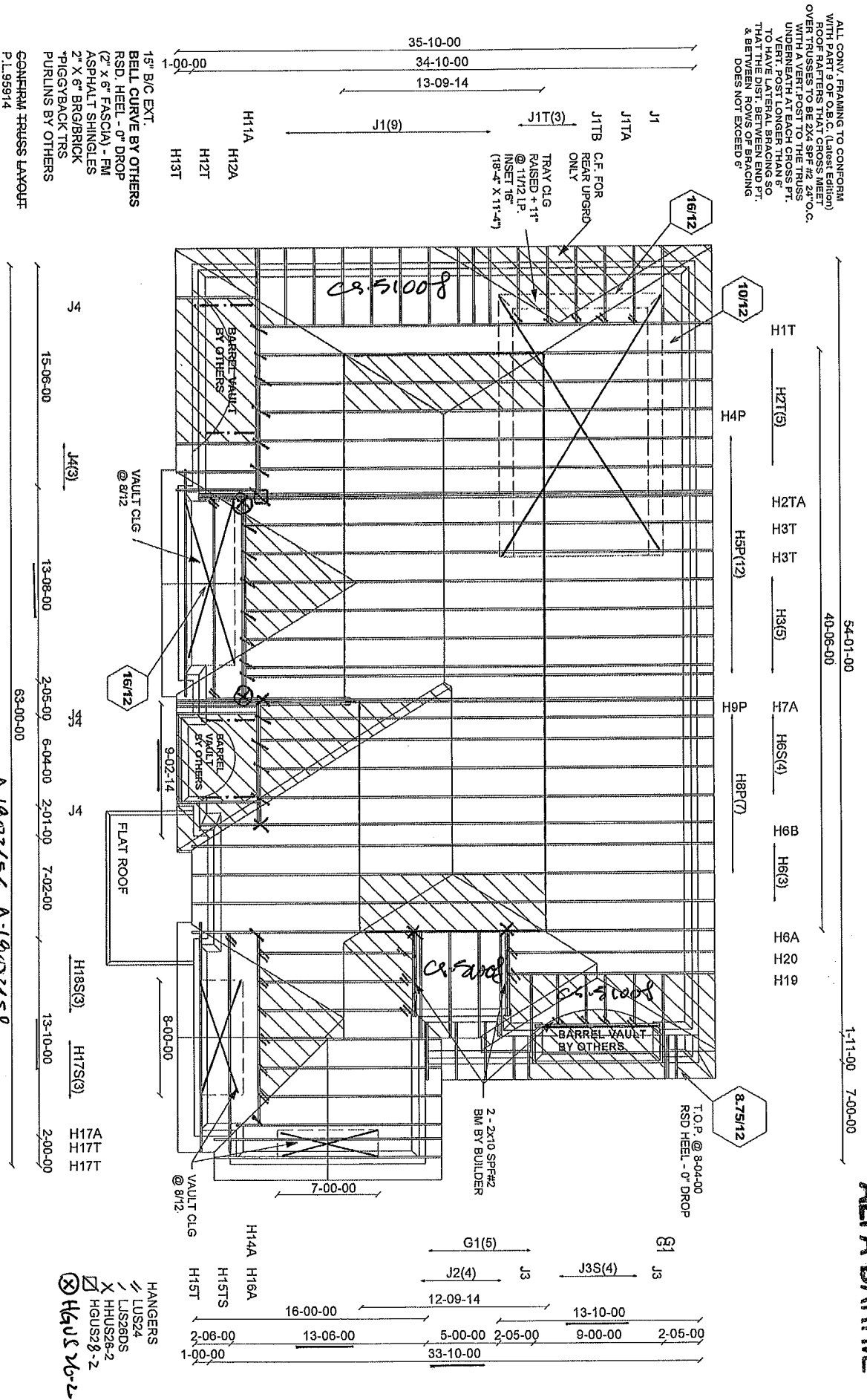


ALL CONN. FRAMING TO CONFORM WITH PART 3 OF O.B.C. (LATEST EDITION) ROOF RATTERS THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF #2 24" O.C. WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. TO BE POST LONGER THAN 6" TO THE TRUSS JOINT. ALL JOINTS THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'



15" B/C EXT.
BELL CURVE BY OTHERS
RSD HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" X 6" BRG/BRICK
PIGGYBACK TRS
PURLINS BY OTHERS
CONFORM TRUSS LAYOUT
P.L. 95914



Job Track: 45147
Layout ID: 292617
Plan Log: 95914

Builder / Location: GOLD PARK HOMES / VAUGHAN
Project: PINE VALLEY
Date: 1/18/2018
Designer: AMANDA

Model / Elevation: 4204 REV1 / B OPT TRAY
CR REAR W.G.

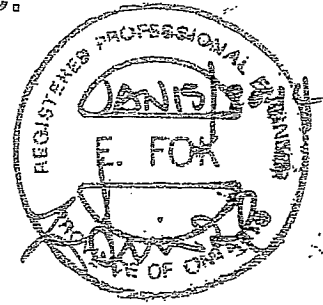
THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA ROOF TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

A-18023656-A-18023658
A-18023655-A-18023692

BROOKVALEY

Stracon Engineering Inc.

69 Graydon Crescent
Richmond Hill, Ontario
L4B 3W7
(905) 832-2250 Fax (905) 832-0286



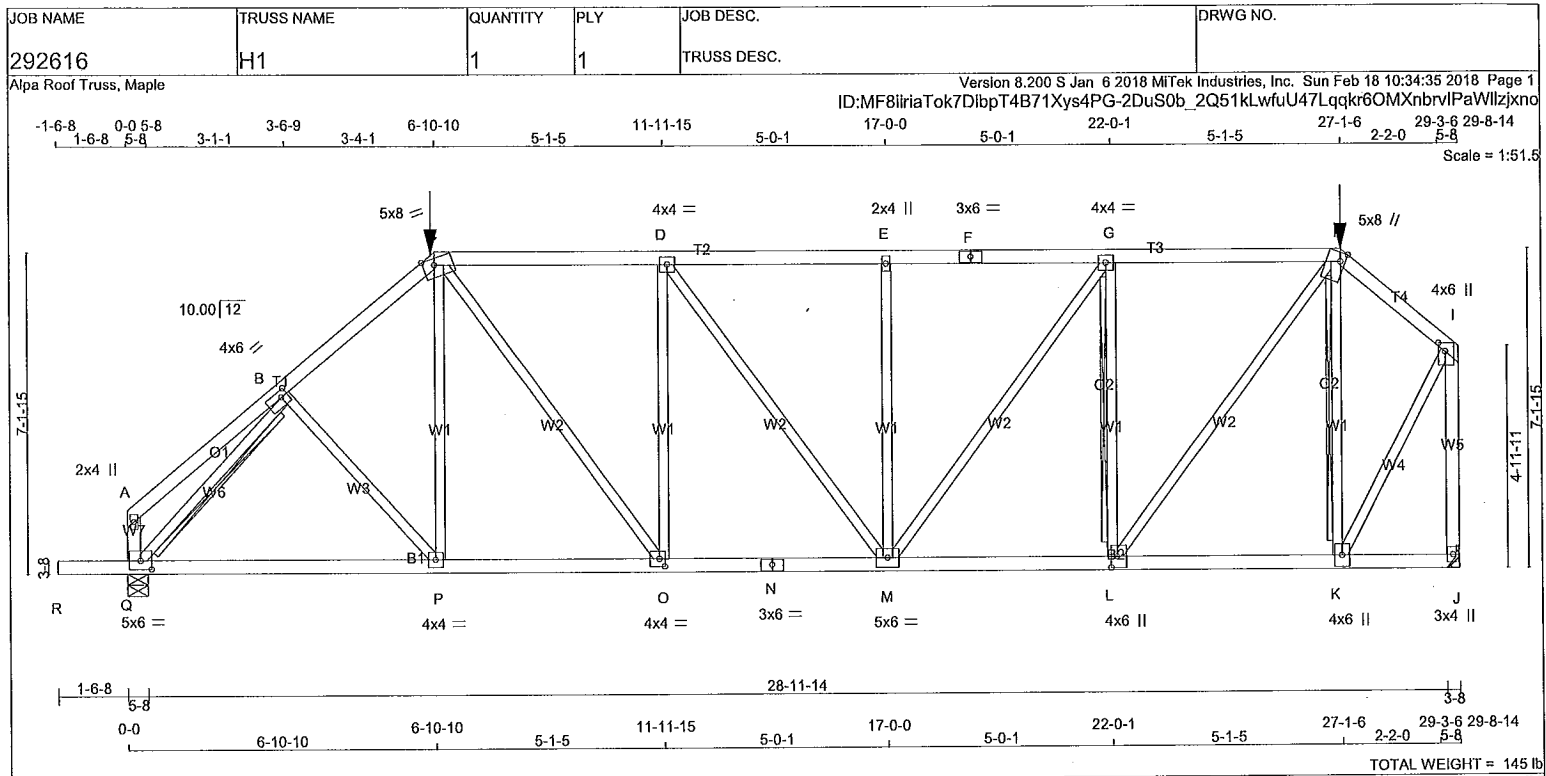
RESPONSIBILITIES

1. Stracon Engineering 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 this drawing meet or exceed the actual dead load imposed by the structure and the live load imposed by the local building code or the authorities with jurisdictions.
3. All dimensions are to be verified by owner contractor, architect or other authority before manufacture.
4. Stracon Engineering Inc. bears no responsibility for the erection of the trusses. Persons erecting trusses are cautioned to seek professional advice regarding temporary and permanent bracing system. Bracing shown on Stracon Engineering Inc. drawings is specified for the truss as a component only and forms an integral part of the truss design.
5. It is the truss manufacture's responsibility to ensure that trusses are manufactured in conformance with Stracon Engineering Inc. specifications outlined below.

SPECIFICATIONS

1. Trusses designed by Stracon Engineering Inc. conforms 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 indicated on the drawings as well as to the procedures established by the truss plate institute of Canada. Unit stresses used are as per CSA-086-09.
2. Lumber is to be the sizes and grade specified.
3. Moisture content of lumber is not to exceed 19% in service unless otherwise specified.
4. Lumber not to be treated with chemicals unless otherwise specified.
5. Plates shall be applied to both faces of the truss at each joint and shall be positioned as specified.
6. The top chord is assumed to be continuously laterally braced by the roof sheathing or purlins at intervals not exceeding 12.5 times in thickness.
7. Where not rigid ceiling is attached directly to the bottom chord, laterally brace the chords at intervals not exceeding 3M (10') o.c.

January 15, 2014



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
H - I	2x4	DRY No.2	SPF
Q - A	2x4	DRY No.2	SPF
J - I	2x4	DRY No.2	SPF
R - N	2x4	DRY No.2	SPF
N - J	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	DRY No.2	SPF

DRY: SEASONED LUMBER.

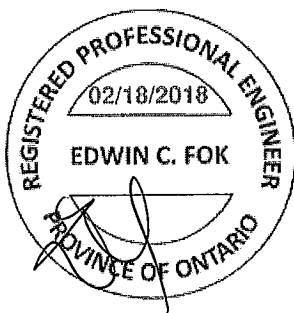
PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A TMV+p	MT20	2.0	4.0		
B TMWW-t	MT20	4.0	6.0	1.75	1.75
C TTWW-m	MT20	5.0	8.0	Edge	3.00
D TMWW-t	MT20	4.0	4.0		
E TMW+w	MT20	2.0	4.0		
F TS-t	MT20	3.0	6.0		
G TMWW-t	MT20	4.0	4.0		
H TTWW+m	MT20	5.0	8.0	Edge	1.25
I TMVV+p	MT20	4.0	6.0	2.25	1.75
J BMV1+p	MT20	3.0	4.0		
K BMWW-t	MT20	4.0	6.0		
L BMWW-t	MT20	4.0	6.0	3.00	1.50
M BMWW-t	MT20	5.0	6.0		
N BS-t	MT20	3.0	6.0		
O BMWW-t	MT20	4.0	4.0	2.00	1.50
P BMWW-t	MT20	4.0	4.0		
Q BMVV1-t	MT20	5.0	6.0	2.25	3.00

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

HANGERS NOTES

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



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		
Q	2199	0	2199	0	5-8	2-5
J	2109	0	2109	0	HANGER BY OTHERS	MIN. SEAT SIZE: 3-6

UNFACTORED REACTIONS

JT	COMBINED	MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
		SNOW	LIVE			
Q	1569	951 / 0	0 / 0	0 / 0	618 / 0	0 / 0
J	1504	918 / 0	0 / 0	0 / 0	586 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.76 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 G-L, H-K, B-Q

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 17	-78.0	-78.0	0.14 (1)	10.00	B-P	0 / 142
B-C	-2256 / 0	-78.0	-78.0	0.22 (1)	4.33	P-C	0 / 151
C-D	-2301 / 0	-114.5	-114.5	0.61 (1)	3.77	C-O	0 / 979
D-E	-2312 / 0	-114.5	-114.5	0.61 (1)	3.76	O-D	-668 / 0
E-F	-2312 / 0	-114.5	-114.5	0.61 (1)	3.77	D-M	0 / 20
F-G	-2312 / 0	-114.5	-114.5	0.61 (1)	3.77	M-E	-527 / 0
G-H	-1839 / 0	-114.5	-114.5	0.56 (1)	4.21	M-G	0 / 803
H-I	-1023 / 0	-78.0	-78.0	0.12 (1)	6.04	L-G	-1303 / 0
Q-A	-107 / 0	0.0	0.0	0.01 (1)	7.81	L-H	0 / 1797
J-I	-2090 / 0	0.0	0.0	0.95 (1)	5.81	K-H	-1205 / 0
R-Q	0 / 0	-96.5	-96.5	0.17 (1)	10.00	Q-B	-2470 / 0
Q-P	0 / 1620	-27.2	-27.2	0.47 (4)	10.00	K-I	0 / 1542
P-O	0 / 1716	-27.2	-27.2	0.49 (4)	10.00		
O-N	0 / 2302	-27.2	-27.2	0.48 (1)	10.00		
N-M	0 / 2302	-27.2	-27.2	0.48 (1)	10.00		
M-L	0 / 1839	-27.2	-27.2	0.40 (1)	10.00		
L-K	0 / 765	-27.2	-27.2	0.22 (4)	10.00		
K-J	0 / 0	-27.2	-27.2	0.12 (4)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	6-10-10	-213	-213	-	FRONT	VERT	TOTAL
H	27-1-6	-81	-81	-	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 6-10-10
RIGHT SETBACK = 2-7-8
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.99")
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")
ALLOWABLE DEFL.(TL) = L/360 (0.99")
CALCULATED VERT. DEFL.(TL) = L/999 (0.20")

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

CSI: TC=0.95/1.00 (I-J:1), BC=0.49/1.00 (O-P:4), WB=0.60/1.00 (D-C:1), SSI=0.30/1.00 (C-D:1)

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

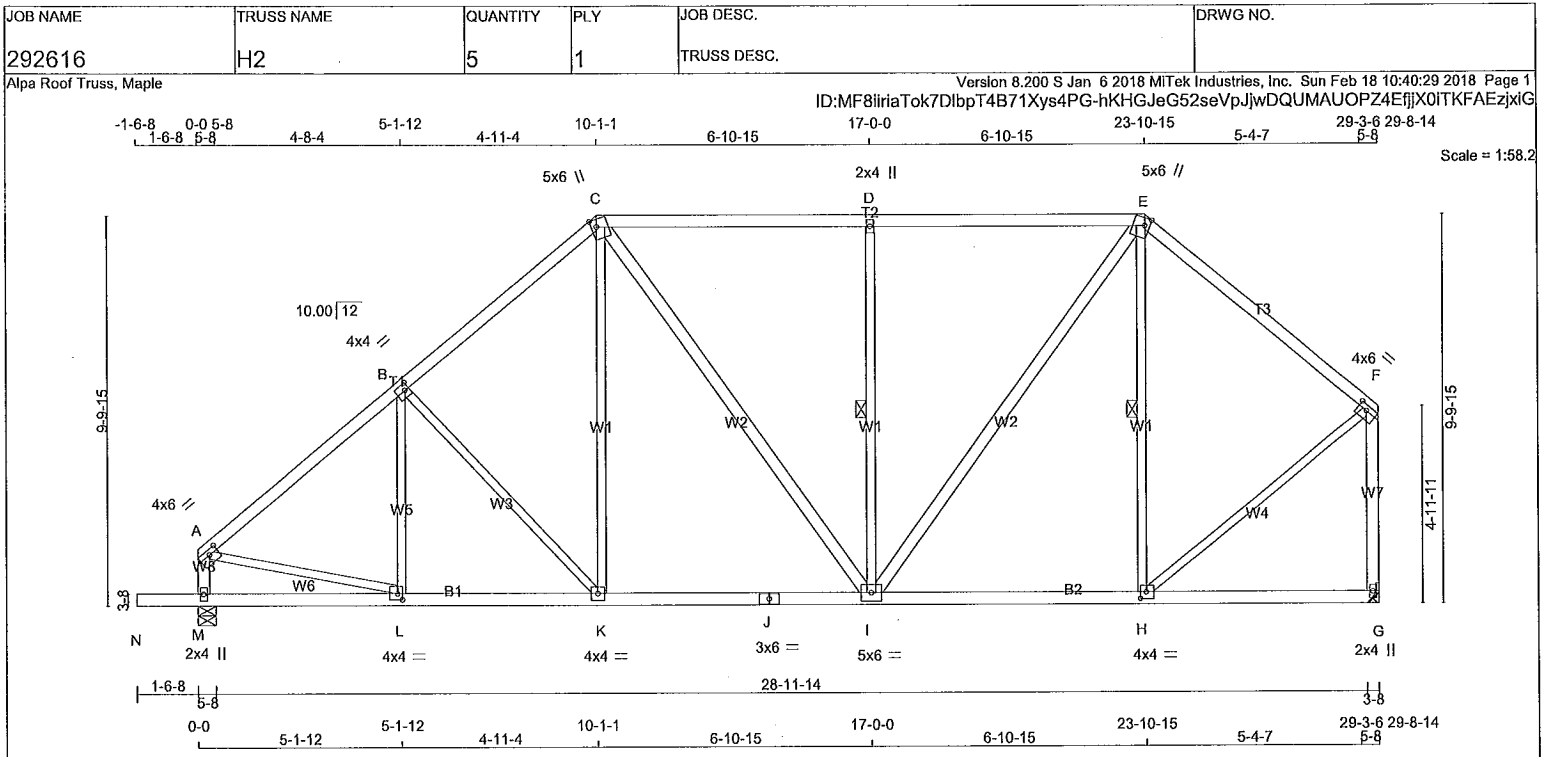
COMPANION LIVE LOAD FACTOR = 1.00

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 618 354 1667 788 1987 1656

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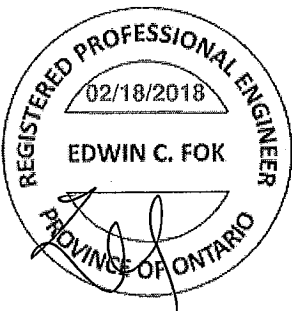
TOTAL WEIGHT = 5 X 150 = 751 lb
(M)F

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	4.0	6.0	1.50 2.75
B	TMVW-t	MT20	4.0	4.0	2.00 1.25
C	TTWW+m	MT20	5.0	6.0	2.25 1.50
D	TMVW-w	MT20	2.0	4.0	
E	TTWW+m	MT20	5.0	6.0	2.25 1.50
F	TMVW-t	MT20	4.0	6.0	1.50 2.75
G	BMV1+p	MT20	2.0	4.0	
H	BMVW-t	MT20	4.0	4.0	2.00 1.75
I	BMVW-t	MT20	5.0	6.0	
J	BS-t	MT20	3.0	6.0	
K	BMVW-t	MT20	4.0	4.0	
L	BMVW-t	MT20	4.0	4.0	1.75 1.50
M	BMV1+p	MT20	2.0	4.0	

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



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		
M	1628	0	1628	0	0	5-8	2-7		
G	1494	0	1494	0	0	HANGER BY OTHERS			
MIN. SEAT SIZE: 1-10									

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	DEAD	SOIL
M	1164	689 / 0	0 / 0	0 / 0	0 / 0	475 / 0	0 / 0		
G	1070	624 / 0	0 / 0	0 / 0	0 / 0	446 / 0	0 / 0		

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.97 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-I, 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		W E B S		MAX. FACTORED	
MEMB.	FORCE	VERT.	LOAD	LC1	MAX	MEMB.	FORCE	MAX	CSI (LC)
FR-TO	(LBS)	FROM	TO	PLF	CSI (LC)	FR-TO	(LBS)	MAX	CSI (LC)
A-B	-1570 / 0	-78.0	-78.0	0.30 (1)	4.97	L-B	-163 / 5	0.08 (1)	
B-C	-1408 / 0	-78.0	-78.0	0.29 (1)	5.20	B-K	-253 / 0	0.27 (1)	
C-D	-1215 / 0	-85.5	-85.5	0.56 (1)	2.00	K-C	0 / 297	0.07 (1)	
D-E	-1215 / 0	-85.5	-85.5	0.56 (1)	2.00	C-I	0 / 267	0.04 (1)	
E-F	-986 / 0	-78.0	-78.0	0.36 (1)	5.82	I-D	-728 / 0	0.47 (1)	
M-A	-1438 / 0	0.0	0.0	0.15 (1)	6.81	I-E	0 / 789	0.13 (1)	
G-F	-1452 / 0	0.0	0.0	0.65 (1)	6.79	H-E	-460 / 0	0.30 (1)	
						A-L	0 / 1256	0.28 (1)	
						H-F	0 / 960	0.22 (1)	
N-M	0 / 0	-96.5	-96.5	0.16 (1)	10.00				
M-L	0 / 0	-18.5	-18.5	0.10 (4)	10.00				
L-K	0 / 1229	-18.5	-18.5	0.27 (1)	10.00				
K-J	0 / 1059	-18.5	-18.5	0.28 (4)	10.00				
J-I	0 / 1059	-18.5	-18.5	0.28 (4)	10.00				
I-H	0 / 751	-18.5	-18.5	0.26 (4)	10.00				
H-G	0 / 0	-18.5	-18.5	0.18 (4)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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 OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL) = L/360 (0.99")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.99")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

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

CSI: TC=0.65/1.00 (F-G:1), BC=0.28/1.00 (I-K:4), WB=0.47/1.00 (D-I:1), SS=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.

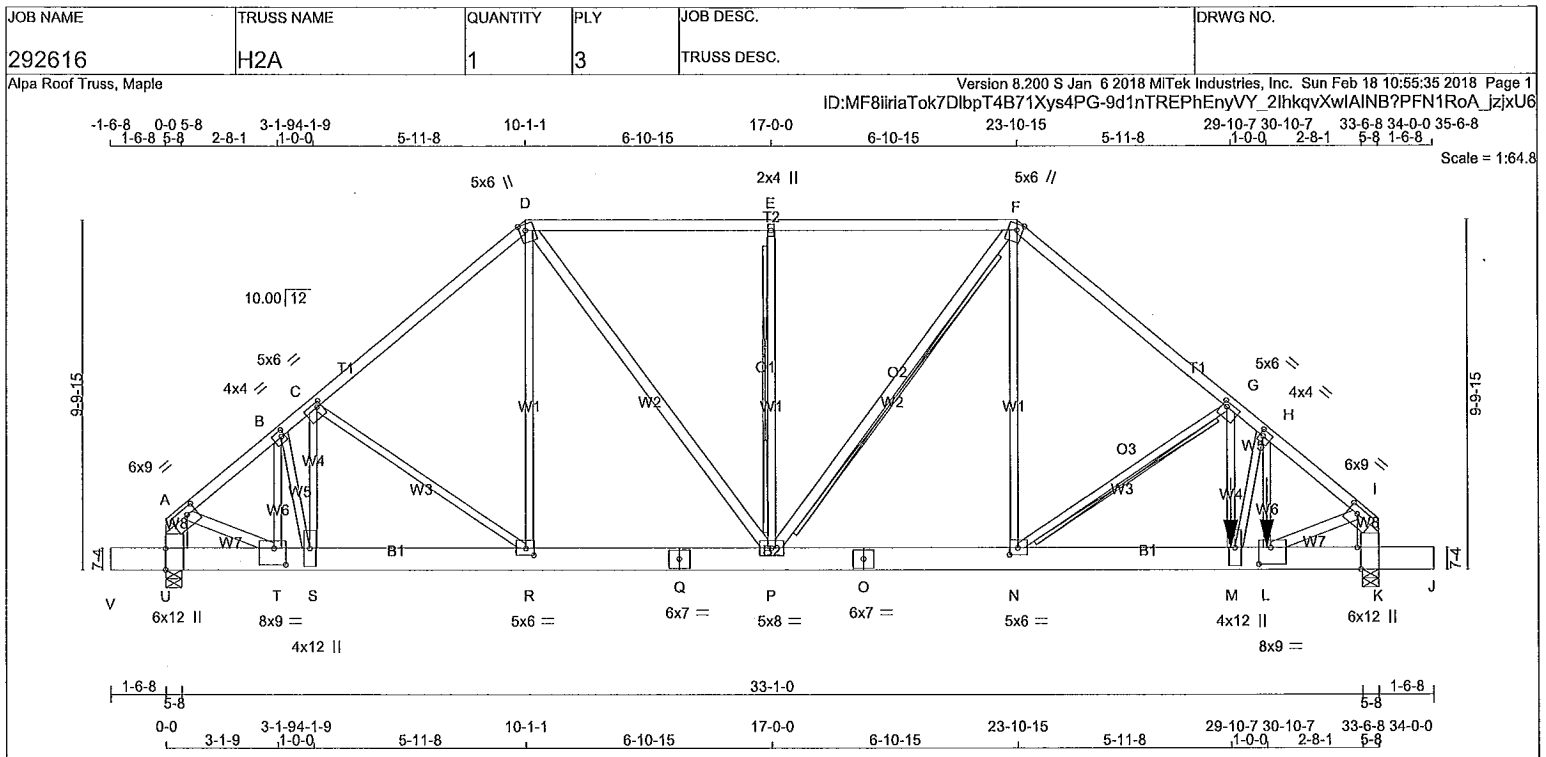
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (L) (INPUT = 0.90)
JSI METAL= 0.46 (L) (INPUT = 1.00)

A-18023663



LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF			
D - F	2x4	DRY	No.2	SPF			
F - I	2x4	DRY	No.2	SPF			
U - A	2x8	DRY	No.2	SPF			
K - I	2x8	DRY	No.2	SPF			
V - Q	2x8	DRY	No.2	SPF			
Q - O	2x8	DRY	No.2	SPF			
O - J	2x8	DRY	No.2	SPF			
ALL WEBS	2x3	DRY	No.2	SPF			
EXCEPT							
D - P	2x4	DRY	No.2	SPF			
P - F	2x4	DRY	No.2	SPF			
A - T	2x4	DRY	No.2	SPF			
L - I	2x4	DRY	No.2	SPF			

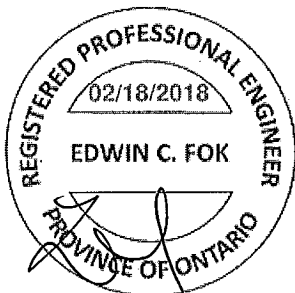
DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - D	12	TOP
D - F	12	TOP
F - I	12	TOP
U - A	2	TOP
K - I	2	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
V - Q	2	TOP
Q - O	2	TOP
O - J	3	SIDE(192.8)
WEBS : (0.122"x3") SPIRAL NAILS		
G - M	1	SIDE(269.9)
H - L	1	SIDE(193.7)
2x3	1	
2x4	1	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



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

JT	VERT	HORZ	FACTORED		INPUT	REQRD
			GROSS REACTION	GROSS REACTION	BRG	BRG
U	3225	0	3225	0	0	5-8
K	13797	0	13797	0	0	5-8

UNFACTORED REACTIONS

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS				
		1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND
U	2279	1504 / 0	0 / 0	0 / 0	0 / 0	776 / 0
K	9638	6995 / 0	0 / 0	0 / 0	0 / 0	2643 / 0

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

BRACING

FOR SECTION D-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.93 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

2x6 DRY SPF No.2 T-BRACE AT E-P, F-P, G-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 90% OF WEB LENGTH.

