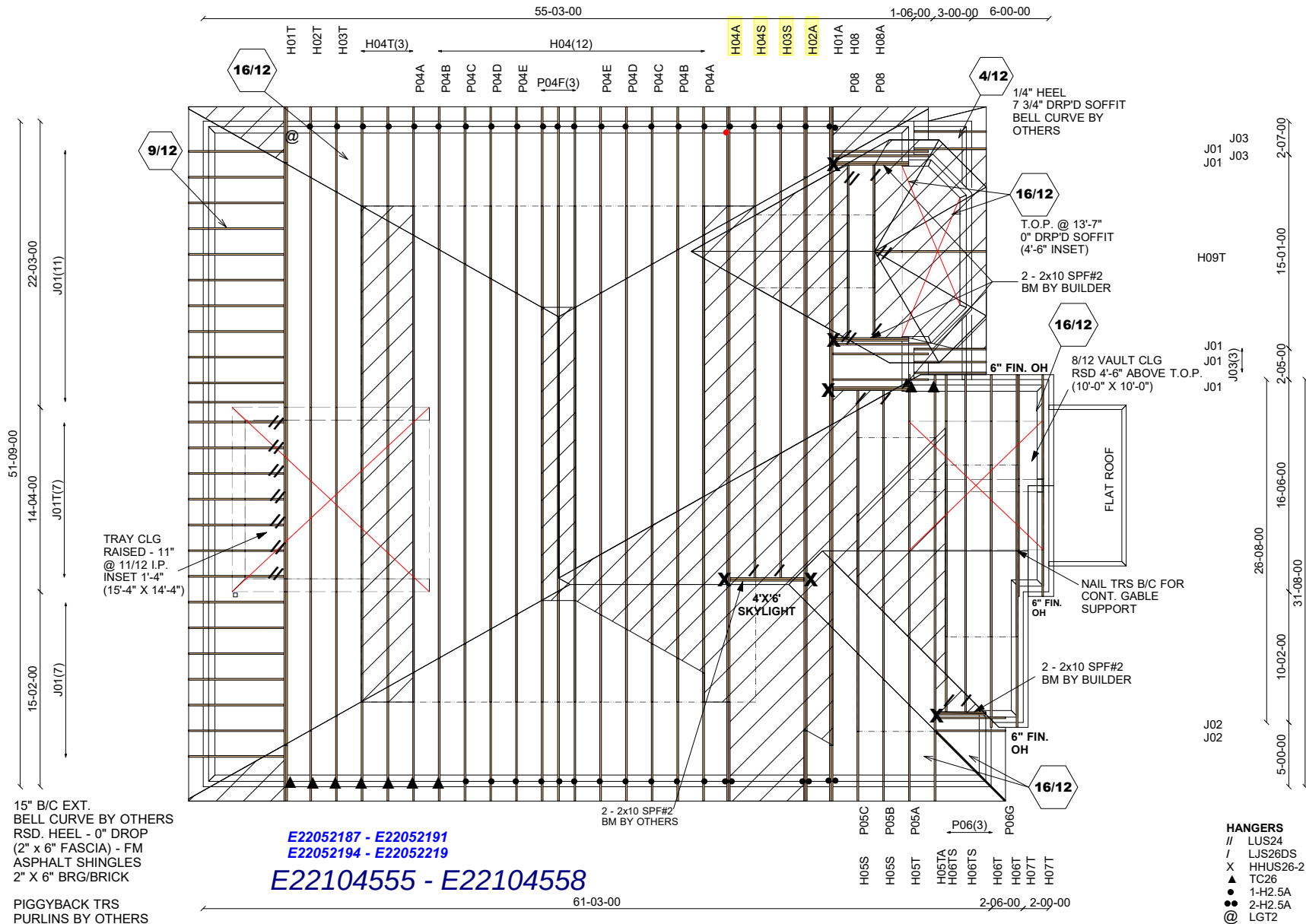




HANGERS
 // LUS24
 / LJS26DS
 X HHUS26-2
 ▲ TC26
 ● 1-H2.5A
 ●● 2-H2.5A
 @ LGT2

Mitek V. 8.5.3.233

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'

CONVENTIONAL FRAMING BY OTHERS



Job Track: **45147**
 Layout ID: **349196**
 Plan Log: **118913**

Builder / Location:
GOLD PARK HOMES / VAUGHAN

Model / Elevation:
6001 / A SKYLIGHT

Project: **PINE VALLEY PH 2**

Date: **10/6/2022** Designer: CAWHITE Ref: **343283**

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.

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.
343283	H01T	2		JT 45147	E22052187

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Jun 13 14:12:47 2022 Page 1

ID:6tV605vCHTmD2wqljx3DtqzTTXK-mAqLGmScmltvXRz99dD4WrdOO5AE GtcG6HqgRz6HJ

Scale = 1:89.9

LUMBER N. L. G. A. RULES <table><tr><th>CHORDS</th><th>SIZE</th><th></th><th>LUMBER</th><th>DESCR.</th></tr><tr><td>A - B</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>B - E</td><td>2x6</td><td>DRY</td><td>1650F 1.5E</td><td>SPF</td></tr><tr><td>E - I</td><td>2x6</td><td>DRY</td><td>1650F 1.5E</td><td>SPF</td></tr><tr><td>I - M</td><td>2x6</td><td>DRY</td><td>1650F 1.5E</td><td>SPF</td></tr><tr><td>M - N</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>AC- A</td><td>2x6</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>P- N</td><td>2x6</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>AD- Z</td><td>2x6</td><td>DRY</td><td>1650F 1.5E</td><td>SPF</td></tr><tr><td>Z - X</td><td>2x6</td><td>DRY</td><td>1650F 1.5E</td><td>SPF</td></tr><tr><td>X - W</td><td>2x8</td><td>DRY</td><td>1950F 1.7E</td><td>SPF</td></tr><tr><td>W - U</td><td>2x6</td><td>DRY</td><td>1650F 1.5E</td><td>SPF</td></tr><tr><td>U - T</td><td>2x6</td><td>DRY</td><td>1650F 1.5E</td><td>SPF</td></tr><tr><td>T - R</td><td>2x6</td><td>DRY</td><td>1650F 1.5E</td><td>SPF</td></tr><tr><td>R - O</td><td>2x6</td><td>DRY</td><td>1650F 1.5E</td><td>SPF</td></tr></table> ALL WEBS <table><tr><td>EXCEPT</td><td>2x4</td><td>DRY</td><td>1650F 1.5E</td><td>SPF</td></tr><tr><td>B - AA</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>C - Y</td><td>2x3</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>D - X</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>W - G</td><td>2x3</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>G - V</td><td>2x3</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>V - H</td><td>2x3</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>V - J</td><td>2x3</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>U - J</td><td>2x3</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>T - L</td><td>2x3</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>S - M</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>A - AB</td><td>2x3</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>Q - N</td><td>2x3</td><td>DRY</td><td>No.2</td><td>SPF</td></tr></table> DRY: SEASONED LUMBER. DESIGN CONSISTS OF <u> 2 </u> TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS: <table><tr><th>CHORDS #ROWS</th><th>SURFACE SPACING (IN)</th><th>LOAD(PLF)</th></tr><tr><td colspan="3">TOP CHORDS : (0.122"x3") SPIRAL NAILS</td></tr><tr><td>A-B</td><td>1</td><td>SIDE(70.1)</td></tr><tr><td>M-N</td><td>1</td><td>SIDE(70.1)</td></tr><tr><td>B-E</td><td>2</td><td>SIDE(62.9)</td></tr><tr><td>E-I</td><td>2</td><td>SIDE(62.9)</td></tr><tr><td>I-M</td><td>2</td><td>SIDE(62.9)</td></tr><tr><td>AC-A</td><td>2</td><td>TOP</td></tr><tr><td>P-N</td><td>2</td><td>TOP</td></tr><tr><td colspan="3">BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS</td></tr><tr><td>AD-Z</td><td>2</td><td>SIDE(24.2)</td></tr><tr><td>Z-X</td><td>2</td><td>SIDE(24.2)</td></tr><tr><td>W-U</td><td>2</td><td>SIDE(66.2)</td></tr><tr><td>U-T</td><td>2</td><td>SIDE(48.8)</td></tr><tr><td>T-R</td><td>2</td><td>SIDE(24.2)</td></tr><tr><td>R-O</td><td>2</td><td>SIDE(24.2)</td></tr><tr><td>X-W</td><td>2</td><td>SIDE(48.8)</td></tr><tr><td colspan="3">WEBS : (0.122"x3") SPIRAL NAILS</td></tr><tr><td>2x3</td><td>1</td><td>6</td></tr><tr><td>AB-B</td><td>1</td><td>SIDE(5.8)</td></tr><tr><td>Q-M</td><td>1</td><td>SIDE(5.8)</td></tr><tr><td>2x4</td><td>1</td><td>6</td></tr></table> NAILS TO BE DRIVEN FROM ONE SIDE ONLY. GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS. TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY. LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2 	CHORDS	SIZE		LUMBER	DESCR.	A - B	2x4	DRY	No.2	SPF	B - E	2x6	DRY	1650F 1.5E	SPF	E - I	2x6	DRY	1650F 1.5E	SPF	I - M	2x6	DRY	1650F 1.5E	SPF	M - N	2x4	DRY	No.2	SPF	AC- A	2x6	DRY	No.2	SPF	P- N	2x6	DRY	No.2	SPF	AD- Z	2x6	DRY	1650F 1.5E	SPF	Z - X	2x6	DRY	1650F 1.5E	SPF	X - W	2x8	DRY	1950F 1.7E	SPF	W - U	2x6	DRY	1650F 1.5E	SPF	U - T	2x6	DRY	1650F 1.5E	SPF	T - R	2x6	DRY	1650F 1.5E	SPF	R - O	2x6	DRY	1650F 1.5E	SPF	EXCEPT	2x4	DRY	1650F 1.5E	SPF	B - AA	2x4	DRY	No.2	SPF	C - Y	2x3	DRY	No.2	SPF	D - X	2x4	DRY	No.2	SPF	W - G	2x3	DRY	No.2	SPF	G - V	2x3	DRY	No.2	SPF	V - H	2x3	DRY	No.2	SPF	V - J	2x3	DRY	No.2	SPF	U - J	2x3	DRY	No.2	SPF	T - L	2x3	DRY	No.2	SPF	S - M	2x4	DRY	No.2	SPF	A - AB	2x3	DRY	No.2	SPF	Q - N	2x3	DRY	No.2	SPF	CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)	TOP CHORDS : (0.122"x3") SPIRAL NAILS			A-B	1	SIDE(70.1)	M-N	1	SIDE(70.1)	B-E	2	SIDE(62.9)	E-I	2	SIDE(62.9)	I-M	2	SIDE(62.9)	AC-A	2	TOP	P-N	2	TOP	BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS			AD-Z	2	SIDE(24.2)	Z-X	2	SIDE(24.2)	W-U	2	SIDE(66.2)	U-T	2	SIDE(48.8)	T-R	2	SIDE(24.2)	R-O	2	SIDE(24.2)	X-W	2	SIDE(48.8)	WEBS : (0.122"x3") SPIRAL NAILS			2x3	1	6	AB-B	1	SIDE(5.8)	Q-M	1	SIDE(5.8)	2x4	1	6	DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th></th><th>FACTORED GROSS REACTION</th><th>MAXIMUM FACTORED DOWN</th><th>FACTORED UP</th><th>REQRD BRG IN-SX</th></tr><tr><td>JT</td><td>VERT</td><td>HORZ</td><td></td><td></td></tr><tr><td>AC</td><td>6950</td><td>0</td><td>6988</td><td>-172</td></tr><tr><td>P</td><td>6944</td><td>0</td><td>6982</td><td>0</td></tr></table> PROVIDE ANCHORAGE AT BEARING JOINT AC FOR 2010 LBS FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT P FOR 1883 LBS FACTORED UPLIFT PROVIDE FOR <u>172 LBS</u> FACTORED HORIZONTAL REACTION AT JOINTAC ALLOW FOR <u>0.3"</u> OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD UNFACTORED REACTIONS <table><tr><th></th><th>1ST LCASE COMBINED</th><th>MAX./MIN. SNOW</th><th>COMPONENT LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>JT</td><td>5224</td><td>2790 / 0</td><td>1085 / 0</td><td>0 / 0</td><td>1993 / -2320</td><td>1375 / 0</td><td>0 / 0</td></tr><tr><td>AC</td><td>5220</td><td>2786 / 0</td><td>1085 / 0</td><td>0 / 0</td><td>1869 / -2229</td><td>1375 / 0</td><td>0 / 0</td></tr></table> HORIZONTAL REACTIONS <table><tr><td>AC</td><td>---</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>123 / -123</td><td>0 / 0</td><td>0 / 0</td></tr></table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) AC, P BEARING SIZE FACTOR = 1.15 AT JNT(S) AC, P (BASED ON SUPPORT DEPTH = 1-8) BRACING MAX. UNBRACED TOP CHORD LENGTH = 2.94 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 5.82 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 B-AA 2x6 DRY SPF No.2 T-BRACE AT F-X, K-T FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (18) <table><tr><th colspan="4">C H O R D S</th><th colspan="4">W E B S</th></tr><tr><th>MEMB.</th><th>MAX. FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>LC1 MAX CSI (LC)</th><th>MAX. UNBRAC LENGTH</th><th>MEMB.</th><th>MAX. FORCE (LBS)</th><th>MAX CSI (LC)</th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td></td><td>FR-TO</td><td></td><td></td></tr><tr><td>A-B</td><td>-5959 / 1820</td><td>-95.2 -95.2</td><td>0.22 (2)</td><td>3.86</td><td>AB-B</td><td>-1535 / 641</td><td>0.17 (7)</td></tr><tr><td>B-C</td><td>-9955 / 3019</td><td>-190.5 -190.5</td><td>0.29 (2)</td><td>4.23</td><td>B-AA</td><td>-2432 / 8365</td><td>0.74 (3)</td></tr><tr><td>C-D</td><td>-14148 / 4028</td><td>-190.5 -190.5</td><td>0.38 (2)</td><td>3.58</td><td>AA-C</td><td>-4936 / 1719</td><td>0.56 (3)</td></tr><tr><td>D-E</td><td>-16598 / 4437</td><td>-190.5 -190.5</td><td>0.39 (2)</td><td>3.34</td><td>C-Y</td><td>-1330 / 5469</td><td>0.90 (14)</td></tr><tr><td>E-F</td><td>-16598 / 4437</td><td>-190.5 -190.5</td><td>0.39 (2)</td><td>3.34</td><td>Y-D</td><td>-3293 / 1105</td><td>0.37 (3)</td></tr><tr><td>F-G</td><td>-20093 / 5235</td><td>-95.2 -95.2</td><td>0.48 (2)</td><td>2.94</td><td>D-X</td><td>-544 / 3182</td><td>0.28 (3)</td></tr><tr><td>G-H</td><td>-19857 / 4924</td><td>-95.2 -95.2</td><td>0.56 (3)</td><td>2.95</td><td>X-F</td><td>-16292 / 4145</td><td>0.73 (3)</td></tr><tr><td>H-I</td><td>-19857 / 4924</td><td>-95.2 -95.2</</td></tr></table>		FACTORED GROSS REACTION	MAXIMUM FACTORED DOWN	FACTORED UP	REQRD BRG IN-SX	JT	VERT	HORZ			AC	6950	0	6988	-172	P	6944	0	6982	0		1ST LCASE COMBINED	MAX./MIN. SNOW	COMPONENT LIVE	PERM.LIVE	WIND	DEAD	SOIL	JT	5224	2790 / 0	1085 / 0	0 / 0	1993 / -2320	1375 / 0	0 / 0	AC	5220	2786 / 0	1085 / 0	0 / 0	1869 / -2229	1375 / 0	0 / 0	AC	---	0 / 0	0 / 0	0 / 0	123 / -123	0 / 0	0 / 0	C H O R D S				W E B S				MEMB.	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FORCE (LBS)	MAX CSI (LC)	FR-TO		FROM TO			FR-TO			A-B	-5959 / 1820	-95.2 -95.2	0.22 (2)	3.86	AB-B	-1535 / 641	0.17 (7)	B-C	-9955 / 3019	-190.5 -190.5	0.29 (2)	4.23	B-AA	-2432 / 8365	0.74 (3)	C-D	-14148 / 4028	-190.5 -190.5	0.38 (2)	3.58	AA-C	-4936 / 1719	0.56 (3)	D-E	-16598 / 4437	-190.5 -190.5	0.39 (2)	3.34	C-Y	-1330 / 5469	0.90 (14)	E-F	-16598 / 4437	-190.5 -190.5	0.39 (2)	3.34	Y-D	-3293 / 1105	0.37 (3)	F-G	-20093 / 5235	-95.2 -95.2	0.48 (2)	2.94	D-X	-544 / 3182	0.28 (3)	G-H	-19857 / 4924	-95.2 -95.2	0.56 (3)	2.95	X-F	-16292 / 4145	0.73 (3)	H-I	-19857 / 4924	-95.2 -95.2</
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A - AB	2x3	DRY	No.2	SPF																																																																																																																																																																																																																																																																																																																																																		
Q - N	2x3	DRY	No.2	SPF																																																																																																																																																																																																																																																																																																																																																		
CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)																																																																																																																																																																																																																																																																																																																																																				
TOP CHORDS : (0.122"x3") SPIRAL NAILS																																																																																																																																																																																																																																																																																																																																																						
A-B	1	SIDE(70.1)																																																																																																																																																																																																																																																																																																																																																				
M-N	1	SIDE(70.1)																																																																																																																																																																																																																																																																																																																																																				
B-E	2	SIDE(62.9)																																																																																																																																																																																																																																																																																																																																																				
E-I	2	SIDE(62.9)																																																																																																																																																																																																																																																																																																																																																				
I-M	2	SIDE(62.9)																																																																																																																																																																																																																																																																																																																																																				
AC-A	2	TOP																																																																																																																																																																																																																																																																																																																																																				
P-N	2	TOP																																																																																																																																																																																																																																																																																																																																																				
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS																																																																																																																																																																																																																																																																																																																																																						
AD-Z	2	SIDE(24.2)																																																																																																																																																																																																																																																																																																																																																				
Z-X	2	SIDE(24.2)																																																																																																																																																																																																																																																																																																																																																				
W-U	2	SIDE(66.2)																																																																																																																																																																																																																																																																																																																																																				
U-T	2	SIDE(48.8)																																																																																																																																																																																																																																																																																																																																																				
T-R	2	SIDE(24.2)																																																																																																																																																																																																																																																																																																																																																				
R-O	2	SIDE(24.2)																																																																																																																																																																																																																																																																																																																																																				
X-W	2	SIDE(48.8)																																																																																																																																																																																																																																																																																																																																																				
WEBS : (0.122"x3") SPIRAL NAILS																																																																																																																																																																																																																																																																																																																																																						
2x3	1	6																																																																																																																																																																																																																																																																																																																																																				
AB-B	1	SIDE(5.8)																																																																																																																																																																																																																																																																																																																																																				
Q-M	1	SIDE(5.8)																																																																																																																																																																																																																																																																																																																																																				
2x4	1	6																																																																																																																																																																																																																																																																																																																																																				
	FACTORED GROSS REACTION	MAXIMUM FACTORED DOWN	FACTORED UP	REQRD BRG IN-SX																																																																																																																																																																																																																																																																																																																																																		
JT	VERT	HORZ																																																																																																																																																																																																																																																																																																																																																				
AC	6950	0	6988	-172																																																																																																																																																																																																																																																																																																																																																		
P	6944	0	6982	0																																																																																																																																																																																																																																																																																																																																																		
	1ST LCASE COMBINED	MAX./MIN. SNOW	COMPONENT LIVE	PERM.LIVE	WIND	DEAD	SOIL																																																																																																																																																																																																																																																																																																																																															
JT	5224	2790 / 0	1085 / 0	0 / 0	1993 / -2320	1375 / 0	0 / 0																																																																																																																																																																																																																																																																																																																																															
AC	5220	2786 / 0	1085 / 0	0 / 0	1869 / -2229	1375 / 0	0 / 0																																																																																																																																																																																																																																																																																																																																															
AC	---	0 / 0	0 / 0	0 / 0	123 / -123	0 / 0	0 / 0																																																																																																																																																																																																																																																																																																																																															
C H O R D S				W E B S																																																																																																																																																																																																																																																																																																																																																		
MEMB.	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FORCE (LBS)	MAX CSI (LC)																																																																																																																																																																																																																																																																																																																																															
FR-TO		FROM TO			FR-TO																																																																																																																																																																																																																																																																																																																																																	
A-B	-5959 / 1820	-95.2 -95.2	0.22 (2)	3.86	AB-B	-1535 / 641	0.17 (7)																																																																																																																																																																																																																																																																																																																																															
B-C	-9955 / 3019	-190.5 -190.5	0.29 (2)	4.23	B-AA	-2432 / 8365	0.74 (3)																																																																																																																																																																																																																																																																																																																																															
C-D	-14148 / 4028	-190.5 -190.5	0.38 (2)	3.58	AA-C	-4936 / 1719	0.56 (3)																																																																																																																																																																																																																																																																																																																																															
D-E	-16598 / 4437	-190.5 -190.5	0.39 (2)	3.34	C-Y	-1330 / 5469	0.90 (14)																																																																																																																																																																																																																																																																																																																																															
E-F	-16598 / 4437	-190.5 -190.5	0.39 (2)	3.34	Y-D	-3293 / 1105	0.37 (3)																																																																																																																																																																																																																																																																																																																																															
F-G	-20093 / 5235	-95.2 -95.2	0.48 (2)	2.94	D-X	-544 / 3182	0.28 (3)																																																																																																																																																																																																																																																																																																																																															
G-H	-19857 / 4924	-95.2 -95.2	0.56 (3)	2.95	X-F	-16292 / 4145	0.73 (3)																																																																																																																																																																																																																																																																																																																																															
H-I	-19857 / 4924	-95.2 -95.2</																																																																																																																																																																																																																																																																																																																																																				

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
343283	H01T		2	JT 45147	E22052187(2)

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Jun 13 14:12:47 2022 Page 2

ID:6tV605vCHTmD2wqljx3DtgzTTXK-mAgLGmScmltvXRz99dD4WrdOO5AE GtcG6HggRz6hJU

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	6.0	7.0	1.75	3.00
B	TTWW-h	MT18HS	10.0	16.0	2.50	11.00
C	TMWW-t	MT20	5.0	6.0	2.00	2.25
D	TMWW-t	MT20	4.0	6.0		
E	TS-t	MT20	5.0	6.0		
F	TMWW+t	MT20	6.0	10.0	3.75	2.00
G	TMWW-t	MT20	4.0	6.0		
H	TMW+w	MT20	2.0	4.0		
I	TS-t	MT20	5.0	8.0		
J	TMWW-t	MT20	4.0	6.0	2.00	2.75
K	TMWW+t	MT20	6.0	10.0	4.25	2.00
L	TMWW-t	MT20	5.0	6.0	2.00	2.00
M	TTWW-h	MT20	10.0	12.0	2.50	7.00
N	TMVW+p	MT20	6.0	7.0	1.75	3.00
P	BMV1+t	MT20	6.0	10.0	Edge	0.50
Q	BMWW-t	MT20	5.0	6.0	2.50	2.75
R	BS-t	MT20	5.0	6.0		
S	BMWW-t	MT20	5.0	8.0	2.00	3.00
T	BBWW-h	MT20	10.0	12.0	3.00	7.25
U	BBWW+p	MT20	10.0	12.0	Edge	
V	BMWWW-t	MT20	5.0	8.0		
W	BBWW+p	MT18HS	9.0	16.0	Edge	5.00
X	BBWW-h	MT20	10.0	12.0	3.00	7.25
Y	BMWW-t	MT20	5.0	6.0	2.25	1.75
Z	BS-t	MT20	5.0	6.0		
AA	BMWW-t	MT20	5.0	8.0	2.00	3.00
AB	BMWW-t	MT20	5.0	6.0	2.50	2.75
AC	BMV1+t	MT20	6.0	10.0	Edge	

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

CONNECTION REQUIREMENTS

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

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.2} PSF AT {30-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON (ROUGH TERRAIN) AT MINIMUM {1.000} MILES DISTANCE FROM OPEN TERRAIN., AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 6.0 PSF AND 7.4 PSF RESPECTIVELY.

NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	650	371	1747	788	1987
MT18HS	586	403	2455	1382	3163

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.96 (U) (INPUT = 1.00)

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



[illegible]

NUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - B 2x4 DRY No.2 SPF B - E 2x6 DRY No.2 SPF E - J 2x6 DRY No.2 SPF J - L 2x6 DRY No.2 SPF L - M 2x4 DRY No.2 SPF AB- A 2x6 DRY No.2 SPF O - M 2x6 DRY No.2 SPF AC- Y 2x6 DRY No.2 SPF Y - W 2x6 DRY No.2 SPF W - V 2x6 DRY 1650F 1.5E SPF V - T 2x6 DRY 1650F 1.5E SPF T - S 2x6 DRY 1650F 1.5E SPF S - R 2x6 DRY No.2 SPF R - N 2x6 DRY No.2 SPF ALL WEBS EXCEPT 2x3 DRY No.2 SPF AA- B 2x4 DRY No.2 SPF Z - C 2x4 DRY No.2 SPF X - D 2x4 DRY No.2 SPF W - F 2x4 DRY No.2 SPF F - V 2x4 DRY No.2 SPF T - J 2x4 DRY No.2 SPF S - J 2x4 DRY No.2 SPF Q - K 2x4 DRY No.2 SPF P - L 2x4 DRY No.2 SPF DRY: SEASONED LUMBER.	STAINLESS STEEL DESIGN DESIGNER BEARINGS FACTORED GROSS REACTION VERT HORZ 3637 0 3637 0 MAXIMUM FACTORED GROSS REACTION DOWN HORZ 3667 0 3667 0 INPUT BRG IN-SX 5-8 5-8 5-8 5-8 REQRD BRG IN-SX 5-8 5-8 5-8 5-8 PROVIDE ANCHORAGE AT BEARING JOINT AB FOR 586 LBS FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT O FOR 586 LBS FACTORED UPLIFT PROVIDE FOR 214 LBS FACTORED HORIZONTAL REACTION AT JOINTAB ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL AB 2734 1464 / 0 567 / 0 0 / 0 413 / -884 724 / 0 0 / 0 O 2734 1464 / 0 567 / 0 0 / 0 377 / -884 724 / 0 0 / 0 HORIZONTAL REACTIONS AB --- 0 / 0 0 / 0 0 / 0 153 / -153 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) AB, O BEARING SIZE FACTOR = 1.15 AT JNT(S) AB, O (BASED ON SUPPORT DEPTH = 1-8) BRACING MAX. UNBRACED TOP CHORD LENGTH = 2.70 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. 1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-Z, C-Z, C-X, D-W, H-V, I-U, K-S, K-Q, L-Q. 2 LATERAL BRACE(S) AT 1/3 LENGTH OF F-W, J-S. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (18) CHORDS MAX. FACTORED FACTORED VERT. LOAD LC1 MAX MAX. UNBRAC WEBS MAX. FACTORED MEMB. FORCE (LBS) CS1 (LC) MEMB. FORCE (LBS) MAX CS1 (LC) FR-TO FROM TO LENGTH FR-TO AA- B -497 / 151 0.28 (7) B- C -4133 / 832 4.01 B- Z -599 / 3443 0.77 (3) C- D -5631 / 1069 3.42 Z- C -2360 / 529 0.51 (3) D- E -6453 / 1207 3.12 C- X -386 / 2297 0.52 (3) E- F -6453 / 1207 3.12 X- D -1510 / 387 0.87 (3) F- G -7450 / 1362 2.83 D- W -234 / 1270 0.29 (3) G- H -7442 / 1362 2.70 W- F -6800 / 1134 0.93 (3) H- I -7468 / 1343 2.70 F- V -899 / 5867 0.94 (3) I- J -6430 / 1187 3.19 V- G -14 / 422 0.10 (2) J- K -5388 / 1032 3.48 V- H -53 / 14 0.02 (6) K- L -3958 / 803 4.06 U- H -851 / 287 0.46 (2) L- M -3144 / 560 3.59 U- I -237 / 1455 0.33 (2) AB- A -3411 / 588 5.77 T- I -974 / 266 0.54 (2) O- M -3408 / 591 5.77 T- J -991 / 6148 0.99 (3) AC-AB 0 / 0 -134.7 -134.7 0.11 (1) 10.00 S- J -6571 / 1074 0.90 (3) AB-AA -193 / 204 -39.5 -39.5 0.10 (6) 6.25 S- K -392 / 2312 0.52 (2) AA- Z -262 / 1876 -39.5 -39.5 0.31 (2) 6.25 Q- K -2448 / 547 0.53 (2) Z- Y -640 / 4133 -39.5 -39.5 0.55 (2) 6.25 Q- L -582 / 3365 0.76 (2) Y- X -640 / 4133 -39.5 -39.5 0.55 (2) 6.25 P- L -510 / 142 0.29 (10) X- W -877 / 5631 -39.5 -39.5 0.76 (2) 6.25 P- AA -234 / 2014 0.45 (2) W- V -1403 / 8913 -39.5 -39.5 0.66 (2) 6.25 P
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
343283	H03T	1		JT 45147	E22052189

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Jun 13 14:13:02 2022 Page 1
ID:6tV605vCHTmD2wqljx3DtqzTTXK-q340Que0EMmmqlc1XH cd?lue8KM?3GpiyQzh4Z6h.

Scale = 1:87.

TOTAL WEIGHT = 348 lb

NUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - B 2x4 DRY 1650F 1.5E SPF B - D 2x6 DRY No.2 SPF D - J 2x6 DRY No.2 SPF J - L 2x6 DRY No.2 SPF L - M 2x4 DRY 1650F 1.5E SPF AA- A 2x6 DRY No.2 SPF O - M 2x6 DRY No.2 SPF AB- Y 2x6 DRY No.2 SPF Y - W 2x6 DRY No.2 SPF W - V 2x6 DRY No.2 SPF V - T 2x6 DRY No.2 SPF T - S 2x6 DRY No.2 SPF S - Q 2x6 DRY No.2 SPF Q - N 2x6 DRY No.2 SPF
--

ALL WEBS

2x4

DRY

No.2

SPF

EXCEPT

V - F

2x3

DRY

No.2

SPF

V - G

2x3

DRY

No.2

SPF

U - G

2x3

DRY

No.2

SPF

U - H

2x3

DRY

No.2

SPF

T - H

2x3

DRY

No.2

SPF

S - K

2x3

DRY

No.2

SPF

R - L

2x3

DRY

No.2

SPF

A - Z

2x3

DRY

No.2

SPF

P - M

2x3

DRY

No.2

SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

A

TMVW-t

MT20

5.0

8.0

1.75

2.00

B

TTWW-h

MT20

10.0

12.0

3.00

7.50

C

TMWW-t

MT20

4.0

6.0

D

TS-t

MT20

5.0

6.0

E

TMWW+t

MT20

5.0

8.0

3.25

2.00

F

TMW+w

MT20

2.0

4.0

G

TMWW-t

MT20

4.0

6.0

H

TMWW+t

MT20

4.0

6.0

I

TMWW+t

MT20

5.0

8.0

2.75

2.00

J

TS-t

MT20

5.0

6.0

K

TMWW+t

MT20

4.0

6.0

2.50

1.75

L

TTWW-h

MT20

10.0

12.0

3.00

7.50

M

TMVW-t

MT20

5.0

8.0

1.75

2.00

O

BMV1+t

MT20

6.0

10.0

Edge

0.50

P

BMWW-t

MT20

4.0

6.0

2.00

2.25

Q

BS-t

MT20

5.0

6.0

R

BMWW+t

MT20

5.0

6.0

2.00

2.25

S

BBWW-h

MT20

10.0

12.0

3.75

8.00

T

BBWW-l

MT20

10.0

12.0

4.75

6.00

U

BMWW+t

MT20

4.0

6.0

V

BBWWW-p

MT20

10.0

12.0

W

BBWW-h

MT20

10.0

12.0

3.75

8.00

X

BMWW-t

MT20

5.0

6.0

2.00

2.25

Y

BS-t

MT20

5.0

6.0

Z

BMWW-t

MT20

4.0

6.0

2.00

2.25

AA

BMV1+t

MT20

6.0

10.0

Edge

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

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

STATIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION DOWN VERT HORZ MAXIMUM FACTORED GROSS REACTION DOWN HORZ UPLIFT INPUT BRG IN-SX REQRD BRG IN-SX JT AA O 3637 0 0 3657 0 3657 0 -258 0 -580 -580 -580 5-8 5-8 5-8 5-8 5-8 5-8

PROVIDE ANCHORAGE AT BEARING JOINT AA FOR 580 LBS FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT O FOR 580 LBS FACTORED UPLIFT

PROVIDE FOR 258 LBS FACTORED HORIZONTAL REACTION AT JOINTAA

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

AA

O

COMBINED

2734

2734

SNOW

1457 / 0

1457 / 0

LIVE

567 / 0

567 / 0

PERM.LIVE

0 / 0

0 / 0

WIND

[illegible]

N. L. G. A. RULES CHORDS SIZE	LUMBER	DESCR.	DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER
A - C 2x4 DRY	No.2	SPF	BEARINGS
C - E 2x6 DRY	No.2	SPF	FACTORED MAXIMUM FACTORED INPUT REQ'D
E - I 2x6 DRY	No.2	SPF	GROSS REACTION DOWN HORZ UPLIFT IN-SX BRG IN-SX
I - L 2x6 DRY	No.2	SPF	JT VERT HORZ
L - N 2x4 DRY	No.2	SPF	AA 3878 0 3878 -302 -292 5-8 4-13
AA- A 2x6 DRY	No.2	SPF	P 3878 0 3878 0 -292 5-8 4-13
P - N 2x6 DRY	No.2	SPF	PROVIDE ANCHORAGE AT BEARING JOINT AA FOR 292 LBS. FACTORED UPLIFT
AB- Y 2x6 DRY	No.2	SPF	PROVIDE ANCHORAGE AT BEARING JOINT P FOR 292 LBS. FACTORED UPLIFT
Y - W 2x6 DRY	No.2	SPF	
W - V 2x6 DRY	No.2	SPF	PROVIDE FOR 302 LBS. FACTORED HORIZONTAL REACTION AT JOINTAA
V - T 2x6 DRY	No.2	SPF	
T - S 2x6 DRY	No.2	SPF	ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD
S - R 2x6 DRY	No.2	SPF	
R - O 2x6 DRY	No.2	SPF	UNFACTORED REACTIONS
			1ST LCASE MAX./MIN. COMPONENT REACTIONS
ALL WEBS EXCEPT	2x3 DRY No.2 SPF		JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL
Z - C 2x4 DRY	1650F 1.5E	SPF	AA 2927 1444 / 0 567 / 0 0 / 0 132 / -798 916 / 0 0 / 0
C - X 2x4 DRY	No.2	SPF	P 2927 1444 / 0 567 / 0 0 / 0 132 / -798 916 / 0 0 / 0
X - D 2x4 DRY	1650F 1.5E	SPF	HORIZONTAL REACTIONS
D - W 2x4 DRY	No.2	SPF	AA --- 0 / 0 0 / 0 0 / 0 216 / -216 0 / 0 0 / 0
W - F 2x4 DRY	1650F 1.5E	SPF	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) AA, P
V - H 2x4 DRY	No.2	SPF	
U - J 2x4 DRY	No.2	SPF	BRACING
S - K 2x4 DRY	1650F 1.5E	SPF	FOR SECTION C-L, MAX. UNBRACED TOP CHORD LENGTH = 2.00 FT.
S - L 2x4 DRY	No.2	SPF	FOR OTHER SECTIONS, MAX. UNBRACED TOP CHORD LENGTH = 3.56 FT.
Q - L 2x4 DRY	1650F 1.5E	SPF	MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.
AA- B 2x4 DRY	No.2	SPF	
M - P 2x4 DRY	No.2	SPF	ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
			1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-Z, C-X, D-X, D-W, F-V, H-V, H-U, J-U, J-T, K-T, L-S, L-Q, B-AA, M-P.
			2 LATERAL BRACE(S) AT 1/3 LENGTH OF F-W, K-S.
			END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW
			LOADING
			TOTAL LOAD CASES: (18)
			CHORDS WEBS
			MAX. FACTORED FORCE MEMB. FACTORED VERT. LOAD (LBS) LC1 MAX. MAX. UNBRAC LENGTH FR-TO MEMB. MAX. FACTORED FORCE (LBS) CSI (LC)
			FR-TO FROM TO FR-TO
			A- B -33 / 154 -95.2 -95.2 0.19 (13) 6.25 B- Z 0 / 387 0.09 (1)
			B- C -3489 / 446 -95.2 -95.2 0.32 (1) 3.57 Z- C -132 / 176 0.05 (13)
			C- D -3960 / 428 -107.7 -107.7 0.66 (2) 2.00 C- X -129 / 3008 0.48 (1)
			D- E -4841 / 407 -107.7 -107.7 0.70 (2) 2.00 X- D -2024 / 218 0.71 (1)
			E- F -4841 / 407 -107.7 -107.7 0.70 (2) 2.00 D- W -134 / 1416 0.23 (3)
			F- G -5299 / 404 -107.7 -107.7 0.60 (1) 2.00 W- F -5410 / 138 0.86 (1)
			G- AC -5290 / 404 -107.7 -107.7 0.64 (1) 2.00 F- V -10 / 3977 0.90 (1)
			AC- H -5290 / 404 -107.7 -107.7 0.64 (1) 2.00 V- G 0 / 750 0.17 (1)
			H- I -5341 / 395 -107.7 -107.7 0.64 (1) 2.00 V- H -744 / 595 0.44 (3)
			I- J -5341 / 395 -107.7 -107.7 0.64 (1) 2.00 U- H -912 / 199 0.48 (2)
			J- K -4567 / 429 -107.7 -107.7 0.81 (1) 2.00 U- J -118 / 1407 0.23 (2)
			K- L -4124 / 442 -107.7 -107.7 0.93 (1) 2.00 T- J -483 / 131 0.25 (2)
			L- M -3504 / 441 -95.2 -95.2 0.32 (1) 3.56 T- K -7 / 4114 0.93 (1)
			M- N -34 / 154 -95.2 -95.2 0.19 (14) 6.25 S- K -5844 / 173 0.93 (1)
			AA- A -150 / 161 0.0 0.0 0.02 (13) 7.81 S- L -147 / 3079 0.49 (1)
			P- N -150 / 161 0.0 0.0 0.02 (14) 7.81 Q- L -109 / 257 0.04 (14)
			AB- AA 0 / 0 -134.7 -134.7 0.11 (1) 10.00 Q- M 0 / 390 0.09 (1)
			AA- Z -207 / 1880 -39.5 -39.5 0.34 (4) 6.25 M- P -3951 / 159 0.76 (1)
			Z- Y -69 / 2078 -39.5 -39.5 0.42 (4) 6.25
			Y- X -69 / 2078 -39.5 -39.5 0.42 (4) 6.25
			X- W -150 / 3960 -39.5 -39.5 0.62 (1) 6.25
			W- V -175 / 6630 -39.5 -39.5 0.79 (1) 6.25
			V- U -35 / 5341 -39.5 -39.5 0.73 (1) 6.25
			U- T -1 / 4570 -39.5 -39.5 0.64 (1) 10.00
			T- S -16 / 5476 -39.5 -39.5 0.65 (1) 6.25
			S- R 0 / 2088 -39.5 -39.5 0.44 (4) 10.00
			R- Q 0 / 2088 -39.5 -39.5 0.44 (4) 10.00
			Q- P -55 / 1887 -39.5 -39.5 0.42 (4) 6.25
			P- O 0 / 0 -134.7 -134.7 0.11 (1) 10.00
			TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBCC 4.1.6.2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
343283	H01A		2	JT 45147	E22052191

Alpa Roof Truss, Maple

Version 8.530 S Feb 23, 2022 MiTek Industries, Inc. Mon Jun 13 14:12:42 2022 Page 1

ID:6tV605vCHTmD2wqljx3DtqzTTXK-QCtSD2OTxDECqQg5BM4dvpowRO4WAJ1yt7qZv Ez6h

Scale = 1:86.6

16.00' 12

5'-8

50'-0

1'-6-8 5-8

0-0 2-9-10 6-10-8 9-8-1 6-10-8 16-6-9 3-9-14 20-4-7 5-1-1 25-5-8 5-1-1 30-6-9 3-9-14 34-4-7 6-10-8 41-2-15 6-10-8 48-1-6 2-9-10 50-11-0 1-6-8

TOTAL WEIGHT = 2 X 288 = 577 lb

NUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - B 2x4 DRY No.2 SPF B - E 2x6 DRY No.2 SPF E - I 2x6 DRY No.2 SPF I - L 2x6 DRY No.2 SPF L - M 2x4 DRY No.2 SPF AB- A 2x6 DRY No.2 SPF O - M 2x6 DRY No.2 SPF AC- Y 2x6 DRY 1650F 1.5E SPF Y - U 2x6 DRY 1650F 1.5E SPF U - R 2x6 DRY 1650F 1.5E SPF R - N 2x6 DRY 1650F 1.5E SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

