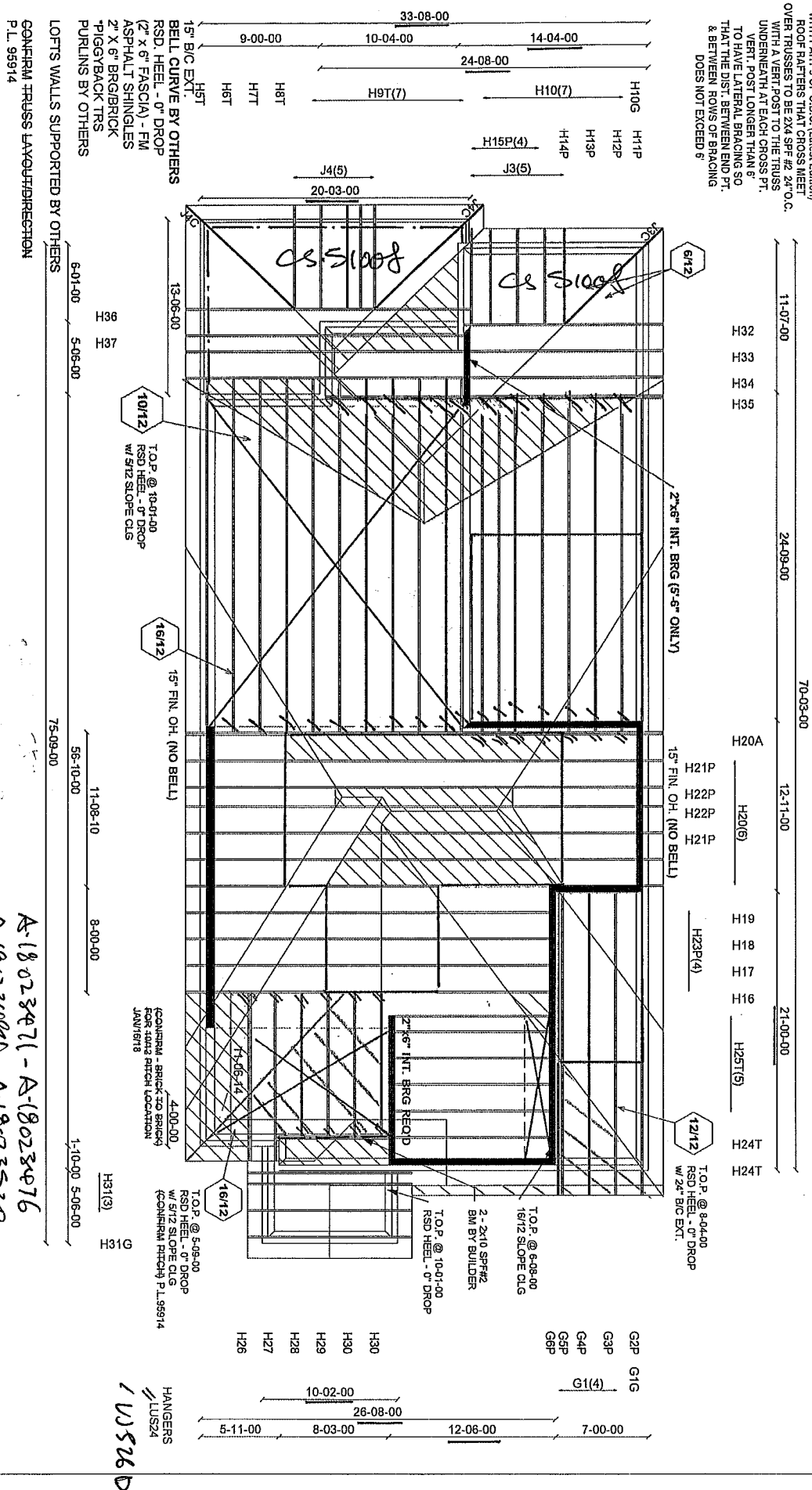


ALPA-BARRIE

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'



Job Track:	45147	Builder / Location:	GOLD PARK HOMES / VAUGHAN		Model / Elevator:	4201 REV1	/ B LOGGIA
Layout ID:	292595	Project:	PINE VALLEY		THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA ROOF TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.		
Plan Log:	95914	Date:	1/17/2018	Designer:	AMANDA		

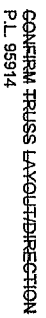
DEGRANDRE



A-18023471 - A-18023476
A-18023484 - A-18023520

HANGERS
LUS24
1/1052605

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'

 CONVENTIONAL FRAMING BY OTHERS

HANGERS
// LUS24
TC26
△
/ LUS26



Job Track:	45147
Layout ID:	292596
Plan Log:	95914

Builder / Location:	GOLD PARK HOMES / VAUGHAN	
Project:	PINE VALLEY	
Date:	1/17/2018	Designer: AMANDA

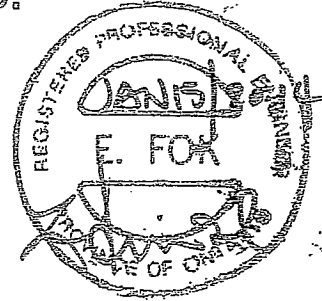
THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA ROOF TRUSSES INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

Model / Elevation: DEERBOURNE

Model / Elevation:
4201 REV1 / B LOGGIA W/TRAY

Stracon Engineering Inc.

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



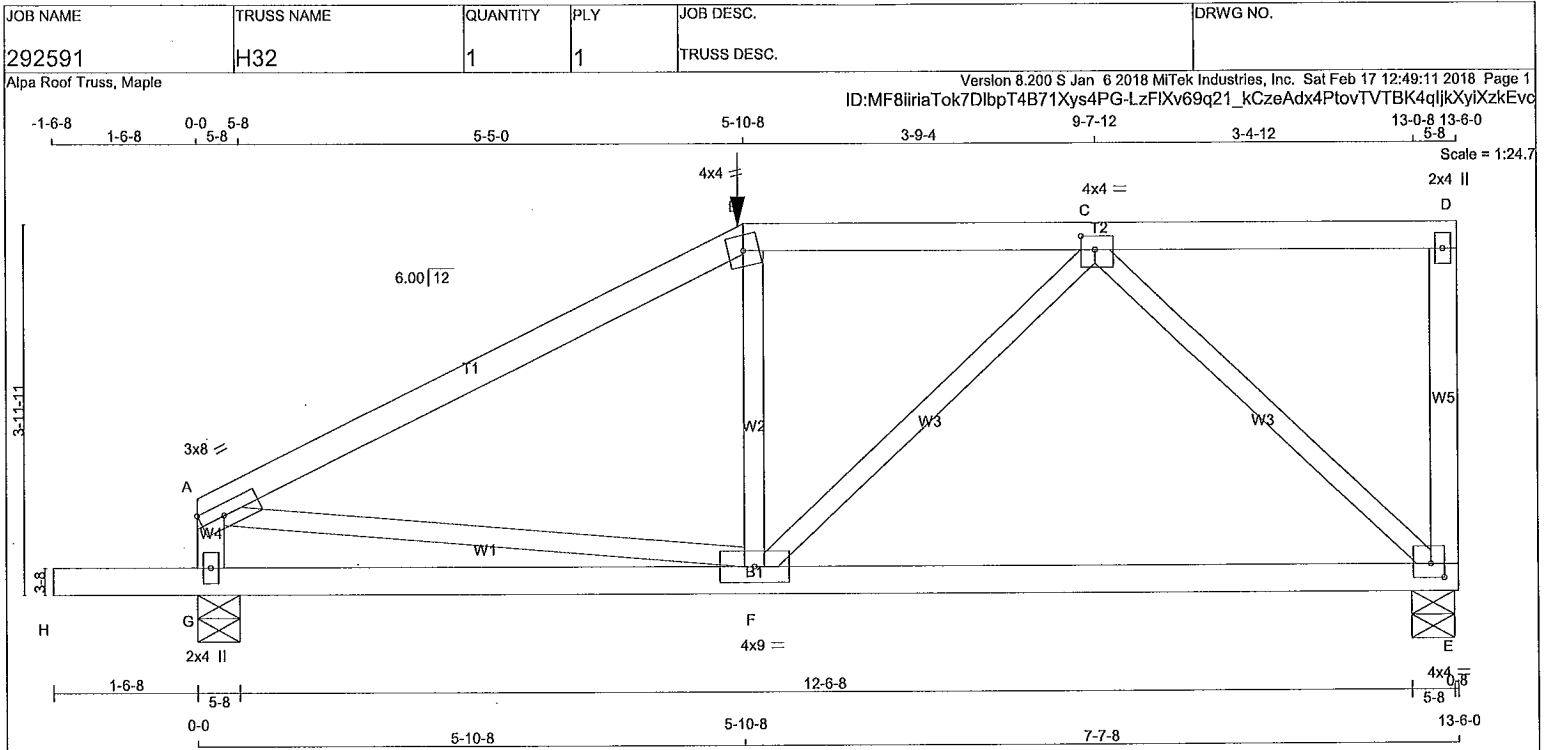
RESPONSIBILITIES

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 - B	2x4	DRY No.2	SPF
B - D	2x4	DRY No.2	SPF
E - D	2x4	DRY No.2	SPF
G - A	2x4	DRY No.2	SPF
H - E	2x4	DRY No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	8.0		Edge
B	TTW-m	MT20	4.0	4.0		
C	TMVW-t	MT20	4.0	4.0	1.75	1.75
D	TMV+p	MT20	2.0	4.0		
E	BMVW-t	MT20	4.0	4.0	1.75	1.75
F	BMVW-t	MT20	4.0	9.0		
G	BMV+p	MT20	2.0	4.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 334.0 lbs FACTORED DOWN AT 5-10-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
E	1331	0	1331	0
G	1272	0	1272	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED
E	948 584 / 0
G	910 537 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.55 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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 (LC)	MAX. FACTORED UNBRACED LENGTH (FT)
FR-TO		FROM TO		FR-TO			
A-B	-1470 / 0	-78.0 -78.0	0.62 (1)	F-B	-126 / 96	0.04 (4)	
B-C	-1307 / 0	-153.5 -153.5	0.44 (1)	A-F	0 / 1323	0.33 (1)	
C-D	0 / 0	-153.5 -153.5	0.40 (1)	F-C	0 / 382	0.10 (4)	
E-D	-227 / 0	0.0 0.0	0.06 (1)	C-E	-1440 / 0	0.67 (1)	
G-A	-1046 / 0	0.0 0.0	0.12 (1)				
H-G	0 / 0	-96.5 -96.5	0.17 (1)				
G-F	0 / 0	-36.4 -36.4	0.54 (4)				
F-E	0 / 1041	-36.4 -36.4	0.63 (4)				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	5-10-8	-334	-334		FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/940 (0.17")

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

CSI: TC=0.82/1.00 (A-B:1), BC=0.63/1.00 (E-F:4), WB=0.67/1.00 (C-E:1), SSI=0.31/1.00 (C-D:1)

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

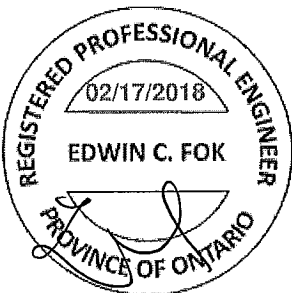
COMPANION LIVE LOAD FACTOR = 1.00

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

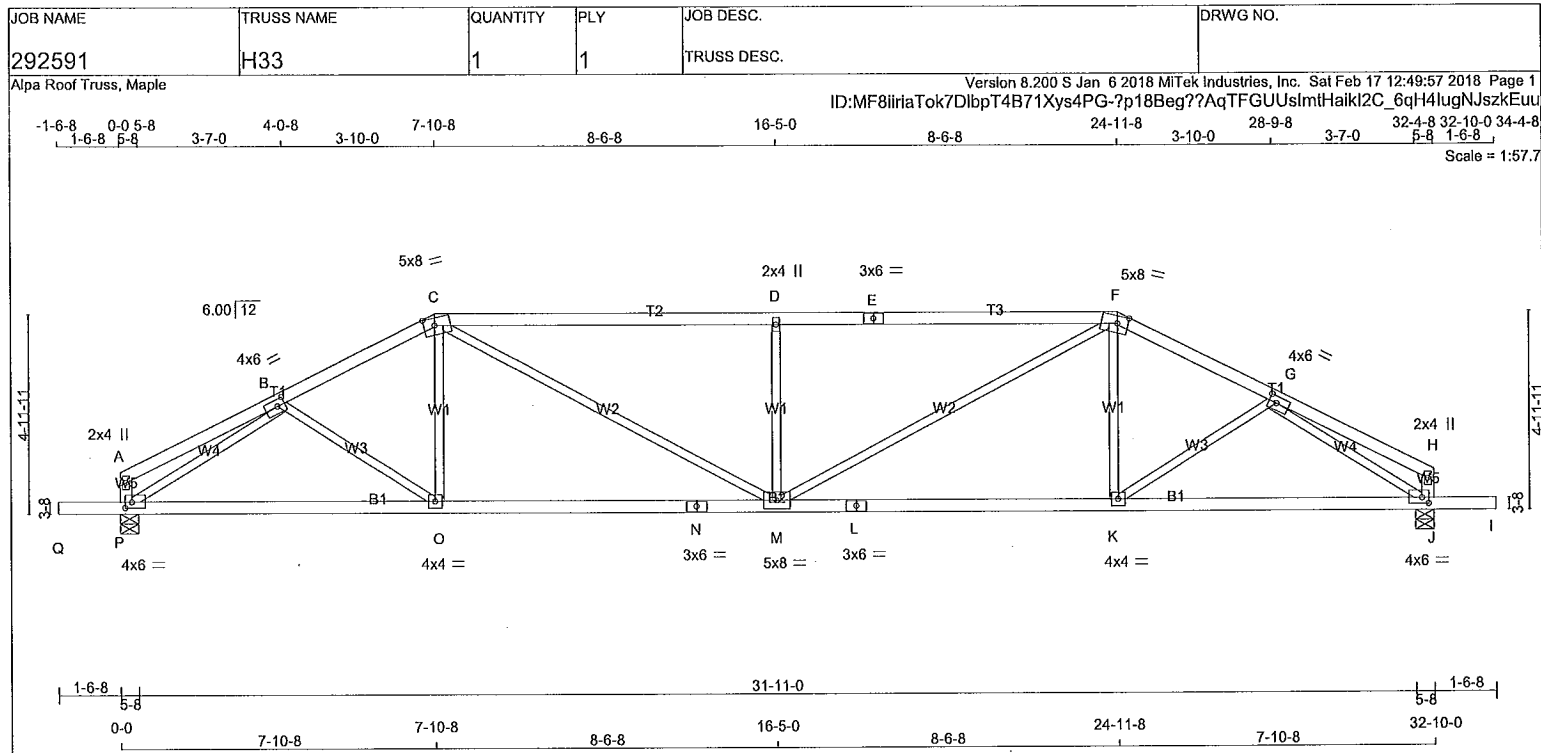
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

A-18023471

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



TOTAL WEIGHT = 123 lb

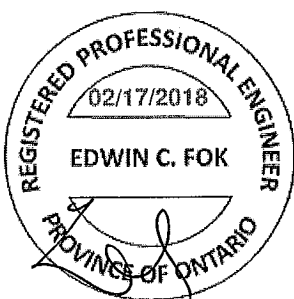
LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - E	2x4	DRY	1650F 1.5E
E - F	2x4	DRY	1650F 1.5E
F - H	2x4	DRY	No.2
P - A	2x4	DRY	No.2
J - H	2x4	DRY	No.2
Q - N	2x4	DRY	No.2
N - L	2x4	DRY	No.2
L - I	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMVW-t	MT20	4.0	6.0	2.00	2.25
C	TTWW-m	MT20	5.0	8.0	2.25	3.25
D	TMVW-w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TTWW-m	MT20	5.0	8.0	2.25	3.25
G	TMVW-t	MT20	4.0	6.0	2.00	2.25
H	TMV+p	MT20	2.0	4.0		
J	BMVW1-t	MT20	4.0	6.0	1.75	2.00
K	BMVW-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMVW-t	MT20	5.0	8.0		
N	BS-t	MT20	3.0	6.0		
O	BMVW-t	MT20	4.0	4.0		
P	BMVW1-t	MT20	4.0	6.0	1.75	2.00

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



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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
P	1732	0	1732	0	0	5-8	1-13	1-13
J	1732	0	1732	0	0	5-8	1-13	1-13

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND			
P	1235	754 / 0	0 / 0	0 / 0	0 / 0	481 / 0	0 / 0
J	1235	754 / 0	0 / 0	0 / 0	0 / 0	481 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.72 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1) (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC1) (LC)	MAX. FACTORED VERT. LOAD (LC1) (LC)
FR-TO		FROM TO		FR-TO		FROM TO	
A-B	0 / 13	-78.0 -78.0	0.16 (1)	10.00	B-O	0 / 65	0.02 (4)
B-C	-2310 / 0	-78.0 -78.0	0.19 (1)	4.36	O-C	0 / 168	0.05 (4)
C-D	-2940 / 0	-78.0 -78.0	0.78 (1)	3.72	C-M	0 / 1007	0.23 (1)
D-E	-2940 / 0	-78.0 -78.0	0.78 (1)	3.73	M-D	-820 / 0	0.30 (1)
E-F	-2940 / 0	-78.0 -78.0	0.78 (1)	3.73	M-F	0 / 1007	0.23 (1)
F-G	-2310 / 0	-78.0 -78.0	0.19 (1)	4.36	K-F	0 / 168	0.05 (4)
G-H	0 / 13	-78.0 -78.0	0.16 (1)	10.00	K-G	0 / 65	0.02 (4)
P-A	-125 / 0	0.0 0.0	0.01 (1)	7.81	P-B	-2480 / 0	0.93 (1)
J-H	-125 / 0	0.0 0.0	0.01 (1)	7.81	G-J	-2480 / 0	0.93 (1)
Q-P	0 / 0	-96.5 -96.5	0.16 (1)	10.00			
P-O	0 / 2047	-18.5 -18.5	0.50 (1)	10.00			
O-N	0 / 2056	-18.5 -18.5	0.50 (4)	10.00			
N-M	0 / 2056	-18.5 -18.5	0.50 (4)	10.00			
M-L	0 / 2056	-18.5 -18.5	0.50 (4)	10.00			
L-K	0 / 2056	-18.5 -18.5	0.50 (4)	10.00			
K-J	0 / 2047	-18.5 -18.5	0.50 (1)	10.00			
J-I	0 / 0	-96.5 -96.5	0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

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

(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 (1.09")
CALCULATED VERT. DEFL.(LL) = L/999 (0.15")
ALLOWABLE DEFL.(TL) = L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/999 (0.32")

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

CSI: TC=0.78/1.00 (C-D:1), BC=0.50/1.00 (K-M:4), WB=0.93/1.00 (G-J:1), SSI=0.32/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

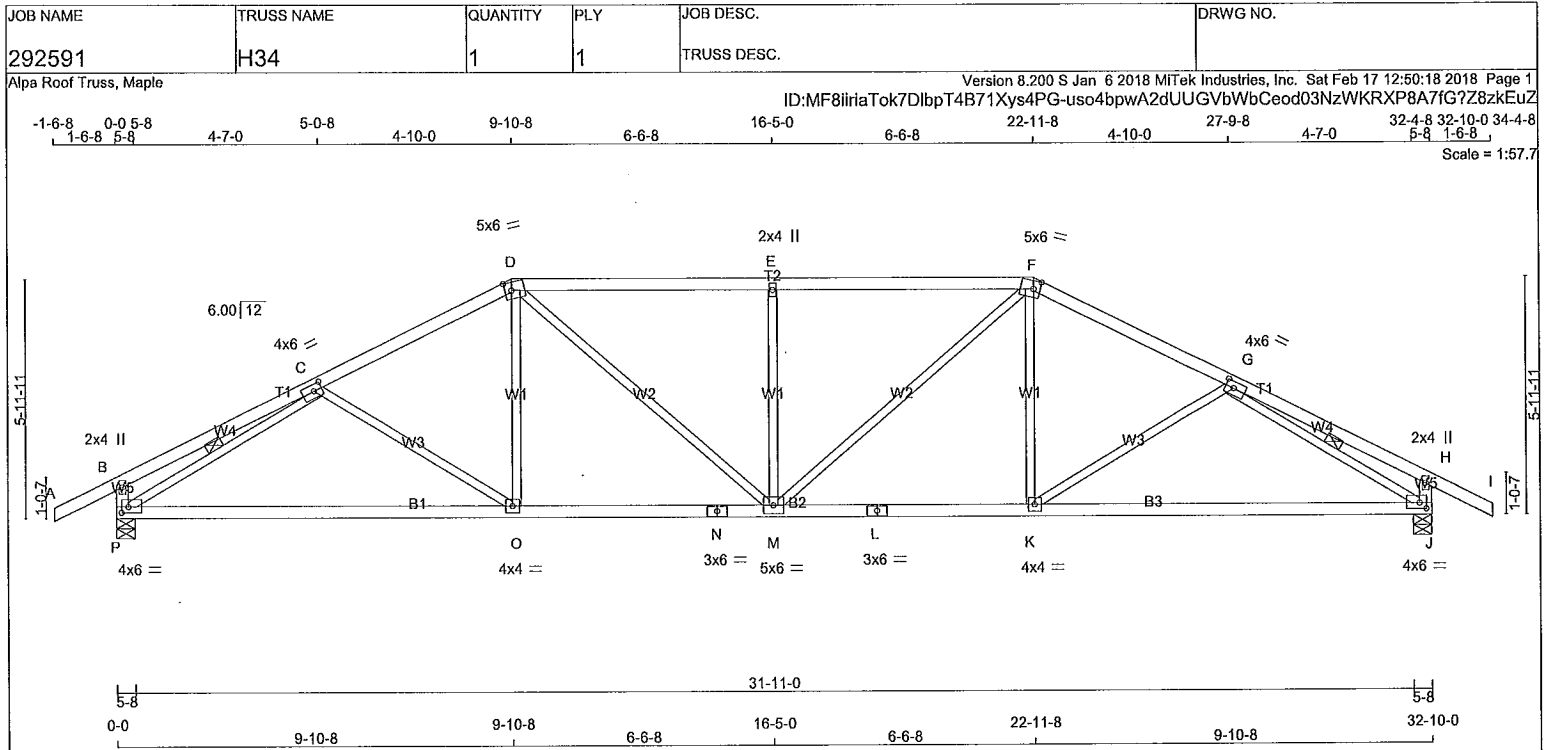
NAIL VALUES		PLATE GRIP(DRY)		SHEAR (PSI)		SECTION (PLI)	
MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656	

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

A-18023472



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

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C	TMWW-t	MT20	4.0	6.0	2.00 2.50
D	TTWW-m	MT20	5.0	6.0	2.50 2.00
E	TMW+w	MT20	2.0	4.0	
F	TTWW-m	MT20	5.0	6.0	2.50 2.00
G	TMWW-t	MT20	4.0	6.0	2.00 2.50
H	TMV+p	MT20	2.0	4.0	
J	BMVW1-t	MT20	4.0	6.0	1.75 2.00
K	BMWW-t	MT20	4.0	4.0	
L	BS-t	MT20	3.0	6.0	
M	BMWWW-t	MT20	5.0	6.0	
N	BS-t	MT20	3.0	6.0	
O	BMWW-t	MT20	4.0	4.0	
P	BMVW1-t	MT20	4.0	6.0	1.75 2.00

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

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	GROSS REACTION	HORZ	DOWN	HORZ	BRG	IN-SX	IN-SX	BRG
P	1709	0	1709	0	0	5-8	1-14	1-14	
J	1709	0	1709	0	0	5-8	1-14	1-14	

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
P	1216	757 / 0	0 / 0	0 / 0	0 / 0	459 / 0	0 / 0		
J	1216	757 / 0	0 / 0	0 / 0	0 / 0	459 / 0	0 / 0		

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.94 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-P, G-J.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MEMB.	FORCE (LBS)	MAX	CSI (LC)
FR-TO		FROM	TO	FR-TO			
A-B	0 / 28	-78.0	-78.0 0.14 (1)	10.00	C-O	-171 / 13	0.11 (1)
B-C	0 / 19	-78.0	-78.0 0.28 (1)	10.00	O-D	0 / 285	0.07 (4)
C-D	-2203 / 0	-78.0	-78.0 0.29 (1)	4.35	D-M	0 / 530	0.12 (1)
D-E	-2358 / 0	-78.0	-78.0 0.53 (1)	3.94	M-E	-626 / 0	0.35 (1)
E-F	-2358 / 0	-78.0	-78.0 0.53 (1)	3.94	M-F	0 / 530	0.12 (1)
F-G	-2203 / 0	-78.0	-78.0 0.29 (1)	4.35	K-F	0 / 285	0.07 (4)
G-H	0 / 19	-78.0	-78.0 0.28 (1)	10.00	K-G	-171 / 13	0.11 (1)
H-I	0 / 28	-78.0	-78.0 0.14 (1)	10.00	P-C	-2497 / 0	0.63 (1)
P-B	-277 / 0	0.0	0.0 0.03 (1)	7.81	G-J	-2497 / 0	0.63 (1)
J-H	-277 / 0	0.0	0.0 0.03 (1)	7.81			
P-O	0 / 2097	-18.5	-18.5 0.59 (4)	10.00			
O-N	0 / 1958	-18.5	-18.5 0.60 (4)	10.00			
N-M	0 / 1958	-18.5	-18.5 0.60 (4)	10.00			
M-L	0 / 1958	-18.5	-18.5 0.60 (4)	10.00			
L-K	0 / 1958	-18.5	-18.5 0.60 (4)	10.00			
K-J	0 / 2097	-18.5	-18.5 0.59 (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 (1.09")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.36")

CSI: TC=0.53/1.00 (D-E:1), BC=0.60/1.00 (M-O:4)
WB=0.63/1.00 (G-J:1), SSI=0.26/1.00 (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.

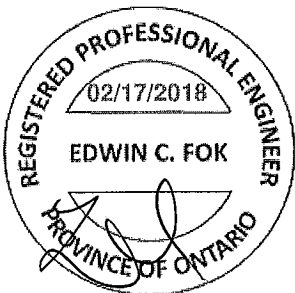
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

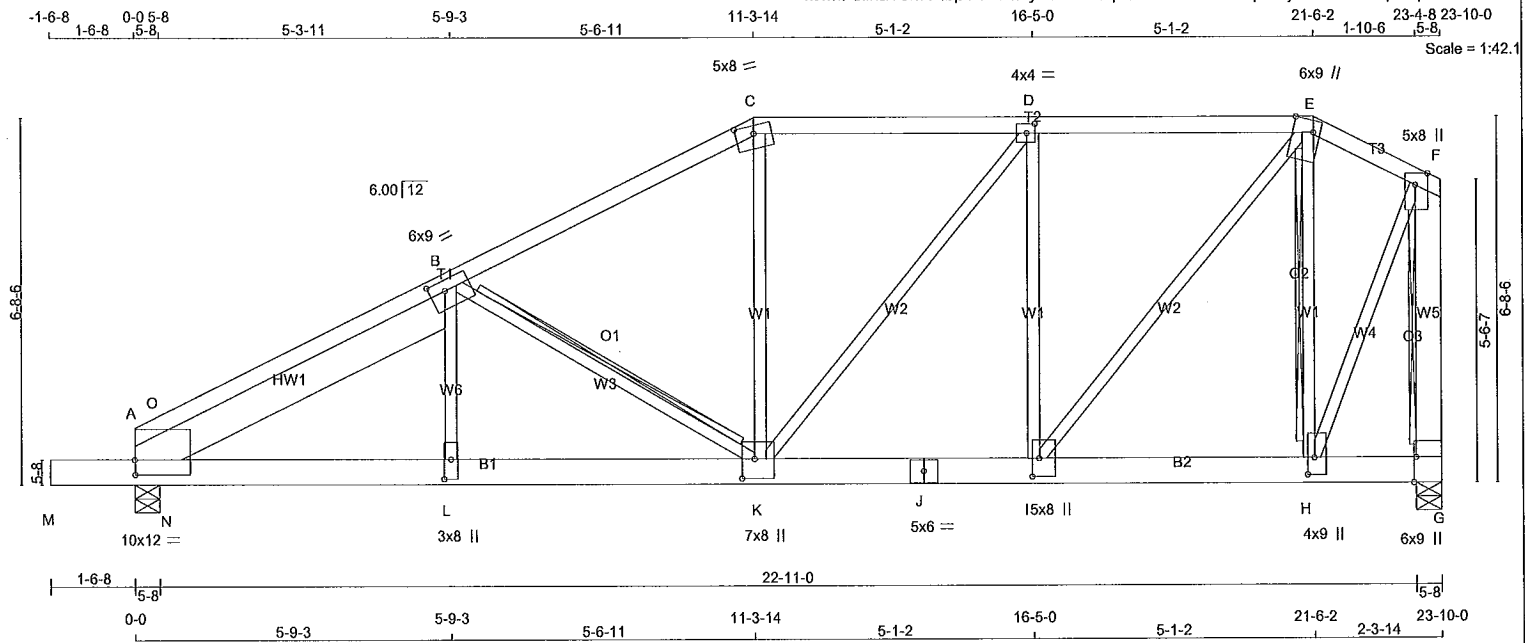
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (G) (INPUT = 0.90)
JSI METAL= 0.63 (N) (INPUT = 1.00)

A-18023473



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ID:MF8iiriaTok7DlbpT4B71Xys4PG-UApwxUKXkG51BJSPOZi7KTtB6Hu0lpnEpiM7dQzkEsl



TOTAL WEIGHT = 2 X 138 = 276 lb

LUMBER				
N. L. G. A. RULES				
CHORDS		SIZE	LUMBER	DESCR.
A - C	2x4	ORY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
E - F	2x4	DRY	No.2	SPF
G - F	2x6	DRY	No.2	SPF
M - J	2x6	DRY	1650F 1.5E	SPF
J - G	2x6	DRY	1650F 1.5E	SPF

REINFORCING MEMBERS				
HW1	2x8	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

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

CHORDS	#ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS			
A- C	1	12	TOP
C- E	1	12	TOP
E- F	1	12	TOP
G- F	2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS			
M- J	2	9	SIDE(282.4)
J- G	2	9	SIDE(282.4)
WEBS : (0.122"x3") SPIRAL NAILS			
2x3	1	6	
2x8	2	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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
A	8030	0	8030	0	0	5-8	4-6
G	7881	0	7881	0	0	5-8	5-8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
A	5725	3494 / 0	0 / 0	0 / 0	0 / 0	2231 / 0	0 / 0
G	5619	3429 / 0	0 / 0	0 / 0	0 / 0	2189 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.70 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 B-K, E-H, F-G

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-O	-10379 / 0	-78.0	-78.0	0.42 (1)	2.70	L-B	0 / 3265	0.40 (1)
O-B	-6493 / 0	-78.0	-78.0	0.36 (1)	3.63	B-K	-3022 / 0	0.65 (1)
B-C	-8494 / 0	-78.0	-78.0	0.61 (1)	3.04	K-C	0 / 3444	0.43 (1)
C-D	-7637 / 0	-78.0	-78.0	0.42 (1)	3.28	K-D	0 / 1739	0.22 (1)
D-E	-6560 / 0	-78.0	-78.0	0.35 (1)	3.58	I-D	-1813 / 0	0.64 (1)
E-F	-3188 / 0	-78.0	-78.0	0.07 (1)	5.15	I-E	0 / 8005	0.74 (1)
G-F	-7561 / 0	0.0	0.0	0.83 (1)	7.81	H-E	-3502 / 0	0.67 (1)
						H-F	0 / 6674	0.83 (1)
M-A	0 / 0	-96.5	-96.5	0.03 (1)	10.00	N-O	0 / 5476	0.00 (1)
A-N	0 / 5811	-583.4	-583.4	0.39 (1)	10.00	N-B	-5301 / 0	0.74 (1)
N-L	0 / 10183	-583.4	-583.4	0.74 (1)	10.00			
L-K	0 / 10132	-583.4	-583.4	0.76 (1)	10.00			
K-J	0 / 6560	-583.4	-583.4	0.61 (1)	10.00			
J-I	0 / 6560	-583.4	-583.4	0.61 (1)	10.00			
I-H	0 / 2790	-583.4	-583.4	0.37 (1)	10.00			
H-G	0 / 0	-583.4	-583.4	0.24 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 25-5-1
END DISTANCE = 23-10-0
END SPAN CARRIED = 25-5-1
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
ADDITIONAL 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 (0.79")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/ 972 (0.29")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(LL)= 1/999 (0.00")
ALLOWABLE DEFL.(TL)= 1/120 (0.19")
CALCULATED VERT. DEFL.(TL)= 1/999 (0.00")

CSI: TC=0.63/1.00 (F-G:1), BC=0.76/1.00 (K-L:1),
WB=0.83/1.00 (F-H:1), SSI=0.55/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

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

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CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292591	H35	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iiraTok7DlbpT4B71Xys4PG-UApwxUKxkG51BJSPOZj7KT1B6Hu0ipnEpiM7dQzkEs/

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMBMW1-t	MT20	10.0	12.0	3.25	
B	TMWWW-t	MT20	6.0	9.0	2.25	3.25
C	TTW-m	MT20	5.0	8.0	1.75	4.00
D	TMWW-t	MT20	4.0	4.0	2.00	1.75
E	TTWW+m	MT20	6.0	9.0	Edge	4.50
F	TMVW+p	MT20	5.0	8.0	Edge	2.75
G	BMV1-t	MT20	6.0	9.0	Edge	0.50
H	BMWW-t	MT20	4.0	9.0	3.75	1.50
I	BMWW-t	MT20	5.0	8.0	4.00	1.50
J	BS-t	MT20	5.0	6.0		
K	BMWWW-t	MT20	7.0	8.0	4.25	2.75
L	BMW-w	MT20	3.0	8.0	4.25	1.50

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

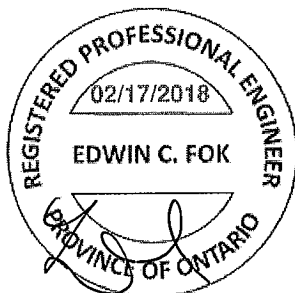
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

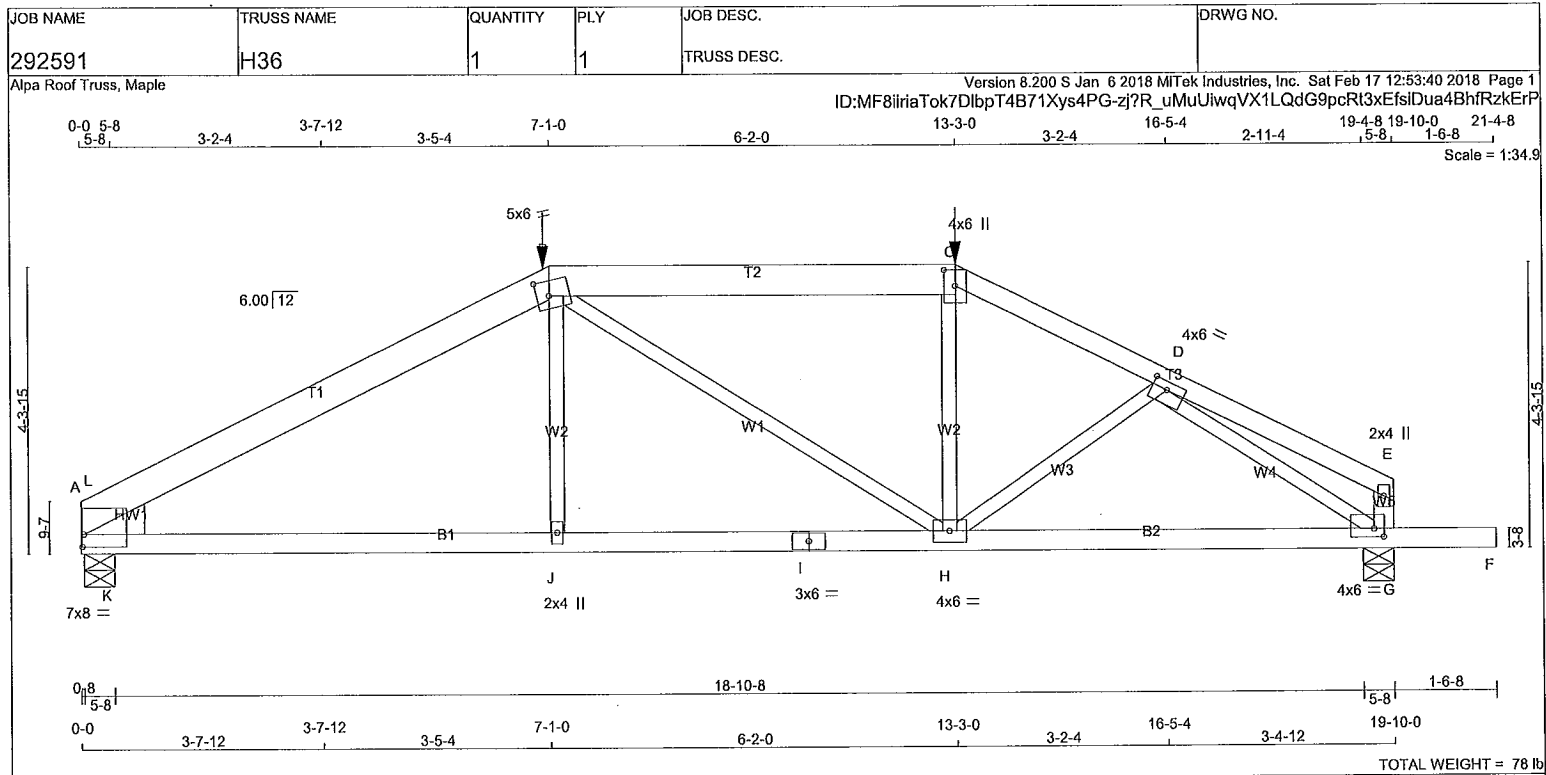
JSI GRIP= 0.90 (E) (INPUT = 0.90)

JSI METAL= 0.83 (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



B.18023474(2)



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

ALL WEBS 2x3 DRY No.2
EXCEPT

DRY: SEASONED LUMBER.

