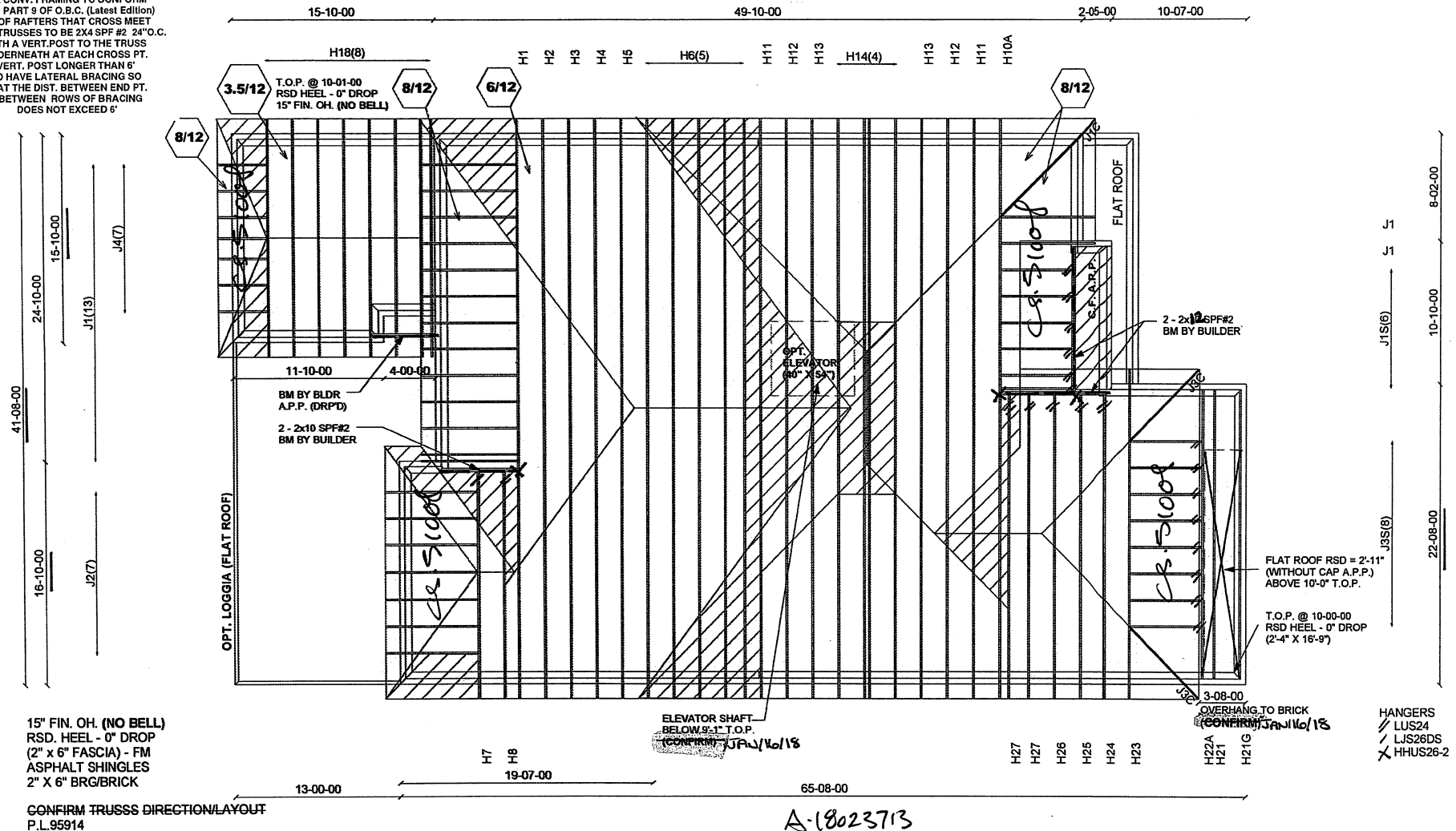


ALPA-BARRIE

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



A-18023713
A-18023736 - A-18023756

PL 99352

HIGHBOURNE KNIGHTSWOOD



Job Track: 45147
Layout ID: 292659
Plan Log: 95914

Builder / Location: GOLD PARK HOMES / VAUGHAN
Project: PINE VALLEY
Date: 1/2/2018 Designer: AMANDA

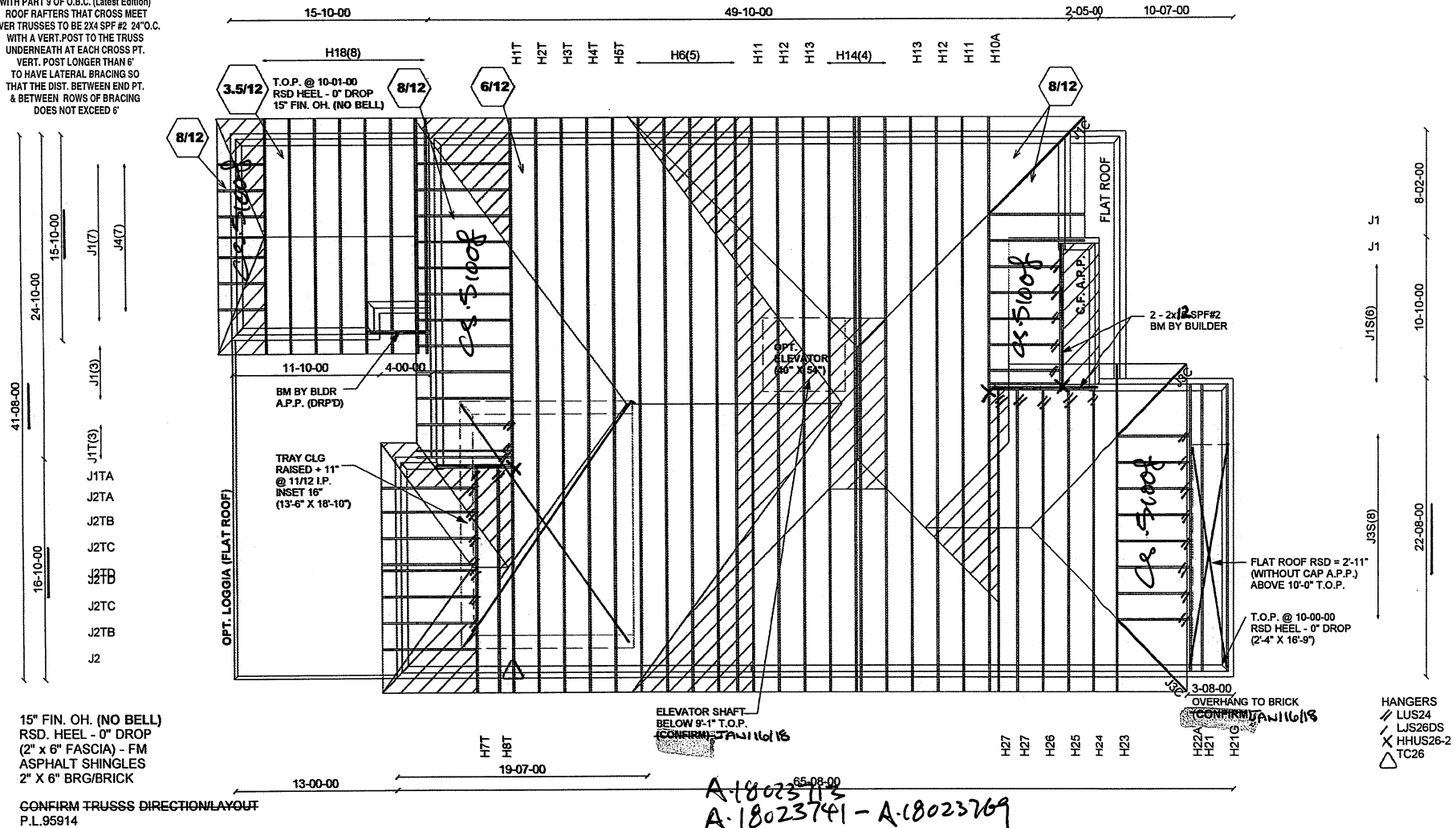
Model / Elevation: 5005 REV1
STP OR OPT 2ND FLR SBED OR OPT ELEVATOR OR
IC OPT 2ND FLR SBED W/ELEVATOR OR OPT LOGGIA
THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA ROOF TRUSSES INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.



HANGERS
LUS24
LJS26DS
HHUS26-2

ALPA-BARRIE

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2x4 SPF #2 24" O.C. WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'



P.L. 99352

HIGHBOURNE KNIGHTSWOOD



Job Track: 45147
 Layout ID: 292660
 Plan Log: 95914

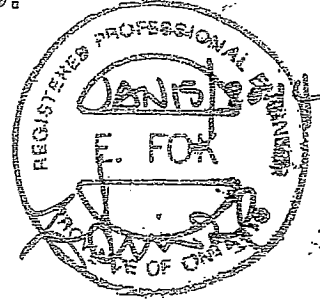
Builder / Location:
GOLD PARK HOMES / VAUGHAN
 Project: **PINE VALLEY**
 Date: 1/2/2018 Designer: AMANDA

Model / Elevation:
5005 REV1
 STD OR OPT 2ND FLR SEED OR OPT ELEVATOR OR OPT 2ND FLR SEED W/ ELEVATOR OR OPT LOGGIA

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

Stracon Engineering Inc.

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



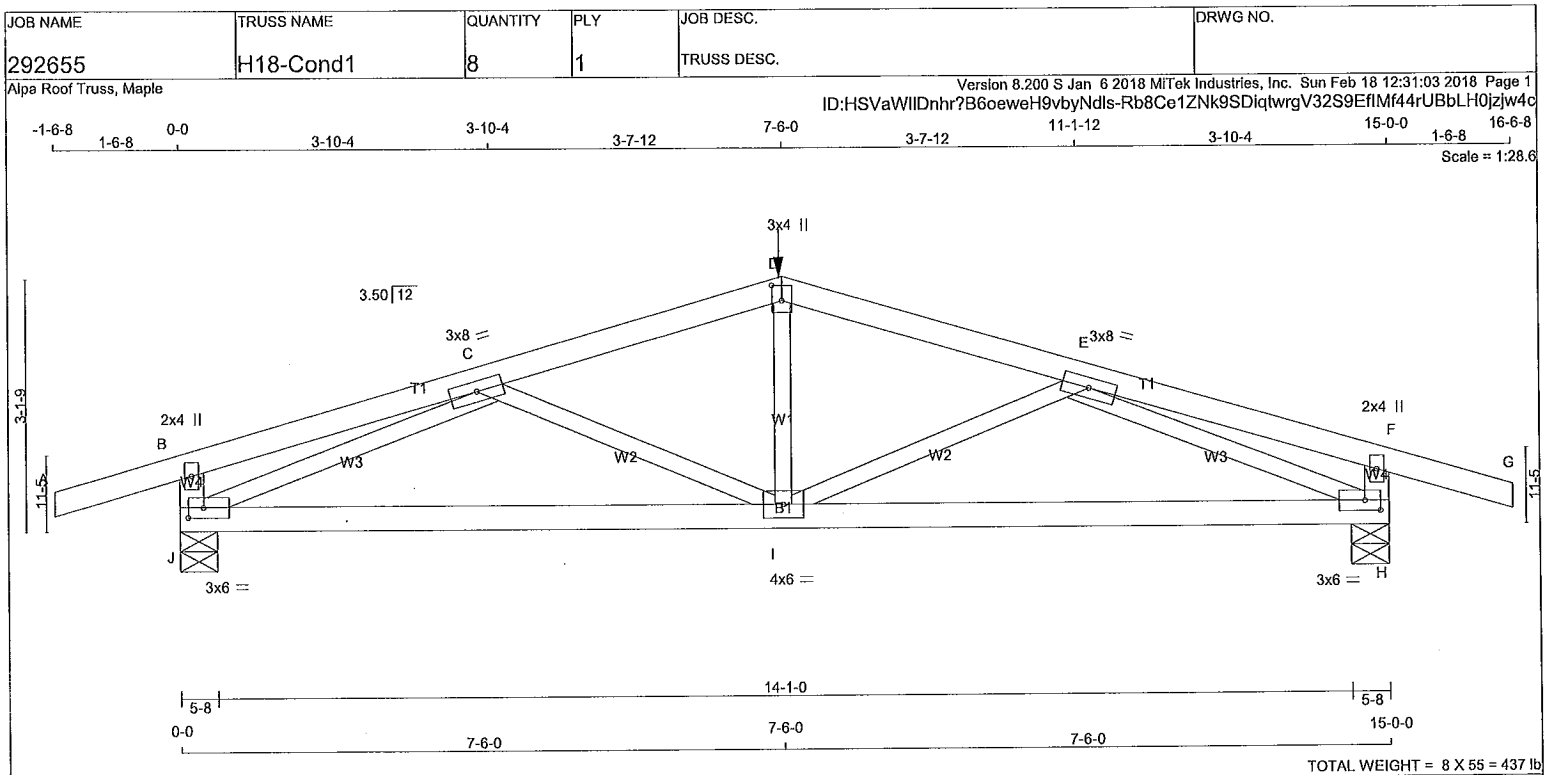
RESPONSIBILITIES

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

SPECIFICATIONS

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

January 15, 2014



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMV+p	MT20	2.0	4.0
C	TMWW-t	MT20	3.0	8.0
D	TTW+p	MT20	3.0	4.0 2.25 1.50
E	TMWW-t	MT20	3.0	8.0
F	TMV+p	MT20	2.0	4.0
H	BMVW1-t	MT20	3.0	6.0 1.50 2.25
I	BMWWW-t	MT20	4.0	6.0
J	BMVW1-t	MT20	3.0	6.0 1.50 2.25

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 164.5 lbs FACTORED DOWN AT 7-6-0 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
JT	941	0	941	0	0	5-8	1-8	
H	941	0	941	0	0	5-8	1-8	

UNFACTORED REACTIONS

	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
JT	668	426 / 0	0 / 0	0 / 0	0 / 0	242 / 0	0 / 0
H	668	426 / 0	0 / 0	0 / 0	0 / 0	242 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.44 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MAX. FACTORED		FACTORED			MAX. FACTORED			
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM TO		LENGTH	FR-TO			
A-B	0 / 17	-78.0	-78.0	0.15 (1)	10.00	I-D	0 / 322	0.08 (1)
B-C	0 / 8	-78.0	-78.0	0.15 (1)	10.00	I-E	-163 / 13	0.05 (1)
C-D	-1293 / 0	-78.0	-78.0	0.18 (1)	5.44	C-I	-163 / 13	0.05 (1)
D-E	-1293 / 0	-78.0	-78.0	0.18 (1)	5.44	J-C	-1521 / 0	0.47 (1)
E-F	0 / 8	-78.0	-78.0	0.15 (1)	10.00	E-H	-1521 / 0	0.47 (1)
F-G	0 / 17	-78.0	-78.0	0.15 (1)	10.00			
J-B	-244 / 0	0.0	0.0	0.03 (1)	7.81			
H-F	-244 / 0	0.0	0.0	0.03 (1)	7.81			
J-I	0 / 1381	-20.1	-20.1	0.48 (4)	10.00			
I-H	0 / 1381	-20.1	-20.1	0.48 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
D	7-6-0	-164	-164		FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 7-6-0
END SETBACK = 2-4-2
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.

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 (0.50")
CALCULATED VERT. DEFL.(LL)= L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.50")
CALCULATED VERT. DEFL.(TL)= L/999 (0.12")

CSI: TC=0.18/1.00 (D-E:1), BC=0.48/1.00 (I-J:4), WB=0.47/1.00 (C-J:1), SSI=0.14/1.00 (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.

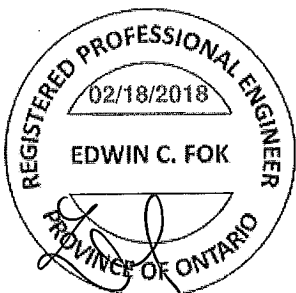
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (H) (INPUT = 0.90)
JSI METAL= 0.50 (C) (INPUT = 1.00)

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



A-18023713

Alpa Roof Truss, Maple

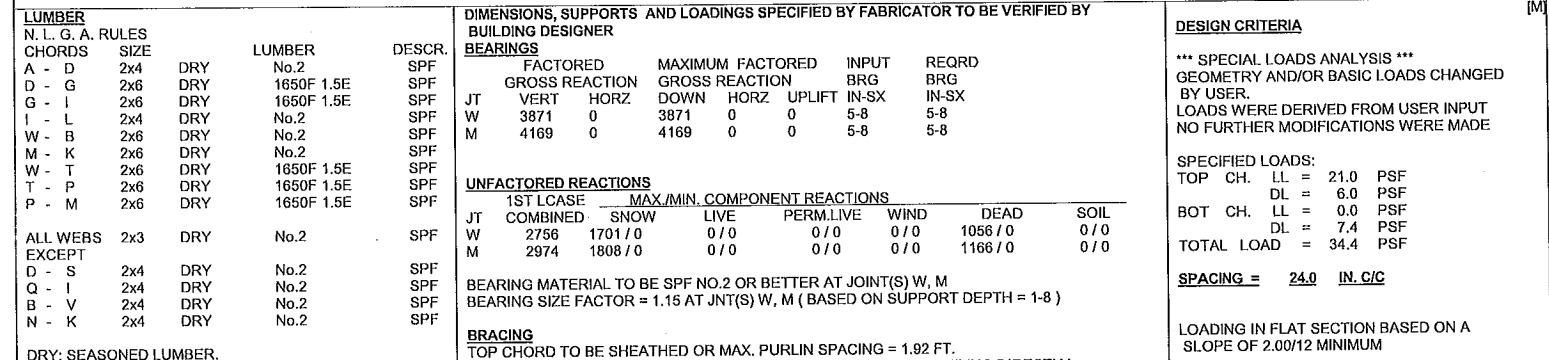
Version 6.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 14:22:27 2018 Page 1

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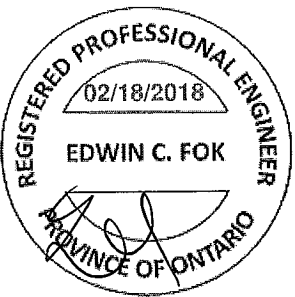
-1-6-8 0-0 4-3-9 4-1-1 8-4-10 15-8-9 20-5-0 25-1-7 32-5-6 36-6-7 40-10-0 42-4-8

1-6-8 4-3-9 4-1-1 7-3-15 4-8-7 4-8-7 7-3-15 4-1-1 4-3-9 1-6-8

Scale = 1:71.8



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



<

FACTORED CONCENTRATED LOADS (LBS)							
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
I	32-5-6	-477	-477	—	FRONT	VERT	TOTAL
S	15-8-8	-1659	-1659	—	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: CPrimeHlp

SIDE SETBACK = 8-4-10

END SETBACK = 5-10-8

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADD'T'L LOADS BASED ON 55 % OF GSL.

LOADS APPLIED TO FIRST 25-1-8 OF SPAN MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***

ADD'T'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

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

THIS DESIGN COMPLIES WITH:

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

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

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

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.42")

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

CALCULATED VERT. DEFL.(TL) = L/ 588 (0.83")

CSI: TC=0.92/1.00 (I-J:1), BC=0.85/1.00 (R-S:1), WB=0.96/1.00 (K-N:1), SSI=0.43/1.00 (I-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

AUTOSOLVE HEELS OFF

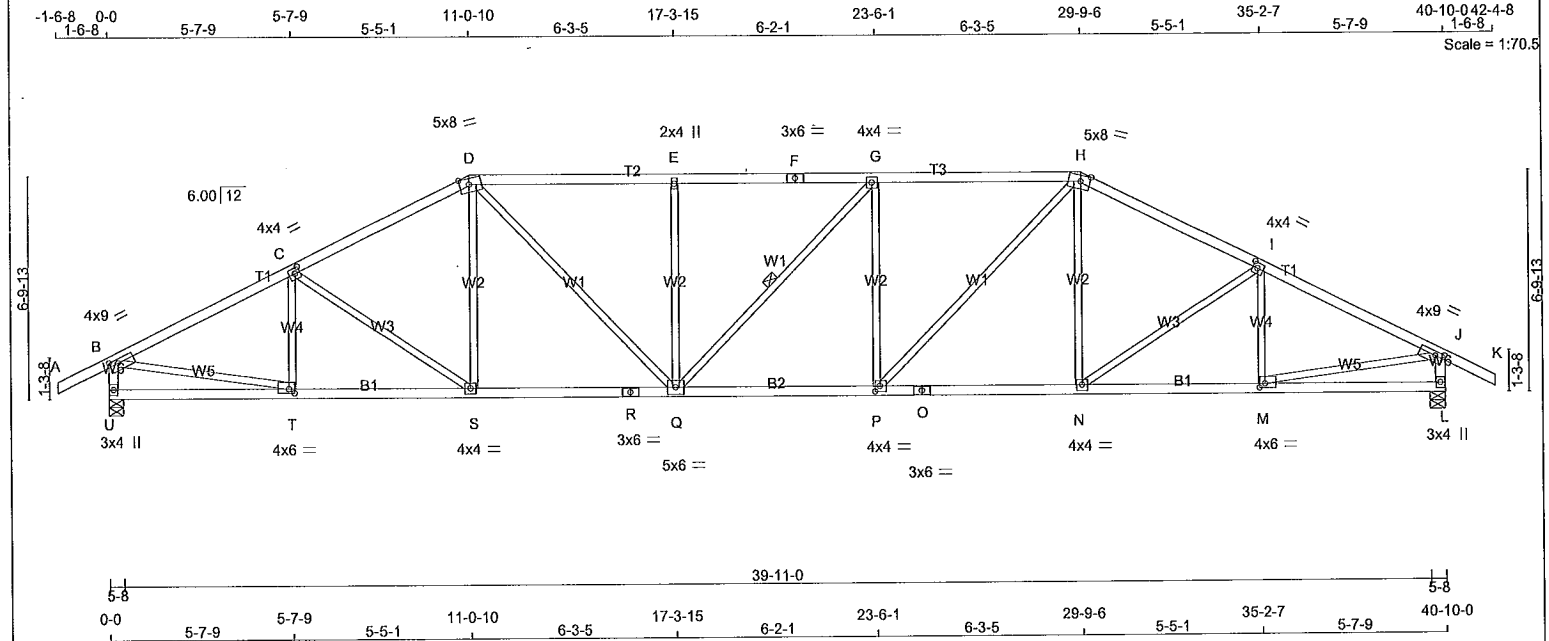
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H2	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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

DRY: SEASONED LUMBER.

<u>PLATES (table is in inches)</u>							
JT	TYPE	PLATES	W	LEN	Y	X	
B	TMVW-t	MT20	4.0	9.0	1.50	3.00	
C	TMVW-t	MT20	4.0	4.0	2.00	1.75	
D	TTVW-m	MT20	5.0	8.0	2.25	3.50	
E	TMW-w	MT20	2.0	4.0			
F	TS-t	MT20	3.0	6.0			
G	TMVW-t	MT20	4.0	4.0			
H	TTVW-m	MT20	5.0	8.0	2.25	3.50	
I	TMVW-t	MT20	4.0	4.0	2.00	1.75	
J	TMVW-t	MT20	4.0	9.0	1.50	3.00	
L	BMV1+p	MT20	3.0	4.0			
M	BMVW-t	MT20	4.0	6.0	1.50	2.00	
N	BMVW-t	MT20	4.0	4.0			
O	BS-t	MT20	3.0	6.0			
P	BMVW-t	MT20	4.0	4.0	2.00	1.75	
Q	BMVWW-t	MT20	5.0	6.0			
R	BS-t	MT20	3.0	6.0			
S	BMVW-t	MT20	4.0	4.0			
T	BMVW-t	MT20	4.0	6.0	1.50	2.00	
U	BMV1+p	MT20	3.0	4.0			

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

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	HORZ	GROSS REACTION	GROSS REACTION	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
U	2095	0	2095	0	0	0	5-8	3-5	3-5
L	2095	0	2095	0	0	0	5-8	3-5	3-5

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
U	1491	925 / 0	0 / 0	0 / 0	0 / 0	566 / 0	0 / 0
L	1491	925 / 0	0 / 0	0 / 0	0 / 0	566 / 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 = 3.55 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-Q.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MAX. MEMB. FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 28	-78.0	-78.0	0.14 (1)	10.00	T-C	-349 / 0
B-C	-2881 / 0	-78.0	-78.0	0.45 (1)	3.75	C-S	-188 / 0
C-D	-2754 / 0	-78.0	-78.0	0.42 (1)	3.84	S-D	0 / 220
D-E	-3062 / 0	-78.0	-78.0	0.53 (1)	3.55	D-Q	0 / 889
E-F	-3062 / 0	-78.0	-78.0	0.49 (1)	3.61	Q-E	-527 / 0
F-G	-3062 / 0	-78.0	-78.0	0.49 (1)	3.61	G-Q	-2 / 0
G-H	-3063 / 0	-78.0	-78.0	0.53 (1)	3.55	P-G	-527 / 0
H-I	-2754 / 0	-78.0	-78.0	0.42 (1)	3.84	P-H	0 / 891
I-J	-2881 / 0	-78.0	-78.0	0.45 (1)	3.75	N-H	0 / 219
J-K	0 / 28	-78.0	-78.0	0.14 (1)	10.00	N-I	-188 / 0
U-B	-2048 / 0	0.0	0.0	0.21 (1)	5.91	M-I	-349 / 0
L-J	-2048 / 0	0.0	0.0	0.21 (1)	5.91	B-T	0 / 2636
						M-J	0 / 2636
U-T	0 / 0	-18.5	-18.5	0.12 (4)	10.00		
T-S	0 / 2596	-18.5	-18.5	0.49 (1)	10.00		
S-R	0 / 2445	-18.5	-18.5	0.47 (1)	10.00		
R-Q	0 / 2445	-18.5	-18.5	0.47 (1)	10.00		
Q-P	0 / 3063	-18.5	-18.5	0.56 (1)	10.00		
P-O	0 / 2445	-18.5	-18.5	0.47 (1)	10.00		
O-N	0 / 2445	-18.5	-18.5	0.47 (1)	10.00		
N-M	0 / 2596	-18.5	-18.5	0.49 (1)	10.00		
M-L	0 / 0	-18.5	-18.5	0.12 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.19")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.39")

CSI: TC=0.53/1.00 (G-H:1), BC=0.56/1.00 (P-Q:1)
, WB=0.59/1.00 (J-M:1), SSI=0.23/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

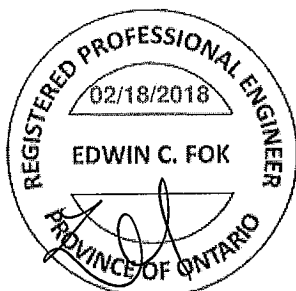
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

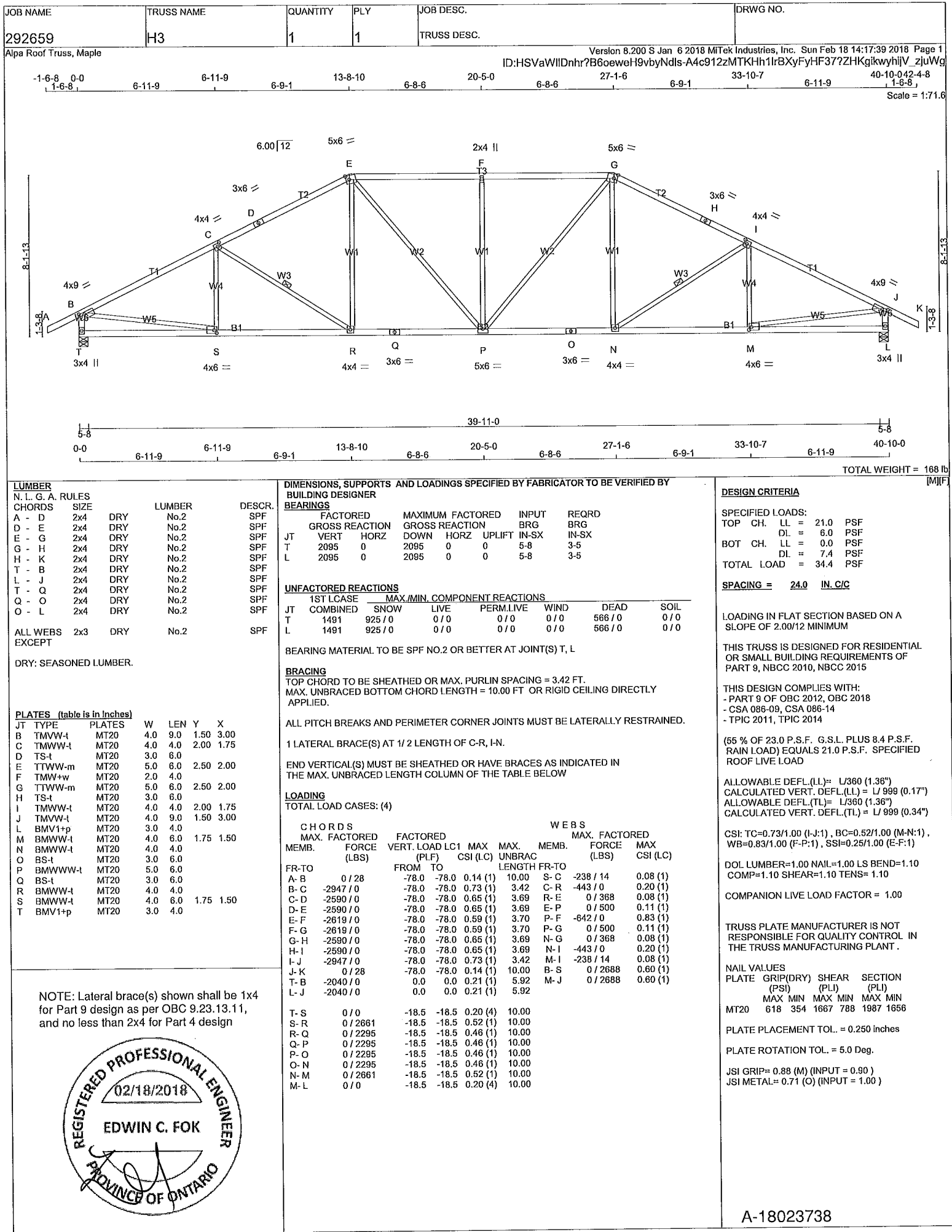
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (M) (INPUT = 0.90)
JSI METAL= 0.72 (R) (INPUT = 1.00)

A-18023737





Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 14:17:48 2018 Page 1

ID:HSVaWIIDnhnr7B6oewH9vbyNdis-PpfYv747L5PQc81wZLv388xWBLUHqNF0bNiJzzjuWX

-1-6-8 0-0 8-3-9 16-4-10 20-5-0 4-0-6 4-0-6 24-5-6 8-1-1 32-6-7 8-3-9 40-10-042-4-8
1-6-8 8-3-9 8-1-1 4-0-6 4-0-6 8-1-1 32-6-7 8-3-9 1-6-8

Scale = 1:71.6



ALL WEBS 2x3 DRY No.2 SPF	S 1491 925 / 0 0 / 0 0 / 0 0 / 0 566 / 0 0 / 0	SLOPE OF 2.00/12 MINIMUM
EXCEPT	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) S, L	THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015
DRY: SEASONED LUMBER.	BRACING	

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.79 FT.

