



BRAMPTON
Flower City

Planning and Development Services

Building Division

8850 McLaughlin Road, Unit 1

Brampton, ON L6Y 5T1

CITY OF BRAMPTON – BUILDING DIVISION

<u>ROOF TRUSSES</u>			
APPLICATION NO.:	19-567628 000 00 CM	FOLDER TYP.:	CM
DESCRIPTION OF PROJECT:	PLAN M2039	SUB TYP.:	Semi Detached Dwelling
BUILDERS NAME:	GOLD PARK HOMES		
PLAN NUMBER:		MODEL NAME:	2017/SD-10

CERTIFIED MODEL DOCUMENTS			
PAGES:	DESCRIPTION OF DOCUMENTS		
B	ROOF TRUSS LAYOUTS & COMPONENTS:		
	ELEVATION	DESCRIPTION:	COMMENTS
2			
3			
			
			
			
			
ENTERED BY:		DATE:	yyyy/mm/dd

Job Track:	39002	Builder / Location:	GOLD PARK HOMES / BRAMPTON		Model / Elevation:	SD-10 / A/B
Layout ID:	314001	Project:	MCLAUGHLIN AND MAYFIELD			
Plan Log:	104423	Date:	10/23/2019	Designer:	AMANDA	
		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

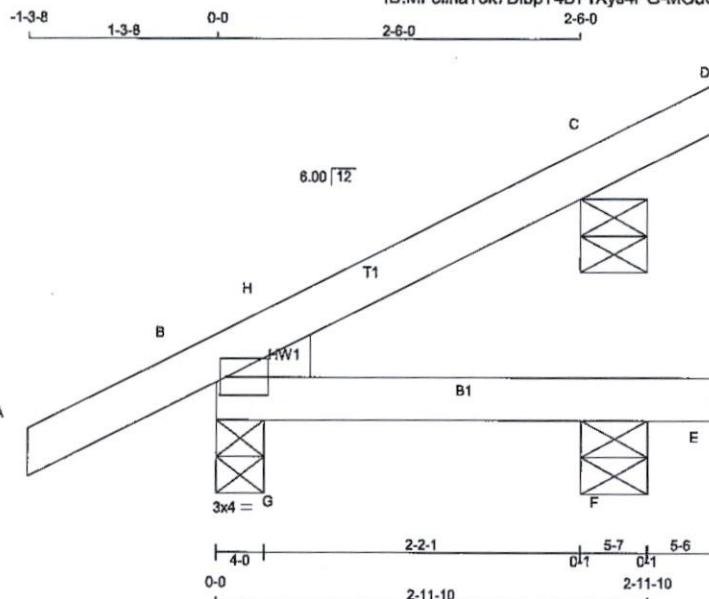
1. Trusses designed by EWP DESIGN INC. conform to the relevant section of the Ontario Building Code of Canada (Part 9 or Part 4) or to the Canadian code for farm buildings, whichever applies to the building type, as indicated on the EWP DESIGN INC. drawings, and conform to the design procedures established 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 314001	TRUSS NAME G01	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	JT-39002	DRWG NO. E-19112605
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Alpa Roof Truss, Maple

Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Mon Nov 11 17:05:08 2019 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-MOdcF0oGTM75WfXh1vIJMGnBldQnlyIANIbkR0yKCZF



Scale: 3/4"=1'

TOTAL WEIGHT = 6 X 11 = 64 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
B - E	2x4	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	1.50	0.50

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX	HEEL WEDGE
	VERT	HORZ	DOWN	HORZ			
B	257	0	257	0	4-0	1-8	2x4 L
F	55	0	55	0	5-8	1-8	
C	162	0	162	0	5-8	5-8	

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): C

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
B	180	127 / 0	0 / 0	0 / 0	0 / 0	53 / 0	0 / 0
F	42	12 / 0	0 / 0	0 / 0	0 / 0	30 / 0	0 / 0
C	113	87 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0

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

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: (5)

MEMB.	CHORDS		FACTORED		MAX. UNBRACED LENGTH	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX. (LC)			MAX. FACTORED FORCE (LBS)	MAX. (LC)
FR-TO						FR-TO		
A-B	0 / 16	-84.9	-84.9	0.12 (5)	10.00	G-H	-96 / 2	0.00 (1)
B-H	-15 / 0	-84.9	-84.9	0.02 (4)	6.25			
H-C	0 / 2	-84.9	-84.9	0.08 (1)	10.00			
C-D	-14 / 0	-84.9	-84.9	0.03 (1)	6.25			
B-G	0 / 0	-18.5	-18.5	0.07 (1)	10.00			
G-F	0 / 0	-18.5	-18.5	0.07 (1)	10.00			
F-E	0 / 0	-18.5	-18.5	0.01 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	= 23.3	PSF
	DL	= 6.0	PSF
BOT CH.	LL	= 0.0	PSF
	DL	= 7.4	PSF
TOTAL LOAD	=	36.7	PSF

SPACING = 24.0 IN C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.19")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.00")
ALLOWABLE DEFL.(TL) = $L/360$ (0.19")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.01")

CANTILEVER DEFLECTION:

ALLOWABLE DEFL.(TL) = $L/120$ (0.19")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.00")

CSI: TC=0.12/1.00 (A-B:5), BC=0.07/1.00 (B-G:1), WB=0.00/1.00 (G-H:1), SSI=0.10/1.00 (A-B:5)

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)	(PL)	(PL)	(PL)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	788	1887	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

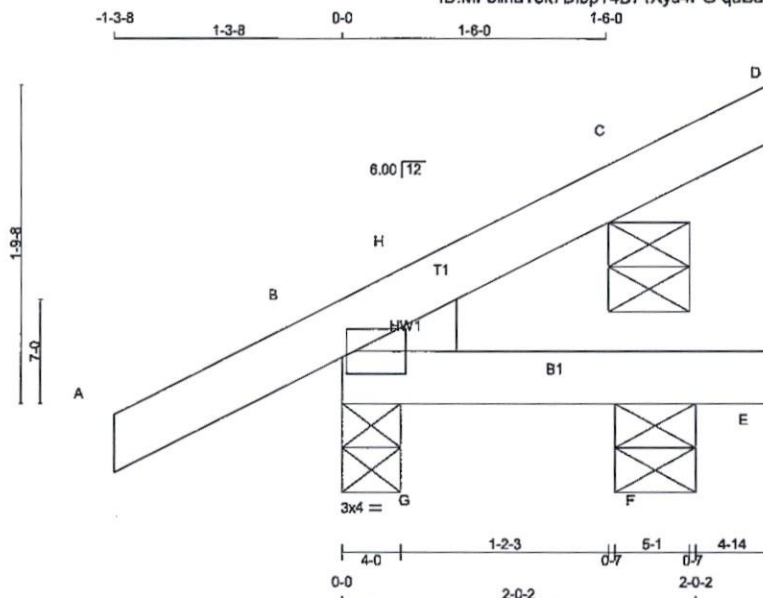
JSI GRIP= 0.82 (B) (INPUT = 0.90)

JSI METAL= 0.05 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN



Scale = 1:13.1

TOTAL WEIGHT = $6 \times 8 = 50$ lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)		W	LEN	Y	X
JT TYPE	PLATES				
B TMBH1-I	MT20	3.0	4.0	1.50	0.50

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	HEEL WEDGE
	VERT	HORZ	DOWN	HORZ	UPLIFT IN-SX	IN-SX	
B	250	0	250	0	0	4-0	1-8
F	13	0	26	0	-8	5-8	1-8
C	108	0	108	0	0	5-8	5-8

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): C

PROVIDE ANCHORAGE AT BEARING JOINT F FOR 150 LBS FACTORED UPLIFT

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	174	128 / 0	0 / 0	0 / 0	0 / 0	46 / 0	0 / 0
F	12	0 / -15	0 / 0	0 / 0	0 / 0	18 / 0	0 / 0
C	75	57 / -9	0 / 0	0 / 0	0 / 0	17 / 0	0 / 0

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

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: (5)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 16	-84.9	-84.9	0.12 (5)	10.00	G-H	0 / 103
B-H	-101 / 0	-84.9	-84.9	0.11 (5)	6.25		0.00 (1)
H-C	-6 / 0	-84.9	-84.9	0.02 (5)	10.00		
C-D	-14 / 0	-84.9	-84.9	0.03 (1)	6.25		
B-G	0 / 0	-18.5	-18.5	0.05 (5)	10.00		
G-F	0 / 0	-18.5	-18.5	0.05 (5)	10.00		
F-E	0 / 0	-18.5	-18.5	0.01 (4)	10.00		

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
	DL =	6.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.4	PSF
TOTAL LOAD =		36.7	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCSC 2018 , OBC 2012 , ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.18")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

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

CSI: TC=0.12/1.00 (A-B:5), BC=0.05/1.00 (B-G:5), WB=0.00/1.00 (G-H:1), SSI=0.09/1.00 (A-B:5)

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	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

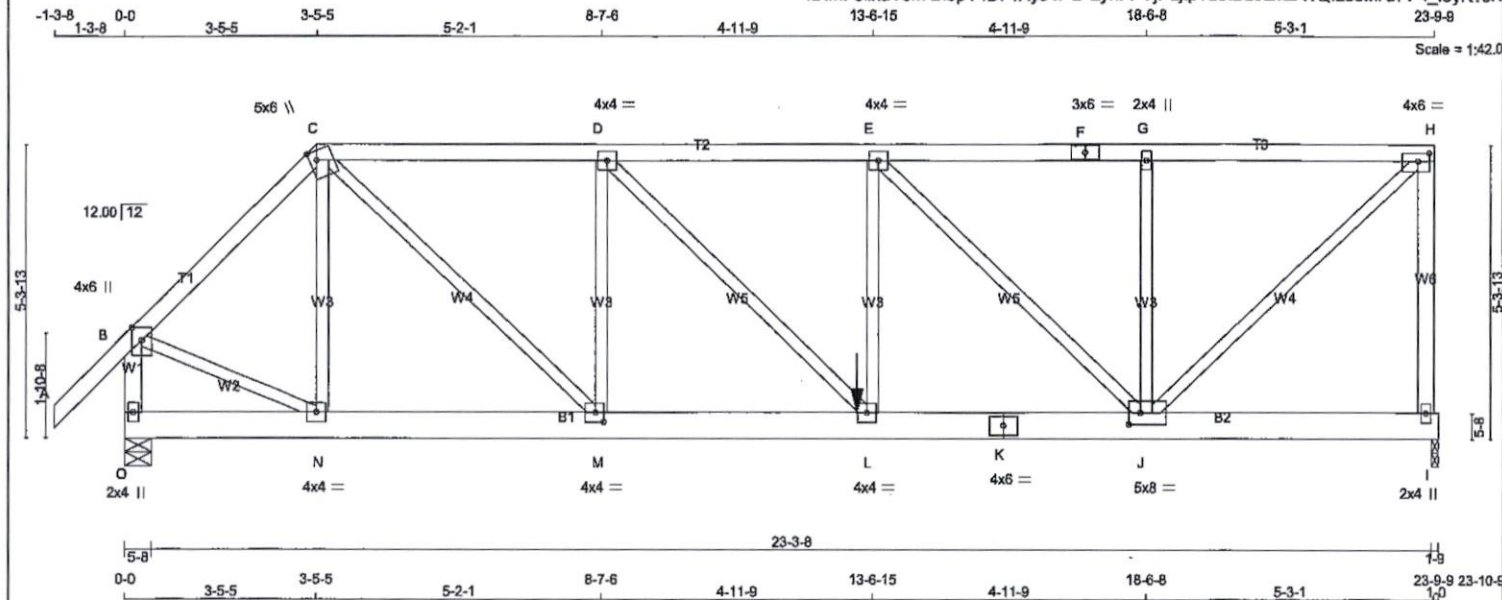
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.71 (B) (INPUT = 0.90)

JSI METAL= 0.04 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314001	H1A		2	TRUSS DESC.	JT-39002
Alpa Roof Truss, Maple					E-19112607

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TOTAL WEIGHT = 4 X 120 = 480 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - F	2x4	DRY	No.2	SPF	
F - H	2x4	DRY	No.2	SPF	
I - H	2x4	DRY	No.2	SPF	
O - B	2x4	DRY	No.2	SPF	
O - K	2x6	DRY	No.2	SPF	
K - I	2x6	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

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

CHORDS	#ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS			
A-C	1	12	TOP
C-F	1	12	SIDE(41.1)
F-H	1	12	SIDE(41.1)
H-I	1	12	TOP
O-B	1	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS			
O-K	2	12	SIDE(174.2)
K-I	2	12	SIDE(10.0)
WEBS : (0.122"x3") SPIRAL NAILS			
L-E	1	6	SIDE(169.1)
2x3	1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT 2784 0	DOWN 2784 0	0 0	1-9 1-8
O	HORZ 2133 0	UP 2133 0	5-8 1-9	

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	1976 1254 / 0	0 / 0	0 / 0	0 / 0	722 / 0	0 / 0
O	1512 973 / 0	0 / 0	0 / 0	0 / 0	539 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.74 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. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-B	0 / 42	-84.9	-84.9	0.07 (1)	10.00	N-C	-428 / 0	0.09 (1)
B-C	-1858 / 0	-84.9	-84.9	0.11 (1)	6.25	B-N	0 / 1412	0.17 (1)
C-D	-2779 / 0	-84.9	-84.9	0.20 (1)	5.29	C-M	0 / 2041	0.25 (1)
D-E	-3632 / 0	-84.9	-84.9	0.23 (1)	4.74	M-D	-1306 / 0	0.27 (1)
E-F	-2495 / 0	-167.1	-167.1	0.40 (1)	5.20	D-L	0 / 1204	0.15 (1)
F-G	-2495 / 0	-167.1	-167.1	0.40 (1)	5.20	L-E	0 / 566	0.07 (1)
G-H	-2495 / 0	-167.1	-167.1	0.41 (1)	5.20	E-J	-1605 / 0	0.73 (1)
H-I	-2896 / 0	0.0	0.0	0.62 (1)	6.94	J-G	-1000 / 0	0.20 (1)
O-B	-2115 / 0	0.0	0.0	0.12 (1)	7.63	J-H	0 / 3425	0.42 (1)
O-N	0 / 0	-18.5	-18.5	0.03 (4)	10.00			
N-M	0 / 1299	-18.5	-18.5	0.10 (1)	10.00			
M-L	0 / 2779	-18.5	-18.5	0.21 (1)	10.00			
L-K	0 / 3632	-36.4	-36.4	0.28 (1)	10.00			
K-J	0 / 3632	-36.4	-36.4	0.28 (1)	10.00			
J-I	0 / 0	-36.4	-36.4	0.05 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
L	13-3-9	-1316	-1316		FRONT	VERT	TOTAL		C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

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

SPECIFIED LOADS:

TOP CH.	LL	= 23.3	PSF
	DL	= 6.0	PSF
BOT CH.	LL	= 0.0	PSF
	DL	= 7.4	PSF
TOTAL LOAD	=	36.7	PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp

LEFT SETBACK = 3-5-5
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL
LOADS APPLIED TO FIRST 10-7-0 OF SPAN MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = 1/360 (0.79")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.06")
ALLOWABLE DEFL.(TL) = 1/360 (0.79")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.11")

CSI: TC=0.62/1.00 (H-I:1), BC=0.28/1.00 (J-L:1), WB=0.73/1.00 (E-J:1), SS=0.23/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314001	H1A		2	JT-39002	E-19112607(2)

Alpa Roof Truss, Maple

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TTWW+m	MT20	5.0	6.0	2.00	1.50
D	TMVW-t	MT20	4.0	4.0		
E	TMVW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMVW+w	MT20	2.0	4.0		
H	TMVW-t	MT20	4.0	6.0	1.75	2.50
I	BMV1+p	MT20	2.0	4.0		
J	BMVWW-t	MT20	5.0	8.0	2.50	2.50
K	BS-t	MT20	4.0	6.0		
L	BMVW-t	MT20	4.0	4.0		
M	BMVW-t	MT20	4.0	4.0	2.00	1.75
N	BMVW-t	MT20	4.0	4.0		
O	BMV1+p	MT20	2.0	4.0		

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
	MAX	MIN	MAX
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



JOB NAME 314001	TRUSS NAME H1B	QUANTITY	PLY 2	JOB DESC. JT-39002	DRWG NO. E-19112608(2)
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Alpa Roof Truss, Maple

Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 07:42:24 2019 Page 2
ID:MF8llriaTok7DlbpT4B71Xys4PG-Bh5nOto dnifihRVWPdffb8oBsWzySPok7Q17i8yK7ID

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TTWW+m	MT20	5.0	6.0	2.00	1.50
D	TMVW-t	MT20	4.0	4.0		
E	TMVW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMVW+w	MT20	2.0	4.0		
H	TMVW-t	MT20	4.0	6.0	1.75	2.75
I	BMV1+p	MT20	2.0	4.0		
J	BMVWW-t	MT20	5.0	8.0		
K	BMVWW-t	MT20	4.0	4.0		
L	BS-t	MT20	4.0	6.0		
M	BMVWW-t	MT20	4.0	4.0	2.00	1.75
N	BMVWW-t	MT20	4.0	4.0		
O	BMV1+p	MT20	2.0	4.0		

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1687 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.37 (B) (INPUT = 1.00)

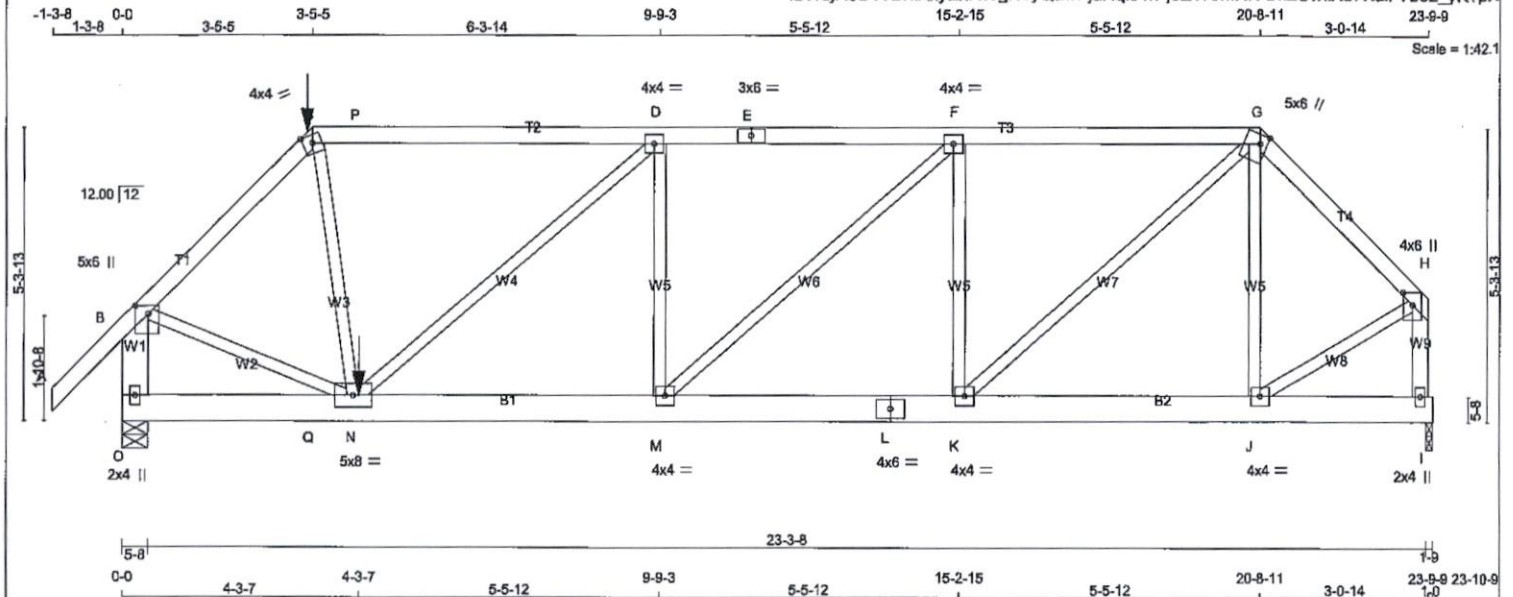
NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



JOB NAME 314001	TRUSS NAME H9	QUANTITY 2	PLY 2	JOB DESC. TRUSS DESC.	DRWG NO. JT-39002	E-19112609
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Alpha Roof Truss, Maple

Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 07:35:50 2019 Page 1
ID:1dJr6DYvLvlIXyExRWgN1yQawr-juHqi81rPj3Z17JmRfYGH2UwllX87KulP7b82_yK?pN



TOTAL WEIGHT = 2 X 118 = 236 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	
G - H	2x4	DRY	No.2	SPF	
O - B	2x6	DRY	No.2	SPF	
I - H	2x4	DRY	No.2	SPF	
O - L	2x6	DRY	No.2	SPF	
L - I	2x6	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - C 1	12	SIDE(61.0)
C - E 1	12	SIDE(41.1)
E - G 1	12	TOP
G - H 1	12	TOP
I - H 1	12	TOP
O - B 2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
O - L 2	12	SIDE(175.9)
L - I 2	12	TOP
WEBS : (0.122"x3") SPIRAL NAILS		
N - C 1	6	SIDE(229.5)
2x3 1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
O	2936	0	2936	0	5-8	1-9
I	1554	0	1554	0	1-9	1-8

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
O	2084	1327 / 0	0 / 0	0 / 0	0 / 0	756 / 0	0 / 0
I	1103	701 / 0	0 / 0	0 / 0	0 / 0	402 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.41 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	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM TO			FR-TO				
A-B	0 / 42	-84.9	-84.9	0.07 (1)	10.00	C-N	0 / 1300	0.16 (1)	
B-C	-2727 / 0	-84.9	-84.9	0.13 (1)	5.41	N-D	-397 / 0	0.22 (1)	
C-P	-2121 / 0	-167.1	-167.1	0.28 (1)	5.76	M-D	-296 / 0	0.06 (1)	
P-D	-2121 / 0	-84.9	-84.9	0.28 (1)	5.76	M-F	0 / 601	0.07 (1)	
D-E	-2418 / 0	-84.9	-84.9	0.28 (1)	5.47	K-F	-882 / 0	0.18 (1)	
E-F	-2418 / 0	-84.9	-84.9	0.28 (1)	5.47	K-G	0 / 1469	0.18 (1)	
F-G	-1971 / 0	-84.9	-84.9	0.20 (1)	6.02	J-G	-403 / 0	0.08 (1)	
G-H	-1271 / 0	-84.9	-84.9	0.08 (1)	6.25	B-N	0 / 2029	0.25 (1)	
O-B	-2857 / 0	0.0	0.0	0.11 (1)	7.81	J-H	0 / 1029	0.13 (1)	
I-H	-1542 / 0	0.0	0.0	0.10 (1)	7.81				
O-Q	0 / 0	-36.4	-36.4	0.04 (4)	10.00				
Q-N	0 / 0	-36.4	-36.4	0.04 (4)	10.00				
N-M	0 / 2418	-18.5	-18.5	0.18 (1)	10.00				
M-L	0 / 1972	-18.5	-18.5	0.15 (1)	10.00				
L-K	0 / 1972	-18.5	-18.5	0.15 (1)	10.00				
K-J	0 / 885	-18.5	-18.5	0.08 (1)	10.00				
J-I	0 / 0	-18.5	-18.5	0.03 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-5-5	-213	-213	—	FRONT	VERT	TOTAL	—	C1
N	4-3-7	-1554	-1554	—	FRONT	VERT	TOTAL	—	C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

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

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 36.7	PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 3-5-5

RIGHT SETBACK = 3-1-14

END SETBACK = 5-10-8

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.

LOADS APPLIED TO FIRST 4-3-7 OF SPAN

MEASURED FROM THE LEFT.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019

- CSA 086-09, CSA 086-14

- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CSI: TC=0.28/1.00 (C-D:1), BC=0.18/1.00 (M-N:1), WB=0.25/1.00 (B-N:1), SSI=0.14/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

CONTINUED ON PAGE 2



JOB NAME 314001	TRUSS NAME H9	QUANTITY 2	PLY 2	JOB DESC. JT-39002	DRWG NO. E-19112609(2)
Alpa Roof Truss, Maple					
Version 8.300 S Aug 9 2019 MITek Industries, Inc. Tue Nov 12 07:35:50 2019 Page 2					
ID:1dJR6DYvLvIIXkyExRWgN1yQawr-juHqj81rPj3Z17JmRfYgh2UwIIX87KulP7b82_vK?pN					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	1.75	2.75
C	TTW-m	MT20	4.0	4.0	1.75	2.00
D	TMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TTWW+m	MT20	5.0	6.0	2.00	1.50
H	TMVW+p	MT20	4.0	6.0	2.75	2.00
I	BMV1+p	MT20	2.0	4.0		
J, K, M						
J	BMWW-t	MT20	4.0	4.0		
L	BS-t	MT20	4.0	6.0		
N	BMWW-t	MT20	5.0	8.0		
O	BMV1+p	MT20	2.0	4.0		

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL = 0.41 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

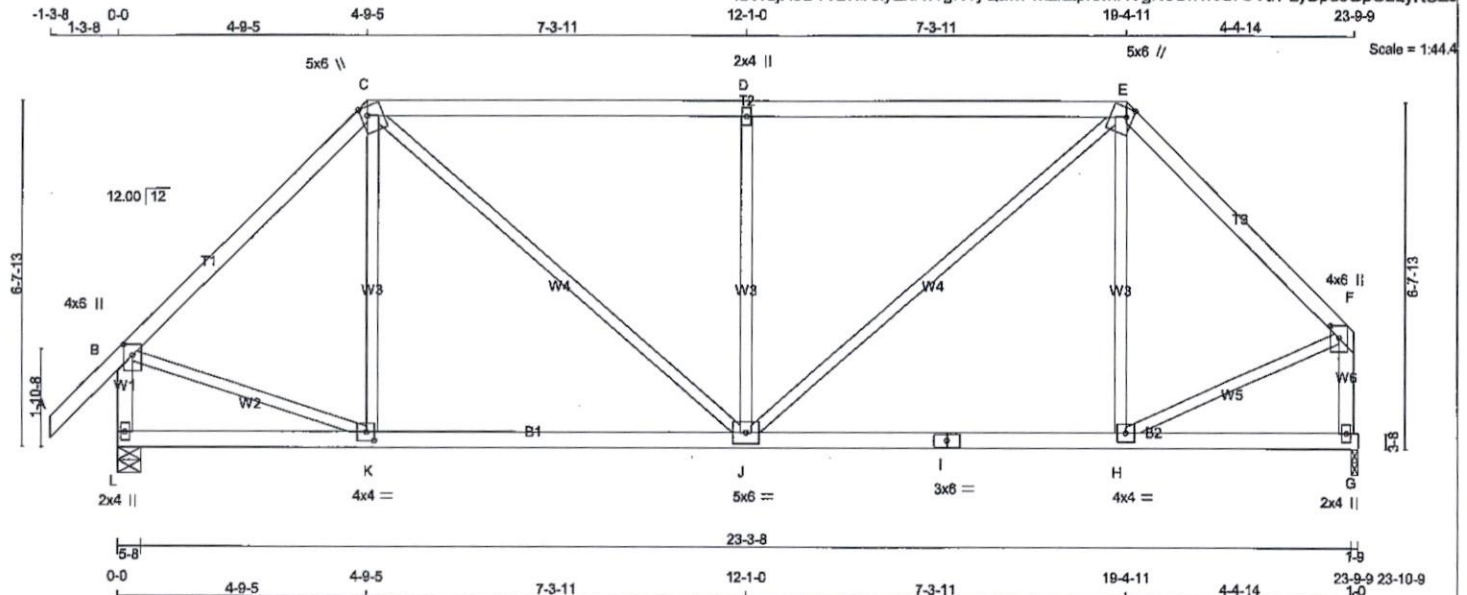


JOB NAME 314001	TRUSS NAME H10	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	JT-39002	DRWG NO. E-19112610
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Alpa Roof Truss, Maple

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ID:1dJR6DYvLvIXkyExRWgN1yQawr-mzILtpr9mHVgN6Gri1r0zvOVtrPLyBpd3GpO2LyKCZc



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 - F	2x4	DRY	No.2	SPF	
L - B	2x4	DRY	No.2	SPF	
G - F	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.50	2.00
C	TTVW+m	MT20	5.0	6.0	2.00	1.50
D	TMVW+w	MT20	2.0	4.0		
E	TTVW+m	MT20	5.0	6.0	2.00	1.50
F	TMVW+p	MT20	4.0	6.0	2.75	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMVW+t	MT20	4.0	4.0		
I	BS-t	MT20	3.0	6.0		
J	BMVWVW-t	MT20	5.0	6.0		
K	BMVWVW-t	MT20	4.0	4.0	2.00	1.75
L	BMV1+p	MT20	2.0	4.0		

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT 1348	DOWN 1348	5-8	5-8
L	HORZ 0	HORZ 0	1-9	1-8
G	VERT 1230	DOWN 1230		

UNFACTORED REACTIONS	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW LIVE	PERM. LIVE		
L	955	619 / 0	0 / 0	336 / 0	0 / 0
G	873	554 / 0	0 / 0	318 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.14 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	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. UNBRACED LENGTH	WEBS	MAX. FACTORED MEMB. FORCE (LBS)	MAX. UNBRACED LENGTH
FR-TO		FROM TO			FR-TO		
A-B	0 / 42	-84.9	-84.9	0.12 (1)	10.00	K-C	-111 / 50
B-C	-1072 / 0	-84.9	-84.9	0.39 (1)	5.60	C-J	0 / 656
C-D	-1249 / 0	-84.9	-84.9	0.90 (1)	4.14	J-D	-761 / 0
D-E	-1249 / 0	-84.9	-84.9	0.90 (1)	4.14	J-E	0 / 714
E-F	-1011 / 0	-84.9	-84.9	0.32 (1)	5.81	H-E	-177 / 23
L-B	-1317 / 0	0.0	0.0	0.15 (1)	7.05	B-K	0 / 791
G-F	-1203 / 0	0.0	0.0	0.15 (1)	7.29	H-F	0 / 772
L-K	0 / 0	-18.5	-18.5	0.16 (4)	10.00		
K-J	0 / 754	-18.5	-18.5	0.27 (4)	10.00		
J-I	0 / 709	-18.5	-18.5	0.26 (4)	10.00		
I-H	0 / 709	-18.5	-18.5	0.26 (4)	10.00		
H-G	0 / 0	-18.5	-18.5	0.15 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(65 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.90/1.00 (D-E:1), BC=0.27/1.00 (J-K:4), WB=0.56/1.00 (D-J:1), SSI=0.30/1.00 (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 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (H) (INPUT = 0.90)
JSI METAL= 0.48 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

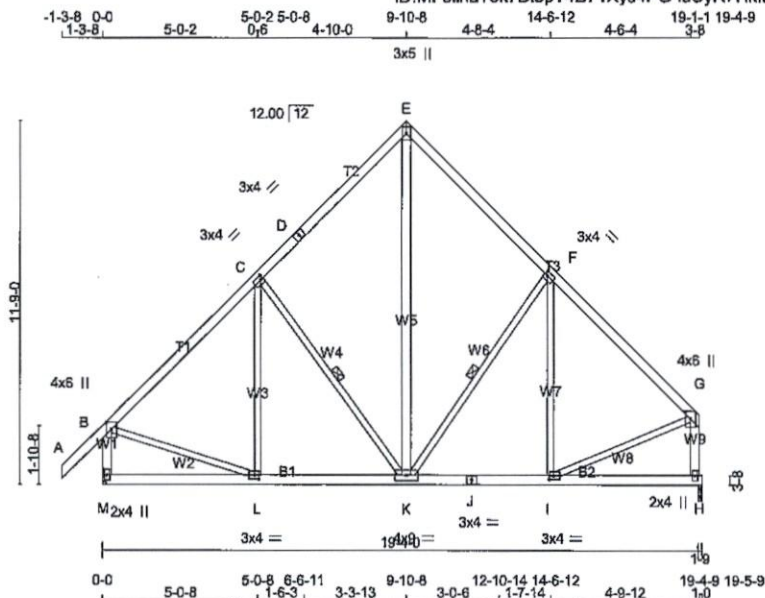


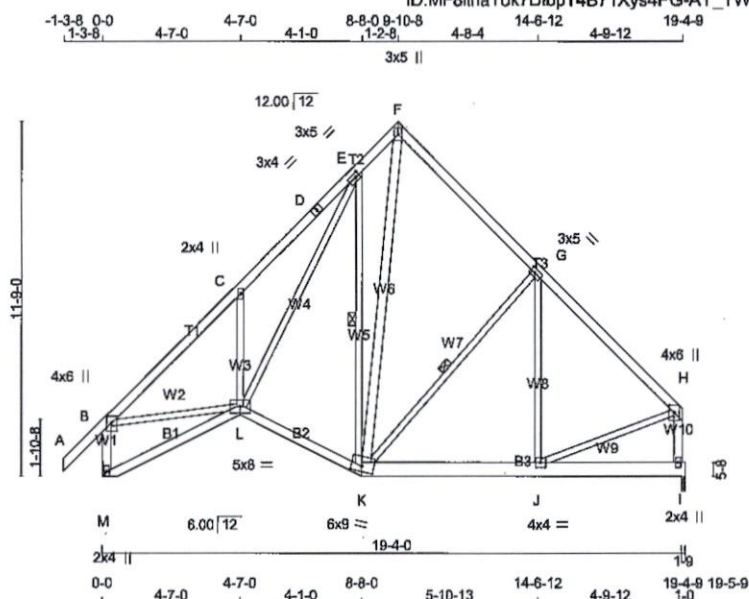
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314001	H12		1	TRUSS DESC. JT-39002	E-19112611

Alpa Roof Truss, Maple

Version 8.300 S Aug 9 2019 MTek Industries, Inc. Mon Nov 11 17:05:47 2019 Page 1

ID:MF8iiriaTok7DlbpT4B71Xys4PG-luUyR7HkIL2Zhe0mpbVTRVupOLjNNZ9wLsXIJFyKCZZ





Scale = 1:77.0

TOTAL WEIGHT = 118 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

J	T	TYPE	PLATES	W	LEN	Y	X
B	T	TMWV+p	MT20	4.0	6.0	2.75	1.75
C	D	TMW+p	MT20	2.0	4.0		
D	D	TS-t	MT20	3.0	4.0		
E	F	TMWV-t	MT20	3.0	5.0	1.50	1.50
F	F	TTW+p	MT20	3.0	5.0		
G	H	TMWV-t	MT20	3.0	5.0	1.50	2.00
H	I	TMWV+p	MT20	4.0	6.0	2.75	2.00
I	J	BMV1+p	MT20	2.0	4.0		
J	K	BMWV-t	MT20	4.0	4.0		
K	L	BBWVWV-m	MT20	6.0	9.0	2.00	4.25
L	M	BBWVWV-p	MT20	5.0	8.0		
M		BMV1+p	MT20	2.0	4.0	Edge	

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
M	1120	0	1120	0	0	MECHANICAL	
I	1002	0	1002	0	0	1-9	1-8

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	793	516 / 0	0 / 0	0 / 0	0 / 0	276 / 0	0 / 0
I	711	451 / 0	0 / 0	0 / 0	0 / 0	260 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.48 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MAX. FACTORED		FACTORED		MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1 MAX	MAX. UNBRAC	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	LENGTH		(LBS)	CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-B	0 / 42	-84.9	-84.9	0.12 (1)	10.00	K-E	-651 / 0	0.49 (1)
B-C	-1264 / 0	-84.9	-84.9	0.22 (1)	8.50	K-F	0 / 711	0.11 (1)
C-D	-1293 / 0	-84.9	-84.9	0.20 (1)	5.48	K-G	-283 / 0	0.15 (1)
D-E	-1293 / 0	-84.9	-84.9	0.20 (1)	5.48	J-G	-102 / 56	0.08 (1)
E-F	-698 / 0	-84.9	-84.9	0.05 (1)	6.25	J-H	0 / 629	0.14 (1)
F-G	-603 / 0	-84.9	-84.9	0.25 (1)	6.25	L-C	-417 / 0	0.12 (1)
G-H	-799 / 0	-84.9	-84.9	0.28 (1)	6.25	B-L	0 / 918	0.21 (1)
M-B	-1078 / 0	0.0	0.0	0.13 (1)	7.60	L-E	0 / 939	0.21 (1)
I-H	-966 / 0	0.0	0.0	0.11 (1)	7.81			
M-L	0 / 0	-18.5	-18.5	0.11 (4)	10.00			
L-K	0 / 539	-18.5	-18.5	0.14 (1)	10.00			
K-J	0 / 580	-18.5	-18.5	0.11 (1)	10.00			
J-I	0 / 0	-18.5	-18.5	0.07 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
	DL =	6.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.4	PSF
TOTAL LOAD =		36.7	PSF

SPACING = 24.0 IN. C/C

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2012 , ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.65")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.65")
CALCULATED VERT. DEFL.(TL) = L/898 (0.08")

CSI: TC=0.26/1.00 (G-H:1), BC=0.14/1.00 (K-L:1)
WB=0.49/1.00 (E-K:1), SSI=0.14/1.00 (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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (K) (INPUT = 0.90)
JSI METAL= 0.55 (B) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314001	H12TG		1	TRUSS DESC.	JT-39002

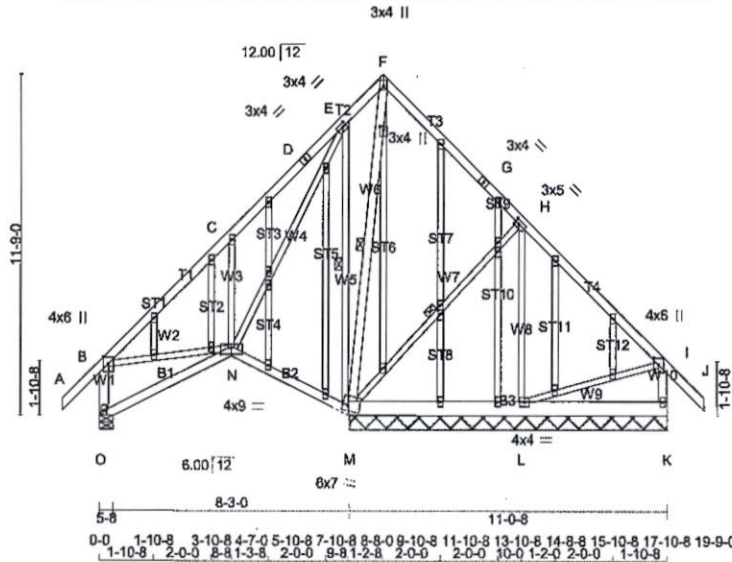
Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DibpT4B71Xys4PG-7x6DxXvHbp8yTu8pVbRBgy6Uass9vdUBMCYX9jYyKCZK

-1-3-8 0-0 1-10-8 3-10-8 4-7-0 5-10-8 7-10-8 8-8-0 9-10-8 11-10-8 13-10-8 14-8-8 15-10-8 17-10-8 19-9-0 21-0-8
1-3-8 1-10-8 2-0-0 3-8-1-3-8 2-0-0 3-8-1-2-8 2-0-0 2-0-0 10-0 1-2-0 2-0-0 1-10-8 1-3-8

Scale = 1:80.4



LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - F	2x4	DRY	No.2	SPF	
F - G	2x4	DRY	No.2	SPF	
G - J	2x4	DRY	No.2	SPF	
O - B	2x4	DRY	No.2	SPF	
K - I	2x4	DRY	No.2	SPF	
O - N	2x4	DRY	No.2	SPF	
N - M	2x4	DRY	No.2	SPF	
M - K	2x6	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
M - F	2x4	DRY	No.2	SPF	
ALL GABLE WEBS	2x3	DRY	No.2	SPF	
DRY: SEASONED LUMBER.					
GABLE STUDS SPACED AT 2-0-0 OC.					

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B TMVW+p	MT20	4.0	6.0	2.75	2.00	
C TMVW+w	MT20	2.0	4.0			
D TS-t	MT20	3.0	4.0			
E TMVW-t	MT20	3.0	4.0	1.50	1.50	
F TTW+p	MT20	3.0	4.0	Edge		
G TS-t	MT20	3.0	4.0			
H TMVW-t	MT20	3.0	5.0	1.50	2.00	
I TMVW+p	MT20	4.0	6.0	2.75	2.00	
K BMVt+p	MT20	2.0	4.0			
L BMVW-t	MT20	4.0	4.0			
M BBVWW-t	MT20	6.0	7.0	2.00	2.25	
N BBVWW-p	MT20	4.0	9.0	2.50	4.50	
O BMVt+p	MT20	2.0	4.0	Edge		
P, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ						
P NP+w	MT20	2.0	4.0			
Q NP+w	MT20	3.0	4.0	1.25	1.50	
AC NP+w	MT20	2.0	4.0	1.75	1.00	
AF NP+w	MT20	2.0	4.0	1.75	1.00	

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
O	381	0	381	0	5-8	1-8
M	1186	0	1186	0	11-0-8	2-4-6
K	348	0	348	0	11-0-8	2-4-6
L	364	0	364	0	11-0-8	2-4-6

JT	UNFACTORED REACTIONS		MAX/MIN COMPONENT REACTIONS		WIND	DEAD	SOIL
	1ST CASE	2ND CASE	LIVE	PERM.LIVE			
O	269	179 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0
M	837	556 / 0	0 / 0	0 / 0	0 / 0	281 / 0	0 / 0
K	242	182 / 0	0 / 0	0 / 0	0 / 0	60 / 0	0 / 0
L	264	133 / 0	0 / 0	0 / 0	0 / 0	131 / 0	0 / 0

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

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

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED	VERT. LOAD	FACTORED		MAX. UNBRAC	MEMB.	MAX. FACTORED	MAX	
	FORCE (LBS)		LC1 (PLF)	LC1 (LC)			FORCE (LBS)		CSI (LC)
FR-TO			FROM	TO	LENGTH	FR-TO			
A-B	0 / 42		-84.9	-84.9	0.12 (1)	10.00	M-E	-475 / 0 0.36 (1)	
B-C	-82 / 0		-84.9	-84.9	0.23 (1)	6.25	M-F	-413 / 0 0.29 (1)	
C-D	-109 / 0		-84.9	-84.9	0.23 (1)	6.25	M-H	-199 / 0 0.10 (1)	
D-E	-109 / 0		-84.9	-84.9	0.23 (1)	6.25	L-H	-242 / 0 0.18 (1)	
E-F	0 / 175		-84.9	-84.9	0.13 (1)	10.00	L-I	-5 / 28 0.01 (1)	
F-G	0 / 116		-84.9	-84.9	0.37 (1)	10.00	B-N	0 / 77 0.02 (1)	
G-H	0 / 116		-84.9	-84.9	0.37 (1)	10.00	N-C	-414 / 0 0.12 (1)	
H-I	-2 / 16		-84.9	-84.9	0.35 (1)	10.00	N-E	0 / 480 0.11 (1)	
I-J	0 / 42		-84.9	-84.9	0.12 (1)	10.00			
O-B	-338 / 0	0.0	0.0	0.0	0.04 (1)	7.81			
K-I	-316 / 0	0.0	0.0	0.0	0.03 (1)	7.81			
O-N	0 / 0	-18.5	-18.5	0.11 (4)	10.00				
N-M	-164 / 0	-18.5	-18.5	0.09 (4)	6.25				
M-L	-6 / 27	-18.5	-18.5	0.08 (4)	10.00				
L-K	0 / 0	-18.5	-18.5	0.08 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-08, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.29")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.29")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.37/1.00 (F-H:1), BC=0.11/1.00 (N-O:4), WB=0.36/1.00 (E-M:1), SI=0.15/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

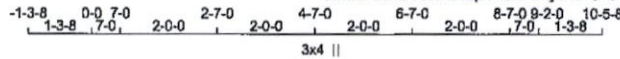
JSI GRIP= 0.90 (M) (INPUT = 0.90)
JSI METAL= 0.23 (M) (INPUT = 1.00)

JOB NAME 314001	TRUSS NAME H13TG	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	JT-39002	DRWG NO. E-19112614
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Alpa Roof Truss, Maple

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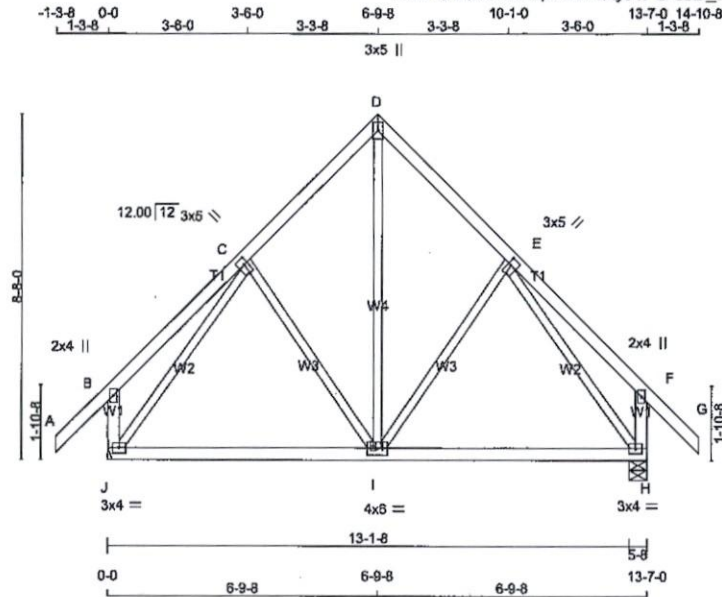
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JOB NAME 314001	TRUSS NAME H14	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	JT-39002	DRWG NO. E-19112615
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Alpa Roof Truss, Maple

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Scale = 1:58.1

TOTAL WEIGHT = 2 X 70 = 141 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMVW+I	MT20	3.0	5.0	2.00 1.00
D	TTW+p	MT20	3.0	5.0	
E	TMVW+I	MT20	3.0	5.0	2.00 1.00
F	TMV+p	MT20	2.0	4.0	
H	BMVW1+I	MT20	3.0	4.0	
I	BMVWVW-I	MT20	4.0	6.0	
J	BMVW1+I	MT20	3.0	4.0	

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
J	820	0	820	0	0	5-8	MECHANICAL	1-8	
H	820	0	820	0	0	5-8	MECHANICAL	1-8	

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

UNFACTORED REACTIONS

1ST CASE	MAX/MIN. COMPONENT REACTIONS	1ST CASE	MAX/MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
J	580	381/0	0/0
H	580	381/0	0/0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)
FR-TO		FROM TO		FR-TO		FROM TO	
A-B	0/42	-84.9 -84.9	0.12 (1)	10.00	I-D	0/371	0.08 (1)
B-C	0/24	-84.9 -84.9	0.16 (1)	10.00	I-E	-132/0	0.08 (1)
C-D	-446/0	-84.9 -84.9	0.12 (1)	6.25	C-I	-132/0	0.08 (1)
D-E	-446/0	-84.9 -84.9	0.12 (1)	6.25	J-C	-662/0	0.39 (1)
E-F	0/24	-84.9 -84.9	0.16 (1)	10.00	E-H	-662/0	0.39 (1)
F-G	0/42	-84.9 -84.9	0.12 (1)	10.00			
J-B	-227/0	0.0 0.0	0.03 (1)	7.81			
H-F	-227/0	0.0 0.0	0.03 (1)	7.81			
J-I	0/375	-18.5 -18.5	0.28 (4)	10.00			
I-H	0/375	-18.5 -18.5	0.28 (4)	10.00			

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 36.7	PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (0.45")
CALCULATED VERT. DEFL.(LL)= $L/999$ (0.01")
ALLOWABLE DEFL.(TL)= $L/360$ (0.45")
CALCULATED VERT. DEFL.(TL)= $L/999$ (0.05")

CSI: TC=0.16/1.00 (B-C:1), BC=0.28/1.00 (I-J:4), WB=0.39/1.00 (E-H:1), SSI=0.11/1.00 (I-J:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (J) (INPUT = 0.90)

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



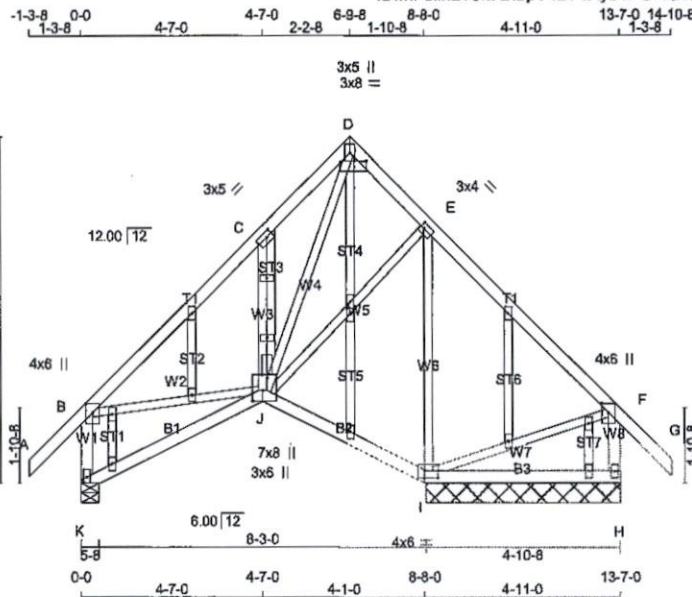
JSI GRIP= 0.87 (I) (INPUT = 0.90)
JSI METAL= 0.37 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314001	H14TG		1	JT-39002	E-19112617

Alpa Roof Truss, Maple

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Scale = 1:58.1

TOTAL WEIGHT = 87 lb

LUMBER

N. L. G. A. RULES

CHORDS SIZE LUMBER DESCR.

A - D 2x4 DRY No.2 SPF

D - G 2x4 DRY No.2 SPF

K - B 2x4 DRY No.2 SPF

H - F 2x4 DRY No.2 SPF

K - J 2x4 DRY No.2 SPF

J - I 2x4 DRY No.2 SPF

I - H 2x4 DRY No.2 SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

ALL GABLE WEBS 2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TMVW-i	MT20	3.0	5.0	1.50	2.00
C	NP-p	MT20	2.0	4.0		
C	NP-p	MT20	2.0	4.0		
D	TTW+p	MT20	3.0	5.0		
D	NP-p	MT20	3.0	8.0	1.50	4.00
E	TMVW-i	MT20	3.0	4.0	1.50	1.00
F	TMVW+p	MT20	4.0	6.0	2.75	2.00
H	BMV1+p	MT20	2.0	4.0		
I	BBVW1-i	MT20	4.0	6.0	2.00	4.00
J	BBVWWW+p	MT20	7.0	8.0	3.25	3.00
J	NP+w	MT20	3.0	6.0	1.00	1.50
K	BMV1+p	MT20	2.0	4.0	Edge	
L, M, N, O, P, Q, R, S, T, U						
L	NP+w	MT20	2.0	4.0		
M	NP+w	MT20	2.0	4.0	1.75	1.00

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ
JT	522	0	522	0
K	824	0	824	0
H	294	0	294	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	368	248 / 0	0 / 0	0 / 0	0 / 0	120 / 0	0 / 0
K	586	369 / 0	0 / 0	0 / 0	0 / 0	217 / 0	0 / 0
H	206	146 / 0	0 / 0	0 / 0	0 / 0	60 / 0	0 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	W E B S	MAX. FACTORED
MEMB.	FORCE	VERT. LOAD LC1	MEMB.	FORCE
	(LBS)	(PLF)		(LBS)
FR-TO		FROM TO	FR-TO	
A-B	0 / 42	-84.9 -84.9 0.12 (1)	J-C	-376 / 0
B-C	-304 / 0	-84.9 -84.9 0.21 (1)	J-D	0 / 328
C-D	-359 / 0	-84.9 -84.9 0.21 (1)	J-E	0 / 216
D-E	-225 / 0	-84.9 -84.9 0.25 (1)	I-E	-713 / 0
E-F	0 / 65	-84.9 -84.9 0.25 (1)	B-J	0 / 233
F-G	0 / 42	-84.9 -84.9 0.12 (1)	I-F	-28 / 0
K-B	-480 / 0	0.0 0.0 0.06 (1)		
H-F	-249 / 0	0.0 0.0 0.03 (1)		
K-J	0 / 0	-18.5 -18.5 0.11 (4)		
J-I	-43 / 0	-18.5 -18.5 0.09 (4)		
I-H	0 / 0	-18.5 -18.5 0.13 (4)		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF	

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCSC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.29")

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

ALLOWABLE DEFL.(TL)= L/360 (0.29")

CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.26/1.00 (E-F:1), BC=0.13/1.00 (H-I:4), WB=0.53/1.00 (E-I:1), SSI=0.13/1.00 (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

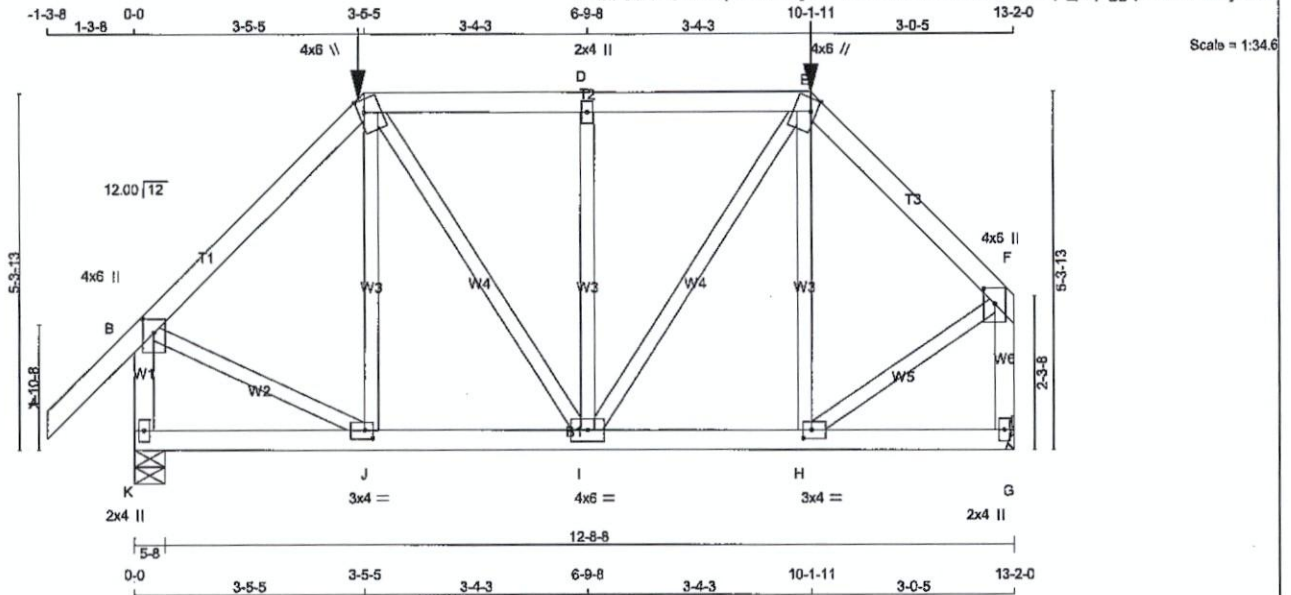
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-lr06Hua7U7Ao2EdrM9uqL_ZqTggqrKM3x?7IDfyK7zX



TOTAL WEIGHT = 2 X 66 = 132 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.50	2.00
C	TTWW+m	MT20	4.0	6.0	Edge	1.00
D	TMVW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	4.0	6.0	Edge	1.00
F	TMVW+p	MT20	4.0	6.0	2.75	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMVW-1	MT20	3.0	4.0	1.50	1.50
I	BMVW-1	MT20	4.0	6.0		
J	BMVW-1	MT20	3.0	4.0	1.50	1.50
K	BMV1+p	MT20	2.0	4.0		

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
JT	1384	0	1384	0	5-8	2-1
K	1282	0	1282	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST CASE		MAX/MIN. COMPONENT REACTIONS		LIVE	PERM. LIVE	WIND	DEAD	SOIL
	COMBINED	SNOW	MAX	MIN					
K	981	628 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	354 / 0	0 / 0
G	911	572 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	339 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.83 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS			MAX. MEMB. FORCE (LBS)	MAX. MEMB. FORCE (LBS)	MAX. MEMB. FORCE (LBS)	MAX. MEMB. FORCE (LBS)
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX (LC)				
FR-TO							
A-B	0 / 42	-84.9	-84.9 0.13 (1)	10.00	J-C	-171 / 45	0.07 (1)
B-C	-1054 / 0	-84.9	-84.9 0.22 (1)	5.84	C-I	0 / 404	0.10 (1)
C-D	-963 / 0	-167.1	-167.1 0.34 (1)	5.83	I-D	-669 / 0	0.29 (1)
D-E	-963 / 0	-167.1	-167.1 0.34 (1)	5.83	I-E	0 / 518	0.13 (1)
E-F	-968 / 0	-84.9	-84.9 0.16 (1)	6.10	H-E	-283 / 0	0.12 (1)
K-B	-1332 / 0	0.0	0.0 0.16 (1)	6.98	B-J	0 / 808	0.20 (1)
G-F	-1239 / 0	0.0	0.0 0.17 (1)	7.18	H-F	0 / 801	0.20 (1)
K-J	0 / 0	-36.4	-36.4 0.11 (4)	10.00			
J-I	0 / 739	-36.4	-36.4 0.20 (1)	10.00			
I-H	0 / 675	-36.4	-36.4 0.18 (1)	10.00			
H-G	0 / 0	-36.4	-36.4 0.10 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-5-5	-213	-213	---	FRONT	VERT	TOTAL	---	C1
E	10-1-11	-187	-187	---	FRONT	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF	

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 3-5-5
RIGHT SETBACK = 3-0-5
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL. LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(56 % OF 27.2 P.S.F. G.S.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.44")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.34/1.00 (C-D:1), BC=0.20/1.00 (I-J:1), WB=0.29/1.00 (D-I:1), SSI=0.29/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.260 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (H) (INPUT = 0.90)
JSI METAL= 0.46 (B) (INPUT = 1.00)

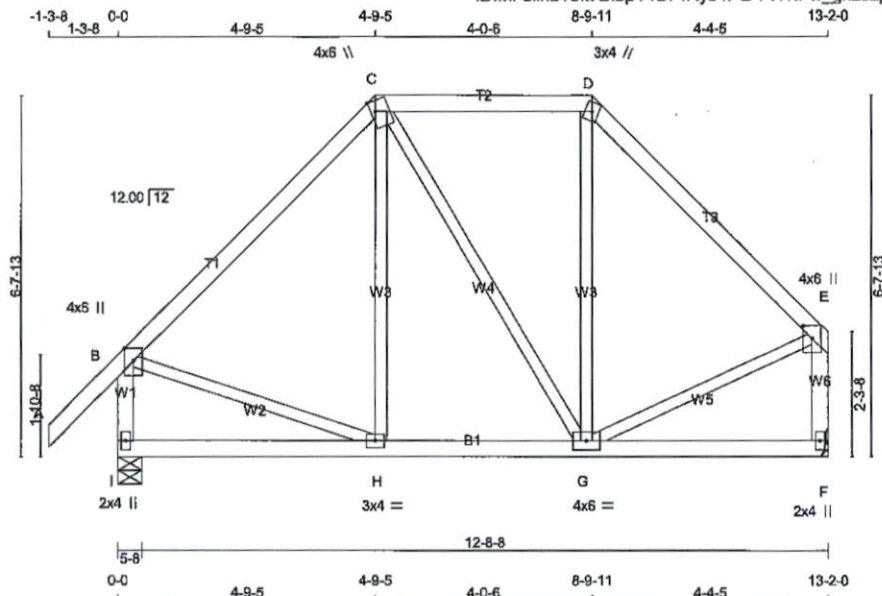
NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



JOB NAME 314001	TRUSS NAME H16	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	JT-39002	DRWG NO. E-19112619
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Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-PH1Pw_gxz0zpyA9PZ3rTrUjygyTmJFop7j1TeyKCZQ



TOTAL WEIGHT = 2 X 64 = 128 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TTWW+m	MT20	4.0	6.0	Edge	1.00
D	TTW+m	MT20	3.0	4.0		
E	TMVW+p	MT20	4.0	6.0	2.75	2.00
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW-t	MT20	4.0	6.0		
H	BMVWW-t	MT20	3.0	4.0		
I	BMV1+p	MT20	2.0	4.0		

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

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
JT	798	0	798	0	5-8	1-8
F	680	0	680	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST CASE COMBINED		MAX/MIN. COMPONENT REACTIONS		DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND		
I	565	372 / 0	0 / 0	0 / 0	193 / 0	0 / 0
F	483	307 / 0	0 / 0	0 / 0	176 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A-B	0 / 42	-84.9	-84.9 0.12 (1)	10.00	H-C	-15 / 62	0.02 (4)
B-C	-473 / 0	-84.9	-84.9 0.25 (1)	6.25	C-G	-27 / 0	0.03 (1)
C-D	-319 / 0	-84.9	-84.9 0.18 (1)	6.25	G-D	-34 / 50	0.03 (1)
D-E	-453 / 0	-84.9	-84.9 0.21 (1)	6.25	B-H	0 / 350	0.08 (1)
I-B	-761 / 0	0.0	0.0 0.08 (1)	7.81	G-E	0 / 348	0.08 (1)
F-E	-848 / 0	0.0	0.0 0.08 (1)	7.81			
I-H	0 / 0	-18.5	-18.5 0.09 (4)	10.00			
H-G	0 / 333	-18.5	-18.5 0.12 (4)	10.00			
G-F	0 / 0	-18.5	-18.5 0.07 (4)	10.00			

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



DESIGN CRITERIA

SPECIFIED LOADS:		
TOP CH. LL	=	23.3 PSF
DL	=	6.0 PSF
BOT CH. LL	=	0.0 PSF
DL	=	7.4 PSF
TOTAL LOAD	=	36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.44")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.25/1.00 (B-C:1), BC=0.12/1.00 (G-H:4), WB=0.08/1.00 (B-H:1), SSI=0.13/1.00 (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

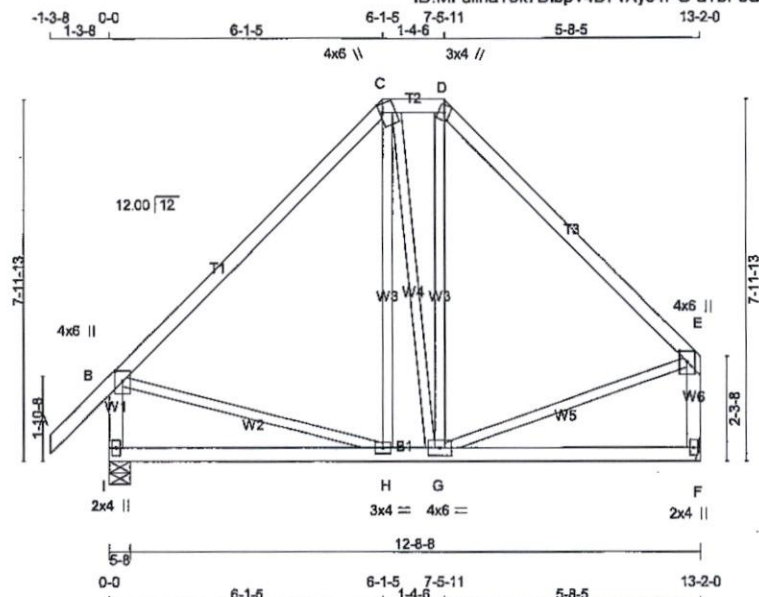
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES			
PLATE GRIP(DRY)	SHEAR	SECTION	
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	618 354	1667 788	1887 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.77 (D) (INPUT = 0.90)
JSI METAL= 0.26 (B) (INPUT = 1.00)



Scale = 1:51.4

TOTAL WEIGHT = 2 X 70 = 140 lb

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TTWW+m	MT20	4.0	6.0	2.25	0.75
D	TTW+m	MT20	3.0	4.0		
E	TMVW+p	MT20	4.0	6.0	2.75	2.00
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW-t	MT20	4.0	6.0		
H	BMVWW-t	MT20	3.0	4.0		
I	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
I	799	0	799	0	5-8	1-8
F	680	0	680	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	COMBINED	MAX/MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	565	372 / 0	0 / 0	0 / 0	0 / 0	193 / 0	0 / 0
F	483	307 / 0	0 / 0	0 / 0	0 / 0	176 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO				FR-TO		
A-B	0 / 42	-84.9	-84.9	0.08 (1)	10.00	H-C	0 / 68	0.02 (4)
B-C	-425 / 0	-84.9	-84.9	0.27 (1)	6.25	C-G	-30 / 0	0.04 (1)
C-D	-295 / 0	-84.9	-84.9	0.02 (1)	6.25	G-D	-3 / 54	0.02 (4)
D-E	-418 / 0	-84.9	-84.9	0.36 (1)	6.25	B-H	0 / 308	0.07 (1)
I-B	-752 / 0	0.0	0.0	0.08 (1)	7.81	G-E	0 / 311	0.07 (1)
F-E	-637 / 0	0.0	0.0	0.08 (1)	7.81			
I-H	0 / 0	-18.5	-18.5	0.16 (4)	10.00			
H-G	0 / 300	-18.5	-18.5	0.19 (4)	10.00			
G-F	0 / 0	-18.5	-18.5	0.14 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.4 PSF
 TOTAL LOAD = 36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
 - PART 9 OF BCBC 2018, OBC 2012, ABC 2019
 - CSA 086-09, CSA 086-14
 - TPIC 2011, TPIC 2014

(65 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= 1/360 (0.44")
 CALCULATED VERT. DEFL.(LL) = 1/899 (0.00")
 ALLOWABLE DEFL.(TL)= 1/360 (0.44")
 CALCULATED VERT. DEFL.(TL) = 1/899 (0.04")

CSI: TC=0.35/1.00 (D-E:1), BC=0.19/1.00 (G-H:4), WB=0.07/1.00 (E-G:1), SSI=0.14/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667 788 1987 1656

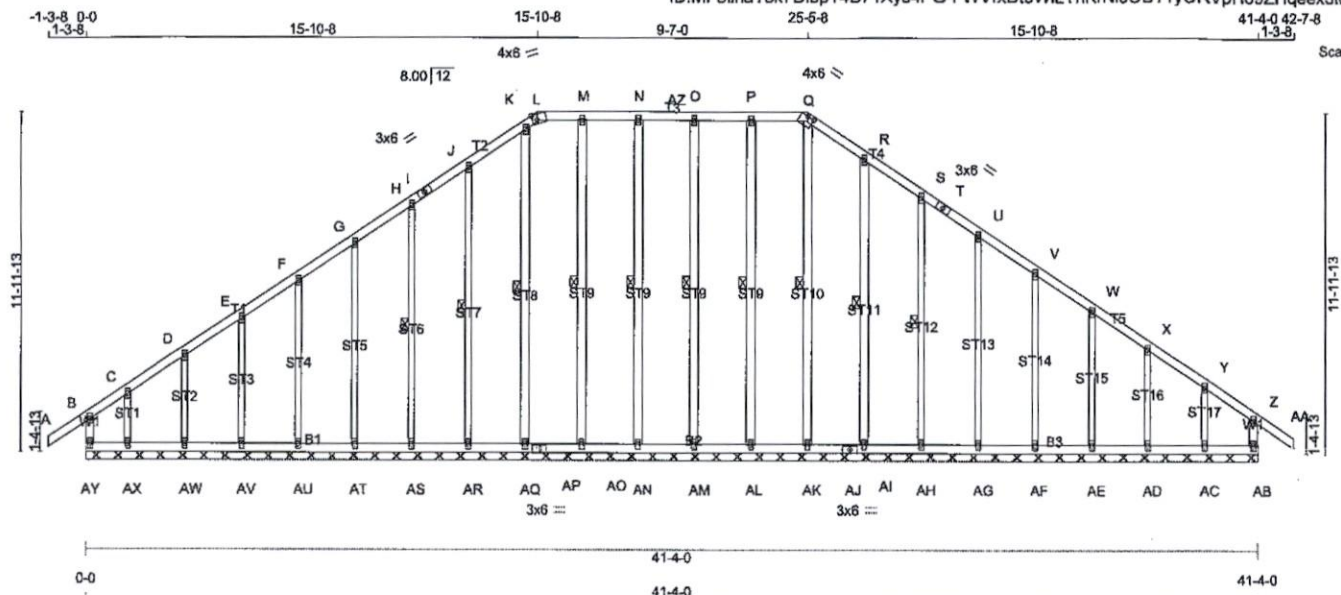
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.54 (D) (INPUT = 0.90)
 JSI METAL= 0.26 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2





TOTAL WEIGHT = 2 X 257 = 513 lb

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
AY - B	2x4	DRY	No.2
A - I	2x4	DRY	No.2
I - L	2x4	DRY	No.2
L - Q	2x4	DRY	No.2
Q - T	2x4	DRY	No.2
T - AA	2x4	DRY	No.2
AB - Z	2x4	DRY	No.2
AY - AP	2x4	DRY	No.2
AP - AJ	2x4	DRY	No.2
AJ - AB	2x4	DRY	No.2
ALL WEBS			
EXCEPT	2x3	DRY	No.2
AK - Q	2x4	DRY	No.2
AL - P	2x4	DRY	No.2
AM - O	2x4	DRY	No.2
AN - N	2x4	DRY	No.2
AO - M	2x4	DRY	No.2
AQ - K	2x4	DRY	No.2
AR - R	2x4	DRY	No.2
ALL GABLE WEBS			
EXCEPT	2x3	DRY	No.2
ST1	2x4	DRY	No.2
ST2	2x4	DRY	No.2
ST3	2x4	DRY	No.2
ST4	2x4	DRY	No.2
ST5	2x4	DRY	No.2
ST6	2x4	DRY	No.2
ST14	2x4	DRY	No.2

DRY: SEASONED LUMBER.
GABLE STUDS SPACED AT 2'-0" O.C.

