

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)

PIGGYBACK TRS  
PURLINS BY OTHERS

1 UNIT 3105 END  
ELEV. 'A' (REV)

E21103962 - E21103964  
E21103987 - E21103989  
E21103994 - E21103996  
E21104028 - E21104031  
E21104056 - E21104067  
E21104072 - E21104075

2 UNIT 3103  
ELEV. 'A' (REV)

E21104078 - E21104120  
E21104135 - E21104140  
E21104153  
E21104154 - E21104156

3 UNIT 3103  
ELEV. 'A' (REV)

4 UNIT 3104 END  
ELEV. 'A' (REV)

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

PL: 111206(TYP.), 114170E

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: <b>45147</b>	Builder / Location: <b>GOLD PARK HOMES / VAUGHAN</b>	Model / Elevation: <b>BLOCK 6 / UNIT 1-4</b>
	Layout ID: <b>336326</b>	Project: <b>PINE VALLEY</b>	
	Plan Log: <b>113123</b>	Date: <b>9/28/2021</b>	Designer: <b>JBURROWS/C</b>

# EWP DESIGN INC.

(905) 832-2250

FAX (905) 832-0286

## RESPONSIBILITIES AND SPECIFICATIONS

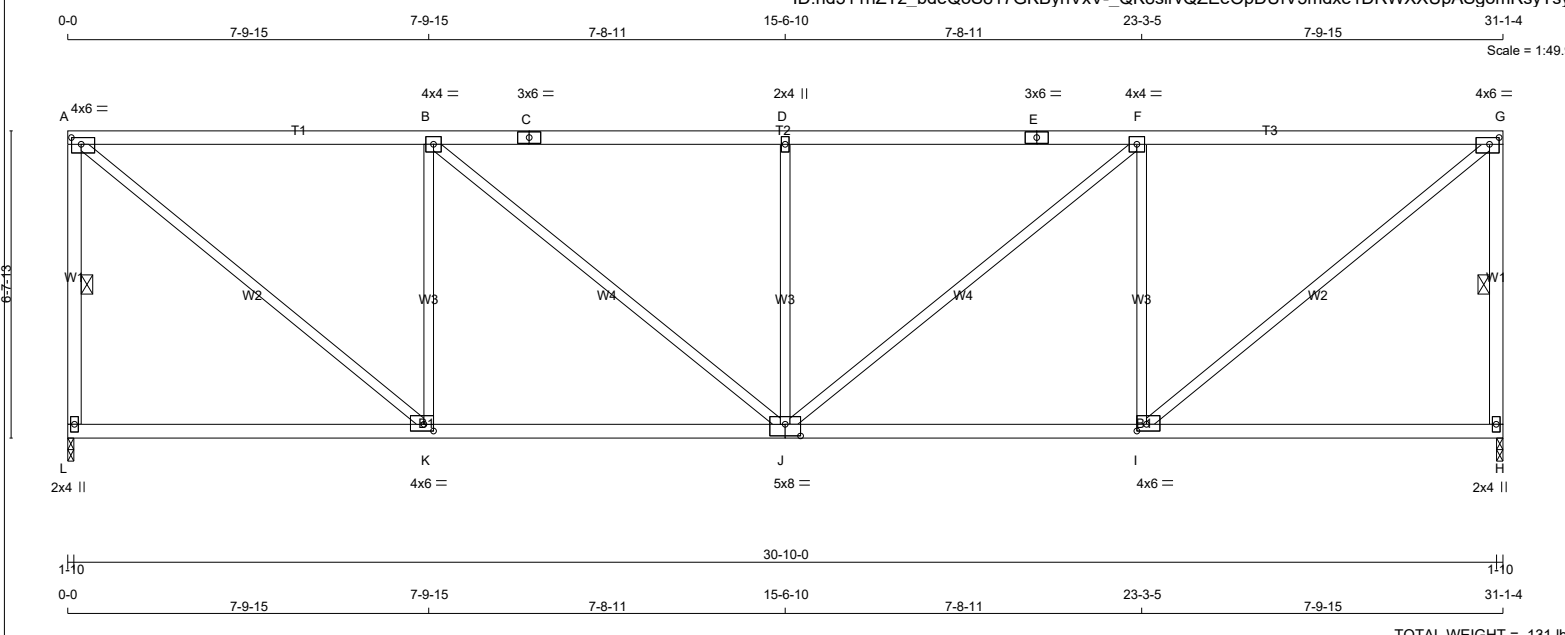
### **RESPONSIBILITIES**

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

### **SPECIFICATIONS**

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

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



TOTAL WEIGHT = 131 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 2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.75 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**

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

**UNFACTORED REACTIONS**

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS					
		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)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)				WEBS MAX. FACTORED FORCE (LBS)			
	VERT.	LC1	MAX	UNBRAC LENGTH	MEMB.	FORCE	MAX	UNBRAC LENGTH
L-A	-1444	0	0.0	0.29 (1)	5.44	A-K	0 / 1908	0.43 (1)
A-B	-1481	0	-78.0	-78.0 0.89 (1)	4.10	K-B	-1026 / 0	0.75 (1)
B-C	-1885	0	-78.0	-78.0 0.97 (1)	3.64	B-J	0 / 523	0.12 (1)
C-D	-1885	0	-78.0	-78.0 0.97 (1)	3.64	J-D	-556 / 0	0.41 (1)
D-E	-1885	0	-78.0	-78.0 0.97 (1)	3.64	J-F	0 / 523	0.12 (1)
E-F	-1885	0	-78.0	-78.0 0.97 (1)	3.64	I-F	-1026 / 0	0.75 (1)
F-G	-1481	0	-78.0	-78.0 0.89 (1)	4.10	I-G	0 / 1908	0.43 (1)
H-G	-1444	0	0.0	0.0 0.29 (1)	5.44			
L-K	0 / 0		-18.5	-18.5 0.32 (4)	10.00			
K-J	0 / 1481		-18.5	-18.5 0.46 (4)	10.00			
J-I	0 / 1481		-18.5	-18.5 0.46 (4)	10.00			
I-H	0 / 0		-18.5	-18.5 0.32 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.04")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.10")  
 ALLOWABLE DEFL.(TL)= L/360 (1.04")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.25")

CSI: TC=0.97/1.00 (B-D:1), BC=0.46/1.00 (J-K:4), WB=0.75/1.00 (F-I:1), SSI=0.29/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

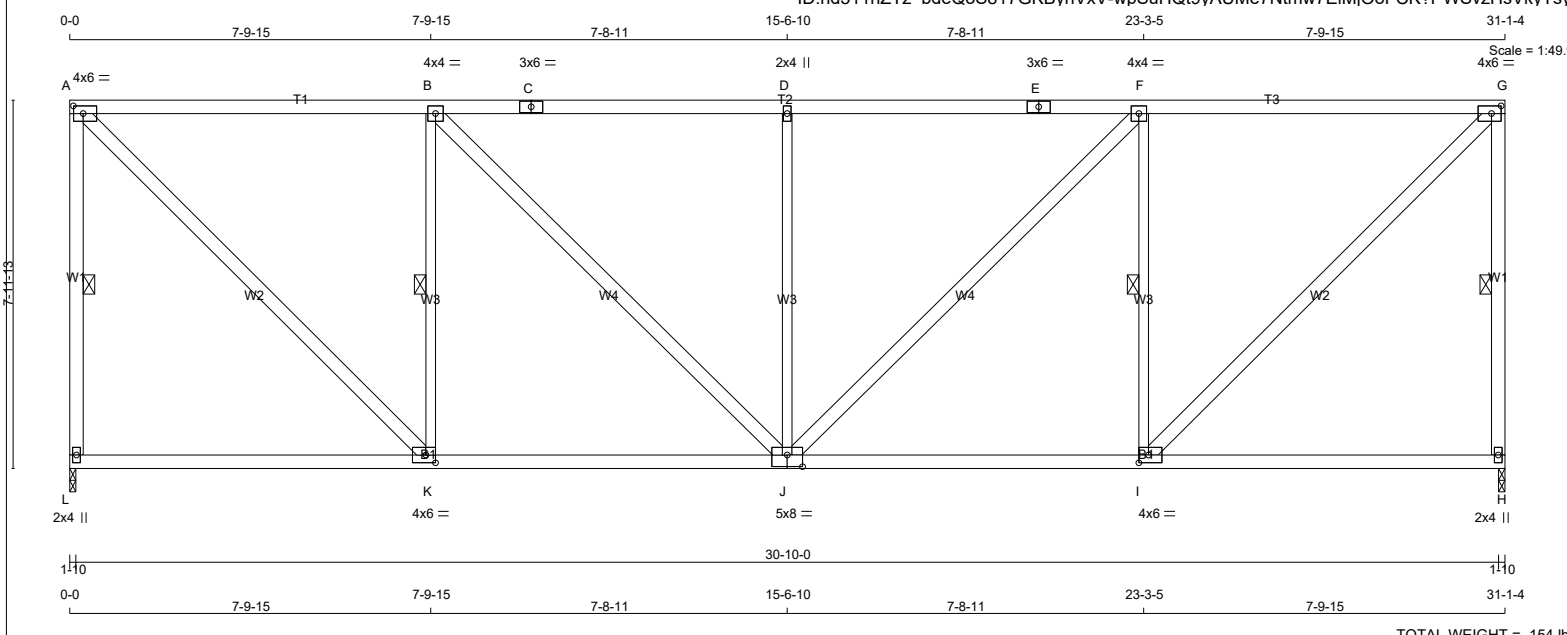
PLATE PLACEMENT TOL. = 0.250 inches

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	DRY	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	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	6.0	2.00	2.50
J	BSWWW-l	MT20	5.0	8.0	3.00	4.00
K	BMWW-t	MT20	4.0	6.0	2.00	2.50
L	BMV1+p	MT20	2.0	4.0		

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

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

**BEARINGS**

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

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
	VERT	HORZ	DOWN	UP	DOWN	UP	DOWN	UP	DOWN	UP	DOWN	UP	DOWN	UP
L	1070	653 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0	0 / 0	0 / 0
H	1070	653 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	417 / 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 = 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)

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

**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.

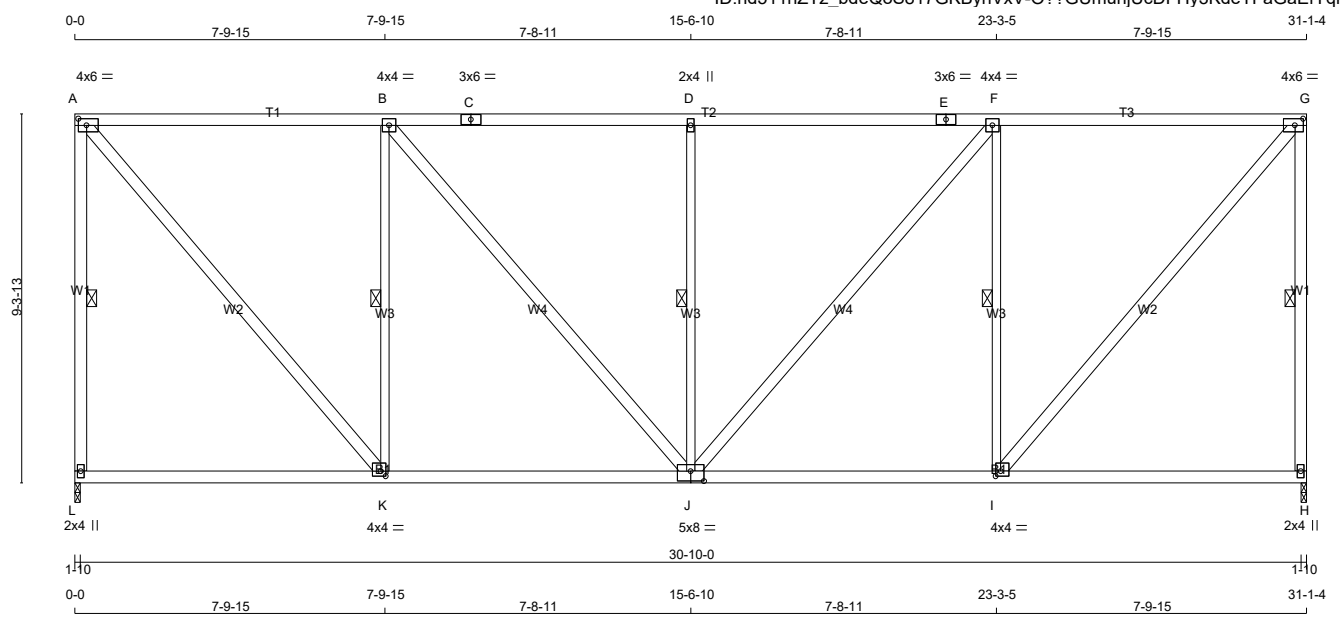
**NAIL VALUES**

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)



Scale = 1:58.2

TOTAL WEIGHT = 165 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	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-l	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**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	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**

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

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.30 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)

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

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.04")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.07")  
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) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

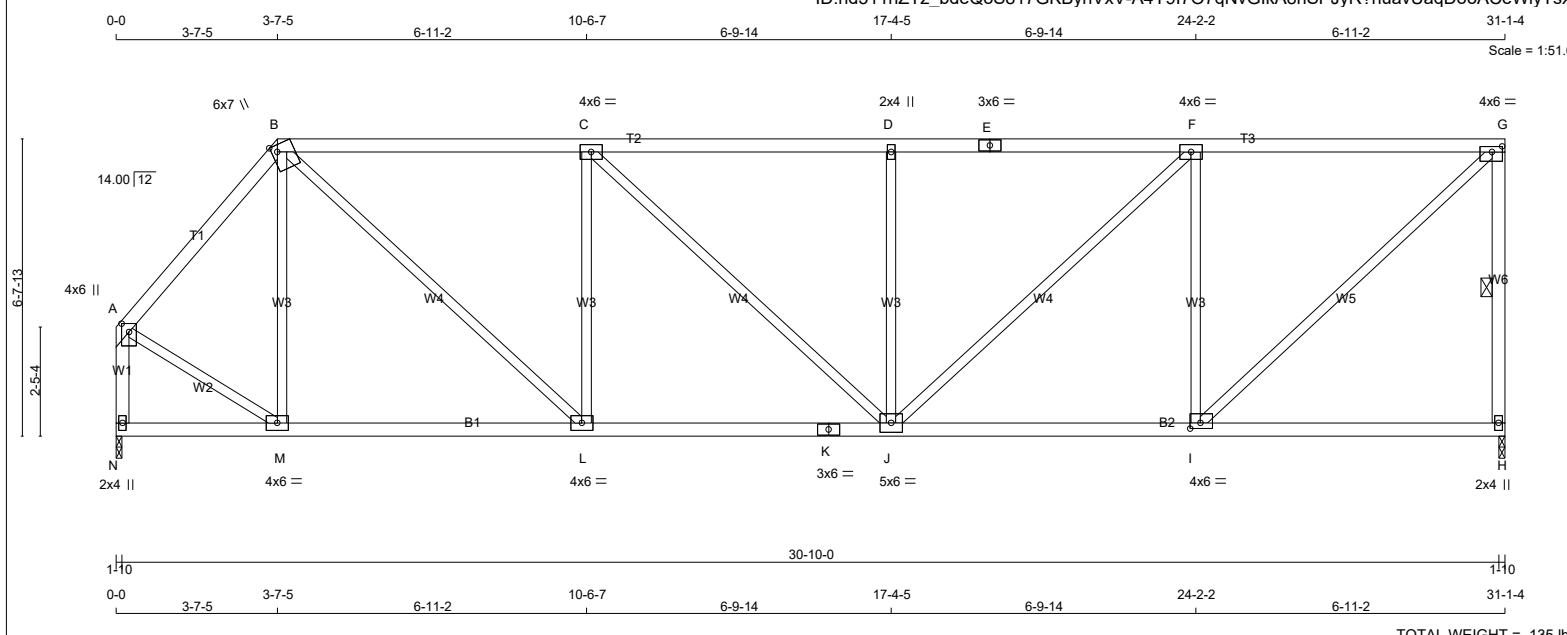
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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





TOTAL WEIGHT = 135 lb [M]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTWW+m	MT20	6.0	7.0	Edge	1.50
C	TMWW-t	MT20	4.0	6.0		
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	6.0		
G	TMVW-t	MT20	4.0	6.0	1.50	2.75
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	6.0	1.50	2.75
J	BMWWW-t	MT20	5.0	6.0		
K	BS-t	MT20	3.0	6.0		
L	BMWW-t	MT20	4.0	6.0		
M	BMWW-t	MT20	4.0	6.0		
N	BMV1+p	MT20	2.0	4.0		

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

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



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

**BEARINGS**

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

**UNFACTORED REACTIONS**

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

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

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-H.  
 END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

**LOADING**  
 TOTAL LOAD CASES: (4)

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

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

THIS DESIGN COMPLIES WITH:  
 - PART 9 OF CBC2015, ABC 2019  
 - PART 9 OF OBC 2012 (2019 AMENDMENT)  
 - CSA 086-14  
 - TPIC 2014

(5% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.71/1.00 (D-F:1), BC=0.37/1.00 (J-L:1), WB=0.80/1.00 (F-I:1), SSI=0.25/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

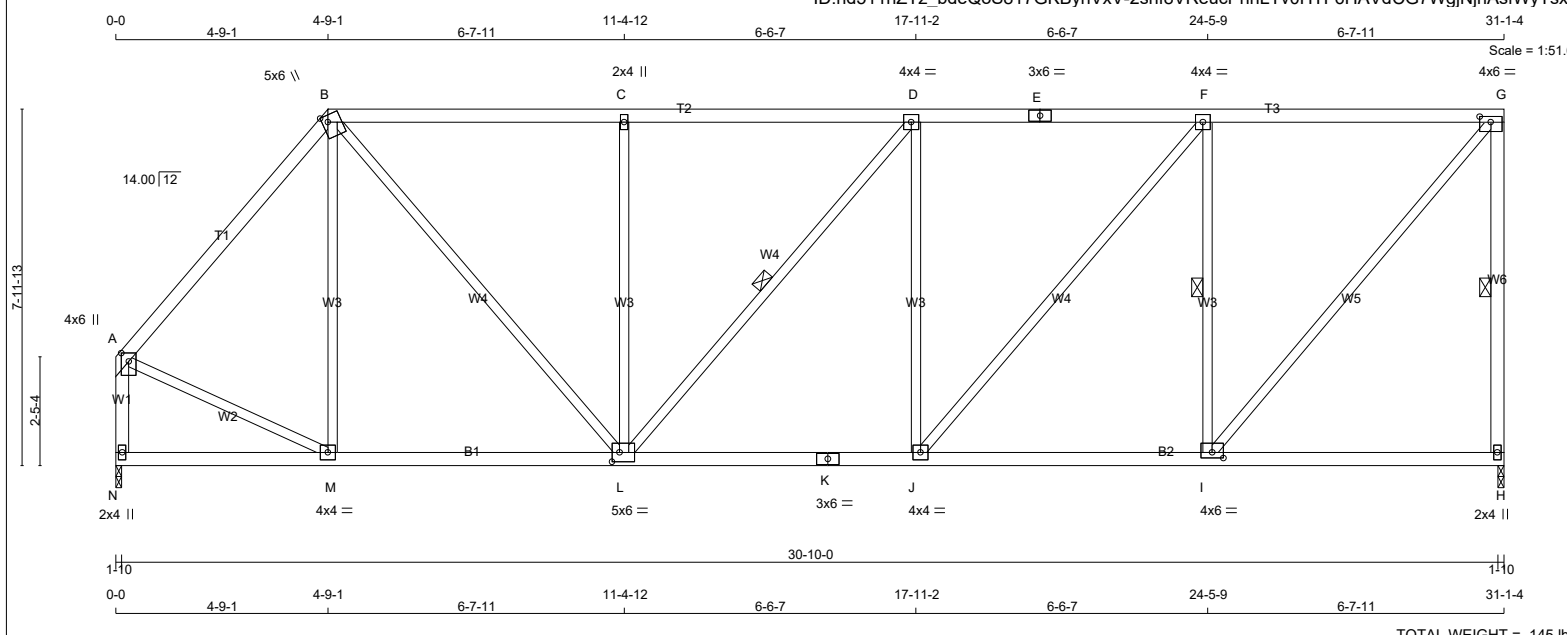
**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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



TOTAL WEIGHT = 145 lb [M]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTWW+m	MT20	5.0	6.0	1.75	1.50
C	TMW+w	MT20	2.0	4.0		
D	TMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMVW-t	MT20	4.0	6.0	1.50	3.00
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	6.0	1.50	3.00
J	BMWW-t	MT20	4.0	4.0		
K	BS-t	MT20	3.0	6.0		
L	BMWWW-t	MT20	5.0	6.0	2.50	2.00
M	BMWW-t	MT20	4.0	4.0		
N	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		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
H	1500	0	1500	0	1-10	1-10	1-10	1-10
N	1500	0	1500	0	0	1-10	1-10	1-10

**UNFACTORED REACTIONS**

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

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.57 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.  
1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-H, D-L, 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)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX (LC)
FR-TO		FROM	TO			FR-TO		
A-B	-1237 / 0	-78.0	-78.0	0.38 (1)	5.34	M-B	-223 / 0	0.27 (1)
B-C	-1462 / 0	-78.0	-78.0	0.60 (1)	4.65	B-L	0 / 1012	0.23 (1)
C-D	-1462 / 0	-78.0	-78.0	0.59 (1)	4.65	L-C	-577 / 0	0.70 (1)
D-E	-1518 / 0	-78.0	-78.0	0.60 (1)	4.57	L-D	-87 / 0	0.06 (1)
E-F	-1518 / 0	-78.0	-78.0	0.60 (1)	4.57	J-D	-405 / 0	0.49 (1)
F-G	-1075 / 0	-78.0	-78.0	0.56 (1)	5.27	J-F	0 / 684	0.15 (1)
H-G	-1451 / 0	0.0	0.0	0.42 (1)	5.43	I-F	-1108 / 0	0.45 (1)
N-A	-1468 / 0	0.0	0.0	0.19 (1)	6.76	I-G	0 / 1646	0.37 (1)
						A-M	0 / 871	0.20 (1)
N-M	0 / 0	-18.5	-18.5	0.14 (4)	10.00			
M-L	0 / 798	-18.5	-18.5	0.23 (4)	10.00			
L-K	0 / 1518	-18.5	-18.5	0.33 (1)	10.00			
K-J	0 / 1518	-18.5	-18.5	0.33 (1)	10.00			
J-I	0 / 1075	-18.5	-18.5	0.30 (4)	10.00			
I-H	0 / 0	-18.5	-18.5	0.20 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

(5% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.60/1.00 (D-F:1), BC=0.33/1.00 (J-L:1), WB=0.70/1.00 (C-L:1), SSI=0.24/1.00 (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 (PSI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

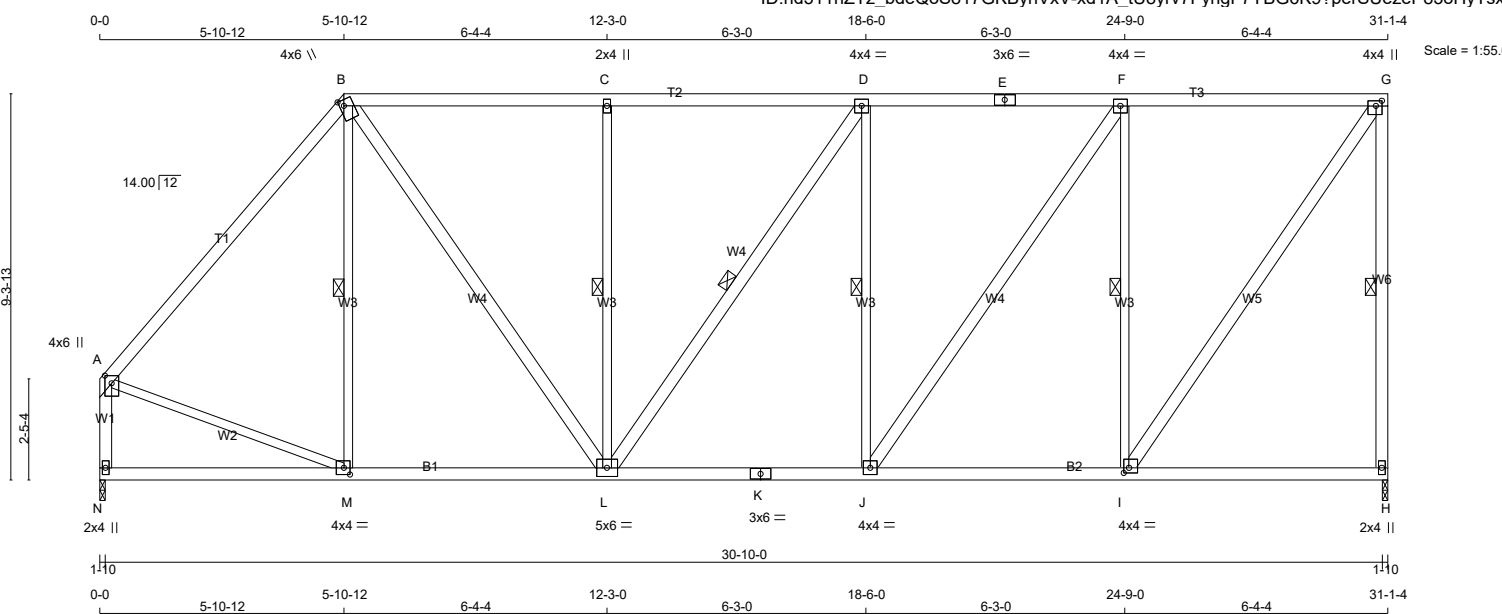
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (M) (INPUT = 0.90)  
JSI METAL= 0.50 (K) (INPUT = 1.00)

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





TOTAL WEIGHT = 169 lb [M]

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2
B - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
H - G	2x4	DRY	No.2
N - A	2x4	DRY	No.2
N - K	2x4	DRY	No.2
K - H	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2
B - L	2x4	DRY	No.2
L - D	2x4	DRY	No.2
J - F	2x4	DRY	No.2
I - G	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	6.0	2.25	2.00
B	TTWW+m	MT20	4.0	6.0	1.75	1.25
C	TMW+w	MT20	2.0	4.0		
D	TMWW-t	MT20	4.0	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	1.50
J	BMWW-t	MT20	4.0	4.0		
K	BS-t	MT20	3.0	6.0		
L	BMWWW-t	MT20	5.0	6.0		
M	BMWW-t	MT20	4.0	4.0	2.00	1.75
N	BMV1+p	MT20	2.0	4.0		

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



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

**BEARINGS**

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

**UNFACTORED REACTIONS**

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

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

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.00 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX UNBRAC LENGTH	MEMB. MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)		
FR-TO		FROM	TO		FR-TO			
A-B	-1246 / 0	-78.0	-78.0	0.64 (1)	5.02	M-B	-150 / 33	0.09 (1)
B-C	-1276 / 0	-78.0	-78.0	0.52 (1)	5.01	B-L	0 / 813	0.13 (1)
C-D	-1276 / 0	-78.0	-78.0	0.52 (1)	5.01	L-C	-553 / 0	0.32 (1)
D-E	-1275 / 0	-78.0	-78.0	0.52 (1)	5.00	L-D	-3 / 1	0.00 (4)
E-F	-1275 / 0	-78.0	-78.0	0.52 (1)	5.00	J-D	-452 / 0	0.26 (1)
F-G	-885 / 0	-78.0	-78.0	0.49 (1)	5.79	J-F	0 / 686	0.11 (1)
H-G	-1453 / 0	0.0	0.0	0.59 (1)	5.43	I-F	-1125 / 0	0.64 (1)
N-A	-1457 / 0	0.0	0.0	0.19 (1)	6.77	I-G	0 / 1537	0.25 (1)
						A-M	0 / 855	0.19 (1)
N-M	0 / 0	-18.5	-18.5	0.17 (4)	10.00			
M-L	0 / 806	-18.5	-18.5	0.25 (4)	10.00			
L-K	0 / 1275	-18.5	-18.5	0.28 (1)	10.00			
K-J	0 / 1275	-18.5	-18.5	0.28 (1)	10.00			
J-I	0 / 885	-18.5	-18.5	0.26 (4)	10.00			
I-H	0 / 0	-18.5	-18.5	0.18 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.04")  
 CALCULATED VERT. DEFL.(LL)= L/999 (0.06")  
 ALLOWABLE DEFL.(TL)= L/360 (1.04")  
 CALCULATED VERT. DEFL.(TL)= L/999 (0.12")

CSI: TC=0.64/1.00 (A-B:1), BC=0.28/1.00 (J-L:1), WB=0.64/1.00 (F-I:1), SSI=0.23/1.00 (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 (PSI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

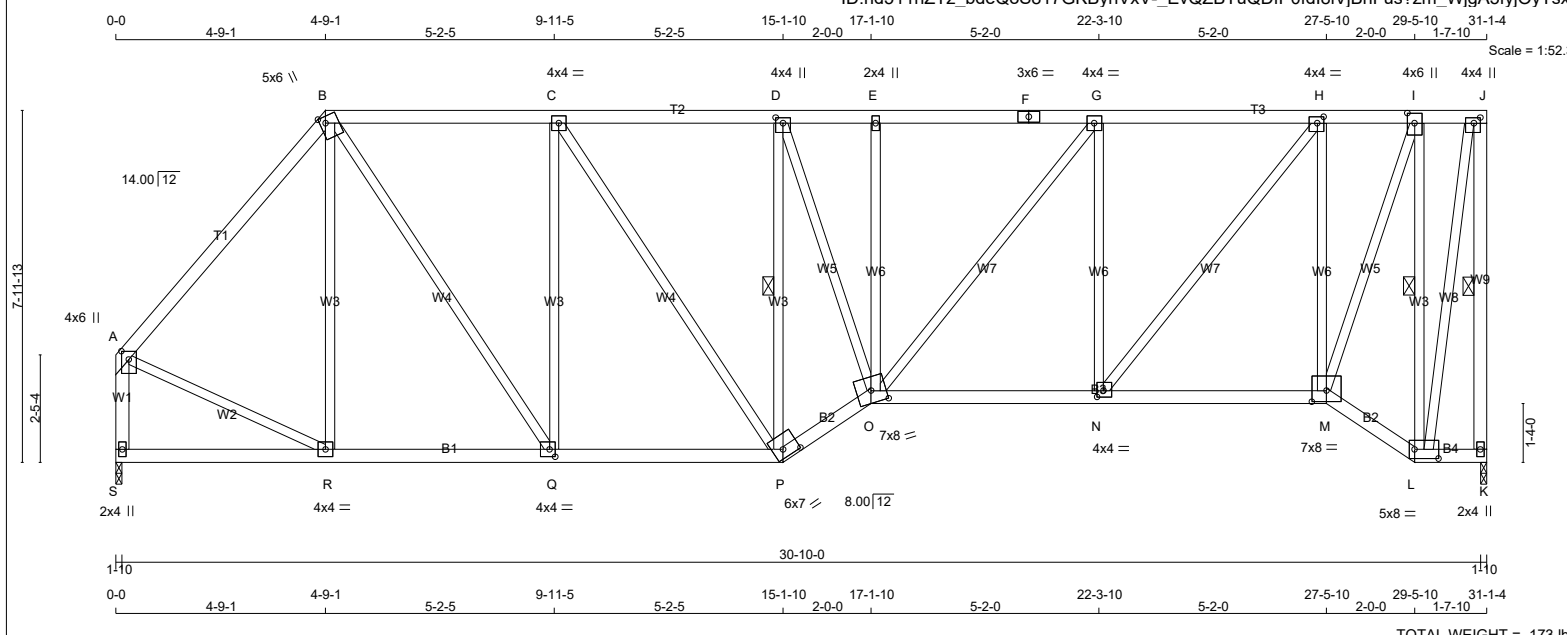
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (G) (INPUT = 0.90)  
 JSI METAL= 0.47 (A) (INPUT = 1.00)



JOB NAME <b>336321</b>	TRUSS NAME <b>H43T</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC.</b>	<b>JT 45147</b>	DRWG NO. <b>E21103994</b>
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Alpa Roof Truss, Maple Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 10:30:57 2021 Page 1  
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**LUMBER**  
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY No.2	SPF
B - F	2x4	DRY No.2	SPF
F - J	2x4	DRY No.2	SPF
K - J	2x4	DRY No.2	SPF
S - A	2x4	DRY No.2	SPF
S - P	2x4	DRY No.2	SPF
P - O	2x4	DRY No.2	SPF
O - M	2x4	DRY No.2	SPF
M - L	2x4	DRY No.2	SPF
L - K	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X	
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTWW+m	MT20	5.0	6.0	1.75	1.50
C	TMWW+t	MT20	4.0	4.0		
D	TMWW+t	MT20	4.0	4.0	1.50	2.00
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW-t	MT20	4.0	4.0		
H	TMWW-t	MT20	4.0	4.0	1.75	1.75
I	TMWW+t	MT20	4.0	6.0	2.75	2.00
J	TMVW+p	MT20	4.0	4.0	1.50	1.75
K	BMV1+p	MT20	2.0	4.0		
L	BBWW-l	MT20	5.0	8.0	2.50	6.50
M	BBWW-l	MT20	7.0	8.0	3.00	4.00
N	BMWW-t	MT20	4.0	4.0	1.75	1.75
O	BBWWW-m	MT20	7.0	8.0	3.25	4.00
P	BBWW-h	MT20	6.0	7.0	2.25	4.25
Q	BMWW-t	MT20	4.0	4.0	2.00	1.50
R	BMWW-t	MT20	4.0	4.0		
S	BMV1+p	MT20	2.0	4.0		

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

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
K	1500	0	1500	0	1-10	1-10		
S	1500	0	1500	0	1-10	1-10		

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		MIN. LIVE		PERM. LIVE		WIND	DEAD	SOIL
	SNOW	LIVE	SNOW	LIVE	SNOW	LIVE	SNOW	LIVE			
K	1070	653 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0	0 / 0
S	1070	653 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0	0 / 0

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.60 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.  
1 LATERAL BRACE(S) AT 1/2 LENGTH OF J-K, D-P, I-L.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS			WEBS				
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORZ. LOAD (CSI (LC))	MAX. UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX. FACTORED HORZ. LOAD (CSI (LC))		
FR-TO		FROM	TO		FR-TO			
A-B	-1233 / 0	-78.0	-78.0	0.38 (1)	5.35	R-B -238 / 0	0.29 (1)	
B-C	-1355 / 0	-78.0	-78.0	0.36 (1)	5.13	B-Q	0 / 995	0.22 (1)
C-D	-1533 / 0	-78.0	-78.0	0.37 (1)	4.88	Q-C	-725 / 0	0.88 (1)
D-E	-1831 / 0	-78.0	-78.0	0.17 (1)	4.80	C-P	0 / 318	0.07 (1)
E-F	-1835 / 0	-78.0	-78.0	0.34 (1)	4.60	P-D	-1213 / 0	0.49 (1)
F-G	-1835 / 0	-78.0	-78.0	0.34 (1)	4.60	D-O	0 / 999	0.22 (1)
G-H	-1527 / 0	-78.0	-78.0	0.32 (1)	4.97	O-E	-255 / 0	0.19 (1)
H-I	-773 / 0	-78.0	-78.0	0.15 (1)	6.25	O-G	0 / 488	0.11 (1)
I-J	-295 / 0	-78.0	-78.0	0.09 (1)	6.25	N-G	-812 / 0	0.59 (1)
K-J	-1485 / 0	0.0	0.0	0.43 (1)	5.38	N-H	0 / 1177	0.26 (1)
S-A	-1465 / 0	0.0	0.0	0.19 (1)	6.76	M-H	-1264 / 0	0.92 (1)
						M-I	0 / 1586	0.36 (1)
S-R	0 / 0	-18.5	-18.5	0.10 (4)	10.00	L-I	-1534 / 0	0.62 (1)
R-Q	0 / 796	-18.5	-18.5	0.19 (1)	10.00	L-J	0 / 1416	0.32 (1)
Q-P	0 / 1355	-18.5	-18.5	0.28 (1)	10.00	A-R	0 / 869	0.20 (1)
P-O	0 / 1823	-18.5	-18.5	0.31 (1)	10.00			
O-N	0 / 1527	-18.5	-18.5	0.31 (1)	10.00			
N-M	0 / 794	-18.5	-18.5	0.21 (4)	10.00			
M-L	0 / 329	-18.5	-18.5	0.07 (1)	10.00			
L-K	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, NBC2015

THIS DESIGN COMPLIES WITH:  
- PART 9 OF CBC2015, ABC 2019  
- PART 9 OF OBC 2012 (2019 AMENDMENT)  
- CSA 086-14  
- TPIC 2014

(5% 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 (0.22")

CSI: TC=0.43/1.00 (J-K:1), BC=0.31/1.00 (N-O:1), WB=0.92/1.00 (H-M:1), SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

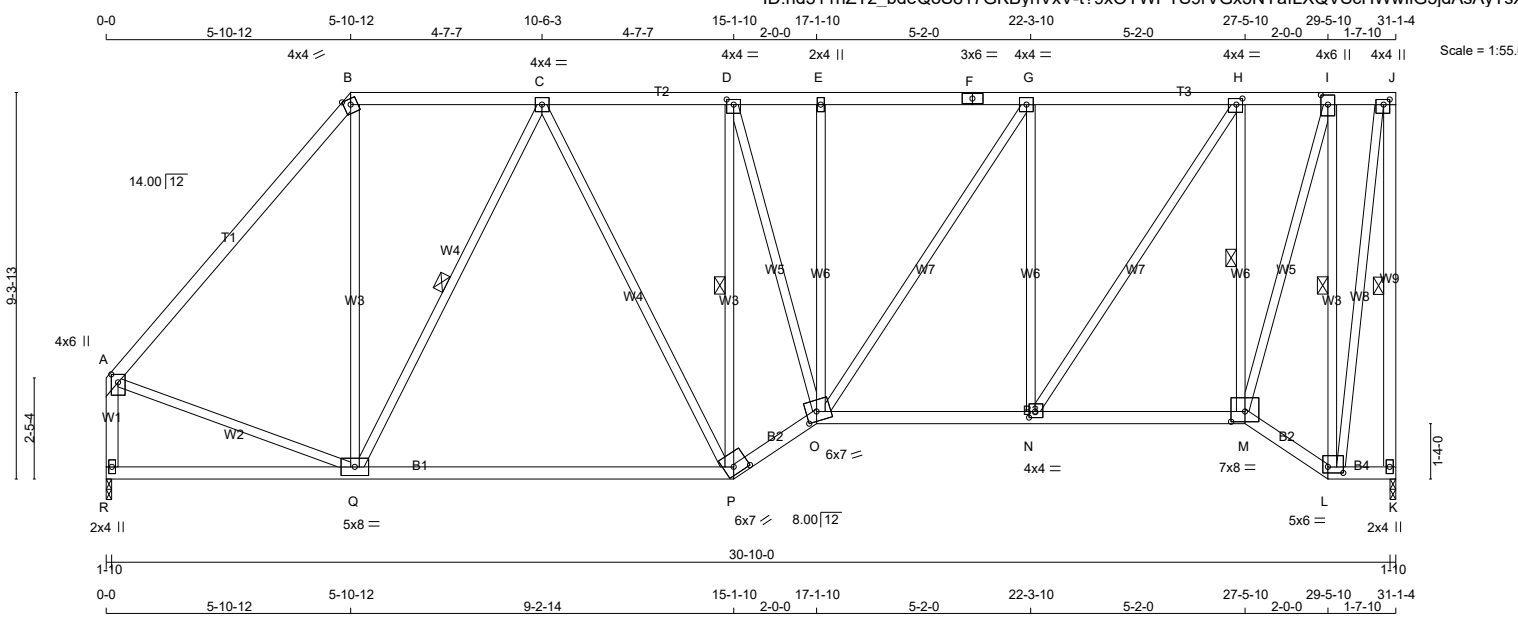
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (R) (INPUT = 0.90)  
JSI METAL= 0.46 (A) (INPUT = 1.00)



TOTAL WEIGHT = 183 lb

**LUMBER**  
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY No.2	SPF
B - F	2x4	DRY No.2	SPF
F - J	2x4	DRY No.2	SPF
K - J	2x4	DRY No.2	SPF
R - A	2x4	DRY No.2	SPF
R - P	2x4	DRY No.2	SPF
P - O	2x4	DRY No.2	SPF
O - M	2x4	DRY No.2	SPF
M - L	2x4	DRY No.2	SPF
L - K	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

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

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

**BEARINGS**

JT	VERT	HORZ	FACTORED GROSS REACTION	MAXIMUM FACTORED DOWN	MAXIMUM FACTORED UP	INPUT BRG IN-SX	REQRD BRG IN-SX
K	1500	0	1500	0	0	1-10	1-10
R	1500	0	1500	0	0	1-10	1-10

**UNFACTORED REACTIONS**

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

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.98 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, C-Q, D-P, H-M, I-L.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS			WEBS		
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MAX. UNBRACED LENGTH	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
A-B	-1258 / 0	-78.0	-78.0 0.64 (1)	5.00	Q-B	0 / 580 0.13 (1)
B-C	-823 / 0	-78.0	-78.0 0.27 (1)	6.25	Q-C	-764 / 0 0.57 (1)
C-D	-1303 / 0	-78.0	-78.0 0.29 (1)	5.32	C-P	0 / 303 0.07 (1)
D-E	-1513 / 0	-78.0	-78.0 0.14 (1)	5.20	P-D	-1042 / 0 0.59 (1)
E-F	-1517 / 0	-78.0	-78.0 0.32 (1)	4.98	D-O	0 / 841 0.19 (1)
F-G	-1517 / 0	-78.0	-78.0 0.32 (1)	4.98	O-E	-268 / 0 0.33 (1)
G-H	-1263 / 0	-78.0	-78.0 0.31 (1)	5.36	O-G	0 / 456 0.10 (1)
H-I	-639 / 0	-78.0	-78.0 0.15 (1)	6.25	N-G	-812 / 0 0.99 (1)
I-J	-251 / 0	-78.0	-78.0 0.09 (1)	6.25	N-H	0 / 1104 0.25 (1)
K-J	-1485 / 0	0.0	0.0 0.61 (1)	5.38	M-H	-1265 / 0 0.51 (1)
R-A	-1469 / 0	0.0	0.0 0.19 (1)	6.76	M-I	0 / 1533 0.34 (1)
R-Q	0 / 0	-18.5	-18.5 0.35 (4)	10.00	L-I	-1504 / 0 0.86 (1)
Q-P	0 / 1165	-18.5	-18.5 0.45 (4)	10.00	L-J	0 / 1404 0.32 (1)
P-O	0 / 1552	-18.5	-18.5 0.26 (1)	10.00	A-Q	0 / 863 0.19 (1)
O-N	0 / 1263	-18.5	-18.5 0.27 (1)	10.00		
N-M	0 / 656	-18.5	-18.5 0.20 (4)	10.00		
M-L	0 / 280	-18.5	-18.5 0.06 (1)	10.00		
L-K	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 (0.10")  
ALLOWABLE DEFL.(TL)= L/360 (1.04")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.31")

CSI: TC=0.64/1.00 (A-B:1), BC=0.45/1.00 (P-Q:4), WB=0.99/1.00 (G-N:1), SSI=0.17/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

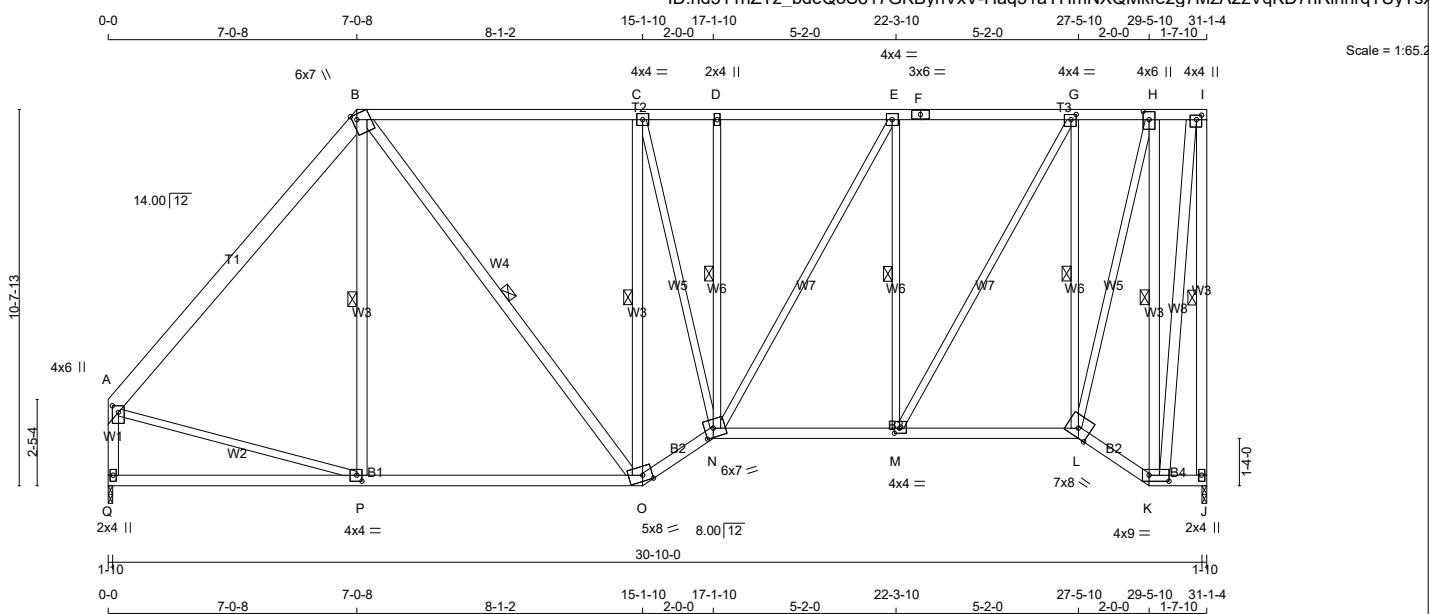
NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	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 (L) (INPUT = 0.90)  
JSI METAL= 0.48 (A) (INPUT = 1.00)





TOTAL WEIGHT = 216 lb

**LUMBER**  
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x6	DRY No.2	SPF
B - F	2x4	DRY No.2	SPF
F - I	2x4	DRY No.2	SPF
J - I	2x4	DRY No.2	SPF
Q - A	2x4	DRY No.2	SPF
Q - O	2x4	DRY No.2	SPF
O - N	2x4	DRY No.2	SPF
N - L	2x4	DRY No.2	SPF
L - K	2x4	DRY No.2	SPF
K - J	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF
P - B	2x4	DRY No.2	SPF
B - O	2x4	DRY No.2	SPF
O - C	2x4	DRY No.2	SPF
K - H	2x4	DRY No.2	SPF
K - I	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTWW+m	MT20	6.0	7.0	Edge	1.50
C	TMWW-t	MT20	4.0	4.0		
D	TMW+w	MT20	2.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
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	Edge	
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-m	MT20	5.0	8.0	2.00	3.25
P	BMWW-t	MT20	4.0	4.0	2.00	1.75
Q	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**

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

**UNFACTORED REACTIONS**

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

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.44 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 I-J, B-P, B-O, C-O, D-N, E-M, G-L, H-K.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED		FACTORED				MEMB.	WEBS MAX. FACTORED	
	FORCE (LBS)	VERT. (PLF)	VERT. LOAD	LC1	MAX	UNBRAC LENGTH		FORCE (LBS)	MAX CSI (LC)
FR-TO			FROM	TO			FR-TO		
A-B	-1256 / 0		-78.0	-78.0	0.36 (1)	6.25	P-B	-46 / 108	0.03 (4)
B-C	-1178 / 0		-78.0	-78.0	0.81 (1)	4.61	B-O	0 / 594	0.10 (1)
C-D	-1285 / 0		-78.0	-78.0	0.69 (1)	4.44	O-C	-1164 / 0	0.66 (1)
D-E	-1286 / 0		-78.0	-78.0	0.33 (1)	5.29	C-N	0 / 530	0.12 (1)
E-F	-1078 / 0		-78.0	-78.0	0.32 (1)	5.66	N-D	-43 / 0	0.02 (1)
F-G	-1078 / 0		-78.0	-78.0	0.32 (1)	5.66	N-E	0 / 417	0.09 (1)
G-H	-543 / 0		-78.0	-78.0	0.13 (1)	6.25	M-E	-818 / 0	0.47 (1)
H-I	-222 / 0		-78.0	-78.0	0.05 (1)	6.25	M-G	0 / 1065	0.24 (1)
J-I	-1485 / 0		0.0	0.0	0.85 (1)	5.38	L-G	-1243 / 0	0.71 (1)
Q-A	-1452 / 0		0.0	0.0	0.18 (1)	6.79	L-H	0 / 1475	0.33 (1)
							K-H	-1508 / 0	0.86 (1)
Q-P	0 / 0		-18.5	-18.5	0.31 (4)	10.00	K-I	0 / 1425	0.23 (1)
P-O	0 / 811		-18.5	-18.5	0.39 (4)	10.00	A-P	0 / 840	0.19 (1)
O-N	0 / 1397		-18.5	-18.5	0.24 (1)	10.00			
N-M	0 / 1078		-18.5	-18.5	0.25 (1)	10.00			
M-L	0 / 557		-18.5	-18.5	0.19 (4)	10.00			
L-K	0 / 242		-18.5	-18.5	0.05 (1)	10.00			
K-J	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 (0.09")  
ALLOWABLE DEFL.(TL)= L/360 (1.04")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.20")

CSI: TC=0.85/1.00 (I-J:1), BC=0.39/1.00 (O-P:4),  
WB=0.86/1.00 (H-K:1), SSI=0.29/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

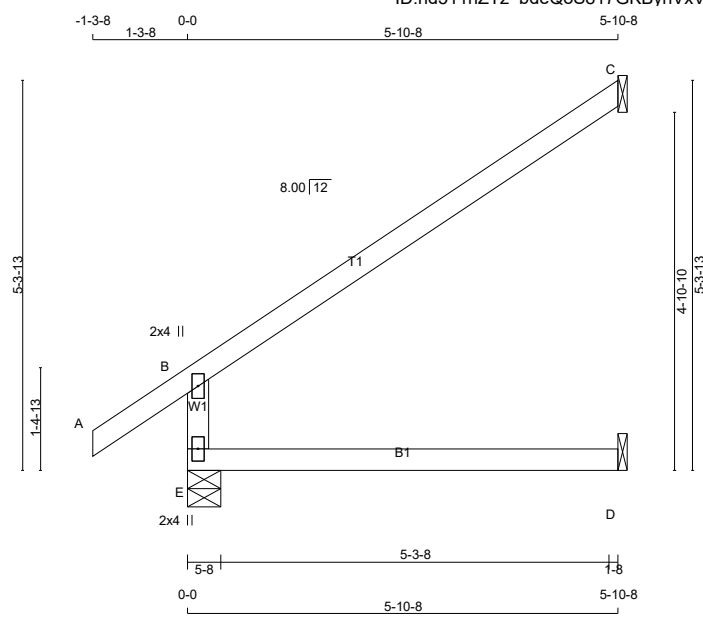
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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





TOTAL WEIGHT = 83 X 18 = 1480 lb

**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

**BEARINGS**

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

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

**UNFACTORED REACTIONS**

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

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

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

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.46/1.00 (B-C:1) , BC=0.13/1.00 (D-E:4) , WB=0.00/1.00 (n/a:0) , SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

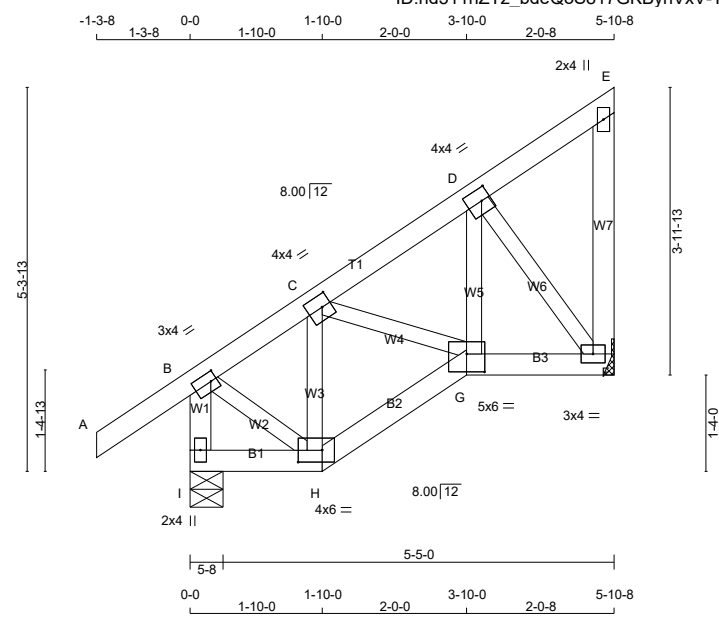
**NAIL VALUES**

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

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





TOTAL WEIGHT = 33 X 31 = 1017 lb

**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	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-l	MT20	5.0	6.0	3.00	3.00
H	BBWW-l	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**

**BEARINGS**

JT	VERT	HORZ	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
I	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**

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	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)

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

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

THIS DESIGN COMPLIES WITH:  
- PART 9 OF CBC2018, ABC 2019  
- PART 9 OF OBC 2012 (2019 AMENDMENT)  
- CSA 086-14  
- TPIC 2014

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

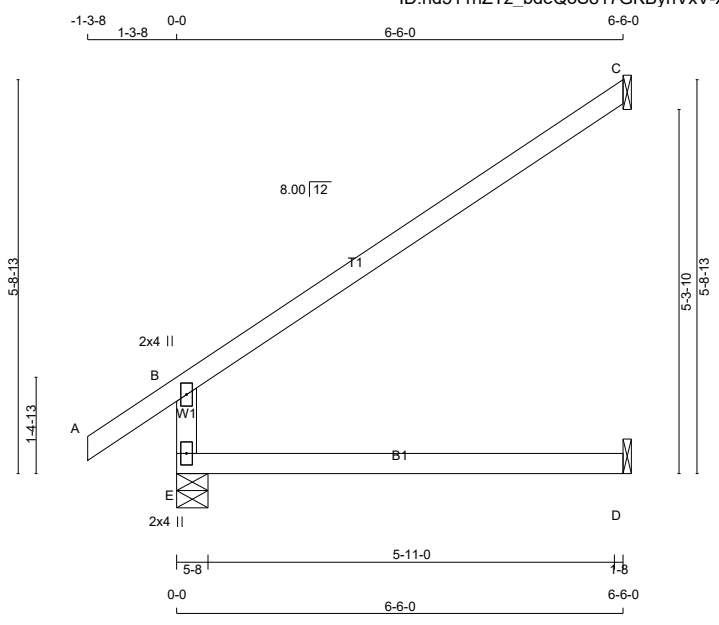
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

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





TOTAL WEIGHT = 17 X 19 = 330 lb [M][F]

**LUMBER**  
N. L. G. A. RULES

CHORDS	SIZE	DRY	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	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
JT	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 COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	349	228 / 0	0 / 0	0 / 0	0 / 0	121 / 0	0 / 0
C	132	102 / 0	0 / 0	0 / 0	0 / 0	29 / 0	0 / 0
D	40	0 / 0	0 / 0	0 / 0	0 / 0	40 / 0	0 / 0

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

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

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 (0.22")  
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 LBS 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)
MT20	650	371	1747 788 1987 1873

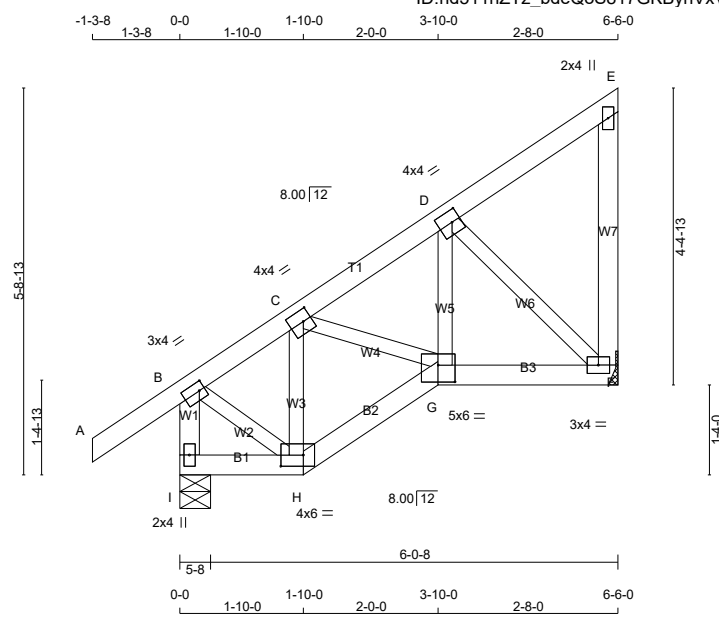
PLATE PLACEMENT TOL. = 0.250 inches

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





TOTAL WEIGHT = 7 X 33 = 232 lb [M][F]

