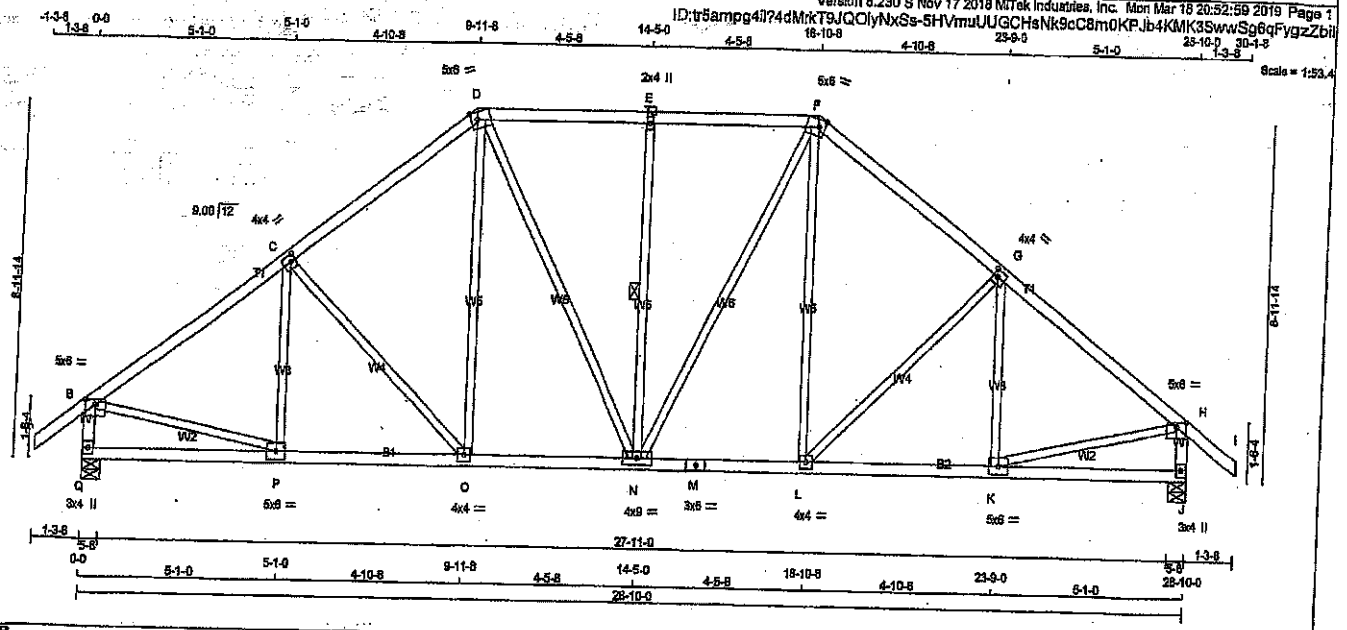


LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - 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	TMVW-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	6.0	6.0	Edge	2.00
G	TMWW-t	MT20	4.0	4.0	2.00	1.50
H	TMVW-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		
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	5.0	6.0		
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

TOTAL WEIGHT = 140 lb

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
Q	2168	0	2168	0	0	5-8	5-8
J	2168	0	2168	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1611	917 / 0	303 / 0	0 / 0	0 / 0	391 / 0	0 / 0
J	1611	917 / 0	303 / 0	0 / 0	0 / 0	391 / 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 = 4.24 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

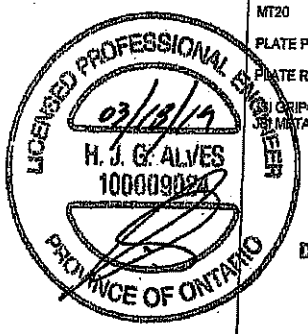
LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
B-C	-2181 / 0	-102.1	-102.1	0.41 (1)	4.24	
C-D	-1948 / 0	-102.1	-102.1	0.38 (1)	4.46	
D-E	-1713 / 0	-102.1	-102.1	0.28 (1)	4.80	
E-F	-1713 / 0	-102.1	-102.1	0.28 (1)	4.80	
F-G	-1948 / 0	-102.1	-102.1	0.38 (1)	4.46	
G-H	-2181 / 0	-102.1	-102.1	0.41 (1)	4.24	
H-I	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
Q-B	-2087 / 0	0.0	0.0	0.22 (1)	5.86	
J-H	-2087 / 0	0.0	0.0	0.22 (1)	5.86	
Q-P	0 / 0	-38.5	-38.5	0.18 (3)	10.00	
P-O	0 / 1773	-38.5	-38.5	0.41 (2)	10.00	
O-N	0 / 1531	-38.5	-38.5	0.33 (1)	10.00	
N-M	0 / 1531	-38.5	-38.5	0.33 (1)	10.00	
M-L	0 / 1531	-38.5	-38.5	0.33 (1)	10.00	
L-K	0 / 1773	-38.5	-38.5	0.41 (2)	10.00	
K-J	0 / 0	-38.5	-38.5	0.18 (3)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
P-C	-201 / 91	0.09 (1)
C-O	-350 / 0	0.33 (1)
C-D	0 / 436	0.10 (2)
D-N	0 / 399	0.09 (1)
N-E	-547 / 0	0.29 (1)
N-F	0 / 399	0.09 (1)
L-F	0 / 436	0.10 (2)
L-G	-350 / 0	0.33 (1)
K-G	-201 / 91	0.09 (1)
B-P	0 / 1821	0.41 (1)
K-H	0 / 1821	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. 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

(65 % 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 (0.96")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.96")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.12")

CSI: TC=0.41/1.00 (B-C:1) , BC=0.41/1.00 (K-L:2) , WB=0.41/1.00 (H-K1) , 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	1667	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

(S) GRIP= 0.90 (P) (INPUT = 0.90)
(S) METAL= 0.50 (M) (INPUT = 1.00)

DWG NO. TAM T1905522
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400374	T4Z	2	2	Preston 11	
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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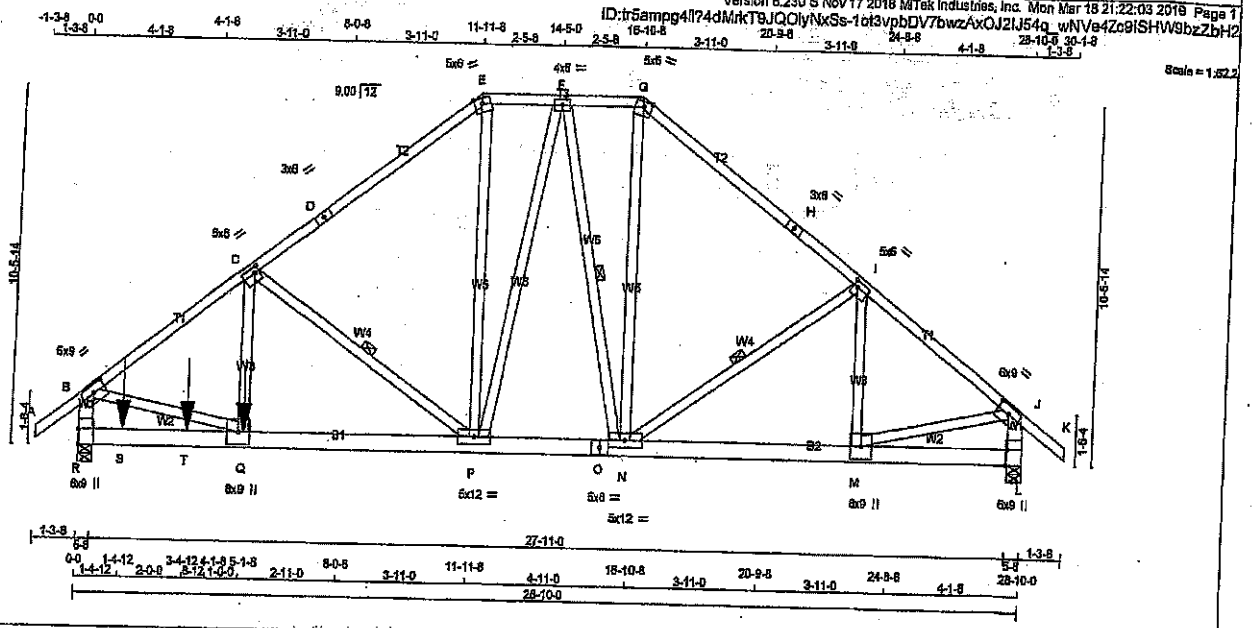

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
E - G	2x4	DRY	No.2	SPF
G - H	2x4	DRY	No.2	SPF
H - K	2x4	DRY	No.2	SPF
R - B	2x6	DRY	No.2	SPF
L - J	2x6	DRY	No.2	SPF
R - O	2x6	DRY	No.2	SPF
O - L	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x4	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			
D-A	1	12	TOP
D-E	1	12	TOP
E-G	1	12	TOP
G-H	1	12	TOP
H-K	1	12	TOP
R-B	2	12	TOP
L-J	2	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
R-O	2	12	SIDE(183.1)
O-L	2	12	TOP
WEBS : (0.122"X3") SPIRAL NAILS			
C-Q	1	2	SIDE(1355.1)
2x4	1	6	
I-M	1	2	

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-t	MT20	6.0	9.0	2.75	4.50
C	TMWW-t	MT20	5.0	6.0	2.00	1.50
D	TS-t	MT20	3.0	6.0		
E	TTW-m	MT20	5.0	6.0	Edge	
F	TMWW-t	MT20	4.0	6.0		
G	TTW-m	MT20	5.0	6.0	Edge	
H	TS-t	MT20	3.0	6.0		
I	TMWW-t	MT20	5.0	6.0	2.00	1.50
J	TMWW-t	MT20	6.0	9.0	2.75	4.50
L	BMW1+t	MT20	6.0	9.0	Edge	0.50
M	BMWW+t	MT20	6.0	9.0		
N	BMWWW-t	MT20	5.0	12.0		
O	BS-t	MT20	5.0	6.0		
P	BMWWW-t	MT20	5.0	12.0		
Q	BMWW+t	MT20	6.0	9.0		

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

TOTAL WEIGHT = 4 X 184 = 736 lb [M]

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
R	8455	0	8455	0	0	5-8	5-8
L	3348	0	3348	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	MAX./MIN. COMPONENT REACTIONS LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	6277	3597 / 0	1162 / 0	0 / 0	0 / 0	1518 / 0	0 / 0
L	2486	1416 / 0	465 / 0	0 / 0	0 / 0	603 / 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 = 2.56 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-P, I-N, F-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 LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 42	-102.1	-102.1	0.08 (1)	10.00
B-C	-9361 / 0	-102.1	-102.1	1.00 (1)	2.56
C-D	-4208 / 0	-102.1	-102.1	0.65 (1)	4.18
D-E	-4208 / 0	-102.1	-102.1	0.65 (1)	4.18
E-F	-3982 / 0	-102.1	-102.1	0.09 (1)	5.02
F-G	-2836 / 0	-102.1	-102.1	0.08 (1)	5.36
G-H	-3560 / 0	-102.1	-102.1	0.60 (1)	4.47
H-I	-3560 / 0	-102.1	-102.1	0.60 (1)	4.47
I-J	-3756 / 0	-102.1	-102.1	0.49 (1)	4.36
J-K	0 / 42	-102.1	-102.1	0.08 (1)	10.00
R-B	-7594 / 0	0.0	0.0	0.28 (1)	5.45
L-J	-3259 / 0	0.0	0.0	0.12 (1)	7.68
R-S	0 / 0	-38.5	-38.5	0.43 (1)	10.00
S-T	0 / 0	-38.5	-38.5	0.43 (1)	10.00
T-Q	0 / 0	-38.5	-38.5	0.43 (1)	10.00
Q-P	0 / 7530	-38.5	-38.5	0.63 (1)	10.00
P-O	0 / 3123	-38.5	-38.5	0.26 (1)	10.00
O-N	0 / 3123	-38.5	-38.5	0.26 (1)	10.00
N-M	0 / 3051	-38.5	-38.5	0.26 (1)	10.00
M-L	0 / 0	-38.5	-38.5	0.08 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
Q-C	0 / 5359	0.47 (1)
C-P	-5147 / 0	0.93 (1)
P-E	0 / 2074	0.18 (1)
N-G	0 / 1691	0.15 (1)
N-I	-293 / 0	0.05 (1)
M-I	-430 / 32	0.08 (1)
B-Q	0 / 7704	0.66 (1)
M-J	0 / 3121	0.28 (1)
P-F	0 / 1879	0.09 (1)
F-N	-1285 / 0	0.06 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
Q	5-1-8	-5898	-5898	---	BACK	VERT	TOP WHEEL CONNEC
S	1-4-12	-765	-765	---	BACK	VERT	TOP
T	3-4-12	-765	-765	---	BACK	VERT	TOP

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, NECC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 201.1, TPIC 2014

(65 % 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 (0.95")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.95")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.17")

CSI: TC=1.00/1.00 (B-C:1) , BC=0.63/1.00 (P-Q:1) , WB=0.93/1.00 (C-P:1) , SSI=0.30/1.00 (Q-R: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

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	1657	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

SI GRIP = 0.84 (I) (INPUT = 0.90)
SI METAL = 0.95 (M) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

DWG NO. TAM T905569
STRUCTURAL
COMPONENT ONLY 1/2

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400374	T4Z	2	2	TRUSS DESC.	

Tamarack Roof Truss, Burlington

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
R	BMV1+I	MT20	6.0	9.0	5.50	

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

LICENSED PROFESSIONAL ENGINEER
23/03/14
H. J. G. ALLISS
100019024
PROVINCE OF ONTARIO

DWG NO. TAM T1905567
STRUCTURAL
COMPONENT ONLY 3/12

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400371	T40	6	1	Preston 11 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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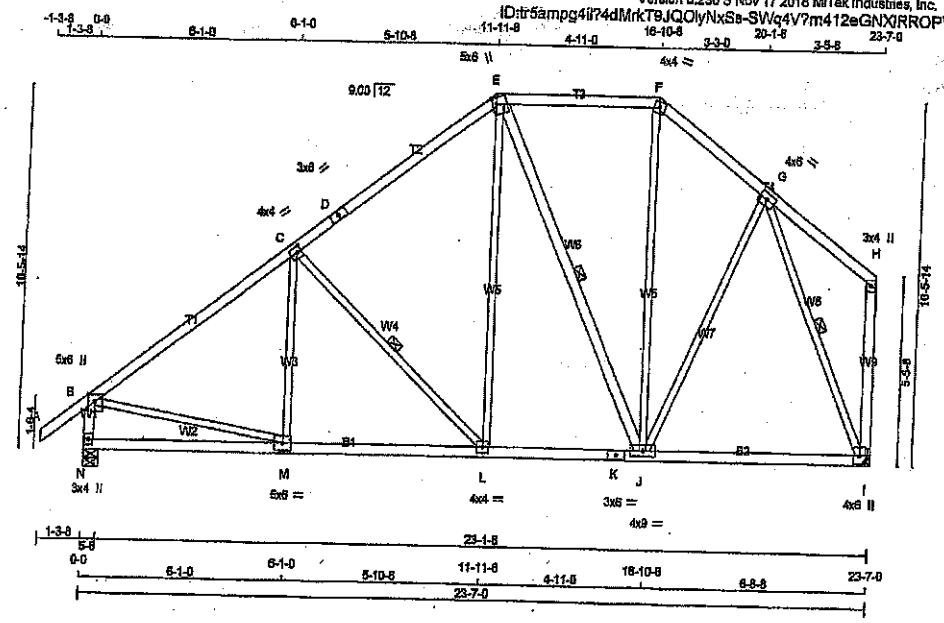


TOTAL WEIGHT = 8 X 126 = 754 lb [MJF]

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 - H	2x4	DRY	No.2	SPF
N - B	2x4	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
N - K	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
E - J	2x4	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	TMVW-t	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-m	MT20	4.0	4.0		
G	TMWW-t	MT20	4.0	6.0		
H	TMV+p	MT20	3.0	4.0		
I	BMVW1+p	MT20	4.0	6.0		
J	BMWWW-t	MT20	4.0	9.0		
K	BS-t	MT20	3.0	6.0		
L	BMWW-t	MT20	4.0	4.0		
M	BMWW-t	MT20	5.0	6.0		
N	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	REQRD BRG
N	1799	0	1799	0	0	5-8	5-8
I	1658	0	1658	0	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	1398	765 / 0	246 / 0	0 / 0	0 / 0	323 / 0	0 / 0
I	1239	685 / 0	248 / 0	0 / 0	0 / 0	307 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.46 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-L, E-J, G-I.

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

LOADING

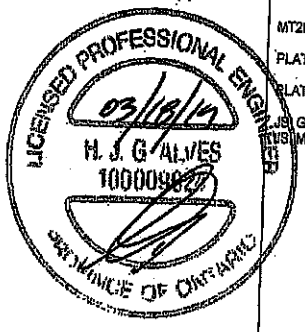
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	MAX. CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B-C	-1710 / 0	-102.1	-102.1	0.56 (1)	4.45
C-D	-1248 / 0	-102.1	-102.1	0.51 (1)	5.10
D-E	-1246 / 0	-102.1	-102.1	0.51 (1)	5.10
E-F	-802 / 0	-102.1	-102.1	0.32 (1)	5.25
F-G	-1026 / 0	-102.1	-102.1	0.15 (1)	5.03
G-H	0 / 23	-102.1	-102.1	0.18 (1)	10.00
N-B	-1705 / 0	0.0	0.0	0.18 (1)	9.38
I-H	-136 / 0	0.0	0.0	0.08 (1)	7.81
N-M	0 / 0	-38.5	-38.5	0.28 (3)	10.00
M-L	0 / 1403	-38.5	-38.5	0.45 (2)	10.00
L-K	0 / 987	-38.5	-38.5	0.41 (2)	10.00
K-J	0 / 987	-38.5	-38.5	0.41 (2)	10.00
J-I	0 / 626	-38.5	-38.5	0.36 (2)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
M-C	-5 / 223	0.05 (3)
C-L	-614 / 0	0.29 (1)
L-E	0 / 596	0.13 (1)
E-J	-385 / 0	0.27 (1)
J-F	0 / 258	0.06 (2)
J-G	0 / 428	0.10 (1)
B-M	0 / 1430	0.32 (1)
G-I	-1547 / 0	0.72 (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 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.15")

CSI: TC=0.56/1.00 (B-C:1) , BC=0.45/1.00 (L-M:2) , WB=0.72/1.00 (G-I:1) , SS=0.24/1.00 (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.