B - Z

2x4

DRY

No.2

SPF

Q - L

2x4

DRY

No.2

SPF

 DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS: CHORDS #ROWS SURFACE SPACING (IN) LOAD(PLF) TOP CHORDS : (0.122"x3") SPIRAL NAILS A- B 1 12 SIDE(70.1) L- M 1 12 TOP B- E 2 12 SIDE(70.1) E- I 2 12 SIDE(48.0) I- L 2 12 TOP AB- A 2 12 TOP O- M 2 12 TOP BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS AC- Y 2 12 SIDE(204.1) Y- U 2 12 SIDE(203.9) U- R 2 12 TOP R- N 2 12 TOP WEBS : (0.122"x3") SPIRAL NAILS AA- B 1 5 SIDE(515.1) D- X 1 6 SIDE(342.0) F- W 1 6 SIDE(436.4) 2x3 1 6 2x4 1 6 | DESIGN DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED INPUT REQRD JT VERT HORZ DOWN HORZ UPLIFT BRG BRG AB 8777 0 8815 -170 0 5-8 5-8 O 5499 0 5537 0 -151 5-8 3-4 PROVIDE ANCHORAGE AT BEARING JOINT O FOR 151 LBS FACTORED UPLIFT PROVIDE FOR 170 LBS FACTORED HORIZONTAL REACTION AT JOINTAB UNFACTORED REACTIONS 1ST LCASE MAX/MIN COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL AB 6427 3671 / 0 676 / 0 0 / 0 568 / -1025 2107 / 0 0 / 0 O 4069 2272 / 0 598 / 0 0 / 0 402 / -895 1225 / 0 0 / 0 HORIZONTAL REACTIONS AB --- 0 / 0 0 / 0 0 / 0 121 / -121 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) AB, O BEARING SIZE FACTOR = 1.15 AT JNT(S) AB (BASED ON SUPPORT DEPTH = 1-8) BRACING MAX. UNBRACED TOP CHORD LENGTH = 2.34 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. 2x4 DRY SPF No.2 T-BRACE AT C-Z, F-V, L-Q FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (18) CHORDS WEBS MEMB. MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD (PLF) MAX LC1 MAX CSI (LC) MAX UNBRAC MEMB. MAX. FACTORED FORCE (LBS) MAX CSI (LC) FR-TO FROM TO LENGTH FR-TO A- B -7533 / 0 -95.2 -95.2 0.30 (2) 3.41 AA- B -183 / 394 0.04 (14) B- C -11790 / 0 -95.2 -95.2 0.50 (2) 3.31 B- Z 0 / 9188 0.81 (3) C- D -17615 / 0 -95.2 -95.2 0.90 (2) 2.44 Z- C -5263 / 0 0.72 (3) D- E -18802 / 0 -191.2 -191.2 0.81 (2) 2.34 C- X 0 / 7362 0.91 (3) E- F -18802 / 0 -191.2 -191.2 0.81 (2) 2.34 X- D -2287 / 151 0.51 (3) F- G -17374 / 0 -95.2 -95.2 0.71 (3) 2.57 D- W 0 / 2037 0.25 (3) G- H -17374 / 0 -95.2 -95.2 0.72 (2) 2.56 W- F 0 / 908 0.11 (1) H- I -15224 / 0 -95.2 -95.2 0.49 (3) 2.92 F- V -2092 / 0 0.52 (2) I- J -15224 / 0 -95.2 -95.2 0.49 (3) 2.92 V- G -564 / 194 0.12 (10) J- K -13214 / 0 -95.2 -95.2 0.59 (3) 3.07 V- H 0 / 3113 0.39 (2) K- L -8689 / 183 -95.2 -95.2 |

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
343283	H01A		2	JT 45147	E22052191(2)
Alpa Roof Truss, Maple					

ID:6tV605vCHTmD2wqljx3DtqzTTXK-QCtSD2OTxDEcQg5BM4dvpowRO4WAJ1yt7qZv Ez6hJZ

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
K	TMWW-t	MT20	6.0	7.0	2.75	2.00
L	TTWW-h	MT20	10.0	12.0	2.75	7.25
M	TMVW-t	MT20	6.0	10.0	2.00	4.00
O	BMV1+t	MT20	6.0	10.0	Edge	0.50
P	BMWW+t	MT20	6.0	7.0	4.25	2.00
Q	BMWW-t	MT20	5.0	8.0	2.00	2.75
R	BS-t	MT20	6.0	7.0		
S	BMWW-t	MT20	6.0	7.0	2.75	2.00
T	BMWW+t	MT20	4.0	10.0		
U	BS-t	MT18HS	6.0	14.0		
V	BMWWW-t	MT20	5.0	8.0		
W	BMWW+t	MT20	4.0	10.0		
X	BMWW-t	MT20	6.0	7.0	2.75	2.00
Y	BS-t	MT20	6.0	7.0		
Z	BMWW-t	MT20	5.0	8.0	2.00	2.75
AA	BMWW+t	MT20	6.0	7.0	4.25	2.00
AB	BMV1+t	MT20	6.0	10.0	Edge	

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

CONNECTION REQUIREMENTS

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

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.2} PSF AT {30-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON (ROUGH TERRAIN) AT MINIMUM {1.000} MILES DISTANCE FROM OPEN TERRAIN., AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 6.0 PSF AND 7.4 PSF RESPECTIVELY.

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
343283	H05S	1		JT 45147	E22052195

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Jun 13 14:13:12 2022 Page 1
 ID:6tV605vCHTmD2wqljx3DtqzTTXK-Y hoWJmHtROM1HNy7N9y169YCARWLffl0vRv2Uz6h

0-0 3-8-5 3-8-5 7-7-13 11-4-2 7-6-9 18-10-11 7-7-13 26-6-8 3-10-8 30-5-0 1-6-8 31-11-8
 Scale = 1:52.5

8x9 // 2x4 || 4x6 = 4x6 = 8x9 //

16.00' T1 W3 W4 W3 W4 W3 W5 4x6 II 8x9 //

7'-1'-15" 2'-2'-14" 3'-8" 7'-1'-15"

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

2x4 || 4x6 = 4x6 = 5x8 = 4x6 = 4x6 = 4x6 = 2x4 ||

29-11-8 1-6-8 5'-8"

0-0 3-8-5 3-8-5 7-7-13 11-4-2 7-6-9 18-10-11 7-7-13 26-6-8 3-10-8 30-5-0

TOTAL WEIGHT = 2 X 134 = 267 lb

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
343283	H05T	1		JT 45147	E22052196

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Jun 13 14:13:14 2022 Page 1
 ID:6tV605vCHTmD2wqljx3DtqzTTXK-UMpYx?nYP2H3GbXLEoCQ6XE2o WlpWYyaUpKb7Nz6h

Scale = 1:52.2

TOTAL WEIGHT = 174 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - H	2x6	DRY	No.2	SPF
H - J	2x6	DRY	No.2	SPF
J - K	2x4	DRY	No.2	SPF
V - B	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
V - U	2x4	DRY	No.2	SPF
U - S	2x4	DRY	No.2	SPF
S - R	2x6	DRY	No.2	SPF
R - Q	2x4	DRY	No.2	SPF
Q - P	2x6	DRY	No.2	SPF
P - L	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.25
C	CTMWWW-t	MT20	4.0	6.0	2.00	2.25
D	TTWW-I	MT20	6.0	10.0	3.00	8.25
E	ETMWWW-t	MT20	4.0	6.0		
F	TMW-w	MT20	2.0	4.0		
G	CTMWWW-t	MT20	5.0	6.0	2.25	1.75
H	TS-t	MT20	4.0	6.0		
I	ETMWWW-t	MT20	4.0	6.0		
J	TTWW-I	MT20	5.0	8.0	2.75	6.00
K	CTMVW+p	MT20	4.0	6.0	1.75	2.00
M	BMV1+p	MT20	2.0	4.0		
N, O, T						
N	BMWWW-t	MT20	4.0	6.0		
P	BS-t	MT20	4.0	6.0		
Q	BBWWW-h	MT20	8.0	9.0	5.00	6.25
R	BBWWW-p	MT20	8.0	9.0	4.50	4.50
S	BBWW-I	MT20	8.0	9.0		
U	BBWW-I	MT20	4.0	6.0	1.75	4.50
V	BMV1+p	MT20	2.0	4.0		

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

A circular professional engineer seal for the Province of Ontario. The outer ring contains the text "LICENSED PROFESSIONAL ENGINEER" at the top and "PROVINCE OF ONTARIO" at the bottom. The center of the seal features the name "Y. WIDYA", the license number "100225448", and the expiration date "06/13/2022". There are blue ink scribbles over the seal.

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DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C

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 6.0 P.S.F.

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL)= $L/360$ (1.03")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.17")
ALLOWABLE DEFL.(TL)= $L/360$ (1.03")
CALCULATED VERT. DEFL.(TL) = $L/984$ (0.38")

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=0.35/1.00 (G-I:1) , BC=0.50/1.00 (R-S:1) ,
WB=0.85/1.00 (D-S:1) , SSI=0.24/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

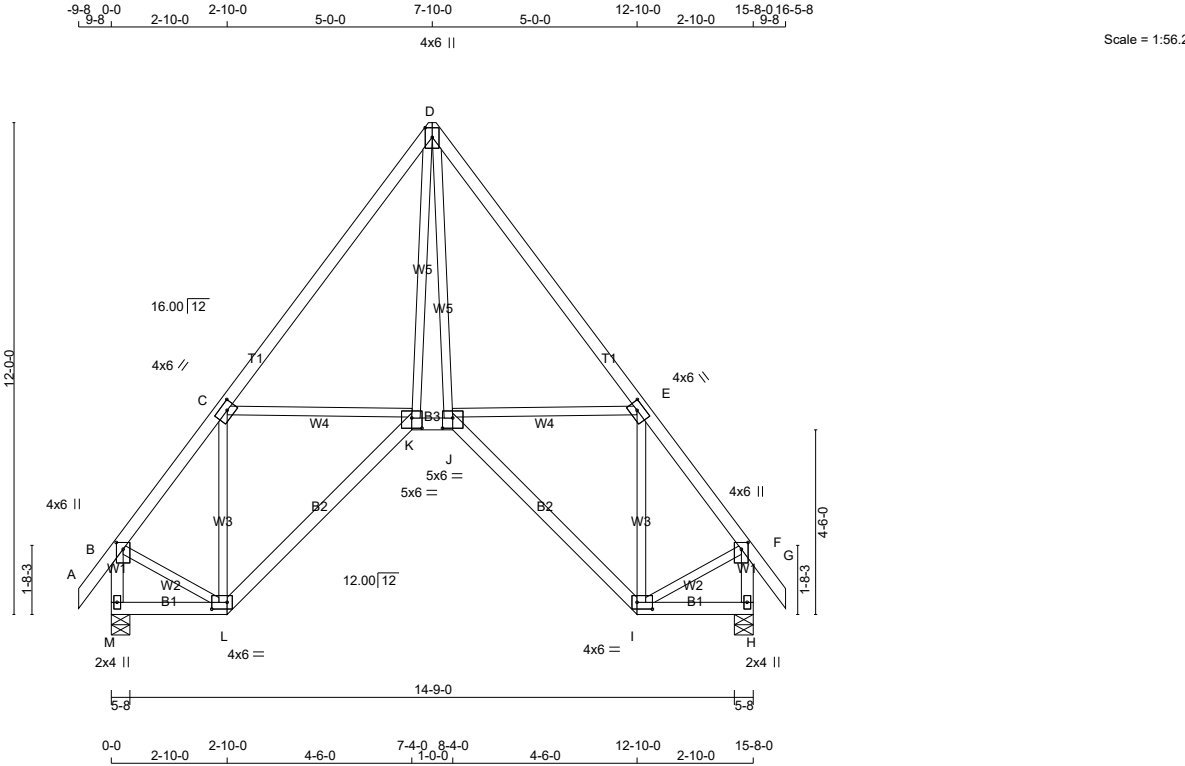
NAIL VALUES

PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)
MT20	650	371	1747	788	1987	873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.59 (G) (INPUT = 1.00)



TOTAL WEIGHT = 2 X 90 = 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
M - B	2x4	DRY	No.2	SPF
H - F	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 - I	2x4	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.00 2.00
C	TMWW-t	MT20	4.0	6.0	2.00 2.50
D	TTWW-m	MT20	4.0	6.0	2.75 2.00
E	TMWW-t	MT20	4.0	6.0	2.00 2.50
F	TMVW+p	MT20	4.0	6.0	2.00 2.00
H	BMV1+p	MT20	2.0	4.0	
I	BBWW-l	MT20	4.0	6.0	2.00 4.50
J	BBWW-l	MT20	5.0	6.0	3.00 3.00
K	BBWW-l	MT20	5.0	6.0	3.00 3.00
L	BBWW-l	MT20	4.0	6.0	2.00 4.50
M	BMV1+p	MT20	2.0	4.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER						
BEARINGS						
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT REQRD	
	VERT	HORZ	DOWN	HORZ	BRG IN-SX	BRG IN-SX
M	826	0	826	0	5-8	1-8
H	826	0	826	0	5-8	1-8

UNFACTORED REACTIONS						
1ST LCASE		MAX./MIN. COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
M	588	367 / 0	0 / 0	0 / 0	0 / 0	221 / 0
H	588	367 / 0	0 / 0	0 / 0	0 / 0	221 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) M, 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)									
C H O R D S					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD			MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
		LC1 (PLF)	LC1 MAX	LC1 (LC)					
FR-TO		FROM	TO	LENGTH	FR-TO				
A-B	0 / 28	-78.0	-78.0	0.05 (1)	10.00	D-J	0 / 424	0.10 (1)	
B-C	-593 / 0	-78.0	-78.0	0.20 (1)	6.25	J-E	0 / 62	0.01 (1)	
C-D	-762 / 0	-78.0	-78.0	0.26 (1)	6.25	I-E	-483 / 0	0.20 (1)	
D-E	-762 / 0	-78.0	-78.0	0.26 (1)	6.25	K-D	0 / 424	0.10 (1)	
E-F	-593 / 0	-78.0	-78.0	0.20 (1)	6.25	C-K	0 / 62	0.01 (1)	
F-G	0 / 28	-78.0	-78.0	0.05 (1)	10.00	L-C	-483 / 0	0.20 (1)	
M-B	-800 / 0	0.0	0.0	0.09 (1)	7.81	B-L	0 / 425	0.10 (1)	
H-F	-800 / 0	0.0	0.0	0.09 (1)	7.81	I-F	0 / 425	0.10 (1)	
M-L	0 / 0	-18.5	-18.5	0.04 (4)	10.00				
L-K	0 / 534	-18.5	-18.5	0.16 (4)	10.00				
K-J	0 / 410	-18.5	-18.5	0.07 (1)	10.00				
J-I	0 / 534	-18.5	-18.5	0.16 (4)	10.00				
I-H	0 / 0	-18.5	-18.5	0.04 (4)	10.00				

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF 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 (0.06")

CSI: TC=0.26/1.00 (D-E:1) , BC=0.16/1.00 (K-L:4) , WB=0.20/1.00 (C-L:1) , SSI=0.11/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

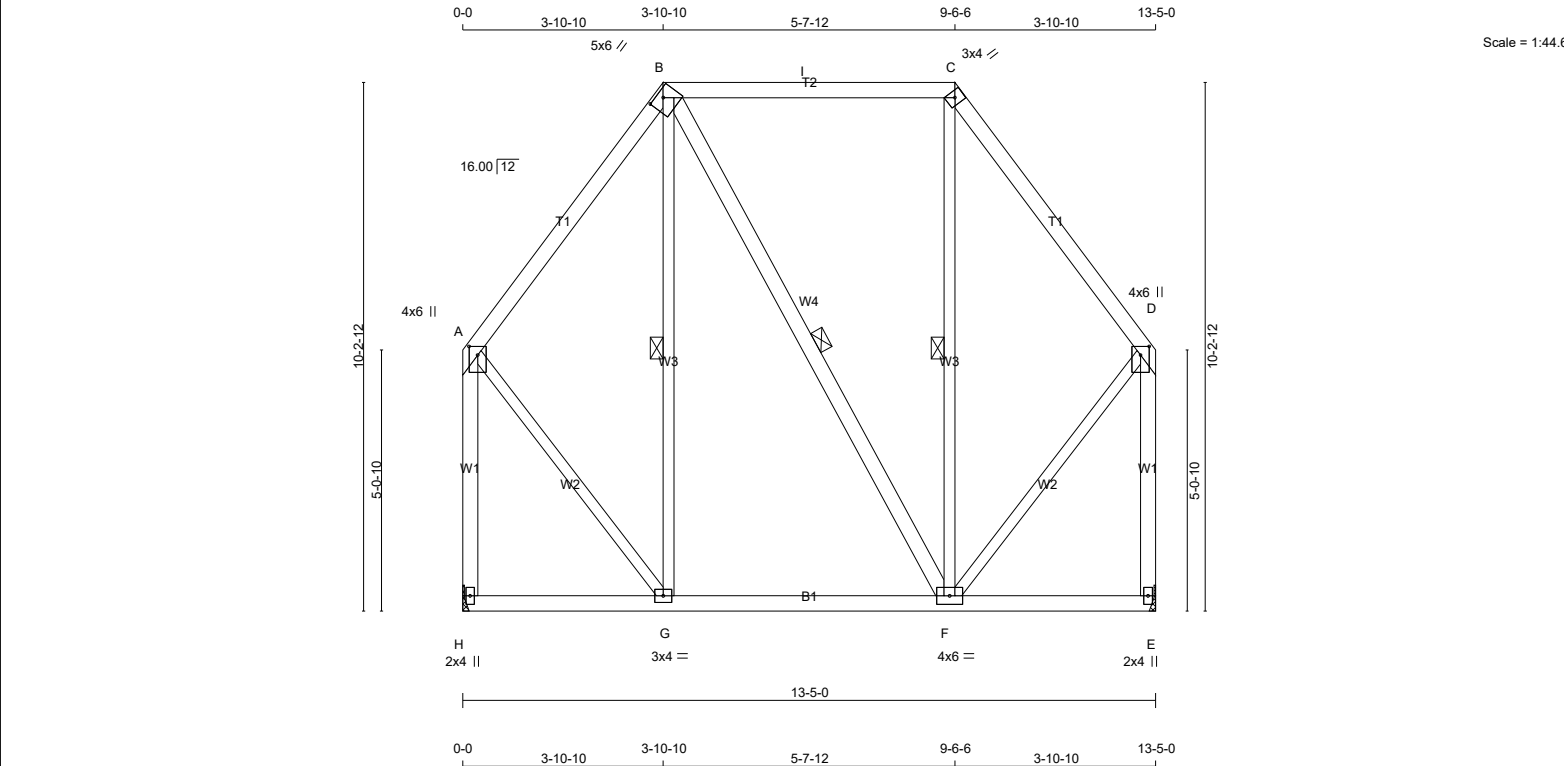
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.45 (D) (INPUT = 0.90)
JSI METAL= 0.23 (F) (INPUT = 1.00)

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





TOTAL WEIGHT = 86 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.00 2.00
B	TTWW-h	MT20	5.0	6.0	1.50 3.00
C	TTW+h	MT20	3.0	4.0	
D	TMVW+p	MT20	4.0	6.0	2.00 2.00
E	BMV1+p	MT20	2.0	4.0	
F	BMWWW-t	MT20	4.0	6.0	
G	BMWW-t	MT20	3.0	4.0	
H	BMV1+p	MT20	2.0	4.0	

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

		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX		
H	690	0	690	0	0	MECHANICAL			
E	690	0	690	0	0	MECHANICAL			

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

		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
H	495	282 / 0	0 / 0	0 / 0	0 / 0	0 / 0	214 / 0	0 / 0	
E	495	282 / 0	0 / 0	0 / 0	0 / 0	0 / 0	214 / 0	0 / 0	

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

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

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

		C H O R D S		W E B S	
MEMB.		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB. MAX. FACTORED FORCE (LBS)
FR-TO			FROM TO	LC1 MAX CSI (LC)	FR-TO
A-B	-341 / 0	-78.0	-78.0	0.15 (1)	6.25
B-I	-202 / 0	-93.0	-93.0	0.51 (1)	2.00
I-C	-202 / 0	-93.0	-93.0	0.51 (1)	2.00
C-D	-341 / 0	-78.0	-78.0	0.15 (1)	6.25
H-A	-663 / 0	0.0	0.0	0.31 (1)	7.81
E-D	-662 / 0	0.0	0.0	0.31 (1)	7.81
H-G	0 / 0	-18.5	-18.5	0.10 (4)	10.00
G-F	0 / 202	-18.5	-18.5	0.12 (4)	10.00
F-E	0 / 0	-18.5	-18.5	0.10 (4)	10.00

DESIGN CRITERIA

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

SPACING = 24.0 IN./C

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 6.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.51/1.00 (B-C:1) , BC=0.12/1.00 (F-G:4) , WB=0.10/1.00 (C-F:1) , SSI=0.20/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

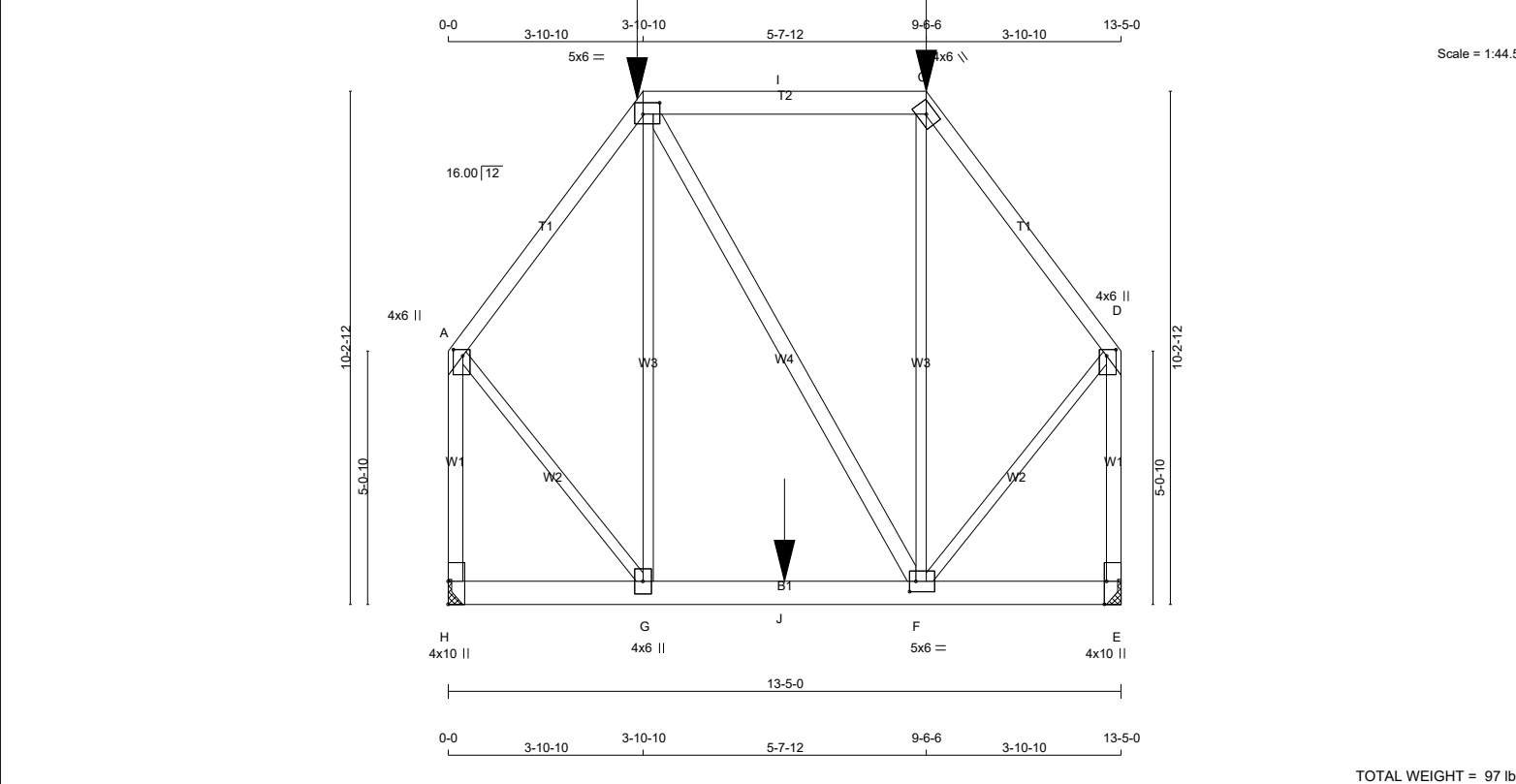
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (C) (INPUT = 0.90)
JSI METAL= 0.14 (A) (INPUT = 1.00)