**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-l	MT20	5.0	6.0	3.00	3.00
H	BBWW-l	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**

**BEARINGS**

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

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

**UNFACTORED REACTIONS**

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

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

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

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

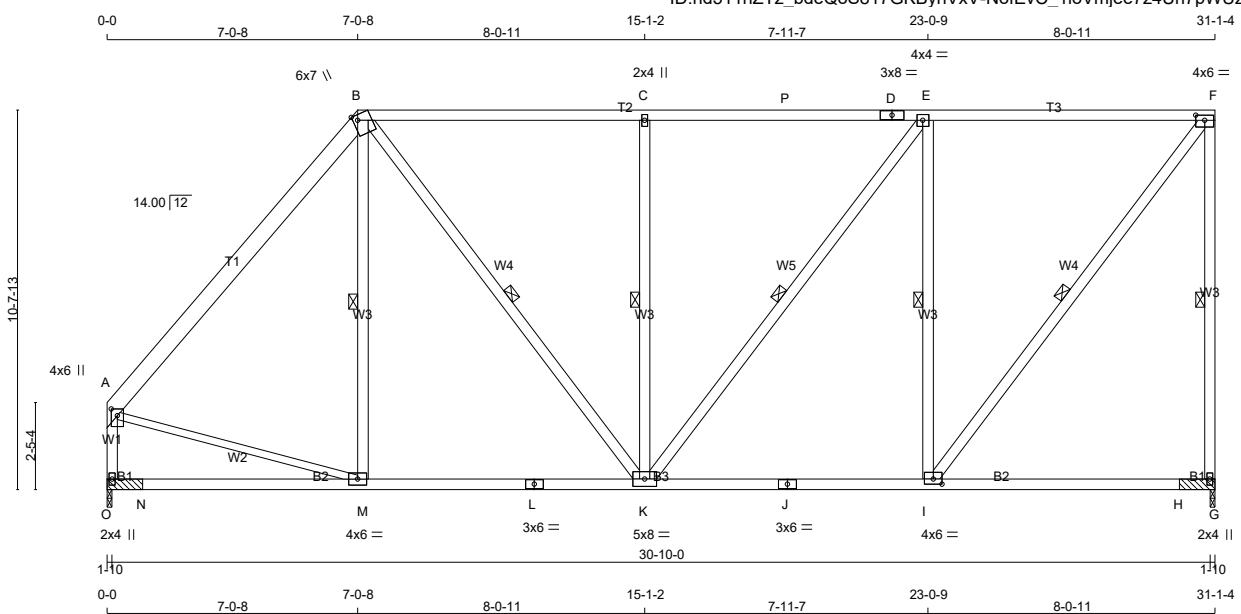
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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





**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
O - A	2x4	DRY No.2	SPF
O - L	2x4	DRY No.2	SPF
L - J	2x4	DRY No.2	SPF
J - G	2x4	DRY No.2	SPF
ALL WEBS EXCEPT A - M	2x4	DRY No.2	SPF
A - M	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	8.0		
E	TMWW-t	MT20	4.0	4.0		
F	TMVW-t	MT20	4.0	6.0	1.75	3.00
G	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	6.0	1.75	3.00
J	BS-t	MT20	3.0	6.0		
K	BMWWW-t	MT20	5.0	8.0		
L	BS-t	MT20	3.0	6.0		
M	BMWW-t	MT20	4.0	6.0		
O	BMV1+p	MT20	2.0	4.0		

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

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



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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
G	1611	0	1611	0	1-10	1-10 & BLOCK
O	1570	0	1570	0	1-10	1-10 & BLOCK

**UNFACTORED REACTIONS**

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS				WIND	DEAD	SOIL
		SNOW	LIVE	PERM.	LIVE			
G	1158	653 / 0	0 / 0	0 / 0	0 / 0	505 / 0	0 / 0	
O	1126	653 / 0	0 / 0	0 / 0	0 / 0	473 / 0	0 / 0	

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

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

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

**BRACING**

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

FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.18 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-M, B-K, C-K, E-K, E-I, 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)

MEMB.	MAX. FACTORED FORCE (LBS)	CHORDS		MAX. UNBRACED LENGTH	FR-TO	WEBS		
		VERT. LOAD (PLF)	LC1 MAX CSI (LC)			MEMB.	MAX. FACTORED FORCE (LBS)	
A-B	-1327 / 0	-78.0	-78.0	0.37 (1)	6.18	M-B	-73 / 76	0.04 (1)
B-C	-1263 / 0	-85.5	-85.5	0.92 (1)	2.00	B-K	0 / 659	0.11 (1)
C-P	-1263 / 0	-85.5	-85.5	0.92 (1)	2.00	K-C	-735 / 0	0.42 (1)
P-D	-1263 / 0	-85.5	-85.5	0.92 (1)	2.00	K-E	0 / 447	0.07 (1)
D-E	-1263 / 0	-85.5	-85.5	0.92 (1)	2.00	I-E	-1106 / 0	0.63 (1)
E-F	-991 / 0	-85.5	-85.5	0.87 (1)	2.00	I-F	0 / 1615	0.26 (1)
G-F	-1552 / 0	0.0	0.0	0.89 (1)	5.29	A-M	0 / 888	0.20 (1)
O-A	-1519 / 0	0.0	0.0	0.18 (1)	6.67			
O-N	0 / 0	-18.5	-18.5	0.26 (4)	10.00			
N-M	0 / 0	-18.5	-18.5	0.26 (4)	10.00			
M-L	0 / 856	-18.5	-18.5	0.35 (4)	10.00			
L-K	0 / 856	-18.5	-18.5	0.35 (4)	10.00			
K-J	0 / 991	-18.5	-18.5	0.40 (4)	10.00			
J-I	0 / 991	-18.5	-18.5	0.40 (4)	10.00			
I-H	0 / 0	-18.5	-18.5	0.29 (4)	10.00			
H-G	0 / 0	-18.5	-18.5	0.29 (4)	10.00			

**DESIGN CRITERIA**

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF  
DL = 6.0 PSF

BOT CH. LL = 0.0 PSF  
DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

**SPACING = 24.0 IN. C/C**

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

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.04")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL) = L/360 (1.04")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.13")

CSI: TC=0.92/1.00 (B-C:1), BC=0.40/1.00 (I-K:4), WB=0.63/1.00 (E-I:1), SSI=0.32/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

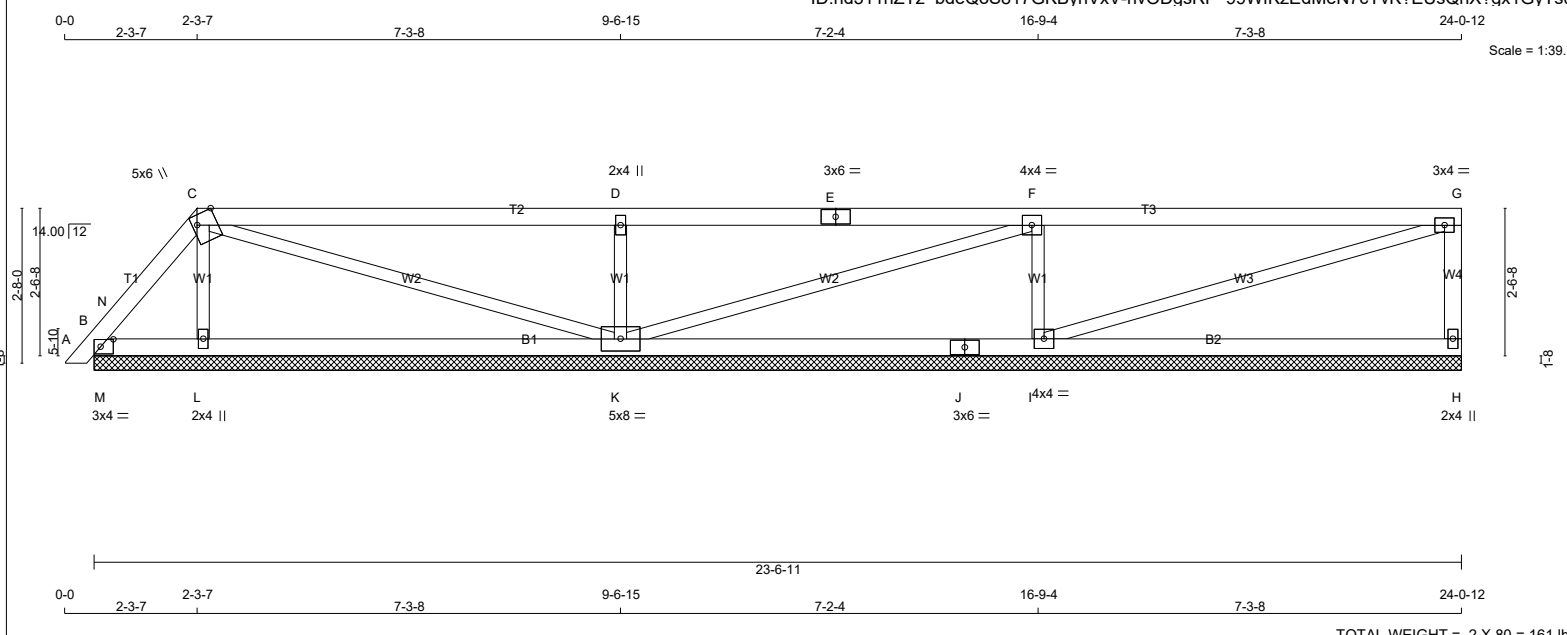
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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





**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
B	TMB1-l	MT20	3.0	4.0	1.50 2.50
C	TTWW+m	MT20	5.0	6.0	Edge 4.00
D	TMW+w	MT20	2.0	4.0	
E	TS-t	MT20	3.0	6.0	
F	TMWW-t	MT20	4.0	4.0	
G	TMVW-t	MT20	3.0	4.0	
H	BMV1+p	MT20	2.0	4.0	
I	BMWW1-t	MT20	4.0	4.0	
J	BS-t	MT20	3.0	6.0	
K	BMWWW1-t	MT20	5.0	8.0	
L	BMW1+w	MT20	2.0	4.0	

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

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

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
H	284	0	284	0	23-6-11 (8-6-11#)	
B	131	0	131	0	23-6-11 (8-6-11#)	
L	354	0	354	0	23-6-11 (8-6-11#)	
K	769	0	769	0	23-6-11 (8-6-11#)	
I	764	0	764	0	23-6-11 (8-6-11#)	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS				WIND	DEAD	SOIL
		SNOW	LIVE	PERM.LIVE				
H	203	124 / 0	0 / 0	0 / 0	0 / 0	78 / 0	0 / 0	
B	88	83 / 0	0 / 0	0 / 0	0 / 0	5 / 0	0 / 0	
L	259	124 / 0	0 / 0	0 / 0	0 / 0	135 / 0	0 / 0	
K	546	344 / 0	0 / 0	0 / 0	0 / 0	203 / 0	0 / 0	
I	545	330 / 0	0 / 0	0 / 0	0 / 0	215 / 0	0 / 0	

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	LC2 MAX	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO		FR-TO			
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	L-C	-218 / 0	0.03 (1)
B-N	0 / 58	-78.0	-78.0	0.04 (4)	10.00	C-K	-41 / 0	0.05 (1)
N-C	-73 / 0	-78.0	-78.0	0.03 (1)	6.25	K-D	-621 / 0	0.10 (1)
C-D	0 / 9	-78.0	-78.0	0.56 (1)	10.00	K-F	-19 / 0	0.02 (1)
D-E	0 / 9	-78.0	-78.0	0.56 (1)	10.00	I-F	-615 / 0	0.10 (1)
E-F	0 / 9	-78.0	-78.0	0.56 (1)	10.00	I-G	0 / 9	0.00 (1)
F-G	-9 / 0	-78.0	-78.0	0.56 (1)	10.00	M-N	-184 / 0	0.00 (1)
H-G	-231 / 0	0.0	0.0	0.03 (1)	7.81			
B-M	0 / 40	-18.5	-18.5	0.04 (1)	10.00			
M-L	0 / 40	-18.5	-18.5	0.16 (4)	10.00			
L-K	0 / 30	-18.5	-18.5	0.18 (4)	10.00			
K-J	0 / 9	-18.5	-18.5	0.24 (4)	10.00			
J-I	0 / 9	-18.5	-18.5	0.24 (4)	10.00			
I-H	0 / 0	-18.5	-18.5	0.24 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

CSI: TC=0.56/1.00 (C-D:1), BC=0.24/1.00 (I-K:4), WB=0.10/1.00 (D-K:1), SSI=0.27/1.00 (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**

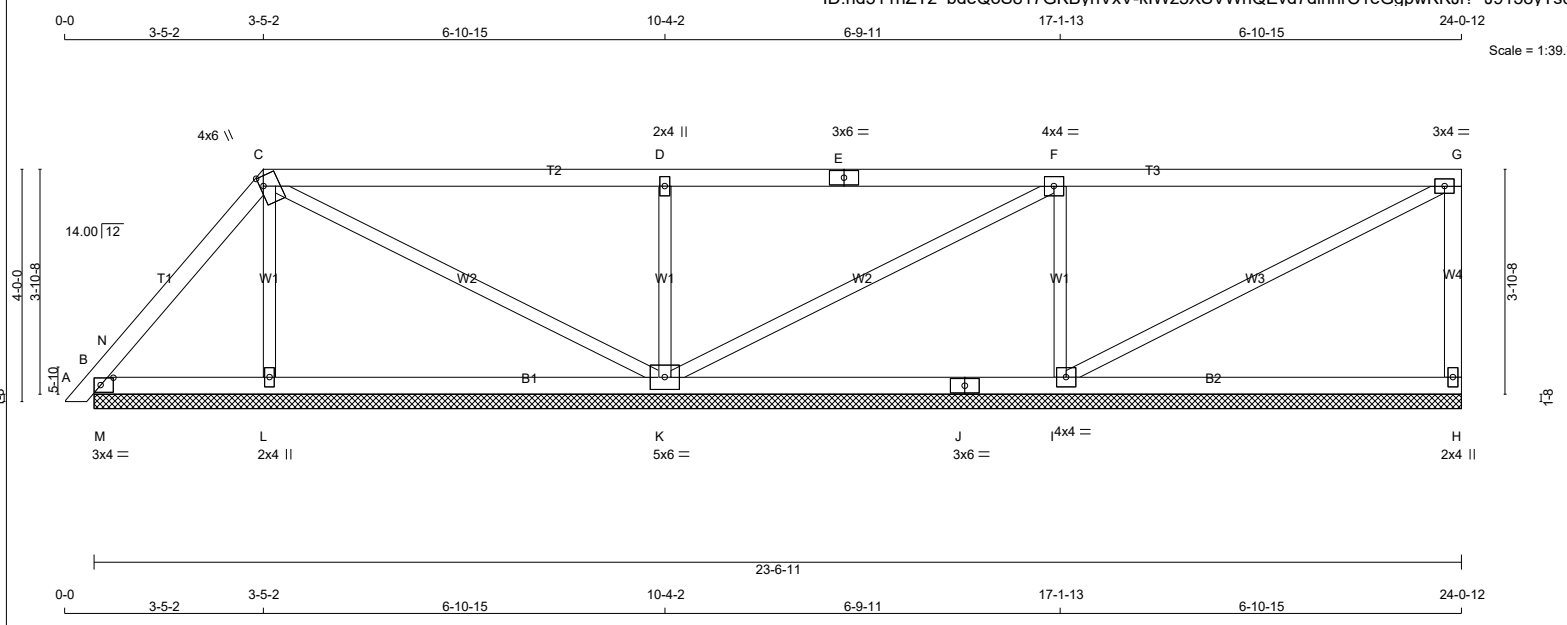
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (G) (INPUT = 0.90)  
JSI METAL= 0.25 (E) (INPUT = 1.00)





**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-l	MT20	3.0	4.0	1.50	2.50
C	TTWW+m	MT20	4.0	6.0	2.00	0.75
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMVW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		
I	BMWW1-t	MT20	4.0	4.0		
J	BS-t	MT20	3.0	6.0		
K	BMWWW1-t	MT20	5.0	6.0		
L	BMW1+w	MT20	2.0	4.0		

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



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

**BEARINGS**

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

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

**UNFACTORED REACTIONS**

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

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.  
 ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

**LOADING**  
 TOTAL LOAD CASES: (4)

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

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

CSI: TC=0.50/1.00 (D-F:1), BC=0.22/1.00 (I-K:4), WB=0.14/1.00 (D-K:1), SSI=0.25/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

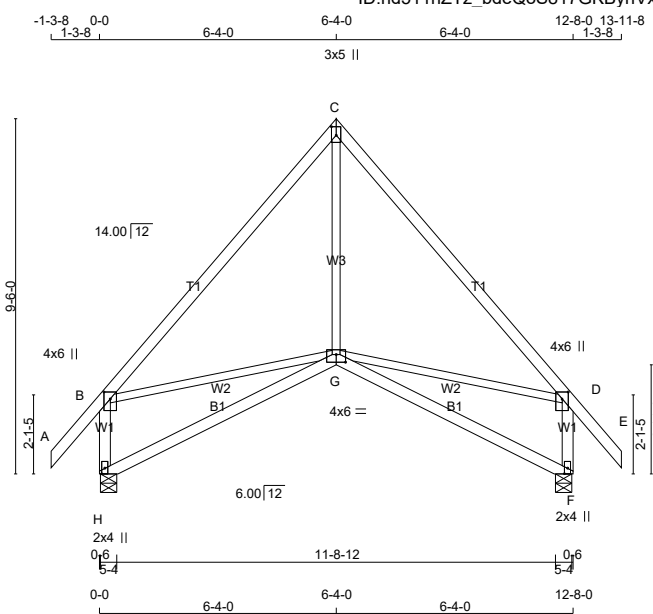
**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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



TOTAL WEIGHT = 2 X 63 = 126 lb [M][F]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

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

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

**BEARINGS**

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

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		MIN. LIVE		PERM. LIVE		WIND	DEAD	SOIL
	VERT	HORZ	SNOW	LIVE	PERM. LIVE	WIND	DEAD				
H	511	325 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	187 / 0	0 / 0	
F	511	325 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	187 / 0	0 / 0	

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

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

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

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	FR-TO	C H O R D S		W E B S				
		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	
A-B	0 / 42	-78.0	-78.0	0.07 (1)	10.00	G-C	0 / 235	0.06 (4)
B-C	-480 / 0	-78.0	-78.0	0.27 (1)	6.25	B-G	0 / 318	0.07 (1)
C-D	-480 / 0	-78.0	-78.0	0.27 (1)	6.25	G-D	0 / 318	0.07 (1)
D-E	0 / 42	-78.0	-78.0	0.07 (1)	10.00			
H-B	-662 / 0	0.0	0.0	0.08 (1)	7.81			
F-D	-662 / 0	0.0	0.0	0.08 (1)	7.81			
H-G	0 / 0	-18.5	-18.5	0.22 (4)	10.00			
G-F	0 / 0	-18.5	-18.5	0.22 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

CSI: TC=0.27/1.00 (C-D:1), BC=0.22/1.00 (F-G:4), WB=0.07/1.00 (B-G:1), SSI=0.13/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

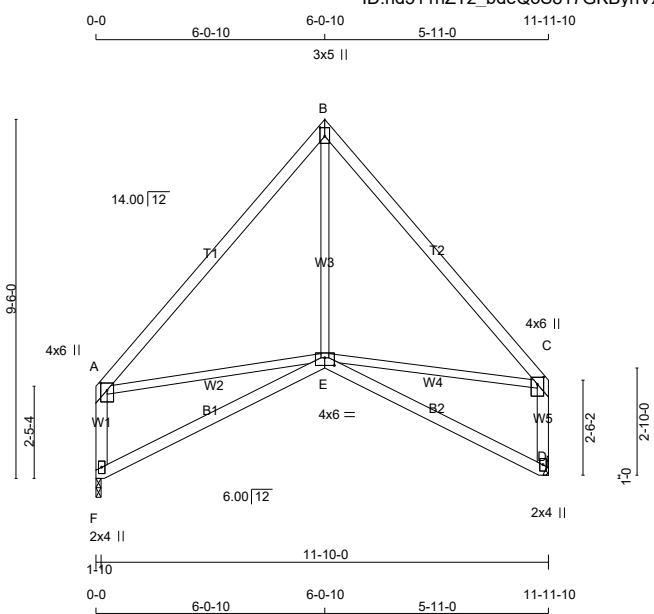
PLATE ROTATION TOL. = 5.0 Deg.

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



JOB NAME <b>336328</b>	TRUSS NAME <b>H61AS</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104060</b>
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Alpa Roof Truss, Maple ID:hd511hZTz\_bdeQoS817GKByhVxV-8tC6jZUNpiopm5sCQvEYqgGpD0xlXieRgGOiITyTs01 Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 11:34:20 2021 Page 1



TOTAL WEIGHT = 56 lb

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

**BEARINGS**

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
F	577	0	577	0
D	577	0	577	0

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

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	412	251 / 0	0 / 0	0 / 0	0 / 0	160 / 0	0 / 0
D	412	251 / 0	0 / 0	0 / 0	0 / 0	160 / 0	0 / 0

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	CS1 (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
A-B	-428 / 0	-78.0	-78.0	0.31 (1)	6.25	E-B	0 / 184	0.05 (4)
B-C	-428 / 0	-78.0	-78.0	0.36 (1)	6.25	A-E	0 / 282	0.06 (1)
F-A	-521 / 0	0.0	0.0	0.07 (1)	7.81	E-C	0 / 281	0.06 (1)
D-C	-523 / 0	0.0	0.0	0.07 (1)	7.81			
F-E	0 / 0	-18.5	-18.5	0.20 (4)	10.00			
E-D	0 / 0	-18.5	-18.5	0.19 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

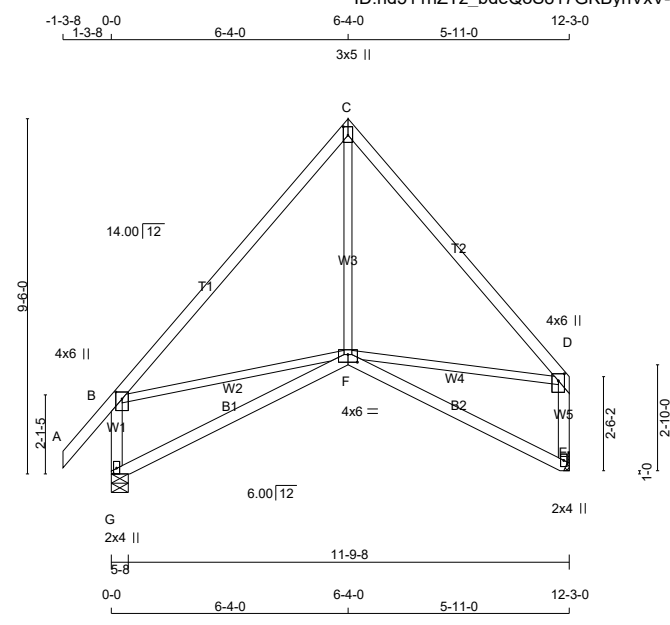
**NAIL VALUES**

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

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





TOTAL WEIGHT = 59 lb

**LUMBER**

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

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

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

**BEARINGS**

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

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

**UNFACTORED REACTIONS**

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

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

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

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

**LOADING**  
 TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A-B	0 / 42	-78.0	-78.0	0.07 (1)	10.00	F-C	0 / 203	0.06 (4)
B-C	-448 / 0	-78.0	-78.0	0.27 (1)	6.25	B-F	0 / 297	0.07 (1)
C-D	-448 / 0	-78.0	-78.0	0.36 (1)	6.25	F-D	0 / 294	0.07 (1)
G-B	-642 / 0	0.0	0.0	0.08 (1)	7.81			
E-D	-536 / 0	0.0	0.0	0.07 (1)	7.81			
G-F	0 / 0	-18.5	-18.5	0.22 (4)	10.00			
F-E	0 / 0	-18.5	-18.5	0.19 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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

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

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

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

CSI: TC=0.36/1.00 (C-D:1), BC=0.22/1.00 (F-G:4), WB=0.07/1.00 (B-F:1), SSI=0.13/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

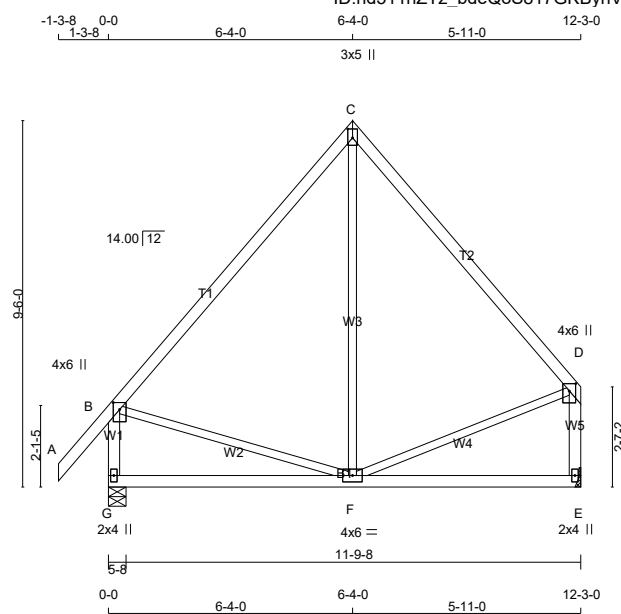
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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





TOTAL WEIGHT = 2 X 60 = 120 lb [M][F]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

**BEARINGS**

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	REQD BRG	IN-SX
G	700	0	700	0	0	5-8	1-8	
E	591	0	591	0	0			MECHANICAL

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

**UNFACTORED REACTIONS**

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	497	316 / 0	0 / 0	0 / 0	0 / 0	181 / 0	0 / 0
E	421	257 / 0	0 / 0	0 / 0	0 / 0	164 / 0	0 / 0

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	CS1 (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
A-B	0 / 42	-78.0	-78.0	0.07 (1)	10.00	F-C	0 / 101	0.04 (4)
B-C	-318 / 0	-78.0	-78.0	0.27 (1)	6.25	B-F	0 / 215	0.05 (1)
C-D	-318 / 0	-78.0	-78.0	0.35 (1)	6.25	F-D	0 / 221	0.05 (1)
G-B	-655 / 0	0.0	0.0	0.08 (1)	7.81			
E-D	-550 / 0	0.0	0.0	0.08 (1)	7.81			
G-F	0 / 0	-18.5	-18.5	0.20 (4)	10.00			
F-E	0 / 0	-18.5	-18.5	0.20 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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

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

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

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

CSI: TC=0.35/1.00 (C-D:1), BC=0.20/1.00 (E-F:4), WB=0.05/1.00 (D-F:1), SSI=0.13/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

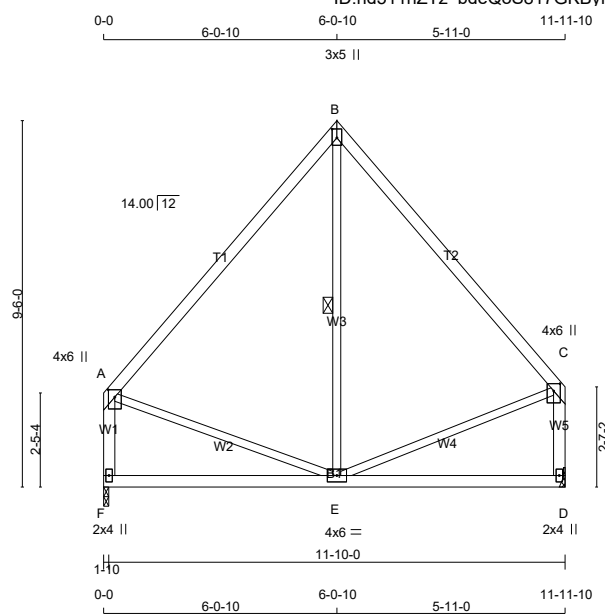
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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





TOTAL WEIGHT = 2 X 57 = 114 lb [M][F]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	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**

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

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

**UNFACTORED REACTIONS**

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

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

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

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.  
1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-E.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED VERT. LOAD (LC1)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FORCE (LBS)	FACTORED VERT. LOAD (LC)	MAX. UNBRACED LENGTH (LC)
FR-TO		FROM	TO		FR-TO			
A-B	-304 / 0	-78.0	-78.0	0.31 (1)	6.25	E-B	-5 / 94	0.03 (4)
B-C	-304 / 0	-78.0	-78.0	0.35 (1)	6.25	A-E	0 / 209	0.05 (1)
F-A	-535 / 0	0.0	0.0	0.07 (1)	7.81	E-C	0 / 211	0.05 (1)
D-C	-536 / 0	0.0	0.0	0.07 (1)	7.81			
F-E	0 / 0	-18.5	-18.5	0.19 (4)	10.00			
E-D	0 / 0	-18.5	-18.5	0.19 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

CSI: TC=0.35/1.00 (B-C:1), BC=0.19/1.00 (E-F:4), WB=0.05/1.00 (C-E:1), SSI=0.12/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

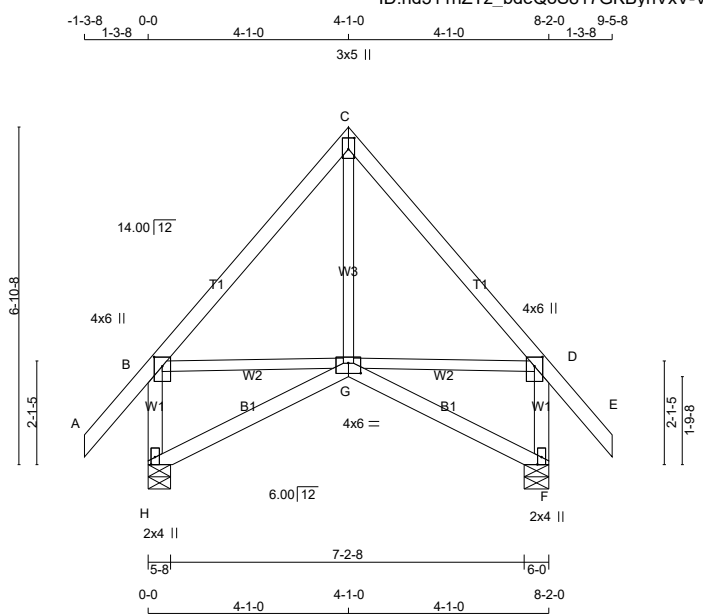
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.31 (E) (INPUT = 0.90)  
JSI METAL= 0.16 (A) (INPUT = 1.00)

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





TOTAL WEIGHT = 2 X 44 = 88 lb [M][F]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
H	503	0	503	0	5-8	1-8
F	503	0	503	0	6-0	1-8

**UNFACTORED REACTIONS**

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS				WIND	DEAD	SOIL
		1ST LCASE	SNOW	LIVE	PERM.LIVE			
H	357	230 / 0	0 / 0	0 / 0	0 / 0	0 / 0	126 / 0	0 / 0
F	357	230 / 0	0 / 0	0 / 0	0 / 0	0 / 0	126 / 0	0 / 0

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

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

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

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	FR-TO	CHORDS		WEBS	
		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MAX. FACTORED FORCE (LBS)
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00
B-C	-263 / 0	-78.0	-78.0	0.17 (1)	6.25
C-D	-263 / 0	-78.0	-78.0	0.17 (1)	6.25
D-E	0 / 42	-78.0	-78.0	0.11 (1)	10.00
H-B	-465 / 0	0.0	0.0	0.06 (1)	7.81
F-D	-465 / 0	0.0	0.0	0.06 (1)	7.81
H-G	0 / 0	-18.5	-18.5	0.09 (4)	10.00
G-F	0 / 0	-18.5	-18.5	0.09 (4)	10.00

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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

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

(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 (0.27")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.27")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.17/1.00 (B-C:1), BC=0.09/1.00 (G-H:4), WB=0.04/1.00 (D-G:1), SSI=0.08/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

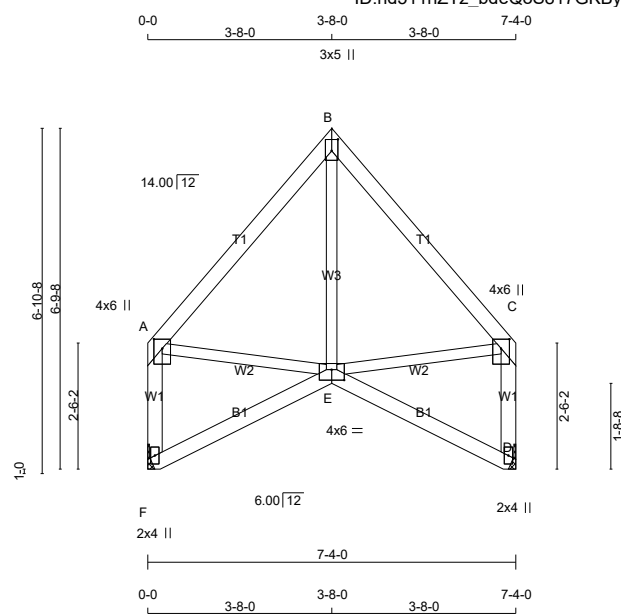
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





JOB NAME <b>336328</b>	TRUSS NAME <b>H63S</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104065</b>
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TOTAL WEIGHT = 2 X 37 = 74 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 - E	2x4	DRY No.2	SPF
E - D	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

**BEARINGS**

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT 354	HORZ 0	DOWN 354	HORZ 0
F	354	0	0	MECHANICAL
D	354	0	0	MECHANICAL

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

**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/C**

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	252	154 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0
D	252	154 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0

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

**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.

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

ALLOWABLE DEFL.(LL)= L/360 (0.24")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.24")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	C H O R D S			W E B S			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO				
A-B	-212 / 0	-78.0	-78.0	0.13 (1)	6.25	E-B	0 / 64
B-C	-212 / 0	-78.0	-78.0	0.13 (1)	6.25	A-E	0 / 139
F-A	-320 / 0	0.0	0.0	0.04 (1)	7.81	E-C	0 / 139
D-C	-320 / 0	0.0	0.0	0.04 (1)	7.81		
F-E	0 / 0	-18.5	-18.5	0.07 (4)	10.00		
E-D	0 / 0	-18.5	-18.5	0.07 (4)	10.00		

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

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



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

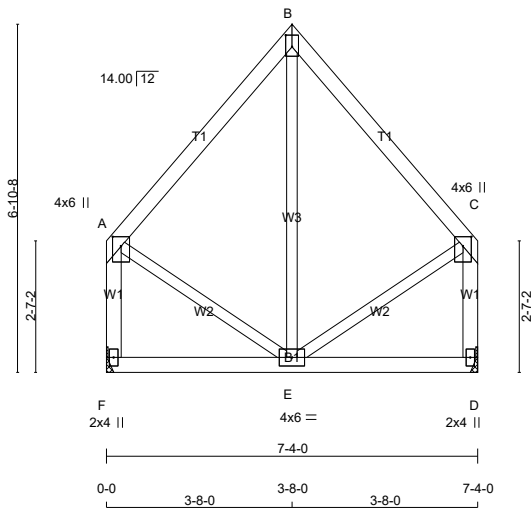
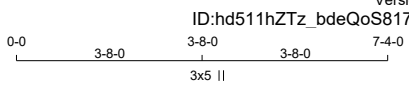
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JOB NAME <b>336328</b>	TRUSS NAME <b>H64</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104066</b>
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TOTAL WEIGHT = 4 X 38 = 154 lb [M][F]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	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**

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

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

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	252	154 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0
D	252	154 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO			FR-TO		
A-B	-160 / 0	-78.0	-78.0	0.13 (1)	6.25	E-B	-43 / 41	0.03 (1)
B-C	-160 / 0	-78.0	-78.0	0.13 (1)	6.25	A-E	0 / 122	0.03 (1)
F-A	-328 / 0	0.0	0.0	0.05 (1)	7.81	E-C	0 / 122	0.03 (1)
D-C	-328 / 0	0.0	0.0	0.05 (1)	7.81			
F-E	0 / 0	-18.5	-18.5	0.07 (4)	10.00			
E-D	0 / 0	-18.5	-18.5	0.07 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C**

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

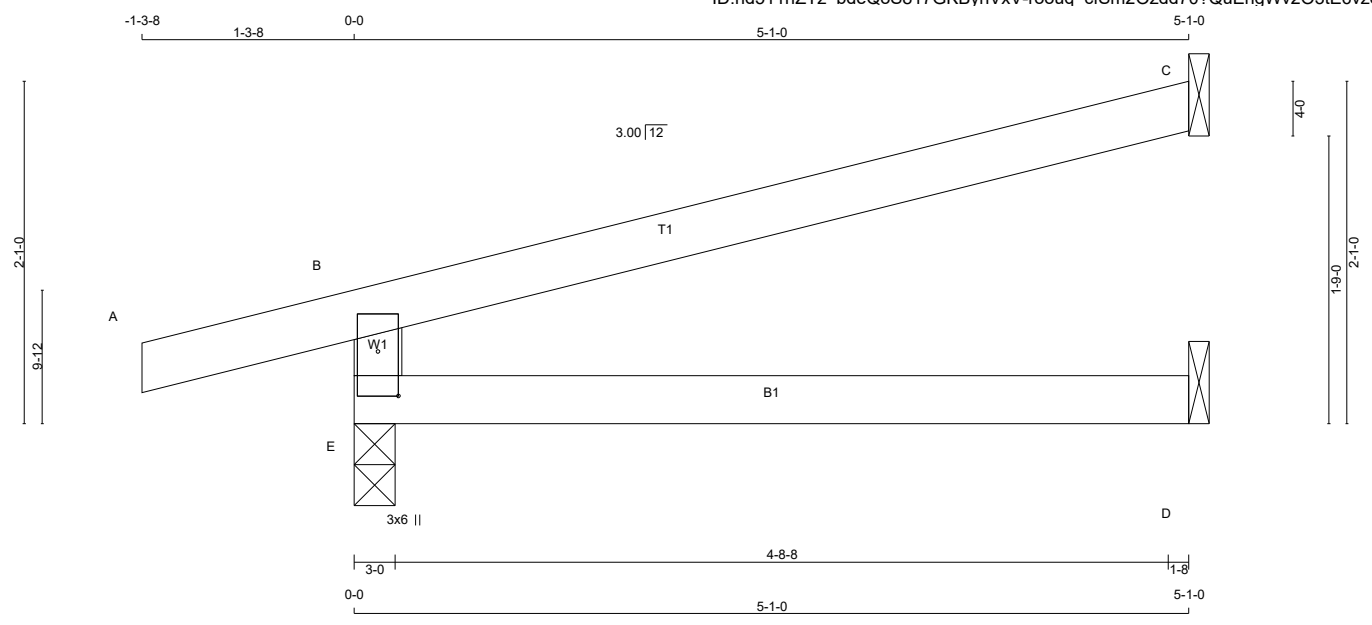
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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





TOTAL WEIGHT = 14 X 14 = 192 lb

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

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B						
E	TMBMV1+p	MT20	3.0	6.0	3.25	1.50

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

**BEARINGS**

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

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

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	288	189 / 0	0 / 0	0 / 0	0 / 0	99 / 0	0 / 0
C	103	80 / 0	0 / 0	0 / 0	0 / 0	23 / 0	0 / 0
D	30	0 / 0	0 / 0	0 / 0	0 / 0	30 / 0	0 / 0

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

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.  
 ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

**LOADING**  
 TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO		FR-TO			
E-B	-351 / 0	0.0	0.0	0.11 (4)	7.81			
A-B	0 / 13	-78.0	-78.0	0.10 (1)	10.00			
B-C	-12 / 0	-78.0	-78.0	0.34 (1)	6.25			
E-D	0 / 0	-18.5	-18.5	0.11 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.19")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
 ALLOWABLE DEFL.(TL)= L/360 (0.19")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

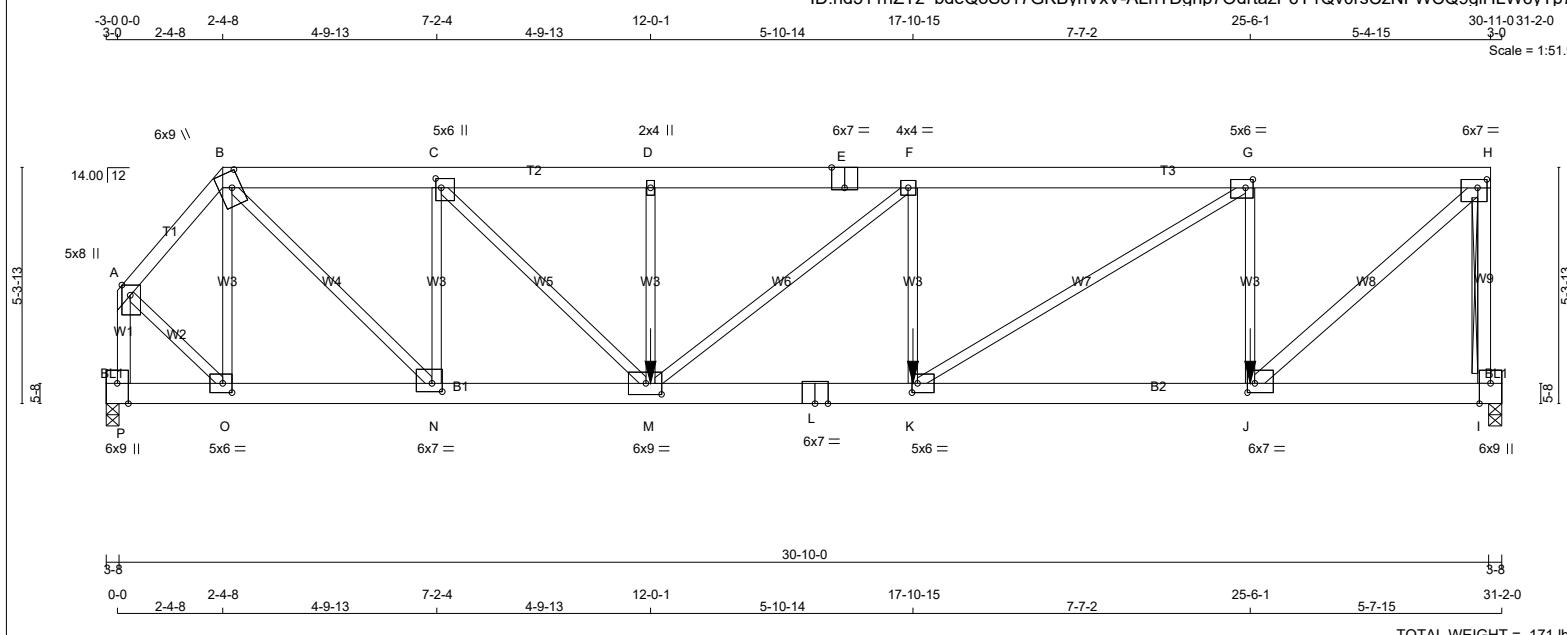
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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





TOTAL WEIGHT = 171 lb

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY No.2	SPF
B - E	2x6	DRY No.2	SPF
E - H	2x6	DRY No.2	SPF
I - H	2x4	DRY No.2	SPF
P - A	2x4	DRY No.2	SPF
P - L	2x6	DRY No.2	SPF
L - I	2x6	DRY No.2	SPF

BEARING BLOCKS	SIZE	LUMBER	DESCR.
BL1	2 - 2x4	DRY No.2	SPF

ALL WEBS EXCEPT	SIZE	LUMBER	DESCR.
J - H	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	5.0	8.0	2.75	Edge
B	TTWW+m	MT20	6.0	9.0	4.25	2.50
C	TMWW+t	MT20	5.0	6.0	2.50	1.50
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	6.0	7.0	Edge	3.50
F	TMWW-t	MT20	4.0	4.0		
G	TMWW-t	MT20	5.0	6.0	2.25	2.00
H	TMVW-t	MT20	6.0	7.0	2.25	2.50
I	BMVK1+t	MT20	6.0	9.0	Edge	3.00
J	BMWW-t	MT20	6.0	7.0	2.50	2.00
K	BMWW-t	MT20	5.0	6.0	2.50	1.50
L	BS-t	MT20	6.0	7.0		
M	BMWWW-t	MT20	6.0	9.0	3.00	4.25
N	BMWW-t	MT20	6.0	7.0	2.25	2.75
O	BMWW-t	MT20	5.0	6.0	2.50	2.50
P	BMVK1+t	MT20	5.0	6.0	Edge	3.00

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

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



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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
I	3543	0	3543	0	3-8	3-8
P	2826	0	2826	0	3-8	3-8

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. LIVE		PERM.LIVE	WIND	DEAD	SOIL
	SNOW	LIVE	LIVE	LIVE				
I	2525	1544 / 0	0 / 0	0 / 0	0 / 0	0 / 0	982 / 0	0 / 0
P	2015	1231 / 0	0 / 0	0 / 0	0 / 0	0 / 0	784 / 0	0 / 0

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

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLINE SPACING = 3.20 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.  
 2x3 DRY SPF No.2 T-BRACE AT H-I

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

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

**LOADING**  
 TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	LC1 MAX UNBRAC	MEMB. FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO			
A-B	-1975 / 0	-78.0	-78.0	0.14 (1)	4.66	O-B	-1127 / 0	0.43 (1)
B-C	-3606 / 0	-78.0	-78.0	0.23 (1)	4.31	B-N	0 / 3331	0.82 (1)
C-D	-5516 / 0	-78.0	-78.0	0.40 (1)	3.42	N-C	-2294 / 0	0.87 (1)
D-E	-5516 / 0	-156.0	-156.0	0.55 (1)	3.27	C-M	0 / 2713	0.67 (1)
E-F	-5516 / 0	-156.0	-156.0	0.55 (1)	3.27	M-D	-662 / 0	0.25 (1)
F-G	-5673 / 0	-78.0	-78.0	0.63 (1)	3.20	M-F	-204 / 0	0.23 (1)
G-H	-3372 / 0	-153.5	-153.5	0.40 (1)	4.22	K-F	-633 / 0	0.24 (1)
I-H	-3463 / 0	0.0	0.0	0.86 (1)	6.03	K-G	0 / 2732	0.68 (1)
P-A	-2852 / 0	0.0	0.0	0.40 (1)	5.04	J-G	-2269 / 0	0.86 (1)
						J-H	0 / 4671	0.83 (1)
						A-O	0 / 1943	0.48 (1)
P-O	-198 / 0	-18.5	-18.5	0.07 (1)	6.25			
O-N	0 / 1262	-18.5	-18.5	0.23 (1)	10.00			
N-M	0 / 3606	-18.5	-18.5	0.52 (1)	10.00			
M-L	0 / 5673	-37.3	-37.3	0.87 (1)	10.00			
L-K	0 / 5673	-37.3	-37.3	0.87 (1)	10.00			
K-J	0 / 3372	-18.5	-18.5	0.51 (1)	10.00			
J-I	-104 / 0	-36.4	-36.4	0.12 (4)	6.25			

**FACTORED CONCENTRATED LOADS (LBS)**

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
J	25-6-1	-662	-662	---	FRONT	VERT	TOTAL	---	C1
K	17-10-15	-662	-662	---	FRONT	VERT	TOTAL	---	C1
M	12-0-1	-993	-993	---	FRONT	VERT	TOTAL	---	C1

**CONNECTION REQUIREMENTS**

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

**DESIGN CRITERIA**

\*\*\* SPECIAL LOADS ANALYSIS \*\*\*  
 GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.  
 LOADS WERE DERIVED FROM USER INPUT  
 NO FURTHER MODIFICATIONS WERE MADE

**SPECIFIED LOADS:**

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

**SPACING = 24.0 IN./C/C**

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

GIRDER TYPE: CPrimeHip  
 LEFT SETBACK = 2-7-8  
 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  
 - ADD'L LOADS BASED ON 55 % OF GSL.  
 LOADS APPLIED TO FIRST 5-10-15 OF SPAN MEASURED FROM THE RIGHT.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

THIS DESIGN COMPLIES WITH:  
 - PART 9 OF CBC2018, ABC 2019  
 - PART 9 OF OBC 2012 (2019 AMENDMENT)  
 - CSA 086-14  
 - TPIC 2014

(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/869 (0.42")

CSI: TC=0.86/1.00 (H-I:1), BC=0.87/1.00 (K-M:1), WB=0.87/1.00 (C-N:1), SS=0.33/1.00 (G-H:1)

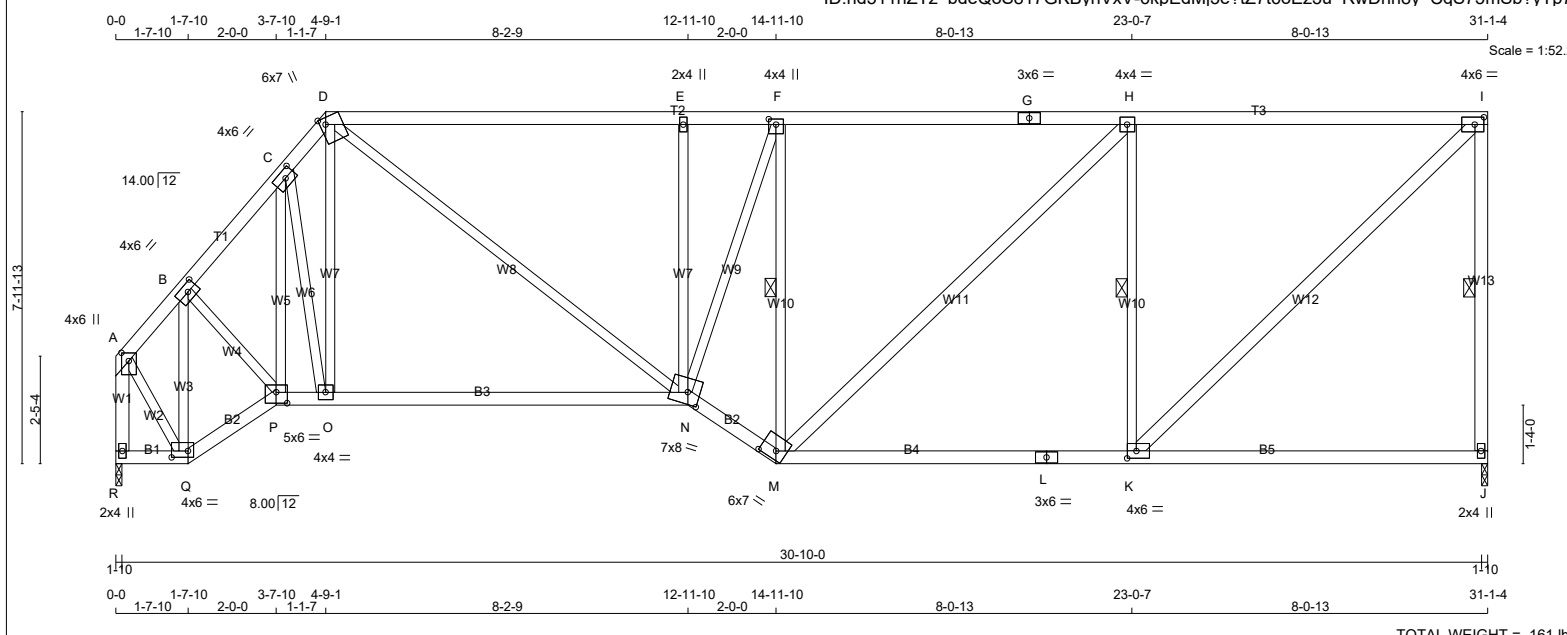
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00  
 COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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



**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - G	2x4	DRY 1650F 1.5E	SPF
G - I	2x4	DRY 1650F 1.5E	SPF
J - I	2x4	DRY No.2	SPF
R - A	2x4	DRY No.2	SPF
R - Q	2x4	DRY No.2	SPF
Q - P	2x4	DRY No.2	SPF
P - N	2x4	DRY No.2	SPF
N - M	2x4	DRY No.2	SPF
M - L	2x4	DRY No.2	SPF
L - J	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF
M - H	2x4	DRY No.2	SPF
K - I	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TMWW-t	MT20	4.0	6.0	2.00	2.75
C	TMWW-t	MT20	4.0	6.0	2.00	2.75
D	TTWW+m	MT20	6.0	7.0	Edge	1.50
E	TMW+w	MT20	2.0	4.0		
F	TMWW+t	MT20	4.0	4.0	1.50	2.00
G	TS-t	MT20	3.0	6.0		
H	TMWW-t	MT20	4.0	4.0		
I	TMVW-t	MT20	4.0	6.0	2.00	2.50
J	BMV1+p	MT20	2.0	4.0		
K	BMWW-t	MT20	4.0	6.0	2.00	2.50
L	BS-t	MT20	3.0	6.0		
M	BBWW-h	MT20	6.0	7.0	2.25	4.25
N	BBWWW-m	MT20	7.0	8.0	3.25	3.25
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	1.75	4.50
R	BMV1+p	MT20	2.0	4.0		

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

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



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

**BEARINGS**

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

**UNFACTORED REACTIONS**

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

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

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.66 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 I-J, F-M, H-K.