(B) GRIP= 0.69 (B) (INPUT = 0.90)
METAL= 0.52 (K) (INPUT = 1.00)

DWG NO. TAM 7905538
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400371	T7S	1	1	Preston 11 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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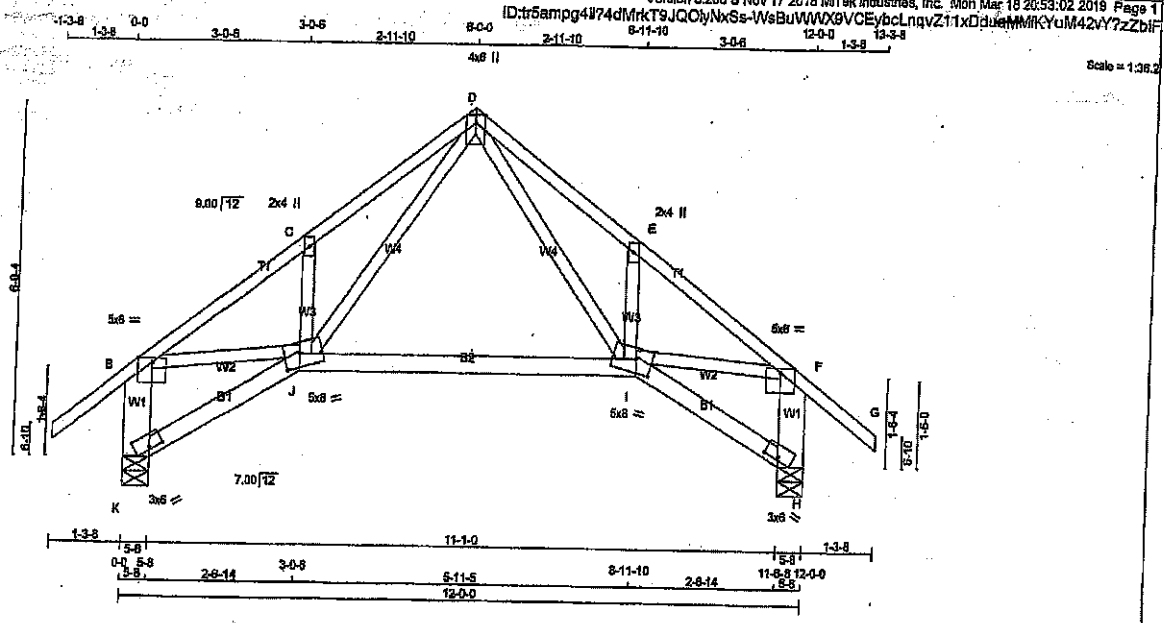


TOTAL WEIGHT = 50 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x3	DRY	No.2	SPF
D - G	2x3	DRY	No.2	SPF
K - B	2x6	DRY	No.2	SPF
H - F	2x6	DRY	No.2	SPF
K - J	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	TMWW-p	MT20	5.0	8.0	Edge	
C	TMW+w	MT20	2.0	4.0		
D	TTWW+p	MT20	4.0	8.0	Edge	
E	TMW+w	MT20	2.0	4.0		
F	TMWW-p	MT20	5.0	8.0	Edge	
H	BVM1-I	MT20	3.0	6.0	0.50	3.00
I	BBWWW-m	MT20	5.0	8.0	2.75	3.25
J	BBWWW-m	MT20	5.0	8.0	2.75	3.25
K	BVM1-I	MT20	3.0	6.0	0.50	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
K	982	0	982	0	0	5-8	5-8
H	982	0	982	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LOASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	725	427 / 0	126 / 0	0 / 0	0 / 0	172 / 0	0 / 0
H	725	427 / 0	126 / 0	0 / 0	0 / 0	172 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.77 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.

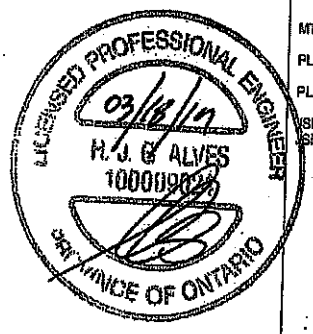
LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 41	-102.1	-102.1	0.26 (1)	10.00	
B-C	-1228 / 0	-102.1	-102.1	0.25 (1)	4.84	
C-D	-1277 / 0	-102.1	-102.1	0.25 (1)	4.77	
D-E	-1277 / 0	-102.1	-102.1	0.25 (1)	4.77	
E-F	-1228 / 0	-102.1	-102.1	0.25 (1)	4.84	
F-G	0 / 41	-102.1	-102.1	0.26 (1)	10.00	
K-B	-924 / 0	0.0	0.0	0.07 (1)	7.81	
H-F	-924 / 0	0.0	0.0	0.07 (1)	7.81	
K-J	0 / 0	-38.5	-38.5	0.08 (3)	10.00	
J-I	0 / 558	-38.5	-38.5	0.37 (2)	10.00	
I-H	0 / 0	-38.5	-38.5	0.08 (3)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
D-I	0 / 780	0.18 (1)
I-E	-378 / 0	0.06 (1)
J-D	0 / 780	0.18 (1)
J-C	-378 / 0	0.06 (1)
B-J	0 / 1002	0.23 (1)
I-F	0 / 1002	0.23 (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 37.8 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 (0.40")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.40")
CALCULATED VERT. DEFL.(TL) = L/ 827 (0.17")

CSI: TC=0.26/1.00 (A-B:1) , BC=0.37/1.00 (I-J:2) , WB=0.23/1.00 (B-J:1) , SSI=0.17/1.00 (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	1655

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

SI GRIP= 0.74 (B) (INPUT = 0.80)
SI METAL= 0.31 (B) (INPUT = 1.00)

DWG NO. TAM 9740524
STRUCTURAL COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400374	T20	1	2	Preston 11 TRUSS DESC.	

Tamarack Roof Truss, Burlington.

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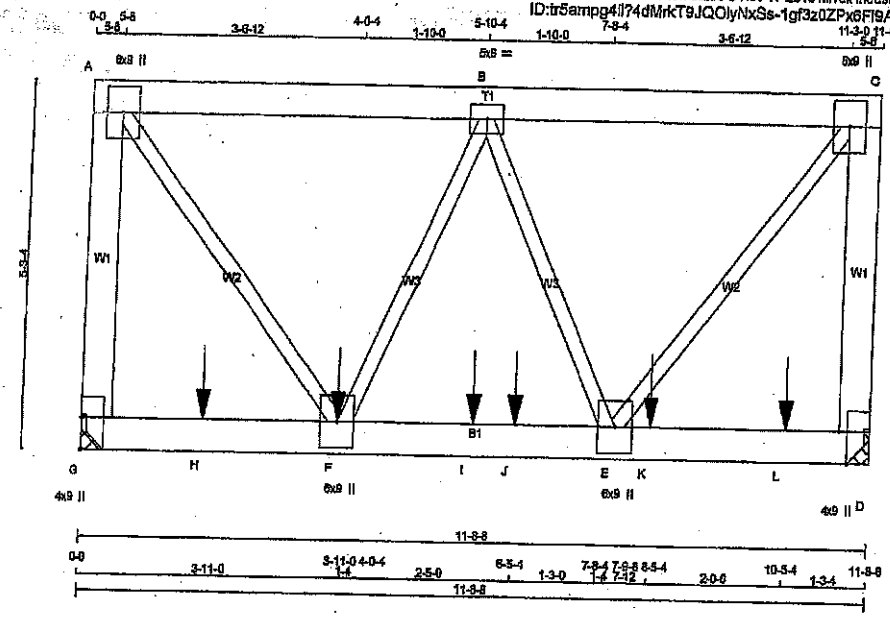

Scale = 1:30.4

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
G - A	2x6	DRY	No.2	SPF
A - C	2x6	DRY	No.2	SPF
D - C	2x6	DRY	No.2	SPF
G - D	2x6	DRY	No.2	SPF
ALL WEBS	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			
G-A	2	12	TOP
A-C	2	12	TOP
C-D	2	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
G-D	2	12	SIDE(0.0)
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
A	TMWW+p	MT20	6.0	9.0		
B	TMWW-t	MT20	5.0	6.0		
C	TMWW+p	MT20	6.0	9.0		
D	BMV1+t	MT20	4.0	9.0		Edge 1.50
E	BMWW+t	MT20	6.0	9.0		
F	BMWW+t	MT20	6.0	9.0		
G	BMV1+t	MT20	4.0	9.0		5.50

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	REQRD BRG
G	5456	0	5456	0	0	MECHANICAL	
D	5906	0	5906	0	0	MECHANICAL	

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT G, D. MINIMUM BEARING LENGTH AT JOINT G = 4-0, JOINT D = 4-0.

UNFACTORED REACTIONS

1ST LCASE MAX./MIN. COMPONENT REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	4060	2299 / 0	771 / 0	0 / 0	0 / 0	989 / 0	0 / 0
D	4394	2489 / 0	834 / 0	0 / 0	0 / 0	1071 / 0	0 / 0

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.71 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	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
G-A	-4832 / 0	0.0	0.0	8	0.64 (1)	6.59
A-B	-3625 / 0	-102.1	-102.1	8	0.14 (1)	5.76
B-C	-3707 / 0	-102.1	-102.1	8	0.15 (1)	5.71
D-C	-4935 / 0	0.0	0.0	8	0.65 (1)	6.54
G-H	0 / 0	-38.5	-38.5	8	0.42 (1)	10.00
H-F	0 / 0	-38.5	-38.5	8	0.42 (1)	10.00
F-I	0 / 3609	-38.5	-38.5	8	0.83 (1)	10.00
I-J	0 / 3609	-38.5	-38.5	8	0.83 (1)	10.00
J-E	0 / 3609	-38.5	-38.5	8	0.83 (1)	10.00
E-K	0 / 0	-38.5	-38.5	8	0.58 (1)	10.00
K-L	0 / 0	-38.5	-38.5	8	0.58 (1)	10.00
L-D	0 / 0	-38.5	-38.5	8	0.58 (1)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
E-C	0 / 5987	0.74 (1)
A-F	0 / 5838	0.72 (1)
F-B	-472 / 0	0.11 (1)
B-E	-2947 / 0	0.36 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC	MAX-	MAX+	FACE	DIR.	TYPE	HEEL CONN.
F	3-9-12	-1619	-1619	—	BACK	VERT	TOTAL	
H	1-9-12	-1619	-1619	—	BACK	VERT	TOTAL	
I	5-9-12	-1619	-1619	—	BACK	VERT	TOTAL	
J	6-5-4	-1619	-1619	—	BACK	VERT	TOTAL	
K	8-5-4	-1619	-1619	—	BACK	VERT	TOTAL	
L	10-5-4	-1619	-1619	—	BACK	VERT	TOTAL	

LICENSED PROFESSIONAL ENGINEER
H. J. G ALVES
100009824
PROVINCE OF ONTARIO

TOTAL WEIGHT = 2 X 74 = 149 lb [M]

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 (0.39")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")

CSI: TC=0.65/1.00 (C-D:1) , BC=0.83/1.00 (E-F:1) , WB=0.74/1.00 (C-E:1) , SSI=0.80/1.00 (D-E: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	616	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (A) (INPUT = 0.90)
JSI METAL= 0.57 (F) (INPUT = 1.00)

DWG NO. TAM 7405570
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400374	T21	1	1	Preston 11 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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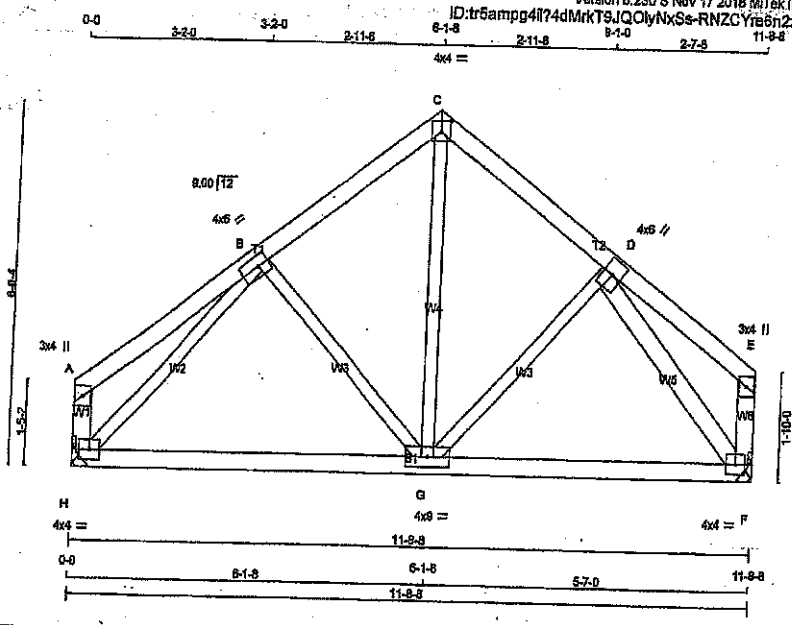


LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	3.0	4.0		
B	TMWW-t	MT20	4.0	8.0	2.00	2.25
C	TTW-p	MT20	4.0	4.0	2.25	2.00
D	TMWW+t	MT20	4.0	8.0		
E	TMV+p	MT20	3.0	4.0		
F	BMVW1-t	MT20	4.0	4.0		
G	BMWWW-t	MT20	4.0	9.0		
H	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
H	823	0	823	0	0	MECHANICAL	
F	823	0	823	0	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	615	340 / 0	123 / 0	0 / 0	0 / 0	152 / 0	0 / 0
F	615	340 / 0	123 / 0	0 / 0	0 / 0	152 / 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.

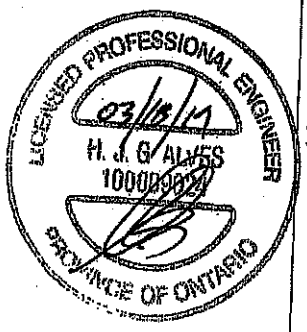
LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 21	-102.1	-102.1	1	0.15 (1)	10.00
B-C	-583 / 0	-102.1	-102.1	1	0.11 (1)	6.25
C-D	-580 / 0	-102.1	-102.1	1	0.11 (1)	6.25
D-E	0 / 22	-102.1	-102.1	1	0.13 (1)	10.00
H-A	-122 / 0	0.0	0.0	1	0.01 (1)	7.81
F-E	-91 / 0	0.0	0.0	1	0.01 (1)	7.81
H-G	0 / 549	-38.5	-38.5	2	0.35 (2)	10.00
G-F	0 / 462	-38.5	-38.5	2	0.34 (2)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
B-G	-148 / 19	0.05 (1)
G-C	0 / 425	0.10 (1)
G-D	-48 / 54	0.02 (1)
H-B	-820 / 0	0.27 (1)
D-F	-812 / 0	0.17 (1)



TOTAL WEIGHT = 52 lb

MiTek

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 97.6 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 (0.39")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.15/1.00 (A-B:1) , BC=0.35/1.00 (G-H:2), WB=0.27/1.00 (B-H:1) , SSI=0.15/1.00 (G-H: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

AUTOSOLVE LEFT 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	619	354	1667	788	1667	1658

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.76 (C) (INPUT = 0.90)
JSI METAL= 0.34 (D) (INPUT = 1.00)

DWG NO. TAM T190537
STRUCTURAL COMPONENT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400374	T22	1	1	Preston 11 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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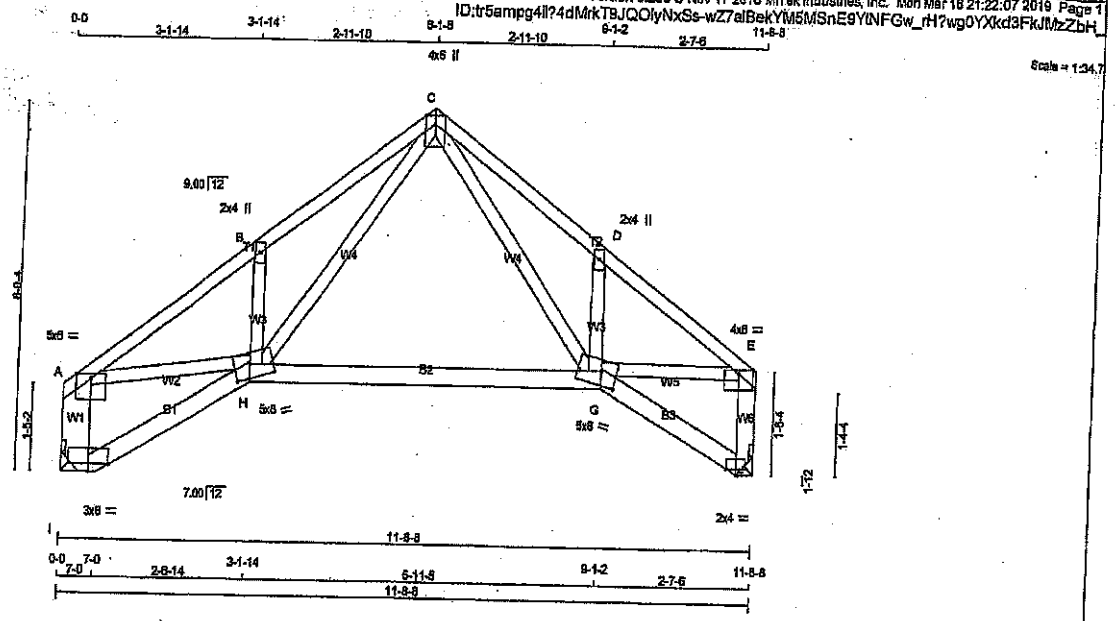


TOTAL WEIGHT = 46 lb

MiTek

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x3	DRY	No.2	SPF
C - E	2x3	DRY	No.2	SPF
I - A	2x6	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
G - F	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
A	TMVW-p	MT20	5.0	6.0	Edge	
B	TMW+w	MT20	2.0	4.0		
C	TTWW+p	MT20	4.0	6.0	Edge	
D	TMW+w	MT20	2.0	4.0		
E	TMVW-p	MT20	4.0	8.0	Edge	
F	BVM1-p	MT20	2.0	4.0	Edge	2.00
G	BBWWW-m	MT20	5.0	8.0	2.75	3.25
H	BBWWW-m	MT20	5.0	8.0	2.75	3.25
I	BVM1-p	MT20	3.0	8.0	Edge	

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
I	823	0	823	0	0	MECHANICAL	
F	823	0	823	0	0	MECHANICAL	

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

UNFACTORED REACTIONS

1ST LCASE MAX./MIN. COMPONENT REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	615	340 / 0	123 / 0	0 / 0	0 / 0	152 / 0	0 / 0
F	615	340 / 0	123 / 0	0 / 0	0 / 0	152 / 0	0 / 0

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.77 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.

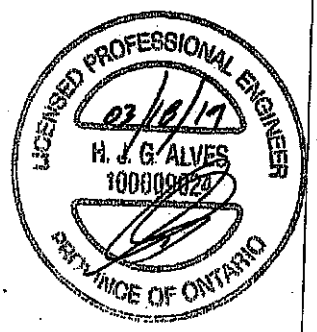
LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	-1222 / 0	-102.1	-102.1	0.27 (1)	4.83	
B-C	-1273 / 0	-102.1	-102.1	0.26 (1)	4.77	
C-D	-1117 / 0	-102.1	-102.1	0.22 (1)	5.06	
D-E	-1071 / 0	-102.1	-102.1	0.21 (1)	5.16	
I-A	-762 / 0	0.0	0.0	0.05 (1)	7.81	
F-E	-773 / 0	0.0	0.0	0.09 (1)	7.81	
I-H	0 / 0	-38.5	-38.5	0.09 (3)	10.00	
H-G	0 / 528	-38.5	-38.5	0.37 (2)	10.00	
G-F	0 / 0	-38.5	-38.5	0.06 (3)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
H-B	-366 / 0	0.06 (1)
H-C	0 / 825	0.19 (1)
C-G	0 / 813	0.14 (1)
G-D	-352 / 0	0.06 (1)
A-H	0 / 1000	0.23 (1)
G-E	0 / 873	0.20 (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

(65 % 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 (0.39")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/ 631 (0.17")

CSI: TC=0.27/1.00 (A-B:1) , BC=0.37/1.00 (G-H:2) , WB=0.29/1.00 (A-H:1) , SBI=0.17/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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	1658

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.70 (A) (INPUT = 0.90)
JSI METAL= 0.29 (A) (INPUT = 1.00)

DWG NO. TAM 1905572
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400374	T23	2	1	Preston 11 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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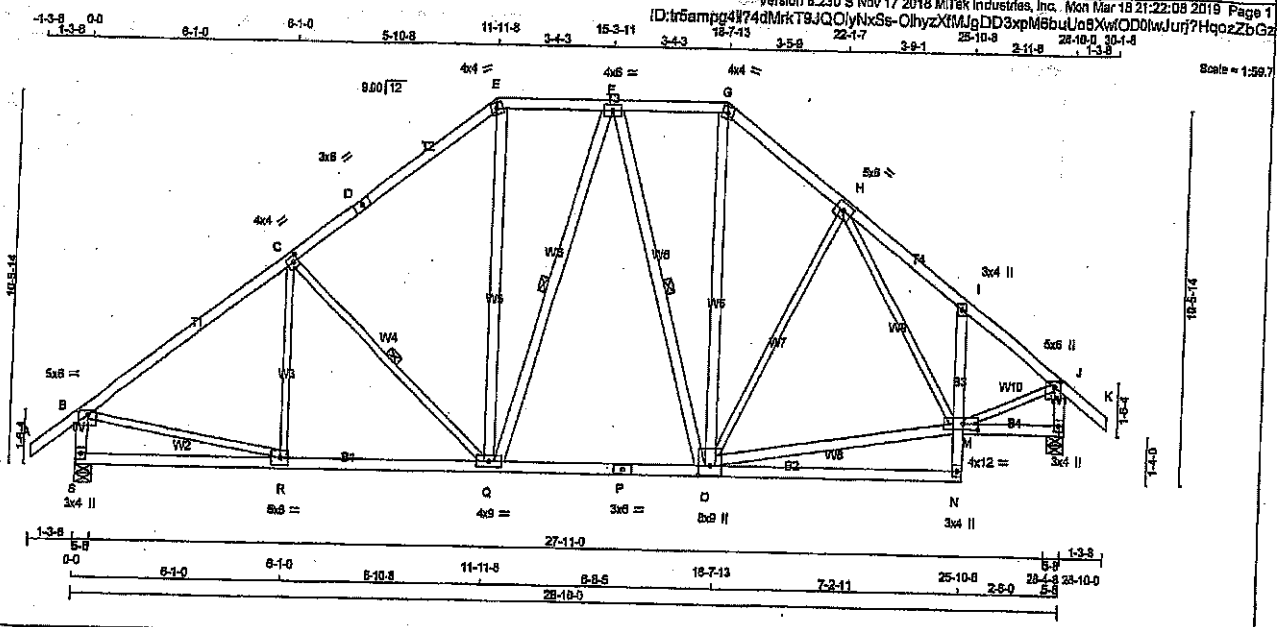

