

ALPA-BARE

СЗ. 71008

СЗ. 5100

Architectural drawing of a building section, showing a large central hall with a vaulted ceiling and a smaller room below. The drawing includes structural details, dimensions, and labels.

Labels and dimensions:

- CE. 71008
- CB. 51008
- H27
- H28
- REC'D
- C.F. A.P.P.
- T.O. RSD
- W/12
- + 12
- 6' F'
- BM
- 2-1
- RSD

4/12
T.O.P. @ 9:00-00
RSD HEEL - 0" DROP
15" FIN. CH. (NO BELL APP.)

8-00-00	19-01-00
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A-18023083 - A-18023086
A-18023088 - A-18023092
A-18023106 - A-18023107
A-18023145 - A-18023155

H16P(5) H18T(4) H19A
H15T H15SG
H15S(3)

HANGERS
≠ LUS24
X HHUS26-2



CONVENTIONAL
FRAMING BY
OTHERS



Job Track: 45147
Layout ID: 291803
Plan Log: 95233

Builder / Location
GOLD PARK HOMES / VAUGHAN

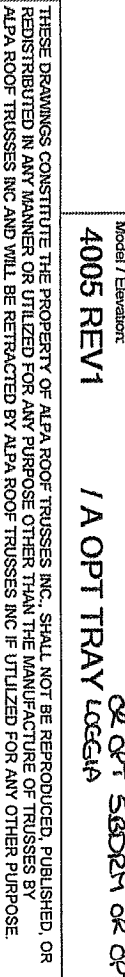
Project: **PINE VALLEY**

Date: 1/17/2018	Designer: AMANDA
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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.

EDGEBOOK
Model / Elevation:
4005 / A OR OPT 5 BDRM

OR OPT LOGGING

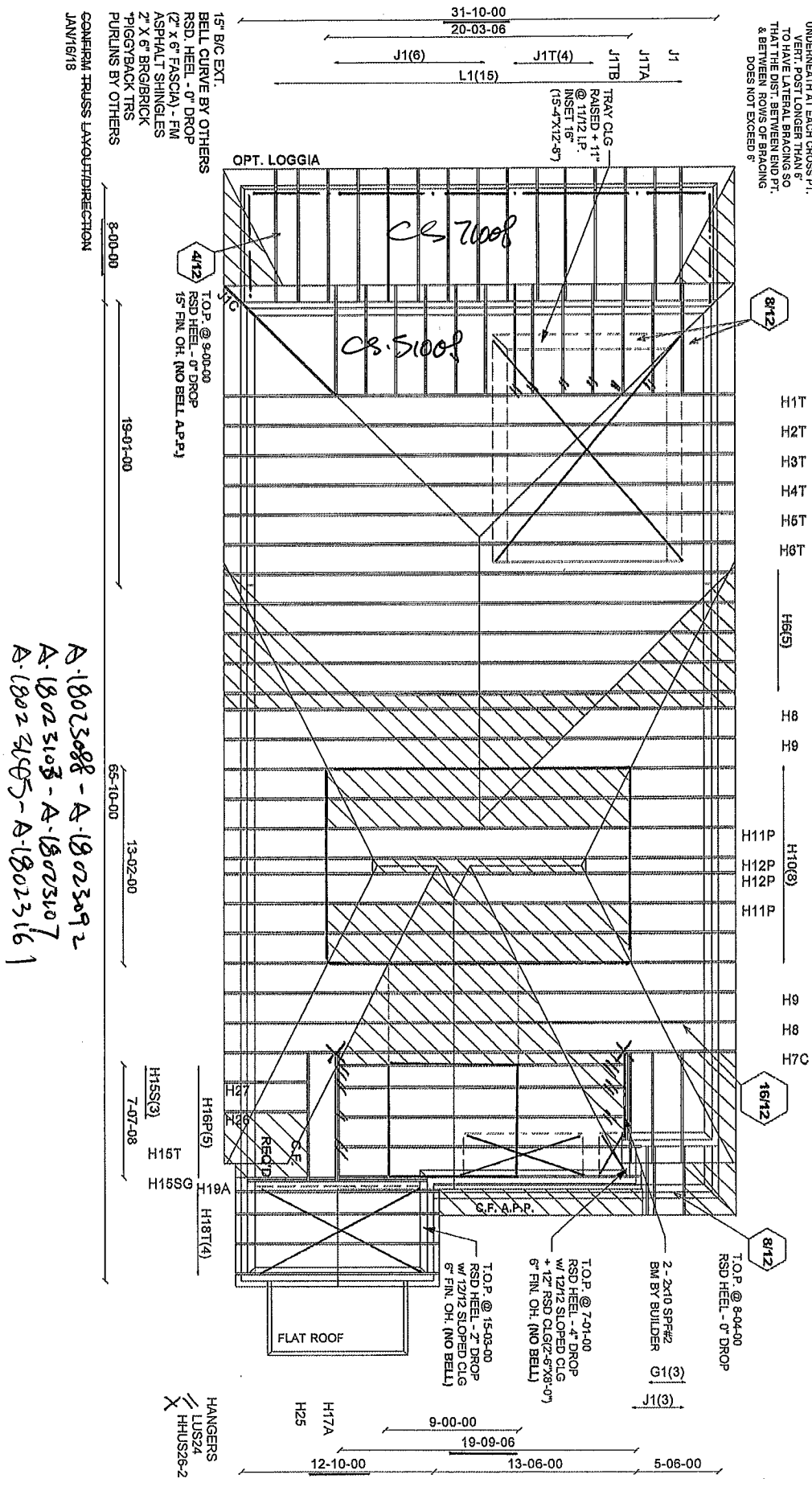


OK OK 560251 OK OK

Figure 1

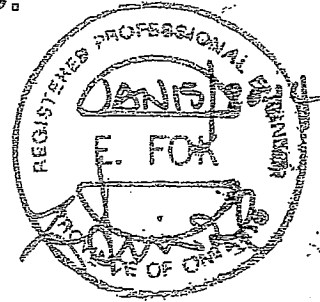
ALPHA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPHA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE. REDISIRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPHA ROOF TRUSSES INC.

ALPA-BARE



Stracon Engineering Inc.

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



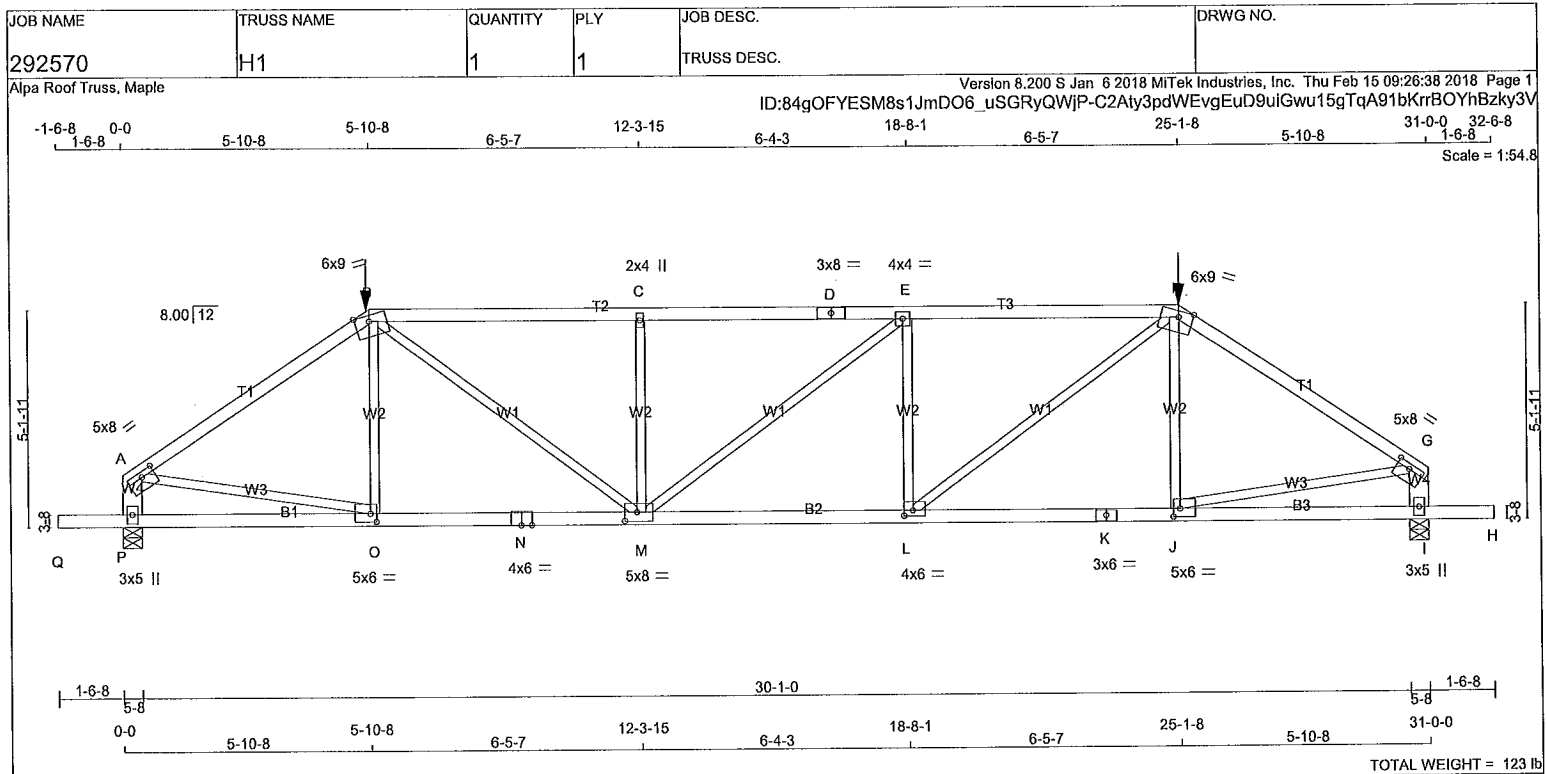
RESPONSIBILITIES

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

SPECIFICATIONS

1. Trusses designed by Stracon Engineering Inc. conforms to the relevant section of the Ontario Building Code of Canada (Part 9 or Part 4) or to the Canadian code for farm buildings, whichever applies to the building type indicated on the drawings as well as to the procedures established by the truss plate institute of Canada. Unit stresses used are as per CSA-086-09.
2. Lumber is to be the sizes and grade specified.
3. Moisture content of lumber is not to exceed 19% in service unless otherwise specified.
4. Lumber not to be treated with chemicals unless otherwise specified.
5. Plates shall be applied to both faces of the truss at each joint and shall be positioned as specified.
6. The top chord is assumed to be continuously laterally braced by the roof sheathing or purlins at intervals not exceeding 12.5 times in thickness.
7. Where not rigid ceiling is attached directly to the bottom chord, laterally brace the chords at intervals not exceeding 3M (10') o.c.

January 15, 2014



TOTAL WEIGHT = 123 lb

LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.	FACTORED	MAXIMUM FACTORED
A - B	2x4	DRY	1650F 1.5E	SPF	BRG
B - D	2x4	DRY	2100F 1.8E	SPF	BRG
D - F	2x4	DRY	2100F 1.8E	SPF	BRG
F - G	2x4	DRY	1650F 1.5E	SPF	BRG
P - A	2x6	DRY	No.2	SPF	BRG
I - G	2x6	DRY	No.2	SPF	BRG
Q - N	2x4	DRY	No.2	SPF	BRG
N - K	2x4	DRY	No.2	SPF	BRG
K - H	2x4	DRY	No.2	SPF	BRG
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	BRG

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	8.0	1.50	3.75
B	TTWW-m	MT20	6.0	9.0	1.75	4.00
C	TMW-w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	8.0		
E	MTWW-t	MT20	4.0	4.0		
F	TTWW-m	MT20	6.0	9.0	1.75	4.00
G	TMVW-t	MT20	5.0	8.0	1.50	3.75
I	BMV1+p	MT20	3.0	5.0		
J	BMWW-t	MT20	5.0	6.0	2.25	1.75
K	BS-t	MT20	3.0	6.0		
L	BMWW-t	MT20	4.0	6.0	1.50	2.50
M	BMWWWW-t	MT20	5.0	8.0	2.50	3.50
N	BS-t	MT20	4.0	6.0		
O	BMWW-t	MT20	5.0	6.0	2.25	1.75
P	BMV1+p	MT20	3.0	5.0		

HANGERS NOTES

1)

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



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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	BRG	IN-SX
P	2983	0	2983	0	0	5-8	3-15		
I	2983	0	2983	0	0	5-8	3-15		

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	2129	1287 / 0	0 / 0	0 / 0	0 / 0	842 / 0	0 / 0
I	2129	1287 / 0	0 / 0	0 / 0	0 / 0	842 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.98 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		FACTORED		W E B S		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CS1 (LC)	MEMB.	FORCE (LBS)	MAX. CS1 (LC)	UNBRAC
FR-TO		FROM	TO	FR-TO			LENGTH
A-B	-3695 / 0	-78.0	-78.0 0.74 (1)	O-B	-211 / 102	0.09 (1)	
B-C	-4787 / 0	-153.5	-153.5 0.97 (1)	B-M	0 / 2150	0.53 (1)	
C-D	-4787 / 0	-153.5	-153.5 0.96 (1)	M-C	-1064 / 0	0.43 (1)	
D-E	-4787 / 0	-153.5	-153.5 0.96 (1)	M-E	-1 / 0	0.00 (1)	
E-F	-4787 / 0	-153.5	-153.5 0.97 (1)	L-E	-1064 / 0	0.43 (1)	
F-G	-3695 / 0	-78.0	-78.0 0.74 (1)	L-F	0 / 2151	0.53 (1)	
P-A	-2747 / 0	0.0	0.0 0.20 (1)	J-F	-212 / 103	0.09 (1)	
I-G	-2747 / 0	0.0	0.0 0.20 (1)	A-O	0 / 3105	0.77 (1)	
				J-G	0 / 3105	0.77 (1)	
Q-P	0 / 0	-96.5	-96.5 0.17 (1)				
P-O	0 / 0	-36.4	-36.4 0.36 (4)				
O-N	0 / 3086	-36.4	-36.4 0.74 (1)				
N-M	0 / 3086	-36.4	-36.4 0.74 (1)				
M-L	0 / 4788	-36.4	-36.4 0.99 (1)				
L-K	0 / 3086	-36.4	-36.4 0.74 (1)				
K-J	0 / 3086	-36.4	-36.4 0.74 (1)				
J-I	0 / 0	-36.4	-36.4 0.36 (4)				
I-H	0 / 0	-96.5	-96.5 0.17 (1)				

FACTORED CONCENTRATED LOADS (LBS)		FACE		DIR.		TYPE	
JT	LOC.	LC1	MAX-	MAX+	FRONT	VERT	TOTAL
B	5-10-8	-334	-334	---	FRONT	VERT	TOTAL
F	25-1-8	-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
SIDE 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.20")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/872 (0.43")

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=0.97/1.00 (E-F:1), BC=0.99/1.00 (L-M:1), WB=0.77/1.00 (A-O:1), SSF=0.50/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

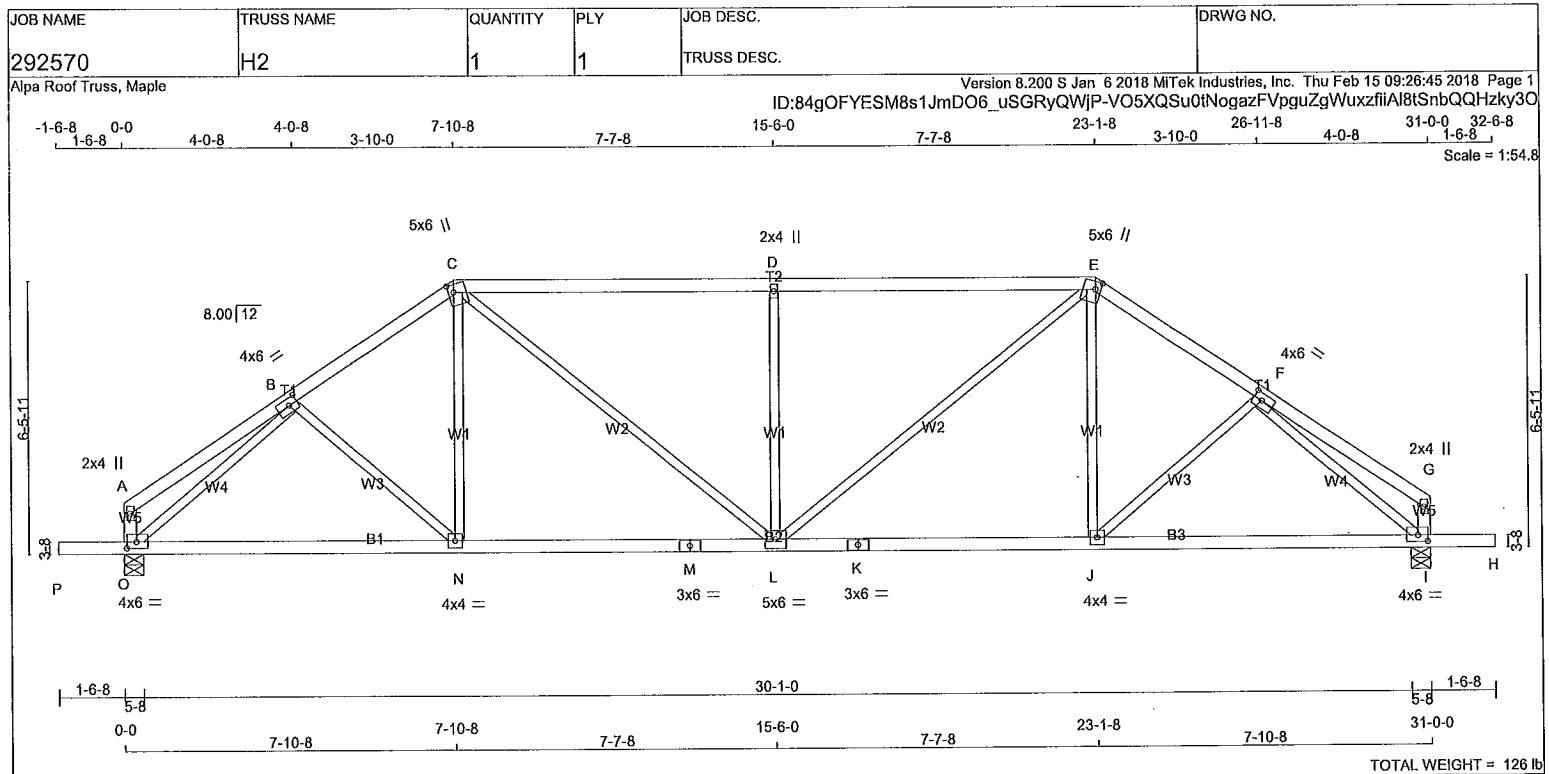
AUTOSOLVE HEELS OFF

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

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

A-18023083

CONTINUED ON PAGE 2



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	4.0	6.0	2.00	2.50
C	TTWW+m	MT20	5.0	6.0	2.25	1.50
D	TMW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	5.0	6.0	2.25	1.50
F	TMWW-t	MT20	4.0	6.0	2.00	2.50
G	TMV+p	MT20	2.0	4.0		
I	BMVW-t	MT20	4.0	6.0	1.75	2.75
J	BMWW-t	MT20	4.0	4.0		
K	BS-t	MT20	3.0	6.0		
L	BMWWW-t	MT20	5.0	6.0		
M	BS-t	MT20	3.0	6.0		
N	BMWW-t	MT20	4.0	4.0		
O	BMVW-t	MT20	4.0	6.0	1.75	2.75

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
O	1644	0	1644	0	5-8	1-12
I	1644	0	1644	0	5-8	1-12

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND			
O	1172	715/0	0/0	0/0	457/0	0/0	0/0
I	1172	715/0	0/0	0/0	457/0	0/0	0/0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.96 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0/18	-78.0 -78.0	0.18 (1)	10.00	B-N	-35/39	0.02 (1)
B-C	-1753/0	-78.0 -78.0	0.17 (1)	4.90	N-C	0/188	0.06 (4)
C-D	-1973/0	-78.0 -78.0	0.70 (1)	3.96	C-L	0/681	0.15 (1)
D-E	-1973/0	-78.0 -78.0	0.70 (1)	3.96	L-D	-732/0	0.50 (1)
E-F	-1753/0	-78.0 -78.0	0.17 (1)	4.90	L-E	0/681	0.15 (1)
F-G	0/18	-78.0 -78.0	0.18 (1)	10.00	J-E	0/188	0.06 (4)
O-A	-121/0	0.0 0.0	0.01 (1)	7.81	J-F	-35/39	0.02 (1)
I-G	-121/0	0.0 0.0	0.01 (1)	7.81	O-B	-1970/0	0.89 (1)
					F-I	-1970/0	0.89 (1)
P-O	0/0	-96.5 -96.5	0.16 (1)	10.00			
O-N	0/1467	-18.5 -18.5	0.42 (4)	10.00			
N-M	0/1444	-18.5 -18.5	0.42 (4)	10.00			
M-L	0/1444	-18.5 -18.5	0.42 (4)	10.00			
L-K	0/1444	-18.5 -18.5	0.42 (4)	10.00			
K-J	0/1444	-18.5 -18.5	0.42 (4)	10.00			
J-I	0/1467	-18.5 -18.5	0.42 (4)	10.00			
I-H	0/0	-96.5 -96.5	0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

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=0.70/1.00 (C-D:1), BC=0.42/1.00 (J-L:4), WB=0.89/1.00 (F-I:1), SSI=0.29/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

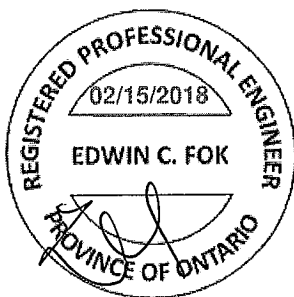
NAIL VALUES		PLATE GRIP(DRY)		SHEAR		SECTION	
(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)
MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
618	354	1667	788	1987	1656		