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

**LOADING**  
 TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED		FACTORED		WEBS MAX. FACTORED	
	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	CS1 (LC)	MEMB. FORCE (LBS)	MAX CS1 (LC)
FR-TO		FROM TO			LENGTH FR-TO	
A-B	-903 / 0	-78.0	-78.0	0.04 (1)	6.25	Q-B -1089 / 0 0.29 (1)
B-C	-1492 / 0	-78.0	-78.0	0.08 (1)	5.31	B-P 0 / 629 0.14 (1)
C-D	-1544 / 0	-78.0	-78.0	0.04 (1)	5.28	P-C -173 / 0 0.08 (1)
D-E	-1866 / 0	-78.0	-78.0	0.70 (1)	4.66	C-O -17 / 64 0.02 (4)
E-F	-1857 / 0	-78.0	-78.0	0.55 (1)	4.67	O-D 0 / 214 0.06 (4)
F-G	-1550 / 0	-78.0	-78.0	0.79 (1)	4.70	D-N 0 / 1120 0.25 (1)
G-H	-1550 / 0	-78.0	-78.0	0.79 (1)	4.70	N-E -557 / 0 0.41 (1)
H-I	-1257 / 0	-78.0	-78.0	0.75 (1)	5.11	N-F 0 / 1029 0.23 (1)
J-I	-1443 / 0	0.0	0.0	0.41 (1)	5.44	M-F -1224 / 0 0.49 (1)
R-A	-1485 / 0	0.0	0.0	0.19 (1)	6.73	M-H 0 / 405 0.07 (1)
R-Q	0 / 0	-18.5	-18.5	0.01 (4)	10.00	K-H -1016 / 0 0.41 (1)
Q-P	0 / 678	-18.5	-18.5	0.12 (1)	10.00	K-I 0 / 1737 0.28 (1)
P-O	0 / 977	-18.5	-18.5	0.40 (4)	10.00	A-Q 0 / 953 0.21 (1)
O-N	0 / 978	-18.5	-18.5	0.40 (4)	10.00	
N-M	0 / 1843	-18.5	-18.5	0.31 (1)	10.00	
M-L	0 / 1257	-18.5	-18.5	0.47 (4)	10.00	
L-K	0 / 1257	-18.5	-18.5	0.47 (4)	10.00	
K-J	0 / 0	-18.5	-18.5	0.35 (4)	10.00	

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

(5% 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 (0.23")

CSI: TC=0.79/1.00 (F-H:1), BC=0.47/1.00 (K-M:4), WB=0.49/1.00 (F-M:1), SSI=0.30/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

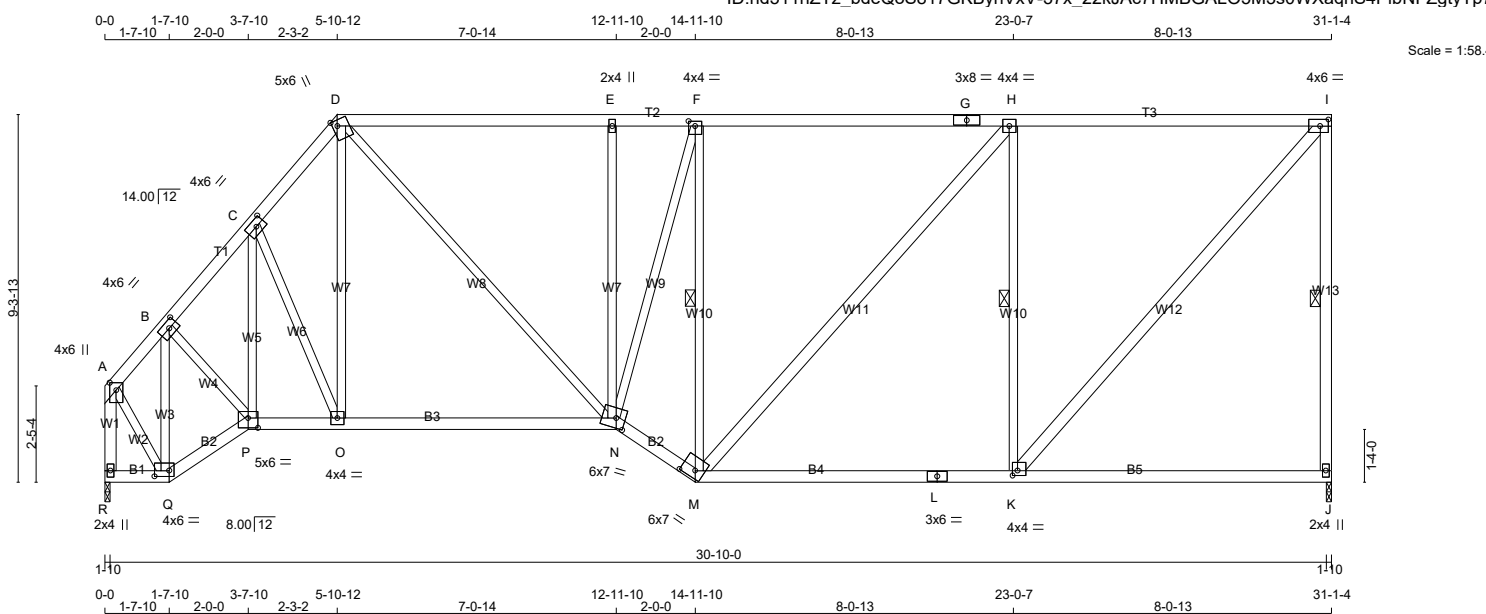
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (I) (INPUT = 0.90)  
 JSI METAL= 0.36 (L) (INPUT = 1.00)



**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TMWW-t	MT20	4.0	6.0	2.00	2.75
C	TMWW-t	MT20	4.0	6.0	2.00	2.75
D	TTWW+m	MT20	5.0	6.0	1.75	1.50
E	TMW+w	MT20	2.0	4.0		
F	TMWW-t	MT20	4.0	4.0	1.50	2.00
G	TS-t	MT20	3.0	8.0		
H	TMWW-t	MT20	4.0	4.0		
I	TMVW-t	MT20	4.0	6.0	2.00	2.50
J	BMV1+p	MT20	2.0	4.0		
K	BMWW-t	MT20	4.0	4.0	1.50	1.50
L	BS-t	MT20	3.0	6.0		
M	BBWW-h	MT20	6.0	7.0	2.25	4.25
N	BBWWW-m	MT20	6.0	7.0	3.00	2.75
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	1.75	4.50
R	BMV1+p	MT20	2.0	4.0		

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

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

**BEARINGS**

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

**UNFACTORED REACTIONS**

JT	COMBINED	SNOW		LIVE		PERM.LIVE	WIND	DEAD	SOIL
		MAX.	MIN.	MAX.	MIN.				
J	1070	653 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0
R	1070	653 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.98 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 I-J, F-M, H-K.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	FACTORED MAX UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	MEMB. FORCE (LBS)
FR-TO		FROM	TO		FR-TO			
A-B	-903 / 0	-78.0	-78.0	0.03 (1)	6.25	Q-B	-1083 / 0	0.29 (1)
B-C	-1491 / 0	-78.0	-78.0	0.07 (1)	5.32	B-P	0 / 643	0.14 (1)
C-D	-1478 / 0	-78.0	-78.0	0.07 (1)	5.34	P-C	-108 / 0	0.05 (1)
D-E	-1523 / 0	-78.0	-78.0	0.58 (1)	4.64	C-O	-76 / 0	0.04 (1)
E-F	-1517 / 0	-78.0	-78.0	0.46 (1)	4.69	O-D	0 / 197	0.05 (4)
F-G	-1323 / 0	-78.0	-78.0	0.96 (1)	3.98	D-N	0 / 845	0.19 (1)
G-H	-1323 / 0	-78.0	-78.0	0.96 (1)	3.98	N-E	-429 / 0	0.52 (1)
H-I	-1071 / 0	-78.0	-78.0	0.92 (1)	4.39	N-F	0 / 783	0.18 (1)
I-J	-1443 / 0	0.0	0.0	0.59 (1)	5.44	M-F	-1077 / 0	0.61 (1)
R-A	-1485 / 0	0.0	0.0	0.19 (1)	6.73	M-H	0 / 377	0.06 (1)
R-Q	0 / 0	-18.5	-18.5	0.01 (4)	10.00	K-I	0 / 1607	0.26 (1)
Q-P	0 / 675	-18.5	-18.5	0.12 (1)	10.00	A-Q	0 / 949	0.21 (1)
P-O	0 / 977	-18.5	-18.5	0.30 (4)	10.00			
O-N	0 / 949	-18.5	-18.5	0.30 (4)	10.00			
N-M	0 / 1575	-18.5	-18.5	0.27 (1)	10.00			
M-L	0 / 1071	-18.5	-18.5	0.45 (4)	10.00			
L-K	0 / 1071	-18.5	-18.5	0.45 (4)	10.00			
K-J	0 / 0	-18.5	-18.5	0.35 (4)	10.00			

**DESIGN CRITERIA**

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

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

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

(5% 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 (0.08")  
ALLOWABLE DEFL.(TL)= L/360 (1.04")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.19")

CSI: TC=0.96/1.00 (F-H:1), BC=0.45/1.00 (K-M:4), WB=0.61/1.00 (F-M:1), SSI=0.30/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

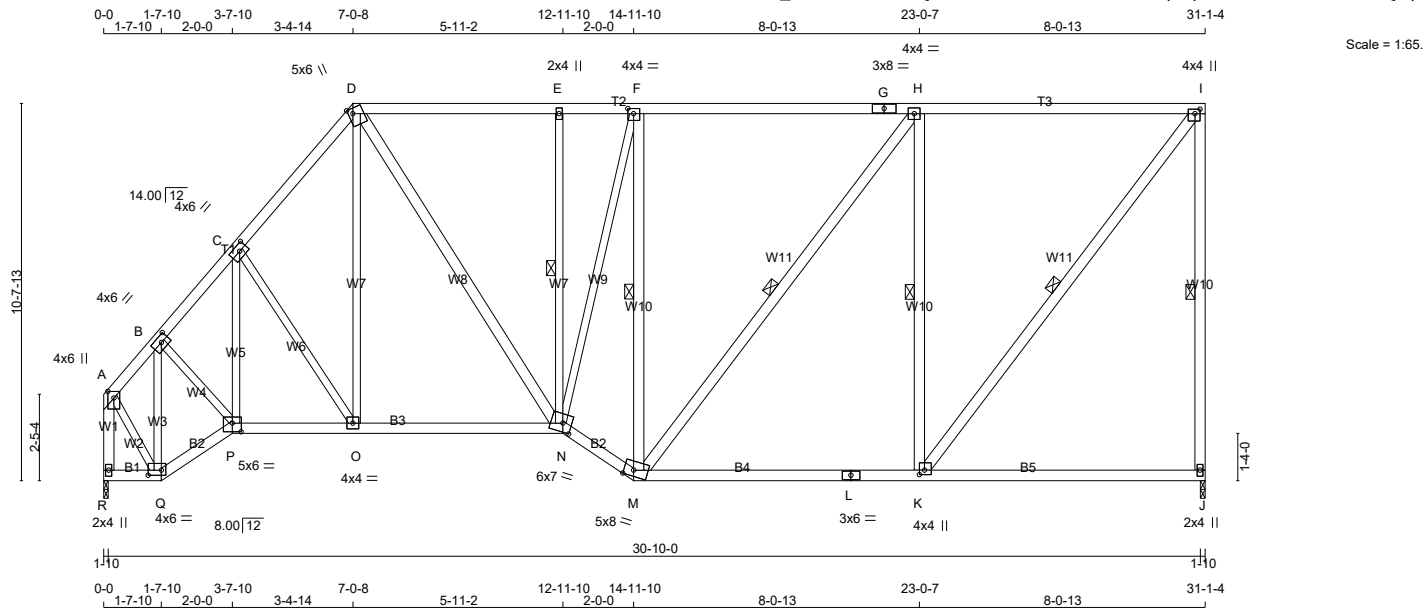
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (N) (INPUT = 0.90)  
JSI METAL= 0.37 (K) (INPUT = 1.00)





TOTAL WEIGHT = 192 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
G - I	2x4	DRY No.2	SPF
J - I	2x4	DRY No.2	SPF
R - A	2x4	DRY No.2	SPF
R - Q	2x4	DRY No.2	SPF
Q - P	2x4	DRY No.2	SPF
P - N	2x4	DRY No.2	SPF
N - M	2x4	DRY No.2	SPF
M - L	2x4	DRY No.2	SPF
L - J	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF
D - N	2x4	DRY No.2	SPF
M - F	2x4	DRY No.2	SPF
M - H	2x4	DRY No.2	SPF
K - H	2x4	DRY No.2	SPF
K - I	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X	
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TMWW-t	MT20	4.0	6.0	2.00	2.75
C	TMWW-t	MT20	4.0	6.0	2.00	2.75
D	TTWW+m	MT20	5.0	6.0	1.75	1.50
E	TMW+w	MT20	2.0	4.0		
F	TMWW-t	MT20	4.0	4.0	1.75	2.00
G	TS-t	MT20	3.0	8.0		
H	TMWW-t	MT20	4.0	4.0		
I	TMVW+p	MT20	4.0	4.0	1.50	1.75
J	BMV1+p	MT20	2.0	4.0		
K	BMWW+t	MT20	4.0	4.0	1.50	1.75
L	BS-t	MT20	3.0	6.0		
M	BBWW-m	MT20	5.0	8.0	2.00	3.25
N	BBWW-m	MT20	6.0	7.0	3.00	3.00
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	1.75	4.50
R	BMV1+p	MT20	2.0	4.0		

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

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

**BEARINGS**

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

**UNFACTORED REACTIONS**

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

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.27 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 I-J, E-N, F-M, H-M, H-K, I-K.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS		WEBS				
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. VERT. LOAD (LC1)	MAX. HORIZ. LOAD (LC)	MAX. UNBRACED LENGTH	MAX. FACTORED FORCE (LBS)	MAX. VERT. DEF. (LC)
FR-TO		FROM TO					
A-B	-904 / 0	-78.0	-78.0	0.04 (1)	6.25	Q-B -1077 / 0	0.28 (1)
B-C	-1485 / 0	-78.0	-78.0	0.13 (1)	5.26	B-P 0 / 660	0.15 (1)
C-D	-1429 / 0	-78.0	-78.0	0.14 (1)	5.33	P-C -95 / 0	0.04 (1)
D-E	-1283 / 0	-78.0	-78.0	0.39 (1)	5.22	C-O -128 / 0	0.09 (1)
E-F	-1280 / 0	-78.0	-78.0	0.37 (1)	5.20	O-D 0 / 212	0.05 (4)
F-G	-1154 / 0	-78.0	-78.0	0.92 (1)	4.27	D-N 0 / 666	0.11 (1)
G-H	-1154 / 0	-78.0	-78.0	0.92 (1)	4.27	N-E -315 / 0	0.18 (1)
H-I	-933 / 0	-78.0	-78.0	0.88 (1)	4.70	N-F 0 / 601	0.14 (1)
I-J	-1443 / 0	0.0	0.0	0.82 (1)	5.44	M-F -968 / 0	0.55 (1)
R-A	-1485 / 0	0.0	0.0	0.19 (1)	6.73	M-H 0 / 360	0.06 (1)
						K-H -1015 / 0	0.58 (1)
R-Q	0 / 0	-18.5	-18.5	0.01 (4)	10.00	K-I 0 / 1518	0.24 (1)
Q-P	0 / 671	-18.5	-18.5	0.12 (1)	10.00	A-Q 0 / 943	0.21 (1)
P-O	0 / 985	-18.5	-18.5	0.24 (1)	10.00		
O-N	0 / 916	-18.5	-18.5	0.23 (4)	10.00		
N-M	0 / 1371	-18.5	-18.5	0.23 (1)	10.00		
M-L	0 / 933	-18.5	-18.5	0.44 (4)	10.00		
L-K	0 / 933	-18.5	-18.5	0.44 (4)	10.00		
K-J	0 / 0	-18.5	-18.5	0.35 (4)	10.00		

**DESIGN CRITERIA**

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CSI: TC=0.92/1.00 (F-H:1), BC=0.44/1.00 (K-M:4), WB=0.58/1.00 (H-K:1), SSI=0.30/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

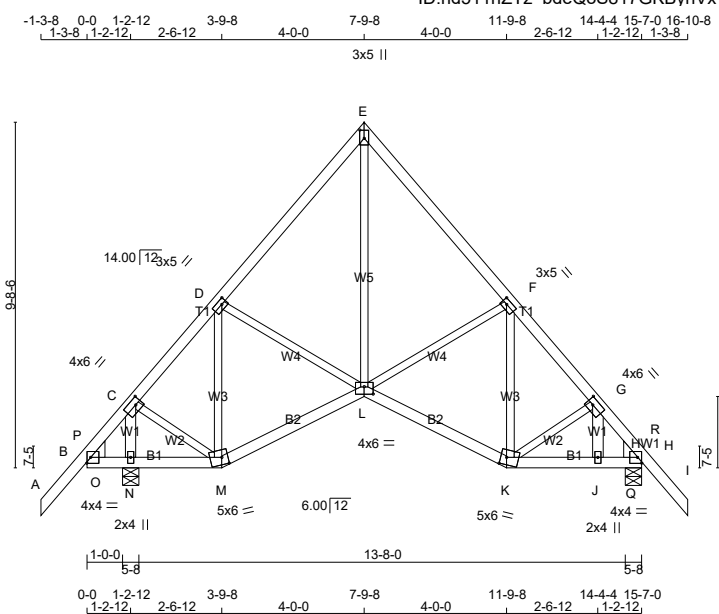
PLATE ROTATION TOL. = 5.0 Deg.

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



JOB NAME <b>336324</b>	TRUSS NAME <b>H81</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104078</b>
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Alpa Roof Truss, Maple Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 14:51:43 2021 Page 1  
 ID:hd511hZTz bdeQoS817GKByhVxV-tGIFJ5p4mSuQ46kKieCmJ7Gkd?yvsuRdzJittXyTp7



TOTAL WEIGHT = 3 X 81 = 243 lb [M][F]

**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
B	TMBH-I	MT20	4.0	4.0	Edge
C	TMWW-t	MT20	4.0	6.0	2.00 2.00
D	TMWW-t	MT20	3.0	5.0	1.50 1.75
E	TTW+p	MT20	3.0	5.0	2.75 1.50
F	TMWW-t	MT20	3.0	5.0	1.50 1.75
G	TMWW-t	MT20	4.0	6.0	2.00 2.00
H	TMBH-I	MT20	4.0	4.0	Edge
J	BMW+w	MT20	2.0	4.0	
K	BBWW-m	MT20	5.0	6.0	2.50 2.00
L	BBWWW-p	MT20	4.0	6.0	2.50 3.00
M	BBWW-m	MT20	5.0	6.0	2.50 2.00
N	BMW1+w	MT20	2.0	4.0	

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

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



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

**BEARINGS**

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	HEEL WEDGE
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
H	787	0	787	0	5-8
N	935	0	935	0	5-8

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX. SNOW	MIN. LIVE	COMPONENT PERM. LIVE	REACTIONS WIND	DEAD	SOIL
H	559	353 / 0	0 / 0	0 / 0	0 / 0	206 / 0	0 / 0
N	664	419 / 0	0 / 0	0 / 0	0 / 0	245 / 0	0 / 0

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS			WEBS			
	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX (CSI (LC))	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FORCE (LBS)	FACTORED MAX (CSI (LC))
A-B	0 / 39	-78.0	-78.0 0.11 (1)	10.00	L-E	0 / 465	0.10 (1)
B-P	0 / 145	-78.0	-78.0 0.13 (1)	10.00	L-F	-119 / 0	0.05 (1)
P-C	0 / 215	-78.0	-78.0 0.06 (1)	10.00	K-F	-158 / 0	0.06 (1)
C-D	-409 / 0	-78.0	-78.0 0.12 (1)	6.25	K-G	-4 / 36	0.01 (1)
D-E	-500 / 0	-78.0	-78.0 0.15 (1)	6.25	J-G	-54 / 19	0.01 (1)
E-F	-501 / 0	-78.0	-78.0 0.15 (1)	6.25	D-L	0 / 37	0.01 (1)
F-G	-596 / 0	-78.0	-78.0 0.13 (1)	6.25	M-D	-375 / 0	0.13 (1)
G-R	-652 / 0	-78.0	-78.0 0.06 (1)	6.25	C-M	0 / 519	0.12 (1)
R-H	-960 / 0	-78.0	-78.0 0.09 (1)	6.25	N-C	-865 / 0	0.09 (1)
H-I	0 / 39	-78.0	-78.0 0.11 (1)	10.00	O-P	-6 / 20	0.00 (1)
					Q-R	0 / 305	0.00 (1)
B-O	-147 / 0	-18.5	-18.5 0.01 (1)	6.25			
O-N	-147 / 0	-18.5	-18.5 0.03 (1)	6.25			
N-M	-147 / 0	-18.5	-18.5 0.03 (1)	6.25			
M-L	0 / 313	-18.5	-18.5 0.12 (4)	10.00			
L-K	0 / 462	-18.5	-18.5 0.13 (4)	10.00			
K-J	0 / 387	-18.5	-18.5 0.10 (1)	10.00			
J-Q	0 / 387	-18.5	-18.5 0.14 (1)	10.00			
Q-H	0 / 387	-18.5	-18.5 0.14 (1)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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

THIS DESIGN COMPLIES WITH:  
- PART 9 OF 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 (0.48")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.48")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CANTILEVER DEFLECTION:  
ALLOWABLE DEFL.(LL)= L/120 (0.19")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
ALLOWABLE DEFL.(TL)= L/120 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.15/1.00 (D-E:1), BC=0.14/1.00 (J-Q:1), WB=0.13/1.00 (D-M:1), SSI=0.17/1.00 (H-Q: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

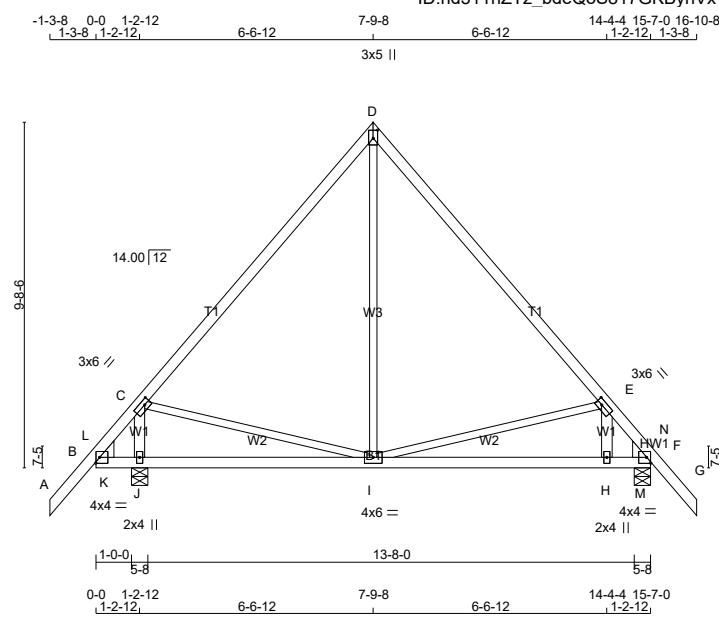
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.73 (M) (INPUT = 0.90)  
JSI METAL= 0.31 (B) (INPUT = 1.00)



JOB NAME <b>336324</b>	TRUSS NAME <b>H82</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC.</b>	<b>JT 45147</b>	DRWG NO. <b>E21104079</b>
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TOTAL WEIGHT = 73 lb [M][F]

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
B	TMBH-I	MT20	4.0	4.0	Edge
C	TMWW-t	MT20	3.0	6.0	1.50 2.00
D	TTW+p	MT20	3.0	5.0	2.75 1.50
E	TMWW-t	MT20	3.0	6.0	1.50 2.00
F	TMBH-I	MT20	4.0	4.0	Edge
H	BMW+w	MT20	2.0	4.0	
I	BMWWW-t	MT20	4.0	6.0	
J	BMW1+w	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**

JT	VERT	HORZ	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	HEEL WEDGE
F	787	0	787	0	5-8	1-8	2x6 R
J	935	0	935	0	5-8	1-8	2x6 L

**UNFACTORED REACTIONS**

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	559	353 / 0	0 / 0	0 / 0	0 / 0	206 / 0	0 / 0
J	664	419 / 0	0 / 0	0 / 0	0 / 0	245 / 0	0 / 0

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

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.24 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**  
 TOTAL LOAD CASES: (4)

MEMB.	FR-TO	CHORDS			WEBS			
		MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. UNBRAC. LENGTH	MEMB. FR-TO	MAX. FORCE (LBS)	FACTORED MAX. CSI (LC)
A-B	0 / 39	-78.0	-78.0	0.11 (1)	10.00	I-D	0 / 186	0.06 (4)
B-L	-391 / 0	-78.0	-78.0	0.08 (1)	6.25	I-E	-375 / 0	0.32 (1)
L-C	-4 / 177	-78.0	-78.0	0.52 (1)	10.00	H-E	-142 / 66	0.02 (4)
C-D	-431 / 0	-78.0	-78.0	0.43 (1)	6.25	C-I	0 / 192	0.04 (1)
D-E	-429 / 0	-78.0	-78.0	0.43 (1)	6.25	J-C	-981 / 0	0.10 (1)
E-N	-709 / 0	-78.0	-78.0	0.36 (1)	6.25	K-L	0 / 645	0.00 (1)
N-F	-1521 / 0	-78.0	-78.0	0.10 (1)	5.24	M-N	0 / 939	0.00 (1)
F-G	0 / 39	-78.0	-78.0	0.11 (1)	10.00			
B-K	0 / 67	-18.5	-18.5	0.20 (1)	10.00			
K-J	0 / 67	-18.5	-18.5	0.20 (1)	10.00			
J-I	0 / 67	-18.5	-18.5	0.18 (4)	10.00			
I-H	0 / 617	-18.5	-18.5	0.23 (4)	10.00			
H-M	0 / 617	-18.5	-18.5	0.37 (1)	10.00			
M-F	0 / 617	-18.5	-18.5	0.37 (1)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.48")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.02")  
 ALLOWABLE DEFL.(TL)= L/360 (0.48")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CANTILEVER DEFLECTION:  
 ALLOWABLE DEFL.(LL)= L/120 (0.19")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
 ALLOWABLE DEFL.(TL)= L/120 (0.19")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.52/1.00 (C-L:1), BC=0.37/1.00 (F-M:1), WB=0.32/1.00 (E-I:1), SSI=0.57/1.00 (F-M: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

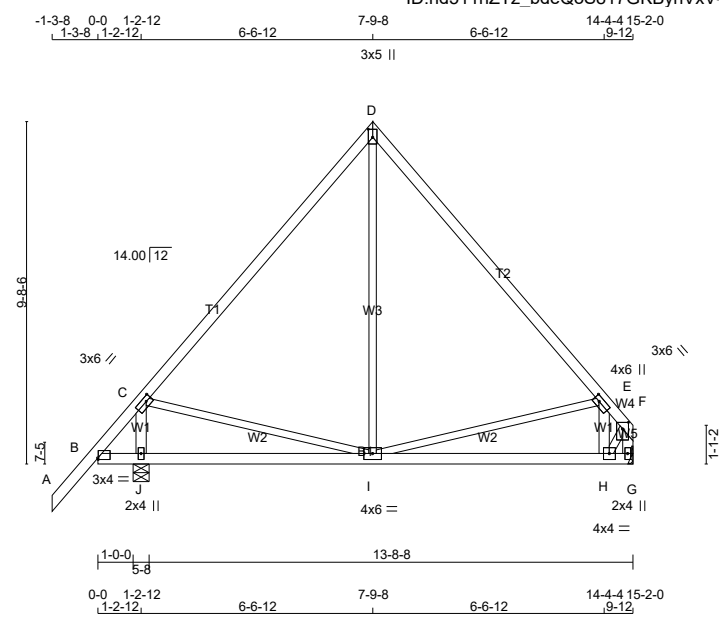
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.68 (E) (INPUT = 0.90)  
 JSI METAL= 0.33 (F) (INPUT = 1.00)

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





Scale = 1:65.3

TOTAL WEIGHT = 2 X 70 = 139 lb

**LUMBER**

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB-I	MT20	3.0	4.0	0.50	0.25
C	TMWW-t	MT20	3.0	6.0	1.50	2.00
D	TTW+p	MT20	3.0	5.0	2.75	1.50
E	TMWW-t	MT20	3.0	6.0	1.50	2.00
F	TMVW+p	MT20	4.0	6.0	2.25	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMWW-t	MT20	4.0	4.0		
I	BMWWW-t	MT20	4.0	6.0		
J	BMW1+w	MT20	2.0	4.0		

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
G	652	0	652	0	MECHANICAL	
J	921	0	921	0	5-8	1-8

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

**UNFACTORED REACTIONS**

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	465	282 / 0	0 / 0	0 / 0	0 / 0	183 / 0	0 / 0
J	654	413 / 0	0 / 0	0 / 0	0 / 0	240 / 0	0 / 0

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

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

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

**LOADING**  
 TOTAL LOAD CASES: (4)

CHORDS				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 / 39	-78.0 -78.0	0.11 (1)	10.00	J-C	-801 / 0	0.08 (1)
B-C	-25 / 54	-78.0 -78.0	0.48 (1)	6.25	C-I	0 / 175	0.04 (1)
C-D	-411 / 0	-78.0 -78.0	0.43 (1)	6.25	I-D	0 / 160	0.05 (4)
D-E	-413 / 0	-78.0 -78.0	0.43 (1)	6.25	I-E	-307 / 0	0.26 (1)
E-F	-489 / 0	-78.0 -78.0	0.38 (1)	6.25	H-E	-367 / 0	0.04 (1)
G-F	-696 / 0	0.0 0.0	0.07 (1)	7.81	H-F	0 / 723	0.16 (1)
B-J	0 / 72	-18.5 -18.5	0.14 (4)	10.00			
J-I	0 / 72	-18.5 -18.5	0.18 (4)	10.00			
I-H	0 / 539	-18.5 -18.5	0.22 (4)	10.00			
H-G	0 / 0	-18.5 -18.5	0.12 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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 (0.46")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
 ALLOWABLE DEFL.(TL)= L/360 (0.46")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CANTILEVER DEFLECTION:  
 ALLOWABLE DEFL.(LL)= L/120 (0.19")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
 ALLOWABLE DEFL.(TL)= L/120 (0.19")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.48/1.00 (B-C:1), BC=0.22/1.00 (H-I:4), WB=0.26/1.00 (E-I:1), SSI=0.24/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

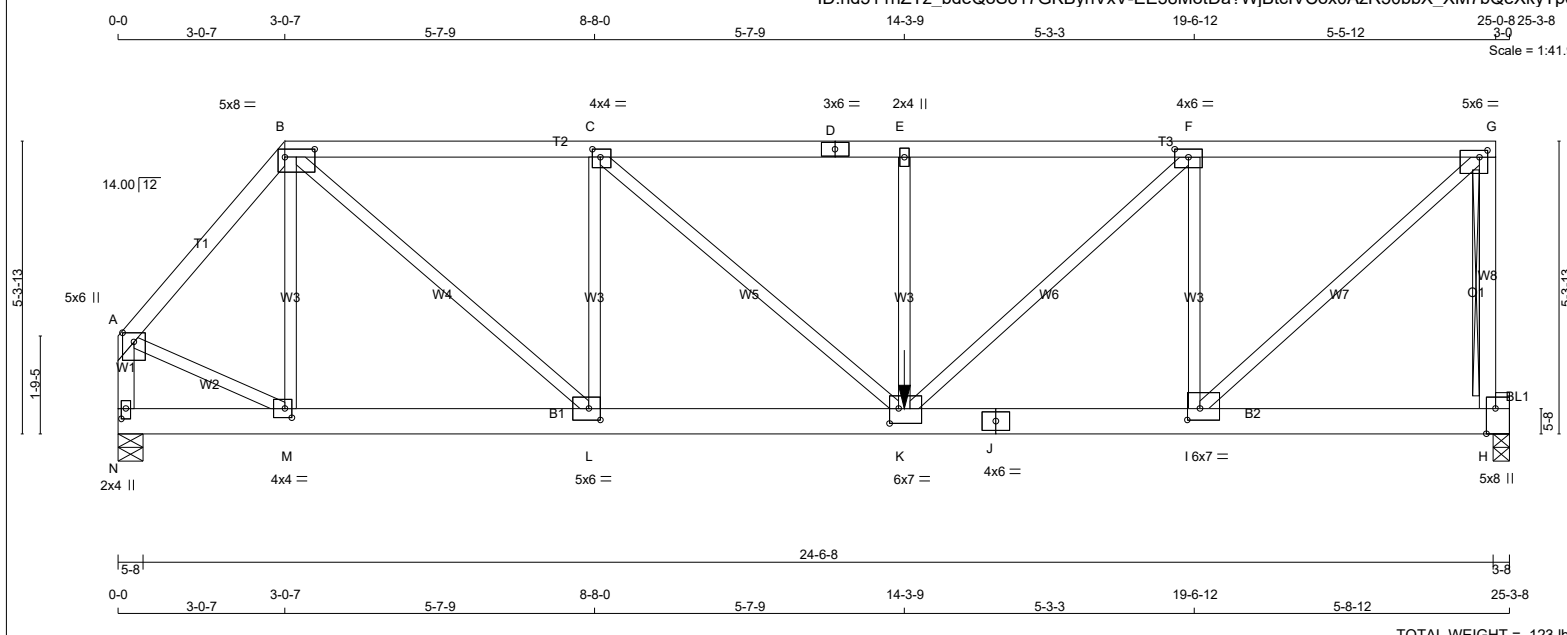
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.78 (H) (INPUT = 0.90 )  
 JSI METAL= 0.20 (H) (INPUT = 1.00 )

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





TOTAL WEIGHT = 123 lb

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY No.2	SPF
B - D	2x4	DRY 1650F 1.5E	SPF
D - G	2x4	DRY 1650F 1.5E	SPF
H - G	2x4	DRY No.2	SPF
N - A	2x4	DRY No.2	SPF
N - J	2x6	DRY No.2	SPF
J - H	2x6	DRY No.2	SPF

BEARING BLOCKS	SIZE	LUMBER	DESCR.
BL1	2x4	DRY No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X	
A	TMVW+p	MT20	5.0	6.0	2.00	2.50
B	TTWW-l	MT20	5.0	8.0	1.75	6.50
C	CTMMW-t	MT20	4.0	4.0	1.75	1.75
D	TS-t	MT20	3.0	6.0		
E	TMW+w	MT20	2.0	4.0		
F	TMWW-t	MT20	4.0	6.0	1.75	3.00
G	TMVW-t	MT20	5.0	6.0	1.50	1.75
H	BMVK1+t	MT20	5.0	8.0	Edge	2.00
I	BMWW-t	MT20	6.0	7.0	2.50	2.75
J	BS-t	MT20	4.0	6.0		
K	BMWWW-t	MT20	6.0	7.0	3.25	2.00
L	BMWW-t	MT20	5.0	6.0	2.50	2.50
M	BMWW-t	MT20	4.0	4.0	2.00	1.50
N	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

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



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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
	VERT	HORZ	DOWN	HORZ		UPLIFT	IN-SX
H	2702	0	2702	0	3-8	3-8	
N	1930	0	1930	0	5-8	2-12	

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. LIVE		PERM. LIVE	WIND	DEAD	SOIL
	SNOW	LIVE						
H	1926	1178 / 0	0 / 0	0 / 0	0 / 0	0 / 0	748 / 0	0 / 0
N	1376	840 / 0	0 / 0	0 / 0	0 / 0	0 / 0	536 / 0	0 / 0

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLINE SPACING = 3.21 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 G-H

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		MAX. UNBRAC	WEBS		FACTORED	
	MAX. FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX		MEMB. FORCE (LBS)	MAX	FORCE (LBS)	MAX
FR-TO						FR-TO			
A-B	-1740 / 0	-78.0	-78.0	0.19 (1)	4.85	M-B	-369 / 0	0.15 (1)	
B-C	-2705 / 0	-78.0	-78.0	0.41 (1)	4.33	B-L	0 / 2106	0.52 (1)	
C-D	-3614 / 0	-78.0	-78.0	0.48 (1)	3.80	L-C	-1267 / 0	0.51 (1)	
D-E	-3614 / 0	-78.0	-78.0	0.48 (1)	3.80	C-K	0 / 1208	0.30 (1)	
E-F	-3614 / 0	-153.5	-153.5	0.81 (1)	3.21	K-E	-564 / 0	0.23 (1)	
F-G	-2456 / 0	-153.5	-153.5	0.73 (1)	3.92	K-F	0 / 1588	0.39 (1)	
H-G	-2620 / 0	0.0	0.0	0.69 (1)	6.92	I-F	-2051 / 0	0.83 (1)	
N-A	-1920 / 0	0.0	0.0	0.22 (1)	6.02	I-G	0 / 3412	0.84 (1)	
						A-M	0 / 1221	0.30 (1)	
N-M	0 / 0	-18.5	-18.5	0.06 (4)	10.00				
M-L	0 / 1118	-18.5	-18.5	0.19 (1)	10.00				
L-K	0 / 2706	-18.5	-18.5	0.43 (1)	10.00				
K-J	0 / 2456	-36.4	-36.4	0.42 (1)	10.00				
J-I	0 / 2456	-36.4	-36.4	0.42 (1)	10.00				
I-H	-77 / 0	-36.4	-36.4	0.12 (4)	6.25				

**FACTORED CONCENTRATED LOADS (LBS)**

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
K	14-3-9	-1217	-1217	---	FRONT	VERT	TOTAL	---	C1

**CONNECTION REQUIREMENTS**

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

**DESIGN CRITERIA**

\*\*\* SPECIAL LOADS ANALYSIS \*\*\*  
GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.  
LOADS WERE DERIVED FROM USER INPUT  
NO FURTHER MODIFICATIONS WERE MADE

**SPECIFIED LOADS:**

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

**SPACING = 24.0 IN./C/C**

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

GIRDER TYPE: CPrimeHip  
LEFT SETBACK = 3-0-7  
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  
- ADD'TL LOADS BASED ON 55 % OF G.S.L.  
LOADS APPLIED TO FIRST 10'-11" OF SPAN MEASURED FROM THE RIGHT.

\*\*\* NON STANDARD GIRDER \*\*\*  
ADD'TL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

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 (0.83")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.12")  
ALLOWABLE DEFL.(TL)= L/360 (0.83")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.24")

CSI: TC=0.81/1.00 (E-F:1), BC=0.43/1.00 (K-L:1), WB=0.84/1.00 (G-I:1), SSI=0.44/1.00 (F-G:1)

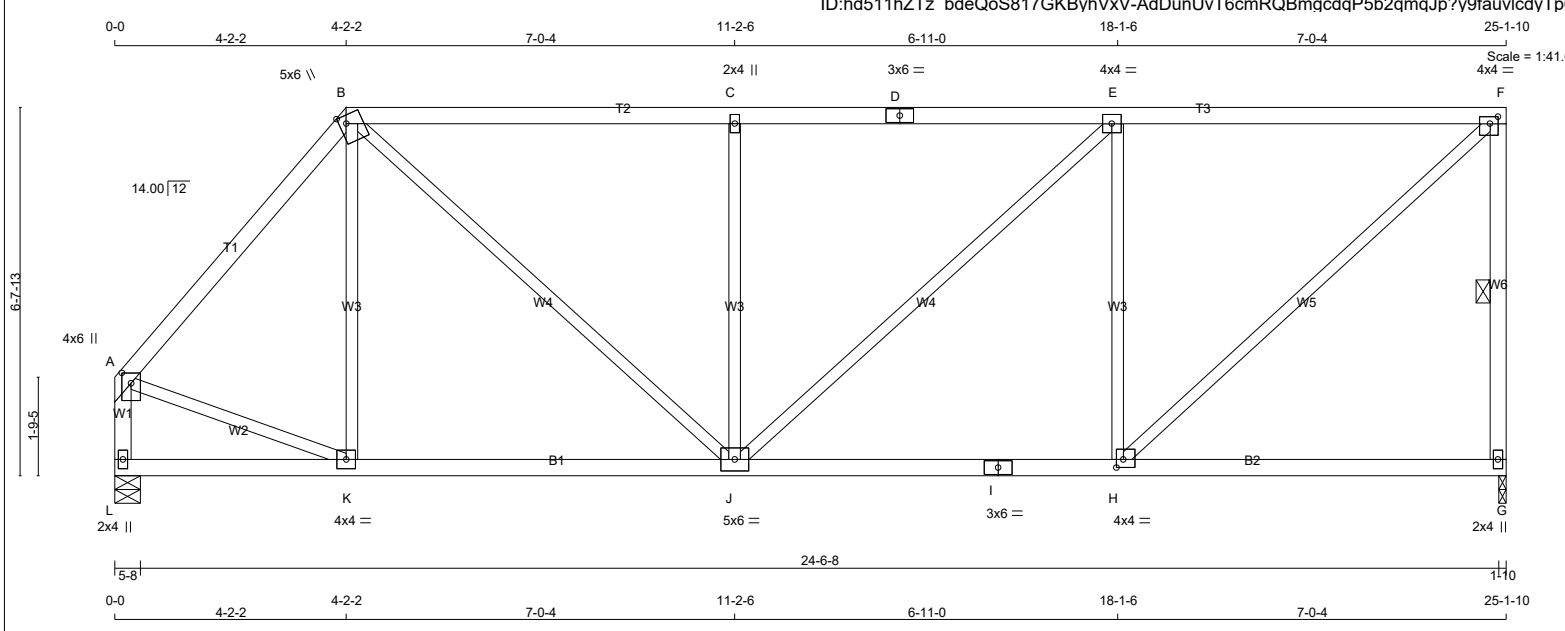
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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



TOTAL WEIGHT = 109 lb

**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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	2.00
B	TTWW+m	MT20	5.0	6.0	1.75	1.50
C	TMW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	6.0		
E	TMWW-t	MT20	4.0	4.0		
F	TMVW-t	MT20	4.0	4.0	1.50	1.75
G	BMV1+p	MT20	2.0	4.0		
H	BMWW-t	MT20	4.0	4.0	1.75	1.50
I	BS-t	MT20	3.0	6.0		
J	BMWWW-t	MT20	5.0	6.0		
K	BMWW-t	MT20	4.0	4.0		
L	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	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
G	1212	0	1212	0	1-10	1-8
L	1212	0	1212	0	5-8	1-8

**UNFACTORED REACTIONS**

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS				WIND	DEAD	SOIL
		1ST LCASE	SNOW	LIVE	PERM.LIVE			
G	864	528 / 0	0 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
L	864	528 / 0	0 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.91 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-B	-1052 / 0	-78.0	-78.0 0.27 (1)	5.80	K-B	-105 / 42	0.08 (1)	
B-C	-1251 / 0	-78.0	-78.0 0.61 (1)	4.92	B-J	0 / 770	0.17 (1)	
C-D	-1252 / 0	-78.0	-78.0 0.61 (1)	4.91	J-C	-589 / 0	0.43 (1)	
D-E	-1252 / 0	-78.0	-78.0 0.61 (1)	4.91	J-E	0 / 291	0.07 (1)	
E-F	-1037 / 0	-78.0	-78.0 0.59 (1)	5.30	H-E	-794 / 0	0.58 (1)	
G-F	-1160 / 0	0.0	0.0 0.24 (1)	5.91	H-F	0 / 1399	0.31 (1)	
L-A	-1188 / 0	0.0	0.0 0.13 (1)	7.32	A-K	0 / 717	0.16 (1)	
L-K	0 / 0	-18.5	-18.5 0.15 (4)	10.00				
K-J	0 / 679	-18.5	-18.5 0.23 (4)	10.00				
J-I	0 / 1037	-18.5	-18.5 0.32 (4)	10.00				
I-H	0 / 1037	-18.5	-18.5 0.32 (4)	10.00				
H-G	0 / 0	-18.5	-18.5 0.22 (4)	10.00				

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.84")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.84")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.10")

CSI: TC=0.61/1.00 (C-E:1), BC=0.32/1.00 (H-J:4), WB=0.58/1.00 (E-H:1), SSI=0.26/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

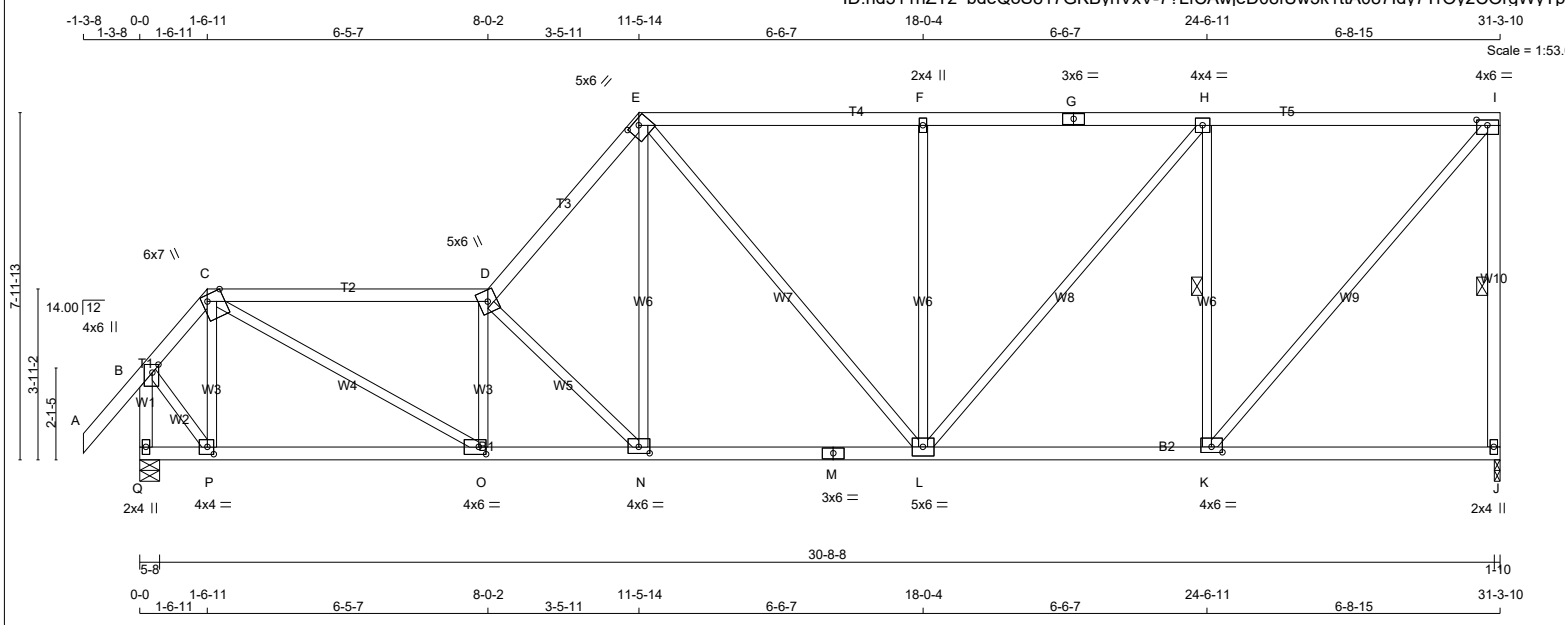
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (F) (INPUT = 0.90)  
JSI METAL= 0.39 (A) (INPUT = 1.00)

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





**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25	1.75
C	TTWW+m	MT20	6.0	7.0	Edge	4.50
D	TTWW+m	MT20	5.0	6.0		
E	TTWW-h	MT20	5.0	6.0	1.50	3.00
F	TMW+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMWW-t	MT20	4.0	4.0		
I	TMVW-t	MT20	4.0	6.0	1.50	3.00
J	BMV1+p	MT20	2.0	4.0		
K	BMWW-t	MT20	4.0	6.0	1.50	3.00
L	BMWWW-t	MT20	5.0	6.0		
M	BS-t	MT20	3.0	6.0		
N	BMWW-t	MT20	4.0	6.0	1.75	3.00
O	BMWW-t	MT20	4.0	6.0	2.00	2.00
P	BMWW-t	MT20	4.0	4.0	2.00	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

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

**BEARINGS**

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
J	1507	0	1507	0	1-10	1-10	
Q	1622	0	1622	0	0	5-8	1-12

**UNFACTORED REACTIONS**

JT	COMBINED	SNOW	MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
J	1075	656 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0
Q	1154	717 / 0	0 / 0	0 / 0	0 / 0	437 / 0	0 / 0

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.50 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 I-J, H-K.

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

**LOADING**  
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	FACTORED VERT. LOAD (PLF)
A-B	0 / 42	-78.0	-78.0 0.11 (1)	10.00	P-C	-536 / 0	0.13 (1)
B-C	-1036 / 0	-78.0	-78.0 0.12 (1)	6.03	C-O	0 / 2104	0.47 (1)
C-D	-2457 / 0	-78.0	-78.0 0.80 (1)	3.50	O-D	-970 / 0	0.23 (1)
D-E	-2179 / 0	-78.0	-78.0 0.25 (1)	4.41	D-N	-1512 / 0	0.63 (1)
E-F	-1545 / 0	-78.0	-78.0 0.55 (1)	4.64	N-E	0 / 1174	0.26 (1)
F-G	-1546 / 0	-78.0	-78.0 0.58 (1)	4.58	E-L	0 / 171	0.04 (1)
G-H	-1546 / 0	-78.0	-78.0 0.58 (1)	4.58	L-F	-546 / 0	0.66 (1)
H-I	-1091 / 0	-78.0	-78.0 0.54 (1)	5.29	L-H	0 / 702	0.16 (1)
I-J	-1457 / 0	0.0	0.0 0.42 (1)	5.42	K-H	-1107 / 0	0.44 (1)
Q-B	-1655 / 0	0.0	0.0 0.20 (1)	6.44	K-I	0 / 1655	0.37 (1)
					B-P	0 / 929	0.21 (1)
Q-P	0 / 0	-18.5	-18.5 0.15 (4)	10.00			
P-O	0 / 626	-18.5	-18.5 0.21 (4)	10.00			
O-N	0 / 2485	-18.5	-18.5 0.45 (1)	10.00			
N-M	0 / 1434	-18.5	-18.5 0.31 (1)	10.00			
M-L	0 / 1434	-18.5	-18.5 0.31 (1)	10.00			
L-K	0 / 1091	-18.5	-18.5 0.30 (4)	10.00			
K-J	0 / 0	-18.5	-18.5 0.20 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

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 (1.04")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.12")  
ALLOWABLE DEFL.(TL) = L/360 (1.04")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.25")

CSI: TC=0.80/1.00 (C-D:1), BC=0.45/1.00 (N-O:1), WB=0.66/1.00 (F-L:1), SSI=0.24/1.00 (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.

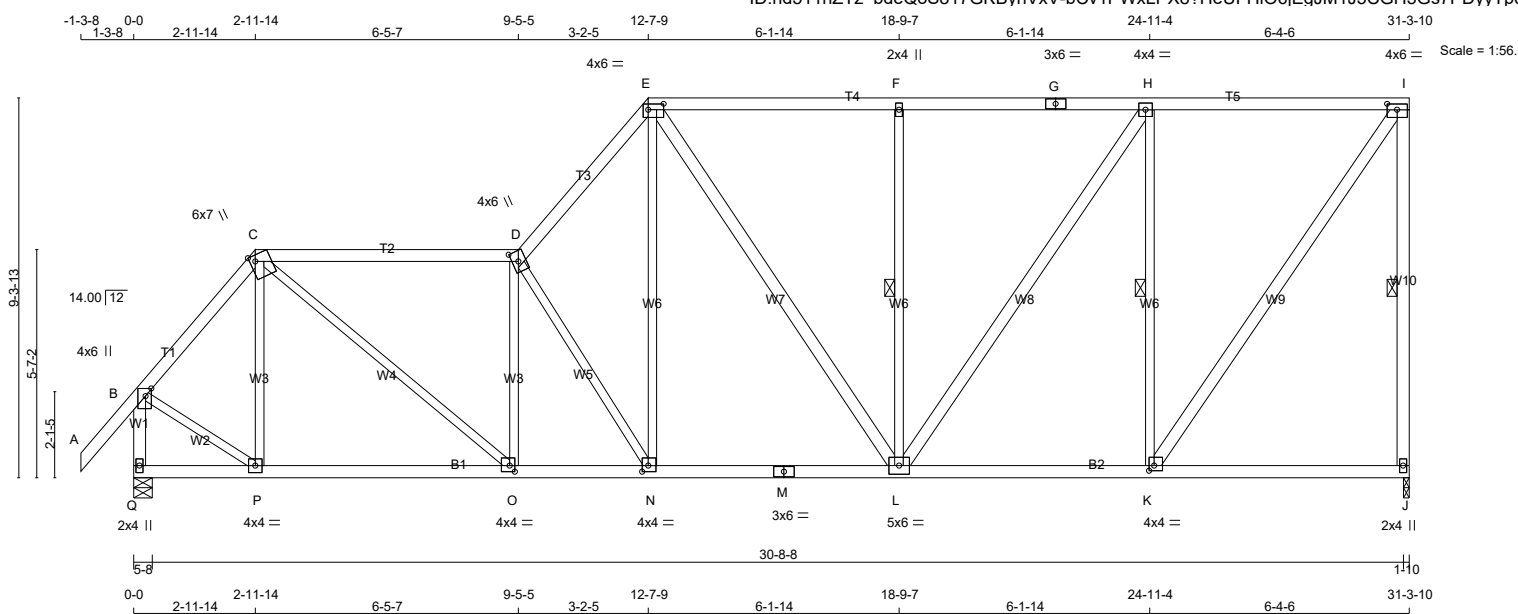
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches  
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (C) (INPUT = 0.90)  
JSI METAL= 0.48 (M) (INPUT = 1.00)



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TOTAL WEIGHT = 169 lb

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25 1.75
C	TTWW+m	MT20	6.0	7.0	Edge 1.50
D	TTWW+m	MT20	4.0	6.0	3.00 1.75
E	TTWW-l	MT20	4.0	6.0	1.75 4.50
F	TMW+w	MT20	2.0	4.0	
G	TS-t	MT20	3.0	6.0	
H	TMWW-t	MT20	4.0	4.0	
I	TMVW-t	MT20	4.0	6.0	1.75 3.00
J	BMV1+p	MT20	2.0	4.0	
K	BMWW-t	MT20	4.0	4.0	1.50 1.50
L	BMWWW-t	MT20	5.0	6.0	
M	BS-t	MT20	3.0	6.0	
N	BMWW-t	MT20	4.0	4.0	1.75 1.75
O	BMWW-t	MT20	4.0	4.0	1.75 1.50
P	BMWW-t	MT20	4.0	4.0	
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



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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
J	1510	0	1510	0	1-10	1-10	1-10	
Q	1619	0	1619	0	0	5-8	1-12	

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. LIVE		PERM. LIVE		WIND	DEAD	SOIL
	SNOW								
J	1076	657 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0
Q	1152	716 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	436 / 0	0 / 0

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.00 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED				MEMB.	WEBS		FACTORED	
	MAX. FORCE (LBS)	FACTORED (PLF)	VERT. LOAD	LC1	MAX	UNBRAC LENGTH		MAX. FORCE (LBS)	MAX	CS1 (LC)	CS1 (LC)
FR-TO			FROM	TO			FR-TO				
A-B	0 / 42		-78.0	-78.0	0.11 (1)	10.00	P-C	-334 / 0	0.16 (1)		
B-C	-1229 / 0		-78.0	-78.0	0.14 (1)	5.63	C-O	0 / 1416	0.32 (1)		
C-D	-1878 / 0		-78.0	-78.0	0.71 (1)	4.00	O-D	-823 / 0	0.39 (1)		
D-E	-1931 / 0		-78.0	-78.0	0.20 (1)	4.68	D-N	-1202 / 0	0.81 (1)		
E-F	-1294 / 0		-78.0	-78.0	0.46 (1)	5.10	N-E	0 / 1104	0.25 (1)		
F-G	-1294 / 0		-78.0	-78.0	0.49 (1)	5.04	E-L	0 / 43	0.01 (1)		
G-H	-1294 / 0		-78.0	-78.0	0.49 (1)	5.04	L-F	-514 / 0	0.29 (1)		
H-I	-890 / 0		-78.0	-78.0	0.46 (1)	5.83	L-H	0 / 717	0.12 (1)		
J-I	-1462 / 0		0.0	0.0	0.60 (1)	5.41	K-H	-1132 / 0	0.65 (1)		
Q-B	-1611 / 0		0.0	0.0	0.19 (1)	6.52	K-I	0 / 1544	0.25 (1)		
							B-P	0 / 912	0.21 (1)		
Q-P	0 / 0		-18.5	-18.5	0.13 (4)	10.00					
P-O	0 / 788		-18.5	-18.5	0.21 (1)	10.00					
O-N	0 / 1894		-18.5	-18.5	0.34 (1)	10.00					
N-M	0 / 1270		-18.5	-18.5	0.28 (1)	10.00					
M-L	0 / 1270		-18.5	-18.5	0.28 (1)	10.00					
L-K	0 / 890		-18.5	-18.5	0.26 (4)	10.00					
K-J	0 / 0		-18.5	-18.5	0.18 (4)	10.00					

**DESIGN CRITERIA**

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CSI: TC=0.71/1.00 (C-D:1), BC=0.34/1.00 (N-O:1), WB=0.81/1.00 (D-N:1), SSI=0.23/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

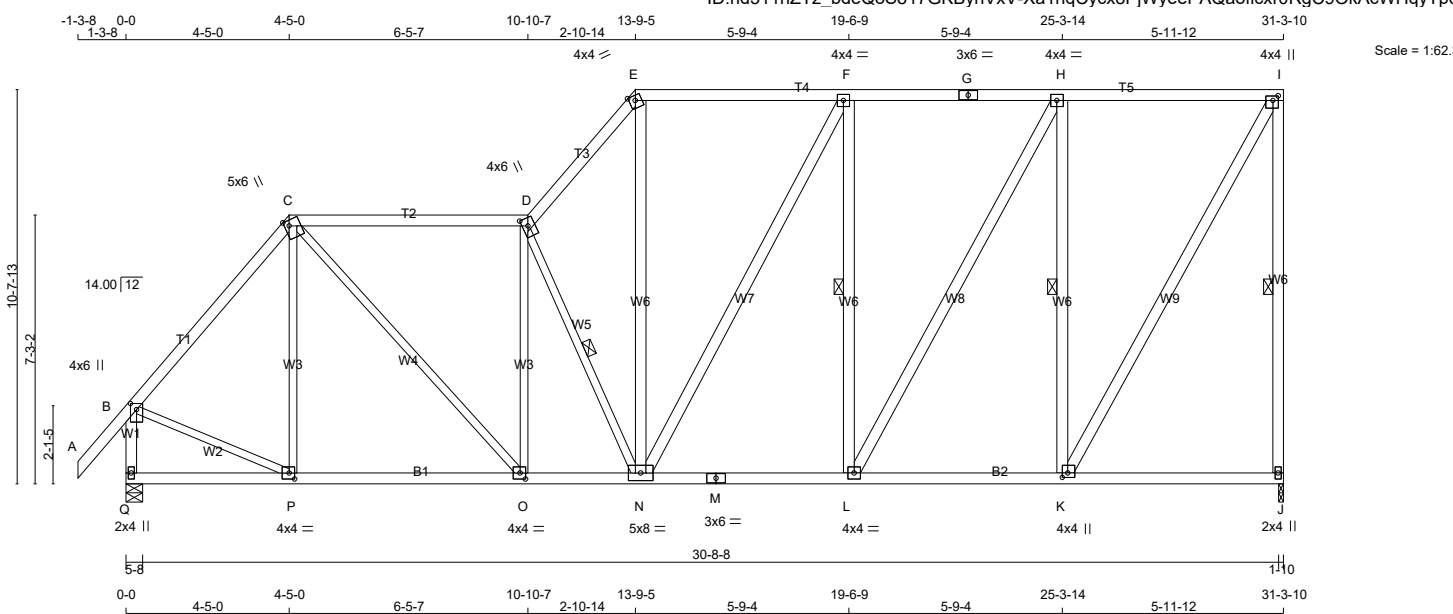
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (N) (INPUT = 0.90)  
JSI METAL= 0.59 (E) (INPUT = 1.00)



**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X	
B	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	5.0	6.0	1.75	1.50
D	TTWW+m	MT20	4.0	6.0	2.50	1.75
E	TTW-m	MT20	4.0	4.0		Edge
F	TMVW-t	MT20	4.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMVW-t	MT20	4.0	4.0		
I	TMVW-p	MT20	4.0	4.0	1.50	1.75
J	BMV1+p	MT20	2.0	4.0		
K	BMVW+t	MT20	4.0	4.0	1.50	1.75
L	BMVW-t	MT20	4.0	4.0		
M	BS-t	MT20	3.0	6.0		
N	BMVWVW-t	MT20	5.0	8.0		
O	BMVW-t	MT20	4.0	4.0	2.00	1.75
P	BMVW-t	MT20	4.0	4.0	2.00	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



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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
J	1510	0	1510	0	1-10	1-10	1-10	1-10
Q	1619	0	1619	0	5-8	5-8	1-12	1-12

**UNFACTORED REACTIONS**

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

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

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.39 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 I-J, D-N, F-L, H-K.