PLATES (table is in inches)					
JT TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0	
C, D, E, F, G, H, J, K, M, N, O, P, R, S, U, V, W, X, Y					
C	TMW+w	MT20	2.0	4.0	
I	TS-i	MT20	3.0	6.0	

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF Q-AK, P-AL, O-AM, N-AN, M-AO, K-AQ, J-AR, H-AS, R-AI, S-AH.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. UNBRACED LENGTH FR-TO (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH FR-TO (LC)	
FR-TO				FR-TO			
AY-B	-209 / 0	0.0	0.0 0.03 (1)	AK-Q	-192 / 0	0.15 (1)	
A-B	0 / 32	-84.9	-84.9 0.11 (1)	AL-P	-186 / 0	0.15 (1)	
B-C	-17 / 0	-84.9	-84.9 0.08 (1)	AM-D	-184 / 0	0.14 (1)	
C-D	0 / 13	-84.9	-84.9 0.05 (1)	AN-N	-183 / 0	0.14 (1)	
D-E	0 / 11	-84.9	-84.9 0.05 (1)	AO-M	-193 / 0	0.15 (1)	
E-F	0 / 16	-84.9	-84.9 0.04 (1)	AQ-K	-181 / 0	0.14 (1)	
F-G	0 / 19	-84.9	-84.9 0.04 (1)	AR-J	-164 / 0	0.12 (1)	
G-H	0 / 21	-84.9	-84.9 0.04 (1)	AS-H	-170 / 0	0.09 (1)	
H-I	0 / 22	-84.9	-84.9 0.04 (1)	AT-G	-168 / 0	0.19 (1)	
I-J	0 / 22	-84.9	-84.9 0.04 (1)	AU-F	-169 / 0	0.11 (1)	
J-K	0 / 26	-84.9	-84.9 0.05 (1)	AV-E	-165 / 0	0.06 (1)	
K-L	-21 / 0	-84.9	-84.9 0.04 (1)	AW-D	-179 / 0	0.04 (1)	
L-M	0 / 22	-82.4	-82.4 0.05 (1)	AX-C	-96 / 0	0.01 (1)	
M-N	0 / 22	-82.4	-82.4 0.05 (1)	AI-R	-176 / 0	0.10 (1)	
N-AZ	0 / 22	-82.4	-82.4 0.05 (1)	AH-S	-165 / 0	0.09 (1)	
AZ-O	0 / 22	-82.4	-82.4 0.05 (1)	AG-U	-170 / 0	0.21 (1)	
O-P	0 / 22	-82.4	-82.4 0.05 (1)	AF-V	-168 / 0	0.12 (1)	
P-Q	0 / 22	-82.4	-82.4 0.05 (1)	AE-W	-166 / 0	0.07 (1)	
Q-R	0 / 26	-84.9	-84.9 0.05 (1)	AD-X	-176 / 0	0.04 (1)	
R-S	0 / 26	-84.9	-84.9 0.05 (1)	AC-Y	-126 / 0	0.02 (1)	
S-T	0 / 22	-84.9	-84.9 0.04 (1)				
T-U	0 / 22	-84.9	-84.9 0.04 (1)				
U-V	0 / 20	-84.9	-84.9 0.04 (1)				
V-W	0 / 18	-84.9	-84.9 0.04 (1)				
W-X	0 / 14	-84.9	-84.9 0.04 (1)				
X-Y	0 / 14	-84.9	-84.9 0.04 (1)				
Y-Z	-9 / 0	-84.9	-84.9 0.08 (1)				
Z-AA	0 / 32	-84.9	-84.9 0.11 (1)				
AB-Z	-215 / 0	0.0	0.0 0.03 (1)				
AY-AX	-2 / 1	-18.5	-18.5 0.02 (1)				
AX-AW	-6 / 0	-18.5	-18.5 0.02 (4)				
AW-AV	-10 / 0	-18.5	-18.5 0.02 (4)				
AV-AU	-13 / 0	-18.5	-18.5 0.01 (4)				
AU-AT	-15 / 0	-18.5	-18.5 0.01 (4)				
AT-AS	-17 / 0	-18.5	-18.5 0.01 (4)				
AS-AR	-19 / 0	-18.5	-18.5 0.01 (4)				
AR-AQ	-20 / 0	-18.5	-18.5 0.01 (4)				
AQ-AP	-22 / 0	-18.5	-18.5 0.01 (4)				
AP-AO	-22 / 0	-18.5	-18.5 0.01 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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 WALL HEIGHTS OF 0'-0" AND 0'-0" AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.11/1.00 (A-B:1), BC=0.02/1.00 (AX-AY:1), WB=0.21/1.00 (U-A:1), SSI=0.08/1.00 (L-M:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.40 (K) (INPUT = 0.90)
JSI METAL = 0.11 (Z) (INPUT = 1.00)



JOB NAME 314001	TRUSS NAME H19P	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	JT-39002	DRWG NO. E-19112622
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Alpa Roof Truss, Maple
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ID:MF8iiriaTok7DlbpT4B71Xys4PG-qsif?1y0ZEuOYgQvk5hdY43WHKuaky5oqW5yh4zyKCZN

0-0 2-9-8 2-9-8 2-0-0 4-9-8 2-0-0 6-9-8 2-9-8 9-7-0

3x4 ||

Scale = 1:22.7

0-0 2-9-8 2-9-8 2-0-0 4-9-8 2-0-0 6-9-8 2-9-8 9-7-0

TOTAL WEIGHT = 2 X 26 = 52 lb

LUMBER

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

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	
C	TMW+w	MT20	2.0	4.0	
D	TTW+p	MT20	3.0	4.0	2.25 1.50
E	TMW+w	MT20	2.0	4.0	
F	TMB1-I	MT20	3.0	4.0	
H, I, J					
H	BMW1+w	MT20	2.0	4.0	

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): I, J, H

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 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)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 12	-103.4 -103.4	0.02 (1)	I-D	-111 / 0	0.02 (1)	
B-L	-71 / 0	-84.9 -84.9	0.02 (1)	J-C	-191 / 0	0.03 (1)	
L-C	-28 / 0	-84.9 -84.9	0.05 (1)	H-E	-191 / 0	0.03 (1)	
C-D	-36 / 0	-84.9 -84.9	0.05 (1)	K-L	-12 / 16	0.00 (1)	
D-E	-36 / 0	-84.9 -84.9	0.05 (1)	M-N	-12 / 16	0.00 (1)	
E-N	-28 / 0	-84.9 -84.9	0.05 (1)				
N-F	-71 / 0	-84.9 -84.9	0.02 (1)				
F-G	0 / 12	-103.4 -103.4	0.02 (1)				
B-K	0 / 33	-18.5 -18.5	0.01 (1)				
K-J	0 / 33	-18.5 -18.5	0.02 (4)				
J-I	0 / 22	-18.5 -18.5	0.02 (4)				
I-H	0 / 22	-18.5 -18.5	0.02 (4)				
H-M	0 / 33	-18.5 -18.5	0.02 (4)				
M-F	0 / 33	-18.5 -18.5	0.01 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.05/1.00 (C-D:1), BC=0.02/1.00 (J-K:4), WB=0.03/1.00 (C-J:1), SS=0.07/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX MIN
MT20	618	354	1667 788 1987 1656

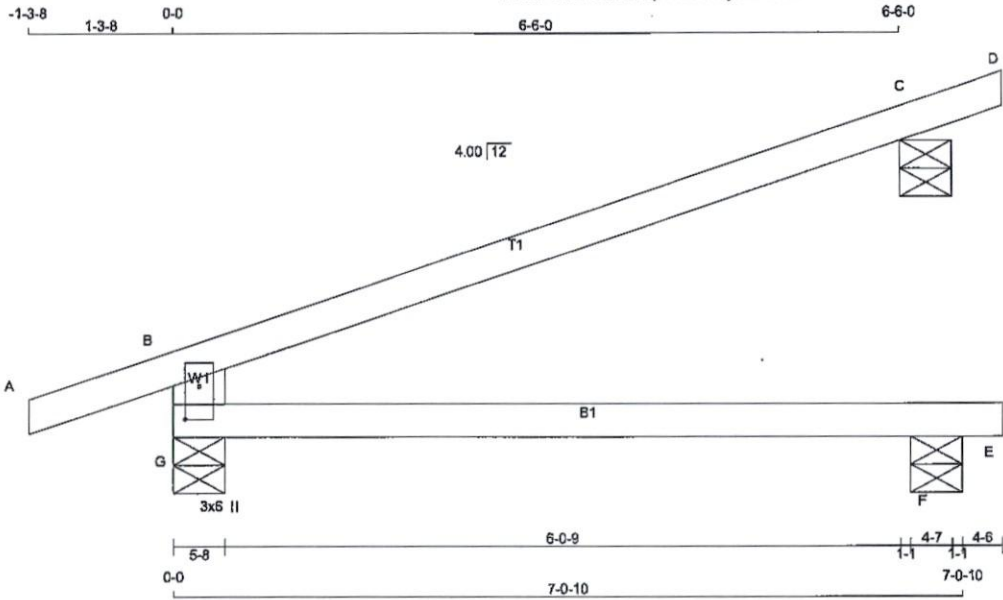
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.10 (E) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



TOTAL WEIGHT = 16 X 20 = 314 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
G - B	2x6	DRY	No.2
G - E	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B						
G	TMBMV1+p	MT20	3.0	6.0	3.50	1.50

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
G	549	0	549	0	0	1-8
F	59	0	66	0	0	1-8
C	276	0	276	0	0	5-8

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): C

UNFACTORED REACTIONS							
	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	387	258 / 0	0 / 0	0 / 0	0 / 0	129 / 0	0 / 0
F	47	0 / 0	0 / 0	0 / 0	0 / 0	47 / 0	0 / 0
C	191	152 / 0	0 / 0	0 / 0	0 / 0	39 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO			FR-TO			
A-B	0 / 18	-84.9	-84.9	0.11 (1)	10.00				
B-C	-23 / 0	-84.9	-84.9	0.50 (1)	6.25				
C-D	-10 / 0	-84.9	-84.9	0.02 (1)	10.00				
G-B	-471 / 0	0.0	0.0	0.09 (4)	7.81				
G-F	0 / 0	-18.5	-18.5	0.24 (4)	10.00				
F-E	0 / 0	-18.5	-18.5	0.01 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 088-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.23")
CALCULATED VERT. DEFL.(LL) = L/899 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.23")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

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

CSI: TC=0.50/1.00 (B-C:1), BC=0.24/1.00 (F-G:4), WB=0.00/1.00 (n/a:0), SS=0.26/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667 788 1987 1656

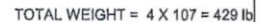
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (G) (INPUT = 0.90)
JSI METAL= 0.09 (G) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2





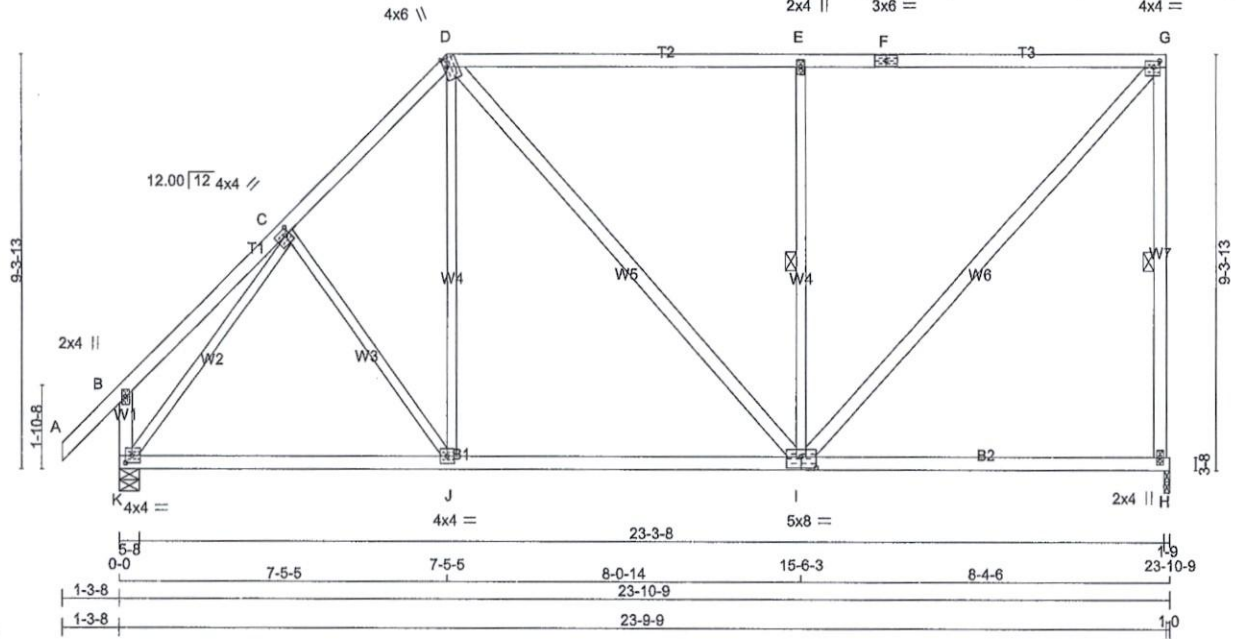
CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. FACTORED			WEBS	
MEMB.	FORCE	VERT. LOAD	LOC 1	MAX	MAX.	MEMB.	MAX. FORCE	FACTORED	MAX
	(LBS)	(PLF)	CSI (L)	UNBRAC			(LBS)	FORCE	CSI (L)
FR-TO		FROM TO		LENGTH	FR-TO				
A-B	0 / 42	-84.9	-84.9	0.12 (1)	10.00	L-C	-120 / 41	0.09 (1)	
B-C	-1069 / 0	-84.9	-84.9	0.39 (1)	5.60	C-K	0 / 642	0.14 (1)	
C-D	-1203 / 0	-84.9	-84.9	0.51 (1)	5.14	K-D	-345 / 0	0.25 (1)	
D-E	-977 / 0	-84.9	-84.9	0.52 (1)	5.53	D-I	-323 / 0	0.18 (1)	
E-F	-977 / 0	-84.9	-84.9	0.52 (1)	5.53	I-F	-596 / 0	0.44 (1)	
F-G	-977 / 0	-84.9	-84.9	0.52 (1)	5.53	I-G	0 / 1368	0.31 (1)	
H-G	-1181 / 0	0.0	0.0	0.24 (1)	5.87	B-L	0 / 790	0.18 (1)	
M-B	-1315 / 0	0.0	0.0	0.15 (1)	7.05				
M-L	0 / 0	-18.5	-18.5	0.13 (4)	10.00				
L-K	0 / 752	-18.5	-18.5	0.20 (4)	10.00				
K-J	0 / 1203	-18.5	-18.5	0.29 (1)	10.00				
J-I	0 / 1203	-18.5	-18.5	0.29 (1)	10.00				
I-H	0 / 0	-18.5	-18.5	0.18 (4)	10.00				

JSI GRIP= 0.80 (L) (INPUT = 0.90)
JSI METAL= 0.48 (B) (INPUT = 1.00)

JSI GRIP= 0.86 (I) (INPUT = 0.90)
JSI METAL= 0.49 (B) (INPUT = 1.00)

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-xWYrZdRX2ZS70cy?G6MAla_TL8eFqAaEvNVFFyzW1c
2x4 || 3x6 = 4x4 =
Scale = 1:52.7



TOTAL WEIGHT = 4 X 123 = 491 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMV+p	MT20	2.0	4.0
C	TMWW-t	MT20	4.0	4.0 1.75 1.25
D	TTWW+m	MT20	4.0	8.0 Edge 1.00
E	TMW+w	MT20	2.0	4.0
F	TS-t	MT20	3.0	6.0
G	TMVW-t	MT20	4.0	4.0 1.75 1.75
H	BMV1+p	MT20	2.0	4.0
I	BSWWW-t	MT20	5.0	8.0 3.00 4.00
J	BMVW-t	MT20	4.0	4.0
K	BMVW1-t	MT20	4.0	4.0 2.00 1.75

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

NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
H	1230	0	1230	0	0	1-8	1-8	1-8	
K	1348	0	1348	0	0	5-8	1-8	1-8	

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
H	873	554 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0 / 0		
K	955	619 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0 / 0		

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.35 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-H, E-I.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CS1 (LC)	MEMB.	FORCE (LBS)	MAX. CS1 (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-84.9 -84.9	0.12 (1)	10.00	C-J	-80 / 21	0.05 (1)
B-C	0 / 26	-84.9 -84.9	0.19 (1)	10.00	J-D	0 / 226	0.06 (4)
C-D	-1037 / 0	-84.9 -84.9	0.21 (1)	5.91	D-I	0 / 147	0.02 (1)
D-E	-813 / 0	-84.9 -84.9	0.88 (1)	5.35	I-E	-862 / 0	0.49 (1)
E-F	-813 / 0	-84.9 -84.9	0.88 (1)	5.35	I-G	0 / 1203	0.19 (1)
F-G	-813 / 0	-84.9 -84.9	0.88 (1)	5.35	K-C	-1296 / 0	0.93 (1)
G-H	-1153 / 0	0.0 0.0	0.47 (1)	5.93			
H-K	-238 / 0	0.0 0.0	0.03 (1)	7.81			

K-J	0 / 748	-18.5 -18.5	0.39 (4)	10.00
J-I	0 / 715	-18.5 -18.5	0.39 (4)	10.00
I-H	0 / 0	-18.5 -18.5	0.37 (4)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
DL	=	6.0	PSF
BOT CH.	LL =	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	36.7	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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.24")

CS1: TC=0.88/1.00 (E-G:1), BC=0.39/1.00 (I-J:4), WB=0.93/1.00 (C-K:1), SSI=0.34/1.00 (E-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

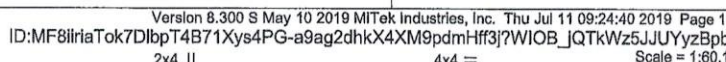
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (K) (INPUT = 0.90)
JSI METAL= 0.48 (C) (INPUT = 1.00)



Alpa Roof Truss, Maple

DRY: SEASONED LUMBER.

NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



UNFACTORED REACTIONS

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.10 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY
APPLIED

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

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

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

LOADING

LOADING
TOTAL LOAD CASES: (4)

C H O R D S				W E B S				
MAX. FACTORED		FACTORED		MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO		FR-TO			
A-B	0 / 42	-84.9	-84.9	0.12 (1)	10.00	C-J	-162 / 0	0.18 (1)
B-C	0 / 29	-84.9	-84.9	0.27 (1)	10.00	J-D	0 / 306	0.05 (1)
C-D	-884 / 0	-84.9	-84.9	0.30 (1)	5.90	D-H	-214 /	0.02 (4)
D-E	-975 / 0	-84.9	-84.9	0.88 (1)	5.10	H-E	-792 / 0	0.45 (1)
E-F	-876 / 0	-84.9	-84.9	0.88 (1)	5.10	H-F	0 / 1151	0.19 (1)
G-F	-1172 / 0	0.0	0.0	0.67 (1)	5.90	K-C	-1257 / 0	0.52 (1)
K-B	-279 / 0	0.0	0.0	0.03 (1)	7.81			
K-J	0 / 759	-18.5	-18.5	0.38 (4)	10.00			
J-I	0 / 673	-18.5	-18.5	0.38 (4)	10.00			
I-H	0 / 673	-18.5	-18.5	0.38 (4)	10.00			
H-G	0 / 0	-18.5	-18.5	0.22 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL =	23.3	PSF
		DL =	6.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.4	PSF
TOTAL LOAD		=	36.7	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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , OBC 2
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.19")

CSI: TC=0.88/1.00 (E-F:1), BC=0.38/1.00 (J-K:4),
WB=0.52/1.00 (C-K:1), SSI=0.31/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

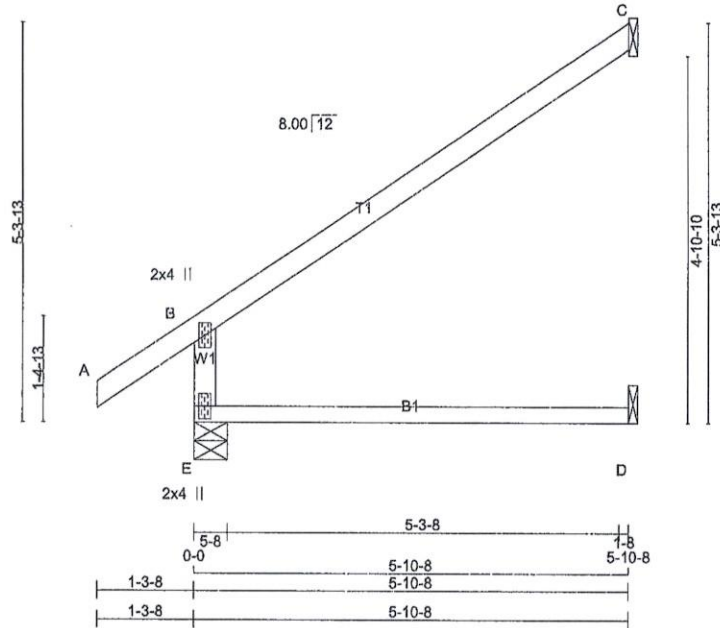
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (K) (INPUT = 0.90)
JSI METAL= 0.48 (C) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310385	J1		1	JT-39002	E-19072240

Alpa Roof Truss, Maple

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Scale = 1:31.2



TOTAL WEIGHT = 24 X 16 = 384 lb

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

DRY: SEASONED LUMBER.

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

NOTES- (1)

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
E	494	0	494	0	0	5-8	1-8
C	187	0	187	0	0	1-8	1-8
D	43	0	48	0	0	1-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	348	235 / 0	0 / 0	0 / 0	0 / 0	113 / 0	0 / 0
C	129	103 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0
D	34	0 / 0	0 / 0	0 / 0	0 / 0	34 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS	
MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX (PLF)	MEMB.	FORCE (LBS)
FR-TO		FROM	TO	FR-TO	
E-B	-428 / 0	0.0	0.0 0.16 (4)	7.81	
A-B	0 / 32	-84.9	-84.9 0.11 (1)	10.00	
B-C	-35 / 0	-84.9	-84.9 0.50 (1)	6.25	
E-D	0 / 0	-18.5	-18.5 0.30 (4)	10.00	

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, OBC 2012
- CSA 086-09, CSA 088-14
- TPIC 2011, TPIC 2014

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/932 (0.08")

CSI: TC=0.50/1.00 (B-C:1), BC=0.30/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), 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 MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.28 (B) (INPUT = 0.90)
JSI METAL= 0.22 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

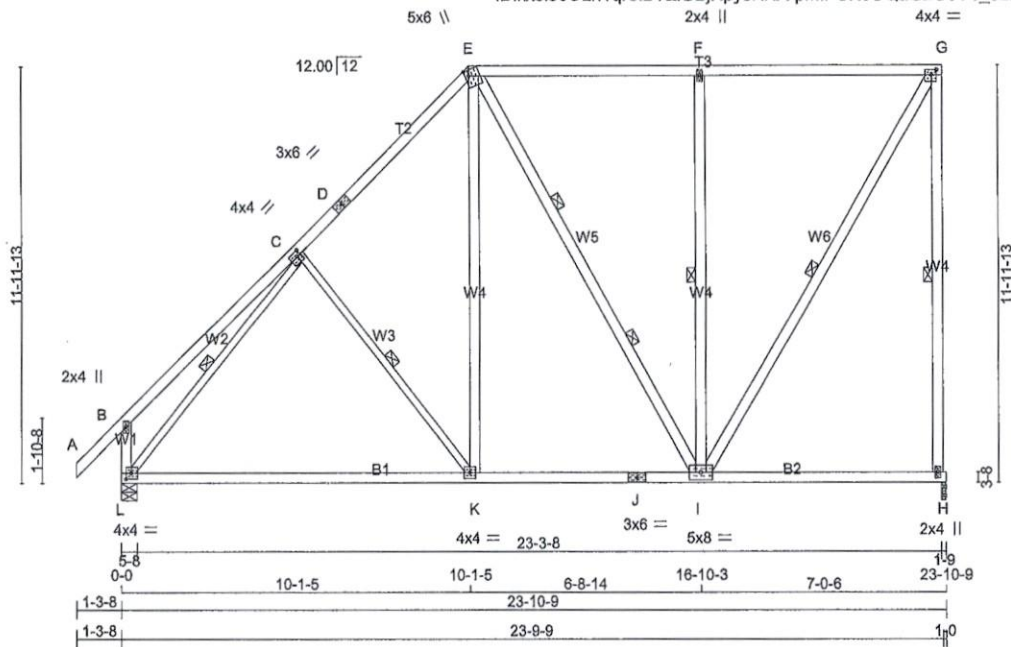


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310395	H6		1	TRUSS DESC. JT-39002	E-19072367

Alpa Roof Truss, Maple

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Scale = 1:67.2



TOTAL WEIGHT = 14 X 145 = 2031 lb
[M][F]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	4.0	1.75	1.25
D	TS-t	MT20	3.0	6.0		
E	TTWW+m	MT20	5.0	6.0	2.00	1.25
F	TMW+w	MT20	2.0	4.0		
G	TMW-t	MT20	4.0	4.0	1.75	1.75
H	BMV1+p	MT20	2.0	4.0		
I	BMWWW-t	MT20	5.0	8.0		
J	BS-t	MT20	3.0	6.0		
K	BMWW-t	MT20	4.0	4.0		
L	BMWV1-t	MT20	4.0	4.0	2.00	1.75

NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
H	1303	0	1303	0	1-9
L	1378	0	1378	0	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
H	932	654 / 0	0 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0
L	978	619 / 0	0 / 0	0 / 0	0 / 0	0 / 0	359 / 0	0 / 0

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

BRACING

FOR SECTION E-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.98 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-84.9 -84.9	0.12 (1)	C-K	-213 / 0	0.10 (1)	
B-C	0 / 37	-84.9 -84.9	0.36 (1)	K-E	0 / 355	0.06 (1)	
C-D	-958 / 0	-84.9 -84.9	0.30 (1)	E-I	-117 / 0	0.05 (1)	
D-E	-958 / 0	-84.9 -84.9	0.30 (1)	I-F	-785 / 0	0.62 (1)	
E-F	-595 / 0	-92.4 -92.4	0.56 (1)	I-G	0 / 1166	0.19 (1)	
F-G	-596 / 0	-92.4 -92.4	0.57 (1)	L-C	-1286 / 0	0.59 (1)	
G-H	-1247 / 0	0.0 0.0	0.98 (1)				
L-B	-279 / 0	0.0 0.0	0.03 (1)				
L-K	0 / 783	-18.5 -18.5	0.47 (4)				
K-J	0 / 654	-18.5 -18.5	0.47 (4)				
J-I	0 / 654	-18.5 -18.5	0.47 (4)				
I-H	0 / 0	-18.5 -18.5	0.19 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	= 23.3	PSF
	DL	= 6.0	PSF
BOT CH.	LL	= 0.0	PSF
	DL	= 7.4	PSF
TOTAL LOAD	=	36.7	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 WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL)= L/889 (0.32")

CSI: TC=0.98/1.00 (G-H:1), BC=0.47/1.00 (K-L:4), WB=0.62/1.00 (F-I:1), SSI=0.31/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (L) (INPUT = 0.90)
JSI METAL= 0.49 (C) (INPUT = 1.00)



May 27, 2019

Re: Expiration Date for Technical Bulletins Extended to 12/31/2019

Please be advised that the expiration date of the Technical Bulletins listed below has been extended until December 31, 2019.

T-SPECCP17	T-SPECH17	T-SPECDSHGUS17R
T-SPECHGUS17-R	T-SPECHHUS17-R	T-SPECHUS17
T-SPECLF17	T-SPECLT17	T-SPECLU17
T-SPECCLUL17	T-SPECLUS17	T-SPECSUR17
T-SPECTBE17	T-SPECTC17	T-SPECTHGB17
T-SPECTHGBHV17	T-SPECTHGQ17	T-SPECTHGW17
T-SPECLSULSSU17	T-SPECHTHGQ17	T-SPECSTHGQ17

Should you have any questions or concerns regarding the above, please contact me at your convenience.

Sincerely,



Brent Bunting, P.Eng.
Simpson Strong-Tie Canada, Ltd.



LUS – Double Shear Joist Hangers

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

Material: 18 gauge

Finish: G90 galvanized

Design:

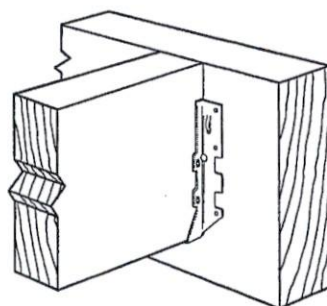
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

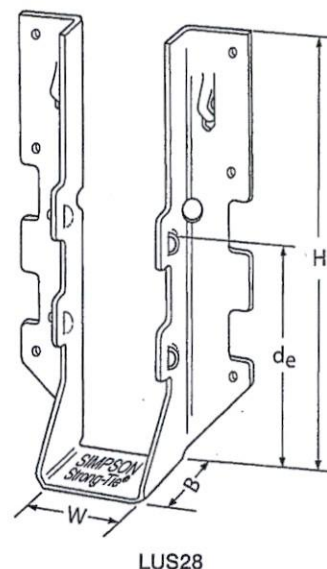
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



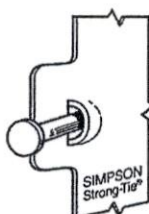
Typical LUS
Installation



LUS28

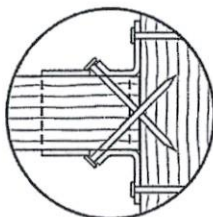
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _a ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1⅞	3⅞	1¾	1⅞	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3⅞	3⅞	2	1⅞	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1⅞	4¾	1¾	3⅞	(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	4⅞	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1⅞	6⅞	1¾	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	4⅞	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1⅞	7⅞	1¾	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	4⅞	8⅞	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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



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

U.S. Patent
5,603,580



Double Shear Nailing
Top View.



LIMIT
STATES
DESIGN

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T-SPECUS17 3/17 exp. 6/19

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HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

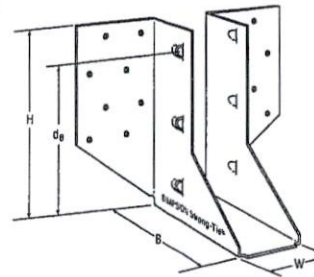
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

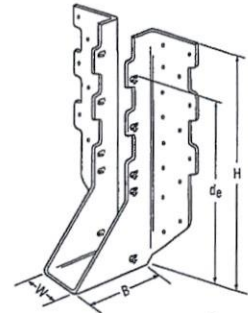
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

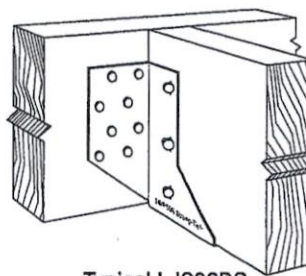
- See current catalogue for options



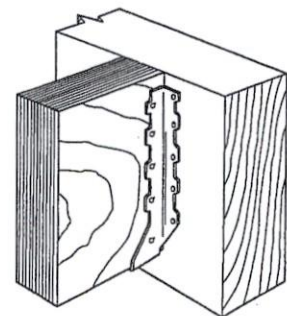
LJS26DS



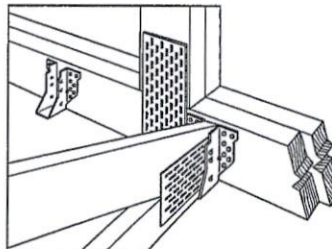
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



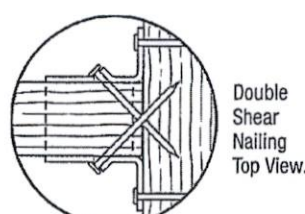
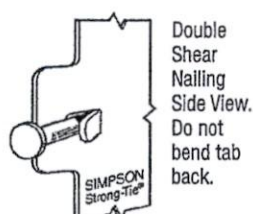
Typical HUS
Installation



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

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
LJS26DS	18	1⅞	5	3½	4⅝	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅞	5⅝	3	3⅞	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅞	7⅝	3	6⅝	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅞	9⅝	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_g is the distance from the seat of the hanger to the highest joist nail.



LIMIT
STATES
DESIGN

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HHUS – Double Shear Joist Hangers



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

Material: 14 gauge

Finish: G90 galvanized

Design:

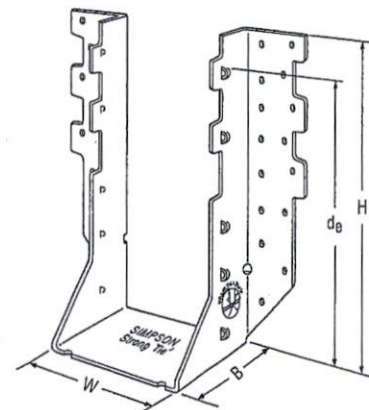
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

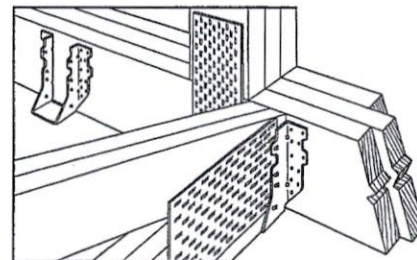
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options



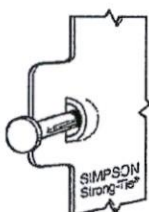
HHUS410



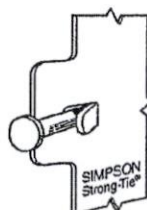
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₈ ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
HHUS26-2	14	3 1/16	5 13/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 1/16	7 7/32	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 1/16	9 3/32	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 11/16	9	3	7 15/16	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	6 1/8	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 5/8	5 15/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 5/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 5/8	9	3	8	(30) 16d	(10) 16d	4745	9855	4310	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS7.25/10	14	7 1/4	9	3 3/16	7 29/32	(30) 16d	(10) 16d	4745	10770	4310	7650

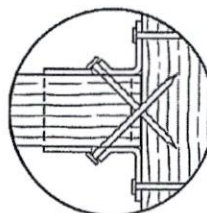
1. d₈ is the distance from the seat of the hanger to the highest joist nail.



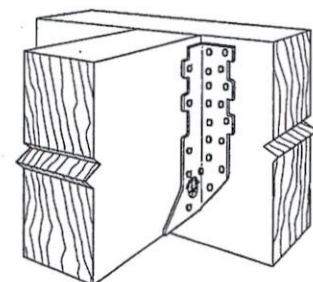
Dome Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



Typical HHUS Installation



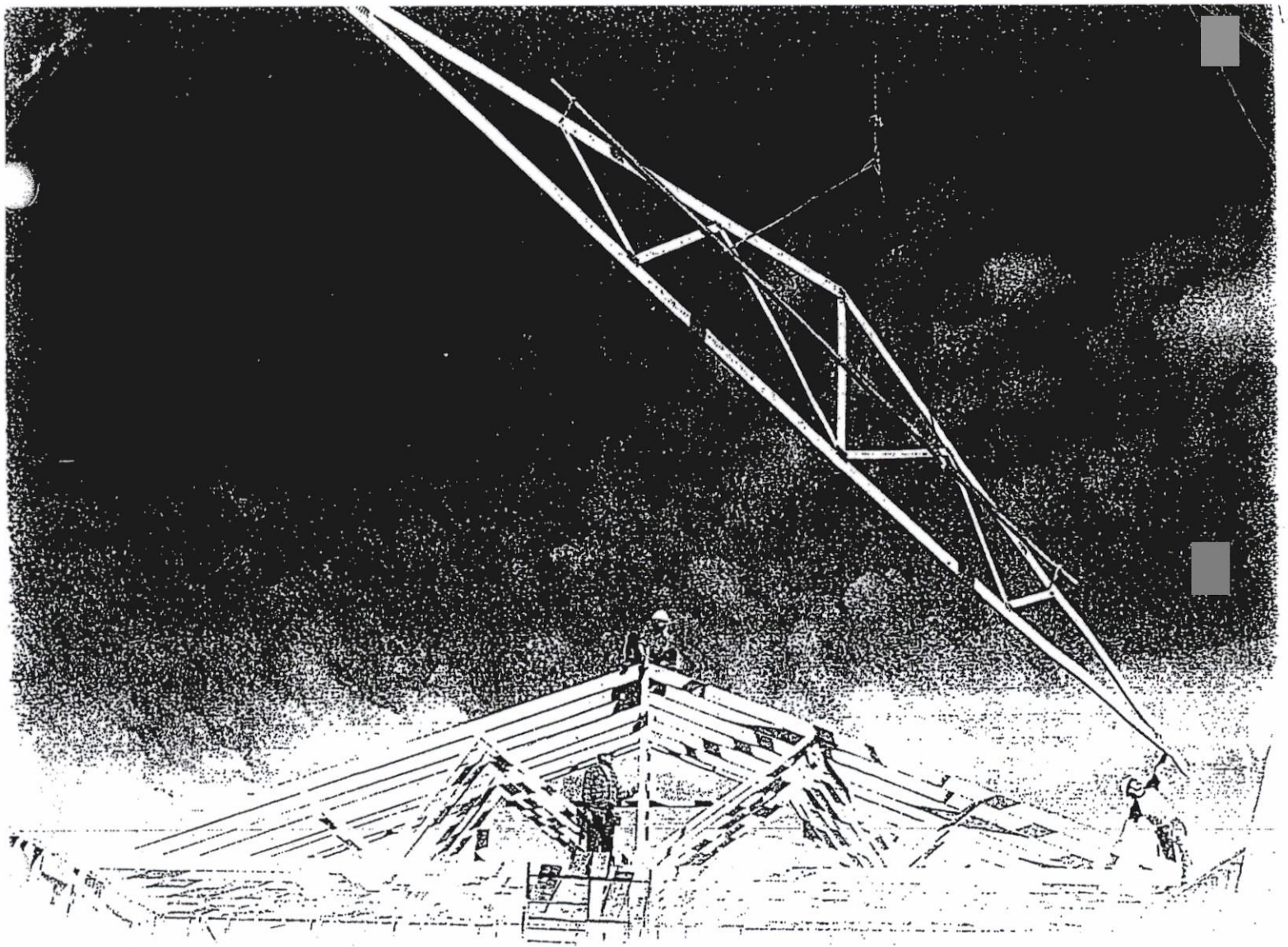
LIMIT STATES DESIGN

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Wood Truss Installation

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

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Warning



General

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

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

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

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

Temporary Erection Bracing

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

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

Permanent Truss Bracing

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

Special Design Requirements

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

Unloading & Lifting

Never handle trusses flat

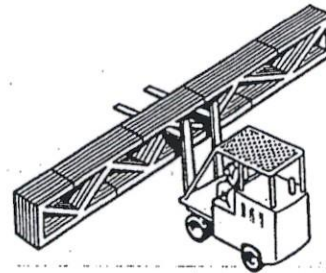
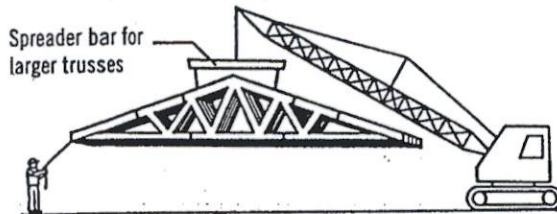
Beginning with the unloading process, and throughout all phases of construction, care must be taken to avoid lateral bending of trusses, which can cause damage to the lumber and metal connector plates at the joints.



Avoid lateral bending

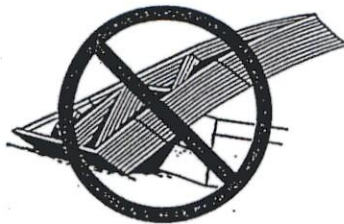
- Use special care in windy weather.
- If using a crane within 10 feet of an electric line, contact the local power company.
- If using a crane within 5 miles of an airport, contact the airport 30 days prior to erection to learn about any safety regulations that must be followed.

Job Site Handling



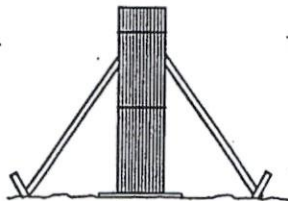
All trusses should be picked up at the top chords in a vertical position only

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.



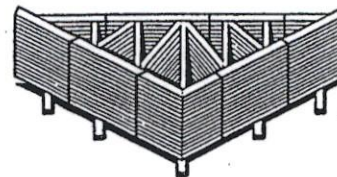
Do not store unbraced bundles upright

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.

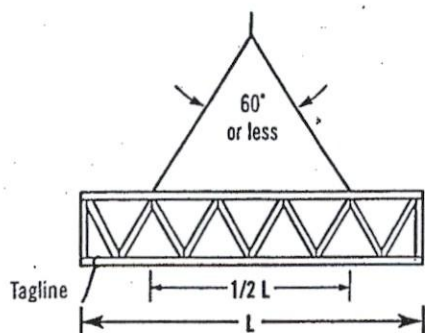
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

3 Hoisting

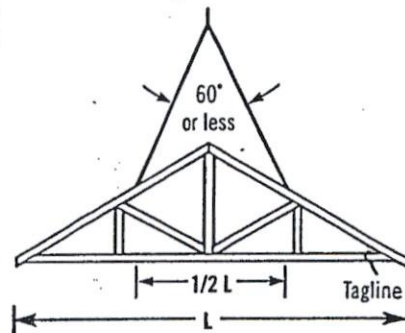
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



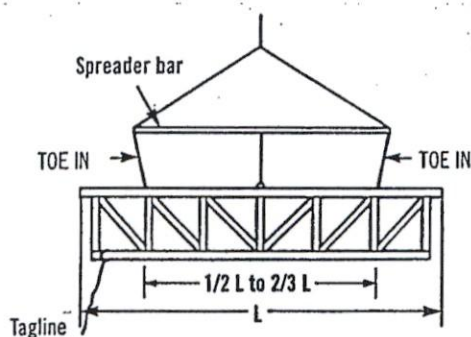
Avoid lateral bending



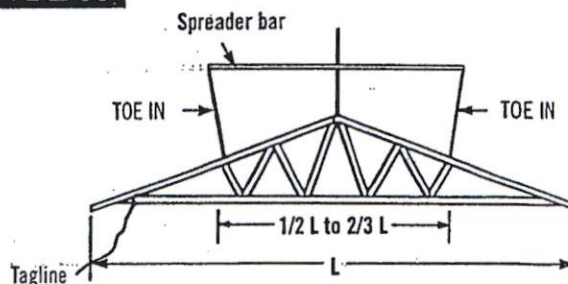
$L \leq 30'$



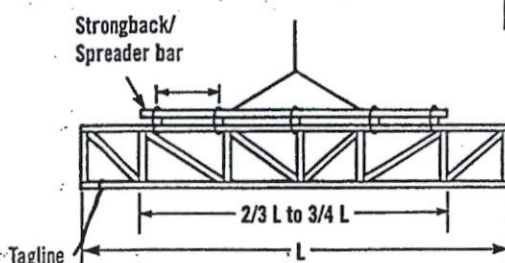
Truss sling is acceptable where these criteria are met.



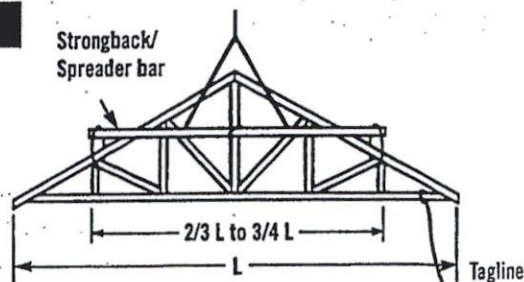
$30' < L \leq 60'$



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.



$L > 60'$



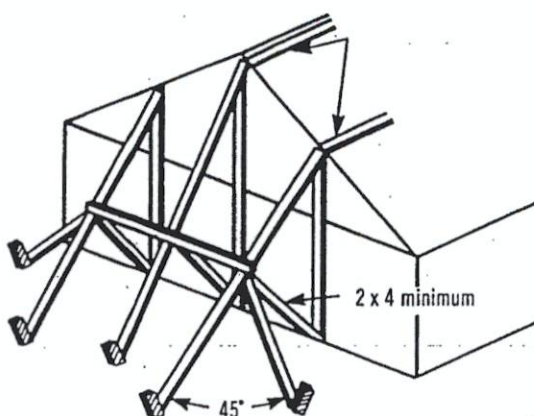
For lifting trusses with spans in excess of 60 feet, it is recommended that a strongback/spreader bar be used as illustrated. The strongback/spreader bar should be attached to the top chord and web members at intervals of approximately 10 feet. Further, the strongback/spreader bar should be at or above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

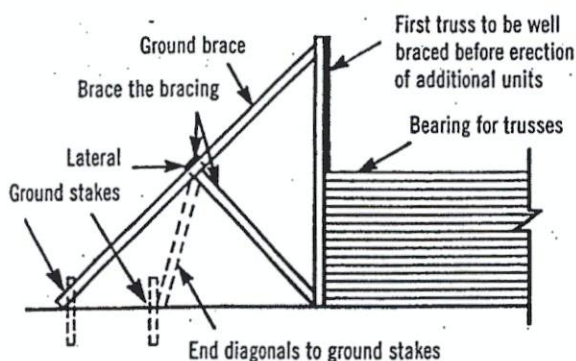
It is important for the builder or erection contractor to provide substantial bracing for the first truss erected. The two or more trusses making up the rest of the first set are tied to and rely upon the first truss for stability. Likewise, after this first set of trusses is adequately cross-braced, 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.

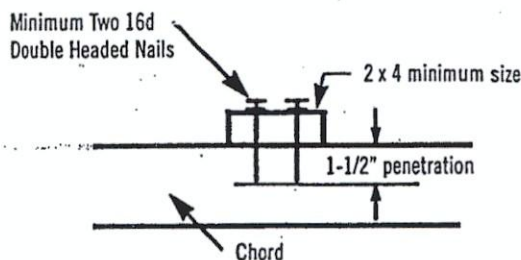
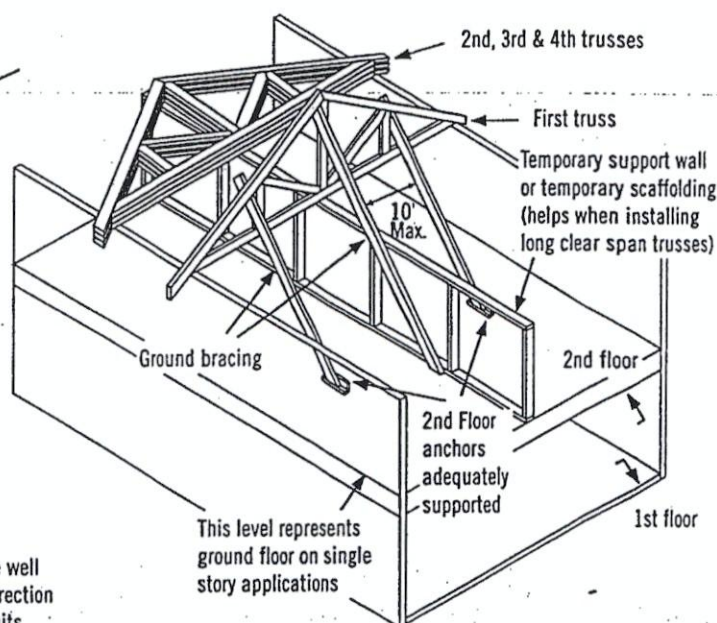


Note: Locate ground braces for first truss directly in line with all rows of top chord continuous lateral bracing (either temporary or permanent).



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.

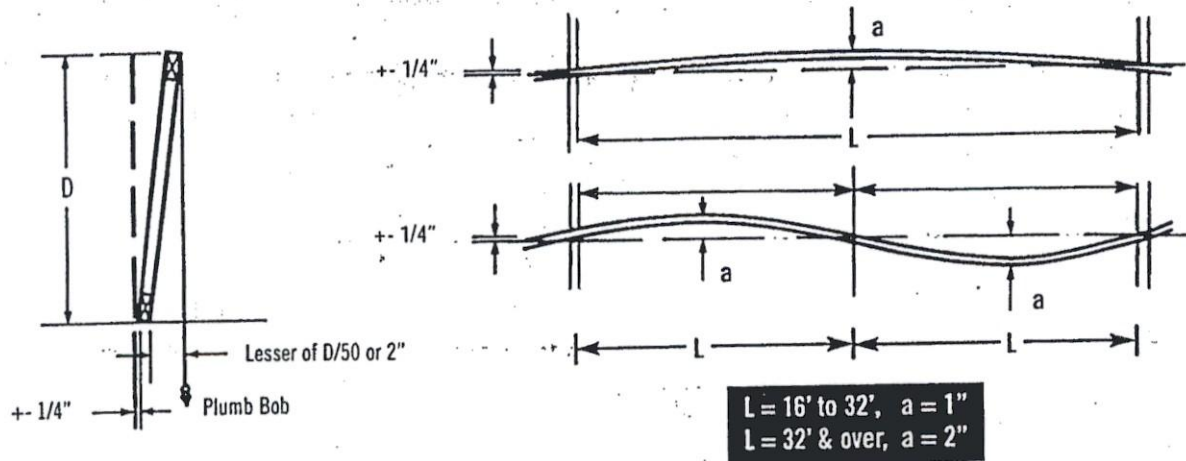


Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.

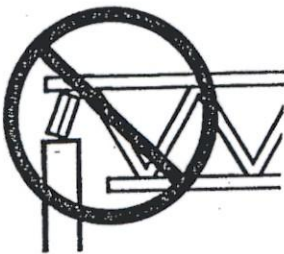
5 Erection Tolerance

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



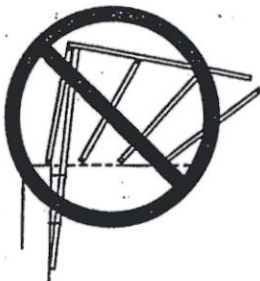
Do not install trusses on temporarily connected supports



Do not walk on unbraced trusses



Do not walk on trusses or gable ends lying flat

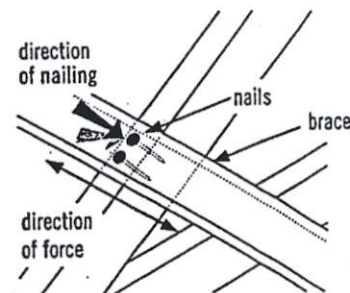


Nails in withdrawal (parallel to force)

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.



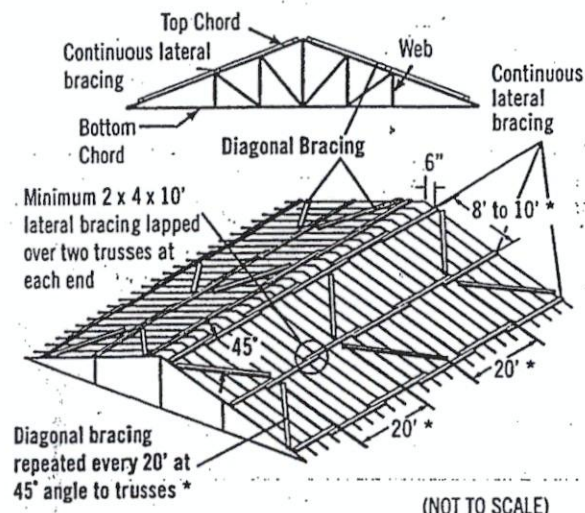
Well nailed (perpendicular to force)

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.

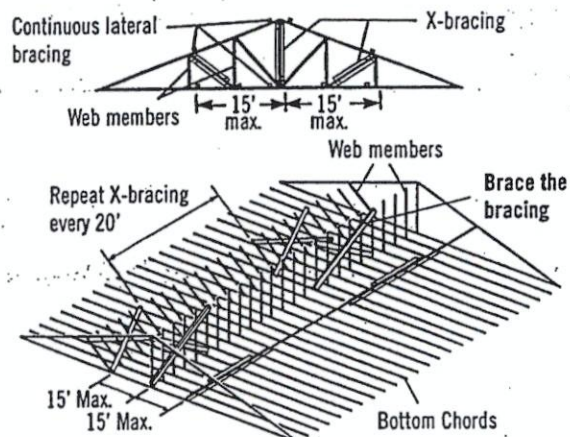


Exact spacing between trusses should be maintained as bracing is installed to avoid the hazardous practice of removing bracing to adjust spacing. This act of "adjusting spacing" can cause trusses to topple if connections are removed at the wrong time.

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.

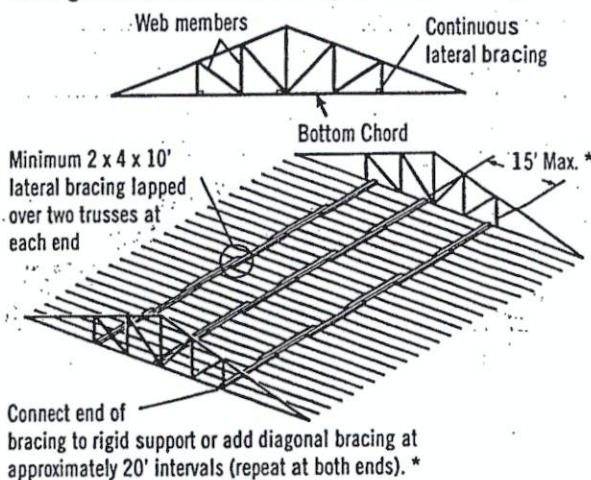
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



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.

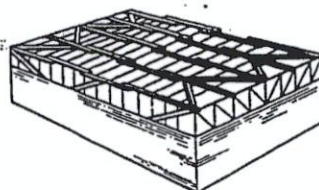


* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (*Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses*) for details.

Diagonal or cross-bracing is very important!



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

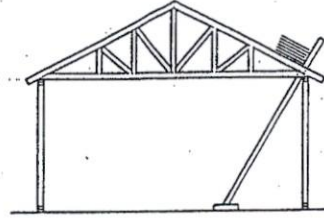
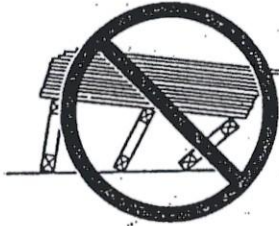


Bracing requirements using the same principles apply to parallel chord trusses

8 Stacking Materials

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

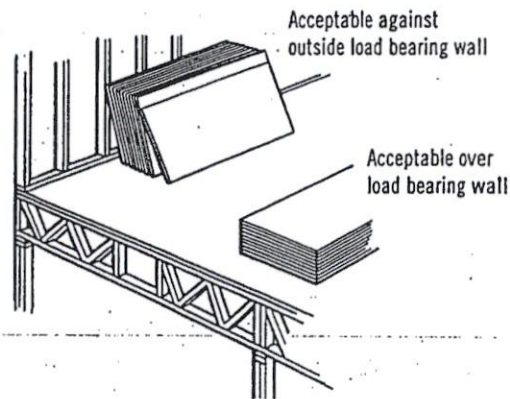
Never stack materials on unbraced or inadequately braced trusses



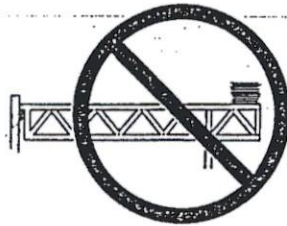
Platform must be rigidly braced

Proper distribution of construction materials is a must during construction.

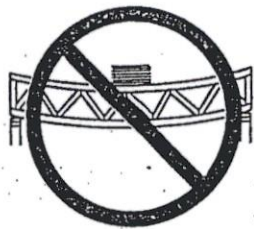
Never stack materials near a peak



Never stack materials on the cantilever of a truss

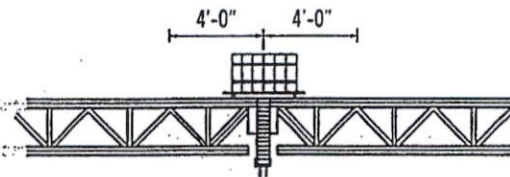


Always stack materials over two or more trusses.



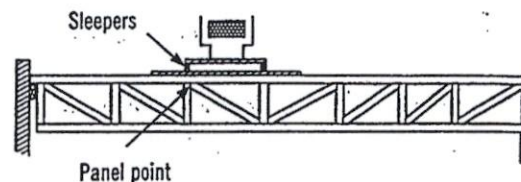
Single truss

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.

[Selected text and figures referenced or reproduced from HIB and DSB by permission of the Truss Plate Institute, Madison, WI.]

THE CANADIAN WOOD TRUSS ASSOCIATION



L'ASSOCIATION CANADIENNE DES FABRICANTS DE FERMES DE BOIS

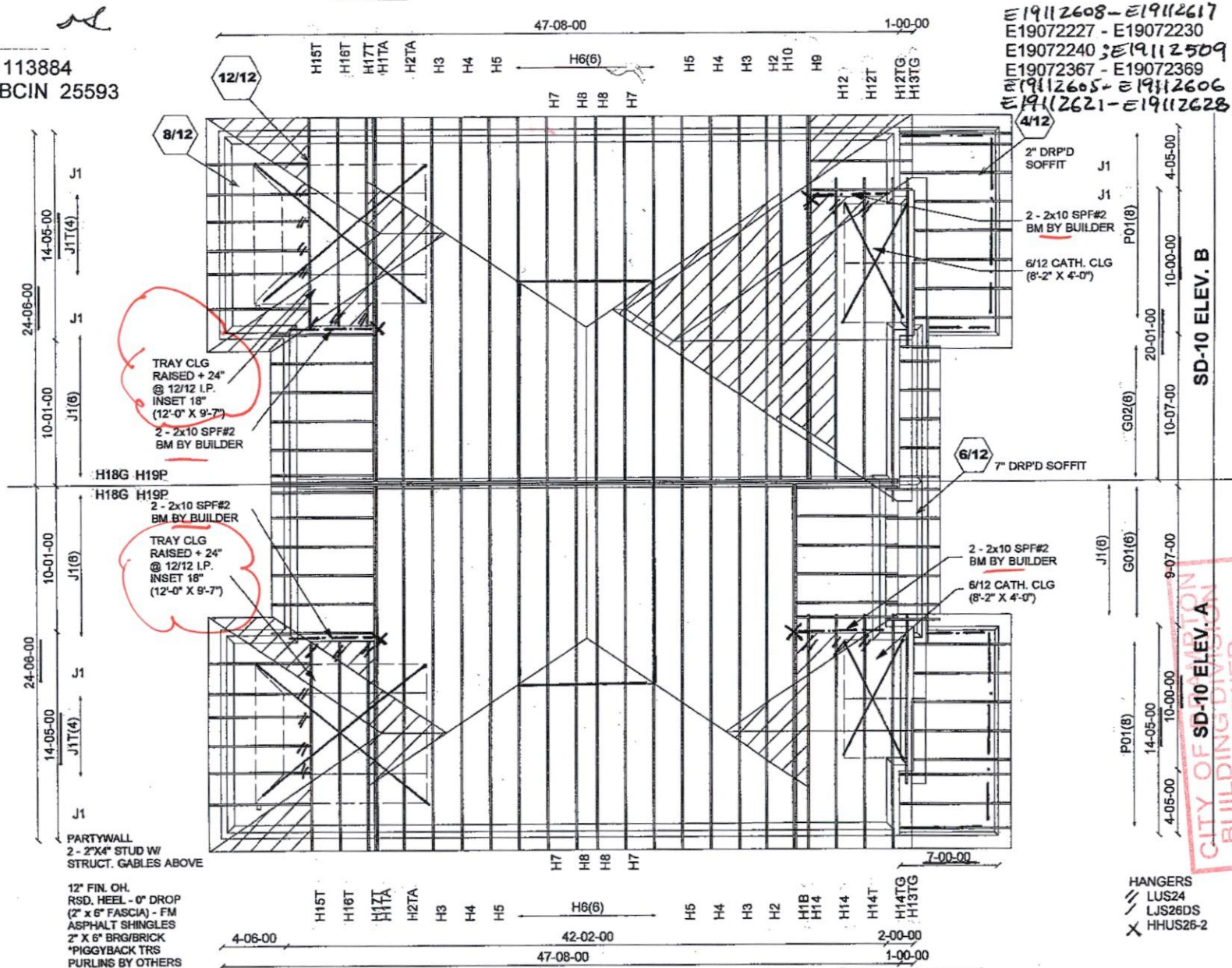
1400 Blair Place, Suite 210, Ottawa, ON K1J 9B8
Tel.: 613-747-5544 Fax: 613-747-6264



**Wood Truss Council
of America**

One WTCA Center
6300 Enterprise Lane, Madison, WI 53719-1140
Tel.: 608-274-4849 Fax: 608-274-3329
wtca@woodtruss.com www.woodtruss.com

FIRM BCIN 113884
DESIGNER BCIN 25593



All work shall conform to the Ontario Building Code O. Reg. 332/12 as amended

For conventional framing roof / cellings
framing shall conform to OBC.9.23

SD-10 ELEV. A

DEC 10 2019

BY ~~MARY FRENETTE~~

HANGERS
 // LUS24
 / LJS26DS
 X HHUS26-2

Mitek V. 8.2.0

CONVENTIONAL FRAMING BY OTHERS

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



Job Track:	39002
Layout ID:	314239
Plan Log:	104619

Builder / Location:
GOLD PARK HOMES / BRAMPTON

Project: MCLAUGHLIN AND MAYFIELD/ENCORE 2		
Date: 2019-10-31	Designer: AMANDA	

Model / Elevation:
SD-10 REV1 / A/B OPT TRAY

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.

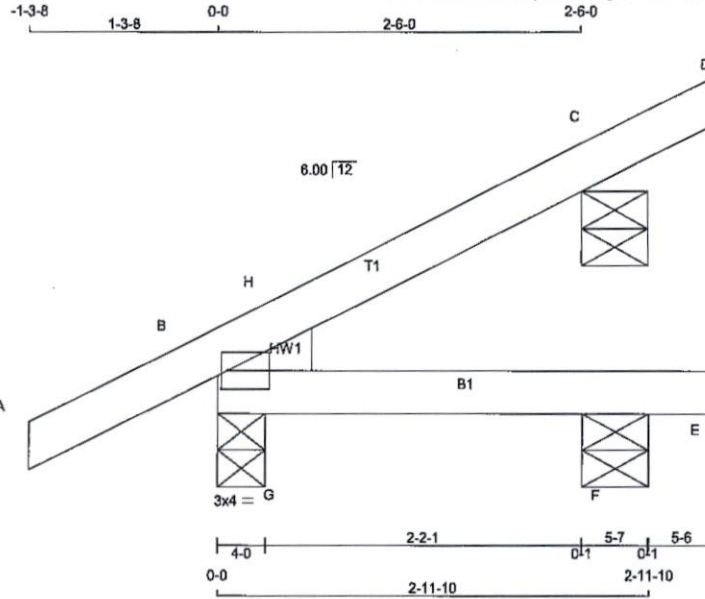
THESE DRAWINGS CONSTITUTE THE PROPERTY OF EWP DESIGN INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY THE ALPA LUMBER GROUP, AND WILL BE RETRACTED BY EWP DESIGN INC. IF UTILIZED FOR ANY OTHER PURPOSE.

JOB NAME 314001	TRUSS NAME G01	QUANTITY 1	PLY 1	JOB DESC. JT-39002	DRWG NO. E-19112605
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Alpa Roof Truss, Maple

Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Mon Nov 11 17:05:08 2019 Page 1

ID:MF8iiriaTok7DlbpT4B71Xys4PG-MOdcFocGTM75WfXH1vIJMGnBldQnlyIANIbK0yKcZf



Scale: 3/4"=1'

TOTAL WEIGHT = 6 X 11 = 64 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT TYPE	PLATES	W	LEN	Y	X
B	TMBH1-4	MT20	3.0	4.0	1.50 0.50

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX	HEEL WEDGE 2x4 L
	VERT	HORZ	DOWN	HORZ			
B	257	0	257	0	4-0	1-8	
F	55	0	55	0	5-8	1-8	
C	162	0	162	0	5-8	5-8	

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): C

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	180	127 / 0	0 / 0	0 / 0	0 / 0	53 / 0	0 / 0
F	42	12 / 0	0 / 0	0 / 0	0 / 0	30 / 0	0 / 0
C	113	87 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0

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

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: (5)

MEMB.	CHORDS		FACTORED		MAX. UNBRACED LENGTH	MEMB. FR-TO	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	LC1 (LC)			MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO			FROM	TO				
A-B	0 / 16	-84.9	-84.9	0.12 (5)	10.00	G-H	-96 / 2	0.00 (1)
B-H	-15 / 0	-84.9	-84.9	0.02 (4)	6.25			
H-C	0 / 2	-84.9	-84.9	0.08 (1)	10.00			
C-D	-14 / 0	-84.9	-84.9	0.03 (1)	6.25			
B-G	0 / 0	-18.5	-18.5	0.07 (1)	10.00			
G-F	0 / 0	-18.5	-18.5	0.07 (1)	10.00			
F-E	0 / 0	-18.5	-18.5	0.01 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, DBC 2012, ABC 2019
- CSA 085-09, CSA 085-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

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

CSI: TC=0.12/1.00 (A-B:5), BC=0.07/1.00 (B-G:1), WB=0.00/1.00 (G-H:1), SSI=0.10/1.00 (A-B:5)

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 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (B) (INPUT = 0.90)
JSI METAL= 0.05 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314001	H1B		2	JT-39002	E-19112608(2)

Alpa Roof Truss, Maple

Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 07:42:24 2019 Page 2
ID:MF8iiriaTok7DlbpT4B71Xys4PG-Bh5nOto dnifihRVWPdfff8oBsWzySPok?Q17i8yK?ID

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TTVW+m	MT20	5.0	6.0	2.00	1.50
D	TMWW-t	MT20	4.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMW+w	MT20	2.0	4.0		
H	TMVW-t	MT20	4.0	6.0	1.75	2.75
I	BMV1+p	MT20	2.0	4.0		
J	BMWWW-t	MT20	5.0	8.0		
K	BMWW-t	MT20	4.0	4.0		
L	BS-t	MT20	4.0	6.0		
M	BMWW-t	MT20	4.0	4.0	2.00	1.75
N	BMWW-t	MT20	4.0	4.0		
O	BMV1+p	MT20	2.0	4.0		

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (H) (INPUT = 0.80)

JSI METAL= 0.37 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

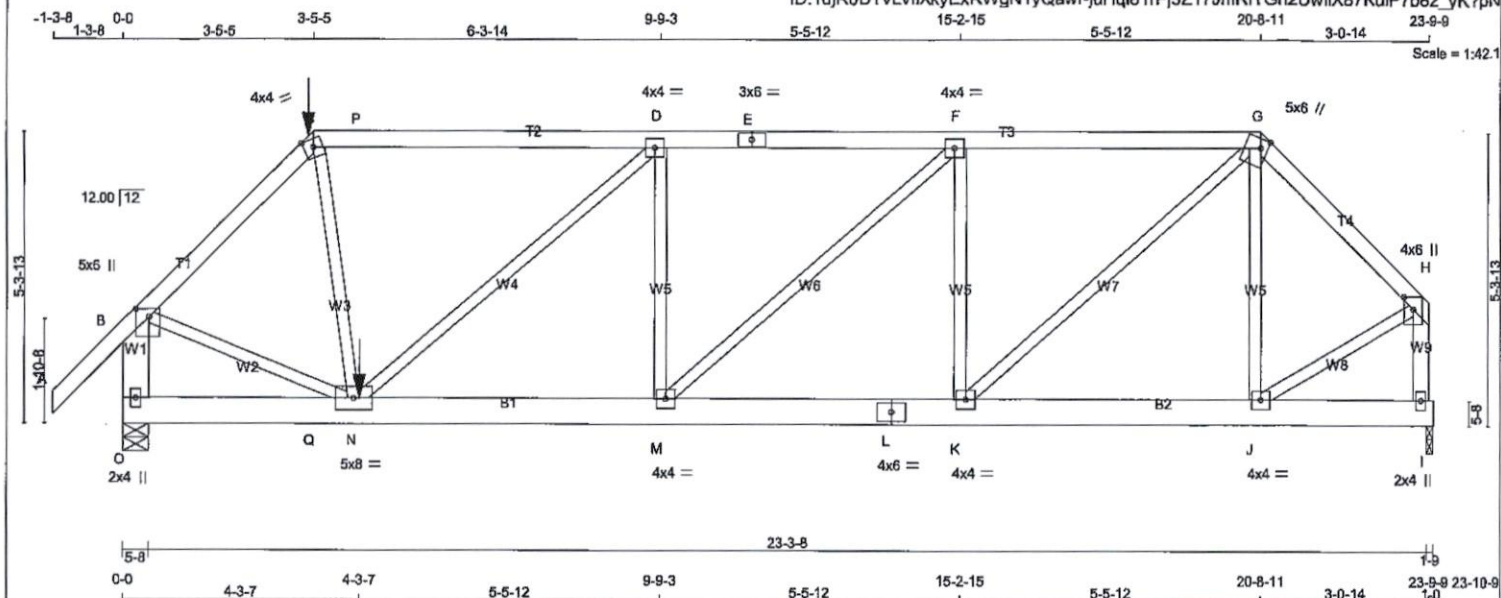


JOB NAME 314001	TRUSS NAME H9	QUANTITY 2	PLY 2	JOB DESC. TRUSS DESC.	DRWG NO. JT-39002	E-19112609
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Alpa Roof Truss, Maple

Version 8.300 8 Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 07:35:50 2019 Page 1

ID:1dJr6DYvLvIXyExRWgN1yQawr-juHq81rPj3Z17JmRfYGH2UwliX87KulP7b82_yK?pN



TOTAL WEIGHT = 2 X 118 = 236 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	
G - H	2x4	DRY	No.2	SPF	
O - B	2x6	DRY	No.2	SPF	
I - H	2x4	DRY	No.2	SPF	
O - L	2x6	DRY	No.2	SPF	
L - I	2x6	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - C	12	SIDE(61.0)
C - E	12	SIDE(41.1)
E - G	12	TOP
G - H	12	TOP
I - H	12	TOP
O - B	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
O - L	12	SIDE(175.9)
L - I	12	TOP
WEBS : (0.122"x3") SPIRAL NAILS		
N - C	6	SIDE(229.5)
2x3	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.