TOTAL WEIGHT = 2 X 168 = 336 lb [M][F]

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 - G	2x4	DRY	No.2	SPF
G - K	2x4	DRY	No.2	SPF
S - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
S - P	2x4	DRY	No.2	SPF
P - N	2x4	DRY	No.2	SPF
N - I	2x4	DRY	No.2	SPF
M - L	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x4	DRY	No.2	SPF
R - C	2x3	DRY	No.2	SPF
C - Q	2x3	DRY	No.2	SPF
B - R	2x3	DRY	No.2	SPF
O - H	2x3	DRY	No.2	SPF
H - M	2x3	DRY	No.2	SPF
M - J	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	TS-t	MT20	3.0	6.0		
E	TTW-m	MT20	4.0	4.0		
F	TMWW-t	MT20	4.0	6.0		
G	TTW-m	MT20	4.0	4.0		
H	TMWW-t	MT20	5.0	8.0		
I	TMV+p	MT20	3.0	4.0		
J	TMVW+p	MT20	5.0	6.0	2.00	2.00
L	BMV1+p	MT20	3.0	4.0		
M	BVMWWW-I	MT20	4.0	12.0	2.00	5.25
N	BMV+p	MT20	3.0	4.0		
O	BMWWWW*+r	MT20	6.0	9.0	3.25	4.00
P	BS-t	MT20	3.0	6.0		
Q	BMWWW-t	MT20	4.0	9.0		
R	BMWW-t	MT20	5.0	8.0		
S	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
S	2168	0	2168	0	0	5-8	5-8
L	2168	0	2168	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
S	1611	917 / 0	303 / 0	0 / 0	0 / 0	391 / 0	0 / 0
L	1611	917 / 0	303 / 0	0 / 0	0 / 0	391 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.97 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 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-Q, F-Q, F-O.

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	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
B-C	-2195 / 0	-102.1	-102.1	0.61 (1)	3.97	
C-D	-1793 / 0	-102.1	-102.1	0.55 (1)	4.38	
D-E	-1793 / 0	-102.1	-102.1	0.55 (1)	4.38	
E-F	-1406 / 0	-102.1	-102.1	0.15 (1)	5.85	
F-G	-1341 / 0	-102.1	-102.1	0.15 (1)	5.45	
G-H	-1883 / 0	-102.1	-102.1	0.17 (1)	4.97	
H-I	-1989 / 0	-102.1	-102.1	0.19 (1)	4.64	
I-J	-2013 / 0	-102.1	-102.1	0.14 (1)	4.66	
J-K	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
S-B	-2073 / 0	0.0	0.0	0.22 (1)	5.87	
L-J	-2108 / 0	0.0	0.0	0.22 (1)	5.84	
S-R	0 / 0	-38.5	-38.5	0.27 (3)	10.00	
R-Q	0 / 1791	-38.5	-38.5	0.49 (2)	10.00	
Q-P	0 / 1435	-38.5	-38.5	0.55 (2)	10.00	
P-O	0 / 1435	-38.5	-38.5	0.55 (2)	10.00	
O-N	0 / 47	-38.5	-38.5	0.38 (3)	10.00	
N-M	0 / 144	0.0	0.0	0.10 (1)	10.00	
M-I	-340 / 0	0.0	0.0	0.08 (1)	7.81	
M-L	0 / 0	-38.5	-38.5	0.09 (3)	10.00	

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
R-C	-89 / 179	0.05 (1)
C-Q	-547 / 0	0.28 (1)
Q-E	0 / 685	0.11 (1)
Q-G	0 / 720	0.12 (1)
B-R	0 / 1825	0.41 (1)
O-M	0 / 1485	0.24 (1)
O-H	-416 / 0	0.58 (1)
H-M	0 / 179	0.04 (1)
M-J	0 / 1740	0.39 (1)
Q-F	-98 / 8	0.06 (1)
F-O	-320 / 0	0.20 (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

(65 % 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 (0.96")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (0.96")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.22")

CSI: TC=0.61/1.00 (B-C:1) , BC=0.55/1.00 (C-Q:2) , WB=0.58/1.00 (H-O:1) , SSI=0.24/1.00 (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	818	354	1667	768	1957	1856

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

SI GRIP= 0.88 (L) (INPUT = 0.60)
SI METAL= 0.48 (P) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. A. G. ALVES
100089021
PROVINCE OF ONTARIO

DWG NO. TAM 1705573
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400374	T24	5	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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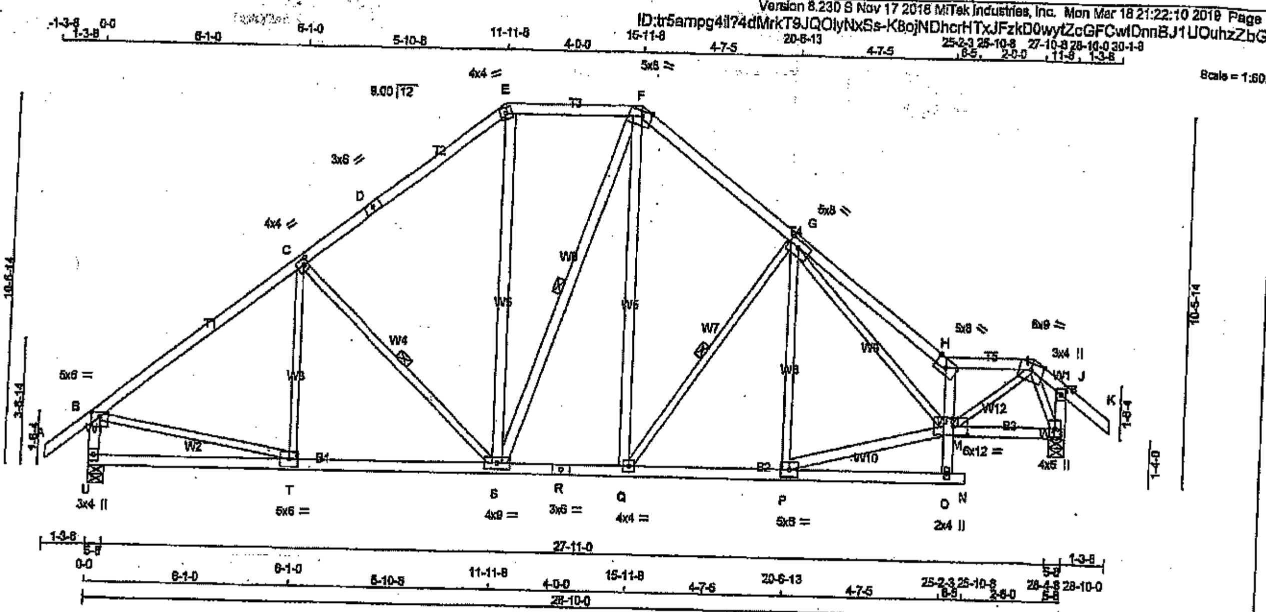

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
E - F	2x4	DRY	No.2	SPF
F - H	2x4	DRY	No.2	SPF
H - I	2x4	DRY	No.2	SPF
I - K	2x4	DRY	No.2	SPF
U - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
U - R	2x4	DRY	No.2	SPF
R - N	2x4	DRY	No.2	SPF
M - L	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
S - E	2x4	DRY	No.2	SPF
S - F	2x4	DRY	No.2	BPF
Q - F	2x4	DRY	No.2	SPF
P - M	2x4	DRY	No.2	SPF
O - H	2x4	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	8.0	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	TTW-m	MT20	4.0	4.0		
F	TTWW-m	MT20	5.0	8.0	1.75	3.25
G	TMWWW-t	MT20	5.0	8.0	2.25	3.50
H	TTW-h	MT20	5.0.	8.0	2.75	4.00
I	TTWW-m	MT20	6.0	9.0	Edge	
J	TMV+p	MT20	3.0	4.0		
L	BMVW1+p	MT20	4.0	6.0		
M	BWMWWW*-l	MT20	6.0	12.0	3.00	5.25
O	BMW+w	MT20	2.0	4.0		
P	BMWW-t	MT20	5.0	6.0		
Q	BMWW-t	MT20	4.0	4.0		
R	BS-t	MT20	3.0	6.0		
S	BMWWW-t	MT20	4.0	9.0		
T	BMWW-t	MT20	5.0	6.0		
U	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
U	2167	0	2167	0	0	5-8	5-8
L	2189	0	2189	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
		MAX./MIN. COMPONENT REACTIONS					
U	1611	915 / 0	304 / 0	0 / 0	0 / 0	392 / 0	0 / 0
L	1630	919 / 0	312 / 0	0 / 0	0 / 0	398 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.08 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

MAX. UNBRACED INTERIOR CHORD LENGTH = 4.75 FT

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

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

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	-2195 / 0	-102.1	-102.1	0.61 (1)	3.97
C- D	-1790 / 0	-102.1	-102.1	0.55 (1)	4.38
D- E	-1780 / 0	-102.1	-102.1	0.55 (1)	4.38
E- F	-1403 / 0	-102.1	-102.1	0.23 (1)	5.26
F- G	-1803 / 0	-102.1	-102.1	0.34 (1)	4.64
G- H	-4074 / 0	-102.1	-102.1	0.56 (1)	3.08
H- I	-3185 / 0	-102.1	-102.1	0.20 (1)	3.78
I- J	-58 / 0	-102.1	-102.1	0.10 (1)	6.25
J- K	0 / 42	-102.1	-102.1	0.14 (1)	10,00
U- B	-2072 / 0	0.0	0.0	0.22 (1)	5.67
L- J	-289 / 0	0.0	0.0	0.03 (1)	7.81
U- T	0 / 0	-38.5	-38.5	0.28 (3)	10.00
T- S	0 / 1791	-38.5	-38.5	0.50 (2)	10.00
S- R	0 / 1422	-38.5	-38.5	0.34 (1)	10.00
R- Q	0 / 1422	-38.5	-38.5	0.34 (1)	10.00
Q- P	0 / 1841	-38.5	-38.5	0.44 (1)	10.00
P- O	0 / 212	-38.5	-38.5	0.20 (2)	10.00
O- N	0 / 0	-38.5	-38.5	0.01 (3)	10.00
M- L	0 / 948	-38.5	-38.5	0.23 (2)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
T- C	-87 / 182	0.05 (1)
C- S	-549 / 0	0.26 (1)
S- E	0 / 621	0.10 (1)
S- F	-53 / 0	0.03 (1)
Q- F	0 / 731	0.12 (1)
Q- G	-735 / 0	0.33 (1)
P- G	-235 / 88	0.20 (1)
P- M	0 / 1692	0.27 (1)
M- I	0 / 2650	0.64 (1)
I- L	-2084 / 0	0.32 (1)
B- T	0 / 1826	0.41 (1)
O- M	0 / 121	0.40 (1)
M- H	-2788 / 0	0.39 (1)
G- M	0 / [illegible]	[illegible]

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

TOTAL WEIGHT = 5 X 159 = 796 lb

(M)(F)

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 ALL FLAT SECTIONS 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

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 (0.96")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (0.96")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.23")

CSI: TC=0.61/1.00 (B-C:1) , BC=0.50/1.00 (S-T:2) , WB=0.64/1.00 (I-M:1) , SSI=0.24/1.00 (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 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	786	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (M) (INPUT = 0.90)
JSI METAL= 0.85 (H) (INPUT = 1.00)

DWG NO. TAM 7905574
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400374	T25	1	1	Preston 11 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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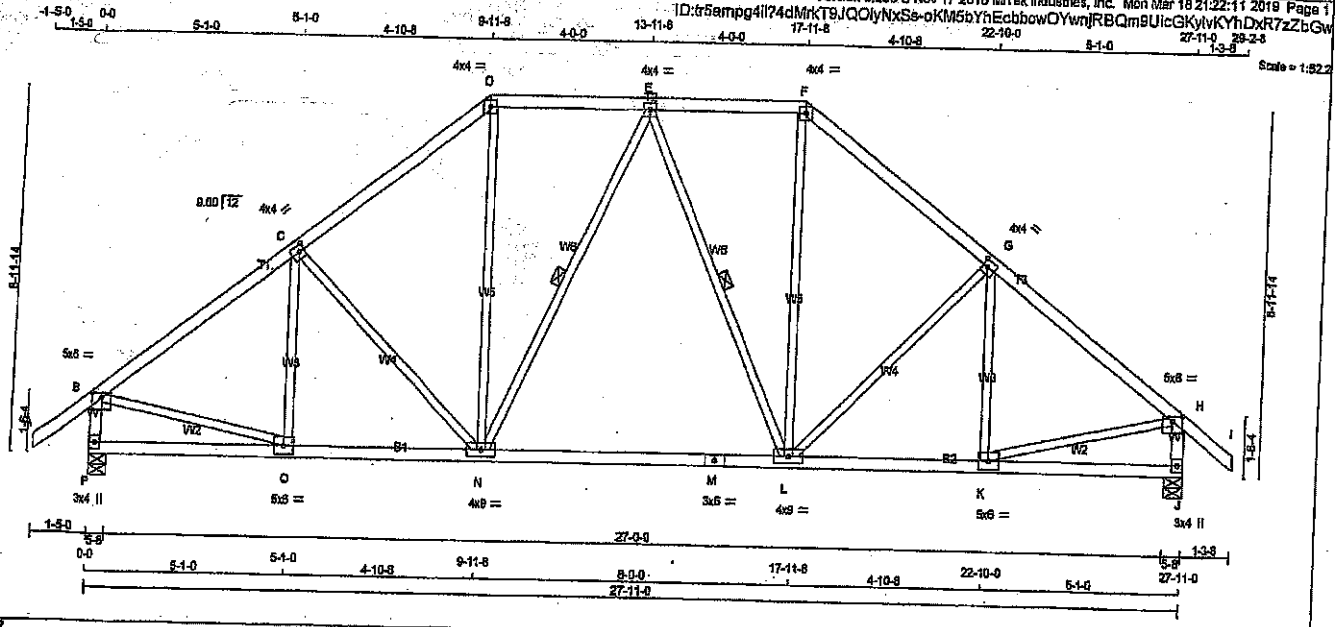


LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - 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	TMWW-t	MT20	4.0	4.0	2.00	1.50
D	TTW-I	MT20	4.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TTW-I	MT20	4.0	4.0		
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		
L	BMWWW-t	MT20	4.0	9.0		
M	BS-t	MT20	3.0	6.0		
N	BMWWW-t	MT20	4.0	9.0		
O	BMWW-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

TOTAL WEIGHT = 131 lb [M][F]

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
P	2116	0	2116	0	0	5-8	5-8
J	2103	0	2103	0	0	5-8	5-8

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1572	898 / 0	293 / 0	0 / 0	0 / 0	381 / 0	0 / 0
J	1563	891 / 0	293 / 0	0 / 0	0 / 0	379 / 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 = 4.32 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, E-L

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

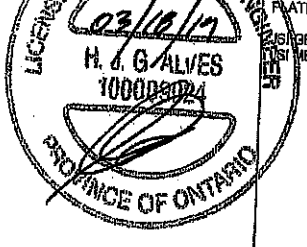
LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 46	-102.1	-102.1	0.16 (1)		10.00
B-C	-2093 / 0	-102.1	-102.1	0.40 (1)		4.32
C-D	-1868 / 0	-102.1	-102.1	0.38 (1)		4.54
D-E	-1471 / 0	-102.1	-102.1	0.22 (1)		5.18
E-F	-1471 / 0	-102.1	-102.1	0.22 (1)		5.18
F-G	-1868 / 0	-102.1	-102.1	0.38 (1)		4.54
G-H	-2093 / 0	-102.1	-102.1	0.40 (1)		4.32
H-I	0 / 42	-102.1	-102.1	0.14 (1)		10.00
P-B	-2031 / 0	0.0	0.0	0.21 (1)		5.93
J-H	-2019 / 0	0.0	0.0	0.21 (1)		5.94
P-O	0 / 0	-38.5	-38.5	0.16 (3)		10.00
O-N	0 / 1703	-38.5	-38.5	0.51 (2)		10.00
N-M	0 / 1580	-38.5	-38.5	0.49 (2)		10.00
M-L	0 / 1580	-38.5	-38.5	0.49 (2)		10.00
L-K	0 / 1703	-38.5	-38.5	0.51 (2)		10.00
K-J	0 / 0	-38.5	-38.5	0.16 (3)		10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
O-C	-212 / 64	0.09 (1)
C-N	-341 / 0	0.32 (1)
N-D	0 / 750	0.17 (1)
L-F	0 / 750	0.17 (1)
L-G	-341 / 0	0.32 (1)
K-G	-212 / 64	0.09 (1)
B-O	0 / 1749	0.39 (1)
K-H	0 / 1749	0.39 (1)
N-E	-267 / 0	0.17 (1)
E-L	-267 / 0	0.17 (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 O86-09, CSA O86-14
- TPIC 2011, TPIC 2014

(65 % 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 (0.93")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (0.93")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.22")

CSI: TC=0.40/1.00 (B-C:1) , BC=0.51/1.00 (N-O:2) , WB=0.39/1.00 (H-I:1) , SSI=0.20/1.00 (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)	SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX MIN
MT20	618	354	1367	788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

GRIP= 0.90 (D) (INPUT = 0.90)
METAL= 0.59 (M) (INPUT = 1.00)

DWG NO. TAM T2055T5
STRUCTURAL COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400374	T26	1	1	Preston 11	
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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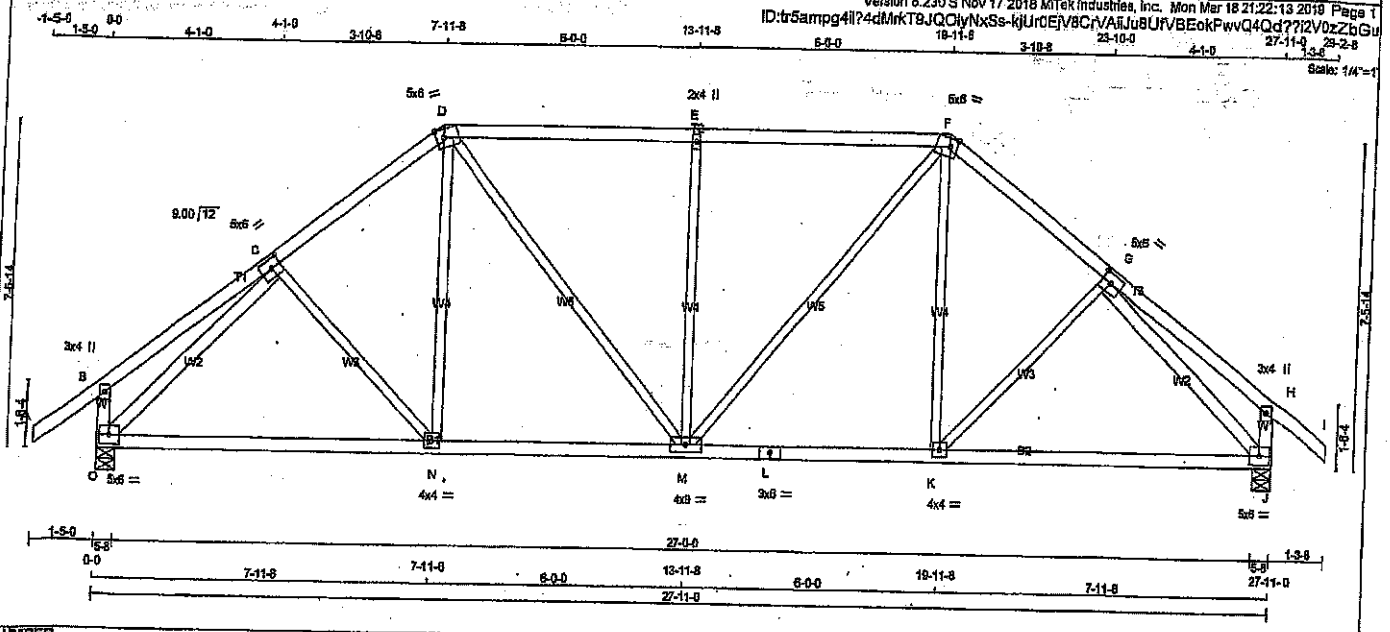

