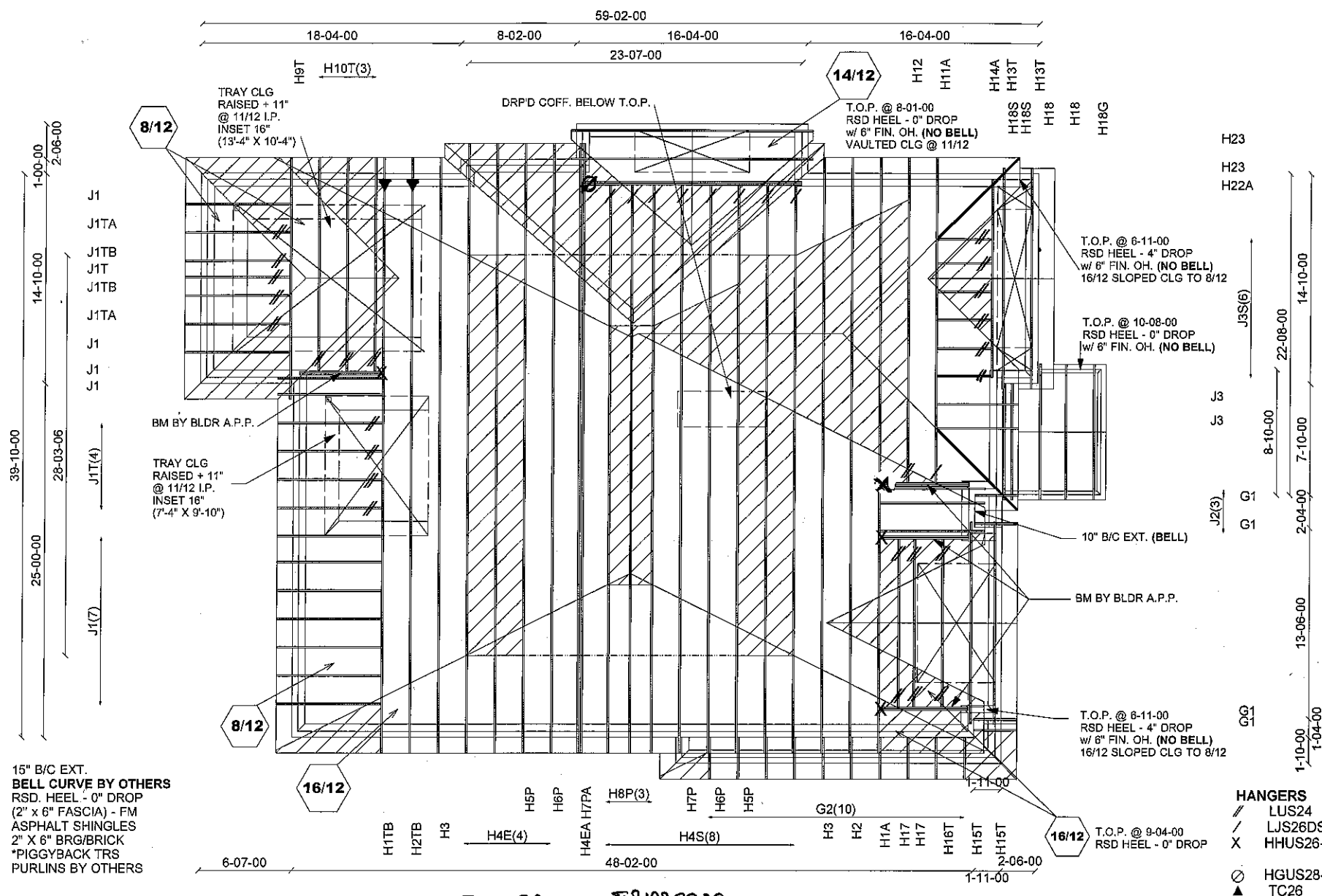


Builder / Location:		
GOLD PARK HOMES / VAUGHAN		
Project: PINE VALLEY		
Date: 6/29/2021	Designer: WCUNDLE	

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



E21073904 - E21073939

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'

HANGERS
 // LUS24
 / LJS26DS
 X HHUS26-2
 ○ HGUS28-2
 ▲ TC26

Mitek V, 8.2.0

CONVENTIONAL FRAMING BY OTHERS

EWP DESIGN INC.

(905) 832-2250

FAX (905) 832-0286

RESPONSIBILITIES AND SPECIFICATIONS

RESPONSIBILITIES

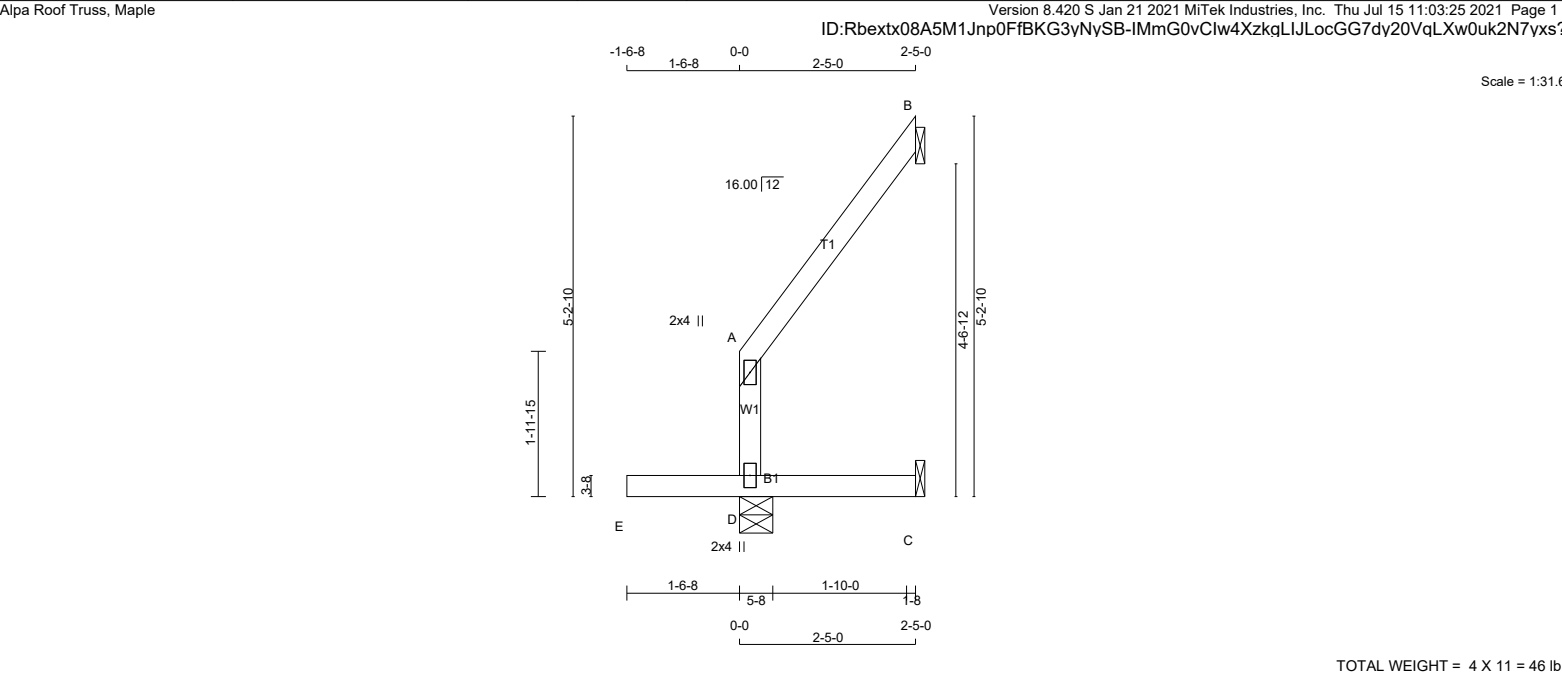
1. EWP DESIGN INC. is responsible for the design of trusses as individual components.
2. It is the responsibility of others to ascertain that the design loads utilized on each drawing meet or exceed the actual dead load imposed by the structure, the live load imposed by the intended use and the snow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

SPECIFICATIONS

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

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	G1	4	1	TRUSS DESC. JT 45147	E21073904



TOTAL WEIGHT = 4 X 11 = 46 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	SPF
A - B	2x4	DRY	No.2	SPF
D - A	2x4	DRY	No.2	SPF
E - C	2x4	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	
D	BMV1+p	MT20	2.0	4.0	

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
JT	17	0	19	0	1-8	1-8
C	84	0	84	0	1-8	1-8
B	282	0	282	0	5-8	1-8

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

UNFACTORED REACTIONS

	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	13	0 / 0	0 / 0	0 / 0	0 / 0	13 / 0	0 / 0
C	58	45 / 0	0 / 0	0 / 0	0 / 0	13 / 0	0 / 0
B	201	121 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0

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

LOADING

TOTAL LOAD CASES: (7)

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)
FR-TO		FROM TO				
A- B	-9 / 0	-78.0 0.06 (1)	10.00			
D- A	-105 / 0	0.0 0.04 (1)	7.81			
E- D	0 / 0	-96.5 0.17 (7)	10.00			
D- C	0 / 0	-18.5 0.03 (4)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.06/1.00 (A-B:1) , BC=0.17/1.00 (D-E:7) ,
WB=0.00/1.00 (n/a:0) , SSI=0.12/1.00 (D-E:7)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

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

NAIL VALUES				
PLATE GRIP(DRY)	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= 0.09 (A) (INPUT = 0.90)
JSI METAL= 0.05 (A) (INPUT = 1.00)

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

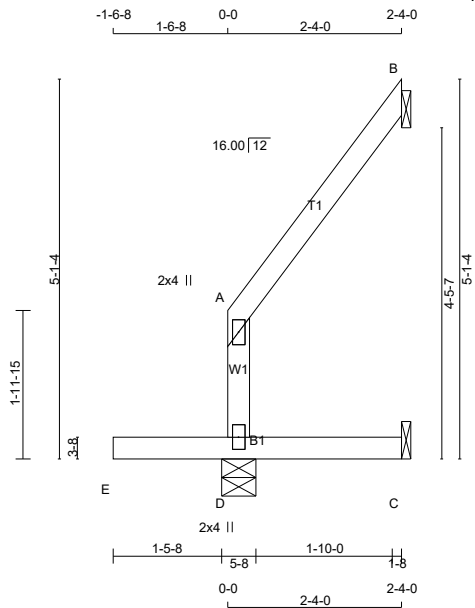


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	G2	10	1	TRUSS DESC. JT 45147	E21073905

Alpa Roof Truss, Maple

ID:Rbextx08A5M1Jnp0FfBKG3yNySB-Elt1QbEYShnhzzVhRmq4LhCzVrh?IF1CUCD9S?yxs?

Version 8.420 S Jan 21 2021 MiTek Industries, Inc. Thu Jul 15 11:03:27 2021 Page 1



Scale = 1:31.0

TOTAL WEIGHT = 10 X 11 = 111 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	SPF
A - B	2x4	DRY	No.2	SPF
D - A	2x4	DRY	No.2	SPF
E - C	2x4	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	
D	BMV1+p	MT20	2.0	4.0	

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
C	16	0	18	0	1-8	1-8
B	81	0	81	0	1-8	1-8
D	277	0	277	0	5-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
C	13	0 / 0	0 / 0	0 / 0	0 / 0	13 / 0	0 / 0
B	56	44 / 0	0 / 0	0 / 0	0 / 0	12 / 0	0 / 0
D	198	119 / 0	0 / 0	0 / 0	0 / 0	78 / 0	0 / 0

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

LOADING

TOTAL LOAD CASES: (7)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	WEBS MAX. FACTORED FORCE (LBS)		MAX. CSI (LC)
	FR-TO	FROM	TO	TO				FR-TO	FROM	
A-B	-8 / 0	-78.0	-78.0	0.06 (1)	10.00					
D-A	-101 / 0	0.0	0.0	0.03 (1)	7.81					
E-D	0 / 0	-96.5	-96.5	0.17 (7)	10.00					
D-C	0 / 0	-18.5	-18.5	0.03 (4)	10.00					

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.01")

CSI: TC=0.06/1.00 (A-B:1) , BC=0.17/1.00 (D-E:7) ,
WB=0.00/1.00 (n/a:0) , SSI=0.12/1.00 (D-E:7)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES					
PLATE GRIP(DRY)	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= 0.09 (A) (INPUT = 0.90)
JSI METAL= 0.05 (A) (INPUT = 1.00)

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



[illegible]

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H1A	1	1	TRUSS DESC. JT 45147	E21073906(2)

PLATES (table is in inches)						FACTORED CONCENTRATED LOADS (LBS)										NAIL VALUES					
JT	TYPE	PLATES	W	LEN	Y	X	JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.	PLATE	GRIP(DRY)	SHEAR	SECTION	
S	BMWW-t	MT20	6.0	7.0	2.75	1.75	B	2-4-5	-146	-146	---	FRONT	VERT	TOTAL	---	C1					
T	BMWWW-t	MT20	8.0	9.0	4.25	4.50	V	17-5-7	-2228	-2228	---	FRONT	VERT	TOTAL	---	C1					
U	BS-t	MII16	5.0	15.0			AD	1-7-7	-1085	-1085	---	FRONT	VERT	TOTAL	---	C1					
V	BMWWW-t	MT20	8.0	9.0	4.25	4.50	AE	13-8-9	-1085	-1085	---	FRONT	VERT	TOTAL	---	C1					
W	BMWW-t	MT20	6.0	7.0	2.75	1.75															
X	BS-t	MT20	6.0	7.0																	
Y	BMWW-t	MT20	6.0	7.0	2.25	2.25															
Z	BMWW-t	MT20	6.0	7.0	3.50	2.25															
AA	BMV1-t	MT20	6.0	9.0	Edge																

CONNECTION REQUIREMENTS

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

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

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

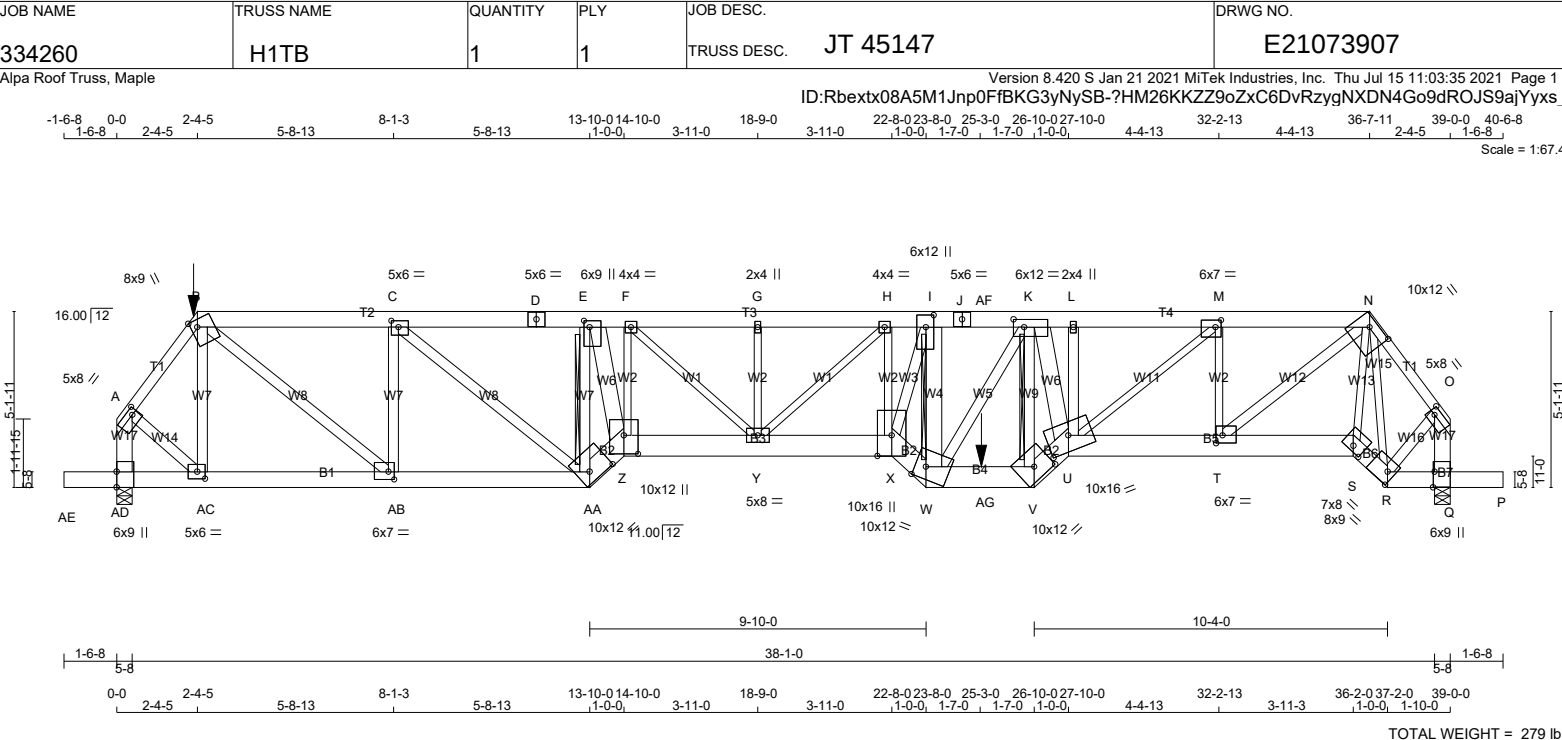
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.96 (R) (INPUT = 1.00)

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





LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF A - B 2x4 DRY No.2 B - D 2x6 DRY 1650F 1.5E D - J 2x6 DRY 1650F 1.5E J - N 2x6 DRY 1650F 1.5E N - O 2x4 DRY No.2 AD- A 2x6 DRY No.2 Q - O 2x6 DRY No.2 AE- AA 2x6 DRY No.2 AA- Z 2x8 DRY 1950F 1.7E Z - X 2x8 DRY 1950F 1.7E X - W 2x8 DRY 1950F 1.7E W - V 2x8 DRY 1950F 1.7E V - U 2x8 DRY 1950F 1.7E U - S 2x8 DRY 1950F 1.7E S - R 2x6 DRY No.2 R - P 2x6 DRY No.2 ALL WEBS 2x3 DRY No.2 EXCEPT AC- B 2x4 DRY 1650F 1.5E B - AB 2x4 DRY No.2 AB- C 2x4 DRY 1650F 1.5E C - AA 2x4 DRY No.2 AA- E 2x4 DRY 1650F 1.5E E - Z 2x6 DRY 1650F 1.5E X - I 2x4 DRY 2100F 1.8E W - I 2x6 DRY No.2 V - K 2x4 DRY No.2 K - U 2x6 DRY 1650F 1.5E U - L 2x4 DRY No.2 T - N 2x4 DRY No.2 A - AC 2x4 DRY No.2 R - O 2x4 DRY No.2 W - K 2x4 DRY No.2 DRY: SEASONED LUMBER.										DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQRD JT VERT HORZ DOWN HORZ UPLIFT BRG BRG AD 3964 0 3964 0 0 5-8 5-8 Q 3526 0 3526 0 0 5-8 5-8 ALLOW FOR 0.4" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL AD 2820 1755 / 0 0 / 0 0 / 0 0 / 0 1065 / 0 0 / 0 Q 2500 1600 / 0 0 / 0 0 / 0 0 / 0 900 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) AD, Q BEARING SIZE FACTOR = 1.15 AT JNT(S) AD, Q (BASED ON SUPPORT DEPTH = 1-8) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.84 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 E-AA, I-W, K-V 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 MAX. FACTORED FACTORED WEBS MAX. FACTORED MEMB. FORCE VERT. LOAD LC1 MAX MAX. MEMB. FORCE MAX (LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC) FR-TO FROM TO LENGTH FR-TO A-B -3199 / 0 -78.0 -78.0 0.23 (1) 3.71 AC- B -954 / 0 0.17 (1) B- C -5488 / 0 -153.5 -153.5 0.39 (1) 3.94 B-AB 0 / 4645 0.82 (1) C- D -7729 / 0 -153.5 -153.5 0.49 (1) 3.31 AB- C -2823 / 0 0.51 (1) D- E -7729 / 0 -153.5 -153.5 0.49 (1) 3.31 C-AA 0 / 2870 0.51 (1) E- F -9949 / 0 -78.0 -78.0 0.43 (1) 2.98 AA- E -8662 / 0 0.94 (1) F- G -10562 / 0 -78.0 -78.0 0.49 (1) 2.86 E- Z 0 / 8308 0.68 (1) G- H -10562 / 0 -78.0 -78.0 0.51 (1) 2.84 Z- F -346 / 0 0.08 (1) H- I -10597 / 0 -78.0 -78.0 0.49 (1) 2.84 F- Y 0 / 840 0.21 (1) I- J -8391 / 0 -156.0 -156.0 0.38 (1) 3.28 Y- G -521 / 0 0.12 (1) J- AF -8391 / 0 -156.0 -156.0 0.38 (1) 3.28 Y- H -46 / 82 0.03 (4) AF- K -8391 / 0 -78.0 -78.0 0.38 (1) 3.28 X- H -4 / 98 0.02 (1) K- L -8597 / 0 -78.0 -78.0 0.40 (1) 3.22 X- I 0 / 8140 0.67 (1) L- M -8578 / 0 -78.0 -78.0 0.42 (1) 3.22 W- I -7940 / 0 0.84 (1) M- N -5615 / 0 -78.0 -78.0 0.19 (1) 4.10 V- K -6120 / 0 0.94 (1) N- O -2495 / 0 -78.0 -78.0 0.18 (1) 4.20 K- U 0 / 4129 0.34 (1) AD- A -3818 / 0 0.0 0.0 0.31 (1) 5.43 U- L 0 / 469 0.08 (1) Q- O -3297 / 0 0.0 0.0 0.27 (1) 5.80 U- M 0 / 3843 0.95 (1) AE-AD 0 / 0 -96.5 -96.5 0.08 (1) 10.00 T- M -2951 / 0 0.70 (1) AD-AC 0 / 0 -36.4 -36.4 0.10 (4) 10.00 T- N 0 / 4630 0.82 (1) AC-AB 0 / 1887 -36.4 -36.4 0.33 (1) 10.00 S- N 0 / 1803 0.45 (1) AB-AA 0 / 5488 -36.4 -36.4 0.81 (1) 10.00 N- R -3012 / 0 1.00 (1) AA- Z 0 / 10297 -112.0 -112.0 0.47 (1) 10.00 A-AC 0 / 2243 0.40 (1) Z- Y 0 / 9961 -112.0 -112.0 0.54 (1) 10.00 R- O 0 / 1922 0.34 (1) Y- X 0 / 10597 -112.0 -112.0 0.57 (1) 10.00 W- K 0 / 1519 0.27 (1) X- W 0 / 10842 -112.0 -112.0 0.50 (1) 10.00 W-AG 0 / 7552 -37.3 -37.3 0.58 (1) 10.00 AG- V 0 / 7552 -18.5 -18.5 0.58 (1) 10.00 V- U 0 / 9979 -18.5 -18.5 0.46 (1) 10.00 U- T 0 / 5616 -18.5 -18.5 0.26 (1) 10.00 T- S 0 / 2065 -18.5 -18.5 0.10 (1) 10.00 S- R 0 / 2534 -18.5 -18.5 0.33 (1) 10.00										DESIGN CRITERIA *** SPECIAL LOADS ANALYSIS *** GEOMETRY AND/OR BASIC LOADS CHANGED BY USER. LOADS WERE DERIVED FROM USER INPUT NO FURTHER MODIFICATIONS WERE MADE SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN./C LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM GIRDER TYPE: CPrimeHip SIDE SETBACK = 2-4-5 END SETBACK = 5-10-8 END WALL WIDTH = 0-0 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: CONVENTIONAL APPLIED TO FRONT SIDE - ADDTL LOADS BASED ON 55 % OF GSL. LOADS APPLIED TO FIRST 13-10-0 OF SPAN MEASURED FROM THE LEFT. GIRDER TYPE: CStdGirder START DISTANCE = 13-10-0 START SPAN CARRIED = 5-10-8 END DISTANCE = 23-8-0 END SPAN CARRIED = 5-10-8 END WALL WIDTH = 0-0 APPLIED TO FRONT SIDE OF BOTTOM CHORD. - ADDTL LOADS BASED ON 55 % OF GSL. *** NON STANDARD GIRDER *** ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF CBC 2018 , ABC 2019 - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014 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 (1.30") CALCULATED VERT. DEFL.(LL) = L/758 (0.62") ALLOWABLE DEFL.(TL)= L/360 (1.30") CALCULATED VERT. DEFL.(TL) = L/400 (1.17") CANTILEVER DEFLECTION: ALLOWABLE DEFL.(LL)= L/120 (0.19") CALCULATED VERT. DEFL.(LL) = L/302 (0.06") ALLOWABLE DEFL.(TL)= L/120 (0.19") CALCULATED VERT. DEFL.(TL) = L/160 (0.12")									
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LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