PLATES (table is in inches) JT TYPE PLATES W LEN Y X					ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.	- CSA 100-05, CSA 100-17 - TPIC 2011, TPIC 2014
--	--	--	--	--	--	--

B	TMVW-I	MT20	4.0	9.0	1.50	3.00	1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-P, F-P, F-O, I-O.	(55 % OF 23.0 P.S.F. G.S.I. PLUS 8.4 P.S.F. DEAD LOAD) EQUAL TO 0.5 P.S.F. SPECIFIED
C	TMVW-I	MT20	4.0	4.0	2.00	1.75		

D	TS-4	MT20	3.0	6.0	END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW	RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD
E	TTW-m	MT20	4.0	6.0		
F	TTW-m	MT20	1.0	4.0		

J	TMVW-t	MT20	4.0	9.0	1.50	3.00	CHORDS	WEBS	CALCULATED VERT. DEFLECTION = 0.001 (IN.)
L	BMV1+p	MT20	3.0	4.0					

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design	S-R 0 / 0 -18.5 -18.5 0.30 (4) 10.00 R-Q 0 / 2683 -18.5 -18.5 0.58 (1) 10.00 Q-P 0 / 2683 -18.5 -18.5 0.58 (1) 10.00	MAX MIN MAX MIN MAX MIN MT20 618 354 1667 788 1987 1656
		PLATE PLACEMENT TOL. = 0.250 inches

Q-F	0/2683	-18.5	-18.5	0.58 (1)	10.00
P-O	0/2197	-18.5	-18.5	0.48 (1)	10.00
O-N	0/2683	-18.5	-18.5	0.58 (1)	10.00

PLATE ROTATION TOL. = 5.0 Deg.

N-M	0/2683	-18.5	-18.5	0.58 (1)	10.00	JSI GRIP= 0.87 (D) (INPUT = 0.90) JSI METAL= 0.76 (Q) (INPUT = 1.00)
M-L	0/0	-18.5	-18.5	0.30 (4)	10.00	

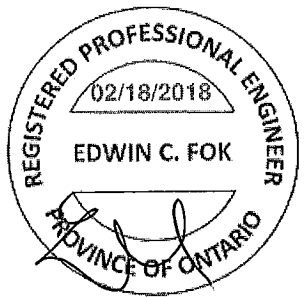
02/18/2018

EDWIN C. FOK

PROVINCIA DEL QUINTO

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		A-10025759
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Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 Mitek Industries, Inc. Sun Feb 18 14:18:06 2018 Page 1

ID:HSVaWlIDnhr?B6oeweH9vbyNds-tlkMhHHI6dchsmvPNc7EHtXgnQRTBVvwu9OkfywzjuWF

-1-6-8 0-0 6-5-14 12-9-4 19-0-10 21-9-6 28-0-12 34-4-2 40-10-042-4-8
1-6-8 6-5-14 6-3-6 6-3-6 2-8-12 6-3-6 6-3-6 6-5-14 1-6-8

Scale = 1:7.1

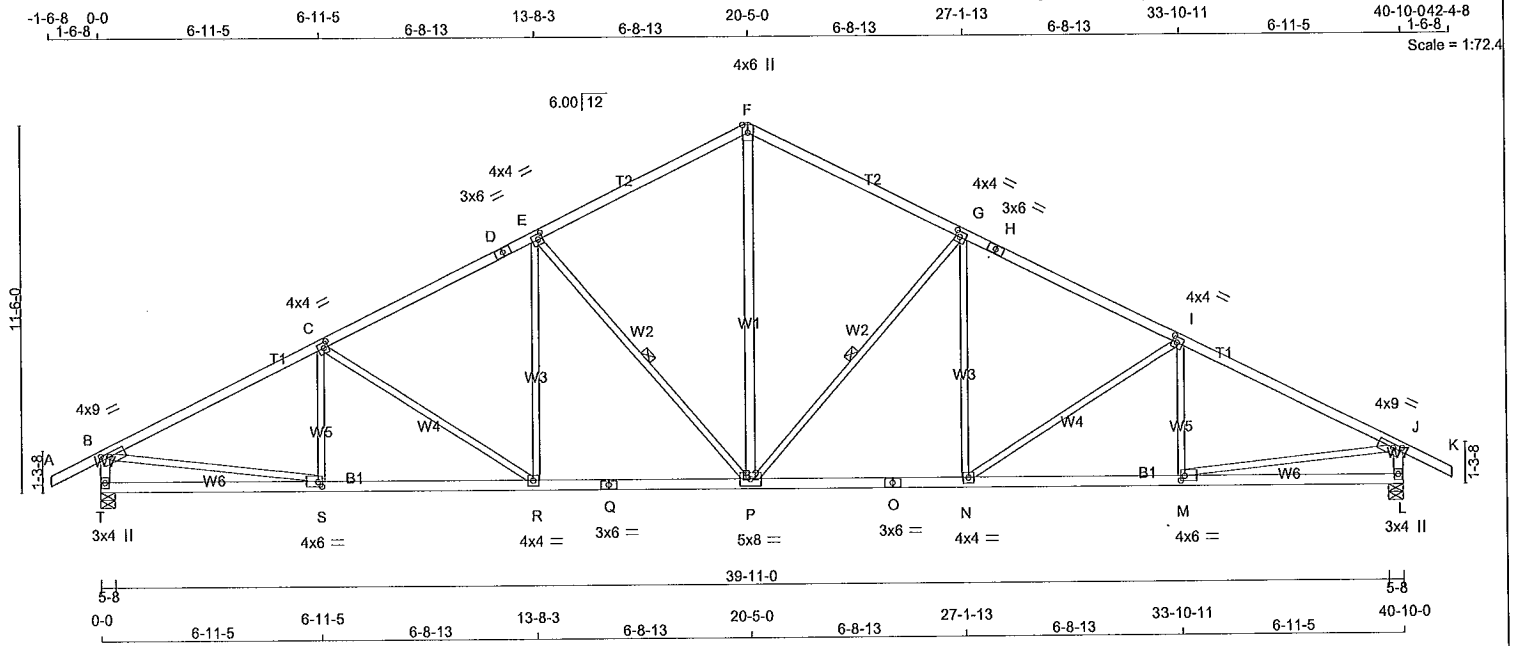


JSI GRIP= 0.89 (F) (INPUT = 0.90)
JSI METAL= 0.87 (O) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H6	5	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:18:28 2018 Page 1
ID:HSVaWIIIDnhr?B6oeweH9vbyNdls-EV3gJpZ5wOSIPH5cvkdRmabV?J0rfj7Dp3pfzjuVV



LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - F	2x4	DRY	No.2	SPF	
F - H	2x4	DRY	No.2	SPF	
H - K	2x4	DRY	No.2	SPF	
T - B	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
T - Q	2x4	DRY	No.2	SPF	
Q - O	2x4	DRY	No.2	SPF	
O - L	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT P - F	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	1.50	3.00
C, E, G, I						
C	TMVW-t	MT20	4.0	4.0	2.00	1.75
D	TS-t	MT20	3.0	6.0		
F	TTW+p	MT20	4.0	6.0	Edge	
H	TS-t	MT20	3.0	6.0		
J	TMVW-t	MT20	4.0	9.0	1.50	3.00
L	BMV1+p	MT20	3.0	4.0		
M	BMVW-t	MT20	4.0	6.0	1.75	1.50
N	BMVW-t	MT20	4.0	4.0		
O	BS-t	MT20	3.0	6.0		
P	BMVWW-t	MT20	5.0	8.0		
Q	BS-t	MT20	3.0	6.0		
R	BMVW-t	MT20	4.0	4.0		
S	BMVW-t	MT20	4.0	6.0	1.75	1.50
T	BMV1+p	MT20	3.0	4.0		

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

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UP
T	2095	0	0	5-8
L	2095	0	0	5-8

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
T	1491	925 / 0	0 / 0	0 / 0	0 / 0	568 / 0	0 / 0
L	1491	925 / 0	0 / 0	0 / 0	0 / 0	568 / 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 = 3.49 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-P, E-P.

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. FACTORED VERT. LOAD (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 28	-78.0	-78.0 0.14 (1)	10.00	P-F	0 / 1380	0.22 (1)
B-C	-2931 / 0	-78.0	-78.0 0.71 (1)	3.49	P-G	-825 / 0	0.64 (1)
C-D	-2618 / 0	-78.0	-78.0 0.56 (1)	3.82	N-G	0 / 318	0.07 (4)
D-E	-2618 / 0	-78.0	-78.0 0.56 (1)	3.82	N-I	-360 / 0	0.50 (1)
E-F	-2039 / 0	-78.0	-78.0 0.53 (1)	4.22	M-I	-236 / 14	0.08 (1)
F-G	-2039 / 0	-78.0	-78.0 0.53 (1)	4.22	E-P	-825 / 0	0.64 (1)
G-H	-2618 / 0	-78.0	-78.0 0.56 (1)	3.82	R-E	0 / 318	0.07 (4)
H-I	-2618 / 0	-78.0	-78.0 0.56 (1)	3.82	C-R	-360 / 0	0.50 (1)
I-J	-2931 / 0	-78.0	-78.0 0.71 (1)	3.49	S-C	-236 / 14	0.08 (1)
J-K	0 / 28	-78.0	-78.0 0.14 (1)	10.00	B-S	0 / 2668	0.60 (1)
T-B	-2040 / 0	0.0	0.0 0.21 (1)	5.92	M-J	0 / 2668	0.60 (1)
L-J	-2040 / 0	0.0	0.0 0.21 (1)	5.92			
T-S	0 / 0	-18.5	-18.5 0.20 (4)	10.00			
S-R	0 / 2641	-18.5	-18.5 0.52 (1)	10.00			
R-Q	0 / 2342	-18.5	-18.5 0.48 (1)	10.00			
Q-P	0 / 2342	-18.5	-18.5 0.48 (1)	10.00			
P-O	0 / 2342	-18.5	-18.5 0.48 (1)	10.00			
O-N	0 / 2342	-18.5	-18.5 0.48 (1)	10.00			
N-M	0 / 2641	-18.5	-18.5 0.52 (1)	10.00			
M-L	0 / 0	-18.5	-18.5 0.20 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/999 (0.33")

CSI: TC=0.71/1.00 (I-J:1), BC=0.52/1.00 (M-N:1), WB=0.64/1.00 (G-P:1), SSI=0.22/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

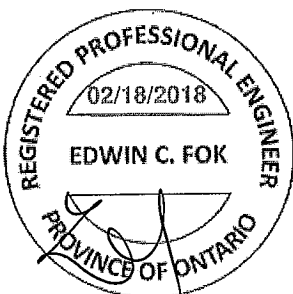
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

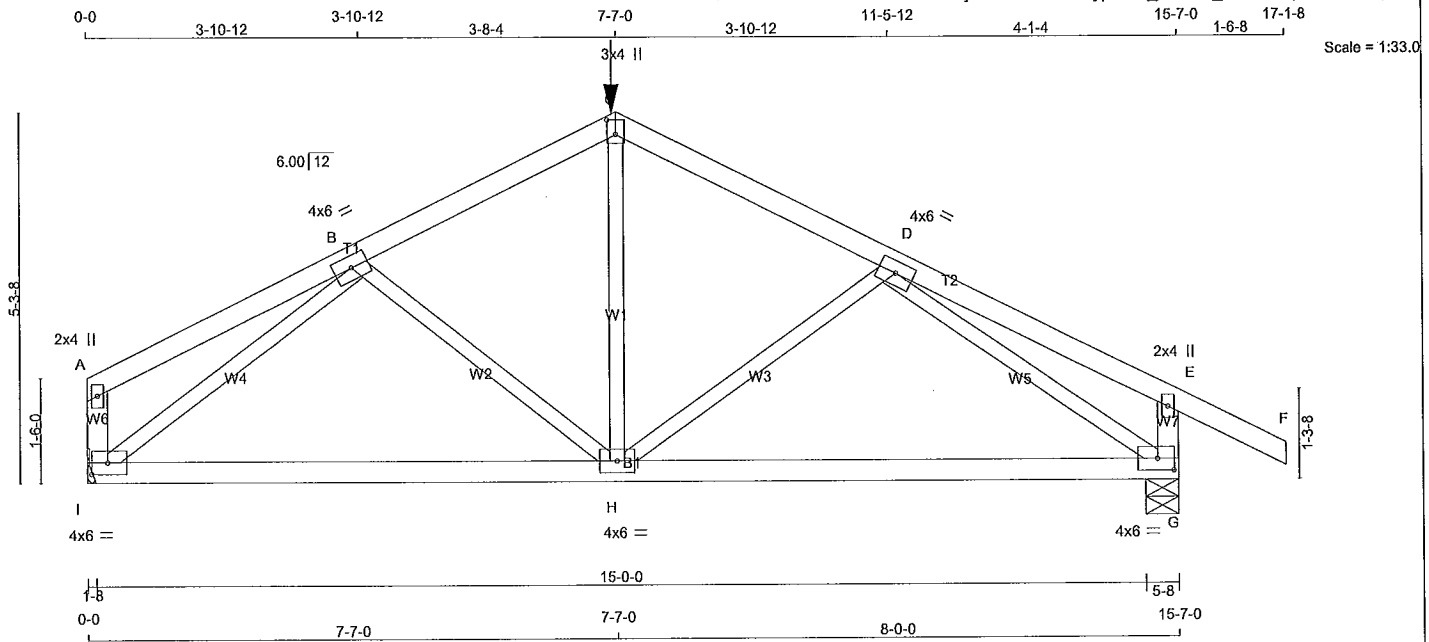
JSI GRIP= 0.87 (S) (INPUT = 0.90)
JSI METAL= 0.74 (O) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H7	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:20:14 2018 Page 1
ID:HSVaWIIIDnhr?B6oeWeH9vbyNdls-7vTIZ2rbzyPi7aB_6?XI3x_kR173UqUkblQSVzjuUF



TOTAL WEIGHT = 61 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMVW-t	MT20	4.0	6.0		
C	TTW+p	MT20	3.0	4.0	2.50	1.50
D	TMVW-t	MT20	4.0	6.0		
E	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	4.0	6.0	2.00	2.75
H	BMVW1-t	MT20	4.0	6.0		
I	BMVW1-t	MT20	4.0	6.0	2.00	2.75

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 827.9 lbs FACTORED DOWN AT 7-7-0 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	MIN. SEAT SIZE: 1-8	5-8
I	1306	0	1306	0	0	5-8	1-8		
G	1409	0	1409	0	0	5-8	1-8		

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	934	556 / 0	0 / 0	0 / 0	0 / 0	378 / 0	0 / 0	0 / 0
G	1005	611 / 0	0 / 0	0 / 0	0 / 0	394 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.98 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

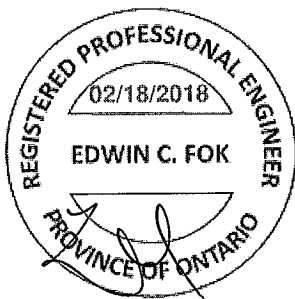
TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 14	-78.0	-78.0 0.18 (1)	10.00	B-H	0 / 75	0.03 (4)
B-C	-1563 / 0	-78.0	-78.0 0.22 (1)	5.02	H-C	0 / 319	0.12 (4)
C-D	-1564 / 0	-78.0	-78.0 0.25 (1)	4.98	H-D	-32 / 44	0.02 (4)
D-E	0 / 15	-78.0	-78.0 0.20 (1)	10.00	I-B	-1725 / 0	0.69 (1)
E-F	0 / 28	-78.0	-78.0 0.16 (1)	10.00	D-G	-1760 / 0	0.74 (1)
I-A	-118 / 0	0.0	0.0 0.01 (1)	7.81			
G-E	-249 / 0	0.0	0.0 0.03 (1)	7.81			
I-H	0 / 1338	-35.1	-35.1 0.80 (4)	10.00			
H-G	0 / 1411	-35.1	-35.1 0.81 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	7-7-0	-828	-828	—	FRONT	VERT	TOTAL

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



DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 7-7-0
RIGHT SETBACK = 8-0-0
END SETBACK = 5-7-1
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.52")
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.52")
CALCULATED VERT. DEFL.(TL)= L/944 (0.20")

CSI: TC=0.25/1.00 (C-D:1), BC=0.81/1.00 (G-H:4), WB=0.74/1.00 (D-G:1), SSI=0.26/1.00 (G-H:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

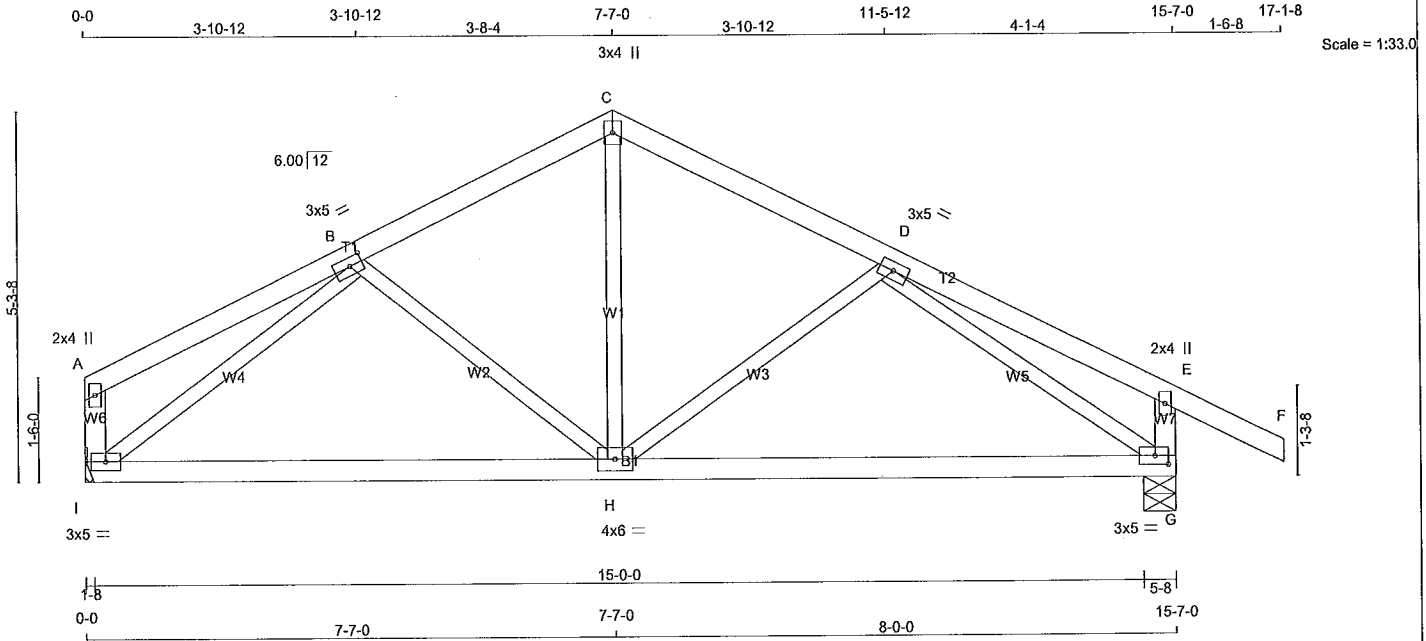
JSI GRIP= 0.88 (B) (INPUT = 0.90)
JSI METAL= 0.43 (D) (INPUT = 1.00)

A-18023742

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H8	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:22:35 2018 Page 1
ID:HSVavWIDnhr?B6oeweH9vbyNdls-V1V29GY1IHaiYET4t6ZMHgKrtLd0grU0kPOvqzjuS2



TOTAL WEIGHT = 61 lb

LUMBER	N. I. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - F	2x4	DRY	No.2	SPF	
I - A	2x4	DRY	No.2	SPF	
G - E	2x4	DRY	No.2	SPF	
I - G	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	3.0	5.0	1.50	2.25
C	TTW+p	MT20	3.0	4.0		
D	TMWW-t	MT20	3.0	5.0		
E	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	3.0	5.0	1.50	2.25
H	BMVWW-t	MT20	4.0	6.0		
I	BMVW1-t	MT20	3.0	5.0		

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
I	752	0	752	0
G	877	0	877	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE
I	536	327 / 0	0 / 0	0 / 0
G	623	395 / 0	0 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD LC1 (LC)	MAX. FACTORED VERT. LOAD LC1 (LC)	MAX. FACTORED VERT. LOAD LC1 (LC)	MAX. FACTORED VERT. LOAD LC1 (LC)	MAX. FACTORED VERT. LOAD LC1 (LC)	MAX. FACTORED VERT. LOAD LC1 (LC)	MAX. FACTORED VERT. LOAD LC1 (LC)
FR-TO									
A-B	0 / 15	-78.0	-78.0	0.17 (1)	10.00	B-H	-134 / 3	0.05 (1)	
B-C	-701 / 0	-78.0	-78.0	0.14 (1)	6.25	H-C	0 / 379	0.09 (1)	
C-D	-702 / 0	-78.0	-78.0	0.15 (1)	6.25	H-D	-194 / 0	0.08 (1)	
D-E	0 / 16	-78.0	-78.0	0.19 (1)	10.00	I-B	-925 / 0	0.36 (1)	
E-F	0 / 28	-78.0	-78.0	0.14 (1)	10.00	D-G	-959 / 0	0.39 (1)	
I-A	-115 / 0	0.0	0.0	0.01 (1)	7.81				
G-E	-247 / 0	0.0	0.0	0.03 (1)	7.81				
I-H	0 / 718	-18.5	-18.5	0.39 (4)	10.00				
H-G	0 / 769	-18.5	-18.5	0.39 (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

(5% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.52")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.52")
CALCULATED VERT. DEFL.(TL)= L/999 (0.10")

CSI: TC=0.19/1.00 (D-E:1), BC=0.39/1.00 (G-H:4), WB=0.39/1.00 (D-G:1), SSI=0.13/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

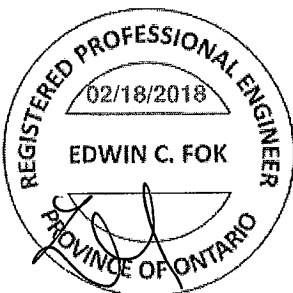
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.26 (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-18023743

Alpa Roof Truss, Maple

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ID:HSVawliDnhr2B6oewEH9vbyNdis-2Q_xgFYDPAWYVDEMidR8EmodShp2BPfJ9J9XjnzjuJ?

-1-6-8 0-0 5-10-8 12-7-0 19-3-7 20-6-0 21-6-9 28-3-1 40-10-42-4-8
1-6-8, 5-10-8 6-8-8 6-8-8 1-1-9 1-1-9 6-8-8 6-8-8 34-11-8 5-10-8 1-6-8

Scale = 1:70.7



DRY: SEASONED LUMBER.

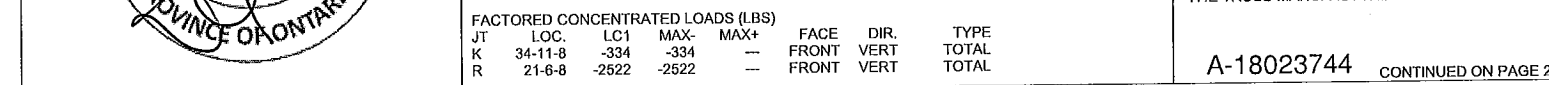
PLATES (table is in inches)					2x4 DRY SPF No.2 T-BRACE AT D-U, J-P	CORNER FRAMING TYPE: CONVENTIONAL
JT TYPE	PLATES	W	LEN	Y	X	END JACK TYPE: CONVENTIONAL
3	3	5.0	44.0	1.50	5.00	APPLIED TO FRONT SIDE

	E - F	-10289 / 0	-78.0	-78.0	0.54 (1)	2.91	S - F	-320 / 0	0.13 (1)
	F - G	-10269 / 0	-78.0	-78.0	0.34 (1)	3.03	S - G	-1590 / 0	0.68 (1)
	G - H	-10963 / 0	-78.0	-78.0	0.36 (1)	2.92	G - R	0 / 1575	0.39 (1)
	H - I	-10963 / 0	-153.5	-153.5	0.84 (1)	2.49	R - H	-486 / 0	0.20 (1)
	I - J	-10963 / 0	-153.5	-153.5	0.84 (1)	2.49	R - J	0 / 2487	0.62 (1)
	J - K	-8974 / 0	-153.5	-153.5	0.69 (1)	2.90	P - J	-2758 / 0	0.62 (1)
	K - L	-5024 / 0	-78.0	-78.0	0.84 (1)	3.11	P - K	0 / 5070	0.90 (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

RAFTER DEFLECTION FROM DEAD LOAD
 ROOF LIVE LOAD
 ALLOWABLE DEFL.(LL)= L/360 (1.36")
 CALCULATED VERT. DEFL.(LL) = L/ 999 (0.46")
 ALLOWABLE DEFL.(TL)= L/360 (1.36")
 CALCULATED VERT. DEFL.(TL) = L/ 544 (0.90")

	W-V	0 / 0	-18.5	-18.5	0.06 (4)	10.00	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 .
	V-U	0 / 3873	-18.5	-18.5	0.35 (1)	10.00	
	U-T	0 / 7568	-18.5	-18.5	0.67 (1)	10.00	
	T-S	0 / 7568	-18.5	-18.5	0.67 (1)	10.00	
	S-R	0 / 10618	-18.5	-18.5	0.97 (1)	10.00	
	R-Q	0 / 8973	-36.4	-36.4	0.87 (1)	10.00	
	Q-P	0 / 8973	-36.4	-36.4	0.87 (1)	10.00	
	P-O	0 / 4925	-36.4	-36.4	0.46 (1)	10.00	
O-N	0 / 0	-36.4	-36.4	0.11 (4)	10.00		



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H10A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:32:14 2018 Page 2
ID:HSVavIIDnhr?B6oewelH9vbyNdls-2Q_xgFYDPAWYVDEMIDR8EmodSHp2BPfj9J9Xjnzju?

