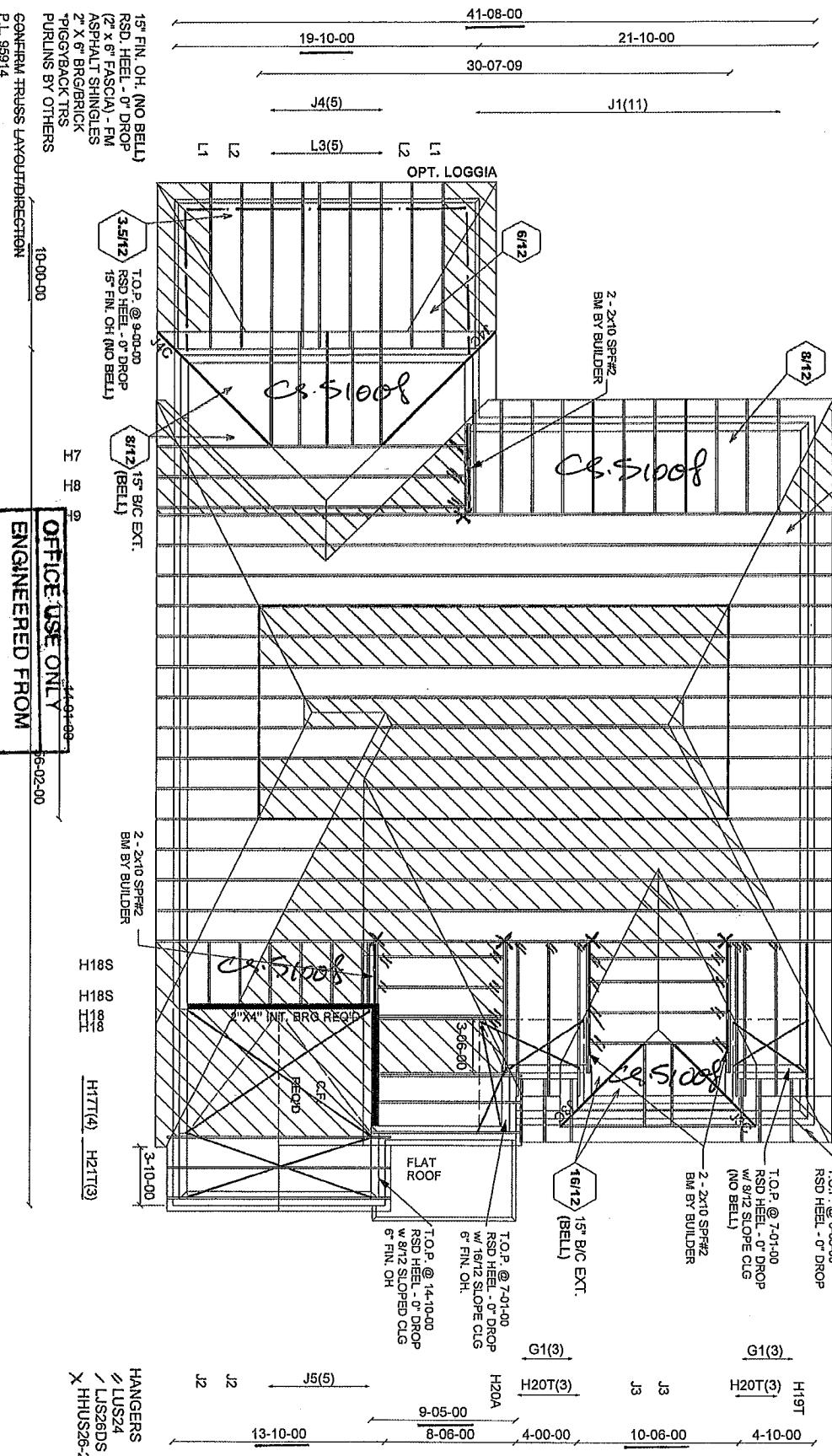


ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (LATEST EDITION) OVER TRUSSES TO BE 2X4 SPF #2, 24" O.C. WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 6" TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN TRUSS JOINTS BRACING DOES NOT EXCEED 8'

ALPA-BARRIE



CONVENTIONAL FRAMING BY OTHERS



Job Track: 45147
Layout ID: 292619
Plan Log: 95914

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

Model / Elevator: 5001 REV1 / A
SIO OF CRT LOGGIA
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.

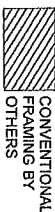
OFFICE USE ONLY
ENGINEERED FROM
A-18024007 TO
A-18024029

HILLSBOROUGH

15' FIN. OH (NO BELL)
RSD. HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" x 6" BRG BRICK
PIGGYBACK TRS
PURLINS BY OTHERS
CONFIRM TRUSS LAYOUT DIRECTION
P.L. 95914

HANGERS
/ LUS24
/ LUS26DS
X HHUS26-2

ALFA-DAT 2

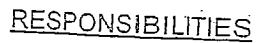


A-18024028 - A-18024012
A-18024016 - A-18024038

02 OCT 2007 LOGE-1A

THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALFA 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 ALFA ROOF TRUSSES INC AND WILL BE RETRACED BY ALFA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

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



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.

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
V	BMWWW-t	MT20	8.0	9.0	4.25	3.50
W	BS-t	MT18HS	5.0	12.0		
X	BMWW-t	MT20	6.0	7.0	2.25	2.25
Y	BMWW-t	MT20	6.0	7.0	2.25	2.00
Z	BMWW-t	MT20	4.0	6.0	2.50	1.50
AA	BMV1-t	MT20	6.0	9.0	5.50	

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) 119.6 lbs FACTORED DOWN AT 38-8-12 ON TOP CHORD, AND 1715.4 lbs FACTORED DOWN AT 18-8-8 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
M	38-8-12	-120	-120	---	FRONT	VERT	TOTAL
V	18-8-8	-1715	-1715	---	FRONT	VERT	TOTAL

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
MT18HS	511 354	2455 1382	3004 2010

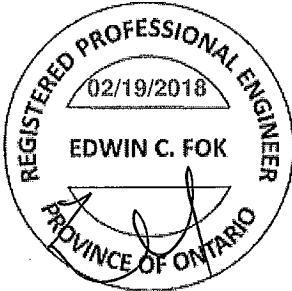
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.99 (W) (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

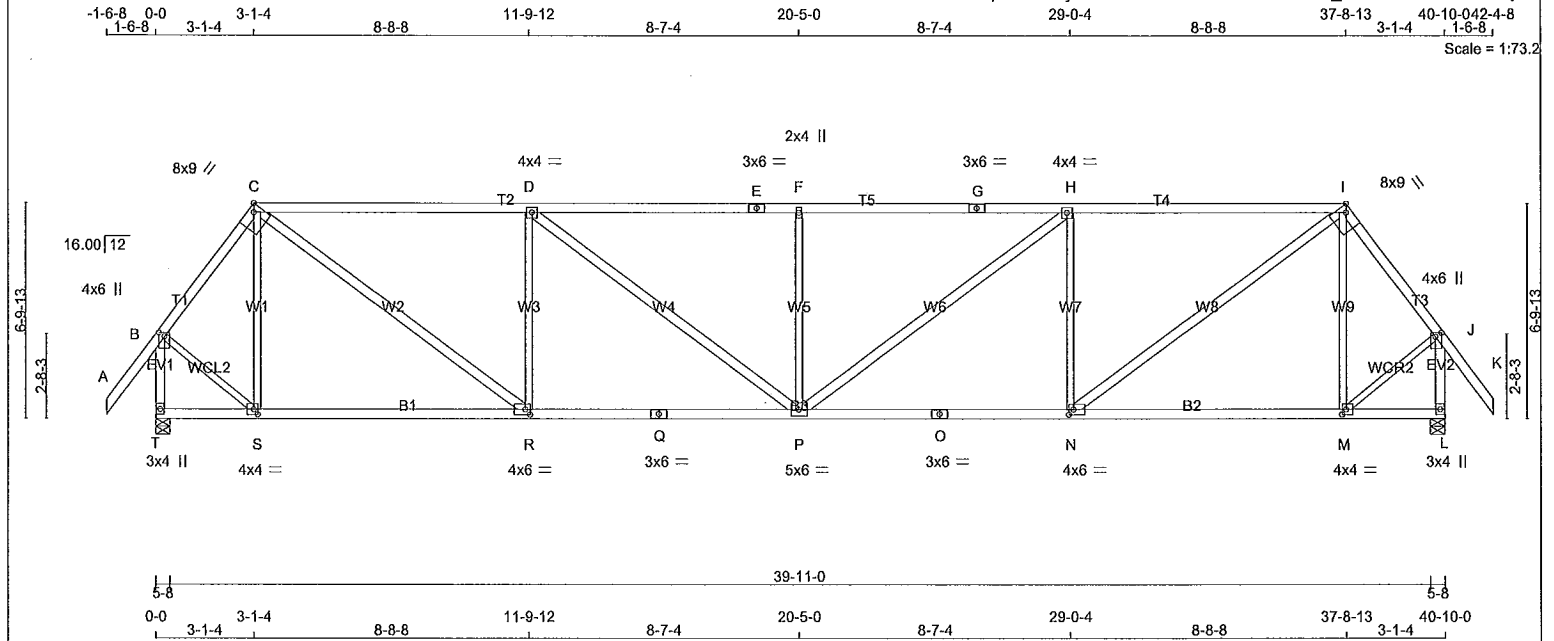


A-18024007(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H2	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Mon Feb 19 13:18:35 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-AD58hOh0mrGOLx?SLBk_Nvia8JvtztXbfRa6cXzjal2



TOTAL WEIGHT = 2 X 189 = 378 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	1.50	2.25
C	TTWW-h	MT20	8.0	9.0	Edge	2.75
D	TMVW-t	MT20	4.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMVW+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMVW-t	MT20	4.0	4.0		
I	TTWW-h	MT20	8.0	9.0	Edge	2.75
J	TMVW+p	MT20	4.0	6.0	1.50	2.25
L	BMV1+p	MT20	3.0	4.0		
M	BMVW-t	MT20	4.0	4.0	2.00	1.50
N	BMVW-t	MT20	4.0	6.0	2.00	1.75
O	BS-t	MT20	3.0	6.0		
P	BMVWW-t	MT20	5.0	6.0		
Q	BS-t	MT20	3.0	6.0		
R	BMVW-t	MT20	4.0	6.0	2.00	1.75
S	BMVW-t	MT20	4.0	4.0	2.00	1.50
T	BMV1+p	MT20	3.0	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		MAXIMUM FACTORED		INPUT		RECORD	
GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
T	2099	0	2099	0	5-8	3-5	
L	2099	0	2099	0	5-8	3-5	

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
T	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
L	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.92 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX (CSI (LC))	MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX (CSI (LC))
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	S-C	-505 / 0	0.39 (1)
B-C	-1503 / 0	-78.0	-78.0 0.17 (1)	5.19	C-R	0 / 2191	0.35 (1)
C-D	-2645 / 0	-78.0	-78.0 0.84 (1)	4.25	R-D	-1145 / 0	0.89 (1)
D-E	-3157 / 0	-78.0	-78.0 0.92 (1)	3.92	D-P	0 / 643	0.10 (1)
E-F	-3157 / 0	-78.0	-78.0 0.92 (1)	3.92	P-F	-620 / 0	0.48 (1)
F-G	-3157 / 0	-78.0	-78.0 0.92 (1)	3.92	P-H	0 / 643	0.10 (1)
G-H	-3157 / 0	-78.0	-78.0 0.92 (1)	3.92	N-H	-1145 / 0	0.89 (1)
H-I	-2645 / 0	-78.0	-78.0 0.84 (1)	4.25	N-I	0 / 2191	0.35 (1)
I-J	-1503 / 0	-78.0	-78.0 0.17 (1)	5.19	M-I	-505 / 0	0.39 (1)
J-K	0 / 52	-78.0	-78.0 0.15 (1)	10.00	B-S	0 / 1100	0.25 (1)
T-B	-2098 / 0	0.0	0.0 0.30 (1)	5.84	M-J	0 / 1100	0.25 (1)
L-J	-2098 / 0	0.0	0.0 0.30 (1)	5.84			
T-S	0 / 0	-18.5	-18.5 0.21 (4)	10.00			
S-R	0 / 887	-18.5	-18.5 0.37 (4)	10.00			
R-Q	0 / 2645	-18.5	-18.5 0.58 (1)	10.00			
Q-P	0 / 2645	-18.5	-18.5 0.58 (1)	10.00			
P-O	0 / 2645	-18.5	-18.5 0.58 (1)	10.00			
O-N	0 / 2645	-18.5	-18.5 0.58 (1)	10.00			
N-M	0 / 887	-18.5	-18.5 0.37 (4)	10.00			
M-L	0 / 0	-18.5	-18.5 0.21 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, 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 (1.36")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.34")

CSI: TC=0.92/1.00 (D-F:1), BC=0.58/1.00 (P-R:1), WB=0.89/1.00 (D-R:1), SSI=0.32/1.00 (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 (PLI)	SECTION (PLI)
	(PSI)	(PLI)	(PLI)
MT20	618	354	1667 788 1987 1656

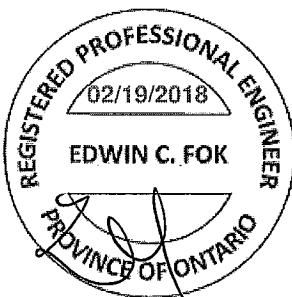
PLATE PLACEMENT TOL. = 0.250 inches

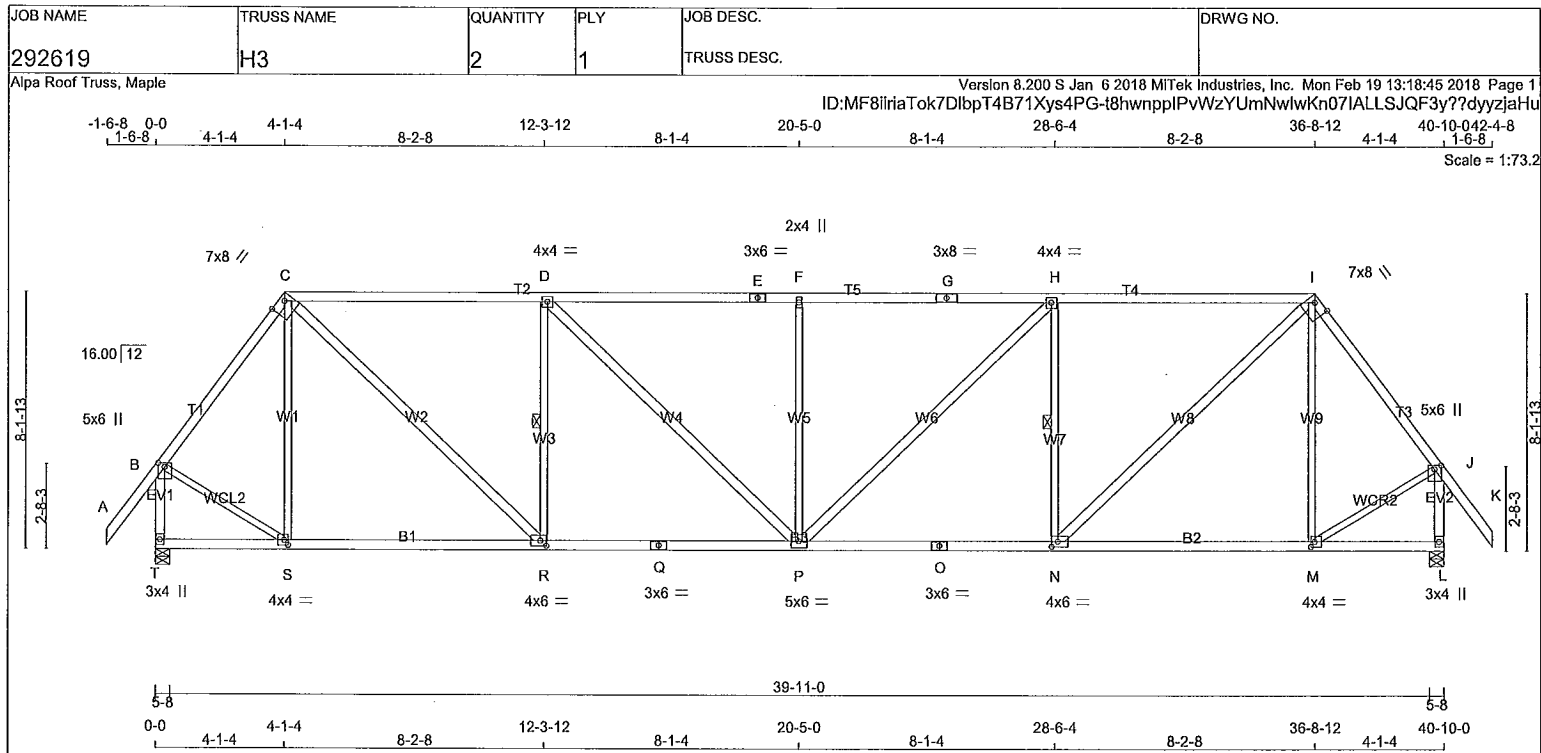
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (J) (INPUT = 0.90)
JSI METAL= 0.91 (O) (INPUT = 1.00)

A-18024008

CONTINUED ON PAGE 2





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

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN
B	TMVW+p	MT20	5.0	6.0
C	TTWW-h	MT20	7.0	8.0
D	TMWW-t	MT20	4.0	4.0
E	TS-t	MT20	3.0	6.0
F	TMW+w	MT20	2.0	4.0
G	TS-t	MT20	3.0	8.0
H	TMWW-t	MT20	4.0	4.0
I	TTWW-h	MT20	7.0	8.0
J	TMVW+p	MT20	5.0	6.0
L	BMV1+p	MT20	3.0	4.0
M	BMWW-t	MT20	4.0	4.0
N	BMWW-t	MT20	4.0	6.0
O	BS-t	MT20	3.0	6.0
P	BMWW-t	MT20	5.0	6.0
Q	BS-t	MT20	3.0	6.0
R	BMWW-t	MT20	4.0	6.0
S	BMWW-t	MT20	4.0	4.0
T	BMV1+p	MT20	3.0	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		REQD	
JT	VERT	GROSS	REACT	DOWN	HORIZ	UPLIFT	IN-SX	IN-SX	BRG
T	2099	0	2099	0	0	5-8	3-5	3-5	
L	2099	0	2099	0	0	5-8	3-5	3-5	

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS	
JT	COMBINED	SNOW	LIVE
T	1494	927 / 0	0 / 0
L	1494	927 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.78 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-R, H-N.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		MAX. FACTORED		FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT.	LOAD (PLF)	LC1	MAX	MEMB.	FORCE (LBS)	MAX	CS (LC)
FR-TO						FR-TO			
A-B	0 / 52	-78.0	-78.0	0.15 (1)	10.00	S-C	-386 / 0	0.50 (1)	
B-C	-1587 / 0	-78.0	-78.0	0.31 (1)	4.95	C-R	0 / 1790	0.29 (1)	
C-D	-2238 / 0	-78.0	-78.0	0.89 (1)	4.06	R-D	-1079 / 0	0.45 (1)	
D-E	-2614 / 0	-78.0	-78.0	0.95 (1)	3.78	D-P	0 / 524	0.08 (1)	
E-F	-2614 / 0	-78.0	-78.0	0.95 (1)	3.78	P-F	-583 / 0	0.75 (1)	
F-G	-2614 / 0	-78.0	-78.0	0.95 (1)	3.78	P-H	0 / 524	0.08 (1)	
G-H	-2614 / 0	-78.0	-78.0	0.95 (1)	3.78	H-N	-1079 / 0	0.45 (1)	
H-I	-2238 / 0	-78.0	-78.0	0.89 (1)	4.06	N-I	0 / 1790	0.29 (1)	
I-J	-1587 / 0	-78.0	-78.0	0.31 (1)	4.95	M-I	-386 / 0	0.50 (1)	
J-K	0 / 52	-78.0	-78.0	0.15 (1)	10.00	B-S	0 / 1078	0.24 (1)	
T-B	-2079 / 0	0.0	0.0	0.30 (1)	5.87	M-J	0 / 1078	0.24 (1)	
L-J	-2079 / 0	0.0	0.0	0.30 (1)	5.87				
T-S	0 / 0	-18.5	-18.5	0.18 (4)	10.00				
S-R	0 / 942	-18.5	-18.5	0.34 (4)	10.00				
R-Q	0 / 2238	-18.5	-18.5	0.50 (1)	10.00				
Q-P	0 / 2238	-18.5	-18.5	0.50 (1)	10.00				
P-O	0 / 2238	-18.5	-18.5	0.50 (1)	10.00				
O-N	0 / 2238	-18.5	-18.5	0.50 (1)	10.00				
N-M	0 / 942	-18.5	-18.5	0.34 (4)	10.00				
M-L	0 / 0	-18.5	-18.5	0.18 (4)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, 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 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/999 (0.28")

CSI: TC=0.95/1.00 (D-F:1), BC=0.50/1.00 (P-R:1), WB=0.75/1.00 (F-P:1), SSI=0.30/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

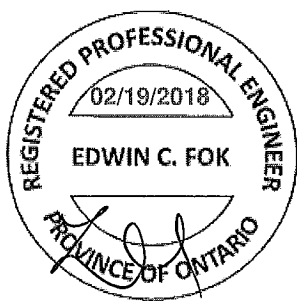
NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (R) (INPUT = 0.90)
JSI METAL= 0.78 (O) (INPUT = 1.00)

