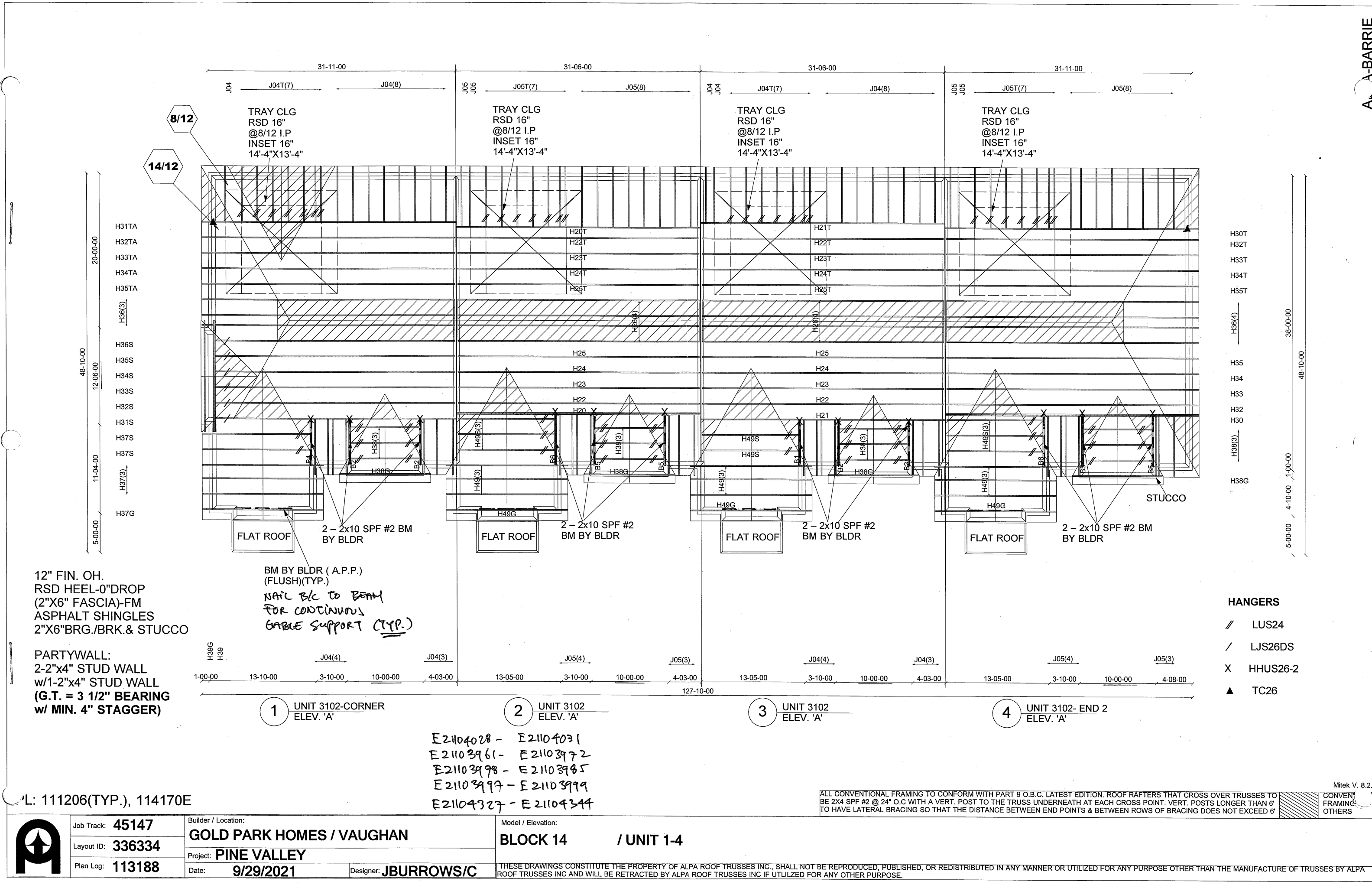




12" FIN. OH.
RSD HEEL-0" DROP
(2"x6" FASCIA)-FM
ASPHALT SHINGLES
2"x6" BRG./BRK. & STUCCO

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

BM BY BLDR (A.P.P.)
(FLUSH)(TYP.)
NAIL B/C TO BEAM
FOR CONTINUOUS
GABLE SUPPORT (TYP.)

HANGERS
// LUS24
/ LJS26DS
X HHUS26-2
▲ TC26

E21104028 - E21104031
E21103961 - E21103972
E21103978 - E21103985
E21103997 - E21103999
E21104327 - E21104344

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 O.B.C. LATEST EDITION. ROOF RAFTERS THAT CROSS OVER TRUSSES TO BE 2X4 SPF #2 @ 24" O.C WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS POINT. VERT. POSTS LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DISTANCE BETWEEN END POINTS & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'



Job Track: 45147	Builder / Location: GOLD PARK HOMES / VAUGHAN	Model / Elevation: BLOCK 14 / UNIT 1-4
Layout ID: 336334	Project: PINE VALLEY	
Plan Log: 113188	Date: 9/29/2021	Designer: JBURROWS/C

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.

CONVENTIONAL FRAMING OTHERS

L: 111206(TYP.), 114170E

EWP DESIGN INC.

(905) 832-2250

FAX (905) 832-0286

RESPONSIBILITIES AND SPECIFICATIONS

RESPONSIBILITIES

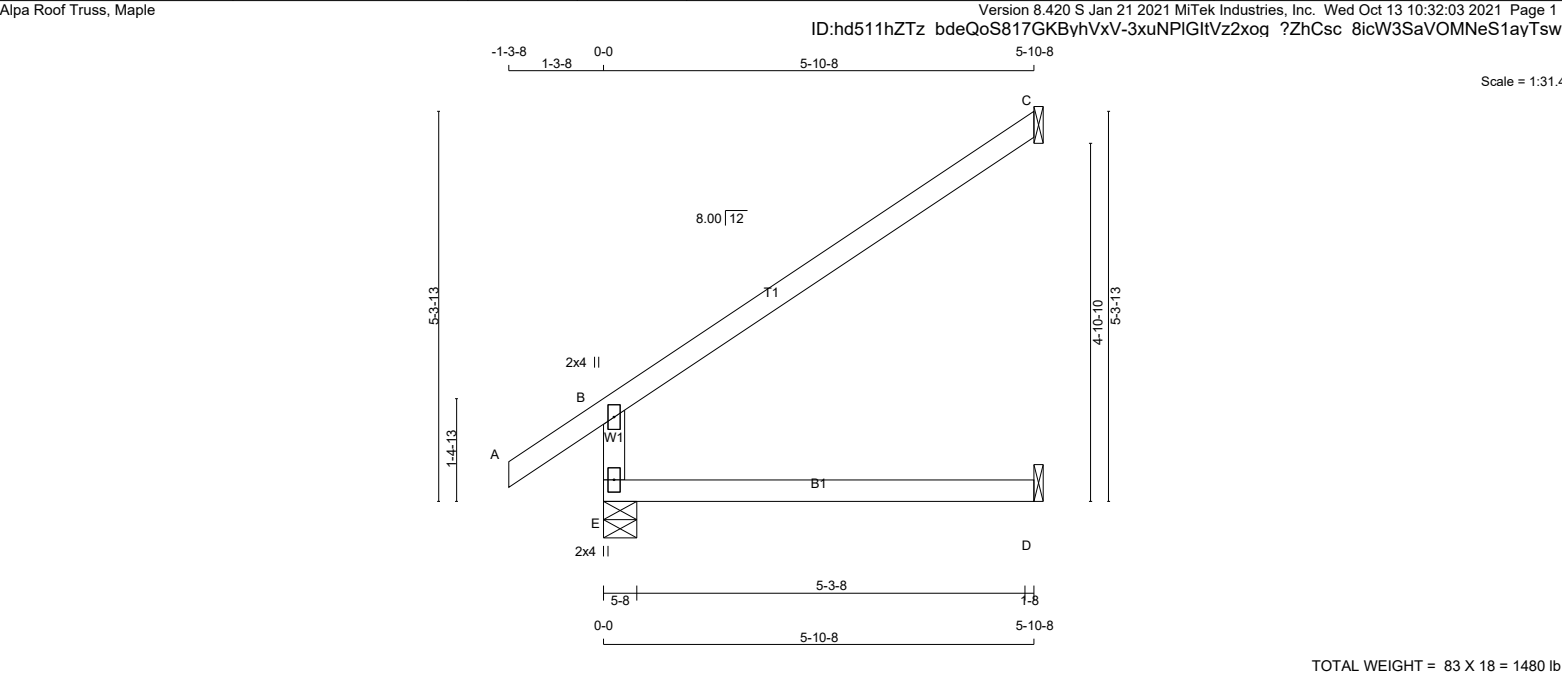
1. EWP DESIGN INC. is responsible for the design of trusses as individual components.
2. It is the responsibility of others to ascertain that the design loads utilized on each drawing meet or exceed the actual dead load imposed by the structure, the live load imposed by the intended use and the snow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

SPECIFICATIONS

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

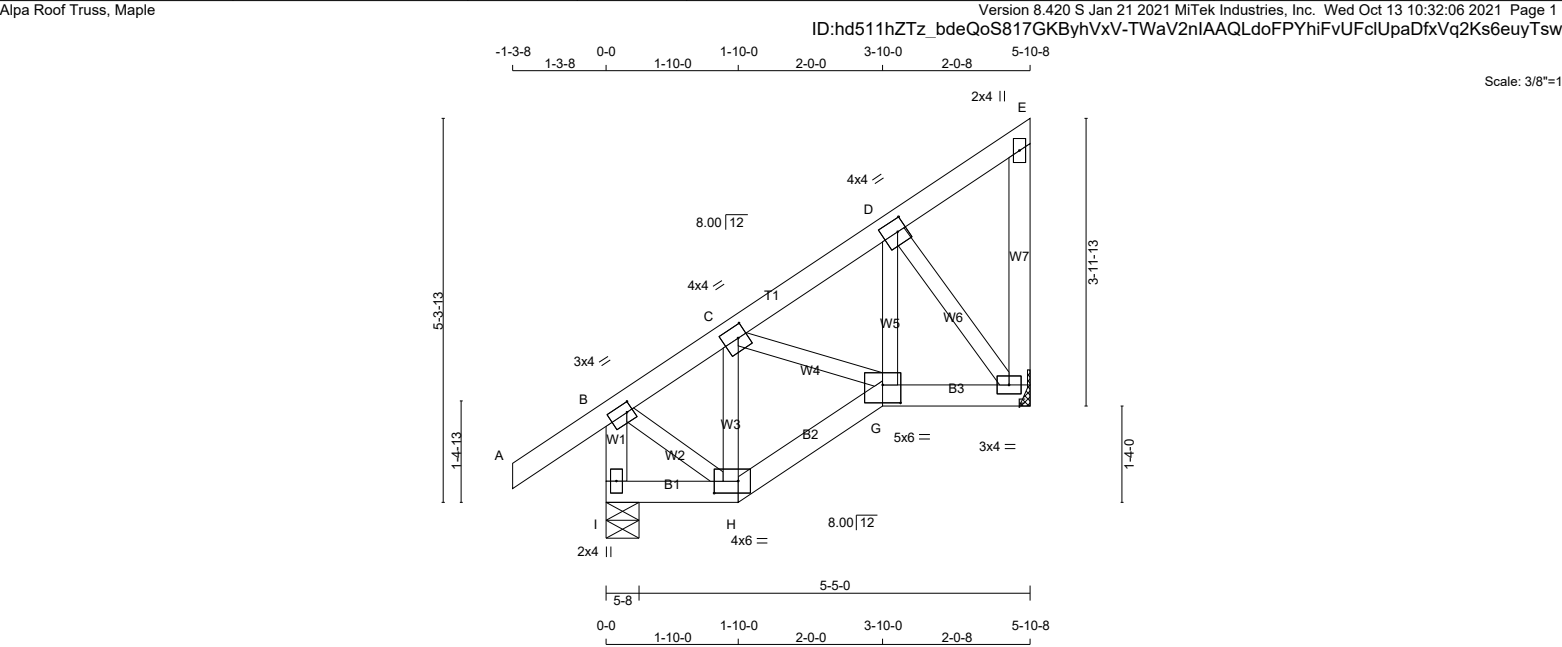
THESE DRAWINGS CONSTITUTE THE PROPERTY OF EWP DESIGN INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY THE ALPA LUMBER GROUP, AND WILL BE RETRACTED BY EWP DESIGN INC. IF UTILIZED FOR ANY OTHER PURPOSE.

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



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

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



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

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

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

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

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

UNFACTORED REACTIONS

	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS				DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND				
JT	285	188 / 0	0 / 0	0 / 0	0 / 0	97 / 0	0 / 0	
F	193	117 / 0	0 / 0	0 / 0	0 / 0	77 / 0	0 / 0	

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
I-B	-386 / 0	0.0 0.0 0.04 (1)	7.81		B-H	0 / 161	0.04 (1)
A-B	0 / 30	-78.0 -78.0 0.10 (1)	10.00		H-C	-134 / 0	0.02 (1)
B-C	-188 / 0	-78.0 -78.0 0.10 (1)	6.25		C-G	0 / 35	0.01 (1)
C-D	-192 / 0	-78.0 -78.0 0.05 (1)	6.25		G-D	0 / 114	0.03 (4)
D-E	-10 / 0	-78.0 -78.0 0.05 (1)	6.25		D-F	-254 / 0	0.05 (1)
F-E	-57 / 0	0.0 0.0 0.01 (1)	7.81				
I-H	0 / 0	-18.5 -18.5 0.02 (4)	10.00				
H-G	0 / 160	-18.5 -18.5 0.04 (1)	10.00				
G-F	0 / 160	-18.5 -18.5 0.04 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C

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

THIS DESIGN COMPLIES WITH:

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

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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

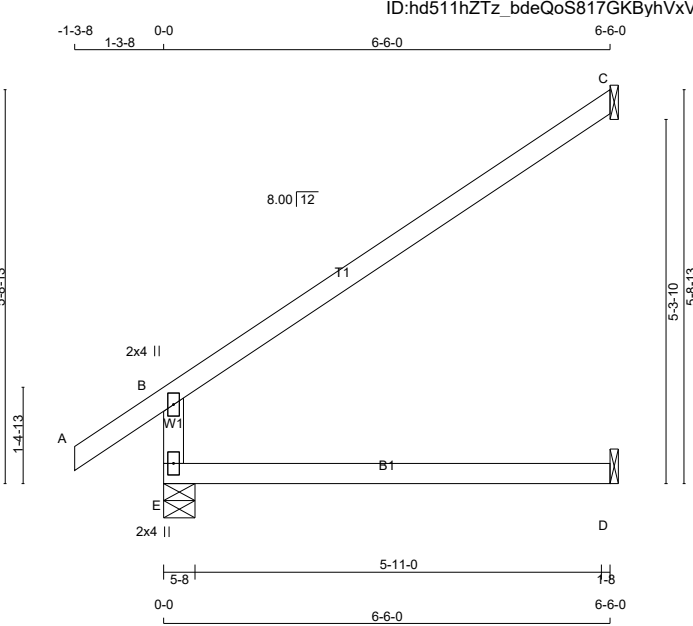


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	J05		1	TRUSS DESC. JT 45147	E21104030

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-xi8tF7JoxkTUPPzIEPm81S9r3DuZOOU_H_cfBlyTswM



TOTAL WEIGHT = 17 X 19 = 330 lb

[M][F]

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

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	5-8	1-8	
C	190	0	190	0	1-8	1-8	
D	50	0	56	0	1-8	1-8	

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

UNFACTORED REACTIONS

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

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO				FR-TO			
E- B	-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.

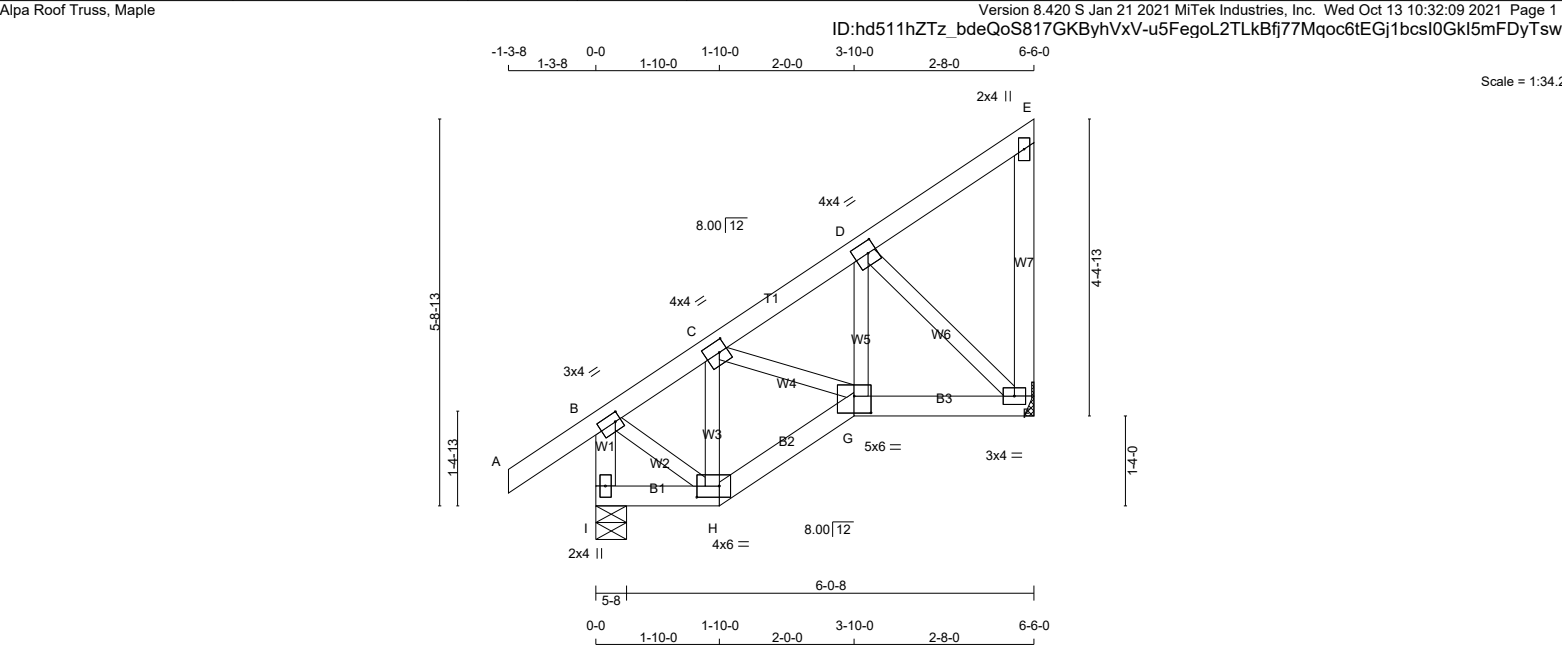
JSI GRIP= 0.26 (B) (INPUT = 0.90)

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	MAXIMUM FACTORED	INPUT	REQRD	SPECIFIED LOADS:					
A - E	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG	BRG	TOP CH. LL = 21.0 PSF					
F - E	2x4	DRY	No.2	SPF	JT VERT HORZ	DOWN HORZ UPLIFT	IN-SX	IN-SX	DL = 6.0 PSF					
I - H	2x4	DRY	No.2	SPF	I 432 0	432 0 0	5-8	1-8	BOT CH. LL = 0.0 PSF					
H - G	2x4	DRY	No.2	SPF	F 302 0	302 0 0	MECHANICAL		DL = 7.4 PSF					
G - F	2x4	DRY	No.2	SPF	TOTAL LOAD = 34.4 PSF									
ALL WEBS 2x3 DRY: SEASONED LUMBER.				SPF	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



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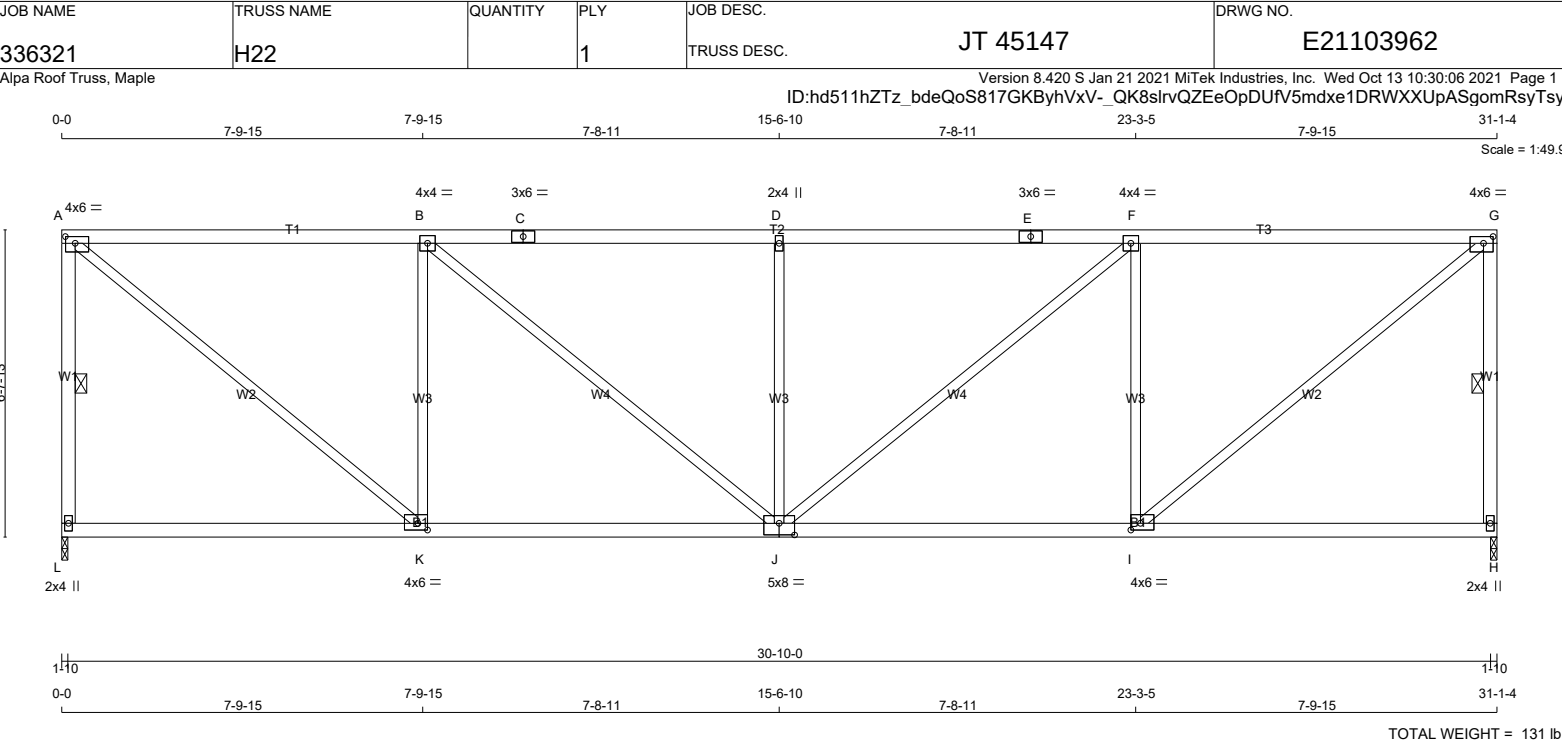


DRY: SEASONED LUMBER.