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
O	2936	0	2936	0	5-8	1-9
I	1554	0	1554	0	1-9	1-8

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
O	2084	1327 / 0	0 / 0	0 / 0	0 / 0	756 / 0	0 / 0
I	1103	701 / 0	0 / 0	0 / 0	0 / 0	402 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.41 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				FACTORED				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO				FR-TO						
A-B	0 / 42	-84.9	-84.9	0.07 (1)	10.00	C-N	0 / 1300	0.16 (1)				
B-C	-2727 / 0	-84.9	-84.9	0.13 (1)	5.41	N-D	-397 / 0	0.22 (1)				
C-P	-2121 / 0	-167.1	-167.1	0.28 (1)	5.76	M-D	-296 / 0	0.06 (1)				
P-D	-2121 / 0	-84.9	-84.9	0.28 (1)	5.76	M-F	0 / 601	0.07 (1)				
D-E	-2418 / 0	-84.9	-84.9	0.28 (1)	5.47	K-F	-882 / 0	0.18 (1)				
E-F	-2418 / 0	-84.9	-84.9	0.28 (1)	5.47	K-G	0 / 1469	0.18 (1)				
F-G	-1971 / 0	-84.9	-84.9	0.20 (1)	6.02	J-G	-403 / 0	0.08 (1)				
G-H	-1271 / 0	-84.9	-84.9	0.08 (1)	6.25	B-N	0 / 2029	0.25 (1)				
O-B	-2857 / 0	0.0	0.0	0.11 (1)	7.81	J-H	0 / 1029	0.13 (1)				
I-H	-1542 / 0	0.0	0.0	0.10 (1)	7.81							
O-Q	0 / 0	-36.4	-36.4	0.04 (4)	10.00							
Q-N	0 / 0	-36.4	-36.4	0.04 (4)	10.00							
N-M	0 / 2418	-18.5	-18.5	0.18 (1)	10.00							
M-L	0 / 1972	-18.5	-18.5	0.15 (1)	10.00							
L-K	0 / 1972	-18.5	-18.5	0.15 (1)	10.00							
K-J	0 / 885	-18.5	-18.5	0.08 (1)	10.00							
J-I	0 / 0	-18.5	-18.5	0.03 (4)	10.00							

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-5-5	-213	-213		FRONT	VERT	TOTAL		C1
N	4-3-7	-1554	-1554		FRONT	VERT	TOTAL		C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

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

SPECIFIED LOADS:

TOP CH. LL	=	23.3	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 3-5-5
RIGHT SETBACK = 3-1-14
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF G.S.L.
LOADS APPLIED TO FIRST 4-3-7 OF SPAN MEASURED FROM THE LEFT.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.79")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.03")
ALLOWABLE DEFL.(TL) = $L/360$ (0.79")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.06")

CSI: TC=0.28/1.00 (C-D:1), BC=0.18/1.00 (M-N:1), WB=0.25/1.00 (B-N:1), SSI=0.14/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

CONTINUED ON PAGE 2

JOB NAME 314001	TRUSS NAME H9	QUANTITY	PLY 2	JOB DESC. JT-39002	DRWG NO. E-19112609(2)
Alpa Roof Truss, Maple					
Version 8.300 S Aug 9 2019 Mitek Industries, Inc. Tue Nov 12 07:35:50 2019 Page 2					
ID:1dJR6DYvLvIXkyExRWgN1yQawr-juHq81rPJ3Z17JmRfYgh2UwIIX87KulP7b82_yK?pn					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	1.75	2.75
C	TTW-m	MT20	4.0	4.0	1.75	2.00
D	TMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TTWW+m	MT20	5.0	6.0	2.00	1.50
H	TMVW+p	MT20	4.0	6.0	2.75	2.00
I	BMV1+p	MT20	2.0	4.0		
J, K, M						
J	BMWW-t	MT20	4.0	4.0		
L	BS-t	MT20	4.0	6.0		
N	BMWWW-t	MT20	5.0	8.0		
O	BMV1+p	MT20	2.0	4.0		

NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	618	354	1667	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.41 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

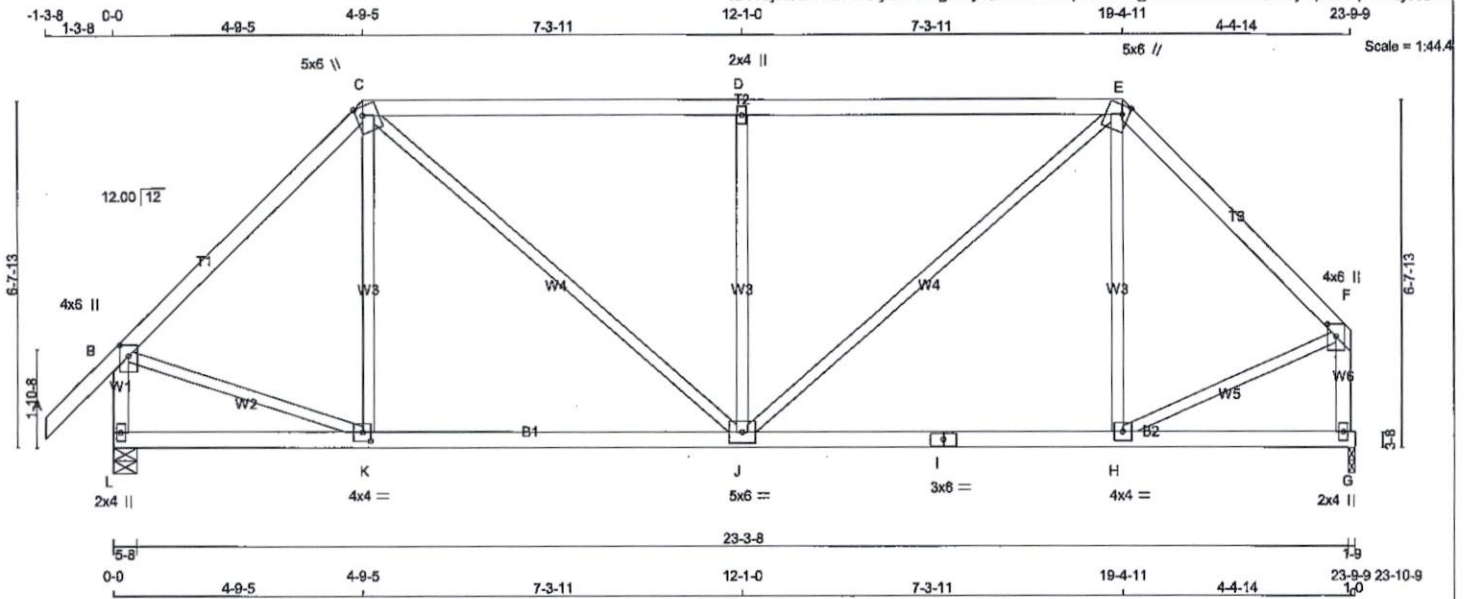


JOB NAME 314001	TRUSS NAME H10	QUANTITY	PLY 1	JOB DESC. JT-39002	DRWG NO. E-19112610
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Alpa Roof Truss, Maple

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ID:1dJR6DYvLvIXKyExRWgN1yQawr-mzILtpr9mHVgN6Gri1r0zvOVtrPLyBpd3GpO2LyKCZc



TOTAL WEIGHT = 103 lb

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

ALL WEBS 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	2.50	2.00
C	TTWW+m	MT20	5.0	6.0	2.00	1.50
D	TMVW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	5.0	6.0	2.00	1.50
F	TMVW+p	MT20	4.0	6.0	2.75	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMVW-t	MT20	4.0	4.0		
I	BS-t	MT20	3.0	6.0		
J	BMVWW-t	MT20	5.0	6.0		
K	BMVW-t	MT20	4.0	4.0	2.00	1.75
L	BMV1+p	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
L	1348	0	1348	0	5-8	2-0
G	1230	0	1230	0	1-9	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	955	619 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0 / 0
G	873	554 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.14 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)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 42	-84.9	-84.9 0.12 (1)	10.00	K-C	-111 / 50	0.08 (1)
B-C	-1072 / 0	-84.9	-84.9 0.39 (1)	5.60	C-J	0 / 656	0.15 (1)
C-D	-1249 / 0	-84.9	-84.9 0.90 (1)	4.14	J-D	-761 / 0	0.56 (1)
D-E	-1249 / 0	-84.9	-84.9 0.90 (1)	4.14	J-E	0 / 714	0.16 (1)
E-F	-1011 / 0	-84.9	-84.9 0.32 (1)	5.81	H-E	-177 / 23	0.13 (1)
L-B	-1317 / 0	0.0	0.0 0.15 (1)	7.05	B-K	0 / 791	0.18 (1)
G-F	-1203 / 0	0.0	0.0 0.15 (1)	7.29	H-F	0 / 772	0.17 (1)
L-K	0 / 0	-18.5	-18.5 0.16 (4)	10.00			
K-J	0 / 754	-18.5	-18.5 0.27 (4)	10.00			
J-I	0 / 709	-18.5	-18.5 0.26 (4)	10.00			
I-H	0 / 709	-18.5	-18.5 0.26 (4)	10.00			
H-G	0 / 0	-18.5	-18.5 0.15 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	=	23.3	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	36.7	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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.90/1.00 (D-E:1), BC=0.27/1.00 (J-K:4), WB=0.56/1.00 (D-J:1), SSI=0.30/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
	MAX	MIN	MAX
MT20	618	354	1657

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (H) (INPUT = 0.90)

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

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

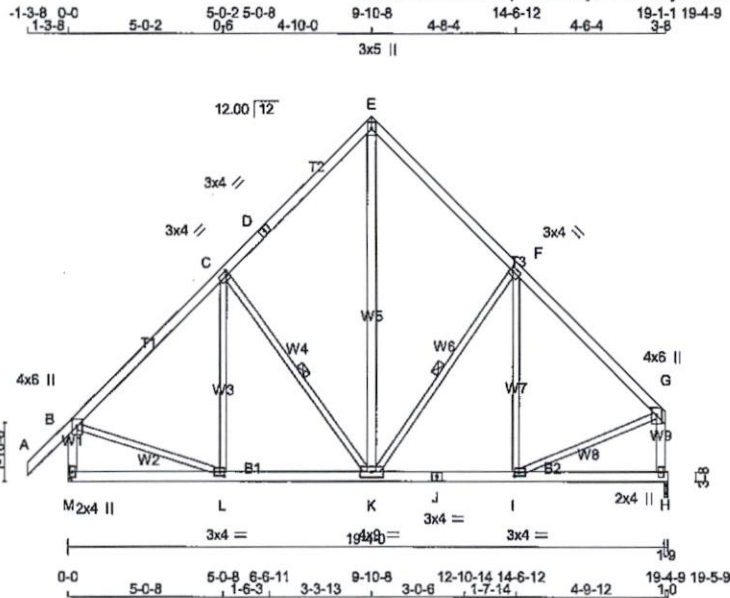


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314001	H12	1		JT-39002	E-19112611

Alpa Roof Truss, Maple

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Scale = 1:75.0

TOTAL WEIGHT = 104 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TMVW-t	MT20	3.0	4.0	1.50	1.00
D	TS-t	MT20	3.0	4.0		
E	TTW+p	MT20	3.0	5.0		
F	TMVW-t	MT20	3.0	4.0	1.50	1.00
G	TMVW+p	MT20	4.0	6.0	2.75	2.00
H	BMV1+p	MT20	2.0	4.0		
I	BMVW-t	MT20	3.0	4.0	1.50	1.75
J	BS-t	MT20	3.0	4.0		
K	BMVWW-t	MT20	4.0	9.0		
L	BMVW-t	MT20	3.0	4.0	1.50	1.75
M	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
M	1120	0	1120	0
H	1002	0	1002	0

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

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	793	516 / 0	0 / 0	0 / 0	0 / 0	276 / 0	0 / 0
H	711	451 / 0	0 / 0	0 / 0	0 / 0	260 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	MAX. UNBRAC LENGTH	MEMB.	WEBS MAX. FACTORED FORCE (LBS)	MAX
FR-TO		FROM	TO	CSI (LC)	FR-TO			CSI (LC)
A-B	0 / 42	-84.9	-84.9	0.12 (1)	10.00	K-E	0 / 554	0.09 (1)
B-C	-833 / 0	-84.9	-84.9	0.28 (1)	6.25	B-L	0 / 641	0.14 (1)
C-D	-842 / 0	-84.9	-84.9	0.27 (1)	6.25	L-C	-83 / 49	0.07 (1)
D-E	-842 / 0	-84.9	-84.9	0.27 (1)	6.25	C-K	-313 / 0	0.14 (1)
E-F	-841 / 0	-84.9	-84.9	0.25 (1)	6.25	K-F	-266 / 0	0.12 (1)
F-G	-787 / 0	-84.9	-84.9	0.28 (1)	6.25	I-F	-130 / 29	0.11 (1)
M-B	-1082 / 0	0.0	0.0	0.12 (1)	7.59	I-G	0 / 624	0.14 (1)
H-G	-965 / 0	0.0	0.0	0.12 (1)	7.81			
M-L	0 / 0	-18.5	-18.5	0.11 (4)	10.00			
L-K	0 / 614	-18.5	-18.5	0.16 (4)	10.00			
K-J	0 / 581	-18.5	-18.5	0.15 (4)	10.00			
J-I	0 / 581	-18.5	-18.5	0.15 (4)	10.00			
I-H	0 / 0	-18.5	-18.5	0.10 (4)	10.00			

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



DESIGN CRITERIA

SPECIFIED LOADS:	TOP CH.	LL	
	23.3	PSF	
	DL	6.0	PSF
	BOT CH.	LL	0.0
	DL	7.4	PSF
	TOTAL LOAD	36.7	PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL. (LL) = $L/360$ (0.65")
CALCULATED VERT. DEFL. (LL) = $L/999$ (0.02")
ALLOWABLE DEFL. (TL) = $L/360$ (0.65")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.04")

CSI: TC=0.28/1.00 (B-C:1), BC=0.16/1.00 (K-L:4), WB=0.14/1.00 (B-L:1), SSI=0.15/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES	PLATE	GRIP (DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)	
	MAX MIN	MAX MIN	MAX MIN	
	MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314001	H12T		1	TRUSS DESC.	E-19112612

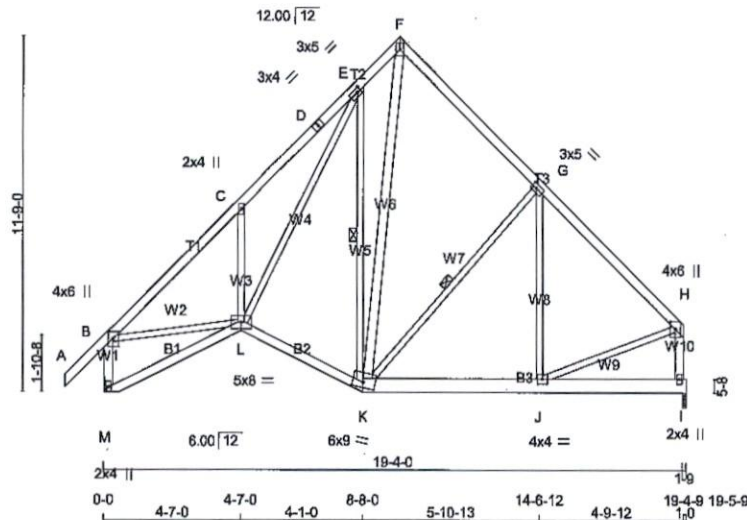
Alpa Roof Truss, Maple

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-1-3-8 0-0
1-3-8 4-7-0 4-7-0 4-1-0 8-8-0 9-10-8 4-8-4 14-6-12 4-9-12 19-4-9
3x5 //

Scale = 1:77.0



TOTAL WEIGHT = 118 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	1.75
C	TMVW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	4.0		
E	TMVWV-i	MT20	3.0	5.0	1.50	1.50
F	TTW+p	MT20	3.0	5.0		
G	TMVW-i	MT20	3.0	5.0	1.50	2.00
H	TMVW+p	MT20	4.0	6.0	2.75	2.00
I	BMV1+p	MT20	2.0	4.0		
J	BMVW-i	MT20	4.0	4.0		
K	BBVWV-m	MT20	6.0	9.0	2.00	4.25
L	BBVWV-p	MT20	5.0	8.0		
M	BMV1+p	MT20	2.0	4.0	Edge	

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
M	1120	0	1120	0		
I	1002	0	1002	0	1-9	1-3

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

UNFACTORED REACTIONS

JT	1ST CASE		MAX/MIN. COMPONENT REACTIONS		SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM. LIVE						
M	793	516 / 0	0 / 0	0 / 0	0 / 0	0 / 0	276 / 0	0 / 0	0 / 0	0 / 0
I	711	451 / 0	0 / 0	0 / 0	0 / 0	0 / 0	260 / 0	0 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.48 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		MAX. FACTORED	MEMB.	WEBS		MAX. FACTORED
	MAX. FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	CSI (LC)			MAX. FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO			FR-TO			
A-B	0 / 42	-84.9	-84.9	0.12 (1)	10.00	K-E	-651 / 0	0.49 (1)	
B-C	-1264 / 0	-84.9	-84.9	0.22 (1)	5.50	K-F	0 / 711	0.11 (1)	
C-D	-1293 / 0	-84.9	-84.9	0.20 (1)	5.48	K-G	-283 / 0	0.15 (1)	
D-E	-1293 / 0	-84.9	-84.9	0.20 (1)	5.48	J-G	-102 / 56	0.08 (1)	
E-F	-698 / 0	-84.9	-84.9	0.05 (1)	6.25	J-H	0 / 629	0.14 (1)	
F-G	-603 / 0	-84.9	-84.9	0.25 (1)	6.25	L-C	-417 / 0	0.12 (1)	
G-H	-799 / 0	-84.9	-84.9	0.26 (1)	6.25	B-L	0 / 918	0.21 (1)	
M-B	-1078 / 0	0.0	0.0	0.13 (1)	7.60	L-E	0 / 939	0.21 (1)	
I-H	-968 / 0	0.0	0.0	0.11 (1)	7.81				
M-L	0 / 0	-18.5	-18.5	0.11 (4)	10.00				
L-K	0 / 539	-18.5	-18.5	0.14 (1)	10.00				
K-J	0 / 539	-18.5	-18.5	0.11 (1)	10.00				
J-I	0 / 0	-18.5	-18.5	0.07 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF	

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= 1/360 (0.65")
CALCULATED VERT. DEFL.(LL)= 1/999 (0.04")
ALLOWABLE DEFL.(TL)= 1/360 (0.65")
CALCULATED VERT. DEFL.(TL)= 1/999 (0.08")

CSI: TC=0.26/1.00 (G-H:1), BC=0.14/1.00 (K-L:1), WB=0.49/1.00 (E-K:1), SSI=0.14/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (K) (INPUT = 0.90)
JSI METAL= 0.55 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



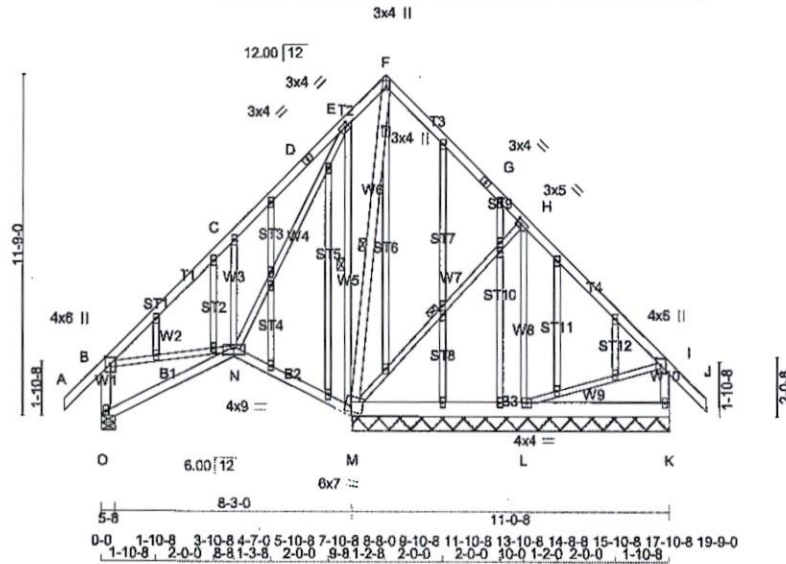
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Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DibpT4B71Xys4PG-7x6DxXvHbp8yTu8pVbRBgy6Uss9vduBMCYX9YyKCZK
 -1-3-8 0-0, 1-10-8 3-10-8 4-7-0 5-10-8 7-10-8 8-8-0 9-10-8 11-10-8 13-10-8 14-8-8 15-10-8 17-10-8 19-9-0 21-0-8
 1-3-8, 1-10-8, 2-0-0 8-8-1-3-8, 2-0-0 8-8-1-2-8, 2-0-0, 2-0-0 10-0 1-2-0 2-0-0, 1-10-8, 1-3-8,

Scale = 1:80.4



TOTAL WEIGHT = 162 lb

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
O	381	0	381	0	5-8	1-8
M	1186	0	1186	0	11-0-8	2-4-6
K	348	0	348	0	11-0-8	2-4-6
L	364	0	364	0	11-0-8	2-4-6

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
O	269	179 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0
M	837	556 / 0	0 / 0	0 / 0	0 / 0	281 / 0	0 / 0
K	242	182 / 0	0 / 0	0 / 0	0 / 0	60 / 0	0 / 0
L	264	133 / 0	0 / 0	0 / 0	0 / 0	131 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		MAX. UNBRACED LENGTH	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (PLF)	LC2 MAX (PLF)			MAX. FACTORED FORCE (LBS)	MAX. CS (LC)
FR-TO						FR-TO		
A-B	0 / 42	-84.9	-84.9	0.12 (1)	10.00	M-E	-475 / 0	0.36 (1)
B-C	-82 / 0	-84.9	-84.9	0.23 (1)	6.25	M-F	-413 / 0	0.29 (1)
C-D	-109 / 0	-84.9	-84.9	0.23 (1)	6.25	M-H	-189 / 0	0.10 (1)
D-E	-109 / 0	-84.9	-84.9	0.23 (1)	6.25	L-H	-242 / 0	0.18 (1)
E-F	0 / 175	-84.9	-84.9	0.13 (1)	10.00	L-I	-5 / 28	0.01 (1)
F-G	0 / 116	-84.9	-84.9	0.37 (1)	10.00	B-N	0 / 77	0.02 (1)
G-H	0 / 116	-84.9	-84.9	0.37 (1)	10.00	N-C	-414 / 0	0.12 (1)
H-I	-2 / 16	-84.9	-84.9	0.35 (1)	10.00	N-E	0 / 480	0.11 (1)
I-J	0 / 42	-84.9	-84.9	0.12 (1)	10.00			
O-B	-338 / 0	0.0	0.0	0.04 (1)	7.81			
K-I	-316 / 0	0.0	0.0	0.03 (1)	7.81			
O-N	0 / 0	-18.5	-18.5	0.11 (4)	10.00			
N-M	-164 / 0	-18.5	-18.5	0.09 (4)	6.25			
M-L	-6 / 27	-18.5	-18.5	0.08 (4)	10.00			
L-K	0 / 0	-18.5	-18.5	0.08 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.4 PSF
 TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
 - PART 9 OF BCBC 2018, OBC 2012, ABC 2019
 - CSA 086-08, CSA 086-14
 - TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.28")
 CALCULATED VERT. DEFL.(LL) = L/989 (0.01")
 ALLOWABLE DEFL.(TL) = L/360 (0.29")
 CALCULATED VERT. DEFL.(TL) = L/989 (0.03")

CSI: TC=0.37/1.00 (F-H:1), BC=0.11/1.00 (N-O:4), WB=0.36/1.00 (E-M:1), SI=0.15/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION
 (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (M) (INPUT = 0.90)
 JSI METAL= 0.23 (M) (INPUT = 1.00)

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMW+p	MT20	4.0	6.0	2.75	2.00
C	TMW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	4.0		
E	TMW-w	MT20	3.0	4.0	1.50	1.50
F	TTW+p	MT20	3.0	4.0	Edge	
G	TS-t	MT20	3.0	4.0		
H	TMW-w	MT20	3.0	5.0	1.50	2.00
I	TMW+p	MT20	4.0	6.0	2.75	2.00
K	BMV1+p	MT20	2.0	4.0		
L	BMVW1-t	MT20	4.0	4.0		
M	BBVWV1-m	MT20	6.0	7.0	2.00	2.25
N	BBVWV-p	MT20	4.0	9.0	2.50	4.50
O	BMV1+p	MT20	2.0	4.0	Edge	
P, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ						
P	NP+w	MT20	2.0	4.0		
Q	NP+w	MT20	3.0	4.0	1.25	1.50
AC	NP+w	MT20	2.0	4.0	1.75	1.00
AF	NP+w	MT20	2.0	4.0	1.75	1.00

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



CONTINUED ON PAGE 2

JOB NAME 314001	TRUSS NAME H13TG	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	JT-39002	DRWG NO. E-19112614
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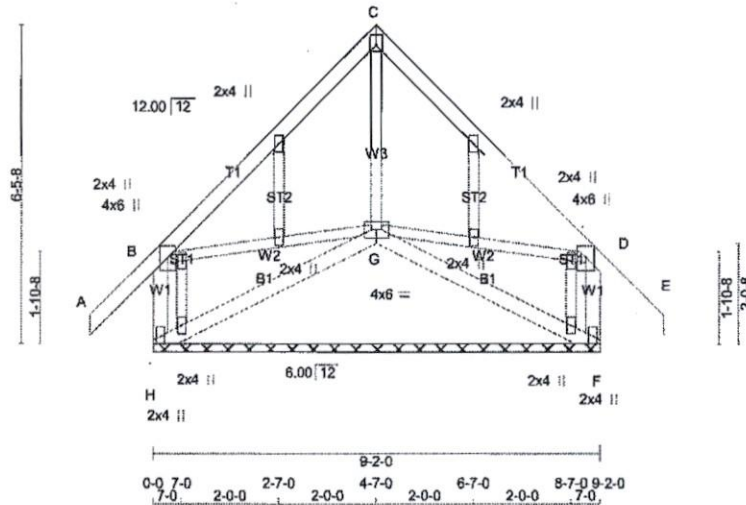
Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-b7gc8tvvM7Gp51j73lyQDAegdFV8M7mVRCGIF_yKCZW

-1-3-8 0-0 7-0 2-0-0 2-7-0 2-0-0 4-7-0 2-0-0 6-7-0 2-0-0 8-7-0 9-2-0 10-5-8
1-3-8 7-0 2-0-0 2-7-0 2-0-0 4-7-0 2-0-0 6-7-0 2-0-0 8-7-0 9-2-0 10-5-8
3x4 ||

Scale = 1:47.2



TOTAL WEIGHT = 2 X 51 = 101 lb

LUMBER	N. L. G. A. RULES	CHOROS	SIZE	LUMBER	DESCR.
A - C	2x4 DRY No.2	SPF			
C - E	2x4 DRY No.2	SPF			
H - B	2x4 DRY No.2	SPF			
F - D	2x4 DRY No.2	SPF			
H - G	2x4 DRY No.2	SPF			
G - F	2x4 DRY No.2	SPF			
ALL WEBS EXCEPT	2x3 DRY No.2	SPF			
ALL GABLE WEBS	2x3 DRY No.2	SPF			
DRY: SEASONED LUMBER.					
GABLE STUDS SPACED AT	2-0-0 OC.				

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
B, D, I, J, K, L, M, N						
B	NP+w	MT20	2.0	4.0		
C	TTW+p	MT20	3.0	4.0	Edge	
D	TMVW+p	MT20	4.0	6.0	2.75	2.00
F	BMV1+p	MT20	2.0	4.0	Edge	
G	BBWW1+p	MT20	4.0	6.0		
H	BMV1+p	MT20	2.0	4.0	Edge	

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
H	402	0	402	0	0/0	0/0
G	379	0	379	0	0/0	0/0
F	402	0	402	0	0/0	0/0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	COMBINED	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
		SNOW	LIVE	PERM.LIVE				
H	282	198/0	0/0	0/0	0/0	85/0	0/0	0/0
G	271	162/0	0/0	0/0	0/0	110/0	0/0	0/0
F	282	198/0	0/0	0/0	0/0	85/0	0/0	0/0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	MAX. UNBRAC LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO					
A-B	0/42	-84.9	-84.9	0.12 (1)	10.00	G-C	-282/0	0.08 (1)
B-C	-75/0	-84.9	-84.9	0.31 (1)	6.25	B-G	0/64	0.01 (1)
C-D	-75/0	-84.9	-84.9	0.31 (1)	6.25	G-D	0/64	0.01 (1)
D-E	0/42	-84.9	-84.9	0.12 (1)	10.00			
H-B	-360/0	0.0	0.0	0.04 (1)	7.81			
F-D	-360/0	0.0	0.0	0.04 (1)	7.81			
H-G	0/0	-18.5	-18.5	0.11 (4)	10.00			
G-F	0/0	-18.5	-18.5	0.11 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.31/1.00 (C-D:1), BC=0.11/1.00 (F-G:4), WB=0.08/1.00 (C-G:1), SS=0.11/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1856

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.45 (C) (INPUT = 0.90)
JSI METAL= 0.15 (H) (INPUT = 1.00)

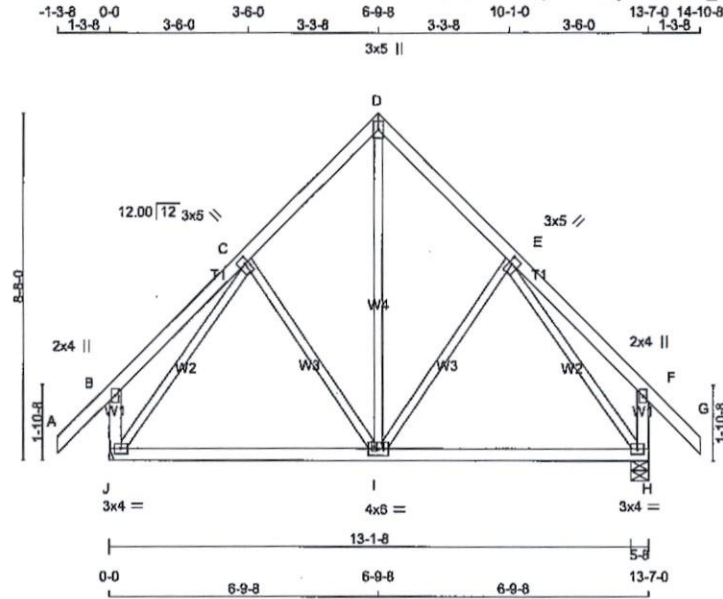
NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314001	H14	1		JT-39002	E-19112615

Alpa Roof Truss, Maple

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ID:MF8iiraTok7DlbpT4B71Xys4PG-3JD_LDwY7ROgiBICd0UgmNBIfnr5N5fsg0GnRyKCZV



Scale = 1:58.1

TOTAL WEIGHT = 2 X 70 = 141 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMV+p	MT20	2.0	4.0		
C TMWW+1	MT20	3.0	5.0	2.00	1.00
D TTW+p	MT20	3.0	5.0		
E TMWW+1	MT20	3.0	5.0	2.00	1.00
F TMV+p	MT20	2.0	4.0		
H BMVW1-t	MT20	3.0	4.0		
I BMWWW-1	MT20	4.0	6.0		
J BMVW1-t	MT20	3.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
J	820	0	820	0
H	820	0	820	0

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

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	580	381 / 0	0 / 0	0 / 0	0 / 0	199 / 0	0 / 0
H	580	381 / 0	0 / 0	0 / 0	0 / 0	199 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. VERT. LOAD LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	MAX. VERT. LOAD LC1 (LC)
FR-TO				FR-TO			
A-B	0 / 42	-84.9	-84.9 0.12 (1)	I-D	0 / 371	0.08 (1)	0.08 (1)
B-C	0 / 24	-84.9	-84.9 0.16 (1)	I-E	-132 / 0	0.08 (1)	0.08 (1)
C-D	-446 / 0	-84.9	-84.9 0.12 (1)	C-I	-132 / 0	0.08 (1)	0.08 (1)
D-E	-446 / 0	-84.9	-84.9 0.12 (1)	J-C	-662 / 0	0.39 (1)	0.39 (1)
E-F	0 / 24	-84.9	-84.9 0.16 (1)	E-H	-662 / 0	0.39 (1)	0.39 (1)
F-G	0 / 42	-84.9	-84.9 0.12 (1)				
J-B	-227 / 0	0.0	0.0 0.03 (1)				
H-F	-227 / 0	0.0	0.0 0.03 (1)				
J-I	0 / 375	-18.5	-18.5 0.28 (4)				
I-H	0 / 375	-18.5	-18.5 0.28 (4)				

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	=	23.3	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.16/1.00 (B-C:1), BC=0.28/1.00 (I-J:4), WB=0.39/1.00 (E-H:1), SSI=0.11/1.00 (I-J:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

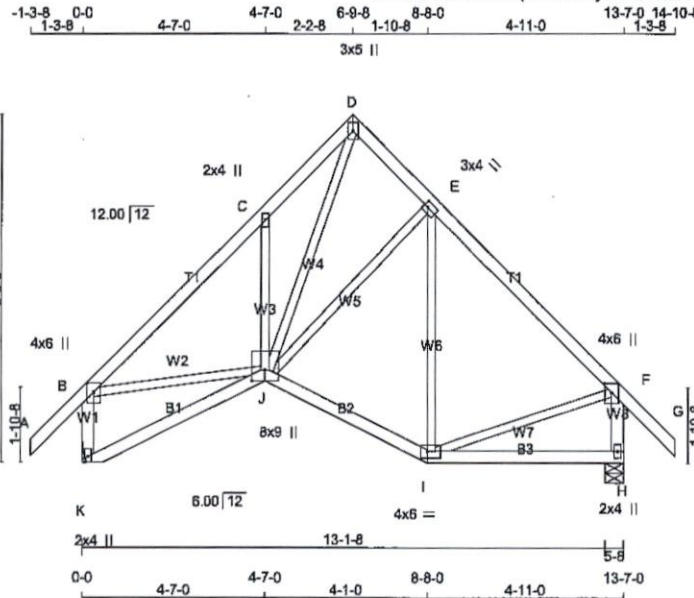
JSI GRIP= 0.82 (J) (INPUT = 0.90)
JSI METAL= 0.40 (E) (INPUT = 1.00)

JOB NAME 314001	TRUSS NAME H14T	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	JT-39002	DRWG NO. E-19112616
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Alpa Roof Truss, Maple

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ID:MF8iriaTok7DibpT4B71Xys4PG-7iLkmuyof2eOyVSakQW8roGC1TVZZLmx79VMsJyKCZT



Scale = 1:57.9

TOTAL WEIGHT = 72 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWV+p	MT20	4.0	6.0	2.75	2.00
C	TMW+w	MT20	2.0	4.0		
D	TTW+p	MT20	3.0	5.0		
E	TMWV-t	MT20	3.0	4.0	1.50	1.00
F	TMWV+p	MT20	4.0	6.0	2.75	2.00
H	BMV1+p	MT20	2.0	4.0		
I	BMWV-t	MT20	4.0	6.0	2.00	4.00
J	BBWVWV+p	MT20	8.0	9.0	3.25	4.00
K	BMV1+p	MT20	2.0	4.0	Edge	

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
K	820	0	820	0	0	5-8	MECHANICAL	1-8	
H	820	0	820	0	0	5-8	MECHANICAL	1-8	

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

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	580	381 / 0	0 / 0	0 / 0	0 / 0	198 / 0	0 / 0
H	580	381 / 0	0 / 0	0 / 0	0 / 0	198 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-84.9 -84.9	0.12 (1)	10.00	J-C	-368 / 0	0.11 (1)
B-C	-779 / 0	-84.9 -84.9	0.22 (1)	6.25	J-D	0 / 845	0.19 (1)
C-D	-829 / 0	-84.9 -84.9	0.15 (1)	6.25	J-E	-136 / 0	0.08 (1)
D-E	-482 / 0	-84.9 -84.9	0.19 (1)	6.25	I-E	-218 / 0	0.16 (1)
E-F	-503 / 0	-84.9 -84.9	0.23 (1)	6.25	B-J	0 / 570	0.13 (1)
F-G	0 / 42	-84.9 -84.9	0.12 (1)	10.00	I-F	0 / 391	0.09 (1)
K-B	-778 / 0	0.0 0.0	0.09 (1)	7.81			
H-F	-775 / 0	0.0 0.0	0.09 (1)	7.81			
K-J	0 / 0	-18.5 -18.5	0.11 (4)	10.00			
J-I	0 / 414	-18.5 -18.5	0.13 (4)	10.00			
I-H	0 / 0	-18.5 -18.5	0.13 (4)	10.00			

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF	

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.45")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL)= L/999 (0.04")

CSI: TC=0.23/1.00 (E-F:1), BC=0.13/1.00 (H-I:4), WB=0.19/1.00 (D-J:1), SSI=0.13/1.00 (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	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (I) (INPUT = 0.90)
JSI METAL= 0.37 (B) (INPUT = 1.00)



Scale = 1:58.1



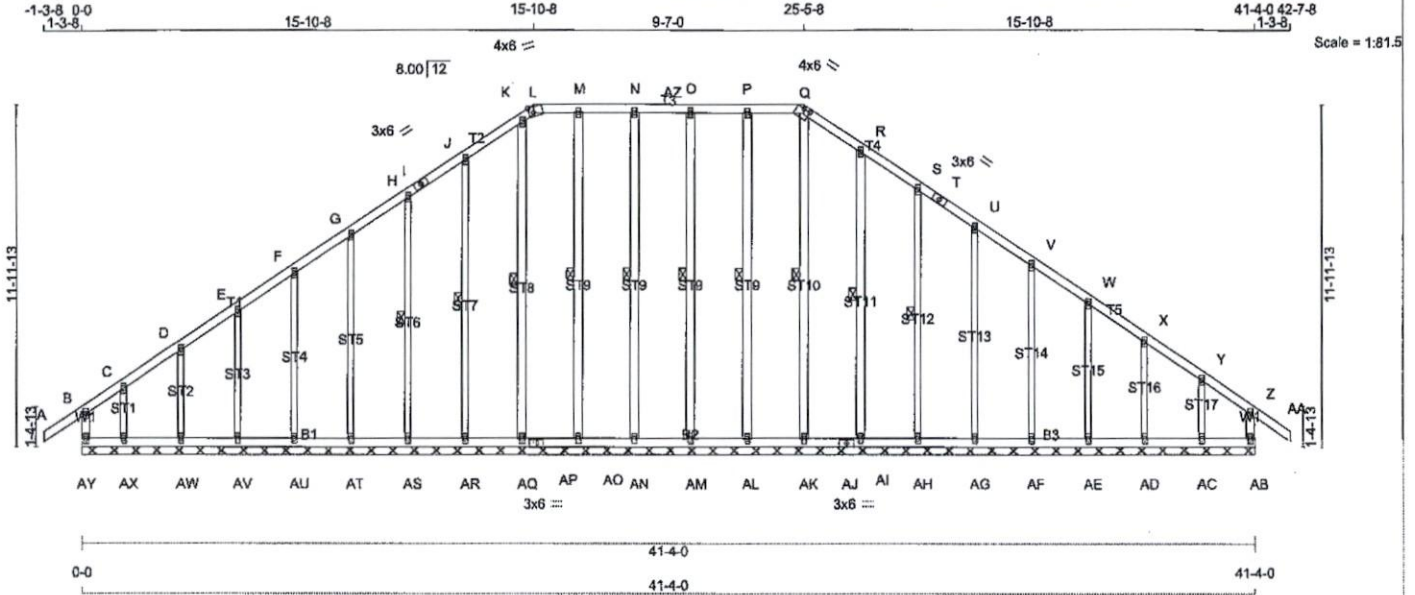
JSI GRIP= 0.80 (E) (INPUT = 0.90)
JSI METAL= 0.20 (K) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314001	H18G		1	JT-39002	E-19112621

Alpa Roof Truss, Maple

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ID:MF8iiraTok7DlbpT4B71Xys4PG-FWVrxDt5WILThKrNI50BT1yORVpH59ZHqex3MyKCYG



TOTAL WEIGHT = 2 X 257 = 513 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
AY - B	2x4	DRY No.2	SPF	
A - I	2x4	DRY No.2	SPF	
I - L	2x4	DRY No.2	SPF	
L - Q	2x4	DRY No.2	SPF	
Q - T	2x4	DRY No.2	SPF	
T - AA	2x4	DRY No.2	SPF	
AB - Z	2x4	DRY No.2	SPF	
AY - AP	2x4	DRY No.2	SPF	
AP - AJ	2x4	DRY No.2	SPF	
AJ - AB	2x4	DRY No.2	SPF	
ALL WEBS EXCEPT				
AK - Q	2x4	DRY No.2	SPF	
AL - P	2x4	DRY No.2	SPF	
AM - O	2x4	DRY No.2	SPF	
AN - N	2x4	DRY No.2	SPF	
AO - M	2x4	DRY No.2	SPF	
AQ - K	2x4	DRY No.2	SPF	
AI - R	2x4	DRY No.2	SPF	
ALL GABLE WEBS EXCEPT				
ST1	2x4	DRY No.2	SPF	
ST2	2x4	DRY No.2	SPF	
ST3	2x4	DRY No.2	SPF	
ST4	2x4	DRY No.2	SPF	
ST5	2x4	DRY No.2	SPF	
ST6	2x4	DRY No.2	SPF	
ST14	2x4	DRY No.2	SPF	
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT 2'-0" OC.				
PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B TMV+p	MT20	2.0	4.0	
C, D, E, F, G, H, J, K, M, N, O, P, R, S, U, V, W, X, Y	MT20	2.0	4.0	
C TMW+w	MT20	2.0	4.0	
I TS-1	MT20	3.0	6.0	

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



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

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF Q-AK, P-AL, O-AM, N-AN, M-AO, K-AQ, J-AR, H-AS, R-AI, S-AH.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
AY-B	-209 / 0	0.0 0.0 0.03 (1)	7.81	AK-Q	-192 / 0	0.15 (1)	
A-B	0 / 32	-84.9 -84.9 0.11 (1)	10.00	AL-P	-186 / 0	0.15 (1)	
B-C	-17 / 0	-84.9 -84.9 0.08 (1)	6.25	AM-O	-184 / 0	0.14 (1)	
C-D	0 / 13	-84.9 -84.9 0.05 (1)	10.00	AN-N	-183 / 0	0.14 (1)	
D-E	0 / 11	-84.9 -84.9 0.05 (1)	10.00	AO-M	-193 / 0	0.15 (1)	
E-F	0 / 16	-84.9 -84.9 0.04 (1)	10.00	AQ-K	-191 / 0	0.14 (1)	
F-G	0 / 19	-84.9 -84.9 0.04 (1)	10.00	AR-J	-164 / 0	0.12 (1)	
G-H	0 / 21	-84.9 -84.9 0.04 (1)	10.00	AS-H	-170 / 0	0.09 (1)	
H-I	0 / 22	-84.9 -84.9 0.04 (1)	6.25	AT-G	-168 / 0	0.19 (1)	
I-J	0 / 22	-84.9 -84.9 0.04 (1)	6.25	AU-F	-169 / 0	0.11 (1)	
J-K	0 / 26	-84.9 -84.9 0.05 (1)	10.00	AV-E	-165 / 0	0.06 (1)	
K-L	-21 / 0	-84.9 -84.9 0.04 (1)	6.25	AW-D	-179 / 0	0.04 (1)	
L-M	0 / 22	-84.9 -84.9 0.05 (1)	2.00	AX-C	-96 / 0	0.01 (1)	
M-N	0 / 22	-84.9 -84.9 0.05 (1)	2.00	AI-R	-176 / 0	0.10 (1)	
N-AZ	0 / 22	-84.9 -84.9 0.05 (1)	2.00	AH-S	-165 / 0	0.09 (1)	
AZ-O	0 / 22	-84.9 -84.9 0.05 (1)	2.00	AG-U	-170 / 0	0.21 (1)	
O-P	0 / 22	-84.9 -84.9 0.05 (1)	2.00	AF-V	-168 / 0	0.12 (1)	
P-Q	0 / 22	-84.9 -84.9 0.05 (1)	2.00	AE-W	-166 / 0	0.07 (1)	
Q-R	0 / 26	-84.9 -84.9 0.05 (1)	10.00	AD-X	-176 / 0	0.04 (1)	
R-S	0 / 26	-84.9 -84.9 0.05 (1)	10.00	AC-Y	-126 / 0	0.02 (1)	
S-T	0 / 22	-84.9 -84.9 0.04 (1)	10.00				
T-U	0 / 22	-84.9 -84.9 0.04 (1)	10.00				
U-V	0 / 20	-84.9 -84.9 0.04 (1)	10.00				
V-W	0 / 18	-84.9 -84.9 0.04 (1)	10.00				
W-X	0 / 14	-84.9 -84.9 0.04 (1)	10.00				
X-Y	0 / 14	-84.9 -84.9 0.04 (1)	10.00				
Y-Z	-9 / 0	-84.9 -84.9 0.08 (1)	10.00				
Z-AA	0 / 32	-84.9 -84.9 0.11 (1)	10.00				
AB-Z	-215 / 0	0.0 0.0 0.03 (1)	7.81				
AY-AX	-2 / 1	-18.5 -18.5 0.02 (1)	10.00				
AX-AW	-6 / 0	-18.5 -18.5 0.02 (4)	10.00				
AW-AV	-10 / 0	-18.5 -18.5 0.02 (4)	6.25				
AV-AU	-13 / 0	-18.5 -18.5 0.01 (4)	6.25				
AU-AT	-15 / 0	-18.5 -18.5 0.01 (4)	6.25				
AT-AS	-17 / 0	-18.5 -18.5 0.01 (4)	6.25				
AS-AR	-19 / 0	-18.5 -18.5 0.01 (4)	6.25				
AR-AQ	-20 / 0	-18.5 -18.5 0.01 (4)	6.25				
AQ-AP	-22 / 0	-18.5 -18.5 0.01 (4)	6.25				
AP-AO	-22 / 0	-18.5 -18.5 0.01 (4)	6.25				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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 WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.11/1.00 (A-B:1), BC=0.02/1.00 (AX-AY:1), WB=0.21/1.00 (U-AG:1), SSI=0.08/1.00 (L-M:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

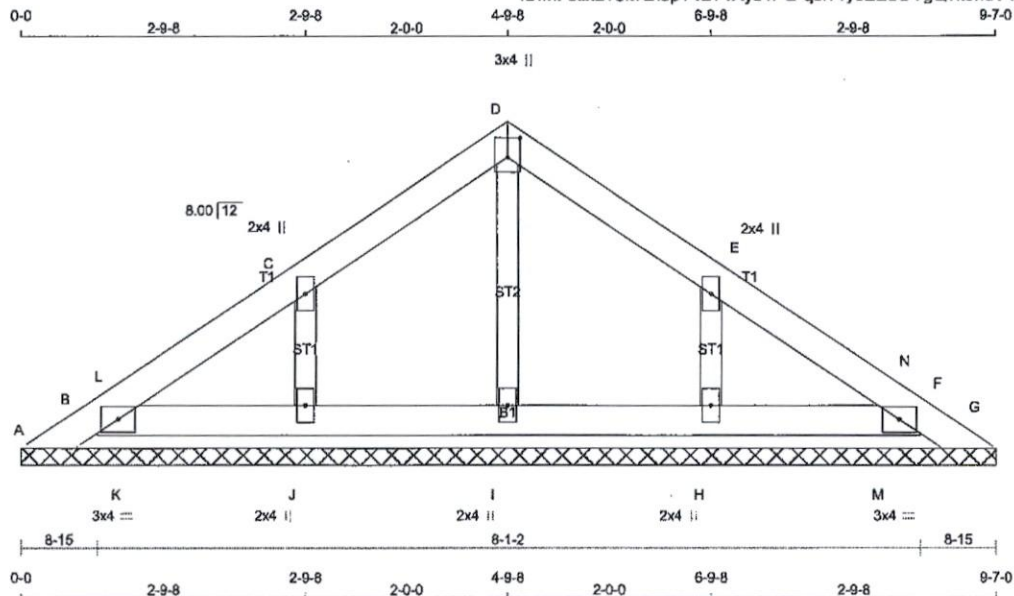
PLATE GRIP (DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618 354 1667 788 1987 1656	

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.40 (K) (INPUT = 0.90)
JSI METAL = 0.11 (Z) (INPUT = 1.00)

CONTINUED ON PAGE 2



TOTAL WEIGHT = 2 X 26 = 52 lb

LUMBER					
N. L. G. A. RULES					
CHORDS	SIZE		LUMBER	DESCR.	
A - D	2x4	DRY	No.2	SPF	
D - G	2x4	DRY	No.2	SPF	
B - F	2x4	DRY	No.2	SPF	
ALL WEBS 2x3 DRY No.2 SPF					
ALL GABLE WEBS 2x3 DRY No.2 SPF					
DRY: SEASONED LUMBER.					
GABLE STUDS SPACED AT 2'-0" OC.					

PLATES (table is in inches)					
JT TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	
C	TMW+w	MT20	2.0	4.0	
D	TTW+p	MT20	3.0	4.0	2.25 1.50
E	TMW+w	MT20	2.0	4.0	
F	TMB1-I	MT20	3.0	4.0	
H, I, J					
H	BMW1+w	MT20	2.0	4.0	

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): I, J, H

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 FT.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 12	-103.4 -103.4	0.02 (1)	I-D	-111 / 0	0.02 (1)	
B-L	-71 / 0	-84.9 -84.9	0.02 (1)	J-C	-191 / 0	0.03 (1)	
L-C	-28 / 0	-84.9 -84.9	0.05 (1)	H-E	-191 / 0	0.03 (1)	
C-D	-36 / 0	-84.9 -84.9	0.05 (1)	K-L	-12 / 16	0.00 (1)	
D-E	-36 / 0	-84.9 -84.9	0.05 (1)	M-N	-12 / 16	0.00 (1)	
E-N	-28 / 0	-84.9 -84.9	0.05 (1)				
N-F	-71 / 0	-84.9 -84.9	0.02 (1)				
F-G	0 / 12	-103.4 -103.4	0.02 (1)				
B-K	0 / 33	-18.5 -18.5	0.01 (1)				
K-J	0 / 33	-18.5 -18.5	0.02 (4)				
J-I	0 / 22	-18.5 -18.5	0.02 (4)				
I-H	0 / 22	-18.5 -18.5	0.02 (4)				
H-M	0 / 33	-18.5 -18.5	0.02 (4)				
M-F	0 / 33	-18.5 -18.5	0.01 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3 PSF
	DL = 6.0 PSF
BOT CH.	LL = 0.0 PSF
	DL = 7.4 PSF
TOTAL LOAD	= 36.7 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.05/1.00 (C-D:1), BC=0.02/1.00 (J-K:4), WB=0.03/1.00 (C-J:1), SS=0.07/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES					
PLATE GRIP(DRY) SHEAR SECTION					
(PSI)	(PLI)	(PLI)	(PSI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.13 (E) (INPUT = 0.90)
JSI METAL= 0.10 (E) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

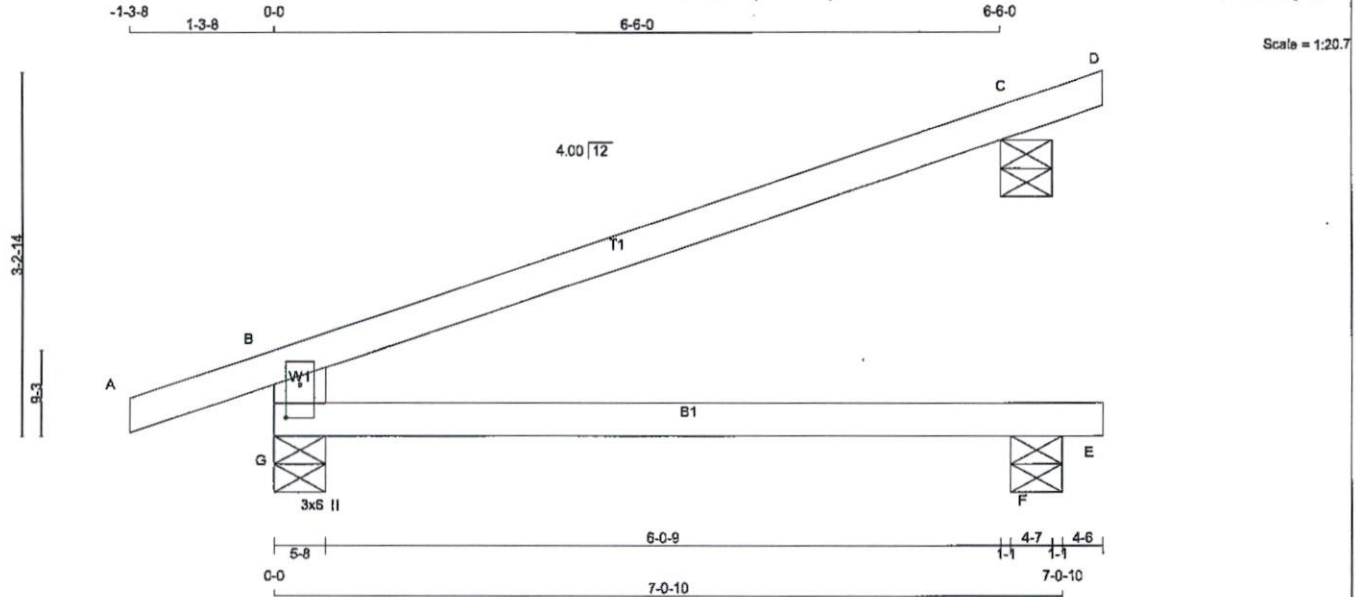


JOB NAME 314001	TRUSS NAME P01	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	JT-39002	DRWG NO. E-19112623
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Alpa Roof Truss, Maple

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LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	SPF
A - D	2x4	DRY	No.2	SPF
G - B	2x6	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT TYPE	PLATES	W	LEN	Y	X	
B						
G	TMBMV1+p MT20	3.0	6.0	3.50	1.50	

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
JT	549	0	549	0	0	5-8	1-8	
G	59	0	66	0	0	5-8	1-8	
F	276	0	276	0	0	5-8	5-8	

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): C

	UNFACTORED REACTIONS						
	1ST LCASE	MAX	MIN	COMPONENT	REACTIONS		
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	387	258 / 0	0 / 0	0 / 0	0 / 0	129 / 0	0 / 0
F	47	0 / 0	0 / 0	0 / 0	0 / 0	47 / 0	0 / 0
C	191	152 / 0	0 / 0	0 / 0	0 / 0	39 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		W E B S		MAX. FACTORED	
	MAX. FORCE	VERT. LOAD	LC1	MAX	MAX. MEMB.	FORCE	MAX	
FR-TO	(LBS)	(PLF)	CS1 (LC)	UNBRAC	LENGTH	(LBS)	CS1 (LC)	
A-B	0 / 18	-84.9	-84.9	0.11 (1)	10.00			
B-C	-23 / 0	-84.9	-84.9	0.50 (1)	6.25			
C-D	-10 / 0	-84.9	-84.9	0.02 (1)	10.00			
G-B	-471 / 0	0.0	0.0	0.09 (4)	7.81			
G-F	0 / 0	-18.5	-18.5	0.24 (4)	10.00			
F-E	0 / 0	-18.5	-18.5	0.01 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:		
TOP CH.	LL	= 23.3 PSF
	DL	= 6.0 PSF
BOT CH.	LL	= 0.0 PSF
	DL	= 7.4 PSF
TOTAL LOAD = 36.7 PSF		

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.23")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.00")
ALLOWABLE DEFL.(TL) = $L/360$ (0.23")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.04")

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

CSI: TC=0.50/1.00 (B-C:1), BC=0.24/1.00 (F-G:4), WB=0.00/1.00 (n/a:0), SS=0.26/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES				
PLATE	GRIP(DRY)	SHEAR	SECTION	
	(PSI)	(PLI)	(PLI)	
MT20	618	354	1667	788 1987 1656

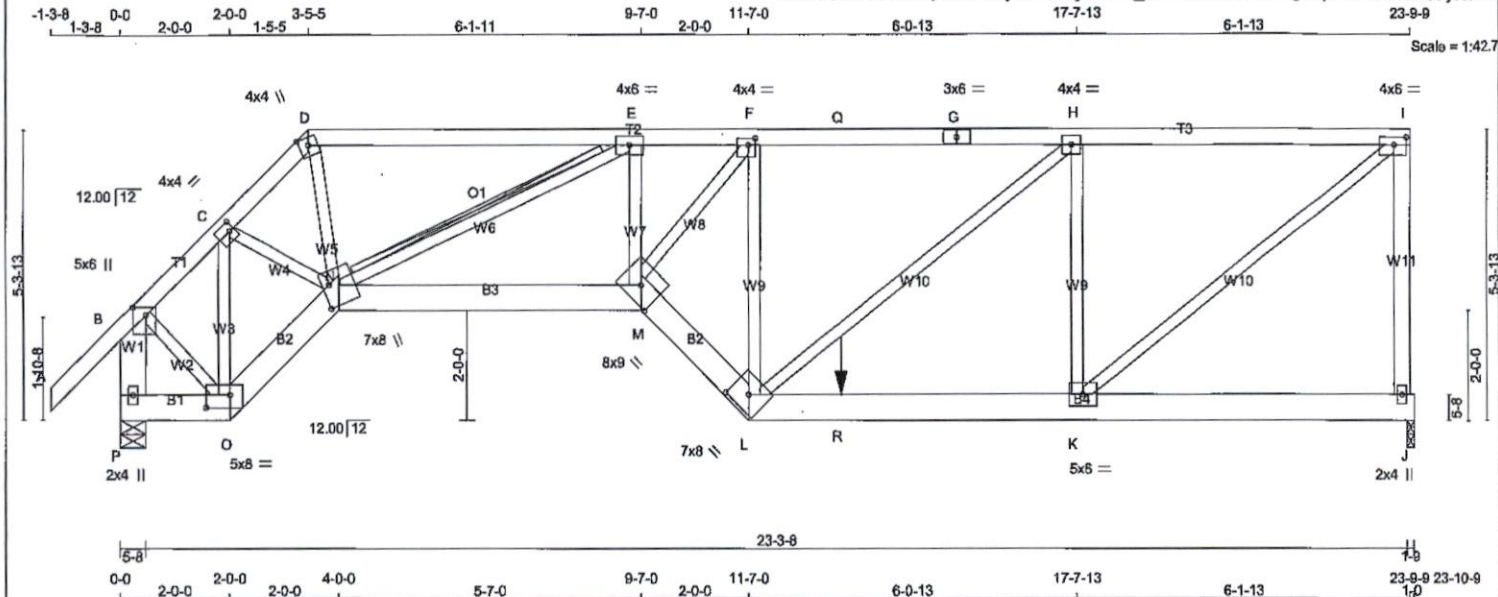
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (G) (INPUT = 0.90)
JSI METAL= 0.09 (G) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2





LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - G	2x4	DRY	No.2	SPF	
G - I	2x4	DRY	No.2	SPF	
J - I	2x4	DRY	No.2	SPF	
P - B	2x6	DRY	No.2	SPF	
P - O	2x6	DRY	No.2	SPF	
O - N	2x6	DRY	No.2	SPF	
N - M	2x6	DRY	No.2	SPF	
M - L	2x6	DRY	No.2	SPF	
L - J	2x6	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD (PLF)
TOP CHORDS: (0.122"x3") SPIRAL NAILS		
A-D 1	12	TOP SIDE(41.1)
D-G 1	12	TOP SIDE(41.1)
G-I 1	12	TOP
I-J 1	12	TOP
P-B 2	12	TOP
BOTTOM CHORDS: (0.122"x3") SPIRAL NAILS		
P-O 2	12	TOP
O-N 2	12	TOP
N-M 2	12	TOP
M-L 2	12	TOP
L-J 2	12	TOP
WEBS: (0.122"x3") SPIRAL NAILS		
2x3 1	6	SIDE(10.0)

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.

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT REGR	REQRD REGR
VERT	HORZ	DOWN	HORZ
JT 2781	0	2781	0
P 2164	0	2164	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED					
J 1974	1253 / 0	0 / 0	0 / 0	0 / 0	721 / 0	0 / 0
P 1534	987 / 0	0 / 0	0 / 0	0 / 0	547 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.04 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT E-N

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 80% OF WEB LENGTH.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC2)	MAX. FACTORED VERT. LOAD (LC3)	MAX. FACTORED VERT. LOAD (LC4)	MAX. FACTORED VERT. LOAD (LC5)	MAX. FACTORED VERT. LOAD (LC6)	MAX. FACTORED VERT. LOAD (LC7)	MAX. FACTORED VERT. LOAD (LC8)	MAX. FACTORED VERT. LOAD (LC9)	MAX. FACTORED VERT. LOAD (LC10)
MEMB.												
FR-TO												
A-B	0 / 42	-84.9	-84.9	0.07 (1)	10.00	O-C	-1789 / 0	0.20 (1)				
B-C	-1615 / 0	-84.9	-84.9	0.07 (1)	6.25	C-N	0 / 1272	0.16 (1)				
C-D	-3034 / 0	-84.9	-84.9	0.07 (1)	5.26	D-N	0 / 1886	0.23 (1)				
D-E	-2497 / 0	-84.9	-84.9	0.27 (1)	5.42	N-E	-2981 / 0	0.57 (1)				
E-F	-5169 / 0	-84.9	-84.9	0.24 (1)	4.04	M-E	0 / 1019	0.13 (1)				
F-Q	-3453 / 0	-84.9	-84.9	0.63 (1)	4.24	M-F	0 / 3022	0.37 (1)				
Q-G	-3453 / 0	-167.1	-167.1	0.63 (1)	4.24	L-F	-2838 / 0	0.58 (1)				
G-H	-3453 / 0	-167.1	-167.1	0.63 (1)	4.24	B-O	0 / 1352	0.17 (1)				
H-I	-2933 / 0	-167.1	-167.1	0.61 (1)	4.57	L-H	0 / 668	0.08 (1)				
J-I	-2763 / 0	0.0	0.0	0.64 (1)	6.88	K-H	-1603 / 0	0.33 (1)				
P-B	-2146 / 0	0.0	0.0	0.08 (1)	7.81	K-I	0 / 3764	0.47 (1)				
P-O	0 / 0	-18.5	-18.5	0.01 (4)	10.00							
O-N	0 / 1489	-18.5	-18.5	0.10 (1)	10.00							
N-M	0 / 5133	-18.5	-18.5	0.36 (1)	10.00							
M-L	0 / 4798	-18.5	-18.5	0.31 (1)	10.00							
L-R	0 / 2935	-18.5	-18.5	0.77 (1)	10.00							
R-K	0 / 2935	-36.4	-36.4	0.77 (1)	10.00							
K-J	0 / 0	-36.4	-36.4	0.21 (1)	10.00							

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	HEEL	CONN.
R	13-3-9	-1316	-1316	-	FRONT	VERT	-	C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

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

SPECIFIED LOADS:

TOP CH. LL	=	23.3	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 3-5-5
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 10-7-0 OF SPAN MEASURED FROM THE RIGHT.

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2015, ABC 2019
- CSA 086-14
- TPIC 2014

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/899 (0.13")
ALLOWABLE DEFL.(TL) = L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.26")

CSI: TC=0.64/1.00 (I-J:1), BC=0.77/1.00 (K-L:1), WB=0.68/1.00 (F-L:1), SSI=0.31/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314239	H1TA		2	JT-39002	E-19112624(2)
Alpa Roof Truss, Maple					
Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 08:14:43 2019 Page 2					
ID:MF8ilriaTok7DlbpT4B71Xys4PG-wjloLGF X?YQfA9c7vMl1cYy8dpGNM8tbE5QGyK7Ew					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	1.75	2.75
C	TMVW-l	MT20	4.0	4.0	2.00	1.00
D	TTW+m	MT20	4.0	4.0	1.75	2.00
E	TMVW-l	MT20	4.0	6.0		
F	TMVW-l	MT20	4.0	4.0	1.50	1.50
G	TS-l	MT20	3.0	6.0		
H	TMVW-l	MT20	4.0	4.0		
I	TMVW-l	MT20	4.0	6.0	1.75	2.75
J	BMV1+p	MT20	2.0	4.0		
K	BMVW-l	MT20	5.0	6.0		
L	BBVW-h	MT20	7.0	8.0	3.25	4.00
M	BBVW-h	MT20	8.0	9.0	3.50	4.50
N	BBVWW+m	MT20	7.0	8.0	5.00	1.50
O	BBVW-l	MT20	5.0	8.0	2.75	5.25
P	BMV1+p	MT20	2.0	4.0		

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.90 (I) (INPUT = 0.90)

JSI METAL = 0.38 (I) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

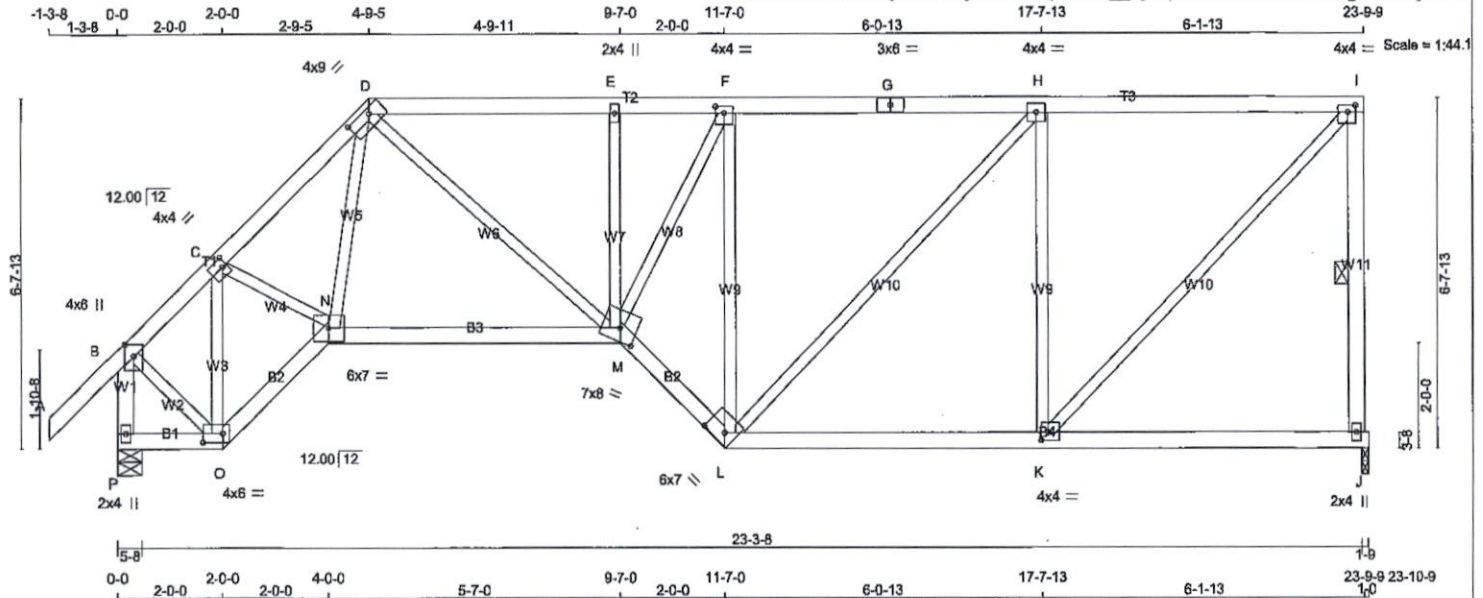


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314239	H2TA		1	JT-39002	E-19112625

Alpha Roof Truss, Maple

Version 8.300 S Aug 9 2019 Mitek Industries, Inc. Tue Nov 12 08:15:17 2019 Page 1

ID:MF8ilriaTok7DlbpT4B71Xys4PG-wGpfUVha_HjVumhbgWK7C0MvrLODfg8htTudlyK?EO



TOTAL WEIGHT = 2 X 115 = 230 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TMVW-i	MT20	4.0	4.0	2.00	1.00
D	TTVW-h	MT20	4.0	9.0	1.25	5.50
E	TMVW-w	MT20	2.0	4.0		
F	TMVW-i	MT20	4.0	4.0	1.50	2.00
G	TS-i	MT20	3.0	6.0		
H	TMVW-i	MT20	4.0	4.0		
I	TMVW-i	MT20	4.0	4.0	1.50	1.75
J	BMV1+p	MT20	2.0	4.0		
K	BMVW-i	MT20	4.0	4.0	1.75	1.50
L	BBVW-h	MT20	6.0	7.0	2.25	4.50
M	BBVWVW-m	MT20	7.0	8.0	3.00	3.75
N	BBVW-i	MT20	6.0	7.0		
O	BBVW-i	MT20	4.0	6.0	2.00	4.50
P	BMV1+p	MT20	2.0	4.0		

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQRD
	VERT	HORZ	DOWN	HORZ
JT	1226	0	1226	0
P	1352	0	1352	0

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	871	552 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0
P	957	621 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.85 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF I-J.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. UNBRACED LENGTH (FT)	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FT)	MAX. FACTORED FORCE (LBS)	
FR-TO		FROM TO	CSI (LC)		FR-TO			CSI (LC)	
A-B	0 / 42	-84.9	-84.9	0.12 (1)	10.00	O-C	-1038 / 0	0.23 (1)	
B-C	-916 / 0	-84.9	-84.9	0.12 (1)	6.25	C-N	0 / 630	0.14 (1)	
C-D	-1610 / 0	-84.9	-84.9	0.14 (1)	5.09	N-D	0 / 330	0.07 (1)	
D-E	-1649 / 0	-84.9	-84.9	0.30 (1)	4.85	D-M	0 / 778	0.18 (1)	
E-F	-1641 / 0	-84.9	-84.9	0.22 (1)	4.94	M-E	-304 / 0	0.10 (1)	
F-G	-1174 / 0	-84.9	-84.9	0.54 (1)	5.11	M-F	0 / 1120	0.25 (1)	
G-H	-1174 / 0	-84.9	-84.9	0.54 (1)	5.11	L-F	-1323 / 0	0.97 (1)	
H-I	-946 / 0	-84.9	-84.9	0.53 (1)	5.57	B-O	0 / 790	0.18 (1)	
J-I	-1182 / 0	0.0	0.0	0.24 (1)	5.87	L-H	0 / 329	0.07 (1)	
P-B	-1333 / 0	0.0	0.0	0.15 (1)	7.01	K-H	-844 / 0	0.62 (1)	
						K-I	0 / 1360	0.31 (1)	
P-O	0 / 0	-18.5	-18.5	0.02 (4)	10.00				
O-N	0 / 851	-18.5	-18.5	0.15 (1)	10.00				
N-M	0 / 1069	-18.5	-18.5	0.27 (1)	10.00				
M-L	0 / 1629	-18.5	-18.5	0.27 (1)	10.00				
L-K	0 / 946	-18.5	-18.5	0.28 (4)	10.00				
K-J	0 / 0	-18.5	-18.5	0.20 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 36.7	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 CBC 2018, ABC 2019
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/998 (0.16")

CSI: TC=0.54/1.00 (F-H:1), BC=0.28/1.00 (K-L:4), WB=0.97/1.00 (F-L:1), SSI=0.25/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

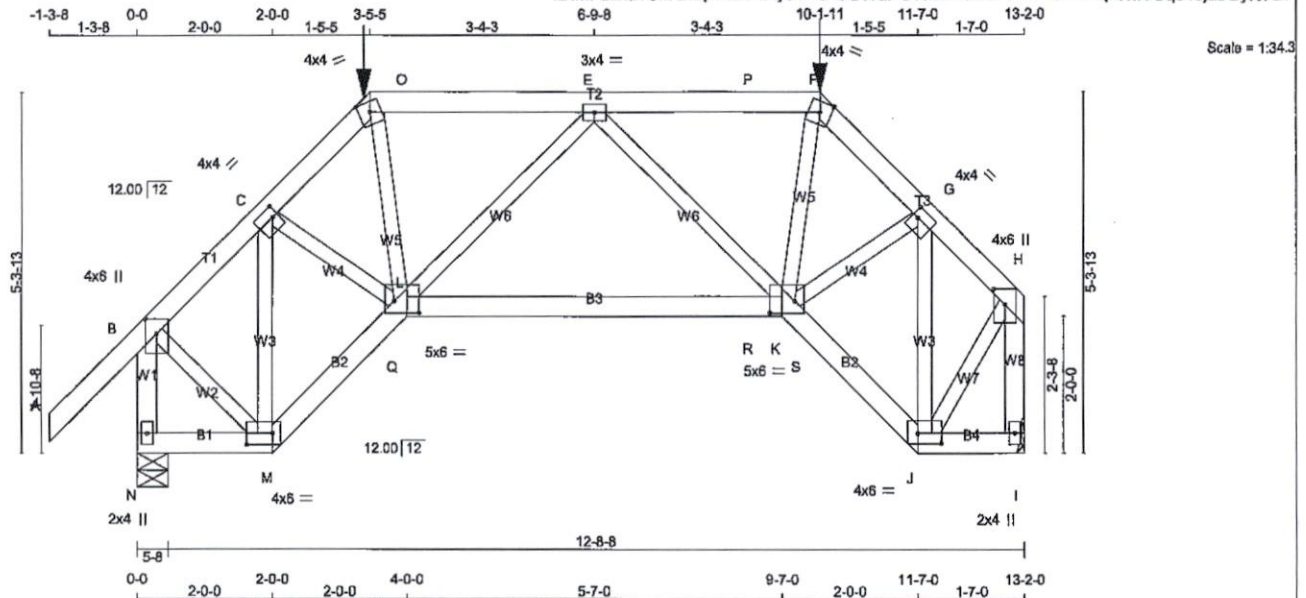
JSI GRIP= 0.80 (C) (INPUT = 0.90)
JSI METAL= 0.39 (B) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314239	H15T		1	JT-39002	E-19112626

Alpha Roof Truss, Maple

Version 8.300 S Aug 9 2019 MITek Industries, Inc. Tue Nov 12 08:13:08 2019 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-CSWuPO7fML10X3PuXhi4O?APqrDmVUq91JjabGyK7GF



TOTAL WEIGHT = 2 X 65 = 131 lb

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

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.50	2.00
C	TMVW-t	MT20	4.0	4.0	1.75	1.00
D	TTW-m	MT20	4.0	4.0	1.75	2.00
E	TMVW-t	MT20	3.0	4.0		
F	TTW-m	MT20	4.0	4.0	Edge	
G	TMVW-t	MT20	4.0	4.0	1.75	1.00
H	TMVW+p	MT20	4.0	6.0	2.75	2.00
I	BMV1+p	MT20	2.0	4.0		
J	BBWW-I	MT20	4.0	6.0	1.75	4.25
K	BBWWW-p	MT20	5.0	6.0	2.25	4.25
L	BBWWW-p	MT20	5.0	6.0	2.25	4.25
M	BBWW-I	MT20	4.0	6.0	2.00	4.50
N	BMV1+p	MT20	2.0	4.0		

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

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD IN-SX
	VERT	HORZ	DOWN	HORZ		
N	1390	0	1390	0	5-8	2-1
I	1276	0	1276	0	MECHANICAL	

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

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SO
N	986	631 / 0	0 / 0	0 / 0	0 / 0	354 / 0	0
I	907	569 / 0	0 / 0	0 / 0	0 / 0	338 / 0	0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.07 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. UNBRAC	MAX. FACTORED		MAX	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.		FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM TO		LENGTH	FR-TO				
A-B	0 / 42	-84.9	-84.9 0.13 (1)	10.00	M-C	-999 / 0	0.24 (1)		
B-C	-930 / 0	-84.9	-84.9 0.14 (1)	6.23	C-L	0 / 668	0.17 (1)		
C-D	-1645 / 0	-84.9	-84.9 0.09 (1)	5.07	D-L	0 / 741	0.18 (1)		
D-O	-1294 / 0	-167.1	-167.1 0.20 (1)	5.42	L-E	-176 / 0	0.05 (1)		
O-E	-1294 / 0	-84.9	-84.9 0.20 (1)	5.42	E-K	-295 / 0	0.09 (1)		
E-P	-1213 / 0	-84.9	-84.9 0.19 (1)	5.56	K-F	0 / 674	0.17 (1)		
P-F	-1213 / 0	-167.1	-167.1 0.19 (1)	5.56	K-G	0 / 705	0.17 (1)		
F-G	-1550 / 0	-84.9	-84.9 0.08 (1)	5.20	J-G	-1080 / 0	0.26 (1)		
G-H	-760 / 0	-84.9	-84.9 0.05 (1)	6.25	B-M	0 / 787	0.19 (1)		
N-B	-1354 / 0	0.0	0.0 0.16 (1)	6.94	J-H	0 / 836	0.21 (1)		
I-H	-1247 / 0	0.0	0.0 0.17 (1)	7.16					
N-M	0 / 0	-36.4	-36.4 0.05 (4)	10.00					
M-Q	0 / 849	-36.4	-36.4 0.18 (1)	10.00					
Q-L	0 / 849	-36.4	-36.4 0.18 (1)	10.00					
L-R	0 / 1414	-118.6	-118.6 0.76 (1)	10.00					
R-K	0 / 1414	-36.4	-36.4 0.76 (1)	10.00					
K-S	0 / 708	-36.4	-36.4 0.15 (1)	10.00					
S-J	0 / 708	-36.4	-36.4 0.15 (1)	10.00					
J-I	0 / 0	-36.4	-36.4 0.03 (4)	10.00					

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
D	3-5-5	-213	-213		FRONT	VERT	TOTAL		C1
F	10-1-11	-187	-187		FRONT	VERT	TOTAL		C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF	

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 3-5-5
RIGHT SETBACK = 3-0-5
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL
LOADS APPLIED TO FIRST 4-0-0 OF SPAN MEASURED FROM THE LEFT.