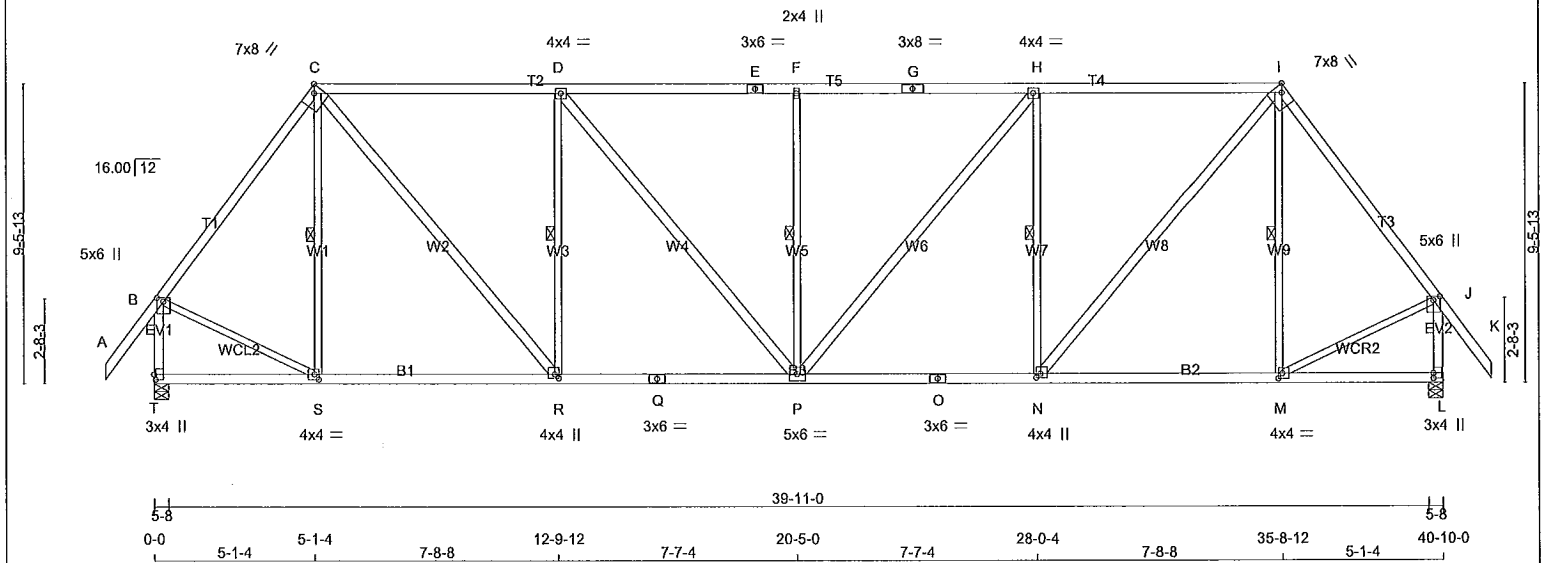


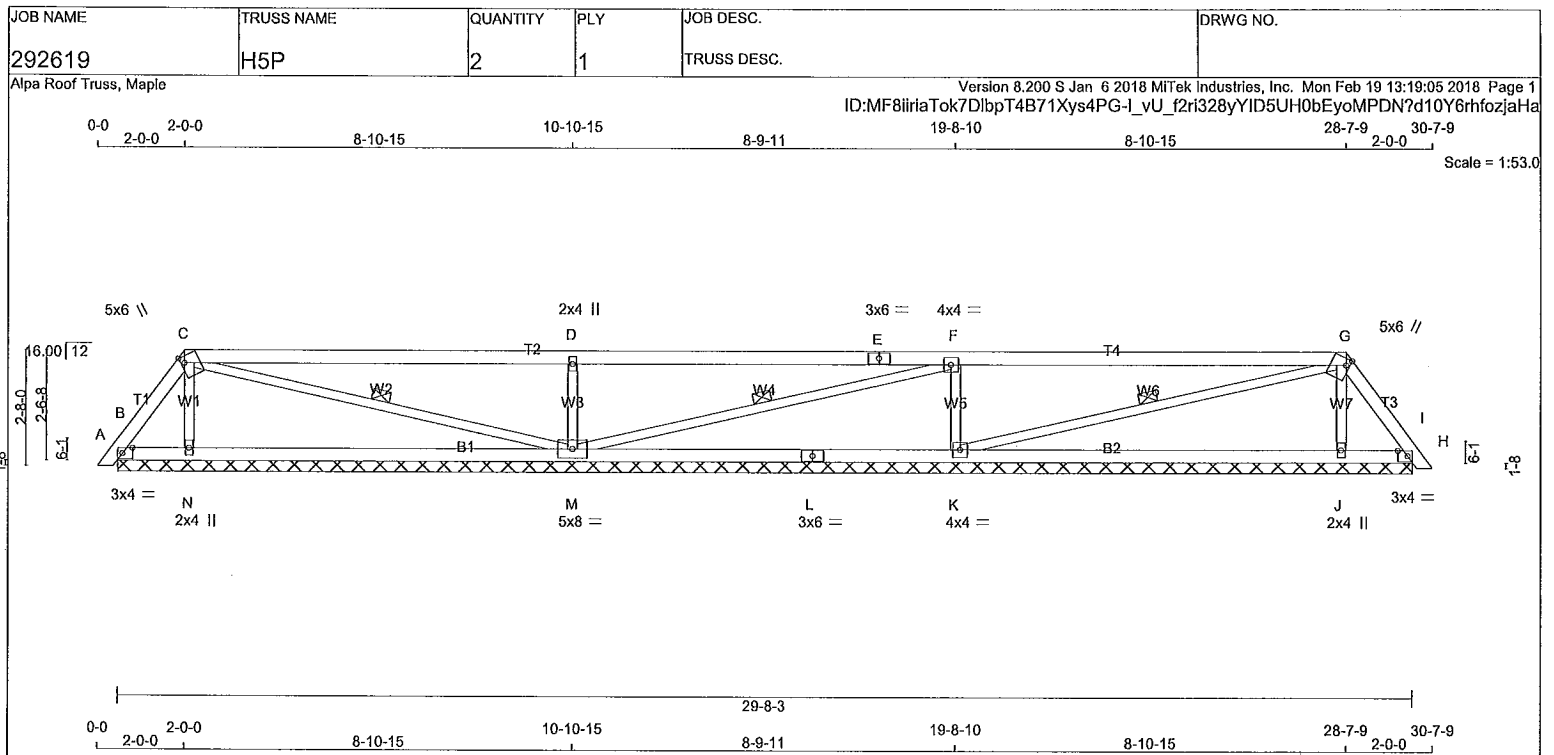
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H4	8	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 13:00 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-x15bwx_itWPrnPFJxhruAEvcOTcKDQHPq7w_azjaHf

-1-6-8 0-0 5-1-4 5-1-4 7-8-8 12-9-12 7-7-4 20-5-0 7-7-4 28-0-4 7-8-8 35-8-12 5-1-4 40-10-0-4-8 1-6-8
Scale = 1:73.2





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

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

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG			
	VERT	HORZ	DOWN	HORZ		IN-SX	IN-SX		
B	112	0	112	0	-18	29-8-3 (13-8-21-9-14			
N	414	0	414	0	0	29-8-3 (13-8-21-9-14			
M	940	0	940	0	0	29-8-3 (13-8-21-9-14			
K	924	0	924	0	0	29-8-3 (13-8-21-9-14			
J	405	0	405	0	0	29-8-3 (13-8-21-9-14			
H	124	0	124	0	-15	29-8-3 (13-8-21-9-14			

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

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

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

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX / MIN. COMPONENT REACTIONS					
B	72	85 / 0	0 / 0	0 / 0	0 / 0	0 / -13	0 / 0
N	303	139 / 0	0 / 0	0 / 0	0 / 0	164 / 0	0 / 0
M	669	417 / 0	0 / 0	0 / 0	0 / 0	252 / 0	0 / 0
K	658	408 / 0	0 / 0	0 / 0	0 / 0	249 / 0	0 / 0
J	297	134 / 0	0 / 0	0 / 0	0 / 0	163 / 0	0 / 0
H	81	92 / 0	0 / 0	0 / 0	0 / 0	0 / -11	0 / 0

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

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

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

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

LOADING				
TOTAL LOAD CASES: (4)				
MEMB.	MAX. FACTORED FORCE (LBS)	CHORDS		WEBS
		MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	
FR-TO		FROM	TO	FR-TO
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00 N-C
B-C	-87 / 0	-78.0	-78.0 0.03 (1)	6.25 C-M
C-D	-1 / 0	-78.0	-78.0 0.55 (1)	10.00 M-D
D-E	-2 / 0	-78.0	-78.0 0.55 (1)	10.00 M-F
E-F	-2 / 0	-78.0	-78.0 0.55 (1)	10.00 K-F
F-G	-25 / 0	-78.0	-78.0 0.55 (1)	6.25 K-G
G-H	-102 / 0	-78.0	-78.0 0.03 (1)	6.25 J-G
H-I	0 / 10	-78.0	-78.0 0.01 (1)	10.00
B-N	0 / 49	-18.5	-18.5 0.24 (4)	10.00
N-M	0 / 37	-18.5	-18.5 0.29 (4)	10.00
M-L	0 / 25	-18.5	-18.5 0.29 (4)	10.00
L-K	0 / 25	-18.5	-18.5 0.29 (4)	10.00
K-J	0 / 46	-18.5	-18.5 0.29 (4)	10.00
J-H	0 / 58	-18.5	-18.5 0.24 (4)	10.00

DESIGN CRITERIA				
SPECIFIED LOADS:				
TOP CH.	LL	=	21.0	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD = 34.4 PSF				
SPACING = 24.0 IN. C/C				

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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=0.55/1.00 (F-G:1), BC=0.29/1.00 (J-K:4), WB=0.12/1.00 (D-M:1), SSI=0.32/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

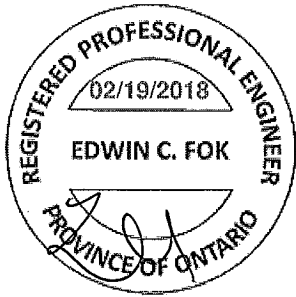
NAIL VALUES				
PLATE	GRIP(DRY)	SHEAR	SECTION	
	(PSI)	(PLI)	(PLI)	
MT20	618	354	1667	1987 1656

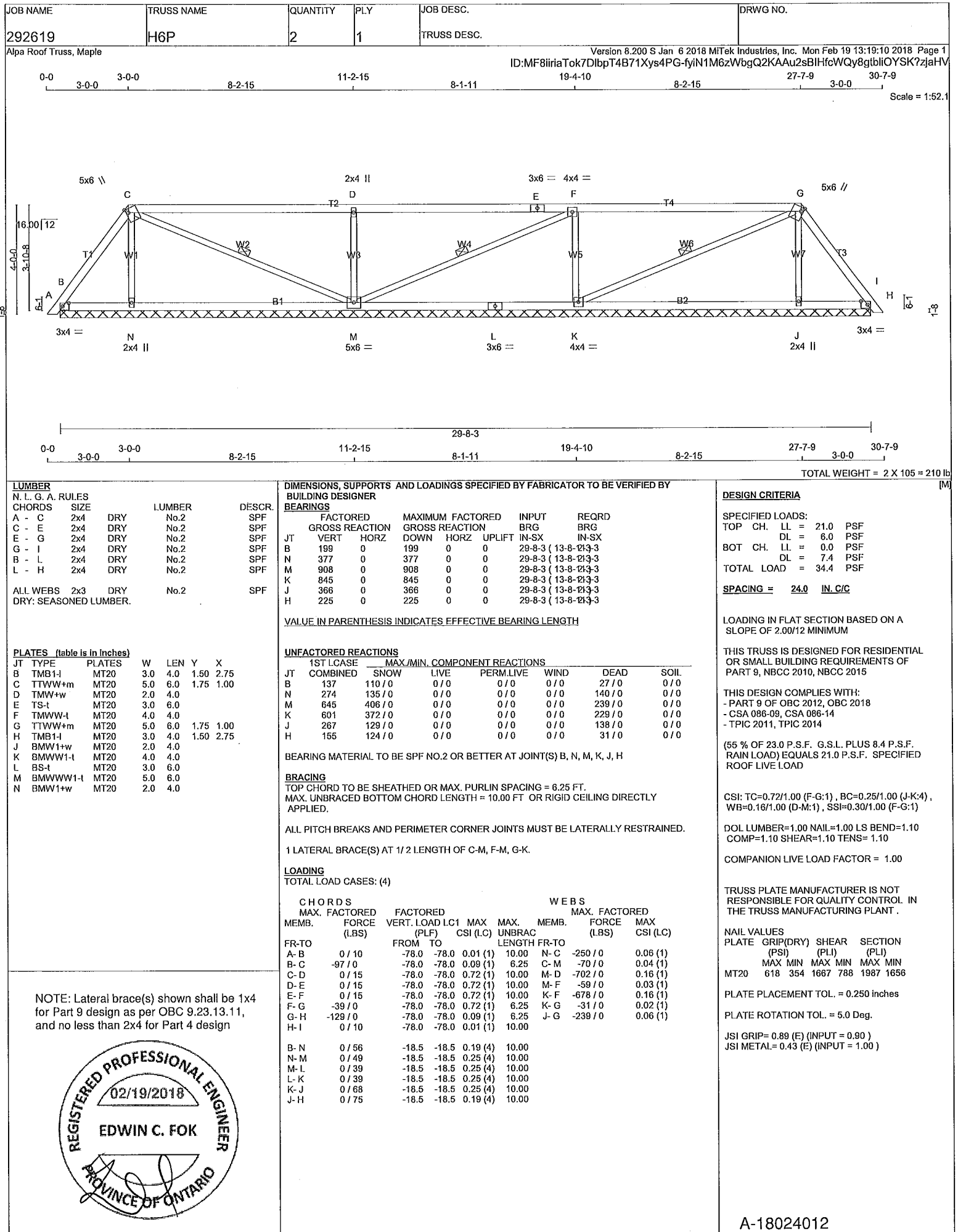
PLATE PLACEMENT TOL. = 0.250 inches

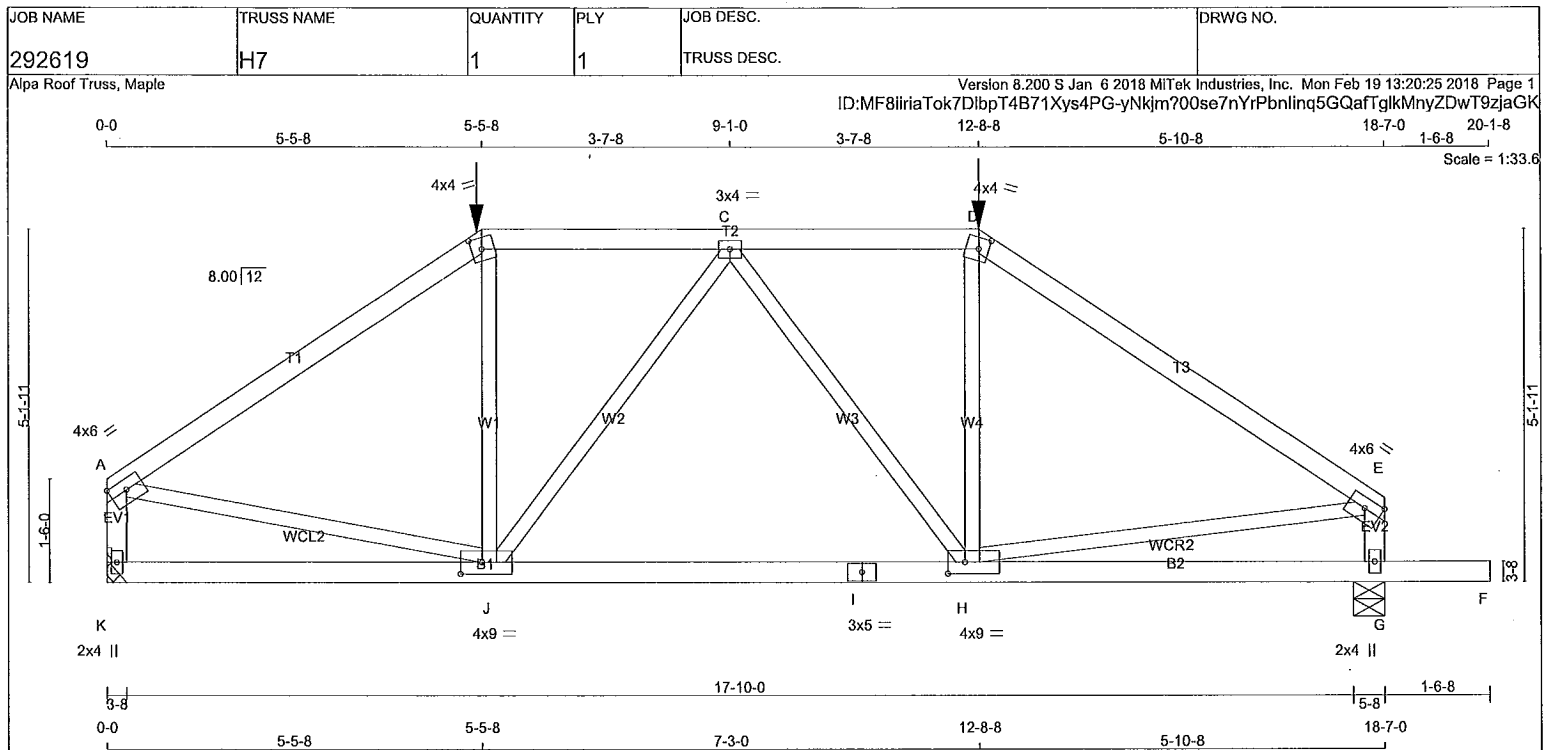
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (K) (INPUT = 0.90)
JSI METAL= 0.35 (E) (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







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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.75	Edge
B	TTW-m	MT20	4.0	4.0	2.00	1.75
C	TMVW-t	MT20	3.0	4.0		
D	TTW-m	MT20	4.0	4.0	2.00	1.75
E	TMVW-t	MT20	4.0	6.0	1.75	Edge
G	BMV1+p	MT20	2.0	4.0		
H	BMVWW-t	MT20	4.0	9.0	2.00	3.00
I	BS-t	MT20	3.0	5.0		
J	BMVWW-t	MT20	4.0	9.0	2.00	3.75
K	BMV1+p	MT20	2.0	4.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 334.0 lbs FACTORED DOWN AT 12-8-8, AND 310.3 lbs FACTORED DOWN AT 5-5-8 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

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		
K	1668	0	1668	0	0	IN-SX
G	1799	0	1799	0	0	HANGER BY OTHERS

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS			
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
K	1191	716 / 0	0 / 0	0 / 0	0 / 0	475 / 0
G	1285	771 / 0	0 / 0	0 / 0	0 / 0	514 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.98 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LBS)
FR-TO		FROM TO	FR-TO
A-B	-1883 / 0	-78.0 -78.0 0.59 (1)	4.21 J-B 0 / 304
B-C	-1575 / 0	-153.5 -153.5 0.40 (1)	4.72 J-C -470 / 0
C-D	-1641 / 0	-153.5 -153.5 0.40 (1)	4.64 C-H -358 / 0
D-E	-1982 / 0	-78.0 -78.0 0.72 (1)	3.98 H-D 0 / 308
K-A	-1588 / 0	0.0 0.0 0.18 (1)	6.51 A-J 0 / 1599
G-E	-1564 / 0	0.0 0.0 0.17 (1)	6.55 H-E 0 / 1649
K-J	0 / 0	-36.4 -36.4 0.36 (4)	10.00
J-I	0 / 1848	-36.4 -36.4 0.57 (4)	10.00
I-H	0 / 1848	-36.4 -36.4 0.57 (4)	10.00
H-G	0 / 0	-36.4 -36.4 0.39 (4)	10.00
G-F	0 / 0	-96.5 -96.5 0.17 (1)	10.00

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	5-5-8	-310	-310	—	FRONT	VERT	TOTAL
D	12-8-8	-334	-334	—	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: CPrimeHlp
LEFT SETBACK = 5-5-8
RIGHT SETBACK = 5-10-8
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL. LOADS BASED ON 55 % OF GSL.

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF 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 (0.62")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.62")
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")

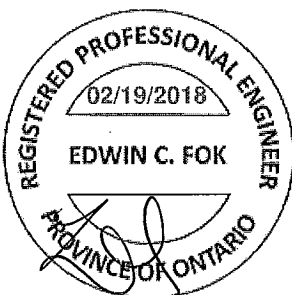
CSI: TC=0.72/1.00 (D-E:1), BC=0.57/1.00 (H-J:4), WB=0.41/1.00 (E-H:1), SSI=0.29/1.00 (B-C:1)

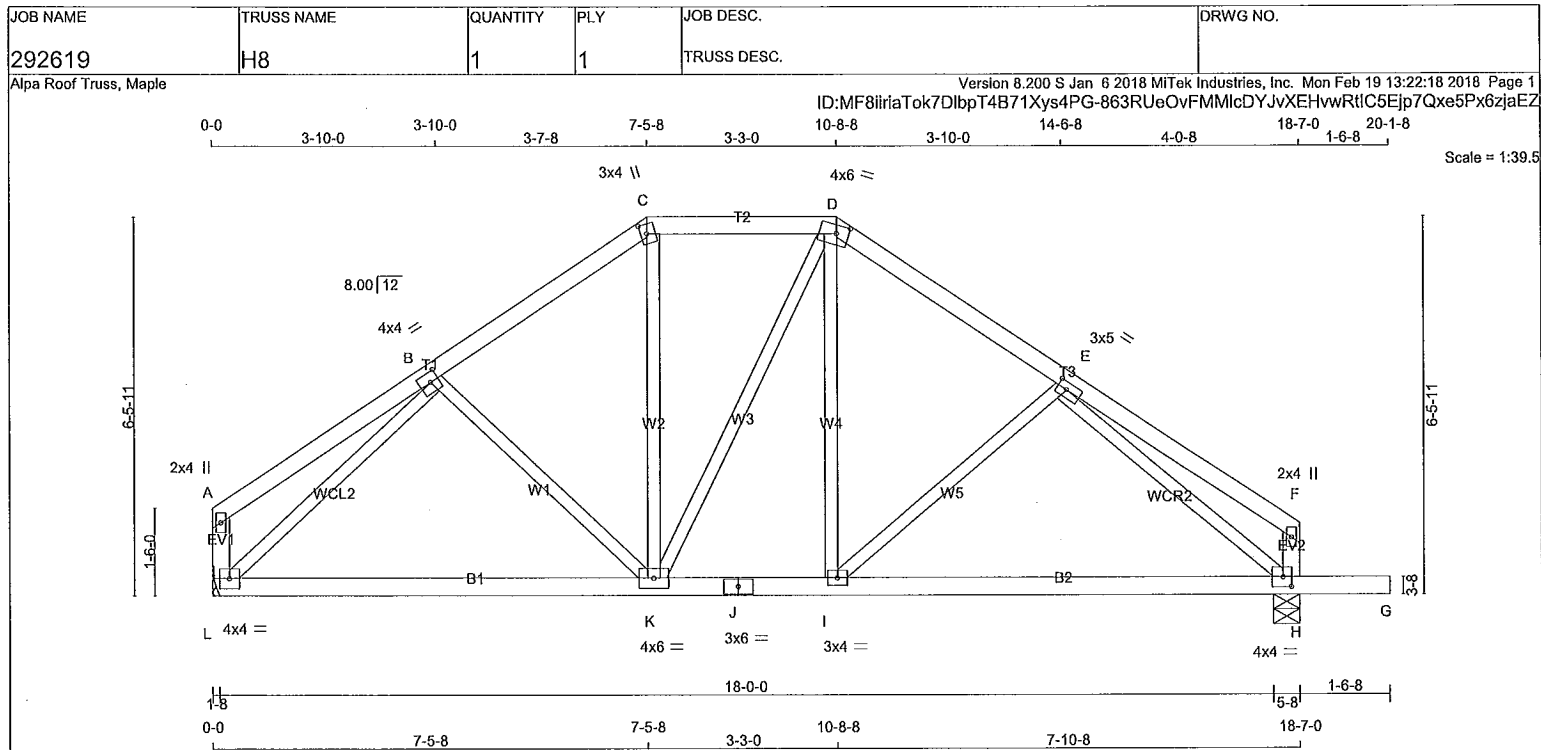
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 1.00

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

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





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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT
DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A - C	MT20	2.0	4.0				
B - D	MT20	4.0	4.0	2.00	1.75		
C - E	MT20	3.0	4.0	2.00	1.25		
D - F	MT20	4.0	6.0	1.75	2.50		
E - G	MT20	3.0	5.0	1.50	2.00		
F - H	MT20	2.0	4.0				
H - I	MT20	4.0	4.0	2.00	1.75		
I - J	MT20	3.0	4.0				
J - K	MT20	3.0	6.0				
K - L	MT20	4.0	6.0				
L - G	MT20	4.0	4.0				