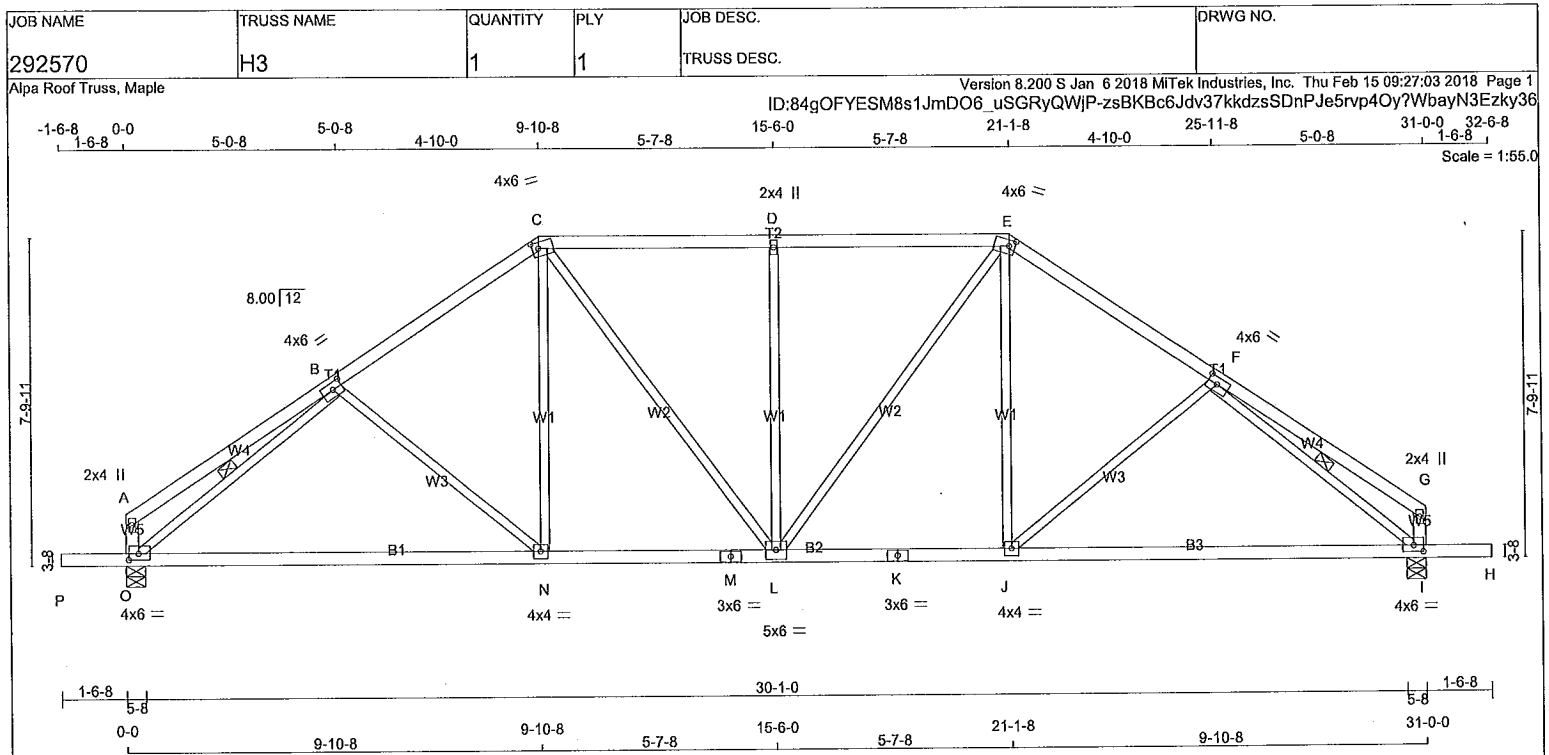
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (C) (INPUT = 0.90)
JSI METAL= 0.49 (F) (INPUT = 1.00)

A-18023084





TOTAL WEIGHT = 133 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	DRY	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF		
C - E	2x4	DRY	No.2	SPF		
E - G	2x4	DRY	No.2	SPF		
O - A	2x4	DRY	No.2	SPF		
I - G	2x4	DRY	No.2	SPF		
P - M	2x4	DRY	No.2	SPF		
M - K	2x4	DRY	No.2	SPF		
K - H	2x4	DRY	No.2	SPF		

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0			
B	TMWW-t	MT20	4.0	6.0	2.00	2.75	
C	TTWW-m	MT20	4.0	6.0	1.75	1.75	
D	TMW+w	MT20	2.0	4.0			
E	TTWW-m	MT20	4.0	6.0	1.75	1.75	
F	TMWW-t	MT20	4.0	6.0	2.00	2.75	
G	TMV+p	MT20	2.0	4.0			
I	BMVW-t	MT20	4.0	6.0	1.75	2.75	
J	BMWW-t	MT20	4.0	4.0			
K	BS-t	MT20	3.0	6.0			
L	BMWWW-t	MT20	5.0	6.0			
M	BS-t	MT20	3.0	6.0			
N	BMWW-t	MT20	4.0	4.0			
O	BMVW-t	MT20	4.0	6.0	1.75	2.75	

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

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
O	1644	0	1644	0	5-8
I	1644	0	1644	0	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN.	COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE
O	1172	715/0	0/0	0/0
I	1172	715/0	0/0	0/0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.88 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-O, F-I.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 24	-78.0	-78.0	0.30 (1)	10.00	B-N	-176 / 0 0.14 (1)
B-C	-1662 / 0	-78.0	-78.0	0.27 (1)	4.88	N-C	0 / 307 0.08 (4)
C-D	-1579 / 0	-78.0	-78.0	0.35 (1)	4.88	C-L	0 / 356 0.08 (1)
D-E	-1579 / 0	-78.0	-78.0	0.35 (1)	4.88	L-D	-536 / 0 0.81 (1)
E-F	-1662 / 0	-78.0	-78.0	0.27 (1)	4.88	L-E	0 / 356 0.08 (1)
F-G	0 / 24	-78.0	-78.0	0.30 (1)	10.00	J-E	0 / 307 0.08 (4)
O-A	-148 / 0	0.0	0.0	0.02 (1)	7.81	J-F	-176 / 0 0.14 (1)
I-G	-148 / 0	0.0	0.0	0.02 (1)	7.81	O-B	-1964 / 0 0.56 (1)
						F-I	-1964 / 0 0.56 (1)
P-O	0 / 0	-96.5	-96.5	0.16 (1)	10.00		
O-N	0 / 1496	-18.5	-18.5	0.54 (4)	10.00		
N-M	0 / 1365	-18.5	-18.5	0.54 (4)	10.00		
M-L	0 / 1365	-18.5	-18.5	0.54 (4)	10.00		
L-K	0 / 1365	-18.5	-18.5	0.54 (4)	10.00		
K-J	0 / 1365	-18.5	-18.5	0.54 (4)	10.00		
J-I	0 / 1496	-18.5	-18.5	0.54 (4)	10.00		
I-H	0 / 0	-96.5	-96.5	0.16 (1)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.31")

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=0.35/1.00 (C-D:1), BC=0.54/1.00 (J-L:4), WB=0.61/1.00 (D-L:1), SSI=0.21/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

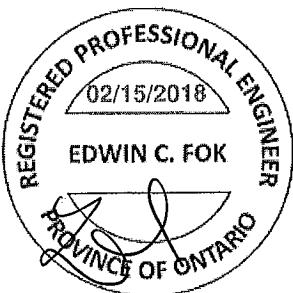
NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)	(PLI)
	MAX	MIN	MAX	MIN
	618	354	1667	788
	1987	1656		

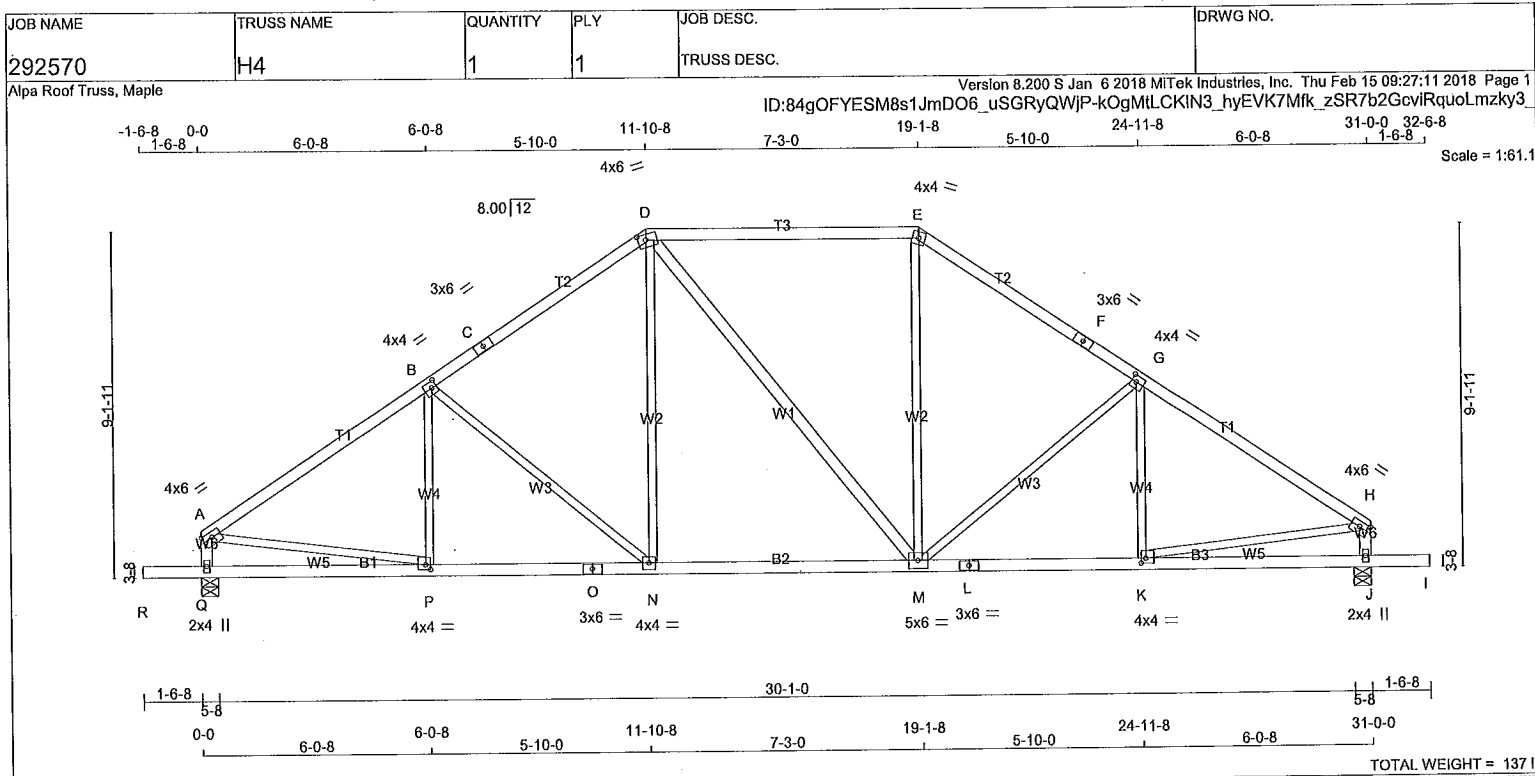
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (B) (INPUT = 0.90)
JSI METAL= 0.47 (F) (INPUT = 1.00)

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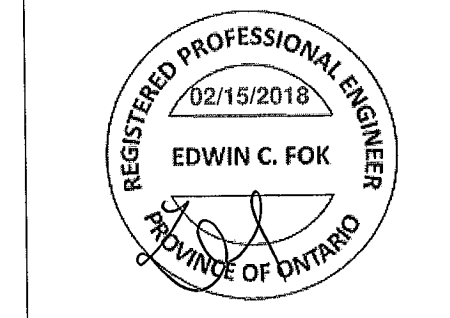
LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - D	2x4	DRY	No.2
D - E	2x4	DRY	2100F 1.8E
E - F	2x4	DRY	No.2
F - H	2x4	DRY	No.2
Q - A	2x4	DRY	No.2
J - H	2x4	DRY	No.2
R - O	2x4	DRY	No.2
O - L	2x4	DRY	No.2
L - I	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			
D - M	2x4	DRY	No.2

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	TMVW-t	MT20	4.0	4.0 2.00 1.50
C	TS-t	MT20	3.0	6.0
D	TTVW-m	MT20	4.0	6.0 1.75 2.50
E	TTW-m	MT20	4.0	4.0
F	TS-t	MT20	3.0	6.0
G	TMVW-t	MT20	4.0	4.0 2.00 1.50
H	TMVW-t	MT20	4.0	6.0 1.75 Edge
J	BMV1+p	MT20	2.0	4.0
K	BMVW-t	MT20	4.0	4.0 1.50 1.50
L	BS-t	MT20	3.0	6.0
M	BMVWV-t	MT20	5.0	6.0
N	BMVW-t	MT20	4.0	4.0
O	BS-t	MT20	3.0	6.0
P	BMVW-t	MT20	4.0	4.0 1.50 1.50
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		FACTORED		MAXIMUM FACTORED		INPUT		REQ'D	
JT	VERT	GROSS REACTION	HORZ	DOWN	HORZ	BRG	IN-SX	IN-SX	BRG
Q	1644	0	1644	0	0	5-8	5-8	2-7	2-7
J	1644	0	1644	0	0	5-8	5-8	2-7	2-7

UNFACTORED REACTIONS		1ST LCASE		MAX./MIN. COMPONENT REACTIONS		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	DEAD	SOIL
Q	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0	457 / 0	0 / 0
J	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0	457 / 0	0 / 0

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

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.52 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD	LC1 (PLF)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	-1836 / 0	-78.0	-78.0 0.44 (1)	4.52	P-B	-115 / 45	0.05 (1)
B-C	-1528 / 0	-78.0	-78.0 0.40 (1)	4.89	B-N	-402 / 0	0.49 (1)
C-D	-1528 / 0	-78.0	-78.0 0.40 (1)	4.89	N-D	0 / 379	0.09 (1)
D-E	-1249 / 0	-78.0	-78.0 0.36 (1)	6.25	D-M	0 / 0	0.00 (1)
E-F	-1528 / 0	-78.0	-78.0 0.40 (1)	4.89	M-E	0 / 379	0.09 (1)
F-G	-1528 / 0	-78.0	-78.0 0.40 (1)	4.89	M-G	-401 / 0	0.49 (1)
G-H	-1835 / 0	-78.0	-78.0 0.44 (1)	4.52	K-G	-116 / 44	0.05 (1)
Q-A	-1448 / 0	0.0	0.0 0.15 (1)	6.79	A-P	0 / 1570	0.35 (1)
J-H	-1448 / 0	0.0	0.0 0.15 (1)	6.79	K-H	0 / 1570	0.35 (1)
R-Q	0 / 0	-96.5	-96.5 0.16 (1)	10.00			
Q-P	0 / 0	-18.5	-18.5 0.14 (4)	10.00			
P-O	0 / 1553	-18.5	-18.5 0.34 (1)	10.00			
O-N	0 / 1553	-18.5	-18.5 0.34 (1)	10.00			
N-M	0 / 1248	-18.5	-18.5 0.29 (1)	10.00			
M-L	0 / 1553	-18.5	-18.5 0.34 (1)	10.00			
L-K	0 / 1553	-18.5	-18.5 0.34 (1)	10.00			
K-J	0 / 0	-18.5	-18.5 0.14 (4)	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 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 (1.03")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
 ALLOWABLE DEFL.(TL)= L/360 (1.03")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.15")

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=0.44/1.00 (A-B:1), BC=0.34/1.00 (K-M:1)
 , WB=0.49/1.00 (B-N:1), SS=0.22/1.00 (D-E: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

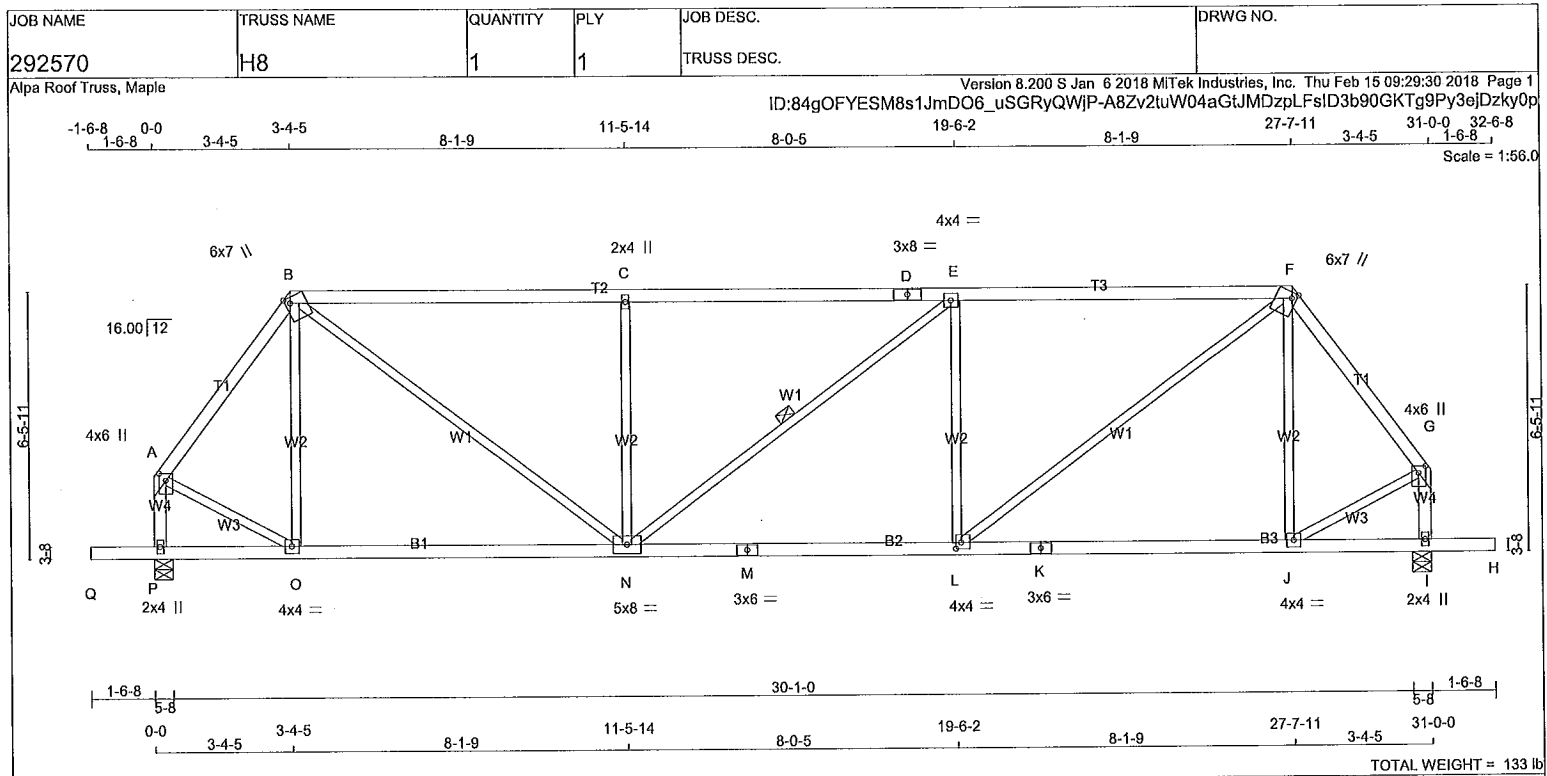
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (P) (INPUT = 0.90)
 JSI METAL= 0.58 (P) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2
B - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
F - G	2x4	DRY	No.2
P - A	2x4	DRY	No.2
I - G	2x4	DRY	No.2
Q - M	2x4	DRY	No.2
M - K	2x4	DRY	No.2
K - H	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

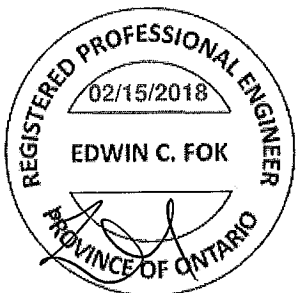
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	6.0	7.0	Edge	1.50
C	TMW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	8.0		
E	TMWW-t	MT20	4.0	4.0		
F	TTWW+m	MT20	6.0	7.0	Edge	1.50
G	TMVW+p	MT20	4.0	6.0	2.00	2.00
I	BMV1+p	MT20	2.0	4.0		
J	BMWW-t	MT20	4.0	4.0		
K	BS-t	MT20	3.0	6.0		
L	BMWW-t	MT20	4.0	4.0	1.75	1.50
M	BS-t	MT20	3.0	6.0		
N	BMWW-t	MT20	5.0	8.0		
O	BMWW-t	MT20	4.0	4.0		
P	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 IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ UPLIFT		
P	1644	0	1644	0	5-8	2-7
I	1644	0	1644	0	5-8	2-7

UNFACTORED REACTIONS

JT	1ST CASE		MAX/MIN COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
P	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0
I	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.67 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-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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	CS I (LC)
FR-TO		FROM TO		FR-TO			
A-B	-1256 / 0	-78.0 -78.0	0.19 (1)	5.54	O-B	-219 / 2	0.15 (1)
B-C	-1844 / 0	-78.0 -78.0	0.99 (1)	3.69	B-N	0 / 1378	0.31 (1)
C-D	-1844 / 0	-78.0 -78.0	0.99 (1)	3.67	N-C	-680 / 0	0.46 (1)
D-E	-1844 / 0	-78.0 -78.0	0.99 (1)	3.67	N-E	-1 / 0	0.00 (1)
E-F	-1845 / 0	-78.0 -78.0	1.00 (1)	3.67	L-E	-680 / 0	0.46 (1)
F-G	-1256 / 0	-78.0 -78.0	0.19 (1)	5.54	L-F	0 / 1379	0.31 (1)
P-A	-1487 / 0	0.0 0.0	0.17 (1)	6.72	J-F	-219 / 2	0.15 (1)
I-G	-1486 / 0	0.0 0.0	0.17 (1)	6.72	A-O	0 / 825	0.19 (1)
					J-G	0 / 825	0.19 (1)
Q-P	0 / 0	-96.5 -96.5	0.16 (1)	10.00			
P-O	0 / 0	-18.5 -18.5	0.18 (4)	10.00			
O-N	0 / 745	-18.5 -18.5	0.31 (4)	10.00			
N-M	0 / 1845	-18.5 -18.5	0.43 (1)	10.00			
M-L	0 / 1845	-18.5 -18.5	0.43 (1)	10.00			
L-K	0 / 744	-18.5 -18.5	0.31 (4)	10.00			
K-J	0 / 744	-18.5 -18.5	0.31 (4)	10.00			
J-I	0 / 0	-18.5 -18.5	0.18 (4)	10.00			
I-H	0 / 0	-96.5 -96.5	0.16 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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

(56 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.19")

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=1.00/1.00 (E-F:1), BC=0.43/1.00 (L-N:1), WB=0.46/1.00 (E-L:1), SSI=0.30/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