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

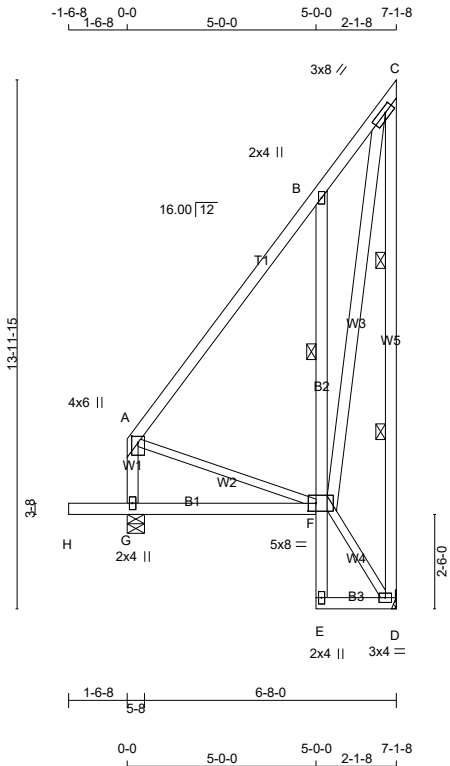




LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - B 2x4 DRY No.2 SPF B - C 2x6 DRY No.2 SPF C - D 2x4 DRY No.2 SPF H - A 2x4 DRY No.2 SPF E - D 2x4 DRY No.2 SPF H - E 2x6 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT B - F 2x4 DRY No.2 SPF DRY: SEASONED LUMBER.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th></th><th>FACTORED GROSS REACTION</th><th>MAXIMUM FACTORED GROSS REACTION</th><th>INPUT BRG</th><th>REQRD BRG</th></tr><tr><th>JT</th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th></tr><tr><td>H</td><td>2026</td><td>0</td><td>2026</td><td>0</td></tr><tr><td>E</td><td>2026</td><td>0</td><td>2026</td><td>0</td></tr></table> A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT H, E. MINIMUM BEARING LENGTH AT JOINT H = 3-8, JOINT E = 3-8. UNFACTORED REACTIONS <table><tr><th></th><th>1ST LCASE COMBINED</th><th>MAX. SNOW</th><th>MIN. LIVE</th><th>COMPONENT REACTIONS</th></tr><tr><th>JT</th><th></th><th></th><th></th><th></th></tr><tr><td>H</td><td>1450</td><td>852 / 0</td><td>0 / 0</td><td>PERM.LIVE WIND DEAD SOIL</td></tr><tr><td>E</td><td>1450</td><td>852 / 0</td><td>0 / 0</td><td>0 / 0 0 / 0 598 / 0 0 / 0</td></tr></table> BRACING FOR SECTION B-C, MAX. PURLIN SPACING = 2.00 FT. FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.33 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (4) <table><tr><th colspan="4">C H O R D S</th><th colspan="4">W E B S</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>LC1 MAX CSI (LC)</th><th>MAX. UNBRAC LENGTH</th><th>MEMB. FR-TO</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX CSI (LC)</th></tr><tr><td>A-B</td><td>-1305 / 0</td><td>-78.0</td><td>-78.0 0.28 (1)</td><td>5.33</td><td>G-B</td><td>0 / 170</td><td>0.06 (4)</td></tr><tr><td>B-I</td><td>-783 / 0</td><td>-193.7</td><td>-193.7 0.58 (1)</td><td>2.00</td><td>B-F</td><td>0 / 2</td><td>0.00 (4)</td></tr><tr><td>I-C</td><td>-783 / 0</td><td>-193.7</td><td>-193.7 0.58 (1)</td><td>2.00</td><td>F-C</td><td>0 / 173</td><td>0.07 (4)</td></tr><tr><td>C-D</td><td>-1306 / 0</td><td>-78.0</td><td>-78.0 0.28 (1)</td><td>5.33</td><td>A-G</td><td>0 / 1191</td><td>0.29 (1)</td></tr><tr><td>H-A</td><td>-2094 / 0</td><td>0.0</td><td>0.0 0.93 (1)</td><td>5.80</td><td>F-D</td><td>0 / 1192</td><td>0.29 (1)</td></tr><tr><td>E-D</td><td>-2095 / 0</td><td>0.0</td><td>0.0 0.93 (1)</td><td>5.80</td><td></td><td></td><td></td></tr><tr><td>H-G</td><td>0 / 0</td><td>-42.4</td><td>-42.4 0.45 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>G-J</td><td>0 / 783</td><td>-42.4</td><td>-42.4 0.98 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>J-F</td><td>0 / 783</td><td>-42.4</td><td>-42.4 0.98 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>F-E</td><td>0 / 0</td><td>-42.4</td><td>-42.4 0.45 (1)</td><td>10.00</td><td></td><td></td><td></td></tr></table> FACTORED CONCENTRATED LOADS (LBS) <table><tr><th>JT</th><th>LOC.</th><th>LC1</th><th>MAX-</th><th>MAX+</th><th>FACE</th><th>DIR.</th><th>TYPE</th><th>HEEL</th><th>CONN.</th></tr><tr><td>B</td><td>3-10-10</td><td>-286</td><td>-286</td><td>---</td><td>FRONT</td><td>VERT</td><td>TOTAL</td><td>---</td><td>C1</td></tr><tr><td>C</td><td>9-6-6</td><td>-286</td><td>-286</td><td>---</td><td>FRONT</td><td>VERT</td><td>TOTAL</td><td>---</td><td>C1</td></tr><tr><td>J</td><td>6-8-8</td><td>-1210</td><td>-1210</td><td>---</td><td>FRONT</td><td>VERT</td><td>TOTAL</td><td>---</td><td>C1</td></tr></table> CONNECTION REQUIREMENTS 1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.											FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	JT	VERT	HORZ	DOWN	HORZ	H	2026	0	2026	0	E	2026	0	2026	0		1ST LCASE COMBINED	MAX. SNOW	MIN. LIVE	COMPONENT REACTIONS	JT					H	1450	852 / 0	0 / 0	PERM.LIVE WIND DEAD SOIL	E	1450	852 / 0	0 / 0	0 / 0 0 / 0 598 / 0 0 / 0	C H O R D S				W E B S				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	A-B	-1305 / 0	-78.0	-78.0 0.28 (1)	5.33	G-B	0 / 170	0.06 (4)	B-I	-783 / 0	-193.7	-193.7 0.58 (1)	2.00	B-F	0 / 2	0.00 (4)	I-C	-783 / 0	-193.7	-193.7 0.58 (1)	2.00	F-C	0 / 173	0.07 (4)	C-D	-1306 / 0	-78.0	-78.0 0.28 (1)	5.33	A-G	0 / 1191	0.29 (1)	H-A	-2094 / 0	0.0	0.0 0.93 (1)	5.80	F-D	0 / 1192	0.29 (1)	E-D	-2095 / 0	0.0	0.0 0.93 (1)	5.80				H-G	0 / 0	-42.4	-42.4 0.45 (1)	10.00				G-J	0 / 783	-42.4	-42.4 0.98 (1)	10.00				J-F	0 / 783	-42.4	-42.4 0.98 (1)	10.00				F-E	0 / 0	-42.4	-42.4 0.45 (1)	10.00				JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.	B	3-10-10	-286	-286	---	FRONT	VERT	TOTAL	---	C1	C	9-6-6	-286	-286	---	FRONT	VERT	TOTAL	---	C1	J	6-8-8	-1210	-1210	---	FRONT	VERT	TOTAL	---	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/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 6.0 P.S.F. GIRDER TYPE: CPrimeHip SIDE SETBACK = 3-10-10 END SETBACK = 7-2-0 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. *** NON STANDARD GIRDER *** ADDT'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF BCBC 2018 , ABC 2019 - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014 (55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.45") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07") ALLOWABLE DEFL.(TL)= L/360 (0.45") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.15") CSI: TC=0.93/1.00 (D-E:1) , BC=0.98/1.00 (F-G:1) , WB=0.29/1.00 (D-F:1) , SSI=0.48/1.00 (F-G:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS= 1.00 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.87 (F) (INPUT = 0.90) JSI METAL= 0.46 (D) (INPUT = 1.00)				
	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG																																																																																																																																																																																															
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JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.																																																																																																																																																																																										
B	3-10-10	-286	-286	---	FRONT	VERT	TOTAL	---	C1																																																																																																																																																																																										
C	9-6-6	-286	-286	---	FRONT	VERT	TOTAL	---	C1																																																																																																																																																																																										
J	6-8-8	-1210	-1210	---	FRONT	VERT	TOTAL	---	C1																																																																																																																																																																																										

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





Scale = 1:60.9

TOTAL WEIGHT = 72 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.00 2.00
B	TMV+p	MT20	2.0	4.0	
C	TMVW-t	MT20	3.0	8.0	1.50 3.00
D	BMVW1-t	MT20	3.0	4.0	
E	BMV+p	MT20	2.0	4.0	
F	BVMWWW-l	MT20	5.0	8.0	2.50 2.50
G	BMV1+p	MT20	2.0	4.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
G		492	0	492	0	0	5-8	1-8	
D		344	0	344	0	0	MECHANICAL		

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

UNFACTORED REACTIONS							
		1ST LCASE	MAX./MIN. COMPONENT REACTIONS				
JT		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
G		351	214 / 0	0 / 0	0 / 0	0 / 0	137 / 0
D		245	150 / 0	0 / 0	0 / 0	0 / 0	95 / 0

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

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

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

2 LATERAL BRACE(S) AT 1/ 3 LENGTH OF C-D.
1 LATERAL BRACE(S) AT 1/ 2 LENGTH OF B-F.

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

LOADING									
TOTAL LOAD CASES: (4)									
C H O R D S									
		MAX. FACTORED	FACTORED			W E B S			
MEMB.		FORCE (LBS)	VERT. LOAD	LC1	MAX	MAX. UNBRAC LENGTH	MEMB.	MAX. FORCE (LBS)	MAX
FR-TO			FROM	TO	CSI (LC)	FR-TO			CSI (LC)
G- A		-296 / 0	0.0	0.0	0.03 (1)	7.81	A- F	0 / 86	0.02 (1)
A- B		-109 / 0	-78.0	-78.0	0.24 (1)	6.25	F- D	-8 / 0	0.00 (1)
B- C		-193 / 0	-78.0	-78.0	0.18 (1)	6.25	F- C	0 / 429	0.07 (1)
D- C		-319 / 0	0.0	0.0	0.14 (1)	6.25			
H- G		0 / 0	-96.5	-96.5	0.16 (1)	10.00			
G- F		0 / 0	-18.5	-18.5	0.14 (4)	10.00			
E- F		0 / 21	0.0	0.0	0.02 (1)	10.00			
F- B		-388 / 0	0.0	0.0	0.04 (1)	6.25			
E- D		0 / 5	-18.5	-18.5	0.02 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.24")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.24")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

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=0.24/1.00 (A-B:1) , BC=0.16/1.00 (G-H:1) , WB=0.07/1.00 (C-F:1) , SSI=0.12/1.00 (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
MT20	650	371	1747	788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.65 (F) (INPUT = 0.90)
JSI METAL= 0.19 (B) (INPUT = 1.00)

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
343283	P04A	1		JT 45147	E22052208

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Jun 13 14:13:32 2022 Page 1
 ID:6tV605vCHTmD2wqlx3DtqzTTXK-yquMj8?q9aYWQMvolaWerK 4YEK41rqEdchYkKz6h

0-0 2-3-0 2-3-0 6-10-8 9-1-8 6-9-4 15-10-12 6-9-4 22-8-0 6-9-4 29-5-4 6-10-8 36-3-12 2-3-0 38-6-12

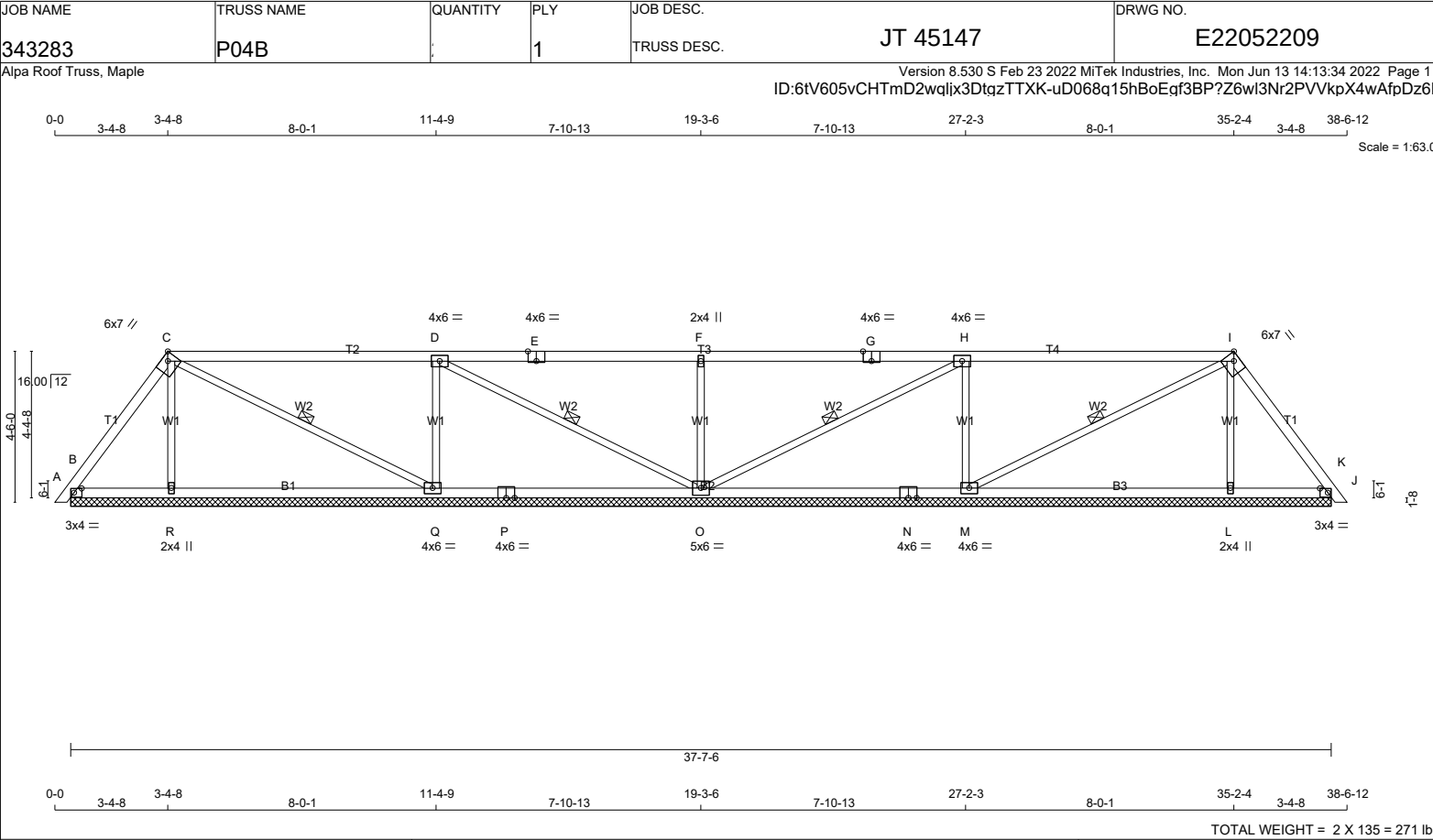
Scale: 3/16"=1'

6x7 // C
 16.00 // 12
 3.0-0
 2-10-8
 6-1
 A B
 T1 W1
 W2
 B1
 3x4 = T
 2x4 // S
 4x6 = R
 4x6 = Q
 4x6 = P
 5x6 = O
 4x6 = N
 2x4 // M
 3x4 = L
 K
 6x7 \\
 T1 W1
 W2
 B3
 37-7-6
 0-0 2-3-0 2-3-0 6-10-8 9-1-8 6-9-4 15-10-12 6-9-4 22-8-0 6-9-4 29-5-4 6-10-8 36-3-12 2-3-0 38-6-12
 TOTAL WEIGHT = 2 X 130 = 260 LB

[illegible]

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





[illegible]

NUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

A - C

2x4

DRY

No.2

SPF

C - F

2x4

DRY

No.2

SPF

F - H

2x4

DRY

No.2

SPF

H - J

2x4

DRY

No.2

SPF

B - O

2x4

DRY

No.2

SPF

O - M

2x4

DRY

No.2

SPF

M - I

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-h	MT20	5.0	6.0	1.25	3.00
D	TMWW-t	MT20	4.0	6.0		
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	4.0	6.0	Edge	3.00
G	TMWW-t	MT20	4.0	6.0		
H	TTWW-h	MT20	5.0	6.0	1.25	3.00
I	TMB1-I	MT20	3.0	4.0	1.50	2.75
K	BMW1+w	MT20	2.0	4.0		
L	BMWW1-t	MT20	4.0	6.0		
M	BS-t	MT20	4.0	6.0		
N	BMWWV1-t	MT20	5.0	6.0		
O	BS-t	MT20	4.0	6.0		
P	BMWW1-t	MT20	4.0	6.0		
Q	BMW1+w	MT20	2.0	4.0		

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

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
B	391	0	391	0	0	37-7-6 (15-11-48)	37-7-6 (15-11-48)	
Q	345	0	345	0	0	37-7-6 (15-11-48)	37-7-6 (15-11-48)	
P	654	0	654	0	0	37-7-6 (15-11-48)	37-7-6 (15-11-48)	
N	905	0	905	0	0	37-7-6 (15-11-48)	37-7-6 (15-11-48)	
L	654	0	654	0	0	37-7-6 (15-11-48)	37-7-6 (15-11-48)	
K	345	0	345	0	0	37-7-6 (15-11-48)	37-7-6 (15-11-48)	
I	391	0	391	0	0	37-7-6 (15-11-48)	37-7-6 (15-11-48)	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE				
B	275	191 / 0	0 / 0	0 / 0	0 / 0	83 / 0	0 / 0
Q	252	119 / 0	0 / 0	0 / 0	0 / 0	133 / 0	0 / 0
P	467	284 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0
N	640	420 / 0	0 / 0	0 / 0	0 / 0	220 / 0	0 / 0
L	467	284 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0
K	252	119 / 0	0 / 0	0 / 0	0 / 0	133 / 0	0 / 0
I	275	191 / 0	0 / 0	0 / 0	0 / 0	83 / 0	0 / 0

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

BRACING

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

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-P, D-N, G-N, H-L.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)		MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (LC)	
		FROM	TO			FR-TO	
FR-TO							
A- B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	Q- C	-221 / 0
B- C	-157 / 0	-78.0	-78.0	0.36 (1)	6.25	C- P	-91 / 0
C- D	-26 / 0	-78.0	-78.0	0.53 (1)	6.25	P- D	-463 / 0
D- E	0 / 114	-78.0	-78.0	0.55 (1)	10.00	D- N	-203 / 0
E- F	0 / 114	-78.0	-78.0	0.55 (1)	10.00	N- E	-487 / 0
F- G	0 / 114	-78.0	-78.0	0.55 (1)	10.00	N- G	-203 / 0
G- H	-26 / 0	-78.0	-78.0	0.53 (1)	6.25	L- G	-463 / 0
H- I	-157 / 0	-78.0	-78.0	0.36 (1)	6.25	L- H	-91 / 0
I- J	0 / 10	-78.0	-78.0	0.01 (1)	10.00	K- H	-221 / 0
							0.21 (1)
B- Q	0 / 93	-18.5	-18.5	0.16 (4)	10.00		
Q- P	0 / 89	-18.5	-18.5	0.17 (4)	10.00		
P- O	0 / 26	-18.5	-18.5	0.17 (4)	10.00		
O- N	0 / 26	-18.5	-18.5	0.17 (4)	10.00		
N- M	0 / 26	-18.5	-18.5	0.17 (4)	10.00		
M- L	0 / 26	-18.5	-18.5	0.17 (4)	10.00		
L- K	0 / 89	-18.5	-18.5	0.17 (4)	10.00		
K- I	0 / 93	-18.5	-18.5	0.16 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018 , ABC 2019