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

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

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



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.

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

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 = 3.64 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				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	-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)

MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

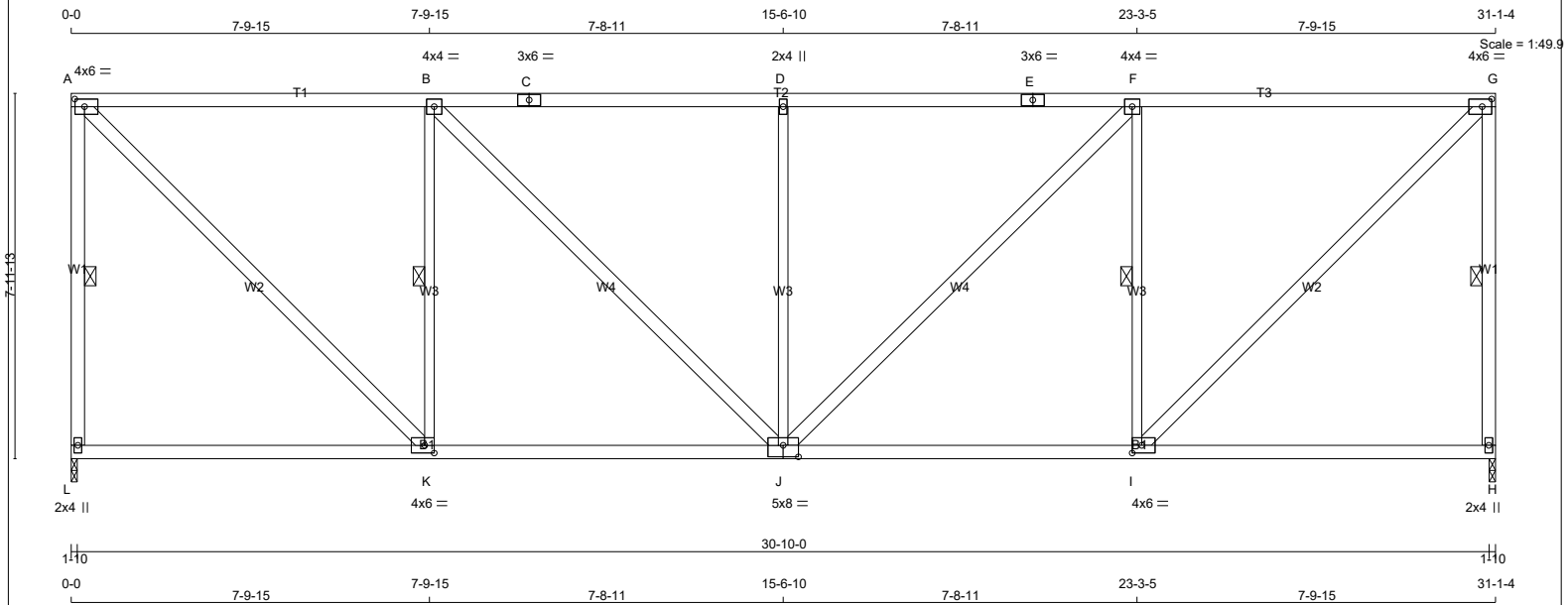
PLATE ROTATION TOL. = 5.0 Deg.

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

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

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





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	BSWVWV-t	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), 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.

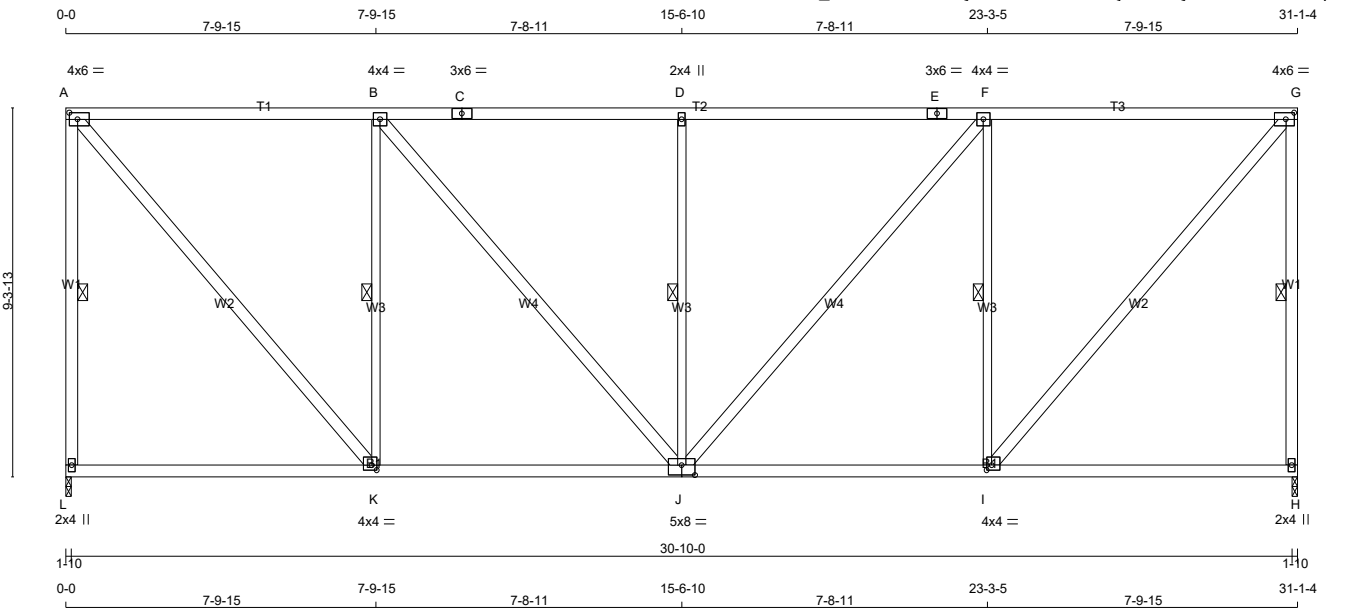
JSI GRIP= 0.87 (I) (INPUT = 0.90)
JSI METAL= 0.34 (A) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H24		1	TRUSS DESC. JT 45147	E21103964

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-O??GUMunjUcDFHy3KdeTFaGaEFYqkt7c8d1Q2AyTsyC



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	4.0	6.0	2.00 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	2.00 2.50
H	BMV1+p	MT20	2.0	4.0	
I	BMWW-t	MT20	4.0	4.0	1.50 1.50
J	BSWWW-I	MT20	5.0	8.0	3.00 4.00
K	BMWW-t	MT20	4.0	4.0	1.50 1.50
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	IN-SX	IN-SX
L	1500	0	1500	0	1-10	1-10	1-10	1-10	1-10
H	1500	0	1500	0	0	1-10	1-10	1-10	1-10

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

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.30 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-L, G-H, B-K, 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		WEBS	
MAX. FACTORED		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. UNBRAC LENGTH
FR-TO	FROM TO	CSI (LC)	FR-TO
L- A	-1445 / 0	0.0 0.0 0.59 (1)	5.44
A- B	-1044 / 0	-78.0 -78.0 0.81 (1)	4.76
B- C	-1328 / 0	-78.0 -78.0 0.86 (1)	4.30
C- D	-1328 / 0	-78.0 -78.0 0.86 (1)	4.30
D- E	-1328 / 0	-78.0 -78.0 0.86 (1)	4.30
E- F	-1328 / 0	-78.0 -78.0 0.86 (1)	4.30
F- G	-1044 / 0	-78.0 -78.0 0.81 (1)	4.76
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

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 (0.18")

CSI: TC=0.86/1.00 (B-D:1) , BC=0.42/1.00 (J-K:4) , WB=0.59/1.00 (F-I:1) , SSI=0.29/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES	
PLATE GRIP(DRY)	SHEAR SECTION
(PSI)	(PLI)
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 (K) (INPUT = 1.00)

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

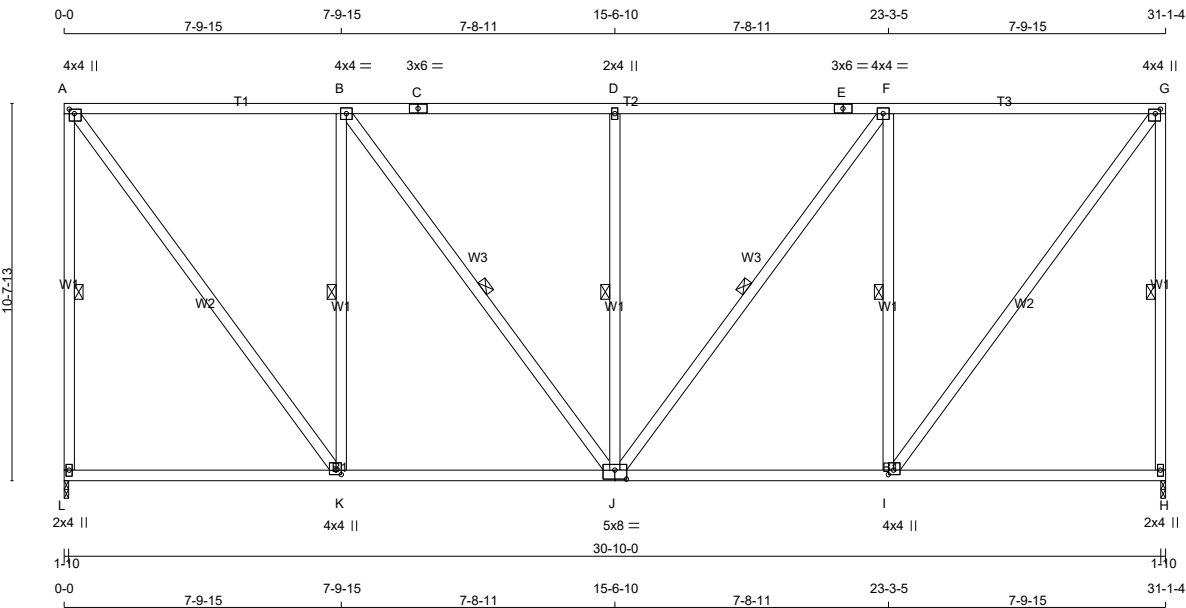


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H25		1	TRUSS DESC. JT 45147	E21103965

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-LO71vSv1F5sxVa6SR2hxK7LwBSEVCndvbxWX63yTsyA



TOTAL WEIGHT = 185 lb

[M]

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

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER							
BEARINGS							
	FACTORED		MAXIMUM FACTORED		INPUT	REQRD	
	GROSS REACTION		GROSS REACTION		BRG	BRG	
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

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			

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

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.55 FT.

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

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

1 LATERAL BRACE(S) AT 1 / 2 LENGTH OF A-L, G-H, B-K, B-J, D-J, F-J, F-I.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW									
LOADING									
TOTAL LOAD CASES: (4)									
CHORDS									
MEMB.		MAX. FACTORED	FACTORED		WEBS		MAX. FACTORED		
		FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)			FORCE (LBS)	MAX. CSI (LC)	
FR-TO			FROM TO		FR-TO				
L- A	-1445 / 0	0.0	0.0 0.83 (1)	5.44	A- K	0 / 1509	0.24 (1)		
A- B	-910 / 0	-78.0	-78.0 0.79 (1)	5.04	K- B	-1026 / 0	0.59 (1)		
B- C	-1157 / 0	-78.0	-78.0 0.83 (1)	4.55	B- J	0 / 414	0.07 (1)		
C- D	-1157 / 0	-78.0	-78.0 0.83 (1)	4.55	J- D	-556 / 0	0.32 (1)		
D- E	-1157 / 0	-78.0	-78.0 0.83 (1)	4.55	J- F	0 / 414	0.07 (1)		
E- F	-1157 / 0	-78.0	-78.0 0.83 (1)	4.55	I- F	-1026 / 0	0.59 (1)		
F- G	-910 / 0	-78.0	-78.0 0.79 (1)	5.04	I- G	0 / 1509	0.24 (1)		
H- G	-1445 / 0	0.0	0.0 0.83 (1)	5.44					
L- K	0 / 0	-18.5	-18.5 0.32 (4)	10.00					
K- J	0 / 910	-18.5	-18.5 0.41 (4)	10.00					
J- I	0 / 910	-18.5	-18.5 0.41 (4)	10.00					
I- H	0 / 0	-18.5	-18.5 0.32 (4)	10.00					

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 (0.17")

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

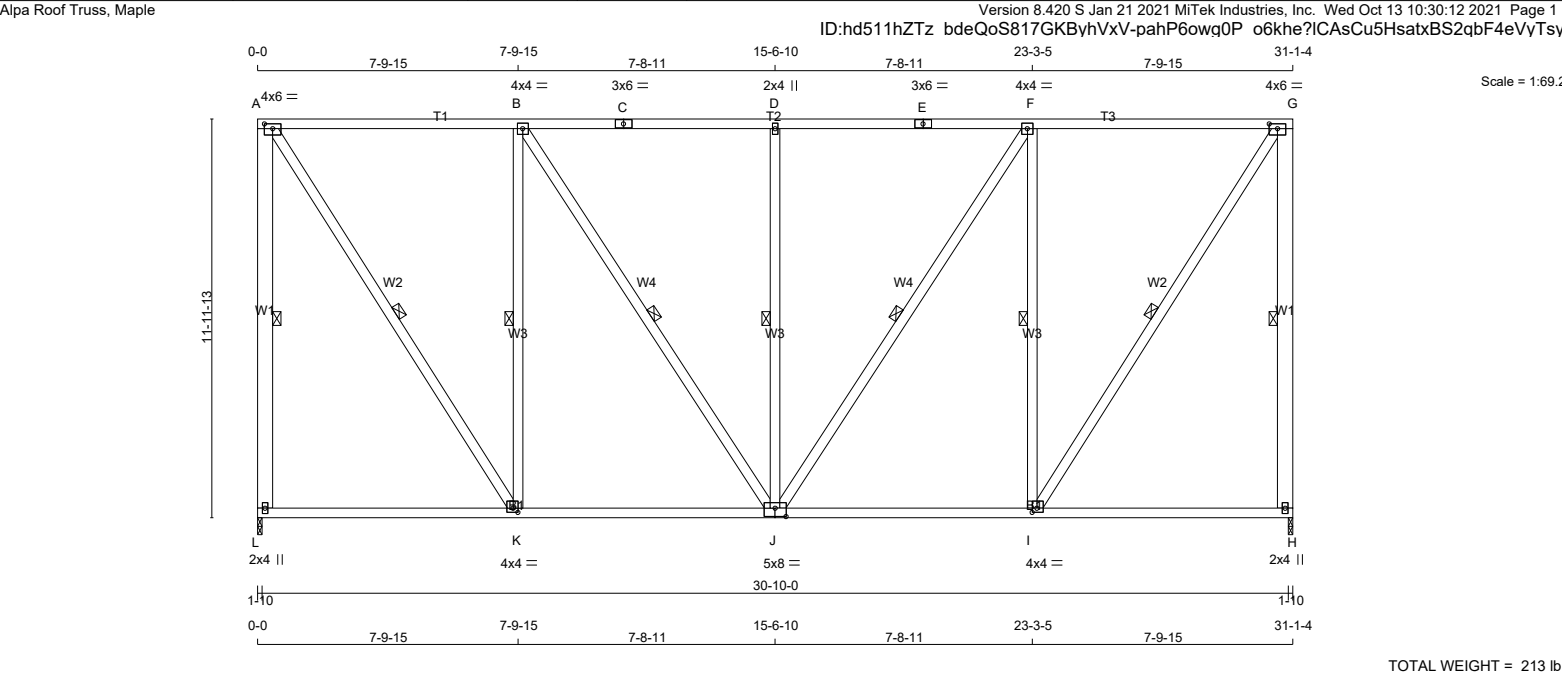
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (K) (INPUT = 0.90)

JSI METAL= 0.40 (A) (INPUT = 1.00)

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H26		1	TRUSS DESC. JT 45147	E21103966



LUMBER			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA		
N. L. G. A. RULES			LUMBER	DESCR.	BEARINGS								SPECIFIED LOADS:		
CHORDS	SIZE				FACTORED GROSS REACTION								TOP CH.	LL	PSF
L - A	2x6	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	BOT CH.	LL	PSF
A - C	2x4	DRY	No.2	SPF	L	1500	0	1500	0	0	1-10	1-10		DL	PSF
C - E	2x4	DRY	No.2	SPF	H	1500	0	1500	0	0	1-10	1-10		DL	PSF
E - G	2x4	DRY	No.2	SPF	UNFACTORED REACTIONS								TOTAL LOAD = 34.4 PSF		
H - G	2x6	DRY	No.2	SPF	1ST LCASE MAX./MIN. COMPONENT REACTIONS								SPACING = 24.0 IN. C/C		
L - J	2x4	DRY	No.2	SPF	JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM		
J - H	2x4	DRY	No.2	SPF	L	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0	THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015		
ALL WEBS 2x4 DRY: SEASONED LUMBER.			No.2	SPF	H	1070	653 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0	THIS DESIGN COMPLIES WITH:		

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	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	3.00
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	4.0	1.50	1.75
J	BSWWW-l	MT20	5.0	8.0	3.00	4.00
K	BMWW-t	MT20	4.0	4.0	1.50	1.75
L	BMV1+p	MT20	2.0	4.0		

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



BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.80 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF A-L, G-H, A-K, B-K, B-J, D-J, F-J, F-I, G-I.

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

LOADING									
TOTAL LOAD CASES: (4)									
CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED			MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED		
		VERT. LOAD (PLF)	LC1	MAX CSI (LC)			VERT. LOAD (PLF)	LC1	MAX CSI (LC)
FR-TO		FROM	TO		FR-TO		FROM	TO	
L- A	-1445 / 0	0.0	0.0	0.72 (1)	A- K	0 / 1449	0.23 (1)		
A- B	-806 / 0	-78.0	-78.0	0.78 (1)	K- B	-1026 / 0	0.80 (1)		
B- C	-1025 / 0	-78.0	-78.0	0.81 (1)	B- J	0 / 397	0.06 (1)		
C- D	-1025 / 0	-78.0	-78.0	0.81 (1)	J- D	-555 / 0	0.44 (1)		
D- E	-1025 / 0	-78.0	-78.0	0.81 (1)	J- F	0 / 397	0.06 (1)		
E- F	-1025 / 0	-78.0	-78.0	0.81 (1)	I- F	-1026 / 0	0.80 (1)		
F- G	-806 / 0	-78.0	-78.0	0.78 (1)	I- G	0 / 1449	0.23 (1)		
H- G	-1445 / 0	0.0	0.0	0.72 (1)					
L- K	0 / 0	-18.5	-18.5	0.32 (4)					
K- J	0 / 806	-18.5	-18.5	0.40 (4)					
J- I	0 / 806	-18.5	-18.5	0.40 (4)					
I- H	0 / 0	-18.5	-18.5	0.32 (4)					

(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 (0.16")

CSI: TC=0.81/1.00 (D-F:1) , BC=0.40/1.00 (I-J:4) , WB=0.80/1.00 (B-K:1) , SSI=0.29/1.00 (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

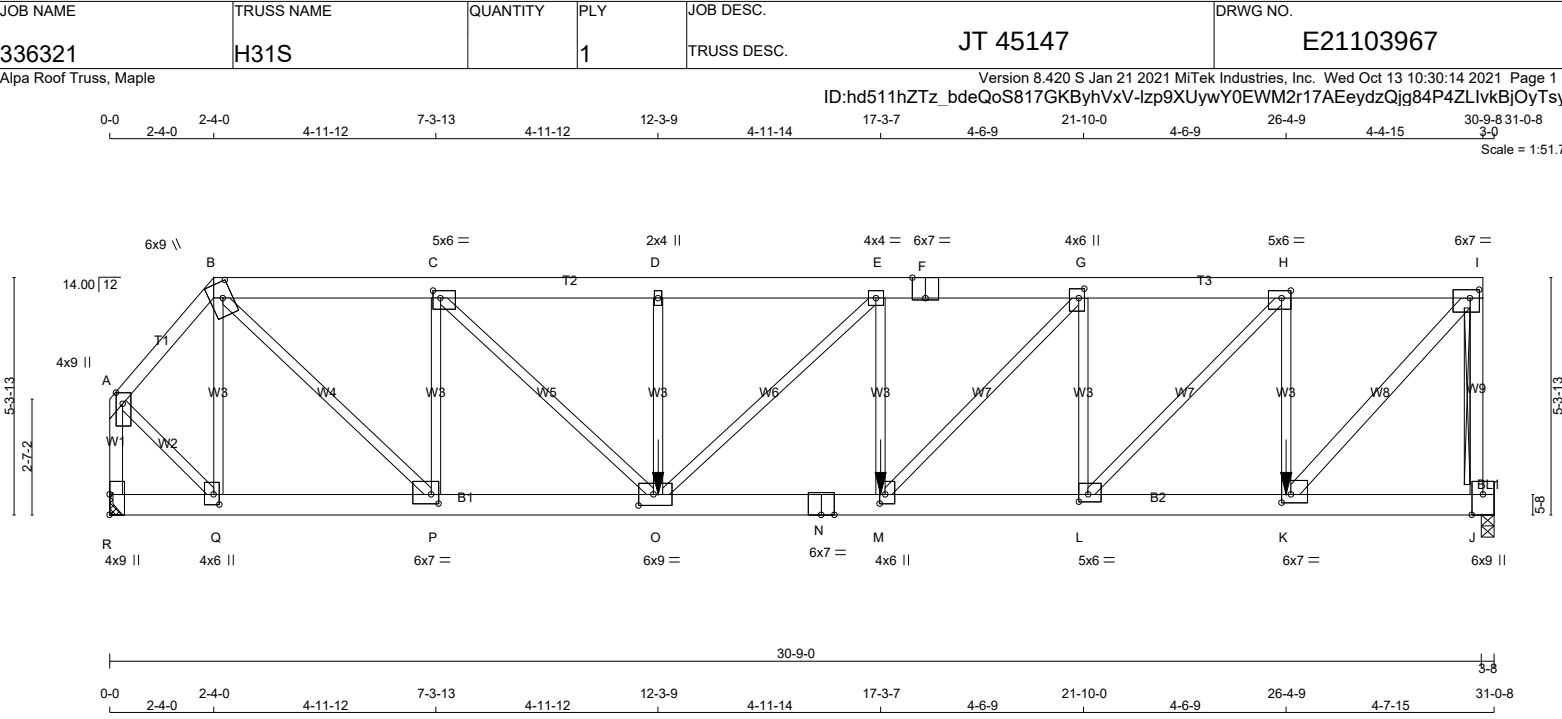
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
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= 0.35 (K) (INPUT = 1.00)



