

FILEV 'B'

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 820

CONVEN
FRAMING
OTHERS

EWP DESIGN INC.

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RESPONSIBILITIES AND SPECIFICATIONS

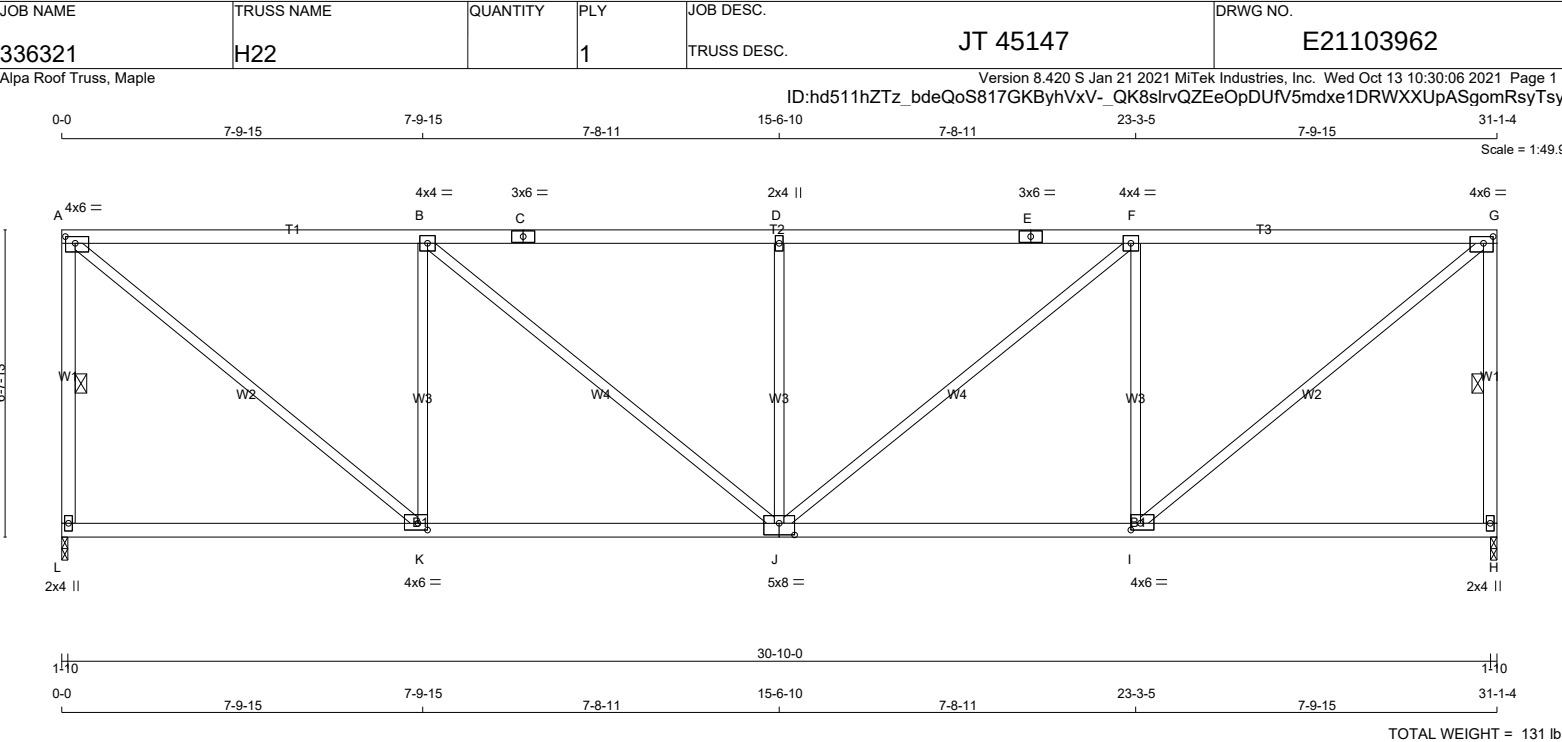
RESPONSIBILITIES

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 = 131 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS

SIZE

DRY

No.2

L - A

2x4

DRY

No.2

A - C

2x4

DRY

No.2

C - E

2x4

DRY

No.2

E - G

2x4

DRY

No.2

H - G

2x4

DRY

No.2

L - J

2x4

DRY

No.2

J - H

2x4

DRY

No.2

ALL WEBS

2x3

DRY

No.2

DRY: SEASONED LUMBER.

DESCR.

SPF

SPF

SPF

SPF

SPF

SPF

SPF

SPF

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

A

TMVW-t

MT20

4.0

6.0

1.75

2.50

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-t

MT20

4.0

6.0

1.75

2.50

H

BMV1+p

MT20

2.0

4.0

I

BMWW-t

MT20

4.0

6.0

1.75

2.50

J

BSWWW-l

MT20

5.0

8.0

3.00

4.00

K

BMWW-t

MT20

4.0

6.0

1.75

2.50

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

GROSS REACTION

MAXIMUM FACTORED

GROSS REACTION

INPUT

BRG

REQRD

IN-SX

IN-SX

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

L

1500

0

1500

0

1-10

1-10

H

1500

0

1500

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 = 3.64 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.

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

FACTORED

VERT. LOAD

LC1

MAX

MAX.

MEMB.

MAX.

FACTORED

MEMB.

FORCE

VERT. LOAD

LC1

MAX

MAX.

MEMB.

FORCE

MAX

FR-TO

FROM

TO

CS1 (LC)

UNBRAC

LENGTH

FR-TO

CS1 (LC)

L- A

-1444 / 0

0.0

0.0

0.29 (1)

5.44

A- K

0 / 1908

0.43 (1)

A- B

-1481 / 0

-78.0

-78.0

0.89 (1)

4.10

K- B

-1026 / 0

0.75 (1)

B- C

-1885 / 0

-78.0

-78.0

0.97 (1)

3.64

B- J

0 / 523

0.12 (1)

C- D

-1885 / 0

-78.0

-78.0

0.97 (1)

3.64

J- D

-556 / 0

0.41 (1)

D- E

-1885 / 0

-78.0

-78.0

0.97 (1)

3.64

J- F

0 / 523

0.12 (1)

E- F

-1885 / 0

-78.0

-78.0

0.97 (1)

3.64

I- F

-1026 / 0

0.75 (1)

F- G

-1481 / 0

-78.0

-78.0

0.89 (1)

4.10

I- G

0 / 1908

0.43 (1)

H- G

-1444 / 0

0.0

0.0

0.29 (1)

5.44

L- K

0 / 0

-18.5

-18.5

0.32 (4)

10.00

K- J

0 / 1481

-18.5

-18.5

0.46 (4)

10.00

J- I

0 / 1481

-18.5

-18.5

0.46 (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, 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 (0.10")

ALLOWABLE DEFL.(TL)= L/360 (1.04")

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

CSI: TC=0.97/1.00 (B-D:1) , BC=0.46/1.00 (J-K:4) ,

WB=0.75/1.00 (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)

(PLI)

MAX

MIN

MAX

MIN

MAX

MIN

MT20

650

371

1747

788

1987

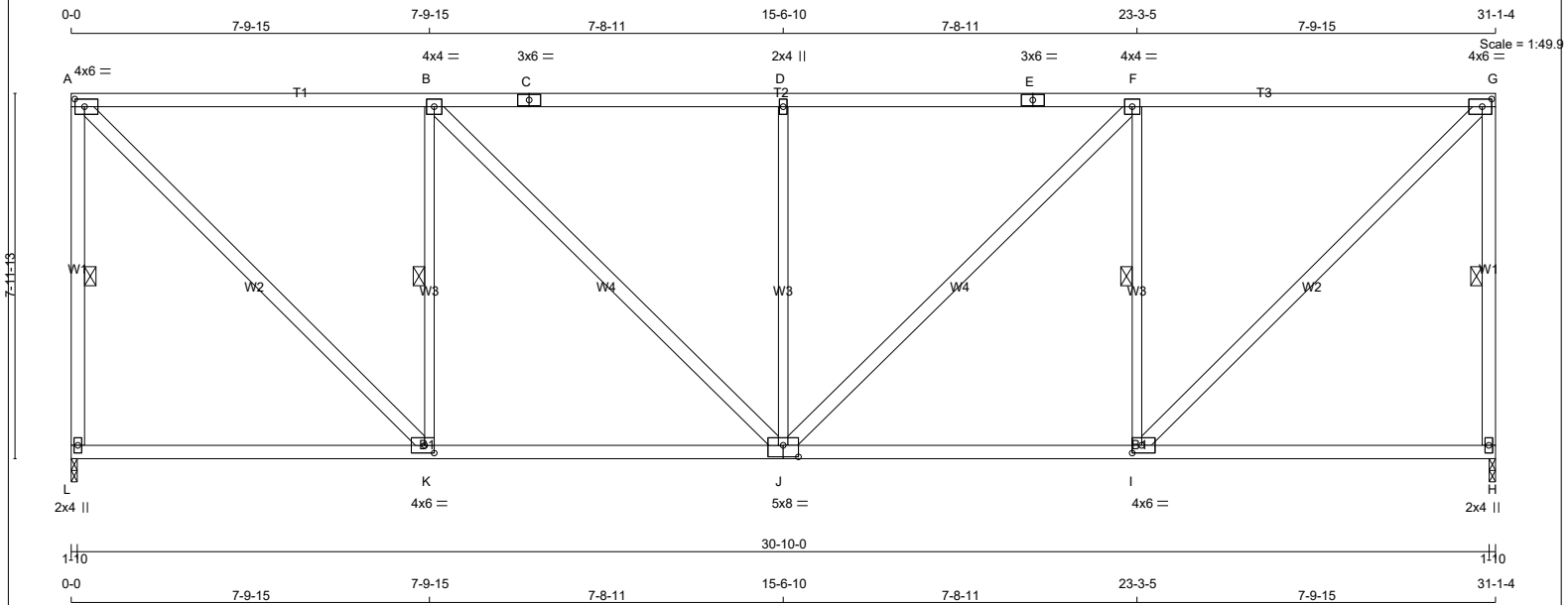
1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.36 (G) (INPUT = 1.00)



TOTAL WEIGHT = 154 lb

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 EXCEPT	2x4	DRY	No.2	SPF
K - B	2x3	DRY	No.2	SPF
J - D	2x3	DRY	No.2	SPF
I - F	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMWV-t	MT20	4.0	6.0	2.00	2.50
B	TMWV-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	TMWV-t	MT20	4.0	4.0		
G	TMVW-t	MT20	4.0	6.0	2.00	2.50
H	BMV1+p	MT20	2.0	4.0		
I	BMWV-t	MT20	4.0	6.0	2.00	2.50
J	BSWVVV-I	MT20	5.0	8.0	3.00	4.00
K	BMWV-t	MT20	4.0	6.0	2.00	2.50
L	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
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 = 3.99 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/ 2 LENGTH OF A-L, G-H, B-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)

C H O R D S					W E B S				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	UNBRAC			(LBS)	CSI (LC)	
FR-TO		FROM	TO		LENGTH	FR-TO			
L-A	-1445 / 0	0.0	0.0	0.41 (1)	5.44	A-K	0 / 1718	0.28 (1)	
A-B	-1225 / 0	-78.0	-78.0	0.84 (1)	4.46	K-B	-1026 / 0	0.41 (1)	
B-C	-1558 / 0	-78.0	-78.0	0.90 (1)	3.99	B-J	0 / 470	0.08 (1)	
C-D	-1558 / 0	-78.0	-78.0	0.90 (1)	3.99	J-D	-556 / 0	0.67 (1)	
D-E	-1558 / 0	-78.0	-78.0	0.90 (1)	3.99	J-F	0 / 470	0.08 (1)	
E-F	-1558 / 0	-78.0	-78.0	0.90 (1)	3.99	I-F	-1026 / 0	0.41 (1)	
F-G	-1225 / 0	-78.0	-78.0	0.84 (1)	4.46	I-G	0 / 1718	0.28 (1)	
H-G	-1445 / 0	0.0	0.0	0.41 (1)	5.44				
L-K	0 / 0	-18.5	-18.5	0.32 (4)	10.00				
K-J	0 / 1225	-18.5	-18.5	0.44 (4)	10.00				
J-I	0 / 1225	-18.5	-18.5	0.44 (4)	10.00				
I-H	0 / 0	-18.5	-18.5	0.32 (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 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.20")

CSI: TC=0.90/1.00 (B-D:1), BC=0.44/1.00 (J-K:4),
WB=0.67/1.00 (D-J:1), SS=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= 0.87 (I) (INPUT = 0.90)
JSI METAL= 0.34 (A) (INPUT = 1.00)

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TOTAL WEIGHT = 165 lb

DRY: SEASONED LUMBER.

J	T	TYPE	PLATES	W	LEN	Y	X
A		TMWV-t	MT20	4.0	6.0	2.00	2.50
B		TMWV-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		TMWV-t	MT20	4.0	4.0		
G		TMWV-t	MT20	4.0	6.0	2.00	2.50
H		BMV1+p	MT20	2.0	4.0		
I		BMWV-t	MT20	4.0	4.0	1.50	1.50
J		BSWVWV-t	MT20	5.0	8.0	3.00	4.00
K		BMWV-t	MT20	4.0	4.0	1.50	1.50
L		BMV1+p	MT20	2.0	4.0		

TOTAL LOAD CASES: (4)

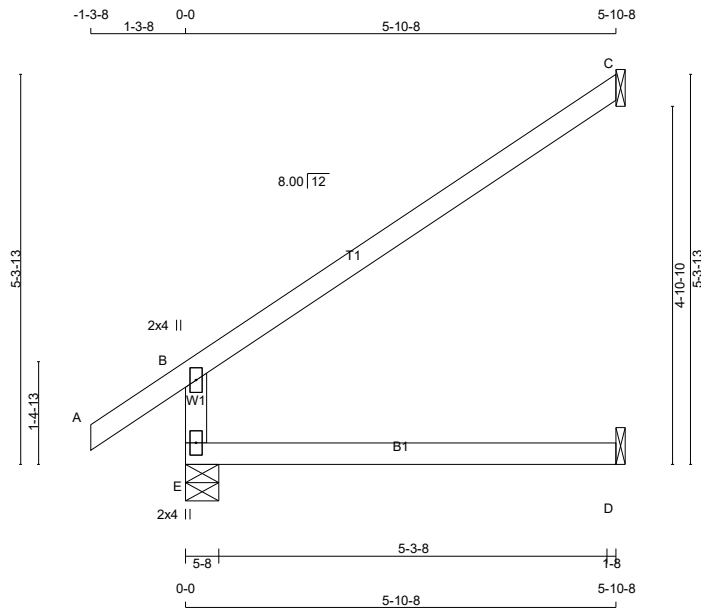
CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
L-A	-1445 / 0	0.0	0.0 0.59 (1)	5.44	A-K	0 / 1594	0.26 (1)
A-B	-1044 / 0	-78.0	-78.0 0.81 (1)	4.76	K-B	-1026 / 0	0.59 (1)
B-C	-1328 / 0	-78.0	-78.0 0.86 (1)	4.30	B-J	0 / 437	0.07 (1)
C-D	-1328 / 0	-78.0	-78.0 0.86 (1)	4.30	J-D	-555 / 0	0.32 (1)
D-E	-1328 / 0	-78.0	-78.0 0.86 (1)	4.30	J-F	0 / 437	0.07 (1)
E-F	-1328 / 0	-78.0	-78.0 0.86 (1)	4.30	I-F	-1026 / 0	0.59 (1)
F-G	-1044 / 0	-78.0	-78.0 0.81 (1)	4.76	I-G	0 / 1594	0.26 (1)
H-G	-1445 / 0	0.0	0.0 0.59 (1)	5.44			
L-K	0 / 0	-18.5	-18.5 0.32 (4)	10.00			
K-J	0 / 1044	-18.5	-18.5 0.42 (4)	10.00			
J-I	0 / 1044	-18.5	-18.5 0.42 (4)	10.00			
I-H	0 / 0	-18.5	-18.5 0.32 (4)	10.00			

JSI GRIP= 0.88 (G) (INPUT = 0.90)
JSI METAL= 0.36 (K) (INPUT = 1.00)

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-3xuNPIGIvZ2xog ?ZhCsc 8icW3SaVOMNeS1ayTswQ

Scale = 1:31.4



TOTAL WEIGHT = $83 \times 18 = 1480 \text{ lb}$

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.

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

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

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

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
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

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.

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LOAD (LC)	MAX. UNBRAC. LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LOAD (LC)
FR-TO		FROM TO	CSI (LC)	FR-TO			
E-B	-393 / 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			

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

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 (0.20")
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 .

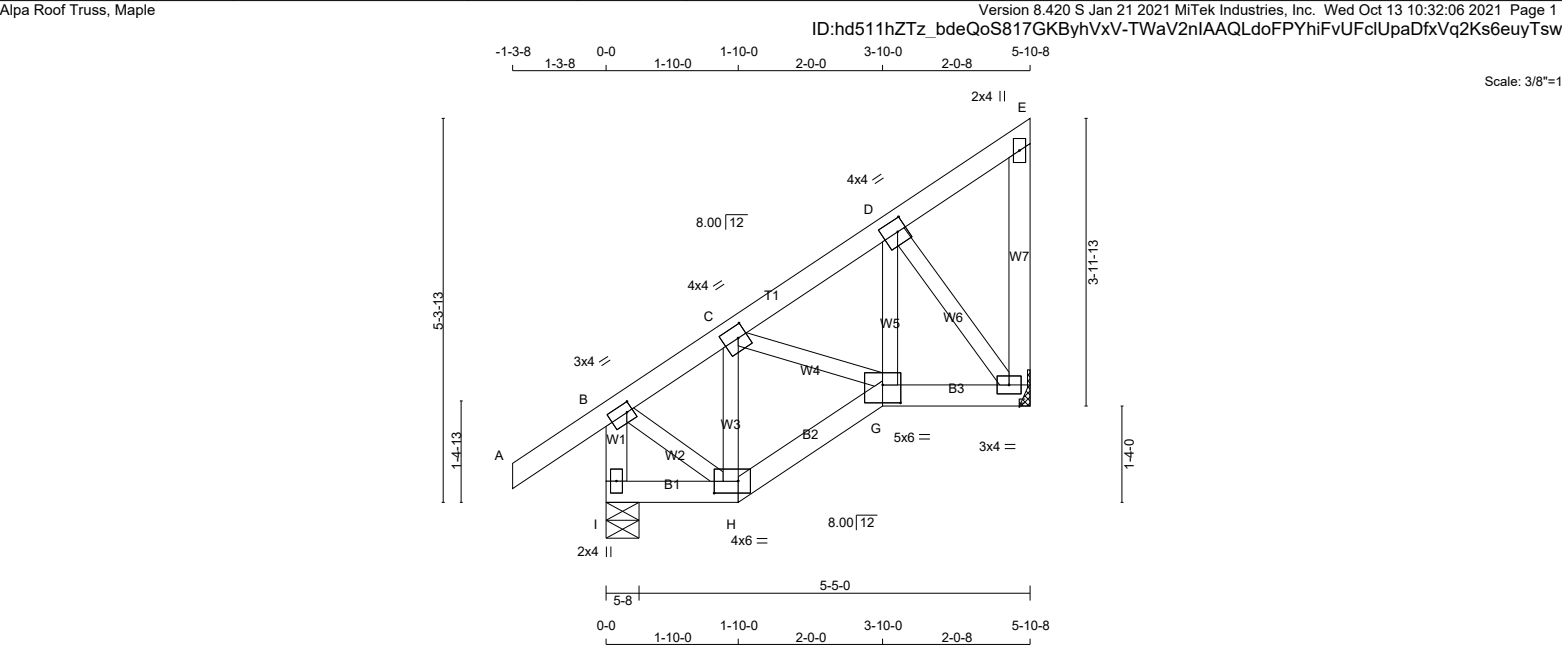
PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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				
	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
JT	285	188 / 0	0 / 0	0 / 0	97 / 0	0 / 0	
F	193	117 / 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)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. UNBRACED LENGTH	WEBS MAX. FACTORED FORCE (LBS)	
	FR-TO	FROM TO	LC1	LC2	FR-TO	FR-TO	FROM TO
I-B	-386 / 0	0.0	0.0	0.04 (1)	7.81	B-H	0 / 161
A-B	0 / 30	-78.0	-78.0	0.10 (1)	10.00	H-C	-134 / 0
B-C	-188 / 0	-78.0	-78.0	0.10 (1)	6.25	C-G	0 / 35
C-D	-192 / 0	-78.0	-78.0	0.05 (1)	6.25	G-D	0 / 114
D-E	-10 / 0	-78.0	-78.0	0.05 (1)	6.25	D-F	-254 / 0
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/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)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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

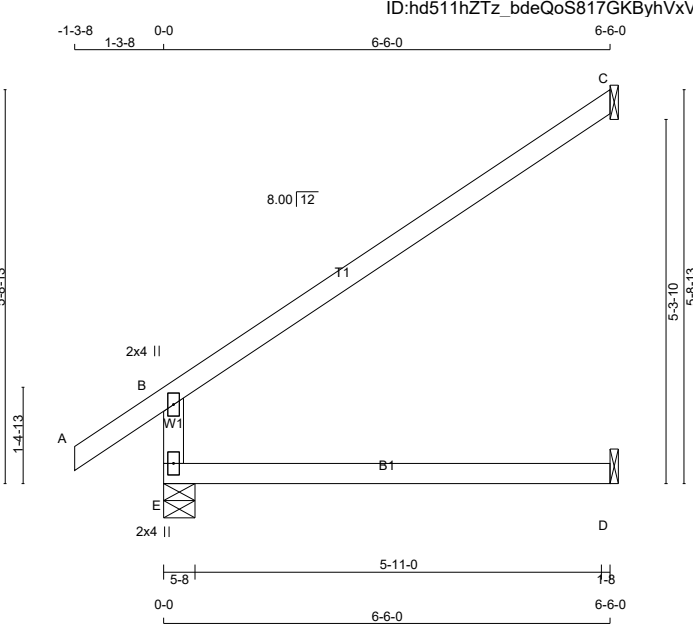


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	J05		1	TRUSS DESC. JT 45147	E21104030

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 17 X 19 = 330 lb

[M][F]

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

DRY: SEASONED LUMBER.

LUMBER
DESCR.
SPF
SPF
SPF

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG UPLIFT	REQRD BRG IN-SX	
	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

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	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

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. 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				

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 (0.22")

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) (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.

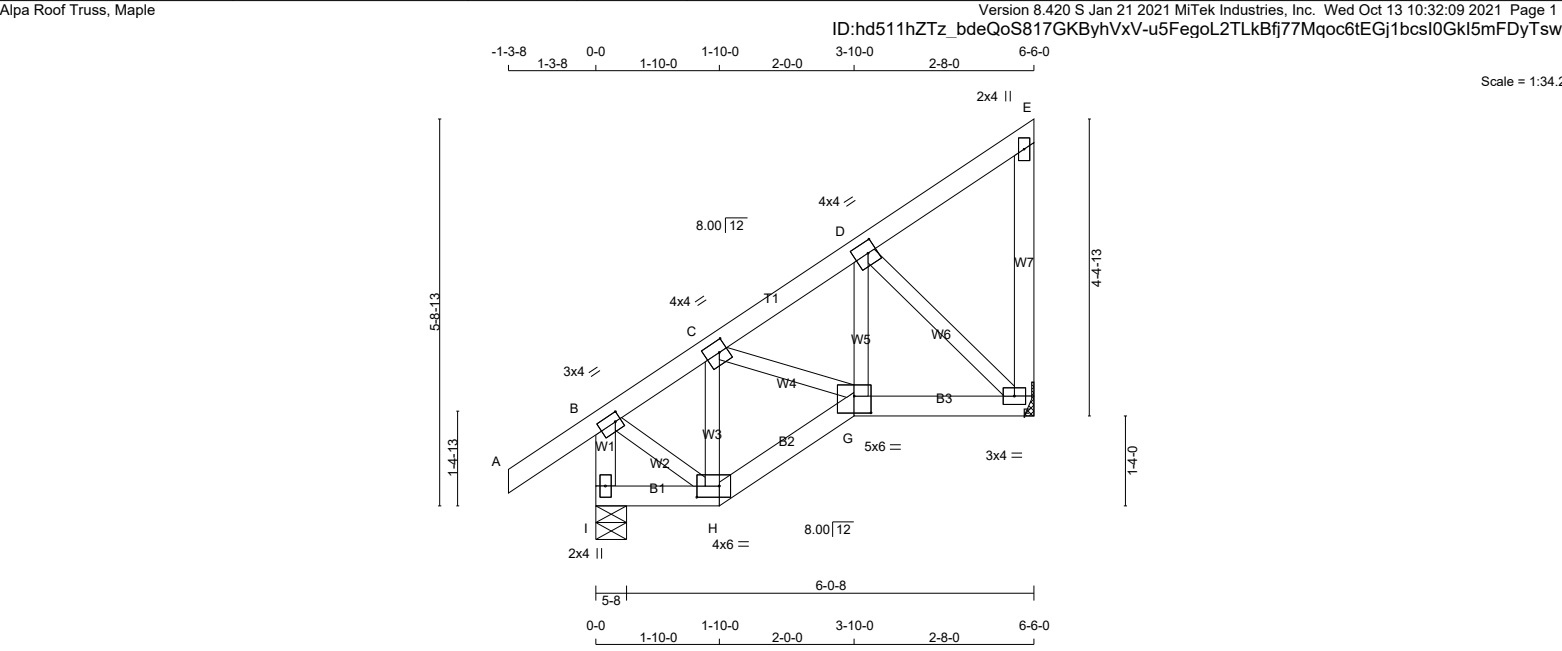
JSI GRIP= 0.26 (B) (INPUT = 0.90)

JSI METAL= 0.22 (B) (INPUT = 1.00)

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	J05T		1	TRUSS DESC. JT 45147	E21104031



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS										DESIGN CRITERIA										[M][F]				
I - B	2x4	DRY	No.2	SPF	FACTORED GROSS REACTION					MAXIMUM FACTORED GROSS REACTION					INPUT BRG					REQRD BRG					SPECIFIED LOADS:				
A - E	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	TOP CH. LL = 21.0 PSF																
F - E	2x4	DRY	No.2	SPF	I	432	0	432	0	0	5-8	1-8	DL = 6.0 PSF																
I - H	2x4	DRY	No.2	SPF	F	302	0	302	0	0	MECHANICAL		BOT CH. LL = 0.0 PSF																
H - G	2x4	DRY	No.2	SPF											DL = 7.4 PSF														
G - F	2x4	DRY	No.2	SPF											TOTAL LOAD = 34.4 PSF														
ALL WEBS 2x3 DRY: SEASONED LUMBER.					A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT F. MINIMUM BEARING LENGTH AT JOINT F = 1-8.										SPACING = 24.0 IN. C/C														

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	

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



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

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

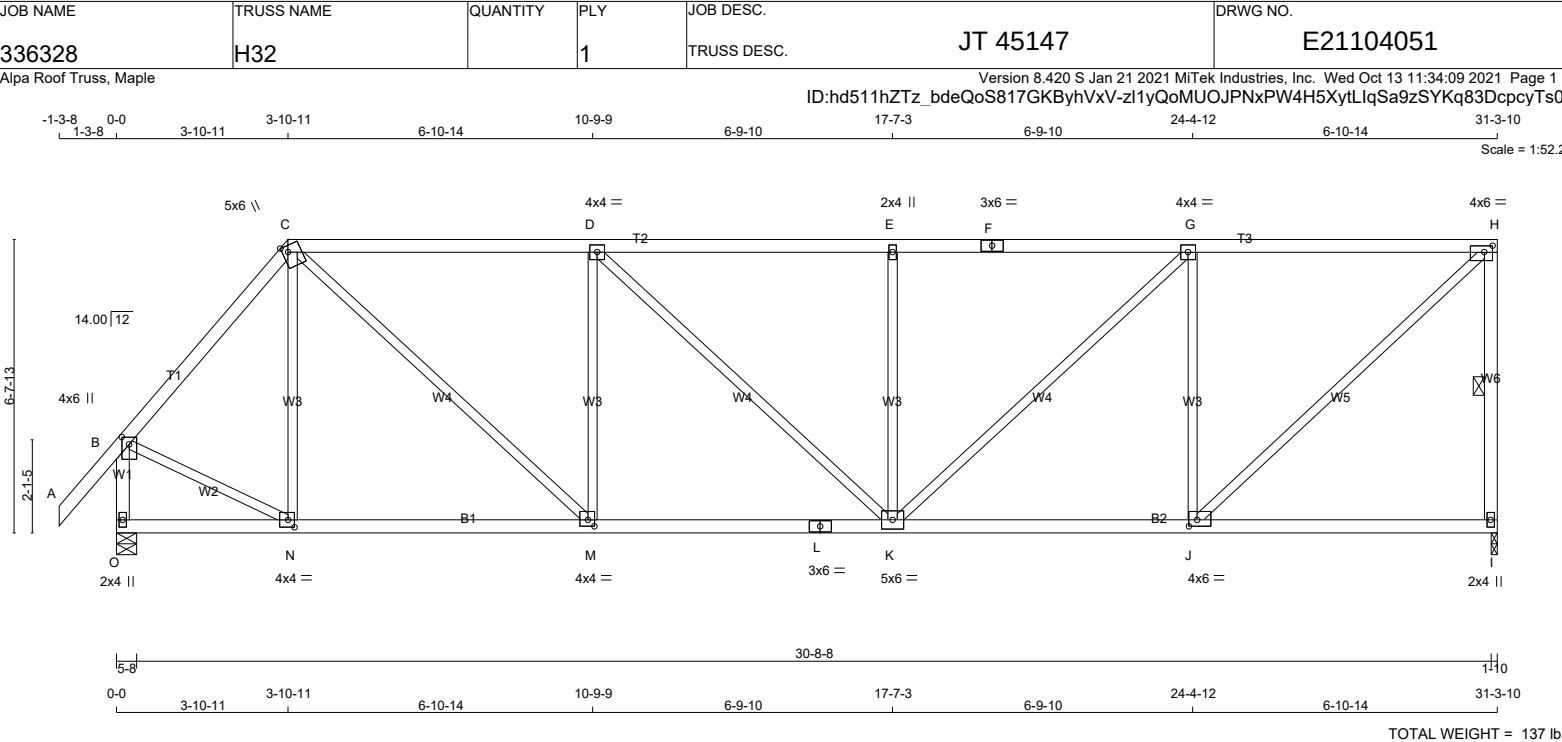
BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO		FR-TO			FR-TO	
I-B	-415 / 0	0.0	0.0	0.04 (1)	7.81	B-H	0 / 185	0.04 (1)	
A-B	0 / 30	-78.0	-78.0	0.10 (1)	10.00	H-C	-160 / 0	0.03 (1)	
B-C	-215 / 0	-78.0	-78.0	0.08 (1)	6.25	C-G	0 / 73	0.02 (1)	
C-D	-253 / 0	-78.0	-78.0	0.05 (1)	6.25	G-D	0 / 118	0.03 (4)	
D-E	-11 / 0	-78.0	-78.0	0.05 (1)	6.25	D-F	-293 / 0	0.06 (1)	
F-E	-80 / 0	0.0	0.0	0.02 (1)	7.81				
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 (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, 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 (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 LBS 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= 0.57 (B) (INPUT = 0.90) JSI METAL= 0.11 (B) (INPUT = 1.00)	



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

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	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	2.25
I	BMV1+p	MT20	2.0	4.0		
J	BMWW-t	MT20	4.0	6.0	1.75	2.25
K	BMWWW-t	MT20	5.0	6.0		
L	BS-t	MT20	3.0	6.0		
M	BMWW-t	MT20	4.0	4.0	1.75	1.75
N	BMWW-t	MT20	4.0	4.0	2.00	1.75
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 BRG IN-SX		REQRD BRG IN-SX	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT			
I	1510	0		1510	0	0	1-10	1-10	
O	1619	0		1619	0	0	5-8	1-12	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
I	1076	657 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0		
O	1152	716 / 0	0 / 0	0 / 0	0 / 0	436 / 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 = 4.07 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		MAX. FACTORED		FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT.	LOAD (PLF)	LC1	MAX	MAX.	MEMB.	FORCE (LBS)	MAX
FR-TO		FROM	TO	CSI (LC)	UNBRAC LENGTH	FR-TO		CSI (LC)	
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	N-C	-247 / 0	0.18 (1)	
B-C	-1280 / 0	-78.0	-78.0	0.25 (1)	5.43	C-M	0 / 1255	0.28 (1)	
C-D	-1750 / 0	-78.0	-78.0	0.70 (1)	4.21	M-D	-718 / 0	0.53 (1)	
D-E	-1876 / 0	-78.0	-78.0	0.71 (1)	4.08	D-K	0 / 172	0.04 (1)	
E-F	-1876 / 0	-78.0	-78.0	0.71 (1)	4.07	K-E	-489 / 0	0.36 (1)	
F-G	-1876 / 0	-78.0	-78.0	0.71 (1)	4.07	K-G	0 / 718	0.16 (1)	
G-H	-1352 / 0	-78.0	-78.0	0.64 (1)	4.71	J-G	-1101 / 0	0.81 (1)	
I-H	-1458 / 0	0.0	0.0	0.30 (1)	5.42	J-H	0 / 1838	0.41 (1)	
O-B	-1597 / 0	0.0	0.0	0.19 (1)	6.54	B-N	0 / 904	0.20 (1)	
O-N	0 / 0	-18.5	-18.5	0.13 (4)	10.00				
N-M	0 / 825	-18.5	-18.5	0.25 (4)	10.00				
M-L	0 / 1751	-18.5	-18.5	0.38 (1)	10.00				
L-K	0 / 1751	-18.5	-18.5	0.38 (1)	10.00				
K-J	0 / 1352	-18.5	-18.5	0.34 (4)	10.00				
J-I	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

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 (E-G:1) , BC=0.38/1.00 (K-M:1) ,
 WB=0.81/1.00 (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
MT20	650 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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ID:hd511bZTz bdeQoS817GKByhVxV-RybKd8N69dXEZZ5Hrp3BQZr1w VzB1GzNizAM2vTsG



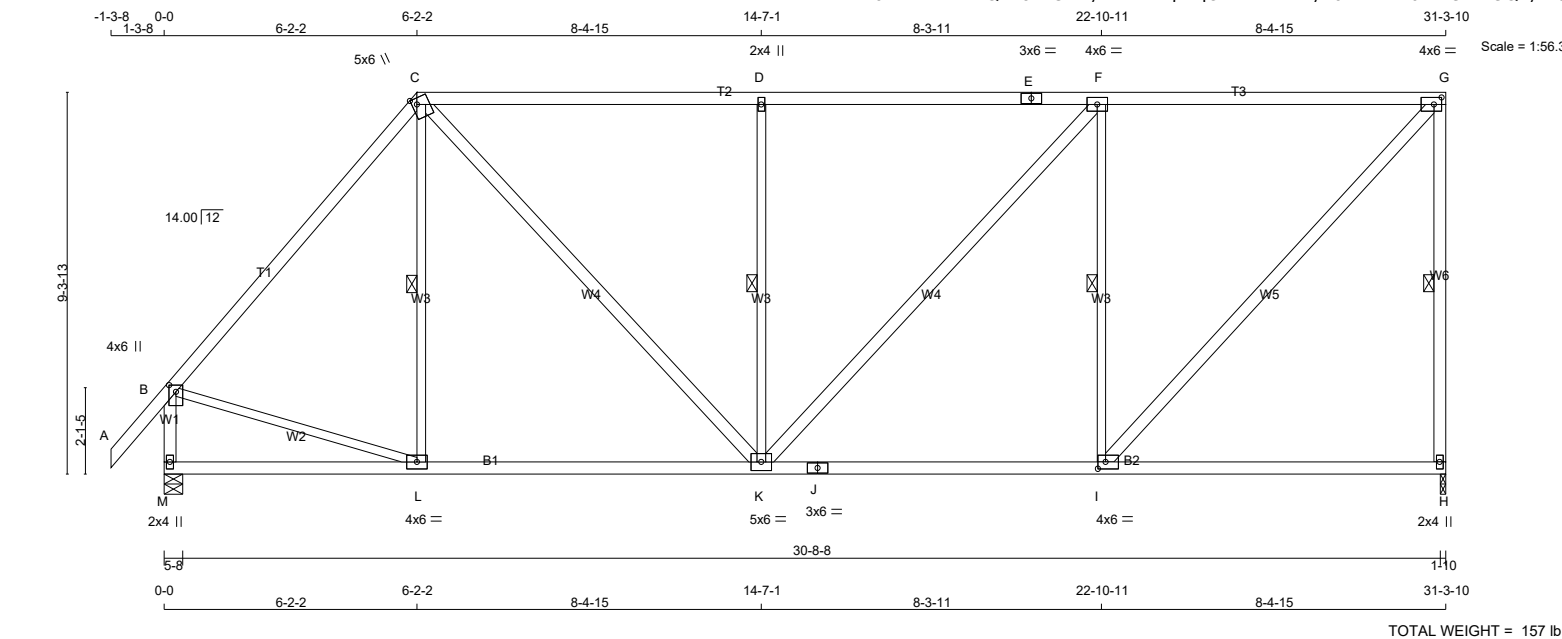
JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.51 (L) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H34		1	TRUSS DESC. JT 45147	E21104053

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 157 lb [M]

L. L. G. A. RULES				BUILDING DESIGNER							DESIGN CRITERIA				
CHORDS SIZE				LUMBER				DESCR.				BEARINGS			
				2100F 1.8E				SPF				FACTORED			
A - C				2x4 DRY				SPF				GROSS REACTION			
C - E				2x4 DRY				SPF				MAXIMUM FACTORED			
E - G				2x4 DRY				SPF				INPUT			
H - G				2x4 DRY				SPF				BRG			
M - B				2x4 DRY				SPF				IN-SX			
M - J				2x4 DRY				SPF				IN-SX			
J - H				2x4 DRY				SPF				1-10			
												1-12			
ALL WEBS				2x3 DRY				SPF				UNFACTORED REACTIONS			
EXCEPT												1ST LCASE			
C - K				2x4 DRY				SPF				MAX./MIN. COMPONENT REACTIONS			
K - F				2x4 DRY				SPF				JT COMBINED			
I - G				2x4 DRY				SPF				H SNOW			
												LIVE			
												PERM.LIVE			
												WIND			
												DEAD			
												SOIL			
												0 / 0			
												436 / 0			
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DRY: SEASONED LUMBER.