LUMBER
N. L. G. A. RULES

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	TMW+p	MT20	3.0	4.0		
C	TMWW-t	MT20	5.0	6.0	2.50	2.75
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	5.0	6.0	2.50	2.75
H	TMV+p	MT20	3.0	4.0		
J	BMWW1-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	8.0		
N	BMWW-t	MT20	4.0	4.0		
O	BMW1-t	MT20	5.0	6.0		

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

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

TOTAL WEIGHT = 126 lb [M][F]

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
O	2116	0	2116	0	0	IN-SX	IN-SX
J	2103	0	2103	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	MAX./MIN. COMPONENT REACTIONS LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1572	888 / 0	293 / 0	0 / 0	0 / 0	391 / 0	0 / 0
J	1563	891 / 0	293 / 0	0 / 0	0 / 0	379 / 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 = 4.20 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 FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 46	-102.1	-102.1	0.16 (1)	10.00
B-C	0 / 27	-102.1	-102.1	0.25 (1)	10.00
C-D	-2013 / 0	-102.1	-102.1	0.25 (1)	4.55
D-E	-1970 / 0	-102.1	-102.1	0.53 (1)	4.20
E-F	-1970 / 0	-102.1	-102.1	0.53 (1)	4.20
F-G	-2013 / 0	-102.1	-102.1	0.25 (1)	4.55
G-H	0 / 27	-102.1	-102.1	0.25 (1)	10.00
H-I	0 / 42	-102.1	-102.1	0.14 (1)	10.00
O-B	-310 / 0	0.0	0.0	0.03 (1)	7.81
J-H	-297 / 0	0.0	0.0	0.03 (1)	7.81
O-N	0 / 1595	-38.5	-38.5	0.63 (2)	10.00
N-M	0 / 1590	-38.5	-38.5	0.63 (2)	10.00
M-L	0 / 1590	-38.5	-38.5	0.63 (2)	10.00
L-K	0 / 1590	-38.5	-38.5	0.63 (2)	10.00
K-J	0 / 1599	-38.5	-38.5	0.63 (2)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
C-N	-18 / 105	0.03 (3)
N-D	0 / 392	0.09 (2)
D-M	0 / 593	0.13 (1)
M-E	-748 / 0	0.76 (1)
M-F	0 / 593	0.13 (1)
K-F	0 / 392	0.09 (2)
K-G	-18 / 105	0.03 (3)
O-C	-2318 / 0	0.80 (1)
G-J	-2318 / 0	0.80 (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 (0.93")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.17")
ALLOWABLE DEFL.(TL)= L/360 (0.93")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.28")

CSI: TC=0.53/1.00 (D-E:1) , BC=0.63/1.00 (M-N:2) , WB=0.90/1.00 (C-O:1) , SSI=0.30/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

SI GRIP= 0.88 (C) (INPUT = 0.90)
SI METAL= 0.57 (G) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. GALVES
100000024
PROVINCE OF ONTARIO

DWG NO. TAM T1905576
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400374	T27	1	2	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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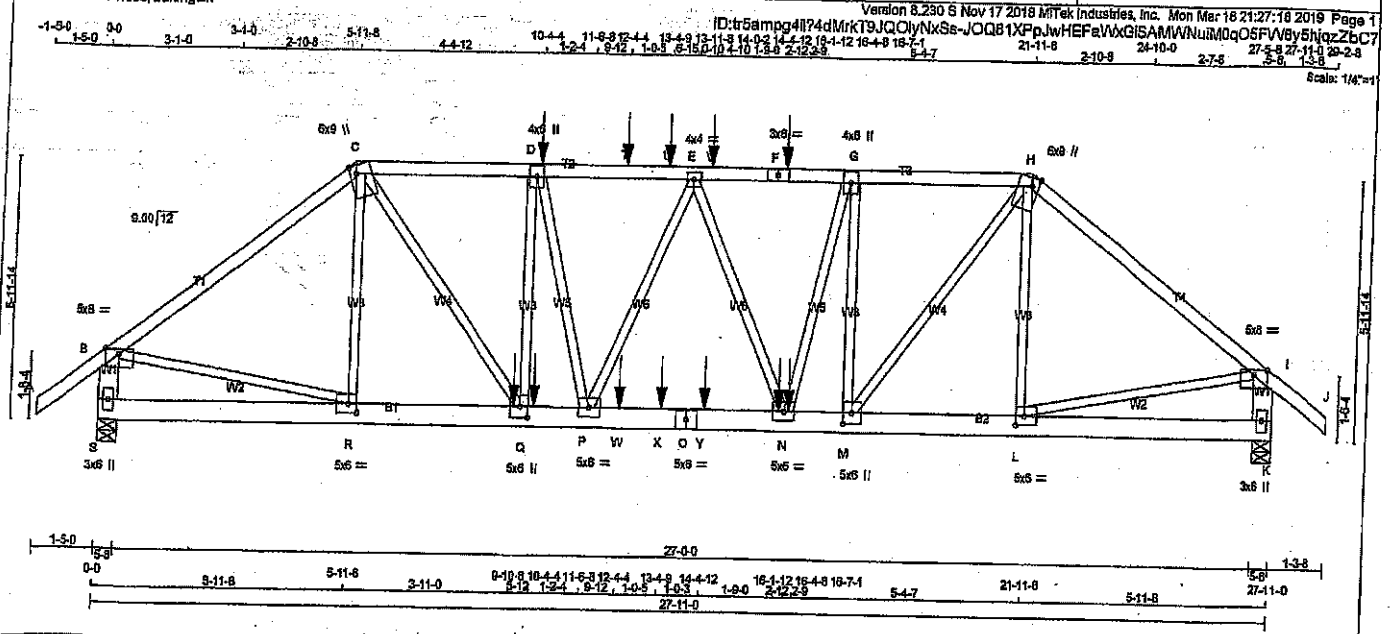

TOTAL WEIGHT = 2 X 148 = 297 lb

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 - H	2x4	DRY	No.2	SPF
H - J	2x4	DRY	No.2	SPF
S - B	2x6	DRY	No.2	SPF
K - I	2x6	DRY	No.2	SPF
S - O	2x6	DRY	No.2	SPF
O - K	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	TOP
C-F	1	12	SIDE(61.0)
F-H	1	12	SIDE(0.0)
H-J	1	12	TOP
S-B	2	12	TOP
K-I	2	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
S-O	2	12	SIDE(163.1)
O-K	2	12	SIDE(0.0)
WEBS : (0.122"X3") SPIRAL NAILS			
D-Q	1	6	SIDE(233.7)
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	TMW-p	MT20	5.0	8.0	Edge	
C	TTWW+m	MT20	6.0	9.0	Edge	2.00
D	TMWW+t	MT20	4.0	6.0		
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW+t	MT20	4.0	6.0		
H	TTWW+m	MT20	6.0	9.0	Edge	2.00
I	TMW-p	MT20	5.0	8.0	Edge	
K	BMV1+p	MT20	3.0	6.0		
L	BMWW-t	MT20	5.0	6.0	2.50	2.50
M	BMWW+t	MT20	5.0	6.0	3.00	2.25
N	BMWW-t	MT20	5.0	6.0		
O	BS-t	MT20	5.0	6.0		
P	BMWW-t	MT20	5.0	6.0		
Q	BMWW+t	MT20	5.0	6.0	3.00	2.25
R	BMWW-t	MT20	5.0	6.0	2.50	2.50
S	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
S	4438	0	4438	0	0	5-8	5-8
K	4305	0	4305	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
S	3291	1682 / 0	569 / 0	0 / 0	0 / 0	821 / 0	0 / 0
K	3190	1639 / 0	569 / 0	0 / 0	0 / 0	782 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.49 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 FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B		0 / 46	-102.1	-102.1	0.09 (1)		10.00
B-C		-5191 / 0	-102.1	-102.1	0.66 (1)		3.75
C-D		-6460 / 0	-102.1	-102.1	0.29 (1)		3.64
D-T		-6703 / 0	-102.1	-102.1	0.33 (1)		3.53
T-U		-6703 / 0	-102.1	-102.1	0.33 (1)		3.53
U-E		-6703 / 0	-102.1	-102.1	0.33 (1)		3.53
E-V		-6840 / 0	-102.1	-102.1	0.34 (1)		3.49
V-F		-6840 / 0	-102.1	-102.1	0.34 (1)		3.49
F-G		-6840 / 0	-102.1	-102.1	0.34 (1)		3.49
G-H		-6290 / 0	-102.1	-102.1	0.28 (1)		3.69
H-I		-5021 / 0	-102.1	-102.1	0.65 (1)		3.82
I-J		0 / 42	-102.1	-102.1	0.08 (1)		10.00
S-B		-4340 / 0	0.0	0.0	0.16 (1)		6.88
K-I		-4200 / 0	0.0	0.0	0.15 (1)		6.97
S-R		0 / 0	-38.5	-38.5	0.05 (3)		10.00
R-Q		0 / 4138	-38.5	-38.5	0.31 (1)		10.00
Q-P		0 / 6460	-38.5	-38.5	0.44 (1)		10.00
P-W		0 / 6933	-38.5	-38.5	0.60 (1)		10.00
W-X		0 / 6933	-38.5	-38.5	0.60 (1)		10.00
X-O		0 / 6933	-38.5	-38.5	0.60 (1)		10.00
O-Y		0 / 6933	-38.5	-38.5	0.60 (1)		10.00
Y-N		0 / 6933	-38.5	-38.5	0.60 (1)		10.00
N-M		0 / 6291	-38.5	-38.5	0.52 (1)		10.00
M-L		0 / 4001	-38.5	-38.5	0.33 (1)		10.00
L-K		0 / 0	-38.5	-38.5	0.06 (2)		10.00

WEBS MEMB.	FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
R-G		-503 / 0	0.13 (1)
C-Q		0 / 3888	0.48 (1)
Q-D		-1534 / 0	0.41 (1)
M-G		-2588 / 0	0.69 (1)
M-H		0 / 3834	0.47 (1)
L-H		-560 / 0	0.15 (1)
D-P		0 / 980	0.12 (1)
P-E		-592 / 0	0.19 (1)
E-N		-240 / 0	0.08 (1)
N-G		0 / 2170	0.27 (1)
B-R		0 / 4216	0.52 (1)
L-I		0 / 4076	0.50 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE OF LOAD	LOAD
D	10-4-4	-126	-126	—	BACK	VERT	TOTAL	— —
F	16-1-12	-126	-126	—	BACK	VERT	TOTAL	— —
N	16-1-12	-58	-74	—	BACK	VERT	TOTAL	— —
N	16-4-8	-2062	-2062	—	BACK	VERT	TOTAL	— —
Q	9-10-8	-1539	-1539	—	BACK	VERT	TOTAL	— —
Q	10-4-4	-58	-74	—	BACK	VERT	TOTAL	— —
T	12-4-4	-126	-126	—	BACK	VERT	TOTAL	— —
U	13-4-9	-126	-126	—	BACK	VERT	TOTAL	— —
V	14-4-12	-126	-126	—	BACK	VERT	TOTAL	— —
W	12-4-4	-58	-74	—	BACK	VERT	TOTAL	— —
X	13-4-9	-58	-74	—	BACK	VERT	TOTAL	— —

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	29.0	PSF
	DL =	6.0	PSF
BOT CH.	LL =	10.6	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	52.6	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 (0.93")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (0.93")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.23")

CSI: TC=0.69/1.00 (B-C:1) , BC=0.60/1.00 (N-P:1) , WB=0.69/1.00 (G-M:1) , SSI=0.17/1.00 (D-E: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

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	1867	788	1687	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.76 (C) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

DWG NO. TAM 1905577
STRUCTURAL
1/2

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400374	T27	1	2	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
Y	14-4-12	-58	-74	—	BACK	VERT	TOTAL	—	—

LICENSED PROFESSIONAL ENGINEER
03/18/19
M. G. G. ALVES
100009624
PROVINCE OF ONTARIO

DWG NO. TAM T1905577
STRUCTURAL COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400374	T28	1	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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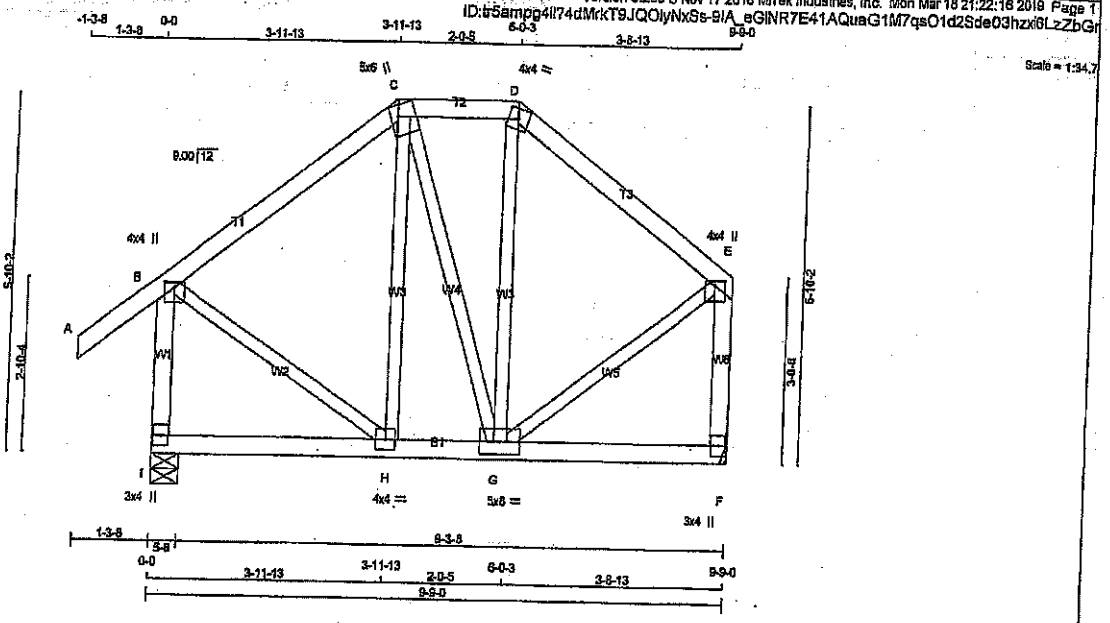


TOTAL WEIGHT = 53 lb (MiTek)

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
I - B	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
I - F	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	4.0	4.0	1.00	2.00
C	TTWW+m	MT20	5.0	6.0	2.25	1.50
D	TTW-m	MT20	4.0	4.0		
E	TMWW+p	MT20	4.0	4.0	1.00	2.00
F	BMV1+p	MT20	3.0	4.0		
G	BMWWW-t	MT20	5.0	8.0		
H	BMWW-t	MT20	4.0	4.0		
I	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
I	826	0	826	0	0	5-8	5-8
F	685	0	685	0	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	609	353 / 0	102 / 0	0 / 0	0 / 0	148 / 0	0 / 0
F	512	263 / 0	102 / 0	0 / 0	0 / 0	127 / 0	0 / 0

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

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

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

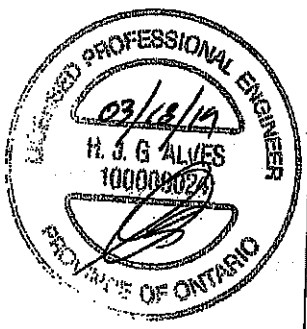
LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
FR-TO						
A-B	0 / 42	-102.1	-102.1	0.14 (1)	10.00	
B-C	-379 / 0	-102.1	-102.1	0.21 (1)	6.25	
C-D	-294 / 0	-102.1	-102.1	0.05 (1)	6.25	
D-E	-370 / 0	-102.1	-102.1	0.18 (1)	6.25	
I-B	-760 / 0	0.0	0.0	0.12 (1)	7.81	
F-E	-622 / 0	0.0	0.0	0.10 (1)	7.81	
I-H	0 / 0	-38.5	-38.5	0.11 (3)	10.00	
H-G	0 / 302	-38.5	-38.5	0.13 (2)	10.00	
G-F	0 / 0	-38.5	-38.5	0.09 (3)	10.00	

WEBS

MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		
H-C	-55 / 76	0.03 (1)
C-G	-24 / 0	0.01 (1)
G-D	-72 / 62	0.04 (1)
B-H	0 / 366	0.06 (1)
G-E	0 / 351	0.08 (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 (0.33")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.33")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.21/1.00 (B-C:1) , BC=0.13/1.00 (G-H:2) , WB=0.08/1.00 (E-G:1) , SSI=0.13/1.00 (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	1867	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (B) (INPUT = 0.90)
JSI METAL= 0.15 (B) (INPUT = 1.00)

DWG NO. TAM T200557B
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400374	T29	1	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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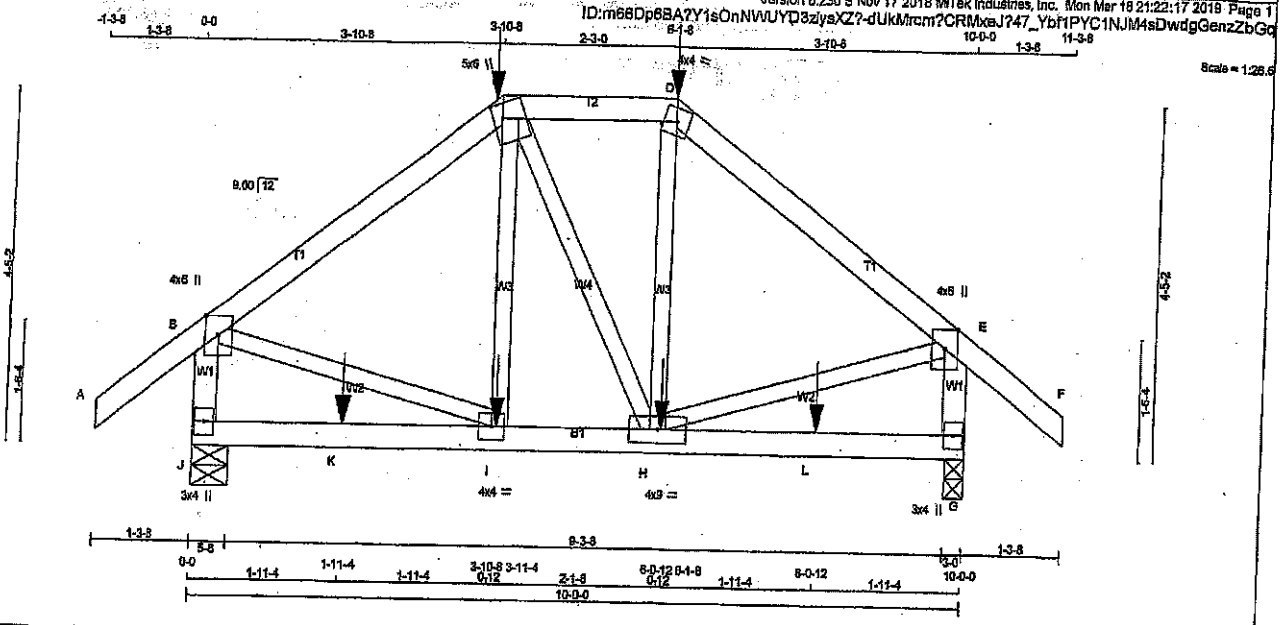

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
J - B	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF
J - G	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	TMVW+p	MT20	4.0	8.0	Edge	
C	TTWW+m	MT20	5.0	8.0	2.25	1.50
D	TTW-m	MT20	4.0	4.0		
E	TMVW+p	MT20	4.0	6.0	Edge	
G	BMV1+p	MT20	3.0	4.0		
H	BMWWW-t	MT20	4.0	9.0		
I	BMWW-t	MT20	4.0	4.0		
J	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
J	1120	0	1120	0	0	5-8	5-8
G	1119	0	1119	0	0	3-0	3-0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	828	482 / 0	144 / 0	0 / 0	0 / 0	202 / 0	0 / 0
G	828	482 / 0	144 / 0	0 / 0	0 / 0	201 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.21 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.

LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 FROM	TO	MAX. CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 42	-102.1	-102.1	0.15 (1)	10.00
B-C	-832 / 0	-102.1	-102.1	0.31 (1)	6.22
C-D	-665 / 0	-102.1	-102.1	0.10 (1)	6.25
D-E	-833 / 0	-102.1	-102.1	0.31 (1)	6.21
E-F	0 / 42	-102.1	-102.1	0.15 (1)	10.00
J-B	-1039 / 0	0.0	0.0	0.12 (1)	7.68
G-E	-1037 / 0	0.0	0.0	0.12 (1)	7.68
J-K	0 / 0	-38.5	-38.5	0.17 (3)	10.00
K-I	0 / 0	-38.5	-38.5	0.17 (3)	10.00
I-H	0 / 863	-38.5	-38.5	0.22 (2)	10.00
H-L	0 / 0	-38.5	-38.5	0.17 (3)	10.00
L-G	0 / 0	-38.5	-38.5	0.17 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
I-C	-18 / 140	0.04 (3)
C-H	0 / 8	0.00 (3)
H-D	-14 / 145	0.04 (3)
B-I	0 / 693	0.17 (1)
H-E	0 / 694	0.17 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-10-8	-204	-204	—	BACK	VERT	TOTAL	—	—
D	8-1-8	-204	-204	—	BACK	VERT	TOTAL	—	—
H	6-0-12	-36	-46	—	BACK	VERT	TOTAL	—	—
I	3-11-4	-36	-46	—	BACK	VERT	TOTAL	—	—
K	1-11-4	-36	-46	—	BACK	VERT	TOTAL	—	—
L	8-0-12	-36	-46	—	BACK	VERT	TOTAL	—	—

TOTAL WEIGHT = 47 lb

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 (0.33")
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=0.31/1.00 (D-E:1) , BC=0.22/1.00 (H-I:2) , WB=0.17/1.00 (E-H:1) , SSI=0.14/1.00 (B-C: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	1567	788	1997	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

SI GRIP= 0.86 (I) (INPUT = 0.90)
SI METAL= 0.46 (E) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/19/19
M. S. CALVES
100000024
PROVINCE OF ONTARIO

DWG NO. TAM TM05579
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400374	T30	1	2	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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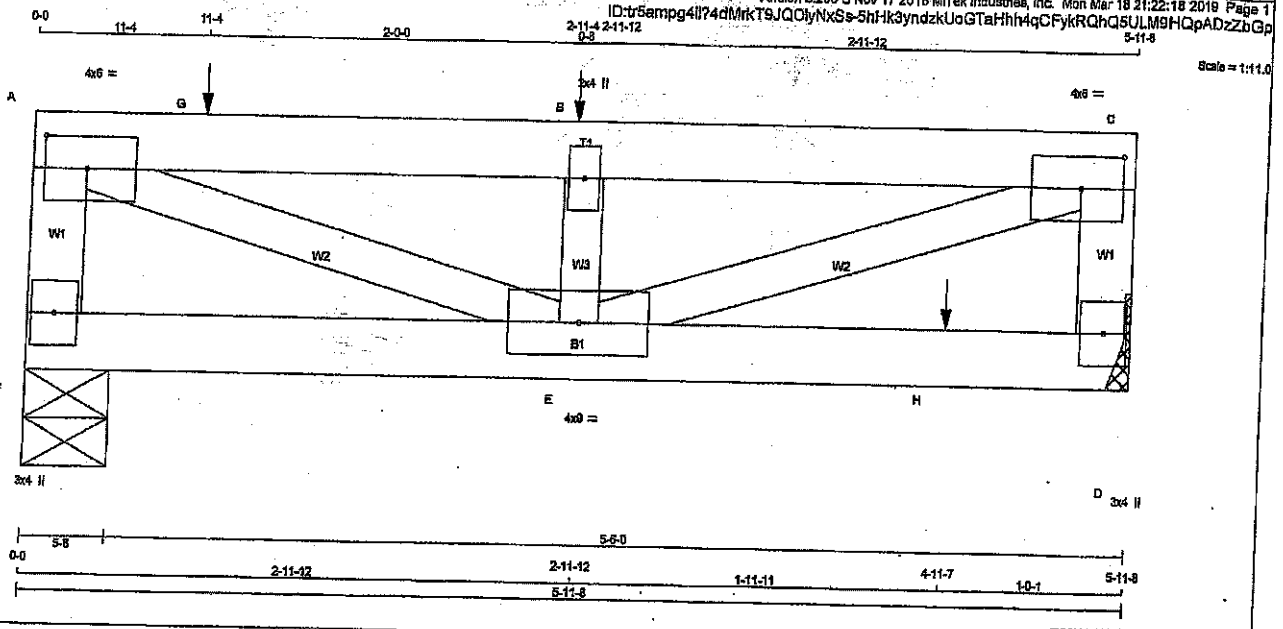


TOTAL WEIGHT = 2 X 20 = 41 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
F - A	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
D - C	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS	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			
F-A	1	12	TOP
A-C	1	12	SIDE(0.0)
C-D	1	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
F-D	1	12	SIDE(14.0)
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
A	TMVW-t	MT20	4.0	6.0	2.00	2.75
B	TMW+w	MT20	2.0	4.0		
C	TMVW-t	MT20	4.0	6.0	2.00	2.75
D	BMV1+p	MT20	3.0	4.0		
E	BMWW-t	MT20	4.0	9.0		
F	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	REQRD BRG
F	1317	0	1317	0	0	IN-SX	IN-SX
D	1578	0	1578	0	0	5-8	5-8
						MECHANICAL	

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

UNFACTORED REACTIONS

1ST LCASE MAX./MIN. COMPONENT REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	980	533 / 0	155 / 0	0 / 0	0 / 0	283 / 0	0 / 0
D	1176	639 / 0	205 / 0	0 / 0	0 / 0	331 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.33 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.

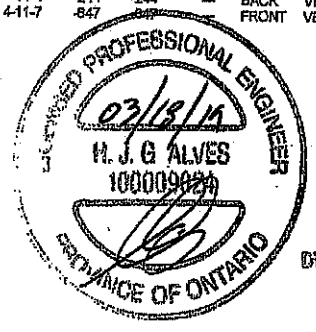
LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
F-A	-1245 / 0	0.0	0.0	0.07 (1)		7.81	A-E	0 / 2820	0.35 (1)
A-G	-2662 / 0	-102.1	-102.1	0.21 (1)		5.33	E-B	-1406 / 0	0.11 (1)
G-B	-2662 / 0	-102.1	-102.1	0.21 (1)		5.33	E-C	0 / 2820	0.35 (1)
B-C	-2662 / 0	-102.1	-102.1	0.10 (1)		5.49			
D-C	-1078 / 0	0.0	0.0	0.06 (1)		7.81			
F-E	0 / 0	-63.5	-63.5	0.06 (3)		10.00			
E-H	0 / 0	-63.5	-63.5	0.35 (1)		10.00			
H-D	0 / 0	-63.5	-63.5	0.35 (1)		10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
B	2-11-4	-1017	-1017	—	TOP	VERT	TOTAL	—	—
G	11-4	-244	-244	—	BACK	VERT	TOTAL	—	—
H	4-11-7	-847	-847	—	FRONT	VERT	TOTAL	—	—



DWG NO. TAM T1905580

STRUCTURAL

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

(65 % 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 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.21/1.00 (A-B:1) , BC=0.35/1.00 (D-E:1) , WB=0.35/1.00 (A-E:1) , SSI=0.21/1.00 (D-E: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	1658

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (C) (INPUT = 0.80)
JSI METAL= 0.33 (C) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400374	T31	3	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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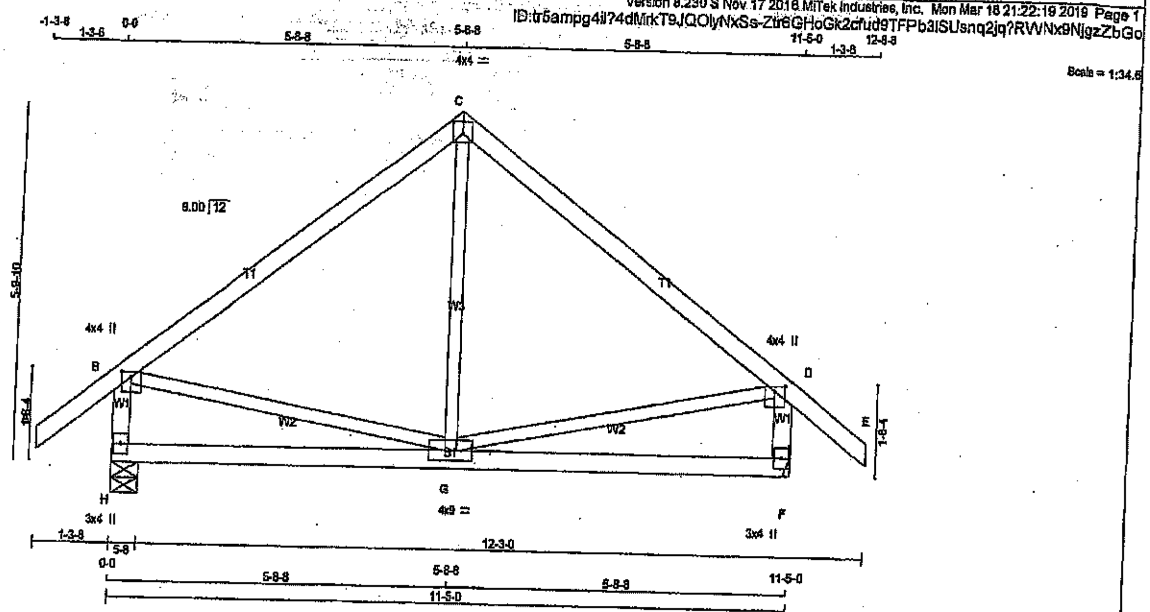

LUMBER

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	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	TMVW+p	MT20	4.0	4.0	1.00	2.00
C	TTW-p	MT20	4.0	4.0	2.25	2.00
D	TMVW+p	MT20	4.0	4.0	1.00	2.00
F	BMV1+p	MT20	3.0	4.0		
G	BMWWW-t	MT20	4.0	9.0		
H	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
H	943	0	943	0	0	5-8	5-8
F	943	0	943	0	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	696	412 / 0	120 / 0	0 / 0	0 / 0	165 / 0	0 / 0
F	696	412 / 0	120 / 0	0 / 0	0 / 0	165 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 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	-557 / 0	-102.1	-102.1	0.43 (1)	6.25
C- D	-557 / 0	-102.1	-102.1	0.43 (1)	6.25
D- E	0 / 42	-102.1	-102.1	0.14 (1)	10.00
H- B	-860 / 0	0.0	0.0	0.09 (1)	7.81
F- D	-860 / 0	0.0	0.0	0.09 (1)	7.81
H- G	0 / 0	-38.5	-38.5	0.29 (3)	10.00
G- F	0 / 0	-38.5	-38.5	0.29 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
G- C	0 / 254	0.06 (3)
B- G	0 / 455	0.10 (1)
G- D	0 / 455	0.10 (1)

TOTAL WEIGHT = 3 X 49 = 147 lb

[MiF]

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 (0.38")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.38")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.43/1.00 (B-C:1) , BC=0.29/1.00 (G-H:3) , WB=0.10/1.00 (D-G:1) , SSI=0.18/1.00 (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	786	1987	1658

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (D) (INPUT = 0.90)
JSI METAL= 0.22 (D) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

DWG NO. TAM 1905581
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400374	T31S	2	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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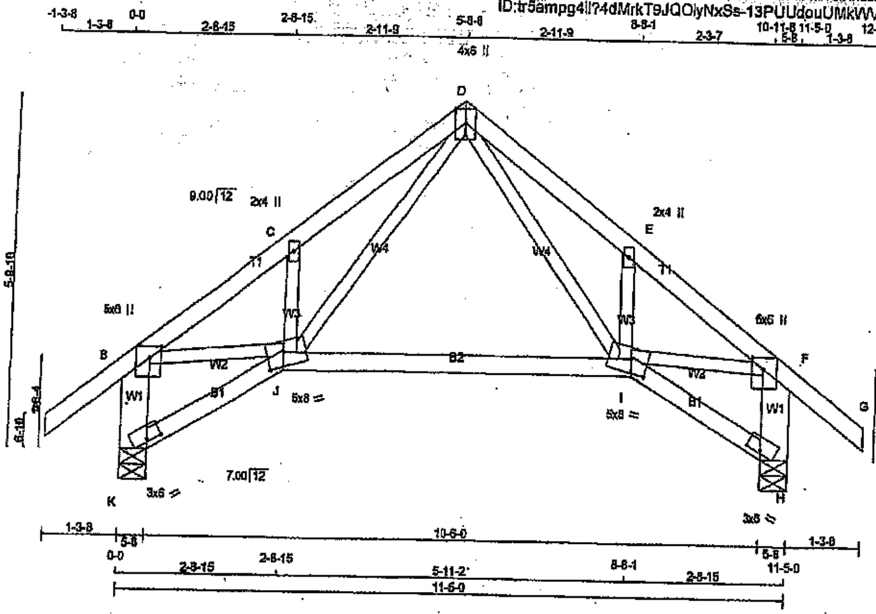

TOTAL WEIGHT = 2 X 53 = 107 lb

[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
K - B	2x6	DRY	No.2	SPF
H - F	2x6	DRY	No.2	SPF
K - J	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	TMVW+p	MT20	5.0	6.0	2.25	2.25
C	TMW+w	MT20	2.0	4.0		
D	TTWW+p	MT20	4.0	6.0	Edge	
E	TMW+w	MT20	2.0	4.0		
F	TMVW+p	MT20	5.0	6.0	2.25	2.25
H	BVM1-I	MT20	3.0	6.0	0.50	3.00
I	BBWWW-m	MT20	5.0	8.0	2.75	3.50
J	BBWWW-m	MT20	5.0	8.0	2.75	3.50
K	BVM1-I	MT20	3.0	6.0	0.50	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
K	943	0	943	0	0	5-8	5-8
H	943	0	943	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	696	412 / 0	120 / 0	0 / 0	0 / 0	165 / 0	0 / 0
H	696	412 / 0	120 / 0	0 / 0	0 / 0	165 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.80 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	-1125 / 0	-102.1	-102.1	0.10 (1)	5.69
C- D	-1157 / 0	-102.1	-102.1	0.11 (1)	5.80
D- E	-1157 / 0	-102.1	-102.1	0.11 (1)	5.80
E- F	-1125 / 0	-102.1	-102.1	0.10 (1)	5.69
F- G	0 / 42.	-102.1	-102.1	0.14 (1)	10.00
K- B	-891 / 0	0.0	0.0	0.06 (1)	7.81
H- F	-891 / 0	0.0	0.0	0.06 (1)	7.81
K- J	0 / 0	-38.5	-38.5	0.07 (3)	10.00
J- I	0 / 514	-38.5	-38.5	0.36 (2)	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)
D- I	0 / 888	0.15 (1)
I- E	-341 / 0	0.05 (1)
J- D	0 / 888	0.15 (1)
J- C	-341 / 0	0.05 (1)
B- J	0 / 913	0.21 (1)
I- F	0 / 913	0.21 (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 (0.38")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.38")
CALCULATED VERT. DEFL.(TL) = L/ 856 (0.16")

CSI: TC=0.14/1.00 (F-G:1) , BC=0.36/1.00 (I-J:2) , WB=0.21/1.00 (F-I: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

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	1657	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

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

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

DWG NO. TAM 17905582
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400371	V1	1	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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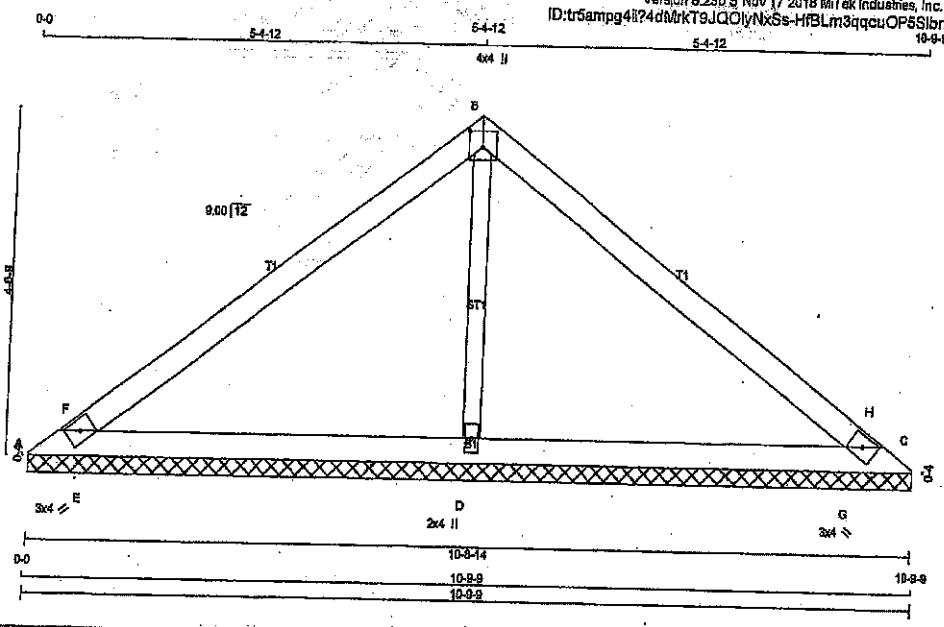

TOTAL WEIGHT = 29 lb

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	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TBM1-h	MT20	3.0	4.0		
B	TTW+p	MT20	4.0	4.0	2.25	2.00
C	TBM1-h	MT20	3.0	4.0		
D	BMW1+w	MT20	2.0	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
A	5	0	8	0	0	10-8-14	10-8-14
C	5	0	8	0	0	10-8-14	10-8-14
D	1500	0	1500	0	0	10-8-14	10-8-14

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
A	5	0 / -1	3 / 0	0 / 0	0 / 0	2 / 0	0 / 0
C	5	0 / -1	3 / 0	0 / 0	0 / 0	2 / 0	0 / 0
D	1119	625 / 0	219 / 0	0 / 0	0 / 0	275 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-F	0 / 606	-102.1	-102.1	0.24 (1)	10.00
F-B	0 / 584	-102.1	-102.1	0.40 (1)	10.00
B-H	0 / 584	-102.1	-102.1	0.40 (1)	10.00
H-C	0 / 606	-102.1	-102.1	0.24 (1)	10.00
A-E	-537 / 0	-38.5	-38.5	0.25 (1)	6.25
E-D	-478 / 0	-38.5	-38.5	0.31 (1)	6.25
D-G	-478 / 0	-38.5	-38.5	0.31 (1)	6.25
G-C	-537 / 0	-38.5	-38.5	0.25 (1)	6.25

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
D-B	-1147 / 0	0.28 (1)
E-F	-331 / 31	0.00 (1)
G-H	-331 / 31	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 37.8 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.40/1.00 (B-H:1) , BC=0.31/1.00 (D-G:1) , WB=0.28/1.00 (B-D:1) , SSI=0.20/1.00 (C-G: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	918	354	1667	788	1957	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (B) (INPUT = 0.90)
JSI METAL= 0.28 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100089020
PROVINCE OF ONTARIO