LICENSED PROFESSIONAL ENGINEER

Y. WIDYA

100225448

07/15/2021

PROVINCE OF ONTARIO

CONTINUED ON PAGE

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ID:Rbextx08A5M1Jnp0FbBKG3yNySB-?HM26KKZZ9oZxC6DvRzyqNXDN4Go9dROJS9aiYyxs

LOADING									
TOTAL LOAD CASES: (4)									
C H O R D S					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM TO							
R-Q	-1 / 0	-18.5	-18.5	0.08 (1)	10.00				
Q-P	0 / 0	-96.5	-96.5	0.08 (1)	10.00				
FACTORED CONCENTRATED LOADS (LBS)									
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
B	2-4-5	-134	-134	---	FRONT	VERT	TOTAL	---	C1
AG	25-3-7	-1134	-1134	---	FRONT	VERT	TOTAL	---	C1

CS1: TC=0.51/1.00 (G-H:1) , BC=0.81/1.00
(AA-AB:1) , WB=1.00/1.00 (N-R:1) , SSI=0.40/1.00
(K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (T) (INPUT = 0.90)
JSI METAL= 0.98 (Z) (INPUT = 1.00)

JSI GRIP= 0.90 (R) (INPUT = 0.90)
JSI METAL= 0.84 (P) (INPUT = 1.00)

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ID:Rbextx08A5M1Jnp0FfBKG3vNySB-qRjJMNOK9 Yif7ZNFf4MwenB6VK3ZNZGiOcuxByxs



DRY: SEASONED LUMBER.

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H2TB	1	1	TRUSS DESC. JT 45147	E21073909(2)

PLATES (table is in inches)

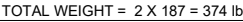
JT	TYPE	PLATES	W	LEN	Y	X
U	BBWW-h	MT20	6.0	7.0	1.75	3.75
V	BBWW+p	MT20	6.0	12.0	Edge	3.50
W	BBWWW-m	MT20	8.0	9.0	3.25	4.50
X	BBWW-h	MT20	7.0	8.0	2.00	5.00
Y	BMWW-t	MT20	4.0	6.0	1.50	2.75
Z	BMWW-t	MT20	4.0	4.0	2.00	1.75
AA	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

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



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JSI GRIP= 0.84 (B) (INPUT = 0.90)
JSI METAL= 0.68 (O) (INPUT = 1.00)

TOTAL WEIGHT = 4 X 223 = 892 lb

N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR
A - B	2x4	DRY	No.2	SPF
B - E	2x4	DRY	No.2	SPF
E - H	2x4	DRY	No.2	SPF
H - J	2x6	DRY	No.2	SPF
T - A	2x4	DRY	No.2	SPF
U - Q	2x4	DRY	No.2	SPF
Q - N	2x4	DRY	No.2	SPF
N - K	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
B - R	2x4	DRY	No.2	SPF
C - P	2x4	DRY	No.2	SPF
D - O	2x4	DRY	No.2	SPF
O - G	2x4	DRY	No.2	SPF
M - H	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

J	T	TYPE	PLATES	W	LEN	Y	X
A	C	TMVW+p	MT20	5.0	6.0	1.75	2.50
B	D	TTWW-h	MT20	7.0	8.0	Edge	2.75
C	D	G					
E	C	TMWW-t	MT20	4.0	4.0		
C	E	TS-t	MT20	3.0	6.0		
F	H	TMW+w	MT20	2.0	4.0		
H	F	TTWW-h	MT20	6.0	7.0	1.50	3.75
I	J	TMW+w	MT20	2.0	4.0		
I	J	BMWH1+m	MT20	4.0	6.0	3.00	1.00
L	L	BMWW-t	MT20	4.0	4.0		
M	N	BMWW-t	MT20	4.0	4.0	1.75	1.50
N	M	BS-t	MT20	3.0	6.0		
O	P	BMWWW-t	MT20	5.0	6.0		
P	O	BMWW-t	MT20	4.0	4.0		
Q	R	BS-t	MT20	3.0	6.0		
R	Q	BMWW-t	MT20	4.0	4.0	1.50	1.50
S	T	BMWW-t	MT20	4.0	6.0		
T	S	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



JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD IN-SX	HEEL WEDGE
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	2x10 R
J	2167	0	2167	0	0	5-8	3-8	
T	2201	0	2201	0	0	5-8	3-8	

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	1554	898 / 0	0 / 0	0 / 0	0 / 0	656 / 0	0 / 0
T	1579	910 / 0	0 / 0	0 / 0	0 / 0	669 / 0	0 / 0

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

FOR SECTION B-H, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, 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 B-S, C-R, D-P, F-O, G-M.

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

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED			MAX. UNBRAC	MEMB.	MAX. FACTORED		
		VERT. LOAD	LC1	MAX (PLF)			FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO	CSI (LC)	LENGTH	FR-TO			
A-B	-1845 / 0	-78.0	-78.0	0.68 (1)	4.39	S-B	-209 / 0	0.11 (1)	
B-C	-1923 / 0	-85.5	-85.5	0.50 (1)	2.00	B-R	0 / 1512	0.24 (1)	
C-D	-2326 / 0	-85.5	-85.5	0.54 (1)	2.00	R-C	-1165 / 0	0.64 (1)	
D-X	-2366 / 0	-85.5	-85.5	0.43 (1)	2.00	C-P	0 / 752	0.12 (1)	
X-E	-2366 / 0	-85.5	-85.5	0.43 (1)	2.00	P-D	-531 / 0	0.29 (1)	
E-F	-2366 / 0	-85.5	-85.5	0.43 (1)	2.00	D-O	0 / 75	0.01 (1)	
F-G	-2366 / 0	-85.5	-85.5	0.55 (1)	2.00	O-F	-464 / 0	0.25 (1)	
G-H	-2046 / 0	-85.5	-85.5	0.52 (1)	2.00	O-G	0 / 596	0.10 (1)	
H-I	-2265 / 0	-78.0	-78.0	0.11 (1)	5.35	M-G	-1009 / 0	0.55 (1)	
I-W	-2371 / 0	-78.0	-78.0	0.25 (1)	5.08	M-H	0 / 1325	0.21 (1)	
W-J	-2438 / 0	-78.0	-78.0	0.25 (1)	5.02	L-H	0 / 372	0.08 (1)	
T-A	-2012 / 0	0.0	0.0	0.23 (1)	5.95	L-I	-303 / 0	0.15 (1)	
						A-S	0 / 1149	0.26 (1)	
U-T	0 / 0	-96.5	-96.5	0.16 (1)	10.00	V-W	-7 / 93	0.00 (1)	
T-S	0 / 0	-18.5	-18.5	0.14 (4)	10.00				
S-R	0 / 1100	-18.5	-18.5	0.26 (4)	10.00				
R-Q	0 / 1923	-18.5	-18.5	0.37 (1)	10.00				
Q-P	0 / 1923	-18.5	-18.5	0.37 (1)	10.00				
P-O	0 / 2326	-18.5	-18.5	0.43 (1)	10.00				
O-N	0 / 2047	-18.5	-18.5	0.39 (1)	10.00				
N-M	0 / 2047	-18.5	-18.5	0.39 (1)	10.00				
M-L	0 / 1321	-18.5	-18.5	0.31 (1)	10.00				
L-V	0 / 1501	-18.5	-18.5	0.34 (1)	10.00				
V-J	0 / 1501	-18.5	-18.5	0.28 (1)	10.00				
J-K	0 / 0	-96.5	-96.5	0.10 (1)	10.00				

SPECIFIED LOADS:

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

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)= $L/360$ (1.34")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.11")
 ALLOWABLE DEFL.(TL)= $L/360$ (1.34")
 CALCULATED VERT. DEFL.(TL) = $L/999$ (0.24")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= $L/120$ (0.19")
CALCULATED VERT. DEFL.(LL)= $L/999$ (0.01")
ALLOWABLE DEFL.(TL)= $L/120$ (0.19")
CALCULATED VERT. DEFL.(TL)= $L/999$ (0.01")

CSI: TC=0.68/1.00 (A-B:1) , BC=0.43/1.00 (O-P:1) ,
WB=0.64/1.00 (C-R:1) , SSI=0.26/1.00 (J-W: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 LEFT HEEL ONLY

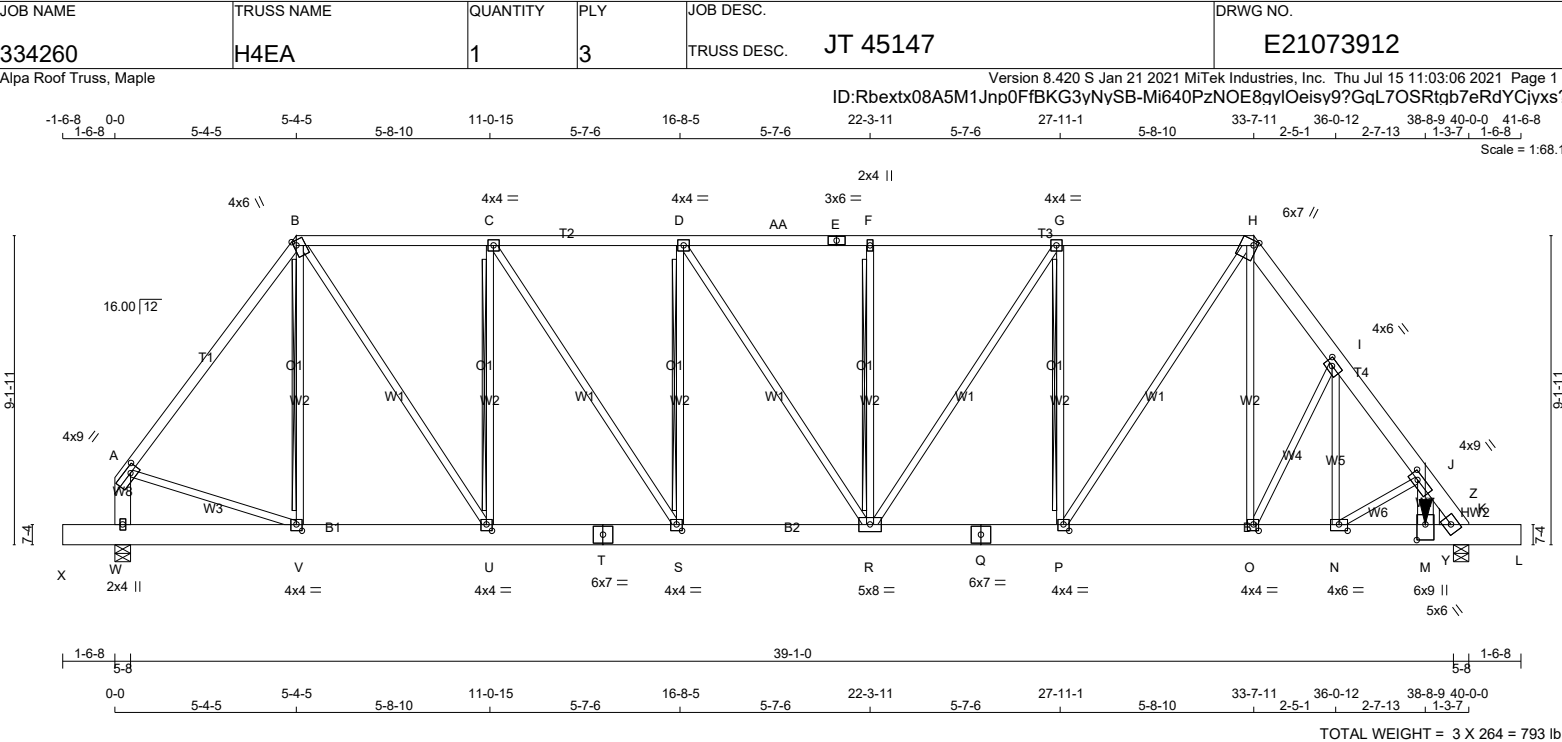
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (A) (INPUT = 0.90)
JSI METAL= 0.65 (N) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY No.2	SPF
B - E	2x4	DRY No.2	SPF
E - H	2x4	DRY No.2	SPF
H - K	2x6	DRY No.2	SPF
W - A	2x6	DRY No.2	SPF
X - T	2x8	DRY No.2	SPF
T - Q	2x8	DRY No.2	SPF
Q - L	2x8	DRY No.2	SPF
ALL WEBS EXCEPT M - J	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 3 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A- B 1	12	TOP
B- E 1	12	TOP
E- H 1	12	TOP
H- K 2	12	TOP
W- A 2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
X- T 2	12	TOP
T- Q 2	12	TOP
Q- L 4	4	SIDE(2105.9)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3 1	6	
2x6 2	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

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

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



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	HEEL WEDGE
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX
W	2441	0	2441	0	5-8	1-8
K	9603	0	9603	0	5-8	4-1

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
W	1745	1038 / 0	0 / 0	0 / 0	0 / 0	707 / 0
K	6720	4812 / 0	0 / 0	0 / 0	0 / 0	1907 / 0

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

BRACING
FOR SECTION B-H, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.50 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.

2x6 DRY SPF No.2 T-BRACE AT B-V, C-U, D-S, F-R, 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)

CHORDS		WEBS	
MEMB.	FORCE (LBS)	MEMB.	FORCE (LBS)
FR-TO	FROM TO	FR-TO	FROM TO
A- B	-2131 / 0	V- B	-212 / 0
B- C	-2261 / 0	B- U	0 / 1796
C- D	-2823 / 0	U- C	-1396 / 0
D- AA	-3010 / 0	C- S	0 / 1034
AA- E	-3010 / 0	S- D	-758 / 0
E- F	-3010 / 0	D- R	0 / 345
F- G	-3010 / 0	R- F	-464 / 0
G- H	-2858 / 0	F- G	0 / 279
H- I	-3873 / 0	G- P	-724 / 0
I- J	-5083 / 0	P- H	0 / 1015
J- Z	-9879 / 0	H- J	0 / 1945
Z- K	-10181 / 0	M- J	0 / 5533
W- A	-2256 / 0	A- V	0 / 1317
X- W	0 / 0	O- I	-1903 / 0
W- V	0 / 0	N- I	0 / 2407
V- U	0 / 1271	N- J	-3556 / 0
U- T	0 / 2261	Y- Z	0 / 340
T- S	0 / 2261		
S- R	0 / 2823		
R- Q	0 / 2859		
Q- P	0 / 2859		
P- O	0 / 2296		
O- N	0 / 3100		
N- M	0 / 6097		
M- Y	0 / 6097		
Y- K	0 / 6097		
K- L	0 / 0		

FACTORED CONCENTRATED LOADS (LBS)		FACE	DIR.	TYPE	HEEL	CONN.
JT	LOC.	LC1	MAX-	MAX+	FRONT	VERT
M	38-8-9	-7675	-7675	---	---	C1

DESIGN CRITERIA

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

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

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON 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.

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

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

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

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 (1.33")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.33")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/705 (0.03")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/406 (0.04")

CSI: TC=0.16/1.00 (A-B:1) , BC=0.46/1.00 (M-N:1) , WB=0.34/1.00 (I-O:1) , SSI=0.28/1.00 (M-Y:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H4EA	1	3	TRUSS DESC. JT 45147	E21073912(2)

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	9.0	2.00	3.00
B	TTWW+m	MT20	4.0	6.0	1.75	1.00
C, D, G						
C	TMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMW+w	MT20	2.0	4.0		
H	TTWW+m	MT20	6.0	7.0	Edge	1.50
I	TMWW-t	MT20	4.0	6.0	2.00	2.50
J	TMWW-t	MT20	4.0	9.0	2.00	3.00
K	TBMH1-h	MT20	5.0	6.0		
M	BMW+w	MT20	6.0	9.0	5.50	3.00
N	BMW-t	MT20	4.0	6.0	2.25	3.00
O	BMW-t	MT20	4.0	4.0	2.25	1.75
P, S, U, V						
P	BMW-t	MT20	4.0	4.0	2.25	2.00
Q	BS-t	MT20	6.0	7.0		
R	BMW-t	MT20	5.0	8.0		
T	BS-t	MT20	6.0	7.0		
W	BMV1+p	MT20	2.0	4.0		

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

CONNECTION REQUIREMENTS

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

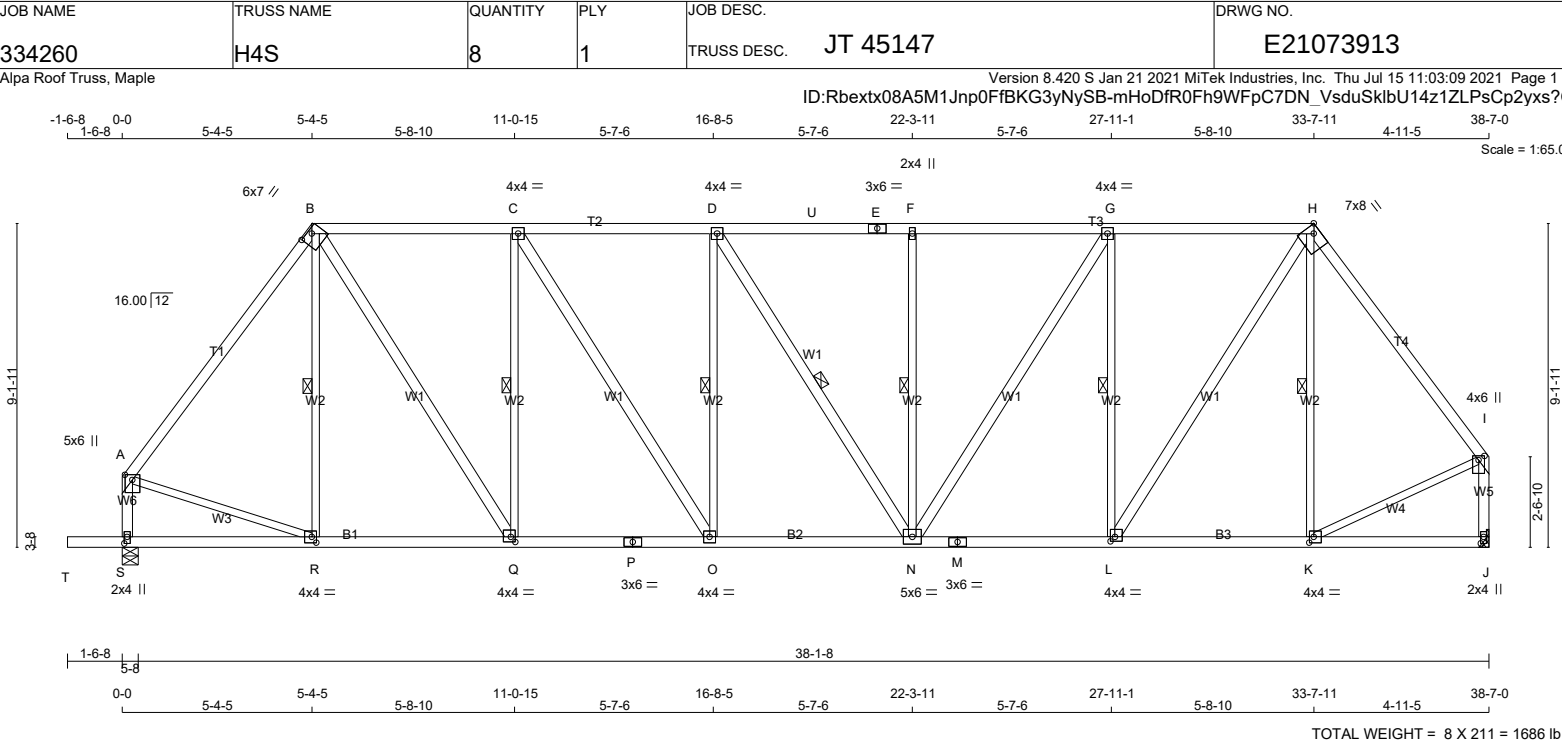
PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.97 (M) (INPUT = 1.00)

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





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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	5.0	6.0	1.75 2.50
B	TTWW-h	MT20	6.0	7.0	1.50 3.75
C, D, G					
C	TMWW-t	MT20	4.0	4.0	
E	TS-t	MT20	3.0	6.0	
F	TMW+w	MT20	2.0	4.0	
H	TTWW-h	MT20	7.0	8.0	Edge 2.75
I	TMVW+p	MT20	4.0	6.0	1.50 2.00
J	BMV1+p	MT20	2.0	4.0	2.25 1.00
K	BMWW-t	MT20	4.0	4.0	2.00 1.50
L	BMWW-t	MT20	4.0	4.0	1.50 1.50
M	BS-t	MT20	3.0	6.0	
N	BMWWW-t	MT20	5.0	6.0	
O	BMWW-t	MT20	4.0	4.0	
P	BS-t	MT20	3.0	6.0	
Q	BMWW-t	MT20	4.0	4.0	1.75 1.50
R	BMWW-t	MT20	4.0	4.0	2.00 1.50
S	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

FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
S	2115	0	2115	0	0	5-8	3-3
J	1968	0	1968	0	0	MECHANICAL	

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT J. MINIMUM BEARING LENGTH AT JOINT J = 2-14.