PLATES (table is in inches)			UNFACTORED REACTIONS			LOADING		
JT	TYPE	PLATES	W	LEN	Y	X	1ST LCASE	MAX./MIN. COMPONENT REACTIONS
B	TMVW+p	MT20	4.0	6.0	2.00	2.00	COMBINED	SNOW
C	TTWW+m	MT20	5.0	6.0	1.75	1.50	LIVE	PERM.LIVE
D	TMW+w	MT20	2.0	4.0			WIND	DEAD
E	TS-t	MT20	3.0	6.0			SOIL	
F	TMWW-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	BMWW-t	MT20	4.0	6.0	2.00	2.25		
J	BS-t	MT20	3.0	6.0				
K	BMWWW-t	MT20	5.0	6.0				
L	BMWW-t	MT20	4.0	6.0				
M	BMV1+p	MT20	2.0	4.0				

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	FROM	TO
A-B	0 / 42	-78.0 -78.0 0.07 (1)	L-C	-82 / 76	0.05 (1)
B-C	-1304 / 0	-78.0 -78.0 0.42 (1)	C-K	0 / 772	0.12 (1)
C-D	-1373 / 0	-78.0 -78.0 0.96 (1)	K-D	-709 / 0	0.40 (1)
D-E	-1373 / 0	-78.0 -78.0 0.96 (1)	F-G	0 / 398	0.06 (1)
E-F	-1373 / 0	-78.0 -78.0 0.96 (1)	I-F	-1009 / 0	0.58 (1)
F-G	-1103 / 0	-78.0 -78.0 0.91 (1)	I-G	0 / 1619	0.26 (1)
H-G	-1448 / 0	0.0 0.0 0.59 (1)	B-L	0 / 878	0.20 (1)
M-B	-1577 / 0	0.0 0.0 0.19 (1)			
M-L	0 / 0	-18.5 -18.5 0.24 (4)			
L-K	0 / 845	-18.5 -18.5 0.32 (4)			
K-J	0 / 1103	-18.5 -18.5 0.42 (4)			
J-I	0 / 1103	-18.5 -18.5 0.42 (4)			
I-H	0 / 0	-18.5 -18.5 0.32 (4)			

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



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 (0.16")

CSI: TC=0.96/1.00 (C-D:1) , BC=0.42/1.00 (I-K:4) , WB=0.58/1.00 (F-I:1) , SSI=0.31/1.00 (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

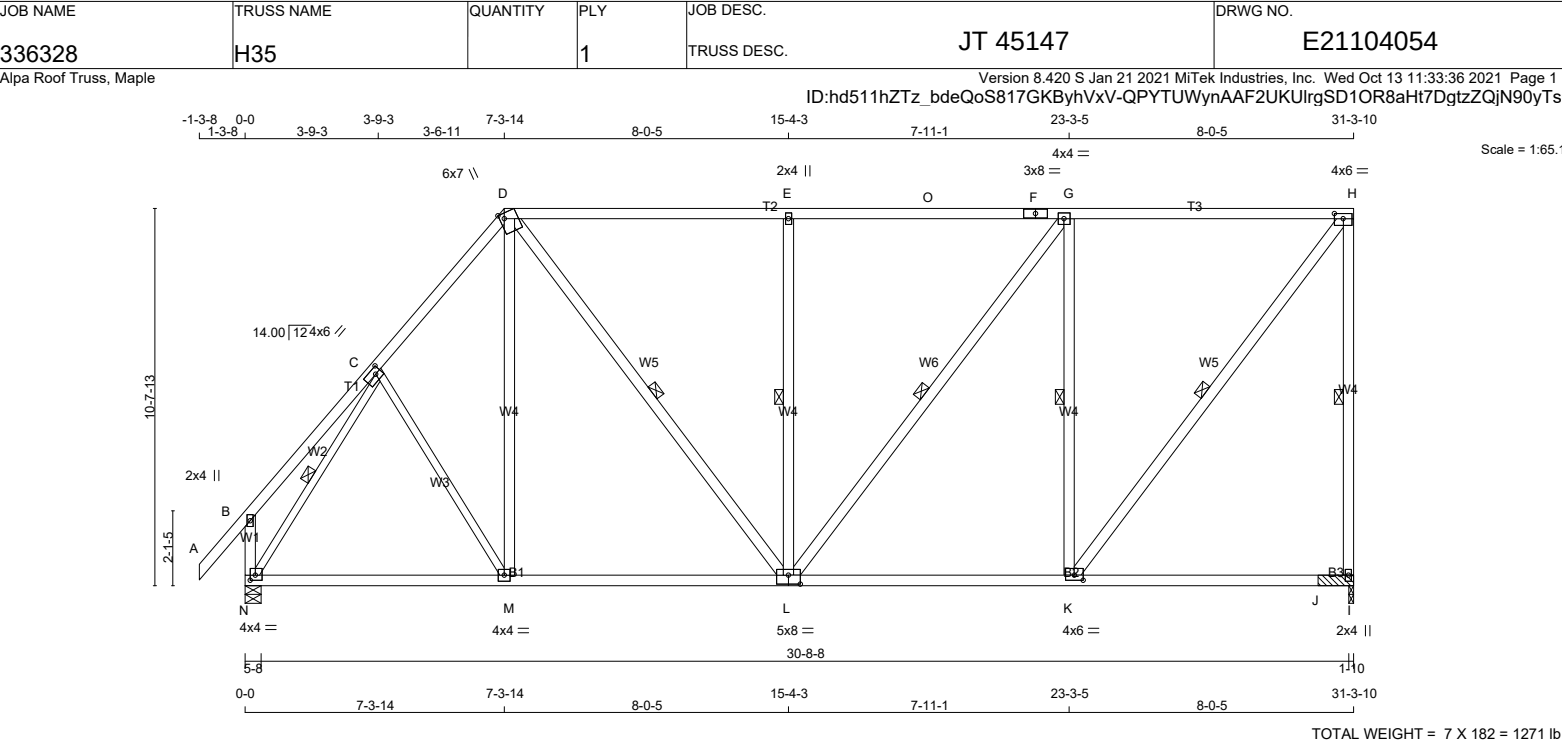
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (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-I	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

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

UNFACTORED REACTIONS

		1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
JT	COMBINED														
I	1165			657 / 0		0 / 0		0 / 0		0 / 0		508 / 0		0 / 0	
N	1207			716 / 0		0 / 0		0 / 0		0 / 0		491 / 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 (LC)	MEMB.		MAX. FACTORED FORCE (LBS)
FR-TO			FROM TO		FR-TO		
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	C-M	0 / 63
B-C	0 / 24	-78.0	-78.0	0.16 (1)	10.00	M-D	0 / 145
C-D	-1385 / 0	-78.0	-78.0	0.20 (1)	5.32	D-L	0 / 631
D-E	-1270 / 0	-85.5	-85.5	0.92 (1)	2.00	L-E	-742 / 0
E-O	-1271 / 0	-85.5	-85.5	0.92 (1)	2.00	L-G	0 / 448
O-F	-1271 / 0	-85.5	-85.5	0.92 (1)	2.00	K-G	-1105 / 0
F-G	-1271 / 0	-85.5	-85.5	0.92 (1)	2.00	K-H	0 / 1630
G-H	-998 / 0	-85.5	-85.5	0.87 (1)	2.00	N-C	-1659 / 0
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		

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, 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)
	MAX	MIN	MAX
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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

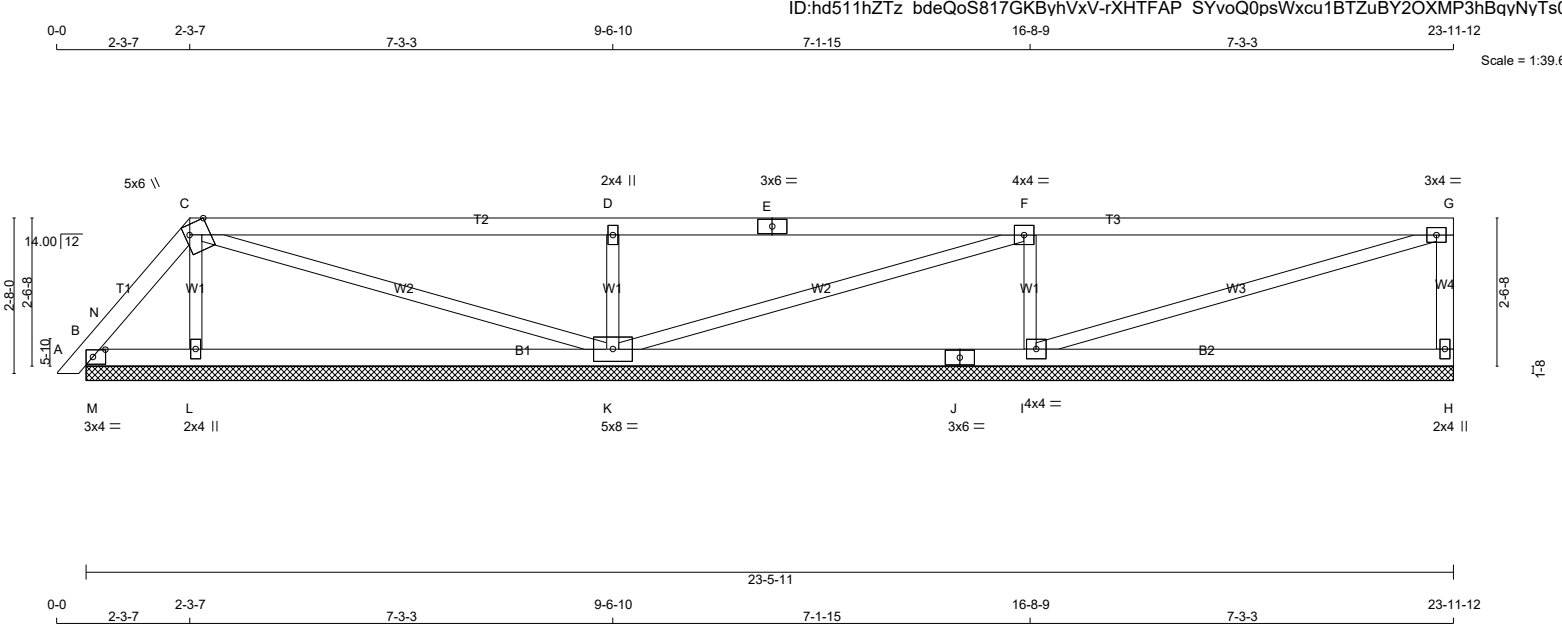


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336328	H36P		1	TRUSS DESC. JT 45147	E21104055

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-rXHTFAP SYvoQ0psWxcu1BTZuBY2OXMP3hBqyNyTs08



TOTAL WEIGHT = 2 X 80 = 160 lb [M]

LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS										DESIGN CRITERIA					[M]					
					FACTORED GROSS REACTION					MAXIMUM FACTORED GROSS REACTION					INPUT BRG REQRD BRG						SPECIFIED LOADS:				
					JT VERT HORZ					DOWN HORZ UPLIFT					IN-SX IN-SX						TOP CH. LL = 21.0 PSF				
A - C 2x4 DRY No.2 SPF					H 283 0 283 0 0 23-5-11 (8-5-11)					B 131 0 131 0 0 23-5-11 (8-5-11)					BOT CH. LL = 0.0 PSF										
C - E 2x4 DRY No.2 SPF					L 353 0 353 0 0 23-5-11 (8-5-11)					K 766 0 766 0 0 23-5-11 (8-5-11)					DL = 6.0 PSF										
E - G 2x4 DRY No.2 SPF					I 761 0 761 0 0 23-5-11 (8-5-11)										DL = 7.4 PSF										
H - G 2x4 DRY No.2 SPF															TOTAL LOAD = 34.4 PSF										
B - J 2x4 DRY No.2 SPF																									
J - H 2x4 DRY No.2 SPF																									
ALL WEBS 2x3 DRY No.2 SPF																									
DRY: SEASONED LUMBER.															SPACING = 24.0 IN. C/C										

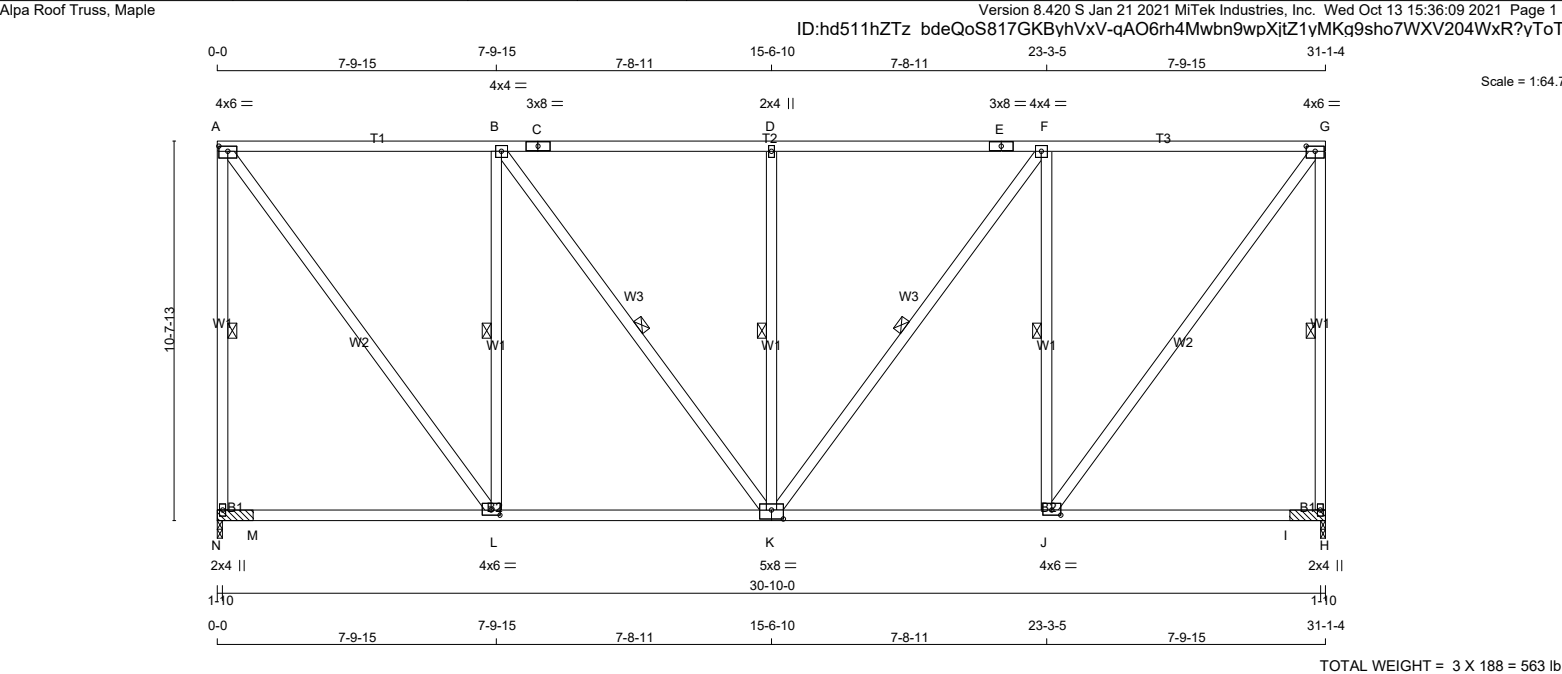
PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	1.50 2.50
C	TTWW+m	MT20	5.0	6.0	Edge 4.00
D	TMW+w	MT20	2.0	4.0	
E	TS-t	MT20	3.0	6.0	
F	TMWW-t	MT20	4.0	4.0	
G	TMVW-t	MT20	3.0	4.0	
H	BMV1+p	MT20	2.0	4.0	
I	BMWW1-t	MT20	4.0	4.0	
J	BS-t	MT20	3.0	6.0	
K	BMWWW1-t	MT20	5.0	8.0	
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

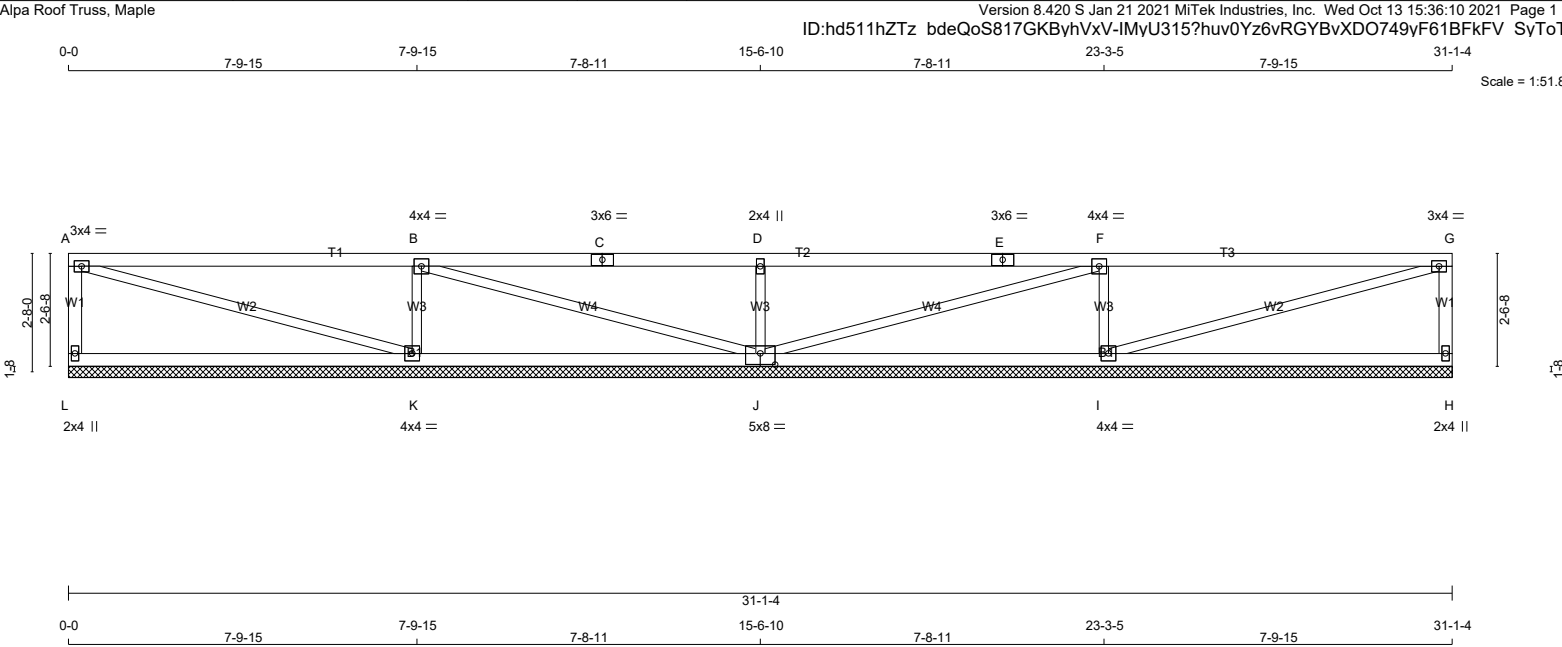


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336336	H25		1	TRUSS DESC. JT 45147	E21104139



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. N - 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 N - K 2x4 DRY No.2 SPF K - 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 GROSS REACTION MAXIMUM FACTORED INPUT REQRD JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX N 1617 0 1617 0 0 1-10 1-10 & BLOCK H 1617 0 1617 0 0 1-10 1-10 & BLOCK UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL N 1163 653 / 0 0 / 0 0 / 0 510 / 0 0 / 0 H 1163 653 / 0 0 / 0 0 / 0 510 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) N, H 2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. N ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL. 2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. H ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL. BRACING FOR SECTION A-G, MAX. PURLIN SPACING = 2.00 FT. FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 0.00 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED. 1 LATERAL BRACE(S) AT 1/ 2 LENGTH OF A-N, G-H, B-L, B-K, D-K, F-K, F-J. 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) <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>MAX LC1 CSI (LC)</th><th>MAX. UNBRACED LENGTH</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX LC1 CSI (LC)</th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td></td><td>FR-TO</td><td></td><td></td></tr><tr><td>N-A</td><td>-1562 / 0</td><td>0.0 0.0</td><td>0.89 (1)</td><td>5.27</td><td>A-L</td><td>0 / 1626</td><td>0.26 (1)</td></tr><tr><td>A-B</td><td>-981 / 0</td><td>-85.5 -85.5</td><td>0.88 (1)</td><td>2.00</td><td>L-B</td><td>-1119 / 0</td><td>0.64 (1)</td></tr><tr><td>B-C</td><td>-1248 / 0</td><td>-85.5 -85.5</td><td>0.92 (1)</td><td>2.00</td><td>B-K</td><td>0 / 447</td><td>0.07 (1)</td></tr><tr><td>C-D</td><td>-1248 / 0</td><td>-85.5 -85.5</td><td>0.92 (1)</td><td>2.00</td><td>K-D</td><td>-609 / 0</td><td>0.35 (1)</td></tr><tr><td>D-E</td><td>-1248 / 0</td><td>-85.5 -85.5</td><td>0.92 (1)</td><td>2.00</td><td>K-F</td><td>0 / 447</td><td>0.07 (1)</td></tr><tr><td>E-F</td><td>-1248 / 0</td><td>-85.5 -85.5</td><td>0.92 (1)</td><td>2.00</td><td>J-F</td><td>-1119 / 0</td><td>0.64 (1)</td></tr><tr><td>F-G</td><td>-981 / 0</td><td>-85.5 -85.5</td><td>0.88 (1)</td><td>2.00</td><td>J-G</td><td>0 / 1626</td><td>0.26 (1)</td></tr><tr><td>H-G</td><td>-1562 / 0</td><td>0.0 0.0</td><td>0.89 (1)</td><td>5.27</td><td></td><td></td><td></td></tr><tr><td>N-M</td><td>0 / 0</td><td>-18.5 -18.5</td><td>0.32 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>M-L</td><td>0 / 0</td><td>-18.5 -18.5</td><td>0.32 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>L-K</td><td>0 / 981</td><td>-18.5 -18.5</td><td>0.43 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>K-J</td><td>0 / 981</td><td>-18.5 -18.5</td><td>0.43 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>J-I</td><td>0 / 0</td><td>-18.5 -18.5</td><td>0.32 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>I-H</td><td>0 / 0</td><td>-18.5 -18.5</td><td>0.32 (4)</td><td>10.00</td><td></td><td></td><td></td></tr></table>										CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 CSI (LC)	FR-TO		FROM TO			FR-TO			N-A	-1562 / 0	0.0 0.0	0.89 (1)	5.27	A-L	0 / 1626	0.26 (1)	A-B	-981 / 0	-85.5 -85.5	0.88 (1)	2.00	L-B	-1119 / 0	0.64 (1)	B-C	-1248 / 0	-85.5 -85.5	0.92 (1)	2.00	B-K	0 / 447	0.07 (1)	C-D	-1248 / 0	-85.5 -85.5	0.92 (1)	2.00	K-D	-609 / 0	0.35 (1)	D-E	-1248 / 0	-85.5 -85.5	0.92 (1)	2.00	K-F	0 / 447	0.07 (1)	E-F	-1248 / 0	-85.5 -85.5	0.92 (1)	2.00	J-F	-1119 / 0	0.64 (1)	F-G	-981 / 0	-85.5 -85.5	0.88 (1)	2.00	J-G	0 / 1626	0.26 (1)	H-G	-1562 / 0	0.0 0.0	0.89 (1)	5.27				N-M	0 / 0	-18.5 -18.5	0.32 (4)	10.00				M-L	0 / 0	-18.5 -18.5	0.32 (4)	10.00				L-K	0 / 981	-18.5 -18.5	0.43 (4)	10.00				K-J	0 / 981	-18.5 -18.5	0.43 (4)	10.00				J-I	0 / 0	-18.5 -18.5	0.32 (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 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 (0.06") ALLOWABLE DEFL.(TL)= L/360 (1.04") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.18") CSI= TC=0.92/1.00 (B-D:1) , BC=0.43/1.00 (J-K:4) , WB=0.64/1.00 (B-L:1) , SSI=0.32/1.00 (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= 0.86 (L) (INPUT = 0.90) JSI METAL= 0.34 (A) (INPUT = 1.00)									
CHORDS				WEBS																																																																																																																																																																	
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 CSI (LC)																																																																																																																																																														
FR-TO		FROM TO			FR-TO																																																																																																																																																																
N-A	-1562 / 0	0.0 0.0	0.89 (1)	5.27	A-L	0 / 1626	0.26 (1)																																																																																																																																																														
A-B	-981 / 0	-85.5 -85.5	0.88 (1)	2.00	L-B	-1119 / 0	0.64 (1)																																																																																																																																																														
B-C	-1248 / 0	-85.5 -85.5	0.92 (1)	2.00	B-K	0 / 447	0.07 (1)																																																																																																																																																														
C-D	-1248 / 0	-85.5 -85.5	0.92 (1)	2.00	K-D	-609 / 0	0.35 (1)																																																																																																																																																														
D-E	-1248 / 0	-85.5 -85.5	0.92 (1)	2.00	K-F	0 / 447	0.07 (1)																																																																																																																																																														
E-F	-1248 / 0	-85.5 -85.5	0.92 (1)	2.00	J-F	-1119 / 0	0.64 (1)																																																																																																																																																														
F-G	-981 / 0	-85.5 -85.5	0.88 (1)	2.00	J-G	0 / 1626	0.26 (1)																																																																																																																																																														
H-G	-1562 / 0	0.0 0.0	0.89 (1)	5.27																																																																																																																																																																	
N-M	0 / 0	-18.5 -18.5	0.32 (4)	10.00																																																																																																																																																																	
M-L	0 / 0	-18.5 -18.5	0.32 (4)	10.00																																																																																																																																																																	
L-K	0 / 981	-18.5 -18.5	0.43 (4)	10.00																																																																																																																																																																	
K-J	0 / 981	-18.5 -18.5	0.43 (4)	10.00																																																																																																																																																																	
J-I	0 / 0	-18.5 -18.5	0.32 (4)	10.00																																																																																																																																																																	
I-H	0 / 0	-18.5 -18.5	0.32 (4)	10.00																																																																																																																																																																	
PLATES (table is in inches) JT TYPE PLATES W LEN Y X A TMVW-t MT20 4.0 6.0 1.75 3.00 B TMWW-t MT20 4.0 4.0 C TS-t MT20 3.0 8.0 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 1.75 3.00 H BMV1+p MT20 2.0 4.0 J BMWW-t MT20 4.0 6.0 1.75 3.00 K BSWWW-l MT20 5.0 8.0 3.00 4.00 L BMWW-t MT20 4.0 6.0 1.75 3.00 N 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.
336336	H26P		1	TRUSS DESC. JT 45147	E21104140



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 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th rowspan="2">JT</th><th colspan="2">FACTORED GROSS REACTION</th><th colspan="2">MAXIMUM FACTORED GROSS REACTION</th><th rowspan="2">INPUT BRG</th><th colspan="2">REQRD BRG</th></tr><tr><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>IN-SX</th><th>IN-SX</th></tr><tr><td>L</td><td>296</td><td>0</td><td>296</td><td>0</td><td>0</td><td>31-1-4</td><td>(15-6-10)</td></tr><tr><td>H</td><td>296</td><td>0</td><td>296</td><td>0</td><td>0</td><td>31-1-4</td><td>(15-6-10)</td></tr><tr><td>K</td><td>864</td><td>0</td><td>864</td><td>0</td><td>0</td><td>31-1-4</td><td>(15-6-10)</td></tr><tr><td>J</td><td>681</td><td>0</td><td>681</td><td>0</td><td>0</td><td>31-1-4</td><td>(15-6-10)</td></tr><tr><td>I</td><td>864</td><td>0</td><td>864</td><td>0</td><td>0</td><td>31-1-4</td><td>(15-6-10)</td></tr></table> <u>VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH</u>						JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG		VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	L	296	0	296	0	0	31-1-4	(15-6-10)	H	296	0	296	0	0	31-1-4	(15-6-10)	K	864	0	864	0	0	31-1-4	(15-6-10)	J	681	0	681	0	0	31-1-4	(15-6-10)	I	864	0	864	0	0	31-1-4	(15-6-10)	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	
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG																																																											
	VERT	HORZ	DOWN	HORZ		IN-SX	IN-SX																																																										
L	296	0	296	0	0	31-1-4	(15-6-10)																																																										
H	296	0	296	0	0	31-1-4	(15-6-10)																																																										
K	864	0	864	0	0	31-1-4	(15-6-10)																																																										
J	681	0	681	0	0	31-1-4	(15-6-10)																																																										
I	864	0	864	0	0	31-1-4	(15-6-10)																																																										

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0		
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-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		
I	BMWW1-t	MT20	4.0	4.0		
J	BSWWW1-I	MT20	5.0	8.0	3.00	4.00
K	BMWW1-t	MT20	4.0	4.0		
L	BMV1+p	MT20	2.0	4.0		

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

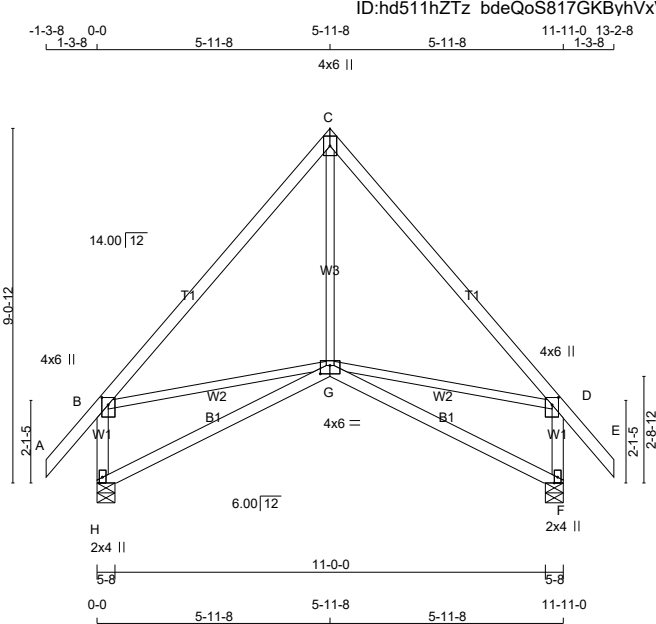


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H200		1	TRUSS DESC. JT 45147	E21104174

Alpa Roof Truss, Maple

ID:hd511hZTz bdeQoS817GKByhVxV-2GzrSt3n0hrsWi7vosln5GeGTxRPmpgHUIYMGeYtZH8

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Scale = 1:58.9

TOTAL WEIGHT = 60 lb

[M][F]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
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 - 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	4.0	6.0		
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	684	0	684	0	5-8	1-8	
F	684	0	684	0	5-8	1-8	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
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.

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 42	-78.0	-78.0 0.09 (1)	G-C	0 / 208	0.06 (4)	
B-C	-443 / 0	-78.0	-78.0 0.30 (1)	B-G	0 / 292	0.07 (1)	
C-D	-443 / 0	-78.0	-78.0 0.30 (1)	G-D	0 / 292	0.07 (1)	
D-E	0 / 42	-78.0	-78.0 0.09 (1)				
H-B	-629 / 0	0.0	0.0 0.08 (1)				
F-D	-629 / 0	0.0	0.0 0.08 (1)				
H-G	0 / 0	-18.5	-18.5 0.19 (4)				
G-F	0 / 0	-18.5	-18.5 0.19 (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

(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 (0.07")

CSI: TC=0.30/1.00 (C-D:1) , BC=0.19/1.00 (G-H:4) ,
WB=0.07/1.00 (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= 0.48 (G) (INPUT = 0.90)
JSI METAL= 0.26 (H) (INPUT = 1.00)

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



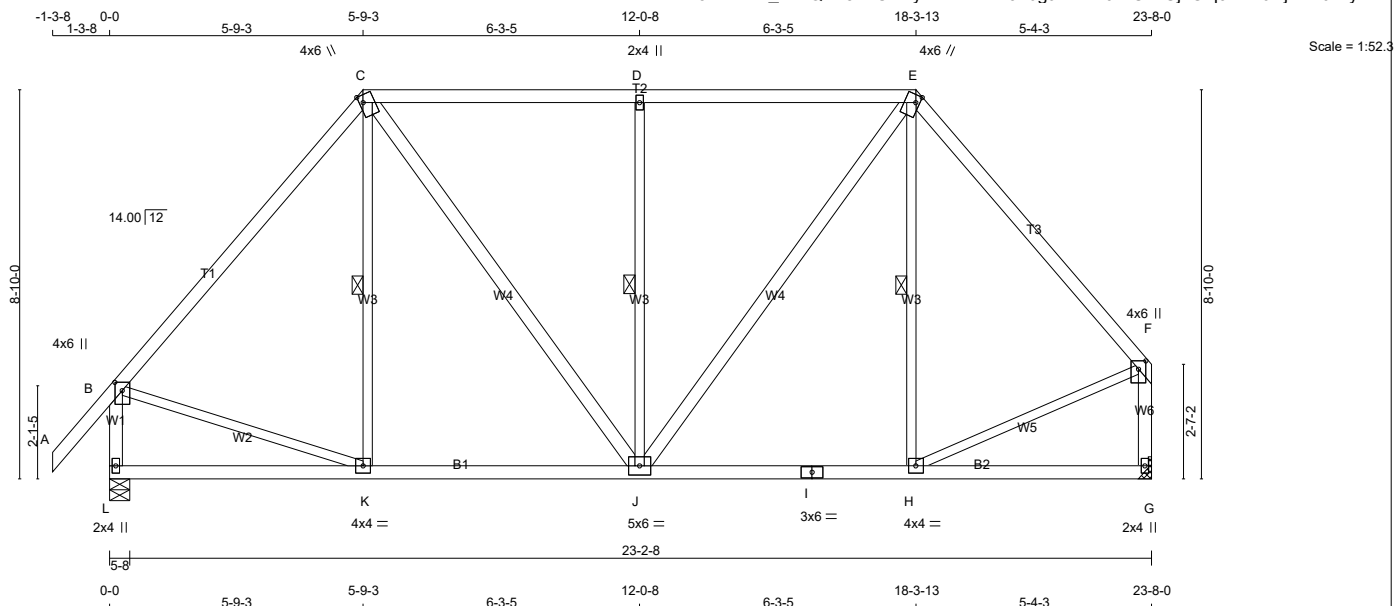
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JSI GRIP= 0.80 (B) (INPUT = 0.90)
JSI METAL= 0.53 (B) (INPUT = 1.00)

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKBvhVxV-Srez5u6gJcDRN9rTU?sUjvGig9SYz6HIAFn0szyTZH5



TOTAL WEIGHT = 2 X 121 = 242 lb

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

DRY: SEASONED LUMBER.