BWG REG TAM 7905548
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400371	V2	1	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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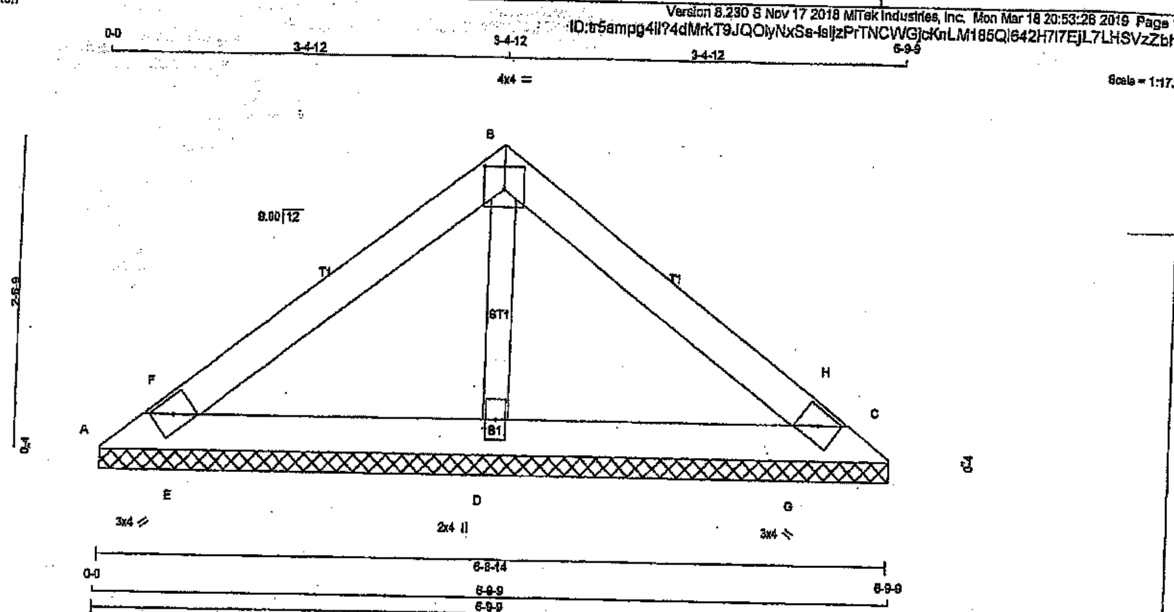

TOTAL WEIGHT = 18 lb [M]

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	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TBM1-h	MT20	3.0	4.0		
B	TTW-p	MT20	4.0	4.0	2.25	2.00
C	TBM1-h	MT20	3.0	4.0		
D	BMW1+w	MT20	2.0	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
A	94	0	94	0	0	6-8-14	6-8-14
C	94	0	94	0	0	6-8-14	6-8-14
D	760	0	760	0	0	6-8-14	6-8-14

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
A	69	40 / 0	13 / 0	0 / 0	0 / 0	17 / 0	0 / 0
C	69	40 / 0	13 / 0	0 / 0	0 / 0	17 / 0	0 / 0
D	569	312 / 0	116 / 0	0 / 0	0 / 0	142 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-F	0 / 205	-102.1	-102.1	0.05 (1)	10.00
F-B	0 / 214	-102.1	-102.1	0.15 (1)	10.00
B-H	0 / 214	-102.1	-102.1	0.15 (1)	10.00
H-C	0 / 206	-102.1	-102.1	0.05 (1)	10.00
A-E	-200 / 0	-38.5	-38.5	0.12 (1)	6.25
E-D	-174 / 0	-38.5	-38.5	0.13 (1)	6.25
D-G	-174 / 0	-38.5	-38.6	0.13 (1)	6.25
G-C	-200 / 0	-38.5	-38.5	0.12 (1)	6.25

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
D-B	-520 / 0	0.08 (1)
E-F	-158 / 13	0.00 (1)
G-H	-158 / 13	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=0.15/1.00 (B-H:1) , BC=0.13/1.00 (D-E:1) , WB=0.08/1.00 (B-D:1) , SSI=0.10/1.00 (C-G: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	1867	788	1987	1856

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.47 (B) (INPUT = 0.90)
JSI METAL= 0.15 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. G. ALVES
100009024
PROVINCE OF ONTARIO

DWG NO. TAM 71905549
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400371	PB3	1	1	Preston 11	
Tamarack Roof Truss, Burlington				TRUSS DESC.	

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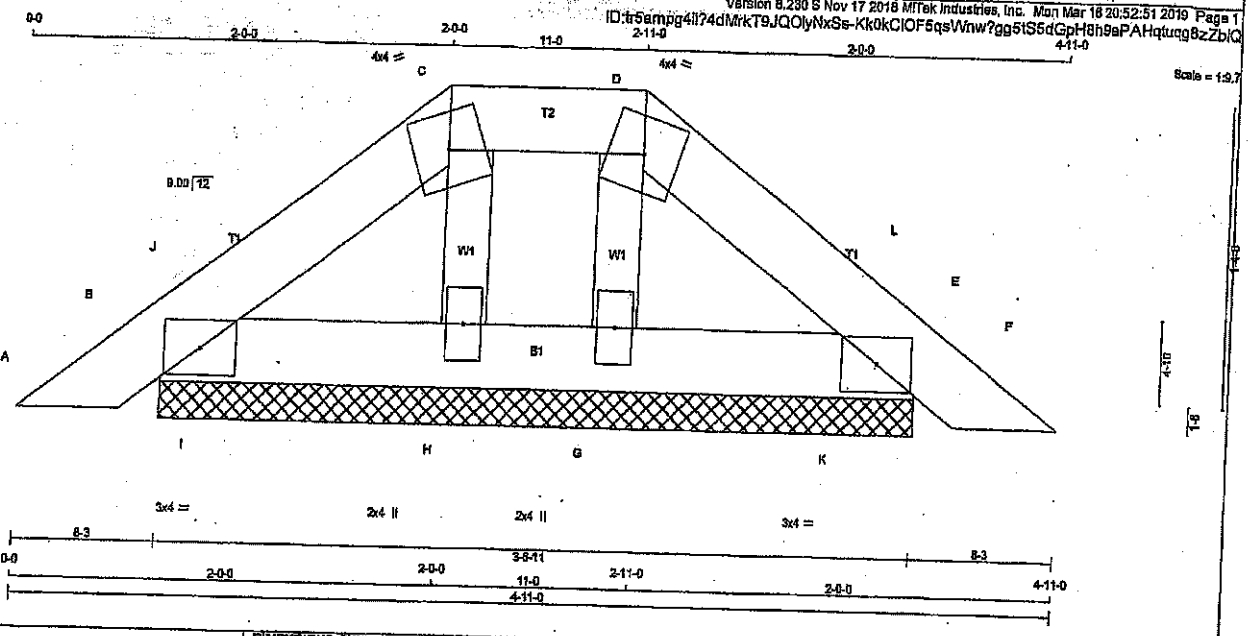


Scale = 1:9.7

TOTAL WEIGHT = 12 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
B - E	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0		
C	TTW-m	MT20	4.0	4.0		
D	TTW-m	MT20	4.0	4.0		
E	TMB1-I	MT20	3.0	4.0		
G	BMW1+w	MT20	2.0	4.0		
H	BMW1+w	MT20	2.0	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
B	172	0	172	0	0	3-8-11	3-8-11
E	172	0	172	0	0	3-8-11	3-8-11
H	136	0	136	0	0	3-8-11	3-8-11
G	136	0	136	0	0	3-8-11	3-8-11

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	124	83 / 0	14 / 0	0 / 0	0 / 0	27 / 0	0 / 0
E	124	83 / 0	14 / 0	0 / 0	0 / 0	27 / 0	0 / 0
H	104	54 / 0	23 / 0	0 / 0	0 / 0	27 / 0	0 / 0
G	104	54 / 0	23 / 0	0 / 0	0 / 0	27 / 0	0 / 0

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

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

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

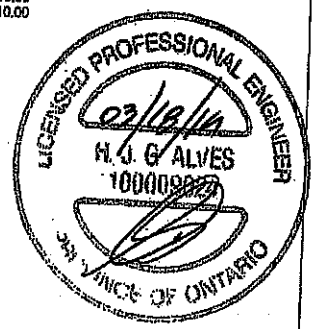
LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 17	-102.1	-102.1	0.03 (1)		10.00
B-J	-46 / 0	-102.1	-102.1	0.01 (3)		6.25
J-C	-35 / 0	-102.1	-102.1	0.02 (1)		6.25
C-D	-21 / 0	-102.1	-102.1	0.01 (1)		6.25
D-L	-35 / 0	-102.1	-102.1	0.02 (1)		6.25
L-E	-46 / 0	-102.1	-102.1	0.01 (3)		6.25
E-F	0 / 17	-102.1	-102.1	0.03 (1)		10.00
B-I	0 / 29	-38.5	-38.5	0.03 (1)		10.00
I-H	0 / 29	-38.5	-38.5	0.03 (1)		10.00
H-G	0 / 21	-38.5	-38.5	0.02 (1)		10.00
G-K	0 / 29	-38.5	-38.5	0.03 (1)		10.00
K-E	0 / 29	-38.5	-38.5	0.03 (1)		10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
H-C	-80 / 0	0.01 (1)
G-D	-80 / 0	0.01 (1)
I-J	-52 / 11	0.00 (1)
K-L	-52 / 11	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

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

CSI: TC=0.03/1.00 (E-F:1) , BC=0.03/1.00 (G-K:1) , WB=0.01/1.00 (D-G:1) , SSI=0.05/1.00 (E-K: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	1657	783	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (E) (INPUT = 0.90)
JSI METAL= 0.09 (E) (INPUT = 1.00)

BWS KELOWNA T1705544
STRUCTURAL
QUALIFIED

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400371	PB4	6	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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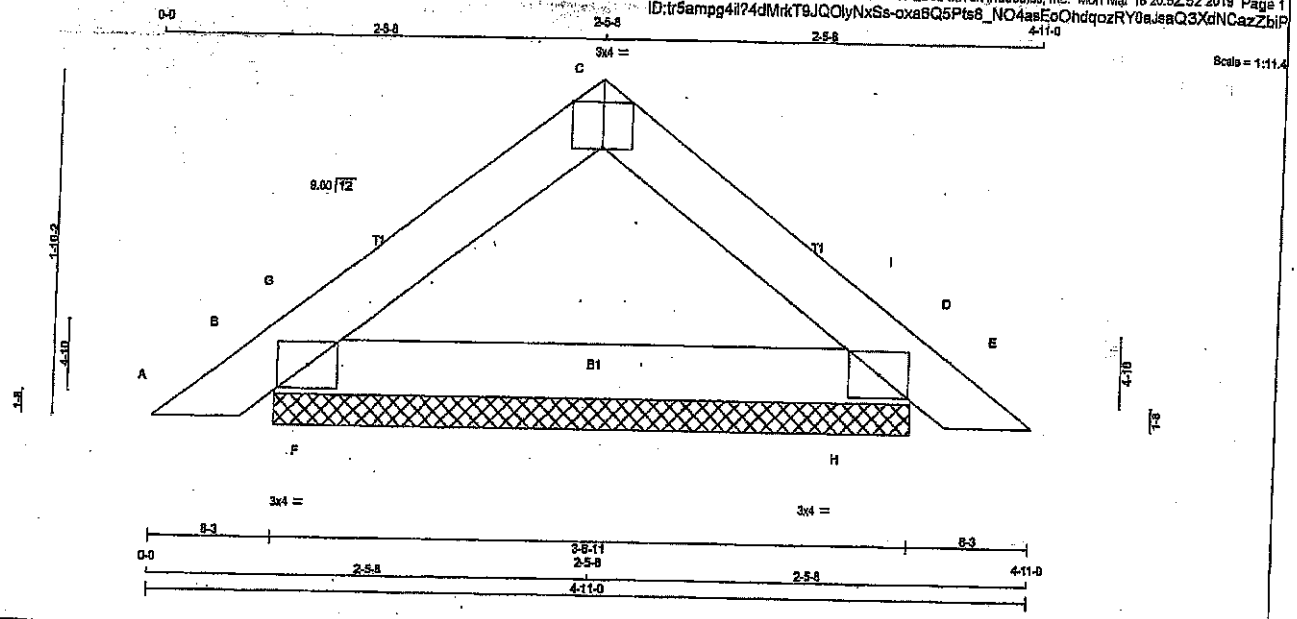

Scale = 1:11.4

TOTAL WEIGHT = 6 X 11 = 66 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
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	4.0		
C	TT-p	MT20	3.0	4.0	Edge	2.00
D	TMB1-I	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
B	311	0	311	0	0	3-8-11	3-8-11
D	311	0	311	0	0	3-8-11	3-8-11

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	228	138 / 0	37 / 0	0 / 0	0 / 0	53 / 0	0 / 0
D	228	138 / 0	37 / 0	0 / 0	0 / 0	53 / 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 / 17	-102.1	-102.1	0.03 (1)	10.00
B-G	-262 / 0	-102.1	-102.1	0.05 (3)	6.25
G-C	-151 / 0	-102.1	-102.1	0.06 (1)	6.25
C-I	-151 / 0	-102.1	-102.1	0.06 (1)	6.25
I-D	-262 / 0	-102.1	-102.1	0.05 (3)	6.25
D-E	0 / 17	-102.1	-102.1	0.03 (1)	10.00
B-F	0 / 130	-38.5	-38.5	0.04 (3)	10.00
F-H	0 / 130	-38.5	-38.5	0.08 (2)	10.00
H-D	0 / 130	-38.5	-38.5	0.04 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
F-G	0 / 148	0.00 (1)
H-I	0 / 148	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=0.08/1.00 (C-G:1) , BC=0.08/1.00 (F-H:2) , WB=0.00/1.00 (F-G:1) , SSI=0.08/1.00 (D-I:2)

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= 0.19 (B) (INPUT = 0.90)
JSI METAL= 0.05 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100096024
PROVINCE OF ONTARIO

BWS NO. TAM 7905545
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400371	PB4Z	1	2	Preston 11 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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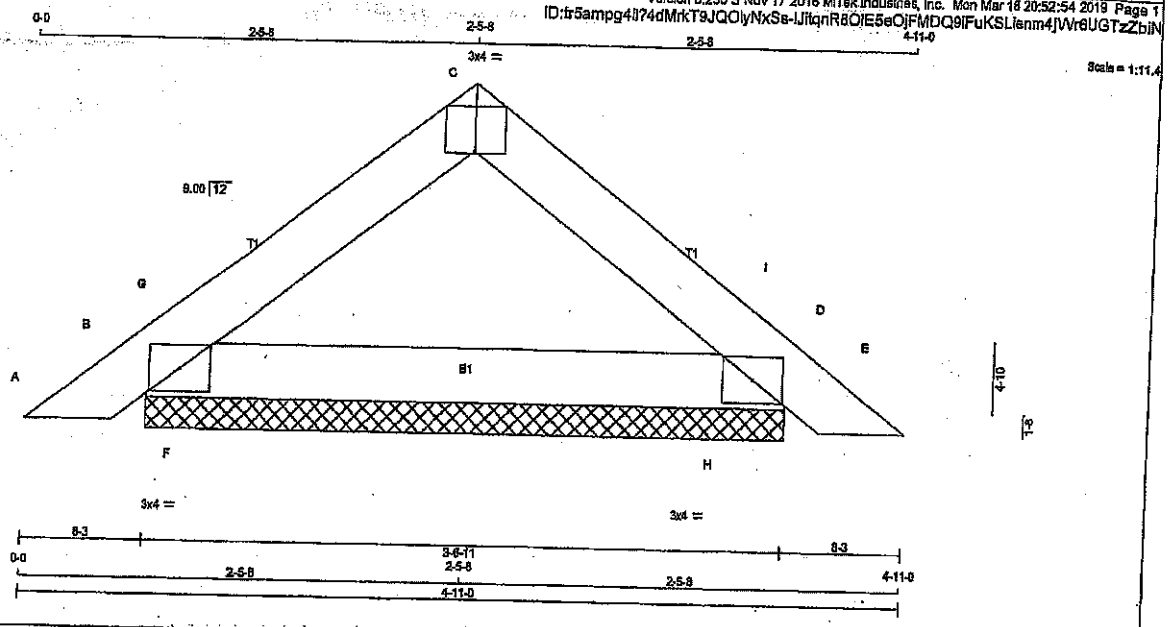

TOTAL WEIGHT = 2 X 11 = 22 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
B - D	2x4.	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	TOP
C-E	1	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
B-D	1	12	TOP

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0		
C	TT-P	MT20	3.0	4.0	Edge	2.00
D	TMB1-I	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
B	311	0	311	0	0	3-6-11	3-6-11
D	311	0	311	0	0	3-6-11	3-6-11

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	228	139 / 0	37 / 0	0 / 0	0 / 0	53 / 0	0 / 0
D	228	139 / 0	37 / 0	0 / 0	0 / 0	53 / 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 LC1 (PLF) FROM	TO	MAX. CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 17	-102.1	-102.1	0.01 (1)	10.00
B-G	-261 / 0	-102.1	-102.1	0.03 (3)	6.25
G-C	-150 / 0	-102.1	-102.1	0.03 (1)	6.25
C-I	-150 / 0	-102.1	-102.1	0.03 (1)	6.25
I-D	-261 / 0	-102.1	-102.1	0.03 (3)	6.25
D-E	0 / 17	-102.1	-102.1	0.01 (1)	10.00
B-F	0 / 130	-38.5	-38.5	0.02 (3)	10.00
F-H	0 / 130	-38.5	-38.5	0.04 (2)	10.00
H-D	0 / 130	-38.5	-38.5	0.02 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
F-G	0 / 147	0.00 (1)
H-I	0 / 147	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 37.8 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 29.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.03/1.00 (C-I:1) , BC=0.04/1.00 (F-H:2) , WB=0.00/1.00 (F-G:1) , SSI=0.04/1.00 (D-I:2)

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= 0.10 (D) (INPUT = 0.90)
JSI METAL= 0.03 (D) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. G. G. ALVES
100009827
PROVINCE OF ONTARIO

DWG NO. TAM 77005546
STRUCTURAL
CONSEQUENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400371	J1	15	1	Preston 11 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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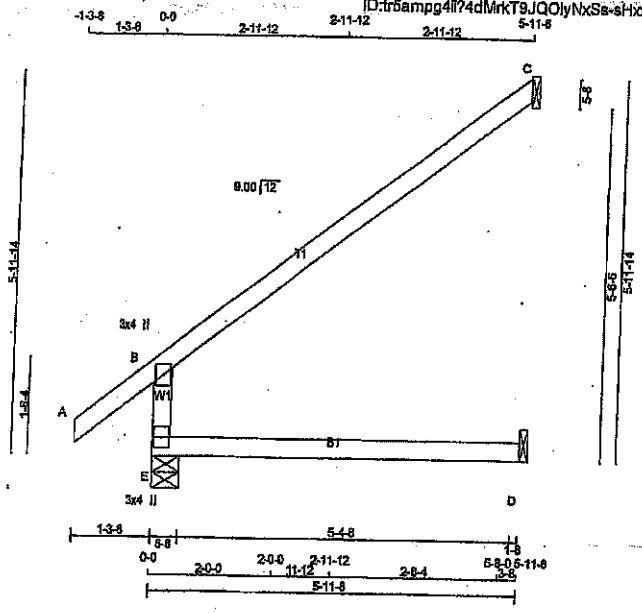


TOTAL WEIGHT = 15 X 19 = 279 lb

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	561	0	561	0	0	5-8	5-8
C	228	0	228	0	0	1-8	1-8
D	44	0	49	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37621H 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	408	296 / 0	0 / 0	0 / 0	0 / 0	109 / 0	0 / 0
C	157	130 / 0	0 / 0	0 / 0	0 / 0	27 / 0	0 / 0
D	35	0 / 0	0 / 0	0 / 0	0 / 0	35 / 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.