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO			FROM	TO		FR-TO		
A - B	-3362 / 0	-78.0	-78.0	0.05 (1)	5.94	T - B	-619 / 0	0.05 (1)
B - C	-3421 / 0	-78.0	-78.0	0.14 (1)	5.79	B - S	0 / 574	0.04 (1)
C - D	-3684 / 0	-78.0	-78.0	0.19 (1)	5.63	S - C	-654 / 0	0.07 (1)
D - E	-4127 / 0	-85.5	-85.5	0.30 (1)	2.00	C - R	0 / 71	0.01 (1)
E - F	-4127 / 0	-85.5	-85.5	0.30 (1)	2.00	R - D	0 / 148	0.02 (4)
F - G	-6308 / 0	-78.0	-78.0	0.33 (1)	4.49	D - P	0 / 2228	0.12 (1)
G - H	-13544 / 0	-78.0	-78.0	0.36 (1)	3.03	P - E	-707 / 0	0.13 (1)
H - I	-14293 / 0	-78.0	-78.0	0.44 (1)	2.93	E - F	-1235 / 0	0.22 (1)
U - A	-3036 / 0	0.0	0.0	0.05 (1)	7.81	N - F	0 / 4606	0.35 (1)
K - I	-12578 / 0	0.0	0.0	0.21 (1)	5.94	N - G	-7289 / 0	0.83 (1)
V - U	0 / 0	-96.5	-96.5	0.02 (1)	10.00	M - G	0 / 8201	0.62 (1)
U - T	0 / 0	-18.5	-18.5	0.01 (1)	10.00	M - H	-771 / 0	0.06 (1)
T - S	0 / 2589	-18.5	-18.5	0.11 (1)	10.00	L - H	0 / 1499	0.11 (1)
S - R	0 / 2745	-18.5	-18.5	0.11 (1)	10.00	A - T	0 / 2700	0.14 (1)
R - Q	0 / 2804	-18.5	-18.5	0.11 (1)	10.00	L - I	0 / 11403	0.61 (1)
Q - P	0 / 2804	-18.5	-18.5	0.11 (1)	10.00			
P - O	0 / 4861	-18.5	-18.5	0.19 (1)	10.00			
O - N	0 / 4861	-18.5	-18.5	0.19 (1)	10.00			
N - M	0 / 10721	-18.5	-18.5	0.49 (1)	10.00			
M - L	0 / 10931	-18.5	-18.5	0.63 (1)	10.00			
L - K	0 / 0	-308.9	-308.9	0.27 (1)	10.00			
K - J	0 / 0	-96.5	-96.5	0.02 (1)	10.00			

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/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.

GIRDER TYPE: CStdGirder
START DISTANCE = 30-10-2
START SPAN CARRIED = 14-0-8
END DISTANCE = 34-0-0
END SPAN CARRIED = 14-0-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL. LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.13")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL) = L/360 (1.13")
CALCULATED VERT. DEFL.(TL) = L/999 (0.16")

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

CSI: TC=0.44/1.00 (H-I:1), BC=0.63/1.00 (L-M:1), WB=0.83/1.00 (G-N:1), SS=0.19/1.00 (K-L: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

A-18023664

CONTINUED ON PAGE 2

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	6.0	9.0	2.25	3.25
B	TMVW-t	MT20	4.0	4.0	2.00	1.25
C	TMVW-t	MT20	5.0	6.0	1.50	1.50
D	TTWW+m	MT20	5.0	6.0	2.00	2.00
E	TMVW-w	MT20	2.0	4.0		
F	TTWW+m	MT20	5.0	6.0	2.00	2.00
G	TMVW-t	MT20	5.0	6.0	1.50	1.50
H	TMVW-t	MT20	4.0	4.0	2.00	1.25
I	TMVW-t	MT20	6.0	9.0	2.25	3.25
K	BMV1+t	MT20	6.0	12.0	Edge	1.25
L	BMVW-t	MT20	8.0	9.0	5.50	4.00
M	BMVW-t	MT20	4.0	12.0		
N	BMVW-t	MT20	5.0	6.0	2.25	2.75
O	BS-t	MT20	6.0	7.0		
P	BMVW-t	MT20	5.0	8.0		
Q	BS-t	MT20	6.0	7.0		
R	BMVW-t	MT20	5.0	6.0	2.25	2.75
S	BMVW-t	MT20	4.0	12.0		
T	BMVW-t	MT20	8.0	9.0	5.50	4.00
U	BMV1+t	MT20	6.0	12.0	Edge	

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

HANGERS NOTES
 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 6742.7 lbs FACTORED DOWN AT 29-10-6, AND 5688.9 lbs FACTORED DOWN AT 30-10-6 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
L	30-10-6	-5689	-5689	---	FRONT	VERT	TOTAL
M	29-10-6	-6743	-6743	---	FRONT	VERT	TOTAL

AUTOSOLVE HEELS OFF

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

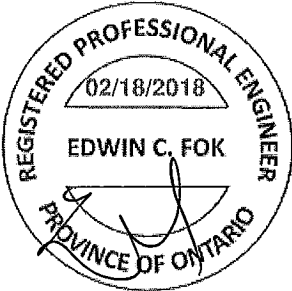
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION
 (Psi) (PlI) (PlI)
 MAX MIN MAX MIN MAX MIN
 MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

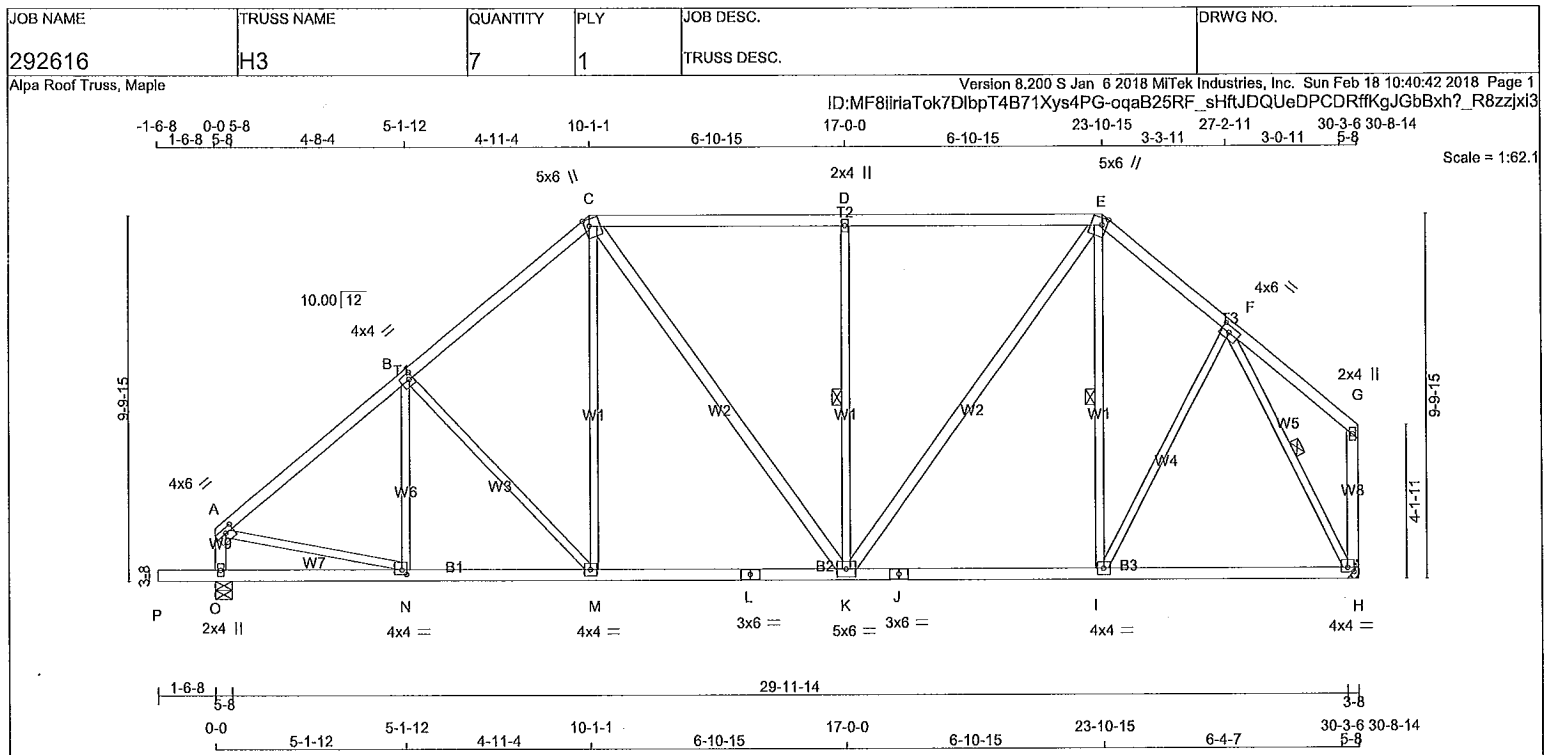
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (C) (INPUT = 0.90)
 JSI METAL= 0.80 (I) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-18023664(2)



TOTAL WEIGHT = 7 X 158 = 1103 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
O - A	2x4	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
P - L	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
C - K	2x4	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
A	TMVW-1	MT20	4.0	6.0 1.50 2.75
B	TMVW-1	MT20	4.0	4.0 2.00 1.25
C	TTVW+m	MT20	5.0	6.0 2.25 1.50
D	TMVW+w	MT20	2.0	4.0
E	TTVW+m	MT20	5.0	6.0 2.25 1.50
F	TMVW-1	MT20	4.0	6.0 2.00 2.75
G	TMV+p	MT20	2.0	4.0
H	BMVW-1	MT20	4.0	4.0 1.50 2.00
I	BMVW-1	MT20	4.0	4.0
J	BS-1	MT20	3.0	6.0
K	BMVW-1	MT20	5.0	6.0
L	BS-1	MT20	3.0	6.0
M	BMVW-1	MT20	4.0	4.0
N	BMVW-1	MT20	4.0	4.0 1.50 1.50
O	BMV1+p	MT20	2.0	4.0

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

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
O	1678	0	1678	0	5-8
H	1540	0	1540	0	0

HANGER BY OTHERS
MIN. SEAT SIZE: 1-11

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	DEAD	SOIL
O	COMBINED	SNOW	LIVE	PERM.LIVE
O	1200	710 / 0	0 / 0	0 / 0
H	1103	645 / 0	0 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.90 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS	
MEMB.	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FORCE (LBS)
FR-TO		FROM TO		FR-TO	
A-B	-1632 / 0	-78.0 -78.0	0.31 (1)	N-B	-173 / 0
B-C	-1477 / 0	-78.0 -78.0	0.29 (1)	B-M	-245 / 0
C-D	-1304 / 0	-85.5 -85.5	0.56 (1)	M-C	0 / 292
D-E	-1304 / 0	-85.5 -85.5	0.56 (1)	C-K	0 / 327
E-F	-1170 / 0	-78.0 -78.0	0.12 (1)	K-D	-727 / 0
F-G	0 / 19	-78.0 -78.0	0.14 (1)	K-E	0 / 724
O-A	-1488 / 0	0.0 0.0	0.15 (1)	I-E	-175 / 0
H-G	-105 / 0	0.0 0.0	0.03 (1)	I-F	0 / 359
				A-N	0 / 1305
P-O	0 / 0	-96.5 -96.5	0.16 (1)	F-H	-1558 / 0
O-N	0 / 0	-18.5 -18.5	0.10 (4)		
N-M	0 / 1277	-18.5 -18.5	0.28 (1)		
M-L	0 / 1112	-18.5 -18.5	0.28 (4)		
L-K	0 / 1112	-18.5 -18.5	0.28 (4)		
K-J	0 / 879	-18.5 -18.5	0.31 (4)		
J-I	0 / 879	-18.5 -18.5	0.31 (4)		
I-H	0 / 715	-18.5 -18.5	0.28 (4)		

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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 OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL) = L/360 (1.02")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (1.02")
CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

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

CSI: TC=0.56/1.00 (D-E:1), BC=0.31/1.00 (I-K:4), WB=0.57/1.00 (F-H:1), SS=0.29/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

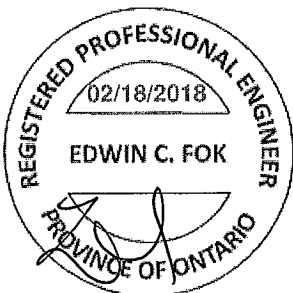
NAIL VALUES		PLATE GRIP(DRY)		SHEAR		SECTION	
(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)
MT20	618	354	1667	788	1987	1656	

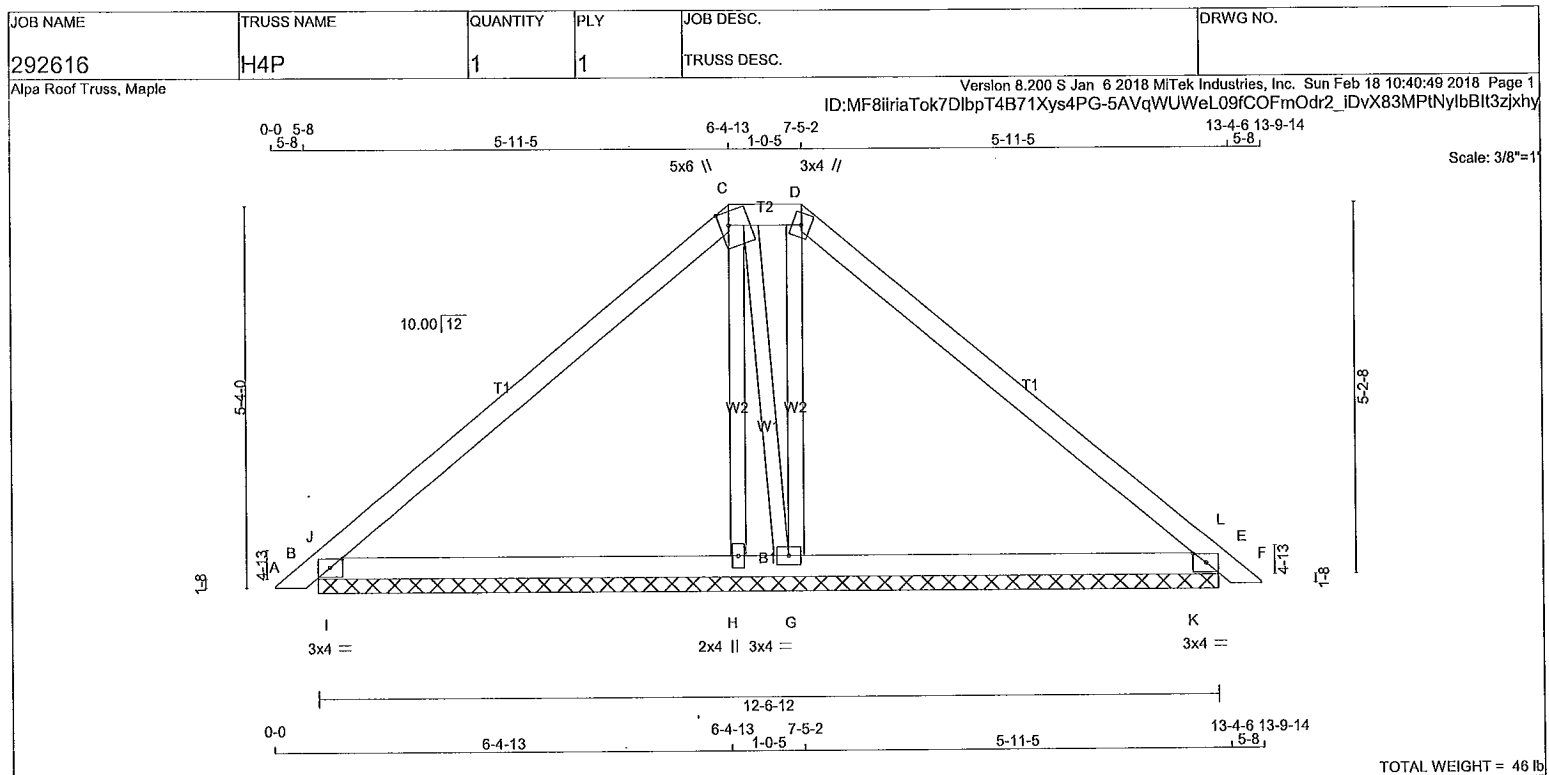
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (H) (INPUT = 0.90)
JSI METAL= 0.48 (N) (INPUT = 1.00)

A-18023665





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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	1.50 2.00
C	TTWW+m	MT20	5.0	6.0	2.25 1.50
D	TTW+m	MT20	3.0	4.0	
E	TMB1-I	MT20	3.0	4.0	1.50 2.00
G	BMW1-I	MT20	3.0	4.0	
H	BMW1+w	MT20	2.0	4.0	

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
B	453	0	453	0	0	12-6-12	9-0		
E	448	0	448	0	0	12-6-12	9-0		
H	158	0	158	0	0	12-6-12	9-0		
G	233	0	233	0	0	12-6-12	9-0		

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	321	210 / 0	0 / 0	0 / 0	0 / 0	110 / 0	0 / 0
E	317	207 / 0	0 / 0	0 / 0	0 / 0	110 / 0	0 / 0
H	116	53 / 0	0 / 0	0 / 0	0 / 0	63 / 0	0 / 0
G	167	101 / 0	0 / 0	0 / 0	0 / 0	66 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH FR-TO	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO				
A-B	0 / 12	-78.0	-78.0 0.02 (1)	10.00	H-C	-41 / 0	0.02 (1)
B-J	-61 / 137	-78.0	-78.0 0.21 (1)	6.25	C-G	-36 / 0	0.01 (1)
J-C	-257 / 0	-78.0	-78.0 0.33 (1)	6.25	G-D	-81 / 0	0.03 (1)
C-D	-178 / 0	-78.0	-78.0 0.01 (1)	6.25	I-J	-758 / 0	0.00 (1)
D-L	-250 / 0	-78.0	-78.0 0.33 (1)	6.25	K-L	-759 / 0	0.00 (1)
L-E	-60 / 145	-78.0	-78.0 0.21 (1)	6.25			
E-F	0 / 12	-78.0	-78.0 0.02 (1)	10.00			
B-I	0 / 185	-18.5	-18.5 0.28 (1)	10.00			
I-H	0 / 185	-18.5	-18.5 0.28 (1)	10.00			
H-G	0 / 184	-18.5	-18.5 0.22 (1)	10.00			
G-K	0 / 179	-18.5	-18.5 0.28 (1)	10.00			
K-E	0 / 179	-18.5	-18.5 0.28 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.33/1.00 (C-J:1), BC=0.28/1.00 (B-I:1), WB=0.03/1.00 (D-G:1), SSI=0.59/1.00 (E-K:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

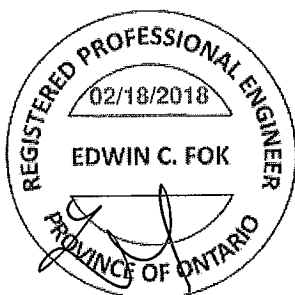
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.39 (B) (INPUT = 0.90)
JSI METAL= 0.11 (B) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

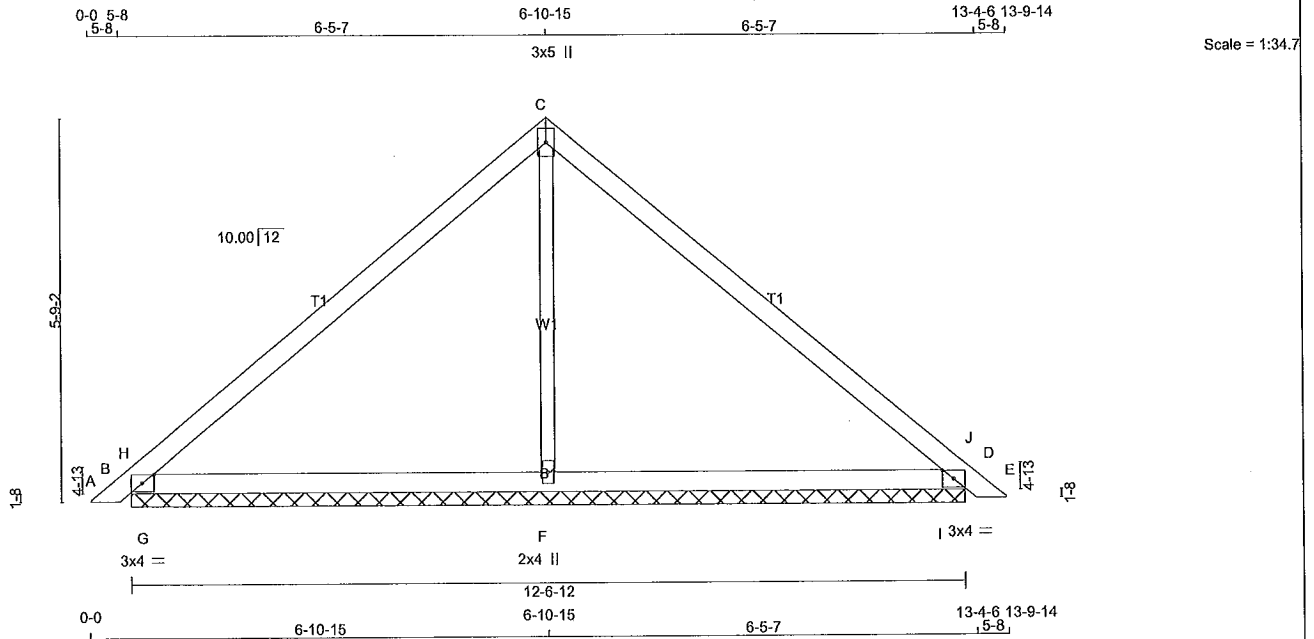


A-18023666

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H5P	12	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 10:40:55 2018 Page 1
ID:MF8IriaTok7DlbpT4B71Xys4PG-wks6mXbPwsvpXJfWlxSEZTw5Z5npbyrhWed4jzjxhs



TOTAL WEIGHT = 12 X 39 = 468 lb

LUMBER					
N. L. G. A. RULES					
CHORDS			SIZE	LUMBER	DESCR
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
B - D	2x4	DRY	No.2	SPF	
ALL WEBS			2x3	DRY	No.2
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	2.00
C	TTW+p	MT20	3.0	5.0		
D	TMB1-I	MT20	3.0	4.0	1.50	2.00
F	BMW1+w	MT20	2.0	4.0		

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

BEARINGS

JT	VERT	HORZ	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
			DOWN	HORZ			
B	491	0	491	0	0	12-6-12	1-5-11
D	491	0	491	0	0	12-6-12	1-5-11
F	312	0	312	0	0	12-6-12	1-5-11

UNFACTORED REACTIONS

JT	COMBINED	1ST LCASE	MAX/MIN. COMPONENT REACTIONS				
			SNOW	LIVE	PERM. LIVE	WIND	DEAD
B	346	231 / 0	0 / 0	0 / 0	0 / 0	115 / 0	0 / 0
D	346	231 / 0	0 / 0	0 / 0	0 / 0	115 / 0	0 / 0
F	228	109 / 0	0 / 0	0 / 0	0 / 0	119 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. FACTORED		FACTORED		
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	UNBRAC	LENGTH		(LBS)	CSI (LC)	
FR-TO		FROM	TO		FR-TO				
A-B	0 / 12	-78.0	-78.0	0.02 (1)	10.00	F-C	-57 / 9	0.03 (1)	
B-H	-40 / 219	-78.0	-78.0	0.28 (1)	6.25	G-H	-942 / 0	0.00 (1)	
H-C	-296 / 0	-78.0	-78.0	0.39 (1)	6.25	I-J	-941 / 0	0.00 (1)	
C-J	-296 / 0	-78.0	-78.0	0.39 (1)	6.25				
J-D	-40 / 219	-78.0	-78.0	0.28 (1)	6.25				
D-E	0 / 12	-78.0	-78.0	0.02 (1)	10.00				
B-G	0 / 213	-18.5	-18.5	0.34 (1)	10.00				
G-F	0 / 213	-18.5	-18.5	0.34 (1)	10.00				
F-I	0 / 213	-18.5	-18.5	0.34 (1)	10.00				
I-D	0 / 213	-18.5	-18.5	0.34 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.39/1.00 (C-H:1), BC=0.34/1.00 (B-G:1), WB=0.03/1.00 (C-F:1), SSI=0.73/1.00 (B-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

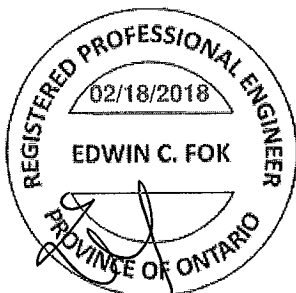
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.43 (B) (INPUT = 0.90)
JSI METAL= 0.12 (D) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