J	T	TYPE	PLATES	W	LEN	Y	X
B	T	TMVw+p	MT20	4.0	6.0	2.25	2.00
C	D	TTVw+m	MT20	4.0	6.0	2.00	1.00
B	C	TMVw	MT20	2.0	4.0		
E	F	TTVw+m	MT20	4.0	6.0	2.00	1.00
F	G	TMVw+p	MT20	4.0	6.0	2.25	2.00
G	H	BMV1+p	MT20	2.0	4.0		
H	I	BMVwv-t	MT20	4.0	4.0		
I	J	BS-t	MT20	3.0	6.0		
J	K	BMVwv-t	MT20	5.0	6.0		
K	L	BMVw-t	MT20	4.0	4.0		
L		BMV1+p	MT20	2.0	4.0		

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
L	1297	0	1297	0	0	5-8	1-8
G	1189	0	1189	0	0	MECHANICAL	

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

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	927	556 / 0	0 / 0	0 / 0	0 / 0	371 / 0	0 / 0
G	852	497 / 0	0 / 0	0 / 0	0 / 0	355 / 0	0 / 0

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

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.60 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 C-K, D-J, E-H.

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

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 42	-78.0	-78.0 0.11 (1)	10.00	K-C	-60 / 60	0.03 (1)
B-C	-965 / 0	-78.0	-78.0 0.55 (1)	5.60	C-J	0 / 449	0.07 (1)
C-D	-892 / 0	-85.5	-85.5 0.61 (1)	2.00	J-D	-657 / 0	0.33 (1)
D-E	-892 / 0	-85.5	-85.5 0.61 (1)	2.00	J-E	0 / 502	0.08 (1)
E-F	-918 / 0	-78.0	-78.0 0.46 (1)	5.84	H-E	-122 / 30	0.06 (1)
L-B	-1254 / 0	0.0	0.0 0.15 (1)	7.18	B-K	0 / 653	0.15 (1)
G-F	-1151 / 0	0.0	0.0 0.16 (1)	7.42	H-F	0 / 643	0.14 (1)
L-K	0 / 0	-18.5	-18.5 0.16 (4)	10.00			
K-J	0 / 625	-18.5	-18.5 0.23 (4)	10.00			
J-I	0 / 594	-18.5	-18.5 0.21 (4)	10.00			
I-H	0 / 594	-18.5	-18.5 0.21 (4)	10.00			
H-G	0 / 0	-18.5	-18.5 0.15 (4)	10.00			

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
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 (0.79")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.61/1.00 (D-E:1), BC=0.23/1.00 (J-K:4),
WB=0.33/1.00 (D-J:1), SSI=0.26/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (K) (INPUT = 0.90)
JSI METAL= 0.41 (B) (INPUT = 1.00)

Technical drawing of a bridge structure, showing a plan view and a cross-section.

Plan View (Top):

- Overall length: 12-6-11 (126' 11").
- Dimensions: 2-1-11, 2-1-11, 2-0-0, 4-3-5, 2-0-0, 6-3-5, 2-0-0, 8-3-5, 2-0-0, 10-3-5, 10-4-15, 2-1-11.
- Labels: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- Material specifications: 3x5, 2x4, 2x6, 2x8, 2x10, 2x12, 2x14, 2x16, 2x18, 2x20, 2x22, 2x24, 2x26, 2x28, 2x30, 2x32, 2x34, 2x36, 2x38, 2x40, 2x42, 2x44, 2x46, 2x48, 2x50, 2x52, 2x54, 2x56, 2x58, 2x60, 2x62, 2x64, 2x66, 2x68, 2x70, 2x72, 2x74, 2x76, 2x78, 2x80, 2x82, 2x84, 2x86, 2x88, 2x90, 2x92, 2x94, 2x96, 2x98, 2x100.

Cross-Section (Bottom):

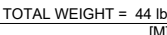
- Overall width: 12-6-11 (126' 11").
- Dimensions: 6-2, 11-6-7, 6-2.
- Labels: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.
- Material specifications: 3x4, 2x4, 2x6, 2x8, 2x10, 2x12, 2x14, 2x16, 2x18, 2x20, 2x22, 2x24, 2x26, 2x28, 2x30, 2x32, 2x34, 2x36, 2x38, 2x40, 2x42, 2x44, 2x46, 2x48, 2x50, 2x52, 2x54, 2x56, 2x58, 2x60, 2x62, 2x64, 2x66, 2x68, 2x70, 2x72, 2x74, 2x76, 2x78, 2x80, 2x82, 2x84, 2x86, 2x88, 2x90, 2x92, 2x94, 2x96, 2x98, 2x100.

Scale: 1" = 10'-0"



Alpa Roof Truss, Maple

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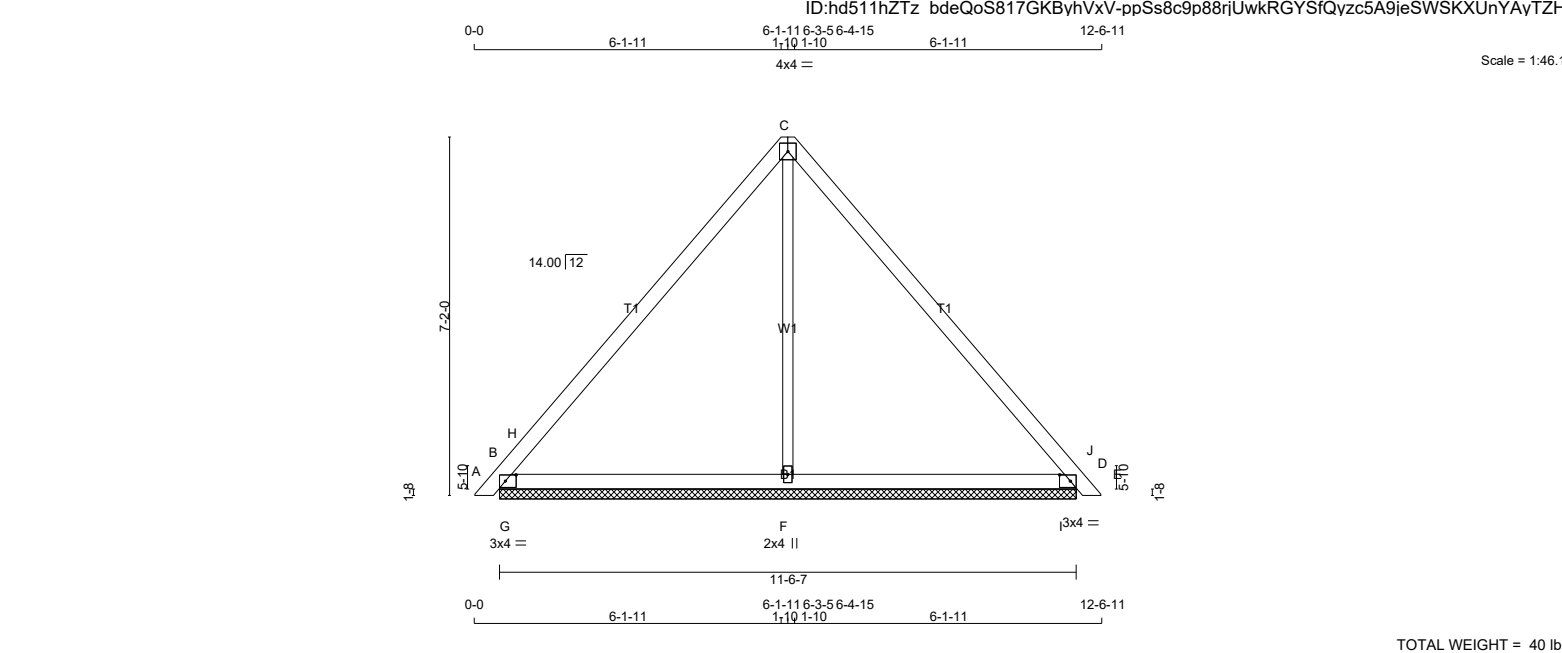


JSI GRIP= 0.40 (B) (INPUT = 0.90)
JSI METAL= 0.09 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H209P		1	TRUSS DESC. JT 45147	E21104179

Alpa Roof Truss, Maple

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LUMBER N. L. G. A. RULES CHORDS SIZE						
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LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

Y. WIDYA
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10/14/2021
PROVINCE OF ONTARIO

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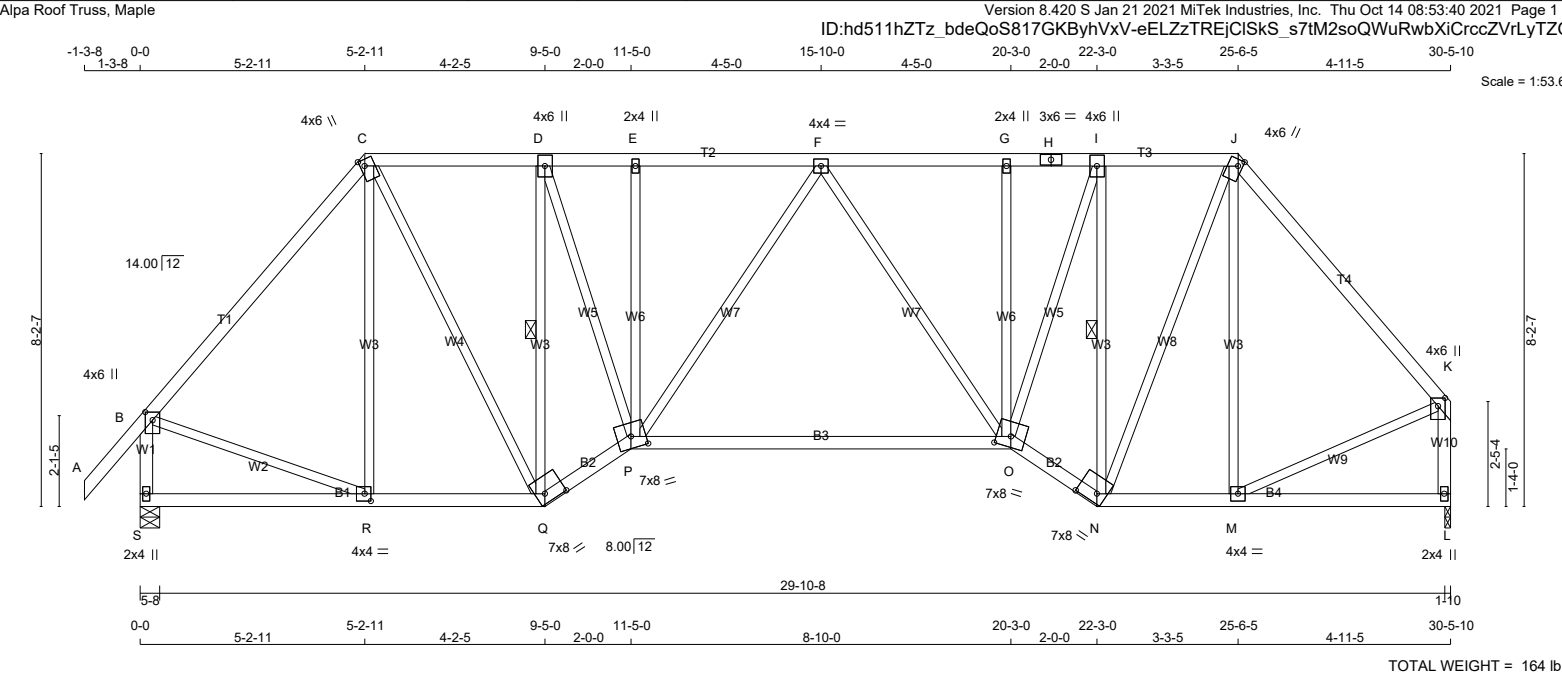
DRY: SEASONED LUMBER.

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



CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H262T		1	TRUSS DESC. JT 45147	E21104195



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	REQD	TOP CH.	LL	PSF	
A - C	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG	DL	6.0	PSF	
A - H	2x4	DRY	No.2	VERT	HORZ	DOWN	HORZ	BOT CH.	LL	0.0	PSF
H - J	2x4	DRY	No.2	SPF	SPF	UPLIFT	IN-SX	DL	7.4	PSF	
J - K	2x4	DRY	No.2	SPF	SPF	IN-SX	IN-SX	TOTAL LOAD	=	34.4	PSF
S - B	2x4	DRY	No.2	SPF	SPF	1-11	1-9	SPACING = 24.0 IN. C/C			
L - K	2x4	DRY	No.2	SPF	SPF	1-10	1-9	LOADING IN FLAT SECTION BASED ON A SLOPE			
S - Q	2x4	DRY	No.2	SPF	SPF			OF 2.00/12 MINIMUM			
Q - P	2x4	DRY	No.2	SPF	SPF			THIS TRUSS IS DESIGNED FOR RESIDENTIAL			
P - O	2x4	DRY	No.2	SPF	SPF			OR SMALL BUILDING REQUIREMENTS OF PART			
O - N	2x4	DRY	No.2	SPF	SPF			9, NBCC 2015			
N - L	2x4	DRY	No.2	SPF	SPF			THIS DESIGN COMPLIES WITH:			
ALL WEBS	2x3	DRY	No.2	SPF	SPF			- PART 9 OF BCBC 2018 , ABC 2019			
EXCEPT								- PART 9 OF OBC 2012 (2019 AMENDMENT)			
DRY: SEASONED LUMBER.				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) S, L				- CSA 086-14			
				BRACING				- TPIC 2014			
				TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.95 FT.				(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F.			
				MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.				RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED			
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.				ROOF LIVE LOAD			
				1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-Q, I-N.				ALLOWABLE DEFL.(LL)= L/360 (1.02")			
				END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN				CALCULATED VERT. DEFL.(LL)= L/ 999 (0.09")			
				THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW				ALLOWABLE DEFL.(TL)= L/360 (1.02")			
				LOADING				CALCULATED VERT. DEFL.(TL)= L/ 815 (0.45")			
				TOTAL LOAD CASES: (4)				CSI: TC=0.48/1.00 (B-C:1) , BC=0.58/1.00 (O-P:4) ,			
								WB=0.65/1.00 (D-Q:1) , SSI=0.15/1.00 (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= 0.89 (P) (INPUT = 0.90)			
								JSI METAL= 0.50 (B) (INPUT = 1.00)			

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	4.0	6.0	1.75 1.25
D	TMWW+t	MT20	4.0	6.0	
E	TMW+w	MT20	2.0	4.0	
F	TMWW-t	MT20	4.0	4.0	
G	TMW+w	MT20	2.0	4.0	
H	TS-t	MT20	3.0	6.0	
I	TMWW+t	MT20	4.0	6.0	
J	TTWW+m	MT20	4.0	6.0	1.75 1.25
K	TMVW+p	MT20	4.0	6.0	2.25 2.00
L	BMV1+p	MT20	2.0	4.0	
M	BMWW-t	MT20	4.0	4.0	
N	BBWW-h	MT20	7.0	8.0	2.50 5.50
O	BBWWW-m	MT20	7.0	8.0	3.00 4.00
P	BBWWW-m	MT20	7.0	8.0	3.25 4.00
Q	BBWW-h	MT20	7.0	8.0	2.50 5.50
R	BMWW-t	MT20	4.0	4.0	2.00 1.75
S	BMV1+p	MT20	2.0	4.0	

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

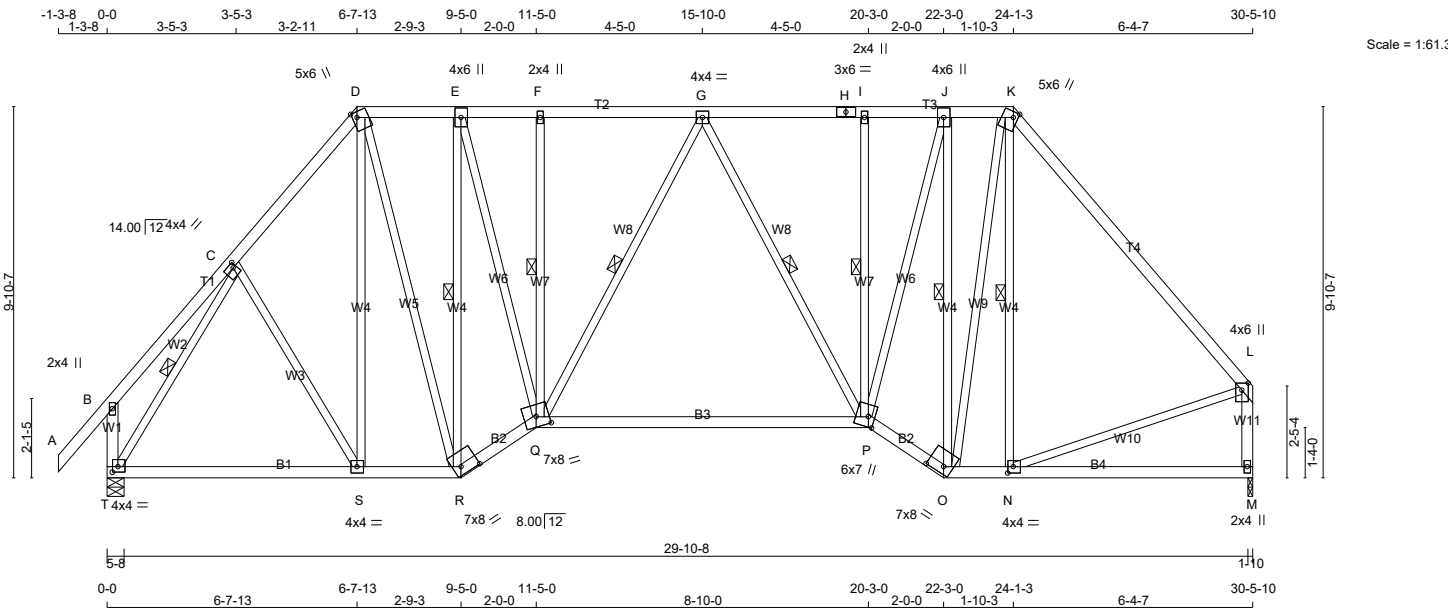


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H263T		1	TRUSS DESC. JT 45147	E21104196

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 188 = 376 lb

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 - K	2x4	DRY No.2	SPF
K - L	2x4	DRY 2100F 1.8E	SPF
T - B	2x4	DRY No.2	SPF
M - L	2x4	DRY No.2	SPF
T - R	2x4	DRY No.2	SPF
R - Q	2x4	DRY No.2	SPF
Q - P	2x4	DRY No.2	SPF
P - O	2x4	DRY No.2	SPF
O - M	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMWW-t	MT20	4.0	4.0	1.50 1.00
D	TTWW+m	MT20	5.0	6.0	1.75 1.50
E	TMWW+t	MT20	4.0	6.0	
F	TMW+w	MT20	2.0	4.0	
G	TMWW-t	MT20	4.0	4.0	
H	TS-t	MT20	3.0	6.0	
I	TMW+w	MT20	2.0	4.0	
J	TMWW+t	MT20	4.0	6.0	
K	TTWW+m	MT20	5.0	6.0	1.75 1.50
L	TMVW+p	MT20	4.0	6.0	2.25 2.00
M	BMV1+p	MT20	2.0	4.0	
N	BMWW-t	MT20	4.0	4.0	2.00 1.75
O	BBWW-h	MT20	7.0	8.0	2.25 5.25
P	BBWWW+m	MT20	6.0	7.0	3.25 2.00
Q	BBWWW-m	MT20	7.0	8.0	3.25 4.00
R	BBWW-h	MT20	7.0	8.0	2.50 5.50
S	BMWW-t	MT20	4.0	4.0	
T	BMVW1-t	MT20	4.0	4.0	1.75 1.75

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	IN-SX	IN-SX	IN-SX	IN-SX
M	1470	0	1470	0	0	1-10	1-9		
T	1579	0	1579	0	0	5-8	1-11		

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	COMBINED	SNOW	LIVE	PERM.LIVE
M	1048	640 / 0	0 / 0	0 / 0	0 / 0	408 / 0	0 / 0				
T	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) M, T

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.42 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-R, F-Q, G-Q, G-P, I-P, J-O, K-N, C-T.

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	C-S	0 / 61	0.02 (4)
B-C	0 / 22	-78.0 -78.0	0.13 (1)	10.00	S-D	0 / 93	0.03 (4)
C-D	-1271 / 0	-78.0 -78.0	0.16 (1)	5.55	D-R	0 / 694	0.16 (1)
D-E	-1003 / 0	-78.0 -78.0	0.09 (1)	6.14	R-E	-1308 / 0	0.86 (1)
E-F	-1280 / 0	-78.0 -78.0	0.09 (1)	5.61	E-Q	0 / 1174	0.26 (1)
F-G	-1283 / 0	-78.0 -78.0	0.23 (1)	5.42	Q-F	-246 / 0	0.11 (1)
G-H	-1222 / 0	-78.0 -78.0	0.23 (1)	5.52	Q-G	-150 / 0	0.09 (1)
H-I	-1222 / 0	-78.0 -78.0	0.23 (1)	5.52	G-P	-279 / 0	0.17 (1)
I-J	-1219 / 0	-78.0 -78.0	0.10 (1)	5.70	P-I	-276 / 0	0.13 (1)
J-K	-920 / 0	-78.0 -78.0	0.07 (1)	6.25	P-J	0 / 1265	0.28 (1)
K-L	-1214 / 0	-78.0 -78.0	0.45 (1)	6.25	O-J	-1300 / 0	0.85 (1)
T-B	-208 / 0	0.0 0.0	0.02 (1)	7.81	O-K	0 / 700	0.16 (1)
M-L	-1423 / 0	0.0 0.0	0.19 (1)	6.84	N-K	-118 / 47	0.08 (1)
					T-C	-1531 / 0	0.44 (1)
					N-L	0 / 827	0.19 (1)
T-S	0 / 777	-18.5 -18.5	0.26 (4)	10.00			
S-R	0 / 810	-18.5 -18.5	0.26 (4)	10.00			
R-Q	0 / 1189	-18.5 -18.5	0.20 (1)	10.00			
Q-P	0 / 1354	-18.5 -18.5	0.55 (4)	10.00			
P-O	0 / 1088	-18.5 -18.5	0.19 (1)	10.00			
O-N	0 / 786	-18.5 -18.5	0.26 (4)	10.00			
N-M	0 / 0	-18.5 -18.5	0.18 (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

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/ 853 (0.43")

CSI: TC=0.45/1.00 (K-L:1) , BC=0.55/1.00 (P-Q:4) , WB=0.86/1.00 (E-R:1) , SSI=0.15/1.00 (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

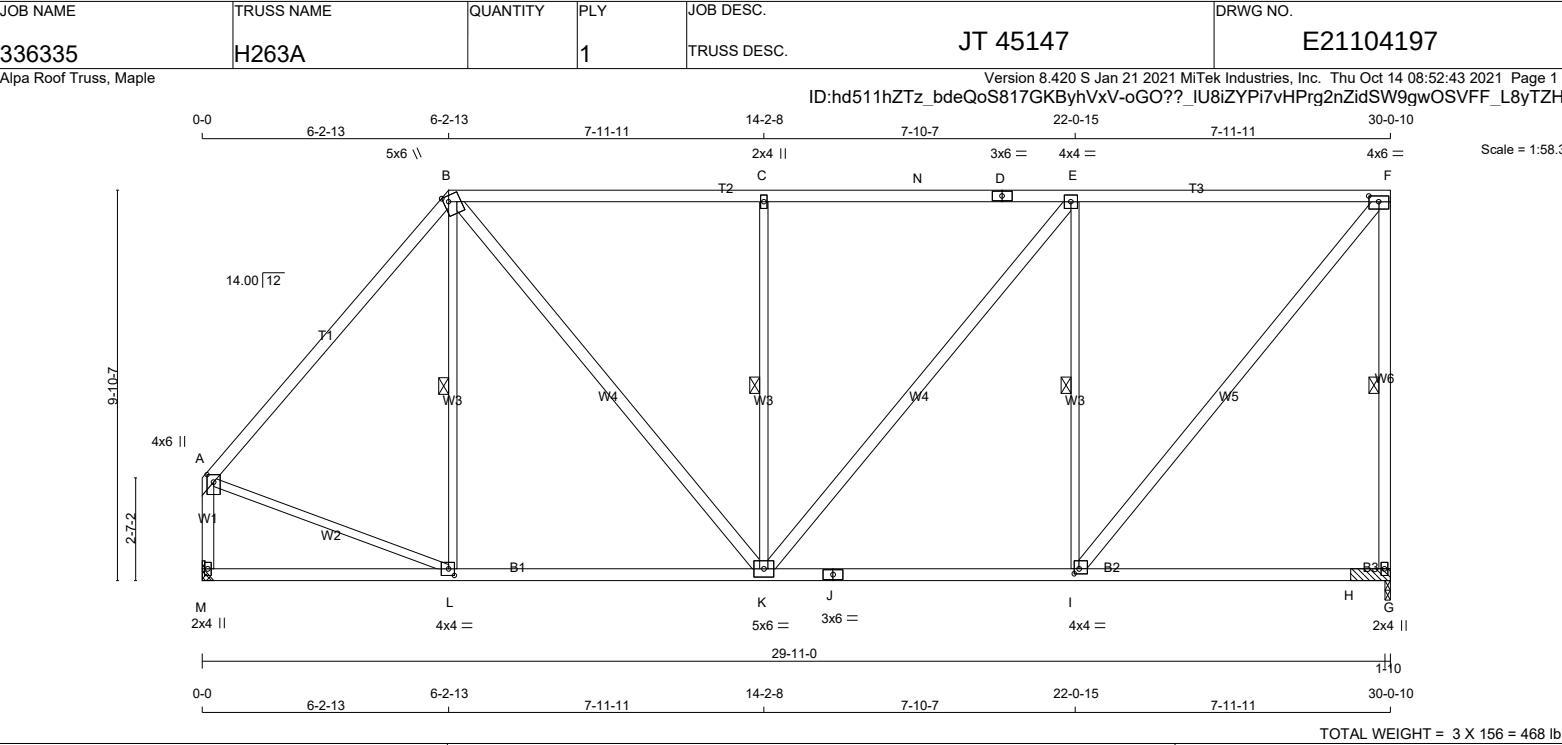
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	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 (Q) (INPUT = 0.90)
JSI METAL= 0.51 (C) (INPUT = 1.00)



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	DRY	2100F 1.8E	SPF
B - D	2x4	DRY	1650F 1.5E	SPF
D - F	2x4	DRY	1650F 1.5E	SPF
G - F	2x4	DRY	No.2	SPF
M - A	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
J - G	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
B - K	2x4	DRY	No.2	SPF
K - E	2x4	DRY	No.2	SPF
I - F	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	6.0	2.25 2.00
B	TTWW+m	MT20	5.0	6.0	1.75 1.50
C	TMW+w	MT20	2.0	4.0	
D	TS-t	MT20	3.0	6.0	
E	TMWW-t	MT20	4.0	4.0	
F	TMVW-t	MT20	4.0	6.0	1.75 3.00
G	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	

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	IN-SX	IN-SX	1-10	& BLOCK MECHANICAL
G	1557	0	1557	0	0	1-10	1-10		
M	1520	0	1520	0	0				

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT M. MINIMUM BEARING LENGTH AT JOINT M = 1-10.

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	1120	631 / 0	0 / 0	0 / 0	0 / 0	489 / 0	0 / 0
M	1090	631 / 0	0 / 0	0 / 0	0 / 0	459 / 0	0 / 0

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

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

BRACING

FOR SECTION B-F, 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 F-G, B-L, C-K, E-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.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-1248 / 0	-78.0 -78.0	0.43 (1)	6.25	L-B	-136 / 41	0.09 (1)
B-C	-1277 / 0	-85.5 -85.5	0.71 (1)	2.00	B-K	0 / 732	0.12 (1)
C-N	-1277 / 0	-85.5 -85.5	0.71 (1)	2.00	K-C	-737 / 0	0.48 (1)
N-D	-1277 / 0	-85.5 -85.5	0.71 (1)	2.00	K-E	0 / 406	0.07 (1)
D-E	-1277 / 0	-85.5 -85.5	0.71 (1)	2.00	I-E	-1058 / 0	0.70 (1)
E-F	-1020 / 0	-85.5 -85.5	0.69 (1)	2.00	I-F	0 / 1594	0.26 (1)
G-F	-1499 / 0	0.0 0.0	0.70 (1)	5.36	A-L	0 / 858	0.19 (1)
M-A	-1477 / 0	0.0 0.0	0.21 (1)	6.74			
M-L	0 / 0	-18.5 -18.5	0.22 (4)	10.00			
L-K	0 / 808	-18.5 -18.5	0.31 (4)	10.00			
K-J	0 / 1020	-18.5 -18.5	0.40 (4)	10.00			
J-I	0 / 1020	-18.5 -18.5	0.40 (4)	10.00			
I-H	0 / 0	-18.5 -18.5	0.28 (4)	10.00			
H-G	0 / 0	-18.5 -18.5	0.28 (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 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 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 (1.00")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")

ALLOWABLE DEFL.(TL)= L/360 (1.00")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.13")

CSI: TC=0.71/1.00 (C-E:1), BC=0.40/1.00 (I-K:4), WB=0.70/1.00 (E-I:1), SSI=0.32/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES		
PLATE	GRIP(DRY) (PSI)	SHEAR SECTION (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= 0.85 (I) (INPUT = 0.90)

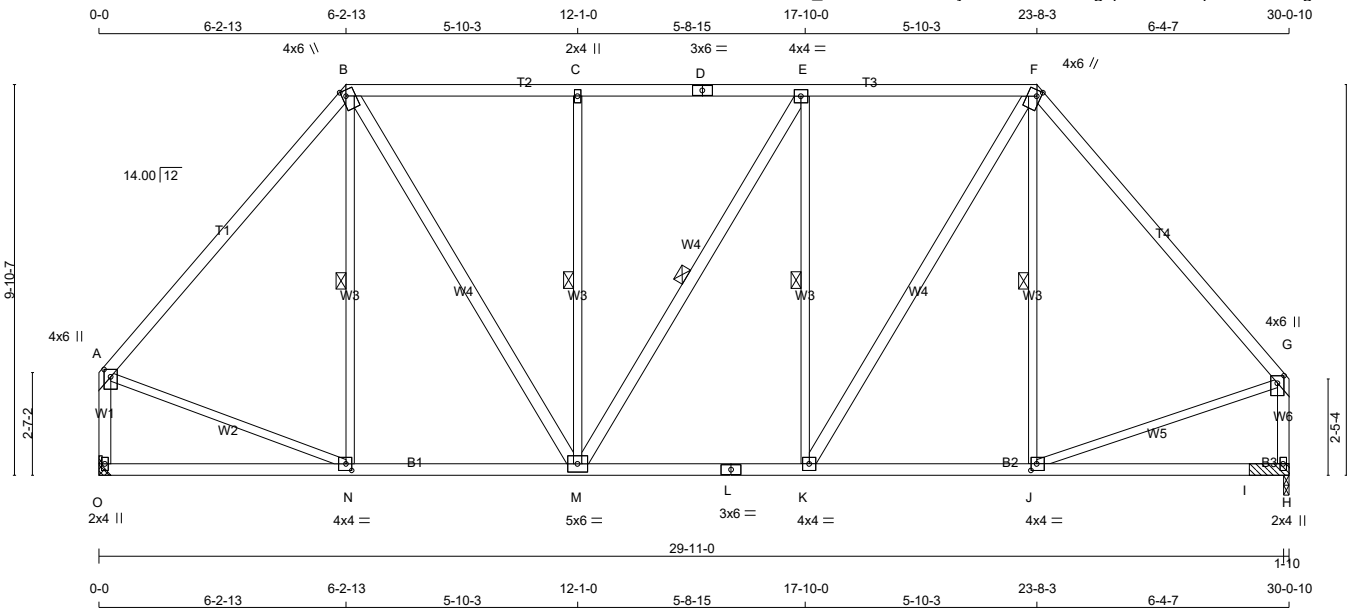
JSI METAL= 0.48 (A) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H263S		1	TRUSS DESC. JT 45147	E21104198

Alpa Roof Truss, Maple

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LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY 2100F 1.8E	SPF
B - D	2x4	DRY No.2	SPF
D - F	2x4	DRY No.2	SPF
F - G	2x4	DRY 2100F 1.8E	SPF
O - A	2x4	DRY No.2	SPF
H - G	2x4	DRY No.2	SPF
O - L	2x4	DRY No.2	SPF
L - H	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF
B - M	2x4	DRY No.2	SPF
M - E	2x4	DRY No.2	SPF
K - F	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	6.0	2.25 2.00
B	TTWW+m	MT20	4.0	6.0	1.75 1.25
C	TMW+w	MT20	2.0	4.0	
D	TS-t	MT20	3.0	6.0	
E	TMWW-t	MT20	4.0	4.0	
F	TTWW+m	MT20	4.0	6.0	1.75 1.25
G	TMVW+p	MT20	4.0	6.0	2.25 2.00
H	BMV1+p	MT20	2.0	4.0	
J	BMWW-t	MT20	4.0	4.0	2.00 1.75
K	BMWW-t	MT20	4.0	4.0	
L	BS-t	MT20	3.0	6.0	
M	BMWWW-t	MT20	5.0	6.0	
N	BMWW-t	MT20	4.0	4.0	2.00 1.75
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	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
O	1515	0	1515	0	0	MECHANICAL			
H	1515	0	1515	0	0	1-10	1-10	& BLOCK	

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT O. MINIMUM BEARING LENGTH AT JOINT O = 1-10.

UNFACTORED REACTIONS							
JT	1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
O	1086	631 / 0	0 / 0	0 / 0	0 / 0	0 / 0	455 / 0
H	1086	631 / 0	0 / 0	0 / 0	0 / 0	0 / 0	455 / 0

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

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

BRACING

FOR SECTION B-F, MAX. PURLIN SPACING = 2.00 FT.

FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.21 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-N, C-M, E-M, E-K, F-J.

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	-1239 / 0	-78.0 -78.0	0.43 (1)	6.25	N-B	-152 / 21	0.10 (1)
B-C	-1196 / 0	-85.5 -85.5	0.44 (1)	2.00	B-M	0 / 753	0.12 (1)
C-D	-1196 / 0	-85.5 -85.5	0.44 (1)	2.00	M-C	-534 / 0	0.35 (1)
D-E	-1196 / 0	-85.5 -85.5	0.44 (1)	2.00	M-E	-10 / 0	0.01 (1)
E-F	-1201 / 0	-85.5 -85.5	0.44 (1)	2.00	K-E	-528 / 0	0.35 (1)
F-G	-1258 / 0	-78.0 -78.0	0.45 (1)	6.21	K-F	0 / 739	0.12 (1)
O-A	-1468 / 0	0.0 0.0	0.20 (1)	6.76	J-F	-131 / 32	0.09 (1)
H-G	-1466 / 0	0.0 0.0	0.19 (1)	6.76	A-N	0 / 852	0.19 (1)
					J-G	0 / 857	0.19 (1)
O-N	0 / 0	-18.5 -18.5	0.17 (4)	10.00			
N-M	0 / 802	-18.5 -18.5	0.26 (4)	10.00			
M-L	0 / 1201	-18.5 -18.5	0.25 (1)	10.00			
L-K	0 / 1201	-18.5 -18.5	0.25 (1)	10.00			
K-J	0 / 815	-18.5 -18.5	0.26 (4)	10.00			
J-I	0 / 0	-18.5 -18.5	0.18 (4)	10.00			
I-H	0 / 0	-18.5 -18.5	0.18 (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 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 (1.00")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")

ALLOWABLE DEFL.(TL)= L/360 (1.00")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.45/1.00 (F-G:1) , BC=0.26/1.00 (J-K:4) , WB=0.35/1.00 (C-M:1) , SSI=0.23/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (F) (INPUT = 0.90)

JSI METAL= 0.48 (G) (INPUT = 1.00)

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DRY: SEASONED LUMBER.