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 3-5-5
RIGHT SETBACK = 3-0-5
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL
LOADS APPLIED TO FIRST 4-0-0 OF SPAN MEASURED FROM THE RIGHT.

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
- CSA 086-14
- TPIC 2014

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD
ALLOWABLE DEFL.(LL) = L/360 (0.44")
CALCULATED VERT. DEFL.(LL) = L/898 (0.15")
ALLOWABLE DEFL.(TL) = L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/496 (0.32")

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314239	H15T		1	JT-39002	E-19112626(2)
Version 8.300 S Aug 9 2019 MITek Industries, Inc. Tue Nov 12 08:13:08 2019 Page 2 ID:MF8iiriaTok7DIbpT4B71Xys4PG-ge4Gdk7H7f9t8D 55ODJxCiaaFY?Ex4JFzS77iyK7GO					

Alpa Roof Truss, Maple

CSI: TC=0.20/1.00 (D-E:1) , BC=0.76/1.00 (K-L:1)
 , WB=0.26/1.00 (G-J:1) , SS=0.28/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

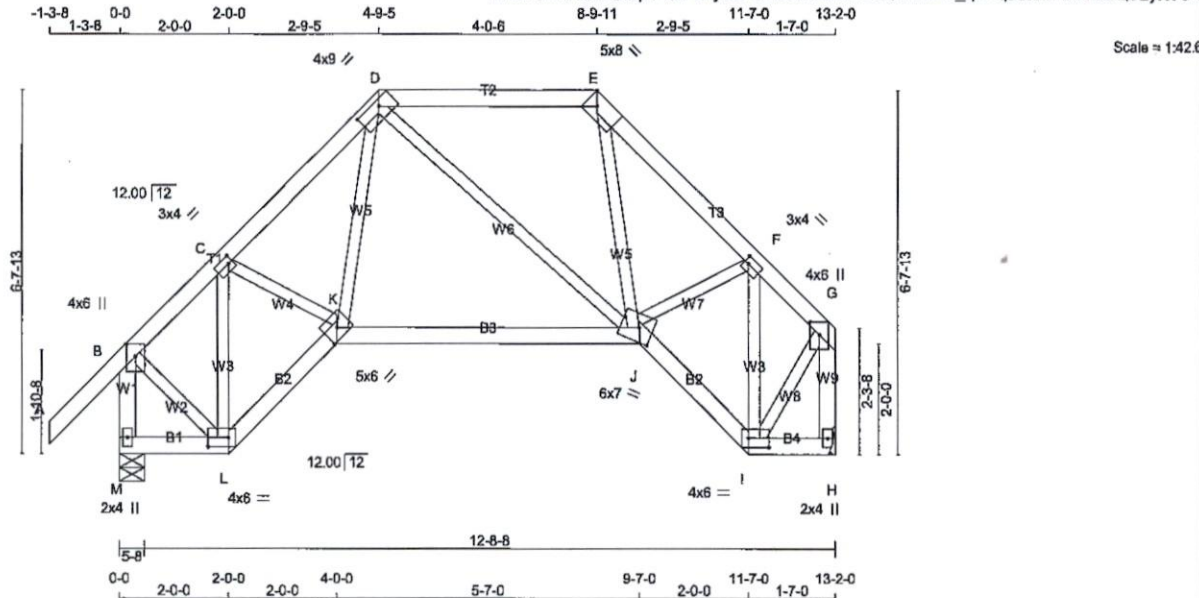
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (J) (INPUT = 0.90)
 JSI METAL= 0.40 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2





TOTAL WEIGHT = 2 X 67 = 135 lb

LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C	TMVW-t	MT20	3.0	4.0	1.50	1.00
D	TTWW-h	MT20	4.0	9.0	1.25	5.50
E	TTWW-h	MT20	5.0	8.0	Edge	2.50
F	TMVW-t	MT20	3.0	4.0	1.50	1.00
G	TMVW+p	MT20	4.0	6.0	2.75	2.00
H	BMV1+p	MT20	2.0	4.0		
I	BBWW-l	MT20	4.0	6.0	2.00	4.50
J	BBWW-m	MT20	6.0	7.0	3.00	3.00
K	BBWW-h	MT20	5.0	6.0	2.25	3.00
L	BBWW-l	MT20	4.0	6.0	2.00	4.50
M	BMV1+p	MT20	2.0	4.0		

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

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
M	805	0	805	0	5-8	1-8
H	674	0	674	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE					
M	569	375 / 0	0 / 0	0 / 0	0 / 0		194 / 0	0 / 0	
H	479	303 / 0	0 / 0	0 / 0	0 / 0		176 / 0	0 / 0	

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

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	LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	FR-TO	FR-TO
A-B	0 / 42	-84.9	-84.9	0.12 (1)	10.00	L-C	-513 / 0	0.11 (1)	
B-C	-474 / 0	-84.9	-84.9	0.09 (1)	6.25	C-K	0 / 237	0.05 (1)	
C-D	-728 / 0	-84.9	-84.9	0.09 (1)	6.25	K-D	0 / 251	0.06 (1)	
D-E	-444 / 0	-84.9	-84.9	0.18 (1)	6.25	D-J	-23 / 0	0.02 (1)	
E-F	-699 / 0	-84.9	-84.9	0.09 (1)	6.25	E-J	0 / 216	0.05 (1)	
F-G	-380 / 0	-84.9	-84.9	0.06 (1)	6.25	J-F	0 / 257	0.06 (1)	
M-B	-787 / 0	0.0	0.0	0.09 (1)	7.81	I-F	-581 / 0	0.13 (1)	
H-G	-660 / 0	0.0	0.0	0.08 (1)	7.81	B-L	0 / 404	0.09 (1)	
						I-G	0 / 448	0.10 (1)	
M-L	0 / 0	-18.5	-18.5	0.02 (4)	10.00				
L-K	0 / 435	-18.5	-18.5	0.08 (1)	10.00				
K-J	0 / 481	-18.5	-18.5	0.21 (4)	10.00				
J-I	0 / 380	-18.5	-18.5	0.07 (1)	10.00				
I-H	0 / 0	-18.5	-18.5	0.01 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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
- CSA 086-14
- TPIC 2014

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.44")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.18/1.00 (D-E:1), BC=0.21/1.00 (J-K:4), WS=0.13/1.00 (F-I:1), SSI=0.13/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.68 (F) (INPUT = 0.90)
JSI METAL= 0.23 (B) (INPUT = 1.00)

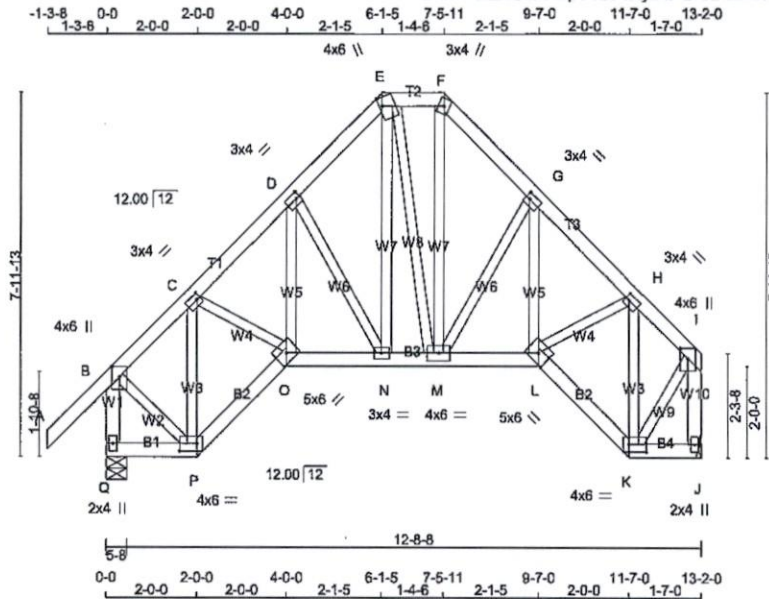


JOB NAME 314239	TRUSS NAME H17T	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	JT-39002	DRWG NO. E-19112628
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Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-0lPaEGP5xPxnbgJO0dTqrdMD7DIOxbYJOnlvRyK?G2



Scale = 1:51.0

TOTAL WEIGHT = 2 X 82 = 164 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY	No.2	SPF
E - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
Q - B	2x4	DRY	No.2	SPF
J - I	2x4	DRY	No.2	SPF
Q - P	2x4	DRY	No.2	SPF
P - O	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2	SPF
L - K	2x4	DRY	No.2	SPF
K - J	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.75	2.00
C, D, G, H						
C	TMVW-t	MT20	3.0	4.0	1.50	1.00
E	TTVW+m	MT20	4.0	6.0	2.25	0.75
F	TTVW-m	MT20	3.0	4.0		
I	TMVW+p	MT20	4.0	6.0	2.75	2.00
J	BMV1+p	MT20	2.0	4.0		
K	BBVW-t	MT20	4.0	6.0	2.00	4.50
L	BBVW-h	MT20	5.0	6.0	2.25	3.00
M	BMVW-t	MT20	4.0	6.0		
N	BMVW-t	MT20	3.0	4.0		
O	BBVW-h	MT20	5.0	6.0	2.25	3.00
P	BBVW-t	MT20	4.0	6.0	2.00	4.50
Q	BMV1+p	MT20	2.0	4.0		

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BUILDING DESIGNER								
<u>BEARINGS</u>								
	FACTORED		MAXIMUM FACTORED			INPUT	REQRD	
	GROSS REACTION		GROSS REACTION			BRG	BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
Q	805	0	805	0	0	5-8	1-8	
J	674	0	674	0	0	MECHANICAL		

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN.	COMPONENT REACTIONS	WIND	DEAD	SOIL
Q	COMBINED	SNOW	LIVE	PERM.LIVE		
Q	569	375 / 0	0 / 0	0 / 0	0 / 0	194 / 0
J	478	303 / 0	0 / 0	0 / 0	0 / 0	176 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	FR-TO
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-84.9	-84.9 0.12 (1)	10.00	P-C	-495 / 0	0.11 (1)
B-C	-472 / 0	-84.9	-84.9 0.09 (1)	6.25	C-O	0 / 281	0.06 (1)
C-D	-744 / 0	-84.9	-84.9 0.05 (1)	6.25	O-D	0 / 191	0.04 (1)
D-E	-554 / 0	-84.9	-84.9 0.04 (1)	6.25	D-N	-293 / 0	0.09 (1)
E-F	-386 / 0	-84.9	-84.9 0.02 (1)	6.25	N-E	0 / 255	0.06 (1)
F-G	-555 / 0	-84.9	-84.9 0.04 (1)	6.25	E-M	0 / 6	0.00 (1)
G-H	-713 / 0	-84.9	-84.9 0.04 (1)	6.25	M-F	0 / 260	0.06 (1)
H-I	-382 / 0	-84.9	-84.9 0.02 (1)	6.25	F-G	-245 / 0	0.07 (1)
Q-B	-787 / 0	0.0	0.0 0.09 (1)	7.81	L-G	0 / 131	0.03 (1)
J-I	-680 / 0	0.0	0.0 0.08 (1)	7.81	L-H	0 / 299	0.07 (1)
					K-H	-558 / 0	0.13 (1)
					B-P	0 / 391	0.09 (1)
Q-P	0 / 0	-18.5	-18.5 0.02 (4)	10.00	K-I	0 / 432	0.10 (1)
P-O	0 / 422	-18.5	-18.5 0.08 (1)	10.00			
O-N	0 / 528	-18.5	-18.5 0.10 (1)	10.00			
N-M	0 / 385	-18.5	-18.5 0.09 (1)	10.00			
M-L	0 / 504	-18.5	-18.5 0.11 (1)	10.00			
L-K	0 / 365	-18.5	-18.5 0.07 (1)	10.00			
K-J	0 / 0	-18.5	-18.5 0.01 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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
- CSA 086-14
- TPIC 2014

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.44")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.44")
CALCULATED VERT. DEFL.(TL)= L/999 (0.03")

CSI: TC=0.12/1.00 (A-B:1), BC=0.11/1.00 (L-M:1)
WB=0.13/1.00 (H-K:1), SSI=0.07/1.00 (S-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

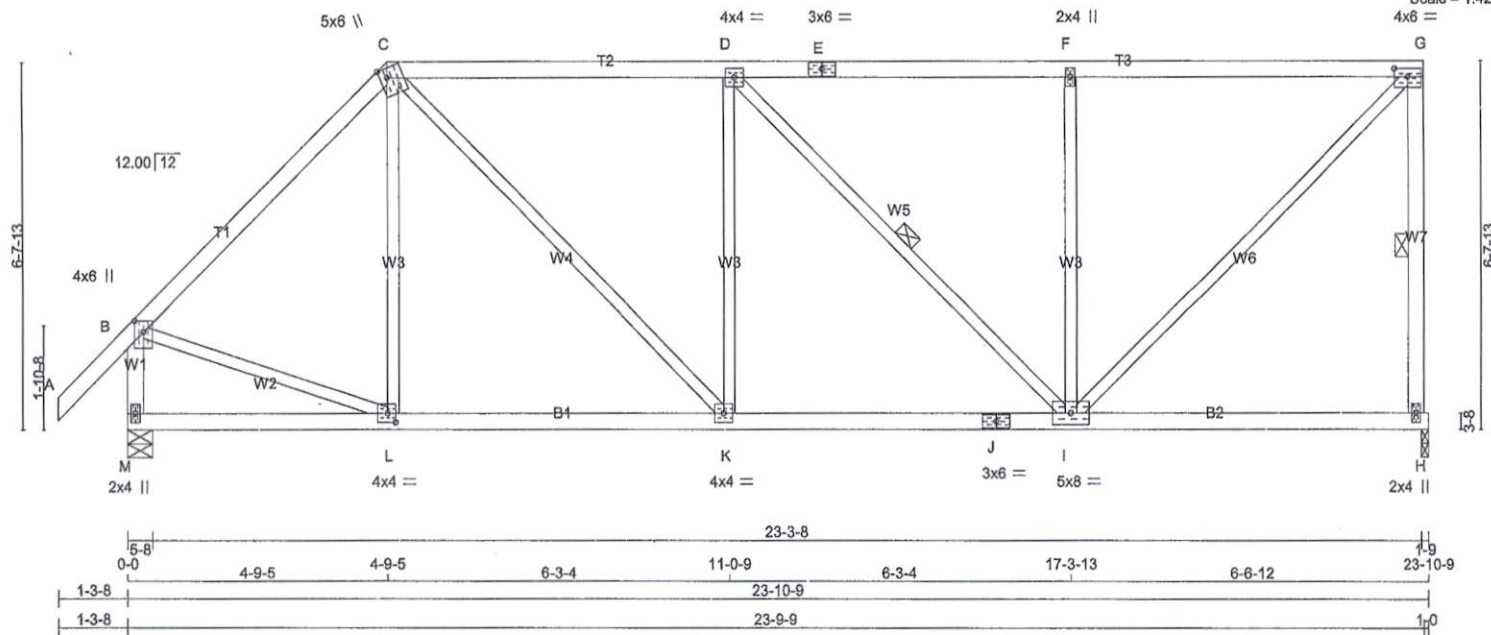
JSI GRIP= 0.80 (H) (INPUT = 0.90)
JSI METAL= 0.23 (B) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310385	H2		1	JT-39002	E-19072227

Alpa Roof Truss, Maple

Version 8.300 S May 10 2019 MiTek Industries, Inc. Wed Jul 10 10:24:21 2019 Page 1
ID:MF8lriaTok7DlbpT4B71Xys4PG_-8qg8xPHXxCPnIod8hKid9vCSL?JH2LHmbuOBMyzW1e
Scale = 1:42.5



TOTAL WEIGHT = 4 X 107 = 429 lb

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

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE				
B TMVW+p	MT20	4.0	6.0	2.50 2.00
C TTWW+m	MT20	5.0	6.0	2.00 1.50
D TMVW-t	MT20	4.0	4.0	
E TS-t	MT20	3.0	6.0	
F TMVW+w	MT20	2.0	4.0	
G TMVW-t	MT20	4.0	6.0	1.75 3.00
H BMV1+p	MT20	2.0	4.0	
I BMVW-t	MT20	5.0	8.0	
J BS-t	MT20	3.0	6.0	
K BMVW-t	MT20	4.0	4.0	
L BMVW-t	MT20	4.0	4.0	2.00 1.75
M BMV1+p	MT20	2.0	4.0	

NOTES: (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	UP
H	1230	0	1230	0
M	1348	0	1348	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
JT COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD
H	873	554 / 0	0 / 0	0 / 0	319 / 0
M	955	619 / 0	0 / 0	0 / 0	336 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.14 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-H, D-I.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	WEBS	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
MEMB.					MEMB.		
FR-TO					FR-TO		
A-B	0 / 42	-84.9	-84.9 0.12 (1)	10.00	L-C	-120 / 41	0.09 (1)
B-C	-1089 / 0	-84.9	-84.9 0.39 (1)	5.60	C-K	0 / 642	0.14 (1)
C-D	-1203 / 0	-84.9	-84.9 0.51 (1)	5.14	K-D	-345 / 0	0.25 (1)
D-E	-977 / 0	-84.9	-84.9 0.52 (1)	5.53	D-I	-323 / 0	0.18 (1)
E-F	-977 / 0	-84.9	-84.9 0.52 (1)	5.53	I-F	-596 / 0	0.44 (1)
F-G	-977 / 0	-84.9	-84.9 0.52 (1)	5.53	I-G	0 / 1368	0.31 (1)
H-G	-1181 / 0	0.0	0.0 0.24 (1)	5.87	B-L	0 / 790	0.18 (1)
M-B	-1315 / 0	0.0	0.0 0.15 (1)	7.05			
M-L	0 / 0	-18.5	-18.5 0.13 (4)	10.00			
L-K	0 / 752	-18.5	-18.5 0.20 (4)	10.00			
K-J	0 / 1203	-18.5	-18.5 0.29 (1)	10.00			
J-I	0 / 1203	-18.5	-18.5 0.29 (1)	10.00			
I-H	0 / 0	-18.5	-18.5 0.18 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
DL	=	6.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.4	PSF	
TOTAL LOAD	=	36.7	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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.09")

CSI: TC=0.52/1.00 (F-G:1), BC=0.29/1.00 (I-K:1), WB=0.44/1.00 (F-I:1), SSI=0.28/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788

PLATE PLACEMENT TOL. = 0.250 Inches

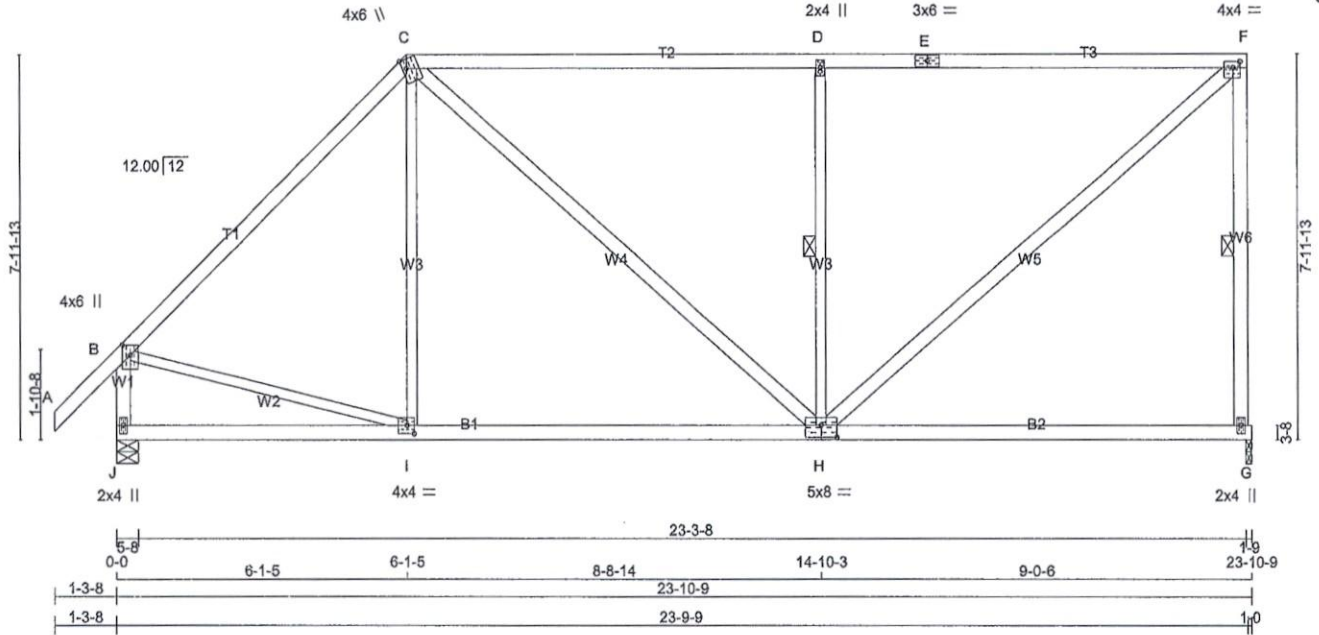
PLATE ROTATION TOL. = 5.0 Deg.

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

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310385	H3		1	TRUSS DESC.	JT-39002
Alpa Roof Truss, Maple					E-19072228

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ID:MF8IriaTok7DlbpT4B71Xys4PG-TKO2MHQvIFKGPSNpiOrxAMRJIJ0WZQ?FeyjoyzW1d
Scale = 1:48.7



TOTAL WEIGHT = 4 X 112 = 450 lb

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	DESCR.
A - C	2x4	DRY	2100F 1.8E
C - E	2x4	DRY	2100F 1.8E
E - F	2x4	DRY	2100F 1.8E
G - F	2x4	DRY	No.2
J - B	2x4	DRY	No.2
J - H	2x4	DRY	No.2
H - G	2x4	DRY	No.2

ALL WEBS EXCEPT			
C - H	2x4	DRY	No.2
H - F	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.60 2.00
C	TTWW+m	MT20	4.0	6.0	Edge 1.00
D	TMW+w	MT20	2.0	4.0	
E	TS-t	MT20	3.0	6.0	
F	TMVW-t	MT20	4.0	4.0	1.50 1.75
G	BMV1+p	MT20	2.0	4.0	
H	BSWWW-t	MT20	5.0	8.0	3.00 4.00
I	BMWW-t	MT20	4.0	4.0	2.00 1.75
J	BMV1+p	MT20	2.0	4.0	

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

NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
G	1230	0	1230	0	0
J	1348	0	1348	0	0

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	873	554 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0 / 0
J	955	619 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.62 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	0 / 42	-84.9 -84.9	0.08 (1)	I-C	-9 / 126	0.04 (4)	
B-C	-1060 / 0	-84.9 -84.9	0.41 (1)	C-H	0 / 334	0.05 (1)	
C-D	-999 / 0	-84.9 -84.9	0.82 (1)	H-D	-932 / 0	0.37 (1)	
D-E	-999 / 0	-84.9 -84.9	0.83 (1)	H-F	0 / 1317	0.21 (1)	
E-F	-999 / 0	-84.9 -84.9	0.83 (1)	B-I	0 / 770	0.17 (1)	
G-F	-1147 / 0	0.0 0.0	0.33 (1)				
J-B	-1312 / 0	0.0 0.0	0.15 (1)				
J-I	0 / 0	-18.5 -18.5	0.32 (4)				
I-H	0 / 748	-18.5 -18.5	0.39 (4)				
H-G	0 / 0	-18.5 -18.5	0.43 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/897 (0.32")

CSI: TC=0.83/1.00 (D-F:1), BC=0.43/1.00 (G-H:4), WB=0.37/1.00 (D-H:1), SSI=0.37/1.00 (D-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 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

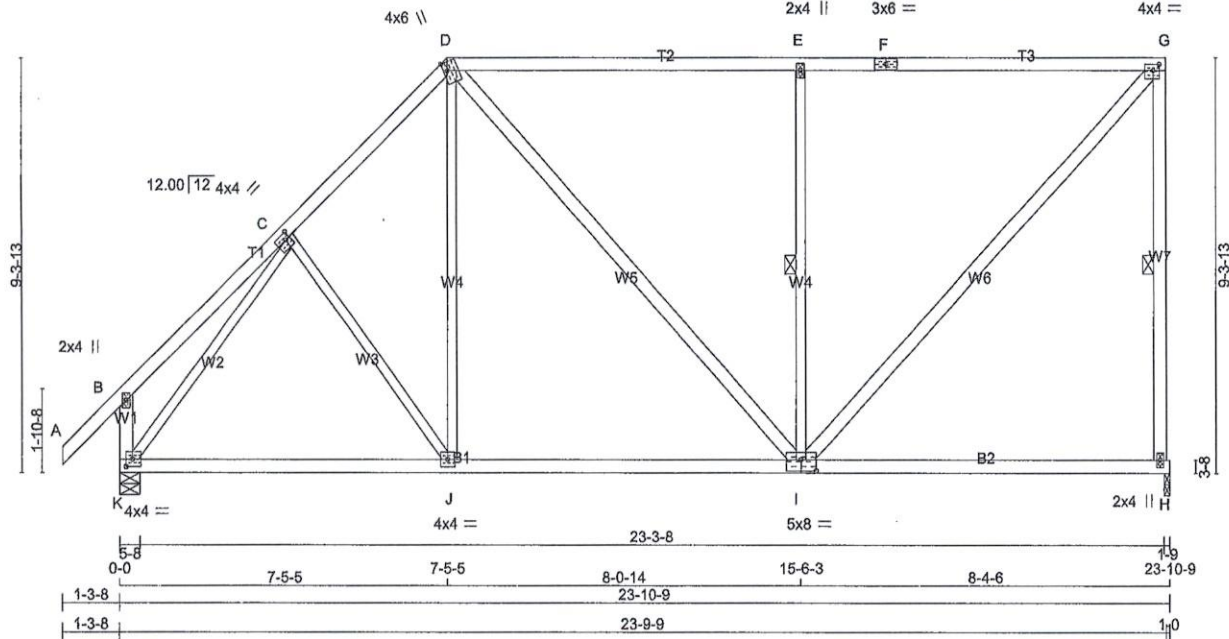
JSI GRIP= 0.86 (I) (INPUT = 0.90)
JSI METAL= 0.49 (B) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310385	H4		1	JT-39002	E-19072229

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-xWyRZdRX2ZS70cy?G6MAIa_TL8eFIqAaEvNVFFyzW1c
2x4 || 3x6 = 4x4 =
Scale = 1:52.7



TOTAL WEIGHT = 4 X 123 = 491 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B TMV+p	MT20	2.0	4.0	
C TMVW-t	MT20	4.0	4.0	1.75 1.25
D TTWW+m	MT20	4.0	6.0	Edge 1.00
E TMV+w	MT20	2.0	4.0	
F TS-t	MT20	3.0	6.0	
G TMVW-t	MT20	4.0	4.0	1.75 1.75
H BMV1+p	MT20	2.0	4.0	
I BSWW-w	MT20	5.0	8.0	3.00 4.00
J BMVW-t	MT20	4.0	4.0	
K BMVW-t	MT20	4.0	4.0	2.00 1.75

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

NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
H	1230	0	1230	0	0	1-8	1-8	1-8	1-8
K	1348	0	1348	0	0	5-8	1-8	1-8	1-8

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS		PERM. LIVE		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	DEAD	SOIL	DEAD	SOIL
H	873	554 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0 / 0	319 / 0	0 / 0	0 / 0	0 / 0
K	955	619 / 0	0 / 0	0 / 0	0 / 0	338 / 0	0 / 0	338 / 0	0 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.35 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-H, E-I.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	MAX. CSI (LC)
FR-TO		FROM TO		FR-TO			
A-B	0 / 42	-84.9 -84.9	0.12 (1)	10.00	C-J	-80 / 21	0.05 (1)
B-C	0 / 26	-84.9 -84.9	0.19 (1)	10.00	J-D	0 / 226	0.06 (4)
C-D	-1037 / 0	-84.9 -84.9	0.21 (1)	5.91	D-I	0 / 147	0.02 (1)
D-E	-813 / 0	-84.9 -84.9	0.88 (1)	5.35	I-E	-862 / 0	0.49 (1)
E-F	-813 / 0	-84.9 -84.9	0.88 (1)	5.35	I-G	0 / 1203	0.19 (1)
F-G	-813 / 0	-84.9 -84.9	0.88 (1)	5.35	K-C	-1296 / 0	0.93 (1)
H-G	-1153 / 0	0.0 0.0	0.47 (1)	5.93			
K-B	-238 / 0	0.0 0.0	0.03 (1)	7.81			

K-J	0 / 748	-18.5 -18.5	0.39 (4)	10.00
J-I	0 / 715	-18.5 -18.5	0.39 (4)	10.00
I-H	0 / 0	-18.5 -18.5	0.37 (4)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
DL =	6.0	PSF	
BOT CH.	LL =	0.0	PSF
DL =	7.4	PSF	
TOTAL LOAD =	36.7	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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.24")

CSI: TC=0.88/1.00 (E-G:1), BC=0.39/1.00 (I-J:4), WB=0.93/1.00 (C-K:1), SSI=0.34/1.00 (E-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES		PLATE GRIP(DRY) SHEAR		SECTION	
(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)
MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

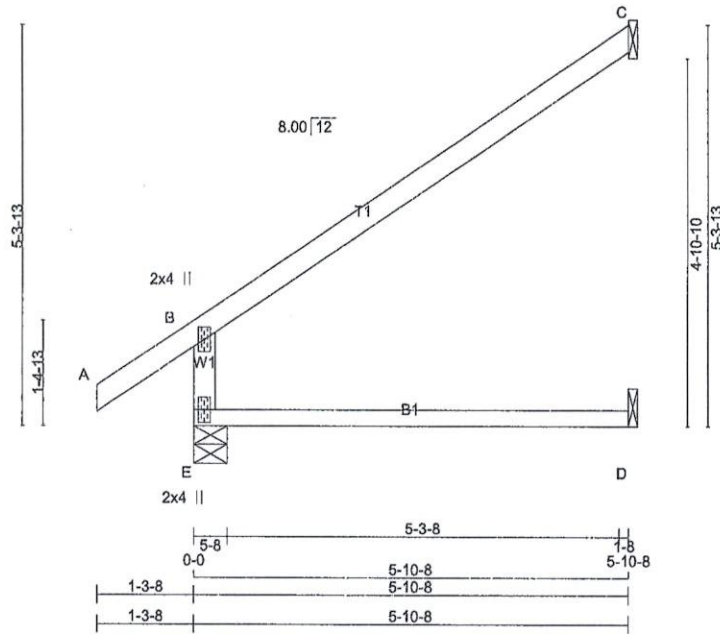
JSI GRIP= 0.89 (K) (INPUT = 0.90)
JSI METAL= 0.48 (C) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310385	J1		1	JT-39002	E-19072240

Alpa Roof Truss, Maple

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ID:MF8llriaTok7DlbpT4B71Xys4PG-?PM6jlcxWAL?Kwbuel7hpk67VBo4mqNngkWoHtyzW1N
Scale = 1:31.2



TOTAL WEIGHT = 24 X 16 = 384 lb

LUMBER	CHORDS	SIZE	DRY	LUMBER	DESCR.
E - B	2x4	DRY	No.2	SPF	
A - C	2x4	DRY	No.2	SPF	
E - D	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

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

NOTES- (1)

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
	VERT	HORZ	DOWN	HORZ		
E	494	0	494	0	5-8	1-8
C	187	0	187	0	1-8	1-8
D	43	0	48	0	1-8	1-8

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

UNFACTORED REACTIONS

JT	1ST CASE COMBINED	MAX/MIN. COMPONENT REACTIONS					SOIL
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	
E	348	235 / 0	0 / 0	0 / 0	0 / 0	113 / 0	0 / 0
C	129	103 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0
D	34	0 / 0	0 / 0	0 / 0	0 / 0	34 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS		
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LOAC1 (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC LENGTH
FR-TO		FROM	TO	CSI (LC)	FR-TO		
E-B	-428 / 0	0.0	0.0	0.16 (4)			7.81
A-B	0 / 32	-84.9	-84.9	0.11 (1)			10.00
B-C	-35 / 0	-84.9	-84.9	0.50 (1)			6.25
E-D	0 / 0	-18.5	-18.5	0.30 (4)			10.00

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/932 (0.08")

CSI: TC=0.50/1.00 (B-C:1), BC=0.30/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), 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.

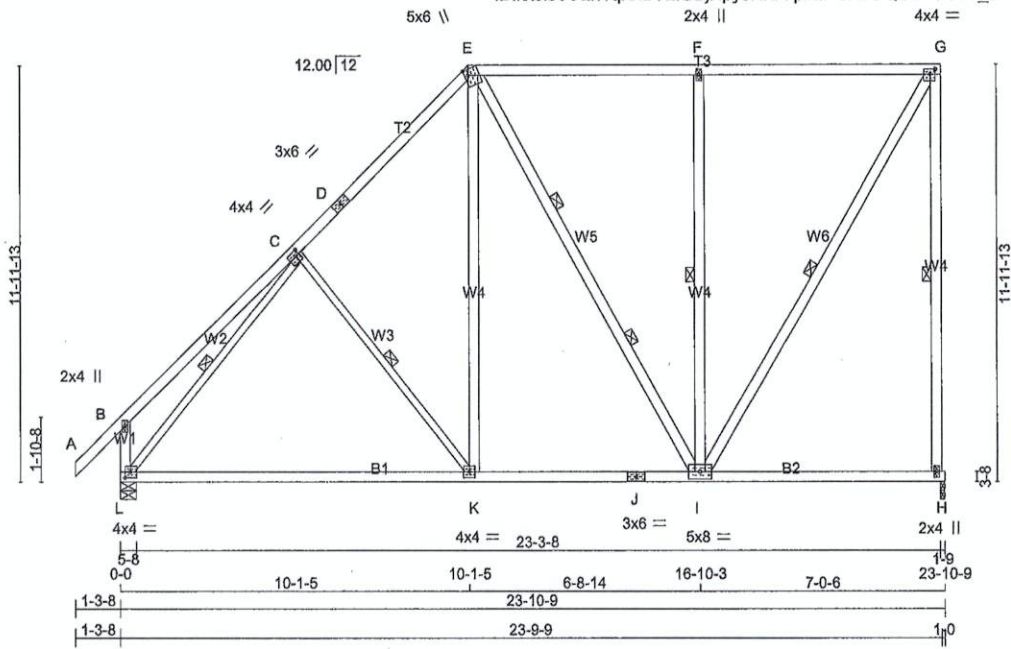
NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.28 (B) (INPUT = 0.90)
JSI METAL= 0.22 (B) (INPUT = 1.00)



TOTAL WEIGHT = 14 X 145 = 2031 lb
 [M][F]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMWW-t	MT20	4.0	4.0	1.75 1.25
D	TS-t	MT20	3.0	6.0	
E	TTWW+m	MT20	5.0	6.0	2.00 1.25
F	TMW+w	MT20	2.0	4.0	
G	TMW-t	MT20	4.0	4.0	1.75 1.75
H	BMV1+p	MT20	2.0	4.0	
I	BMWWW-t	MT20	5.0	8.0	
J	BS-t	MT20	3.0	6.0	
K	BMWW-t	MT20	4.0	4.0	
L	BMW1-t	MT20	4.0	4.0	2.00 1.75

NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
H	1303	0		1303	0	0	1-9	1-8	
L	1378	0		1378	0	0	5-8	1-8	

UNFACTORED REACTIONS		1ST LCASE		MAX/MIN COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
H	932	554 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0		
L	978	619 / 0	0 / 0	0 / 0	0 / 0	359 / 0	0 / 0		

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

BRACING
 FOR SECTION E-G, MAX. PURLIN SPACING = 2.00 FT.
 FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.98 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING
 TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	0 / 42	-84.9 -84.9	0.12 (1)	10.00	C-K	-213 / 0	0.10 (1)
B-C	0 / 37	-84.9 -84.9	0.36 (1)	10.00	K-E	0 / 355	0.06 (1)
C-D	-958 / 0	-84.9 -84.9	0.30 (1)	5.98	E-I	-117 / 0	0.05 (1)
D-E	-958 / 0	-84.9 -84.9	0.30 (1)	5.98	I-F	-785 / 0	0.62 (1)
E-F	-595 / 0	-92.4 -92.4	0.56 (1)	2.00	I-G	0 / 1166	0.19 (1)
F-G	-596 / 0	-92.4 -92.4	0.57 (1)	2.00	L-C	-1286 / 0	0.59 (1)
H-G	-1247 / 0	0.0 0.0	0.98 (1)	5.78			
L-B	-279 / 0	0.0 0.0	0.03 (1)	7.81			
L-K	0 / 783	-18.5 -18.5	0.47 (4)	10.00			
K-J	0 / 654	-18.5 -18.5	0.47 (4)	10.00			
J-I	0 / 654	-18.5 -18.5	0.47 (4)	10.00			
I-H	0 / 0	-18.5 -18.5	0.19 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.4 PSF
 TOTAL LOAD = 36.7 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 WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
 - PART 9 OF BCBC 2018, OBC 2012
 - CSA 086-09, CSA 086-14
 - TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
 ALLOWABLE DEFL.(TL)= L/360 (0.79")
 CALCULATED VERT. DEFL.(TL) = L/889 (0.32")

CSI: TC=0.98/1.00 (G-H:1), BC=0.47/1.00 (K-L:4), WB=0.62/1.00 (F-I:1), SSI=0.31/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

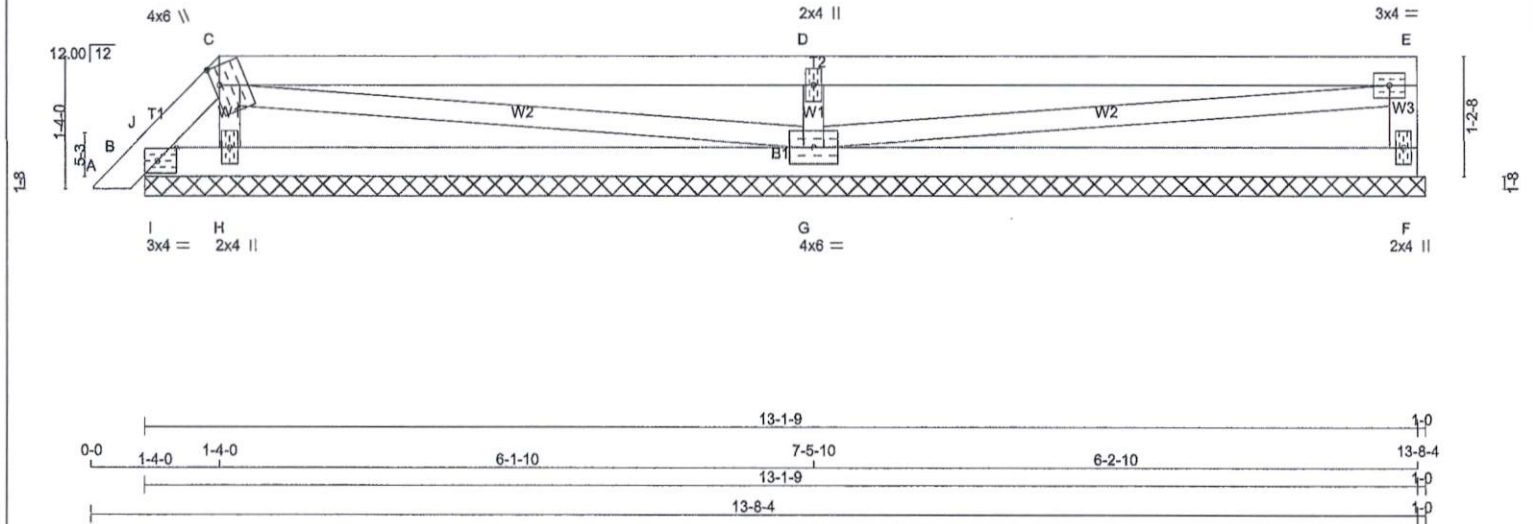
JSI GRIP= 0.89 (L) (INPUT = 0.90)
 JSI METAL= 0.49 (C) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310395	H7		1	TRUSS DESC. JT-39002	E-19072368

Alpa Roof Truss, Maple

Version 8.300 S May 10 2019 MITek Industries, Inc. Thu Jul 11 11:22:23 2019 Page 1
ID:kx9I86OLIWqKxBYZIGBJHpysKNA-HymPj96BBOC0E4DYWsMUSYO1JdFoxz76SkYufyzA5E
Scale: 1/2"=1'



LUMBER

N. L. G. A. RULES

CHORDS SIZE

LUMBER

DESCR.

SPF

A - C

2x4

DRY

No.2

SPF

C - E

2x4

DRY

No.2

SPF

F - E

2x4

DRY

No.2

SPF

B - F

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

DRY; SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.50
C	TTWW+m	MT20	4.0	6.0	2.25	0.75
D	TMW+w	MT20	2.0	4.0		
E	TMVW-t	MT20	3.0	4.0		
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW1-t	MT20	4.0	6.0		
H	BMW1+w	MT20	2.0	4.0		

NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
F	244	0	244	0
B	68	0	68	0
H	295	0	295	0
G	788	0	788	0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

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

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	173	109 / 0	0 / 0	0 / 0	0 / 0	64 / 0	0 / 0
B	43	59 / 0	0 / 0	0 / 0	0 / 0	0 / -17	0 / 0
H	215	103 / 0	0 / 0	0 / 0	0 / 0	112 / 0	0 / 0
G	558	360 / 0	0 / 0	0 / 0	0 / 0	198 / 0	0 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MAX UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 12	-84.9	-84.9	0.01 (1)	10.00	H-C	-169 / 0
B-J	-6 / 33	-84.9	-84.9	0.03 (4)	10.00	C-G	-9 / 0
J-C	-56 / 0	-84.9	-84.9	0.02 (4)	6.25	G-D	-855 / 0
C-D	0 / 0	-84.9	-84.9	0.55 (1)	10.00	G-E	0 / 1
D-E	-1 / 0	-84.9	-84.9	0.55 (1)	10.00	I-J	-97 / 0
F-E	-199 / 0	0.0	0.0	0.02 (1)	7.81		
B-I	0 / 29	-18.5	-18.5	0.01 (1)	10.00		
I-H	0 / 29	-18.5	-18.5	0.10 (4)	10.00		
H-G	0 / 10	-18.5	-18.5	0.18 (4)	10.00		
G-F	0 / 0	-18.5	-18.5	0.18 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	36.7	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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018 , OBC 2012

- CSA 086-09, CSA 086-14

- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.55/1.00 (D-E:1) , BC=0.18/1.00 (G-H:4) , WB=0.09/1.00 (D-G:1) , SSI=0.26/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.34 (D) (INPUT = 0.90)

JSI METAL= 0.14 (D) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER

07/11/2019

R. TURENNE

100157048

PROVINCE OF ONTARIO



May 27, 2019

Re: Expiration Date for Technical Bulletins Extended to 12/31/2019

Please be advised that the expiration date of the Technical Bulletins listed below has been extended until December 31, 2019.

T-SPECCP17	T-SPECH17	T-SPECDSHGUS17R
T-SPECHGUS17-R	T-SPECHHUS17-R	T-SPECHUS17
T-SPECLF17	T-SPECLT17	T-SPECLU17
T-SPECCLUL17	T-SPECLUS17	T-SPECSUR17
T-SPECTBE17	T-SPECTC17	T-SPECTHGB17
T-SPECTHGBHV17	T-SPECTHGQ17	T-SPECTHGW17
T-SPECLSULSSU17	T-SPECHTHGQ17	T-SPECSTHGQ17

Should you have any questions or concerns regarding the above, please contact me at your convenience.

Sincerely,



Brent Bunting, P.Eng.
Simpson Strong-Tie Canada, Ltd.



LUS – Double Shear Joist Hangers

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

Material: 18 gauge

Finish: G90 galvanized

Design:

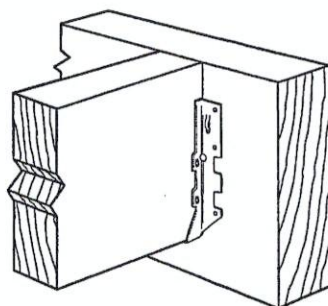
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

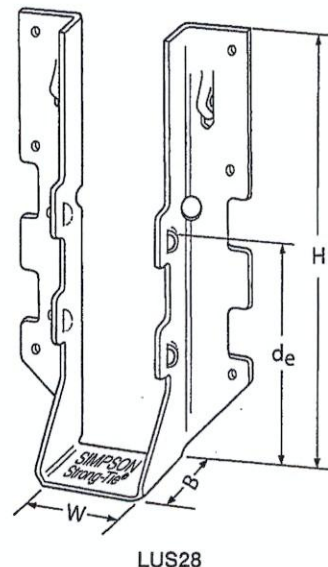
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



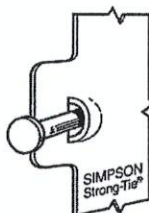
Typical LUS
Installation



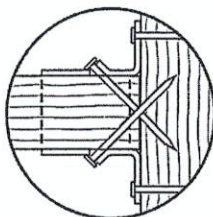
LUS28

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _a ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1½	3½	1¾	1½	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3½	3½	2	1½	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1½	4¾	1¾	3¾	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3½	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4½	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6½	1¾	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4½	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1½	7½	1¾	3¾	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4½	8¾	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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



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



Double Shear Nailing
Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 1, 2017. This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECLUS17 3/17 exp: 6/19

(800) 999-5099
strongtie.com

HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

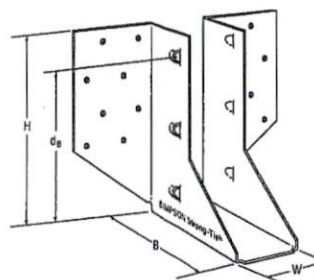
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

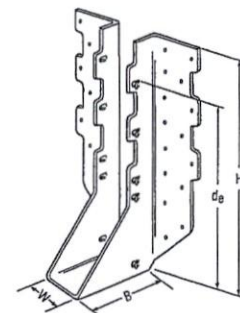
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

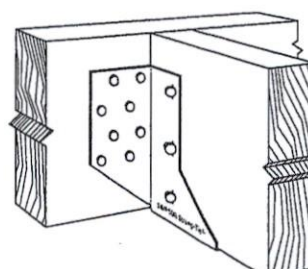
- See current catalogue for options



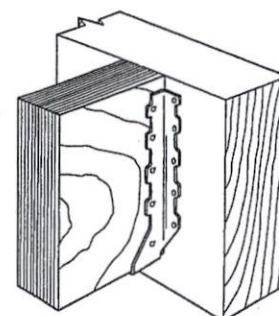
LJS26DS



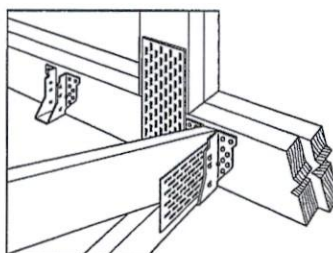
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



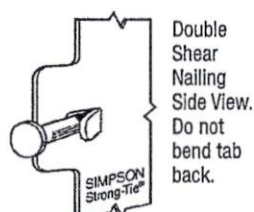
Typical HUS
Installation



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

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _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)
LJS26DS	18	1 1/16	5	3 1/2	4 5/8	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1 5/8	5 3/8	3	3 1/16	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1 5/8	7 3/2	3	6 3/32	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1 5/8	9 3/2	3	7 3/32	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1 13/16	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

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



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 1, 2017. This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECHUS17 3/17 exp. 6/19

(800) 999-5099
strongtie.com

HHUS – Double Shear Joist Hangers



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

Material: 14 gauge

Finish: G90 galvanized

Design:

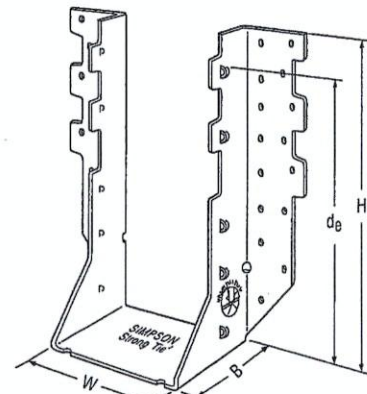
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

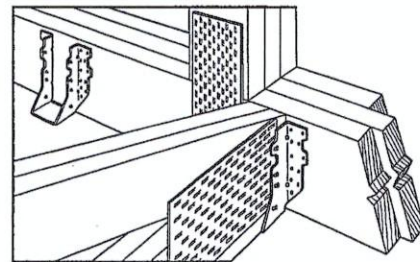
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

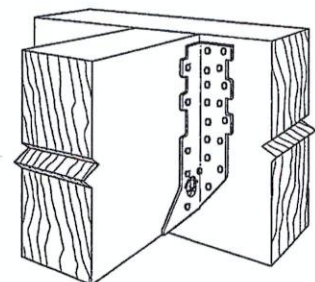
- See current catalogue for options



HHUS410



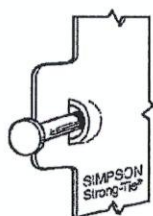
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

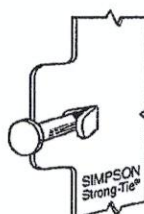
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _b ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift	Normal	Uplift	Normal
								(K _p =1.15)	(K _p =1.00)	(K _p =1.15)	(K _p =1.00)
HHUS26-2	14	3 5/16	5 13/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 5/16	7 7/32	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 5/16	9 9/32	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 1/16	9	3	7 15/16	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	6 1/8	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 5/8	5 1/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 5/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 5/8	9	3	8	(30) 16d	(10) 16d	4745	9855	4310	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS7.25/10	14	7 1/4	9	3 5/16	7 29/32	(30) 16d	(10) 16d	4745	10770	4310	7650

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

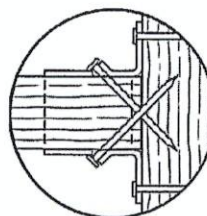


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



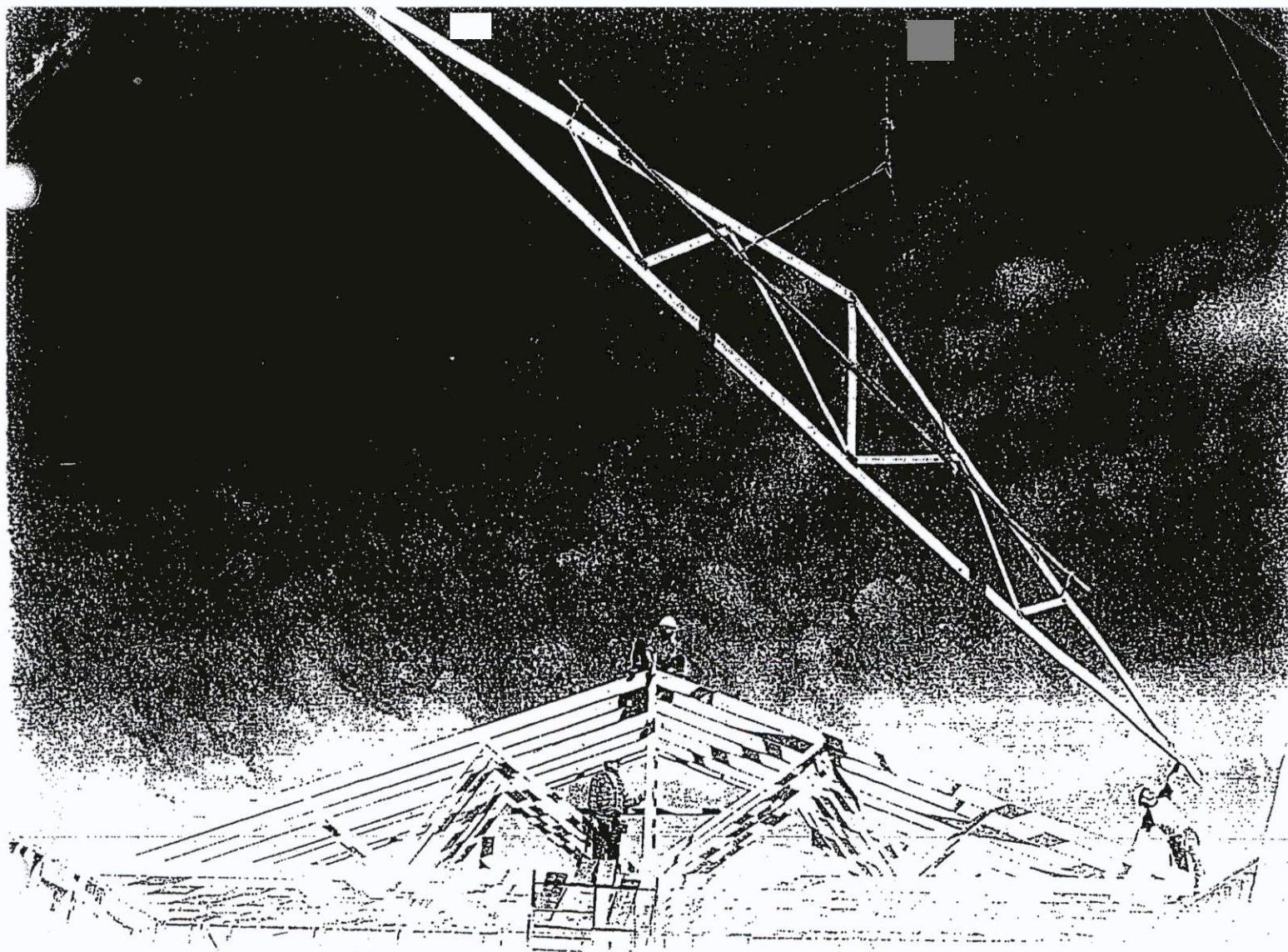
LIMIT STATES DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 1, 2017. This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECHHUS17-3/17 exp: 6/19

(800) 999-5099
strongtie.com



Wood Truss Installation

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

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Warning



General

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

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

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

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

Temporary Erection Bracing

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

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

Permanent Truss Bracing

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

Special Design Requirements

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

Unloading & Lifting

Never handle trusses flat

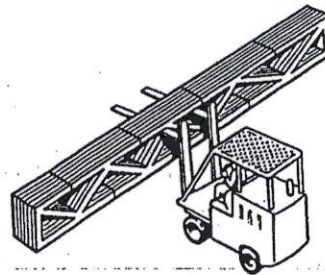
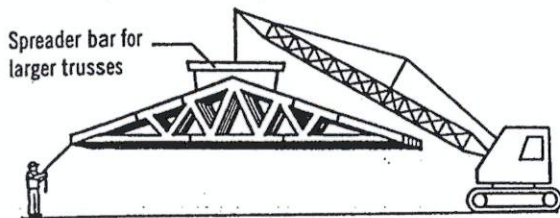
Beginning with the unloading process, and throughout all phases of construction, care must be taken to avoid lateral bending of trusses, which can cause damage to the lumber and metal connector plates at the joints.



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.

Job Site Handling



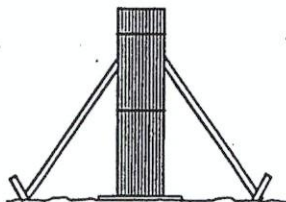
All trusses should be picked up at the top chords in a vertical position only

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.



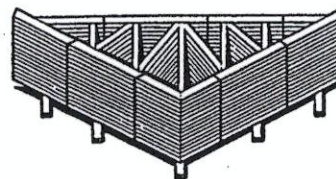
Do not store unbraced bundles upright

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.

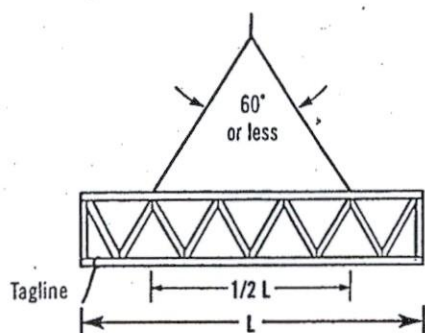
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

3 Hoisting

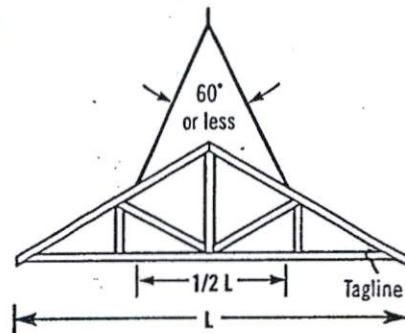
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



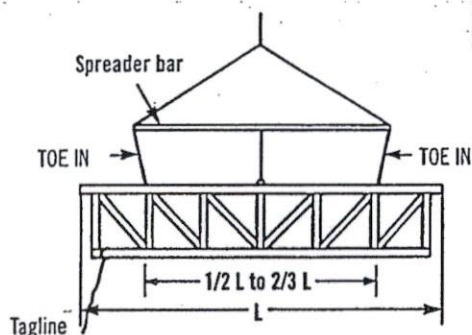
Avoid lateral bending



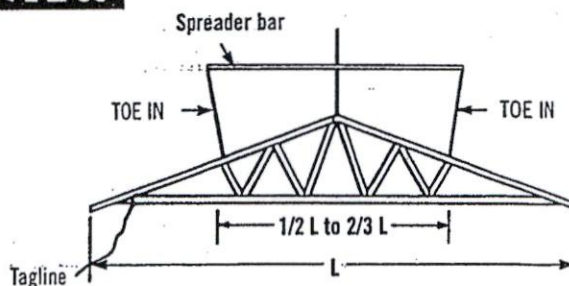
$L \leq 30'$



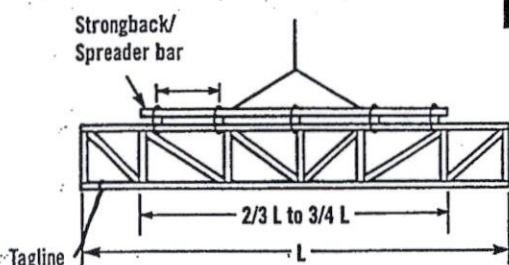
Truss sling is acceptable where these criteria are met.



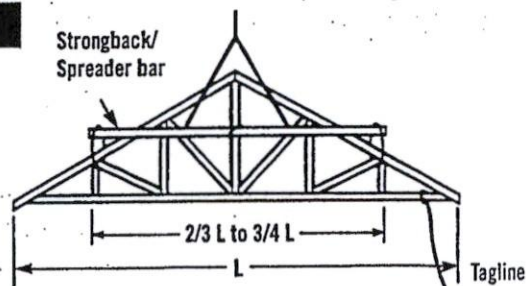
$30' < L \leq 60'$



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.



$L > 60'$



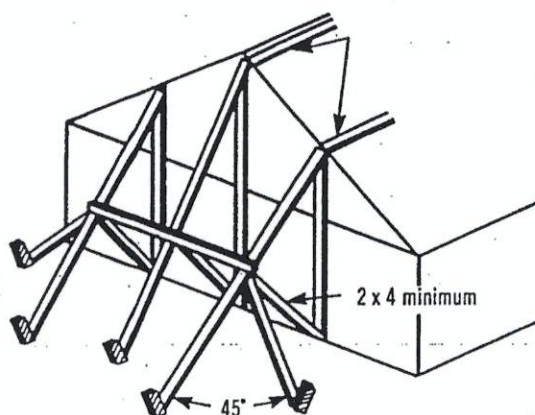
For lifting trusses with spans in excess of 60 feet, it is recommended that a strongback/spreader bar be used as illustrated. The strongback/spreader bar should be attached to the top chord and web members at intervals of approximately 10 feet. Further, the strongback/spreader bar should be at or above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

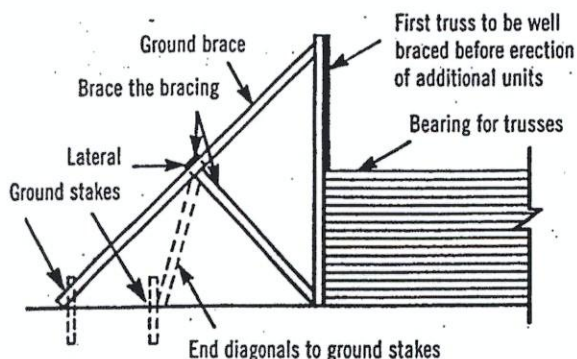
It is important for the builder or erection contractor to provide substantial bracing for the first truss erected. The two or more trusses making up the rest of the first set are tied to and rely upon the first truss for stability. Likewise, after this first set of trusses is adequately cross-braced, 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.

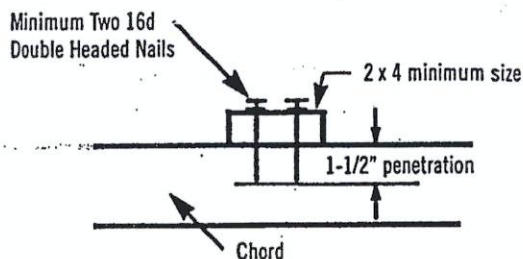
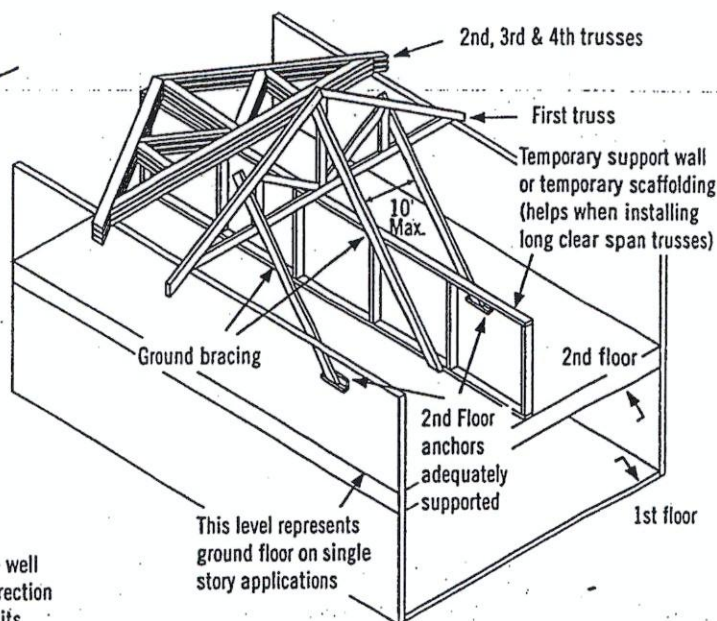


Note: Locate ground braces for first truss directly in line with all rows of top chord continuous lateral bracing (either temporary or permanent).



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.

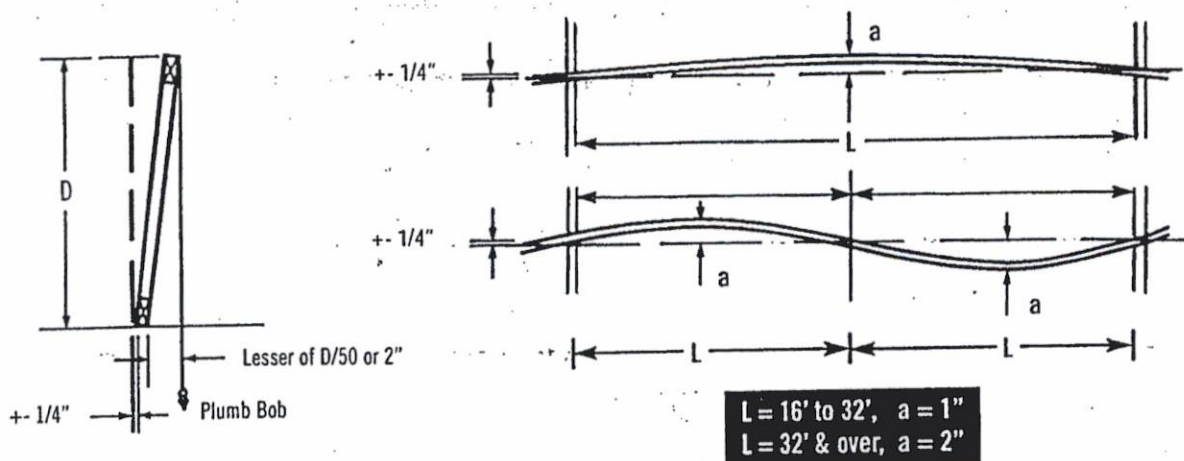


Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.

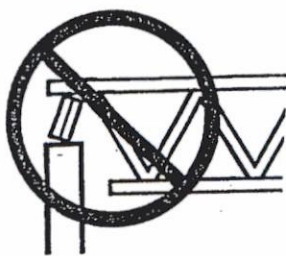
5 Erection Tolerance

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



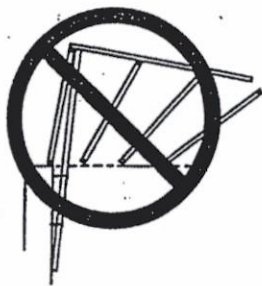
Do not install trusses on temporarily connected supports



Do not walk on unbraced trusses



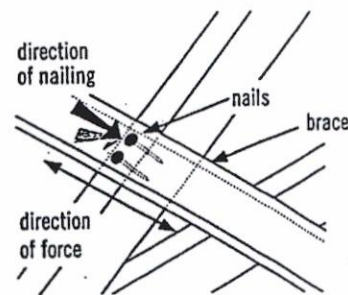
Do not walk on trusses or gable ends lying flat



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.