- PART 9 OF OBC 2012 (2019 AMENDMENT)

- CSA 086-14

- TPIC 2014

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

CSI: TC=0.55/1.00 (D-E:1) , BC=0.17/1.00 (K-L:4) , WB=0.47/1.00 (E-N:1) , SSI=0.25/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (H) (INPUT = 0.90)

JSI METAL= 0.20 (F) (INPUT = 1.00)

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

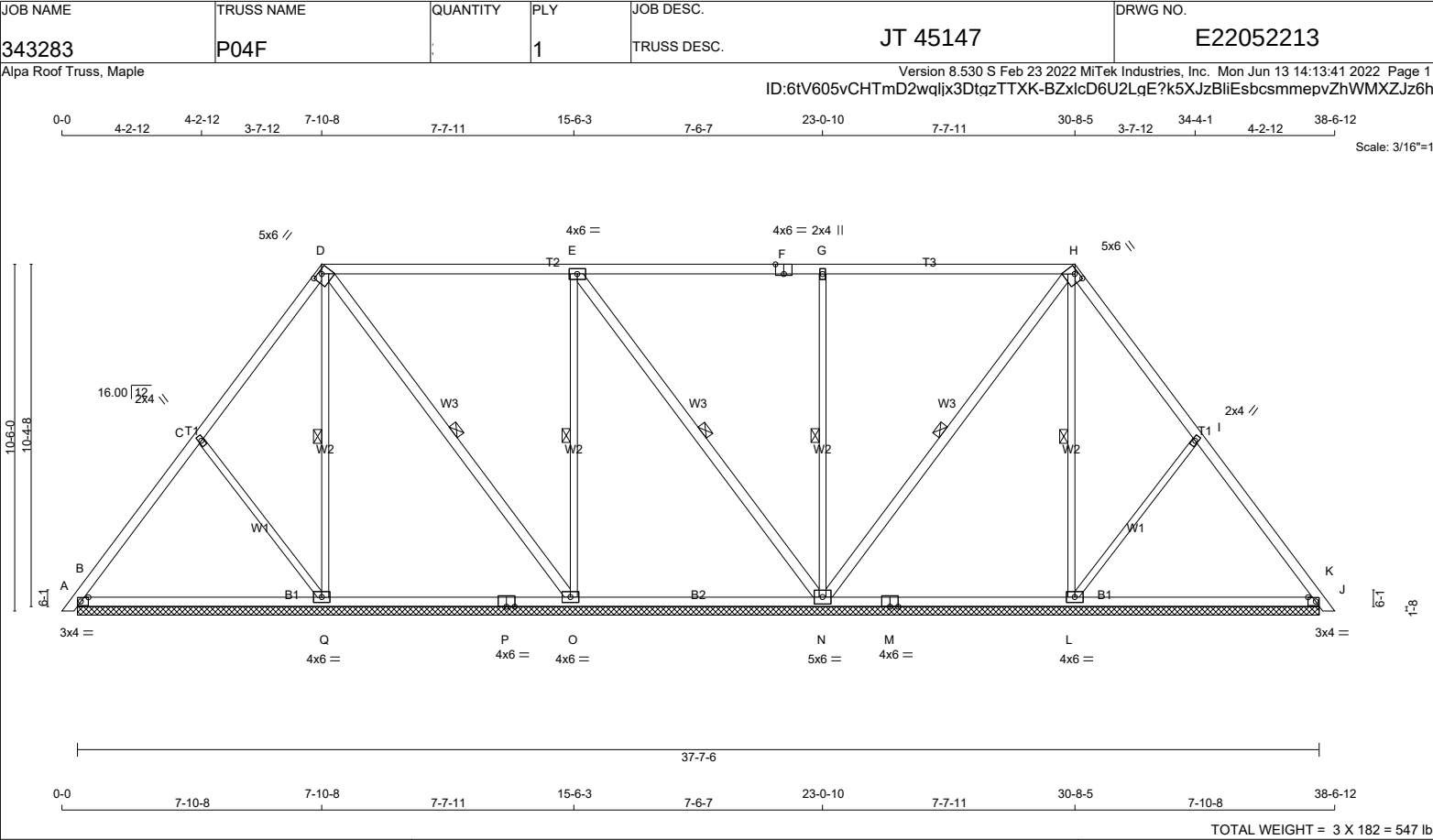
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Y. WIDYA

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06/13/2022

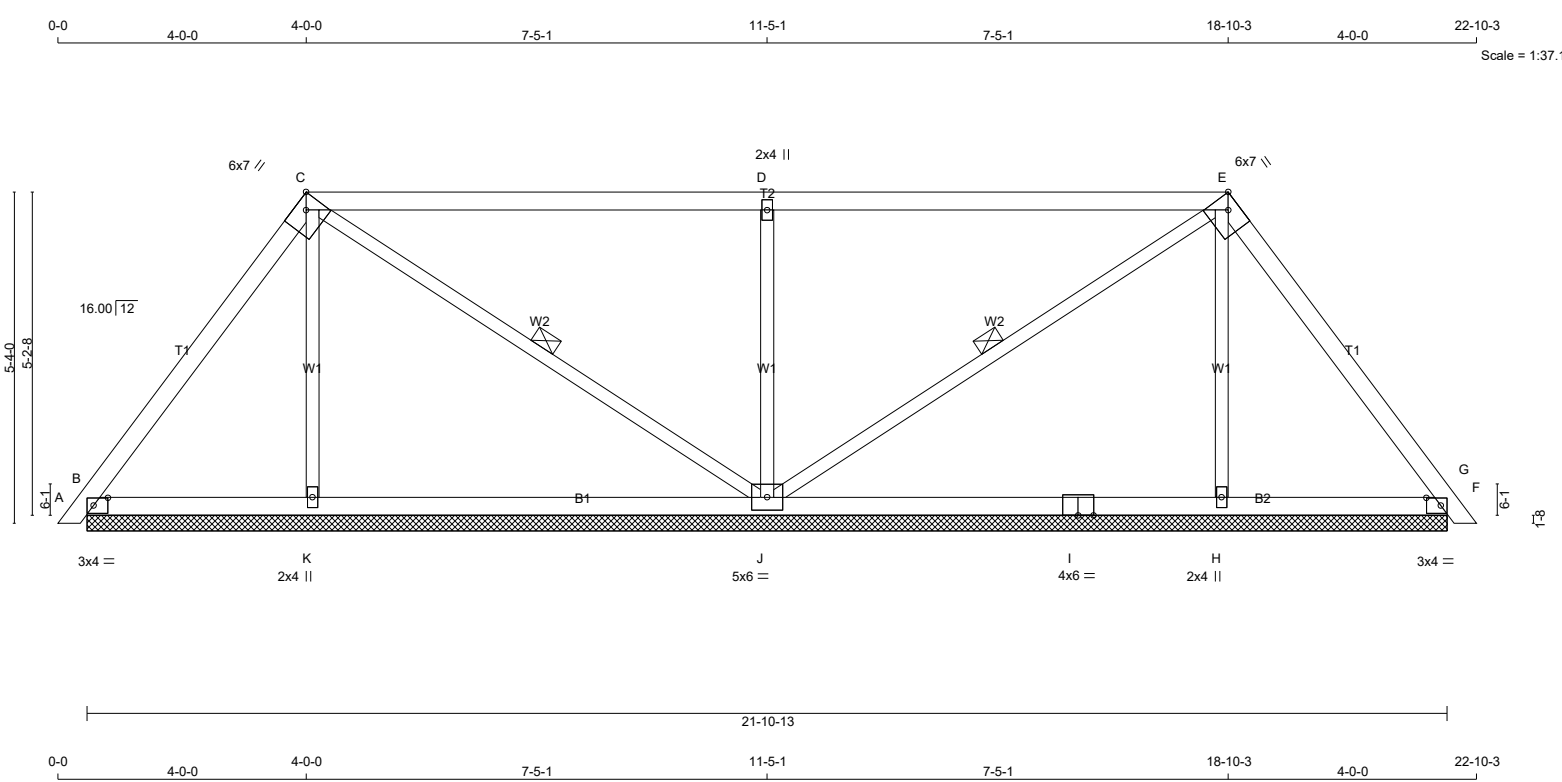
PROVINCE OF ONTARIO



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
343283	P05B		1	TRUSS DESC. JT 45147	E22052215

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Jun 13 14:13:44 2022 Page 1
ID:6tV605vCHTmD2wqljx3DtgzTTXK-c8duEF8MLG2psCq6?5kSKsU4N4pCrDh?NUbB9ez6h



TOTAL WEIGHT = 82 lb

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMb1-I	MT20	3.0	4.0	1.50	2.75
C	TTWW-h	MT20	6.0	7.0	Edge	2.75
D	TMW+w	MT20	2.0	4.0		
E	TTWW-h	MT20	6.0	7.0	Edge	2.75
F	TMb1-I	MT20	3.0	4.0	1.50	2.75
H	BMW1+w	MT20	2.0	4.0		
I	BS-t	MT20	4.0	6.0		
J	BMWVVV-t	MT20	5.0	6.0		
K	BMW1+w	MT20	2.0	4.0		

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

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

JT	FACTORED		MAXIMUM FACTORED		INPUT	REQD
	GROSS REACTION		GROSS REACTION		BRG	BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
B	281	0	281	0	0	21-10-13 (5-11-8)
K	333	0	333	0	0	21-10-13 (5-11-8)
J	942	0	942	0	0	21-10-13 (5-11-8)
H	333	0	333	0	0	21-10-13 (5-11-8)
F	281	0	281	0	0	21-10-13 (5-11-8)

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	196	142 / 0	0 / 0	0 / 0	0 / 0	54 / 0	0 / 0
B	243	118 / 0	0 / 0	0 / 0	0 / 0	125 / 0	0 / 0
K	668	430 / 0	0 / 0	0 / 0	0 / 0	238 / 0	0 / 0
H	243	118 / 0	0 / 0	0 / 0	0 / 0	125 / 0	0 / 0
F	196	142 / 0	0 / 0	0 / 0	0 / 0	54 / 0	0 / 0

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MEMB.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)		LC1 MAX CSI (L)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (L)
FR-TO		FROM	TO			FR-TO		
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	K-C	-219 / 0	0.09 (1)
B-C	-122 / 0	-78.0	-78.0	0.17 (1)	6.25	C-J	-68 / 0	0.04 (1)
C-D	-9 / 0	-78.0	-78.0	0.73 (1)	10.00	J-D	-723 / 0	0.29 (1)
D-E	-9 / 0	-78.0	-78.0	0.73 (1)	10.00	J-E	-68 / 0	0.04 (1)
E-F	-122 / 0	-78.0	-78.0	0.17 (1)	6.25	H-E	-219 / 0	0.09 (1)
F-G	0 / 10	-78.0	-78.0	0.01 (1)	10.00			
B-K	0 / 71	-18.5	-18.5	0.15 (4)	10.00			
K-J	0 / 67	-18.5	-18.5	0.22 (4)	10.00			
J-I	0 / 67	-18.5	-18.5	0.22 (4)	10.00			
I-H	0 / 67	-18.5	-18.5	0.22 (4)	10.00			
H-F	0 / 71	-18.5	-18.5	0.15 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN 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=0.73/1.00 (D-E:1), BC=0.22/1.00 (J-K:4),
WB=0.29/1.00 (D-J:1), SSI=0.28/1.00 (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= 0.79 (C) (INPUT = 0.90)
JSI METAL= 0.15 (D) (INPUT = 1.00)

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
343283	P05C	1		JT 45147	E22052216

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Jun 13 14:13:45 2022 Page 1
ID:6tV605vCHTmD2wqljx3DtgTTXK-4KBGRb9 6aAqULPIYoFhs41K3TAbabs8c8KKi4z6h

0-0 6-0-0 6-0-0 5-5-1 11-5-1 5-5-1 16-10-3 6-0-0 22-10-3

Scale = 1:37.1

16.00 12

8-0-0 7-10-8 6-1

3x4 = K 2x4 // J 5x6 = I 4x6 = H 2x4 // 3x4 =

21-10-13

0-0 6-0-0 6-0-0 5-5-1 11-5-1 5-5-1 16-10-3 6-0-0 22-10-3

TOTAL WEIGHT = 92 LB

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

B - I 2x4 DRY No.2

I - F 2x4 DRY No.2

ALL WEBS 2x3 DRY No.2

DRY: SEASONED LUMBER.

DESCR.

SPF

SPF

SPF

SPF

SPF

SPF

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-h	MT20	5.0	6.0	1.25	3.00
D	TMW+w	MT20	2.0	4.0		
E	TTWW-h	MT20	5.0	6.0	1.25	3.00
F	TMB1-I	MT20	3.0	4.0	1.50	2.75
H	BMW1+w	MT20	2.0	4.0		
I	BS-I	MT20	4.0	6.0		
J	BMWWW1-t	MT20	5.0	6.0		
K	BMW1+w	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
	GROSS REACTION		GROSS REACTION		BRG		BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
B	381	0	381	0	0	21-10-13 (6-10-83)		
K	299	0	299	0	0	21-10-13 (6-10-83)		
J	808	0	808	0	0	21-10-13 (6-10-83)		
H	299	0	299	0	0	21-10-13 (6-10-83)		
F	381	0	381	0	0	21-10-13 (6-10-83)		

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	268	183 / 0	0 / 0	0 / 0	0 / 0	0 / 0	85 / 0	0 / 0
K	220	98 / 0	0 / 0	0 / 0	0 / 0	0 / 0	122 / 0	0 / 0
J	569	387 / 0	0 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0
H	220	98 / 0	0 / 0	0 / 0	0 / 0	0 / 0	122 / 0	0 / 0
F	268	183 / 0	0 / 0	0 / 0	0 / 0	0 / 0	85 / 0	0 / 0

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MAX UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 10	-78.0 -78.0	0.01 (1)	10.00	K-C	-182 / 0	0.21 (1)
B-C	-120 / 0	-78.0 -78.0	0.41 (1)	6.25	C-J	-118 / 0	0.07 (1)
C-D	0 / 1	-78.0 -78.0	0.39 (1)	10.00	J-D	-528 / 0	0.62 (1)
D-E	0 / 1	-78.0 -78.0	0.39 (1)	10.00	J-E	-118 / 0	0.07 (1)
E-F	-120 / 0	-78.0 -78.0	0.41 (1)	6.25	H-E	-182 / 0	0.21 (1)
F-G	0 / 10	-78.0 -78.0	0.01 (1)	10.00			
B-K	0 / 71	-18.5 -18.5	0.15 (4)	10.00			
K-J	0 / 68	-18.5 -18.5	0.15 (4)	10.00			
J-I	0 / 68	-18.5 -18.5	0.15 (4)	10.00			
I-H	0 / 68	-18.5 -18.5	0.15 (4)	10.00			
H-F	0 / 71	-18.5 -18.5	0.15 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C

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=0.41/1.00 (B-C:1) , BC=0.15/1.00 (B-K:4) , WB=0.62/1.00 (D-J:1) , SSI=0.21/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

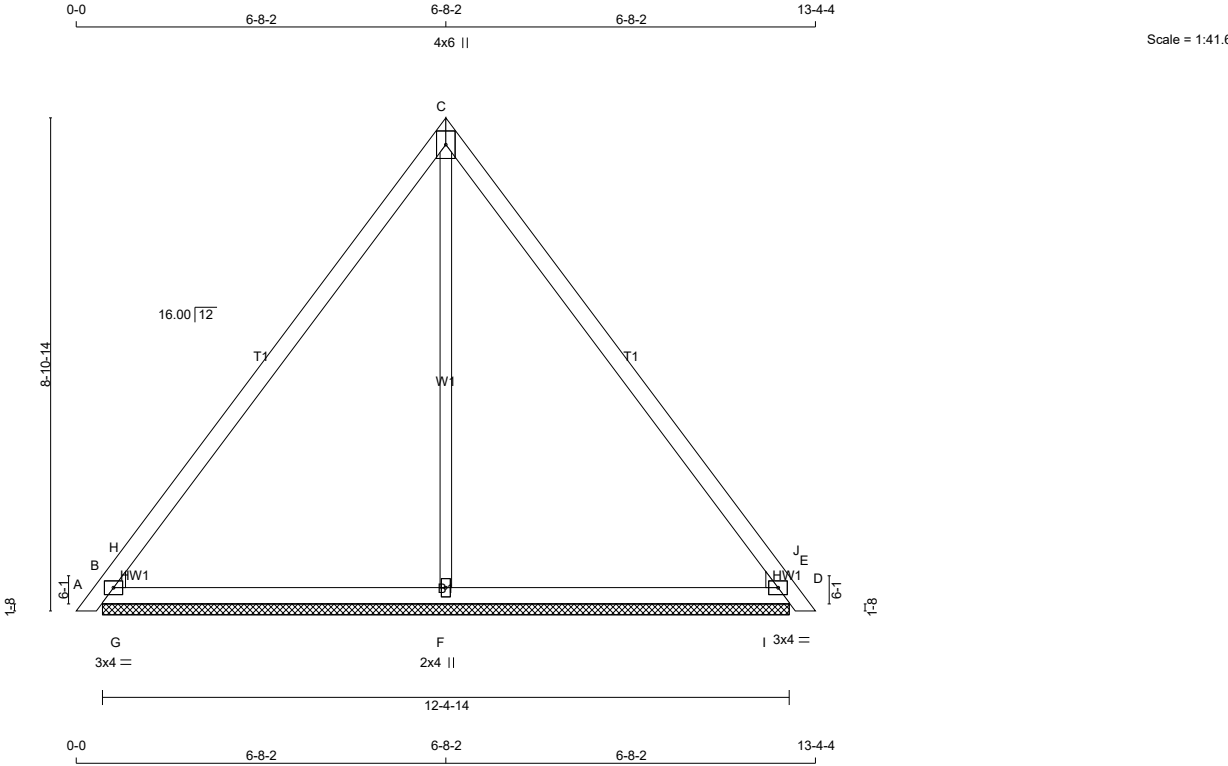
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.76 (E) (INPUT = 0.90)

JSI METAL= 0.17 (B) (INPUT = 1.00)

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





TOTAL WEIGHT = 3 X 47 = 140 lb

LUMBER					
N. L. G. A. RULES					
CHORDS		SIZE	LUMBER		DESCR.
A - C	2x4	DRY	No.2		SPF
C - E	2x4	DRY	No.2		SPF
B - D	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	TMBH1-I	MT20	3.0	4.0		
C	TTW+p	MT20	4.0	6.0		
D	TMBH1-I	MT20	3.0	4.0		
F	BMW1+w	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG		HEEL
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX	
B	531	0	531	0	0	12-4-14	1-8	2x4 L	
D	531	0	531	0	0	12-4-14	1-8	2x4 L	
F	190	0	190	0	0	12-4-14	1-8	2x4 L	

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX / MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
B	375	252 / 0	0 / 0	0 / 0	0 / 0	123 / 0	0 / 0
D	375	252 / 0	0 / 0	0 / 0	0 / 0	123 / 0	0 / 0
F	143	48 / 0	0 / 0	0 / 0	0 / 0	95 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, D, 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 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO		FR-TO			FR-TO	
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	F-C	0 / 74	0.02 (1)	
B-H	-39 / 152	-78.0	-78.0	0.27 (1)	6.25	G-H	-788 / 0	0.00 (1)	
H-C	-319 / 0	-78.0	-78.0	0.37 (1)	6.25	I-J	-788 / 0	0.00 (1)	
C-J	-319 / 0	-78.0	-78.0	0.37 (1)	6.25				
J-D	-39 / 152	-78.0	-78.0	0.27 (1)	6.25				
D-E	0 / 10	-78.0	-78.0	0.01 (1)	10.00				
B-G	0 / 176	-18.5	-18.5	0.36 (1)	10.00				
G-F	0 / 176	-18.5	-18.5	0.36 (1)	10.00				
F-I	0 / 176	-18.5	-18.5	0.36 (1)	10.00				
I-D	0 / 176	-18.5	-18.5	0.36 (1)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.37/1.00 (C-J:1) , BC=0.36/1.00 (D-I:1) , WB=0.02/1.00 (C-F:1) , SSI=0.60/1.00 (D-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.38 (D) (INPUT = 0.90)
JSI METAL= 0.14 (B) (INPUT = 1.00)