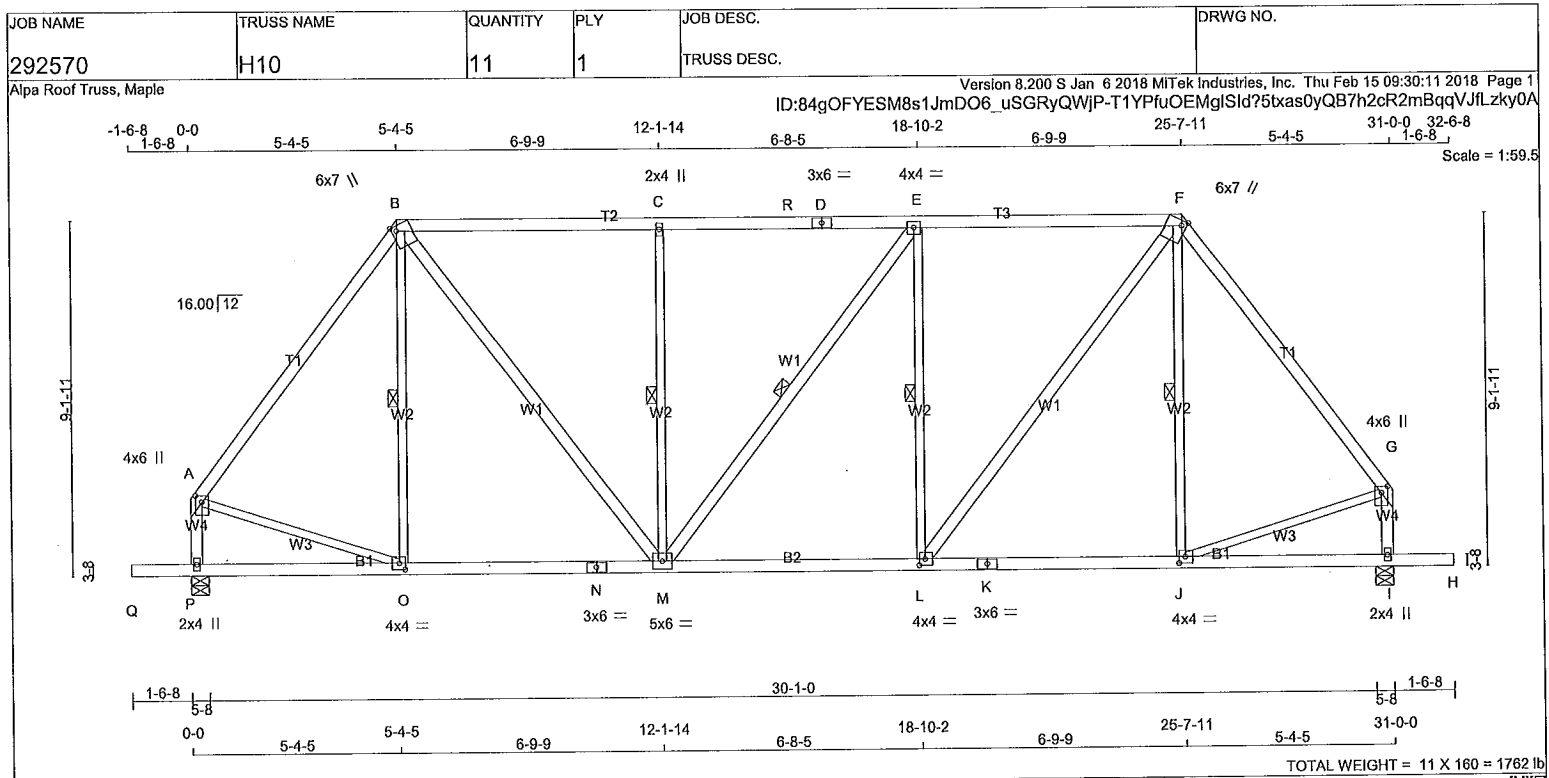
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (L) (INPUT = 0.90)
JSI METAL= 0.64 (M) (INPUT = 1.00)

A-18023088



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

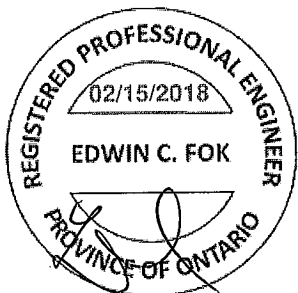
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	6.0	7.0	Edge	1.50
C	TMW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	6.0		
E	TMWW-t	MT20	4.0	4.0		
F	TTWW+m	MT20	6.0	7.0	Edge	1.50
G	TMVW+p	MT20	4.0	6.0	2.00	2.00
I	BMV1+p	MT20	2.0	4.0		
J, L, O						
J	BMWW-t	MT20	4.0	4.0	2.00	1.75
K	BS-t	MT20	3.0	6.0		
M	BMWW-t	MT20	5.0	6.0		
N	BS-t	MT20	3.0	6.0		
P	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	VERT	HORZ	DOWN	HORZ	UPLIFT
P	1720	0	1720	0	5-8
I	1720	0	1720	0	5-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE
P	1233	715/0	0/0	0/0
I	1233	715/0	0/0	0/0

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

BRACING

FOR SECTION B-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.22 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-O, C-M, E-M, E-L, F-J.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	-1355/0	O-B	-112/36
B-C	-1383/0	B-M	0/941
C-R	-1383/0	M-C	-622/0
R-D	-1383/0	D-M	-2/0
D-E	-1383/0	E-L	-622/0
E-F	-1384/0	L-F	0/944
F-G	-1354/0	J-F	-113/36
P-A	-1533/0	A-O	0/844
I-G	-1533/0	J-G	0/843

Q-P	0/0	-96.5	-96.5	0.16 (1)	10.00
P-O	0/0	-18.5	-18.5	0.16 (4)	10.00
O-N	0/808	-18.5	-18.5	0.25 (4)	10.00
N-M	0/808	-18.5	-18.5	0.25 (4)	10.00
M-L	0/1385	-18.5	-18.5	0.31 (1)	10.00
L-K	0/808	-18.5	-18.5	0.25 (4)	10.00
K-J	0/808	-18.5	-18.5	0.25 (4)	10.00
J-I	0/0	-18.5	-18.5	0.16 (4)	10.00
I-H	0/0	-96.5	-96.5	0.16 (1)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

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

CSI: TC=0.49/1.00 (E-F:1), BC=0.31/1.00 (L-M:1), WB=0.34/1.00 (E-L:1), SSI=0.27/1.00 (E-F: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 (PSI)	SECTION (PLI)
MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.47 (A) (INPUT = 1.00)

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CONTINUED ON PAGE 2

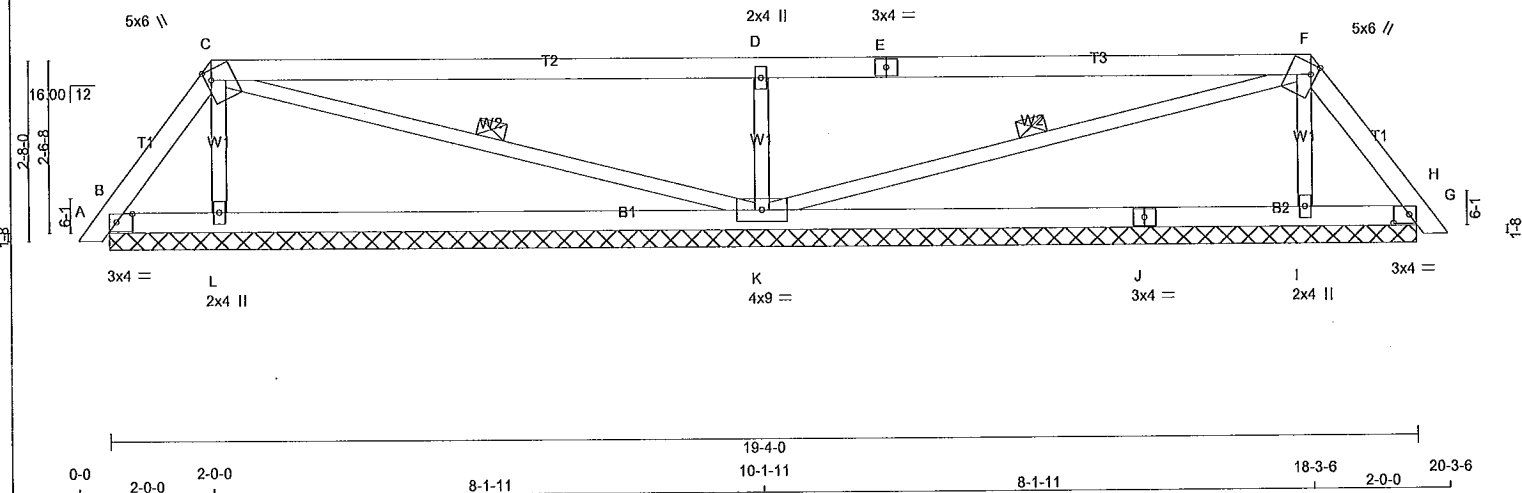
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292570	H11P	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:84gOFYESM8s1JmDO6_uSGRyQWjP-q_LlibSNBCNkOOT3gUA2j77yold6MKw_6C4L.Yzky05

0-0 2-0-0 2-0-0 8-1-11 10-1-11 8-1-11 18-3-6 2-0-0 20-3-6
Scale = 1:34.1



TOTAL WEIGHT = 2 X 66 = 132 lb

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

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	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	4.0
F	TTWW+m	MT20	5.0	6.0 1.75 1.00
G	TMB1-I	MT20	3.0	4.0 1.50 2.75
I	BMW1+w	MT20	2.0	4.0
J	BS-t	MT20	3.0	4.0
K	BMWW1-I	MT20	4.0	9.0
L	BMW1+w	MT20	2.0	4.0

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
B	139	0	139	0	0	19-4-0 (4-0-0)	J-11-14		
L	344	0	344	0	0	19-4-0 (4-0-0)	J-11-14		
K	953	0	953	0	0	19-4-0 (4-0-0)	J-11-14		
I	344	0	344	0	0	19-4-0 (4-0-0)	J-11-14		
G	139	0	139	0	0	19-4-0 (4-0-0)	J-11-14		

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST I.CASE		MAX/MIN. COMPONENT REACTIONS		SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
JT	COMBINED														
B	93	93/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
L	253	113/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	140/0	0/0	0/0	0/0
K	677	429/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	248/0	0/0	0/0	0/0
I	253	113/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	140/0	0/0	0/0	0/0
G	93	93/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. MEMB. FORCE (LBS)
FR-TO		FROM TO	LENGTH FR-TO
A-B	0/10	-78.0 -78.0 0.01 (1)	10.00 L-C -210/0 0.03 (1)
B-C	-104/0	-78.0 -78.0 0.03 (1)	6.25 C-K -8/0 0.00 (1)
C-D	-41/0	-78.0 -78.0 0.88 (1)	6.25 K-D -793/0 0.13 (1)
D-E	-43/0	-78.0 -78.0 0.88 (1)	6.25 K-F -8/0 0.00 (1)
E-F	-43/0	-78.0 -78.0 0.88 (1)	6.25 I-F -210/0 0.03 (1)
F-G	-104/0	-78.0 -78.0 0.03 (1)	6.25
G-H	0/10	-78.0 -78.0 0.01 (1)	10.00
B-L	0/60	-18.5 -18.5 0.19 (4)	10.00
L-K	0/50	-18.5 -18.5 0.26 (4)	10.00
K-J	0/50	-18.5 -18.5 0.26 (4)	10.00
J-I	0/50	-18.5 -18.5 0.26 (4)	10.00
I-G	0/60	-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



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=0.88/1.00 (D-F:1), BC=0.26/1.00 (K-L:4), WB=0.13/1.00 (D-K:1), SSI=0.31/1.00 (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.

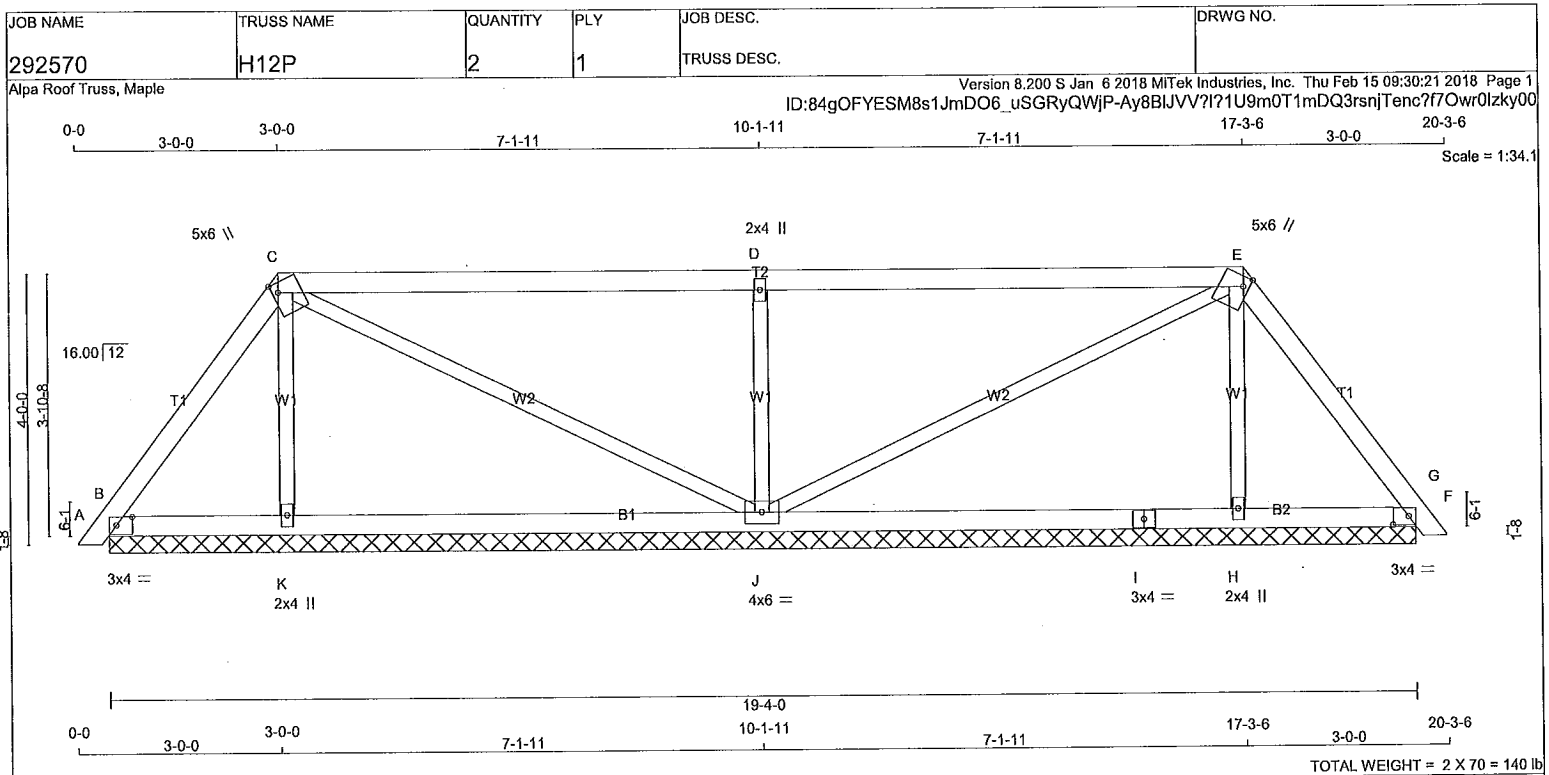
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (C) (INPUT = 0.90)
JSI METAL= 0.26 (E) (INPUT = 1.00)

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

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	IN-SX	UPLIFT	IN-SX	UPLIFT
B	213	0	213	0	0	19-4-0	(4-0-0) 9-7		
K	310	0	310	0	0	19-4-0	(4-0-0) 9-7		
J	875	0	875	0	0	19-4-0	(4-0-0) 9-7		
H	310	0	310	0	0	19-4-0	(4-0-0) 9-7		
F	213	0	213	0	0	19-4-0	(4-0-0) 9-7		

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	COMB.	SOIL
B	148	113 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0		
K	226	109 / 0	0 / 0	0 / 0	0 / 0	116 / 0	0 / 0		
J	620	396 / 0	0 / 0	0 / 0	0 / 0	224 / 0	0 / 0		
H	226	109 / 0	0 / 0	0 / 0	0 / 0	116 / 0	0 / 0		
F	148	113 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0		

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	FORCE (LBS)	MAX. FACTORED	MAX. FACTORED
FR-TO		FROM	TO	FR-TO			
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	K-C	-203 / 0	0.05 (1)
B-C	-104 / 0	-78.0	-78.0 0.09 (1)	6.25	C-J	-46 / 0	0.06 (1)
C-D	-13 / 0	-78.0	-78.0 0.68 (1)	6.25	J-D	-695 / 0	0.16 (1)
D-E	-13 / 0	-78.0	-78.0 0.68 (1)	6.25	J-E	-46 / 0	0.06 (1)
E-F	-104 / 0	-78.0	-78.0 0.09 (1)	6.25	H-E	-203 / 0	0.05 (1)
F-G	0 / 10	-78.0	-78.0 0.01 (1)	10.00			
B-K	0 / 60	-18.5	-18.5 0.14 (4)	10.00			
K-J	0 / 54	-18.5	-18.5 0.21 (4)	10.00			
J-I	0 / 54	-18.5	-18.5 0.21 (4)	10.00			
I-H	0 / 54	-18.5	-18.5 0.21 (4)	10.00			
H-F	0 / 60	-18.5	-18.5 0.14 (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

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=0.68/1.00 (C-D:1), BC=0.21/1.00 (H-J:4), WB=0.16/1.00 (D-J:1), SSI=0.27/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

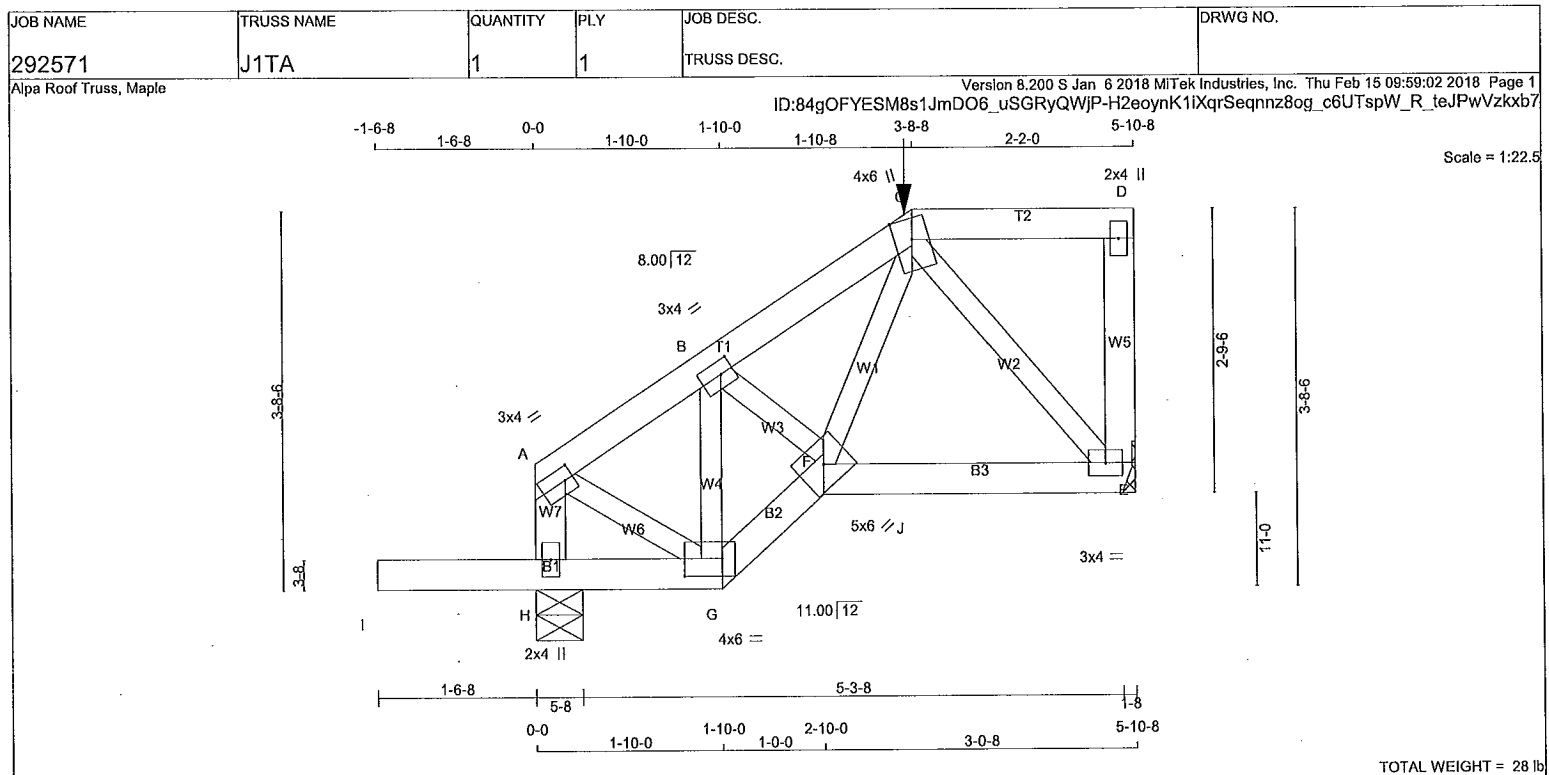
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.74 (J) (INPUT = 0.90)
JSI METAL= 0.15 (D) (INPUT = 1.00)



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LUMBER		N. L. G. A. RULES		LUMBER		DESCR.	
CHORDS	SIZE						
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	TTVW+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

1) 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

BEARINGS

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN SNOW	MIN. 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)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO	FROM TO	FR-TO	FROM TO
A-B	-243 / 0	A-G	-302 / 0
B-C	-339 / 0	G-B	0 / 118
C-D	0 / 0	F-C	0 / 157
E-D	-121 / 0	C-E	-338 / 0
H-A	-292 / 0	A-G	0 / 231
I-H	0 / 0		
H-G	0 / 0		
G-F	0 / 261		
F-J	0 / 223		
J-E	0 / 223		

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

- 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

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)

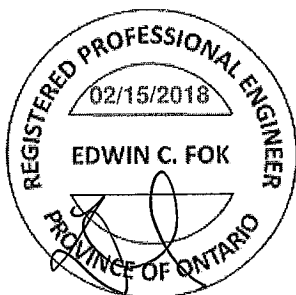
, WB=0.07/1.00 (C-E:1), SSI=0.13/1.00 (H-I:1)

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



A-18023104

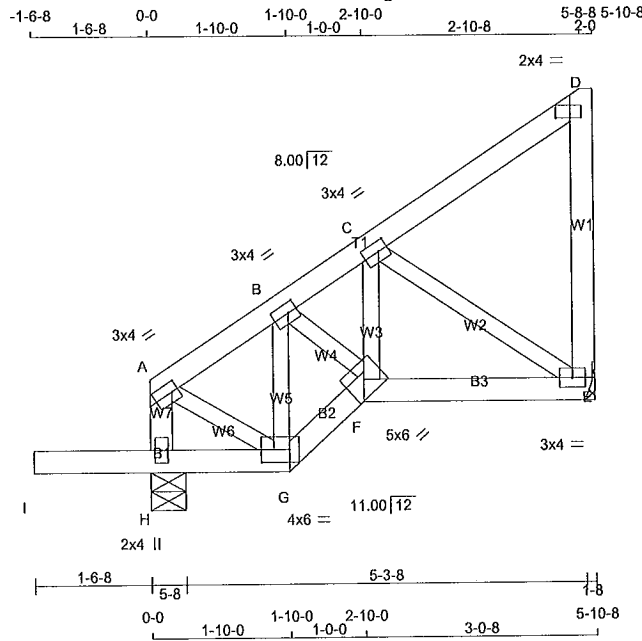
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292571	J1TB	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:84gOFYESM8s1JmDO6_uSGRyQWJP-q4UYdhJvMJ4lYbJlJ?el94W6bTdFQ0hTVzYFtzkxTP



Scale = 1:30.5

TOTAL WEIGHT = 30 lb (M)

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
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-1	MT20	3.0	4.0	1.50	1.00	
B	TMVW-1	MT20	3.0	4.0	1.50	1.50	
C	TMVW-1	MT20	3.0	4.0	1.50	1.50	
D	TVM-p	MT20	2.0	4.0	0.50	2.25	
E	BMVW1-1	MT20	3.0	4.0			
F	BBWW-h	MT20	5.0	6.0			
G	BBWW-1	MT20	4.0	6.0	2.00	4.50	
H	BMV1+p	MT20	2.0	4.0			

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQRD
	VERT	HORZ	DOWN	UP
JT	264	0	264	0
E	452	0	452	0
H	452	0	452	0

UNFACTORED REACTIONS

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

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

BRACING

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

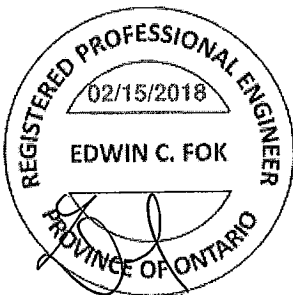
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

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

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



DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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), VB=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.

