

E21103942 - E21103947
E21103965
E21103973 - E21103977
E21103986 - E21103989
E21104028 - E21104033
E21104034 - E21104067

ALPHA-BARRIE

12" FIN. OH.
RSD HEEL-0" DROP
(2"x6" FASCIA)-FM
ASPHALT SHINGLES
2"x6" BRG./BRK.

PARTYWALL:
2-2"x4" STUD WALL
w/1-2"x4" STUD WALL
(G.T. = 3 1/2" BEARING
w/ MIN. 4" STAGGER)

PIGGYBACK TRS
PURLINS BY OTHERS

NAIL TRUSSES TOGETHER
FOR CONTINUOUS GABLE
SUPPORT

2 - 2x10 SPF #2 BM
BY BLDR

VAULT CLG
@ 6/12 I.P.
2 - 2x10 SPF #2
BM BY BLDR

VAULT CLG
@ 6/12 I.P.
2 - 2x10 SPF #2
BM BY BLDR

BEARING SCAB POSTS
SEE SHOP DWG

HANGERS

// LUS24

X HHUS26-2

▲ TC26

PL: 111206(TYP.), 114170E



Job Track: **45147**
Layout ID: **336328**
Plan Log: **113123**

Builder / Location:
GOLD PARK HOMES / VAUGHAN

Project: **PINE VALLEY**

Date: **9/28/2021**

Designer: **JBURROWS/C**

Model / Elevation:
BLOCK 8 / UNIT 1-3

THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA ROOF TRUSSES INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

Mitek V. 8.2.0

CONVEN
FRAMING
OTHERS

EWP DESIGN INC.

(905) 832-2250

FAX (905) 832-0286

RESPONSIBILITIES AND SPECIFICATIONS

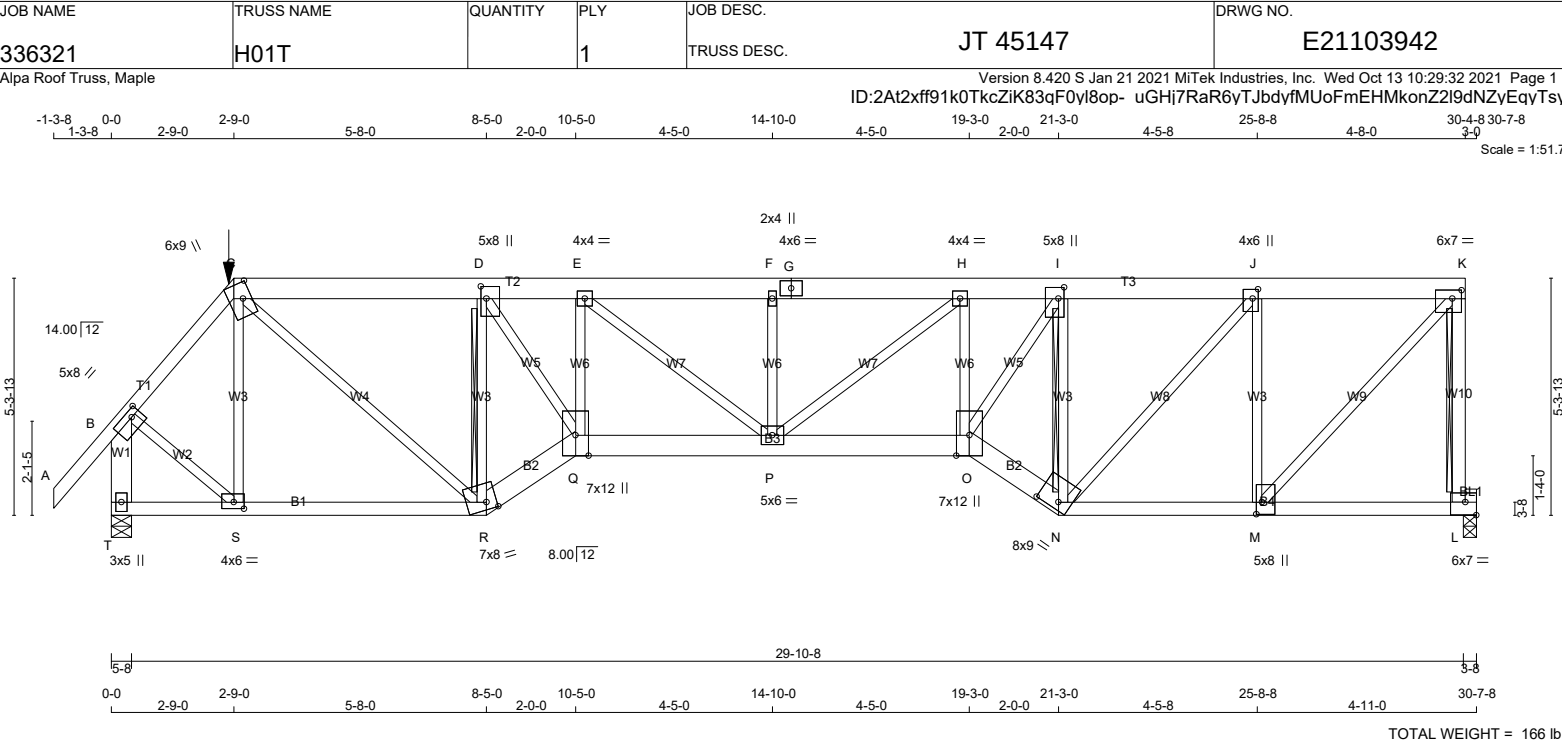
RESPONSIBILITIES

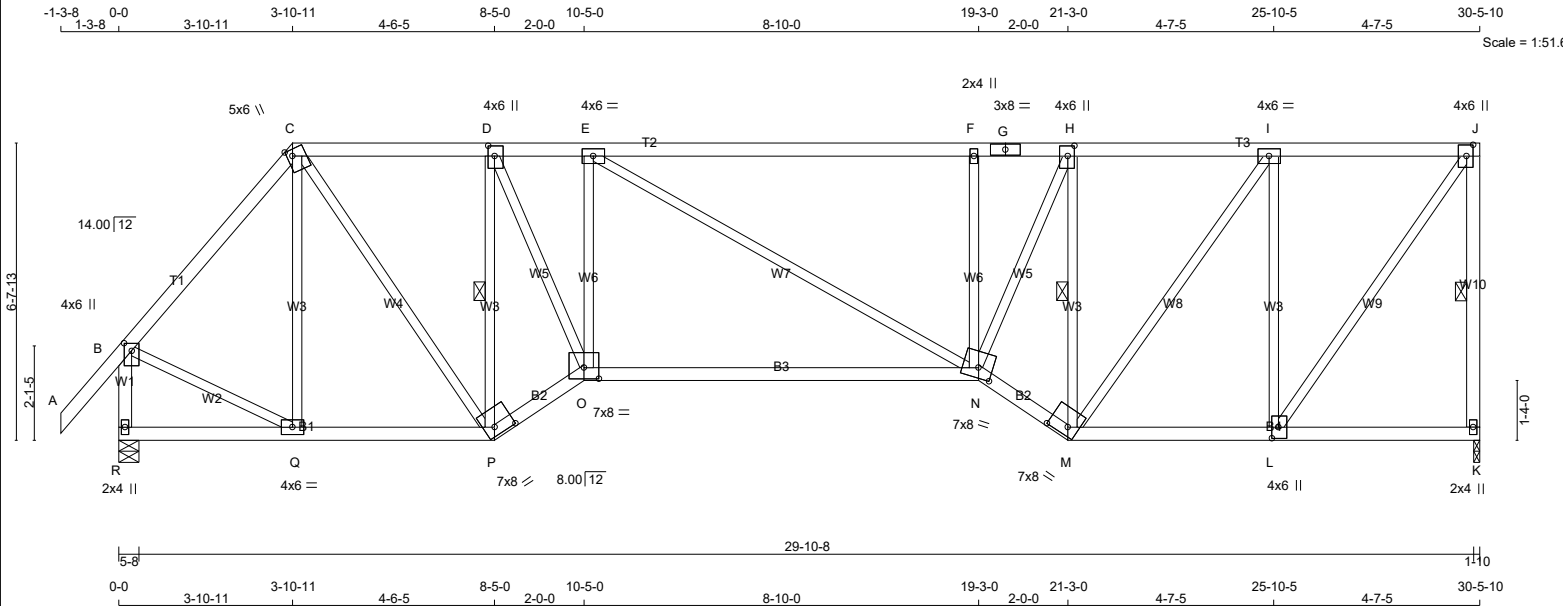
1. EWP DESIGN INC. is responsible for the design of trusses as individual components.
2. It is the responsibility of others to ascertain that the design loads utilized on each drawing meet or exceed the actual dead load imposed by the structure, the live load imposed by the intended use and the snow load imposed by local building code or authorities with jurisdictions.
3. All dimensions are to be verified by the owner, contractor, architect or other authorities with jurisdictions before truss fabrication.
4. EWP DESIGN INC. bears no responsibility for the erection of trusses. Persons erecting trusses are cautioned to seek professional advice regarding the temporary and permanent bracing for the system. Bracing shown on EWP DESIGN INC. drawing is specified for the truss as a component only and forms an integral part of the truss design.
5. It is the truss manufacturer's responsibility to ensure that trusses are manufactured in conformance with specifications of EWP DESIGN INC. as outlined below.

SPECIFICATIONS

1. Trusses designed by EWP DESIGN INC. conform to the relevant section of the Ontario Building Code of Canada (Part 9 or Part 4) or to the Canadian code for farm buildings, whichever applies to the building type, as indicated on the EWP DESIGN INC. drawings, and conform to the design procedures established by the Truss Plate Institute of Canada. Unit stresses used for truss designs are as per the edition of CSA-O86 shown on EWP DESIGN INC. drawings.
2. Lumber is to be the size, species and grade as specified on EWP DESIGN INC. drawings.
3. Moisture content of lumber shall not exceed 19% in service unless specified otherwise.
4. Metal connector plates shall be applied to both faces of truss at each joint and shall be positioned as specified.
5. Top chords of trusses are assumed to be continuously braced laterally by roof sheathing or by purlins at intervals not exceeding 12.5 times the thickness of top chord member.
6. Bottom chords shall be laterally braced at intervals not exceeding 3M (10') o.c., where rigid ceiling is not applied directly to the underside of chords.

THESE DRAWINGS CONSTITUTE THE PROPERTY OF EWP DESIGN INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY THE ALPA LUMBER GROUP, AND WILL BE RETRACTED BY EWP DESIGN INC. IF UTILIZED FOR ANY OTHER PURPOSE.





TOTAL WEIGHT = 150 lb

LUMBER

N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - G	2x4	DRY No.2	SPF
G - J	2x4	DRY No.2	SPF
K - J	2x4	DRY No.2	SPF
R - B	2x4	DRY No.2	SPF
R - P	2x4	DRY No.2	SPF
P - O	2x4	DRY No.2	SPF
O - N	2x4	DRY No.2	SPF
N - M	2x4	DRY No.2	SPF
M - K	2x4	DRY No.2	SPF

ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
--------------------	-----	-----	------	-----

DRY: SEASONED LUMBER.

PLATES (table is in inches)

J	T	TYPE	PLATES	W	LEN	Y	X
B	T	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	T	TTVW+m	MT20	5.0	6.0	1.75	1.50
D	T	DMVW+t	MT20	4.0	6.0	2.75	1.75
E	T	TMVW-t	MT20	4.0	6.0		
F	T	FMVW+	MT20	2.0	4.0		
G	T	TS-t	MT20	3.0	8.0		
H	T	TMVW+t	MT20	4.0	6.0	2.75	1.75
I	T	TMVW-t	MT20	4.0	6.0		
J	T	TMVW+p	MT20	4.0	6.0	3.00	1.75
K	B	BMV1+p	MT20	2.0	4.0		
L	B	BMVW+t	MT20	4.0	6.0	3.00	1.75
M	B	BBVW-h	MT20	7.0	8.0	2.25	5.25
N	B	BBVWV-m	MT20	7.0	8.0	2.75	3.75
O	B	BBVW-l	MT20	7.0	8.0	3.00	4.00
P	B	BBVW-h	MT20	7.0	8.0	2.25	5.25
Q	B	BMVW-t	MT20	4.0	6.0		
R	B	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
K	1470	0	1470	0	0	1-10	1-9
R	1579	0	1579	0	0	5-8	1-11

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	1048	640 / 0	0 / 0	0 / 0	0 / 0	408 / 0	0 / 0
R	1124	698 / 0	0 / 0	0 / 0	0 / 0	425 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.75 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 J-K, D-P, H-M.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO	LENGTH		FR-TO			
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	Q-C	-254 / 0	0.19 (1)	
B-C	-1237 / 0	-78.0	-78.0	0.25 (1)	5.50	C-P	0 / 1077	0.24 (1)	
C-D	-1424 / 0	-78.0	-78.0	0.26 (1)	5.18	P-D	-1753 / 0	0.50 (1)	
D-E	-2085 / 0	-78.0	-78.0	0.60 (1)	3.84	D-O	0 / 1780	0.40 (1)	
E-F	-2166 / 0	-78.0	-78.0	0.97 (1)	3.75	O-E	-610 / 0	0.26 (1)	
F-G	-2153 / 0	-78.0	-78.0	0.61 (1)	3.77	E-N	0 / 79	0.02 (1)	
G-H	-2153 / 0	-78.0	-78.0	0.61 (1)	3.77	N-F	-601 / 0	0.25 (1)	
H-I	-1493 / 0	-78.0	-78.0	0.31 (1)	5.01	N-H	0 / 1777	0.40 (1)	
I-J	-941 / 0	-78.0	-78.0	0.29 (1)	6.00	M-H	-1681 / 0	0.48 (1)	
K-J	-1436 / 0	0.0	0.0	0.29 (1)	5.45	M-I	0 / 938	0.21 (1)	
R-B	-1552 / 0	0.0	0.0	0.18 (1)	6.61	L-I	-1198 / 0	0.88 (1)	
						L-J	0 / 1604	0.36 (1)	
R-Q	0 / 0	-18.5	-18.5	0.10 (4)	10.00	B-Q	0 / 874	0.20 (1)	
Q-P	0 / 797	-18.5	-18.5	0.19 (1)	10.00				
P-O	0 / 1677	-18.5	-18.5	0.28 (1)	10.00				
O-N	0 / 2097	-18.5	-18.5	0.62 (4)	10.00				
N-M	0 / 1761	-18.5	-18.5	0.30 (1)	10.00				
M-L	0 / 941	-18.5	-18.5	0.21 (1)	10.00				
L-K	0 / 0	-18.5	-18.5	0.11 (4)	10.00				

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL =	21.0	PSF
		DL =	6.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.4	PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (1.02")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.13")
 ALLOWABLE DEFL.(TL)= $L/360$ (1.02")
 CALCULATED VERT. DEFL.(TL) = $L/711$ (0.51")

CSI: TC=0.97/1.00 (E-F:1) , BC=0.62/1.00 (N-O:4) ,
WB=0.88/1.00 (I-L:1) , SSI=0.26/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (D) (INPUT = 0.90)
JSI METAL= 0.48 (B) (INPUT = 1.00)

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c7iK83gE0yU8op-OTyQI 8TSk1K2A2MYKI11VsRsm2wyRmV/lcKI odr9yT



DRY: SEASONED LUMBER.

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

UNFACTORED REACTIONS

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.19 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 J-K, D-P, H-M, I-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)

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



SPECIFIED LOADS:

TOP	CH.	LL =	21.0	PSF
		DL =	6.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.4	PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (1.02")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.11")
 ALLOWABLE DEFL.(TL)= $L/360$ (1.02")
 CALCULATED VERT. DEFL.(TL) = $L/763$ (0.48")

CSI: TC=0.84/1.00 (E-G:1) , BC=0.58/1.00 (N-O:4) ,
WB=0.61/1.00 (D-P:1) , SSI=0.26/1.00 (E-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

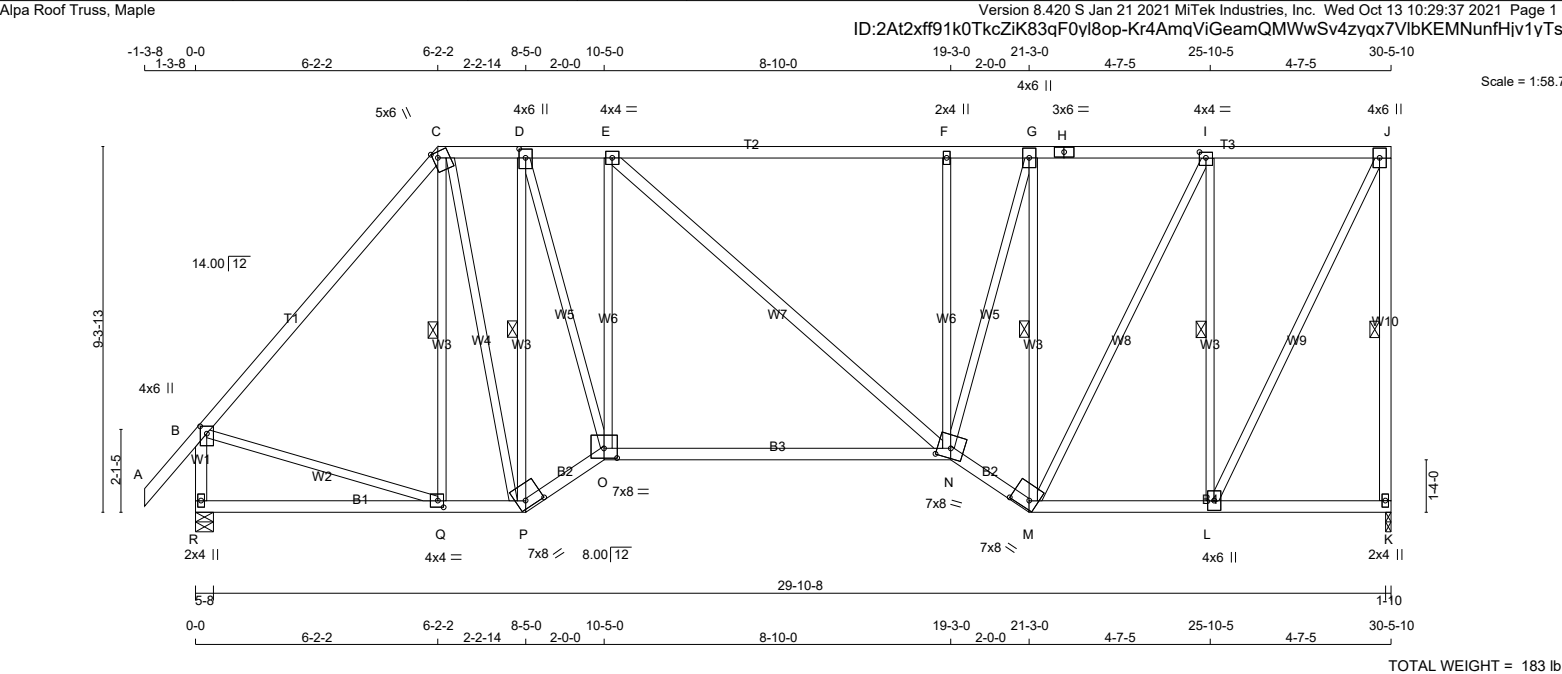
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.50 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H04T		1	TRUSS DESC. JT 45147	E21103945



TOTAL WEIGHT = 183 lb [M]

L. L. G. A. RULES				BUILDING DESIGNER										DESIGN CRITERIA			
CHORDS SIZE				BEARINGS										SPECIFIED LOADS:			
LUMBER				FACTORED										TOP CH. LL = 21.0 PSF			
DESCR.				MAXIMUM FACTORED										DL = 6.0 PSF			
SPF				GROSS REACTION										BOT CH. LL = 0.0 PSF			
A - C 2x4 DRY 2100F 1.8E				GROSS REACTION										DL = 7.4 PSF			
C - H 2x4 DRY No.2				DOWN										TOTAL LOAD = 34.4 PSF			
H - J 2x4 DRY No.2				HORIZ													
K - J 2x4 DRY No.2				UPLIFT													
R - B 2x4 DRY No.2				IN-SX													
R - P 2x4 DRY No.2				IN-SX													
P - O 2x4 DRY No.2																	
O - N 2x4 DRY No.2																	
N - M 2x4 DRY No.2																	
M - K 2x4 DRY No.2																	
				UNFACTORED REACTIONS													
				1ST LCASE MAX./MIN. COMPONENT REACTIONS													
				JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL													
				K 1048 640 / 0 0 / 0 0 / 0 0 / 0 408 / 0 0 / 0													
				R 1124 698 / 0 0 / 0 0 / 0 0 / 0 425 / 0 0 / 0													
ALL WEBS 2x3 DRY No.2				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) K, R										LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM			
EXCEPT																	
E - N 2x4 DRY No.2														THIS TRUSS IS DESIGNED FOR RESIDENTIAL			

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25	2.00
C	TTWW+m	MT20	5.0	6.0	1.75	1.50
D	TMWW+t	MT20	4.0	6.0	2.75	2.00
E	TMWW-t	MT20	4.0	4.0		
F	TMW+w	MT20	2.0	4.0		
G	TMWW+t	MT20	4.0	6.0		
H	TS-t	MT20	3.0	6.0		
I	TMWW-t	MT20	4.0	4.0	1.75	2.00
J	TMVW+p	MT20	4.0	6.0		
K	BMV1+p	MT20	2.0	4.0		
L	BMWW+t	MT20	4.0	6.0		
M	BBWW-h	MT20	7.0	8.0	2.50	5.50
N	BBWWW-m	MT20	7.0	8.0	3.00	4.00
O	BBWW-l	MT20	7.0	8.0	3.00	4.00
P	BBWW-h	MT20	7.0	8.0	2.25	5.25
Q	BMWW-t	MT20	4.0	4.0	2.00	1.75
R	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

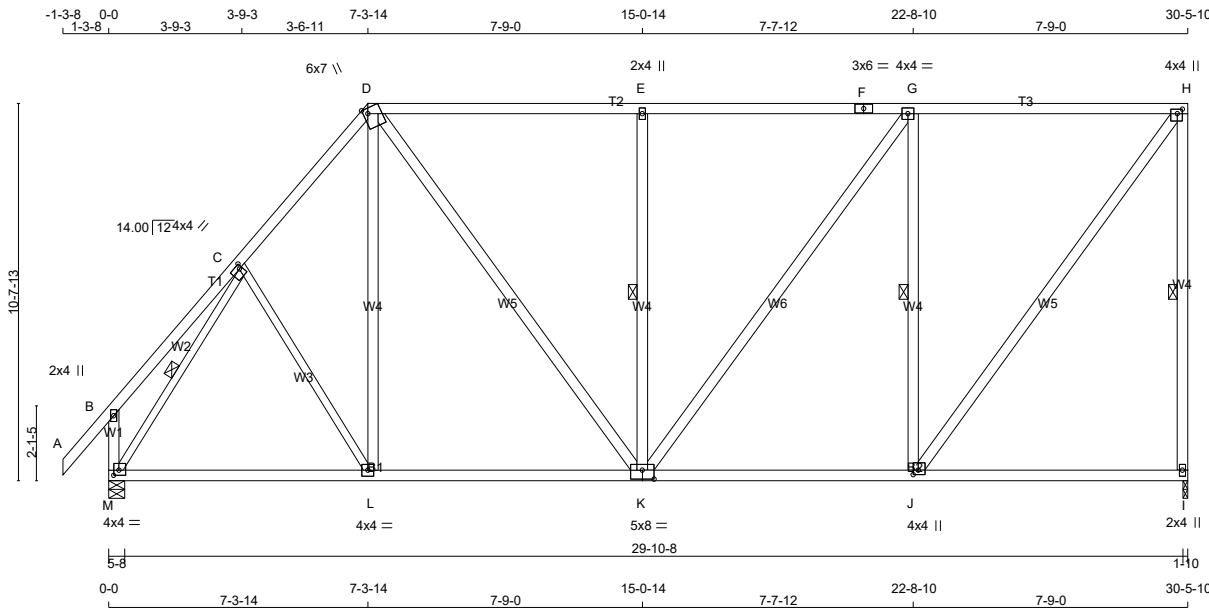


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H05		1	TRUSS DESC. JT 45147	E21103946

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 178 lb [M]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMWW-t	MT20	4.0	4.0	1.50 1.00
D	TTWW+m	MT20	6.0	7.0	Edge 1.50
E	TMW+w	MT20	2.0	4.0	
F	TS-t	MT20	3.0	6.0	
G	TMWW-t	MT20	4.0	4.0	
H	TMVW+p	MT20	4.0	4.0	1.50 1.75
I	BMV1+p	MT20	2.0	4.0	
J	BMWW-t	MT20	4.0	4.0	1.50 1.75
K	BSWWW-l	MT20	5.0	8.0	3.00 4.00
L	BMWW-t	MT20	4.0	4.0	
M	BMVW1-t	MT20	4.0	4.0	1.75 1.75

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX		REQRD BRG IN-SX	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT			
I	1470	0		1470	0	0	1-10	1-9	
M	1579	0		1579	0	0	5-8	1-11	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
I	1048	640 / 0	0 / 0	0 / 0	0 / 0
M	1124	698 / 0	0 / 0	0 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.81 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF H-I, E-K, G-J, C-M.

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

LOADING		TOTAL LOAD CASES: (4)	
CHORDS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. UNBRACED LENGTH
FR-TO		FROM TO	
A-B	0 / 42	-78.0 -78.0	0.11 (1)
B-C	0 / 25	-78.0 -78.0	0.16 (1)
C-D	-1265 / 0	-78.0 -78.0	0.20 (1)
D-E	-1124 / 0	-78.0 -78.0	0.75 (1)
E-F	-1125 / 0	-78.0 -78.0	0.75 (1)
F-G	-1125 / 0	-78.0 -78.0	0.75 (1)
G-H	-877 / 0	-78.0 -78.0	0.72 (1)
H-I	-1415 / 0	0.0 0.0	0.81 (1)
M-B	-218 / 0	0.0 0.0	0.03 (1)
M-L	0 / 794	-18.5 -18.5	0.38 (4)
L-K	0 / 806	-18.5 -18.5	0.38 (4)
K-J	0 / 877	-18.5 -18.5	0.40 (4)
J-I	0 / 0	-18.5 -18.5	0.32 (4)

DESIGN CRITERIA

SPECIFIED LOADS:		
TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	PSF

SPACING = 24.0 IN./C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.02")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.02")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.15")

CSI: TC=0.81/1.00 (H-I:1) , BC=0.40/1.00 (J-K:4) , WB=0.57/1.00 (G-J:1) , SSI=0.28/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (J) (INPUT = 0.90)
JSI METAL= 0.51 (C) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

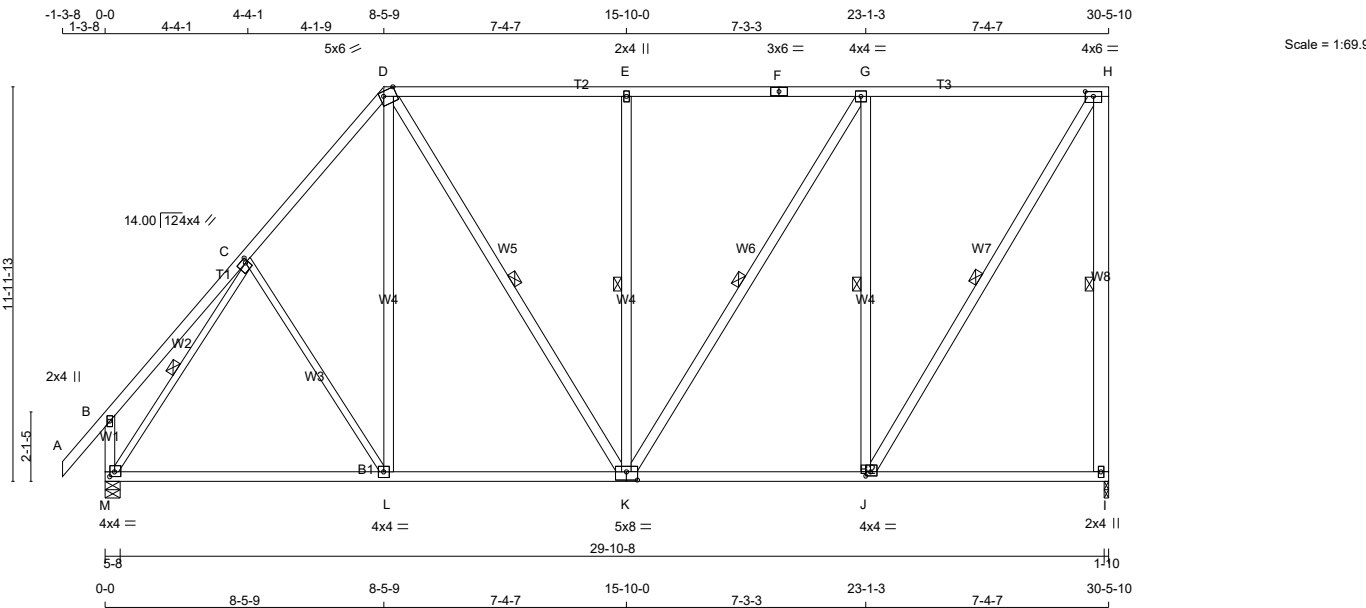


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H06		1	TRUSS DESC. JT 45147	E21103947

Alpa Roof Truss, Maple

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ID:2At2xff91k0TkczIK83qF0yl8op-IQlJOsXbYZyKHpEV71dqZSZeVzf5RjdlTdVOWMyTsyf



TOTAL WEIGHT = 197 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMWW-t	MT20	4.0	4.0	1.50 1.00
D	TTWW-m	MT20	5.0	6.0	Edge 4.50
E	TMW+w	MT20	2.0	4.0	
F	TS-t	MT20	3.0	6.0	
G	TMWW-t	MT20	4.0	4.0	
H	TMVW-t	MT20	4.0	6.0	1.75 3.00
I	BMV1+p	MT20	2.0	4.0	
J	BMWW-t	MT20	4.0	4.0	1.50 1.75
K	BSWWW-l	MT20	5.0	8.0	3.00 4.00
L	BMWW-t	MT20	4.0	4.0	
M	BMVW1-t	MT20	4.0	4.0	1.75 1.75

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

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

		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG UPLIFT		REQRD IN-SX	
		VERT	HORZ	DOWN	HORZ	IN-SX		IN-SX	
JT	I	1470	0	1470	0	1-10	1-9		
M	M	1579	0	1579	0	5-8	1-11		

		UNFACTORED REACTIONS					
		1ST LCASE	MAX./MIN. COMPONENT REACTIONS				
JT	I	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD SOIL
I	I	1048	640 / 0	0 / 0	0 / 0	0 / 0	408 / 0 0 / 0
M	M	1124	698 / 0	0 / 0	0 / 0	0 / 0	425 / 0 0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1 / 2 LENGTH OF H-I, D-K, E-K, G-K, H-J, C-M.