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
V	BMWV-t	MT20	6.0	9.0	2.75	3.75
W	BMV1-t	MT20	6.0	9.0	5.50	

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

HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S)
REQUIRED TO SUPPORT CONCENTRATED
LOAD(S) 334.0 lbs FACTORED DOWN AT
34-11-8 ON TOP CHORD, AND 2521.9 lbs
FACTORED DOWN AT 21-6-8 ON BOTTOM
CHORD. DESIGN FOR UNSPECIFIED
CONNECTION(S) IS DELEGATED TO THE
BUILDING DESIGNER.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667
MT18HS	511	354	2455

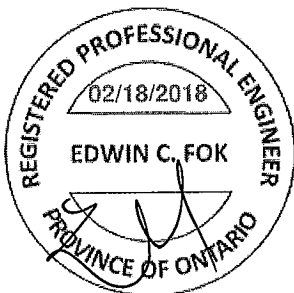
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.95 (T) (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-18023744(v)

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:25:54 2018 Page 1

ID:HSVaWIIIdnhr?B6oeWvH9vbyNdis-AJ0HwJysuQeSwqBK1Pd1rd3IS5Dc8d9nmC6QNozjuOx

-1-6-8 0-0 4-0-8 3-10-0 7-10-8 16-3-4 8-4-12 8-3-8 24-6-12 8-4-12 32-11-8 36-9-8 30-10-0 4-0-8 40-10-0 42-4-8
1-6-8 4-0-8 1-6-8

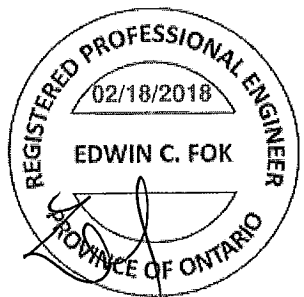
Scale = 1:70.9



DRY: SEASONED LUMBER.	<u>BRACING</u> TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.15 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL GUTTER BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.	THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, OBC 2018 - CSA 086-09, CSA 086-14 - TPIC 2011, TPIC 2014
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H	TTWW-m	MT20	5.0	8.0	2.00	2.75																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design	J-K	0/35	-78.0	-78.0	0.15 (1)	10.00	S-C	-2551/0	0.50 (1)	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
	S-B	-248/0	0.0	0.0	0.03 (1)	7.81	I-L	-2551/0	0.58 (1)	
	L-J	-248/0	0.0	0.0	0.03 (1)	7.81				
	S-R	0/1818	-18.5	-18.5	0.48 (4)	10.00				
	R-Q	0/1942	-18.5	-18.5	0.48 (4)	10.00				
	C-B	0/1042	-18.5	-18.5	0.48 (4)	10.00				

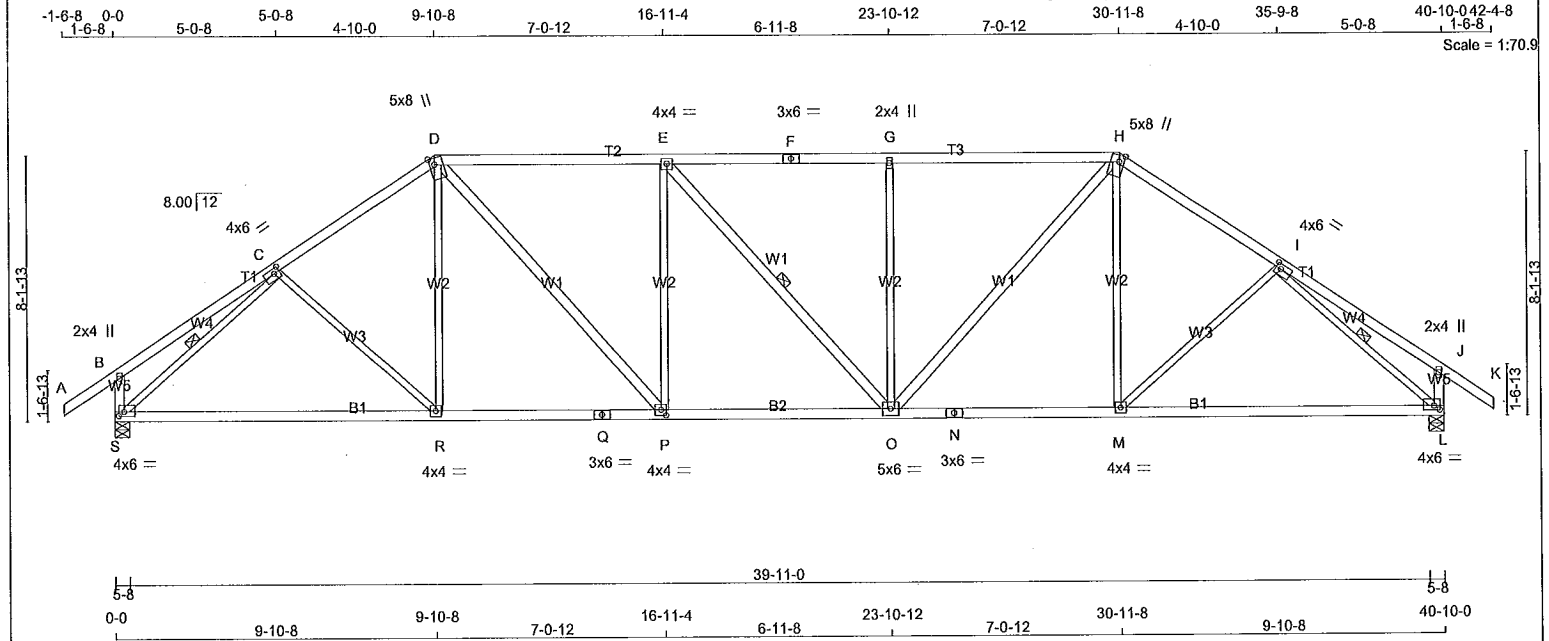


	P-F	0 / 1942	-18.5	-18.5	0.62 (1)	10.00	PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.88 (O) (INPUT = 0.90) JSI METAL= 0.64 (I) (INPUT = 1.00)
	P-O	0 / 3050	-18.5	-18.5	0.48 (4)	10.00	
	O-N	0 / 1942	-18.5	-18.5	0.48 (4)	10.00	
	N-M	0 / 1942	-18.5	-18.5	0.48 (4)	10.00	
	M-L	0 / 1818	-18.5	-18.5	0.46 (4)	10.00	

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H12	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 Mitek Industries, Inc. Sun Feb 18 14:26:23 2018 Page 1
ID:HSVaWIIDnhr?B6oeweH9vbyNdls-quGF?DI23KILuHvuE?eqWImfBn60RIa2RCdSudzjuOU



TOTAL WEIGHT = 2 X 185 = 370 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	6.0	1.75	2.00
D	TTWW+m	MT20	5.0	8.0	Edge	1.75
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMW+w	MT20	2.0	4.0		
H	TTWW+m	MT20	5.0	8.0	Edge	1.75
I	TMWW-t	MT20	4.0	6.0	1.75	2.00
J	TMV+p	MT20	2.0	4.0		
L	BMVW1-t	MT20	4.0	6.0	1.50	2.00
M	BMWW-t	MT20	4.0	4.0		
N	BS-t	MT20	3.0	6.0		
O	BMWWW-t	MT20	5.0	6.0		
P	BMWW-t	MT20	4.0	4.0	2.00	1.75
Q	BS-t	MT20	3.0	6.0		
R	BMWW-t	MT20	4.0	4.0		
S	BMVW1-t	MT20	4.0	6.0	1.50	2.00

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	IN-SX	IN-SX		
S	2096	0	2096	0	0	5-8	2-4		
L	2096	0	2096	0	0	5-8	2-4		

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS	LIVE	PERM.LIVE	WIND	DEAD	SOIL
S	1492	925 / 0	0 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
L	1492	925 / 0	0 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.53 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-O, C-S, I-L.

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)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 35	-78.0 -78.0	0.15 (1)	C-R	0 / 65	0.02 (4)	
B-C	0 / 24	-78.0 -78.0	0.29 (1)	D-P	0 / 187	0.06 (4)	
C-D	-2309 / 0	-78.0 -78.0	0.43 (1)	E-O	0 / 952	0.15 (1)	
D-E	-2538 / 0	-78.0 -78.0	0.83 (1)	F-H	-594 / 0	0.76 (1)	
E-F	-2537 / 0	-78.0 -78.0	0.82 (1)	G-I	-2 / 0	0.00 (1)	
F-G	-2537 / 0	-78.0 -78.0	0.82 (1)	H-J	-594 / 0	0.76 (1)	
G-H	-2537 / 0	-78.0 -78.0	0.82 (1)	I-L	0 / 951	0.15 (1)	
H-I	-2309 / 0	-78.0 -78.0	0.43 (1)	J-K	0 / 188	0.06 (4)	
I-J	0 / 24	-78.0 -78.0	0.29 (1)	K-L	0 / 65	0.02 (4)	
J-K	0 / 35	-78.0 -78.0	0.15 (1)	L-M	-2577 / 0	0.78 (1)	
K-L	-275 / 0	0.0 0.0	0.03 (1)	M-N	-2578 / 0	0.78 (1)	
L-M	-275 / 0	0.0 0.0	0.03 (1)	N-O			
S-R	0 / 1897	-18.5 -18.5	0.57 (4)	O-P			
R-Q	0 / 1901	-18.5 -18.5	0.58 (4)	P-O			
Q-P	0 / 1901	-18.5 -18.5	0.58 (4)	O-N			
P-O	0 / 2538	-18.5 -18.5	0.49 (1)	N-M			
O-N	0 / 1901	-18.5 -18.5	0.58 (4)	M-L			
N-M	0 / 1901	-18.5 -18.5	0.58 (4)				
M-L	0 / 1897	-18.5 -18.5	0.57 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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)= 1/360 (1.36")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.14")
ALLOWABLE DEFL.(TL)= 1/360 (1.36")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.36")

CSI: TC=0.83/1.00 (D-E:1), BC=0.58/1.00 (M-O:4), WB=0.78/1.00 (I-L:1), SSI=0.26/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

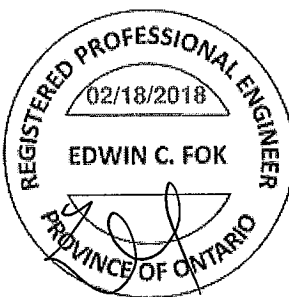
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (L) (INPUT = 0.90)
JSI METAL= 0.64 (I) (INPUT = 1.00)

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CONTINUED ON PAGE 2



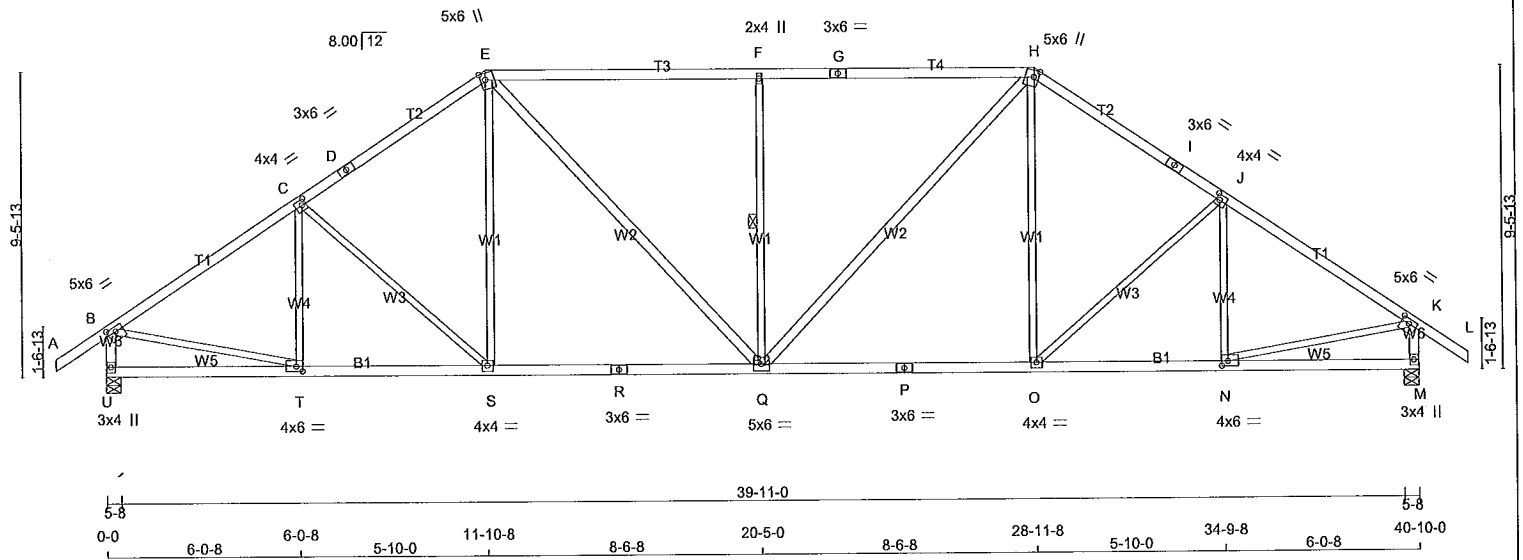
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H13	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:26:30 2018 Page 1

ID:HSVaWIDnhr?B6oeweh9vbyNdlS-7EBuTdORPUBMEMx8zGTIDYqYcXTaxS42oqKejzJuON

-1-6-8 0-0 6-0-8 6-0-8 5-10-0 11-10-8 8-6-8 20-5-0 8-6-8 28-11-8 5-10-0 34-9-8 6-0-8 40-10-0-4-8 1-6-8
Scale = 1:71.8



TOTAL WEIGHT = 2 X 185 = 370 lb

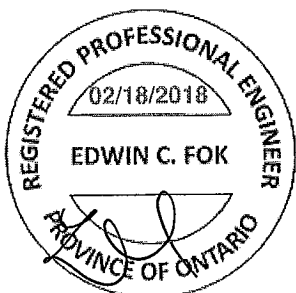
LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	No.2	SPF	
E - G	2x4	DRY	No.2	SPF	
G - H	2x4	DRY	No.2	SPF	
H - I	2x4	DRY	No.2	SPF	
I - L	2x4	DRY	No.2	SPF	
U - B	2x4	DRY	No.2	SPF	
M - K	2x4	DRY	No.2	SPF	
U - R	2x4	DRY	No.2	SPF	
R - P	2x4	DRY	No.2	SPF	
P - M	2x4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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	6.0	1.75	3.00
C	TMVW-t	MT20	4.0	4.0	2.00	1.50
D, G, I						
D	TS-t	MT20	3.0	6.0		
E	TTWW+m	MT20	5.0	6.0	Edge	1.75
F	TMVW-w	MT20	2.0	4.0		
H	TTWW+m	MT20	5.0	6.0	Edge	1.75
J	TMVW-t	MT20	4.0	4.0	2.00	1.50
K	TMVW-t	MT20	5.0	6.0	1.75	3.00
M	BMV1+p	MT20	3.0	4.0		
N	BMVW-t	MT20	4.0	6.0	1.75	2.25
O	BMVW-t	MT20	4.0	4.0		
P	BS-t	MT20	3.0	6.0		
Q	BMVW-t	MT20	5.0	6.0		
R	BS-t	MT20	3.0	6.0		
S	BMVW-t	MT20	4.0	4.0		
T	BMVW-t	MT20	4.0	6.0	1.75	2.25
U	BMV1+p	MT20	3.0	4.0		

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



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
U	2096	0	2096	0
M	2096	0	2096	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
U	1492	925 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
M	1492	925 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.21 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-Q.

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

LOADING

TOTAL LOAD CASES: (4)

	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD LC1 (LC)	MAX. MEMB. UNBRACED LENGTH FR-TO	WEBS	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO			FROM	TO				
A-B	0 / 35	-78.0	-78.0	0.15 (1)	10.00	T-C	-299 / 0	0.14 (1)
B-C	-2366 / 0	-78.0	-78.0	0.49 (1)	4.03	C-S	-240 / 0	0.32 (1)
C-D	-2214 / 0	-78.0	-78.0	0.46 (1)	4.17	S-E	0 / 295	0.07 (4)
D-E	-2214 / 0	-78.0	-78.0	0.46 (1)	4.17	E-Q	0 / 673	0.11 (1)
E-F	-2275 / 0	-78.0	-78.0	0.95 (1)	3.21	Q-F	-821 / 0	0.49 (1)
F-G	-2276 / 0	-78.0	-78.0	0.95 (1)	3.22	Q-H	0 / 673	0.11 (1)
G-H	-2276 / 0	-78.0	-78.0	0.95 (1)	3.22	O-H	0 / 295	0.07 (4)
H-I	-2214 / 0	-78.0	-78.0	0.46 (1)	4.17	O-J	-240 / 0	0.32 (1)
I-J	-2214 / 0	-78.0	-78.0	0.46 (1)	4.17	N-J	-299 / 0	0.14 (1)
J-K	-2366 / 0	-78.0	-78.0	0.49 (1)	4.03	B-T	0 / 2035	0.46 (1)
K-L	0 / 35	-78.0	-78.0	0.15 (1)	10.00	N-K	0 / 2035	0.46 (1)
U-B	-2048 / 0	0.0	0.0	0.22 (1)	5.91			
M-K	-2048 / 0	0.0	0.0	0.22 (1)	5.91			
U-T	0 / 0	-18.5	-18.5	0.14 (4)	10.00			
T-S	0 / 1993	-18.5	-18.5	0.43 (1)	10.00			
S-R	0 / 1817	-18.5	-18.5	0.46 (4)	10.00			
R-Q	0 / 1817	-18.5	-18.5	0.46 (4)	10.00			
Q-P	0 / 1817	-18.5	-18.5	0.46 (4)	10.00			
P-O	0 / 1817	-18.5	-18.5	0.46 (4)	10.00			
O-N	0 / 1993	-18.5	-18.5	0.43 (1)	10.00			
N-M	0 / 0	-18.5	-18.5	0.14 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/999 (0.27")

CSI: TC=0.95/1.00 (E-F:1), BC=0.46/1.00 (Q-S:4), WB=0.49/1.00 (F-Q:1), SSI=0.32/1.00 (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)	(PLI)
	MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667	788
	1987	1656		

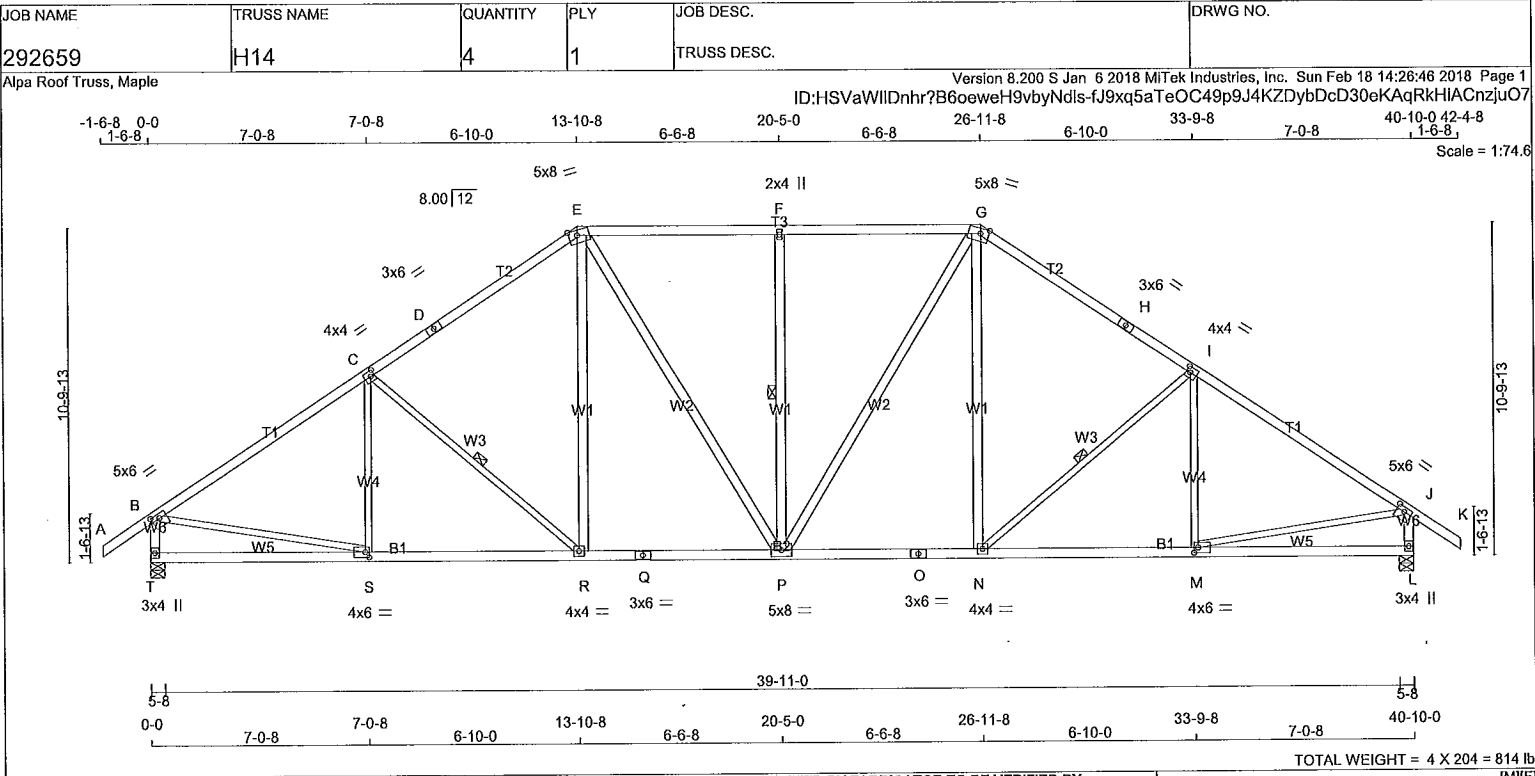
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (T) (INPUT = 0.90)
JSI METAL= 0.69 (P) (INPUT = 1.00)

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CONTINUED ON PAGE 2



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4 DRY	No.2	SPF
D - E	2x4 DRY	No.2	SPF
E - G	2x4 DRY	No.2	SPF
G - H	2x4 DRY	No.2	SPF
H - K	2x4 DRY	No.2	SPF
K - L	2x4 DRY	No.2	SPF
L - J	2x4 DRY	No.2	SPF
J - O	2x4 DRY	No.2	SPF
O - L	2x4 DRY	No.2	SPF

ALL WEBS EXCEPT

S - C	2x3 DRY	No.2	SPF
C - R	2x3 DRY	No.2	SPF
N - I	2x3 DRY	No.2	SPF
M - I	2x3 DRY	No.2	SPF
B - S	2x3 DRY	No.2	SPF
M - J	2x3 DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	6.0	1.75	3.00
C	TMVW-t	MT20	4.0	4.0	2.00	1.50
D	TS-t	MT20	3.0	6.0		
E	TTWW-m	MT20	5.0	8.0	2.00	3.25
F	TMVW-w	MT20	2.0	4.0		
G	TTWW-m	MT20	5.0	8.0	2.00	3.25
H	TS-t	MT20	3.0	6.0		
I	TMVW-t	MT20	4.0	4.0	2.00	1.50
J	TMVW-t	MT20	5.0	6.0	1.75	3.00
L	BMV1+p	MT20	3.0	4.0		
M	BMVW-t	MT20	4.0	6.0	2.00	1.50
N	8MWW-t	MT20	4.0	4.0		
O	BS-t	MT20	3.0	6.0		
P	BMVWW-t	MT20	5.0	8.0		
Q	BS-t	MT20	3.0	6.0		
R	BMVW-t	MT20	4.0	4.0		
S	BMVW-t	MT20	4.0	6.0	2.00	1.50

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	REQD
	VERT	HORZ	DOWN	HORZ
JT	2096	0	2096	0
T	2096	0	2096	0
L	2096	0	2096	0

UNFACTORED REACTIONS

	1ST CASE	MAX	MIN	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE	PERM.LIVE
JT	1492	925 / 0	0 / 0	0 / 0
T	1492	925 / 0	0 / 0	0 / 0
L	1492	925 / 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 = 3.77 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-R, F-P, I-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. CS (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS (LC)	
FR-TO				FR-TO			
A-B	0 / 35	-78.0	-78.0 0.15 (1)	10.00	S-C	-215 / 25	0.13 (1)
B-C	-2395 / 0	-78.0	-78.0 0.71 (1)	3.77	C-R	-400 / 0	0.23 (1)
C-D	-2104 / 0	-78.0	-78.0 0.64 (1)	4.03	R-E	0 / 382	0.06 (1)
D-E	-2104 / 0	-78.0	-78.0 0.64 (1)	4.03	E-P	0 / 437	0.07 (1)
E-F	-1954 / 0	-78.0	-78.0 0.50 (1)	4.28	P-F	-626 / 0	0.37 (1)
F-G	-1954 / 0	-78.0	-78.0 0.50 (1)	4.28	G-G	0 / 437	0.07 (1)
G-H	-2104 / 0	-78.0	-78.0 0.64 (1)	4.03	N-G	0 / 382	0.06 (1)
H-I	-2104 / 0	-78.0	-78.0 0.64 (1)	4.03	I-N	-400 / 0	0.23 (1)
I-J	-2395 / 0	-78.0	-78.0 0.71 (1)	3.77	M-I	-215 / 25	0.13 (1)
J-K	0 / 35	-78.0	-78.0 0.15 (1)	10.00	B-S	0 / 2054	0.46 (1)
T-B	-2042 / 0	0.0	0.0 0.21 (1)	5.91	M-J	0 / 2054	0.46 (1)
L-J	-2042 / 0	0.0	0.0 0.21 (1)	5.91			
T-S	0 / 0	-18.5	-18.5 0.21 (4)	10.00			
S-R	0 / 2023	-18.5	-18.5 0.43 (1)	10.00			
R-Q	0 / 1724	-18.5	-18.5 0.37 (1)	10.00			
Q-P	0 / 1724	-18.5	-18.5 0.37 (1)	10.00			
P-O	0 / 1724	-18.5	-18.5 0.37 (1)	10.00			
O-N	0 / 1724	-18.5	-18.5 0.37 (1)	10.00			
N-M	0 / 2023	-18.5	-18.5 0.43 (1)	10.00			
M-L	0 / 0	-18.5	-18.5 0.21 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/999 (0.22")

CSI: TC=0.71/1.00 (B-C:1), BC=0.43/1.00 (R-S:1), WB=0.46/1.00 (B-S:1), SSI=0.25/1.00 (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