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

**LOADING**  
 TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED				MEMB.	WEBS		FACTORED	
	MAX. FORCE (LBS)	VERT. LOAD (PLF)	VERT.	LC1	MAX	UNBRAC		MAX. FORCE (LBS)	MAX		
FR-TO			FROM	TO	CSI (LC)	LENGTH	FR-TO				
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	P-C	-203 / 3	0.19 (1)			
B-C	-1296 / 0	-78.0	-78.0	0.33 (1)	5.31	C-O	0 / 1039	0.23 (1)			
C-D	-1538 / 0	-78.0	-78.0	0.67 (1)	4.39	O-D	-686 / 0	0.64 (1)			
D-E	-1716 / 0	-78.0	-78.0	0.16 (1)	4.94	D-N	-1072 / 0	0.41 (1)			
E-F	-1131 / 0	-78.0	-78.0	0.38 (1)	5.47	N-E	0 / 1000	0.16 (1)			
F-G	-1098 / 0	-78.0	-78.0	0.41 (1)	5.47	N-F	0 / 69	0.01 (1)			
G-H	-1098 / 0	-78.0	-78.0	0.41 (1)	5.47	L-F	-542 / 0	0.31 (1)			
H-I	-737 / 0	-78.0	-78.0	0.40 (1)	6.25	L-H	0 / 741	0.12 (1)			
J-I	-1465 / 0	0.0	0.0	0.84 (1)	5.41	K-H	-1155 / 0	0.66 (1)			
Q-B	-1591 / 0	0.0	0.0	0.19 (1)	6.55	K-I	0 / 1475	0.24 (1)			
						B-P	0 / 900	0.20 (1)			
Q-P	0 / 0	-18.5	-18.5	0.14 (4)	10.00						
P-O	0 / 836	-18.5	-18.5	0.22 (4)	10.00						
O-N	0 / 1549	-18.5	-18.5	0.29 (1)	10.00						
N-M	0 / 1098	-18.5	-18.5	0.24 (1)	10.00						
M-L	0 / 1098	-18.5	-18.5	0.24 (1)	10.00						
L-K	0 / 737	-18.5	-18.5	0.23 (4)	10.00						
K-J	0 / 0	-18.5	-18.5	0.15 (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 ALL FLAT SECTIONS BASED ON A SLOPE OF 2.00/12 MINIMUM

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

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

(5% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.84/1.00 (I-J:1), BC=0.29/1.00 (N-O:1), WB=0.66/1.00 (H-K:1), SSI=0.22/1.00 (H-I:1)

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

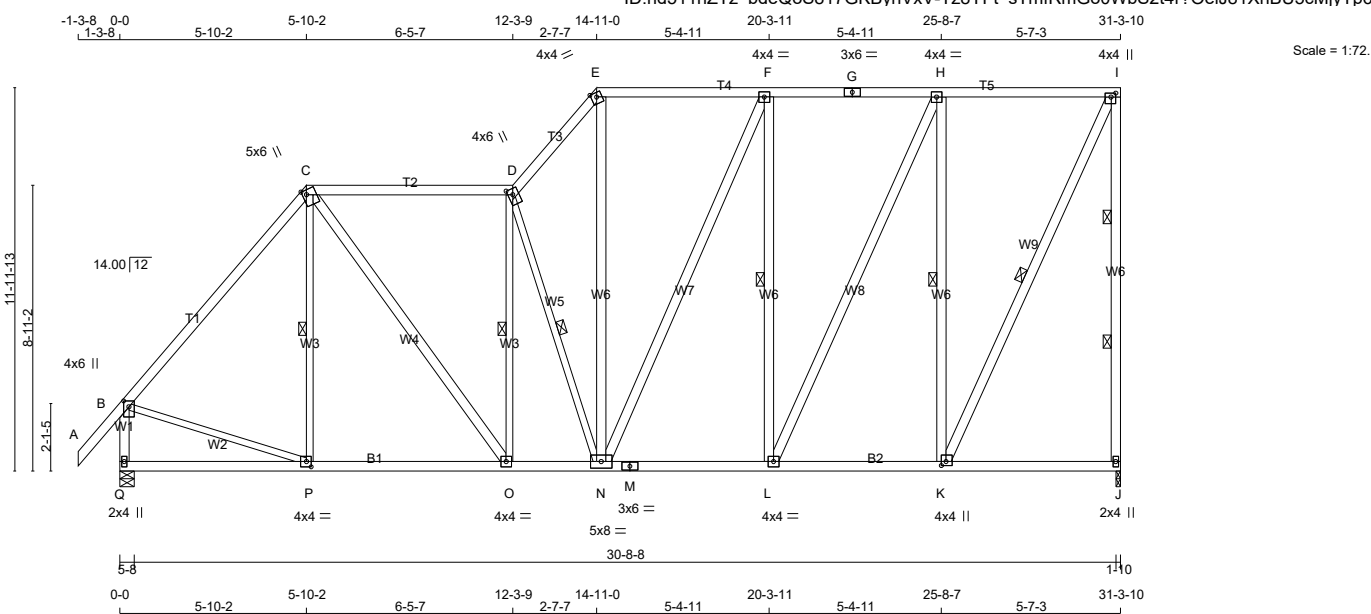
COMPANION LIVE LOAD FACTOR = 1.00

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= 0.89 (O) (INPUT = 0.90)  
 JSI METAL= 0.52 (D) (INPUT = 1.00)



TOTAL WEIGHT = 213 lb

**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25	2.00
C	TTWW+m	MT20	5.0	6.0	1.75	1.50
D	TTWW+m	MT20	4.0	6.0	2.25	1.75
E	TTW-m	MT20	4.0	4.0		Edge
F	TMWW-t	MT20	4.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMWW-t	MT20	4.0	4.0		
I	TMVW+p	MT20	4.0	4.0	1.50	1.75
J	BMV1+p	MT20	2.0	4.0		
K	BMWW+t	MT20	4.0	4.0	1.50	1.75
L	BMWW-t	MT20	4.0	4.0		
M	BS-t	MT20	3.0	6.0		
N	BMWWW-t	MT20	5.0	8.0		
O	BMWW-t	MT20	4.0	4.0		
P	BMWW-t	MT20	4.0	4.0	2.00	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



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

**BEARINGS**

JT	VERT	HORZ	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
J	1510	0	1510	0	1-10	1-10
Q	1619	0	1619	0	5-8	1-12

**UNFACTORED REACTIONS**

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	1076	657 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0
Q	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) J, Q

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.71 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2 LATERAL BRACE(S) AT 1/3 LENGTH OF I-J.  
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-P, D-O, D-N, F-L, H-K, I-K.

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

**LOADING**  
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX LC1 (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX LC1 (LC)
FR-TO					FR-TO		
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	P-C	-113 / 50
B-C	-1304 / 0	-78.0	-78.0	0.64 (1)	4.94	C-O	0 / 779
C-D	-1307 / 0	-78.0	-78.0	0.65 (1)	4.71	O-D	-550 / 0
D-E	-1538 / 0	-78.0	-78.0	0.12 (1)	5.19	D-N	-1021 / 0
E-F	-1012 / 0	-78.0	-78.0	0.32 (1)	5.79	N-E	0 / 888
F-G	-943 / 0	-78.0	-78.0	0.35 (1)	5.90	N-F	0 / 170
G-H	-943 / 0	-78.0	-78.0	0.35 (1)	5.90	L-F	-604 / 0
H-I	-619 / 0	-78.0	-78.0	0.34 (1)	6.25	L-H	0 / 773
J-I	-1468 / 0	0.0	0.0	0.48 (1)	5.41	K-H	-1177 / 0
Q-B	-1577 / 0	0.0	0.0	0.19 (1)	6.57	K-I	0 / 1432
						B-P	0 / 881
Q-P	0 / 0	-18.5	-18.5	0.18 (4)	10.00		
P-O	0 / 844	-18.5	-18.5	0.26 (4)	10.00		
O-N	0 / 1314	-18.5	-18.5	0.24 (1)	10.00		
N-M	0 / 943	-18.5	-18.5	0.20 (1)	10.00		
M-L	0 / 943	-18.5	-18.5	0.20 (1)	10.00		
L-K	0 / 619	-18.5	-18.5	0.19 (4)	10.00		
K-J	0 / 0	-18.5	-18.5	0.14 (4)	10.00		

**DESIGN CRITERIA**

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

SPACING = 24.0 IN./C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

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

(5% 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 (0.14")

CSI: TC=0.65/1.00 (C-D:1), BC=0.26/1.00 (O-P:4), WB=0.92/1.00 (H-K:1), SSI=0.20/1.00 (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**

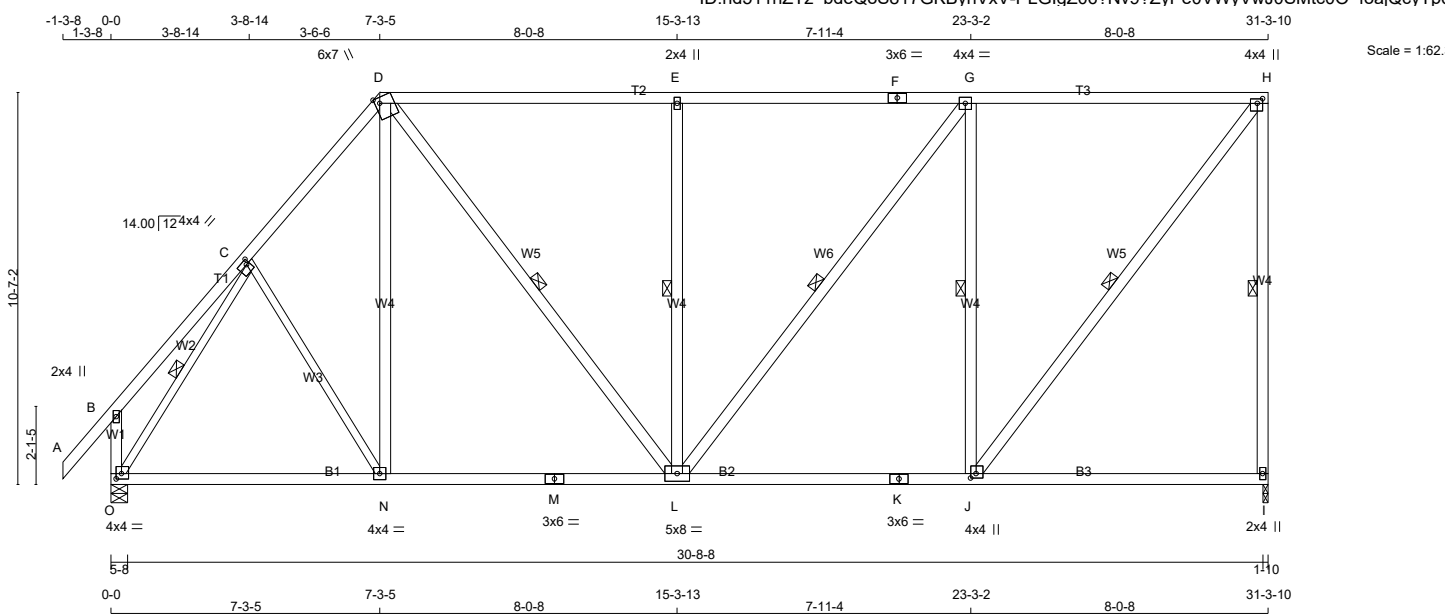
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (B) (INPUT = 0.90)  
JSI METAL= 0.52 (B) (INPUT = 1.00)





TOTAL WEIGHT = 2 X 180 = 360 lb

**LUMBER**  
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - F	2x4	DRY No.2	SPF
F - H	2x4	DRY No.2	SPF
I - H	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 EXCEPT	2x4	DRY No.2	SPF
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	6.0	7.0	Edge 1.50
E	TMW+w	MT20	2.0	4.0	
F	TS-t	MT20	3.0	6.0	
G	TMWW-t	MT20	4.0	4.0	
H	TMV+p	MT20	4.0	4.0	1.50 1.75
I	BMV1+p	MT20	2.0	4.0	
J	BMWW+t	MT20	4.0	4.0	1.50 1.75
K	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**

**BEARINGS**

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
I	1510 0	1510 0	1-10	1-10
O	1619 0	1619 0	5-8	1-12

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX. SNOW	MIN. LIVE	COMPONENT REACTIONS	WIND	DEAD	SOIL
I	1076	657 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0
O	1152	716 / 0	0 / 0	0 / 0	0 / 0	436 / 0	0 / 0

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.53 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.  
1 LATERAL BRACE(S) AT 1/2 LENGTH OF H-I, D-L, E-L, G-L, G-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)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX UNBRACED LENGTH	MEMB. FORCE (LBS)	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	0 / 48	0.02 (4)	
B-C	0 / 24	-78.0	-78.0 0.16 (1)	10.00	N-D	0 / 139	0.03 (4)	
C-D	-1308 / 0	-78.0	-78.0 0.20 (1)	5.45	D-L	0 / 597	0.10 (1)	
D-E	-1201 / 0	-78.0	-78.0 0.83 (1)	4.54	L-E	-678 / 0	0.38 (1)	
E-F	-1202 / 0	-78.0	-78.0 0.83 (1)	4.53	L-G	0 / 436	0.07 (1)	
F-G	-1202 / 0	-78.0	-78.0 0.83 (1)	4.53	J-G	-1030 / 0	0.58 (1)	
G-H	-936 / 0	-78.0	-78.0 0.79 (1)	5.03	J-H	0 / 1521	0.24 (1)	
H-I	-1451 / 0	0.0	0.0 0.82 (1)	5.43	O-C	-1576 / 0	0.51 (1)	
O-B	-217 / 0	0.0	0.0 0.03 (1)	7.81				
O-N	0 / 816	-18.5	-18.5 0.34 (4)	10.00				
N-M	0 / 833	-18.5	-18.5 0.35 (4)	10.00				
M-L	0 / 833	-18.5	-18.5 0.35 (4)	10.00				
L-K	0 / 936	-18.5	-18.5 0.38 (4)	10.00				
K-J	0 / 936	-18.5	-18.5 0.38 (4)	10.00				
J-I	0 / 0	-18.5	-18.5 0.29 (4)	10.00				

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.04")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (1.04")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.13")

CSI: TC=0.83/1.00 (D-E:1), BC=0.38/1.00 (J-L:4), WB=0.58/1.00 (G-J:1), SSI=0.29/1.00 (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.

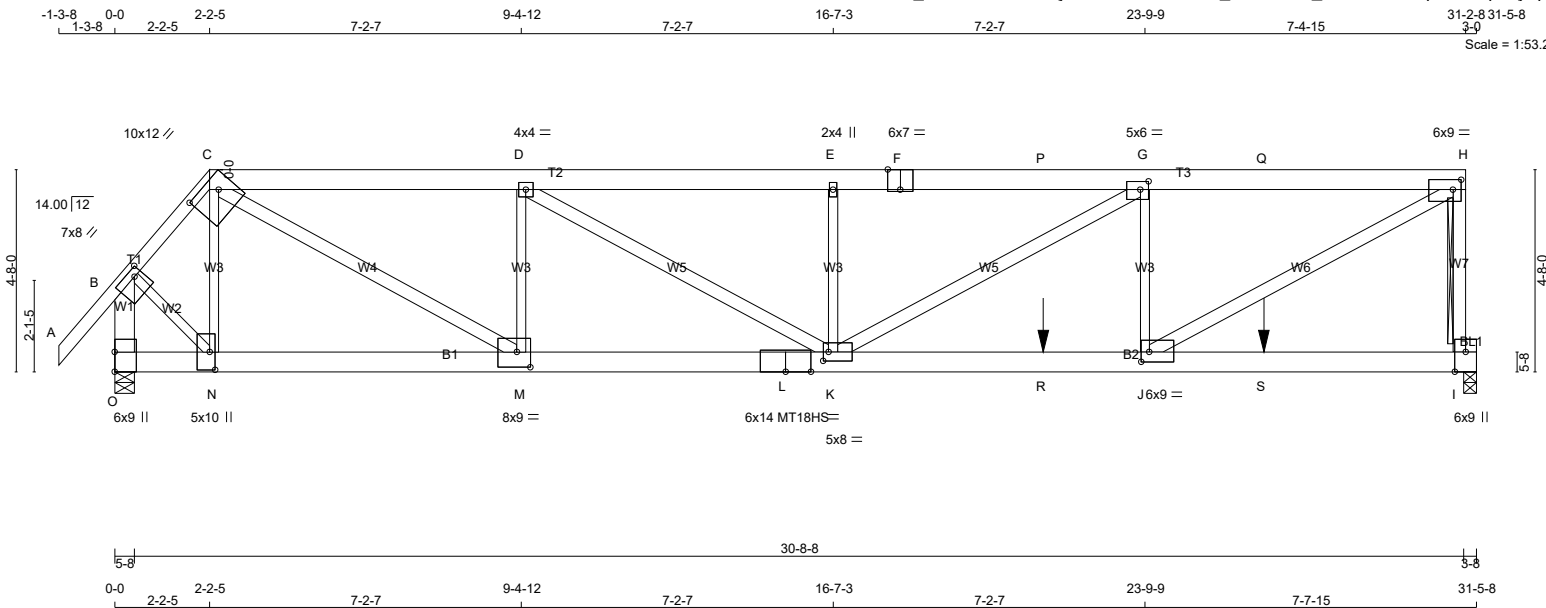
**NAIL VALUES**

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
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)



TOTAL WEIGHT = 173 lb [M]

**LUMBER**  
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - F	2x6	DRY 1650F 1.5E	SPF
F - H	2x6	DRY 1650F 1.5E	SPF
I - H	2x4	DRY No.2	SPF
O - B	2x6	DRY No.2	SPF
O - L	2x6	DRY 2100F 1.8E	SPF
L - I	2x6	DRY 2100F 1.8E	SPF

BEARING BLOCKS	SIZE	LUMBER	DESCR.
BL1	2x4	DRY No.2	SPF

ALL WEBS EXCEPT	SIZE	LUMBER	DESCR.
C - M	2x4	DRY No.2	SPF
D - K	2x4	DRY 1650F 1.5E	SPF
K - G	2x4	DRY 1650F 1.5E	SPF
J - H	2x4	DRY 1650F 1.5E	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	7.0	8.0	2.00 2.25
C	TTWW-h	MT20	10.0	12.0	3.75 8.00
D	TMWW-t	MT20	4.0	4.0	
E	TMW+w	MT20	2.0	4.0	
F	TS-t	MT20	6.0	7.0	Edge 3.50
G	TMWW-t	MT20	5.0	6.0	2.25 2.25
H	TMVW-t	MT20	6.0	9.0	2.75 2.25
I	BMVK1+t	MT20	6.0	9.0	Edge 3.00
J	BMWW-t	MT20	6.0	9.0	2.75 2.25
K	BMWWW-t	MT20	5.0	8.0	2.50 1.50
L	BS-t	MT18HS	6.0	14.0	
M	BMWW-t	MT20	8.0	9.0	4.25 3.75
N	BMWW+t	MT20	5.0	10.0	5.00 1.50
O	BMV1+t	MT20	6.0	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**

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
I	3675	0	3675	0	3-8	3-8
O	4844	0	4844	0	5-8	5-8

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS			
	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	2620	1600 / 0	0 / 0	0 / 0	1020 / 0	0 / 0
O	3452	2119 / 0	0 / 0	0 / 0	1333 / 0	0 / 0

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

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.23 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

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

**LOADING**  
 TOTAL LOAD CASES: (4)

MEMB.	CHORDS			WEBS		
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)
FR-TO				FR-TO		
A-B	0 / 42	-78.0	-78.0 0.12 (1)	10.00	N-C	-260 / 0 0.08 (1)
B-C	-3851 / 0	-78.0	-78.0 0.27 (1)	3.36	C-M	0 / 5660 1.00 (1)
C-D	-7387 / 0	-78.0	-78.0 0.41 (1)	3.49	M-D	-914 / 0 0.27 (1)
D-E	-7922 / 0	-78.0	-78.0 0.39 (1)	3.41	D-K	0 / 619 0.08 (1)
E-F	-7922 / 0	-137.2	-137.2 0.57 (1)	3.23	K-E	-713 / 0 0.21 (1)
F-P	-7922 / 0	-137.2	-137.2 0.57 (1)	3.23	K-G	0 / 2988 0.38 (1)
P-G	-7922 / 0	-78.0	-78.0 0.57 (1)	3.23	J-G	-2372 / 0 0.70 (1)
G-Q	-5342 / 0	-78.0	-78.0 0.43 (1)	3.95	J-H	0 / 6282 0.80 (1)
Q-H	-5342 / 0	-130.8	-130.8 0.43 (1)	3.95	B-N	0 / 3092 0.77 (1)
I-H	-3483 / 0	0.0	0.0 0.68 (1)	6.00		
O-B	-4925 / 0	0.0	0.0 0.40 (1)	4.81		
O-N	0 / 0	-256.7	-256.7 0.35 (1)	10.00		
N-M	0 / 2502	-256.7	-256.7 0.57 (1)	10.00		
M-L	0 / 7387	-256.7	-256.7 0.83 (1)	10.00		
L-K	0 / 7387	-256.7	-256.7 0.83 (1)	10.00		
K-R	0 / 5342	-33.5	-33.5 0.50 (1)	10.00		
R-J	0 / 5342	-18.5	-18.5 0.50 (1)	10.00		
J-S	-121 / 0	-18.5	-18.5 0.22 (1)	6.25		
S-I	-121 / 0	-31.0	-31.0 0.22 (1)	6.25		

**FACTORED CONCENTRATED LOADS (LBS)**

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
R	21-5-7	-393	-393	---	FRONT	VERT	TOTAL	---	C1
S	26-6-9	-393	-393	---	FRONT	VERT	TOTAL	---	C1

**CONNECTION REQUIREMENTS**

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

**DESIGN CRITERIA**

\*\*\* SPECIAL LOADS ANALYSIS \*\*\*  
 GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.  
 LOADS WERE DERIVED FROM USER INPUT  
 NO FURTHER MODIFICATIONS WERE MADE

**SPECIFIED LOADS:**

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

**SPACING = 24.0 IN./C/C**

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

GIRDER TYPE: CStdGirder  
 START DISTANCE = 0-0  
 START SPAN CARRIED = 11-10-8  
 END DISTANCE = 16-6-0  
 END SPAN CARRIED = 11-10-8  
 END WALL WIDTH = 0-0  
 APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
 - ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPPrimeHip  
 LEFT SETBACK = 2-2-5  
 RIGHT SETBACK = 0-0  
 END SETBACK = 4-8-8  
 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 4-10-15 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, NBC 2015

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

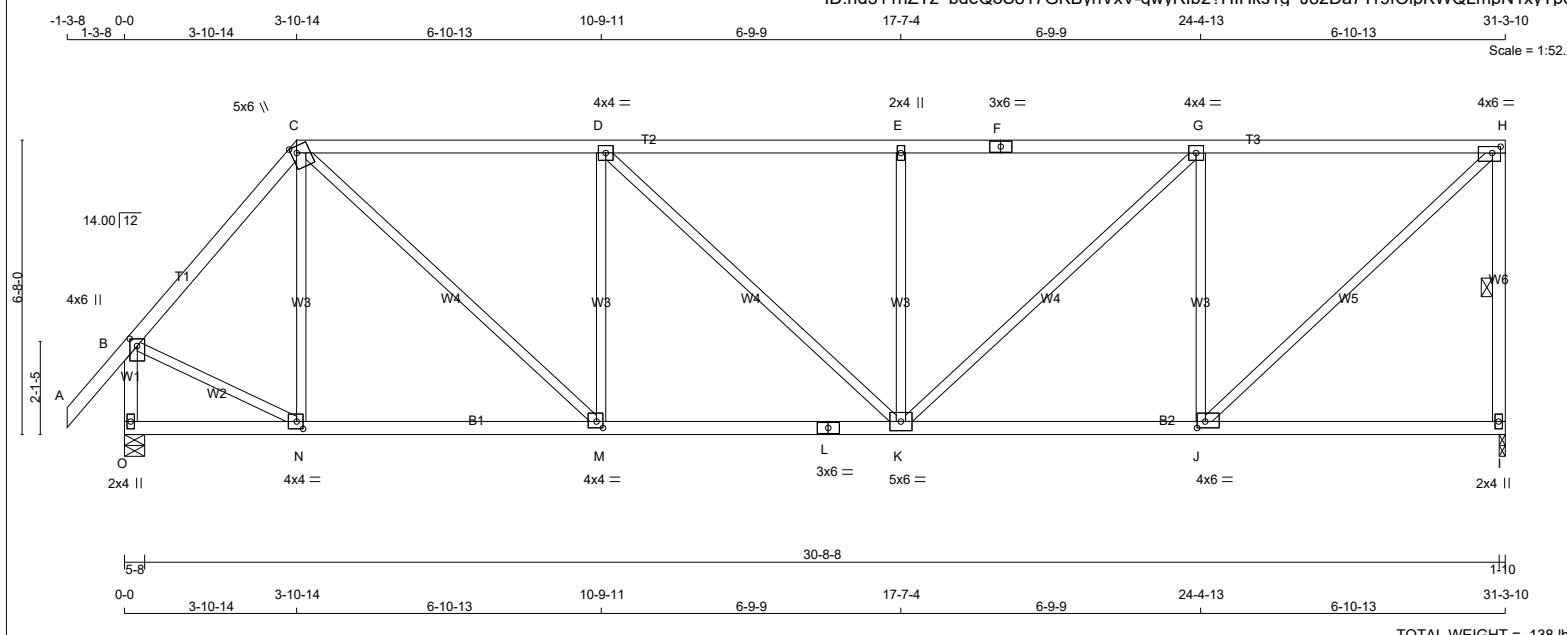
(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.68/1.00 (H-I:1), BC=0.83/1.00 (K-M:1), WB=1.00/1.00 (C-M:1), SI=0.66/1.00 (K-M:1)

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

COMPANION LIVE LOAD FACTOR = 1.00



TOTAL WEIGHT = 138 lb

**LUMBER**

N. L. G. A. RULES

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

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

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

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

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
I	1510	0	1510	0	1-10	1-10
O	1619	0	1619	0	5-8	1-12

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM.LIVE		WIND	DEAD	SOIL
	VERT	HORZ	DOWN	UP	DOWN	UP	DOWN	UP			
I	1076	657 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0	0 / 0
O	1152	716 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	436 / 0	0 / 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 = 4.08 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.  
1 LATERAL BRACE(S) AT 1/2 LENGTH OF H-I.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS			WEBS		
	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO		FR-TO		
A-B	0 / 42	-78.0	-78.0 0.11 (1)	10.00	N-C	-246 / 0 0.18 (1)
B-C	-1280 / 0	-78.0	-78.0 0.25 (1)	5.43	C-M	0 / 1251 0.28 (1)
C-D	-1746 / 0	-78.0	-78.0 0.70 (1)	4.21	M-D	-717 / 0 0.53 (1)
D-E	-1871 / 0	-78.0	-78.0 0.71 (1)	4.08	D-K	0 / 170 0.04 (1)
E-F	-1871 / 0	-78.0	-78.0 0.71 (1)	4.08	K-E	-489 / 0 0.36 (1)
F-G	-1871 / 0	-78.0	-78.0 0.71 (1)	4.08	K-G	0 / 718 0.16 (1)
G-H	-1348 / 0	-78.0	-78.0 0.64 (1)	4.72	J-G	-1102 / 0 0.81 (1)
I-H	-1458 / 0	0.0	0.0 0.30 (1)	5.42	J-H	0 / 1835 0.41 (1)
O-B	-1597 / 0	0.0	0.0 0.19 (1)	6.54	B-N	0 / 904 0.20 (1)
O-N	0 / 0	-18.5	-18.5 0.13 (4)	10.00		
N-M	0 / 825	-18.5	-18.5 0.25 (4)	10.00		
M-L	0 / 1747	-18.5	-18.5 0.37 (1)	10.00		
L-K	0 / 1747	-18.5	-18.5 0.37 (1)	10.00		
K-J	0 / 1348	-18.5	-18.5 0.34 (4)	10.00		
J-I	0 / 0	-18.5	-18.5 0.21 (4)	10.00		

**DESIGN CRITERIA**

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

SPACING = 24.0 IN./C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

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

(5% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.71/1.00 (E-G-1), BC=0.37/1.00 (K-M-1), WB=0.81/1.00 (G-J-1), SSI=0.25/1.00 (G-H-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

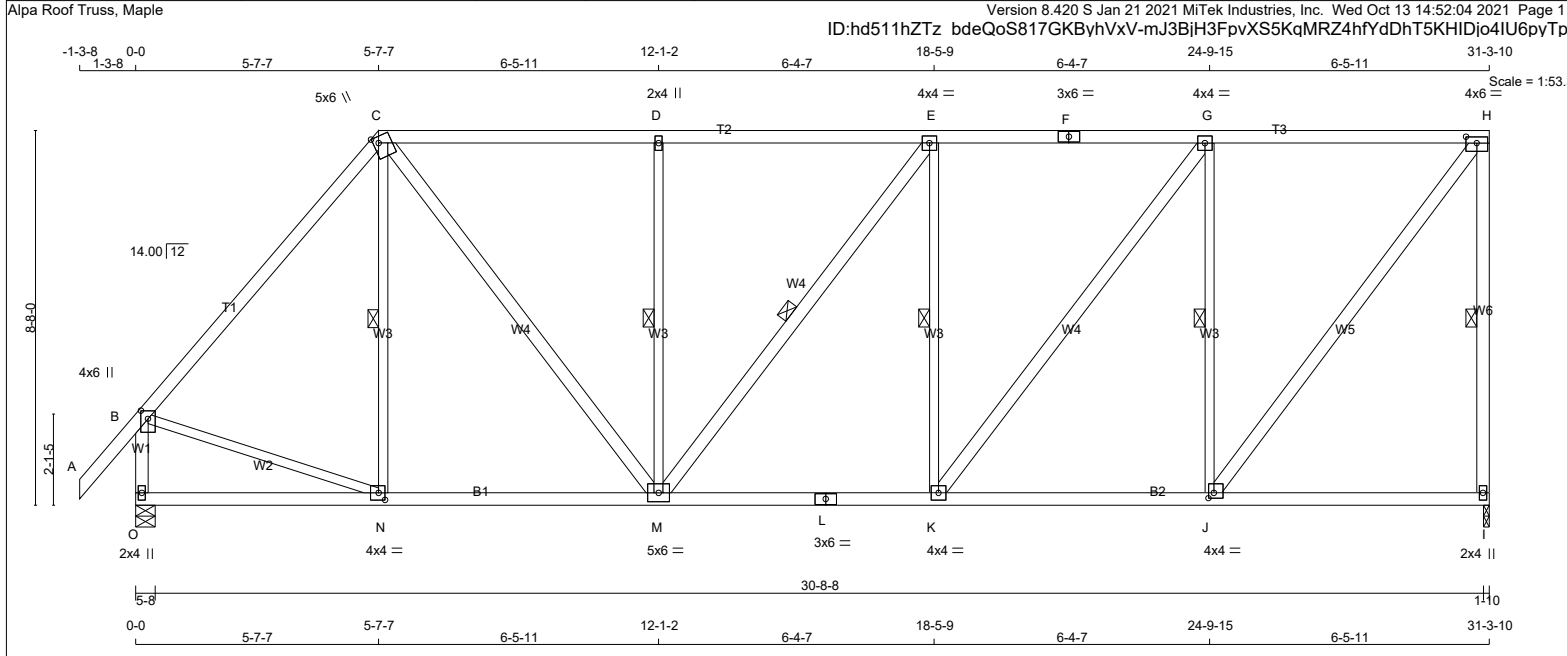
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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





**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25	2.00
C	TTWW+m	MT20	5.0	6.0	1.75	1.50
D	TMW+w	MT20	2.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW-t	MT20	4.0	4.0		
H	TMVW-t	MT20	4.0	6.0	1.75	3.00
I	BMV1+p	MT20	2.0	4.0		
J	BMWW-t	MT20	4.0	4.0	1.50	1.50
K	BMWW-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMWW-t	MT20	5.0	6.0		
N	BMWW-t	MT20	4.0	4.0	2.00	1.75
O	BMV1+p	MT20	2.0	4.0		

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



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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
I	1510	0	1510	0	1-10	1-10	1-10	
O	1619	0	1619	0	0	5-8	1-12	

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
	I	1076	657 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	419 / 0	0 / 0	0 / 0	0 / 0
O	1152	716 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	436 / 0	0 / 0	0 / 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 = 4.79 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.  
1 LATERAL BRACE(S) AT 1/2 LENGTH OF H-I, C-N, D-M, E-M, E-K, G-J.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED				MEMB.	WEBS		FACTORED			
	MAX. FORCE (LBS)	VERT. (PLF)	VERT. LOAD	LC1	MAX	UNBRAC LENGTH		MAX. FORCE (LBS)	MAX	CS1 (LC)	CS1 (LC)	CS1 (LC)	
FR-TO			FROM	TO			FR-TO						
A-B	0 / 42		-78.0	-78.0	0.11 (1)	10.00	N-C	-131 / 38		0.06 (1)			
B-C	-1304 / 0		-78.0	-78.0	0.58 (1)	5.02	C-M	0 / 881		0.14 (1)			
C-D	-1384 / 0		-78.0	-78.0	0.56 (1)	4.81	M-D	-563 / 0		0.27 (1)			
D-E	-1385 / 0		-78.0	-78.0	0.55 (1)	4.81	M-E	-22 / 0		0.01 (1)			
E-F	-1398 / 0		-78.0	-78.0	0.56 (1)	4.79	K-E	-442 / 0		0.21 (1)			
F-G	-1398 / 0		-78.0	-78.0	0.56 (1)	4.79	K-G	0 / 698		0.11 (1)			
G-H	-975 / 0		-78.0	-78.0	0.52 (1)	5.54	J-G	-1127 / 0		0.54 (1)			
I-H	-1462 / 0		0.0	0.0	0.50 (1)	5.41	J-H	0 / 1595		0.26 (1)			
O-B	-1578 / 0		0.0	0.0	0.19 (1)	6.57	B-N	0 / 884		0.20 (1)			
O-N	0 / 0		-18.5	-18.5	0.16 (4)	10.00							
N-M	0 / 844		-18.5	-18.5	0.24 (4)	10.00							
M-L	0 / 1398		-18.5	-18.5	0.30 (1)	10.00							
L-K	0 / 1398		-18.5	-18.5	0.30 (1)	10.00							
K-J	0 / 975		-18.5	-18.5	0.28 (4)	10.00							
J-I	0 / 0		-18.5	-18.5	0.19 (4)	10.00							

**DESIGN CRITERIA**

SPECIFIED LOADS:

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.04")  
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (1.04")  
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.13")

CSI: TC=0.58/1.00 (B-C:1), BC=0.30/1.00 (K-M:1), WB=0.54/1.00 (G-J:1), SSI=0.24/1.00 (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.

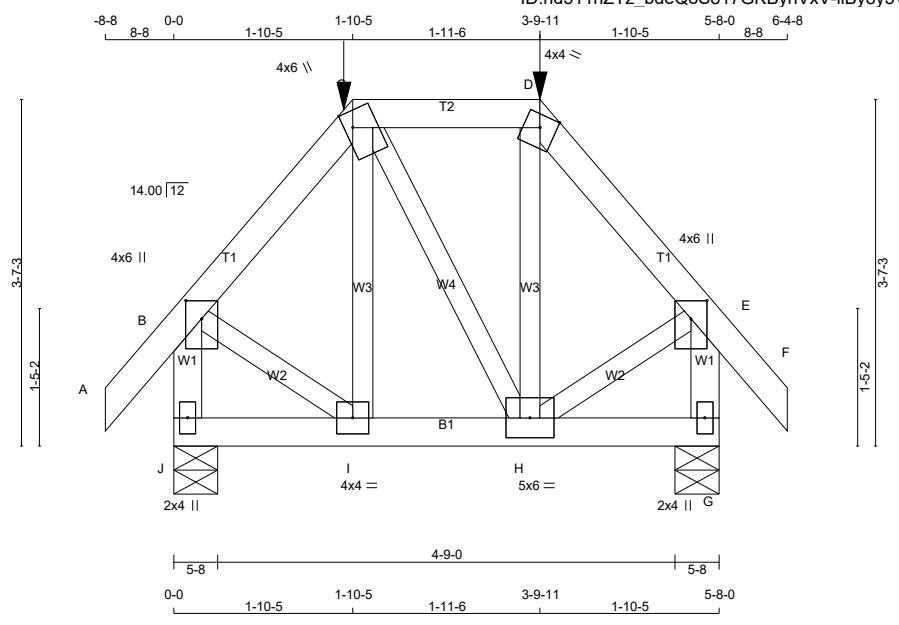
**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (B) (INPUT = 0.90)  
JSI METAL= 0.52 (B) (INPUT = 1.00)



TOTAL WEIGHT = 32 lb

**LUMBER**

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X	
B	TMVW+p	MT20	4.0	6.0	2.25	2.00
C	TTWW+m	MT20	4.0	6.0	2.00	1.00
D	TTW-m	MT20	4.0	4.0	Edge	
E	TMVW+p	MT20	4.0	6.0	2.25	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMWWW-t	MT20	5.0	6.0		
I	BMWW-t	MT20	4.0	4.0		
J	BMV1+p	MT20	2.0	4.0		

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

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



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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
J	455	0	455	0	5-8	1-8
G	455	0	455	0	5-8	1-8

**UNFACTORED REACTIONS**

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS				WIND	DEAD	SOIL
		SNOW	LIVE	PERM.	LIVE			
J	323	203 / 0	0 / 0	0 / 0	0 / 0	120 / 0	0 / 0	
G	323	203 / 0	0 / 0	0 / 0	0 / 0	120 / 0	0 / 0	

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS			WEBS				
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM	TO					
A-B	0 / 24	-78.0	-78.0	0.04 (1)	10.00	I-C	-38 / 25	0.01 (4)
B-C	-265 / 0	-78.0	-78.0	0.05 (1)	6.25	C-H	0 / 0	0.00 (1)
C-D	-169 / 0	-114.5	-114.5	0.08 (1)	6.25	H-D	-39 / 26	0.01 (4)
D-E	-265 / 0	-78.0	-78.0	0.05 (1)	6.25	B-I	0 / 194	0.05 (1)
E-F	0 / 24	-78.0	-78.0	0.04 (1)	10.00	H-E	0 / 194	0.05 (1)
J-B	-431 / 0	0.0	0.0	0.05 (1)	7.81			
G-E	-431 / 0	0.0	0.0	0.05 (1)	7.81			
J-I	0 / 0	-27.2	-27.2	0.02 (4)	10.00			
I-H	0 / 170	-27.2	-27.2	0.04 (4)	10.00			
H-G	0 / 0	-27.2	-27.2	0.02 (4)	10.00			

**FACTORED CONCENTRATED LOADS (LBS)**

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	1-10-5	-57	-57	---	FRONT	VERT	TOTAL	---	C1
D	3-9-11	-57	-57	---	FRONT	VERT	TOTAL	---	C1

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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

GIRDER TYPE: CPrimeHip  
SIDE SETBACK = 1-10-5  
END SETBACK = 3-10-8  
END WALL WIDTH = 0-0  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

CSI: TC=0.08/1.00 (C-D:1), BC=0.04/1.00 (H-I:4), WB=0.05/1.00 (B-I:1), SSI=0.10/1.00 (C-D:1)

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

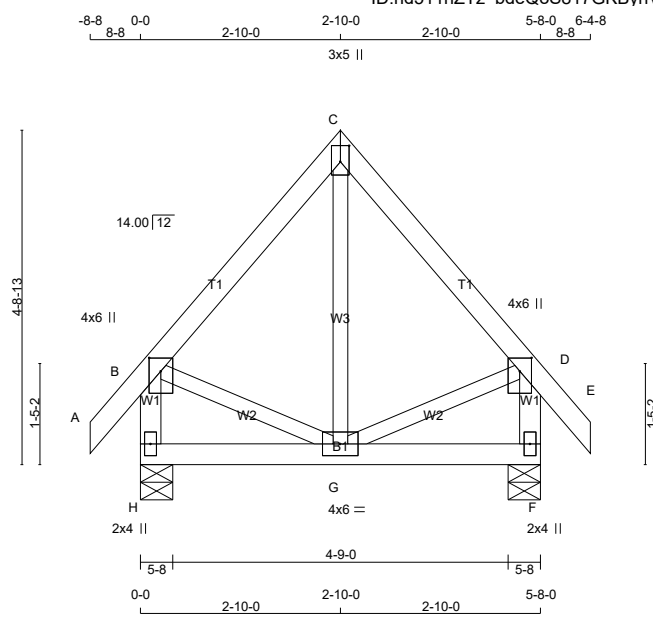
COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**  
PLATE GRIP(DRY) 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= 0.24 (B) (INPUT = 0.90 )  
JSI METAL= 0.12 (B) (INPUT = 1.00 )



TOTAL WEIGHT = 30 lb [M][F]

**LUMBER**  
N. L. G. A. RULES

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

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

**PLATES (table is in inches)**

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

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

**BEARINGS**

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT VERT	337	337	0	0
H	337	0	0	5-8
F	337	0	0	5-8

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX. SNOW	MIN. LIVE	COMPONENT REACTIONS PERM. LIVE	WIND	DEAD	SOIL
H	239	153 / 0	0 / 0	0 / 0	0 / 0	86 / 0	0 / 0
F	239	153 / 0	0 / 0	0 / 0	0 / 0	86 / 0	0 / 0

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
A-B	0 / 24	-78.0	-78.0	0.04 (1)	10.00	G-C	-6 / 43	0.01 (4)
B-C	-142 / 0	-78.0	-78.0	0.08 (1)	6.25	B-G	0 / 98	0.02 (1)
C-D	-142 / 0	-78.0	-78.0	0.08 (1)	6.25	G-D	0 / 98	0.02 (1)
D-E	0 / 24	-78.0	-78.0	0.04 (1)	10.00			
H-B	-316 / 0	0.0	0.0	0.03 (1)	7.81			
F-D	-316 / 0	0.0	0.0	0.03 (1)	7.81			
H-G	0 / 0	-18.5	-18.5	0.04 (4)	10.00			
G-F	0 / 0	-18.5	-18.5	0.04 (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

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

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

CSI: TC=0.08/1.00 (C-D:1), BC=0.04/1.00 (F-G:4), WB=0.02/1.00 (B-G:1), SSI=0.06/1.00 (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)
MT20	650	371	1747 788 1987 1873

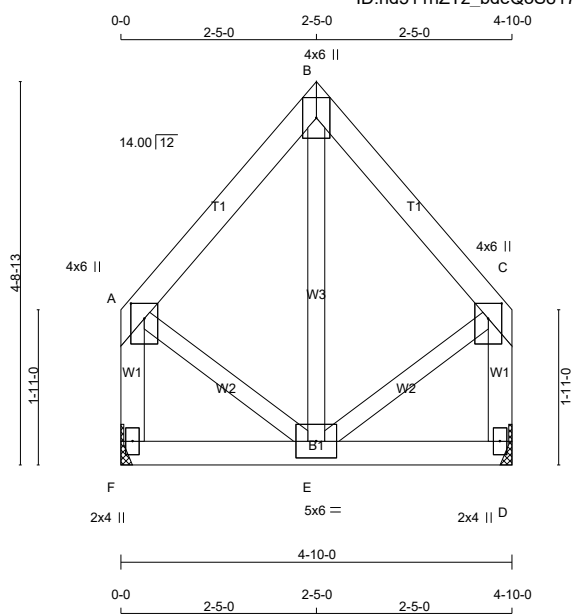
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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





TOTAL WEIGHT = 2 X 26 = 51 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**

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
F	233	0	233	0	MECHANICAL	MECHANICAL
D	233	0	233	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**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	166	101/0	0/0	0/0	0/0	65/0	0/0
D	166	101/0	0/0	0/0	0/0	65/0	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)

MEMB.	CHORDS			WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A-B	-103/0	-78.0	-78.0 0.06 (1)	6.25	E-B	-32/25	0.01 (1)
B-C	-103/0	-78.0	-78.0 0.06 (1)	6.25	A-E	0/80	0.02 (1)
F-A	-215/0	0.0	0.0 0.02 (1)	7.81	E-C	0/80	0.02 (1)
D-C	-215/0	0.0	0.0 0.02 (1)	7.81			
F-E	0/0	-18.5	-18.5 0.03 (4)	10.00			
E-D	0/0	-18.5	-18.5 0.03 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, 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 (0.19")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.06/1.00 (A-B-1), BC=0.03/1.00 (E-F-4), WB=0.02/1.00 (C-E-1), SSI=0.05/1.00 (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) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

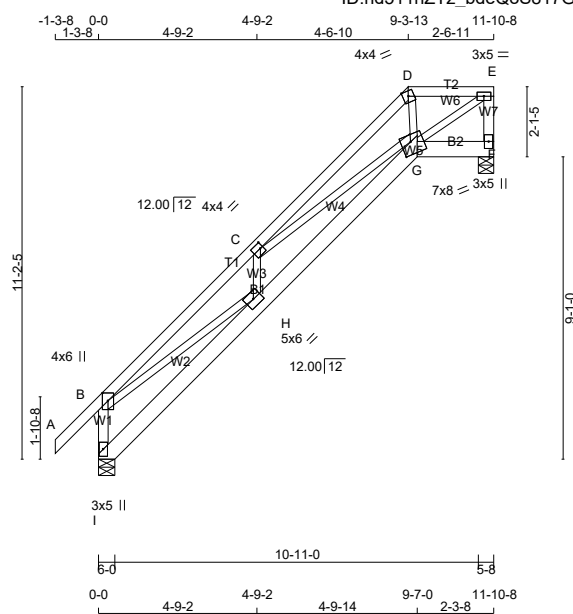
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (C) (INPUT = 0.90)  
JSI METAL= 0.06 (A) (INPUT = 1.00)

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





TOTAL WEIGHT = 66 lb

**LUMBER**  
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
I - B	2x4	DRY No.2	SPF
A - D	2x4	DRY No.2	SPF
D - E	2x4	DRY No.2	SPF
F - E	2x4	DRY No.2	SPF
I - G	2x6	DRY No.2	SPF
G - F	2x6	DRY No.2	SPF
ALL WEBS	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TMWW-t	MT20	4.0	4.0	2.00	1.00
D	TTW-m	MT20	4.0	4.0	Edge	
E	TMVW-t	MT20	3.0	5.0		
F	BMV1+p	MT20	3.0	5.0		
G	BBWWW-m	MT20	7.0	8.0	4.50	3.50
H	BMWW-t	MT20	5.0	6.0		
I	BMV1+p	MT20	3.0	5.0		

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

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



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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
I	682	0	682	0	6-0	1-8
F	573	0	573	0	5-8	1-8

**UNFACTORED REACTIONS**

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS				WIND	DEAD	SOIL
		1ST LCASE	SNOW	LIVE	PERM.LIVE			
I	484	308 / 0	0 / 0	0 / 0	0 / 0	176 / 0	0 / 0	
F	408	249 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0	

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.31 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.  
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX UNBRAC LENGTH	MEMB. UNBRAC FR-TO	MAX. FACTORED FORCE (LBS)	MAX FACTORED CSI (LC)	
I-B	-623 / 0	0.0	0.0	0.07 (1)	7.81	B-H	0 / 1174	0.26 (1)
A-B	0 / 38	-78.0	-78.0	0.11 (1)	10.00	H-C	-257 / 0	0.04 (1)
B-C	-1379 / 0	-78.0	-78.0	0.23 (1)	5.31	C-G	-440 / 0	0.29 (1)
C-D	-839 / 0	-78.0	-78.0	0.21 (1)	6.25	D-G	0 / 329	0.07 (1)
D-E	-624 / 0	-78.0	-78.0	0.07 (1)	6.25	G-E	0 / 775	0.17 (1)
F-E	-552 / 0	0.0	0.0	0.06 (1)	7.81			
I-H	-9 / 2	-18.5	-18.5	0.07 (1)	10.00			
H-G	0 / 1342	-18.5	-18.5	0.22 (1)	10.00			
G-F	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, NBC 2015

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.09")

CSI: TC=0.23/1.00 (B-C:1), BC=0.22/1.00 (G-H:1), WB=0.29/1.00 (C-G:1), SSI=0.12/1.00 (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**

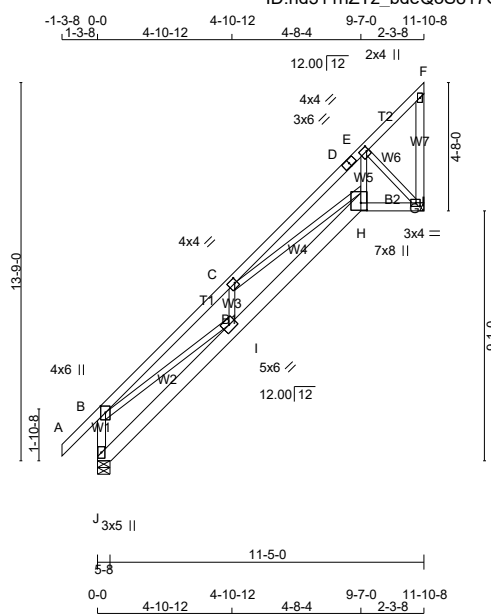
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (E) (INPUT = 0.90)  
JSI METAL= 0.59 (B) (INPUT = 1.00)





TOTAL WEIGHT = 8 X 69 = 556 lb [M][F]

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
J - B	2x4	DRY No.2	SPF
A - D	2x4	DRY No.2	SPF
D - F	2x4	DRY No.2	SPF
G - F	2x4	DRY No.2	SPF
J - H	2x6	DRY No.2	SPF
H - G	2x4	DRY No.2	SPF
ALL WEBS	2x3	DRY No.2	SPF
DRY: SEASONED LUMBER.			

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TMWW-t	MT20	4.0	4.0	2.00	1.00
D	TS-t	MT20	3.0	6.0		
E	TMWW-t	MT20	4.0	4.0	2.00	1.00
F	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	3.0	4.0	1.50	1.75
H	BBWW+p	MT20	7.0	8.0	3.25	2.75
I	BMWW-t	MT20	5.0	6.0		
J	BMV1+p	MT20	3.0	5.0		

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
	VERT	HORZ	DOWN	HORZ		IN-SX	IN-SX
J	682	0	682	0	5-8	1-8	
G	573	0	573	0	MECHANICAL		

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

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					DEAD	SOIL
		SNOW	LIVE	PERM.LIVE	WIND			
J	484	308 / 0	0 / 0	0 / 0	0 / 0	176 / 0	0 / 0	
G	408	249 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0	

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.29 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX FACTORED FORCE (LBS)	MAX CSI (LC)	
J-B	-622 / 0	0.0	0.0	0.07 (1)	7.81	B-I	0 / 1181	0.27 (1)
A-B	0 / 38	-78.0	-78.0	0.11 (1)	10.00	I-C	-242 / 0	0.04 (1)
B-C	-1383 / 0	-78.0	-78.0	0.24 (1)	5.29	C-H	-416 / 0	0.29 (1)
C-D	-850 / 0	-78.0	-78.0	0.19 (1)	6.25	H-E	0 / 819	0.18 (1)
D-E	-850 / 0	-78.0	-78.0	0.19 (1)	6.25	E-G	-770 / 0	0.14 (1)
E-F	-35 / 0	-78.0	-78.0	0.11 (1)	6.25			
G-F	-36 / 0	0.0	0.0	0.01 (1)	7.81			
J-I	-9 / 2	-18.5	-18.5	0.07 (1)	10.00			
I-H	0 / 1342	-18.5	-18.5	0.22 (1)	10.00			
H-G	0 / 553	-18.5	-18.5	0.11 (1)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")  
ALLOWABLE DEFL.(TL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.24/1.00 (B-C:1), BC=0.22/1.00 (H-I:1), WB=0.29/1.00 (C-H:1), SSI=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

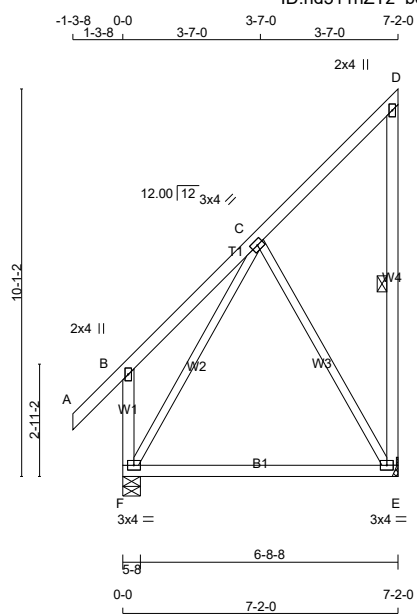
JSI GRIP= 0.83 (E) (INPUT = 0.90)  
JSI METAL= 0.59 (B) (INPUT = 1.00)

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



JOB NAME <b>336324</b>	TRUSS NAME <b>H97</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104096</b>
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Alpa Roof Truss, Maple ID:hd511hZTz bdeQoS817GKByhVxV-?26bcMAuiggAqi05SyloXSvso59iuT?2tzzTwoyTp6W Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 14:52:13 2021 Page 1



TOTAL WEIGHT = 6 X 47 = 279 lb [M][F]

**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	3.0	4.0		
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BMVW1-t	MT20	3.0	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	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	246	0	346	0	MECHANICAL	MECHANICAL
F	454	0	454	0	5-8	1-8

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

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	246	150 / 0	0 / 0	0 / 0	0 / 0	96 / 0	0 / 0
F	322	209 / 0	0 / 0	0 / 0	0 / 0	113 / 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 D-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)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)				MAX. UNBRAC LENGTH	WEBS MAX. FACTORED FORCE (LBS)		
	VERT.	LOAD	LC1	MAX		MEMB.	FORCE	MAX
FR-TO								
A-B	0 / 38	-78.0	-78.0	0.11 (1)	10.00	C-E	-199 / 0	0.19 (1)
B-C	0 / 25	-78.0	-78.0	0.17 (1)	10.00	F-C	-205 / 0	0.18 (1)
C-D	-24 / 0	-78.0	-78.0	0.13 (1)	6.25			
E-D	-109 / 0	0.0	0.0	0.05 (1)	6.25			
F-B	-210 / 0	0.0	0.0	0.03 (1)	7.81			
F-E	0 / 102	-18.5	-18.5	0.28 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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

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

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

ALLOWABLE DEFL.(TL)= L/360 (0.24")  
CALCULATED VERT. DEFL.(TL) = L/723 (0.12")

CSI: TC=0.17/1.00 (B-C:1), BC=0.28/1.00 (E-F:4), WB=0.19/1.00 (C-E:1), SSI=0.10/1.00 (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

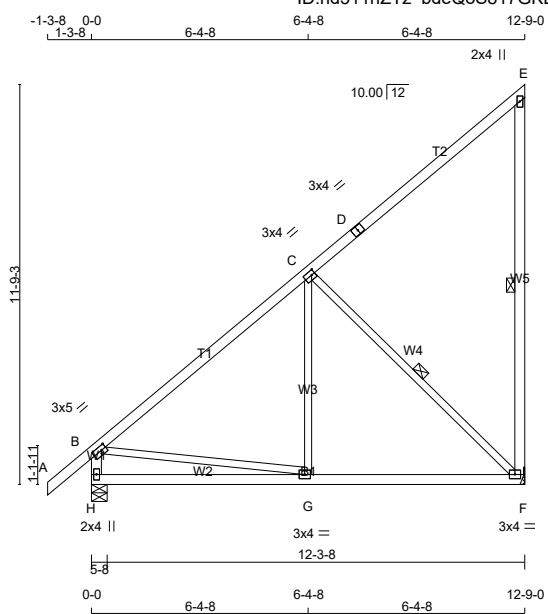
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.32 (C) (INPUT = 0.90)  
JSI METAL= 0.11 (B) (INPUT = 1.00)

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





Scale = 1:67.8

TOTAL WEIGHT = 3 X 66 = 197 lb

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	1.75
C	TMWW-t	MT20	3.0	4.0	1.50	1.25
D	TS-t	MT20	3.0	4.0		
E	TMV+p	MT20	2.0	4.0		
F	BMVW1-t	MT20	3.0	4.0		
G	BMWW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		

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

**BEARINGS**

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT 615	HORZ 0	DOWN 615	HORZ 0
F	VERT 615	HORZ 0	DOWN 615	HORZ 0
H	VERT 723	HORZ 0	DOWN 723	HORZ 0

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

**UNFACTORED REACTIONS**

JT	1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	438	268 / 0	0 / 0	0 / 0	0 / 0	0 / 0	171 / 0	0 / 0
H	513	326 / 0	0 / 0	0 / 0	0 / 0	0 / 0	187 / 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.  
1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-F, C-F.