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

	CHORDS			WEBS		
	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)
FR-TO			FROM TO	FR-TO		
A-B	0 / 42	-78.0	-78.0 0.11 (1)	C-L	-52 / 24	0.07 (1)
B-C	0 / 29	-78.0	-78.0 0.22 (1)	L-D	0 / 226	0.05 (4)
C-D	-1235 / 0	-78.0	-78.0 0.28 (1)	D-K	0 / 387	0.06 (1)
D-E	-991 / 0	-78.0	-78.0 0.65 (1)	K-E	-621 / 0	0.49 (1)
E-F	-991 / 0	-78.0	-78.0 0.65 (1)	K-G	0 / 461	0.07 (1)
F-G	-991 / 0	-78.0	-78.0 0.65 (1)	J-G	-1019 / 0	0.80 (1)
G-H	-748 / 0	-78.0	-78.0 0.63 (1)	J-H	0 / 1403	0.23 (1)
H-I	-1418 / 0	0.0	0.0 0.71 (1)	M-C	-1517 / 0	0.62 (1)
M-B	-233 / 0	0.0	0.0 0.03 (1)			
M-L	0 / 810	-18.5	-18.5 0.42 (4)			
L-K	0 / 784	-18.5	-18.5 0.42 (4)			
K-J	0 / 748	-18.5	-18.5 0.36 (4)			
J-I	0 / 0	-18.5	-18.5 0.29 (4)			

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.02")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.02")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.16")

CSI: TC=0.71/1.00 (H-I:1) , BC=0.42/1.00 (K-L:4) , WB=0.80/1.00 (G-J:1) , SSI=0.27/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

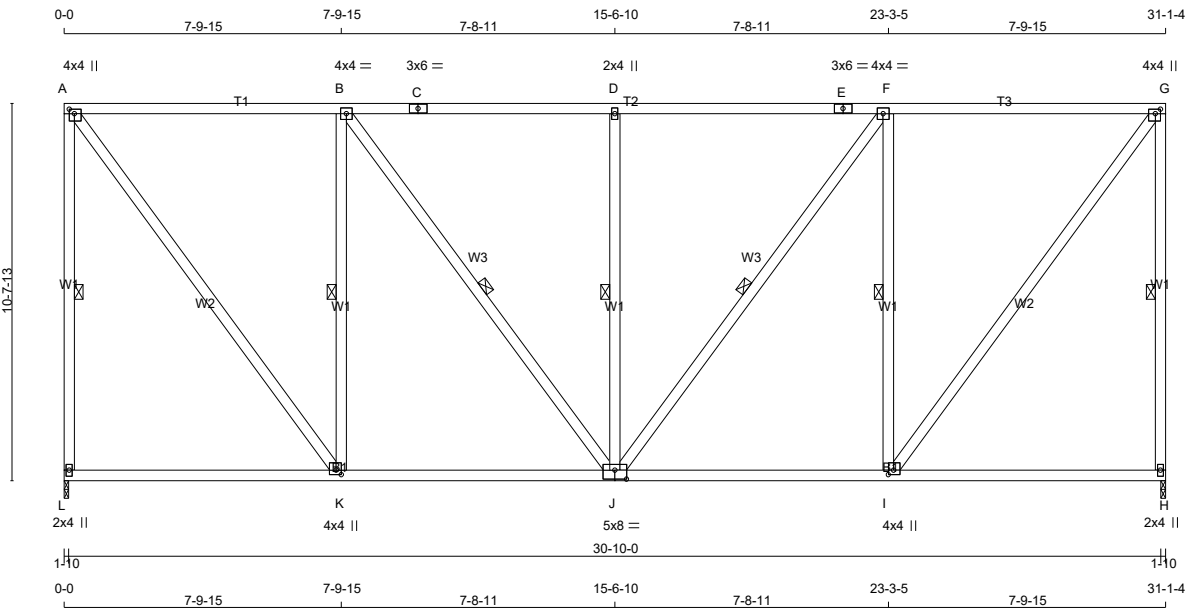
JSI GRIP= 0.87 (J) (INPUT = 0.90)
JSI METAL= 0.52 (C) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H25		1	TRUSS DESC. JT 45147	E21103965

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-LO71vSv1F5sxVa6SR2hxK7LwBSEVCndvbxWX63yTsyA



TOTAL WEIGHT = 185 lb [M]

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

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER							
BEARINGS							
	FACTORED		MAXIMUM FACTORED		INPUT	REQRD	
	GROSS REACTION		GROSS REACTION		BRG	BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
JT	1500	0	1500	0	0	1-10	1-10
L	1500	0	1500	0	0	1-10	1-10
H	1500	0	1500	0	0	1-10	1-10

UNFACTORED REACTIONS									
	1ST LCASE	MAX./MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
L	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0		
H	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0		

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.55 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 A-L, G-H, B-K, B-J, D-J, F-J, F-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									
L- A	-1445 / 0	0.0	0.0	0.83 (1)	5.44	A- K	0 / 1509	0.24 (1)	
A- B	-910 / 0	-78.0	-78.0	0.79 (1)	5.04	K- B	-1026 / 0	0.59 (1)	
B- C	-1157 / 0	-78.0	-78.0	0.83 (1)	4.55	B- J	0 / 414	0.07 (1)	
C- D	-1157 / 0	-78.0	-78.0	0.83 (1)	4.55	J- D	-556 / 0	0.32 (1)	
D- E	-1157 / 0	-78.0	-78.0	0.83 (1)	4.55	J- F	0 / 414	0.07 (1)	
E- F	-1157 / 0	-78.0	-78.0	0.83 (1)	4.55	I- F	-1026 / 0	0.59 (1)	
F- G	-910 / 0	-78.0	-78.0	0.79 (1)	5.04	I- G	0 / 1509	0.24 (1)	
H- G	-1445 / 0	0.0	0.0	0.83 (1)	5.44				
L- K	0 / 0	-18.5	-18.5	0.32 (4)	10.00				
K- J	0 / 910	-18.5	-18.5	0.41 (4)	10.00				
J- I	0 / 910	-18.5	-18.5	0.41 (4)	10.00				
I- H	0 / 0	-18.5	-18.5	0.32 (4)	10.00				

DESIGN CRITERIA			
SPECIFIED LOADS:			
TOP CH.	LL	= 21.0	PSF
	DL	= 6.0	PSF
BOT CH.	LL	= 0.0	PSF
	DL	= 7.4	PSF
TOTAL LOAD = 34.4 PSF			

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.17")

CSI: TC=0.83/1.00 (B-D:1) , BC=0.41/1.00 (J-K:4) , WB=0.59/1.00 (F-I:1) , SSI=0.29/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

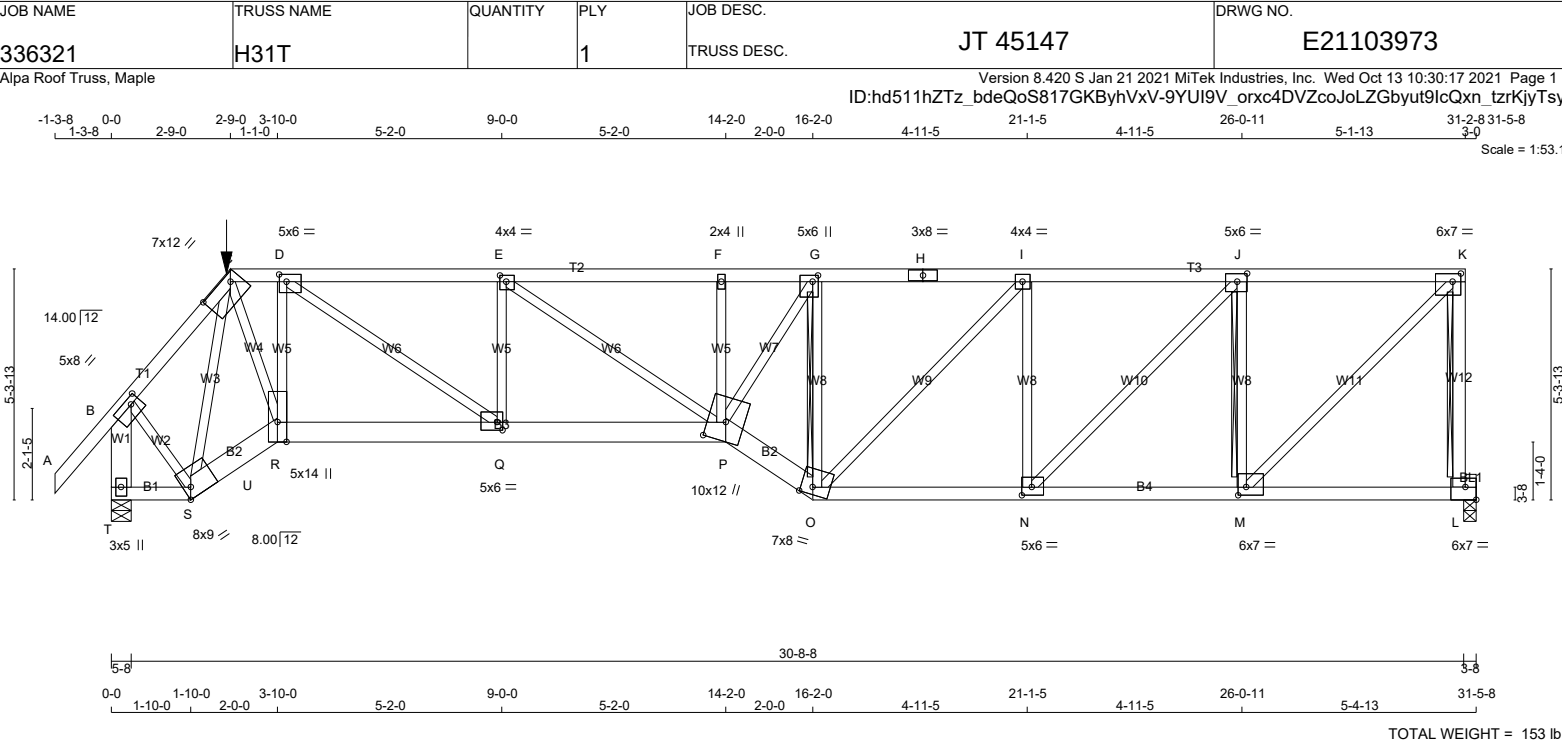
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (K) (INPUT = 0.90)
JSI METAL= 0.40 (A) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - H	2x4	DRY 1650F 1.5E	SPF
H - K	2x4	DRY 1650F 1.5E	SPF
L - K	2x4	DRY No.2	SPF
T - B	2x6	DRY No.2	SPF
T - S	2x4	DRY No.2	SPF
S - R	2x6	DRY No.2	SPF
R - P	2x6	DRY No.2	SPF
P - O	2x6	DRY No.2	SPF
O - L	2x4	DRY No.2	SPF
BEARING BLOCKS			
BL1	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-t	MT20	5.0	8.0	1.75 2.50
C	TTWW-h	MT20	7.0	12.0	2.00 9.25
D	TMWW-t	MT20	5.0	6.0	2.00 2.00
E	TMWW-t	MT20	4.0	4.0	1.75 1.75
F	TMW+w	MT20	2.0	4.0	
G	TMWW-t	MT20	5.0	6.0	1.75 1.50
H	TS-t	MT20	3.0	8.0	
I	TMWW-t	MT20	4.0	4.0	
J	TMWW-t	MT20	5.0	6.0	2.25 2.75
K	TMVW-t	MT20	6.0	7.0	2.25 2.25
L	BMVK1-t	MT20	6.0	7.0	3.50 Edge
M	BMWW-t	MT20	6.0	7.0	2.25 2.25
N	BMWW-t	MT20	5.0	6.0	2.25 2.75
O	BBWW-m	MT20	7.0	8.0	2.00 3.25
P	BBWWW+m	MT20	10.0	12.0	5.25 5.00
Q	BMWW-t	MT20	5.0	6.0	2.25 1.50
R	BBWW+p	MT20	5.0	14.0	Edge
S	BBWW-h	MT20	8.0	9.0	3.00 Edge
T	BMV1+p	MT20	3.0	5.0	
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.					

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG UPLIFT		REQRD BRG IN-SX	
JT	VERT	HORZ		DOWN	HORZ	0	3-8	3-8	
L	2979	0		2979	0	0	3-8	3-8	
T	3079	0		3079	0	0	5-8	4-8	

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
L	2123	1299 / 0	0 / 0	0 / 0	0 / 0	825 / 0	0 / 0		
T	2194	1345 / 0	0 / 0	0 / 0	0 / 0	849 / 0	0 / 0		

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) L, T
BEARING SIZE FACTOR = 1.15 AT JNT(S) L (BASED ON SUPPORT DEPTH = 1-8)

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.83 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.

2x3 DRY SPF No.2 T-BRACE AT K-L, J-M
2x4 DRY SPF No.2 T-BRACE AT G-O

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC1)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 42	-78.0	-78.0 0.12 (1)	10.00	S-C	-2338 / 0	0.89 (1)
B-C	-2090 / 0	-78.0	-78.0 0.18 (1)	4.51	C-R	0 / 3702	0.92 (1)
C-D	-2860 / 0	-78.0	-78.0 0.13 (1)	4.53	R-D	-1945 / 0	0.47 (1)
D-E	-5398 / 0	-78.0	-78.0 0.54 (1)	3.15	D-Q	0 / 3048	0.75 (1)
E-F	-6382 / 0	-78.0	-78.0 0.65 (1)	2.83	Q-E	-1139 / 0	0.28 (1)
F-G	-6377 / 0	-78.0	-78.0 0.50 (1)	2.84	E-P	0 / 1197	0.30 (1)
G-H	-4676 / 0	-153.5	-153.5 0.61 (1)	3.22	P-F	-165 / 0	0.04 (1)
H-I	-4676 / 0	-153.5	-153.5 0.61 (1)	3.22	P-G	0 / 3509	0.87 (1)
I-J	-4054 / 0	-153.5	-153.5 0.71 (1)	3.25	O-G	-3546 / 0	0.83 (1)
J-K	-2565 / 0	-153.5	-153.5 0.60 (1)	4.09	O-I	0 / 880	0.22 (1)
L-K	-2904 / 0	0.0	0.0 0.81 (1)	6.59	N-I	-1376 / 0	0.60 (1)
T-B	-3045 / 0	0.0	0.0 0.26 (1)	6.00	N-J	0 / 2124	0.53 (1)
					M-J	-2385 / 0	0.87 (1)
					M-K	0 / 3701	0.92 (1)
T-S	0 / 0	-36.4	-36.4 0.04 (4)	10.00	B-S	0 / 1829	0.45 (1)
S-U	0 / 2156	-129.9	-129.9 0.32 (1)	10.00			
U-R	0 / 2156	-112.0	-112.0 0.32 (1)	10.00			
R-Q	0 / 2916	-112.0	-112.0 0.58 (1)	10.00			
Q-P	0 / 5398	-112.0	-112.0 0.90 (1)	10.00			
P-O	0 / 5584	-112.0	-112.0 0.77 (1)	10.00			
O-N	0 / 4054	-36.4	-36.4 0.84 (1)	10.00			
N-M	0 / 2565	-36.4	-36.4 0.57 (1)	10.00			
M-L	-84 / 0	-36.4	-36.4 0.22 (4)	6.25			

FACTORED CONCENTRATED LOADS (LBS)		FACE		TYPE		HEEL		CONN.	
JT	LOC.	LC1	MAX- MAX+	FRONT	VERT	TOTAL	---	C1	
C	2-9-0	-156	-156						

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-9-0
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 2-9-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CSldGirder
START DISTANCE = 1-10-0
START SPAN CARRIED = 5-10-8
END DISTANCE = 16-2-0
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-9-0
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 15-3-8 OF SPAN MEASURED FROM THE RIGHT.

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

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

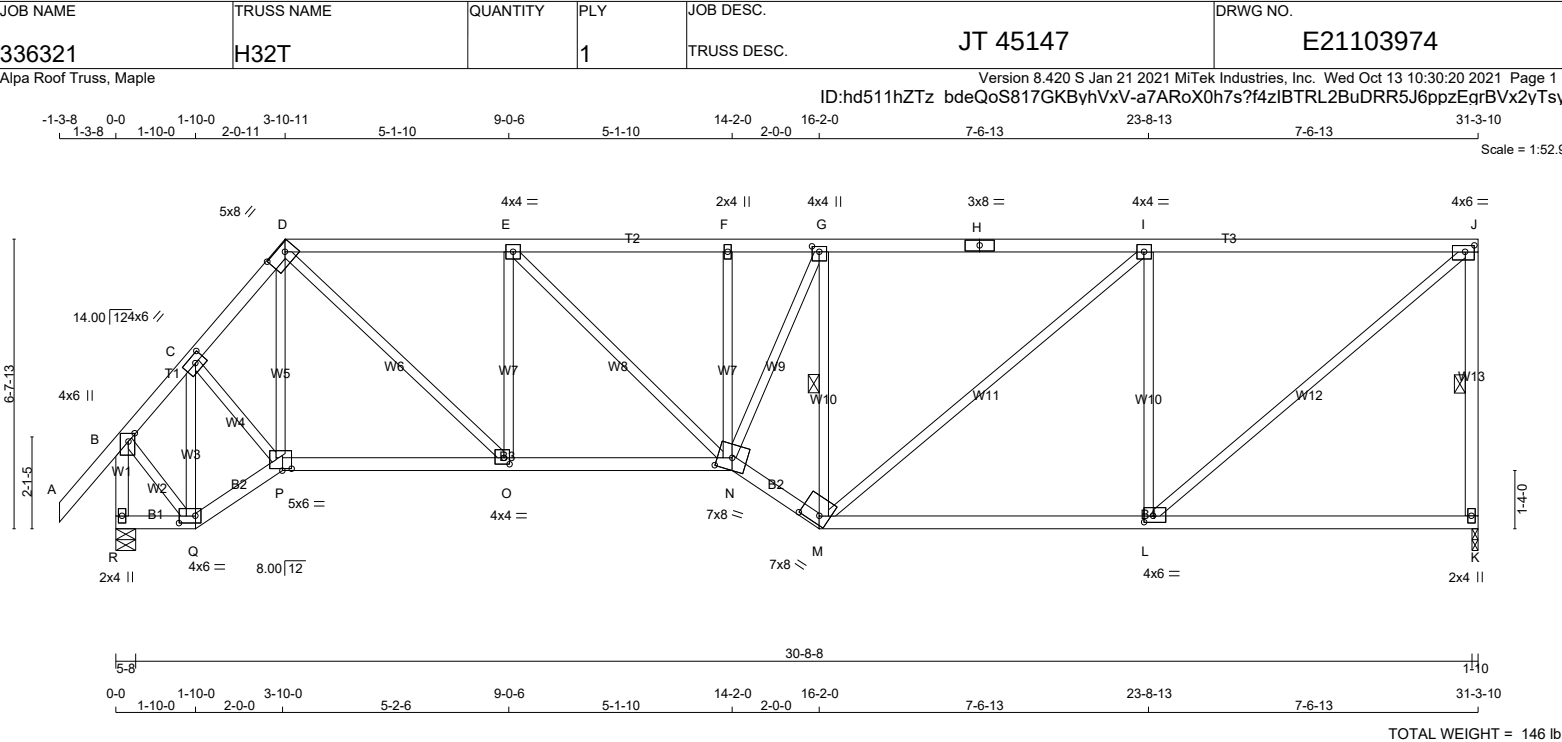
(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.33")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL)= L/ 581 (0.64")

CSI: TC=0.81/1.00 (K-L:1), BC=0.90/1.00 (P-Q:1), WB=0.92/1.00 (C-R:1), SS=0.40/1.00 (J-K: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



TOTAL WEIGHT = 146 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - H	2x4	DRY No.2	SPF
H - J	2x4	DRY No.2	SPF
K - J	2x4	DRY No.2	SPF
R - B	2x4	DRY No.2	SPF
R - Q	2x4	DRY No.2	SPF
Q - P	2x4	DRY No.2	SPF
P - N	2x4	DRY No.2	SPF
N - M	2x4	DRY No.2	SPF
M - K	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	6.0	2.25	1.75
C	TMWW-t	MT20	4.0	6.0	2.00	2.75
D	TTWW-h	MT20	5.0	8.0	2.00	5.25
E	TMWW-t	MT20	4.0	4.0		
F	TMW+w	MT20	2.0	4.0		
G	TMWW+t	MT20	4.0	4.0	1.50	2.00
H	TS-t	MT20	3.0	8.0		
I	TMWW-t	MT20	4.0	4.0		
J	TMVW-t	MT20	4.0	6.0	1.75	2.50
K	BMV1+p	MT20	2.0	4.0		
L	BMWW-t	MT20	4.0	6.0	1.75	2.50
M	BBWW-h	MT20	7.0	8.0	2.25	5.25
N	BBWWW-m	MT20	7.0	8.0	3.25	4.00
O	BMWW-t	MT20	4.0	4.0	1.75	1.50
P	BBWW-l	MT20	5.0	6.0	0.50	2.50
Q	BBWW-l	MT20	4.0	6.0	2.00	4.50
R	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQRD
JT	VERT	HORZ	DOWN	HORZ
K	1507	0	1507	0
R	1622	0	1622	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS		
JT	COMBINED	SNOW	LIVE	PERM.LIVE
K	1075	656 / 0	0 / 0	0 / 0
R	1154	717 / 0	0 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.70 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 J-K, G-M.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 42	-78.0	-78.0 0.11 (1)	Q-C	-1003 / 0	0.25 (1)	
B-C	-1042 / 0	-78.0	-78.0 0.12 (1)	C-P	0 / 596	0.13 (1)	
C-D	-1585 / 0	-78.0	-78.0 0.09 (1)	P-D	0 / 54	0.02 (4)	
D-E	-1974 / 0	-78.0	-78.0 0.41 (1)	D-O	0 / 1329	0.30 (1)	
E-F	-2340 / 0	-78.0	-78.0 0.44 (1)	O-E	-819 / 0	0.34 (1)	
F-G	-2337 / 0	-78.0	-78.0 0.38 (1)	E-N	0 / 511	0.11 (1)	
G-H	-1895 / 0	-78.0	-78.0 0.92 (1)	N-F	-162 / 0	0.07 (1)	
H-I	-1895 / 0	-78.0	-78.0 0.92 (1)	N-G	0 / 1207	0.27 (1)	
I-J	-1455 / 0	-78.0	-78.0 0.84 (1)	M-G	-1540 / 0	0.44 (1)	
K-J	-1454 / 0	0.0	0.0 0.30 (1)	M-I	0 / 574	0.13 (1)	
R-B	-1605 / 0	0.0	0.0 0.19 (1)	L-I	-1053 / 0	0.77 (1)	
R-Q	0 / 0	-18.5	-18.5 0.02 (4)	L-J	0 / 1900	0.43 (1)	
Q-P	0 / 757	-18.5	-18.5 0.13 (1)	B-Q	0 / 903	0.20 (1)	
P-O	0 / 1021	-18.5	-18.5 0.23 (4)				
O-N	0 / 1974	-18.5	-18.5 0.39 (1)				
N-M	0 / 2247	-18.5	-18.5 0.37 (1)				
M-L	0 / 1455	-18.5	-18.5 0.44 (4)				
L-K	0 / 0	-18.5	-18.5 0.30 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	34.4	PSF	

SPACING = 24.0 IN. C/C

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

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.26")

CSI: TC=0.92/1.00 (G-I:1) , BC=0.44/1.00 (L-M:4) , WB=0.77/1.00 (I-L:1) , SSI=0.28/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (Q) (INPUT = 0.90)
JSI METAL= 0.40 (Q) (INPUT = 1.00)

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DRY: SEASONED LUMBER.

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

Y. WIDYA
100225448
10/13/2021

JSI GRIP= 0.89 (P) (INPUT = 0.90)
JSI METAL= 0.40 (S) (INPUT = 1.00)

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DRY: SEASONED LUMBER.

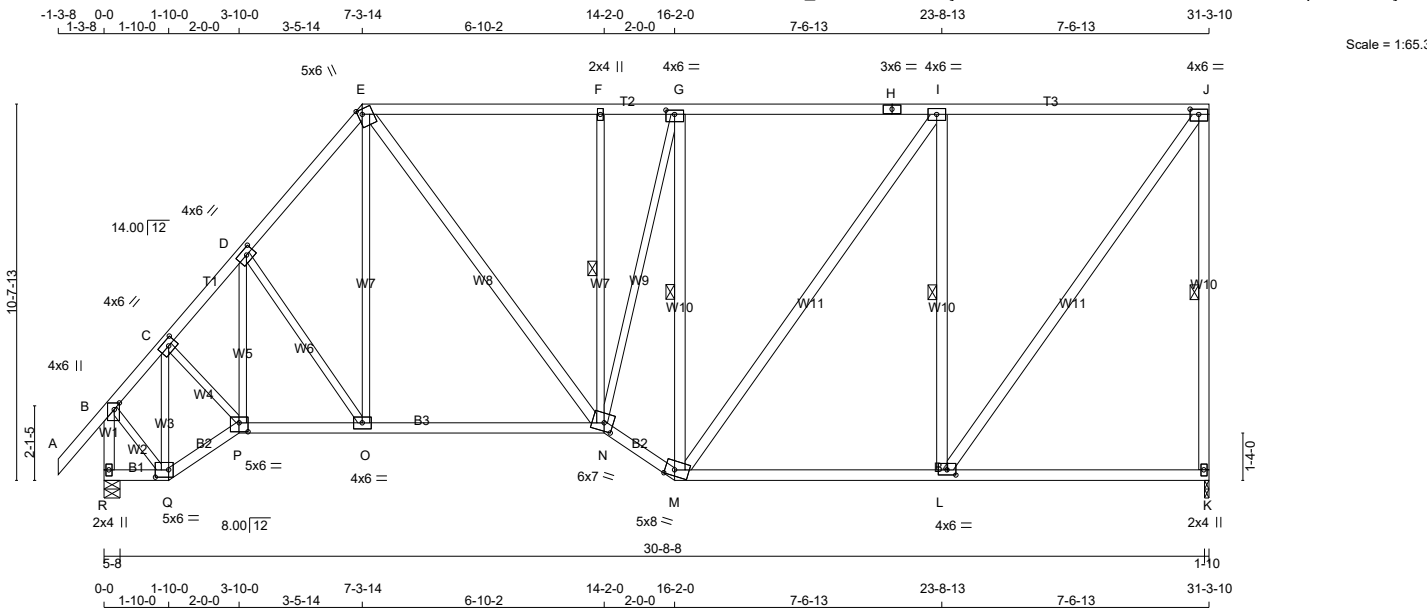
JSI GRIP= 0.90 (Q) (INPUT = 0.90)
JSI METAL= 0.40 (Q) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H35T		1	TRUSS DESC. JT 45147	E21103977

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-IELb5l9aYEN5ufelcF2d8DAL6W3UuqJrC3MaovyTss



TOTAL WEIGHT = 194 lb [M]

LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY	No.2	SPF			
E - H	2x4	DRY	No.2	SPF			
H - J	2x4	DRY	No.2	SPF			
K - J	2x4	DRY	No.2	SPF			
R - B	2x4	DRY	No.2	SPF			
R - Q	2x4	DRY	No.2	SPF			
Q - P	2x4	DRY	No.2	SPF			
P - N	2x4	DRY	No.2	SPF			
N - M	2x4	DRY	No.2	SPF			
M - K	2x4	DRY	No.2	SPF			
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF			
E - N	2x4	DRY	No.2	SPF			
M - G	2x4	DRY	No.2	SPF			
L - I	2x4	DRY	No.2	SPF			
L - 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	4.0	6.0	2.25 1.75
C	TMWW-t	MT20	4.0	6.0	2.00 2.75
D	TMWW-t	MT20	4.0	6.0	2.00 2.75
E	TTWW+m	MT20	5.0	6.0	1.75 1.50
F	TMW+w	MT20	2.0	4.0	
G	TMWW-t	MT20	4.0	6.0	1.50 3.00
H	TS-t	MT20	3.0	6.0	
I	TMWW-t	MT20	4.0	6.0	
J	TMVW-t	MT20	4.0	6.0	1.75 3.00
K	BMV1+p	MT20	2.0	4.0	
L	BMWW-t	MT20	4.0	6.0	1.75 3.00
M	BBWW-m	MT20	5.0	8.0	2.00 3.25
N	BBWWW-m	MT20	6.0	7.0	2.75 3.00
O	BMWW-t	MT20	4.0	6.0	
P	BBWW-t	MT20	5.0	6.0	3.00 3.00
Q	BBWW-t	MT20	5.0	6.0	2.50 4.50
R	BMV1+p	MT20	2.0	4.0	

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD IN-SX	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
K	1507	0		1507	0	0	1-10	1-10	
R	1622	0		1622	0	0	5-8	1-12	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	1075	656 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0
R	1154	717 / 0	0 / 0	0 / 0	0 / 0	437 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.60 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 J-K, F-N, G-M, I-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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-78.0 -78.0	0.11 (1)	10.00	Q-C	-995 / 0	0.25 (1)
B-C	-1043 / 0	-78.0 -78.0	0.12 (1)	6.02	C-P	0 / 637	0.14 (1)
C-D	-1572 / 0	-78.0 -78.0	0.14 (1)	5.13	P-D	-29 / 18	0.01 (1)
D-E	-1473 / 0	-78.0 -78.0	0.15 (1)	5.27	D-O	-179 / 0	0.12 (1)
E-F	-1331 / 0	-78.0 -78.0	0.51 (1)	4.97	O-E	0 / 269	0.06 (4)
F-G	-1326 / 0	-78.0 -78.0	0.43 (1)	5.02	E-N	0 / 636	0.10 (1)
G-H	-1161 / 0	-78.0 -78.0	0.80 (1)	4.60	N-F	-426 / 0	0.24 (1)
H-I	-1161 / 0	-78.0 -78.0	0.80 (1)	4.60	N-G	0 / 777	0.17 (1)
I-J	-894 / 0	-78.0 -78.0	0.76 (1)	5.14	M-G	-1055 / 0	0.60 (1)
K-J	-1454 / 0	0.0 0.0	0.83 (1)	5.43	M-I	0 / 451	0.07 (1)
R-B	-1605 / 0	0.0 0.0	0.19 (1)	6.52	L-I	-1052 / 0	0.60 (1)
R-Q	0 / 0	-18.5 -18.5	0.02 (4)	10.00	L-J	0 / 1516	0.24 (1)
Q-P	0 / 751	-18.5 -18.5	0.13 (1)	10.00	B-Q	0 / 895	0.20 (1)
P-O	0 / 1044	-18.5 -18.5	0.28 (4)	10.00			
O-N	0 / 945	-18.5 -18.5	0.27 (4)	10.00			
N-M	0 / 1377	-18.5 -18.5	0.23 (1)	10.00			
M-L	0 / 894	-18.5 -18.5	0.39 (4)	10.00			
L-K	0 / 0	-18.5 -18.5	0.31 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./C

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

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.17")

CSI: TC=0.83/1.00 (J-K:1) , BC=0.39/1.00 (L-M:4) ,
WB=0.60/1.00 (G-M:1) , SSI=0.28/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

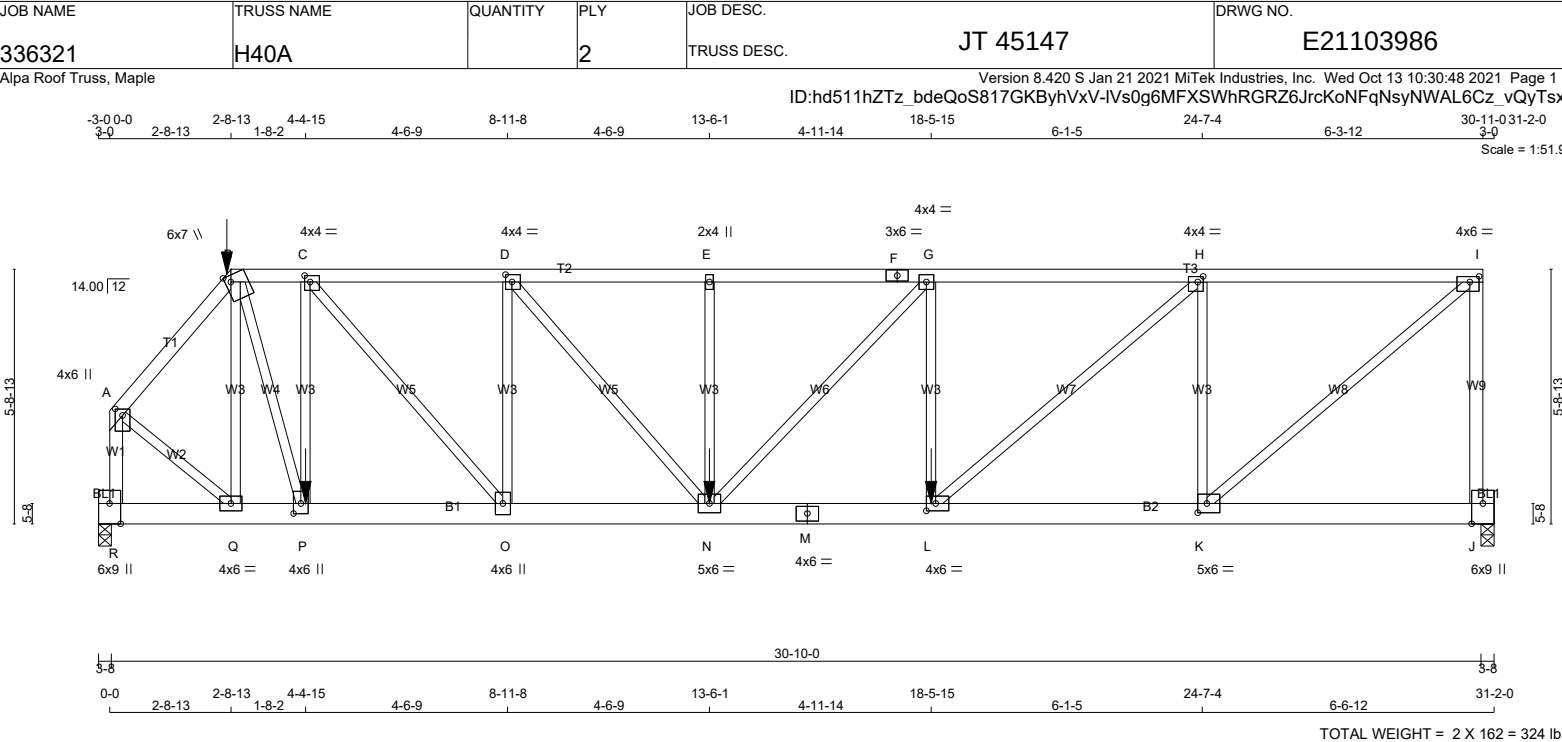
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (B) (INPUT = 0.90)
JSI METAL= 0.39 (B) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY No.2	SPF
B - F	2x4	DRY No.2	SPF
F - I	2x4	DRY No.2	SPF
J - I	2x4	DRY No.2	SPF
R - A	2x4	DRY No.2	SPF
R - M	2x6	DRY No.2	SPF
M - J	2x6	DRY No.2	SPF

BEARING BLOCKS

BL1	2 - 2x4	DRY	No.2	SPF
-----	---------	-----	------	-----

ALL WEBS 2x3 DRY No.2 SPF EXCEPT

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- B 1 12		SIDE(61.0)
B- F 1 12		SIDE(44.7)
F- I 1 12		SIDE(44.7)
I- J 1 12		TOP
R- A 1 12		TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
R- M 2 12		SIDE(172.7)
M- J 2 12		SIDE(172.5)
WEBS : (0.122"x3") SPIRAL NAILS		
Q- B 1 6		SIDE(6.8)
C- P 1 6		SIDE(49.0)
E- N 1 6		SIDE(49.2)
G- L 1 6		SIDE(120.9)
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.

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

Y. WIDYA
100225448
10/13/2021
PROVINCE OF ONTARIO

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQD
JT	VERT	HORZ	DOWN	HORZ
J	2977	0	2977	0
R	3808	0	3808	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN.	COMPONENT REACTIONS
JT	COMBINED	SNOW LIVE PERM.LIVE WIND DEAD SOIL
J	2122	1297 / 0 0 / 0 0 / 0 0 / 0 825 / 0 0 / 0
R	2715	1654 / 0 0 / 0 0 / 0 0 / 0 1062 / 0 0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.81 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)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	CS1 (LC)	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX	CS1 (LC)
FR-TO			FROM	TO			FR-TO				
A- B	-2869 / 0	-78.0	-78.0	0.09 (1)	5.36	Q- B	-1085 / 0	0.26 (1)			
B- C	-2720 / 0	-165.7	-165.7	0.08 (1)	5.47	B- P	0 / 2949	0.36 (1)			
C- D	-4363 / 0	-78.0	-78.0	0.18 (1)	4.46	P- C	-2225 / 0	0.54 (1)			
D- E	-5594 / 0	-78.0	-78.0	0.34 (1)	3.85	C- O	0 / 2540	0.31 (1)			
E- F	-5594 / 0	-167.5	-167.5	0.38 (1)	3.81	O- D	-1783 / 0	0.43 (1)			
F- G	-5594 / 0	-167.5	-167.5	0.38 (1)	3.81	D- N	0 / 1902	0.24 (1)			
G- H	-5479 / 0	-78.0	-78.0	0.45 (1)	3.83	N- E	-618 / 0	0.15 (1)			
H- I	-3132 / 0	-78.0	-78.0	0.31 (1)	4.95	N- G	0 / 169	0.02 (1)			
I- J	-2927 / 0	0.0	0.0	0.83 (1)	6.73	L- G	-782 / 0	0.19 (1)			
R- A	-3872 / 0	0.0	0.0	0.27 (1)	6.00	L- H	0 / 3123	0.39 (1)			
						K- H	-2594 / 0	0.62 (1)			
R- Q	-269 / 0	-39.3	-39.3	0.11 (1)	6.25	K- I	0 / 4213	0.52 (1)			
Q- P	0 / 1832	-39.3	-39.3	0.23 (1)	10.00	A- Q	0 / 2638	0.33 (1)			
P- O	0 / 2720	-18.5	-18.5	0.24 (1)	10.00						
O- N	0 / 4363	-18.5	-18.5	0.32 (1)	10.00						
N- M	0 / 5479	-39.8	-39.8	0.42 (1)	10.00						
M- L	0 / 5479	-39.8	-39.8	0.42 (1)	10.00						
L- K	0 / 3132	-18.5	-18.5	0.24 (1)	10.00						
K- J	-80 / 0	-18.5	-18.5	0.04 (4)	6.25						

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
B	2-8-13	-194	-194	---	FRONT	VERT	TOTAL	---	C1
L	18-5-15	-1125	-1125	---	FRONT	VERT	TOTAL	---	C1
N	13-6-1	-850	-850	---	FRONT	VERT	TOTAL	---	C1
P	4-4-15	-850	-850	---	FRONT	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

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

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	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	34.4	PSF	

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 2-11-13

RIGHT SETBACK = 0-0

END SETBACK = 6-6-0

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF G.S.L.