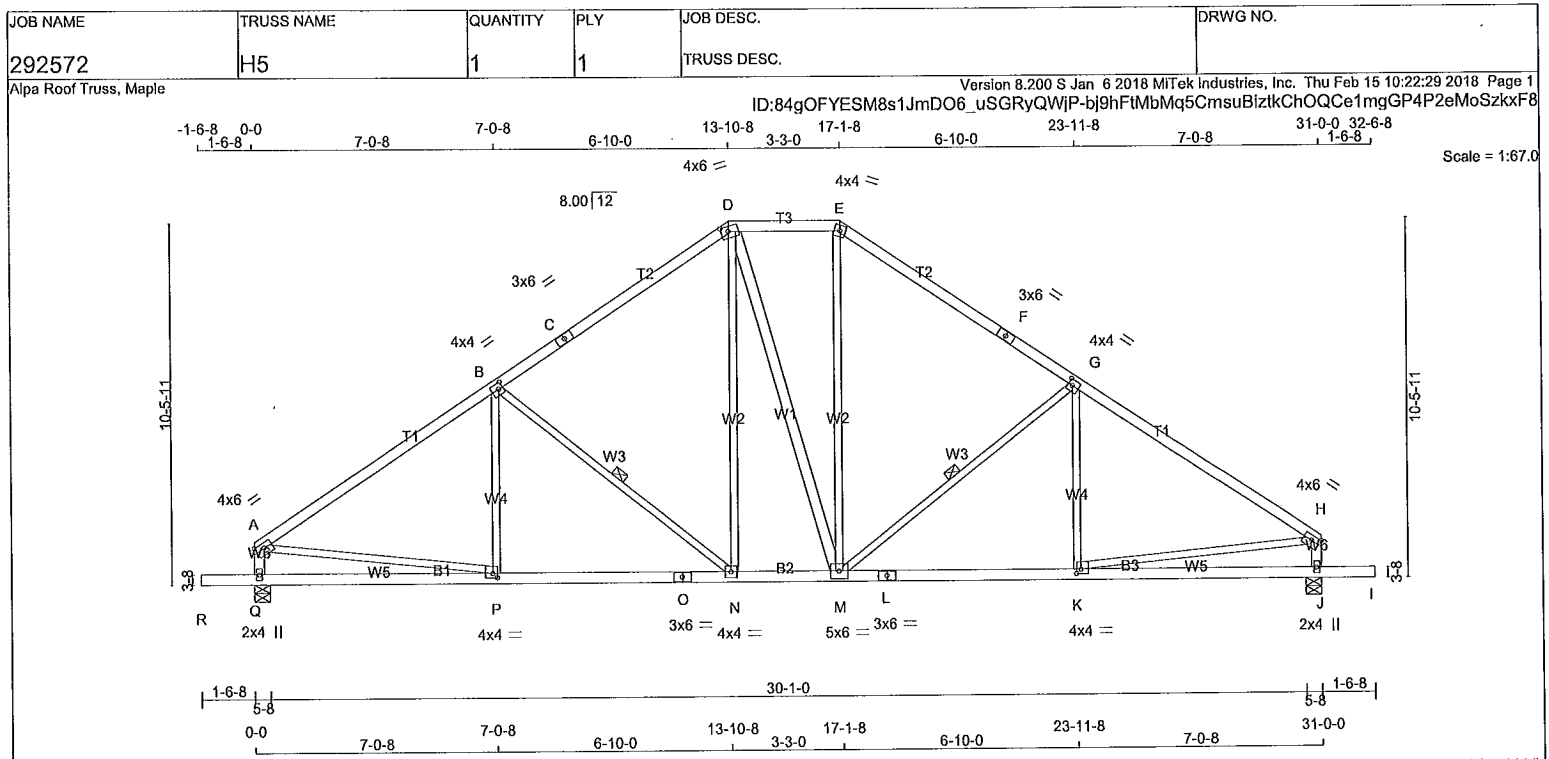
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

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)

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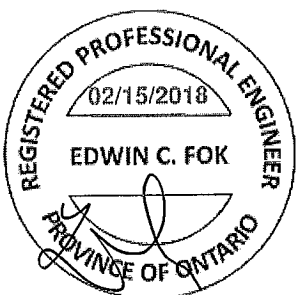
LUMBER				DESCR.	
N. L. G. A. RULES					
CHORDS	SIZE	LUMBER			
A - C	2x4	DRY	No.2	SPF	
C - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	No.2	SPF	
E - F	2x4	DRY	No.2	SPF	
F - H	2x4	DRY	No.2	SPF	
Q - A	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	
R - O	2x4	DRY	No.2	SPF	
O - L	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.75	Edge
B	TMVW-t	MT20	4.0	4.0	2.00	1.50
C	TS-t	MT20	3.0	6.0		
D	TTWW-m	MT20	4.0	6.0	1.75	2.50
E	TTW-m	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMVW-t	MT20	4.0	4.0	2.00	1.50
H	TMVW-t	MT20	4.0	6.0	1.75	Edge
J	BMV1+p	MT20	2.0	4.0		
K	BMVW-t	MT20	4.0	4.0	1.50	1.50
L	BS-t	MT20	3.0	6.0		
M	BMVW-t	MT20	5.0	6.0		
N	BMVW-t	MT20	4.0	4.0		
O	BS-t	MT20	3.0	6.0		
P	BMVW-t	MT20	4.0	4.0	1.50	1.50
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		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UPLIFT	IN-SX
Q	1644	0	1644	0	5-8
J	1644	0	1644	0	5-8

UNFACTORED REACTIONS

JT	COMBINED	1ST L CASE	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
Q	1172	715 / 0	0 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0
J	1172	715 / 0	0 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.28 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO	FR-TO	
A-B	-1829 / 0	-78.0	-78.0 0.62 (1)	P-B	-50 / 92
B-C	-1393 / 0	-78.0	-78.0 0.56 (1)	B-N	-546 / 0
C-D	-1393 / 0	-78.0	-78.0 0.56 (1)	N-D	0 / 424
D-E	-1132 / 0	-78.0	-78.0 0.12 (1)	D-M	0 / 4
E-F	-1394 / 0	-78.0	-78.0 0.56 (1)	M-E	0 / 428
F-G	-1394 / 0	-78.0	-78.0 0.56 (1)	M-G	-544 / 0
G-H	-1828 / 0	-78.0	-78.0 0.62 (1)	K-G	-52 / 91
Q-A	-1443 / 0	0.0	0.0 0.15 (1)	A-P	0 / 1564
J-H	-1442 / 0	0.0	0.0 0.15 (1)	K-H	0 / 1564
R-Q	0 / 0	-96.5	-96.5 0.16 (1)		
Q-P	0 / 0	-18.5	-18.5 0.23 (4)		
P-O	0 / 1552	-18.5	-18.5 0.38 (4)		
O-N	0 / 1552	-18.5	-18.5 0.38 (4)		
N-M	0 / 1131	-18.5	-18.5 0.25 (1)		
M-L	0 / 1551	-18.5	-18.5 0.37 (4)		
L-K	0 / 1551	-18.5	-18.5 0.37 (4)		
K-J	0 / 0	-18.5	-18.5 0.23 (4)		
J-I	0 / 0	-96.5	-96.5 0.16 (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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.15")

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=0.62/1.00 (A-B:1), BC=0.38/1.00 (N-P:4), WB=0.35/1.00 (A-P:1), SSI=0.22/1.00 (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

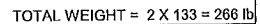
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

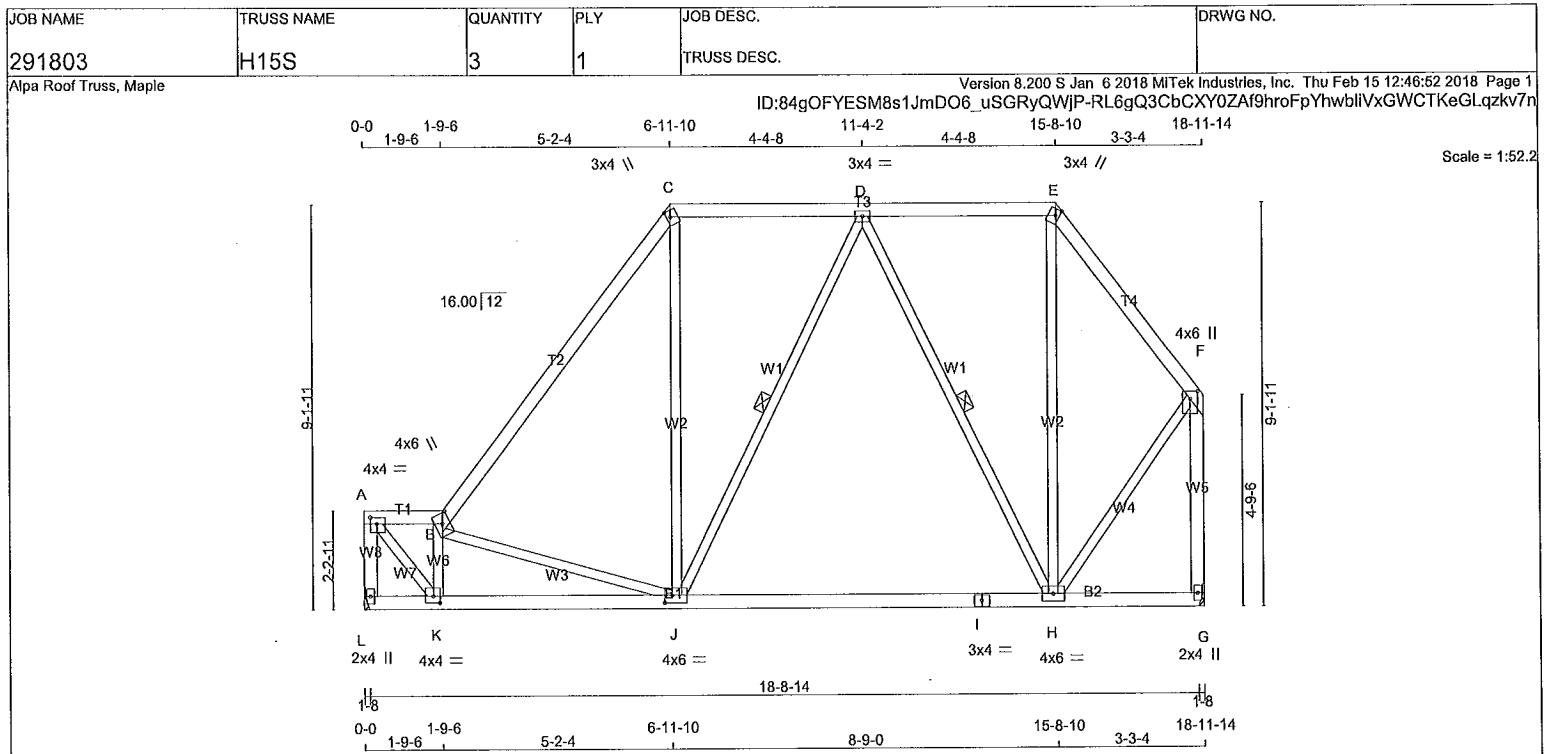
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (P) (INPUT = 0.90)
JSI METAL= 0.58 (P) (INPUT = 1.00)



A-18023107



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

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	4.0	4.0	1.75 1.75
B	TTWW+m	MT20	4.0	6.0	2.75 2.00
C	TTW+m	MT20	3.0	4.0	1.75 1.00
D	TMVW-t	MT20	3.0	4.0	
E	TTW+m	MT20	3.0	4.0	1.75 1.00
F	TMVW+p	MT20	4.0	6.0	2.00 2.00
G	BMV1+p	MT20	2.0	4.0	
H	BMVWW-t	MT20	4.0	6.0	
I	BS-t	MT20	3.0	4.0	
J	BMVWW-t	MT20	4.0	6.0	2.00 2.00
K	BMVW-t	MT20	4.0	4.0	1.75 1.75
L	BMV1+p	MT20	2.0	4.0	

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	L	VERT	HORZ	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX
JT		942	0	942	0	0			
L									
G		955	0	955	0	0			

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	674	399 / 0	0 / 0	0 / 0	0 / 0	276 / 0	0 / 0
G	684	399 / 0	0 / 0	0 / 0	0 / 0	286 / 0	0 / 0

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
L-A	-921 / 0	0.0 0.0	0.11 (1)	A-K	0 / 1154	0.26 (1)	
A-B	-757 / 0	-78.0 -78.0	0.04 (1)	K-B	-834 / 0	0.13 (1)	
B-C	-815 / 0	-78.0 -78.0	0.29 (1)	B-J	-333 / 0	0.18 (1)	
C-D	-492 / 0	-85.5 -85.5	0.21 (1)	J-C	0 / 302	0.07 (1)	
D-E	-312 / 0	-85.5 -85.5	0.21 (1)	J-D	-45 / 13	0.03 (1)	
E-F	-521 / 0	-78.0 -78.0	0.11 (1)	D-H	-460 / 0	0.32 (1)	
G-F	-950 / 0	0.0 0.0	0.39 (1)	H-E	0 / 146	0.04 (4)	
				H-F	0 / 510	0.11 (1)	
L-K	0 / 0	-18.5 -18.5	0.02 (1)				
K-J	0 / 803	-18.5 -18.5	0.31 (4)				
J-I	0 / 512	-18.5 -18.5	0.28 (4)				
I-H	0 / 512	-18.5 -18.5	0.28 (4)				
H-G	0 / 0	-18.5 -18.5	0.21 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

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

LOADING IN OTHER FLAT SECTIONS BASED ON A SLOPE OF 6.00/12

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 (0.63")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.63")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.39/1.00 (F-G:1), BC=0.31/1.00 (J-K:4),
WB=0.32/1.00 (D-H:1), SSI=0.18/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

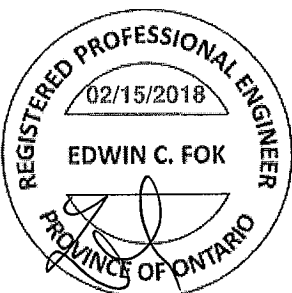
NAIL VALUES		PLATE GRIP(DRY)		SHEAR		SECTION	
(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)
MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656	

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.30 (K) (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-18023146

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291803	H15SG	1	1	TRUSS DESC.	

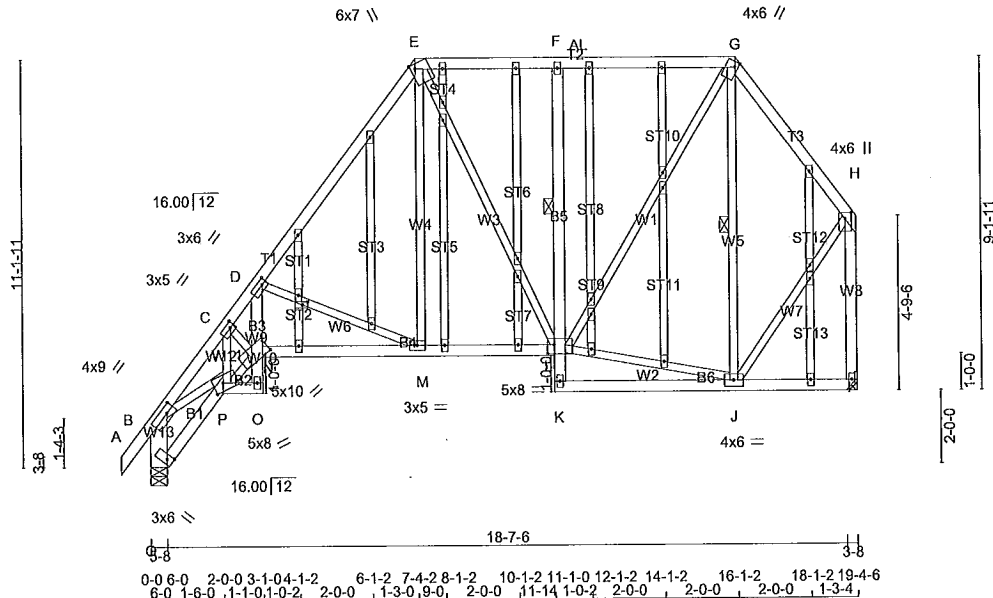
Alpa Roof Truss, Maple

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ID:84gOFYESM8s1JmDO6_uSGRYQWJP-0hJqWnL2wjB5YGKv1R1bRZFtT7VxoAKI8ny0MSzkv8U

-9-8 0-0 2-0-0 3-1-0 4-1-2 6-1-2 7-4-2 8-1-2 10-1-2 11-1-0 12-1-2 14-1-2 16-1-2 18-1-2 19-4-6
9-8, 2-0-0, 1-1-0, 1-0-2, 2-0-0, 1-3-0, 9-0, 2-0-0, 11-14 1-0-2 2-0-0, 2-0-0, 2-0-0, 2-0-0, 1-3-4,

Scale = 1:63.1



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

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	9.0	2.00	3.00	
C	TMVW-t	MT20	3.0	5.0	1.50	1.50	
D	TMVW-t	MT20	3.0	6.0	1.50	1.75	
E	TTWW+m	MT20	6.0	7.0	Edge	1.50	
F	TMV+p	MT20	2.0	4.0			
G	TTWW+m	MT20	4.0	6.0	1.75	1.00	
H	TMVW+p	MT20	4.0	6.0	2.00	2.00	
I	BMV1+p	MT20	2.0	4.0			
J	BMVWW-t	MT20	4.0	6.0			
K	BMV+p	MT20	2.0	4.0			
L	BVMWW-t	MT20	5.0	8.0	3.00	2.25	
M	BMVW-t	MT20	3.0	5.0			
N	BVMWW-w	MT20	5.0	10.0	2.00	6.50	
O	BMV+p	MT20	2.0	4.0			
P	BBVWW-m	MT20	5.0	8.0	2.50	3.25	
Q	BVM1+i	MT20	3.0	6.0	Edge		
R	NP+w	MT20	2.0	4.0			

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



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
Q	1031	0	1031	0
I	974	0	974	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	DOWN	HORZ	UPLIFT
Q	736	445 / 0	0 / 0	0 / 0	291 / 0	0 / 0
I	698	406 / 0	0 / 0	0 / 0	291 / 0	0 / 0

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

BRACING

FOR SECTION E-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.77 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-L, G-J.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD LC1	MAX	MAX.	MEMB.	MAX. FACTORED	MAX
MEMB.	FORCE (LBS)	VERT. (PLF)	CSI (LC)	UNBRAC	LENGTH	FR-TO	FORCE (LBS)	CSI (LC)
A-B	0 / 28	-78.0	-78.0	0.05 (1)	10.00	P-C	-230 / 0	0.03 (1)
B-C	-1790 / 0	-78.0	-78.0	0.13 (1)	4.90	P-N	0 / 1315	0.30 (1)
C-D	-1849 / 0	-78.0	-78.0	0.19 (1)	4.77	C-N	0 / 210	0.05 (1)
D-E	-981 / 0	-78.0	-78.0	0.20 (1)	6.08	D-M	-731 / 0	0.29 (1)
E-F	-616 / 0	-85.5	-85.5	0.22 (1)	2.00	M-E	0 / 422	0.09 (1)
F-AL	-615 / 0	-85.5	-85.5	0.22 (1)	2.00	E-L	0 / 93	0.02 (1)
AL-G	-615 / 0	-85.5	-85.5	0.22 (1)	2.00	L-J	0 / 302	0.07 (1)
G-H	-520 / 0	-78.0	-78.0	0.11 (1)	6.25	L-G	0 / 580	0.13 (1)
Q-B	-1012 / 0	0.0	0.0	0.07 (1)	7.81	J-G	-375 / 0	0.20 (1)
I-H	-956 / 0	0.0	0.0	0.39 (1)	7.81	J-H	0 / 515	0.12 (1)
						B-P	0 / 1212	0.27 (1)
Q-P	0 / 0	-18.5	-18.5	0.02 (4)	10.00			
P-O	0 / 67	-18.5	-18.5	0.01 (1)	10.00			
O-N	0 / 8	0.0	0.0	0.08 (1)	10.00			
N-D	0 / 675	0.0	0.0	0.18 (1)	10.00			
N-M	0 / 1246	-18.5	-18.5	0.25 (1)	10.00			
M-L	0 / 575	-18.5	-18.5	0.15 (4)	10.00			
K-L	0 / 40	0.0	0.0	0.02 (1)	10.00			
L-F	-453 / 0	0.0	0.0	0.04 (1)	6.25			
K-J	0 / 13	-18.5	-18.5	0.10 (4)	10.00			
J-I	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

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, 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 (0.65")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.65")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.39/1.00 (H-I:1), BC=0.25/1.00 (M-N:1), WB=0.30/1.00 (N-P:1), SSI=0.19/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