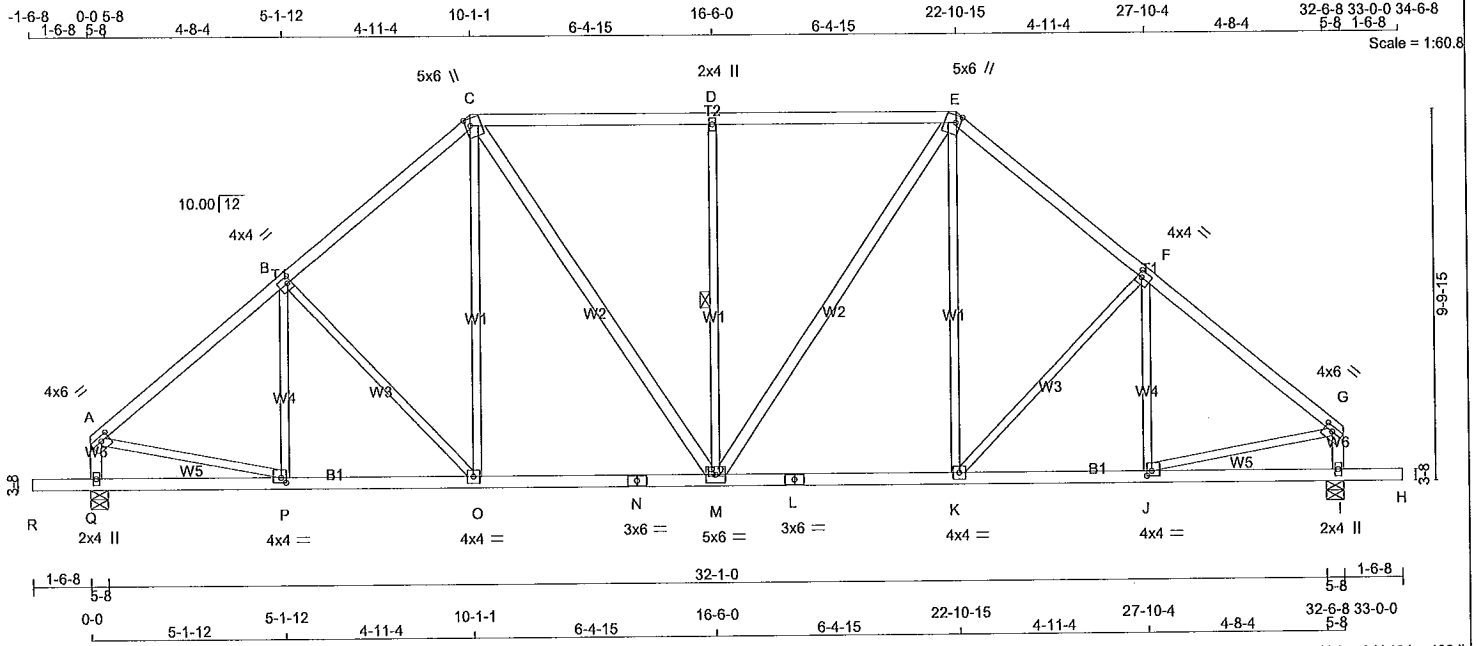


A-18023667

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H6	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 10:41:23 2018 Page 1
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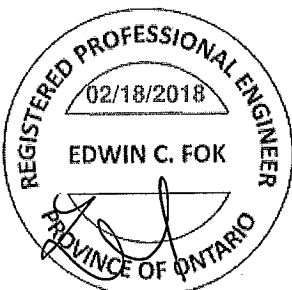
LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
E - G	2x4	DRY	No.2	SPF	
Q - A	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
R - N	2x4	DRY	No.2	SPF	
N - L	2x4	DRY	No.2	SPF	
L - H	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
C - M	2x4	DRY	No.2	SPF	
M - E	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.50	2.75
B	TMVW-t	MT20	4.0	4.0	2.00	1.25
C	TTVW+m	MT20	5.0	6.0	2.25	1.50
D	TMVW-w	MT20	2.0	4.0		
E	TTVW+m	MT20	5.0	6.0	2.25	1.50
F	TMVW-t	MT20	4.0	4.0	2.00	1.25
G	TMVW-t	MT20	4.0	6.0	1.50	2.75
I	BMV1+p	MT20	2.0	4.0		
J	BMVW-t	MT20	4.0	4.0	1.50	1.50
K	BMVW-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMVW-t	MT20	5.0	6.0		
N	BS-t	MT20	3.0	6.0		
O	BMVW-t	MT20	4.0	4.0		
P	BMVW-t	MT20	4.0	4.0	1.50	1.50
Q	BMV1+p	MT20	2.0	4.0		

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



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
Q	1789	0	1789	0
I	1789	0	1789	0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
Q	1279	757 / 0	0 / 0	0 / 0	0 / 0	0 / 0	522 / 0	0 / 0
I	1279	757 / 0	0 / 0	0 / 0	0 / 0	0 / 0	522 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.73 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.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-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 MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	WEBS MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	-1771 / 0	-78.0 -78.0	0.32 (1)	4.73	P-B	-194 / 0	0.10 (1)
B-C	-1629 / 0	-78.0 -78.0	0.30 (1)	4.90	B-O	-230 / 0	0.25 (1)
C-D	-1495 / 0	-85.5 -85.5	0.49 (1)	2.00	O-C	0 / 273	0.06 (1)
D-E	-1495 / 0	-85.5 -85.5	0.49 (1)	2.00	C-M	0 / 478	0.08 (1)
E-F	-1629 / 0	-78.0 -78.0	0.30 (1)	4.90	M-D	-671 / 0	0.44 (1)
F-G	-1771 / 0	-78.0 -78.0	0.32 (1)	4.73	M-E	0 / 478	0.08 (1)
Q-A	-1599 / 0	0.0 0.0	0.17 (1)	6.53	K-E	0 / 273	0.06 (1)
I-G	-1599 / 0	0.0 0.0	0.17 (1)	6.53	K-F	-230 / 0	0.25 (1)
					J-F	-194 / 0	0.10 (1)
R-Q	0 / 0	-96.5 -96.5	0.16 (1)	10.00	A-P	0 / 1413	0.32 (1)
Q-P	0 / 0	-18.5 -18.5	0.10 (4)	10.00	J-G	0 / 1413	0.32 (1)
P-O	0 / 1383	-18.5 -18.5	0.29 (1)	10.00			
O-N	0 / 1228	-18.5 -18.5	0.28 (4)	10.00			
N-M	0 / 1228	-18.5 -18.5	0.28 (4)	10.00			
M-L	0 / 1228	-18.5 -18.5	0.28 (4)	10.00			
L-K	0 / 1228	-18.5 -18.5	0.28 (4)	10.00			
K-J	0 / 1383	-18.5 -18.5	0.29 (1)	10.00			
J-I	0 / 0	-18.5 -18.5	0.10 (4)	10.00			
I-H	0 / 0	-96.5 -96.5	0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/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 OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (1.10")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.10")
CALCULATED VERT. DEFL.(TL) = L/999 (0.13")

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

CSI: TC=0.49/1.00 (D-E:1), BC=0.29/1.00 (J-K:1), WB=0.44/1.00 (D-M:1), SSI=0.27/1.00 (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 1656

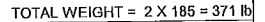
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

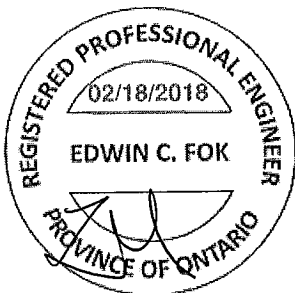
JSI GRIP= 0.85 (P) (INPUT = 0.90)
JSI METAL= 0.52 (P) (INPUT = 1.00)

A-18023668

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 11:05:45 2018 Page 1
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A-18023670 CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H6B	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 11:05:45 2018 Page 2					
ID:MF8ilriaTok7DlbpT4B71Xys4PG-lzuOU0d11feOhld11ogtdABXsBaswG39JKZSNMzjxKa					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	5.0	6.0	2.00	2.25
B	TMWW-t	MT20	4.0	6.0	2.00	2.75
C	TTWW+m	MT20	5.0	6.0	2.25	1.50
D	TMW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	5.0	6.0	2.25	1.50
F	TMWW-t	MT20	4.0	6.0	2.00	1.75
G	TMBH1-m	MT20	5.0	6.0		Edge
H	BMW+w	MT20	3.0	8.0	4.25	1.50
I	BMWW-t	MT20	4.0	6.0		
J	BS-t	MT20	4.0	6.0		
K	BMWWWW-t	MT20	5.0	6.0		
L	BS-t	MT20	4.0	6.0		
M	BMWW-t	MT20	4.0	4.0		
N	BMWW-t	MT20	4.0	6.0		
O	BMV1+p	MT20	2.0	4.0		

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

HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 3610.3 lbs FACTORED DOWN AT 29-10-6 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

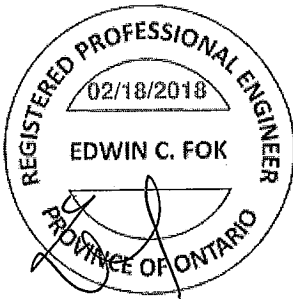
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

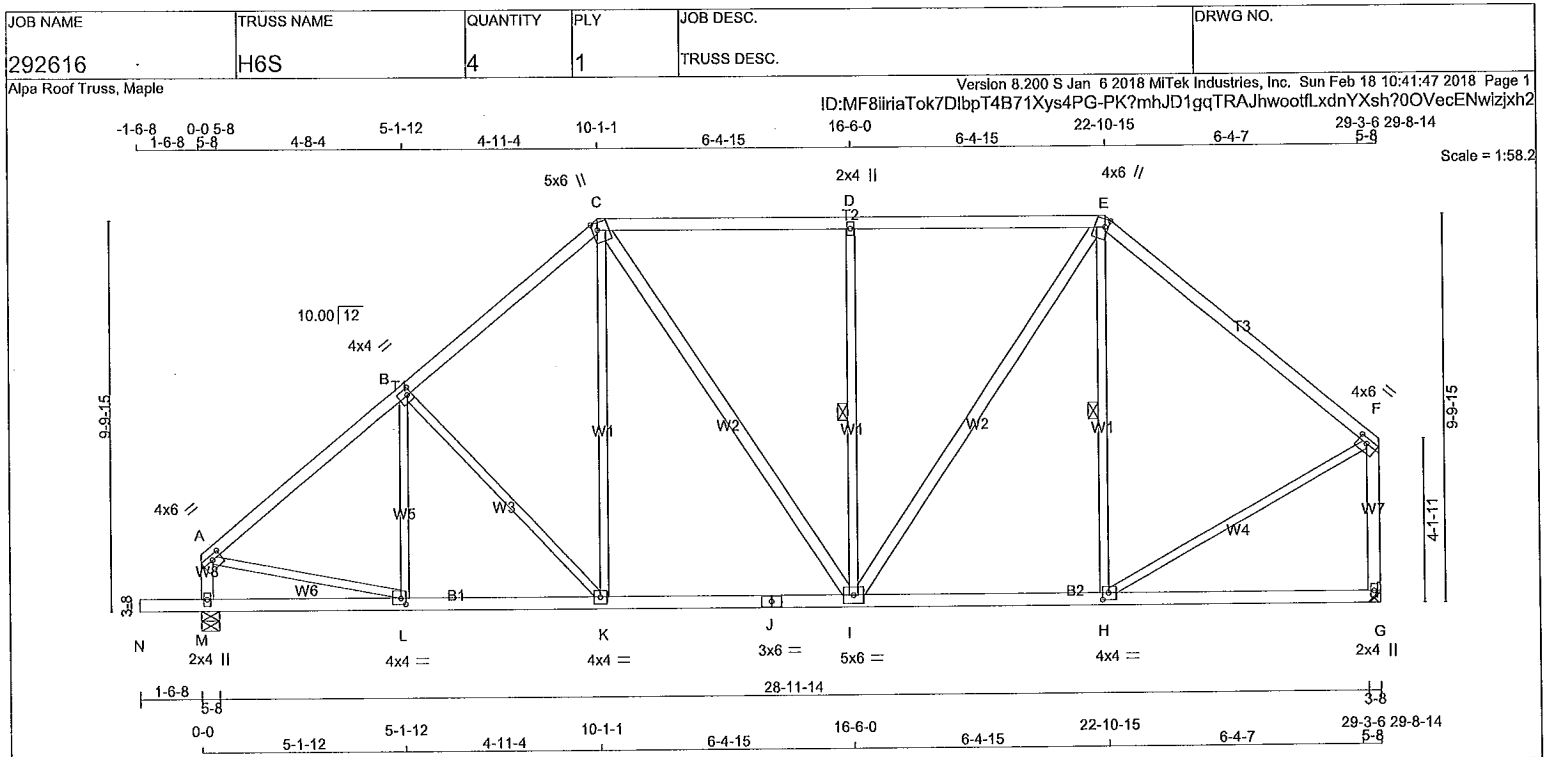
JSI GRIP= 0.89 (F) (INPUT = 0.90)

JSI METAL= 0.86 (G) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-19023670(2)



TOTAL WEIGHT = 4 X 149 = 597 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	2100F 1.8E	SPF		
M - A	2x4	DRY	No.2	SPF		
G - F	2x4	DRY	No.2	SPF		
N - J	2x4	DRY	No.2	SPF		
J - G	2x4	DRY	No.2	SPF		

ALL WEBS	EXCEPT	2x3	DRY	No.2	SPF
C - I	2x4	DRY	No.2	SPF	
I - E	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.50	2.75
B	TMVW-t	MT20	4.0	4.0	2.00	1.25
C	TTVW+m	MT20	5.0	6.0	2.25	1.50
D	TMVW+w	MT20	2.0	4.0		
E	TTVW+m	MT20	4.0	6.0	2.25	1.00
F	TMVW-t	MT20	4.0	6.0	1.50	2.75
G	BMV1+p	MT20	2.0	4.0		
H	BMVW-t	MT20	4.0	4.0	2.00	1.75
I	BMVW-t	MT20	5.0	6.0		
J	BS-t	MT20	3.0	6.0		
K	BMVW-t	MT20	4.0	4.0		
L	BMVW-t	MT20	4.0	4.0	1.75	1.50
M	BMV1+p	MT20	2.0	4.0		

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

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

BEARINGS		FACTORED	MAXIMUM FACTORED	INPUT	REQRD
JT	GROSS REACTION	GROSS REACTION	DOWN	BRG	BRG
M	1626	0	1626	0	0
G	1488	0	1488	0	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	DEAD	SOIL
M	COMBINED	SNOW	LIVE	PERM.LIVE
M	1163	689 / 0	0 / 0	0 / 0
G	1065	624 / 0	0 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.97 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-I, 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			
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	-1568 / 0	-78.0	-78.0 0.30 (1)	4.97	L-B	-161 / 6	0.08 (1)
B-C	-1405 / 0	-78.0	-78.0 0.29 (1)	5.20	B-K	-255 / 0	0.27 (1)
C-D	-1213 / 0	-85.5	-85.5 0.48 (1)	2.00	K-C	0 / 294	0.07 (1)
D-E	-1213 / 0	-85.5	-85.5 0.48 (1)	2.00	C-I	0 / 280	0.05 (1)
E-F	-1101 / 0	-78.0	-78.0 0.33 (1)	6.25	I-D	-673 / 0	0.44 (1)
M-A	-1436 / 0	0.0	0.0 0.15 (1)	6.81	I-E	0 / 665	0.11 (1)
G-F	-1436 / 0	0.0	0.0 0.41 (1)	6.81	H-E	-322 / 0	0.21 (1)
					A-L	0 / 1254	0.28 (1)
					H-F	0 / 964	0.22 (1)
N-M	0 / 0	-96.5	-96.5 0.16 (1)	10.00			
M-L	0 / 0	-18.5	-18.5 0.10 (4)	10.00			
L-K	0 / 1227	-18.5	-18.5 0.27 (1)	10.00			
K-J	0 / 1056	-18.5	-18.5 0.24 (4)	10.00			
J-I	0 / 1056	-18.5	-18.5 0.24 (4)	10.00			
I-H	0 / 841	-18.5	-18.5 0.30 (4)	10.00			
H-G	0 / 0	-18.5	-18.5 0.21 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

LOADING IN FLAT SECTION BASED ON 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 OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.99")
CALCULATED VERT. DEFL.(LL)= L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.99")
CALCULATED VERT. DEFL.(TL)= L/999 (0.10")

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

CSI: TC=0.48/1.00 (D-E:1), BC=0.30/1.00 (H-I:4), WB=0.44/1.00 (D-I:1), SSI=0.27/1.00 (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.

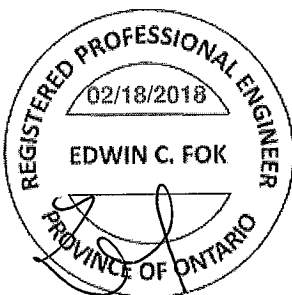
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (L) (INPUT = 0.90)
JSI METAL= 0.46 (L) (INPUT = 1.00)

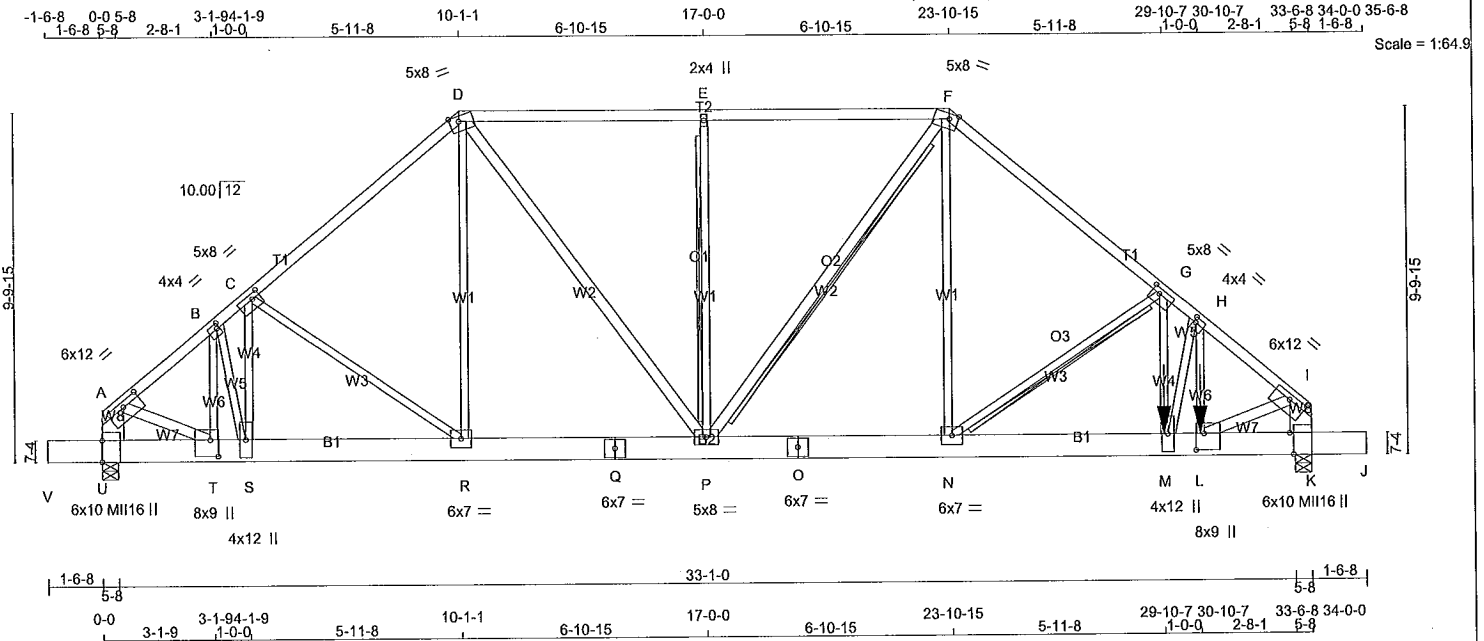
A-18023671



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H7A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 10:58:04 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-pCHKYmbbs8RqU0idVHldafdBACylTHelRKCUXzjxT



TOTAL WEIGHT = 2 X 220 = 440 LB

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	DRY	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF		
D - F	2x4	DRY	No.2	SPF		
F - I	2x4	DRY	No.2	SPF		
U - A	2x8	DRY	No.2	SPF		
K - I	2x8	DRY	No.2	SPF		
V - Q	2x8	DRY	No.2	SPF		
Q - O	2x8	DRY	No.2	SPF		
O - J	2x8	DRY	No.2	SPF		
ALL WEBS	2x3	DRY	No.2	SPF		
EXCEPT						
D - P	2x4	DRY	No.2	SPF		
P - F	2x4	DRY	No.2	SPF		
A - T	2x4	DRY	No.2	SPF		
L - I	2x4	DRY	No.2	SPF		

DRY: SEASONED LUMBER.

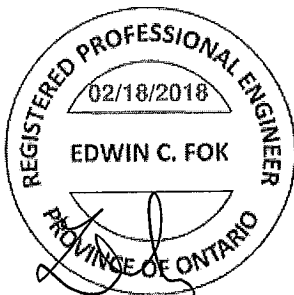
DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - D 1	12	TOP
D - F 1	12	TOP
F - I 1	12	TOP
U - A 2	12	TOP
K - I 2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
V - Q 2	12	TOP
Q - O 2	12	TOP
O - J 2	3	SIDE(915.6)
WEBS : (0.122"x3") SPIRAL NAILS		
G - M 1	3	SIDE(35.6)
H - L 1	2	SIDE(713.6)
2x3 1	6	
2x4 1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



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	UP/LIFT	IN-SX
U	2849	0	2849	0
K	11076	0	11076	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE
U	2018	1306 / 0	0 / 0	0 / 0
K	7749	5563 / 0	0 / 0	0 / 0

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

BRACING

FOR SECTION D-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.39 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT E-P
2x8 DRY SPF No.2 T-BRACE AT F-P, G-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 90% OF WEB LENGTH.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	WEBS	MAX. FACTORED MEMB. FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO		FR-TO		
A-B	-2931 / 0	-78.0 -78.0	0.09 (1)	5.30	T-B	-535 / 0
B-C	-2965 / 0	-78.0 -78.0	0.23 (1)	5.08	B-S	0 / 506
C-D	-3153 / 0	-78.0 -78.0	0.33 (1)	4.95	S-C	-565 / 0
D-E	-3447 / 0	-85.5 -85.5	0.51 (1)	2.00	R-D	-10 / 0
E-F	-3447 / 0	-85.5 -85.5	0.51 (1)	2.00	C-R	0 / 163
F-G	-5059 / 0	-78.0 -78.0	0.55 (1)	3.95	D-P	0 / 1767
G-H	-10392 / 0	-78.0 -78.0	0.58 (1)	2.47	P-E	-712 / 0
H-I	-11210 / 0	-78.0 -78.0	0.68 (1)	2.39	P-F	-746 / 0
U-A	-2662 / 0	0.0 0.0	0.07 (1)	7.81	N-F	0 / 3413
K-I	-9890 / 0	0.0 0.0	0.27 (1)	5.48	N-G	-5434 / 0
V-U	0 / 0	-96.5 -96.5	0.03 (1)	10.00	M-G	0 / 5950
U-T	0 / 0	-18.5 -18.5	0.01 (4)	10.00	M-H	-1159 / 0
T-S	0 / 2258	-18.5 -18.5	0.15 (1)	10.00	L-H	0 / 1853
S-R	0 / 2395	-18.5 -18.5	0.16 (1)	10.00	A-T	0 / 2355
R-Q	0 / 2397	-18.5 -18.5	0.15 (1)	10.00	L-I	0 / 8945
Q-P	0 / 2397	-18.5 -18.5	0.15 (1)	10.00		
P-O	0 / 3890	-18.5 -18.5	0.24 (1)	10.00		
O-N	0 / 3890	-18.5 -18.5	0.24 (1)	10.00		
N-M	0 / 8260	-18.5 -18.5	0.57 (1)	10.00		
M-L	0 / 8575	-18.5 -18.5	0.89 (1)	10.00		
L-K	0 / 0	-308.9 -308.9	0.43 (1)	10.00		
K-J	0 / 0	-96.5 -96.5	0.03 (1)	10.00		

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/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.

GIRDER TYPE: CStd Girder
START DISTANCE = 30-10-6
START SPAN CARRIED = 14-0-8
END DISTANCE = 34-0-0
END SPAN CARRIED = 14-0-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL. LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.13")
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")
ALLOWABLE DEFL.(TL) = L/360 (1.13")
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

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

CSI: TC=0.68/1.00 (H-I:1), BC=0.89/1.00 (L-M:1), WB=0.97/1.00 (G-N:1), SSI=0.36/1.00 (L-M:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H7A	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 10:56:04 2018 Page 2 ID:MF8iiriaTok7DlbpT4B71Xys4PG-pCHKYMBbs8RqU0ldVHIdafdBACylTHelRKCUXzjxtf					

PLATES (table is in inches)							FACTORED CONCENTRATED LOADS (LBS)							AUTOSOLVE HEELS OFF		
JT	TYPE	PLATES	W	LEN	Y	X	JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .	
A	TMVW-l	MT20	6.0	12.0	1.75	6.00	L	30-10-6	-5689	-5689	—	FRONT	VERT	TOTAL	NAIL VALUES	
B	TMWW-l	MT20	4.0	4.0	1.75	1.00	M	29-10-6	-3646	-3646	—	FRONT	VERT	TOTAL	PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)	
C	TMWW-l	MT20	5.0	8.0	1.75	2.75								MAX MIN MAX MIN MAX MIN		
D	TTWW-m	MT20	5.0	8.0	Edge	3.00								MT20 618 354 1667 788 1987 1656		
E	TMW+w	MT20	2.0	4.0										MI16 438 276 2341 1245 4283 1656		
F	TTWW-m	MT20	5.0	8.0	Edge	3.00								PLATE PLACEMENT TOL. = 0.250 Inches		
G	TMWW-l	MT20	5.0	8.0	1.75	2.75								PLATE ROTATION TOL. = 5.0 Deg.		
H	TMWW-l	MT20	4.0	4.0	1.75	1.00								JSI GRIP= 0.90 (G) (INPUT = 0.90)		
I	TMVW-l	MT20	6.0	12.0	1.75	6.00								JSI METAL= 0.97 (L) (INPUT = 1.00)		
K	BMV1+p	MI16	6.0	10.0	Edge	1.25										
L	BMWW+l	MT20	8.0	9.0	5.50	2.75										
M	BMWW+l	MT20	4.0	12.0												
N	BMWW-l	MT20	6.0	7.0												
O	BS-l	MT20	6.0	7.0												
P	BMWWW-l	MT20	5.0	8.0												
Q	BS-l	MT20	6.0	7.0												
R	BMWW-l	MT20	6.0	7.0												
S	BMWW+l	MT20	4.0	12.0												
T	BMWW+l	MT20	8.0	9.0	5.50	2.75										
U	BMV1+p	MI16	6.0	10.0	Edge											

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

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 5688.9 lbs FACTORED DOWN AT 30-10-6, AND 3646.3 lbs FACTORED DOWN AT 29-10-6 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

REGISTERED PROFESSIONAL ENGINEER

02/18/2018

EDWIN C. FOK

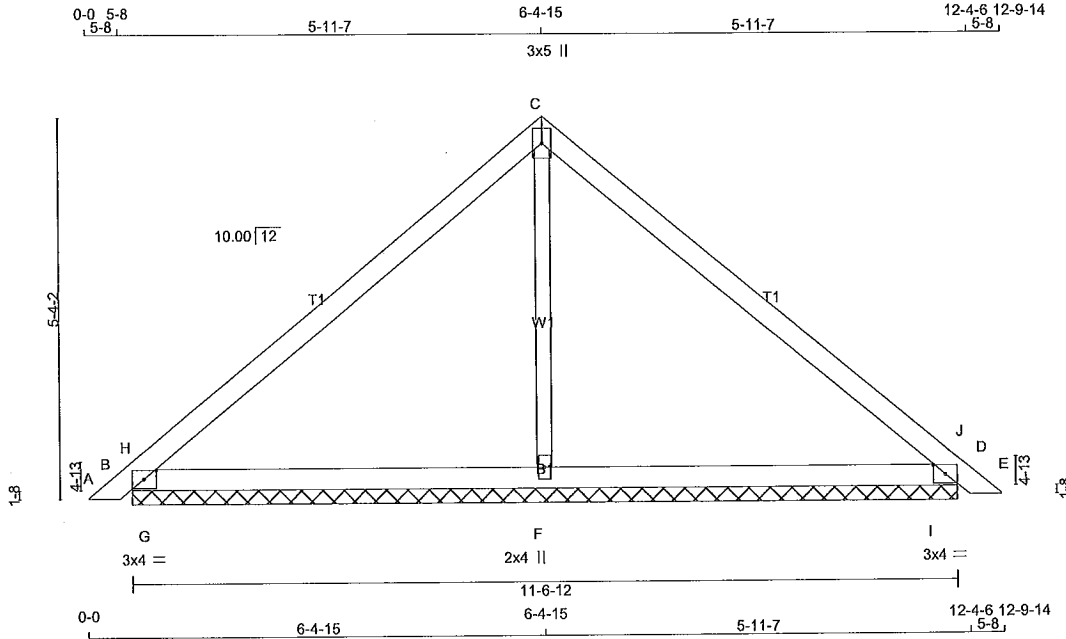
PROVINCE OF ONTARIO

A-18023672(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H8P	7	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 10:41:53 2018 Page 1
ID:MF8llriaTok7DlbpT4B71Xys4PG-DUM1xMlnGgDauE8483_3aBtrSyy9PqJN0Yhh6Mzjxgy



TOTAL WEIGHT = 7 X 36 = 251 lb

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

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

BEARINGS		FACTORED	MAXIMUM FACTORED	INPUT	REQRD
JT	GROSS REACTION	GROSS REACTION	DOWN	BRG	BRG
B	447	0	447	0	11-6-12
D	447	0	447	0	11-6-12
F	303	0	303	0	11-6-12

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	315	211/0	0/0	0/0	0/0	105/0	0/0
D	315	211/0	0/0	0/0	0/0	105/0	0/0
F	221	108/0	0/0	0/0	0/0	113/0	0/0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0/12	-78.0	-78.0 0.02 (1)	10.00	F-C	-68/3	0.03 (1)
B-H	-38/167	-78.0	-78.0 0.23 (1)	6.25	G-H	-802/0	0.00 (1)
H-C	-260/0	-78.0	-78.0 0.32 (1)	6.25	I-J	-802/0	0.00 (1)
C-J	-260/0	-78.0	-78.0 0.32 (1)	6.25			
J-D	-38/167	-78.0	-78.0 0.23 (1)	6.25			
D-E	0/12	-78.0	-78.0 0.02 (1)	10.00			
B-G	0/187	-18.5	-18.5 0.29 (1)	10.00			
G-F	0/187	-18.5	-18.5 0.29 (1)	10.00			
F-I	0/187	-18.5	-18.5 0.29 (1)	10.00			
I-D	0/187	-18.5	-18.5 0.29 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.32/1.00 (C-H:1), BC=0.29/1.00 (B-G:1), WB=0.03/1.00 (C-F:1), SSI=0.62/1.00 (B-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.