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

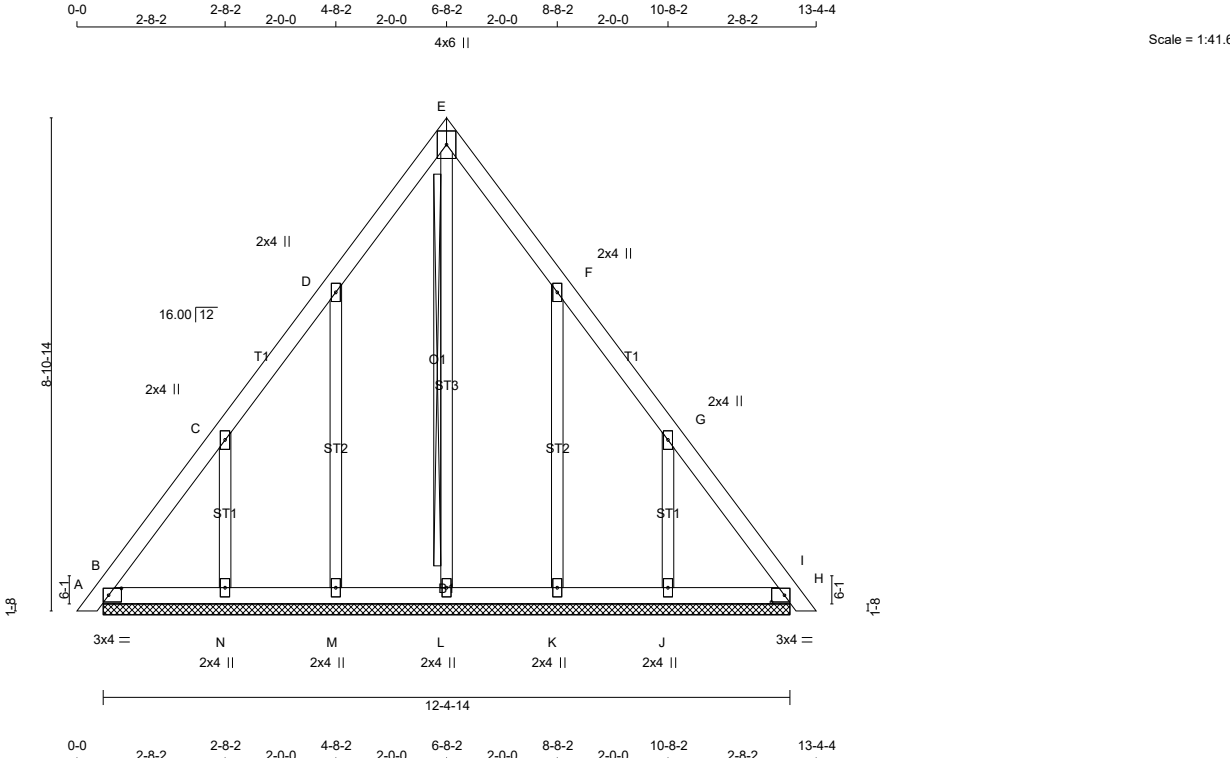


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
343283	P06G		1	TRUSS DESC. JT 45147	E22052218

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Jun 13 14:13:48 2022 Page 1

ID:6tV605vCHTmD2wqljx3DtqzTTXK-UvsP4dCtOVZFLp7tExpOUifx2hDDn4ibI6ZOIPz6hX



TOTAL WEIGHT = 60 lb

LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - E 2x4 DRY No.2 SPF E - I 2x4 DRY No.2 SPF B - 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.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS. THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE. BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED. 2x3 DRY SPF No.2 T-BRACE AT E-L 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. LOADING TOTAL LOAD CASES: (4)					DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN. C/C 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=0.05/1.00 (B-C:1) , BC=0.02/1.00 (B-N:4) , WB=0.10/1.00 (F-K:1) , SSI=0.05/1.00 (E-F:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.18 (H) (INPUT = 0.90) JSI METAL= 0.08 (D) (INPUT = 1.00)				
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LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
349196	H02A		2	TRUSS DESC.	E22104555

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Oct 24 09:21:39 2022 Page 1
 ID:6tv605vCHTmD2wqljx3DtqzTTXK-MfXx09uH56AhcmlR8RzI?kqmvra48TDBfWcynyQFw

Scale = 1:86.6

NUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - B 2x4 DRY No.2 SPF B - E 2x6 DRY No.2 SPF E - I 2x6 DRY No.2 SPF I - L 2x6 DRY No.2 SPF L - M 2x4 DRY No.2 SPF AA- A 2x6 DRY No.2 SPF O - M 2x6 DRY No.2 SPF AB- X 2x6 DRY No.2 SPF X - U 2x6 DRY No.2 SPF U - R 2x6 DRY No.2 SPF R - N 2x6 DRY No.2 SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

B - Y

2x4

DRY

No.2

SPF

Q - L

2x4

DRY

No.2

SPF

DRY: SEASONED LUMBER.

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

CHORDS #ROWS

SURFACE SPACING (IN)

LOAD(PLF)

TOP CHORDS : (0.122"x3") SPIRAL NAILS

A- B

1

12

TOP

L- M

1

12

SIDE(48.2)

B- E

2

12

TOP

E- I

2

12

SIDE

I- L

2

12

TOP(64.9)

AA- A

2

12

TOP

O- M

2

12

TOP

BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS

AB- X

2

12

TOP

X- U

2

12

TOP

U- R

2

12

SIDE(203.9)

R- N

2

12

SIDE(25.0)

WEBS : (0.122"x3") SPIRAL NAILS

J- S

1

4

SIDE(818.7)

2x3

1

6

2x4

1

6

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

A

TMVW-t

MT20

6.0

10.0

2.25

4.00

B

TTWW-h

MT20

10.0

12.0

Edge

4.50

C

TMVW+t

MT20

5.0

6.0

2.25

1.75

D, F, H, J

E

TMVW+t

MT20

4.0

6.0

D

TS-t

MT20

5.0

6.0

G

TMW+w

MT20

2.0

4.0

I

TS-t

MT20

5.0

6.0

K

TMVW+t

MT20

5.0

6.0

2.25

1.75

L

TTWW-h

MT20

10.0

12.0

Edge

4.50

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

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

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

AA

5132

0

5162

-739

-523

5-8

2-12

O

8071

0

8101

0

-901

5-8

5-8

PROVIDE ANCHORAGE AT BEARING JOINT AA FOR 523 LBS FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT O FOR 901 LBS FACTORED UPLIFT

PROVIDE FOR 739 LBS FACTORED HORIZONTAL REACTION AT JOINTAA

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

AA

3813

2104 / 0

618 / 0

0 / 0

638 / -1088

1111 / 0

0 / 0

O

5963

3334 / 0

846 / 0

0 / 0

1388 / -1803

1803 / 0

0 / 0

HORIZONTAL REACTIONS

AA

0 / 0

0 / 0

0 / 0

565 / -528

0 / 0

0 / 0

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

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

BRACING

MAX. UNBRACED TOP CHORD LENGTH = 2.94 FT.

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

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

2x4 DRY SPF No.2 T-BRACE AT B-Y, C-Y, C-W, D-W, D-V, F-U, H-U, J-T, L-Q

2x6 DRY SPF No.2 T-BRACE AT K-Q

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

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

LOADING

TOTAL LOAD CASES: (18)

CHORDS

MAX. FACTORED

FACTORED

VERT. LOAD

LC1

MAX

MAX.

MEMB.

FORCE (LBS)

(PLF)

CSI (LC)

UNBRAC

FR-TO

FROM

TO

LENGTH

FR-TO

A- B

-4590 / 494

-95.2

-95.2

0.29

(2)

4.29

Z- B

-855 / 138

0.34

(7)

B- C

-6288 / 738

-95.2

-95.2

0.2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
349196	H02A		2	JT 45147	E22104555(2)

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
M	TMVW+t	MT20	6.0	10.0	2.25	4.00
O	BMV1+t	MT20	6.0	10.0	Edge	0.50
P	BMWW-t	MT20	4.0	6.0	2.00	1.75
Q	BMWW+t	MT20	5.0	8.0	3.75	1.75
R	BS-t	MT20	5.0	6.0		
S	BMWW+t	MT20	5.0	8.0	4.25	1.75
T	BMWW+t	MT20	4.0	6.0		
U	BSWWW-l	MT20	8.0	9.0	4.75	4.50
V	BMWW+t	MT20	4.0	6.0		
W	BMWW+t	MT20	5.0	8.0	4.25	1.75
X	BS-t	MT20	5.0	6.0		
Y	BMWW+t	MT20	5.0	8.0	3.75	1.75
Z	BMWW-t	MT20	4.0	6.0	2.00	1.75
AA	BMV1+t	MT20	6.0	10.0	Edge	

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

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
349196	H03S		1	JT 45147	E22104556

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Oct 24 09:21:41 2022 Page 1
 ID:6tV605vCHTmD2wqljx3DtqzTTXK-l2fhQrwXdkQP4vqGslRqQp87ifcY7FWfz?j1fyQFW

Scale = 1:59.7

TOTAL WEIGHT = 177 lb

[illegible]

[illegible]

LUMBER

N L G A RULES

CHORDS	SIZE		LUMBER		DESCR.
A - C	2x4	DRY	No.2		SPF
C - F	2x4	DRY	No.2		SPF
F - J	2x4	DRY	No.2		SPF
J - M	2x4	DRY	No.2		SPF
M - O	2x4	DRY	No.2		SPF
AA- A	2x4	DRY	No.2		SPF
Q - O	2x4	DRY	No.2		SPF
AB- Y	2x6	DRY	No.2		SPF
Y - V	2x6	DRY	No.2		SPF
V - S	2x6	DRY	No.2		SPF
S - P	2x6	DRY	No.2		SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

Z - D	2x4	DRY	No.2		SPF
D - X	2x4	DRY	No.2		SPF
E - W	2x4	DRY	No.2		SPF
U - K	2x4	DRY	No.2		SPF
T - L	2x4	DRY	No.2		SPF
L - R	2x4	DRY	No.2		SPF
AA- B	2x4	DRY	No.2		SPF
N - Q	2x4	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- F	1 12	TOP
F- J	1 12	TOP
J- M	1 12	SIDE(64.9)
M- O	1 12	SIDE(48.2)
AA- A	1 12	TOP
Q- O	1 12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
AB- Y	2 12	TOP
Y- V	2 12	TOP
V- S	2 12	SIDE(203.9)
S- P	2 12	SIDE(25.0)
WEBS : (0.122"x3") SPIRAL NAILS		
K- T	1 6	SIDE(818.7)
2x3	1 6	
2x4	1 6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	5.0	8.0	2.25	2.00
C	TTW-h	MT20	5.0	6.0	1.75	3.25
D	TMWW-t	MT20	5.0	6.0	1.75	3.00

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



STIMATIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY USER

BUILDING DESIGNER

BEARINGS

	FACTORED		MAXIMUM FACTORED	INPUT	REQRD
	GROSS REACTION		GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
AA	5132	0	5140	-1137	-560
Q	8071	0	8079	0	-838

PROVIDE ANCHORAGE AT BEARING JOINT AA FOR 560 LBS FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT Q FOR 838 LBS FACTORED UPLIFT

PROVIDE FOR 1137 LBS FACTORED HORIZONTAL REACTION AT JOINTAA

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
AA	3813	2089 / 0	618 / 0	0 / 0	666 / -1114	1111 / 0
Q	5963	3319 / 0	846 / 0	0 / 0	1320 / -1758	1803 / 0

HORIZONTAL REACTIONS

AA	---	0 / 0	0 / 0	0 / 0	871 / -812	0 / 0
----	-----	-------	-------	-------	------------	-------

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

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

BRACING

MAX. UNBRACED TOP CHORD LENGTH = 2.62 FT.

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

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

2x4 DRY SPF No.2 T-BRACE AT C-Z, G-W, H-U, I-U, K-T, M-R, B-AA

2x6 DRY SPF No.2 T-BRACE AT D-Z, D-X, E-X, E-W, H-W, K-U, N-Q

2x6 DRY SPF No.2 I-BRACE AT L-R

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: (18)

C H O R D S			W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	
FR-TO		FROM TO	LENGTH FR-TO			
A- B	-45 / 155	-95.2	-95.2 0.10 (13)	6.25	B- Z	0 / 743
B- C	-4829 / 727	-95.2	-95.2 0.19 (2)	4.27	Z- C	-467 / 3514
C- D	-2907 / 519	-95.2	-95.2 0.20 (2)	5.21	Z- D	-4154 / 487
D- E	-6219 / 810	-95.2	-95.2 0.42 (2)	3.62	D- X	-292 / 3657
E- F	-7760 / 885	-95.2	-95.2 0.71 (2)	3.16	X- E	-2949 / 371
F- G	-7760 / 885	-95.2	-95.2 0.71 (2)	3.16	E- W	-192 / 2859
G- H	-7760 / 885	-95.2	-95.2 0.48 (2)	3.16	W- G	-603 / 204
H- I	-8739 / 876	-95.2	-95.2 0.52 (3)	2.96	I- H	-1733 / 44
I- J	-8739 / 876	-95.2	-95.2 0.91 (3)	2.86	H- U	-26 / 1551
J- K	-8739 / 876	-95.2	-95.2 0.91 (3)	2.86	U- I	-565 / 183
K- L	-9193 / 786	-193.5	-193.5 0.82 (3)	2.62	U- K	-1034 / 203
L- M	-4538 / 1011	-193.5	-193.5 0.45 (10)	4.05	T- K	-138 / 584
M- N	-7555 / 1269	-193.5	-193.5 0.42 (3)	3.31	T- L	0 / 4924
N- O	-116 / 406	-193.5	-193.5 0.32 (14)	6.25	L- R	-6004 / 168
AA- A	-163 / 162	0.0	0.0 0.02 (13)	7.81	R- M	-627 / 5353
Q- O	-382 / 460	0.0	0.0 0.04 (14)	7.81	R- N	0 / 986
AB-AA	0 / 0	-134.7	-134.7 0.06 (1)	10.00	AA- B	-5365 / 462
AA- Z	0 / 2562	-39.5	-39.5 0.25 (5)	10.00	N- Q	-8480 / 466
Z- Y	0 / 4655	-39.5	-39.5 0.39 (2)	10.00		
Y- X	0 / 4655	-39.5	-39.5 0.39 (2)	10.00		
X- W	0 / 6219	-39.5	-39.5 0.50 (2)	10.00		
W- V	0 / 8275	-39.5	-39.5 0.60 (1)	10.00		
V- U	0 / 8275	-39.5	-39.5 0.60 (1)	10.00		
U- T	0 / 9193	-39.5	-39.5 0.72 (3)	10.00		
T- S	0 / 7077	-79.0	-79.0 0.64 (3)	10.00		
S- R	0 / 7077	-79.0	-79.0 0.64 (3)	10.00		
R- Q	-202 / 4051	-79.0	-79.0 0.46 (6)	6.25		
Q- P	0 / 0	-134.7	-134.7 0.06 (1)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1 MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
T	35-2-9	-1308	-1464	---	FRONT	VERT	---	C1
T	35-2-9	-2457	-2457	---	FRONT	VERT	---	C1

CONNECTION REQUIREMENTS

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

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING
AS PER NBCC 4.1.6.2.(8)

DESIGN LOADS

*** 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	=	26.7	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	10.5	PSF
		DL	=	7.4	PSF
TOTAL	LOAD	=	50.6	PSF	

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 9.00/12

GIRDER TYPE: CPrimeHip

SIDE SETBACK = 0-0

END SETBACK = 6-0-0

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 83 % OF GSL.

LOADS APPLIED TO FIRST 15-8.7 OF SPAN

MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 4 OF CBC 2018 , ABC 2019

- PART 4 OF OBC 2012 (2019 AMENDMENT)

- CSA 086-14

- TPIC 2014

DESIGN ASSUMPTIONS

- SLOPE REDUCTION FACTOR USED

- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR

EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.70")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.24")

ALLOWABLE DEFL.(TL)= L/180 (3.39")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.38")

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=0.91/1.00 (I-K:3) , BC=0.72/1.00 (T-U:3) , WB=0.94/1.00 (E-X:3) , SSI=0.25/1.00 (L-M:10)

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

SNOW LOAD IMPORTANCE FACTOR = 1.00

WIND LOAD IMPORTANCE FACTOR = 1.00

LIVE LOAD IMPORTANCE FACTOR = 1.00

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.82 (S) (INPUT = 1.00)

CONTINUED ON PAGE

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
349196	H04A		2	JT 45147	E22104557(2)

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Mon Oct 24 09:21:46 2022 Page 2

ID:6tV605vCHTmD2wqljx3DtgzTTXK-f?SaUY_gSG3iyynn3PLdXUW_PjHhDJCFoEiUityQFWJ

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
E, H, K						
E	TMWW-t	MT20	4.0	6.0	1.75	3.00
F	TS-t	MT20	3.0	8.0		
G	TMW+w	MT20	2.0	4.0		
I	TMW+w	MT20	2.0	4.0		
J	TS-t	MT20	3.0	8.0		
L	TMWW-t	MT20	5.0	6.0	1.75	3.00
M	TTW-h	MT20	5.0	6.0	1.75	3.25
N	TMWW-t	MT20	5.0	8.0	2.25	2.00
O	TMV+p	MT20	2.0	4.0		
Q	BMVW1+t	MT20	6.0	10.0	Edge	2.50
R	BMWWW-t	MT20	6.0	7.0	2.00	3.50
S, V, Y						
S	BS-t	MT20	5.0	6.0		
T	BMWW+t	MT20	4.0	10.0		
U	BMWWW-t	MT20	5.0	8.0		
W	BMWWW-t	MT20	5.0	8.0		
X	BMWW+t	MT20	4.0	10.0		
Z	BMWWW-t	MT20	6.0	7.0	2.00	3.50
AA	BMVW1+t	MT20	6.0	10.0	Edge	2.50

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

CONNECTION REQUIREMENTS

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

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.2} PSF AT {30-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {ROUGH TERRAIN} AT MINIMUM {1.000} MILES DISTANCE FROM OPEN TERRAIN., AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 6.0 PSF AND 7.4 PSF RESPECTIVELY.

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



H — Seismic and Hurricane Ties

SIMPSON

Strong-Tie

The H connector series provides wind and seismic ties for trusses and rafters.

Material: 18 gauge

Finish: G90 galvanized

Design:

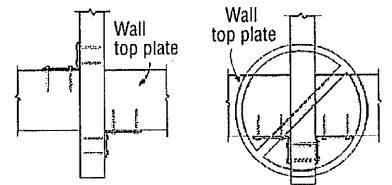
- Factored resistances are in accordance with CSA O86-14 and CSA O86:19.
- Factored resistances have been increased 15%. No further increase is permitted.

Installation:

- Use all specified fasteners
- Nails: 8d = 0.131" dia. x 2½" long common wire, 8d x 1½" = 0.131" x 1½" long, 10d x 1½" = 0.146" x 1½" long
- H1 can be installed with flanges facing outwards
- Hurricane ties do not replace solid blocking

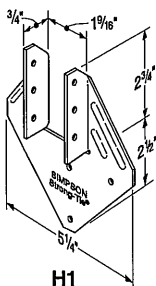
Factored resistances for more than one direction for a single connection cannot be added together. A factored load which can be divided into components in the directions given must be evaluated as follows: Factored Shear/Resisting Shear + Factored Tension/Resisting Tension ≤ 1.0.

Hurricane Tie Installations to Achieve Twice the Load (Top View)

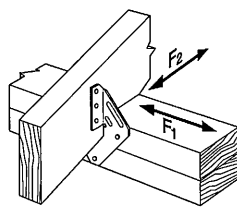


Install diagonally across from each other for minimum 2x truss.

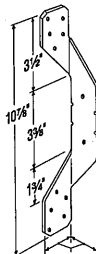
Nailing into both sides of a single ply 2x truss may cause the wood to split.



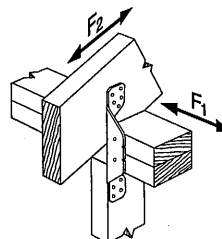
H1



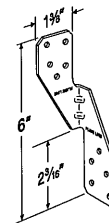
H1 Installation



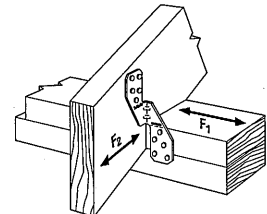
H2A



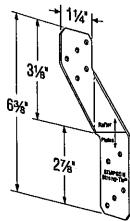
H2A Installation



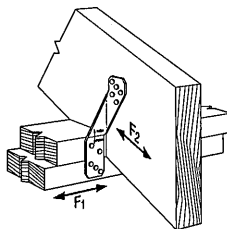
H2.5A



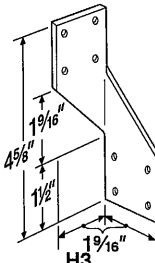
H2.5A Installation



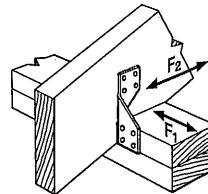
H2.5T



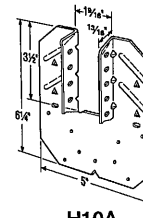
H2.5T Installation
(Nails into both top plates)



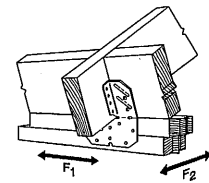
H3



H3 Installation



H10A



H10A Installation

Model No.	Ga.	Fasteners			Factored Resistance (lb.)					
					D.Fir-L			S-P-F		
		To Rafter	To Plates	To Studs	Uplift	Normal		Uplift	Normal	
						F ₁	F ₂		F ₁	F ₂
						(K ₀ =1.15)			(K ₀ =1.15)	
H1	18	(6) 8d x 1½"	(4) 8d	—	740	685	300	680	485	215
H2A	18	(5) 8d x 1½"	(2) 8d x 1½"	(5) 8d x 1½"	830	220	75	590	155	55
H2.5A	18	(5) 8d	(5) 8d	—	805	160	160	755	160	160
H2.5T	18	(5) 8d	(5) 8d	—	835	175	240	740	160	210
H3	18	(4) 8d	(4) 8d	—	740	180	265	615	125	190
H10A	18	(9) 10d x 1½"	(9) 10d x 1½"	—	1735	795	410	1505	565	290

1. Factored resistances have been increased 15% for earthquake or wind loading with no further increase allowed.
2. Factored resistances are for one anchor. A minimum rafter thickness of 2½" must be used when framing anchors are installed on each side of the joist and on the same side of the plate.

3. When cross-grain bending or cross-grain tension cannot be avoided, mechanical reinforcement to resist such forces should be considered.
4. Hurricane ties are shown installed on the outside of the wall for clarity. Installation on the inside of the wall is acceptable. For a Continuous Load Path, connections must be on same side of the wall.