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	RECORD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
L	896	0	896	0
H	1045	0	1045	0

UNFACTORED REACTIONS

1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	639	390 / 0	0 / 0	0 / 0	249 / 0	0 / 0
H	745	455 / 0	0 / 0	0 / 0	290 / 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	MEMB.	MAX. FACTORED	FORCE (LBS)	VERT. LOAD	LC1	MAX	CS1 (LC)	UNBRAC	WEBS	MEMB.	MAX. FACTORED	FORCE (LBS)	MAX	CS1 (LC)
FR-TO									FR-TO					
A-B	0 / 18	-78.0	-78.0	0.17	(1)	10.00			B-K	-107 / 6	0.05	(1)		
B-C	-812 / 0	-78.0	-78.0	0.14	(1)	6.25			K-C	0 / 203	0.05	(1)		
C-D	-663 / 0	-78.0	-78.0	0.11	(1)	6.25			K-D	-27 / 0	0.02	(1)		
D-E	-827 / 0	-78.0	-78.0	0.15	(1)	6.25			I-D	0 / 228	0.05	(1)		
E-F	0 / 19	-78.0	-78.0	0.19	(1)	10.00			I-E	-169 / 0	0.08	(1)		
L-A	-112 / 0	0.0	0.0	0.01	(1)	7.81			L-B	-1034 / 0	0.45	(1)		
H-F	-118 / 0	0.0	0.0	0.01	(1)	7.81			E-H	-1072 / 0	0.49	(1)		
L-K	0 / 737	-18.5	-18.5	0.28	(4)	10.00								
K-J	0 / 675	-18.5	-18.5	0.30	(4)	10.00								
J-I	0 / 675	-18.5	-18.5	0.30	(4)	10.00								
I-H	0 / 799	-18.5	-18.5	0.31	(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 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

ALLOWABLE DEFL.(LL)= L/360 (0.62")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.62")
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")

CS1: TC=0.19/1.00 (E-F:1), BC=0.31/1.00 (H-I:4), WB=0.49/1.00 (E-H:1), SS1=0.12/1.00 (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

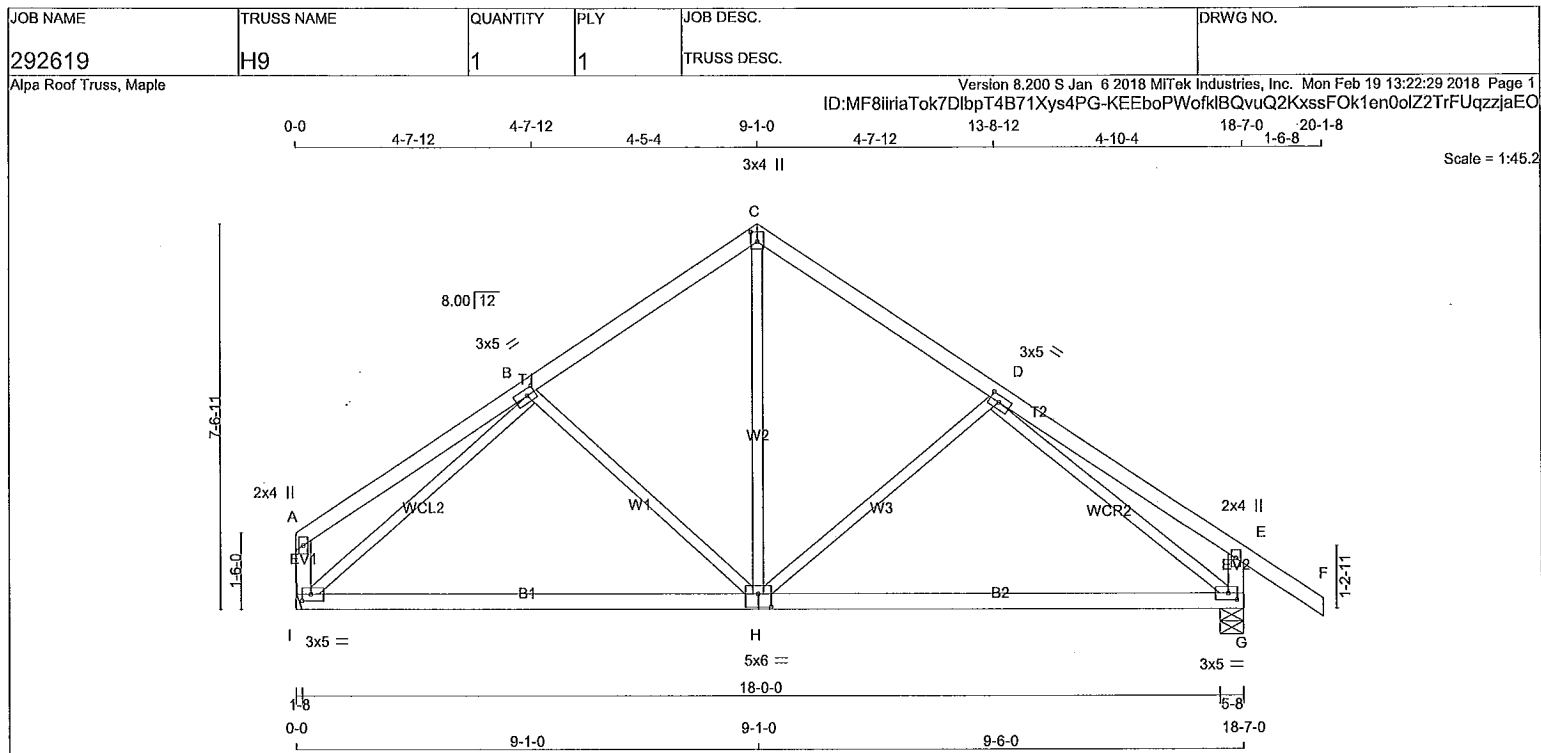
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.44 (J) (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-18024014



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	3.0	5.0	1.50	2.00
C	TTW+p	MT20	3.0	4.0	2.25	1.50
D	TMWW-t	MT20	3.0	5.0	1.50	2.25
E	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	3.0	5.0	1.50	2.00
H	BSWW1-t	MT20	5.0	6.0	3.00	3.00
I	BMVW1-t	MT20	3.0	5.0	1.50	2.00

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQD	
JT	GROSS REACTION	VERT	HORZ	DOWN	HORZ	BRG	BRG	IN-SX	IN-SX
I	896	0	896	0	0			HANGER BY OTHERS	
G	1023	0	1023	0	0	5-8	1-8	MIN. SEAT SIZE: 1-8	

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
I	639	390 / 0	0 / 0	0 / 0	0 / 0	0 / 0	249 / 0	0 / 0
G	727	458 / 0	0 / 0	0 / 0	0 / 0	0 / 0	268 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX (PLF)	CS1 (LC)	UNBRAC LENGTH	MEMB.	FORCE (LBS)
FR-TO		FROM	TO			FR-TO	
A-B	0 / 23	-78.0	-78.0	0.26 (1)	10.00	B-H	-211 / 0
B-C	-714 / 0	-78.0	-78.0	0.20 (1)	6.25	H-C	0 / 489
C-D	-715 / 0	-78.0	-78.0	0.22 (1)	6.25	H-D	-267 / 0
D-E	0 / 24	-78.0	-78.0	0.29 (1)	10.00	I-B	-996 / 0
E-F	0 / 35	-78.0	-78.0	0.15 (1)	10.00	D-G	-1025 / 0
I-A	-135 / 0	0.0	0.0	0.01 (1)	7.81		
G-E	-268 / 0	0.0	0.0	0.03 (1)	7.81		
I-H	0 / 730	-18.5	-18.5	0.51 (4)	10.00		
H-G	0 / 779	-18.5	-18.5	0.55 (4)	10.00		

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2010, NBC 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 (0.62")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.62")
CALCULATED VERT. DEFL.(TL) = L/572 (0.39")

CSI: TC=0.29/1.00 (D-E:1), BC=0.55/1.00 (G-H:4)
WB=0.70/1.00 (D-G:1), SSI=0.15/1.00 (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.

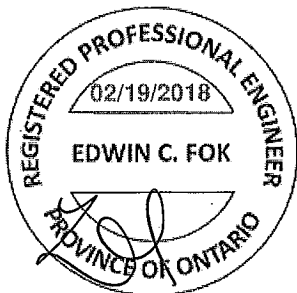
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (I) (INPUT = 0.90)
JSI METAL= 0.28 (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-18024015

JOB NAME

TRUSS NAME

QUANTITY

PLY

JOB DESC.

DRWG NO.

292619

H10A

1

1

TRUSS DESC.

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-BxRq1jtgcE8Wfi_uqAl7hFvneFWxPGRpDc?uSfza2J

1-6-8 0-0 1-11-0

1-6-8 1-11-0

6-6-3

8-5-2

6-4-15

14-10-1

6-4-15

21-2-15

6-4-15

27-7-14

6-6-3

34-2-0 34-11-12

9-12 4-9-0

39-8-12 40-10-0 42-4-8

1-1-4 1-6-8

Scale = 1:75.1

LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

A - C

2x4

DRY

No.2

SPF

C - F

2x6

DRY

1650F 1.5E

SPF

F - I

2x6

DRY

1650F 1.5E

SPF

I - J

2x6

DRY

1650F 1.5E

SPF

J - K

2x6

DRY

No.2

SPF

K - L

2x6

DRY

No.2

SPF

L - N

2x4

DRY

No.2

SPF

Z - B

2x6

DRY

No.2

SPF

O - M

2x6

DRY

No.2

SPF

Z - V

2x6

DRY

2100F 1.8E

SPF

V - T

2x6

DRY

2100F 1.8E

SPF

T - O

2x6

DRY

2100F 1.8E

SPF

ALL WEBS

EXCEPT

C - X

2x4

DRY

1650F 1.5E

SPF

D - W

2x4

DRY

1650F 1.5E

SPF

E - U

2x4

DRY

1650F 1.5E

SPF

U - H

2x4

DRY

1650F 1.5E

SPF

S - J

2x4

DRY

1650F 1.5E

SPF

Q - L

2x4

DRY

No.2

SPF

B - Y

2x4

DRY

No.2

SPF

P - M

2x4

DRY

No.2

SPF

DRY: SEASONED LUMBER.

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

BEARINGS

FACTORED

GROSS REACTION

MAXIMUM FACTORED

RECORD

INPUT

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

Z

4529

0

4529

0

0

5-8

5-8

O

3950

0

3950

0

0

5-8

5-0

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

Z

3227

1984 / 0

0 / 0

0 / 0

0 / 0

1242 / 0

0 / 0

O

2814

1732 / 0

0 / 0

0 / 0

0 / 0

1081 / 0

0 / 0

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

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.92 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.

FORCE

UNBRAC

FR-TO

FROM

TO

LENGTH

FR-TO

FROM

TO

A-B

0 / 52

-78.0

-78.0

0.17 (1)

10.00

Y-C

-985 / 0

0.36 (1)

B-C

-3269 / 0

-78.0

-78.0

0.31 (1)

3.57

C-X

0 / 5632

0.72 (1)

C-D

-6454 / 0

-78.0

-78.0

0.31 (1)

3.79

X-D

-2682 / 0

0.98 (1)

D-E

-9312 / 0

-78.0

-78.0

0.44 (1)

3.13

D-W

0 / 3564

0.46 (1)

E-F

-9691 / 0

-78.0

-78.0

0.46 (1)

3.06

W-E

-772 / 0

0.28 (1)

F-G

-9691 / 0

-78.0

-78.0

0.46 (1)

3.06

E-U

0 / 473

0.06 (1)

G-H

-9691 / 0

-78.0

-78.0

0.49 (1)

3.03

U-G

-469 / 0

0.17 (1)

H-AA

-7983 / 0

-78.0

-78.0

0.45 (1)

3.33

U-H

0 / 2134

0.27 (1)

AA-I

-7983 / 0

-114.5

-114.5

0.45 (1)

3.33

S-H

-1865 / 0

0.68 (1)

I-J

-7983 / 0

-114.5

-114.5

0.45 (1)

3.33

S-J

0 / 4003

0.51 (1)

J-K

-7765 / 0

-114.5

-114.5

0.30 (1)

2.92

R-J

0 / 3404

0.84 (1)

K-L

-5297 / 0

-114.5

-114.5

0.40 (1)

3.42

R-K

-3026 / 0

0.73 (1)

L-M

-1923 / 0

-78.0

-78.0

0.21 (1)

4.61

Q-K

-3676 / 0

0.89 (1)

M-N

0 / 52

-78.0

-78.0

0.17 (1)

10.00

Q-L

0 / 5274

0.93 (1)

Z-B

-4957 / 0

0.0

0.0

0.50 (1)

4.79

P-L

-1981 / 0

0.48 (1)

O-M

-4216 / 0

0.0

0.0

0.42 (1)

5.19

B-Y

0 / 2864

0.51 (1)

P-M

0 / 2704

0.48 (1)

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

B

TMVW-t

MT20

5.0

10.0

1.75

3.50

C

TTWW-h

MT20

6.0

12.0

3.25

2.00

D

TMWW-t

MT20

5.0

6.0

2.00

2.00

E

TMWW-t

MT20

4.0

4.0

F

TS-t

MT20

4.0

9.0

G

TMW-w

MT20

2.0

4.0

H

TMWW-t

MT20

5.0

6.0

2.50

2.75

I

TS-t

MT20

5.0

6.0

J

TTWW-h

MT18HS

9.0

12.0

Edge

4.50

K

TTWW-m

MT20

8.0

12.0

5.00

4.00

L

TTWW-m

MT20

6.0

12.0

3.00

1.25

M

TMVW-t

MT20

4.0

9.0

1.50

2.50

O

BMV1+p

MT20

3.0

6.0

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

REGISTERED PROFESSIONAL ENGINEER

02/19/2018

EDWIN C. FOK

PROVINCE OF ONTARIO

FACTORED CONCENTRATED LOADS (LBS)

JT

LOC.

LC1

MAX

MAX+

FACE

DIR.

TYPE

L

39-8-13

-41

-41

FRONT

VERT

TOTAL

AB

5-1-6

-1032

-1032

FRONT

VERT

TOTAL

AC

14-2-8

-1032

-1032

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

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 1-11-0

RIGHT SETBACK = 1-1-4

END SETBACK = 4-4-0

END WALL WIDTH = 5-8

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.

LOADS APPLIED TO FIRST 12-10-0 OF SPAN MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF 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 (1.36")

CALCULATED VERT. DEFL.(LL) = L/999 (0.47")

ALLOWABLE DEFL.(TL)= L/360 (1.36")

CALCULATED VERT. DEFL.(TL) = L/528 (0.93")

CSI: TC=0.50/1.00 (B-Z:1), RC=0.93/1.00 (U-W:1), WB=0.98/1.00 (D-X:1), SSI=0.66/1.00 (W-X:1)

DOL LUMBER=1.00 NAIL=1.00 L.S BEND=1.00 COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

A-18024016

CONTINUE ON PAGE 2

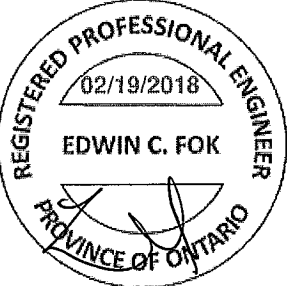
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H10A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple
Version 8.200 S Jan 6 2018 MITok Industries, Inc. Mon Feb 19 13:35:22 2018 Page 2

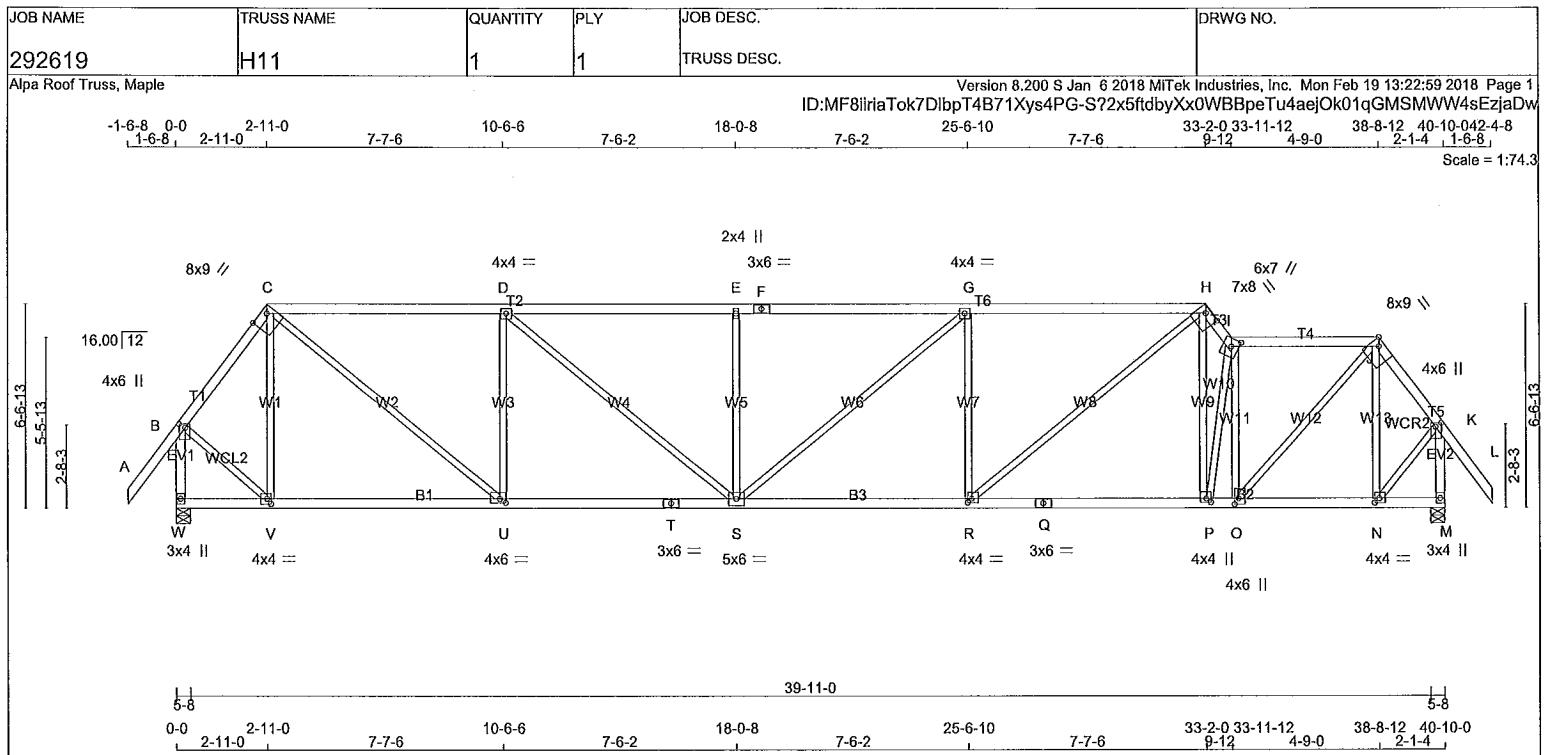
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PLATES (table is in inches) <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>JT</th> <th>TYPE</th> <th>PLATES</th> <th>W</th> <th>LEN</th> <th>Y</th> <th>X</th> </tr> </thead> <tbody> <tr><td>P</td><td>BMWW-t</td><td>MT20</td><td>5.0</td><td>6.0</td><td>2.00</td><td>2.25</td></tr> <tr><td>Q</td><td>BMWW-t</td><td>MT20</td><td>6.0</td><td>7.0</td><td>2.00</td><td>2.25</td></tr> <tr><td>R</td><td>BMWW+t</td><td>MT20</td><td>5.0</td><td>8.0</td><td>3.75</td><td>2.50</td></tr> <tr><td>S</td><td>BMWW-t</td><td>MT20</td><td>5.0</td><td>8.0</td><td>2.25</td><td>2.75</td></tr> <tr><td>T</td><td>BS-t</td><td>MT18HS</td><td>5.0</td><td>12.0</td><td></td><td></td></tr> <tr><td>U</td><td>BMWWWW-t</td><td>MT20</td><td>5.0</td><td>8.0</td><td>2.50</td><td>2.25</td></tr> <tr><td>V</td><td>BS-t</td><td>MT18HS</td><td>6.0</td><td>14.0</td><td></td><td></td></tr> <tr><td>W</td><td>BMWW-t</td><td>MT20</td><td>6.0</td><td>7.0</td><td>3.00</td><td>3.00</td></tr> <tr><td>X</td><td>BMWW-t</td><td>MT20</td><td>6.0</td><td>7.0</td><td>2.00</td><td>1.75</td></tr> <tr><td>Y</td><td>BMWW+t</td><td>MT20</td><td>4.0</td><td>9.0</td><td>4.50</td><td>1.75</td></tr> <tr><td>Z</td><td>BMV1+t</td><td>MT20</td><td>6.0</td><td>9.0</td><td>5.50</td><td></td></tr> </tbody> </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) 40.7 lbs FACTORED DOWN AT 39-8-13 ON TOP CHORD, AND 1032.3 lbs FACTORED DOWN AT 5-1-6, 1032.3 lbs FACTORED DOWN AT 14-2-8, AND 1209.0 lbs FACTORED DOWN AT 19-7-6, AND 427.8 lbs FACTORED DOWN AT 28-0-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.	JT	TYPE	PLATES	W	LEN	Y	X	P	BMWW-t	MT20	5.0	6.0	2.00	2.25	Q	BMWW-t	MT20	6.0	7.0	2.00	2.25	R	BMWW+t	MT20	5.0	8.0	3.75	2.50	S	BMWW-t	MT20	5.0	8.0	2.25	2.75	T	BS-t	MT18HS	5.0	12.0			U	BMWWWW-t	MT20	5.0	8.0	2.50	2.25	V	BS-t	MT18HS	6.0	14.0			W	BMWW-t	MT20	6.0	7.0	3.00	3.00	X	BMWW-t	MT20	6.0	7.0	2.00	1.75	Y	BMWW+t	MT20	4.0	9.0	4.50	1.75	Z	BMV1+t	MT20	6.0	9.0	5.50		FACTORED CONCENTRATED LOADS (LBS) <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <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> </thead> <tbody> <tr> <td>AD</td> <td>19-7-6</td> <td>-1209</td> <td>-1209</td> <td>---</td> <td>FRONT</td> <td>VERT</td> <td>TOTAL</td> </tr> <tr> <td>AE</td> <td>28-0-8</td> <td>-428</td> <td>-428</td> <td>---</td> <td>FRONT</td> <td>VERT</td> <td>TOTAL</td> </tr> </tbody> </table>	JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	AD	19-7-6	-1209	-1209	---	FRONT	VERT	TOTAL	AE	28-0-8	-428	-428	---	FRONT	VERT	TOTAL	TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>PLATE</th> <th>GRIP(DRY)</th> <th>SHEAR</th> <th>SECTION</th> </tr> <tr> <th></th> <th>(PSI)</th> <th>(PLI)</th> <th>(PLI)</th> </tr> <tr> <th></th> <th>MAX</th> <th>MIN</th> <th>MAX</th> </tr> </thead> <tbody> <tr> <td>MT20</td> <td>618</td> <td>354</td> <td>1687</td> </tr> <tr> <td>MT18HS</td> <td>511</td> <td>354</td> <td>1382</td> </tr> </tbody> </table> PLATE PLACEMENT TOL. = 0.250 Inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.89 (S) (INPUT = 0.90) JSI METAL= 0.97 (X) (INPUT = 1.00)	PLATE	GRIP(DRY)	SHEAR	SECTION		(PSI)	(PLI)	(PLI)		MAX	MIN	MAX	MT20	618	354	1687	MT18HS	511	354	1382
JT	TYPE	PLATES	W	LEN	Y	X																																																																																																																												
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	MAX	MIN	MAX																																																																																																																															
MT20	618	354	1687																																																																																																																															
MT18HS	511	354	1382																																																																																																																															