LOADS APPLIED TO FIRST 4-4-15 OF SPAN MEASURED FROM THE LEFT.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.02")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")

ALLOWABLE DEFL.(TL)= L/360 (1.02")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.25")

CSI: TC=0.83/1.00 (I-J-1) , BC=0.42/1.00 (L-N-1) , WB=0.62/1.00 (H-K-1) , SSI=0.18/1.00 (E-G-1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00

COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H40A		2	JT 45147	E21103986(2)

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-IVs0g6MFXSWhRGRZ6JrcKoNFqNsyNWAL6Cz_vQyTsx

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	1.75	2.00
B	TTWW+m	MT20	6.0	7.0	Edge	1.50
C	TMWW-t	MT20	4.0	4.0	1.75	1.50
D	TMWW-t	MT20	4.0	4.0	2.00	1.75
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW-t	MT20	4.0	4.0		
H	TMWW-t	MT20	4.0	4.0	1.50	1.50
I	TMVW-t	MT20	4.0	6.0	1.50	2.50
J	BMVK1+p	MT20	6.0	9.0	Edge	3.00
K	BMWW-t	MT20	5.0	6.0	2.50	2.50
L	BMWW-t	MT20	4.0	6.0	2.00	2.50
M	BS-t	MT20	4.0	6.0		
N	BMWWW-t	MT20	5.0	6.0		
O	BMWW+t	MT20	4.0	6.0		
P	BMWW+t	MT20	4.0	6.0	2.75	2.00
Q	BMWW-t	MT20	4.0	6.0		
R	BMVK1+p	MT20	6.0	9.0	Edge	3.00

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

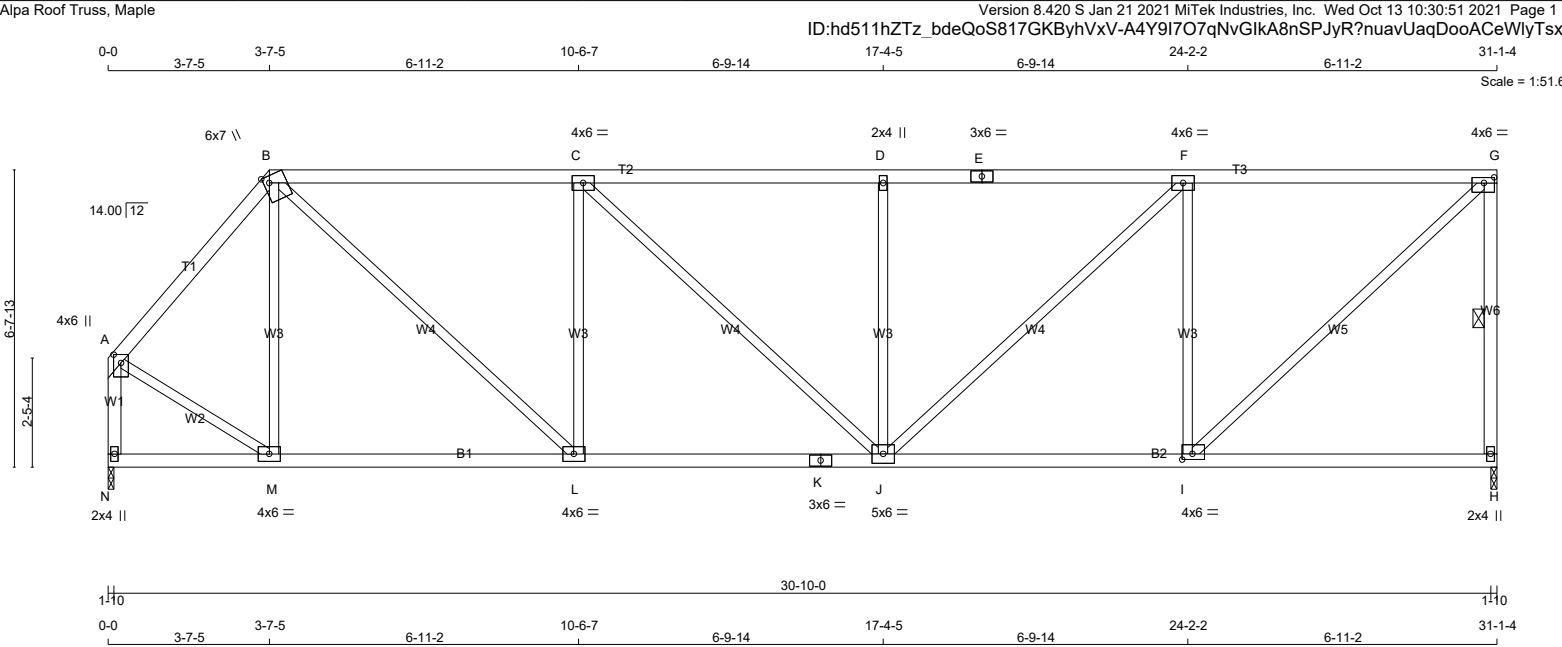
JSI GRIP= 0.88 (H) (INPUT = 0.90)

JSI METAL= 0.71 (M) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H42		1	TRUSS DESC. JT 45147	E21103987



LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2
B - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
H - G	2x4	DRY	No.2
N - A	2x4	DRY	No.2
N - K	2x4	DRY	No.2
K - H	2x4	DRY	No.2
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	4.0	6.0	2.25 2.00
B	TTWW+m	MT20	6.0	7.0	Edge 1.50
C	TMWW-t	MT20	4.0	6.0	
D	TMW+w	MT20	2.0	4.0	
E	TS-t	MT20	3.0	6.0	
F	TMWW-t	MT20	4.0	6.0	
G	TMVW-t	MT20	4.0	6.0	1.50 2.75
H	BMV1+p	MT20	2.0	4.0	
I	BMWW-t	MT20	4.0	6.0	1.50 2.75
J	BMWWW-t	MT20	5.0	6.0	
K	BS-t	MT20	3.0	6.0	
L	BMWW-t	MT20	4.0	6.0	
M	BMWW-t	MT20	4.0	6.0	
N	BMV1+p	MT20	2.0	4.0	

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
H	1500	0	1500	0	1-10	1-10	
N	1500	0	1500	0	1-10	1-10	

UNFACTORED REACTIONS		MAX./MIN. COMPONENT REACTIONS	
JT	COMBINED	SNOW	LIVE
H	1070	653 / 0	0 / 0
N	1070	653 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.08 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

CHORDS		FACTORED		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO	
A-B	-1195 / 0	-78.0 -78.0 0.21 (1)	5.62	M-B	-318 / 0
B-C	-1715 / 0	-78.0 -78.0 0.70 (1)	4.24	B-L	0 / 1283
C-D	-1857 / 0	-78.0 -78.0 0.71 (1)	4.09	L-C	-735 / 0
D-E	-1857 / 0	-78.0 -78.0 0.71 (1)	4.08	C-J	0 / 194
E-F	-1857 / 0	-78.0 -78.0 0.71 (1)	4.08	J-D	-490 / 0
F-G	-1345 / 0	-78.0 -78.0 0.65 (1)	4.71	J-F	0 / 701
H-G	-1449 / 0	0.0 0.0 0.29 (1)	5.43	I-F	-1091 / 0
N-A	-1482 / 0	0.0 0.0 0.19 (1)	6.73	I-G	0 / 1826
				A-M	0 / 885
N-M	0 / 0	-18.5 -18.5 0.13 (4)	10.00		
M-L	0 / 768	-18.5 -18.5 0.25 (4)	10.00		
L-K	0 / 1716	-18.5 -18.5 0.37 (1)	10.00		
K-J	0 / 1716	-18.5 -18.5 0.37 (1)	10.00		
J-I	0 / 1345	-18.5 -18.5 0.34 (4)	10.00		
I-H	0 / 0	-18.5 -18.5 0.21 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:			
TOP CH.	LL	=	21.0 PSF
	DL	=	6.0 PSF
BOT CH.	LL	=	0.0 PSF
	DL	=	7.4 PSF
TOTAL LOAD = 34.4 PSF			

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.19")

CSI: TC=0.71/1.00 (D-F:1) , BC=0.37/1.00 (J-L:1) , WB=0.80/1.00 (F-I:1) , SSI=0.25/1.00 (F-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)	SHEAR	SECTION	
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	650	371	1747 788 1987 1873

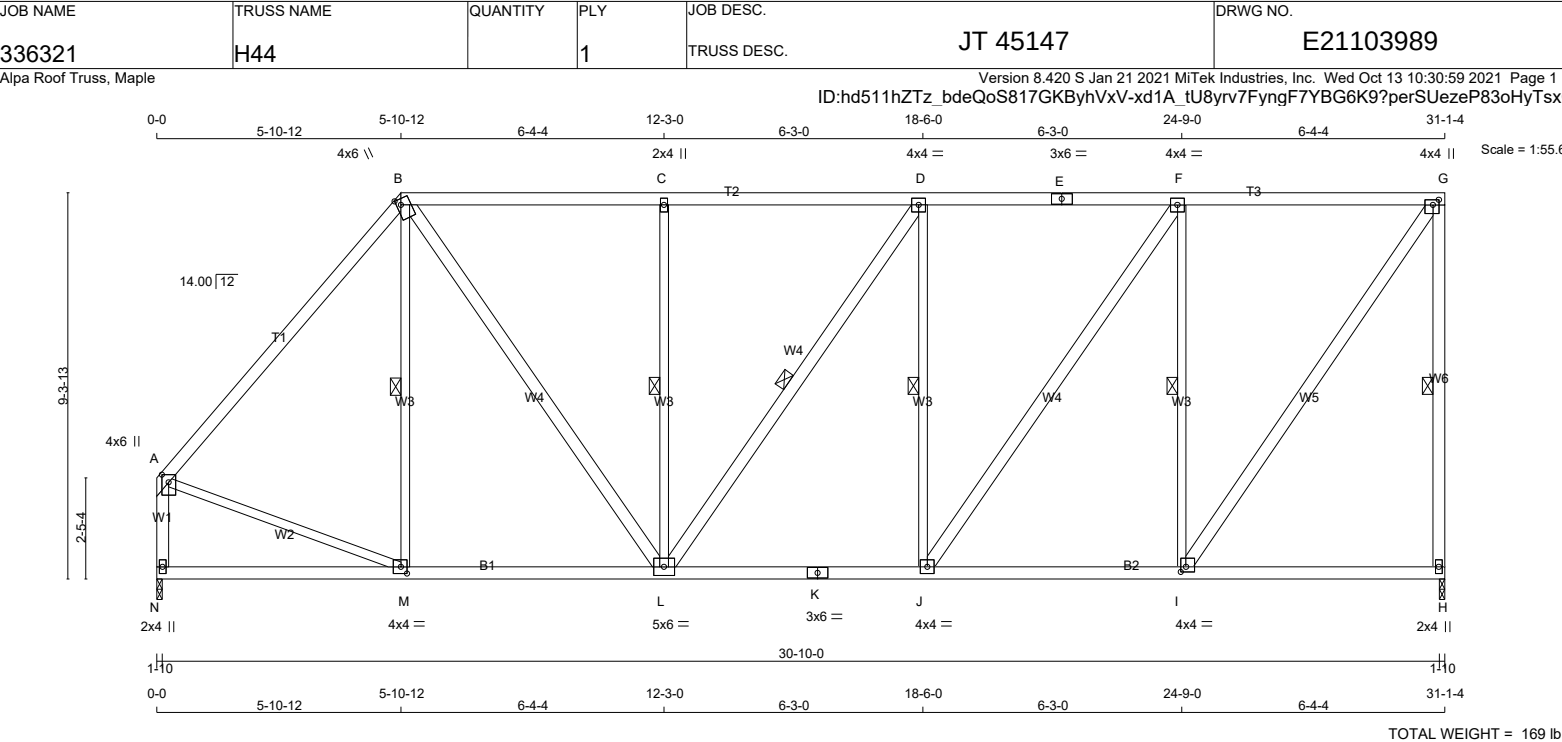
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (A) (INPUT = 0.90)
JSI METAL= 0.51 (K) (INPUT = 1.00)

The diagram illustrates a truss bridge structure with the following components:

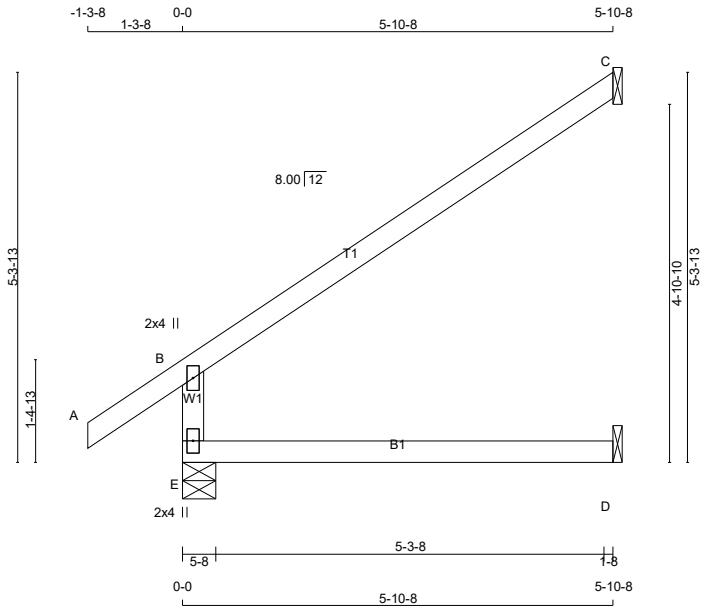
- Joints:** Labeled A, B, C, D, E, F, G, H, I, J, K, L, M, N.
- Members:**
 - Top Chords: T1, T2, T3
 - Bottom Chords: B1, B2
 - Vertical Members: W1, W3, W6, W8
 - Diagonal Members: W2, W4, W5
- Supports:**
 - Pin Support at Joint A.
 - Roller Support at Joint H.
- Dimensions and Labels:**
 - Top dimensions: 4-9-1, 4-9-1, 6-7-11, 11-4-12, 6-6-7, 17-11-2, 6-6-7, 24-5-9, 6-7-11, 31-1-4.
 - Bottom dimensions: 0-0, 4-9-1, 4-9-1, 6-7-11, 11-4-12, 6-6-7, 17-11-2, 6-6-7, 24-5-9, 6-7-11, 31-1-4.
 - Member labels: 5x6 \\\, 2x4 ||, 4x4 =, 3x6 =, 4x6 =.
 - Joint labels: N, M, L, K, J, I, H.
 - Truss labels: T1, T2, T3.
 - Web labels: W1, W2, W3, W4, W5, W6, W8.
- Scale:** Scale = 1:51.4.



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	J04		1	TRUSS DESC. JT 45147	E21104028

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 83 X 18 = 1480 lb [M]

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	456	0	456	0	5-8	1-8
C	172	0	172	0	1-8	1-8
D	46	0	51	0	1-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS				DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND				
E	323	212 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0	
C	119	93 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0	
D	36	0 / 0	0 / 0	0 / 0	0 / 0	36 / 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)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		LC1 MAX	CS1 (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	WEBS MAX. FACTORED FORCE (LBS)		MAX CS1 (LC)
	FROM	TO	FROM	TO					FROM	TO	
E-B	-393 / 0		0.0	0.0	0.12	(4)	7.81				
A-B	0 / 30		-78.0	-78.0	0.10	(1)	10.00				
B-C	-32 / 0		-78.0	-78.0	0.46	(1)	6.25				
E-D	0 / 0		-18.5	-18.5	0.13	(4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	PSF

SPACING = 24.0 IN./C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 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=0.46/1.00 (B-C:1) , BC=0.13/1.00 (D-E:4) ,
WB=0.00/1.00 (n/a:0) , SSI=0.19/1.00 (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)	SHEAR	SECTION	
(PSI)	(PLI)	(PLI)	(PLI)	
MAX	MIN	MAX	MIN	MAX
MT20	650	371	1747	788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

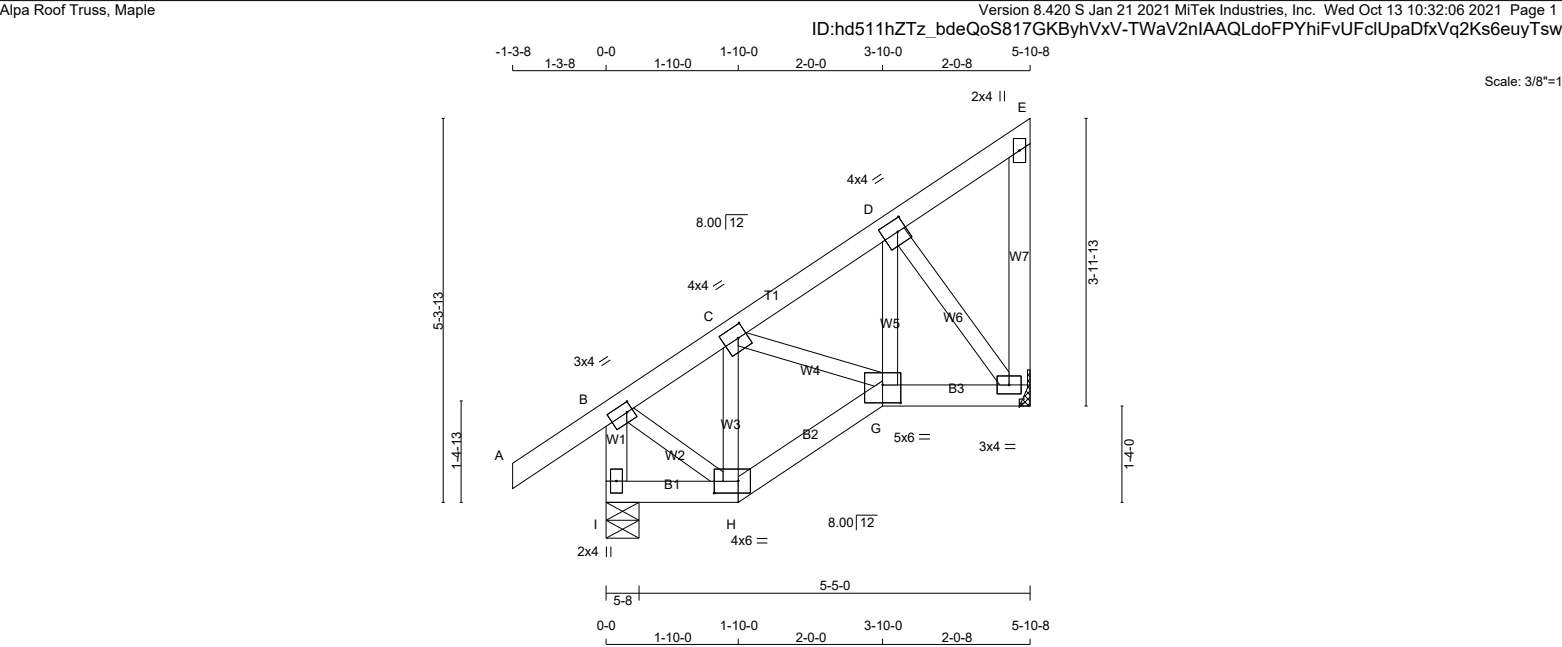
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (B) (INPUT = 0.90)
JSI METAL= 0.20 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	J04T		1	TRUSS DESC. JT 45147	E21104029



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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-t	MT20	3.0	4.0	1.50 1.00
C	TMWW-t	MT20	4.0	4.0	2.00 1.50
D	TMWW-t	MT20	4.0	4.0	2.00 1.50
E	TMV+p	MT20	2.0	4.0	
F	BMVW1-t	MT20	3.0	4.0	
G	BBWW-I	MT20	5.0	6.0	3.00 3.00
H	BBWW-I	MT20	4.0	6.0	2.00 4.00
I	BMV1+p	MT20	2.0	4.0	

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
	VERT	HORZ	DOWN	HORZ		IN-SX	IN-SX
JT	403	0	403	0	5-8	1-8	
F	271	0	271	0	0	MECHANICAL	

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

UNFACTORED REACTIONS

	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS				DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND				
JT	285	188 / 0	0 / 0	0 / 0	0 / 0	97 / 0	0 / 0	
F	193	117 / 0	0 / 0	0 / 0	0 / 0	77 / 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
I-B	-386 / 0	0.0	0.0 0.04 (1)	7.81	B-H	0 / 161	0.04 (1)
A-B	0 / 30	-78.0	-78.0 0.10 (1)	10.00	H-C	-134 / 0	0.02 (1)
B-C	-188 / 0	-78.0	-78.0 0.10 (1)	6.25	C-G	0 / 35	0.01 (1)
C-D	-192 / 0	-78.0	-78.0 0.05 (1)	6.25	G-D	0 / 114	0.03 (4)
D-E	-10 / 0	-78.0	-78.0 0.05 (1)	6.25	D-F	-254 / 0	0.05 (1)
F-E	-57 / 0	0.0	0.0 0.01 (1)	7.81			
I-H	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
H-G	0 / 160	-18.5	-18.5 0.04 (1)	10.00			
G-F	0 / 160	-18.5	-18.5 0.04 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	PSF

SPACING = 24.0 IN./C

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

THIS DESIGN COMPLIES WITH:

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

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 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 (0.00")

CSI: TC=0.10/1.00 (A-B:1) , BC=0.04/1.00 (F-G:1) ,
WB=0.05/1.00 (D-F:1) , SSI=0.07/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (B) (INPUT = 0.90)
JSI METAL= 0.10 (B) (INPUT = 1.00)

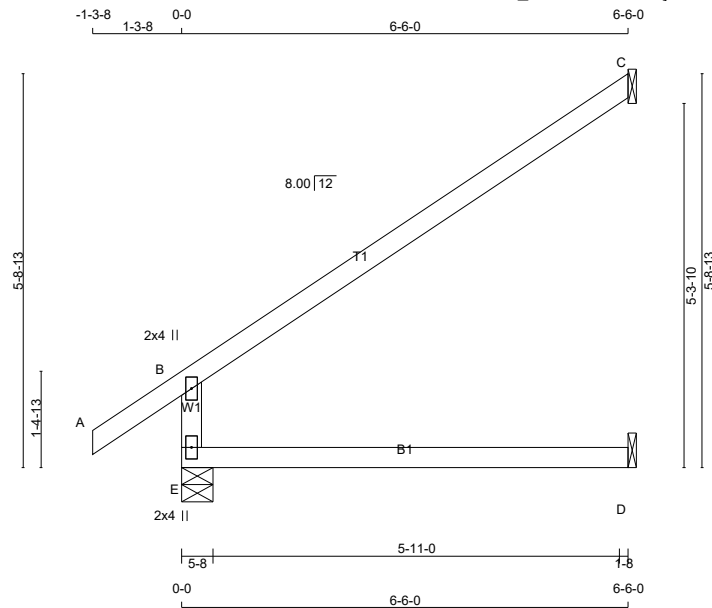
LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



Alpa Roof Truss, Maple

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 10:32:07 2021 Page 1
ID:hd511hZTz bdeQoS817GKByhVxV-xi8tF7JoxkTUPPzIEPm81S9r3DuZOOU H cfBLyTsw

Scale = 1:33.5



TOTAL WEIGHT = $17 \times 19 = 330 \text{ lb}$

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

DRY: SEASONED LUMBER.

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

	FACTORED		MAXIMUM FACTORED			INPUT	REQD
	GROSS	REACTION	GROSS	REACTION	UPLIFT	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ		IN-SX	IN-SX
E	494	0	494	0	0	5-8	1-8
C	190	0	190	0	0	1-8	1-8
D	50	0	56	0	0	1-8	1-8

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	349	228 / 0	0 / 0	0 / 0	0 / 0	121 / 0	0 / 0
C	132	102 / 0	0 / 0	0 / 0	0 / 0	29 / 0	0 / 0
D	40	0 / 0	0 / 0	0 / 0	0 / 0	40 / 0	0 / 0

TOTAL LOAD CASES: (4)

CHORDS				WEB S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO					
E-B	-424 / 0	0.0	0.0	0.13 (4)	7.81			
A-B	0 / 30	-78.0	-78.0	0.10 (1)	10.00			
B-C	-35 / 0	-78.0	-78.0	0.44 (1)	6.25			
E-D	0 / 0	-18.5	-18.5	0.16 (4)	10.00			

SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD				=	34.4 PSF

THIS DESIGN COMPLIES WITH:

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.22")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.22")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.44/1.00 (B-C:1) , BC=0.16/1.00 (D-E:4) ,
WB=0.00/1.00 (n/a:0) , SSI=0.21/1.00 (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)		SHEAR		SECTION
	(PSI)		(PLI)		(PLI)
	MAX	MIN	MAX	MIN	MAX MIN
MT20	650	371	1747	788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

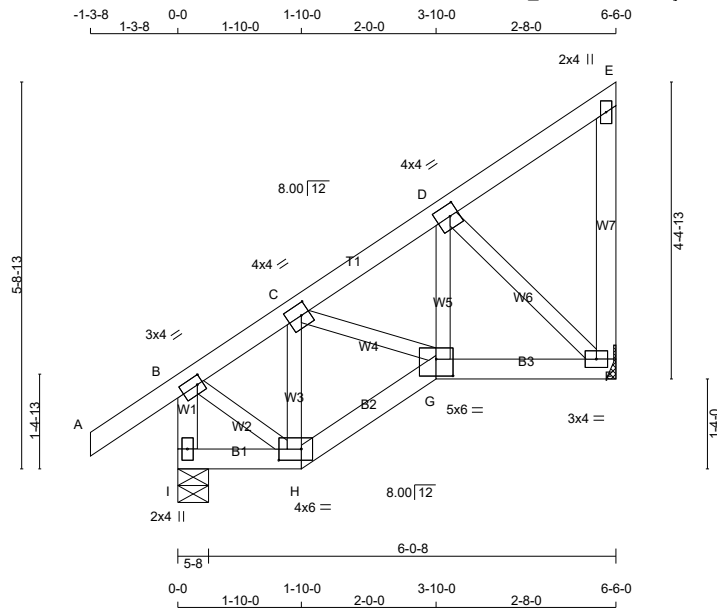
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.26 (B) (INPUT = 0.90)
JSI METAL= 0.22 (B) (INPUT = 1.00)

Alpa Roof Truss, Maple

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 10:32:09 2021 Page 1
ID:hd511hZTz bdeQoS817GKByhVxV-u5FegoL2TLkBf77Mqoc6tEGj1bcsl0Gkl5mFDyTswK

Scale = 1:34.2



TOTAL WEIGHT = 7 X 33 = 232 lb

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

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	4.0	1.50	1.00
C	TMVW-t	MT20	4.0	4.0	2.00	1.50
D	TMVW-t	MT20	4.0	4.0	2.00	1.50
E	TMV+p	MT20	2.0	4.0		
F	BMVW-t	MT20	3.0	4.0		
G	BBVW-I	MT20	5.0	6.0	3.00	3.00
H	BBVW-I	MT20	4.0	6.0	2.00	4.00
I	BMV-I+p	MT20	2.0	4.0		

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
I	432	0	432	0	0	5-8	1-8
F	302	0	302	0	0	MECHANICAL	

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	305	200 / 0	0 / 0	0 / 0	0 / 0	105 / 0	0 / 0
F	216	130 / 0	0 / 0	0 / 0	0 / 0	85 / 0	0 / 0

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
I-B	-415 / 0	0.0	0.0	0.04 (1)	7.81	0 / 185	0.04 (1)
A-B	0 / 30	-78.0	-78.0	0.10 (1)	10.00	-160 / 0	0.03 (1)
B-C	-215 / 0	-78.0	-78.0	0.08 (1)	6.25	0 / 73	0.02 (1)
C-D	-253 / 0	-78.0	-78.0	0.05 (1)	6.25	0 / 118	0.03 (4)
D-E	-11 / 0	-78.0	-78.0	0.05 (1)	6.25	D- F	-293 / 0
F-E	-80 / 0	0.0	0.0	0.02 (1)	7.81		0.06 (1)
I-H	0 / 0	-18.5	-18.5	0.02 (4)	10.00		
H-G	0 / 184	-18.5	-18.5	0.04 (1)	10.00		
G-F	0 / 215	-18.5	-18.5	0.06 (1)	10.00		

SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD				=	34.4 PSF

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

THIS DESIGN COMPLIES WITH:

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

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.22")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.22")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.10/1.00 (A-B:1), BC=0.06/1.00 (F-G:4),
WB=0.06/1.00 (D-F:1), SSI=0.08/1.00 (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

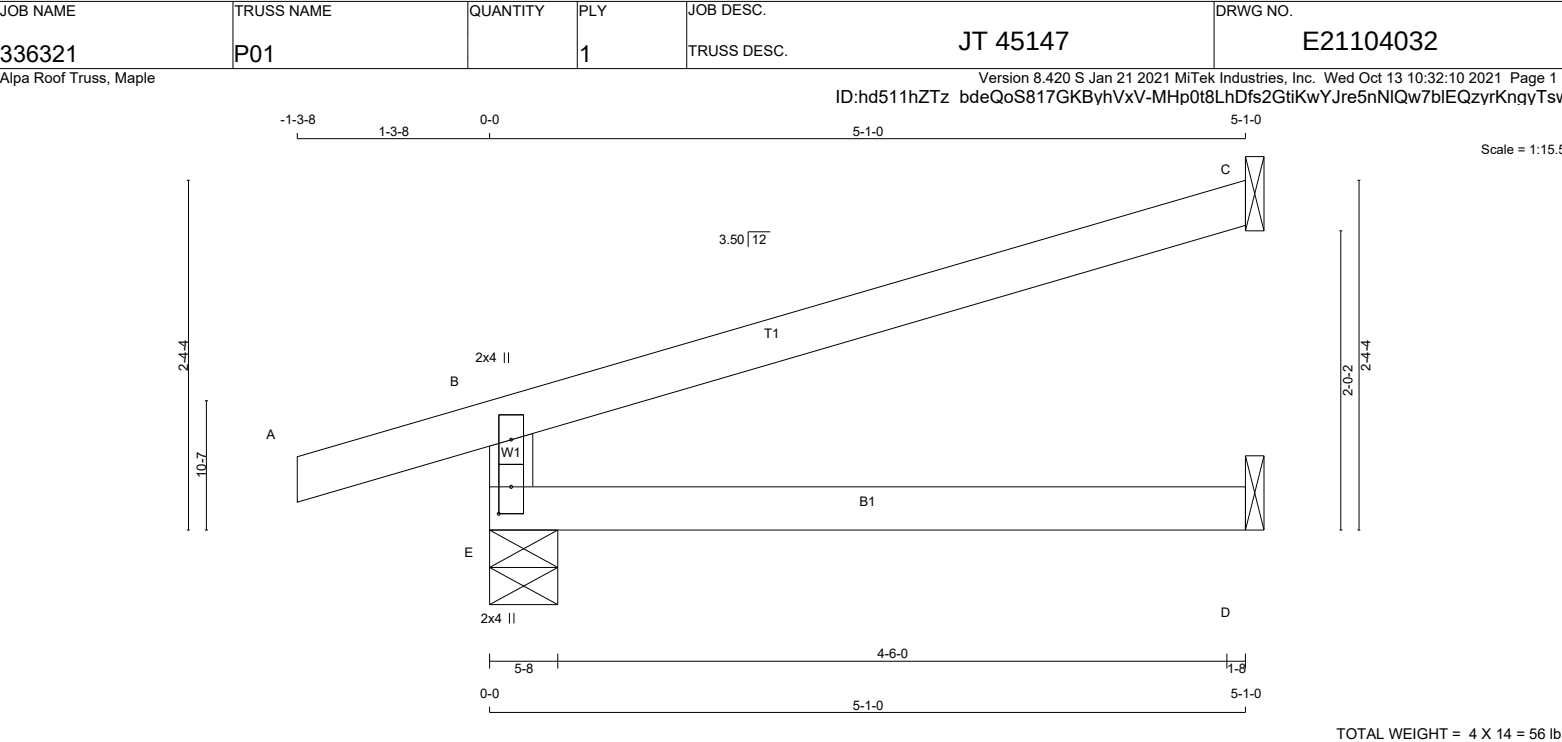
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.57 (B) (INPUT = 0.90)
JSI METAL= 0.11 (B) (INPUT = 1.00)



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES				BEARINGS				SPECIFIED LOADS:			
CHORDS	SIZE	LUMBER	DESCR.	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	TOP CH.	LL	=	21.0 PSF
E - B	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG	DL	=	6.0 PSF	
A - C	2x4	DRY	No.2	VERT	DOWN	HORIZ	UPLIFT	BOT CH.	LL	=	0.0 PSF
E - D	2x4	DRY	No.2	E 407 0	407 0	5-8	1-8	DL	=	7.4 PSF	
DRY: SEASONED LUMBER.				C 149 0	149 0	1-8	1-8	TOTAL LOAD	=	34.4 PSF	
				D 38 0	43 0	1-8	1-8				

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0	2.25	1.00

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	288	189 / 0	0 / 0	0 / 0	0 / 0	99 / 0	0 / 0
C	103	80 / 0	0 / 0	0 / 0	0 / 0	23 / 0	0 / 0
D	31	0 / 0	0 / 0	0 / 0	0 / 0	31 / 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)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED			MAX. MEMB. FORCE (LBS)	WEBS MAX. FACTORED FORCE (LBS)
		VERT. LOAD (PLF)	LC1	MAX CSI (LC)		
FR-TO		FROM	TO	UNBRAC LENGTH	FR-TO	
E- B	-352 / 0	0.0	0.0	0.10 (4)	7.81	
A- B	0 / 15	-78.0	-78.0	0.10 (1)	10.00	
B- C	-14 / 0	-78.0	-78.0	0.34 (1)	6.25	
E- D	0 / 0	-18.5	-18.5	0.10 (4)	10.00	

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 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 (0.02")

CSI: TC=0.34/1.00 (B-C:1) , BC=0.10/1.00 (D-E:4) ,
WB=0.00/1.00 (n/a:0) , SSI=0.19/1.00 (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 .