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	1.75	1.50
E	TMV+rw	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW-t	MT20	4.0	4.0		
H	TTWW+m	MT20	4.0	6.0	1.75	1.25
I	TMV+p	MT20	4.0	6.0	2.25	2.00
J	BMV1+p	MT20	2.0	4.0		
L	BMWW-t	MT20	4.0	4.0	2.00	1.75
M	BMWW-t	MT20	4.0	4.0		
N	BS-t	MT20	3.0	6.0		
O	BMWWW-t	MT20	5.0	6.0		
P	BMWW-t	MT20	4.0	4.0		
Q	BMVW1-t	MT20	4.0	4.0	1.75	1.75

Q- P	0 / 815	-18.5	-18.5	0.27 (4)	10.00
P- O	0 / 855	-18.5	-18.5	0.28 (4)	10.00
O- N	0 / 1228	-18.5	-18.5	0.26 (1)	10.00
N- M	0 / 1228	-18.5	-18.5	0.26 (1)	10.00
M- L	0 / 829	-18.5	-18.5	0.27 (4)	10.00
L- K	0 / 0	-18.5	-18.5	0.18 (4)	10.00
K- J	0 / 0	-18.5	-18.5	0.18 (4)	10.00

JSI GRIP= 0.90 (C) (INPUT = 0.90)
JSI METAL= 0.53 (C) (INPUT = 1.00)

Alpa Roof Truss, Maple



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) H, M

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.97 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)

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	-114 / 58 0.05 (1)
B-C	-1268 / 0	-78.0	-78.0	0.53 (1)	5.13	C-K	0 / 859 0.14 (1)
C-D	-1437 / 0	-78.0	-78.0	0.97 (1)	3.98	K-D	-706 / 0 0.32 (1)
D-E	-1437 / 0	-78.0	-78.0	0.97 (1)	3.97	K-F	0 / 366 0.06 (1)
E-F	-1437 / 0	-78.0	-78.0	0.97 (1)	3.97	I-F	-971 / 0 0.44 (1)
F-G	-1177 / 0	-78.0	-78.0	0.91 (1)	4.35	I-G	0 / 1642 0.26 (1)
H-G	-1408 / 0	0.0	0.0	0.46 (1)	5.49	B-L	0 / 862 0.19 (1)
M-B	-1544 / 0	0.0	0.0	0.18 (1)	6.42		
M-L	0 / 0	-18.5	-18.5	0.22 (4)	10.00		
L-K	0 / 821	-18.5	-18.5	0.31 (4)	10.00		
K-J	0 / 1177	-18.5	-18.5	0.43 (4)	10.00		
J-I	0 / 1177	-18.5	-18.5	0.43 (4)	10.00		
I-H	0 / 0	-18.5	-18.5	0.31 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

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 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (1.02")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.16")

CSI: TC=0.97/1.00 (C-D:1), BC=0.43/1.00 (I-K:4), WB=0.44/1.00 (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 .

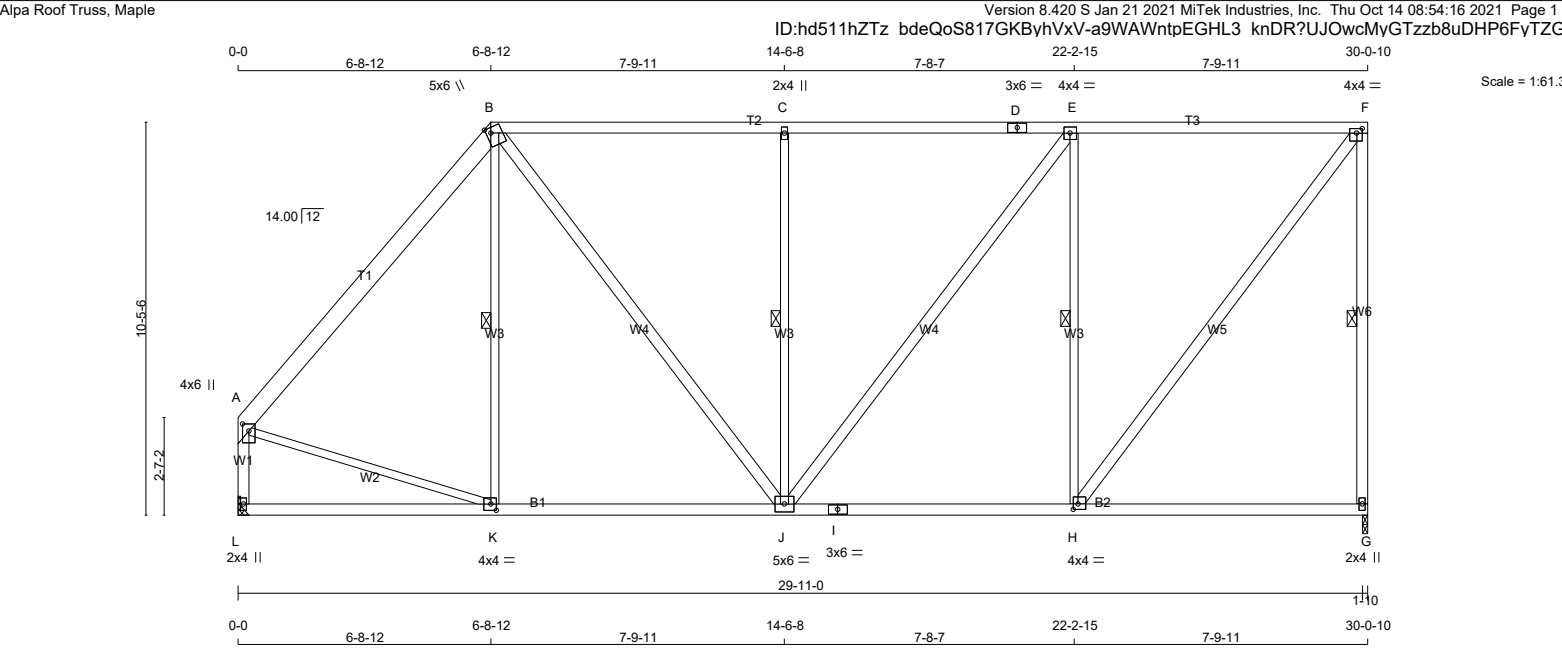
NAIL VALUES						
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H266S		1	TRUSS DESC. JT 45147	E21104202



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x6	DRY	No.2	SPF
B - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
L - A	2x4	DRY	No.2	SPF
L - I	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
B - J	2x4	DRY	No.2	SPF
J - E	2x4	DRY	No.2	SPF
H - F	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	6.0	2.25 2.00
B	TTWW+m	MT20	5.0	6.0	1.75 1.50
C	TMW+w	MT20	2.0	4.0	
D	TS-t	MT20	3.0	6.0	
E	TMWW-t	MT20	4.0	4.0	
F	TMVW-t	MT20	4.0	4.0	1.50 1.75
G	BMV1+p	MT20	2.0	4.0	
H	BMWW-t	MT20	4.0	4.0	1.75 1.50
I	BS-t	MT20	3.0	6.0	
J	BMWWW-t	MT20	5.0	6.0	
K	BMWW-t	MT20	4.0	4.0	2.00 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 GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
G	1450	0		1450	0	0	1-10	1-9	
L	1450	0		1450	0	0	MECHANICAL		

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT L. MINIMUM BEARING LENGTH AT JOINT L = 1-9.

UNFACTORED REACTIONS							
JT	COMBINED	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD
G	1033	631	0	0	0	0	403
L	1033	631	0	0	0	0	403

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.79 FT.

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-G, B-K, C-J, 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				
		MAX. FACTORED	FACTORED		MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX	MEMB.	FORCE (LBS)	MAX		
FR-TO		FROM	TO	CSI (LC)	UNBRAC	LENGTH FR-TO	CSI (LC)		
A-B	-1184 / 0	-78.0	-78.0	0.33 (1)	6.25	K-B	-82 / 77	0.06 (1)	
B-C	-1123 / 0	-78.0	-78.0	0.76 (1)	4.80	B-J	0 / 587	0.09 (1)	
C-D	-1124 / 0	-78.0	-78.0	0.76 (1)	4.79	J-C	-649 / 0	0.49 (1)	
D-E	-1124 / 0	-78.0	-78.0	0.76 (1)	4.79	J-E	0 / 400	0.06 (1)	
E-F	-882 / 0	-78.0	-78.0	0.73 (1)	5.29	H-E	-984 / 0	0.75 (1)	
G-F	-1392 / 0	0.0	0.0	0.76 (1)	5.52	H-F	0 / 1447	0.23 (1)	
L-A	-1401 / 0	0.0	0.0	0.18 (1)	6.88	A-K	0 / 800	0.18 (1)	
L-K	0 / 0	-18.5	-18.5	0.24 (4)	10.00				
K-J	0 / 764	-18.5	-18.5	0.31 (4)	10.00				
J-I	0 / 882	-18.5	-18.5	0.36 (4)	10.00				
I-H	0 / 882	-18.5	-18.5	0.36 (4)	10.00				
H-G	0 / 0	-18.5	-18.5	0.27 (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

ALLOWABLE DEFL.(LL)= L/360 (1.00")

CALCULATED VERT. DEFL.(LL)= L/ 999 (0.05")

ALLOWABLE DEFL.(TL)= L/360 (1.00")

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

CSI: TC=0.76/1.00 (C-E:1) , BC=0.36/1.00 (H-J:4) , WB=0.75/1.00 (E-H:1) , SSI=0.28/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

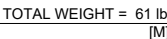
JSI METAL= 0.46 (A) (INPUT = 1.00)

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JSI GRIP= 0.74 (J) (INPUT = 0.90)
JSI METAL= 0.12 (D) (INPUT = 1.00)

Alpa Roof Truss, Maple

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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	TTW+m	MT20	3.0	4.0	2.00	1.00
D	MTWW-t	MT20	3.0	4.0		
E	TTW+m	MT20	3.0	4.0	2.00	1.00
F	TMB1-I	MT20	3.0	4.0	1.50	2.50
H	BMWW1-t	MT20	3.0	4.0		
I	BS-t	MT20	3.0	4.0		
J	BMWW1-t	MT20	3.0	4.0		

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED			INPUT	REQD
	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	BRG
						IN-SX	IN-SX
B	267	0	267	0	0	16-5-2	(5-5-2) 1-8
J	556	0	556	0	0	16-5-2	(5-5-2) 1-8
H	556	0	556	0	0	16-5-2	(5-5-2) 1-8
F	267	0	267	0	0	16-5-2	(5-5-2) 1-8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	186	141 / 0	0 / 0	0 / 0	0 / 0	45 / 0	0 / 0
J	401	221 / 0	0 / 0	0 / 0	0 / 0	180 / 0	0 / 0
H	401	221 / 0	0 / 0	0 / 0	0 / 0	180 / 0	0 / 0
F	186	141 / 0	0 / 0	0 / 0	0 / 0	45 / 0	0 / 0

BRACING

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LOCSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM	TO		FR-TO			
A-B	0 / 11	-78.0	-78.0	0.01 (1)	10.00	J-C	-174 / 0	0.06 (1)
B-L	0 / 215	-78.0	-78.0	0.13 (1)	10.00	J-D	-296 / 0	0.21 (1)
L-C	-118 / 0	-78.0	-78.0	0.13 (1)	6.25	D-H	-296 / 0	0.21 (1)
C-D	-62 / 0	-78.0	-78.0	0.26 (1)	6.25	H-E	-174 / 0	0.06 (1)
D-E	-62 / 0	-78.0	-78.0	0.26 (1)	6.25	K-L	-531 / 0	0.00 (1)
E-N	-118 / 0	-78.0	-78.0	0.13 (1)	6.25	M-N	-531 / 0	0.00 (1)
N-F	0 / 215	-78.0	-78.0	0.13 (1)	10.00			
F-G	0 / 11	-78.0	-78.0	0.01 (1)	10.00			
B-K	0 / 66	-18.5	-18.5	0.13 (1)	10.00			
K-J	0 / 66	-18.5	-18.5	0.24 (4)	10.00			
J-I	0 / 266	-18.5	-18.5	0.25 (4)	10.00			
I-H	0 / 266	-18.5	-18.5	0.25 (4)	10.00			
H-M	0 / 66	-18.5	-18.5	0.24 (4)	10.00			
M-F	0 / 66	-18.5	-18.5	0.13 (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

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=0.26/1.00 (C-D:1), BC=0.25/1.00 (H-J:4),
WB=0.21/1.00 (D-J:1), SSI=0.40/1.00 (B-K:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

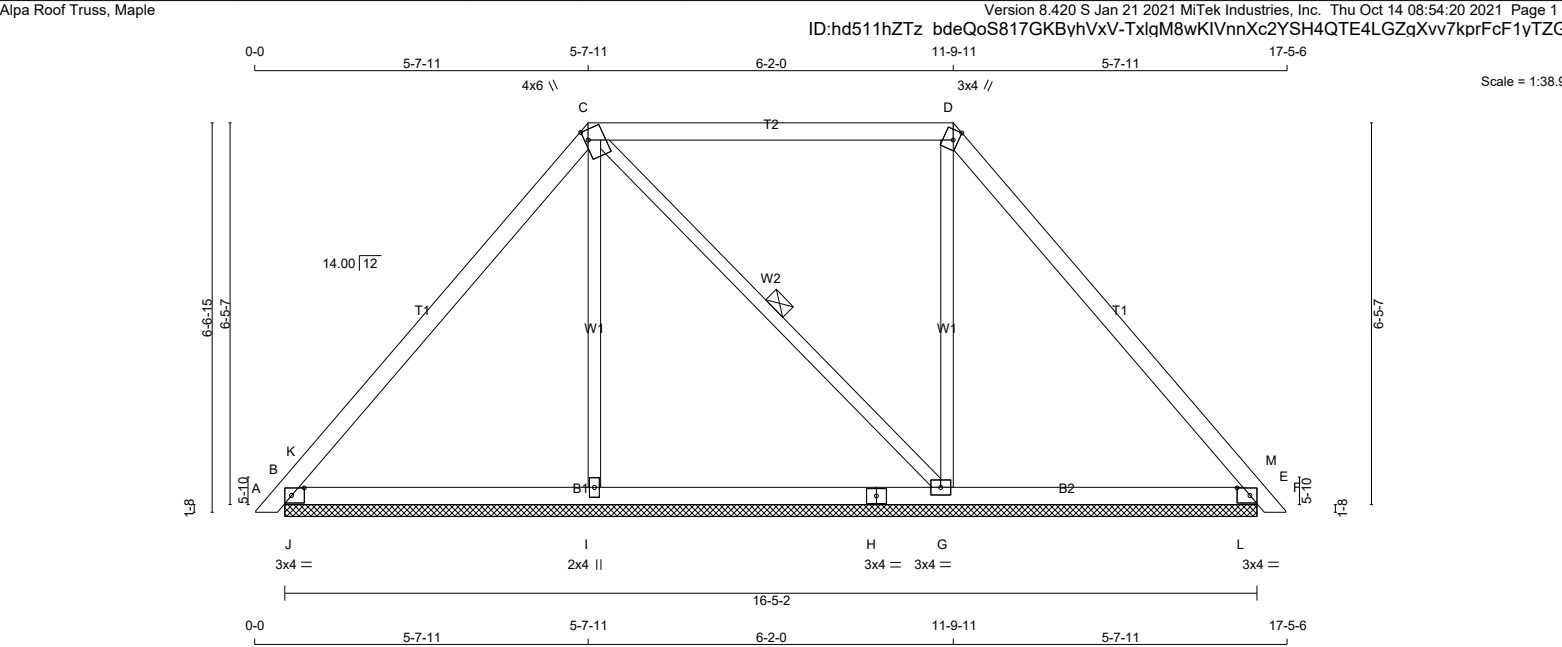
NAIL VALUES						
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (J) (INPUT = 0.90)
JSI METAL= 0.09 (I) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H269P		1	TRUSS DESC. JT 45147	E21104205



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF

A - C	2x4	DRY	No.2	SPF
B - D	2x4	DRY	No.2	SPF
C - F	2x4	DRY	No.2	SPF
D - H	2x4	DRY	No.2	SPF
H - E	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	1.50 2.50
C	TTWW+m	MT20	4.0	6.0	2.00 0.75
D	TTW+m	MT20	3.0	4.0	2.00 1.00
E	TMB1-I	MT20	3.0	4.0	1.50 2.50
G	BMWw1-t	MT20	3.0	4.0	
H	BS-t	MT20	3.0	4.0	
I	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
B	502	0	502	0	16-5-2 (6-5-2)-8	
I	295	0	295	0	16-5-2 (6-5-2)-8	
G	377	0	377	0	16-5-2 (6-5-2)-8	
E	472	0	472	0	16-5-2 (6-5-2)-8	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS				WIND	DEAD	SOIL
		SNOW	LIVE	PERM.LIVE				
B	353	243 / 0	0 / 0	0 / 0	0 / 0	0 / 0	110 / 0	0 / 0
I	215	104 / 0	0 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0
G	271	150 / 0	0 / 0	0 / 0	0 / 0	0 / 0	121 / 0	0 / 0
E	333	226 / 0	0 / 0	0 / 0	0 / 0	0 / 0	107 / 0	0 / 0

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. CS1 (LC)	MAX. UNBRAC LENGTH	MEMB.	WEBS MAX. FACTORED FORCE (LBS)		MAX. CS1 (LC)
	FR-TO		FROM	TO				FR-TO		
A-B	0 / 10		-78.0	-78.0	0.01 (1)	10.00	I-C	-149 / 0		0.10 (1)
B-K	-39 / 200		-78.0	-78.0	0.20 (1)	6.25	C-G	-37 / 0		0.02 (1)
K-C	-327 / 0		-78.0	-78.0	0.26 (1)	6.25	G-D	-204 / 0		0.14 (1)
C-D	-172 / 0		-78.0	-78.0	0.51 (1)	6.25	J-K	-805 / 0		0.00 (1)
D-M	-288 / 0		-78.0	-78.0	0.26 (1)	6.25	L-M	-814 / 0		0.00 (1)
M-E	-32 / 246		-78.0	-78.0	0.20 (1)	6.25				
E-F	0 / 10		-78.0	-78.0	0.01 (1)	10.00				
B-J	0 / 200		-18.5	-18.5	0.22 (1)	10.00				
J-I	0 / 200		-18.5	-18.5	0.22 (1)	10.00				
I-H	0 / 197		-18.5	-18.5	0.16 (4)	10.00				
H-G	0 / 197		-18.5	-18.5	0.16 (4)	10.00				
G-L	0 / 175		-18.5	-18.5	0.22 (1)	10.00				
L-E	0 / 175		-18.5	-18.5	0.22 (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 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=0.51/1.00 (C-D:1) , BC=0.22/1.00 (I-J:1) , WB=0.14/1.00 (D-G:1) , SSI=0.64/1.00 (E-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

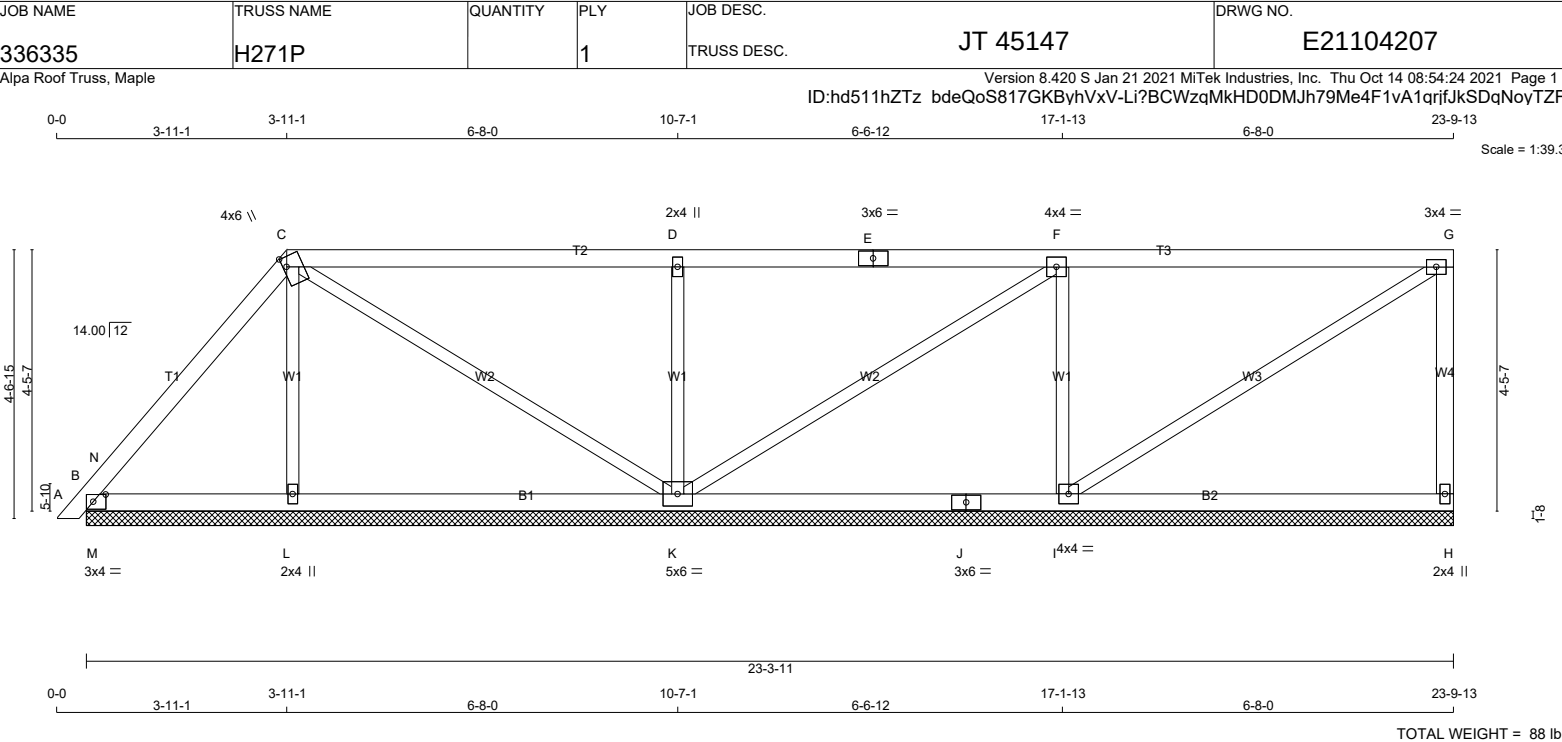
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.14 (H) (INPUT = 1.00)

JSI GRIP= 0.84 (G) (INPUT = 0.90)
JSI METAL= 0.25 (E) (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 GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	TOP CH. LL = 21.0 PSF							
A - C	2x4	DRY	No.2	SPF	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	DL = 6.0 PSF					
C - E	2x4	DRY	No.2	SPF	JT	H	271	0	271	0	0	23-3-11 (8-3-11)					
E - G	2x4	DRY	No.2	SPF	B	259	0	259	0	0	0	23-3-11 (8-3-11)					
H - G	2x4	DRY	No.2	SPF	L	316	0	316	0	0	0	23-3-11 (8-3-11)					
B - J	2x4	DRY	No.2	SPF	K	774	0	774	0	0	0	23-3-11 (8-3-11)					
J - H	2x4	DRY	No.2	SPF	I	660	0	660	0	0	0	23-3-11 (8-3-11)					
ALL WEBS 2x3 DRY: SEASONED LUMBER.				SPF									TOTAL LOAD = 34.4 PSF				
SPACING = 24.0 IN. C/C																	

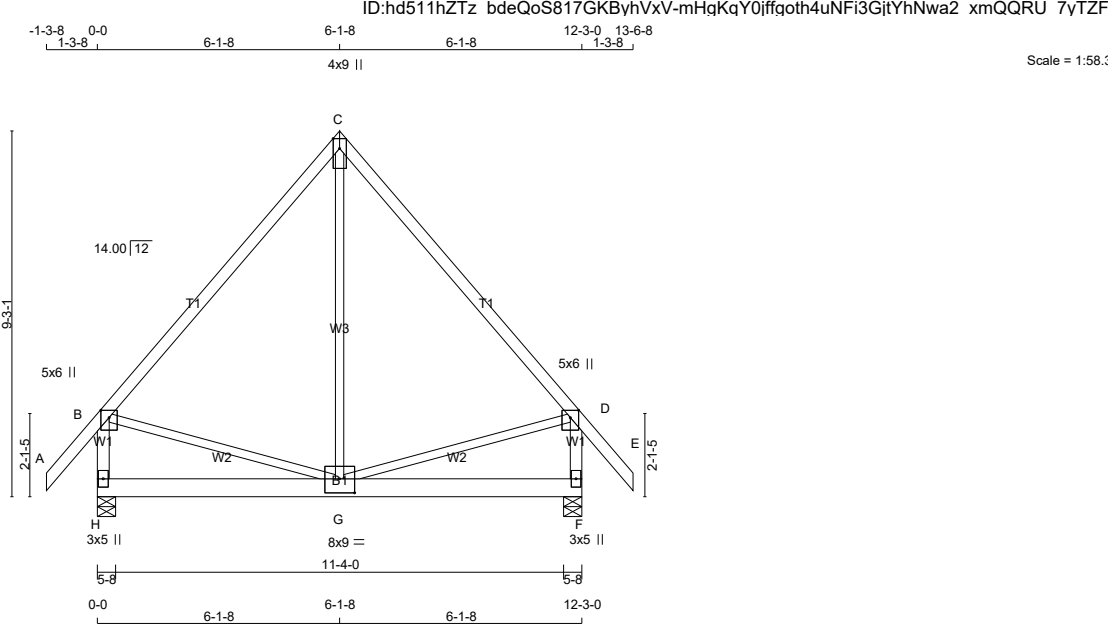
LATERAL BRACE(S) SHOWN SHALL BE
 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H273		2	TRUSS DESC. JT 45147	E21104209

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 69 = 137 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF
A - E	2x4	DRY	No.2	SPF
H - B	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
H - F	2x6	DRY	1650F 1.5E	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 - C	1	12
C - E	1	12
H - B	1	12
F - D	1	12
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
H - F	2	8
WEBS : (0.122"x3") SPIRAL NAILS		SIDE(338.3)
2x3	1	6

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	2.25	2.50
C	TTW+p	MT20	4.0	9.0	3.00	Edge
D	TMVW+p	MT20	5.0	6.0	2.25	2.50
F	BMV1+p	MT20	3.0	5.0		
G	BMWWW-t	MT20	8.0	9.0	4.25	4.50

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

		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
H	4844	0		4844	0	0	5-8	4-6	
F	4844	0		4844	0	0	5-8	4-6	

UNFACTORED REACTIONS

		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
H	3451	2119 / 0	0 / 0	0 / 0	0 / 0	1332 / 0	0 / 0		
F	3451	2119 / 0	0 / 0	0 / 0	0 / 0	1332 / 0	0 / 0		

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.91 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			
		MAX. FACTORED		FACTORED		MAX. FACTORED		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX	MAX. MEMB. UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX	MEMB. FORCE (LBS)	MAX
FR-TO		FROM	TO	CSI (LC)		FR-TO		FR-TO	
A-B	0 / 42	-78.0	-78.0	0.06 (1)	10.00	G-C	0 / 4173	0.52 (1)	
B-C	-3062 / 0	-78.0	-78.0	0.50 (1)	4.91	B-G	0 / 2065	0.26 (1)	
C-D	-3062 / 0	-78.0	-78.0	0.50 (1)	4.91	G-D	0 / 2065	0.26 (1)	
D-E	0 / 42	-78.0	-78.0	0.06 (1)	10.00				
H-B	-3212 / 0	0.0	0.0	0.20 (1)	6.48				
F-D	-3212 / 0	0.0	0.0	0.20 (1)	6.48				
H-G	0 / 0	-695.0	-695.0	0.77 (1)	10.00				
G-F	0 / 0	-695.0	-695.0	0.77 (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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 30-0-10
END DISTANCE = 12-3-0
END SPAN CARRIED = 30-0-10
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL) = L/ 882 (0.17")

CSI: TC=0.50/1.00 (B-C:1) , BC=0.77/1.00 (G-H:1) ,
WB=0.52/1.00 (C-G:1) , SSI=0.87/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (B) (INPUT = 0.90)
JSI METAL= 0.44 (D) (INPUT = 1.00)

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

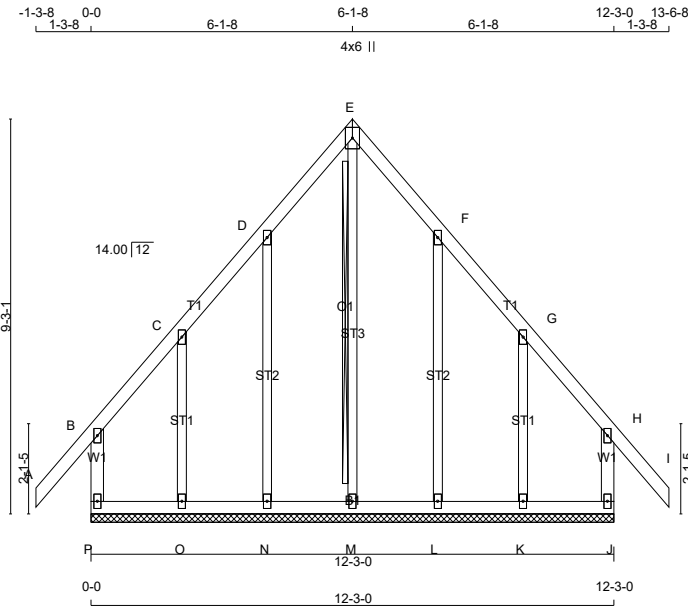


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	H273G		1	TRUSS DESC. JT 45147	E21104210

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-ifo4FD1zAGwV6 EHUqkXL8y FBnrWzP2tkwb3?yTZFu



Scale = 1:54.0

TOTAL WEIGHT = 68 lb

LUMBER					
N. L. G. A. RULES					
CHORDS		SIZE	LUMBER		DESCR.
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.					

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C, D, F, G					
C	TMW+w	MT20	2.0	4.0	
E	TTW+p	MT20	4.0	6.0	
H	TMV+p	MT20	2.0	4.0	
J	BMV1+p	MT20	2.0	4.0	
K, L, M, N, O					
K	BMW1+w	MT20	2.0	4.0	
P	BMV1+p	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.

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.

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

TOTAL LOAD CASES: (4)

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	-208 / 0	0.0	0.0 0.02 (1)	M-E	-145 / 0	0.20 (1)	
A-B	0 / 42	-78.0	-78.0 0.11 (1)	N-D	-158 / 0	0.13 (1)	
B-C	-25 / 0	-78.0	-78.0 0.04 (1)	O-C	-149 / 0	0.05 (1)	
C-D	-17 / 0	-78.0	-78.0 0.04 (1)	L-F	-158 / 0	0.13 (1)	
D-E	-13 / 0	-78.0	-78.0 0.04 (1)	K-G	-149 / 0	0.05 (1)	
E-F	-13 / 0	-78.0	-78.0 0.04 (1)				
F-G	-17 / 0	-78.0	-78.0 0.04 (1)				
G-H	-25 / 0	-78.0	-78.0 0.04 (1)				
H-I	0 / 42	-78.0	-78.0 0.11 (1)				
J-H	-208 / 0	0.0	0.0 0.02 (1)				
P-O	0 / 16	-18.5	-18.5 0.02 (1)				
O-N	0 / 12	-18.5	-18.5 0.02 (4)				
N-M	0 / 9	-18.5	-18.5 0.02 (4)				
M-L	0 / 9	-18.5	-18.5 0.02 (4)				
L-K	0 / 12	-18.5	-18.5 0.02 (4)				
K-J	0 / 16	-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

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 (J-K:1), WB=0.20/1.00 (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= 0.18 (B) (INPUT = 0.90)

JSI METAL= 0.11 (B) (INPUT = 1.00)

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

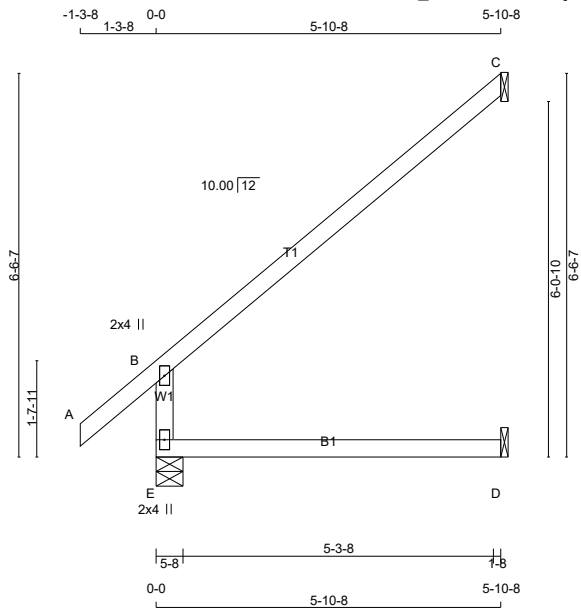


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	J01		1	TRUSS DESC. JT 45147	E21104231

Alpa Roof Truss, Maple

ID:hd511hZTz_bdeQoS817GKByhVxV-qRcQYUOn6UiFjbX2FzHZZTC0EH?1XawTnPCA6GyTZFQ

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TOTAL WEIGHT = 28 X 19 = 532 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	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 IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	457	0	457	0	5-8	1-8
C	172	0	172	0	1-8	1-8
D	46	0	52	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	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	37	0 / 0	0 / 0	0 / 0	0 / 0	37 / 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 (LC)	WEBS MAX. FACTORED FORCE (LBS)	
	FR-TO		FROM	TO		FR-TO	
E-B	-394 / 0		0.0	0.0	0.11 (4)	7.81	
A-B	0 / 35		-78.0	-78.0	0.11 (1)	10.00	
B-C	-37 / 0		-78.0	-78.0	0.46 (1)	6.25	
E-D	0 / 0		-18.5	-18.5	0.14 (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 (0.00")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.00")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.46/1.00 (B-C:1) , BC=0.14/1.00 (D-E:4) ,
WB=0.00/1.00 (n/a:0) , SSI=0.17/1.00 (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
MT20	650	371	1747	788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90)
JSI METAL= 0.21 (B) (INPUT = 1.00)

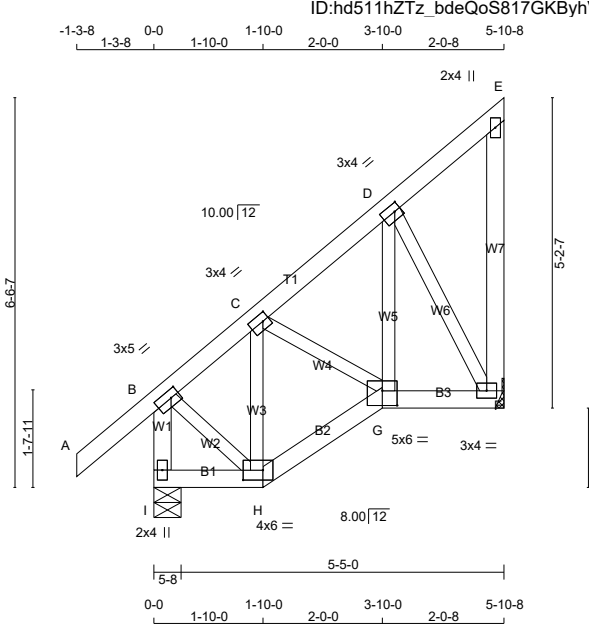
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336335	J01T		1	TRUSS DESC. JT 45147	E21104232

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 12 X 35 = 425 lb

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	5.0	1.50 1.75
C	TMWW-t	MT20	3.0	4.0	1.50 1.25
D	TMWW-t	MT20	3.0	4.0	1.50 1.25
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 IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
JT	404	0	404	0	5-8	1-8
F	271	0	271	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		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE				
JT	286	188 / 0	0 / 0	0 / 0	0 / 0	97 / 0	0 / 0
F	193	116 / 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	-387 / 0	0.0	0.0 0.04 (1)	7.81	B-H	0 / 138	0.03 (1)
A-B	0 / 35	-78.0	-78.0 0.11 (1)	10.00	H-C	-116 / 0	0.02 (1)
B-C	-171 / 0	-78.0	-78.0 0.10 (1)	6.25	C-G	0 / 14	0.00 (1)
C-D	-148 / 0	-78.0	-78.0 0.05 (1)	6.25	G-D	0 / 103	0.02 (4)
D-E	-12 / 0	-78.0	-78.0 0.05 (1)	6.25	D-F	-229 / 0	0.06 (1)
F-E	-56 / 0	0.0	0.0 0.02 (1)	7.81			
I-H	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
H-G	0 / 130	-18.5	-18.5 0.04 (4)	10.00			
G-F	0 / 117	-18.5	-18.5 0.03 (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, NBC2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC2018 , 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=0.11/1.00 (A-B:1) , BC=0.04/1.00 (G-H:4) , WB=0.06/1.00 (D-F:1) , SSI=0.06/1.00 (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
MT20	650	371	1747	788	1987

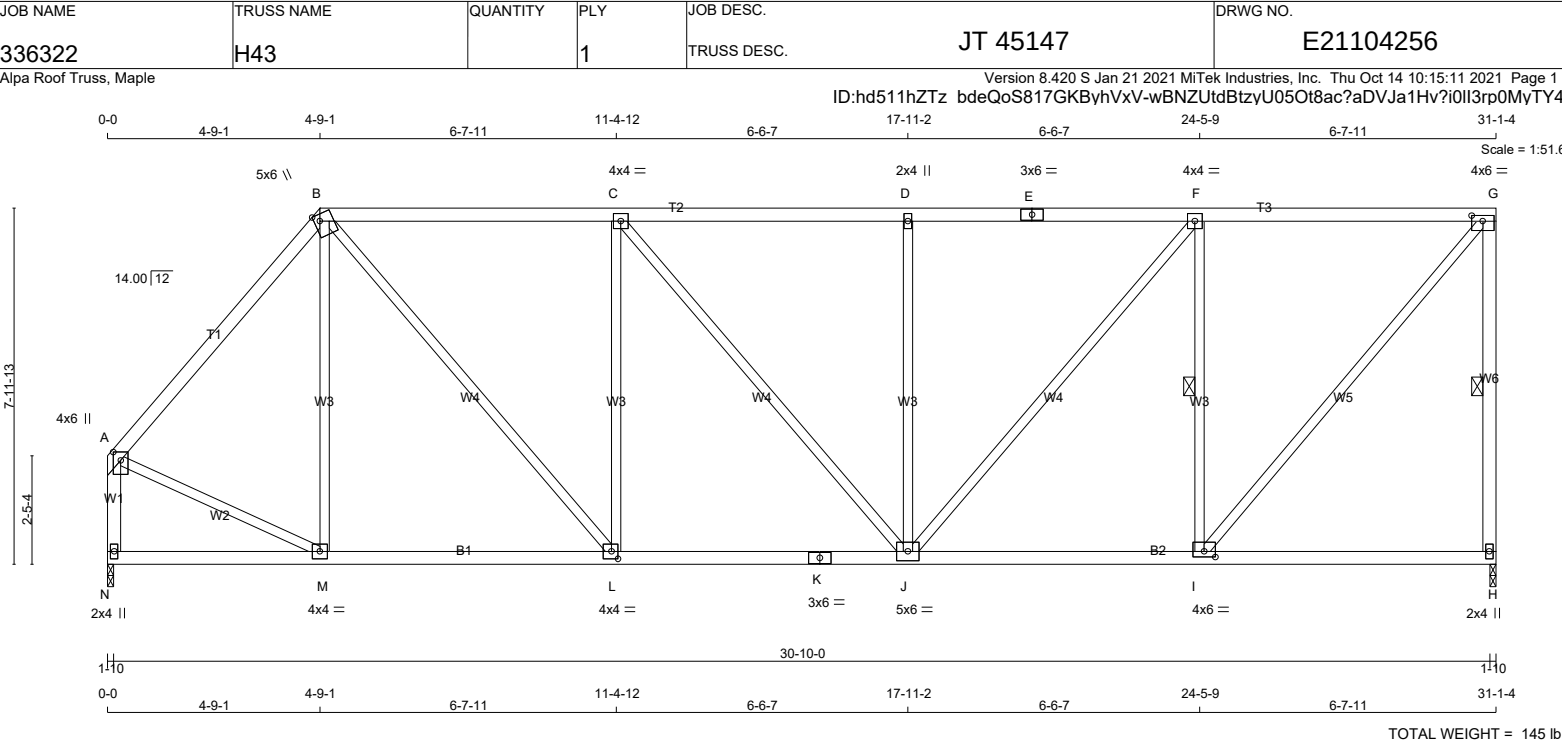
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (B) (INPUT = 0.90)
JSI METAL= 0.08 (I) (INPUT = 1.00)

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





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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTWW+m	MT20	5.0	6.0	1.75	1.50
C	TMWW-t	MT20	4.0	4.0		
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-t	MT20	4.0	6.0	1.50	3.00
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	6.0	1.50	3.00
J	BMWWW-t	MT20	5.0	6.0		
K	BS-t	MT20	3.0	6.0		
L	BMWW-t	MT20	4.0	4.0	2.00	1.75
M	BMWW-t	MT20	4.0	4.0		
N	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

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

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

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.57 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, F-I.