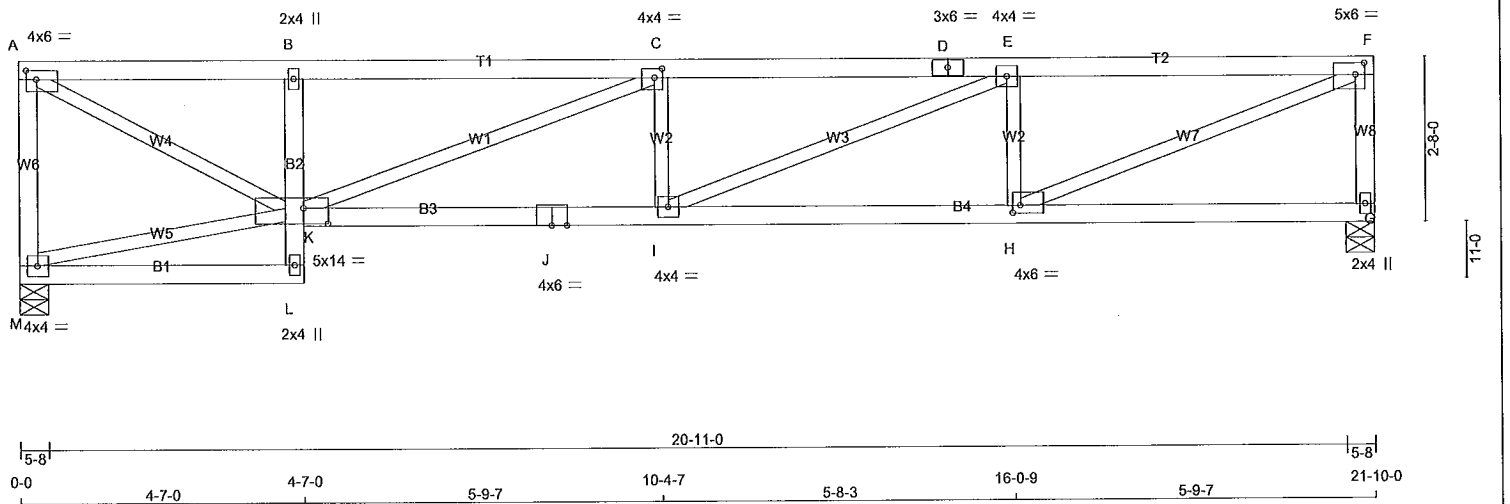
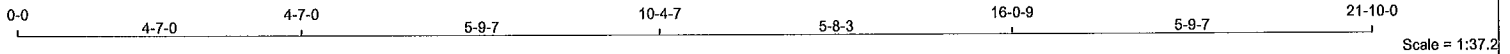
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (S) (INPUT = 0.90)
JSI METAL= 0.65 (B) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H21	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:HSVaWIIIDnhr?B6oeweH9vbyNdls-0dbzjsgwS2XJye1cLEAKbax_3LhzQn3gQIVxMZzjuMj



TOTAL WEIGHT = 84 lb

LUMBER	CHORDS	SIZE	LUMBER	DESCR.
N. L. G. A. RULES				
M - A	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
M - L	2x4	DRY	No.2	SPF
L - B	2x4	DRY	No.2	SPF
K - 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	
A	TMVW-t	MT20	4.0	6.0	1.75	2.00	
B	TMV+p	MT20	2.0	4.0			
C	TMVWV-t	MT20	4.0	4.0	1.75	1.50	
D	TS-t	MT20	3.0	6.0			
E	TMVWV-t	MT20	4.0	4.0			
F	TMVW-t	MT20	5.0	6.0	2.25	1.75	
G	BMV1+p	MT20	2.0	4.0			
H	BMVWV-t	MT20	4.0	6.0	1.50	1.50	
I	BMVWV-t	MT20	4.0	4.0			
J	BS-t	MT20	4.0	6.0			
K	BMVWWWV-t	MT20	5.0	14.0	3.00	4.75	
L	BMV+p	MT20	2.0	4.0			
M	BMVW1-t	MT20	4.0	4.0			

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
M	1350	0	1350	0	5-8	2-0
G	1350	0	1350	0	5-8	2-0

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	964	584 / 0	0 / 0	0 / 0	0 / 0	380 / 0	0 / 0
G	964	584 / 0	0 / 0	0 / 0	0 / 0	380 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.21 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LOC 1	MAX CS1 (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)	
FR-TO		FROM	TO			FR-TO			
M-A	-1292 / 0	0.0	0.0	0.26 (1)	7.10	M-K	-85 / 0	0.03 (1)	
A-B	-2095 / 0	-105.2	-105.2	0.47 (1)	4.16	A-K	0 / 2376	0.53 (1)	
B-C	-2127 / 0	-105.2	-105.2	0.52 (1)	4.13	K-C	-1169 / 0	0.85 (1)	
C-D	-3212 / 0	-105.2	-105.2	0.74 (1)	3.21	I-C	-157 / 22	0.03 (1)	
D-E	-3212 / 0	-105.2	-105.2	0.74 (1)	3.21	I-E	0 / 696	0.16 (1)	
E-F	-2570 / 0	-105.2	-105.2	0.66 (1)	3.64	H-E	-943 / 0	0.15 (1)	
G-F	-1302 / 0	0.0	0.0	0.17 (1)	7.08	H-F	0 / 2778	0.63 (1)	
M-L	0 / 84	-18.5	-18.5	0.11 (4)	10.00				
L-K	0 / 46	0.0	0.0	0.11 (1)	10.00				
K-B	-612 / 0	0.0	0.0	0.11 (1)	7.81				
K-J	0 / 3212	-18.5	-18.5	0.61 (1)	10.00				
J-I	0 / 3212	-18.5	-18.5	0.61 (1)	10.00				
I-H	0 / 2570	-18.5	-18.5	0.48 (1)	10.00				
H-G	0 / 0	-18.5	-18.5	0.13 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	26.7	PSF
	DL	=	10.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD		=	44.1	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

- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.73")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.16")
ALLOWABLE DEFL.(TL) = $L/360$ (0.73")
CALCULATED VERT. DEFL.(TL) = $L/844$ (0.31")

CSI: TC=0.74/1.00 (C-E:1), BC=0.61/1.00 (I-K:1), WB=0.85/1.00 (C-K:1), SSI=0.28/1.00 (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

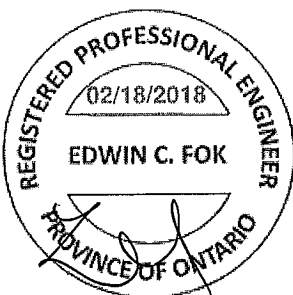
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

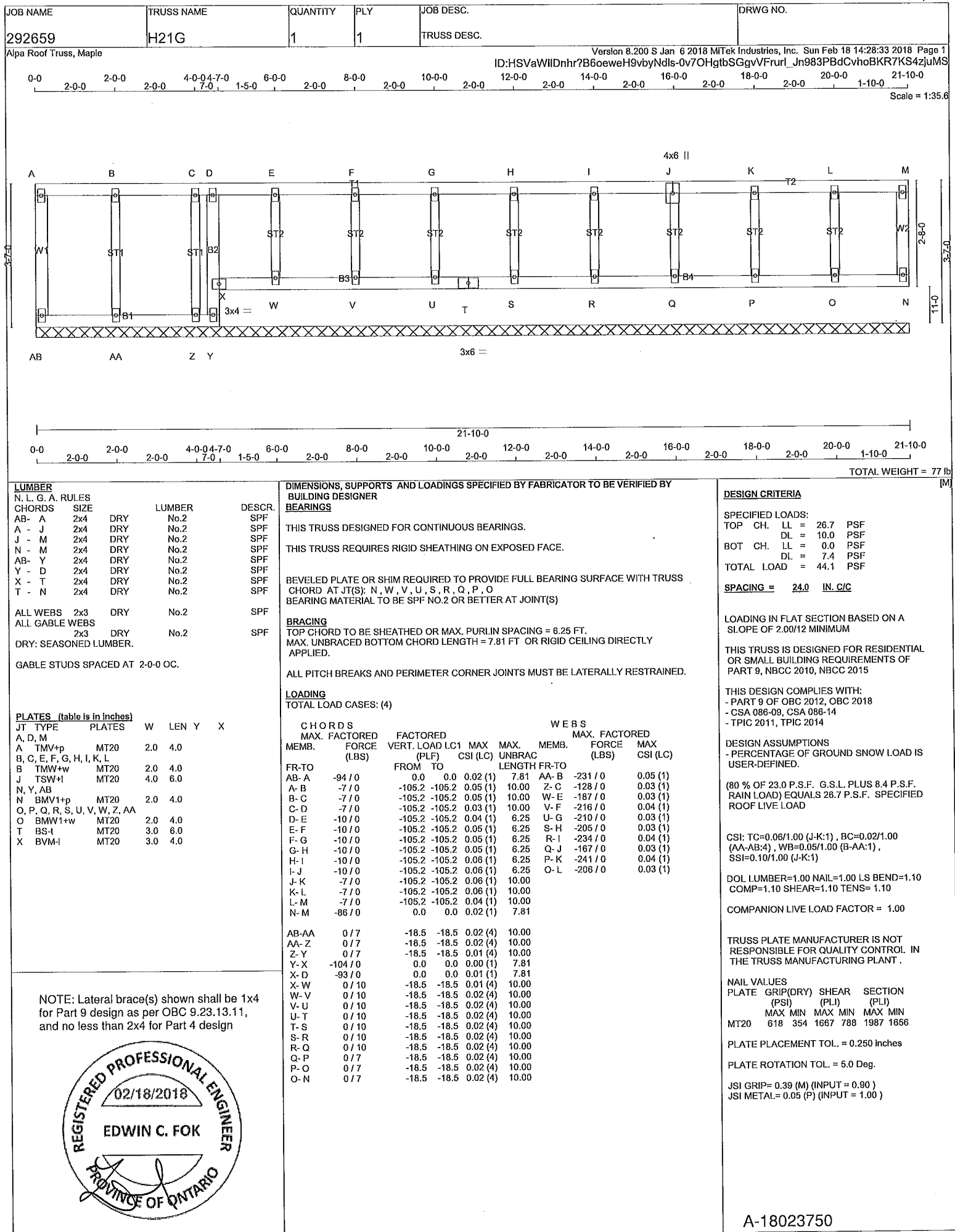
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.76 (J) (INPUT = 1.00)

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



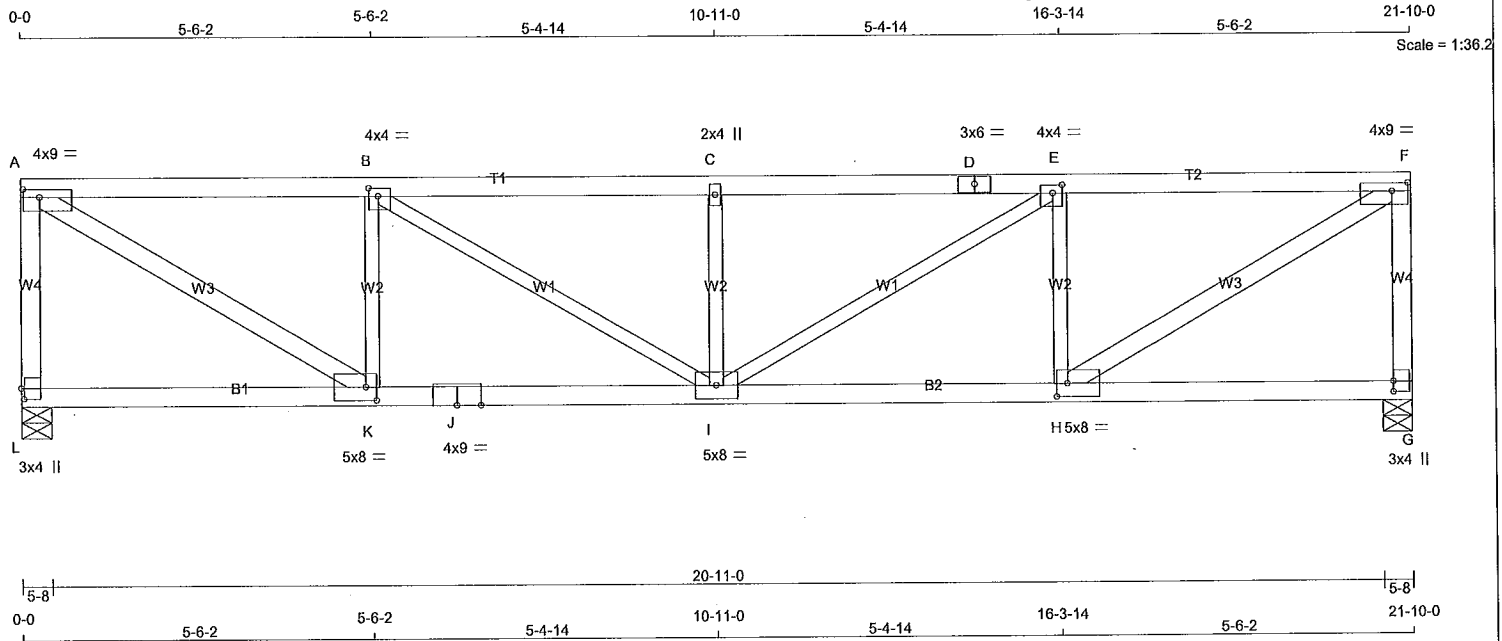
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H22A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:HSVaWIIIDnhr?B6oeweH9vbyNdis-ss3xFAZL1nspq0irhmVgbB0ejArUIHFaRoQryHjzJLZ



TOTAL WEIGHT = 87 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
L - A	2x4	DRY	No.2	SPF	
A - D	2x4	DRY	1650F 1.5E	SPF	
D - F	2x4	DRY	1650F 1.5E	SPF	
G - F	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	1650F 1.5E	SPF	
J - G	2x4	DRY	1650F 1.5E	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
A - K	2x4	DRY	No.2	SPF	
H - F	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	9.0	1.50	3.00
B	TMVW-t	MT20	4.0	4.0	1.50	1.75
C	TMVW-t	MT20	2.0	4.0		
D	TS-t	MT20	3.0	6.0		
E	TMVW-t	MT20	4.0	4.0	1.50	1.75
F	TMVW-t	MT20	4.0	9.0	1.50	3.00
G	BMV1+p	MT20	3.0	4.0	2.00	
H	BMVW-t	MT20	5.0	8.0	2.50	2.00
I	BMVW-t	MT20	5.0	8.0		
J	BS-t	MT20	4.0	9.0		
K	BMVW-t	MT20	5.0	8.0	2.50	2.00
L	BMV1+p	MT20	3.0	4.0	2.00	0.50

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
L	2659	0	2659	0
G	2659	0	2659	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN.	COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE	
L	1897	1149 / 0	0 / 0	0 / 0	748 / 0
G	1897	1149 / 0	0 / 0	0 / 0	748 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.24 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)	MAX LC1 (LC)	MAX UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
FR-TO						FR-TO			
L-A	-2353 / 0	0.0	0.0	0.49 (1)	5.51	A-K	0 / 4134	0.73 (1)	
A-B	-3549 / 0	-105.2	-105.2	0.57 (1)	3.69	K-B	-1257 / 0	0.28 (1)	
B-C	-4539 / 0	-105.2	-105.2	0.66 (1)	3.24	B-I	0 / 1159	0.29 (1)	
C-D	-4539 / 0	-105.2	-105.2	0.66 (1)	3.24	I-C	-521 / 0	0.12 (1)	
D-E	-4539 / 0	-105.2	-105.2	0.66 (1)	3.24	E-I	0 / 1159	0.29 (1)	
E-F	-3549 / 0	-105.2	-105.2	0.57 (1)	3.69	H-E	-1257 / 0	0.28 (1)	
G-F	-2353 / 0	0.0	0.0	0.49 (1)	5.51	H-F	0 / 4134	0.73 (1)	
L-K	0 / 0	-138.3	-138.3	0.53 (1)	10.00				
K-J	0 / 3549	-138.3	-138.3	0.98 (1)	10.00				
J-I	0 / 3549	-138.3	-138.3	0.98 (1)	10.00				
I-H	0 / 3549	-138.3	-138.3	0.98 (1)	10.00				
H-G	0 / 0	-138.3	-138.3	0.53 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 26.7	PSF
	DL = 10.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.4	PSF
TOTAL LOAD	= 44.1	PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGlrder
START DISTANCE = 0-0
START SPAN CARRIED = 5-10-8
END DISTANCE = 21-10-0
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL. LOADS BASED ON 80 % 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

- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.73")
CALCULATED VERT. DEFL.(LL) = L/999 (0.17")
ALLOWABLE DEFL.(TL)= L/360 (0.73")
CALCULATED VERT. DEFL.(TL) = L/779 (0.34")

CSI: TC=0.66/1.00 (B-C:1), BC=0.98/1.00 (I-K:1), WB=0.73/1.00 (A-K:1), SSI=0.39/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

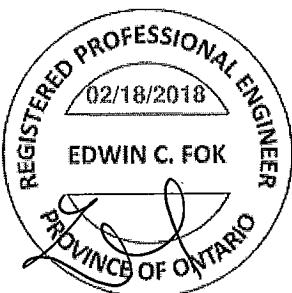
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

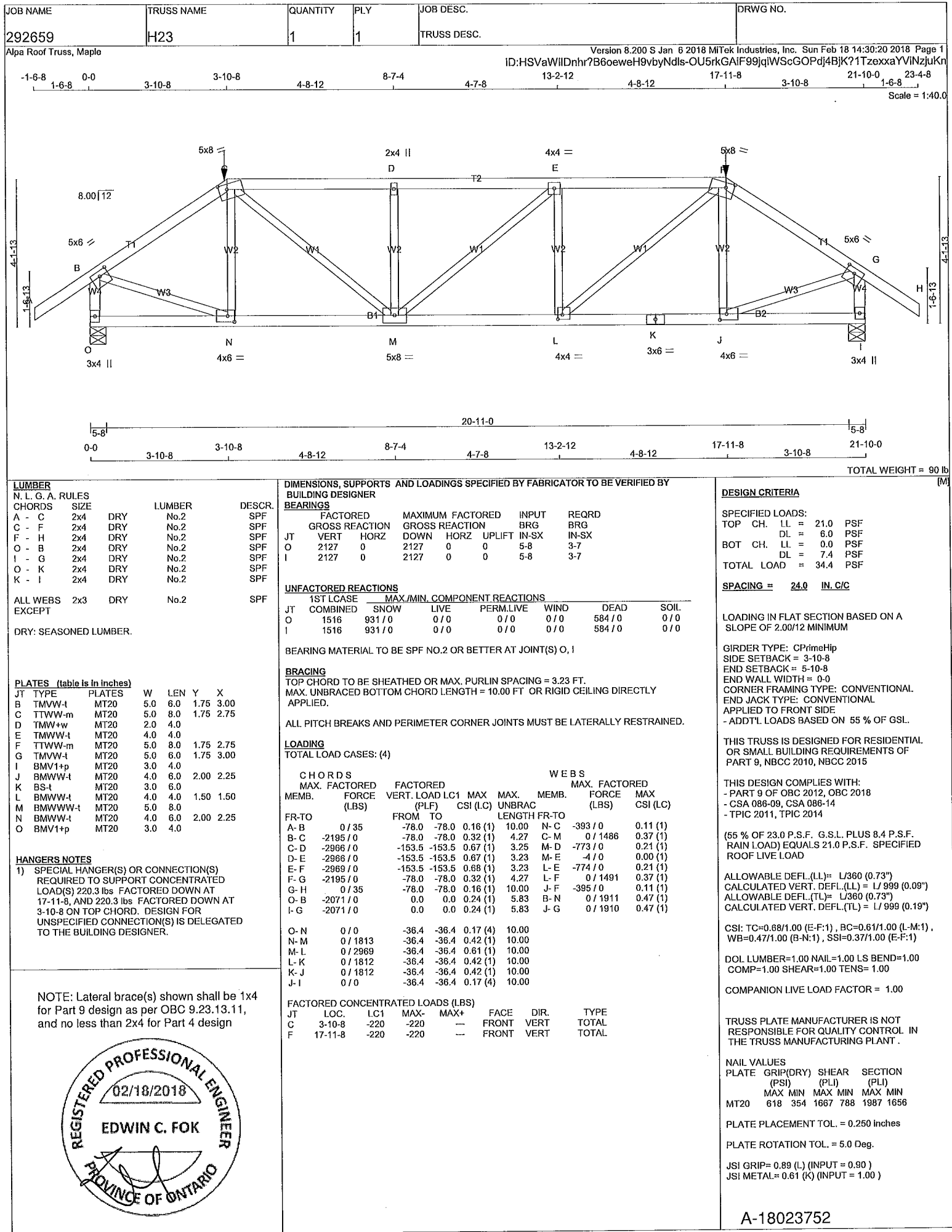
PLATE ROTATION TOL. = 5.0 Deg.

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



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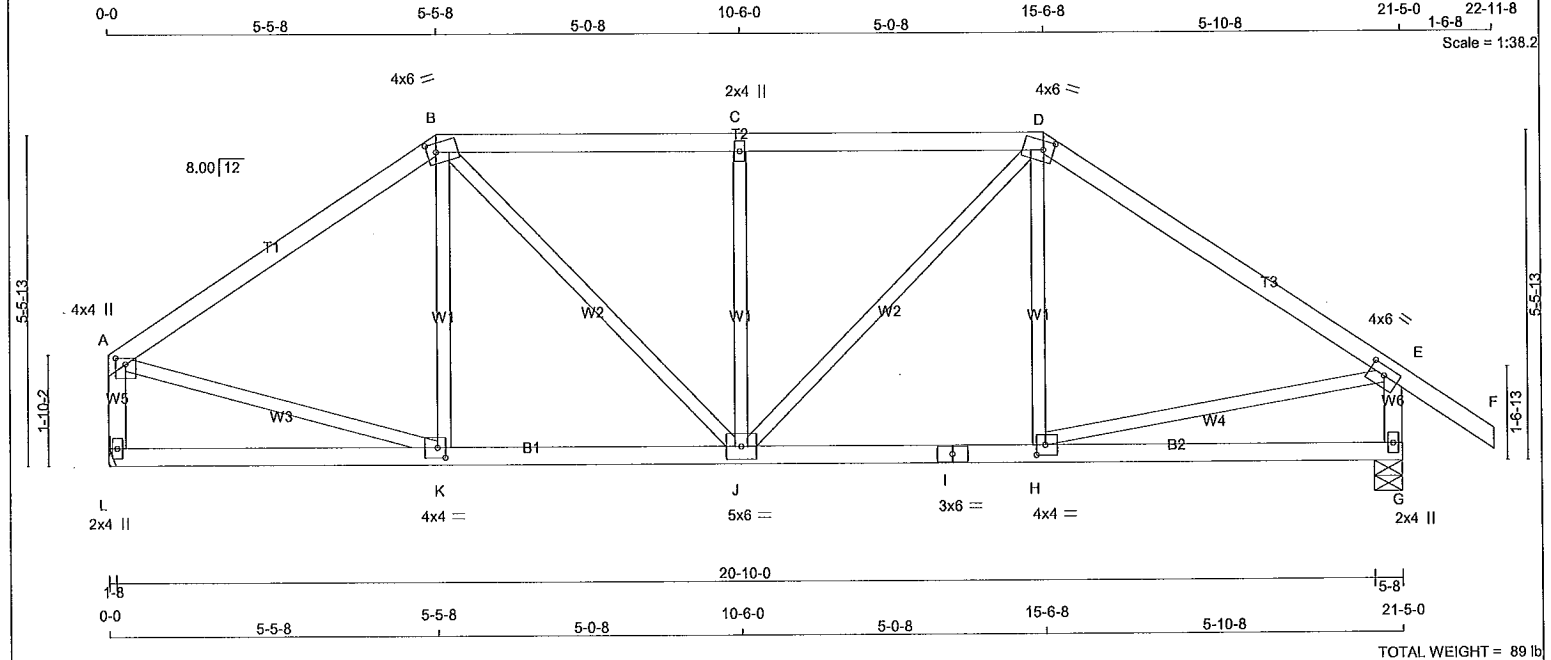
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H24	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 89 lb
(M/F)

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	4.0	1.25	2.00	
B	TTWW-m	MT20	4.0	6.0	1.75	1.75	
C	TMW+w	MT20	2.0	4.0			
D	TTWW-m	MT20	4.0	6.0	1.75	2.00	
E	TMVW-t	MT20	4.0	6.0	1.75	3.00	
G	BMV1+p	MT20	2.0	4.0			
H	BMWW-t	MT20	4.0	4.0	2.00	1.75	
I	BS-t	MT20	3.0	6.0			
J	BMWW-t	MT20	5.0	6.0			
K	BMWW-t	MT20	4.0	4.0	2.00	1.50	
L	BMV1+p	MT20	2.0	4.0			

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
L	1033	0	1033	0	0	0
G	1160	0	1160	0	0	0

UNFACTORED REACTIONS

1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	737	450 / 0	0 / 0	0 / 0	0 / 0	287 / 0	0 / 0
G	824	518 / 0	0 / 0	0 / 0	0 / 0	306 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.69 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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. FACTORED VERT. LOAD (LC)	UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)	
FR-TO		FROM	TO			FR-TO			
A-B	-993 / 0	-78.0	-78.0	0.32 (1)	5.87	K-B	-112 / 38	0.05 (1)	
B-C	-1113 / 0	-78.0	-78.0	0.26 (1)	5.69	B-J	0 / 416	0.09 (1)	
C-D	-1113 / 0	-78.0	-78.0	0.26 (1)	5.69	J-C	-480 / 0	0.22 (1)	
D-E	-1040 / 0	-78.0	-78.0	0.37 (1)	5.69	J-D	0 / 358	0.08 (1)	
E-F	0 / 35	-78.0	-78.0	0.15 (1)	10.00	H-D	-60 / 62	0.03 (1)	
L-A	-992 / 0	0.0	0.0	0.11 (1)	7.81	A-K	0 / 856	0.19 (1)	
G-E	-1114 / 0	0.0	0.0	0.12 (1)	7.51	H-E	0 / 883	0.20 (1)	
L-K	0 / 0	-18.5	-18.5	0.13 (4)	10.00				
K-J	0 / 823	-18.5	-18.5	0.21 (4)	10.00				
J-I	0 / 863	-18.5	-18.5	0.23 (4)	10.00				
I-H	0 / 863	-18.5	-18.5	0.23 (4)	10.00				
H-G	0 / 0	-18.5	-18.5	0.15 (4)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.71")
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
CALCULATED VERT. DEFL.(TL)= L/999 (0.06")

CSI: TC=0.37/1.00 (D-E:1), BC=0.23/1.00 (H-J:4),
WB=0.22/1.00 (C-J:1), SSI=0.19/1.00 (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.