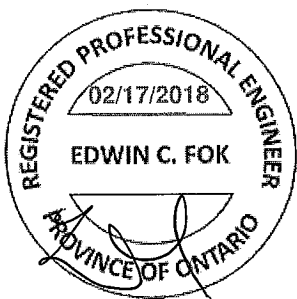
PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMBH1-I	MT20	7.0	8.0	2.25	0.25
B	TTWW-m	MT20	5.0	6.0	2.75	2.25
C	TTW+p	MT20	4.0	6.0	3.00	2.00
D	TMWW-t	MT20	4.0	6.0	1.50	2.75
E	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	4.0	6.0	1.50	1.75
H	BMVWW-t	MT20	4.0	6.0		
I	BS-t	MT20	3.0	6.0		
J	BMV+w	MT20	2.0	4.0		

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 434.9 lbs FACTORED DOWN AT 13-3-0, AND 467.9 lbs FACTORED DOWN AT 7-1-0 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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



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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG		HEEL WEDGE	
JT	VERT	HORZ	JT	VERT	HORZ	UPLIFT	IN-SX	IN-SX	HEEL WEDGE
A	1881	0	1881	0	0	0	5-8	2-1	2x6 L
G	2056	0	2056	0	0	0	5-8	2-3	

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
A	1344	801 / 0	0 / 0	0 / 0	0 / 0	544 / 0	0 / 0
G	1469	879 / 0	0 / 0	0 / 0	0 / 0	589 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.91 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-L	-3443 / 0	-78.0 -78.0	0.47 (1)	4.00	J-B	0 / 264	0.10 (4)
L-B	-3002 / 0	-78.0 -78.0	0.51 (1)	4.27	B-H	-119 / 0	0.12 (1)
B-C	-2555 / 0	-167.3 -167.3	0.65 (1)	4.23	H-C	0 / 257	0.10 (4)
C-D	-2847 / 0	-78.0 -78.0	0.22 (1)	3.91	H-D	0 / 238	0.06 (1)
D-E	0 / 8	-78.0 -78.0	0.13 (1)	10.00	D-G	-2897 / 0	0.88 (1)
G-E	-115 / 0	0.0 0.0	0.01 (1)	7.81	K-L	0 / 625	0.00 (1)
A-K	0 / 2649	-39.7 -39.7	0.79 (1)	10.00			
K-J	0 / 2649	-39.7 -39.7	0.79 (1)	10.00			
J-I	0 / 2655	-39.7 -39.7	0.71 (1)	10.00			
I-H	0 / 2655	-39.7 -39.7	0.71 (1)	10.00			
H-G	0 / 2359	-39.7 -39.7	0.67 (4)	10.00			
G-F	0 / 0	-96.5 -96.5	0.17 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	7-1-0	-468	-468	---	FRONT	VERT	TOTAL
C	13-3-0	-435	-435	---	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 = 7-1-0
RIGHT SETBACK = 6-7-0
END SETBACK = 6-7-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

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 (0.66")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL) = L/360 (0.66")
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

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

CSI: TC=0.65/1.00 (B-C:1), BC=0.79/1.00 (A-K:1),
WB=0.88/1.00 (D-G:1), SSI=0.51/1.00 (A-K:4)

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

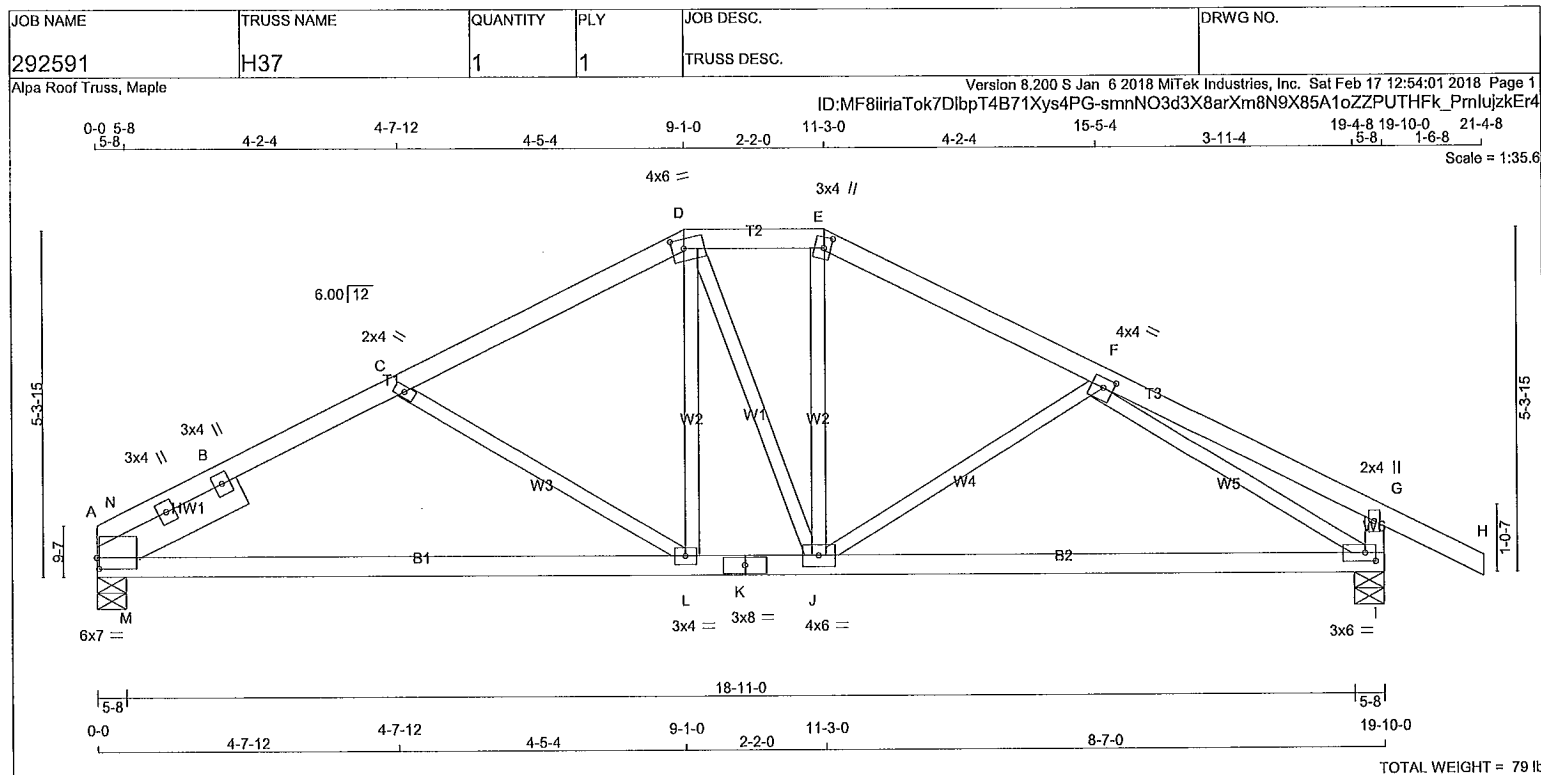
COMPANION LIVE LOAD FACTOR = 1.00

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

A-18023475

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 - H	2x4	DRY	No.2 SPF
I - G	2x4	DRY	No.2 SPF
A - K	2x4	DRY	No.2 SPF
K - I	2x4	DRY	No.2 SPF

REINFORCING MEMBERS

MEMBER	SIZE	LUMBER	DESCR.
HW1	2x6	DRY	No.2 SPF

ALL WEBS EXCEPT

MEMBER	SIZE	LUMBER	DESCR.
W1-W5	2x3	DRY	No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMBMR-I	MT20	6.0	7.0	2.00	0.25
A	RT+I	MT20	3.0	4.0		
A	RT+I	MT20	3.0	4.0		
C	TMW+I	MT20	2.0	4.0		
D	TTWW-m	MT20	4.0	6.0	1.75	2.25
E	TTWW-m	MT20	3.0	4.0	2.00	1.25
F	TMWW-I	MT20	4.0	4.0	1.75	1.75
G	TMV+I	MT20	2.0	4.0		
I	BMVW-I	MT20	3.0	6.0	1.50	2.00
J	BMVWW-I	MT20	4.0	6.0		
K	BS-I	MT20	3.0	8.0		
L	BMVW-I	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
A	957	0	957	0	5-8	1-8
I	1082	0	1082	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST CASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
A	682	416 / 0	0 / 0	0 / 0	0 / 0	266 / 0	0 / 0
I	769	484 / 0	0 / 0	0 / 0	0 / 0	285 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.45 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. (PLF)	LOAD LC1	MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX CSI (LC)			
FR-TO		FR-TO				FR-TO					
A-N	-1419 / 0	-78.0	-78.0	0.05 (1)	5.45	C-L	-326 / 0	0.16 (1)			
N-B	-1098 / 0	-78.0	-78.0	0.15 (1)	5.88	L-D	0 / 234	0.05 (1)			
B-C	-1098 / 0	-78.0	-78.0	0.15 (1)	5.88	D-J	0 / 22	0.01 (4)			
C-D	-1068 / 0	-78.0	-78.0	0.20 (1)	5.87	J-E	0 / 262	0.06 (1)			
D-E	-953 / 0	-78.0	-78.0	0.06 (1)	6.25	J-F	-226 / 0	0.11 (1)			
E-F	-1077 / 0	-78.0	-78.0	0.18 (1)	5.88	F-I	-1367 / 0	0.60 (1)			
F-G	0 / 17	-78.0	-78.0	0.22 (1)	10.00	M-N	0 / 771	0.00 (1)			
G-H	0 / 28	-78.0	-78.0	0.14 (1)	10.00	M-B	-610 / 0	0.05 (1)			
I-G	-256 / 0	0.0	0.0	0.03 (1)	7.81						
A-M	0 / 793	-18.5	-18.5	0.37 (4)	10.00						
M-L	0 / 1222	-18.5	-18.5	0.38 (4)	10.00						
L-K	0 / 950	-18.5	-18.5	0.41 (4)	10.00						
K-J	0 / 950	-18.5	-18.5	0.41 (4)	10.00						
J-I	0 / 1136	-18.5	-18.5	0.41 (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) = $L/360$ (0.66")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.04")
ALLOWABLE DEFL.(TL) = $L/360$ (0.66")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.18")

CSI: TC=0.22/1.00 (F-G:1), BC=0.41/1.00 (I-J:4), WB=0.60/1.00 (F-I:1), SSI=0.30/1.00 (A-M:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

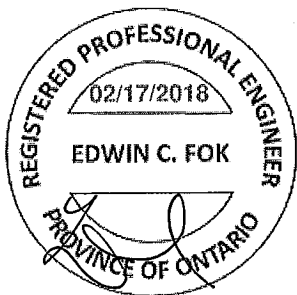
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

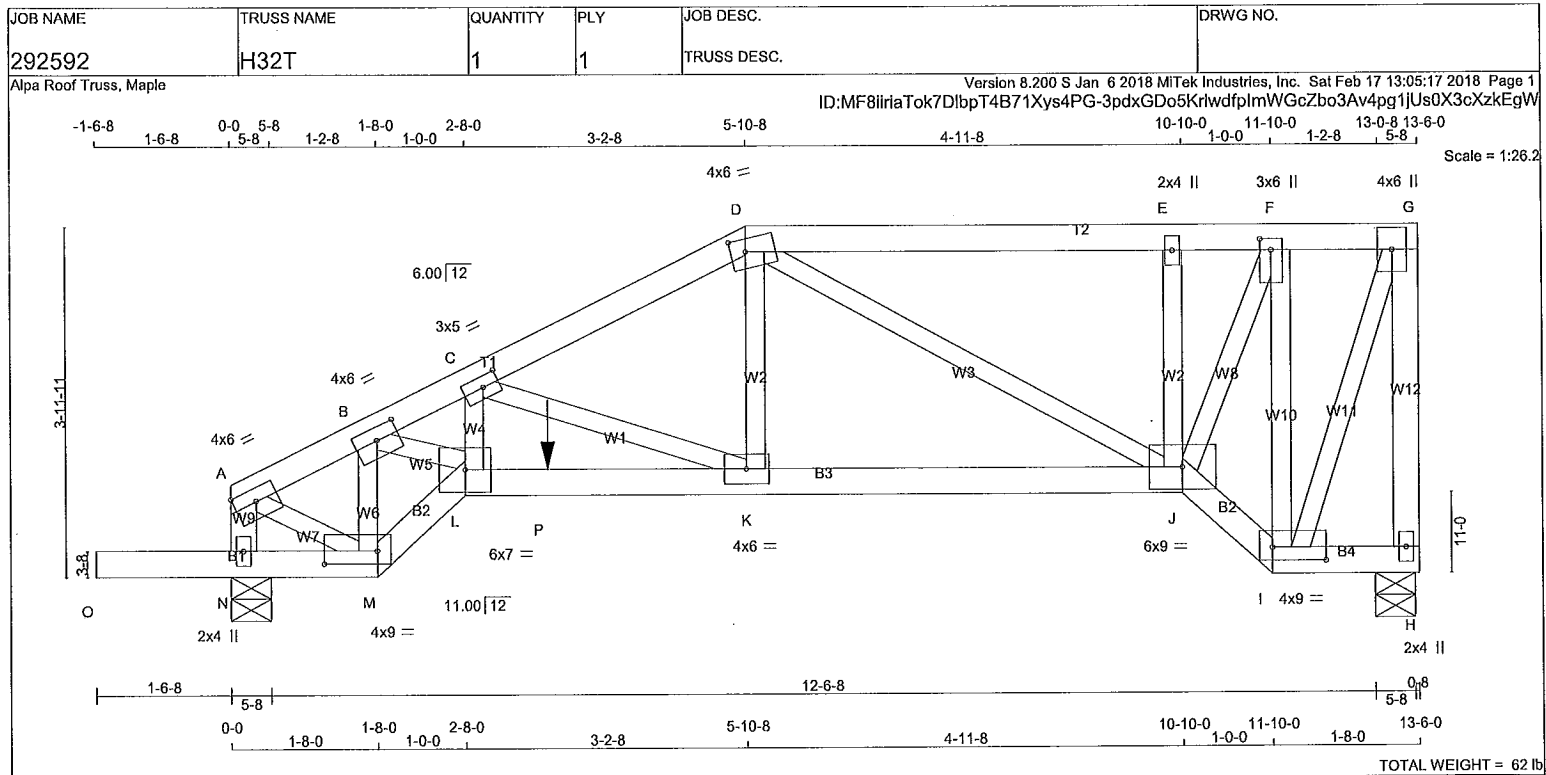
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (I) (INPUT = 0.90)
JSI METAL= 0.60 (K) (INPUT = 1.00)

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



A-18023476



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	4.0	6.0	1.75 Edge
B	TMVW-t	MT20	4.0	6.0	1.75 3.00
C	TMVW-t	MT20	3.0	5.0	1.50 2.25
D	TTVW-m	MT20	4.0	6.0	1.75 2.00
E	TMVW-w	MT20	2.0	4.0	
F	TMVW-H	MT20	3.0	6.0	1.50 1.50
G	TMVW+p	MT20	4.0	6.0	
H	BMV1+p	MT20	2.0	4.0	
I	BBWW-I	MT20	4.0	9.0	1.75 7.25
J	BBWWW-p	MT20	6.0	9.0	
K	BMVW-I	MT20	4.0	6.0	
L	BBWW-I	MT20	6.0	7.0	
M	BBWW-I	MT20	4.0	9.0	1.75 7.25
N	BMV1+p	MT20	2.0	4.0	

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

HANGERS NOTES

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

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UPLIFT	IN-SX
H	1344	0	1344	0	5-8
N	1448	0	1448	0	5-8

UNFACTORED REACTIONS		1ST LCASE	MAX/MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
H	956	595 / 0	0 / 0
N	1027	657 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.87 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX.	FACTORED
MEMB.	FORCE	(LBS)	(PLF)	CSI (LC)	UNBRAC	LENGTH	FR-TO	MEMB.	FORCE	MAX
A-B	-1380 / 0	-78.0	-78.0	0.10 (1)	5.41	M-B	-1583 / 0	0.25 (1)		
B-C	-2980 / 0	-78.0	-78.0	0.17 (1)	3.87	B-L	0 / 1760	0.44 (1)		
C-D	-1995 / 0	-78.0	-78.0	0.20 (1)	4.56	L-C	0 / 561	0.14 (1)		
D-E	-1131 / 0	-78.0	-78.0	0.28 (1)	5.59	C-K	-903 / 0	0.21 (1)		
E-F	-1112 / 0	-153.5	-153.5	0.26 (1)	5.63	K-D	0 / 998	0.25 (1)		
F-G	-529 / 0	-153.5	-153.5	0.12 (1)	6.25	D-J	-787 / 0	0.41 (1)		
H-G	-1313 / 0	0.0	0.0	0.33 (1)	7.02	J-E	-493 / 0	0.10 (1)		
N-A	-1215 / 0	0.0	0.0	0.13 (1)	7.23	J-F	0 / 1677	0.42 (1)		
O-N	0 / 0	-96.5	-96.5	0.17 (1)	10.00	I-F	-1558 / 0	0.40 (1)		
N-M	-1 / 0	-18.5	-18.5	0.17 (1)	10.00	I-G	0 / 1276	0.32 (1)		
M-L	0 / 1509	-18.5	-18.5	0.27 (1)	10.00	A-M	0 / 1327	0.33 (1)		
L-P	0 / 2629	-18.5	-18.5	0.91 (1)	10.00					
P-K	0 / 2629	-112.0	-112.0	0.91 (1)	10.00					
K-J	0 / 1820	-112.0	-112.0	0.77 (1)	10.00					
J-I	0 / 658	-36.4	-36.4	0.12 (1)	10.00					
I-H	0 / 0	-36.4	-36.4	0.03 (4)	10.00					

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
P	3-7-4	-407	-407	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 5-10-8
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL. LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 2-8-0 OF SPAN MEASURED FROM THE RIGHT.

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

*** 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.

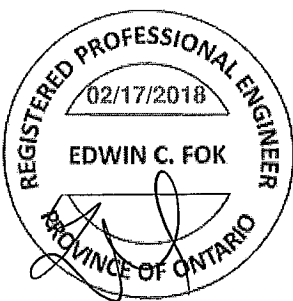
(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

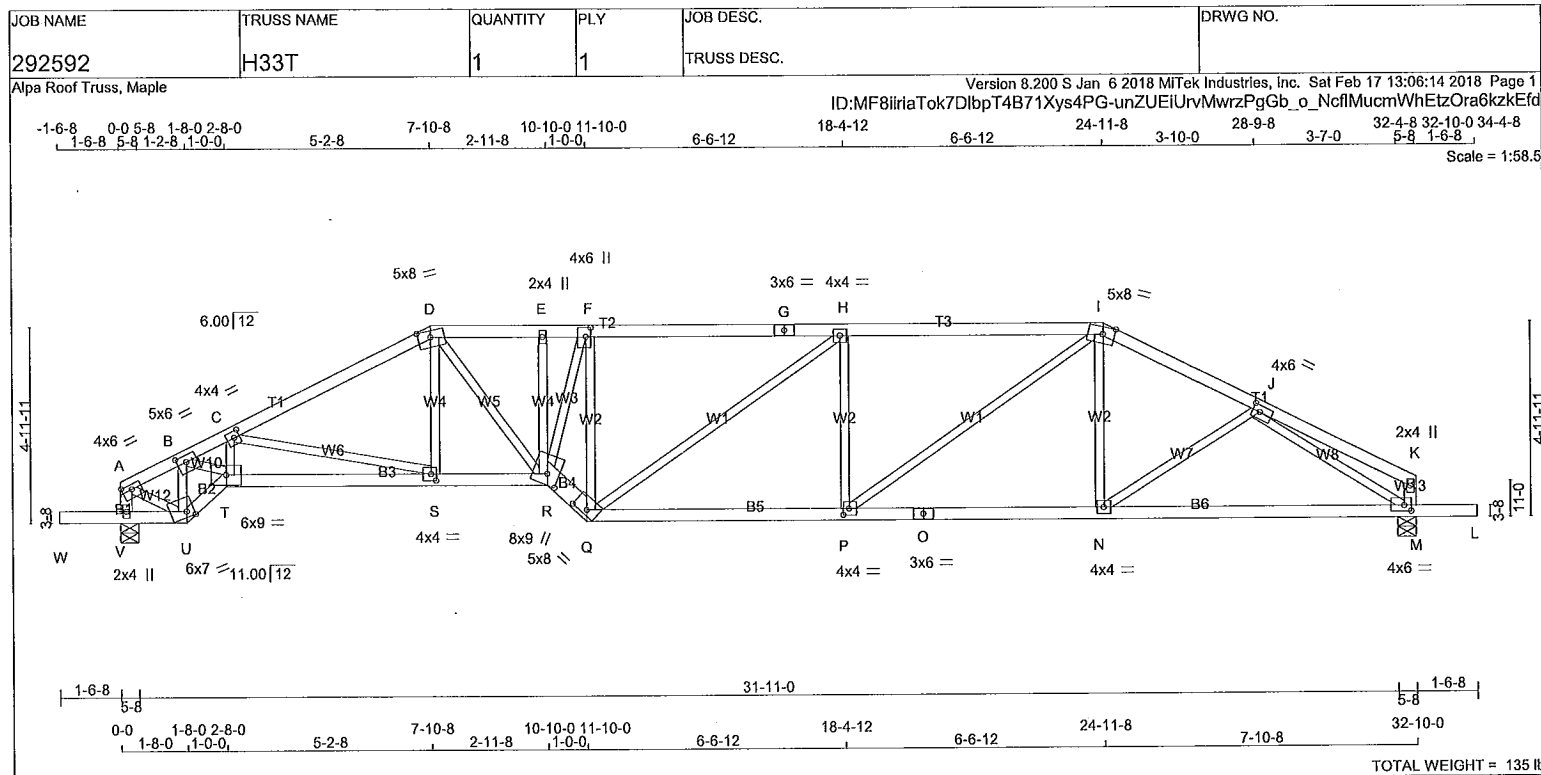
ALLOWABLE DEFL.(LL) = L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.08")
ALLOWABLE DEFL.(TL) = L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/997 (0.16")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")

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LUMBER
N. L. G. A. RULES

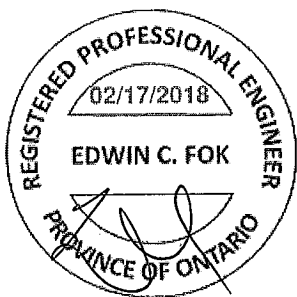
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - G	2x4	DRY	No.2
G - I	2x4	DRY	No.2
I - K	2x4	DRY	No.2
V - A	2x4	DRY	No.2
M - K	2x4	DRY	No.2
W - U	2x4	DRY	No.2
U - T	2x4	DRY	No.2
T - R	2x4	DRY	No.2
R - Q	2x6	DRY	No.2
Q - O	2x4	DRY	No.2
O - L	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.50	3.00
B	TMVW-t	MT20	5.0	6.0	2.00	2.75
C	TMVW-t	MT20	4.0	4.0	2.00	1.75
D	TTWW-m	MT20	5.0	8.0	2.00	3.75
E	TMVW-w	MT20	2.0	4.0		
F	TMVW-t	MT20	4.0	6.0	2.75	1.50
G	TS-t	MT20	3.0	6.0		
H	TMVW-t	MT20	4.0	4.0		
I	TTWW-m	MT20	5.0	8.0	2.25	3.50
J	TMVW-t	MT20	4.0	6.0	2.00	2.25
K	TMVW-p	MT20	2.0	4.0		
M	BMVW1-t	MT20	4.0	6.0	1.75	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	BBWW-h	MT20	5.0	8.0	1.50	4.50
R	BBWWW+m	MT20	8.0	9.0	3.25	3.50
S	BMVW-t	MT20	4.0	4.0	2.00	1.50
T	BBWW-t	MT20	6.0	9.0		
U	BBWW-m	MT20	6.0	7.0	1.75	2.25
V	BMV1+p	MT20	2.0	4.0		

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



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	UPLIFT	IN-SX
JT	1736	0	0	5-8
V	1729	0	0	2-9
M	1729	0	0	1-13

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	1238	755 / 0	0 / 0	0 / 0	0 / 0	482 / 0	0 / 0
M	1233	752 / 0	0 / 0	0 / 0	0 / 0	480 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.41 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-1712 / 0	-78.0 -78.0	0.13 (1)	U-B	-1945 / 0	0.28 (1)	
B-C	-3802 / 0	-78.0 -78.0	0.28 (1)	B-T	0 / 2353	0.53 (1)	
C-D	-2813 / 0	-78.0 -78.0	0.39 (1)	T-C	0 / 255	0.06 (1)	
D-E	-3092 / 0	-78.0 -78.0	0.23 (1)	C-S	-966 / 0	0.47 (1)	
E-F	-3093 / 0	-78.0 -78.0	0.30 (1)	S-D	0 / 225	0.05 (4)	
F-G	-2637 / 0	-78.0 -78.0	0.51 (1)	D-R	0 / 927	0.21 (1)	
G-H	-2637 / 0	-78.0 -78.0	0.51 (1)	R-E	0 / 59	0.01 (1)	
H-I	-2812 / 0	-78.0 -78.0	0.55 (1)	E-F	0 / 1759	0.40 (1)	
I-J	-2298 / 0	-78.0 -78.0	0.19 (1)	Q-F	-2154 / 0	0.78 (1)	
J-K	0 / 13	-78.0 -78.0	0.16 (1)	Q-H	-214 / 0	0.28 (1)	
V-A	-1503 / 0	0.0 0.0	0.15 (1)	P-H	-459 / 0	0.17 (1)	
M-K	-125 / 0	0.0 0.0	0.01 (1)	P-I	0 / 941	0.21 (1)	
W-V	0 / 0	-96.5 -96.5	0.16 (1)	N-J	0 / 63	0.02 (4)	
V-U	-1 / 0	-18.5 -18.5	0.12 (1)	A-U	0 / 1639	0.37 (1)	
U-T	0 / 1864	-18.5 -18.5	0.30 (1)	J-M	-2469 / 0	0.92 (1)	
T-S	0 / 3446	-18.5 -18.5	0.62 (1)				
S-R	0 / 2511	-18.5 -18.5	0.46 (1)				
R-Q	0 / 3511	-18.5 -18.5	0.42 (1)				
Q-P	0 / 2812	-18.5 -18.5	0.55 (1)				
P-O	0 / 2045	-18.5 -18.5	0.46 (1)				
O-N	0 / 2045	-18.5 -18.5	0.46 (1)				
N-M	0 / 2037	-18.5 -18.5	0.47 (1)				
M-L	0 / 0	-96.5 -96.5	0.16 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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 (1.09")
CALCULATED VERT. DEFL.(LL) = L/999 (0.19")
ALLOWABLE DEFL.(TL) = L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/959 (0.41")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/427 (0.04")
ALLOWABLE DEFL.(TL) = L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/216 (0.09")

CSI: TC=0.55/1.00 (H-I:1), BC=0.62/1.00 (S-T:1), WB=0.92/1.00 (J-M:1), SSI=0.24/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

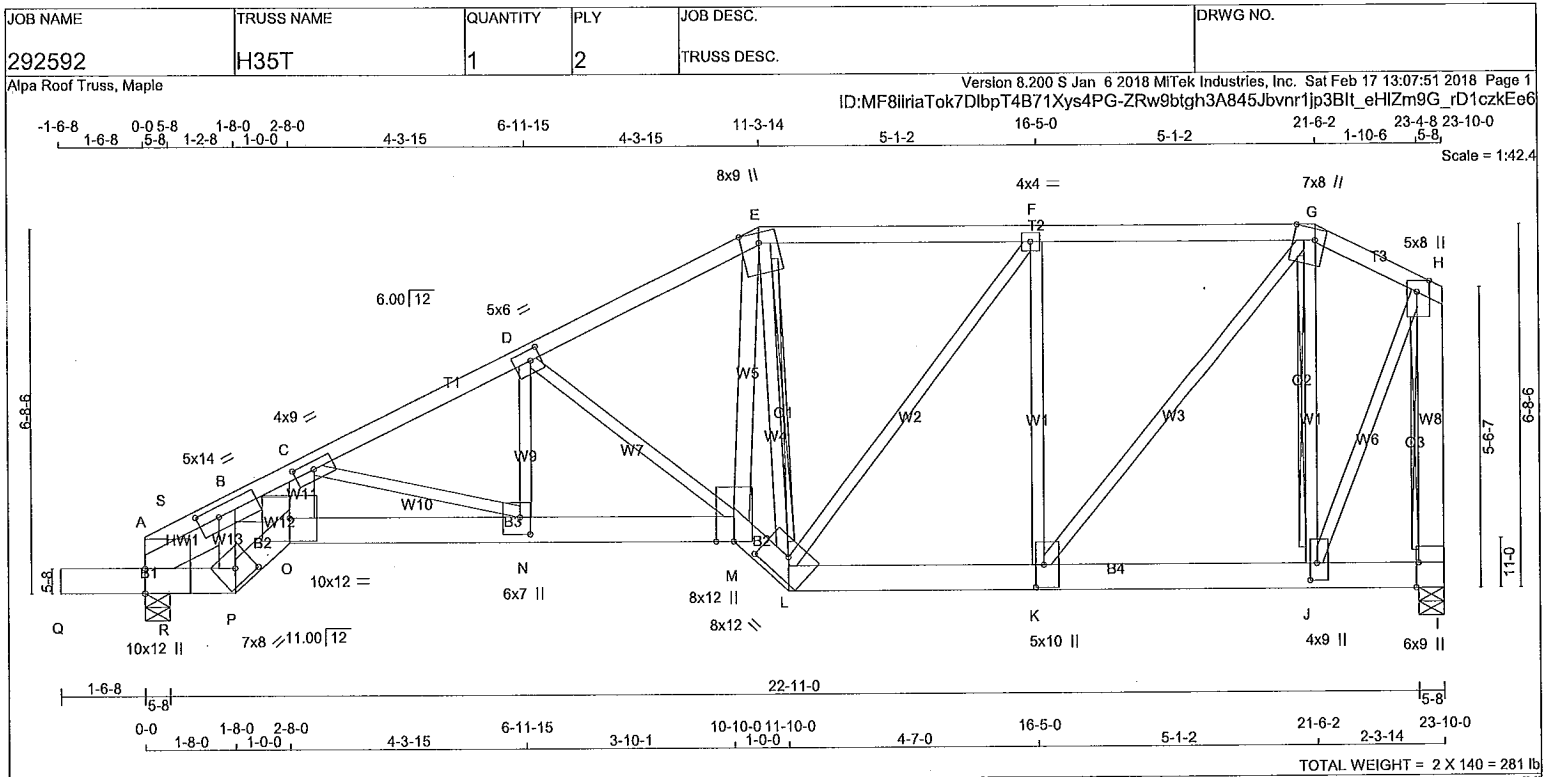
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (Q) (INPUT = 0.90)
JSI METAL= 0.61 (J) (INPUT = 1.00)

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CONTINUED ON PAGE 2

A-18023479 CONTINUED ON PAGE 2



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - E	2x4	DRY	2100F 1.8E	SPF
E - G	2x4	DRY	1650F 1.5E	SPF
G - H	2x4	DRY	1650F 1.5E	SPF
I - H	2x6	DRY	No.2	SPF
Q - P	2x6	DRY	No.2	SPF
P - O	2x6	DRY	No.2	SPF
O - M	2x6	DRY	1650F 1.5E	SPF
M - L	2x6	DRY	No.2	SPF
L - I	2x6	DRY	No.2	SPF

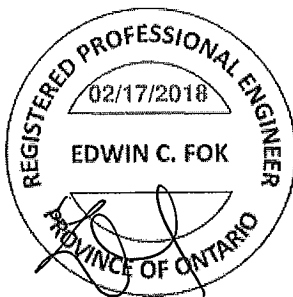
REINFORCING MEMBERS				
HW1	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT				
P - B	2x4	DRY	No.2	SPF
B - O	2x6	DRY	No.2	SPF
O - C	2x6	DRY	No.2	SPF
M - E	2x4	DRY	1650F 1.5E	SPF

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - E	12	TOP
E - G	12	TOP
G - H	12	TOP
I - H	2	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
Q - P	2	SIDE(282.4)
P - O	2	SIDE(208.2)
O - M	2	SIDE(282.4)
M - L	2	SIDE(208.2)
L - I	2	SIDE(282.4)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	
2x4	6	
2x6	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



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

FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
A	8035	0	8035	0	0	5-8	5-8
I	7876	0	7876	0	0	5-8	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
A	5728	3496 / 0	0 / 0	0 / 0	0 / 0	2232 / 0	0 / 0
I	5615	3427 / 0	0 / 0	0 / 0	0 / 0	2188 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.08 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x6 DRY SPF No.2 T-BRACE AT E-L
2x4 DRY SPF No.2 T-BRACE AT G-J, H-I

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		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO							
A-S	-6182 / 0	-78.0	-78.0 0.41 (1)	4.28	P-B	-6805 / 0	0.38 (1)
S-B	-4749 / 0	-78.0	-78.0 0.31 (1)	4.94	B-O	0 / 10837	0.70 (1)
B-C	-19858 / 0	-78.0	-78.0 0.68 (1)	2.08	O-C	0 / 3849	0.25 (1)
C-D	-13757 / 0	-78.0	-78.0 0.43 (1)	3.09	C-N	-4943 / 0	0.76 (1)
D-E	-10182 / 0	-78.0	-78.0 0.22 (1)	3.77	N-D	0 / 3854	0.48 (1)
E-F	-7464 / 0	-78.0	-78.0 0.26 (1)	3.96	D-M	-4232 / 0	0.91 (1)
F-G	-6593 / 0	-78.0	-78.0 0.24 (1)	4.19	M-E	0 / 11454	0.73 (1)
G-H	-3176 / 0	-78.0	-78.0 0.05 (1)	5.79	E-L	-7174 / 0	0.95 (1)
H-I	-7531 / 0	0.0	0.0 0.63 (1)	7.81	L-F	0 / 1476	0.18 (1)
UNBRACED LENGTH FR-TO							
Q-A	0 / 0	-96.5	-96.5 0.04 (1)	10.00	K-F	-1654 / 0	0.59 (1)
A-R	0 / 3911	-583.4	-583.4 0.58 (1)	10.00	K-G	0 / 6078	0.75 (1)
R-P	0 / 8244	-583.4	-583.4 0.63 (1)	10.00	J-G	-3558 / 0	0.68 (1)
P-O	0 / 11675	-583.4	-583.4 0.78 (1)	10.00	J-H	0 / 6647	0.82 (1)
O-N	0 / 17095	-583.4	-583.4 0.95 (1)	10.00	R-S	0 / 2111	0.00 (1)
N-M	0 / 12343	-583.4	-583.4 0.71 (1)	10.00	R-B	-6486 / 0	0.26 (1)
M-L	0 / 10914	-583.4	-583.4 0.74 (1)	10.00			
L-K	0 / 6591	-583.4	-583.4 0.88 (1)	10.00			
K-J	0 / 2778	-583.4	-583.4 0.64 (1)	10.00			
J-I	0 / 0	-583.4	-583.4 0.32 (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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 25-5-1
END DISTANCE = 23-10-0
END SPAN CARRIED = 25-5-1
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
-ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL) = L/999 (0.24")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL) = L/596 (0.48")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/203 (0.09")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/120 (0.18")