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

LOADING

		CHORDS		WEBS	
		MAX. FACTORED	FACTORED	MAX. FACTORED	FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB. UNBRAC LENGTH	MEMB. FORCE (LBS) MAX CSI (LC)
FR-TO		FROM TO		FR-TO	
A- B	-1236 / 0	-78.0 -78.0	0.38 (1)	5.35	M- B -224 / 0 0.27 (1)
B- C	-1463 / 0	-78.0 -78.0	0.60 (1)	4.64	B- L 0 / 1014 0.23 (1)
C- D	-1517 / 0	-78.0 -78.0	0.61 (1)	4.57	L- C -643 / 0 0.78 (1)
D- E	-1517 / 0	-78.0 -78.0	0.60 (1)	4.57	C- J 0 / 84 0.02 (1)
E- F	-1517 / 0	-78.0 -78.0	0.60 (1)	4.57	J- D -470 / 0 0.57 (1)
F- G	-1075 / 0	-78.0 -78.0	0.56 (1)	5.27	J- F 0 / 682 0.15 (1)
H- G	-1451 / 0	0.0 0.0	0.42 (1)	5.43	I- F -1107 / 0 0.44 (1)
N- A	-1468 / 0	0.0 0.0	0.19 (1)	6.76	I- G 0 / 1646 0.37 (1)
					A- M 0 / 871 0.20 (1)
N- M	0 / 0	-18.5 -18.5	0.14 (4)	10.00	
M- L	0 / 798	-18.5 -18.5	0.24 (4)	10.00	
L- K	0 / 1463	-18.5 -18.5	0.32 (1)	10.00	
K- J	0 / 1463	-18.5 -18.5	0.32 (1)	10.00	
J- I	0 / 1075	-18.5 -18.5	0.30 (4)	10.00	
I- H	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

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 (0.07")
 ALLOWABLE DEFL.(TL)= L/360 (1.04")
 CALCULATED VERT. DEFL.(TL)= L/ 999 (0.15")

CSI: TC=0.61/1.00 (C-D:1) , BC=0.32/1.00 (J-L:1) , WB=0.78/1.00 (C-L:1) , SSI=0.24/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

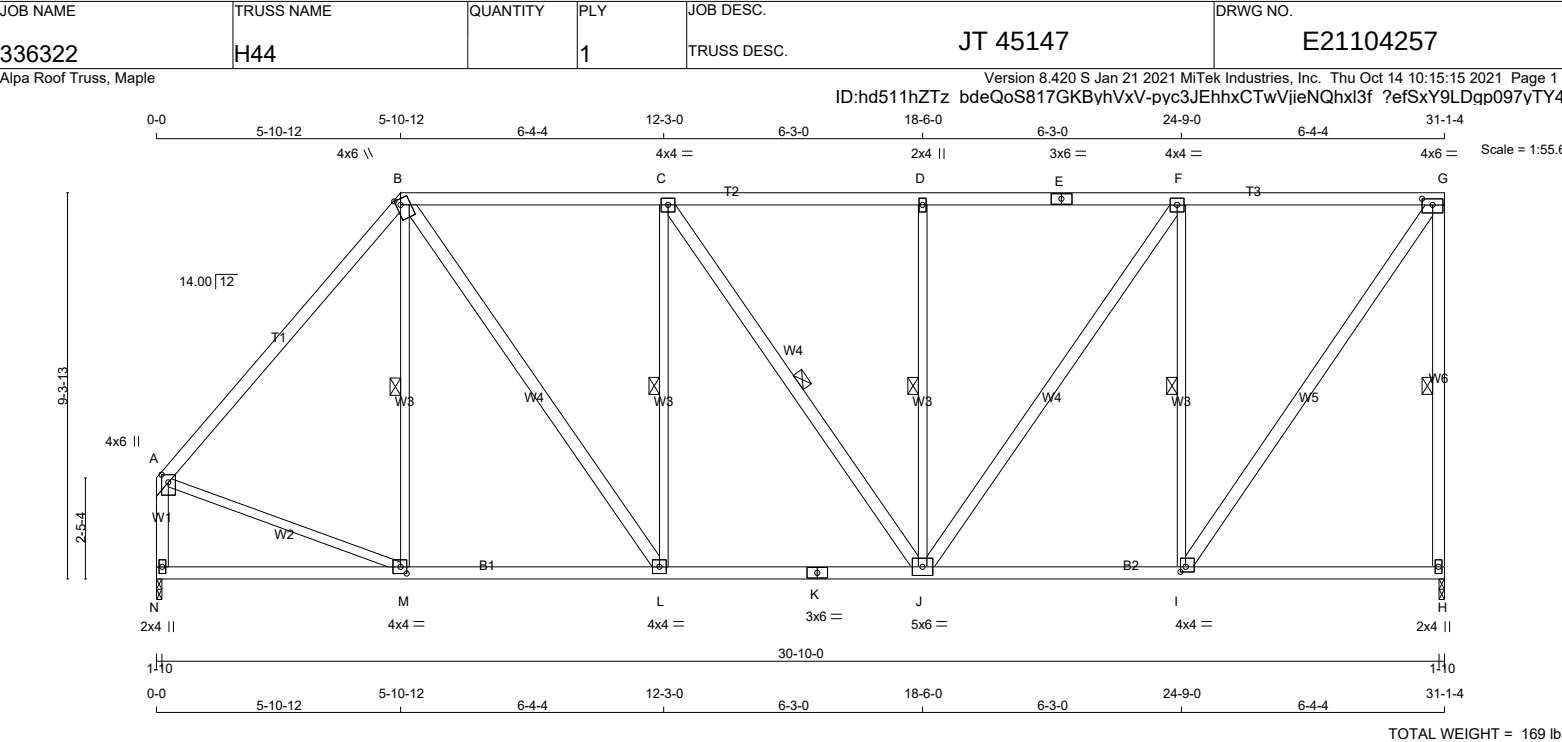
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (M) (INPUT = 0.90)
 JSI METAL= 0.49 (K) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

A - B

2x4

DRY

No.2

SPF

B - E

2x4

DRY

No.2

SPF

E - G

2x4

DRY

No.2

SPF

H - G

2x4

DRY

No.2

SPF

N - A

2x4

DRY

No.2

SPF

N - K

2x4

DRY

No.2

SPF

K - H

2x4

DRY

No.2

SPF

ALL WEBS

EXCEPT

2x3

DRY

No.2

SPF

B - L

2x4

DRY

No.2

SPF

C - J

2x4

DRY

No.2

SPF

J - 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

A

TMVW+p

MT20

4.0

6.0

2.25

2.00

B

TTWW+m

MT20

4.0

6.0

1.75

1.25

C

TMWW-t

MT20

4.0

4.0

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-t

MT20

4.0

6.0

1.75

3.00

H

BMV1+p

MT20

2.0

4.0

I

BMWW-t

MT20

4.0

4.0

1.50

1.50

J

BMWWWW-t

MT20

5.0

6.0

K

BS-t

MT20

3.0

6.0

L

BMWW-t

MT20

4.0

4.0

M

BMWW-t

MT20

4.0

4.0

2.00

1.75

N

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

REQRD

IN-SX

IN-SX

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

H

1500

0

1500

0

0

1-10

1-10

N

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

H

1070

653 / 0

0 / 0

0 / 0

0 / 0

417 / 0

0 / 0

N

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) H, N

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.00 FT.

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

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

1 LATERAL BRACE(S) AT 1 / 2 LENGTH OF G-H, B-M, C-L, C-J, D-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

MAX. FACTORED

FACTORED

VERT. LOAD

LC1

MAX

MAX.

MEMB.

MAX.

MEMB.

MAX.

FACTORED

MEMB.

FORCE

VERT. LOAD

LC1

MAX

MAX.

MEMB.

MAX.

MEMB.

MAX.

FACTORED

FR-TO

FROM

TO

LENGTH

FR-TO

A- B

-1246 / 0

-78.0

-78.0

0.64 (1)

5.02

M- B

-151 / 32

0.09 (1)

B- C

-1277 / 0

-78.0

-78.0

0.53 (1)

5.00

B- L

0 / 815

0.13 (1)

C- D

-1274 / 0

-78.0

-78.0

0.53 (1)

5.00

L- C

-551 / 0

0.31 (1)

D- E

-1274 / 0

-78.0

-78.0

0.53 (1)

5.00

C- J

-5 / 2

0.00 (1)

E- F

-1274 / 0

-78.0

-78.0

0.53 (1)

5.00

J- D

-449 / 0

0.26 (1)

F- G

-885 / 0

-78.0

-78.0

0.49 (1)

5.78

J- F

0 / 683

0.11 (1)

H- G

-1453 / 0

0.0

0.0

0.59 (1)

5.43

I- F

-1124 / 0

0.64 (1)

N- A

-1456 / 0

0.0

0.0

0.19 (1)

6.77

I- G

0 / 1538

0.25 (1)

N- M

0 / 0

-18.5

-18.5

0.17 (4)

10.00

M- L

0 / 806

-18.5

-18.5

0.24 (4)

10.00

L- K

0 / 1277

-18.5

-18.5

0.28 (1)

10.00

K- J

0 / 1277

-18.5

-18.5

0.28 (1)

10.00

J- I

0 / 885

-18.5

-18.5

0.27 (4)

10.00

I- H

0 / 0

-18.5

-18.5

0.18 (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 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 (0.13")

CSI: TC=0.64/1.00 (A-B:1) , BC=0.28/1.00 (J-L:1) , WB=0.64/1.00 (F-I:1) , SSI=0.23/1.00 (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= 0.84 (B) (INPUT = 0.90)

JSI METAL= 0.47 (A) (INPUT = 1.00)

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

LICENSED PROFESSIONAL ENGINEER

Y. WIDYA

100225448

10/14/2021

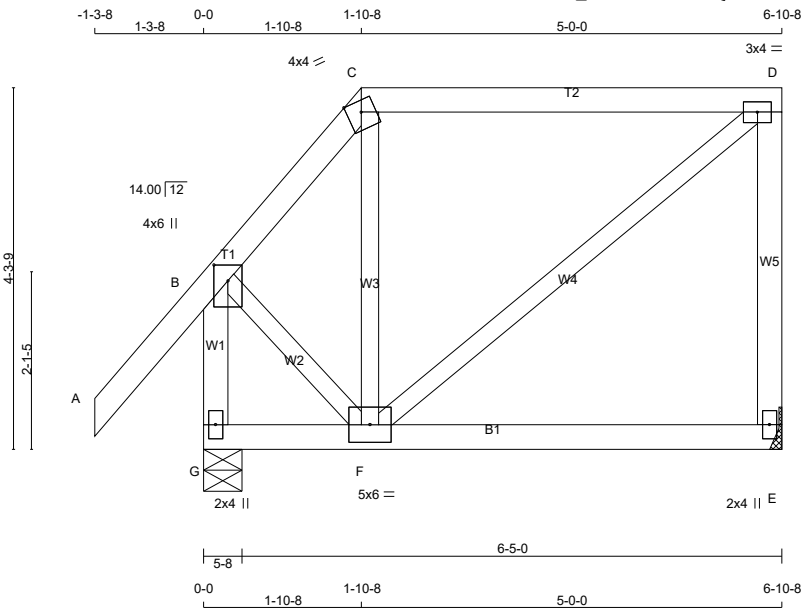
PROVINCE OF ONTARIO

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H161		1	TRUSS DESC. JT 45147	E21104295

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 35 lb [M]

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY No.2	SPF	
A - D	2x4	DRY No.2	SPF	
E - D	2x4	DRY No.2	SPF	
G - B	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-m	MT20	4.0	4.0	Edge
D	TMVW-t	MT20	3.0	4.0	
E	BMV1+p	MT20	2.0	4.0	
F	BMWWW-t	MT20	5.0	6.0	
G	BMV1+p	MT20	2.0	4.0	

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

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER							
BEARINGS							
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
E	320	0	320	0	0	MECHANICAL	
G	452	0	452	0	0	5-8	1-8
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	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	229	138 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0
G	320	209 / 0	0 / 0	0 / 0	0 / 0	111 / 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.

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 CSI (LC)		
FR-TO		FROM	TO		FR-TO				
A- B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	F- C	-96 / 13	0.03 (1)	
B- C	-204 / 0	-78.0	-78.0	0.11 (1)	6.25	F- D	0 / 140	0.03 (1)	
C- D	-109 / 0	-78.0	-78.0	0.33 (1)	6.25	B- F	0 / 148	0.03 (1)	
E- D	-283 / 0	0.0	0.0	0.08 (1)	7.81				
G- B	-453 / 0	0.0	0.0	0.05 (1)	7.81				
G- F	0 / 0	-18.5	-18.5	0.09 (4)	10.00				
F- E	0 / 0	-18.5	-18.5	0.09 (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 (0.23")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.23")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.33/1.00 (C-D:1) , BC=0.09/1.00 (F-G:4) , WB=0.03/1.00 (B-F:1) , SSI=0.15/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	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= 0.27 (D) (INPUT = 0.90) JSI METAL= 0.11 (B) (INPUT = 1.00)					

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

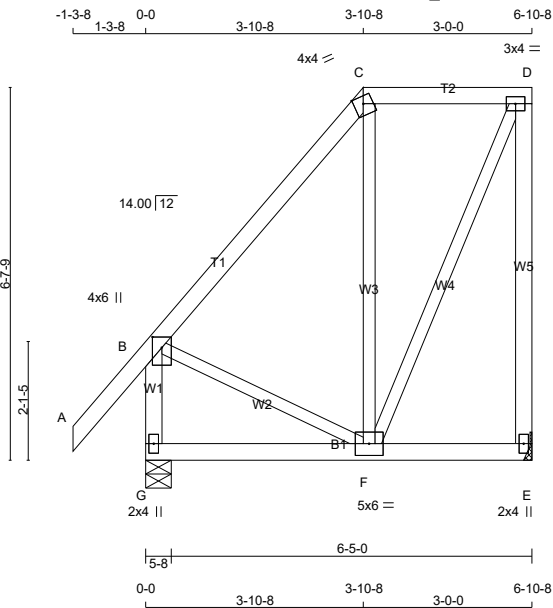


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H162		1	TRUSS DESC. JT 45147	E21104296

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 43 lb

[M][F]

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER		DESCR.
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - B	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-m	MT20	4.0	4.0	Edge	
D	TMVW-t	MT20	3.0	4.0		
E	BMV1+p	MT20	2.0	4.0		
F	BMVWW-t	MT20	5.0	6.0		
G	BMV1+p	MT20	2.0	4.0		

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

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
JT	332	0	332	0	MECHANICAL	
E	332	0	332	0	5-8	1-8
G	441	0	441	0		

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

UNFACTORED REACTIONS

	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	236	144 / 0	0 / 0	0 / 0	0 / 0	92 / 0	0 / 0
E	236	144 / 0	0 / 0	0 / 0	0 / 0	92 / 0	0 / 0
G	312	203 / 0	0 / 0	0 / 0	0 / 0	109 / 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			MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED		
		VERT. LOAD (PLF)	LC1 MAX	LC1 (LC)			VERT. LOAD (PLF)	LC1 MAX	LC1 (LC)
FR-TO		FROM	TO		FR-TO		FROM	TO	
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	F-C	-160 / 0	0.12 (1)	
B-C	-143 / 0	-78.0	-78.0	0.15 (1)	6.25	F-D	0 / 217	0.05 (1)	
C-D	-90 / 0	-78.0	-78.0	0.09 (1)	6.25	B-F	0 / 101	0.02 (1)	
E-D	-313 / 0	0.0	0.0	0.29 (1)	7.81				
G-B	-410 / 0	0.0	0.0	0.05 (1)	7.81				
G-F	0 / 0	-18.5	-18.5	0.06 (4)	10.00				
F-E	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

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 (0.23")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.23")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.01")

CSI: TC=0.29/1.00 (D-E:1) , BC=0.06/1.00 (F-G:4) , WB=0.12/1.00 (C-F:1) , SSI=0.09/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

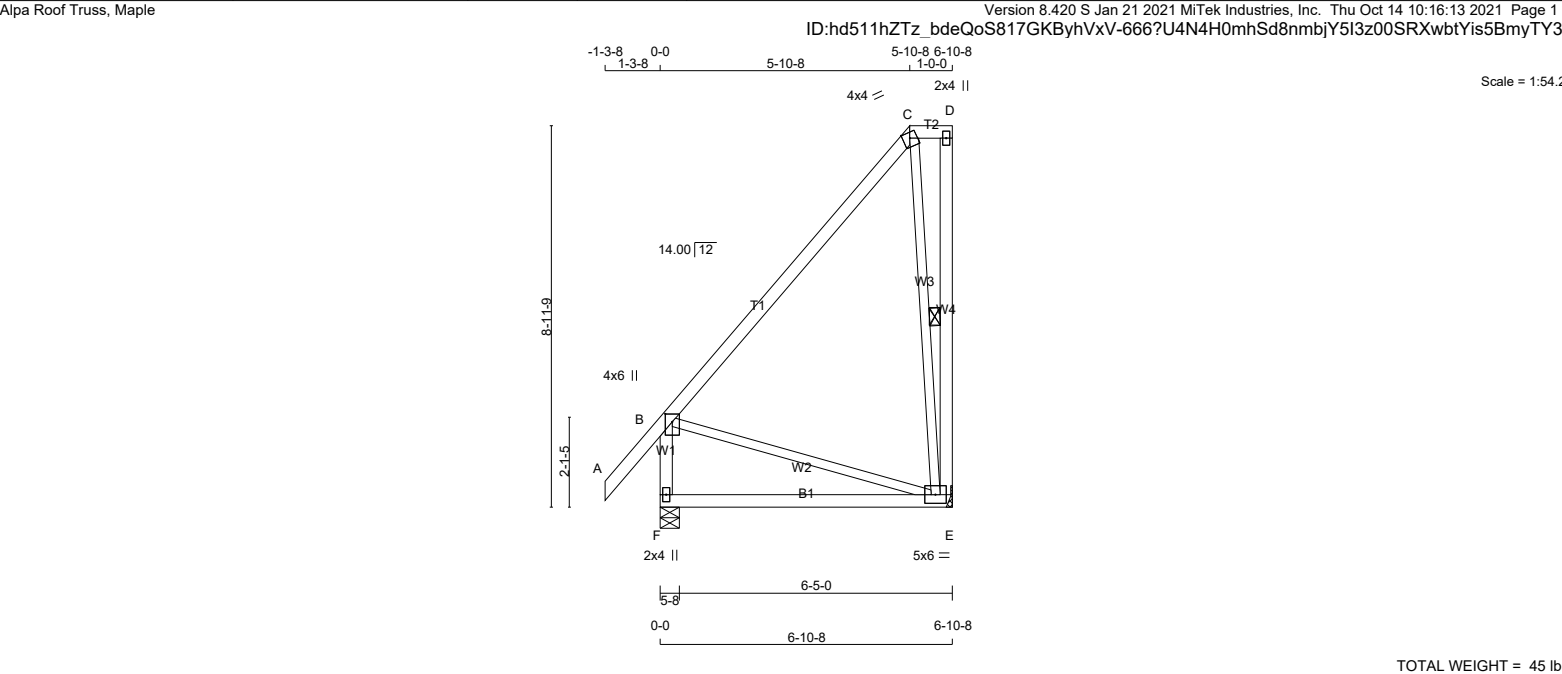
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.47 (D) (INPUT = 0.90)
JSI METAL= 0.11 (B) (INPUT = 1.00)

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336322	H163		1	TRUSS DESC. JT 45147	E21104297



TOTAL WEIGHT = 45 lb [M][F]

LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x4 DRY No.2 SPF C - D 2x4 DRY No.2 SPF E - D 2x4 DRY No.2 SPF F - B 2x4 DRY No.2 SPF F - E 2x4 DRY No.2 SPF				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION JT VERT HORZ E 332 0 F 441 0 MAXIMUM FACTORED GROSS REACTION DOWN HORZ UPLIFT E 332 0 0 F 441 0 0 INPUT IN-SX MECHANICAL E 5-8 F 1-8 REQD BRG IN-SX E 5-8 F 1-8			
---	--	--	--	---	--	--	--

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT
A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-8.

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-m MT20 4.0 4.0 Edge D TMV+p MT20 2.0 4.0 E BMVWW1-t MT20 5.0 6.0 F BMV1+p MT20 2.0 4.0				UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL E 236 144 / 0 0 / 0 0 / 0 0 / 0 92 / 0 0 / 0 F 312 203 / 0 0 / 0 0 / 0 0 / 0 109 / 0 0 / 0			
--	--	--	--	---	--	--	--

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

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 D-E, C-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)				CHORDS MAX. FACTORED FORCE (LBS) MEMB. FR-TO A-B 0 / 42 B-C -42 / 0 C-D 0 / 0 E-D -39 / 0 F-B -377 / 0 F-E 0 / 0				WEBS MAX. FACTORED FORCE (LBS) MEMB. FR-TO C-E -238 / 0 B-E 0 / 28 0.12 (1) 0.01 (1)			
---	--	--	--	---	--	--	--	---	--	--	--

FACTORED VERT. LOAD LC1 MAX. UNBRACED LENGTH FR-TO
-78.0 -78.0 0.11 (1) 10.00
-78.0 -78.0 0.34 (1) 6.25
-78.0 -78.0 0.01 (1) 10.00
0.0 0.0 0.01 (1) 6.25
0.0 0.0 0.04 (1) 7.81
-18.5 -18.5 0.26 (4) 10.00

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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



Alpa Roof Truss, Maple

ID:hd511hZTz_bdeQoS817GKByhVxV-IDv28Zc_Bk7JYTvIREEpcfvl_u63QkM2MTVTzTyTUB

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Scale = 1:50.

The structural drawing shows a roof truss with various members labeled A through H and N through Q. Dimensions are provided for spans and heights. Member sizes are specified as 2x4, 2x6, 4x4, 4x6, 5x6, 6x7, 6x9, 7x8, and 5x12 MT18HS. Connections are detailed at joints T1, T2, B1, B2, M, L, K, Q, J, I, O, and N. The bottom chord is supported by bearing blocks BL1 and BL2.

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	DRY	LUMBER	DESCR.
O - A	2x4	DRY	No.2	SPF
A - E	2x6	DRY	No.2	SPF
E - H	2x6	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
O - L	2x6	DRY	1650F 1.5E	SPF
L - I	2x6	DRY	1650F 1.5E	SPF

BEARING BLOCKS

BL1	2 - 2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
A - N	2x4	DRY	No.2	SPF
B - M	2x4	DRY	No.2	SPF
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
A	TMVV-t	MT20	6.0	7.0	2.50	2.50
B	TMMWW-t	MT20	5.0	6.0	2.00	2.25
C	TMVW+w	MT20	2.0	4.0		
D	TMMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	4.0	6.0		
F	TMVW+w	MT20	2.0	4.0		
G	TMMWW-t	MT20	5.0	6.0	2.00	2.25
H	TMVV-t	MT20	6.0	7.0	2.50	2.50
I	BMVK1+t	MT20	6.0	9.0	Edge	3.00
J	BMVW-t	MT20	6.0	7.0	2.75	2.00
K	BMVW-w	MT20	7.0	8.0	4.25	1.50
L	BS-t	MT18HS	5.0	12.0		
M	BMVW-w	MT20	7.0	8.0	4.25	4.00
N	BMVW-t	MT20	6.0	7.0	2.75	2.00
O	BMVK1+t	MT20	6.0	9.0	Edge	3.00

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

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
O	3020	0	3020	0	3-8	3-8
I	3514	0	3514	0	3-8	3-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	2153	1315 / 0	0 / 0	0 / 0	0 / 0	838 / 0	0 / 0
I	2505	1532 / 0	0 / 0	0 / 0	0 / 0	973 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.10 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 A-O, H-I
2x4 DRY SPF No.2 T-BRACE AT B-N, G-J

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)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRAC LENGTH FR-TO	MAX. FACTORED CSI (LC)
FR-O-A	-2960 / 0	0.0	0.0	0.86 (1)	6.53	A- N	0 / 4231
A- B	-3120 / 0	-78.0	-78.0	0.29 (1)	4.50	N- B	-2719 / 0
B- C	-5540 / 0	-78.0	-78.0	0.46 (1)	3.38	B- M	0 / 3246
C- D	-5540 / 0	-78.0	-78.0	0.28 (1)	3.55	M- C	-327 / 0
D- E	-5219 / 0	-78.0	-78.0	0.34 (1)	3.57	K- F	-639 / 0
E- P	-5219 / 0	-78.0	-78.0	0.34 (1)	3.57	K- G	0 / 2477
P- F	-5219 / 0	-165.7	-165.7	0.34 (1)	3.57	J- G	-2819 / 0
F- G	-5219 / 0	-165.7	-165.7	0.71 (1)	3.10	J- H	0 / 4582
G- H	-3373 / 0	-165.7	-165.7	0.57 (1)	3.97	M- D	0 / 162
I- H	-3401 / 0	0.0	0.0	0.99 (1)	6.08	D- K	-423 / 0
O- N	-82 / 0	-18.5	-18.5	0.06 (4)	6.25		
N- M	0 / 3120	-18.5	-18.5	0.40 (1)	10.00		
M- L	0 / 5451	-151.1	-151.1	0.73 (1)	10.00		
L- Q	0 / 5451	-151.1	-151.1	0.73 (1)	10.00		
Q- K	0 / 5451	-39.3	-39.3	0.73 (1)	10.00		
K- J	0 / 3373	-39.3	-39.3	0.46 (1)	10.00		
J- I	-94 / 0	-39.3	-39.3	0.11 (4)	6.25		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE FRONT	DIR. VERT	TYPE TOTAL	HEEL ---	CONN. C1
M	12-0-1	-1352	-1352	---					

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
SIDE 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 12-11-8 OF SPAN
MEASURED FROM THE RIGHT.

GIRDER TYPE: CStdGirder
START DISTANCE = 12-0-1
START SPAN CARRIED = 7-6-0
END DISTANCE = 18-5-8
END SPAN CARRIED = 7-6-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF G.S.L.

*** 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 CBCBC 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 (0.24")
ALLOWABLE DEFL.(TL)= L/360 (1.02")
CALCULATED VERT. DEFL.(TL) = L/ 778 (0.47")

WS: TC=0.99/1.00 (H-I:1) , BC=0.73/1.00 (K-M:1) , CB=0.81/1.00 (H-J:1) , CSI=0.40/1.00 (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

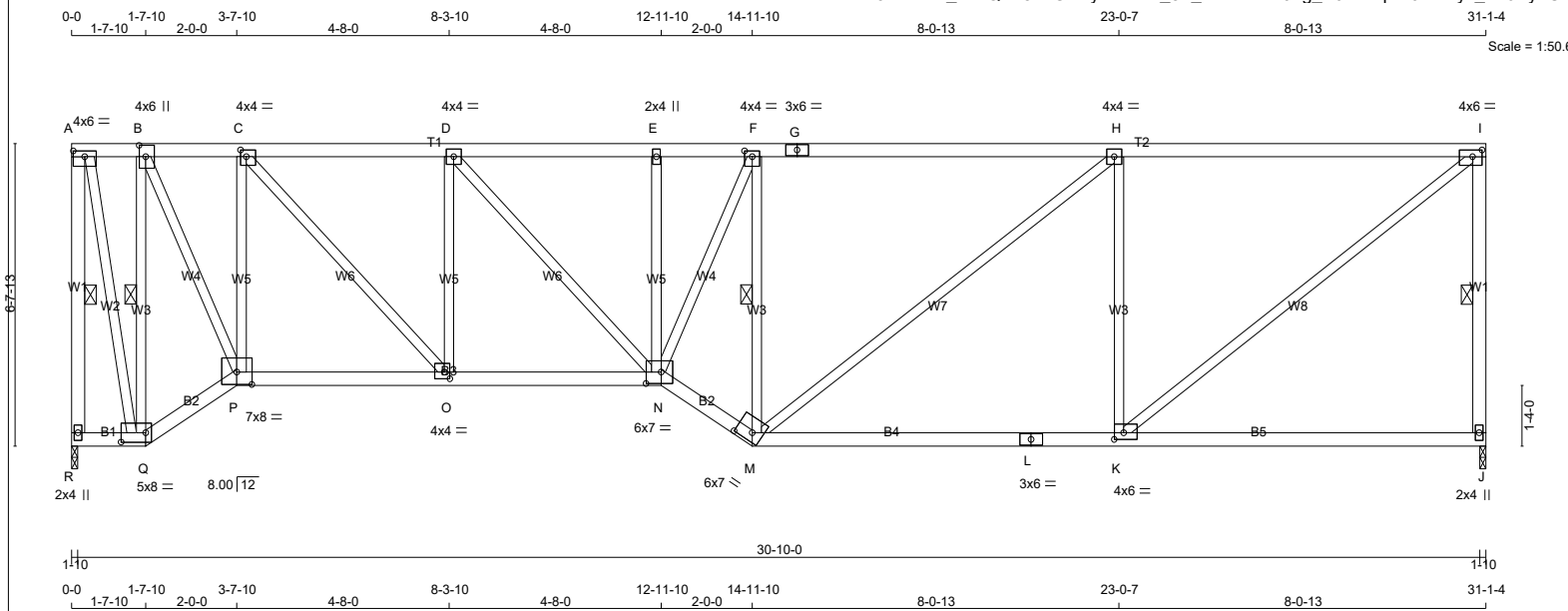
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Scale = 1:50.5



T-S	-84 / 0	-39.3	-39.3	0.02 (4)	6.25	N-H	-130 / 0	0.51 (1)
S-R	0 / 835	-127.0	-127.0	0.16 (1)	10.00	N-I	0 / 2051	0.51 (1)
R-Q	0 / 2439	-127.0	-127.0	0.50 (1)	10.00	L-I	-2477 / 0	0.64 (1)
Q-P	0 / 4712	-127.0	-127.0	0.79 (1)	10.00	L-J	0 / 3842	0.95 (1)
P-O	0 / 5389	-127.0	-127.0	0.75 (1)	10.00			
O-N	0 / 4073	-39.3	-39.3	0.87 (1)	10.00			
N-M	0 / 2645	-39.3	-39.3	0.61 (1)	10.00			
M-L	0 / 2645	-39.3	-39.3	0.61 (1)	10.00			
L-K	-82 / 0	-39.3	-39.3	0.27 (4)	6.25			

CONTINUED ON PAGE 2



TOTAL WEIGHT = 152 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR.
R - A	2x4	DRY	No.2	SPF
A - G	2x4	DRY	1650F 1.5E	SPF
G - I	2x4	DRY	1650F 1.5E	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	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.50	1.75
B	TMVW+t	MT20	4.0	6.0	3.00	3.00
C	TMVW-t	MT20	4.0	4.0	1.75	1.50
D	TMVW-t	MT20	4.0	4.0		
E	TMVW+w	MT20	2.0	4.0		
F	TMVW-t	MT20	4.0	4.0	1.50	2.00
G	TS-t	MT20	3.0	6.0		
H	TMVW-t	MT20	4.0	4.0		
I	TMVW-t	MT20	4.0	6.0	1.75	2.50
J	BMV1+p	MT20	2.0	4.0		
K	BMVW-t	MT20	4.0	6.0	1.75	2.50
L	BS-t	MT20	3.0	6.0		
M	BBVW-h	MT20	6.0	7.0	2.25	4.25
N	BBVW-w-p	MT20	6.0	7.0	3.00	4.00
O	BMVW-t	MT20	4.0	4.0	1.75	1.50
P	BBVW-t	MT20	7.0	8.0	3.25	4.00
Q	BBVW-t	MT20	5.0	8.0	2.50	6.50
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							
JT	FACTORED		MAXIMUM FACTORED			INPUT	REQRD
	GROSS	REACTION	GROSS	REACTION	BRG	BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	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 = 4.38 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, F-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)

C H O R D S					W E B S			
MAX. FACTORED		FACTORED			MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO		LENGTH	FR-TO			
R-A	-1485 / 0	0.0	0.0	0.30 (1)	5.38	A-Q	0 / 1435 0.32 (1)	
A-B	-358 / 0	-78.0	-78.0	0.07 (1)	6.25	Q-B	-1577 / 0 0.45 (1)	
B-C	-975 / 0	-78.0	-78.0	0.10 (1)	6.25	B-P	0 / 1661 0.37 (1)	
C-D	-1856 / 0	-78.0	-78.0	0.22 (1)	5.28	P-C	-1253 / 0 0.53 (1)	
D-E	-2272 / 0	-78.0	-78.0	0.23 (1)	4.88	C-O	0 / 1272 0.29 (1)	
E-F	-2269 / 0	-78.0	-78.0	0.34 (1)	4.70	O-D	-848 / 0 0.36 (1)	
F-G	-1883 / 0	-78.0	-78.0	0.81 (1)	4.38	D-N	0 / 610 0.14 (1)	
G-H	-1883 / 0	-78.0	-78.0	0.81 (1)	4.38	N-E	-124 / 0 0.05 (1)	
H-I	-1518 / 0	-78.0	-78.0	0.77 (1)	4.80	N-F	0 / 1059 0.24 (1)	
J-I	-1443 / 0	0.0	0.0	0.29 (1)	5.44	M-F	-1448 / 0 0.41 (1)	
						M-H	0 / 465 0.10 (1)	
R-Q	0 / 0	-18.5	-18.5	0.01 (4)	10.00	K-H	-1016 / 0 0.74 (1)	
Q-P	0 / 399	-18.5	-18.5	0.08 (1)	10.00	K-I	0 / 1932 0.43 (1)	
P-O	0 / 1001	-18.5	-18.5	0.21 (1)	10.00			
O-N	0 / 1856	-18.5	-18.5	0.35 (1)	10.00			
N-M	0 / 2234	-18.5	-18.5	0.37 (1)	10.00			
M-L	0 / 1518	-18.5	-18.5	0.49 (4)	10.00			
L-K	0 / 1518	-18.5	-18.5	0.49 (4)	10.00			
K-J	0 / 0	-18.5	-18.5	0.34 (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

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 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.29")

CSI: TC=0.81/1.00 (F-H:1), BC=0.49/1.00 (K-M:4),
WB=0.74/1.00 (H-K:1), SSI=0.30/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

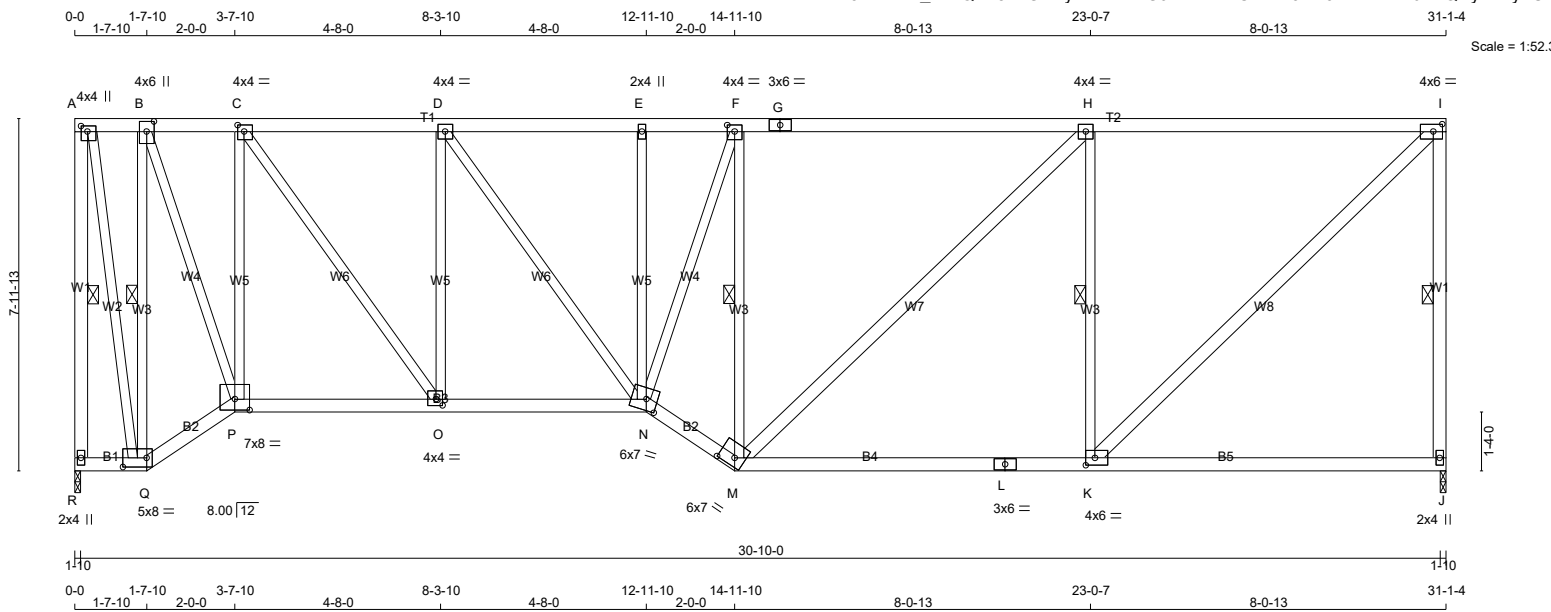
NAIL VALUES

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



TOTAL WEIGHT = 175 lb

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
M - 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	TMVW+t	MT20	4.0	6.0	2.75	2.00	
C	TMVW-t	MT20	4.0	4.0	1.75	1.75	
D	TMVW-t	MT20	4.0	4.0			
E	TMVW+w	MT20	2.0	4.0			
F	TMVW-t	MT20	4.0	4.0	1.75	2.00	
G	TS-t	MT20	3.0	6.0			
H	TMVW-t	MT20	4.0	4.0			
I	TMVW-t	MT20	4.0	6.0	2.00	2.50	
J	BMV1+p	MT20	2.0	4.0			
K	BMVW-t	MT20	4.0	6.0	2.00	2.50	
L	BS-t	MT20	3.0	6.0			
M	BBVW-h	MT20	6.0	7.0	2.25	4.25	
N	BBVWW-m	MT20	6.0	7.0	3.00	3.00	
O	BMVW-t	MT20	4.0	4.0	1.75	1.75	
P	BBVW-l	MT20	7.0	8.0	3.00	4.00	
Q	BBVW-l	MT20	5.0	8.0	2.50	6.50	
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		MAXIMUM FACTORED			INPUT	REQRD
	GROSS REACTION		GROSS REACTION			BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	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 = 3.72 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, F-M, H-K.