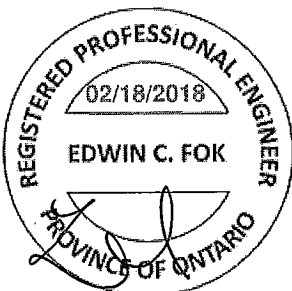
NAIL VALUES						
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (A) (INPUT = 0.90)
JSI METAL= 0.32 (H) (INPUT = 1.00)

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

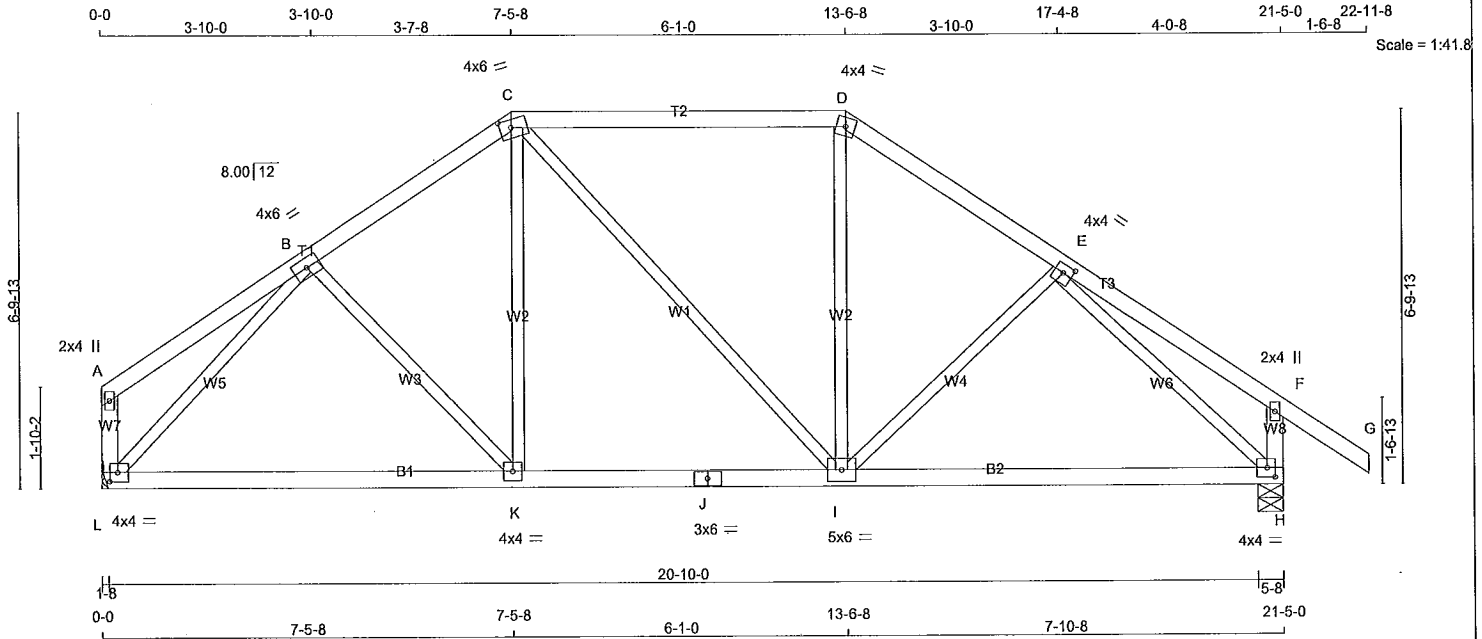


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H25	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:HSVaWIDnhr?B6oeweH9vbyNdlis-O18htua1EbRuvw6_cP?N?uU4q1hWRJ3xmtlnvPzjuKF



TOTAL WEIGHT = 92 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - D	2x4	DRY	No.2	SPF	
D - G	2x4	DRY	No.2	SPF	
L - A	2x4	DRY	No.2	SPF	
H - F	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
J - 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	TMVW-t	MT20	4.0	6.0		
C	TTWW-m	MT20	4.0	6.0	1.75	2.50
D	TTW-m	MT20	4.0	4.0		
E	TMVW-t	MT20	4.0	4.0	1.75	2.00
F	TMV+p	MT20	2.0	4.0		
H	BMVW1-t	MT20	4.0	4.0	2.00	1.75
I	BMVW1-t	MT20	5.0	6.0		
J	BS-t	MT20	3.0	6.0		
K	BMVW1-t	MT20	4.0	4.0		
L	BMVW1-t	MT20	4.0	4.0	2.00	1.75

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
L	1033	0	1033	0
H	1160	0	1160	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD
L	737	450 / 0	0 / 0	0 / 0	287 / 0	0 / 0
H	824	518 / 0	0 / 0	0 / 0	306 / 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 = 6.11 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.	MAX.
	FORCE	FORCE	FORCE	FORCE	FORCE	FORCE	FORCE	FORCE	FORCE	FORCE
	(LBS)	(LBS)	(LBS)	(LBS)	(LBS)	(LBS)	(LBS)	(LBS)	(LBS)	(LBS)
FR-TO										
A-B	0 / 18	-78.0	-78.0	0.17 (1)	10.00	B-K	-27 / 35	0.01 (1)		
B-C	-960 / 0	-78.0	-78.0	0.14 (1)	6.19	K-C	0 / 152	0.04 (4)		
C-D	-805 / 0	-78.0	-78.0	0.38 (1)	6.23	C-I	0 / 30	0.01 (1)		
D-E	-985 / 0	-78.0	-78.0	0.16 (1)	6.11	I-D	0 / 181	0.05 (4)		
E-F	0 / 19	-78.0	-78.0	0.19 (1)	10.00	I-E	-89 / 15	0.05 (1)		
F-G	0 / 35	-78.0	-78.0	0.15 (1)	10.00	L-B	-1176 / 0	0.57 (1)		
L-A	-113 / 0	0.0	0.0	0.01 (1)	7.81	E-H	-1216 / 0	0.60 (1)		
H-F	-245 / 0	0.0	0.0	0.03 (1)	7.81					
L-K	0 / 801	-18.5	-18.5	0.29 (4)	10.00					
K-J	0 / 785	-18.5	-18.5	0.31 (4)	10.00					
J-I	0 / 785	-18.5	-18.5	0.31 (4)	10.00					
I-H	0 / 867	-18.5	-18.5	0.32 (4)	10.00					

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.71")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
CALCULATED VERT. DEFL.(TL) = L/999 (0.14")

CSI: TC=0.38/1.00 (C-D:1), BC=0.32/1.00 (H-I:4), WB=0.60/1.00 (E-H:1), SSI=0.19/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

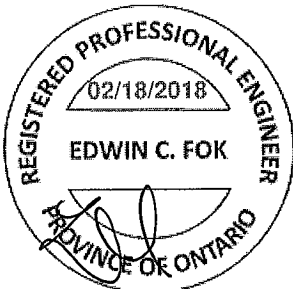
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (E) (INPUT = 0.90)
JSI METAL= 0.44 (E) (INPUT = 1.00)

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



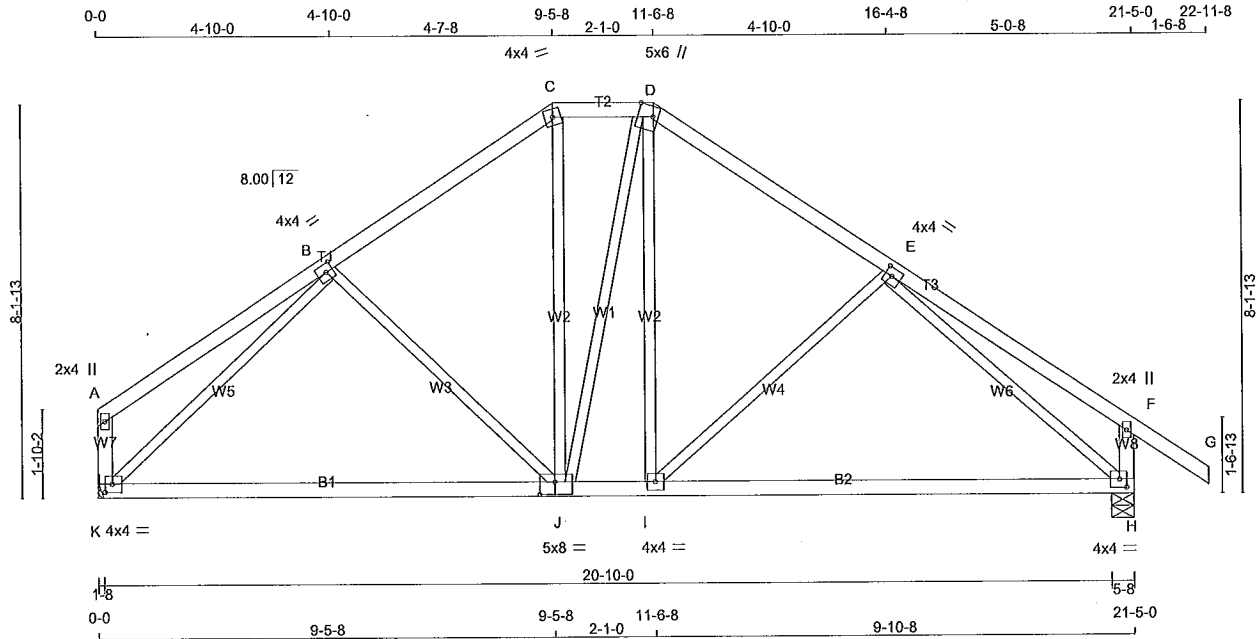
A-18023754

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292659	H26	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:HSVaWIDnhr?B6oeWeH9vbyNdis-p8theY1FXz6ercSSHhA2?IWQbxFGcyTNG7EilmzjuJg



TOTAL WEIGHT = 98 lb

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

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	4.0	4.0	2.00	1.75
C	TTW-m	MT20	4.0	4.0		
D	TTWW+m	MT20	5.0	6.0	Edge	3.75
E	TMWW-t	MT20	4.0	4.0	2.00	1.75
F	TMV+p	MT20	2.0	4.0		
H	BMVW-t	MT20	4.0	4.0	2.00	1.75
I	BMWW-t	MT20	4.0	4.0		
J	BSWWW-t	MT20	5.0	8.0	3.00	3.75
K	BMVW-t	MT20	4.0	4.0	2.00	1.75

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
K	1033	0	1033	0
H	1160	0	1160	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX /MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	737	450 / 0	0 / 0	0 / 0	0 / 0	0 / 0	287 / 0	0 / 0
H	824	518 / 0	0 / 0	0 / 0	0 / 0	0 / 0	306 / 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 = 6.21 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)	FACTORED HORIZ. LOAD (LC1)	MAX. UNBRACED LENGTH (LC)	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED HORIZ. LOAD (LC)
FR-TO			FROM	TO		FR-TO			
A-B	0 / 24	-78.0	-78.0	0.28 (1)	10.00	B-J	-167 / 0	0.14 (1)	
B-C	-857 / 0	-78.0	-78.0	0.23 (1)	6.25	J-C	0 / 241	0.05 (1)	
C-D	-696 / 0	-78.0	-78.0	0.05 (1)	6.25	J-D	-126 / 0	0.18 (4)	
D-E	-893 / 0	-78.0	-78.0	0.25 (1)	6.21	I-D	0 / 373	0.09 (4)	
E-F	0 / 25	-78.0	-78.0	0.31 (1)	10.00	I-E	-219 / 0	0.19 (1)	
F-G	0 / 35	-78.0	-78.0	0.15 (1)	10.00	K-B	-1143 / 0	0.90 (1)	
K-A	-140 / 0	0.0	0.0	0.02 (1)	7.81	E-H	-1200 / 0	0.97 (1)	
H-F	-273 / 0	0.0	0.0	0.03 (1)	7.81				
K-J	0 / 812	-18.5	-18.5	0.57 (4)	10.00				
J-I	0 / 726	-18.5	-18.5	0.52 (4)	10.00				
I-H	0 / 884	-18.5	-18.5	0.52 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.71")
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
CALCULATED VERT. DEFL.(TL)= L/633 (0.41")

CSI: TC=0.31/1.00 (E-F:1), BC=0.57/1.00 (J-K:4), WB=0.97/1.00 (E-H:1), SSI=0.16/1.00 (I-J:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

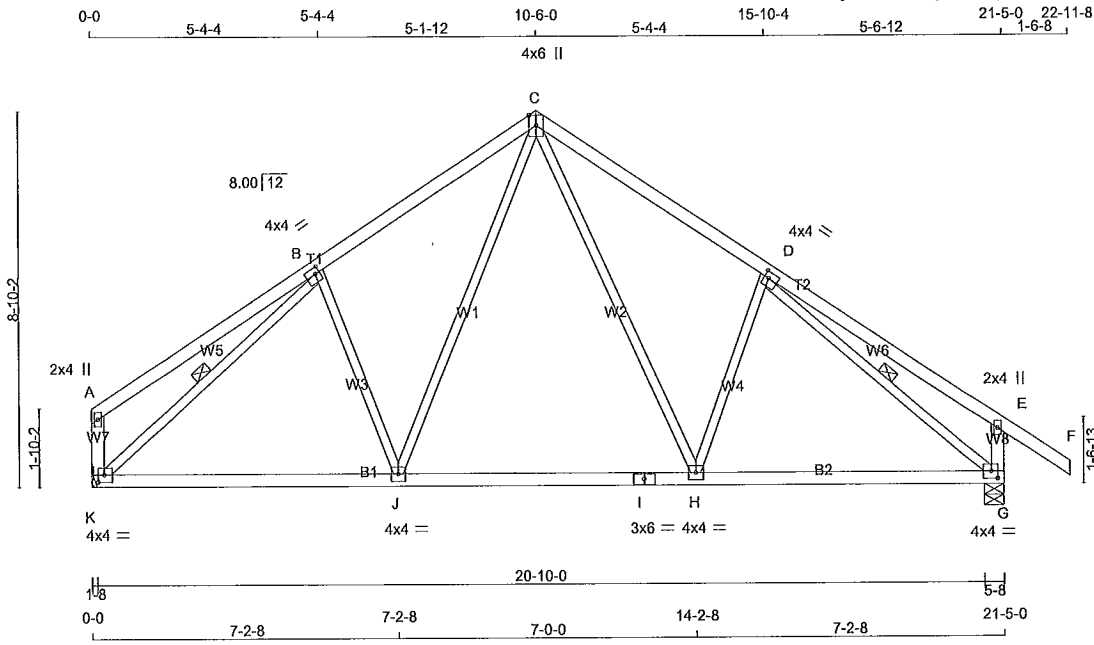
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (B) (INPUT = 0.90)
JSI METAL= 0.42 (E) (INPUT = 1.00)

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



A-18023755



TOTAL WEIGHT = 2 X 93 = 186 lb

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

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMV+p	MT20	2.0	4.0	
B	TMWW-t	MT20	4.0	4.0	1.75 1.25
C	TTWW+p	MT20	4.0	6.0	Edge
D	TMWW-t	MT20	4.0	4.0	1.75 1.25
E	TMV+p	MT20	2.0	4.0	
G	BMVW1-t	MT20	4.0	4.0	2.00 1.75
H	BMWW-t	MT20	4.0	4.0	
I	BS-t	MT20	3.0	6.0	
J	BMWW-t	MT20	4.0	4.0	
K	BMVW1-t	MT20	4.0	4.0	2.00 1.75

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

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	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ		DOWN	HORZ	IN-SX	IN-SX		
K	1033	0		1033	0	0	0	HANGER BY OTHERS	
G	1160	0		1160	0	0	0	MIN. SEAT SIZE: 1-8	1-8

UNFACTORED REACTIONS							
JT	1ST CASE	MAX/MIN	SNOW	LIVE	PERM.LIVE	WIND	DEAD
K	737	450 / 0	0 / 0	0 / 0	0 / 0	0 / 0	287 / 0
G	824	518 / 0	0 / 0	0 / 0	0 / 0	0 / 0	306 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.84 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-K, D-G.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 27	-78.0 -78.0	0.35 (1)	10.00	B-J	-218 / 0	0.11 (1)
B-C	-964 / 0	-78.0 -78.0	0.29 (1)	5.99	J-C	0 / 371	0.08 (1)
C-D	-1012 / 0	-78.0 -78.0	0.31 (1)	5.84	C-H	0 / 435	0.10 (1)
D-E	0 / 28	-78.0 -78.0	0.38 (1)	10.00	H-D	-272 / 0	0.13 (1)
E-F	0 / 35	-78.0 -78.0	0.15 (1)	10.00	K-B	-1191 / 0	0.41 (1)
K-A	-155 / 0	0.0 0.0	0.02 (1)	7.81	D-G	-1225 / 0	0.43 (1)
G-E	-287 / 0	0.0 0.0	0.03 (1)	7.81			
K-J	0 / 860	-18.5 -18.5	0.29 (4)	10.00			
J-I	0 / 646	-18.5 -18.5	0.28 (4)	10.00			
I-H	0 / 646	-18.5 -18.5	0.28 (4)	10.00			
H-G	0 / 912	-18.5 -18.5	0.30 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.71")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
CALCULATED VERT. DEFL.(TL) = L/999 (0.10")

CSI: TC=0.39/1.00 (D-E:1) , BC=0.30/1.00 (G-H:4) , WB=0.43/1.00 (D-G:1) , SSI=0.17/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

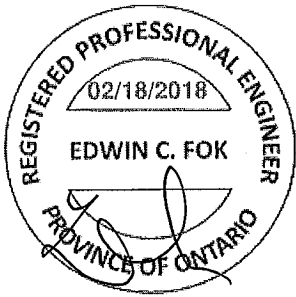
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

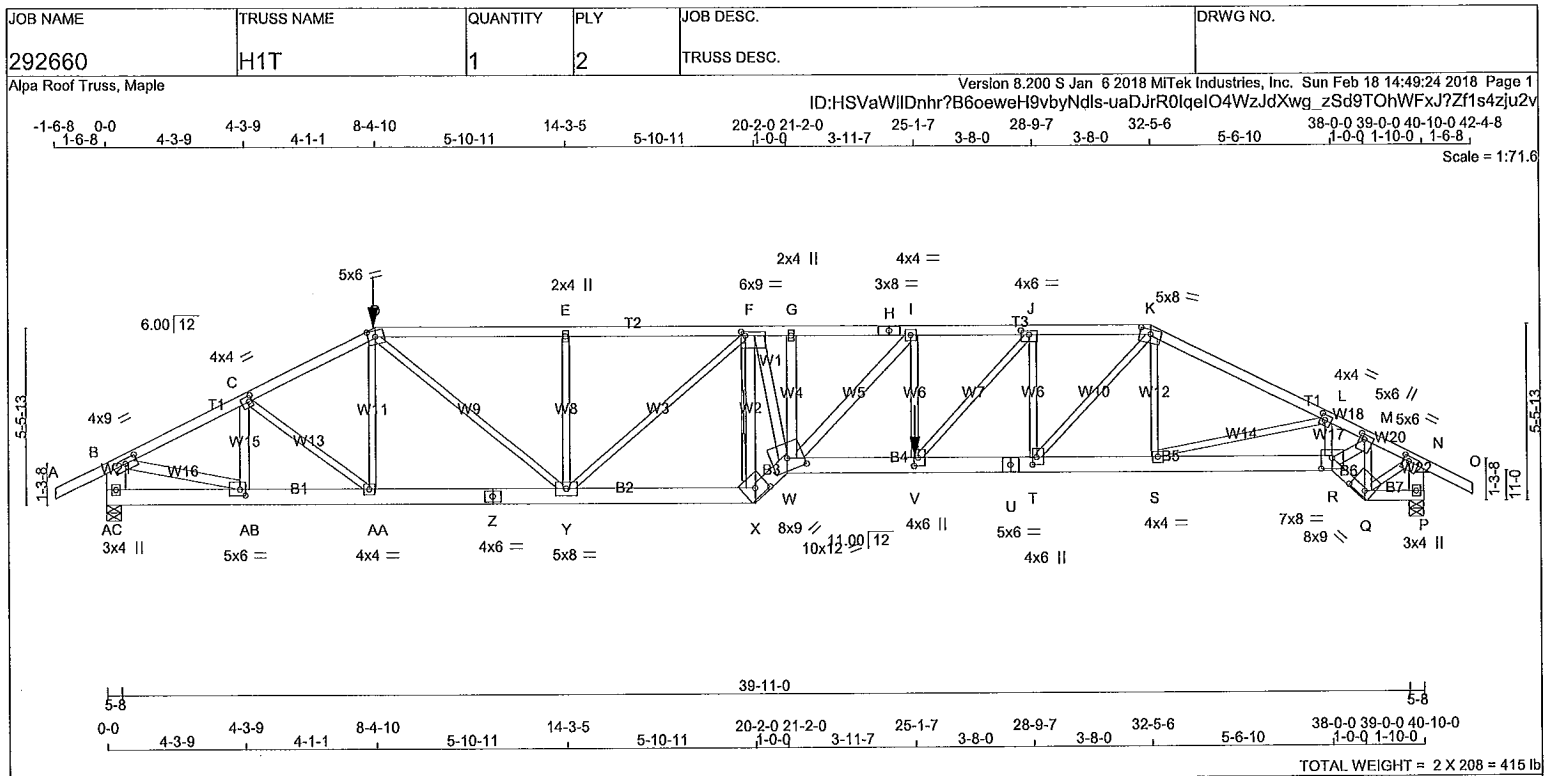
NAIL VALUES			
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	618	354	1667
		788	1987

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

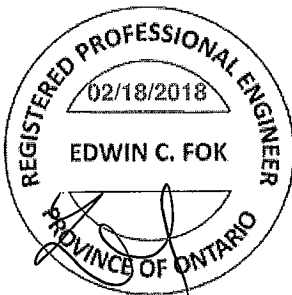
JSI GRIP= 0.88 (G) (INPUT = 0.90)
JSI METAL= 0.48 (D) (INPUT = 1.00)





LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2 SPF
D - H	2x4	DRY	No.2 SPF
H - K	2x4	DRY	No.2 SPF
K - O	2x4	DRY	No.2 SPF
AC- B	2x8	DRY	No.2 SPF
P - N	2x6	DRY	No.2 SPF
AC- Z	2x6	DRY	No.2 SPF
Z - X	2x6	DRY	No.2 SPF
X - W	2x6	DRY	No.2 SPF
W - U	2x6	DRY	No.2 SPF
U - R	2x6	DRY	No.2 SPF
R - Q	2x4	DRY	1650F 1.5E SPF
Q - P	2x4	DRY	No.2 SPF
ALL WEBS EXCEPT	2x3	DRY	No.2 SPF
AB- C	2x4	DRY	No.2 SPF
X - F	2x4	DRY	No.2 SPF
F - W	2x4	DRY	No.2 SPF
W - G	2x4	DRY	No.2 SPF
W - I	2x4	DRY	No.2 SPF
R - M	2x4	DRY	No.2 SPF
B - AB	2x4	DRY	No.2 SPF
DRY: SEASONED LUMBER.			
DESIGN CONSISTS OF <u>2</u> TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:			
CHORDS #ROWS	SURFACE SPACING (IN)		LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS			
A- D	1	12	SIDE(61.0)
D- H	1	12	SIDE(37.8)
H- K	1	12	TOP
K- O	1	12	TOP
AC- B	2	12	TOP
P- N	2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS			
AC- Z	2	12	SIDE(10.0)
Z- X	2	12	SIDE(10.0)
X- W	2	12	SIDE(7.4)
W- U	2	12	SIDE(146.6)

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



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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ		HORZ	UPLIFT	IN-SX		IN-SX	
AC	4223	0		4223	0	5-8		2-5	
P	3960	0		3960	0	5-8		2-2	

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
AC	3012	1831 / 0	0 / 0	0 / 0	0 / 0	1181 / 0	0 / 0		
P	2820	1740 / 0	0 / 0	0 / 0	0 / 0	1079 / 0	0 / 0		

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.15 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT F-X

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO	
A-B	0 / 28	-78.0 -78.0	0.08 (1)	AB-C	-1100 / 0
B-C	-6044 / 0	-78.0 -78.0	0.25 (1)	C-AA	0 / 699
C-D	-6697 / 0	-78.0 -78.0	0.28 (1)	AA-D	-121 / 106
D-E	-8444 / 0	-153.5 -153.5	0.93 (1)	D-Y	0 / 3266
E-F	-8444 / 0	-153.5 -153.5	0.91 (1)	Y-E	-1002 / 0
F-G	-11739 / 0	-153.5 -153.5	0.73 (1)	E-F	-1573 / 0
G-H	-11732 / 0	-78.0 -78.0	0.72 (1)	F-W	-8391 / 0
H-I	-11732 / 0	-78.0 -78.0	0.72 (1)	W-G	0 / 8875
I-J	-11485 / 0	-78.0 -78.0	0.59 (1)	G-H	0 / 184
J-K	-9331 / 0	-78.0 -78.0	0.43 (1)	H-I	0 / 359
K-L	-7684 / 0	-78.0 -78.0	0.53 (1)	I-J	-520 / 0
L-M	-8176 / 0	-78.0 -78.0	0.35 (1)	J-K	0 / 3273
M-N	-3989 / 0	-78.0 -78.0	0.20 (1)	K-L	-2736 / 0
N-O	0 / 28	-78.0 -78.0	0.08 (1)	L-M	0 / 3765
AC-B	-4107 / 0	0.0 0.0	0.11 (1)	M-N	0 / 274
P-N	-3943 / 0	0.0 0.0	0.14 (1)	N-O	-591 / 0
AB-AB	0 / 0	-36.4 -36.4	0.07 (1)	O-P	-133 / 18
AA-AA	0 / 5417	-36.4 -36.4	0.41 (1)	P-N	0 / 5386
AA-Z	0 / 5975	-36.4 -36.4	0.45 (1)	Z-Y	-4641 / 0
Z-Y	0 / 5975	-36.4 -36.4	0.45 (1)	B-AB	0 / 5535
Y-X	0 / 9620	-36.4 -36.4	0.70 (1)	Q-N	0 / 3942
X-W	0 / 12722	-36.4 -36.4	0.83 (1)		
W-V	0 / 11486	-112.0 -112.0	0.86 (1)		
V-U	0 / 9331	-18.5 -18.5	0.67 (1)		
U-T	0 / 9331	-18.5 -18.5	0.67 (1)		
T-S	0 / 6861	-18.5 -18.5	0.46 (1)		
S-R	0 / 7428	-18.5 -18.5	0.51 (1)		

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 21-2-0
START SPAN CARRIED = 5-10-8
END DISTANCE = 25-1-8
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: CPrmHlp
SIDE SETBACK = 8-4-10
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 21-2-0 OF SPAN MEASURED FROM THE LEFT.