CSI: TC=0.68/1.00 (B-C:1), BC=0.95/1.00 (N-O:1)
WB=0.95/1.00 (E-L:1), SI=0.96/1.00 (A-R:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

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

A-18023480

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292592	H35T	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-ZRw9btgh3A845Jbvnrljp3Blt eHIZm9G rD1czkEe6

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMBMW1+t	MT20	10.0	12.0	Edge	
B	TMWWW-t	MT20	5.0	14.0	2.25	4.75
C	TMWW-t	MT20	4.0	9.0	1.75	4.50
D	TMWW-t	MT20	5.0	6.0	2.25	2.25
E	TTWW+m	MT20	8.0	9.0	Edge	
F	TMWW-t	MT20	4.0	4.0		
G	TTWW+m	MT20	7.0	8.0	Edge	4.75
H	TMVW+p	MT20	5.0	8.0	Edge	2.75
I	BMV1+t	MT20	6.0	9.0	Edge	0.50
J	BMWW+t	MT20	4.0	9.0	3.75	1.50
K	BMWW+t	MT20	5.0	10.0	5.00	1.75
L	BBWW-h	MT20	8.0	12.0	4.50	6.00
M	BBWW+p	MT20	8.0	12.0		
N	BMWW+t	MT20	6.0	7.0	3.75	2.25
O	BBWW-l	MT20	10.0	12.0		
P	BBW-h	MT20	7.0	8.0	3.25	4.00

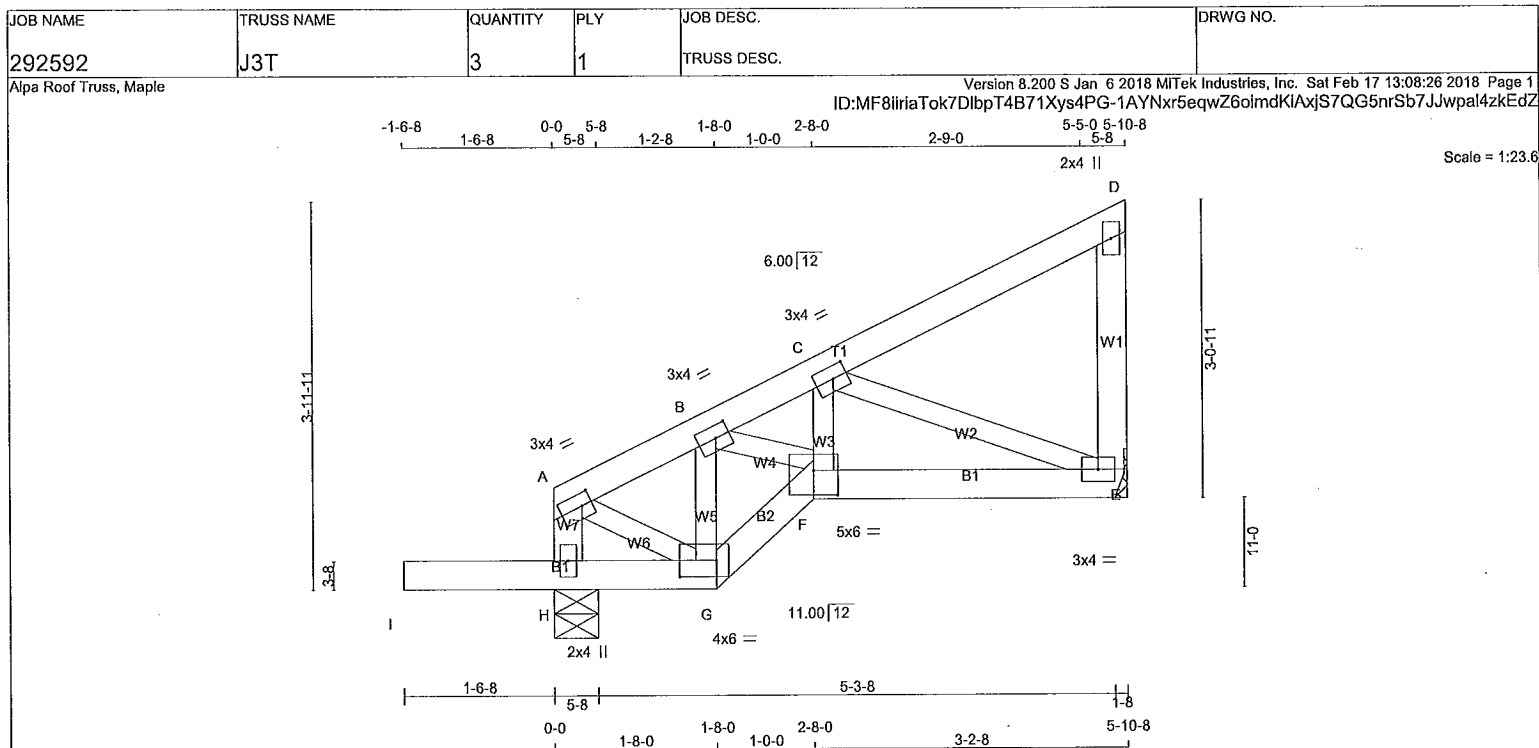
Edge - INDICATES REFERENCE CORNER OF PLATE
TOUCHES EDGE OF CHORD.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656
PLATE PLACEMENT TOL. = 0.250 inches
PLATE ROTATION TOL. = 5.0 Deg.
JSI GRIP= 0.89 (D) (INPUT = 0.90)
JSI METAL= 0.88 (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-18023480(2)



TOTAL WEIGHT = 3 X 26 = 79 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-I	MT20	3.0	4.0	1.50 1.25
B	TMVW-I	MT20	3.0	4.0	1.50 1.75
C	TMVW-I	MT20	3.0	4.0	1.50 1.75
D	TMV+p	MT20	2.0	4.0	
E	BMVW-I	MT20	3.0	4.0	
F	BBWW-I	MT20	5.0	6.0	3.00 3.00
G	BBWW-I	MT20	4.0	6.0	2.00 4.50
H	BMV1+p	MT20	2.0	4.0	

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

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

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (CSI (LC))	MEMB.	FORCE (LBS)
FR-TO		FROM TO	LENGTH	FR-TO	
H-A	-219 / 0	0.0	0.0 0.02 (1)	A-G	0 / 184
A-B	-191 / 0	-78.0	-78.0 0.03 (1)	G-B	-256 / 0
B-C	-376 / 0	-78.0	-78.0 0.08 (1)	B-F	0 / 230
C-D	-8 / 0	-78.0	-78.0 0.09 (1)	F-C	0 / 76
E-D	-102 / 0	0.0	0.0 0.02 (1)	C-E	-375 / 0
I-H	0 / 0	-96.5	-96.5 0.16 (1)		
H-G	-1 / 0	-18.5	-18.5 0.16 (1)		
G-F	0 / 206	-18.5	-18.5 0.04 (1)		
F-E	0 / 350	-18.5	-18.5 0.09 (1)		

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/681 (0.03")

CSI: TC=0.09/1.00 (C-D:1), BC=0.16/1.00 (G-H:1), WB=0.08/1.00 (C-E:1), SSI=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

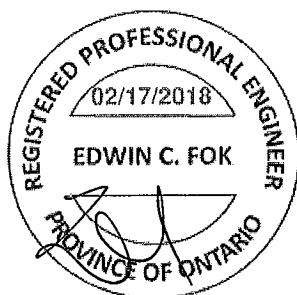
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

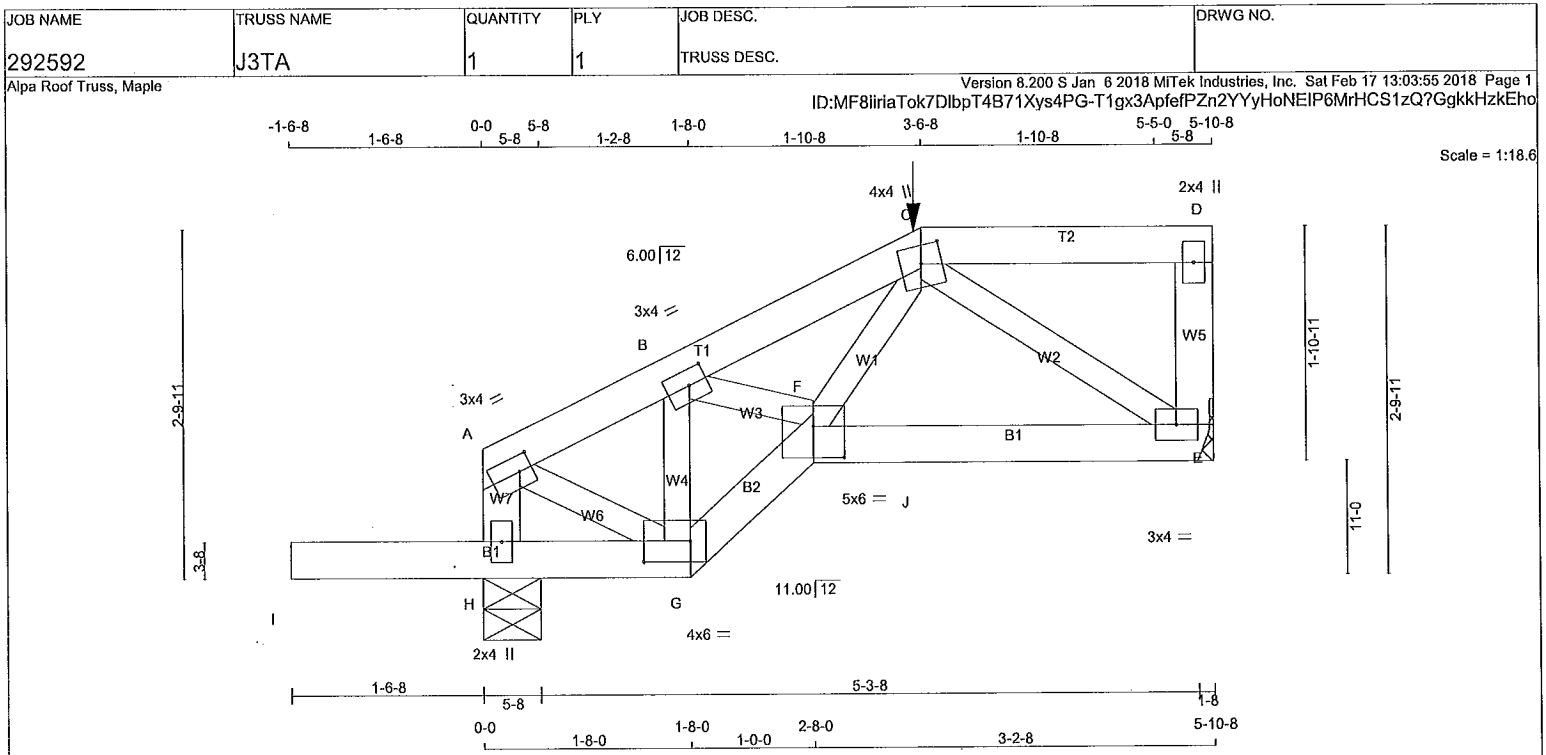
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.53 (E) (INPUT = 0.90)
JSI METAL= 0.13 (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



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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	
H - A	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
G - F	2x4	DRY	No.2	SPF	
F - E	2x4	DRY	No.2	SPF	

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

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0	1.50	1.25	
B	TMWW-t	MT20	3.0	4.0	1.50	1.75	
C	TTWW+m	MT20	4.0	4.0	1.75	2.00	
D	TMV+p	MT20	2.0	4.0			
E	BMVW1-t	MT20	3.0	4.0			
F	BBWW-I	MT20	5.0	6.0	3.00	3.00	
G	BBWW-I	MT20	4.0	6.0	2.00	4.50	
H	BMV1+p	MT20	2.0	4.0			

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 94.0 lbs FACTORED DOWN AT 3-6-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	398	0	398	0	0	0
H	524	0	524	0	0	0

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	283	176 / 0	0 / 0	0 / 0	0 / 0	107 / 0	0 / 0
H	374	224 / 0	0 / 0	0 / 0	0 / 0	150 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		W E B S	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
FR-TO		FROM TO			FR-TO	
A-B	-280 / 0	-78.0 -78.0	0.03 (1)	6.25	G-B	-354 / 0
B-C	-490 / 0	-78.0 -78.0	0.05 (1)	6.25	B-F	0 / 229
C-D	0 / 0	-108.0 -108.0	0.11 (1)	10.00	F-C	0 / 187
E-D	-128 / 0	0.0 0.0	0.01 (1)	7.81	C-E	-414 / 0
H-A	-285 / 0	0.0 0.0	0.03 (1)	7.81	A-G	0 / 277
I-H	0 / 0	-96.5 -96.5	0.17 (1)	10.00		
H-G	-1 / 0	-25.6 -25.6	0.17 (1)	10.00		
G-F	0 / 312	-25.6 -25.6	0.06 (1)	10.00		
F-J	0 / 342	-25.6 -25.6	0.12 (4)	10.00		
J-E	0 / 342	-25.6 -25.6	0.12 (4)	10.00		

JT	FACTORED CONCENTRATED LOADS (LBS)				FACE	DIR.	TYPE
	LOC.	LC1	MAX+	MAX-			
C	3-6-8	-94	-94	-	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

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

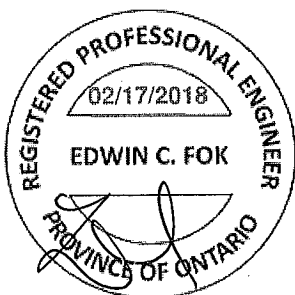
CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL)= L/704 (0.03")

CSI: TC=0.11/1.00 (C-D:1), BC=0.17/1.00 (G-H:1), WB=0.08/1.00 (C-E:1), SSI=0.13/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

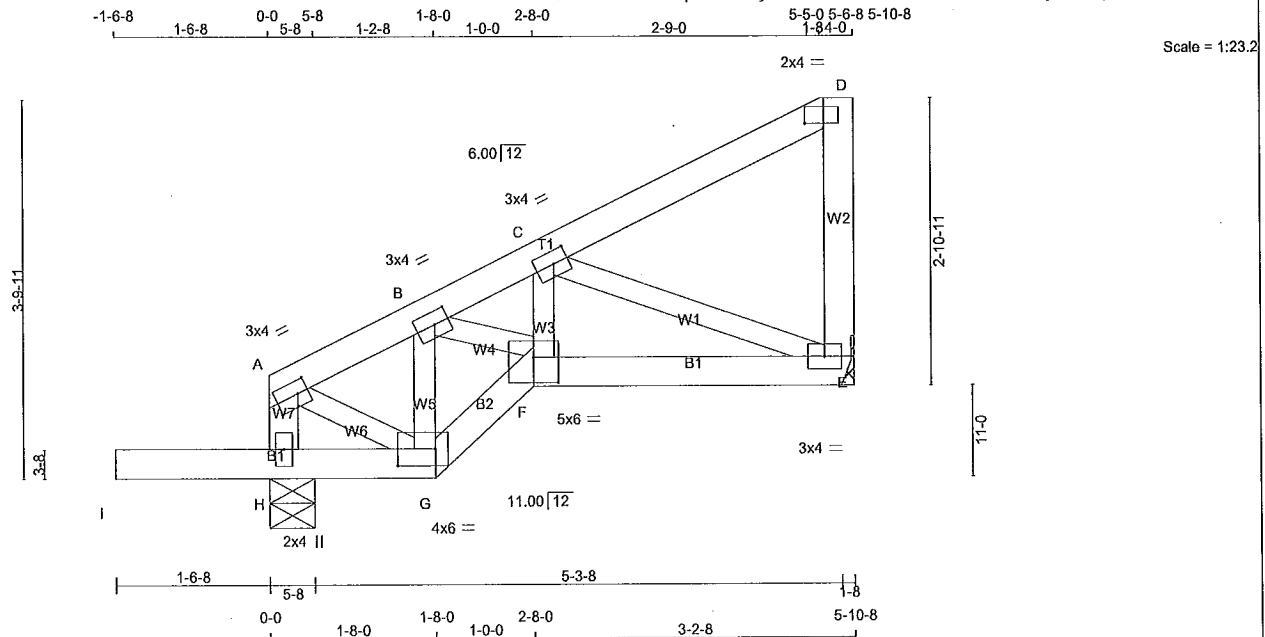


NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292592	J3TB	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-sKvfbu9PPmJGWdDnhzGLzjNSIWqFsJcBisGuzkzkEdT



TOTAL WEIGHT = 26 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		
H - A	2x4 DRY	No.2	SPF		
I - G	2x4 DRY	No.2	SPF		
G - F	2x4 DRY	No.2	SPF		
F - E	2x4 DRY	No.2	SPF		

ALL WEBS 2x3 DRY No.2
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-I	MT20	3.0	4.0	1.50	1.25
B	TMVW-I	MT20	3.0	4.0	1.50	1.75
C	TMVW-I	MT20	3.0	4.0	1.50	1.75
D	TVM-p	MT20	2.0	4.0	0.50	2.25
E	BMVW-I	MT20	3.0	4.0		
F	BBWW-I	MT20	5.0	6.0	3.00	3.00
G	BBWW-I	MT20	4.0	6.0	2.00	4.50
H	BMV-I+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	
JT	VERT	SNOW	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
E	264	0	0	264	0	0	5-8	1-8	
H	452	0	0	452	0	0	5-8	1-8	

UNFACTORED REACTIONS

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

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

BRACING

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

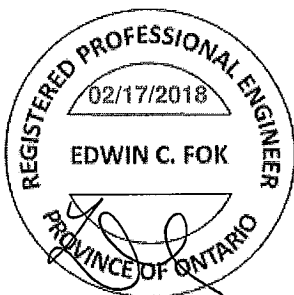
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	-191 / 0	-78.0	-78.0 0.03 (1)	6.25	G-B	-256 / 0	0.04 (1)
B-C	-376 / 0	-78.0	-78.0 0.08 (1)	6.25	B-F	0 / 230	0.05 (1)
C-D	-8 / 0	-78.0	-78.0 0.09 (1)	10.00	F-C	0 / 76	0.02 (4)
E-D	-102 / 0	0.0	0.0 0.02 (1)	7.81	C-E	-375 / 0	0.08 (1)
H-A	-219 / 0	0.0	0.0 0.02 (1)	7.81	A-G	0 / 184	0.04 (1)
I-H	0 / 0	-96.5	-96.5 0.16 (1)	10.00			
H-G	-1 / 0	-18.5	-18.5 0.16 (1)	10.00			
G-F	0 / 206	-18.5	-18.5 0.04 (1)	10.00			
F-E	0 / 350	-18.5	-18.5 0.09 (1)	10.00			

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



DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/681 (0.03")

CSI: TC=0.09/1.00 (C-D:1), BC=0.16/1.00 (G-H:1), WB=0.08/1.00 (C-E:1), SSI=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

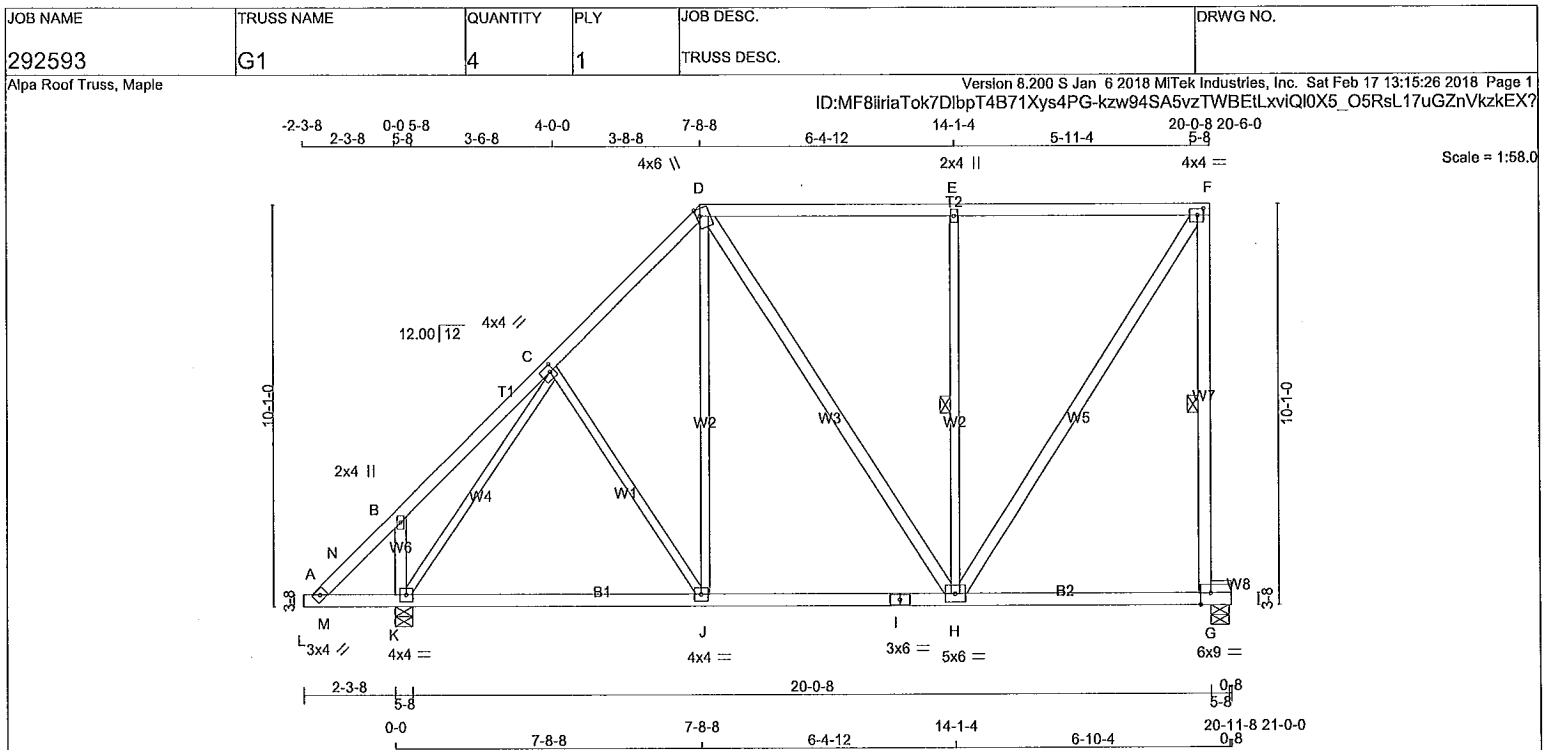
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.53 (E) (INPUT = 0.90)
JSI METAL= 0.13 (E) (INPUT = 1.00)

A-18023483



LUMBER				DESCR.	
N. L. G. A. RULES					
CHORDS	SIZE	DRY	LUMBER		
A - D	2x4	DRY	No.2	SPF	
D - F	2x4	DRY	No.2	SPF	
G - F	2x4	DRY	No.2	SPF	
K - B	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF	
I - G	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
D - H	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	TBM-h	MT20	3.0	4.0	
B	TMV+p	MT20	2.0	4.0	
C	TMWW-t	MT20	4.0	4.0	2.00 1.25
D	TTWW+m	MT20	4.0	6.0	Edge 1.00
E	TMW+w	MT20	2.0	4.0	
F	TMVW-t	MT20	4.0	4.0	2.00 1.75
G	BMVW1-t	MT20	6.0	9.0	Edge 3.00
H	BMVWW-t	MT20	5.0	6.0	
I	BS-t	MT20	3.0	6.0	
J	BMVW-t	MT20	4.0	4.0	
K	BMVW1-t	MT20	4.0	4.0	

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

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

FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	JT	HORZ	JT	IN-SX	JT	IN-SX
G	1044	0	1044	0	5-8	1-9	
K	1238	0	1238	0	5-8	1-8	

UNFACTORED REACTIONS		MAX/MIN. COMPONENT REACTIONS					
1ST LCASE		SNOW		LIVE		WIND	
JT	COMBINED	JT	PERM.LIVE	JT	DEAD	JT	SOIL
G	750	426 / 0	0 / 0	0 / 0	324 / 0	0 / 0	
K	886	522 / 0	0 / 0	0 / 0	363 / 0	0 / 0	

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

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MAX. FACTORED		FACTORED		MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO			
A-N	0 / 42	-78.0	-78.0	0.04 (4)	10.00	J-D	0 / 160	0.04 (4)
N-B	-15 / 53	-78.0	-78.0	0.13 (1)	6.25	D-H	0 / 20	0.00 (1)
B-C	-16 / 25	-78.0	-78.0	0.16 (1)	6.25	H-E	-678 / 0	0.47 (1)
C-D	-734 / 0	-78.0	-78.0	0.14 (1)	6.25	H-F	0 / 942	0.15 (1)
D-E	-515 / 0	-85.5	-85.5	0.45 (1)	2.00	K-C	-985 / 0	0.91 (1)
E-F	-515 / 0	-85.5	-85.5	0.45 (1)	2.00	C-J	-40 / 21	0.04 (1)
G-F	-996 / 0	0.0	0.0	0.49 (1)	6.25	M-N	-69 / 0	0.00 (1)
K-B	-258 / 0	0.0	0.0	0.03 (1)	7.81			
L-A	0 / 0	-33.5	-33.5	0.00 (4)	10.00			
A-M	-15 / 12	-18.5	-18.5	0.02 (4)	6.25			
M-K	-15 / 12	-18.5	-18.5	0.21 (4)	6.25			
K-J	0 / 525	-18.5	-18.5	0.26 (4)	10.00			
J-I	0 / 504	-18.5	-18.5	0.23 (4)	10.00			
I-H	0 / 504	-18.5	-18.5	0.23 (4)	10.00			
H-G	0 / 0	-18.5	-18.5	0.17 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.68")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.68")
CALCULATED VERT. DEFL.(TL)= L/999 (0.06")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/1319 (0.19")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/1319 (0.19")
CALCULATED VERT. DEFL.(TL)= L/999 (0.01")

CSI: TC=0.49/1.00 (F-G:1), BC=0.26/1.00 (J-K:4), WB=0.91/1.00 (C-K:1), SSI=0.27/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

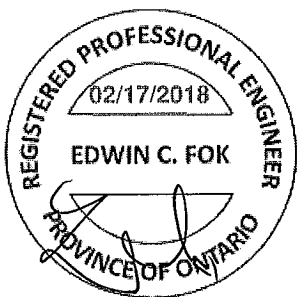
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (H) (INPUT = 0.90)
JSI METAL= 0.36 (C) (INPUT = 1.00)

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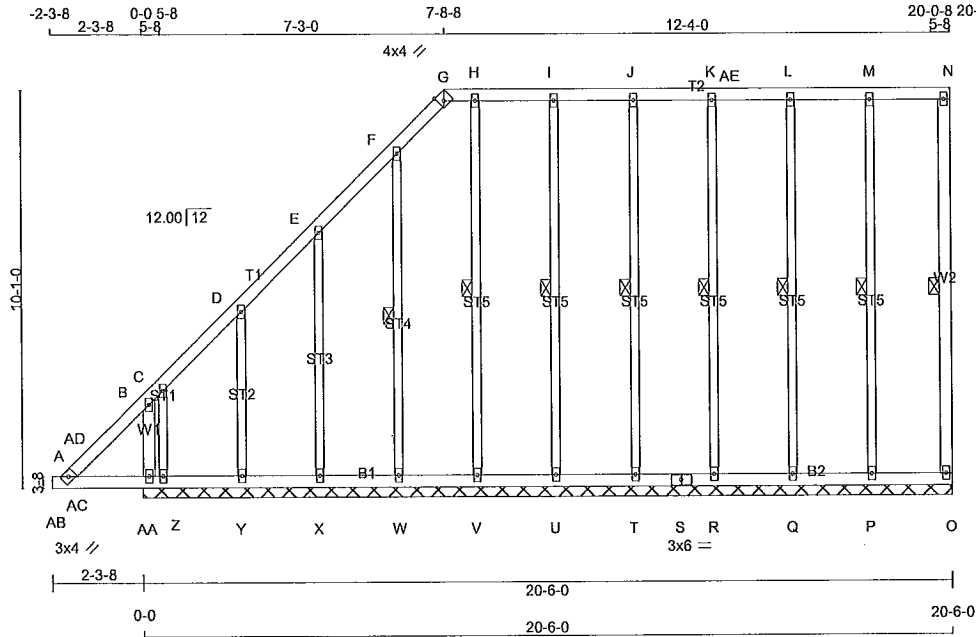


NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	G1G	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sat Feb 17 13:15:39 2018 Page 1
ID:MF8iiriaTok7DlbpT4B71Xys4PG-sTC4puKFsy6gFEMrC8RTmmZPAeZsPPQ2uoCzRUzkEWo



Scale = 1:58.5

TOTAL WEIGHT = 133 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
AA- B	2x4	DRY	No.2	SPF
A - G	2x4	DRY	No.2	SPF
G - N	2x4	DRY	No.2	SPF
O - N	2x4	DRY	No.2	SPF
AB- S	2x4	DRY	No.2	SPF
S - O	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
GABLE STUDS SPACED AT 2'-0" OC.				

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
A	TBM-h	MT20	3.0	4.0
B	TMV+p	MT20	2.0	4.0
C, D, E, F, H, I, J, K, L, M	TMW+w	MT20	2.0	4.0
G	TT-h	MT20	4.0	4.0
N	TMV+p	MT20	2.0	4.0
O	BMV1+p	MT20	2.0	4.0
P, Q, R, T, U, V, W, X, Y, Z	P 8MW1+w	MT20	2.0	4.0
S	BS-t	MT20	3.0	6.0
AA	BMV1+p	MT20	2.0	4.0

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

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

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

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

PROVIDE ANCHORAGE AT BEARING JOINT Z FOR 382 LBS FACTORED UPLIFT BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S).

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF N-O, M-P, L-Q, K-R, J-T, I-U, H-V, F-W.

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 LC1 (LC)	MAX. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)
FR-TO		FROM TO			FR-TO		
AA-B	-347 / 0	0.0	0.0 0.04 (1)	7.81	P-M	-187 / 0	0.13 (1)
A-AD	0 / 26	-78.0	-78.0 0.02 (1)	10.00	Q-L	-170 / 0	0.12 (1)
AD-B	0 / 31	-78.0	-78.0 0.14 (1)	10.00	R-K	-171 / 0	0.12 (1)
B-C	-155 / 0	-78.0	-78.0 0.14 (1)	6.25	T-J	-173 / 0	0.12 (1)
C-D	-8 / 0	-78.0	-78.0 0.04 (1)	10.00	U-I	-158 / 0	0.11 (1)
D-E	-7 / 0	-78.0	-78.0 0.04 (1)	10.00	V-H	-190 / 0	0.13 (1)
E-F	0 / 0	-78.0	-78.0 0.04 (1)	10.00	W-F	-156 / 0	0.08 (1)
F-G	-18 / 0	-78.0	-78.0 0.04 (1)	6.25	X-E	-148 / 0	0.12 (1)
G-H	0 / 2	-85.5	-85.5 0.07 (1)	2.00	Y-D	-159 / 0	0.06 (1)
H-I	0 / 0	-85.5	-85.5 0.06 (1)	10.00	Z-C	0 / 121	0.03 (1)
I-J	0 / 0	-85.5	-85.5 0.04 (1)	10.00	AC-AD	-80 / 0	0.00 (1)
J-AE	0 / 0	-85.5	-85.5 0.04 (1)	10.00			
AE-K	0 / 0	-85.5	-85.5 0.04 (1)	10.00			
K-L	0 / 0	-85.5	-85.5 0.04 (1)	10.00			
L-M	0 / 0	-85.5	-85.5 0.04 (1)	10.00			
M-N	0 / 0	-85.5	-85.5 0.04 (1)	10.00			
O-N	-70 / 0	0.0	0.0 0.03 (1)	6.25			
AB-A	0 / 0	-33.5	-33.5 0.00 (4)	10.00			
A-AC	-1 / 3	-18.5	-18.5 0.01 (1)	10.00			
AC-AA	-1 / 3	-18.5	-18.5 0.17 (1)	10.00			
AA-Z	-1 / 3	-18.5	-18.5 0.17 (1)	10.00			
Z-Y	0 / 8	-18.5	-18.5 0.02 (4)	10.00			
Y-X	0 / 4	-18.5	-18.5 0.02 (4)	10.00			
X-W	0 / 2	-18.5	-18.5 0.01 (4)	10.00			
W-V	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
V-U	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
U-T	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
T-S	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
S-R	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
R-Q	0 / 0	-18.5	-18.5 0.01 (4)	10.00			
Q-P	0 / 0	-18.5	-18.5 0.02 (4)	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 PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

CSI: TC=0.14/1.00 (B-AD:1), BC=0.17/1.00 (AA-AC:1), WB=0.13/1.00 (H-V:1), SSI=0.22/1.00 (Z-AA: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

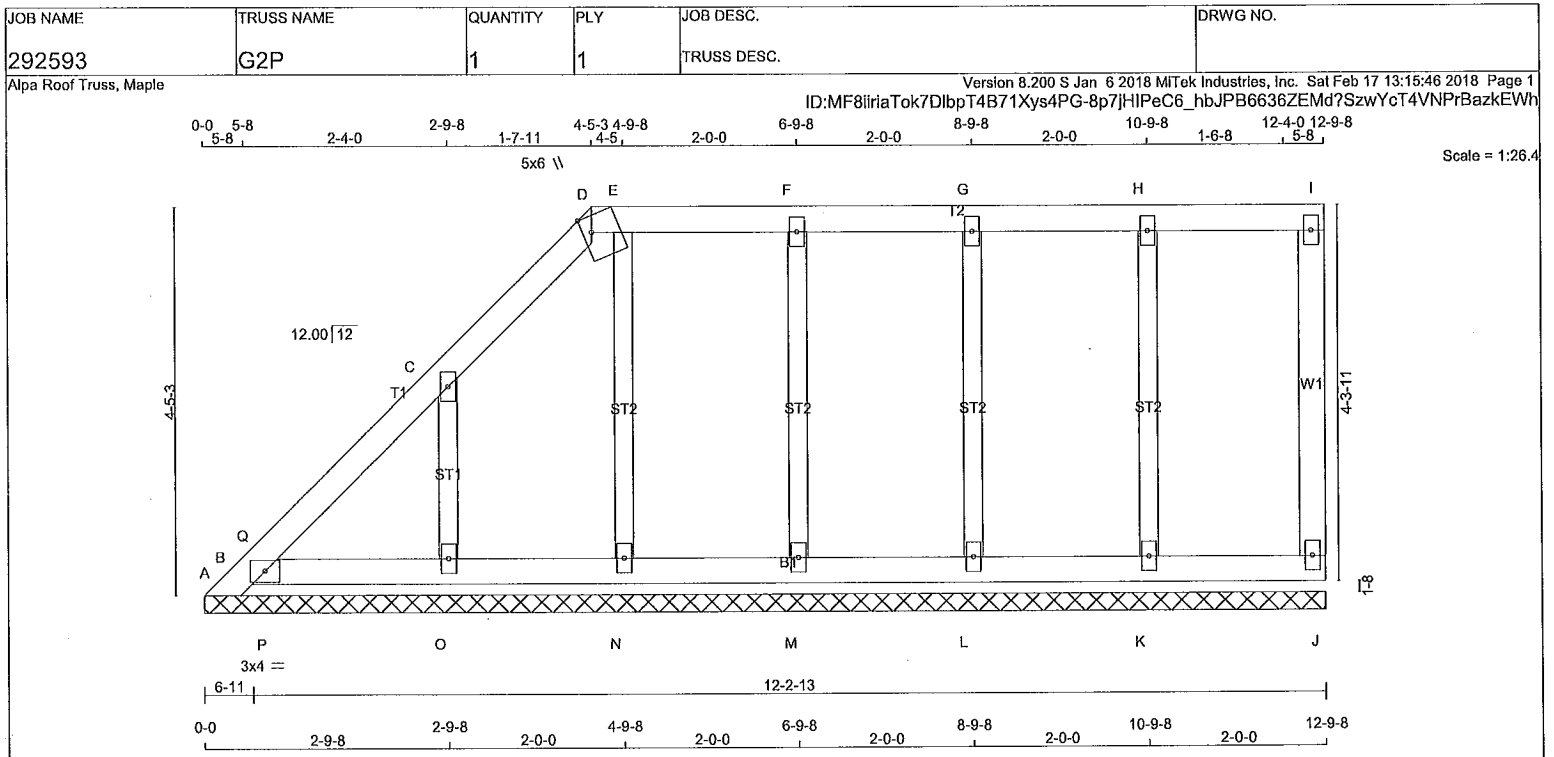
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.42 (G) (INPUT = 0.90)
JSI METAL= 0.18 (B) (INPUT = 1.00)



A-18023485



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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	
C, F, G, H	TMW+w	MT20	2.0	4.0	
D	TTW+m	MT20	5.0	6.0	Edge 1.25
I	TMV+p	MT20	2.0	4.0	
J	BMV1+p	MT20	2.0	4.0	
K, L, M, N, O	BMW1+w	MT20	2.0	4.0	