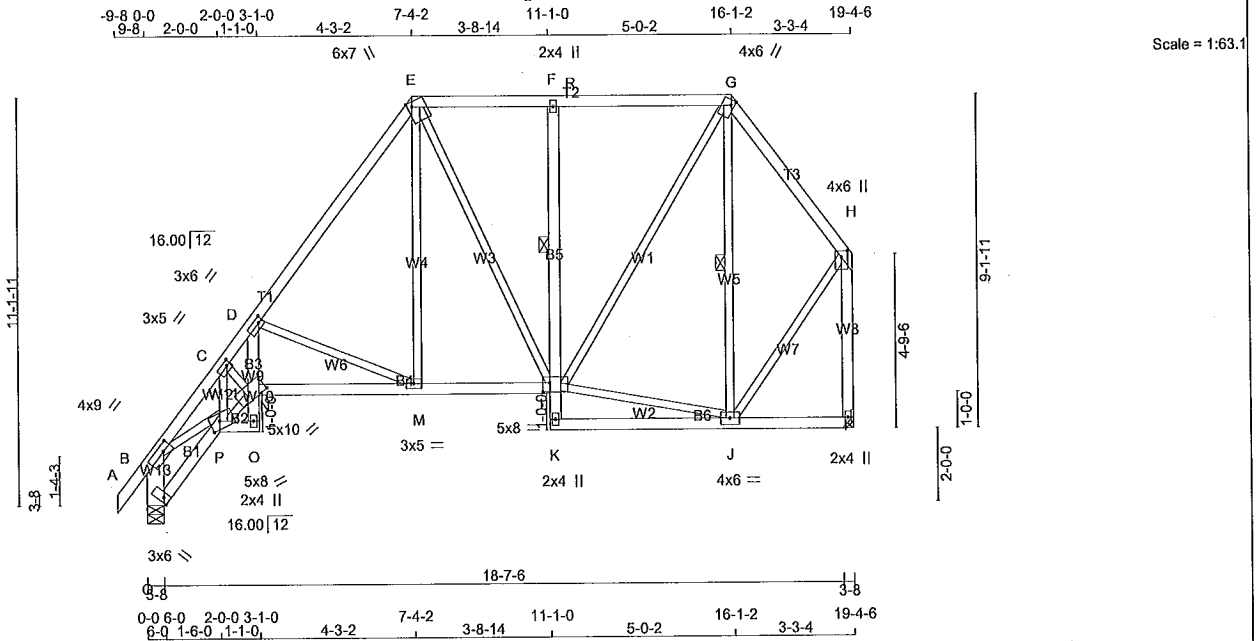
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (N) (INPUT = 0.90)
JSI METAL= 0.33 (P) (INPUT = 1.00)

Alpa Roof Truss, Maple



TOTAL WEIGHT = 119 lb

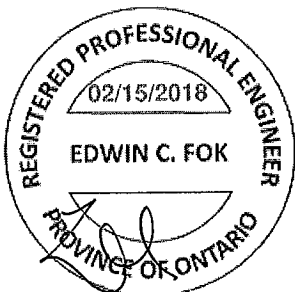
LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY	No.2	SPF	
E - G	2x4	DRY	No.2	SPF	
G - H	2x4	DRY	No.2	SPF	
Q - B	2x6	DRY	No.2	SPF	
I - H	2x4	DRY	No.2	SPF	
Q - P	2x4	DRY	No.2	SPF	
P - O	2x4	DRY	No.2	SPF	
O - D	2x4	DRY	No.2	SPF	
N - L	2x4	DRY	No.2	SPF	
K - F	2x4	DRY	No.2	SPF	
K - I	2x4	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
B	TMVW-t	MT20	4.0	9.0	2.00	3.00
C	TMVW-t	MT20	3.0	5.0	1.50	1.50
D	TMVW-t	MT20	3.0	6.0	1.50	1.75
E	TTVW+m	MT20	6.0	7.0	Edge	1.50
F	TMV+p	MT20	2.0	4.0		
G	TTVW+m	MT20	4.0	6.0	1.75	1.00
H	TMVW+p	MT20	4.0	6.0	2.00	2.00
I	BMV1+p	MT20	2.0	4.0		
J	BMVWW-t	MT20	4.0	6.0		
K	BMV+p	MT20	2.0	4.0		
L	BVMWW-t	MT20	5.0	8.0	3.00	2.25
M	BMVW-t	MT20	3.0	5.0		
N	BVMWW-w	MT20	5.0	10.0	2.00	6.50
O	BMV+p	MT20	2.0	4.0		
P	BBVWW-m	MT20	5.0	8.0	2.50	3.25
Q	BVM1-t	MT20	3.0	6.0	Edge	

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
	VERT	HORZ	DOWN	HORZ		
JT	1031	0	1031	0	5-8	1-8
Q	974	0	974	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
Q	736	445 / 0	0 / 0	0 / 0	0 / 0	291 / 0	0 / 0
I	698	406 / 0	0 / 0	0 / 0	0 / 0	291 / 0	0 / 0

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

BRACING

FOR SECTION E-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.77 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-L, G-J.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 28	-78.0	-78.0 0.05 (1)	10.00	P-C	-230 / 0	0.03 (1)
B-C	-1790 / 0	-78.0	-78.0 0.13 (1)	4.90	P-N	0 / 1315	0.30 (1)
C-D	-1849 / 0	-78.0	-78.0 0.19 (1)	4.77	C-N	0 / 210	0.05 (1)
D-E	-981 / 0	-78.0	-78.0 0.20 (1)	6.08	D-M	-731 / 0	0.29 (1)
E-F	-616 / 0	-85.5	-85.5 0.22 (1)	2.00	M-E	0 / 422	0.09 (1)
F-R	-615 / 0	-85.5	-85.5 0.22 (1)	2.00	E-L	0 / 93	0.02 (1)
R-G	-615 / 0	-85.5	-85.5 0.22 (1)	2.00	L-J	0 / 302	0.07 (1)
G-H	-520 / 0	-78.0	-78.0 0.11 (1)	6.25	L-G	0 / 580	0.13 (1)
Q-B	-1012 / 0	0.0	0.0 0.07 (1)	7.81	J-G	-375 / 0	0.20 (1)
I-H	-956 / 0	0.0	0.0 0.39 (1)	7.81	J-H	0 / 515	0.12 (1)
					B-P	0 / 1212	0.27 (1)
Q-P	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
P-O	0 / 67	-18.5	-18.5 0.01 (1)	10.00			
O-N	0 / 8	0.0	0.0 0.08 (1)	10.00			
N-D	0 / 675	0.0	0.0 0.18 (1)	10.00			
N-M	0 / 1246	-18.5	-18.5 0.25 (1)	10.00			
M-L	0 / 575	-18.5	-18.5 0.15 (4)	10.00			
K-L	0 / 40	0.0	0.0 0.02 (1)	10.00			
L-F	-453 / 0	0.0	0.0 0.04 (1)	6.25			
K-J	0 / 13	-18.5	-18.5 0.10 (4)	10.00			
J-I	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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.65")
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.65")
CALCULATED VERT. DEFL.(TL)= L/999 (0.08")

CSI: TC=0.39/1.00 (H-I:1), BC=0.25/1.00 (M-N:1), WB=0.30/1.00 (N-P:1), SSI=0.19/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

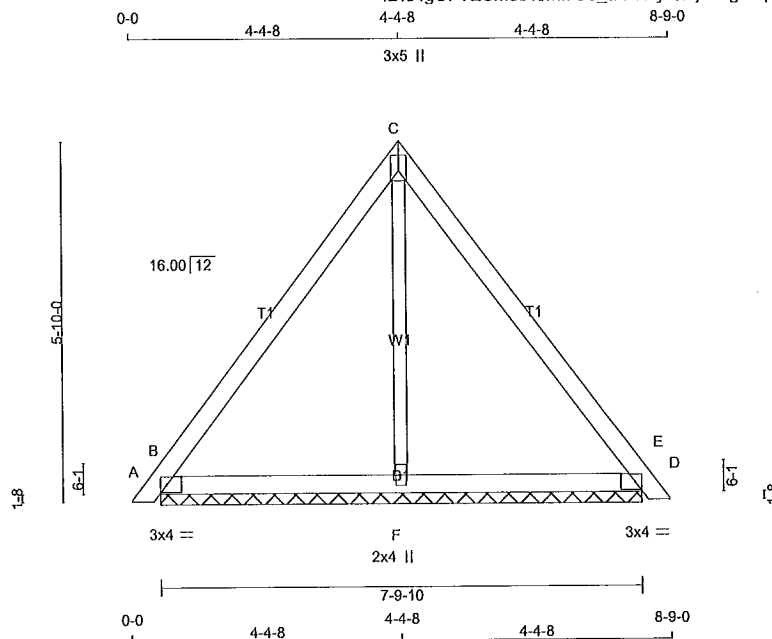
JSI GRIP= 0.90 (N) (INPUT = 0.90)
JSI METAL= 0.33 (P) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291803	H16P	5	1	TRUSS DESC.	

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ID:84gOFYESM8s1JmDO6_uSGRyQWjP-rrg5nqQpWZMFGBBfOI8?gqUsxYasCxSdWjPKZ5zkv8o



Scale = 1:37.3

TOTAL WEIGHT = 5 X 30 = 148 lb

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

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.75	
C	TTW+p	MT20	3.0	5.0	2.00	Edge	
D	TMB1-I	MT20	3.0	4.0	1.50	2.75	
F	BMW1+w	MT20	2.0	4.0			

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
B	290	0	290	0
D	290	0	290	0
F	227	0	227	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED				
B	204	142 / 0	0 / 0	0 / 0	62 / 0
D	204	142 / 0	0 / 0	0 / 0	62 / 0
F	167	74 / 0	0 / 0	0 / 0	93 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	W E B S	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD LC1 (PLF)	MAX. CS1 (LC)	FORCE (LBS)
FR-TO		FROM TO	LENGTH FR-TO	
A-B	0 / 10	-78.0 -78.0 0.01 (1)	10.00	F-C -137 / 0
B-C	-104 / 0	-78.0 -78.0 0.20 (1)	6.25	
C-D	-104 / 0	-78.0 -78.0 0.20 (1)	6.25	
D-E	0 / 10	-78.0 -78.0 0.01 (1)	10.00	
B-F	0 / 61	-18.5 -18.5 0.09 (4)	10.00	
F-D	0 / 61	-18.5 -18.5 0.09 (4)	10.00	

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.20/1.00 (B-C:1) , BC=0.09/1.00 (D-F:4) , WB=0.06/1.00 (C-F:1) , SSI=0.07/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

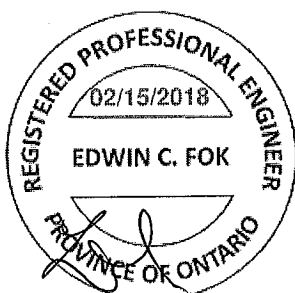
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.34 (D) (INPUT = 0.90)
JSI METAL= 0.13 (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



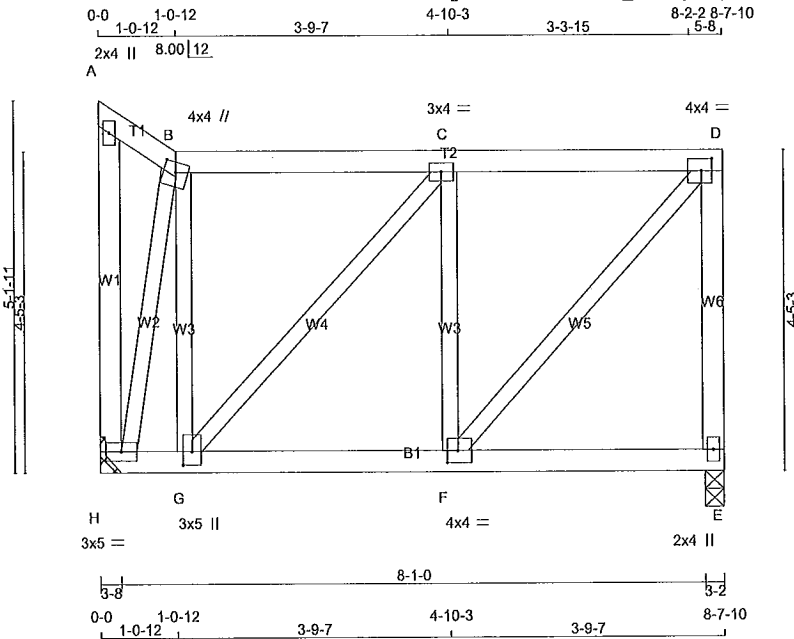
A-18023149

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291803	H17A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:84gOFYESM8s1JmDO6_uSGRyQWjP-5cJvGc7yp4HVMU7Komb9gt_i7GtSkLJ8ZLCZRzkv07



Scale: 3/8\"=1'

TOTAL WEIGHT = 2 X 48 = 96 lb

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

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122\"X3\") SPIRAL NAILS		
H-A 1 12		TOP
A-B 1 12		TOP
B-D 1 12		TOP
D-E 1 12		TOP
BOTTOM CHORDS : (0.122\"X3\") SPIRAL NAILS		
H-E 1 6		SIDE(209.4)
WEBS : (0.122\"X3\") SPIRAL NAILS		
2x3 1 6		

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TTWW+m	MT20	4.0	4.0	1.75	2.00
C	TTWW-t	MT20	3.0	4.0		
D	TMVW-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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	UPLIFT	IN-SX
H	2225	0	0	HANGER BY OTHERS
E	2225	0	0	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	1586	968 / 0	0 / 0	0 / 0	0 / 0	618 / 0	0 / 0
E	1586	968 / 0	0 / 0	0 / 0	0 / 0	618 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO						FR-TO			
H-A	-41 / 0	0.0	0.0	0.01 (1)	7.81	H-B	-2211 / 0	0.35 (1)	
A-B	0 / 0	-78.0	-78.0	0.01 (1)	10.00	G-B	0 / 1978	0.24 (1)	
B-C	-601 / 0	-78.0	-78.0	0.08 (1)	6.25	G-C	-1092 / 0	0.29 (1)	
C-D	-1327 / 0	-78.0	-78.0	0.08 (1)	6.25	F-C	0 / 469	0.06 (1)	
E-D	-1572 / 0	0.0	0.0	0.25 (1)	7.81	F-D	0 / 1867	0.24 (1)	
H-G	0 / 551	-437.3	-437.3	0.23 (1)	10.00				
G-F	0 / 1327	-437.3	-437.3	0.61 (1)	10.00				
F-E	0 / 0	-437.3	-437.3	0.50 (1)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CSdGlrder
START DISTANCE = 0-0
START SPAN CARRIED = 19-4-6
END DISTANCE = 8-7-10
END SPAN CARRIED = 19-4-6
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- 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 (0.29")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.29")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.25/1.00 (D-E:1), BC=0.61/1.00 (F-G:1), WB=0.35/1.00 (B-H:1), SSI=0.43/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

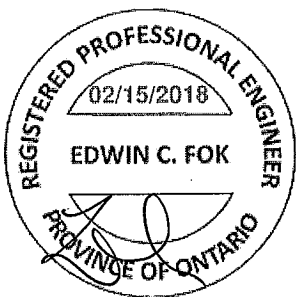
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

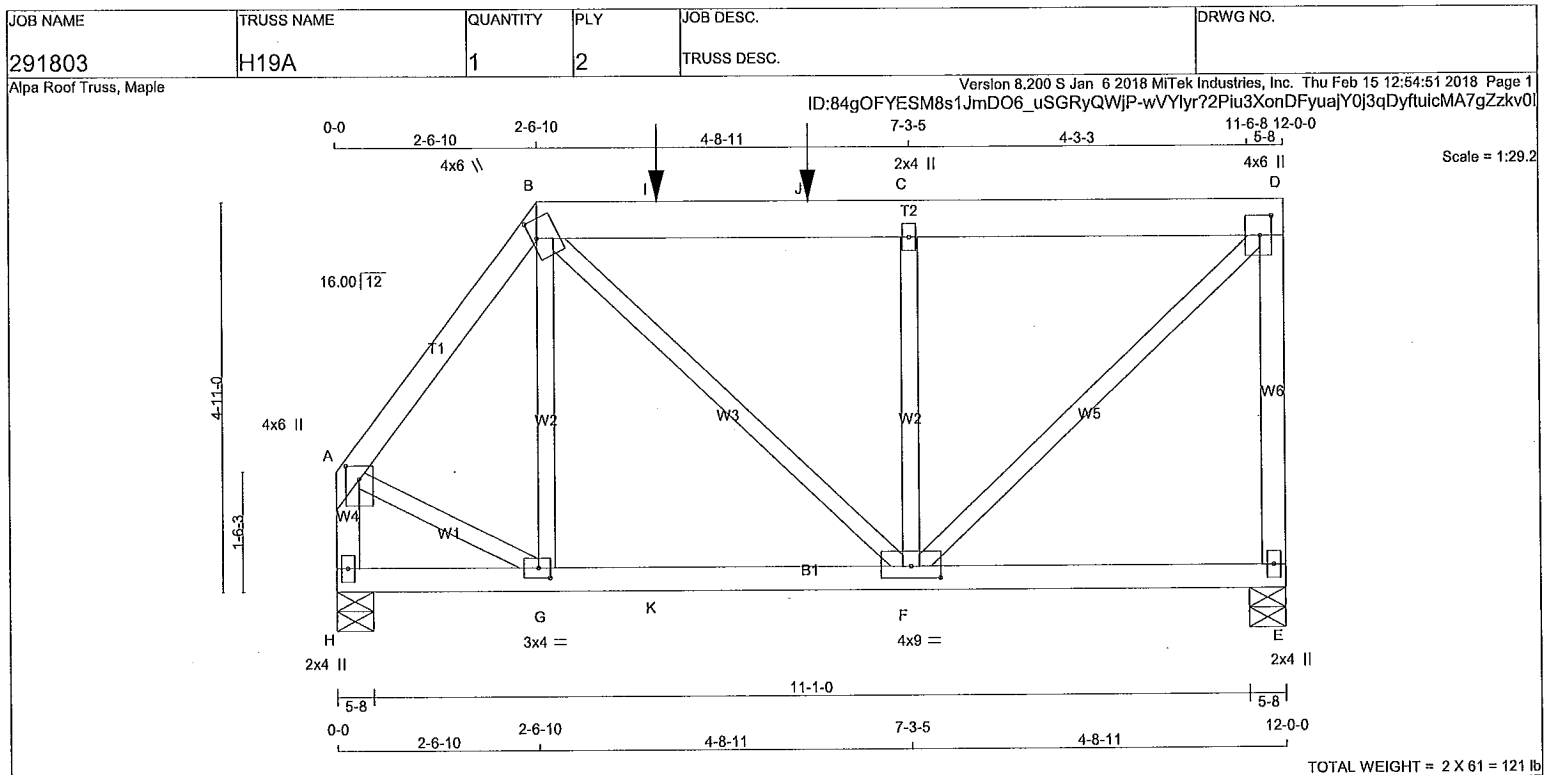
JSI GRIP= 0.89 (B) (INPUT = 0.90)
JSI METAL= 0.45 (B) (INPUT = 1.00)

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CONTINUED ON PAGE 2



A-18023151



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

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD (PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - B 1	12	TOP
D - E 1	12	TOP
H - A 1	12	TOP
B - D 2	12	SIDE(0.0)
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
H - E 1	12	SIDE(28.6)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3 1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ
JT	1944	0	0	5-8
E	2300	0	0	1-8
H	2300	0	0	1-11

UNFACTORED REACTIONS

	1ST CASE	MAX /MIN	COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	1386	846 / 0	0 / 0	0 / 0	0 / 0	540 / 0	0 / 0
E	1640	1001 / 0	0 / 0	0 / 0	0 / 0	639 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.09 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		WEBS		MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)		MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	-2016 / 0	-78.0	-78.0	0.06 (1)	6.15	G-B	-260 / 0
B-I	-2038 / 0	-78.0	-78.0	0.63 (1)	6.09	B-F	0 / 1160
I-J	-2038 / 0	-78.0	-78.0	0.63 (1)	6.09	F-C	-2676 / 0
J-C	-2038 / 0	-78.0	-78.0	0.63 (1)	6.09	F-D	0 / 2828
C-D	-2039 / 0	-78.0	-78.0	0.43 (1)	6.25	A-G	0 / 1312
E-D	-1902 / 0	0.0	0.0	0.36 (1)	7.81		
H-A	-2226 / 0	0.0	0.0	0.13 (1)	7.48		
H-G	0 / 0	-75.8	-75.8	0.05 (1)	10.00		
G-K	0 / 1202	-75.8	-75.8	0.16 (1)	10.00		
K-F	0 / 1202	-18.5	-18.5	0.16 (1)	10.00		
F-E	0 / 0	-18.5	-18.5	0.05 (4)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
I	4-0-14	-628	-628	---	FRONT	VERT	TOTAL
J	6-0-0	-2225	-2225	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder

START DISTANCE = 0-0
START SPAN CARRIED = 4-4-8
END DISTANCE = 4-0-14
END SPAN CARRIED = 4-4-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

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

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

(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 (0.40")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.40")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.63/1.00 (B-C:1), BC=0.16/1.00 (F-G:1), WB=0.46/1.00 (C-F:1), SS=0.75/1.00 (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.

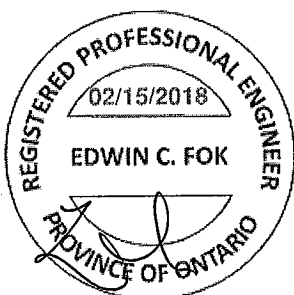
NAIL VALUES

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

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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.
291803	H19A	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
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ID:84gOFYESM8s1JmDO6 uSGRyQWjP-wVYlr?2Piu3XonDFyuaJY0j3qDyftuicMA7gZzkv0l					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	4.0	6.0	2.75	0.75
C	TMW+w	MT20	2.0	4.0		
D	TMVW+p	MT20	4.0	6.0	3.00	1.75
E	BMV1+p	MT20	2.0	4.0		
F	BMWWW-l	MT20	4.0	9.0	1.75	4.50
G	BMWW-l	MT20	3.0	4.0	1.50	1.75
H	BMV1+p	MT20	2.0	4.0		

HANGERS NOTES

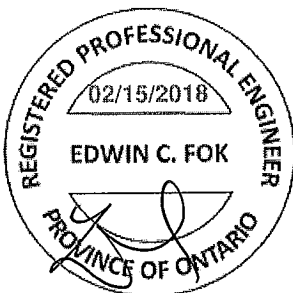
- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 628.4 lbs FACTORED DOWN AT 4-0-14, AND 2224.5 lbs FACTORED DOWN AT 6-0-0 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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



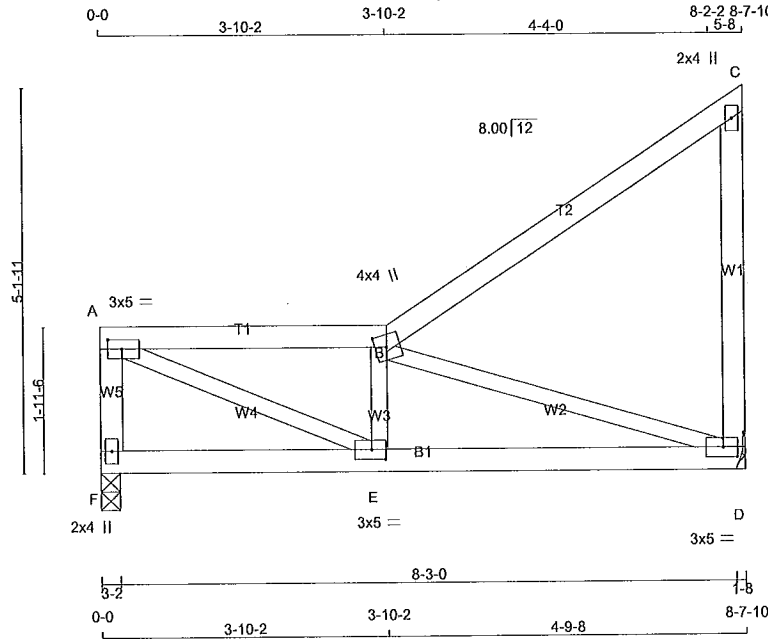
A-18023152(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291803	H25	1	1	TRUSS DESC.	