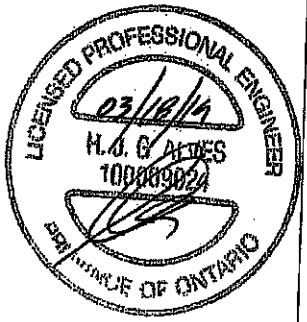
LOADING
TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
E-B	-521 / 0	0.0	0.0	0.11 (4)	7.81
A-B	0 / 42	-102.1	-102.1	0.14 (1)	10.00
B-C	-46 / 0	-102.1	-102.1	0.62 (1)	6.25
E-D	0 / 0	-17.5	-17.5	0.13 (4)	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 =	0.0	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	42.0	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 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.62/1.00 (B-C:1) , BC=0.13/1.00 (D-E:4) , WB=0.00/1.00 (n/a:0) , BSI=0.24/1.00 (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	1687	788	1987	1856

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (B) (INPUT = 0.90)
JSI METAL= 0.18 (B) (INPUT = 1.00)

BWB NO. TAM 7190550
STRUCTURAL
CERTIFICATE ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400371	J2	2	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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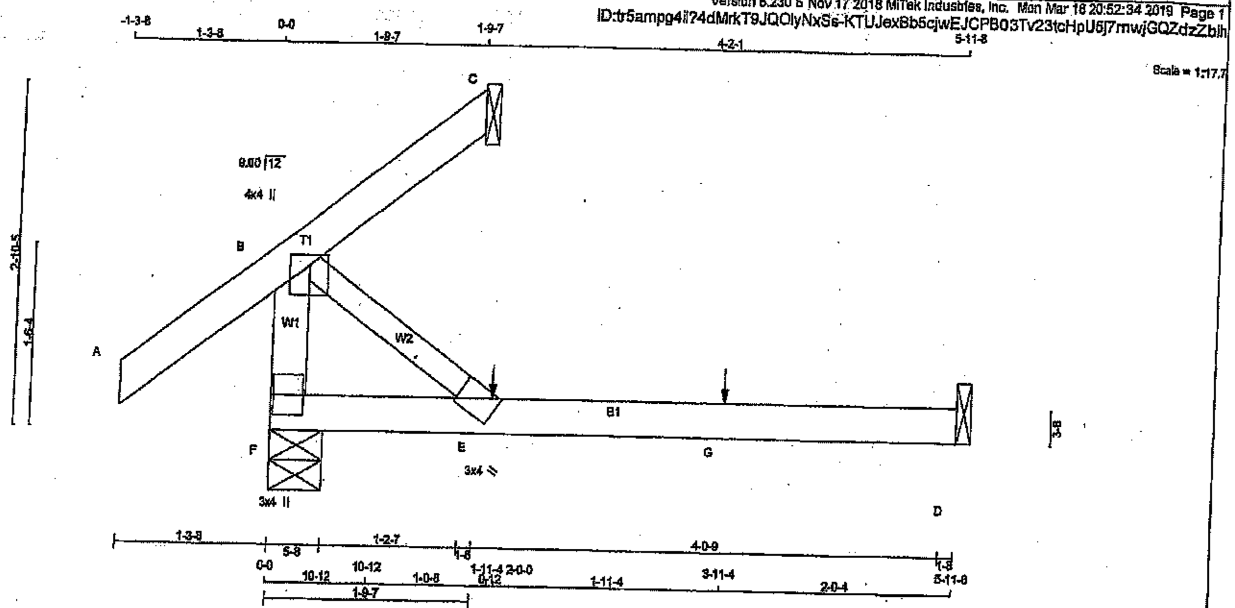

TOTAL WEIGHT = 2 X 14 = 29 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
F - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
E	BMW+w	MT20	3.0	4.0	2.00	1.25
F	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
F	401	0	401	0	0	5-8	5-8
C	37	0	37	0	0	1-8	1-8
D	115	0	148	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
F	301	163 / 0	63 / 0	0 / 0	0 / 0	75 / 0	0 / 0
C	25	21 / 0	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0
D	104	0 / 0	63 / 0	0 / 0	0 / 0	42 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, 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: (4)

CHORDS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
F- B	-266 / 0	0.0	0.0	0.03 (1)	7.81
A- B	0 / 42	-102.1	-102.1	0.15 (1)	10.00
B- C	-33 / 0	-102.1	-102.1	0.15 (1)	6.25
F- E	0 / 0	-38.5	-38.5	0.28 (2)	10.00
E- G	0 / 0	-38.5	-38.5	0.33 (2)	10.00
G- D	0 / 0	-38.5	-38.5	0.33 (2)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
B- E	0 / 0	0.00 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
E	1-11-4	1	1	—	FRONT	VERT	TOTAL	—	—
G	3-11-4	1	1	—	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

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/ 887 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 532 (0.13")

CSI: TC=0.15/1.00 (A-B:1) , BC=0.33/1.00 (D-E:2) , WB=0.00/1.00 (B-E:1) , SSI=0.13/1.00 (E-F:2)

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

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	768	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (B) (INPUT = 0.90)
JSI METAL= 0.08 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100008024
PROVINCE OF ONTARIO

DWG NO. TAM 77055.51
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
200172-400371	J3	2	1	Preston 11 TRUSS DESC.	

Tamarack Roof Truss, Burlington

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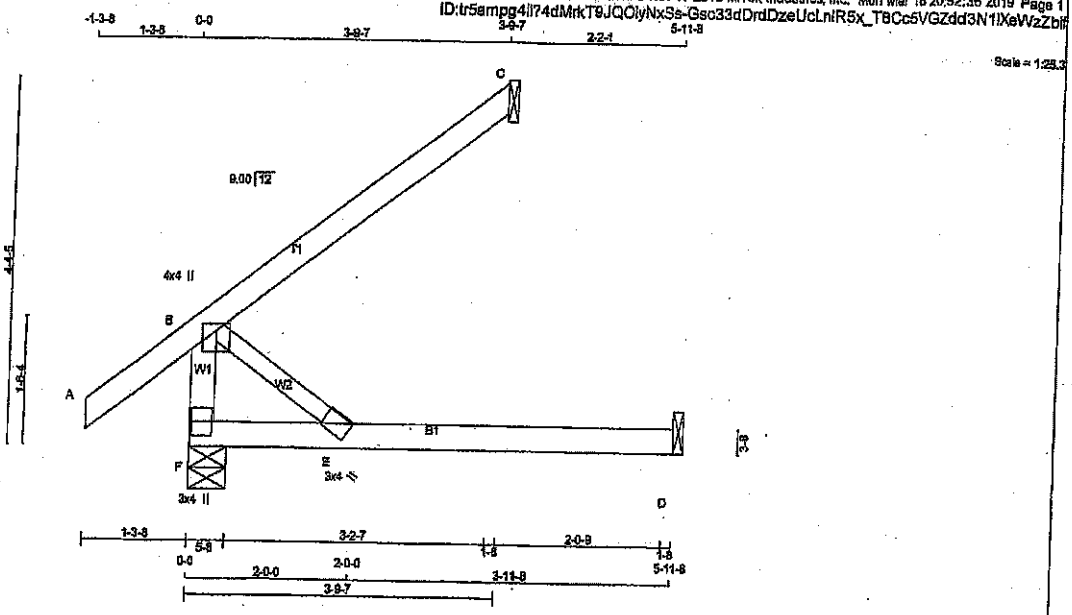

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
F - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWV+p	MT20	4.0	4.0	1.00	2.00
E	BMW+w	MT20	3.0	4.0		
F	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	RECRD BRG IN-SX
F	449	0	449	0	0	5-8	5-8
C	193	0	193	0	0	1-8	1-8
D	115	0	146	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
F	334	160 / 0	63 / 0	0 / 0	0 / 0	81 / 0	0 / 0
C	133	110 / 0	0 / 0	0 / 0	0 / 0	23 / 0	0 / 0
D	104	0 / 0	63 / 0	0 / 0	0 / 0	42 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH FR-TO	WEBS MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
F-B	-334 / 0	0.0	0.0	0.03 (1)	7.81	B-E	0 / 0	0.00 (1)
A-B	0 / 42	-102.1	-102.1	0.14 (1)	10.00			
B-C	0 / 0	-102.1	-102.1	0.25 (1)	10.00			
F-E	0 / 0	-38.5	-38.5	0.26 (3)	10.00			
E-D	0 / 0	-38.5	-38.5	0.31 (3)	10.00			

TOTAL WEIGHT = 2 X 17 = 34 lb [M]

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 37.8 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 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 887 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 532 (0.13")

CSI: TC=0.25/1.00 (B-C:1) , BC=0.31/1.00 (D-E:3) , WB=0.00/1.00 (B-E:1) , SSI=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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	1967	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90)
JSI METAL= 0.07 (B) ((INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100090024
PROVINCE OF ONTARIO

DWG. NO. TAM 1905552
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	Preston 11	DRWG NO.
200172-409371	J4	4	1	TRUSS DESC.		

Tamarack Roof Truss, Burlington

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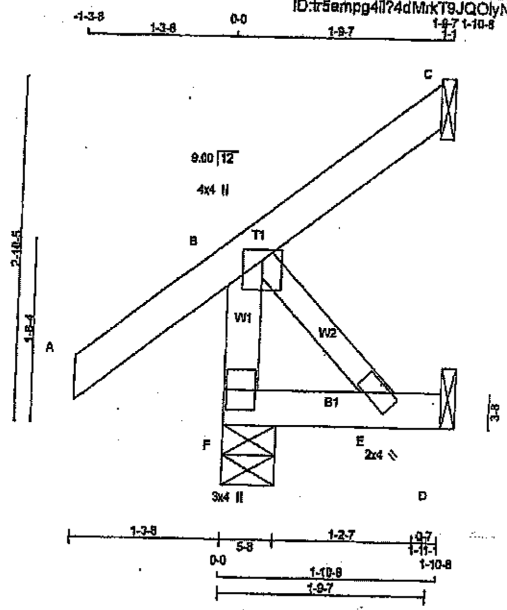

TOTAL WEIGHT = 4 X 9 = 37 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
F - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
E	BMW+w	MT20	2.0	4.0		
F	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
F	322	0	322	0	0	5-8	5-8
C	37	0	37	0	-45	1-8	1-8
D	36	0	48	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37B21H FOR CONNECTION TO JOINT(S) C , D

PROVIDE ANCHORAGE AT BEARING JOINT C FOR 150 LBS FACTORED UPLIFT

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
		MAX./MIN. COMPONENT REACTIONS					
F	228	163 / 0	20 / 0	0 / 0	0 / 0	47 / 0	0 / 0
C	25	21 / -31	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0
D	33	0 / 0	20 / 0	0 / 0	0 / 0	13 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, 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 LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
F- B	-286 / 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	-33 / 0	-102.1	-102.1	0.13 (1)	6.25
F- E	0 / 0	-38.5	-36.5	0.03 (3)	10.00
E- D	0 / 0	-38.5	-36.5	0.03 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
B- E	0 / 0	0.00 (1)

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/999 (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=0.03/1.00 (E-F:3) , WB=0.00/1.00 (B-E:1) , SSI=0.09/1.00 (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	786	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (B) (INPUT = 0.90)
JSI METAL= 0.06 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100009024
PROVINCE OF ONTARIO

7905553
STRUCTURAL
COMPONENT ONLY

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC. Preston 11	DRWG NO.
200172-400371	J5	4	1	TRUSS DESC.	

Tamarack Roof Truss, Burlington

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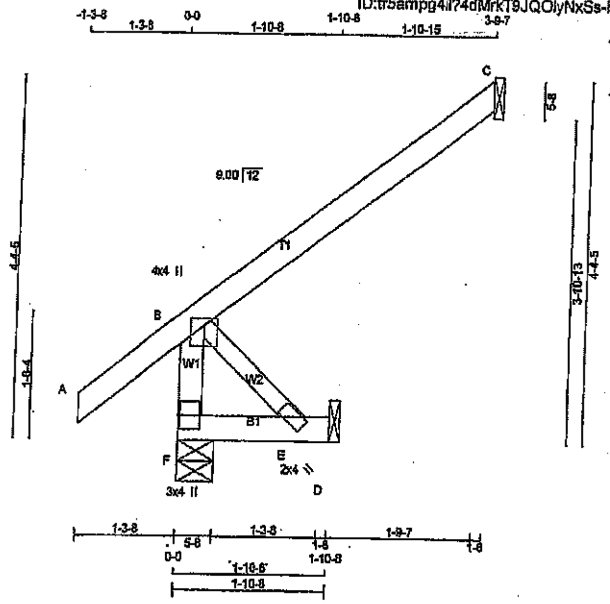


TOTAL WEIGHT = 4 X 12 = 49 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
F - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
E	BMW+w	MT20	2.0	4.0		
F	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
F	370	0	370	0	0	5-8	5-8
C	193	0	193	0	0	1-8	1-8
D	36	0	46	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL S37821H FOR CONNECTION TO JOINT(S) C , D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	262	190 / 0	20 / 0	0 / 0	0 / 0	52 / 0	0 / 0
C	133	110 / 0	0 / 0	0 / 0	0 / 0	23 / 0	0 / 0
D	33	0 / 0	20 / 0	0 / 0	0 / 0	13 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 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 LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
F- B	-334 / 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	0 / 0	-102.1	-102.1	0.25 (1)	10.00
F- E	0 / 0	-38.5	-38.5	0.04 (3)	10.00
E- D	0 / 0	-38.5	-38.5	0.03 (3)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
B- E	0 / 0	0.00 (1)

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

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

CSI: TC=0.25/1.00 (B-C:1) , BC=0.04/1.00 (E-F:3) , WB=0.00/1.00 (B-E:1) , SSI=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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	616	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90)
JSI METAL= 0.07 (B) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100008024
PROVINCE OF ONTARIO

BLDG NO. TAM 7M05554
STRUCTURAL
COMPONENT ONLY

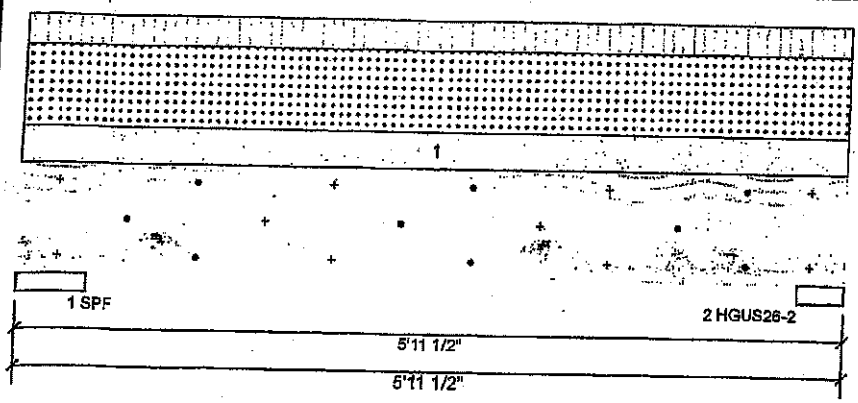
isDesign™

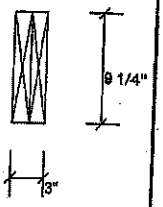
Client:
Project:
Address:

Date: 3/18/2019
Designer:
Job Name: 200172
Project #:

BM3 S-P-F #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Roof (Residential)
Plies:	2	Slope:	0/12
Moisture Condition:	Dry	Design Method:	LSD
Deflection LL:	360	Building Code:	NBCC 2015
Deflection TL:	360	Load Sharing:	No
Importance:	Normal	Deck:	Not Checked
		Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	214	265	592	0
2	205	254	567	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	14%	332 / 1102	1433	L	1.25D+1.5S +L
2 - HGUS...	4.000"	19%	318 / 1057	1375	L	1.25D+1.5S +L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1650 ft-lb	3' 1/2"	6039 ft-lb	0.273 (27%)	1.25D+1.5S +L	L
Unbraced	1650 ft-lb	3' 1/2"	5210 ft-lb	0.317 (32%)	1.25D+1.5S +L	L
Shear	1247 lb	1'2"	3984 lb	0.313 (31%)	1.25D+1.5S +L	L
LL Defl inch	0.016 (L/4270)	3' 1/2"	0.176 (L/360)	0.090 (9%)	S+0.5L	L
TL Defl inch	0.021 (L/3095)	3' 1/2"	0.176 (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 Nail from opposite sides as indicated by + and • symbols.
3 Refer to last page of calculations for fasteners required for specified loads.
4 Girders are designed to be supported on the bottom edge only.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100094764
PROVINCE OF ONTARIO

DWG NO. TAM 7905565
STRUCTURAL COMPONENT ONLY 1/2

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Uniform		6-8-8	Near Face	13 PSF	10.5 PSF	29 PSF	0 PSF	

This design is valid until 12/11/2021

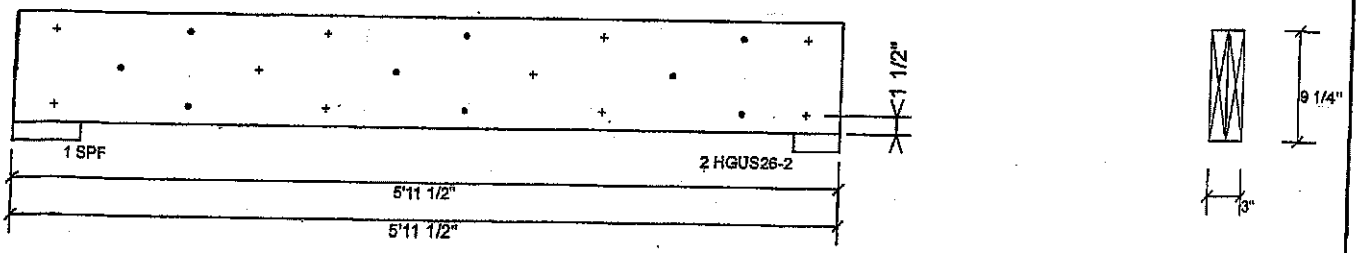
Manufacturer Info

Tamarack Roof Trusses
3268 North Service Rd., ON
Canada
L7N3G2
(905) 335-1115

TAMARACK LUMBER INC

BM3 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	69.3 %
Load	235.8 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

LICENSED PROFESSIONAL ENGINEER
03/18/19
H. J. G. ALVES
100069024
PROVINCE OF ONTARIO

DWG NO. TAM P905585
STRUCTURAL COMPONENT ONLY

Manufacturer Info	Tamarack Roof Trusses 3289 North Service Rd., ON Canada L7N3G2 (905) 335-1115

This design is valid until 12/11/2021

TECHNICAL BULLETIN

HGUS – Double Shear Joist Hangers

SIMPSON Strong-Tie

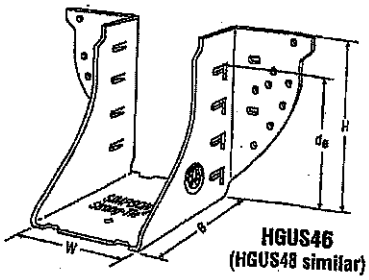
All HGUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

MATERIAL: 12 gauge

FINISH: G90 galvanized

DESIGN:

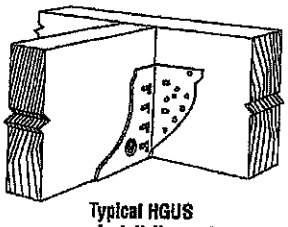
- Factored resistances are in accordance with CSA O86-14
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.