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

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

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): J, K, L, M, N, O

PROVIDE ANCHORAGE AT BEARING JOINT A FOR 150 LBS. FACTORED UPLIFT BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

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)	VERT. LOAD LC1 (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	0/31	-96.5 -96.5	0.03 (1)	10.00	K-H	-174 / 0	0.05 (1)
B-Q	-53 / 0	-78.0 -78.0	0.03 (1)	6.25	L-G	-152 / 0	0.04 (1)
Q-C	-4 / 0	-78.0 -78.0	0.04 (1)	10.00	M-F	-159 / 0	0.04 (1)
C-D	-12 / 0	-78.0 -78.0	0.04 (1)	6.25	N-E	-155 / 0	0.04 (1)
D-E	0 / 5	-78.0 -78.0	0.03 (1)	10.00	O-C	-163 / 0	0.03 (1)
E-F	0 / 0	-78.0 -78.0	0.04 (1)	10.00	P-Q	-21 / 24	0.00 (1)
F-G	0 / 0	-78.0 -78.0	0.04 (1)	10.00			
G-H	0 / 0	-78.0 -78.0	0.04 (1)	10.00			
H-I	0 / 0	-78.0 -78.0	0.04 (1)	10.00			
J-I	-63 / 0	0.0 0.0	0.02 (1)	7.81			
B-P	0 / 8	-18.5 -18.5	0.01 (1)	10.00			
P-O	0 / 8	-18.5 -18.5	0.02 (4)	10.00			
O-N	0 / 0	-18.5 -18.5	0.02 (4)	10.00			
N-M	0 / 0	-18.5 -18.5	0.02 (4)	10.00			
M-L	0 / 0	-18.5 -18.5	0.02 (4)	10.00			
L-K	0 / 0	-18.5 -18.5	0.02 (4)	10.00			
K-J	0 / 0	-18.5 -18.5	0.02 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.04/1.00 (C-D:1), BC=0.02/1.00 (O-P:4), WB=0.05/1.00 (H-K:1), SSI=0.07/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.13 (C) (INPUT = 0.90)
JSI METAL= 0.09 (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-18023486

Alpa Roof Truss, Maple



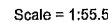
PLATES (table is in inches)		W	LEN	Y	X
JT	TYPE	PLATES			
B	TMB1-l	MT20	3.0	4.0	1.50 2.25
C	TMW+w	MT20	2.0	4.0	
D	TTW+m	MT20	3.0	4.0	
E	TMVW-l	MT20	3.0	4.0	
F	BMV1+p	MT20	2.0	4.0	
G	BMVWWV1-l	MT20	4.0	6.0	

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO			FR-TO			
A- B	0 / 11	-78.0	-78.0	0.01 (1)	10.00	C- G	-228 / 0	0.08 (1)
B- I	-372 / 0	-78.0	-78.0	0.08 (4)	6.25	G- D	-321 / 0	0.27 (1)
I- C	-196 / 0	-78.0	-78.0	0.15 (1)	6.25	G- E	-13 / 3	0.01 (1)
C- D	-19 / 0	-78.0	-78.0	0.14 (1)	6.25	H- I	0 / 211	0.00 (1)
D- E	-2 / 8	-78.0	-78.0	0.43 (1)	10.00			
F- E	-212 / 0	0.0	0.0	0.05 (1)	6.25			
B- H	0 / 160	-18.5	-18.5	0.08 (4)	10.00			
H- G	0 / 160	-18.5	-18.5	0.19 (4)	10.00			
G- F	0 / 0	-18.5	-18.5	0.18 (4)	10.00			

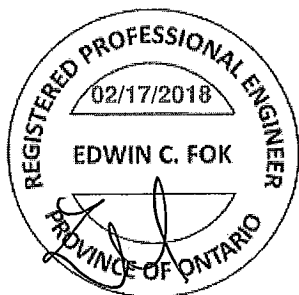
02/17/2018
EDWIN C. FOK
PROVINCE OF ONTARIO

A-18023487

Alpa Roof Truss, Maple



TOTAL WEIGHT = 67 lb



A-18023488

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	G5P	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

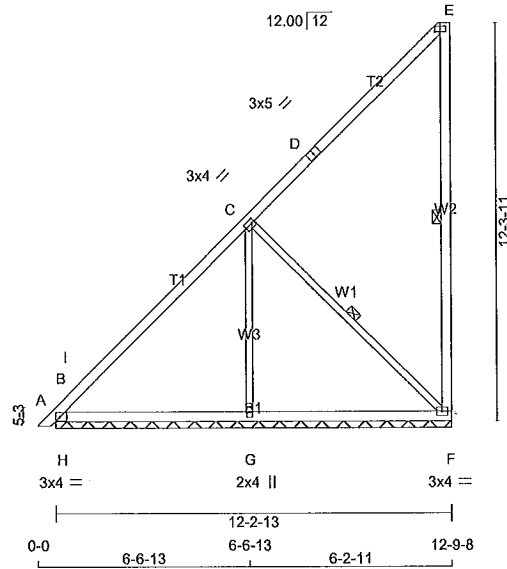
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:16:35 2018 Page 1

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0-0 5-8 6-1-5 6-6-13 5-9-3 12-4-0 12-5-3 12-9-8
5-8 12-3-11 12-9-8

2x4 =

Scale = 1:71.2



TOTAL WEIGHT = 59 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	1.50 2.25
C	TMBW-I	MT20	3.0	4.0	1.50 1.00
D	TS-I	MT20	3.0	5.0	
E	TVM-p	MT20	2.0	4.0	0.75 2.00
F	BMVW1-I	MT20	3.0	4.0	
G	BMV1+w	MT20	2.0	4.0	

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
F	373	0	373	0	0	12-2-13	2-0-7		
B	400	0	400	0	0	12-2-13	2-0-7		
G	442	0	442	0	0	12-2-13	2-0-7		

UNFACTORED REACTIONS

JT	COMBINED	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
		SNOW	LIVE	PERM.LIVE	WIND			
F	264	174 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0	0 / 0
B	282	189 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0	0 / 0
G	319	169 / 0	0 / 0	0 / 0	0 / 0	150 / 0	0 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		MAX. FACTORED FORCE		FACTORED VERT. LOAD		MAX. FACTORED FORCE		WEBS		MAX. FACTORED FORCE	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)	MAX	MEMB.	FORCE (LBS)	MAX
FR-TO		FROM	TO	CSI (LC)		FR-TO			FR-TO		
A-B	0 / 11	-78.0	-78.0	0.01 (1)	10.00	G-C	-277 / 0	0.19 (1)			
B-I	-78 / 15	-78.0	-78.0	0.09 (1)	6.25	C-F	-207 / 0	0.10 (1)			
I-C	-178 / 0	-78.0	-78.0	0.47 (1)	6.25	H-I	-460 / 0	0.00 (1)			
C-D	-38 / 0	-78.0	-78.0	0.46 (1)	6.25						
D-E	-38 / 0	-78.0	-78.0	0.46 (1)	6.25						
F-E	-188 / 0	0.0	0.0	0.17 (1)	6.25						
B-H	0 / 148	-18.5	-18.5	0.16 (1)	10.00						
H-G	0 / 148	-18.5	-18.5	0.21 (4)	10.00						
G-F	0 / 148	-18.5	-18.5	0.21 (4)	10.00						

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.47/1.00 (C-I:1), BC=0.21/1.00 (G-H:4), WB=0.19/1.00 (C-G:1), SSI=0.38/1.00 (B-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.

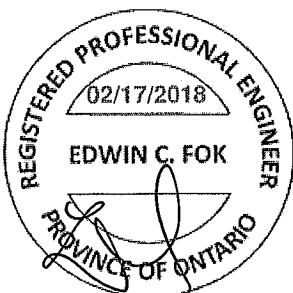
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

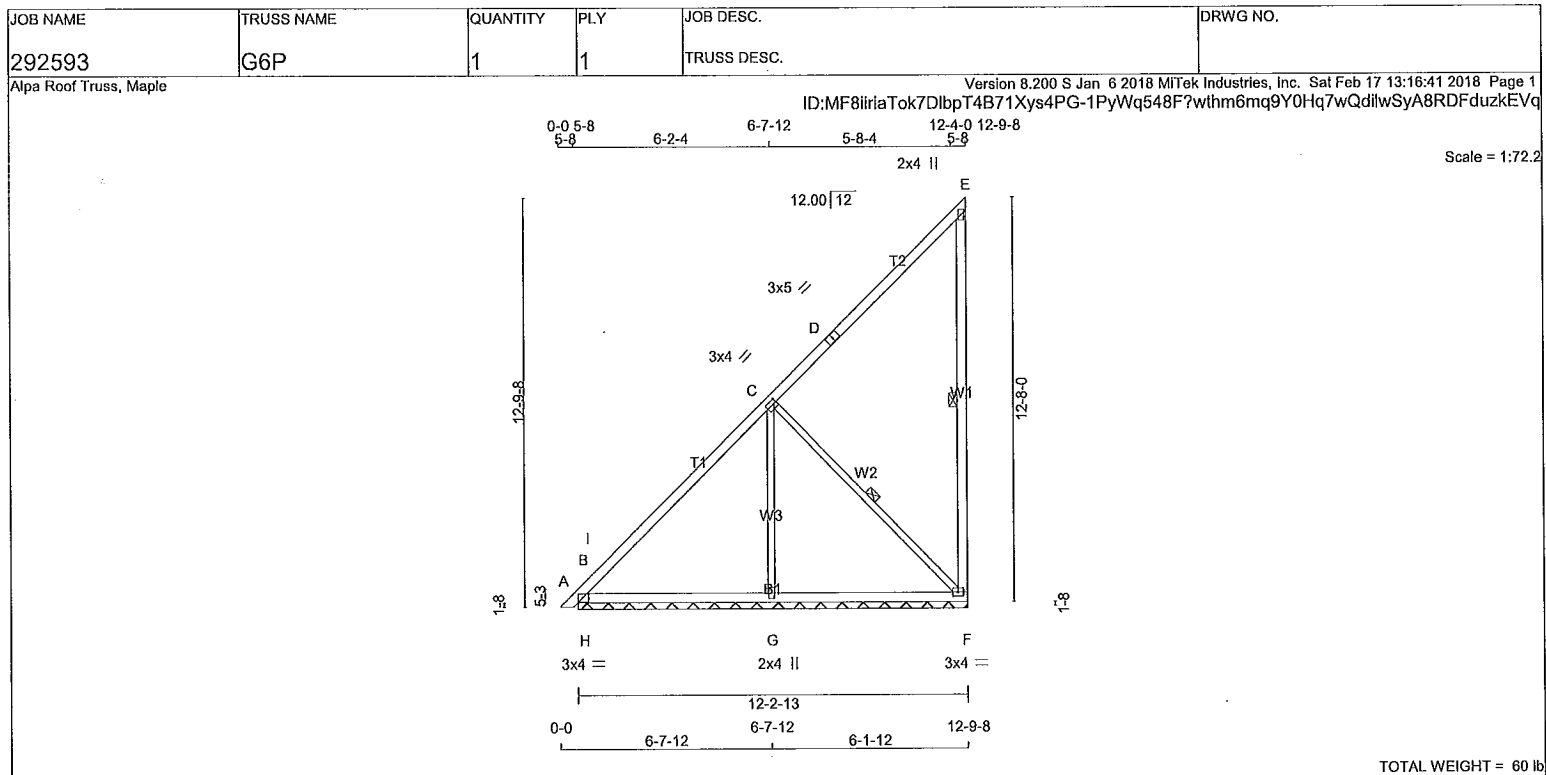
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (D) (INPUT = 0.90)
JSI METAL= 0.25 (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-18023489



TOTAL WEIGHT = 60 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
F - E	2x4	DRY	No.2	SPF
B - F	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	1.50 2.25
C	TMVW-I	MT20	3.0	4.0	1.50 1.00
D	TS-I	MT20	3.0	5.0	
E	TMV+P	MT20	2.0	4.0	
F	BMVW1-I	MT20	3.0	4.0	
G	BMV1+W	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
F	373	0	373	0	12-2-13	2-0-2	2-0-2	2-0-2
B	406	0	406	0	12-2-13	2-0-2	2-0-2	2-0-2
G	436	0	436	0	12-2-13	2-0-2	2-0-2	2-0-2

UNFACTORED REACTIONS

JT	1ST CASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM. LIVE			
F	264	174 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0
B	286	192 / 0	0 / 0	0 / 0	0 / 0	94 / 0	0 / 0
G	315	166 / 0	0 / 0	0 / 0	0 / 0	149 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		WEBS		FACTORED	
	MAX.	FORCE	VERT. LOAD	LC1 MAX	MAX. MEMB.	MAX. FORCE	MAX. CSI (LC)	MAX. CSI (LC)
FR-TO		(LBS)	FROM TO	(PLF)	LENGTH	(LBS)		
A-B	0 / 11		-78.0	-78.0	0.01 (1)	10.00	G-C	-270 / 0
B-I	-77 / 31		-78.0	-78.0	0.10 (1)	6.25	C-F	-211 / 0
I-C	-179 / 0		-78.0	-78.0	0.47 (1)	6.25	H-I	-487 / 0
C-D	-39 / 0		-78.0	-78.0	0.46 (1)	6.25		
D-E	-39 / 0		-78.0	-78.0	0.46 (1)	6.25		
F-E	-185 / 0		0.0	0.0	0.16 (1)	6.25		
B-H	0 / 149		-18.5	-18.5	0.16 (1)	10.00		
H-G	0 / 149		-18.5	-18.5	0.21 (4)	10.00		
G-F	0 / 149		-18.5	-18.5	0.21 (4)	10.00		

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.47/1.00 (C-I:1), BC=0.21/1.00 (G-H:4), WB=0.19/1.00 (C-G:1), SSI=0.40/1.00 (B-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.

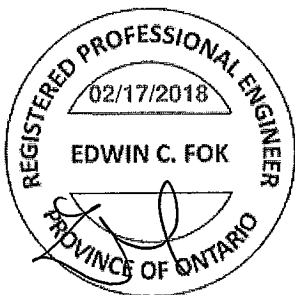
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.65 (D) (INPUT = 0.90)
JSI METAL= 0.21 (D) (INPUT = 1.00)

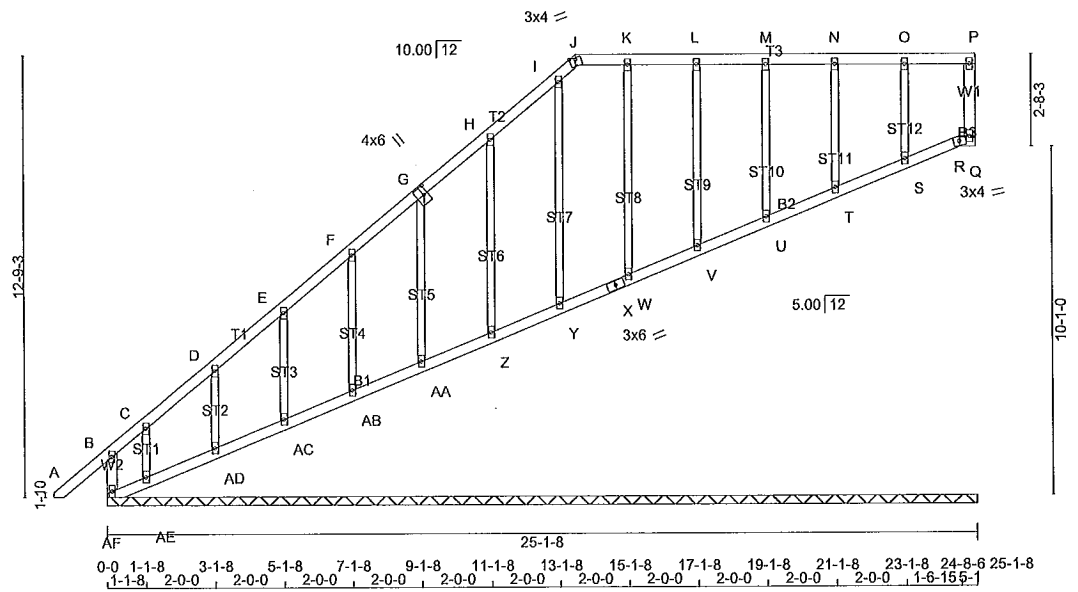
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



A-18023490

1-6-8 0-0-6-0 1-1-8 3-1-8 5-1-8 7-1-8 9-1-8 11-1-8 13-1-8 13-7-6 15-1-8 17-1-8 19-1-8 21-1-8 23-1-8 24-8-0 25-1-8
1-6-8 6-0-7-8 2-0-0 2-0-0 2-0-0 2-0-0 2-0-0 2-0-0 2-0-0 5-14-1-6-2 2-0-0 2-0-0 2-0-0 2-0-0 1-6-8 5-9

Scale = 1:86.7



TOTAL WEIGHT = 112 lb

LUMBER				LUMBER		DESCR.	
N. L. G. A. RULES							
CHORDS	SIZE						
A - G	2x4	DRY	No.2			SPF	
G - J	2x4	DRY	No.2			SPF	
J - P	2x4	DRY	No.2			SPF	
Q - P	2x4	DRY	No.2			SPF	
AF- B	2x4	DRY	No.2			SPF	
AF- X	2x4	DRY	No.2			SPF	
X - R	2x4	DRY	No.2			SPF	
R - Q	2x4	DRY	No.2			SPF	
ALL WEBS	2x3	DRY	No.2			SPF	
ALL GABLE WEBS	2x3	DRY	No.2			SPF	
DRY: SEASONED LUMBER.							
GABLE STUDS SPACED AT 2-0-0 OC.							

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

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): Q, R, S, T, U, V, W
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

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)

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	2.0	4.0	
C, D, E, F, H, I, K, L, M, N, O					
C	TMW+w	MT20	2.0	4.0	
G	TSW+H	MT20	4.0	6.0	3.00 1.50
J	TT-m	MT20	3.0	4.0	Edge
P	TMV+p	MT20	2.0	4.0	
Q	BMV1+p	MT20	2.0	4.0	
R	BB1-m	MT20	3.0	4.0	
S, T, U, V, W, Y, Z, AA, AB, AC, AD, AE					
S	BMW1+w	MT20	2.0	4.0	
X	BS-t	MT20	3.0	6.0	
AF	BMV1+p	MT20	2.0	4.0	
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.					

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CS (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CS (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 38	-78.0 -78.0 0.13 (1)	10.00	S-O	-177 / 0	0.03 (1)	
B-C	-102 / 0	-78.0 -78.0 0.13 (1)	6.25	T-N	-152 / 0	0.04 (1)	
C-D	-35 / 0	-78.0 -78.0 0.04 (1)	6.25	U-M	-157 / 0	0.06 (1)	
D-E	-34 / 0	-78.0 -78.0 0.04 (1)	6.25	V-L	-155 / 0	0.08 (1)	
E-F	-19 / 0	-78.0 -78.0 0.05 (1)	6.25	W-K	-181 / 0	0.12 (1)	
F-G	-25 / 0	-78.0 -78.0 0.05 (1)	6.25	Y-I	-152 / 0	0.13 (1)	
G-H	-2 / 0	-78.0 -78.0 0.04 (1)	10.00	Z-H	-167 / 0	0.11 (1)	
H-I	-8 / 0	-78.0 -78.0 0.04 (1)	10.00	AA-G	-123 / 0	0.05 (1)	
I-J	-40 / 0	-78.0 -78.0 0.03 (1)	6.25	AB-F	-176 / 0	0.06 (1)	
J-K	-2 / 0	-78.0 -78.0 0.04 (1)	10.00	AC-E	-141 / 0	0.03 (1)	
K-L	0 / 0	-78.0 -78.0 0.04 (1)	10.00	AD-D	-166 / 0	0.03 (1)	
L-M	0 / 1	-78.0 -78.0 0.04 (1)	10.00	AE-C	-14 / 0	0.00 (1)	
M-N	0 / 3	-78.0 -78.0 0.04 (1)	10.00				
N-O	0 / 5	-78.0 -78.0 0.04 (1)	10.00				
O-P	0 / 9	-78.0 -78.0 0.04 (1)	10.00				
Q-P	-61 / 0	0.0 0.0 0.02 (1)	7.81				
AF-B	-276 / 0	0.0 0.0 0.06 (1)	7.81				

AF-AE	0 / 24	-18.5 -18.5 0.06 (1)	10.00
AE-AD	0 / 39	-18.5 -18.5 0.02 (4)	10.00
AD-AC	0 / 25	-18.5 -18.5 0.02 (4)	10.00
AC-AB	0 / 19	-18.5 -18.5 0.02 (4)	10.00
AB-AA	0 / 12	-18.5 -18.5 0.02 (4)	10.00
AA-Z	0 / 10	-18.5 -18.5 0.02 (4)	10.00
Z-Y	0 / 6	-18.5 -18.5 0.01 (4)	10.00
Y-X	0 / 2	-18.5 -18.5 0.01 (4)	10.00
X-W	0 / 2	-18.5 -18.5 0.01 (4)	10.00
W-V	0 / 0	-18.5 -18.5 0.01 (4)	10.00
V-U	-1 / 0	-18.5 -18.5 0.01 (4)	10.00
U-T	-3 / 0	-18.5 -18.5 0.02 (4)	10.00
T-S	-6 / 0	-18.5 -18.5 0.02 (4)	10.00
S-R	-9 / 0	-18.5 -18.5 0.01 (4)	10.00
R-Q	-8 / 0	-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

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

CSI: TC=0.13/1.00 (B-C:1), BC=0.06/1.00 (AE-AF:1), WB=0.13/1.00 (I-Y:1), SSI=0.08/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

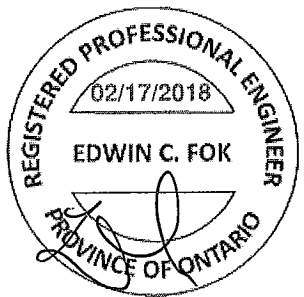
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.52 (G) (INPUT = 0.90)
JSI METAL= 0.17 (B) (INPUT = 1.00)

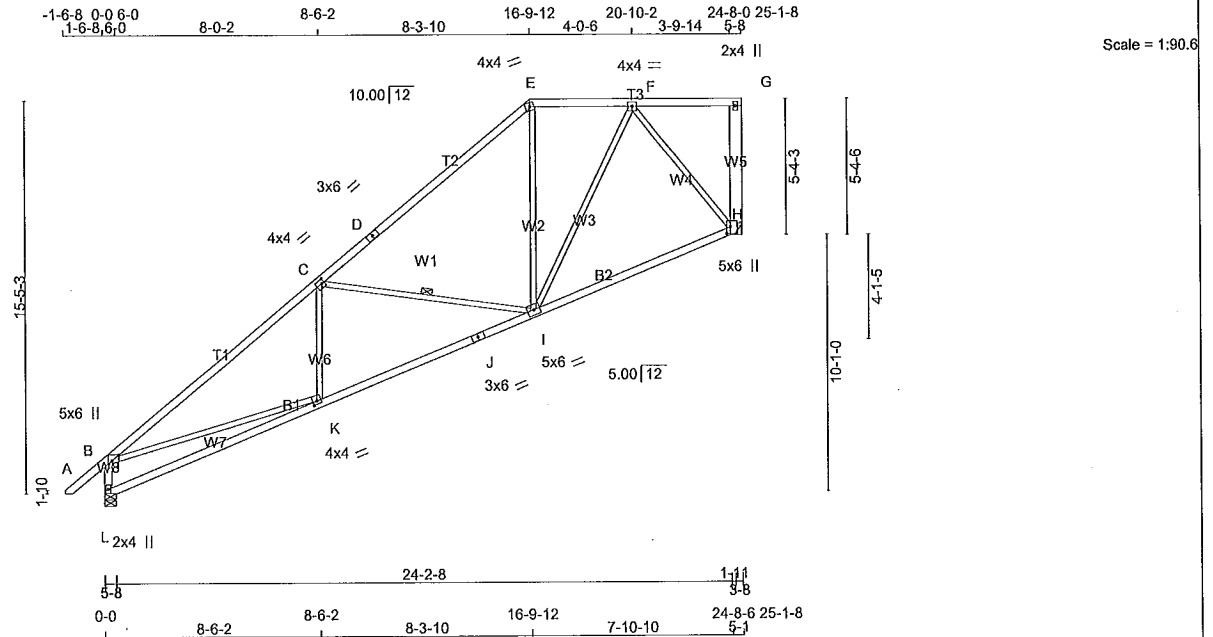
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

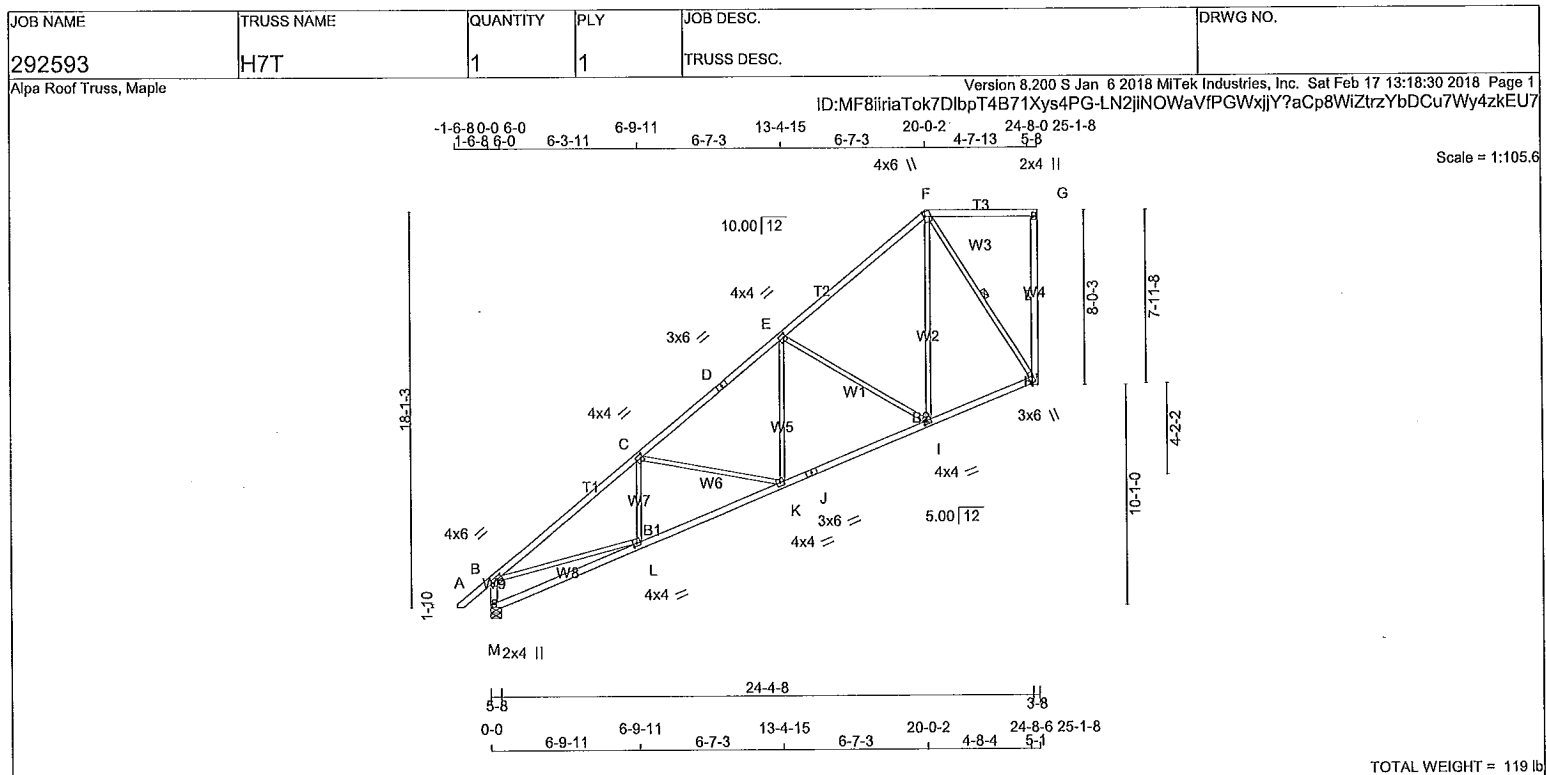


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H6T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-HD6d_Q0R6gdyQbUzrqQ3v4q19gwpT8NVrwnNqqwzkEUd





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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE PLATES				
B TMVW-t MT20	4.0	6.0	1.50	2.75
C TMVW-t MT20	4.0	4.0	2.00	1.25
D TS-t MT20	3.0	6.0		
E TMVW-t MT20	4.0	4.0	2.00	1.25
F TTWW+m MT20	4.0	6.0	2.50	0.75
G TMV+p MT20	2.0	4.0		
H BVMW1-t MT20	3.0	6.0	Edge	2.00
I BMVW-t MT20	4.0	4.0	2.00	1.50
J BS-t MT20	3.0	6.0		
K BMVW-t MT20	4.0	4.0		
L BMVW-t MT20	4.0	4.0	1.50	2.00
M BMV1+p MT20	2.0	4.0		

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UP
H	1212	0	1212	0
M	1330	0	1330	0

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN	COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	864	527 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
M	946	591 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	355 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.22 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. MEMB. FORCE (LBS)	WEBS	MAX. FACTORED FORCE (LBS)	MAX. MEMB. FORCE (LBS)
FR-TO								
A-B	0 / 38	-78.0	-78.0	0.13 (1)	10.00	L-C	-154 / 42	0.05 (1)
B-C	-2004 / 0	-78.0	-78.0	0.61 (1)	4.22	C-K	-409 / 0	0.35 (1)
C-D	-1511 / 0	-78.0	-78.0	0.45 (1)	4.90	K-E	0 / 371	0.08 (1)
D-E	-1511 / 0	-78.0	-78.0	0.45 (1)	4.90	E-I	-761 / 0	0.98 (1)
E-F	-697 / 0	-78.0	-78.0	0.42 (1)	6.25	I-F	0 / 783	0.18 (1)
F-G	0 / 0	-78.0	-78.0	0.35 (1)	10.00	F-H	-922 / 0	0.52 (1)
H-G	-199 / 0	0.0	0.0	0.06 (1)	6.25	B-L	0 / 1605	0.36 (1)
M-B	-1277 / 0	0.0	0.0	0.14 (1)	7.13			

M-L	0 / 5	-18.5	-18.5	0.19 (4)	10.00
L-K	0 / 1690	-18.5	-18.5	0.37 (1)	10.00
K-J	0 / 1257	-18.5	-18.5	0.28 (1)	10.00
J-I	0 / 1257	-18.5	-18.5	0.28 (1)	10.00
I-H	0 / 557	-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

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF 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 (0.84")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL) = L/360 (0.84")
CALCULATED VERT. DEFL.(TL) = L/999 (0.15")

CSI: TC=0.61/1.00 (B-C:1), BC=0.37/1.00 (K-L:1), WB=0.98/1.00 (E-I: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

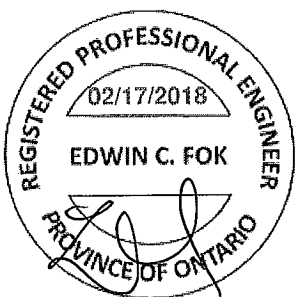
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (L) (INPUT = 0.90)
JSI METAL= 0.61 (L) (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

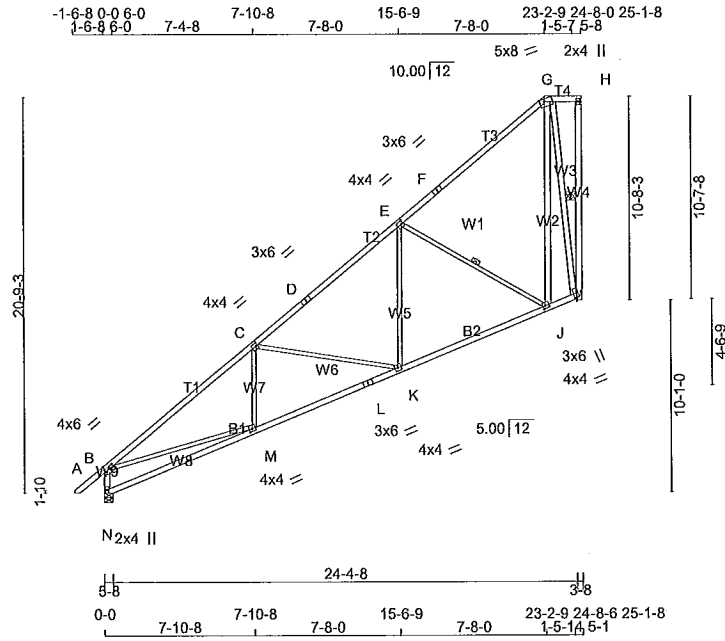


A-18023493

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOBS DESC.	DRWG NO.
292593	H8T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8itriaTok7DlbpT4B71Xys4PG-icN1JugJPFQHvudx?AOK5S3HCRM47ZpSGJShjokETn



TOTAL WEIGHT = 136 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	2100F 1.8E	SPF	
D - F	2x4	DRY	No.2	SPF	
F - G	2x4	DRY	No.2	SPF	
G - H	2x4	DRY	No.2	SPF	
I - H	2x4	DRY	No.2	SPF	
N - B	2x4	DRY	No.2	SPF	
N - L	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	
J - G	2x4	DRY	No.2	SPF	
G - I	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	6.0	1.50	2.75
C	TMVW-I	MT20	4.0	4.0	2.00	1.25
D	TS-I	MT20	3.0	6.0		
E	TMVW-I	MT20	4.0	4.0	2.00	1.25
F	TS-I	MT20	3.0	6.0		
G	TTWW-m	MT20	5.0	8.0	Edge	3.00
H	TMV+p	MT20	2.0	4.0		
I	BMVW1-I	MT20	3.0	6.0	3.00	1.75
J	BMVW-I	MT20	4.0	4.0	1.75	1.50
K	BMVW-I	MT20	4.0	4.0		
L	BS-I	MT20	3.0	6.0		
M	BMVW-I	MT20	4.0	4.0	1.50	2.00
N	BMV1+p	MT20	2.0	4.0		

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

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
I	1212	0	1212	0	5-8	1-13
N	1330	0	1330	0		

UNFACTORED REACTIONS

JT	1ST CASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE				
I	864	527 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
N	946	591 / 0	0 / 0	0 / 0	0 / 0	355 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.96 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LOC. MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM	TO		FR-TO				
A-B	0 / 38	-78.0	-78.0	0.08 (1)	10.00	M-C	-93 / 82	0.03 (1)	
B-C	-1996 / 0	-78.0	-78.0	0.50 (1)	5.22	C-K	-573 / 0	0.73 (1)	
C-D	-1297 / 0	-78.0	-78.0	0.61 (1)	4.96	K-E	0 / 481	0.11 (1)	
D-E	-1297 / 0	-78.0	-78.0	0.61 (1)	4.96	E-J	-932 / 0	0.53 (1)	
E-F	-284 / 0	-78.0	-78.0	0.57 (1)	6.25	J-G	0 / 913	0.15 (1)	
F-G	-284 / 0	-78.0	-78.0	0.57 (1)	6.25	G-I	-1088 / 0	0.64 (1)	
G-H	0 / 0	-78.0	-78.0	0.05 (1)	10.00	B-M	0 / 1612	0.36 (1)	
H-I	-74 / 0	0.0	0.0	0.05 (1)	6.25				
N-B	-1269 / 0	0.0	0.0	0.13 (1)	7.14				
N-M	0 / 6	-18.5	-18.5	0.27 (4)	10.00				
M-L	0 / 1690	-18.5	-18.5	0.43 (4)	10.00				
L-K	0 / 1690	-18.5	-18.5	0.43 (4)	10.00				
K-J	0 / 1077	-18.5	-18.5	0.31 (4)	10.00				
J-I	0 / 205	-18.5	-18.5	0.19 (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 (0.84")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL) = L/360 (0.84")
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

CSI: TC=0.61/1.00 (C-E:1), BC=0.43/1.00 (K-M:4), WB=0.73/1.00 (C-K:1), SSI=0.22/1.00 (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.