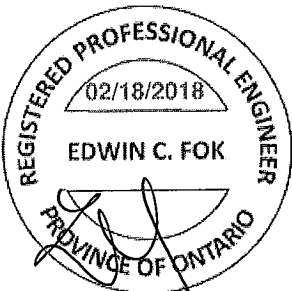
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.39 (B) (INPUT = 0.90)
JSI METAL= 0.11 (D) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

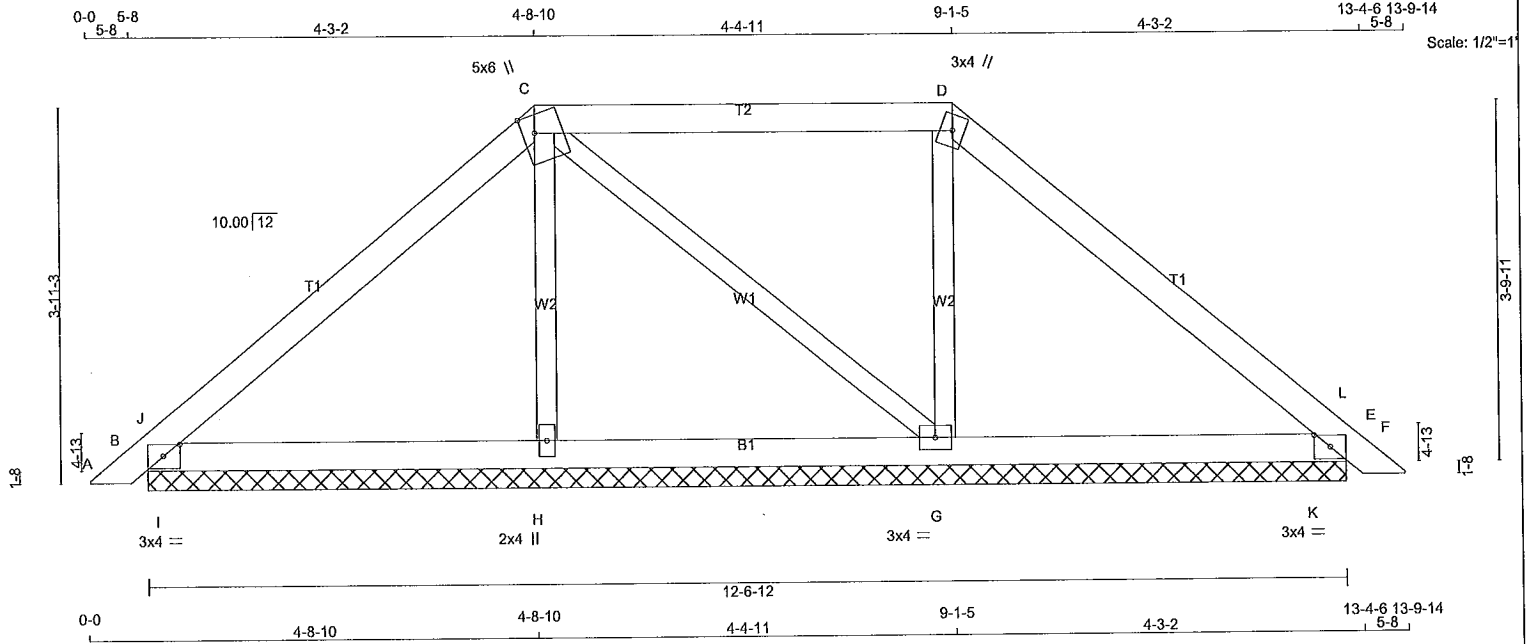


A-18023673

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H9P	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 10:42:00 2018 Page 1
ID:MF8iiriaTok7DlbpT4B71Xys4PG-WqHgPmNAdq6bEIBQ21ciNgg4jmlEY_3Pd7tZsSzjxgr



TOTAL WEIGHT = 2 X 43 = 85 lb

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

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

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

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.00
C	TTWW+m	MT20	5.0	6.0	2.25	1.50
D	TTW+m	MT20	3.0	4.0		
E	TMB1-I	MT20	3.0	4.0	1.50	2.00
G	BMWW1-I	MT20	3.0	4.0		
H	BMWW1+w	MT20	2.0	4.0		

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

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
B	339	0	339	0	0	12-6-12	8-2
E	315	0	315	0	0	12-6-12	8-2
H	285	0	285	0	0	12-6-12	8-2
G	355	0	355	0	0	12-6-12	8-2

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN.	COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	239	162 / 0	0 / 0	0 / 0	0 / 0	77 / 0	0 / 0
E	223	149 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0
H	206	111 / 0	0 / 0	0 / 0	0 / 0	94 / 0	0 / 0
G	254	150 / 0	0 / 0	0 / 0	0 / 0	104 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO	FROM TO	FR-TO	FROM TO
A-B	0 / 12	A-B	-175 / 0
B-J	-48 / 0	B-J	-37 / 0
J-C	-179 / 0	J-C	-221 / 0
C-D	-97 / 0	C-D	-361 / 0
D-L	-144 / 0	D-L	-365 / 0
L-E	-41 / 9	L-E	
E-F	0 / 12	E-F	
B-I	0 / 130	B-I	
I-H	0 / 130	I-H	
H-G	0 / 125	H-G	
G-K	0 / 103	G-K	
K-E	0 / 103	K-E	

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.13/1.00 (C-D:1), BC=0.07/1.00 (H-I:1), WB=0.03/1.00 (D-G:1), SSI=0.14/1.00 (E-K:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

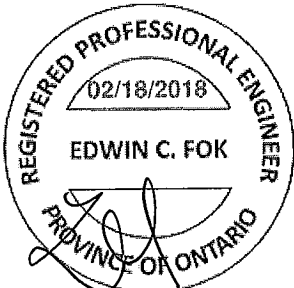
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.18 (D) (INPUT = 0.90)
JSI METAL= 0.04 (B) (INPUT = 1.00)

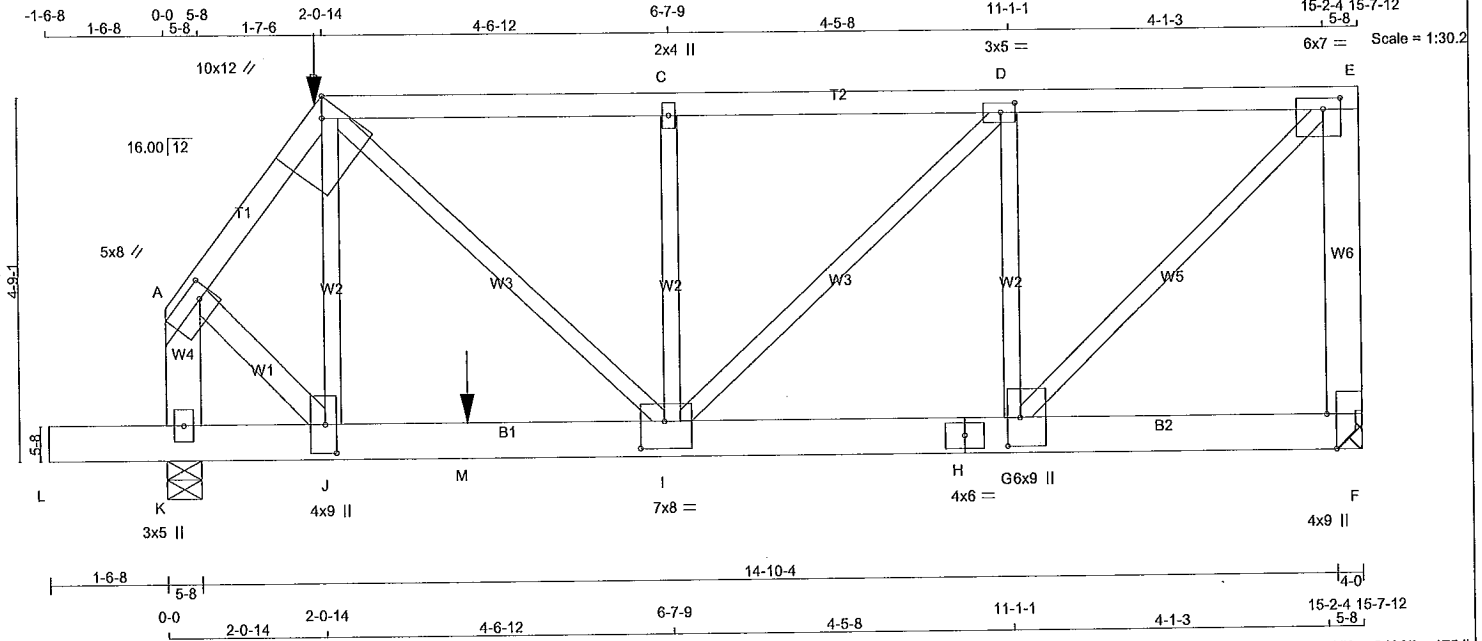
A-18023674



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H11A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 10:55:07 2018 Page 1
ID:MF8iiriaTok7DlbpT4B71Xys4PG-zELBbsurHdFw8FrgfpEFmemT10kMRIFb40h_LzjxUY



TOTAL WEIGHT = 2 X 87 = 175 lb
(M)

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

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

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - B	12	SIDE(61.0)
B - E	12	SIDE(46.8)
E - F	12	TOP
K - A	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
L - H	8	SIDE(339.1)
H - F	8	SIDE(339.1)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	
2x4	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 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

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	F	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
		6584	0	6584	0	0	HANGER BY OTHERS	MIN. SEAT SIZE: 4-0	
K		5821	0	5821	0	0	5-8	3-12	

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
F	4684	2915 / 0	0 / 0	0 / 0	0 / 0	1769 / 0	0 / 0		
K	4121	2679 / 0	0 / 0	0 / 0	0 / 0	1441 / 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 = 3.62 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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX. (CS)	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)	MAX. CS (LC)
FR-TO		FROM TO			FR-TO		
A - B	-5114 / 0	-78.0 -78.0	0.12 (1)	4.21	J - B	0 / 540	0.07 (1)
B - C	-6345 / 0	-117.0 -117.0	0.34 (1)	3.62	B - I	0 / 4549	0.56 (1)
C - D	-6345 / 0	-117.0 -117.0	0.31 (1)	3.65	I - C	-495 / 0	0.08 (1)
D - E	-5242 / 0	-117.0 -117.0	0.29 (1)	4.00	I - D	0 / 1548	0.19 (1)
F - E	-5260 / 0	0.0 0.0	0.58 (1)	6.37	G - D	-1658 / 0	0.27 (1)
K - A	-6322 / 0	0.0 0.0	0.25 (1)	5.91	G - E	0 / 7268	0.90 (1)
					A - J	0 / 3704	0.33 (1)
L - K	0 / 0	-96.5 -96.5	0.04 (1)	10.00			
K - J	0 / 0	-27.7 -30.0	0.54 (1)	10.00			
J - M	0 / 3047	-30.0 -31.8	0.90 (1)	10.00			
M - I	0 / 3047	-696.8 -696.8	0.90 (1)	10.00			
I - H	0 / 5242	-696.8 -696.8	0.83 (1)	10.00			
H - G	0 / 5242	-696.8 -696.8	0.83 (1)	10.00			
G - F	0 / 0	-696.8 -696.8	0.46 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	2-0-14	-67	-67	---	FRONT	VERT	TOTAL
M	3-11-4	-2165	-2165	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-0-14
RIGHT SETBACK = 0-0
END SETBACK = 4-0-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 2-0-0
END DISTANCE = 3-11-4
END SPAN CARRIED = 2-2-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder
START DISTANCE = 3-11-4
START SPAN CARRIED = 29-8-14
END DISTANCE = 15-7-12
END SPAN CARRIED = 29-8-14
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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

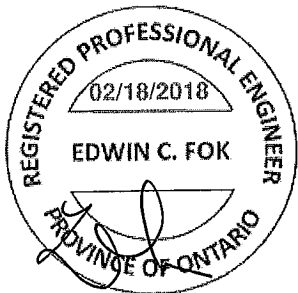
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.52")
CALCULATED VERT. DEFL.(LL)= L/999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (0.52")
CALCULATED VERT. DEFL.(TL)= L/999 (0.16")

A-18023675 CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H11A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 10:55:07 2018 Page 2
ID:MF8ilriaTok7DlbpT4B71Xys4PG-zELBbsurHdFw8FrgfpEFmemT10kMRlEFb40h LzixUY

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	8.0	2.25	2.00
B	TTWW-h	MT20	10.0	12.0	Edge	2.75
C	TMW+w	MT20	2.0	4.0		
D	TMVW-t	MT20	3.0	5.0	1.50	2.25
E	TMVW-t	MT20	6.0	7.0	1.75	2.75
F	BMV1+t	MT20	4.0	9.0	Edge	1.50
G	BMWW+t	MT20	6.0	9.0	4.50	2.00
H	BS-t	MT20	4.0	6.0		
I	BMWWW-t	MT20	7.0	8.0	4.25	3.75
J	BMWW+t	MT20	4.0	9.0	4.50	1.75
K	BMV1+p	MT20	3.0	5.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S)
REQUIRED TO SUPPORT CONCENTRATED
LOAD(S) 67.3 lbs FACTORED DOWN AT 2-0-14
ON TOP CHORD, AND 2165.0 lbs FACTORED
DOWN AT 3-11-4 ON BOTTOM CHORD. DESIGN
FOR UNSPECIFIED CONNECTION(S) IS
DELEGATED TO THE BUILDING DESIGNER.

CANTILEVER DEFLECTION:

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

CSI: TC=0.58/1.00 (E-F:1) , BC=0.90/1.00 (I-J:1) ,
WB=0.90/1.00 (E-G:1) , SSI=0.71/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

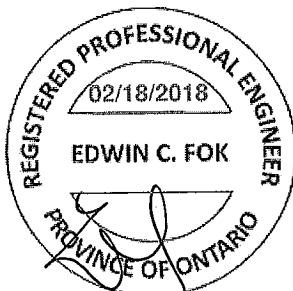
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
	MAX	MIN	MAX MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (D) (INPUT = 0.90)
JSI METAL= 0.85 (H) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4
for Part 9 design as per OBC 9.23.13.11,
and no less than 2x4 for Part 4 design

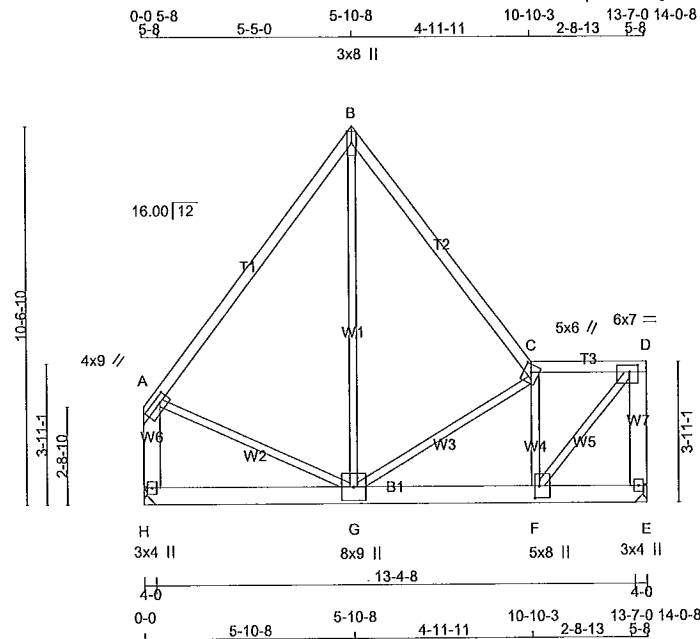


A-18023675(6)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H12A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 10:39:46 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-R2B0HxI7ADc9ixfCuChxP75ilSI8CFhpHQT9Dzjxix



Scale: 3/16"=1'

TOTAL WEIGHT = 2 X 83 = 167 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	DRY	LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF		
B - C	2x4	DRY	No.2	SPF		
C - D	2x4	DRY	No.2	SPF		
E - D	2x6	DRY	No.2	SPF		
H - A	2x6	DRY	No.2	SPF		
H - E	2x6	DRY	1650F 1.5E	SPF		
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF		

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	5544	0	5544	0	IN-SX	IN-SX
H	5544	0	5544	0	MIN. SEAT SIZE: 3-8	HANGER BY OTHERS

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
E	3952	2412 / 0	0 / 0	0 / 0	0 / 0	1540 / 0	0 / 0
H	3952	2412 / 0	0 / 0	0 / 0	0 / 0	1540 / 0	0 / 0

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.64 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. UNBRAC	MAX. FACTORED		MAX	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX		MEMB.	FORCE (LBS)		
FR-TO		FROM	TO	CSI (LC)	LENGTH	FR-TO		CSI (LC)	
A-B	-3511 / 0	-78.0	-78.0	0.57 (1)	4.66	G-B	0 / 5175	0.64 (1)	
B-C	-3495 / 0	-78.0	-78.0	0.35 (1)	4.78	G-C	-2388 / 0	0.77 (1)	
C-D	-4007 / 0	-78.0	-78.0	0.13 (1)	4.64	F-C	-1794 / 0	0.21 (1)	
E-D	-4661 / 0	0.0	0.0	0.34 (1)	6.69	F-D	0 / 6098	0.75 (1)	
H-A	-3843 / 0	0.0	0.0	0.20 (1)	7.22	A-G	0 / 2255	0.28 (1)	
H-G	0 / 0	-711.6	-711.6	0.58 (1)	10.00				
G-F	0 / 4060	-711.6	-711.6	0.75 (1)	10.00				
F-E	0 / 0	-711.6	-711.6	0.17 (1)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CSIdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 30-8-14
END DISTANCE = 14-0-8
END SPAN CARRIED = 30-8-14
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADD'TL 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 OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.47")
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/843 (0.20")

CSI: TC=0.57/1.00 (A-B:1), BC=0.75/1.00 (F-G:1), WB=0.77/1.00 (C-G:1), SSI=0.82/1.00 (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

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

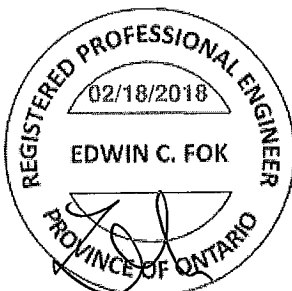
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (D) (INPUT = 0.90)
JSI METAL= 0.73 (F) (INPUT = 1.00)

A-18023676 CONTINUED ON PAGE 2

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H12A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

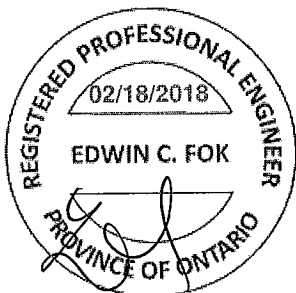
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 10:39:46 2018 Page 2
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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	9.0	1.75	3.00
B	TTW+p	MT20	3.0	8.0	3.75	Edge
C	TTWW+m	MT20	5.0	6.0	2.50	2.50
D	TMVW-t	MT20	6.0	7.0	2.25	2.75
E	BMV1+p	MT20	3.0	4.0		
F	BMWW-t	MT20	5.0	8.0	4.00	1.50
G	BMWWW-t	MT20	8.0	9.0		
H	BMV1+p	MT20	3.0	4.0		

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

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-1802-8676(2)

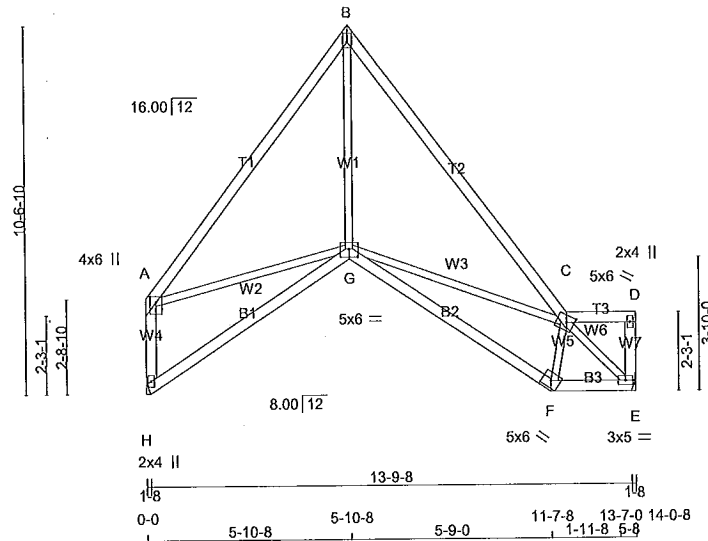
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H12T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 10:42:10 2018 Page 1
ID:MF8liriaTok7DlbpT4B71Xys4PG-EluSWAVSGuMAQryLe7o2mn4mXojutUguwhl5Dtjxgh

0-0 1-8 5-9-0 5-10-8 6-2-11 12-1-3 13-7-0 14-0-8
1-6-14 5-8

Scale = 1:66.1



TOTAL WEIGHT = 68 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	1650F 1.5E	SPF	
B - C	2x4	DRY	2100F 1.8E	SPF	
C - D	2x4	DRY	No.2	SPF	
E - D	2x4	DRY	No.2	SPF	
H - A	2x4	DRY	No.2	SPF	
H - G	2x4	DRY	No.2	SPF	
G - F	2x4	DRY	No.2	SPF	
F - E	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	TTW+p	MT20	3.0	5.0	2.00	Edge
C	TTWWW-m	MT20	5.0	6.0	2.25	2.50
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	5.0		
F	BBW-h	MT20	5.0	6.0	2.25	3.00
G	BBWWW-p	MT20	5.0	6.0	2.75	3.00
H	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT HORZ	DOWN HORZ UPLIFT	IN-SX	IN-SX
E	677 0	677 0 0	HANGER BY OTHERS	HANGER BY OTHERS
H	677 0	677 0 0	HANGER BY OTHERS	HANGER BY OTHERS

UNFACTORED REACTIONS

JT	1ST LCASE	MAX / MIN	COMPONENT REACTIONS	WIND	DEAD	SOIL
E	483	295 / 0	0 / 0	0 / 0	188 / 0	0 / 0
H	483	295 / 0	0 / 0	0 / 0	188 / 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	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	W E B S	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO					LENGTH	FR-TO		
A-B	-612 / 0	-78.0	-78.0	0.30 (1)	6.25	G-B	0 / 505	0.11 (1)
B-C	-610 / 0	-78.0	-78.0	0.26 (1)	6.25	G-C	-165 / 0	0.14 (1)
C-D	0 / 0	-78.0	-78.0	0.05 (1)	10.00	F-C	-280 / 0	0.04 (1)
E-D	-76 / 0	0.0	0.0	0.01 (1)	7.81	C-E	-831 / 0	0.14 (1)
H-A	-623 / 0	0.0	0.0	0.09 (1)	7.81	A-G	0 / 380	0.09 (1)
H-G	0 / 0	-18.5	-18.5	0.19 (4)	10.00			
G-F	0 / 631	-18.5	-18.5	0.24 (4)	10.00			
F-E	0 / 592	-18.5	-18.5	0.11 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.47")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL)= L/999 (0.09")

CSI: TC=0.30/1.00 (A-B:1), BC=0.24/1.00 (F-G:4),
WB=0.14/1.00 (C-E:1), SSI=0.11/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

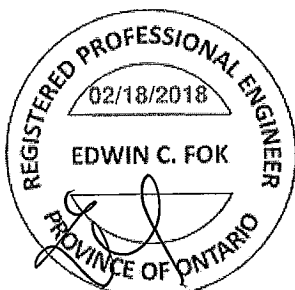
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (E) (INPUT = 0.90)
JSI METAL= 0.32 (H) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

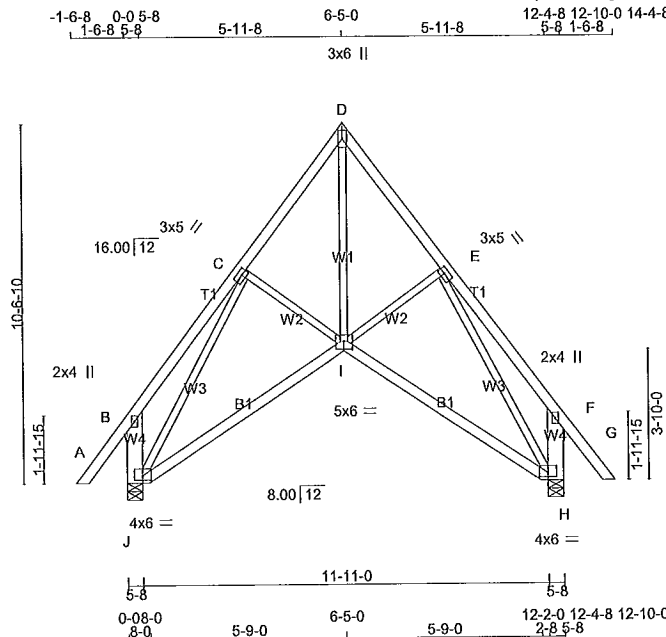


A-18023677

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H13T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 10:43:13 2018 Page 1
ID:MF8IiriaTok7DlbpT4B71Xys4PG-ttBGkfzQFIEUWGSqsQqq3BaRBCN8re9Q_3wwjzxfi