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-18024016(2)



LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4 DRY	No.2	SPF
C - F	2x4 DRY	1650F 1.5E	SPF
F - H	2x4 DRY	1650F 1.5E	SPF
H - I	2x4 DRY	No.2	SPF
I - J	2x4 DRY	No.2	SPF
J - L	2x4 DRY	No.2	SPF
W - B	2x4 DRY	No.2	SPF
M - K	2x4 DRY	No.2	SPF
W - T	2x4 DRY	No.2	SPF
T - Q	2x4 DRY	No.2	SPF
Q - M	2x4 DRY	No.2	SPF
ALL WEBS EXCEPT	2x3 DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	1.50	2.25
C	TTWW-h	MT20	8.0	9.0	2.00	6.25
D	TMVW-t	MT20	4.0	4.0		
E	TMVW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMVW-t	MT20	4.0	4.0		
H	TTWW-h	MT20	7.0	8.0	1.75	5.00
I	TTWW+m	MT20	6.0	7.0	3.00	2.75
J	TTWW-h	MT20	8.0	9.0	Edge	2.75
K	TMVW+p	MT20	4.0	6.0	1.50	2.25
M	BMV1+p	MT20	3.0	4.0		
N	BMVW-t	MT20	4.0	4.0	1.75	1.75
O	BMVW+t	MT20	4.0	6.0	2.25	1.50
P	BMVW+t	MT20	4.0	4.0	1.50	1.75
Q	BS-t	MT20	3.0	6.0		
R	BMVW-t	MT20	4.0	4.0	1.50	1.50
S	BMVW-t	MT20	5.0	6.0		
T	BS-t	MT20	3.0	6.0		
U	BMVW-t	MT20	4.0	6.0	1.50	2.25
V	BMVW-t	MT20	4.0	4.0	2.00	1.50
W	BMV1+p	MT20	3.0	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	2096	2096	0	5-8
W	2102	2102	0	5-8

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
W	1492	925 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
M	1496	928 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.64 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	V-C	-545 / 0	0.39 (1)
B-C	-1473 / 0	-78.0	-78.0 0.15 (1)	5.26	C-U	0 / 2154	0.48 (1)
C-D	-2535 / 0	-78.0	-78.0 0.77 (1)	4.06	U-D	-1222 / 0	0.86 (1)
D-E	-3212 / 0	-78.0	-78.0 0.87 (1)	3.64	D-S	0 / 881	0.20 (1)
E-F	-3212 / 0	-78.0	-78.0 0.86 (1)	3.65	S-E	-541 / 0	0.38 (1)
F-G	-3212 / 0	-78.0	-78.0 0.86 (1)	3.65	S-G	0 / 173	0.04 (1)
G-H	-3078 / 0	-78.0	-78.0 0.85 (1)	3.72	R-G	-765 / 0	0.54 (1)
H-I	-3307 / 0	-78.0	-78.0 0.12 (1)	3.80	R-H	0 / 1440	0.32 (1)
I-J	-2133 / 0	-78.0	-78.0 0.39 (1)	4.25	P-H	0 / 1448	0.33 (1)
J-K	-1336 / 0	-78.0	-78.0 0.17 (1)	5.41	P-I	-1293 / 0	0.61 (1)
K-L	0 / 52	-78.0	-78.0 0.15 (1)	10.00	O-I	-1583 / 0	0.71 (1)
W-B	-2093 / 0	0.0	0.0 0.30 (1)	5.85	O-J	0 / 2058	0.46 (1)
M-K	-2103 / 0	0.0	0.0 0.30 (1)	5.84	N-J	-701 / 0	0.32 (1)
					B-V	0 / 1101	0.25 (1)
					N-K	0 / 1108	0.25 (1)
W-V	0 / 0	-18.5	-18.5 0.16 (4)	10.00			
V-U	0 / 868	-18.5	-18.5 0.29 (4)	10.00			
U-T	0 / 2536	-18.5	-18.5 0.52 (1)	10.00			
T-S	0 / 2536	-18.5	-18.5 0.52 (1)	10.00			
S-R	0 / 3079	-18.5	-18.5 0.62 (1)	10.00			
R-Q	0 / 1964	-18.5	-18.5 0.44 (1)	10.00			
Q-P	0 / 1964	-18.5	-18.5 0.44 (1)	10.00			
P-O	0 / 2165	-18.5	-18.5 0.43 (1)	10.00			
O-N	0 / 754	-18.5	-18.5 0.19 (1)	10.00			
N-M	0 / 0	-18.5	-18.5 0.08 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 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 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.20")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.42")

CSI: TC=0.87/1.00 (D-E:1), BC=0.62/1.00 (R-S:1), WB=0.86/1.00 (D-U:1), SSI=0.28/1.00 (C-D:1)

DOL LUMBER=1.00 NAIL=1.00 L.S BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

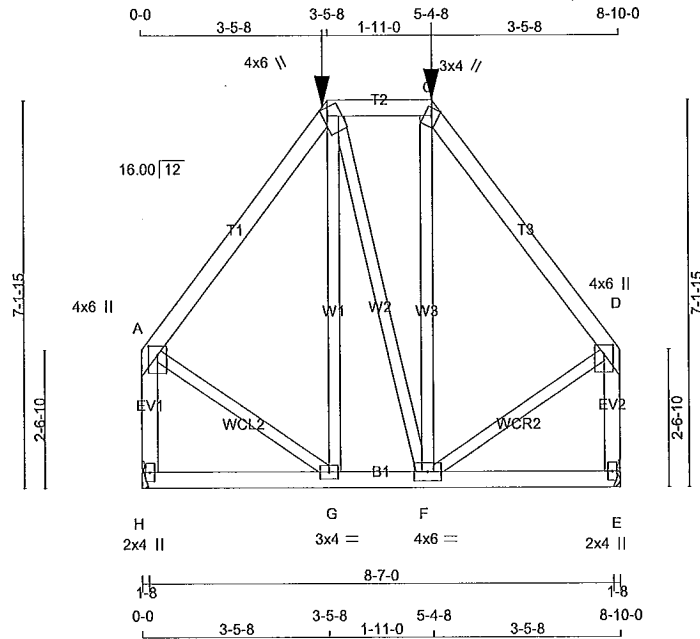
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.80 (T) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H15	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 54 lb

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVV+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	4.0	6.0	1.75	1.00
C	TTW+m	MT20	3.0	4.0	Edge	
D	TMVV+p	MT20	4.0	6.0	2.00	2.00
E	BMV1+p	MT20	2.0	4.0		
F	BMWW-t	MT20	4.0	6.0		
G	BMWW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 106.7 lbs FACTORED DOWN AT 5-4-8, AND 106.7 lbs FACTORED DOWN AT 3-5-8 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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
H	606	0	606	0	0	HANGER BY OTHERS
E	606	0	606	0	0	MIN. SEAT SIZE: 1-8 HANGER BY OTHERS MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	433	262 / 0	0 / 0	0 / 0	0 / 0	171 / 0	0 / 0
E	433	262 / 0	0 / 0	0 / 0	0 / 0	171 / 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)

FR-TO	CHORDS		FACTORED		W E B S	
	MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (LC)	MAX. FORCE (LBS)	MAX. CSI (LC)
A-B	-369 / 0	-78.0	-78.0	0.18 (1)	6.25	G-B -53 / 36 0.05 (1)
B-C	-219 / 0	-114.5	-114.5	0.08 (1)	6.25	B-F -2 / 1 0.00 (1)
C-D	-369 / 0	-78.0	-78.0	0.18 (1)	6.25	F-C -55 / 38 0.05 (1)
H-A	-565 / 0	0.0	0.0	0.08 (1)	7.81	A-G 0 / 257 0.06 (1)
E-D	-564 / 0	0.0	0.0	0.08 (1)	7.81	F-D 0 / 257 0.06 (1)
H-G	0 / 0	-27.2	-27.2	0.08 (4)	10.00	
G-F	0 / 219	-27.2	-27.2	0.09 (4)	10.00	
F-E	0 / 0	-27.2	-27.2	0.08 (4)	10.00	

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	3-5-8	-107	-107	--	FRONT	VERT	TOTAL
C	5-4-8	-107	-107	--	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
SIDE SETBACK = 3-5-8
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, 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 (0.29")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.29")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.18/1.00 (A-B:1), BC=0.09/1.00 (F-G:4), WB=0.08/1.00 (A-G:1), SSI=0.09/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.65 (C) (INPUT = 0.90)
JSI METAL= 0.15 (A) (INPUT = 1.00)

A-18024018

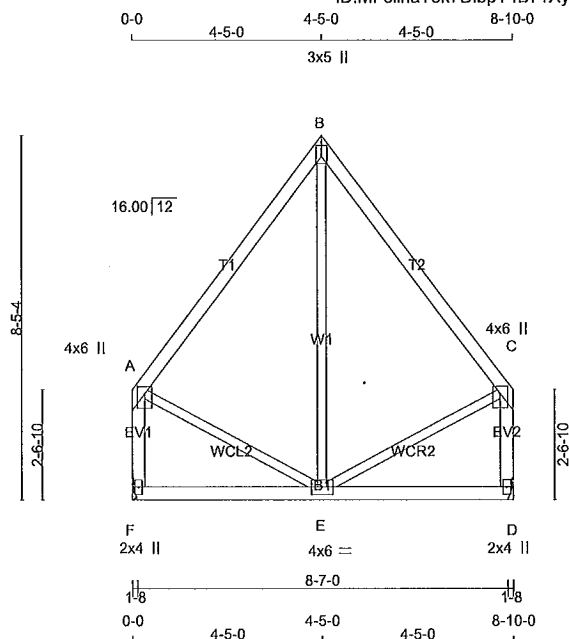
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H16	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 3 X 46 = 139 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTW+p	MT20	3.0	5.0	2.00	Edge
C	TMVW+p	MT20	4.0	6.0	2.00	2.00
D	BMV1+p	MT20	2.0	4.0		
E	BMVWW-t	MT20	4.0	6.0		
F	BMV1+p	MT20	2.0	4.0		

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
F	426	0	426	0	0	HANGER BY OTHERS
D	426	0	426	0	0	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
F	304	185 / 0	0 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
D	304	185 / 0	0 / 0	0 / 0	0 / 0	0 / 0	118 / 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)

FR-TO	CHORDS			WEBS		
	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MAX. FACTORED MEMB. FORCE (LBS)	MAX. FACTORED CSI (LC)	MAX. FACTORED CSI (LC)
A-B	-204 / 0	-78.0	-78.0 0.20 (1)	6.25	E-B	-19 / 63
B-C	-204 / 0	-78.0	-78.0 0.20 (1)	6.25	A-E	0 / 136
F-A	-395 / 0	0.0	0.0 0.05 (1)	7.81	E-C	0 / 136
D-C	-395 / 0	0.0	0.0 0.05 (1)	7.81		
F-E	0 / 0	-18.5	-18.5 0.10 (4)	10.00		
E-D	0 / 0	-18.5	-18.5 0.10 (4)	10.00		

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.29")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.29")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.20/1.00 (A-B:1) , BC=0.10/1.00 (D-E:4) , WB=0.03/1.00 (C-E:1) , SSI=0.08/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) 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= 0.23 (C) (INPUT = 0.90)
JSI METAL= 0.11 (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



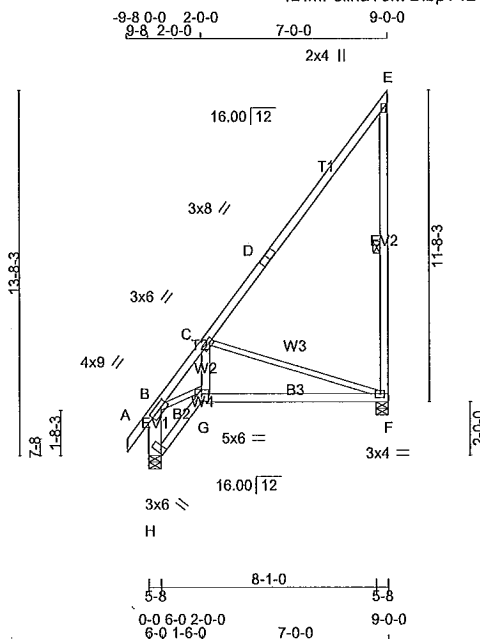
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H17T	4	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:86.4

TOTAL WEIGHT = 4 X 55 = 221 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	4.0	9.0	2.00	3.00
C	TMWW-I	MT20	3.0	6.0	1.50	1.75
D	TS-I	MT20	3.0	8.0		
E	TMV+p	MT20	2.0	4.0		
F	BMVW1-I	MT20	3.0	4.0	1.50	1.75
G	BBVW-I	MT20	5.0	6.0	3.00	3.00
H	BVM1-I	MT20	3.0	6.0	Edge	

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
F	610	0	610	0	5-8	1-8
H	681	0	681	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
F	435	266 / 0	0 / 0	0 / 0	0 / 0	170 / 0	0 / 0
H	484	304 / 0	0 / 0	0 / 0	0 / 0	180 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, H
BEARING SIZE FACTOR = 1.15 AT JNT(S) 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.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FORCE (LBS)	FACTORED		MEMB.	FORCE (LBS)	FACTORED	
		VERT. LOAD	LC1 MAX			VERT. LOAD	LC1 MAX
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 28	-78.0	-78.0 0.03 (1)	10.00	G-C	0 / 398	0.07 (1)
B-C	-1030 / 0	-109.6	-109.6 0.50 (1)	6.25	C-F	-734 / 0	0.70 (1)
C-D	-57 / 0	-109.6	-109.6 0.49 (1)	6.25	B-G	0 / 778	0.19 (1)
D-E	-57 / 0	-109.6	-109.6 0.49 (1)	6.25			
F-E	-304 / 0	0.0	0.0 0.22 (1)	6.25			
H-B	-655 / 0	0.0	0.0 0.05 (1)	7.81			
H-G	0 / 0	-26.0	-26.0 0.03 (4)	10.00			
G-F	0 / 700	-26.0	-26.0 0.47 (4)	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

GIRDER TYPE: CPrimeHlp
SIDE SETBACK = 0-0
END SETBACK = 3-7-8
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 (0.30")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.30")
CALCULATED VERT. DEFL.(TL) = L/657 (0.16")

CSI: TC=0.50/1.00 (B-C:1), 8C=0.47/1.00 (F-G:4), WB=0.70/1.00 (C-F:1), SSI=0.23/1.00 (C-E: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= 0.87 (F) (INPUT = 0.90)
JSI METAL= 0.64 (D) (INPUT = 1.00)

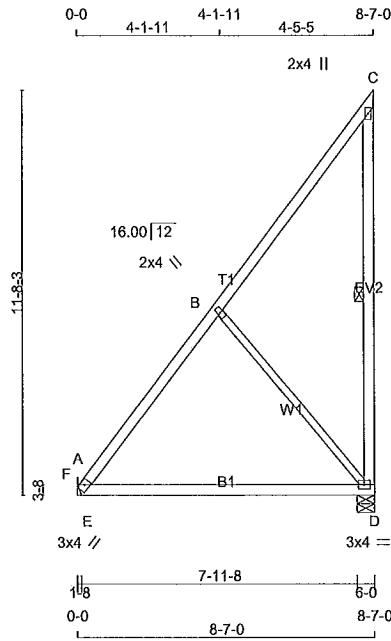
A-18024020



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H18	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-3loeYe8MEcQmosFu3dozUIHoKArNM272DtBpp8zja9j



Scale = 1:66.6

TOTAL WEIGHT = 2 X 44 = 88 lb

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TBM1-h	MT20	3.0	4.0	1.50	1.75
B	TMV+w	MT20	2.0	4.0		
C	TMV+p	MT20	2.0	4.0		
D	BMVW1-l	MT20	3.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
A	580	0	580	0	0	0
D	580	0	580	0	0	0

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
A	413	252 / 0	0 / 0	0 / 0	0 / 0	161 / 0	0 / 0
D	413	252 / 0	0 / 0	0 / 0	0 / 0	161 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		MAX. UNBRACED LENGTH	FR-TO	WEBS		MAX. UNBRACED LENGTH	FR-TO
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (LBS)	LC1 (PLF)	MAX. CSI (LC)			MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
A-F	-738 / 0	-109.6	-109.6	0.38 (4)	6.25	B-D	-386 / 0	0.34 (1)	6.25	E-F
F-B	-332 / 0	-109.6	-109.6	0.43 (1)	6.25		0 / 583	0.00 (1)	6.25	
B-C	-49 / 0	-109.6	-109.6	0.42 (1)	6.25				6.25	
D-C	-189 / 0	0.0	0.0	0.13 (1)	6.25				6.25	
A-E	0 / 254	-26.0	-26.0	0.30 (4)	10.00				10.00	
E-D	0 / 254	-26.0	-26.0	0.46 (4)	10.00				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

GIRDER TYPE: CPrimeHlp
SIDE SETBACK = 0-0
END SETBACK = 3-7-8
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 (0.28")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/394 (0.26")

CSI: TC=0.43/1.00 (B-F:1), BC=0.46/1.00 (D-E:4), WB=0.34/1.00 (B-D:1), SSI=0.59/1.00 (A-E:4)

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.

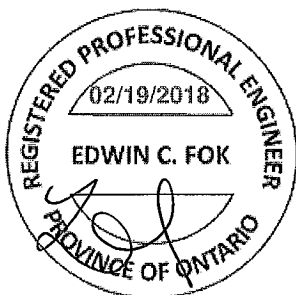
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.48 (D) (INPUT = 0.90)
JSI METAL= 0.14 (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

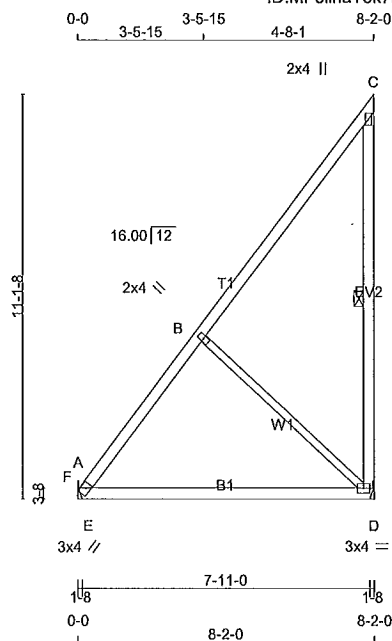


A-18024021

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H18S	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-7eClimJmiDJe59umRHZVaTPPrD0_Mt8GgJ6rmzja9U



Scale: 3/16"=1'

TOTAL WEIGHT = 2 X 41 = 83 lb

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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TBM1-h	MT20	3.0	4.0	1.50	1.75
B	TMW+w	MT20	2.0	4.0		
C	TMV+p	MT20	2.0	4.0		
D	BMVW1-t	MT20	3.0	4.0		

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
A	392	0	392	0	0	HANGER BY OTHERS	MIN. SEAT SIZE: 1-8
D	392	0	392	0	0	HANGER BY OTHERS	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
A	279	171 / 0	0 / 0	0 / 0	0 / 0	109 / 0	0 / 0
D	279	171 / 0	0 / 0	0 / 0	0 / 0	109 / 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.