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
S	1517	875 / 0	0 / 0	0 / 0	0 / 0	642 / 0	0 / 0
J	1413	810 / 0	0 / 0	0 / 0	0 / 0	603 / 0	0 / 0

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

BRACING

FOR SECTION B-H, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.49 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-R, C-Q, D-O, D-N, F-N, 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)

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)
FR-TO		FROM	TO		FR-TO		
A-B	-1756 / 0	-78.0	-78.0 0.65 (1)	4.49	R-B	-193 / 0	0.11 (1)
B-C	-1815 / 0	-85.5	-85.5 0.49 (1)	2.00	B-Q	0 / 1410	0.23 (1)
C-D	-2164 / 0	-85.5	-85.5 0.53 (1)	2.00	Q-C	-1080 / 0	0.59 (1)
D-U	-2149 / 0	-85.5	-85.5 0.41 (1)	2.00	C-O	0 / 650	0.10 (1)
U-E	-2149 / 0	-85.5	-85.5 0.41 (1)	2.00	O-D	-444 / 0	0.24 (1)
E-F	-2149 / 0	-85.5	-85.5 0.41 (1)	2.00	D-N	-28 / 0	0.02 (1)
F-G	-2149 / 0	-85.5	-85.5 0.53 (1)	2.00	N-F	-464 / 0	0.25 (1)
G-H	-1775 / 0	-85.5	-85.5 0.49 (1)	2.00	N-G	0 / 697	0.11 (1)
H-I	-1644 / 0	-78.0	-78.0 0.50 (1)	4.72	L-G	-1122 / 0	0.61 (1)
S-A	-1926 / 0	0.0	0.0 0.22 (1)	6.06	L-H	0 / 1463	0.24 (1)
J-I	-1932 / 0	0.0	0.0 0.26 (1)	6.05	K-H	-310 / 0	0.17 (1)
					A-R	0 / 1094	0.25 (1)
					K-I	0 / 1068	0.24 (1)
T-S	0 / 0	-96.5	-96.5 0.16 (1)	10.00			
S-R	0 / 0	-18.5	-18.5 0.14 (4)	10.00			
R-Q	0 / 1047	-18.5	-18.5 0.25 (4)	10.00			
Q-P	0 / 1815	-18.5	-18.5 0.35 (1)	10.00			
P-O	0 / 1815	-18.5	-18.5 0.35 (1)	10.00			
O-N	0 / 2164	-18.5	-18.5 0.41 (1)	10.00			
N-M	0 / 1775	-18.5	-18.5 0.35 (1)	10.00			
M-L	0 / 1775	-18.5	-18.5 0.35 (1)	10.00			
L-K	0 / 978	-18.5	-18.5 0.23 (4)	10.00			
K-J	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

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 (1.29")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.29")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.21")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.01")

CSI: TC=0.65/1.00 (A-B:1), BC=0.41/1.00 (N-O:1), WB=0.61/1.00 (G-L:1), SSI=0.23/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

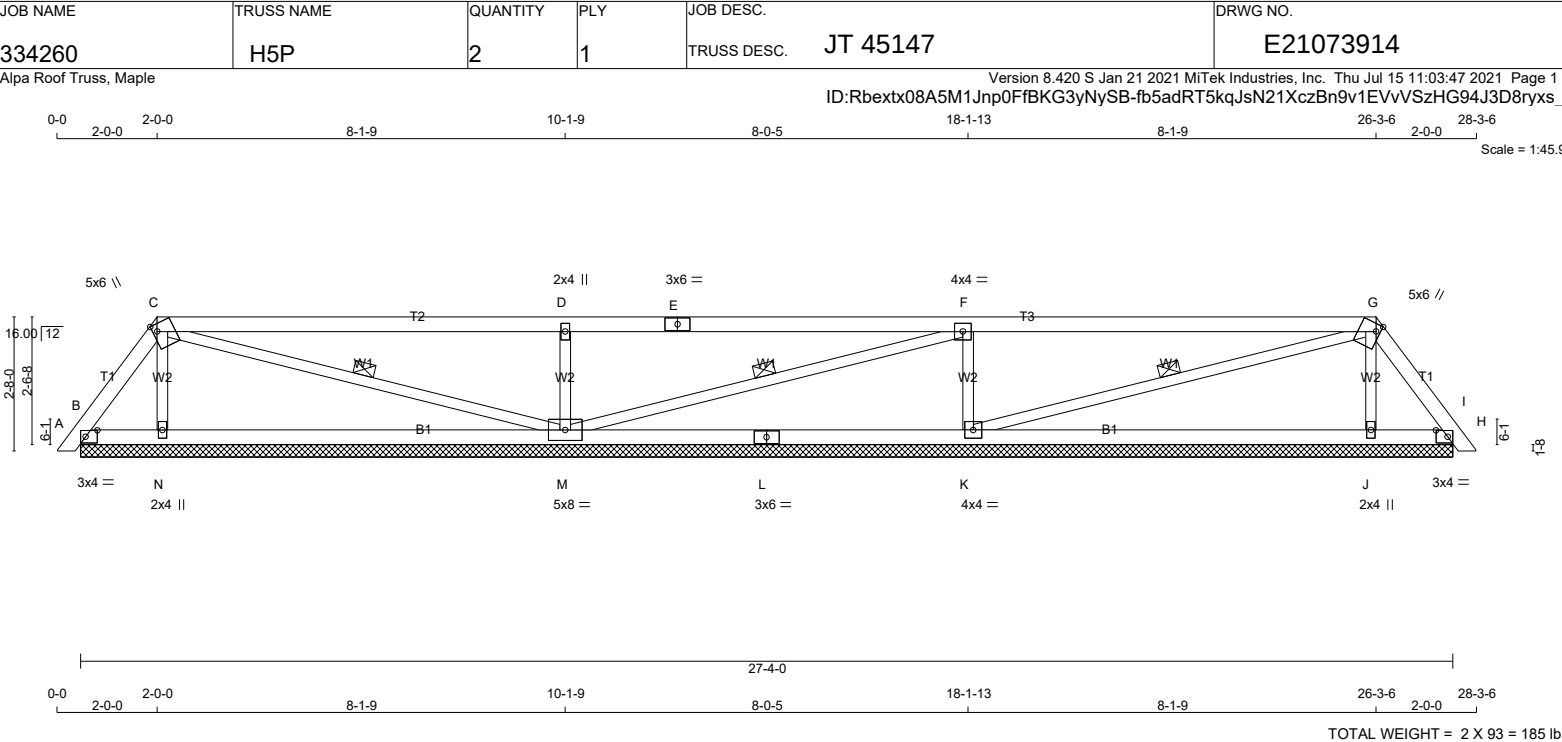
NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (Q) (INPUT = 0.90)
JSI METAL= 0.63 (I) (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
G - I	2x4	DRY	No.2	SPF
B - L	2x4	DRY	No.2	SPF
L - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	1.50 2.75
C	TTWW+m	MT20	5.0	6.0	1.75 1.00
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	TTWW+m	MT20	5.0	6.0	1.75 1.00
H	TMB1-I	MT20	3.0	4.0	1.50 2.75
J	BMW1+w	MT20	2.0	4.0	
K	BMWW1-t	MT20	4.0	4.0	
L	BS-t	MT20	3.0	6.0	
M	BMWW1-t	MT20	5.0	8.0	
N	BMW1+w	MT20	2.0	4.0	

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



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG		IN-SX	IN-SX
	VERT	HORZ	DOWN	HORZ		UP	DOWN		
B	119	0	119	0	-6	27'-4" (13'-8")	13'-8"	13'-8"	13'-8"
N	374	0	374	0	0	27'-4" (13'-8")	13'-8"	13'-8"	13'-8"
M	860	0	860	0	0	27'-4" (13'-8")	13'-8"	13'-8"	13'-8"
K	842	0	842	0	0	27'-4" (13'-8")	13'-8"	13'-8"	13'-8"
J	365	0	365	0	0	27'-4" (13'-8")	13'-8"	13'-8"	13'-8"
H	132	0	132	0	-4	27'-4" (13'-8")	13'-8"	13'-8"	13'-8"
VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH									

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 150 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT H FOR 150 LBS FACTORED UPLIFT

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	79	83 / 0	0 / 0	0 / 0	0 / 0	0 / -4	0 / 0
N	273	127 / 0	0 / 0	0 / 0	0 / 0	146 / 0	0 / 0
M	612	382 / 0	0 / 0	0 / 0	0 / 0	230 / 0	0 / 0
K	599	372 / 0	0 / 0	0 / 0	0 / 0	227 / 0	0 / 0
J	268	123 / 0	0 / 0	0 / 0	0 / 0	145 / 0	0 / 0
H	87	90 / 0	0 / 0	0 / 0	0 / 0	0 / -3	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, N, M, K, 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.
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-M, F-M, G-K.

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO		FR-TO		
A - B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	N - C	-237 / 0	0.04 (1)
B - C	-82 / 0	-78.0	-78.0 0.03 (1)	6.25	C - M	-38 / 0	0.02 (1)
C - D	0 / 1	-78.0	-78.0 0.69 (1)	10.00	M - D	-692 / 0	0.11 (1)
D - E	0 / 0	-78.0	-78.0 0.69 (1)	10.00	M - F	-26 / 0	0.01 (1)
E - F	0 / 0	-78.0	-78.0 0.69 (1)	10.00	K - F	-685 / 0	0.11 (1)
F - G	-23 / 0	-78.0	-78.0 0.69 (1)	6.25	K - G	-22 / 0	0.01 (1)
G - H	-98 / 0	-78.0	-78.0 0.03 (1)	6.25	J - G	-228 / 0	0.04 (1)
H - I	0 / 10	-78.0	-78.0 0.01 (1)	10.00			
B - N	0 / 47	-18.5	-18.5 0.20 (4)	10.00			
N - M	0 / 36	-18.5	-18.5 0.24 (4)	10.00			
M - L	0 / 24	-18.5	-18.5 0.24 (4)	10.00			
L - K	0 / 24	-18.5	-18.5 0.24 (4)	10.00			
K - J	0 / 45	-18.5	-18.5 0.24 (4)	10.00			
J - H	0 / 56	-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

(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=0.69/1.00 (F-G:1) , BC=0.24/1.00 (J-K:4) , WB=0.11/1.00 (D-M:1) , SSI=0.30/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

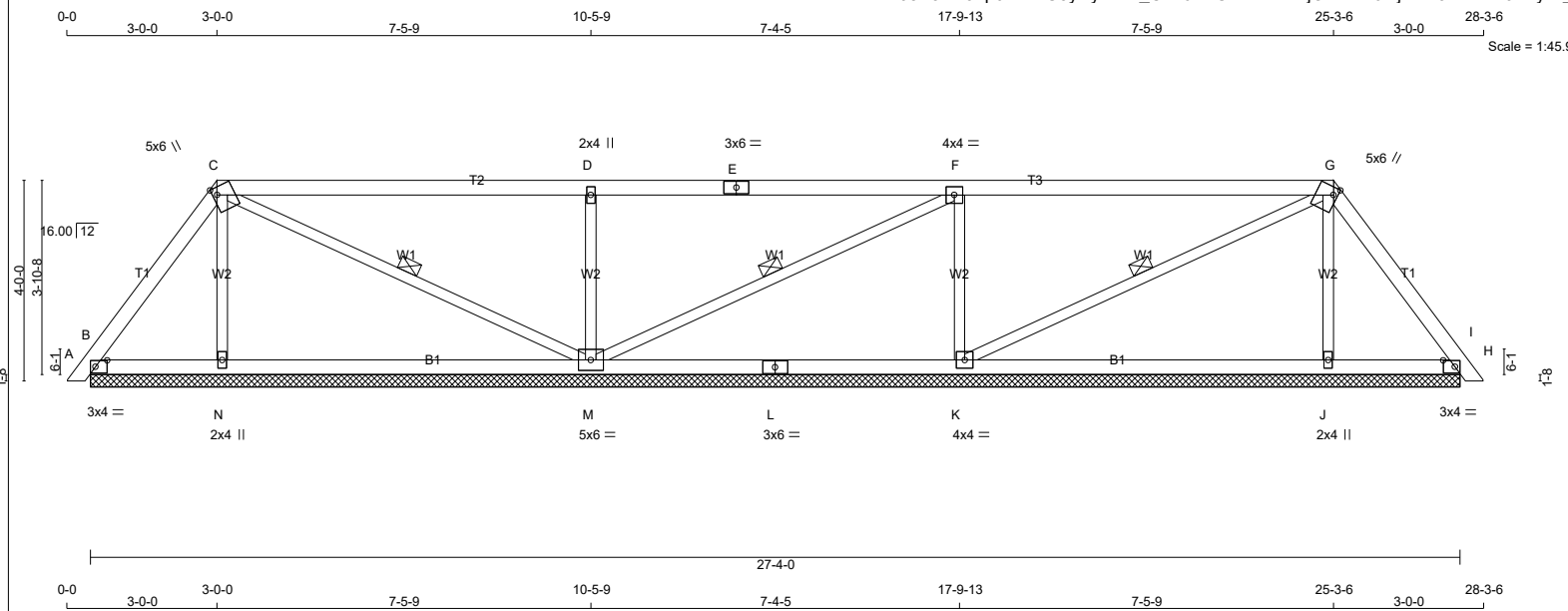
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (K) (INPUT = 0.90)
JSI METAL= 0.21 (L) (INPUT = 1.00)



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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-t	MT20	3.0	4.0	1.50	2.75
C	TTWW+m	MT20	5.0	6.0	1.75	1.00
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	TTWW+m	MT20	5.0	6.0	1.75	1.00
H	TMB1-t	MT20	3.0	4.0	1.50	2.75
J	BMW1+w	MT20	2.0	4.0		
K	BMWW1-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMWWWW1-t	MT20	5.0	6.0		
N	BMW1+w	MT20	2.0	4.0		

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
JT	200	0	200	0	0	27-4-0	13-8-0
N	341	0	341	0	0	27-4-0	13-8-0
M	833	0	833	0	0	27-4-0	13-8-0
K	759	0	759	0	0	27-4-0	13-8-0
J	331	0	331	0	0	27-4-0	13-8-0
H	227	0	227	0	0	27-4-0	13-8-0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST CASE		MAX/MIN. COMPONENT REACTIONS					
JOINT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	138	108 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0
N	248	122 / 0	0 / 0	0 / 0	0 / 0	126 / 0	0 / 0
M	592	373 / 0	0 / 0	0 / 0	0 / 0	218 / 0	0 / 0
K	541	334 / 0	0 / 0	0 / 0	0 / 0	207 / 0	0 / 0
J	242	117 / 0	0 / 0	0 / 0	0 / 0	124 / 0	0 / 0
H	157	122 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LOAD CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LOAD CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	N-C	-227 / 0	0.05 (1)
B-C	-91 / 0	-78.0	-78.0 0.08 (1)	6.25	C-M	-71 / 0	0.03 (1)
C-D	0 / 19	-78.0	-78.0 0.59 (1)	10.00	M-D	-635 / 0	0.15 (1)
D-E	0 / 18	-78.0	-78.0 0.59 (1)	10.00	M-F	-63 / 0	0.03 (1)
E-F	0 / 18	-78.0	-78.0 0.59 (1)	10.00	K-F	-607 / 0	0.14 (1)
F-G	-38 / 0	-78.0	-78.0 0.59 (1)	6.25	K-G	-30 / 0	0.01 (1)
G-H	-125 / 0	-78.0	-78.0 0.09 (1)	6.25	J-G	-218 / 0	0.05 (1)
H-I	0 / 10	-78.0	-78.0 0.01 (1)	10.00			
B-N	0 / 53	-18.5	-18.5 0.15 (4)	10.00			
N-M	0 / 46	-18.5	-18.5 0.21 (4)	10.00			
M-L	0 / 39	-18.5	-18.5 0.21 (4)	10.00			
L-K	0 / 39	-18.5	-18.5 0.21 (4)	10.00			
K-J	0 / 66	-18.5	-18.5 0.21 (4)	10.00			
J-H	0 / 73	-18.5	-18.5 0.15 (4)	10.00			

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



DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

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

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

CSI: TC=0.59/1.00 (D-F:1) , BC=0.21/1.00 (J-K:4) ,
WB=0.15/1.00 (D-M: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		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

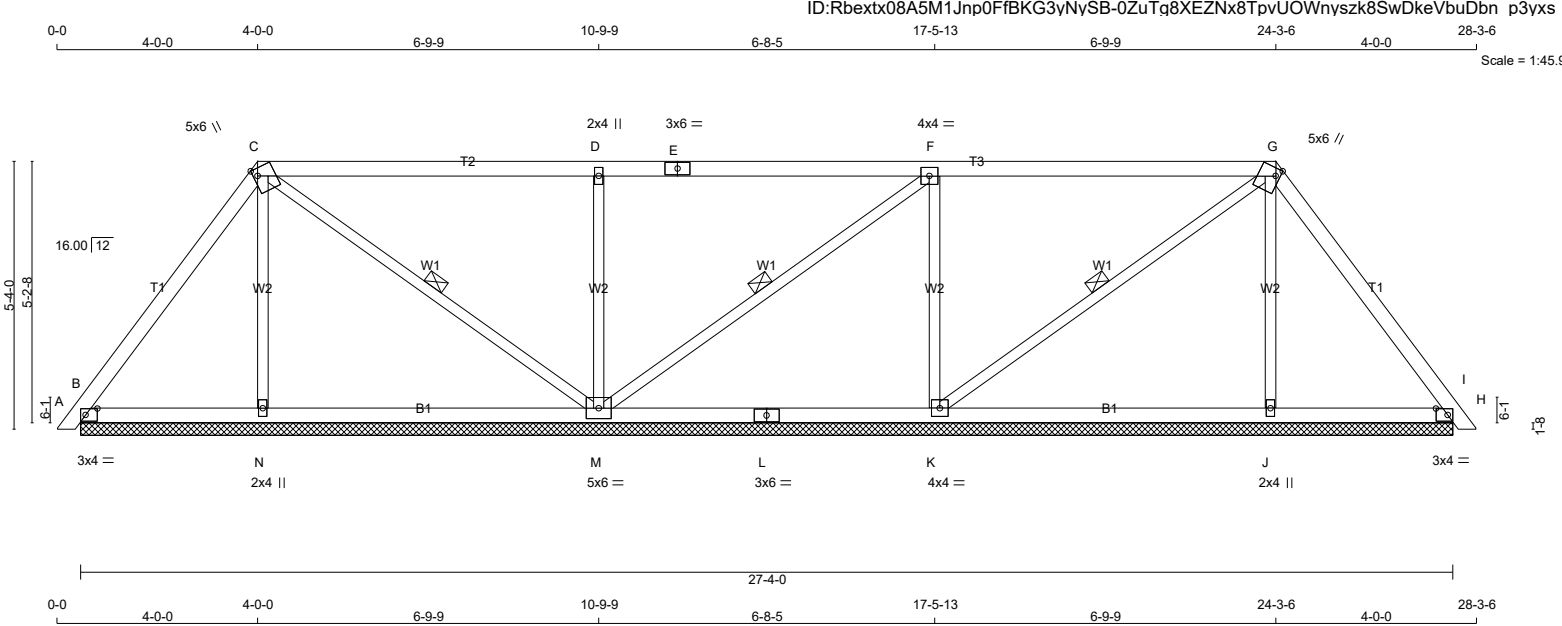
JSI GRIP= 0.75 (M) (INPUT = 0.90)
JSI METAL= 0.21 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H7P	1	1	TRUSS DESC. JT 45147	E21073916

Alpa Roof Truss, Maple

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.75
C	TTWW+m	MT20	5.0	6.0	1.75	1.00
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	TTWW+m	MT20	5.0	6.0	1.75	1.00
H	TMB1-I	MT20	3.0	4.0	1.50	2.75
J	BMW1+w	MT20	2.0	4.0		
K	BMWW1-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMWW1-t	MT20	5.0	6.0		
N	BMW1+w	MT20	2.0	4.0		

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



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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
B	258	0	258	0	27-4-0 (13-8-0)8	
N	321	0	321	0	27-4-0 (13-8-0)8	
M	831	0	831	0	27-4-0 (13-8-0)8	
K	665	0	665	0	27-4-0 (13-8-0)8	
J	315	0	315	0	27-4-0 (13-8-0)8	
H	303	0	303	0	27-4-0 (13-8-0)8	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	180	129 / 0	0 / 0	0 / 0	0 / 0	52 / 0	0 / 0
N	234	115 / 0	0 / 0	0 / 0	0 / 0	119 / 0	0 / 0
M	589	379 / 0	0 / 0	0 / 0	0 / 0	209 / 0	0 / 0
K	474	290 / 0	0 / 0	0 / 0	0 / 0	184 / 0	0 / 0
J	230	112 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
H	211	153 / 0	0 / 0	0 / 0	0 / 0	59 / 0	0 / 0

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	N-C	-213 / 0	0.09 (1)
B-C	-92 / 0	-78.0	-78.0 0.17 (1)	6.25	C-M	-107 / 0	0.05 (1)
C-D	0 / 38	-78.0	-78.0 0.49 (1)	10.00	M-D	-578 / 0	0.23 (1)
D-E	0 / 38	-78.0	-78.0 0.49 (1)	10.00	M-F	-107 / 0	0.05 (1)
E-F	0 / 38	-78.0	-78.0 0.49 (1)	10.00	K-F	-514 / 0	0.21 (1)
F-G	-48 / 0	-78.0	-78.0 0.48 (1)	6.25	K-G	-41 / 0	0.02 (1)
G-H	-147 / 0	-78.0	-78.0 0.17 (1)	6.25	J-G	-207 / 0	0.08 (1)
H-I	0 / 10	-78.0	-78.0 0.01 (1)	10.00			
B-N	0 / 54	-18.5	-18.5 0.13 (4)	10.00			
N-M	0 / 49	-18.5	-18.5 0.17 (4)	10.00			
M-L	0 / 48	-18.5	-18.5 0.17 (4)	10.00			
L-K	0 / 48	-18.5	-18.5 0.17 (4)	10.00			
K-J	0 / 82	-18.5	-18.5 0.17 (4)	10.00			
J-H	0 / 86	-18.5	-18.5 0.13 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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=0.49/1.00 (D-F:1) , BC=0.17/1.00 (J-K:4) , WB=0.23/1.00 (D-M: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)	
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.