This technical bulletin is effective until December 31, 2024, and reflects information available as of July 1, 2022. This information is updated periodically and should not be relied upon after December 31, 2024. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECH22 7/22 exp. 12/24

(800) 999-5099
strongtie.com

LUS — Double-Shear Joist Hangers

SIMPSON
Strong-Tie

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:

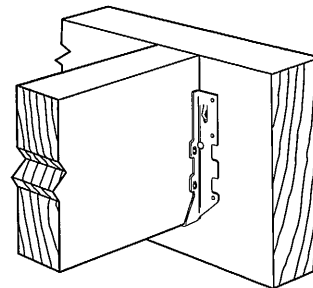
- Factored resistances are in accordance with CSA O86-14 and CSA O86:19.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

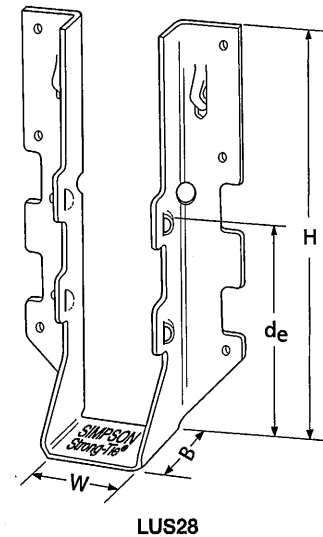
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire,
10d = 0.148" x 3" long common wire
- Double-shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- These hangers cannot be modified

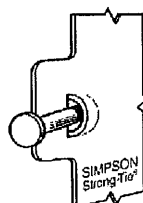


Typical LUS
Installation



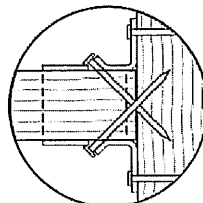
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D-Fir-L		S-P-F	
		W	H	B	d _o ¹	Face	Joist	Uplift (K _o =1.15)	Normal (K _o =1.00)	Uplift (K _o =1.15)	Normal (K _o =1.00)
LUS24	18	1⅞	3⅞	1¼	1⅝	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3⅞	3⅞	2	1⅝	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1⅞	4¾	1¼	3⅝	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3⅞	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4⅝	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1⅞	6⅝	1¼	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3⅞	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4⅝	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1⅞	7⅞	1¼	3⅞	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3⅞	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4⅝	8⅞	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

1. d_o 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).

US Patent
5,603,580



Double-shear nailing top view.



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T-SPECLUS22 7/22 exp. 12/24

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HUS/LJS — Double-Shear Joist Hangers

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

Material: See table

Finish: G90 galvanized

Design:

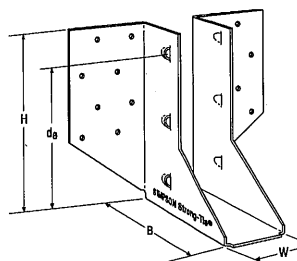
- Factored resistances are in accordance with CSA O86-14 and CSA O86:19.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

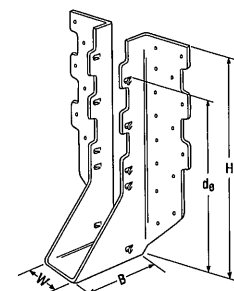
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double-shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

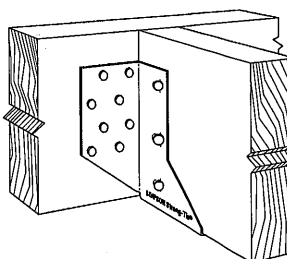
- See current catalogue for options



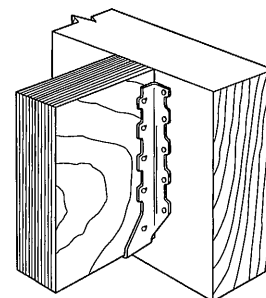
LJS26DS



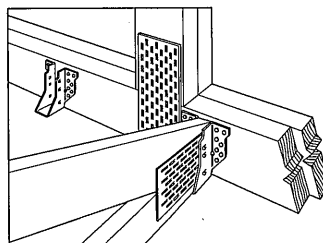
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



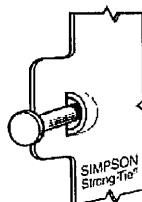
Typical HUS
Installation



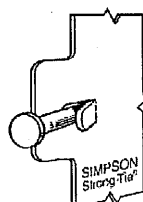
Typical HUS Installation
(Truss designer to provide fastener quantity for connecting multiple members together)

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	1⅞	5	3½	4⅝	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅝	3	3⅞	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅝	7⅞	3	6⅞	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅝	9⅞	3	7⅞	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1⅞	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

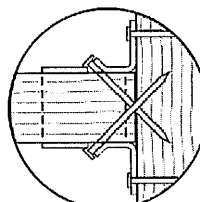
1. d_e is the distance from the seat of the hanger to the highest joist nail.



Dome double-shear nailing prevents tabs breaking off (available on some models).
US Patent 5,603,580



Double-shear nailing side view. Do not bend tab back.



Double-shear nailing top view.



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HHUS — Double-Shear Joist Hangers

SIMPSON
Strong-Tie

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:

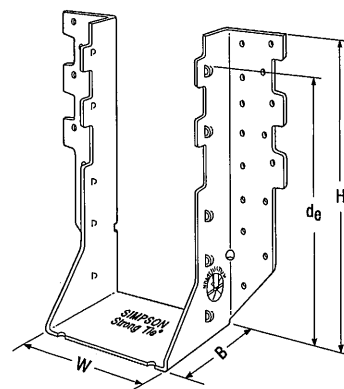
- Factored resistances are in accordance with CSA O86-14 and CSA O86:19.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

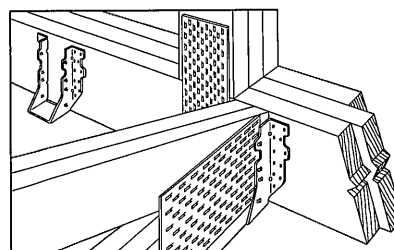
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double-shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options



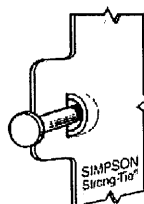
HHUS410



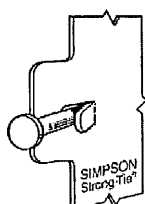
Typical HHUS Installation
(Truss designer to provide fastener quantity for connecting multiple members together)

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g ¹	Face	Joist	D-Fir-L		S-P-F	
								Uplift (K _g =1.15)	Normal (K _g =1.00)	Uplift (K _g =1.15)	Normal (K _g =1.00)
HHUS26-2	14	3⅞	5⅞	3	3⅞	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3⅞	7⅞	3	6⅞	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3⅞	9⅞	3	8	(30) 16d	(10) 16d	4670	9660	4235	7000
HHUS210-3	14	4⅞	9	3	7⅞	(30) 16d	(10) 16d	4670	9670	4235	6865
HHUS210-4	14	6⅞	8⅞	3	7⅞	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS46	14	3⅞	5⅞	3	3⅞	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3⅞	7⅞	3	6⅞	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3⅞	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	3⅞	7⅞	(30) 16d	(10) 16d	4670	10155	3370	7210

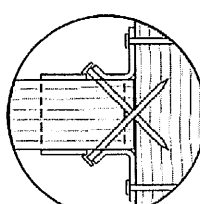
1. d_g is the distance from the seat of the hanger to the highest joist nail.



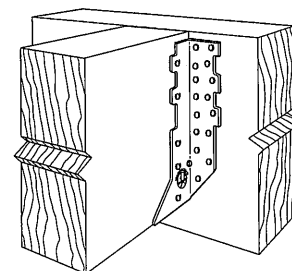
Dome double-shear nailing prevents tabs breaking off (available on some models).
US Patent 5,603,580



Double-shear nailing side view. Do not bend tab back.



Double-shear nailing top view.



Typical HHUS Installation



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TC — Truss Connectors

SIMPSON

Strong-Tie

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

Material: 16 gauge

Finish: G90 galvanized

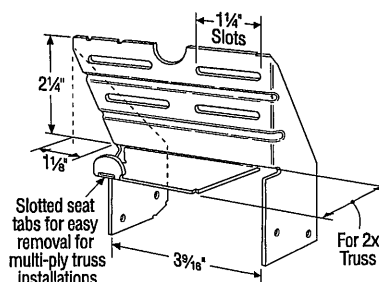
Design: Factored resistances are in accordance with CSA O86-14 and CSA O86:19

Installation:

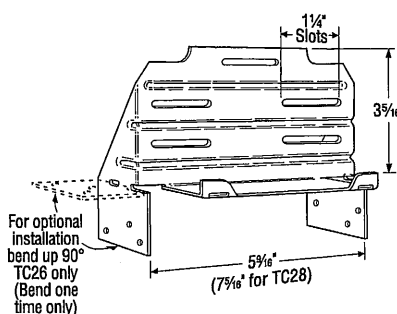
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½" = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss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

Optional TC Installation:

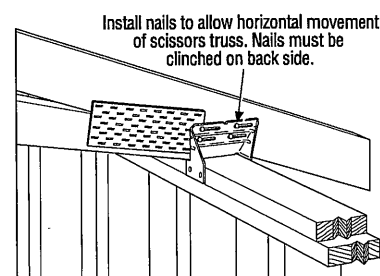
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



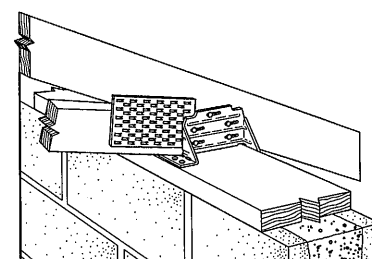
TC24
US Patent 4,932,173



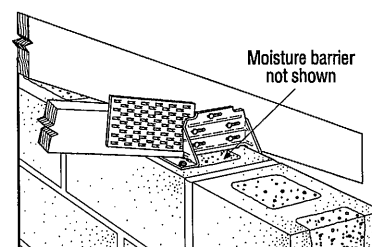
TC26
(TC28 Similar)



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)
			lb.	lb.
TC24	(4) 10d	(4) 10d	605	430
TC26	(5) 10d	(6) 10d	1015	720
TC28	(5) 10d	(6) 10d	1015	720

Optional TC Installation Table

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

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



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LGT/MGT/VGT

Girder Tiedowns

The LGT, MGT and VGT are girder tiedowns for moderate- to high-load applications. The LGT and VGT are also suitable for retrofit applications.

LGT connectors provide a low-profile connection to the studs for easy installation of drywall. Simple to install and can be installed on the inside or outside of the wall.

The variable girder tiedown (VGT) is a higher capacity alternative to the LGT and MGT for girder trusses. It attaches with Strong-Drive® SDS Heavy-Duty Connector screws to the side of truss and features a predeflected crescent washer that allows it to accommodate top chord pitches up to 8:12. The VGT is also available with one flange concealed for attachment to trusses with no overhang.

Material: VGT — 7 gauge, LGT2 — 14 gauge, MGT, LGT3, LGT4 — 12 gauge

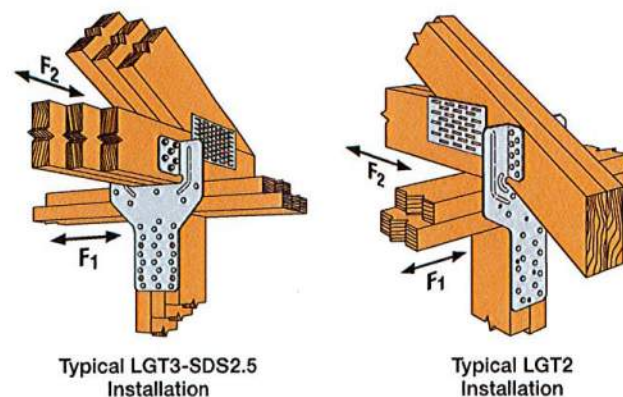
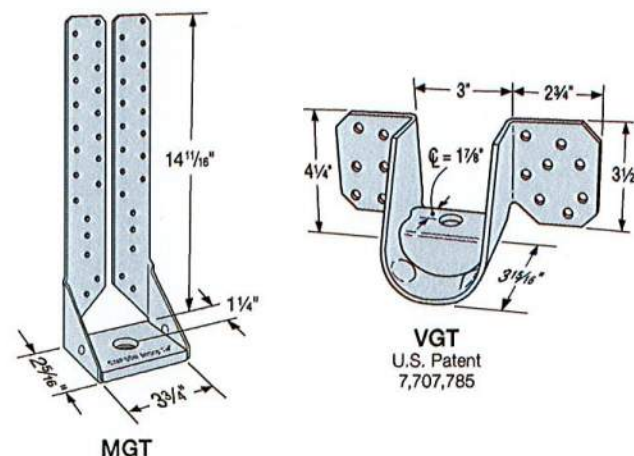
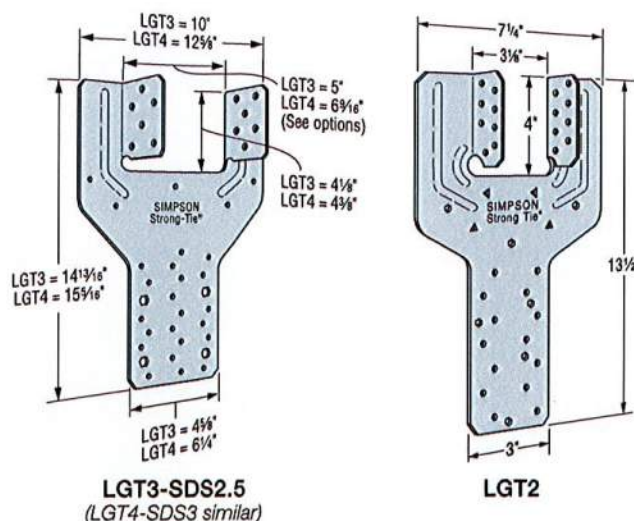
Finish: Galvanized

Installation:

- Before installing fasteners, ensure LGT3-SDS2.5 makes complete contact with bottom of truss.
- Strong-Drive SDS Heavy-Duty Connector screws included with LGT3, LGT4 and VGT series.
- Strong-Drive SDS Heavy-Duty Connector screws driven through truss plates must be approved by the Truss Designer. Predrilling using a $\frac{1}{2}$ " bit is required.
- VGT — Can be installed on roof pitches up to 8/12 or on a bottom chord designed to transfer the load.
- VGT — Screw holes are configured to allow for double installation on a two-ply (minimum) truss.
- VGT — The product can be installed in a single application or in pairs to achieve a higher uplift capacity.
- VGT — When installed on trusses with no overhangs, specify VGTR/L.
- VGT — Install washer component (provided) so that top of washer is horizontal as well as parallel with top of wall top plate.
- LGT3-SDS2.5 and LGT4-SDS3 — The four large hexagon holes are intended for GFCMU and concrete applications.
- MGT — Install a minimum of (6) 10d nails into the face of roof member that is on same side as MGT base.
- See p. 342 for masonry applications.

Options:

- LGT3 and LGT4 are available with reduced widths of $W = 4\frac{1}{16}"$ and $W = 6\frac{3}{16}"$ — order as LGT3N-SDS2.5 and LGT4N-SDS3.



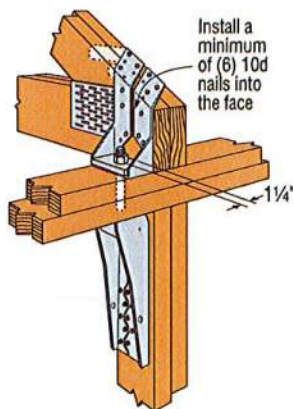
LGT/MGT/VGT

Girder Tiedowns (cont.)

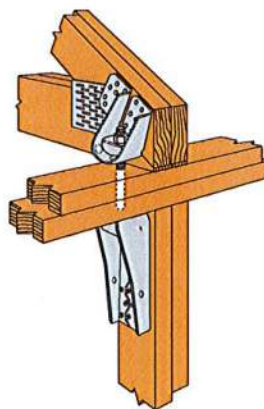
These products are available with additional corrosion protection. For more information, see p. 24.

Model No.	Qty.	No. of Plies	Fasteners		Factored Resistance ($K_D = 1.15$)					
			Studs or Anchor	Girder Truss	D.Fir-L			S-P-F		
					Uplift	Lateral		Uplift	Lateral	
						F ₁	F ₂		F ₁	F ₂
					lb.	lb.	lb.	lb.	lb.	lb.
					kN	kN	kN	kN	kN	kN
LGT2	1	2 ply	(14) 10d ⁴	(16) 10d	3670	1170	285	2605	830	200
					16.33	5.20	1.27	11.59	3.69	0.89
LGT3-SDS2.5	1	3 ply	(26) 10d	(12) ¼" x 2½" SDS	6415	1335	670	4930	945	475
					28.54	5.94	2.98	21.93	4.20	2.11
LGT4-SDS3	1	4 ply	(30) 10d ⁵	(16) ¼" x 3" SDS	6030	2785	1125	3980	1980	800
					26.82	12.39	5.00	17.70	8.81	3.56
MGT	1	2 ply min.	(1) ⅝" diameter	(22) 10d	5610	—	—	3985	—	—
					24.96	—	—	17.73	—	—
VGT	1	2 ply min.	(1) ⅝" diameter	(16) ¼" x 3" SDS	8600	—	—	6195	—	—
					38.26	—	—	27.56	—	—
	2	2 ply min.	(2) ⅝" diameter	(32) ¼" x 3" SDS	11690	—	—	8420	—	—
					52.00	—	—	37.46	—	—
VGTR/L	1	2 ply min.	(1) ⅝" diameter	(16) ¼" x 3" SDS	3475	—	—	2505	—	—
					15.46	—	—	11.14	—	—
	2	2 ply min.	(2) ⅝" diameter	(32) ¼" x 3" SDS	6950	—	—	5010	—	—
					30.92	—	—	22.29	—	—

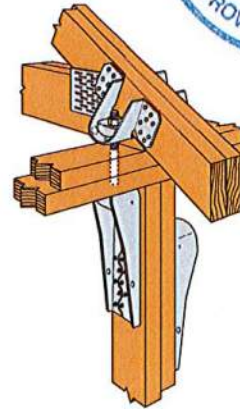
1. Attached members must be designed to resist the factored resistances.
2. Factored resistances have been increased 15% for uplift with no further increase allowed; reduce where other loads govern.
3. Additional anchorage products to be designed by others.
4. LGT2 — F₂ factored resistance requires installation of (4) 10d nails in optional nail holes.
5. LGT4 — F₂ factored resistance requires installation of (7) 10d nails in optional nail holes.
6. MGT can be installed with straps vertical for full table value provided 26-10d nails are installed to either a solid header or minimum double 2x6 web.
7. Nails: 10d = 0.148" dia. x 3" long. See pp. 27–28 for other nail sizes and information.