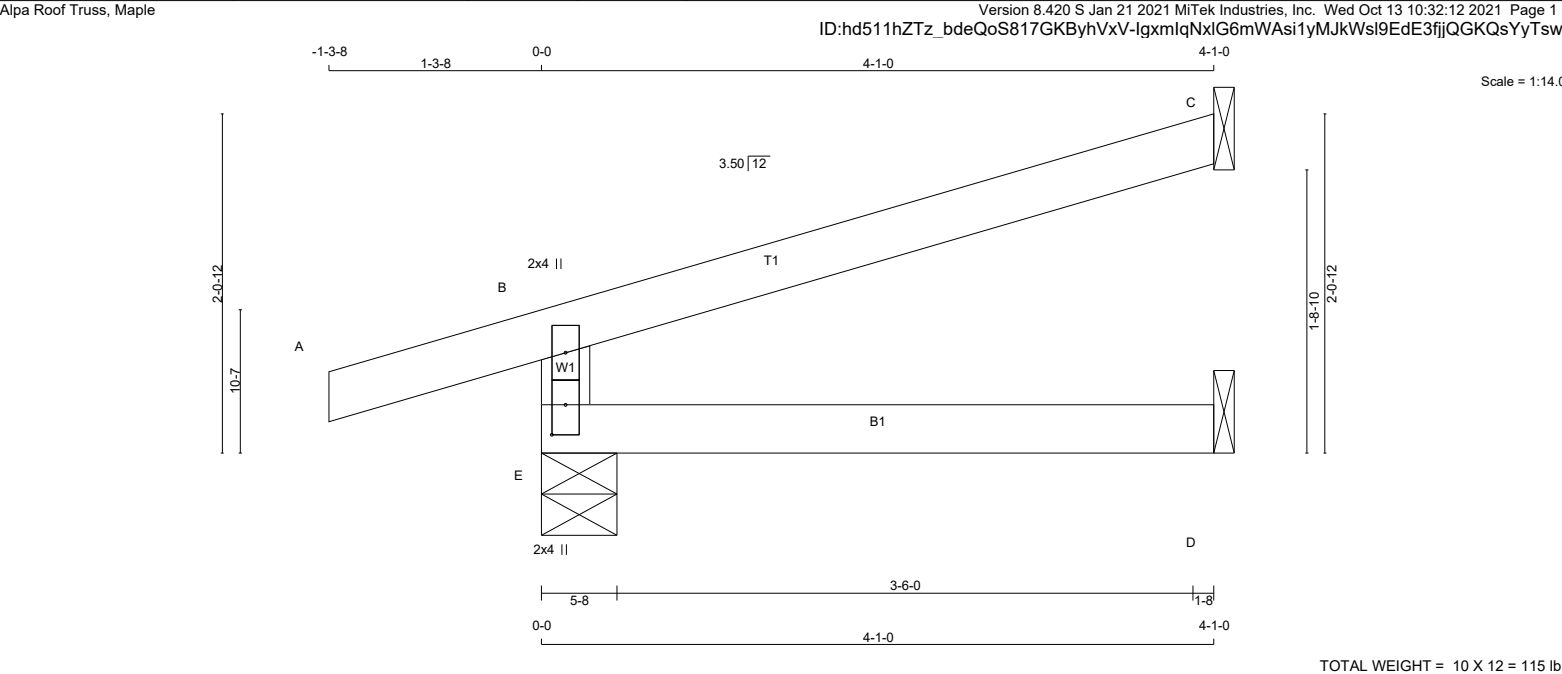
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

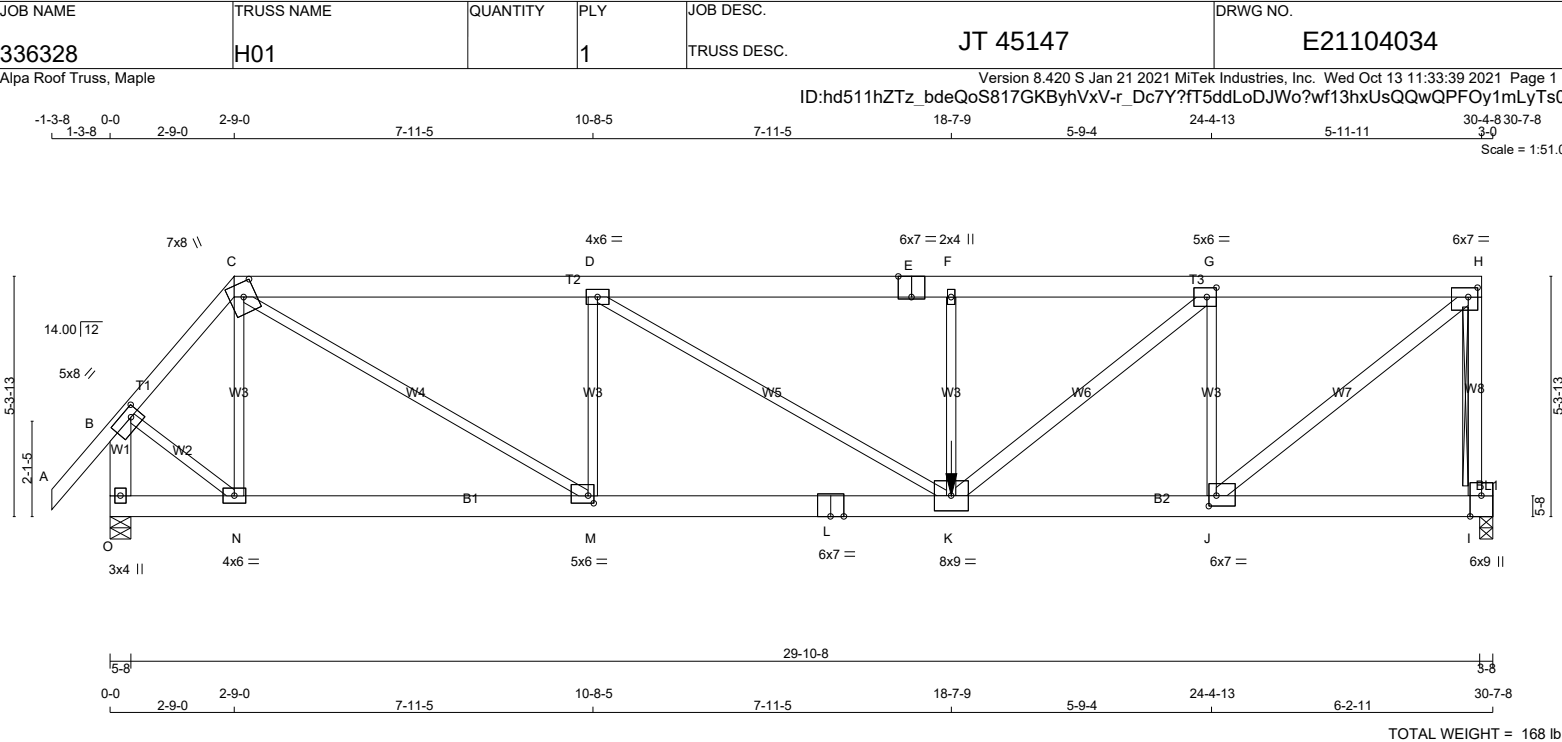
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.18 (B) (INPUT = 0.90)
JSI METAL= 0.09 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	P02		1	TRUSS DESC. JT 45147	E21104033



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.							DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th></th><th colspan="2">FACTORED GROSS REACTION</th><th colspan="2">MAXIMUM FACTORED GROSS REACTION</th><th>INPUT BRG</th><th>REQRD BRG</th></tr><tr><th>JT</th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>UPLIFT</th><th>IN-SX</th></tr><tr><td>E</td><td>347</td><td>0</td><td>347</td><td>0</td><td>0</td><td>5-8</td></tr><tr><td>C</td><td>119</td><td>0</td><td>119</td><td>0</td><td>0</td><td>1-8</td></tr><tr><td>D</td><td>31</td><td>0</td><td>35</td><td>0</td><td>0</td><td>1-8</td></tr></table> SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C , D UNFACTORED REACTIONS <table><tr><th>JT</th><th>1ST LCASE</th><th colspan="6">MAX./MIN. COMPONENT REACTIONS</th></tr><tr><th>JT</th><th>COMBINED</th><th>SNOW</th><th>LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>E</td><td>245</td><td>163 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>82 / 0</td><td>0 / 0</td></tr><tr><td>C</td><td>83</td><td>64 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>18 / 0</td><td>0 / 0</td></tr><tr><td>D</td><td>25</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>25 / 0</td><td>0 / 0</td></tr></table> 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) <table><tr><th colspan="4">CHORDS</th><th colspan="4">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>LC1 MAX CSI (LC)</th><th>MAX. MEMB. UNBRAC LENGTH</th><th>MEMB. FR-TO</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX CSI (LC)</th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>E-B</td><td>-303 / 0</td><td>0.0</td><td>0.0</td><td>0.06 (4)</td><td>7.81</td><td></td><td></td></tr><tr><td>A-B</td><td>0 / 15</td><td>-78.0</td><td>-78.0</td><td>0.10 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>B-C</td><td>-11 / 0</td><td>-78.0</td><td>-78.0</td><td>0.22 (1)</td><td>6.25</td><td></td><td></td></tr><tr><td>E-D</td><td>0 / 0</td><td>-18.5</td><td>-18.5</td><td>0.06 (4)</td><td>10.00</td><td></td><td></td></tr></table>								FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	E	347	0	347	0	0	5-8	C	119	0	119	0	0	1-8	D	31	0	35	0	0	1-8	JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS						JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	E	245	163 / 0	0 / 0	0 / 0	0 / 0	82 / 0	0 / 0	C	83	64 / 0	0 / 0	0 / 0	0 / 0	18 / 0	0 / 0	D	25	0 / 0	0 / 0	0 / 0	0 / 0	25 / 0	0 / 0	CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. MEMB. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	FR-TO		FROM TO						E-B	-303 / 0	0.0	0.0	0.06 (4)	7.81			A-B	0 / 15	-78.0	-78.0	0.10 (1)	10.00			B-C	-11 / 0	-78.0	-78.0	0.22 (1)	6.25			E-D	0 / 0	-18.5	-18.5	0.06 (4)	10.00			DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN./C/C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF CBC 2018 , ABC 2019 - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014 DESIGN ASSUMPTIONS -OVERHANG NOT TO BE ALTERED OR CUT OFF. (55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(TL)= L/360 (0.19") CALCULATED VERT. DEFL.(TL)= L/ 999 (0.01") CSI: TC=0.22/1.00 (B-C:1) , BC=0.06/1.00 (D-E:4) , WB=0.00/1.00 (n/a:0) , SSI=0.15/1.00 (B-C:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.16 (B) (INPUT = 0.90) JSI METAL= 0.08 (B) (INPUT = 1.00)						
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG																																																																																																																																																	
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E	347	0	347	0	0	5-8																																																																																																																																																	
C	119	0	119	0	0	1-8																																																																																																																																																	
D	31	0	35	0	0	1-8																																																																																																																																																	
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS																																																																																																																																																					
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E	245	163 / 0	0 / 0	0 / 0	0 / 0	82 / 0	0 / 0																																																																																																																																																
C	83	64 / 0	0 / 0	0 / 0	0 / 0	18 / 0	0 / 0																																																																																																																																																
D	25	0 / 0	0 / 0	0 / 0	0 / 0	25 / 0	0 / 0																																																																																																																																																
CHORDS				WEBS																																																																																																																																																			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. MEMB. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)																																																																																																																																																
FR-TO		FROM TO																																																																																																																																																					
E-B	-303 / 0	0.0	0.0	0.06 (4)	7.81																																																																																																																																																		
A-B	0 / 15	-78.0	-78.0	0.10 (1)	10.00																																																																																																																																																		
B-C	-11 / 0	-78.0	-78.0	0.22 (1)	6.25																																																																																																																																																		
E-D	0 / 0	-18.5	-18.5	0.06 (4)	10.00																																																																																																																																																		
PLATES (table is in inches) <table><tr><th>JT</th><th>TYPE</th><th>PLATES</th><th>W</th><th>LEN</th><th>Y</th><th>X</th></tr><tr><td>B</td><td>TMV+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr><tr><td>E</td><td>BMV1+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td>2.25</td><td>1.00</td></tr></table>							JT	TYPE	PLATES	W	LEN	Y	X	B	TMV+p	MT20	2.0	4.0			E	BMV1+p	MT20	2.0	4.0	2.25	1.00	LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2 																																																																																																																											
JT	TYPE	PLATES	W	LEN	Y	X																																																																																																																																																	
B	TMV+p	MT20	2.0	4.0																																																																																																																																																			
E	BMV1+p	MT20	2.0	4.0	2.25	1.00																																																																																																																																																	



LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2 SPF
C - E	2x6	DRY	No.2 SPF
E - H	2x6	DRY	No.2 SPF
I - H	2x4	DRY	No.2 SPF
O - B	2x6	DRY	No.2 SPF
O - L	2x6	DRY	No.2 SPF
L - I	2x6	DRY	No.2 SPF
BEARING BLOCKS			
BL1	2x4	DRY	No.2 SPF
ALL WEBS EXCEPT			
K - G	2x4	DRY	No.2 SPF
J - H	2x4	DRY	No.2 SPF
DRY: SEASONED LUMBER.			

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B TMVW-t	MT20	5.0	8.0	2.25 2.50
C TTWW+m	MT20	7.0	8.0	3.75 3.25
D TMWW-t	MT20	4.0	6.0	
E TS-t	MT20	6.0	7.0	Edge 3.50
F TMW+w	MT20	2.0	4.0	
G TMWW-t	MT20	5.0	6.0	2.50 2.50
H TMVW-t	MT20	6.0	7.0	2.50 2.50
I BMVK1+t	MT20	6.0	9.0	Edge 3.00
J BMWW-t	MT20	6.0	7.0	2.75 2.00
K BMWWW-t	MT20	8.0	9.0	
L BS-t	MT20	6.0	7.0	
M BMWW-t	MT20	5.0	6.0	2.00 1.50
N BMWW-t	MT20	4.0	6.0	
O BMV1+p	MT20	3.0	4.0	

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX		REQRD BRG IN-SX	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
I	3251	0	3251	0	0	3-8	3-8
O	2332	0	2332	0	0	5-8	2-8

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
I	2318	1417 / 0	0 / 0	0 / 0	0 / 0
O	1661	1026 / 0	0 / 0	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) I, O
BEARING SIZE FACTOR = 1.15 AT JNT(S) I (BASED ON SUPPORT DEPTH = 1-8)

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.27 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.

2x3 DRY SPF No.2 T-BRACE AT H-I

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	0 / 42	N-C	-555 / 0
B-C	-1878 / 0	C-M	0 / 3112
C-D	-3865 / 0	M-D	-1480 / 0
D-E	-5125 / 0	D-K	0 / 1477
E-F	-5125 / 0	K-F	-679 / 0
F-G	-5125 / 0	K-G	0 / 2341
G-H	-3335 / 0	J-G	-2542 / 0
H-I	-3162 / 0	J-H	0 / 4421
O-B	-2352 / 0	B-N	0 / 1414
O-N	0 / 0		
N-M	0 / 1211		
M-L	0 / 3865		
L-K	0 / 3865		
K-J	0 / 3335		
J-I	-95 / 0		

FACTORED CONCENTRATED LOADS (LBS)	
JT	LOC.
K	18-7-9

CONNECTION REQUIREMENTS

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

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 = 21.0 PSF
	DL = 6.0 PSF
BOT CH.	LL = 0.0 PSF
	DL = 7.4 PSF
TOTAL LOAD	= 34.4 PSF

SPACING = 24.0 IN./C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-9-0
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF G.S.L.
LOADS APPLIED TO FIRST 11-11-15 OF SPAN MEASURED FROM THE RIGHT.

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.01")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.18")
ALLOWABLE DEFL.(TL)= L/360 (1.01")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.36")

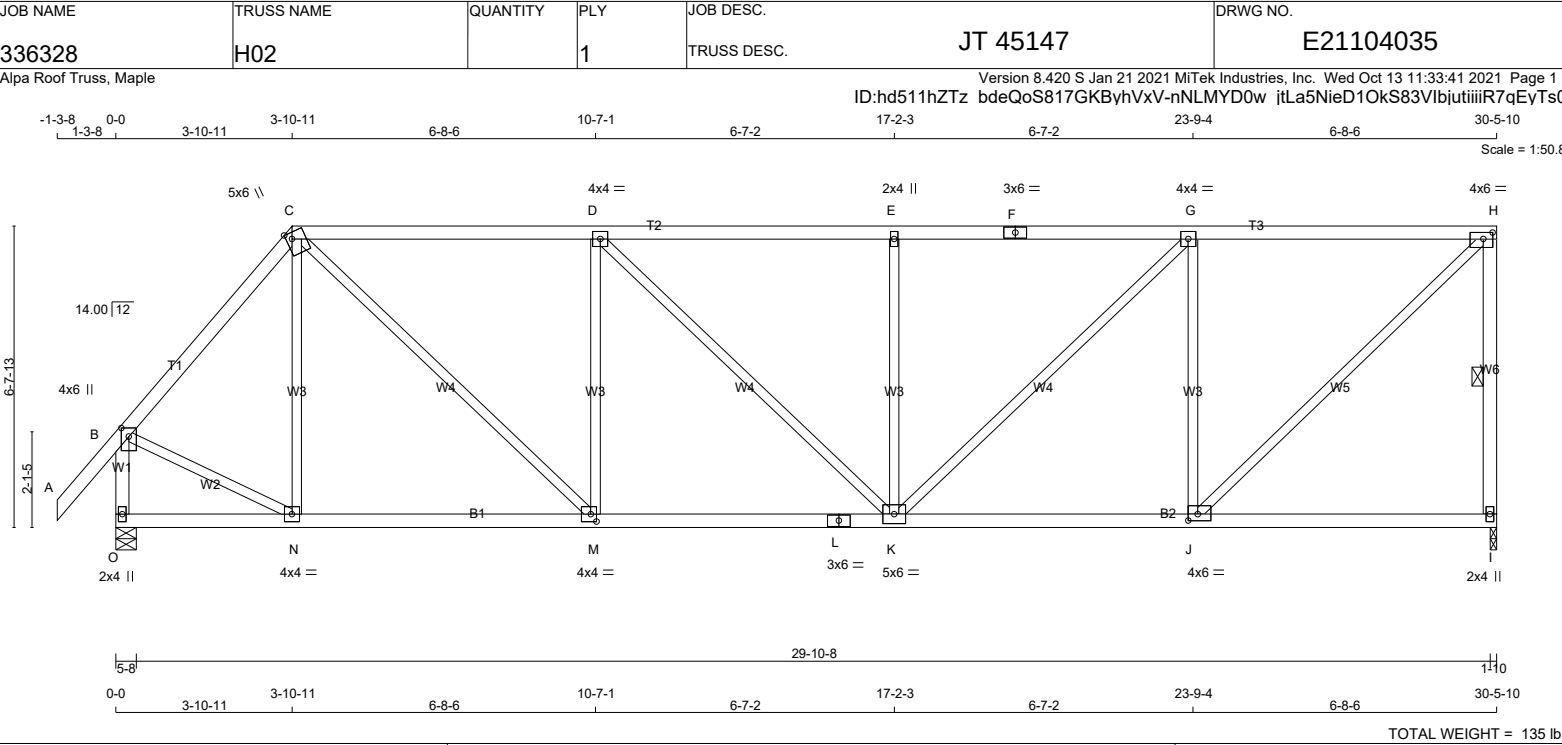
CSI: TC=0.78/1.00 (H-I:1) , BC=0.60/1.00 (K-M:1) , WB=0.96/1.00 (G-J:1) , SSI=0.36/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
A - F	2x4	DRY No.2	SPF
F - H	2x4	DRY No.2	SPF
I - H	2x4	DRY No.2	SPF
O - B	2x4	DRY No.2	SPF
O - L	2x4	DRY No.2	SPF
L - I	2x4	DRY No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25	2.00
C	TTWW+m	MT20	5.0	6.0	1.75	1.50
D	TMWW-t	MT20	4.0	4.0		
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW-t	MT20	4.0	4.0		
H	TMVW-t	MT20	4.0	6.0	1.75	2.50
I	BMV1+p	MT20	2.0	4.0		
J	BMWW-t	MT20	4.0	6.0	1.75	2.50
K	BMWWW-t	MT20	5.0	6.0		
L	BS-t	MT20	3.0	6.0		
M	BMWW-t	MT20	4.0	4.0	2.00	1.50
N	BMWW-t	MT20	4.0	4.0		
O	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQRD
JT	VERT	HORZ	DOWN	HORZ
I	1470	0	1470	0
O	1579	0	1579	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	1048	640 / 0	0 / 0	0 / 0	0 / 0	0 / 0	408 / 0	0 / 0
O	1124	698 / 0	0 / 0	0 / 0	0 / 0	0 / 0	425 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF H-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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-78.0 -78.0	0.11 (1)	N-C	-239 / 0	0.17 (1)	
B-C	-1241 / 0	-78.0 -78.0	0.25 (1)	C-M	0 / 1189	0.27 (1)	
C-D	-1664 / 0	-78.0 -78.0	0.64 (1)	M-D	-691 / 0	0.51 (1)	
D-E	-1776 / 0	-78.0 -78.0	0.65 (1)	D-K	0 / 156	0.04 (1)	
E-F	-1776 / 0	-78.0 -78.0	0.65 (1)	K-E	-474 / 0	0.35 (1)	
F-G	-1776 / 0	-78.0 -78.0	0.65 (1)	K-G	0 / 693	0.16 (1)	
G-H	-1277 / 0	-78.0 -78.0	0.59 (1)	J-G	-1073 / 0	0.79 (1)	
H-I	-1420 / 0	0.0 0.0	0.29 (1)	J-H	0 / 1761	0.40 (1)	
O-B	-1556 / 0	0.0 0.0	0.18 (1)	B-N	0 / 876	0.20 (1)	
O-N	0 / 0	-18.5 -18.5	0.13 (4)				
N-M	0 / 799	-18.5 -18.5	0.24 (4)				
M-L	0 / 1664	-18.5 -18.5	0.36 (1)				
L-K	0 / 1664	-18.5 -18.5	0.36 (1)				
K-J	0 / 1277	-18.5 -18.5	0.32 (4)				
J-I	0 / 0	-18.5 -18.5	0.20 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	34.4	PSF	

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.02")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (1.02")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.17")

CSI: TC=0.65/1.00 (E-G:1) , BC=0.36/1.00 (K-M:1) , WB=0.79/1.00 (G-J:1) , SSI=0.25/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (H) (INPUT = 0.90)
JSI METAL= 0.49 (L) (INPUT = 1.00)

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PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.00 2.00
C	TTWW+m	MT20	5.0	6.0	1.75 1.50
D	TMVW+w	MT20	2.0	4.0	
E	TS-t	MT20	3.0	10.0	
F	TMVWV-t	MT20	4.0	6.0	
G	TMVW-t	MT20	4.0	6.0	2.00 2.50
H	BMV1+p	MT20	2.0	4.0	
I	BMVWV-t	MT20	4.0	6.0	2.00 2.50
J	BS-t	MT20	3.0	6.0	
K	BMVWVW-t	MT20	5.0	6.0	
L	BMVW-t	MT20	4.0	6.0	
M	BMV1+p	MT20	2.0	4.0	

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



LOADING
TOTAL LOAD CASES: (4)

C H O R D S					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO		LENGTH	FR-TO			
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	L-C	-136 / 48	0.16 (1)	
B-C	-1268 / 0	-78.0	-78.0	0.44 (1)	5.22	C-K	0 / 943	0.15 (1)	
C-D	-1521 / 0	-78.0	-78.0	0.79 (1)	4.79	K-D	-717 / 0	0.87 (1)	
D-E	-1522 / 0	-78.0	-78.0	0.79 (1)	4.77	K-F	0 / 353	0.06 (1)	
E-F	-1522 / 0	-78.0	-78.0	0.79 (1)	4.77	I-F	-963 / 0	0.39 (1)	
F-G	-1261 / 0	-78.0	-78.0	0.76 (1)	5.15	I-G	0 / 1700	0.27 (1)	
H-G	-1407 / 0	0.0	0.0	0.40 (1)	5.49	B-L	0 / 868	0.20 (1)	
M-B	-1549 / 0	0.0	0.0	0.18 (1)	6.61				
M-L	0 / 0	-18.5	-18.5	0.21 (4)	10.00				
L-K	0 / 820	-18.5	-18.5	0.32 (4)	10.00				
K-J	0 / 1261	-18.5	-18.5	0.44 (4)	10.00				
J-I	0 / 1261	-18.5	-18.5	0.44 (4)	10.00				
I-H	0 / 0	-18.5	-18.5	0.32 (4)	10.00				

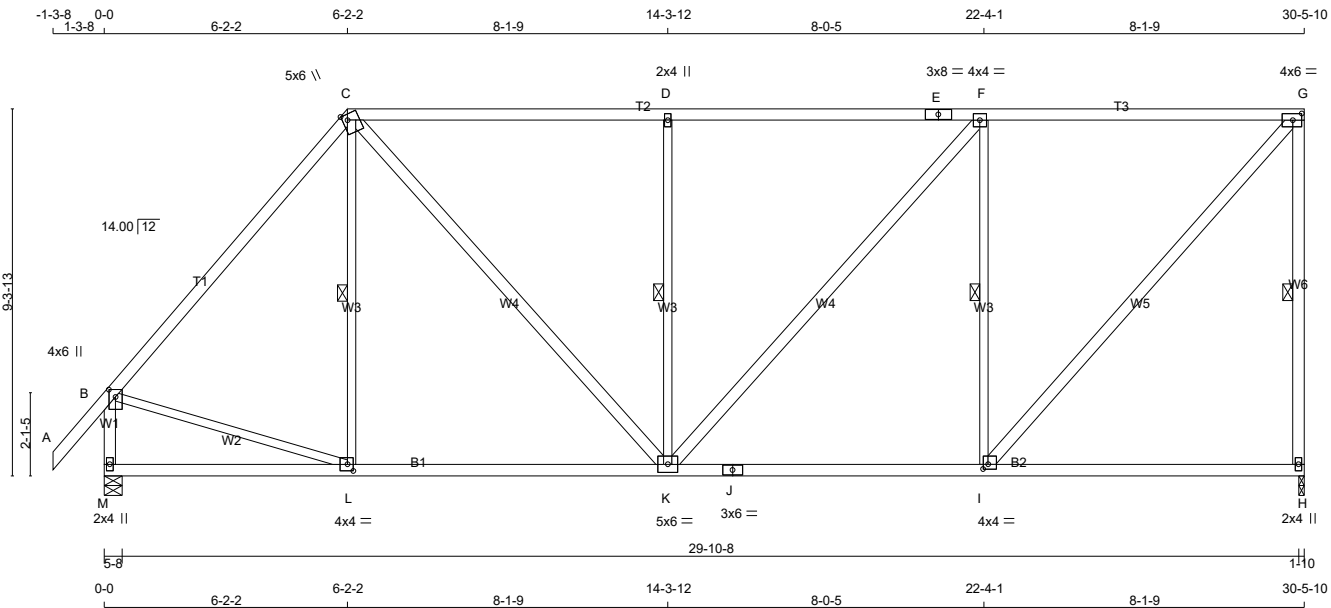
JSI GRIP= 0.83 (I) (INPUT = 0.90)
JSI METAL= 0.50 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H04		1	TRUSS DESC. JT 45147	E21104037

Alpa Roof Truss, Maple

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Scale = 1:58.5

TOTAL WEIGHT = 154 lb [M]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY 2100F 1.8E	SPF
C - E	2x4	DRY No.2	SPF
E - G	2x4	DRY No.2	SPF
H - G	2x4	DRY No.2	SPF
M - B	2x4	DRY No.2	SPF
M - J	2x4	DRY No.2	SPF
J - H	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF
C - K	2x4	DRY No.2	SPF
K - F	2x4	DRY No.2	SPF
I - G	2x4	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	6.0 2.25 2.00
C	TTWW+m	MT20	5.0	6.0 1.75 1.50
D	TMW+w	MT20	2.0	4.0
E	TS-t	MT20	3.0	8.0
F	TMWW-t	MT20	4.0	4.0
G	TMVW-t	MT20	4.0	6.0 2.00 2.75
H	BMV1+p	MT20	2.0	4.0
I	BMWW-t	MT20	4.0	4.0 1.50 1.50
J	BS-t	MT20	3.0	6.0
K	BMWWW-t	MT20	5.0	6.0
L	BMWW-t	MT20	4.0	4.0 2.00 1.75
M	BMV1+p	MT20	2.0	4.0

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX		REQRD BRG IN-SX	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT			
H	1470	0		1470	0	0	1-10	1-9	
M	1579	0		1579	0	0	5-8	1-11	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND				
H	1048	640 / 0	0 / 0	0 / 0	0 / 0	408 / 0		0 / 0	
M	1124	698 / 0	0 / 0	0 / 0	0 / 0	425 / 0		0 / 0	

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

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 G-H, C-L, D-K, F-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		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED (LC1)
FR-TO		FROM TO	UNBRAC LENGTH
A- B	0 / 42	-78.0 -78.0	0.07 (1)
B- C	-1261 / 0	-78.0 -78.0	0.42 (1)
C- D	-1300 / 0	-78.0 -78.0	0.87 (1)
D- E	-1301 / 0	-78.0 -78.0	0.87 (1)
E- F	-1301 / 0	-78.0 -78.0	0.87 (1)
F- G	-1040 / 0	-78.0 -78.0	0.83 (1)
H- G	-1410 / 0	0.0 0.0	0.57 (1)
M- B	-1536 / 0	0.0 0.0	0.18 (1)
M- L	0 / 0	-18.5 -18.5	0.23 (4)
L- K	0 / 817	-18.5 -18.5	0.31 (4)
K- J	0 / 1040	-18.5 -18.5	0.40 (4)
J- I	0 / 1040	-18.5 -18.5	0.40 (4)
I- H	0 / 0	-18.5 -18.5	0.30 (4)

DESIGN CRITERIA

SPECIFIED LOADS:		
TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.02")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.02")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.14")

CSI: TC=0.87/1.00 (D-F:1) , BC=0.40/1.00 (I-K:4) , WB=0.56/1.00 (F-I:1) , SSI=0.30/1.00 (F-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) SHEAR		SECTION	
(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)
MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (B) (INPUT = 0.90)
JSI METAL= 0.51 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

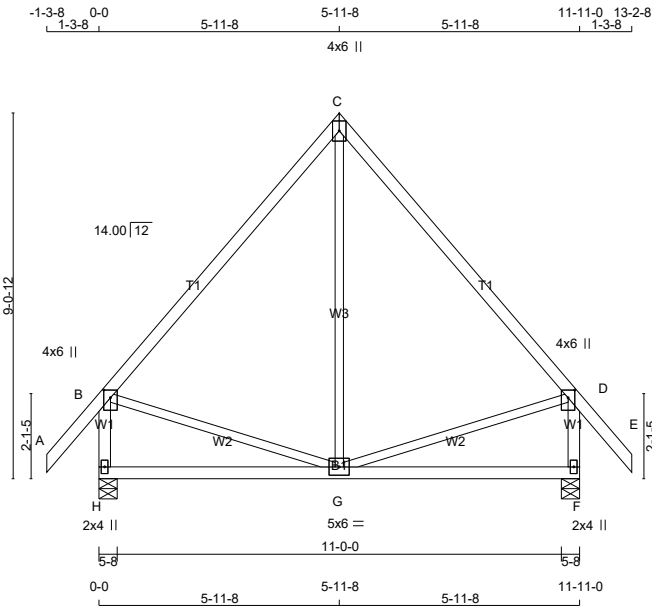


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H07		1	TRUSS DESC. JT 45147	E21104038

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-8K8Fbx42pFWehtFgRmdZRVr0iJLVZKTRs_8uVRyTs0Z



TOTAL WEIGHT = 60 lb

[M][F]

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER		DESCR.
A - C	2x4	DRY	1650F 1.5E	SPF
C - E	2x4	DRY	1650F 1.5E	SPF
H - B	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.25 2.00
C	TTW+p	MT20	4.0	6.0	
D	TMVW+p	MT20	4.0	6.0	2.25 2.00
F	BMV1+p	MT20	2.0	4.0	
G	BMWWW-t	MT20	5.0	6.0	
H	BMV1+p	MT20	2.0	4.0	

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
H	684	0	684	0	5-8	1-8
F	684	0	684	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE				
H	486	309 / 0	0 / 0	0 / 0	0 / 0	177 / 0	0 / 0
F	486	309 / 0	0 / 0	0 / 0	0 / 0	177 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A-B	0 / 42	-78.0	-78.0 0.09 (1)	10.00	G- C	0 / 103	0.04 (4)
B- C	-317 / 0	-78.0	-78.0 0.30 (1)	6.25	B- G	0 / 215	0.05 (1)
C- D	-317 / 0	-78.0	-78.0 0.30 (1)	6.25	G- D	0 / 215	0.05 (1)
D- E	0 / 42	-78.0	-78.0 0.09 (1)	10.00			
H- B	-642 / 0	0.0	0.0 0.08 (1)	7.81			
F- D	-642 / 0	0.0	0.0 0.08 (1)	7.81			
H- G	0 / 0	-18.5	-18.5 0.19 (4)	10.00			
G- F	0 / 0	-18.5	-18.5 0.19 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	34.4	PSF	

SPACING = 24.0 IN./C

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.40")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.40")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.30/1.00 (B-C:1) , BC=0.19/1.00 (G-H:4) ,
WB=0.05/1.00 (D-G:1) , SSI=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.36 (B) (INPUT = 0.90)
JSI METAL= 0.19 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

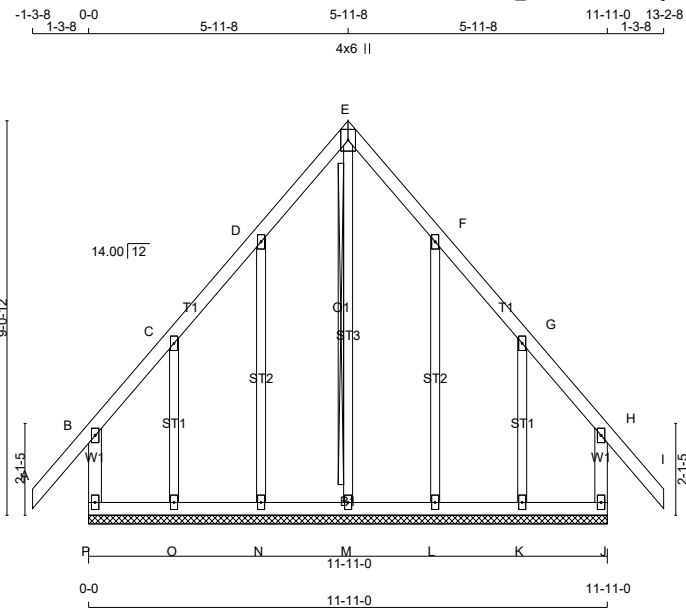


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H07G		1	TRUSS DESC. JT 45147	E21104039

Alpa Roof Truss, Maple

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Scale = 1:52.9

TOTAL WEIGHT = 67 lb [M]

LUMBER				DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	
P - B	2x4	DRY	No.2	SPF
A - E	2x4	DRY	No.2	SPF
E - I	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
P - J	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT 2'-0-0 OC.				