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ID:84gOFYESM8s1JmDO6_uSGRyQWjP-BsglAlp8oPDbx70di8gMQbZ1vGIUUPCDMabM7zkv36



TOTAL WEIGHT = 36 lb

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

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE				
A TMVW-t	MT20	3.0	5.0	1.50 2.25
B TTWW+m	MT20	4.0	4.0	2.00 1.75
C TMV+p	MT20	2.0	4.0	
D BMVW1-t	MT20	3.0	5.0	1.50 2.25
E BMVW-t	MT20	3.0	5.0	1.50 2.25
F BMV1+p	MT20	2.0	4.0	

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
F	628 0	628 0 0	3-2	1-8
D	628 0	628 0 0	HANGER BY OTHERS	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT COMBINED	SNOW LIVE PERM.LIVE			
F	448 274 / 0	0 / 0	174 / 0	0 / 0
D	447 273 / 0	0 / 0	174 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.07 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	WEBS	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
MEMB.					MEMB.		
FR-TO		FROM TO			FR-TO		
F-A	-604 / 0	0.0 0.0	0.07 (1)	7.81	A-E	0 / 945	0.23 (1)
A-B	-864 / 0	-117.2 -117.2	0.34 (1)	6.07	E-B	-117 / 33	0.02 (1)
B-C	0 / 0	-78.0 -78.0	0.33 (1)	10.00	B-D	-921 / 0	0.39 (1)
D-C	-187 / 0	0.0 0.0	0.08 (1)	7.81			
F-E	0 / 0	-27.8 -27.8	0.18 (4)	10.00			
E-D	0 / 871	-67.0 -67.0	0.38 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
SIDE SETBACK = 0-0
END SETBACK = 4-0-2
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 4-0-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGlrdr
START DISTANCE = 4-0-0
START SPAN CARRIED = 4-0-2
END DISTANCE = 8-7-10
END SPAN CARRIED = 4-0-2
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- 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) = $L/360$ (0.29")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.04")
ALLOWABLE DEFL.(TL) = $L/360$ (0.29")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.09")

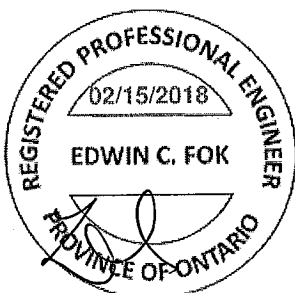
CSI: TC=0.34/1.00 (A-B:1), BC=0.38/1.00 (D-E:1), WB=0.39/1.00 (B-D:1), SSI=0.19/1.00 (A-B:1)

DOL LUMBER=1.00 NAIL=1.00 I.S 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.

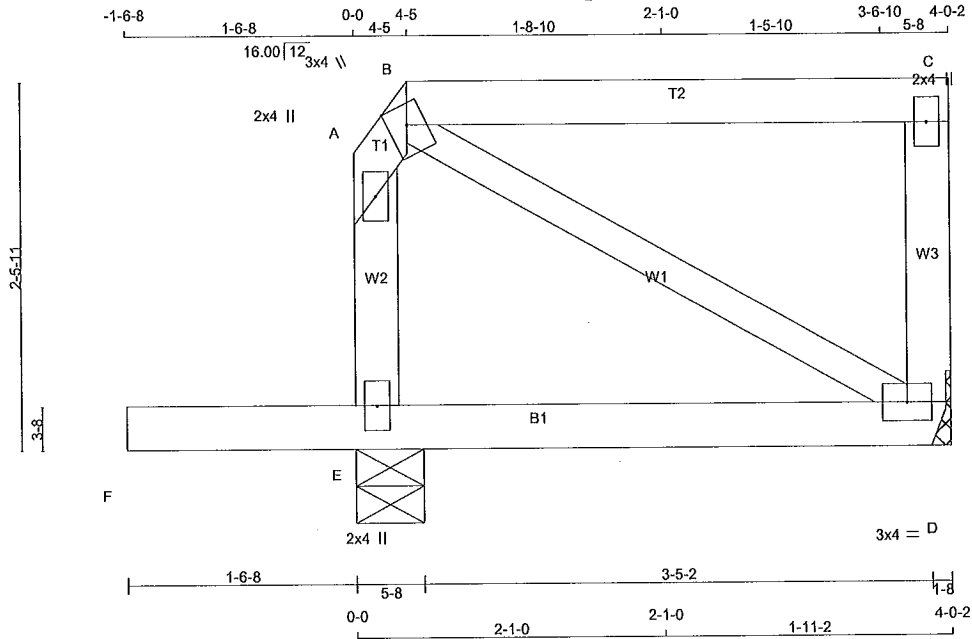
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291803	H26	1	1	TRUSS DESC.	

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ID:84gOFYESM8s1JmDO6_uSGRyQW[P-MdC]e7w[Dfu53IMONcL0Q_VRSRxc864JCrhllzkv4G



TOTAL WEIGHT = 19 lb [M]

LUMBER					
N. L. G. A. RULES					
CHORDS		SIZE	LUMBER		DESCR
A - B	2x4	DRY	No.2		SPF
B - C	2x4	DRY	No.2		SPF
D - C	2x4	DRY	No.2		SPF
E - A	2x4	DRY	No.2		SPF
F - 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 - B	TMV+p	MT20	2.0	4.0			
B - C	TTW+m	MT20	3.0	4.0	Edge		
C - D	TMV+p	MT20	2.0	4.0			
D - E	BMVW1-t	MT20	3.0	4.0			
E - 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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
D	201	0	0	0
E	335	0	335	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE
D	142	92 / 0	0 / 0
E	240	141 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

CHORDS	MAX. FACTORED	FACTORED	W E B S	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MEMB.	FORCE (LBS)
FR-TO		FROM TO	FR-TO	
A-B	-154 / 0	-78.0 -78.0 0.09 (1)	B-D	-34 / 0
B-C	-44 / 0	-78.0 -78.0 0.09 (1)		
D-C	-146 / 0	0.0 0.0 0.09 (1)		
E-A	-150 / 0	0.0 0.0 0.09 (1)		
F-E	0 / 0	-96.5 -96.5 0.16 (1)		
E-D	0 / 74	-18.5 -18.5 0.07 (4)		

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS 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

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

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

CSI: TC=0.09/1.00 (C-D:1), BC=0.16/1.00 (E-F:1), WB=0.01/1.00 (B-D:1), SSI=0.12/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.62 (B) (INPUT = 0.90)
JSI METAL= 0.10 (A) (INPUT = 1.00)

A-18023154



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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
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291803
Alpa Roof Truss, Maple

H27

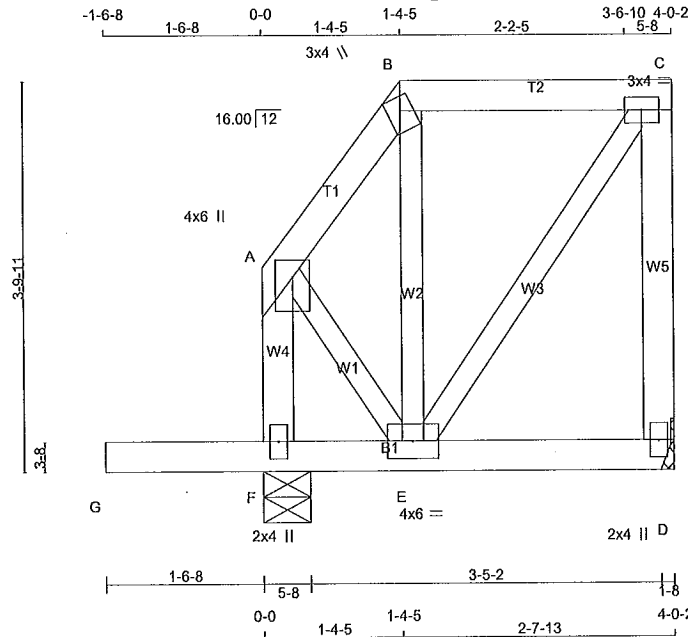
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TRUSS DESC.

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ID:84gOFYESM8s1JmDO6_uSGRyQWJP-elbxYaoSabeVsdBtNv9f0t5k_P7GpaKrvHE9Plzkv4Q



Scale = 1:22.5

TOTAL WEIGHT = 25 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	
D - C	2x4	DRY	No.2	SPF	
F - A	2x4	DRY	No.2	SPF	
G - D	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00		
B	TTW+m	MT20	3.0	4.0	Edge		
C	TMVW-t	MT20	3.0	4.0			
D	BMV1+p	MT20	2.0	4.0			
E	BMVW-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

BEARINGS	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
JT						
D	165	0	165	0	0	0
F	371	0	371	0	0	0

UNFACTORED REACTIONS

1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	118	72 / -12	0 / 0	0 / 0	0 / 0	46 / 0	0 / 0
D	264	161 / 0	0 / 0	0 / 0	0 / 0	103 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-B	-48 / 18	-78.0	-78.0	0.02 (1)	6.25	E-B	-118 / 0	0.03 (1)
B-C	-25 / 12	-78.0	-78.0	0.09 (1)	6.25	E-C	-20 / 42	0.01 (1)
D-C	-137 / 2	0.0	0.0	0.03 (1)	7.81	A-E	-16 / 42	0.01 (1)
F-A	-122 / 19	0.0	0.0	0.01 (1)	7.81			
G-F	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
F-E	0 / 0	-18.5	-18.5	0.16 (1)	10.00			
E-D	0 / 0	-18.5	-18.5	0.03 (4)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS 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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/622 (0.03")

CSI: TC=0.09/1.00 (B-C:1) , BC=0.16/1.00 (E-F:1) , WB=0.03/1.00 (B-E:1) , SSI=0.12/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

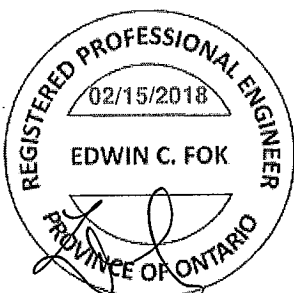
PLATE PLACEMENT TOL. = 0.250 inches

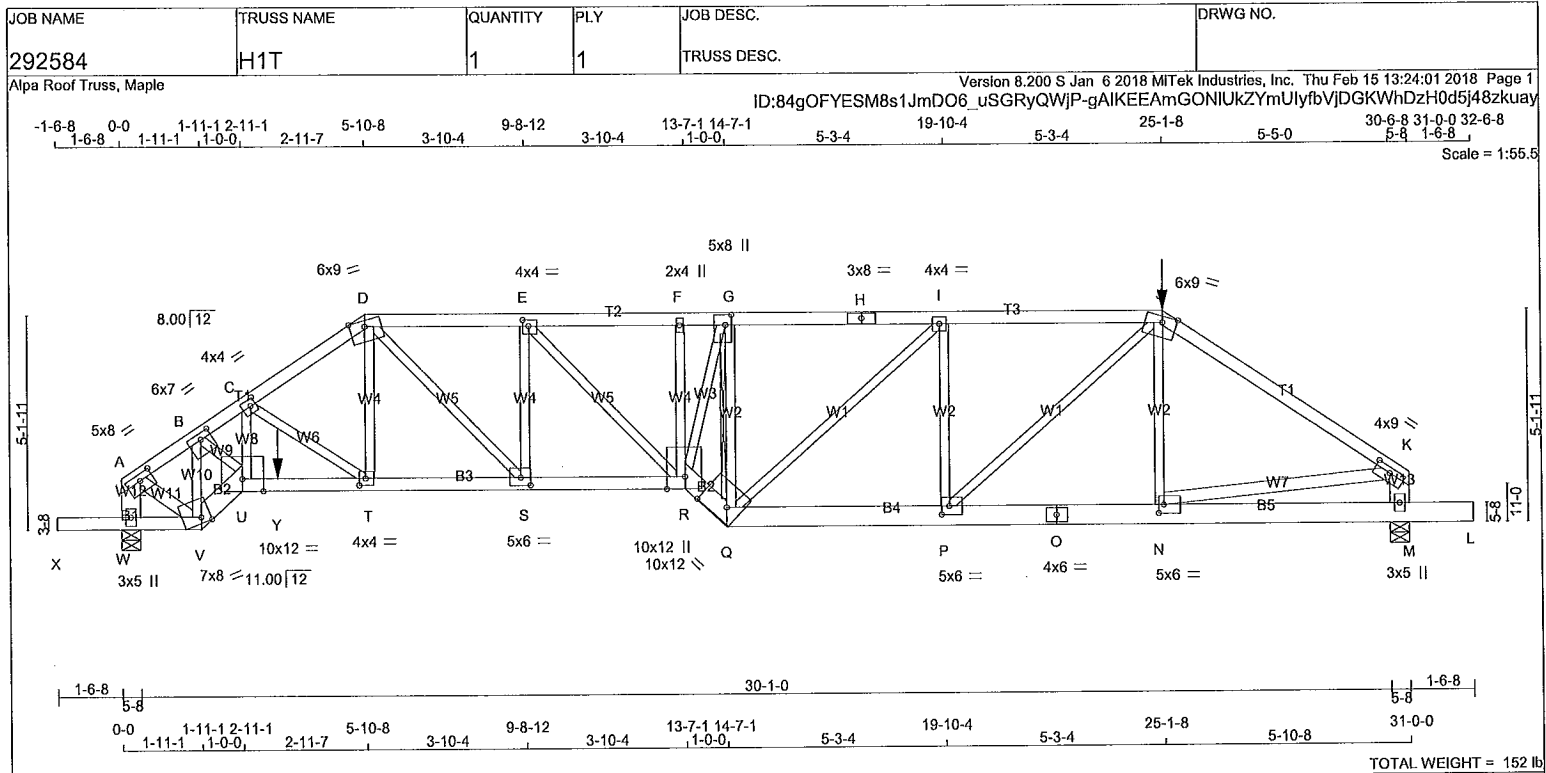
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.26 (B) (INPUT = 0.90)
JSI METAL= 0.03 (D) (INPUT = 1.00)

A-18023155

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

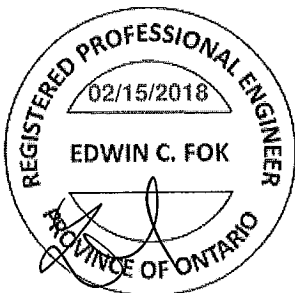




LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - D	2x4	DRY	1650F 1.5E	SPF
D - H	2x4	DRY	1650F 1.5E	SPF
H - J	2x4	DRY	1650F 1.5E	SPF
J - K	2x4	DRY	1650F 1.5E	SPF
W - A	2x6	DRY	No.2	SPF
M - K	2x6	DRY	No.2	SPF
X - V	2x4	DRY	No.2	SPF
V - U	2x6	DRY	No.2	SPF
U - R	2x4	DRY	2100F 1.8E	SPF
R - Q	2x6	DRY	No.2	SPF
Q - O	2x6	DRY	No.2	SPF
O - L	2x6	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
A - V	2x4	DRY	No.2	SPF
N - K	2x4	DRY	No.2	SPF

PLATES (table in inches)				
JT TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	5.0	8.0 1.75 3.75
B	TMVW-t	MT20	6.0	7.0 1.75 3.25
C	TMVW-t	MT20	4.0	4.0 2.00 1.50
D	TTWW-m	MT20	6.0	9.0 Edge 4.25
E	TMVW-t	MT20	4.0	4.0 1.75 1.75
F	TMVW-w	MT20	2.0	4.0
G	TMVW-t	MT20	5.0	8.0 3.00 1.75
H	TS-t	MT20	3.0	8.0
I	TMVW-t	MT20	4.0	4.0
J	TTWW-m	MT20	6.0	9.0 1.75 4.00
K	TMVW-t	MT20	4.0	9.0 1.50 4.50
M	BMV1+p	MT20	3.0	5.0
N	BMVW-t	MT20	5.0	6.0 2.50 1.50
O	BS-t	MT20	4.0	6.0
P	BMVW-t	MT20	5.0	6.0 2.50 2.25
Q	BBVW-h	MT20	10.0	12.0 3.75 8.00
R	BBVW+p	MT20	10.0	12.0 Edge 5.25
S	BMVW-t	MT20	5.0	6.0 2.25 2.75
T	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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
W	3163	0	3163	0
M	2991	0	2991	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
W	2248	1413 / 0	0 / 0	0 / 0	0 / 0	835 / 0	0 / 0
M	2134	1293 / 0	0 / 0	0 / 0	0 / 0	841 / 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 = 2.69 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT G-Q

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-3130 / 0	-78.0 -78.0	0.14 (1)	4.35	V-B	-3357 / 0	0.57 (1)
B-C	-5337 / 0	-78.0 -78.0	0.22 (1)	3.38	B-U	0 / 2907	0.72 (1)
C-D	-4598 / 0	-78.0 -78.0	0.23 (1)	3.62	U-C	0 / 624	0.15 (1)
D-E	-5268 / 0	-78.0 -78.0	0.35 (1)	3.30	C-T	-737 / 0	0.18 (1)
E-F	-6023 / 0	-78.0 -78.0	0.43 (1)	3.02	T-D	0 / 864	0.21 (1)
F-G	-6025 / 0	-153.5 -153.5	0.49 (1)	2.87	D-S	0 / 2034	0.50 (1)
G-H	-5038 / 0	-153.5 -153.5	0.89 (1)	2.69	S-E	-1123 / 0	0.32 (1)
H-I	-5038 / 0	-153.5 -153.5	0.89 (1)	2.69	E-R	0 / 1067	0.26 (1)
I-J	-4663 / 0	-153.5 -153.5	0.86 (1)	2.83	R-F	0 / 92	0.02 (1)
J-K	-3762 / 0	-78.0 -78.0	0.75 (1)	3.53	R-G	0 / 3943	0.98 (1)
W-A	-2937 / 0	0.0 0.0	0.21 (1)	6.09	Q-G	-4509 / 0	0.98 (1)
M-K	-2750 / 0	0.0 0.0	0.19 (1)	6.26	Q-I	0 / 502	0.12 (1)
X-W	0 / 0	-96.5 -96.5	0.17 (1)	10.00	P-I	-1250 / 0	0.47 (1)
W-V	-3 / 0	-18.5 -18.5	0.17 (1)	10.00	P-J	0 / 2076	0.51 (1)
V-U	0 / 3278	-18.5 -18.5	0.43 (1)	10.00	N-J	-194 / 92	0.07 (1)
U-Y	0 / 4430	-18.5 -18.5	0.65 (1)	10.00	A-V	0 / 2814	0.50 (1)
Y-T	0 / 4430	-112.0 -112.0	0.65 (1)	10.00	N-K	0 / 3156	0.56 (1)
T-S	0 / 3841	-112.0 -112.0	0.51 (1)	10.00			
S-R	0 / 5268	-112.0 -112.0	0.58 (1)	10.00			
R-Q	0 / 6562	-36.4 -36.4	0.86 (1)	10.00			
Q-P	0 / 4664	-36.4 -36.4	0.69 (1)	10.00			
P-O	0 / 3122	-36.4 -36.4	0.48 (1)	10.00			
O-N	0 / 3122	-36.4 -36.4	0.48 (1)	10.00			
N-M	0 / 0	-36.4 -36.4	0.14 (4)	10.00			
M-L	0 / 0	-96.5 -96.5	0.08 (1)	10.00			

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 3-9-4
START SPAN CARRIED = 5-10-8
END DISTANCE = 13-7-1
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL. LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHlp
SIDE 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.
LOADS APPLIED TO FIRST 17'-5-0 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.31")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/624 (0.60")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/438 (0.04")

A-18023156

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292584	H1T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:84gOFYESM8s1JmDO6 uSGRyQWjP-9MriSaBO1iVc6t8kKBPBB02uzggIQgDRFHRGcazkuax

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
U	BBWW-I	MT20	10.0	12.0	Edge	
V	BBWW-m	MT20	7.0	8.0	Edge	2.75
W	BMV1+p	MT20	3.0	5.0		

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) 334.0 lbs FACTORED DOWN AT 25-1-8 ON TOP CHORD, AND 423.2 lbs FACTORED DOWN AT 3-9-4 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
J	25-1-8	-334	-334	---	FRONT	VERT	TOTAL
Y	3-9-4	-423	-423	---	FRONT	VERT	TOTAL

ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/225 (0.08")

CSI: TC=0.89/1.00 (G-I:1) , BC=0.86/1.00 (Q-R:1) ,
WB=0.98/1.00 (G-Q:1) , SSI=0.42/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

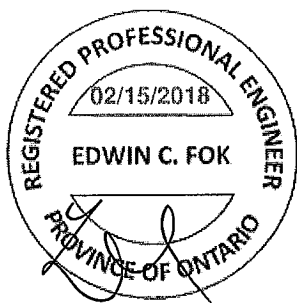
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (Q) (INPUT = 0.90)
JSI METAL= 0.92 (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