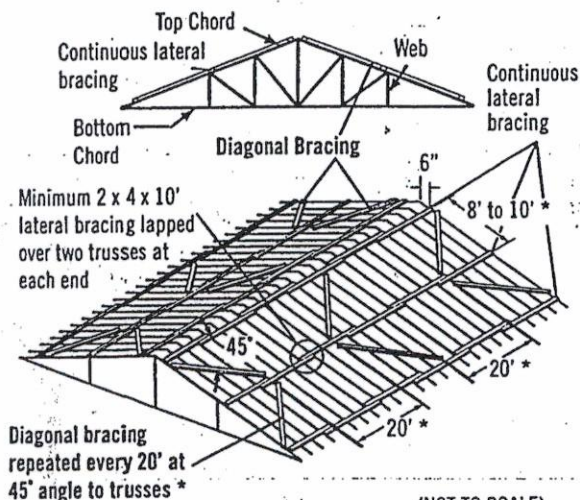
Well nailed (perpendicular to force)

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.



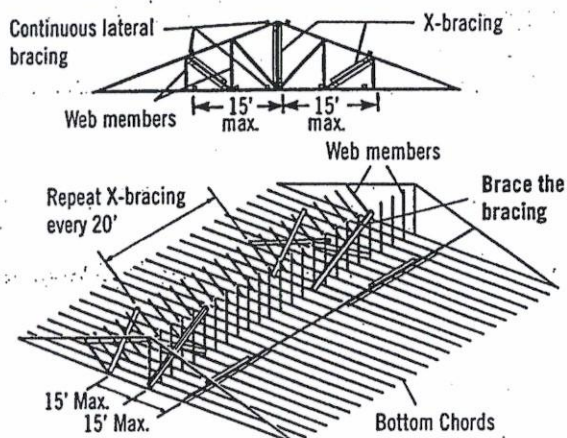
(NOT TO SCALE)

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.

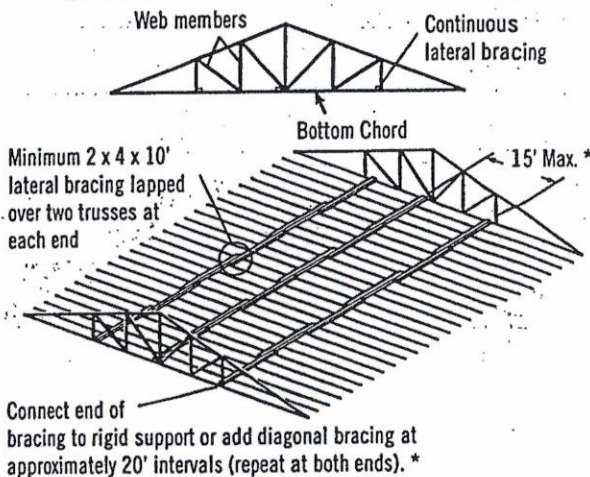
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



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.

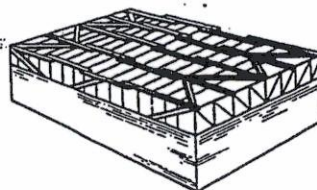


* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses) for details.

Diagonal or cross-bracing is very important!



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

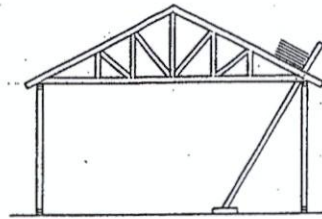
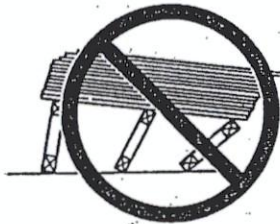


Bracing requirements using the same principles apply to parallel chord trusses

8 Stacking Materials

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

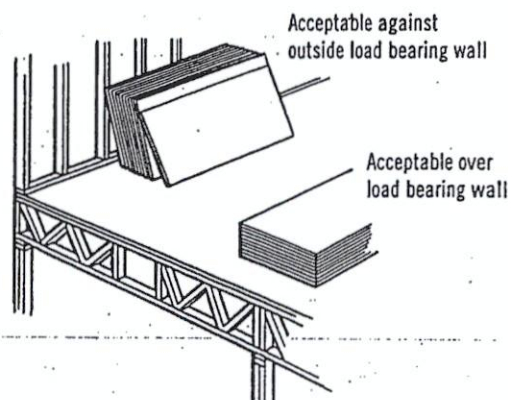
Never stack materials on unbraced or inadequately braced trusses



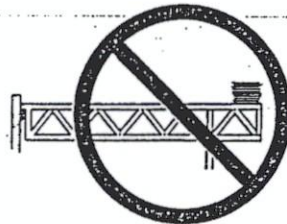
Platform must be rigidly braced

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

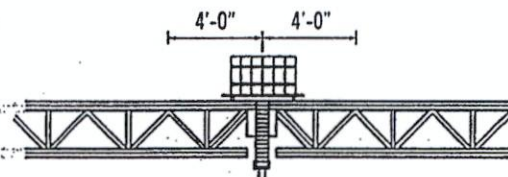


Always stack materials over two or more trusses.



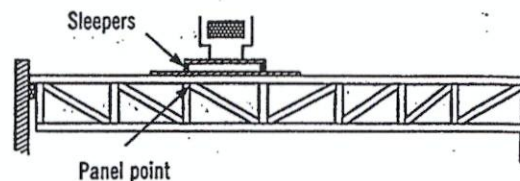
Single truss

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.

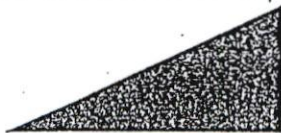
Cutting of nonstructural overhangs is considered a part of normal erection and shall be done by the builder or erection contractor.

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.

[Selected text and figures referenced or reproduced from HIB and DSB by permission of the Truss Plate Institute, Madison, WI.]

THE CANADIAN WOOD TRUSS ASSOCIATION



L'ASSOCIATION CANADIENNE DES FABRICANTS DE FERMES DE BOIS

1400 Blair Place, Suite 210, Ottawa, ON K1J 9B8
Tel.: 613-747-5544 Fax: 613-747-6264

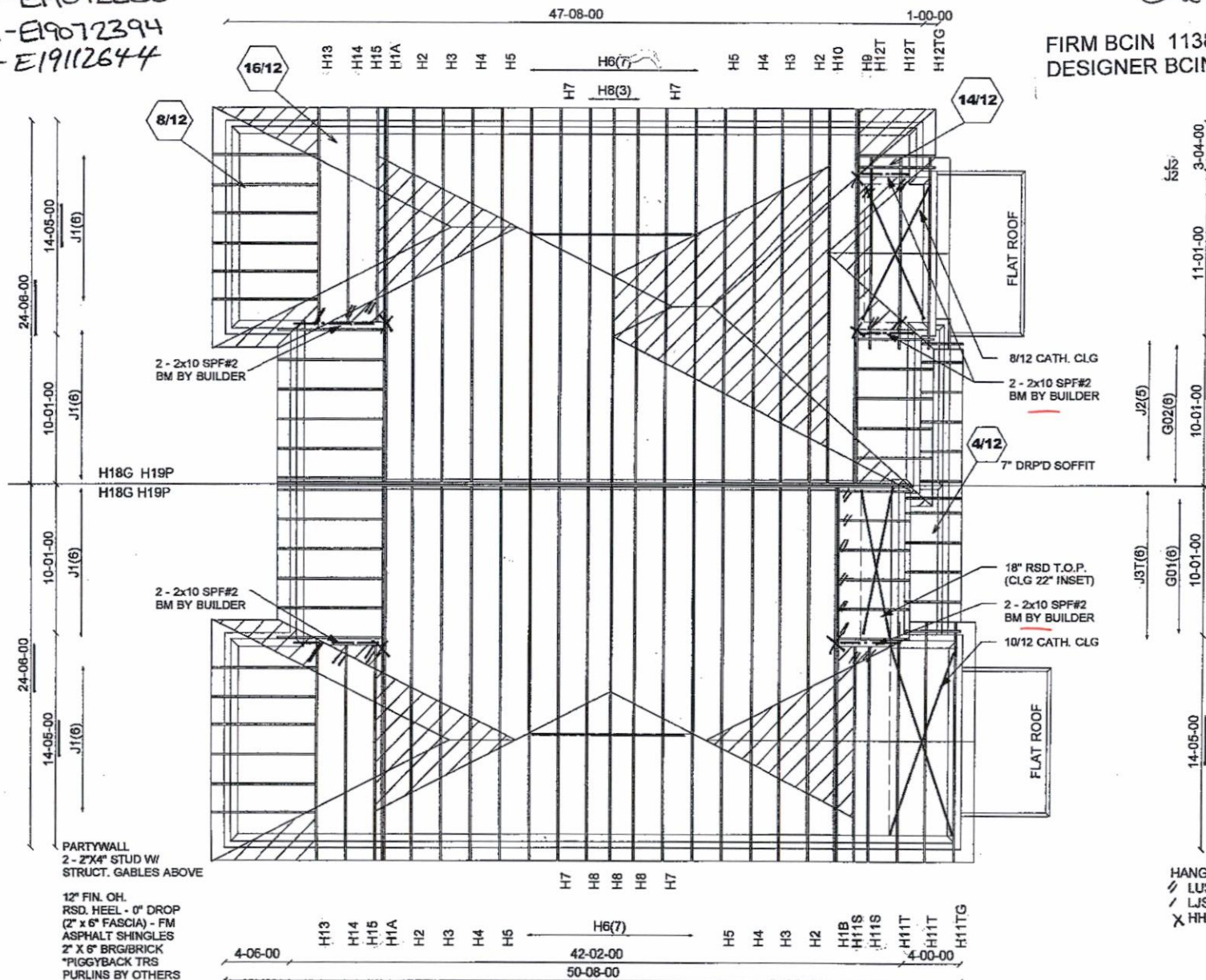


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E19072240
 E19072247-E19072250
 E19072392-E19072394
 E19112629-E19112644

FIRM BCIN 113884
 DESIGNER BCIN 25593



SD-10 ELEV. D
 All work shall conform to the Ontario Building Code O. Reg. 332/12 as amended
 For conventional framing roof / ceilings framing shall conform to OBC.9.23

SD-10 ELEV. C
 CITY OF BRAMPTON
 BUILDING DIVISION
 REVIEWED
 DEC 10 2019
 BY MARY FRETTE

HANGERS
 / LUS24
 / LJS26DS
 X HHUS26-2

THE STRAUSKY
 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'

Mitek V. 8.2.0
 CONVENTIONAL FRAMING BY OTHERS



Job Track: 39002	Builder / Location: GOLD PARK HOMES / BRAMPTON	Model / Elevation: SD-10 / C/D
Layout ID: 314003	Project: MCLAUGHLIN AND MAYFIELD	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.
Plan Log: 104423	Date: 10/23/2019 Designer: AMANDA	

ALPA-BARRIE

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.

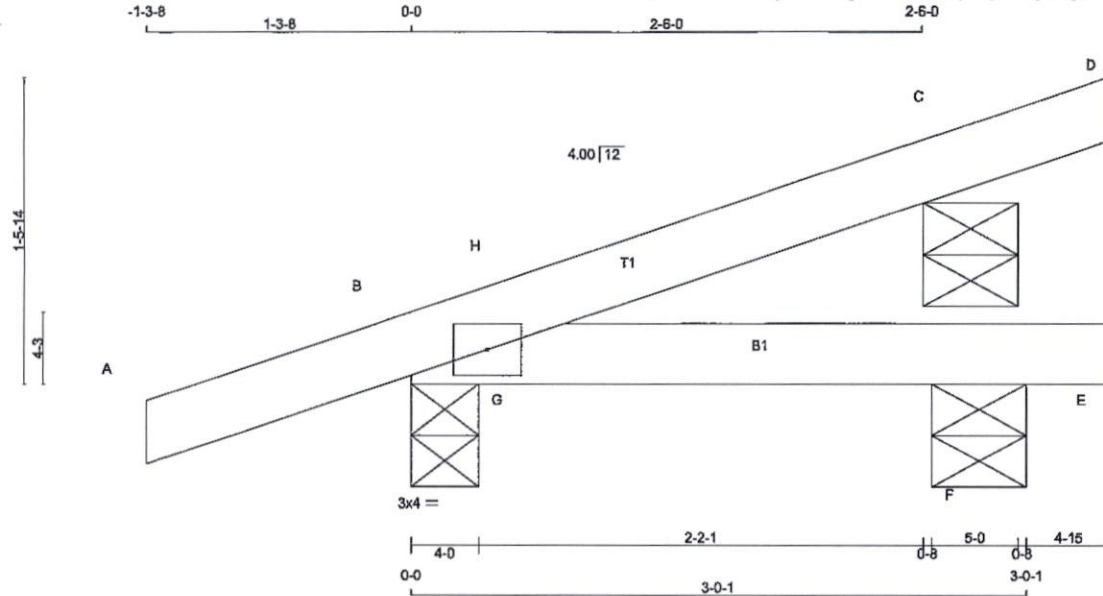
SPECIFICATIONS

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.
314003	G01		1	TRUSS DESC.	E-19112629
Alpa Roof Truss, Maple					

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-uPEeqsPq5ntVqxAHj10MRQbAmwCgwHaeOhmLxyK_XY



Scale = 1:11.3

TOTAL WEIGHT = 6 X 10 = 58 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMB14	MT20	3.0	4.0		

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

	FACTORED		MAXIMUM FACTORED			INPUT	REQRD
	GROSS REACTION		GROSS REACTION			BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
B	255	0	255	0	0	4-0	1-8
F	54	0	54	0	0	5-8	1-8
C	161	0	161	0	0	5-8	5-8

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): C

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS	JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	179	126 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	53 / 0	0 / 0
F	41	12 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	29 / 0	0 / 0
C	112	86 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0

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

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: (5)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
FR-TO						FR-TO			
A-B	0 / 16	-84.9	-84.9	0.12 (5)	10.00	G-H	-82 / 5	0.00 (1)	
B-H	-11 / 0	-84.9	-84.9	0.03 (4)	6.25				
H-C	0 / 2	-84.9	-84.9	0.08 (1)	10.00				
C-D	-10 / 0	-84.9	-84.9	0.03 (1)	10.00				
B-G	0 / 0	-18.5	-18.5	0.07 (1)	10.00				
G-F	0 / 0	-18.5	-18.5	0.07 (1)	10.00				
F-E	0 / 0	-18.5	-18.5	0.01 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:	TOP CH.	LL		
			23.3	PSF
		DL	6.0	PSF
	BOT CH.	LL	0.0	PSF
		DL	7.4	PSF
	TOTAL LOAD		36.7	PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.01")

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

CSI: TC=0.12/1.00 (A-B:5), BC=0.07/1.00 (B-G:1), WB=0.00/1.00 (G-H:1), SSI=0.10/1.00 (A-B:5)

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)	(PL)	(PL)	(PL)
MAX	MIN	MAX	MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

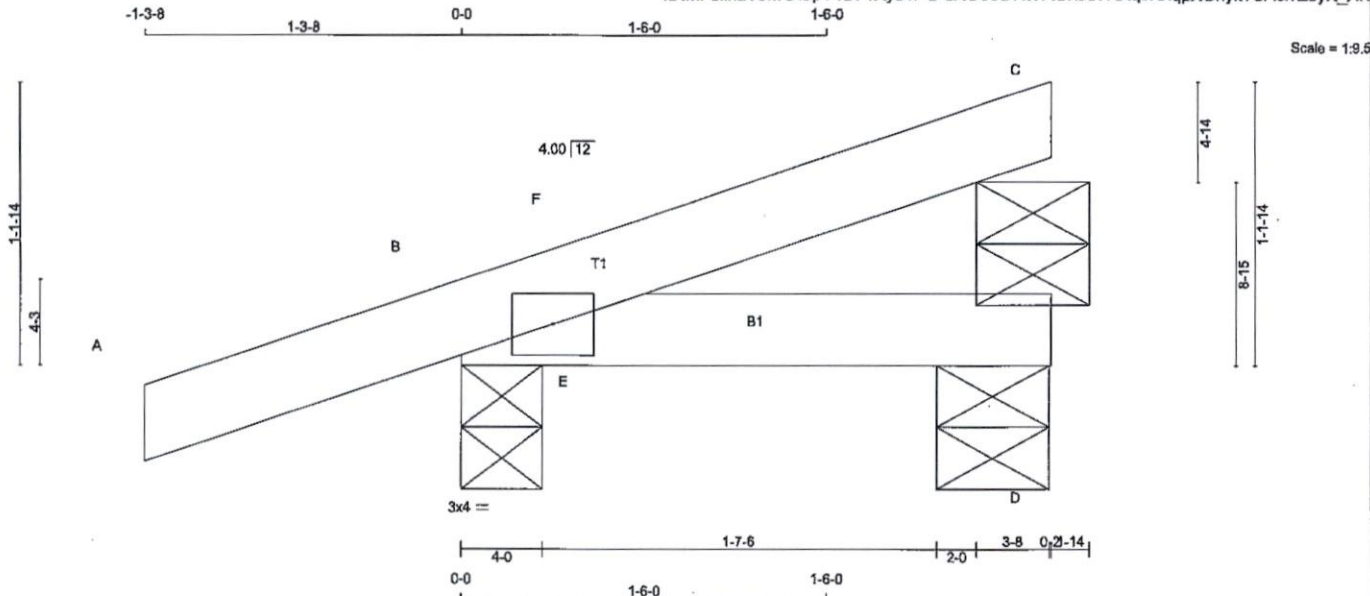
JSI GRIP= 0.16 (B) (INPUT = 0.90)

JSI METAL= 0.04 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN





LUMBER
N. L. G. A. RULES

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
C	87	0	87	0	5-8 (3-10)	3-10
B	238	0	238	0	4-0	1-8
D	38	0	38	0	5-8	1-8

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): C

UNFACTORED REACTIONS

JT	1ST CASE COMBINED	MAX./MIN. COMPONENT REACTIONS				
		SNOW	LIVE	PERM.LIVE	WIND	DEAD
C	60	45 / 0	0 / 0	0 / 0	0 / 0	15 / 0
B	167	119 / 0	0 / 0	0 / 0	0 / 0	48 / 0
D	28	11 / 0	0 / 0	0 / 0	0 / 0	17 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (5)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX CSI (LC)		
FR-TO		FROM	TO		FR-TO				
A-B	0 / 16	-84.9	-84.9	0.11 (5)	10.00	E-F	-69 / 3	0.00 (1)	
B-F	-10 / 0	-84.9	-84.9	0.02 (4)	6.25				
F-C	0 / 2	-84.9	-84.9	0.06 (1)	10.00				
B-E	0 / 0	-18.5	-18.5	0.05 (1)	10.00				
E-D	0 / 0	-18.5	-18.5	0.05 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 36.7	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 899 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 989 (0.00")

CSI: TC=0.11/1.00 (A-B:5), BC=0.05/1.00 (B-E:1), WB=0.00/1.00 (E-F:1), SSI=0.09/1.00 (A-B:5)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.14 (B) (INPUT = 0.80)
JSI METAL= 0.04 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

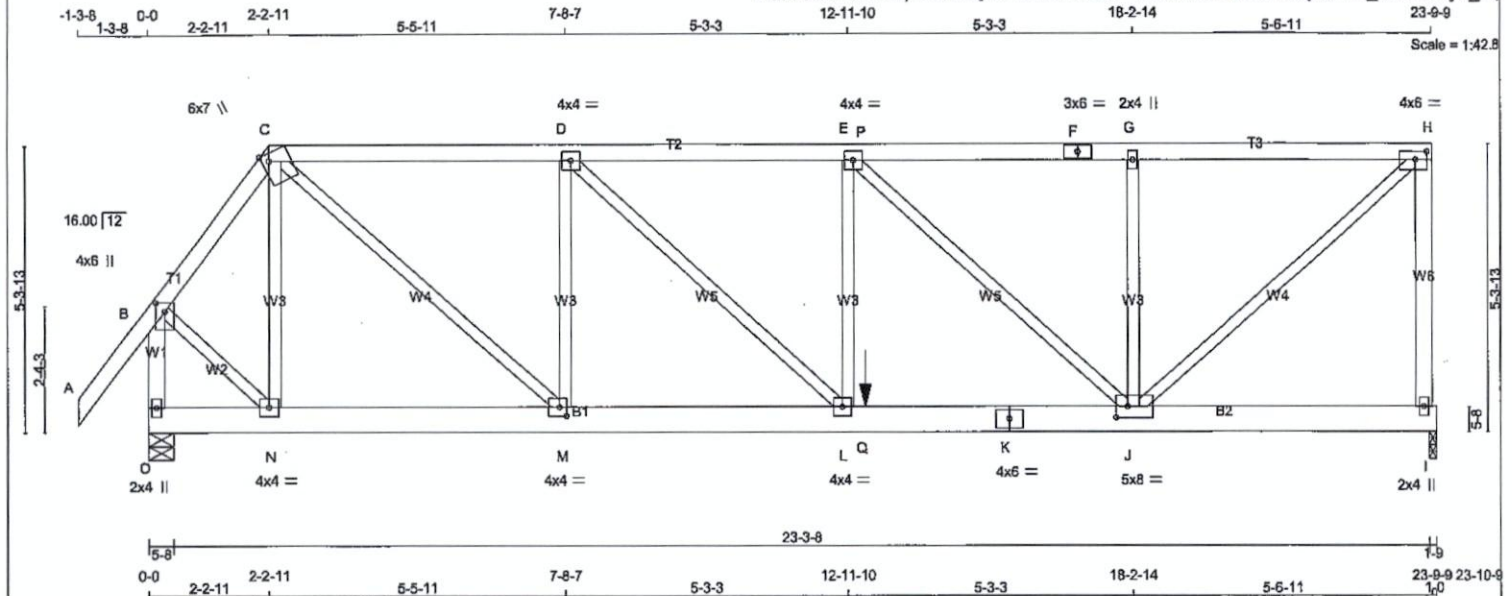
CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H1A		2	JT-39002	E-19112631

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-9KPRBxFTwUDJW0DAM07Weqs9v1Tt_54hJ2DPyK_Zq



TOTAL WEIGHT = 4 X 121 = 485 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - F	2x4	DRY	No.2	SPF	
F - H	2x4	DRY	No.2	SPF	
I - H	2x4	DRY	No.2	SPF	
O - B	2x4	DRY	No.2	SPF	
O - K	2x6	DRY	No.2	SPF	
K - I	2x6	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A-C 1	12	TOP
C-F 1	12	SIDE(41.1)
F-H 1	12	SIDE(41.1)
H-I 1	12	TOP
O-B 1	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
O-K 2	12	SIDE(174.2)
K-I 2	12	SIDE(10.0)
WEBS : (0.122"x3") SPIRAL NAILS		
L-E 1	6	SIDE(169.1)
2x3 1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



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

BEARINGS	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
JT	2784	0	2784	0	1-9	1-8
O	2162	0	2162	0	5-8	1-10

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
JT	1977	1255 / 0	0 / 0	0 / 0	0 / 0	722 / 0
O	1532	986 / 0	0 / 0	0 / 0	0 / 0	546 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.68 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. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC LENGTH	LC1	
FR-TO		FROM	TO		FR-TO				
A-B	0 / 48	-84.9	-84.9	0.07 (1)	10.00	N-C	-597 / 0	0.12 (1)	
B-C	-1533 / 0	-84.9	-84.9	0.05 (1)	6.25	B-N	0 / 1169	0.14 (1)	
C-D	-2602 / 0	-84.9	-84.9	0.22 (1)	5.40	C-M	0 / 2286	0.28 (1)	
D-E	-3673 / 0	-84.9	-84.9	0.26 (1)	4.68	M-D	-1484 / 0	0.30 (1)	
E-F	-2623 / 0	-84.9	-84.9	0.46 (1)	5.01	D-L	0 / 1468	0.18 (1)	
F-G	-2623 / 0	-167.1	-167.1	0.46 (1)	5.01	L-E	0 / 410	0.05 (1)	
G-H	-2623 / 0	-167.1	-167.1	0.46 (1)	5.01	E-J	-1439 / 0	0.71 (1)	
H-I	-2701 / 0	0.0	0.0	0.62 (1)	6.94	J-G	-1059 / 0	0.21 (1)	
O-B	-2181 / 0	0.0	0.0	0.14 (1)	7.54	J-H	0 / 3510	0.43 (1)	
O-N	0 / 0	-18.5	-18.5	0.03 (1)	10.00				
N-M	0 / 898	-18.5	-18.5	0.09 (1)	10.00				
M-L	0 / 2602	-18.5	-18.5	0.22 (1)	10.00				
L-Q	0 / 3673	-18.5	-18.5	0.35 (1)	10.00				
Q-K	0 / 3673	-36.4	-36.4	0.35 (1)	10.00				
K-J	0 / 3673	-36.4	-36.4	0.35 (1)	10.00				
J-I	0 / 0	-36.4	-36.4	0.07 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
Q	13-3-9	-1316	-1316	-	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	=	23.3	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF

SPACING = 24.0 IN./C

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

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 2-2-11

RIGHT SETBACK = 0-0

END SETBACK = 5-10-8

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL LOADS APPLIED TO FIRST 10-7-0 OF SPAN MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL)= L/999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL)= L/999 (0.12")

CSI: TC=0.62/1.00 (H-I:1), BC=0.35/1.00 (J-L:1), WB=0.71/1.00 (E-J:1), SSI=0.44/1.00 (J-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H1A		2	JT-39002	E-19112631(2)
Alpa Roof Truss, Maple					
Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 09:00:41 2019 Page 2					
ID:MF8iiriaTok7DlbpT4B71Xys4PG-9KPRBxeFTwUDJW0DAMO7Weqs9v1fTi 54hJ2DPyK Zq					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	6.0	7.0	Edge	1.50
D	TMWW-t	MT20	4.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMW+w	MT20	2.0	4.0		
H	TMVW-t	MT20	4.0	6.0	1.75	2.50
I	BMV1+p	MT20	2.0	4.0		
J	BMWWW-t	MT20	5.0	8.0	2.50	2.50
K	BS-t	MT20	4.0	6.0		
L	BMWW-t	MT20	4.0	4.0		
M	BMWW-t	MT20	4.0	4.0	2.00	1.50
N	BMWW-t	MT20	4.0	4.0		
O	BMV1+p	MT20	2.0	4.0		

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (H) (INPUT = 0.80)

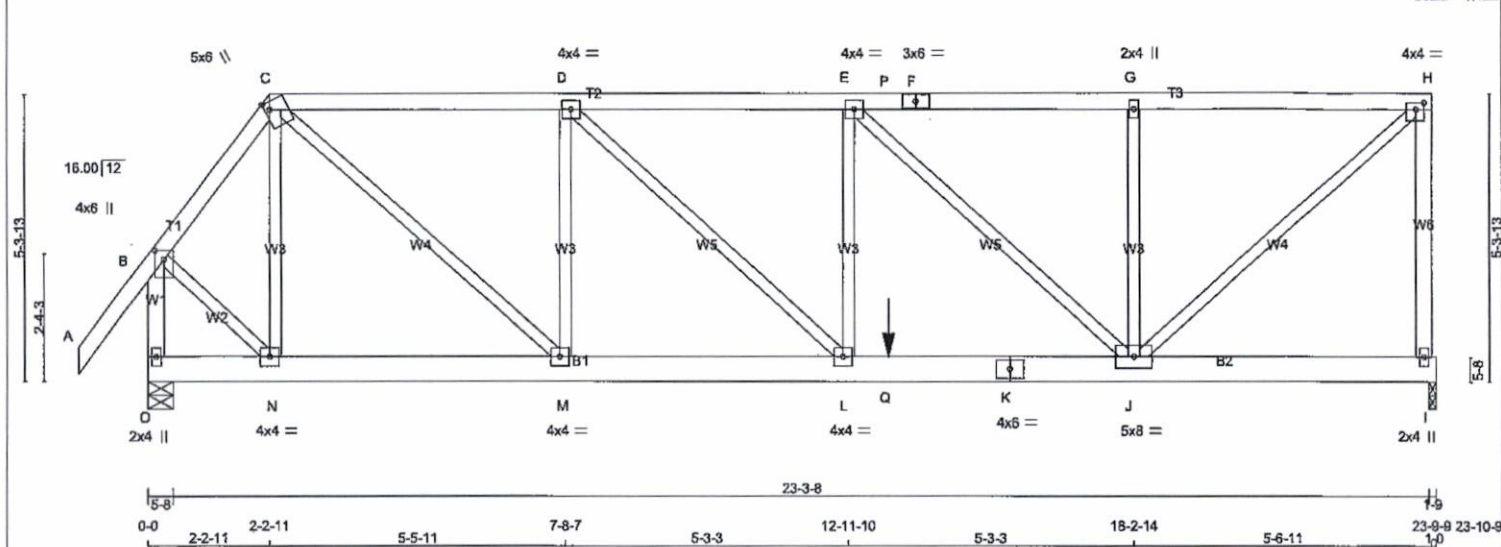
JSI METAL= 0.53 (K) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-p73XA6_x4wVsA14wsPo7m8XRH8uwEICDZCFmc1yK_Rc



LUMBER					
N. L. G. A. RULES					
CHORDS		SIZE	LUMBER		DESCR
A - C	2x4	DRY	No.2		SPF
C - F	2x4	DRY	No.2		SPF
F - H	2x4	DRY	No.2		SPF
I - H	2x4	DRY	No.2		SPF
O - B	2x4	DRY	No.2		SPF
O - K	2x6	DRY	No.2		SPF
K - I	2x6	DRY	No.2		SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD (PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A-C 1 12	TOP	TOP
C-F 1 12	SIDE(22.5)	SIDE(22.5)
F-H 1 12	SIDE(22.5)	SIDE(22.5)
H-I 1 12	TOP	TOP
O-B 1 12	TOP	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
O-K 2 12	SIDE(5.5)	SIDE(5.5)
K-I 2 12	SIDE(5.5)	SIDE(5.5)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3 1 6		

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
I	2103	0	2103	0	1-8	1-8
O	1788	0	1788	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM/LIVE			
I	1493	948 / 0	0 / 0	0 / 0	0 / 0	545 / 0	0 / 0
O	1267	817 / 0	0 / 0	0 / 0	0 / 0	449 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.31 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM TO	CSI (LC)		FR-TO				
A-B	0 / 48	-84.9 -84.9	0.07 (1)	10.00	N-C	-460 / 0	0.09 (1)		
B-C	-1239 / 0	-84.9 -84.9	0.05 (1)	6.25	B-N	0 / 944	0.12 (1)		
C-D	-2020 / 0	-84.9 -84.9	0.22 (1)	5.94	C-M	0 / 1736	0.21 (1)		
D-E	-2696 / 0	-84.9 -84.9	0.23 (1)	5.31	M-D	-1128 / 0	0.23 (1)		
E-P	-1975 / 0	-84.9 -84.9	0.34 (1)	5.80	D-L	0 / 927	0.11 (1)		
P-F	-1975 / 0	-129.9 -129.9	0.34 (1)	5.80	L-E	0 / 195	0.03 (4)		
F-G	-1975 / 0	-129.9 -129.9	0.34 (1)	5.80	E-J	-989 / 0	0.49 (1)		
G-H	-1975 / 0	-129.9 -129.9	0.34 (1)	5.80	J-G	-816 / 0	0.17 (1)		
H-I	-2044 / 0	0.0 0.0	0.47 (1)	7.72	J-H	0 / 2643	0.33 (1)		
O-B	-1803 / 0	0.0 0.0	0.12 (1)	7.81					
Q-N	0 / 0	-18.5 -18.5	0.03 (1)	10.00					
N-M	0 / 726	-18.5 -18.5	0.08 (1)	10.00					
M-L	0 / 2020	-18.5 -18.5	0.20 (1)	10.00					
L-Q	0 / 2596	-18.5 -18.5	0.30 (1)	10.00					
Q-K	0 / 2596	-28.3 -28.3	0.30 (1)	10.00					
K-J	0 / 2596	-28.3 -28.3	0.30 (1)	10.00					
J-I	0 / 0	-28.3 -28.3	0.06 (4)	10.00					

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	FACE	DIR.	TYPE	HEEL	CONN.
Q	13-8-9	-758	-758	MAX+	FRONT	VERT	TOTAL	C1

TOTAL WEIGHT = 2 X 121 = 242 lb

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 = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-2-11
RIGHT SETBACK = 0-0
END SETBACK = 4-1-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
ADDTL. LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 10-0 OF SPAN MEASURED FROM THE RIGHT.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.47/1.00 (H-I:1), BC=0.30/1.00 (J-L:1), WB=0.49/1.00 (E-J:1), SI=0.24/1.00 (J-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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



JOB NAME 314003	TRUSS NAME H1B	QUANTITY 2	PLY 2	JOB DESC. JT-39002	DRWG NO. E-19112632(2)
Alpa Roof Truss, Maple					
Version 8.300 S Aug 9 2019 MITek Industries, Inc. Tue Nov 12 08:09:25 2019 Page 2					
ID:MF8iiriaTok7DlbpT4B71Xys4PG-p73XA6 x4wVsA14wsPo7m8XRH8uwEICDZCFmc1yK Re					

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	TTVW+m	MT20	5.0	6.0	1.75	1.00
D	TMWW-t	MT20	4.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMW+w	MT20	2.0	4.0		
H	TMVW-t	MT20	4.0	4.0	1.50	1.75
I	BMV1+p	MT20	2.0	4.0		
J	BMWWW-t	MT20	5.0	8.0		
K	BS-t	MT20	4.0	6.0		
L, M, N						
L	BMWW-t	MT20	4.0	4.0		
O	BMV1+p	MT20	2.0	4.0		

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.43 (K) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H9		2	JT-39002	E-19112633(2)

Alpa Roof Truss, Maple

Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 09:15:48 2019 Page 2
ID:MF8iiriaTok7DlbpT4B71Xys4PG-6piKY3dAtclWdusXoL9pnuuwnXcCT1KbelXYZKyK Lt

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	6.0	7.0	Edge	1.50
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMVW-t	MT20	4.0	4.0		
G	TTWW+m	MT20	4.0	6.0	1.75	1.00
H	TMVW+p	MT20	4.0	6.0	2.00	2.00
I	BMV1+p	MT20	2.0	4.0		
J, K, N						
J	BMVW-t	MT20	4.0	4.0		
L	BS-t	MT20	4.0	6.0		
M	BMVWW-t	MT20	5.0	6.0		
O	BMV1+p	MT20	2.0	4.0		

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

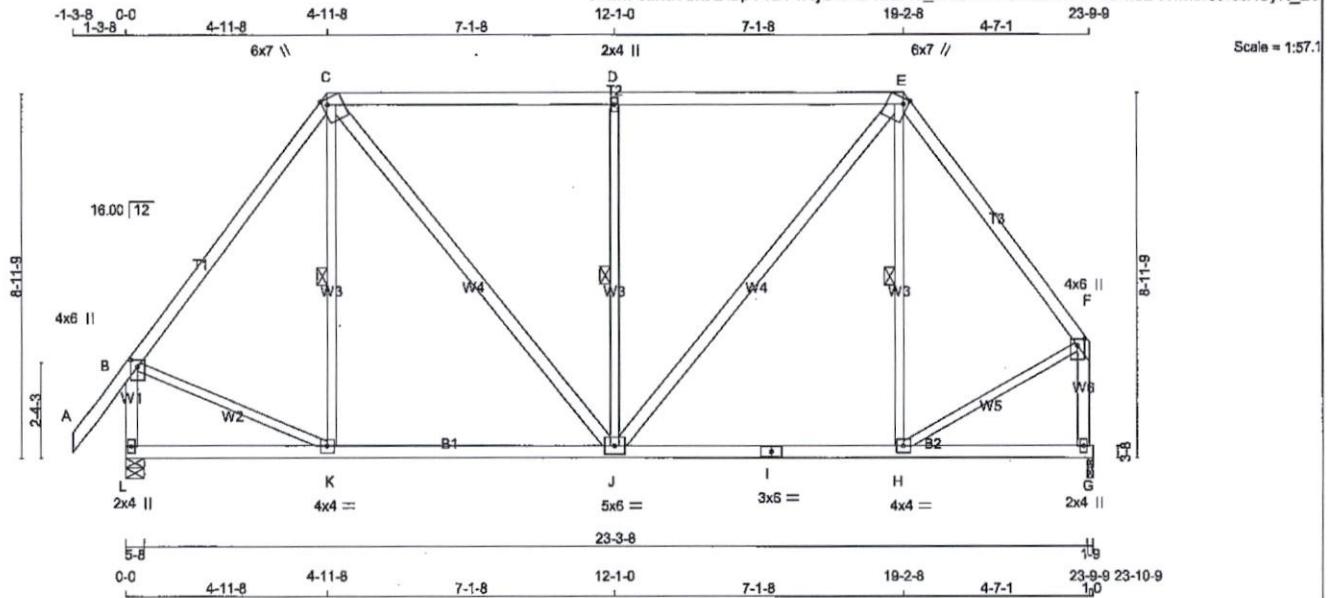


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H10		1	JT-39002	E-19112634

Alpa Roof Truss, Maple

Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 09:16:17 2019 Page 1

ID:MF8ilriaTok7DlbpT4B71Xys4PG-lOzHe_zM2WPPbLZ67xBcS0bm5DWIm6rsJI3a49yK_LC



TOTAL WEIGHT = 123 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 - F	2x4	DRY	No.2	SPF	
L - B	2x4	DRY	No.2	SPF	
G - F	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	
C - J	2x4	DRY	No.2	SPF	
J - E	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
L	1349	0	1349	0	5-8	2-0
G	1230	0	1230	0	1-9	1-8

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SO
L	956	620 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0
G	873	554 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE	VERT. LOAD	LC1 MAX	MAX.	MEMB.	FORCE	MAX
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A-B	0 / 48	-84.9	-84.9 0.12 (1)	10.00	K-C	-97 / 56	0.05 (1)
B-C	-954 / 0	-84.9	-84.9 0.44 (1)	5.80	C-J	0 / 541	0.09 (1)
C-D	-913 / 0	-84.9	-84.9 0.81 (1)	4.91	J-D	-740 / 0	0.39 (1)
D-E	-913 / 0	-84.9	-84.9 0.81 (1)	4.91	J-E	0 / 591	0.10 (1)
E-F	-902 / 0	-84.9	-84.9 0.36 (1)	6.02	H-E	-161 / 29	0.08 (1)
L-B	-1316 / 0	0.0	0.0 0.17 (1)	7.05	B-K	0 / 611	0.14 (1)
G-F	-1200 / 0	0.0	0.0 0.19 (1)	7.30	H-F	0 / 608	0.14 (1)
L-K	0 / 0	-18.5	-18.5 0.16 (4)	10.00			
K-J	0 / 569	-18.5	-18.5 0.24 (4)	10.00			
J-I	0 / 537	-18.5	-18.5 0.24 (4)	10.00			
I-H	0 / 537	-18.5	-18.5 0.24 (4)	10.00			
H-G	0 / 0	-18.5	-18.5 0.15 (4)	10.00			

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CSI: TC=0.81/1.00 (D-E:1), BC=0.24/1.00 (J-K:4), WB=0.39/1.00 (D-J:1), SSI=0.29/1.00 (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 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.77 (B) (INPUT = 0.90)
JSI METAL= 0.38 (B) (INPUT = 1.00)





JSI GRIP= 0.78 (D) (INPUT = 0.90)
JSI METAL= 0.38 (D) (INPUT = 1.00)

JOB NAME 314003	TRUSS NAME H11T	QUANTITY 1	PLY 1	JOBS DESC. JT-39002	DRWG NO. E-19112636
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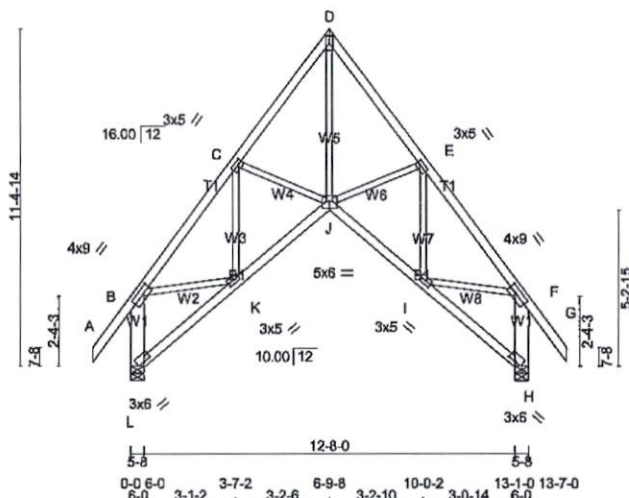
Alpa Roof Truss, Maple

Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 09:02:18 2019 Page 1

ID:MF8IiriaTok7DlbpT4B71Xys4PG-q_m6Y6q5dkiSRQxsMEdsy5LYK0BihizNNGJg8HyK_YJ

1-3-8 0-0
1-3-8 3-7-2 3-7-2 3-2-6 6-9-8 10-0-2 13-7-0 14-10-8
3x6 ||

Scale = 1:78.7



TOTAL WEIGHT = 2 X 81 = 161 lb

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-I	MT20	4.0	9.0	2.00 3.00
C	TMWW-I	MT20	3.0	5.0	1.50 1.50
D	TTW+p	MT20	3.0	6.0	
E	TMVW-I	MT20	3.0	5.0	1.50 1.50
F	TMVW-I	MT20	4.0	9.0	2.00 3.00
H	BVM1-I	MT20	3.0	6.0	0.25 3.00
I	BMWW-I	MT20	3.0	5.0	1.50 2.25
J	BBWWW-p	MT20	5.0	6.0	2.75 3.00
K	BMWW-I	MT20	3.0	5.0	1.50 2.25
L	BVM1-I	MT20	3.0	6.0	0.25 3.00

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT	REQRD			
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
L	822	0	822	0	0	5-8	5-8		
H	822	0	822	0	0	5-8	5-8		

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	581	382 / 0	0 / 0	0 / 0	0 / 0	199 / 0	0 / 0
H	581	382 / 0	0 / 0	0 / 0	0 / 0	199 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 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 CS1 (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)	
FR-TO		FROM TO				FR-TO			
A-B	0 / 48	-84.9 -84.9	0.12 (1)	10.00	J-D	0 / 908	0.20 (1)		
B-C	-778 / 0	-84.9 -84.9	0.13 (1)	6.25	B-K	0 / 490	0.11 (1)		
C-D	-722 / 0	-84.9 -84.9	0.13 (1)	6.25	K-C	-238 / 0	0.07 (1)		
D-E	-721 / 0	-84.9 -84.9	0.13 (1)	6.25	C-J	-72 / 0	0.02 (1)		
E-F	-777 / 0	-84.9 -84.9	0.13 (1)	6.25	I-F	0 / 489	0.11 (1)		
F-G	0 / 48	-84.9 -84.9	0.12 (1)	10.00	I-E	-239 / 0	0.07 (1)		
L-B	-794 / 0	0.0	0.0	0.08 (1)	J-E	-71 / 0	0.02 (1)		
H-F	-794 / 0	0.0	0.0	0.08 (1)					
L-K	0 / 5	-18.5 -18.5	0.06 (4)	10.00					
K-J	0 / 623	-18.5 -18.5	0.13 (1)	10.00					
J-I	0 / 622	-18.5 -18.5	0.13 (1)	10.00					
I-H	0 / 5	-18.5 -18.5	0.06 (4)	10.00					

DESIGN CRITERIA	
SPECIFIED LOADS:	
TOP CH. LL	= 23.3 PSF
DL	= 6.0 PSF
BOT CH. LL	= 0.0 PSF
DL	= 7.4 PSF
TOTAL LOAD	= 36.7 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.13/1.00 (B-C:1), BC=0.13/1.00 (J-K:1)
, WB=0.20/1.00 (D-J:1), SSI=0.09/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES				
PLATE	GRIP(DRY)	SHEAR	SECTION	
	(PSI)	(PLI)	(PLI)	
	MAX	MIN	MAX	MIN
MT20	818	354	1667	788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.68 (J) (INPUT = 0.90)
JSI METAL= 0.19 (D) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H11TG		1	TRUSS DESC.	JT-39002

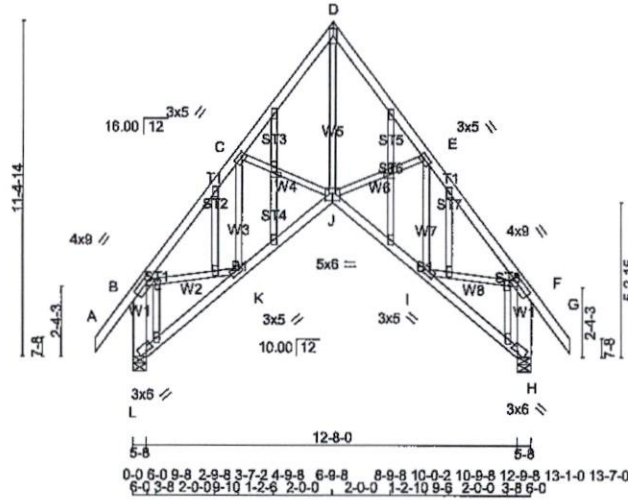
Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-P8ZYMgaYLaBH2LP0B1GA8tW7NyM47fDQn9TcQRyK_Yd

-1-3-8 0-0-9-8 2-9-8 3-7-2 4-9-8 6-9-8 8-9-8 10-0-2 10-9-8 12-9-8 13-7-0 14-10-8
1-3-8 0-0-9-8 2-0-0 9-10 1-2-6 2-0-0 2-0-0 1-2-10 9-8 2-0-0 9-8 1-3-8
3x6 ||

Scale = 1:78.7



TOTAL WEIGHT = 96 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
L - B	2x6	DRY	No.2	SPF
H - F	2x6	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT 2-0-0 O.C.				

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMVW-t	MT20	4.0	9.0 2.00 3.00
C	TMWW-t	MT20	3.0	5.0 1.50 1.50
D	TTW+p	MT20	3.0	6.0
E	TMVW-t	MT20	3.0	5.0 1.50 1.50
F	TMVW-t	MT20	4.0	9.0 2.00 3.00
H	BVM1-t	MT20	3.0	6.0 0.25 3.00
I	BMVW-t	MT20	3.0	5.0 1.50 2.25
K	BBVWW-p	MT20	5.0	6.0 2.75 3.00
L	BVM1-t	MT20	3.0	6.0 0.25 3.00
M	NP-p	MT20	2.0	4.0 1.00 1.50
M, N, O, P, Q, R, T, U, V, W, X, Y				
M	NP+w	MT20	2.0	4.0
S	NP+w	MT20	2.0	4.0 2.00 0.50
V	NP-p	MT20	2.0	4.0 1.00 1.50
Z	NP+w	MT20	2.0	4.0 2.00 0.50

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
L	822	0	822	0	0	5-8	5-8
H	822	0	822	0	0	5-8	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN.	COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	581	382 / 0	0 / 0	0 / 0	0 / 0	199 / 0	0 / 0
H	581	382 / 0	0 / 0	0 / 0	0 / 0	199 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 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		FACTORED		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO	FR-TO	
A-B	0 / 48	-84.9	-84.9 0.12 (1)	J-D	0 / 908
B-C	-778 / 0	-84.9	-84.9 0.13 (1)	B-K	0 / 490
C-D	-722 / 0	-84.9	-84.9 0.13 (1)	K-C	-238 / 0
D-E	-721 / 0	-84.9	-84.9 0.13 (1)	C-J	-72 / 0
E-F	-777 / 0	-84.9	-84.9 0.13 (1)	I-F	0 / 489
F-G	0 / 48	-84.9	-84.9 0.12 (1)	I-E	-239 / 0
L-B	-794 / 0	0.0	0.0 0.08 (1)	J-E	-71 / 0
H-F	-794 / 0	0.0	0.0 0.08 (1)		
L-K	0 / 5	-18.5	-18.5 0.06 (4)		
K-J	0 / 623	-18.5	-18.5 0.13 (1)		
J-I	0 / 622	-18.5	-18.5 0.13 (1)		
I-H	0 / 5	-18.5	-18.5 0.06 (4)		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	=	23.3	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.13/1.00 (B-C:1), BC=0.13/1.00 (J-K:1)
WB=0.20/1.00 (D-J:1), SS=0.09/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.68 (J) (INPUT = 0.90)

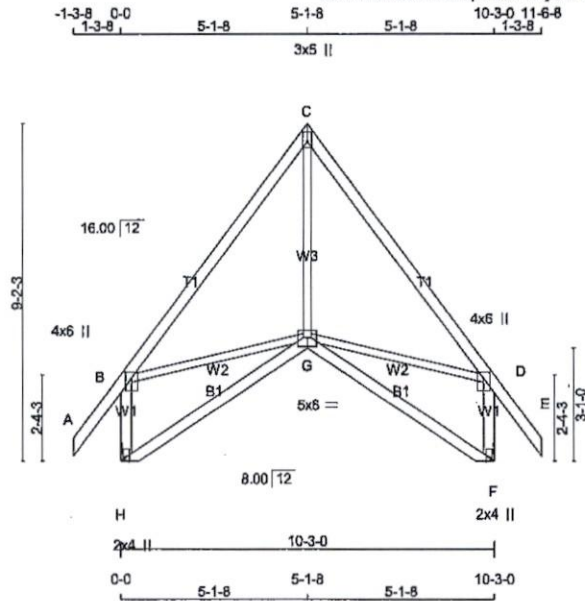
JSI METAL= 0.19 (D) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H12T		1	JT-39002	E-19112638

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-L4paam88lpAQHVeoqtRu1zAldsJ52XSwXUSJaLyK_L



Scale = 1:63.2

TOTAL WEIGHT = 2 X 57 = 113 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
H	649	0	649	0
F	649	0	649	0

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

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	459	304 / 0	0 / 0	0 / 0	0 / 0	154 / 0	0 / 0
F	459	304 / 0	0 / 0	0 / 0	0 / 0	154 / 0	0 / 0

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 48	-84.9 -84.9	0.12 (1)	10.00	G-C	0 / 202	0.05 (4)
B-C	-398 / 0	-84.9 -84.9	0.29 (1)	6.25	B-G	0 / 245	0.06 (1)
C-D	-398 / 0	-84.9 -84.9	0.29 (1)	6.25	G-D	0 / 245	0.06 (1)
D-E	0 / 48	-84.9 -84.9	0.12 (1)	10.00			
H-B	-602 / 0	0.0 0.0	0.08 (1)	7.81			
F-D	-602 / 0	0.0 0.0	0.08 (1)	7.81			
H-G	0 / 0	-18.5 -18.5	0.14 (4)	10.00			
G-F	0 / 0	-18.5 -18.5	0.14 (4)	10.00			

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	36.7	PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.34")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.01")
ALLOWABLE DEFL.(TL) = $L/360$ (0.34")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.04")

CSI: TC=0.29/1.00 (B-C:1), BC=0.14/1.00 (F-G:4), WB=0.08/1.00 (B-G:1), SSI=0.10/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.77 (H) (INPUT = 0.90)
JSI METAL= 0.29 (H) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H12TG		1	JT-39002	E-19112639

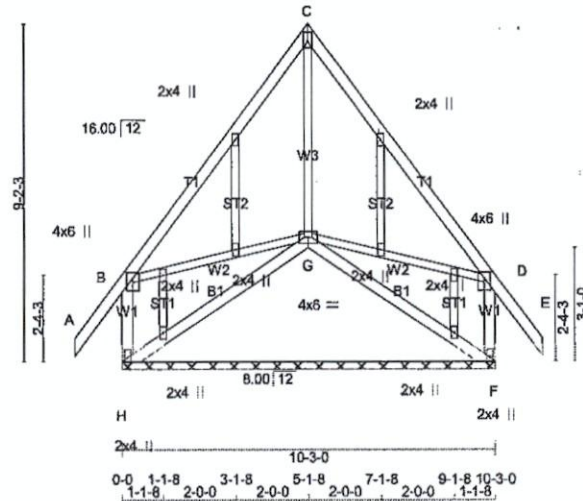
Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-XCzkuXH29BZs5B_wzh7Uzl88NI3g7TKY3hcOSCyK_Kp

-1-3-8 0-0 1-1-8 3-1-8 5-1-8 7-1-8 9-1-8 10-3-0 11-6-8
1-3-8 1-1-8 2-0-0 2-0-0 2-0-0 2-0-0 1-1-8 1-3-8
3x5 ||

Scale = 1:63.2



TOTAL WEIGHT = 65 lb

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

ALL GABLE WEBS 2x3 DRY No.2 SPF
DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMVW+p	MT20	4.0	6.0	2.00	2.00
C TTW+p	MT20	3.0	5.0	2.00	Edge
D TMVW+p	MT20	4.0	6.0	2.00	2.00
F BMV1+p	MT20	2.0	4.0	Edge	
G BBWW1+p	MT20	4.0	6.0		
H BMV1+p	MT20	2.0	4.0	Edge	
I, J, K, L, M, N, O, P					
I NP+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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
H	451	0	451	0
G	396	0	396	0
F	451	0	451	0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	317	222 / 0	0 / 0	0 / 0	0 / 0	95 / 0	0 / 0
G	284	165 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
F	317	222 / 0	0 / 0	0 / 0	0 / 0	95 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, G, 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)	MAX. FACTORED CS (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CS (LC)	
FR-TO				FR-TO			
A-B	0 / 48	-84.9	-84.9 0.12 (1)	10.00	G-C	-274 / 0	0.15 (1)
B-C	-100 / 0	-84.9	-84.9 0.38 (1)	6.25	B-G	0 / 62	0.01 (1)
C-D	-100 / 0	-84.9	-84.9 0.38 (1)	6.25	G-D	0 / 62	0.01 (1)
D-E	0 / 48	-84.9	-84.9 0.12 (1)	10.00			
H-B	-404 / 0	0.0	0.0 0.06 (1)	7.81			
F-D	-404 / 0	0.0	0.0 0.06 (1)	7.81			
H-G	0 / 0	-18.5	-18.5 0.14 (4)	10.00			
G-F	0 / 0	-18.5	-18.5 0.14 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	=	23.3	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.38/1.00 (B-C:1), BC=0.14/1.00 (F-G:4), WB=0.15/1.00 (C-G:1), SSI=0.10/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP (DRY)	SHEAR (PSI)	SECTION (PLI)
	(PLI)	(PLI)	(PLI)
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.52 (H) (INPUT = 0.90)
JSI METAL= 0.20 (H) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

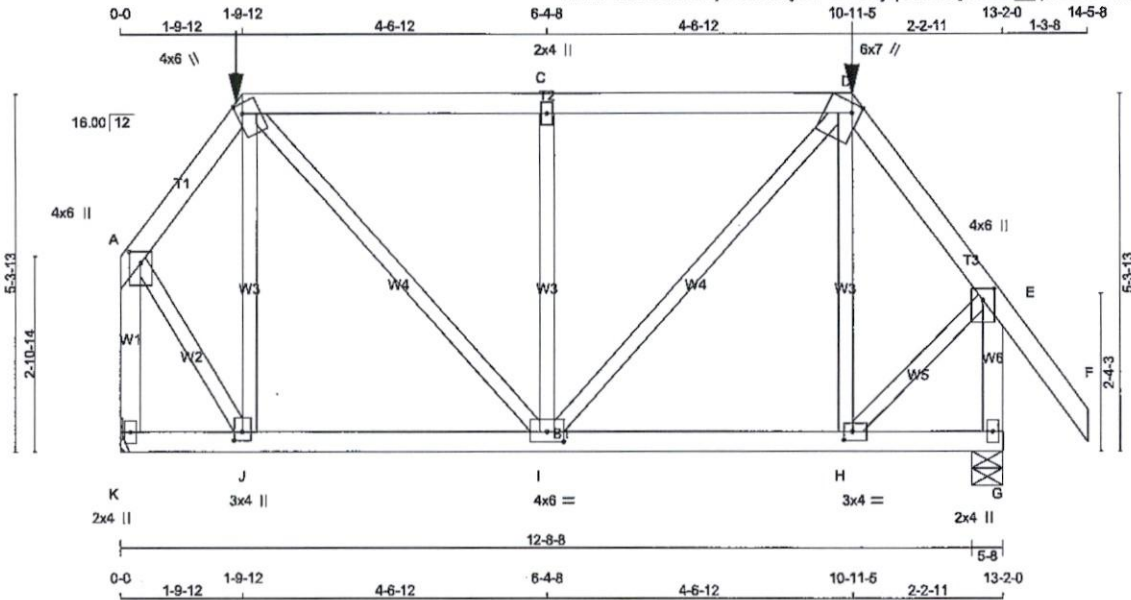


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H13		1	JT-39002	E-19112640

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-RJhyqGiJrzHyW2Eb_qMBcWGTRRBVZc8YQwVwyK_b2



TOTAL WEIGHT = 2 X 68 = 136 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00 2.00
B	TTWW+m	MT20	4.0	6.0	1.75 1.00
C	TMVW+w	MT20	2.0	4.0	
D	TTWW+m	MT20	6.0	7.0	Edge 1.50
E	TMVW+p	MT20	4.0	6.0	2.00 2.00
G	BMV1+p	MT20	2.0	4.0	
H	BMVW-t	MT20	3.0	4.0	1.50 1.50
I	BMVW-t	MT20	4.0	6.0	1.75 3.00
J	BMVW-t	MT20	3.0	4.0	1.50 1.50
K	BMV1+p	MT20	2.0	4.0	

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
K	1306	0	1306	0	0	0
G	1411	0	1411	0	5-8	2-1

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

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	928	585 / 0	0 / 0	0 / 0	0 / 0	343 / 0	0 / 0
G	1000	643 / 0	0 / 0	0 / 0	0 / 0	357 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.07 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A-B	-771 / 0	-84.9 -84.9	0.06 (1)	6.25	J-B	-456 / 0	0.20 (1)
B-C	-985 / 0	-157.1 -157.1	0.66 (1)	5.07	B-I	0 / 797	0.20 (1)
C-D	-985 / 0	-157.1 -157.1	0.66 (1)	5.07	I-C	-924 / 0	0.40 (1)
D-E	-902 / 0	-84.9 -84.9	0.09 (1)	6.25	I-D	0 / 675	0.17 (1)
E-F	0 / 48	-84.9 -84.9	0.13 (1)	10.00	H-D	-305 / 0	0.13 (1)
K-A	-1297 / 0	0.0 0.0	0.22 (1)	7.05	A-J	0 / 754	0.19 (1)
G-E	-1390 / 0	0.0 0.0	0.19 (1)	6.87	H-E	0 / 700	0.17 (1)
K-J	0 / 0	-36.4 -36.4	0.12 (4)	10.00			
J-I	0 / 447	-36.4 -36.4	0.21 (4)	10.00			
I-H	0 / 529	-36.4 -36.4	0.22 (4)	10.00			
H-G	0 / 0	-36.4 -36.4	0.12 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	FACE	DIR.	TYPE	HEEL	CONN.
B	1-9-12	-112	-112	FRONT	VERT	TOTAL	—	C1
D	10-11-5	-138	-138	FRONT	VERT	TOTAL	—	C1

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 1-9-12
RIGHT SETBACK = 2-2-11
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.44")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.44")
CALCULATED VERT. DEFL.(TL)= L/999 (0.04")

CSI: TC=0.66/1.00 (B-C:1), BC=0.22/1.00 (H-I:4), WB=0.40/1.00 (C-I:1), SSI=0.41/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 818 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (H) (INPUT = 0.90)
JSI METAL= 0.33 (E) (INPUT = 1.00)

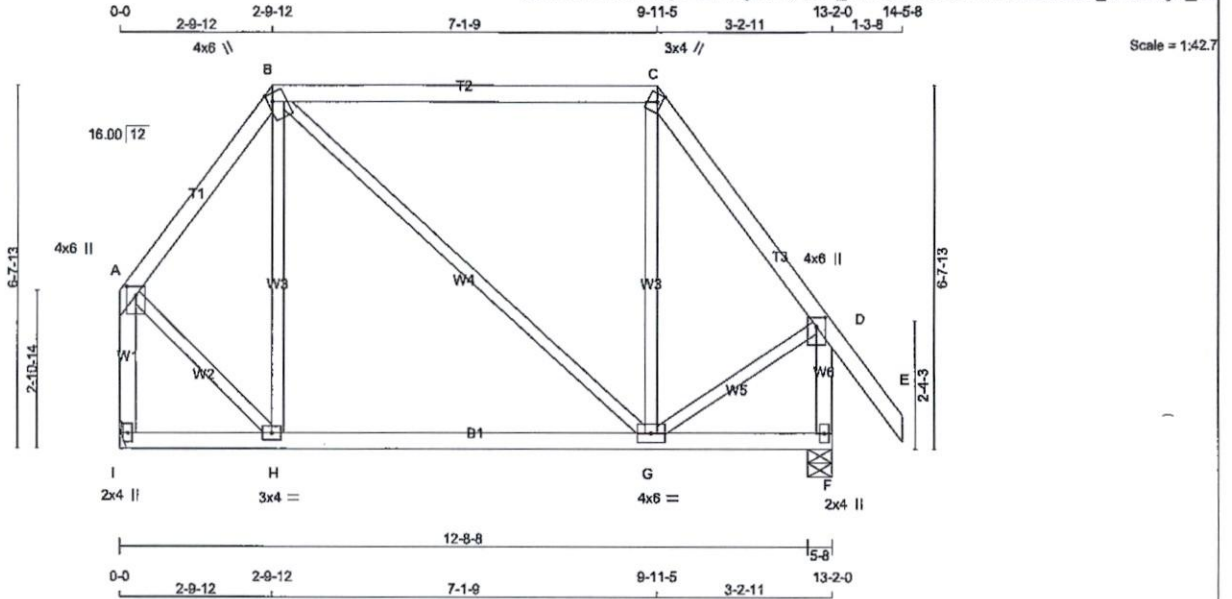
NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H14		1	TRUSS DESC.	JT-39002

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-DsA_V?oLyQf8vfm3f8ihtxthB23Cdo_oMLmSyK_aw



TOTAL WEIGHT = 2 X 66 = 132 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.00 2.00
B	TTWW+m	MT20	4.0	6.0	1.75 1.00
C	TTW+m	MT20	3.0	4.0	1.75 1.00
D	TMVW+p	MT20	4.0	6.0	2.00 2.00
F	BMV1+p	MT20	2.0	4.0	
G	BMWWW-I	MT20	4.0	6.0	
H	BMWW-I	MT20	3.0	4.0	
I	BMV1+p	MT20	2.0	4.0	

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
I	680	0	680	0
F	800	0	800	0

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

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	483	307 / 0	0 / 0	0 / 0	0 / 0	176 / 0	0 / 0
F	566	372 / 0	0 / 0	0 / 0	0 / 0	193 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-421 / 0	-84.9 -84.9	0.12 (1)	6.25	H-B	-105 / 41	0.08 (1)
B-C	-273 / 0	-84.9 -84.9	0.49 (1)	6.25	B-G	0 / 32	0.01 (1)
C-D	-460 / 0	-84.9 -84.9	0.16 (1)	6.25	G-C	-70 / 56	0.05 (1)
D-E	0 / 48	-84.9 -84.9	0.12 (1)	10.00	A-H	0 / 331	0.07 (1)
I-A	-674 / 0	0.0 0.0	0.11 (1)	7.81	G-D	0 / 318	0.07 (1)
F-D	-787 / 0	0.0 0.0	0.10 (1)	7.81			
I-H	0 / 0	-18.5 -18.5	0.14 (4)	10.00			
H-G	0 / 249	-18.5 -18.5	0.17 (4)	10.00			
G-F	0 / 0	-18.5 -18.5	0.14 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 36.7	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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, CBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.44")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.49/1.00 (B-C:1), BC=0.17/1.00 (G-H:4), WB=0.08/1.00 (B-H:1), SS=0.24/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE GRIP(DRY)	SHEAR	SECTION
(PSI)	(PL)	(PL)
MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

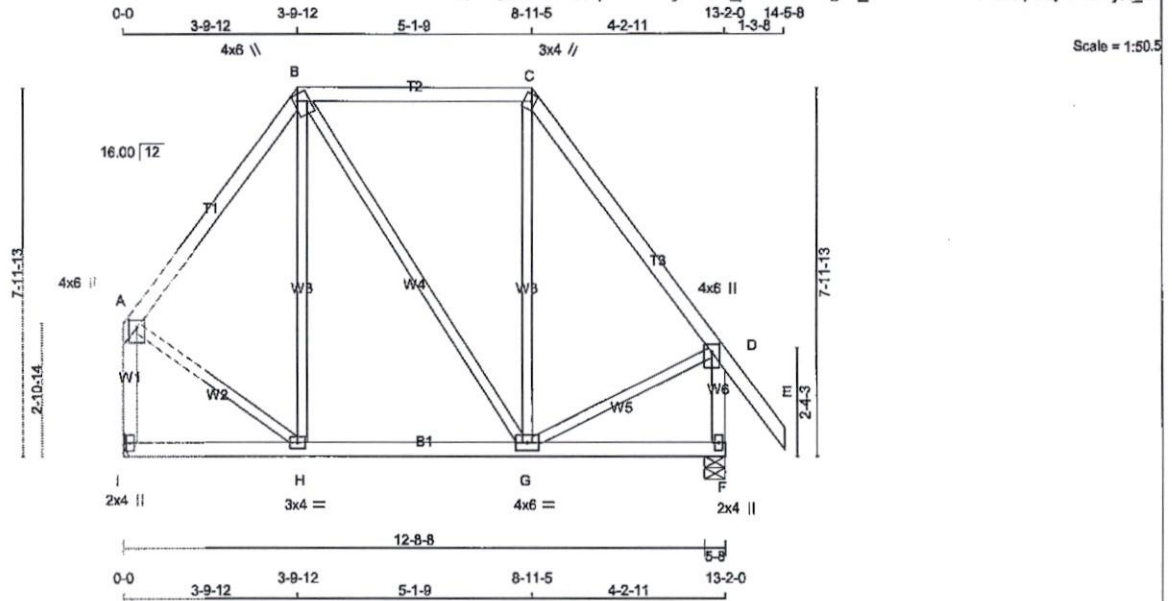
JSI GRIP = 0.53 (H) (INPUT = 0.90)
JSI METAL = 0.21 (D) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H15		1	TRUSS DESC.	JT-39002
Alpa Roof Truss, Maple					

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ID:MF8iinaTok7DlbpT4B71Xys4PG-_Of?AkuM4tg0s_HIXLHa0ZGL5wxkpUzp1lm2?yK_ac



TOTAL WEIGHT = 2 X 71 = 142 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 - E	2x4	DRY	No.2	SPF	
I - A	2x4	DRY	No.2	SPF	
F - D	2x4	DRY	No.2	SPF	
I - F	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	4.0	6.0	1.75	1.00
C	TTW+m	MT20	3.0	4.0	1.75	1.00
D	TMVW+p	MT20	4.0	6.0	2.00	2.00
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW-t	MT20	4.0	6.0		
H	BMVWW-t	MT20	3.0	4.0		
I	BMV1+p	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
I	680	0	680	0	5-8	1-8
F	800	0	800	0		

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

UNFACTORED REACTIONS

JT	COMBINED	MAX/MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	483	307 / 0	0 / 0	0 / 0	0 / 0	176 / 0	0 / 0
F	566	372 / 0	0 / 0	0 / 0	0 / 0	193 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX		MAX. UNBRAC LENGTH	MEMB.	WEBS MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
			CS1 (LC)	UNBRAC				
FR-TO		FROM	TO			FR-TO		
A-B	-414 / 0	-84.9	-84.9	0.16 (1)	6.25	H-B	-69 / 41	0.08 (1)
B-C	-261 / 0	-84.9	-84.9	0.29 (1)	6.25	B-G	0 / 27	0.01 (1)
C-D	-438 / 0	-84.9	-84.9	0.20 (1)	6.25	G-C	-46 / 54	0.06 (1)
D-E	0 / 48	-84.9	-84.9	0.12 (1)	10.00	A-H	0 / 284	0.07 (1)
I-A	-853 / 0	0.0	0.0	0.10 (1)	7.81	G-D	0 / 287	0.06 (1)
F-D	-769 / 0	0.0	0.0	0.10 (1)	7.81			
I-H	0 / 0	-18.5	-18.5	0.08 (4)	10.00			
H-G	0 / 246	-18.5	-18.5	0.12 (4)	10.00			
G-F	0 / 0	-18.5	-18.5	0.09 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(56 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.44")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.00")
ALLOWABLE DEFL.(TL) = $L/360$ (0.44")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.01")

CSI: TC=0.29/1.00 (B-C:1), BC=0.12/1.00 (G-H:4), WB=0.08/1.00 (B-H:1), SSI=0.17/1.00 (B-C:1)

DOE 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 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.45 (D) (INPUT = 0.80)
JSI METAL= 0.21 (D) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

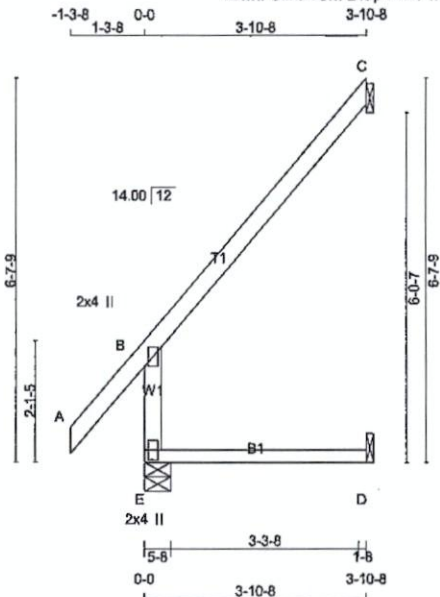


JOB NAME 314003	TRUSS NAME J2	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	DRWG NO. JT-39002	E-19112643
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Alpa Roof Truss, Maple

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ID:MF8liraTok7DlbpT4B71Xys4PG-P5RFglMNMSPTOoxuBQRGWJoSdWB7IXniXGvCkyK_R9



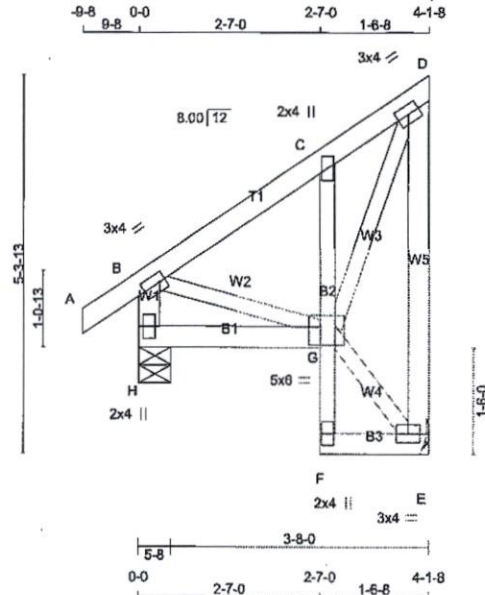
Scale = 1/40.1

TOTAL WEIGHT = 7 X 15 = 102 lb

LUMBER N. L. G. A. RULES <table border="1"> <tr> <th>CHORDS</th> <th>SIZE</th> <th>DRY</th> <th>LUMBER</th> <th>DESCR.</th> </tr> <tr> <td>E - B</td> <td>2x4</td> <td>DRY</td> <td>No.2</td> <td>SPF</td> </tr> <tr> <td>A - C</td> <td>2x4</td> <td>DRY</td> <td>No.2</td> <td>SPF</td> </tr> <tr> <td>E - D</td> <td>2x3</td> <td>DRY</td> <td>No.2</td> <td>SPF</td> </tr> </table> DRY: SEASONED LUMBER.	CHORDS	SIZE	DRY	LUMBER	DESCR.	E - B	2x4	DRY	No.2	SPF	A - C	2x4	DRY	No.2	SPF	E - D	2x3	DRY	No.2	SPF	DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table border="1"> <tr> <th rowspan="2">JT</th> <th colspan="2">FACTORED GROSS REACTION</th> <th colspan="2">MAXIMUM FACTORED GROSS REACTION</th> <th rowspan="2">INPUT BRG</th> <th rowspan="2">REQD BRG</th> </tr> <tr> <th>VERT</th> <th>HORZ</th> <th>DOWN</th> <th>HORZ</th> </tr> <tr> <td>E</td> <td>366</td> <td>0</td> <td>366</td> <td>0</td> <td>5-8</td> <td>1-8</td> </tr> <tr> <td>C</td> <td>123</td> <td>0</td> <td>123</td> <td>0</td> <td>1-8</td> <td>1-8</td> </tr> <tr> <td>D</td> <td>30</td> <td>0</td> <td>33</td> <td>0</td> <td>1-8</td> <td>1-8</td> </tr> </table>	JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG	VERT	HORZ	DOWN	HORZ	E	366	0	366	0	5-8	1-8	C	123	0	123	0	1-8	1-8	D	30	0	33	0	1-8	1-8	DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 36.7 PSF							
CHORDS	SIZE	DRY	LUMBER	DESCR.																																																									
E - B	2x4	DRY	No.2	SPF																																																									
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E	366	0	366	0	5-8	1-8																																																							
C	123	0	123	0	1-8	1-8																																																							
D	30	0	33	0	1-8	1-8																																																							
PLATES (table is in inches) <table border="1"> <tr> <th>JT</th> <th>TYPE</th> <th>PLATES</th> <th>W</th> <th>LEN</th> <th>Y</th> <th>X</th> </tr> <tr> <td>B</td> <td>TMV+p</td> <td>MT20</td> <td>2.0</td> <td>4.0</td> <td></td> <td></td> </tr> <tr> <td>E</td> <td>BMV1+p</td> <td>MT20</td> <td>2.0</td> <td>4.0</td> <td></td> <td></td> </tr> </table>	JT	TYPE	PLATES	W	LEN	Y	X	B	TMV+p	MT20	2.0	4.0			E	BMV1+p	MT20	2.0	4.0			SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D UNFACTORED REACTIONS <table border="1"> <tr> <th rowspan="2">JT</th> <th colspan="2">1ST LCASE</th> <th colspan="4">MAX./MIN. COMPONENT REACTIONS</th> </tr> <tr> <th>COMBINED</th> <th>SNOW</th> <th>LIVE</th> <th>PERM.LIVE</th> <th>WIND</th> <th>DEAD</th> <th>SOIL</th> </tr> <tr> <td>E</td> <td>257</td> <td>178 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>79 / 0</td> <td>0 / 0</td> </tr> <tr> <td>C</td> <td>85</td> <td>68 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>17 / 0</td> <td>0 / 0</td> </tr> <tr> <td>D</td> <td>24</td> <td>0 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>24 / 0</td> <td>0 / 0</td> </tr> </table>	JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS				COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	E	257	178 / 0	0 / 0	0 / 0	0 / 0	79 / 0	0 / 0	C	85	68 / 0	0 / 0	0 / 0	0 / 0	17 / 0	0 / 0	D	24	0 / 0	0 / 0	0 / 0	0 / 0	24 / 0	0 / 0	SPACING = 24.0 IN. C/C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF BCBC 2018, OBC 2012, ABC 2018 - CSA 086-09, CSA 086-14 - TPIC 2011, TPIC 2014
JT	TYPE	PLATES	W	LEN	Y	X																																																							
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E	BMV1+p	MT20	2.0	4.0																																																									
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	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL																																																						
E	257	178 / 0	0 / 0	0 / 0	0 / 0	79 / 0	0 / 0																																																						
C	85	68 / 0	0 / 0	0 / 0	0 / 0	17 / 0	0 / 0																																																						
D	24	0 / 0	0 / 0	0 / 0	0 / 0	24 / 0	0 / 0																																																						
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.	BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.	DESIGN ASSUMPTIONS - OVERHANG NOT TO BE ALTERED OR CUT OFF. (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD																																																											
LOADING TOTAL LOAD CASES: (5) <table border="1"> <tr> <th rowspan="2">MEMB.</th> <th colspan="2">CHORDS</th> <th colspan="2">WEBS</th> </tr> <tr> <th>MAX. FACTORED FORCE (LBS)</th> <th>FACTORED VERT. LOAD LC1 (PLF)</th> <th>MAX. UNBRACED LENGTH FR-TO</th> <th>MAX. FACTORED FORCE (LBS)</th> </tr> <tr> <td>E-B</td> <td>-324 / 0</td> <td>0.0</td> <td>0.0 (4)</td> <td>7.81</td> </tr> <tr> <td>A-B</td> <td>0 / 45</td> <td>-84.9</td> <td>0.14 (5)</td> <td>10.00</td> </tr> <tr> <td>B-C</td> <td>-31 / 0</td> <td>-84.9</td> <td>0.22 (1)</td> <td>6.25</td> </tr> <tr> <td>E-D</td> <td>0 / 0</td> <td>-18.5</td> <td>0.11 (4)</td> <td>10.00</td> </tr> </table>	MEMB.	CHORDS		WEBS		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. UNBRACED LENGTH FR-TO	MAX. FACTORED FORCE (LBS)	E-B	-324 / 0	0.0	0.0 (4)	7.81	A-B	0 / 45	-84.9	0.14 (5)	10.00	B-C	-31 / 0	-84.9	0.22 (1)	6.25	E-D	0 / 0	-18.5	0.11 (4)	10.00	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.	ALLOWABLE DEFL.(LL) = L/360 (0.19") CALCULATED VERT. DEFL.(LL) = L/999 (0.00") ALLOWABLE DEFL.(TL) = L/360 (0.19") CALCULATED VERT. DEFL.(TL) = L/999 (0.02") CSI: TC=0.22/1.00 (B-C:1), BC=0.11/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.10/1.00 (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																														
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	J3T		1	TRUSS DESC.	JT-39002
Alpa Roof Truss, Maple					E-19112644

Version 8.300 8 Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 09:04:40 2019 Page 1
ID:MF8iiriaTok7DlbpT4B71Xys4PG-fiLoMfY9BMbIUEn9g3AAi2Eq7FgMyzSG1MJ872yK_W5



Scale = 1:32.7

TOTAL WEIGHT = 6 X 27 = 161 lb

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

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

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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
JT	287	0	287	0	5-8	1-8
H	287	0	287	0	MECHANICAL	
E	213	0	213	0		

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

UNFACTORED REACTIONS

	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS				DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND				
JT	202	137 / 0	0 / 0	0 / 0	0 / 0	66 / 0	0 / 0	0 / 0
H	151	96 / 0	0 / 0	0 / 0	0 / 0	55 / 0	0 / 0	0 / 0
E								

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD LC1 (PLF)		MAX. UNBRACED LENGTH	WEBS MAX. FACTORED FORCE (LBS)		MAX. CSI (LC)
	FR-TO	FROM	TO	CSi (LC)		FR-TO	FROM	
H-B	-262 / 0	0.0	0.0	0.03 (1)	7.81	B-G	0 / 104	0.02 (1)
A-B	0 / 21	-84.9	-84.9	0.05 (1)	10.00	G-E	-4 / 0	0.00 (1)
B-C	-111 / 0	-84.9	-84.9	0.06 (1)	6.25	G-D	0 / 240	0.05 (1)
C-D	-126 / 0	-84.9	-84.9	0.05 (1)	6.25			
E-D	-197 / 0	0.0	0.0	0.09 (1)	7.81			
H-G	0 / 0	-18.5	-18.5	0.04 (4)	10.00			
F-G	0 / 15	0.0	0.0	0.01 (1)	10.00			
G-C	-215 / 0	0.0	0.0	0.01 (1)	7.81			
F-E	0 / 3	-18.5	-18.5	0.01 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	=	23.3	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2018
- CSA 086-08, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 6.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.09/1.00 (D-E:1), BC=0.04/1.00 (G-H:4), WB=0.05/1.00 (D-G:1), SSI=0.08/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.53 (D) (INPUT = 0.90)
JSI METAL= 0.11 (C) (INPUT = 1.00)

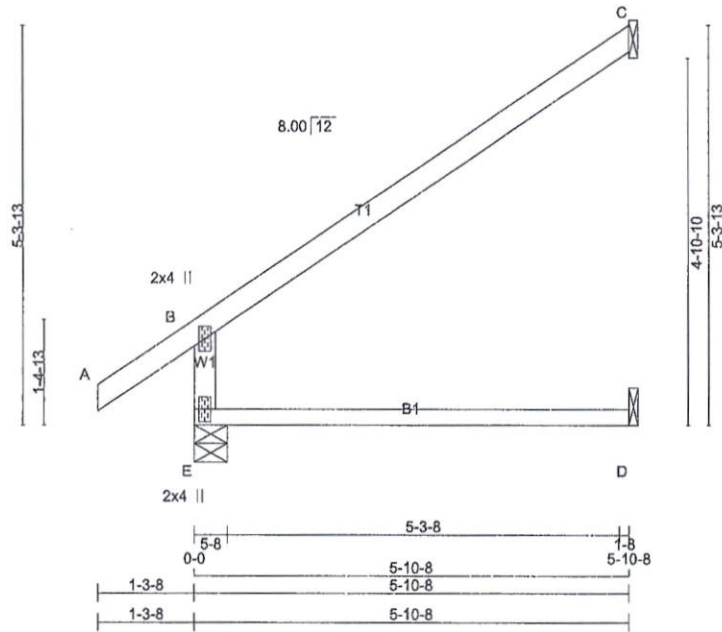
NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



JOB NAME 310385	TRUSS NAME J1	QUANTITY 1	PLY 1	JOB DESC. JT-39002	DRWG NO. E-19072240
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Alpa Roof Truss, Maple

Version 8.300 S May 10 2019 MITek Industries, Inc. Wed Jul 10 10:24:38 2019 Page 1
ID:MF8llriaTok7DlbpT4B71Xys4PG-?PM6jlcxWAL?Kwbuel7hpk67VBo4mqNngkWoHtyzW1N
Scale = 1:31.2



TOTAL WEIGHT = 24 X 16 = 384 lb

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

DRY: SEASONED LUMBER.