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

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

2x3 DRY SPF No.2 T-BRACE AT E-M

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

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

LOADING

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 (LC)	
FR-TO		FROM TO		FR-TO			
P-B	-191 / 0	0.0 0.0	0.03 (1)	M-E	-195 / 0	0.25 (1)	
A-B	0 / 42	-78.0 -78.0	0.11 (1)	N-D	-167 / 0	0.12 (1)	
B-C	-3 / 0	-78.0 -78.0	0.07 (1)	O-C	-118 / 0	0.03 (1)	
C-D	0 / 25	-78.0 -78.0	0.05 (1)	L-F	-167 / 0	0.12 (1)	
D-E	0 / 22	-78.0 -78.0	0.05 (1)	K-G	-118 / 0	0.03 (1)	
E-F	0 / 22	-78.0 -78.0	0.05 (1)				
F-G	0 / 25	-78.0 -78.0	0.05 (1)				
G-H	-3 / 0	-78.0 -78.0	0.07 (1)				
H-I	0 / 42	-78.0 -78.0	0.11 (1)				
J-H	-191 / 0	0.0 0.0	0.03 (1)				
P-O	-9 / 0	-18.5 -18.5	0.02 (4)				
O-N	-12 / 0	-18.5 -18.5	0.02 (4)				
N-M	-15 / 0	-18.5 -18.5	0.01 (4)				
M-L	-15 / 0	-18.5 -18.5	0.01 (4)				
L-K	-12 / 0	-18.5 -18.5	0.02 (4)				
K-J	-9 / 0	-18.5 -18.5	0.02 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./C

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

THIS DESIGN COMPLIES WITH:

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

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.11/1.00 (H-I:1) , BC=0.02/1.00 (N-O:4) , WB=0.25/1.00 (E-M:1) , SSI=0.06/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

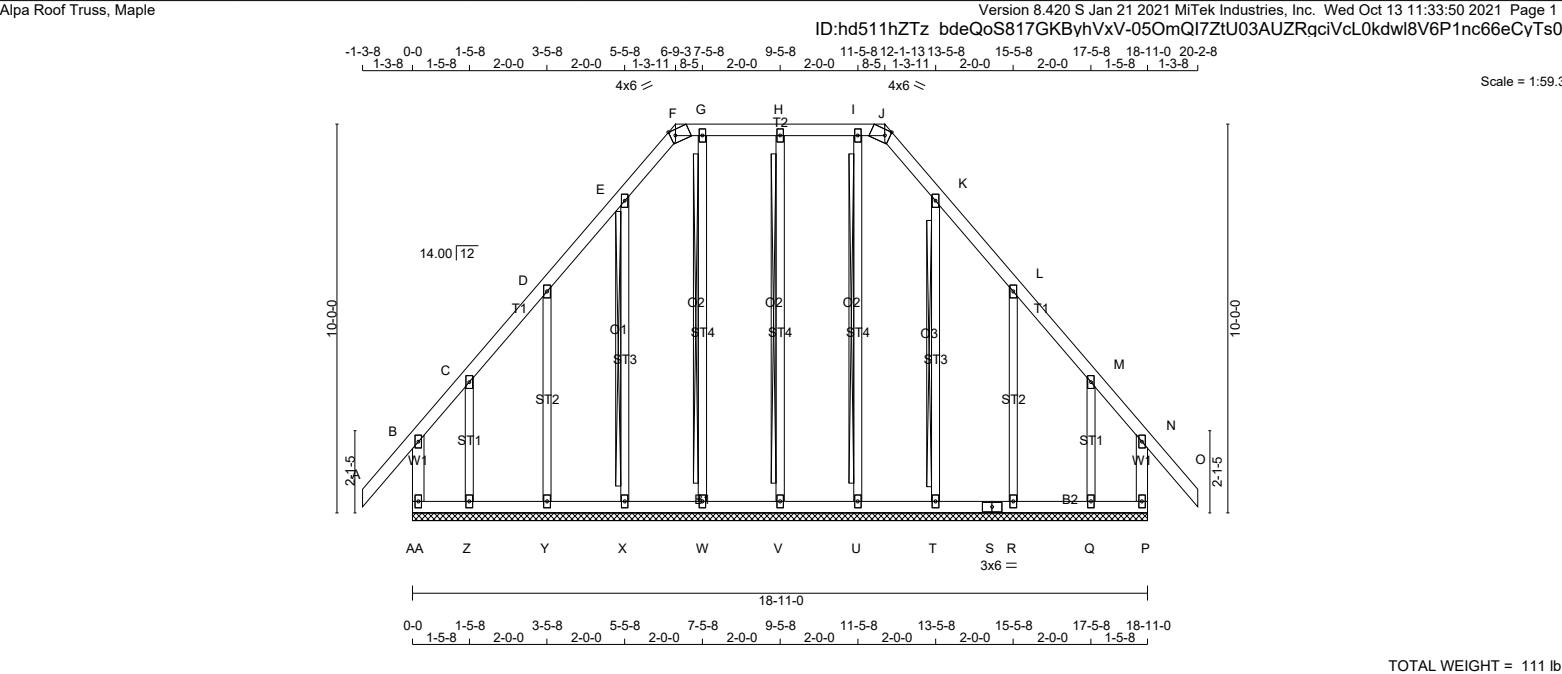
JSI GRIP= 0.15 (B) (INPUT = 0.90)

JSI METAL= 0.09 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H08G		1	TRUSS DESC. JT 45147	E21104040



LUMBER TOTAL WEIGHT = 111 lb

N. L. G. A. RULES				DESCR.			
CHORDS	SIZE	LUMBER		SPF			
AA- B	2x4	DRY	No.2	SPF			
A - F	2x4	DRY	No.2	SPF			
F - J	2x4	DRY	No.2	SPF			
J - O	2x4	DRY	No.2	SPF			
P - N	2x4	DRY	No.2	SPF			
AA- S	2x4	DRY	No.2	SPF			
S - P	2x4	DRY	No.2	SPF			

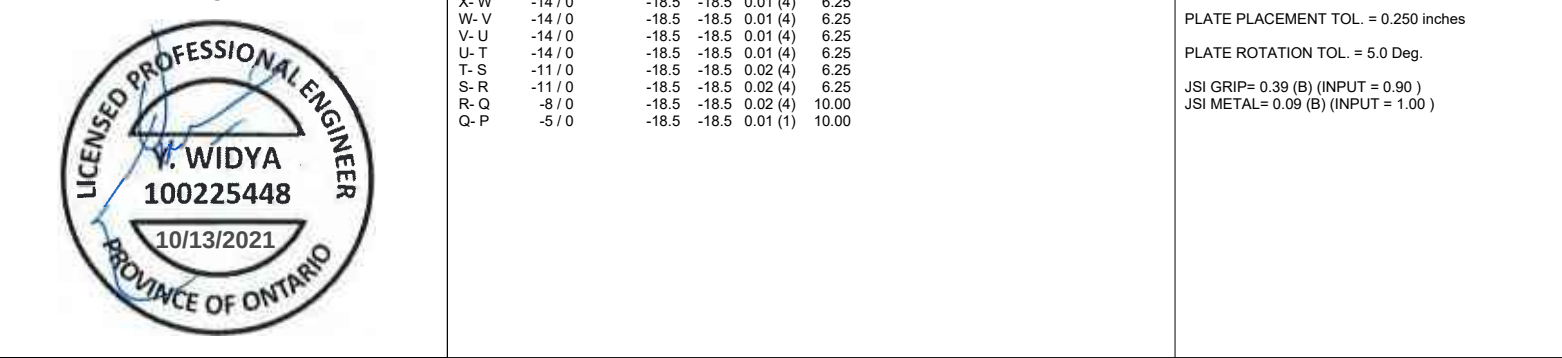
ALL WEBS	2x3	DRY	No.2	SPF			
ALL GABLE WEBS	2x3	DRY	No.2	SPF			
DRY: SEASONED LUMBER.							

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)							
JT	TYPE	PLATES	W	LEN	Y	X	
B	TMV+p	MT20	2.0	4.0			
C, D, E, G, H, I, K, L, M							
C	TMW+w	MT20	2.0	4.0			
F	TT-m	MT20	4.0	6.0	Edge	1.50	
J	TT-m	MT20	4.0	6.0	Edge	1.50	
N	TMV+p	MT20	2.0	4.0			
P	BMV1+p	MT20	2.0	4.0			
Q, R, T, U, V, W, X, Y, Z							
Q	BMW1+w	MT20	2.0	4.0			
S	BS-t	MT20	3.0	6.0			
AA	BMV1+p	MT20	2.0	4.0			

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

FOR SECTION F-J, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT H-V, G-W, I-U
2x3 DRY SPF No.2 T-BRACE AT E-X, K-T

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB.		MAX. FACTORED FORCE (LBS)
FR-TO			FROM TO	CS1 (LC)	FR-TO		
AA- B		-189 / 0	0.0	0.0	V- H		-166 / 0
A- B		0 / 42	-78.0	-78.0	W- G		-187 / 0
B- C		-17 / 0	-78.0	-78.0	X- E		-162 / 0
C- D		0 / 19	-78.0	-78.0	Y- D		-160 / 0
D- E		0 / 18	-78.0	-78.0	Z- C		-86 / 0
E- F		-3 / 0	-78.0	-78.0	U- I		-187 / 0
F- G		0 / 18	-85.5	-85.5	T- K		-162 / 0
G- H		0 / 14	-85.5	-85.5	R- L		-160 / 0
H- I		0 / 14	-85.5	-85.5	Q- M		-86 / 0
I- J		0 / 18	-85.5	-85.5			
J- K		-3 / 0	-78.0	-78.0			
K- L		0 / 18	-78.0	-78.0			
L- M		0 / 19	-78.0	-78.0			
M- N		-17 / 0	-78.0	-78.0			
N- O		0 / 42	-78.0	-78.0			
P- N		-189 / 0	0.0	0.0			

AA- Z	-5 / 0	-18.5	-18.5	0.01 (1)	10.00
Z- Y	-8 / 0	-18.5	-18.5	0.02 (4)	10.00
Y- X	-11 / 0	-18.5	-18.5	0.02 (4)	6.25
X- W	-14 / 0	-18.5	-18.5	0.01 (4)	6.25
W- V	-14 / 0	-18.5	-18.5	0.01 (4)	6.25
V- U	-14 / 0	-18.5	-18.5	0.01 (4)	6.25
U- T	-14 / 0	-18.5	-18.5	0.01 (4)	6.25
T- S	-11 / 0	-18.5	-18.5	0.02 (4)	6.25
S- R	-11 / 0	-18.5	-18.5	0.02 (4)	6.25
R- Q	-8 / 0	-18.5	-18.5	0.02 (4)	10.00
Q- P	-5 / 0	-18.5	-18.5	0.01 (1)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE HEEL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.11/1.00 (N-O:1) , BC=0.02/1.00 (R-T:4) , WB=0.18/1.00 (E-X:1) , SS=0.08/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

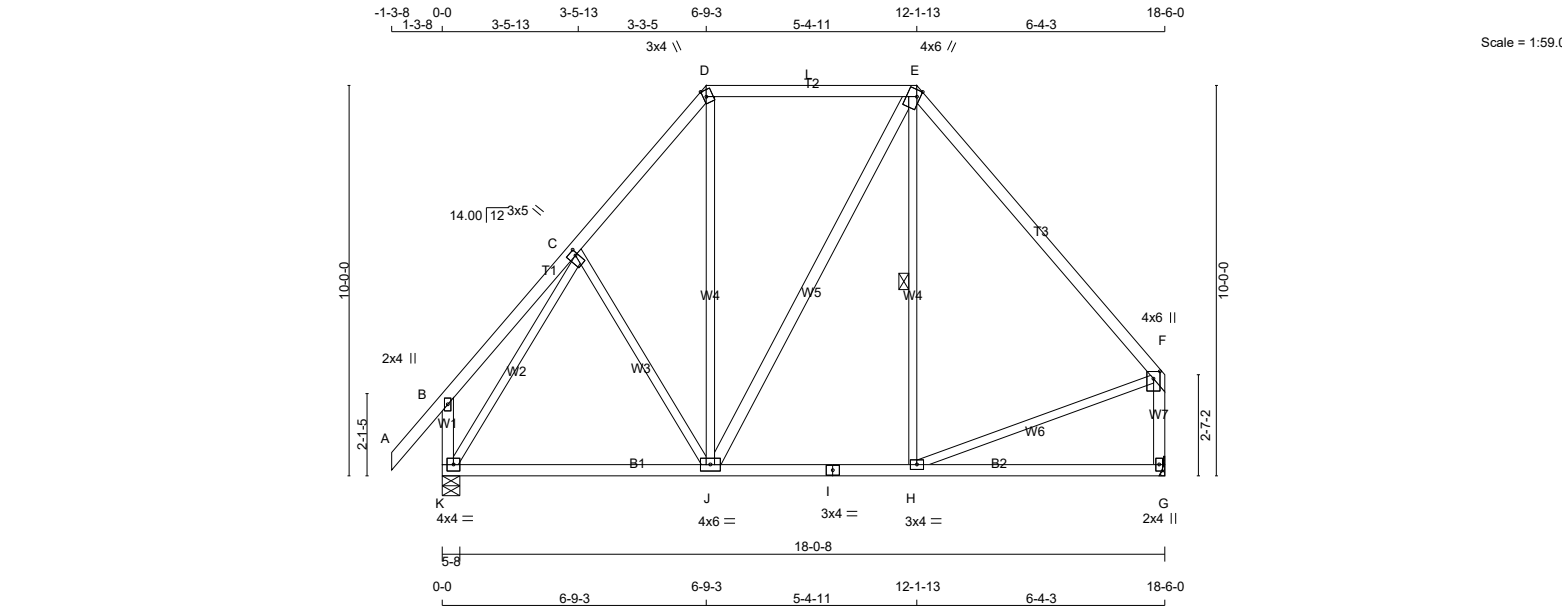
JSI GRIP= 0.39 (B) (INPUT = 0.90)
JSI METAL= 0.09 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H08S		1	TRUSS DESC. JT 45147	E21104041

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-Uly8ee8Ben8wne8dDJDk8ZZqTK2CERrA?GsfBfyTs0U



TOTAL WEIGHT = 3 X 101 = 302 lb

[M][F]

LUMBER				DESCR.	
N. L. G. A. RULES					
CHORDS	SIZE	LUMBER		SPF	
A - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	No.2	SPF	
E - F	2x4	DRY	2100F 1.8E	SPF	
K - B	2x4	DRY	No.2	SPF	
G - F	2x4	DRY	No.2	SPF	
K - I	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
J - E	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMWW+t	MT20	3.0	5.0	1.75 0.75
D	TTW+m	MT20	3.0	4.0	2.00 1.00
E	TTWW+m	MT20	4.0	6.0	2.00 1.00
F	TMVW+p	MT20	4.0	6.0	2.25 2.00
G	BMV1+p	MT20	2.0	4.0	
H	BMWW-t	MT20	3.0	4.0	
I	BS-t	MT20	3.0	4.0	
J	BMWWW-t	MT20	4.0	6.0	
K	BMVW1-t	MT20	4.0	4.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
K		1021	0	1021	0	0	5-8	1-8	
G		913	0	913	0	0	MECHANICAL		

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

UNFACTORED REACTIONS							
1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	728	447 / 0	0 / 0	0 / 0	0 / 0	281 / 0	0 / 0
G	653	388 / 0	0 / 0	0 / 0	0 / 0	264 / 0	0 / 0

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

BRACING
FOR SECTION D-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 42	-78.0 -78.0	0.11 (1)	10.00	C-J	-64 / 13	0.05 (1)
B-C	0 / 23	-78.0 -78.0	0.14 (1)	10.00	J-D	0 / 155	0.04 (4)
C-D	-665 / 0	-78.0 -78.0	0.11 (1)	6.25	J-E	0 / 25	0.00 (1)
D-L	-417 / 0	-85.5 -85.5	0.42 (1)	2.00	H-E	-24 / 70	0.02 (4)
L-E	-417 / 0	-85.5 -85.5	0.42 (1)	2.00	K-C	-883 / 0	0.68 (1)
E-F	-625 / 0	-78.0 -78.0	0.27 (1)	6.25	H-F	0 / 429	0.10 (1)
K-B	-208 / 0	0.0 0.0	0.02 (1)	7.81			
G-F	-863 / 0	0.0 0.0	0.12 (1)	7.81			
K-J	0 / 450	-18.5 -18.5	0.22 (4)	10.00			
J-I	0 / 405	-18.5 -18.5	0.22 (4)	10.00			
I-H	0 / 405	-18.5 -18.5	0.22 (4)	10.00			
H-G	0 / 0	-18.5 -18.5	0.16 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE HEEL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.62")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.62")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.42/1.00 (D-E:1) , BC=0.22/1.00 (J-K:4) , WB=0.68/1.00 (C-K:1) , SSI=0.18/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (C) (INPUT = 0.90)
JSI METAL= 0.52 (C) (INPUT = 1.00)

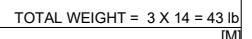
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



Alpa Roof Truss, Maple

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Scale = 1:21.8



DRY: SEASONED LUMBER.

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

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)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED	FACTORED		MAX. UNBRAC	MEMB.	MAX. FACTORED	MAX CSI (LC)
	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)			FORCE (LBS)	
FR-TO		FROM	TO		FR-TO		
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00		
B-G	-206 / 0	-78.0	-78.0	0.04 (4)	6.25	0 / 114	0.00 (1)
G-C	-107 / 0	-78.0	-78.0	0.06 (1)	6.25		
C-I	-107 / 0	-78.0	-78.0	0.06 (1)	6.25	0 / 114	0.00 (1)
I-D	-206 / 0	-78.0	-78.0	0.04 (4)	6.25		
D-E	0 / 10	-78.0	-78.0	0.01 (1)	10.00		
B-F	0 / 72	-18.5	-18.5	0.03 (4)	10.00		
F-H	0 / 72	-18.5	-18.5	0.07 (4)	10.00		
H-D	0 / 72	-18.5	-18.5	0.03 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

		DL =	0.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.4	PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.06/1.00 (C-G:1) , BC=0.07/1.00 (F-H:4) ,
WB=0.00/1.00 (F-G:1) , SSI=0.09/1.00 (D-H:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (B) (INPUT = 0.90)
JSI METAL= 0.05 (D) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2

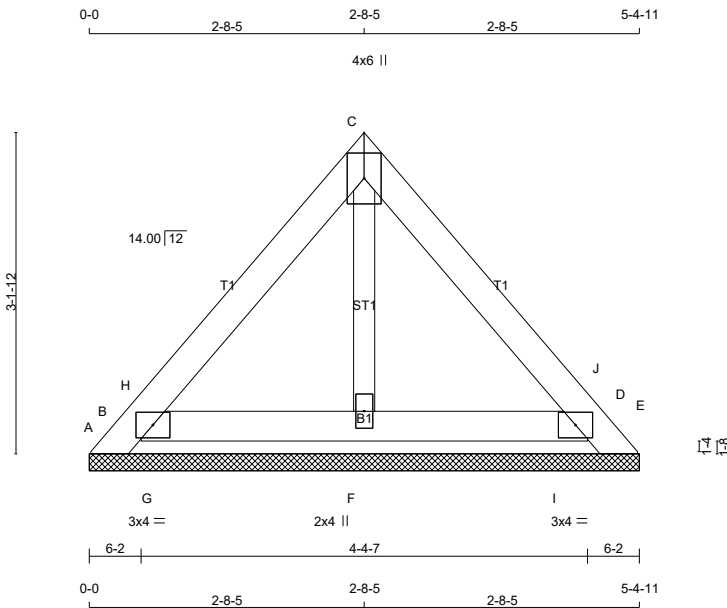


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H09PG		1	TRUSS DESC. JT 45147	E21104043

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-vtdHGgA4wiWVe5tCvSmRmBBRfX6tRy2ciD4Jn yTs0R



TOTAL WEIGHT = 16 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
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT 2'-0" OC.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	
C	TTW+p	MT20	4.0	6.0	
D	TMB1-I	MT20	3.0	4.0	
F	BMW1+w	MT20	2.0	4.0	

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

PROVIDE ANCHORAGE AT BEARING JOINT A FOR 150 LBS FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT E FOR 150 LBS FACTORED UPLIFT

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

BRACING

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

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

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

LOADING				
TOTAL LOAD CASES: (4)				
CHORDS				
MEMB. MAX. FACTORED FORCE (LBS)				
VERT. LOAD LC1 MAX (PLF)				
CSI (LC)				
WEBS				
MEMB. MAX. FACTORED FORCE (LBS)				
CSI (LC)				
FR-TO	FROM	TO	MAX. UNBRACED LENGTH	FR-TO
A-B	0 / 47	-96.5	-96.5	0.04 (1)
B-H	-71 / 0	-78.0	-78.0	0.04 (1)
H-C	-58 / 0	-78.0	-78.0	0.04 (1)
C-J	-58 / 0	-78.0	-78.0	0.04 (1)
J-D	-71 / 0	-78.0	-78.0	0.04 (1)
D-E	0 / 47	-96.5	-96.5	0.04 (1)
B-G	0 / 31	-18.5	-18.5	0.02 (1)
G-F	0 / 31	-18.5	-18.5	0.03 (1)
F-I	0 / 31	-18.5	-18.5	0.03 (1)
I-D	0 / 31	-18.5	-18.5	0.02 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./C

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.04/1.00 (A-B:1) , BC=0.03/1.00 (F-G:1) , WB=0.01/1.00 (C-F:1) , SSI=0.06/1.00 (D-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.03 (F) (INPUT = 0.90)

JSI METAL= 0.01 (F) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



scale = 1:50.5



CONTINUED ON PAGE 2

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JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.43 (M) (INPUT = 1.00)

The diagram illustrates a structural framework with nodes A through T. Beams are labeled with their type and dimensions, such as 4x6 II, 8-0-13, 1-7-10, 2-0-0, 3-7-10, 4-8-0, 8-3-10, 12-11-10, 14-11-10, 23-0-7, and 31-1-4. Nodes are labeled with letters and sometimes numbers, indicating different components or materials used. The structure is divided into sections by vertical lines, with some sections labeled with numbers like 1-10, 2-10, 3-10, etc.



JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.36 (M) (INPUT = 1.00)

[illegible]

Scale = 1:58.4

TOTAL WEIGHT = 192 lb

J	T	TYPE	PLATES	W	LEN	Y	X
A	C	TMVW+p	MT20	4.0	4.0	1.50	1.75
B	C	TMVW+t	MT20	4.0	6.0	2.75	2.00
C	B	TMVW-t	MT20	4.0	4.0	1.75	1.75
D	E	TMVW-t	MT20	4.0	4.0		
E	D	TMVW+w	MT20	2.0	4.0		
F	G	TMVW-t	MT20	4.0	4.0	1.75	2.00
G	F	TS-t	MT20	3.0	6.0		
H	H	TMVW-t	MT20	4.0	4.0		
I	I	TMVW-t	MT20	4.0	6.0	2.00	2.50
J	K	BMV1+p	MT20	2.0	4.0		
K	L	BMVW-t	MT20	4.0	4.0	1.50	1.50
L	K	BS-t	MT20	3.0	6.0		
M	N	BBVW-h	MT20	6.0	7.0	2.25	4.25
N	M	BBVWW-m	MT20	6.0	7.0	3.00	3.00
O	P	BMVW-t	MT20	4.0	4.0	1.75	1.75
P	Q	BBVW-l	MT20	7.0	8.0	3.00	4.00
Q	R	BBVW-l	MT20	5.0	6.0	1.75	4.50
R	Q	BMV1+p	MT20	2.0	4.0		

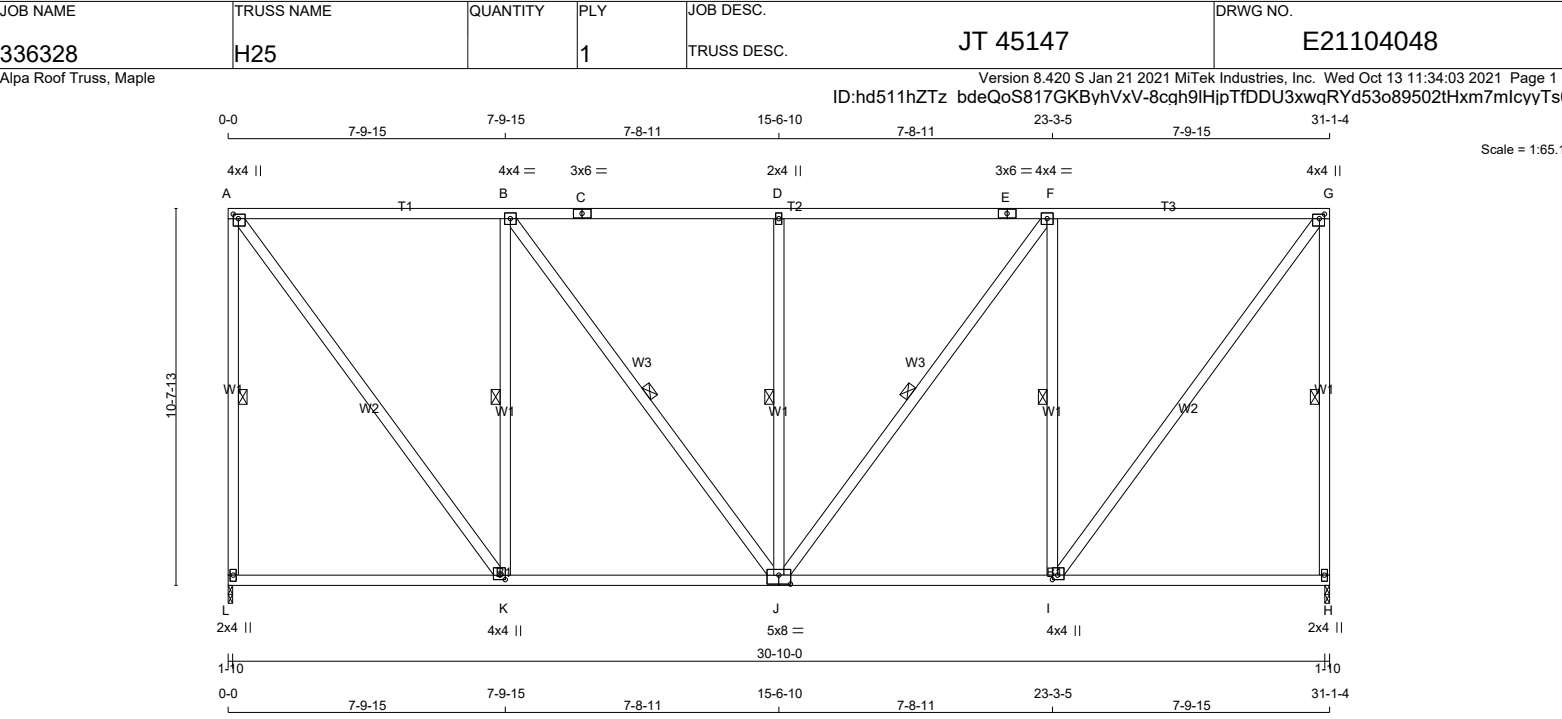
TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM	TO	LENGTH	FR-TO				
R-A	-1485 / 0	0.0	0.0	0.61 (1)	5.38	A-Q	0 / 1408 0.32 (1)		
A-B	-251 / 0	-78.0	-78.0	0.09 (1)	6.25	Q-B	-1508 / 0 0.86 (1)		
B-C	-636 / 0	-78.0	-78.0	0.11 (1)	6.25	B-P	0 / 1519 0.34 (1)		
C-D	-1214 / 0	-78.0	-78.0	0.26 (1)	5.51	P-C	-1254 / 0 0.50 (1)		
D-E	-1484 / 0	-78.0	-78.0	0.27 (1)	5.08	C-O	0 / 1100 0.25 (1)		
E-F	-1482 / 0	-78.0	-78.0	0.40 (1)	4.85	O-D	-848 / 0 0.34 (1)		
F-G	-1326 / 0	-78.0	-78.0	0.95 (1)	4.03	D-N	0 / 520 0.12 (1)		
G-H	-1326 / 0	-78.0	-78.0	0.95 (1)	4.03	N-E	-126 / 0 0.15 (1)		
H-I	-1070 / 0	-78.0	-78.0	0.91 (1)	4.44	N-F	0 / 637 0.14 (1)		
J-I	-1443 / 0	0.0	0.0	0.59 (1)	5.44	M-F	-1084 / 0 0.62 (1)		
						M-H	0 / 383 0.06 (1)		
R-Q	0 / 0	-18.5	-18.5	0.01 (4)	10.00	K-H	-1015 / 0 0.58 (1)		
Q-P	0 / 281	-18.5	-18.5	0.06 (1)	10.00	K-I	0 / 1606 0.26 (1)		
P-O	0 / 653	-18.5	-18.5	0.17 (4)	10.00				
O-N	0 / 1214	-18.5	-18.5	0.25 (1)	10.00				
N-M	0 / 1579	-18.5	-18.5	0.27 (1)	10.00				
M-L	0 / 1070	-18.5	-18.5	0.45 (4)	10.00				
L-K	0 / 1070	-18.5	-18.5	0.45 (4)	10.00				
K-J	0 / 0	-18.5	-18.5	0.35 (4)	10.00				

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



JSI GRIP= 0.90 (Q) (INPUT = 0.90)
JSI METAL= 0.36 (K) (INPUT = 1.00)



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA				[M]	
N. L. G. A. RULES																			
CHORDS		SIZE	LUMBER	DESCR.	BEARINGS														
L - A	2x4	DRY	No.2	SPF	FACTORED		MAXIMUM FACTORED		INPUT		REQRD		SPECIFIED LOADS:						
A - C	2x4	DRY	No.2	SPF	GROSS REACTION		GROSS REACTION		BRG		BRG		TOP CH. LL = 21.0 PSF						
C - E	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	DL = 6.0 PSF						
E - G	2x4	DRY	No.2	SPF	L	1500	0	1500	0	0	1-10	1-10	BOT CH. DL = 0.0 PSF						
H - G	2x4	DRY	No.2	SPF	H	1500	0	1500	0	0	1-10	1-10	DL = 7.4 PSF						
L - J	2x4	DRY	No.2	SPF											TOTAL LOAD = 34.4 PSF				
J - H	2x4	DRY	No.2	SPF															
				UNFACTORED REACTIONS															
ALL WEBS 2x4 DRY				No.2	SPF	1ST LCASE										MAX./MIN. COMPONENT REACTIONS			
DRY: SEASONED LUMBER.					JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL							

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	4.0	1.50	1.75
B	TMWW-t	MT20	4.0	4.0		
C	TS-t	MT20	3.0	6.0		
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMVW+p	MT20	4.0	4.0	1.50	1.75
H	BMV1+p	MT20	2.0	4.0		
I	BMWW+t	MT20	4.0	4.0	1.50	1.75
J	BSWWW-l	MT20	5.0	8.0	3.00	4.00
K	BMWW+t	MT20	4.0	4.0	1.50	1.75
L	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
L	1500	0		1500	0	1-10	1-10		
H	1500	0		1500	0	0	1-10	1-10	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
L	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0		
H	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0		

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

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.55 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