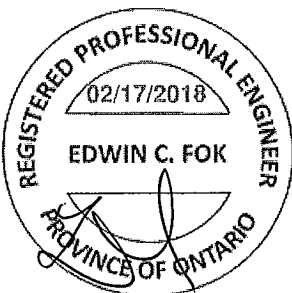
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.61 (M) (INPUT = 1.00)

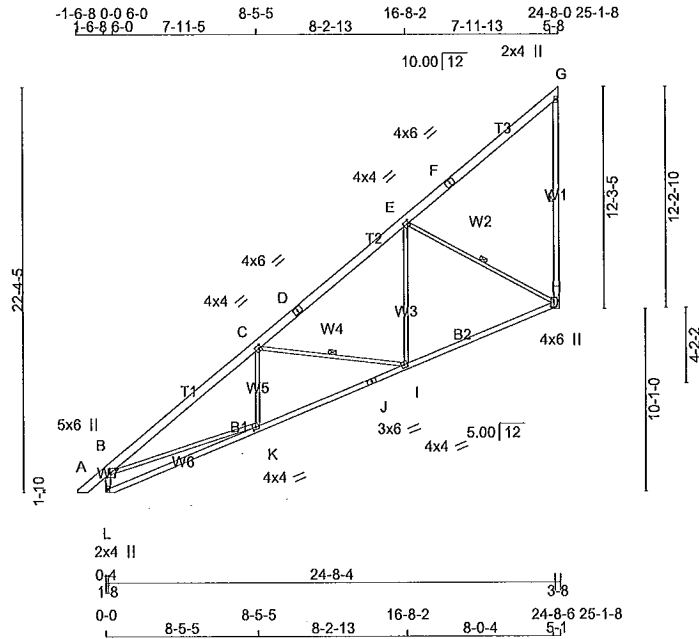
A-18023494



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H9T	7	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-6SabVkvshPxSlz9nANIQvgulyVACpdqOsRikQezkETT



Scale: 3/32"=1'

TOTAL WEIGHT = 7 X 138 = 969 lb [M]F

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
L - B	2x4	DRY	No.2	SPF
A - D	2x6	DRY	No.2	SPF
D - F	2x6	DRY	No.2	SPF
F - G	2x6	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	Edge	3.25
C	TMWW-t	MT20	4.0	4.0	2.00	1.25
D	TS-t	MT20	4.0	6.0		
E	TMWW-t	MT20	4.0	4.0	2.00	1.25
F	TS-t	MT20	4.0	6.0		
G	TMVW+p	MT20	2.0	4.0		
H	BVMW1+p	MT20	4.0	6.0	3.25	2.00
I	BMWW-t	MT20	4.0	4.0		
J	BS-t	MT20	3.0	6.0		
K	BMWW-t	MT20	4.0	4.0	1.50	2.00
L	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	UPLIFT		
H	1212	0	1212	0	0	HANGER BY OTHERS
L	1326	0	1326	0	0	MIN. SEAT SIZE: 1-8 HANGER BY OTHERS MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST CASE		MAX./MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	864	527 / 0	0 / 0	0 / 0	0 / 0	337 / 0	0 / 0
L	943	589 / 0	0 / 0	0 / 0	0 / 0	354 / 0	0 / 0

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.29 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. FACTORED CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO			FR-TO		
L-B	-1260 / 0	0.0	0.0	0.13 (1)	7.16	B-K	0 / 1639	0.37 (1)
A-B	0 / 36	-78.0	-78.0	0.06 (1)	10.00	K-C	-51 / 104	0.04 (4)
B-C	-2018 / 0	-78.0	-78.0	0.37 (1)	5.29	C-I	-666 / 0	0.32 (1)
C-D	-1192 / 0	-78.0	-78.0	0.30 (1)	6.25	I-E	0 / 545	0.12 (1)
D-E	-1192 / 0	-78.0	-78.0	0.30 (1)	6.25	E-H	-1047 / 0	0.67 (1)
E-F	-42 / 0	-78.0	-78.0	0.31 (1)	6.25			
F-G	-42 / 0	-78.0	-78.0	0.31 (1)	6.25			
H-G	-264 / 0	0.0	0.0	0.22 (1)	6.25			
L-K	0 / 6	-18.5	-18.5	0.29 (4)	10.00			
K-J	0 / 1710	-18.5	-18.5	0.46 (4)	10.00			
J-I	0 / 1710	-18.5	-18.5	0.46 (4)	10.00			
I-H	0 / 990	-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

(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 (0.84")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL) = L/360 (0.84")
CALCULATED VERT. DEFL.(TL) = L/999 (0.22")

CSI: TC=0.37/1.00 (B-C:1), BC=0.46/1.00 (I-K:4), WB=0.67/1.00 (E-H:1), SS=0.18/1.00 (E-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

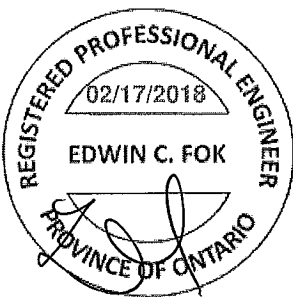
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

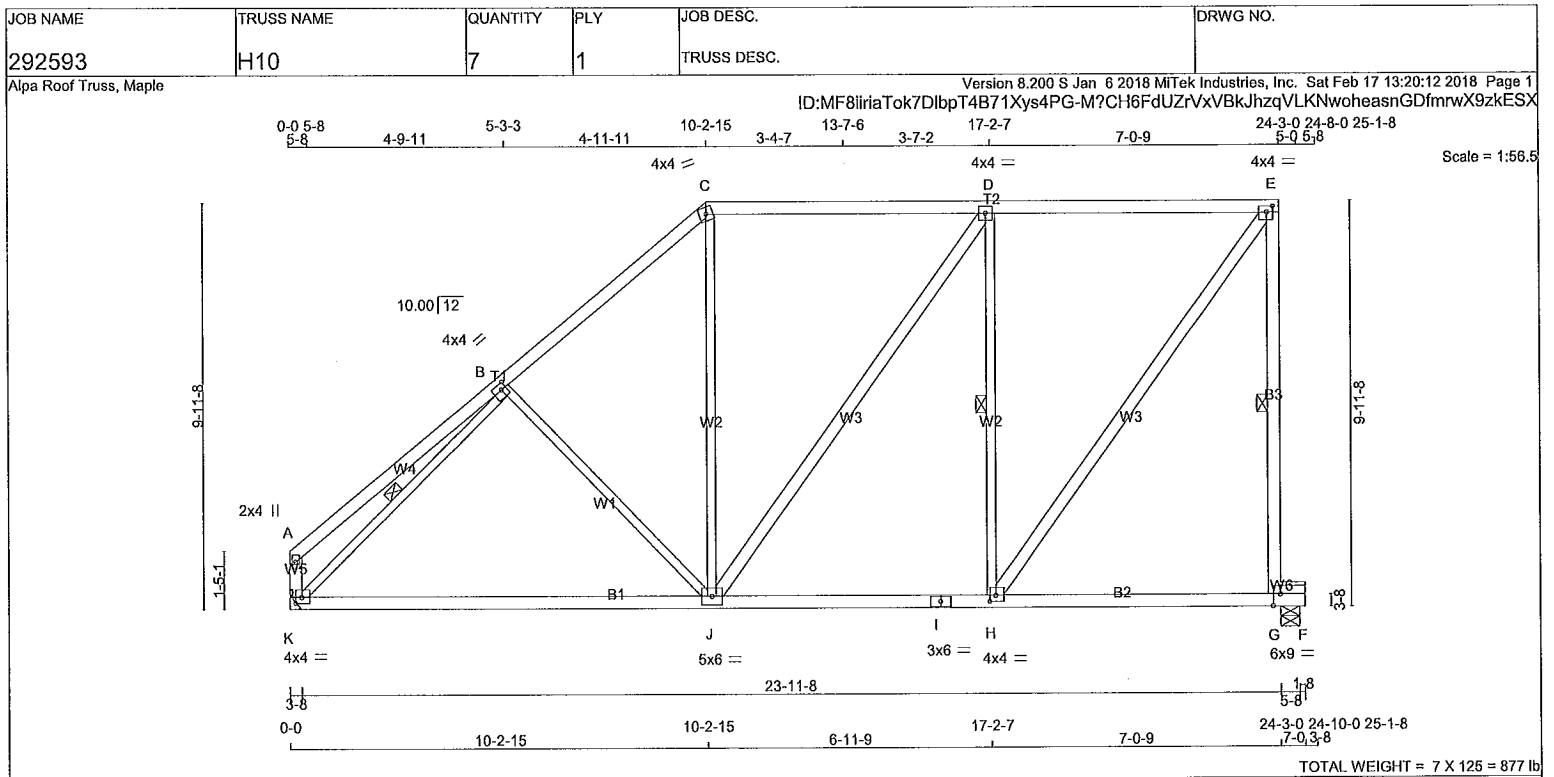
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (K) (INPUT = 0.90)
JSI METAL= 0.62 (K) (INPUT = 1.00)

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



A-18023495



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)		W		LEN		Y		X	
JT	TYPE	PLATES							
A	TMV+p	MT20	2.0	4.0					
B	TMWW-t	MT20	4.0	4.0	1.75	1.50			
C	TTW-m	MT20	4.0	4.0					
D	TMWW-t	MT20	4.0	4.0					
E	TMVW-t	MT20	4.0	4.0	1.75	1.75			
G	BMVW1-t	MT20	6.0	9.0	Edge 2.00				
H	BMWW-t	MT20	4.0	4.0	1.75	1.75			
I	BS-t	MT20	3.0	6.0					
J	BMWW-t	MT20	5.0	6.0					
K	BMVW1-t	MT20	4.0	4.0	1.75	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
K	1193	0	1193	0	5-8	1-15
G	1307	0	1307	0	5-8	1-15

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM. LIVE			
K	853	506 / 0	0 / 0	0 / 0	0 / 0	347 / 0	0 / 0
G	938	537 / 0	0 / 0	0 / 0	0 / 0	402 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.71 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 5.87 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-H.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
K-A	-153 / 0	0.0	0.0 0.02 (1)	J-C	0 / 255	0.06 (4)	
A-B	0 / 30	-78.0	-78.0 0.34 (1)	K-B	-1330 / 0	0.49 (1)	
B-C	-1018 / 0	-78.0	-78.0 0.38 (1)	B-J	-234 / 0	0.26 (1)	
C-D	-759 / 0	-85.5	-85.5 0.75 (1)	J-D	0 / 128	0.02 (1)	
D-E	-685 / 0	-85.5	-85.5 0.74 (1)	H-D	-840 / 0	0.56 (1)	
				H-E	0 / 1180	0.19 (1)	
K-J	0 / 919	-18.5	-18.5 0.50 (4)				
J-I	0 / 685	-18.5	-18.5 0.49 (4)				
I-H	0 / 685	-18.5	-18.5 0.49 (4)				
H-G	0 / 0	-18.5	-18.5 0.19 (4)				
G-F	0 / 0	-96.5	-96.5 0.01 (1)				
G-E	-1182 / 0	0.0	0.0 0.57 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.80")
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.80")
CALCULATED VERT. DEFL.(TL)= L/860 (0.34")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/0 (0.19")
CALCULATED VERT. DEFL.(LL)= L/0 (0.00")
ALLOWABLE DEFL.(TL)= L/0 (0.19")
CALCULATED VERT. DEFL.(TL)= L/0 (0.00")

CSI: TC=0.75/1.00 (C-D:1), BC=0.57/1.00 (E-G:1), WB=0.56/1.00 (D-H:1), SI=0.29/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

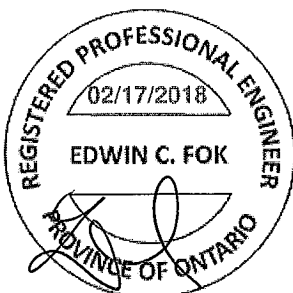
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

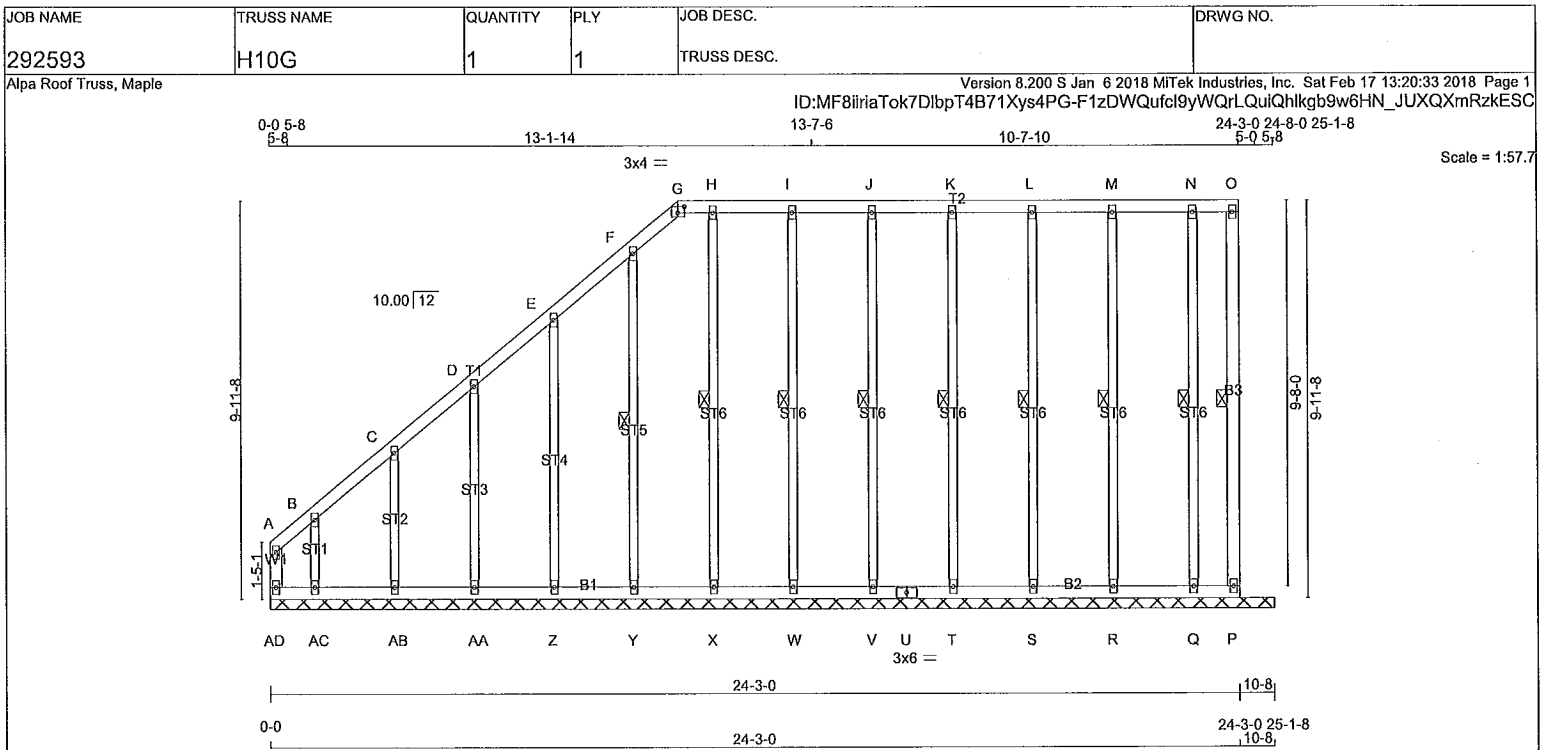
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (E) (INPUT = 0.90)
JSI METAL= 0.49 (B) (INPUT = 1.00)

A-18023496





LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
AD- A	2x4 DRY	No.2	SPF
A - G	2x4 DRY	No.2	SPF
G - O	2x4 DRY	No.2	SPF
AD- U	2x4 DRY	No.2	SPF
U - P	2x4 DRY	No.2	SPF
P - O	2x4 DRY	No.2	SPF
ALL WEBS EXCEPT	2x3 DRY	No.2	SPF
ALL GABLE WEBS	2x3 DRY	No.2	SPF
GABLE STUDS SPACED AT 2-0-0 OC.			

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
A	TMV+p	MT20	2.0	4.0
B, C, D, E, F, H, I, J, K, L, M, N	TMW+w	MT20	2.0	4.0
G	TT-I	MT20	3.0	4.0 1.75 2.00
O	TMV+p	MT20	2.0	4.0
P	BMV1+p	MT20	2.0	4.0
Q, R, S, T, V, W, X, Y, Z, AA, AB, AC	Q	BMW1+w	MT20	2.0 4.0
U	BS-t	MT20	3.0	6.0
AD	BMV1+p	MT20	2.0	4.0

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

FOR SECTION G-O, MAX. PURLIN SPACING = 2.00 FT.

FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF O-P, N-Q, M-R, L-S, K-T, J-V, I-W, H-X, F-Y.

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

LOADING			
TOTAL LOAD CASES: (4)			
CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO	FROM TO	FR-TO	FROM TO
AD-A	-46 / 0	Q-N	-128 / 0
A-B	-17 / 0	R-M	-180 / 0
B-C	-12 / 0	S-L	-170 / 0
C-D	-10 / 0	T-K	-171 / 0
D-E	-6 / 0	V-J	-171 / 0
E-F	-3 / 0	W-I	-170 / 0
F-G	-23 / 0	X-H	-173 / 0
G-H	0 / 0	Y-F	-169 / 0
H-I	0 / 0	Z-E	-154 / 0
I-J	0 / 0	AA-D	-153 / 0
J-K	0 / 0	AB-C	-158 / 0
K-L	0 / 0	AC-B	-117 / 0
L-M	0 / 0		
M-N	0 / 0		
N-O	0 / 0		

AD-AC	0 / 17	-18.5	-18.5	0.01 (1)	10.00
AC-AB	0 / 11	-18.5	-18.5	0.02 (4)	10.00
AB-AA	0 / 7	-18.5	-18.5	0.02 (4)	10.00
AA-Z	0 / 5	-18.5	-18.5	0.01 (4)	10.00
Z-Y	0 / 2	-18.5	-18.5	0.01 (4)	10.00
Y-X	0 / 0	-18.5	-18.5	0.01 (4)	10.00
X-W	0 / 0	-18.5	-18.5	0.01 (4)	10.00
W-V	0 / 0	-18.5	-18.5	0.01 (4)	10.00
V-U	0 / 0	-18.5	-18.5	0.01 (4)	10.00
U-T	0 / 0	-18.5	-18.5	0.01 (4)	10.00
T-S	0 / 0	-18.5	-18.5	0.01 (4)	10.00
S-R	0 / 0	-18.5	-18.5	0.02 (4)	10.00
R-Q	0 / 0	-18.5	-18.5	0.02 (4)	10.00
Q-P	0 / 0	-18.5	-18.5	0.01 (4)	10.00
P-O	-33 / 0	0.0	0.0	0.01 (1)	6.25

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 21.0 PSF

DL = 8.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

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

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

CSI: TC=0.04/1.00 (L-M:1), BC=0.02/1.00 (AB-AC:4), WB=0.15/1.00 (E-Z:1), SSI=0.07/1.00 (M-N:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

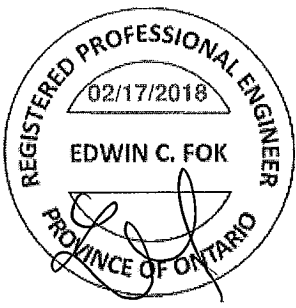
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (G) (INPUT = 0.90)

JSI METAL= 0.08 (F) (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

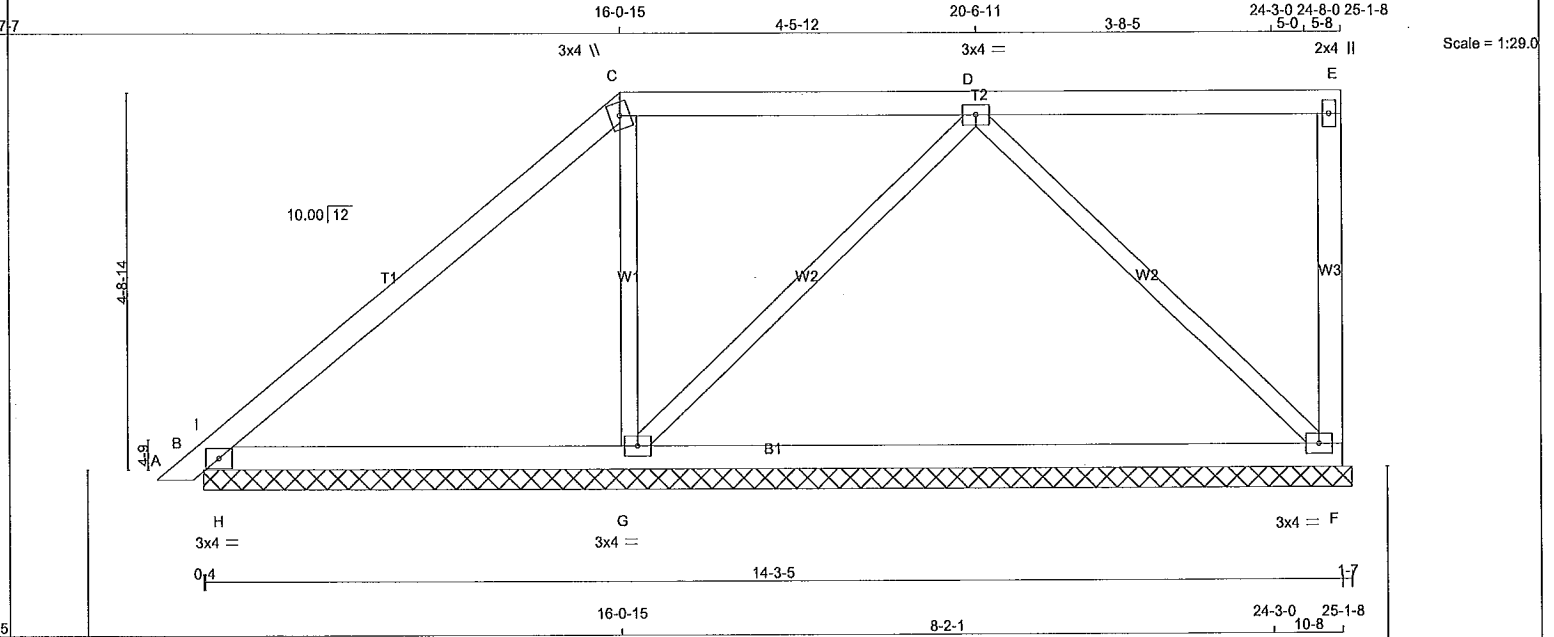


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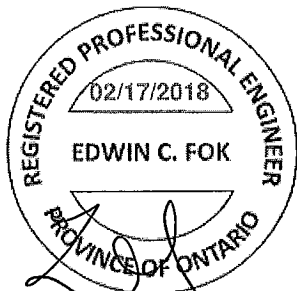
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H12P	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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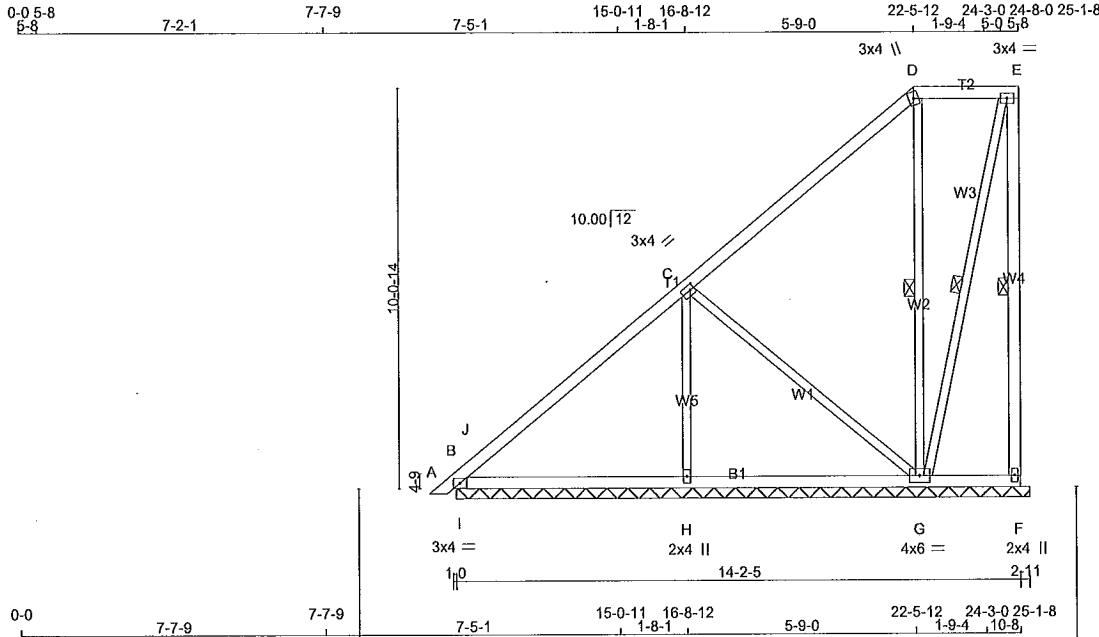
TOTAL WEIGHT = 53 lb

N. L. G. A. RULES							BUILDING DESIGNER							DESIGN CRITERIA						
CHORDS							BEARINGS							SPECIFIED LOADS:						
A - C	2x4	DRY	No.2	SPF	FACTORED		MAXIMUM FACTORED		INPUT		REORD		TOP CH.	LL = 21.0	PSF					
C - E	2x4	DRY	No.2	SPF	GROSS REACTION		GROSS REACTION		BRG		BRG		DL = 6.0	PSF						
F - E	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	BOT CH.	LL = 0.0	PSF					
B - F	2x4	DRY	No.2	SPF	F	439	0	439	0	0	14-5-0 (14-3-2)1-2		DL = 7.4	PSF						
							B	310	0	310	0	0	14-5-0 (14-3-2)1-2		TOTAL LOAD = 34.4	PSF				
							G	669	0	669	0	0	14-5-0 (14-3-2)1-2							
ALL WEBS 2x3 DRY No.2 SPF							VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH							SPACING = 24.0 IN. C/C						
DRY: SEASONED LUMBER.														LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM						
PLATES (table is in inches)							UNFACTORED REACTIONS							THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015						
JT	TYPE	PLATES	W	LEN	Y	X	1ST LCASE	MAX./MIN. COMPONENT REACTIONS				WIND		DEAD	SOIL	THIS DESIGN COMPLIES WITH:				
B	TMB1-I	MT20	3.0	4.0			JT	COMBINED	SNOW	LIVE	PERM. LIVE					- PART 9 OF OBC 2012, OBC 2018				
C	TTW1-m	MT20	3.0	4.0			F	311	200 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0		- CSA 086-09, CSA 086-14				
D	TMWV1-t	MT20	3.0	4.0			B	217	155 / 0	0 / 0	0 / 0	0 / 0	62 / 0	0 / 0		- TPIC 2011, TPIC 2014				
E	TMV1-p	MT20	2.0	4.0			G	482	266 / 0	0 / 0	0 / 0	0 / 0	216 / 0	0 / 0		(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				
F	BMVW1-t	MT20	3.0	4.0			BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, B, G.							CSI: TC=0.27/1.00 (C-D:1), BC=0.36/1.00 (F-G:4), WB=0.24/1.00 (D-F:1), SSI=0.50/1.00 (B-H:1)						
G	BMWVW1-t	MT20	3.0	4.0			BRACING							DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10						
							TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.							COMPANION LIVE LOAD FACTOR = 1.00						
							MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.							AUTOSOLVE RIGHT HEEL ONLY						
							ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.							TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.						
							LOADING							NAIL VALUES						
							TOTAL LOAD CASES: (4)							PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)						
							CHORDS							MAX MIN MAX MIN MAX MIN						
							MEMB. MAX. FACTORED FORCE (LBS)							MT20 618 354 1667 788 1987 1656						
							FACTORED VERT. LOAD LC1 MAX. CSI (LC)							PLATE PLACEMENT TOL. = 0.250 inches						
							LENGTH FR-TO							PLATE ROTATION TOL. = 5.0 Deg.						
							FR-TO							JSI GRIP= 0.44 (F) (INPUT = 0.90)						
							A-B 0 / 12 -78.0 -78.0 0.02 (1) 10.00							JSI METAL= 0.09 (F) (INPUT = 1.00)						
							B-I 0 / 229 -78.0 -78.0 0.19 (1) 10.00													
							I-C -89 / 0 -78.0 -78.0 0.26 (1) 6.25													
							C-D -51 / 0 -78.0 -78.0 0.27 (1) 6.25													
							D-E 0 / 0 -78.0 -78.0 0.27 (1) 10.00													
							F-E -135 / 0 0.0 0.0 0.05 (1) 7.81													
							B-H 0 / 57 -18.5 -18.5 0.24 (1) 10.00													
							H-G 0 / 57 -18.5 -18.5 0.35 (4) 10.00													
							G-F 0 / 246 -18.5 -18.5 0.36 (4) 10.00													
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design														A-18023499						
																				

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H14P	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 74 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	
C	TMBW-t	MT20	3.0	4.0	1.50 1.25
D	TTW+m	MT20	3.0	4.0	
E	TMVW-t	MT20	3.0	4.0	
F	BMV1+p	MT20	2.0	4.0	
G	BMVWW1-t	MT20	4.0	6.0	
H	BMV1+w	MT20	2.0	4.0	

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
F	92	0	92	0	0	14-5-0 (14-2-2)6-9	
B	362	0	362	0	0	14-5-0 (14-2-2)6-9	
G	488	0	488	0	0	14-5-0 (14-2-2)6-9	
H	476	0	476	0	0	14-5-0 (14-2-2)6-9	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	64	44/0	0/0	0/0	0/0	21/0	0/0
B	256	169/0	0/0	0/0	0/0	86/0	0/0
G	347	214/0	0/0	0/0	0/0	133/0	0/0
H	342	194/0	0/0	0/0	0/0	148/0	0/0

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

BRACING

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-F, D-G, E-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		FACTORED		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO	
A-B	0/12	-78.0 -78.0	0.02 (1) 10.00	G-D	-277/0
B-J	-71/0	-78.0 -78.0	0.07 (1) 6.25	H-C	-322/0
J-C	-136/0	-78.0 -78.0	0.42 (1) 6.25	C-G	-170/0
C-D	-29/0	-78.0 -78.0	0.42 (1) 6.25	G-E	-26/0
D-E	0/6	-78.0 -78.0	0.09 (1) 10.00	I-J	-364/6
F-E	-78/0	0.0 0.0	0.04 (1) 6.25		
B-I	0/127	-18.5 -18.5	0.16 (1) 10.00		
I-H	0/127	-18.5 -18.5	0.17 (4) 10.00		
H-G	0/127	-18.5 -18.5	0.17 (4) 10.00		
G-F	0/0	-18.5 -18.5	0.08 (4) 10.00		

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

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.42/1.00 (C-J:1), BC=0.17/1.00 (H-I:4), WB=0.20/1.00 (C-G:1), SSI=0.30/1.00 (B-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

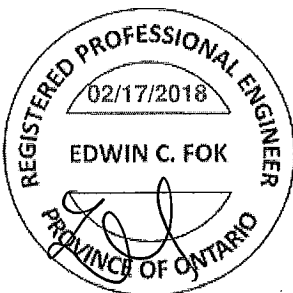
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.38 (C) (INPUT = 0.90)
JSI METAL= 0.10 (D) (INPUT = 1.00)



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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H15P	4	1	TRUSS DESC.	

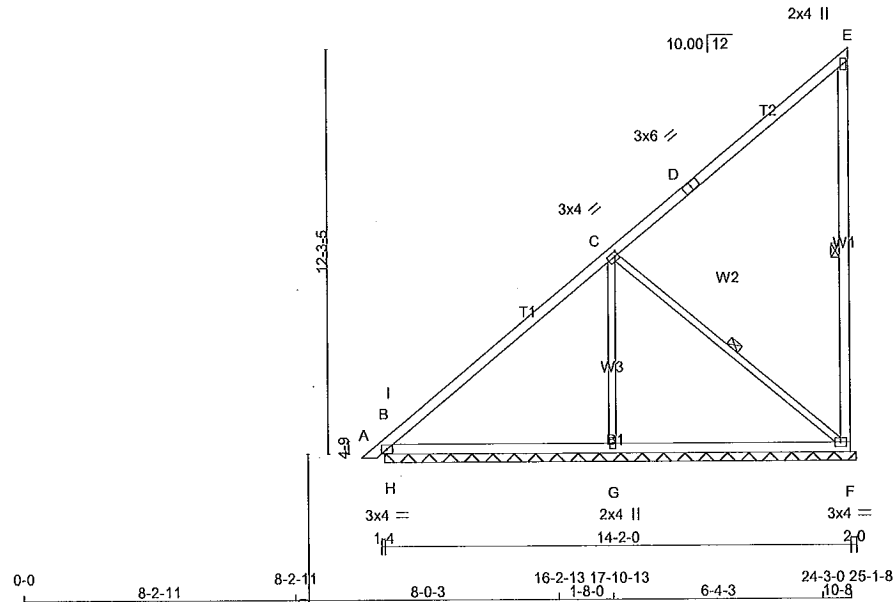
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0-0 5-8 5-8 7-9-3 8-2-11 8-0-3 16-2-13 17-10-13 1-8-0 6-4-3 24-3-0 24-8-0 25-1-8 5-0 5-8

Scale = 1:70.0



TOTAL WEIGHT = 4 X 63 = 254 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	
F - E	2x4	DRY	No.2	SPF	
B - F	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
DRY: SEASONED LUMBER.					

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B TMB1-I	MT20	3.0	4.0				
C TMWW-I	MT20	3.0	4.0	1.50	1.25		
D TS-I	MT20	3.0	6.0				
E TMV+p	MT20	2.0	4.0				
F BMVW1-I	MT20	3.0	4.0				
G BMV1+w	MT20	2.0	4.0				

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

	FACTORED		MAXIMUM FACTORED		INPUT	REQRD
	GROSS REACTION		GROSS REACTION		BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX
F	396	0	396	0	0	14-4-0 (14-2-0)1-15
B	429	0	429	0	0	14-4-0 (14-2-0)1-15
G	592	0	592	0	0	14-4-0 (14-2-0)1-15

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

	1ST CASE	MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	280	183 / 0	0 / 0	0 / 0	0 / 0	97 / 0	0 / 0
B	303	202 / 0	0 / 0	0 / 0	0 / 0	101 / 0	0 / 0
G	426	236 / 0	0 / 0	0 / 0	0 / 0	190 / 0	0 / 0

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

BRACING

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

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

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

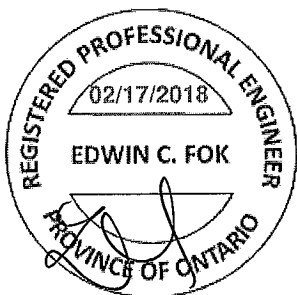
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS				W E B S				
MAX. FACTORED		FACTORED		MAX. FACTORED		MAX. FACTORED		
MEMB.	FORCE	VERT. LOAD	LC1 MAX	MAX.	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO			
A- B	0 / 12	-78.0	-78.0	0.02 (1)	10.00	G- C	-399 / 0	0.25 (1)
B- I	-81 / 0	-78.0	-78.0	0.11 (1)	6.25	C- F	-209 / 0	0.12 (1)
I- C	-174 / 0	-78.0	-78.0	0.65 (1)	6.25	H- I	-500 / 0	0.00 (1)
C- D	-41 / 0	-78.0	-78.0	0.63 (1)	6.25			
D- E	-41 / 0	-78.0	-78.0	0.63 (1)	6.25			
F- E	-217 / 0	0.0	0.0	0.18 (1)	6.25			
B- H	0 / 162	-18.5	-18.5	0.21 (1)	10.00			
H- G	0 / 162	-18.5	-18.5	0.29 (4)	10.00			
G- F	0 / 162	-18.5	-18.5	0.29 (4)	10.00			

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



DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.65/1.00 (C-I:1), BC=0.29/1.00 (G-H:4), WB=0.25/1.00 (C-G:1), SSI=0.41/1.00 (B-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.