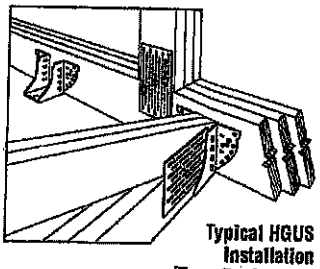
HGUS46
(HGUS48 similar)

INSTALLATION:

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



Typical HGUS Installation



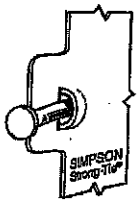
Typical HGUS Installation (Truss Designer to provide fastener quantity for connecting multiple members together)

OPTIONS:

- See current catalogue for options

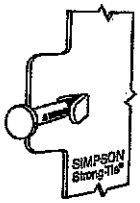
Model No.	Ga	Dimensions (In)				Fasteners		Factored Resistance (lbs)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
HGUS48	12	3⅝	7⅛	4	6⅛	36-16d	12-16d	6070	12980	4310	9215
HGUS410	12	3⅝	9	4	8⅛	46-16d	16-16d	6840	14645	4855	10400
HGUS412	12	3⅝	10⅞	4	10⅛	56-16d	20-16d	7640	14995	5425	10645
HGUS414	12	3⅝	12⅞	4	11⅛	66-16d	22-16d	10130	16400	7195	11645
HGUS5.50/8	12	5½	6⅝	4	6⅛	36-16d	12-16d	6070	12980	4310	9215
HGUS5.50/10	12	5½	8⅝	4	8⅛	46-16d	16-16d	6840	14645	4855	10400
HGUS5.50/12	12	5½	10½	4	10⅛	56-16d	20-16d	7640	14995	5425	10645
HGUS5.50/14	12	5½	12½	4	11⅛	66-16d	22-16d	10130	16400	7195	11645
HGUS7.25/8	12	7¼	7⅞	4	6⅛	36-16d	12-16d	6070	12980	4310	9215
HGUS7.25/10	12	7¼	8⅝	4	8⅛	46-16d	16-16d	6840	15760	4855	11190
HGUS7.25/12	12	7¼	10⅝	4	10⅛	56-16d	20-16d	7640	16110	5425	11435
HGUS7.25/14	12	7¼	12⅝	4	11⅛	66-16d	22-16d	10130	18200	7195	12920

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

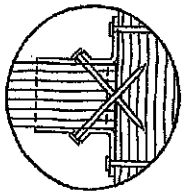


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

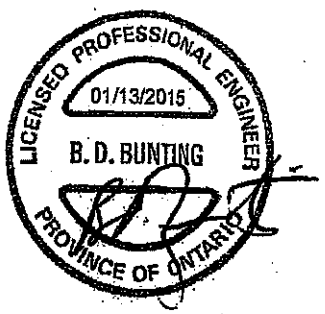
U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



LIMIT STATES DESIGN

This technical bulletin is effective until December 31, 2016, and reflects information available as of January 1, 2015. This information is updated periodically and should not be relied upon after December 31, 2016; contact Simpson Strong-Tie for current information and limited warranty or see www.strongtie.com.

T-SPECOSHGUS15 1/15 exp. 12/16

800-999-5099
www.strongtie.com

TECHNICAL BULLETIN

HUS/LJS – Double Shear Joist Hangers

SIMPSON Strong-Tie®

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

MATERIAL: See table

FINISH: G90 galvanized

DESIGN:

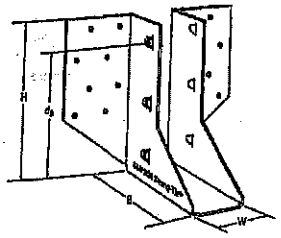
- Factored resistances are in accordance with CSA O86-14
- Uplift resistances have been increased 15% No further increase is permitted
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

INSTALLATION:

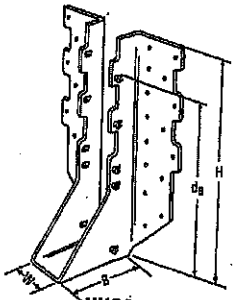
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

OPTIONS:

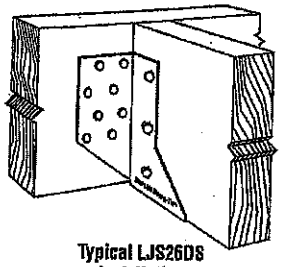
- See current catalogue for options



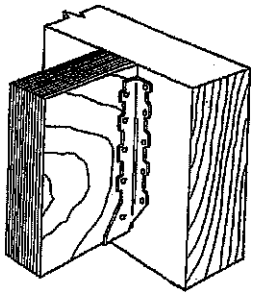
LJS26DS



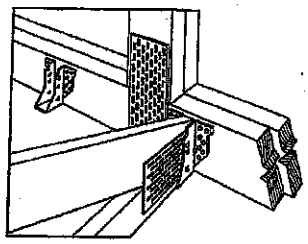
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS Installation



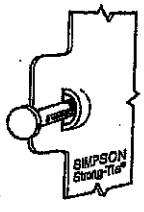
Typical HUS Installation



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

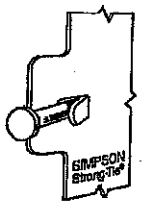
Model No.	Ga	Dimensions (in)				Fasteners		Factored Resistance (lbs)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
LJS26DS	18	1⅜	5	3½	4⅝	16-16d	6-16d	2055	4285	1460	4115
HUS26	16	1⅝	5⅜	3	3 15/16	14-16d	6-16d	2705	4940	2065	3875
HUS28	16	1⅝	7 3/32	3	6 9/32	22-16d	8-16d	3605	5365	2675	4345
HUS210	16	1⅝	9 3/32	3	7 31/32	30-16d	10-16d	4505	5795	4010	4740
HUS1.81/10	16	1 13/16	9	3	8	30-16d	10-16d	4505	6450	4010	5200

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

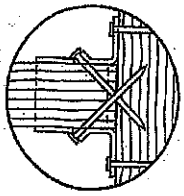


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

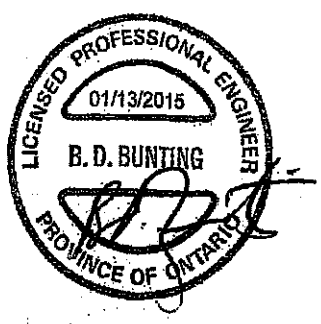
U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



LIMIT STATES DESIGN

This technical bulletin is effective until December 31, 2016, and reflects information available as of January 1, 2015. This information is updated periodically and should not be relied upon after December 31, 2016. contact Simpson Strong-Tie for current information and limited warranty or see www.strongtie.com.

T-SPECHUS15 1/15 exp. 12/16

800-999-5099
www.strongtie.com

LUS – Double Shear Joist Hangers

SIMPSON Strong-Tie®

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

Material: 18 gauge

Finish: G90 galvanized

Design:

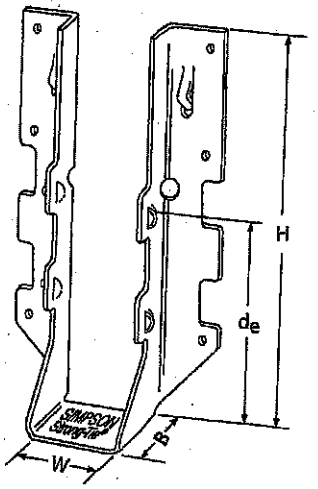
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

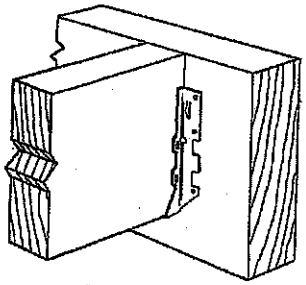
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified

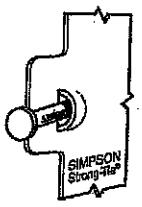


LUS28


Typical LUS Installation

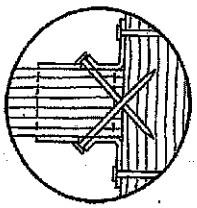
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
LUS24	18	1 9/16	3 1/8	1 3/4	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 13/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 9/16	4 3/4	1 3/4	3 5/8	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 7/8	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 5/8	4 3/16	2	3 1/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 9/16	6 5/8	1 3/4	3 3/4	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3 1/8	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4 5/8	6 1/4	2	3 1/4	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 9/16	7 13/16	1 3/4	3 7/8	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3 1/8	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4 5/8	8 5/16	2	5 1/4	(8) 16d	(6) 16d	2580	3345	2320	2375

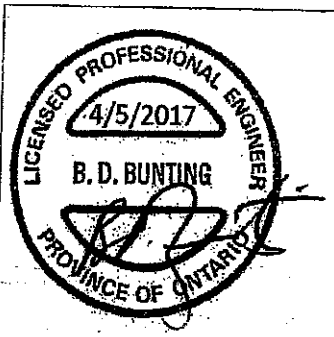
1. d_e is the distance from the seat of the hanger to the highest joist nail.

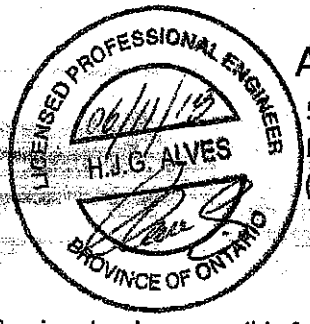


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,680


Double Shear Nailing Top View.





Alves Engineering Services Inc.
5208 Easton road
Burlington, Ontario L7L 6N6
(289) 259 5455

RESPONSABILITIES

1-Alves Engineering Services Inc. is responsible for the design of trusses as individual components

2-It is the responsibility of others to ascertain that the design loads utilized on this drawing meet or exceed the actual dead load imposed by the structure and the live load imposed by the local building code or the authorities having jurisdictions.

3- All dimensions are to be verified by owner, contractor, architect or other authority before manufacture.

4- Alves Engineering Services Inc. bears no responsibility for the erection of the trusses. Persons erecting trusses are cautioned to seek professional advice regarding temporary and permanent bracing system. Bracing shown on Alves Engineering Services Inc. drawings is specified for the truss as a single component and forms an integral part of the truss design, but is not meant to represent the only required bracing for that truss when trusses are installed in a series of trusses forming a roof truss system.

5- It is the manufactures responsibility to ensure that the trusses are manufactured in conformance with Alves Engineering Services Inc. specifications outlined below.

SPECIFICATIONS

1-Truss components sealed by Alves Engineering Services Inc. conform to the relevant sections of the current Building Code of Ontario and Canada (part 4 or part 9) or the current Canadian code for Farm Buildings in accordance with the application specified on the sealed truss component drawing. All truss component design procedures must conform to the current design standard issued by the truss plate institute of Canada (TPIC). All lumber and nailing stresses to conform to the current CSA wood design standard identified on the current Building Code and TPIC.

2- Lumber is to be the sizes and grade specified on the truss drawing.

3- Moist content of lumber is not to exceed 19% in service unless otherwise specified.

4- Plates shall be applied to both faces of the each truss joint and shall be positioned as shown on the truss drawings

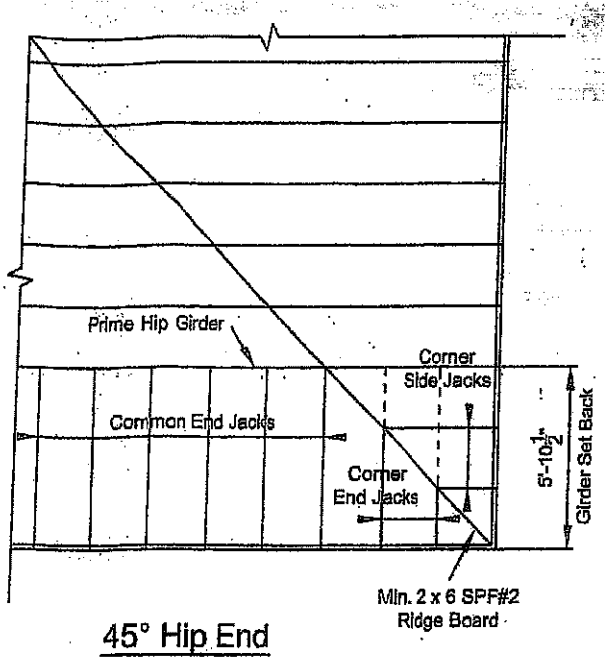
5- Lumber used on manufacture of trusses is not to be treated with chemicals unless otherwise specified on the truss drawings.

6- The top chord is assumed to be continuously laterally braced by the roof sheathing or purlins at intervals specified on the truss drawing but not exceeding 24" c/c for (part 9) and not exceeding 48" for (part 4 or farm design)

7- When rigid ceiling is not attached directly to the bottom chord, lateral bracing is required and it should not exceed more than 3m or 10' intervals.

8-Refer to Mitek sheet MII7473C REV.10-08 attached for information on symbols, numbering system and General Safety notes.

T-1800218 Feb 09, 2018



45° Hip End

LUMBER SPECIFICATION

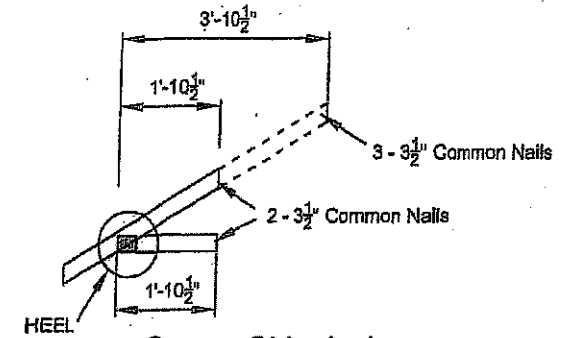
TOP CHORD	:	2 x 4 SPF#2
BOTTOM CHORD	:	2 x 4 SPF#2
WEBS	:	2 x 3 SPF#2

UNLESS OTHERWISE SHOWN

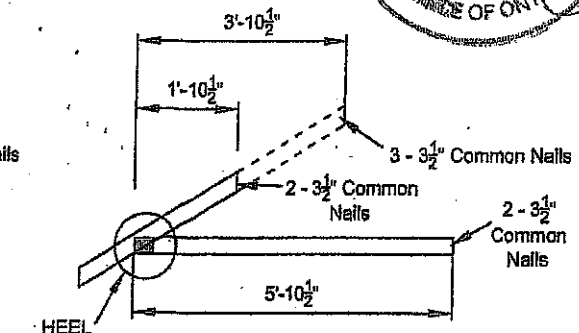
DESIGN LOAD

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

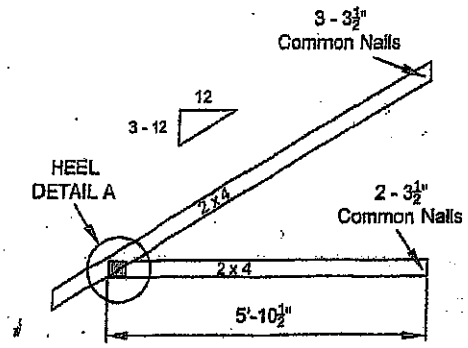
LICENSED PROFESSIONAL ENGINEER
06/11/18
H.J.G. ALVES
PROVINCE OF ONTARIO



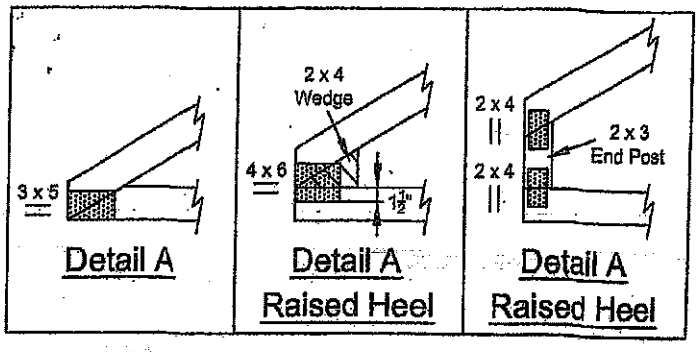
Corner Side Jacks



Corner End Jacks



Common End Jacks



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

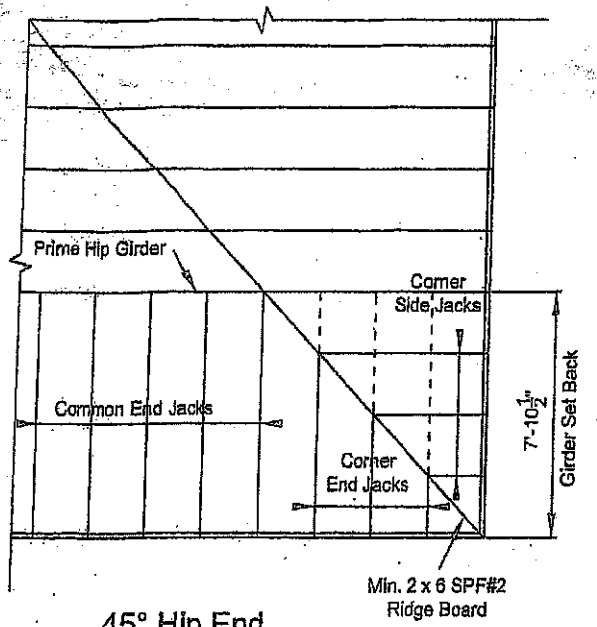
T-1800216

LUMBER SPECIFICATION

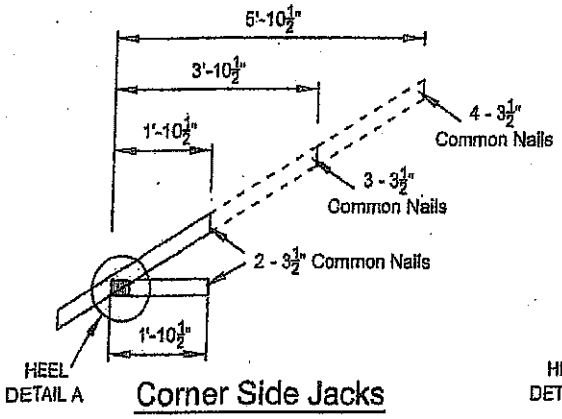
TOP CHORD : 2 x 4 SPF#2
BOTTOM CHORD : 2 x 4 SPF#2
WEBS : 2 x 3 SPF#2
UNLESS OTHERWISE SHOWN

DESIGN LOAD

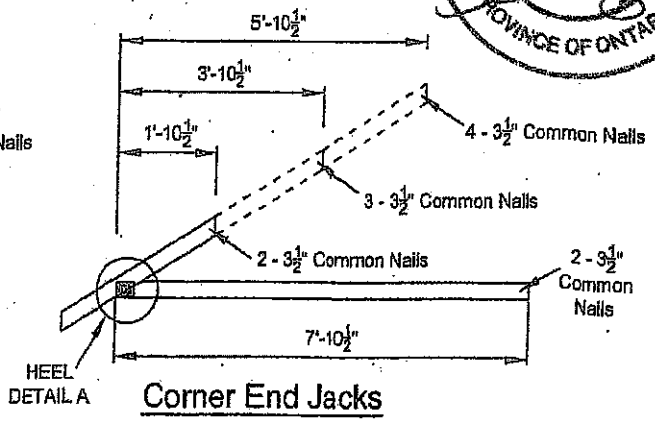
TOP CHORD SNOW LOAD	:	40.5 P.S.F.
TOP CHORD DEAD LOAD	:	3.0 P.S.F.
BOTTOM CHORD LIVE LOAD	:	0.0 P.S.F.
BOTTOM CHORD DEAD LOAD	:	7.0 P.S.F.
TOTAL LOAD		50.5 P.S.F.



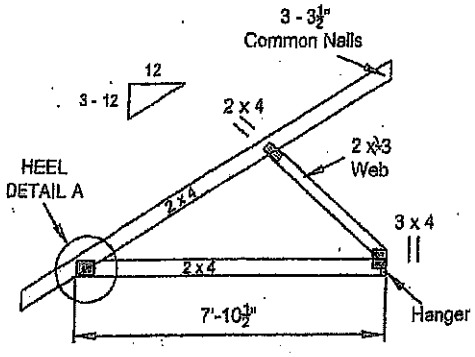
45° Hip End



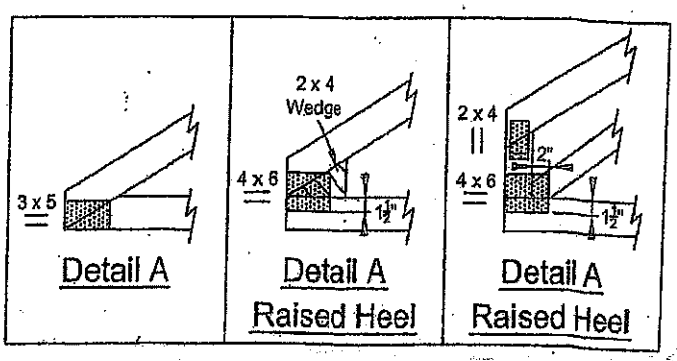
Corner Side Jacks



Corner End Jacks



Common End Jacks



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

T-1800217