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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	9.0	3.00 1.75
B	TTWW+m	MT20	6.0	9.0	4.25 2.50
C	TMWW-t	MT20	5.0	6.0	2.00 2.00
D	TMW+w	MT20	2.0	4.0	
E	TMWW-t	MT20	4.0	4.0	
F	TS-t	MT20	6.0	7.0	Edge 3.50
G	TMWW+t	MT20	4.0	6.0	2.50 1.50
H	TMWW-t	MT20	5.0	6.0	2.00 2.50
I	TMVW-t	MT20	6.0	7.0	2.25 2.50
J	BMVK1+t	MT20	6.0	9.0	Edge 3.00
K	BMWW-t	MT20	6.0	7.0	2.25 2.50
L	BMWW-t	MT20	5.0	6.0	2.00 2.50
M	BMWW+t	MT20	4.0	6.0	2.50 1.50
N	BS-t	MT20	6.0	7.0	
O	BMWWW-t	MT20	6.0	9.0	3.00 4.00
P	BMWW-t	MT20	6.0	7.0	2.50 2.00
Q	BMWW+t	MT20	4.0	6.0	2.75 1.50
R	BMV1+t	MT20	4.0	9.0	5.50

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

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



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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
J	3614	0	3614	0	0	3-8	3-8
R	2817	0	2817	0	0	MECHANICAL	

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

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	2577	1575 / 0	0 / 0	0 / 0	0 / 0	1002 / 0	0 / 0
R	2008	1225 / 0	0 / 0	0 / 0	0 / 0	783 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) J
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 = 3.31 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

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. UNBRAC LENGTH	MEMB.	FORCE (LBS)
FR-TO		FROM TO		FR-TO	
A - B	-2061 / 0	-78.0 -78.0 0.14 (1)	4.58	Q - B	-1052 / 0
B - C	-3735 / 0	-78.0 -78.0 0.24 (1)	4.24	B - P	0 / 3376
C - D	-5646 / 0	-78.0 -78.0 0.35 (1)	3.45	P - C	-2275 / 0
D - E	-5646 / 0	-156.0 -156.0 0.47 (1)	3.31	C - O	0 / 2669
E - F	-5778 / 0	-78.0 -78.0 0.38 (1)	3.38	O - D	-580 / 0
F - G	-5778 / 0	-78.0 -78.0 0.38 (1)	3.38	O - E	-185 / 0
G - H	-4477 / 0	-78.0 -78.0 0.31 (1)	3.85	M - E	-483 / 0
H - I	-2845 / 0	-153.5 -153.5 0.26 (1)	4.70	M - G	0 / 1905
I - J	-3541 / 0	0.0 0.0 0.87 (1)	5.95	L - G	-1665 / 0
R - A	-2834 / 0	0.0 0.0 0.40 (1)	5.05	L - H	0 / 2388
				K - H	-2353 / 0
R - Q	0 / 0	-18.5 -18.5 0.07 (1)	10.00	K - I	0 / 4390
Q - P	0 / 1319	-18.5 -18.5 0.24 (1)	10.00	A - Q	0 / 1786
P - O	0 / 3735	-18.5 -18.5 0.55 (1)	10.00		
O - N	0 / 5778	-37.3 -37.3 0.87 (1)	10.00		
N - M	0 / 5778	-37.3 -37.3 0.87 (1)	10.00		
M - L	0 / 4477	-18.5 -18.5 0.63 (1)	10.00		
L - K	0 / 2845	-18.5 -18.5 0.41 (1)	10.00		
K - J	-106 / 0	-36.4 -36.4 0.08 (4)	6.25		

FACTORED CONCENTRATED LOADS (LBS)							
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
K	26-4-9	-769	-769	---	FRONT	VERT	TOTAL
M	17-3-7	-769	-769	---	FRONT	VERT	TOTAL
O	12-3-9	-1034	-1034	---	FRONT	VERT	TOTAL

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 = 2-4-0
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 4-7-15 OF SPAN MEASURED FROM THE RIGHT.

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.02")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.21")
ALLOWABLE DEFL.(TL)= L/360 (1.02")
CALCULATED VERT. DEFL.(TL)= L/ 901 (0.41")

CSI: TC=0.87/1.00 (I-J-1) , BC=0.87/1.00 (M-O-1) ,
WB=0.89/1.00 (H-K-1) , SSI=0.26/1.00 (D-E-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

Structural drawing of a roof truss system. The drawing shows a series of truss members (W1, W2, W3, W4, W5, W6) and joints (A, B, C, D, E, F, G, H, I, J, K, L, M, N). Dimensions are provided for various parts of the structure, including member lengths and joint positions. The drawing is labeled with a scale of 1:51.2.

Scale = 1:51.2

TOTAL WEIGHT = 134 lb

J	T	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	1.25
C	TMVW-t	MT20	4.0	4.0		
D	TMVW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMVW-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	BMVW-t	MT20	4.0	6.0	1.75	2.50
J	BMVWW-t	MT20	5.0	6.0		
K	BS-t	MT20	3.0	6.0		
L	BMVW-t	MT20	4.0	4.0	1.75	1.50
M	BMVW-t	MT20	4.0	4.0		
N	BMV1+p	MT20	2.0	4.0		

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	-1148 / 0	-78.0	-78.0 0.19 (1)	5.72	M-B	-351 / 0	0.26 (1)
B-C	-1686 / 0	-78.0	-78.0 0.69 (1)	4.28	B-L	0 / 1286	0.29 (1)
C-D	-1833 / 0	-78.0	-78.0 0.70 (1)	4.11	L-C	-739 / 0	0.54 (1)
D-E	-1833 / 0	-78.0	-78.0 0.70 (1)	4.11	C-J	0 / 201	0.05 (1)
E-F	-1833 / 0	-78.0	-78.0 0.70 (1)	4.11	J-D	-489 / 0	0.36 (1)
F-G	-1330 / 0	-78.0	-78.0 0.64 (1)	4.74	J-F	0 / 689	0.15 (1)
H-G	-1438 / 0	0.0	0.0 0.29 (1)	5.44	I-F	-1081 / 0	0.79 (1)
N-A	-1473 / 0	0.0	0.0 0.20 (1)	6.74	I-G	0 / 1808	0.41 (1)
					A-M	0 / 875	0.20 (1)
N-M	0 / 0	-18.5	-18.5 0.13 (4)	10.00			
M-L	0 / 737	-18.5	-18.5 0.25 (4)	10.00			
L-K	0 / 1686	-18.5	-18.5 0.36 (1)	10.00			
K-J	0 / 1686	-18.5	-18.5 0.36 (1)	10.00			
J-I	0 / 1330	-18.5	-18.5 0.34 (4)	10.00			
I-H	0 / 0	-18.5	-18.5 0.21 (4)	10.00			

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

The diagram illustrates a roof truss system with the following components and dimensions:

- Top Chords:**
 - Members: T1, T2, T3
 - Dimensions: 4-7-7, 4-7-7, 6-7-7, 11-2-14, 6-6-3, 17-9-0, 6-6-3, 24-3-3, 6-7-7, 30-10-10
- Bottom Chords:**
 - Members: B1, B2
 - Dimensions: 4-7-7, 4-7-7, 6-7-7, 11-2-14, 6-6-3, 17-9-0, 6-6-3, 24-3-3, 6-7-7, 30-10-10
- Vertical Members:**
 - Members: W1, W2, W3, W4, W5, W6
 - Dimensions: 4-7-7, 4-7-7, 6-7-7, 11-2-14, 6-6-3, 17-9-0, 6-6-3, 24-3-3, 6-7-7, 30-10-10
- Diagonal Members:**
 - Members: W1, W2, W3, W4, W5, W6
 - Dimensions: 4-7-7, 4-7-7, 6-7-7, 11-2-14, 6-6-3, 17-9-0, 6-6-3, 24-3-3, 6-7-7, 30-10-10
- Other Members:**
 - Members: N, M, L, K, J, I, H
 - Dimensions: 4-7-7, 4-7-7, 6-7-7, 11-2-14, 6-6-3, 17-9-0, 6-6-3, 24-3-3, 6-7-7, 30-10-10

Scale = 1:51.3

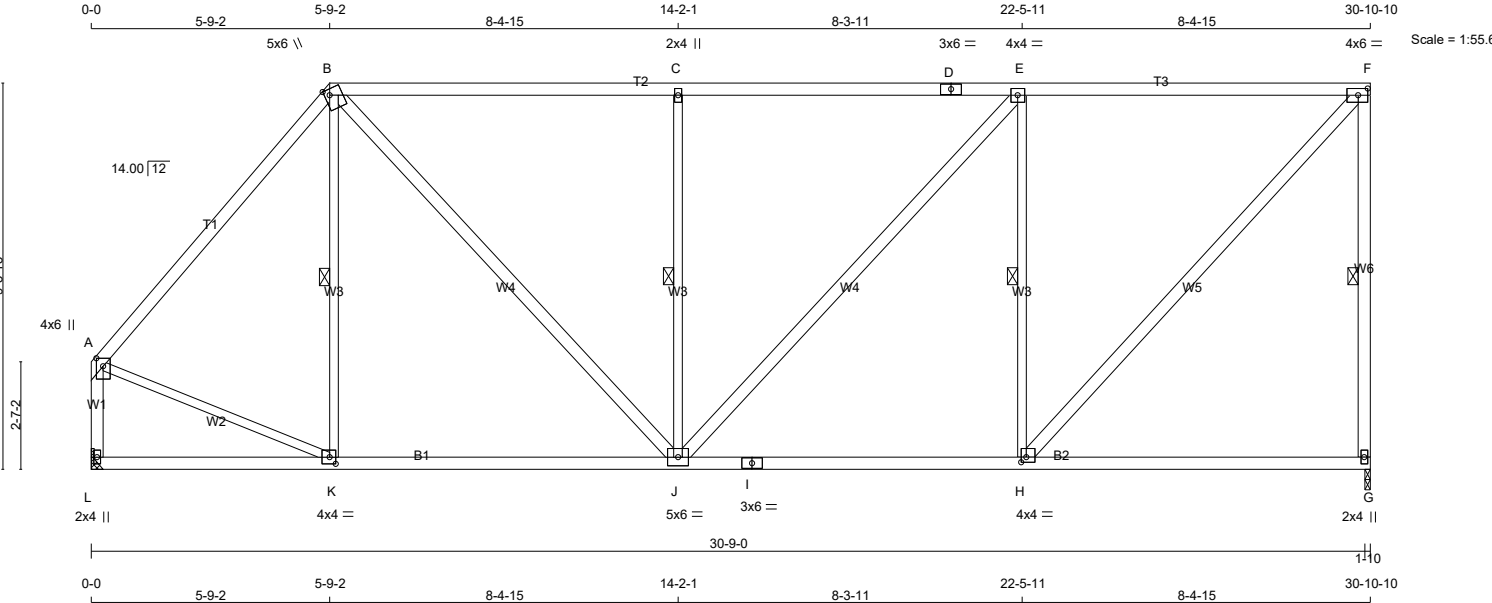
JSI GRIP= 0.88 (L) (INPUT = 0.90)
JSI METAL= 0.47 (K) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H34S		1	TRUSS DESC. JT 45147	E21103970

Alpa Roof Truss, Maple

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LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - B	2x4	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	6.0	2.00 2.75
G	BMV1+p	MT20	2.0	4.0	
H	BMWW-t	MT20	4.0	4.0	1.50 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	REQD BRG																																																																																																																																																													
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX																																																																																																																																																										
G	1490	0	1490	0	0	1-10	1-10																																																																																																																																																										
L	1490	0	1490	0	0	MECHANICAL																																																																																																																																																											
A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT L. MINIMUM BEARING LENGTH AT JOINT L = 1-10.																																																																																																																																																																	
UNFACTORED REACTIONS																																																																																																																																																																	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL																																																																																																																																																										
G	1062	648 / 0	0 / 0	0 / 0	0 / 0	414 / 0	0 / 0																																																																																																																																																										
L	1062	648 / 0	0 / 0	0 / 0	0 / 0	414 / 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 = 4.08 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.																																																																																																																																																																	
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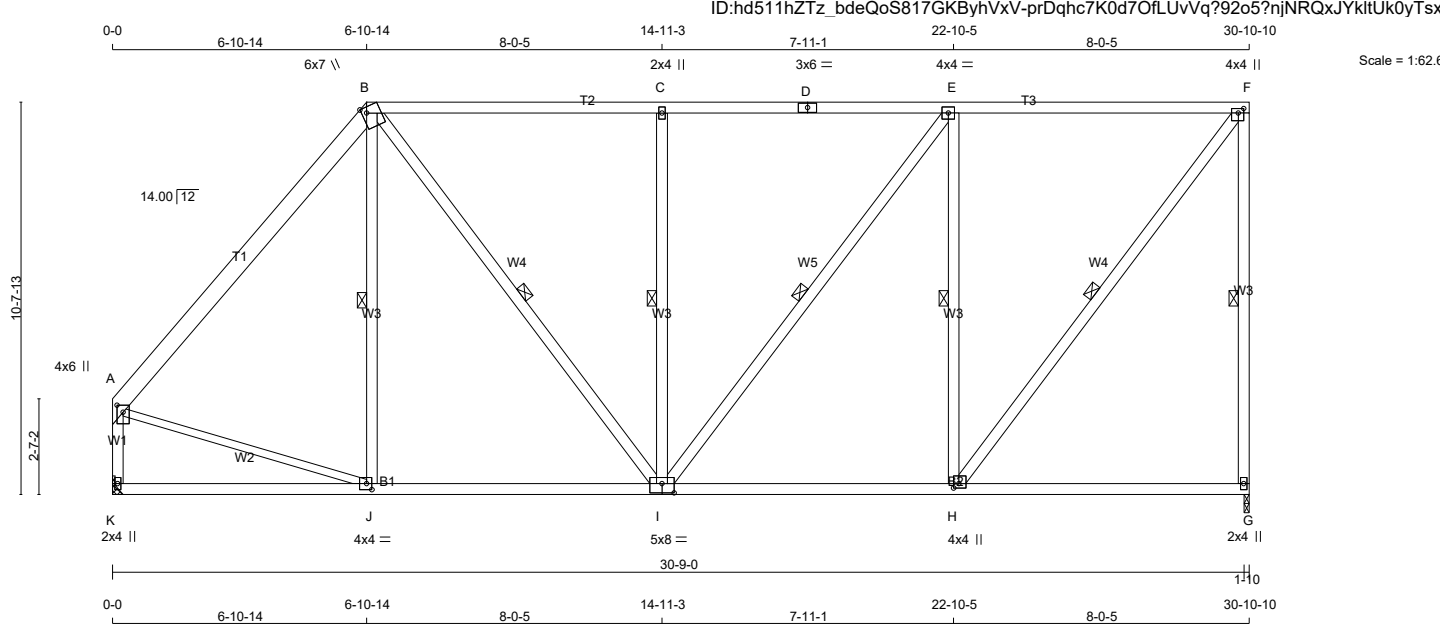
DESIGN CRITERIA				
SPECIFIED LOADS:				
TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD = 34.4 PSF				
SPACING = 24.0 IN. C/C				
LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM				
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCS 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 (1.03")				
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.06")				
ALLOWABLE DEFL.(TL)= L/360 (1.03")				
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.16")				
CSI: TC=0.95/1.00 (B-C:1) , BC=0.42/1.00 (H-J:4) , WB=0.56/1.00 (E-H:1) , SSI=0.31/1.00 (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= 0.88 (F) (INPUT = 0.90)				
JSI METAL= 0.46 (A) (INPUT = 1.00)				

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H35S		1	TRUSS DESC. JT 45147	E21103971

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 179 lb

[M]

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	
K - A	2x4	DRY	No.2	SPF	
K - I	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
ALL WEBS	2x4	DRY	No.2	SPF	
EXCEPT					
A - J	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.25 2.00
B	TTWW+m	MT20	6.0	7.0	Edge 1.50
C	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+p	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	1.50 1.75
I	BSWWW-l	MT20	5.0	8.0	3.00 4.00
J	BMWW-t	MT20	4.0	4.0	2.00 1.75
K	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	BRG	IN-SX
G	1490	0		1490	0	0	1-10		1-10
K	1490	0		1490	0	0	MECHANICAL		

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	1062	648 / 0	0 / 0	0 / 0	0 / 0	414 / 0	0 / 0
K	1062	648 / 0	0 / 0	0 / 0	0 / 0	414 / 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 = 4.61 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-J, B-I, C-I, E-I, E-H, F-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)

C H O R D S				W E B S			
MAX. FACTORED		FACTORED		MAX. FACTORED		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX CSI (LC)	MEMB.	FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO		LENGTH FR-TO			
A-B	-1228 / 0	-78.0 -78.0	0.35 (1)	6.25	J-B	-64 / 99	0.04 (1)
B-C	-1156 / 0	-78.0 -78.0	0.82 (1)	4.63	B-I	0 / 591	0.09 (1)
C-D	-1157 / 0	-78.0 -78.0	0.82 (1)	4.61	I-C	-668 / 0	0.38 (1)
D-E	-1157 / 0	-78.0 -78.0	0.82 (1)	4.61	I-E	0 / 396	0.06 (1)
E-F	-916 / 0	-78.0 -78.0	0.78 (1)	5.08	H-E	-998 / 0	0.57 (1)
G-F	-1433 / 0	0.0 0.0	0.82 (1)	5.46	H-F	0 / 1495	0.24 (1)
K-A	-1443 / 0	0.0 0.0	0.18 (1)	6.81	A-J	0 / 828	0.19 (1)
K-J	0 / 0	-18.5 -18.5	0.30 (4)	10.00			
J-I	0 / 792	-18.5 -18.5	0.38 (4)	10.00			
I-H	0 / 916	-18.5 -18.5	0.43 (4)	10.00			
H-G	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/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, NBCS 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBCS 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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.16")

CSI: TC=0.82/1.00 (B-C:1) , BC=0.43/1.00 (H-I:4) , WB=0.57/1.00 (E-H:1) , SSI=0.29/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

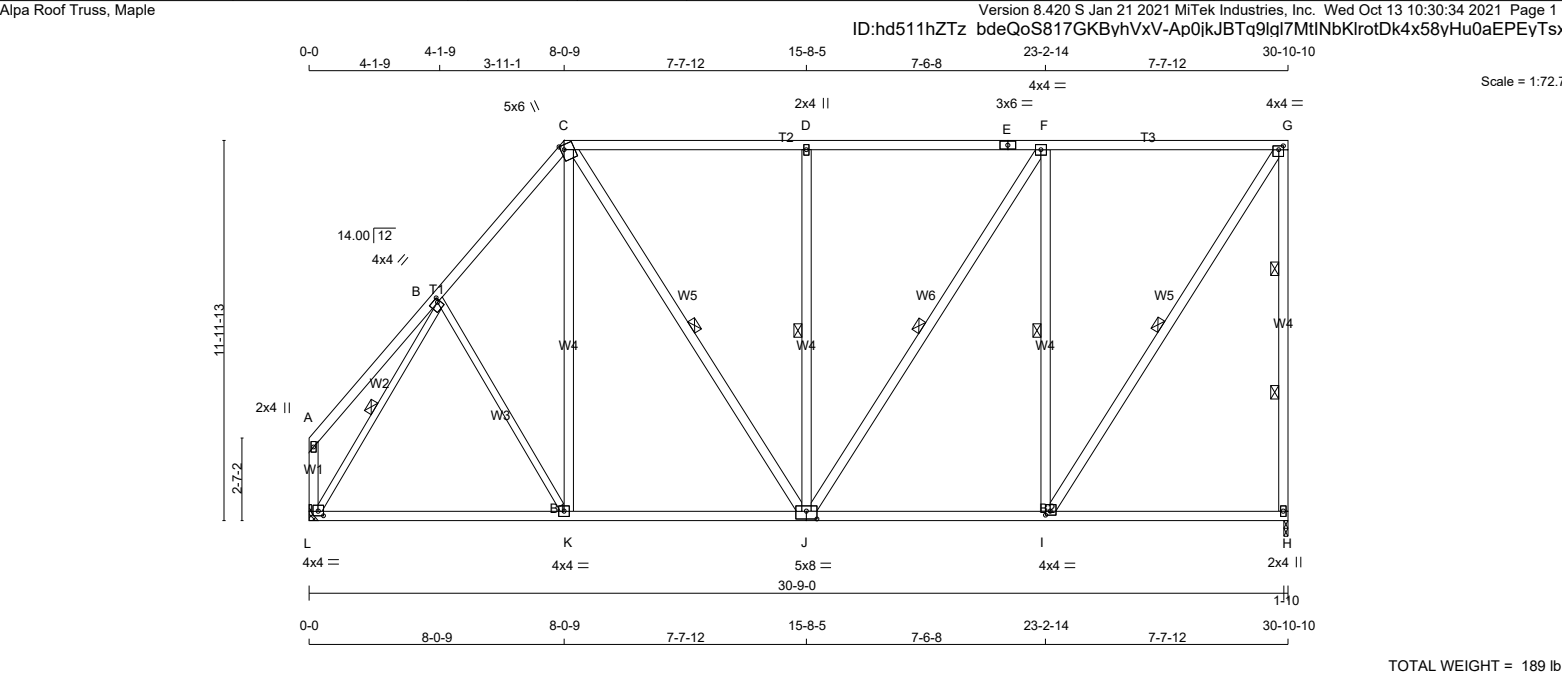
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (F) (INPUT = 0.90)
JSI METAL= 0.48 (A) (INPUT = 1.00)

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

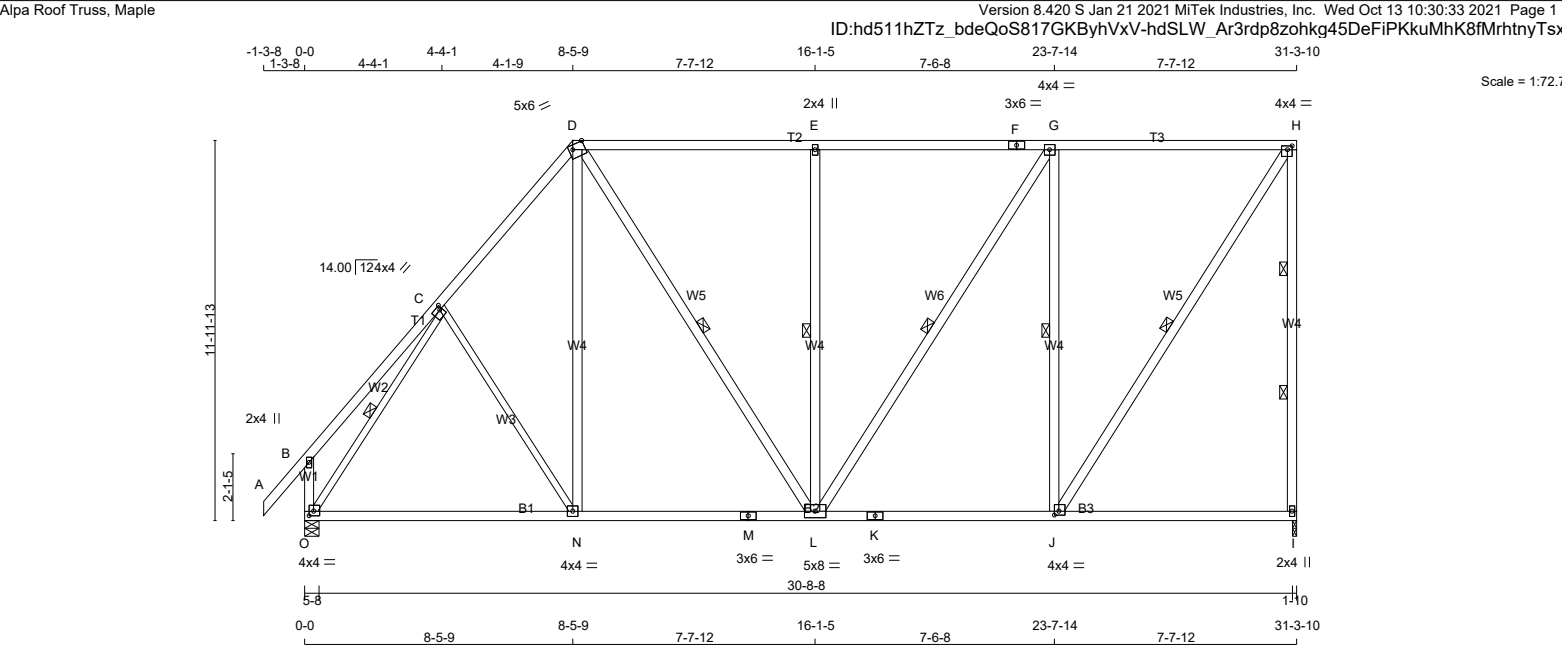


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H36S		1	TRUSS DESC. JT 45147	E21103972