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

**LOADING**  
TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
FR-TO		FROM	TO		FR-TO		FROM	TO	
A-B	0 / 35	-78.0	-78.0	0.11 (1)	10.00	G-C	0 / 145	0.05 (4)	
B-C	-480 / 0	-78.0	-78.0	0.43 (1)	6.25	C-F	-553 / 0	0.29 (1)	
C-D	-39 / 0	-78.0	-78.0	0.42 (1)	6.25	B-G	0 / 402	0.09 (1)	
D-E	-39 / 0	-78.0	-78.0	0.42 (1)	6.25				
F-E	-187 / 0	0.0	0.0	0.14 (1)	6.25				
H-B	-678 / 0	0.0	0.0	0.07 (1)	7.81				
H-G	0 / 0	-18.5	-18.5	0.21 (4)	10.00				
G-F	0 / 399	-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 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=0.43/1.00 (B-C:1), BC=0.25/1.00 (F-G:4), WB=0.29/1.00 (C-F:1), SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

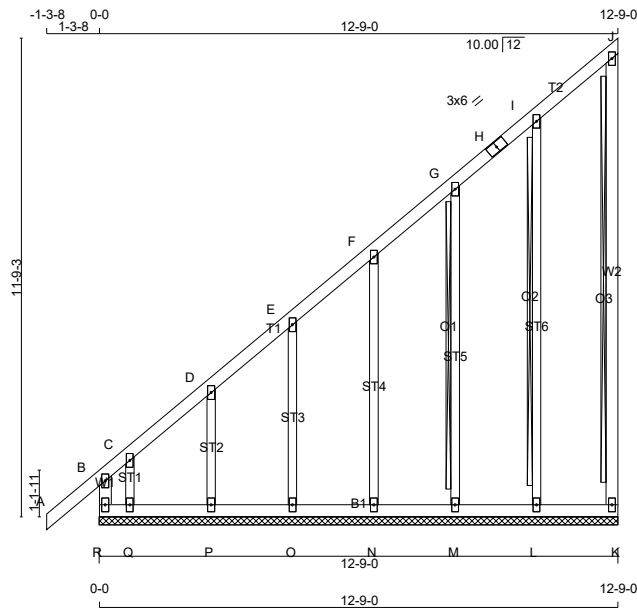
JSI GRIP= 0.68 (C) (INPUT = 0.90)  
JSI METAL= 0.20 (B) (INPUT = 1.00)

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



JOB NAME <b>336324</b>	TRUSS NAME <b>H98G</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104098</b>
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Alpa Roof Truss, Maple Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 14:52:16 2021 Page 1  
 ID:hd511hZTz bdeQoS817GKByhVxV-QdokENDn b2IXAlq84IV84701IF15p1UZxC7X7yTp6T



Scale = 1:56.6

TOTAL WEIGHT = 75 lb

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	DRY	No.2	DESCR.
R - B	2x4	DRY	No.2	SPF
A - H	2x4	DRY	No.2	SPF
H - J	2x4	DRY	No.2	SPF
K - J	2x4	DRY	No.2	SPF
R - K	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, F, G, I						
C	TMW+w	MT20	2.0	4.0		
H	TS-t	MT20	3.0	6.0		
J	TMV+p	MT20	2.0	4.0		
K	BMV1+p	MT20	2.0	4.0		
L, M, N, O, P, Q						
L	BMW1+w	MT20	2.0	4.0		
R	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 J-K, I-L  
 2x3 DRY SPF No.2 T-BRACE AT G-M

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

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

**LOADING**

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)	
FR-TO		FROM TO			FR-TO			
R-B	-223 / 0	0.0	0.0	0.03 (1)	7.81	L-I	-169 / 0	0.13 (1)
A-B	0 / 35	-78.0	-78.0	0.11 (1)	10.00	M-G	-153 / 0	0.17 (1)
B-C	-70 / 0	-78.0	-78.0	0.09 (1)	6.25	N-F	-155 / 0	0.12 (1)
C-D	-15 / 0	-78.0	-78.0	0.04 (1)	6.25	O-E	-152 / 0	0.06 (1)
D-E	-14 / 0	-78.0	-78.0	0.04 (1)	6.25	P-D	-161 / 0	0.03 (1)
E-F	-9 / 0	-78.0	-78.0	0.04 (1)	10.00	Q-C	-19 / 0	0.00 (1)
F-G	-6 / 0	-78.0	-78.0	0.04 (1)	10.00			
G-H	-3 / 0	-78.0	-78.0	0.04 (1)	10.00			
H-I	-3 / 0	-78.0	-78.0	0.04 (1)	10.00			
I-J	-8 / 0	-78.0	-78.0	0.04 (1)	10.00			
K-J	-71 / 0	0.0	0.0	0.02 (1)	7.81			
R-Q	0 / 16	-18.5	-18.5	0.03 (1)	10.00			
Q-P	0 / 15	-18.5	-18.5	0.02 (4)	10.00			
P-O	0 / 10	-18.5	-18.5	0.02 (4)	10.00			
O-N	0 / 7	-18.5	-18.5	0.02 (4)	10.00			
N-M	0 / 4	-18.5	-18.5	0.02 (4)	10.00			
M-L	0 / 3	-18.5	-18.5	0.02 (4)	10.00			
L-K	0 / 1	-18.5	-18.5	0.02 (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

CSI: TC=0.11/1.00 (A-B:1), BC=0.03/1.00 (Q-R:1), WB=0.17/1.00 (G-M:1), SSI=0.06/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

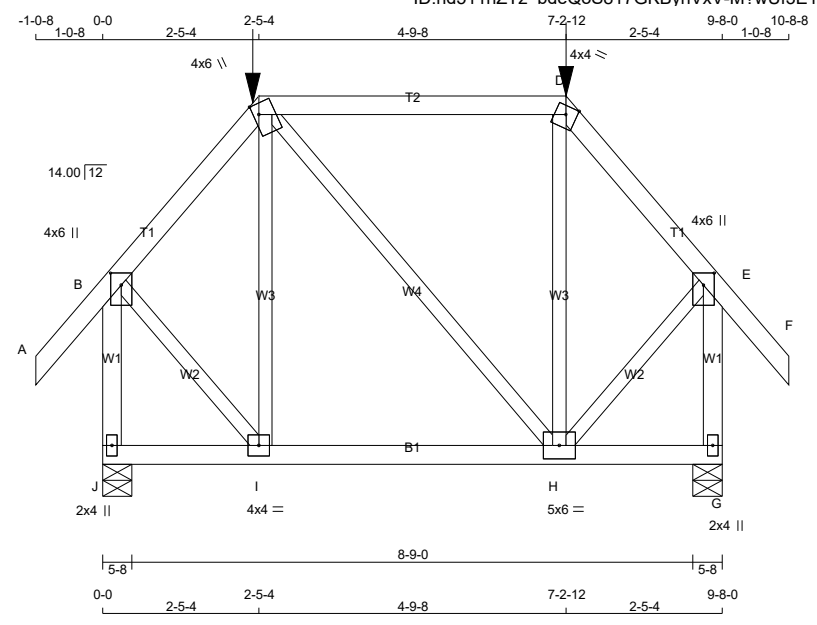
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (B) (INPUT = 0.90)  
 JSI METAL= 0.13 (B) (INPUT = 1.00)

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





TOTAL WEIGHT = 54 lb

**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X	
B	TMVW+p	MT20	4.0	6.0	2.25	2.00
C	TTWW+m	MT20	4.0	6.0	2.00	1.00
D	TTW-m	MT20	4.0	4.0		Edge
E	TMVW+p	MT20	4.0	6.0	2.25	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMWWW-t	MT20	5.0	6.0		
I	BMWW-t	MT20	4.0	4.0		
J	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**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX
J	761	0	761	0	0	5-8	1-8	1-8
G	761	0	761	0	0	5-8	1-8	1-8

**UNFACTORED REACTIONS**

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS						
		1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	541	339 / 0	0 / 0	0 / 0	0 / 0	0 / 0	202 / 0	0 / 0
G	541	339 / 0	0 / 0	0 / 0	0 / 0	0 / 0	202 / 0	0 / 0

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

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

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

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	CHORDS			WEBS				
	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FORCE (LBS)	FACTORED MAX CSI (LC)	
FR-TO		FROM	TO		FR-TO			
A-B	0 / 34	-78.0	-78.0	0.08 (1)	10.00	I-C	-142 / 24	0.07 (1)
B-C	-396 / 0	-78.0	-78.0	0.09 (1)	6.25	C-H	0 / 0	0.00 (1)
C-D	-252 / 0	-114.5	-114.5	0.50 (1)	6.25	H-D	-143 / 24	0.07 (1)
D-E	-395 / 0	-78.0	-78.0	0.09 (1)	6.25	B-I	0 / 360	0.09 (1)
E-F	0 / 34	-78.0	-78.0	0.08 (1)	10.00	H-E	0 / 360	0.09 (1)
J-B	-741 / 0	0.0	0.0	0.12 (1)	7.81			
G-E	-740 / 0	0.0	0.0	0.12 (1)	7.81			
J-I	0 / 0	-27.2	-27.2	0.10 (4)	10.00			
I-H	0 / 253	-27.2	-27.2	0.13 (4)	10.00			
H-G	0 / 0	-27.2	-27.2	0.10 (4)	10.00			

**FACTORED CONCENTRATED LOADS (LBS)**

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	2-5-4	-75	-75	---	FRONT	VERT	TOTAL	---	C1
D	7-2-12	-75	-75	---	FRONT	VERT	TOTAL	---	C1

**CONNECTION REQUIREMENTS**

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

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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

GIRDER TYPE: CPrimeHip  
SIDE SETBACK = 2-5-4  
END SETBACK = 3-10-8  
END WALL WIDTH = 0-0  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.32")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.32")  
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.50/1.00 (C-D:1), BC=0.13/1.00 (H-I:4), WB=0.09/1.00 (B-I:1), SSI=0.24/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

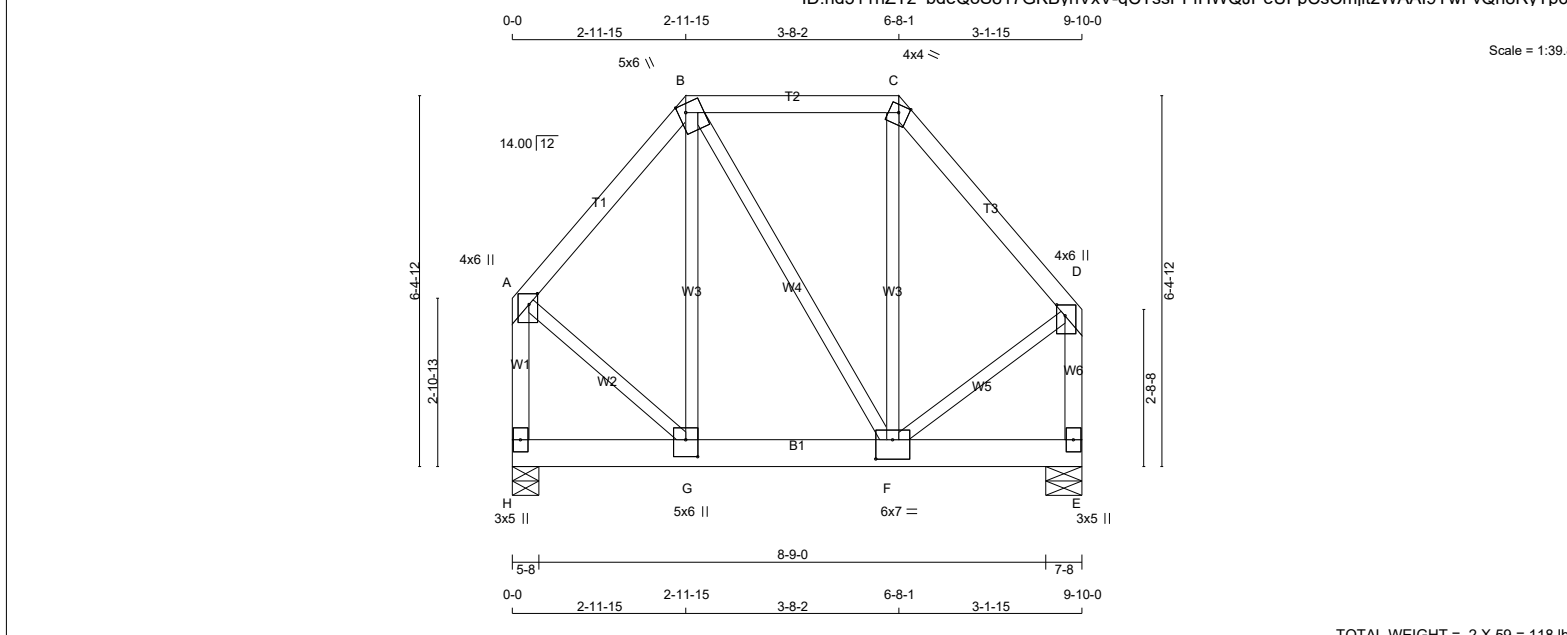
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.42 (B) (INPUT = 0.90 )  
JSI METAL= 0.18 (B) (INPUT = 1.00 )

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





Scale = 1:39.8

TOTAL WEIGHT = 2 X 59 = 118 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
C - D	2x4	DRY No.2	SPF
H - A	2x4	DRY No.2	SPF
E - D	2x4	DRY No.2	SPF
H - E	2x6	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - B	12	TOP
B - C	12	TOP
C - D	12	TOP
H - A	12	TOP
E - D	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
H - E	6	SIDE(376.8)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X	
A	TMVW+p	MT20	4.0	6.0	2.25	1.75
B	TTWW+m	MT20	5.0	6.0	1.75	1.50
C	TTW-m	MT20	4.0	4.0		Edge

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

**BEARINGS**

JT	VERT	HORZ	MAXIMUM FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION DOWN	MAXIMUM FACTORED GROSS REACTION HORZ	INPUT BRG	REQD BRG
H	4180	0	4180	0	0	5-8	3-5
E	4180	0	4180	0	0	7-8	3-5

**UNFACTORED REACTIONS**

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	2980	1819 / 0	0 / 0	0 / 0	0 / 0	1161 / 0	0 / 0
E	2980	1819 / 0	0 / 0	0 / 0	0 / 0	1161 / 0	0 / 0

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.61 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.

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB. FR-TO	MAX. FORCE (LBS)	FACTORED MAX CSI (LC)
A-B	-2418 / 0	-78.0	-78.0	0.09 (1)	5.71	G-B	0 / 1465	0.18 (1)
B-C	-1660 / 0	-78.0	-78.0	0.11 (1)	6.25	B-F	0 / 139	0.02 (1)
C-D	-2522 / 0	-78.0	-78.0	0.10 (1)	5.61	F-C	0 / 1657	0.21 (1)
H-A	-3196 / 0	0.0	0.0	0.25 (1)	6.49	A-G	0 / 1992	0.25 (1)
E-D	-3172 / 0	0.0	0.0	0.23 (1)	6.52	F-D	0 / 1982	0.25 (1)
H-G	0 / 0	-772.2	-772.2	0.24 (1)	10.00			
G-F	0 / 1589	-772.2	-772.2	0.41 (1)	10.00			
F-E	0 / 0	-772.2	-772.2	0.30 (1)	10.00			

**DESIGN CRITERIA**

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF  
DL = 6.0 PSF

BOT CH. LL = 0.0 PSF  
DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

**SPACING = 24.0 IN./C/C**

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

GIRDER TYPE: CStd Girder  
START DISTANCE = 0-0  
START SPAN CARRIED = 33-3-0  
END DISTANCE = 9-10-0  
END SPAN CARRIED = 33-3-0  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

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

CSI: TC=0.25/1.00 (A-H:1), BC=0.41/1.00 (F-G:1), WB=0.25/1.00 (A-G:1), SSI=0.50/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (A) (INPUT = 0.90 )  
JSI METAL= 0.44 (D) (INPUT = 1.00 )

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
336324	H102		2	JT 45147	E21104100(2)

Alpa Roof Truss, Maple

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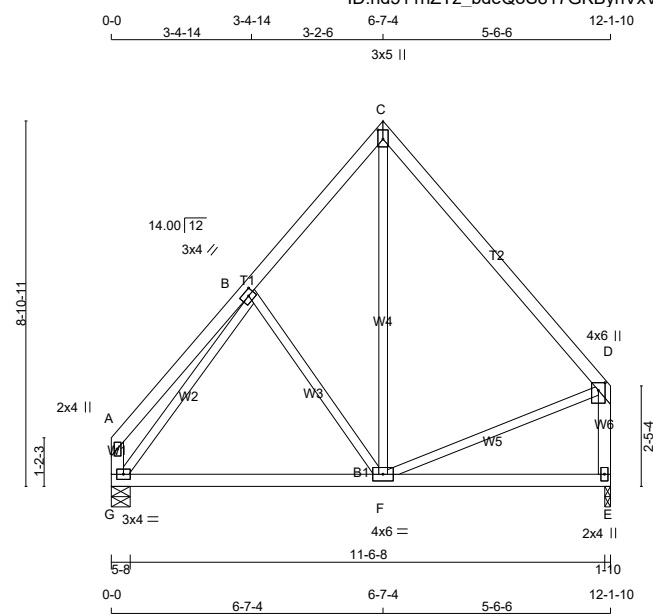
**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
D	TMVW+p	MT20	4.0	6.0	2.25	1.75
E	BMV1+p	MT20	3.0	5.0		
F	BMWWW-t	MT20	6.0	7.0	4.00	3.50
G	BMWW+t	MT20	5.0	6.0	3.50	2.50
H	BMV1+p	MT20	3.0	5.0		

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

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





TOTAL WEIGHT = 4 X 59 = 236 lb

**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	3.0	4.0	1.50	1.75
C	TTW+p	MT20	3.0	5.0	2.75	1.50
D	TMVW+p	MT20	4.0	6.0	2.25	2.00
E	BMV1+p	MT20	2.0	4.0		
F	BMWWW-t	MT20	4.0	6.0		
G	BMVW1-t	MT20	3.0	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 IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	585	0	585	0	1-10	1-8
G	585	0	585	0	5-8	1-8

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS				DEAD	SOIL
		SNOW	LIVE	PERM.LIVE	WIND		
E	417	255 / 0	0 / 0	0 / 0	0 / 0	163 / 0	0 / 0
G	417	255 / 0	0 / 0	0 / 0	0 / 0	163 / 0	0 / 0

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	C H O R D S				W E B S			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
A-B	0 / 23	-78.0	-78.0	0.14 (1)	10.00	B-F	-160 / 0	0.09 (1)
B-C	-355 / 0	-78.0	-78.0	0.11 (1)	6.25	F-C	0 / 188	0.05 (4)
C-D	-333 / 0	-78.0	-78.0	0.31 (1)	6.25	G-B	-539 / 0	0.29 (1)
G-A	-96 / 0	0.0	0.0	0.01 (1)	7.81	F-D	0 / 231	0.05 (1)
E-D	-549 / 0	0.0	0.0	0.07 (1)	7.81			
G-F	0 / 311	-18.5	-18.5	0.23 (4)	10.00			
F-E	0 / 0	-18.5	-18.5	0.20 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

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

THIS DESIGN COMPLIES WITH:  
- PART 9 OF 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 (0.40")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.31/1.00 (C-D:1), BC=0.23/1.00 (F-G:4), WB=0.29/1.00 (B-G:1), SSI=0.11/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

PLATE	GRIP(DRY) (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= 0.79 (B) (INPUT = 0.90 )  
JSI METAL= 0.20 (B) (INPUT = 1.00 )

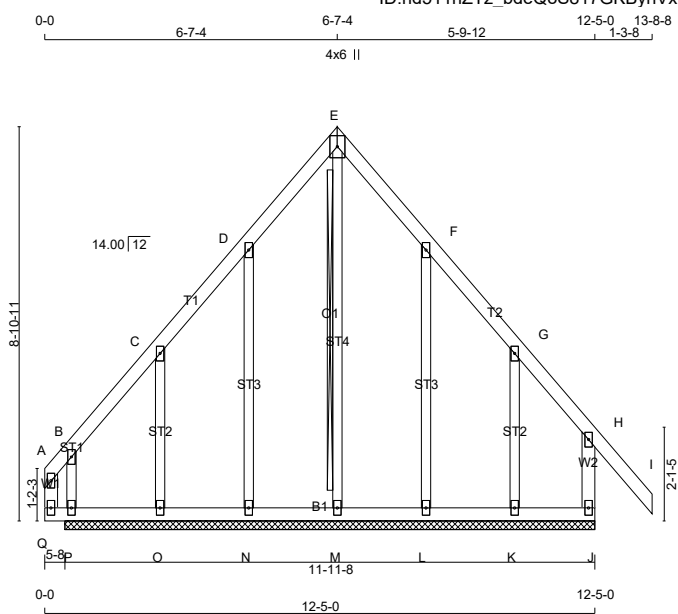
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





JOB NAME <b>336324</b>	TRUSS NAME <b>H103G</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104102</b>
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TOTAL WEIGHT = 65 lb

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	DRY	LUMBER	DESCR.
Q - A	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
Q - 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
A	TMV+p	MT20	2.0	4.0		
B, C, D, F, G						
B	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, P						
K	BMW1+w	MT20	2.0	4.0		
Q	BMV+p	MT20	2.0	4.0		

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

**BEARINGS**

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

**BRACING**

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

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

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

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

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

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	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		
Q-A	-2 / 1	0.0	0.0	0.01 (1)	10.00	M-E	-179 / 0	0.22 (1)
A-B	0 / 10	-78.0	-78.0	0.03 (1)	10.00	N-D	-159 / 0	0.11 (1)
B-C	0 / 3	-78.0	-78.0	0.04 (1)	10.00	O-C	-153 / 0	0.04 (1)
C-D	0 / 8	-78.0	-78.0	0.04 (1)	10.00	P-B	-115 / 0	0.02 (1)
D-E	0 / 11	-78.0	-78.0	0.04 (1)	10.00	L-F	-168 / 0	0.12 (1)
E-F	0 / 10	-78.0	-78.0	0.04 (1)	10.00	K-G	-104 / 0	0.03 (1)
F-G	0 / 14	-78.0	-78.0	0.04 (1)	10.00			
G-H	-19 / 0	-78.0	-78.0	0.08 (1)	6.25			
H-I	0 / 42	-78.0	-78.0	0.11 (1)	10.00			
J-H	-202 / 0	0.0	0.0	0.02 (1)	7.81			
Q-P	0 / 9	-18.5	-18.5	0.01 (4)	10.00			
P-O	0 / 0	-18.5	-18.5	0.02 (4)	10.00			
O-N	-5 / 0	-18.5	-18.5	0.02 (4)	10.00			
N-M	-7 / 0	-18.5	-18.5	0.01 (4)	10.00			
M-L	-7 / 0	-18.5	-18.5	0.01 (4)	10.00			
L-K	-4 / 0	-18.5	-18.5	0.01 (4)	10.00			
K-J	-1 / 0	-18.5	-18.5	0.02 (1)	10.00			

**DESIGN CRITERIA**

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF  
 DL = 6.0 PSF

BOT CH. LL = 0.0 PSF  
 DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

**SPACING = 24.0 IN./C/C**

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF 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=0.02/1.00 (J-K:1), WB=0.22/1.00 (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)	
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

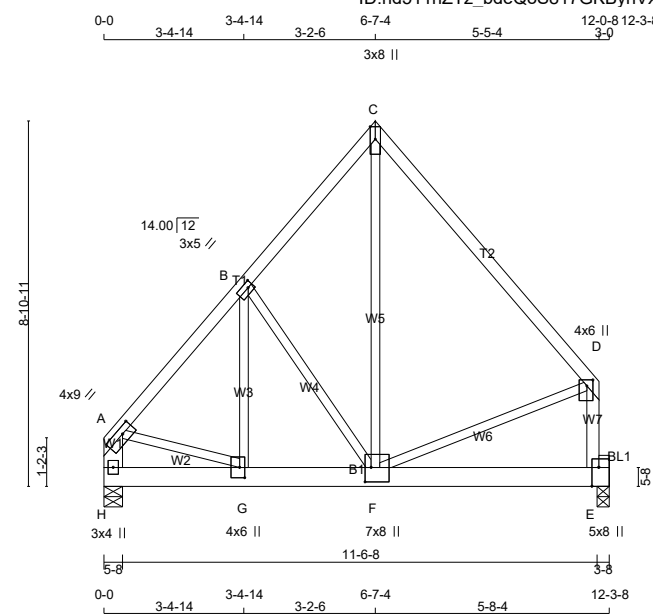
JSI GRIP= 0.16 (H) (INPUT = 0.90)  
 JSI METAL= 0.10 (H) (INPUT = 1.00)

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



JOB NAME <b>336324</b>	TRUSS NAME <b>H104</b>	QUANTITY <b>2</b>	PLY <b>2</b>	JOB DESC. <b>TRUSS DESC.</b>	<b>JT 45147</b>	DRWG NO. <b>E21104103</b>
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TOTAL WEIGHT = 2 X 69 = 138 lb

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - D	2x4	DRY No.2	SPF
H - A	2x6	DRY No.2	SPF
E - D	2x4	DRY No.2	SPF
H - E	2x6	DRY No.2	SPF

BEARING BLOCKS

BL1	2x4	DRY No.2	SPF
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ALL WEBS 2x3 DRY No.2 EXCEPT SPF

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - C	1	12 TOP
C - D	1	12 TOP
E - D	1	12 TOP
H - A	2	12 TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
H - E	2	6 SIDE(376.8)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	1	6

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	9.0	1.75 3.50
B	TMWW-t	MT20	3.0	5.0	1.50 1.50

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX
H	5056	0	5056	0	0	5-8	2-12	
E	5068	0	5068	0	0	3-8	3-8	

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. LIVE		PERM. LIVE		WIND DEAD		SOIL	
	SNOW	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND
H	3605	2200 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1405 / 0	0 / 0	0 / 0	0 / 0
E	3613	2207 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1407 / 0	0 / 0	0 / 0	0 / 0

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.58 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		WEBS		FACTORED	
	MAX. FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	LC1 MAX	MEMB. UNBRAC LENGTH	MAX. FORCE (LBS)	MAX. CSI (LC)	MAX. CSI (LC)
FR-TO		FROM TO						
A - B	-4135 / 0	-78.0	-78.0	0.15 (1)	4.58	G - B	0 / 1625	0.20 (1)
B - C	-3044 / 0	-78.0	-78.0	0.10 (1)	5.22	B - F	-1288 / 0	0.36 (1)
C - D	-3033 / 0	-78.0	-78.0	0.36 (1)	5.02	F - F	0 / 4283	0.53 (1)
H - A	-3844 / 0	0.0	0.0	0.14 (1)	7.22	A - G	0 / 2759	0.34 (1)
E - D	-3373 / 0	0.0	0.0	0.23 (1)	6.35	F - D	0 / 2366	0.29 (1)
H - G	0 / 0	-772.2	-772.2	0.35 (1)	10.00			
G - F	0 / 2698	-772.2	-772.2	0.84 (1)	10.00			
F - E	-234 / 0	-772.2	-772.2	0.69 (1)	6.25			

**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**

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 33-3-0  
END DISTANCE = 12-3-8  
END SPAN CARRIED = 33-3-0  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")  
ALLOWABLE DEFL.(TL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(TL) = L/ 923 (0.15")

CSI: TC=0.36/1.00 (C-D:1), BC=0.84/1.00 (F-G:1), WB=0.53/1.00 (C-F:1), SSI=0.79/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (A) (INPUT = 0.90 )  
JSI METAL= 0.61 (G) (INPUT = 1.00 )

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



JOB NAME 336324	TRUSS NAME H104	QUANTITY	PLY 2	JOB DESC. JT 45147	DRWG NO. E21104103(2)
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Alpa Roof Truss, Maple

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**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
C	TTW+p	MT20	3.0	8.0	3.75	Edge
D	TMVW+p	MT20	4.0	6.0	1.75	1.75
E	BMVK1+t	MT20	5.0	8.0	Edge	2.00
F	BMWWW+t	MT20	7.0	8.0	4.25	1.75
G	BMWW+t	MT20	4.0	6.0	3.00	1.50
H	BMV1+p	MT20	3.0	4.0		

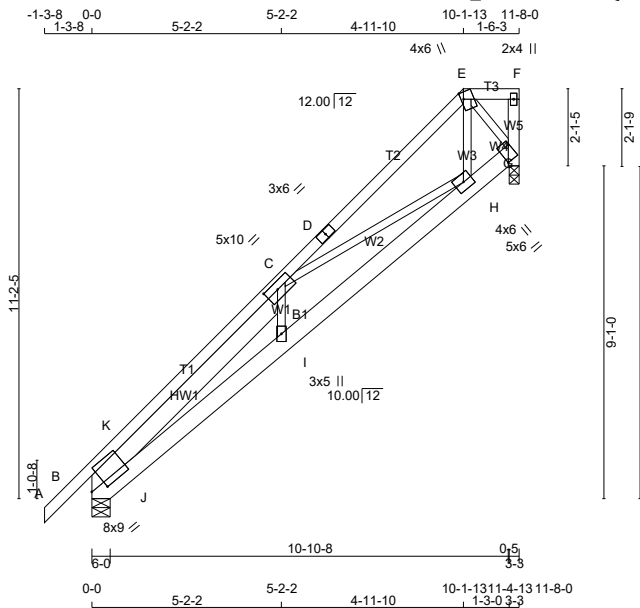
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

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



JOB NAME <b>336324</b>	TRUSS NAME <b>H105</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104104</b>
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Alpa Roof Truss, Maple Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 14:52:26 2021 Page 1  
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TOTAL WEIGHT = 72 lb

**LUMBER**  
 N. L. G. A. RULES  
 CHORDS SIZE LUMBER DESCR.  
 A - D 2x4 DRY No.2 SPF  
 D - E 2x4 DRY No.2 SPF  
 E - F 2x4 DRY No.2 SPF  
 G - F 2x4 DRY No.2 SPF  
 B - G 2x6 DRY No.2 SPF

REINFORCING MEMBERS  
 HW1 2x6 DRY No.2 SPF  
 ALL WEBS 2x3 DRY No.2 SPF  
 DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMW1-I	MT20	8.0	9.0	2.00	5.00
C	TMWWW-t	MT20	5.0	10.0	2.25	4.25
D	TS-t	MT20	3.0	6.0		
E	TTWW+m	MT20	4.0	6.0	2.25	0.75
F	TMV+p	MT20	2.0	4.0		
G	BVMW1+i	MT20	4.0	6.0	4.50	Edge
H	BMWW-t	MT20	5.0	6.0		
I	BMW+w	MT20	3.0	5.0		

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

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



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

**BEARINGS**

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	REQD
B	671	0	671	0	0	6-0	1-8
G	563	0	563	0	0	3-3	3-3

**UNFACTORED REACTIONS**

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	477	303 / 0	0 / 0	0 / 0	0 / 0	173 / 0	0 / 0
G	401	245 / 0	0 / 0	0 / 0	0 / 0	156 / 0	0 / 0

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

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.09 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**  
 TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MAX UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)
A-B	0 / 16	-78.0	-78.0 0.11 (1)	10.00	I-C	0 / 92	0.03 (4)
B-K	-1035 / 0	-78.0	-78.0 0.09 (1)	6.09	C-H	-757 / 0	0.49 (1)
K-C	-666 / 0	-78.0	-78.0 0.19 (1)	6.25	H-E	0 / 341	0.08 (1)
C-D	-403 / 0	-78.0	-78.0 0.21 (1)	6.25	E-G	-415 / 0	0.06 (1)
D-E	-403 / 0	-78.0	-78.0 0.21 (1)	6.25	J-K	0 / 249	0.00 (1)
E-F	0 / 0	-78.0	-78.0 0.03 (1)	10.00	J-C	-749 / 0	0.37 (1)
G-F	-59 / 0	0.0	0.0 0.01 (1)	7.81			
B-J	0 / 625	-18.5	-18.5 0.08 (1)	10.00			
J-I	0 / 1231	-18.5	-18.5 0.20 (1)	10.00			
I-H	0 / 1251	-18.5	-18.5 0.19 (1)	10.00			
H-G	0 / 367	-18.5	-18.5 0.08 (1)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.39")  
 CALCULATED VERT. DEFL.(LL)= L/999 (0.03")  
 ALLOWABLE DEFL.(TL)= L/360 (0.39")  
 CALCULATED VERT. DEFL.(TL)= L/999 (0.06")

CSI: TC=0.21/1.00 (C-E:1), BC=0.20/1.00 (I-J:1), WB=0.49/1.00 (C-H:1), SSI=0.12/1.00 (C-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.

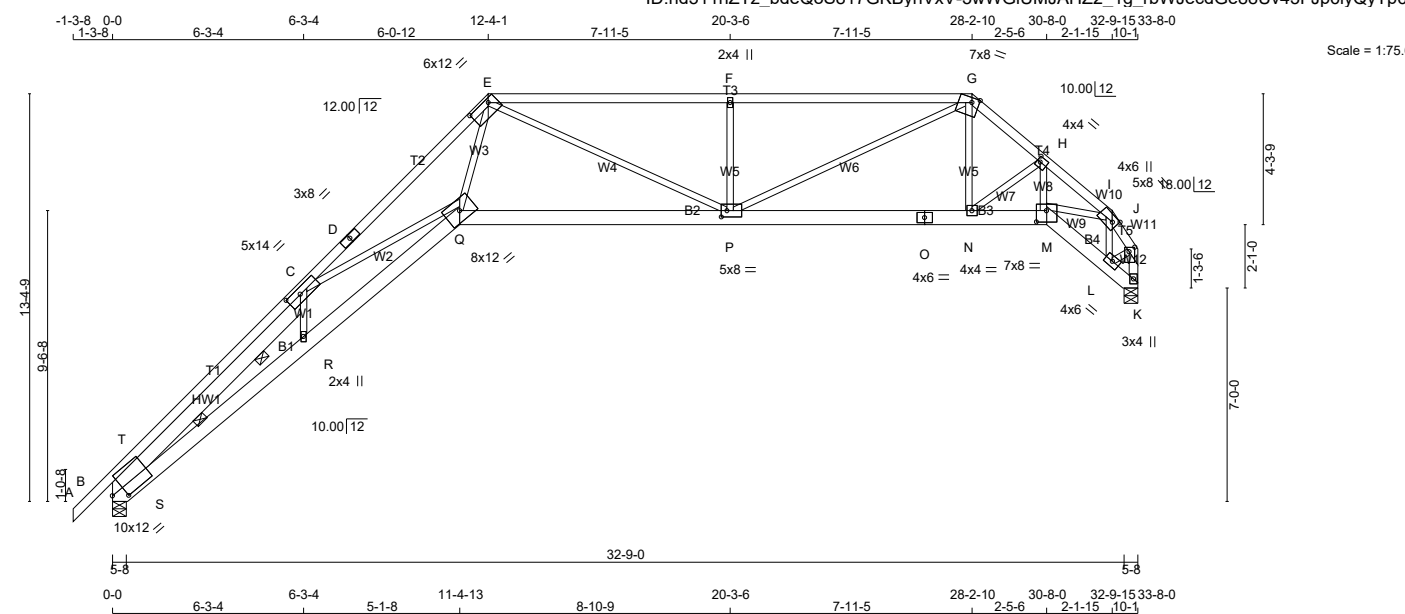
**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (G) (INPUT = 0.90)  
 JSI METAL= 0.21 (H) (INPUT = 1.00)



TOTAL WEIGHT = 4 X 171 = 685 lb [M]F

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY 2100F 1.8E	SPF
D - E	2x4	DRY 2100F 1.8E	SPF
E - G	2x4	DRY 2100F 1.8E	SPF
G - I	2x4	DRY 1650F 1.5E	SPF
I - J	2x4	DRY 1650F 1.5E	SPF
K - J	2x4	DRY No.2	SPF
B - Q	2x6	DRY No.2	SPF
Q - O	2x6	DRY No.2	SPF
O - M	2x6	DRY No.2	SPF
M - K	2x6	DRY No.2	SPF

REINFORCING MEMBERS	SIZE	LUMBER	DESCR.
HW1	2x6	DRY No.2	SPF

ALL WEBS EXCEPT	SIZE	LUMBER	DESCR.
	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMW-1	MT20	10.0	12.0	4.00	5.00
C	TMWWW-t	MT20	5.0	14.0	2.25	5.75
D	TS-t	MT20	3.0	8.0		
E	TTWW-h	MT20	6.0	12.0	1.50	8.75
F	TMW+w	MT20	2.0	4.0		
G	TTWW-m	MT20	7.0	8.0	Edge	2.75
H	TMWWW-t	MT20	4.0	4.0	2.00	1.25
I	TTWW-m	MT20	5.0	8.0	Edge	2.00
J	TMVW+p	MT20	4.0	6.0	1.75	2.25
K	BMV1+p	MT20	3.0	4.0		
L	BMWW-t	MT20	4.0	6.0		
M	BBWW-1	MT20	7.0	8.0	4.50	4.00
N	BMWW-t	MT20	4.0	4.0		
O	BS-t	MT20	4.0	6.0		
P	BMWWW-t	MT20	5.0	8.0	2.50	2.25
Q	BBWW-h	MT20	8.0	12.0		
R	BMW+w	MT20	2.0	4.0		

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

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

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED DOWN		INPUT BRG UPLIFT		REQRD BRG IN-SX	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX		
B	1780	0	1780	0	0	5-8	1-11	
K	1696	0	1696	0	0	5-8	1-10	

ALLOW FOR 0.9" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS				
	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
B	1271	765 / 0	0 / 0	0 / 0	0 / 0	506 / 0	0 / 0
K	1215	707 / 0	0 / 0	0 / 0	0 / 0	509 / 0	0 / 0

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

**BRACING**

FOR SECTION E-G, MAX. PURLIN SPACING = 2.00 FT.  
 FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.27 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 C-S.

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

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX LC1 (LC)		MAX. UNBRAC LENGTH	WEBS MAX. FACTORED FORCE (LBS)	
	FR-TO	FROM TO	FR-TO	FROM TO	FR-TO	FROM TO		FR-TO	FROM TO
A-B	0 / 16	-78.0 -78.0	0.07 (1)	10.00	R-C	-11 / 74	0.03 (4)		
B-T	-3603 / 0	-78.0 -78.0	0.17 (1)	4.42	C-Q	0 / 72	0.02 (4)		
T-C	-2326 / 0	-78.0 -78.0	0.19 (1)	5.26	Q-E	0 / 3858	0.87 (1)		
C-D	-6169 / 0	-78.0 -78.0	0.77 (1)	3.27	E-P	0 / 309	0.07 (1)		
D-E	-6169 / 0	-78.0 -78.0	0.77 (1)	3.27	P-F	-815 / 0	0.21 (1)		
E-F	-3700 / 0	-85.5 -85.5	0.61 (1)	2.00	P-G	0 / 1860	0.42 (1)		
F-G	-3700 / 0	-85.5 -85.5	0.61 (1)	2.00	N-G	0 / 519	0.12 (1)		
G-H	-2637 / 0	-78.0 -78.0	0.09 (1)	4.76	N-H	-660 / 0	0.13 (1)		
H-I	-3379 / 0	-78.0 -78.0	0.10 (1)	4.30	M-H	0 / 719	0.16 (1)		
I-J	-1581 / 0	-78.0 -78.0	0.02 (1)	5.85	M-I	0 / 1776	0.40 (1)		
K-J	-1677 / 0	0.0 0.0	0.17 (1)	6.41	L-I	-959 / 0	0.14 (1)		
B-S	0 / 2275	-18.5 -18.5	0.39 (1)	10.00	L-J	0 / 916	0.21 (1)		
S-R	0 / 5513	-18.5 -18.5	0.83 (1)	10.00	S-T	0 / 1313	0.00 (1)		
R-Q	0 / 5582	-18.5 -18.5	0.84 (1)	10.00	S-C	-4109 / 0	0.49 (1)		
Q-P	0 / 3423	-18.5 -18.5	0.51 (1)	10.00					
P-O	0 / 2031	-18.5 -18.5	0.31 (1)	10.00					
O-N	0 / 2031	-18.5 -18.5	0.31 (1)	10.00					
N-M	0 / 2535	-18.5 -18.5	0.37 (1)	10.00					
M-L	0 / 1034	-18.5 -18.5	0.13 (1)	10.00					
L-K	-6 / 0	-18.5 -18.5	0.00 (1)	10.00					

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

(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 (1.12")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.38")  
 ALLOWABLE DEFL.(TL)= L/360 (1.12")  
 CALCULATED VERT. DEFL.(TL) = L/519 (0.78")

CSI: TC=0.77/1.00 (C-E:1), BC=0.84/1.00 (Q-R:1), WB=0.87/1.00 (E-Q:1), SSI=0.33/1.00 (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

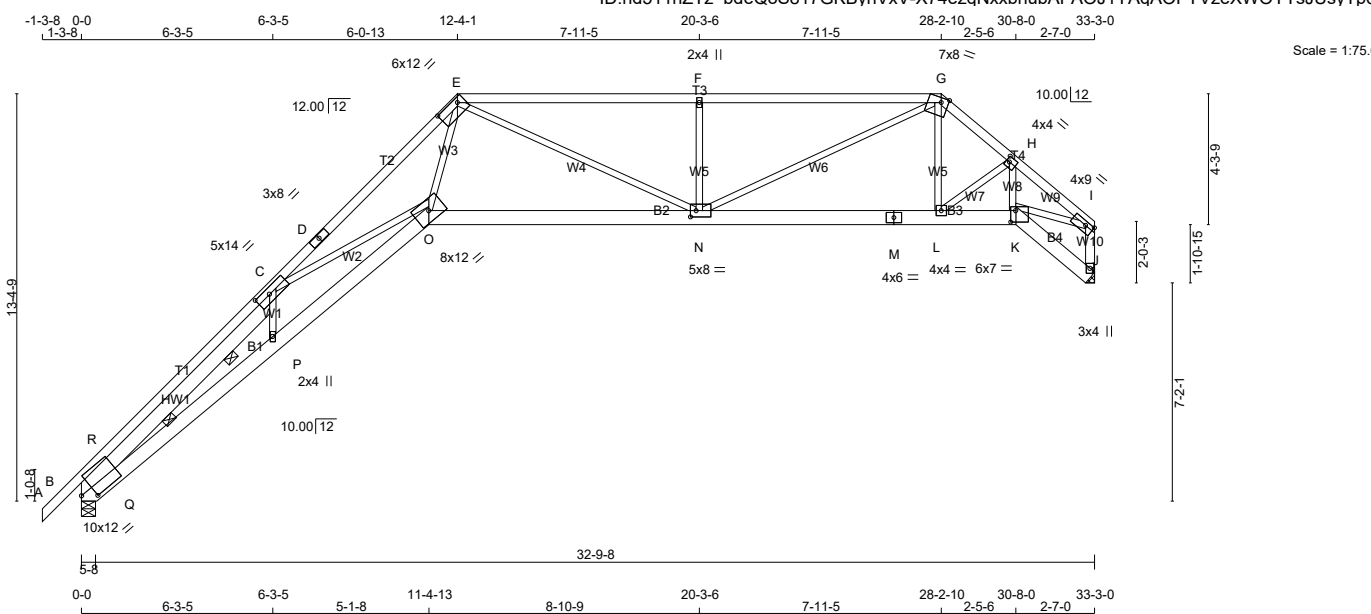
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches  
 PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90)  
 JSI METAL= 0.74 (E) (INPUT = 1.00)



**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY 1650F 1.5E	SPF
D - E	2x4	DRY 1650F 1.5E	SPF
E - G	2x4	DRY 1650F 1.5E	SPF
G - I	2x4	DRY No.2	SPF
I - J	2x4	DRY No.2	SPF
J - O	2x6	DRY No.2	SPF
O - M	2x6	DRY No.2	SPF
M - K	2x6	DRY No.2	SPF
K - J	2x6	DRY No.2	SPF

REINFORCING MEMBERS

HW1	2x6	DRY No.2	SPF
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ALL WEBS 2x3 DRY No.2 DRY: SEASONED LUMBER. SPF

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMW-I	MT20	10.0	12.0	4.00	5.00
C	TMWWW-t	MT20	5.0	14.0	2.25	5.75
D	TS-t	MT20	3.0	8.0		
E	TTWW-h	MT20	6.0	12.0	1.75	9.25
F	TMW+w	MT20	2.0	4.0		
G	TTWW-m	MT20	7.0	8.0	Edge	2.75
H	TMWW-t	MT20	4.0	4.0	2.00	1.25
I	TMVW-t	MT20	4.0	9.0	1.50	3.25
J	BMV1+p	MT20	3.0	4.0		
K	BBWW-I	MT20	6.0	7.0	4.50	2.00
L	BMWW-t	MT20	4.0	4.0		
M	BS-t	MT20	4.0	6.0		
N	BMWWW-t	MT20	5.0	8.0	2.50	2.25
O	BBWW-h	MT20	8.0	12.0		
P	BMW+w	MT20	2.0	4.0		

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

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



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

**BEARINGS**

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
J	1676	0	1676	0	0	MECHANICAL	
B	1759	0	1759	0	0	5-8	1-11

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

ALLOW FOR 1.0" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

**UNFACTORED REACTIONS**

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	1202	698 / 0	0 / 0	0 / 0	0 / 0	504 / 0	0 / 0
B	1256	756 / 0	0 / 0	0 / 0	0 / 0	499 / 0	0 / 0

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

**BRACING**  
FOR SECTION E-G, MAX. PURLIN SPACING = 2.00 FT.  
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.96 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 C-Q.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED (LBS)	FACTORED (PLF)	VERT. LOAD (LC1)	MAX. CSI (LC)	MEMB. FORCE (LBS)	MAX. FACTORED (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO		FR-TO			
A-B	0 / 16	-78.0	-78.0	0.09 (1)	10.00	P-C	0 / 79	0.03 (4)
B-R	-3452 / 0	-78.0	-78.0	0.19 (1)	4.17	C-O	0 / 58	0.02 (4)
R-C	-2217 / 0	-78.0	-78.0	0.26 (1)	4.95	O-E	0 / 3801	0.86 (1)
C-D	-6056 / 0	-78.0	-78.0	0.97 (1)	2.96	E-N	0 / 261	0.06 (1)
D-E	-6056 / 0	-78.0	-78.0	0.97 (1)	2.96	N-F	-817 / 0	0.21 (1)
E-F	-3590 / 0	-85.5	-85.5	0.77 (1)	2.00	N-G	0 / 1905	0.43 (1)
F-G	-3590 / 0	-85.5	-85.5	0.77 (1)	2.00	L-G	0 / 382	0.09 (1)
G-H	-2449 / 0	-78.0	-78.0	0.12 (1)	4.32	L-H	-426 / 0	0.08 (1)
H-I	-2890 / 0	-78.0	-78.0	0.17 (1)	3.98	K-H	0 / 334	0.08 (1)
I-J	-1653 / 0	0.0	0.0	0.19 (1)	6.45	K-I	0 / 2243	0.50 (1)
						Q-R	0 / 1262	0.00 (1)
B-Q	0 / 2147	-18.5	-18.5	0.35 (1)	10.00	Q-C	-4144 / 0	0.49 (1)
Q-P	0 / 5453	-18.5	-18.5	0.82 (1)	10.00			
P-O	0 / 5515	-18.5	-18.5	0.83 (1)	10.00			
O-N	0 / 3355	-18.5	-18.5	0.50 (1)	10.00			
N-M	0 / 1880	-18.5	-18.5	0.30 (1)	10.00			
M-L	0 / 1880	-18.5	-18.5	0.30 (1)	10.00			
L-K	0 / 2204	-18.5	-18.5	0.33 (1)	10.00			
K-J	0 / 0	-18.5	-18.5	0.02 (4)	10.00			

**DESIGN CRITERIA**

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

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

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 (1.11")  
CALCULATED VERT. DEFL. (LL) = L/999 (0.40")  
ALLOWABLE DEFL.(TL)= L/360 (1.11")  
CALCULATED VERT. DEFL. (TL) = L/487 (0.82")

CSI: TC=0.97/1.00 (C-E:1), BC=0.83/1.00 (O-P:1), WB=0.86/1.00 (E-O:1), SSI=0.33/1.00 (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.

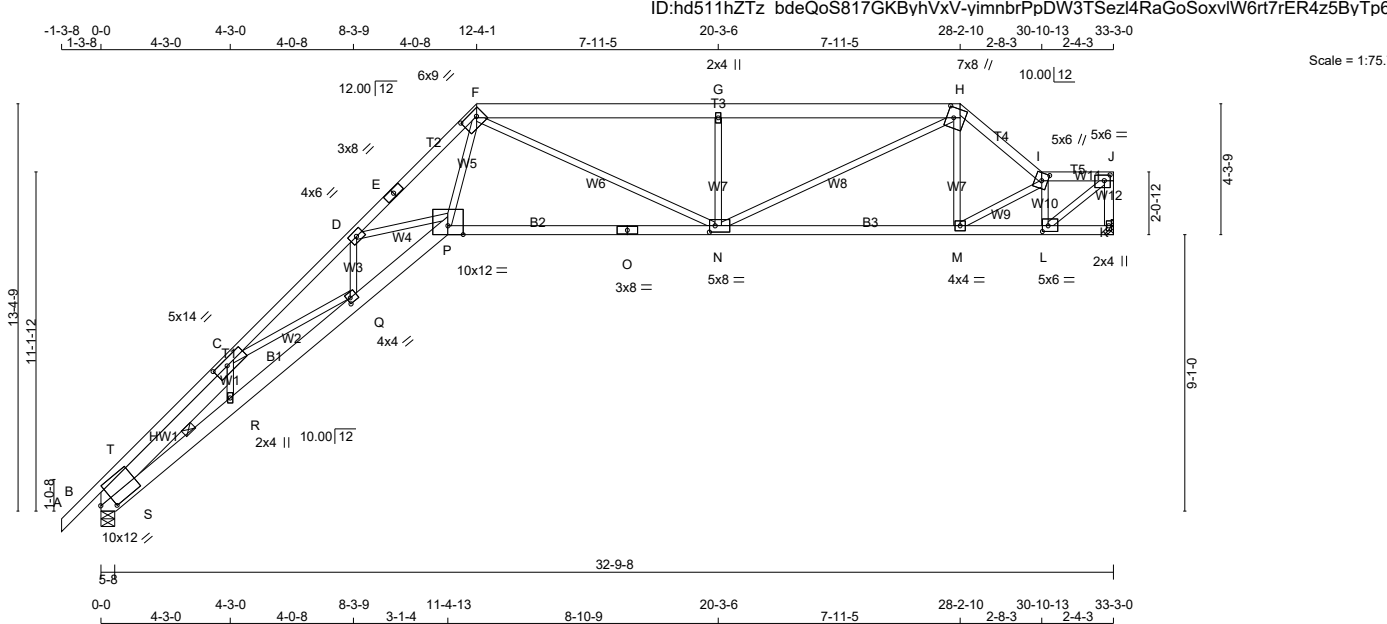
**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (E) (INPUT = 0.90)  
JSI METAL= 0.71 (E) (INPUT = 1.00)



TOTAL WEIGHT = 4 X 159 = 638 lb

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY No.2	SPF
E - F	2x4	DRY No.2	SPF
F - H	2x6	DRY No.2	SPF
H - I	2x4	DRY No.2	SPF
I - J	2x4	DRY No.2	SPF
K - J	2x4	DRY No.2	SPF
B - P	2x6	DRY No.2	SPF
P - O	2x4	DRY No.2	SPF
O - K	2x4	DRY No.2	SPF

REINFORCING MEMBERS	SIZE	LUMBER	DESCR.
HW1	2x6	DRY No.2	SPF

ALL WEBS	SIZE	LUMBER	DESCR.
2x3	DRY No.2	SPF	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMW1-I	MT20	10.0	12.0	4.00	5.00
C	TMWWW-t	MT20	5.0	14.0	2.25	5.50
D	TMWW-t	MT20	4.0	6.0		
E	TS-t	MT20	3.0	8.0		
F	TTWW-h	MT20	6.0	9.0	2.50	6.25
G	TMW+w	MT20	2.0	4.0		
H	TTWW+m	MT20	7.0	8.0	4.00	2.75
I	TTWW+m	MT20	5.0	6.0	3.00	2.25
J	TMVW-t	MT20	5.0	6.0	2.25	2.25
K	BMV1+p	MT20	2.0	4.0		
L	BMWWW-t	MT20	5.0	6.0	2.25	2.25
M	BMWWW-t	MT20	4.0	4.0		
N	BMWWW-t	MT20	5.0	8.0	2.50	2.25
O	BS-t	MT20	3.0	8.0		
P	BBWW-I	MT20	10.0	12.0	Edge	
Q	BMWW-t	MT20	2.0	4.0	2.00	1.25
R	BMW+w	MT20	2.0	4.0		

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

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



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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX		
K	1676	0	1676	0	0	0	MECHANICAL	
B	1759	0	1759	0	0	5-8	1-11	

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT K. MINIMUM BEARING LENGTH AT JOINT K = 1-15.