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

NOTES- (1)

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
	VERT	HORZ	DOWN	HORZ		
E	494	0	494	0	5-8	1-8
C	187	0	187	0	1-8	1-8
D	43	0	48	0	1-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	348	235 / 0	0 / 0	0 / 0	0 / 0	113 / 0	0 / 0
C	129	103 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0
D	34	0 / 0	0 / 0	0 / 0	0 / 0	34 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 MAX (PLF)				MAX. UNBRAC LENGTH FR-TO	MEMB.	WEBS MAX. FACTORED FORCE (LBS)	
		FROM	TO	CSI (LC)	MAX			FORCE	MAX
E-B	-428 / 0	0.0	0.0	0.16 (4)	7.81				
A-B	0 / 32	-84.9	-84.9	0.11 (1)	10.00				
B-C	-35 / 0	-84.9	-84.9	0.50 (1)	6.25				
E-D	0 / 0	-18.5	-18.5	0.30 (4)	10.00				

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3 PSF
DL = 6.0 PSF	
BOT CH.	LL = 0.0 PSF
DL = 7.4 PSF	
TOTAL LOAD	= 36.7 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/932 (0.08")

CSI: TC=0.50/1.00 (B-C:1), BC=0.30/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), 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)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	788	1987	1656

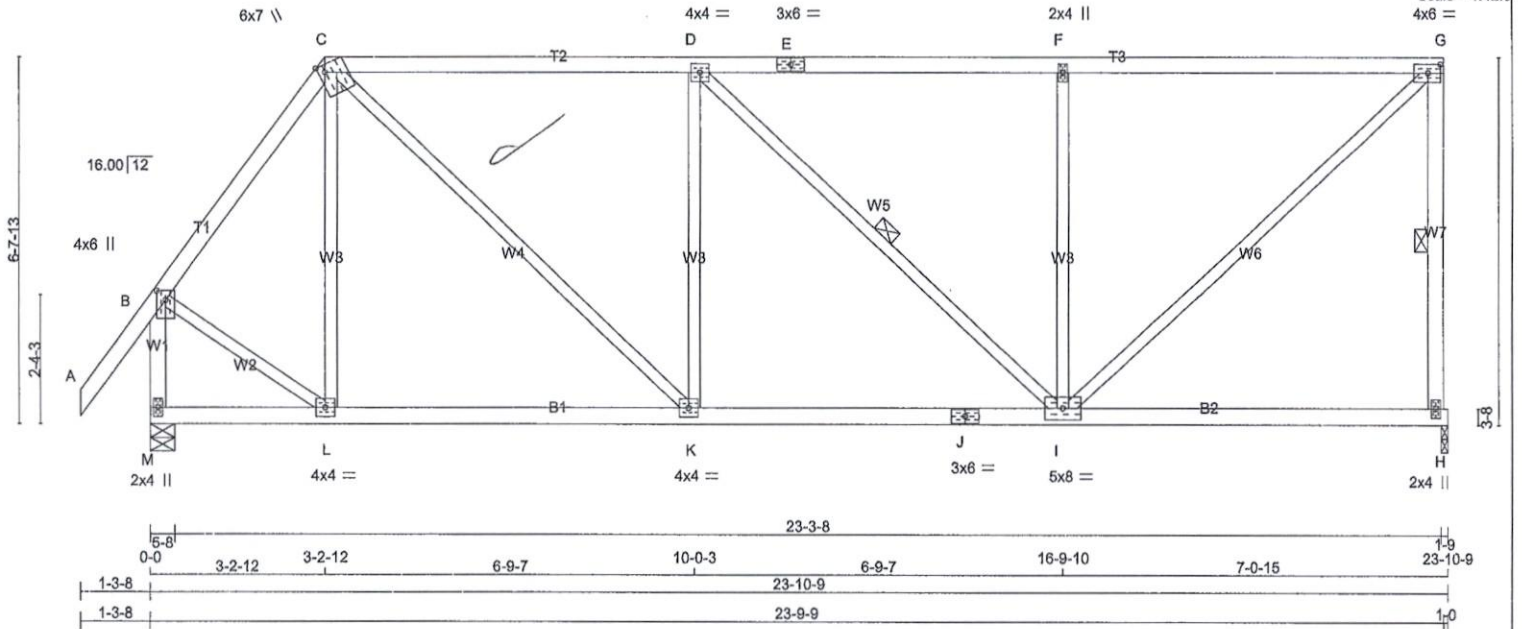
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.28 (B) (INPUT = 0.90)
JSI METAL= 0.22 (B) (INPUT = 1.00)

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-e2ZuxW2i4I79dbQKcarioVJ7onETOmPJ9KaUh2yzTDL
Scale = 1:42.6



TOTAL WEIGHT = 4 X 108 = 434 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
H - G	2x4	DRY	No.2
M - B	2x4	DRY	No.2
M - J	2x4	DRY	No.2
J - H	2x4	DRY	No.2

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT
DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	4.0	6.0	2.00 2.00
C	TTWW+m	MT20	6.0	7.0	Edge 1.50
D	TMVW-t	MT20	4.0	4.0	
E	TS-t	MT20	3.0	6.0	
F	TMVW+w	MT20	2.0	4.0	
G	TMVW-t	MT20	4.0	6.0	2.00 2.75
H	BMV1+p	MT20	2.0	4.0	
I	BMVWW-t	MT20	5.0	8.0	
J	BS-t	MT20	3.0	6.0	
K	BMVW-t	MT20	4.0	4.0	
L	BMVW-t	MT20	4.0	4.0	
M	BMV1+p	MT20	2.0	4.0	

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

NOTES: (1)

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

BEARINGS		FACTORED	MAXIMUM FACTORED	INPUT	REQ'D
		GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
H	1230	0	1230	0	1-9
M	1349	0	1349	0	5-8

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	873	554 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0 / 0
M	956	620 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.99 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-H, D-I.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 48	-84.9 -84.9	0.12 (1)	L-C	-219 / 0	0.16 (1)	
B-C	-935 / 0	-84.9 -84.9	0.17 (1)	C-K	0 / 871	0.20 (1)	
C-D	-1191 / 0	-84.9 -84.9	0.61 (1)	K-D	-471 / 0	0.34 (1)	
D-E	-1031 / 0	-84.9 -84.9	0.62 (1)	D-I	-219 / 0	0.13 (1)	
E-F	-1031 / 0	-84.9 -84.9	0.62 (1)	I-F	-645 / 0	0.47 (1)	
F-G	-1031 / 0	-84.9 -84.9	0.63 (1)	I-G	0 / 1393	0.31 (1)	
H-G	-1177 / 0	0.0 0.0	0.24 (1)	B-L	0 / 646	0.15 (1)	
M-B	-1338 / 0	0.0 0.0	0.17 (1)				
M-L	0 / 0	-18.5 -18.5	0.13 (4)				
L-K	0 / 554	-18.5 -18.5	0.21 (4)				
K-J	0 / 1191	-18.5 -18.5	0.32 (4)				
J-I	0 / 1191	-18.5 -18.5	0.32 (4)				
I-H	0 / 0	-18.5 -18.5	0.21 (4)				

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
	DL =	6.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.4	PSF
TOTAL LOAD	=	36.7	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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.10")

CSI: TC=0.63/1.00 (F-G:1), BC=0.32/1.00 (I-K:4), WB=0.47/1.00 (F-I:1), SS=0.28/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

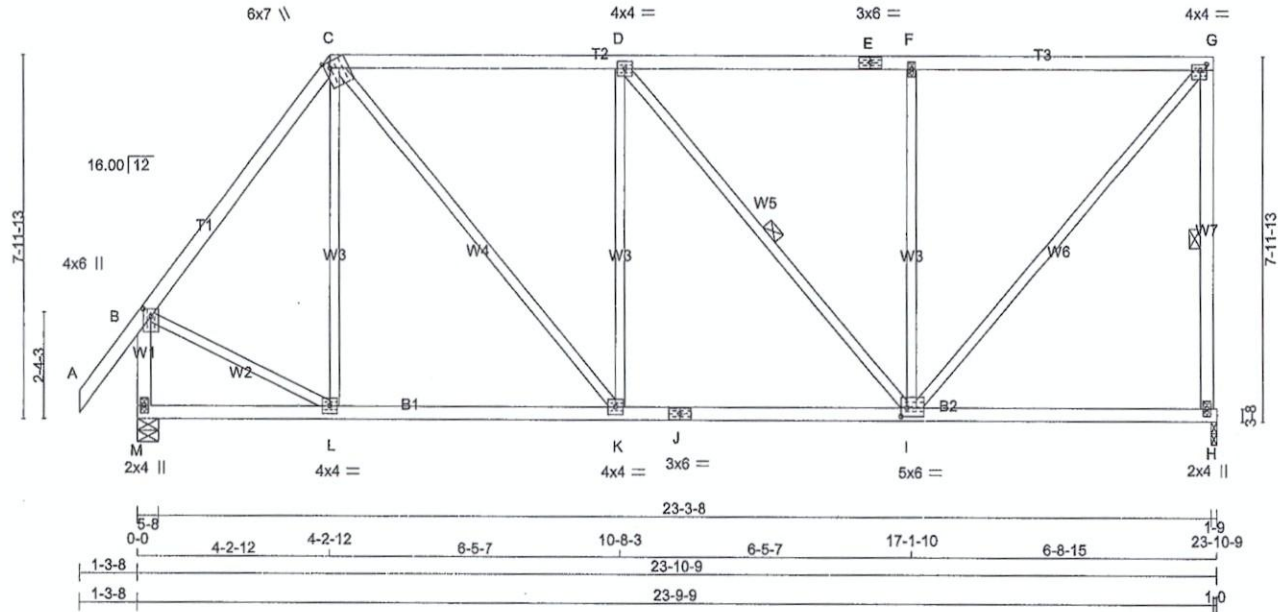
JSI GRIP= 0.89 (G) (INPUT = 0.90)
JSI METAL= 0.36 (B) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310386	H3	1	1	TRUSS DESC.	JT-39002

Alpa Roof Truss, Maple

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ID:MF8IiriaTok7DlbpT4B71Xys4PG-6E7G8s3wrc70F7?WAlMtkIsJrBaH79OsO_K1DUyzTDK
2x4 ||
Scale = 1:51.4



TOTAL WEIGHT = 4 X 116 = 466 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	
H - B	2x4	DRY	No.2	SPF	
M - G	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT
DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	6.0	7.0	Edge	1.50
D	TMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMW+w	MT20	2.0	4.0		
G	TMVW-t	MT20	4.0	4.0	1.50	1.75
H	BMV1+p	MT20	2.0	4.0		
I	BMVWW-t	MT20	5.0	6.0	2.25	1.50
J	BS-t	MT20	3.0	6.0		
K	BMVW-t	MT20	4.0	4.0		
L	BMVW-t	MT20	4.0	4.0		
M	BMV1+p	MT20	2.0	4.0		

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

NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX		
H	1230	0		1230	0	0	1-9	1-8	
M	1349	0		1349	0	0	5-8	2-0	

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
H	873	554 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0 / 0	
M	956	620 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0 / 0	

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.48 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-H, D-I.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 48	-84.9 -84.9	0.12 (1)	L-C	-146 / 28	0.18 (1)	
B-C	-954 / 0	-84.9 -84.9	0.30 (1)	C-K	0 / 660	0.15 (1)	
C-D	-993 / 0	-84.9 -84.9	0.53 (1)	K-D	-389 / 0	0.47 (1)	
D-E	-824 / 0	-84.9 -84.9	0.54 (1)	D-I	-264 / 0	0.19 (1)	
E-F	-824 / 0	-84.9 -84.9	0.54 (1)	I-F	-613 / 0	0.74 (1)	
F-G	-824 / 0	-84.9 -84.9	0.54 (1)	I-G	0 / 1258	0.28 (1)	
H-G	-1180 / 0	0.0 0.0	0.34 (1)	B-L	0 / 625	0.14 (1)	
M-B	-1322 / 0	0.0 0.0	0.17 (1)				
M-L	0 / 0	-18.5 -18.5	0.13 (4)				
L-K	0 / 667	-18.5 -18.5	0.19 (4)				
K-J	0 / 993	-18.5 -18.5	0.28 (4)				
J-I	0 / 993	-18.5 -18.5	0.28 (4)				
I-H	0 / 0	-18.5 -18.5	0.19 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.54/1.00 (F-G:1), BC=0.28/1.00 (I-K:4), WB=0.74/1.00 (F-I:1), SS=0.28/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

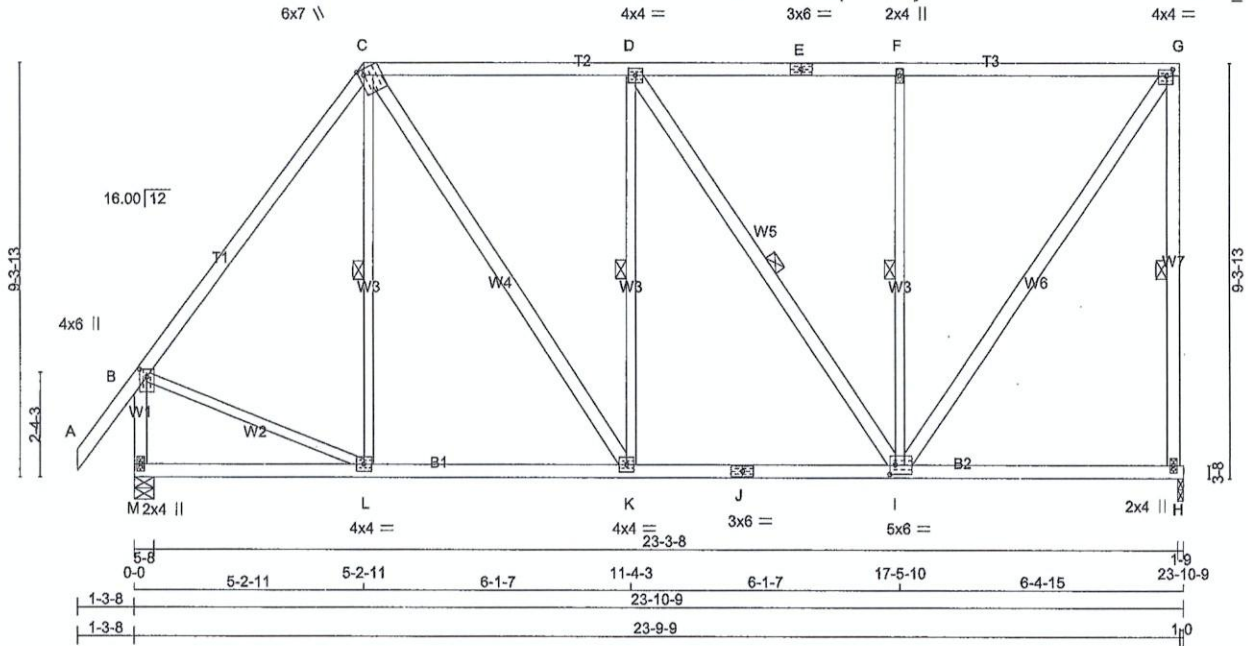
JSI GRIP= 0.88 (I) (INPUT = 0.90)
JSI METAL= 0.37 (B) (INPUT = 1.00)



JOB NAME 310386	TRUSS NAME H4	QUANTITY 1	PLY 1	JOB DESC. JT-39002	DRWG NO. E-19072249
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Alpa Roof Truss, Maple

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ID:MF8llriaTok7DlbpT4B71Xys4PG-aRhflC4YcwFtsvaik?6twOVNBx_si30ce3blwyztDJ
Scale = 1:52.7



TOTAL WEIGHT = 4 X 135 = 541 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	
H - G	2x4	DRY	No.2	SPF	
M - B	2x4	DRY	No.2	SPF	
M - J	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
C - K	2x4	DRY	No.2	SPF	
D - I	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMVW+p	MT20	4.0	6.0	2.00	2.00
C TTWW+m	MT20	6.0	7.0	Edge	1.50
D TMWW-t	MT20	4.0	4.0		
E TS-t	MT20	3.0	6.0		
F TMW+w	MT20	2.0	4.0		
G TMW-t	MT20	4.0	4.0	1.75	1.75
H BMV1+p	MT20	2.0	4.0		
I BMWWW-t	MT20	5.0	6.0	2.50	1.50
J BS-t	MT20	3.0	6.0		
K BMWW-t	MT20	4.0	4.0		
L BMWW-t	MT20	4.0	4.0		
M BMV1+p	MT20	2.0	4.0		

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

NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
H	1230	0	1230	0
M	1349	0	1349	0

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	873	554 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0 / 0
M	956	620 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.74 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	W E B S	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	CSF (LC)	MEMB. FORCE (LBS)
FR-TO		FROM TO	LENGTH	FR-TO
A-B	0 / 48	-84.9 -84.9	0.12 (1)	10.00
B-C	-949 / 0	-84.9 -84.9	0.49 (1)	5.74
C-D	-848 / 0	-84.9 -84.9	0.46 (1)	5.93
D-E	-677 / 0	-84.9 -84.9	0.47 (1)	6.25
E-F	-677 / 0	-84.9 -84.9	0.47 (1)	6.25
F-G	-677 / 0	-84.9 -84.9	0.48 (1)	6.25
H-G	-1182 / 0	0.0 0.0	0.48 (1)	5.87
M-B	-1311 / 0	0.0 0.0	0.17 (1)	7.06
M-L	0 / 0	-18.5 -18.5	0.14 (4)	10.00
L-K	0 / 566	-18.5 -18.5	0.19 (4)	10.00
K-J	0 / 849	-18.5 -18.5	0.25 (4)	10.00
J-I	0 / 849	-18.5 -18.5	0.25 (4)	10.00
I-H	0 / 0	-18.5 -18.5	0.18 (4)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
DL = 6.0	PSF	
BOT CH.	LL = 0.0	PSF
DL = 7.4	PSF	
TOTAL LOAD = 36.7	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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CSI: TC=0.49/1.00 (B-C:1), BC=0.25/1.00 (I-K:4), WB=0.33/1.00 (F-I:1), SS=0.25/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES	PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

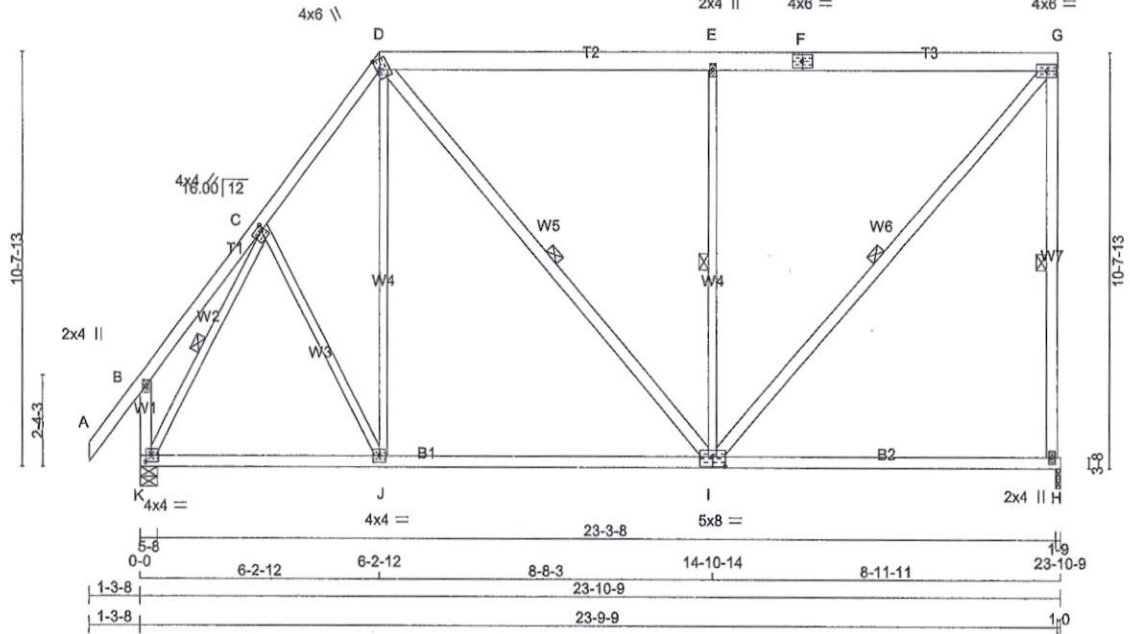
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.38 (B) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310386	H5	1	1	TRUSS DESC.	JT-39002
Alpa Roof Truss, Maple					E-19072250

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ID:MF8lliaTok7DlbpT4B71Xys4PG-AO2NspS_IR9T4gSg20xNdSBmQ4TTdsalz4kKdyzTCg
2x4 || 4x6 == 4x6 ==
Scale = 1:60.1



TOTAL WEIGHT = 4 X 143 = 574 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMVW-t	MT20	4.0	4.0	1.50	1.00
D	TTWW+m	MT20	4.0	6.0	3.00	1.00
E	TMVW+w	MT20	2.0	4.0		
F	TS-t	MT20	4.0	6.0		
G	TMVW-t	MT20	4.0	6.0		
H	BMV1+p	MT20	2.0	4.0		
I	BSVWW-t	MT20	5.0	8.0	3.00	4.00
J	BMVW-t	MT20	4.0	4.0		
K	BMVW-t	MT20	4.0	4.0	2.00	1.75

NOTES: (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
H	1230	0	1230	0
K	1349	0	1349	0

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	873	564 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0 / 0
K	958	620 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.18 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED UNBRAC LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRAC LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 48	-84.9 -84.9	0.12 (1) 10.00	C-J	0 / 41	0.01 (4)	
B-C	0 / 23	-84.9 -84.9	0.13 (1) 10.00	J-D	0 / 160	0.06 (4)	
C-D	-962 / 0	-84.9 -84.9	0.14 (1) 6.18	D-I	0 / 277	0.04 (1)	
D-E	-743 / 0	-84.9 -84.9	0.55 (1) 6.25	E-I	-924 / 0	0.71 (1)	
E-F	-743 / 0	-84.9 -84.9	0.55 (1) 6.25	I-G	0 / 1136	0.18 (1)	
F-G	-743 / 0	-84.9 -84.9	0.55 (1) 6.25	K-C	-1224 / 0	0.38 (1)	
H-G	-1148 / 0	0.0 0.0	0.63 (1) 5.94				
K-B	-219 / 0	0.0 0.0	0.03 (1) 7.81				

K-J	0 / 553	-18.5	-18.5 0.36 (4)	10.00
J-I	0 / 564	-18.5	-18.5 0.37 (4)	10.00
I-H	0 / 0	-18.5	-18.5 0.43 (4)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	= 23.3	PSF
	DL	= 6.0	PSF
BOT CH.	LL	= 0.0	PSF
	DL	= 7.4	PSF
TOTAL LOAD		= 36.7	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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/930 (0.31")

CSI: TC=0.63/1.00 (G-H:1), BC=0.43/1.00 (H-I:4), WB=0.71/1.00 (E-I:1), SSI=0.28/1.00 (E-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (K) (INPUT = 0.90)
JSI METAL= 0.45 (C) (INPUT = 1.00)

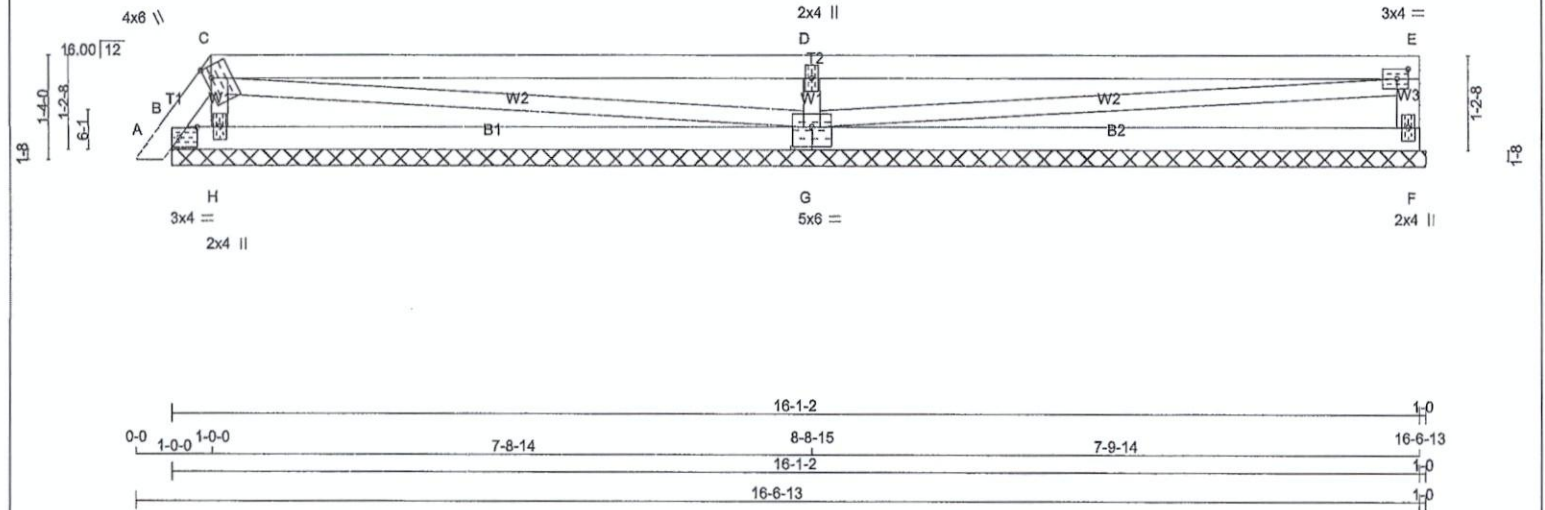


JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.47 (C) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310397	H7	1		TRUSS DESC. JT-39002	E-19072393

Alpa Roof Truss, Maple

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ID:kx9l86OLlWqKxBYZlGBjHpysKNA-fJAY6fFzzgTOns1BSkyJ7RWF0Xupn0aXvQUDsGyz8JV
Scale = 1:29.9



TOTAL WEIGHT = 4 X 52 = 207 lb (M)

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

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.75
C	TTWW+m	MT20	4.0	6.0	1.75	1.00
D	TMW+w	MT20	2.0	4.0		
E	TMW-I	MT20	3.0	4.0	1.50	1.75
F	BMV1+p	MT20	2.0	4.0		
G	BSWW1-I	MT20	5.0	6.0	3.00	3.00
H	BMW1+w	MT20	2.0	4.0		

NOTES- (1)

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
	VERT	HORZ	DOWN	HORZ		
F	323	0	323	0	16-2-2 (16-1-2)9-1	
B	-76	0	0	0	16-2-2 (16-1-2)9-1	
H	494	0	494	0	16-2-2 (16-1-2)9-1	
G	953	0	953	0	16-2-2 (16-1-2)9-1	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 192 LBS FACTORED UPLIFT

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	231	137 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0
B	-74	64 / 0	0 / 0	0 / 0	0 / 0	0 / -137	0 / 0
H	373	111 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0
G	672	454 / 0	0 / 0	0 / 0	0 / 0	218 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	UNBRAC LENGTH	MEMB.	FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO				FR-TO			
A-B	0 / 11	-84.9	-84.9	0.01 (1)	10.00	H-C	-205 / 0	0.03 (1)	
B-C	-74 / 0	-84.9	-84.9	0.00 (1)	6.25	C-G	-11 / 0	0.01 (1)	
C-D	-2 / 0	-84.9	-84.9	0.87 (1)	10.00	G-D	-826 / 0	0.12 (1)	
D-E	-3 / 0	-84.9	-84.9	0.87 (1)	10.00	G-E	0 / 3	0.00 (1)	
F-E	-250 / 0	0.0	0.0	0.03 (1)	7.81				
B-H	0 / 39	-18.5	-18.5	0.29 (4)	10.00				
H-G	0 / 14	-18.5	-18.5	0.29 (4)	10.00				
G-F	0 / 0	-18.5	-18.5	0.33 (4)	10.00				

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
	DL = 6.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 36.7	PSF

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.87/1.00 (D-E:1), BC=0.33/1.00 (F-G:4), WB=0.12/1.00 (D-G:1), SS=0.32/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

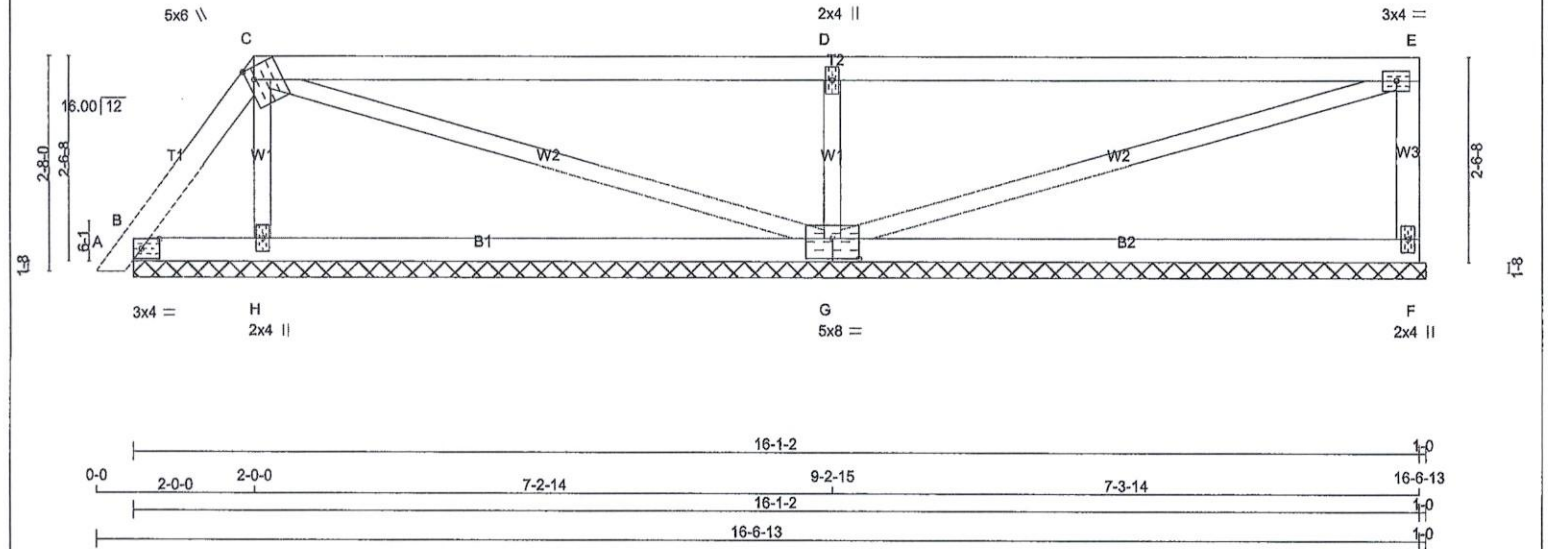
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES	PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.78 (C) (INPUT = 0.90)
JSI METAL= 0.41 (G) (INPUT = 1.00)



TOTAL WEIGHT = 6 X 56 = 336 lb

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

PLATES (table is in inches)	TYPE	PLATES	W	LEN	Y	X
JT	TMB1-I	MT20	3.0	4.0	1.50	2.75
B	TTWW+m	MT20	5.0	6.0	1.75	1.00
D	TMW+w	MT20	2.0	4.0		
E	TMW-I	MT20	3.0	4.0		
F	BMV1+p	MT20	2.0	4.0		
G	BSWW1-I	MT20	5.0	8.0	3.00	4.00
H	BMW1+w	MT20	2.0	4.0		

NOTES- (1)

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

BEARINGS	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
JT	303	0	303	0	16-2-2 (16-1-2) 32-11	
F	118	0	118	0	16-2-2 (16-1-2) 32-11	
B	370	0	370	0	16-2-2 (16-1-2) 32-11	
H	902	0	902	0	16-2-2 (16-1-2) 32-11	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 150 LBS FACTORED UPLIFT

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
JT	216	129 / 0	0 / 0	0 / 0	87 / 0	0 / 0
F	77	89 / 0	0 / 0	0 / 0	0 / -13	0 / 0
B	273	119 / 0	0 / 0	0 / 0	154 / 0	0 / 0
H	636	429 / 0	0 / 0	0 / 0	207 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. UNBRACED LENGTH	MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX CSI (LC)		MEMB.	FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO			FR-TO			
A-B	0 / 11	-84.9	-84.9	0.01 (1)	10.00	H-C	-216 / 0	0.03 (1)	
B-C	-83 / 0	-84.9	-84.9	0.03 (1)	6.25	C-G	-36 / 0	0.04 (1)	
C-D	-2 / 0	-84.9	-84.9	0.76 (1)	10.00	G-D	-772 / 0	0.12 (1)	
D-E	-2 / 0	-84.9	-84.9	0.76 (1)	10.00	G-E	0 / 2	0.00 (1)	
F-E	-235 / 0	0.0	0.0	0.03 (1)	7.81				
B-H	0 / 47	-18.5	-18.5	0.23 (4)	10.00				
H-G	0 / 37	-18.5	-18.5	0.23 (4)	10.00				
G-F	0 / 0	-18.5	-18.5	0.29 (4)	10.00				

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.76/1.00 (D-E:1), BC=0.29/1.00 (F-G:4), WB=0.12/1.00 (D-G:1), SSI=0.30/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES	PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (E) (INPUT = 0.90)
JSI METAL= 0.39 (G) (INPUT = 1.00)

May 27, 2019

Re: Expiration Date for Technical Bulletins Extended to 12/31/2019

Please be advised that the expiration date of the Technical Bulletins listed below has been extended until December 31, 2019.

T-SPECCP17	T-SPECH17	T-SPECDSHGUS17R
T-SPECHGUS17-R	T-SPECHHUS17-R	T-SPECHUS17
T-SPECLF17	T-SPECLT17	T-SPECLU17
T-SPECCLUL17	T-SPECLUS17	T-SPECSUR17
T-SPECTBE17	T-SPECTC17	T-SPECTHGB17
T-SPECTHGBHV17	T-SPECTHGQ17	T-SPECTHGW17
T-SPECLSULSSU17	T-SPECHTHGQ17	T-SPECSTHGQ17

Should you have any questions or concerns regarding the above, please contact me at your convenience.

Sincerely,



Brent Bunting, P.Eng.
Simpson Strong-Tie Canada, Ltd.



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:

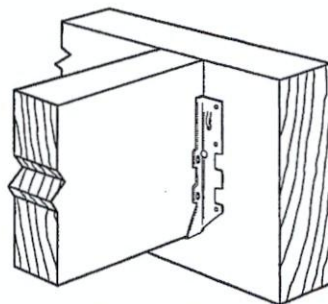
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

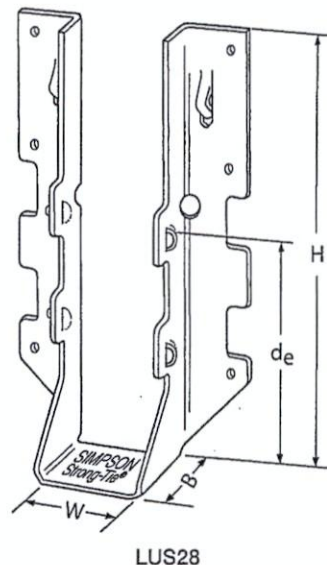
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified

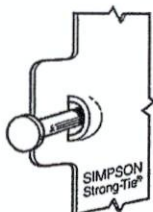


Typical LUS Installation

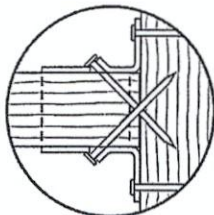


Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1½	3½	1¾	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3½	3½	2	1 13/16	(4) 16d	(2)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

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



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 1, 2017. This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECLUS17 3/17 exp. 6/19

(800) 999-5099
strongtie.com

HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

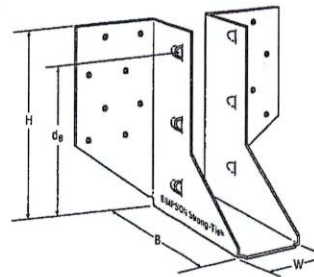
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

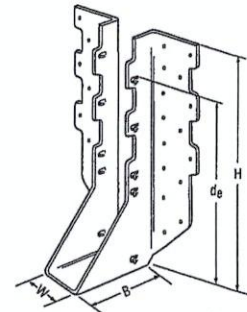
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

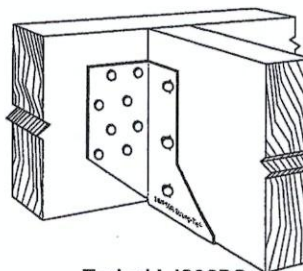
- See current catalogue for options



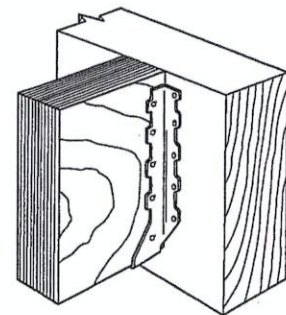
LJS26DS



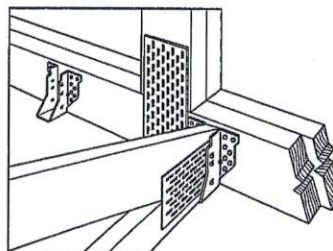
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



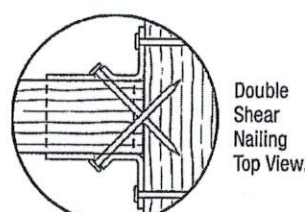
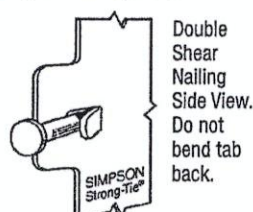
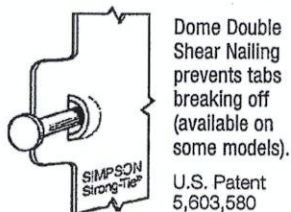
Typical HUS
Installation



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

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _s ¹	Face	Joist	D-Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
LJS26DS	18	1⅞	5	3½	4⅝	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅞	5⅝	3	3⅞	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅞	7⅞	3	6⅞	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅞	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_s is the distance from the seat of the hanger to the highest joist nail.



LIMIT
STATES
DESIGN

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HHUS – Double Shear Joist Hangers

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

Material: 14 gauge

Finish: G90 galvanized

Design:

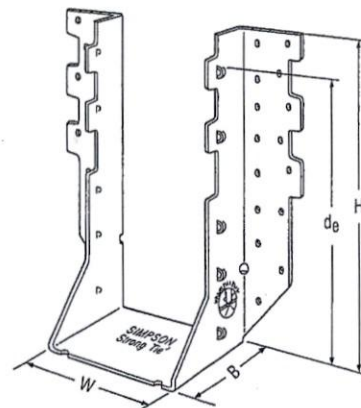
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

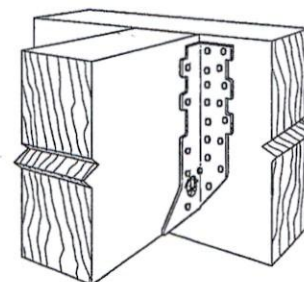
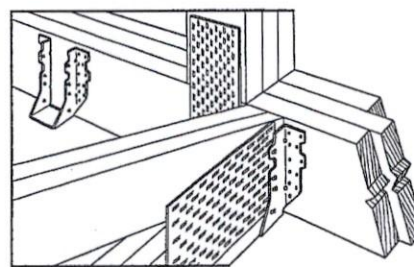
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options

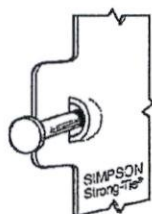


HHUS410



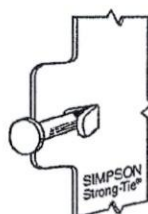
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _b ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift	Normal	Uplift	Normal
								(K ₀ =1.15)	(K ₀ =1.00)	(K ₀ =1.15)	(K ₀ =1.00)
HHUS26-2	14	3 3/16	5 13/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 3/16	7 7/32	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 3/16	9 3/32	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 11/16	9	3	7 15/16	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	6 1/8	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 3/8	5 1/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 3/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 3/8	9	3	8	(30) 16d	(10) 16d	4745	9855	4310	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS7.25/10	14	7 1/4	9	3 3/16	7 29/32	(30) 16d	(10) 16d	4745	10770	4310	7650

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

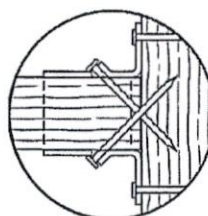


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



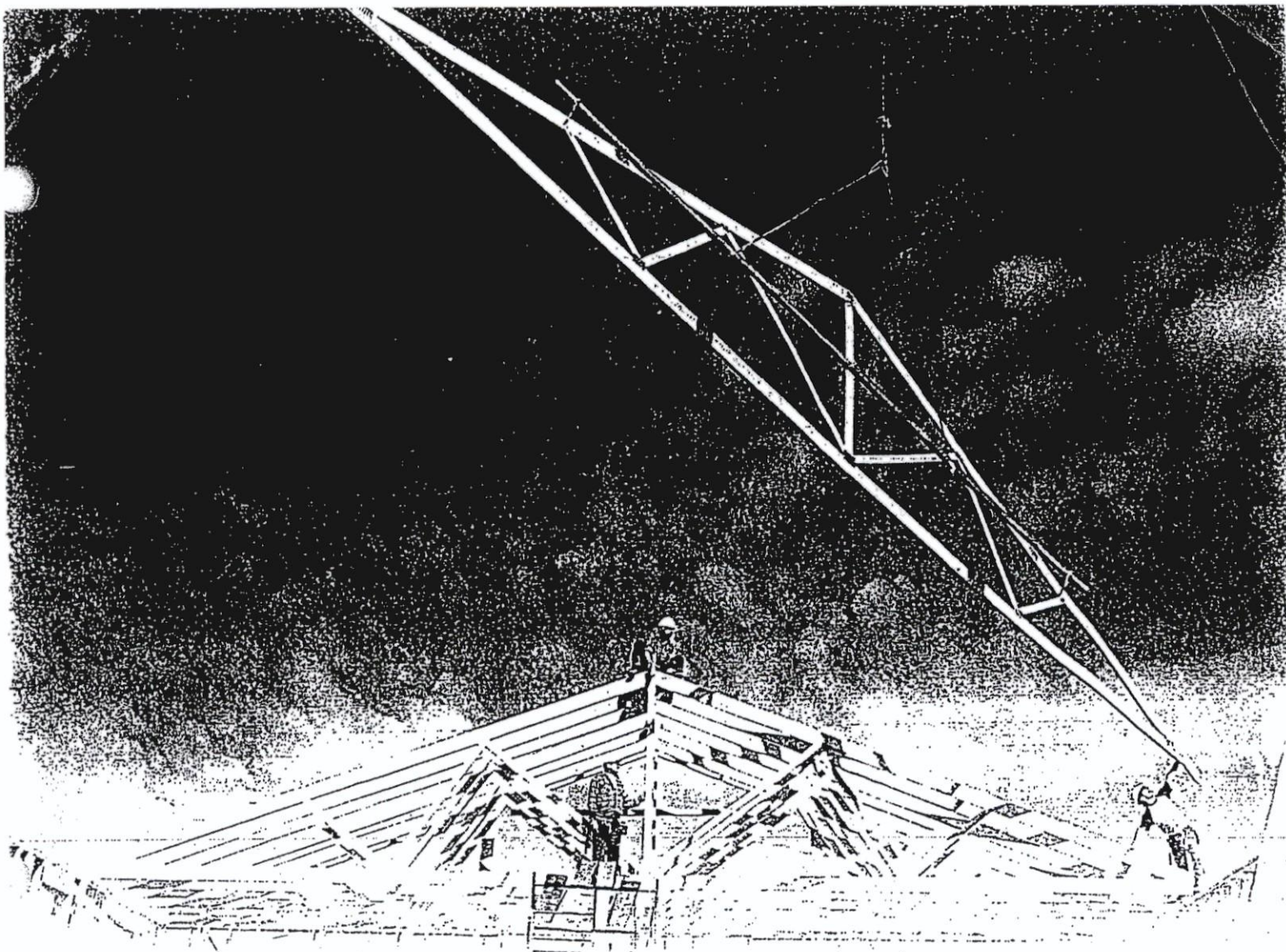
LIMIT
STATES
DESIGN

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Wood Truss Installation

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

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Warning



General

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

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

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

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

Temporary Erection Bracing

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

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

Permanent Truss Bracing

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

Special Design Requirements

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

Unloading & Lifting

Never handle trusses flat

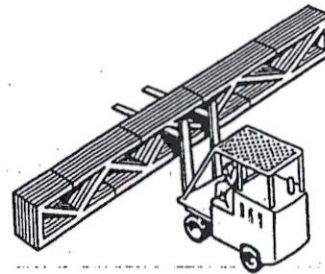
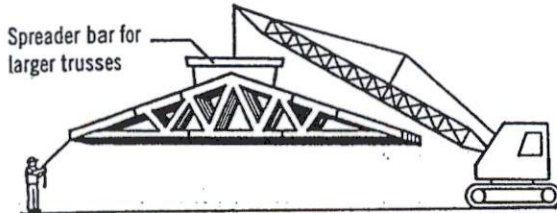
Beginning with the unloading process, and throughout all phases of construction, care must be taken to avoid lateral bending of trusses, which can cause damage to the lumber and metal connector plates at the joints.



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.

Job Site Handling



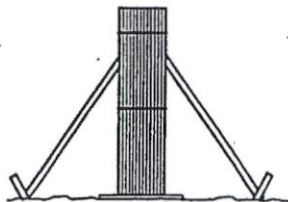
All trusses should be picked up at the top chords in a vertical position only

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.



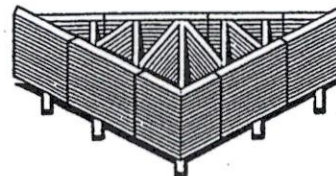
Do not store unbraced bundles upright

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.

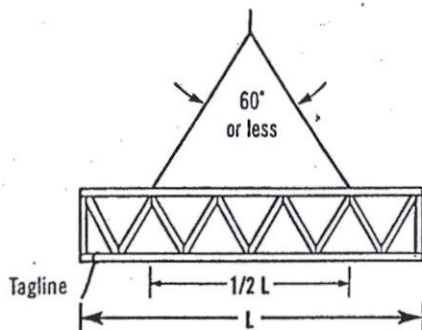
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

3 Hoisting

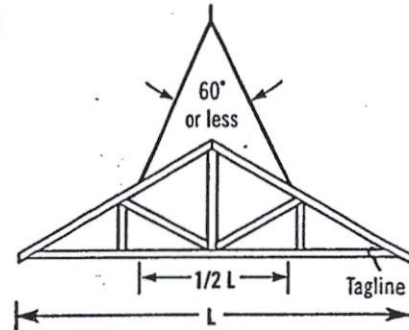
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



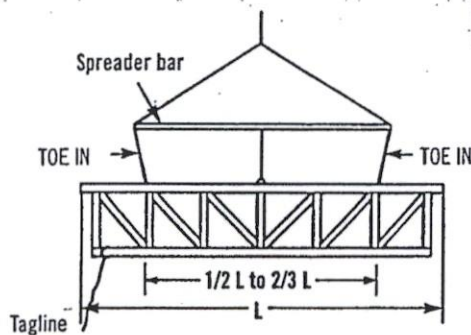
Avoid lateral bending



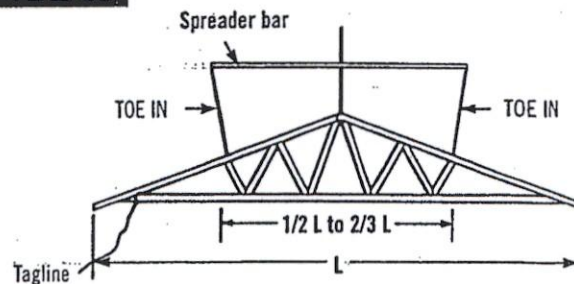
$L \leq 30'$



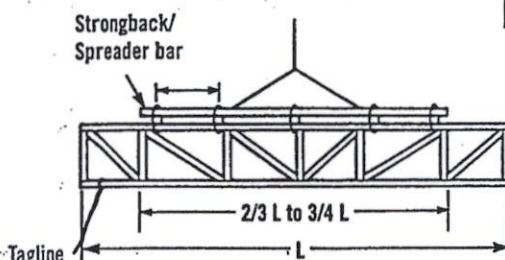
Truss sling is acceptable where these criteria are met.



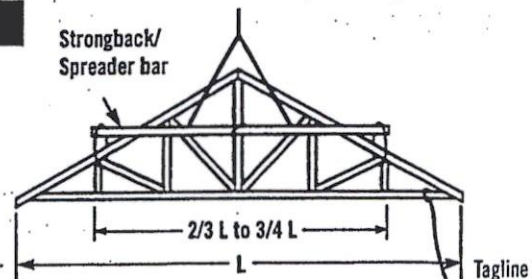
$30' < L \leq 60'$



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.



$L > 60'$



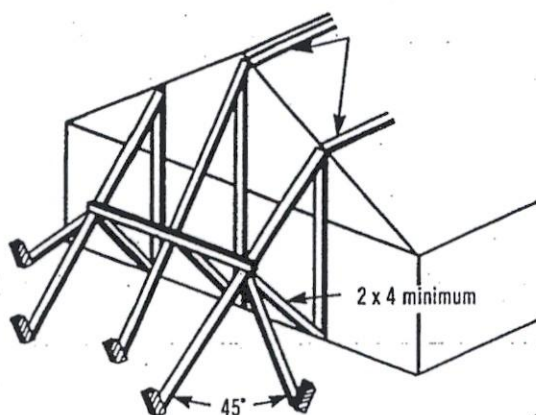
For lifting trusses with spans in excess of 60 feet, it is recommended that a strongback/spreader bar be used as illustrated. The strongback/spreader bar should be attached to the top chord and web members at intervals of approximately 10 feet. Further, the strongback/spreader bar should be at or above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

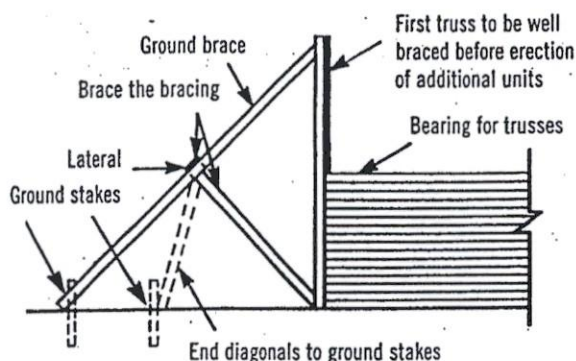
It is important for the builder or erection contractor to provide substantial bracing for the first truss erected. The two or more trusses making up the rest of the first set are tied to and rely upon the first truss for stability. Likewise, after this first set of trusses is adequately cross-braced, 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.

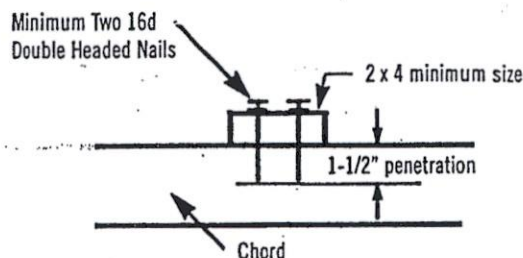
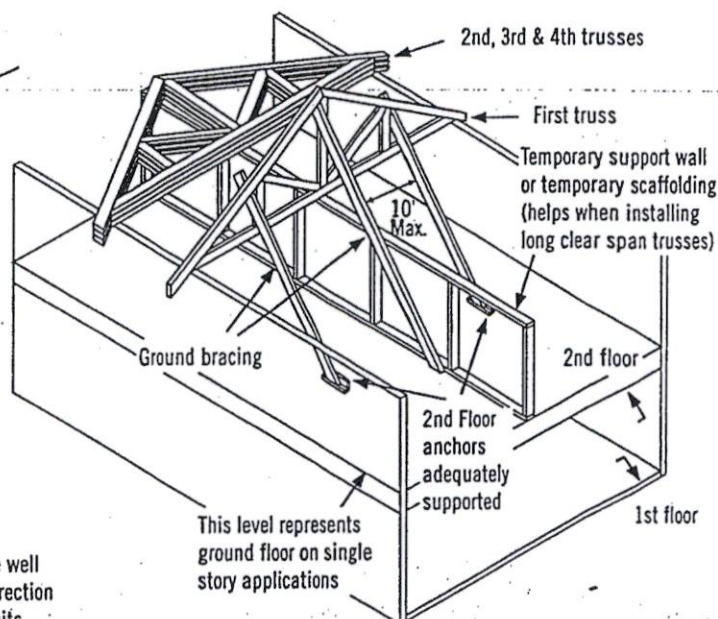


Note: Locate ground braces for first truss directly in line with all rows of top chord continuous lateral bracing (either temporary or permanent).



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.

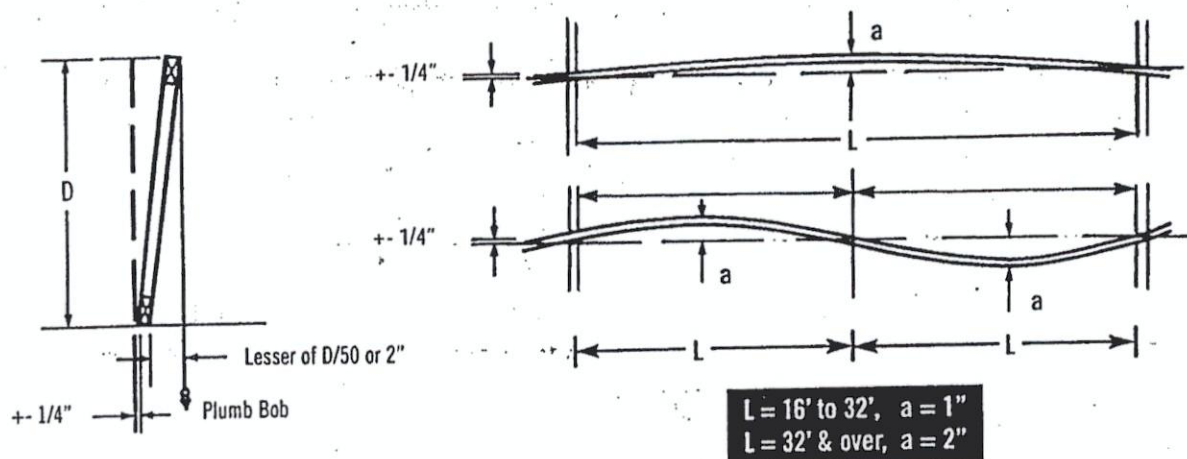


Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.

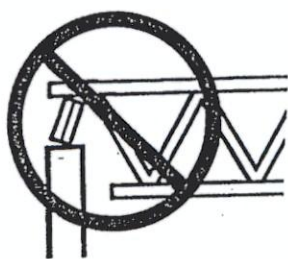
5 Erection Tolerance

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

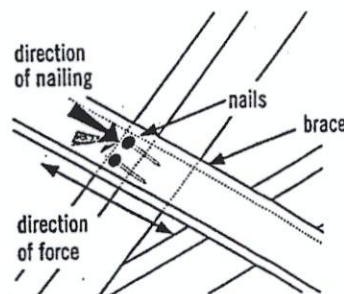


Nails in withdrawal (parallel to force)

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.



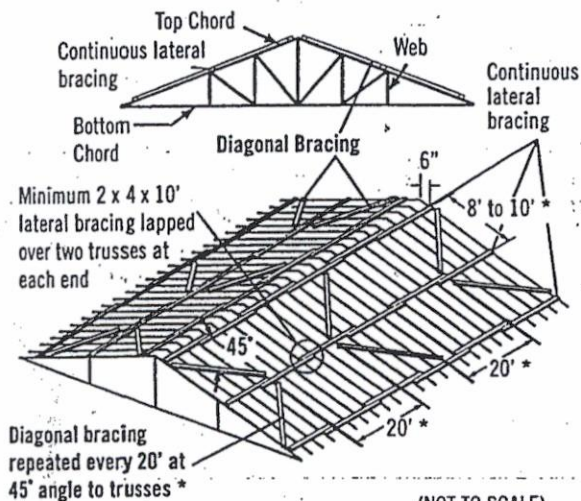
Well nailed (perpendicular to force)

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.

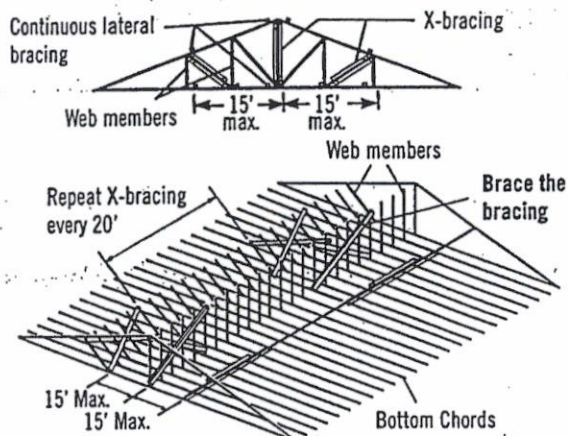


Exact spacing between trusses should be maintained as bracing is installed to avoid the hazardous practice of removing bracing to adjust spacing. This act of "adjusting spacing" can cause trusses to topple if connections are removed at the wrong time.

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.

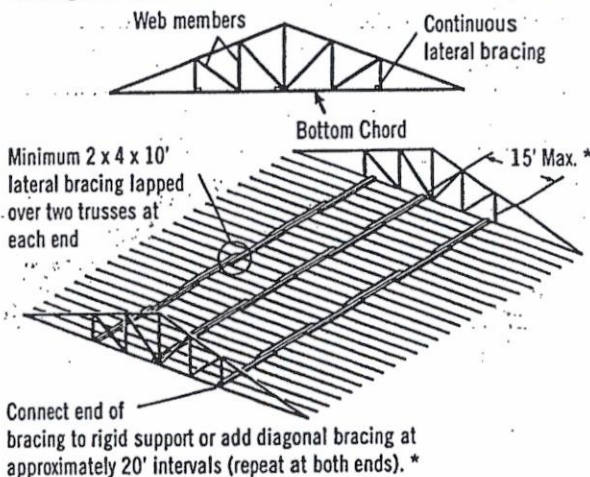
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



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.

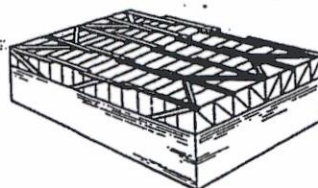


* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (*Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses*) for details.

Diagonal or cross-bracing is very important!



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

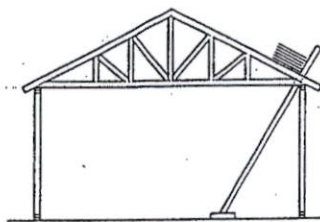
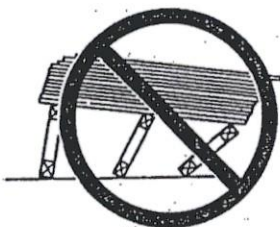


Bracing requirements using the same principles apply to parallel chord trusses

8 Stacking Materials

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

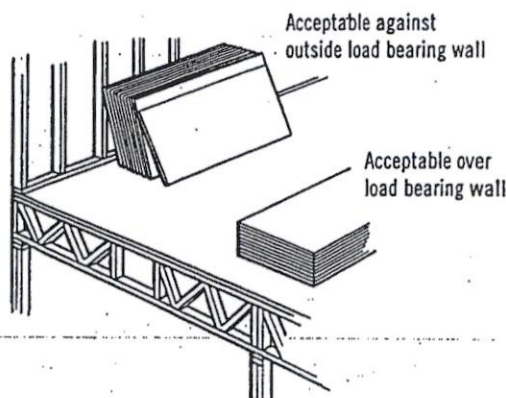
Never stack materials on unbraced or inadequately braced trusses



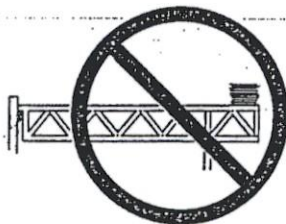
Platform must be rigidly braced

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

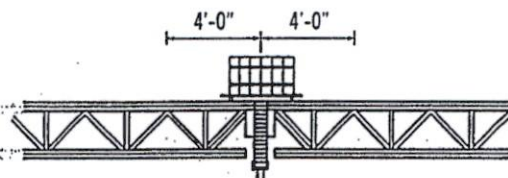


Always stack materials over two or more trusses.