LUMBER N. L. G. A. RULES CHORDS SIZE A - C 2x4 DRY No.2 A - E 2x4 DRY No.2 E - G 2x4 DRY No.2 H - G 2x4 DRY No.2 L - A 2x4 DRY No.2 L - J 2x4 DRY No.2 J - H 2x4 DRY No.2 ALL WEBS 2x4 DRY No.2 EXCEPT B - K 2x3 DRY No.2 L - B 2x3 DRY No.2 DRY: SEASONED LUMBER.							DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th></th><th>FACTORED GROSS REACTION</th><th>MAXIMUM FACTORED GROSS REACTION</th><th>INPUT BRG</th><th>REQD BRG</th></tr><tr><td>JT</td><td>VERT</td><td>HORZ</td><td>DOWN</td><td>HORZ</td></tr><tr><td>H</td><td>1490</td><td>0</td><td>1490</td><td>0</td></tr><tr><td>L</td><td>1490</td><td>0</td><td>1490</td><td>0</td></tr></table> A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT L. MINIMUM BEARING LENGTH AT JOINT L = 1-10. UNFACTORED REACTIONS <table><tr><th>1ST LCASE</th><th colspan="6">MAX./MIN. COMPONENT REACTIONS</th></tr><tr><td>JT</td><td>COMBINED</td><td>SNOW</td><td>LIVE</td><td>PERM.LIVE</td><td>WIND</td><td>DEAD</td><td>SOIL</td></tr><tr><td>H</td><td>1062</td><td>648 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>414 / 0</td><td>0 / 0</td></tr><tr><td>L</td><td>1062</td><td>648 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>414 / 0</td><td>0 / 0</td></tr></table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.06 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. 2 LATERAL BRACE(S) AT 1/ 3 LENGTH OF G-H. 1 LATERAL BRACE(S) AT 1/ 2 LENGTH OF C-J, D-J, F-J, F-I, G-I, B-L. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (4) <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. UNBRAC LENGTH</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX CSI (LC)</th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td></td><td>FR-TO</td><td></td><td></td></tr><tr><td>A- B</td><td>0 / 28</td><td>-78.0 -78.0</td><td>0.20 (1)</td><td>10.00</td><td>B- K</td><td>0 / 50</td><td>0.02 (4)</td></tr><tr><td>B- C</td><td>-1218 / 0</td><td>-78.0 -78.0</td><td>0.24 (1)</td><td>5.54</td><td>K- C</td><td>0 / 161</td><td>0.04 (4)</td></tr><tr><td>C- D</td><td>-1021 / 0</td><td>-78.0 -78.0</td><td>0.71 (1)</td><td>5.07</td><td>C- J</td><td>0 / 452</td><td>0.07 (1)</td></tr><tr><td>D- E</td><td>-1021 / 0</td><td>-78.0 -78.0</td><td>0.71 (1)</td><td>5.06</td><td>J- D</td><td>-645 / 0</td><td>0.51 (1)</td></tr><tr><td>E- F</td><td>-1021 / 0</td><td>-78.0 -78.0</td><td>0.71 (1)</td><td>5.06</td><td>J- F</td><td>0 / 441</td><td>0.07 (1)</td></tr><tr><td>F- G</td><td>-782 / 0</td><td>-78.0 -78.0</td><td>0.68 (1)</td><td>5.63</td><td>I- F</td><td>-1022 / 0</td><td>0.80 (1)</td></tr><tr><td>H- G</td><td>-1436 / 0</td><td>0.0 0.0</td><td>0.47 (1)</td><td>5.45</td><td>I- G</td><td>0 / 1429</td><td>0.23 (1)</td></tr><tr><td>L- A</td><td>-118 / 0</td><td>0.0 0.0</td><td>0.02 (1)</td><td>7.81</td><td>L- B</td><td>-1517 / 0</td><td>0.64 (1)</td></tr><tr><td>L- K</td><td>0 / 760</td><td>-18.5 -18.5</td><td>0.40 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>K- J</td><td>0 / 774</td><td>-18.5 -18.5</td><td>0.41 (4)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>J- I</td><td>0 / 782</td><td>-18.5 -18.5</td><td>0.38 (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>0.31 (4)</td><td>10.00</td><td></td><td></td><td></td></tr></table>								FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG	JT	VERT	HORZ	DOWN	HORZ	H	1490	0	1490	0	L	1490	0	1490	0	1ST LCASE	MAX./MIN. COMPONENT REACTIONS						JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	H	1062	648 / 0	0 / 0	0 / 0	0 / 0	414 / 0	0 / 0	L	1062	648 / 0	0 / 0	0 / 0	0 / 0	414 / 0	0 / 0	CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	FR-TO		FROM TO			FR-TO			A- B	0 / 28	-78.0 -78.0	0.20 (1)	10.00	B- K	0 / 50	0.02 (4)	B- C	-1218 / 0	-78.0 -78.0	0.24 (1)	5.54	K- C	0 / 161	0.04 (4)	C- D	-1021 / 0	-78.0 -78.0	0.71 (1)	5.07	C- J	0 / 452	0.07 (1)	D- E	-1021 / 0	-78.0 -78.0	0.71 (1)	5.06	J- D	-645 / 0	0.51 (1)	E- F	-1021 / 0	-78.0 -78.0	0.71 (1)	5.06	J- F	0 / 441	0.07 (1)	F- G	-782 / 0	-78.0 -78.0	0.68 (1)	5.63	I- F	-1022 / 0	0.80 (1)	H- G	-1436 / 0	0.0 0.0	0.47 (1)	5.45	I- G	0 / 1429	0.23 (1)	L- A	-118 / 0	0.0 0.0	0.02 (1)	7.81	L- B	-1517 / 0	0.64 (1)	L- K	0 / 760	-18.5 -18.5	0.40 (4)	10.00				K- J	0 / 774	-18.5 -18.5	0.41 (4)	10.00				J- I	0 / 782	-18.5 -18.5	0.38 (4)	10.00				I- H	0 / 0	-18.5 -18.5	0.31 (4)	10.00				DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN. C/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 (1.03") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05") ALLOWABLE DEFL.(TL)= L/360 (1.03") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.15") CSI: TC=0.71/1.00 (D-F:1) , BC=0.41/1.00 (J-K:4) , WB=0.80/1.00 (F-I:1) , SSI=0.28/1.00 (F-G:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.90 (C) (INPUT = 0.90) JSI METAL= 0.51 (B) (INPUT = 1.00)						
	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG																																																																																																																																																																																											
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H36		1	TRUSS DESC. JT 45147	E21103978



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
O - B	2x4	DRY	No.2 SPF
O - M	2x4	DRY	No.2 SPF
M - K	2x4	DRY	No.2 SPF
K - I	2x4	DRY	No.2 SPF
ALL WEBS	2x4	DRY	No.2 SPF
EXCEPT			
C - N	2x3	DRY	No.2 SPF
O - C	2x3	DRY	No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMWW-t	MT20	4.0	4.0	1.50 1.00
D	TTWW-m	MT20	5.0	6.0	Edge 4.50
E	TMW+w	MT20	2.0	4.0	
F	TS-t	MT20	3.0	6.0	
G	TMWW-t	MT20	4.0	4.0	
H	TMVW-t	MT20	4.0	4.0	1.50 1.75
I	BMV1+p	MT20	2.0	4.0	
J	BMWW-t	MT20	4.0	4.0	1.50 1.75
K	BS-t	MT20	3.0	6.0	
L	BMWWW-t	MT20	5.0	8.0	
M	BS-t	MT20	3.0	6.0	
N	BMWW-t	MT20	4.0	4.0	
O	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		REQRD	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX
JT	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		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
JT	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 = 4.99 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.

2 LATERAL BRACE(S) AT 1 / 3 LENGTH OF H-I.
1 LATERAL BRACE(S) AT 1 / 2 LENGTH OF D-L, E-L, G-L, G-J, H-J, C-O.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 42	-78.0 -78.0	0.11 (1)	10.00	C-N	-45 / 26	0.06 (1)
B-C	0 / 29	-78.0 -78.0	0.22 (1)	10.00	N-D	0 / 211	0.04 (4)
C-D	-1279 / 0	-78.0 -78.0	0.28 (1)	5.40	D-L	0 / 438	0.07 (1)
D-E	-1053 / 0	-78.0 -78.0	0.71 (1)	5.00	L-E	-644 / 0	0.51 (1)
E-F	-1053 / 0	-78.0 -78.0	0.72 (1)	4.99	L-G	0 / 478	0.08 (1)
F-G	-1053 / 0	-78.0 -78.0	0.72 (1)	4.99	J-G	-1052 / 0	0.83 (1)
G-H	-794 / 0	-78.0 -78.0	0.68 (1)	5.59	J-H	0 / 1451	0.23 (1)
I-H	-1454 / 0	0.0 0.0	0.48 (1)	5.43	O-C	-1563 / 0	0.64 (1)
O-B	-234 / 0	0.0 0.0	0.03 (1)	7.81			
O-N	0 / 835	-18.5 -18.5	0.39 (4)	10.00			
N-M	0 / 812	-18.5 -18.5	0.40 (4)	10.00			
M-L	0 / 812	-18.5 -18.5	0.40 (4)	10.00			
L-K	0 / 794	-18.5 -18.5	0.35 (4)	10.00			
K-J	0 / 794	-18.5 -18.5	0.35 (4)	10.00			
J-I	0 / 0	-18.5 -18.5	0.27 (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 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.17")

CSI: TC=0.72/1.00 (E-G:1) , BC=0.40/1.00 (L-N:4) , WB=0.83/1.00 (G-J:1) , SSI=0.28/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

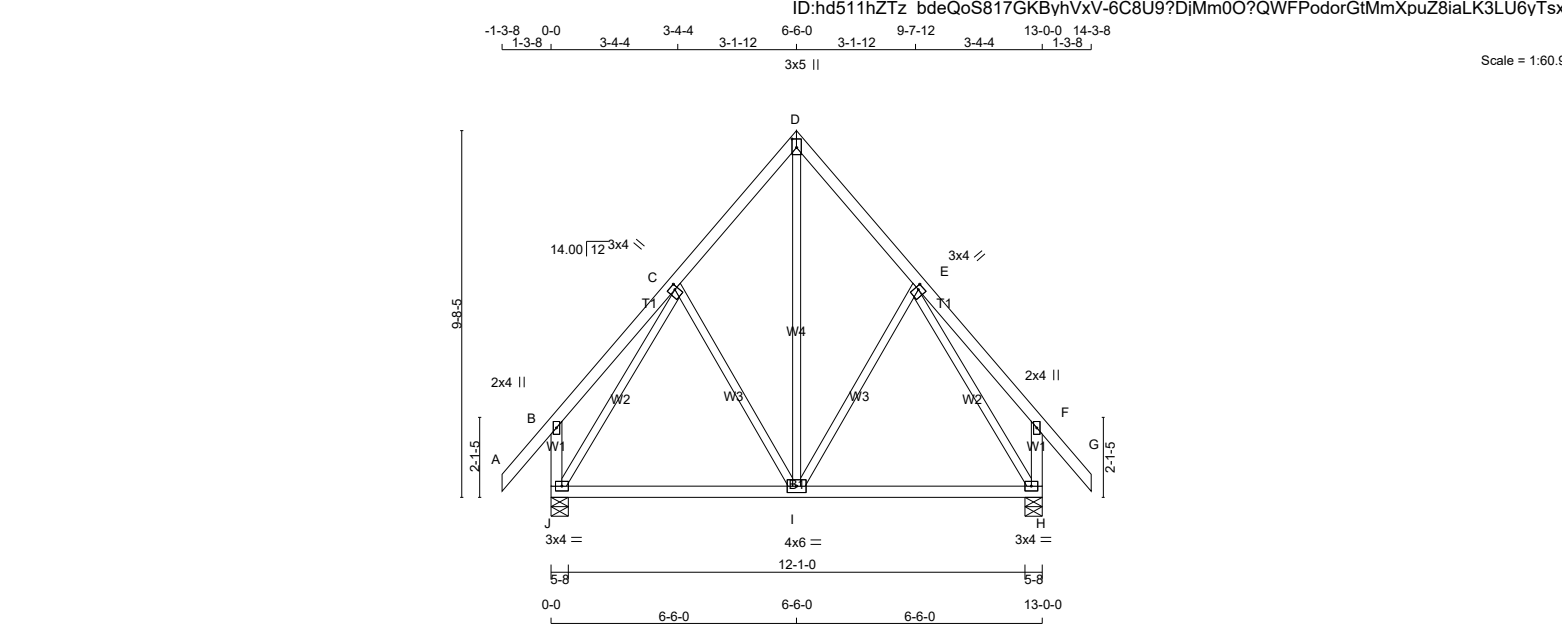
PLATE ROTATION TOL. = 5.0 Deg.

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H37		1	TRUSS DESC. JT 45147	E21103979

Alpa Roof Truss, Maple

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LUMBER

N. L. G. A. RULES

CHORDS SIZE LUMBER DESCR.

A - D 2x4 DRY No.2 SPF

D - G 2x4 DRY No.2 SPF

J - B 2x4 DRY No.2 SPF

H - F 2x4 DRY No.2 SPF

J - H 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	TMV+p	MT20	2.0	4.0		
C	TMWW+t	MT20	3.0	4.0	1.50	1.00
D	TTW+p	MT20	3.0	5.0	2.75	1.50
F	TMV+t	MT20	3.0	4.0	1.50	1.00
E	TMV+p	MT20	2.0	4.0		
H	BMVW1-t	MT20	3.0	4.0		
I	BMWW-t	MT20	4.0	6.0		
J	BMVW1-t	MT20	3.0	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
J	736	0	736	0
H	736	0	736	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE
J	523	332 / 0	0 / 0
H	523	332 / 0	0 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-78.0 -78.0	0.11 (1)	I-D	0 / 332	0.07 (1)	
B-C	0 / 22	-78.0 -78.0	0.13 (1)	I-E	-107 / 0	0.08 (1)	
C-D	-373 / 0	-78.0 -78.0	0.10 (1)	C-I	-107 / 0	0.08 (1)	
D-E	-373 / 0	-78.0 -78.0	0.10 (1)	J-C	-563 / 0	0.40 (1)	
E-F	0 / 22	-78.0 -78.0	0.13 (1)	E-H	-563 / 0	0.40 (1)	
F-G	0 / 42	-78.0 -78.0	0.11 (1)				
J-B	-204 / 0	0.0 0.0	0.02 (1)				
H-F	-204 / 0	0.0 0.0	0.02 (1)				
J-I	0 / 284	-18.5 -18.5	0.25 (4)				
I-H	0 / 284	-18.5 -18.5	0.25 (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 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 (0.43")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")

ALLOWABLE DEFL.(TL)= L/360 (0.43")

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

CSI: TC=0.13/1.00 (E-F:1), BC=0.25/1.00 (I-J:4), WB=0.40/1.00 (E-H:1), SSI=0.10/1.00 (H-I:4)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (C) (INPUT = 0.90)

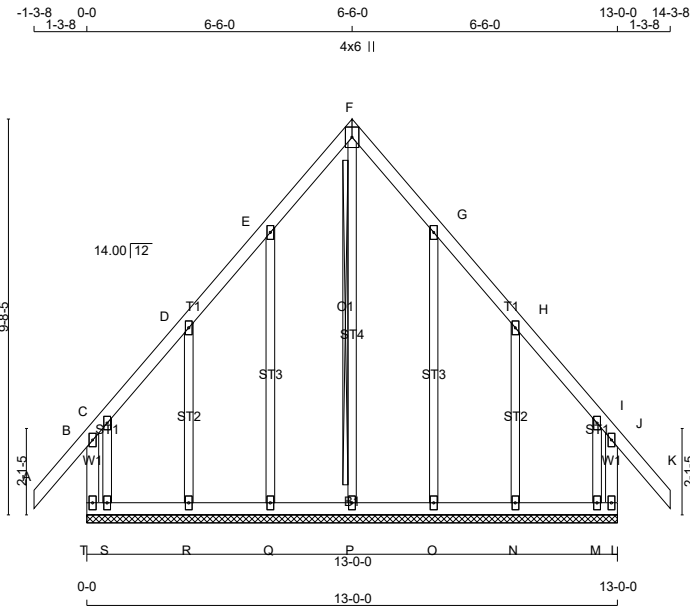
JSI METAL= 0.34 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H37G		1	TRUSS DESC. JT 45147	E21103980

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 76 lb

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

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

2x4 DRY SPF No.2 T-BRACE AT F-P

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			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO	
T-B	-221 / 0	0.0 0.0	0.02 (1)
A-B	0 / 42	-78.0 -78.0	0.11 (1)
B-C	-71 / 0	-78.0 -78.0	0.09 (1)
C-D	0 / 5	-78.0 -78.0	0.04 (1)
D-E	0 / 11	-78.0 -78.0	0.04 (1)
E-F	0 / 13	-78.0 -78.0	0.04 (1)
F-G	0 / 13	-78.0 -78.0	0.04 (1)
G-H	0 / 11	-78.0 -78.0	0.04 (1)
H-I	0 / 5	-78.0 -78.0	0.04 (1)
I-J	-71 / 0	-78.0 -78.0	0.09 (1)
J-K	0 / 42	-78.0 -78.0	0.11 (1)
L-J	-221 / 0	0.0 0.0	0.02 (1)
T-S	-3 / 0	-18.5 -18.5	0.01 (4)
S-R	-3 / 0	-18.5 -18.5	0.02 (4)
R-Q	-7 / 0	-18.5 -18.5	0.02 (4)
Q-P	-9 / 0	-18.5 -18.5	0.01 (4)
P-O	-9 / 0	-18.5 -18.5	0.01 (4)
O-N	-7 / 0	-18.5 -18.5	0.02 (4)
N-M	-3 / 0	-18.5 -18.5	0.02 (4)
M-L	-3 / 0	-18.5 -18.5	0.01 (4)

WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO			
P-F	-183 / 0	0.13 (1)	
Q-E	-160 / 0	0.15 (1)	
R-D	-150 / 0	0.06 (1)	
S-C	0 / 7	0.00 (1)	
O-G	-160 / 0	0.15 (1)	
N-H	-150 / 0	0.06 (1)	
M-I	0 / 7	0.00 (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 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

CSI: TC=0.11/1.00 (A-B:1), BC=0.02/1.00 (N-O:4), WB=0.15/1.00 (G-O:1), SSI=0.06/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.18 (J) (INPUT = 0.90)

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

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

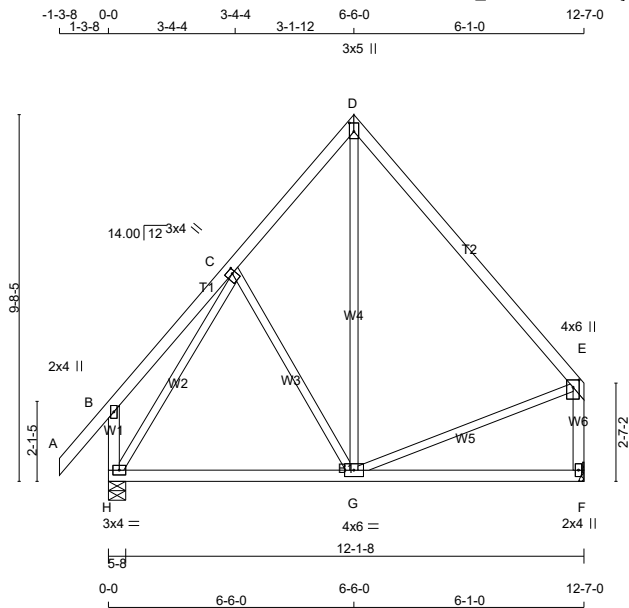


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H37S		1	TRUSS DESC. JT 45147	E21103981

Alpa Roof Truss, Maple

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Scale = 1:60.9

TOTAL WEIGHT = 2 X 66 = 132 lb

[M][F]

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW+t	MT20	3.0	4.0	1.50	1.00
D	TTW+p	MT20	3.0	5.0	2.75	1.50
E	TMVW+p	MT20	4.0	6.0	2.25	2.00
F	BMV1+p	MT20	2.0	4.0		
G	BMWWW-t	MT20	4.0	6.0		
H	BMVW1-t	MT20	3.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
F	607	0	607	0
H	716	0	716	0

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

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	433	264 / 0	0 / 0	0 / 0	0 / 0	169 / 0	0 / 0
H	508	323 / 0	0 / 0	0 / 0	0 / 0	185 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					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	C-G	-112 / 0	0.08 (1)	
B-C	0 / 23	-78.0	-78.0	0.13 (1)	10.00	G-D	0 / 162	0.05 (4)	
C-D	-351 / 0	-78.0	-78.0	0.10 (1)	6.25	H-C	-540 / 0	0.38 (1)	
D-E	-329 / 0	-78.0	-78.0	0.31 (1)	6.25	G-E	0 / 228	0.05 (1)	
H-B	-204 / 0	0.0	0.0	0.02 (1)	7.81				
F-E	-565 / 0	0.0	0.0	0.08 (1)	7.81				
H-G	0 / 272	-18.5	-18.5	0.23 (4)	10.00				
G-F	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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.42")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.31/1.00 (D-E:1) , BC=0.23/1.00 (G-H:4) ,
WB=0.38/1.00 (C-H:1) , SSI=0.12/1.00 (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
MT20	650	371	1747	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.77 (C) (INPUT = 0.90)
JSI METAL= 0.33 (C) (INPUT = 1.00)