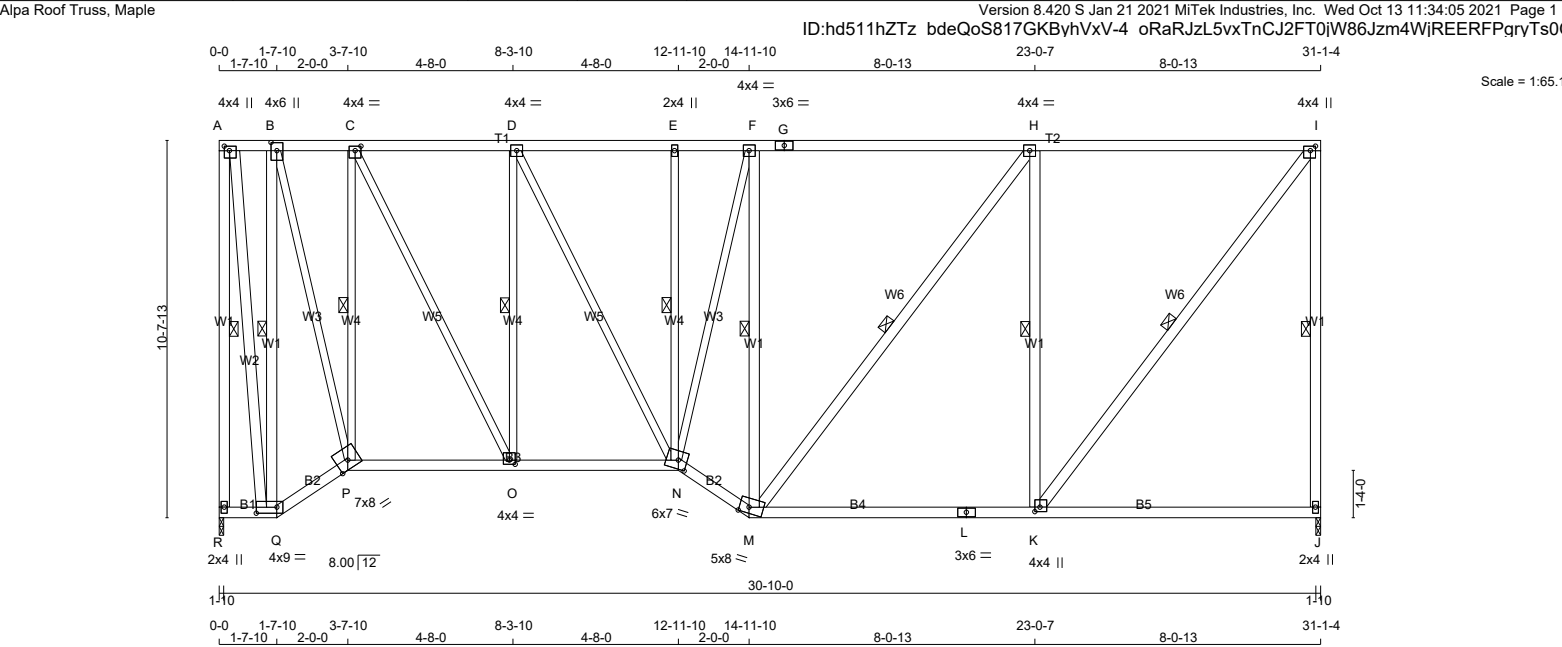
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 LATERAL BRACE(S) AT 1 / 2 LENGTH OF A-L, G-H, B-K, B-J, D-J, F-J, F-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						WEBS					
MAX. FACTORED		FACTORED				MAX. FACTORED					
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FORCE (LBS)	MAX. CSI (LC)				
FR-TO		FROM TO		LENGTH	FR-TO						
L-A	-1445 / 0	0.0	0.0 0.83 (1)	5.44	A-K	0 / 1509	0.24 (1)				
A-B	-910 / 0	-78.0	-78.0 0.79 (1)	5.04	K-B	-1026 / 0	0.59 (1)				
B-C	-1157 / 0	-78.0	-78.0 0.83 (1)	4.55	B-J	0 / 414	0.07 (1)				
C-D	-1157 / 0	-78.0	-78.0 0.83 (1)	4.55	J-D	-556 / 0	0.32 (1)				
D-E	-1157 / 0	-78.0	-78.0 0.83 (1)	4.55	J-F	0 / 414	0.07 (1)				
E-F	-1157 / 0	-78.0	-78.0 0.83 (1)	4.55	I-F	-1026 / 0	0.59 (1)				
F-G	-910 / 0	-78.0	-78.0 0.79 (1)	5.04	I-G	0 / 1509	0.24 (1)				
H-G	-1445 / 0	0.0	0.0 0.83 (1)	5.44							
L-K	0 / 0	-18.5	-18.5 0.32 (4)	10.00							
K-J	0 / 910	-18.5	-18.5 0.41 (4)	10.00							
J-I	0 / 910	-18.5	-18.5 0.41 (4)	10.00							
I-H	0 / 0	-18.5	-18.5 0.32 (4)	10.00							

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H25T		1	TRUSS DESC. JT 45147	E21104049



LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
R - A	2x4	DRY No.2	SPF
A - G	2x4	DRY No.2	SPF
G - I	2x4	DRY No.2	SPF
J - I	2x4	DRY No.2	SPF
R - Q	2x4	DRY No.2	SPF
Q - P	2x4	DRY No.2	SPF
P - N	2x4	DRY No.2	SPF
N - M	2x4	DRY No.2	SPF
M - L	2x4	DRY No.2	SPF
L - J	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF
A - Q	2x4	DRY No.2	SPF
Q - B	2x4	DRY No.2	SPF
M - F	2x4	DRY No.2	SPF
M - H	2x4	DRY No.2	SPF
K - H	2x4	DRY No.2	SPF
K - I	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	4.0	1.50 1.75
B	TMWW+t	MT20	4.0	6.0	2.75 2.00
C	TMWW-t	MT20	4.0	4.0	1.50 2.00
D, F, H					
D	TMWW-t	MT20	4.0	4.0	
E	TMW+w	MT20	2.0	4.0	
G	TS-t	MT20	3.0	6.0	
I	TMVW+p	MT20	4.0	4.0	1.50 1.75
J	BMV1+p	MT20	2.0	4.0	
K	BMWW+t	MT20	4.0	4.0	1.50 1.75
L	BS-t	MT20	3.0	6.0	
M	BBWW-m	MT20	5.0	8.0	2.00 3.25
N	BBWWW-m	MT20	6.0	7.0	3.00 3.00
O	BMWW-t	MT20	4.0	4.0	1.50 2.00
P	BBWW-h	MT20	7.0	8.0	Edge
Q	BBWW-l	MT20	4.0	9.0	2.00 7.00
R	BMV1+p	MT20	2.0	4.0	

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	BRG	IN-SX
R	1500	0	1500	0	0	1-10	1-10		
J	1500	0	1500	0	0	1-10	1-10		

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0
J	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.30 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

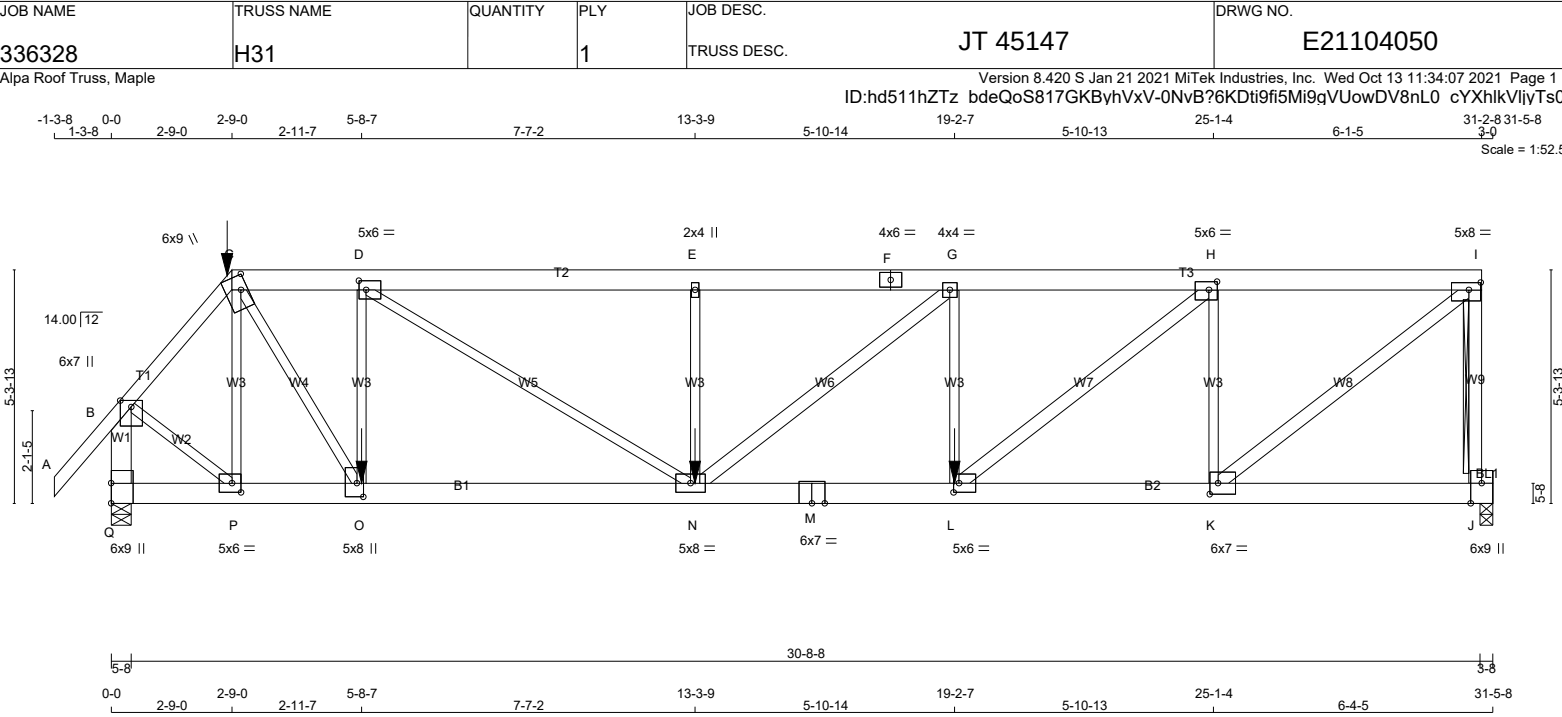
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 LATERAL BRACE(S) AT 1 / 2 LENGTH OF A-R, I-J, B-Q, C-P, D-O, E-N, F-M, H-M, H-K, I-K.

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

LOADING

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	FACTORED CSI (LC)
FR-TO		FROM	TO	FR-TO			
R-A	-1485 / 0	0.0	0.0 0.85 (1)	A-Q	0 / 1428	5.38	0.23 (1)
A-B	-223 / 0	-78.0	-78.0 0.05 (1)	Q-B	-1511 / 0	6.25	0.86 (1)
B-C	-541 / 0	-78.0	-78.0 0.10 (1)	B-P	0 / 1464	6.25	0.33 (1)
C-D	-1035 / 0	-78.0	-78.0 0.25 (1)	P-C	-1235 / 0	5.85	0.70 (1)
D-E	-1264 / 0	-78.0	-78.0 0.26 (1)	C-O	0 / 1063	5.41	0.24 (1)
E-F	-1263 / 0	-78.0	-78.0 0.39 (1)	O-D	-850 / 0	5.19	0.48 (1)
F-G	-1156 / 0	-78.0	-78.0 0.91 (1)	D-N	0 / 499	4.30	0.11 (1)
G-H	-1156 / 0	-78.0	-78.0 0.91 (1)	N-E	-131 / 0	4.30	0.07 (1)
H-I	-932 / 0	-78.0	-78.0 0.88 (1)	N-F	0 / 519	4.72	0.12 (1)
I-J	-1443 / 0	0.0	0.0 0.82 (1)	M-F	-971 / 0	5.44	0.55 (1)
R-Q	0 / 0	-18.5	-18.5 0.01 (4)	M-H	0 / 364	10.00	0.06 (1)
Q-P	0 / 242	-18.5	-18.5 0.05 (1)	K-H	-1014 / 0	10.00	0.58 (1)
P-O	0 / 555	-18.5	-18.5 0.16 (4)	K-I	0 / 1518	10.00	0.24 (1)
O-N	0 / 1035	-18.5	-18.5 0.22 (1)				
N-M	0 / 1373	-18.5	-18.5 0.23 (1)				
M-L	0 / 933	-18.5	-18.5 0.44 (4)				
L-K	0 / 933	-18.5	-18.5 0.44 (4)				
K-J	0 / 0	-18.5	-18.5 0.35 (4)				



E21104051

Scale = 1:52.2



JSI GRIP= 0.90 (H) (INPUT = 0.90)
JSI METAL= 0.54 (L) (INPUT = 1.00)

JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.51 (L) (INPUT = 1.00)

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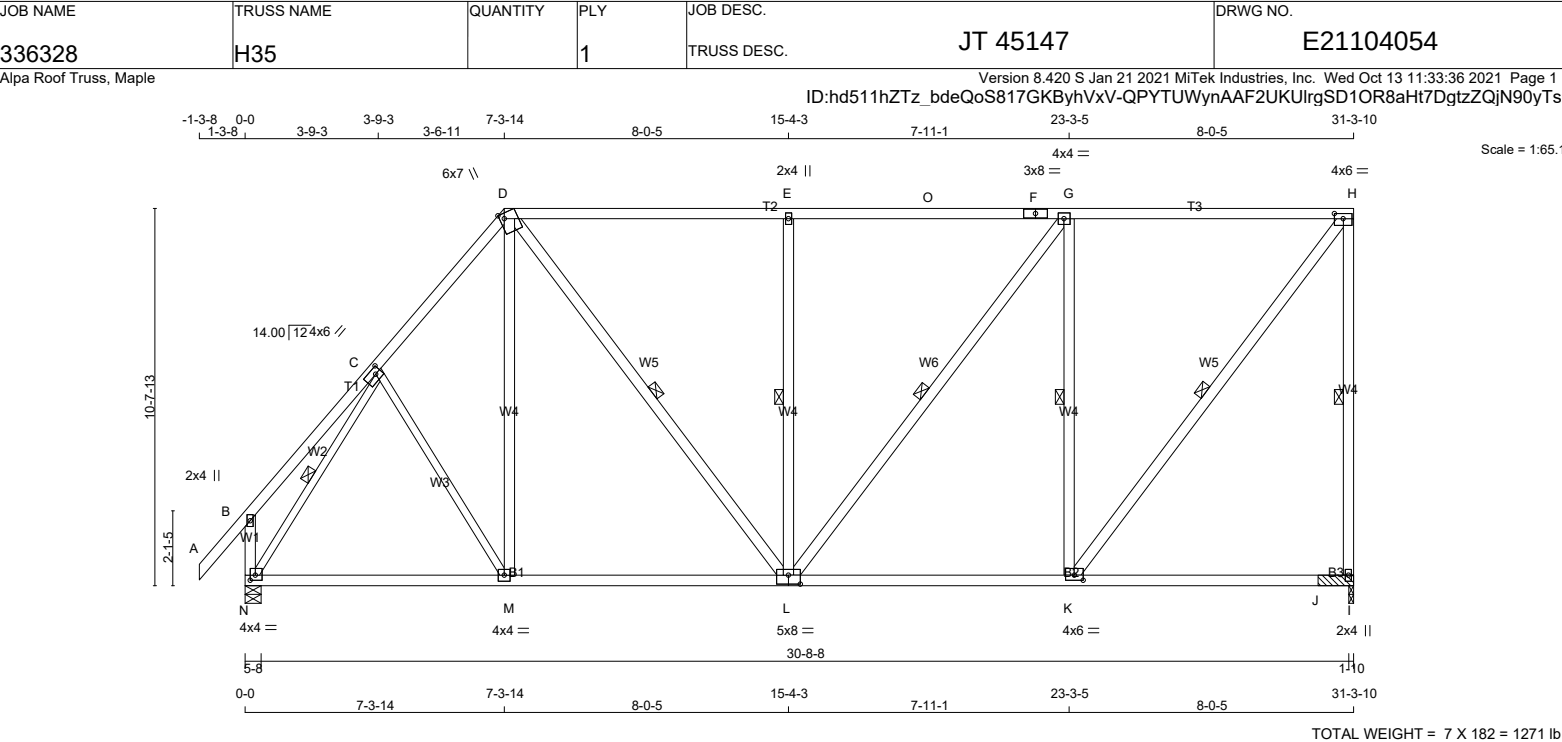


PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	5.0	6.0	1.75	1.50
D	TMVW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMVWV-t	MT20	4.0	6.0		
G	TMVW-t	MT20	4.0	6.0	2.00	2.25
H	BMV1+p	MT20	2.0	4.0		
I	BMVWV-t	MT20	4.0	6.0	2.00	2.25
J	BS-t	MT20	3.0	6.0		
K	BMVWVW-t	MT20	5.0	6.0		
L	BMVW-t	MT20	4.0	6.0		
M	BMV1+p	MT20	2.0	4.0		

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LOA CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 42	-78.0	-78.0	0.07 (1)	10.00	L-C	-82 / 76 0.05 (1)
B-C	-1304 / 0	-78.0	-78.0	0.42 (1)	6.17	C-K	0 / 772 0.12 (1)
C-D	-1373 / 0	-78.0	-78.0	0.96 (1)	4.05	K-D	-709 / 0 0.40 (1)
D-E	-1373 / 0	-78.0	-78.0	0.96 (1)	4.03	K-F	0 / 398 0.06 (1)
E-F	-1373 / 0	-78.0	-78.0	0.96 (1)	4.03	I-F	-1009 / 0 0.58 (1)
F-G	-1103 / 0	-78.0	-78.0	0.91 (1)	4.46	I-G	0 / 1619 0.26 (1)
H-G	-1448 / 0	0.0	0.0	0.59 (1)	5.43	B-L	0 / 878 0.20 (1)
M-B	-1577 / 0	0.0	0.0	0.19 (1)	6.57		
M-L	0 / 0	-18.5	-18.5	0.24 (4)	10.00		
L-K	0 / 845	-18.5	-18.5	0.32 (4)	10.00		
K-J	0 / 1103	-18.5	-18.5	0.42 (4)	10.00		
J-I	0 / 1103	-18.5	-18.5	0.42 (4)	10.00		
I-H	0 / 0	-18.5	-18.5	0.32 (4)	10.00		

JSI GRIP= 0.84 (G) (INPUT = 0.90)
JSI METAL= 0.52 (B) (INPUT = 1.00)



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	6.0	2.00	2.00
D	TTWW+m	MT20	6.0	7.0	Edge	1.50
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	8.0		
G	TMWW-t	MT20	4.0	4.0		
H	TMVW-t	MT20	4.0	6.0	1.75	3.00
I	BMV1+p	MT20	2.0	4.0		
K	BMWW-t	MT20	4.0	6.0	1.75	3.00
L	BSWWW-l	MT20	5.0	8.0	3.00	4.00
M	BMWW-t	MT20	4.0	4.0		
N	BMVW1-t	MT20	4.0	4.0	1.75	1.75

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG UPLIFT		REQRD IN-SX	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
I	1621	0	1621	0	1-10	1-10	1-10	& BLOCK
N	1688	0	1688	0	5-8	1-13		

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. SNOW LIVE		PERM. LIVE WIND		DEAD SOIL	
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	SOIL
I	1165	657 / 0	0 / 0	0 / 0	0 / 0	508 / 0	0 / 0	0 / 0
N	1207	716 / 0	0 / 0	0 / 0	0 / 0	491 / 0	0 / 0	0 / 0

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

2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. I ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL.

BRACING

FOR SECTION D-H, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.32 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 H-I, D-L, E-L, G-L, G-K, H-K, C-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					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)		MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX. CSI (LC)		MAX. UNBRACED LENGTH FR-TO
		FROM	TO				FROM	TO	
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	C-M	0 / 63	0.02 (4)	
B-C	0 / 24	-78.0	-78.0	0.16 (1)	10.00	M-D	0 / 145	0.04 (4)	
C-D	-1385 / 0	-78.0	-78.0	0.20 (1)	5.32	D-L	0 / 631	0.10 (1)	
D-E	-1270 / 0	-85.5	-85.5	0.92 (1)	2.00	L-E	-742 / 0	0.42 (1)	
E-O	-1271 / 0	-85.5	-85.5	0.92 (1)	2.00	L-G	0 / 448	0.07 (1)	
O-F	-1271 / 0	-85.5	-85.5	0.92 (1)	2.00	K-G	-1105 / 0	0.63 (1)	
F-G	-1271 / 0	-85.5	-85.5	0.92 (1)	2.00	K-H	0 / 1630	0.26 (1)	
G-H	-998 / 0	-85.5	-85.5	0.87 (1)	2.00	N-C	-1659 / 0	0.54 (1)	
I-H	-1564 / 0	0.0	0.0	0.89 (1)	5.27				
N-B	-218 / 0	0.0	0.0	0.03 (1)	7.81				
N-M	0 / 860	-18.5	-18.5	0.40 (4)	10.00				
M-L	0 / 883	-18.5	-18.5	0.41 (4)	10.00				
L-K	0 / 998	-18.5	-18.5	0.45 (4)	10.00				
K-J	0 / 0	-18.5	-18.5	0.34 (4)	10.00				
J-I	0 / 0	-18.5	-18.5	0.34 (4)	10.00				

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	=	21.0	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	34.4	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE HEEL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.17")

CSI=TC=0.92/1.00 (D-E:1) , BC=0.45/1.00 (K-L:4) , WB=0.63/1.00 (G-K:1) , SSI=0.32/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

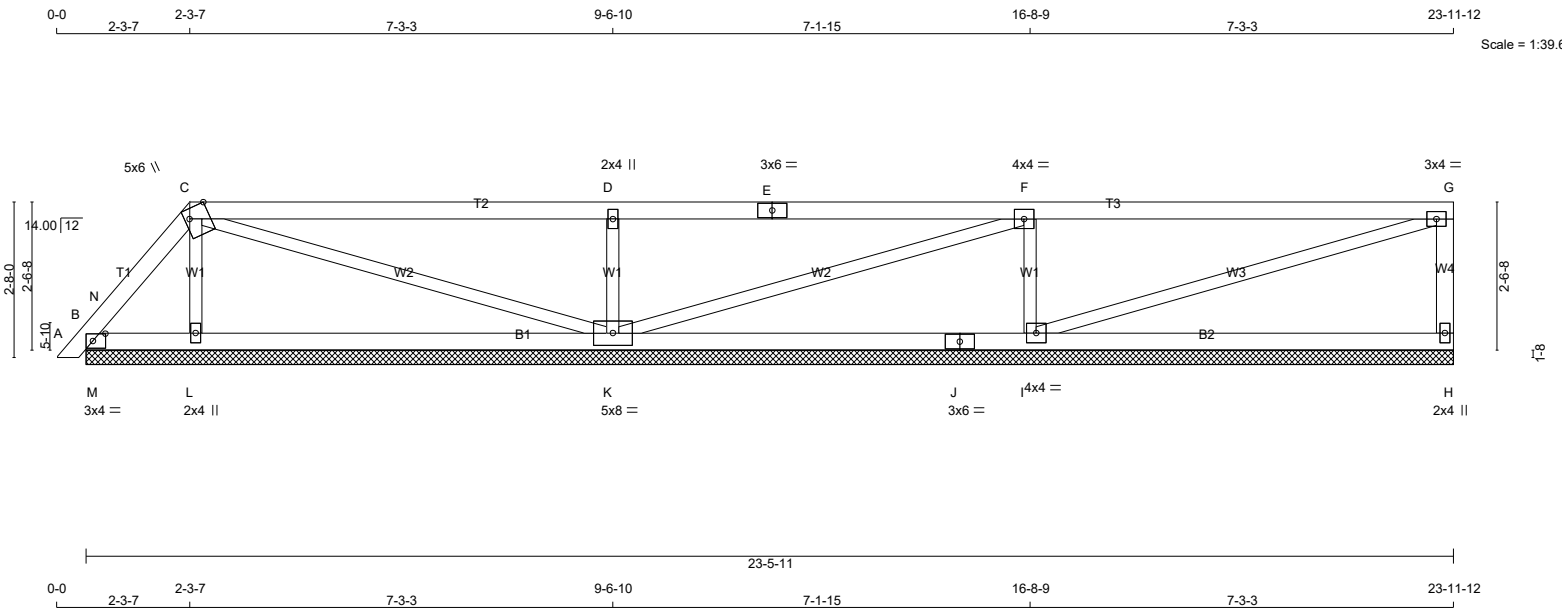
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (N) (INPUT = 0.90)
JSI METAL= 0.37 (C) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H36P		1	TRUSS DESC. JT 45147	E21104055

Alpa Roof Truss, Maple Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 11:34:13 2021 Page 1

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TOTAL WEIGHT = 2 X 80 = 160 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
E - G	2x4	DRY	No.2 SPF
H - G	2x4	DRY	No.2 SPF
B - J	2x4	DRY	No.2 SPF
J - H	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	1.50 2.50
C	TTWW+m	MT20	5.0	6.0	Edge 4.00
D	TMW+w	MT20	2.0	4.0	
E	TS-t	MT20	3.0	6.0	
F	TMWW-t	MT20	4.0	4.0	
G	TMVW-t	MT20	3.0	4.0	
H	BMV1+p	MT20	2.0	4.0	
I	BMWW1-t	MT20	4.0	4.0	
J	BS-t	MT20	3.0	6.0	
K	BMWWW1-t	MT20	5.0	8.0	
L	BMW1+w	MT20	2.0	4.0	

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS					
		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
H	283	0	283	0	0
B	131	0	131	0	0
L	353	0	353	0	0
K	766	0	766	0	0
I	761	0	761	0	0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS					
JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND
H	202	124 / 0	0 / 0	0 / 0	78 / 0
B	89	83 / 0	0 / 0	0 / 0	5 / 0
L	258	124 / 0	0 / 0	0 / 0	134 / 0
K	544	342 / 0	0 / 0	0 / 0	202 / 0
I	543	329 / 0	0 / 0	0 / 0	214 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, B, L, K, 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 10	-78.0 -78.0	0.01 (1)	L-C	-217 / 0	0.03 (1)	
B-N	0 / 57	-78.0 -78.0	0.04 (4)	C-K	-41 / 0	0.05 (1)	
N-C	-73 / 0	-78.0 -78.0	0.03 (1)	K-D	-618 / 0	0.10 (1)	
C-D	0 / 9	-78.0 -78.0	0.55 (1)	K-F	-19 / 0	0.02 (1)	
D-E	0 / 9	-78.0 -78.0	0.55 (1)	I-F	-613 / 0	0.10 (1)	
E-F	0 / 9	-78.0 -78.0	0.55 (1)	I-G	0 / 9	0.00 (1)	
F-G	-9 / 0	-78.0 -78.0	0.55 (1)	M-N	-183 / 0	0.00 (1)	
H-G	-230 / 0	0.0	0.0 0.03 (1)				
B-M	0 / 40	-18.5 -18.5	0.04 (1)				
M-L	0 / 40	-18.5 -18.5	0.16 (4)				
L-K	0 / 30	-18.5 -18.5	0.18 (4)				
K-J	0 / 9	-18.5 -18.5	0.24 (4)				
J-I	0 / 9	-18.5 -18.5	0.24 (4)				
I-H	0 / 0	-18.5 -18.5	0.24 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.55/1.00 (C-D:1) , BC=0.24/1.00 (I-K:4) , WB=0.10/1.00 (D-K:1) , SSI=0.26/1.00 (F-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 .

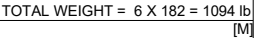
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

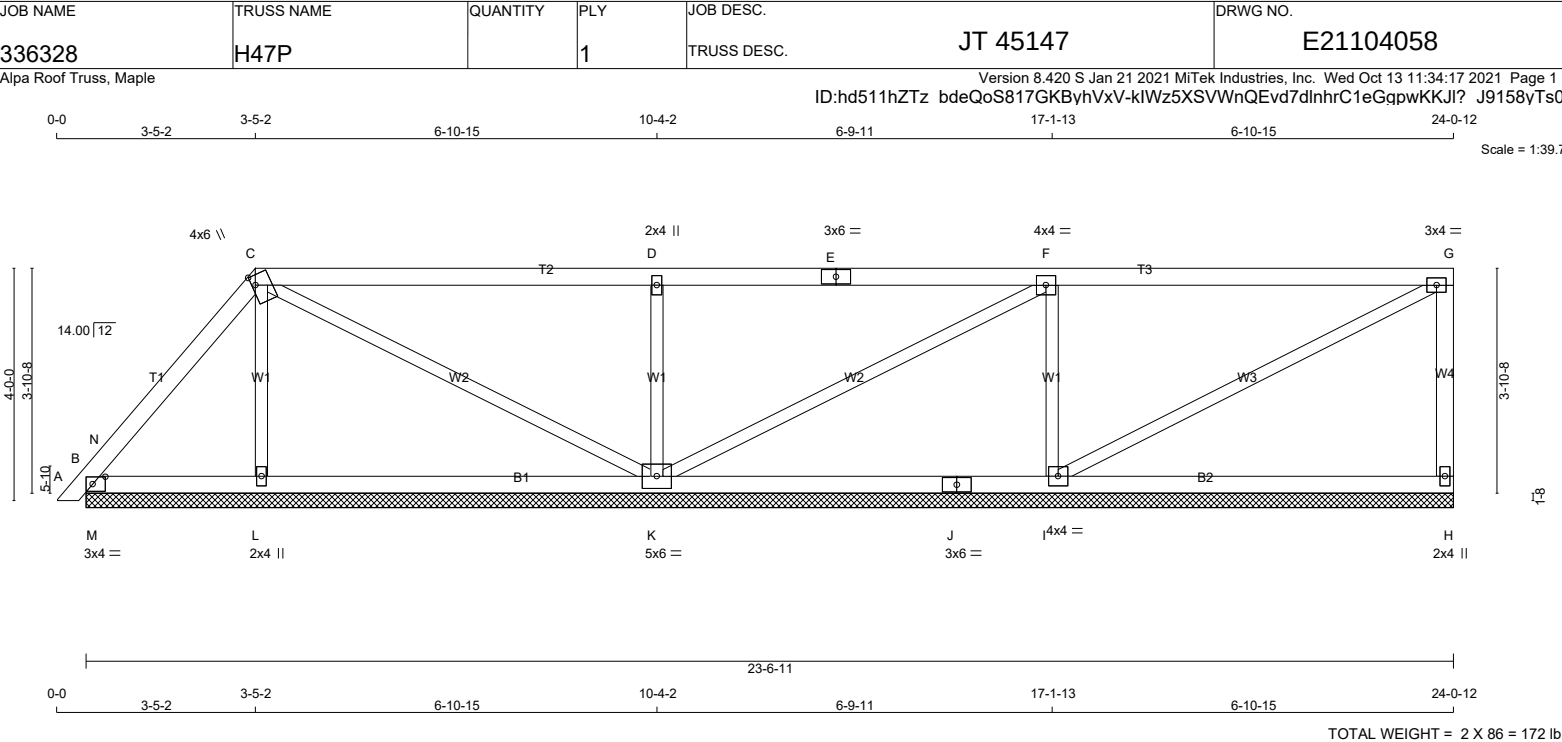
JSI GRIP= 0.83 (G) (INPUT = 0.90)
JSI METAL= 0.18 (E) (INPUT = 1.00)

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JSI GRIP= 0.86 (A) (INPUT = 0.90)
JSI METAL= 0.51 (A) (INPUT = 1.00)





LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - E	2x4	DRY No.2	SPF
E - G	2x4	DRY No.2	SPF
H - G	2x4	DRY No.2	SPF
B - J	2x4	DRY No.2	SPF
J - H	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	1.50	2.50
C	TTWW+m	MT20	4.0	6.0	2.00	0.75
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMVW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		
I	BMWW1-t	MT20	4.0	4.0		
J	BS-t	MT20	3.0	6.0		
K	BMWWW1-t	MT20	5.0	6.0		
L	BMW1+w	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
	VERT	HORZ	DOWN	HORZ		IN-SX	IN-SX
H	276	0	276	0	0	23-6-11 (8-6-11)	
B	222	0	222	0	0	23-6-11 (8-6-11)	
L	331	0	331	0	0	23-6-11 (8-6-11)	
K	773	0	773	0	0	23-6-11 (8-6-11)	
I	700	0	700	0	0	23-6-11 (8-6-11)	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	197	122 / 0	0 / 0	0 / 0	0 / 0	75 / 0	0 / 0
B	155	116 / 0	0 / 0	0 / 0	0 / 0	39 / 0	0 / 0
L	241	119 / 0	0 / 0	0 / 0	0 / 0	122 / 0	0 / 0
K	548	349 / 0	0 / 0	0 / 0	0 / 0	199 / 0	0 / 0
I	500	300 / 0	0 / 0	0 / 0	0 / 0	200 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		MAX. UNBRAC LENGTH	WEBS		MAX. FACTORED
	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX		MEMB. FORCE (LBS)	MAX	
FR-TO		FROM TO				FR-TO		
A-B	0 / 10	-78.0 -78.0	0.01 (1)	10.00	L-C	-200 / 0	0.05 (1)	
B-N	0 / 78	-78.0 -78.0	0.07 (1)	10.00	C-K	-87 / 0	0.10 (1)	
N-C	-102 / 0	-78.0 -78.0	0.08 (1)	6.25	K-D	-588 / 0	0.14 (1)	
C-D	0 / 25	-78.0 -78.0	0.50 (1)	10.00	K-F	-48 / 0	0.06 (1)	
D-E	0 / 24	-78.0 -78.0	0.50 (1)	10.00	I-F	-566 / 0	0.13 (1)	
E-F	0 / 24	-78.0 -78.0	0.50 (1)	10.00	I-G	0 / 20	0.00 (1)	
F-G	-18 / 0	-78.0 -78.0	0.50 (1)	6.25	M-N	-321 / 0	0.00 (1)	
H-G	-226 / 0	0.0 0.0	0.05 (1)	7.81				
B-M	0 / 59	-18.5 -18.5	0.08 (1)	10.00				
M-L	0 / 59	-18.5 -18.5	0.14 (4)	10.00				
L-K	0 / 53	-18.5 -18.5	0.17 (4)	10.00				
K-J	0 / 18	-18.5 -18.5	0.22 (4)	10.00				
J-I	0 / 18	-18.5 -18.5	0.22 (4)	10.00				
I-H	0 / 0	-18.5 -18.5	0.21 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.50/1.00 (D-F:1) , BC=0.22/1.00 (I-K:4) , WB=0.14/1.00 (D-K:1) , SSI=0.25/1.00 (F-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) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

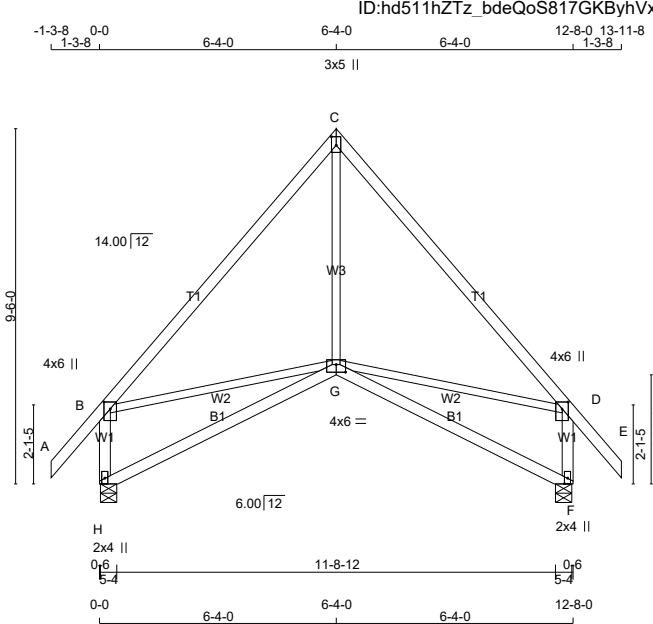
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (C) (INPUT = 0.90)
JSI METAL= 0.22 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H61		1	TRUSS DESC. JT 45147	E21104059

Alpa Roof Truss, Maple

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Scale = 1:61.6

TOTAL WEIGHT = 2 X 63 = 126 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY 2100F 1.8E	SPF	
C - E	2x4	DRY 2100F 1.8E	SPF	
H - B	2x4	DRY No.2	SPF	
F - D	2x4	DRY No.2	SPF	
H - G	2x4	DRY No.2	SPF	
G - F	2x4	DRY No.2	SPF	
ALL WEBS	2x3	DRY No.2	SPF	
EXCEPT				
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.25 2.00
C	TTW+p	MT20	3.0	5.0	2.75 1.50
D	TMVW+p	MT20	4.0	6.0	2.25 2.00
F	BMV1+p	MT20	2.0	4.0	Edge
G	BBWW+p	MT20	4.0	6.0	2.50 3.00
H	BMV1+p	MT20	2.0	4.0	Edge