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	FACTORED		MAX. UNBRAC	MEMB.	MAX. FACTORED	MAX. CSI (LC)		
	FORCE (LBS)	VERT. LOAD (PLF)	LC1 CSI (LC)			FORCE (LBS)			
FR-TO		FROM	TO	LENGTH	FR-TO				
R-A	-1485 / 0	0.0	0.0	0.43 (1)	5.38	A-Q	0 / 1420 0.32 (1)		
A-B	-296 / 0	-78.0	-78.0	0.08 (1)	6.25	Q-B	-1539 / 0 0.62 (1)		
B-C	-777 / 0	-78.0	-78.0	0.12 (1)	6.25	B-P	0 / 1572 0.35 (1)		
C-D	-1468 / 0	-78.0	-78.0	0.27 (1)	5.11	P-C	-1253 / 0 0.92 (1)		
D-E	-1795 / 0	-78.0	-78.0	0.29 (1)	4.71	C-O	0 / 1162 0.26 (1)		
E-F	-1793 / 0	-78.0	-78.0	0.41 (1)	4.48	O-D	-848 / 0 0.62 (1)		
F-G	-1556 / 0	-78.0	-78.0	1.00 (1)	3.72	D-N	0 / 552 0.12 (1)		
G-H	-1556 / 0	-78.0	-78.0	1.00 (1)	3.72	N-E	-125 / 0 0.09 (1)		
H-I	-1256 / 0	-78.0	-78.0	0.94 (1)	4.13	N-F	0 / 805 0.18 (1)		
I-J	-1443 / 0	0.0	0.0	0.41 (1)	5.44	M-F	-1235 / 0 0.50 (1)		
R-Q	0 / 0	-18.5	-18.5	0.01 (4)	10.00	M-H	0 / 415 0.07 (1)		
Q-P	0 / 330	-18.5	-18.5	0.07 (4)	10.00	K-H	-1015 / 0 0.41 (1)		
P-O	0 / 790	-18.5	-18.5	0.18 (4)	10.00	K-I	0 / 1735 0.28 (1)		
O-N	0 / 1468	-18.5	-18.5	0.29 (1)	10.00				
N-M	0 / 1850	-18.5	-18.5	0.31 (1)	10.00				
M-L	0 / 1256	-18.5	-18.5	0.47 (4)	10.00				
L-K	0 / 1256	-18.5	-18.5	0.47 (4)	10.00				
K-J	0 / 0	-18.5	-18.5	0.35 (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

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) = $L/999$ (0.25")

CSI: TC=1.00/1.00 (F-H:1), BC=0.47/1.00 (K-M:4),
WB=0.92/1.00 (C-P:1), SSI=0.30/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

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

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



BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	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 = 4.03 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, F-M, H-K.

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. LOCAL 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	-252 / 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				

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 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.24")

CSI: TC=0.95/1.00 (F-H:1), BC=0.45/1.00 (K-M:4),
WB=0.86/1.00 (B-Q:1), SSI=0.30/1.00 (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.

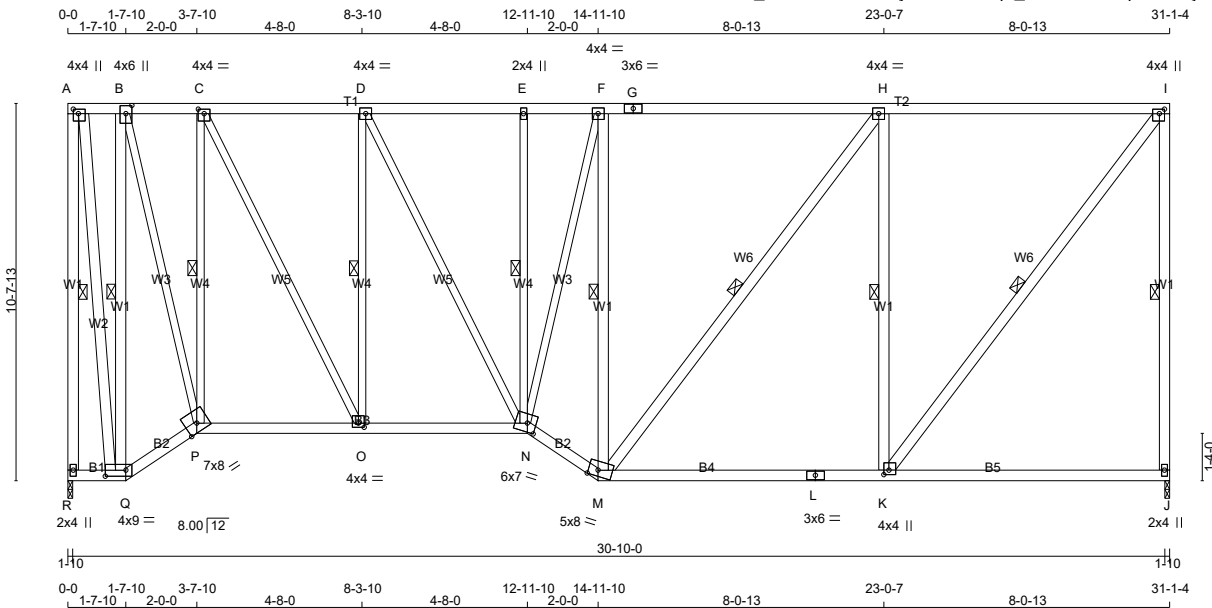
JSI GRIP= 0.90 (Q) (INPUT = 0.90)
JSI METAL= 0.36 (K) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336323	H25T		1	TRUSS DESC. JT 45147	E21104350

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 222 lb

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.

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

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

TOTAL LOAD CASES: (4)

CHORDS		MAX. FACTORED		FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX	UNBRAC	MEMB.	FORCE (LBS)	MAX	CSI (LC)
FR-TO		FROM TO				FR-TO			
R-A	-1485 / 0	0.0	0.0	0.85 (1)	5.38	A-Q	0 / 1428	0.23 (1)	
A-B	-223 / 0	-78.0	-78.0	0.05 (1)	6.25	Q-B	-1511 / 0	0.86 (1)	
B-C	-541 / 0	-78.0	-78.0	0.10 (1)	6.25	B-P	0 / 1464	0.33 (1)	
C-D	-1035 / 0	-78.0	-78.0	0.25 (1)	5.85	P-C	-1235 / 0	0.70 (1)	
D-E	-1264 / 0	-78.0	-78.0	0.26 (1)	5.41	C-O	0 / 1063	0.24 (1)	
E-F	-1263 / 0	-78.0	-78.0	0.39 (1)	5.19	O-D	-850 / 0	0.48 (1)	
F-G	-1156 / 0	-78.0	-78.0	0.91 (1)	4.30	D-N	0 / 499	0.11 (1)	
G-H	-1156 / 0	-78.0	-78.0	0.91 (1)	4.30	N-E	-131 / 0	0.07 (1)	
H-I	-932 / 0	-78.0	-78.0	0.88 (1)	4.72	E-F	0 / 519	0.12 (1)	
I-J	-1443 / 0	0.0	0.0	0.82 (1)	5.44	F-G	-971 / 0	0.55 (1)	
R-Q	0 / 0	-18.5	-18.5	0.01 (4)	10.00	M-H	0 / 364	0.06 (1)	
Q-P	0 / 242	-18.5	-18.5	0.05 (1)	10.00	H-K	-1014 / 0	0.58 (1)	
P-O	0 / 555	-18.5	-18.5	0.16 (4)	10.00	K-I	0 / 1518	0.24 (1)	
O-N	0 / 1035	-18.5	-18.5	0.22 (1)	10.00				
N-M	0 / 1373	-18.5	-18.5	0.23 (1)	10.00				
M-L	0 / 933	-18.5	-18.5	0.44 (4)	10.00				
L-K	0 / 933	-18.5	-18.5	0.44 (4)	10.00				
K-J	0 / 0	-18.5	-18.5	0.35 (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 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 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.23")

CSI: TC=0.91/1.00 (F-H:1) , BC=0.44/1.00 (K-M:4) , WB=0.86/1.00 (B-Q:1) , SSI=0.30/1.00 (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

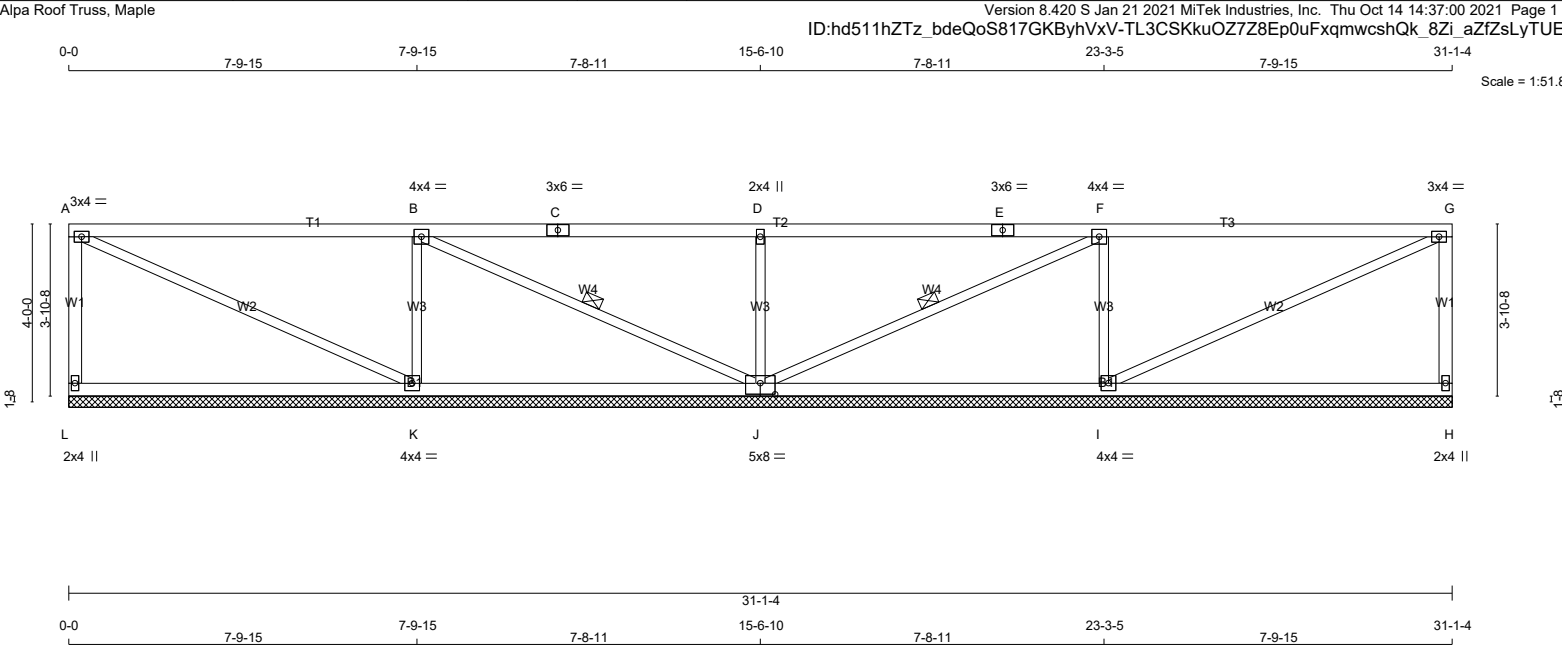
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.41 (I) (INPUT = 1.00)

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336323	H27P		1	TRUSS DESC. JT 45147	E21104351

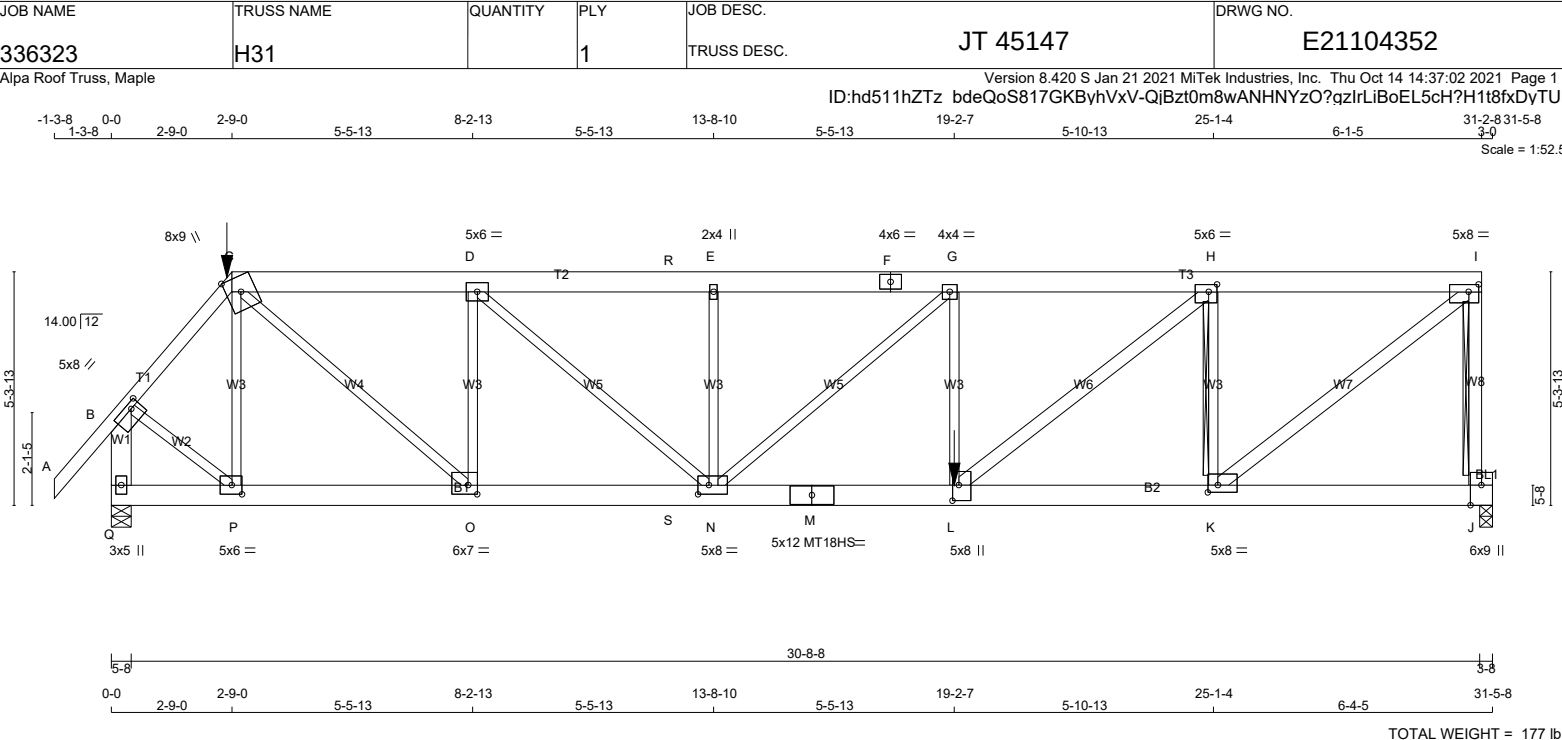


LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. L - A 2x4 DRY No.2 SPF A - C 2x4 DRY No.2 SPF C - E 2x4 DRY No.2 SPF E - G 2x4 DRY No.2 SPF H - G 2x4 DRY No.2 SPF L - J 2x4 DRY No.2 SPF J - H 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.					
PLATES (table is in inches) JT TYPE PLATES W LEN Y X A TMVW-t MT20 3.0 4.0 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-t MT20 3.0 4.0 H BMV1+p MT20 2.0 4.0 I BMWW1-t MT20 4.0 4.0 J BSWWW1-t MT20 5.0 8.0 3.00 4.00 K BMWW1-t MT20 4.0 4.0 L BMV1+p MT20 2.0 4.0					
BEARINGS FACTORED MAXIMUM FACTORED INPUT REQD GROSS REACTION GROSS REACTION BRG BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX L 297 0 297 0 0 31-1-4 (15-6-10) H 297 0 297 0 0 31-1-4 (15-6-10) K 840 0 840 0 0 31-1-4 (15-6-10) J 728 0 728 0 0 31-1-4 (15-6-10) I 840 0 840 0 0 31-1-4 (15-6-10)					
VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH					
UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL L 211 130 / 0 0 / 0 0 / 0 81 / 0 0 / 0 H 211 130 / 0 0 / 0 0 / 0 81 / 0 0 / 0 K 601 355 / 0 0 / 0 0 / 0 245 / 0 0 / 0 J 516 335 / 0 0 / 0 0 / 0 181 / 0 0 / 0 I 601 355 / 0 0 / 0 0 / 0 245 / 0 0 / 0					
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) L, H, K, J, I					
BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. 1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-J, F-J. 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)					

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=0.70/1.00 (B-D:1) , BC=0.33/1.00 (K-L:4) , WB=0.15/1.00 (B-K: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= 0.79 (G) (INPUT = 0.90) JSI METAL= 0.36 (C) (INPUT = 1.00)					
CHORDS MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD (PLF) LC1 MAX CSI (LC) UNBRACED LENGTH FR-TO FR-TO L-A -242 / 0 0.0 0.0 0.06 (1) 7.81 A-K 0 / 4 0.00 (1) A-B -4 / 0 -78.0 -78.0 0.69 (1) 10.00 K-B -662 / 0 0.15 (1) B-C 0 / 67 -78.0 -78.0 0.70 (1) 10.00 B-J -78 / 0 0.04 (1) C-D 0 / 67 -78.0 -78.0 0.70 (1) 10.00 J-D -556 / 0 0.13 (1) D-E 0 / 67 -78.0 -78.0 0.70 (1) 10.00 J-F -78 / 0 0.04 (1) E-F 0 / 67 -78.0 -78.0 0.70 (1) 10.00 I-F -662 / 0 0.15 (1) F-G -4 / 0 -78.0 -78.0 0.69 (1) 10.00 I-G 0 / 4 0.00 (1) H-G -242 / 0 0.0 0.0 0.06 (1) 7.81 L-K 0 / 0 -18.5 -18.5 0.33 (4) 10.00 K-J 0 / 4 -18.5 -18.5 0.33 (4) 10.00 J-I 0 / 4 -18.5 -18.5 0.33 (4) 10.00 I-H 0 / 0 -18.5 -18.5 0.33 (4) 10.00					

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 - F	2x6	DRY No.2	SPF
F - I	2x6	DRY No.2	SPF
J - I	2x4	DRY No.2	SPF
Q - B	2x6	DRY No.2	SPF
Q - M	2x6	DRY 1650F 1.5E	SPF
M - J	2x6	DRY 1650F 1.5E	SPF

BEARING BLOCKS

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

ALL WEBS EXCEPT

L - 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
B	TMVW-t	MT20	5.0	8.0	1.50 2.50
C	TTWW+m	MT20	8.0	9.0	Edge
D	TMWW-t	MT20	5.0	6.0	
E	TMW+w	MT20	2.0	4.0	
F	TS-t	MT20	4.0	6.0	
G	TMWW-t	MT20	4.0	4.0	
H	TMWW-t	MT20	5.0	6.0	2.00 2.25
I	TMVW-t	MT20	5.0	8.0	2.00 2.75
J	BMVK1+t	MT20	6.0	9.0	Edge 3.00
K	BMWW-t	MT20	5.0	8.0	2.00 2.75
L	BMWW+t	MT20	5.0	8.0	4.25 1.75
M	BS-t	MT18HS	5.0	12.0	
N	BMWWW-t	MT20	5.0	8.0	2.50 3.00
O	BMWW-t	MT20	6.0	7.0	2.50 2.50
P	BMWW-t	MT20	5.0	6.0	2.50 2.75
Q	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	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
J	2995	0	2995	0
Q	3389	0	3389	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	2135	1305 / 0	0 / 0	0 / 0	0 / 0	830 / 0	0 / 0
Q	2415	1480 / 0	0 / 0	0 / 0	0 / 0	935 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.12 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 I-J, H-K

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.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-78.0 -78.0	0.12 (1)	10.00	P-C	-822 / 0	0.31 (1)
B-C	-2791 / 0	-78.0 -78.0	0.24 (1)	3.94	C-O	0 / 3521	0.87 (1)
C-D	-4434 / 0	-153.5 -153.5	0.48 (1)	3.67	O-D	-2197 / 0	0.83 (1)
D-R	-5830 / 0	-153.5 -153.5	0.59 (1)	3.12	D-N	0 / 1865	0.46 (1)
R-E	-5830 / 0	-78.0 -78.0	0.59 (1)	3.12	N-E	-538 / 0	0.20 (1)
E-F	-5830 / 0	-78.0 -78.0	0.39 (1)	3.37	N-G	-125 / 0	0.13 (1)
F-G	-5830 / 0	-78.0 -78.0	0.39 (1)	3.37	L-G	-317 / 0	0.12 (1)
G-H	-5924 / 0	-78.0 -78.0	0.47 (1)	3.27	L-H	0 / 3321	0.59 (1)
H-I	-3361 / 0	-78.0 -78.0	0.29 (1)	4.38	K-H	-2650 / 0	0.86 (1)
J-I	-2941 / 0	0.0 0.0	0.73 (1)	6.55	K-I	0 / 4408	0.78 (1)
Q-B	-3389 / 0	0.0 0.0	0.28 (1)	5.72	B-P	0 / 2101	0.52 (1)

Q-P	0 / 0	-36.4 -36.4	0.08 (4)	10.00			
P-O	0 / 1800	-36.4 -36.4	0.22 (1)	10.00			
O-S	0 / 4434	-36.4 -36.4	0.46 (1)	10.00			
S-N	0 / 4434	-136.1 -136.1	0.46 (1)	10.00			
N-M	0 / 5924	-136.1 -136.1	0.67 (1)	10.00			
M-L	0 / 5924	-136.1 -136.1	0.67 (1)	10.00			
L-K	0 / 3361	-18.5 -18.5	0.32 (1)	10.00			
K-J	-88 / 0	-18.5 -18.5	0.05 (4)	6.25			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	2-9-0	-156	-156	---	FRONT	VERT	TOTAL	---	C1
L	19-2-7	-1368	-1368	---	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

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 GSL.
LOADS APPLIED TO FIRST 12-9-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder
START DISTANCE = 12-9-0
START SPAN CARRIED = 6-10-8
END DISTANCE = 19-2-7
END SPAN CARRIED = 6-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

(55 % OF 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 (0.22")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 849 (0.44")
CSI: TC=0.73/1.00 (I-J:1), BC=0.67/1.00 (L-N:1), WB=0.87/1.00 (C-O:1), SSI=0.33/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

Scale = 1:52.5



DRY: SEASONED LUMBER.

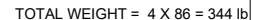
Edge - INDICATES REFERENCE CORNER OF PLATE
TOUCHES EDGE OF CHORD.

Y. WIDYA
100225448
10/14/2021

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

COMPANION LIVE LOAD FACTOR = 1.00

Scale = 1:39.6



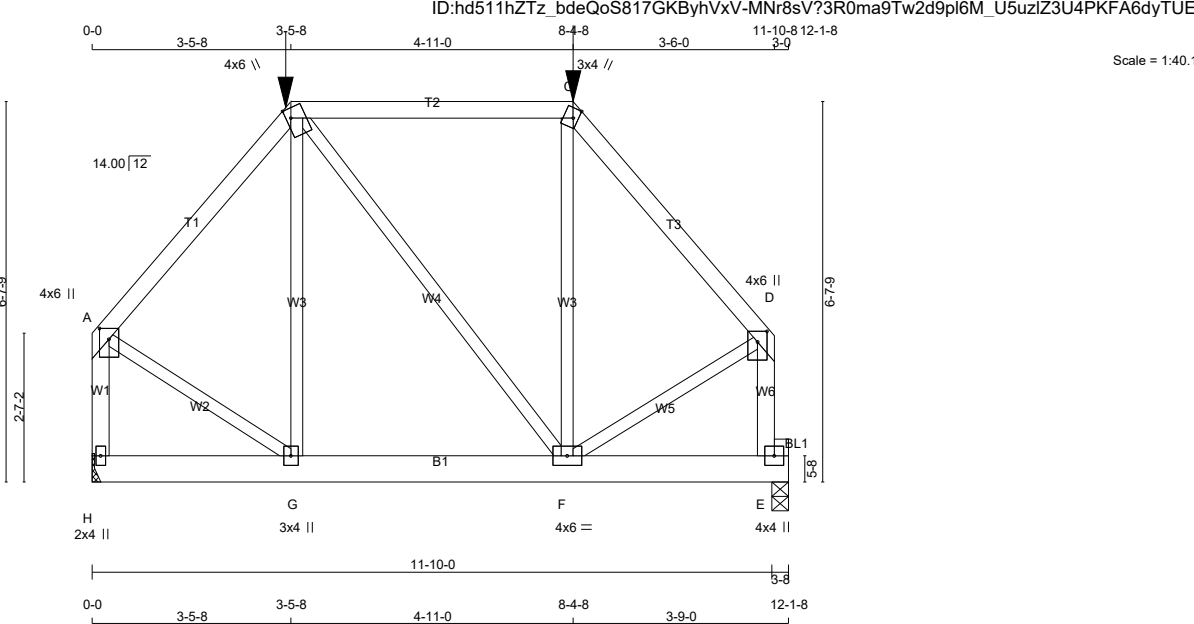
JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.22 (E) (INPUT = 1.00)

Y. WIDYA
100225448
10/14/2021

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336323	H102S		1	TRUSS DESC. JT 45147	E21104367

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 3 X 67 = 201 lb [M]

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER		DESCR.
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
H - A	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
H - E	2x6	DRY	No.2	SPF
BEARING BLOCKS				
BL1	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	TTWW+m	MT20	4.0	6.0	2.00 1.00
C	TTW+m	MT20	3.0	4.0	2.00 1.00
D	TMVW+p	MT20	4.0	6.0	2.25 2.00
E	BMVK1+p	MT20	4.0	4.0	
F	BMWWW-t	MT20	4.0	6.0	
G	BMWWW-t	MT20	3.0	4.0	
H	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	BRG	BRG
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
H	814	0		814	0	0	MECHANICAL		
E	833	0		833	0	0	3-8	2-8	

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

UNFACTORED REACTIONS		1ST LCASE MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
H	581	352 / 0	0 / 0	0 / 0	0 / 0	228 / 0	0 / 0	
E	594	363 / 0	0 / 0	0 / 0	0 / 0	231 / 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 = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX UNBRAC LENGTH	
FR-TO		FROM TO		FR-TO			
A - B	-557 / 0	-78.0 -78.0	0.19 (1)	G - B	-92 / 55	0.06 (1)	
B - C	-354 / 0	-114.5 -114.5	0.53 (1)	B - F	-8 / 0	0.01 (1)	
C - D	-550 / 0	-78.0 -78.0	0.19 (1)	F - C	-115 / 48	0.08 (1)	
H - A	-776 / 0	0.0 0.0	0.11 (1)	A - G	0 / 421	0.10 (1)	
E - D	-796 / 0	0.0 0.0	0.11 (1)	F - D	0 / 475	0.12 (1)	
H - G	0 / 0	-27.2 -27.2	0.05 (4)	10.00			
G - F	0 / 359	-27.2 -27.2	0.08 (4)	10.00			
F - E	-55 / 0	-27.2 -27.2	0.05 (4)	6.25			

FACTORED CONCENTRATED LOADS (LBS)									
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
B	3-5-8	-107	-107	---	FRONT	VERT	TOTAL	---	C1
C	8-4-8	-116	-116	---	FRONT	VERT	TOTAL	---	C1

DESIGN CRITERIA

SPECIFIED LOADS:
LEFT 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 = 3-5-8
RIGHT SETBACK = 3-9-0
END SETBACK = 3-10-8
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.

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 (0.39")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.01")

CSI: TC=0.53/1.00 (B-C:1) , BC=0.08/1.00 (F-G:4) , WB=0.12/1.00 (D-F:1) , SSI=0.24/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES				
PLATE	GRIP(DRY)	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= 0.68 (G) (INPUT = 0.90)
JSI METAL= 0.22 (A) (INPUT = 1.00)

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

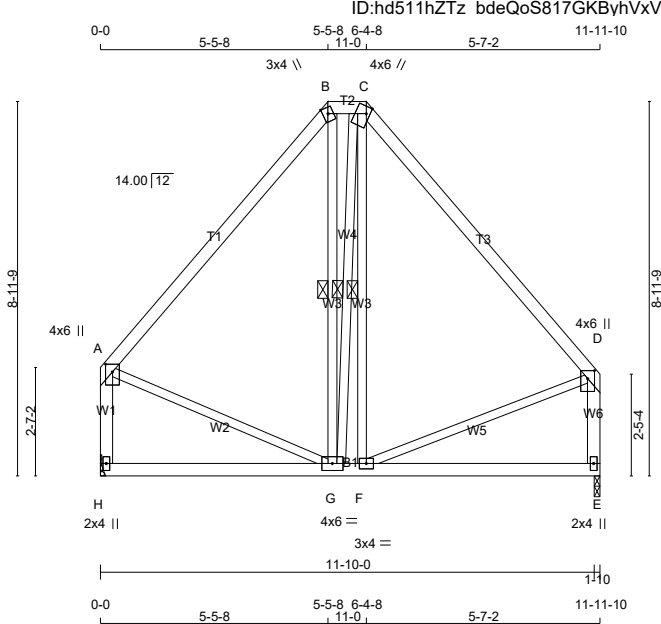


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336323	H103S		1	TRUSS DESC. JT 45147	E21104369

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-myWHUX1xkx990wedIHNSk c2f5z9mRHW5ITqixyTUEP



TOTAL WEIGHT = 3 X 69 = 208 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
C - D	2x4	DRY	No.2	SPF
H - A	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
H - 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
A	TMVW+p	MT20	4.0	6.0	2.25 2.00
B	TTW+m	MT20	3.0	4.0	Edge
C	TTWW+m	MT20	4.0	6.0	2.00 1.00
D	TMVW+p	MT20	4.0	6.0	2.25 2.00
E	BMV1+p	MT20	2.0	4.0	
F	BMWW-t	MT20	3.0	4.0	
G	BMWWW-t	MT20	4.0	6.0	
H	BMV1+p	MT20	2.0	4.0	

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
H	577	0		577	0	0	MECHANICAL		
E	577	0		577	0	0	1-10	1-8	

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
H	412	251 / 0	0 / 0	0 / 0	0 / 0	160 / 0	0 / 0	
E	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) 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.