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

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. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO	FR-TO	
A-F	-570 / 0	-78.0	-78.0 0.18 (4)	B-D	-270 / 0
F-B	-252 / 0	-78.0	-78.0 0.21 (1)	E-F	0 / 411
B-C	-33 / 0	-78.0	-78.0 0.22 (1)		
D-C	-146 / 0	0.0	0.0 0.09 (1)		
A-E	0 / 200	-18.5	-18.5 0.20 (4)		
E-D	0 / 200	-18.5	-18.5 0.26 (4)		

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 088-09, 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 (0.27")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = L/738 (0.13")

CSI: TC=0.22/1.00 (B-C:1) , 8C=0.26/1.00 (D-E:4) ,
WB=0.19/1.00 (B-D:1) , SSI=0.38/1.00 (A-E:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

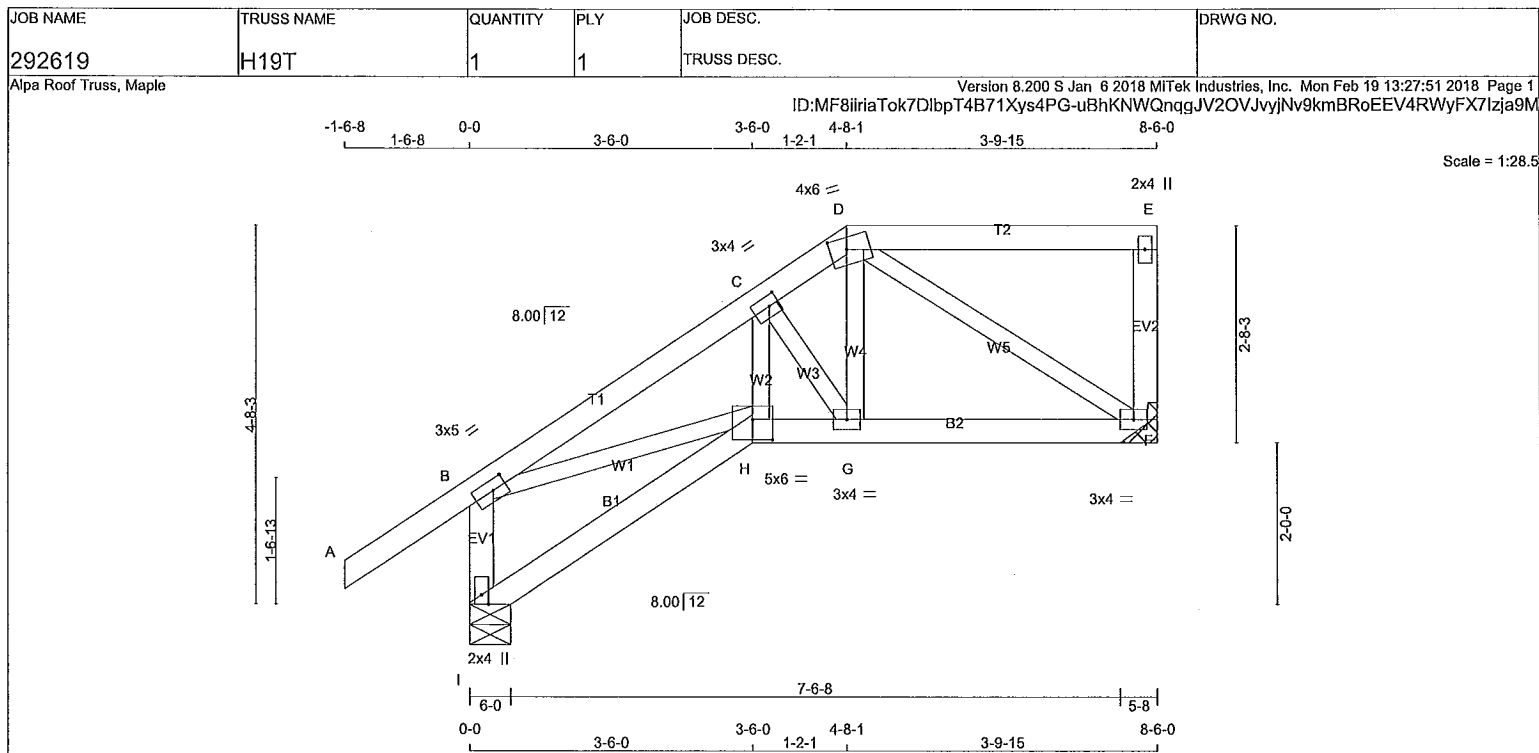
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.35 (D) (INPUT = 0.90)
JSI METAL= 0.11 (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-18024022



TOTAL WEIGHT = 38 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-t	MT20	3.0	5.0	1.50 2.00
C	TMWW-t	MT20	3.0	4.0	1.50 1.50
D	TTWW-m	MT20	4.0	6.0	1.75 2.50
E	TMV+p	MT20	2.0	4.0	
F	BMVW1-t	MT20	3.0	4.0	
G	BMWW-t	MT20	3.0	4.0	
H	BBWW-t	MT20	5.0	6.0	3.00 3.00
I	BMV1+p	MT20	2.0	4.0	Edge

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

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

FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	JT	GROSS REACTION	BRG	BRG	JT	GROSS REACTION
I	537 0	I	537 0	6-0	1-8	I	537 0
F	410 0	F	410 0	HANGER BY OTHERS		F	410 0
				MIN. SEAT SIZE: 1-8			

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS
I	380	247 / 0	I	380	247 / 0
F	292	178 / 0	F	292	178 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 (LC)
FR-TO		FROM TO		FR-TO		FROM TO	
I-B	-504 / 0	0.0	0.06 (1)	B-H	0 / 590	0.13 (1)	
A-B	0 / 35	-78.0	-78.0 0.15 (1)	H-C	0 / 165	0.04 (1)	
B-C	-682 / 0	-78.0	-78.0 0.12 (1)	C-G	-363 / 0	0.06 (1)	
C-D	-470 / 0	-78.0	-78.0 0.08 (1)	G-D	0 / 353	0.08 (1)	
D-E	0 / 0	-78.0	-78.0 0.19 (1)	D-F	-437 / 0	0.13 (1)	
F-E	-149 / 0	0.0	0.02 (1)				
I-H	0 / 0	-18.5	-18.5 0.07 (4)				
H-G	0 / 566	-18.5	-18.5 0.11 (1)				
G-F	0 / 372	-18.5	-18.5 0.09 (1)				

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

ALLOWABLE DEFL.(LL)= L/360 (0.28")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL)= L/999 (0.02")

CSI: TC=0.19/1.00 (D-E:1), BC=0.11/1.00 (G-H:1), WB=0.13/1.00 (B-H:1), SSI=0.12/1.00 (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.

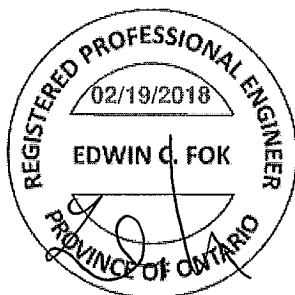
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (D) (INPUT = 0.90)
JSI METAL= 0.25 (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

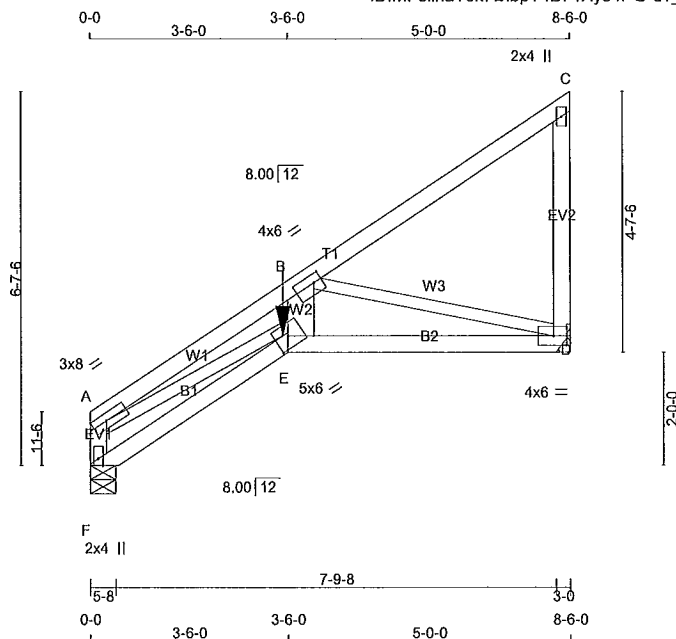


A-18024023

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H20A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:40.8

TOTAL WEIGHT = 2 X 36 = 72 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
F - A	2x4 DRY	No.2	SPF	
A - C	2x4 DRY	No.2	SPF	
D - E	2x4 DRY	No.2	SPF	
F - C	2x4 DRY	No.2	SPF	
E - D	2x4 DRY	No.2	SPF	
ALL WEBS	2x3 DRY	No.2	SPF	
EXCEPT				
E - B	2x6 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		
F - A	12	TOP
A - C	12	TOP
C - D	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
F - E	12	SIDE(61.0)
E - D	12	SIDE(79.4)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	
E - B	5	SIDE(71.8)

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED BRG		INPUT IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
F	984	0	984	0	5-8	1-8
D	1209	0	1209	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM.LIVE		WIND	DEAD	SOIL
	COMBINED	SNOW	COMBINED	SNOW	COMBINED	SNOW	COMBINED	SNOW			
F	702	428 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	273 / 0	0 / 0	0 / 0
D	882	526 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	336 / 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 = 4.82 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		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT.	LOAD (PLF)	LC1	MAX	MEMB.	FORCE (LBS)	VERT.	LOAD (PLF)
FR-TO		FROM	TO			FR-TO		FROM	TO
F - A	-952 / 0	0.0	0.0	0.05 (1)	7.81	A - E	0 / 3271	0.40 (1)	
A - B	-3646 / 0	-78.0	-78.0	0.14 (1)	4.82	E - B	0 / 2318	0.15 (1)	
B - C	-6 / 1	-78.0	-78.0	0.15 (1)	10.00	B - D	-2634 / 0	0.49 (1)	
D - C	-176 / 0	0.0	0.0	0.03 (1)	7.81				
F - E	0 / 0	-18.5	-18.5	0.04 (4)	10.00				
E - D	0 / 2566	-177.3	-177.3	0.64 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
E	3-6-0	-579	-579	—	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

GIRDER TYPE: CSldGirder
START DISTANCE = 3-7-8
START SPAN CARRIED = 8-7-0
END DISTANCE = 8-6-0
END SPAN CARRIED = 8-7-0
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 (0.28")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/514 (0.20")

CSI: TC=0.15/1.00 (B-C:1), BC=0.64/1.00 (D-E:1), WB=0.49/1.00 (B-D:1), SSI=0.19/1.00 (D-E: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	1657	788	1987	1656

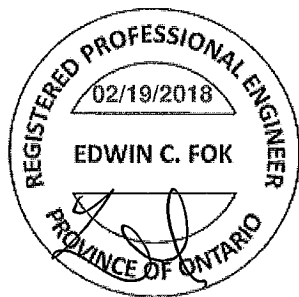
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

A-18024024

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.
292619	H20A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-d? 5SdzIRJZC1Ds5zYXdeMaqLRh8zmQQAW?s9Kzia7L

PLATES (table is in inches)

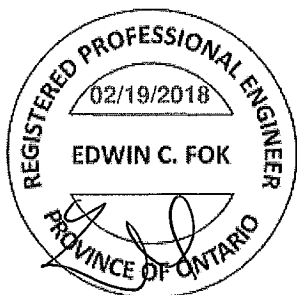
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	8.0		Edge
B	TMWW-t	MT20	4.0	6.0	1.75	1.75
C	TMV+p	MT20	2.0	4.0		
D	BMVW1-t	MT20	4.0	6.0	2.00	2.75
E	BBWW-h	MT20	5.0	6.0	2.50	2.75
F	BMV1+p	MT20	2.0	4.0		Edge

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

HANGERS NOTES

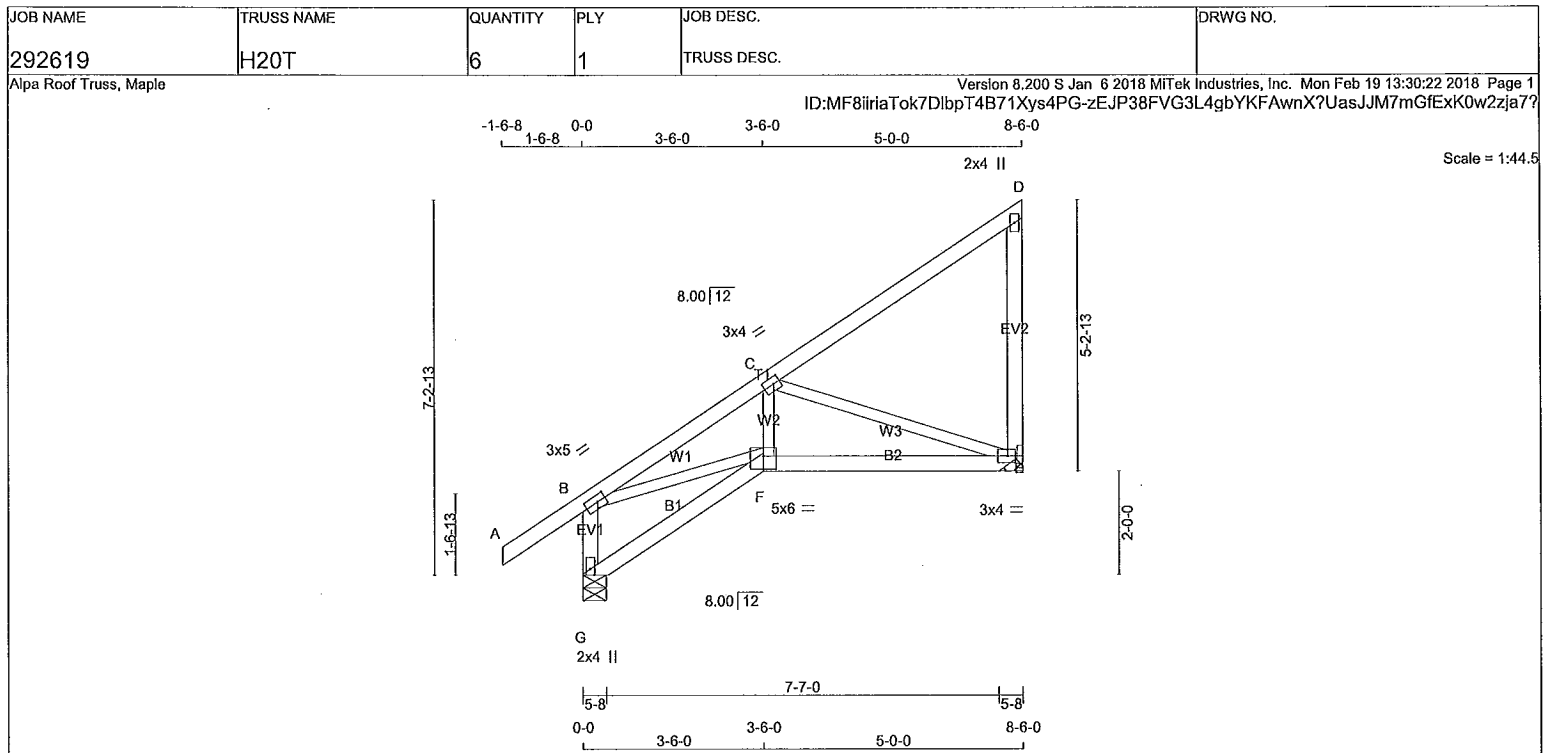
- 1) SPECIAL HANGER(S) OR CONNECTION(S)
REQUIRED TO SUPPORT CONCENTRATED
LOAD(S) 579.3 lbs FACTORED DOWN AT 3-6-0
ON BOTTOM CHORD. DESIGN FOR
UNSPECIFIED CONNECTION(S) IS DELEGATED
TO THE BUILDING DESIGNER.

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



JSI GRIP= 0.87 (B) (INPUT = 0.90)
JSI METAL= 0.51 (E) (INPUT = 1.00)

A-18024024(2)



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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	3.0	5.0	1.50	2.00
C	TMWW-I	MT20	3.0	4.0	1.50	1.50
D	TMV+p	MT20	2.0	4.0		
E	BMVW-I	MT20	3.0	4.0	1.50	1.75
F	BBWW-I	MT20	5.0	6.0	3.00	3.00
G	BMV1+p	MT20	2.0	4.0	Edge	

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

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT	REQRD
GROSS REACTION		GROSS REACTION		GROSS REACTION		BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
G	537	0	537	0	0	5-8	1-8
E	410	0	410	0	0	HANGER BY OTHERS	
MIN. SEAT SIZE: 1-8							

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
G	380	247 / 0	0 / 0	133 / 0	0 / 0
E	292	178 / 0	0 / 0	114 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MEMB.	FORCE (LBS)	MAX	CS1 (LC)
FR-TO		FROM TO		FR-TO			
G-B	-504 / 0	0.0	0.0 0.06 (1)	7.81	B-F	0 / 651	0.15 (1)
A-B	0 / 35	-78.0	-78.0 0.15 (1)	10.00	F-C	0 / 220	0.05 (1)
B-C	-738 / 0	-78.0	-78.0 0.18 (1)	6.25	C-E	-656 / 0	0.27 (1)
C-D	-19 / 0	-78.0	-78.0 0.21 (1)	6.25			
E-D	-156 / 0	0.0	0.0 0.07 (1)	7.81			
G-F	0 / 0	-18.5	-18.5 0.07 (4)	10.00			
F-E	0 / 622	-18.5	-18.5 0.19 (4)	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



TOTAL WEIGHT = 6 X 39 = 234 lb

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 8.0 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.I. 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 (0.04")

CSI: TC=0.21/1.00 (C-D:1), BC=0.19/1.00 (E-F:4), WB=0.27/1.00 (C-E:1), SSI=0.15/1.00 (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.

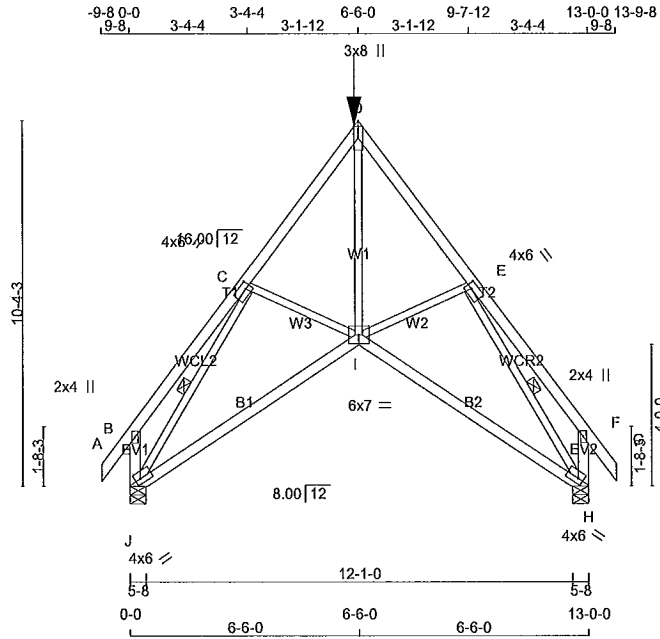
JSI GRIP= 0.78 (E) (INPUT = 0.90)
JSI METAL= 0.27 (B) (INPUT = 1.00)

A-18024025

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H21T	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:85.3

TOTAL WEIGHT = 3 X 70 = 210 lb

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

ALL WEBS	2x3	DRY	No.2	SPF
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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-l	MT20	4.0	6.0	2.00	1.75
D	TTW+p	MT20	3.0	8.0	3.75	Edge
E	TMWW-l	MT20	4.0	6.0	2.00	1.75
F	TMV+p	MT20	2.0	4.0		
H	BMVW1-l	MT20	4.0	6.0	1.75	1.75
I	BBWWV-p	MT20	6.0	7.0		
J	BMVW1-l	MT20	4.0	6.0	1.75	1.75

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 1373.1 lbs FACTORED DOWN AT 6-6-0 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

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

BEARINGS

JT	VERT	HORZ	MAXIMUM FACTORED GROSS REACTION	FACTORED GROSS REACTION	INPUT BRG	REORD BRG
JT	1588	0	1588	0	5-8	1-12
H	1588	0	1588	0	5-8	1-12

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	1148	610 / 0	0 / 0	0 / 0	0 / 0	538 / 0	0 / 0
H	1148	610 / 0	0 / 0	0 / 0	0 / 0	538 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	FR-TO	MAX. FACTORED FORCE (LBS)	CHORDS	MAX. FACTORED VERT. LOAD (PLF)	FACTORED VERT. LOAD LC1 MAX (PLF)	MAX. FACTORED UNBRACED LENGTH (LC)	MEMB.	FR-TO	MAX. FACTORED FORCE (LBS)	WEBS	MAX. FACTORED UNBRACED LENGTH (LC)
A-B	0 / 28	-78.0	-78.0	0.05 (1)	10.00	10.00	I-D	0 / 1629	0.40 (1)		
B-C	0 / 15	-78.0	-78.0	0.11 (1)	10.00	10.00	I-E	0 / 147	0.04 (4)		
C-D	-2027 / 0	-78.0	-78.0	0.20 (1)	4.57	4.57	C-I	0 / 147	0.04 (4)		
D-E	-2027 / 0	-78.0	-78.0	0.20 (1)	4.57	4.57	J-C	-2239 / 0	0.68 (1)		
E-F	0 / 15	-78.0	-78.0	0.11 (1)	10.00	10.00	E-H	-2239 / 0	0.68 (1)		
F-G	0 / 28	-78.0	-78.0	0.05 (1)	10.00	10.00					
J-B	-178 / 0	0.0	0.0	0.02 (1)	7.81	7.81					
H-F	-178 / 0	0.0	0.0	0.02 (1)	7.81	7.81					
J-I	0 / 1291	-49.7	-49.7	0.83 (4)	10.00	10.00					
I-H	0 / 1291	-49.7	-49.7	0.83 (4)	10.00	10.00					

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
D	6-6-0	-1373	-1373	—	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

(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 (0.06")
ALLOWABLE DEFL.(TL) = L/360 (0.43")
CALCULATED VERT. DEFL.(TL) = L/479 (0.33")

CSI: TC=0.20/1.00 (D-E:1), BC=0.83/1.00 (I-J:4), WB=0.68/1.00 (E-H:1), SSI=0.20/1.00 (I-J:4)

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.

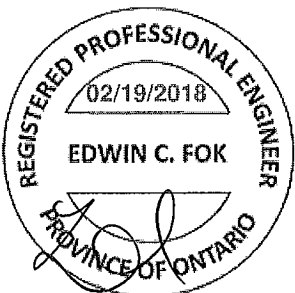
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

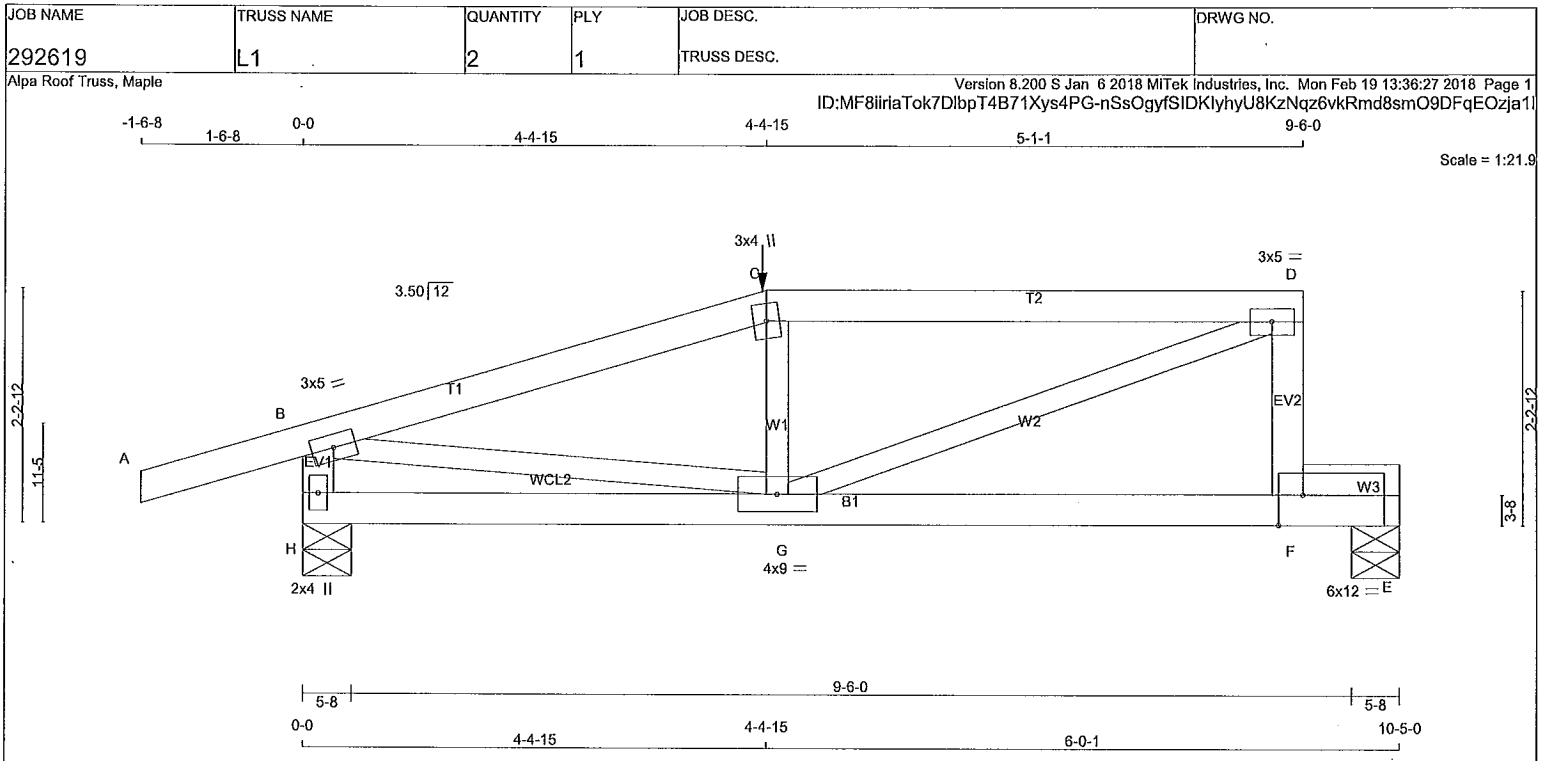
PLATE PLACEMENT TOL. = 0.250 inches

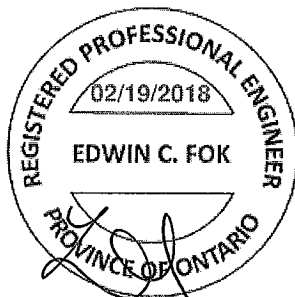
PLATE ROTATION TOL. = 5.0 Deg.