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

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
H	720	0	720	0	5-4	1-8	
F	720	0	720	0	0	5-4	1-8

UNFACTORED REACTIONS							
JT	1ST CASE	MAX.	MIN.	COMPONENT	REACTIONS		
H	511	325 / 0	0 / 0	PERM.LIVE	WIND	DEAD	SOIL
F	511	325 / 0	0 / 0	0 / 0	0 / 0	187 / 0	0 / 0

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

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

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

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-78.0 -78.0	0.07 (1)	10.00	G-C	0 / 235	0.06 (4)
B-C	-480 / 0	-78.0 -78.0	0.27 (1)	6.25	B-G	0 / 318	0.07 (1)
C-D	-480 / 0	-78.0 -78.0	0.27 (1)	6.25	G-D	0 / 318	0.07 (1)
D-E	0 / 42	-78.0 -78.0	0.07 (1)	10.00			
H-B	-662 / 0	0.0 0.0	0.08 (1)	7.81			
F-D	-662 / 0	0.0 0.0	0.08 (1)	7.81			
H-G	0 / 0	-18.5 -18.5	0.22 (4)	10.00			
G-F	0 / 0	-18.5 -18.5	0.22 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:		
TOP CH.	LL	= 21.0 PSF
	DL	= 6.0 PSF
BOT CH.	LL	= 0.0 PSF
	DL	= 7.4 PSF
TOTAL LOAD = 34.4 PSF		

SPACING = 24.0 IN./C

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.42")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.27/1.00 (C-D:1) , BC=0.22/1.00 (F-G:4) , WB=0.07/1.00 (B-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)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	650	371	1747	788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

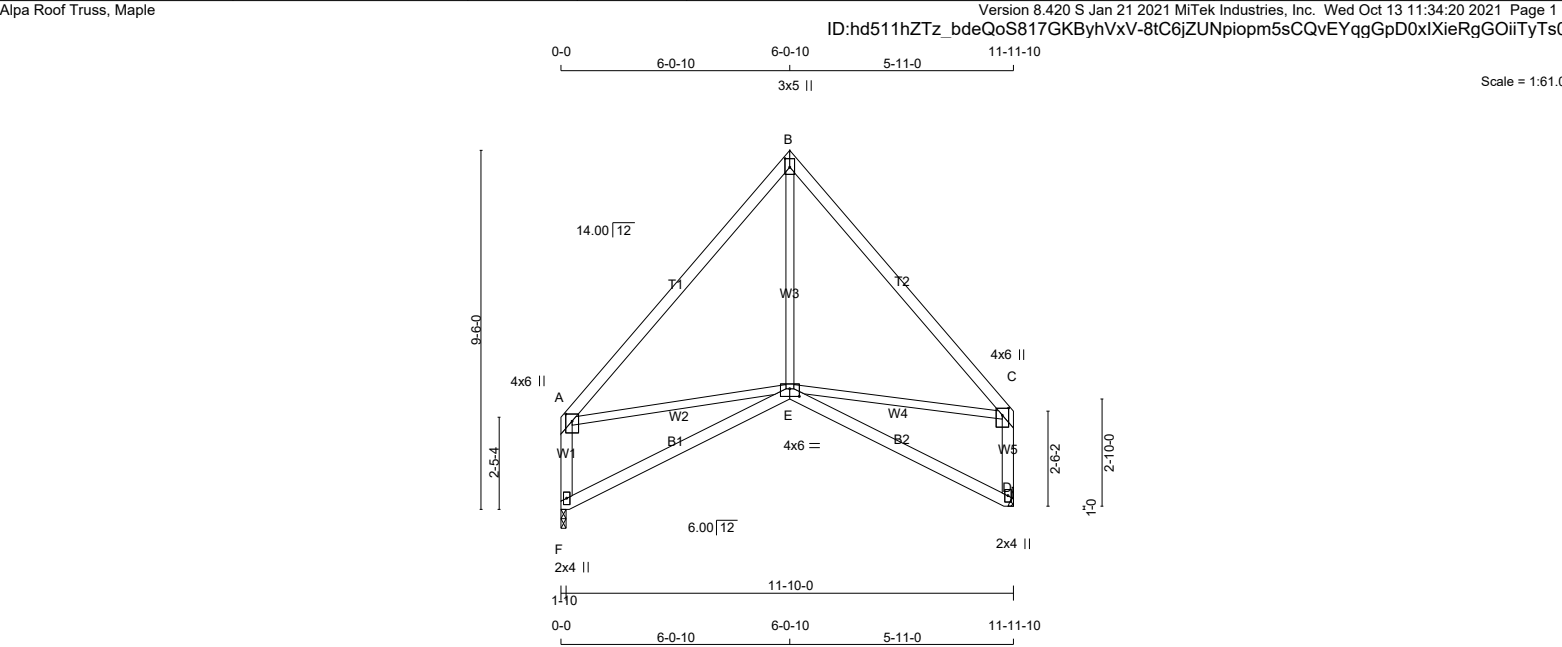
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.53 (G) (INPUT = 0.90)
JSI METAL= 0.27 (H) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H61AS		1	TRUSS DESC. JT 45147	E21104060



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY 1650F 1.5E	SPF	
B - C	2x4	DRY No.2	SPF	
F - A	2x4	DRY No.2	SPF	
D - C	2x4	DRY No.2	SPF	
F - E	2x4	DRY No.2	SPF	
E - D	2x4	DRY No.2	SPF	
ALL WEBS	2x3	DRY No.2	SPF	
EXCEPT				

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTW+p	MT20	3.0	5.0	2.75	1.50
C	TMVW+p	MT20	4.0	6.0	2.25	2.00
D	BMV1+p	MT20	2.0	4.0		
E	BBWWW-p	MT20	4.0	6.0	2.50	3.00
F	BMV1+p	MT20	2.0	4.0		

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

		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX		REQRD BRG IN-SX	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
F	577	0	577	0	0	1-10	1-8		
D	577	0	577	0	0	MECHANICAL			

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D. MINIMUM BEARING LENGTH AT JOINT D = 1-12.

UNFACTORED REACTIONS

		1ST LCASE	MAX./MIN. COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	412	251 / 0	0 / 0	0 / 0	0 / 0	160 / 0	0 / 0
D	412	251 / 0	0 / 0	0 / 0	0 / 0	160 / 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 = 6.25 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO				FR-TO			
A- B	-428 / 0	-78.0 -78.0	0.31 (1)	6.25	E- B	0 / 184	0.05 (4)		
B- C	-428 / 0	-78.0 -78.0	0.36 (1)	6.25	A- E	0 / 282	0.06 (1)		
F- A	-521 / 0	0.0 0.0	0.07 (1)	7.81	E- C	0 / 281	0.06 (1)		
D- C	-523 / 0	0.0 0.0	0.07 (1)	7.81					
F- E	0 / 0	-18.5 -18.5	0.20 (4)	10.00					
E- D	0 / 0	-18.5 -18.5	0.19 (4)	10.00					

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	34.4	PSF

SPACING = 24.0 IN./C/C

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.40")
 CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
 ALLOWABLE DEFL.(TL)= L/360 (0.40")
 CALCULATED VERT. DEFL.(TL)= L/ 999 (0.08")

CSI: TC=0.36/1.00 (B-C:1) , BC=0.20/1.00 (E-F:4) ,
 WB=0.06/1.00 (A-E:1) , SSI=0.12/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

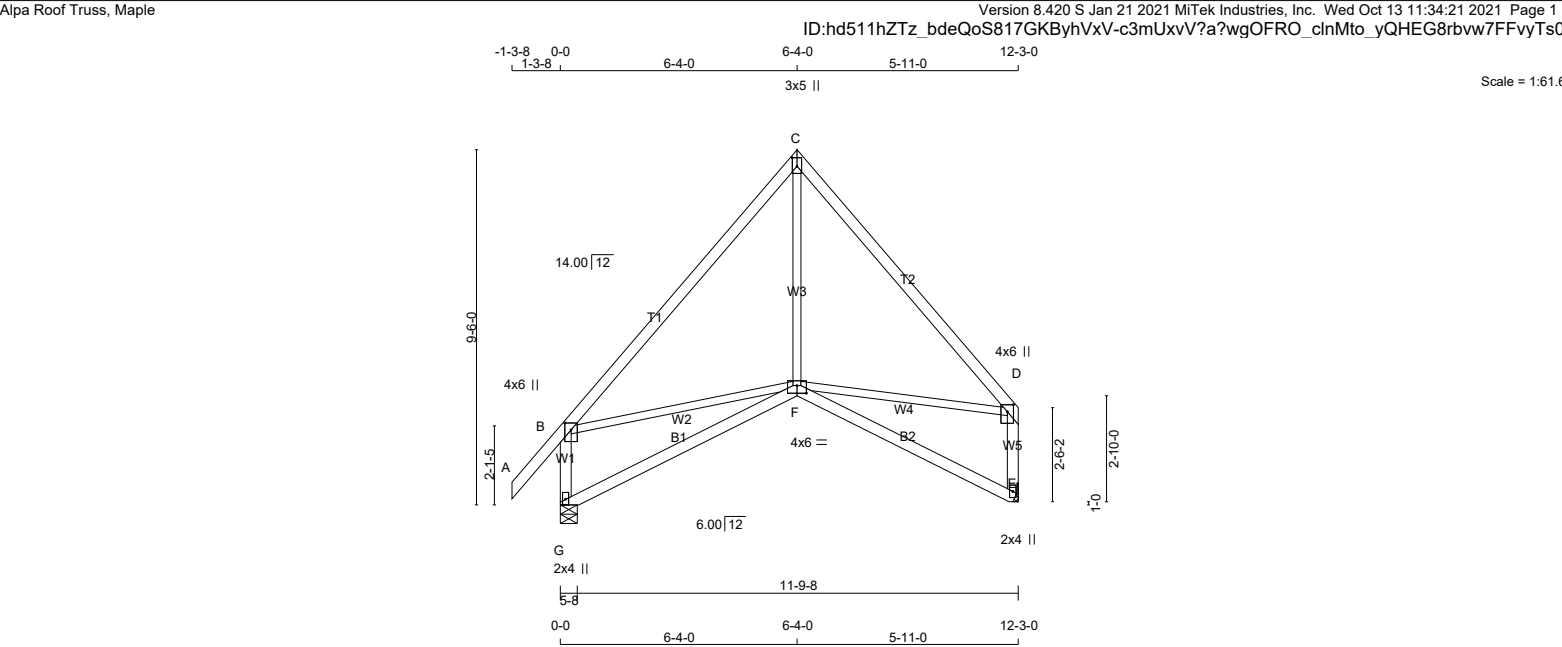
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.45 (E) (INPUT = 0.90)
 JSI METAL= 0.22 (D) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H61S		1	TRUSS DESC. JT 45147	E21104061



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER		DESCR.
A - C	2x4	DRY	2100F 1.8E	SPF
C - D	2x4	DRY	No.2	SPF
G - B	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.25 2.00
C	TTW+p	MT20	3.0	5.0	2.75 1.50
D	TMVW+p	MT20	4.0	6.0	2.25 2.00
E	BMV1+p	MT20	2.0	4.0	
F	BBWWW-p	MT20	4.0	6.0	2.50 3.00
G	BMV1+p	MT20	2.0	4.0	Edge

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

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
JT	700	0	700	0	5-8	1-8
G	591	0	591	0	0	MECHANICAL

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-12.

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
	497	316 / 0	0 / 0	0 / 0	0 / 0	181 / 0	0 / 0
E	421	257 / 0	0 / 0	0 / 0	0 / 0	164 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 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					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO			FR-TO			
A-B	0 / 42	-78.0	-78.0	0.07 (1)	10.00	F-C	0 / 203	0.06 (4)	
B-C	-448 / 0	-78.0	-78.0	0.27 (1)	6.25	B-F	0 / 297	0.07 (1)	
C-D	-448 / 0	-78.0	-78.0	0.36 (1)	6.25	F-D	0 / 294	0.07 (1)	
G-B	-642 / 0	0.0	0.0	0.08 (1)	7.81				
E-D	-536 / 0	0.0	0.0	0.07 (1)	7.81				
G-F	0 / 0	-18.5	-18.5	0.22 (4)	10.00				
F-E	0 / 0	-18.5	-18.5	0.19 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD			=	34.4	PSF

SPACING = 24.0 IN./C

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.41")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.36/1.00 (C-D:1) , BC=0.22/1.00 (F-G:4) ,
WB=0.07/1.00 (B-F: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)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX MIN	MAX MIN	MAX MIN		
MT20	650 371	1747 788	1987 1873		

PLATE PLACEMENT TOL. = 0.250 inches

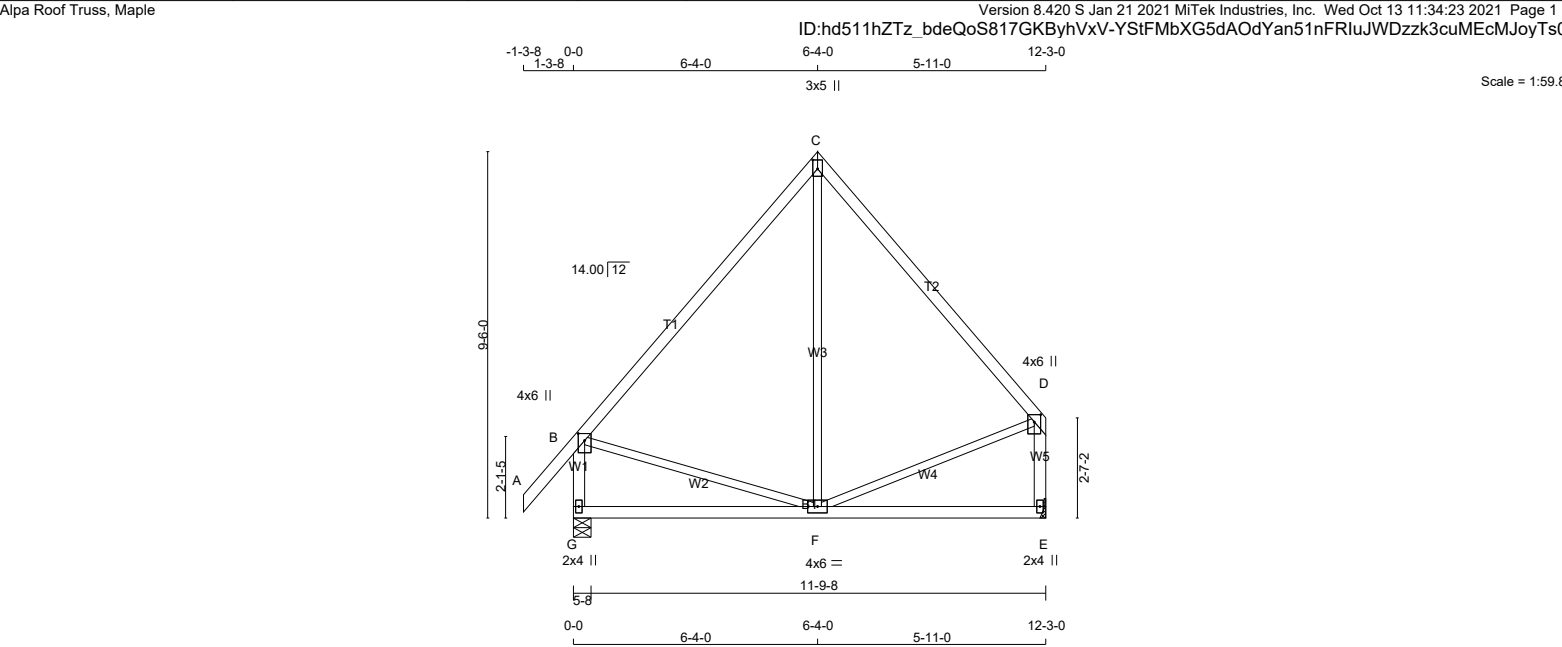
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (F) (INPUT = 0.90)
JSI METAL= 0.27 (G) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H62		1	TRUSS DESC. JT 45147	E21104062



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY 2100F 1.8E	SPF
C - D	2x4	DRY No.2	SPF
E - B	2x4	DRY No.2	SPF
E - D	2x4	DRY No.2	SPF
G - E	2x4	DRY No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25	2.00
C	TTW+p	MT20	3.0	5.0	2.75	1.50
D	TMVW+p	MT20	4.0	6.0	2.25	2.00
E	BMV1+p	MT20	2.0	4.0		
F	BMWVW-t	MT20	4.0	6.0		
G	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
G	700	0	700	0
E	591	0	591	0

MECHANICAL

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

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED
G	497
E	421

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 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					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	MEMB.	MAX. FACTORED FORCE (LBS)	MAX	CSi (LC)	
FR-TO		FROM	TO		FR-TO				
A-B	0 / 42	-78.0	-78.0	0.07 (1)	10.00	F-C	0 / 101	0.04 (4)	
B-C	-318 / 0	-78.0	-78.0	0.27 (1)	6.25	B-F	0 / 215	0.05 (1)	
C-D	-318 / 0	-78.0	-78.0	0.35 (1)	6.25	F-D	0 / 221	0.05 (1)	
G-B	-655 / 0	0.0	0.0	0.08 (1)	7.81				
E-D	-550 / 0	0.0	0.0	0.08 (1)	7.81				
G-F	0 / 0	-18.5	-18.5	0.20 (4)	10.00				
F-E	0 / 0	-18.5	-18.5	0.20 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./C/C

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.41")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.04")

CSI: TC=0.35/1.00 (C-D:1) , BC=0.20/1.00 (E-F:4) , WB=0.05/1.00 (D-F: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 .

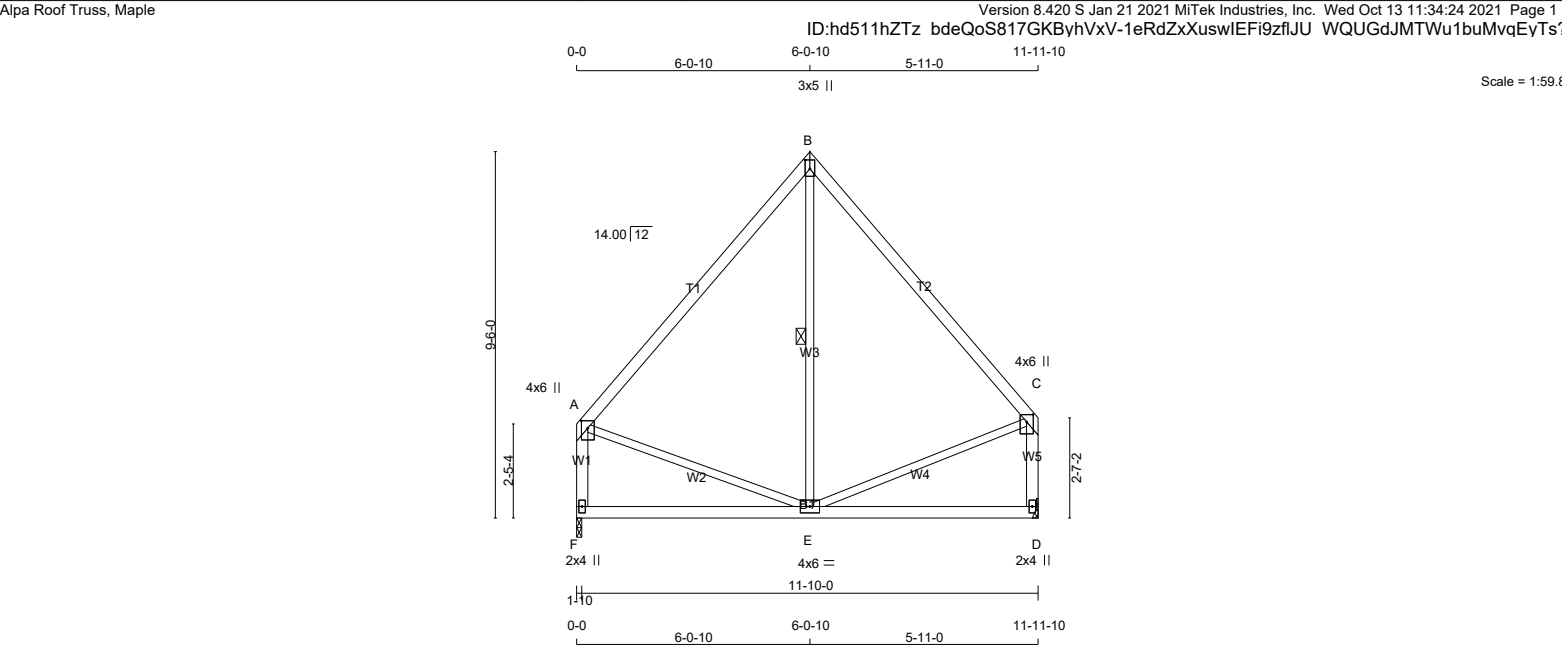
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.37 (B) (INPUT = 0.90)
JSI METAL= 0.20 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H62S		1	TRUSS DESC. JT 45147	E21104063



LUMBER					
N. L. G. A. RULES					
CHORDS	SIZE		LUMBER		DESCR.
A - B	2x4	DRY	1650F 1.5E		SPF
B - C	2x4	DRY	No.2		SPF
F - A	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
EXCEPT					
DRY: SEASONED LUMBER.					

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTW+p	MT20	3.0	5.0	2.75	1.50
C	TMVW+p	MT20	4.0	6.0	2.25	2.00
D	BMV1+p	MT20	2.0	4.0		
E	BMWWW-t	MT20	4.0	6.0		
F	BMV1+p	MT20	2.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
	FACTORED		MAXIMUM FACTORED		INPUT		REQRD		
	GROSS REACTION		GROSS REACTION		BRG		BRG		
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
F	577	0	577	0	0	1-10	1-8		
D	577	0	577	0	0	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	412	251 / 0	0 / 0	0 / 0	0 / 0	160 / 0	0 / 0
D	412	251 / 0	0 / 0	0 / 0	0 / 0	160 / 0	0 / 0

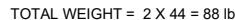
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F							
BRACING							
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.							
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.							
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.							
1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-E.							
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)									
C H O R D S									
MEMB. MAX. FACTORED FORCE (LBS)									
FACTORED VERT. LOAD (PLF)									
MAX. UNBRACED LENGTH (LC)									
W E B S									
MEMB. MAX. FACTORED FORCE (LBS)									
MAX. UNBRACED LENGTH (LC)									
FR-TO		FROM	TO		LENGTH	FR-TO			
A-B	-304 / 0	-78.0	-78.0	0.31 (1)	6.25	E-B	-5 / 94	0.03 (4)	
B-C	-304 / 0	-78.0	-78.0	0.35 (1)	6.25	A-E	0 / 209	0.05 (1)	
F-A	-535 / 0	0.0	0.0	0.07 (1)	7.81	E-C	0 / 211	0.05 (1)	
D-C	-536 / 0	0.0	0.0	0.07 (1)	7.81				
F-E	0 / 0	-18.5	-18.5	0.19 (4)	10.00				
E-D	0 / 0	-18.5	-18.5	0.19 (4)	10.00				

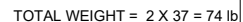
DESIGN CRITERIA									
SPECIFIED LOADS:									
TOP CH.	LL	=	21.0	PSF					
	DL	=	6.0	PSF					
BOT CH.	LL	=	0.0	PSF					
	DL	=	7.4	PSF					
TOTAL LOAD = 34.4 PSF									
SPACING = 24.0 IN./C									
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015									
THIS DESIGN COMPLIES WITH:									
- PART 9 OF BCBC 2018 , ABC 2019									
- PART 9 OF OBC 2012 (2019 AMENDMENT)									
- CSA 086-14									
- TPIC 2014									
(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD									
ALLOWABLE DEFL.(LL)= L/360 (0.40")									
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")									
ALLOWABLE DEFL.(TL)= L/360 (0.40")									
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")									
CSI: TC=0.35/1.00 (B-C:1) , BC=0.19/1.00 (E-F:4) , WB=0.05/1.00 (C-E:1) , SSI=0.12/1.00 (A-B:1)									
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10									
COMPANION LIVE LOAD FACTOR = 1.00									
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .									
NAIL VALUES									
PLATE	GRIP(DRY)	SHEAR	SECTION						
	(PSI)	(PLI)	(PLI)						
MT20	650	371	1747	788	1987	1873			
PLATE PLACEMENT TOL. = 0.250 inches									
PLATE ROTATION TOL. = 5.0 Deg.									
JSI GRIP= 0.31 (E) (INPUT = 0.90)									
JSI METAL= 0.16 (A) (INPUT = 1.00)									

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



Scale = 1:47.0

JSI GRIP= 0.31 (F) (INPUT = 0.90)
JSI METAL= 0.19 (H) (INPUT = 1.00)

Scale = 1:45.9

Y. WIDYA
100225448
10/13/2021
PROVINCE OF ONTARIO

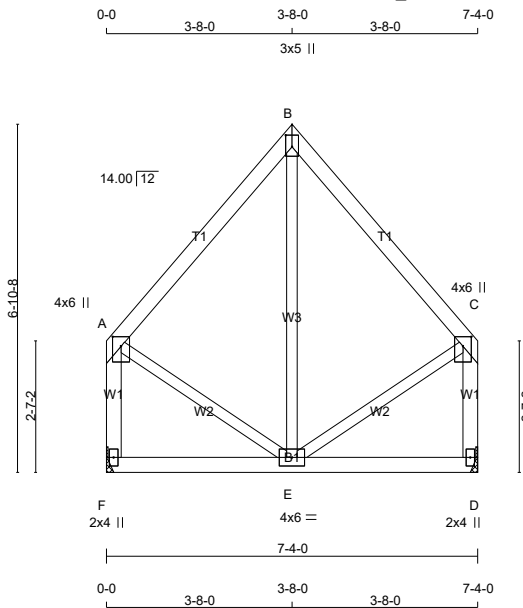
JSI GRIP= 0.18 (E) (INPUT = 0.90)
JSI METAL= 0.13 (F) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H64		1	TRUSS DESC. JT 45147	E21104066

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 4 X 38 = 154 lb

[M][F]

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTW+p	MT20	3.0	5.0	2.75	1.50
C	TMVW+p	MT20	4.0	6.0	2.25	2.00
D	BMV1+p	MT20	2.0	4.0		
E	BMWWW-t	MT20	4.0	6.0		
F	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQD
	VERT	HORZ	DOWN	HORZ
JT	354	0	354	0
F	354	0	354	0
D	354	0	354	0

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

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	252	154 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0
D	252	154 / 0	0 / 0	0 / 0	0 / 0	98 / 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	-160 / 0	-78.0	-78.0 0.13 (1)	6.25	E-B	-43 / 41	0.03 (1)
B-C	-160 / 0	-78.0	-78.0 0.13 (1)	6.25	A-E	0 / 122	0.03 (1)
F-A	-328 / 0	0.0	0.0 0.05 (1)	7.81	E-C	0 / 122	0.03 (1)
D-C	-328 / 0	0.0	0.0 0.05 (1)	7.81			
F-E	0 / 0	-18.5	-18.5 0.07 (4)	10.00			
E-D	0 / 0	-18.5	-18.5 0.07 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./C

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.24")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.24")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

CSI: TC=0.13/1.00 (B-C:1) , BC=0.07/1.00 (D-E:4) ,
WB=0.03/1.00 (B-E:1) , SSI=0.07/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.19 (A) (INPUT = 0.90)
JSI METAL= 0.09 (C) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

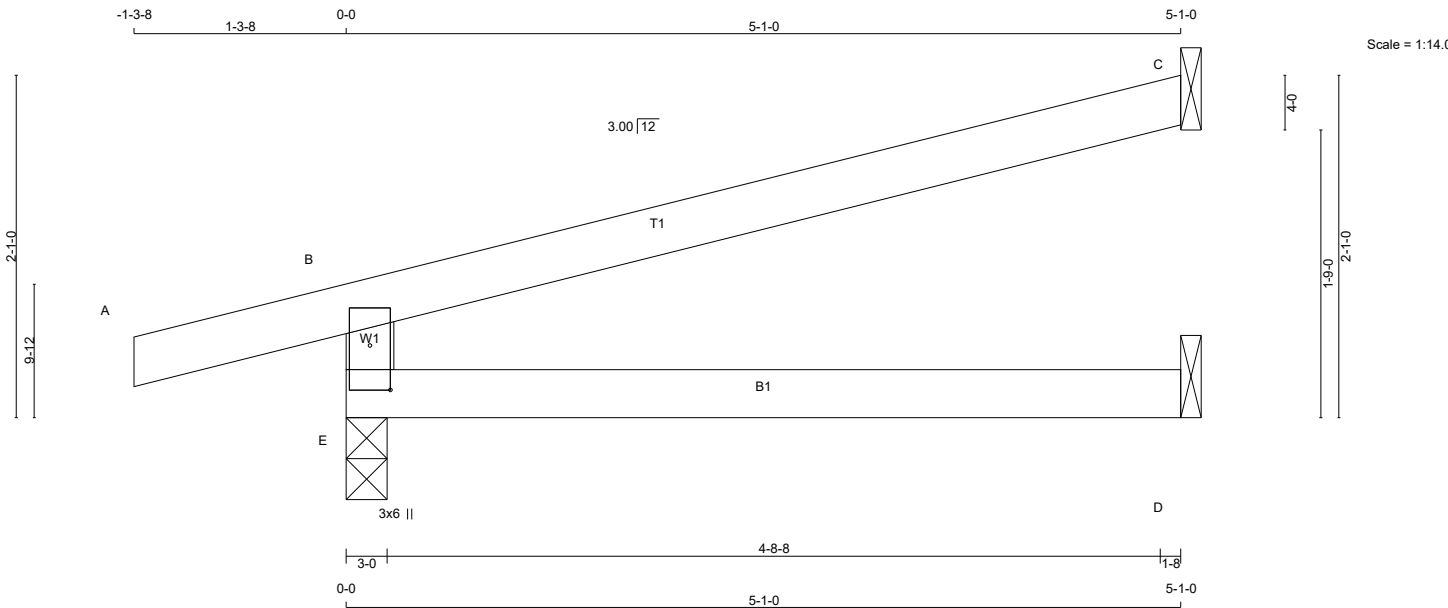


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	P03		1	TRUSS DESC. JT 45147	E21104067

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 14 X 14 = 192 lb

[M]

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B						
E	TMBMV1+p	MT20	3.0	6.0	3.25	1.50

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	407	0	407	0	3-0	1-8
C	149	0	149	0	1-8	1-8
D	38	0	43	0	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H 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	288	189 / 0	0 / 0	0 / 0	0 / 0	99 / 0	0 / 0
C	103	80 / 0	0 / 0	0 / 0	0 / 0	23 / 0	0 / 0
D	30	0 / 0	0 / 0	0 / 0	0 / 0	30 / 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO		FR-TO		
E-B	-351 / 0	0.0	0.0	0.11 (4)	7.81		
A-B	0 / 13	-78.0	-78.0	0.10 (1)	10.00		
B-C	-12 / 0	-78.0	-78.0	0.34 (1)	6.25		
E-D	0 / 0	-18.5	-18.5	0.11 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL	=	21.0	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.4	PSF
TOTAL LOAD					= 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 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 (0.02")

CSI: TC=0.34/1.00 (B-C:1) , BC=0.11/1.00 (D-E:4) ,
WB=0.00/1.00 (n/a:0) , SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.21 (E) (INPUT = 0.90)
JSI METAL= 0.05 (E) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



LUS – Double Shear Joist Hangers



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:

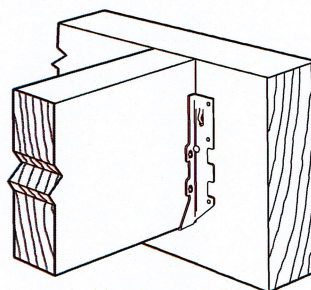
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

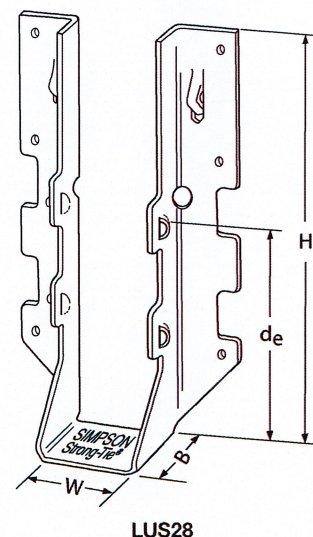
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



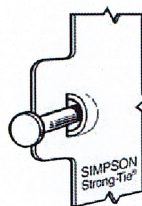
Typical LUS Installation



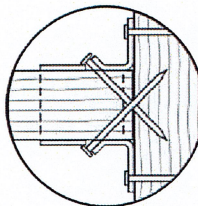
LUS28

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1½	3½	1¾	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3½	3½	2	1 13/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1½	4¾	1¾	3½	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3½	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4½	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6½	1¾	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4½	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1½	7 15/16	1¾	3¾	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4½	8¾	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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



Dome Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT STATES DESIGN

This technical bulletin is effective until June 30, 2022, and reflects information available as of April 1, 2020. This information is updated periodically and should not be relied upon after June 30, 2022. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECLUS20 3/20 exp. 6/22

(800) 999-5099
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HHUS – Double Shear Joist Hangers

All HHUS 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: 14 gauge

Finish: G90 galvanized

Design:

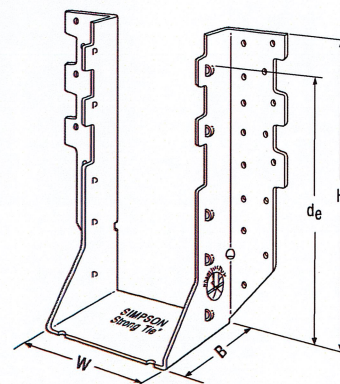
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

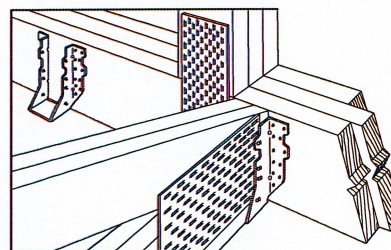
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

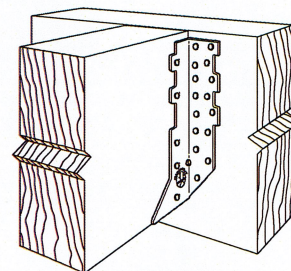
- See current catalogue for options



HHUS410



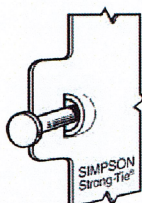
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

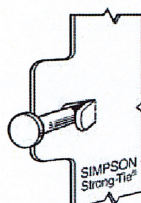
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
HHUS26-2	14	3 5/16	5 13/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 5/16	7 1/2	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 5/16	9 3/32	3	8	(30) 16d	(10) 16d	4670	9660	4235	7000
HHUS210-3	14	4 11/16	9	3	7 15/16	(30) 16d	(10) 16d	4670	9670	4235	6865
HHUS210-4	14	6 1/8	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS46	14	3 3/8	5 13/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 3/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS410	14	3 3/8	9	3	8	(30) 16d	(10) 16d	4670	9855	4235	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS7.25/10	14	7 1/4	9	3 3/16	7 29/32	(30) 16d	(10) 16d	4670	10155	3370	7210

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

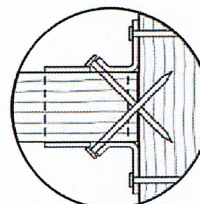


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent
5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECHHUS20 3/20 exp. 6/22

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TC – Truss Connectors

SIMPSON
Strong-Tie

The TC truss connector is an ideal connector for scissor trusses and can allow horizontal movement up to 1¼". The TC also attaches plated trusses to top plates or sill plates to resist uplift forces. Typically used on one or both ends of truss as determined by the building designer.