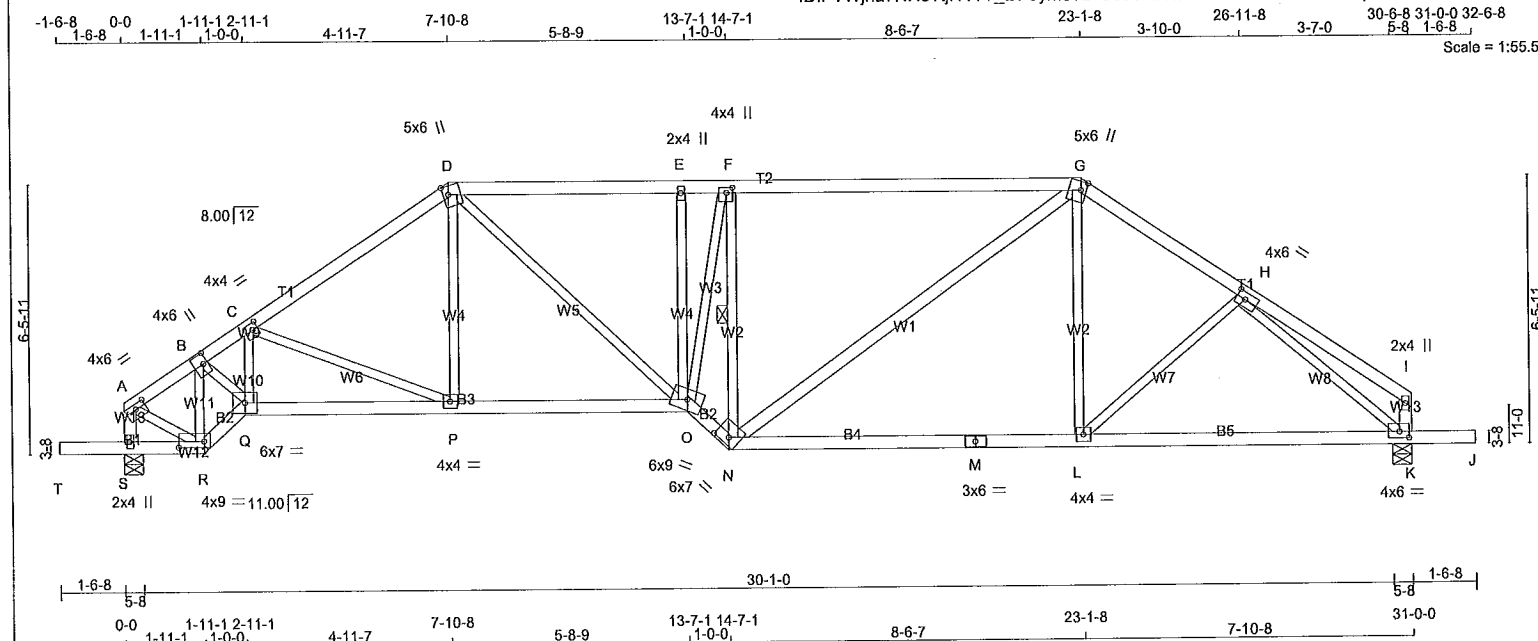


A-18023156(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292584	H2T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 138 lb

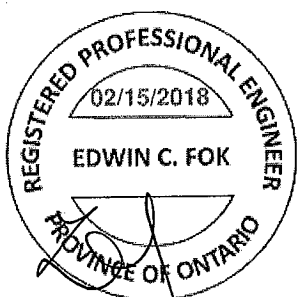
LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - G	2x4	DRY	No.2	SPF	
G - I	2x4	DRY	No.2	SPF	
S - A	2x4	DRY	No.2	SPF	
K - I	2x4	DRY	No.2	SPF	
T - R	2x4	DRY	No.2	SPF	
R - Q	2x4	DRY	No.2	SPF	
Q - O	2x4	DRY	No.2	SPF	
O - N	2x4	DRY	No.2	SPF	
N - M	2x4	DRY	No.2	SPF	
M - J	2x4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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.50	3.00
B	TMVW+t	MT20	4.0	6.0	3.00	1.25
C	TMVW-t	MT20	4.0	4.0	2.00	1.50
D	TTVW+m	MT20	5.0	6.0	2.50	1.50
E	TMVW+t	MT20	2.0	4.0		
F	TMVW+t	MT20	4.0	4.0	1.50	1.75
G	TTVW+m	MT20	5.0	6.0	2.50	1.50
H	TMVW-t	MT20	4.0	6.0	2.00	2.50
I	TMV+p	MT20	2.0	4.0		
K	BMVW-t	MT20	4.0	6.0	1.75	2.75
L	BMVW-t	MT20	4.0	4.0		
M	BS-t	MT20	3.0	6.0		
N	BBVW-h	MT20	6.0	7.0	2.00	4.00
O	BBVW-m	MT20	6.0	9.0		
P	BMVW-t	MT20	4.0	4.0		
Q	BBVW-t	MT20	6.0	7.0		
R	BBVW-t	MT20	4.0	9.0	1.75	7.25
S	BMV+p	MT20	2.0	4.0		

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



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UPLIFT
S	1648	0	0	5-8
K	1640	0	0	5-8

UNFACTORED REACTIONS

	1ST CASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
S	1175	717 / 0	0 / 0	0 / 0	0 / 0	458 / 0	0 / 0
K	1169	714 / 0	0 / 0	0 / 0	0 / 0	456 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.67 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC2)	MAX. FACTORED VERT. LOAD (LC3)	MAX. FACTORED VERT. LOAD (LC4)	MAX. FACTORED VERT. LOAD (LC5)	MAX. FACTORED VERT. LOAD (LC6)	MAX. FACTORED VERT. LOAD (LC7)	MAX. FACTORED VERT. LOAD (LC8)	MAX. FACTORED VERT. LOAD (LC9)	MAX. FACTORED VERT. LOAD (LC10)
FR-TO													
A-B		-1432 / 0	-78.0	-78.0	0.10 (1)	5.37							
B-C		-2418 / 0	-78.0	-78.0	0.22 (1)	4.23							
C-D		-2021 / 0	-78.0	-78.0	0.28 (1)	4.52							
D-E		-2202 / 0	-78.0	-78.0	0.39 (1)	4.23							
E-F		-2203 / 0	-78.0	-78.0	0.67 (1)	3.67							
F-G		-1989 / 0	-78.0	-78.0	0.82 (1)	3.74							
G-H		-1752 / 0	-78.0	-78.0	0.17 (1)	4.90							
H-I		0 / 18	-78.0	-78.0	0.18 (1)	10.00							
S-A		-1422 / 0	0.0	0.0	0.14 (1)	6.84							
K-I		-121 / 0	0.0	0.0	0.01 (1)	7.81							
T-S		0 / 0	-96.5	-96.5	0.16 (1)	10.00							
S-R		0 / 0	-18.5	-18.5	0.12 (1)	10.00							
R-Q		0 / 1493	-18.5	-18.5	0.24 (1)	10.00							
Q-P		0 / 2090	-18.5	-18.5	0.42 (1)	10.00							
P-O		0 / 1669	-18.5	-18.5	0.35 (1)	10.00							
O-N		0 / 2623	-18.5	-18.5	0.42 (1)	10.00							
N-M		0 / 1444	-18.5	-18.5	0.50 (4)	10.00							
M-L		0 / 1444	-18.5	-18.5	0.50 (4)	10.00							
L-K		0 / 1467	-18.5	-18.5	0.49 (4)	10.00							
K-J		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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.28")

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/839 (0.02")

CSI: TC=0.82/1.00 (F-G:1), BC=0.50/1.00 (L-N:4), WB=0.89/1.00 (H-K:1), SSI=0.31/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1666

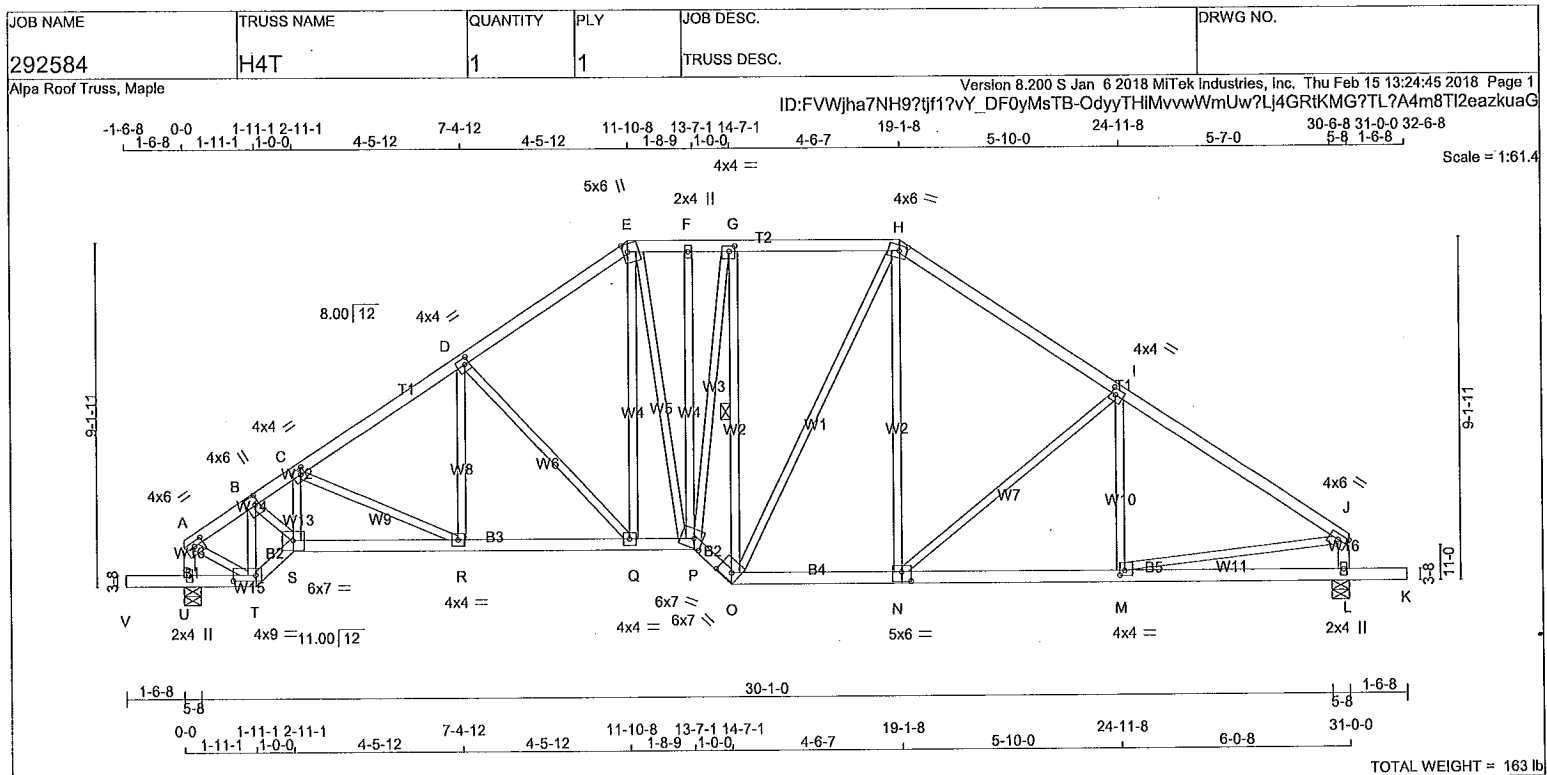
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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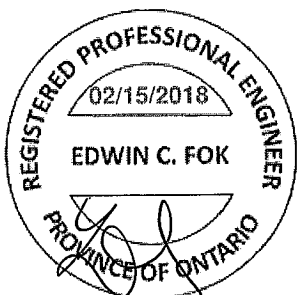
LUMBER	SIZE	LUMBER	DESCR.
N. L. G. A. RULES			
CHORDS	SIZE		
A - E	2x4 DRY	No.2	SPF
E - H	2x4 DRY	No.2	SPF
H - J	2x4 DRY	No.2	SPF
U - A	2x4 DRY	No.2	SPF
L - J	2x4 DRY	No.2	SPF
V - T	2x4 DRY	No.2	SPF
T - S	2x4 DRY	No.2	SPF
S - P	2x4 DRY	No.2	SPF
P - O	2x4 DRY	No.2	SPF
O - N	2x4 DRY	No.2	SPF
N - K	2x4 DRY	No.2	SPF
ALL WEBS EXCEPT	2x3 DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE				
A TMWW-I	MT20	4.0	6.0	1.50 3.00
B TMWW-I	MT20	4.0	6.0	3.00 1.25
C, D, I				
C TMWW-I	MT20	4.0	4.0	2.00 1.50
E TMWW-I	MT20	5.0	6.0	2.50 1.50
F TMWW-I	MT20	2.0	4.0	
G TMWW-I	MT20	4.0	4.0	1.75 1.75
H TMWW-I	MT20	4.0	6.0	1.75 2.50
J TMWW-I	MT20	4.0	6.0	1.75 Edge
L BMV-I	MT20	2.0	4.0	
M BMWW-I	MT20	4.0	4.0	1.50 1.50
N BSWW-I	MT20	5.0	6.0	3.00 3.00
O BBWW-I	MT20	6.0	7.0	2.25 4.50
P BBWW-I	MT20	6.0	7.0	3.00 2.75
Q BMWW-I	MT20	4.0	4.0	
R BMWW-I	MT20	4.0	4.0	
S BBWW-I	MT20	6.0	7.0	
T BBWW-I	MT20	4.0	9.0	1.75 7.25
U BMV-I	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	VERT	HORZ	DOWN	UPLIFT
U	1648	0	0	5-8
L	1640	0	0	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	DEAD	SOIL
JT COMBINED	SNOW	LIVE	PERM.LIVE
U	1175	717 / 0	0 / 0
L	1169	714 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.35 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-O.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	FR-TO	WEBS	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	FR-TO
A-B	-1437 / 0	-78.0	-78.0 0.08 (1)	5.38	T-B	-1593 / 0	0.25 (1)		
B-C	-2416 / 0	-78.0	-78.0 0.12 (1)	4.35	B-S	0 / 1361	0.31 (1)		
C-D	-2070 / 0	-78.0	-78.0 0.24 (1)	4.52	S-C	0 / 82	0.02 (4)		
D-E	-1671 / 0	-78.0	-78.0 0.22 (1)	4.94	C-R	-334 / 0	0.13 (1)		
E-F	-1428 / 0	-78.0	-78.0 0.12 (1)	5.36	R-D	0 / 220	0.05 (4)		
F-G	-1428 / 0	-78.0	-78.0 0.18 (1)	5.28	D-Q	-532 / 0	0.44 (1)		
G-H	-1322 / 0	-78.0	-78.0 0.19 (1)	5.44	Q-E	0 / 435	0.10 (1)		
H-I	-1513 / 0	-78.0	-78.0 0.40 (1)	4.91	E-P	0 / 230	0.05 (1)		
I-J	-1834 / 0	-78.0	-78.0 0.44 (1)	4.52	P-F	0 / 141	0.03 (1)		
U-A	-1422 / 0	0.0	0.0 0.14 (1)	6.84	P-G	0 / 875	0.20 (1)		
L-J	-1447 / 0	0.0	0.0 0.15 (1)	6.79	O-G	-1309 / 0	0.71 (1)		
					O-H	0 / 190	0.04 (1)		
V-U	0 / 0	-96.5	-96.5 0.16 (1)	10.00	N-H	0 / 343	0.08 (1)		
U-T	0 / 0	-18.5	-18.5 0.12 (1)	10.00	N-I	-415 / 0	0.50 (1)		
T-S	0 / 1504	-18.5	-18.5 0.24 (1)	10.00	M-I	-99 / 63	0.04 (1)		
S-R	0 / 2038	-18.5	-18.5 0.37 (1)	10.00	A-T	0 / 1306	0.29 (1)		
R-Q	0 / 1734	-18.5	-18.5 0.32 (1)	10.00	M-J	0 / 1568	0.35 (1)		
Q-P	0 / 1377	-18.5	-18.5 0.25 (1)	10.00					
P-O	0 / 1773	-18.5	-18.5 0.29 (1)	10.00					
O-N	0 / 1235	-18.5	-18.5 0.26 (1)	10.00					
N-M	0 / 1551	-18.5	-18.5 0.34 (1)	10.00					
M-L	0 / 0	-18.5	-18.5 0.18 (4)	10.00					
L-K	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)= 1/360 (1.03")
CALCULATED VERT. DEFL.(LL)= 1/999 (0.09")
ALLOWABLE DEFL.(TL)= 1/360 (1.03")
CALCULATED VERT. DEFL.(TL)= 1/999 (0.18")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(LL)= 1/999 (0.01")
ALLOWABLE DEFL.(TL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(TL)= 1/999 (0.02")

CSI: TC=0.44/1.00 (I-J:1), BC=0.37/1.00 (R-S:1), WB=0.71/1.00 (G-O:1), SSI=0.19/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

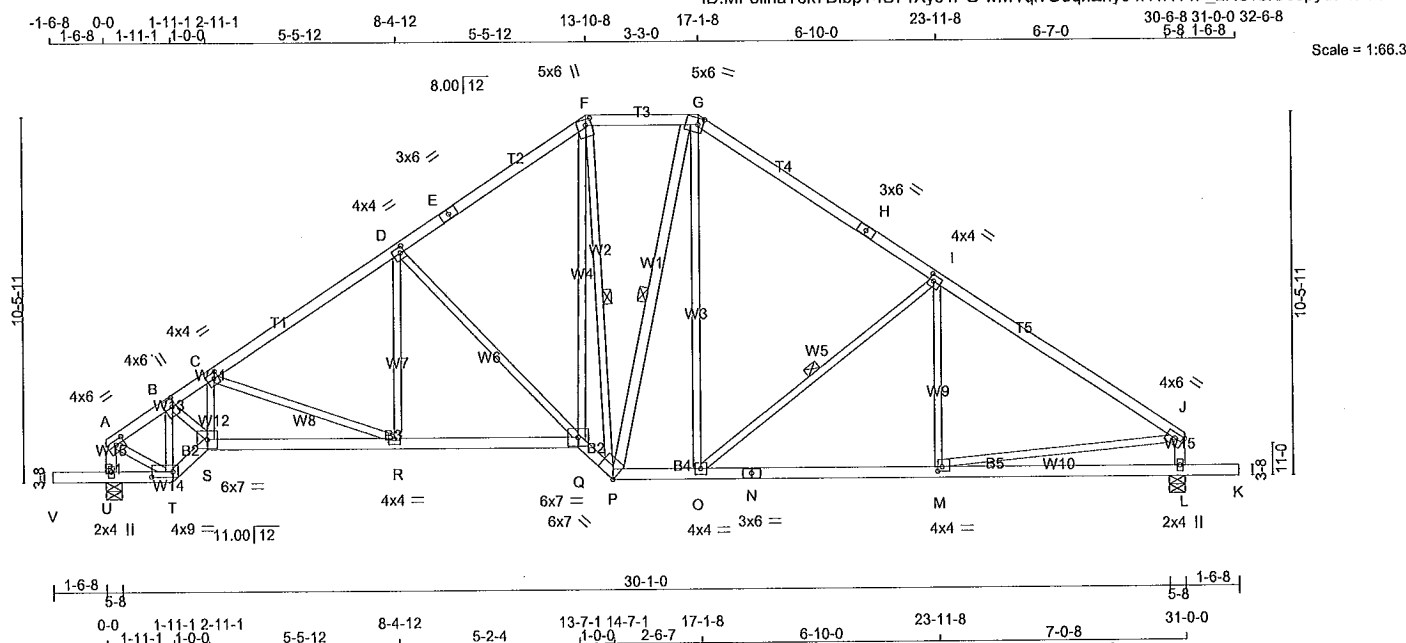
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (M) (INPUT = 0.90)
JSI METAL= 0.58 (M) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292584	H5T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-wiw?qlvO8qxehy94H4N14F_2KSvblOc6pyduCfzkua0



TOTAL WEIGHT = 156 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY	No.2	SPF	
E - F	2x4	DRY	No.2	SPF	
F - G	2x4	DRY	No.2	SPF	
G - H	2x4	DRY	No.2	SPF	
H - J	2x4	DRY	No.2	SPF	
U - A	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
V - T	2x4	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 - N	2x4	DRY	No.2	SPF	
N - K	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
P - G	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

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		
U	1648	0	1648	0	5-8	2-7
L	1640	0	1640	0	5-8	2-7

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
U	1175	717 / 0	0 / 0	0 / 0	0 / 0	458 / 0	0 / 0
L	1169	714 / 0	0 / 0	0 / 0	0 / 0	456 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.28 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-P, G-P, I-O.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM TO	CSI (LC)		FR-TO				
A-B	-1435 / 0	-78.0	-78.0	0.09 (1)	5.38	T-B	-1588 / 0	0.25 (1)	
B-C	-2417 / 0	-78.0	-78.0	0.17 (1)	4.29	B-S	0 / 1399	0.31 (1)	
C-D	-2002 / 0	-78.0	-78.0	0.34 (1)	4.47	S-C	0 / 67	0.02 (4)	
D-E	-1531 / 0	-78.0	-78.0	0.32 (1)	4.99	C-R	-409 / 0	0.23 (1)	
E-F	-1531 / 0	-78.0	-78.0	0.32 (1)	4.99	R-D	0 / 243	0.06 (4)	
F-G	-1126 / 0	-78.0	-78.0	0.12 (1)	5.86	D-Q	-626 / 0	0.75 (1)	
G-H	-1387 / 0	-78.0	-78.0	0.56 (1)	4.84	Q-F	0 / 1615	0.36 (1)	
H-I	-1387 / 0	-78.0	-78.0	0.56 (1)	4.84	F-P	-1074 / 0	0.81 (1)	
I-J	-1823 / 0	-78.0	-78.0	0.62 (1)	4.28	P-G	-12 / 0	0.01 (4)	
U-A	-1422 / 0	0.0	0.0	0.14 (1)	6.84	O-G	0 / 429	0.10 (1)	
L-J	-1439 / 0	0.0	0.0	0.15 (1)	6.81	O-I	-545 / 0	0.30 (1)	
						M-I	-51 / 91	0.03 (4)	
V-U	0 / 0	-96.5	-96.5	0.16 (1)	10.00	A-T	0 / 1302	0.29 (1)	
U-T	0 / 0	-18.5	-18.5	0.12 (1)	10.00	M-J	0 / 1559	0.35 (1)	
T-S	0 / 1499	-18.5	-18.5	0.24 (1)	10.00				
S-R	0 / 2062	-18.5	-18.5	0.40 (1)	10.00				
R-Q	0 / 1679	-18.5	-18.5	0.34 (1)	10.00				
Q-P	0 / 1629	-18.5	-18.5	0.27 (1)	10.00				
P-O	0 / 1127	-18.5	-18.5	0.24 (1)	10.00				
O-N	0 / 1547	-18.5	-18.5	0.37 (4)	10.00				
N-M	0 / 1547	-18.5	-18.5	0.37 (4)	10.00				
M-L	0 / 0	-18.5	-18.5	0.23 (4)	10.00				
L-K	0 / 0	-96.5	-96.5	0.16 (1)	10.00				

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

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.22")

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/842 (0.02")

CSI: TC=0.62/1.00 (I-J:1), BC=0.40/1.00 (R-S:1), WB=0.81/1.00 (F-P:1), SSI=0.22/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