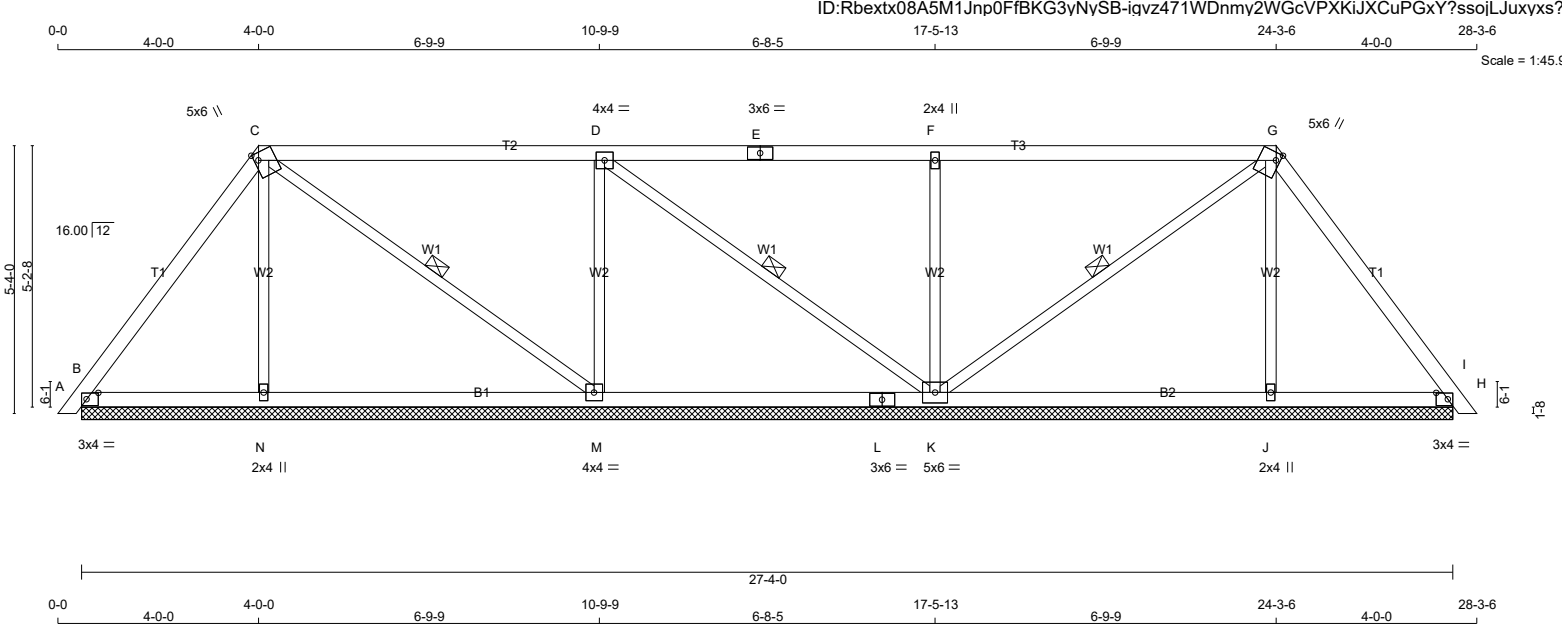
JSI GRIP= 0.62 (C) (INPUT = 0.90)
JSI METAL= 0.15 (L) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H7PA	1	3	TRUSS DESC. JT 45147	E21073917

Alpa Roof Truss, Maple

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

DESIGN CONSISTS OF 3 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A- C	12	TOP
C- E	12	TOP
E- G	12	TOP
G- I	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
B- L	12	TOP
L- H	12	TOP
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-l	MT20	3.0	4.0	1.50 2.75
C	TTWW+m	MT20	5.0	6.0	1.75 1.00
D	TMWW-t	MT20	4.0	4.0	
E	TS-t	MT20	3.0	6.0	
F	TMW+w	MT20	2.0	4.0	
G	TTWW+m	MT20	5.0	6.0	1.75 1.00
H	TMB1-l	MT20	3.0	4.0	1.50 2.75
J	BMW1+w	MT20	2.0	4.0	
K	BMWWW1-t	MT20	5.0	6.0	
L	BS-t	MT20	3.0	6.0	

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



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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
B	303	0	303	0	0	27-4-0 (11-4-8)	8		
N	315	0	315	0	0	27-4-0 (11-4-8)	8		
M	665	0	665	0	0	27-4-0 (11-4-8)	8		
K	831	0	831	0	0	27-4-0 (11-4-8)	8		
J	321	0	321	0	0	27-4-0 (11-4-8)	8		
H	258	0	258	0	0	27-4-0 (11-4-8)	8		

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS		MAX./MIN. COMPONENT REACTIONS						
JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
B	212	153 / 0	0 / 0	0 / 0	0 / 0	59 / 0	0 / 0	
N	230	112 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0	
M	474	290 / 0	0 / 0	0 / 0	0 / 0	184 / 0	0 / 0	
K	589	379 / 0	0 / 0	0 / 0	0 / 0	209 / 0	0 / 0	
J	234	115 / 0	0 / 0	0 / 0	0 / 0	119 / 0	0 / 0	
H	181	129 / 0	0 / 0	0 / 0	0 / 0	52 / 0	0 / 0	

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 10	-78.0	-78.0 0.00 (1)	10.00	N-C	-207 / 0	0.03 (1)
B-C	-147 / 0	-78.0	-78.0 0.06 (1)	6.25	C-M	-41 / 0	0.01 (1)
C-D	-48 / 0	-78.0	-78.0 0.16 (1)	6.25	M-D	-514 / 0	0.07 (1)
D-E	0 / 38	-78.0	-78.0 0.16 (1)	10.00	D-K	-107 / 0	0.02 (1)
E-F	0 / 38	-78.0	-78.0 0.16 (1)	10.00	K-F	-578 / 0	0.08 (1)
F-G	0 / 38	-78.0	-78.0 0.16 (1)	10.00	K-G	-107 / 0	0.02 (1)
G-H	-92 / 0	-78.0	-78.0 0.06 (1)	6.25	J-G	-213 / 0	0.03 (1)
H-I	0 / 10	-78.0	-78.0 0.00 (1)	10.00			
B-N	0 / 86	-18.5	-18.5 0.04 (4)	10.00			
N-M	0 / 82	-18.5	-18.5 0.06 (4)	10.00			
M-L	0 / 48	-18.5	-18.5 0.06 (4)	10.00			
L-K	0 / 48	-18.5	-18.5 0.06 (4)	10.00			
K-J	0 / 49	-18.5	-18.5 0.06 (4)	10.00			
J-H	0 / 54	-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

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=0.16/1.00 (D-F:1) , BC=0.06/1.00 (M-N:4) , WB=0.08/1.00 (F-K:1) , SSI=0.08/1.00 (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 .

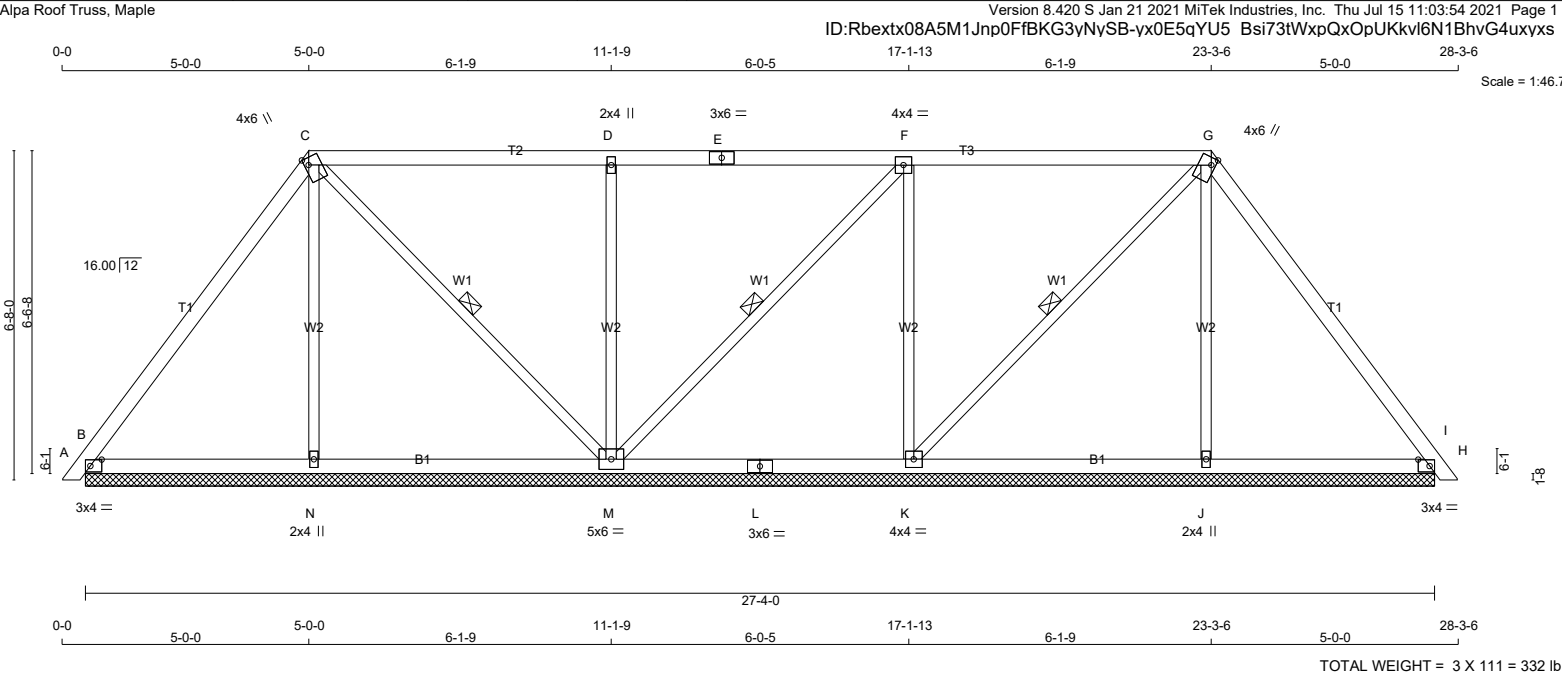
NAIL VALUES			
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.62 (C) (INPUT = 0.90)
JSI METAL= 0.08 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H8P	3	1	TRUSS DESC. JT 45147	E21073918



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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	1.50 2.75
C	TTWW+m	MT20	4.0	6.0	1.75 1.00
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	TTWW+m	MT20	4.0	6.0	1.75 1.00
H	TMB1-I	MT20	3.0	4.0	1.50 2.75
J	BMW1+w	MT20	2.0	4.0	
K	BMWW1-t	MT20	4.0	4.0	
L	BS-t	MT20	3.0	6.0	
M	BMWWW1-t	MT20	5.0	6.0	
N	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		IN-SX	IN-SX
	VERT	HORZ	DOWN	HORZ		DOWN	HORZ		
B	306	0	306	0	0	27'-4" (13'-8")	0	0	0
N	308	0	308	0	0	27'-4" (13'-8")	0	0	0
M	834	0	834	0	0	27'-4" (13'-8")	0	0	0
K	572	0	572	0	0	27'-4" (13'-8")	0	0	0
J	307	0	307	0	0	27'-4" (13'-8")	0	0	0
H	365	0	365	0	0	27'-4" (13'-8")	0	0	0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
B	215	148 / 0	0 / 0	0 / 0	0 / 0	67 / 0	0 / 0
N	225	107 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
M	590	389 / 0	0 / 0	0 / 0	0 / 0	201 / 0	0 / 0
K	408	248 / 0	0 / 0	0 / 0	0 / 0	160 / 0	0 / 0
J	224	106 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
H	256	179 / 0	0 / 0	0 / 0	0 / 0	76 / 0	0 / 0

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	N-C	-199 / 0	0.14 (1)
B-C	-87 / 0	-78.0	-78.0 0.27 (1)	6.25	C-M	-139 / 0	0.07 (1)
C-D	0 / 50	-78.0	-78.0 0.40 (1)	10.00	M-D	-521 / 0	0.36 (1)
D-E	0 / 49	-78.0	-78.0 0.40 (1)	10.00	M-F	-142 / 0	0.07 (1)
E-F	0 / 49	-78.0	-78.0 0.40 (1)	10.00	K-F	-418 / 0	0.29 (1)
F-G	-49 / 0	-78.0	-78.0 0.39 (1)	6.25	K-G	-59 / 0	0.03 (1)
G-H	-160 / 0	-78.0	-78.0 0.28 (1)	6.25	J-G	-198 / 0	0.14 (1)
H-I	0 / 10	-78.0	-78.0 0.01 (1)	10.00			
B-N	0 / 52	-18.5	-18.5 0.13 (4)	10.00			
N-M	0 / 48	-18.5	-18.5 0.14 (4)	10.00			
M-L	0 / 50	-18.5	-18.5 0.14 (4)	10.00			
L-K	0 / 50	-18.5	-18.5 0.14 (4)	10.00			
K-J	0 / 91	-18.5	-18.5 0.14 (4)	10.00			
J-H	0 / 94	-18.5	-18.5 0.13 (4)	10.00			

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

SPACING = 24.0 IN. C/C

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=0.40/1.00 (D-F:1) , BC=0.14/1.00 (J-K:4) , WB=0.36/1.00 (D-M:1) , SSI=0.22/1.00 (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)
MT20	650	371	1747	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.62 (G) (INPUT = 0.90)
JSI METAL= 0.17 (H) (INPUT = 1.00)

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

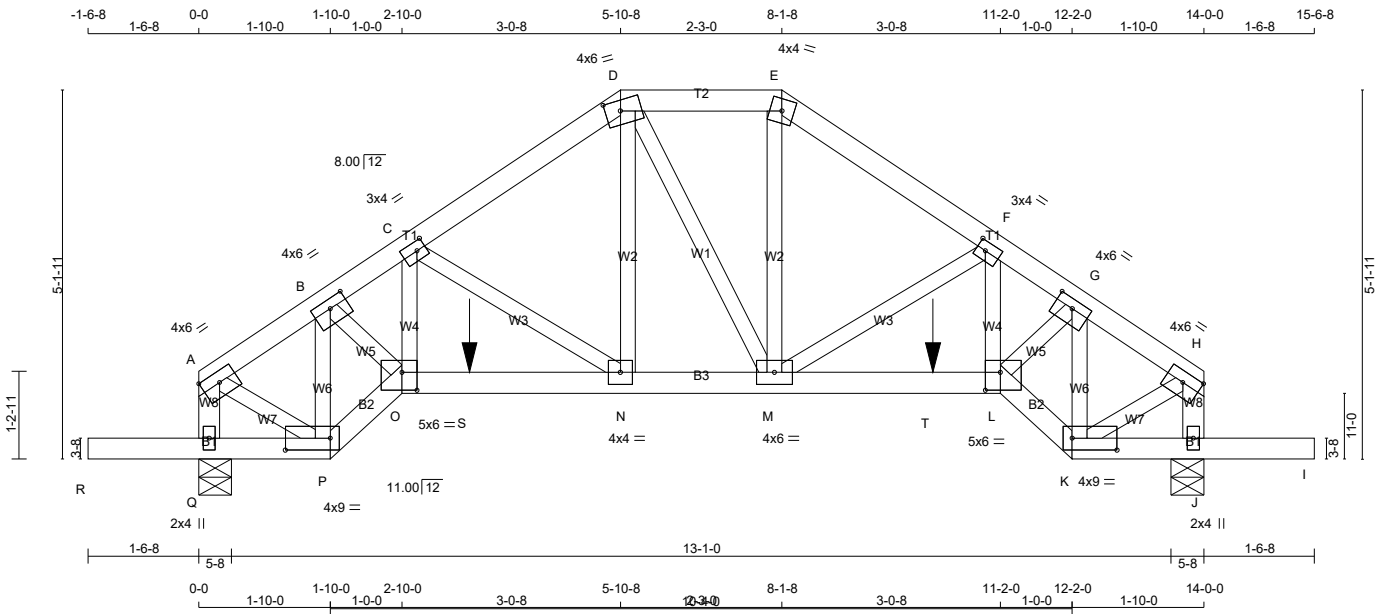


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H9T	1	1	TRUSS DESC. JT 45147	E21073919

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 67 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 - H	2x4	DRY No.2	SPF
Q - A	2x4	DRY No.2	SPF
J - H	2x4	DRY No.2	SPF
R - P	2x4	DRY No.2	SPF
P - O	2x4	DRY No.2	SPF
O - L	2x4	DRY No.2	SPF
L - K	2x4	DRY No.2	SPF
K - I	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-t	MT20	4.0	6.0	1.75 Edge
B TMWW-t	MT20	4.0	6.0	1.50 3.00
C TMWW-t	MT20	3.0	4.0	1.50 1.50
D TTWW-m	MT20	4.0	6.0	1.75 2.50
E TTW-m	MT20	4.0	4.0	
F TMWW-t	MT20	3.0	4.0	1.50 1.50
G TMWW-t	MT20	4.0	6.0	1.50 3.00
H TMVW-t	MT20	4.0	6.0	1.75 Edge
J BMV1+p	MT20	2.0	4.0	
K BBWW-I	MT20	4.0	9.0	2.00 7.50
L BBWW-I	MT20	5.0	6.0	3.00 2.50
M BMWW-t	MT20	4.0	6.0	
N BMWW-t	MT20	4.0	4.0	
O BBWW-I	MT20	5.0	6.0	3.00 2.50
P BBWW-I	MT20	4.0	9.0	2.00 7.50
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		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
Q	1620	0		1620	0	0	5-8	1-11	
J	1620	0		1620	0	0	5-8	1-11	

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
Q	1153	713 / 0	0 / 0	0 / 0	0 / 0	440 / 0	0 / 0		
J	1153	713 / 0	0 / 0	0 / 0	0 / 0	440 / 0	0 / 0		

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.38 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.

LOADING									
TOTAL LOAD CASES: (4)									
CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. FACTORED		MAX. FACTORED		
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MEMB.	FORCE	MAX		
	(LBS)	(PLF)	CSI (LC)			(LBS)	CSI (LC)		
FR-TO		FROM	TO		UNBRACED LENGTH	FR-TO			
A-B	-1363 / 0	-78.0	-78.0	0.09 (1)	5.44	P-B	-1511 / 0	0.26 (1)	
B-C	-2319 / 0	-78.0	-78.0	0.11 (1)	4.38	B-O	0 / 1283	0.32 (1)	
C-D	-1719 / 0	-78.0	-78.0	0.15 (1)	4.91	O-C	0 / 449	0.11 (1)	
D-E	-1448 / 0	-78.0	-78.0	0.10 (1)	5.31	C-N	-600 / 0	0.15 (1)	
E-F	-1725 / 0	-78.0	-78.0	0.15 (1)	4.91	N-D	0 / 753	0.19 (1)	
F-G	-2319 / 0	-78.0	-78.0	0.11 (1)	4.38	D-M	0 / 11	0.00 (1)	
G-H	-1363 / 0	-78.0	-78.0	0.09 (1)	5.44	M-E	0 / 766	0.19 (1)	
Q-A	-1374 / 0	0.0	0.0	0.15 (1)	6.90	M-F	-594 / 0	0.15 (1)	
J-H	-1374 / 0	0.0	0.0	0.15 (1)	6.90	L-F	0 / 443	0.11 (1)	
						L-G	0 / 1283	0.32 (1)	
R-Q	0 / 0	-96.5	-96.5	0.17 (1)	10.00	K-G	-1511 / 0	0.26 (1)	
Q-P	0 / 0	-37.3	-37.3	0.17 (1)	10.00	A-P	0 / 1248	0.31 (1)	
P-O	0 / 1422	-37.2	-37.2	0.26 (1)	10.00	K-H	0 / 1248	0.31 (1)	
O-S	0 / 1928	-37.2	-37.2	0.83 (1)	10.00				
S-N	0 / 1928	-112.0	-112.0	0.83 (1)	10.00				
N-M	0 / 1442	-112.0	-112.0	0.52 (1)	10.00				
M-T	0 / 1928	-112.0	-112.0	0.82 (1)	10.00				
T-L	0 / 1928	-37.2	-37.2	0.82 (1)	10.00				
L-K	0 / 1422	-37.2	-37.2	0.26 (1)	10.00				
K-J	0 / 0	-37.3	-37.3	0.17 (1)	10.00				
J-I	0 / 0	-96.5	-96.5	0.17 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)									
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
S	3-9-4	-423	-423	---	FRONT	VERT	TOTAL	---	C1
T	10-2-12	-423	-423	---	FRONT	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

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

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

SPACING = 24.0 IN./C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 3-9-4
START SPAN CARRIED = 5-10-8
END DISTANCE = 10-2-12
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, 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 (0.47")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.12")

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 (A-Q:1), BC=0.83/1.00 (N-O:1),
WB=0.32/1.00 (B-O:1), SS=0.31/1.00 (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 .