Material: 16 gauge

Finish: G90 galvanized

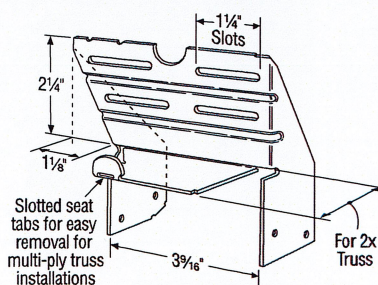
Design: Factored resistances are in accordance with CSA 086-14

Installation:

- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½" = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow room under the nail head for movement of the truss with respect to the wall.

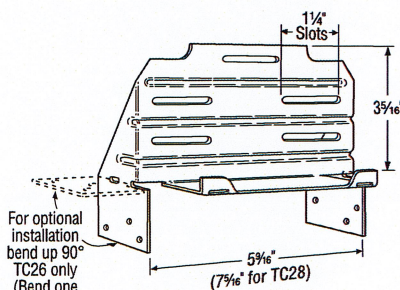
Optional TC Installation:

- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



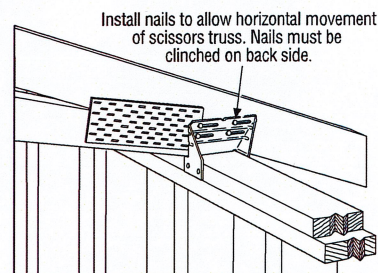
TC24

U.S. Patent 4,932,173

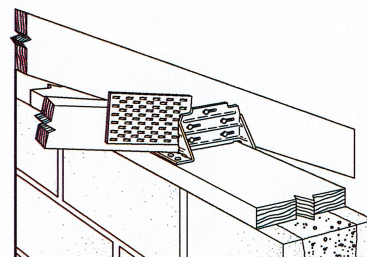


TC26

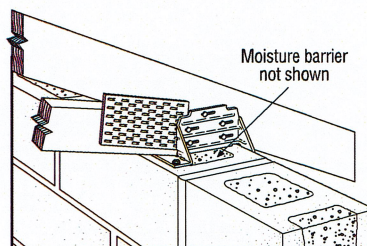
(TC28 Similar)



Typical TC24 Installation



Optional TC26 Installation for Grouted Concrete Block using a Wood Nailer
(8", 10", 12" Wall Installation Similar)



Optional TC26 Installation for Grouted Concrete Block using Titen Screws

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K ₀ =1.15)	Uplift (K ₀ =1.15)
TC24	(4) 10d	(4) 10d	605	430
TC26	(5) 10d	(6) 10d	1015	720
TC28	(5) 10d	(6) 10d	1015	720

Optional TC Installation Table

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K ₀ =1.15)	Uplift (K ₀ =1.15)
TC26	(5) 10d	(6) 10d x 1½"	810	660
	(5) 10d	(6) 10d	930	660

1. Factored resistances have been increased 15% for earthquake or wind loading; no further increase allowed; reduce where other loads govern.
2. Grout strength is 15 MPa minimum.
3. Optional TC26 installation with 10d nails requires minimum 3" top plate thickness.
4. TC26 fastened to grouted concrete block with (6) – ¾" x 2¼" Titen screws has a factored uplift resistance of 275 lb.



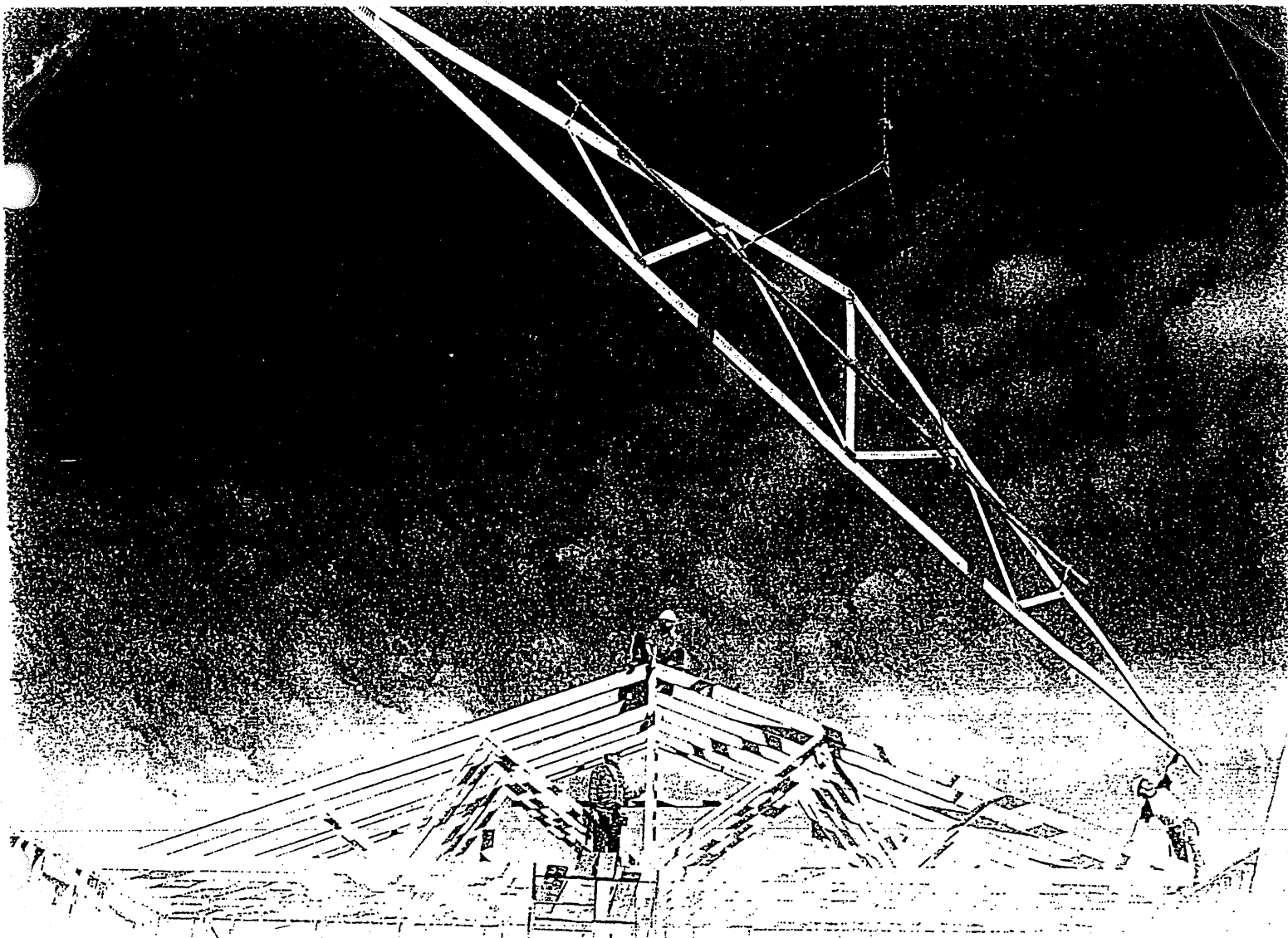
**LIMIT
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DESIGN**

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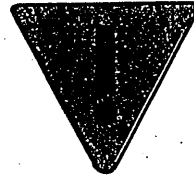
Wood Truss Installation

**A Guide to proper handling, erecting and bracing
metal plate connected wood trusses**

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2 Job Site Handling.....	5
3 Hoisting.....	6
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6 Bracing.....	8
7 Bracing Requirements for 3 Planes of Roof.....	9
8 Stacking Materials.....	10
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Warning



General

Familiarity with the Construction Design Documents, the Truss Design Drawings, and Truss Placement Plans (if required by the Construction Design Documents) is required to properly erect, brace, and connect the trusses to the building system.

All of the care and quality involved in the design and manufacture of wood trusses can be jeopardized if the trusses are not properly handled, erected, and braced.

The consequences of improper handling, erecting, and bracing may be a collapse of the structure, which at best is a substantial loss of time and materials, and at worst is a loss of life. The majority of truss accidents occur during truss installation and not as a result of improper design or manufacture.

Prior to truss erection, the builder/erector shall meet with the erection crew for a safety and planning meeting, making sure each crew member understands his or her roles and responsibilities during the erection process.

Temporary Erection Bracing

Trusses are not marked in any way to identify the frequency, or location of temporary erection bracing.

All temporary bracing shall comply with the latest edition of *Commentary and Recommendations for Handling, Installing & Bracing Metal Plate Connected Wood Trusses* (HIB), published by the Truss Plate Institute, and/or as specified in the Construction Design Documents prepared by the building designer.

Permanent Truss Bracing

Permanent bracing for the roof or floor trusses is the responsibility of the building designer and should be shown on the Construction Design Documents. Permanent bracing locations for individual compression members of a wood truss are shown on the Truss Design Drawings, and shall be installed by the building or erection contractor. This bracing is needed for the proper performance of individual trusses within the roof or floor system. The design and connection of the bracing to the truss and then to the overall building system is the responsibility of the building designer, and is in addition to the permanent bracing plan, which is also specified by the building designer.

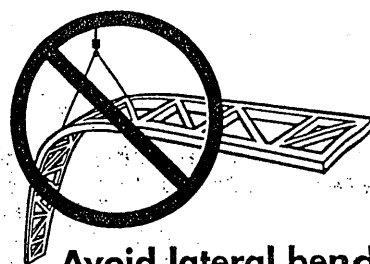
Special Design Requirements

Special design requirements, such as wind bracing, portal bracing, seismic bracing, diaphragms, shear walls, or other load transfer elements and their connections to wood trusses must be considered separately by the building designer, who shall determine size, location, and method of connections for all bracing as needed to resist these forces.

1 Unloading & Lifting

Never handle trusses flat

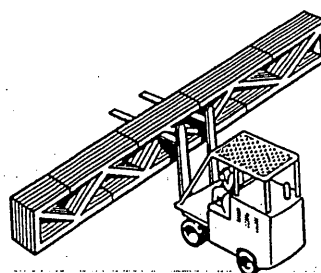
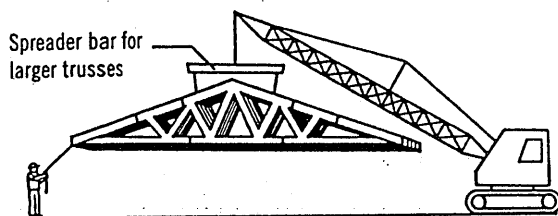
Beginning with the unloading process, and throughout all phases of construction, care must be taken to avoid lateral bending of trusses, which can cause damage to the lumber and metal connector plates at the joints.



Avoid lateral bending

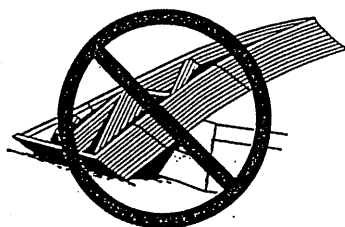
- Use special care in windy weather.
- If using a crane within 10 feet of an electric line, contact the local power company.
- If using a crane within 5 miles of an airport, contact the airport 30 days prior to erection to learn about any safety regulations that must be followed.

2 Job Site Handling



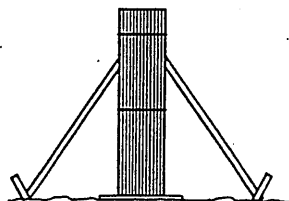
All trusses should be picked up at the top chords in a vertical position only

Proper banding and smooth ground allow for unloading of trusses without damage. This should be done as close to the building site as possible to minimize handling. Do not break banding until installation begins. Hand erection of trusses is allowed, provided excessive lateral bending is prevented.



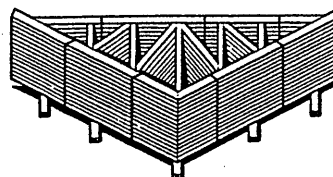
Do not store unbraced bundles upright

If trusses are stored vertically they shall be braced in a manner that will prevent tipping or topping. Generally cutting of the banding is done just prior to installation.



Do not store on uneven ground

If trusses are stored horizontally, blocking should be used on eight to ten foot centers, or as required, to minimize lateral bending and moisture gain.

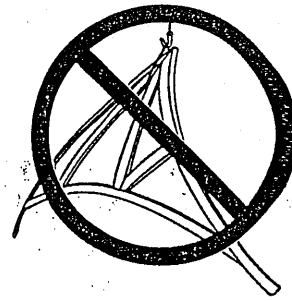


Care should be exercised when removing banding to avoid damaging trusses.

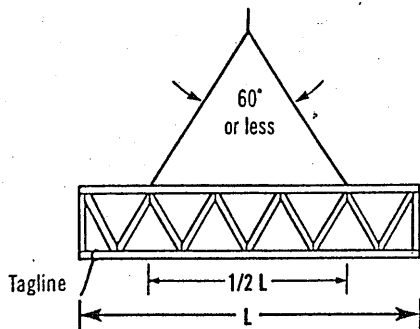
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

3 Hoisting

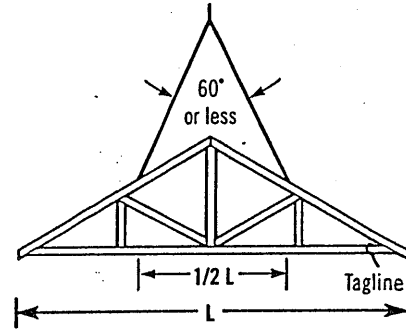
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



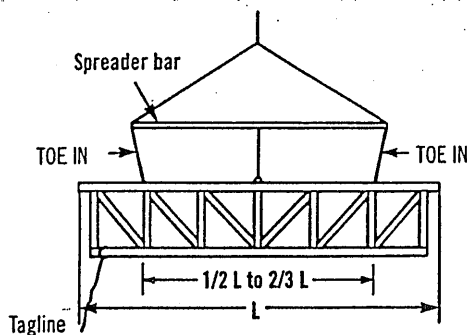
Avoid lateral bending



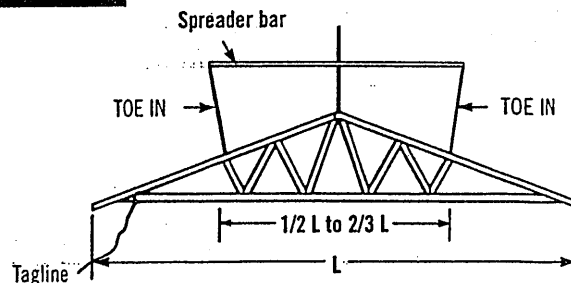
$L \leq 30'$



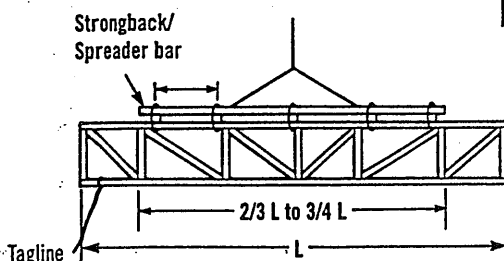
Truss sling is acceptable where these criteria are met.



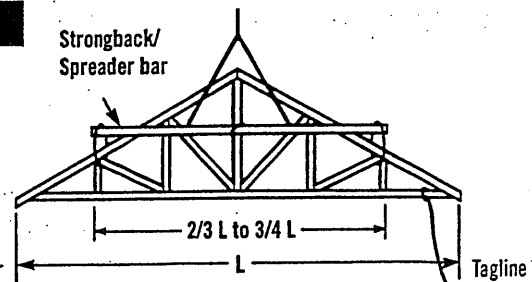
$30' < L \leq 60'$



Use spreader bar in all other cases. It should be noted that the lines from the ends of the spreader bar "TOE IN"; if these lines should "TOE OUT" the truss may fold in half.



$L > 60'$



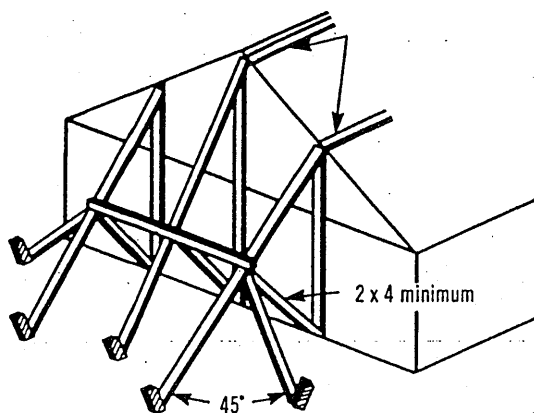
For lifting trusses with spans in excess of 60 feet, it is recommended that a strongback/spreader bar be used as illustrated. The strongback/spreader bar should be attached to the top chord and web members at intervals of approximately 10 feet. Further, the strongback/spreader bar should be at or above the mid-height of the truss to prevent overturning. The strongback/spreader bar can be of any material with sufficient strength to safely carry the weight of the truss and sufficient rigidity to adequately resist bending of the truss.

4 Beginning the Erection Process

It is important for the builder or erection contractor to provide substantial bracing for the first truss erected. The two or more trusses making up the rest of the first set are tied to and rely upon the first truss for stability. Likewise, after this first set of trusses is adequately cross-braced, the remaining trusses installed rely upon this first set for stability. Thus, the performance of the truss bracing system depends to a great extent on how well the first group of trusses is braced.

Ground Brace - Exterior

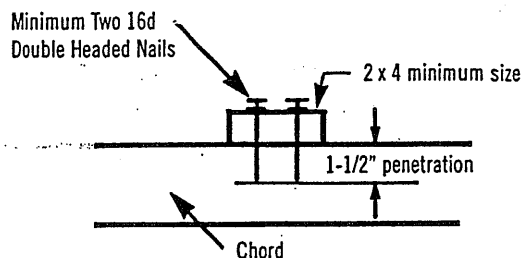
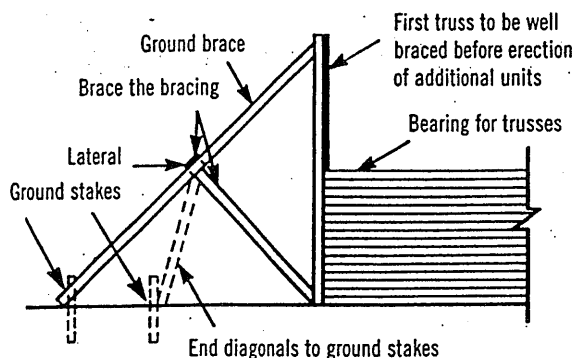
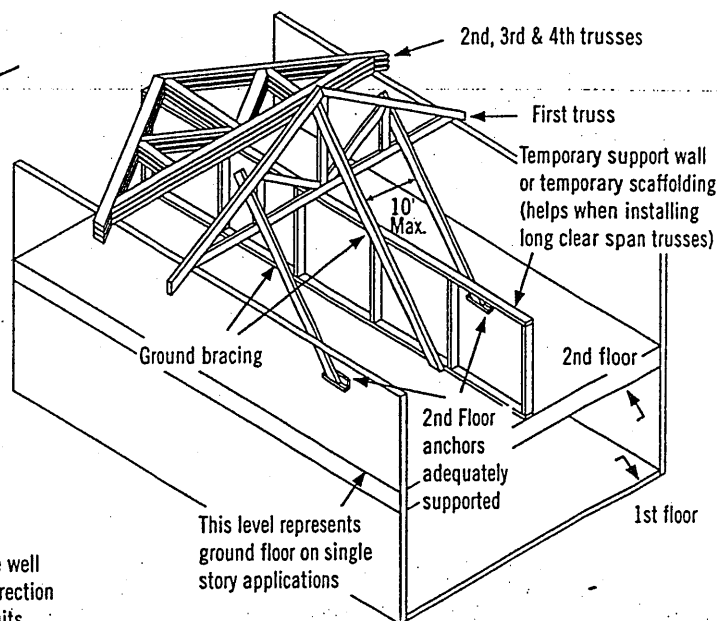
One satisfactory method ties the first unit of trusses off to a series of braces that are attached to a stake driven into the ground and securely anchored. The ground brace itself should be supported as shown below or it is apt to buckle. Additional ground braces in the opposite direction, inside the building, are also recommended.



Note: Locate ground braces for first truss directly in line with all rows of top chord continuous lateral bracing (either temporary or permanent).

Ground Brace - Interior

Another satisfactory method where height of building or ground conditions prohibit bracing from the exterior is to tie the first truss rigidly in place from the interior at the floor level, provided the floor is substantially completed and capable of supporting the ground bracing forces. Securely fasten the first truss to the middle of the building. Brace the bracing similar to exterior ground bracing shown at left. Set trusses from the middle toward the end of the building. Properly cross-brace the first set of trusses before removing floor braces and setting remaining trusses.

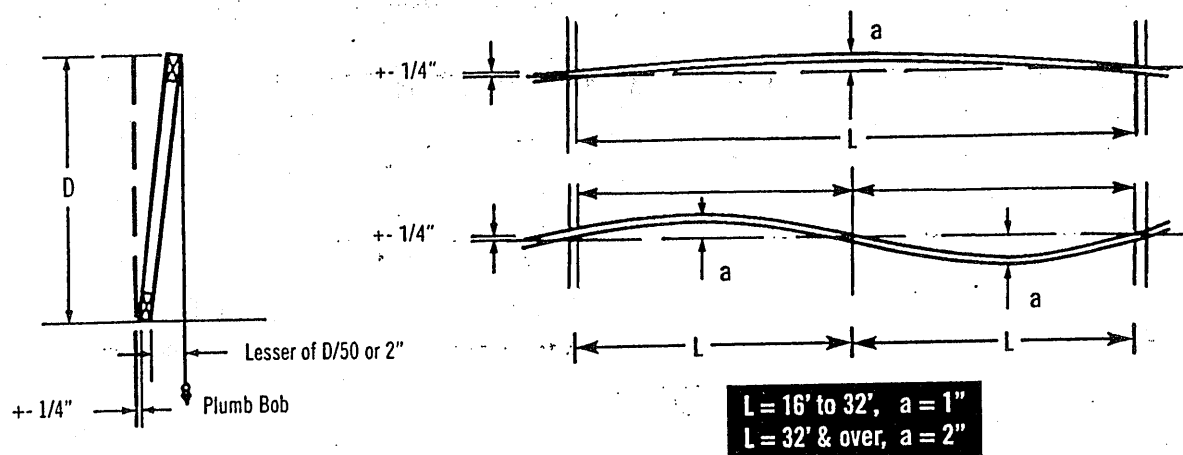


Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.

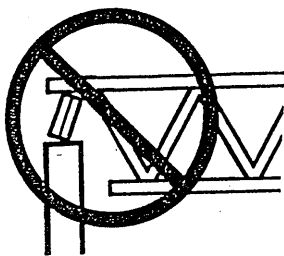
5 Erection Tolerance

Complying with erection tolerances is critical to achieving an acceptable roof or floor line, and to accomplishing effective bracing. Setting trusses within tolerance the first time will prevent the need for the hazardous practice of respacing or adjusting trusses when roof sheathing or roof purlins are installed. Trusses leaning or bowing can cause nails to miss the top chords when sheathing is applied, and create cumulative stresses on the bracing, which is a frequent cause of dominoing.

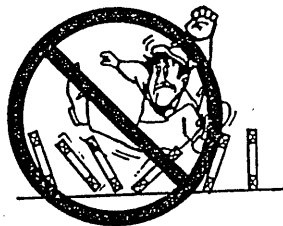
When sheathing, make sure nails are driven into the top chord of the trusses.



6 Bracing



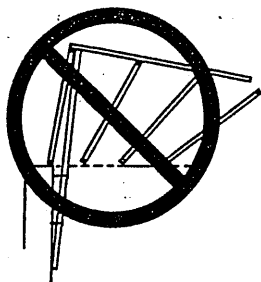
Do not install trusses on temporarily connected supports



Do not walk on unbraced trusses



Do not walk on trusses or gable ends lying flat

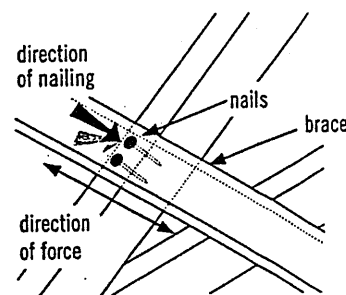


Nails in withdrawal (parallel to force)

All anchors, hangers, tie-downs, seats, bearing ledgers, etc., that are part of the supporting structure shall be accurately and properly placed and permanently attached before truss installation begins. No trusses shall ever be installed on anchors or ties that have temporary connections to the supporting structure.

Nailing scabs to the end of the building to brace the first truss is not recommended.

All nailing of bracing should be done so that nails are driven perpendicular to the direction of force, as shown at right.



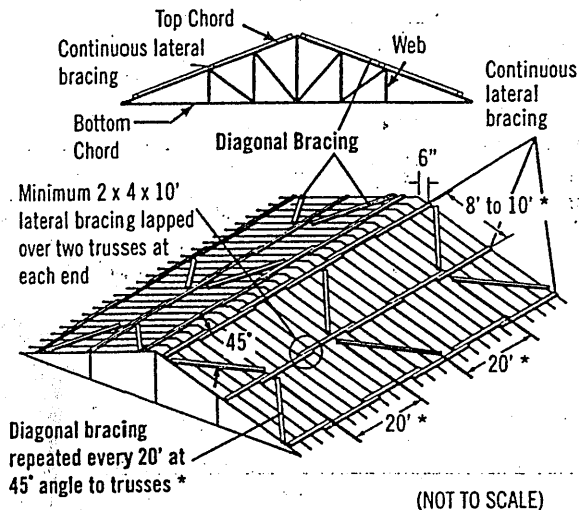
Well nailed (perpendicular to force)

7 Bracing Requirements for 3 Planes of Roof

Temporary erection bracing must be applied to three planes of the roof system to ensure stability: Plane 1) Top Chord (sheathing), Plane 2) Bottom Chord (ceiling plane), and Plane 3) Web Member plane or vertical plane perpendicular to trusses.

1) Top Chord Plane

Most important to the builder or erection contractor is bracing in the plane of the top chord. Truss top chords are susceptible to lateral buckling before they are braced or sheathed.

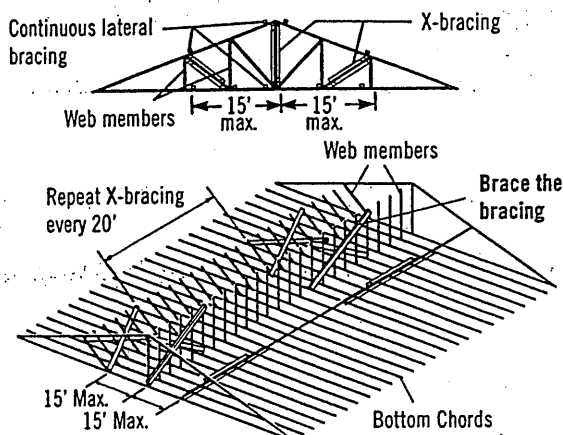


Exact spacing between trusses should be maintained as bracing is installed to avoid the hazardous practice of removing bracing to adjust spacing. This act of "adjusting spacing" can cause trusses to topple if connections are removed at the wrong time.

3) Web Member Plane

"X" bracing, as shown, is critical in preventing trusses from leaning or dominoing. Repeat as shown to create a succession of rigid units.

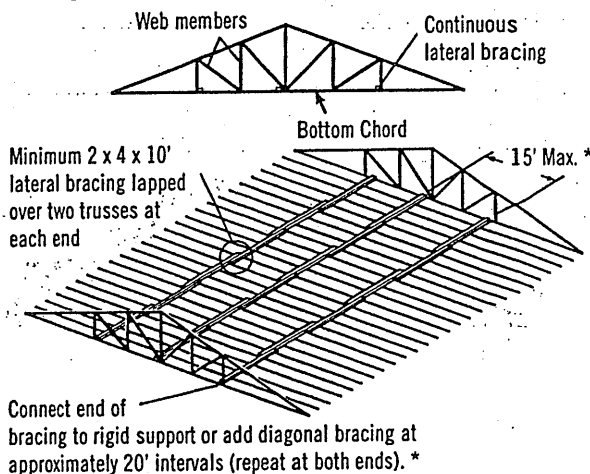
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



Note: Top chords and some web members are not shown, in order to make drawings more readable.

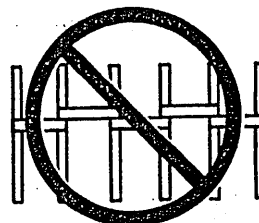
2) Bottom Chord Plane

In order to hold proper spacing on the bottom chord, temporary bracing is recommended on the top of the bottom chord.

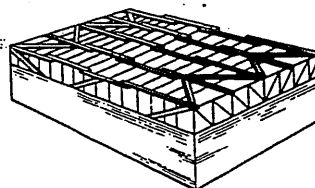


* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses) for details.

Diagonal or cross-bracing is very important!



Do not use short blocks to brace individual trusses without a specific bracing plan detailing their use

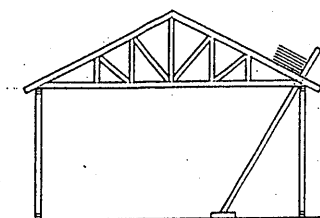
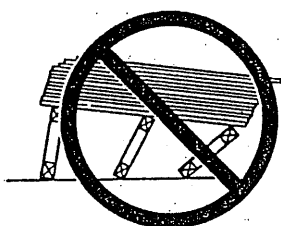


Bracing requirements using the same principles apply to parallel chord trusses

8 Stacking Materials

Do not proceed with building completion until all bracing is securely and properly in place

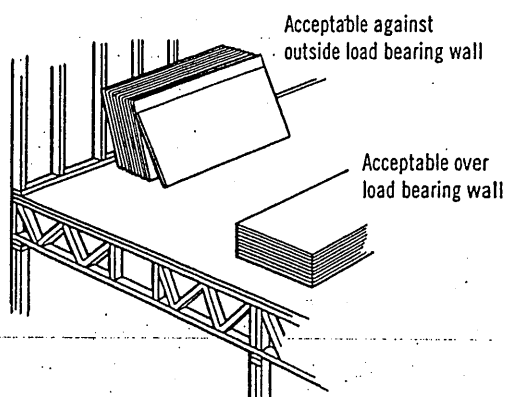
Never stack materials on unbraced or inadequately braced trusses



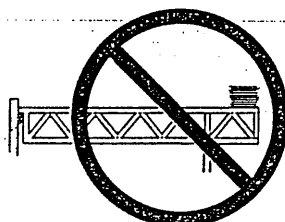
Platform must be rigidly braced

Proper distribution of construction materials is a must during construction.

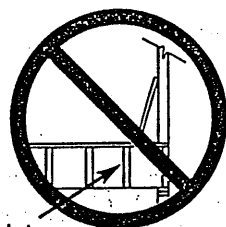
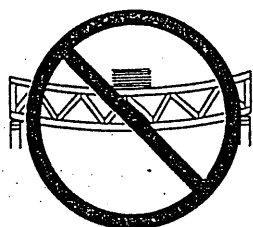
Never stack materials near a peak



Never stack materials on the cantilever of a truss

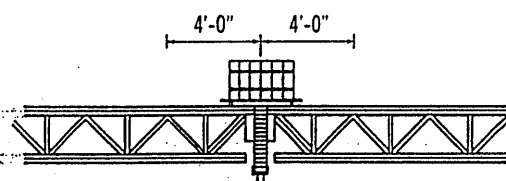


Always stack materials over two or more trusses.



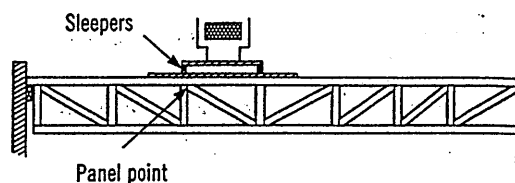
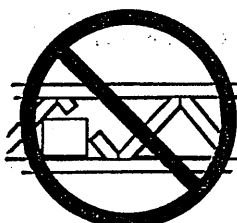
Single truss

Never overload small groups or single trusses. Position load over as many trusses as possible.



Roofing and mechanical contractors are cautioned to stack materials only along outside supporting members or directly over inside supporting members. Trusses are not designed for dynamic loads (i.e., moving vehicles). Extreme care should be taken when loading and stacking construction materials (rolled roofing, mechanical equipment, etc.) on the roof or floor system.

Never cut any structural member of a truss.



Sleepers

Panel point

Sleepers for mechanical equipment should be located at panel points (joints) or over main supporting members, and only on trusses that have been designed for such loads.

Caution Notes

Errors in building lines and/or dimensions, or errors by others shall be corrected by the contractor or responsible construction trade subcontractor or supplier before erection of trusses begins.

Cutting of nonstructural overhangs is considered a part of normal erection and shall be done by the builder or erection contractor.

Any field modification that involves the cutting, drilling, or relocation of any structural truss member or connector plate shall not be done without the approval of the truss manufacturer or a licensed design professional.

The methods and procedures outlined are intended to ensure that the overall construction techniques employed will put floor and roof trusses safely in place in a completed structure. These recommendations for bracing wood trusses originate from the collective experience of leading technical personnel in the wood truss industry, but must, due to the nature of responsibilities involved, be presented only as a guide for use by a qualified building designer, builder, or erection contractor. Thus, the Wood Truss Council of America expressly disclaims any responsibility for damages arising from the use, application, or reliance on the recommendations and information contained herein.

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