ALLOW FOR 0.9" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

**UNFACTORED REACTIONS**

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS						
		1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	1202	698 / 0	0 / 0	0 / 0	0 / 0	0 / 0	504 / 0	0 / 0
B	1256	756 / 0	0 / 0	0 / 0	0 / 0	0 / 0	499 / 0	0 / 0

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

**BRACING**  
FOR SECTION F-H, MAX. PURLIN SPACING = 2.00 FT.  
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.36 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	CHORDS			WEBS		
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB. FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO				FR-TO		
A-B	0 / 16	-78.0	-78.0 0.11 (1)	10.00	R-C	0 / 56 0.02 (4)
B-T	-3089 / 0	-78.0	-78.0 0.20 (1)	3.82	C-Q	0 / 820 0.18 (1)
T-C	-1957 / 0	-78.0	-78.0 0.16 (1)	4.70	Q-D	-187 / 0 0.03 (1)
C-D	-6220 / 0	-78.0	-78.0 0.86 (1)	2.36	D-P	-129 / 0 0.03 (1)
D-E	-6027 / 0	-78.0	-78.0 0.88 (1)	2.40	P-F	0 / 3838 0.86 (1)
E-F	-6027 / 0	-78.0	-78.0 0.88 (1)	2.40	F-N	0 / 259 0.06 (1)
F-G	-3585 / 0	-85.5	-85.5 0.52 (1)	2.00	N-G	-839 / 0 0.22 (1)
G-H	-3585 / 0	-85.5	-85.5 0.52 (1)	2.00	N-H	0 / 1934 0.44 (1)
H-I	-2384 / 0	-78.0	-78.0 0.16 (1)	4.32	M-H	0 / 287 0.06 (1)
I-J	-1969 / 0	-78.0	-78.0 0.11 (1)	4.72	M-I	-257 / 0 0.05 (1)
K-J	-1627 / 0	0.0	0.0 0.18 (1)	6.48	L-I	-1590 / 0 0.24 (1)
B-S	0 / 1800	-18.5	-18.5 0.22 (1)	10.00	L-J	0 / 2508 0.56 (1)
S-R	0 / 4709	-18.5	-18.5 0.69 (1)	10.00	S-T	0 / 1204 0.00 (1)
R-Q	0 / 4747	-18.5	-18.5 0.71 (1)	10.00	S-C	-3749 / 0 0.45 (1)
Q-P	0 / 5681	-18.5	-18.5 0.80 (1)	10.00		
P-O	0 / 3353	-18.5	-18.5 0.66 (1)	10.00		
O-N	0 / 3353	-18.5	-18.5 0.66 (1)	10.00		
N-M	0 / 1853	-18.5	-18.5 0.49 (1)	10.00		
M-L	0 / 2063	-18.5	-18.5 0.45 (1)	10.00		
L-K	0 / 0	-18.5	-18.5 0.09 (1)	10.00		

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

LOADING IN OTHER FLAT SECTIONS BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

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 (1.11")  
CALCULATED VERT. DEFL.(LL) = L/971 (0.41")  
ALLOWABLE DEFL.(TL)= L/360 (1.11")  
CALCULATED VERT. DEFL.(TL) = L/459 (0.87")

CSI: TC=0.88/1.00 (D-F:1), BC=0.80/1.00 (P-Q:1), WB=0.86/1.00 (F-P:1), SSI=0.25/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

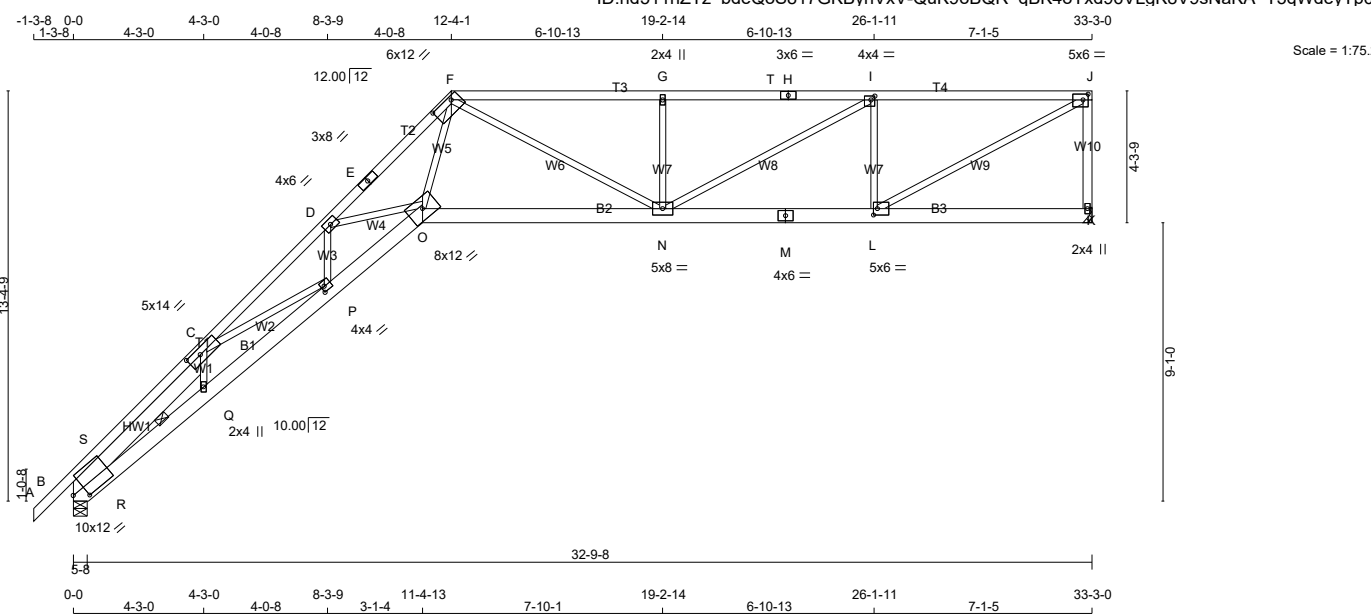
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (F) (INPUT = 0.90)  
JSI METAL= 0.99 (O) (INPUT = 1.00)



TOTAL WEIGHT = 2 X 163 = 327 lb

**LUMBER**  
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY 1650F 1.5E	SPF
E - F	2x4	DRY 1650F 1.5E	SPF
F - H	2x4	DRY 1650F 1.5E	SPF
H - J	2x4	DRY 1650F 1.5E	SPF
K - J	2x4	DRY No.2	SPF
B - O	2x6	DRY No.2	SPF
O - M	2x6	DRY No.2	SPF
M - K	2x6	DRY No.2	SPF

REINFORCING MEMBERS  
HW1 2x6 DRY No.2 SPF

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

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMW-1	MT20	10.0	12.0	4.00	5.00
C	TMWWW-t	MT20	5.0	14.0	2.25	5.50
D	TMWWW-t	MT20	4.0	6.0		
E	TS-t	MT20	3.0	8.0		
F	TTWW-h	MT20	6.0	12.0	1.50	8.75
G	TMW+w	MT20	2.0	4.0		
H	TS-t	MT20	3.0	6.0		
I	TMWWW-t	MT20	4.0	4.0	1.50	1.50
J	TMVW-t	MT20	5.0	6.0	2.25	2.00
K	BMV1+p	MT20	2.0	4.0		
L	BMWWW-t	MT20	5.0	6.0	2.50	1.50
M	BS-t	MT20	4.0	6.0		
N	BMWWW-t	MT20	5.0	8.0		
O	BBWW-h	MT20	8.0	12.0		
P	BMWWW-t	MT20	4.0	4.0	2.00	1.25
Q	BMW+w	MT20	2.0	4.0		

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



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

**BEARINGS**

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
K	1711	0	1711	0	0	MECHANICAL	
B	1762	0	1762	0	0	5-8	1-11

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT K. MINIMUM BEARING LENGTH AT JOINT K = 2-1.

ALLOW FOR 0.8" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

**UNFACTORED REACTIONS**

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	1229	698 / 0	0 / 0	0 / 0	0 / 0	532 / 0	0 / 0
B	1258	756 / 0	0 / 0	0 / 0	0 / 0	502 / 0	0 / 0

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

**BRACING**  
FOR SECTION F-J, MAX. PURLIN SPACING = 2.00 FT.  
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.09 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.  
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-R.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS			WEBS		
	MAX. FACTORED (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB. FORCE (LBS)	MAX. FACTORED CSI (LC)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO		FR-TO		
A-B	0 / 16	-78.0 -78.0 0.09 (1)	10.00	Q-C	-1 / 51	0.02 (4)
B-S	-3142 / 0	-78.0 -78.0 0.14 (1)	4.38	C-P	0 / 853	0.19 (1)
S-C	-1999 / 0	-78.0 -78.0 0.12 (1)	5.26	P-D	-248 / 0	0.04 (1)
C-D	-6252 / 0	-78.0 -78.0 0.44 (1)	3.11	D-O	-124 / 0	0.03 (1)
D-E	-6100 / 0	-78.0 -78.0 0.52 (1)	3.09	O-F	0 / 3896	0.88 (1)
E-F	-6100 / 0	-78.0 -78.0 0.52 (1)	3.09	F-N	0 / 287	0.06 (1)
F-G	-3616 / 0	-85.5 -85.5 0.71 (1)	2.00	N-G	-624 / 0	0.16 (1)
G-T	-3616 / 0	-85.5 -85.5 0.76 (1)	2.00	N-I	0 / 1233	0.28 (1)
T-H	-3616 / 0	-85.5 -85.5 0.76 (1)	2.00	L-I	-1270 / 0	0.33 (1)
H-I	-3616 / 0	-85.5 -85.5 0.76 (1)	2.00	L-J	0 / 2906	0.65 (1)
I-J	-2545 / 0	-85.5 -85.5 0.65 (1)	2.00	R-S	0 / 1218	0.00 (1)
K-J	-1650 / 0	0.0 0.0 0.44 (1)	6.45	R-C	-3701 / 0	0.44 (1)
B-R	0 / 1848	-18.5 -18.5 0.24 (1)	10.00			
R-Q	0 / 4700	-18.5 -18.5 0.69 (1)	10.00			
Q-P	0 / 4746	-18.5 -18.5 0.71 (1)	10.00			
P-O	0 / 5747	-18.5 -18.5 0.80 (1)	10.00			
O-N	0 / 3366	-18.5 -18.5 0.48 (1)	10.00			
N-M	0 / 2545	-18.5 -18.5 0.35 (1)	10.00			
M-L	0 / 2545	-18.5 -18.5 0.35 (1)	10.00			
L-K	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/C

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

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

THIS DESIGN COMPLIES WITH:  
- PART 9 OF CBC 2018, ABC 2019  
- PART 9 OF CBC 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 (1.11")  
CALCULATED VERT. DEFL.(LL) = L/ 989 (0.40")  
ALLOWABLE DEFL.(TL)= L/360 (1.11")  
CALCULATED VERT. DEFL.(TL) = L/ 481 (0.83")

CSI: TC=0.76/1.00 (G-I:1), BC=0.80/1.00 (O-P:1), WB=0.88/1.00 (F-O:1), SSI=0.28/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

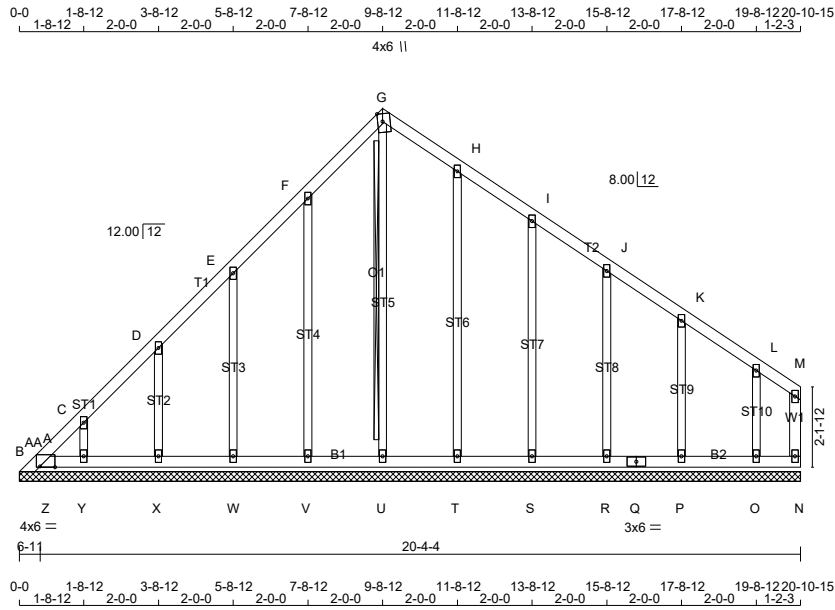
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (J) (INPUT = 0.90)  
JSI METAL= 0.74 (F) (INPUT = 1.00)



Alpa Roof Truss, Maple

ID:hd511hZTz\_bdeQoS817GKByhVxV-MHRvDTRiWRR2J5iKIZ8zQ5Qf8zk12OdHwP.JdiWYTp6A



TOTAL WEIGHT = 97 lb

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - G	2x4	DRY No.2	SPF
G - M	2x4	DRY No.2	SPF
N - M	2x4	DRY No.2	SPF
B - Q	2x4	DRY No.2	SPF
Q - N	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" O.C.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	4.0	6.0	Edge	4.75
C, D, E, F, H, I, J, K, L						
C	TMW+w	MT20	2.0	4.0		
G	TTW+m	MT20	4.0	6.0	Edge	1.50
M	TMV+p	MT20	2.0	4.0		
N	BMV1+p	MT20	2.0	4.0		
O, P, R, S, T, U, V, W, X, Y						
Q	BMW1+w	MT20	2.0	4.0		
Q	BS-t	MT20	3.0	6.0		

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

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

**BEARINGS**

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): N, U, V, W, X, Y, T, S, R, P, O

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 = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT G-U

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

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

**LOADING**

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	MEMB.
FR-TO		FROM TO		FR-TO			
A-B	0/3	-96.5 -96.5	0.00 (1)	10.00	U-G	-153/0	0.10 (1)
B-AA	-23/0	-78.0 -78.0	0.00 (1)	6.25	V-F	-179/0	0.19 (1)
AA-C	0/5	-78.0 -78.0	0.03 (1)	10.00	W-E	-146/0	0.07 (1)
C-D	0/7	-78.0 -78.0	0.04 (1)	10.00	X-D	-156/0	0.03 (1)
D-E	0/10	-78.0 -78.0	0.04 (1)	10.00	Y-C	-121/0	0.02 (1)
E-F	0/19	-78.0 -78.0	0.05 (1)	10.00	T-H	-178/0	0.24 (1)
F-G	0/8	-78.0 -78.0	0.05 (1)	10.00	S-I	-150/0	0.12 (1)
G-H	0/7	-78.0 -78.0	0.05 (1)	10.00	R-J	-154/0	0.07 (1)
H-I	0/16	-78.0 -78.0	0.05 (1)	10.00	P-K	-159/0	0.04 (1)
I-J	0/12	-78.0 -78.0	0.04 (1)	10.00	O-L	-131/0	0.02 (1)
J-K	0/8	-78.0 -78.0	0.04 (1)	10.00	Z-AA	-4/2	0.00 (1)
K-L	0/7	-78.0 -78.0	0.04 (1)	10.00			
L-M	0/9	-78.0 -78.0	0.03 (1)	10.00			
N-M	-26/0	0.0 0.0	0.00 (1)	7.81			

B-Z	0/8	-18.5 -18.5	0.00 (1)	10.00
Z-Y	0/8	-18.5 -18.5	0.01 (4)	10.00
Y-X	-3/0	-18.5 -18.5	0.02 (4)	10.00
X-W	-8/0	-18.5 -18.5	0.02 (4)	10.00
W-V	-11/0	-18.5 -18.5	0.01 (4)	6.25
V-U	-13/0	-18.5 -18.5	0.01 (4)	6.25
U-T	-13/0	-18.5 -18.5	0.01 (4)	6.25
T-S	-12/0	-18.5 -18.5	0.01 (4)	6.25
S-R	-10/0	-18.5 -18.5	0.01 (4)	10.00
R-Q	-7/0	-18.5 -18.5	0.02 (4)	10.00
Q-P	-7/0	-18.5 -18.5	0.02 (4)	10.00
P-O	-4/0	-18.5 -18.5	0.02 (4)	10.00
O-N	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**

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

THIS DESIGN COMPLIES WITH:

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

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

CSI: TC=0.05/1.00 (E-F:1), BC=0.02/1.00 (W-X:4), WB=0.24/1.00 (H-T:1), SSI=0.06/1.00 (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 (PSI)	SECTION (PLI)	SECTION (PLI)
MT20	650	371	1747	788 1987 1873

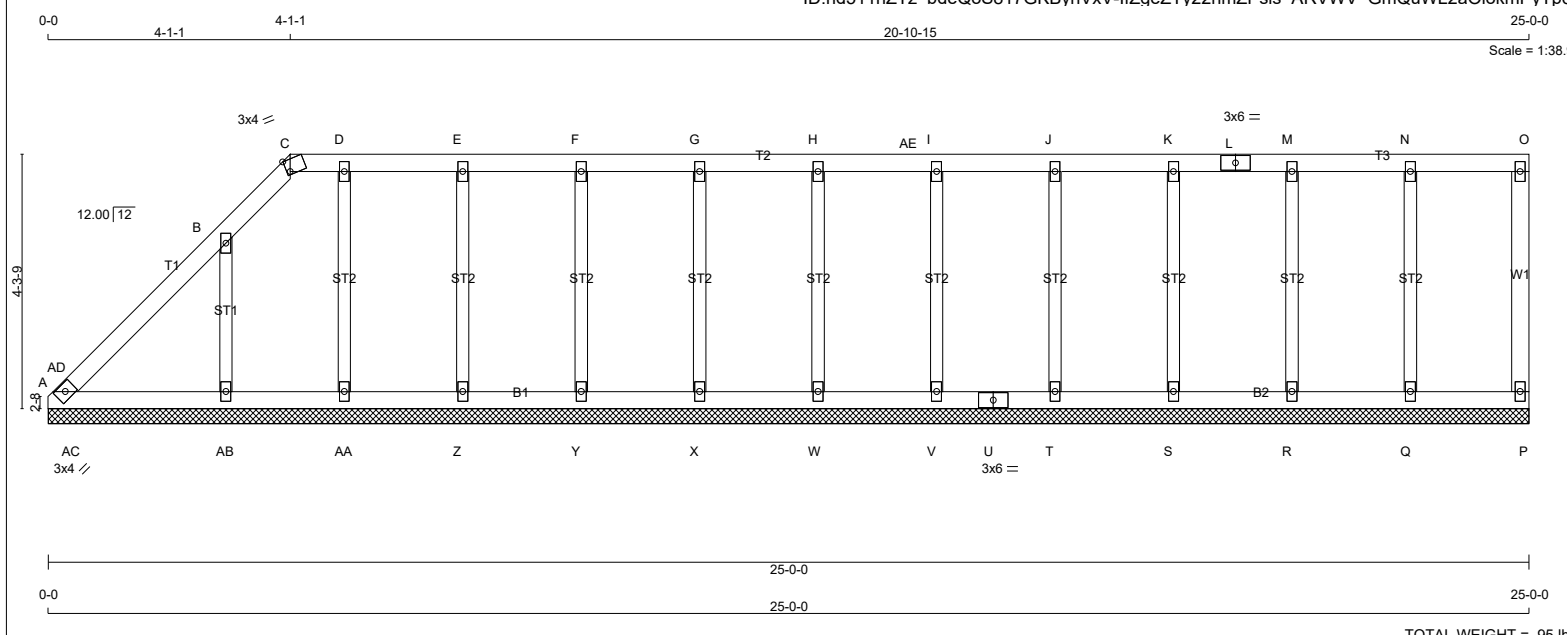
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.38 (C) (INPUT = 0.90 )  
JSI METAL= 0.09 (F) (INPUT = 1.00 )

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





TOTAL WEIGHT = 95 lb [M]

**LUMBER**  
 N. L. G. A. RULES  
 CHORDS SIZE LUMBER DESCR.  
 A - C 2x4 DRY No.2 SPF  
 C - L 2x4 DRY No.2 SPF  
 L - O 2x4 DRY No.2 SPF  
 P - O 2x4 DRY No.2 SPF  
 A - U 2x4 DRY No.2 SPF  
 U - P 2x4 DRY No.2 SPF  
 ALL WEBS 2x3 DRY No.2 SPF  
 ALL GABLE WEBS 2x3 DRY No.2 SPF  
 DRY: SEASONED LUMBER.  
 GABLE STUDS SPACED AT 2-0-0 OC.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
A TBM1-h	MT20	3.0	4.0		
B, D, E, F, G, H, I, J, K, M, N					
C TMW+w	MT20	2.0	4.0		
C TT-m	MT20	3.0	4.0	Edge	0.75
L TS-t	MT20	3.0	6.0		
O TMV+p	MT20	2.0	4.0		
P BMV1+p	MT20	2.0	4.0		
Q, R, S, T, V, W, X, Y, Z, AA, AB					
Q BMW1+w	MT20	2.0	4.0		
U BS-t	MT20	3.0	6.0		

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

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



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

**BEARINGS**  
 THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.  
 THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.  
 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

**BRACING**  
 FOR SECTION C-O, MAX. PURLIN SPACING = 2.00 FT.  
 FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.  
 ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

**LOADING**  
 TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-AD	-14 / 0	-78.0 -78.0	0.01 (4)	6.25	Q-N	-191 / 0	0.05 (1)
AD-B	0 / 4	-78.0 -78.0	0.07 (1)	10.00	R-M	-168 / 0	0.05 (1)
B-C	-32 / 0	-78.0 -78.0	0.07 (1)	6.25	S-K	-172 / 0	0.05 (1)
C-D	0 / 1	-85.5 -85.5	0.05 (1)	2.00	T-J	-171 / 0	0.05 (1)
D-E	0 / 0	-85.5 -85.5	0.05 (1)	10.00	V-I	-171 / 0	0.05 (1)
E-F	0 / 0	-85.5 -85.5	0.04 (1)	10.00	W-H	-171 / 0	0.05 (1)
F-G	0 / 0	-85.5 -85.5	0.04 (1)	10.00	X-G	-171 / 0	0.05 (1)
G-H	0 / 0	-85.5 -85.5	0.04 (1)	10.00	Y-F	-172 / 0	0.05 (1)
H-AE	0 / 0	-85.5 -85.5	0.04 (1)	10.00	Z-E	-165 / 0	0.05 (1)
AE-I	0 / 0	-85.5 -85.5	0.04 (1)	10.00	AA-D	-170 / 0	0.05 (1)
I-J	0 / 0	-85.5 -85.5	0.04 (1)	10.00	AB-B	-203 / 0	0.04 (1)
J-K	0 / 0	-85.5 -85.5	0.04 (1)	10.00	AC-AD	-94 / 0	0.00 (1)
K-L	0 / 0	-85.5 -85.5	0.04 (1)	10.00			
L-M	0 / 0	-85.5 -85.5	0.04 (1)	10.00			
M-N	0 / 0	-85.5 -85.5	0.05 (1)	10.00			
N-O	0 / 0	-85.5 -85.5	0.05 (1)	10.00			
P-O	-69 / 0	0.0 0.0	0.02 (1)	7.81			
A-AC	-26 / 0	-18.5 -18.5	0.05 (1)	6.25			
AC-AB	0 / 8	-18.5 -18.5	0.05 (1)	10.00			
AB-AA	0 / 0	-18.5 -18.5	0.04 (1)	10.00			
AA-Z	0 / 0	-18.5 -18.5	0.02 (4)	10.00			
Z-Y	0 / 0	-18.5 -18.5	0.02 (4)	10.00			
Y-X	0 / 0	-18.5 -18.5	0.01 (4)	10.00			
X-W	0 / 0	-18.5 -18.5	0.01 (4)	10.00			
W-V	0 / 0	-18.5 -18.5	0.01 (4)	10.00			
V-U	0 / 0	-18.5 -18.5	0.01 (4)	10.00			
U-T	0 / 0	-18.5 -18.5	0.01 (4)	10.00			
T-S	0 / 0	-18.5 -18.5	0.01 (4)	10.00			
S-R	0 / 0	-18.5 -18.5	0.01 (4)	10.00			
R-Q	0 / 0	-18.5 -18.5	0.02 (4)	10.00			
Q-P	0 / 0	-18.5 -18.5	0.02 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

CSI: TC=0.07/1.00 (B-AD:1), BC=0.05/1.00 (AB-AC:1), WB=0.05/1.00 (N-Q:1), SSI=0.08/1.00 (N-O: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.

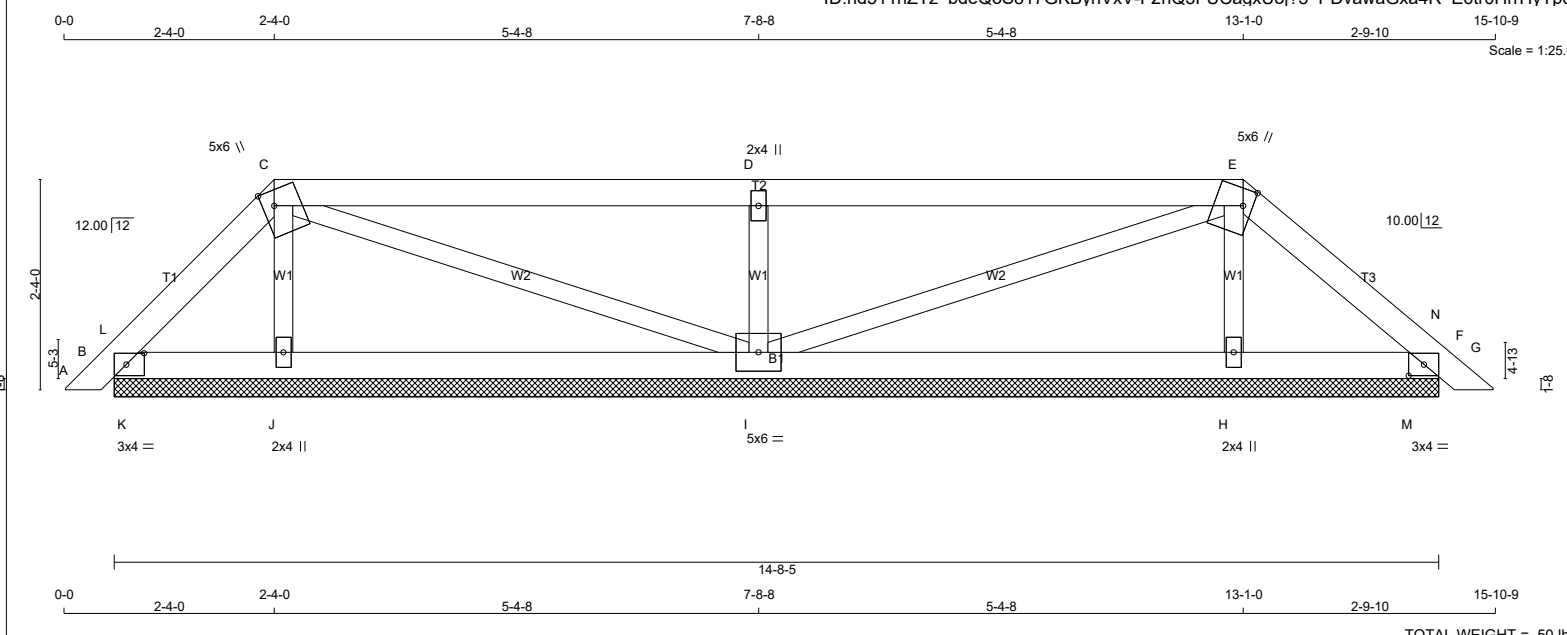
**NAIL VALUES**

PLATE	GRIP(DRY)	SHEAR (PSI)	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 (C) (INPUT = 0.90)  
 JSI METAL= 0.11 (B) (INPUT = 1.00)



**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - E	2x4	DRY No.2	SPF
E - G	2x4	DRY No.2	SPF
B - 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	TMB1-I	MT20	3.0	4.0	1.50	2.50
C	TTWW+m	MT20	5.0	6.0	2.00	1.50
D	TMW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	5.0	6.0	2.25	1.25
F	TMB1-I	MT20	3.0	4.0	1.50	2.00
H	BMW1+w	MT20	2.0	4.0		
I	BMWWW1-t	MT20	5.0	6.0		
J	BMW1+w	MT20	2.0	4.0		

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
B	146	0	146	0	14-8-5	1-8
F	169	0	169	0	14-8-5	1-8
J	258	0	258	0	14-8-5	1-8
I	640	0	640	0	14-8-5	1-8
H	280	0	280	0	14-8-5	1-8

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	101	79 / 0	0 / 0	0 / 0	0 / 0	22 / 0	0 / 0
F	117	87 / 0	0 / 0	0 / 0	0 / 0	30 / 0	0 / 0
J	188	95 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0
I	454	289 / 0	0 / 0	0 / 0	0 / 0	165 / 0	0 / 0
H	202	107 / 0	0 / 0	0 / 0	0 / 0	96 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, F, J, I, 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 LC1 CSI (LC)	MAX LC2 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX UNBRAC LENGTH	FR-TO	MAX. FACTORED FORCE (LBS)
A-B	0 / 11	-78.0	-78.0	0.01 (1)	10.00	J-C	-162 / 0		0.02 (1)
B-L	-19 / 11	-78.0	-78.0	0.02 (1)	6.25	C-I	-23 / 0		0.01 (1)
L-C	-64 / 0	-78.0	-78.0	0.02 (1)	6.25	I-D	-523 / 0		0.08 (1)
C-D	-10 / 0	-78.0	-78.0	0.38 (1)	10.00	I-E	-25 / 0		0.01 (1)
D-E	-10 / 0	-78.0	-78.0	0.38 (1)	10.00	H-E	-180 / 0		0.03 (1)
E-N	-62 / 0	-78.0	-78.0	0.04 (1)	6.25	K-L	-124 / 0		0.00 (1)
N-F	-22 / 2	-78.0	-78.0	0.02 (1)	6.25	M-N	-139 / 0		0.00 (1)
F-G	0 / 12	-78.0	-78.0	0.02 (1)	10.00				
B-K	0 / 41	-18.5	-18.5	0.04 (1)	10.00				
K-J	0 / 41	-18.5	-18.5	0.08 (4)	10.00				
J-I	0 / 32	-18.5	-18.5	0.11 (4)	10.00				
I-H	0 / 34	-18.5	-18.5	0.11 (4)	10.00				
H-M	0 / 43	-18.5	-18.5	0.08 (4)	10.00				
M-F	0 / 43	-18.5	-18.5	0.05 (1)	10.00				

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM  
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015

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

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

CSI: TC=0.38/1.00 (D-E:1), BC=0.11/1.00 (H-I:4), WB=0.08/1.00 (D-I:1), SSI=0.20/1.00 (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)
MT20	650	371	1747 788 1987 1873

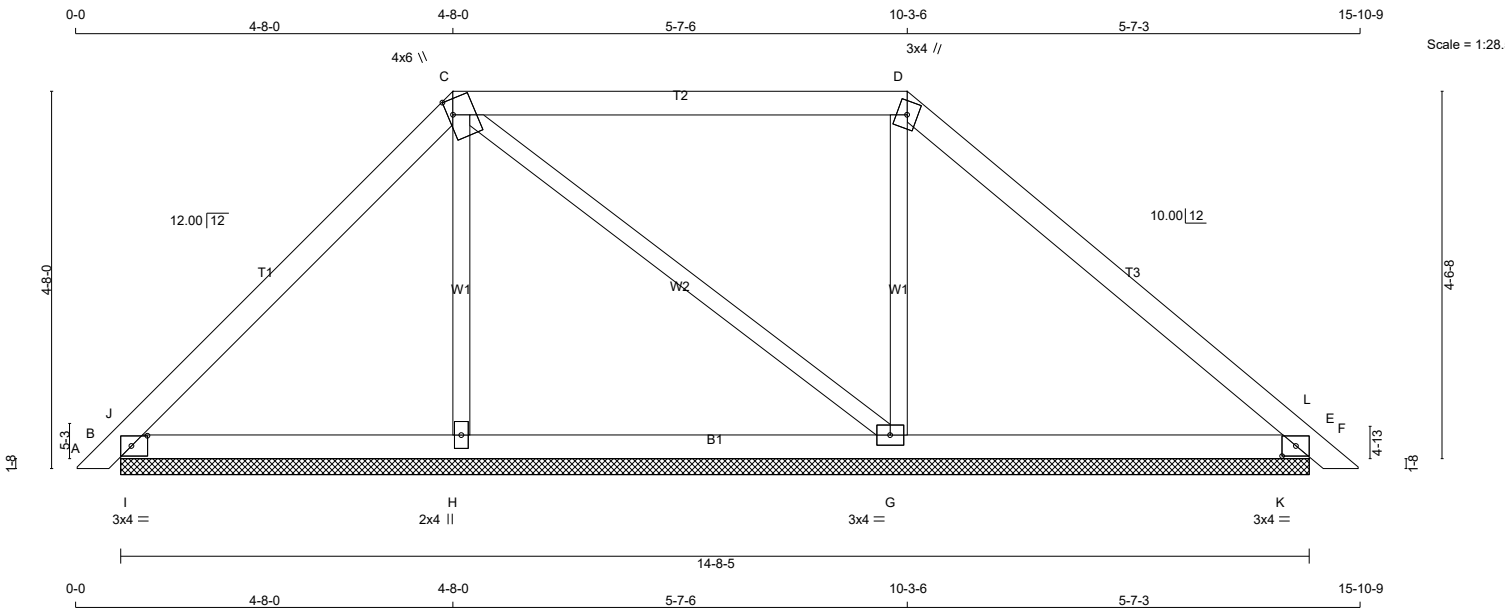
PLATE PLACEMENT TOL. = 0.250 inches  
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.26 (D) (INPUT = 0.90)  
JSI METAL= 0.11 (D) (INPUT = 1.00)

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



ID:hd511hZTz bdeQoS817GKByhVxV-BRoAUwWS6HBC109T5qFNflbqNkUS8ZAJKmxvAyTp64



**LUMBER**

N. L. G. A. RULES

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

DRY; SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.50
C	TTWW+m	MT20	4.0	6.0	2.25	0.75
D	TTW+m	MT20	3.0	4.0		
E	TMB1-I	MT20	3.0	4.0	1.50	2.00
G	BMWW1-t	MT20	3.0	4.0		
H	BMW1+w	MT20	2.0	4.0		

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
B	378	0	378	0	14-8-5	1-8
E	381	0	381	0	14-8-5	1-8
H	304	0	304	0	14-8-5	1-8
G	429	0	429	0	14-8-5	1-8

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	266	183 / 0	0 / 0	0 / 0	0 / 0	83 / 0	0 / 0
E	269	181 / 0	0 / 0	0 / 0	0 / 0	88 / 0	0 / 0
H	220	115 / 0	0 / 0	0 / 0	0 / 0	105 / 0	0 / 0
G	307	178 / 0	0 / 0	0 / 0	0 / 0	129 / 0	0 / 0

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-B	0 / 11	-78.0	-78.0 0.01 (1)	10.00	H-C	-187 / 0	0.06 (1)	
B-J	-43 / 1	-78.0	-78.0 0.09 (1)	6.25	C-G	-23 / 0	0.02 (1)	
J-C	-228 / 0	-78.0	-78.0 0.16 (1)	6.25	G-D	-270 / 0	0.08 (1)	
C-D	-129 / 0	-78.0	-78.0 0.42 (1)	6.25	I-J	-441 / 0	0.00 (1)	
D-L	-190 / 0	-78.0	-78.0 0.24 (1)	6.25	K-L	-547 / 0	0.00 (1)	
L-E	-41 / 72	-78.0	-78.0 0.13 (1)	6.25				
E-F	0 / 12	-78.0	-78.0 0.02 (1)	10.00				
B-I	0 / 152	-18.5	-18.5 0.15 (1)	10.00				
I-H	0 / 152	-18.5	-18.5 0.15 (1)	10.00				
H-G	0 / 148	-18.5	-18.5 0.14 (4)	10.00				
G-K	0 / 136	-18.5	-18.5 0.20 (1)	10.00				
K-E	0 / 136	-18.5	-18.5 0.20 (1)	10.00				

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

CSI=TC=0.42/1.00 (C-D:1), BC=0.20/1.00 (E-K:1), WB=0.08/1.00 (D-G:1), SSI=0.43/1.00 (E-K:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

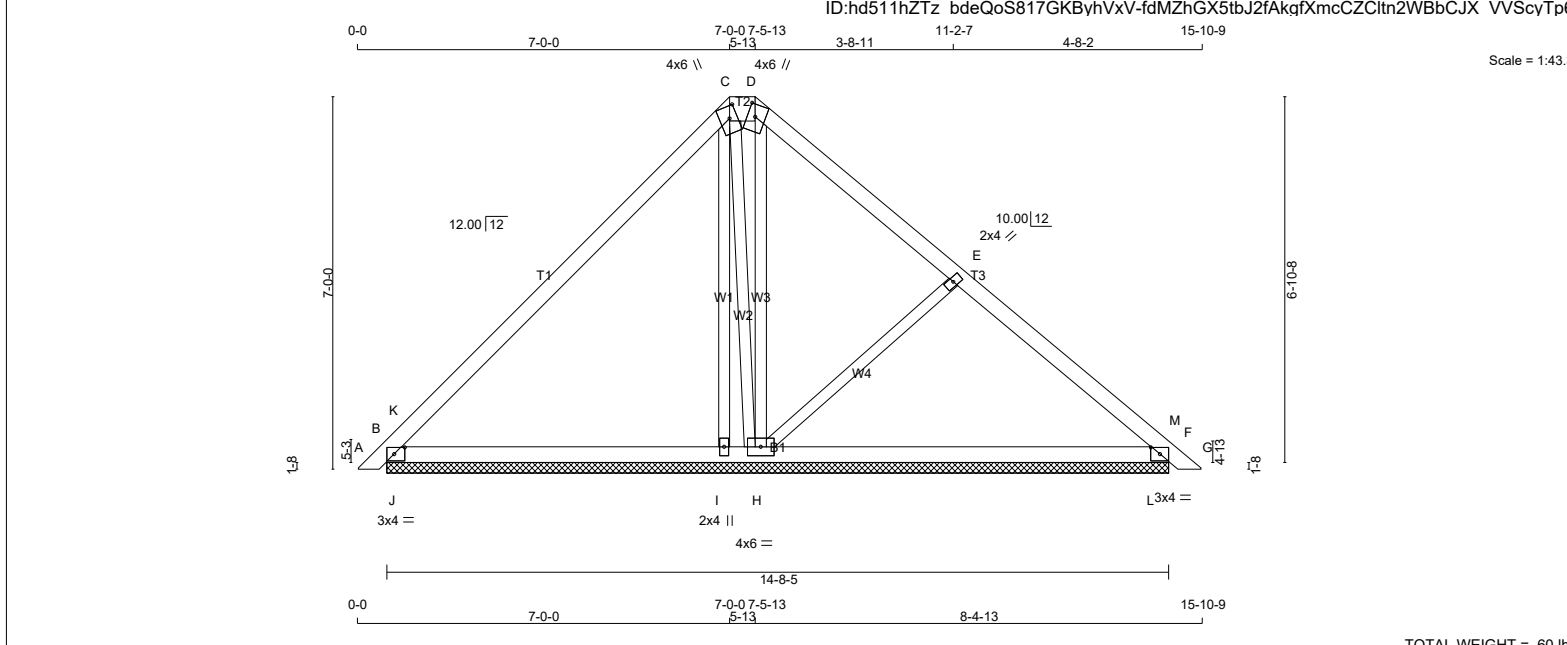
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.45 (D) (INPUT = 0.90)  
JSI METAL= 0.09 (B) (INPUT = 1.00)

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





**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - D	2x6	DRY No.2	SPF
D - G	2x4	DRY No.2	SPF
B - 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	TMB1-I	MT20	3.0	4.0	1.50	2.50
C	TTWW+m	MT20	4.0	6.0	2.75	1.75
D	TTW+m	MT20	4.0	6.0	2.75	1.75
E	TMW+w	MT20	2.0	4.0		
F	TMB1-I	MT20	3.0	4.0	1.50	2.00
H	BMWW1-t	MT20	4.0	6.0		
I	BMW1+w	MT20	2.0	4.0		

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
B	408	0	408	0	14-8-5	1-8
F	469	0	469	0	14-8-5	1-8
I	302	0	302	0	14-8-5	1-8
H	314	0	314	0	14-8-5	1-8

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS				
		SNOW	LIVE	PERM.LIVE	WIND	DEAD
B	290	183 / 0	0 / 0	0 / 0	0 / 0	107 / 0
F	333	212 / 0	0 / 0	0 / 0	0 / 0	121 / 0
I	211	150 / 0	0 / 0	0 / 0	0 / 0	62 / 0
H	229	113 / 0	0 / 0	0 / 0	0 / 0	116 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, F, I, 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 LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX UNBRACED LENGTH	FR-TO
A-B	0 / 11	-78.0	-78.0 0.01 (1)	I-C	-47 / 0	10.00	10.00
B-K	0 / 624	-78.0	-78.0 0.37 (1)	H-D	-58 / 7	10.00	10.00
K-C	-154 / 0	-78.0	-78.0 0.40 (1)	C-H	-93 / 0	6.25	10.00
C-D	-85 / 0	-78.0	-78.0 0.00 (1)	H-E	-294 / 0	6.25	10.00
D-E	-134 / 0	-78.0	-78.0 0.20 (1)	J-K	-1209 / 0	6.25	10.00
E-M	-363 / 0	-78.0	-78.0 0.20 (1)	L-M	0 / 248	6.25	10.00
M-F	-543 / 0	-78.0	-78.0 0.12 (4)			6.25	
F-G	0 / 12	-78.0	-78.0 0.02 (1)			10.00	
B-J	0 / 93	-18.5	-18.5 0.35 (1)			10.00	
J-I	0 / 93	-18.5	-18.5 0.35 (1)			10.00	
I-H	0 / 94	-18.5	-18.5 0.27 (1)			10.00	
H-L	0 / 302	-18.5	-18.5 0.25 (4)			10.00	
L-F	0 / 302	-18.5	-18.5 0.11 (4)			10.00	

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

CSI: TC=0.40/1.00 (C-K:1), BC=0.35/1.00 (B-J:1), WB=0.12/1.00 (E-H:1), SSI=0.94/1.00 (B-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

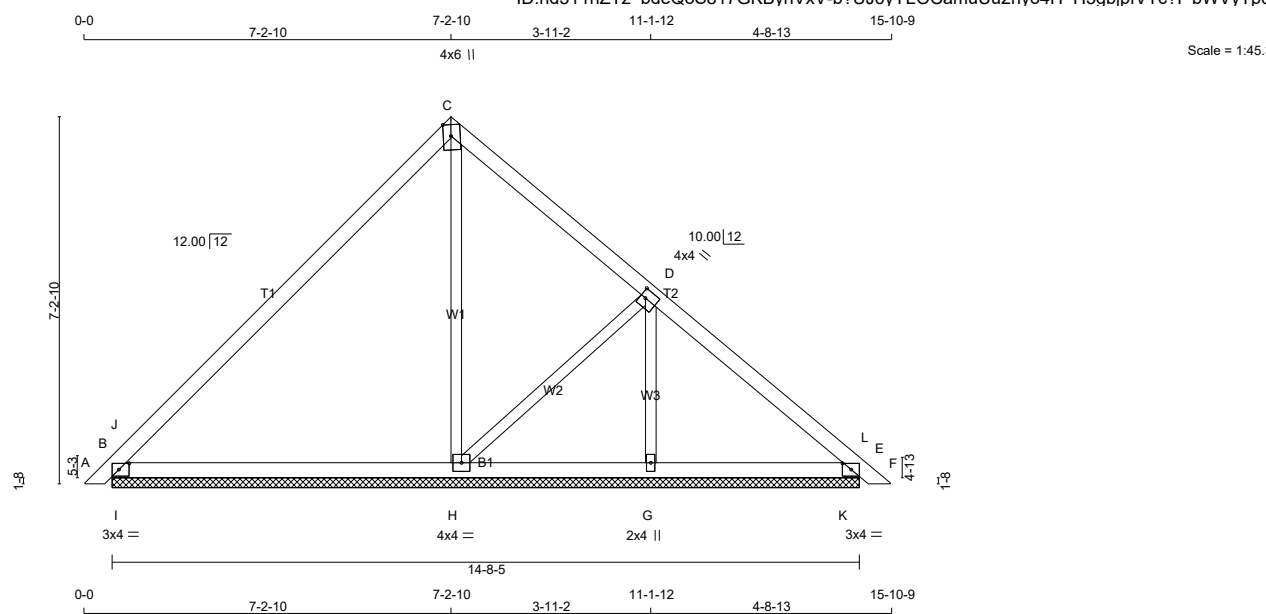
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches  
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.42 (B) (INPUT = 0.90 )  
JSI METAL= 0.12 (F) (INPUT = 1.00 )

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





TOTAL WEIGHT = 9 X 53 = 477 lb

**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-l	MT20	3.0	4.0	1.50	2.50
C	TTW+m	MT20	4.0	6.0	Edge	1.75
D	TMWW-t	MT20	4.0	4.0	2.00	1.25
E	TMB1-l	MT20	3.0	4.0	1.50	2.00
G	BMW1+w	MT20	2.0	4.0		
H	BMW1-t	MT20	4.0	4.0		

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

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
B	492	0	492	0	14-8-5	1-8
E	361	0	361	0	14-8-5	1-8
H	280	0	280	0	14-8-5	1-8
G	360	0	360	0	14-8-5	1-8

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS				
		SNOW	LIVE	PERM.LIVE	WIND	DEAD
B	348	228 / 0	0 / 0	0 / 0	0 / 0	120 / 0
E	255	170 / 0	0 / 0	0 / 0	0 / 0	85 / 0
H	204	102 / 0	0 / 0	0 / 0	0 / 0	102 / 0
G	256	158 / 0	0 / 0	0 / 0	0 / 0	99 / 0

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO		FR-TO				
A-B	0 / 11	-78.0 -78.0	0.01 (1)	10.00	H-C	-54 / 11	0.05 (1)	
B-J	-20 / 522	-78.0 -78.0	0.35 (1)	6.25	H-D	-45 / 0	0.02 (1)	
J-C	-241 / 0	-78.0 -78.0	0.45 (1)	6.25	G-D	-315 / 0	0.07 (1)	
C-D	-224 / 0	-78.0 -78.0	0.20 (1)	6.25	I-J	-1198 / 0	0.00 (1)	
D-L	-223 / 0	-78.0 -78.0	0.20 (1)	6.25	K-L	-144 / 30	0.00 (1)	
E-E	-230 / 0	-78.0 -78.0	0.02 (1)	6.25				
E-F	0 / 12	-78.0 -78.0	0.02 (1)	10.00				
B-I	0 / 155	-18.5 -18.5	0.36 (1)	10.00				
I-H	0 / 155	-18.5 -18.5	0.36 (1)	10.00				
H-G	0 / 188	-18.5 -18.5	0.24 (1)	10.00				
G-K	0 / 188	-18.5 -18.5	0.11 (1)	10.00				
K-E	0 / 188	-18.5 -18.5	0.09 (1)	10.00				

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN./C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

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

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

CSI: TC=0.45/1.00 (C-J:1), BC=0.36/1.00 (B-I:1), WB=0.07/1.00 (D-G:1), SSI=0.94/1.00 (B-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

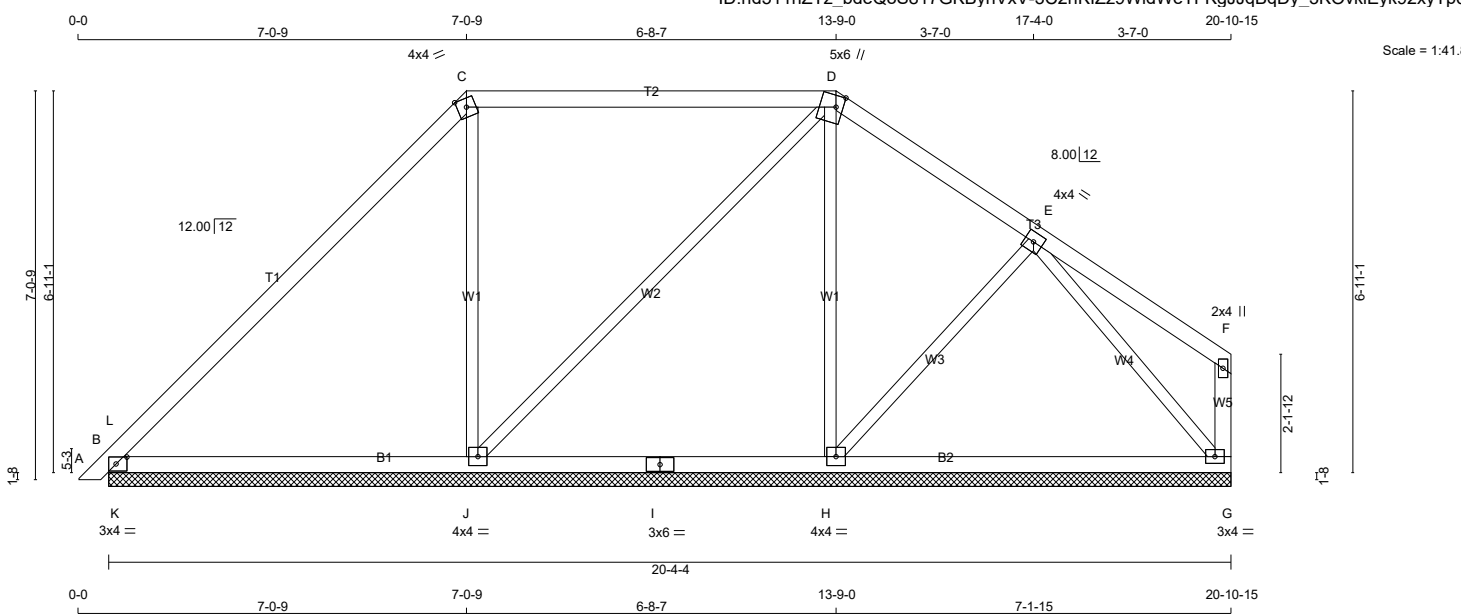
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.49 (B) (INPUT = 0.90)  
JSI METAL= 0.11 (B) (INPUT = 1.00)

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





**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
B	TMB1-l	MT20	3.0	4.0	1.50 2.50
C	TTW-m	MT20	4.0	4.0	Edge
D	TTWW+m	MT20	5.0	6.0	2.50 1.50
E	TMWW-t	MT20	4.0	4.0	
F	TMV+p	MT20	2.0	4.0	
G	BMVW1-t	MT20	3.0	4.0	
H	BMWW1-t	MT20	4.0	4.0	
I	BS-t	MT20	3.0	6.0	
J	BMWW1-t	MT20	4.0	4.0	

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

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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
G	452	0	452	0	20-4-4 (10-4-4)8	
B	494	0	494	0	20-4-4 (10-4-4)8	
J	461	0	461	0	20-4-4 (10-4-4)8	
H	592	0	592	0	20-4-4 (10-4-4)8	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					DEAD	SOIL
		SNOW	LIVE	PERM.LIVE	WIND			
G	320	210 / 0	0 / 0	0 / 0	0 / 0	110 / 0	0 / 0	
B	349	229 / 0	0 / 0	0 / 0	0 / 0	120 / 0	0 / 0	
J	330	193 / 0	0 / 0	0 / 0	0 / 0	137 / 0	0 / 0	
H	425	241 / 0	0 / 0	0 / 0	0 / 0	184 / 0	0 / 0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) G, B, 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 LC1 CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 11	-78.0	-78.0	0.01 (1)	10.00	J-C	-314 / 0
B-L	-27 / 459	-78.0	-78.0	0.32 (1)	6.25	J-D	0 / 55
L-C	-251 / 0	-78.0	-78.0	0.42 (1)	6.25	H-D	-323 / 0
C-D	-158 / 0	-78.0	-78.0	0.60 (1)	6.25	H-E	-186 / 0
D-E	-168 / 0	-78.0	-78.0	0.17 (1)	6.25	E-G	-380 / 0
E-F	0 / 19	-78.0	-78.0	0.17 (1)	10.00	K-L	-1126 / 0
G-F	-106 / 0	0.0	0.0	0.01 (1)	7.81		
B-K	0 / 162	-18.5	-18.5	0.34 (1)	10.00		
K-J	0 / 162	-18.5	-18.5	0.34 (1)	10.00		
J-I	0 / 119	-18.5	-18.5	0.22 (4)	10.00		
I-H	0 / 119	-18.5	-18.5	0.22 (4)	10.00		
H-G	0 / 246	-18.5	-18.5	0.23 (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 BCBC 2018, ABC 2019  
- PART 9 OF OBC 2012 (2019 AMENDMENT)  
- CSA 086-14  
- TPIC 2014

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

CSI: TC=0.60/1.00 (C-D:1), BC=0.34/1.00 (J-K:1), WB=0.26/1.00 (D-H:1), SSI=0.88/1.00 (B-K:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

**NAIL VALUES**

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

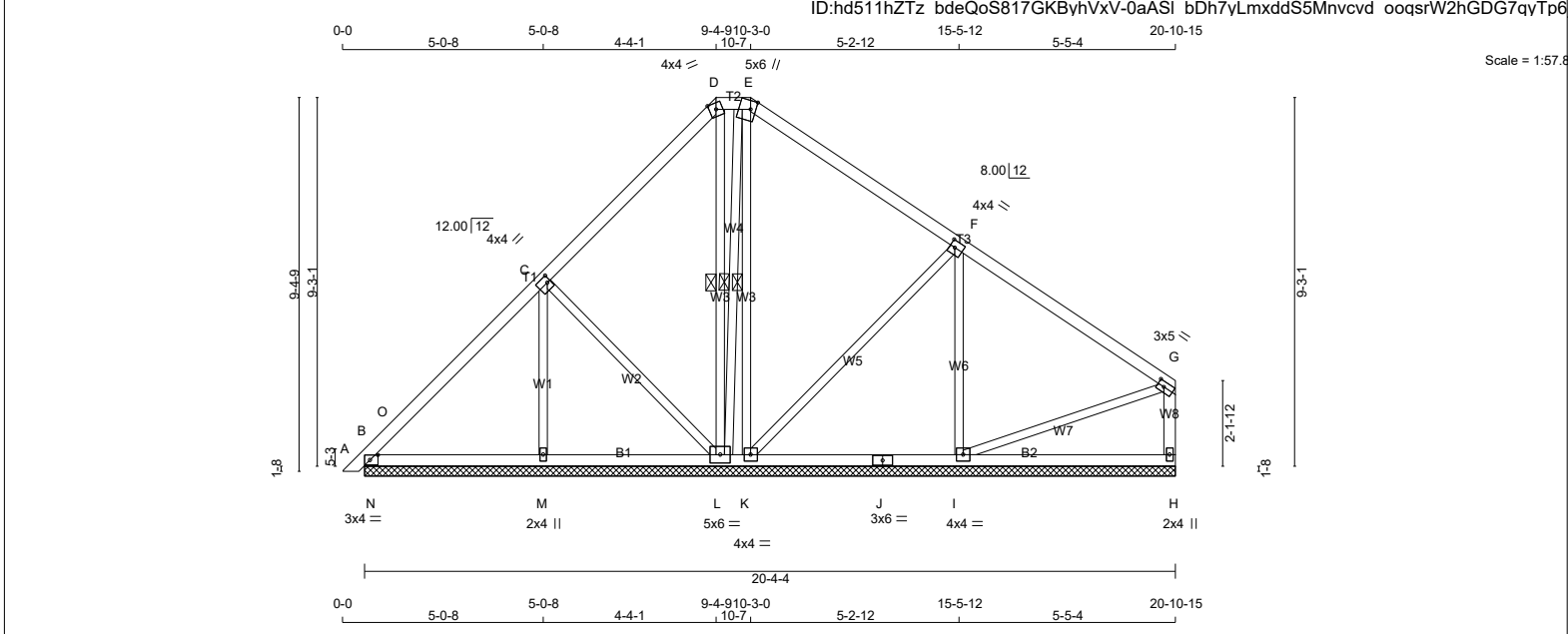
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.74 (G) (INPUT = 0.90)  
JSI METAL= 0.12 (E) (INPUT = 1.00)

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





TOTAL WEIGHT = 100 lb [M]

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - E	2x4	DRY No.2	SPF
E - G	2x4	DRY No.2	SPF
H - G	2x4	DRY No.2	SPF
B - J	2x4	DRY No.2	SPF
J - H	2x4	DRY No.2	SPF
ALL WEBS	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-l	MT20	3.0	4.0	1.50	2.50
C	TMWW-t	MT20	4.0	4.0	2.00	1.00
D	TTW-m	MT20	4.0	4.0	Edge	
E	TTWW+m	MT20	5.0	6.0	2.50	1.50
F	TMWW-t	MT20	4.0	4.0	2.00	1.50
G	TMVW-t	MT20	3.0	5.0	1.50	2.00
H	BMV1+p	MT20	2.0	4.0		
I	BMWW1-t	MT20	4.0	4.0		
J	BS-t	MT20	3.0	6.0		
K	BMWW1-t	MT20	4.0	4.0		
L	BMWW1-t	MT20	5.0	6.0		
M	BMW1+w	MT20	2.0	4.0		

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

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



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

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
H	291	0	291	0	20-4-4 (7-4-4) 1-8	
B	292	0	292	0	20-4-4 (7-4-4) 1-8	
M	309	0	309	0	20-4-4 (7-4-4) 1-8	
L	388	0	388	0	20-4-4 (7-4-4) 1-8	
K	280	0	280	0	20-4-4 (7-4-4) 1-8	
I	437	0	437	0	20-4-4 (7-4-4) 1-8	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

**UNFACTORED REACTIONS**

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	206	135/0	0/0	0/0	0/0	0/0	71/0	0/0
B	207	137/0	0/0	0/0	0/0	0/0	70/0	0/0
M	223	119/0	0/0	0/0	0/0	0/0	104/0	0/0
L	272	193/0	0/0	0/0	0/0	0/0	79/0	0/0
K	201	117/0	0/0	0/0	0/0	0/0	84/0	0/0
I	315	173/0	0/0	0/0	0/0	0/0	143/0	0/0

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

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

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS			UNBRAC LENGTH	WEBS		
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED L1 MAX CSI (LC)		MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX CSI (LC)
A-B	0/11	-78.0	-78.0 0.01 (1)	10.00	M-C	-191/0	0.07 (1)
B-O	-57/0	-78.0	-78.0 0.05 (1)	6.25	C-L	-154/0	0.11 (1)
O-C	-106/0	-78.0	-78.0 0.24 (1)	6.25	L-D	-179/0	0.10 (1)
C-D	-6/0	-78.0	-78.0 0.24 (1)	10.00	L-E	-91/0	0.05 (1)
D-E	0/18	-78.0	-78.0 0.01 (1)	10.00	K-E	-101/0	0.06 (1)
E-F	-19/0	-78.0	-78.0 0.38 (1)	6.25	K-F	-142/0	0.17 (1)
F-G	-80/0	-78.0	-78.0 0.38 (1)	6.25	I-F	-352/0	0.18 (1)
H-G	-251/0	0.0	0.0 0.03 (1)	7.81	I-G	0/95	0.02 (1)
B-N	0/91	-18.5	-18.5 0.10 (1)	10.00	N-O	-279/0	0.00 (1)
N-M	0/91	-18.5	-18.5 0.10 (4)	10.00			
M-L	0/91	-18.5	-18.5 0.10 (4)	10.00			
L-K	-10/0	-18.5	-18.5 0.07 (4)	6.25			
K-J	0/90	-18.5	-18.5 0.14 (4)	10.00			
J-I	0/90	-18.5	-18.5 0.14 (4)	10.00			
I-H	0/0	-18.5	-18.5 0.14 (4)	10.00			

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

CSI: TC=0.38/1.00 (F-G:1), BC=0.14/1.00 (I-K:4), WB=0.18/1.00 (F-I:1), SSI=0.23/1.00 (B-N: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

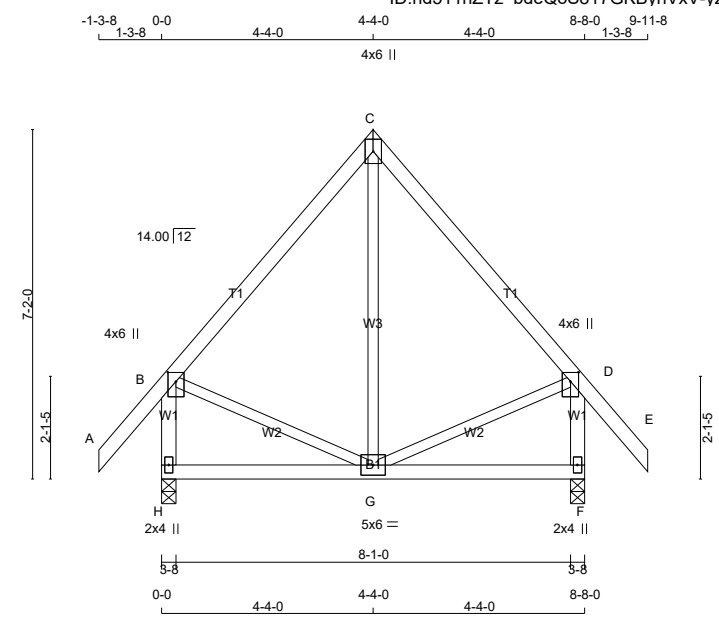
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.72 (G) (INPUT = 0.90)  
JSI METAL= 0.09 (D) (INPUT = 1.00)



JOB NAME <b>336324</b>	TRUSS NAME <b>H118</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC.</b>	<b>JT 45147</b>	DRWG NO. <b>E21104117</b>
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 ID:hd511hZTz bdeQoS817GKByhVxV-yzHC9fcUDkC3?Fm0ZWOV 1?0ScV0KnJL8aiMAiyTp5y



Scale = 1:47.2

TOTAL WEIGHT = 46 lb

**LUMBER**  
N. L. G. A. RULES

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

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

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	4.0	6.0	2.25	2.00
C	TTW+p	4.0	6.0		
D	TMVW+p	4.0	6.0	2.25	2.00
F	BMV1+p	2.0	4.0		
G	BMWWW-t	5.0	6.0		
H	BMV1+p	2.0	4.0		

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

**BEARINGS**

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
H	527	0	527	0
F	527	0	527	0

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX. SNOW	MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
H	374	241 / 0	0 / 0	0 / 0	0 / 0	133 / 0	0 / 0
F	374	241 / 0	0 / 0	0 / 0	0 / 0	133 / 0	0 / 0

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

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

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

**LOADING**  
 TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	G-C	-13 / 64	0.02 (4)
B-C	-214 / 0	-78.0	-78.0	0.19 (1)	6.25	B-G	0 / 150	0.03 (1)
C-D	-214 / 0	-78.0	-78.0	0.19 (1)	6.25	G-D	0 / 150	0.03 (1)
D-E	0 / 42	-78.0	-78.0	0.11 (1)	10.00			
H-B	-497 / 0	0.0	0.0	0.06 (1)	7.81			
F-D	-497 / 0	0.0	0.0	0.06 (1)	7.81			
H-G	0 / 0	-18.5	-18.5	0.10 (4)	10.00			
G-F	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/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 (0.29")  
 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 (B-C:1), BC=0.10/1.00 (G-H:4), WB=0.03/1.00 (D-G:1), SSI=0.09/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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.