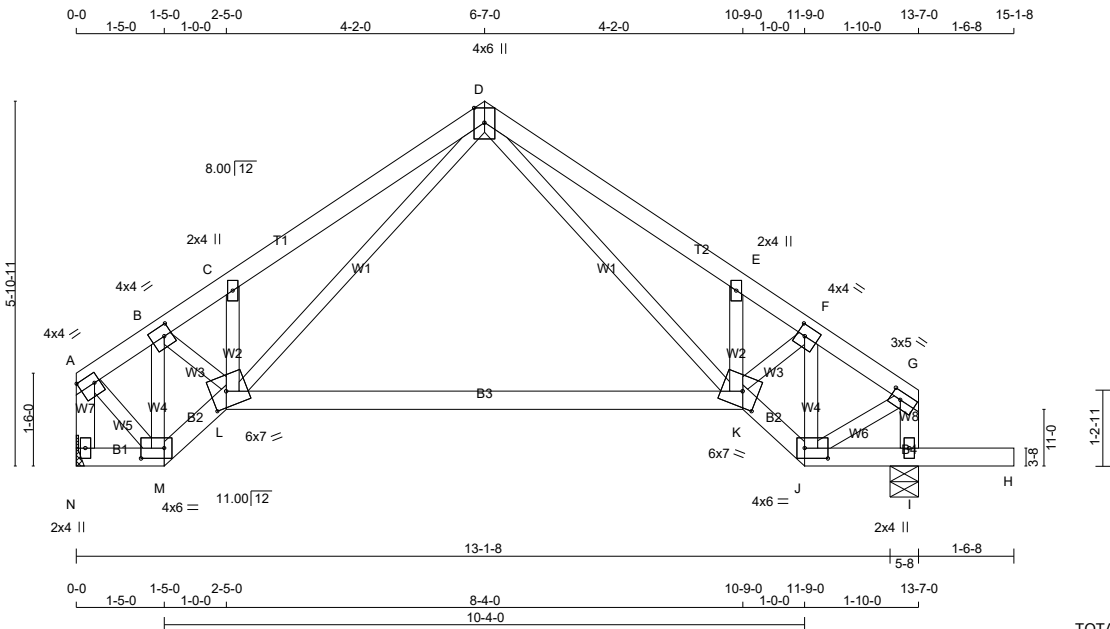
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H10T	3	1	TRUSS DESC. JT 45147	E21073920

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 3 X 60 = 179 lb

[M][F]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	4.0	4.0	1.75 Edge
B	TMWW-t	MT20	4.0	4.0	2.00 1.50
C	TMW+w	MT20	2.0	4.0	
D	TTWW+p	MT20	4.0	6.0	Edge
E	TMW+w	MT20	2.0	4.0	
F	TMWW-t	MT20	4.0	4.0	2.00 1.50
G	TMVW-t	MT20	3.0	5.0	1.50 2.00
I	BMV1+p	MT20	2.0	4.0	
J	BBWW-l	MT20	4.0	6.0	2.00 4.50
K	BBWWW-m	MT20	6.0	7.0	3.00 3.00
L	BBWWW-m	MT20	6.0	7.0	3.00 3.00
M	BBWW-l	MT20	4.0	6.0	2.00 4.50
N	BMV1+p	MT20	2.0	4.0	
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.					

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
	VERT	HORZ	DOWN	HORZ		IN-SX	IN-SX
JT	647	0	647	0	0	MECHANICAL	
N	812	0	812	0	0	5-8	1-8

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

UNFACTORED REACTIONS

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS					
		1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD
N	461		281 / 0	0 / 0	0 / 0	0 / 0	180 / 0
I	579		354 / 0	0 / 0	0 / 0	0 / 0	226 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.11 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. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)
FR-TO		FROM	TO		FR-TO		
A-B	-468 / 0	-78.0	-78.0 0.04 (1)	6.25	M-B	-610 / 0	0.09 (1)
B-C	-836 / 0	-78.0	-78.0 0.12 (1)	6.25	B-L	0 / 565	0.13 (1)
C-D	-919 / 0	-78.0	-78.0 0.17 (1)	6.25	L-C	-348 / 0	0.05 (1)
D-E	-979 / 0	-78.0	-78.0 0.17 (1)	6.11	L-D	0 / 477	0.11 (1)
E-F	-905 / 0	-78.0	-78.0 0.12 (1)	6.25	D-K	0 / 552	0.12 (1)
F-G	-540 / 0	-78.0	-78.0 0.04 (1)	6.25	K-E	-332 / 0	0.05 (1)
N-A	-634 / 0	0.0	0.0 0.07 (1)	7.81	K-F	0 / 546	0.12 (1)
I-G	-584 / 0	0.0	0.0 0.06 (1)	7.81	J-F	-631 / 0	0.10 (1)
					A-M	0 / 492	0.11 (1)
					J-G	0 / 495	0.11 (1)
N-M	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
M-L	0 / 475	-18.5	-18.5 0.08 (1)	10.00			
L-K	0 / 434	-18.5	-18.5 0.41 (4)	10.00			
K-J	0 / 562	-18.5	-18.5 0.09 (1)	10.00			
J-I	0 / 0	-18.5	-18.5 0.12 (1)	10.00			
I-H	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, 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 (0.45")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/ 650 (0.25")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.17/1.00 (D-E:1) , BC=0.41/1.00 (K-L:4) , WB=0.13/1.00 (B-L: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)	SHEAR	SECTION		
	(PSI)	(PLI)	(PSI)	(PLI)	
	MAX	MIN	MAX	MIN	MAX MIN
MT20	650	371	1747	788	1987 1873

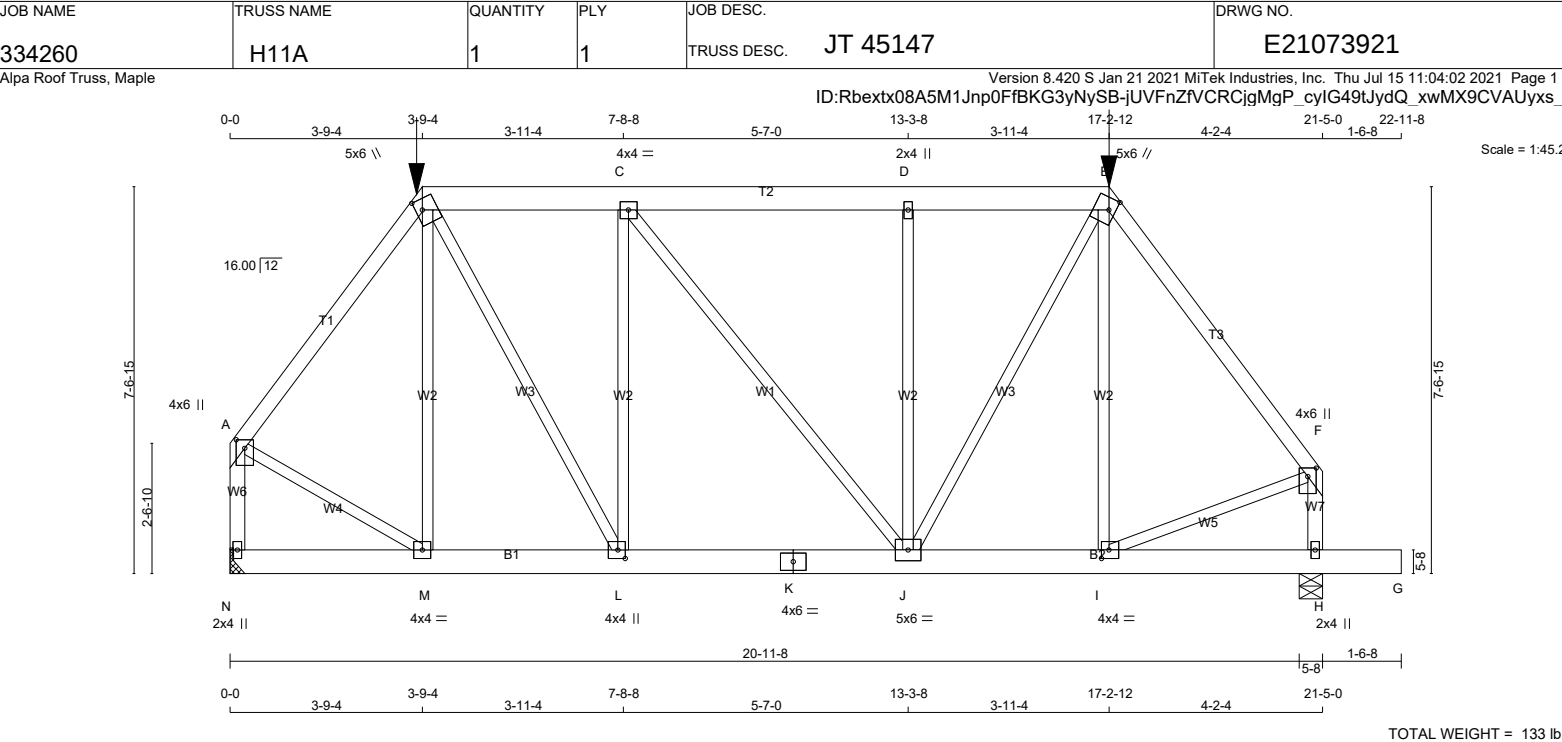
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (K) (INPUT = 0.90)
JSI METAL= 0.22 (M) (INPUT = 1.00)

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





LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2
B - E	2x6	DRY	No.2
E - F	2x4	DRY	No.2
N - A	2x4	DRY	No.2
H - F	2x4	DRY	No.2
N - K	2x6	DRY	No.2
K - G	2x6	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2
SPF			
DRY: SEASONED LUMBER.			

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	5.0	6.0	2.50	1.50
C	TMWW-t	MT20	4.0	4.0		
D	TMW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	5.0	6.0	2.75	1.50
F	TMVW+p	MT20	4.0	6.0	2.00	2.00
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	4.0	2.00	1.75
J	BMWWW-t	MT20	5.0	6.0		
K	BS-t	MT20	4.0	6.0		
L	BMWW+t	MT20	4.0	4.0	2.00	1.75
M	BMWW-t	MT20	4.0	4.0		
N	BMV1+p	MT20	2.0	4.0		

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



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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD IN-SX	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	MECHANICAL
N	1571	0	1571	0	0	5-8	1-15	
H	1712	0	1712	0	0			

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT N. MINIMUM BEARING LENGTH AT JOINT N = 1-11.

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	1121	681 / 0	0 / 0	0 / 0	0 / 0	440 / 0	0 / 0
H	1222	742 / 0	0 / 0	0 / 0	0 / 0	480 / 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 = 5.22 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. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-1231 / 0	-78.0 -78.0 0.26 (1)	5.47	M-B	-271 / 0	0.25 (1)	
B-C	-1180 / 0	-120.6 -120.6 0.20 (1)	6.25	B-L	0 / 920	0.23 (1)	
C-D	-1199 / 0	-120.6 -120.6 0.21 (1)	6.25	L-C	-668 / 0	0.63 (1)	
D-E	-1199 / 0	-120.6 -120.6 0.19 (1)	6.25	C-J	0 / 31	0.01 (1)	
E-F	-1334 / 0	-78.0 -78.0 0.34 (1)	5.22	J-D	-628 / 0	0.59 (1)	
N-A	-1528 / 0	0.0 0.0 0.21 (1)	6.61	J-E	0 / 828	0.21 (1)	
H-F	-1514 / 0	0.0 0.0 0.18 (1)	6.64	I-E	-146 / 30	0.14 (1)	
				A-M	0 / 838	0.21 (1)	
				I-F	0 / 848	0.21 (1)	
N-M	0 / 0	-28.6 -28.6 0.05 (4)	10.00				
M-L	0 / 734	-28.6 -28.6 0.13 (1)	10.00				
L-K	0 / 1180	-28.6 -28.6 0.21 (1)	10.00				
K-J	0 / 1180	-28.6 -28.6 0.21 (1)	10.00				
J-I	0 / 797	-28.6 -28.6 0.14 (1)	10.00				
I-H	0 / 0	-28.6 -28.6 0.06 (4)	10.00				
H-G	0 / 0	-96.5 -96.5 0.08 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
B	3-9-4	-132	-132	---	FRONT	VERT	TOTAL	---	C1
E	17-2-12	-146	-146	---	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 = 3-9-4
RIGHT SETBACK = 4-2-4
END SETBACK = 4-2-4
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 (0.71")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
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=0.34/1.00 (E-F:1) , BC=0.21/1.00 (J-L:1) , WB=0.63/1.00 (C-L:1) , SSI=0.23/1.00 (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

AUTOSOLVE HEELS OFF

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.

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ID: Rbextx08A5M1Jnp0FfBKg3vNvSB-fsc0BFgk3SRvfgo51 mlVEDNmG3SoPf ThcFMvxs



DRY: SEASONED LUMBER.

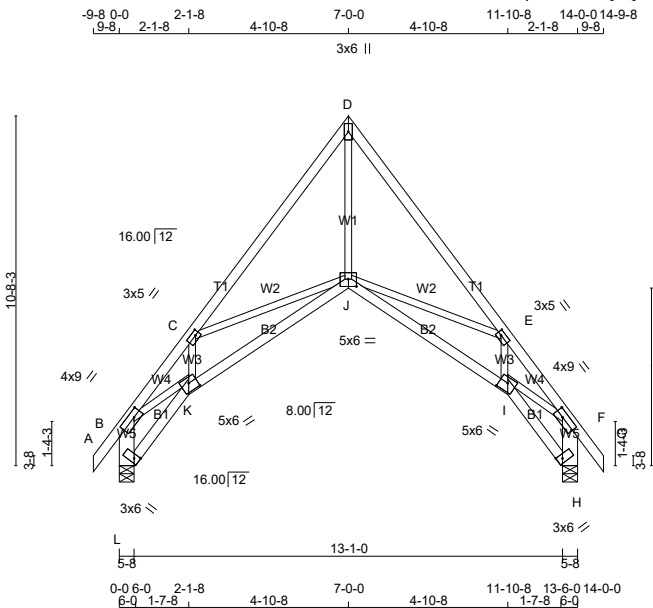
JSI GRIP= 0.83 (D) (INPUT = 0.90)
JSI METAL= 0.45 (J) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H13T	2	1	TRUSS DESC. JT 45147	E21073923

Alpa Roof Truss, Maple

ID:Rbextx08A5M1Jnp0FfBKG3yNySB-4RI8qGje1_q0m7YNnAYTz7smUzKCfHQ5gRvGrhyxs_M

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TOTAL WEIGHT = 2 X 74 = 149 lb

[M][F]

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-t	MT20	4.0	9.0	2.00 3.00
C	TMWW-t	MT20	3.0	5.0	1.50 1.50
D	TTW+p	MT20	3.0	6.0	
E	TMWW-t	MT20	3.0	5.0	1.50 1.50
F	TMVW-t	MT20	4.0	9.0	2.00 3.00
H	BVM1+l	MT20	3.0	6.0	Edge
I	BBWW-l	MT20	5.0	6.0	3.00 3.00
J	BBWW-p	MT20	5.0	6.0	2.75 3.00
K	BBWW-l	MT20	5.0	6.0	3.00 3.00
L	BVM1+l	MT20	3.0	6.0	Edge
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.					

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
JT	746	0	746	0	5-8	5-8
L	746	0	746	0	5-8	5-8
H	746	0	746	0	5-8	5-8

UNFACTORED REACTIONS							
1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	530	332 / 0	0 / 0	0 / 0	0 / 0	199 / 0	0 / 0
H	530	332 / 0	0 / 0	0 / 0	0 / 0	198 / 0	0 / 0

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

BEARING SIZE FACTOR = 1.15 AT JNT(S) L, H (BASED ON SUPPORT DEPTH = 1-8)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.37 FT.

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

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

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 28	-78.0 -78.0	0.05 (1)	J-D	0 / 987	0.22 (1)	
B-C	-1380 / 0	-78.0 -78.0	0.17 (1)	J-E	-388 / 0	0.18 (1)	
C-D	-836 / 0	-78.0 -78.0	0.24 (1)	I-E	0 / 55	0.02 (4)	
D-E	-836 / 0	-78.0 -78.0	0.24 (1)	C-J	-388 / 0	0.18 (1)	
E-F	-1381 / 0	-78.0 -78.0	0.17 (1)	K-C	0 / 55	0.02 (4)	
F-G	0 / 28	-78.0 -78.0	0.05 (1)	B-K	0 / 1000	0.23 (1)	
L-B	-726 / 0	0.0 0.0	0.05 (1)	I-F	0 / 1000	0.23 (1)	
H-F	-726 / 0	0.0 0.0	0.05 (1)				
L-K	0 / 0	-18.5 -18.5	0.02 (4)				
K-J	0 / 1028	-18.5 -18.5	0.24 (1)				
J-I	0 / 1028	-18.5 -18.5	0.24 (1)				
I-H	0 / 0	-18.5 -18.5	0.02 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN./C/C

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

THIS DESIGN COMPLIES WITH:

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

(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 (0.47")

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

ALLOWABLE DEFL.(TL)= L/360 (0.47")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")

CSI: TC=0.24/1.00 (D-E:1) , BC=0.24/1.00 (I-J:1) , WB=0.23/1.00 (F-I:1) , SSI=0.10/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

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

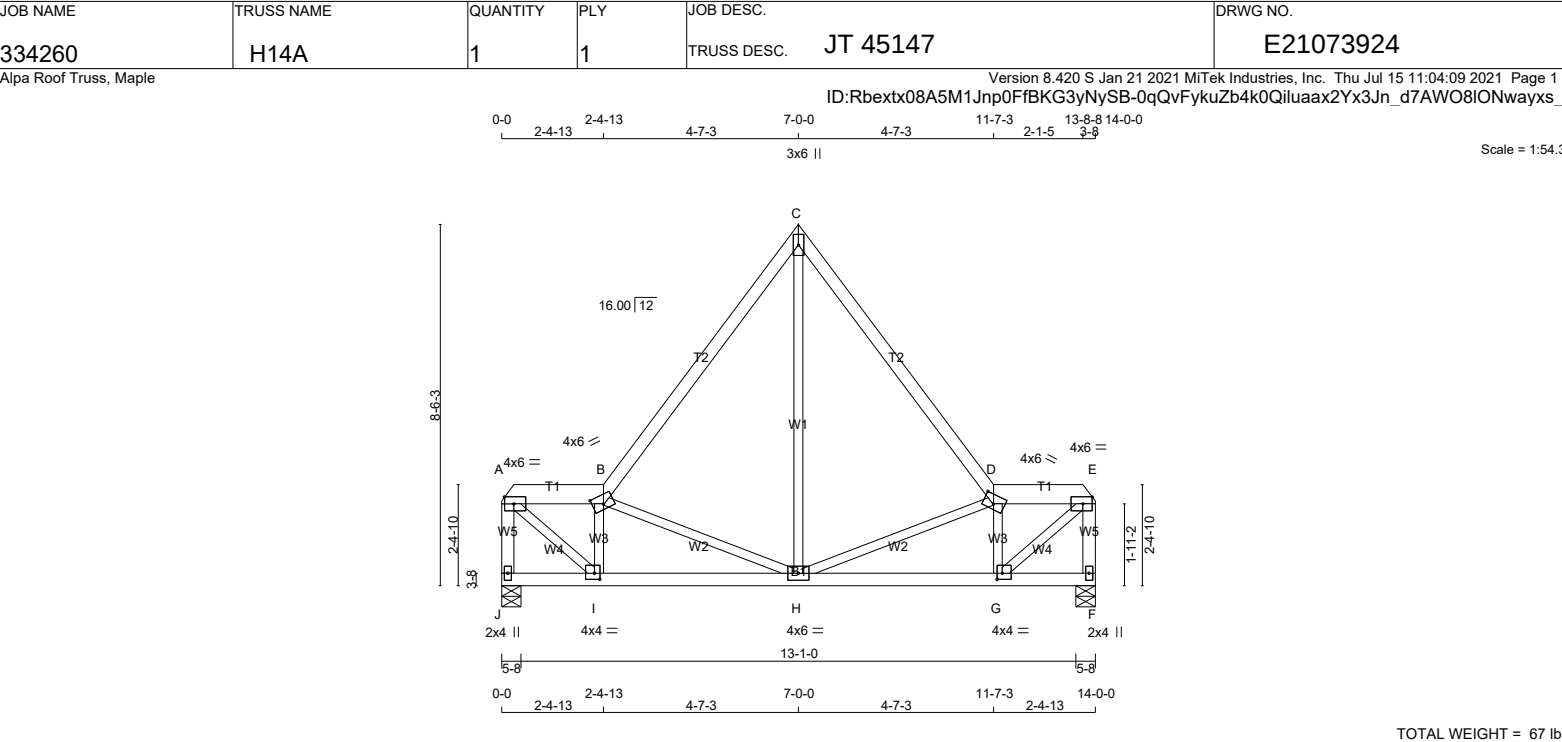
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.70 (J) (INPUT = 0.90)

JSI METAL= 0.26 (J) (INPUT = 1.00)

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

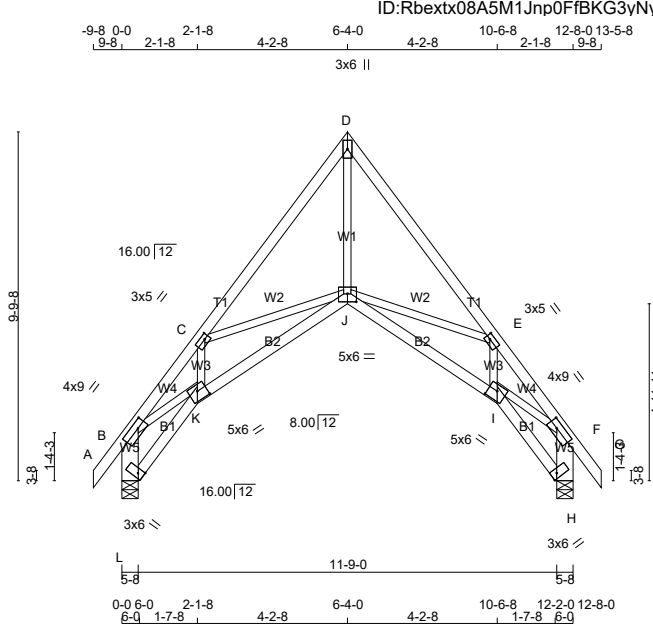


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H15T	2	1	TRUSS DESC. JT 45147	E21073925

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0FfBKG3yNySB-QP51t mmmWSJtuRKZj8eqBZdl 1 KY0qqid1Xuyxs H



TOTAL WEIGHT = 2 X 68 = 137 lb

[M][F]

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-t	MT20	4.0	9.0	2.00 3.00
C	TMWW-t	MT20	3.0	5.0	1.50 1.50
D	TTW+p	MT20	3.0	6.0	
E	TMVW-t	MT20	3.0	5.0	1.50 1.50
F	TMVW-t	MT20	4.0	9.0	2.00 3.00
H	BVM1+I	MT20	3.0	6.0	Edge
I	BBWW-I	MT20	5.0	6.0	3.00 3.00
J	BBWW-p	MT20	5.0	6.0	2.75 3.00
K	BBWW-I	MT20	5.0	6.0	3.00 3.00
L	BVM1+I	MT20	3.0	6.0	Edge
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.					