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.39")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/638 (0.77")

CSI: TC=0.93/1.00 (D-E:1), RC=0.86/1.00 (V-W:1), WB=0.92/1.00 (F-Y:1), SS=0.23/1.00 (D-E:1)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292660	H1T	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:49:24 2018 Page 2
ID:HSVaWlIDnhr?B6oeweH9vbyNdlis-uaDJrR0lqeIO4WzJdXwg zSd9TOhWFxJ?Zf1s4zju2v

U- R 2 12 R- Q 1 12 Q- P 1 12 WEBS : (0.122"x3") SPIRAL NAILS AA- D 1 6 I- V 1 6 2x3 1 6 2x4 1 6 NAILS TO BE DRIVEN FROM ONE SIDE ONLY. GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS. 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.	LOADING TOTAL LOAD CASES: (4) <table border="0" style="width:100%; font-size: x-small;"> <tr> <th colspan="4">CHORDS</th> <th colspan="4">WEBS</th> </tr> <tr> <th>SIDE</th> <th>MAX. FACTORED</th> <th>FACTORED</th> <th></th> <th>MAX. FACTORED</th> <th></th> <th></th> <th></th> </tr> <tr> <td>86.7</td> <td>MB.</td> <td>FORCE</td> <td>VERT. LOAD</td> <td>LC1</td> <td>MAX</td> <td>MEMB.</td> <td>FORCE</td> </tr> <tr> <td>330.4</td> <td>(LBS)</td> <td>(PLF)</td> <td>CSI (LC)</td> <td>UNBRAC</td> <td></td> <td>(LBS)</td> <td>CSI (LC)</td> </tr> </table> <table border="0" style="width:100%; font-size: x-small;"> <tr> <th>FR-TO</th> <th>FROM</th> <th>TO</th> <th>LENGTH</th> <th>FR-TO</th> </tr> <tr> <td>R- Q</td> <td>0 / 4061</td> <td>-18.5</td> <td>-18.5</td> <td>0.26 (1)</td> </tr> <tr> <td>Q- P</td> <td>0 / 0</td> <td>-18.5</td> <td>-18.5</td> <td>0.01 (4)</td> </tr> </table> FACTORED CONCENTRATED LOADS (LBS) <table border="0" style="width:100%; font-size: x-small;"> <tr> <th>JT</th> <th>LOC.</th> <th>LC1</th> <th>MAX-</th> <th>MAX+</th> <th>FACE</th> <th>DIR.</th> <th>TYPE</th> </tr> <tr> <td>D</td> <td>8-4-10</td> <td>-477</td> <td>-477</td> <td>---</td> <td>FRONT</td> <td>VERT</td> <td>TOTAL</td> </tr> <tr> <td>V</td> <td>25-1-8</td> <td>-1791</td> <td>-1791</td> <td>---</td> <td>FRONT</td> <td>VERT</td> <td>TOTAL</td> </tr> </table>	CHORDS				WEBS				SIDE	MAX. FACTORED	FACTORED		MAX. FACTORED				86.7	MB.	FORCE	VERT. LOAD	LC1	MAX	MEMB.	FORCE	330.4	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)	FR-TO	FROM	TO	LENGTH	FR-TO	R- Q	0 / 4061	-18.5	-18.5	0.26 (1)	Q- P	0 / 0	-18.5	-18.5	0.01 (4)	JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	D	8-4-10	-477	-477	---	FRONT	VERT	TOTAL	V	25-1-8	-1791	-1791	---	FRONT	VERT	TOTAL	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 <table border="0" style="width:100%; font-size: x-small;"> <tr> <th>PLATE</th> <th>GRIP(DRY)</th> <th>SHEAR</th> <th>SECTION</th> </tr> <tr> <td></td> <td>(PSI)</td> <td>(PLI)</td> <td>(PLI)</td> </tr> <tr> <td></td> <td>MAX MIN</td> <td>MAX MIN</td> <td>MAX MIN</td> </tr> <tr> <td>MT20</td> <td>618 354</td> <td>1667 788</td> <td>1987 1656</td> </tr> </table> PLATE PLACEMENT TOL. = 0.250 Inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.89 (M) (INPUT = 0.90) JSI METAL= 0.83 (U) (INPUT = 1.00)	PLATE	GRIP(DRY)	SHEAR	SECTION		(PSI)	(PLI)	(PLI)		MAX MIN	MAX MIN	MAX MIN	MT20	618 354	1667 788	1987 1656
CHORDS				WEBS																																																																																					
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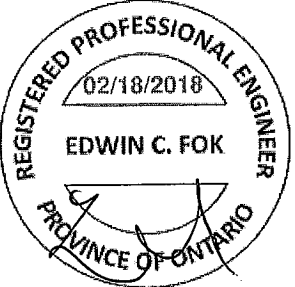
PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	9.0	1.75	4.25
C	TMVW-t	MT20	4.0	4.0	2.00	1.25
D	TTWW-m	MT20	5.0	6.0	2.25	2.75
E	TMW+w	MT20	2.0	4.0		
F	TMVWW-t	MT20	6.0	9.0	1.50	1.50
G	TMW+w	MT20	2.0	4.0		
H	TS-t	MT20	3.0	8.0		
I	TMVW-t	MT20	4.0	4.0		
J	TMVW-t	MT20	4.0	6.0	1.50	3.00
K	TTWW-m	MT20	5.0	8.0	1.75	4.00
L	TMVW-t	MT20	4.0	4.0	2.00	1.75
M	TMVW-t	MT20	5.0	6.0	1.75	1.75
N	TMVW-t	MT20	5.0	6.0	1.75	2.25
P	BMV1+p	MT20	3.0	4.0		
Q	BBWW-h	MT20	8.0	9.0	2.00	6.00
R	BBWW-t	MT20	7.0	8.0	4.00	4.00
S	BMWW-t	MT20	4.0	4.0		
T	BMWW-t	MT20	4.0	6.0	2.75	1.50
U	BS-t	MT20	5.0	6.0		
V	BMWW-t	MT20	4.0	6.0	3.00	1.50
W	BBWWW-m	MT20	10.0	12.0	4.50	6.00
X	BBW-h	MT20	8.0	9.0	3.25	4.50
Y	BMVWW-t	MT20	5.0	8.0		
Z	BS-t	MT20	4.0	6.0		
AA	BMWW-t	MT20	4.0	4.0		
AB	BMWW-t	MT20	5.0	6.0	2.25	2.00
AC	BMV1+p	MT20	3.0	4.0		

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 476.7 lbs FACTORED DOWN AT 8-4-10 ON TOP CHORD, AND 1791.1 lbs FACTORED DOWN AT 25-1-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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



A:18023757(3)

Alpa Roof Truss, Maple



ALL WEBS 2x3 DRY No.2 SPF	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) Y, N	OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015
DRY: SEASONED LUMBER.	<u>BRACING</u> TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.45 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.	THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, OBC 2018 - CSA 086-09, CSA 086-14 - TPIC 2011, TPIC 2014

J	TWVW-m	MT20	5.0	8.0	2.25	3.25
K	TMWV-t	MT20	4.0	4.0	2.00	1.75
L	TMMW-t	MT20	6.0	7.0	2.25	3.50
M	TMVV-p	MT20	4.0	6.0	1.25	3.25
N	BMVt+p	MT20	3.0	4.0		
O	BBWW-m	MT20	7.0	8.0	Edge	2.75
P	BBWW-l	MT20	7.0	8.0	Edge	3.50
Q	BMMW-t	MT20	4.0	4.0	2.00	1.50
R	BS-t	MT20	3.0	6.0		
S	BBBBWW+m	MT20	8.0	12.0	3.25	3.00
T	BBWW-h	MT20	7.0	8.0	3.25	4.00
U	BMMW-t	MT20	4.0	4.0	2.00	1.75
V	BS-t	MT20	4.0	6.0		

CALCULATED VERT. DEFL.(LL)= L/999 (0.29")
ALLOWABLE DEF(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/841 (0.58")

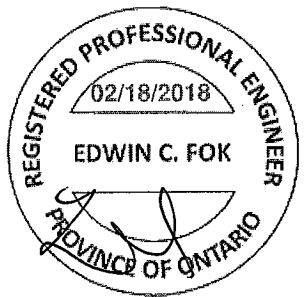
CSI: TC=0.82/1.00 (G-I-1), BC=0.78/1.00 (P-Q-1), WB=0.84/1.00 (F-T-1), SC=0.42/1.00 (J-K-1)

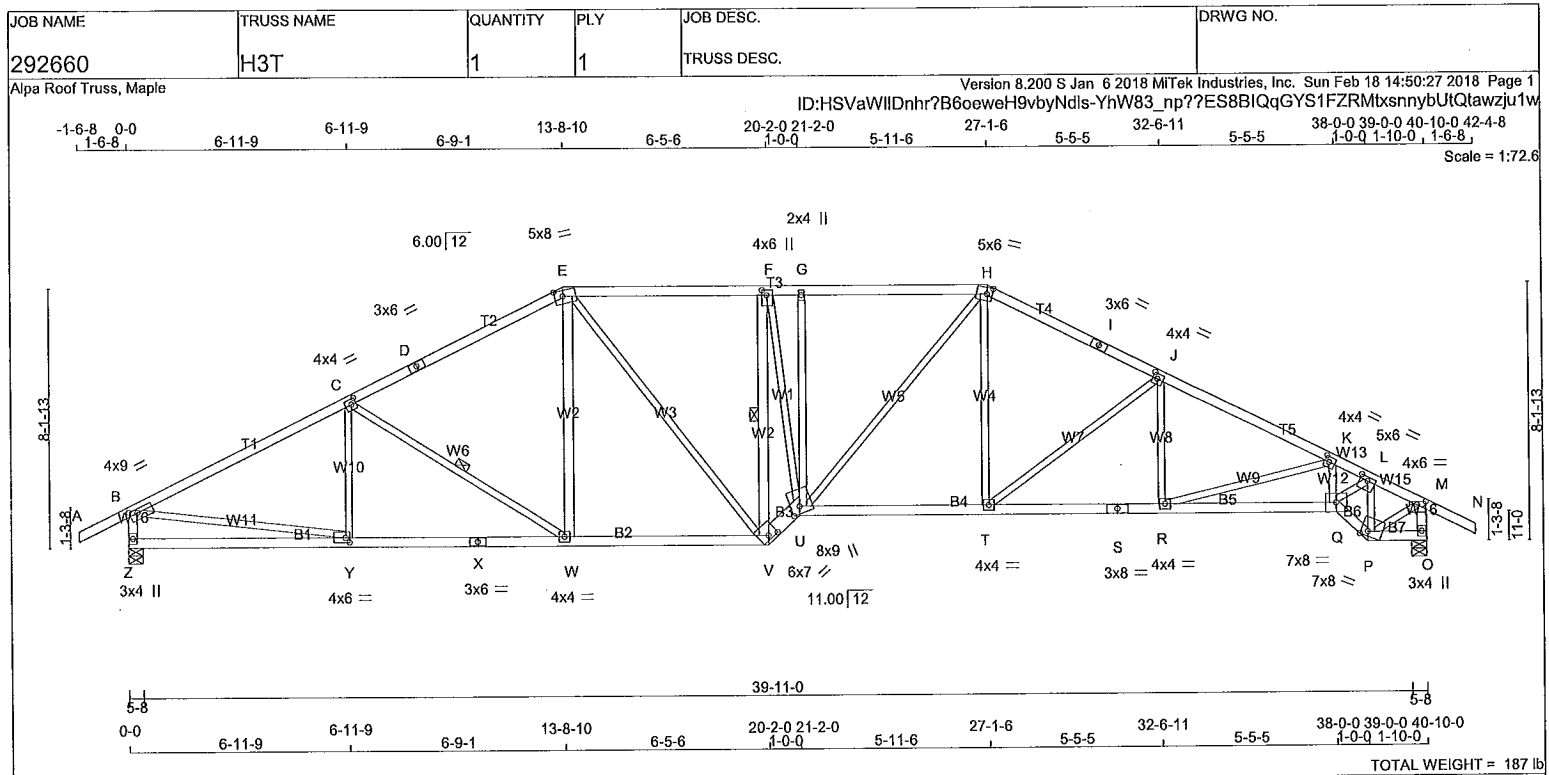
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMpanion LIFE LOAD FACTOR = 1.00

TRUSS PLATE MANUFACTURER IS NOT

	N-L	-2080 / 0	0.0	0.0	0.21 (1)	5.87	P-K	0 / 2887	0.65 (1)	(PLI)
	Y-X	0 / 0	-18.5	-18.5	0.07 (4)	10.00	O-K	-2291 / 0	0.34 (1)	MAX MIN MAX MIN MAX MIN
	X-W	0 / 2631	-18.5	-18.5	0.36 (1)	10.00	B-X	0 / 2665	0.60 (1)	MT20 618 354 1667 788 1987 1656
	W-V	0 / 2473	-18.5	-18.5	0.33 (1)	10.00	O-L	0 / 1908	0.43 (1)	PLATE PLACEMENT TOL. = 0.250 inches
	V-U	0 / 2473	-18.5	-18.5	0.33 (1)	10.00				PLATE ROTATION TOL. = 5.0 Deg.
	U-T	0 / 2970	-18.5	-18.5	0.38 (1)	10.00				JSI GRIP= 0.90 (P) (INPUT = 0.90)
	T-S	0 / 4234	-18.5	-18.5	0.50 (1)	10.00				JSI METAL= 0.84 (R) (INPUT = 1.00)
	S-R	0 / 2846	-18.5	-18.5	0.63 (4)	10.00				
	R-Q	0 / 2846	-18.5	-18.5	0.63 (4)	10.00				
	Q-P	0 / 3816	-18.5	-18.5	0.78 (1)	10.00				
	P-O	0 / 2117	-18.5	-18.5	0.34 (1)	10.00				
	O-N	0 / 0	-18.5	-18.5	0.02 (4)	10.00				





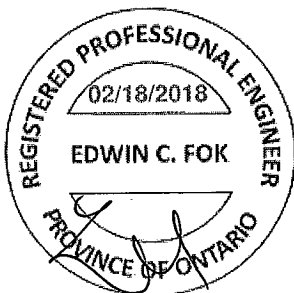
LUMBER				DESCR.	
N. L. G. A. RULES					
CHORDS	SIZE	LUMBER			
A - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	No.2	SPF	
E - H	2x4	DRY	No.2	SPF	
H - I	2x4	DRY	No.2	SPF	
I - N	2x4	DRY	No.2	SPF	
Z - B	2x4	DRY	No.2	SPF	
O - M	2x4	DRY	No.2	SPF	
Z - X	2x4	DRY	No.2	SPF	
X - V	2x4	DRY	No.2	SPF	
V - U	2x6	DRY	No.2	SPF	
U - S	2x4	DRY	No.2	SPF	
S - Q	2x4	DRY	No.2	SPF	
Q - P	2x4	DRY	No.2	SPF	
P - O	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
W - E	2x4	DRY	No.2	SPF	
V - F	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	4.0	9.0	1.50	3.00
C, J, K						
C	TMVW-I	MT20	4.0	4.0	2.00	1.75
D	TS-I	MT20	3.0	6.0		
E	TTWW-m	MT20	5.0	8.0	2.25	3.00
F	TMVW-I	MT20	4.0	6.0	2.00	1.75
G	TMVW-I	MT20	2.0	4.0		
H	TTWW-m	MT20	5.0	6.0	2.50	2.00
I	TS-I	MT20	3.0	6.0		
L	TMVW-I	MT20	5.0	6.0	1.50	3.00
M	TMVW-p	MT20	4.0	6.0	1.25	3.25
O	BMV1+p	MT20	3.0	4.0		
P	BBWW-m	MT20	7.0	8.0	Edge	2.75
Q	BBWW-I	MT20	7.0	8.0		
R, T, W						
R	BMVW-I	MT20	4.0	4.0		
S	BS-I	MT20	3.0	8.0		

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
Z	2092	0	0	5-8
O	2097	0	0	5-8

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD.

UNFACTORED REACTIONS

	1ST LCASE	MAX / MIN	COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
Z	1489	923 / 0	0 / 0	0 / 0	0 / 0	566 / 0	0 / 0
O	1493	926 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.40 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-W, F-V.

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. CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 28	-78.0	-78.0 0.14 (1)	Y-C	-239 / 12	0.08 (1)	
B-C	-2942 / 0	-78.0	-78.0 0.73 (1)	C-W	-442 / 0	0.20 (1)	
C-D	-2585 / 0	-78.0	-78.0 0.65 (1)	W-E	0 / 347	0.06 (1)	
D-E	-2585 / 0	-78.0	-78.0 0.65 (1)	E-V	0 / 519	0.12 (1)	
E-F	-2624 / 0	-78.0	-78.0 0.54 (1)	V-F	-2748 / 0	0.82 (1)	
F-G	-2947 / 0	-78.0	-78.0 0.48 (1)	F-U	0 / 2219	0.50 (1)	
G-H	-2948 / 0	-78.0	-78.0 0.48 (1)	U-G	-93 / 2	0.09 (1)	
H-I	-2906 / 0	-78.0	-78.0 0.42 (1)	U-H	0 / 551	0.12 (1)	
I-J	-2906 / 0	-78.0	-78.0 0.42 (1)	T-H	0 / 509	0.11 (1)	
J-K	-3495 / 0	-78.0	-78.0 0.48 (1)	T-J	-702 / 0	0.64 (1)	
K-L	-3893 / 0	-78.0	-78.0 0.25 (1)	R-J	0 / 200	0.05 (4)	
L-M	-1993 / 0	-78.0	-78.0 0.15 (1)	R-K	-416 / 0	0.22 (1)	
M-N	0 / 28	-78.0	-78.0 0.14 (1)	Q-K	-43 / 41	0.01 (4)	
Z-B	-2037 / 0	0.0	0.0 0.21 (1)	Q-L	0 / 2498	0.56 (1)	
O-M	-2080 / 0	0.0	0.0 0.21 (1)	P-L	-2355 / 0	0.35 (1)	
				B-Y	0 / 2683	0.60 (1)	
				P-M	0 / 1960	0.44 (1)	
Z-Y	0 / 0	-18.5	-18.5 0.19 (4)				
Y-X	0 / 2657	-18.5	-18.5 0.53 (1)				
X-W	0 / 2657	-18.5	-18.5 0.53 (1)				
W-V	0 / 2292	-18.5	-18.5 0.48 (1)				
V-U	0 / 3601	-18.5	-18.5 0.43 (1)				
U-T	0 / 2587	-18.5	-18.5 0.50 (1)				
T-S	0 / 3139	-18.5	-18.5 0.59 (1)				
S-R	0 / 3139	-18.5	-18.5 0.59 (1)				
R-Q	0 / 3539	-18.5	-18.5 0.64 (1)				
Q-P	0 / 2175	-18.5	-18.5 0.35 (1)				
P-O	0 / 0	-18.5	-18.5 0.02 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.25")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/991 (0.49")

CSI: TC=0.73/1.00 (B-C:1), BC=0.64/1.00 (Q-R:1), WB=0.82/1.00 (F-V:1), SSI=0.24/1.00 (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

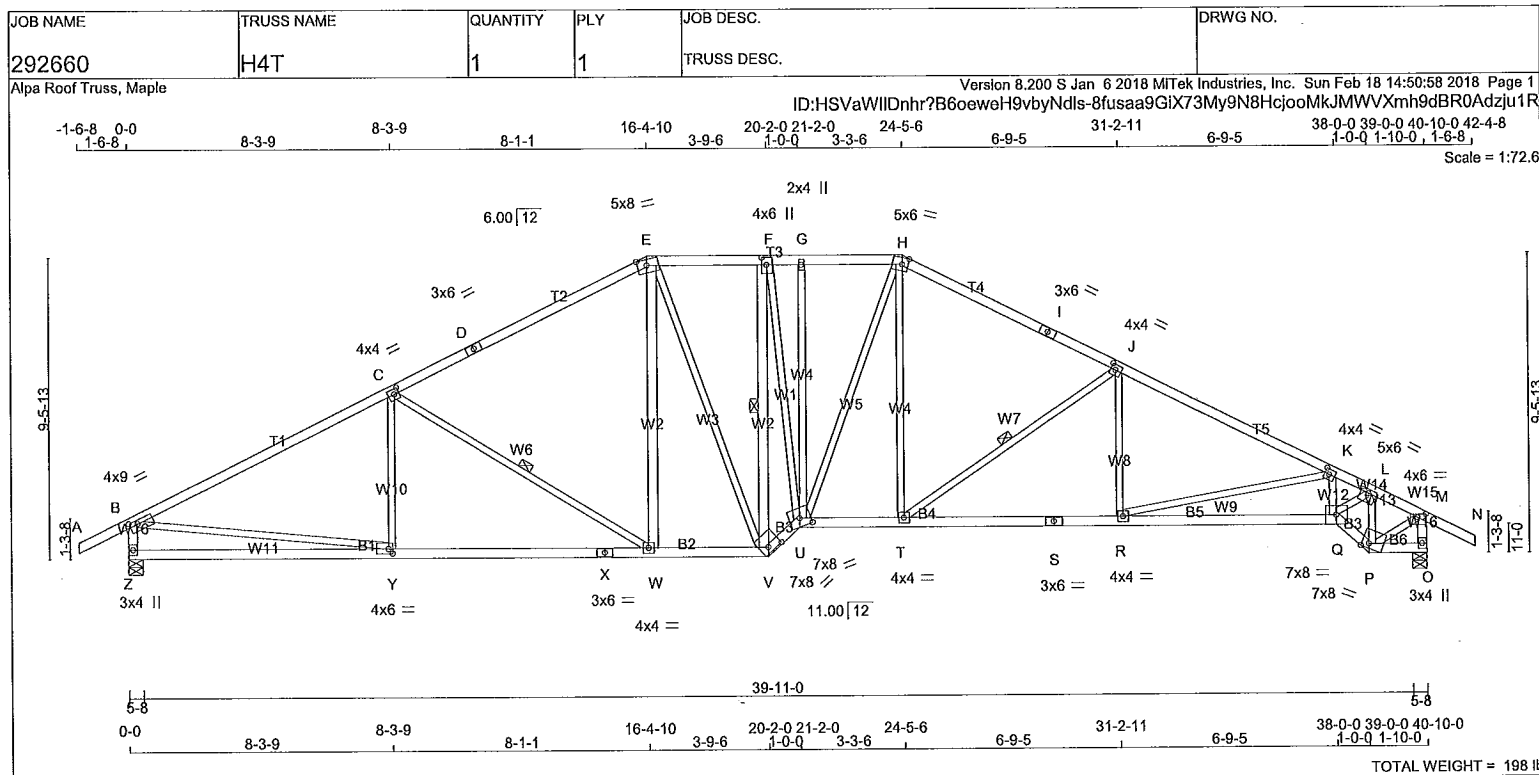
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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 (M) (INPUT = 0.90)
JSI METAL= 0.92 (S) (INPUT = 1.00)



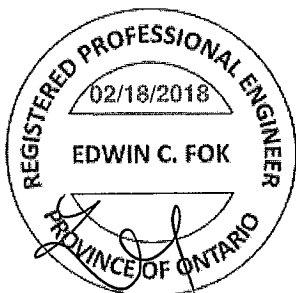
LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.		
A - D	2x4	DRY	1650F 1.5E	SPF	
D - E	2x4	DRY	1650F 1.5E	SPF	
E - H	2x4	DRY	No.2	SPF	
H - I	2x4	DRY	No.2	SPF	
I - N	2x4	DRY	No.2	SPF	
Z - B	2x4	DRY	No.2	SPF	
O - M	2x4	DRY	No.2	SPF	
Z - X	2x4	DRY	No.2	SPF	
X - U	2x4	DRY	No.2	SPF	
V - U	2x4	DRY	No.2	SPF	
U - S	2x4	DRY	No.2	SPF	
S - Q	2x4	DRY	No.2	SPF	
Q - P	2x4	DRY	No.2	SPF	
P - O	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
W - E	2x4	DRY	No.2	SPF	
V - F	2x4	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	1.50	3.00
C, J, K						
D	TMVW-t	MT20	4.0	4.0	2.00	1.75
E	TS-t	MT20	3.0	6.0		
F	TTVW-m	MT20	5.0	8.0	2.25	3.50
G	TMVW-t	MT20	4.0	6.0	2.75	1.75
H	TTVW-m	MT20	2.0	4.0		
I	TS-t	MT20	5.0	6.0	2.50	2.25
L	TMVW-t	MT20	3.0	6.0		
M	TMVW-p	MT20	5.0	6.0	1.50	3.00
O	BMV1+p	MT20	4.0	6.0	1.25	3.25
P	BBWW-m	MT20	3.0	4.0		
Q	BBWW-t	MT20	7.0	8.0	Edge	2.75
R, T, W			7.0	8.0		
S	BMVW-t	MT20	4.0	4.0		
	BS-t	MT20	3.0	6.0		

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



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	UP	IN-SX
Z	2092	0	0	5-8
O	2097	0	0	5-8

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD.

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE
Z	1489	923 / 0	0 / 0	0 / 0
O	1493	926 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.26 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-W, F-V, J-T.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 28	-78.0	-78.0 0.12 (1)	Y-C	-145 / 74	0.06 (1)	
B-C	-2962 / 0	-78.0	-78.0 0.81 (1)	C-W	-682 / 0	0.46 (1)	
C-D	-2384 / 0	-78.0	-78.0 0.71 (1)	W-E	0 / 471	0.08 (1)	
D-E	-2384 / 0	-78.0	-78.0 0.71 (1)	E-V	0 / 249	0.06 (1)	
E-F	-2203 / 0	-78.0	-78.0 0.22 (1)	V-F	-2232 / 0	0.95 (1)	
F-G	-2423 / 0	-78.0	-78.0 0.22 (1)	F-U	0 / 1807	0.41 (1)	
G-H	-2422 / 0	-78.0	-78.0 0.23 (1)	U-G	0 / 69	0.02 (4)	
H-I	-2630 / 0	-78.0	-78.0 0.63 (1)	U-H	0 / 233	0.05 (1)	
I-J	-2630 / 0	-78.0	-78.0 0.63 (1)	T-H	0 / 597	0.13 (1)	
J-K	-3395 / 0	-78.0	-78.0 0.72 (1)	T-J	-885 / 0	0.43 (1)	
K-L	-3912 / 0	-78.0	-78.0 0.32 (1)	R-J	0 / 251	0.07 (4)	
L-M	-1988 / 0	-78.0	-78.0 0.15 (1)	R-K	-552 / 0	0.49 (1)	
M-N	0 / 28	-78.0	-78.0 0.14 (1)	Q-K	-90 / 38	0.01 (1)	
Z-B	-2030 / 0	0.0	0.0 0.21 (1)	Q-L	0 / 2568	0.58 (1)	
O-M	-2080 / 0	0.0	0.0 0.21 (1)	P-L	-2343 / 0	0.35 (1)	
				B-Y	0 / 2699	0.61 (1)	
Z-Y	0 / 0	-18.5	-18.5 0.31 (4)	P-M	0 / 1951	0.44 (1)	
Y-X	0 / 2680	-18.5	-18.5 0.59 (1)				
X-W	0 / 2680	-18.5	-18.5 0.59 (1)				
W-V	0 / 2108	-18.5	-18.5 0.44 (1)				
V-U	0 / 3018	-18.5	-18.5 0.49 (1)				
U-T	0 / 2336	-18.5	-18.5 0.44 (1)				
T-S	0 / 3051	-18.5	-18.5 0.59 (1)				
S-R	0 / 3051	-18.5	-18.5 0.59 (1)				
R-Q	0 / 3589	-18.5	-18.5 0.68 (1)				
Q-P	0 / 2165	-18.5	-18.5 0.35 (1)				
P-O	0 / 0	-18.5	-18.5 0.02 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.22")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.44")

CSI: TC=0.81/1.00 (B-C:1), BC=0.68/1.00 (Q-R:1), WB=0.95/1.00 (F-V:1), SSI=0.28/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

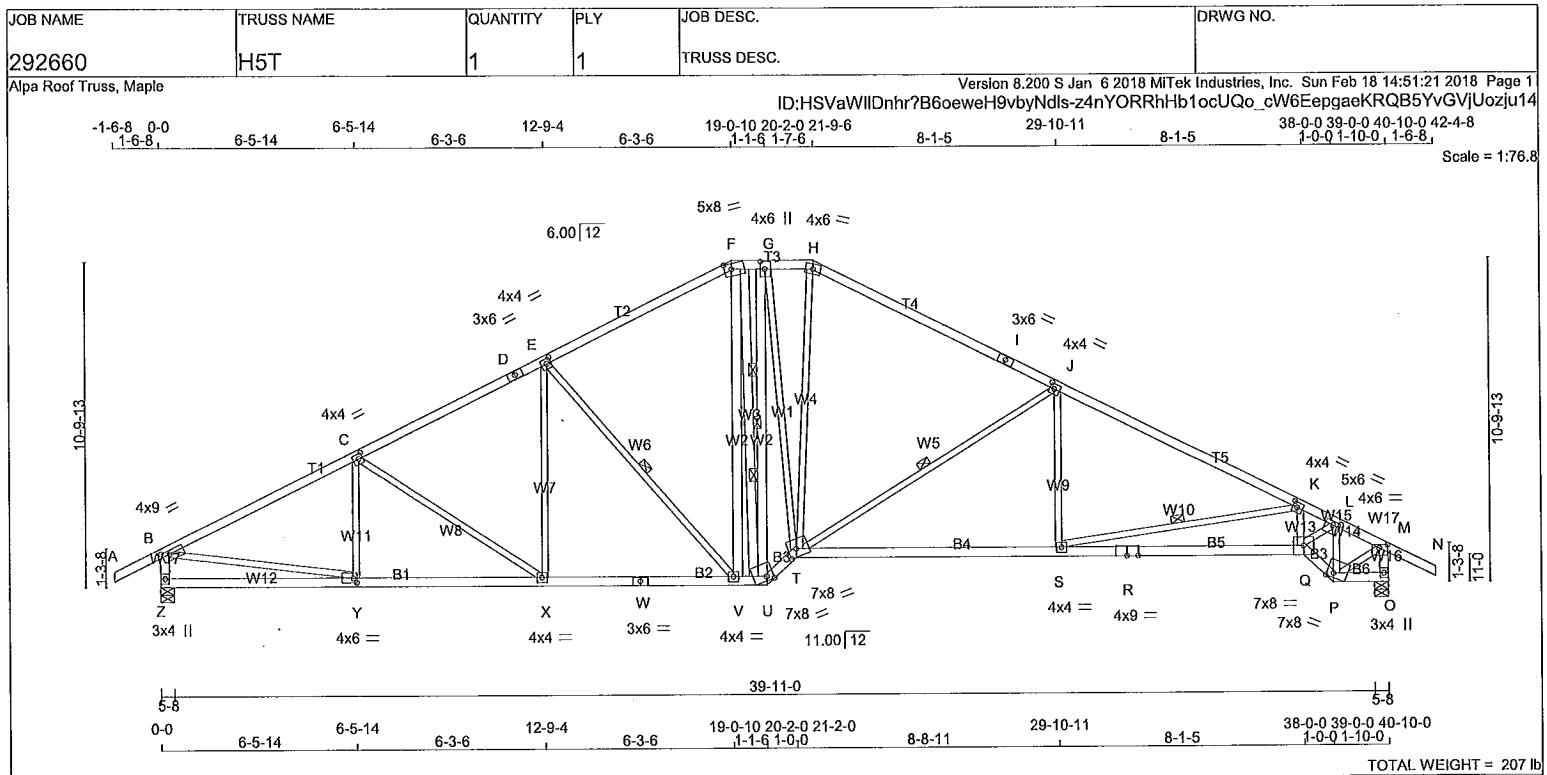
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) 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 (M) (INPUT = 0.90)
JSI METAL= 0.92 (S) (INPUT = 1.00)



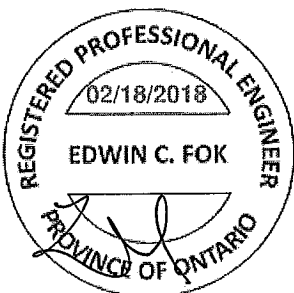
LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - H	2x4	DRY	No.2	SPF
H - I	2x4	DRY	1650F 1.5E	SPF
I - N	2x4	DRY	1650F 1.5E	SPF
Z - B	2x4	DRY	No.2	SPF
O - M	2x4	DRY	No.2	SPF
Z - W	2x4	DRY	No.2	SPF
W - U	2x4	DRY	No.2	SPF
U - T	2x4	DRY	No.2	SPF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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	4.0	9.0	1.50	3.00
C, E, J, K						
C	TMVW-I	MT20	4.0	4.0	2.00	1.75
D	TS-t	MT20	3.0	6.0		
F	TTWW-m	MT20	5.0	8.0	2.25	2.75
G	TMVW-H	MT20	4.0	6.0	3.00	1.75
H	TTW-m	MT20	4.0	6.0		
I	TS-t	MT20	3.0	6.0		
L	TMVW-I	MT20	5.0	6.0	1.50	2.75
M	TMVW-p	MT20	4.0	6.0	1.25	3.25
O	BMV1+p	MT20	3.0	4.0		
P	BBWW-m	MT20	7.0	8.0	Edge	2.75
Q	BBWW-I	MT20	7.0	8.0		
R	BS-t	MT20	4.0	9.0		
S, V, X						
S	BMWW-I	MT20	4.0	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	REQRD
	VERT	DOWN	BRG	BRG
JT	2092	0	5-8	3-5
Z	2092	0	5-8	3-5
O	2097	0	5-8	3-5

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

	1ST LCASE	MAX / MIN	COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
JT	1489	923 / 0	0 / 0	0 / 0	0 / 0	566 / 0	0 / 0	
Z	1489	923 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0	

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.60 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-V, F-U, J-T, K-S.
- 2 LATERAL BRACE(S) AT 1/3 LENGTH OF G-U.