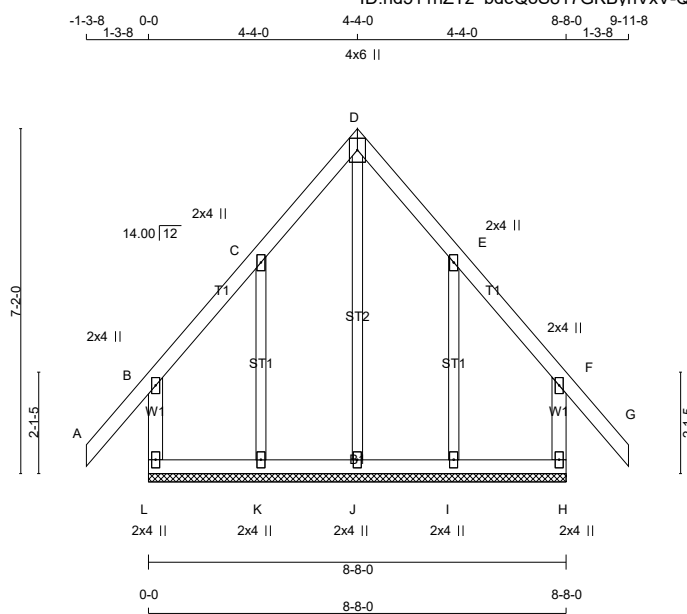
JSI GRIP= 0.28 (B) (INPUT = 0.90 )  
 JSI METAL= 0.14 (D) (INPUT = 1.00 )

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



JOB NAME <b>336324</b>	TRUSS NAME <b>H118G</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104118</b>
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TOTAL WEIGHT = 46 lb

**LUMBER**  
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
L - B	2x4	DRY No.2	SPF
A - D	2x4	DRY No.2	SPF
D - G	2x4	DRY No.2	SPF
H - F	2x4	DRY No.2	SPF
L - H	2x4	DRY No.2	SPF
ALL WEBS	2x3	DRY No.2	SPF
ALL GABLE WEBS	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2'-0" OC.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMW+w	MT20	2.0	4.0		
D	TTW+p	MT20	4.0	6.0		
E	TMW+w	MT20	2.0	4.0		
F	TMV+p	MT20	2.0	4.0		
H	BMV1+p	MT20	2.0	4.0		
I, J, K						
I	BMW1+w	MT20	2.0	4.0		
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**  
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.

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 (LC)	MAX UNBRACED LENGTH	MEMB. MAX. FACTORED FORCE (LBS)	FACTORED LC1 (LC)	MAX	
FR-TO		FROM	TO		FR-TO			
L-B	-213 / 0	0.0	0.0	0.02 (1)	7.81	J-D	-142 / 0	0.12 (1)
A-B	0 / 42	-78.0	-78.0	0.11 (1)	10.00	K-C	-163 / 0	0.06 (1)
B-C	-21 / 0	-78.0	-78.0	0.05 (1)	6.25	I-E	-163 / 0	0.06 (1)
C-D	-14 / 0	-78.0	-78.0	0.04 (1)	6.25			
D-E	-14 / 0	-78.0	-78.0	0.04 (1)	6.25			
E-F	-21 / 0	-78.0	-78.0	0.05 (1)	6.25			
F-G	0 / 42	-78.0	-78.0	0.11 (1)	10.00			
H-F	-213 / 0	0.0	0.0	0.02 (1)	7.81			
L-K	0 / 13	-18.5	-18.5	0.02 (4)	10.00			
K-J	0 / 9	-18.5	-18.5	0.02 (4)	10.00			
J-I	0 / 9	-18.5	-18.5	0.02 (4)	10.00			
I-H	0 / 13	-18.5	-18.5	0.02 (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

**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 (F-G:1), BC=0.02/1.00 (K-L:4), WB=0.12/1.00 (D-J:1), SSI=0.06/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

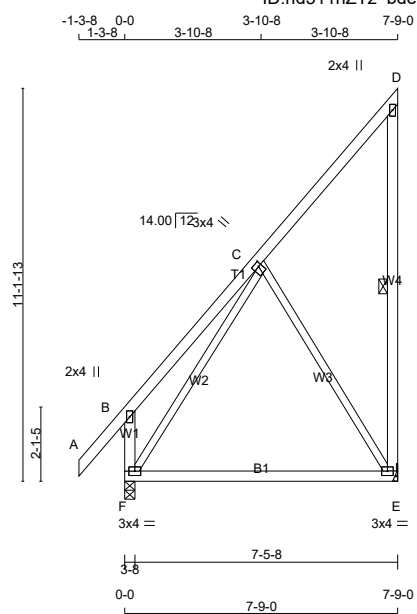
**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.18 (B) (INPUT = 0.90)  
JSI METAL= 0.11 (B) (INPUT = 1.00)



Scale = 1:65.4

TOTAL WEIGHT = 3 X 50 = 150 lb [M][F]

**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
B	TMV+p MT20	2.0	4.0		
C	TMWW+t MT20	3.0	4.0	1.50	1.00
D	TMV+p MT20	2.0	4.0		
E	BMVW1-t MT20	3.0	4.0		
F	BMVW1-t MT20	3.0	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	REQRD BRG
JT	VERT HORZ	DOWN HORZ	UPLIFT IN-SX	IN-SX
E	374 0	374 0	0 0	MECHANICAL
F	483 0	483 0	0 0	3-8 1-8

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

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX. SNOW	MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	267	163 / 0	0 / 0	0 / 0	0 / 0	104 / 0	0 / 0
F	342	222 / 0	0 / 0	0 / 0	0 / 0	121 / 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 D-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)

MEMB.	C H O R D S				W E B S			
	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	UNBRAC LENGTH FR-TO	MEMB.	MAX. FORCE (LBS)	FACTORED MAX CSI (LC)	
A-B	0 / 42	-78.0	-78.0 0.11 (1)	10.00	C-E	-217 / 0	0.22 (1)	
B-C	0 / 30	-78.0	-78.0 0.20 (1)	10.00	F-C	-230 / 0	0.22 (1)	
C-D	-27 / 0	-78.0	-78.0 0.15 (1)	6.25				
E-D	-121 / 0	0.0	0.0 0.08 (1)	6.25				
F-B	-215 / 0	0.0	0.0 0.03 (1)	7.81				
F-E	0 / 120	-18.5	-18.5 0.33 (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.(TL)= L/360 (0.26")  
CALCULATED VERT. DEFL.(TL) = L/572 (0.16")

CSI: TC=0.20/1.00 (B-C:1), BC=0.33/1.00 (E-F:4), WB=0.22/1.00 (C-F:1), SSI=0.10/1.00 (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

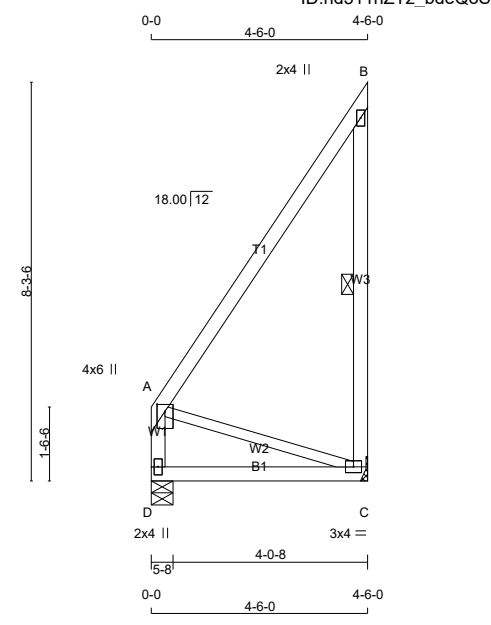
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.31 (C) (INPUT = 0.90)  
JSI METAL= 0.17 (C) (INPUT = 1.00)

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





Scale: 1/4"=1'  
TOTAL WEIGHT = 5 X 28 = 140 lb

**LUMBER**  
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	1.75	2.00
B	TMV+p	MT20	2.0	4.0		
C	BMVW1-t	MT20	3.0	4.0		
D	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	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
C	217	0	217	0	MECHANICAL	
D	217	0	217	0	5-8	1-8

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

**UNFACTORED REACTIONS**

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
C	155	94 / 0	0 / 0	0 / 0	0 / 0	60 / 0	0 / 0
D	155	94 / 0	0 / 0	0 / 0	0 / 0	60 / 0	0 / 0

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

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

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.  
1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-C.

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

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1	MAX CSI (LC)	MEMB. LENGTH	MAX. FACTORED FORCE (LBS)	MAX FACTORED CSI (LC)	
A-B	0 / 0	-78.0	-78.0	0.27 (1)	10.00	A-C	0 / 0	0.00 (1)
C-B	-175 / 0	0.0	0.0	0.05 (1)	6.25			
D-A	-175 / 0	0.0	0.0	0.02 (1)	7.81			
D-C	0 / 0	-18.5	-18.5	0.11 (4)	10.00			

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

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

**SPACING = 24.0 IN./C/C**

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

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

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

ALLOWABLE DEFL.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.27/1.00 (A-B:1), BC=0.11/1.00 (C-D:4),  
WB=0.00/1.00 (A-C:1), SSI=0.08/1.00 (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) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

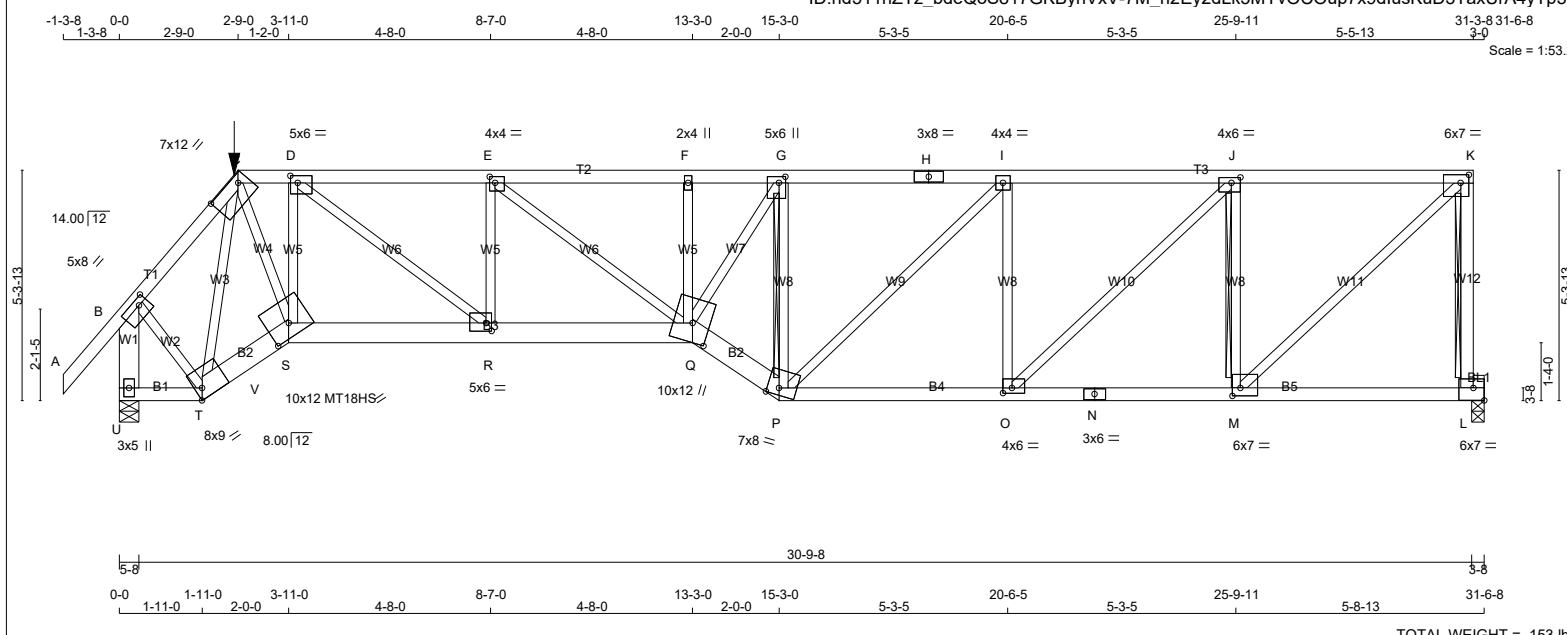
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (C) (INPUT = 0.90)  
JSI METAL= 0.08 (B) (INPUT = 1.00)

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





**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - H	2x4	DRY 1650F 1.5E	SPF
H - K	2x4	DRY 1650F 1.5E	SPF
L - K	2x4	DRY No.2	SPF
U - B	2x6	DRY No.2	SPF
U - T	2x4	DRY No.2	SPF
T - S	2x6	DRY No.2	SPF
S - Q	2x6	DRY No.2	SPF
Q - P	2x6	DRY No.2	SPF
P - N	2x4	DRY No.2	SPF
N - L	2x4	DRY No.2	SPF

BEARING BLOCKS

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

ALL WEBS 2x3 DRY EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X	
B	TMVW-t	MT20	5.0	8.0	1.75	2.50
C	TTWW-h	MT20	7.0	12.0	2.00	9.25
D	TMWW-t	MT20	5.0	6.0	2.00	2.00
E	TMWW-t	MT20	4.0	4.0	1.75	1.50
F	TMW+w	MT20	2.0	4.0		
G	TMWW+t	MT20	5.0	6.0	1.75	1.75
H	TS-t	MT20	3.0	8.0		
I	TMWW-t	MT20	4.0	4.0		
J	TMWW-t	MT20	4.0	6.0	1.50	2.50
K	TMVW-t	MT20	6.0	7.0	2.25	2.25
L	BMVK1-t	MT20	6.0	7.0	3.50	Edge
M	BMWW-t	MT20	6.0	7.0	2.25	2.25
N	BS-t	MT20	3.0	6.0		
O	BMWW-t	MT20	4.0	6.0	1.50	2.50
P	BBWW-m	MT20	7.0	8.0	2.00	3.25
Q	BBWWW+m	MT20	10.0	12.0	5.25	4.75
R	BMWW-t	MT20	5.0	6.0	2.25	1.50
S	BBWW-h	MT18HS	10.0	12.0	3.75	6.00
T	BBWW-h	MT20	8.0	9.0	3.00	Edge
U	BMV1+p	MT20	3.0	5.0		

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

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

**BEARINGS**

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
L	2987	0	2987	0	0	3-8	3-8
U	3079	0	3079	0	0	5-8	4-8

**UNFACTORED REACTIONS**

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	2129	1302 / 0	0 / 0	0 / 0	0 / 0	827 / 0	0 / 0
U	2194	1345 / 0	0 / 0	0 / 0	0 / 0	849 / 0	0 / 0

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

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.78 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.  
 ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

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

MEMB.	CHORDS			WEBS		
	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED L1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO	FR-TO		
A-B	0 / 42	-78.0	-78.0	0.12 (1)	10.00	T-C -2284 / 0 0.86 (1)
B-C	-2129 / 0	-78.0	-78.0	0.19 (1)	4.47	C-S 0 / 3684 0.91 (1)
C-D	-2909 / 0	-78.0	-78.0	0.09 (1)	4.54	S-D -1938 / 0 0.47 (1)
D-E	-5242 / 0	-78.0	-78.0	0.45 (1)	3.26	D-R 0 / 2904 0.72 (1)
E-F	-6313 / 0	-78.0	-78.0	0.55 (1)	2.91	R-E -1248 / 0 0.30 (1)
F-G	-6310 / 0	-78.0	-78.0	0.55 (1)	2.78	E-Q 0 / 1350 0.33 (1)
G-H	-4716 / 0	-153.5	-153.5	0.70 (1)	3.12	Q-F -106 / 0 0.03 (1)
H-I	-4716 / 0	-153.5	-153.5	0.70 (1)	3.12	Q-G 0 / 3291 0.81 (1)
I-J	-4213 / 0	-153.5	-153.5	0.83 (1)	3.02	P-G -3421 / 0 0.80 (1)
J-K	-2718 / 0	-153.5	-153.5	0.71 (1)	3.83	P-I 0 / 690 0.17 (1)
L-K	-2907 / 0	0.0	0.0	0.82 (1)	6.58	O-I -1272 / 0 0.55 (1)
U-B	-3044 / 0	0.0	0.0	0.26 (1)	6.00	C-J 0 / 2066 0.51 (1)
U-T	0 / 0	-36.4	-36.4	0.04 (4)	10.00	M-J -2355 / 0 0.86 (1)
T-V	0 / 2130	-129.9	-129.9	0.32 (1)	10.00	M-K 0 / 3800 0.94 (1)
V-S	0 / 2130	-112.0	-112.0	0.32 (1)	10.00	B-T 0 / 1828 0.45 (1)
S-R	0 / 2965	-112.0	-112.0	0.55 (1)	10.00	
R-Q	0 / 5242	-112.0	-112.0	0.85 (1)	10.00	
Q-P	0 / 5636	-112.0	-112.0	0.77 (1)	10.00	
P-O	0 / 4214	-36.4	-36.4	0.88 (1)	10.00	
O-N	0 / 2718	-36.4	-36.4	0.61 (1)	10.00	
N-M	0 / 2718	-36.4	-36.4	0.61 (1)	10.00	
M-L	-84 / 0	-36.4	-36.4	0.25 (4)	6.25	

**FACTORED CONCENTRATED LOADS (LBS)**

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

**CONNECTION REQUIREMENTS**

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

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

GIRDER TYPE: CPrimeHip  
 LEFT SETBACK = 2-9-0  
 RIGHT SETBACK = 0-0  
 END SETBACK = 5-10-8  
 END WALL WIDTH = 0-0  
 CORNER FRAMING TYPE: CONVENTIONAL  
 END JACK TYPE: CONVENTIONAL  
 APPLIED TO FRONT SIDE  
 - ADDT'L LOADS BASED ON 55 % OF GSL.  
 LOADS APPLIED TO FIRST 2-9-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder  
 LEFT DISTANCE = 1-11-0  
 START SPAN CARRIED = 5-10-8  
 END DISTANCE = 15-3-0  
 END SPAN CARRIED = 5-10-8  
 END WALL WIDTH = 0-0  
 APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
 - ADDT'L LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip  
 LEFT SETBACK = 2-9-0  
 RIGHT SETBACK = 0-0  
 END SETBACK = 5-10-8  
 END WALL WIDTH = 0-0  
 CORNER FRAMING TYPE: CONVENTIONAL  
 END JACK TYPE: CONVENTIONAL  
 APPLIED TO FRONT SIDE  
 - ADDT'L LOADS BASED ON 55 % OF GSL.  
 LOADS APPLIED TO FIRST 16-3-8 OF SPAN MEASURED FROM THE RIGHT.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015

THIS DESIGN COMPLIES WITH:  
 - PART 9 OF CBC2012, ABC 2019  
 - PART 9 OF OBC 2012 (2019 AMENDMENT)  
 - CSA 086-14  
 - TPIC 2014

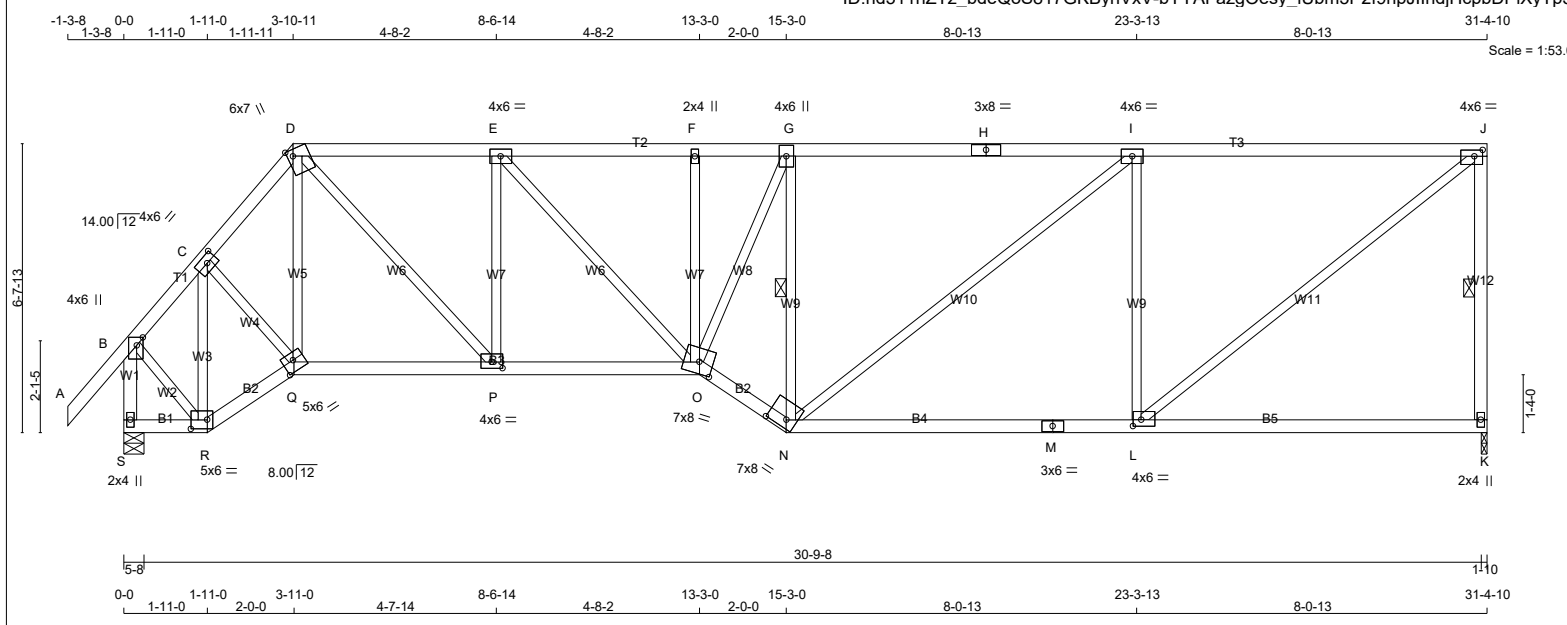
(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.32")  
 ALLOWABLE DEFL.(TL)= L/360 (1.04")  
 CALCULATED VERT. DEFL.(TL) = L/603 (0.62")

CSI: TC=0.83/1.00 (I-J-1), BC=0.88/1.00 (O-P-1), WB=0.94/1.00 (K-M-1), SSI=0.43/1.00 (J-K-1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 1.00



**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - H	2x4	DRY 1650F 1.5E	SPF
H - J	2x4	DRY 1650F 1.5E	SPF
K - J	2x4	DRY No.2	SPF
S - B	2x4	DRY No.2	SPF
S - R	2x4	DRY No.2	SPF
R - Q	2x4	DRY No.2	SPF
Q - O	2x4	DRY No.2	SPF
O - N	2x4	DRY No.2	SPF
N - M	2x4	DRY No.2	SPF
M - K	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.25	1.75
C	TMWW-t	MT20	4.0	6.0	2.00	2.75
D	TTWW+m	MT20	6.0	7.0	Edge	1.50
E	TMWW-t	MT20	4.0	6.0		
F	TMW+w	MT20	2.0	4.0		
G	TMWW+t	MT20	4.0	6.0		
H	TS-t	MT20	3.0	8.0		
I	TMWW-t	MT20	4.0	6.0		
J	TMVW-t	MT20	4.0	6.0	1.75	2.25
K	BMV1+p	MT20	2.0	4.0		
L	BMWW-t	MT20	4.0	6.0	1.75	2.25
M	BS-t	MT20	3.0	6.0		
N	BBWW-h	MT20	7.0	8.0	2.25	5.25
O	BBWWW-m	MT20	7.0	8.0	3.25	3.75
P	BMWW-t	MT20	4.0	6.0	1.75	3.00
Q	BBWW-h	MT20	5.0	6.0	3.00	3.00
R	BBWW-l	MT20	5.0	6.0	2.50	4.50
S	BMV1+p	MT20	2.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
	VERT	HORZ	DOWN	HORZ		IN-SX	IN-SX
K	1511	0	1511	0	1-10	1-10	
S	1626	0	1626	0	5-8	1-13	

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. LIVE		PERM. LIVE		WIND	DEAD	SOIL
	SNOW	LIVE	SNOW	LIVE	SNOW	LIVE			
K	1078	657 / 0	0 / 0	0 / 0	0 / 0	0 / 0	420 / 0	0 / 0	
S	1157	719 / 0	0 / 0	0 / 0	0 / 0	0 / 0	438 / 0	0 / 0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) K, S

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.36 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-N.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

**LOADING**  
 TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRAC LENGTH	MEMB.
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-78.0	-78.0 0.11 (1)	10.00	R-C	-998 / 0	0.26 (1)
B-C	-1062 / 0	-78.0	-78.0 0.12 (1)	5.98	C-Q	0 / 592	0.13 (1)
C-D	-1590 / 0	-78.0	-78.0 0.09 (1)	5.17	Q-D	0 / 52	0.02 (4)
D-E	-1911 / 0	-78.0	-78.0 0.25 (1)	5.18	D-P	0 / 1296	0.29 (1)
E-F	-2310 / 0	-78.0	-78.0 0.27 (1)	4.80	P-E	-850 / 0	0.36 (1)
F-G	-2308 / 0	-78.0	-78.0 0.34 (1)	4.67	E-O	0 / 584	0.13 (1)
G-H	-1911 / 0	-78.0	-78.0 0.82 (1)	4.36	O-F	-111 / 0	0.05 (1)
H-I	-1911 / 0	-78.0	-78.0 0.82 (1)	4.36	O-G	0 / 1086	0.24 (1)
I-J	-1532 / 0	-78.0	-78.0 0.77 (1)	4.77	N-G	-1478 / 0	0.42 (1)
K-J	-1454 / 0	0.0	0.0 0.30 (1)	5.43	N-I	0 / 483	0.11 (1)
S-B	-1608 / 0	0.0	0.0 0.19 (1)	6.52	L-I	-1027 / 0	0.75 (1)
S-R	0 / 0	-18.5	-18.5 0.02 (4)	10.00	L-J	0 / 1950	0.44 (1)
R-Q	0 / 774	-18.5	-18.5 0.14 (1)	10.00	B-R	0 / 903	0.20 (1)
Q-P	0 / 1025	-18.5	-18.5 0.22 (1)	10.00			
P-O	0 / 1911	-18.5	-18.5 0.36 (1)	10.00			
O-N	0 / 2268	-18.5	-18.5 0.38 (1)	10.00			
N-M	0 / 1532	-18.5	-18.5 0.49 (4)	10.00			
M-L	0 / 1532	-18.5	-18.5 0.49 (4)	10.00			
L-K	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, NBC2015

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 (1.05")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.12")  
 ALLOWABLE DEFL.(TL) = L/360 (1.05")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.27")

CSI: TC=0.82/1.00 (G-I:1), BC=0.49/1.00 (L-N:4), WB=0.75/1.00 (I-L:1), SSI=0.30/1.00 (I-J:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MT20	650	371	1747 788 1987 1873

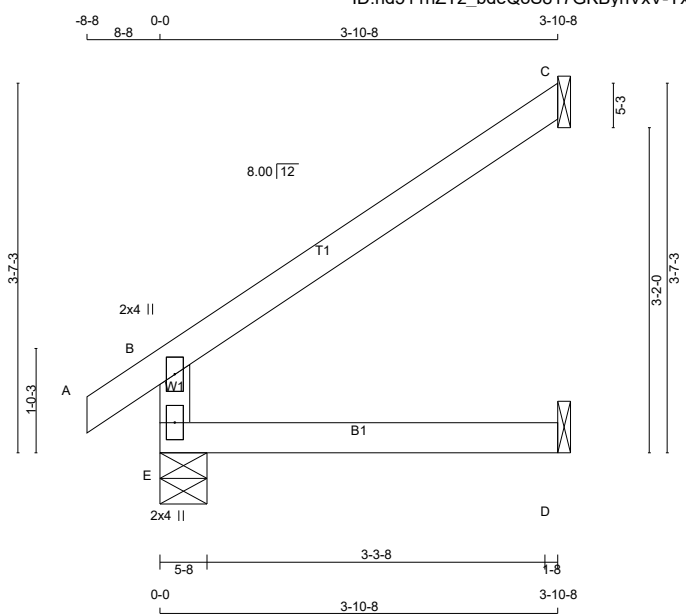
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (J) (INPUT = 0.90)  
 JSI METAL= 0.43 (M) (INPUT = 1.00)

JOB NAME <b>336324</b>	TRUSS NAME <b>J08</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104137</b>
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Alpa Roof Truss, Maple Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 14:53:20 2021 Page 1  
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TOTAL WEIGHT = 2 X 12 = 23 lb

**LUMBER**  
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
E - B	2x4 DRY	No.2	SPF
A - C	2x4 DRY	No.2	SPF
E - D	2x4 DRY	No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	292	0	292	0	5-8	1-8
C	113	0	113	0	1-8	1-8
D	30	0	34	0	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	207	135 / 0	0 / 0	0 / 0	0 / 0	72 / 0	0 / 0
C	78	61 / 0	0 / 0	0 / 0	0 / 0	17 / 0	0 / 0
D	24	0 / 0	0 / 0	0 / 0	0 / 0	24 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	LC1 MAX	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
E-B	-250 / 0	0.0	0.0	0.04 (4)	7.81			
A-B	0 / 17	-78.0	-78.0	0.04 (1)	10.00			
B-C	-21 / 0	-78.0	-78.0	0.15 (1)	6.25			
E-D	0 / 0	-18.5	-18.5	0.06 (4)	10.00			

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

TOP CH.	LL = 21.0 PSF
	DL = 6.0 PSF
BOT CH.	LL = 0.0 PSF
	DL = 7.4 PSF
TOTAL LOAD	= 34.4 PSF

**SPACING = 24.0 IN./C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:  
- PART 9 OF BCBC 2018, ABC 2019  
- PART 9 OF OBC 2012 (2019 AMENDMENT)  
- CSA 086-14  
- TPIC 2014

**DESIGN ASSUMPTIONS**  
- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.15/1.00 (B-C:1), BC=0.06/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.12/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00  
AUTOSOLVE RIGHT HEEL ONLY

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

**NAIL VALUES**

PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

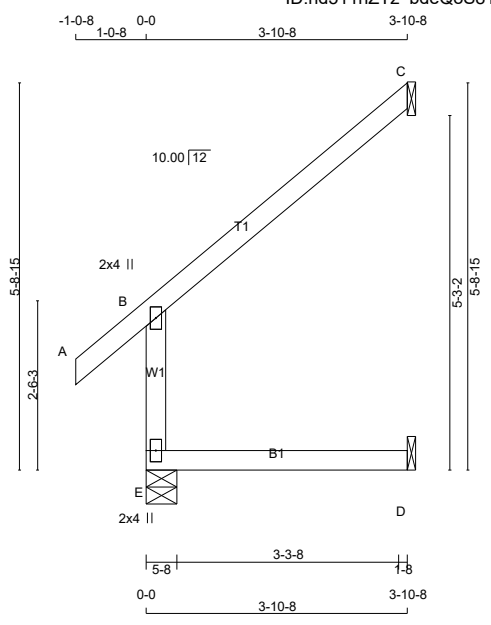
JSI GRIP= 0.15 (B) (INPUT = 0.90)  
JSI METAL= 0.13 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME <b>336324</b>	TRUSS NAME <b>J10</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104138</b>
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Alpa Roof Truss, Maple ID:hd511hZTz bdeQoS817GKByhVxV-07Dltc?YhZEWrADAREziHnJTCVQ?qFI2VZS3JryTp5S Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 14:53:21 2021 Page 1



TOTAL WEIGHT = 4 X 14 = 57 lb [M]

**LUMBER**  
N. L. G. A. RULES

CHORDS	SIZE	DRY	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	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	316	0	316	0	5-8	1-8
C	113	0	113	0	1-8	1-8
D	33	0	36	0	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	223	149 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0
C	79	61 / 0	0 / 0	0 / 0	0 / 0	17 / 0	0 / 0
D	26	0 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	LC1 MIN	MAX. UNBRACED LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
E-B	-277 / 0	0.0	0.0	0.03 (4)	7.81			
A-B	0 / 28	-78.0	-78.0	0.07 (1)	10.00			
B-C	-24 / 0	-78.0	-78.0	0.20 (1)	6.25			
E-D	0 / 0	-18.5	-18.5	0.07 (4)	10.00			

**DESIGN CRITERIA**

**SPECIFIED LOADS:**  
TOP CH. LL = 21.0 PSF  
DL = 6.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.4 PSF  
TOTAL LOAD = 34.4 PSF

**SPACING = 24.0 IN./C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:  
- PART 9 OF BCBC 2018, ABC 2019  
- PART 9 OF OBC 2012 (2019 AMENDMENT)  
- CSA 086-14  
- TPIC 2014

**DESIGN ASSUMPTIONS**  
-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.20/1.00 (B-C:1), BC=0.07/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.11/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

**NAIL VALUES**

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)	SECTION (PLI)
MT20	650	371	1747	788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.19 (B) (INPUT = 0.90)  
JSI METAL= 0.15 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

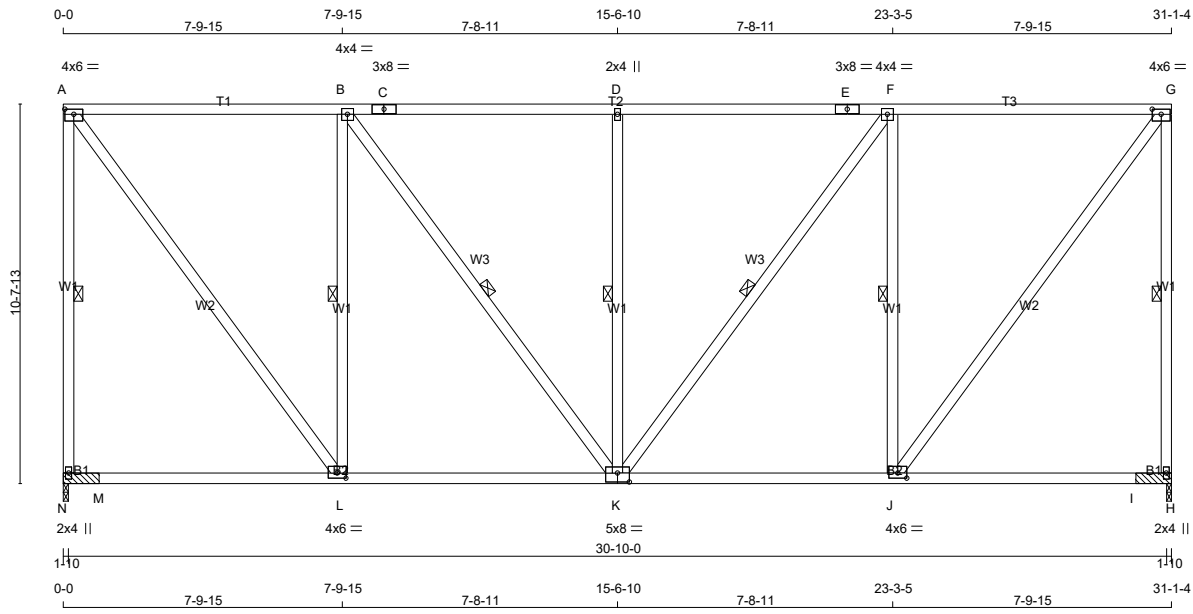




JOB NAME <b>336336</b>	TRUSS NAME <b>H25</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>TRUSS DESC. JT 45147</b>	DRWG NO. <b>E21104139</b>
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ID:hd511hZTz bdeQoS817GKByhVxV-qAO6rh4Mwbn9wpXjZ1yMKq9sho7WXV204WxR?yToTK



Scale = 1:64.7

TOTAL WEIGHT = 3 X 188 = 563 lb

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
N - A	2x4	DRY No.2	SPF
A - C	2x4	DRY No.2	SPF
C - E	2x4	DRY No.2	SPF
E - G	2x4	DRY No.2	SPF
H - G	2x4	DRY No.2	SPF
N - K	2x4	DRY No.2	SPF
K - H	2x4	DRY No.2	SPF
ALL WEBS	2x4	DRY No.2	SPF
DRY: SEASONED LUMBER.			

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X	
A	TMVW-t	MT20	4.0	6.0	1.75	3.00
B	TMWW-t	MT20	4.0	4.0		
C	TS-t	MT20	3.0	8.0		
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	8.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMVW-t	MT20	4.0	6.0	1.75	3.00
H	BMV1+p	MT20	2.0	4.0		
J	BMWW-t	MT20	4.0	6.0	1.75	3.00
K	BSWWW-l	MT20	5.0	8.0	3.00	4.00
L	BMWW-t	MT20	4.0	6.0	1.75	3.00
N	BMV1+p	MT20	2.0	4.0		

**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**

**BEARINGS**

JT	VERT	HORZ	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
N	1617	0	1617	0	0	1-10 & BLOCK
H	1617	0	1617	0	0	1-10 & BLOCK

**UNFACTORED REACTIONS**

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	1163	653 / 0	0 / 0	0 / 0	0 / 0	510 / 0	0 / 0
H	1163	653 / 0	0 / 0	0 / 0	0 / 0	510 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) N, H

2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. N ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL.

2x4 DRY SPF No.2 BEARING BLOCK 12" LONG AT JT. H ATTACHED TO FRONT SIDE WITH 2 ROWS OF (0.122"x3") SPIRAL NAILS SPACED 3" C.C. 8 NAILS TOTAL.

**BRACING**

FOR SECTION A-G, MAX. PURLIN SPACING = 2.00 FT.

FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 0.00 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF A-N, G-H, B-L, B-K, D-K, F-K, F-J.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

**LOADING**

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (LBS)	MAX LC1 (PLF)	MAX UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX FACTORED CSI (LC)	
N-A	-1562 / 0	0.0	0.0	0.89 (1)	5.27	A-L	0 / 1626	0.26 (1)
A-B	-981 / 0	-85.5	-85.5	0.88 (1)	2.00	L-B	-1119 / 0	0.64 (1)
B-C	-1248 / 0	-85.5	-85.5	0.92 (1)	2.00	B-K	0 / 447	0.07 (1)
C-D	-1248 / 0	-85.5	-85.5	0.92 (1)	2.00	K-D	-609 / 0	0.35 (1)
D-E	-1248 / 0	-85.5	-85.5	0.92 (1)	2.00	K-F	0 / 447	0.07 (1)
E-F	-1248 / 0	-85.5	-85.5	0.92 (1)	2.00	J-F	-1119 / 0	0.64 (1)
F-G	-981 / 0	-85.5	-85.5	0.88 (1)	2.00	J-G	0 / 1626	0.26 (1)
H-G	-1562 / 0	0.0	0.0	0.89 (1)	5.27			
N-M	0 / 0	-18.5	-18.5	0.32 (4)	10.00			
M-L	0 / 0	-18.5	-18.5	0.32 (4)	10.00			
L-K	0 / 981	-18.5	-18.5	0.43 (4)	10.00			
K-J	0 / 981	-18.5	-18.5	0.43 (4)	10.00			
J-I	0 / 0	-18.5	-18.5	0.32 (4)	10.00			
I-H	0 / 0	-18.5	-18.5	0.32 (4)	10.00			

**DESIGN CRITERIA**

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF  
DL = 6.0 PSF

BOT CH. LL = 0.0 PSF  
DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

**SPACING = 24.0 IN. C/C**

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE HEEL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.04")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")  
ALLOWABLE DEFL.(TL) = L/360 (1.04")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

CSI=0.92/1.00 (B-D:1), BC=0.43/1.00 (J-K:4), WB=0.64/1.00 (B-L:1), SSI=0.32/1.00 (A-B:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

**NAIL VALUES**

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MT20	650	371	1747
	788	1987	1873

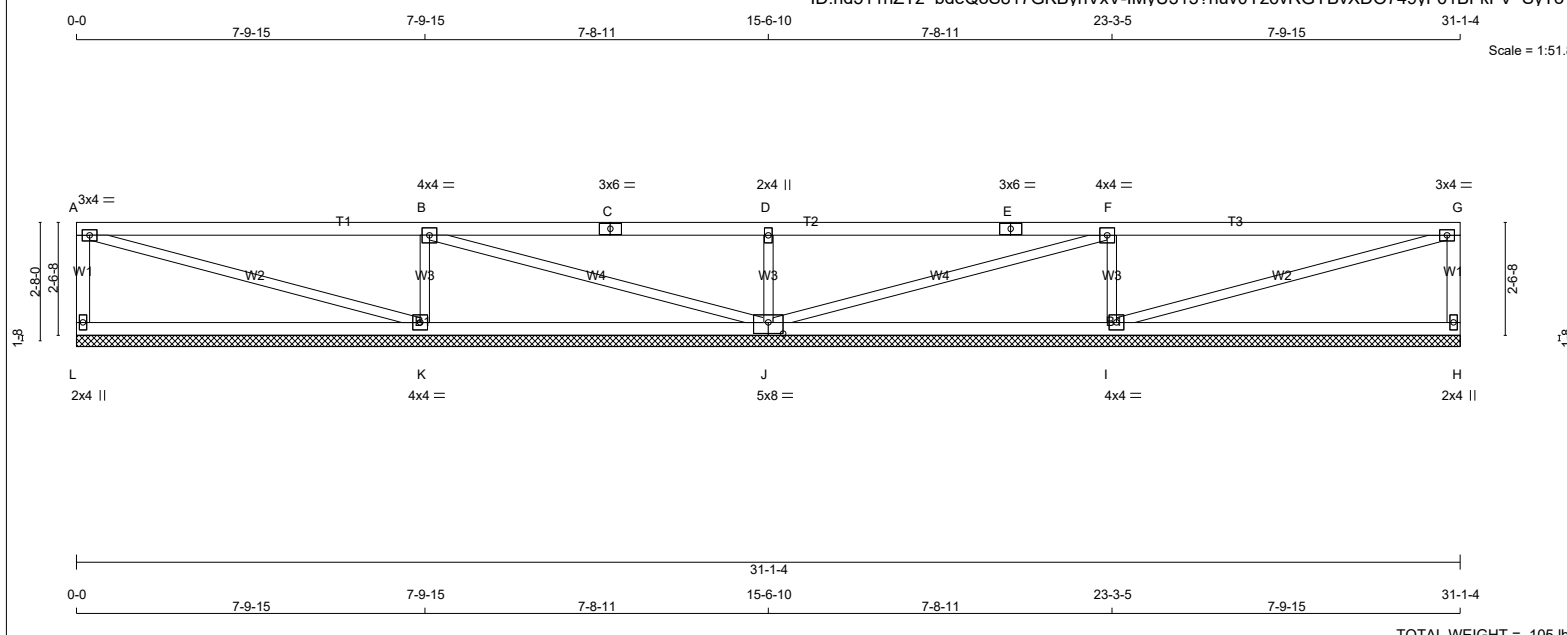
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (L) (INPUT = 0.90)  
JSI METAL= 0.34 (A) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





TOTAL WEIGHT = 105 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	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0		
B	TMWW-t	MT20	4.0	4.0		
C	TS-t	MT20	3.0	6.0		
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TMVW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		
I	BMWW1-t	MT20	4.0	4.0		
J	BSWWW1-l	MT20	5.0	8.0	3.00	4.00
K	BMWW1-t	MT20	4.0	4.0		
L	BMV1+p	MT20	2.0	4.0		

**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
L	296	0	296	0	31-1-4 (15-6-10)	
H	296	0	296	0	31-1-4 (15-6-10)	
K	864	0	864	0	31-1-4 (15-6-10)	
J	681	0	681	0	31-1-4 (15-6-10)	
I	864	0	864	0	31-1-4 (15-6-10)	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	211	130 / 0	0 / 0	0 / 0	0 / 0	81 / 0	0 / 0
H	211	130 / 0	0 / 0	0 / 0	0 / 0	81 / 0	0 / 0
K	618	368 / 0	0 / 0	0 / 0	0 / 0	249 / 0	0 / 0
J	483	309 / 0	0 / 0	0 / 0	0 / 0	174 / 0	0 / 0
I	618	368 / 0	0 / 0	0 / 0	0 / 0	249 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) L, H, K, J, I

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MAX. FACTORED		
					FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO	FR-TO			
L-A	-241 / 0	0.0	0.0	0.03 (1)	7.81	A-K 0 / 3	0.00 (1)
A-B	-3 / 0	-78.0	-78.0	0.69 (1)	10.00	K-B -685 / 0	0.11 (1)
B-C	0 / 30	-78.0	-78.0	0.70 (1)	10.00	B-J -34 / 0	0.05 (1)
C-D	0 / 30	-78.0	-78.0	0.70 (1)	10.00	J-D -556 / 0	0.09 (1)
D-E	0 / 30	-78.0	-78.0	0.70 (1)	10.00	J-F -34 / 0	0.05 (1)
E-F	0 / 30	-78.0	-78.0	0.70 (1)	10.00	I-F -685 / 0	0.11 (1)
F-G	-3 / 0	-78.0	-78.0	0.69 (1)	10.00	I-G 0 / 3	0.00 (1)
H-G	-241 / 0	0.0	0.0	0.03 (1)	7.81		
L-K	0 / 0	-18.5	-18.5	0.33 (4)	10.00		
K-J	0 / 3	-18.5	-18.5	0.33 (4)	10.00		
J-I	0 / 3	-18.5	-18.5	0.33 (4)	10.00		
I-H	0 / 0	-18.5	-18.5	0.33 (4)	10.00		

**DESIGN CRITERIA**

SPECIFIED LOADS:  
 TOP CH. LL = 21.0 PSF  
 DL = 6.0 PSF  
 BOT CH. LL = 0.0 PSF  
 DL = 7.4 PSF  
 TOTAL LOAD = 34.4 PSF

**SPACING = 24.0 IN. C/C**

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:  
 - PART 9 OF BCBC 2018, ABC 2019  
 - PART 9 OF OBC 2012 (2019 AMENDMENT)  
 - CSA 086-14  
 - TPIC 2014

(55% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.70/1.00 (B-D:1), BC=0.33/1.00 (K-L:4), WB=0.11/1.00 (B-K:1), SSI=0.29/1.00 (A-B:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

**NAIL VALUES**

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

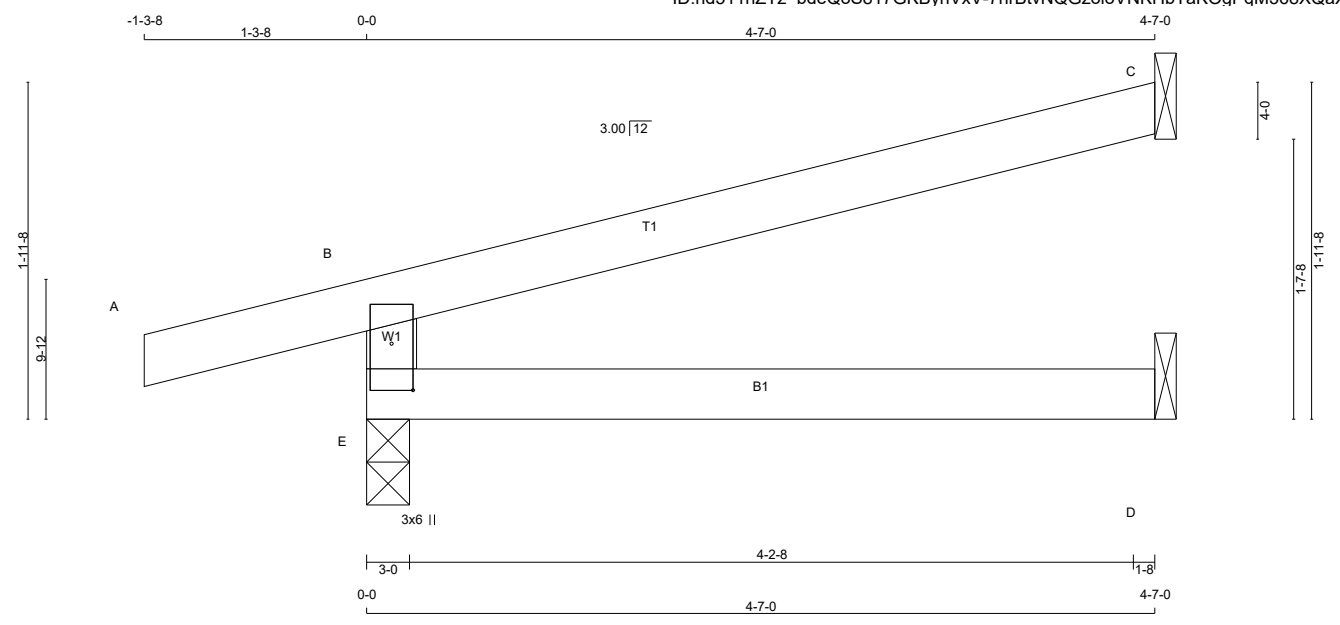
JSI GRIP= 0.85 (C) (INPUT = 0.90)  
 JSI METAL= 0.45 (C) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME <b>336336</b>	TRUSS NAME <b>P04</b>	QUANTITY <b>1</b>	PLY <b>1</b>	JOB DESC. <b>JT 45147</b>	DRWG NO. <b>E21104153</b>
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Alpa Roof Truss, Maple Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 15:36:33 2021 Page 1  
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TOTAL WEIGHT = 9 X 13 = 113 lb

**LUMBER**  
 N. L. G. A. RULES  
 CHORDS SIZE LUMBER DESCR.  
 E - B 2x4 DRY No.2 SPF  
 A - C 2x4 DRY No.2 SPF  
 E - D 2x4 DRY No.2 SPF

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
B						
E	TMBMV1+p	MT20	3.0	6.0	3.25	1.50

**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	377	0	377	0	3-0	1-8
C	134	0	134	0	1-8	1-8
D	34	0	39	0	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	266	176 / 0	0 / 0	0 / 0	0 / 0	91 / 0	0 / 0
C	93	72 / 0	0 / 0	0 / 0	0 / 0	21 / 0	0 / 0
D	28	0 / 0	0 / 0	0 / 0	0 / 0	28 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

**LOADING**  
 TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX FACTORED CSI (LC)	
FR-TO		FROM	TO		FR-TO			
E-B	-327 / 0	0.0	0.0	0.09 (4)	7.81			
A-B	0 / 13	-78.0	-78.0	0.10 (1)	10.00			
B-C	-11 / 0	-78.0	-78.0	0.28 (1)	6.25			
E-D	0 / 0	-18.5	-18.5	0.09 (4)	10.00			

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

TOP CH.	LL = 21.0	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 34.4	PSF

**SPACING = 24.0 IN./C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015

THIS DESIGN COMPLIES WITH:  
 - PART 9 OF BCBC 2018, ABC 2019  
 - PART 9 OF OBC 2012 (2019 AMENDMENT)  
 - CSA 086-14  
 - TPIC 2014

**DESIGN ASSUMPTIONS**  
 -OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
 ALLOWABLE DEFL.(TL)= L/360 (0.19")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.28/1.00 (B-C:1), BC=0.09/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.17/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

**NAIL VALUES**

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873	

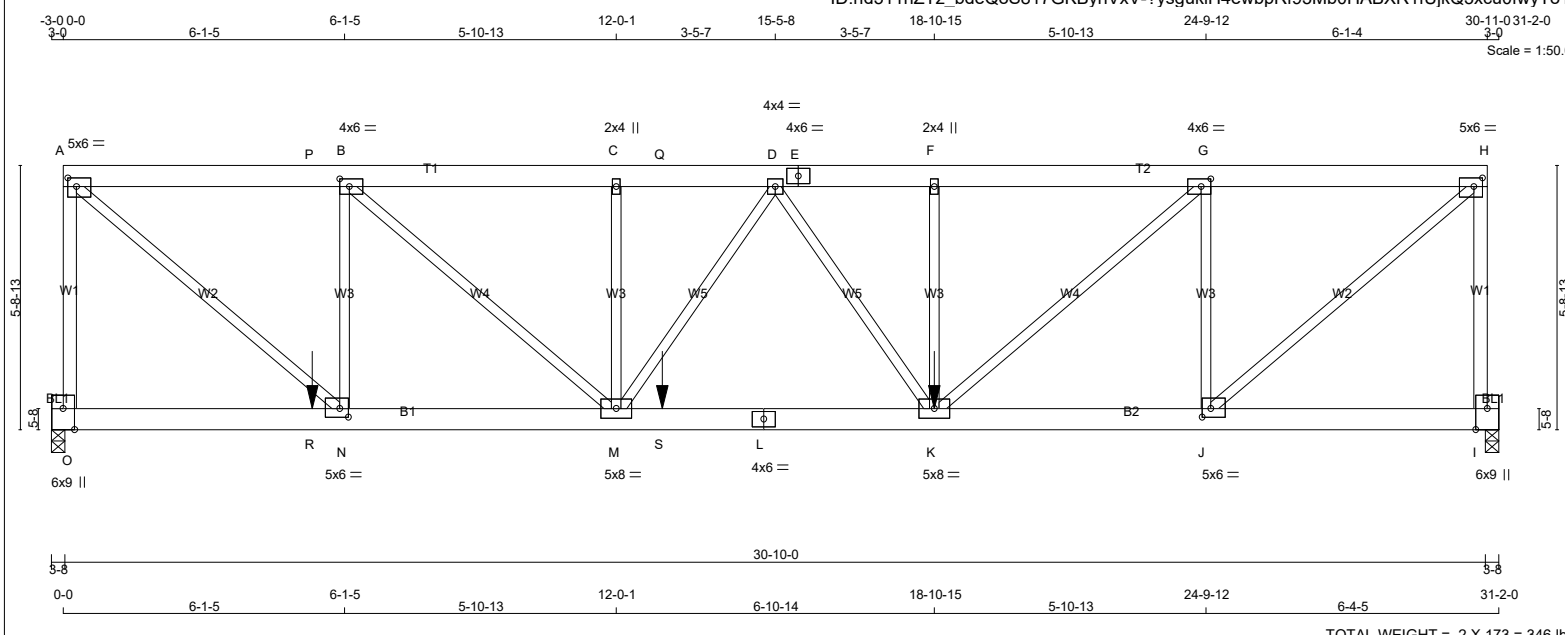
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.20 (E) (INPUT = 0.90)  
 JSI METAL= 0.05 (E) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