TOTAL WEIGHT = 75 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	
H - B	2x6	DRY	No.2	SPF	
J - F	2x6	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	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	3.0	5.0	1.50	2.00
D	TTW+p	MT20	3.0	6.0		
E	TMWW-t	MT20	3.0	5.0	1.50	2.00
F	TMV+p	MT20	2.0	4.0		
H	BVMW1-p	MT20	4.0	6.0	1.50	3.00
I	BBWWV-p	MT20	5.0	6.0	2.75	3.00
J	BVMW1-p	MT20	4.0	6.0	1.50	3.00

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	727	0	727	0
J	727	0	727	0
H	727	0	727	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED	327 / 0	0 / 0	0 / 0	0 / 0	189 / 0	0 / 0
J	516	327 / 0	0 / 0	0 / 0	0 / 0	189 / 0	0 / 0
H	516	327 / 0	0 / 0	0 / 0	0 / 0	189 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) J, H
BEARING SIZE FACTOR = 1.15 AT JNT(S) J, 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)	FACTORED LC1 MAX (LC) (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX (LC) (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 43	-78.0	-78.0 0.11 (1)	I-D	0 / 658	-78.0	-78.0 0.11 (1)
B-C	0 / 20	-78.0	-78.0 0.12 (1)	C-I	-53 / 5	-78.0	-78.0 0.12 (1)
C-D	-548 / 0	-78.0	-78.0 0.09 (1)	I-E	-53 / 5	-78.0	-78.0 0.12 (1)
D-E	-548 / 0	-78.0	-78.0 0.09 (1)	J-C	-780 / 0	-78.0	-78.0 0.12 (1)
E-F	0 / 20	-78.0	-78.0 0.12 (1)	E-H	-780 / 0	-78.0	-78.0 0.12 (1)
F-G	0 / 43	-78.0	-78.0 0.11 (1)				
J-B	-213 / 0	0.0	0.0 0.02 (1)				
H-F	-213 / 0	0.0	0.0 0.02 (1)				
J-I	0 / 430	-18.5	-18.5 0.26 (4)				
I-H	0 / 430	-18.5	-18.5 0.26 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. G/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 OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.43")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.12/1.00 (E-F:1), BC=0.26/1.00 (I-J:4), WB=0.70/1.00 (E-H:1), SSI=0.07/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

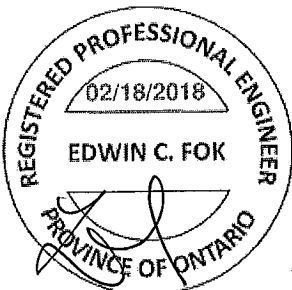
NAIL VALUES	PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

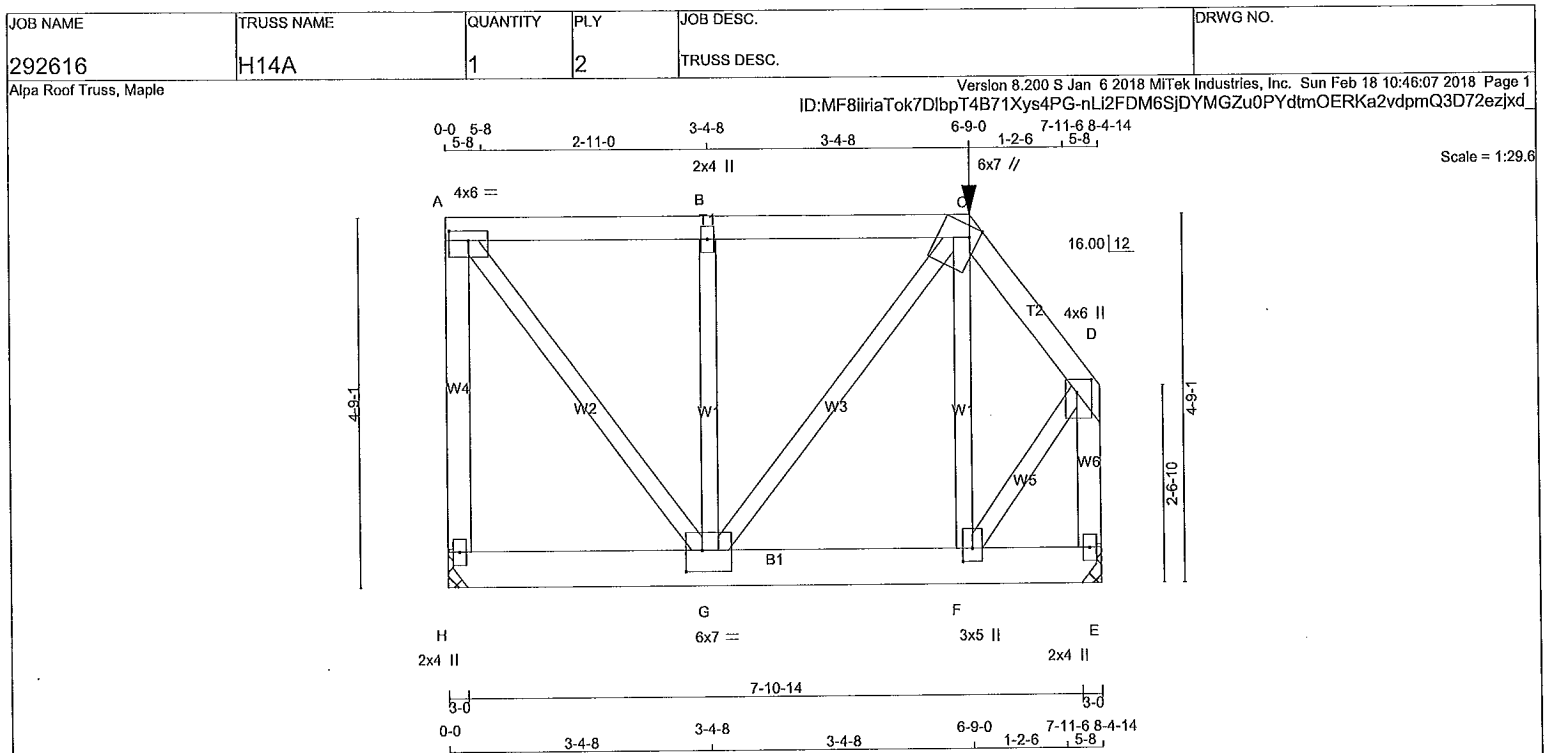
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (C) (INPUT = 0.90)
JSI METAL= 0.23 (C) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-18023678



TOTAL WEIGHT = 2 X 50 = 100 lb

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

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
H - A	12	TOP
A - C	12	SIDE(37.9)
C - D	12	SIDE(57.3)
E - D	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
H - E	8	SIDE(342.0)
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.

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.

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	UP	DOWN
H	3552	0	0	0
E	3517	0	0	0

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN. COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
H	2533	1546 / 0	0 / 0	0 / 0	0 / 0	986 / 0
E	2508	1527 / 0	0 / 0	0 / 0	0 / 0	981 / 0

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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX	MEMB.	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX	MEMB.
FR-TO	FORCE (LBS)	FROM	TO	CS (LC)	UNBRAC	LENGTH	FR-TO	FORCE (LBS)	FROM	TO	CS (LC)	UNBRAC	LENGTH	FR-TO
H - A	-2565 / 0	0.0	0.0	0.45 (1)	7.08	A - G	0 / 2994	0.37 (1)						
A - B	-1828 / 0	-141.3	-141.3	0.13 (1)	6.25	G - B	-540 / 0	0.09 (1)						
B - C	-1827 / 0	-141.3	-141.3	0.13 (1)	6.25	G - C	0 / 1010	0.13 (1)						
C - D	-2021 / 0	-78.0	-78.0	0.03 (1)	6.18	F - C	0 / 467	0.06 (1)						
E - D	-3107 / 0	0.0	0.0	0.22 (1)	6.57	F - D	0 / 1851	0.23 (1)						
H - G	0 / 0	-702.5	-702.5	0.26 (1)	10.00									
G - F	0 / 1207	-702.5	-702.5	0.33 (1)	10.00									
F - E	0 / 0	-702.5	-702.5	0.13 (1)	10.00									

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX	MAX+	FACE	DIR	TYPE
C	6-9-0	-81	-81	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 0-0

RIGHT SETBACK = 1-7-14

END SETBACK = 5-3-0

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder

START DISTANCE = 0-0

START SPAN CARRIED = 29-8-14

END DISTANCE = 8-4-14

END SPAN CARRIED = 29-8-14

END WALL WIDTH = 0-0

APPLIED TO FRONT SIDE OF BOTTOM CHORD.

- ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, OBC 2018

- CSA 086-09, CSA 086-14

- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.28")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.45/1.00 (A-H:1), BC=0.33/1.00 (F-G:1), WB=0.37/1.00 (A-G:1), SSI=0.46/1.00 (G-H:1)

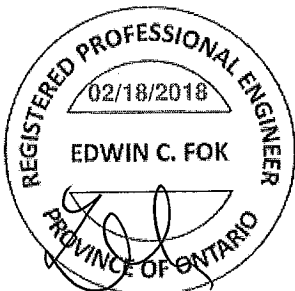
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

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

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-18023679 CONTINUED ON PAGE 2

PLATES (table is in inches)							NAIL VALUES			
JT	TYPE	PLATES	W	LEN	Y	X	PLATE	GRIP(DRY)	SHEAR	SECTION
A	TMVW-l	MT20	4.0	6.0	1.50	3.00		(PSI)	(PLI)	(PLI)
B	TMW+w	MT20	2.0	4.0				MAX MIN	MAX MIN	MAX MIN
C	TTWW+m	MT20	6.0	7.0	Edge	1.50	MT20	618 354	1667 788	1987 1656
D	TMVW+p	MT20	4.0	6.0	2.00	2.25	PLATE PLACEMENT TOL. = 0.250 inches			
E	BMV1+p	MT20	2.0	4.0			PLATE ROTATION TOL. = 5.0 Deg.			
F	BMWW+l	MT20	3.0	5.0	2.00	1.50	JSI GRIP= 0.86 (A) (INPUT = 0.90)			
G	BMWWW-l	MT20	6.0	7.0	3.25	2.50	JSI METAL= 0.35 (F) (INPUT = 1.00)			
H	BMV1+p	MT20	2.0	4.0						

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

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 80.7 lbs FACTORED DOWN AT 6-9-0 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

REGISTERED PROFESSIONAL ENGINEER

02/18/2018

EDWIN C. FOK

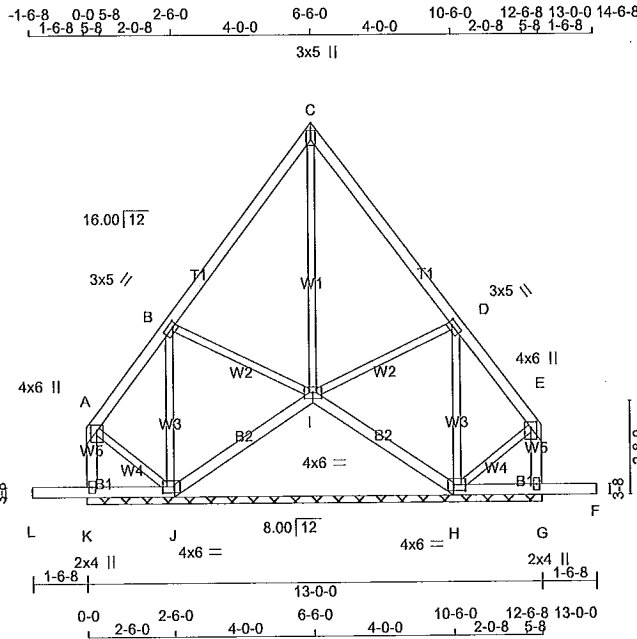
PROVINCE OF ONTARIO

A:18023679(v)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H15T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 10:56:17 2018 Page 1
ID:MF8IiriaTok7DlbpT4B71Xys4PG-wizfHollo84_Y?C7IWUgboFYoEpPqXwYiz_0SHzjxTS



Scale = 1:65.8

TOTAL WEIGHT = 74 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	
K - A	2x4	DRY	No.2	SPF	
G - E	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
J - I	2x4	DRY	No.2	SPF	
I - H	2x4	DRY	No.2	SPF	
H - F	2x4	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE PLATES				
A TMVW+p MT20	4.0	6.0	2.00	2.00
B TMVW-l MT20	3.0	5.0	1.50	1.50
C TTW+p MT20	3.0	5.0	2.00	Edge
D TMVW-l MT20	3.0	5.0	1.50	1.50
E TMVW+p MT20	4.0	6.0	2.00	2.00
G BMV1+p MT20	2.0	4.0		
H BBVW1-l MT20	4.0	6.0	2.00	4.00
I BBVW1-p MT20	4.0	6.0		
J BBVW1-l MT20	4.0	6.0	2.00	4.00
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 IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
J	180	0	180	0	13-0-0 (6-6-0)	1-1-13
I	443	0	443	0	13-0-0 (6-6-0)	1-1-13
H	180	0	180	0	13-0-0 (6-6-0)	1-1-13
K	375	0	375	0	13-0-0 (6-6-0)	1-1-13
G	375	0	375	0	13-0-0 (6-6-0)	1-1-13

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

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

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS				SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	
J	131	64/0	0/0	0/0	0/0	67/0	0/0
I	315	199/0	0/0	0/0	0/0	116/0	0/0
H	131	64/0	0/0	0/0	0/0	67/0	0/0
K	265	174/0	0/0	0/0	0/0	91/0	0/0
G	265	174/0	0/0	0/0	0/0	91/0	0/0

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

BRACING

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

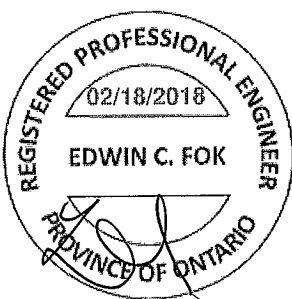
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		MAX. UNBRAC LENGTH	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (PLF)	LC1 MAX (PLF)			MAX. FACTORED FORCE (LBS)	MAX. FACTORED (LC)
FR-TO						FR-TO		
A-B	-95/0	-78.0	-78.0	0.17 (1)	6.25	I-C	-207/0	0.24 (1)
B-C	-57/0	-78.0	-78.0	0.17 (1)	6.25	I-D	-64/0	0.02 (1)
C-D	-57/0	-78.0	-78.0	0.17 (1)	6.25	H-D	-223/0	0.09 (1)
D-E	-95/0	-78.0	-78.0	0.17 (1)	6.25	B-I	-64/0	0.02 (1)
K-A	-203/0	0.0	0.0	0.02 (1)	7.81	J-B	-223/0	0.09 (1)
G-E	-203/0	0.0	0.0	0.02 (1)	7.81	A-J	0/97	0.02 (1)
						H-E	0/97	0.02 (1)
L-K	0/0	-96.5	-96.5	0.16 (1)	10.00			
K-J	0/0	-18.5	-18.5	0.03 (4)	10.00			
J-I	0/93	-18.5	-18.5	0.09 (4)	10.00			
I-H	0/93	-18.5	-18.5	0.09 (4)	10.00			
H-G	0/0	-18.5	-18.5	0.03 (4)	10.00			
G-F	0/0	-96.5	-96.5	0.16 (1)	10.00			

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.17/1.00 (B-C:1), BC=0.16/1.00 (F-G:1), WB=0.24/1.00 (C-I:1), SSI=0.12/1.00 (K-L: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

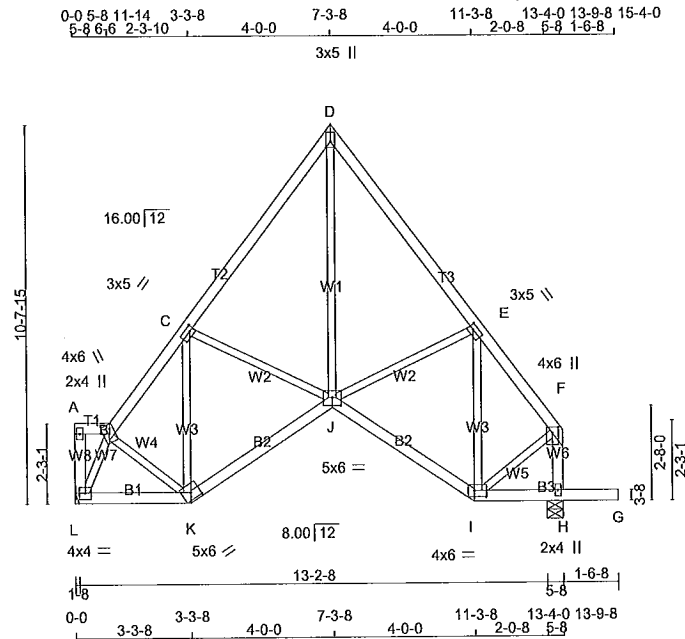
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.32 (I) (INPUT = 0.90)
JSI METAL= 0.15 (I) (INPUT = 1.00)

A-18023680



Scale = 1:65.0

TOTAL WEIGHT = 76 lb

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

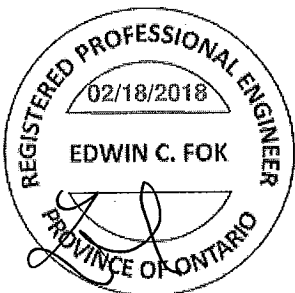
ALL WEBS 2x3 DRY
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMV+p	MT20	2.0	4.0	
B	TTWW+m	MT20	4.0	6.0	
C	TMWW-t	MT20	3.0	5.0	1.50 1.50
D	TTW+p	MT20	3.0	5.0	2.00 Edge
E	TMWW-t	MT20	3.0	5.0	1.50 1.50
F	TMV+p	MT20	4.0	6.0	2.00 2.00
H	BMV1+p	MT20	2.0	4.0	
I	BBWW-t	MT20	4.0	6.0	2.00 4.00
J	BBWWW-p	MT20	5.0	6.0	2.75 3.00
K	BBWW-h	MT20	5.0	6.0	2.25 3.00
L	BMVW1-t	MT20	4.0	4.0	

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

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



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	UPLIFT	IN-SX HANGER BY OTHERS
L	665	0	665	0	MIN. SEAT SIZE: 1-8
H	814	0	814	0	5-8 1-8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	474	289 / 0	0 / 0	0 / 0	0 / 0	185 / 0	0 / 0
H	580	354 / 0	0 / 0	0 / 0	0 / 0	226 / 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			
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		
L-A	-38 / 0	0.0	0.0 0.00 (1)	7.81	L-B	-672 / 0	0.10 (1)
A-B	0 / 0	-78.0	-78.0 0.01 (1)	10.00	B-K	0 / 774	0.02 (1)
B-C	-560 / 0	-78.0	-78.0 0.13 (1)	6.25	K-C	-220 / 0	0.09 (1)
C-D	-526 / 0	-78.0	-78.0 0.16 (1)	6.25	C-J	-66 / 0	0.02 (1)
D-E	-526 / 0	-78.0	-78.0 0.16 (1)	6.25	J-D	0 / 542	0.12 (1)
E-F	-467 / 0	-78.0	-78.0 0.13 (1)	6.25	D-E	0 / 7	0.00 (4)
F-F	-642 / 0	0.0	0.0 0.07 (1)	7.81	I-E	-332 / 0	0.13 (1)
					I-F	0 / 360	0.08 (1)
L-K	0 / 308	-18.5	-18.5 0.09 (4)	10.00			
K-J	0 / 434	-18.5	-18.5 0.13 (4)	10.00			
J-I	0 / 357	-18.5	-18.5 0.12 (4)	10.00			
I-H	0 / 0	-18.5	-18.5 0.03 (4)	10.00			
H-G	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

CSI: TC=0.16/1.00 (C-D:1), BC=0.16/1.00 (G-H:1)
 , WB=0.13/1.00 (E-I:1), SSI=0.12/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (D) (INPUT = 0.90)
JSI METAL= 0.17 (F) (INPUT = 1.00)

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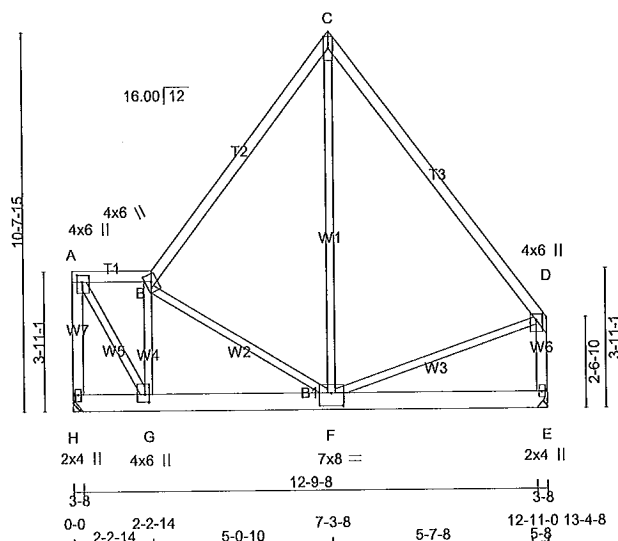
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H16A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 10:57:22 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-XC?Ew0XWU6Gmr?gd3g9wk6sa3Rs6ZsI7eaDLE0zjxSR

0-0 5-8 2-2-14 7-3-8 5-7-8 12-11-0 13-4-8
5-8 1-9-6 5-0-10 5-7-8 5-8
3x8 ||

Scale = 1:64.9



TOTAL WEIGHT = 78 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
H - A	2x4	DRY	No.2	SPF	
A - B	2x4	DRY	No.2	SPF	
B - C	2x4	DRY	No.2	SPF	
C - D	2x4	DRY	2100F 1.8E	SPF	
E - D	2x4	DRY	No.2	SPF	
H - E	2x6	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.25	1.75
B	TTWW+m	MT20	4.0	6.0	2.50	2.00
C	TIW+p	MT20	3.0	8.0	3.75	Edge
D	TMVW+p	MT20	4.0	6.0	2.00	2.00
E	BMV1+p	MT20	2.0	4.0		
F	BMVWW-t	MT20	7.0	8.0	4.25	4.00
G	BMVWW-t	MT20	4.0	6.0	2.50	1.50
H	BMV1+p	MT20	2.0	4.0	2.25	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 8RG	REQRD 8RG
	VERT	HORZ	DOWN	HORZ		
JT	2103	0	2103	0		
H	2103	0	2103	0		
E	2103	0	2103	0		

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
H	1500	915 / 0	0 / 0	0 / 0	0 / 0	584 / 0	0 / 0
E	1500	915 / 0	0 / 0	0 / 0	0 / 0	584 / 0	0 / 0

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.12 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. MEMB. FORCE (LBS)	WEBS		MAX. MEMB. FORCE (LBS)	MAX. CSI (LC)
	MAX. FACTORED FORCE (LBS)	VERT. LOAD LC1	PLF	CSI (LC)		MAX. MEMB. FORCE (LBS)	MAX. CSI (LC)		
FR-TO									
H-A	-1927 / 0	0.0	0.0	0.44 (1)	6.01	A-G	0 / 2175	0.54 (1)	
A-B	-1121 / 0	-78.0	-78.0	0.09 (1)	5.87	G-B	-1057 / 0	0.25 (1)	
B-C	-1272 / 0	-78.0	-78.0	0.51 (1)	5.12	B-F	-469 / 0	0.31 (1)	
C-D	-1278 / 0	-78.0	-78.0	0.47 (1)	6.15	F-C	0 / 1602	0.40 (1)	
E-D	-1521 / 0	0.0	0.0	0.21 (1)	6.62	F-D	0 / 810	0.20 (1)	
H-G	0 / 0	-236.6	-236.6	0.12 (1)	10.00				
G-F	0 / 1152	-236.6	-236.6	0.76 (1)	10.00				
F-E	0 / 0	-236.6	-236.6	0.61 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C

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

GIRDER TYPE: CSldGirder

START DISTANCE = 0-0

START SPAN CARRIED = 11-0-8

END DISTANCE = 13-4-8

END SPAN CARRIED = 11-0-8

END WALL WIDTH = 0-0

APPLIED TO FRONT SIDE OF BOTTOM CHORD.

- ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, OBC 2018

- CSA 086-09, CSA 086-14

- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL) = L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL) = L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/999 (0.15")

CSI: TC=0.51/1.00 (B-C:1), BC=0.76/1.00 (F-G:1),
WB=0.54/1.00 (A-G:1), SSI=0.57/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 Inches

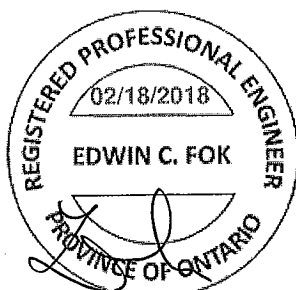
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (F) (INPUT = 0.90)

JSI METAL= 0.52 (G) (INPUT = 1.00)

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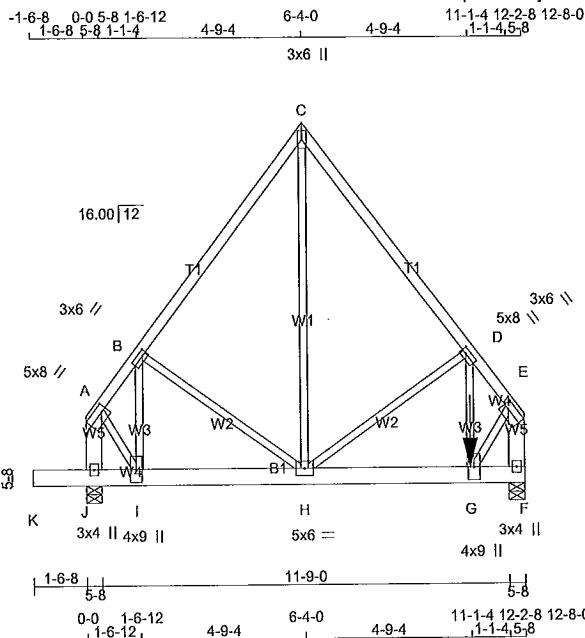
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H17A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 10:58:22 2018 Page 1
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Scale = 1:66.5

TOTAL WEIGHT = 82 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
J - A	2x6	DRY	No.2	SPF	
F - E	2x6	DRY	No.2	SPF	
K - F	2x6	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
F	2495	0	2495	0
J	1035	0	1035	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	1744	1259 / 0	0 / 0	0 / 0	0 / 0	485 / 0	0 / 0
J	733	475 / 0	0 / 0	0 / 0	0 / 0	258 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.77 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 MEMB. FORCE (LBS)	MAX. FACTORED MEMB. FORCE (LBS)
FR-TO	FROM TO	FR-TO
A-B	-520 / 0	-78.0 -78.0 0.25 (1)
B-C	-635 / 0	-78.0 -78.0 0.28 (1)
C-D	-634 / 0	-78.0 -78.0 0.27 (1)
D-E	-1876 / 0	-78.0 -78.0 0.28 (1)
J-A	-792 / 0	0.0 0.0 0.06 (1)
F-E	-2392 / 0	0.0 0.0 0.19 (1)
K-J	0 / 0	-96.5 -96.5 0.08 (1)
J-I	0 / 0	-18.5 -18.5 0.08 (1)
I-H	0 / 363	-18.5 -18.5 0.10 (1)
H-G	0 / 1055	-18.5 -18.5 0.24 (1)
G-F	0 / 0	-18.5 -18.5 0.10 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
G	11-1-4	-2159	-2159	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

*** 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 2010, NBCC 2015

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.42")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

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

CSI: TC=0.28/1.00 (D-E:1), BC=0.24/1.00 (G-H:1),
WB=0.54/1.00 (D-H:1), SSI=0.11/1.00 (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

AUTOSOLVE HEELS OFF

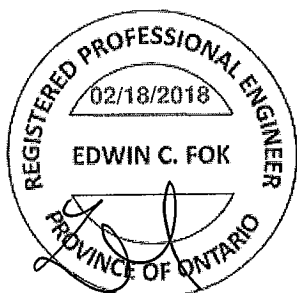
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

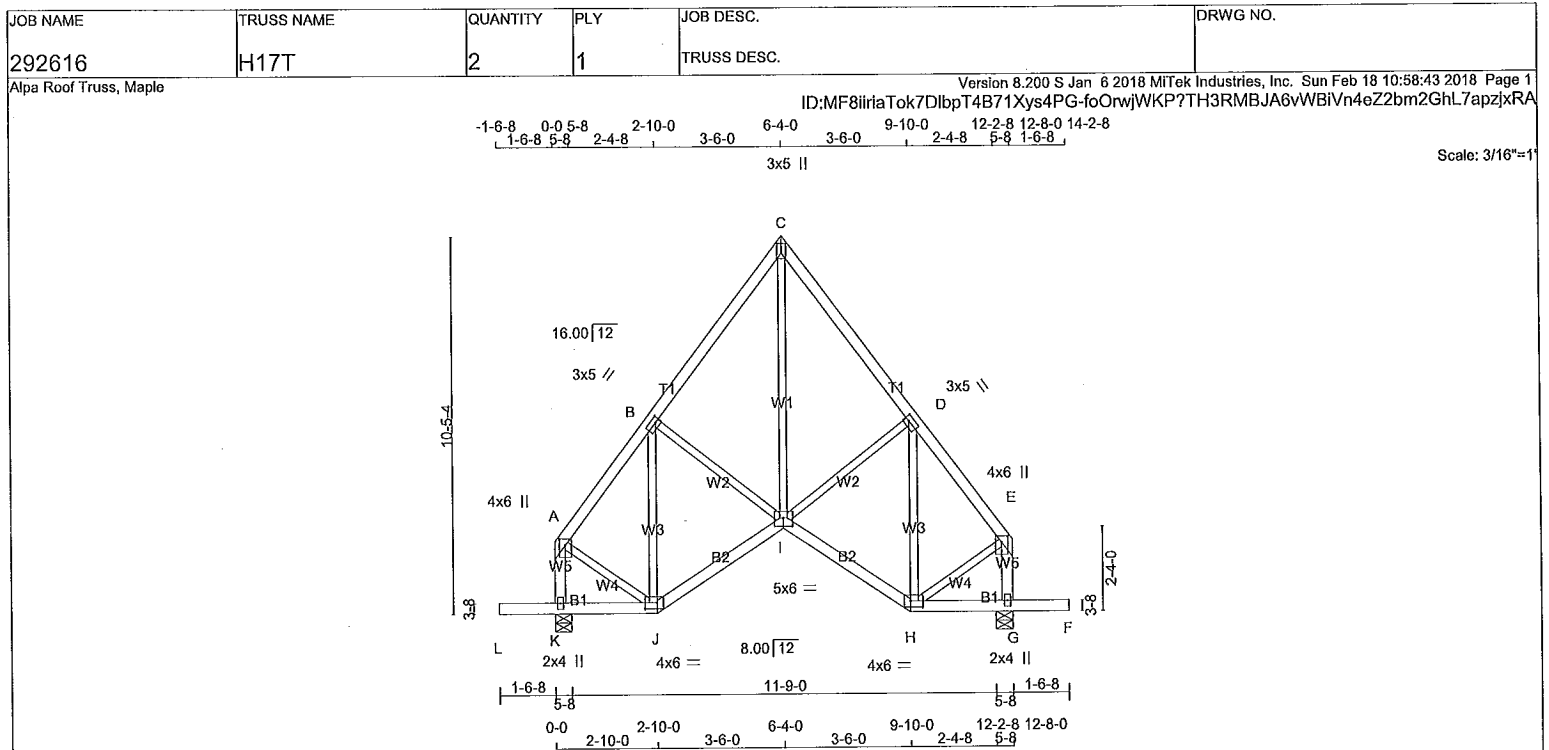
A-18023683

CONTINUED ON PAGE 2

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-18023684



TOTAL WEIGHT = 2 X 74 = 149 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
K - A	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
J - I	2x4	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY 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-l	MT20	3.0	5.0	1.50	1.50
C	TTW+p	MT20	3.0	5.0	2.00	Edge
D	TMWW-l	MT20	3.0	5.0	1.50	1.50
E	TMVW+p	MT20	4.0	6.0	2.00	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BBWW-l	MT20	4.0	6.0	2.00	4.00
I	BBWWW-p	MT20	5.0	6.0	2.75	3.00
J	BBWW-l	MT20	4.0	6.0	2.00	4.00
K	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQ'D BRG
	VERT	HORZ	DOWN	UP
JT	760	0	0	0
K	760	0	0	0
G	760	0	0	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
JT	542	331/0	0/0	0/0	0/0	211/0	0/0	
K	542	331/0	0/0	0/0	0/0	211/0	0/0	
G	542	331/0	0/0	0/0	0/0	211/0	0/0	

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

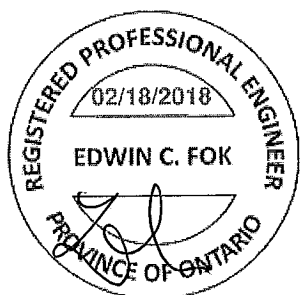
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED HORIZ. LOAD (LC1)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED HORIZ. LOAD (LC1)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	-424/0	-78.0	-78.0 0.10 (1)	I-C	0/444	0.10 (1)	0.10 (1)
B-C	-441/0	-78.0	-78.0 0.12 (1)	I-D	-18/0	0.01 (1)	0.01 (1)
C-D	-441/0	-78.0	-78.0 0.12 (1)	H-D	-272/0	0.13 (1)	0.13 (1)
D-E	-424/0	-78.0	-78.0 0.10 (1)	B-I	-18/0	0.01 (1)	0.01 (1)
K-A	-585/0	0.0	0.0 0.07 (1)	J-B	-272/0	0.13 (1)	0.13 (1)
G-E	-585/0	0.0	0.0 0.07 (1)	A-J	0/311	0.07 (1)	0.07 (1)
				H-E	0/311	0.07 (1)	0.07 (1)
L-K	0/0	-96.5	-96.5 0.16 (1)				
K-J	0/0	-18.5	-18.5 0.04 (4)				
J-I	0/320	-18.5	-18.5 0.10 (4)				
I-H	0/320	-18.5	-18.5 0.10 (4)				
H-G	0/0	-18.5	-18.5 0.04 (4)				
G-F	0/0	-96.5	-96.5 0.16 (1)				

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.42")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

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

CSI: TC=0.12/1.00 (B-C:1), BC=0.16/1.00 (F-G:1), WB=0.13/1.00 (D-H:1), SS=0.12/1.00 (K-L: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.

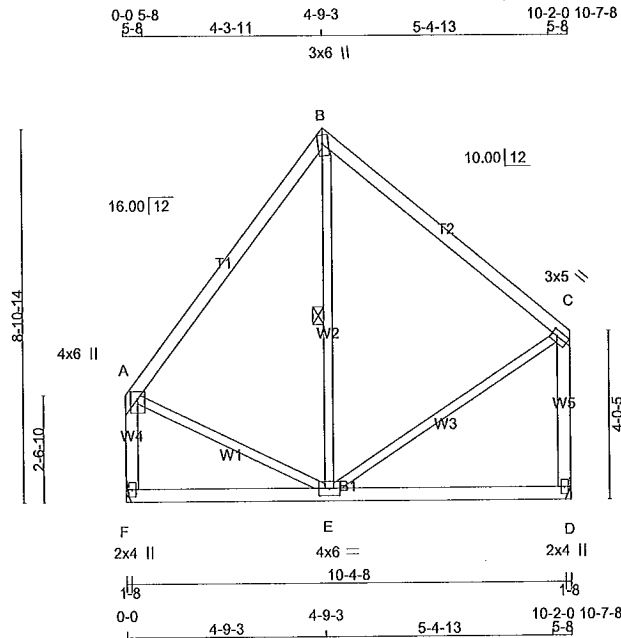
JSI GRIP= 0.68 (C) (INPUT = 0.80)
JSI METAL= 0.16 (E) (INPUT = 1.00)

A-18023685

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H18S	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 10:58:49 2018 Page 1
ID:MF8iiriaTok7DlbpT4B71Xys4PG-Txl7Ama5?rDQnMplfRDJmSyTkVh0SKYwfoRnTzjxR4



Scale = 1:55.0

TOTAL WEIGHT = 3 X 53 = 160 lb

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQD	
JT		VERT	HORZ	DOWN	HORZ	BRG		BRG	
F	512	0	0	512	0	0		0	
D	512	0	0	512	0	0		0	

UNFACTORED REACTIONS

1ST CASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
F	365	223 / 0	0 / 0	0 / 0	0 / 0	142 / 0
D	365	223 / 0	0 / 0	0 / 0	0 / 0	142 / 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.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	MAX. FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FORCE (LBS)	MAX. CSI (LC)
FR-TO					FR-TO		
A-B	-276 / 0	-78.0	-78.0 0.23 (1)	6.25	E-B	-56 / 62	0.03 (1)
B-C	-214 / 0	-78.0	-78.0 0.34 (1)	6.25	A-E	0 / 181	0.04 (1)
F-A	-481 / 0	0.0	0.0 0.07 (1)	7.81	E-C	0 / 196	0.04 (1)
D-C	-470 / 0	0.0	0.0 0.13 (1)	7.81			
F-E	0 / 0	-18.5	-18.5 0.15 (4)	10.00			
E-D	0 / 0	-18.5	-18.5 0.15 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.35")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.35")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.34/1.00 (B-C:1), BC=0.15/1.00 (E-F:4), WB=0.04/1.00 (C-E: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.

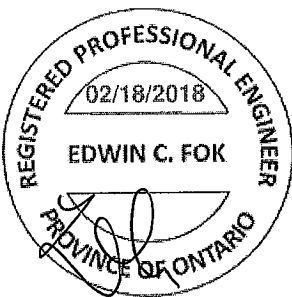
NAIL VALUES		PLATE GRIP(DRY) SHEAR		SECTION	
		(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.42 (C) (INPUT = 0.90)
JSI METAL= 0.13 (A) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

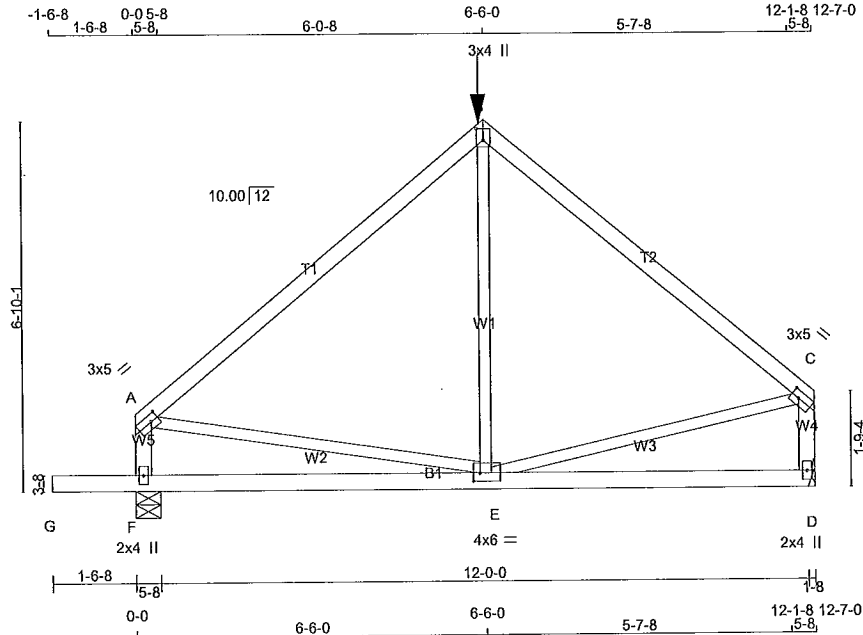


A-18023686

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292616	H19	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 10:59:47 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-n6F2MchTLfXBkHFU3dFw6hMJ2IRb1XVT_erWq6zjxQA



Scale = 1:42.7

TOTAL WEIGHT = 53 lb [M]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	5.0	1.50	1.75
B	TTW+p	MT20	3.0	4.0	2.50	1.50
C	TMVW-t	MT20	3.0	5.0	1.50	1.75
D	BMV1+p	MT20	2.0	4.0		
E	BMVWW-t	MT20	4.0	6.0	1.75	1.50
F	BMV1+p	MT20	2.0	4.0		

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 388.4 lbs FACTORED DOWN AT 6-6-0 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
D	862	0	862	0	5-8	1-8
F	998	0	998	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
D	615	372 / 0	0 / 0	0 / 0	0 / 0	243 / 0	0 / 0
F	712	430 / 0	0 / 0	0 / 0	0 / 0	282 / 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 = 6.10 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.

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	-685 / 0	-78.0	-78.0	0.44 (1)	6.25	E-B	-1 / 155	0.06 (4)	
B-C	-685 / 0	-78.0	-78.0	0.60 (1)	6.10	A-E	0 / 533	0.13 (1)	
F-A	-777 / 0	0.0	0.0	0.09 (1)	7.81	E-C	0 / 542	0.13 (1)	
D-C	-805 / 0	0.0	0.0	0.10 (1)	7.81				
G-F	0 / 0	-96.5	-96.5	0.17 (1)	10.00				
F-E	0 / 0	-27.2	-27.2	0.34 (4)	10.00				
E-D	0 / 0	-27.2	-27.2	0.34 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	6-6-0	-388	-388	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 6-6-0
RIGHT SETBACK = 6-1-0
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.42")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

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

CSI: TC=0.60/1.00 (B-C:1), BC=0.34/1.00 (E-F:4), WB=0.13/1.00 (C-E:1), SS=0.17/1.00 (A-B: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

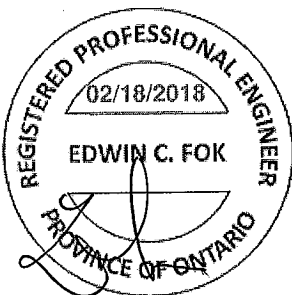
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

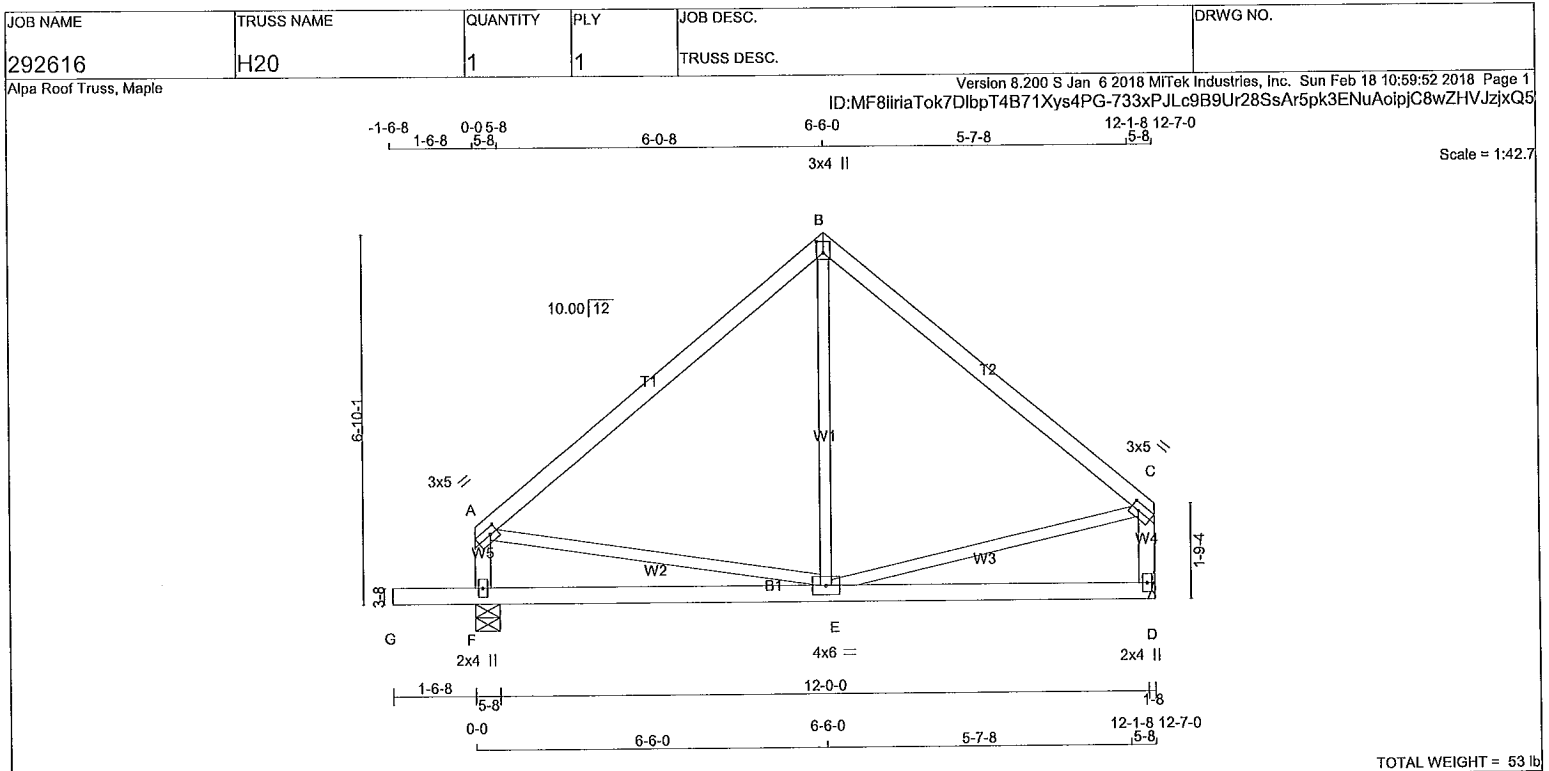
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design





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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-1	MT20	3.0	5.0	1.50	1.75
B	TTW+p	MT20	3.0	4.0	2.50	1.50
C	TMVW-1	MT20	3.0	5.0	1.50	1.75
D	BMV1+p	MT20	2.0	4.0		
E	BMVWW-1	MT20	4.0	6.0		
F	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
D	607	0	607	0	0	0
F	756	0	756	0	0	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					DEAD	SOIL
		SNOW	LIVE	PERM.LIVE	WIND			
D	433	264 / 0	0 / 0	0 / 0	0 / 0	169 / 0	0 / 0	0 / 0
F	539	329 / 0	0 / 0	0 / 0	0 / 0	210 / 0	0 / 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		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO	FR-TO			
A-B	-399 / 0	-78.0	-78.0	0.28 (1)	6.25	E-B	0 / 110
B-C	-399 / 0	-78.0	-78.0	0.37 (1)	6.25	A-E	0 / 310
F-A	-558 / 0	0.0	0.0	0.06 (1)	7.81	E-C	0 / 316
D-C	-568 / 0	0.0	0.0	0.06 (1)	7.81		
G-F	0 / 0	-96.5	-96.5	0.16 (1)	10.00		
F-E	0 / 0	-18.5	-18.5	0.21 (4)	10.00		
E-D	0 / 0	-18.5	-18.5	0.21 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.42")
CALCULATED VERT. DEFL.(LL)= L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.42")
CALCULATED VERT. DEFL.(TL)= L/999 (0.05")

CANTILEVER DEFLECTION:

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

CSI: TC=0.37/1.00 (B-C:1), BC=0.21/1.00 (D-E:4), WB=0.07/1.00 (C-E:1), SS=0.15/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

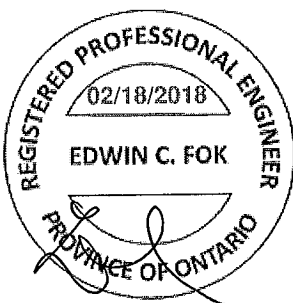
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
618	354	1667	788
1987	1656		

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

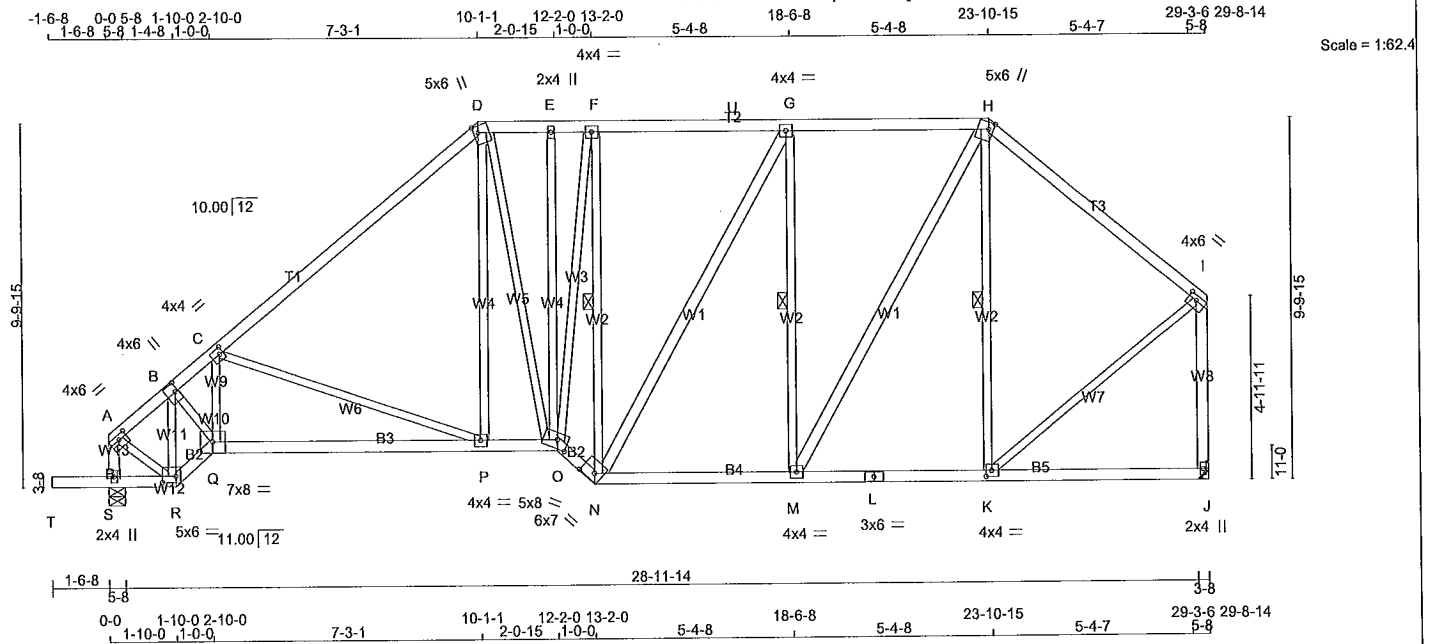
JSI GRIP= 0.57 (E) (INPUT = 0.90)
JSI METAL= 0.17 (A) (INPUT = 1.00)

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-18023688

A-18023009 CONTINUED ON PAGE 2



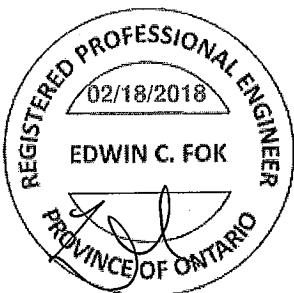
TOTAL WEIGHT = 5 X 176 = 878 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.50	2.75
B	TMVW+t	MT20	4.0	6.0	3.00	1.00
C	TMVW-t	MT20	4.0	4.0	2.00	1.25
D	TTWW+m	MT20	5.0	6.0	2.25	1.50
E	TMW+ w	MT20	2.0	4.0		
F	TMVW-t	MT20	4.0	4.0		
G	TMVW-t	MT20	4.0	4.0		
H	TTWW+m	MT20	5.0	6.0	2.25	1.50
I	TMVW-t	MT20	4.0	6.0	1.50	2.75
J	BMV1+p	MT20	2.0	4.0		
K	BMVW-t	MT20	4.0	4.0	2.00	1.75
L	BS-t	MT20	3.0	6.0		
M	BMVW-t	MT20	4.0	4.0		
N	BBVW-h	MT20	6.0	7.0	2.25	4.50
O	BBVWVW-m	MT20	5.0	8.0	2.75	3.50
P	BMVW-t	MT20	4.0	4.0		
Q	BBVW-t	MT20	7.0	8.0		
R	BBVW-t	MT20	5.0	6.0	2.00	4.50
S	BMV1+p	MT20	2.0	4.0		

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



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
JT	1631	0	1631	0	0
S	1631	0	1631	0	0
J	1490	0	1490	0	0

HANGER BY OTHERS
MIN. SEAT SIZE: 1-10

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
S	1167	691 / 0	0 / 0	0 / 0	0 / 0	476 / 0	0 / 0
J	1067	623 / 0	0 / 0	0 / 0	0 / 0	445 / 0	0 / 0

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

BRACING

FOR SECTION D-H, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.38
FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY
APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MAX. FACTORED		FACTORED		MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1	MAX.	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	(LC)	UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO			
A-B	-1218 / 0	-78.0	-78.0	0.13 (1)	5.68	R-B	-1349 / 0	0.23 (1)
B-C	-1849 / 0	-78.0	-78.0	0.47 (1)	4.38	B-Q	0 / 1342	0.30 (1)
C-D	-1554 / 0	-78.0	-78.0	0.81 (1)	4.62	Q-C	-248 / 0	0.61 (1)
D-E	-1248 / 0	-85.5	-85.5	0.11 (1)	2.00	C-P	-499 / 0	0.04 (1)
E-F	-1249 / 0	-85.5	-85.5	0.16 (1)	2.00	P-D	0 / 296	0.07 (4)
F-U	-1175 / 0	-85.5	-85.5	0.30 (1)	2.00	D-O	0 / 341	0.08 (1)
U-G	-1175 / 0	-85.5	-85.5	0.30 (1)	2.00	O-E	0 / 64	0.01 (1)
G-H	-1136 / 0	-85.5	-85.5	0.30 (1)	2.00	O-F	0 / 670	0.15 (1)
H-I	-982 / 0	-78.0	-78.0	0.36 (1)	5.83	N-F	-1078 / 0	0.70 (1)
S-A	-1403 / 0	0.0	0.0	0.15 (1)	6.87	N-G	0 / 78	0.01 (1)
J-I	-1446 / 0	0.0	0.0	0.65 (1)	6.80	M-G	-591 / 0	0.38 (1)
						M-H	0 / 791	0.13 (1)
T-S	0 / 0	-96.5	-96.5	0.16 (1)	10.00	K-H	-471 / 0	0.31 (1)
S-R	0 / 0	-18.5	-18.5	0.12 (1)	10.00	A-R	0 / 1053	0.24 (1)
R-Q	0 / 1160	-18.5	-18.5	0.19 (1)	10.00	K-I	0 / 955	0.21 (1)
Q-P	0 / 1633	-18.5	-18.5	0.39 (1)	10.00			
P-O	0 / 1167	-18.5	-18.5	0.35 (4)	10.00			
O-N	0 / 1578	-18.5	-18.5	0.26 (1)	10.00			
N-M	0 / 1136	-18.5	-18.5	0.25 (1)	10.00			
M-L	0 / 747	-18.5	-18.5	0.22 (4)	10.00			
L-K	0 / 747	-18.5	-18.5	0.22 (4)	10.00			
K-J	0 / 0	-18.5	-18.5	0.14 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN 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 OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