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. (PLF)	MAX LC1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)
FR-TO					FR-TO		
A-B	0 / 28	-78.0	-78.0 0.14 (1)	10.00	Y-C	-271 / 0	0.08 (1)
B-C	-2912 / 0	-78.0	-78.0 0.60 (1)	3.60	C-X	-280 / 0	0.32 (1)
C-D	-2672 / 0	-78.0	-78.0 0.49 (1)	3.86	X-E	0 / 278	0.07 (4)
D-E	-2672 / 0	-78.0	-78.0 0.49 (1)	3.86	E-V	-755 / 0	0.51 (1)
E-F	-2140 / 0	-78.0	-78.0 0.47 (1)	4.22	V-F	0 / 624	0.10 (1)
F-G	-1905 / 0	-78.0	-78.0 0.10 (1)	4.80	F-U	-34 / 18	0.02 (4)
G-H	-2086 / 0	-78.0	-78.0 0.12 (1)	4.61	U-G	-1749 / 0	0.46 (1)
H-I	-2316 / 0	-78.0	-78.0 0.66 (1)	4.35	G-T	0 / 1764	0.40 (1)
I-J	-2316 / 0	-78.0	-78.0 0.66 (1)	4.35	T-H	0 / 668	0.15 (1)
J-K	-3293 / 0	-78.0	-78.0 0.74 (1)	3.78	T-J	-1086 / 0	0.84 (1)
K-L	-3933 / 0	-78.0	-78.0 0.28 (1)	3.86	S-J	0 / 300	0.09 (4)
L-M	-1980 / 0	-78.0	-78.0 0.13 (1)	5.26	S-K	-699 / 0	0.32 (1)
M-N	0 / 28	-78.0	-78.0 0.12 (1)	10.00	Q-K	-150 / 30	0.02 (1)
Z-B	-2041 / 0	0.0	0.0 0.21 (1)	5.92	Q-L	0 / 2654	0.60 (1)
O-M	-2080 / 0	0.0	0.0 0.21 (1)	5.87	P-L	-2328 / 0	0.35 (1)
					B-Y	0 / 2653	0.60 (1)
					P-M	0 / 1938	0.44 (1)
Z-Y	0 / 0	-18.5	-18.5 0.16 (4)	10.00			
Y-X	0 / 2623	-18.5	-18.5 0.50 (1)	10.00			
X-W	0 / 2390	-18.5	-18.5 0.46 (1)	10.00			
W-V	0 / 2390	-18.5	-18.5 0.46 (1)	10.00			
V-U	0 / 1902	-18.5	-18.5 0.36 (1)	10.00			
U-T	0 / 2604	-18.5	-18.5 0.42 (1)	10.00			
T-S	0 / 2962	-18.5	-18.5 0.66 (1)	10.00			
S-R	0 / 3649	-18.5	-18.5 0.77 (1)	10.00			
R-Q	0 / 3649	-18.5	-18.5 0.77 (1)	10.00			
Q-P	0 / 2151	-18.5	-18.5 0.35 (1)	10.00			
P-O	0 / 0	-18.5	-18.5 0.02 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.22")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/887 (0.55")

CSI: TC=0.74/1.00 (J-K:1), BC=0.77/1.00 (Q-S:1), WB=0.84/1.00 (J-T:1), SI=0.27/1.00 (H-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (L) (INPUT = 0.90)
JSI METAL= 0.80 (W) (INPUT = 1.00)

292660

H7T

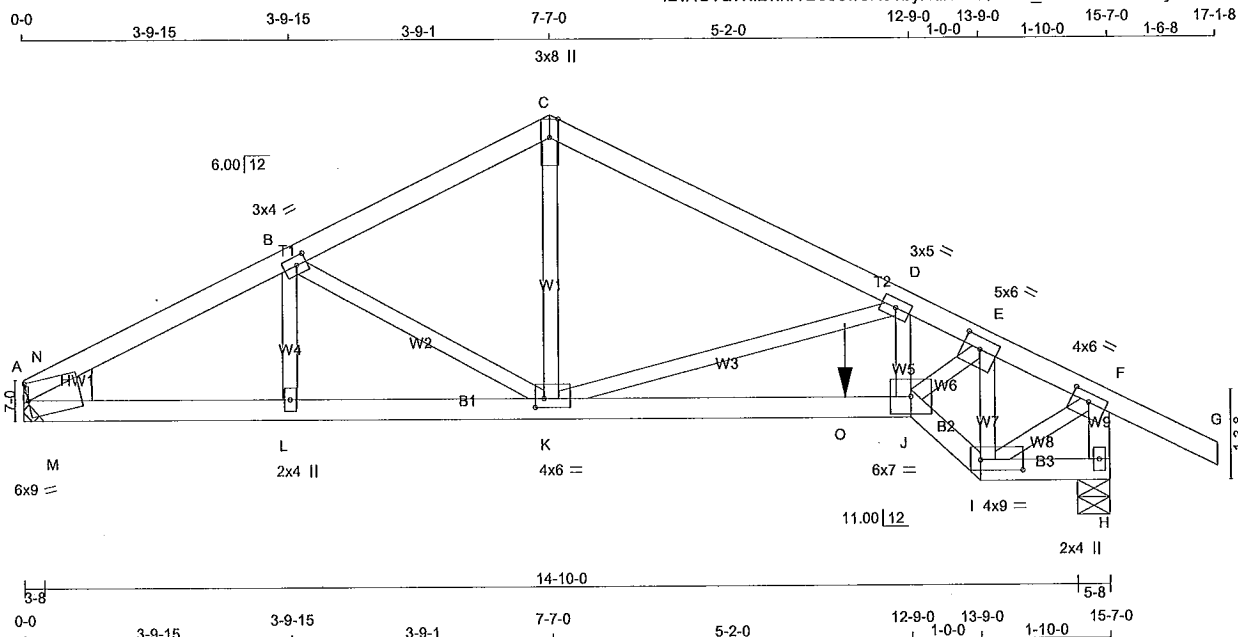
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TRUSS DESC.

Alpa Roof Truss, Maple

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ID:HSVaWIDnhr?B6oeweH9vbyNdis-RYtMabf_27IfnFoG2OrKyRYrvuSnePXB23sg5Izju0o



Scale = 1:33.1

TOTAL WEIGHT = 60 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMBH1-m	MT20	6.0	9.0	3.00	
B	TMWW-t	MT20	3.0	4.0	1.50	1.75
C	TTW+p	MT20	3.0	8.0	Edge	
D	TMWW-t	MT20	3.0	5.0		
E	TMWW-t	MT20	5.0	6.0	2.00	3.00
F	TMWW-t	MT20	4.0	6.0	1.50	3.00
H	BMV1+p	MT20	2.0	4.0		
I	BBWW-t	MT20	4.0	9.0	1.75	7.25
J	BBWW-t	MT20	6.0	7.0		
K	BMWW-t	MT20	4.0	6.0	1.50	1.50
L	BMW+w	MT20	2.0	4.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 415.2 lbs FACTORED DOWN AT 11-9-12 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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



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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	HEEL WEDGE
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	
H	1617	0	1617	0	5-8	2-6	
A	1531	0	1531	0			2x6 L

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
H	1150	717 / 0	0 / 0	0 / 0	0 / 0	433 / 0	0 / 0
A	1092	666 / 0	0 / 0	0 / 0	0 / 0	426 / 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 = 3.73 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 MAX CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-N	-2794 / 0	-78.0	-78.0 0.29 (1)	3.83	L-B	0 / 214	0.05 (1)
N-B	-2303 / 0	-78.0	-78.0 0.28 (1)	4.21	B-K	-510 / 0	0.17 (1)
B-C	-1805 / 0	-78.0	-78.0 0.23 (1)	4.72	K-C	0 / 1307	0.32 (1)
C-D	-1813 / 0	-78.0	-78.0 0.36 (1)	4.57	K-D	-1065 / 0	0.52 (1)
D-E	-2874 / 0	-78.0	-78.0 0.33 (1)	3.73	J-D	0 / 353	0.09 (1)
E-F	-1466 / 0	-78.0	-78.0 0.18 (1)	5.18	J-E	0 / 1918	0.47 (1)
F-G	0 / 28	-78.0	-78.0 0.16 (1)	10.00	I-E	-1709 / 0	0.28 (1)
H-F	-1600 / 0	0.0	0.0 0.18 (1)	6.49	I-F	0 / 1429	0.35 (1)
					M-N	0 / 708	0.00 (1)
A-M	0 / 2050	-112.0	-112.0 0.52 (1)	10.00			
M-L	0 / 2050	-112.0	-112.0 0.52 (1)	10.00			
L-K	0 / 2050	-112.0	-112.0 0.76 (1)	10.00			
K-O	0 / 2628	-112.0	-112.0 0.89 (1)	10.00			
O-J	0 / 2628	-18.5	-18.5 0.89 (1)	10.00			
J-I	0 / 1586	-18.5	-18.5 0.28 (1)	10.00			
I-H	0 / 0	-18.5	-18.5 0.02 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
O	11-9-12	-415	-415	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 5-10-8
END DISTANCE = 11-9-12
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.52")
CALCULATED VERT. DEFL.(LL) = L/999 (0.14")
ALLOWABLE DEFL.(TL) = L/360 (0.52")
CALCULATED VERT. DEFL.(TL) = L/653 (0.29")

CSI: TC=0.36/1.00 (C-D:1), BC=0.89/1.00 (J-K:1), WB=0.52/1.00 (D-K:1), SSI=0.41/1.00 (J-K: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

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CONTINUED ON PAGE 2

Alpa Roof Truss, Maple



CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM	TO	LENGTH	FR-TO				
A-N	-1322 / 0	-78.0	-78.0	0.16 (1)	5.41	L-B	0 / 48		
N-B	-1123 / 0	-78.0	-78.0	0.16 (1)	5.77	B-K	-326 / 0		
B-C	-815 / 0	-78.0	-78.0	0.17 (1)	6.25	K-C	0 / 433		
C-D	-821 / 0	-78.0	-78.0	0.30 (1)	6.25	K-D	-554 / 0		
D-E	-1302 / 0	-78.0	-78.0	0.29 (1)	5.25	J-D	-61 / 42		
E-F	-675 / 0	-78.0	-78.0	0.16 (1)	6.25	J-E	0 / 935		
F-G	0 / 28	-78.0	-78.0	0.16 (1)	10.00	I-E	-749 / 0		
H-F	-866 / 0	0.0	0.0	0.10 (1)	7.81	I-F	0 / 638		
						M-N	0 / 216		
A-M	0 / 1003	-18.5	-18.5	0.22 (1)	10.00				
M-L	0 / 1003	-18.5	-18.5	0.22 (1)	10.00				
L-K	0 / 1003	-18.5	-18.5	0.19 (1)	10.00				
K-J	0 / 1250	-18.5	-18.5	0.23 (1)	10.00				
J-I	0 / 709	-18.5	-18.5	0.13 (1)	10.00				
I-H	0 / 0	-18.5	-18.5	0.02 (4)	10.00				

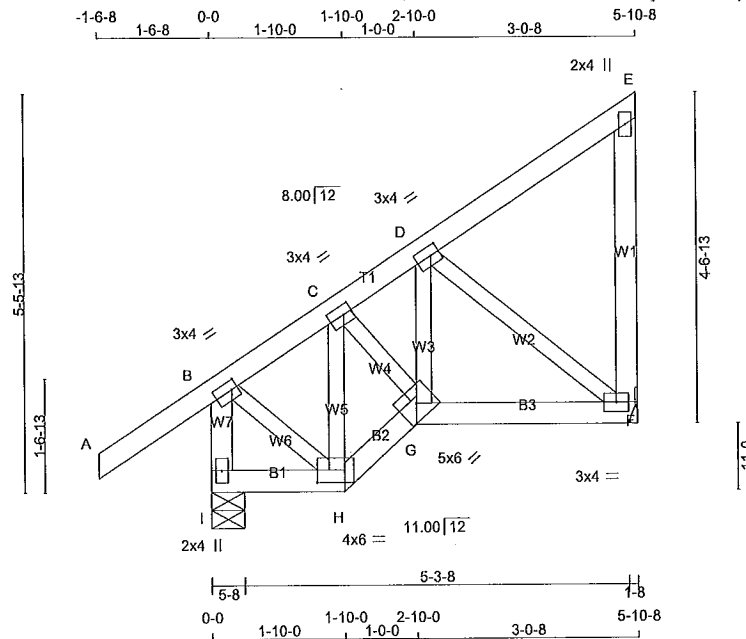
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292660	J1T	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 3 X 32 = 97 lb

LUMBER

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

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	3.0	4.0	1.50	1.00
C	TMWW-I	MT20	3.0	4.0	1.50	1.50
D	TMWW-I	MT20	3.0	4.0	1.50	1.50
E	TMV+p	MT20	2.0	4.0		
F	BMVW-I	MT20	3.0	4.0		
G	BBWW-h	MT20	5.0	6.0		
H	BBWW-I	MT20	4.0	6.0	2.00	4.50
I	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
I	427	0	427	0
F	266	0	266	0

UPLIFT IN-SX 5-8
 HANGER BY OTHERS MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX	MIN	COMPONENT REACTIONS	WIND	DEAD	SOIL
I	302	201 / 0	0 / 0		0 / 0	101 / 0	0 / 0
F	190	114 / 0	0 / 0		0 / 0	76 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. FACTORED UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH
FR-TO						FR-TO			
I-B	-410 / 0	0.0	0.0	0.04 (1)	7.81	B-H	0 / 129	0.03 (1)	
A-B	0 / 35	-78.0	-78.0	0.15 (1)	10.00	H-C	-138 / 0	0.02 (1)	
B-C	-170 / 0	-78.0	-78.0	0.14 (1)	6.25	C-G	0 / 144	0.03 (1)	
C-D	-187 / 0	-78.0	-78.0	0.09 (1)	6.25	G-D	0 / 49	0.02 (4)	
D-E	-12 / 0	-78.0	-78.0	0.09 (1)	6.25	D-F	-238 / 0	0.06 (1)	
F-E	-93 / 0	0.0	0.0	0.03 (1)	7.81				
I-H	0 / 0	-18.5	-18.5	0.02 (4)	10.00				
H-G	0 / 138	-18.5	-18.5	0.03 (1)	10.00				
G-F	0 / 188	-18.5	-18.5	0.07 (4)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CSI: TC=0.15/1.00 (A-B:1), BC=0.07/1.00 (F-G:4), WB=0.06/1.00 (D-F:1), SSI=0.09/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

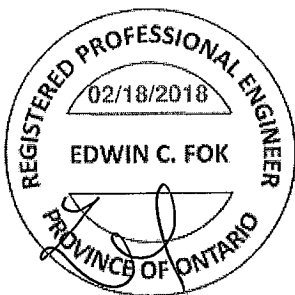
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.42 (B) (INPUT = 0.90)
 JSI METAL= 0.10 (B) (INPUT = 1.00)

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

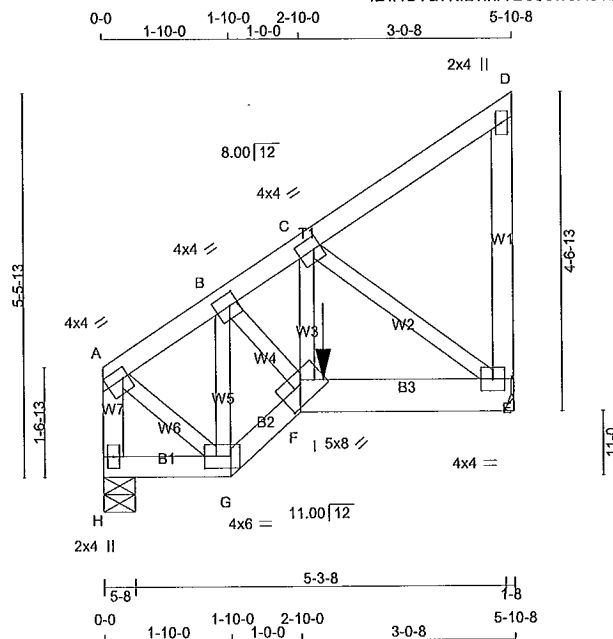


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292660	J1TA	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:32.9

TOTAL WEIGHT = 2 X 32 = 63 lb

LUMBER	CHORDS	SIZE	LUMBER	DESCR.
N. L. G. A. RULES				
H - A	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
F - E	2x6	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-D 1	12	TOP
D-E 1	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
H-G 1	12	TOP
G-F 1	12	TOP
F-E 2	12	SIDE(163.8)
WEBS : (0.122"x3") SPIRAL NAILS		
F-C 1	2	SIDE(357.8)
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	1194	0	1194	0	5-8	1-8
H	1792	0	1792	0	HANGER BY OTHERS	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
JT	851	520 / 0	0 / 0	0 / 0	0 / 0	332 / 0
H	1277	780 / 0	0 / 0	0 / 0	0 / 0	498 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
H-A	-1177 / 0	0.0	0.0	0.07 (1)	7.81	A-G	0 / 977
A-B	-992 / 0	-78.0	-78.0	0.05 (1)	6.25	G-B	-1243 / 0
B-C	-1651 / 0	-78.0	-78.0	0.05 (1)	6.25	B-F	0 / 1059
C-D	-9 / 0	-78.0	-78.0	0.05 (1)	10.00	F-C	0 / 1683
E-D	-98 / 0	0.0	0.0	0.01 (1)	7.81	C-E	-1664 / 0
H-G	0 / 0	-18.5	-18.5	0.01 (4)	10.00		
G-F	0 / 1050	-18.5	-18.5	0.09 (1)	10.00		
F-I	0 / 1328	-18.5	-18.5	0.34 (1)	10.00		
I-E	0 / 1328	-346.1	-346.1	0.34 (1)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
I	3-2-0	-1532	-1532	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStdGirder
START DISTANCE = 3-2-0
START SPAN CARRIED = 15-7-0
END DISTANCE = 5-10-8
END SPAN CARRIED = 15-7-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.07/1.00 (A-H:1) , BC=0.34/1.00 (E-F:1) ,
WB=0.21/1.00 (C-F:1) , SSI=0.59/1.00 (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.

A-18023765

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.
292660	J1TA	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
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ID:HSVaWlIDnhr?B6oeweH9vbyNdls-ZIR7 TFHXbZlJTYVHfqClu0t7ZhX5lYma5Rzslzju6T					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	4.0	1.75	Edge
B	TMVW-t	MT20	4.0	4.0	2.00	1.50
C	TMVW-t	MT20	4.0	4.0	2.00	1.25
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	4.0	4.0		
F	BBWW-h	MT20	5.0	8.0	3.00	4.00
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

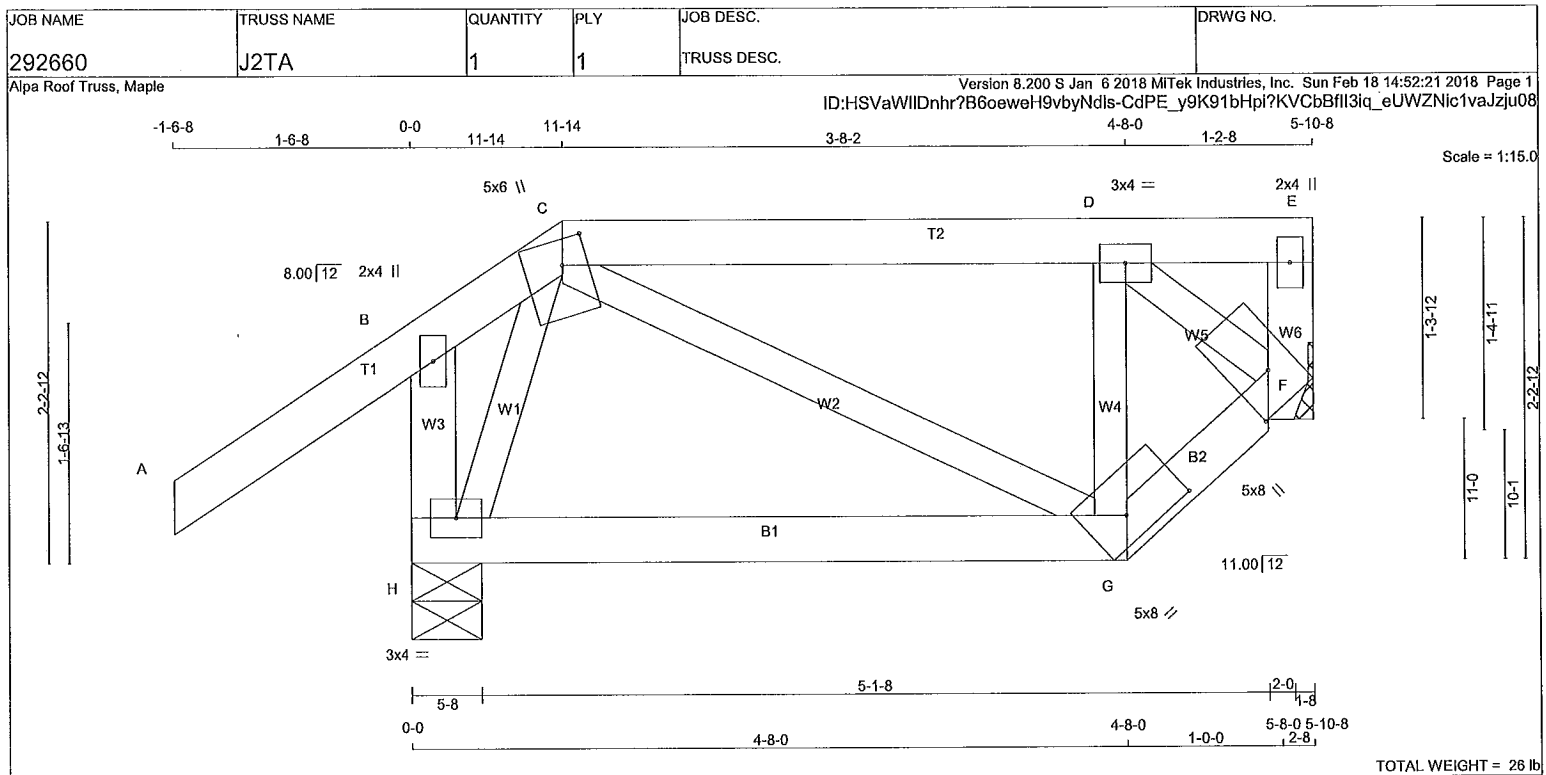
- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 1531.6 lbs FACTORED DOWN AT 3-2-0 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

JSI GRIP= 0.88 (C) (INPUT = 0.90)
JSI METAL= 0.29 (C) (INPUT = 1.00)

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



A-18023765(2)



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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TTWW+m	MT20	5.0	6.0	2.00	2.00
D	TMWW-t	MT20	3.0	4.0		
E	TMV+p	MT20	2.0	4.0		
F	BVMW1+H	MT20	5.0	8.0	2.75	2.75
G	BBWW-h	MT20	5.0	8.0	2.00	5.00
H	BMVW1-t	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
H	427	0	427	0	5-8	1-8
F	266	0	266	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. SNOW	MAX/MIN. LIVE	MAX/MIN. PERM. LIVE	MAX/MIN. WIND	MAX/MIN. DEAD	MAX/MIN. SOIL
H	302	201 / 0	0 / 0	0 / 0	0 / 0	101 / 0	0 / 0
F	190	114 / 0	0 / 0	0 / 0	0 / 0	76 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (LBS)	MAX. FACTORED LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX (LC)	
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 35	-78.0	-78.0 0.15 (1)	10.00	C-G	0 / 142	0.03 (1)
B-C	-58 / 0	-78.0	-78.0 0.14 (1)	6.25	G-D	-177 / 0	0.03 (1)
C-D	-186 / 0	-78.0	-78.0 0.12 (1)	6.25	H-C	-130 / 0	0.02 (1)
D-E	0 / 0	-78.0	-78.0 0.12 (1)	10.00	D-F	-205 / 0	0.03 (1)
F-E	0 / 16	0.0	0.0 0.00 (1)	10.00			
H-B	-269 / 0	0.0	0.0 0.03 (1)	7.81			
H-G	0 / 80	-18.5	-18.5 0.12 (4)	10.00			
G-F	0 / 242	-18.5	-18.5 0.04 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C

LOADING IN 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 (0.20")
CALCULATED VERT. DEFL.(LL)= L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL)= L/999 (0.02")

CSI: TC=0.15/1.00 (A-B:1), BC=0.12/1.00 (G-H:4), WB=0.03/1.00 (C-G:1), SSI=0.13/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

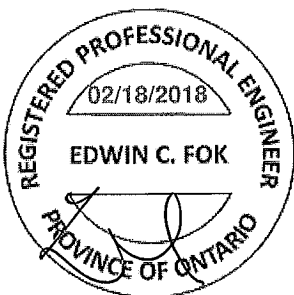
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.67 (G) (INPUT = 0.90)
JSI METAL= 0.14 (B) (INPUT = 1.00)

A-18023766

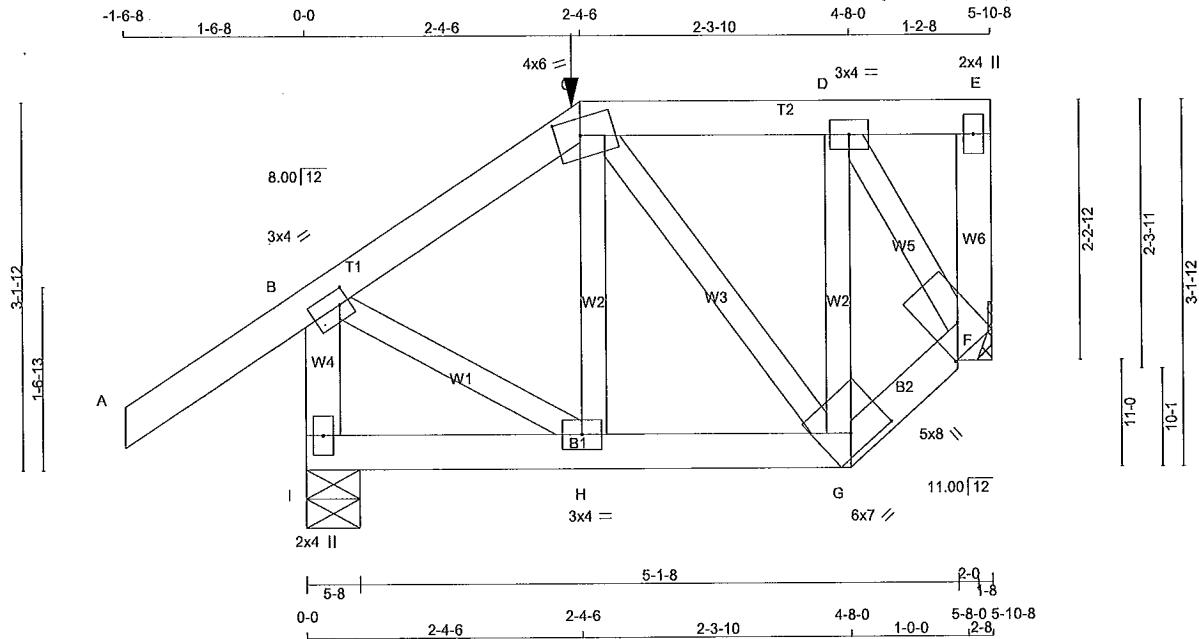
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292660	J2TB	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:43:31 2018 Page 1
ID:HSVaWIDnhr7B6oeueH9vbyNdlS-kfOtkltzBpUEGUTSu5uAXLVEA5YJpuMq8fs_1zju8Q



Scale = 1:19.7

TOTAL WEIGHT = 2 X 30 = 61 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
F - E	2x4	DRY	No.2	SPF
I - B	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	3.0	4.0	1.50	1.00
C	TTWW-m	MT20	4.0	6.0	1.75	2.50
D	TMVW-I	MT20	3.0	4.0		
E	TMV+p	MT20	2.0	4.0		
F	BVMW1+H	MT20	5.0	8.0	2.75	2.75
G	BBWW-h	MT20	6.0	7.0	2.00	4.00
H	BMVW-I	MT20	3.0	4.0		
I	BMV1+p	MT20	2.0	4.0		

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 67.9 lbs FACTORED DOWN AT 2-4-6 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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
I	508	0	508	0
F	416	0	416	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	360	232 / 0	0 / 0	0 / 0	0 / 0	128 / 0	0 / 0
F	296	182 / 0	0 / 0	0 / 0	0 / 0	114 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 35	-78.0 -78.0	0.16 (1)	10.00	H-C	-43 / 39	0.01 (4)
B-C	-268 / 0	-78.0 -78.0	0.08 (1)	6.25	C-G	-90 / 0	0.02 (1)
C-D	-184 / 0	-111.3 -111.3	0.07 (1)	6.25	G-D	-42 / 23	0.01 (4)
D-E	0 / 0	-111.3 -111.3	0.07 (1)	10.00	B-H	0 / 249	0.06 (1)
F-E	-37 / 0	0.0 0.0	0.01 (1)	7.81	D-F	-266 / 0	0.05 (1)
I-B	-481 / 0	0.0 0.0	0.06 (1)	7.81			
I-H	0 / 0	-26.4 -26.4	0.04 (4)	10.00			
H-G	0 / 221	-26.4 -26.4	0.08 (4)	10.00			
G-F	0 / 223	-26.4 -26.4	0.05 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	2-4-6	-88	-88	-	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 = 2-4-6

RIGHT SETBACK = 0-0

END SETBACK = 3-8-8

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, OBC 2018

- CSA 086-09, CSA 086-14

- TPIC 2011, TPIC 2014

(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 (0.00")

CSI: TC=0.16/1.00 (A-B:1), BC=0.06/1.00 (G-H:4), WB=0.06/1.00 (B-H:1), SSI=0.12/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

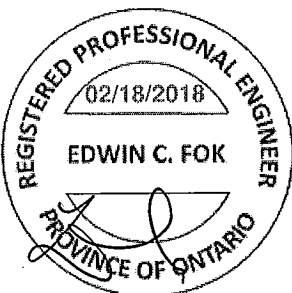
PLATE ROTATION TOL. = 5.0 Deg.