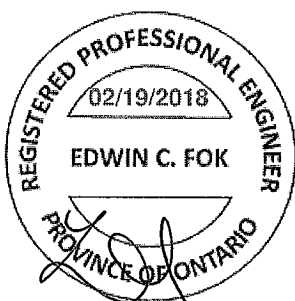
JSI GRIP= 0.87 (C) (INPUT = 0.90)
JSI METAL= 0.56 (C) (INPUT = 1.00)

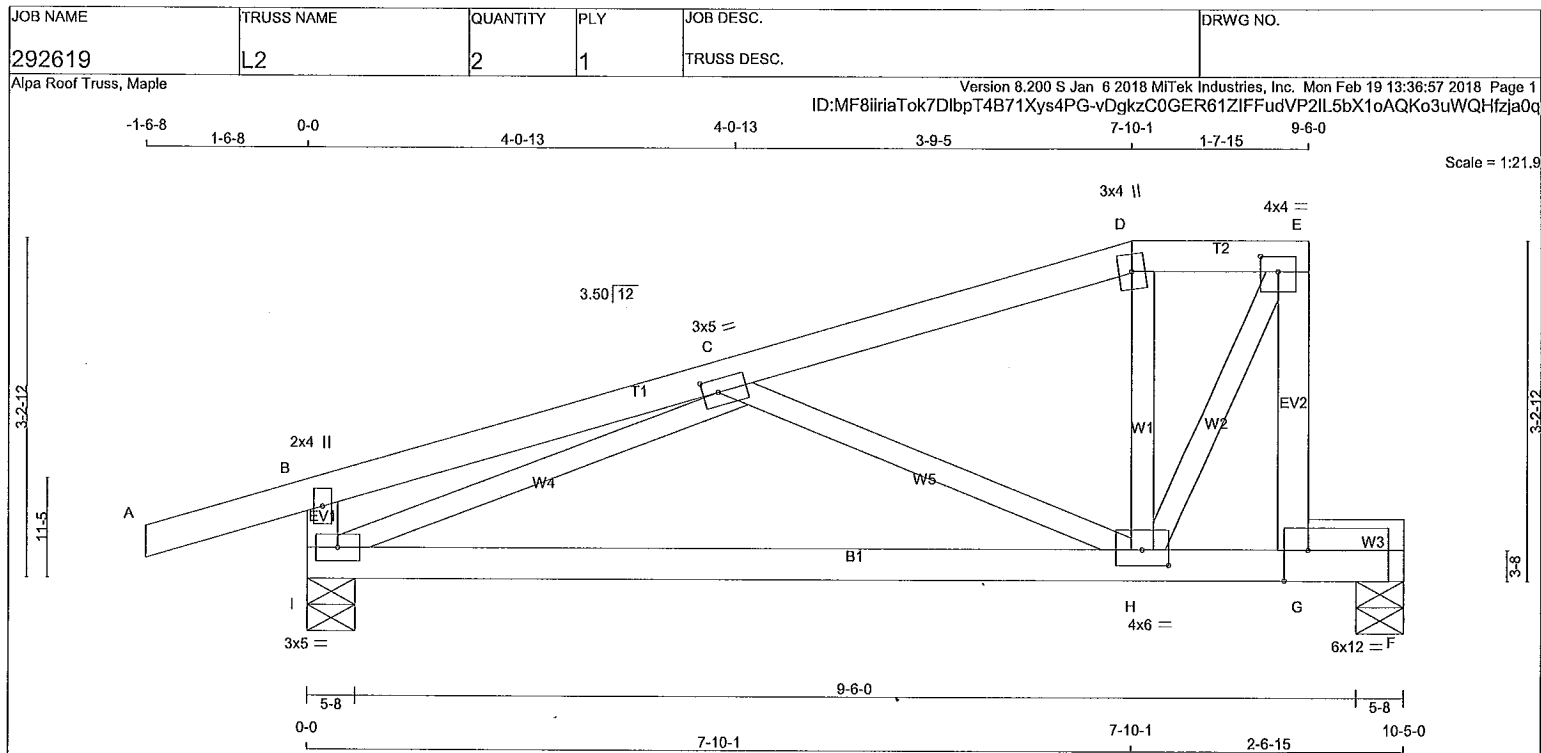
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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER					DESIGN CRITERIA									
A - C	2x4	DRY	No.2	SPF	BEARINGS					SPECIFIED LOADS:									
C - D	2x4	DRY	No.2	SPF	FACTORED GROSS REACTION					TOP CH. LL = 21.0 PSF									
F - D	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	DL = 6.0 PSF						
H - B	2x4	DRY	No.2	SPF	H	642	0	642	0	0	5-8	1-8	BOT CH. LL = 0.0 PSF						
H - E	2x4	DRY	No.2	SPF	E	515	0	515	0	0	5-8	1-8	DL = 7.4 PSF						
F - E	2x4	DRY	No.2	SPF						TOTAL LOAD = 34.4 PSF									
ALL WEBS 2x3 DRY No.2 SPF					UNFACTORED REACTIONS					SPACING = 24.0 IN.C/C									
EXCEPT					1ST LCASE MAX./MIN. COMPONENT REACTIONS														
DRY: SEASONED LUMBER.					JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM						
					H	455	294 / 0	0 / 0	0 / 0	0 / 0	161 / 0	0 / 0	GIRDER TYPE: CPrimeHp						
					E	367	225 / 0	0 / 0	0 / 0	0 / 0	141 / 0	0 / 0	LEFT SETBACK = 4-4-15						
					BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, E					RIGHT SETBACK = 0-0									
					BRACING					END SETBACK = 2-0-0									
					TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.					END WALL WIDTH = 0-0									
					MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.					CORNER FRAMING TYPE: CONVENTIONAL									
					ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.					END JACK TYPE: CONVENTIONAL									
					LOADING					APPLIED TO FRONT SIDE									
					TOTAL LOAD CASES: (4)					- ADDTL LOADS BASED ON 55 % OF GSL.									
					CHORDS					WEBS									
					MEMB. FORCE (LBS)					MEMB. FORCE (LBS)									
					MAX. FACTORED VERT. LOAD LC1 MAX. UNBRAC					MAX. FACTORED VERT. LOAD LC1 MAX. UNBRAC									
					FR-TO FROM TO					FR-TO FROM TO									
					A-B 0 / 17 -78.0 -78.0 0.15 (1) 10.00					G-C -174 / 4 0.03 (1)									
					B-C -808 / 0 -78.0 -78.0 0.30 (1) 6.25					G-D 0 / 810 0.20 (1)									
					C-D -752 / 0 -78.0 -78.0 0.40 (1) 6.25					B-G 0 / 783 0.19 (1)									
					F-D -500 / 0 0.0 0.0 0.06 (1) 7.81														
					H-B -628 / 0 0.0 0.0 0.07 (1) 7.81														
					H-G 0 / 0 -18.5 -18.5 0.21 (4) 10.00														
					G-F 0 / 0 -18.5 -18.5 0.65 (1) 10.00														
					F-E 0 / 0 -96.5 -96.5 0.27 (1) 10.00														
					FACTORED CONCENTRATED LOADS (LBS)														
					JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE							
					C	4-4-15	-29	-29	---	FRONT	VERT	TOTAL							
PLATES (table is in inches)																			
JT	TYPE	PLATES	W	LEN	Y	X													
B	TMVW-t	MT20	3.0	5.0															
C	TTW+tm	MT20	3.0	4.0															
D	TMVW-t	MT20	3.0	5.0															
F	BMVW-t	MT20	6.0	12.0	Edge	2.75													
G	BMVWW-t	MT20	4.0	9.0															
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) 28.7 lbs FACTORED DOWN AT 4-4-15 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																			
																			
					</														





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

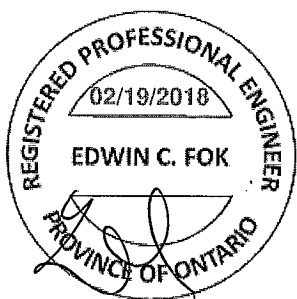
ALL WEBS 2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)			
JT	TYPE	PLATES	W LEN Y X
B	TMV+p	MT20	2.0 4.0
C	TMVW-t	MT20	3.0 5.0 1.50 1.75
D	TTW+m	MT20	3.0 4.0
E	TMVW-t	MT20	4.0 4.0 1.75 2.00
G	BMVW-t	MT20	6.0 12.0 Edge 2.75
H	BMVW-t	MT20	4.0 6.0 1.75 3.00
I	BMVW-t	MT20	3.0 5.0

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	HORZ	UPLIFT
F	502	0	502	0	0
I	626	0	626	0	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	358	219 / 0	0 / 0	0 / 0	0 / 0	140 / 0	0 / 0
I	444	285 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 17	-78.0	-78.0 0.14 (1)	10.00	H-D	-72 / 11	0.01 (1)
B-C	0 / 9	-78.0	-78.0 0.18 (1)	10.00	H-E	0 / 787	0.18 (1)
C-D	-396 / 0	-78.0	-78.0 0.18 (1)	6.25	I-C	-783 / 0	0.26 (1)
D-E	-368 / 0	-78.0	-78.0 0.04 (1)	6.25	C-H	-377 / 0	0.13 (1)
G-E	-759 / 0	0.0	0.0 0.13 (1)	7.81			
I-B	-247 / 0	0.0	0.0 0.02 (1)	7.81			
I-H	0 / 713	-18.5	-18.5 0.36 (4)	10.00			
H-G	0 / 0	-18.5	-18.5 0.57 (1)	10.00			
G-F	0 / 0	-96.5	-96.5 0.24 (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 088-09, 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 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.35")
CALCULATED VERT. DEFL.(TL)= L/999 (0.10")

CSI: TC=0.18/1.00 (C-D:1), BC=0.57/1.00 (G-H:1), WB=0.26/1.00 (C-I:1), SSI=0.29/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

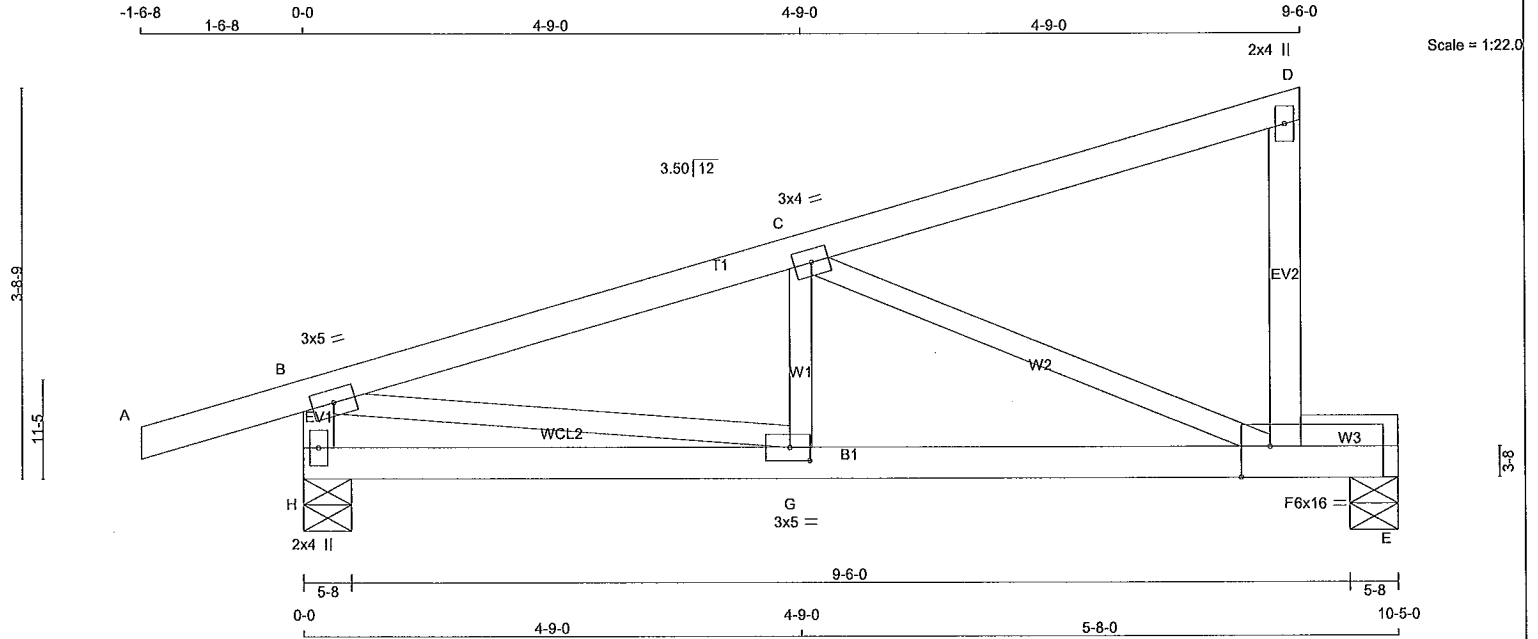
JSI GRIP= 0.88 (H) (INPUT = 0.90)
JSI METAL= 0.24 (C) (INPUT = 1.00)

A-18024028

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	L3	5	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-5cNKrnMqe1d3wbOdXW0zABVsZqZ_k3gwVFIvG1zja00



TOTAL WEIGHT = 5 X 39 = 195 lb [M]F

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0		
C	TMVW-t	MT20	3.0	4.0		
D	TMV-p	MT20	2.0	4.0		
F	BMVWW-t	MT20	6.0	16.0	Edge	3.25
G	BMVWW-t	MT20	3.0	5.0	1.50	2.25
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	MAXIMUM	FACTORED	INPUT	REQD
		GROSS REACTION	GROSS REACTION	DOWN	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX
H	623	0	623	0	0	5-8
E	434	0	434	0	0	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	441	283 / 0	0 / 0	0 / 0	0 / 0	158 / 0	0 / 0
E	311	182 / 0	0 / 0	0 / 0	0 / 0	129 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 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. FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 17	-78.0	-78.0	0.14 (1)	10.00	G-C	0 / 127
B-C	-814 / 0	-78.0	-78.0	0.22 (1)	6.25	C-F	-862 / 0
C-D	-12 / 0	-78.0	-78.0	0.21 (1)	6.25	B-G	0 / 800
F-D	-143 / 0	0.0	0.0	0.03 (1)	7.81		
H-B	-605 / 0	0.0	0.0	0.06 (1)	7.81		
H-G	0 / 0	-18.5	-18.5	0.19 (4)	10.00		
G-F	0 / 793	-18.5	-18.5	0.66 (1)	10.00		
F-E	0 / 0	-18.5	-18.5	0.22 (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

ALLOWABLE DEFL.(LL) = $L/360$ (0.35")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.10")
ALLOWABLE DEFL.(TL) = $L/360$ (0.35")
CALCULATED VERT. DEFL.(TL) = $L/608$ (0.21")

CSI: TC=0.22/1.00 (B-C:1), BC=0.66/1.00 (F-G:1), WB=0.36/1.00 (C-F:1), SSI=0.17/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

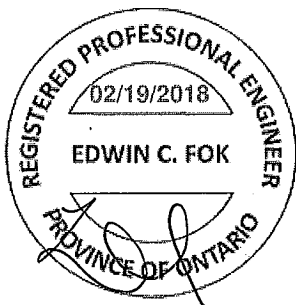
NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	618	354	1667	788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (C) (INPUT = 0.90)
JSI METAL= 0.27 (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-18024029

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	H1T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-CsCEgcRLTzatMcZjqySJRsV9ycstPfdX2LaU7FzjZpN

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
N	TTWW+h	MT20	5.0	10.0	3.00	1.50
O	TMVWW-I	MT20	6.0	9.0	2.00	3.25
Q	BMV1+I	MT20	6.0	9.0	Edge	0.50
R	BBW-I	MT20	5.0	8.0	2.75	5.00
S	BBWW-I	MT20	7.0	8.0	4.00	4.25
T	BMWW-I	MT20	6.0	7.0	2.50	2.00
U	BMWWWW-I	MT20	6.0	12.0	2.25	4.50
V	BBWW-I	MT20	10.0	12.0	7.00	5.25
W	BBW-h	MT20	10.0	12.0	4.25	6.00
X	BMWWWW-I	MT20	5.0	8.0		
Y	BMWW-I	MT20	5.0	6.0	2.25	2.50
Z	BS-I	MT20	7.0	8.0		
AA	BMWW-I	MT20	6.0	7.0	2.50	2.00
AB	BMWW-I	MT20	6.0	7.0	2.25	2.00
AC	BMWW-I	MT20	4.0	6.0	2.50	1.50
AD	BMV1+I	MT20	6.0	12.0	7.25	

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 119.6 lbs FACTORED DOWN AT 2-1-4 ON TOP CHORD, AND 1765.9 lbs FACTORED DOWN AT 22-1-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED UNBRAC LENGTH FR-TO	MAX. CSI (LC)
FR-TO		FROM TO					
S-R	0 / 19	-18.5	-18.5 0.01 (4)			10.00	
R-Q	0 / 0	-18.5	-18.5 0.01 (4)			10.00	

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	2-1-4	-120	-120	---	FRONT	VERT	TOTAL
X	22-1-8	-1766	-1766	---	FRONT	VERT	TOTAL

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

NAIL VALUES

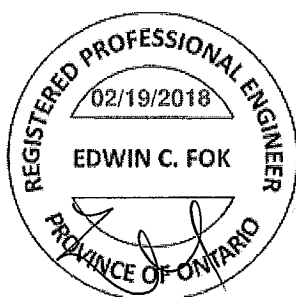
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

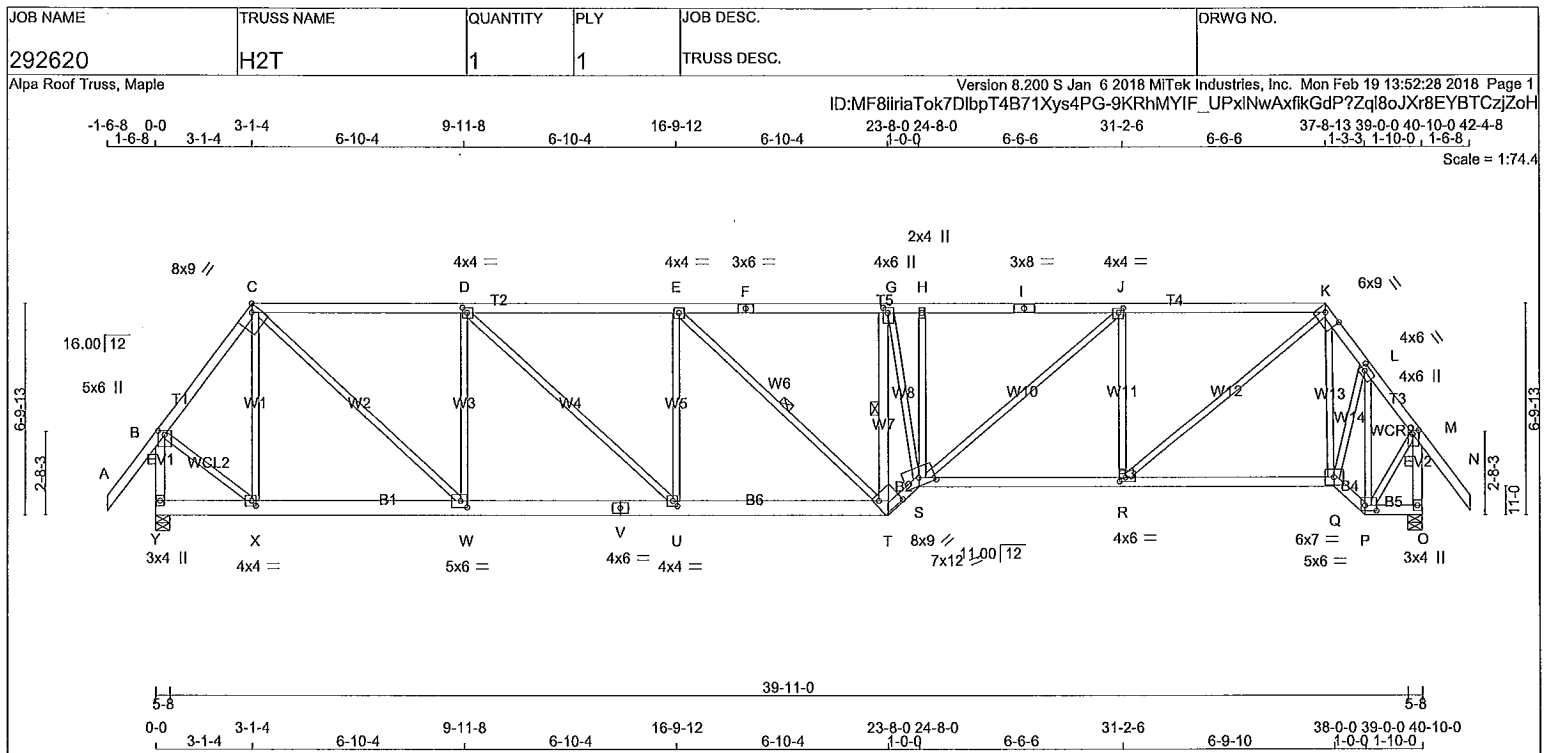
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (AC) (INPUT = 0.90)
JSI METAL= 0.98 (V) (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



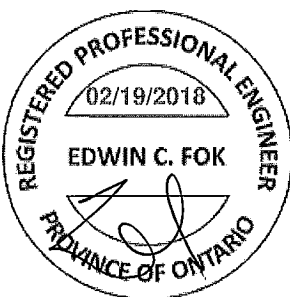
A-18024030(2)



LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF			
C - F	2x4	DRY	No.2	SPF			
F - I	2x4	DRY	No.2	SPF			
I - K	2x4	DRY	No.2	SPF			
K - N	2x4	DRY	No.2	SPF			
Y - B	2x4	DRY	No.2	SPF			
O - M	2x4	DRY	No.2	SPF			
Y - V	2x6	DRY	No.2	SPF			
V - T	2x6	DRY	No.2	SPF			
T - S	2x4	DRY	No.2	SPF			
S - Q	2x4	DRY	No.2	SPF			
Q - P	2x4	DRY	No.2	SPF			
P - O	2x4	DRY	No.2	SPF			
ALL WEBS	2x3	DRY	No.2	SPF			
EXCEPT							
T - G	2x4	DRY	No.2	SPF			
DRY: SEASONED LUMBER.							