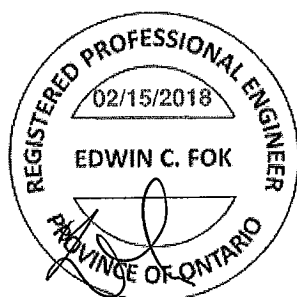
PLATE PLACEMENT TOL. = 0.250 Inches

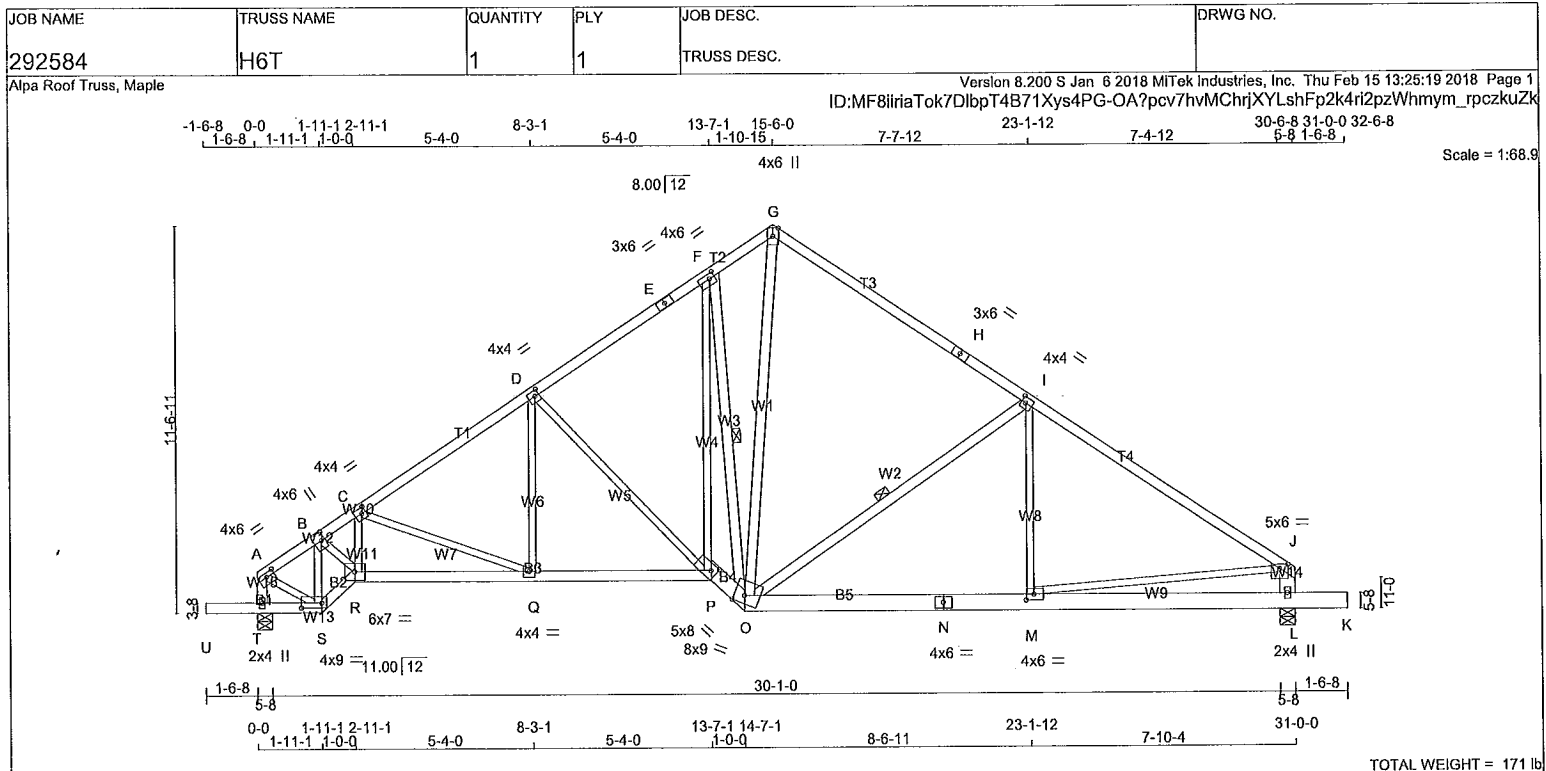
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (P) (INPUT = 0.90)
JSI METAL= 0.58 (M) (INPUT = 1.00)

A-18023160

CONTINUED ON PAGE 2





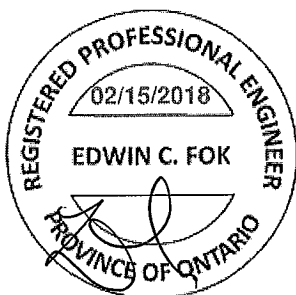
LUMBER		N. L. G. A. RULES		CHORDS		SIZE		LUMBER		DESCR.	
A - E	2x4	DRY	No.2	SPF							
E - G	2x4	DRY	No.2	SPF							
G - H	2x4	DRY	No.2	SPF							
H - J	2x4	DRY	No.2	SPF							
T - A	2x4	DRY	No.2	SPF							
L - J	2x6	DRY	No.2	SPF							
U - S	2x4	DRY	No.2	SPF							
S - R	2x4	DRY	No.2	SPF							
R - P	2x4	DRY	No.2	SPF							
P - O	2x6	DRY	No.2	SPF							
O - N	2x6	DRY	No.2	SPF							
N - K	2x6	DRY	No.2	SPF							
ALL WEBS	2x3	DRY	No.2	SPF							
EXCEPT											
F - O	2x4	DRY	No.2	SPF							
O - G	2x4	DRY	No.2	SPF							
O - I	2x4	DRY	No.2	SPF							

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.50	3.00
B	TMVW-t	MT20	4.0	6.0	3.00	1.25
C, D, I						
E	TMVW-t	MT20	4.0	4.0	2.00	1.50
F	TS-t	MT20	3.0	6.0		
G	TTW+p	MT20	4.0	6.0	1.75	2.00
H	TS-t	MT20	3.0	6.0		
J	TMVW-p	MT20	5.0	6.0	1.50	3.00
L	BMV1+p	MT20	2.0	4.0		
M	BMVW-t	MT20	4.0	6.0	2.00	2.75
N	BS-t	MT20	4.0	6.0		
O	BBWW-m	MT20	8.0	9.0	2.75	3.75
P	BBWW-h	MT20	5.0	8.0	2.25	2.00
Q	BBWW-t	MT20	4.0	4.0		
R	BBWW-t	MT20	6.0	7.0		
S	BBWW-t	MT20	4.0	9.0	1.75	7.25
T	BMV1+p	MT20	2.0	4.0		

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



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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
T	1648	0	1648	0	0	5-8	2-7	
L	1640	0	1640	0	0	5-8	1-12	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. SNOW		LIVE		PERM. LIVE		WIND		DEAD		SOIL	
	1175	717 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	458 / 0	0 / 0	0 / 0	0 / 0
L	1169	714 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	456 / 0	0 / 0	0 / 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 = 3.98 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-O, I-O.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		MAX. FACTORED FORCE		FACTORED VERT. LOAD		LC1 MAX		MAX. UNBRACED LENGTH		WEBS		MAX. FACTORED FORCE		MAX. FACTORED	
MEMB.		(LBS)		(PLF)		CSI (LC)				MEMB.		(LBS)		CSI (LC)	
FR-TO										FR-TO					
A-B	-1435 / 0		-78.0	-78.0	0.09 (1)	5.38	S-B	-1588 / 0	0.25 (1)						
B-C	-2417 / 0		-78.0	-78.0	0.17 (1)	4.29	B-R	0 / 1400	0.32 (1)						
C-D	-2011 / 0		-78.0	-78.0	0.30 (1)	4.52	R-C	0 / 66	0.02 (4)						
D-E	-1543 / 0		-78.0	-78.0	0.28 (1)	5.04	C-Q	-406 / 0	0.22 (1)						
E-F	-1543 / 0		-78.0	-78.0	0.28 (1)	5.04	Q-D	0 / 228	0.06 (4)						
F-G	-1346 / 0		-78.0	-78.0	0.12 (1)	5.47	D-P	-583 / 0	0.67 (1)						
G-H	-1244 / 0		-78.0	-78.0	0.70 (1)	4.76	P-F	0 / 1585	0.36 (1)						
H-I	-1244 / 0		-78.0	-78.0	0.70 (1)	4.76	F-O	-1787 / 0	0.89 (1)						
I-J	-1828 / 0		-78.0	-78.0	0.81 (1)	3.98	O-G	0 / 1162	0.19 (1)						
T-A	-1422 / 0		0.0	0.0	0.14 (1)	6.84	O-I	-678 / 0	0.38 (1)						
L-J	-1432 / 0		0.0	0.0	0.09 (1)	7.81	M-I	0 / 141	0.05 (4)						
							A-S	0 / 1302	0.29 (1)						
							M-J	0 / 1563	0.35 (1)						
U-T	0 / 0		-96.5	-96.5	0.16 (1)	10.00									
T-S	0 / 0		-18.5	-18.5	0.12 (1)	10.00									
S-R	0 / 1499		-18.5	-18.5	0.24 (1)	10.00									
R-Q	0 / 2062		-18.5	-18.5	0.40 (1)	10.00									
Q-P	0 / 1683		-18.5	-18.5	0.34 (1)	10.00									
P-O	0 / 1684		-18.5	-18.5	0.20 (1)	10.00									
O-N	0 / 1555		-18.5	-18.5	0.27 (4)	10.00									
N-M	0 / 1555		-18.5	-18.5	0.27 (4)	10.00									
M-L	0 / 0		-18.5	-18.5	0.16 (4)	10.00									
L-K	0 / 0		-96.5	-96.5	0.08 (1)	10.00									

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.24")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL)= L/745 (0.02")

CSI: TC=0.81/1.00 (I-J:1), BC=0.40/1.00 (Q-R:1), WB=0.89/1.00 (F-O:1), SSI=0.25/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

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

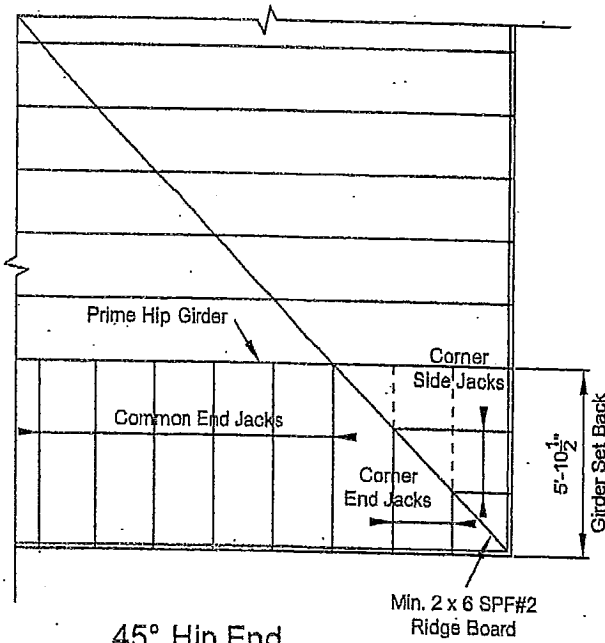
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

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

STRACON ENGINEERING INC.



45° Hip End

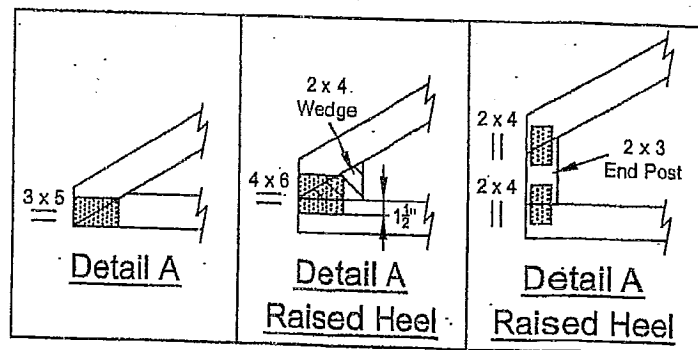
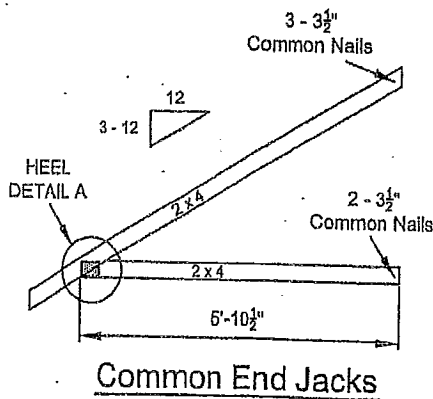
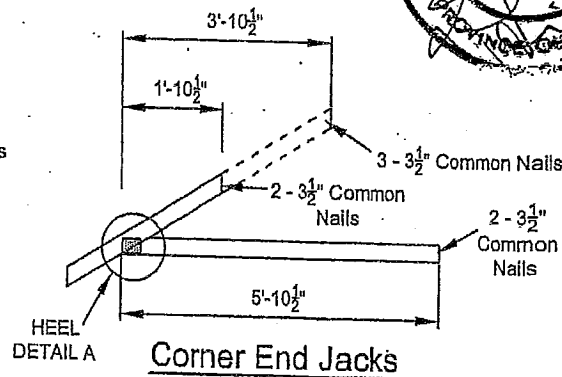
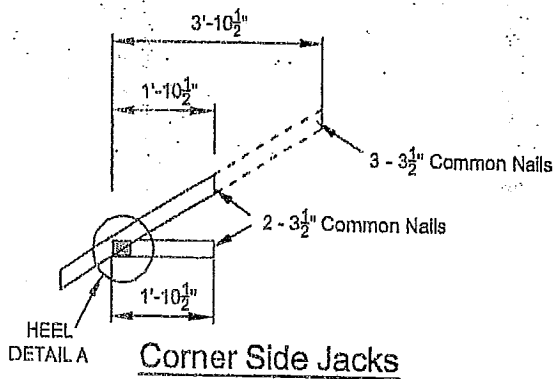
LUMBER SPECIFICATION

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.

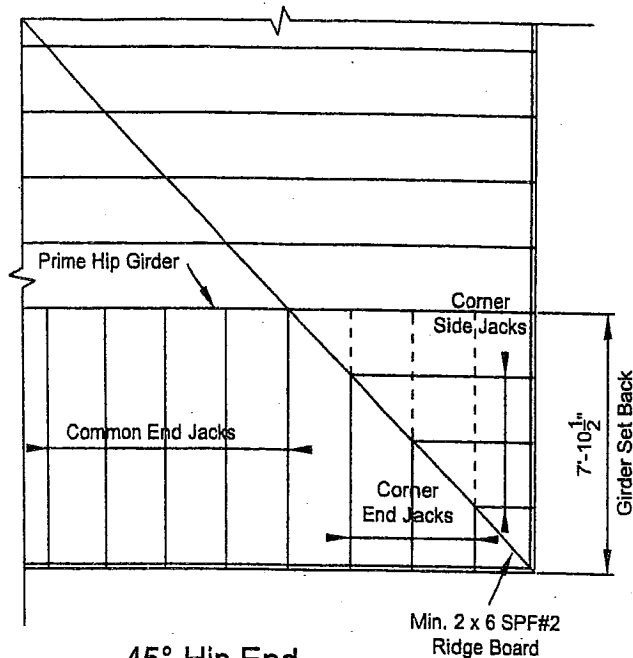
TOTAL LOAD : 50.5 P.S.F



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

CS-51008

STRACON ENGINEERING INC.



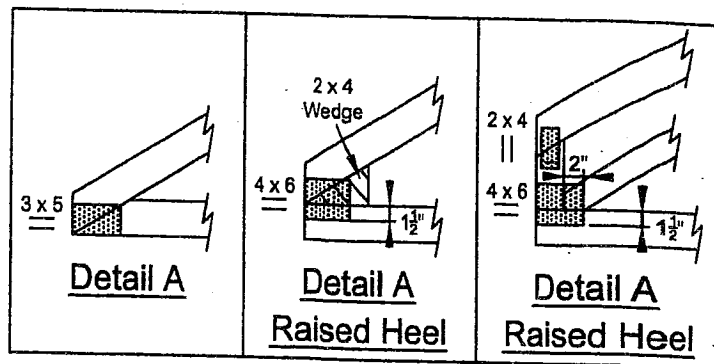
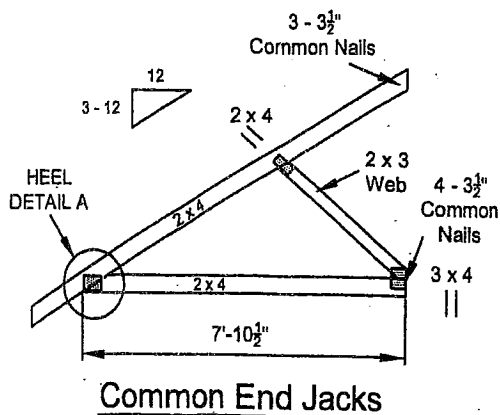
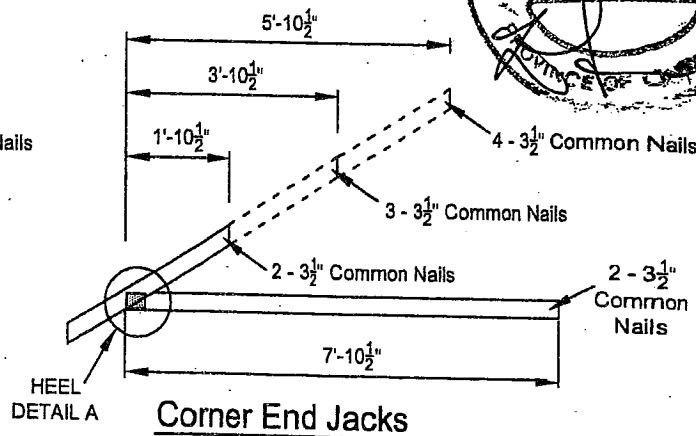
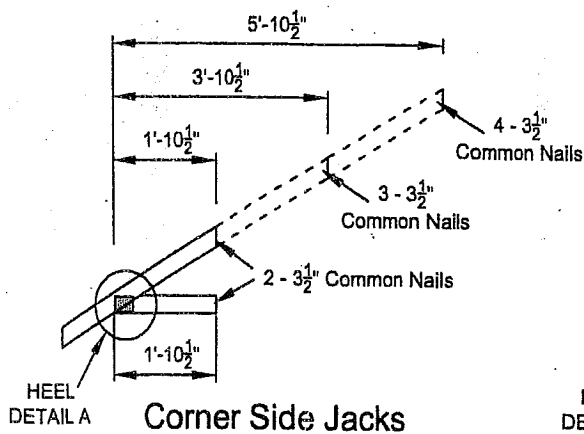
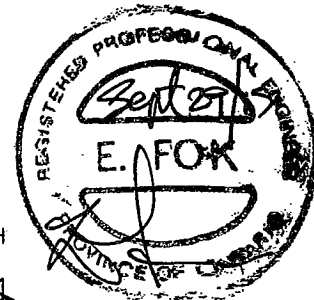
LUMBER SPECIFICATION

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

DESIGN LOAD

TOP CHORD SNOW LOAD : 34.8 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 : 44.8 P.S.F.



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

CS-71008N

LUS – Double Shear Joist Hangers

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

Material: 18 gauge

Finish: G90 galvanized

Design:

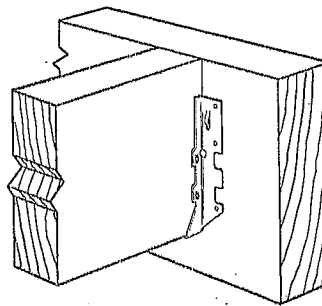
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

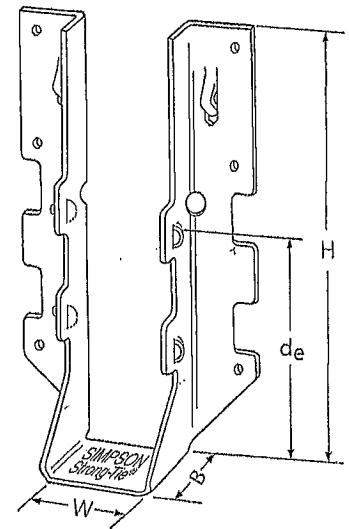
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire,
10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



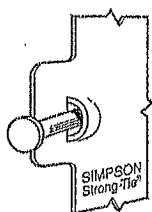
Typical LUS
Installation



LUS28

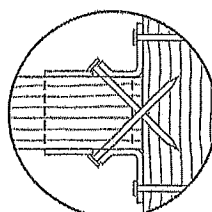
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1⅞	3⅞	1⅞	1⅞	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3⅞	3⅞	2	1⅞	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1⅞	4⅞	1⅞	3⅞	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3⅞	4⅞	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4⅞	4⅞	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1⅞	6⅞	1⅞	3⅞	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3⅞	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4⅞	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1⅞	7⅞	1⅞	3⅞	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3⅞	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4⅞	8⅞	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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

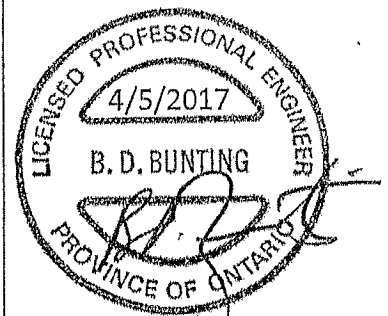


Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent
5,603,580



Double
Shear
Nailing
Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 1, 2017. This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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

(800) 999-5099
strongtie.com

HHUS – Double Shear Joist Hangers

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

Material: 14 gauge

Finish: G90 galvanized

Design:

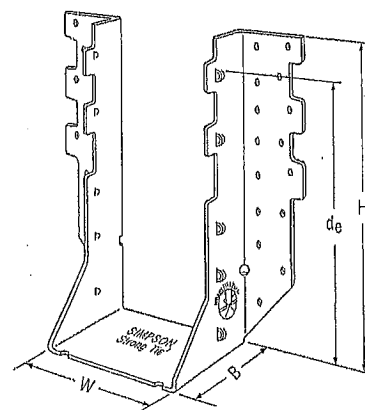
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

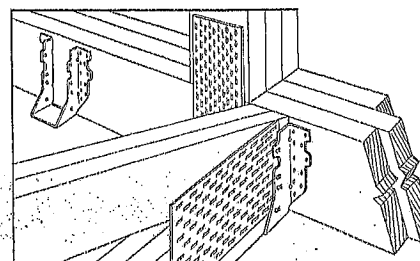
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

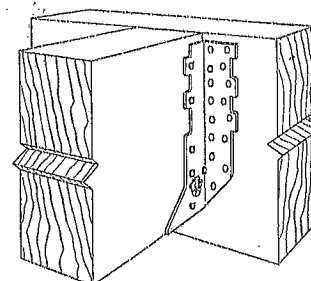
- See current catalogue for options



HHUS410



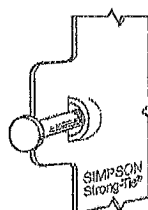
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

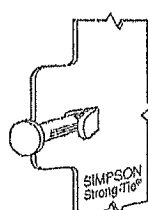
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift	Normal	Uplift	Normal
								(K _p =1.15)	(K _p =1.00)	(K _p =1.15)	(K _p =1.00)
HHUS26-2	14	3 5/16	5 13/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 5/16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

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

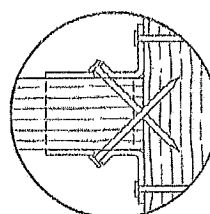


Double Double Shear Nailing prevents tabs breaking off (available on some models).

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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