DESIGN ASSUMPTIONS

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.99")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.99")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.17")

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

CSI: TC=0.65/1.00 (I-J:1), BC=0.39/1.00 (P-Q:1),
WB=0.70/1.00 (F-N:1), SS=0.28/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

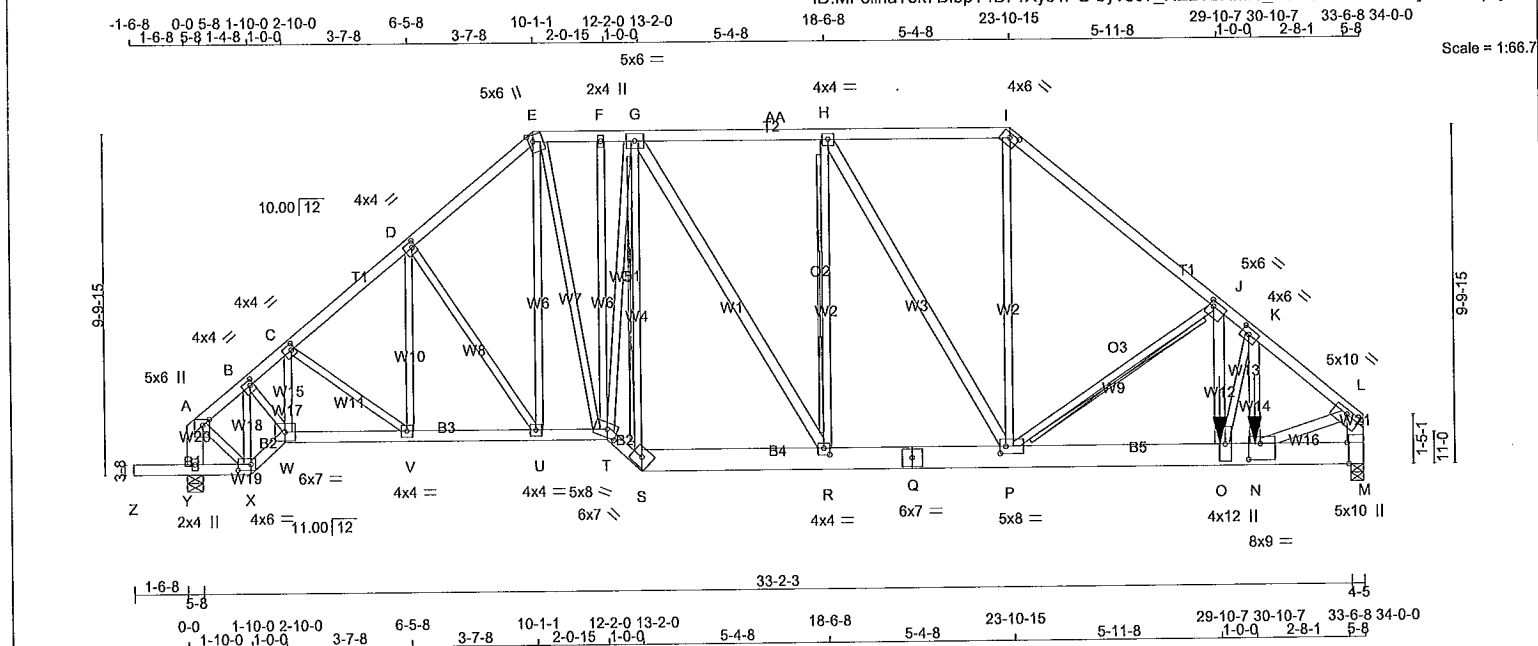
PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

A-18023690

CONTINUED ON PAGE 2



TOTAL WEIGHT = 3 X 229 = 687 lb

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES								*** SPECIAL LOADS ANALYSIS ***			
CHORDS SIZE LUMBER DESCR.								GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.			
								LOADS WERE DERIVED FROM USER INPUT			
								NO FURTHER MODIFICATIONS WERE MADE			
								SPECIFIED LOADS:			
								TOP CH. LL = 21.0 PSF			
								DL = 6.0 PSF			
								BOT CH. LL = 0.0 PSF			
								DL = 7.4 PSF			
								TOTAL LOAD = 34.4 PSF			
								SPACING = 24.0 IN. C/C			
								LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.			
								GIRDER TYPE: CStdGirder			
								START DISTANCE = 30-10-6			
								START SPAN CARRIED = 14-0-8			
								END DISTANCE = 34-0-0			
								END SPAN CARRIED = 14-0-8			
								END WALL WIDTH = 0-0			
								APPLIED TO FRONT SIDE OF BOTTOM CHORD.			
								- ADDTL LOADS BASED ON 55 % OF GSL.			
								*** NON STANDARD GIRDER ***			
								ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.			
								THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2010, NBC 2015			
								THIS DESIGN COMPLIES WITH:			
								- PART 9 OF OBC 2012, OBC 2018			
								- CSA 086-09, CSA 086-14			
								- TPIC 2011, TPIC 2014			
								DESIGN ASSUMPTIONS			
								-OVERHANG NOT TO BE ALTERED OR CUT OFF.			
								(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD			
								ALLOWABLE DEFL.(LL)= L/360 (1.13")			
								CALCULATED VERT. DEFL.(LL) = L/ 999 (0.09")			
								ALLOWABLE DEFL.(TL)= L/360 (1.13")			
								CALCULATED VERT. DEFL.(TL)= L/ 999 (0.16")			
								CANTILEVER DEFLECTION:			
								ALLOWABLE DEFL.(LL)= L/120 (0.19")			
								CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")			
								ALLOWABLE DEFL.(TL)= L/120 (0.19")			
								CALCULATED VERT. DEFL.(TL)= L/ 999 (0.02")			
								CSI: TC=0.42/1.00 (K-L:1), BC=0.62/1.00 (N-O:1), WB=0.83/1.00 (J-P:1), SSI=0.19/1.00 (M-N:1)			
								DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10			
								COMP=1.10 SHEAR=1.10 TENS=1.10			
								A-18023691			
								CONTINUED ON PAGE			

ALL WEBS 2x3 DRY No.2 SPF				
EXCEPT				
G - R	2x4	DRY	No.2	SPF
H - P	2x4	DRY	No.2	SPF
O - J	2x4	DRY	No.2	SPF
N - K	2x4	DRY	No.2	SPF
N - L	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A- E	1 12	TOP
E- I	1 12	TOP
I- L	1 12	TOP
Y- A	2 12	TOP
M- L	2 12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
Z- X	1 12	TOP
X- W	1 12	TOP
W- T	1 12	TOP
T- S	1 12	TOP
S- Q	2 12	TOP
Q- M	3 5	SIDE(1379.2)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	1 6	SIDE(758.2)
J- O	2 4	

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

02/18/2018

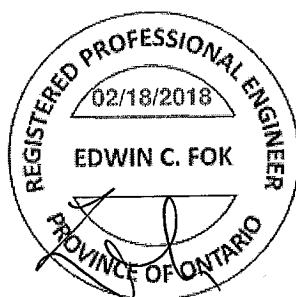
EDWIN C. FOK

REGISTERED PROFESSIONAL ENGINEER

PROVINCE OF ONTARIO

CHORDS				WEBS			
MAX. FACTORED				MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-2697 / 0	-78.0 -78.0 0.03 (1)	6.25	X-B	-3001 / 0	0.17 (1)	
B-C	-4244 / 0	-78.0 -78.0 0.04 (1)	5.46	B-W	0 / 2368	0.18 (1)	
C-D	-4173 / 0	-78.0 -78.0 0.07 (1)	5.46	W-C	-103 / 0	0.01 (1)	
D-E	-3976 / 0	-78.0 -78.0 0.07 (1)	5.57	C-V	-93 / 0	0.01 (1)	
E-F	-3501 / 0	-85.5 -85.5 0.07 (1)	2.00	V-D	0 / 94	0.01 (4)	
F-G	-3503 / 0	-85.5 -85.5 0.11 (1)	2.00	D-U	-332 / 0	0.09 (1)	
G-AA	-4287 / 0	-85.5 -85.5 0.14 (1)	2.00	U-E	0 / 332	0.02 (1)	
AA-H	-4287 / 0	-85.5 -85.5 0.14 (1)	2.00	E-T	0 / 1969	0.15 (1)	
H-I	-4855 / 0	-85.5 -85.5 0.15 (1)	2.00	T-F	0 / 306	0.02 (1)	
I-J	-6312 / 0	-78.0 -78.0 0.31 (1)	4.50	F-G	0 / 702	0.05 (1)	
J-K	-13599 / 0	-78.0 -78.0 0.35 (1)	3.03	S-G	-2822 / 0	0.54 (1)	
K-L	-14319 / 0	-78.0 -78.0 0.42 (1)	2.96	G-R	0 / 1760	0.09 (1)	
Y-A	-3000 / 0	0.0 0.0 0.07 (1)	7.81	R-H	-1501 / 0	0.27 (1)	
M-L	-12593 / 0	0.0 0.0 0.27 (1)	5.26	H-P	0 / 1180	0.06 (1)	
				P-I	0 / 3642	0.27 (1)	
Z-Y	0 / 0	-96.5 -96.5 0.05 (1)	10.00	P-J	-7287 / 0	0.83 (1)	
Y-X	0 / 0	-18.5 -18.5 0.05 (1)	10.00	O-J	0 / 8283	0.44 (1)	
X-W	0 / 2623	-18.5 -18.5 0.14 (1)	10.00	O-K	-866 / 0	0.07 (1)	
W-V	0 / 3291	-18.5 -18.5 0.19 (1)	10.00	N-K	0 / 1514	0.08 (1)	
V-U	0 / 3217	-18.5 -18.5 0.20 (1)	10.00	A-X	0 / 2378	0.18 (1)	
U-T	0 / 3036	-18.5 -18.5 0.19 (1)	10.00	N-L	0 / 11434	0.61 (1)	
T-S	0 / 4477	-18.5 -18.5 0.24 (1)	10.00				
S-R	0 / 3399	-18.5 -18.5 0.13 (1)	10.00				
R-Q	0 / 4287	-18.5 -18.5 0.18 (1)	10.00				
Q-P	0 / 4287	-18.5 -18.5 0.18 (1)	10.00				
P-O	0 / 10725	-18.5 -18.5 0.49 (1)	10.00				
O-N	0 / 10960	-18.5 -18.5 0.62 (1)	10.00				

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.																																																																																																																																																																																																																																																																												
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Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 11:43:27 2018 Page 2																																																																																																																																																																																																																																																																																	
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K-N 2 4 2x4 1 6 STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES. GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS. SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP. PLATES (table is in inches) <table><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>A</td><td>TMVW+p</td><td>MT20</td><td>5.0</td><td>6.0</td><td>2.00</td><td>2.25</td></tr><tr><td>B</td><td>TMWW-t</td><td>MT20</td><td>4.0</td><td>4.0</td><td>1.75</td><td>1.25</td></tr><tr><td>C</td><td>TMWW-t</td><td>MT20</td><td>4.0</td><td>4.0</td><td>2.00</td><td>1.25</td></tr><tr><td>D</td><td>TMWW-t</td><td>MT20</td><td>4.0</td><td>4.0</td><td>2.00</td><td>1.25</td></tr><tr><td>E</td><td>TTWW+m</td><td>MT20</td><td>5.0</td><td>6.0</td><td>2.25</td><td>1.50</td></tr><tr><td>F</td><td>TMW+w</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr><tr><td>G</td><td>TMWWWW-t</td><td>MT20</td><td>5.0</td><td>6.0</td><td></td><td></td></tr><tr><td>H</td><td>TMWW-t</td><td>MT20</td><td>4.0</td><td>4.0</td><td></td><td></td></tr><tr><td>I</td><td>TTW-h</td><td>MT20</td><td>4.0</td><td>6.0</td><td>1.50</td><td>3.00</td></tr><tr><td>J</td><td>TMWW-t</td><td>MT20</td><td>5.0</td><td>6.0</td><td>1.75</td><td>1.50</td></tr><tr><td>K</td><td>TMWW-t</td><td>MT20</td><td>4.0</td><td>6.0</td><td>2.00</td><td>2.75</td></tr><tr><td>L</td><td>TMVW-t</td><td>MT20</td><td>5.0</td><td>10.0</td><td>1.50</td><td>5.00</td></tr><tr><td>M</td><td>BMV1+t</td><td>MT20</td><td>5.0</td><td>10.0</td><td>Edge</td><td>0.50</td></tr><tr><td>N</td><td>BMWW-t</td><td>MT20</td><td>8.0</td><td>9.0</td><td>5.50</td><td>4.00</td></tr><tr><td>O</td><td>BMWW-t</td><td>MT20</td><td>4.0</td><td>12.0</td><td></td><td></td></tr><tr><td>P</td><td>BMWWWW-t</td><td>MT20</td><td>5.0</td><td>8.0</td><td>2.50</td><td>2.00</td></tr><tr><td>Q</td><td>BS-t</td><td>MT20</td><td>6.0</td><td>7.0</td><td></td><td></td></tr><tr><td>R</td><td>BMWW-t</td><td>MT20</td><td>4.0</td><td>4.0</td><td>2.25</td><td>2.00</td></tr><tr><td>S</td><td>BBW-h</td><td>MT20</td><td>6.0</td><td>7.0</td><td></td><td></td></tr><tr><td>T</td><td>BBWWWW-m</td><td>MT20</td><td>5.0</td><td>8.0</td><td>2.75</td><td>3.50</td></tr><tr><td>U</td><td>BMWW-t</td><td>MT20</td><td>4.0</td><td>4.0</td><td></td><td></td></tr><tr><td>V</td><td>BMWW-t</td><td>MT20</td><td>4.0</td><td>4.0</td><td></td><td></td></tr><tr><td>W</td><td>BBWW-t</td><td>MT20</td><td>6.0</td><td>7.0</td><td></td><td></td></tr><tr><td>X</td><td>BBWW-t</td><td>MT20</td><td>4.0</td><td>6.0</td><td>2.00</td><td>4.50</td></tr><tr><td>Y</td><td>BMV1+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr></table> Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD. HANGERS NOTES 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 6742.7 lbs FACTORED DOWN AT 29-10-6, AND 5688.9 lbs FACTORED DOWN AT 30-10-6 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.		JT	TYPE	PLATES	W	LEN	Y	X	A	TMVW+p	MT20	5.0	6.0	2.00	2.25	B	TMWW-t	MT20	4.0	4.0	1.75	1.25	C	TMWW-t	MT20	4.0	4.0	2.00	1.25	D	TMWW-t	MT20	4.0	4.0	2.00	1.25	E	TTWW+m	MT20	5.0	6.0	2.25	1.50	F	TMW+w	MT20	2.0	4.0			G	TMWWWW-t	MT20	5.0	6.0			H	TMWW-t	MT20	4.0	4.0			I	TTW-h	MT20	4.0	6.0	1.50	3.00	J	TMWW-t	MT20	5.0	6.0	1.75	1.50	K	TMWW-t	MT20	4.0	6.0	2.00	2.75	L	TMVW-t	MT20	5.0	10.0	1.50	5.00	M	BMV1+t	MT20	5.0	10.0	Edge	0.50	N	BMWW-t	MT20	8.0	9.0	5.50	4.00	O	BMWW-t	MT20	4.0	12.0			P	BMWWWW-t	MT20	5.0	8.0	2.50	2.00	Q	BS-t	MT20	6.0	7.0			R	BMWW-t	MT20	4.0	4.0	2.25	2.00	S	BBW-h	MT20	6.0	7.0			T	BBWWWW-m	MT20	5.0	8.0	2.75	3.50	U	BMWW-t	MT20	4.0	4.0			V	BMWW-t	MT20	4.0	4.0			W	BBWW-t	MT20	6.0	7.0			X	BBWW-t	MT20	4.0	6.0	2.00	4.50	Y	BMV1+p	MT20	2.0	4.0			SIDE(682)LOADING TOTAL LOAD CASES: (4) CHORDS <table><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>LC1</th><th>MAX</th><th>CS1 (LC)</th><th>UNBRAC</th></tr><tr><td>FR-TO</td><td></td><td>FROM</td><td>TO</td><td></td><td></td><td>LENGTH</td></tr><tr><td>N-M</td><td>0 / 0</td><td>-308.9</td><td>-308.9</td><td>0.27 (1)</td><td>10.00</td><td></td></tr></table> FACTORED CONCENTRATED LOADS (LBS) <table><tr><th>JT</th><th>LOC.</th><th>LC1</th><th>MAX-</th><th>MAX+</th><th>FACE</th><th>DIR.</th><th>TYPE</th></tr><tr><td>N</td><td>30-10-6</td><td>-5689</td><td>-5689</td><td>--</td><td>FRONT</td><td>VERT</td><td>TOTAL</td></tr><tr><td>O</td><td>29-10-6</td><td>-6743</td><td>-6743</td><td>--</td><td>FRONT</td><td>VERT</td><td>TOTAL</td></tr></table> WEBS <table><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>LC1</th><th>MAX</th><th>CS1 (LC)</th><th>UNBRAC</th></tr><tr><td>FR-TO</td><td></td><td>FROM</td><td>TO</td><td></td><td></td><td>LENGTH</td></tr><tr><td>N-M</td><td>0 / 0</td><td>-308.9</td><td>-308.9</td><td>0.27 (1)</td><td>10.00</td><td></td></tr></table>		MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	CS1 (LC)	UNBRAC	FR-TO		FROM	TO			LENGTH	N-M	0 / 0	-308.9	-308.9	0.27 (1)	10.00		JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	N	30-10-6	-5689	-5689	--	FRONT	VERT	TOTAL	O	29-10-6	-6743	-6743	--	FRONT	VERT	TOTAL	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	CS1 (LC)	UNBRAC	FR-TO		FROM	TO			LENGTH	N-M	0 / 0	-308.9	-308.9	0.27 (1)	10.00		COMPANION LIVE LOAD FACTOR = 1.00 AUTOSOLVE HEELS OFF TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES <table><tr><th>PLATE</th><th>GRIP(DRY) (PSI)</th><th>SHEAR (PLI)</th><th>SECTION (PLI)</th></tr><tr><td>MT20</td><td>618</td><td>354</td><td>1667</td></tr><tr><td></td><td></td><td></td><td>788</td></tr><tr><td></td><td></td><td></td><td>1987</td></tr><tr><td></td><td></td><td></td><td>1656</td></tr></table> PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.88 (I) (INPUT = 0.90) JSI METAL= 0.76 (L) (INPUT = 1.00)		PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)	MT20	618	354	1667				788				1987				1656
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NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

REGISTERED PROFESSIONAL ENGINEER

02/18/2018

EDWIN C. FOK

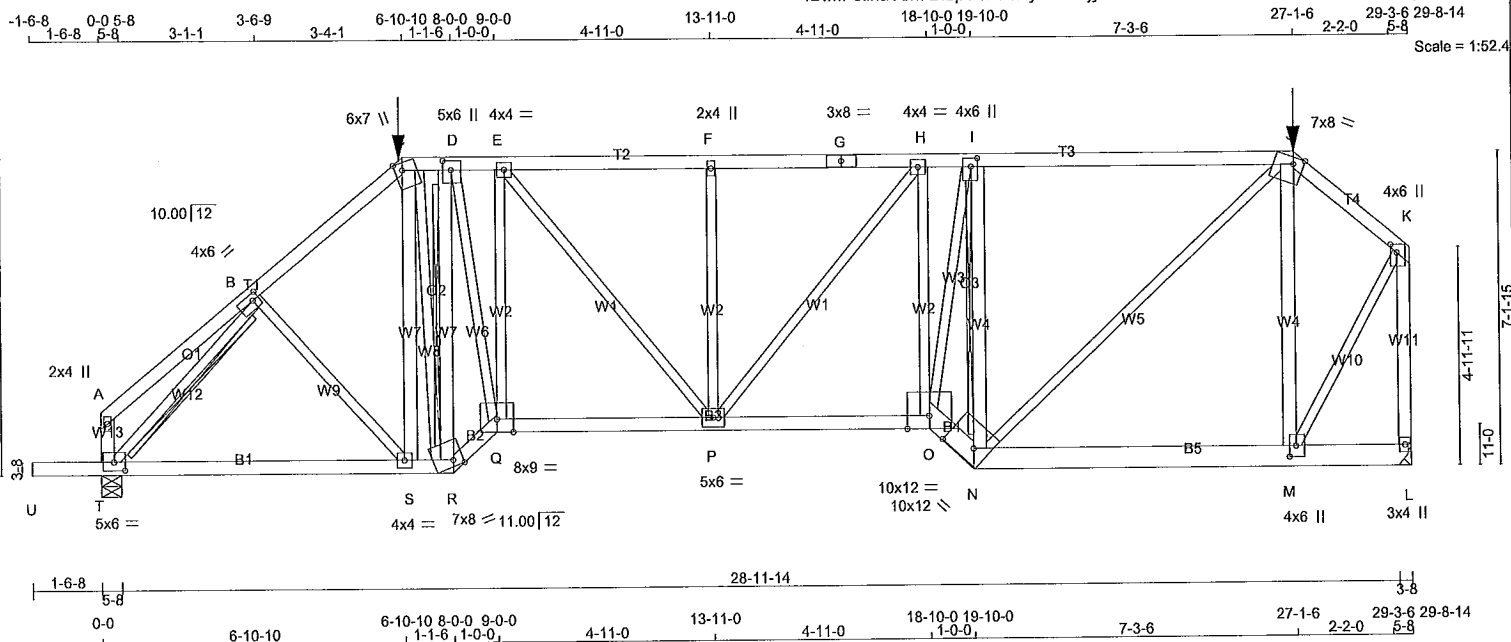
PROVINCE OF ONTARIO

A-18023691(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292618	H1TA	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 11:52:11 2018 Page 1
ID:MF8IriaTok7DlbpT4B71Xys4PG-jyEcCeKbwfe5wRckEvCXhaY6FOPhIVeYnRuAtzJw2



TOTAL WEIGHT = 178 lb

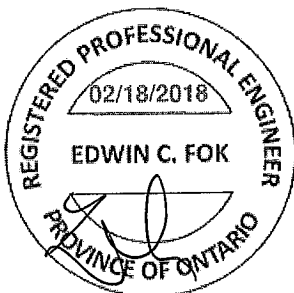
LUMBER			
N. L. G. A. RULES	SIZE	LUMBER	DESCR.
CHORDS			
A - C	2x4	DRY	No.2 SPF
C - G	2x4	DRY	2100F 1.8E SPF
G - J	2x4	DRY	2100F 1.8E SPF
J - K	2x4	DRY	No.2 SPF
T - A	2x4	DRY	No.2 SPF
L - K	2x4	DRY	No.2 SPF
U - R	2x4	DRY	No.2 SPF
R - Q	2x4	DRY	No.2 SPF
Q - O	2x4	DRY	No.2 SPF
O - N	2x6	DRY	No.2 SPF
N - L	2x6	DRY	No.2 SPF
ALL WEBS	2x3	DRY	No.2 SPF
EXCEPT			
S - C	2x4	DRY	No.2 SPF
R - D	2x4	DRY	No.2 SPF
N - I	2x4	DRY	No.2 SPF
M - J	2x4	DRY	No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMVW-t	MT20	4.0	6.0	1.75	1.75
C	TTVW+m	MT20	6.0	7.0	2.00	2.00
D	TMVW+t	MT20	5.0	6.0	2.50	2.25
E	TMVW-t	MT20	4.0	4.0		
F	TMVW+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	8.0		
H	TMVW-t	MT20	4.0	4.0		
I	TMVW+t	MT20	4.0	6.0	2.25	1.75
J	TTVW-m	MT20	7.0	8.0	Edge	2.75
K	TMVW+p	MT20	4.0	6.0	2.25	1.75
L	BMV1+p	MT20	3.0	4.0		
M	BMVW+t	MT20	4.0	6.0	3.00	1.75
N	BBVW-h	MT20	10.0	12.0	3.75	8.00
O	BBVW-l	MT20	10.0	12.0	Edge	
P	BBVWW-t	MT20	5.0	6.0		
Q	BBVW-l	MT20	8.0	9.0	Edge	
R	BBVW-m	MT20	7.0	8.0	Edge	2.75

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



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 2113	HORZ 0	DOWN 2113	HORZ 0
L	VERT 2113	HORZ 0	UP/LIFT 0	IN-SX 0
T	2203	0	2203	0

UNFACTORED REACTIONS

	1ST LCASE COMBINED	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	1506	920 / 0	0 / 0	0 / 0	0 / 0	0 / 0	586 / 0	0 / 0
L	1572	953 / 0	0 / 0	0 / 0	0 / 0	0 / 0	619 / 0	0 / 0

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

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.