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	X
B	TMVW+p	MT20	5.0	6.0	1.50 2.50
C	TTWW-h	MT20	8.0	9.0	Edge 2.75
D	TMVW-t	MT20	4.0	4.0	2.00 1.75
E	TMVW-t	MT20	4.0	4.0	
F	TS-t	MT20	3.0	6.0	
G	TMVW-t	MT20	4.0	6.0	2.00 1.75
H	TMVW+w	MT20	2.0	4.0	
I	TS-t	MT20	3.0	8.0	
J	TMVW-t	MT20	4.0	4.0	1.75 1.75
K	TTWW-h	MT20	6.0	9.0	2.00 6.25
L	TMVW-t	MT20	4.0	6.0	2.00 2.00
M	TMVW+p	MT20	4.0	6.0	1.50 2.25
O	BMV1+p	MT20	3.0	4.0	
P	BBWW-t	MT20	5.0	6.0	2.00 4.50
Q	BBWW-t	MT20	6.0	7.0	
R	BMVW-t	MT20	4.0	6.0	1.50 2.25
S	BBWWW-m	MT20	7.0	12.0	3.00 6.00
T	BBWW-h	MT20	8.0	9.0	5.75 7.25
U	BMVW-t	MT20	4.0	4.0	2.00 1.75

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	MAXIMUM FACTORED	INPUT	REQD
JT	GROSS REACTION	GROSS REACTION	BRG	BRG	
Y	2096	0	2096	0	5-8
O	2102	0	2102	0	5-8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Y	1492	925 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
O	1496	928 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.97 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 E-T, G-T.

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					W E B S				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. (PLF)	LC1 (MAX)	CS1 (LC)	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)	MAX CS1 (LC)	
FR-TO		FROM	TO			FR-TO			
A-B	0 / 52	-78.0	-78.0	0.15 (1)	10.00	X-C	-498 / 0	0.36 (1)	
B-C	-1518 / 0	-78.0	-78.0	0.17 (1)	5.18	C-W	0 / 2004	0.45 (1)	
C-D	-2361 / 0	-78.0	-78.0	0.78 (1)	3.67	W-D	-1249 / 0	0.91 (1)	
D-E	-3068 / 0	-78.0	-78.0	0.94 (1)	3.17	D-U	0 / 970	0.22 (1)	
E-F	-3067 / 0	-78.0	-78.0	0.80 (1)	3.39	U-E	-523 / 0	0.38 (1)	
F-G	-3067 / 0	-78.0	-78.0	0.80 (1)	3.39	E-T	-12 / 0	0.01 (4)	
G-H	-3454 / 0	-78.0	-78.0	0.56 (1)	3.16	T-G	-2653 / 0	0.54 (1)	
H-I	-3455 / 0	-78.0	-78.0	0.96 (1)	2.97	G-S	0 / 2178	0.49 (1)	
I-J	-3455 / 0	-78.0	-78.0	0.96 (1)	2.97	S-H	-56 / 7	0.03 (1)	
J-K	-2651 / 0	-78.0	-78.0	0.80 (1)	3.47	S-J	0 / 1057	0.24 (1)	
K-L	-1655 / 0	-78.0	-78.0	0.07 (1)	5.11	R-J	-1270 / 0	0.68 (1)	
L-M	-1235 / 0	-78.0	-78.0	0.16 (1)	5.58	R-K	0 / 2170	0.49 (1)	
M-N	0 / 52	-78.0	-78.0	0.15 (1)	10.00	K-Q	-346 / 0	0.17 (1)	
Y-B	-2093 / 0	0.0	0.0	0.28 (1)	5.85	Q-L	0 / 1071	0.24 (1)	
O-M	-2085 / 0	0.0	0.0	0.30 (1)	5.86	P-L	-1465 / 0	0.52 (1)	
						B-X	0 / 1098	0.25 (1)	
Y-X	0 / 0	-18.5	-18.5	0.07 (4)	10.00	P-M	0 / 1124	0.25 (1)	
X-W	0 / 896	-18.5	-18.5	0.16 (1)	10.00				
W-V	0 / 2362	-18.5	-18.5	0.32 (1)	10.00				
V-U	0 / 2362	-18.5	-18.5	0.32 (1)	10.00				
U-T	0 / 3068	-18.5	-18.5	0.42 (1)	10.00				
T-S	0 / 4121	-18.5	-18.5	0.67 (1)	10.00				
S-R	0 / 2652	-18.5	-18.5	0.55 (1)	10.00				
R-Q	0 / 999	-18.5	-18.5	0.33 (4)	10.00				
Q-P	0 / 913	-18.5	-18.5	0.15 (1)	10.00				
P-O	0 / 0	-18.5	-18.5	0.02 (4)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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

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 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.24")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/999 (0.47")

CSI: TC=0.96/1.00 (H-J:1), BC=0.67/1.00 (S-T:1), WB=0.91/1.00 (D-W:1), SSI=0.25/1.00 (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

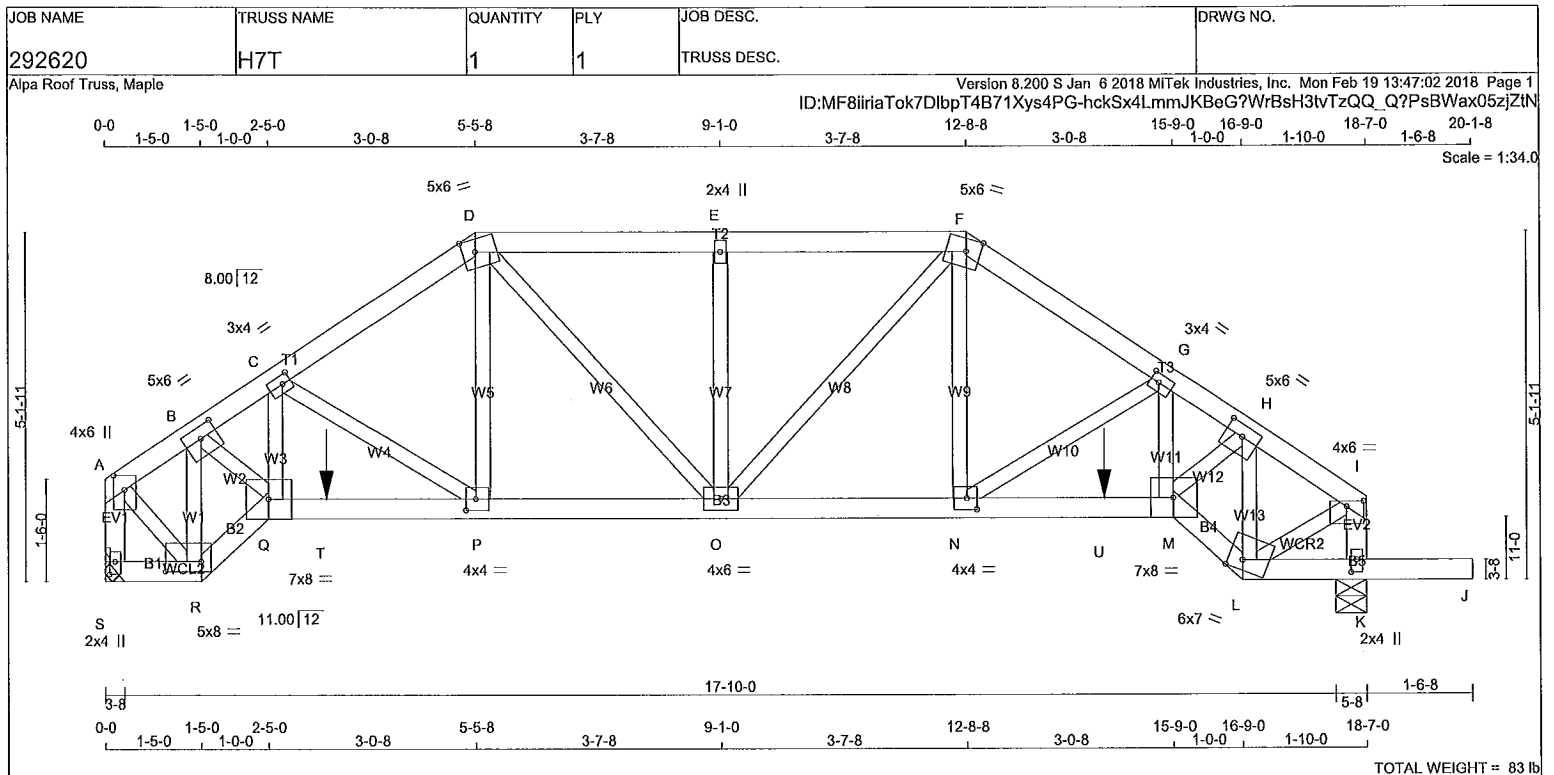
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

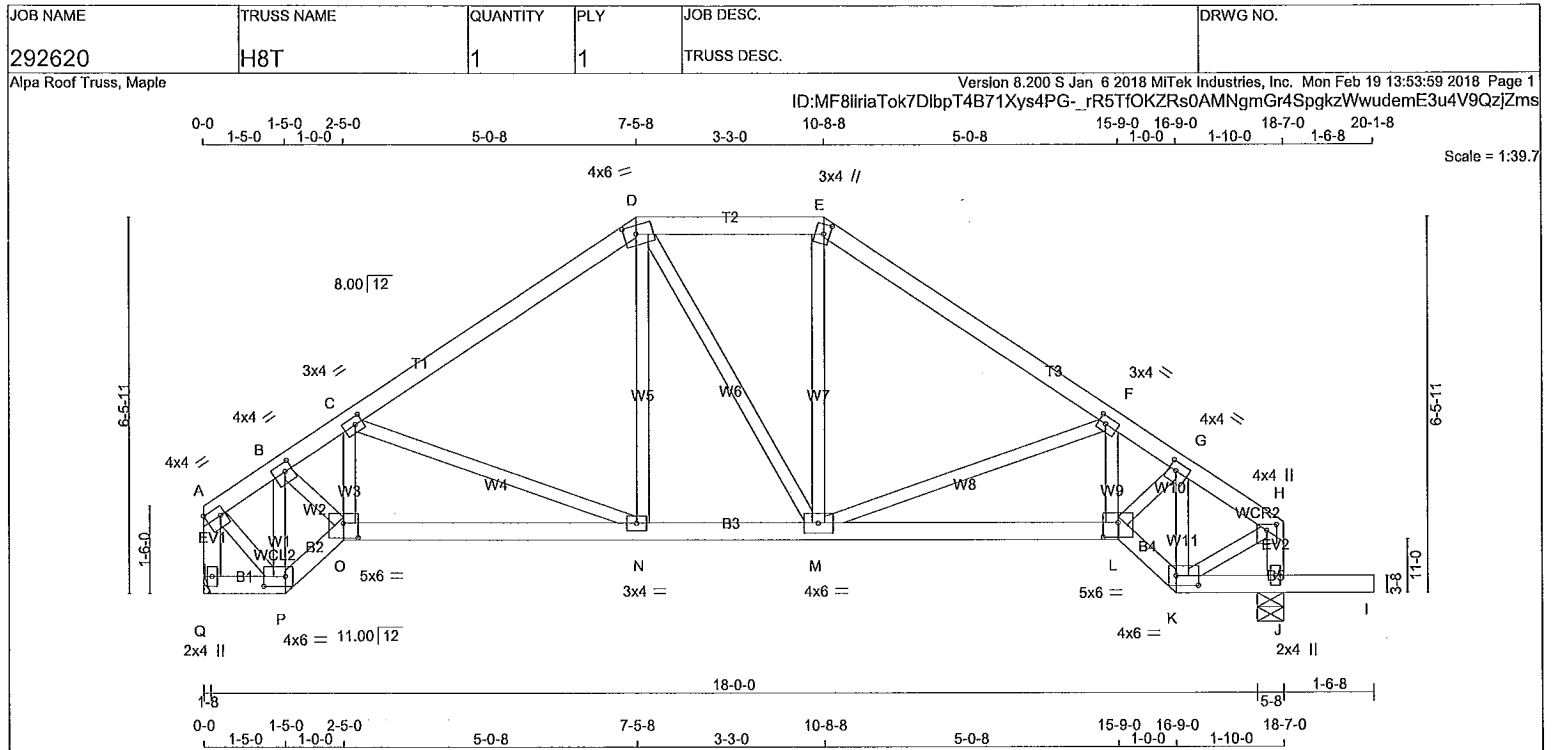
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (W) (INPUT = 0.90)
JSI METAL= 0.56 (V) (INPUT = 1.00)



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
S - A	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
S - R	2x4	DRY	No.2	SPF
R - Q	2x4	DRY	No.2	SPF
Q - M	2x4	DRY	No.2	SPF
M - L	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				



LUMBER				DESCR.	
N. L. G. A. RULES				CHORDS	
MEMB.	SIZE	DRY	NO.2	SPF	
A - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	No.2	SPF	
E - H	2x4	DRY	No.2	SPF	
Q - A	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	
Q - P	2x4	DRY	No.2	SPF	
P - O	2x4	DRY	No.2	SPF	
O - L	2x4	DRY	No.2	SPF	
L - K	2x4	DRY	No.2	SPF	
K - I	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-I	MT20	4.0	4.0	1.75	Edge
B	TMVW-I	MT20	4.0	4.0	1.75	1.50
C	TMVW-I	MT20	3.0	4.0	1.50	1.50
D	TTWV-m	MT20	4.0	6.0	1.75	2.50
E	TTW+m	MT20	3.0	4.0	2.00	1.25
F	TMVW-I	MT20	3.0	4.0	1.50	1.50
G	TMVW-I	MT20	4.0	4.0	1.75	1.50
H	TMVW+p	MT20	4.0	4.0	1.25	2.00
J	BMV1+p	MT20	2.0	4.0		
K	BBWW-I	MT20	4.0	6.0	2.00	4.50
L	BBWW-I	MT20	5.0	6.0	3.00	3.00
M	BBWW-I	MT20	4.0	6.0		
N	BBWW-I	MT20	3.0	4.0		
O	BBWW-I	MT20	5.0	6.0	3.00	3.00
P	BBWW-I	MT20	4.0	6.0	2.00	4.50
Q	BMV1+p	MT20	2.0	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG UPLIFT	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
Q	890	0	890	0	0	HANGER BY OTHERS
J	1051	0	1051	0	0	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE	WIND			
Q	635	387 / 0	0 / 0	0 / 0	0 / 0	247 / 0	0 / 0
J	750	457 / 0	0 / 0	0 / 0	0 / 0	292 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.39 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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 MAX (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	-660 / 0	-78.0	-78.0 0.07 (1)	6.25	P-B	-858 / 0	0.13 (1)
B-C	-1210 / 0	-78.0	-78.0 0.20 (1)	5.60	B-O	0 / 863	0.19 (1)
C-D	-930 / 0	-78.0	-78.0 0.23 (1)	6.15	O-C	-111 / 14	0.02 (1)
D-E	-770 / 0	-78.0	-78.0 0.11 (1)	6.25	C-N	-369 / 0	0.18 (1)
E-F	-940 / 0	-78.0	-78.0 0.23 (1)	6.12	N-D	0 / 208	0.05 (1)
F-G	-1338 / 0	-78.0	-78.0 0.20 (1)	5.39	D-M	0 / 18	0.00 (1)
G-H	-783 / 0	-78.0	-78.0 0.07 (1)	6.25	M-E	0 / 229	0.05 (1)
Q-A	-877 / 0	0.0	0.0 0.09 (1)	7.81	M-F	-460 / 0	0.23 (1)
J-H	-823 / 0	0.0	0.0 0.08 (1)	7.81	L-F	-1 / 54	0.02 (4)
					L-G	0 / 849	0.19 (1)
Q-P	0 / 0	-18.5	-18.5 0.01 (4)	10.00	K-G	-891 / 0	0.14 (1)
P-O	0 / 660	-18.5	-18.5 0.11 (1)	10.00	A-P	0 / 685	0.15 (1)
O-N	0 / 1100	-18.5	-18.5 0.24 (1)	10.00	K-H	0 / 711	0.16 (1)
N-M	0 / 761	-18.5	-18.5 0.17 (1)	10.00			
M-L	0 / 1194	-18.5	-18.5 0.25 (1)	10.00			
L-K	0 / 808	-18.5	-18.5 0.13 (1)	10.00			
K-J	0 / 0	-18.5	-18.5 0.12 (1)	10.00			
J-I	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 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

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) = $L/360$ (0.62")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.03")
ALLOWABLE DEFL.(TL) = $L/360$ (0.62")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.07")

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=0.23/1.00 (E-F:1), BC=0.25/1.00 (L-M:1), WB=0.23/1.00 (F-M:1), SSI=0.15/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

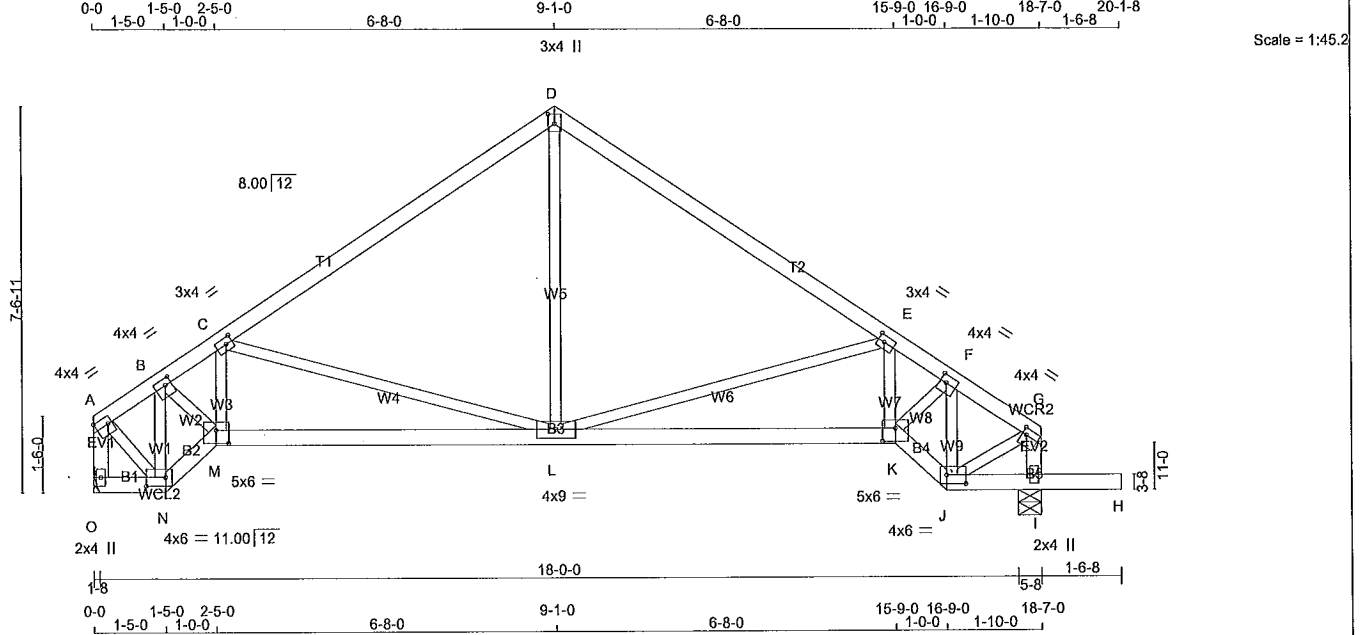
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (E) (INPUT = 0.90)
JSI METAL= 0.30 (P) (INPUT = 1.00)

A-18024034

CONTINUED ON PAGE 2





TOTAL WEIGHT = 78 lb
(M)(F)

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	4.0	4.0	1.75 Edge
B	TMWW-t	MT20	4.0	4.0	1.50 1.50
C	TMWW-t	MT20	3.0	4.0	1.50 1.50
D	TTW+p	MT20	3.0	4.0	2.25 1.50
E	TMWW-t	MT20	3.0	4.0	1.50 1.50
F	TMWW-t	MT20	4.0	4.0	1.75 1.50
G	TMVW-t	MT20	4.0	4.0	1.50 1.00
I	BMV1+p	MT20	2.0	4.0	
J	BBWW-t	MT20	4.0	6.0	2.00 4.50
K	BBWW-t	MT20	5.0	6.0	3.00 3.00
L	BMWW-t	MT20	4.0	9.0	
M	BBWW-t	MT20	5.0	6.0	3.00 3.00
N	BBWW-t	MT20	4.0	6.0	2.00 4.50
O	BMV1+p	MT20	2.0	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	O	VERT	HORZ	DOWN	HORZ
		890	0	890	0
I		1051	0	1051	0

UNFACTORED REACTIONS		1ST LCASE	MAX/MIN. COMPONENT REACTIONS				
JT	O	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD
		635	387 / 0	0 / 0	0 / 0	0 / 0	247 / 0
I		750	457 / 0	0 / 0	0 / 0	0 / 0	292 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.14 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS		MAX. FACTORED	FACTORED	MAX. FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (CSI (LC))	UNBRAC LENGTH	MEMB.	FORCE (LBS)
FR-TO					FR-TO	
A-B	-653 / 0	-78.0	-78.0 0.10 (1)	6.25	N-B	-828 / 0
B-C	-1213 / 0	-78.0	-78.0 0.37 (1)	5.35	B-M	0 / 997
C-D	-829 / 0	-78.0	-78.0 0.42 (1)	6.11	M-C	-217 / 0
D-E	-828 / 0	-78.0	-78.0 0.42 (1)	6.12	C-L	-541 / 0
E-F	-1344 / 0	-78.0	-78.0 0.37 (1)	5.14	L-D	0 / 479
F-G	-774 / 0	-78.0	-78.0 0.10 (1)	6.25	L-E	-639 / 0
O-A	-877 / 0	0.0	0.0 0.09 (1)	7.81	K-E	-102 / 38
I-G	-823 / 0	0.0	0.0 0.08 (1)	7.81	K-F	0 / 981
					J-F	-870 / 0
O-N	0 / 0	-18.5	-18.5 0.01 (4)	10.00	A-N	0 / 661
N-M	0 / 638	-18.5	-18.5 0.11 (1)	10.00	J-G	0 / 694
M-L	0 / 1184	-18.5	-18.5 0.34 (4)	10.00		
L-K	0 / 1278	-18.5	-18.5 0.35 (4)	10.00		
K-J	0 / 789	-18.5	-18.5 0.13 (1)	10.00		
J-I	0 / 0	-18.5	-18.5 0.12 (1)	10.00		
I-H	0 / 0	-96.5	-96.5 0.16 (1)	10.00		

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/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

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 (0.62")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.62")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

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 (0.01")

CSI: TC=0.42/1.00 (C-D:1) , BC=0.35/1.00 (K-L:4) , WB=0.57/1.00 (E-L:1) , SSI=0.26/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

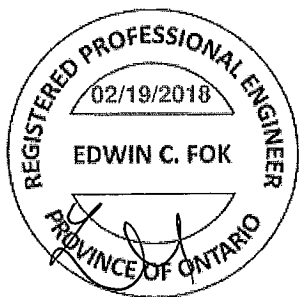
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

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

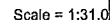
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (G) (INPUT = 0.90)
JSI METAL= 0.30 (G) (INPUT = 1.00)



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ID:MF8jirraTok7DlbpT4B71Xys4PG-IZKrvIMhES7WlbPlka DkOP7AGK2FpyBiAk8PziZnX



TOTAL WEIGHT = $3 \times 30 = 90$ lb

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

FACTORED		MAXIMUM FACTORED		INPUT	REQRD		
GROSS REACTION		GROSS REACTION		BRG	BRG		
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
H	452	0	452	0	0	5-8	1-8
E	264	0	264	0	0	HANGER BY OTHERS	
MIN. SEAT SIZE: 1-8							

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

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

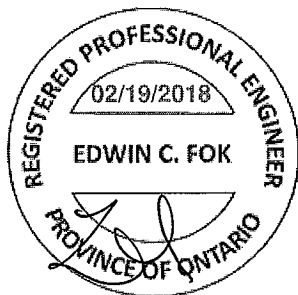
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY
APPLIED.