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

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		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX
FR-TO		FROM TO	CSI (LC)	LENGTH FR-TO			CSI (LC)
A-B	-317 / 0	-78.0	-78.0 0.30 (1)	6.25	G-B	-7 / 46	0.02 (4)
B-C	-205 / 0	-78.0	-78.0 0.01 (1)	6.25	G-C	-10 / 0	0.01 (1)
C-D	-318 / 0	-78.0	-78.0 0.32 (1)	6.25	F-C	-1 / 45	0.02 (4)
H-A	-536 / 0	0.0	0.0 0.07 (1)	7.81	A-G	0 / 221	0.05 (1)
E-D	-535 / 0	0.0	0.0 0.07 (1)	7.81	F-D	0 / 220	0.05 (1)
H-G	0 / 0	-18.5	-18.5 0.14 (4)	10.00			
G-F	0 / 206	-18.5	-18.5 0.16 (4)	10.00			
F-E	0 / 0	-18.5	-18.5 0.14 (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, 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=0.32/1.00 (C-D:1) , BC=0.16/1.00 (F-G:4) , WB=0.05/1.00 (A-G:1) , SSI=0.11/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES				
PLATE	GRIP(DRY)	SHEAR	SECTION	
	(PSI)	(PLI)	(PLI)	
	MAX	MIN	MAX	MIN
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= 0.16 (D) (INPUT = 1.00)

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

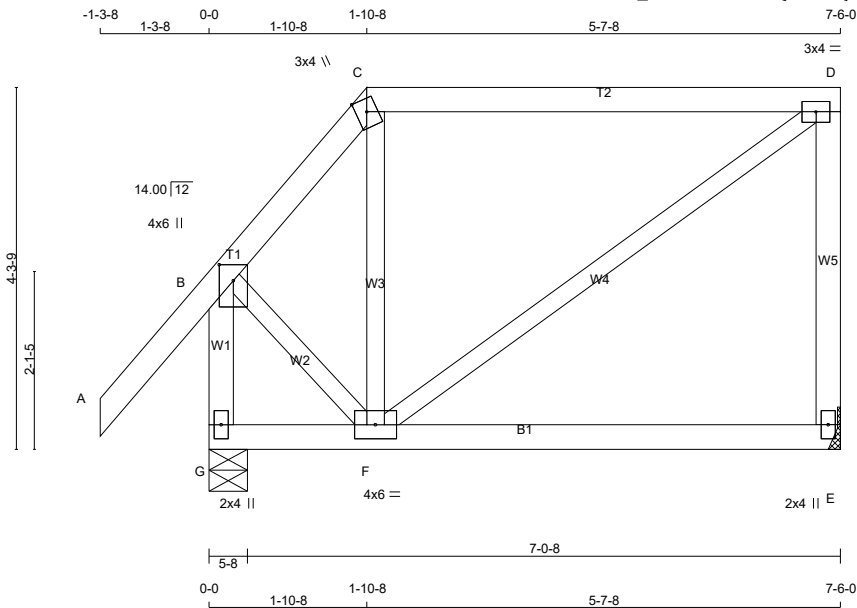


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336323	H105		1	TRUSS DESC. JT 45147	E21104372

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-fjmoKu4So9fbVYyOX7ROuqni_iMliFS60wR1sjyTUEL



TOTAL WEIGHT = 2 X 37 = 74 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - B	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+m	MT20	3.0	4.0	Edge
D	TMVW-t	MT20	3.0	4.0	
E	BMV1+p	MT20	2.0	4.0	
F	BMWWW-t	MT20	4.0	6.0	
G	BMV1+p	MT20	2.0	4.0	

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

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
JT	352	0	352	0	0	0
E	352	0	352	0	0	0
G	481	0	481	0	5-8	1-8

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

UNFACTORED REACTIONS

	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS				
		SNOW	LIVE	PERM.LIVE	WIND	DEAD
JT	251	152 / 0	0 / 0	0 / 0	0 / 0	99 / 0
E	251	152 / 0	0 / 0	0 / 0	0 / 0	99 / 0
G	341	222 / 0	0 / 0	0 / 0	0 / 0	119 / 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. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 41	-78.0 -78.0	0.11 (1)	10.00	F-C	-100 / 19	0.03 (1)
B-C	-230 / 0	-78.0 -78.0	0.11 (1)	6.25	F-D	0 / 155	0.03 (1)
C-D	-126 / 0	-78.0 -78.0	0.42 (1)	6.25	B-F	0 / 171	0.04 (1)
E-D	-309 / 0	0.0 0.0	0.09 (1)	7.81			
G-B	-488 / 0	0.0 0.0	0.06 (1)	7.81			
G-F	0 / 0	-18.5 -18.5	0.12 (4)	10.00			
F-E	0 / 0	-18.5 -18.5	0.12 (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 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 (0.25")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.25")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.42/1.00 (C-D:1) , BC=0.12/1.00 (F-G:4) , WB=0.04/1.00 (B-F:1) , SSI=0.17/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

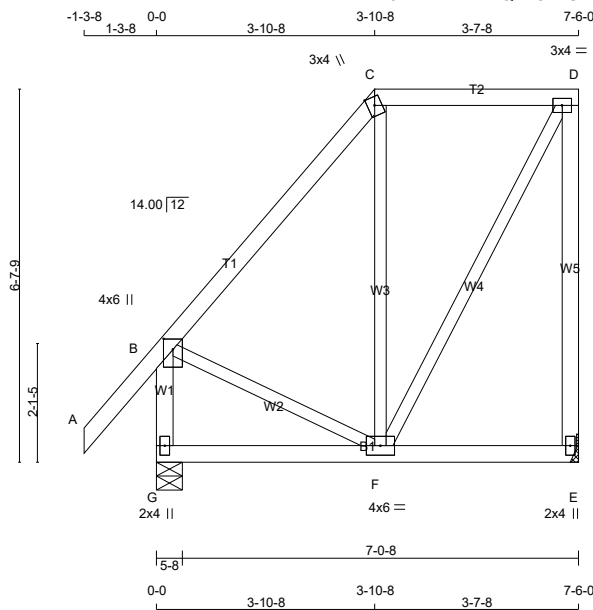
JSI GRIP= 0.58 (C) (INPUT = 0.90)
JSI METAL= 0.12 (B) (INPUT = 1.00)

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



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Scale = 1:41.0

TOTAL WEIGHT = 2 X 45 = 89 lb

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

DRY: SEASONED LUMBER.

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25	2.00
C	TTW+m	MT20	3.0	4.0	Edge	
D	TMVW-t	MT20	3.0	4.0		
E	BMV1+p	MT20	2.0	4.0		
F	BMWWW-t	MT20	4.0	6.0		
G	BMV1+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
E	362	0	362	0	0	MECHANICAL	
G	471	0	471	0	0	5-8	1-8

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	258	157 / 0	0 / 0	0 / 0	0 / 0	101 / 0	0 / 0
G	334	216 / 0	0 / 0	0 / 0	0 / 0	117 / 0	0 / 0

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 LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 41	-78.0	-78.0 0.11 (1)	10.00	F-C	-162 / 0	0.12 (1)
B-C	-173 / 0	-78.0	-78.0 0.15 (1)	6.25	F-D	0 / 225	0.05 (1)
C-D	-109 / 0	-78.0	-78.0 0.13 (1)	6.25	B-F	0 / 122	0.03 (1)
E-D	-337 / 0	0.0	0.0 0.31 (1)	7.81			
G-B	-441 / 0	0.0	0.0 0.05 (1)	7.81			
G-F	0 / 0	-18.5	-18.5 0.07 (4)	10.00			
F-E	0 / 0	-18.5	-18.5 0.07 (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

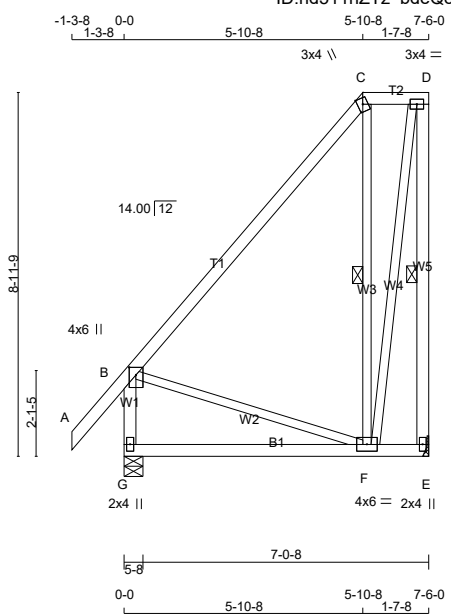
JSI GRIP= 0.43 (D) (INPUT = 0.90)
JSI METAL= 0.12 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336323	H107		1	TRUSS DESC. JT 45147	E21104374

Alpa Roof Truss, Maple

ID:hd511hZTz bdeQoS817GKByhVxV-3IRwyw6K5419M?hzCF?5WTPESwM8vzbzYiugiS2yTUEI

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Scale = 1:56.8

TOTAL WEIGHT = 2 X 53 = 107 lb
[M][F]

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER		DESCR.
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - B	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+m	MT20	3.0	4.0	Edge	
D	TMVW-t	MT20	3.0	4.0		
E	BMV1+p	MT20	2.0	4.0		
F	BMWWW-t	MT20	4.0	6.0		
G	BMV1+p	MT20	2.0	4.0		

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

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

		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
JT	E	362	0	362	0	0	MECHANICAL		
G	F	471	0	471	0	0	5-8	1-8	

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

UNFACTORED REACTIONS

		MAX./MIN. COMPONENT REACTIONS						
		1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	E	258	157 / 0	0 / 0	0 / 0	0 / 0	101 / 0	0 / 0
G	F	334	216 / 0	0 / 0	0 / 0	0 / 0	117 / 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.

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

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					MAX. FACTORED		
		MEMB.	FORCE (LBS)	VERT. LOAD			MEMB.	FORCE (LBS)	MAX
				LC1					CSI (LC)
				MAX					
				CS1 (LC)					
				UNBRAC					
				LENGTH					
				FR-TO					
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	F-C	-225 / 0	0.12 (1)	
B-C	-91 / 0	-78.0	-78.0	0.34 (1)	6.25	F-D	0 / 326	0.07 (1)	
C-D	-56 / 0	-78.0	-78.0	0.03 (1)	6.25	B-F	0 / 61	0.01 (1)	
E-D	-383 / 0	0.0	0.0	0.14 (1)	6.25				
G-B	-425 / 0	0.0	0.0	0.05 (1)	7.81				
G-F	0 / 0	-18.5	-18.5	0.14 (4)	10.00				
F-E	0 / 0	-18.5	-18.5	0.14 (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 (0.25")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.25")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.04")

CSI: TC=0.34/1.00 (B-C:1) , BC=0.14/1.00 (F-G:4) , WB=0.12/1.00 (C-F: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

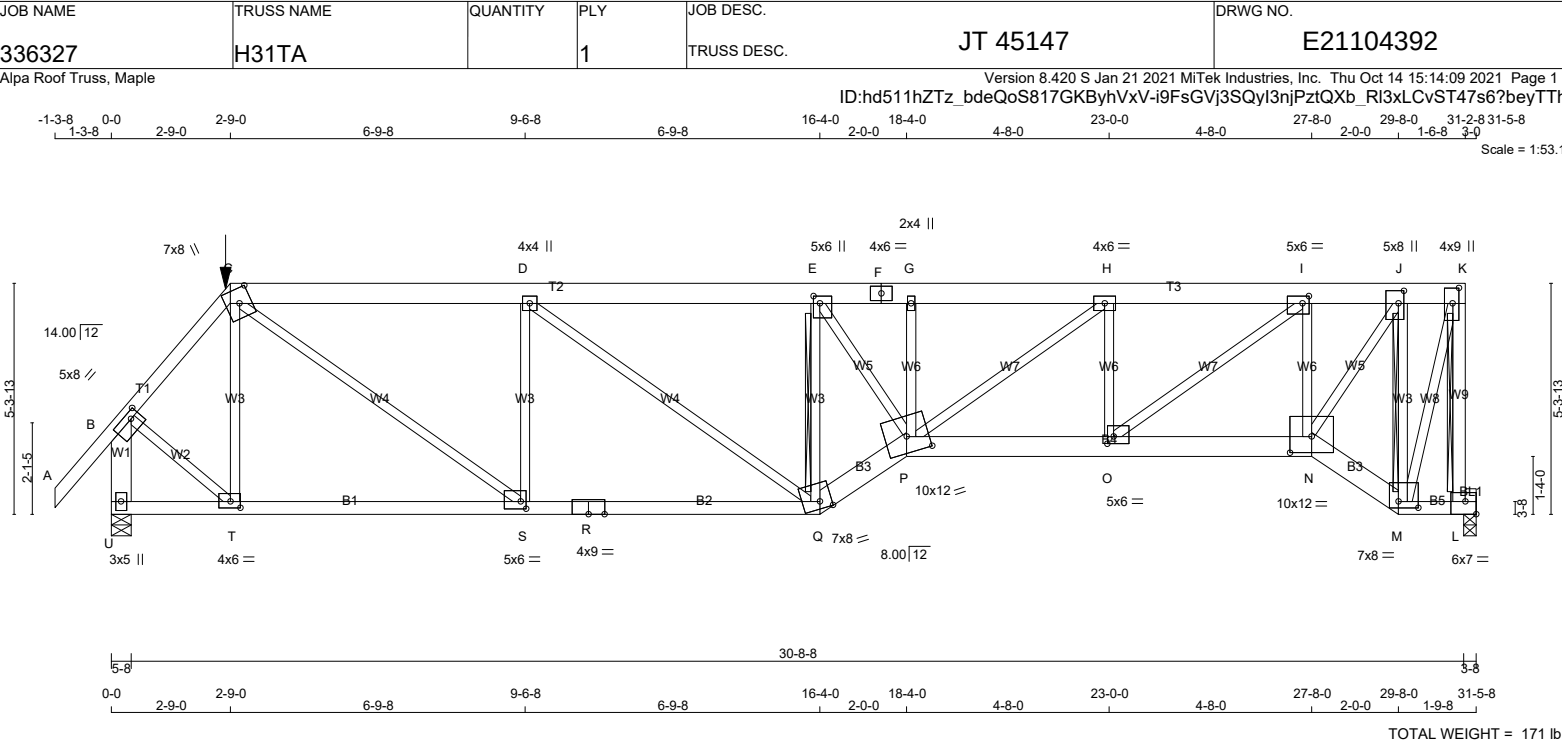
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (D) (INPUT = 0.90)
JSI METAL= 0.12 (B) (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 - F	2x6	DRY No.2	SPF
F - K	2x6	DRY No.2	SPF
L - K	2x4	DRY No.2	SPF
U - B	2x6	DRY No.2	SPF
U - R	2x4	DRY No.2	SPF
R - Q	2x4	DRY No.2	SPF
Q - P	2x6	DRY No.2	SPF
P - N	2x6	DRY No.2	SPF
N - M	2x6	DRY No.2	SPF
M - L	2x4	DRY No.2	SPF

BEARING BLOCKS

BL1	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+t	MT20	5.0	8.0	1.75	2.50
C	TTWW+m	MT20	7.0	8.0	4.00	3.25
D	TMWW+t	MT20	4.0	4.0		
E	TMWW+t	MT20	5.0	6.0	2.00	1.75
F	TS-t	MT20	4.0	6.0		
G	TMW+w	MT20	2.0	4.0		
H	TMWW-t	MT20	4.0	6.0		
I	TMWW-t	MT20	5.0	6.0	2.00	1.75
J	TMWW+t	MT20	5.0	8.0	3.50	1.50
K	TMVW+p	MT20	4.0	9.0	4.25	1.75
L	BMVK1-t	MT20	6.0	7.0	3.50	Edge
M	BBWW-l	MT20	7.0	8.0	1.75	5.50
N	BBWW-l	MT20	10.0	12.0	4.50	6.00
O	BMWW-t	MT20	5.0	6.0	2.00	1.75
P	BBWWW-m	MT20	10.0	12.0	4.50	6.00
Q	BBWW-m	MT20	7.0	8.0	2.00	3.25
R	BS-t	MT20	4.0	9.0		
S	BMWW-t	MT20	5.0	6.0	2.00	1.50
T	BMWW-t	MT20	4.0	6.0	1.75	2.75
U	BMV1+p	MT20	3.0	5.0		

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	REQD BRG
L	2965 0	2965 0	3-8	3-8
U	2999 0	2999 0	5-8	4-4

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS
L	2114	1292 / 0	0 / 0
U	2137	1310 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) L, U
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 = 3.07 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 E-Q

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)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	CS1 (LC)	MAX. UNBRAC LENGTH	MEMB.	WEBS MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)
FR-TO		FROM TO				FR-TO		
A-B	0 / 42	-78.0 -78.0	0.12 (1)	10.00		T-C	-739 / 0	0.30 (1)
B-C	-2398 / 0	-78.0 -78.0	0.20 (1)	4.24		C-S	0 / 3191	0.79 (1)
C-D	-4125 / 0	-153.5 -153.5	0.70 (1)	3.45		S-D	-1652 / 0	0.67 (1)
D-E	-4762 / 0	-153.5 -153.5	0.75 (1)	3.16		D-Q	0 / 784	0.19 (1)
E-F	-6275 / 0	-78.0 -78.0	0.51 (1)	3.07		Q-E	-3425 / 0	0.77 (1)
F-G	-6275 / 0	-78.0 -78.0	0.51 (1)	3.07		E-P	0 / 3080	0.76 (1)
G-H	-6273 / 0	-78.0 -78.0	0.49 (1)	3.13		P-G	0 / 43	0.01 (4)
H-I	-5074 / 0	-78.0 -78.0	0.27 (1)	3.70		P-H	0 / 1499	0.37 (1)
I-J	-2555 / 0	-78.0 -78.0	0.33 (1)	4.80		O-H	-1330 / 0	0.31 (1)
J-K	-722 / 0	-153.5 -153.5	0.29 (1)	6.25		O-I	0 / 3095	0.77 (1)
L-K	-2937 / 0	0.0 0.0	0.77 (1)	6.55		N-I	-2354 / 0	0.54 (1)
U-B	-2988 / 0	0.0 0.0	0.26 (1)	6.04		N-J	0 / 3680	0.91 (1)
U-T	0 / 0	-36.4 -36.4	0.25 (4)	10.00		M-J	-2880 / 0	0.99 (1)
T-S	0 / 1545	-36.4 -36.4	0.59 (4)	10.00		M-K	0 / 2683	0.66 (1)
S-R	0 / 4126	-36.4 -36.4	0.92 (1)	10.00		B-T	0 / 1828	0.45 (1)
R-Q	0 / 4126	-36.4 -36.4	0.92 (1)	10.00				
Q-P	0 / 5690	-112.0 -112.0	0.78 (1)	10.00				
P-O	0 / 5074	-112.0 -112.0	0.82 (1)	10.00				
O-N	0 / 2625	-112.0 -112.0	0.50 (1)	10.00				
N-M	0 / 802	-112.0 -112.0	0.15 (1)	10.00				
M-L	-87 / 0	-36.4 -36.4	0.02 (4)	6.25				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE FRONT	DIR. VERT	TYPE TOTAL	HEEL	CONN. C1
C	2-9-0	-156	-156	---					

CONNECTION REQUIREMENTS

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

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 1-9-8 OF SPAN MEASURED FROM THE RIGHT.

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 16-4-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder
START DISTANCE = 16-4-0
START SPAN CARRIED = 5-10-8
END DISTANCE = 29-8-0
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.

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 (0.28")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 675 (0.55")

CSI: TC=0.77/1.00 (K-L:1), BC=0.92/1.00 (Q-S:1), WB=0.99/1.00 (J-M:1), SS=0.41/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

CONTINUED ON PAGE 2

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DRY: SEASONED LUMBER.

JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.53 (R) (INPUT = 1.00)

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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) L, U

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.75 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 K-L, E-Q, J-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)

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



DESIGN CRITERIA

SPECIFIED LOADS

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)= $L/360$ (1.04")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.11")
 ALLOWABLE DEFL.(TL)= $L/360$ (1.04")
 CALCULATED VERT. DEFL.(TL) = $L/999$ (0.21")

CSI: TC=0.45/1.00 (D-E:1) , BC=0.34/1.00 (O-P:1) ,
WB=0.92/1.00 (I-N:1) , SSI=0.21/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

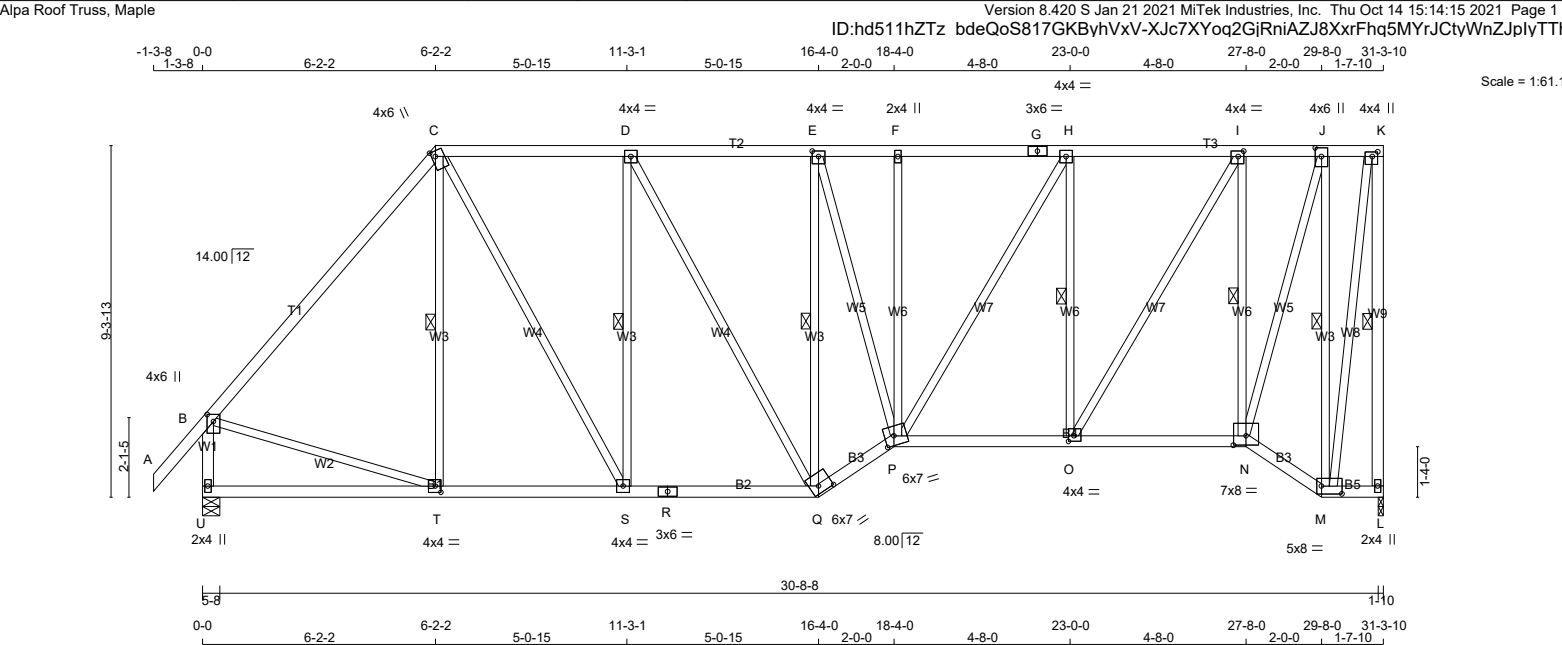
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336327	H34TA		1	TRUSS DESC. JT 45147	E21104395



LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY 2100F 1.8E	SPF
C - G	2x4	DRY No.2	SPF
G - K	2x4	DRY No.2	SPF
L - K	2x4	DRY No.2	SPF
U - B	2x4	DRY No.2	SPF
U - R	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
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 2.00
C	TTWW+m	MT20	4.0	6.0	1.75 1.25
D	TMWW-t	MT20	4.0	4.0	
E	TMWW-t	MT20	4.0	4.0	1.75 2.00
F	TMW+w	MT20	2.0	4.0	
G	TS-t	MT20	3.0	6.0	
H	TMWW-t	MT20	4.0	4.0	
I	TMWW-t	MT20	4.0	4.0	1.75 1.75
J	TMWW-t	MT20	4.0	6.0	2.75 2.00
K	TMVW+p	MT20	4.0	4.0	1.50 1.75
L	BMV1+p	MT20	2.0	4.0	
M	BBWW-i	MT20	5.0	8.0	2.50 6.50
N	BBWW-i	MT20	7.0	8.0	3.00 4.00
O	BBWW-t	MT20	4.0	4.0	1.75 1.75
P	BBWWW-m	MT20	6.0	7.0	3.00 3.00
Q	BBWW-h	MT20	6.0	7.0	2.25 4.25
R	BS-t	MT20	3.0	6.0	
S	BMWW-t	MT20	4.0	4.0	
T	BMWW-t	MT20	4.0	4.0	2.00 1.75
U	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 IN-SX	REQRD BRG IN-SX
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
L	1510	0	1510	0	1-10
U	1619	0	1619	0	5-8

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	1076	657 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0
U	1152	716 / 0	0 / 0	0 / 0	0 / 0	436 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.07 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 K-L, C-T, D-S, E-Q, H-O, I-N, J-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				
MAX. FACTORED		FACTORED		MAX. UNBRAC	MAX. FACTORED		MAX. CSI (LC)		
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)		MEMB.	FORCE (LBS)			
FR-TO		FROM	TO	LENGTH	FR-TO				
A-B	0 / 42	-78.0	-78.0 0.07 (1)	10.00	T-C	-112 / 42	0.06 (1)		
B-C	-1299 / 0	-78.0	-78.0 0.42 (1)	6.18	C-S	0 / 798	0.18 (1)		
C-D	-1234 / 0	-78.0	-78.0 0.34 (1)	5.35	S-D	-605 / 0	0.35 (1)		
D-E	-1321 / 0	-78.0	-78.0 0.34 (1)	5.21	D-Q	0 / 178	0.04 (1)		
E-F	-1500 / 0	-78.0	-78.0 0.16 (1)	5.19	Q-E	-966 / 0	0.55 (1)		
F-G	-1503 / 0	-78.0	-78.0 0.26 (1)	5.07	E-P	0 / 720	0.16 (1)		
G-H	-1503 / 0	-78.0	-78.0 0.26 (1)	5.07	P-F	-225 / 0	0.27 (1)		
H-I	-1223 / 0	-78.0	-78.0 0.25 (1)	5.51	P-H	0 / 540	0.12 (1)		
I-J	-640 / 0	-78.0	-78.0 0.11 (1)	6.25	O-H	-856 / 0	0.34 (1)		
J-K	-253 / 0	-78.0	-78.0 0.09 (1)	6.25	O-I	0 / 1109	0.25 (1)		
L-K	-1495 / 0	0.0	0.0 0.61 (1)	5.37	N-I	-1265 / 0	0.51 (1)		
U-B	-1572 / 0	0.0	0.0 0.19 (1)	6.58	N-J	0 / 1531	0.34 (1)		
					M-J	-1518 / 0	0.87 (1)		
U-T	0 / 0	-18.5	-18.5 0.16 (4)	10.00	M-K	0 / 1418	0.32 (1)		
T-S	0 / 841	-18.5	-18.5 0.24 (4)	10.00	B-T	0 / 874	0.20 (1)		
S-R	0 / 1234	-18.5	-18.5 0.25 (1)	10.00					
R-Q	0 / 1234	-18.5	-18.5 0.25 (1)	10.00					
Q-P	0 / 1574	-18.5	-18.5 0.27 (1)	10.00					
P-O	0 / 1223	-18.5	-18.5 0.25 (1)	10.00					
O-N	0 / 657	-18.5	-18.5 0.17 (4)	10.00					
N-M	0 / 283	-18.5	-18.5 0.06 (1)	10.00					
M-L	0 / 0	-18.5	-18.5 0.01 (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 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 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.20")

CSI: TC=0.61/1.00 (K-L:1) , BC=0.27/1.00 (P-Q:1) , WB=0.87/1.00 (J-M:1) , SSI=0.19/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

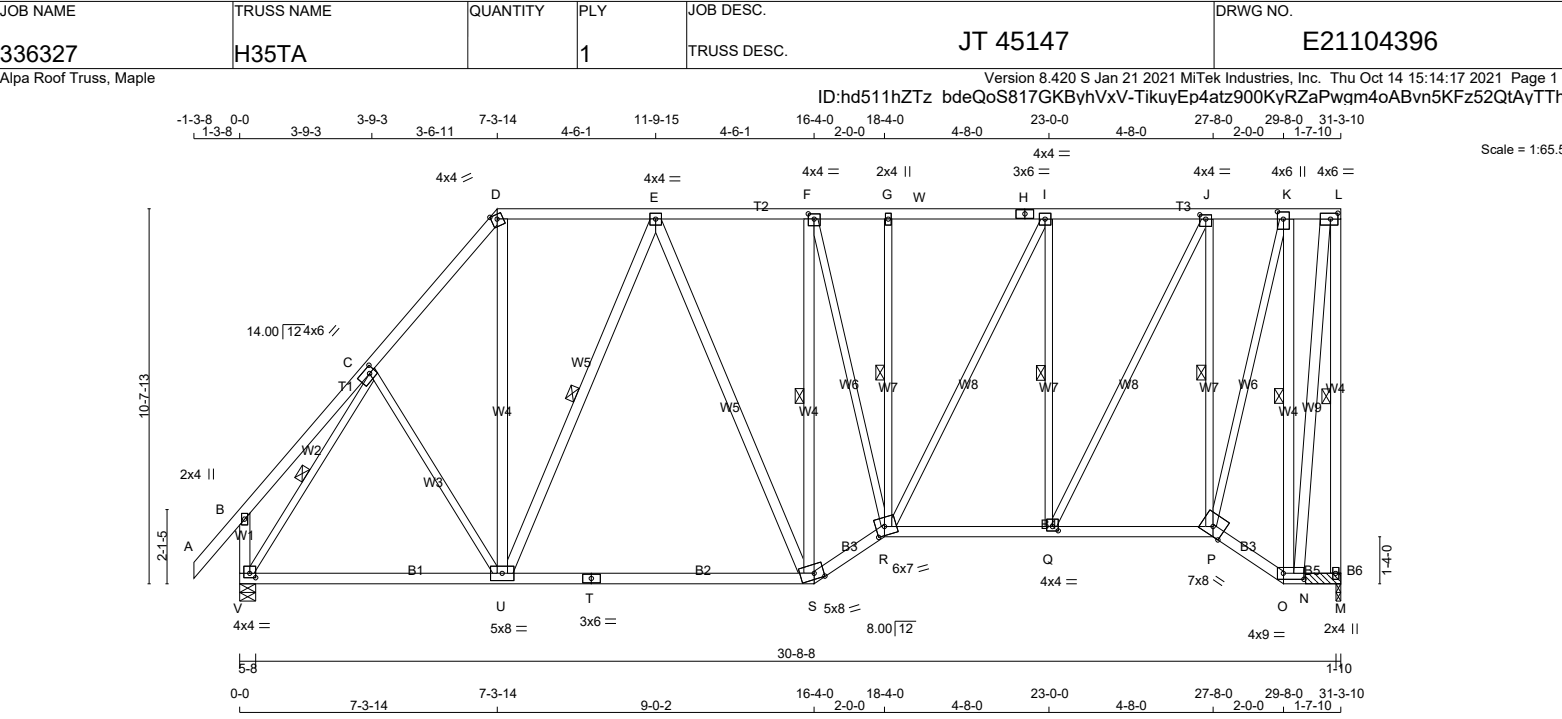
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (B) (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 - H	2x4	DRY No.2	SPF
H - L	2x4	DRY No.2	SPF
M - L	2x4	DRY No.2	SPF
V - B	2x4	DRY No.2	SPF
V - T	2x4	DRY No.2	SPF
T - S	2x4	DRY No.2	SPF
S - R	2x4	DRY No.2	SPF
R - P	2x4	DRY No.2	SPF
P - O	2x4	DRY No.2	SPF
O - M	2x4	DRY No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

U - D	2x4	DRY No.2	SPF
U - E	2x4	DRY No.2	SPF
E - S	2x4	DRY No.2	SPF
S - F	2x4	DRY No.2	SPF
O - K	2x4	DRY No.2	SPF
O - L	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	4.0	6.0	2.00	2.00
D	TTW-m	MT20	4.0	4.0		Edge
E	TMWW-t	MT20	4.0	4.0		
F	TMWW-t	MT20	4.0	4.0	1.75	2.00
G	TMW+w	MT20	2.0	4.0		
H	TS-t	MT20	3.0	6.0		
I	TMWW-t	MT20	4.0	4.0		
J	TMWW-t	MT20	4.0	4.0	1.50	2.00
K	TMWW-t	MT20	4.0	6.0	2.50	2.00
L	TMVW-t	MT20	4.0	6.0	2.00	2.50
M	BMV1+p	MT20	2.0	4.0		
O	BBWW-l	MT20	4.0	9.0	2.00	7.00
P	BBWW-h	MT20	7.0	8.0		Edge
Q	BMWW-t	MT20	4.0	4.0	1.50	2.00
R	BBWWW-m	MT20	6.0	7.0	3.00	3.00
S	BBWW-m	MT20	5.0	8.0	2.00	3.25
T	BS-t	MT20	3.0	6.0		
U	BMWWW-t	MT20	5.0	8.0		

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
M	1621	0	1621	0
V	1688	0	1688	0

UNFACTORED REACTIONS

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

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

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

BRACING

FOR SECTION D-L, MAX. PURLIN SPACING = 2.00 FT.

FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.33 FT.

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF L-M, E-U, F-S, G-R, I-Q, J-P, K-O, C-V.

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. UNBRACED 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-U	0 / 64	0.02 (4)
B-C	0 / 24	-78.0 -78.0	0.16 (1)	10.00	U-D	0 / 766	0.12 (1)
C-D	-1387 / 0	-78.0 -78.0	0.20 (1)	5.33	E-U	-666 / 0	0.47 (1)
D-E	-894 / 0	-85.5 -85.5	0.27 (1)	2.00	E-S	0 / 194	0.03 (1)
E-F	-1230 / 0	-85.5 -85.5	0.29 (1)	2.00	S-F	-903 / 0	0.52 (1)
F-G	-1369 / 0	-85.5 -85.5	0.13 (1)	2.00	F-R	0 / 656	0.15 (1)
G-W	-1372 / 0	-85.5 -85.5	0.28 (1)	2.00	R-G	-261 / 0	0.15 (1)
W-H	-1372 / 0	-85.5 -85.5	0.28 (1)	2.00	R-I	0 / 553	0.12 (1)
H-I	-1372 / 0	-85.5 -85.5	0.28 (1)	2.00	Q-I	-925 / 0	0.53 (1)
I-J	-1118 / 0	-85.5 -85.5	0.27 (1)	2.00	Q-J	0 / 1147	0.26 (1)
J-K	-585 / 0	-85.5 -85.5	0.11 (1)	2.00	P-J	-1341 / 0	0.77 (1)
K-L	-241 / 0	-85.5 -85.5	0.05 (1)	2.00	P-K	0 / 1584	0.36 (1)
M-L	-1606 / 0	0.0 0.0	0.92 (1)	5.22	O-K	-1635 / 0	0.93 (1)
V-B	-219 / 0	0.0 0.0	0.03 (1)	7.81	O-L	0 / 1543	0.25 (1)
					V-C	-1661 / 0	0.54 (1)
V-U	0 / 861	-18.5 -18.5	0.45 (4)	10.00			
U-T	0 / 1152	-18.5 -18.5	0.48 (4)	10.00			
T-S	0 / 1152	-18.5 -18.5	0.48 (4)	10.00			
S-R	0 / 1462	-18.5 -18.5	0.25 (1)	10.00			
R-Q	0 / 1118	-18.5 -18.5	0.23 (1)	10.00			
Q-P	0 / 600	-18.5 -18.5	0.17 (4)	10.00			
P-O	0 / 262	-18.5 -18.5	0.05 (1)	10.00			
O-N	0 / 0	-18.5 -18.5	0.01 (4)	10.00			
N-M	0 / 0	-18.5 -18.5	0.01 (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 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 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 (0.09")

ALLOWABLE DEFL.(TL)= L/360 (1.04")

CALCULATED VERT. DEFL.(TL) = L/999 (0.28")

CSI: TC=0.92/1.00 (L-M:1), BC=0.48/1.00 (S-U:4), WB=0.93/1.00 (K-O: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= 0.90 (Q) (INPUT = 0.90)

JSI METAL= 0.42 (T) (INPUT = 1.00)

Scale = 1:50.5



T-S	-84 / 0	-36.4	-36.4	0.02 (4)	6.25	N-I	0 / 1978	0.49 (1)
S-R	0 / 839	-112.0	-112.0	0.15 (1)	10.00	L-I	-2295 / 0	1.00 (1)
R-Q	0 / 2525	-112.0	-112.0	0.49 (1)	10.00	L-J	0 / 3711	0.92 (1)
Q-P	0 / 4863	-112.0	-112.0	0.80 (1)	10.00			
P-O	0 / 5406	-112.0	-112.0	0.74 (1)	10.00			
O-N	0 / 4086	-36.4	-36.4	0.86 (1)	10.00			
N-M	0 / 2654	-36.4	-36.4	0.60 (1)	10.00			
M-L	0 / 2654	-36.4	-36.4	0.60 (1)	10.00			
L-K	-83 / 0	-36.4	-36.4	0.25 (4)	6.25			

CONTINUED ON PAGE 2

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TOTAL WEIGHT = 72 lb

DRY: SEASONED LUMBER.