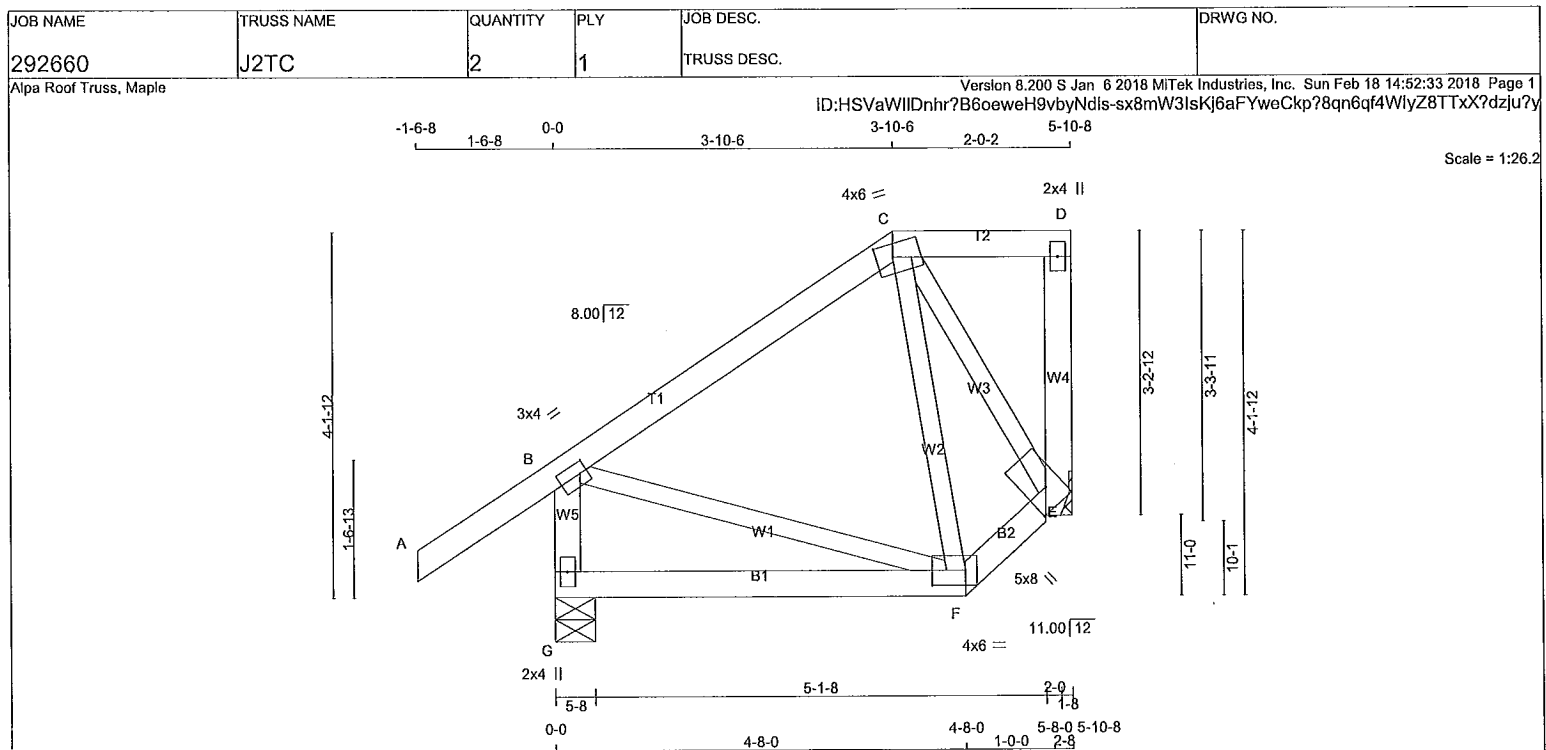
JSI GRIP= 0.82 (B) (INPUT = 0.90)

JSI METAL= 0.15 (B) (INPUT = 1.00)

A-18023767

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 - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - B	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
B	TMVW-I	MT20	3.0	4.0	1.50	1.00
C	TTWW-m	MT20	4.0	6.0	1.75	2.25
D	TMV+p	MT20	2.0	4.0		
E	BMVW1+I	MT20	5.0	8.0	2.75	2.75
F	BBWW-I	MT20	4.0	6.0	2.00	4.50
G	BMV1+p	MT20	2.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
G	410	0	410	0	5-8	1-8		
E	283	0	283	0			HANGER BY OTHERS	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS	WIND	DEAD	SOIL
G	290	191 / 0	0 / 0	0 / 0	98 / 0	0 / 0
E	202	123 / 0	0 / 0	0 / 0	79 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		WEBS		FACTORED	
	MAX. FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (PLF)	LC1 MAX (PLF)	MAX. FORCE (LBS)	MAX. FORCE (LBS)	MAX. FORCE (LBS)	MAX. FORCE (LBS)
FR-TO					FR-TO			
A-B	0 / 35	-78.0	-78.0	0.15 (1)	10.00	C-F	-52 / 20	0.01 (1)
B-C	-116 / 0	-78.0	-78.0	0.20 (1)	6.25	B-F	0 / 99	0.02 (1)
C-D	0 / 0	-78.0	-78.0	0.05 (1)	10.00	C-E	-142 / 0	0.03 (1)
E-D	-78 / 0	0.0	0.0	0.02 (1)	7.81			
G-B	-367 / 0	0.0	0.0	0.04 (1)	7.81			
G-F	0 / 0	-18.5	-18.5	0.12 (4)	10.00			
F-E	0 / 117	-18.5	-18.5	0.02 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL)= L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL)= L/999 (0.02")

CSI: TC=0.20/1.00 (B-C:1), BC=0.12/1.00 (F-G:4), WB=0.03/1.00 (C-E:1), SSI=0.10/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

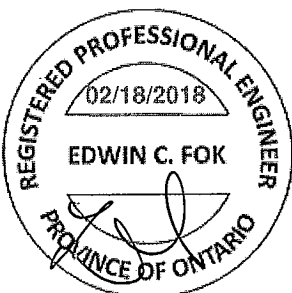
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

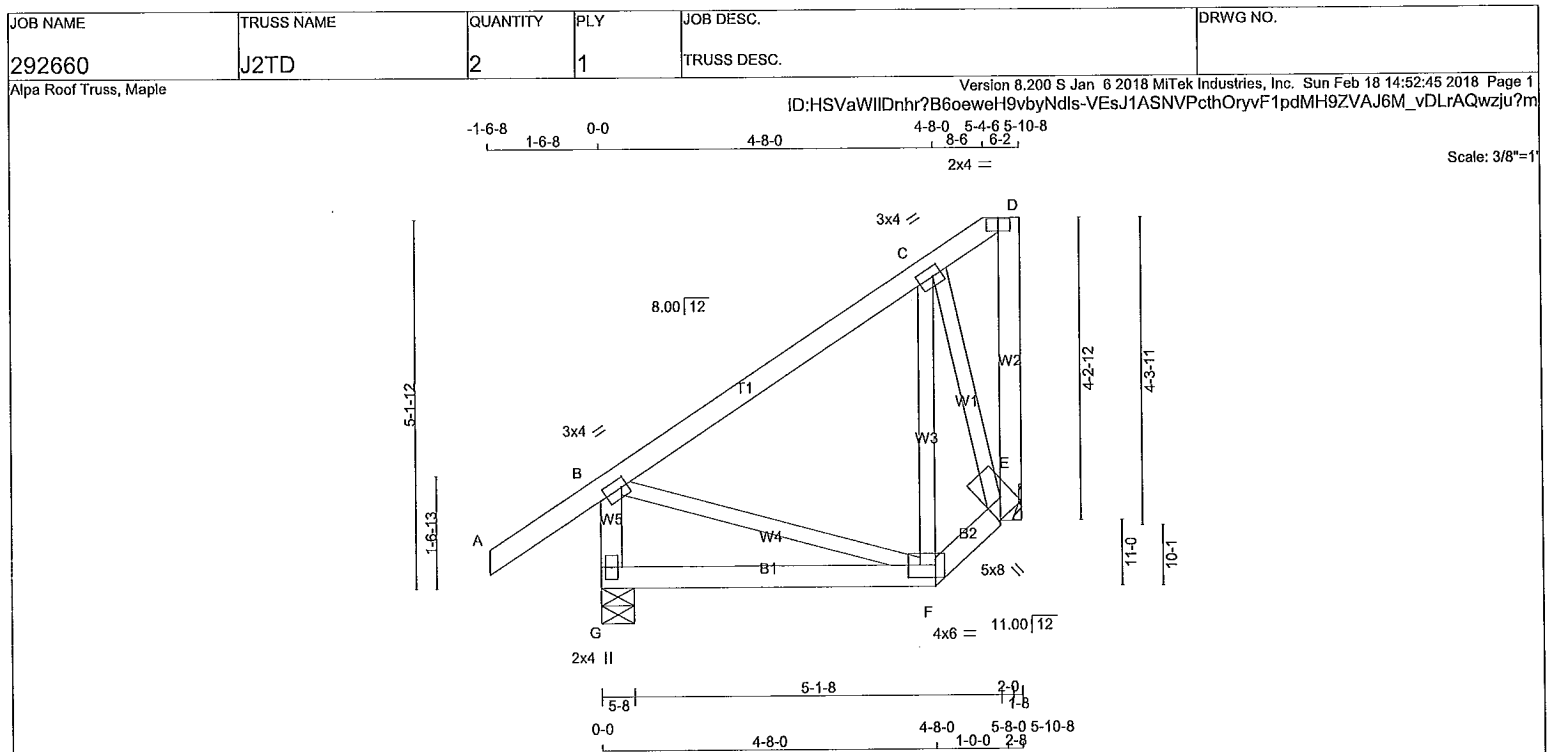
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.43 (C) (INPUT = 0.90)
JSI METAL= 0.10 (B) (INPUT = 1.00)

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



A-18023768



TOTAL WEIGHT = 2 X 33 = 66 lb

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	3.0	4.0	1.50	1.00
C	TMWW-I	MT20	3.0	4.0	1.50	1.50
D	TVM-p	MT20	2.0	4.0		
E	BVMW1+H	MT20	5.0	8.0	2.75	2.75
F	BBWW-I	MT20	4.0	6.0	2.00	4.50
G	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
G	410	0	410	0
E	283	0	283	0

MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	290	191/0	0/0	0/0	0/0	98/0	0/0
E	202	123/0	0/0	0/0	0/0	79/0	0/0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0/35	-78.0	-78.0 0.15 (1)	10.00	F-C	-69/20	0.02 (1)
B-C	-106/0	-78.0	-78.0 0.21 (1)	6.25	B-F	0/108	0.02 (1)
C-D	-66/0	-78.0	-78.0 0.21 (1)	6.25	C-E	-265/0	0.07 (1)
E-D	0/68	0.0	0.0 0.01 (1)	10.00			
G-B	-367/0	0.0	0.0 0.04 (1)	7.81			
G-F	0/0	-18.5	-18.5 0.12 (4)	10.00			
F-E	0/141	-18.5	-18.5 0.03 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.21/1.00 (B-C:1), BC=0.12/1.00 (F-G:4), WB=0.07/1.00 (C-E:1), SSI=0.14/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

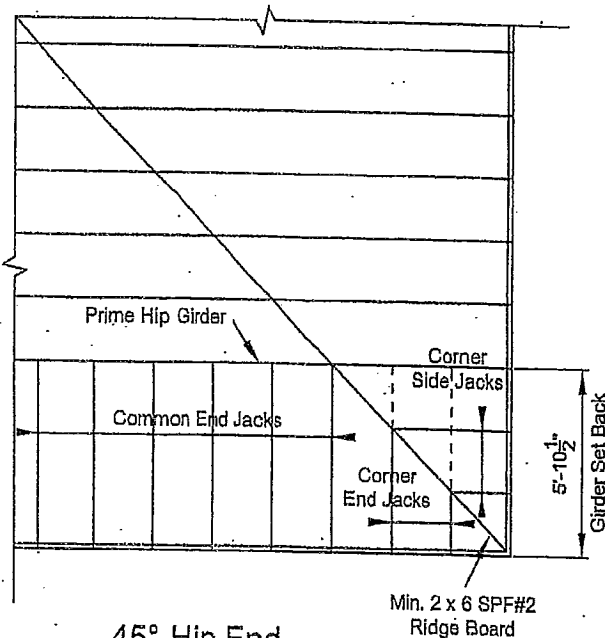
JSI GRIP= 0.35 (B) (INPUT = 0.90)
JSI METAL= 0.10 (B) (INPUT = 1.00)

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



A-18023769

STRACON ENGINEERING INC.



45° Hip End

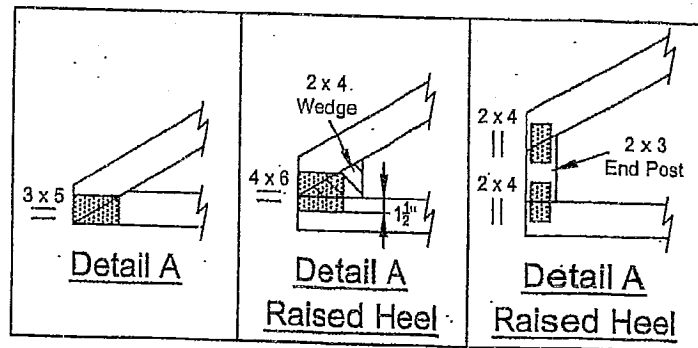
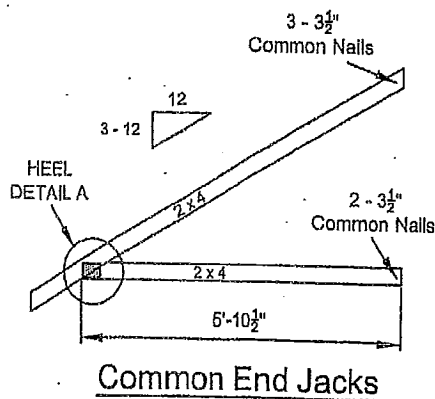
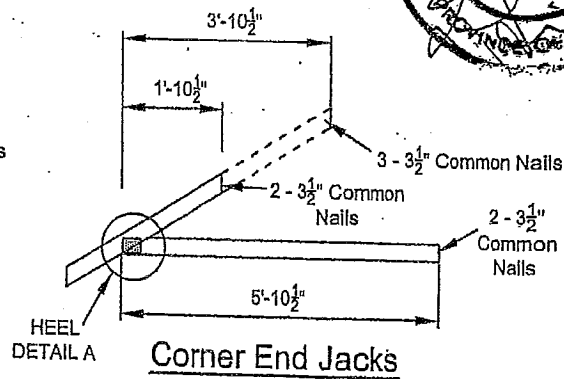
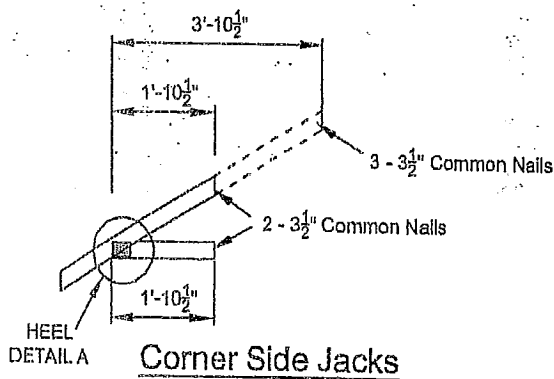
LUMBER SPECIFICATION

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

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:

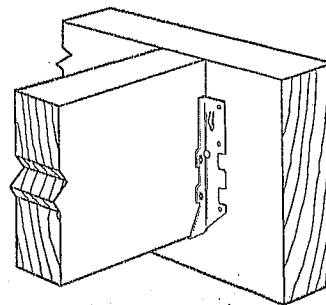
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

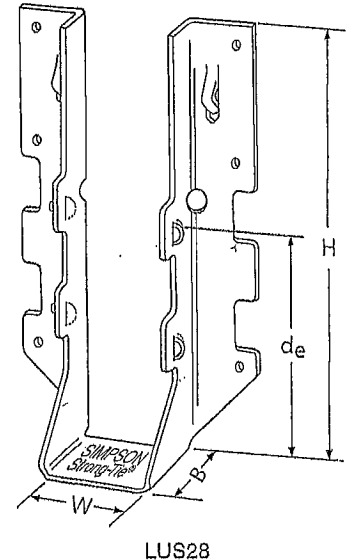
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



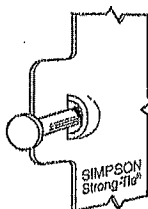
Typical LUS Installation



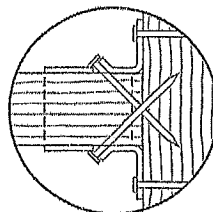
LUS28

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1½	3½	1¼	1 11/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3½	3½	2	1 11/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1½	4¾	1¼	3¾	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3½	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4¾	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6¾	1¼	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4¾	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1½	7 11/16	1¼	3¾	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4¾	8 11/16	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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



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



Double Shear Nailing Top View.



LIMIT STATES DESIGN

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

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strongtie.com

HHUS – Double Shear Joist Hangers

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

Material: 14 gauge

Finish: G90 galvanized

Design:

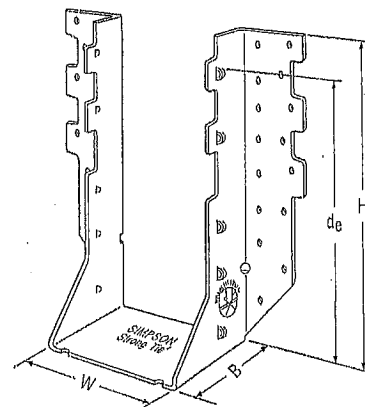
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

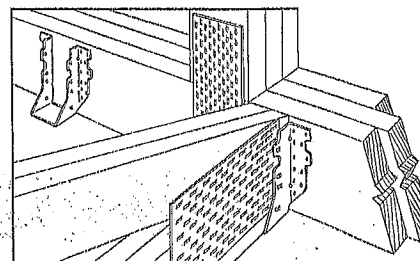
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

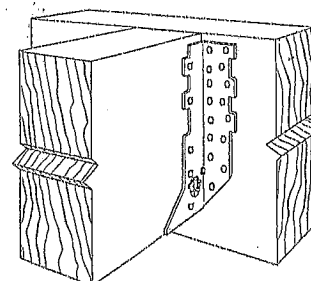
- See current catalogue for options



HHUS410



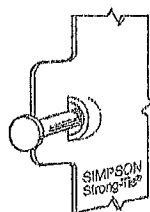
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



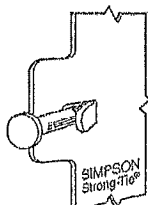
Typical HHUS Installation

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

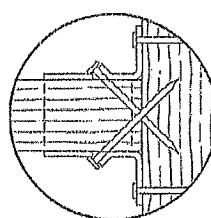
1. d_e is the distance from the seat of the hanger to the highest joist nail.



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



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECHHUS17-3/17 exp: 6/19

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HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

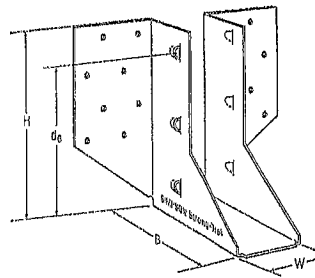
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

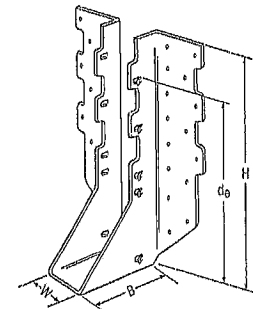
- Use all specified fasteners
- Nails: $16d = 0.162"$ dia. x $3\frac{1}{2}"$ long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

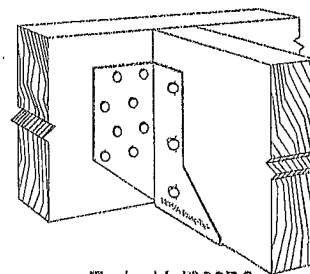
- See current catalogue for options



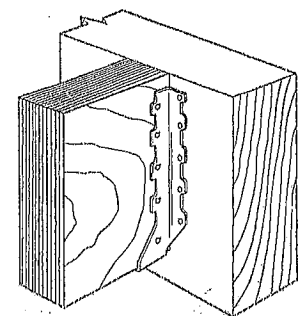
LJS26DS



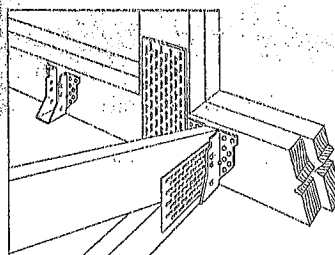
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



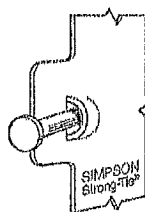
Typical HUS
Installation



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

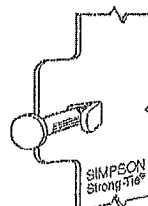
Model No.	Ga.	Dimensions (in.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d_0^1	Face	Joist		D.Fir-L		S-P-F	
									Uplift ($K_0=1.15$)	Normal ($K_0=1.00$)	Uplift ($K_0=1.15$)	Normal ($K_0=1.00$)
LJS26DS	18	$1\frac{1}{16}$	5	$3\frac{1}{2}$	$4\frac{5}{8}$	(16) 16d	(6) 16d		2055	4265	1460	4115
HUS26	16	$1\frac{1}{8}$	$5\frac{1}{2}$	3	$3\frac{15}{16}$	(14) 16d	(6) 16d		2705	4940	2065	3875
HUS28	16	$1\frac{1}{8}$	$7\frac{1}{2}$	3	$6\frac{1}{32}$	(22) 16d	(8) 16d		3605	5365	2675	4345
HUS210	16	$1\frac{1}{8}$	$9\frac{1}{2}$	3	$7\frac{3}{32}$	(30) 16d	(10) 16d		4505	5795	4010	4740
HUS1.81/10	16	$1\frac{1}{16}$	9	3	8	(30) 16d	(10) 16d		4505	6450	4010	5200

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

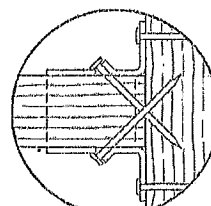


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent
6,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECUS17 3/17 exp. 6/19

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TC – Truss Connectors



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

Material: 16 gauge

Finish: G90 galvanized

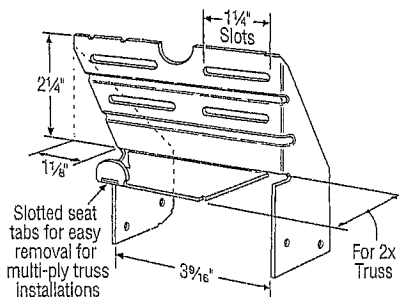
Design: Factored resistances are in accordance with CSA 086-14

Installation:

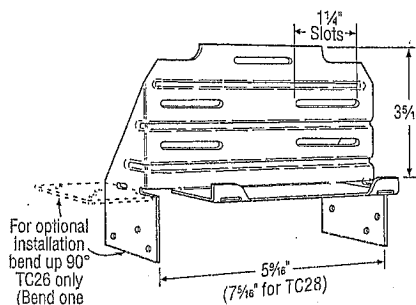
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½" = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow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

Optional TC Installation:

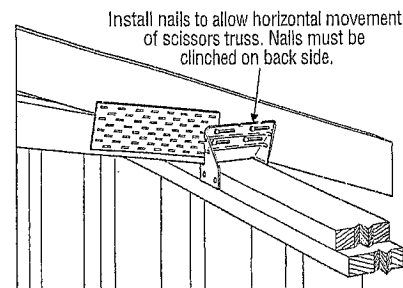
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



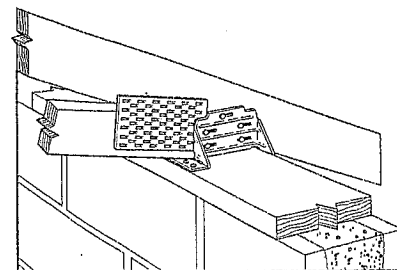
TC24
U.S. Patent 4,932,173



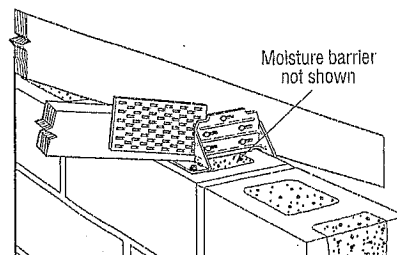
TC26
(TC28 Similar)



Typical TC24 Installation



Optional TC26 Installation for Grouted Concrete Block using a Wood Nailer
(8", 10", 12" Wall Installation Similar)



Optional TC26 Installation for Grouted Concrete Block using Titen Screws

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K ₀ =1.15)	Uplift (K ₀ =1.15)
			lb.	lb.
TC24	(4) 10d	(4) 10d	605	430
TC26	(5) 10d	(6) 10d	1015	720
TC28	(5) 10d	(6) 10d	1015	720

Optional TC Installation Table

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

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



LIMIT
STATES
DESIGN

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