2x4 DRY SPF No.2 T-BRACE AT D-R, I-N, B-T

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC1)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC1)
FR-TO		FROM TO			FR-TO		
A-B	0 / 17	-78.0 -78.0	0.13 (1)	10.00	B-S	0 / 144	0.04 (4)
B-C	-2268 / 0	-78.0 -78.0	0.22 (1)	4.32	S-C	0 / 223	0.08 (4)
C-D	-1872 / 0	-114.5 -114.5	0.03 (1)	5.82	C-R	0 / 802	0.22 (1)
D-E	-2306 / 0	-114.5 -114.5	0.06 (1)	5.36	R-D	-2720 / 0	0.79 (1)
E-F	-2753 / 0	-78.0 -78.0	0.28 (1)	4.75	D-Q	0 / 2625	0.65 (1)
F-G	-2753 / 0	-78.0 -78.0	0.28 (1)	4.75	Q-E	-701 / 0	0.44 (1)
G-H	-2753 / 0	-78.0 -78.0	0.28 (1)	4.75	E-P	0 / 691	0.17 (1)
H-I	-2535 / 0	-114.5 -114.5	0.64 (1)	4.14	P-F	-479 / 0	0.30 (1)
I-J	-2209 / 0	-114.5 -114.5	0.75 (1)	4.41	F-H	0 / 349	0.09 (1)
J-K	-1062 / 0	-78.0 -78.0	0.12 (1)	5.96	H-O	-19 / 42	0.01 (4)
T-A	-107 / 0	0.0 0.0	0.01 (1)	7.81	O-I	0 / 2047	0.51 (1)
L-K	-2121 / 0	0.0 0.0	0.89 (1)	5.77	I-N	-3091 / 0	0.86 (1)
U-T	0 / 0	-96.5 -96.5	0.17 (1)	10.00	N-J	0 / 1934	0.48 (1)
T-S	0 / 1627	-27.2 -27.2	0.54 (4)	10.00	J-M	-1141 / 0	0.69 (1)
S-R	0 / 1723	-27.2 -27.2	0.55 (4)	10.00	M-K	-2481 / 0	0.59 (1)
R-Q	0 / 2585	-27.2 -27.2	0.46 (1)	10.00			
Q-P	0 / 2319	-63.7 -63.7	0.67 (1)	10.00			
P-O	0 / 2534	-63.7 -63.7	0.71 (1)	10.00			
O-N	0 / 2847	-27.2 -27.2	0.37 (1)	10.00			
N-M	0 / 788	-27.2 -27.2	0.22 (4)	10.00			
M-L	0 / 0	-27.2 -27.2	0.16 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	6-10-10	-213	-213		FRONT	VERT	TOTAL
J	27-1-6	-81	-81		FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 6-10-10
RIGHT SETBACK = 2-7-8
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 9-0-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder
START DISTANCE = 9-0-0
START SPAN CARRIED = 3-10-8
END DISTANCE = 18-10-0
END SPAN CARRIED = 3-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADD'L LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 6-10-10
RIGHT SETBACK = 2-7-8
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 10-10-14 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 OBC 2012, OBC 2018
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

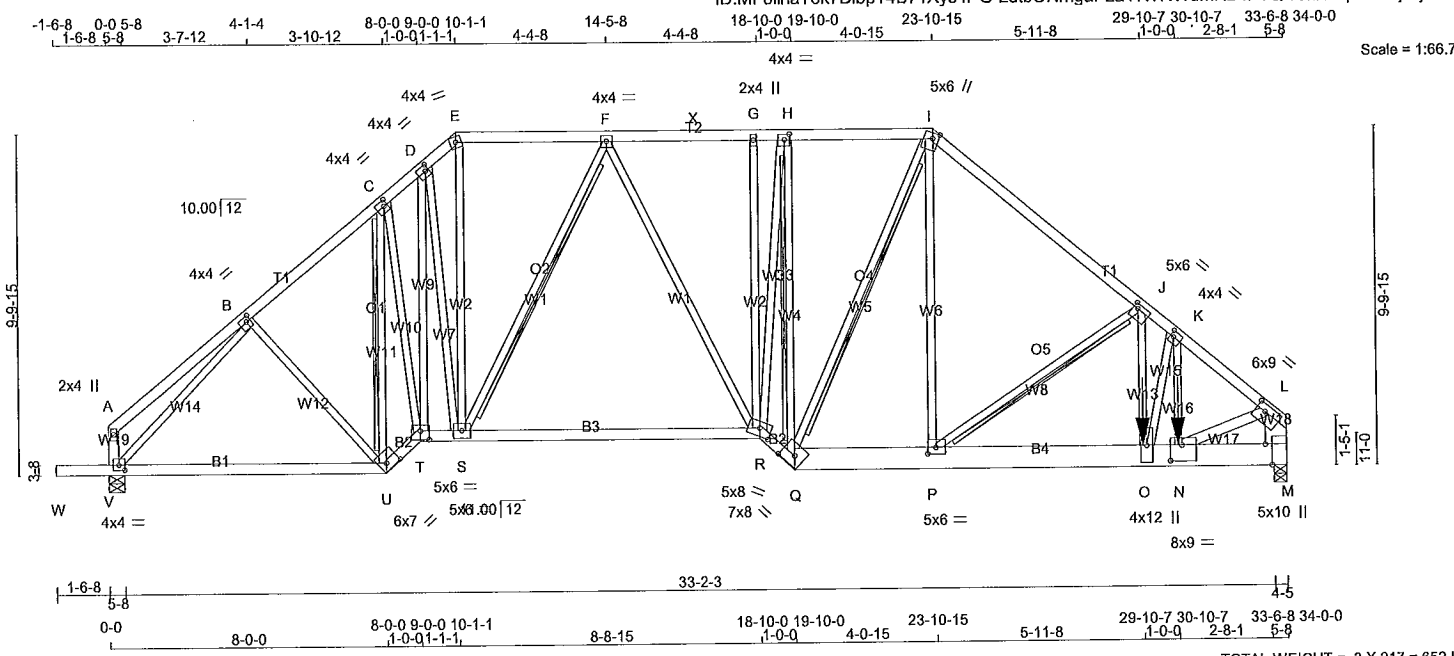
ALLOWABLE DEFL.(LL)= L/360 (0.99")
CALCULATED VERT. DEFL.(LL)= L/999 (0.18")
ALLOWABLE DEFL.(TL)= L/360 (0.99")
CALCULATED VERT. DEFL.(TL)= L/999 (0.35")

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

A-18023693

CONTINUED ON PAGE 2

A-18023694 CONTINUED ON PAGE 2



LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - E	2x4	DRY	No.2
E - I	2x4	DRY	No.2
I - L	2x4	DRY	No.2
V - A	2x4	DRY	No.2
M - L	2x8	DRY	No.2
W - U	2x4	DRY	No.2
U - T	2x4	DRY	No.2
T - R	2x4	DRY	No.2
R - Q	2x4	DRY	No.2
Q - M	2x8	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			
N - L	2x4	DRY	No.2

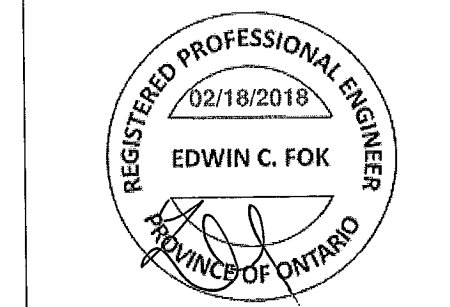
DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - E	12	TOP
E - I	12	TOP
I - L	12	TOP
V - A	12	TOP
M - L	2	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
W - U	12	TOP
U - T	12	TOP
T - R	12	TOP
R - Q	12	TOP
Q - M	3	SIDE(1922.8)
WEBS : (0.122"x3") SPIRAL NAILS		
J - O	1	SIDE(269.9)
K - N	1	SIDE(193.7)
2x3	1	
2x4	1	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



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
M	13648	0	13648	0	0	4-5	4-5	4-5	4-5
V	3225	0	3225	0	0	5-8	1-8	1-8	1-8

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	SNOW	SNOW	SNOW	SNOW	SNOW	SNOW	SNOW	SNOW	SNOW	SNOW	SNOW	SNOW	SNOW
M	9532	6930 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
V	2279	1504 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0

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

BRACING
 FOR SECTION E-I, MAX. PURLIN SPACING = 2.00 FT.
 FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.93 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x6 DRY SPF No.2 T-BRACE AT C-U, F-S, H-Q, I-Q, J-P

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD LC1	MAX. (PLF)	MAX. (PLF)	MEMB.	FORCE (LBS)	MAX. (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 18	-78.0	-78.0	0.05 (1)	B-U	0 / 285	0.02 (1)
B-C	-3643 / 0	-78.0	-78.0	0.08 (1)	U-C	-2707 / 0	0.34 (1)
C-D	-4246 / 0	-78.0	-78.0	0.18 (1)	C-T	0 / 1911	0.14 (1)
D-E	-3755 / 0	-78.0	-78.0	0.17 (1)	T-D	0 / 644	0.05 (1)
E-F	-3081 / 0	-85.5	-85.5	0.10 (1)	D-S	0 / 62	0.01 (4)
F-X	-4710 / 0	-85.5	-85.5	0.12 (1)	S-E	0 / 2015	0.15 (1)
X-G	-4710 / 0	-85.5	-85.5	0.12 (1)	S-F	-2071 / 0	0.42 (1)
G-H	-4712 / 0	-85.5	-85.5	0.12 (1)	F-R	0 / 1566	0.12 (1)
H-I	-4440 / 0	-85.5	-85.5	0.13 (1)	R-G	0 / 128	0.01 (1)
I-J	-6290 / 0	-78.0	-78.0	0.33 (1)	G-H	0 / 2321	0.17 (1)
J-K	-13557 / 0	-78.0	-78.0	0.36 (1)	Q-H	-2847 / 0	0.55 (1)
K-L	-14296 / 0	-78.0	-78.0	0.44 (1)	Q-I	-1025 / 0	0.23 (1)
V-A	-127 / 0	0.0	0.0	0.00 (1)	P-I	0 / 4627	0.35 (1)
M-L	-12581 / 0	0.0	0.0	0.21 (1)	P-J	-7318 / 0	0.83 (1)
					O-J	0 / 8238	0.62 (1)
					O-K	-744 / 0	0.06 (1)
W-V	0 / 0	-96.5	-96.5	0.05 (1)	N-K	0 / 1467	0.11 (1)
V-U	0 / 2605	-18.5	-18.5	0.21 (1)	V-B	-3886 / 0	0.77 (1)
U-T	0 / 3831	-18.5	-18.5	0.21 (1)	N-L	0 / 11406	0.61 (1)
T-S	0 / 3053	-18.5	-18.5	0.24 (1)			
S-R	0 / 4000	-18.5	-18.5	0.29 (1)			
R-Q	0 / 5835	-18.5	-18.5	0.31 (1)			
Q-P	0 / 4848	-18.5	-18.5	0.17 (1)			
P-O	0 / 10731	-18.5	-18.5	0.49 (1)			
O-N	0 / 10934	-18.5	-18.5	0.63 (1)			
N-M	0 / 0	-308.9	-308.9	0.27 (1)			

DESIGN CRITERIA

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

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

SPACING = 24.0 IN./C/C

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

GIRDER TYPE: CStdGirder
 START DISTANCE = 30-10-6
 START SPAN CARRIED = 14-0-8
 END DISTANCE = 34-0-0
 END SPAN CARRIED = 14-0-8
 END WALL WIDTH = 0-0
 APPLIED TO FRONT SIDE OF BOTTOM CHORD.
 - ADDTL. LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.13")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
 ALLOWABLE DEFL.(TL) = L/360 (1.13")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.20")

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

CSI: TC=0.44/1.00 (K-L:1), BC=0.63/1.00 (N-O:1), WB=0.83/1.00 (J-P:1), SSI=0.19/1.00 (M-N:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292618	H2TC	1	3	TRUSS DESC.	

Alpa Roof Truss, Maple

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

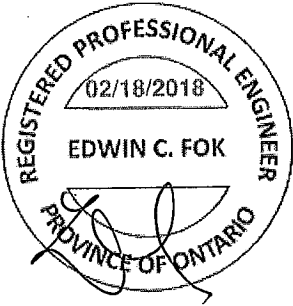
PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-l	MT20	4.0	4.0	1.75	1.50
C, D, K						
C	TMWW-l	MT20	4.0	4.0	2.00	1.25
E	TTW-m	MT20	4.0	4.0		
F	TMWW-l	MT20	4.0	4.0		
G	TMW+w	MT20	2.0	4.0		
H	TMWW-l	MT20	4.0	4.0	2.00	1.75
I	TTWW+m	MT20	5.0	6.0	2.00	2.00
J	TMWW-l	MT20	5.0	6.0	1.50	1.50
L	TMVW-l	MT20	6.0	9.0	2.25	3.25
M	BMV1-t	MT20	5.0	10.0	Edge	2.25
N	BMWW-l	MT20	8.0	9.0	5.50	4.00
O	BMWW-t	MT20	4.0	12.0		
P	BMWW-l	MT20	5.0	6.0	2.25	2.75
Q	BBWW-h	MT20	7.0	8.0	3.25	4.75
R	BBWWW-m	MT20	5.0	8.0	2.75	4.00
S	BMWWW-l	MT20	5.0	6.0		
T	BBWW-l	MT20	5.0	6.0	3.00	3.00
U	BBWW-h	MT20	6.0	7.0	2.25	4.50
V	BMVW1-t	MT20	4.0	4.0	1.75	2.00

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

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 6742.7 lbs FACTORED DOWN AT 29-10-6, AND 5688.9 lbs FACTORED DOWN AT 30-10-6 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
N	30-10-6	-5689	-5689	—	FRONT	VERT	TOTAL
O	29-10-6	-6743	-6743	—	FRONT	VERT	TOTAL

AUTOSOLVE LEFT HEEL ONLY

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

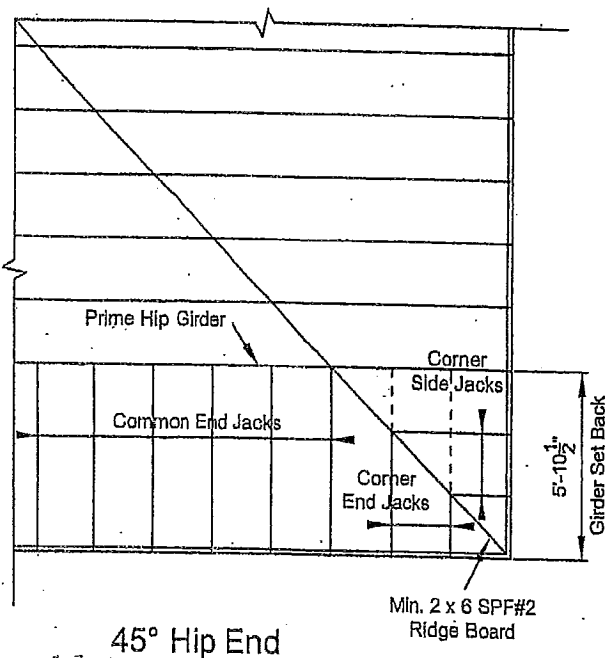
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (V) (INPUT = 0.90)

JSI METAL= 0.80 (L) (INPUT = 1.00)

A-18023695(2)

STRACON ENGINEERING INC.



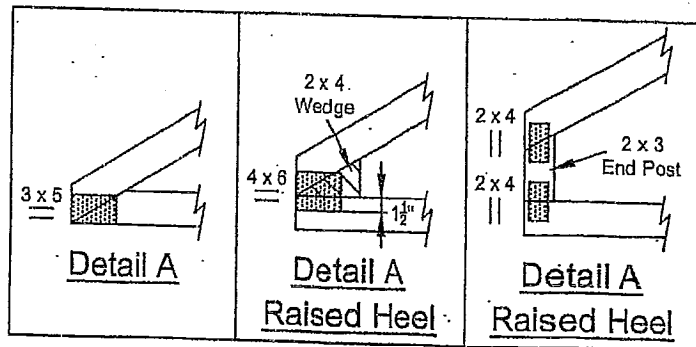
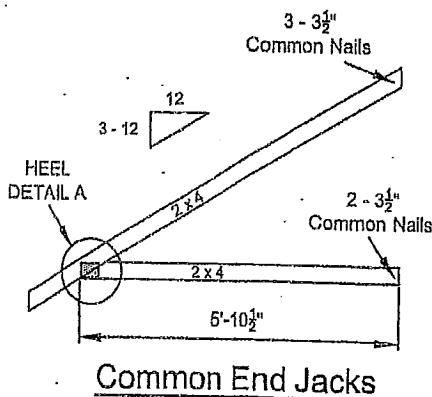
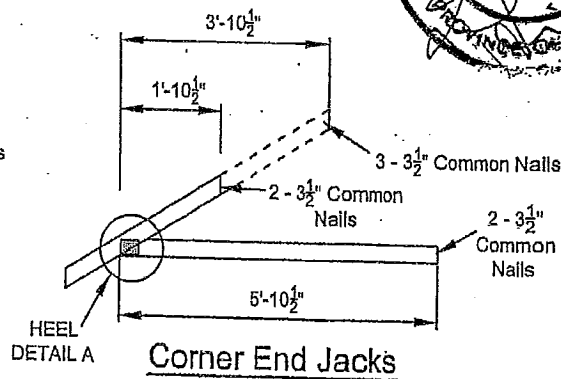
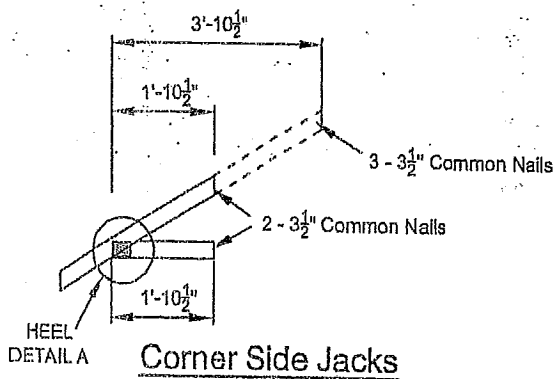
LUMBER SPECIFICATION

TOP CHORD : 2 x 4 SPF#2
 BOTTOM CHORD : 2 x 4 SPF#2
 WEBS : 2 x 3 SPF#2
 UNLESS OTHERWISE SHOWN

DESIGN LOAD

TOP CHORD SNOW LOAD : 40.5 P.S.F.
 TOP CHORD DEAD LOAD : 3.0 P.S.F.
 BOTTOM CHORD LIVE LOAD : 0.0 P.S.F.
 BOTTOM CHORD DEAD LOAD : 7.0 P.S.F.

TOTAL LOAD : 50.5 P.S.F



NOTE: DESIGN CONFORMS TO PART 9, O.B.C. 2012 (L.S.D. DESIGN)

CS-51008

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

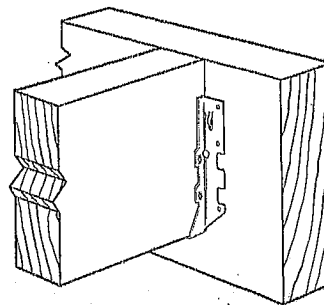
Finish: G90 galvanized

Design:

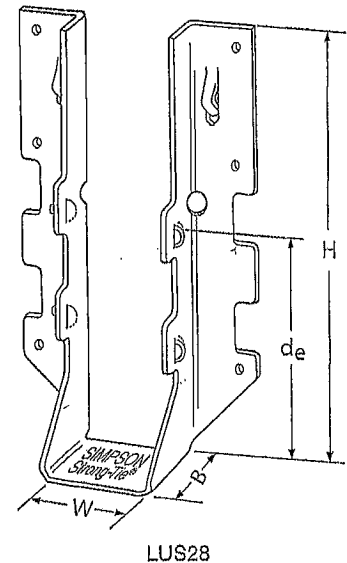
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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



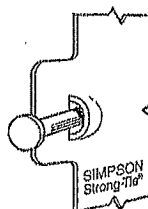
LUS28

Options:

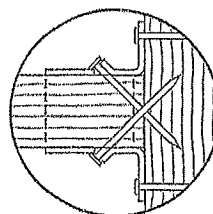
- These hangers cannot be modified

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _o 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	1¼	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	1¼	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	4¾	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6¾	1¼	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	7½	1¼	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	8¾	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

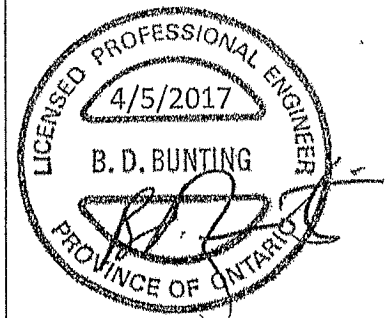
1. d_o is the distance from the seat of the hanger to the highest joist nail.



Dome Double Shear Nailing prevents tabs breaking off (available on some models).
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. The information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty at stc.simpsonstrongtie.com.

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T-SPEC LUS17-3/17 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:

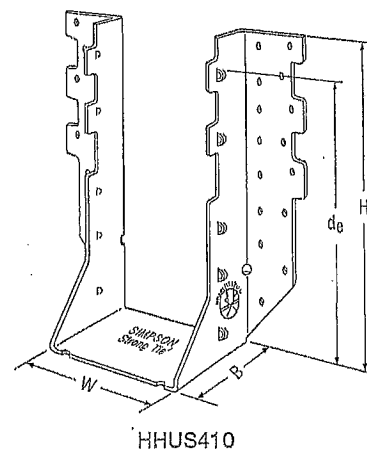
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

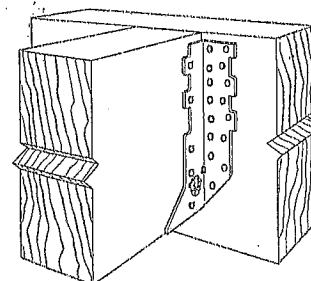
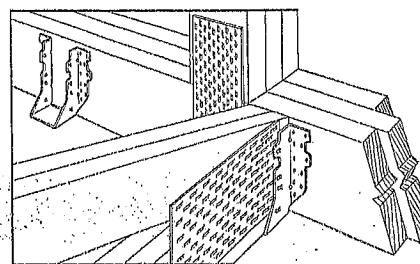
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options

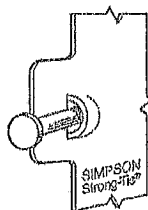


HHUS410



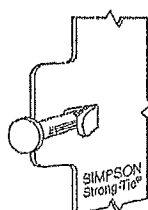
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _u =1.15)	Normal (K _n =1.00)	Uplift (K _u =1.15)	Normal (K _n =1.00)
HHUS26-2	14	3 1/16	5 13/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 5/16	7 1/32	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 5/16	9 3/32	3	8	(30) 16d	(10) 16d	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 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 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. d_g is the distance from the seat of the hanger to the highest joist nail.

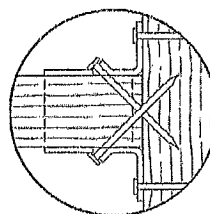


Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,680



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

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HUS/LJS – Double Shear Joist Hangers

SIMPSON
Strong-Tie

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

Material: See table

Finish: G90 galvanized

Design:

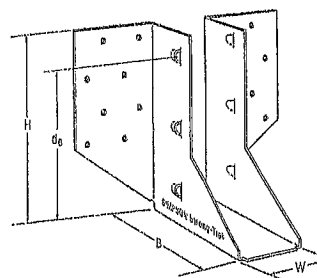
- Factored resistances are in accordance with CSA O86 -14,
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

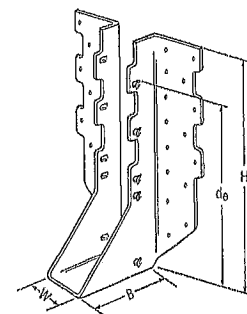
- Use all specified fasteners
- Nails: $16d = 0.162"$ dia. x $3\frac{1}{2}"$ long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

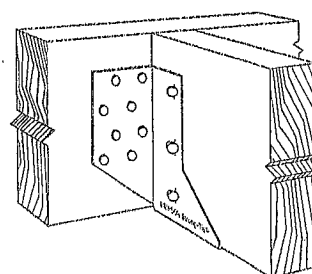
- See current catalogue for options



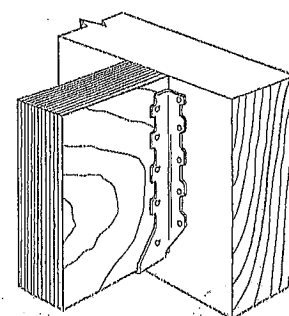
LJS26DS



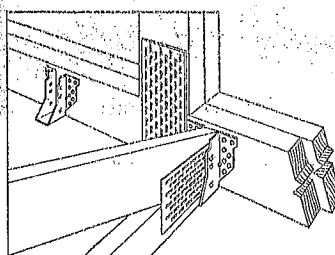
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



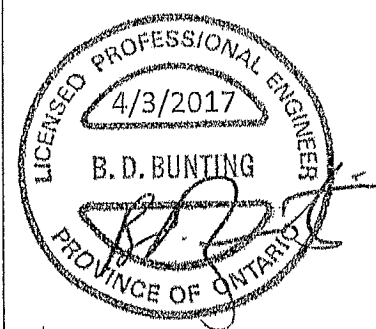
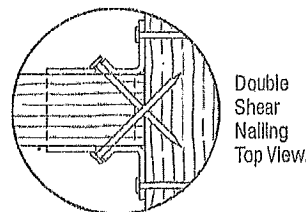
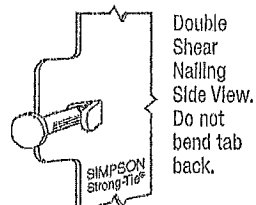
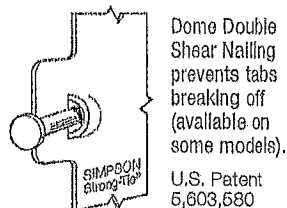
Typical HUS
Installation



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_0 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 ($K_p=1.00$)
LJS26DS	18	$1\frac{1}{16}$	5	$3\frac{1}{2}$	$4\frac{5}{8}$	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	$1\frac{1}{8}$	$5\frac{1}{2}$	3	$3\frac{1}{16}$	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	$1\frac{1}{8}$	$7\frac{1}{2}$	3	$6\frac{1}{2}$	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	$1\frac{1}{8}$	$9\frac{1}{2}$	3	$7\frac{1}{2}$	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	$1\frac{1}{8}$	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

1. d_0 is the distance from the seat of the hanger to the highest joist nail.



LIMIT
STATES
DESIGN

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HGUS – Double Shear Joist Hangers

SIMPSON

Strong-Tie

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

Material: 12 gauge

Finish: G90 galvanized

Design:

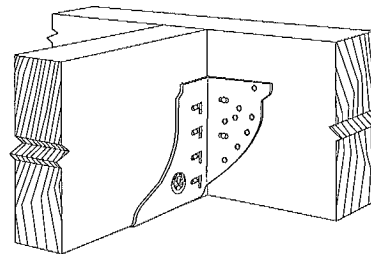
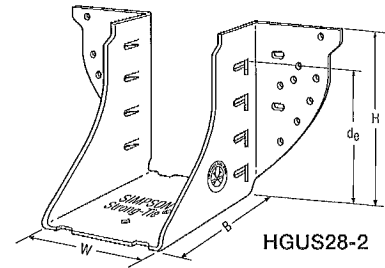
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%.
No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

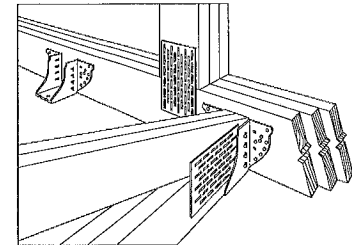
- Use all specified fasteners
- Nails: 16d = 0.162" dia x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options



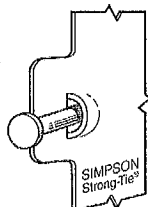
Typical HGUS Installation



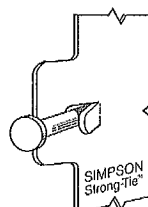
Typical HGUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
HGUS26	12	1⅝	5⅝	5	4⅝ ₃₂	(20) 16d	(8) 16d	2685	6625	2685	5700
HGUS26-2	12	3⅝	5⅝	4	4⅝	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-3	12	4⅝	5⅝	4	4⅝	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-4	12	6⅝	5⅝	4	4⅝	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS28	12	1⅝	7⅝	5	6⅝	(36) 16d	(12) 16d	3310	7675	3100	6900
HGUS28-2	12	3⅝	7⅝	4	6⅝	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-3	12	4⅝	7⅝	4	6⅝	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-4	12	6⅝	7⅝	4	6⅝	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS210-2	12	3⅝	9⅝	4	8⅝	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS210-3	12	4⅝	9⅝	4	8⅝	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS210-4	12	6⅝	9⅝	4	8⅝	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS212-4	12	6⅝	10⅝	4	10⅝	(56) 16d	(20) 16d	7640	14995	5425	10645
HGUS214-4	12	6⅝	12⅝	4	11⅝	(66) 16d	(22) 16d	10130	16400	7195	11645

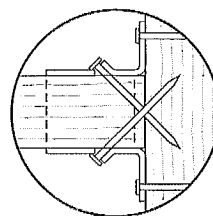
1. d_e is the distance from the seat of the hanger to the highest joist nail.



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



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



Double Shear Nailing Top View.



LIMIT STATES DESIGN

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