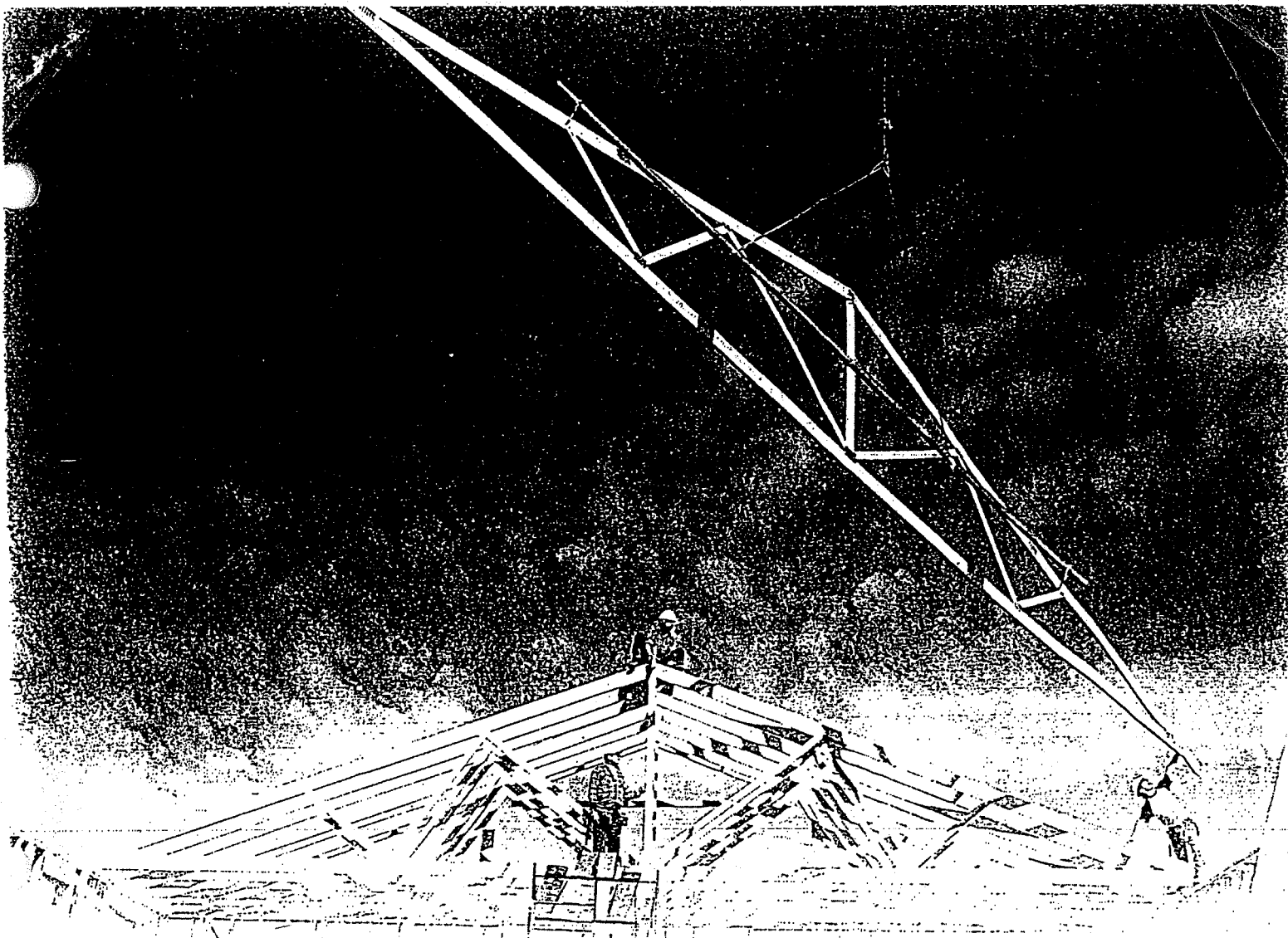
Typical MGT
Installation with HDU4



Typical VGTR Single
Installation with HDU2



Typical VGT Double
Installation with HDU4's



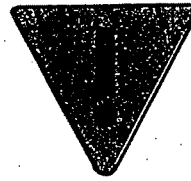
Wood Truss Installation

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

Table of Content

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

Warning



General

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

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

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

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

Temporary Erection Bracing

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

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

Permanent Truss Bracing

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

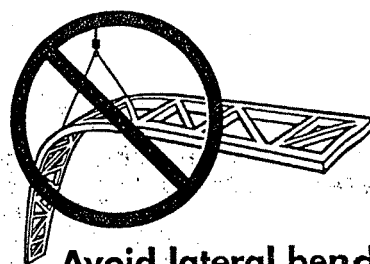
Special Design Requirements

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

1 Unloading & Lifting

Never handle trusses flat

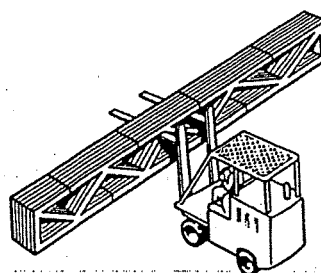
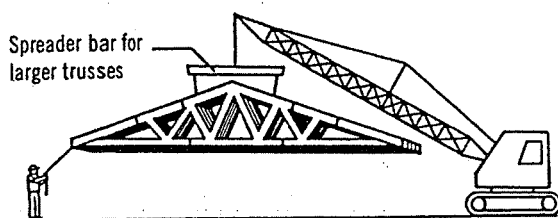
Beginning with the unloading process, and throughout all phases of construction, care must be taken to avoid lateral bending of trusses, which can cause damage to the lumber and metal connector plates at the joints.



Avoid lateral bending

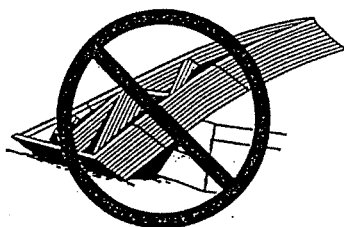
- Use special care in windy weather.
- If using a crane within 10 feet of an electric line, contact the local power company.
- If using a crane within 5 miles of an airport, contact the airport 30 days prior to erection to learn about any safety regulations that must be followed.

2 Job Site Handling



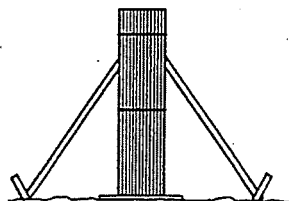
All trusses should be picked up at the top chords in a vertical position only

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



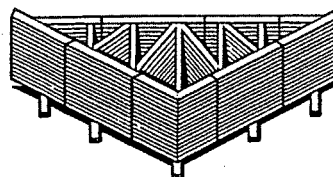
Do not store unbraced bundles upright

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



Do not store on uneven ground

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

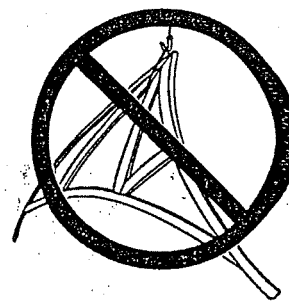


Care should be exercised when removing banding to avoid damaging trusses.

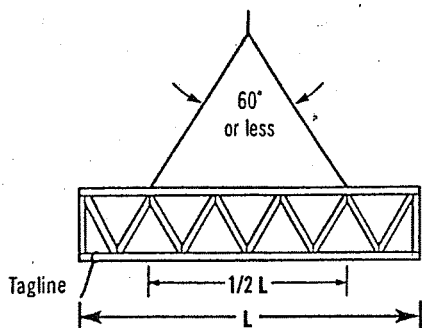
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

3 Hoisting

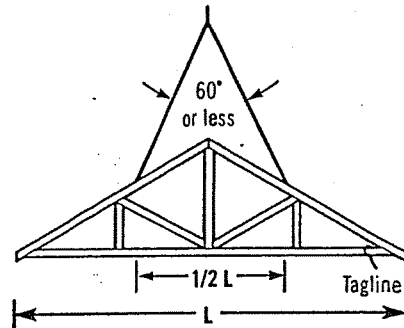
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



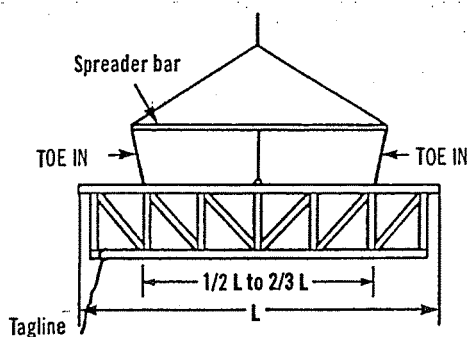
Avoid lateral bending



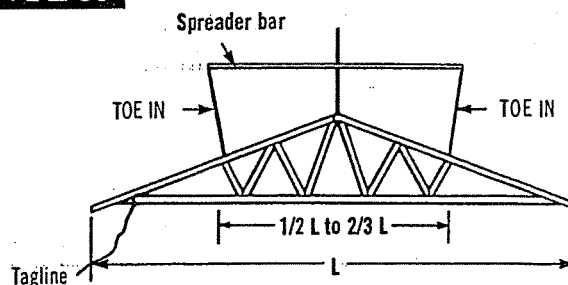
$L \leq 30'$



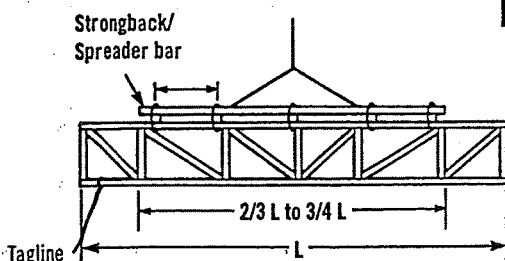
Truss sling is acceptable where these criteria are met.



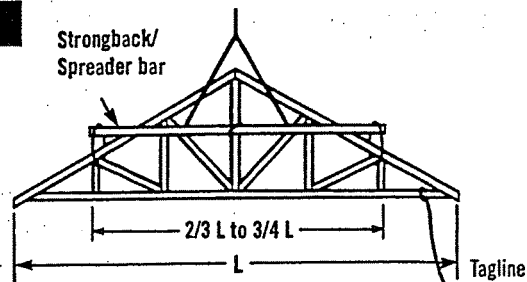
$30' < L \leq 60'$



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



$L > 60'$



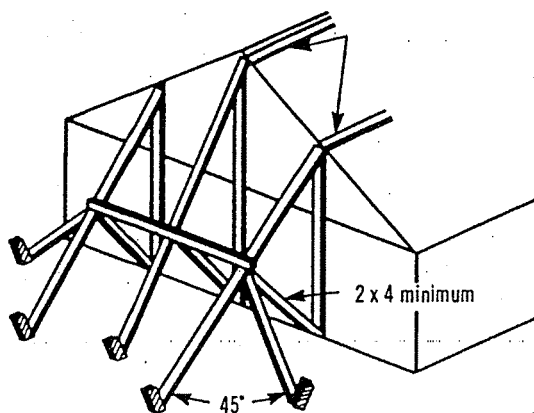
For lifting trusses with spans in excess of 60 feet, it is recommended that a strongback/spreader bar be used as illustrated. The strongback/spreader bar should be attached to the top chord and web members at intervals of approximately 10 feet. Further, the strongback/spreader bar should be at or above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

4 Beginning the Erection Process

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

Ground Brace - Exterior

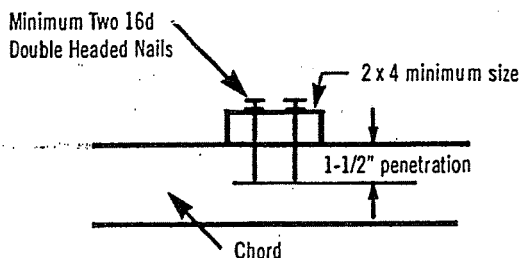
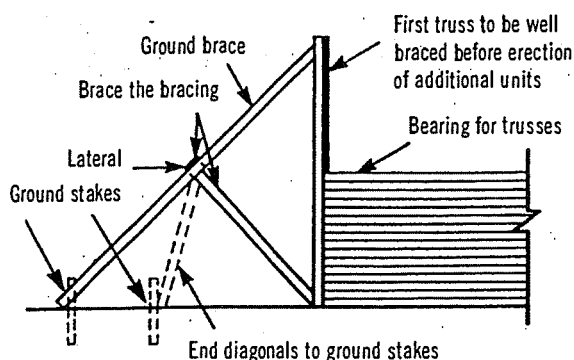
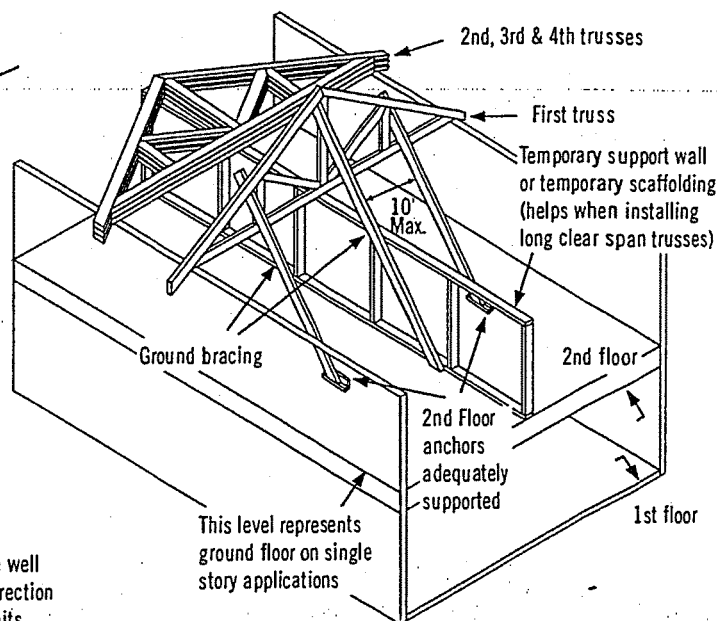
One satisfactory method ties the first unit of trusses off to a series of braces that are attached to a stake driven into the ground and securely anchored. The ground brace itself should be supported as shown below or it is apt to buckle. Additional ground braces in the opposite direction, inside the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



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

Ground Brace - Interior

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

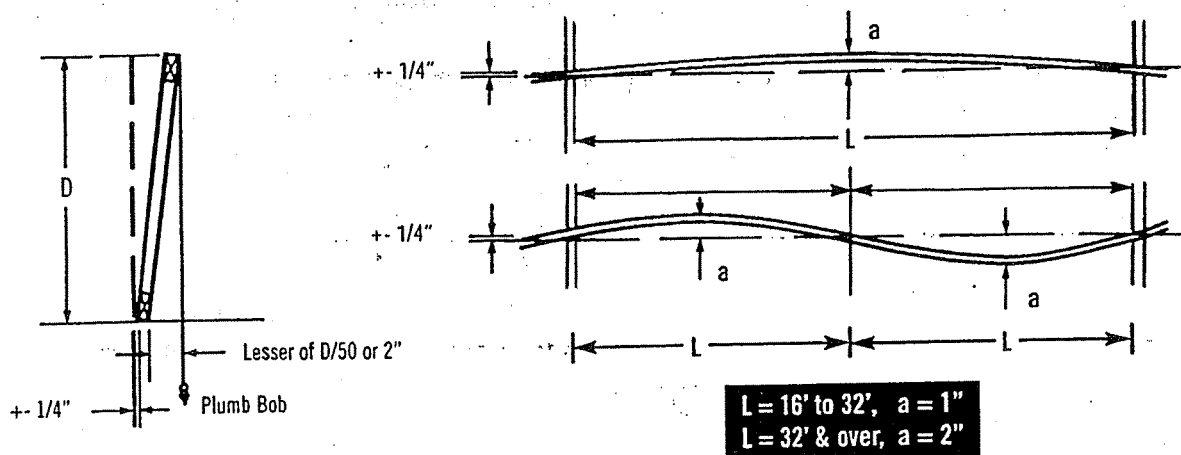


Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.

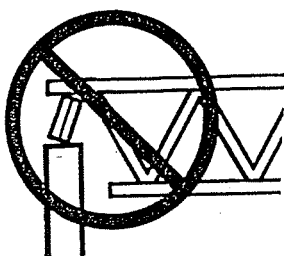
5 Erection Tolerance

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

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



6 Bracing



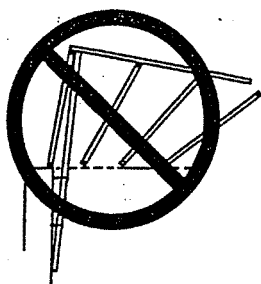
Do not install trusses on temporarily connected supports



Do not walk on unbraced trusses



Do not walk on trusses or gable ends lying flat

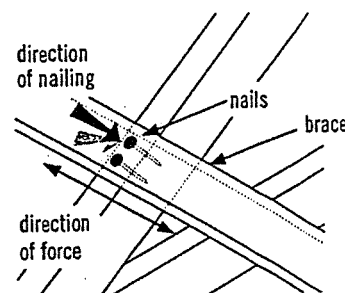


Nails in withdrawal (parallel to force)

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

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

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



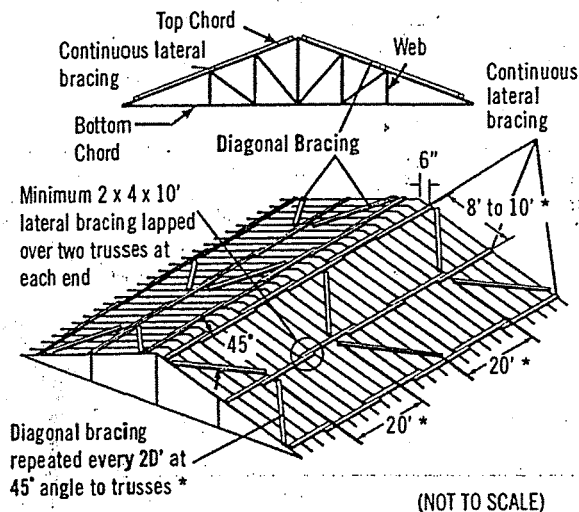
Well nailed (perpendicular to force)

7 Bracing Requirements for 3 Planes of Roof

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

1) Top Chord Plane

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

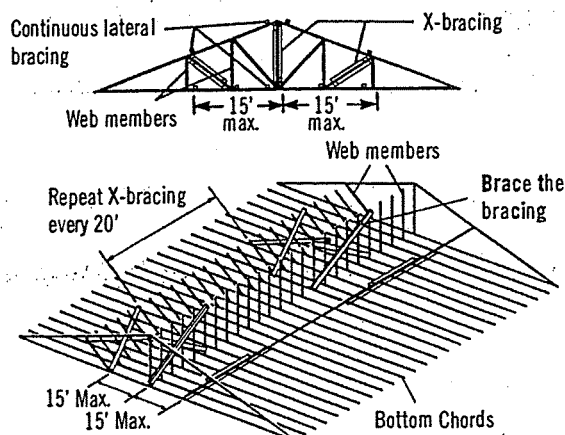


Exact spacing between trusses should be maintained as bracing is installed to avoid the hazardous practice of removing bracing to adjust spacing. This act of "adjusting spacing" can cause trusses to topple if connections are removed at the wrong time.

3) Web Member Plane

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

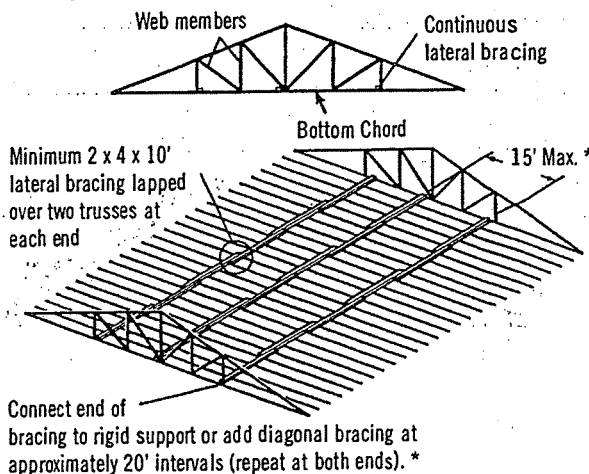
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



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

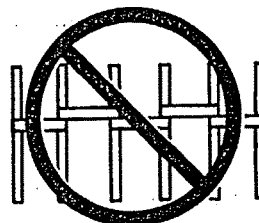
2) Bottom Chord Plane

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

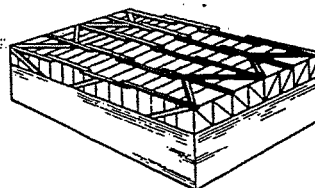


* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (*Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses*) for details.

Diagonal or cross-bracing is very important!



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

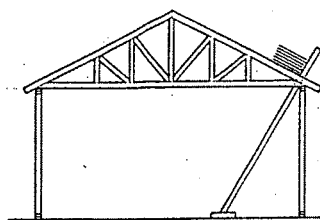
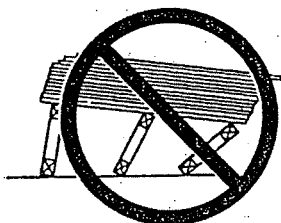


Bracing requirements using the same principles apply to parallel chord trusses

8 Stacking Materials

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

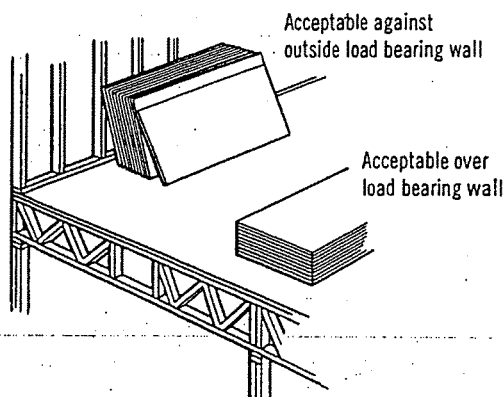
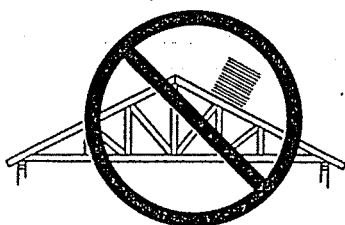
Never stack materials on unbraced or inadequately braced trusses



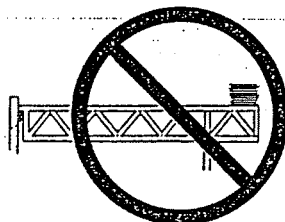
Platform must be rigidly braced

Proper distribution of construction materials is a must during construction.

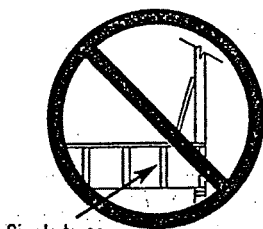
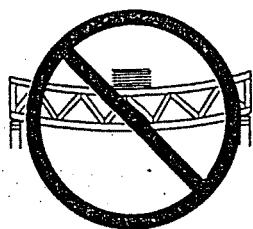
Never stack materials near a peak



Never stack materials on the cantilever of a truss

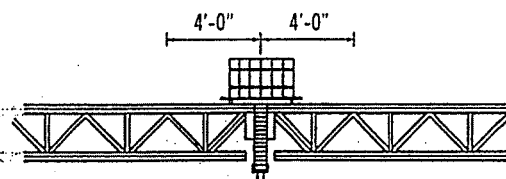


Always stack materials over two or more trusses.



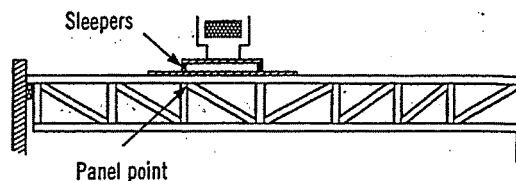
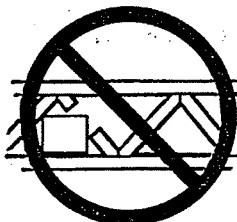
Single truss

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



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

Never cut any structural member of a truss.



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

Caution Notes

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

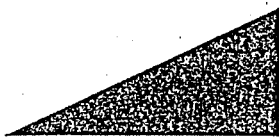
Cutting of nonstructural overhangs is considered a part of normal erection and shall be done by the builder or erection contractor.

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

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

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