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

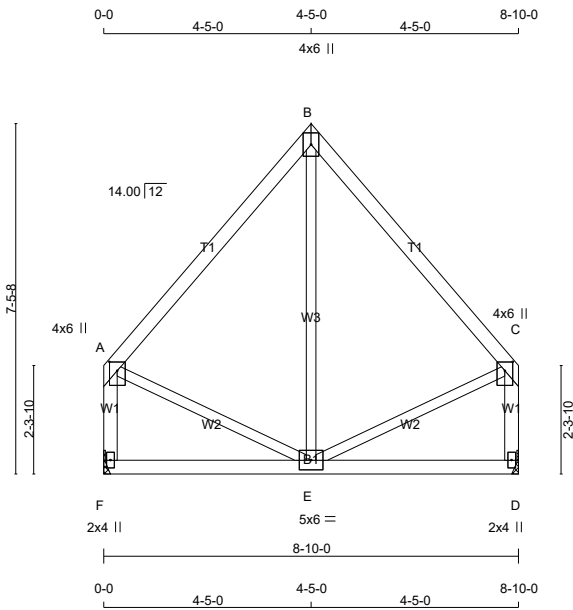


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H38		1	TRUSS DESC. JT 45147	E21103982

Alpa Roof Truss, Maple

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ID:hd511hZTz bdeQoS817GKByhVxV-S9xNCjGsBJeh5BPDCLDzYKbCXYYKEVFJvcn69KyTsx



TOTAL WEIGHT = 12 X 43 = 521 lb

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

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

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
JT	426	0	426	0	MECHANICAL	MECHANICAL
F	426	0	426	0	MECHANICAL	MECHANICAL
D	426	0	426	0	MECHANICAL	MECHANICAL

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

UNFACTORED REACTIONS

	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	304	185 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
F	304	185 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
D	304	185 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)		MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	
		FROM	TO			FROM	TO
FR-TO							
A-B	-213 / 0	-78.0	-78.0	0.19 (1)	6.25	E-B	-21 / 62
B-C	-213 / 0	-78.0	-78.0	0.19 (1)	6.25	A-E	0 / 151
F-A	-395 / 0	0.0	0.0	0.05 (1)	7.81	E-C	0 / 151
D-C	-395 / 0	0.0	0.0	0.05 (1)	7.81		
F-E	0 / 0	-18.5	-18.5	0.10 (4)	10.00		
E-D	0 / 0	-18.5	-18.5	0.10 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.29")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.29")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.19/1.00 (A-B:1) , BC=0.10/1.00 (D-E:4) ,
WB=0.03/1.00 (C-E:1) , SSI=0.09/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR 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= 0.22 (C) (INPUT = 0.90)
JSI METAL= 0.11 (A) (INPUT = 1.00)

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

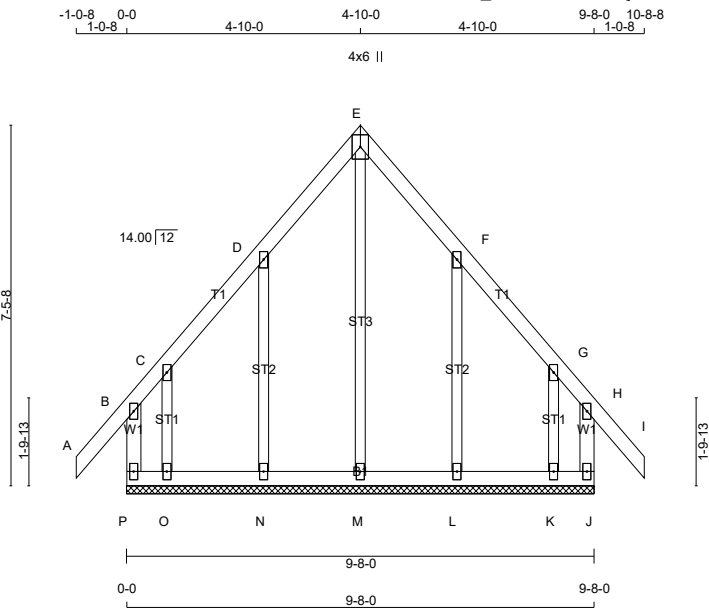


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H38G		1	TRUSS DESC. JT 45147	E21103983

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-xMViP3HUycmXjL_Pm3kC4X7P8yvwzvqTkGWghmyTsxh



TOTAL WEIGHT = 4 X 52 = 208 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.				

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.

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

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	

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					FR-TO				
P-B	-154 / 0	0.0	0.0	0.01 (1)	7.81	M-E	-178 / 0	0.17 (1)	
A-B	0 / 34	-78.0	-78.0	0.08 (1)	10.00	N-D	-166 / 0	0.06 (1)	
B-C	-27 / 0	-78.0	-78.0	0.06 (1)	6.25	O-C	-58 / 0	0.01 (1)	
C-D	0 / 11	-78.0	-78.0	0.04 (1)	10.00	L-F	-166 / 0	0.06 (1)	
D-E	0 / 10	-78.0	-78.0	0.04 (1)	10.00	K-G	-58 / 0	0.01 (1)	
E-F	0 / 10	-78.0	-78.0	0.04 (1)	10.00				
F-G	0 / 11	-78.0	-78.0	0.04 (1)	10.00				
G-H	-27 / 0	-78.0	-78.0	0.06 (1)	6.25				
H-I	0 / 34	-78.0	-78.0	0.08 (1)	10.00				
J-H	-154 / 0	0.0	0.0	0.01 (1)	7.81				
P-O	0 / 0	-18.5	-18.5	0.01 (1)	10.00				
O-N	-3 / 0	-18.5	-18.5	0.02 (4)	10.00				
N-M	-7 / 0	-18.5	-18.5	0.02 (4)	10.00				
M-L	-7 / 0	-18.5	-18.5	0.02 (4)	10.00				
L-K	-3 / 0	-18.5	-18.5	0.02 (4)	10.00				
K-J	0 / 0	-18.5	-18.5	0.01 (1)	10.00				

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

CSI: TC=0.08/1.00 (H-I:1) , BC=0.02/1.00 (L-M:4) , WB=0.17/1.00 (E-M:1) , SSI=0.05/1.00 (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
MT20	650	371	1747
		788	1987
			1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.13 (D) (INPUT = 0.90)

JSI METAL= 0.08 (D) (INPUT = 1.00)

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

TOTAL WEIGHT = 2 X 84 = 168 lb

JT	TYPE	PLATES	W	LEN	Y	X
B	TMW-t	MT20	5.0	10.0	2.25	3.25
C	TMWW-t	MT20	4.0	6.0	2.00	2.75

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
M	5-4	-2807	-2807	---	FRONT	VERT	TOTAL	---	C1

PLATE ROTATION TOL. = 5.0 Deg.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H39		2	JT 45147	E21103984(2)

Alpa Roof Truss, Maple

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
D	TTW+p	MT20	4.0	6.0	2.75	2.00
E	TMWW-t	MT20	4.0	6.0	2.00	2.75
F	TMVW-t	MT20	5.0	10.0	2.25	3.25
H	BMV1+p	MT20	3.0	5.0		
I	BMWW+t	MT20	5.0	8.0	4.25	2.50
J	BMWW-t	MT20	6.0	7.0	2.75	3.50
K	BMWW+t	MT20	5.0	8.0	4.25	2.50
L	BMV1+p	MT20	3.0	5.0		

JSI GRIP= 0.84 (D) (INPUT = 0.90)
JSI METAL= 0.41 (I) (INPUT = 1.00)

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

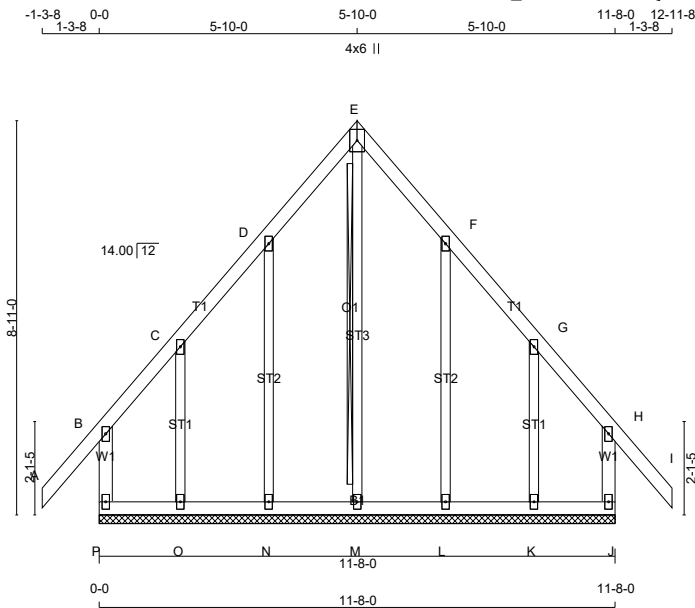


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H39G		1	TRUSS DESC. JT 45147	E21103985

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-p7IGFQK_0rGzBzHA?up8FNI4aZGtvg2euUtgXyTsx



TOTAL WEIGHT = 65 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 = 10.00 FT.

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

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

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

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

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

LOADING			
TOTAL LOAD CASES: (4)			
CHORDS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO		FROM	TO
P-B	-187 / 0	0.0	0.0
A-B	0 / 42	-78.0	-78.0
B-C	-2 / 0	-78.0	-78.0
C-D	0 / 27	-78.0	-78.0
D-E	0 / 23	-78.0	-78.0
E-F	0 / 23	-78.0	-78.0
F-G	0 / 27	-78.0	-78.0
G-H	-2 / 0	-78.0	-78.0
H-I	0 / 42	-78.0	-78.0
J-H	-187 / 0	0.0	0.0
P-O	-10 / 0	-18.5	-18.5
O-N	-13 / 0	-18.5	-18.5
N-M	-16 / 0	-18.5	-18.5
M-L	-16 / 0	-18.5	-18.5
L-K	-13 / 0	-18.5	-18.5
K-J	-10 / 0	-18.5	-18.5

WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO		FROM	TO
M-E	-197 / 0	0.24	0.12
N-D	-168 / 0	0.12	0.12
O-C	-111 / 0	0.03	0.12
L-F	-168 / 0	0.12	0.12
K-G	-111 / 0	0.03	0.12

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 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

CSI: TC=0.11/1.00 (H-I:1) , BC=0.01/1.00 (N-O:4) , WB=0.24/1.00 (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= 0.14 (B) (INPUT = 0.90)

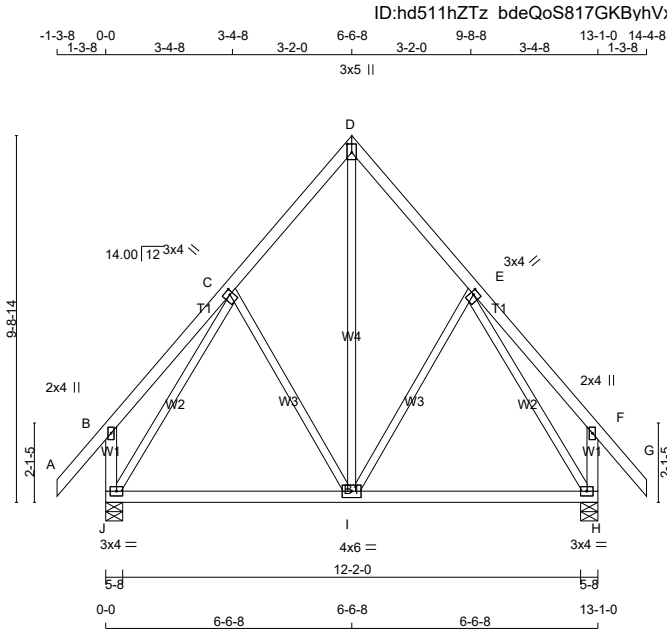
JSI METAL= 0.09 (B) (INPUT = 1.00)

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H49		1	TRUSS DESC. JT 45147	E21103997

Alpa Roof Truss, Maple

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Scale = 1:61.2

TOTAL WEIGHT = 8 X 74 = 594 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMWW+t	MT20	3.0	4.0	1.50 1.00
D	TTW+p	MT20	3.0	5.0	2.75 1.50
F	TMV+t	MT20	3.0	4.0	1.50 1.00
E	TMV+p	MT20	2.0	4.0	
H	BMVW1-t	MT20	3.0	4.0	
I	BMWW-t	MT20	4.0	6.0	
J	BMVW1-t	MT20	3.0	4.0	

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
JT	740	0	740	0	5-8	1-8
J	740	0	740	0	5-8	1-8
H	740	0	740	0	5-8	1-8

UNFACTORED REACTIONS							
1ST LCASE	MAX.	MIN.	COMPONENT	REACTIONS			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	526	333 / 0	0 / 0	0 / 0	0 / 0	192 / 0	0 / 0
H	526	333 / 0	0 / 0	0 / 0	0 / 0	192 / 0	0 / 0

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

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

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

LOADING				TOTAL LOAD CASES: (4)			
CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. MEMB. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 42	-78.0 -78.0	0.11 (1)	10.00	I-D	0 / 335	0.08 (1)
B-C	0 / 23	-78.0 -78.0	0.13 (1)	10.00	I-E	-108 / 0	0.08 (1)
C-D	-375 / 0	-78.0 -78.0	0.10 (1)	6.25	C-I	-108 / 0	0.08 (1)
D-E	-375 / 0	-78.0 -78.0	0.10 (1)	6.25	J-C	-567 / 0	0.41 (1)
E-F	0 / 23	-78.0 -78.0	0.13 (1)	10.00	E-H	-567 / 0	0.41 (1)
F-G	0 / 42	-78.0 -78.0	0.11 (1)	10.00			
J-B	-205 / 0	0.0 0.0	0.02 (1)	7.81			
H-F	-205 / 0	0.0 0.0	0.02 (1)	7.81			
J-I	0 / 286	-18.5 -18.5	0.25 (4)	10.00			
I-H	0 / 286	-18.5 -18.5	0.25 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN./C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF 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 (0.44")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")

CSI: TC=0.13/1.00 (E-F:1) , BC=0.25/1.00 (H-I:4) ,
WB=0.41/1.00 (E-H:1) , SSI=0.10/1.00 (H-I:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (C) (INPUT = 0.90)
JSI METAL= 0.35 (E) (INPUT = 1.00)

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

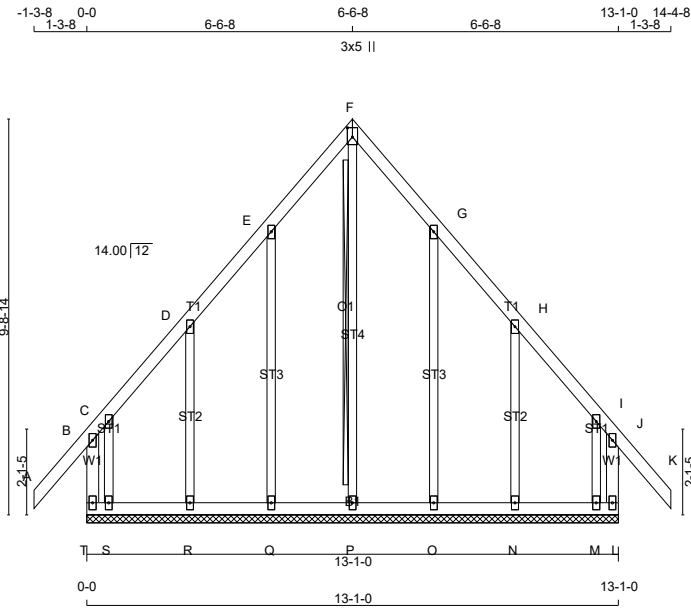


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H49G		1	TRUSS DESC. JT 45147	E21103998

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-eYdy4HcQbvAiSVYbrEjXgDI0mr7Fo7jRxzZb8iyTsxG



Scale = 1:56.7

TOTAL WEIGHT = 3 X 76 = 228 lb

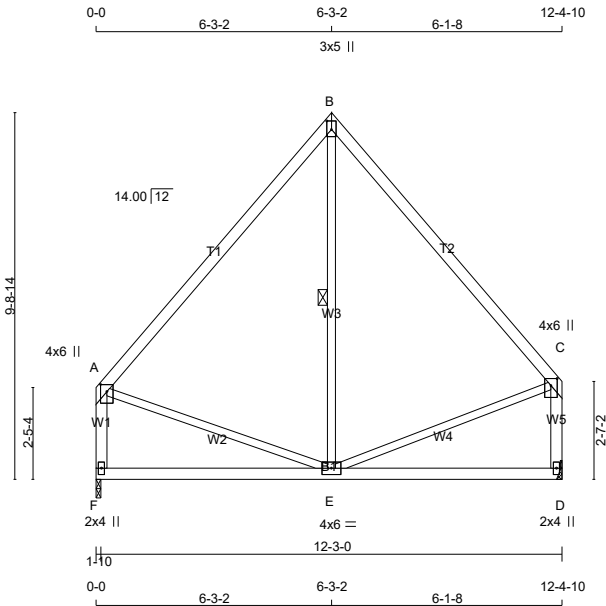
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336321	H49S		1	TRUSS DESC. JT 45147	E21103999

Alpa Roof Truss, Maple

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ID:hd511hZTz_bdeQoS817GKByhVxV-axliVzeg7XQQhoh_yfm?leqJxemmG3skOH2iDayTsx&e=



Scale = 1:61.2

TOTAL WEIGHT = 7 X 59 = 412 lb
[M][F]

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

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

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
	FACTORED		MAXIMUM FACTORED		INPUT		REQRD		
	GROSS REACTION		GROSS REACTION		BRG		BRG		
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
F	597	0	597	0	0	1-10	1-8		
D	597	0	597	0	0		MECHANICAL		
A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D. MINIMUM BEARING LENGTH AT JOINT D = 1-8.									

UNFACTORED REACTIONS							
	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	426	260 / 0	0 / 0	0 / 0	0 / 0	166 / 0	0 / 0
D	426	260 / 0	0 / 0	0 / 0	0 / 0	166 / 0	0 / 0

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

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

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	-317 / 0	-78.0 -78.0	0.26 (1)	6.25	E-B	0 / 99	0.03 (4)
B-C	-317 / 0	-78.0 -78.0	0.25 (1)	6.25	A-E	0 / 218	0.05 (1)
F-A	-553 / 0	0.0 0.0	0.07 (1)	7.81	E-C	0 / 220	0.05 (1)
D-C	-555 / 0	0.0 0.0	0.08 (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			

DESIGN CRITERIA

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

SPACING = 24.0 IN./C

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

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

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

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

CSI: TC=0.26/1.00 (A-B:1) , BC=0.20/1.00 (D-E:4) ,
WB=0.05/1.00 (C-E:1) , SSI=0.12/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

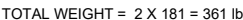
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (E) (INPUT = 0.90)
JSI METAL= 0.17 (A) (INPUT = 1.00)

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



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

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			
Q- A	-3785 / 0	0.0	0.0	0.99 (1)	6.06	A- P	0 / 4572	0.57 (1)
A- B	-2828 / 0	-165.7	-165.7	0.16 (1)	6.25	P- B	-2504 / 0	0.56 (1)
B- C	-5435 / 0	-78.0	-78.0	0.23 (1)	4.86	B- O	0 / 3121	0.39 (1)
C- R	-5599 / 0	-78.0	-78.0	0.14 (1)	4.87	O- C	-1330 / 0	0.30 (1)
R- D	-5599 / 0	-167.5	-167.5	0.14 (1)	4.87	K- F	-908 / 0	0.20 (1)
D- E	-5615 / 0	-167.5	-167.5	0.14 (1)	4.86	K- G	0 / 3886	0.48 (1)
E- F	-5615 / 0	-167.5	-167.5	0.14 (1)	4.86	J- G	-2716 / 0	0.61 (1)
F- G	-5559 / 0	-78.0	-78.0	0.21 (1)	4.83	J- H	0 / 3735	0.46 (1)
G- H	-2314 / 0	-78.0	-78.0	0.17 (1)	6.25	C- N	0 / 784	0.10 (1)
I- H	-2958 / 0	0.0	0.0	0.74 (1)	6.70	N- D	-184 / 0	0.05 (1)
						D- L	-136 / 0	0.04 (1)
Q- P	-105 / 0	-39.3	-39.3	0.05 (4)	6.25	L- F	0 / 267	0.03 (1)
P- O	0 / 2828	-18.5	-18.5	0.22 (1)	10.00			
O- N	0 / 5435	-18.5	-18.5	0.44 (1)	10.00			
N- M	0 / 5661	-39.8	-39.8	0.46 (1)	10.00			
M- L	0 / 5661	-39.8	-39.8	0.46 (1)	10.00			
L- K	0 / 5559	-39.8	-39.8	0.38 (1)	10.00			
K- J	0 / 2314	-18.5	-18.5	0.19 (1)	10.00			
J- I	-82 / 0	-18.5	-18.5	0.05 (4)	6.25			

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

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336334	H20		2	JT 45147	E21104327(2)

Alpa Roof Truss, Maple

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	6.0	2.00	2.75
B	TMWW-t	MT20	4.0	6.0	2.00	2.25
C, D, F						
C	TMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	4.0	6.0		
G	TMWW-t	MT20	4.0	6.0	2.00	2.25
H	TMVW-t	MT20	5.0	6.0	2.00	2.75
I	BMVK1+p	MT20	6.0	9.0	Edge	3.00
J	BMWW+t	MT20	4.0	6.0	2.25	1.50
K	BMWW-t	MT20	4.0	6.0	2.00	2.25
L	BMWW-t	MT20	4.0	4.0		
M	BS-t	MT20	4.0	6.0		
N	BMWW-t	MT20	4.0	4.0		
O	BMWW-t	MT20	4.0	6.0	2.00	2.25
P	BMWW+t	MT20	4.0	6.0	2.25	1.50
Q	BMVK1+p	MT20	6.0	9.0	Edge	3.00

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (P) (INPUT = 0.90)

JSI METAL= 0.76 (M) (INPUT = 1.00)