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
JT	682	0	682	0	5-8	5-8
L	682	0	682	0	5-8	5-8
H	682	0	682	0	5-8	5-8

UNFACTORED REACTIONS							
1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	485	304 / 0	0 / 0	0 / 0	0 / 0	181 / 0	0 / 0
H	485	304 / 0	0 / 0	0 / 0	0 / 0	181 / 0	0 / 0

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

BEARING SIZE FACTOR = 1.15 AT JNT(S) L, H (BASED ON SUPPORT DEPTH = 1-8)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.71 FT.

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

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

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX UNBRAC LENGTH	MAX LC1 CSI (LC)
FR-TO		FROM TO		FR-TO			
A-B	0 / 28	-78.0 -78.0	0.05 (1)	J-D	0 / 900	10.00	0.20 (1)
B-C	-1208 / 0	-78.0 -78.0	0.12 (1)	J-E	-316 / 0	5.71	0.10 (1)
C-D	-752 / 0	-78.0 -78.0	0.18 (1)	I-E	0 / 51	6.25	0.02 (4)
D-E	-752 / 0	-78.0 -78.0	0.18 (1)	C-J	-316 / 0	6.25	0.10 (1)
E-F	-1208 / 0	-78.0 -78.0	0.12 (1)	K-C	0 / 51	5.71	0.02 (4)
F-G	0 / 28	-78.0 -78.0	0.05 (1)	B-K	0 / 869	10.00	0.20 (1)
L-B	-662 / 0	0.0 0.0	0.05 (1)	I-F	0 / 869	7.81	0.20 (1)
H-F	-662 / 0	0.0 0.0	0.05 (1)				
L-K	0 / 0	-18.5 -18.5	0.02 (4)			10.00	
K-J	0 / 893	-18.5 -18.5	0.20 (1)			10.00	
J-I	0 / 892	-18.5 -18.5	0.20 (1)			10.00	
I-H	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

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 (0.03")

ALLOWABLE DEFL.(TL)= L/360 (0.42")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.18/1.00 (D-E:1) , BC=0.20/1.00 (J-K:1) , VB=0.20/1.00 (D-J:1) , SSI=0.09/1.00 (D-E:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (J) (INPUT = 0.90)

JSI METAL= 0.23 (J) (INPUT = 1.00)

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

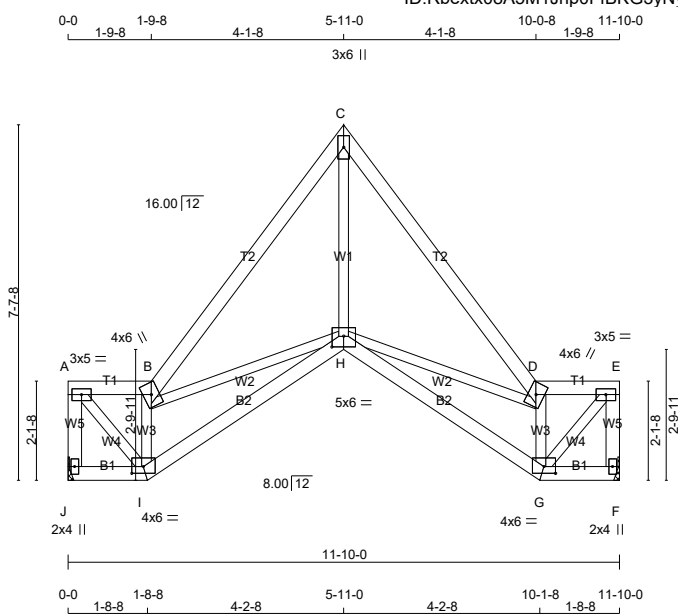


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H16T	1	1	TRUSS DESC. JT 45147	E21073926

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0FFBK G3yNySB-MoDolfo1N7i06Cbjh8A6lcezl0k7oTF7H068bnyxs.F



TOTAL WEIGHT = 56 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
J - A	2x4	DRY	No.2 SPF
A - B	2x4	DRY	No.2 SPF
B - C	2x4	DRY	No.2 SPF
C - D	2x4	DRY	No.2 SPF
D - E	2x4	DRY	No.2 SPF
F - E	2x4	DRY	No.2 SPF
J - I	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
A	TMVW-t	MT20	3.0	5.0	
B	TTWW+m	MT20	4.0	6.0	
C	TTW+p	MT20	3.0	6.0	
D	TTWW+m	MT20	4.0	6.0	
E	TMVW-t	MT20	3.0	5.0	
F	BMV1+p	MT20	2.0	4.0	
G	BBWW-l	MT20	4.0	6.0	1.75 3.00
H	BBWWW-p	MT20	5.0	6.0	2.75 3.00
I	BBWW-l	MT20	4.0	6.0	1.75 3.00
J	BMV1+p	MT20	2.0	4.0	

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
JT	571	0	571	0	0	MECHANICAL	
J	571	0	571	0	0	MECHANICAL	
F	571	0	571	0	0	MECHANICAL	

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

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	407	248 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0
F	407	248 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX FACTORED CSI (LC)
FR-TO		FROM	TO		FR-TO		
J-A	-555 / 0	0.0	0.0 0.06 (1)	7.81	A-I	0 / 672	0.15 (1)
A-B	-452 / 0	-78.0	-78.0 0.03 (1)	6.25	I-B	-783 / 0	0.12 (1)
B-C	-636 / 0	-78.0	-78.0 0.18 (1)	6.25	B-H	-128 / 0	0.05 (1)
C-D	-636 / 0	-78.0	-78.0 0.18 (1)	6.25	H-C	0 / 692	0.16 (1)
D-E	-452 / 0	-78.0	-78.0 0.03 (1)	6.25	H-D	-128 / 0	0.05 (1)
F-E	-555 / 0	0.0	0.0 0.06 (1)	7.81	G-D	-783 / 0	0.12 (1)
					G-E	0 / 672	0.15 (1)
J-I	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
I-H	0 / 610	-18.5	-18.5 0.16 (4)	10.00			
H-G	0 / 610	-18.5	-18.5 0.16 (4)	10.00			
G-F	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 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, NBCS 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 (0.39")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.05")

CSI: TC=0.18/1.00 (C-D:1) , BC=0.16/1.00 (G-H:4) , WB=0.16/1.00 (C-H:1) , SSI=0.08/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

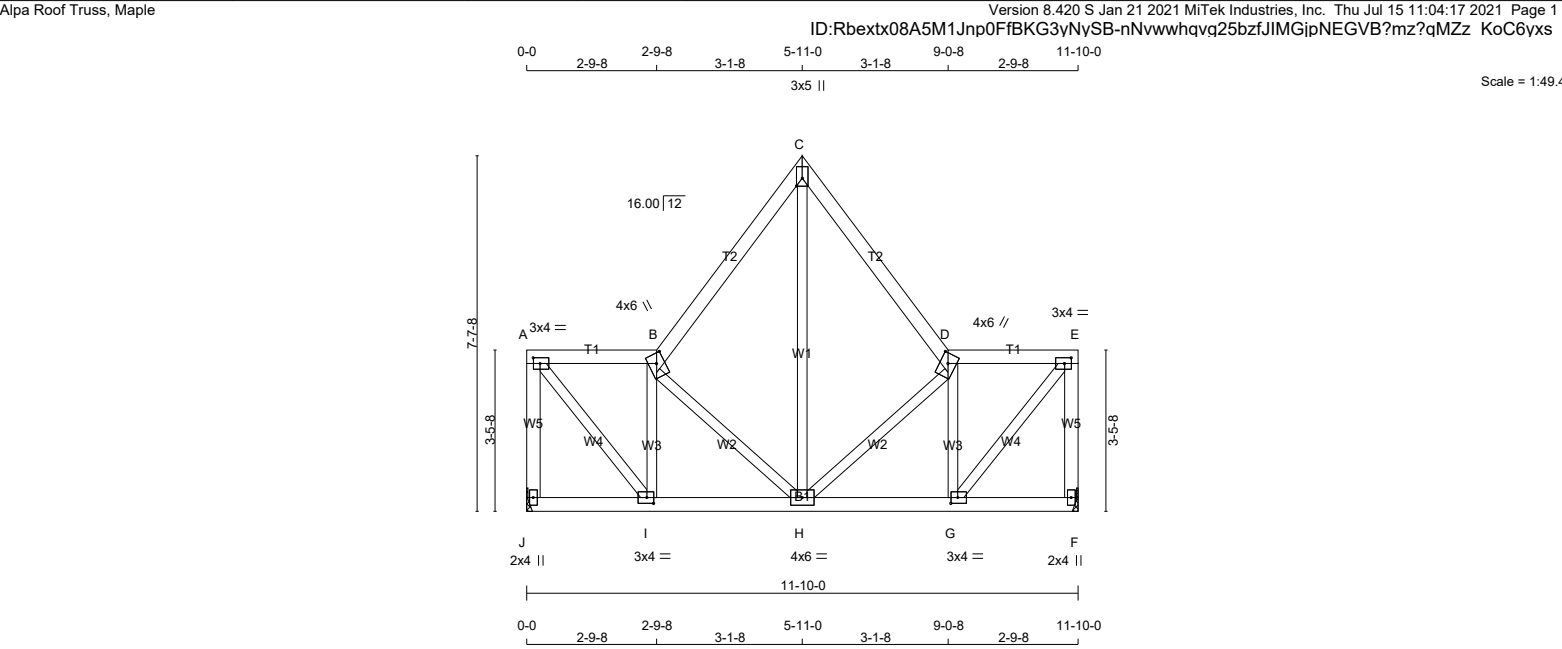
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (E) (INPUT = 0.90)
JSI METAL= 0.18 (A) (INPUT = 1.00)

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H17	2	1	TRUSS DESC. JT 45147	E21073927



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
J - A	2x4	DRY	No.2	SPF
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
J - 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
A	TMVW-t	MT20	3.0	4.0	1.50	1.75
B	TTWW+m	MT20	4.0	6.0	2.50	2.00
C	TTW+p	MT20	3.0	5.0	2.00	Edge
D	TTWW+m	MT20	4.0	6.0	2.50	2.00
E	TMVW-t	MT20	3.0	4.0	1.50	1.75
F	BMV1+p	MT20	2.0	4.0		
G	BMWW-t	MT20	3.0	4.0	1.50	1.75
H	BMWWW-t	MT20	4.0	6.0		
I	BMWW-t	MT20	3.0	4.0	1.50	1.75
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		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
J	571	0		571	0	0	MECHANICAL		
F	571	0		571	0	0	MECHANICAL		

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
J	407	248 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0	
F	407	248 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0	

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO	FR-TO			
J- A	-548 / 0	0.0	0.0 0.10 (1)	7.81	A- I	0 / 585	0.13 (1)
A- B	-378 / 0	-78.0	-78.0 0.08 (1)	6.25	I- B	-391 / 0	0.08 (1)
B- C	-389 / 0	-78.0	-78.0 0.10 (1)	6.25	B- H	-221 / 0	0.07 (1)
C- D	-389 / 0	-78.0	-78.0 0.10 (1)	6.25	H- C	0 / 375	0.08 (1)
D- E	-378 / 0	-78.0	-78.0 0.08 (1)	6.25	H- D	-221 / 0	0.07 (1)
F- E	-548 / 0	0.0	0.0 0.10 (1)	7.81	G- D	-391 / 0	0.08 (1)
					G- E	0 / 585	0.13 (1)
J- I	0 / 0	-18.5	-18.5 0.03 (4)	10.00			
I- H	0 / 391	-18.5	-18.5 0.08 (1)	10.00			
H- G	0 / 391	-18.5	-18.5 0.08 (1)	10.00			
G- F	0 / 0	-18.5	-18.5 0.03 (4)	10.00			

TOTAL WEIGHT = 2 X 62 = 124 lb [M][F]

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 (0.39")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.02")

CSI: TC=0.10/1.00 (A-J:1) , BC=0.08/1.00 (G-H:1) , WB=0.13/1.00 (E-G:1) , SSI=0.08/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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.

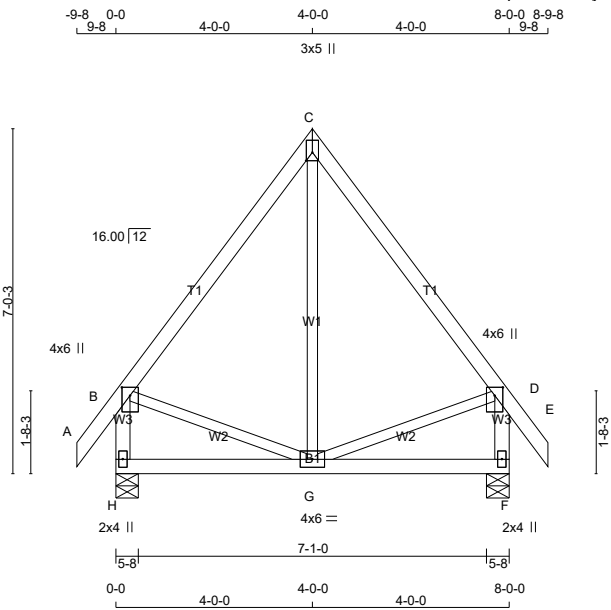
JSI GRIP= 0.84 (I) (INPUT = 0.90)
JSI METAL= 0.17 (G) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H18	2	1	TRUSS DESC. JT 45147	E21073928

Alpa Roof Truss, Maple

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Scale = 1:46.9

TOTAL WEIGHT = 2 X 42 = 85 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF
A - E	2x4	DRY	No.2	SPF
H - B	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
H - F	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	TTW+p	MT20	3.0	5.0	2.00	Edge
D	TMVW+p	MT20	4.0	6.0	2.00	2.00
F	BMV1+p	MT20	2.0	4.0		
G	BMWWW-t	MT20	4.0	6.0		
H	BMV1+p	MT20	2.0	4.0		
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.						

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
JT	457	0	457	0	5-8	1-8
H	457	0	457	0	5-8	1-8
F	457	0	457	0	5-8	1-8

UNFACTORED REACTIONS

	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE				
JT	324	206 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
H	324	206 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
F	324	206 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 28	-78.0	-78.0 0.05 (1)	10.00	G-C	0 / 69	0.02 (4)
B-C	-203 / 0	-78.0	-78.0 0.16 (1)	6.25	B-G	0 / 128	0.03 (1)
C-D	-203 / 0	-78.0	-78.0 0.16 (1)	6.25	G-D	0 / 128	0.03 (1)
D-E	0 / 28	-78.0	-78.0 0.05 (1)	10.00			
H-B	-428 / 0	0.0	0.0 0.05 (1)	7.81			
F-D	-428 / 0	0.0	0.0 0.05 (1)	7.81			
H-G	0 / 0	-18.5	-18.5 0.08 (4)	10.00			
G-F	0 / 0	-18.5	-18.5 0.08 (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 (0.27")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.16/1.00 (C-D:1) , BC=0.08/1.00 (F-G:4) ,
WB=0.03/1.00 (B-G:1) , SSI=0.07/1.00 (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

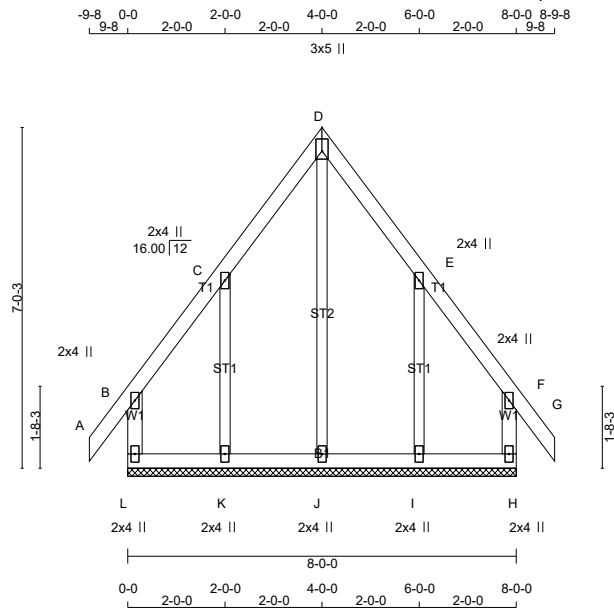
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (D) (INPUT = 0.90)
JSI METAL= 0.12 (B) (INPUT = 1.00)

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





TOTAL WEIGHT = 42 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
L - B	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 2-0-0 OC.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMV+w	MT20	2.0	4.0	
D	TTW+p	MT20	3.0	5.0	2.00 Edge
F	TMV+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	BMV1+w	MT20	2.0	4.0	
L	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

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)

CHORDS					WEBS			
MAX. FACTORED		FACTORED			MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-B	0 / 28	-78.0	-78.0	0.05 (1)	10.00	J-D	-124 / 0	0.10 (1)
B-C	-35 / 0	-78.0	-78.0	0.03 (1)	6.25	K-C	-149 / 0	0.04 (1)
C-D	-26 / 0	-78.0	-78.0	0.04 (1)	6.25	I-E	-149 / 0	0.04 (1)
D-E	-26 / 0	-78.0	-78.0	0.04 (1)	6.25			
E-F	-35 / 0	-78.0	-78.0	0.03 (1)	6.25			
F-G	0 / 28	-78.0	-78.0	0.05 (1)	10.00			
L-B	-172 / 0	0.0	0.0	0.02 (1)	7.81			
H-F	-172 / 0	0.0	0.0	0.02 (1)	7.81			
L-K	0 / 21	-18.5	-18.5	0.02 (1)	10.00			
K-J	0 / 17	-18.5	-18.5	0.02 (4)	10.00			
J-I	0 / 17	-18.5	-18.5	0.02 (4)	10.00			
I-H	0 / 21	-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 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=0.05/1.00 (A-B:1), BC=0.02/1.00 (H-I:1),
WB=0.10/1.00 (D-J:1), SSI=0.04/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.16 (B) (INPUT = 0.90)
JSI METAL= 0.09 (F) (INPUT = 1.00)

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



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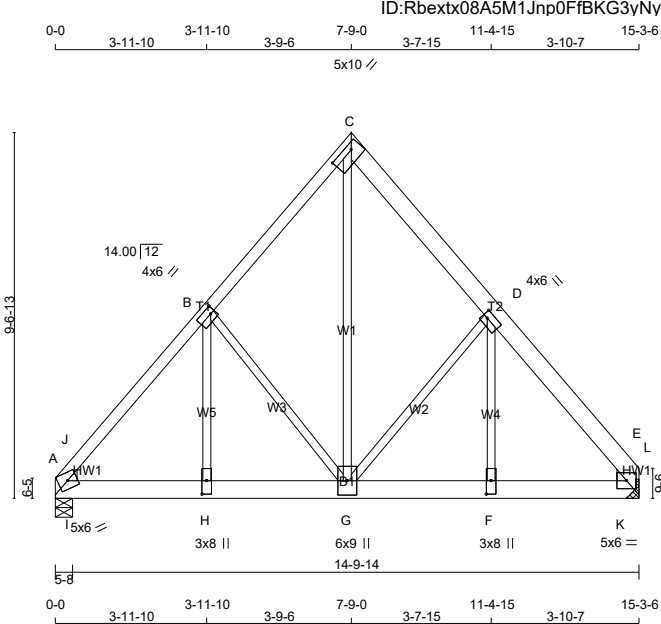
JSI GRIP= 0.49 (F) (INPUT = 0.90)
JSI METAL= 0.13 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H22A	1	2	TRUSS DESC. JT 45147	E21073931

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 87 = 174 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - E	2x6	DRY No.2	SPF
A - E	2x6	DRY No.2	SPF
ALL WEBS	2x3	DRY No.2	SPF
DRY: SEASONED LUMBER.			