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

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MAX. FACTORED		FACTORED		MAX. 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		
H-A	-223 / 0	0.0	0.0	0.02 (1)	7.81	A- G	0 / 154
A-B	-165 / 0	-78.0	-78.0	0.04 (1)	6.25	G-B	-220 / 0
B-C	-239 / 0	-78.0	-78.0	0.08 (1)	6.25	B- F	0 / 130
C-D	-11 / 0	-78.0	-78.0	0.08 (1)	6.25	F- C	0 / 63
E-D	-95 / 0	0.0	0.0	0.03 (1)	7.81	C- E	-259 / 0
I-H	0 / 0	-96.5	-96.5	0.16 (1)	10.00		
H-G	0 / 0	-18.5	-18.5	0.16 (1)	10.00		
G-F	0 / 173	-18.5	-18.5	0.03 (1)	10.00		
F-E	0 / 216	-18.5	-18.5	0.07 (4)	10.00		

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



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

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

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

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

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

CSI: TC=0.08/1.00 (B-C:1) , BC=0.16/1.00 (G-H:1)
 , WB=0.06/1.00 (C-E:1) , SSI=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (A) (INPUT = 0.90)
JSI METAL = 0.08 (E) (INPUT = 1.00)

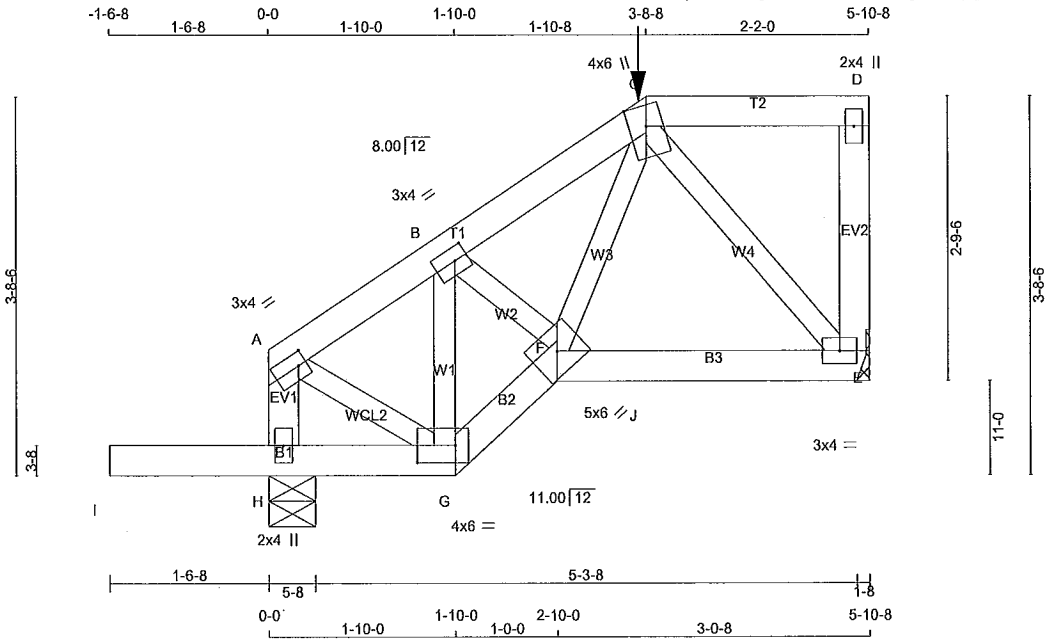
A-18024036

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	J4TA	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-K1m?UU2eyRrNlqJy3DRBDJzDEH5YshS6aN9mmozjZv2



Scale = 1:22.5

TOTAL WEIGHT = 2 X 28 = 57 lb

LUMBER	CHORDS	SIZE	LUMBER	DESCR.
N. L. G. A. RULES				
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
H - A	2x4	DRY	No.2	SPF
I - 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-t	MT20	3.0	4.0	1.50	1.00
B	TMVW-t	MT20	3.0	4.0	1.50	1.50
C	TTWW+m	MT20	4.0	6.0	Edge	
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BBWW-h	MT20	5.0	6.0		
G	BBWW-l	MT20	4.0	6.0	2.00	4.50
H	BMV1+p	MT20	2.0	4.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 106.4 lbs FACTORED DOWN AT 3-8-8 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	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	413	0	413	0	0	0
H	527	0	527	0	0	0

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	MAX. FACTORED FORCE (LBS)	CHORDS		WEBS	
		VERT. LOAD (PLF)	MAX. LC1 (L)	MAX. MEMB. FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO	FR-TO	
A-B	-243 / 0	-78.0	-78.0 0.04 (1)	6.25	G-B -302 / 0 0.05 (1)
B-C	-339 / 0	-78.0	-78.0 0.04 (1)	6.25	B-F 0 / 118 0.03 (1)
C-D	0 / 0	-111.3	-111.3 0.10 (1)	10.00	F-C 0 / 157 0.04 (1)
E-D	-121 / 0	0.0	0.0 0.02 (1)	7.81	C-E -338 / 0 0.07 (1)
H-A	-292 / 0	0.0	0.0 0.03 (1)	7.81	A-G 0 / 231 0.06 (1)
I-H	0 / 0	-96.5	-96.5 0.17 (1)	10.00	
H-G	0 / 0	-26.4	-26.4 0.17 (1)	10.00	
G-F	0 / 261	-26.4	-26.4 0.05 (1)	10.00	
F-J	0 / 223	-26.4	-26.4 0.10 (4)	10.00	
J-E	0 / 223	-26.4	-26.4 0.10 (4)	10.00	

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	3-8-8	-106	-106	-	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 = 3-8-8
RIGHT SETBACK = 0-0
END SETBACK = 3-8-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- 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

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

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

CANTILEVER DEFLECTION:

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

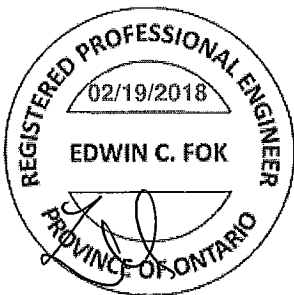
CSI: TC=0.10/1.00 (C-D:1), BC=0.17/1.00 (G-H:1), WB=0.07/1.00 (C-E:1), SSI=0.13/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

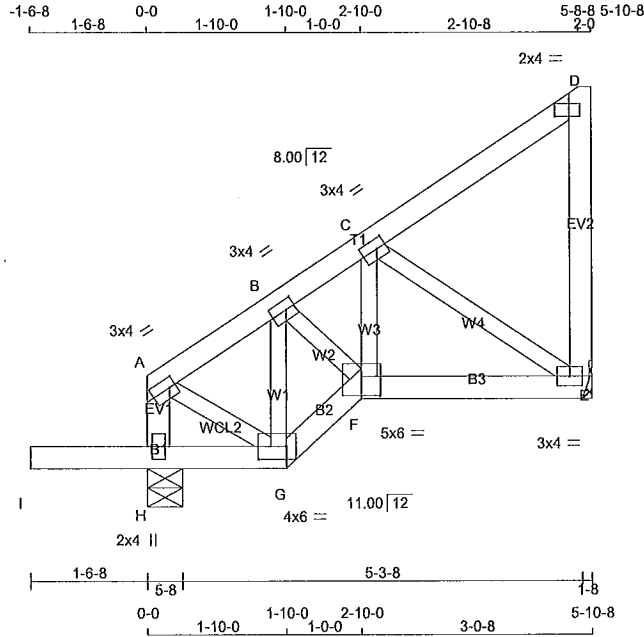
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	J4TB	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 13:53:06 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-1ek3LYI419BYJCqU9eOepd_if8r?j|LRt9lCo?zjZnh



Scale = 1:30.5

TOTAL WEIGHT = 2 X 30 = 60 lb

LUMBER	CHORDS	SIZE	DRY	LUMBER	DESCR.
N. L. G. A. RULES					
A - D	2x4	DRY	No.2	SPF	
E - D	2x4	DRY	No.2	SPF	
H - A	2x4	DRY	No.2	SPF	
I - 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-I	MT20	3.0	4.0	1.50	1.00
B	TMVW-I	MT20	3.0	4.0	1.50	1.50
C	TMVW-I	MT20	3.0	4.0	1.50	1.50
D	TVM-p	MT20	2.0	4.0	0.50	2.25
E	BMVW-I	MT20	3.0	4.0		
F	BBWW-I	MT20	5.0	6.0	3.00	3.00
G	BBWW-I	MT20	4.0	6.0	2.00	4.50
H	BMV1+p	MT20	2.0	4.0		

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

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

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	-165 / 0	-78.0 -78.0	0.04 (1)	6.25	G-B	-220 / 0	0.03 (1)
B-C	-239 / 0	-78.0 -78.0	0.08 (1)	6.25	B-F	0 / 130	0.03 (1)
C-D	-11 / 0	-78.0 -78.0	0.08 (1)	6.25	F-C	0 / 63	0.02 (4)
E-D	-95 / 0	0.0 0.0	0.03 (1)	7.81	C-E	-258 / 0	0.06 (1)
H-A	-223 / 0	0.0 0.0	0.02 (1)	7.81	A-G	0 / 154	0.03 (1)
I-H	0 / 0	-96.5 -96.5	0.16 (1)	10.00			
H-G	0 / 0	-18.5 -18.5	0.16 (1)	10.00			
G-F	0 / 173	-18.5 -18.5	0.03 (1)	10.00			
F-E	0 / 216	-18.5 -18.5	0.07 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/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

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

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

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

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

CSI: TC=0.08/1.00 (B-C:1), BC=0.16/1.00 (G-H:1), WB=0.06/1.00 (C-E:1), SSI=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

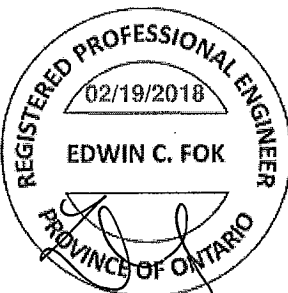
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

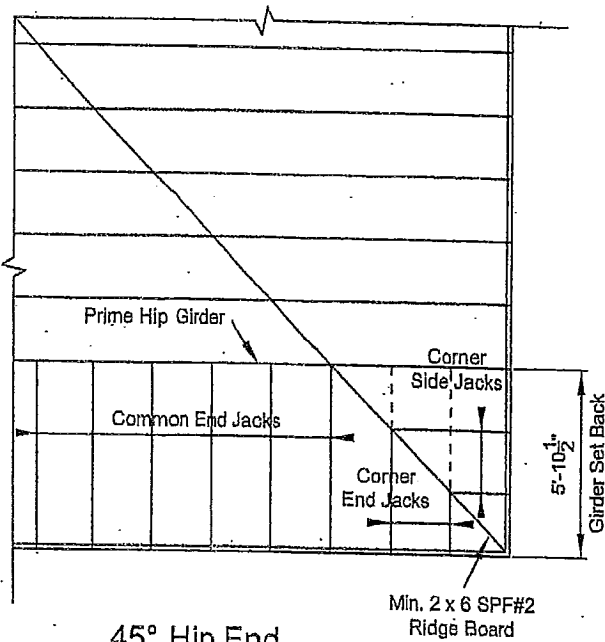
JSI GRIP= 0.50 (A) (INPUT = 0.90)
JSI METAL= 0.08 (D) (INPUT = 1.00)

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-18024038

STRACON ENGINEERING INC.



45° Hip End

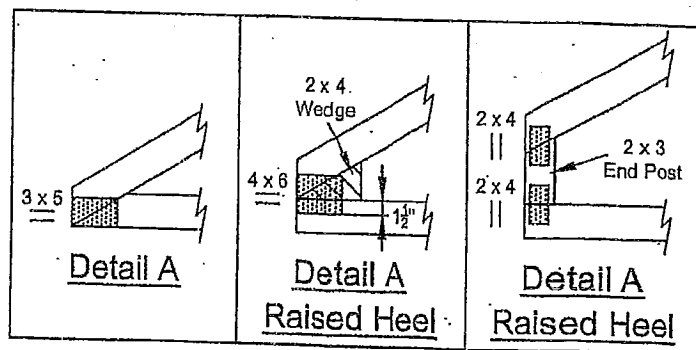
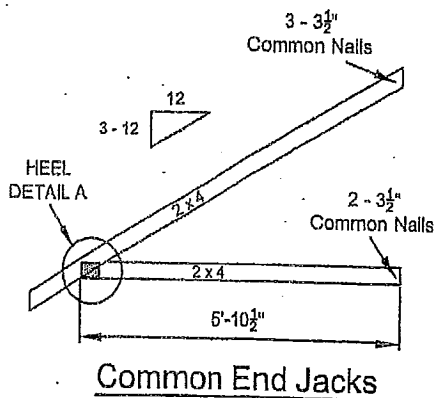
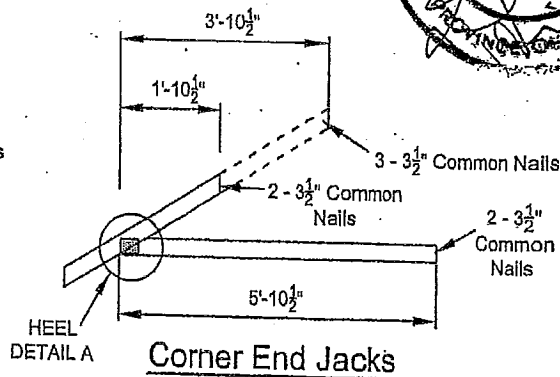
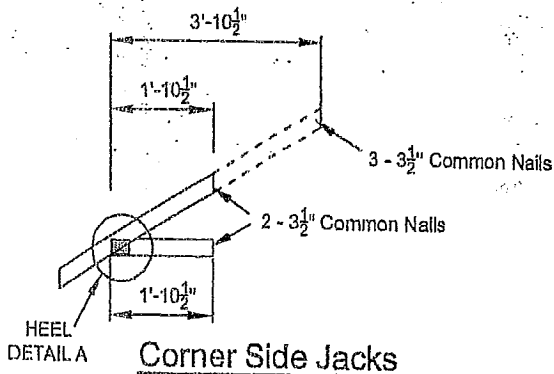
LUMBER SPECIFICATION

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

HHUS – Double Shear Joist Hangers



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

Material: 14 gauge

Finish: G90 galvanized

Design:

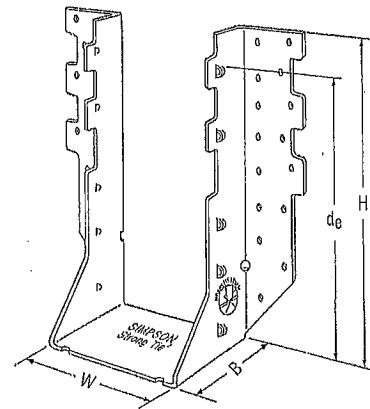
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

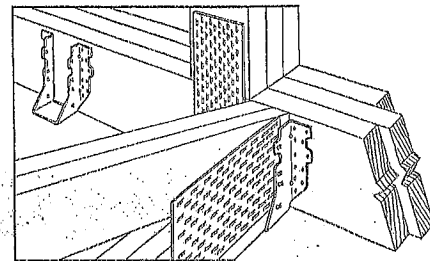
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

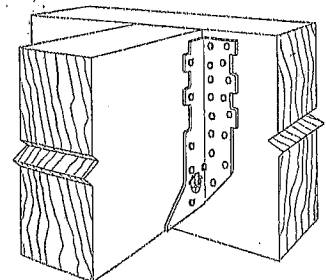
- See current catalogue for options



HHUS410



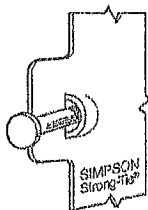
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



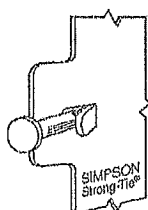
Typical HHUS Installation

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₀ ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
HHUS26-2	14	3 1/8	5 1/8	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 1/8	7 1/2	3	6 5/32	(22) 16d	(8) 16d	3785	8940	2675	6345
HHUS210-2	14	3 1/8	9 3/2	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 1/8	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 13/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 3/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 3/8	9	3	8	(30) 16d	(10) 16d	4745	9855	4310	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS7.25/10	14	7 1/4	9	3 3/16	7 29/32	(30) 16d	(10) 16d	4745	10770	4310	7850

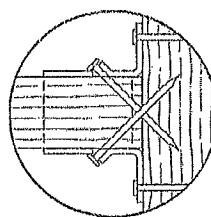
1. d₀ is the distance from the seat of the hanger to the highest joist nail.



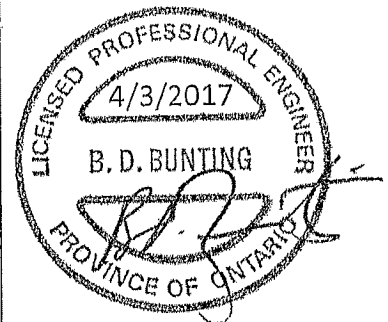
Dome Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,680



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

(800) 999-5099
strongtie.com

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:

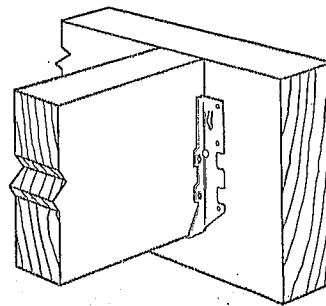
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

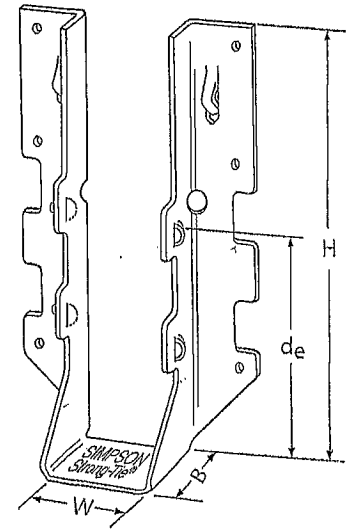
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



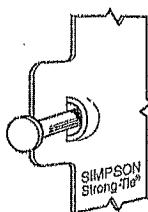
Typical LUS Installation



LUS28

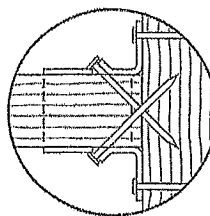
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁	Face	Joist	D-Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1 1/8	3 1/8	1 3/4	1 1/8	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 1/8	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 1/8	4 3/4	1 3/4	3/8	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 3/8	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 3/8	4 3/8	2	3 1/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 1/8	6 5/8	1 3/4	3/4	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3 1/8	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4 3/8	6 1/4	2	3 1/4	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 1/8	7 1/8	1 3/4	3/8	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3 1/8	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4 3/8	8 3/8	2	5 1/4	(8) 16d	(6) 16d	2580	3345	2320	2375

1. d₁ is the distance from the seat of the hanger to the highest joist nail.

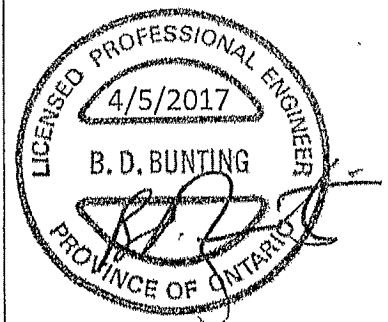


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 1, 2017. This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty at [strongtie.com](http://www.strongtie.com).

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T-SPEC/LUS17/3/17 exp. 6/19

(800) 999-5099
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HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

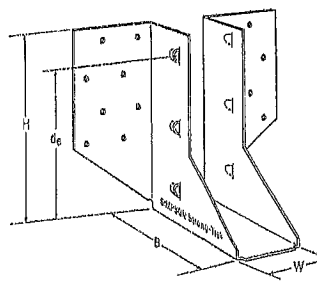
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

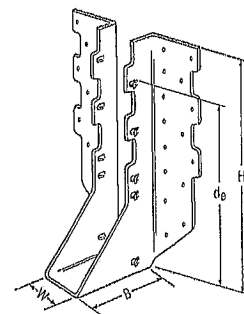
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

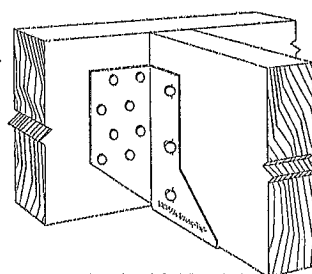
- See current catalogue for options



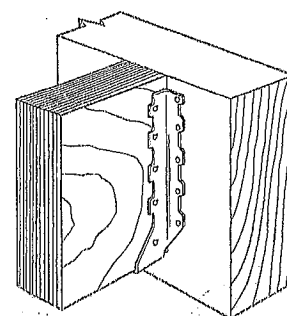
LJS26DS



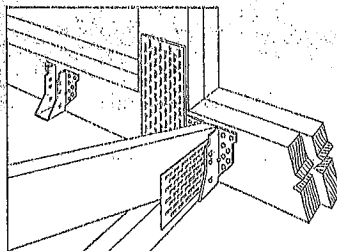
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



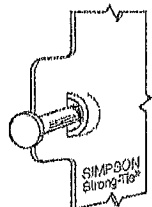
Typical HUS
Installation



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

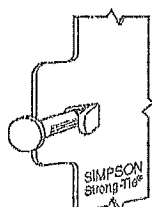
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₀ ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LJS26DS	18	1 1/16	5	3 1/2	4 5/8	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1 1/8	5 1/2	3	3 1 1/16	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1 1/8	7 1/2	3	6 1/2	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1 1/8	9 1/2	3	7 3/2	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1 1/16	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

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

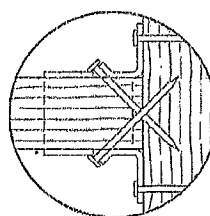


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

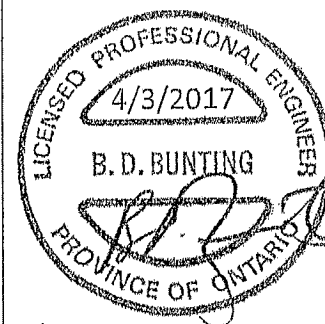
U.S. Patent
5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECHUS17 3/17 exp. 6/19

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