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



Scale = 1:50.5

CONTINUED ON PAGE 2

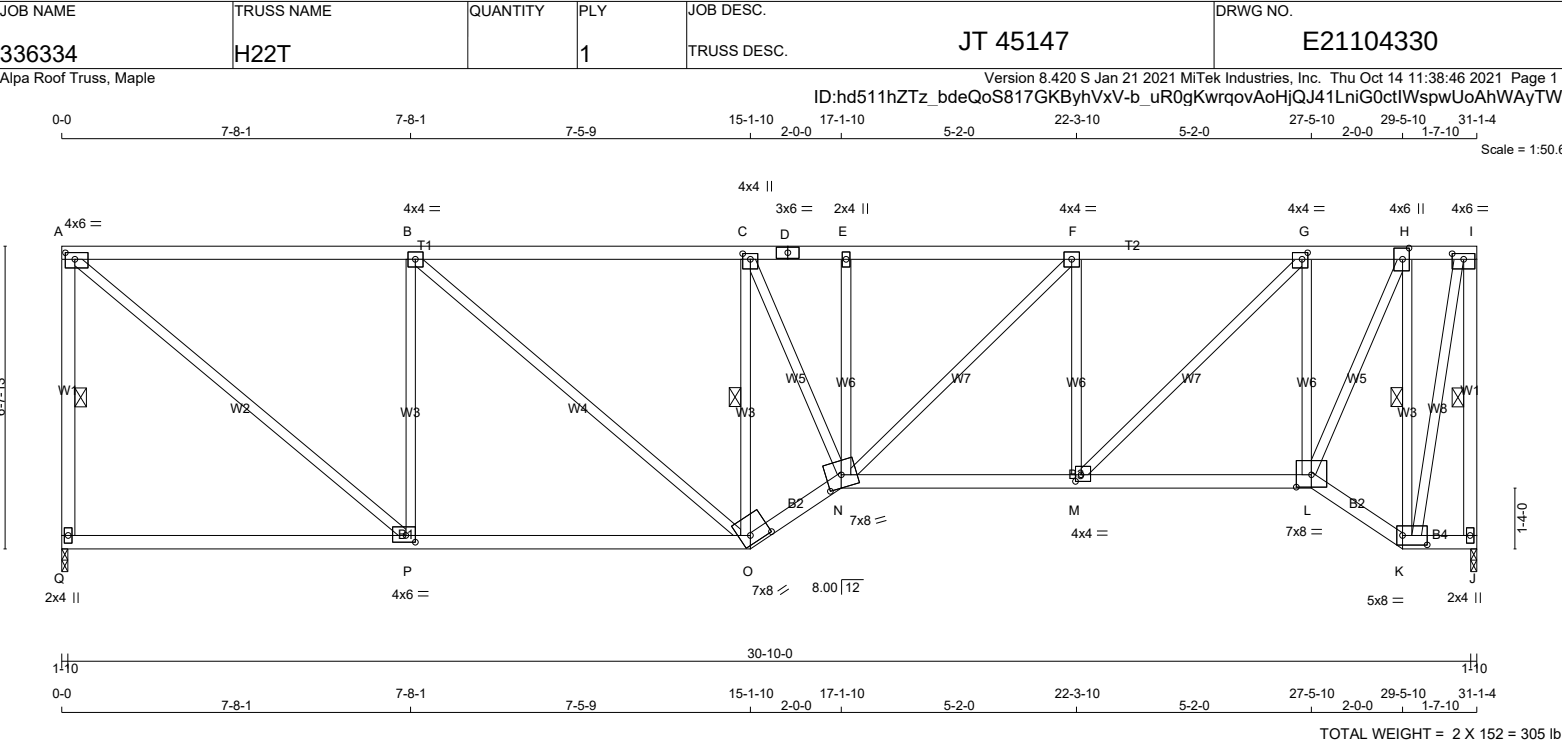


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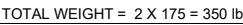


CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1	MAX. LC3	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM TO	CSI (LC)	UNBRAC	FR-TO				
S-A	-2852 / 0	0.0	0.0	0.80 (1)	6.65	A-R	0 / 3625		
A-B	-2512 / 0	-153.5	-153.5	0.60 (1)	4.13	R-B	-2332 / 0		
B-C	-3950 / 0	-153.5	-153.5	0.70 (1)	3.30	B-Q	0 / 2049		
C-D	-4517 / 0	-153.5	-153.5	0.60 (1)	3.28	Q-C	-1322 / 0		
D-E	-6130 / 0	-78.0	-78.0	0.48 (1)	2.91	C-P	0 / 804		
E-F	-6130 / 0	-78.0	-78.0	0.48 (1)	2.91	P-D	-3386 / 0		
F-G	-6135 / 0	-78.0	-78.0	0.61 (1)	2.94	D-O	0 / 3327		
G-H	-5073 / 0	-78.0	-78.0	0.49 (1)	3.29	O-F	-172 / 0		
H-I	-2469 / 0	-78.0	-78.0	0.19 (1)	4.72	O-G	0 / 1293		
I-J	-754 / 0	-153.5	-153.5	0.16 (1)	6.25	N-G	-1176 / 0		
K-J	-2891 / 0	0.0	0.0	0.81 (1)	6.61	N-H	0 / 3120		
						M-H	-2191 / 0		
S-R	-83 / 0	-36.4	-36.4	0.22 (4)	6.25	M-I	0 / 3515		
R-Q	0 / 2512	-36.4	-36.4	0.56 (1)	10.00	L-I	-3037 / 0		
Q-P	0 / 3950	-36.4	-36.4	0.82 (1)	10.00	L-J	0 / 2822		
P-O	0 / 5395	-112.0	-112.0	0.74 (1)	10.00				
O-N	0 / 5072	-112.0	-112.0	0.85 (1)	10.00				
N-M	0 / 2532	-112.0	-112.0	0.52 (1)	10.00				
M-L	0 / 837	-112.0	-112.0	0.15 (1)	10.00				
L-K	-84 / 0	-36.4	-36.4	0.02 (4)	6.25				

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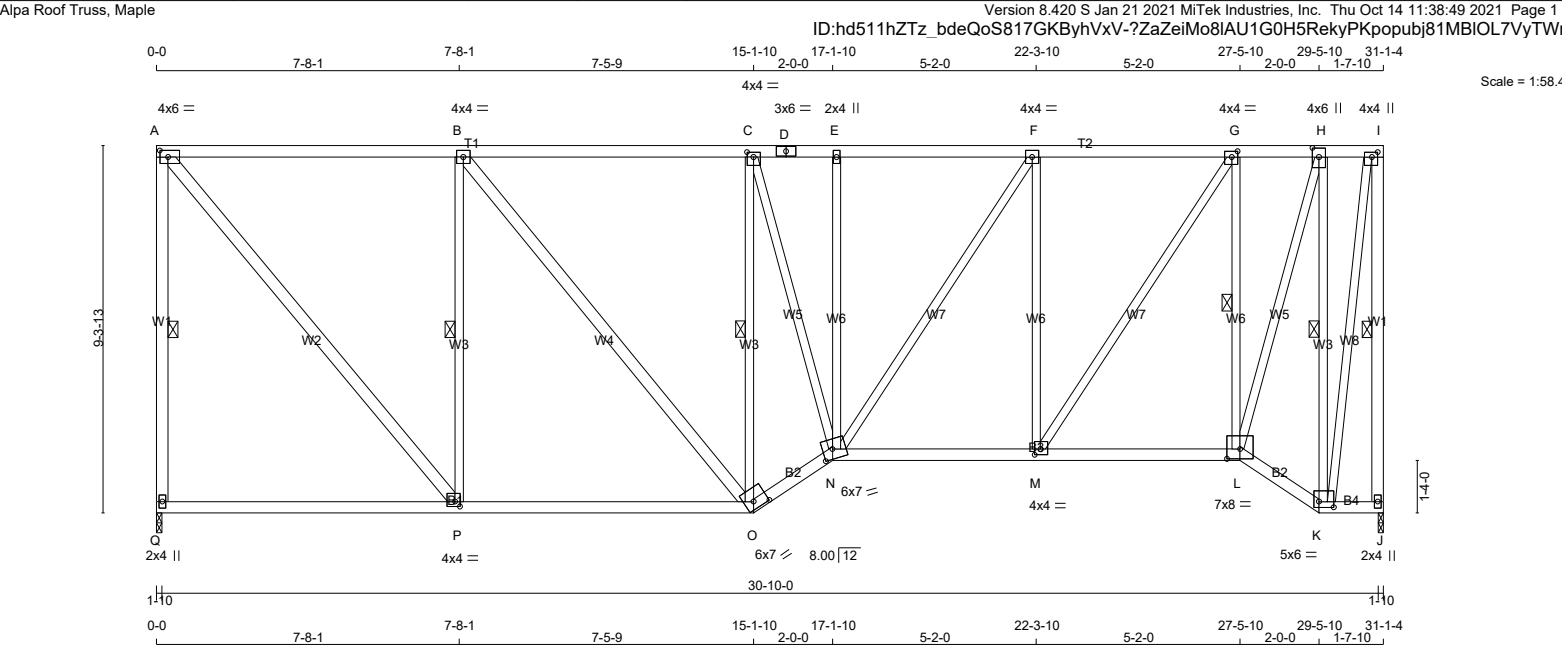
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DRY: SEASONED LUMBER.

JSI GRIP= 0.89 (I) (INPUT = 0.90)
JSI METAL= 0.36 (O) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336334	H24T		1	TRUSS DESC. JT 45147	E21104332



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					
Q - A	2x4	DRY	No.2	SPF	FACTORED			MAXIMUM FACTORED	INPUT	REQRD	SPECIFIED LOADS:						
A - D	2x4	DRY	No.2	SPF	GROSS REACTION			GROSS REACTION	BRG	BRG	TOP CH. LL = 21.0 PSF						
D - I	2x4	DRY	No.2	SPF	VERT	HORZ		DOWN	UPLIFT	IN-SX	DL = 6.0 PSF						
J - I	2x4	DRY	No.2	SPF	Q	1500	0	1500	0	0	1-10	1-10	BOT CH. LL = 0.0 PSF				
Q - O	2x4	DRY	No.2	SPF	J	1500	0	1500	0	0	1-10	1-10	DL = 7.4 PSF				
O - N	2x4	DRY	No.2	SPF	TOTAL LOAD = 34.4 PSF												
N - L	2x4	DRY	No.2	SPF	UNFACTORED REACTIONS												
L - K	2x4	DRY	No.2	SPF	MAX./MIN. COMPONENT REACTIONS												
K - J	2x4	DRY	No.2	SPF	JT	1ST LCASE		MAX./MIN. SNOW		LIVE	PERM.LIVE	WIND	DEAD	SOIL			
				SPF	Q	1070	653 / 0	0 / 0		0 / 0	0 / 0	417 / 0	0 / 0				
				SPF	J	1070	653 / 0	0 / 0		0 / 0	0 / 0	417 / 0	0 / 0				
ALL WEBS EXCEPT				2x3	DRY	No.2	SPF	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) Q, J								LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM	
A - P	2x4	DRY	No.2	SPF											THIS TRUSS IS DESIGNED FOR RESIDENTIAL		
B - O	2x4	DRY	No.2	SPF													

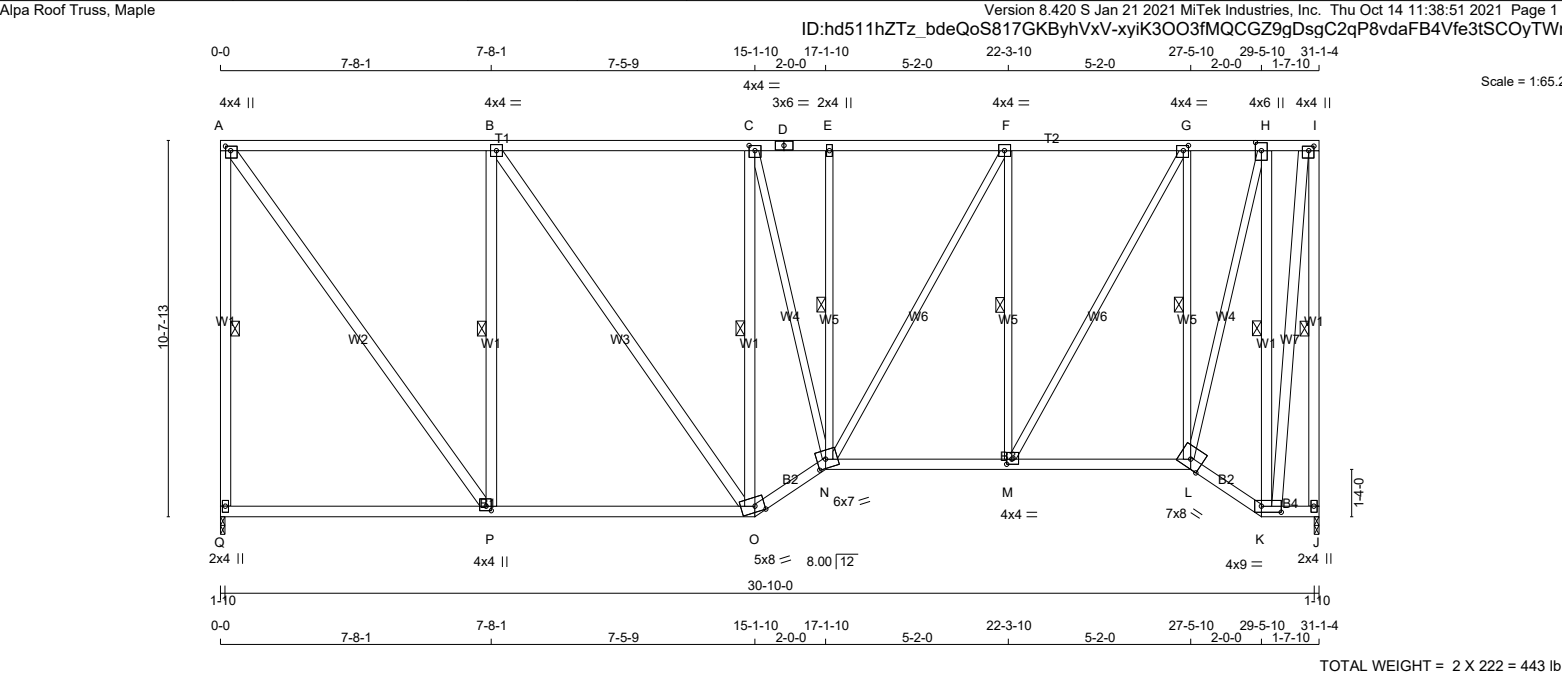
DRY: SEASONED LUMBER.

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	2.00	2.50
B	TMWW-t	MT20	4.0	4.0		
C	TMWW-t	MT20	4.0	4.0	1.50	2.00
D	TS-t	MT20	3.0	6.0		
E	TMW+w	MT20	2.0	4.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMWW-t	MT20	4.0	4.0	1.75	1.75
H	TMWW-t	MT20	4.0	6.0	2.75	2.00
I	TMVW+p	MT20	4.0	4.0	1.50	1.75
J	BMV1+p	MT20	2.0	4.0		
K	BBWW-l	MT20	5.0	6.0	1.75	4.50
L	BBWW-l	MT20	7.0	8.0	3.00	4.00
M	BMWW-t	MT20	4.0	4.0	1.75	1.75
N	BBWWW-m	MT20	6.0	7.0	3.00	3.00
O	BBWW-h	MT20	6.0	7.0	2.25	4.25
P	BMWW-t	MT20	4.0	4.0	1.50	1.50
Q	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.
336334	H25T		1	TRUSS DESC. JT 45147	E21104333



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

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	4.0		
C	TMWW-t	MT20	4.0	4.0	1.75	2.00
D	TS-t	MT20	3.0	6.0		
E	TMW+w	MT20	2.0	4.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMWW-t	MT20	4.0	4.0	1.75	1.75
H	TMWW-t	MT20	4.0	6.0	2.75	2.00
I	TMVW+p	MT20	4.0	4.0	1.50	1.75
J	BMV1+p	MT20	2.0	4.0		
K	BBWW-l	MT20	4.0	9.0	2.00	6.75
L	BBWW-h	MT20	7.0	8.0		
M	BMWW-t	MT20	4.0	4.0	1.75	1.75
N	BBWW-m	MT20	6.0	7.0	3.00	3.00
O	BBWW-m	MT20	5.0	8.0	2.00	3.25
P	BMWW+t	MT20	4.0	4.0	1.50	1.75
Q	BMV1+p	MT20	2.0	4.0		

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

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



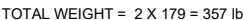
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

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			
Q-A	-1446 / 0	0.0	0.0 0.83 (1)	A-P	0 / 1507	0.24 (1)	
A-B	-897 / 0	-78.0	-78.0 0.77 (1)	P-B	-1039 / 0	0.59 (1)	
B-C	-1151 / 0	-78.0	-78.0 0.79 (1)	B-O	0 / 435	0.07 (1)	
C-D	-1288 / 0	-78.0	-78.0 0.32 (1)	O-C	-1039 / 0	0.59 (1)	
D-E	-1288 / 0	-78.0	-78.0 0.32 (1)	C-N	0 / 653	0.15 (1)	
E-F	-1290 / 0	-78.0	-78.0 0.32 (1)	N-E	-190 / 0	0.11 (1)	
F-G	-1077 / 0	-78.0	-78.0 0.31 (1)	N-F	0 / 428	0.10 (1)	
G-H	-543 / 0	-78.0	-78.0 0.13 (1)	M-F	-815 / 0	0.47 (1)	
H-I	-222 / 0	-78.0	-78.0 0.05 (1)	M-G	0 / 1062	0.24 (1)	
J-I	-1485 / 0	0.0	0.0 0.85 (1)	L-G	-1245 / 0	0.71 (1)	
				L-H	0 / 1477	0.33 (1)	
Q-P	0 / 0	-18.5	-18.5 0.31 (4)	K-H	-1507 / 0	0.86 (1)	
P-O	0 / 897	-18.5	-18.5 0.39 (4)	K-I	0 / 1424	0.23 (1)	
O-N	0 / 1366	-18.5	-18.5 0.23 (1)				
N-M	0 / 1077	-18.5	-18.5 0.25 (1)				
M-L	0 / 558	-18.5	-18.5 0.19 (4)				
L-K	0 / 242	-18.5	-18.5 0.05 (1)				
K-J	0 / 0	-18.5	-18.5 0.01 (4)				

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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.

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

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336334	H30		2	JT 45147	E21104334(2)

PLATES (table is in inches)

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

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

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= 0.88 (M) (INPUT = 0.90)
JSI METAL= 0.67 (N) (INPUT = 1.00)

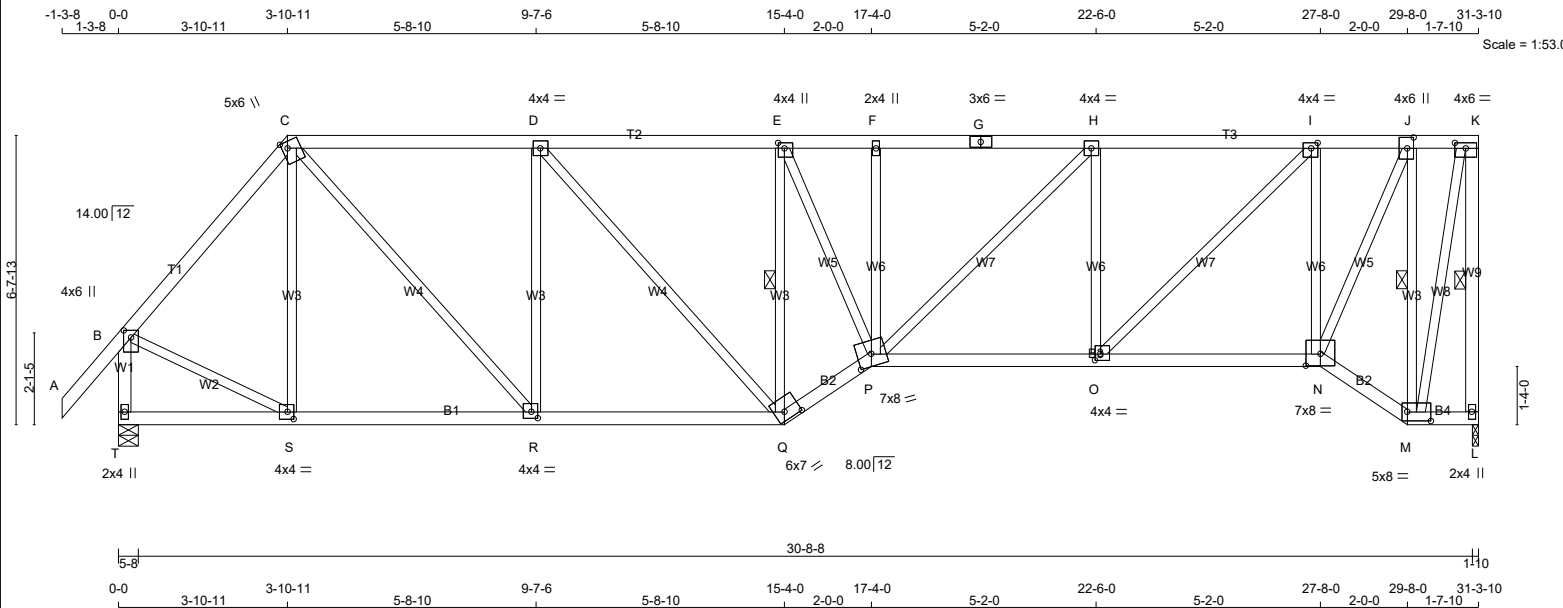
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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CONTINUED ON PAGE 2



TOTAL WEIGHT = 159 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR
A - C	2x4	DRY No.2	SPF
C - G	2x4	DRY No.2	SPF
G - K	2x4	DRY No.2	SPF
L - K	2x4	DRY No.2	SPF
T - B	2x4	DRY No.2	SPF
T - 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
--------------------	-----	-----

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWV+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	5.0	6.0	1.75	1.50
D	TMWV-t	MT20	4.0	4.0		
E	TMWV+t	MT20	4.0	4.0	1.50	1.75
F	TMW+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMWV-t	MT20	4.0	4.0		
I	TMWV-t	MT20	4.0	4.0	1.50	1.75
J	TMWV+t	MT20	4.0	6.0	3.00	1.75
K	TMVW-t	MT20	4.0	6.0	1.50	3.00
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	3.25	4.00
O	BBWW-t	MT20	4.0	4.0	1.75	1.50
P	BBWWW-m	MT20	7.0	8.0	3.25	4.00
Q	BBWW-h	MT20	6.0	7.0	2.25	4.25
R	BBWW-t	MT20	4.0	4.0	1.75	1.75
S	BMVW-t	MT20	4.0	4.0	2.00	1.75
T	BMV+p	MT20	2.0	4.0		

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



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

BEARINGS

	FACTORED		MAXIMUM FACTORED			INPUT	REQRD
	GROSS REACTION		GROSS REACTION			BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
L	1510	0	1510	0	0	1-10	1-10
T	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
L	1076	657 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0
T	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, T

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.13 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)

C H O R D S					W E B S				
MAX. FACTORED		FACTORED			FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	UNBRAC			(LBS)	CSI (LC)	
FR-TO		FROM TO		LENGTH	FR-TO				
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	S-C	-263 / 0	0.19 (1)	
B-C	-1276 / 0	-78.0	-78.0	0.25 (1)	5.43	C-R	0 / 1210	0.27 (1)	
C-D	-1633 / 0	-78.0	-78.0	0.47 (1)	4.64	R-D	-784 / 0	0.57 (1)	
D-E	-1883 / 0	-78.0	-78.0	0.49 (1)	4.36	D-Q	0 / 372	0.08 (1)	
E-F	-2344 / 0	-78.0	-78.0	0.23 (1)	4.27	Q-E	-1450 / 0	0.41 (1)	
F-G	-2349 / 0	-78.0	-78.0	0.38 (1)	4.13	E-P	0 / 1252	0.28 (1)	
G-H	-2348 / 0	-78.0	-78.0	0.38 (1)	4.13	P-F	-241 / 0	0.10 (1)	
H-I	-1949 / 0	-78.0	-78.0	0.35 (1)	4.49	P-H	0 / 559	0.13 (1)	
I-J	-987 / 0	-78.0	-78.0	0.16 (1)	6.07	O-H	-822 / 0	0.35 (1)	
J-K	-360 / 0	-78.0	-78.0	0.08 (1)	6.25	O-I	0 / 1317	0.30 (1)	
L-K	-1495 / 0	0.0	0.0	0.30 (1)	5.37	N-I	-1272 / 0	0.54 (1)	
T-B	-1593 / 0	0.0	0.0	0.19 (1)	6.55	N-J	0 / 1686	0.38 (1)	
						M-J	-1587 / 0	0.45 (1)	
T-S	0 / 0	-18.5	-18.5	0.09 (4)	10.00	M-K	0 / 1443	0.32 (1)	
S-R	0 / 822	-18.5	-18.5	0.22 (4)	10.00	B-S	0 / 901	0.20 (1)	
R-Q	0 / 1634	-18.5	-18.5	0.34 (1)	10.00				
Q-P	0 / 2234	-18.5	-18.5	0.37 (1)	10.00				
P-O	0 / 1948	-18.5	-18.5	0.38 (1)	10.00				
O-N	0 / 1013	-18.5	-18.5	0.23 (4)	10.00				
N-M	0 / 402	-18.5	-18.5	0.08 (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

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 (0.26")

CSI: TC=0.49/1.00 (D-E:1) , BC=0.38/1.00 (O-P:1) ,
WB=0.57/1.00 (D-R: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) (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.