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A- C	1 12	TOP
C- E	2 12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
A- E	2 6	SIDE(441.1)
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 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 TMBH1-m	MT20	5.0	6.0		
B TMWW-t	MT20	4.0	6.0	2.00	1.50
C TTW-h	MT20	5.0	10.0	1.75	7.00
D TMWW-t	MT20	4.0	6.0	2.00	1.50
E TMBH1-l	MT20	5.0	6.0		
F BMW+w	MT20	3.0	8.0	4.25	1.50
G BMWWW+H	MT20	6.0	9.0		
H BMW+w	MT20	3.0	8.0	4.25	1.50

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

JT	VERT	HORZ	FACTORED GROSS REACTION		INPUT BRG	REQRD IN-SX	HEEL WEDGE
			DOWN	HORZ			
A	7478	0	7478	0	0	5-8	4-1
E	7478	0	7478	0	0	MECHANICAL	2x4 R

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

UNFACTORED REACTIONS

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS					
		1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD
A	5332	3254 / 0	0 / 0	0 / 0	0 / 0	0 / 0	2078 / 0
E	5332	3254 / 0	0 / 0	0 / 0	0 / 0	0 / 0	2078 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.19 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A- J	-8337 / 0	-78.0 -78.0	0.29 (1)	3.19	H- B	0 / 3527	0.44 (1)
J- B	-7453 / 0	-78.0 -78.0	0.39 (1)	3.37	B- G	-2541 / 0	0.79 (1)
B- C	-5059 / 0	-78.0 -78.0	0.21 (1)	4.17	G- C	0 / 7311	0.90 (1)
C- D	-4965 / 0	-78.0 -78.0	0.12 (1)	5.12	G- D	-2393 / 0	0.73 (1)
D- L	-7267 / 0	-78.0 -78.0	0.17 (1)	4.35	F- D	0 / 3344	0.41 (1)
L- E	-9210 / 0	-78.0 -78.0	0.15 (1)	3.94	I- J	0 / 973	0.00 (1)
					K- L	0 / 2233	0.00 (1)
A- I	0 / 4876	-900.8 -900.8	0.40 (1)	10.00			
I- H	0 / 4876	-900.8 -900.8	0.73 (1)	10.00			
H- G	0 / 4876	-900.8 -900.8	0.69 (1)	10.00			
G- F	0 / 4719	-900.8 -900.8	0.68 (1)	10.00			
F- K	0 / 4719	-900.8 -900.8	0.60 (1)	10.00			
K- E	0 / 4719	-900.8 -900.8	0.41 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C

GIRDER TYPE: CStdGirder

START DISTANCE = 0-0
START SPAN CARRIED = 38-7-0
END DISTANCE = 15-3-6
END SPAN CARRIED = 38-7-0
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 (0.51")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.51")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.39/1.00 (B-J:1) , BC=0.73/1.00 (H-I:1) , WB=0.90/1.00 (C-G:1) , SSI=0.63/1.00 (H-I: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)
			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 (B) (INPUT = 0.90)
JSI METAL= 0.91 (A) (INPUT = 1.00)

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

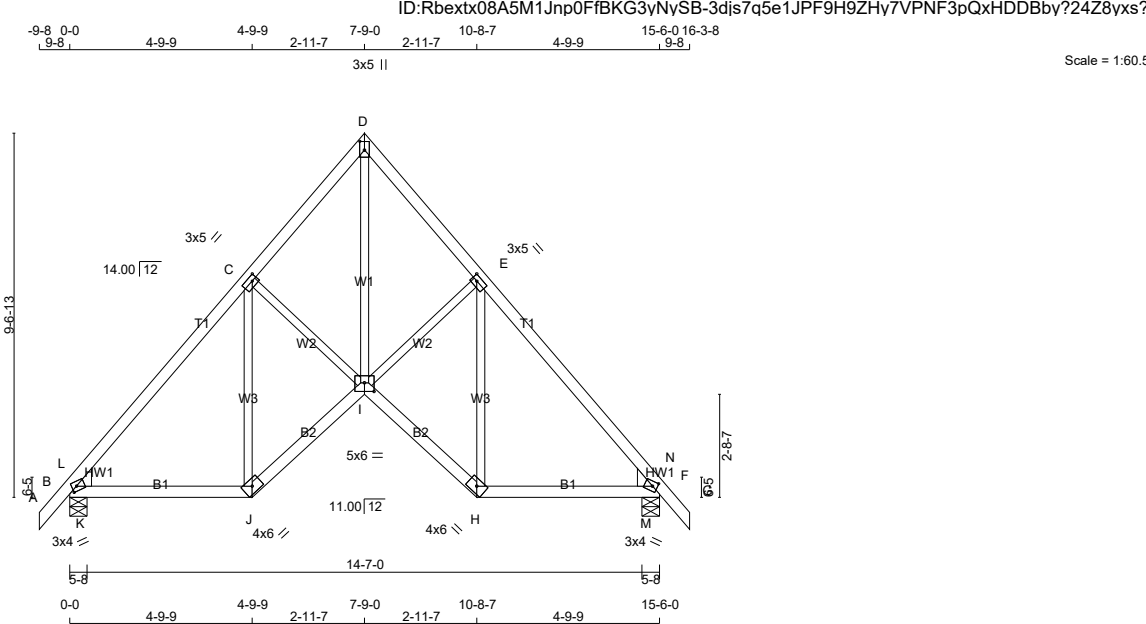


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	H23	2	1	TRUSS DESC. JT 45147	E21073932

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 73 = 146 lb

[M][F]

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMBH1-m	MT20	3.0	4.0	1.50 1.50
C	TMWW-t	MT20	3.0	5.0	1.50 1.75
D	TTW+p	MT20	3.0	5.0	2.75 1.50
E	TMWW-t	MT20	3.0	5.0	1.50 1.75
F	TMBH1-m	MT20	3.0	4.0	1.50 1.50
H	BBW-h	MT20	4.0	6.0	
I	BBWWW-p	MT20	5.0	6.0	2.75 3.00
J	BBW-h	MT20	4.0	6.0	

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	HEEL WEDGE
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	
B	818	0	818	0	0	5-8	1-8 2x6 L
F	818	0	818	0	0	5-8	1-8 2x6 R

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX	MIN	COMPONENT	REACTIONS		
B	582	363 / 0	0 / 0	SNOW	LIVE	PERM.LIVE	WIND
F	582	363 / 0	0 / 0	SNOW	LIVE	PERM.LIVE	WIND

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	MEMB. MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO			
A-B	0 / 25	-78.0 -78.0	0.05 (1)	I-D	0 / 892	10.00	
B-L	-735 / 0	-78.0 -78.0	0.06 (1)	I-E	-2 / 3	6.25	
L-C	-691 / 0	-78.0 -78.0	0.15 (1)	H-E	-335 / 0	6.25	
C-D	-722 / 0	-78.0 -78.0	0.14 (1)	C-I	-2 / 3	6.25	
D-E	-722 / 0	-78.0 -78.0	0.14 (1)	J-C	-335 / 0	6.25	
E-N	-691 / 0	-78.0 -78.0	0.15 (1)	K-L	-119 / 65	6.25	
N-F	-735 / 0	-78.0 -78.0	0.06 (1)	M-N	-119 / 65	6.25	
F-G	0 / 25	-78.0 -78.0	0.05 (1)			10.00	
B-K	0 / 457	-18.5 -18.5	0.14 (1)			10.00	
K-J	0 / 458	-18.5 -18.5	0.17 (1)			10.00	
J-I	0 / 615	-18.5 -18.5	0.13 (1)			10.00	
I-H	0 / 615	-18.5 -18.5	0.13 (1)			10.00	
H-M	0 / 458	-18.5 -18.5	0.17 (1)			10.00	
M-F	0 / 457	-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

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 (0.52")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")

ALLOWABLE DEFL.(TL)= L/360 (0.52")

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

CSI: TC=0.15/1.00 (E-N:1) , BC=0.17/1.00 (H-M:1) , WB=0.20/1.00 (D-I:1) , SSI=0.12/1.00 (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	MIN	MAX
MT20	650	371	1747	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

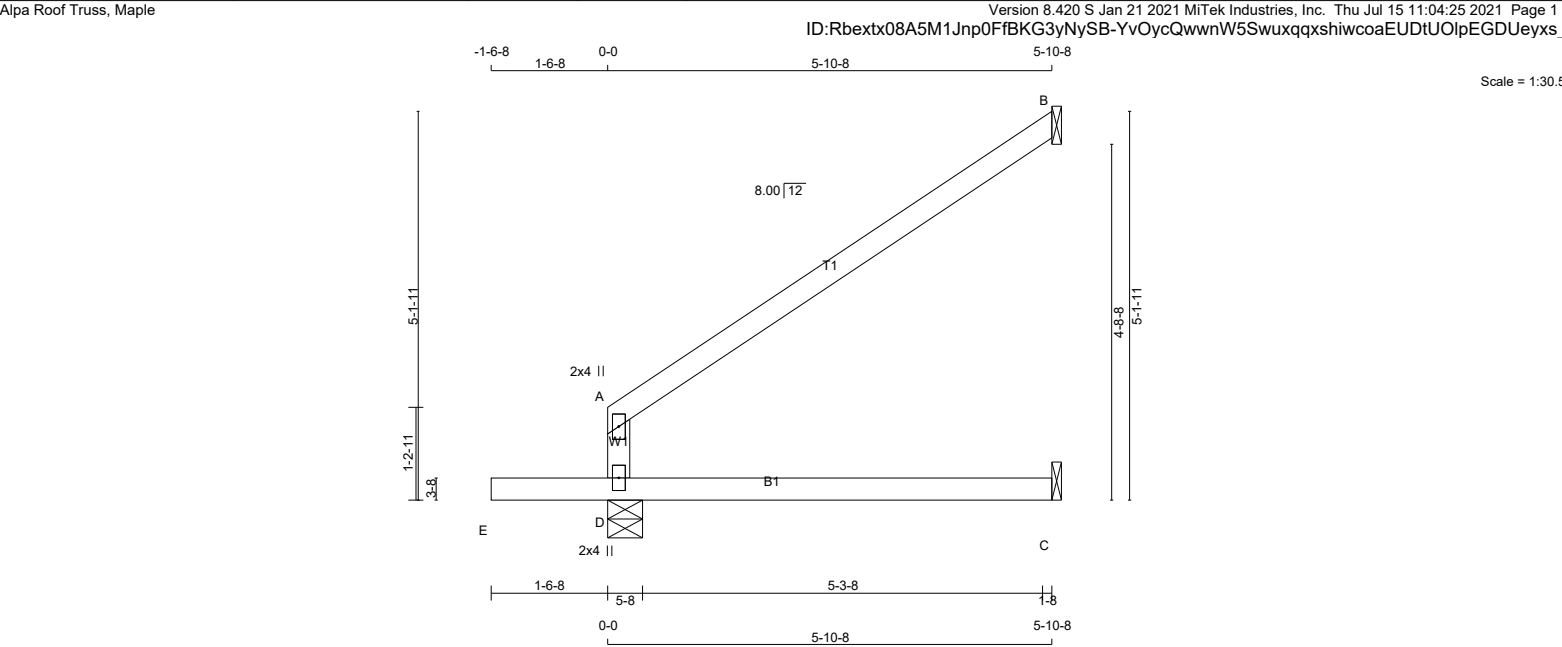
JSI GRIP= 0.83 (D) (INPUT = 0.90)

JSI METAL= 0.25 (F) (INPUT = 1.00)

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	J1	11	1	TRUSS DESC. JT 45147	E21073933



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
D - A	2x4	DRY	No.2	SPF
A - B	2x4	DRY	No.2	SPF
E - C	2x4	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	
D	BMV1+p	MT20	2.0	4.0	

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
JT	487	0	487	0	5-8	1-8
D	188	0	188	0	1-8	1-8
B	41	0	46	0	1-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS				
		SNOW	LIVE	PERM.LIVE	WIND	DEAD
D	348	210 / 0	0 / 0	0 / 0	0 / 0	137 / 0
B	130	101 / 0	0 / 0	0 / 0	0 / 0	29 / 0
C	33	0 / 0	0 / 0	0 / 0	0 / 0	33 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		WEB S MAX. FACTORED FORCE (LBS)	
	FR-TO	TO	FROM	TO	FR-TO	TO
D- A	-270 / 0	0.0	0.0	0.33 (1)	7.81	
A- B	-23 / 0	-78.0	-78.0	0.33 (1)	6.25	
E- D	0 / 0	-96.5	-96.5	0.16 (1)	10.00	
D- C	0 / 0	-18.5	-18.5	0.19 (4)	10.00	

DESIGN CRITERIA

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

SPACING = 24.0 IN./C

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

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

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

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

ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.02")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.33/1.00 (A-D:1) , BC=0.19/1.00 (C-D:4) ,
WB=0.00/1.00 (n/a:0) , SSI=0.18/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (A) (INPUT = 0.90)
JSI METAL= 0.14 (A) (INPUT = 1.00)

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

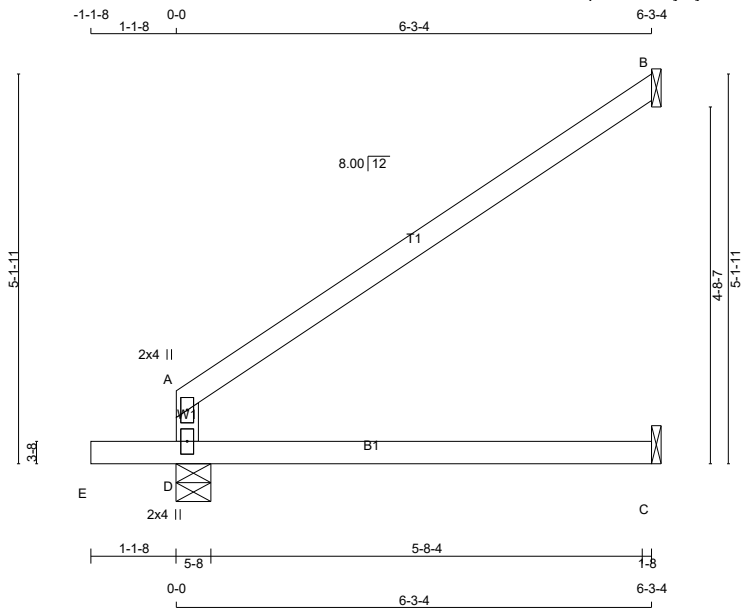


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	J2	3	1	TRUSS DESC. JT 45147	E21073934

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 3 X 18 = 53 lb

[M][F]

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

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

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
JT	474	0	474	0	5-8	1-8
D	196	0	196	0	1-8	1-8
B	44	0	49	0	1-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	338	205 / 0	0 / 0	0 / 0	0 / 0	133 / 0	0 / 0
B	136	105 / 0	0 / 0	0 / 0	0 / 0	30 / 0	0 / 0
C	35	0 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		WEB S			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO				
D- A	-293 / 0	0.0 0.0	0.33 (1)	7.81		
A- B	-27 / 0	-78.0 -78.0	0.36 (1)	6.25		
E- D	0 / 0	-96.5 -96.5	0.08 (1)	10.00		
D- C	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

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.(TL)= L/360 (0.21")
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=0.36/1.00 (A-B:1) , BC=0.21/1.00 (C-D:4) ,
WB=0.00/1.00 (n/a:0) , SSI=0.19/1.00 (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= 0.18 (A) (INPUT = 0.90)
JSI METAL= 0.15 (A) (INPUT = 1.00)

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

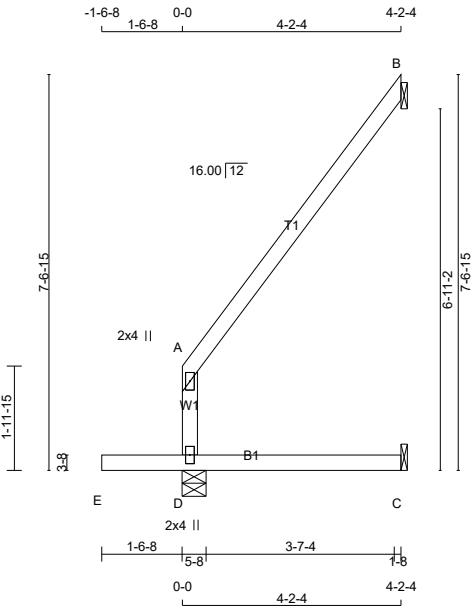


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	J3	2	1	TRUSS DESC. JT 45147	E21073935

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 17 = 34 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
D - A	2x4	DRY No.2	SPF
A - B	2x4	DRY No.2	SPF
E - C	2x4	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		
D	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	HORZ	DOWN	HORZ
D	384	0	384	0
B	139	0	139	0
C	29	0	33	0

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

UNFACTORED REACTIONS

	1ST LCASE	MAX /MIN.	COMPONENT REACTIONS			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
D	274	166 / 0	0 / 0	0 / 0	0 / 0	109 / 0
B	96	75 / 0	0 / 0	0 / 0	0 / 0	21 / 0
C	23	0 / 0	0 / 0	0 / 0	0 / 0	23 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (7)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO		FR-TO		
D- A	-187 / 0	0.0	0.0	0.14 (1)	7.81		
A- B	-19 / 0	-78.0	-78.0	0.17 (1)	6.25		
E- D	0 / 0	-96.5	-96.5	0.19 (7)	10.00		
D- C	0 / 0	-18.5	-18.5	0.10 (4)	10.00		

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

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.(TL)= L/360 (0.19")

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

CANTILEVER DEFLECTION:

ALLOWABLE DEFL.(LL)= L/120 (0.19")

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

ALLOWABLE DEFL.(TL)= L/120 (0.19")

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

CSI: TC=0.17/1.00 (A-B:1) , BC=0.19/1.00 (D-E:7) , WB=0.00/1.00 (n/a:0) , SSI=0.14/1.00 (D-E:7)

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= 0.16 (A) (INPUT = 0.90)

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

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

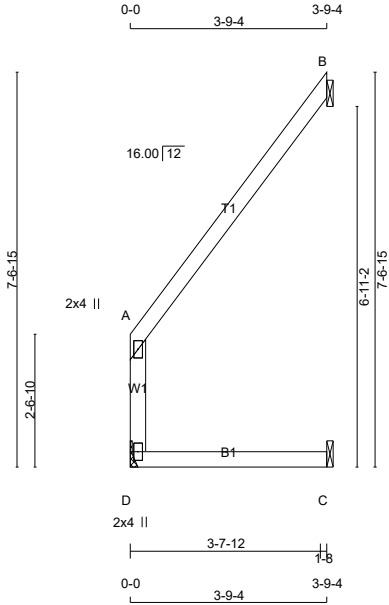


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	J3S	6	1	TRUSS DESC. JT 45147	E21073936

Alpa Roof Truss, Maple

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Scale = 1:44.2

TOTAL WEIGHT = 6 X 14 = 86 lb

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

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

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
JT	182	0	182	0	0	0
D	182	0	182	0	0	0
B	135	0	135	0	0	0
C	47	0	47	0	0	0

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

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

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED						
D	130	79 / 0	0 / 0	0 / 0	0 / 0	51 / 0	0 / 0
B	94	72 / 0	0 / 0	0 / 0	0 / 0	22 / 0	0 / 0
C	36	7 / 0	0 / 0	0 / 0	0 / 0	28 / 0	0 / 0

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO		FR-TO		
D- A	-159 / 0	0.0	0.0	0.06 (1)	7.81		
A- B	-10 / 0	-78.0	-78.0	0.16 (1)	10.00		
D- C	0 / 0	-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

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 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.16/1.00 (A-B:1) , BC=0.08/1.00 (C-D:1) ,
WB=0.00/1.00 (n/a:0) , SSI=0.07/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.13 (A) (INPUT = 0.90)
JSI METAL= 0.08 (A) (INPUT = 1.00)

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



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TOTAL WEIGHT = $5 \times 30 = 150 \text{ lb}$

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	3.0	4.0	1.50 1.00
B	TMMW-t	MT20	3.0	4.0	1.50 1.50
C	TMVW-t	MT20	3.0	4.0	1.50 1.50
D	TMV-p	MT20	2.0	4.0	
E	BMVW1-t	MT20	3.0	4.0	
F	BBWW-h	MT20	5.0	6.0	
G	BBWW-1	MT20	4.0	6.0	2.00 4.50
H	BMV1+p	MT20	2.0	4.0	