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

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

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

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 C-H, D-G.

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

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A - B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	H - C	-10 / 48 0.02 (4)
B - C	-334 / 0	-78.0	-78.0	0.35 (1)	6.25	H - D	0 / 28 0.01 (4)
C - D	-217 / 0	-78.0	-78.0	0.01 (1)	6.25	G - D	-24 / 24 0.01 (1)
D - E	-331 / 0	-78.0	-78.0	0.30 (1)	6.25	B - H	0 / 226 0.05 (1)
I - B	-656 / 0	0.0	0.0	0.08 (1)	7.81	G - E	0 / 231 0.05 (1)
F - E	-550 / 0	0.0	0.0	0.08 (1)	7.81		
I - H	0 / 0	-18.5	-18.5	0.16 (4)	10.00		
H - G	0 / 214	-18.5	-18.5	0.18 (4)	10.00		
G - F	0 / 0	-18.5	-18.5	0.14 (4)	10.00		

Y. WIDYA
100225448
10/14/2021
PROVINCE OF ONTARIO

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

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 (0.41")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.41")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.35/1.00 (B-C:1) , BC=0.18/1.00 (G-H:4) ,
WB=0.05/1.00 (E-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 .

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

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TOTAL WEIGHT = 77 lb

DRY: SEASONED LUMBER.

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

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

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

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 C-D, B-E.

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

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)	FACTORED MAX CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-B	-285 / 0	-78.0	-78.0 0.21 (1)	6.25	E-B	-253 / 0	0.18 (1)	
B-C	-181 / 0	-78.0	-78.0 0.29 (1)	6.25	E-C	0 / 384	0.06 (1)	
D-C	-544 / 0	0.0	0.0 0.27 (1)	6.25	A-E	0 / 191	0.04 (1)	
F-A	-528 / 0	0.0	0.0 0.06 (1)	7.81				
F-E	0 / 0	-18.5	-18.5 0.20 (4)	10.00				
E-D	0 / 0	-18.5	-18.5 0.20 (4)	10.00				

Y. WIDYA
100225448
10/14/2021
PROVINCE OF ONTARIO

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

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 (0.40")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.40")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.29/1.00 (B-C:1) , BC=0.20/1.00 (E-F:4) ,
WB=0.18/1.00 (B-E:1) , SSI=0.16/1.00 (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.

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= 0.63 (C) (INPUT = 0.90)
JSI METAL= 0.16 (A) (INPUT = 1.00)

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COMPANION LIVE LOAD FACTOR = 1.00

Timeline of the 2011-2012 season for the 1000m event. The timeline shows dates from 1-3-8 to 31-4-10. Key dates include 1-3-8, 3-10-11, 6-11-2, 10-9-13, 6-9-14, 17-7-11, 6-9-14, 24-5-8, 6-11-2, and 31-4-10. A scale of 1:52.3 is indicated.



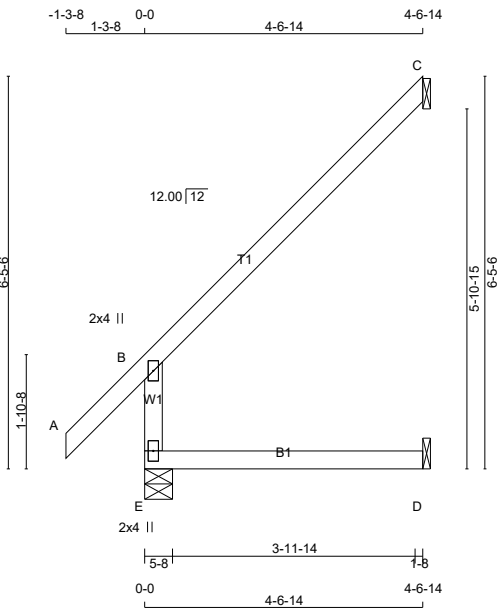
JSI GRIP= 0.90 (J) (INPUT = 0.90)
JSI METAL= 0.55 (L) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336329	J06		1	TRUSS DESC. JT 45147	E21104403

Alpa Roof Truss, Maple

ID:hd511hZTz bdeQoS817GKBVhVxV-Snz8yqC8EOKtmvnY1P7FBBGM5NHZcyXrNGpoW8yTT4b

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TOTAL WEIGHT = 4 X 17 = 67 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	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 IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	379	0	379	0	5-8	1-8
C	134	0	134	0	1-8	1-8
D	37	0	41	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	268	178 / 0	0 / 0	0 / 0	0 / 0	89 / 0	0 / 0	
C	93	72 / 0	0 / 0	0 / 0	0 / 0	21 / 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)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX LC1 (LC)	MAX UNBRAC LENGTH	WEBS MAX. FACTORED FORCE (LBS)	
	FR-TO		FROM	TO			FR-TO	
E-B	-331 / 0	0.0	0.0	0.06 (4)	7.81			
A-B	0 / 38	-78.0	-78.0	0.11 (1)	10.00			
B-C	-31 / 0	-78.0	-78.0	0.28 (1)	6.25			
E-D	0 / 0	-18.5	-18.5	0.09 (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 (0.01")

CSI: TC=0.28/1.00 (B-C:1) , BC=0.09/1.00 (D-E:4) ,
WB=0.00/1.00 (n/a:0) , SSI=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES					
PLATE GRIP(DRY)	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= 0.25 (B) (INPUT = 0.90)
JSI METAL= 0.17 (B) (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:

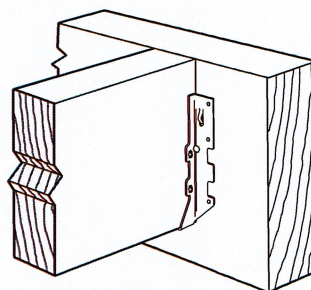
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

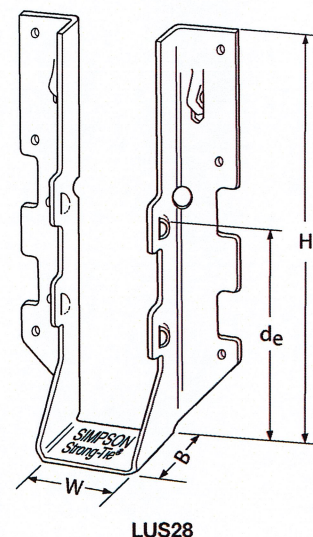
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



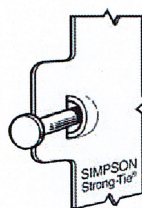
Typical LUS Installation



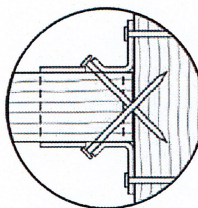
LUS28

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

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T-SPECLUS20 3/20 exp. 6/22

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HUS/LJS – Double Shear Joist Hangers

SIMPSON
Strong-Tie

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

Material: See table

Finish: G90 galvanized

Design:

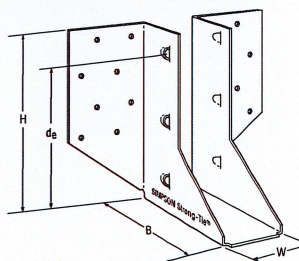
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

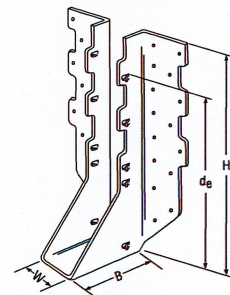
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

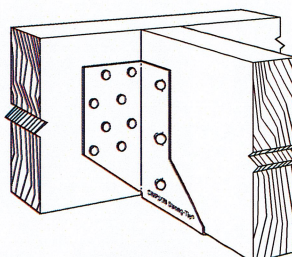
- See current catalogue for options



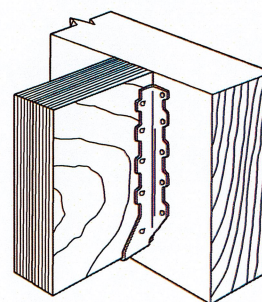
LJS26DS



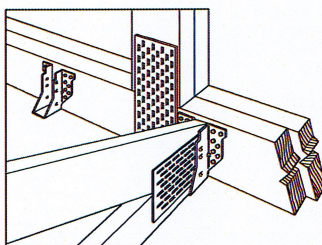
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



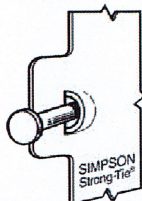
Typical HUS
Installation



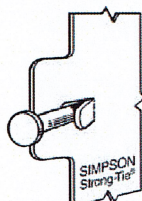
Typical HUS Installation
(Truss Designer to provide fastener
quantity for connecting multiple
members together)

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15) lb.	Normal (K ₀ =1.00) lb.	Uplift (K ₀ =1.15) lb.	Normal (K ₀ =1.00) lb.
LJS26DS	18	1½	5	3½	4⅞	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅞	3	3½	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅝	7⅜	3	6⅜	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅝	9⅜	3	7⅜	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1⅜	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

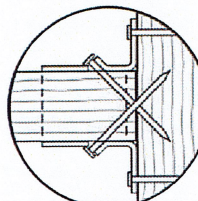
1. d_e is the distance from the seat of the hanger to the highest joist nail.



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



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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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:

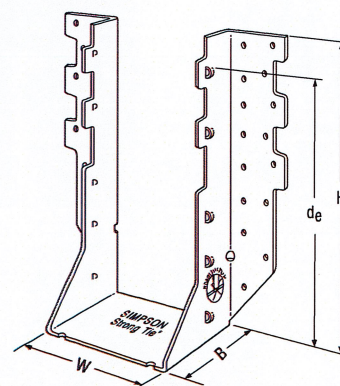
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

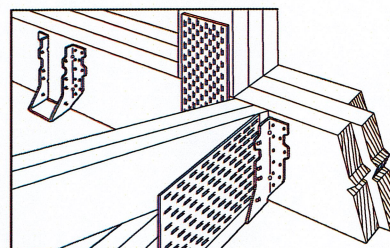
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

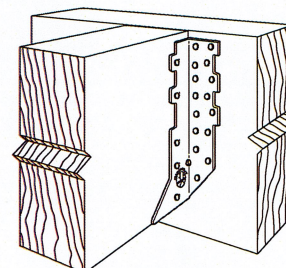
- See current catalogue for options



HHUS410



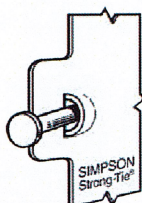
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

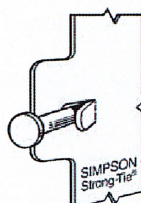
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
HHUS26-2	14	3½	5¼	3	3¼	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3½	7½	3	6½	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3½	9½	3	8	(30) 16d	(10) 16d	4670	9660	4235	7000
HHUS210-3	14	4¼	9	3	7¼	(30) 16d	(10) 16d	4670	9670	4235	6865
HHUS210-4	14	6¼	8¾	3	7¾	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS46	14	3½	5¼	3	3¼	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3½	7½	3	6½	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS410	14	3½	9	3	8	(30) 16d	(10) 16d	4670	9855	4235	7000
HHUS5.50/10	14	5½	9	3	8	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS7.25/10	14	7¼	9	3½	7¾	(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.

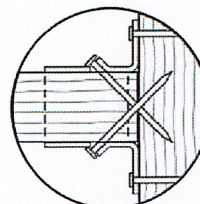


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

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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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

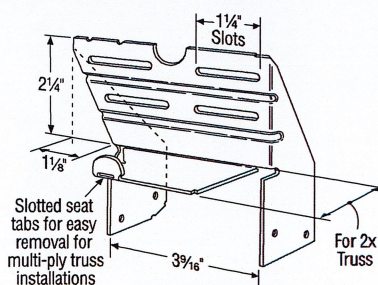
Design: Factored resistances are in accordance with CSA 086-14

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.

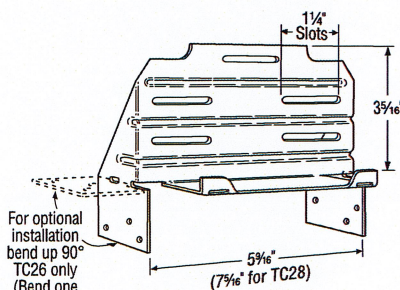
Optional TC Installation:

- 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.



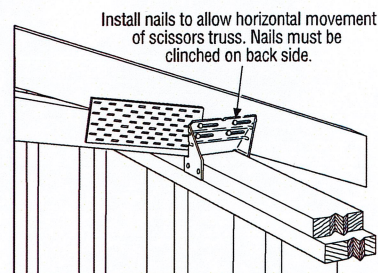
TC24

U.S. Patent 4,932,173

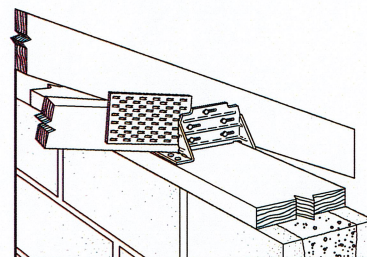


TC26

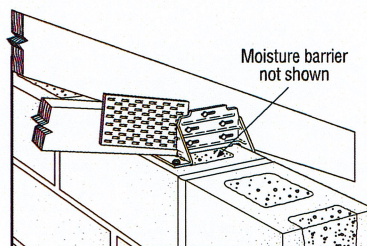
(TC28 Similar)



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.



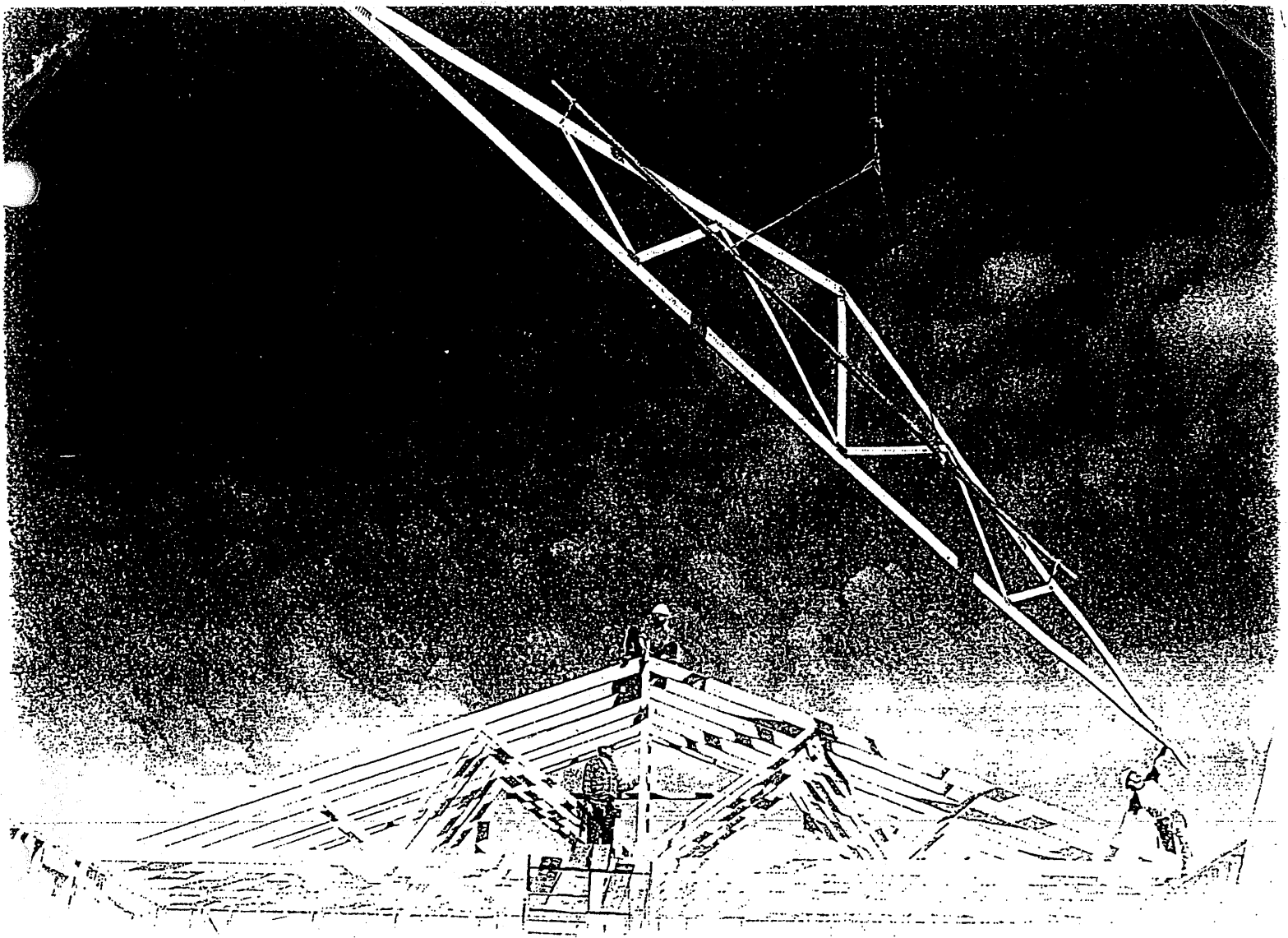
**LIMIT
STATES
DESIGN**

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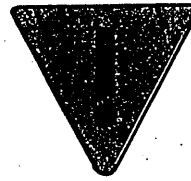
Wood Truss Installation

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

Table of Content

Warning.....	4
1 Unloading & Lifting.....	5
2 Job Site Handling.....	5
3 Hoisting.....	6
4 Beginning the Erection Process.....	7
5 Erection Tolerance.....	8
6 Bracing.....	8
7 Bracing Requirements for 3 Planes of Roof.....	9
8 Stacking Materials.....	10
Caution Notes.....	11

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

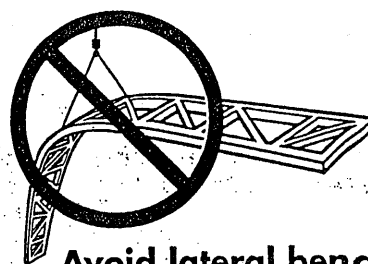
Special design requirements, such as wind bracing, portal bracing, seismic bracing, diaphragms, shear walls, or other load transfer elements and their connections to wood trusses must be considered separately by the building designer, who shall determine size, location, and method of connections for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

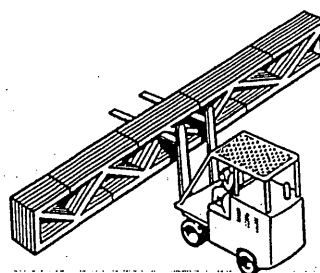
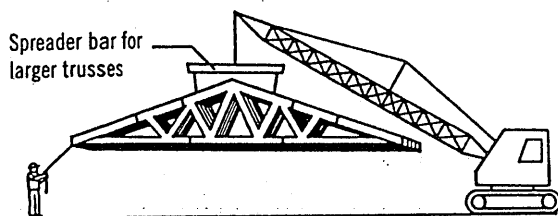


Avoid lateral bending

- 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.

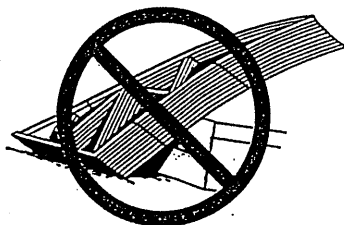
2

Job Site Handling



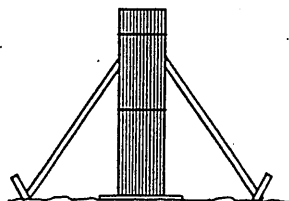
All trusses should be picked up at the top chords in a vertical position only

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.



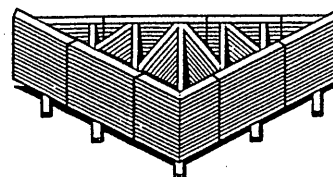
Do not store unbraced bundles upright

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.

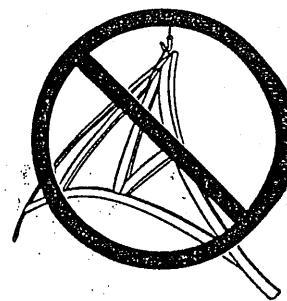


Care should be exercised when removing banding to avoid damaging trusses.

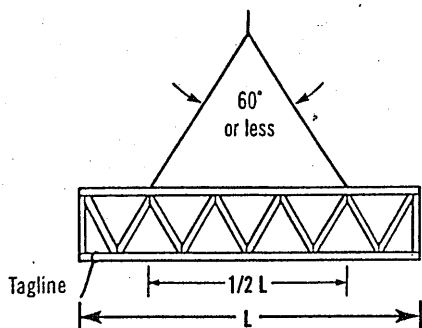
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

3 Hoisting

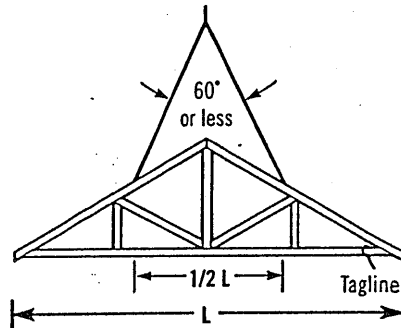
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



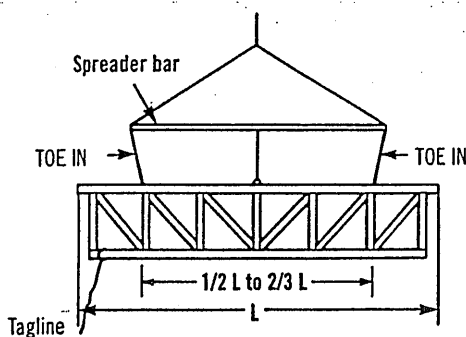
Avoid lateral bending



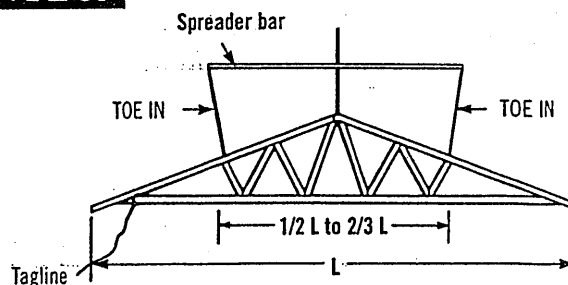
$L \leq 30'$



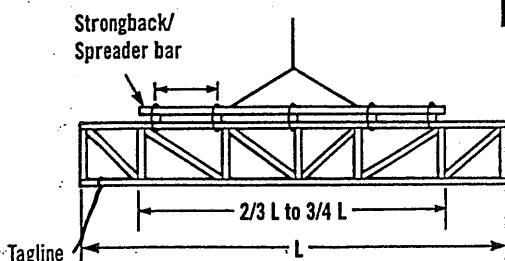
Truss sling is acceptable where these criteria are met.



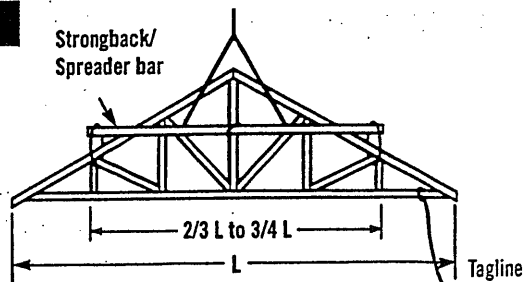
$30' < L \leq 60'$



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.



$L > 60'$



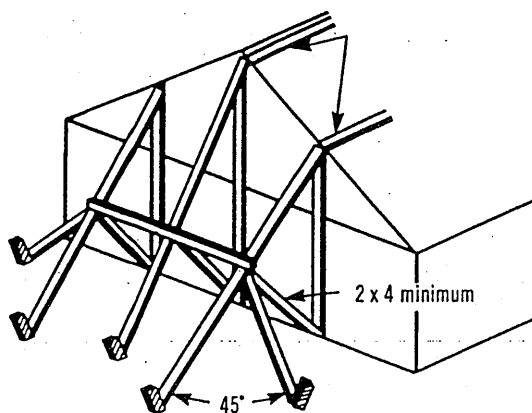
For lifting trusses with spans in excess of 60 feet, it is recommended that a strongback/spreader bar be used as illustrated. The strongback/spreader bar should be attached to the top chord and web members at intervals of approximately 10 feet. Further, the strongback/spreader bar should be at or above 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

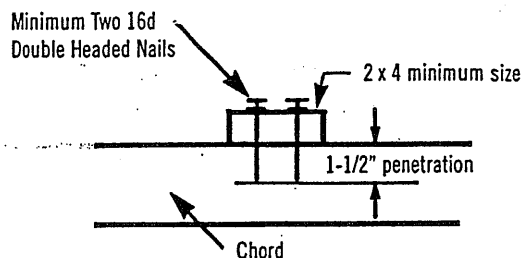
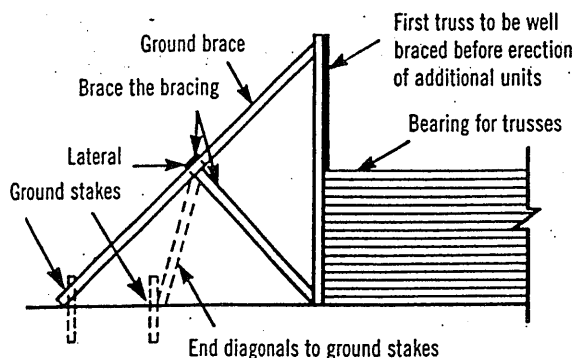
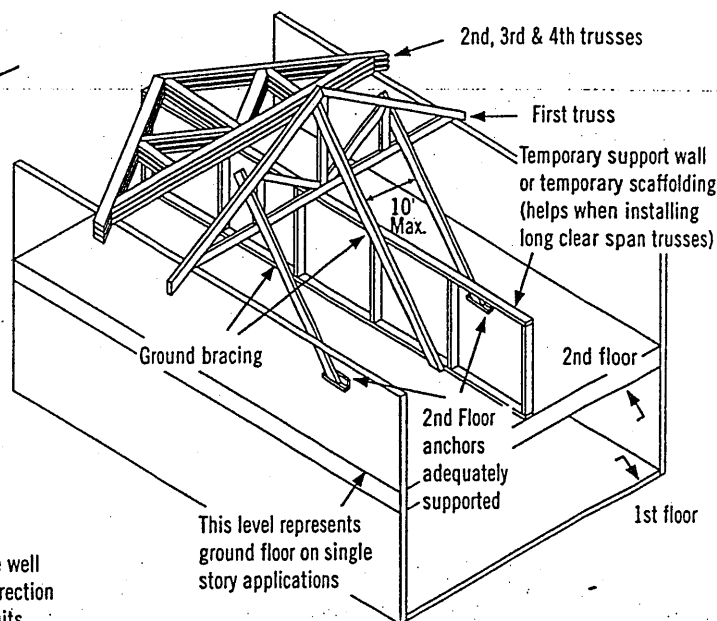
One satisfactory method ties the first unit of trusses off to a series of braces that are attached to a stake driven into the ground and securely anchored. The ground brace itself should be supported as shown below or it is apt to buckle. Additional ground braces in the opposite direction, inside the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

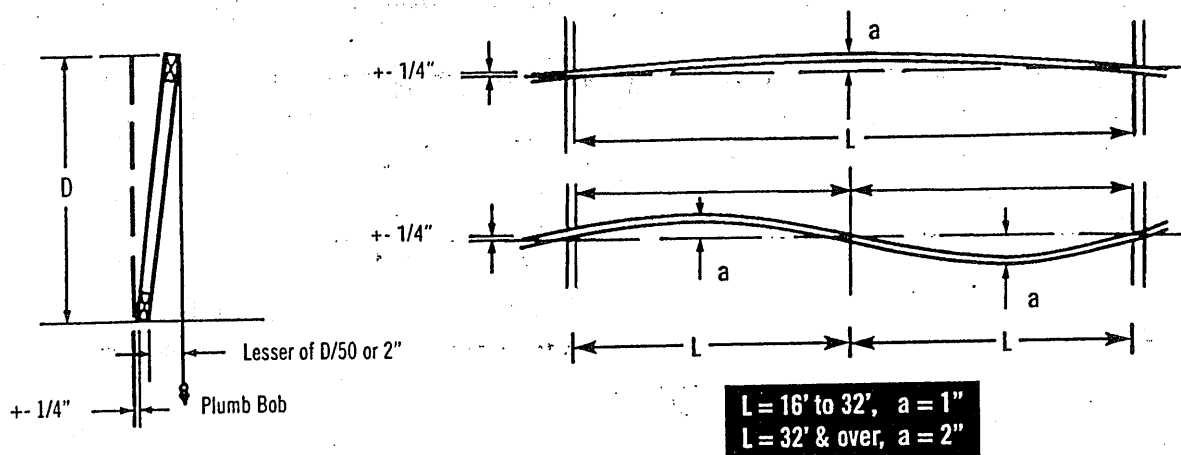


Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.

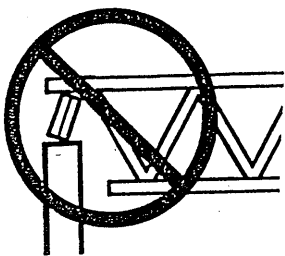
5 Erection Tolerance

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.

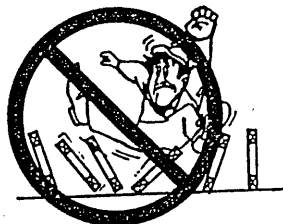
When sheathing, make sure nails are driven into the top chord of the trusses.



6 Bracing



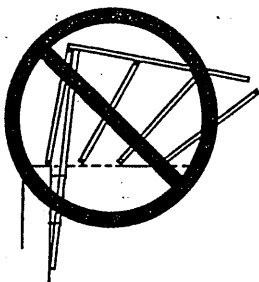
Do not install trusses on temporarily connected supports



Do not walk on unbraced trusses



Do not walk on trusses or gable ends lying flat

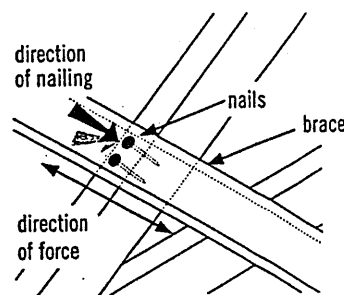


Nails in withdrawal (parallel to force)

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.



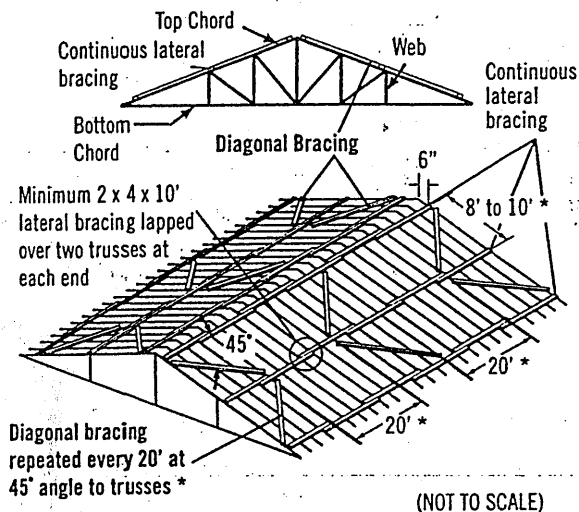
Well nailed (perpendicular to force)

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.

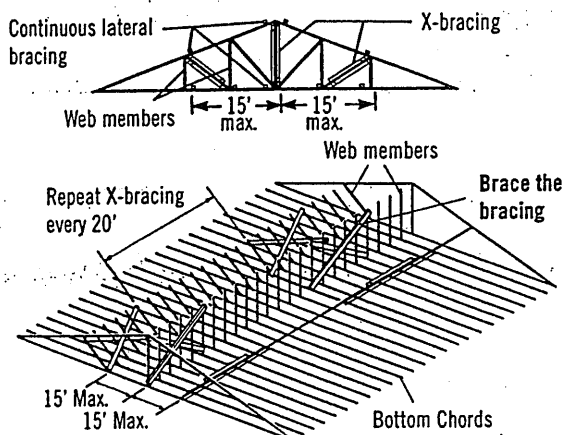


Exact spacing between trusses should be maintained as bracing is installed to avoid the hazardous practice of removing bracing to adjust spacing. This act of "adjusting spacing" can cause trusses to topple if connections are removed at the wrong time.

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.

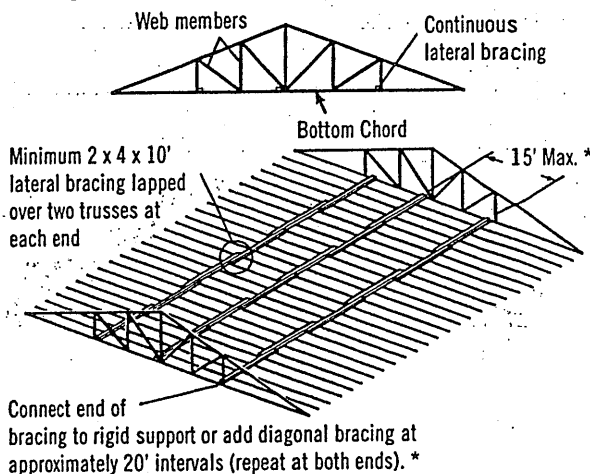
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



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

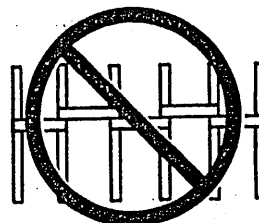
2) Bottom Chord Plane

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

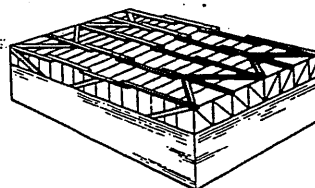


* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses) for details.

Diagonal or cross-bracing is very important!



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

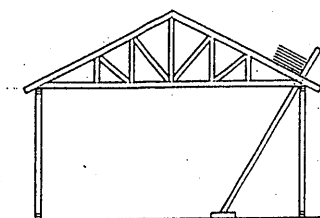
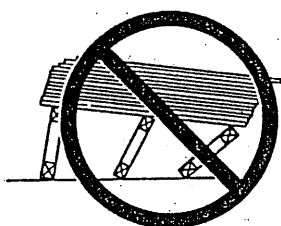


Bracing requirements using the same principles apply to parallel chord trusses

8 Stacking Materials

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

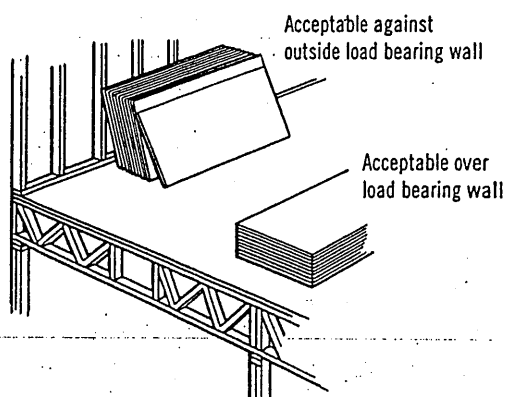
Never stack materials on unbraced or inadequately braced trusses



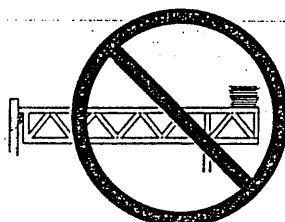
Platform must be rigidly braced

Proper distribution of construction materials is a must during construction.

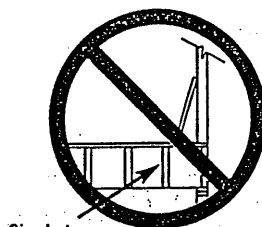
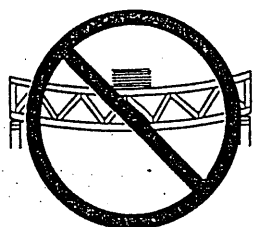
Never stack materials near a peak



Never stack materials on the cantilever of a truss

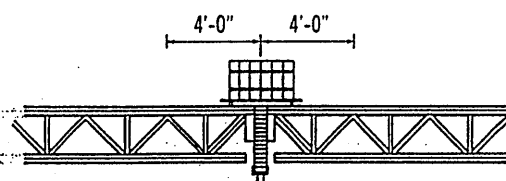


Always stack materials over two or more trusses.



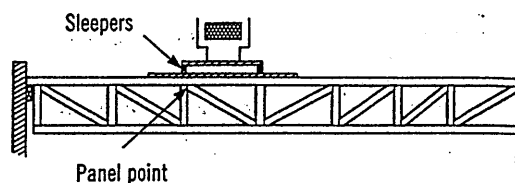
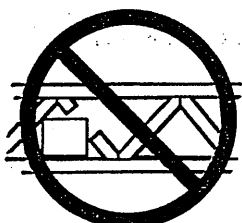
Single truss

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.



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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