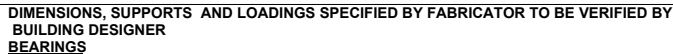
JSI GRIP= 0.89 (J) (INPUT = 0.90)
JSI METAL= 0.49 (B) (INPUT = 1.00)

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DRY: SEASONED LUMBER.

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



UNFACTORED REACTIONS

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.58 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)

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		
A-B	0 / 42	-78.0	-78.0 0.11 (1)	10.0	S-C	-180 / 4	0.22 (1)
B-C	-1300 / 0	-78.0	-78.0 0.44 (1)	5.18	C-R	0 / 972	0.22 (1)
C-D	-1383 / 0	-78.0	-78.0 0.36 (1)	5.10	R-D	-709 / 0	0.86 (1)
D-E	-1552 / 0	-78.0	-78.0 0.37 (1)	4.86	D-Q	0 / 304	0.07 (1)
E-F	-1852 / 0	-78.0	-78.0 0.17 (1)	4.77	Q-E	-1215 / 0	0.49 (1)
F-G	-1856 / 0	-78.0	-78.0 0.34 (1)	4.58	E-P	0 / 1004	0.23 (1)
G-H	-1856 / 0	-78.0	-78.0 0.34 (1)	4.58	P-F	-256 / 0	0.19 (1)
H-I	-1540 / 0	-78.0	-78.0 0.32 (1)	4.95	P-H	0 / 500	0.11 (1)
I-J	-779 / 0	-78.0	-78.0 0.15 (1)	6.25	O-H	-822 / 0	0.60 (1)
J-K	-297 / 0	-78.0	-78.0 0.09 (1)	6.25	O-I	0 / 1189	0.27 (1)
L-K	-1495 / 0	0.0	0.0 0.43 (1)	5.37	N-I	-1274 / 0	0.93 (1)
T-B	-1581 / 0	0.0	0.0 0.19 (1)	6.56	N-J	0 / 1598	0.36 (1)
					M-J	-1545 / 0	0.62 (1)
T-S	0 / 0	-18.5	-18.5 0.11 (4)	10.00	M-K	0 / 1425	0.32 (1)
S-R	0 / 841	-18.5	-18.5 0.20 (1)	10.00	B-S	0 / 890	0.20 (1)
R-Q	0 / 1383	-18.5	-18.5 0.28 (1)	10.00			
Q-P	0 / 1846	-18.5	-18.5 0.31 (1)	10.00			
P-O	0 / 1540	-18.5	-18.5 0.32 (1)	10.00			
O-N	0 / 800	-18.5	-18.5 0.21 (4)	10.00			
N-M	0 / 332	-18.5	-18.5 0.07 (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 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 (0.23")

CSI: TC=0.44/1.00 (B-C:1), BC=0.32/1.00 (O-P:1), WB=0.93/1.00 (I-N: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)	
	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 (B) (INPUT = 0.90)
JSI METAL= 0.51 (B) (INPUT = 1.00)

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JSI GRIP= 0.90 (R) (INPUT = 0.90)
JSI METAL= 0.52 (B) (INPUT = 1.00)



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TOTAL WEIGHT = 219 lb

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	CTMWW-t	MT20	4.0	6.0	2.00	2.75
D	TTWW+m	MT20	6.0	7.0	Edge	1.50
E	TMWW-t	MT20	4.0	4.0		
F	TMW+w	MT20	2.0	4.0		
G	CTMWW-t	MT20	4.0	4.0		
H	TS-t	MT20	3.0	6.0		
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-l	MT20	4.0	9.0	2.00	7.00
N	BBWW-h	MT20	7.0	8.0	Edge	
O	BMWW-l	MT20	4.0	4.0	1.75	1.75
P	BBWWWW-m	MT20	6.0	7.0	3.00	3.00
Q	BBWW-m	MT20	5.0	8.0	2.00	3.25
R	BMWW-t	MT20	4.0	4.0		
S	BMWW-t	MT20	4.0	4.0	2.00	1.75
T	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	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
L	1510	0	1510	0	0	1-10	1-10
T	1619	0	1619	0	0	5-8	1-12

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
T	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, T

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.47 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, D-Q, E-Q, F-P, G-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

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		
A-B	0 / 42	-78.0	-78.0 0.11 (1)	10.00	S-C	-346 / 0	0.23 (1)
B-C	-1259 / 0	-78.0	-78.0 0.21 (1)	5.51	C-R	-11 / 15	0.02 (1)
C-D	-1308 / 0	-78.0	-78.0 0.21 (1)	5.43	R-D	0 / 157	0.04 (4)
D-E	-1192 / 0	-78.0	-78.0 0.79 (1)	4.64	D-Q	0 / 588	0.09 (1)
E-F	-1300 / 0	-78.0	-78.0 0.67 (1)	4.47	Q-E	-1169 / 0	0.67 (1)
F-G	-1301 / 0	-78.0	-78.0 0.33 (1)	5.26	E-P	0 / 535	0.12 (1)
G-H	-1087 / 0	-78.0	-78.0 0.32 (1)	5.64	P-F	-49 / 0	0.03 (1)
H-I	-1087 / 0	-78.0	-78.0 0.32 (1)	5.64	P-G	0 / 429	0.10 (1)
I-J	-547 / 0	-78.0	-78.0 0.13 (1)	6.25	O-G	-827 / 0	0.47 (1)
J-K	-224 / 0	-78.0	-78.0 0.05 (1)	6.25	O-I	0 / 1076	0.24 (1)
L-K	-1495 / 0	0.0	0.0 0.85 (1)	5.37	N-I	-1252 / 0	0.71 (1)
T-B	-1584 / 0	0.0	0.0 0.19 (1)	6.56	N-J	0 / 1486	0.33 (1)
					M-J	-1518 / 0	0.87 (1)
T-S	0 / 0	-18.5	-18.5 0.07 (4)	10.00	M-K	0 / 1434	0.23 (1)
S-R	0 / 835	-18.5	-18.5 0.33 (4)	10.00	B-S	0 / 920	0.21 (1)
R-Q	0 / 832	-18.5	-18.5 0.33 (4)	10.00			
Q-P	0 / 1414	-18.5	-18.5 0.24 (1)	10.00			
P-O	0 / 1087	-18.5	-18.5 0.25 (1)	10.00			
O-N	0 / 561	-18.5	-18.5 0.19 (4)	10.00			
N-M	0 / 243	-18.5	-18.5 0.05 (1)	10.00			
M-L	0 / 0	-18.5	-18.5 0.01 (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

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 (0.22")

CSI: TC=0.85/1.00 (K-L:1), BC=0.33/1.00 (Q-R:4),
WB=0.87/1.00 (J-M:1), SSI=0.29/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		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= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.48 (B) (INPUT = 1.00)

TOTAL WEIGHT = 146 lb

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

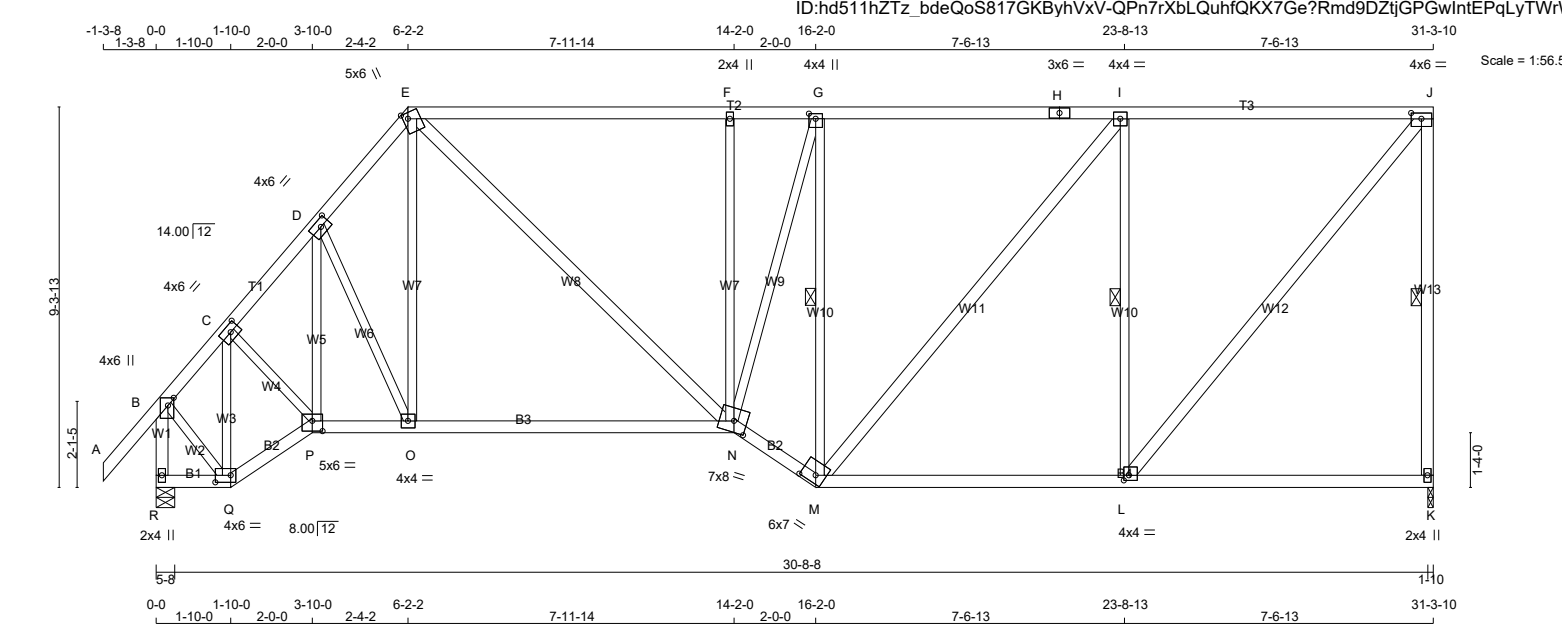
JSI GRIP= 0.89 (P) (INPUT = 0.90)
JSI METAL= 0.40 (S) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336334	H34TA		1	TRUSS DESC. JT 45147	E21104343

Alpa Roof Truss, Maple

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ID:hd511hZtZt_bdeQoS817GKByhVxV-QPn7rXbLQuhfQKX7Ge?Rmd9DZtjGPgwintEPqLyTWrw



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR.			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER						DESIGN CRITERIA	
A - E	2x4	DRY	No.2	SPF	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	SPECIFIED LOADS:	
E - H	2x4	DRY	No.2	SPF	VERT	HORZ	DOWN	HORZ	UP	LL = 21.0 PSF
H - J	2x4	DRY	No.2	SPF	K	1507	0	1507	0	DL = 6.0 PSF
K - J	2x4	DRY	No.2	SPF	R	1622	0	1622	0	BOT CH. LL = 0.0 PSF
R - B	2x4	DRY	No.2	SPF						DL = 7.4 PSF
R - Q	2x4	DRY	No.2	SPF						TOTAL LOAD = 34.4 PSF
Q - P	2x4	DRY	No.2	SPF						
P - N	2x4	DRY	No.2	SPF						
N - M	2x4	DRY	No.2	SPF						
M - K	2x4	DRY	No.2	SPF						
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF						
E - N	2x4	DRY	No.2	SPF						
M - I	2x4	DRY	No.2	SPF						
L - J	2x4	DRY	No.2	SPF						

DRY: SEASONED LUMBER.

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.23 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

PLATES (table is in inches)			LOADING					
JT	TYPE	PLATES	W	LEN	Y	X	TOTAL LOAD CASES: (4)	
B	TMVW+p	MT20	4.0	6.0	2.25	1.75		
C	TMWW-t	MT20	4.0	6.0	2.00	2.75		
D	TMWW-t	MT20	4.0	6.0	2.00	2.75		
E	TTWW+m	MT20	5.0	6.0	1.75	1.50		
F	TMW+w	MT20	2.0	4.0				
G	TMWW+t	MT20	4.0	4.0	1.50	2.00		
H	TS-t	MT20	3.0	6.0				
I	TMWW-t	MT20	4.0	4.0				
J	TMVW-t	MT20	4.0	6.0	1.75	3.00		
K	BMV1+p	MT20	2.0	4.0				
L	BMWW-t	MT20	4.0	4.0	1.50	1.50		
M	BBWW-h	MT20	6.0	7.0	2.25	4.25		
N	BBWWW-m	MT20	7.0	8.0	3.25	3.75		
O	BMWW-t	MT20	4.0	4.0				
P	BBWW-l	MT20	5.0	6.0	3.00	3.00		
Q	BBWW-l	MT20	4.0	6.0	2.00	4.50		
R	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 0.11 (1)	Q-C	-1000 / 0	0.25 (1)
B-C	-1043 / 0	-78.0 -78.0 0.12 (1)	C-P	0 / 620	0.14 (1)
C-D	-1578 / 0	-78.0 -78.0 0.08 (1)	P-D	-46 / 0	0.02 (1)
D-E	-1534 / 0	-78.0 -78.0 0.08 (1)	D-O	-127 / 0	0.07 (1)
E-F	-1581 / 0	-78.0 -78.0 0.81 (1)	O-E	0 / 262	0.07 (4)
F-G	-1574 / 0	-78.0 -78.0 0.63 (1)	E-N	0 / 824	0.13 (1)
G-H	-1330 / 0	-78.0 -78.0 0.84 (1)	N-F	-553 / 0	0.67 (1)
H-I	-1330 / 0	-78.0 -78.0 0.84 (1)	N-G	0 / 974	0.22 (1)
I-J	-1027 / 0	-78.0 -78.0 0.79 (1)	M-G	-1164 / 0	0.66 (1)
K-J	-1454 / 0	0.0 0.0 0.59 (1)	M-I	0 / 471	0.08 (1)
R-B	-1605 / 0	0.0 0.0 0.19 (1)	L-I	-1053 / 0	0.60 (1)
R-Q	0 / 0	-18.5 -18.5 0.02 (4)	L-J	0 / 1598	0.26 (1)
Q-P	0 / 754	-18.5 -18.5 0.13 (1)	B-Q	0 / 900	0.20 (1)
P-O	0 / 1036	-18.5 -18.5 0.36 (4)			
O-N	0 / 986	-18.5 -18.5 0.36 (4)			
N-M	0 / 1582	-18.5 -18.5 0.27 (1)			
M-L	0 / 1027	-18.5 -18.5 0.40 (4)			
L-K	0 / 0	-18.5 -18.5 0.31 (4)			

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

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.23")

CSI: TC=0.84/1.00 (G-I:1) , BC=0.40/1.00 (L-M:4) ,
WB=0.67/1.00 (F-N: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 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= 0.40 (Q) (INPUT = 1.00)

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TOTAL WEIGHT = 194 lb

JSI GRIP= 0.89 (Q) (INPUT = 0.90)
JSI METAL= 0.40 (Q) (INPUT = 1.00)

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:

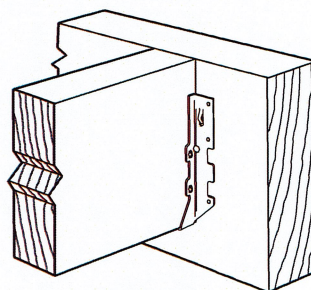
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

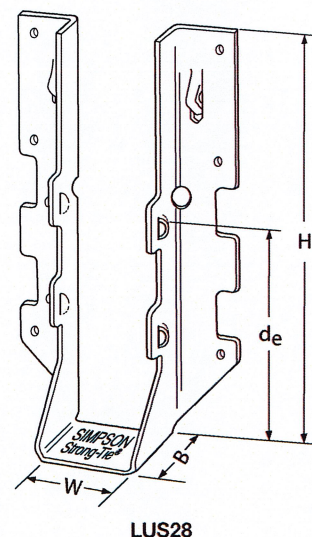
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



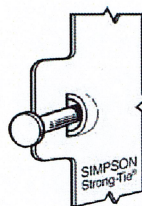
Typical LUS Installation



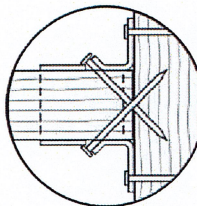
LUS28

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

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



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



Double Shear Nailing Top View.



LIMIT STATES DESIGN

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

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T-SPECLUS20 3/20 exp. 6/22

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HUS/LJS – Double Shear Joist Hangers



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:

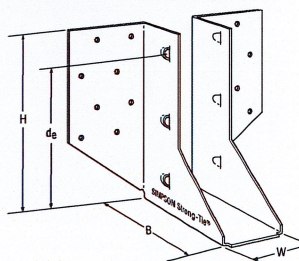
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

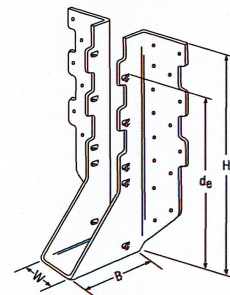
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

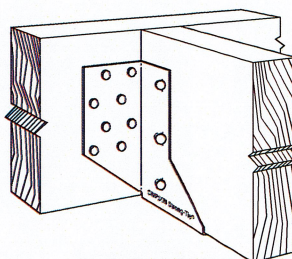
- See current catalogue for options



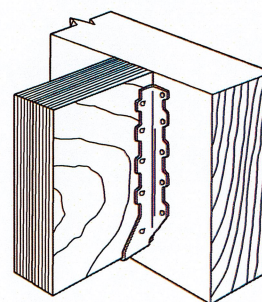
LJS26DS



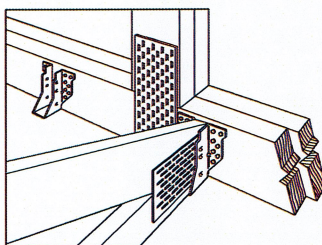
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



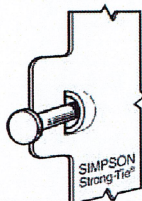
Typical HUS
Installation



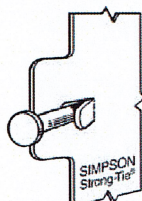
Typical HUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)

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

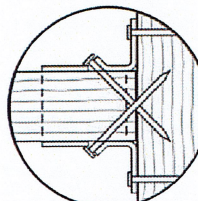
1. d_e is the distance from the seat of the hanger to the highest joist nail.



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:

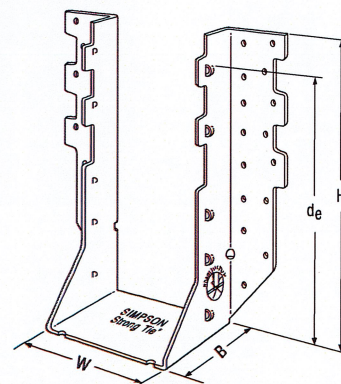
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

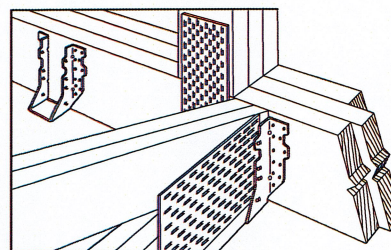
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

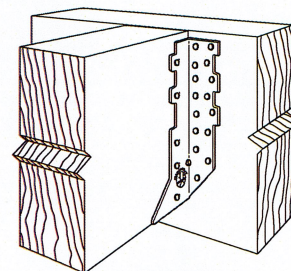
- See current catalogue for options



HHUS410



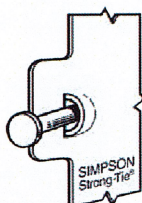
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

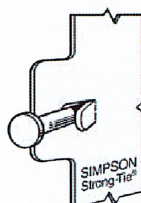
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _o =1.15)	Normal (K _o =1.00)	Uplift (K _o =1.15)	Normal (K _o =1.00)
HHUS26-2	14	3½	5¼	3	3¼	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3½	7½	3	6½	(22) 16d	(8) 16d	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.

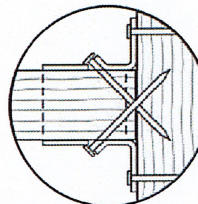


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

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

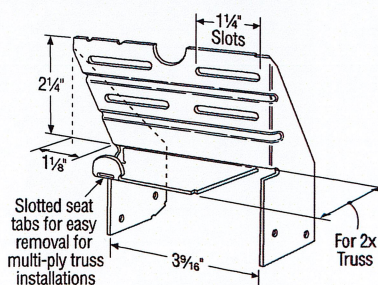
Design: Factored resistances are in accordance with CSA 086-14

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.

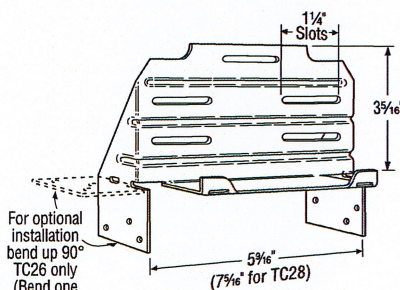
Optional TC Installation:

- 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.



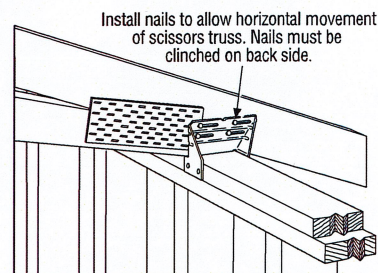
TC24

U.S. Patent 4,932,173

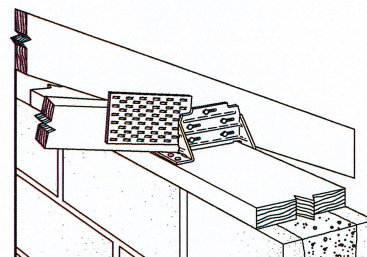


TC26

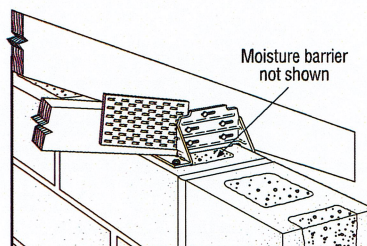
(TC28 Similar)



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.