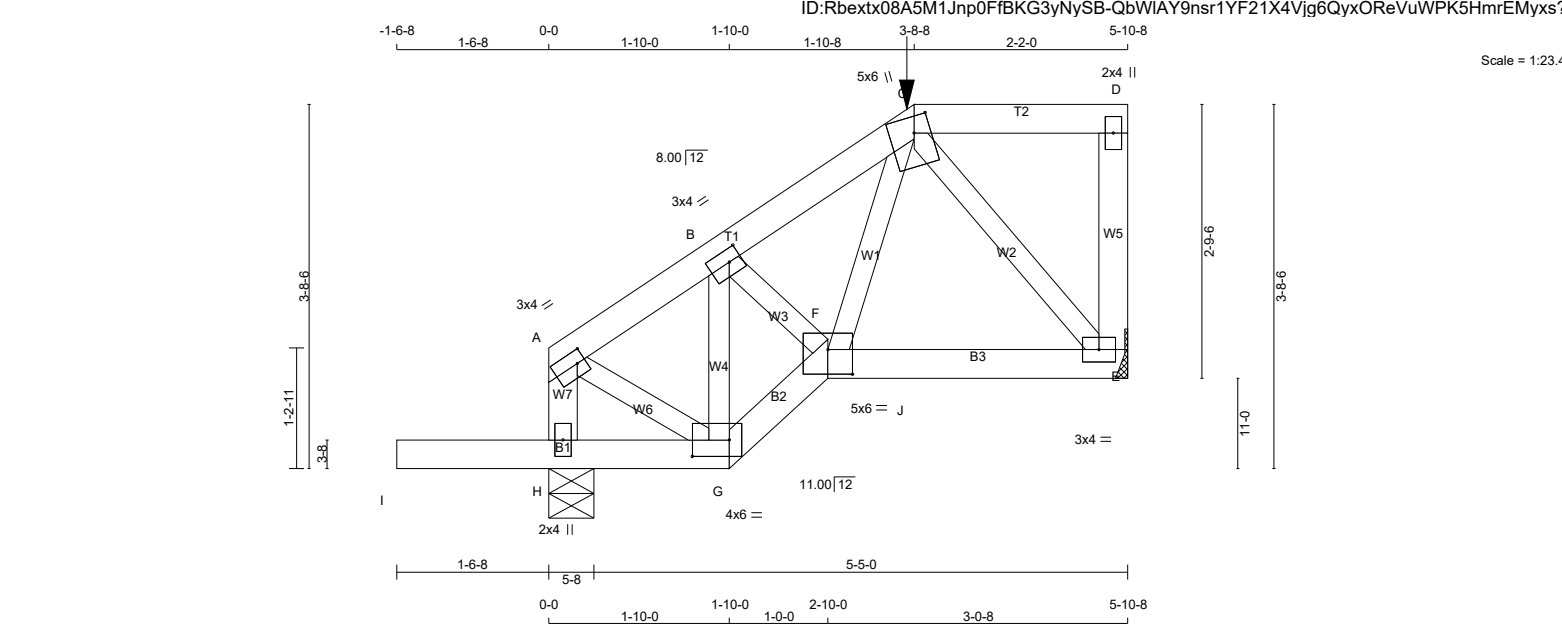
CHORDS					WEBBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM TO		LENGTH	FR-TO				
H-A	-223 / 0	0.0	0.0 0.02 (1)	7.81	A-G	0 / 154	0.03 (1)		
H-B	-165 / 0	-78.0	-78.0 0.04 (1)	6.25	G-B	-220 / 0	0.03 (1)		
B-C	-239 / 0	-78.0	-78.0 0.08 (1)	6.25	B-F	0 / 130	0.03 (1)		
C-D	-11 / 0	-78.0	-78.0 0.08 (1)	6.25	F-C	0 / 63	0.02 (4)		
E-D	-95 / 0	0.0	0.0 0.03 (1)	7.81	C-E	-259 / 0	0.06 (1)		
I-H	0 / 0	-96.5	-96.5 0.16 (1)	10.00					
H-G	0 / 0	-18.5	-18.5 0.16 (1)	10.00					
G-F	0 / 173	-18.5	-18.5 0.03 (1)	10.00					
F-E	0 / 216	-18.5	-18.5 0.07 (4)	10.00					

JSI GRIP= 0.48 (A) (INPUT = 0.90)
JSI METAL= 0.07 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	J1TA	2	1	TRUSS DESC. JT 45147	E21073938

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 28 = 57 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	3.0	4.0	1.50 1.00
B	TMWW-t	MT20	3.0	4.0	1.50 1.50
C	TTWW+m	MT20	5.0	6.0	2.00 2.00
D	TMV+p	MT20	2.0	4.0	
E	BMVW1-t	MT20	3.0	4.0	
F	BBWW-I	MT20	5.0	6.0	3.00 3.00
G	BBWW-I	MT20	4.0	6.0	2.00 4.50
H	BMV1+p	MT20	2.0	4.0	

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
JT	413	0	413	0	MECHANICAL	
E	413	0	413	0	MECHANICAL	
H	527	0	527	0	5-8	1-8

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

UNFACTORED REACTIONS

	1ST LCASE MAX./MIN. COMPONENT REACTIONS						
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	294	183 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0
E	294	183 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0
H	377	225 / 0	0 / 0	0 / 0	0 / 0	152 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)		MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
		FROM	TO				
FR-TO					FR-TO		
A-B	-243 / 0	-78.0	-78.0 0.04 (1)	6.25	G-B	-302 / 0	0.05 (1)
B-C	-339 / 0	-78.0	-78.0 0.04 (1)	6.25	B-F	0 / 118	0.03 (1)
C-D	0 / 0	-111.3	-111.3 0.10 (1)	10.00	F-C	0 / 157	0.04 (1)
E-D	-121 / 0	0.0	0.0 0.02 (1)	7.81	C-E	-338 / 0	0.07 (1)
H-A	-292 / 0	0.0	0.0 0.03 (1)	7.81	A-G	0 / 231	0.06 (1)
I-H	0 / 0	-96.5	-96.5 0.17 (1)	10.00			
H-G	0 / 0	-26.4	-26.4 0.17 (1)	10.00			
G-F	0 / 261	-26.4	-26.4 0.05 (1)	10.00			
F-J	0 / 223	-26.4	-26.4 0.10 (4)	10.00			
J-E	0 / 223	-26.4	-26.4 0.10 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-8-8	-106	-106	---	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 = 3-8-8
RIGHT SETBACK = 0-0
END SETBACK = 3-8-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 617 (0.03")

CSI: TC=0.10/1.00 (C-D:1), BC=0.17/1.00 (G-H:1), WB=0.07/1.00 (C-E:1), SSI=0.13/1.00 (H-I: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	MAX MIN
MT20	650 371	1747 788	1987 1873

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

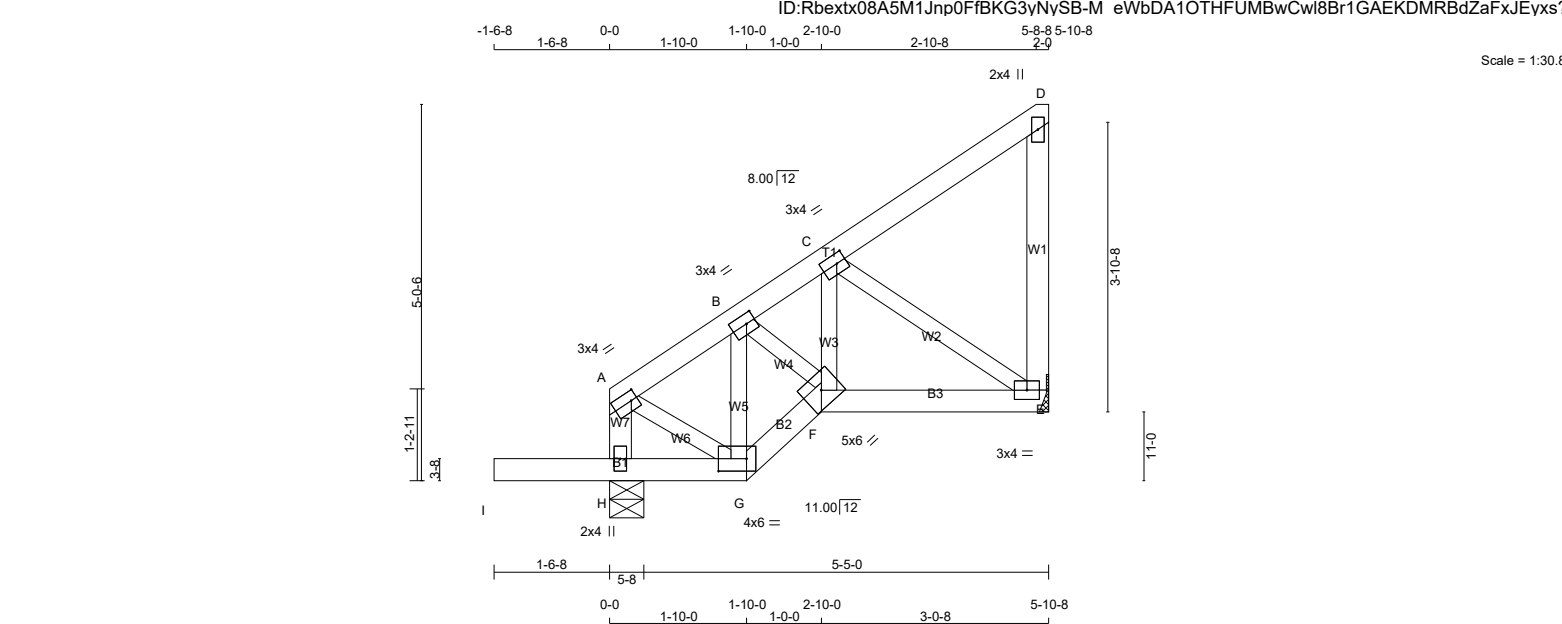


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
334260	J1TB	2	1	TRUSS DESC. JT 45147	E21073939

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0FfBKG3yNySB-M eWbDA10THFUMBwCwI8Br1GAEKDMRBdZaFxJEyxs?2



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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	3.0	4.0	1.50 1.00
B	TMWW-t	MT20	3.0	4.0	1.50 1.50
C	TMWW-t	MT20	3.0	4.0	1.50 1.50
D	TMV+p	MT20	2.0	4.0	
E	BMVW1-t	MT20	3.0	4.0	
F	BBWW-h	MT20	5.0	6.0	
G	BBWW-l	MT20	4.0	6.0	2.00 4.50
H	BMV1+p	MT20	2.0	4.0	

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
JT	188	0	264	0	MECHANICAL	
E	264	0	264	0	MECHANICAL	
H	452	0	452	0	5-8	1-8

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

UNFACTORED REACTIONS

	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	188	115 / 0	0 / 0	0 / 0	0 / 0	73 / 0	0 / 0
E	264	115 / 0	0 / 0	0 / 0	0 / 0	73 / 0	0 / 0
H	322	197 / 0	0 / 0	0 / 0	0 / 0	125 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	-165 / 0	-78.0 -78.0	0.04 (1)	6.25	G-B	-220 / 0	0.03 (1)
B-C	-239 / 0	-78.0 -78.0	0.08 (1)	6.25	B-F	0 / 130	0.03 (1)
C-D	-11 / 0	-78.0 -78.0	0.08 (1)	6.25	F-C	0 / 63	0.02 (4)
E-D	-95 / 0	0.0 0.0	0.03 (1)	7.81	C-E	-259 / 0	0.06 (1)
H-A	-223 / 0	0.0 0.0	0.02 (1)	7.81	A-G	0 / 154	0.03 (1)
I-H	0 / 0	-96.5 -96.5	0.16 (1)	10.00			
H-G	0 / 0	-18.5 -18.5	0.16 (1)	10.00			
G-F	0 / 173	-18.5 -18.5	0.03 (1)	10.00			
F-E	0 / 216	-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 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 588 (0.03")

CSI: TC=0.08/1.00 (B-C:1), BC=0.16/1.00 (G-H:1), WB=0.06/1.00 (C-E:1), SSI=0.12/1.00 (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
MT20	650	371	1747	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.48 (A) (INPUT = 0.90)
JSI METAL= 0.07 (E) (INPUT = 1.00)

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



LUS – Double Shear Joist Hangers



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

Material: 18 gauge

Finish: G90 galvanized

Design:

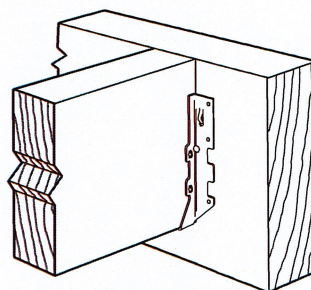
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

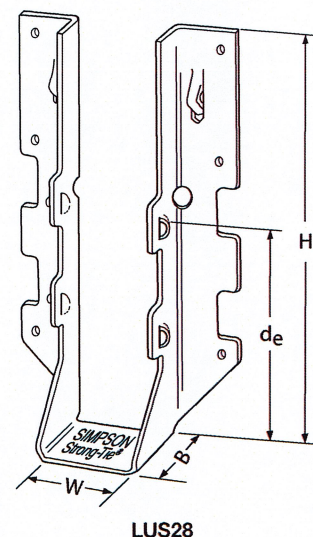
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



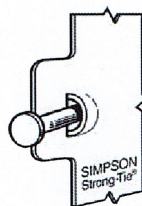
Typical LUS Installation



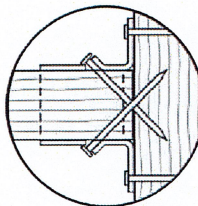
LUS28

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

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



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECLUS20 3/20 exp. 6/22

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HUS/LJS – Double Shear Joist Hangers

SIMPSON
Strong-Tie

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

Material: See table

Finish: G90 galvanized

Design:

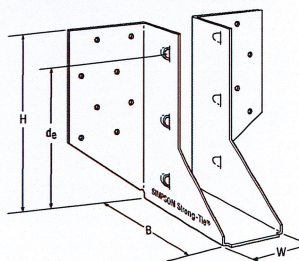
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

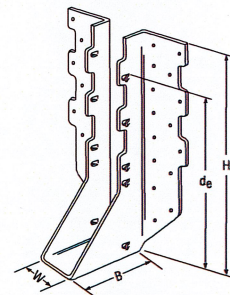
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

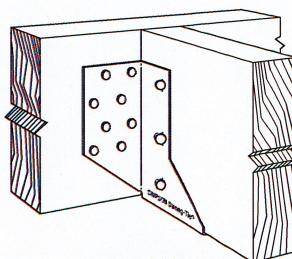
- See current catalogue for options



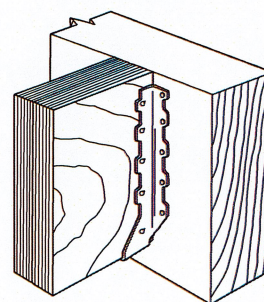
LJS26DS



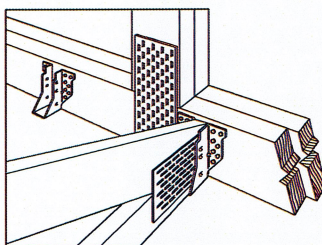
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



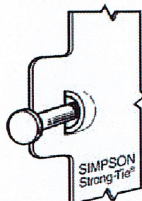
Typical HUS
Installation



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

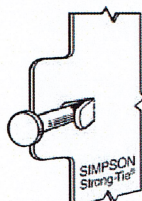
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15) lb.	Normal (K ₀ =1.00) lb.	Uplift (K ₀ =1.15) lb.	Normal (K ₀ =1.00) lb.
LJS26DS	18	1½	5	3½	4⅞	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅞	3	3½	(14) 16d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

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

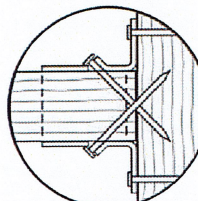


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECHUS20 3/20 exp. 6/22

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HHUS – Double Shear Joist Hangers

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

Material: 14 gauge

Finish: G90 galvanized

Design:

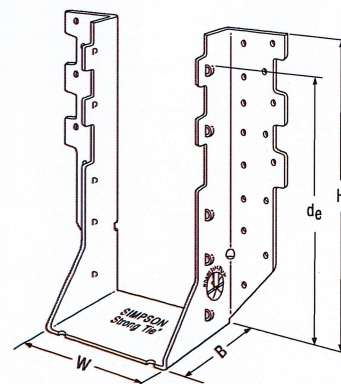
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

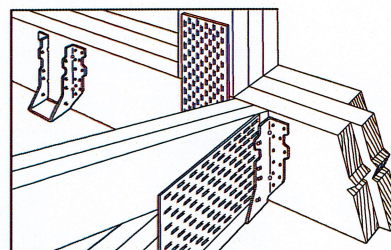
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options



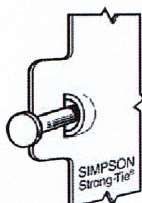
HHUS410



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

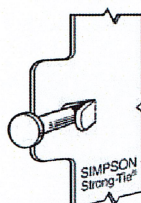
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _o =1.15)	Normal (K _o =1.00)	Uplift (K _o =1.15)	Normal (K _o =1.00)
HHUS26-2	14	3½	5¼	3	3¼	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3½	7½	3	6½	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3½	9½	3	8	(30) 16d	(10) 16d	4670	9660	4235	7000
HHUS210-3	14	4¼	9	3	7¼	(30) 16d	(10) 16d	4670	9670	4235	6865
HHUS210-4	14	6¼	8¾	3	7¾	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS46	14	3½	5¼	3	3¼	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3½	7½	3	6½	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS410	14	3½	9	3	8	(30) 16d	(10) 16d	4670	9855	4235	7000
HHUS5.50/10	14	5½	9	3	8	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS7.25/10	14	7¼	9	3½	7¾	(30) 16d	(10) 16d	4670	10155	3370	7210

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

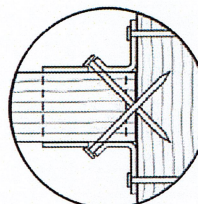


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

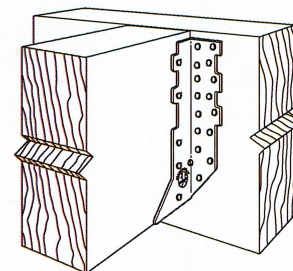
U.S. Patent
5,603,580



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



Double Shear Nailing Top View.



Typical HHUS Installation



LIMIT
STATES
DESIGN

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T-SPECHHUS20 3/20 exp. 6/22

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HGUS – Double Shear Joist Hangers

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

Material: 12 gauge

Finish: G90 galvanized

Design:

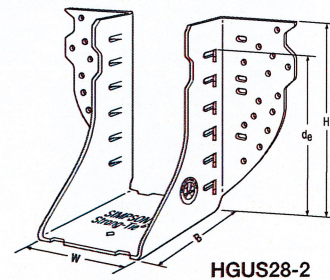
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%.
No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

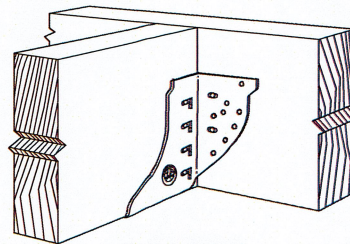
- Use all specified fasteners
- Nails: 16d = 0.162" dia x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

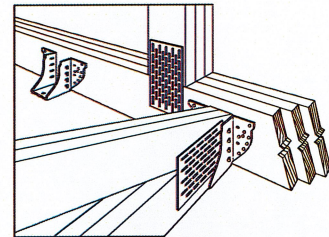
- See current catalogue for options



HGUS28-2



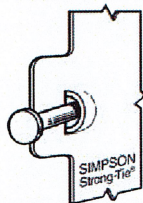
Typical HGUS
Installation



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

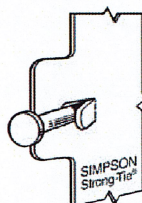
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₀ ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
HGUS26	12	1 5/8	5 3/8	5	4 3/32	(20) 16d	(8) 16d	2685	6625	2685	5700
HGUS26-2	12	3 1/16	5 7/16	4	4 1/8	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-3	12	4 15/16	5 1/2	4	4 1/8	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-4	12	6 1/16	5 7/16	4	4 1/8	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS28	12	1 5/8	7 1/8	5	6 1/8	(36) 16d	(12) 16d	3310	7675	3100	6900
HGUS28-2	12	3 1/16	7 3/16	4	6 1/8	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-3	12	4 15/16	7 1/4	4	6 3/8	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-4	12	6 1/16	7 3/16	4	6 1/8	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS210	12	1 5/8	9 1/8	5	7 7/8	(46) 16d	(16) 16d	3535	11070	2510	8090
HGUS210-2	12	3 3/16	9 3/16	4	8 1/8	(46) 16d	(16) 16d	6840	14015	4855	10270
HGUS210-3	12	4 15/16	9 1/4	4	8 3/8	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS210-4	12	6 1/16	9 3/16	4	8 1/8	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS212-4	12	6 1/16	10 3/8	4	10 1/8	(56) 16d	(20) 16d	7640	14995	5425	10645
HGUS214-4	12	6 1/16	12 3/8	4	11 1/8	(66) 16d	(22) 16d	10130	16400	7195	11645

1. d₀ is the distance from the seat of the hanger to the highest joist nail.

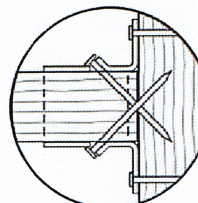


Dome Double
Shear Nailing
prevents tabs
breaking off
(available on
some models).

U.S. Patent
5,603,580



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



Double
Shear
Nailing
Top View.



LIMIT
STATES
DESIGN

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T-SPECHGUS20 3/20 exp. 6/22

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strongtie.com

TC – Truss Connectors

SIMPSON
Strong-Tie

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

Material: 16 gauge

Finish: G90 galvanized

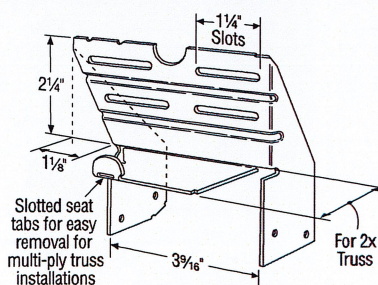
Design: Factored resistances are in accordance with CSA 086-14

Installation:

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

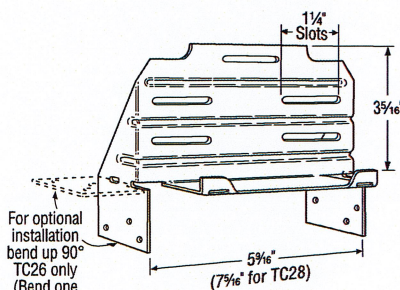
Optional TC Installation:

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



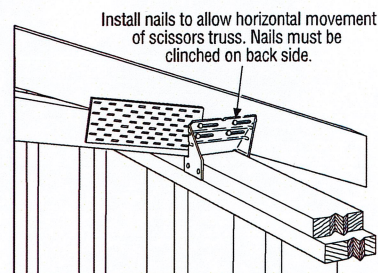
TC24

U.S. Patent 4,932,173

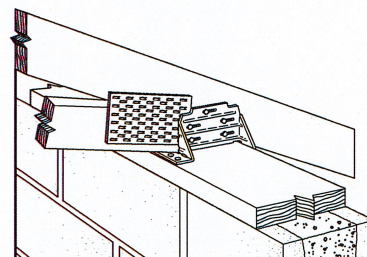


TC26

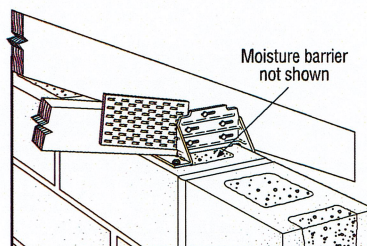
(TC28 Similar)



Typical TC24 Installation



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



Optional TC26 Installation for Grouted Concrete Block using Titen Screws

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

Optional TC Installation Table

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

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



**LIMIT
STATES
DESIGN**

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