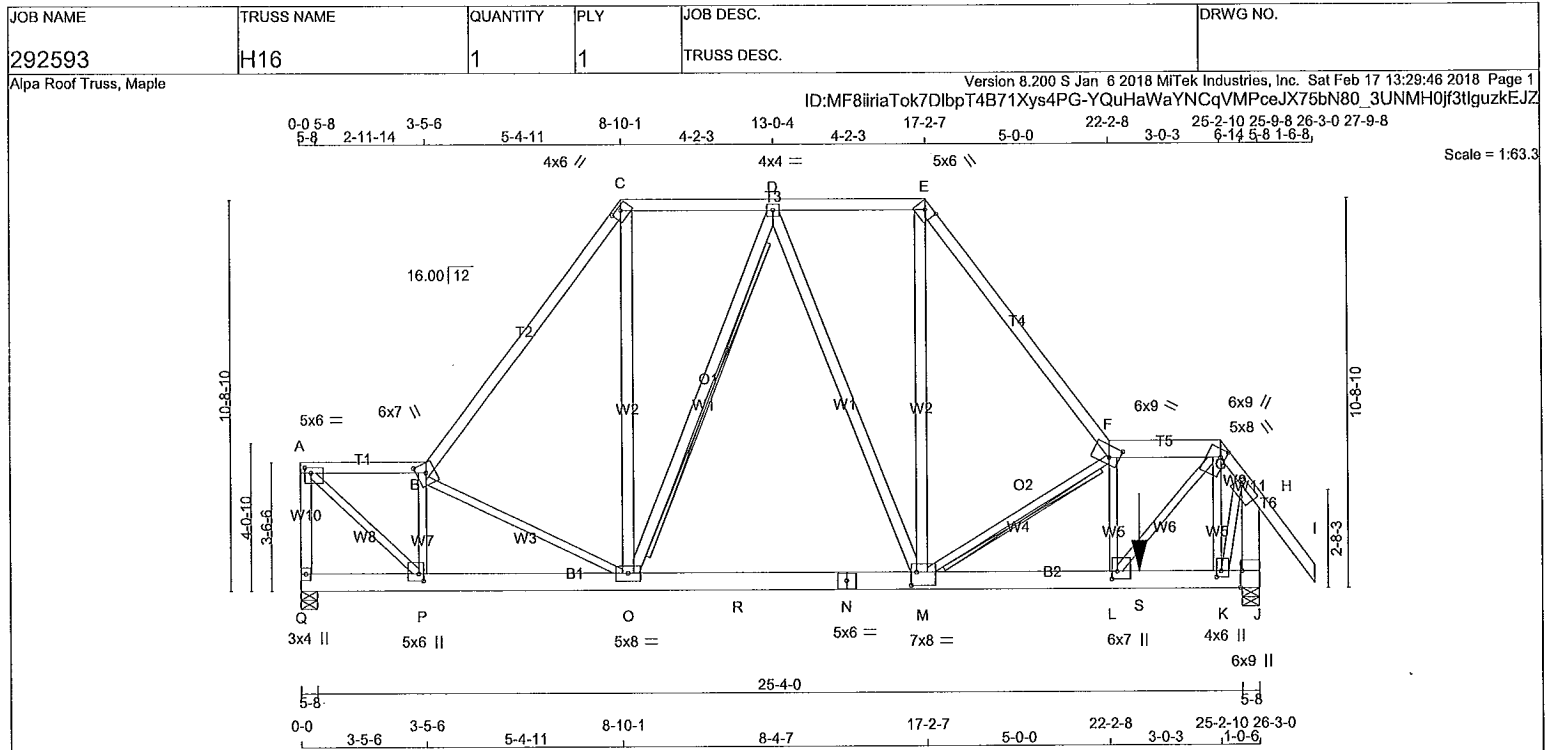
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (D) (INPUT = 0.90)
JSI METAL= 0.36 (D) (INPUT = 1.00)

A-18023502



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

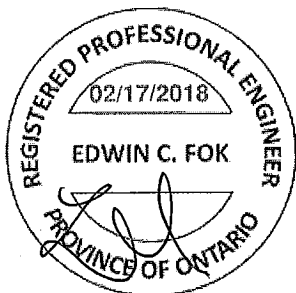
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	6.0	1.75	2.00
B	TTWW+m	MT20	6.0	7.0	3.25	3.00
C	TTW-h	MT20	4.0	6.0	1.25	3.00
D	TMVW-t	MT20	4.0	4.0		
E	TTW-h	MT20	5.0	6.0	2.00	3.25
F	TTWW-m	MT20	6.0	9.0	3.75	3.25
G	TTWW+m	MT20	6.0	9.0	2.50	1.75
H	TMVW-t	MT20	5.0	8.0	2.00	2.00
J	BMV1+t	MT20	6.0	9.0	Edge	0.50
K	BMVW+t	MT20	4.0	6.0	2.00	1.50
L	BMVW+t	MT20	6.0	7.0	2.50	1.75
M	BMVW+t	MT20	7.0	8.0	4.25	1.75
N	BS-t	MT20	5.0	6.0		
O	BMVW+t	MT20	5.0	8.0		
P	BMVW+t	MT20	5.0	6.0	2.25	1.50
Q	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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
Q	2191	0	2191	0	5-8	3-10
J	3672	0	3672	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LC CASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
Q	1565	939 / 0	0 / 0	0 / 0	0 / 0	626 / 0	0 / 0
J	2618	1598 / 0	0 / 0	0 / 0	0 / 0	1020 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.91 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT D-O, F-M

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FORCE (LBS)	FACTORED		MEMB.	FORCE (LBS)	FACTORED	
		VERT. LOAD	LC1 MAX (PLF)			MAX. UNBRAC LENGTH FR-TO	MAX. CSI (LC)
FR-TO		FROM	TO	FR-TO			
Q-A	-2082 / 0	0.0	0.0 0.39 (1)	5.81	A-P	0 / 2879	0.71 (1)
A-B	-2092 / 0	-78.0	-78.0 0.24 (1)	4.43	P-B	-2110 / 0	0.44 (1)
B-C	-2594 / 0	-78.0	-78.0 0.67 (1)	4.33	B-O	-695 / 0	0.50 (1)
C-D	-1580 / 0	-85.5	-85.5 0.28 (1)	2.00	O-C	0 / 1705	0.30 (1)
D-E	-2060 / 0	-85.5	-85.5 0.31 (1)	2.00	O-D	-869 / 0	0.78 (1)
E-F	-3392 / 0	-78.0	-78.0 0.68 (1)	3.91	D-M	0 / 450	0.08 (1)
F-G	-3510 / 0	-78.0	-78.0 0.13 (1)	4.44	M-E	0 / 2359	0.42 (1)
G-H	-1766 / 0	-78.0	-78.0 0.20 (1)	4.79	M-F	-1878 / 0	0.58 (1)
H-I	0 / 52	-78.0	-78.0 0.17 (1)	10.00	L-F	-1958 / 0	0.46 (1)
J-H	-3943 / 0	0.0	0.0 0.40 (1)	5.36	L-G	0 / 3920	0.97 (1)
					K-G	-1750 / 0	0.41 (1)
					K-H	0 / 2529	0.63 (1)
Q-P	0 / 0	-18.5	-18.5 0.13 (1)	10.00			
P-O	0 / 2163	-18.5	-18.5 0.44 (1)	10.00			
O-R	0 / 1897	-18.5	-18.5 0.66 (1)	10.00			
R-N	0 / 1897	-239.3	-239.3 0.66 (1)	10.00			
N-M	0 / 1897	-239.3	-239.3 0.66 (1)	10.00			
M-L	0 / 3567	-239.3	-239.3 0.79 (1)	10.00			
L-S	0 / 1040	-239.3	-239.3 0.25 (1)	10.00			
S-K	0 / 1040	-18.5	-18.5 0.25 (1)	10.00			
K-J	0 / 0	-18.5	-18.5 0.41 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
S	23-0-4	-704	-704	---	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 HIGHEST FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

GIRDER TYPE: CStd Girder
START DISTANCE = 12-0-0
START SPAN CARRIED = 11-1-14
END DISTANCE = 23-0-4
END SPAN CARRIED = 11-1-14
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.87")
CALCULATED VERT. DEFL.(LL) = L/999 (0.18")
ALLOWABLE DEFL.(TL) = L/360 (0.87")
CALCULATED VERT. DEFL.(TL) = L/859 (0.37")

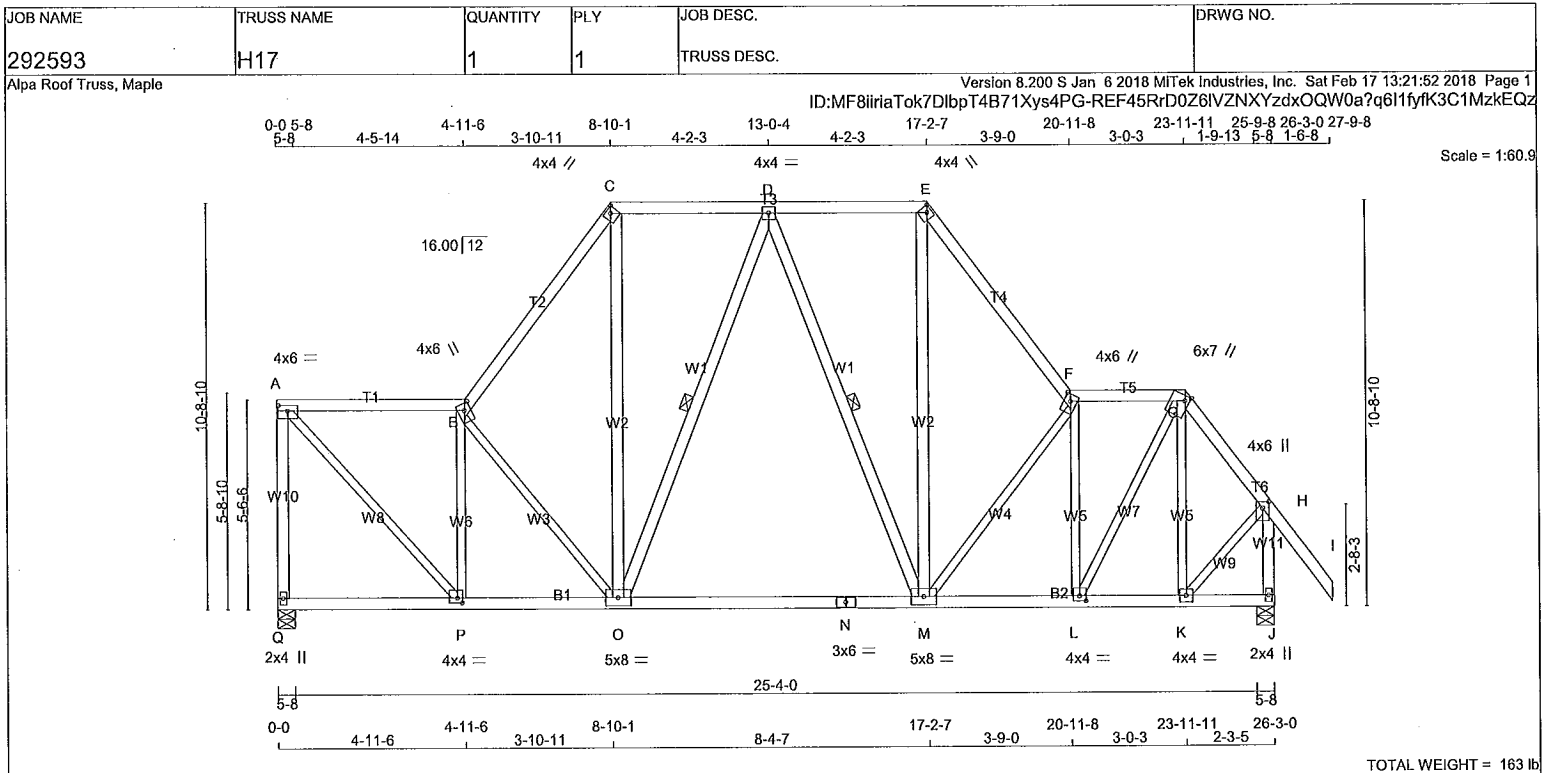
CSI: TC=0.68/1.00 (E-F:1), BC=0.79/1.00 (L-M:1), WB=0.97/1.00 (G-L:1), SS=0.60/1.00 (M-O:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

A-18023503

CONTINUED ON PAGE 2



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-l	MT20	4.0	6.0	1.75	3.00
B	TTWW+m	MT20	4.0	6.0	2.25	2.00
C	TTW-h	MT20	4.0	4.0	Edge	
D	TMVW-l	MT20	4.0	4.0		
E	TTW-h	MT20	4.0	4.0	Edge	
F	TTWW+m	MT20	4.0	6.0	2.25	2.00
G	TTWW+m	MT20	6.0	7.0	Edge	1.50
H	TMVW+P	MT20	4.0	6.0	2.00	2.00
J	BMV1+p	MT20	2.0	4.0		
K	BMVW-l	MT20	4.0	4.0		
L	BMVW-l	MT20	4.0	4.0	1.50	2.00
M	BMVWV-l	MT20	5.0	8.0		
N	BS-l	MT20	3.0	6.0		
O	BMVWV-l	MT20	5.0	8.0		
P	BMVW-l	MT20	4.0	4.0	1.50	1.50
Q	BMV1+p	MT20	2.0	4.0		

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

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



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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG	IN-SX
Q	1294	0	0	1294	0	0	0	5-8	1-15
J	1431	0	0	1431	0	0	0	5-8	2-2

UNFACTORED REACTIONS		1ST LCASE		MAX/MIN. COMPONENT REACTIONS	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
Q	925	549 / 0	0 / 0	0 / 0	0 / 0
J	1020	623 / 0	0 / 0	0 / 0	0 / 0

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

BRACING
FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.60 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 D-O, D-M.

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

CHORDS		FACTORED		W E B S	
MEMB.	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. CS1 (LC)	MEMB.	MAX. FORCE (LBS)
FR-TO		FROM TO	LENGTH	FR-TO	
Q-A	-1252 / 0	0.0	0.0 0.69 (1)	A-P	0 / 1455
A-B	-987 / 0	-78.0	-78.0 0.26 (1)	P-B	-998 / 0
B-C	-1234 / 0	-78.0	-78.0 0.18 (1)	B-O	-435 / 0
C-D	-749 / 0	-85.5	-85.5 0.19 (1)	O-C	0 / 689
D-E	-755 / 0	-85.5	-85.5 0.19 (1)	O-D	-235 / 0
E-F	-1243 / 0	-78.0	-78.0 0.17 (1)	D-M	-219 / 0
F-G	-988 / 0	-78.0	-78.0 0.10 (1)	M-E	0 / 702
G-H	-878 / 0	-78.0	-78.0 0.12 (1)	M-F	-443 / 0
H-I	0 / 52	-78.0	-78.0 0.15 (1)	L-F	-899 / 0
J-H	-1421 / 0	0.0	0.0 0.21 (1)	L-G	0 / 1045
Q-P	0 / 0	-18.5	-18.5 0.10 (4)	K-G	-403 / 0
P-O	0 / 1007	-18.5	-18.5 0.29 (4)	K-H	0 / 692
O-N	0 / 835	-18.5	-18.5 0.28 (4)		
N-M	0 / 835	-18.5	-18.5 0.28 (4)		
M-L	0 / 1006	-18.5	-18.5 0.30 (4)		
L-K	0 / 491	-18.5	-18.5 0.12 (1)		
K-J	0 / 0	-18.5	-18.5 0.05 (4)		

DESIGN CRITERIA

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

SPACING = 24.0 IN./C/C

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

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

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

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

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 (0.87")
CALCULATED VERT. DEFL.(LL)= L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.87")
CALCULATED VERT. DEFL.(TL)= L/999 (0.16")

CSI: TC=0.69/1.00 (A-Q:1), BC=0.30/1.00 (L-M:4)
WB=0.46/1.00 (B-P:1), SS=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) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

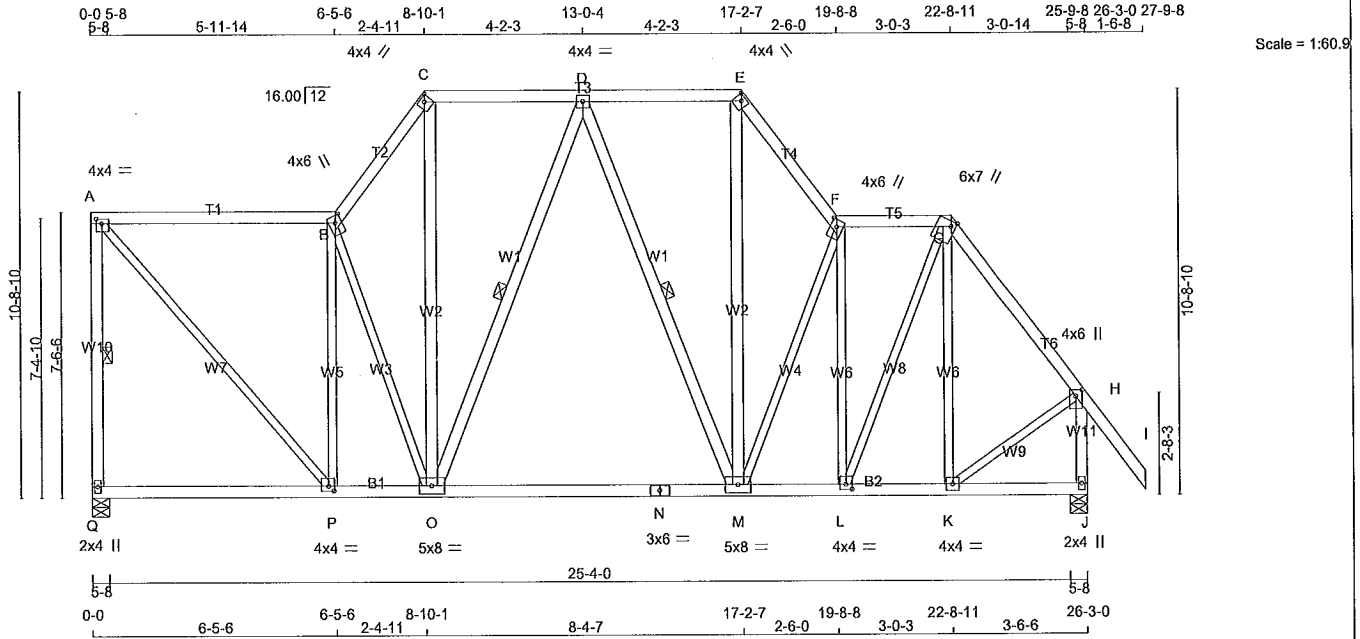
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.38 (P) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H18	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sat Feb 17 13:22:03 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-clPEPCz7QxUBJFJehnKWLkTzPrAlNuoZBXDIwDzkEQo



Scale = 1:60.9

TOTAL WEIGHT = 174 lb

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

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-l	MT20	4.0	4.0	1.50	1.75	
B	TTWW+m	MT20	4.0	6.0	2.25	2.00	
C	TTW-h	MT20	4.0	4.0	Edge		
D	TMVW-l	MT20	4.0	4.0			
E	TTW-h	MT20	4.0	4.0	Edge		
F	TTWW+m	MT20	4.0	6.0	2.25	2.00	
G	TTWW+m	MT20	6.0	7.0	Edge	1.50	
H	TMVW+p	MT20	4.0	6.0	2.00	2.00	
J	BMV1+p	MT20	2.0	4.0			
K	BMVW-l	MT20	4.0	4.0			
L	BMVW-l	MT20	4.0	4.0	1.50	2.00	
M	BMVW-l	MT20	5.0	8.0			
N	BS-l	MT20	3.0	6.0			
O	BMVW-l	MT20	5.0	8.0			
P	BMVW-l	MT20	4.0	4.0	1.50	1.75	
Q	BMV1+p	MT20	2.0	4.0			

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

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



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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
Q	1298	0	1298	0	5-8	1-15
J	1427	0	1427	0	5-8	2-2

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	928	551/0	0/0	0/0	0/0	377/0	0/0
J	1017	621/0	0/0	0/0	0/0	397/0	0/0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.68 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF A-Q, D-O, D-M.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED	FACTORED		MAX. UNBRACED	MEMB.	MAX. FACTORED	MAX		
	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)			FORCE (LBS)		CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO				
Q-A	-1247 / 0	0.0	0.0	0.32 (1)	5.76	A-P	0 / 1332	0.30 (1)	
A-B	-878 / 0	-78.0	-78.0	0.43 (1)	5.95	P-B	-920 / 0	0.95 (1)	
B-C	-1237 / 0	-78.0	-78.0	0.08 (1)	5.71	B-O	-447 / 0	0.51 (1)	
C-D	-752 / 0	-85.5	-85.5	0.19 (1)	2.00	O-C	0 / 750	0.12 (1)	
D-E	-762 / 0	-85.5	-85.5	0.19 (1)	2.00	O-D	-240 / 0	0.17 (1)	
E-F	-1253 / 0	-78.0	-78.0	0.08 (1)	5.68	D-M	-213 / 0	0.15 (1)	
F-G	-896 / 0	-78.0	-78.0	0.10 (1)	6.25	M-E	0 / 759	0.12 (1)	
G-H	-984 / 0	-78.0	-78.0	0.14 (1)	6.19	M-F	-444 / 0	0.49 (1)	
H-I	0 / 52	-78.0	-78.0	0.15 (1)	10.00	L-F	-802 / 0	0.78 (1)	
J-H	-1403 / 0	0.0	0.0	0.20 (1)	6.87	L-G	0 / 852	0.19 (1)	
						K-G	-269 / 0	0.26 (1)	
						K-H	0 / 679	0.15 (1)	
Q-P	0 / 0	-18.5	-18.5	0.16 (4)	10.00				
P-O	0 / 891	-18.5	-18.5	0.27 (4)	10.00				
O-N	0 / 839	-18.5	-18.5	0.29 (4)	10.00				
N-M	0 / 839	-18.5	-18.5	0.29 (4)	10.00				
M-L	0 / 908	-18.5	-18.5	0.30 (4)	10.00				
L-K	0 / 570	-18.5	-18.5	0.14 (1)	10.00				
K-J	0 / 0	-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

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.88")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL) = L/360 (0.88")
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

CSI: TC=0.43/1.00 (A-B:1), BC=0.30/1.00 (L-M:4), WB=0.95/1.00 (B-P:1), SSI=0.20/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

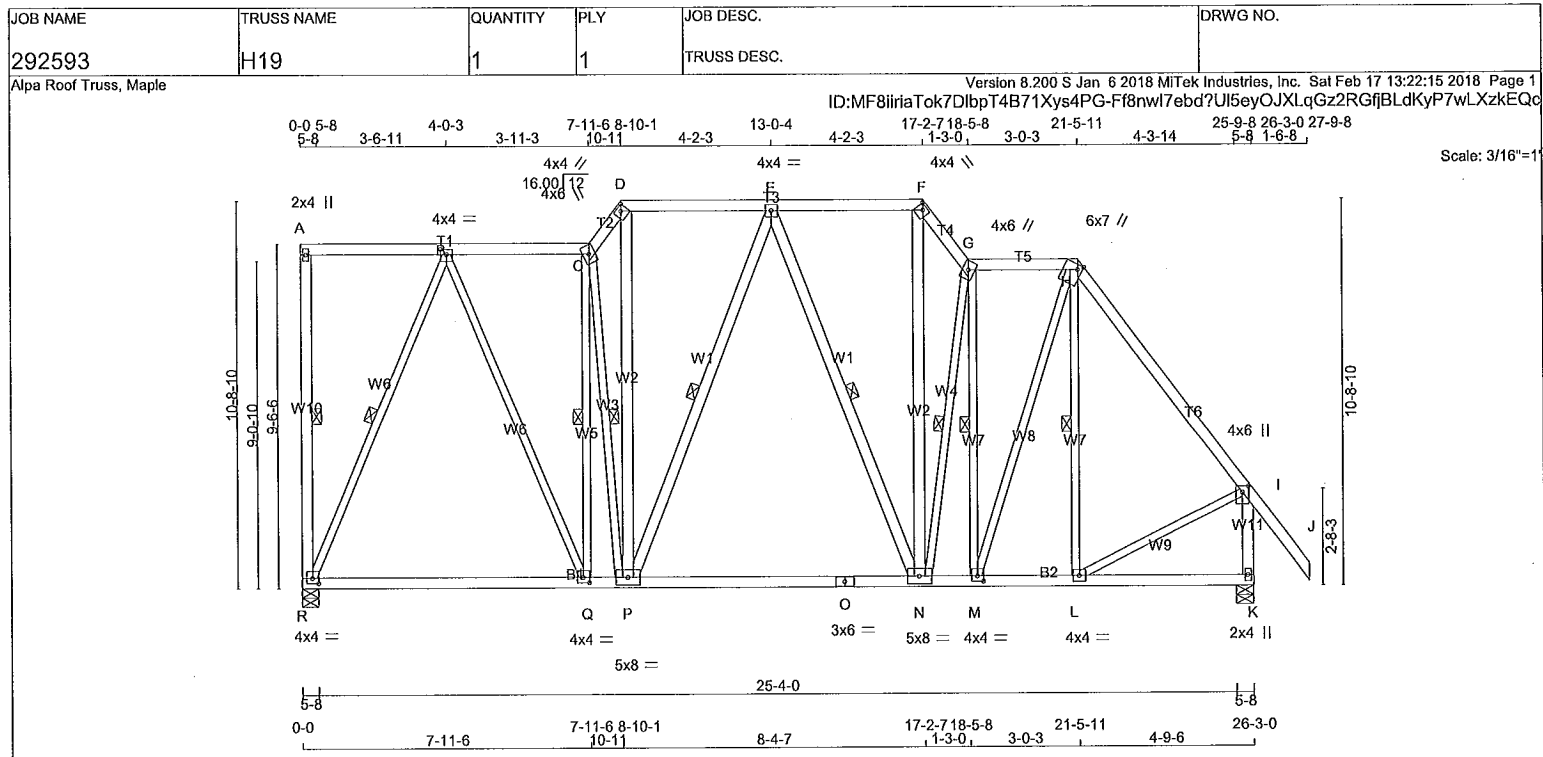
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.39 (E) (INPUT = 1.00)

A-18023505

CONTINUED ON PAGE 2



TOTAL WEIGHT = 193 lb [M][F]

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

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	2.00
C	TTWW+m	MT20	4.0	6.0		
D	TTW-h	MT20	4.0	4.0	Edge	
E	TMWW-t	MT20	4.0	4.0		
F	TTW-h	MT20	4.0	4.0	Edge	
G	TTWW+m	MT20	4.0	6.0		
H	TTWW+m	MT20	6.0	7.0	Edge	1.50
I	TMV+p	MT20	4.0	6.0	2.00	2.00
K	BMV1+p	MT20	2.0	4.0		
L	BMWW-t	MT20	4.0	4.0		
M	BMWW-t	MT20	4.0	4.0	1.75	2.00
N	BMWW-t	MT20	5.0	8.0		
O	BS-t	MT20	3.0	6.0		
P	BMWW-t	MT20	5.0	8.0		
Q	BMWW-t	MT20	4.0	4.0	1.75	2.00
R	BMVW1-t	MT20	4.0	4.0	1.75	2.00

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



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		
R	1298	0	1298	0	5-8	1-8		
K	1427	0	1427	0	5-8	2-2		

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. SNOW		LIVE		PERM. LIVE		WIND		DEAD		SOIL	
R	928	551 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	377 / 0	0 / 0	397 / 0	0 / 0	0 / 0	0 / 0
K	1017	621 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	397 / 0	0 / 0	397 / 0	0 / 0	0 / 0	0 / 0

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

BRACING

FOR SECTION D-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.73 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF A-R, C-Q, C-P, E-P, E-N, G-N, G-M, H-L, B-R.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MAX. FACTORED		FACTORED		MAX. FACTORED		MAX. FACTORED		
MEMB.	FORCE	VERT. LOAD	MAX	MAX.	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	LC1 (LC)	UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO			
R-A	-118 / 0	0.0	0.0	0.05 (1)	6.25	Q-C	-619 / 0	0.37 (1)
A-B	0 / 0	-78.0	-78.0	0.21 (1)	10.00	C-P	-532 / 0	0.33 (1)
B-C	-795 / 0	-78.0	-78.0	0.17 (1)	6.25	P-D	0 / 809	0.13 (1)
C-D	-1237 / 0	-78.0	-78.0	0.02 (1)	5.76	P-E	-238 / 0	0.16 (1)
D-E	-753 / 0	-85.5	-85.5	0.19 (1)	2.00	E-N	-215 / 0	0.15 (1)
E-F	-762 / 0	-85.5	-85.5	0.19 (1)	2.00	N-F	0 / 806	0.13 (1)
F-G	-1252 / 0	-78.0	-78.0	0.03 (1)	5.73	N-G	-446 / 0	0.24 (1)
G-H	-813 / 0	-78.0	-78.0	0.10 (1)	6.25	M-G	-728 / 0	0.39 (1)
H-I	-994 / 0	-78.0	-78.0	0.26 (1)	5.98	M-H	0 / 698	0.16 (1)
I-J	0 / 52	-78.0	-78.0	0.15 (1)	10.00	L-H	-169 / 0	0.09 (1)
K-I	-1392 / 0	0.0	0.0	0.20 (1)	6.90	L-I	0 / 656	0.15 (1)
						R-B	-1223 / 0	0.89 (1)
R-Q	0 / 487	-18.5	-18.5	0.32 (4)	10.00	B-Q	0 / 805	0.18 (1)
Q-P	0 / 802	-18.5	-18.5	0.35 (4)	10.00			
P-O	0 / 840	-18.5	-18.5	0.29 (4)	10.00			
O-N	0 / 840	-18.5	-18.5	0.29 (4)	10.00			
N-M	0 / 822	-18.5	-18.5	0.29 (4)	10.00			
M-L	0 / 592	-18.5	-18.5	0.17 (4)	10.00			
L-K	0 / 0	-18.5	-18.5	0.11 (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 HIGHEST FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.88")
CALCULATED VERT. DEFL.(LL)= L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.88")
CALCULATED VERT. DEFL.(TL)= L/999 (0.15")

CSI: TC=0.26/1.00 (H-I:1), BC=0.35/1.00 (P-Q:4), WB=0.89/1.00 (B-R:1), SSI=0.17/1.00 (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

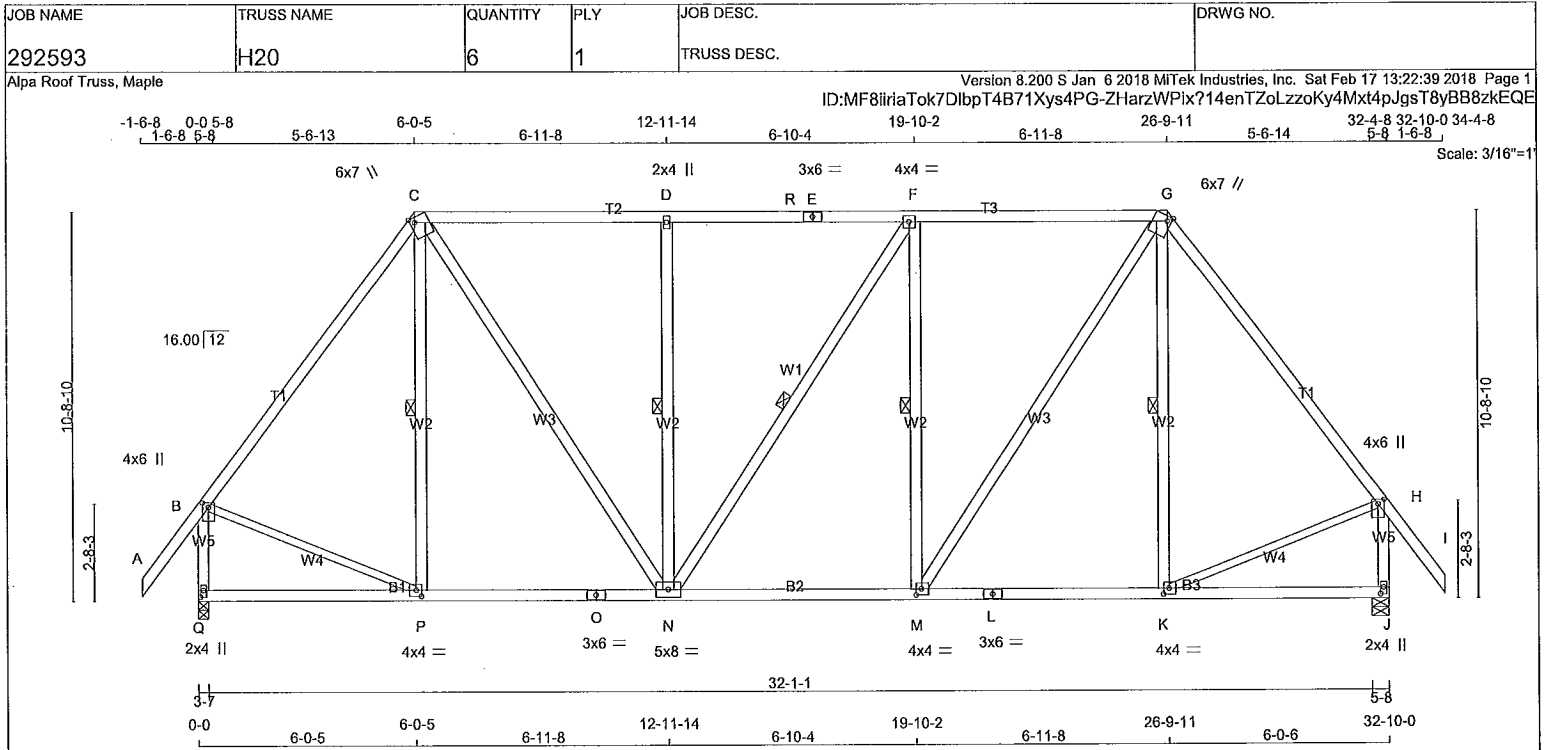
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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= 0.83 (M) (INPUT = 0.90)
JSI METAL= 0.41 (D) (INPUT = 1.00)



TOTAL WEIGHT = 6 X 194 = 1162 lb [M]F

LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	SPF	FACTORED	MAXIMUM FACTORED	INPUT
A - C	2x4	DRY	2100F 1.8E	SPF	FACTORED	GROSS REACTION	BRG
C - E	2x4	DRY	No.2	SPF	JT	VERT	HORZ
E - G	2x4	DRY	No.2	SPF	Q	1791	0
G - I	2x4	DRY	2100F 1.8E	SPF	J	1791	0
I - B	2x4	DRY	No.2	SPF			
B - H	2x4	DRY	No.2	SPF			
H - O	2x4	DRY	No.2	SPF			
O - L	2x4	DRY	No.2	SPF			
L - J	2x4	DRY	No.2	SPF			
ALL WEBS	2x4	DRY	No.2	SPF			
EXCEPT							
B - P	2x3	DRY	No.2	SPF			
K - H	2x3	DRY	No.2	SPF			

DRY: SEASONED LUMBER.