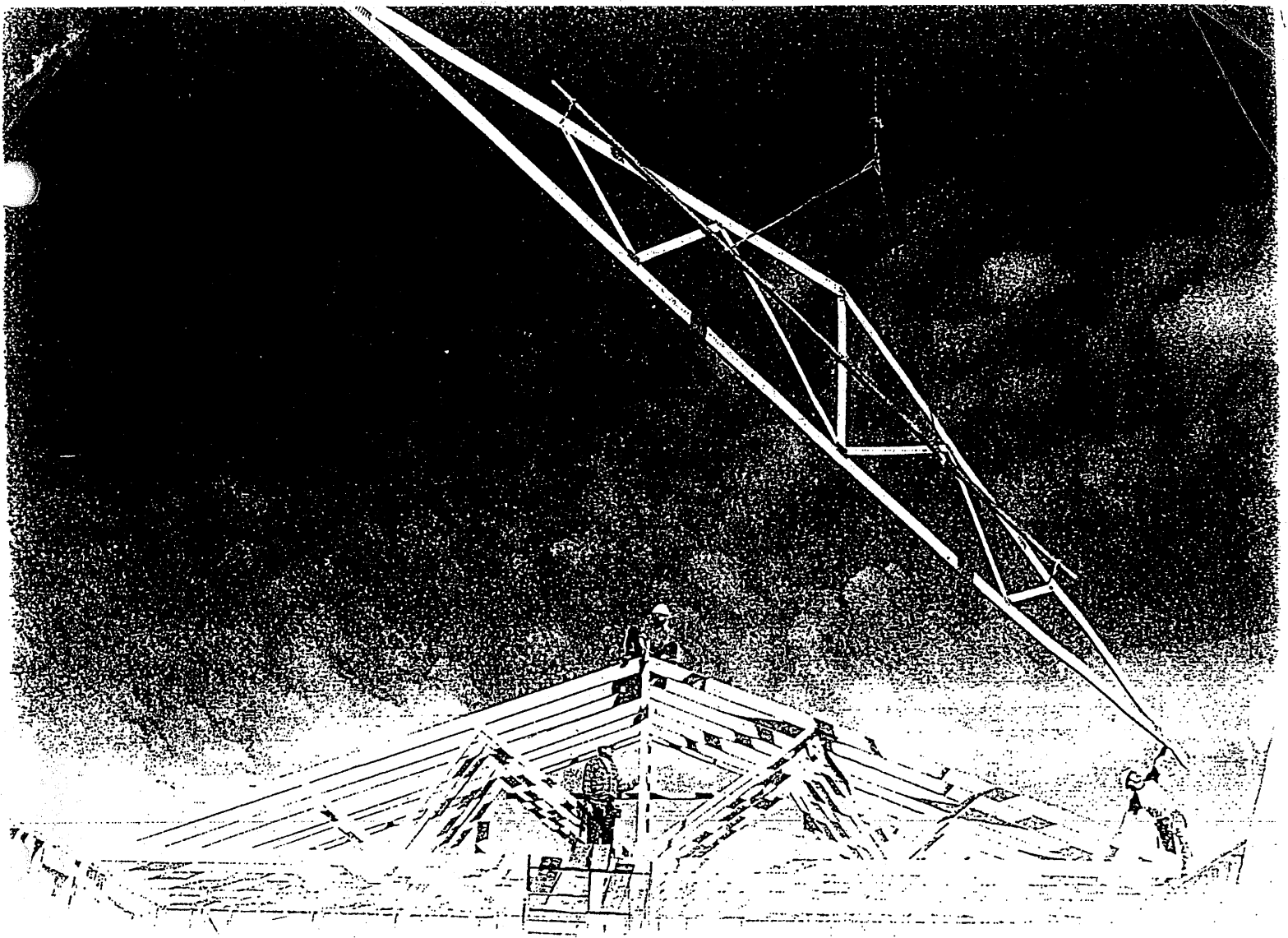
**LIMIT
STATES
DESIGN**

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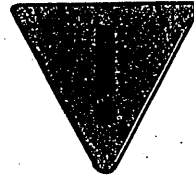
Wood Truss Installation

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

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Warning



General

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

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

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

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

Temporary Erection Bracing

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

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

Permanent Truss Bracing

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

Special Design Requirements

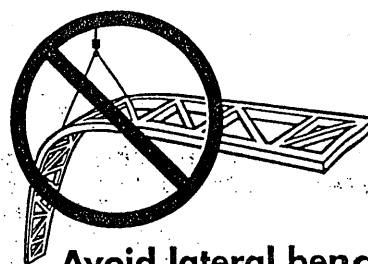
Special design requirements, such as wind bracing, portal bracing, seismic bracing, diaphragms, shear walls, or other load transfer elements and their connections to wood trusses must be considered separately by the building designer, who shall determine size, location, and method of connections for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

1

Unloading & Lifting

Never handle trusses flat

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

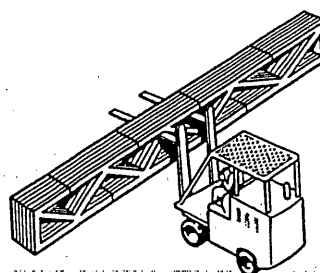
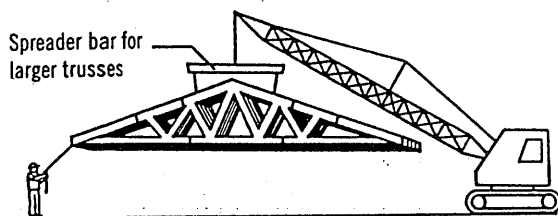


Avoid lateral bending

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

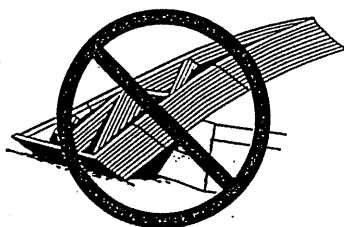
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Job Site Handling



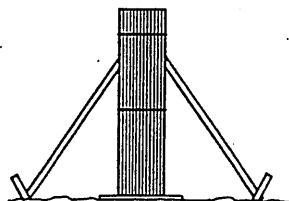
All trusses should be picked up at the top chords in a vertical position only

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.



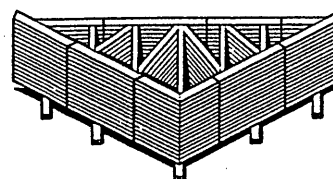
Do not store unbraced bundles upright

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.

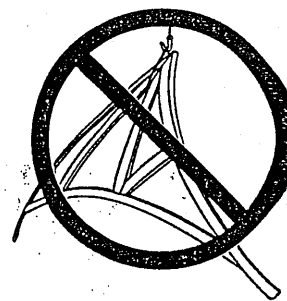


Care should be exercised when removing banding to avoid damaging trusses.

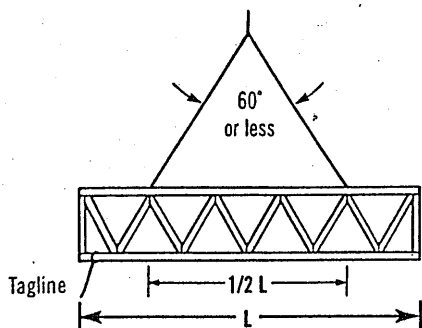
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

3 Hoisting

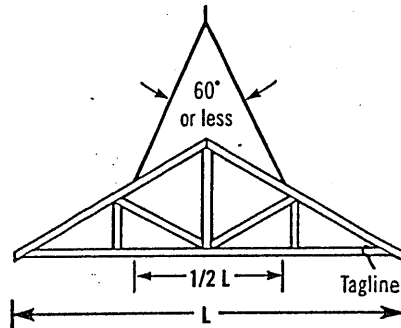
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



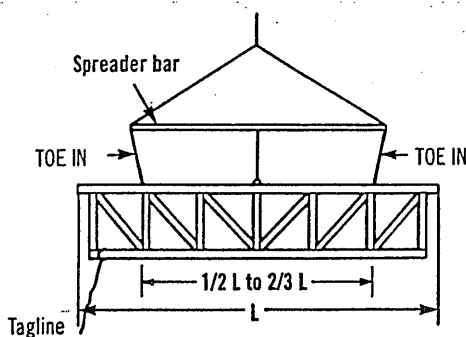
Avoid lateral bending



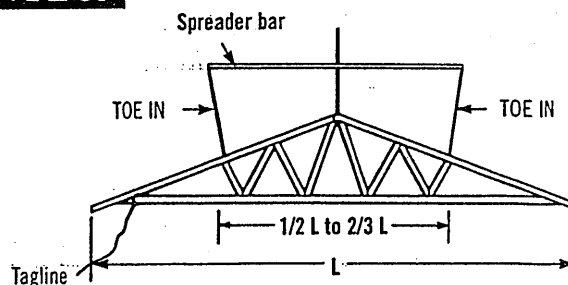
$L \leq 30'$



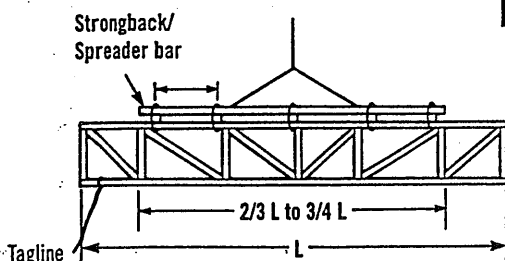
Truss sling is acceptable where these criteria are met.



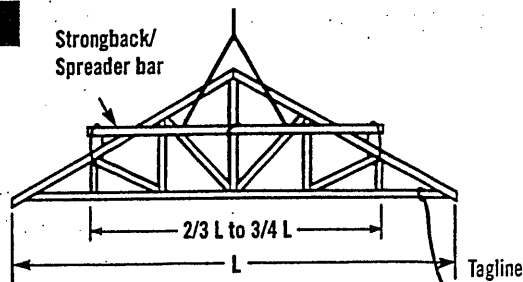
$30' < L \leq 60'$



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.



$L > 60'$



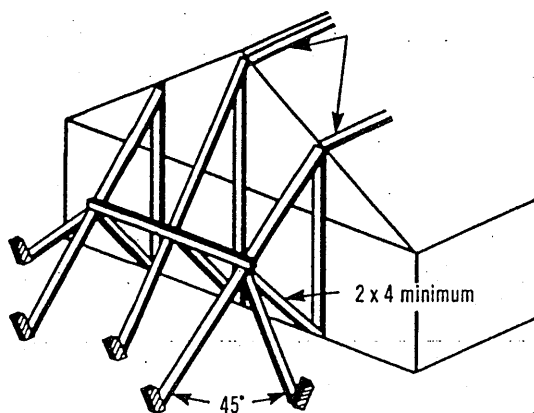
For lifting trusses with spans in excess of 60 feet, it is recommended that a strongback/spreader bar be used as illustrated. The strongback/spreader bar should be attached to the top chord and web members at intervals of approximately 10 feet. Further, the strongback/spreader bar should be at or above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

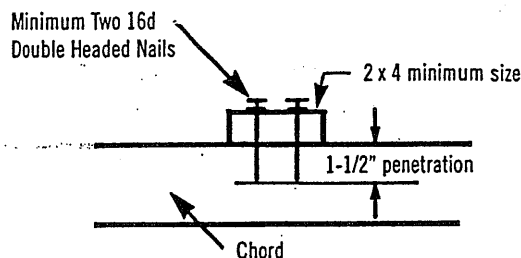
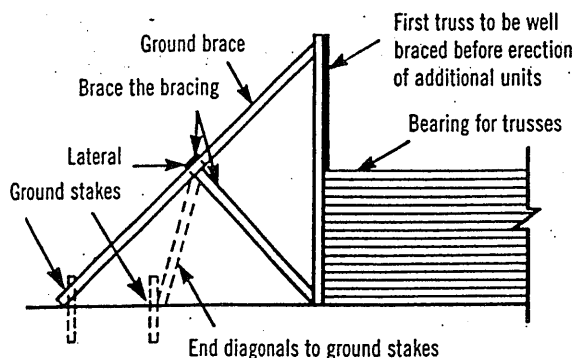
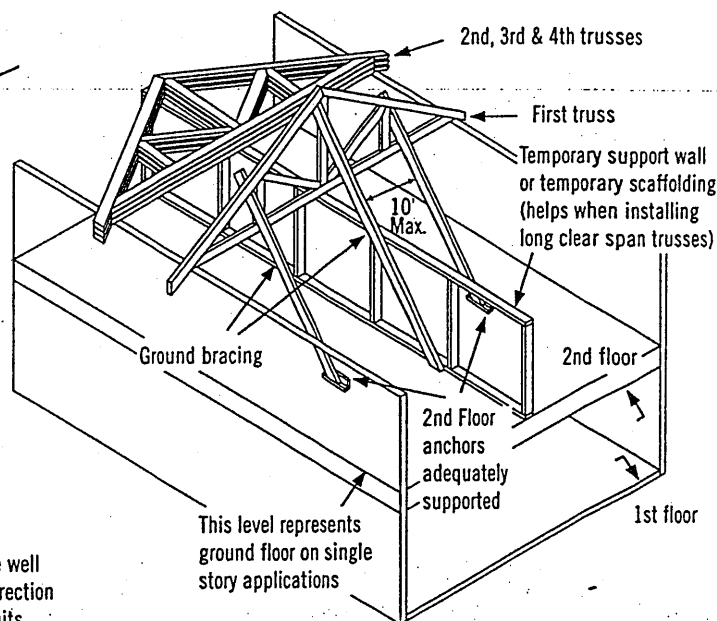
One satisfactory method ties the first unit of trusses off to a series of braces that are attached to a stake driven into the ground and securely anchored. The ground brace itself should be supported as shown below or it is apt to buckle. Additional ground braces in the opposite direction, inside the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

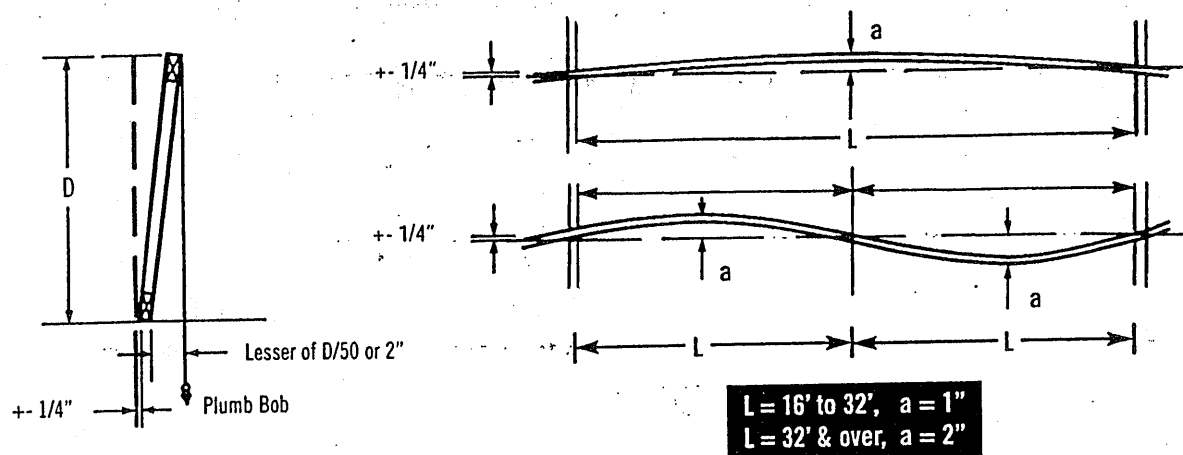


Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.

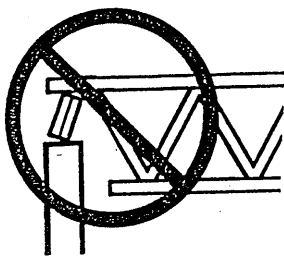
5 Erection Tolerance

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.

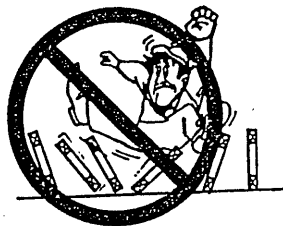
When sheathing, make sure nails are driven into the top chord of the trusses.



6 Bracing



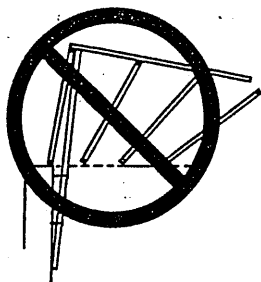
Do not install trusses on temporarily connected supports



Do not walk on unbraced trusses



Do not walk on trusses or gable ends lying flat

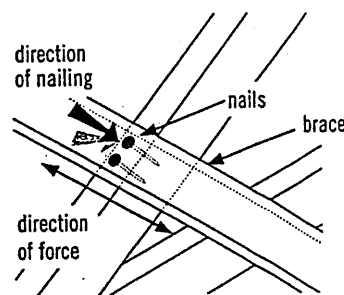


Nails in withdrawal (parallel to force)

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.



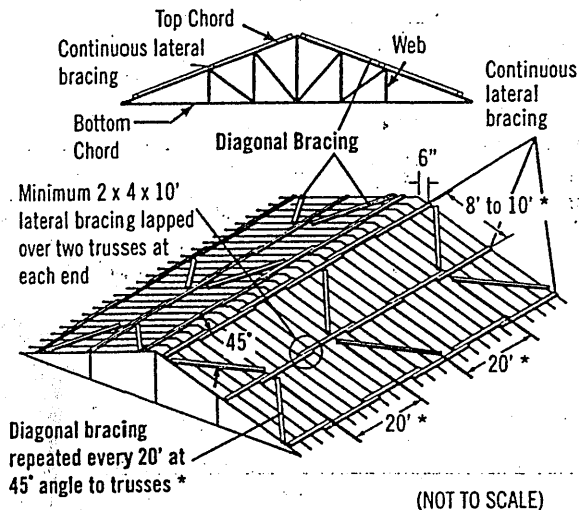
Well nailed (perpendicular to force)

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.

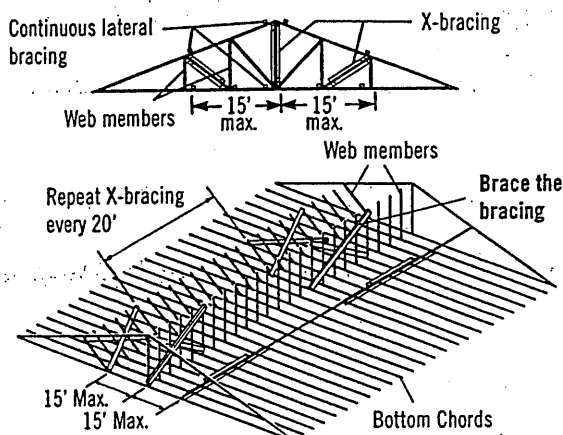


Exact spacing between trusses should be maintained as bracing is installed to avoid the hazardous practice of removing bracing to adjust spacing. This act of "adjusting spacing" can cause trusses to topple if connections are removed at the wrong time.

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.

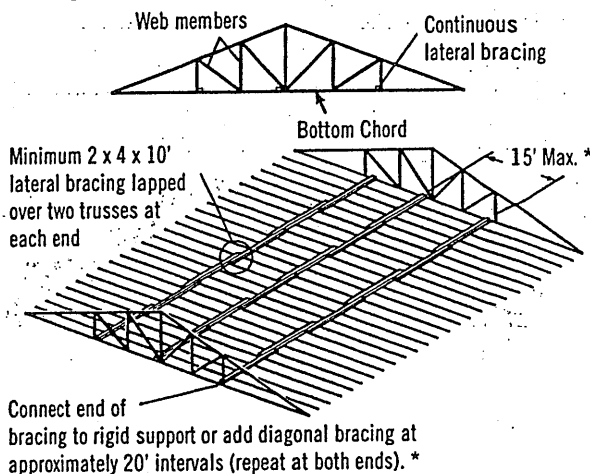
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



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

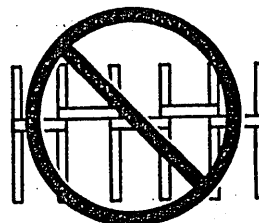
2) Bottom Chord Plane

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

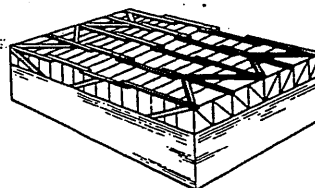


* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses) for details.

Diagonal or cross-bracing is very important!



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

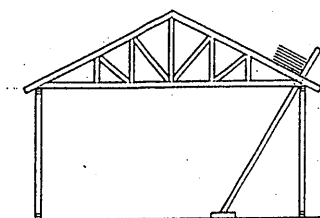
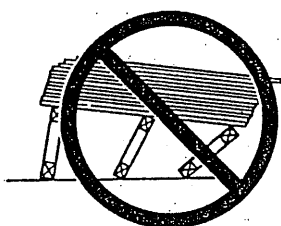


Bracing requirements using the same principles apply to parallel chord trusses

8 Stacking Materials

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

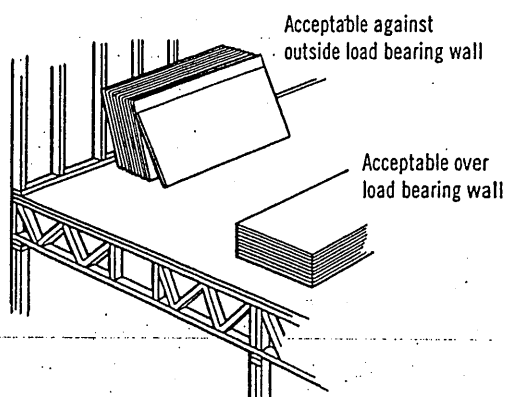
Never stack materials on unbraced or inadequately braced trusses



Platform must be rigidly braced

Proper distribution of construction materials is a must during construction.

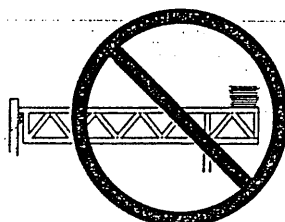
Never stack materials near a peak



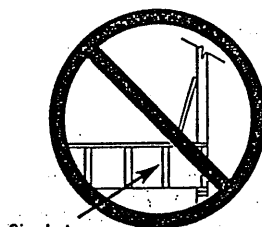
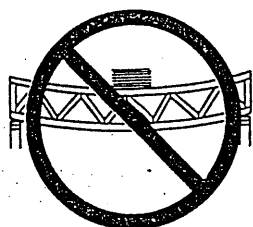
Acceptable against outside load bearing wall

Acceptable over load bearing wall

Never stack materials on the cantilever of a truss

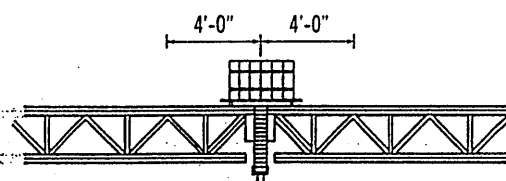


Always stack materials over two or more trusses.



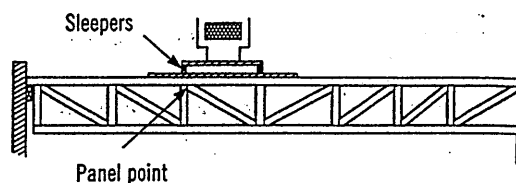
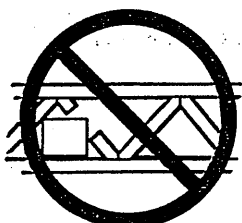
Single truss

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



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

Never cut any structural member of a truss.



Sleepers

Panel point

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

Caution Notes

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

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

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

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

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