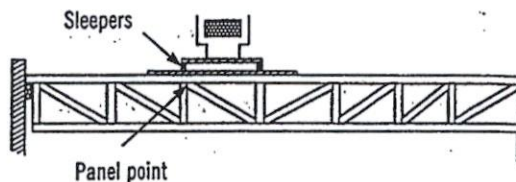
Single truss

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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THE CANADIAN WOOD TRUSS ASSOCIATION



L'ASSOCIATION CANADIENNE DES FABRICANTS DE FERMES DE BOIS

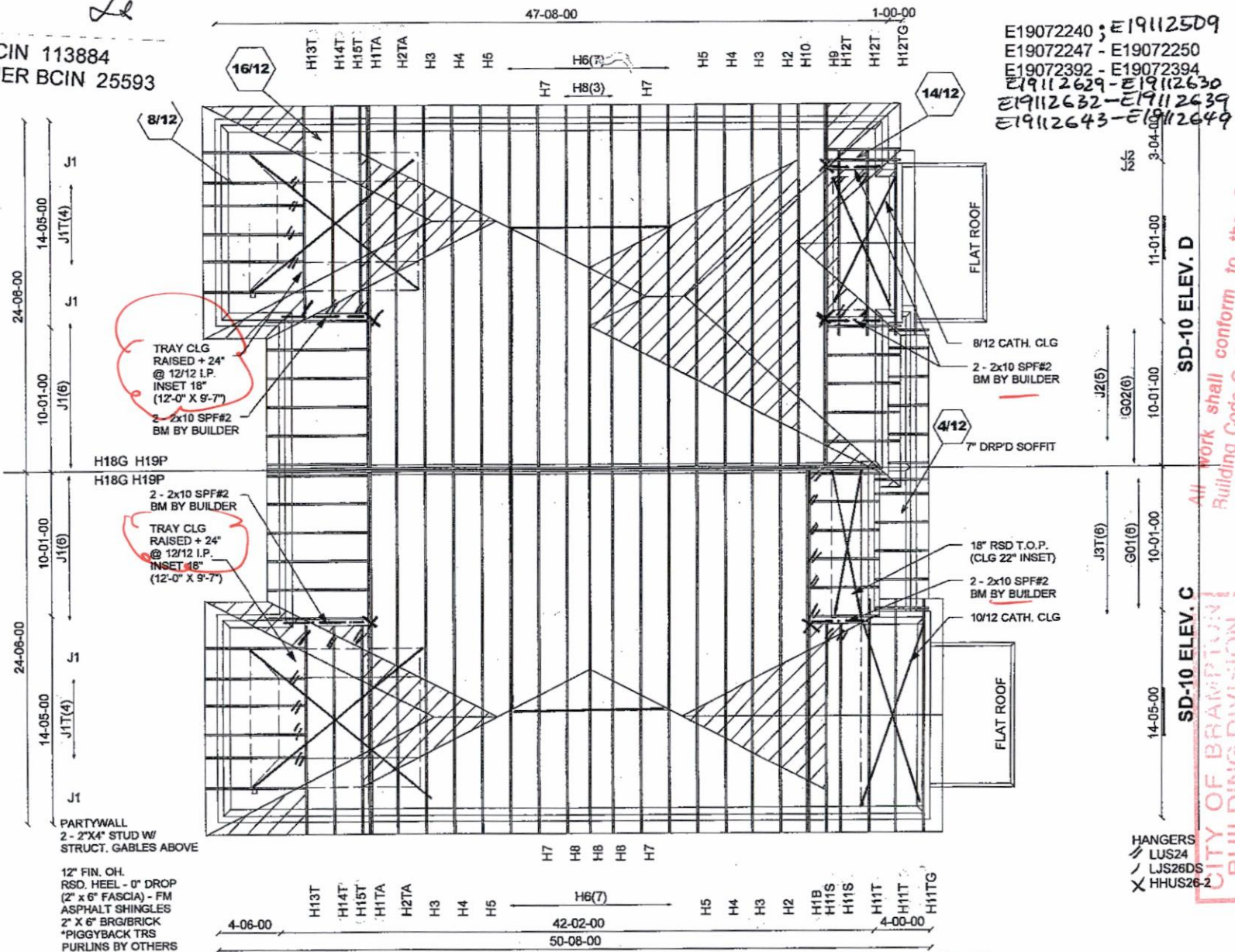
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Tel.: 613-747-5544 Fax: 613-747-6264



**Wood Truss Council
of America**

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wtca@woodtruss.com www.woodtruss.com

FIRM BCIN 113884
DESIGNER BCIN 25593



E19072240; E19112509
E19072247 - E19072250
E19072392 - E19072394
E19112629 - E19112630
E19112632 - E19112639
E19112643 - E19112649

SD-10 ELEV. D

SD-10 ELEV. C

All work shall conform to the Ontario Building Code O. Reg. 332/12 as amended

For conventional framing roof / ceilings framing shall conform to OBC 9.2.2

CITY OF BRAMPTON
BUILDING DIVISION
REVIEWED
DEC 10 2019
BY MARY FLETCHETTE

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'

Mitek V. 8.2.0
CONVENTIONAL FRAMING BY OTHERS



Job Track: 39002
Layout ID: 314240
Plan Log: 104619

Builder / Location:
GOLD PARK HOMES / BRAMPTON

Project: MCLAUGHLIN AND MAYFIELD/ENCORE 2
Date: 2019-10-31 Designer: AMANDA

Model / Elevation:
SD-10 REV1 / C/D OPT TRAY

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.

ALPA-BARRIE

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.

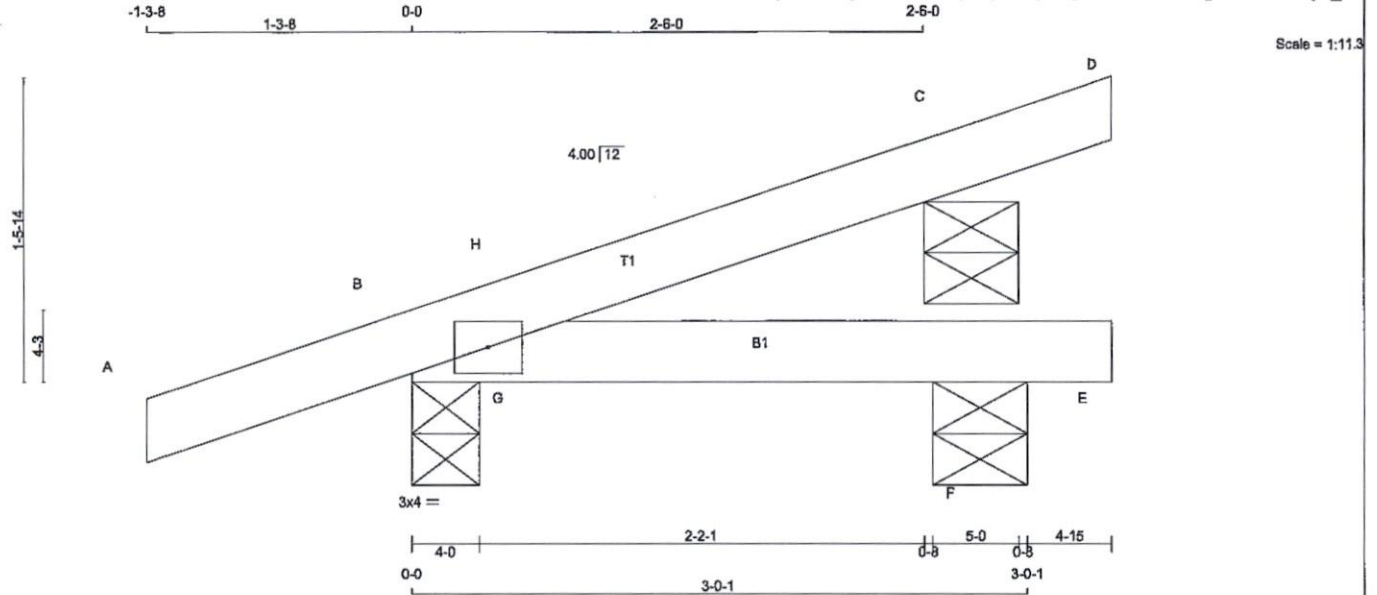
THESE DRAWINGS CONSTITUTE THE PROPERTY OF EWP DESIGN INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY THE ALPA LUMBER GROUP, AND WILL BE RETRACTED BY EWP DESIGN INC. IF UTILIZED FOR ANY OTHER PURPOSE.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	G01		1	JT-39002	E-19112629

Alpa Roof Truss, Maple

Version 8.300 S Aug 9 2018 MiTek Industries, Inc. Tue Nov 12 09:03:07 2019 Page 1

ID:MF8iiriaTok7DlbpT4B71Xys4PG-uPEeqsPg5ntVqxAHj10MRQbAmwCgvHaeOhmLxyK_XY



TOTAL WEIGHT = 6 X 10 = 58 lb

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

PLATES (table is in inches)					
JT TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER						
BEARINGS						
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX
JT	255	0	255	0	0	4-0
B	54	0	54	0	0	1-8
F	161	0	161	0	0	5-8
C						5-8

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): C

UNFACTORED REACTIONS							
	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	179	126 / 0	0 / 0	0 / 0	0 / 0	53 / 0	0 / 0
B	41	12 / 0	0 / 0	0 / 0	0 / 0	29 / 0	0 / 0
F	112	86 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0

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

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: (5)						
CHORDS				WEBS		
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO	CSI (LC)		FR-TO	
A-B	0 / 16	-84.9 -84.9	0.12 (5)	10.00	G-H	-82 / 5
B-H	-11 / 0	-84.9 -84.9	0.03 (4)	6.25		0.00 (1)
H-C	0 / 2	-84.9 -84.9	0.08 (1)	10.00		
C-D	-10 / 0	-84.9 -84.9	0.03 (1)	10.00		
B-G	0 / 0	-18.5 -18.5	0.07 (1)	10.00		
G-F	0 / 0	-18.5 -18.5	0.07 (1)	10.00		
F-E	0 / 0	-18.5 -18.5	0.01 (4)	10.00		

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

DESIGN CRITERIA			
SPECIFIED LOADS:			
TOP CH.	LL	=	23.3 PSF
	DL	=	6.0 PSF
BOT CH.	LL	=	0.0 PSF
	DL	=	7.4 PSF
TOTAL LOAD		=	36.7 PSF
SPACING = 24.0 IN./C			
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015			
THIS DESIGN COMPLIES WITH:			
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019			
- CSA 086-09, CSA 086-14			
- TPIC 2011, TPIC 2014			
(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD			
ALLOWABLE DEFL.(LL)= L/360 (0.19")			
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")			
ALLOWABLE DEFL.(TL)= L/360 (0.19")			
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.01")			
CANTILEVER DEFLECTION:			
ALLOWABLE DEFL.(TL)= L/120 (0.19")			
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.00")			
CSI: TC=0.12/1.00 (A-B:5), BC=0.07/1.00 (B-G:1), WB=0.00/1.00 (G-H:1), SSI=0.10/1.00 (A-B:5)			
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	618	354	1667 788 1987 1656
PLATE PLACEMENT TOL. = 0.250 inches			
PLATE ROTATION TOL. = 5.0 Deg.			
JSI GRIP= 0.16 (B) (INPUT = 0.90)			
JSI METAL= 0.04 (B) (INPUT = 1.00)			



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	G02		1	JT-39002	E-19112630

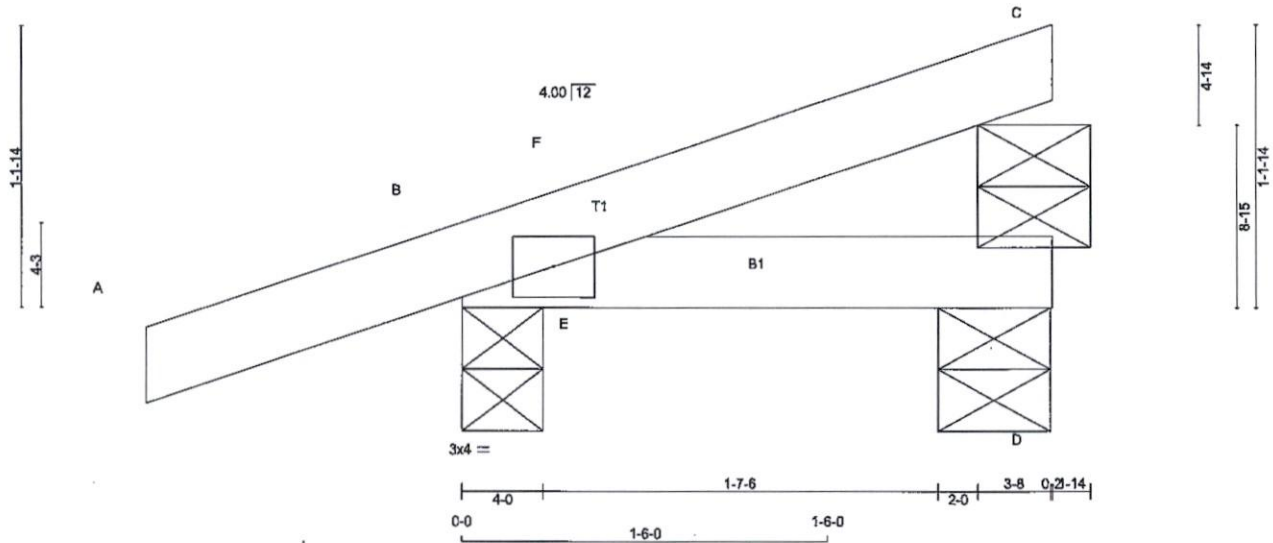
Alpha Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-3XOc8dYkVAGxeeWOtqixOlqpXChylt?CAcrEoyK_XN

-1-3-8 1-3-8 0-0 1-6-0 1-6-0

Scale = 1:9.5



TOTAL WEIGHT = 6 X 7 = 44 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMB1-1	MT20	3.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
C	87	0	87	0	5-8 (3-10)	3-10
B	238	0	238	0	4-0	1-8
D	38	0	38	0	5-8	1-8

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): C

UNFACTORED REACTIONS

JT	1ST CASE COMBINED	MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
		SNOW	LIVE			
C	60	45/0	0/0	0/0	15/0	0/0
B	167	119/0	0/0	0/0	48/0	0/0
D	28	11/0	0/0	0/0	17/0	0/0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

MEMB.	CHORDS		WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)
FR-TO				
A-B	0/16	-84.9	-84.9	0.11 (5)
B-F	-10/0	-84.9	-84.9	0.02 (4)
F-C	0/2	-84.9	-84.9	0.06 (1)
B-E	0/0	-18.5	-18.5	0.05 (1)
E-D	0/0	-18.5	-18.5	0.05 (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.11/1.00 (A-B:5), BC=0.05/1.00 (B-E:1), WB=0.00/1.00 (E-F:1), SSI=0.09/1.00 (A-B:5)

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 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.14 (B) (INPUT = 0.90)
JSI METAL= 0.04 (B) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H1B		2	TRUSS DESC.	JT-39002

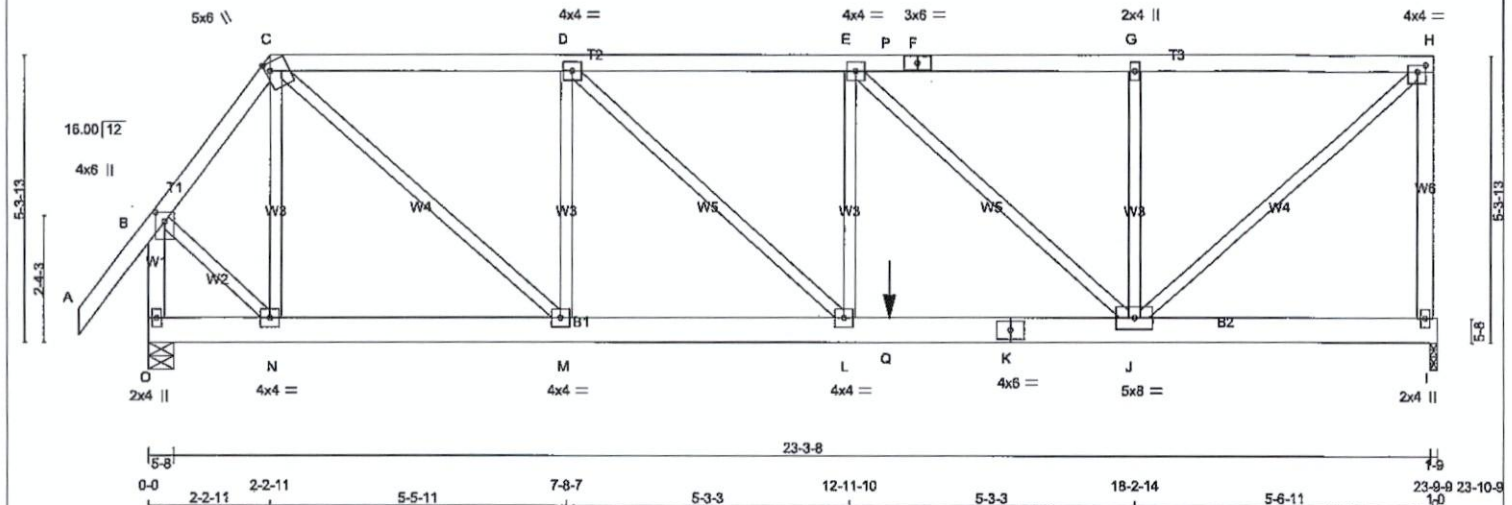
Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-p73XA6_x4wVsA14wsPo7m8XRH8uwEiCDZCFmc1yK_Re

-1-3-8 0-0 2-2-11 2-2-11 5-5-11 7-8-7 5-3-3 12-11-10 5-3-3 18-2-14 5-6-11 23-9-9

Scale = 1:42.9



TOTAL WEIGHT = 2 X 121 = 242 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - F	2x4	DRY	No.2	SPF	
F - H	2x4	DRY	No.2	SPF	
I - H	2x4	DRY	No.2	SPF	
O - B	2x4	DRY	No.2	SPF	
O - K	2x6	DRY	No.2	SPF	
K - I	2x6	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A-C	12	TOP
C-F	12	SIDE(22.5)
F-H	12	SIDE(22.5)
H-I	12	TOP
O-B	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
O-K	12	SIDE(5.5)
K-I	12	SIDE(5.5)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	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 TRANSFERRING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT 2103	DOWN 2103	0	1-8
O	HORZ 1788	HORZ 1788	0	1-8

UNFACTORED REACTIONS	1ST LCASE	MAX/MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW LIVE PERM.LIVE WIND DEAD SOIL
I	1493	948 / 0 0 / 0 0 / 0 545 / 0 0 / 0
O	1287	817 / 0 0 / 0 0 / 0 0 / 0 449 / 0 0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.31 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD LC1 (PLF)	MEMB.	FORCE (LBS)
FR-TO		FROM TO	FR-TO	
A-B	0 / 48	-84.9 -84.9 0.07 (1)	N-C	-460 / 0
B-C	-1239 / 0	-84.9 -84.9 0.05 (1)	B-N	0 / 944
C-D	-2020 / 0	-84.9 -84.9 0.22 (1)	C-M	0 / 1736
D-E	-2696 / 0	-84.9 -84.9 0.23 (1)	M-D	-1128 / 0
E-P	-1975 / 0	-84.9 -84.9 0.34 (1)	D-L	0 / 927
P-F	-1975 / 0	-129.9 -129.9 0.34 (1)	L-E	0 / 195
F-G	-1975 / 0	-129.9 -129.9 0.34 (1)	E-J	-989 / 0
G-H	-1975 / 0	-129.9 -129.9 0.34 (1)	J-G	-816 / 0
H-I	-2044 / 0	0.0 0.0 0.47 (1)	J-H	0 / 2643
O-B	-1803 / 0	0.0 0.0 0.12 (1)		
O-N	0 / 0	-18.5 -18.5 0.03 (1)		
N-M	0 / 726	-18.5 -18.5 0.08 (1)		
M-L	0 / 2020	-18.5 -18.5 0.20 (1)		
L-Q	0 / 2696	-18.5 -18.5 0.30 (1)		
Q-K	0 / 2696	-28.3 -28.3 0.30 (1)		
K-J	0 / 2696	-28.3 -28.3 0.30 (1)		
J-I	0 / 0	-28.3 -28.3 0.06 (4)		

FACTORED CONCENTRATED LOADS (LBS)	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
JT	13-8-9	-758	-758	-	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 = 23.3 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 2-2-11

RIGHT SETBACK = 0-0

END SETBACK = 4-1-8

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.

LOADS APPLIED TO FIRST 10-2-0 OF SPAN

MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO

ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL

OR SMALL BUILDING REQUIREMENTS OF

PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC

2019

- CSA 086-09, CSA 086-14

- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")

CALCULATED VERT. DEFL.(LL)= 1/999 (0.05")

ALLOWABLE DEFL.(TL)= L/360 (0.79")

CALCULATED VERT. DEFL.(TL)= 1/999 (0.09")

CSI: TC=0.47/1.00 (H-I:1), BC=0.30/1.00 (J-L:1),

WB=0.49/1.00 (E-J:1), SS=0.24/1.00 (J-L:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00

COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 1.00

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

CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H1B		2	JT-39002	E-19112632(2)

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-p73XA6 x4wVsA14wsPo?m8XRH8uwEICDZCFmc1yK Re

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	5.0	6.0	1.75	1.00
D	TMWW-t	MT20	4.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMW+w	MT20	2.0	4.0		
H	TMVW-t	MT20	4.0	4.0	1.50	1.75
I	BMV1+p	MT20	2.0	4.0		
J	BMWWW-t	MT20	5.0	8.0		
K	BS-t	MT20	4.0	6.0		
L, M, N						
L	BMWW-t	MT20	4.0	4.0		
O	BMV1+p	MT20	2.0	4.0		

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
	MIN	MAX	MIN
MT20	618	354	1667
			788
			1987
			1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL = 0.43 (K) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

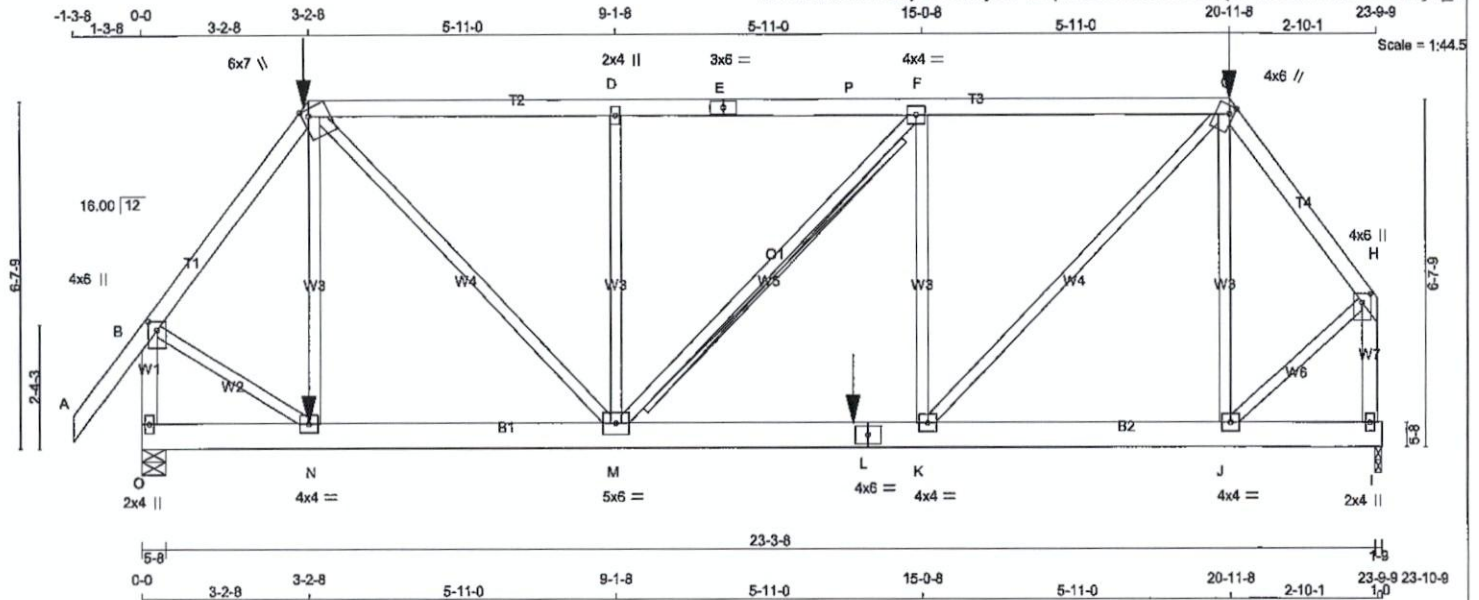


JOB NAME 314003	TRUSS NAME H9	QUANTITY 2	PLY 2	JOB DESC. JT-39002	DRWG NO. E-19112633
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Alpa Roof Truss, Maple

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ID:MF6iiriaTok7DlbpT4B71Xys4PG-6pIKY3dAtclWdusXoL9prvuwXcCT1KbalXYZKyK_Lf



TOTAL WEIGHT = 2 X 127 = 254 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	
G - H	2x4	DRY	No.2	SPF	
O - B	2x4	DRY	No.2	SPF	
I - H	2x4	DRY	No.2	SPF	
O - L	2x6	DRY	No.2	SPF	
L - I	2x6	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - C	12	SIDE(61.0)
C - E	12	SIDE(61.0)
E - G	12	SIDE(46.6)
G - H	12	SIDE(61.0)
O - B	12	TOP
I - H	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
O - L	12	SIDE(178.8)
L - I	12	SIDE(4.9)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	
J - G	6	SIDE(5.8)

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.

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
JT	2323	0	2323	0	5-8	1-12
O	2037	0	2037	0	1-9	1-8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
JT	1647	1057 / 0	0 / 0	0 / 0	0 / 0	591 / 0
O	1446	917 / 0	0 / 0	0 / 0	0 / 0	529 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.73 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		FACTORED	
MEMB.	FORCE	VERT. LOAD	LC1 MAX	MAX.	MEMB.	FORCE	MAX
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A-B	0 / 48	-84.9 -84.9	0.07 (1)	10.00	N-C	0 / 107	0.02 (4)
B-C	-1775 / 0	-84.9 -84.9	0.10 (1)	6.25	C-M	0 / 1232	0.15 (1)
C-D	-1908 / 0	-84.9 -84.9	0.23 (1)	6.05	M-D	-517 / 0	0.18 (1)
D-E	-1908 / 0	-84.9 -84.9	0.33 (1)	5.90	M-F	-222 / 0	0.08 (1)
E-P	-1908 / 0	-84.9 -84.9	0.33 (1)	5.90	K-F	-575 / 0	0.20 (1)
P-F	-1908 / 0	-124.6 -124.6	0.33 (1)	5.90	K-G	0 / 1733	0.21 (1)
F-G	-2060 / 0	-124.6 -124.6	0.33 (1)	5.73	J-G	-612 / 0	0.21 (1)
G-H	-1470 / 0	-84.9 -84.9	0.07 (1)	6.25	B-N	0 / 1215	0.15 (1)
O-B	-2280 / 0	0.0 0.0	0.15 (1)	7.42	J-H	0 / 1123	0.14 (1)
I-H	-2006 / 0	0.0 0.0	0.15 (1)	7.78			

MEMB.	CHORDS		WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)
O - N	0 / 0	-27.2 -27.2 0.02 (4)	10.00	
N - M	0 / 1058	-18.5 -18.5 0.11 (1)	10.00	
M - L	0 / 2060	-18.5 -18.5 0.26 (1)	10.00	
L - K	0 / 2060	-27.2 -27.2 0.26 (1)	10.00	
K - J	0 / 865	-27.2 -27.2 0.14 (1)	10.00	
J - I	0 / 0	-27.2 -27.2 0.03 (4)	10.00	

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	3-2-8	-108	-108	—	FRONT	VERT	TOTAL	—	C1
G	20-11-8	-98	-98	—	FRONT	VERT	TOTAL	—	C1
L	13-8-9	-587	-587	—	FRONT	VERT	TOTAL	—	C1
N	3-2-8	-587	-587	—	FRONT	VERT	TOTAL	—	C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

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

SPECIFIED LOADS:

TOP CH. LL	=	23.3	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 3-2-8
RIGHT SETBACK = 2-11-1
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 3-2-8 OF SPAN
MEASURED FROM THE LEFT.

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 3-2-8
RIGHT SETBACK = 2-11-1
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 10-2-0 OF SPAN
MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.33/1.00 (F-G:1), BC=0.26/1.00 (K-M:1), WB=0.21/1.00 (G-K:1), SS=0.19/1.00 (K-M:1)

CONTINUED ON PAGE 2



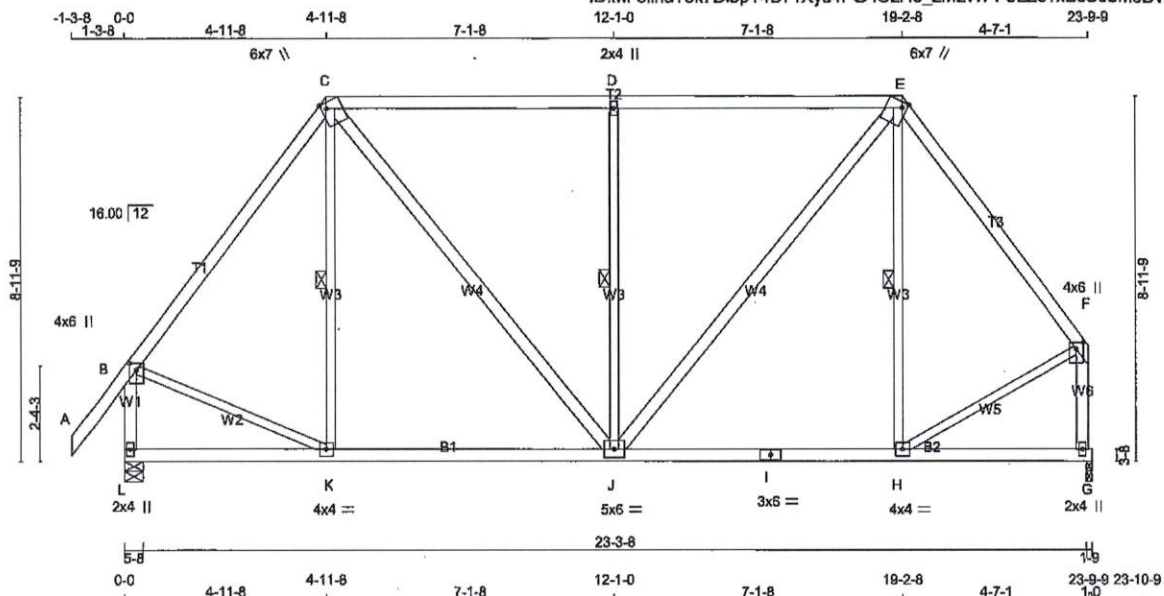
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.																																																																																																																		
314003	H9		2	JT-39002	E-19112633(2)																																																																																																																		
Alpa Roof Truss, Maple																																																																																																																							
Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 09:15:48 2019 Page 2																																																																																																																							
ID:MF8IiriaTok7DlbpT4B71Xys4PG-6piKY3dAtclWdusXoL9pnuvwnXcCT1KbeIXYZKyK Lt																																																																																																																							
PLATES (table is in inches) <table><thead><tr><th>JT</th><th>TYPE</th><th>PLATES</th><th>W</th><th>LEN</th><th>Y</th><th>X</th></tr></thead><tbody><tr><td>B</td><td>TMVW+p</td><td>MT20</td><td>4.0</td><td>6.0</td><td>2.00</td><td>2.00</td></tr><tr><td>C</td><td>TTWW+m</td><td>MT20</td><td>6.0</td><td>7.0</td><td>Edge</td><td>1.50</td></tr><tr><td>D</td><td>TMW+w</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr><tr><td>E</td><td>TS-t</td><td>MT20</td><td>3.0</td><td>6.0</td><td></td><td></td></tr><tr><td>F</td><td>TMWW-t</td><td>MT20</td><td>4.0</td><td>4.0</td><td></td><td></td></tr><tr><td>G</td><td>TTWW+m</td><td>MT20</td><td>4.0</td><td>6.0</td><td>1.75</td><td>1.00</td></tr><tr><td>H</td><td>TMVW+p</td><td>MT20</td><td>4.0</td><td>6.0</td><td>2.00</td><td>2.00</td></tr><tr><td>I</td><td>BMV1+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr><tr><td>J, K, N</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>J</td><td>BMWW-t</td><td>MT20</td><td>4.0</td><td>4.0</td><td></td><td></td></tr><tr><td>L</td><td>BS-t</td><td>MT20</td><td>4.0</td><td>6.0</td><td></td><td></td></tr><tr><td>M</td><td>BMWW-t</td><td>MT20</td><td>5.0</td><td>6.0</td><td></td><td></td></tr><tr><td>O</td><td>BMV1+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr></tbody></table> Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.				JT	TYPE	PLATES	W	LEN	Y	X	B	TMVW+p	MT20	4.0	6.0	2.00	2.00	C	TTWW+m	MT20	6.0	7.0	Edge	1.50	D	TMW+w	MT20	2.0	4.0			E	TS-t	MT20	3.0	6.0			F	TMWW-t	MT20	4.0	4.0			G	TTWW+m	MT20	4.0	6.0	1.75	1.00	H	TMVW+p	MT20	4.0	6.0	2.00	2.00	I	BMV1+p	MT20	2.0	4.0			J, K, N							J	BMWW-t	MT20	4.0	4.0			L	BS-t	MT20	4.0	6.0			M	BMWW-t	MT20	5.0	6.0			O	BMV1+p	MT20	2.0	4.0			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 <table><thead><tr><th>PLATE</th><th>GRIP(DRY)</th><th>SHEAR</th><th>SECTION</th></tr><tr><th></th><th>(PSI)</th><th>(PL)</th><th>(PL)</th></tr></thead><tbody><tr><td></td><td>MAX MIN</td><td>MAX MIN</td><td>MAX MIN</td></tr><tr><td>MT20</td><td>618 354</td><td>1667 788</td><td>1987 1656</td></tr></tbody></table> PLATE PLACEMENT TOL. = 0.250 Inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.90 (G) (INPUT = 0.90) JSI METAL= 0.47 (L) (INPUT = 1.00)		PLATE	GRIP(DRY)	SHEAR	SECTION		(PSI)	(PL)	(PL)		MAX MIN	MAX MIN	MAX MIN	MT20	618 354	1667 788	1987 1656
JT	TYPE	PLATES	W	LEN	Y	X																																																																																																																	
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NOTE: Lateral brace(s) shown shall be 2x4 SPF #2 																																																																																																																							

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H10		1	TRUSS DESC.	E-19112634

Alpa Roof Truss, Maple

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ID:MF8IriaTok7DibpT4B71Xys4PG-IozHe_zM2WPPbLZ67xBcS0bm5DWIm6rsJl3a49yK_LC



Scale = 1:57.1

TOTAL WEIGHT = 123 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	6.0	7.0	Edge	1.50
D	TMVW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	6.0	7.0	Edge	1.50
F	TMVW+p	MT20	4.0	6.0	2.00	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMVW-t	MT20	4.0	4.0		
I	BS-t	MT20	3.0	6.0		
J	BMVWW-t	MT20	5.0	6.0		
K	BMVW-t	MT20	4.0	4.0		
L	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
GROSS REACTION	GROSS REACTION	DOWN	UP	BRG
JT	VERT	HORZ	DOWN	HORZ
L	1349	0	1349	0
G	1230	0	1230	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE	
L	956	620 / 0	0 / 0	0 / 0	336 / 0
G	873	554 / 0	0 / 0	0 / 0	319 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	CS1 (LC)	LENGTH	FR-TO	MEMB.	FORCE (LBS)	MAX CS1 (LC)
A-B	0 / 48	-84.9	-84.9	0.12 (1)	10.00	K-C	-97 / 56	0.05 (1)
B-C	-954 / 0	-84.9	-84.9	0.44 (1)	5.80	C-J	0 / 541	0.09 (1)
C-D	-913 / 0	-84.9	-84.9	0.81 (1)	4.81	J-D	-740 / 0	0.39 (1)
D-E	-913 / 0	-84.9	-84.9	0.81 (1)	4.81	J-E	0 / 591	0.10 (1)
E-F	-902 / 0	-84.9	-84.9	0.36 (1)	6.02	H-E	-161 / 29	0.08 (1)
L-B	-1316 / 0	0.0	0.0	0.17 (1)	7.05	B-K	0 / 611	0.14 (1)
G-F	-1200 / 0	0.0	0.0	0.19 (1)	7.30	H-F	0 / 608	0.14 (1)
L-K	0 / 0	-18.5	-18.5	0.16 (4)	10.00			
K-J	0 / 569	-18.5	-18.5	0.24 (4)	10.00			
J-I	0 / 537	-18.5	-18.5	0.24 (4)	10.00			
I-H	0 / 537	-18.5	-18.5	0.24 (4)	10.00			
H-G	0 / 0	-18.5	-18.5	0.15 (4)	10.00			

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	=	23.3	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.4	PSF
TOTAL LOAD	=	36.7	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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.81/1.00 (D-E:1), BC=0.24/1.00 (J-K:4), WB=0.39/1.00 (D-J:1), SSI=0.29/1.00 (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)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

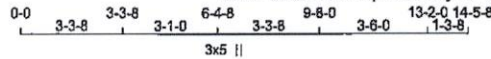
JSI GRIP= 0.77 (B) (INPUT = 0.90)
JSI METAL= 0.38 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H11S		1	TRUSS DESC.	E-19112635

Alpa Roof Truss, Maple

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ID:MF8iiraTok7DlbpT4B71Xys4PG-iOX2yH4GhBLTTe1u48VoJWjBcTKj65YTC1vHNZyK_Y



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H11T		1	TRUSS DESC.	JT-39002

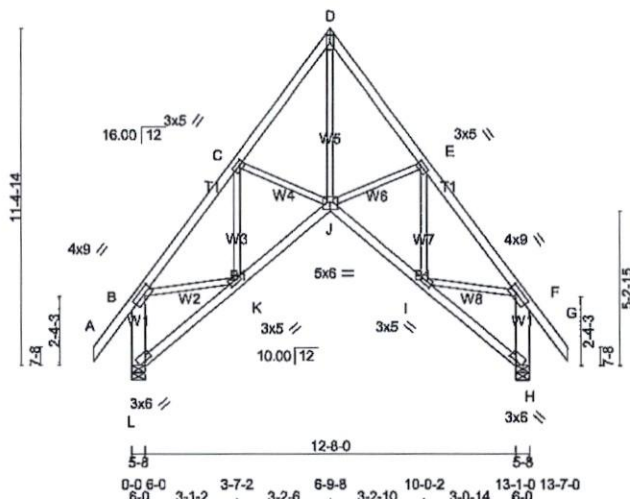
Alpa Roof Truss, Maple

Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Tue Nov 12 09:02:18 2019 Page 1

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1-3-8 0-0 3-7-2 3-7-2 3-2-6 6-9-8 3-2-10 10-0-2 13-7-0 14-10-8
1-3-8 3x6 ||

Scale = 1:78.7



TOTAL WEIGHT = 2 X 81 = 161 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - G	2x4	DRY	No.2	SPF	
L - B	2x6	DRY	No.2	SPF	
H - F	2x6	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
J - 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	TMWW-1	MT20	4.0	9.0	2.00	3.00
C	TMWW-1	MT20	3.0	5.0	1.50	1.50
D	TTW+p	MT20	3.0	6.0		
E	TMWW-1	MT20	3.0	5.0	1.50	1.50
F	TMWW-1	MT20	4.0	9.0	2.00	3.00
H	BVM1-I	MT20	3.0	6.0	0.25	3.00
I	BMWW-1	MT20	3.0	5.0	1.50	2.25
J	BBWW-p	MT20	5.0	6.0	2.75	3.00
K	BMWW-1	MT20	3.0	5.0	1.50	2.25
L	BVM1-I	MT20	3.0	6.0	0.25	3.00

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
	VERT	HORZ	DOWN	HORZ		
L	822	0	822	0	5-8	5-8
H	822	0	822	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN. SNOW	MAX/MIN. LIVE	MAX/MIN. WIND	MAX/MIN. DEAD	MAX/MIN. SOIL
L	581	382/0	0/0	0/0	199/0	0/0
H	581	382/0	0/0	0/0	199/0	0/0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM	TO			FR-TO			
A-B	0 / 48	-84.9	-84.9	0.12 (1)	10.00	J-D	0 / 908	0.20 (1)	
B-C	-778 / 0	-84.9	-84.9	0.13 (1)	6.25	B-K	0 / 490	0.11 (1)	
C-D	-722 / 0	-84.9	-84.9	0.13 (1)	6.25	K-C	-238 / 0	0.07 (1)	
D-E	-721 / 0	-84.9	-84.9	0.13 (1)	6.25	C-J	-72 / 0	0.02 (1)	
E-F	-777 / 0	-84.9	-84.9	0.13 (1)	6.25	I-F	0 / 489	0.11 (1)	
F-G	0 / 48	-84.9	-84.9	0.12 (1)	10.00	I-E	-239 / 0	0.07 (1)	
L-B	-794 / 0	0.0	0.0	0.08 (1)	7.81	J-E	-71 / 0	0.02 (1)	
H-F	-794 / 0	0.0	0.0	0.08 (1)	7.81				
L-K	0 / 5	-18.5	-18.5	0.06 (4)	10.00				
K-J	0 / 623	-18.5	-18.5	0.13 (1)	10.00				
J-I	0 / 622	-18.5	-18.5	0.13 (1)	10.00				
I-H	0 / 5	-18.5	-18.5	0.06 (4)	10.00				

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.13/1.00 (B-C:1), BC=0.13/1.00 (J-K:1), WB=0.20/1.00 (D-J:1), SSI=0.09/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1666

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

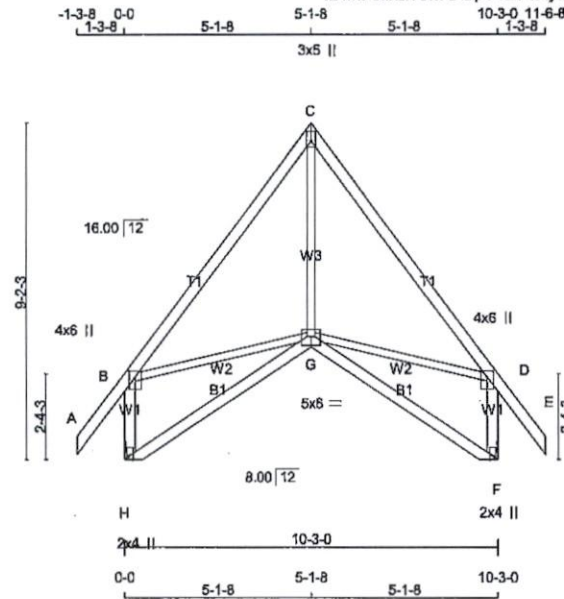
JSI GRIP= 0.68 (J) (INPUT = 0.90)
JSI METAL= 0.19 (D) (INPUT = 1.00)



JOB NAME 314003	TRUSS NAME H12T	QUANTITY 1	PLY 1	JOB DESC. JT-39002	DRWG NO. E-19112638
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Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-L4paam88lpAQHVeoqtRu1zAldsJ52XSwXUSJaLyK_L



Scale = 1:63.2

TOTAL WEIGHT = 2 X 57 = 113 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
H	649	0	649	0
F	649	0	649	0

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	459	304 / 0	0 / 0	0 / 0	0 / 0	0 / 0	154 / 0	0 / 0
F	459	304 / 0	0 / 0	0 / 0	0 / 0	0 / 0	154 / 0	0 / 0

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	CS1 (LC)	UNBRAC LENGTH	FR-TO	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
A-B		0 / 48	-84.9	-84.9	0.12 (1)	10.00	G-C	0 / 202	0.05 (4)			
B-C		-398 / 0	-84.9	-84.9	0.29 (1)	6.25	B-G	0 / 245	0.06 (1)			
C-D		-398 / 0	-84.9	-84.9	0.29 (1)	6.25	G-D	0 / 245	0.06 (1)			
D-E		0 / 48	-84.9	-84.9	0.12 (1)	10.00						
H-B		-602 / 0	0.0	0.0	0.08 (1)	7.81						
F-D		-602 / 0	0.0	0.0	0.08 (1)	7.81						
H-G		0 / 0	-18.5	-18.5	0.14 (4)	10.00						
G-F		0 / 0	-18.5	-18.5	0.14 (4)	10.00						

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.34")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.34")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.29/1.00 (B-C:1), BC=0.14/1.00 (F-G:4), WB=0.08/1.00 (B-G:1), SSI=0.10/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.77 (H) (INPUT = 0.90)
JSI METAL= 0.29 (H) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	H12TG		1	JT-39002	E-19112639

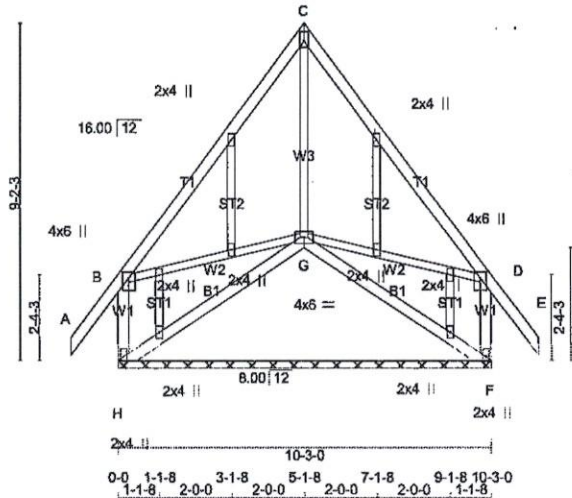
Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-XCzkuXH29BZs5B_wzh7UzI88NI3g7TKY3hcOScyK_Kp

-1-3-8 0-0 1-1-8 3-1-8 5-1-8 7-1-8 9-1-8 10-3-0 11-6-8
1-3-8, 1-1-8, 2-0-0 2-0-0 2-0-0 2-0-0 1-1-8, 1-3-8,
3x5 ||

Scale = 1:63.2



TOTAL WEIGHT = 65 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
H - B	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT	2-0-0	OC.		

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMVW+p	MT20	4.0	6.0 2.00 2.00
C	TTW+p	MT20	3.0	5.0 2.00 2.00
D	TMVW+p	MT20	4.0	6.0 2.00 2.00
F	BMV1+p	MT20	2.0	4.0 Edge
G	BBVWW1-p	MT20	4.0	6.0
H	BMV1+p	MT20	2.0	4.0 Edge
I, J, K, L, M, N, O, P				
I	NP+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

JT	FACTORED		MAXIMUM FACTORED		INPUT	REQRD	
	VERT	HORZ	DOWN	HORZ	BRG	BRG	
JT	451	0	451	0	0	10-3-0 (9-3-0 5-13	
H	396	0	396	0	0	10-3-0 (8-3-0 5-13	
G	451	0	451	0	0	10-3-0 (9-3-0 5-13	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
H	317	222 / 0	0 / 0	0 / 0	0 / 0	95 / 0	0 / 0
G	284	165 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
F	317	222 / 0	0 / 0	0 / 0	0 / 0	95 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, G, 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)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 48	-84.9 -84.9	0.12 (1)	10.00	G-C	-274 / 0	0.15 (1)
B-C	-100 / 0	-84.9 -84.9	0.38 (1)	6.25	B-G	0 / 62	0.01 (1)
C-D	-100 / 0	-84.9 -84.9	0.38 (1)	6.25	G-D	0 / 62	0.01 (1)
D-E	0 / 48	-84.9 -84.9	0.12 (1)	10.00			
H-B	-404 / 0	0.0 0.0	0.06 (1)	7.81			
F-D	-404 / 0	0.0 0.0	0.06 (1)	7.81			
H-G	0 / 0	-18.5 -18.5	0.14 (4)	10.00			
G-F	0 / 0	-18.5 -18.5	0.14 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF	

SPACING = 24.0 IN./C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.38/1.00 (B-C:1), BC=0.14/1.00 (F-G:4), WB=0.15/1.00 (C-G:1), SSI=0.10/1.00 (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
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.52 (H) (INPUT = 0.80)
JSI METAL= 0.20 (H) (INPUT = 1.00)

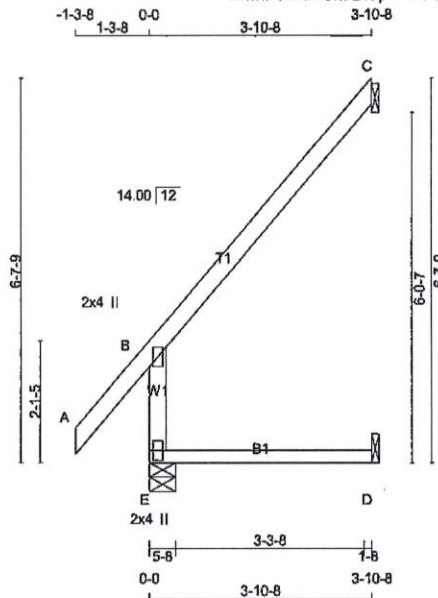
NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



JOB NAME 314003 Alpa Roof Truss, Maple	TRUSS NAME J2	QUANTITY	PLY 1	JOB DESC. JT-39002	DRWG NO. E-19112643
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Alpa Roof Truss, Maple

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Scale = 1/40.1

TOTAL WEIGHT = 7 X 15 = 102 lb

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

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	366	0	366	0	5-8	1-8
C	123	0	123	0	1-8	1-8
D	30	0	33	0	1-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. COMPONENT REACTIONS					SOIL
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	
E	257	178 / 0	0 / 0	0 / 0	0 / 0	79 / 0	0 / 0
C	85	68 / 0	0 / 0	0 / 0	0 / 0	17 / 0	0 / 0
D	24	0 / 0	0 / 0	0 / 0	0 / 0	24 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED VERT. LOAD LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO		FR-TO				
E-B	-324 / 0	0.0	0.0	0.05 (4)	7.81				
A-B	0 / 45	-84.9	-84.9	0.14 (5)	10.00				
B-C	-31 / 0	-84.9	-84.9	0.22 (1)	6.25				
E-D	0 / 0	-18.5	-18.5	0.11 (4)	10.00				

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:		
TOP CH. LL	=	23.3 PSF
DL	=	6.0 PSF
BOT CH. LL	=	0.0 PSF
DL	=	7.4 PSF
TOTAL LOAD	=	36.7 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 088-09, CSA 086-14
- TPIC 2011, TPIC 2014

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.22/1.00 (B-C:1), BC=0.11/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.10/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90)
JSI METAL= 0.16 (B) (INPUT = 1.00)

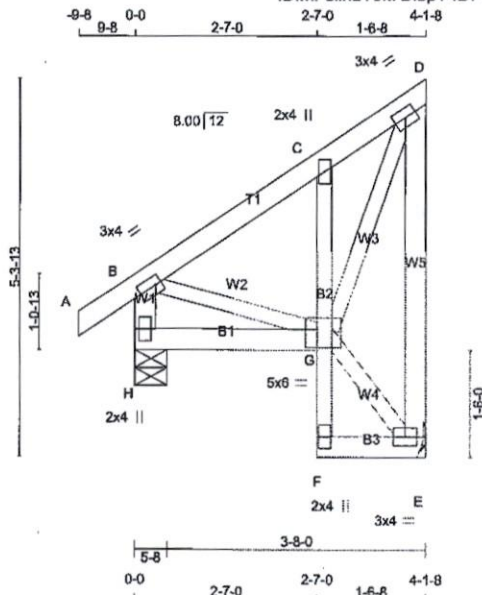
NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314003	J3T		1	JT-39002	E-19112644

Alpa Roof Truss, Maple

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Scale = 1:32.7

TOTAL WEIGHT = 6 X 27 = 161 lb

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	4.0	1.50	1.00
C	TMV+p	MT20	2.0	4.0		
D	TMVW-t	MT20	3.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	5.0	6.0	3.00	2.00
H	BMV1+p	MT20	2.0	4.0		

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
H	287	0	287	0	0	5-8	1-8		
E	213	0	213	0	0	MECHANICAL			

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
H	202	137 / 0	0 / 0	0 / 0	0 / 0	0 / 0	66 / 0	0 / 0
E	151	96 / 0	0 / 0	0 / 0	0 / 0	0 / 0	55 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT.	LC1 MAX	MEMB.	FORCE (LBS)	MAX	CS1 (LC)
FR-TO		FROM	TO	FR-TO			
H-B	-262 / 0	0.0	0.0 0.03 (1)	B-G	0 / 104	0.02 (1)	
A-B	0 / 21	-84.9	-84.9 0.05 (1)	G-E	-4 / 0	0.00 (1)	
B-C	-111 / 0	-84.9	-84.9 0.06 (1)	G-D	0 / 240	0.05 (1)	
C-D	-126 / 0	-84.9	-84.9 0.05 (1)				
E-D	-197 / 0	0.0	0.0 0.09 (1)				
H-G	0 / 0	-18.5	-18.5 0.04 (4)				
F-G	0 / 15	0.0	0.0 0.01 (1)				
G-C	-215 / 0	0.0	0.0 0.01 (1)				
F-E	0 / 3	-18.5	-18.5 0.01 (4)				

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	36.7	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.09/1.00 (D-E:1), BC=0.04/1.00 (G-H:4), WB=0.05/1.00 (D-G:1), SS=0.08/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

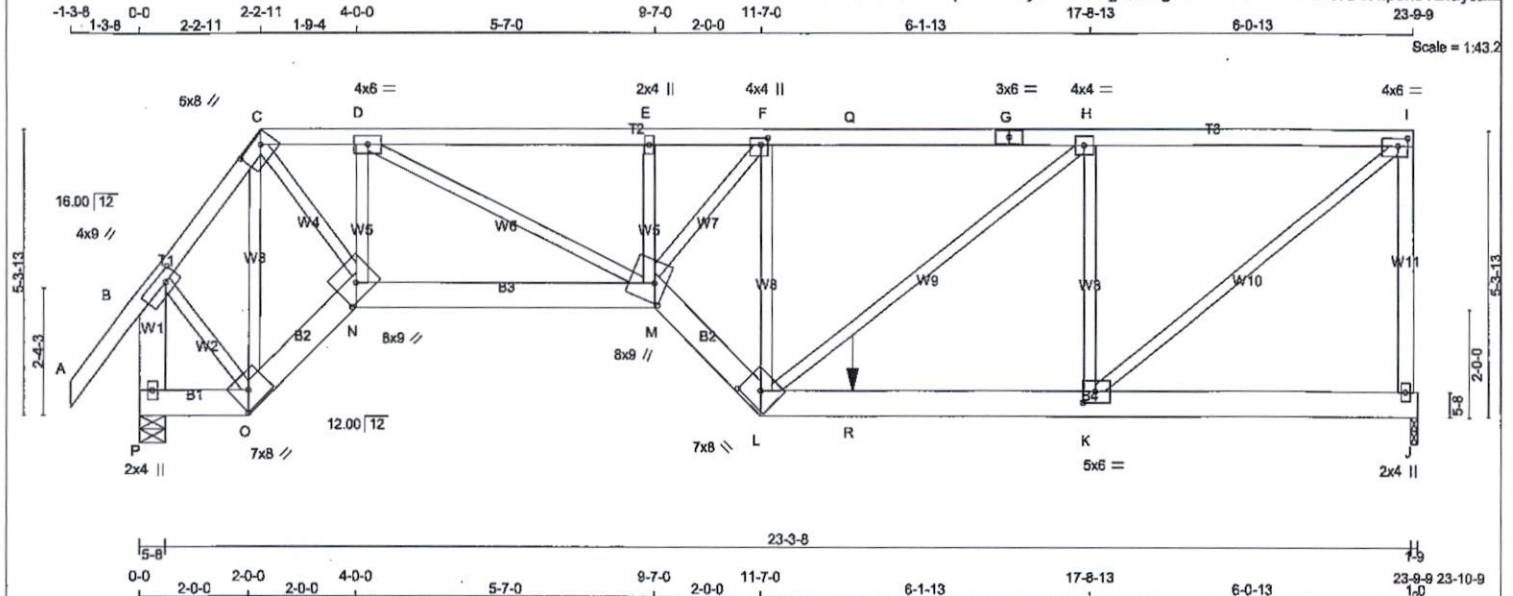
JSI GRIP= 0.53 (D) (INPUT = 0.80)
JSI METAL= 0.11 (C) (INPUT = 1.00)



JOB NAME 314240	TRUSS NAME H1TA	QUANTITY 2	PLY 2	JOB DESC. TRUSS DESC.	DRWG NO. JT-39002	E-19112645
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Alpa Roof Truss, Maple

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LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	DESCR.
A - C	2x4	DRY	No.2
C - G	2x4	DRY	No.2
G - I	2x4	DRY	No.2
J - I	2x4	DRY	No.2
P - B	2x6	DRY	No.2
P - O	2x6	DRY	No.2
O - N	2x6	DRY	No.2
N - M	2x6	DRY	No.2
M - L	2x6	DRY	No.2
L - J	2x6	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A-C	12	TOP
C-G	12	SIDE(41.1)
G-I	12	SIDE(41.1)
I-J	12	TOP
P-B	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
P-O	12	TOP
O-N	12	TOP
N-M	12	TOP
M-L	12	TOP
L-J	12	SIDE(10.0)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	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.

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQD	
JT	VERT	GROSS REACTION	SNOW	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
J	2784	0	2784	0	0	1-8	1-8		
P	2162	0	2162	0	0	5-8	1-8		

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	1977	1255 / 0	0 / 0	0 / 0	0 / 0	722 / 0	0 / 0
P	1532	986 / 0	0 / 0	0 / 0	0 / 0	546 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.02 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		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 48	-84.9 -84.9	0.07 (1)	10.00	O-C	-1670 / 0	0.29 (1)
B-C	-1432 / 0	-84.9 -84.9	0.05 (1)	6.25	C-N	0 / 3165	0.39 (1)
C-D	-2599 / 0	-84.9 -84.9	0.17 (1)	5.44	N-D	-1689 / 0	0.17 (1)
D-E	-5141 / 0	-84.9 -84.9	0.30 (1)	4.05	D-M	0 / 2803	0.35 (1)
E-F	-5134 / 0	-84.9 -84.9	0.27 (1)	4.02	M-E	-200 / 0	0.02 (1)
F-Q	-3472 / 0	-84.9 -84.9	0.62 (1)	4.25	M-F	0 / 2931	0.36 (1)
Q-G	-3472 / 0	-167.1 -167.1	0.62 (1)	4.25	L-F	-2878 / 0	0.58 (1)
G-H	-3472 / 0	-167.1 -167.1	0.62 (1)	4.25	L-H	0 / 717	0.09 (1)
H-I	-2911 / 0	-167.1 -167.1	0.59 (1)	4.60	K-H	-1618 / 0	0.33 (1)
J-I	-2771 / 0	0.0 0.0	0.84 (1)	6.87	K-I	0 / 3755	0.46 (1)
P-B	-2143 / 0	0.0 0.0	0.10 (1)	7.81	B-O	0 / 1152	0.14 (1)
P-O	0 / 0	-18.5 -18.5	0.01 (4)	10.00			
O-N	0 / 1312	-18.5 -18.5	0.09 (1)	10.00			
N-M	0 / 2662	-18.5 -18.5	0.20 (1)	10.00			
M-L	0 / 4823	-18.5 -18.5	0.32 (1)	10.00			
L-R	0 / 2912	-18.5 -18.5	0.77 (1)	10.00			
R-K	0 / 2912	-36.4 -36.4	0.77 (1)	10.00			
K-J	0 / 0	-36.4 -36.4	0.22 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
R	13-3-9	-1316	-1316	---	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	=	23.3	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	36.7	PSF	

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 2-2-11
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL
LOADS APPLIED TO FIRST 10-7-0 OF SPAN MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $\frac{1}{360}$ (0.79")
CALCULATED VERT. DEFL.(LL) = $\frac{1}{999}$ (0.14")
ALLOWABLE DEFL.(TL) = $\frac{1}{360}$ (0.79")
CALCULATED VERT. DEFL.(TL) = $\frac{1}{999}$ (0.27")

CSI: TC=0.64/1.00 (I-J-1), BC=0.77/1.00 (K-L-1), WB=0.58/1.00 (F-L-1), SSI=0.31/1.00 (K-L-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314240	H1TA		2	JT-39002	E-19112645(2)
Alpa Roof Truss, Maple					
Version 8.300 S Aug 9 2019 MITek Industries, Inc. Tue Nov 12 09:48:08 2019 Page 2					
ID:MF8llrfaTok7DlbpT4B71Xys4PG-11xjjQ53?gAFM19OSnzIP0FORyb40Lp8k6TBfuyJztl					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	9.0	2.00	3.00
C	TTWW-h	MT20	5.0	8.0	1.75	5.25
D	TMWW-t	MT20	4.0	6.0		
E	TMW+w	MT20	2.0	4.0		
F	TMWW+t	MT20	4.0	4.0	1.50	1.50
G	TS-t	MT20	3.0	6.0		
H	TMWW-t	MT20	4.0	4.0		
I	TMVW-t	MT20	4.0	6.0	1.75	2.25
J	BMV1+p	MT20	2.0	4.0		
K	BMWW-t	MT20	5.0	6.0	2.50	2.75
L	BBWW-h	MT20	7.0	8.0	3.25	4.00
M	BBWWW+m	MT20	8.0	9.0	4.25	2.50
N	BBWW-h	MT20	8.0	9.0	3.25	4.50
O	BBWW-h	MT20	7.0	8.0	Edge	3.50
P	BMV1+p	MT20	2.0	4.0		

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

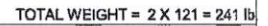
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (I) (INPUT = 0.90)

JSI METAL= 0.38 (K) (INPUT = 1.00)

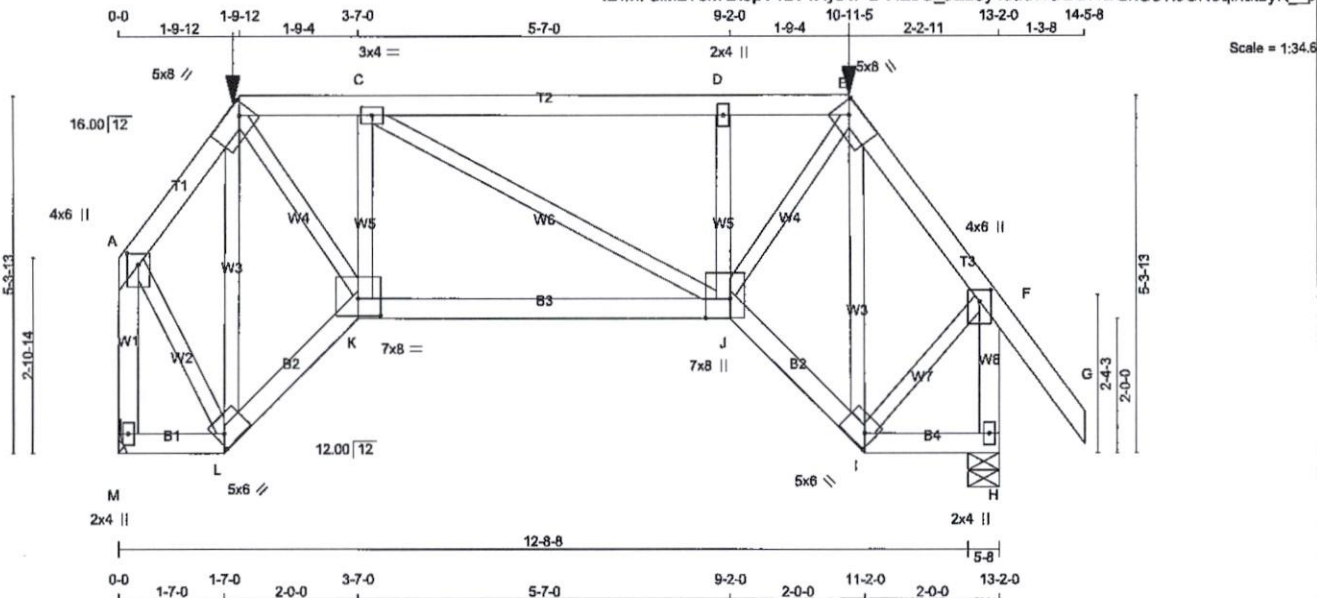
NOTE: Lateral brace(s) shown shall be 2x4 SPF #2





P-O	0/0	-18.5	-18.5	0.02 (4)	10.00
O-N	0/636	-18.5	-18.5	0.11 (1)	10.00
N-M	0/1872	-18.5	-18.5	0.37 (1)	10.00
M-L	0/1615	-18.5	-18.5	0.27 (1)	10.00
L-K	0/938	-18.5	-18.5	0.28 (4)	10.00
K-J	0/0	-18.5	-18.5	0.20 (4)	10.00

JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.42 (D) (INPUT = 1.00)



TOTAL WEIGHT = 2 X 70 = 140 lb

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - B	2x4	DRY	No.2
B - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
M - A	2x4	DRY	No.2
H - F	2x4	DRY	No.2
M - L	2x4	DRY	No.2
L - K	2x4	DRY	No.2
K - J	2x4	DRY	1650F 1.5E
J - I	2x4	DRY	No.2
I - H	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMWV+p	MT20	4.0	6.0	2.00 2.00
B	TTWW-h	MT20	5.0	8.0	2.00 2.00
C	TMWV-t	MT20	3.0	4.0	
D	TMWV-w	MT20	2.0	4.0	
E	TTWW-h	MT20	5.0	8.0	2.00 2.25
F	TMWV+p	MT20	4.0	6.0	2.00 2.00
H	BMV1+p	MT20	2.0	4.0	
I	BBWW-h	MT20	5.0	6.0	2.25 1.75
J	BBWWV+p	MT20	7.0	8.0	3.50 4.50
K	BBWW-I	MT20	7.0	8.0	3.00 4.00
L	BBWW-h	MT20	5.0	6.0	2.25 1.50
M	BMV1+p	MT20	2.0	4.0	

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
M	1314	0	1314	0	MECHANICAL	IN-SX
H	1419	0	1419	0	5-8	2-2

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

JT	1ST CASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
M	934	590 / 0	0 / 0	0 / 0	0 / 0	344 / 0	0 / 0
H	1006	647 / 0	0 / 0	0 / 0	0 / 0	359 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.22 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM TO			FR-TO				
A-B	-697 / 0	-84.9	-84.9	0.06 (1)	6.25	L-B	-1044 / 0	0.40 (1)	
B-C	-1249 / 0	-167.1	-167.1	0.27 (1)	5.38	B-K	0 / 1533	0.38 (1)	
C-D	-1348 / 0	-84.9	-84.9	0.30 (1)	5.22	K-C	-486 / 0	0.10 (1)	
D-E	-1331 / 0	-167.1	-167.1	0.26 (1)	5.26	C-J	0 / 92	0.02 (1)	
E-F	-849 / 0	-84.9	-84.9	0.09 (1)	6.25	J-D	-433 / 0	0.09 (1)	
F-G	0 / 48	-84.9	-84.9	0.13 (1)	10.00	J-E	0 / 1523	0.38 (1)	
M-A	-1286 / 0	0.0	0.0	0.22 (1)	7.08	E-I	-962 / 0	0.37 (1)	
H-F	-1383 / 0	0.0	0.0	0.19 (1)	6.88	A-L	0 / 768	0.19 (1)	
						I-F	0 / 700	0.17 (1)	
M-L	0 / 0	-36.4	-36.4	0.03 (4)	10.00				
L-K	0 / 651	-36.4	-36.4	0.14 (1)	10.00				
K-J	0 / 1268	-118.6	-118.6	0.74 (1)	10.00				
J-I	0 / 775	-36.4	-36.4	0.16 (1)	10.00				
I-H	0 / 0	-36.4	-36.4	0.05 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)							
JT	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE
B	1-9-12	-112	-112	---	FRONT	VERT	TOTAL
E	10-11-5	-138	-138	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN./C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 1-9-12
RIGHT SETBACK = 2-2-11
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 3-7-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder
START DISTANCE = 3-7-0
START SPAN CARRIED = 5-10-8
END DISTANCE = 9-2-0
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 1-9-12
RIGHT SETBACK = 2-2-11
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 4-0-0 OF SPAN MEASURED FROM THE RIGHT.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.44")
CALCULATED VERT. DEFL.(LL) = L/999 (0.15")
ALLOWABLE DEFL.(TL) = L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/479 (0.33")

CSI: TC=0.30/1.00 (C-D:1), BC=0.74/1.00 (J-K:1), WB=0.40/1.00 (B-L:1), SS=0.28/1.00 (J-K:1)



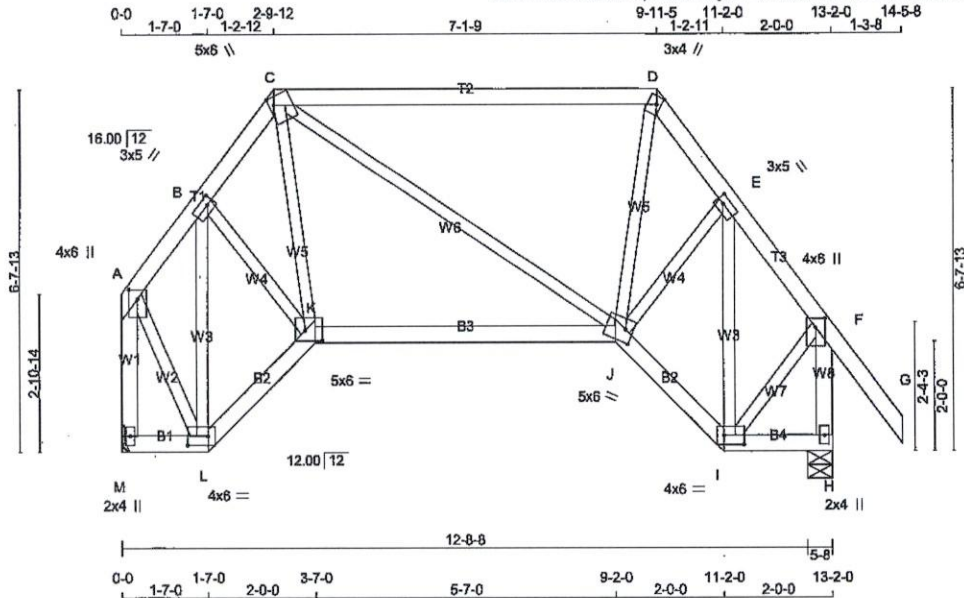
NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

JOB NAME 314240	TRUSS NAME H14T	QUANTITY 1	PLY 1	JOB DESC. TRUSS DESC.	JT-39002	DRWG NO. E-19112648
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Alpa Roof Truss, Maple

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Scale = 1:42.8

TOTAL WEIGHT = 2 X 74 = 148 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00	
B	TMWW-t	MT20	3.0	5.0	1.50	1.50	
C	TTWW+m	MT20	5.0	6.0	1.75	1.00	
D	TTW+m	MT20	3.0	4.0	1.75	1.00	
E	TMWW-t	MT20	3.0	5.0	1.50	1.50	
F	TMVW+p	MT20	4.0	6.0	2.00	2.00	
H	BMV1+p	MT20	2.0	4.0			
I	BBWW-I	MT20	4.0	6.0	2.00	4.50	
J	BBWW-m	MT20	5.0	6.0	2.75	1.75	
K	BBWW-I	MT20	5.0	6.0	2.25	3.75	
L	BBWW-I	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
M	674	0	674	0	0	0
H	806	0	806	0	5-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
M	479	303 / 0	0 / 0	0 / 0	0 / 0	176 / 0	0 / 0
H	570	376 / 0	0 / 0	0 / 0	0 / 0	194 / 0	0 / 0

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

BRACING

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

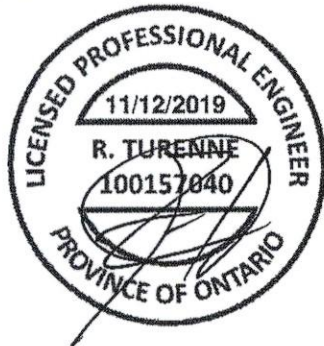
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		MAX. UNBRACED LENGTH	MEMB.	WEBS	
	FORCE (LBS)	VERT. LOAD (PLF)	CS1 (LC)	CS1 (LC)			FORCE (LBS)	MAX. CS1 (LC)
FR-TO						FR-TO		
A-B	-341 / 0	-84.9	-84.9	0.03 (1)	6.25	L-B	-488 / 0	0.17 (1)
B-C	-582 / 0	-84.9	-84.9	0.02 (1)	6.25	B-K	0 / 222	0.05 (1)
C-D	-380 / 0	-84.9	-84.9	0.50 (1)	6.25	C-K	0 / 89	0.03 (4)
D-E	-604 / 0	-84.9	-84.9	0.03 (1)	6.25	C-J	0 / 27	0.01 (1)
E-F	-430 / 0	-84.9	-84.9	0.12 (1)	6.25	J-D	0 / 130	0.04 (4)
F-G	0 / 48	-84.9	-84.9	0.12 (1)	10.00	J-E	0 / 202	0.05 (1)
M-A	-659 / 0	0.0	0.0	0.10 (1)	7.81	I-E	-416 / 0	0.14 (1)
H-F	-788 / 0	0.0	0.0	0.10 (1)	7.81	A-L	0 / 386	0.09 (1)
						I-F	0 / 327	0.07 (1)
M-L	0 / 0	-18.5	-18.5	0.01 (4)	10.00			
L-K	0 / 277	-18.5	-18.5	0.06 (1)	10.00			
K-J	0 / 358	-18.5	-18.5	0.20 (4)	10.00			
J-I	0 / 319	-18.5	-18.5	0.06 (1)	10.00			
I-H	0 / 0	-18.5	-18.5	0.02 (4)	10.00			

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018 , OBC 2012 , ABC 2019
- CSA 088-09, CSA 086-14
- TPIC 2011, TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.44")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CSI: TC=0.50/1.00 (C-D:1) , BC=0.20/1.00 (J-K:4)
WB=0.17/1.00 (B-L:1) , SSI=0.24/1.00 (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 .