PLATES (table is in inches)				JT TYPE			
PLATES	W	LEN	Y	X			
B TMVW+p	MT20	4.0	6.0	1.50	2.00		
C TTWW+m	MT20	6.0	7.0	Edge	1.50		
D TMW+w	MT20	2.0	4.0				
E TS-t	MT20	3.0	6.0				
F TMWW-t	MT20	4.0	4.0				
G TTWW+m	MT20	6.0	7.0	Edge	1.50		
H TMVW+p	MT20	4.0	6.0	1.50	2.00		
J BMV1+p	MT20	2.0	4.0	2.25	1.00		
K, M, P							
K BMWW-t	MT20	4.0	4.0	2.00	1.75		
L BS-t	MT20	3.0	6.0				
N BMWWW-t	MT20	5.0	8.0				
O BS-t	MT20	3.0	6.0				
Q BMV1+p	MT20	2.0	4.0	2.25	1.00		

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

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

BEARINGS				FACTORED			
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	REQRD
Q	1791	0	1791	0	0	3-7	2-5
J	1791	0	1791	0	0	5-8	2-10

UNFACTORED REACTIONS				1ST LCASE			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1281	759 / 0	0 / 0	0 / 0	0 / 0	522 / 0	0 / 0
J	1281	759 / 0	0 / 0	0 / 0	0 / 0	522 / 0	0 / 0

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

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

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

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

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

LOADING				TOTAL LOAD CASES: (4)			
CHORDS				WEBS			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (CSI (LC))	MAX. UNBRACED LENGTH (FR-TO)	MEMB.	FORCE (LBS)	MAX. FACTORED (CSI (LC))
FR-TO		FROM	TO		FR-TO		
A-B	0 / 52	-78.0	-78.0	0.10 (1)	10.00	P-C	-164 / 20
B-C	-1350 / 0	-78.0	-78.0	0.28 (1)	6.25	C-N	0 / 918
C-D	-1316 / 0	-85.5	-85.5	0.52 (1)	2.00	N-D	-838 / 0
D-E	-1316 / 0	-85.5	-85.5	0.46 (1)	2.00	N-F	-1 / 0
E-F	-1316 / 0	-85.5	-85.5	0.46 (1)	2.00	M-F	-639 / 0
F-G	-1316 / 0	-85.5	-85.5	0.46 (1)	2.00	M-G	0 / 920
G-H	-1350 / 0	-78.0	-78.0	0.28 (1)	6.25	K-G	-165 / 20
H-I	0 / 52	-78.0	-78.0	0.10 (1)	10.00	B-P	0 / 861
Q-B	-1747 / 0	0.0	0.0	0.25 (1)	6.30	K-H	0 / 861
J-H	-1747 / 0	0.0	0.0	0.25 (1)	6.30		
Q-P	0 / 0	-18.5	-18.5	0.19 (4)	10.00		
P-O	0 / 805	-18.5	-18.5	0.27 (4)	10.00		
O-N	0 / 805	-18.5	-18.5	0.27 (4)	10.00		
N-M	0 / 1317	-18.5	-18.5	0.30 (4)	10.00		
M-L	0 / 805	-18.5	-18.5	0.27 (4)	10.00		
L-K	0 / 805	-18.5	-18.5	0.27 (4)	10.00		
K-J	0 / 0	-18.5	-18.5	0.19 (4)	10.00		

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")

CSI: TC=0.52/1.00 (F-G:1), BC=0.30/1.00 (M-N:4),
WB=0.37/1.00 (F-M:1), SSI=0.28/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

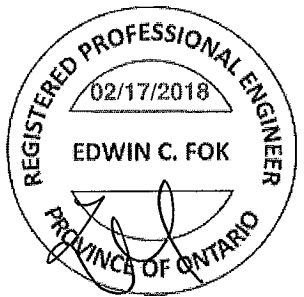
NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

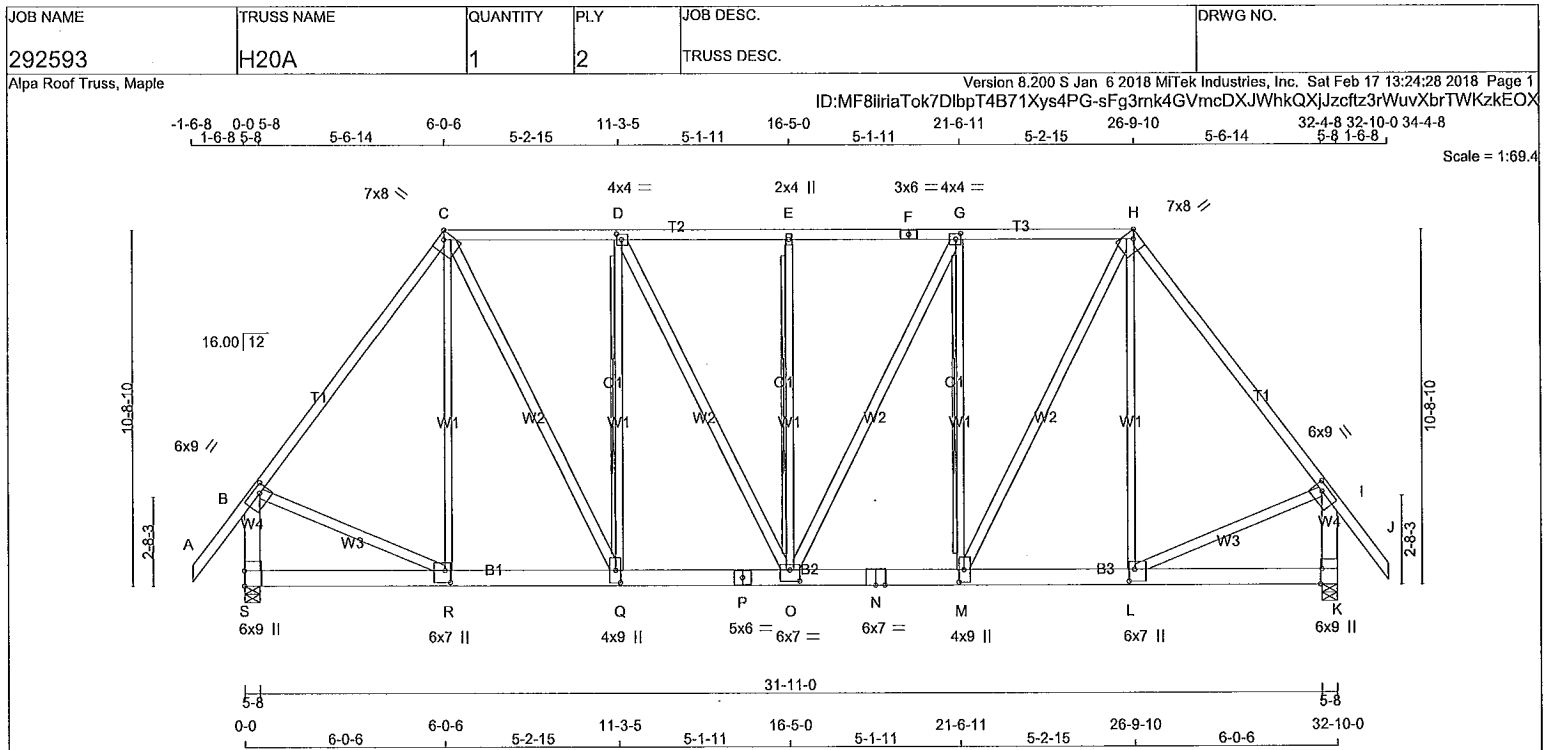
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (B) (INPUT = 0.90)
JSI METAL= 0.57 (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-18023507



LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	2100F 1.8E	A - C	2x4	DRY	2100F 1.8E
C - F	2x4	DRY	No.2	C - F	2x4	DRY	No.2
F - H	2x4	DRY	No.2	F - H	2x4	DRY	No.2
H - J	2x4	DRY	2100F 1.8E	H - J	2x4	DRY	2100F 1.8E
S - B	2x6	DRY	No.2	S - B	2x6	DRY	No.2
K - I	2x6	DRY	No.2	K - I	2x6	DRY	No.2
S - P	2x6	DRY	1650F 1.5E	S - P	2x6	DRY	1650F 1.5E
P - N	2x6	DRY	1650F 1.5E	P - N	2x6	DRY	1650F 1.5E
N - K	2x6	DRY	1650F 1.5E	N - K	2x6	DRY	1650F 1.5E

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - C	12	TOP
C - F	12	TOP
F - H	12	TOP
H - J	12	TOP
S - B	12	TOP
K - I	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
S - P	9	SIDE(278.9)
P - N	9	SIDE(278.9)
N - K	9	SIDE(278.9)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	
2x4	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX
S	10869	0	10869	0	0	5-8	5-8	5-8
K	10869	0	10869	0	0	5-8	5-8	5-8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
S	7746	4743 / 0	0 / 0	0 / 0	0 / 0	3003 / 0	0 / 0
K	7746	4743 / 0	0 / 0	0 / 0	0 / 0	3003 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.03 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x6 DRY SPF No.2 T-BRACE AT D-Q, G-M
2x4 DRY SPF No.2 T-BRACE AT E-O

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. FACTORED CS1 (LC)		WEBS		MAX. FACTORED FORCE (LBS)		MAX. FACTORED CS1 (LC)	
MEMB.	FR-TO	FROM	TO	FROM	TO	FROM	TO	MEMB.	FR-TO	FROM	TO	FROM	TO
A-B	0 / 52	-78.0	-78.0	0.06 (1)	10.00	R-C	0 / 1827	0.23 (1)					
B-C	-8909 / 0	-78.0	-78.0	0.91 (1)	3.88	C-Q	0 / 5433	0.48 (1)					
C-D	-7810 / 0	-78.0	-78.0	0.47 (1)	3.23	Q-D	-2052 / 0	0.74 (1)					
D-E	-8639 / 0	-78.0	-78.0	0.53 (1)	3.03	D-O	0 / 1863	0.16 (1)					
E-F	-8639 / 0	-78.0	-78.0	0.53 (1)	3.03	O-E	-372 / 0	0.23 (1)					
F-G	-8639 / 0	-78.0	-78.0	0.53 (1)	3.03	O-G	0 / 1863	0.16 (1)					
G-H	-7810 / 0	-78.0	-78.0	0.47 (1)	3.23	M-G	-2052 / 0	0.74 (1)					
H-I	-8909 / 0	-78.0	-78.0	0.91 (1)	3.88	M-H	0 / 5433	0.48 (1)					
I-J	0 / 52	-78.0	-78.0	0.06 (1)	10.00	L-H	0 / 1827	0.23 (1)					
S-B	-9426 / 0	0.0	0.0	0.47 (1)	4.91	B-R	0 / 5660	0.50 (1)					
K-I	-9426 / 0	0.0	0.0	0.47 (1)	4.91	L-I	0 / 5660	0.50 (1)					
S-R	0 / 0	-576.2	-576.2	0.51 (1)	10.00								
R-Q	0 / 5343	-576.2	-576.2	0.72 (1)	10.00								
Q-P	0 / 7810	-576.2	-576.2	0.60 (1)	10.00								
P-O	0 / 7810	-576.2	-576.2	0.60 (1)	10.00								
O-N	0 / 7810	-576.2	-576.2	0.60 (1)	10.00								
N-M	0 / 7810	-576.2	-576.2	0.80 (1)	10.00								
M-L	0 / 5343	-576.2	-576.2	0.72 (1)	10.00								
L-K	0 / 0	-576.2	-576.2	0.51 (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

GIRDER TYPE: CS1d Girder
START DISTANCE = 0-0
START SPAN CARRIED = 25-1-8
END DISTANCE = 32-10-0
END SPAN CARRIED = 25-1-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.09")
CALCULATED VERT. DEFL.(LL)= L/999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL)= L/999 (0.28")

CS1: TC=0.91/1.00 (H-I:1), BC=0.72/1.00 (L-M:1), WB=0.74/1.00 (D-Q:1), SSI=0.69/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

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

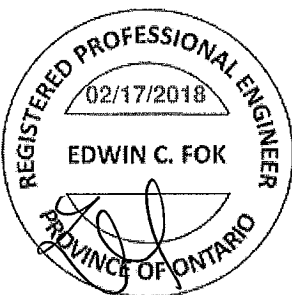
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (B) (INPUT = 0.90)
JSI METAL= 0.86 (P) (INPUT = 1.00)

A-18023508

CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H20A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

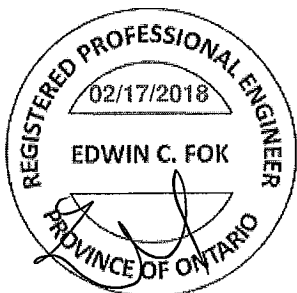
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sat Feb 17 13:24:29 2018 Page 2
ID:MF8ilriaTok7DlbpT4B71Xys4PG-KRER27Ii1ouTqhtIFsXmFXWnPHIHaz83mFb02mzkEOW

PLATES (table is in inches)

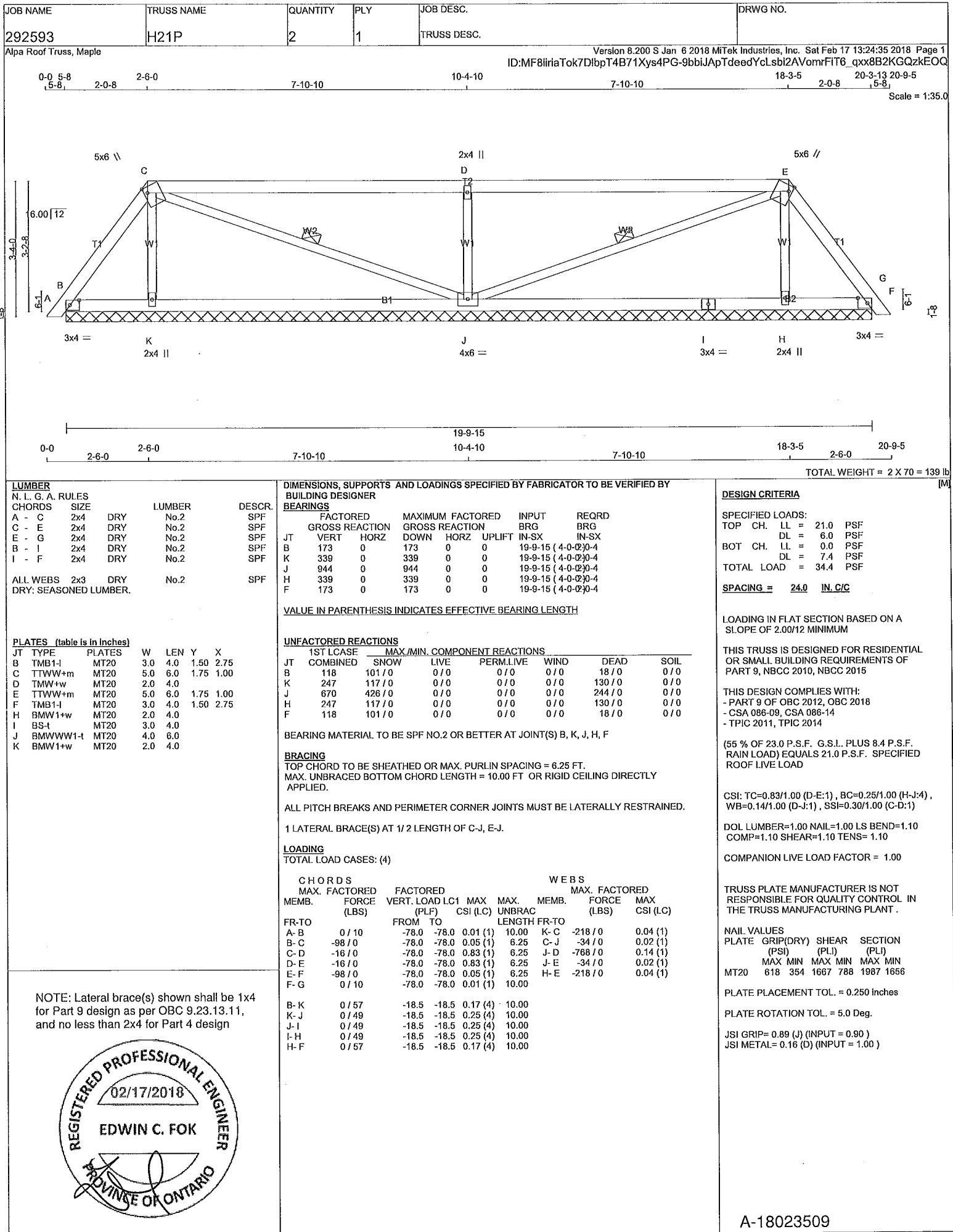
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	6.0	9.0	2.25	3.00
C	TTWW+h	MT20	7.0	8.0	Edge	2.75
D	TMWW-t	MT20	4.0	4.0	2.00	1.75
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW-t	MT20	4.0	4.0	2.00	1.75
H	TTWW+h	MT20	7.0	8.0	Edge	2.75
I	TMVW-t	MT20	6.0	9.0	2.25	3.00
K	BMV1+t	MT20	6.0	9.0	Edge	0.50
L	BMWW+t	MT20	6.0	7.0	4.25	2.00
M	BMWW+t	MT20	4.0	9.0	4.50	1.75
N	BS-t	MT20	6.0	7.0		
O	BMWWW-t	MT20	6.0	7.0	4.00	3.50
P	BS-t	MT20	5.0	6.0		
Q	BMWW+t	MT20	4.0	9.0	4.50	1.75
R	BMWW+t	MT20	6.0	7.0	4.25	2.00
S	BMV1+t	MT20	6.0	9.0	5.50	

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

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



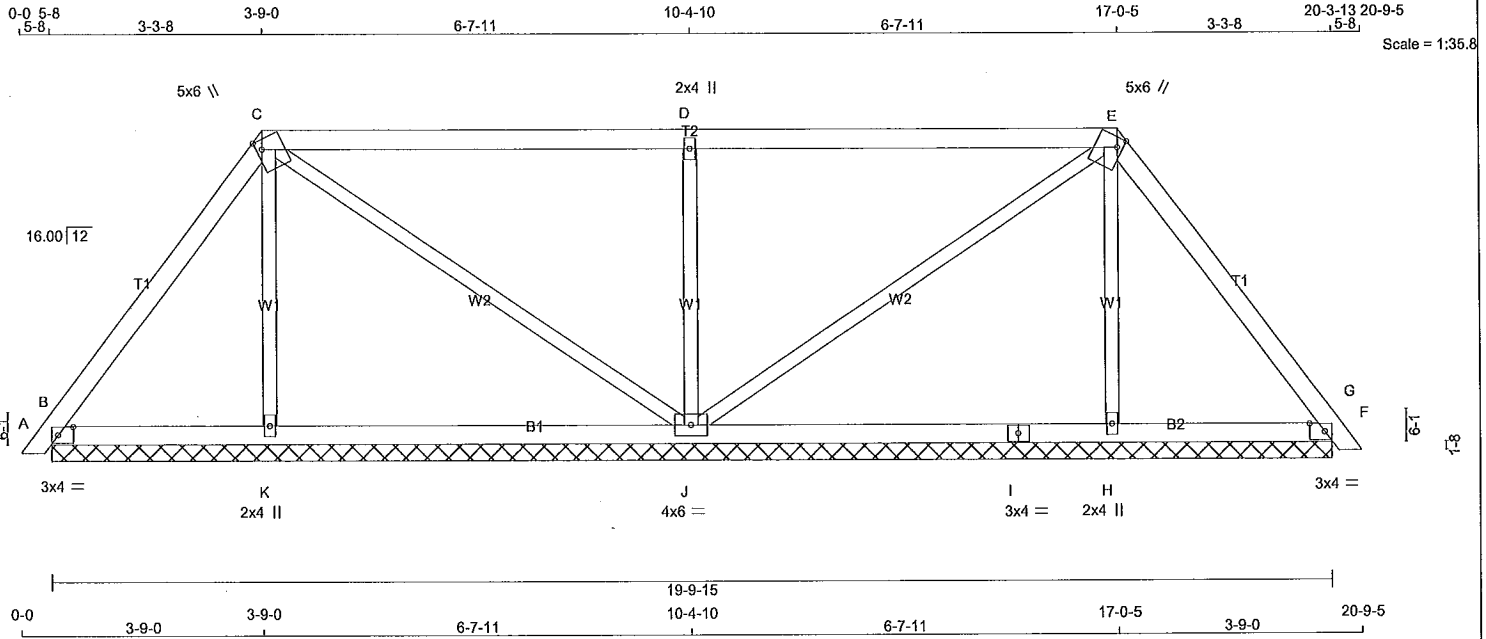
A: (80235086)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H22P	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sat Feb 17 13:24:40 2018 Page 1
ID:MF8ilriaTok7DlbpT4B71Xys4PG-WYObMutbSBGvNDqOGeLCrTnjCO4vgHTl5xdzkEOL



TOTAL WEIGHT = 2 X 75 = 150 lb

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

PLATES (table is in inches)

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
B	262	0	262	0	0	0	19-9-15 (4-9-15)	11	
K	299	0	299	0	0	0	19-9-15 (4-9-15)	11	
J	847	0	847	0	0	0	19-9-15 (4-9-15)	11	
H	299	0	299	0	0	0	19-9-15 (4-9-15)	11	
F	262	0	262	0	0	0	19-9-15 (4-9-15)	11	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST CASE	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
B	183	132 / 0	0 / 0	0 / 0	0 / 0	51 / 0	0 / 0
K	218	105 / 0	0 / 0	0 / 0	0 / 0	112 / 0	0 / 0
J	600	387 / 0	0 / 0	0 / 0	0 / 0	213 / 0	0 / 0
H	218	105 / 0	0 / 0	0 / 0	0 / 0	112 / 0	0 / 0
F	183	132 / 0	0 / 0	0 / 0	0 / 0	51 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	K-C	-196 / 0	0.07 (1)
B-C	-111 / 0	-78.0	-78.0 0.14 (1)	6.25	C-J	-64 / 0	0.08 (1)
C-D	-7 / 0	-78.0	-78.0 0.58 (1)	10.00	J-D	-646 / 0	0.23 (1)
D-E	-7 / 0	-78.0	-78.0 0.58 (1)	10.00	J-E	-64 / 0	0.08 (1)
E-F	-111 / 0	-78.0	-78.0 0.14 (1)	6.25	H-E	-196 / 0	0.07 (1)
F-G	0 / 10	-78.0	-78.0 0.01 (1)	10.00			
B-K	0 / 65	-18.5	-18.5 0.12 (4)	10.00			
K-J	0 / 61	-18.5	-18.5 0.18 (4)	10.00			
J-I	0 / 61	-18.5	-18.5 0.18 (4)	10.00			
I-H	0 / 61	-18.5	-18.5 0.18 (4)	10.00			
H-F	0 / 65	-18.5	-18.5 0.12 (4)	10.00			

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

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.58/1.00 (C-D:1), BC=0.18/1.00 (H-J:4), WB=0.23/1.00 (D-J:1), SSI=0.25/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

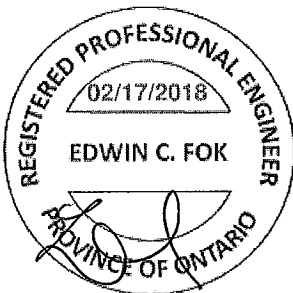
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.65 (J) (INPUT = 0.90)
JSI METAL= 0.14 (D) (INPUT = 1.00)

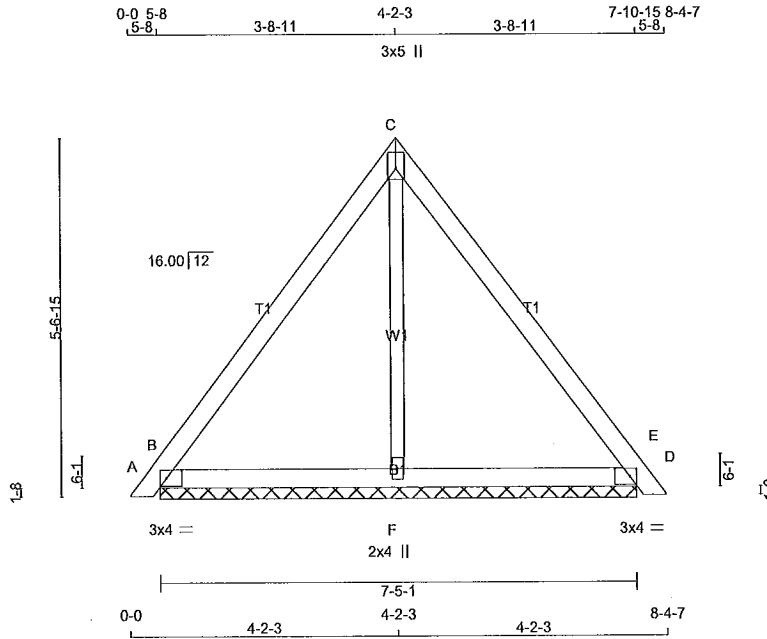


A-18023510

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H23P	4	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-pvJEqHy_oK9w_SGAIEG_KG2EYcaoHKiv2yzhjzkEOE



Scale = 1:35.9

TOTAL WEIGHT = 4 X 28 = 113 lb

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

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

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

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQD	
JT	VERT	GROSS REACTION	DOWN	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
B	277	0	277	0	0	7-5-1	7-4		
D	277	0	277	0	0	7-5-1	7-4		
F	216	0	216	0	0	7-5-1	7-4		

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
B	195	135 / 0	0 / 0	0 / 0	0 / 0	59 / 0	0 / 0
D	195	135 / 0	0 / 0	0 / 0	0 / 0	59 / 0	0 / 0
F	159	70 / 0	0 / 0	0 / 0	0 / 0	89 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MAX. MEMB. FORCE (LBS)	UNBRAC LENGTH	FR-TO	MAX. MEMB. FORCE (LBS)
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	F-C	-130 / 0
B-C	-98 / 0	-78.0	-78.0	0.18 (1)	6.25		
C-D	-98 / 0	-78.0	-78.0	0.18 (1)	6.25		
D-E	0 / 10	-78.0	-78.0	0.01 (1)	10.00		
B-F	0 / 58	-18.5	-18.5	0.08 (4)	10.00		
F-D	0 / 58	-18.5	-18.5	0.08 (4)	10.00		

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.18/1.00 (B-C:1), BC=0.08/1.00 (B-F:4), WB=0.05/1.00 (C-F:1), SSI=0.07/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

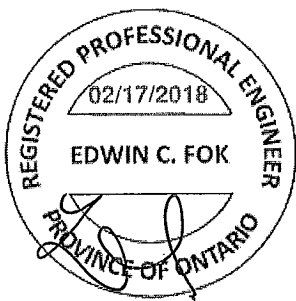
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (D) (INPUT = 0.90)
JSI METAL= 0.12 (D) (INPUT = 1.00)

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



A-18023511

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H24T	2	1	TRUSS DESC.	

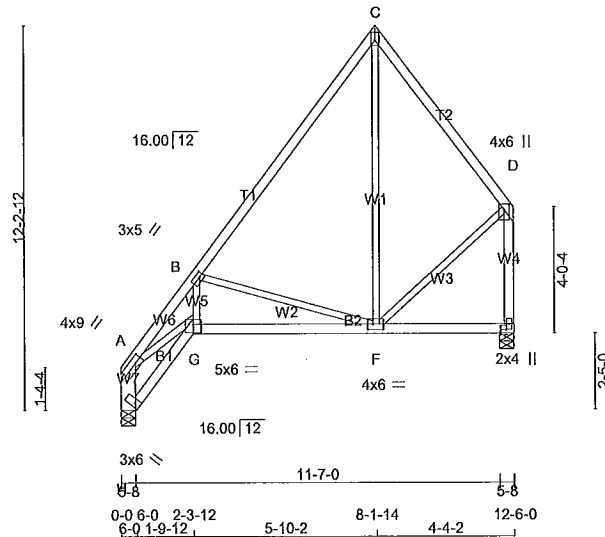
Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-_H0qirYCXgyLIPYx6mY7DQnzq7xMsdqLPkSf5zkENo

0-0 5-8 2-3-12 5-8 1-10-4 5-10-2 8-1-14 3-10-10 12-0-8 12-6-0 5-8
3x5 II

Scale = 1:73.3



TOTAL WEIGHT = 2 X 67 = 133 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	
H - A	2x6	DRY	No.2	SPF	
E - D	2x4	DRY	No.2	SPF	
H - G	2x4	DRY	No.2	SPF	
G - E	2x4	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVV-t	MT20	4.0	9.0	2.00	3.00
B	TMWW-t	MT20	3.0	5.0	1.50	1.50
C	TTW+p	MT20	3.0	5.0	2.00	Edge
D	TMVV+p	MT20	4.0	6.0	2.00	2.00
E	BMV1+p	MT20	2.0	4.0		
F	BMWW-t	MT20	4.0	6.0	2.00	2.00
G	BBWW-t	MT20	5.0	6.0	3.00	3.00
H	BVM1-t	MT20	3.0	6.0	Edge	

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
H	603	0	603	0
E	603	0	603	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	430	262 / 0	0 / 0	0 / 0	0 / 0	0 / 0	167 / 0	0 / 0
E	430	262 / 0	0 / 0	0 / 0	0 / 0	0 / 0	168 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.33 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	MAX.	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM	TO	LENGTH	FR-TO			
A-B	-1334 / 0	-78.0	-78.0	0.25 (1)	5.33	G-B	0 / 620	0.14 (1)
B-C	-344 / 0	-78.0	-78.0	0.33 (1)	6.25	B-F	-648 / 0	0.41 (1)
C-D	-313 / 0	-78.0	-78.0	0.19 (1)	6.25	F-C	0 / 146	0.05 (4)
H-A	-582 / 0	0.0	0.0	0.04 (1)	7.81	F-D	0 / 245	0.06 (1)
E-D	-577 / 0	0.0	0.0	0.16 (1)	7.81	A-G	0 / 1006	0.23 (1)
H-G	0 / 0	-18.5	-18.5	0.03 (4)	10.00			
G-F	0 / 807	-18.5	-18.5	0.22 (4)	10.00			
F-E	0 / 0	-18.5	-18.5	0.15 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL) = $L/360$ (0.42")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.02")
ALLOWABLE DEFL.(TL) = $L/360$ (0.42")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.07")

CSI: TC=0.33/1.00 (B-C:1), BC=0.22/1.00 (F-G:4),
WB=0.41/1.00 (B-F:1), SSI=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

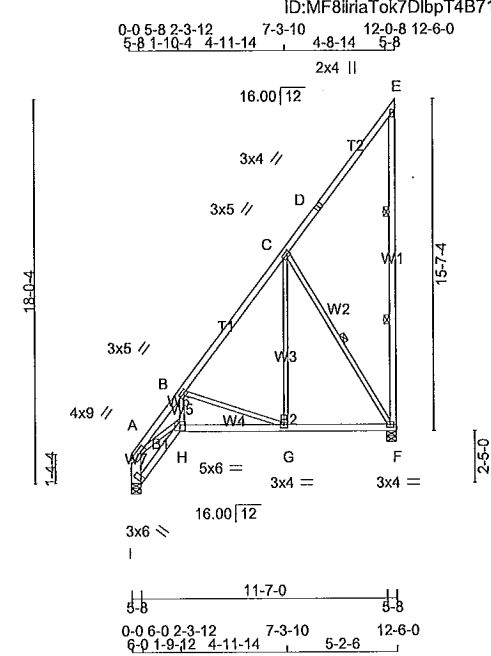
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (F) (INPUT = 0.90)
JSI METAL= 0.42 (G) (INPUT = 1.00)

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



A-18023512



Scale = 1:108.2

TOTAL WEIGHT = 5 X 81 = 404 lb

LUMBER					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA				
N. L. G. A. RULES					BEARINGS										SPECIFIED LOADS:				
CHORDS	SIZE		LUMBER	DESCR.	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG		TOP CH.							
A - D	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	DL	LL	PSF					
D - E	2x4	DRY	No.2	SPF	F	603	0	603	0	0	5-8	DL	LL	PSF					
F - E	2x4	DRY	No.2	SPF	I	603	0	603	0	0	5-8	DL	LL	PSF					
I - A	2x6	DRY	No.2	SPF								DL	LL	PSF					
I - H	2x4	DRY	No.2	SPF								DL	LL	PSF					
H - F	2x4	DRY	No.2	SPF								DL	LL	PSF					
ALL WEBS 2x3 DRY No.2 SPF					UNFACTORED REACTIONS										SPACING = 24.0 IN. C/C				
EXCEPT					1ST LCASE MAX/MIN. COMPONENT REACTIONS										THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015				
DRY: SEASONED LUMBER.					JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL							
					F	430	262 / 0	0 / 0	0 / 0	0 / 0	168 / 0	0 / 0							
					I	430	262 / 0	0 / 0	0 / 0	0 / 0	168 / 0	0 / 0							
					BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, I										THIS DESIGN COMPLIES WITH:				
					BEARING SIZE FACTOR = 1.15 AT JNT(S) I (BASED ON SUPPORT DEPTH = 1-8)										- PART 9 OF OBC 2012, OBC 2018				
															- CSA 086-09, CSA 086-14				
															- TPIC 2011, TPIC 2014				
															(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD				
															ALLOWABLE DEFL.(LL)= L/360 (0.42")				
															CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")				
															ALLOWABLE DEFL.(TL)= L/360 (0.42")				
															CALCULATED VERT. DEFL.(TL) = L/ 999 (0.05")				
															CSI: TC=0.26/1.00 (C-E:1) , BC=0.20/1.00 (G-H:4)				
															, WB=0.33/1.00 (C-F:1) , SSI=0.12/1.00 (C-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				
															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= 0.71 (G) (INPUT = 0.90)				
															JSI METAL= 0.38 (H) (INPUT = 1.00)				

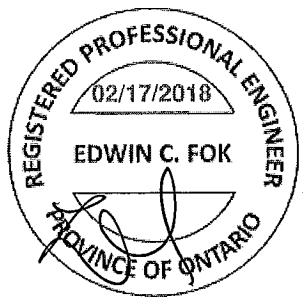
PLATES (table Is In Inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	9.0	2.00	3.00
B	TMWW-t	MT20	3.0	5.0	1.50	1.50
C	TMWW-t	MT20	3.0	5.0	1.50	1.50
D	TS-t	MT20	3.0	4.0		
E	TMV+p	MT20	2.0	4.0		
F	BMVW1-t	MT20	3.0	4.0		
G	BMWW-t	MT20	3.0	4.0		
H	BBWW-t	MT20	6.0	6.0	3.00	3.00
I	BVM1-t	MT20	3.0	6.0	Edge	

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

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

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (L.C)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX (L.C)		
FR-TO		FROM	TO	FR-TO					
A-B	-1237 / 0	-78.0	-78.0 0.10 (1)	5.68	H-B	0 / 556	0.13 (1)		
B-C	-400 / 0	-78.0	-78.0 0.25 (1)	6.25	B-G	-499 / 0	0.23 (1)		
C-D	-35 / 0	-78.0	-78.0 0.26 (1)	6.25	G-C	0 / 279	0.07 (4)		
D-E	-35 / 0	-78.0	-78.0 0.26 (1)	6.25	C-F	-480 / 0	0.33 (1)		
F-E	-169 / 0	0.0	0.0 0.09 (1)	6.25	A-H	0 / 903	0.20 (1)		
I-A	-582 / 0	0.0	0.0 0.04 (1)	7.81					
I-H	0 / 0	-18.5	-18.5 0.03 (4)	10.00					
H-G	0 / 724	-18.5	-18.5 0.20 (4)	10.00					
G-F	0 / 255	-18.5	-18.5 0.16 (4)	10.00					

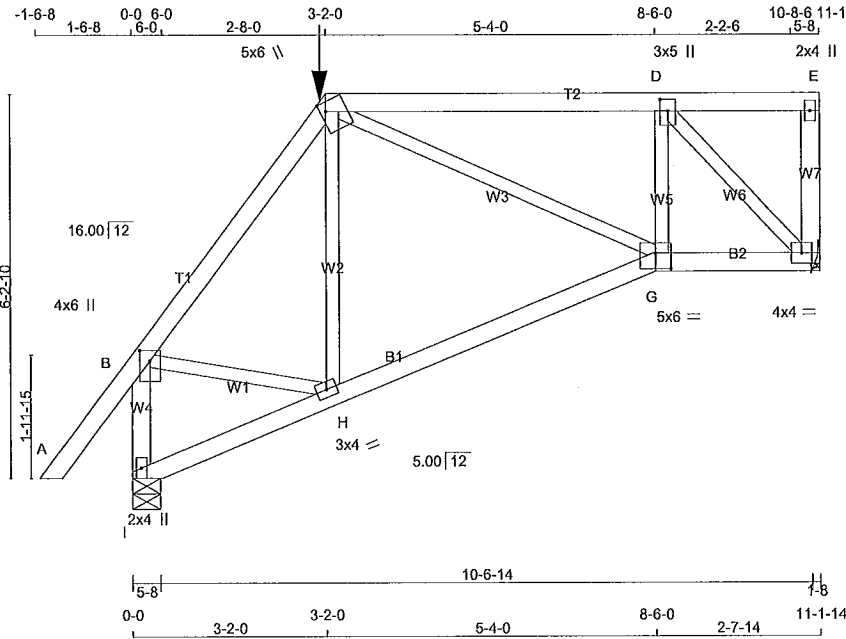
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H26	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7Dlbt4B71Xys4PG-tPuTNHNNFHuJXRiffisQD7c_3lV2j9mwolofIRzkEMP



TOTAL WEIGHT = 51 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00 2.00
C	TTWW+m	MT20	5.0	6.0	1.75 1.00
D	TMWW+t	MT20	3.0	5.0	2.25 1.50
E	TMV+p	MT20	2.0	4.0	
F	BMVW1-t	MT20	4.0	4.0	
G	BBWW-I	MT20	5.0	6.0	3.00 3.00
H	BMWW-t	MT20	3.0	4.0	
I	BMV1+p	MT20	2.0	4.0	

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 68.6 lbs FACTORED DOWN AT 3-2-0 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		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	HORZ	GROSS REACTION	GROSS REACTION	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
F	704	0	704	0	0	0	0	5-8	1-8
I	790	0	790	0	0	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	502	307 / 0	0 / 0	0 / 0	0 / 0	0 / 0	195 / 0	0 / 0
I	561	354 / 0	0 / 0	0 / 0	0 / 0	0 / 0	208 / 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		FACTORED		MAX. FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX	CS1 (LC)	MEMB.	FORCE (LBS)	MAX	CS1 (LC)
FR-TO		FROM	TO	LENGTH	FR-TO				
A-B	0 / 43	-78.0	-78.0	0.12 (1)	10.00	H-C	-68 / 66	0.03 (1)	
B-C	-609 / 0	-78.0	-78.0	0.16 (1)	6.25	C-G	0 / 312	0.08 (1)	
C-D	-642 / 0	-100.7	-100.7	0.42 (1)	6.25	G-D	0 / 115	0.04 (4)	
D-E	0 / 0	-100.7	-100.7	0.40 (1)	10.00	D-F	-911 / 0	0.22 (1)	
F-E	-25 / 0	0.0	0.0	0.00 (1)	7.81	B-H	0 / 366	0.09 (1)	
I-B	-769 / 0	0.0	0.0	0.10 (1)	7.81				
I-H	0 / 8	-23.9	-23.9	0.16 (4)	10.00				
H-G	0 / 387	-23.9	-23.9	0.20 (4)	10.00				
G-F	0 / 639	-23.9	-23.9	0.14 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
C	3-2-0	-69	-69	-	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 3-2-0
RIGHT SETBACK = 0-0
END SETBACK = 3-2-0
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 (0.37")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.37")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.42/1.00 (C-D:1), BC=0.20/1.00 (G-H:4), WB=0.22/1.00 (D-F:1), SSI=0.28/1.00 (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)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1666