TOTAL WEIGHT = 2 X 173 = 346 lb

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA				
N. L. G. A. RULES				<b>BEARINGS</b>				*** SPECIAL LOADS ANALYSIS ***				
CHORDS	SIZE	DRY	LUMBER	DESCR.	FACTORED	MAXIMUM	INPUT	REQRD	GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.			
O - A	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG	BRG	LOADS WERE DERIVED FROM USER INPUT			
A - E	2x6	DRY	No.2	SPF	JT VERT	DOWN	HORIZ	UPLIFT	NO FURTHER MODIFICATIONS WERE MADE			
E - H	2x6	DRY	No.2	SPF	O	3801	0	3-8				
I - H	2x4	DRY	No.2	SPF	I	2986	0	2-8				
O - L	2x6	DRY	No.2	SPF								
L - I	2x6	DRY	No.2	SPF								

BEARING BLOCKS				UNFACTORED REACTIONS				SPECIFIED LOADS:			
BL1	2 - 2x4	DRY	No.2	SPF	1ST LCASE	MAX./MIN. COMPONENT REACTIONS			TOP CH.	LL = 21.0	PSF
				JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
				O	2709	1657 / 0	0 / 0	0 / 0	0 / 0	1052 / 0	0 / 0
				I	2129	1301 / 0	0 / 0	0 / 0	0 / 0	828 / 0	0 / 0

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
O-A	1 12	TOP
H-I	1 12	TOP
A-E	2 12	SIDE(45.5)
E-H	2 12	SIDE(45.5)
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
O-L	2 12	SIDE(11.9)
L-I	2 12	SIDE(172.5)
WEBS : (0.122"x3") SPIRAL NAILS		
F-K	1 6	SIDE(114.0)
2x3	1 6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
K	18-10-15	-1098	-1098	---	FRONT	VERT	TOTAL	---	C1
R	5-4-15	-732	-732	---	FRONT	VERT	TOTAL	---	C1
S	13-0-1	-732	-732	---	FRONT	VERT	TOTAL	---	C1

**CONNECTION REQUIREMENTS**

- 1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

\*\*\* 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, NBC2015

THIS DESIGN COMPLIES WITH:  
 - PART 9 OF BCBC 2018 , ABC 2019  
 - PART 9 OF OBC 2012 (2019 AMENDMENT)  
 - CSA 086-14  
 - TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.02")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.13")  
 ALLOWABLE DEFL.(TL)= L/360 (1.02")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.26")

CSI: TC=0.95/1.00 (A-O:1), BC=0.54/1.00 (K-M:1),  
 WB=0.61/1.00 (A-N:1), SSI=0.26/1.00 (N-O: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)	(PLI)
	MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	650	371	1747	788 1987 1873

JOB NAME 336326	TRUSS NAME H20A	QUANTITY	PLY 2	JOB DESC. JT 45147	DRWG NO. E21104154(2)
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Alpa Roof Truss, Maple

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Wed Oct 13 16:05:56 2021 Page 2  
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**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	6.0	2.25	2.25
B	TMWW-t	MT20	4.0	6.0	2.00	2.50
C	TMW+w	MT20	2.0	4.0		
D	TMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	4.0	6.0		
F	TMW+w	MT20	2.0	4.0		
G	TMWW-t	MT20	4.0	6.0	2.00	2.50
H	TMVW-t	MT20	5.0	6.0	2.25	2.25
I	BMVK1+p	MT20	6.0	9.0	Edge	3.00
J	BMWW-t	MT20	5.0	6.0	2.25	2.25
K	BMWWW-t	MT20	5.0	8.0		
L	BS-t	MT20	4.0	6.0		
M	BMWWW-t	MT20	5.0	8.0		
N	BMWW-t	MT20	5.0	6.0	2.25	2.25
O	BMVK1+p	MT20	6.0	9.0	Edge	3.00

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

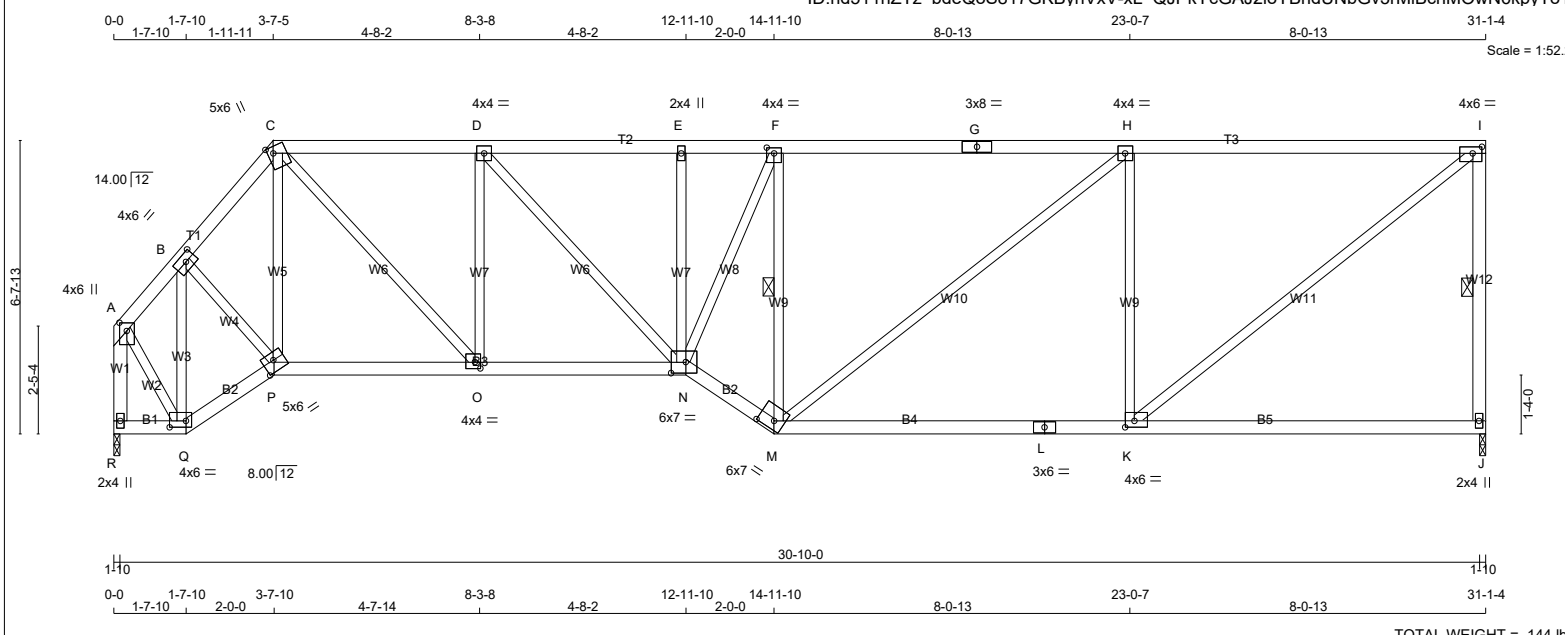
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (G) (INPUT = 0.90 )  
JSI METAL= 0.89 (L) (INPUT = 1.00 )

LATERAL BRACE(S) SHOWN SHALL BE  
2X4 SPF#2





TOTAL WEIGHT = 144 lb

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - G	2x4	DRY 1650F 1.5E	SPF
G - I	2x4	DRY 1650F 1.5E	SPF
J - I	2x4	DRY No.2	SPF
R - A	2x4	DRY No.2	SPF
R - Q	2x4	DRY No.2	SPF
Q - P	2x4	DRY No.2	SPF
P - N	2x4	DRY No.2	SPF
N - M	2x4	DRY No.2	SPF
M - L	2x4	DRY No.2	SPF
L - J	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF

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	TMWW-t	MT20	4.0	6.0	2.00	2.75
C	TTWW+m	MT20	5.0	6.0	1.75	1.50
D	TMWW-t	MT20	4.0	4.0		
E	TMW+w	MT20	2.0	4.0		
F	TMWW-t	MT20	4.0	4.0	1.50	2.00
G	TS-t	MT20	3.0	8.0		
H	TMWW-t	MT20	4.0	4.0		
I	TMVW-t	MT20	4.0	6.0	1.75	2.50
J	BMV1+p	MT20	2.0	4.0		
K	BMWW-t	MT20	4.0	6.0	1.75	2.50
L	BS-t	MT20	3.0	6.0		
M	BBWW-h	MT20	6.0	7.0	2.25	4.25
N	BBWWW-p	MT20	6.0	7.0	3.00	4.00
O	BMWW-t	MT20	4.0	4.0	1.75	1.50
P	BBWW-h	MT20	5.0	6.0	3.00	3.00
Q	BBWW-l	MT20	4.0	6.0	1.75	4.50
R	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
J	1500	0	1500	0	0	1-10	1-10	
R	1500	0	1500	0	0	1-10	1-10	

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		MIN. LIVE		PERM. LIVE		WIND	DEAD	SOIL
	SNOW	LIVE	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL			
J	1070	653 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0	0 / 0	
R	1070	653 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	417 / 0	0 / 0	0 / 0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) J, R

**BRACING**  
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.38 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF I-J, F-M.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

**LOADING**  
 TOTAL LOAD CASES: (4)

MEMB.	CHORDS				WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC LENGTH	MEMB. FORCE (LBS)
FR-TO		FROM	TO		FR-TO		FR-TO	
A-B	-903 / 0	-78.0	-78.0	0.03 (1)	6.25	Q-B	-1086 / 0	0.29 (1)
B-C	-1499 / 0	-78.0	-78.0	0.07 (1)	5.30	B-P	0 / 623	0.14 (1)
C-D	-1861 / 0	-78.0	-78.0	0.25 (1)	5.22	P-C	-46 / 17	0.02 (1)
D-E	-2270 / 0	-78.0	-78.0	0.27 (1)	4.83	C-O	0 / 1312	0.30 (1)
E-F	-2267 / 0	-78.0	-78.0	0.34 (1)	4.70	O-D	-862 / 0	0.36 (1)
F-G	-1883 / 0	-78.0	-78.0	0.81 (1)	4.38	D-N	0 / 599	0.13 (1)
G-H	-1883 / 0	-78.0	-78.0	0.81 (1)	4.38	N-E	-112 / 0	0.05 (1)
H-I	-1518 / 0	-78.0	-78.0	0.77 (1)	4.80	N-F	0 / 1054	0.24 (1)
I-J	-1443 / 0	0.0	0.0	0.29 (1)	5.44	M-F	-1448 / 0	0.41 (1)
R-A	-1485 / 0	0.0	0.0	0.19 (1)	6.73	M-H	0 / 465	0.10 (1)
R-Q	0 / 0	-18.5	-18.5	0.01 (4)	10.00	K-H	-1016 / 0	0.74 (1)
Q-P	0 / 676	-18.5	-18.5	0.12 (1)	10.00	K-I	0 / 1932	0.43 (1)
P-O	0 / 963	-18.5	-18.5	0.21 (1)	10.00	A-Q	0 / 951	0.21 (1)
O-N	0 / 1861	-18.5	-18.5	0.35 (1)	10.00			
N-M	0 / 2235	-18.5	-18.5	0.37 (1)	10.00			
M-L	0 / 1518	-18.5	-18.5	0.49 (4)	10.00			
L-K	0 / 1518	-18.5	-18.5	0.49 (4)	10.00			
K-J	0 / 0	-18.5	-18.5	0.34 (4)	10.00			

**DESIGN CRITERIA**

SPECIFIED LOADS:  
 TOP CH. LL = 21.0 PSF  
 DL = 6.0 PSF  
 BOT CH. LL = 0.0 PSF  
 DL = 7.4 PSF  
 TOTAL LOAD = 34.4 PSF

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, NBC2015

THIS DESIGN COMPLIES WITH:  
 - PART 9 OF BCBC 2018, ABC 2019  
 - PART 9 OF OBC 2012 (2019 AMENDMENT)  
 - CSA 086-14  
 - TPIC 2014

(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")  
 CALCULATED VERT. DEFL.(LL)= L/999 (0.12")  
 ALLOWABLE DEFL.(TL)= L/360 (1.04")  
 CALCULATED VERT. DEFL.(TL)= L/999 (0.26")

CSI: TC=0.81/1.00 (F-H:1), BC=0.49/1.00 (K-M:4), WB=0.74/1.00 (H-K:1), SSI=0.30/1.00 (H-I:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

**NAIL VALUES**

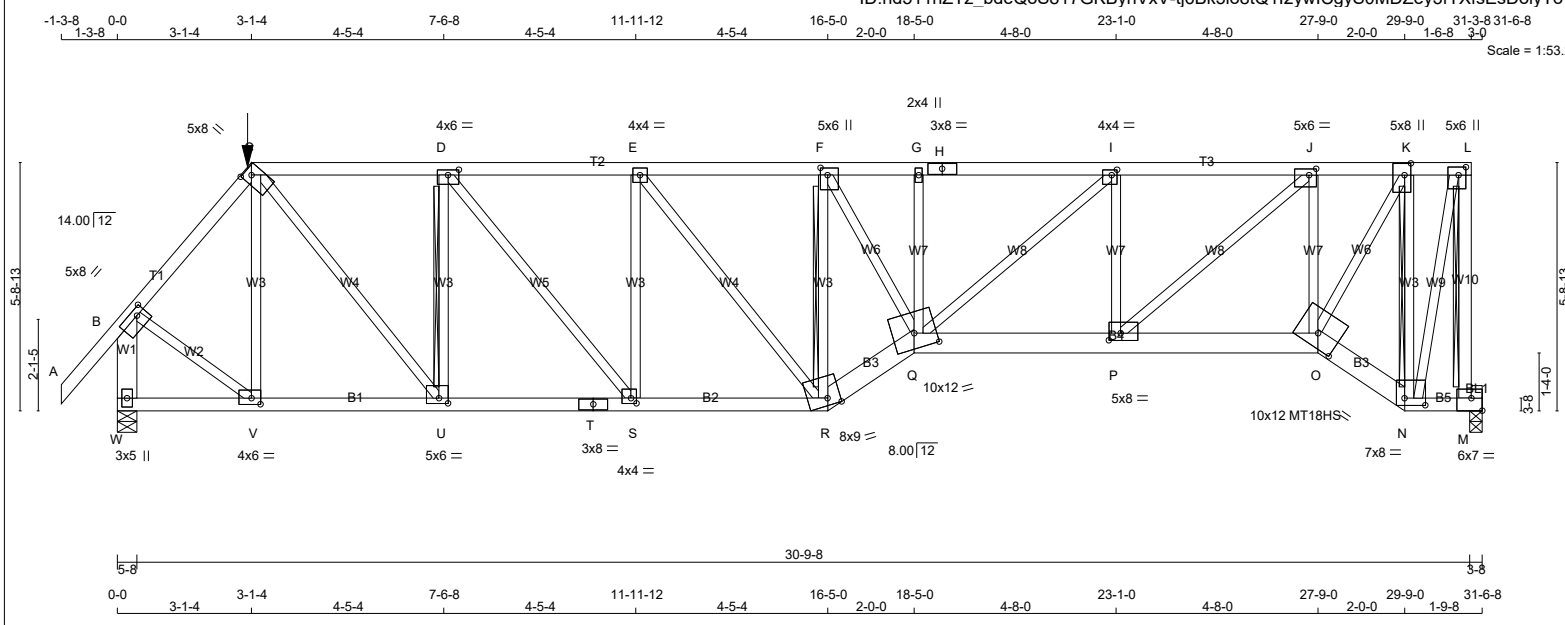
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (I) (INPUT = 0.90)  
 JSI METAL= 0.52 (N) (INPUT = 1.00)





TOTAL WEIGHT = 166 lb

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - H	2x4	DRY No.2	SPF
H - L	2x4	DRY No.2	SPF
M - L	2x4	DRY No.2	SPF
W - B	2x6	DRY No.2	SPF
W - T	2x4	DRY No.2	SPF
T - R	2x4	DRY No.2	SPF
R - Q	2x6	DRY No.2	SPF
Q - O	2x6	DRY No.2	SPF
O - N	2x6	DRY No.2	SPF
N - M	2x4	DRY No.2	SPF

BEARING BLOCKS

BL1	2x4	DRY No.2	SPF
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ALL WEBS 2x3 DRY No.2 EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X	
B	TMVW+t	MT20	5.0	8.0	1.75	2.50
C	TTWW+h	MT20	5.0	8.0	2.00	2.25
D	TMWW-t	MT20	4.0	6.0	1.50	3.00
E	TMWW-t	MT20	4.0	4.0		
F	TMWW+t	MT20	5.0	6.0	2.00	2.00
G	TMW+w	MT20	2.0	4.0		
H	TS-t	MT20	3.0	8.0		
I	TMWW-t	MT20	4.0	4.0	1.50	1.50
J	TMWW-t	MT20	5.0	6.0	1.75	2.00
K	TMWW+t	MT20	5.0	8.0	3.25	1.75
L	TMVW+p	MT20	5.0	6.0	2.25	2.00
M	BMVK1-t	MT20	6.0	7.0	3.50	Edge
N	BBWW-t	MT20	7.0	8.0	2.00	5.75
O	BBWW-h	MT18HS	10.0	12.0	3.75	6.00
P	BMWW-t	MT20	5.0	8.0	2.00	3.25
Q	BBWWW-m	MT20	10.0	12.0	4.25	6.00
R	BBWW-m	MT20	8.0	9.0	Edge	3.50
S	BMWW-t	MT20	4.0	4.0	1.50	1.50
T	BS-t	MT20	3.0	8.0		
U	BMWW-t	MT20	5.0	6.0	1.50	2.50
V	BMWW-t	MT20	4.0	6.0	1.75	2.50
W	BMV1+p	MT20	3.0	5.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER**

**BEARINGS**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX		
M	3210	0	3210	0	3-8	3-8		
W	3220	0	3220	0	5-8	4-15		

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

**UNFACTORED REACTIONS**

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS				WIND	DEAD	SOIL
		1ST LCASE	SNOW	LIVE	PERM.LIVE			
M	2288	1398 / 0	0 / 0	0 / 0	0 / 0	890 / 0	0 / 0	
W	2295	1404 / 0	0 / 0	0 / 0	0 / 0	891 / 0	0 / 0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) M, W  
BEARING SIZE FACTOR = 1.15 AT JNT(S) M (BASED ON SUPPORT DEPTH = 1-8)

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.10 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

2x4 DRY SPF No.2 T-BRACE AT L-M, F-R, K-N  
2x3 DRY SPF No.2 T-BRACE AT D-U

FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3"  
COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

**LOADING**  
TOTAL LOAD CASES: (4)

MEMB.	CHORDS		WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO
A-B	0 / 42	-78.0 -78.0	0.12 (1)	10.00 V-C -754 / 0 0.39 (1)
B-C	-2647 / 0	-78.0 -78.0	0.27 (1)	4.00 C-U 0 / 2748 0.68 (1)
C-D	-3441 / 0	-165.7 -165.7	0.75 (1)	2.94 U-D -1959 / 0 0.83 (1)
D-E	-4395 / 0	-165.7 -165.7	0.91 (1)	2.39 D-S 0 / 1510 0.37 (1)
E-F	-4648 / 0	-165.7 -165.7	0.85 (1)	2.44 S-E -1045 / 0 0.54 (1)
F-G	-6005 / 0	-78.0 -78.0	0.79 (1)	2.10 E-R 0 / 398 0.10 (1)
G-H	-6009 / 0	-78.0 -78.0	0.94 (1)	2.14 R-F -3195 / 0 0.82 (1)
H-I	-6009 / 0	-78.0 -78.0	0.94 (1)	2.14 F-Q 0 / 3050 0.75 (1)
I-J	-4830 / 0	-78.0 -78.0	0.69 (1)	2.68 Q-G -158 / 0 0.04 (1)
J-K	-2429 / 0	-78.0 -78.0	0.27 (1)	4.12 Q-I 0 / 1555 0.38 (1)
K-L	-768 / 0	-165.7 -165.7	0.19 (1)	6.25 P-I -1413 / 0 0.40 (1)
L-M	-3179 / 0	0.0 0.0	0.63 (1)	7.81 P-J 0 / 3118 0.77 (1)
W-B	-3178 / 0	0.0 0.0	0.27 (1)	5.89 O-J -2410 / 0 0.68 (1)
				O-K 0 / 3708 0.92 (1)
W-V	0 / 0	-39.3 -39.3	0.15 (4)	10.00 N-K -3309 / 0 0.85 (1)
V-U	0 / 1697	-39.3 -39.3	0.40 (1)	10.00 N-L 0 / 3095 0.77 (1)
U-T	0 / 3441	-39.3 -39.3	0.69 (1)	10.00 B-V 0 / 1948 0.48 (1)
T-S	0 / 3441	-39.3 -39.3	0.69 (1)	10.00
S-R	0 / 4395	-39.3 -39.3	0.88 (1)	10.00
R-Q	0 / 5566	-127.0 -127.0	0.77 (1)	10.00
Q-P	0 / 4829	-127.0 -127.0	0.81 (1)	10.00
P-O	0 / 2491	-127.0 -127.0	0.50 (1)	10.00
O-N	0 / 854	-127.0 -127.0	0.16 (1)	10.00
N-M	-85 / 0	-39.3 -39.3	0.02 (4)	6.25

**FACTORED CONCENTRATED LOADS (LBS)**

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-1-4	-202	-202		FRONT	VERT	TOTAL		C1

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

TOP CH.	LL	= 21.0 PSF
	DL	= 6.0 PSF
BOT CH.	LL	= 0.0 PSF
	DL	= 7.4 PSF
TOTAL LOAD	= 34.4 PSF	

**SPACING = 24.0 IN. C/C**

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

GIRDER TYPE: CPrimeGirder  
LEFT SETBACK = 3-1-4  
RIGHT SETBACK = 0-0  
END SETBACK = 6-6-0  
END WALL WIDTH = 0-0  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADD'TL LOADS BASED ON 55 % OF GSL.  
LOADS APPLIED TO FIRST 16-5-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder  
START DISTANCE = 16-5-0  
START SPAN CARRIED = 6-6-0  
END DISTANCE = 29-9-0  
END SPAN CARRIED = 6-6-0  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADD'TL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeGirder  
LEFT SETBACK = 3-1-4  
RIGHT SETBACK = 0-0  
END SETBACK = 6-6-0  
END WALL WIDTH = 0-0  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADD'TL LOADS BASED ON 55 % OF GSL.  
LOADS APPLIED TO FIRST 1-9-8 OF SPAN MEASURED FROM THE RIGHT.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015

THIS DESIGN COMPLIES WITH:  
- PART 9 OF 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 (0.31")  
ALLOWABLE DEFL.(TL)= L/360 (1.04")  
CALCULATED VERT. DEFL.(TL) = L/ 613 (0.61")

CSI: TC=0.94/1.00 (G-I-1); BC=0.88/1.00 (R-S-1), WB=0.92/1.00 (K-O-1), SS=0.38/1.00 (C-D-1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 1.00



# LUS – Double Shear Joist Hangers

All LUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections.

**Material:** 18 gauge

**Finish:** G90 galvanized

**Design:**

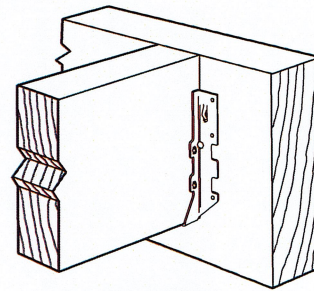
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

**Installation:**

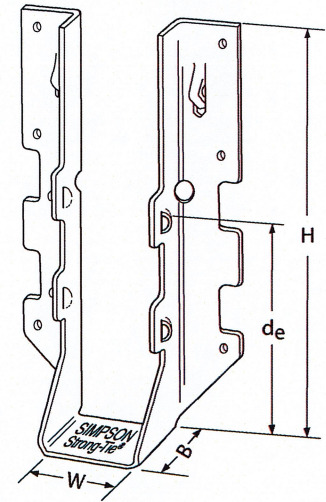
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

**Options:**

- These hangers cannot be modified



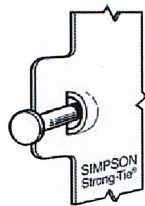
Typical LUS Installation



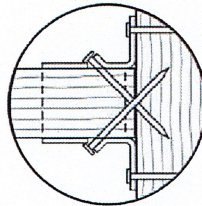
LUS28

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d <sub>e</sub> <sup>1</sup>	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K <sub>p</sub> =1.15)	Normal (K <sub>p</sub> =1.00)	Uplift (K <sub>p</sub> =1.15)	Normal (K <sub>p</sub> =1.00)
LUS24	18	1 1/16	3 1/8	1 3/4	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 13/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 1/16	4 3/4	1 3/4	3 5/8	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 7/8	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 5/8	4 3/8	2	3 1/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 1/16	6 5/8	1 3/4	3 3/4	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3 1/8	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4 5/8	6 1/4	2	3 1/4	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 1/16	7 13/16	1 3/4	3 7/8	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3 1/8	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4 5/8	8 3/8	2	5 1/4	(8) 16d	(6) 16d	2580	3345	2320	2375

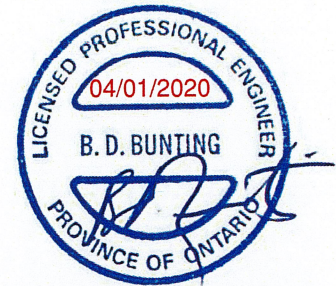
1. d<sub>e</sub> is the distance from the seat of the hanger to the highest joist nail.



Dome Double Shear Nailing prevents tabs breaking off (available on some models).  
U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT STATES DESIGN

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# 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:**

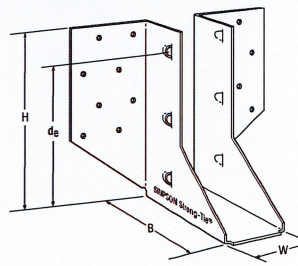
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

**Installation:**

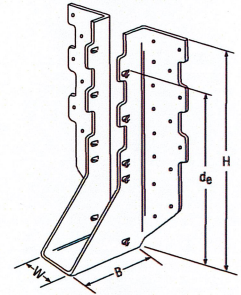
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

**Options:**

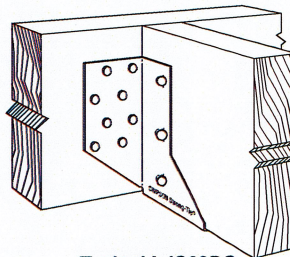
- See current catalogue for options



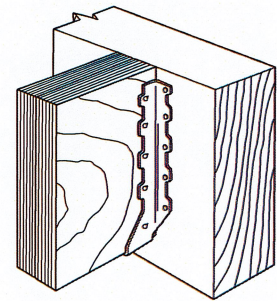
LJS26DS



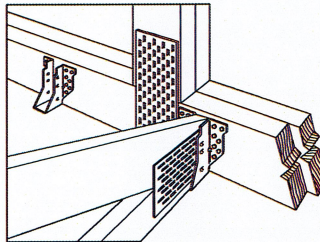
HUS210  
(HUS26, HUS28, similar)



Typical LJS26DS Installation



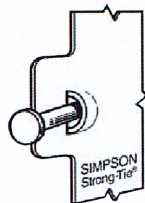
Typical HUS Installation



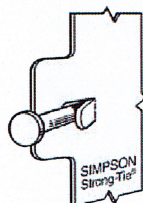
Typical HUS Installation  
(Truss Designer to provide fastener quantity for connecting multiple members together)

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d <sub>e</sub> <sup>1</sup>	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K <sub>p</sub> =1.15)	Normal (K <sub>p</sub> =1.00)	Uplift (K <sub>p</sub> =1.15)	Normal (K <sub>p</sub> =1.00)
lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.		
LJS26DS	18	1½	5	3½	4⅝	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅝	3	3½	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅝	7⅝	3	6⅝	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅝	9⅝	3	7⅝	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1⅝	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

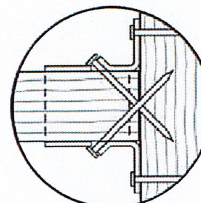
1. d<sub>e</sub> is the distance from the seat of the hanger to the highest joist nail.



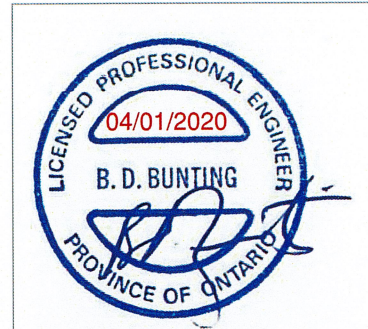
Dome Double Shear Nailing prevents tabs breaking off (available on some models).  
U.S. Patent 5,603,580



Double Shear Nailing Side View. Do not bend tab back.



Double Shear Nailing Top View.



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# HHUS – Double Shear Joist Hangers

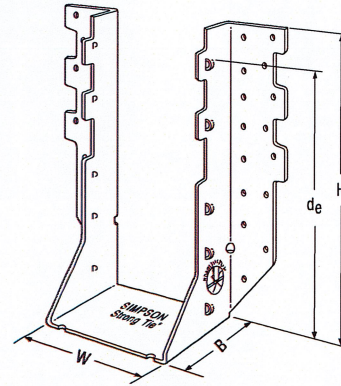
All HHUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

**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.



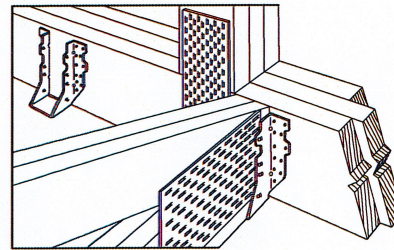
HHUS410

**Installation:**

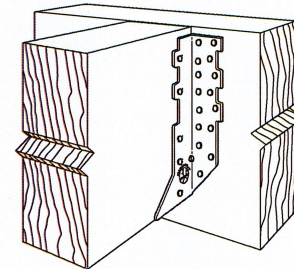
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

**Options:**

- See current catalogue for options



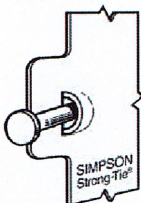
Typical HHUS Installation  
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

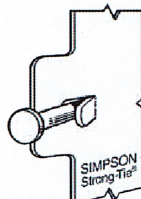
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d <sub>e</sub> <sup>1</sup>	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K <sub>p</sub> =1.15)	Normal (K <sub>p</sub> =1.00)	Uplift (K <sub>p</sub> =1.15)	Normal (K <sub>p</sub> =1.00)
HHUS26-2	14	3 5/16	5 13/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 5/16	7 1/32	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 5/16	9 3/32	3	8	(30) 16d	(10) 16d	4670	9660	4235	7000
HHUS210-3	14	4 1 1/16	9	3	7 15/16	(30) 16d	(10) 16d	4670	9670	4235	6865
HHUS210-4	14	6 1/8	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS46	14	3 3/8	5 13/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 3/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS410	14	3 3/8	9	3	8	(30) 16d	(10) 16d	4670	9855	4235	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS7.25/10	14	7 1/4	9	3 5/16	7 29/32	(30) 16d	(10) 16d	4670	10155	3370	7210

1. d<sub>e</sub> is the distance from the seat of the hanger to the highest joist nail.

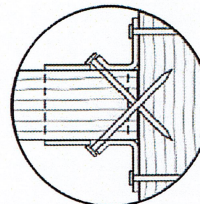


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

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

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

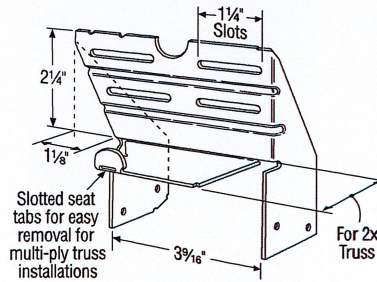
**Design:** Factored resistances are in accordance with CSA 086-14

**Installation:**

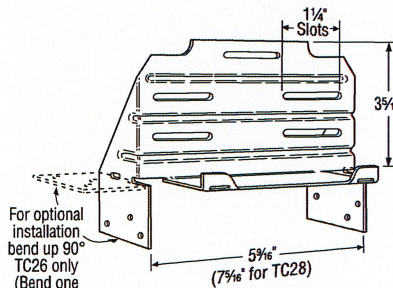
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½" = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow room under the nail head for movement of the truss with respect to the wall.

**Optional TC Installation:**

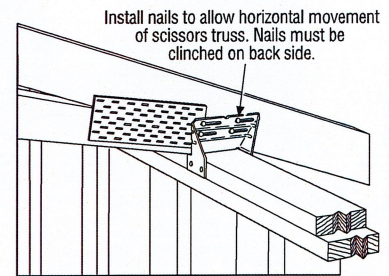
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



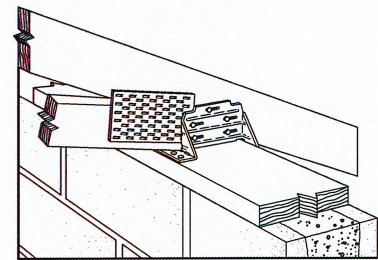
**TC24**  
U.S. Patent 4,932,173



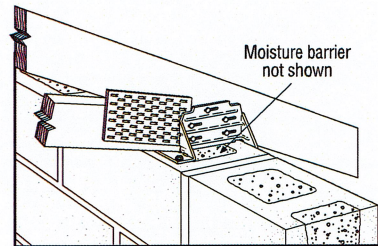
**TC26**  
(TC28 Similar)



**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 <sub>0</sub> =1.15)	Uplift (K <sub>0</sub> =1.15)
			lb.	lb.
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 <sub>0</sub> =1.15)	Uplift (K <sub>0</sub> =1.15)
			lb.	lb.
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.



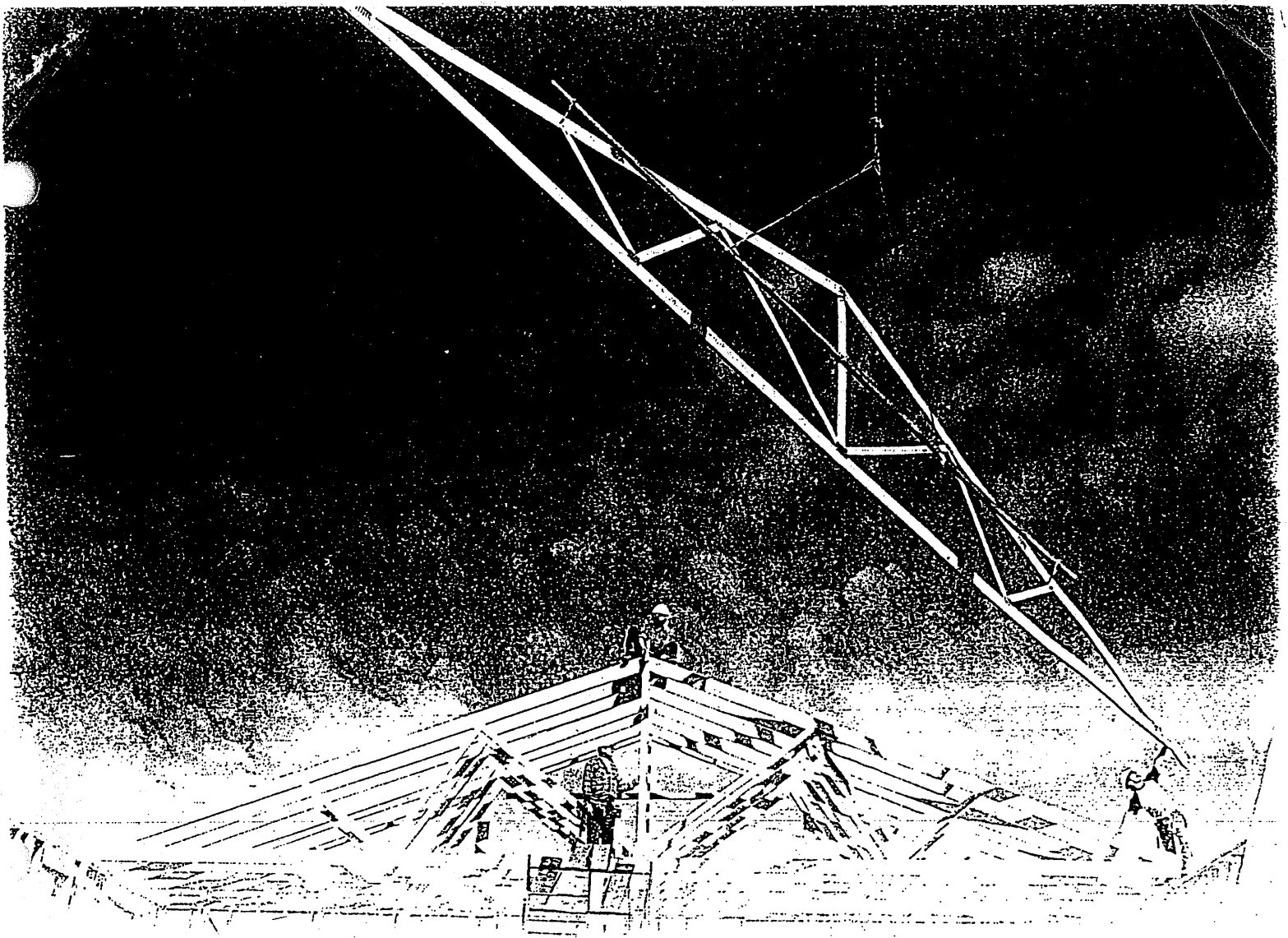
**LIMIT STATES DESIGN**

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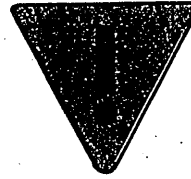
# **Wood Truss Installation**

**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.

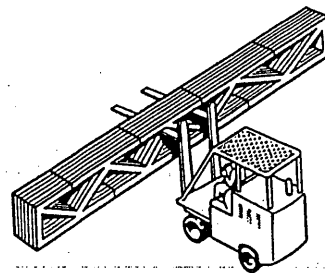
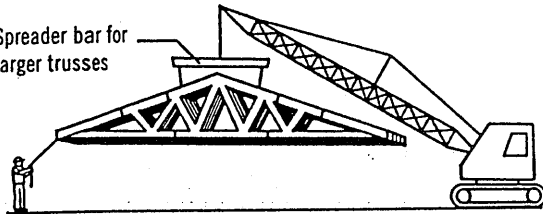


**Avoid lateral bending**

- 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.

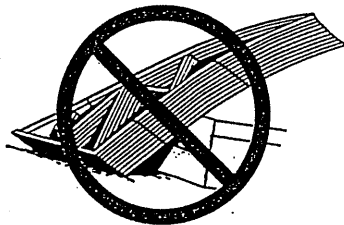
# 2 Job Site Handling

Spreader bar for larger trusses



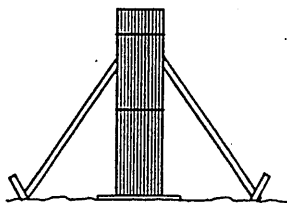
## All trusses should be picked up at the top chords in a vertical position only

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.



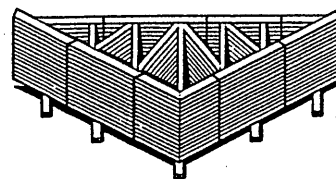
## Do not store unbraced bundles upright

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.

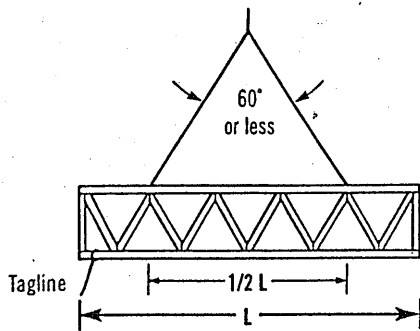
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

# 3 Hoisting

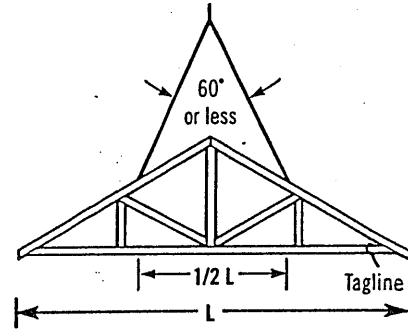
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



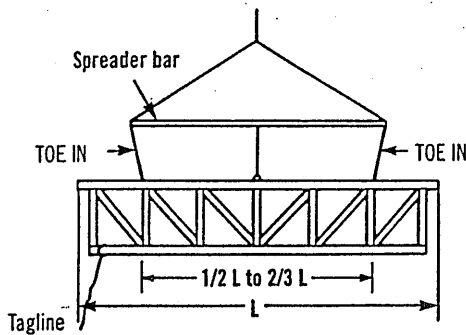
Avoid lateral bending



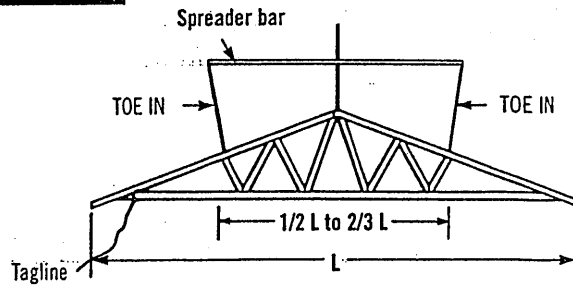
$L \leq 30'$



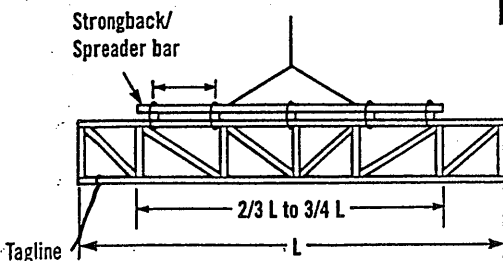
Truss sling is acceptable where these criteria are met.



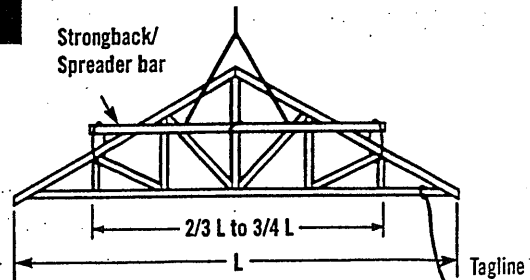
$30' < L \leq 60'$



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.

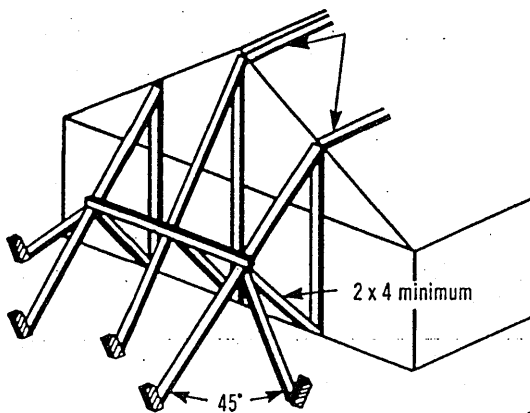


# 4 Beginning the Erection Process

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

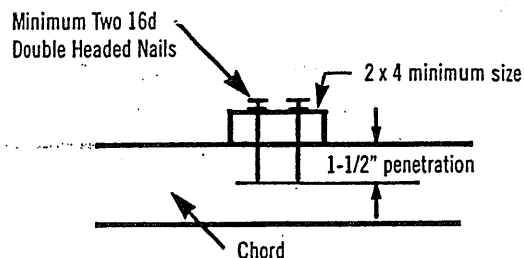
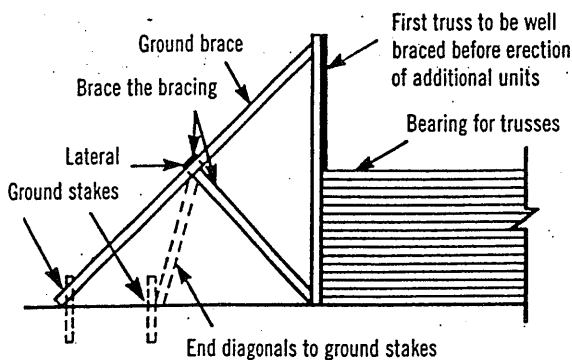
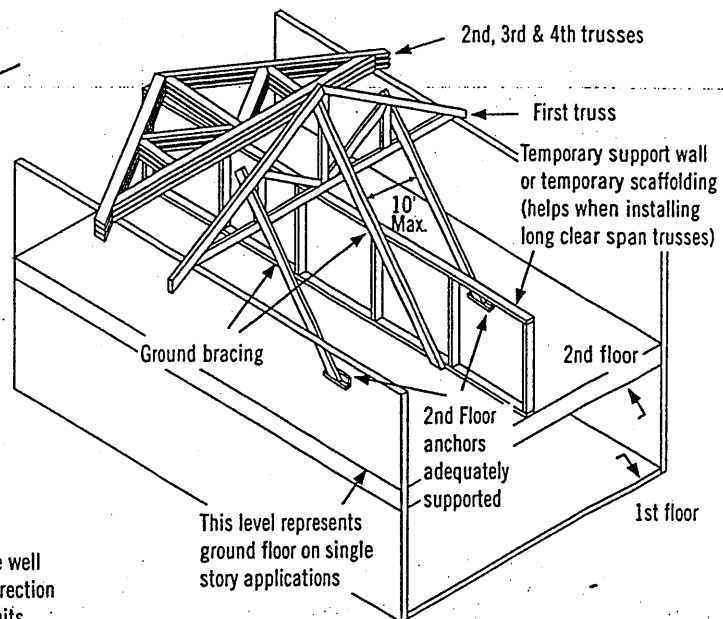
One satisfactory method ties the first unit of trusses off to a series of braces that are attached to a stake driven into the ground and securely anchored. The ground brace itself should be supported as shown below or it is apt to buckle. Additional ground braces in the opposite direction, inside the 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.

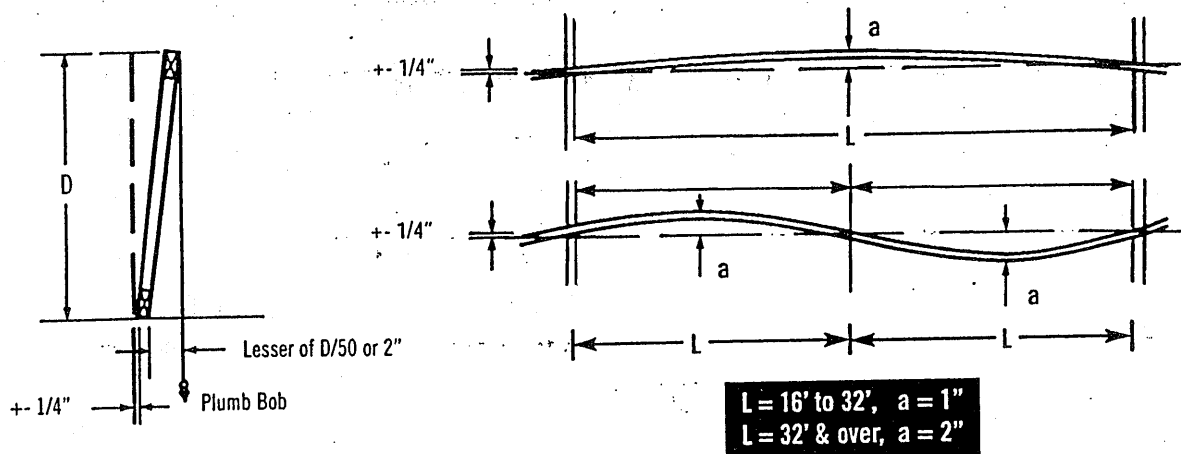


**Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.**

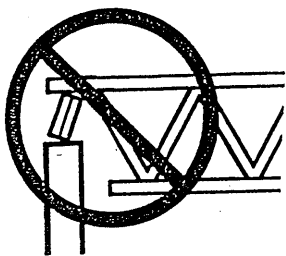
# 5 Erection Tolerance

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.

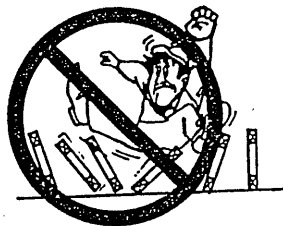
**When sheathing, make sure nails are driven into the top chord of the trusses.**



# 6 Bracing



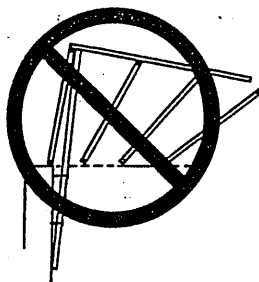
**Do not install trusses on temporarily connected supports**



**Do not walk on unbraced trusses**



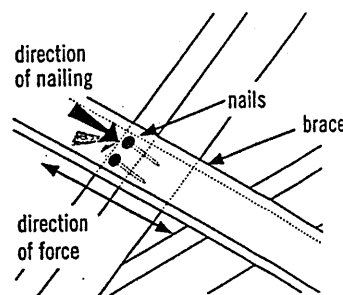
**Do not walk on trusses or gable ends lying flat**



**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.



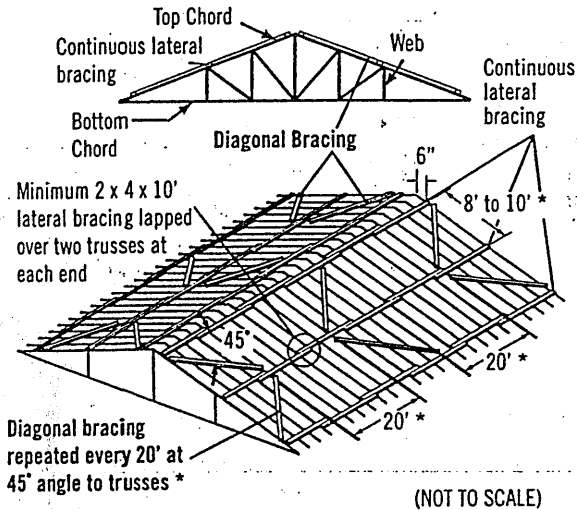
**Well nailed (perpendicular to force)**

# 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.

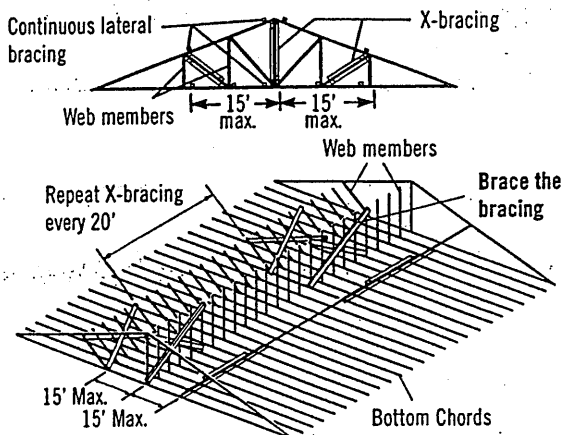


Exact spacing between trusses should be maintained as bracing is installed to avoid the hazardous practice of removing bracing to adjust spacing. This act of "adjusting spacing" can cause trusses to topple if connections are removed at the wrong time.

## 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.

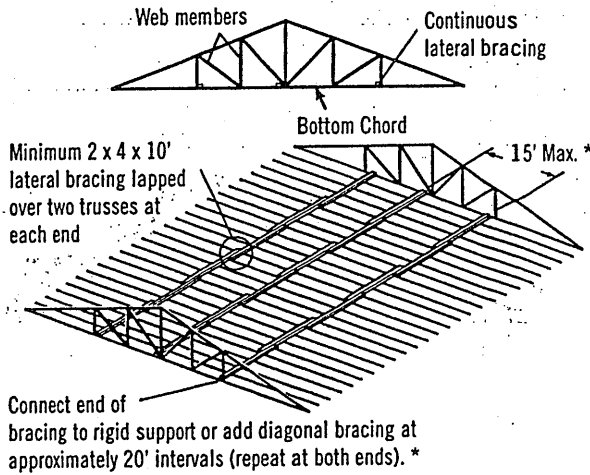
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



Note: Top chords and some web members are not shown, in order to make drawings more readable.

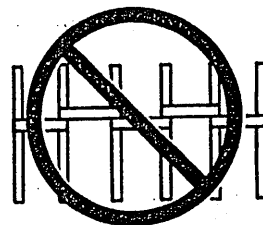
## 2) Bottom Chord Plane

In order to hold proper spacing on the bottom chord, temporary bracing is recommended on the top of the bottom chord.

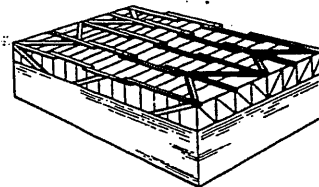


\* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (*Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses*) for details.

**Diagonal or cross-bracing is very important!**



**Do not use short blocks to brace individual trusses without a specific bracing plan detailing their use**

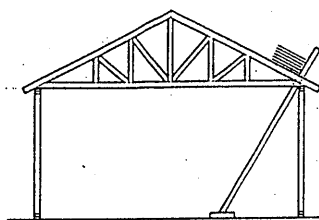
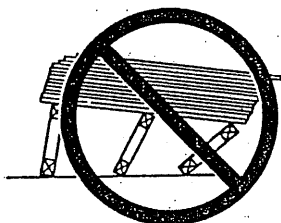


**Bracing requirements using the same principles apply to parallel chord trusses**

# 8 Stacking Materials

Do not proceed with building completion until all bracing is securely and properly in place

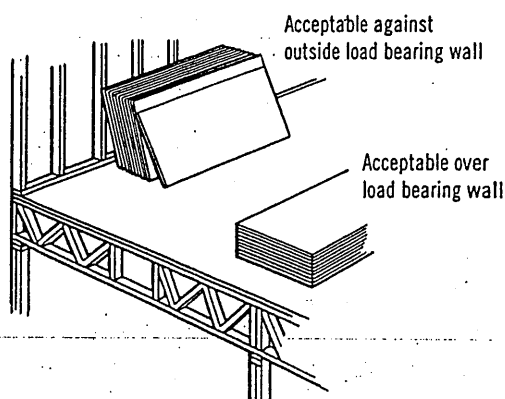
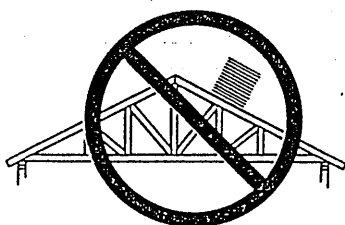
Never stack materials on unbraced or inadequately braced trusses



Platform must be rigidly braced

Proper distribution of construction materials is a must during construction.

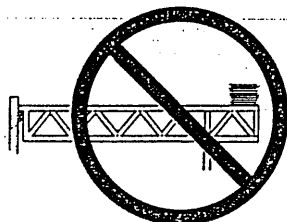
Never stack materials near a peak



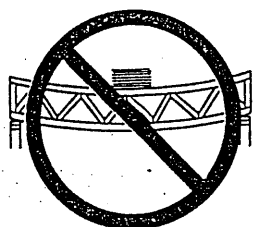
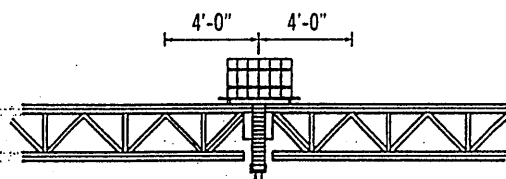
Acceptable against outside load bearing wall

Acceptable over load bearing wall

Never stack materials on the cantilever of a truss



Always stack materials over two or more trusses.

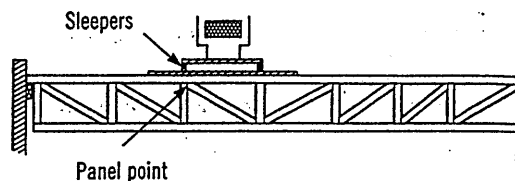
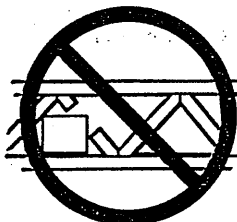


Single truss

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.

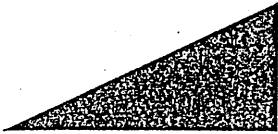
Cutting of nonstructural overhangs is considered a part of normal erection and shall be done by the builder or erection contractor.

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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THE CANADIAN WOOD TRUSS ASSOCIATION



L'ASSOCIATION CANADIENNE DES FABRICANTS DE FERMES DE BOIS

1400 Blair Place, Suite 210, Ottawa, ON K1J 9B8  
Tel.: 613-747-5544 Fax: 613-747-6264



**Wood Truss Council  
of America**

One WTCA Center  
6300 Enterprise Lane, Madison, WI 53719-1140  
Tel.: 608-274-4849 Fax: 608-274-3329  
[wtca@woodtruss.com](mailto:wtca@woodtruss.com) [www.woodtruss.com](http://www.woodtruss.com)