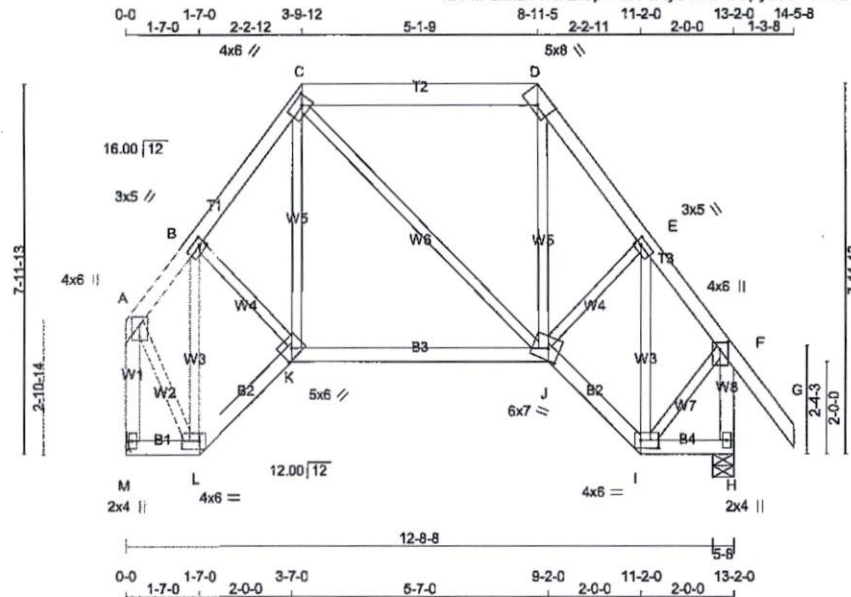
NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PL)	(PL)	(PL)
MAX	MIN	MAX	MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.71 (D) (INPUT = 0.90)
JSI METAL= 0.18 (F) (INPUT = 1.00)



TOTAL WEIGHT = 2 X 81 = 162 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - D	2x6	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
M - A	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	2x3	DRY	No.2	SPF
EXCEPT				

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TMVW-t	MT20	3.0	5.0	1.50	1.50
C	TTWW-h	MT20	4.0	6.0	2.00	2.25
D	TTWW-h	MT20	5.0	8.0	Edge	3.50
E	TMVW-t	MT20	3.0	5.0	1.50	1.50
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-m	MT20	6.0	7.0	3.00	3.00
K	BBWW-h	MT20	5.0	6.0	2.25	3.00
L	BBWW-l	MT20	4.0	6.0	2.00	4.50
M	BMV1+p	MT20	2.0	4.0		

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

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
M	674	0	674	0	0	0
H	806	0	806	0	0	0

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
M	479	303 / 0	0 / 0	0 / 0	0 / 0	0 / 0	176 / 0	0 / 0
H	570	376 / 0	0 / 0	0 / 0	0 / 0	0 / 0	194 / 0	0 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	MAX. FACTORED		FACTORED		MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED	
	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (LC)	LC2 (LC)			FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO			FR-TO		
A-B	-338 / 0	-84.9	-84.9	0.03 (1)	6.25	L-B	-503 / 0	0.17 (1)
B-C	-560 / 0	-84.9	-84.9	0.06 (1)	6.25	B-K	0 / 197	0.04 (1)
C-D	-339 / 0	-84.9	-84.9	0.14 (1)	6.25	K-C	0 / 122	0.03 (4)
D-E	-583 / 0	-84.9	-84.9	0.06 (1)	6.25	C-J	0 / 21	0.00 (1)
E-F	-429 / 0	-84.9	-84.9	0.09 (1)	6.25	D-J	0 / 154	0.04 (4)
F-G	0 / 48	-84.9	-84.9	0.12 (1)	10.00	J-E	0 / 175	0.04 (1)
M-A	-659 / 0	0.0	0.0	0.10 (1)	7.81	I-E	-427 / 0	0.15 (1)
H-F	-788 / 0	0.0	0.0	0.10 (1)	7.81	A-L	0 / 396	0.09 (1)
						I-F	0 / 335	0.08 (1)
M-L	0 / 0	-18.5	-18.5	0.01 (4)	10.00			
L-K	0 / 285	-18.5	-18.5	0.06 (1)	10.00			
K-J	0 / 324	-18.5	-18.5	0.20 (4)	10.00			
J-I	0 / 327	-18.5	-18.5	0.07 (1)	10.00			
I-H	0 / 0	-18.5	-18.5	0.02 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.4 PSF
 TOTAL LOAD = 36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
 - PART 9 OF CBC 2010, OBC 2012, ABC 2019
 - CSA 088-09, CSA 086-14
 - TPIC 2011, TPIC 2014

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.44")
 CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
 ALLOWABLE DEFL.(TL)= L/360 (0.44")
 CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.14/1.00 (C-D:1), BC=0.20/1.00 (J-K:4), WB=0.17/1.00 (B-L:1), SSI=0.13/1.00 (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	618	354	1667	788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

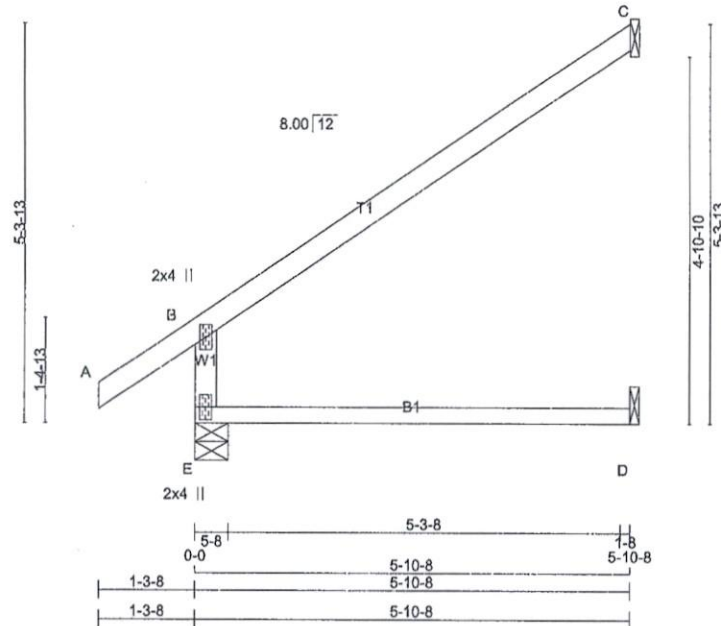
JSI GRIP= 0.50 (B) (INPUT = 0.90)
 JSI METAL= 0.18 (F) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310385	J1		1	TRUSS DESC. JT-39002	E-19072240

Alpa Roof Truss, Maple

Version 8.300 S May 10 2019 MiTek Industries, Inc. Wed Jul 10 10:24:38 2019 Page 1
ID:MF8IriaTok7DlbpT4B71Xys4PG-?PM6jlcxWAL?Kwbuel7hpk67VBo4mqNngkWoHtyzW1N
Scale = 1:31.2



TOTAL WEIGHT = 24 X 16 = 384 lb

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

DRY: SEASONED LUMBER.

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

NOTES- (1)

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
E	494	0	0	494	0	0	5-8	1-8	
C	187	0	0	187	0	0	1-8	1-8	
D	43	0	0	48	0	0	1-8	1-8	

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

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	348	235 / 0	0 / 0	0 / 0	0 / 0	113 / 0	0 / 0
C	129	103 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0
D	34	0 / 0	0 / 0	0 / 0	0 / 0	34 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC) (L)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO	LENGTH	FR-TO
E-B	-428 / 0	0.0	0.0 0.16 (4)	7.81	
A-B	0 / 32	-84.9	-84.9 0.11 (1)	10.00	
B-C	-35 / 0	-84.9	-84.9 0.50 (1)	6.25	
E-D	0 / 0	-18.5	-18.5 0.30 (4)	10.00	

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	36.7	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL)= L/ 932 (0.08")

CSI: TC=0.50/1.00 (B-C:1), BC=0.30/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), 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
MT20	618	354	1687 788 1987 1656

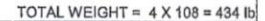
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

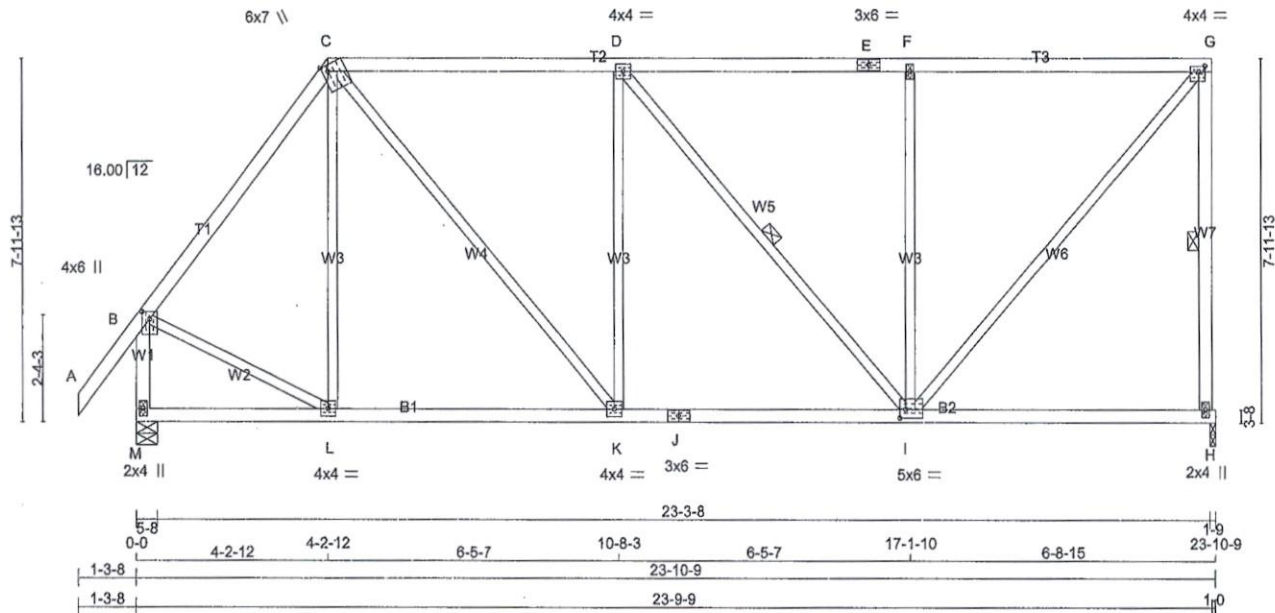
JSI GRIP= 0.28 (B) (INPUT = 0.90)
JSI METAL= 0.22 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2





JSI GRIP= 0.89 (G) (INPUT = 0.90)
JSI METAL= 0.36 (B) (INPUT = 1.00)



TOTAL WEIGHT = 4 X 116 = 466 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
H - G	2x4	DRY	No.2	SPF
M - B	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMVW+p	MT20	4.0	6.0	2.00	2.00
C TTWW+m	MT20	6.0	7.0	Edge	1.50
D TMVW-t	MT20	4.0	4.0		
E TS-t	MT20	3.0	6.0		
F TMVW+w	MT20	2.0	4.0		
G TMVW-t	MT20	4.0	4.0	1.50	1.75
H BMV1+p	MT20	2.0	4.0		
I BMVWW-t	MT20	5.0	6.0	2.25	1.50
J BS-t	MT20	3.0	6.0		
K BMVW-t	MT20	4.0	4.0		
L BMVW-t	MT20	4.0	4.0		
M BMV1+p	MT20	2.0	4.0		

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

NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
H	1230	0	1230	0	0	1-9	1-8		
M	1349	0	1349	0	0	5-8	2-0		

UNFACTORED REACTIONS

1ST LCASE		MAX /MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	
H	873	554 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0 / 0	
M	956	620 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0 / 0	

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.48 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-H, D-I.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 48	-84.9 -84.9	0.12 (1)	10.00	L-C	-146 / 28	0.18 (1)
B-C	-954 / 0	-84.9 -84.9	0.30 (1)	5.98	C-K	0 / 660	0.15 (1)
C-D	-993 / 0	-84.9 -84.9	0.53 (1)	5.48	K-D	-389 / 0	0.47 (1)
D-E	-824 / 0	-84.9 -84.9	0.54 (1)	5.83	D-I	-264 / 0	0.19 (1)
E-F	-824 / 0	-84.9 -84.9	0.54 (1)	5.83	I-F	-613 / 0	0.74 (1)
F-G	-824 / 0	-84.9 -84.9	0.54 (1)	5.83	I-G	0 / 1258	0.28 (1)
H-G	-1180 / 0	0.0 0.0	0.34 (1)	5.88	B-L	0 / 625	0.14 (1)
M-B	-1322 / 0	0.0 0.0	0.17 (1)	7.03			
M-L	0 / 0	-18.5 -18.5	0.13 (4)	10.00			
L-K	0 / 567	-18.5 -18.5	0.19 (4)	10.00			
K-J	0 / 993	-18.5 -18.5	0.28 (4)	10.00			
J-I	0 / 993	-18.5 -18.5	0.28 (4)	10.00			
I-H	0 / 0	-18.5 -18.5	0.19 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
DL = 6.0	PSF	
BOT CH.	LL = 0.0	PSF
DL = 7.4	PSF	
TOTAL LOAD = 36.7	PSF	

SPACING = 24.0 IN. G/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.08")

CSI: TC=0.54/1.00 (F-G:1), BC=0.28/1.00 (I-K:4), WB=0.74/1.00 (F-I:1), SSI=0.28/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

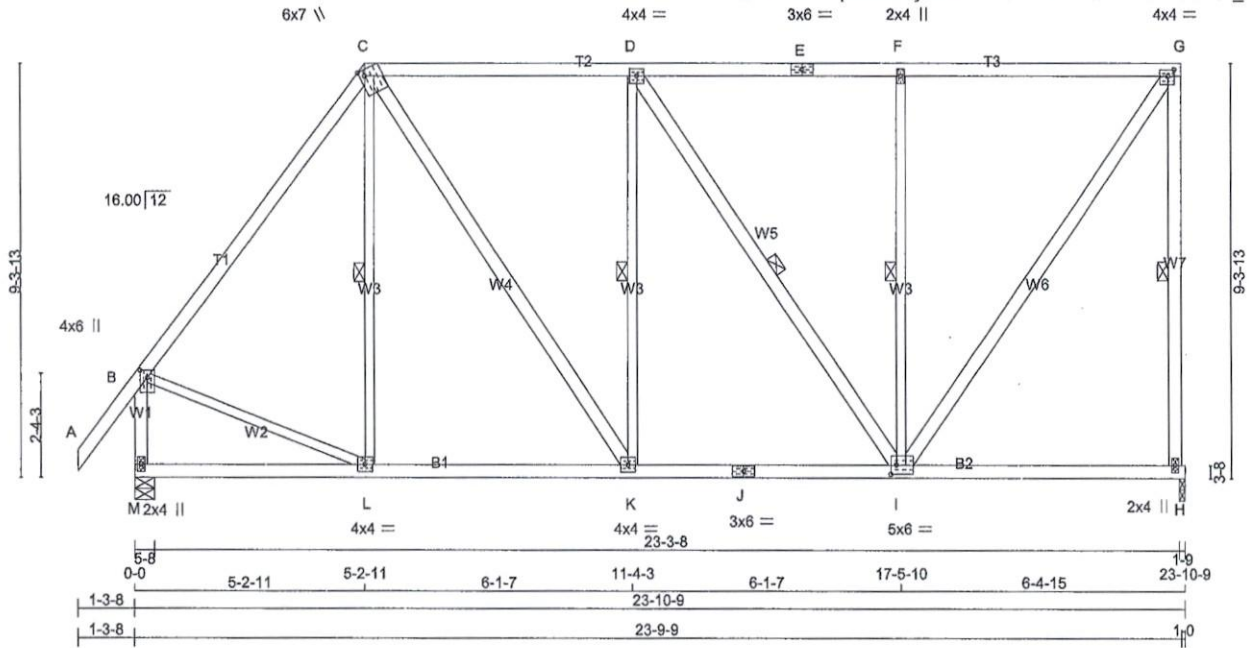
NAIL VALUES				
PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PL)	PL (PL)	
MAX MIN	MAX MIN	MAX MIN	MAX MIN	
MT20	618	354	1667	788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (I) (INPUT = 0.90)
JSI METAL= 0.37 (B) (INPUT = 1.00)





TOTAL WEIGHT = 4 X 135 = 541 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B TMVW+p	MT20	4.0	6.0	2.00 2.00
C TTWV+m	MT20	6.0	7.0	Edge 1.50
D TMVW-t	MT20	4.0	4.0	
E TS-t	MT20	3.0	6.0	
F TMVW+w	MT20	2.0	4.0	
G TMVW-t	MT20	4.0	4.0	1.75 1.75
H BMV1+p	MT20	2.0	4.0	
I BMVWW-t	MT20	6.0	6.0	2.50 1.50
J BS-t	MT20	3.0	6.0	
K BMVW-t	MT20	4.0	4.0	
L BMVW-t	MT20	4.0	4.0	
M BMV1+p	MT20	2.0	4.0	

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

NOTES: (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UP	IN-SX
H	1230	0	1230	0	1-8
M	1349	0	1349	0	2-0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX	MIN	COMPONENT REACTIONS	WIND	DEAD	SOIL
H	873	554 / 0	0 / 0	PERM. LIVE	0 / 0	319 / 0	0 / 0
M	956	620 / 0	0 / 0	PERM. LIVE	0 / 0	336 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.74 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX	MEMB.	FORCE (LBS)	MAX	CSI (LC)
FR-TO		FROM	TO	FR-TO			
A-B	0 / 48	-84.9	-84.9 0.12 (1)	L-C	-91 / 55	0.05 (1)	
B-C	-949 / 0	-84.9	-84.9 0.49 (1)	C-K	0 / 502	0.08 (1)	
C-D	-848 / 0	-84.9	-84.9 0.46 (1)	K-D	-308 / 0	0.18 (1)	
D-E	-677 / 0	-84.9	-84.9 0.47 (1)	D-I	-307 / 0	0.20 (1)	
E-F	-677 / 0	-84.9	-84.9 0.47 (1)	I-F	-582 / 0	0.33 (1)	
F-G	-677 / 0	-84.9	-84.9 0.48 (1)	I-G	0 / 1179	0.19 (1)	
H-G	-1182 / 0	0.0	0.0 0.48 (1)	B-L	0 / 604	0.14 (1)	
M-B	-1311 / 0	0.0	0.0 0.17 (1)				
M-L	0 / 0	-18.5	-18.5 0.14 (4)				
L-K	0 / 566	-18.5	-18.5 0.19 (4)				
K-J	0 / 849	-18.5	-18.5 0.25 (4)				
J-I	0 / 849	-18.5	-18.5 0.25 (4)				
I-H	0 / 0	-18.5	-18.5 0.18 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.4 PSF
 TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2010, NBC 2015

THIS DESIGN COMPLIES WITH:
 - PART 9 OF CBC 2018, OBC 2012
 - CSA 086-09, CSA 086-14
 - TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.78")
 CALCULATED VERT. DEFL.(LL)= L/999 (0.03")
 ALLOWABLE DEFL.(TL)= L/360 (0.78")
 CALCULATED VERT. DEFL.(TL)= L/999 (0.06")

CSI: TC=0.49/1.00 (B-C:1), BC=0.25/1.00 (I-K:4), WB=0.33/1.00 (F-I:1), SI=0.25/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

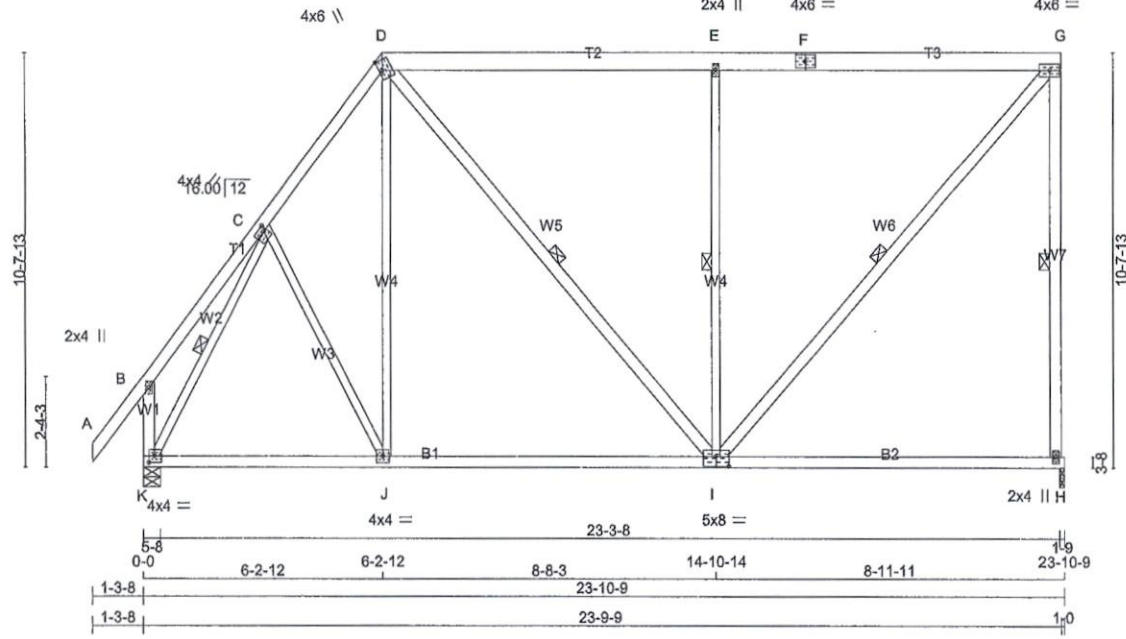
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90)
 JSI METAL= 0.38 (B) (INPUT = 1.00)





TOTAL WEIGHT = 4 X 143 = 574 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B TMV+p	MT20	2.0	4.0	
C TMVW-t	MT20	4.0	4.0	1.50 1.00
D TTWW+m	MT20	4.0	6.0	3.00 1.00
E TMVW+w	MT20	2.0	4.0	
F TS-t	MT20	4.0	6.0	
G TMVW-t	MT20	4.0	6.0	
H BMV1+p	MT20	2.0	4.0	
I BSWWW-I	MT20	5.0	8.0	3.00 4.00
J BMVW-t	MT20	4.0	4.0	
K BMVW-t	MT20	4.0	4.0	2.00 1.75

NOTES- (1)

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
H	1230	0	1230	0	0	1-9	1-8		
K	1349	0	1349	0	0	5-8	1-8		

UNFACTORED REACTIONS		1ST LCASE		MAX/MIN COMPONENT REACTIONS		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
JT	COMBINED	SNOW													
H	873	564 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0 / 0	0 / 0	0 / 0
K	956	620 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0 / 0	0 / 0	0 / 0

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

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.18 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING
 TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO				FR-TO			
A-B	0 / 48	-84.9	-84.9 0.12 (1)	10.00	C-J	0 / 41	0.01 (4)
B-C	0 / 23	-84.9	-84.9 0.13 (1)	10.00	J-D	0 / 160	0.06 (4)
C-D	-962 / 0	-84.9	-84.9 0.14 (1)	6.18	D-I	0 / 277	0.04 (1)
D-E	-743 / 0	-84.9	-84.9 0.55 (1)	6.25	I-E	-924 / 0	0.71 (1)
E-F	-743 / 0	-84.9	-84.9 0.55 (1)	6.25	I-G	0 / 1136	0.18 (1)
F-G	-743 / 0	-84.9	-84.9 0.55 (1)	6.25	K-C	-1224 / 0	0.38 (1)
H-G	-1148 / 0	0.0	0.0 0.63 (1)	5.94			
K-B	-219 / 0	0.0	0.0 0.03 (1)	7.81			
K-J	0 / 553	-18.5	-18.5 0.36 (4)	10.00			
J-I	0 / 564	-18.5	-18.5 0.37 (4)	10.00			
I-H	0 / 0	-18.5	-18.5 0.43 (4)	10.00			

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.4 PSF
 TOTAL LOAD = 36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
 - PART 9 OF CBC 2018, OBC 2012
 - CSA 086-09, CSA 086-14
 - TPIC 2011, TPIC 2014

(56 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
 CALCULATED VERT. DEFL.(LL) = L/ 989 (0.03")
 ALLOWABLE DEFL.(TL)= L/360 (0.79")
 CALCULATED VERT. DEFL.(TL) = L/ 930 (0.31")

CSI: TC=0.63/1.00 (G-H:1), BC=0.43/1.00 (H-I:4), WB=0.71/1.00 (E-I:1), SSI=0.28/1.00 (E-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES			
PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)	
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

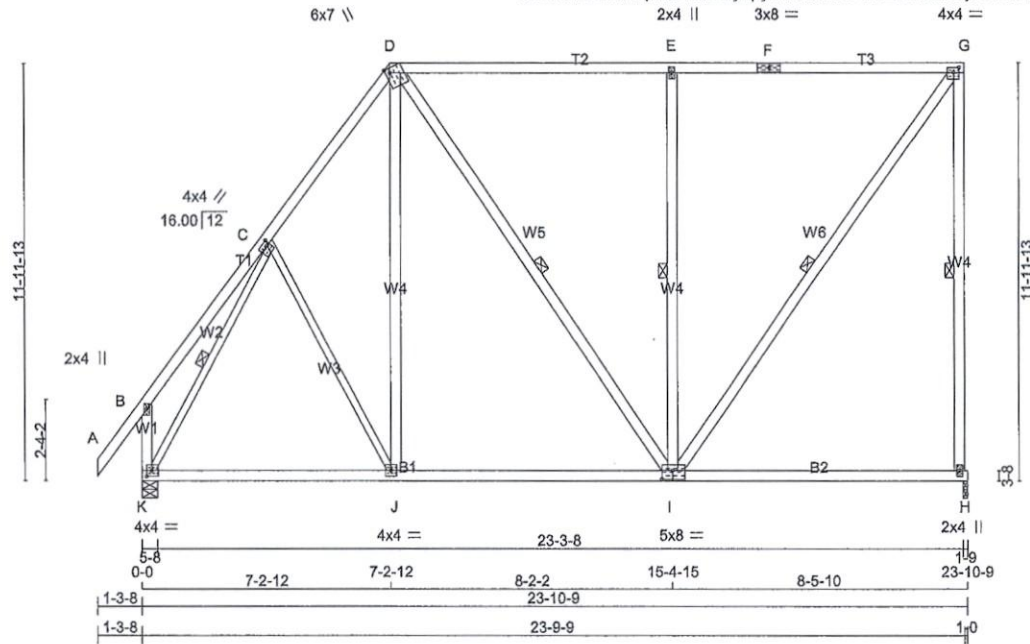
JSI GRIP= 0.87 (K) (INPUT = 0.90)
 JSI METAL= 0.45 (C) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310397	H6		1	TRUSS DESC.	JT-39002

Alpa Roof Truss, Maple

Version 8.300 S May 10 2019 MITek Industries, Inc. Thu Jul 11 13:23:41 2019 Page 1
ID:KX9I86OLIWQKXBYZIGBJHpsKNA-B7cAvJELCMLX9JT7v0R4SE_2p7Yo2PUNgmIqKpyz8JW
Scale = 1:67.2



TOTAL WEIGHT = 13 X 148 = 1918 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMVW-t	MT20	4.0	4.0	1.50	1.00
D	TTWV+H	MT20	6.0	7.0	Edge	1.50
E	TMVW-w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	8.0		
G	TMVW-t	MT20	4.0	4.0	1.75	1.75
H	BMV1+p	MT20	2.0	4.0		
I	BSWWW-t	MT20	5.0	8.0	3.00	3.75
J	BMVW-t	MT20	4.0	4.0		
K	BMVW-t	MT20	4.0	4.0	2.00	1.75

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

NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
GROSS REACTION	GROSS REACTION	BRG	BRG	
JT VERT	HORZ	DOWN	HORZ	UPLIFT
JT 1311	0	1311	0	0
H 1311	0	1311	0	0
K 1393	0	1393	0	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT 938	554 / 0	0 / 0	0 / 0	0 / 0	0 / 0	384 / 0	0 / 0
H 990	620 / 0	0 / 0	0 / 0	0 / 0	0 / 0	370 / 0	0 / 0

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

BRACING

FOR SECTION D-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.13 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD LC1	MAX	MAX. MEMB.	MAX. FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. (PLF)	CS1 (LC)	UNBRAC LENGTH FR-TO	MEMB.	FORCE (LBS)	CS1 (LC)	MEMB.
FR-TO		FROM TO						
A-B	0 / 48	-84.9 -84.9	0.12 (1)	10.00	C-J	-39 / 30	0.05 (1)	
B-C	0 / 29	-84.9 -84.9	0.18 (1)	10.00	J-D	0 / 211	0.04 (4)	
C-D	-981 / 0	-84.9 -84.9	0.15 (1)	6.13	D-I	0 / 179	0.03 (1)	
D-E	-673 / 0	-92.4 -92.4	0.71 (1)	2.00	I-E	-950 / 0	0.75 (1)	
E-F	-674 / 0	-92.4 -92.4	0.72 (1)	2.00	I-G	0 / 1156	0.19 (1)	
F-G	-674 / 0	-92.4 -92.4	0.72 (1)	2.00	K-C	-1254 / 0	0.49 (1)	
H-G	-1233 / 0	0.0 0.0	0.97 (1)	5.78				
K-B	-234 / 0	0.0 0.0	0.03 (1)	7.81				
K-J	0 / 588	-18.5 -18.5	0.37 (4)	10.00				
J-I	0 / 571	-18.5 -18.5	0.38 (4)	10.00				
I-H	0 / 0	-18.5 -18.5	0.38 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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 WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/999 (0.25")

CSI: TC=0.97/1.00 (G-H:1), BC=0.38/1.00 (H-I:4), WB=0.75/1.00 (E-I:1), SS=0.38/1.00 (E-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

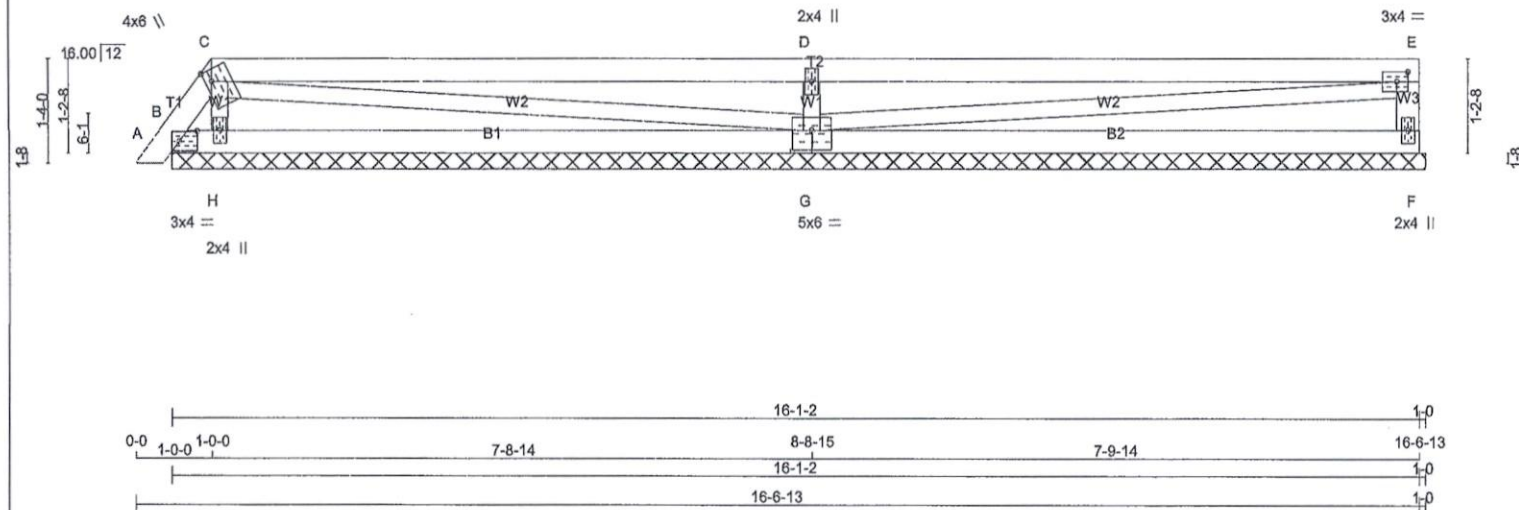
JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.47 (C) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
310397	H7		1	TRUSS DESC.	JT-39002 E-19072393

Alpa Roof Truss, Maple

Version 8.300 S May 10 2019 Mitek Industries, Inc. Thu Jul 11 13:23:42 2019 Page 1
ID:KX9I86OLIWqKxBYZIGBjHpySKNA-fJAY6fFzzgTOns1BSkyJ7RWF0Xupn0aXvQUDsGyz8JV
Scale = 1:29.9



TOTAL WEIGHT = 4 X 52 = 207 lb (M)

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

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.75
C	TTWW+m	MT20	4.0	6.0	1.75	1.00
D	TMW+w	MT20	2.0	4.0		
E	TMW-I	MT20	3.0	4.0	1.50	1.75
F	BMV1+p	MT20	2.0	4.0		
G	BSWWW1-I	MT20	5.0	6.0	3.00	3.00
H	BMW1+w	MT20	2.0	4.0		

NOTES: (1)

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
F	323	0	323	0	0	16-2-2 (16-1-2)9-1			
B	-76	0	0	0	-192	16-2-2 (16-1-2)9-1			
H	494	0	494	0	0	16-2-2 (16-1-2)9-1			
G	953	0	953	0	0	16-2-2 (16-1-2)9-1			

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 192 LBS. FACTORED UPLIFT

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	231	137 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0
B	-74	64 / 0	0 / 0	0 / 0	0 / 0	0 / -137	0 / 0
H	373	111 / 0	0 / 0	0 / 0	0 / 0	261 / 0	0 / 0
G	672	454 / 0	0 / 0	0 / 0	0 / 0	218 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 11	-84.9 -84.9	0.01 (1)	10.00	H-C	-205 / 0	0.03 (1)
B-C	-74 / 0	-84.9 -84.9	0.00 (1)	6.25	C-G	-11 / 0	0.01 (1)
C-D	-2 / 0	-84.9 -84.9	0.87 (1)	10.00	G-D	-826 / 0	0.12 (1)
D-E	-3 / 0	-84.9 -84.9	0.87 (1)	10.00	G-E	0 / 3	0.00 (1)
F-E	-250 / 0	0.0 0.0	0.03 (1)	7.81			
B-H	0 / 39	-18.5 -18.5	0.29 (4)	10.00			
H-G	0 / 14	-18.5 -18.5	0.29 (4)	10.00			
G-F	0 / 0	-18.5 -18.5	0.33 (4)	10.00			

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 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 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55% OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.87/1.00 (D-E:1), BC=0.33/1.00 (F-G:4), WB=0.12/1.00 (D-G:1), SS=0.32/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1666

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.78 (C) (INPUT = 0.90)
JSI METAL= 0.41 (G) (INPUT = 1.00)



NOTES- (1)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



CHORDS				WEBS				
MAX. FACTORED		FACTORED		MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO		FR-TO			
A-B	0 / 11	-84.9	-84.9	0.01 (1)	10.00	H-C	-216 / 0	0.03 (1)
B-C	-83.0 / 0	-84.9	-84.9	0.03 (1)	6.25	C-G	-36 / 0	0.04 (1)
C-D	-2 / 0	-84.9	-84.9	0.76 (1)	10.00	G-D	-772 / 0	0.12 (1)
D-E	-2 / 0	-84.9	-84.9	0.76 (1)	10.00	G-E	0 / 2	0.00 (1)
F-E	-235 / 0	0.0	0.0	0.03 (1)	7.81			
B-H	0 / 47	-18.5	-18.5	0.23 (4)	10.00			
H-G	0 / 37	-18.5	-18.5	0.23 (4)	10.00			
G-F	0 / 0	-18.5	-18.5	0.29 (4)	10.00			

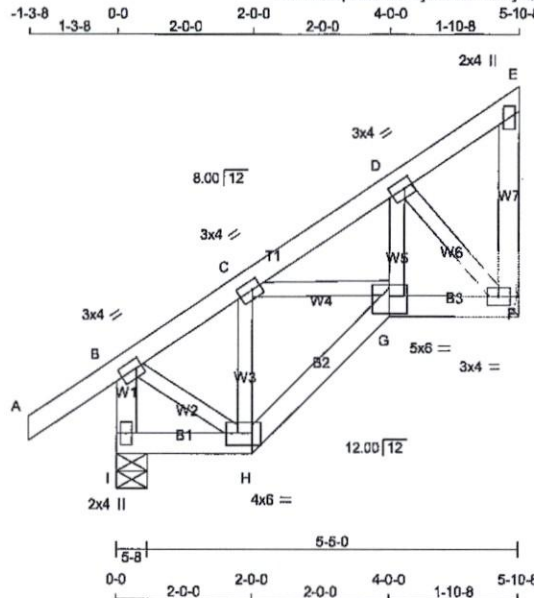
JSI GRIP= 0.84 (E) (INPUT = 0.90)
JSI METAL= 0.39 (G) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
314233	J01T		1	TRUSS DESC. JT-39002	E-19112509

Alpa Roof Truss, Maple

Version 8.300 S Aug 9 2019 MiTek Industries, Inc. Fri Nov 8 12:09:33 2019 Page 1

ID:VRLqmcDifZCj2mk6F92VyQuye-PedLg6Kg34EyrhyaL6P1sHTzGSwDvwmGaw1?4yLGAm



Scale = 1:33.7

TOTAL WEIGHT = 7 X 30 = 209 lb

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

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	UPLIFT	IN-SX
I	434	0	434	0
F	290	0	290	0

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

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS
JT	COMBINED
I	305
F	206

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	WEBS	MAX. FACTORED
MEMB.	FORCE	VERT.	PLF	CSI	UNBRAC	MEMB.	FORCE
	(LBS)			(LC)	LENGTH		(LBS)
FR-TO		FROM	TO			FR-TO	
I-B	-415 / 0	0.0	0.0	0.04 (1)	7.81	B-H	0 / 173
A-B	0 / 32	-84.9	-84.9	0.11 (1)	10.00	H-C	-188 / 0
B-C	-204 / 0	-84.9	-84.9	0.11 (1)	6.25	C-G	0 / 81
C-D	-264 / 0	-84.9	-84.9	0.05 (1)	6.25	G-D	0 / 172
D-E	-11 / 0	-84.9	-84.9	0.05 (1)	6.25	D-F	-308 / 0
F-E	-56 / 0	0.0	0.0	0.01 (1)	7.81		
I-H	0 / 0	-18.5	-18.5	0.02 (4)	10.00		
H-G	0 / 204	-18.5	-18.5	0.05 (1)	10.00		
G-F	0 / 215	-18.5	-18.5	0.05 (1)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 36.7 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, OBC 2012, ABC 2019
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.11/1.00 (A-B:1), BC=0.05/1.00 (F-G:1), WB=0.05/1.00 (D-F:1), SS=0.08/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
		(PSI)	(PLI)	(PLI)
		MAX	MIN	MAX MIN
	MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.56 (B) (INPUT = 0.90)
JSI METAL= 0.12 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 2x4 SPF #2



May 27, 2019

Re: Expiration Date for Technical Bulletins Extended to 12/31/2019

Please be advised that the expiration date of the Technical Bulletins listed below has been extended until December 31, 2019.

T-SPECCP17	T-SPECH17	T-SPECDSHGUS17R
T-SPECHGUS17-R	T-SPECHHUS17-R	T-SPECHUS17
T-SPECLF17	T-SPECLT17	T-SPECLU17
T-SPECCLUL17	T-SPECLUS17	T-SPECSUR17
T-SPECTBE17	T-SPECTC17	T-SPECTHGB17
T-SPECTHGBHV17	T-SPECTHGQ17	T-SPECTHGW17
T-SPECLSULSSU17	T-SPECHTHGQ17	T-SPECSTHGQ17

Should you have any questions or concerns regarding the above, please contact me at your convenience.

Sincerely,



Brent Bunting, P.Eng.
Simpson Strong-Tie Canada, Ltd.



LUS – Double Shear Joist Hangers

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

Material: 18 gauge

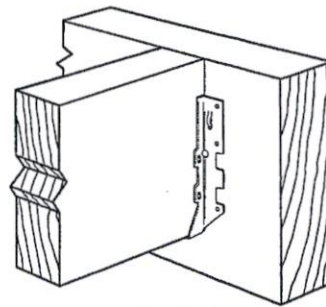
Finish: G90 galvanized

Design:

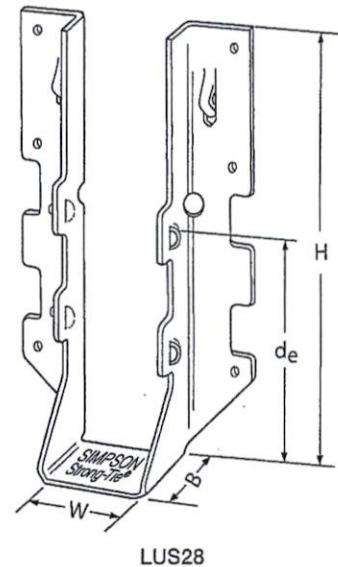
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

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



Typical LUS
Installation



Options:

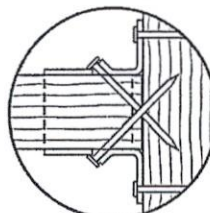
- These hangers cannot be modified

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 _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1½	3½	1¾	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3½	3½	2	1 15/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1½	4¾	1¾	3¾	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3½	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4¾	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6¾	1¾	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4¾	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1½	7 13/16	1¾	3¾	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4¾	8 3/8	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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).
U.S. Patent
5,603,580



Double
Shear
Nailing
Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 1, 2017. This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com

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T-SPECLUS17 3/17 exp. 6/19

(800) 999-5099
strongtie.com

HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

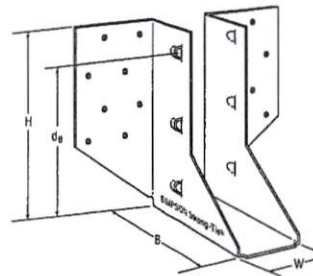
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

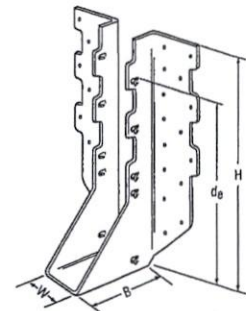
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

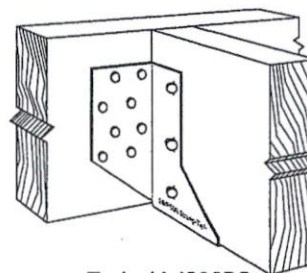
- See current catalogue for options



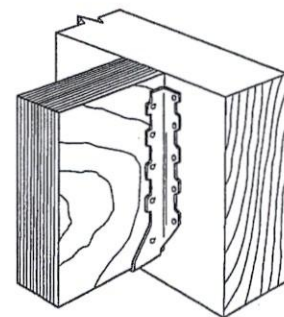
LJS26DS



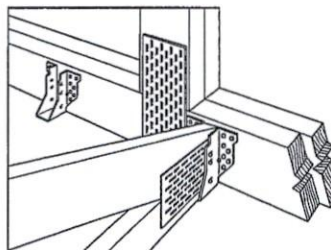
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



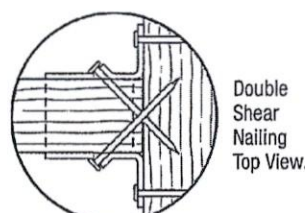
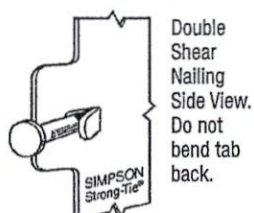
Typical HUS
Installation



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 _s ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
LJS26DS	18	1 1/16	5	3 1/2	4 5/8	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1 1/8	5 3/8	3	3 1/4	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1 1/8	7 3/32	3	6 3/32	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1 1/8	9 3/32	3	7 3/32	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1 13/16	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

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



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strongtie.com

HHUS – Double Shear Joist Hangers



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

Material: 14 gauge

Finish: G90 galvanized

Design:

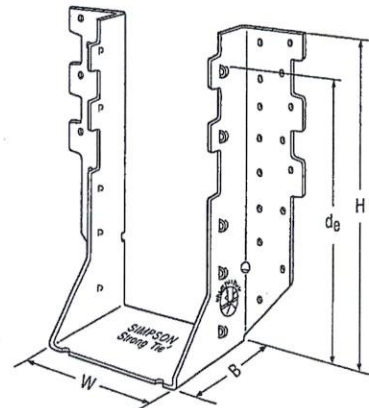
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

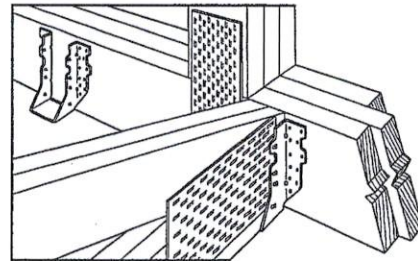
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

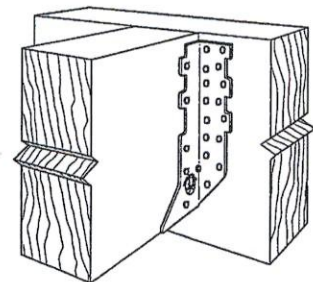
- See current catalogue for options



HHUS410



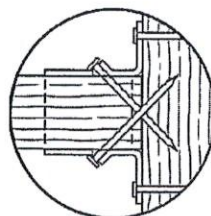
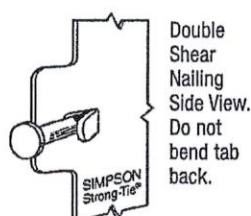
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _b ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
HHUS26-2	14	3 9/16	5 13/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 9/16	7 7/32	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 9/16	9 3/32	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 11/16	9	3	7 15/16	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	6 1/8	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 9/8	5 13/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 9/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 9/8	9	3	8	(30) 16d	(10) 16d	4745	9855	4310	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS7.25/10	14	7 1/4	9	3 5/16	7 29/32	(30) 16d	(10) 16d	4745	10770	4310	7650

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



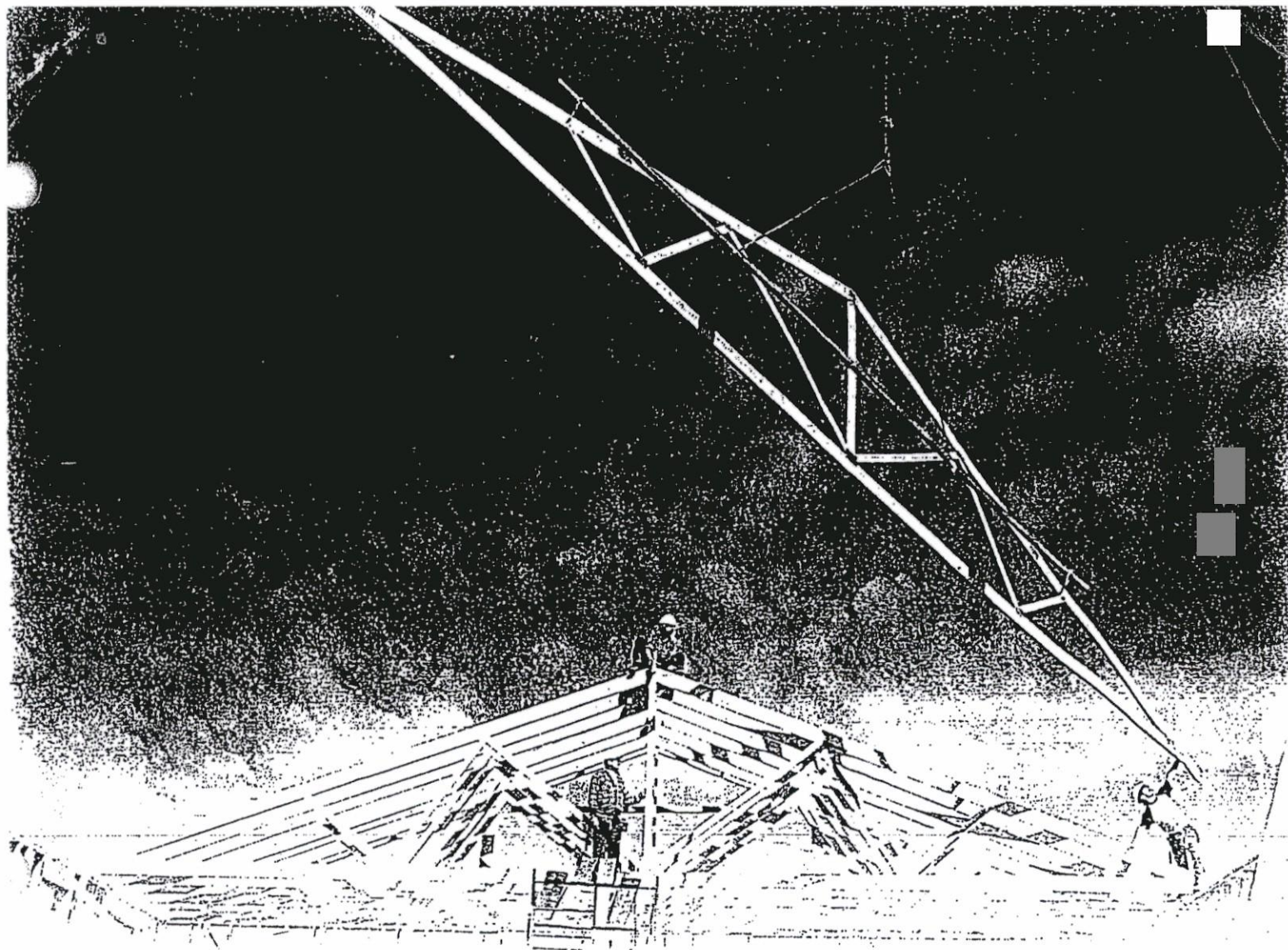
LIMIT
STATES
DESIGN

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Wood Truss Installation

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

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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.

Unloading & Lifting

Never handle trusses flat

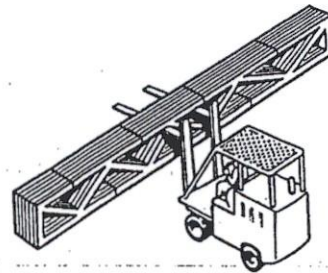
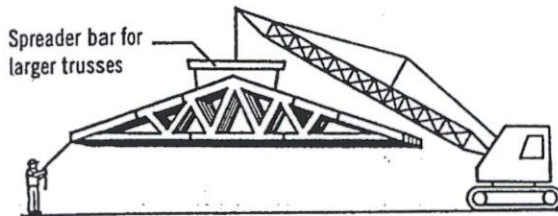
Beginning with the unloading process, and throughout all phases of construction, care must be taken to avoid lateral bending of trusses, which can cause damage to the lumber and metal connector plates at the joints.



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.

Job Site Handling



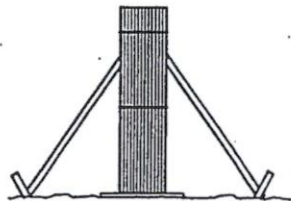
All trusses should be picked up at the top chords in a vertical position only

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



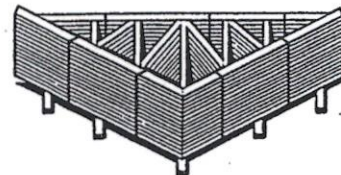
Do not store unbraced bundles upright

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



Do not store on uneven ground

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



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

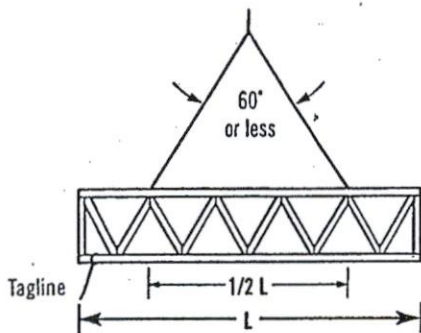
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

3 Hoisting

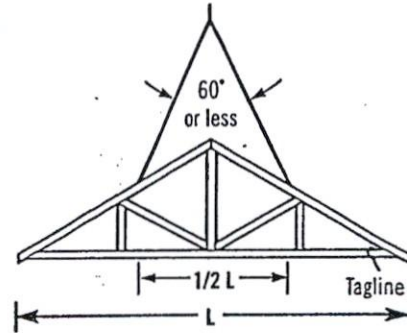
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



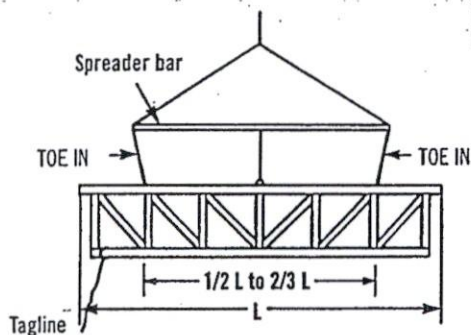
Avoid lateral bending



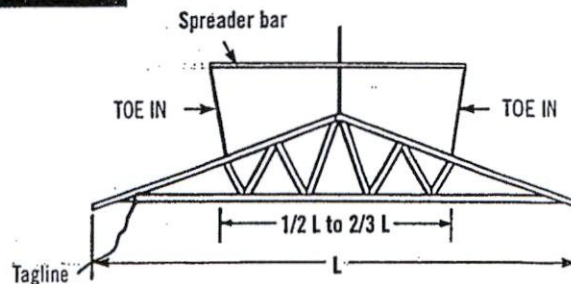
$L \leq 30'$



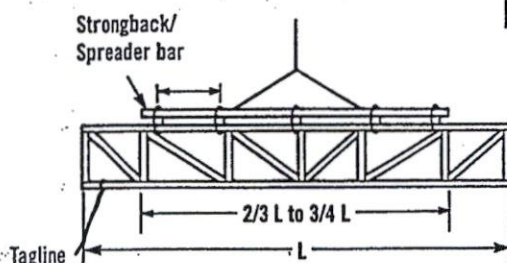
Truss sling is acceptable where these criteria are met.



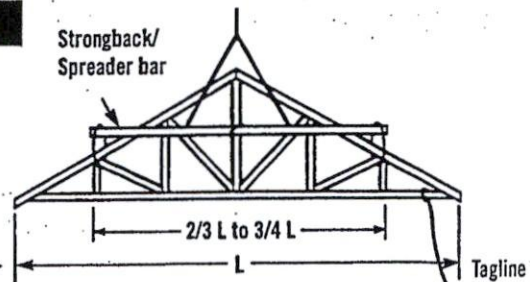
$30' < L \leq 60'$



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



$L > 60'$



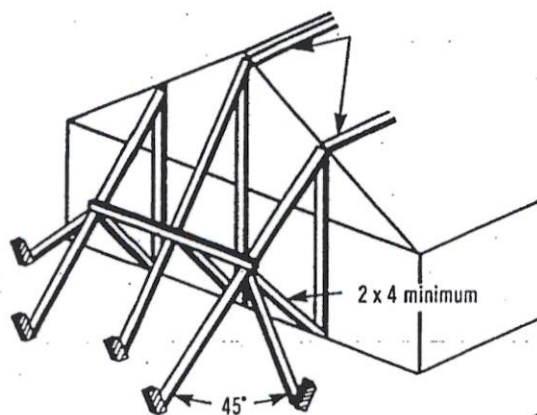
For lifting trusses with spans in excess of 60 feet, it is recommended that a strongback/spreader bar be used as illustrated. The strongback/spreader bar should be attached to the top chord and web members at intervals of approximately 10 feet. Further, the strongback/spreader bar should be at or above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

4 Beginning the Erection Process

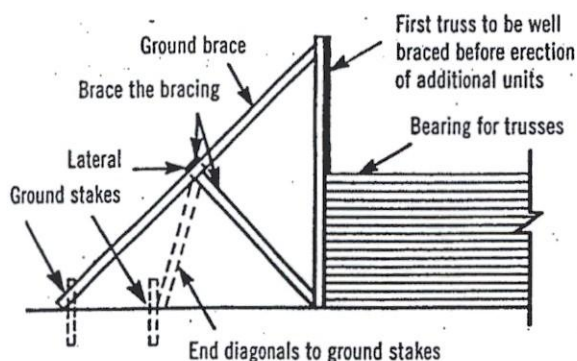
It is important for the builder or erection contractor to provide substantial bracing for the first truss erected. The two or more trusses making up the rest of the first set are tied to and rely upon the first truss for stability. Likewise, after this first set of trusses is adequately cross-braced,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

Ground Brace - Exterior

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

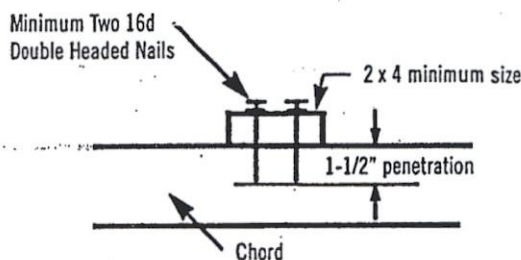
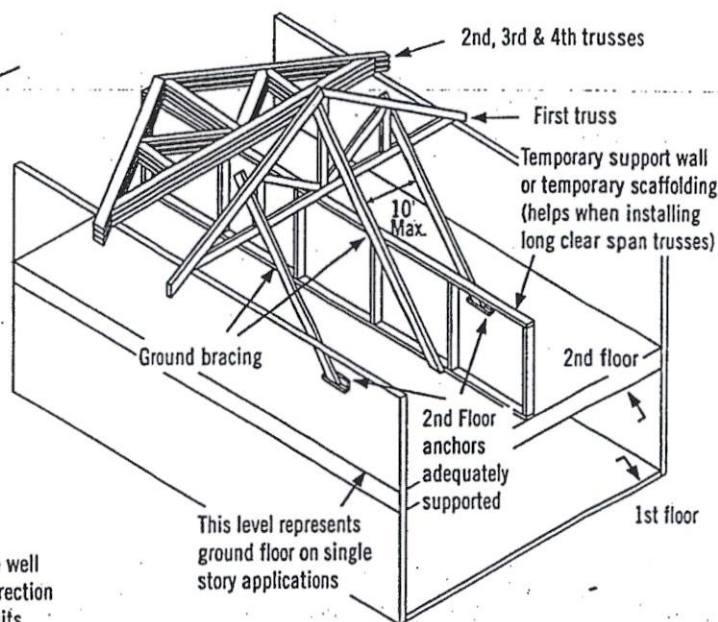


Note: Locate ground braces for first truss directly in line with all rows of top chord continuous lateral bracing (either temporary or permanent).



Ground Brace - Interior

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

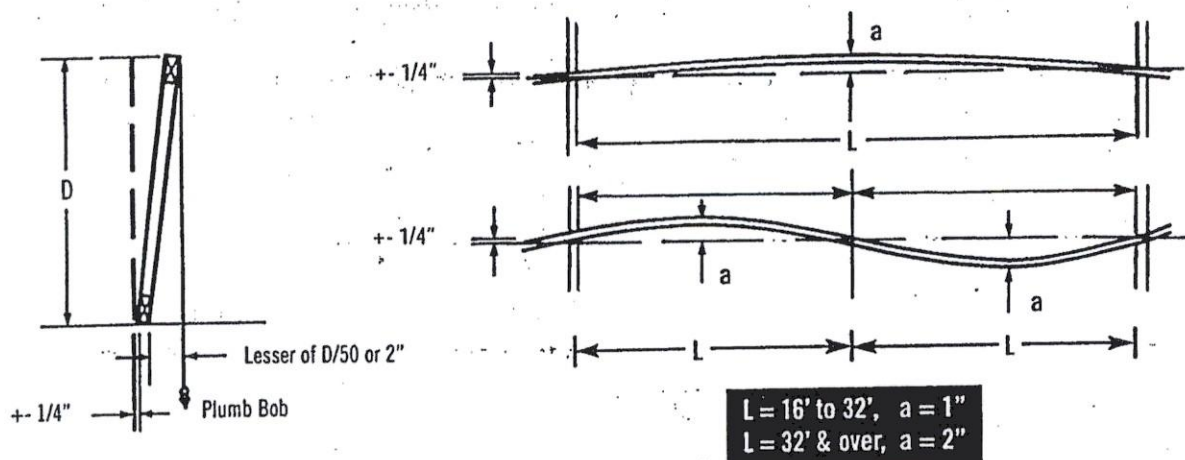


Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.

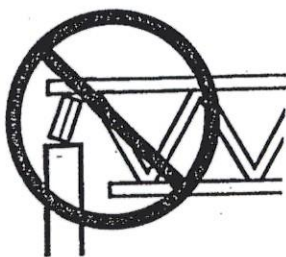
5 Erection Tolerance

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

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



6 Bracing



Do not install trusses on temporarily connected supports



Do not walk on unbraced trusses



Do not walk on trusses or gable ends lying flat

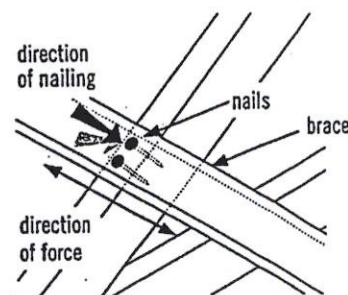


Nails in withdrawal (parallel to force)

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

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

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



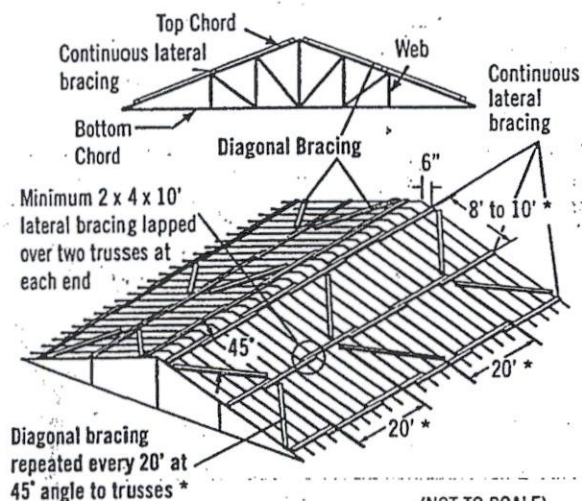
Well nailed (perpendicular to force)

7 Bracing Requirements for 3 Planes of Roof

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

1) Top Chord Plane

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

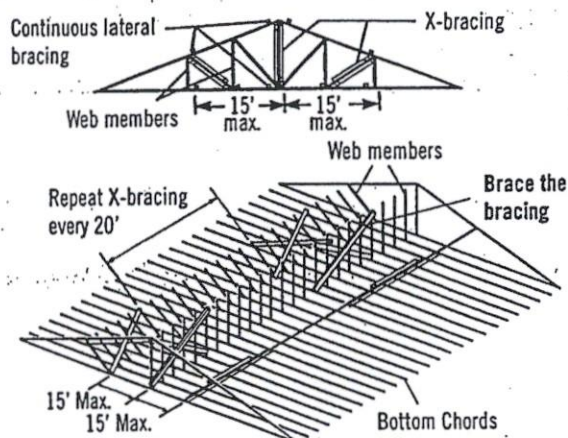


Exact spacing between trusses should be maintained as bracing is installed to avoid the hazardous practice of removing bracing to adjust spacing. This act of "adjusting spacing" can cause trusses to topple if connections are removed at the wrong time.

3) Web Member Plane

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

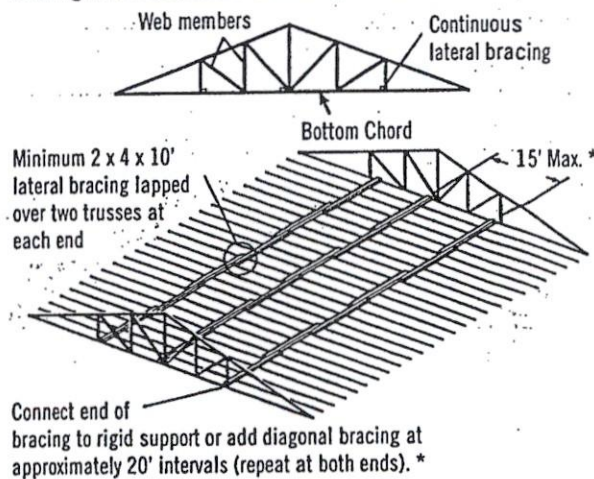
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



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

2) Bottom Chord Plane

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

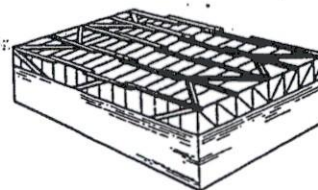


* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (*Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses*) for details.

Diagonal or cross-bracing is very important!



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

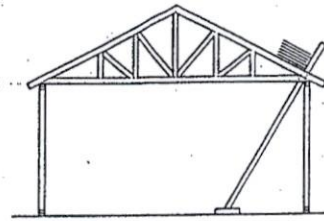
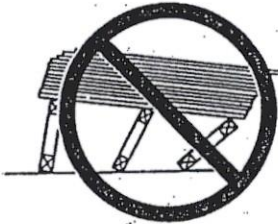


Bracing requirements using the same principles apply to parallel chord trusses

8 Stacking Materials

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

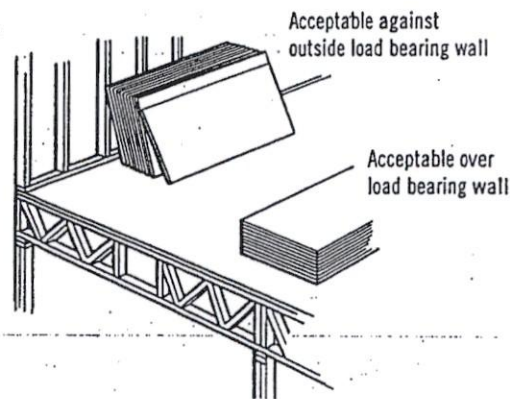
Never stack materials on unbraced or inadequately braced trusses



Platform must be rigidly braced

Proper distribution of construction materials is a must during construction.

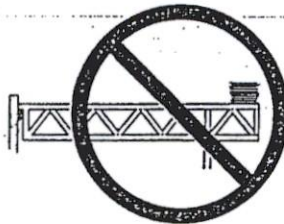
Never stack materials near a peak



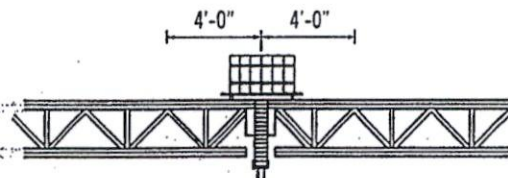
Acceptable against outside load bearing wall

Acceptable over load bearing wall

Never stack materials on the cantilever of a truss



Always stack materials over two or more trusses.

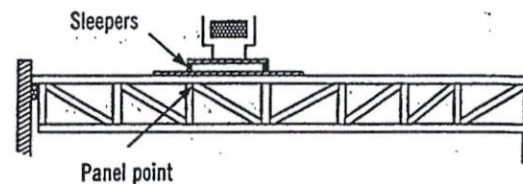
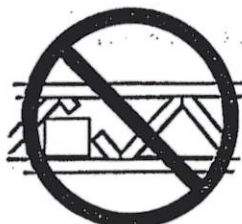


Single truss

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

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

Never cut any structural member of a truss.



Sleepers

Panel point

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

Caution Notes

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

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

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

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

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