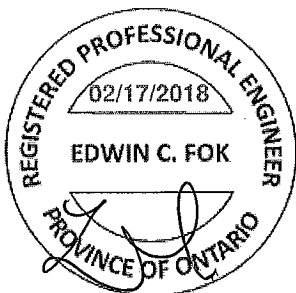
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (D) (INPUT = 0.90)
JSI METAL= 0.38 (D) (INPUT = 1.00)

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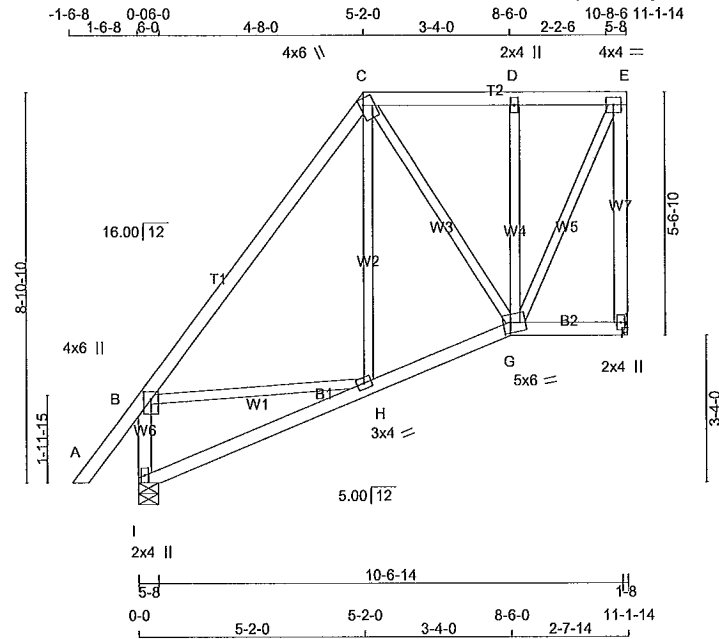
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H27	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:52.5

TOTAL WEIGHT = 63 lb (M)

LUMBER	CHORDS	SIZE	LUMBER	DESCR.
N. L. G. A. RULES				
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 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	4.0	6.0	1.75	1.00
D	TMVW+w	MT20	2.0	4.0		
E	TMVW-t	MT20	4.0	4.0		
F	BMV1+p	MT20	2.0	4.0		
G	BBWWW-m	MT20	5.0	6.0	2.75	2.00
H	BMWW-t	MT20	3.0	4.0		
I	BMV1+p	MT20	2.0	4.0		

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
JT	VERT	JT	VERT	IN-SX	IN-SX
F	538	F	538	HANGER BY OTHERS	
I	646	I	646	MIN. SEAT SIZE: 1-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
F	384	234 / 0	0 / 0	150 / 0	0 / 0
I	458	292 / 0	0 / 0	166 / 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		FACTORED		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD LC1 (PLF)	MAX. CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO	FR-TO	
A-B	0 / 43	-78.0	-78.0 0.11 (1)	H-C	0 / 81
B-C	-392 / 0	-78.0	-78.0 0.38 (1)	C-G	-27 / 0
C-D	-220 / 0	-78.0	-78.0 0.11 (1)	G-D	-286 / 0
D-E	-226 / 0	-78.0	-78.0 0.11 (1)	G-E	0 / 500
F-E	-514 / 0	0.0	0.0 0.28 (1)	B-H	0 / 235
I-B	-606 / 0	0.0	0.0 0.07 (1)		
I-H	0 / 4	-18.5	-18.5 0.11 (4)		
H-G	0 / 248	-18.5	-18.5 0.13 (4)		
G-F	0 / 0	-18.5	-18.5 0.04 (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 088-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.37")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.37")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.38/1.00 (B-C:1), BC=0.13/1.00 (G-H:4), WB=0.13/1.00 (D-G:1), SSI=0.12/1.00 (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

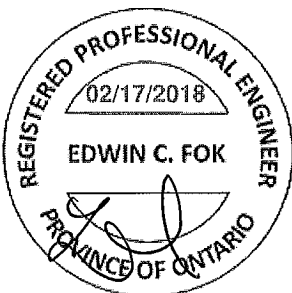
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.62 (E) (INPUT = 0.90)
JSI METAL= 0.22 (I) (INPUT = 1.00)

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



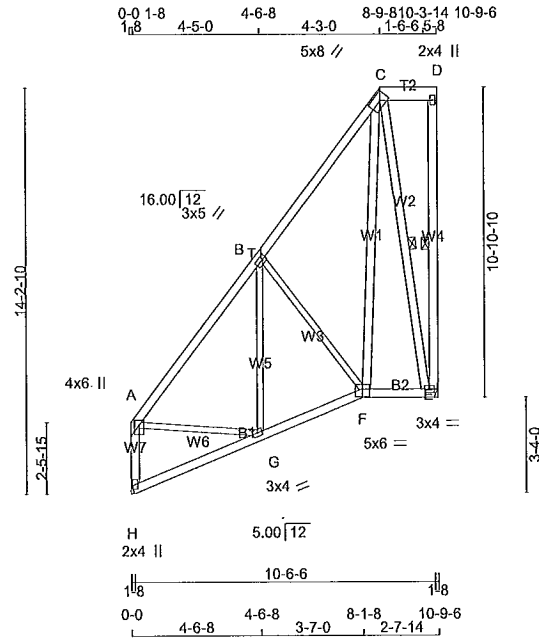
A-18023515

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H29	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:80.7

TOTAL WEIGHT = 84 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW+p	MT20	4.0	6.0	2.00 2.00
B	TMWW-t	MT20	3.0	5.0	1.50 1.50
C	TTWW-h	MT20	5.0	8.0	2.50 3.25
D	TMV+p	MT20	2.0	4.0	
E	BMVW1-t	MT20	3.0	4.0	
F	BBWW-t	MT20	5.0	6.0	3.00 3.00
G	BMWW-t	MT20	3.0	4.0	
H	BMV1+p	MT20	2.0	4.0	

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
E	520	0		520	0	0			
H	520	0		520	0	0			

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	371	226 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0
H	371	226 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S	
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO	
A-B	-387 / 0	-78.0 -78.0 0.20 (1)	6.25	A-G	0 / 252
B-C	-205 / 0	-78.0 -78.0 0.19 (1)	6.25	G-B	-26 / 59
C-D	0 / 0	-78.0 -78.0 0.03 (1)	10.00	B-F	-251 / 0
E-D	-78 / 0	0.0 0.0 0.05 (1)	6.25	F-C	0 / 355
H-A	-486 / 0	0.0 0.0 0.07 (1)	7.81	C-E	-426 / 0
H-G	0 / 4	-18.5 -18.5 0.09 (4)	10.00		
G-F	0 / 269	-18.5 -18.5 0.11 (4)	10.00		
F-E	0 / 79	-18.5 -18.5 0.05 (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 (0.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.20/1.00 (A-B:1), BC=0.11/1.00 (F-G:4), WB=0.26/1.00 (C-E:1), SSI=0.10/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

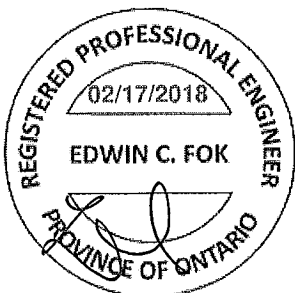
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.46 (E) (INPUT = 0.90)
JSI METAL= 0.17 (H) (INPUT = 1.00)

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



A-18023517

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H30	2	1	TRUSS DESC.	

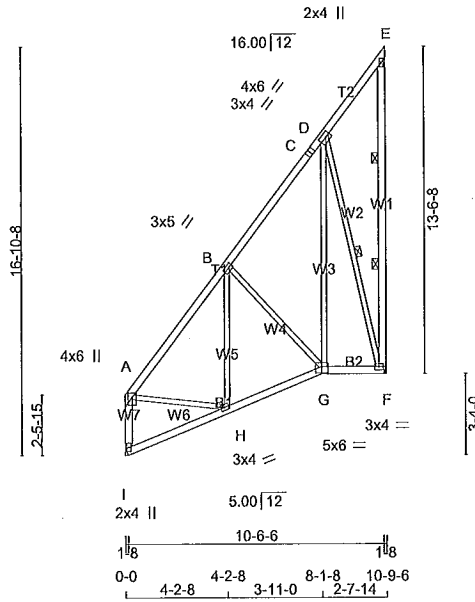
Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-oh_XcD5WFPEO00Puk3PBBrQVFPK4wtf2YGo3guzkElu

0-0 1-8 4-2-8 8-1-8 10-3-14 10-9-6
1-8 4-1-0 3-11-0 2-2-6 5-8

Scale: 1/8"=1'



TOTAL WEIGHT = 2 X 79 = 158 lb

LUMBER				DESCR.	
N. L. G. A. RULES				BUILDING DESIGNER	
CHORDS	SIZE	LUMBER		BEARINGS	
I - A	2x4 DRY	No.2	SPF	FACTORED	MAXIMUM FACTORED
A - C	2x4 DRY	No.2	SPF	GROSS REACTION	GROSS REACTION
C - E	2x4 DRY	No.2	SPF	JT VERT	DOWN
F - E	2x4 DRY	No.2	SPF	I 520 0	520 0
I - G	2x4 DRY	No.2	SPF	F 520 0	520 0
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
A	TMVW+p	MT20	4.0	6.0	2.00 2.00
B	TMVW-l	MT20	3.0	5.0	1.50 1.50
C	TS-l	MT20	3.0	4.0	
D	TMVW-l	MT20	4.0	6.0	2.00 2.50
E	TMV+p	MT20	2.0	4.0	
F	BMVW-l	MT20	3.0	4.0	
G	BMVW-l	MT20	5.0	6.0	3.00 3.00
H	BMVW-l	MT20	3.0	4.0	
I	BMV1+p	MT20	2.0	4.0	

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
I	520	0	520	0	0	HANGER BY OTHERS
F	520	0	520	0	0	MIN. SEAT SIZE: 1-8 HANGER BY OTHERS MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND			
I	371	226 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0
F	371	226 / 0	0 / 0	0 / 0	0 / 0	144 / 0	0 / 0

BRACING

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

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

2 LATERAL BRACE(S) AT 1/3 LENGTH OF E-F.
1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-F.

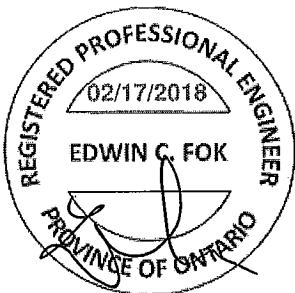
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. UNBRACED LENGTH	FR-TO	WEBS MAX. FACTORED FORCE (LBS)		MAX. UNBRACED LENGTH	FR-TO
	LC1	LC2	LC1	LC2			LC1	LC2		
I-A	-489 / 0		0.0	0.0	0.07 (1)	7.81	G-D	0 / 310	0.07 (1)	
A-B	-393 / 0		-78.0	-78.0	0.16 (1)	6.25	D-F	-440 / 0	0.33 (1)	
B-C	-205 / 0		-78.0	-78.0	0.15 (1)	6.25	A-H	0 / 253	0.06 (1)	
C-D	-205 / 0		-78.0	-78.0	0.15 (1)	6.25	H-B	-36 / 54	0.02 (1)	
D-E	-23 / 0		-78.0	-78.0	0.08 (1)	6.25	B-G	-206 / 0	0.13 (1)	
F-E	-70 / 0		0.0	0.0	0.03 (1)	6.25				
I-H	0 / 4		-18.5	-18.5	0.09 (4)	10.00				
H-G	0 / 269		-18.5	-18.5	0.11 (4)	10.00				
G-F	0 / 111		-18.5	-18.5	0.05 (4)	10.00				

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



DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

(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 (0.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.16/1.00 (A-B:1), BC=0.11/1.00 (G-H:4)
WB=0.33/1.00 (D-F:1), SSI=0.09/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

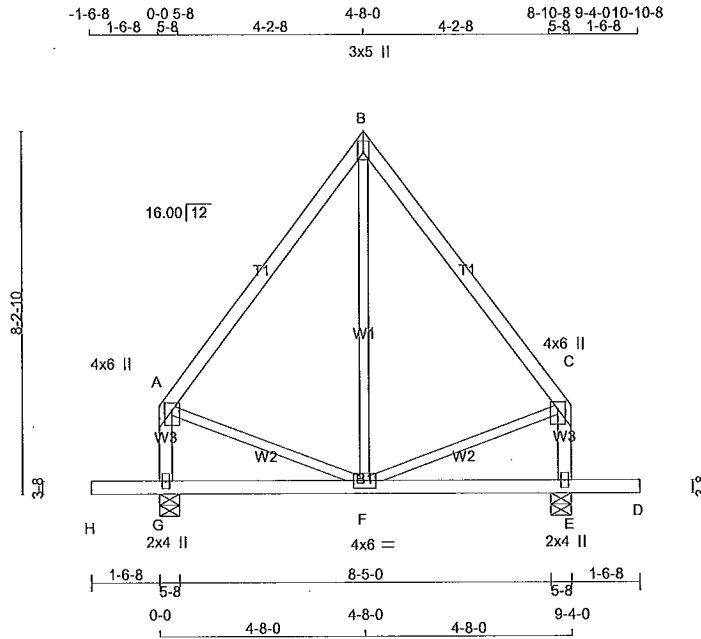
JSI GRIP= 0.68 (F) (INPUT = 0.90)
JSI METAL= 0.18 (I) (INPUT = 1.00)

A-18023518

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H31	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8IriaTok7DlbpT4B71Xys4PG-52vA4cBvcZ7PM5RFF11qdwDgdDI037149r?xQ_zkElh



Scale = 1:52.2

TOTAL WEIGHT = 3 X 50 = 150 lb
(M)F

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	GROSS REACTION	DOWN	HORZ	BRG	IN-SX	BRG
G	599	0	0	599	0	0	5-8	1-8	
E	599	0	0	599	0	0	5-8	1-8	

UNFACTORED REACTIONS

JT	1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	427	261/0	0/0	0/0	0/0	0/0	166/0	0/0
E	427	261/0	0/0	0/0	0/0	0/0	166/0	0/0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		MAX. FACTORED		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT.	LOAD LC1	MAX	MAX.	MEMB.	FORCE (LBS)	MAX	MAX
FR-TO		FROM	TO	CS1 (LC)	UNBRAC	FR-TO		CS1 (LC)	
A-B	-234/0	-78.0	-78.0	0.22 (1)	6.25	F-B	0/79	0.03 (4)	
B-C	-234/0	-78.0	-78.0	0.22 (1)	6.25	A-F	0/148	0.03 (1)	
G-A	-417/0	0.0	0.0	0.05 (1)	7.81	F-C	0/148	0.03 (1)	
E-C	-417/0	0.0	0.0	0.05 (1)	7.81				
H-G	0/0	-96.5	-96.5	0.16 (1)	10.00				
G-F	0/0	-18.5	-18.5	0.11 (4)	10.00				
F-E	0/0	-18.5	-18.5	0.11 (4)	10.00				
E-D	0/0	-96.5	-96.5	0.16 (1)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

(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 (0.31")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.31")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

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

CSI: TC=0.22/1.00 (B-C:1), BC=0.16/1.00 (D-E:1), WB=0.03/1.00 (C-F:1), SSI=0.12/1.00 (G-H: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

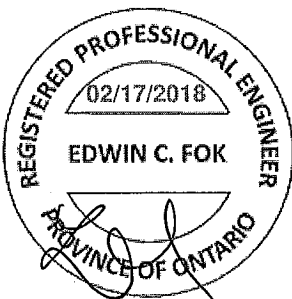
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (A) (INPUT = 0.90)
JSI METAL= 0.12 (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

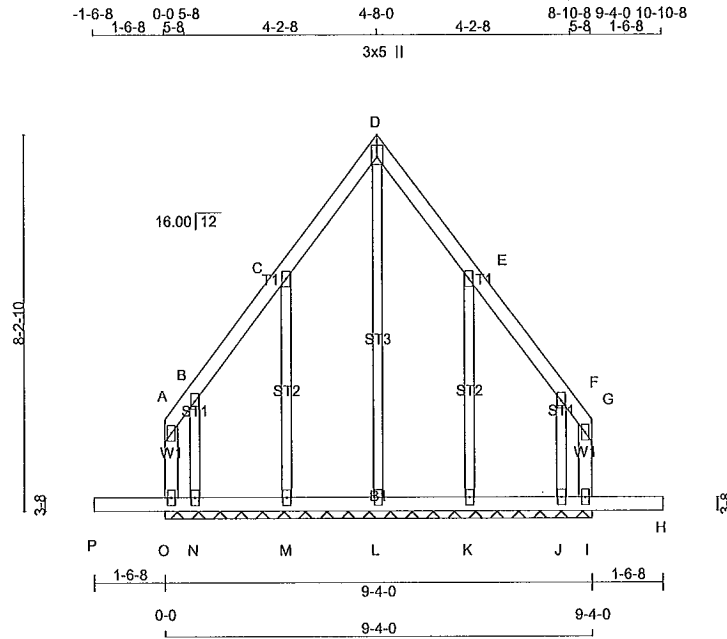


A-18023519

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292593	H31G	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8liraTok7DlbpT4B71Xys4PG-OOqqY?Gly?P9Tb9?TPO?wb25eCFt6mRBpA4zkElg



Scale = 1:50.3

TOTAL WEIGHT = 54 lb

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

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

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A, C, E, F	TMV+p	MT20	2.0	4.0			
B, D, G, H	TTW+p	MT20	3.0	5.0	2.00	Edge	
I, J, K, L, M, N	BMV1+p	MT20	2.0	4.0			
J, K, L, M, N	BMV1+p	MT20	2.0	4.0			
O	BMV1+p	MT20	2.0	4.0			

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

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

PROVIDE ANCHORAGE AT BEARING JOINT N FOR 150 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT J FOR 150 LBS FACTORED UPLIFT
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S).

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 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	CS1 (LC)	UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX	CS1 (LC)
FR-TO			FROM	TO			LENGTH	FR-TO			
O-A	-20 / 0	0.0	0.0	0.02 (1)	7.81			L-D	-178 / 0	0.22 (1)	
A-B	0 / 5	-78.0	-78.0	0.02 (1)	10.00			M-C	-165 / 0	0.07 (1)	
B-C	0 / 10	-78.0	-78.0	0.04 (1)	10.00			N-B	-90 / 0	0.02 (1)	
C-D	0 / 9	-78.0	-78.0	0.04 (1)	10.00			K-E	-165 / 0	0.07 (1)	
D-E	0 / 9	-78.0	-78.0	0.04 (1)	10.00			J-F	-90 / 0	0.02 (1)	
E-F	0 / 10	-78.0	-78.0	0.04 (1)	10.00						
F-G	0 / 5	-78.0	-78.0	0.02 (1)	10.00						
I-G	-20 / 0	0.0	0.0	0.02 (1)	7.81						
P-O	0 / 0	-96.5	-96.5	0.16 (1)	10.00						
O-N	-3 / 2	-18.5	-18.5	0.14 (1)	10.00						
N-M	-4 / 0	-18.5	-18.5	0.02 (4)	10.00						
M-L	-6 / 0	-18.5	-18.5	0.02 (4)	10.00						
L-K	-6 / 0	-18.5	-18.5	0.02 (4)	10.00						
K-J	-4 / 0	-18.5	-18.5	0.02 (4)	10.00						
J-I	-3 / 2	-18.5	-18.5	0.14 (1)	10.00						
I-H	0 / 0	-96.5	-96.5	0.16 (1)	10.00						

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

(65 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.04/1.00 (B-C:1), BC=0.16/1.00 (H-I:1), WB=0.22/1.00 (D-L:1), SSI=0.14/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

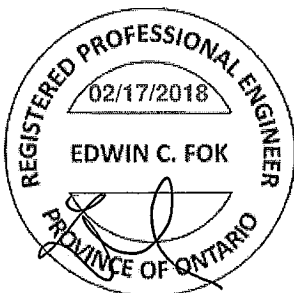
NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)	(PLI)
	MAX	MIN	MAX	MIN
MT20	618	354	1667	788

PLATE PLACEMENT TOL. = 0.250 inches

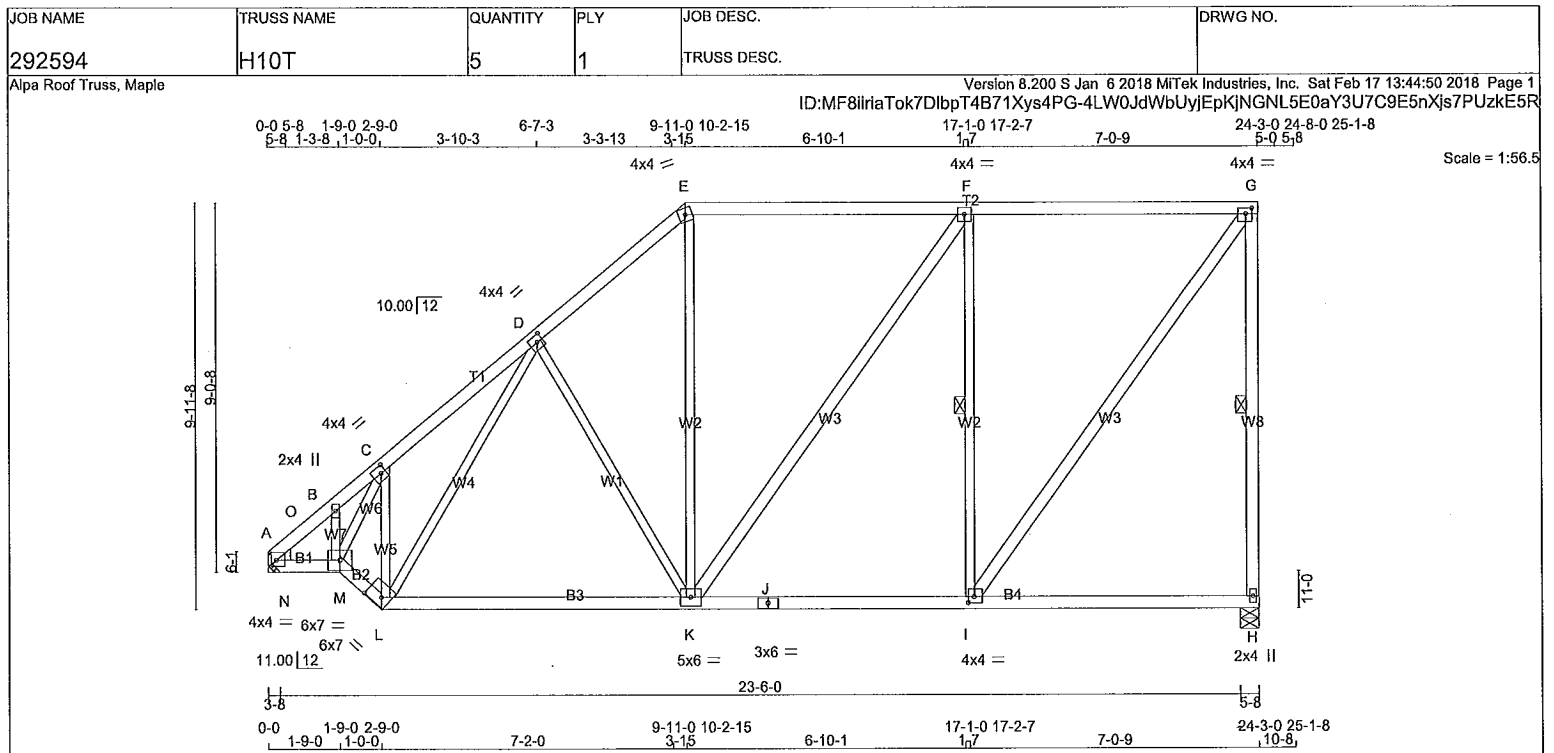
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (D) (INPUT = 0.90)
JSI METAL= 0.08 (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-18023520



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMBH1-I	MT20	4.0	4.0	1.75 1.50
B	TMW1-w	MT20	2.0	4.0	
C	TMWW-I	MT20	4.0	4.0	2.00 1.50
D	TMWW-I	MT20	4.0	4.0	2.00 1.75
E	TTW-m	MT20	4.0	4.0	
F	TMWW-I	MT20	4.0	4.0	
G	TMWW-I	MT20	4.0	4.0	1.75 1.75
H	BMW1-w	MT20	2.0	4.0	
I	BMWW-I	MT20	4.0	4.0	1.75 1.75
J	BS-I	MT20	3.0	6.0	
K	BMWWW-I	MT20	5.0	6.0	
L	BBWW-h	MT20	6.0	7.0	2.25 4.50
M	BBWW-I	MT20	6.0	7.0	

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	DOWN	HORZ	UP	BRG	HEEL	IN-SX	IN-SX	WEDGE			
H	1237	0	1237	0	0	0	5-8	1-13						
A	1193	0	1193	0	0	0	HANGER BY OTHERS	2x4 L						

MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT REACTIONS					
H	888	506 / 0	0 / 0	0 / 0	0 / 0	382 / 0	0 / 0	0 / 0
A	853	506 / 0	0 / 0	0 / 0	0 / 0	347 / 0	0 / 0	0 / 0

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

BRACING

FOR SECTION E-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.04 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS			WEBS		
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO		FROM TO	FR-TO		FROM TO
A-O	-1682 / 0	-78.0 -78.0 0.11 (1)	5.04	M-B	0 / 149
O-B	-1581 / 0	-78.0 -78.0 0.12 (1)	5.15	M-C	0 / 734
B-C	-1441 / 0	-78.0 -78.0 0.12 (1)	5.34	L-C	-743 / 0
C-D	-1151 / 0	-78.0 -78.0 0.14 (1)	5.79	H-G	-1185 / 0
D-E	-997 / 0	-78.0 -78.0 0.13 (1)	6.12	K-E	0 / 290
E-F	-751 / 0	-85.5 -85.5 0.54 (1)	2.00	K-F	0 / 111
F-G	-687 / 0	-85.5 -85.5 0.54 (1)	2.00	I-F	-827 / 0
				I-G	0 / 1183
A-N	0 / 1143	-18.5 -18.5 0.22 (1)	10.00	L-D	0 / 18
N-M	0 / 1143	-18.5 -18.5 0.22 (1)	10.00	D-K	-271 / 0
M-L	0 / 1179	-18.5 -18.5 0.19 (1)	10.00	N-O	0 / 82
L-K	0 / 882	-18.5 -18.5 0.32 (4)	10.00		
K-J	0 / 687	-18.5 -18.5 0.31 (4)	10.00		
J-I	0 / 687	-18.5 -18.5 0.31 (4)	10.00		
I-H	0 / 0	-18.5 -18.5 0.19 (4)	10.00		

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.80")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.80")
CALCULATED VERT. DEFL.(TL) = L/999 (0.14")

CSI: TC=0.54/1.00 (E-F:1), BC=0.32/1.00 (K-L:4), WB=0.57/1.00 (G-H:1), SSI=0.29/1.00 (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.

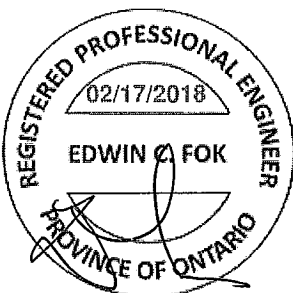
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

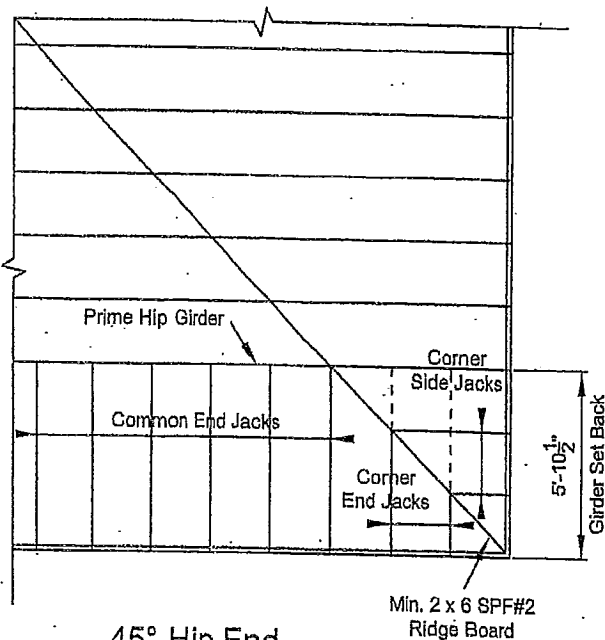
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (A) (INPUT = 0.90)
JSI METAL= 0.39 (A) (INPUT = 1.00)

A-18023521



STRACON ENGINEERING INC.



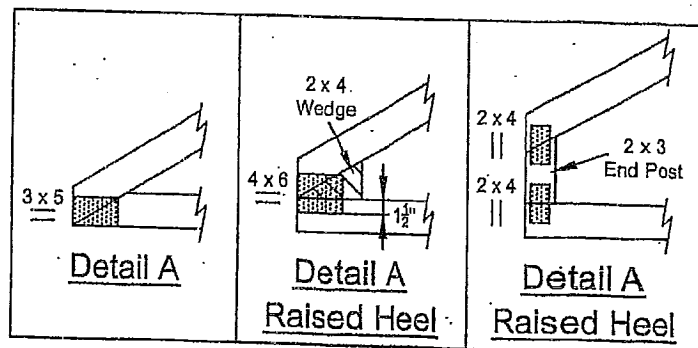
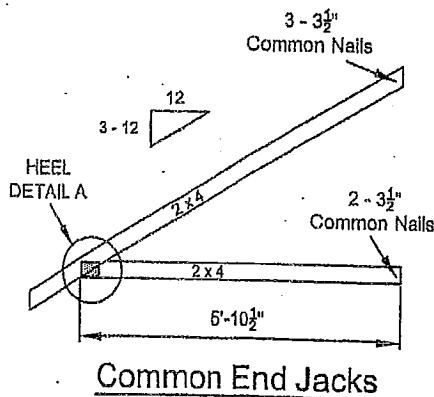
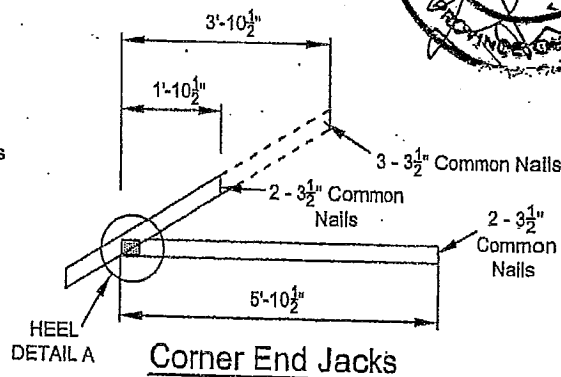
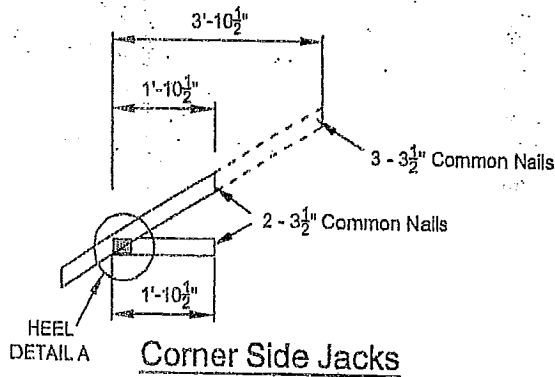
LUMBER SPECIFICATION

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

DESIGN LOAD

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

TOTAL LOAD : 50.5 P.S.F



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

CS-51008

LUS – Double Shear Joist Hangers



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

Material: 18 gauge

Finish: G90 galvanized

Design:

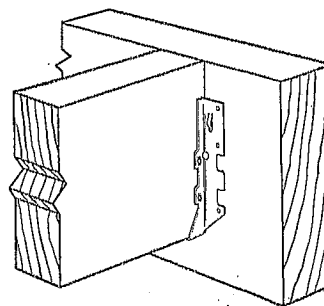
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

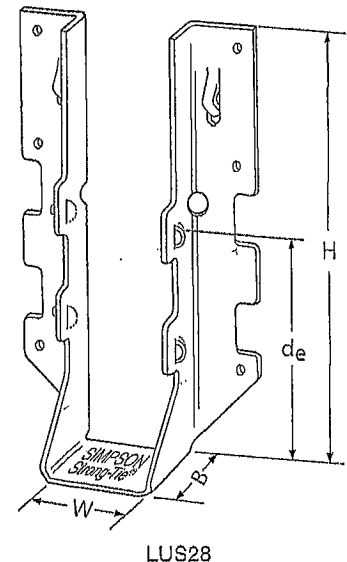
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



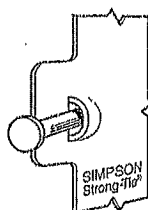
Typical LUS Installation



LUS28

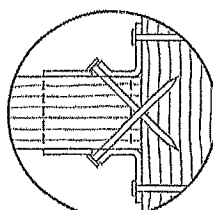
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1 1/8	3 1/8	1 3/4	1 1/8	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 1/8	(4)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

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



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

U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT STATES DESIGN

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

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

(800) 999-5099
strongtie.com

HUS/LJS – Double Shear Joist Hangers

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

Material: See table

Finish: G90 galvanized

Design:

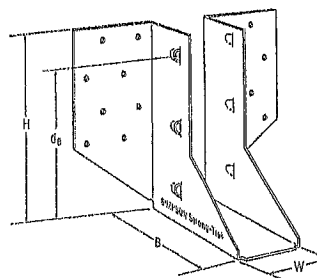
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

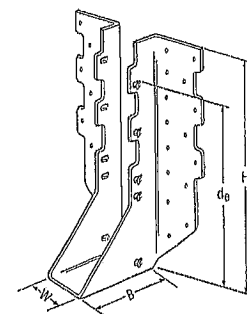
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

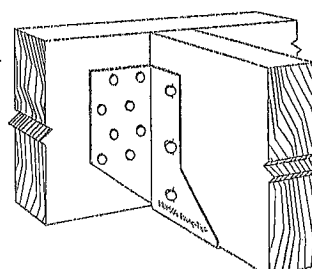
- See current catalogue for options



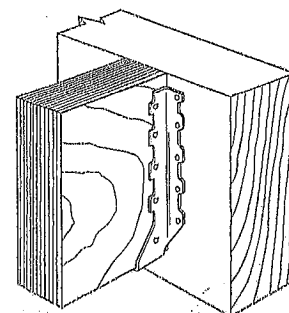
LJS26DS



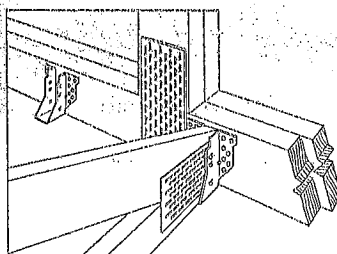
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



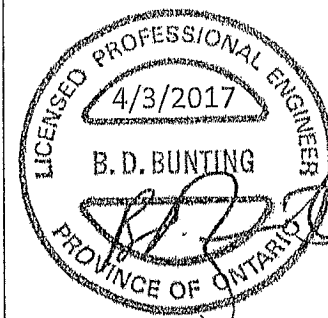
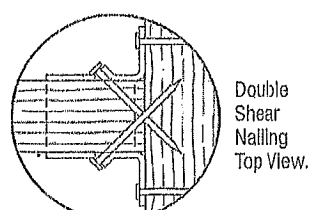
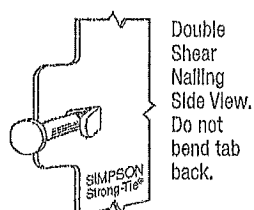
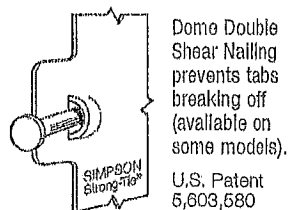
Typical HUS
Installation



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

Model No.	Ga.	Dimensions (in.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d 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 1/16	5	3 1/2	4 5/8	(16) 16d	(6) 16d		2055	4265	1460	4115
HUS26	16	1 1/8	5 3/8	3	3 15/16	(14) 16d	(6) 16d		2705	4940	2065	3875
HUS28	16	1 1/8	7 1/2	3	6 1/2	(22) 16d	(8) 16d		3605	5365	2675	4345
HUS210	16	1 1/8	9 1/2	3	7 3/32	(30) 16d	(10) 16d		4505	5795	4010	4740
HUS1.81/10	16	1 1/8	9	3	8	(30) 16d	(10) 16d		4505	6450	4010	5200

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



**LIMIT
STATES
DESIGN**

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