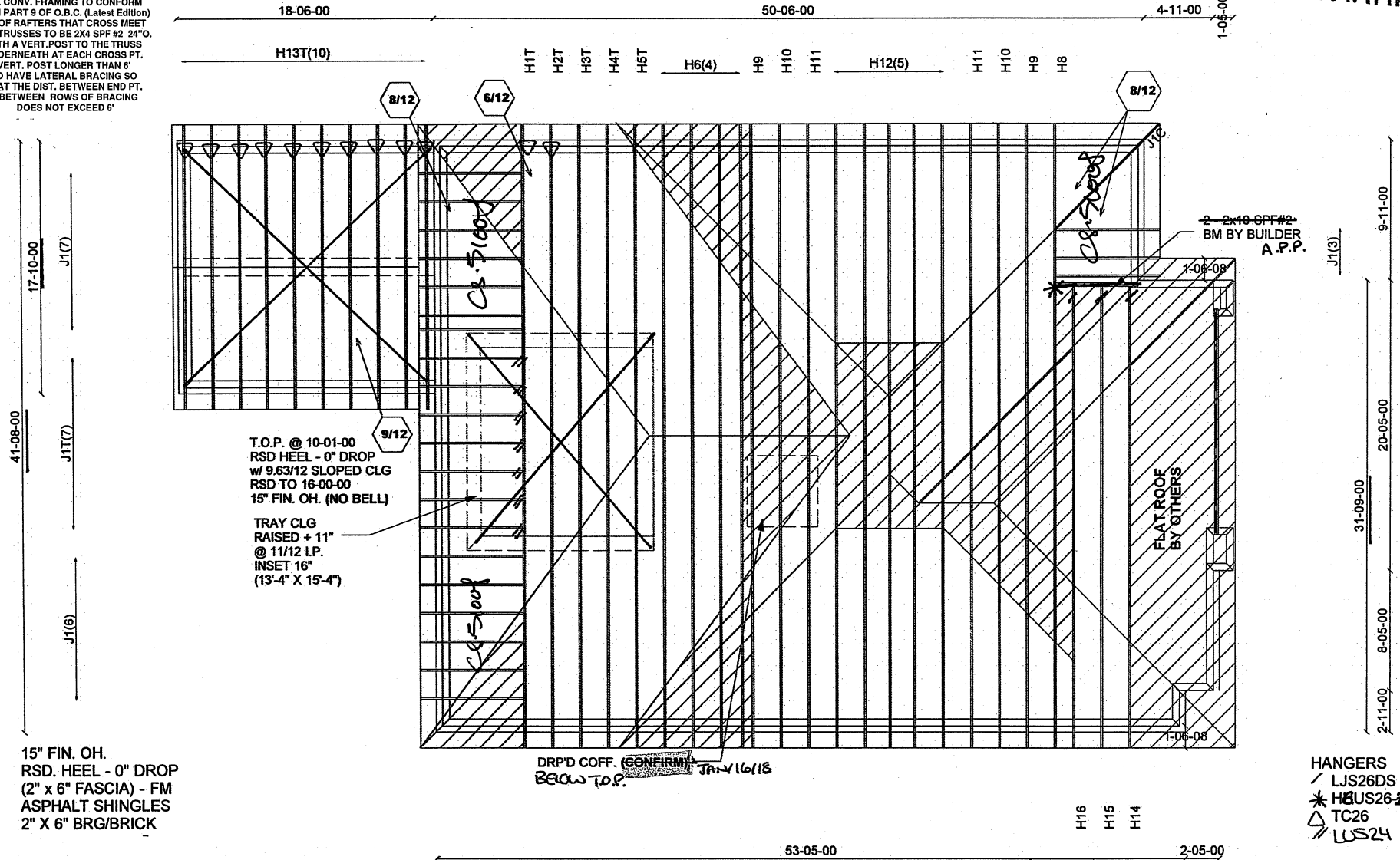


ALPA-BARRIE

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. 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'



15" FIN. OH.
RSD. HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" X 6" BRG/BRICK

HANGERS
/ LJS26DS
* HUS26-B
TC26
WS24

CONVENTIONAL
FRAMING BY
OTHERS

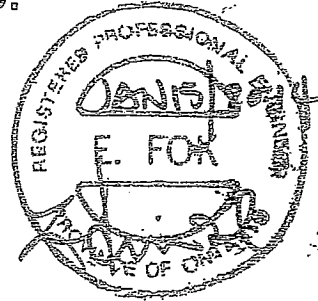
P.L. 99352, 100885, 101745, 105728

BEAUMONT

	Job Track: 45147	Builder / Location: GOLD PARK HOMES / VAUGHAN	Model / Elevation: 5004 REV1	STD W/ / C OPT TRAY	STD OR OPT 2ND FLR W/ TRAY
	Layout ID: 292654	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.	OR OPT LOGGIA (FLAT) OR	OPT ELEVATOR OR REAR USED
	Plan Log: 95914	Date: 1/2/2018	Designer: AMANDA		

Stracon Engineering Inc.

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



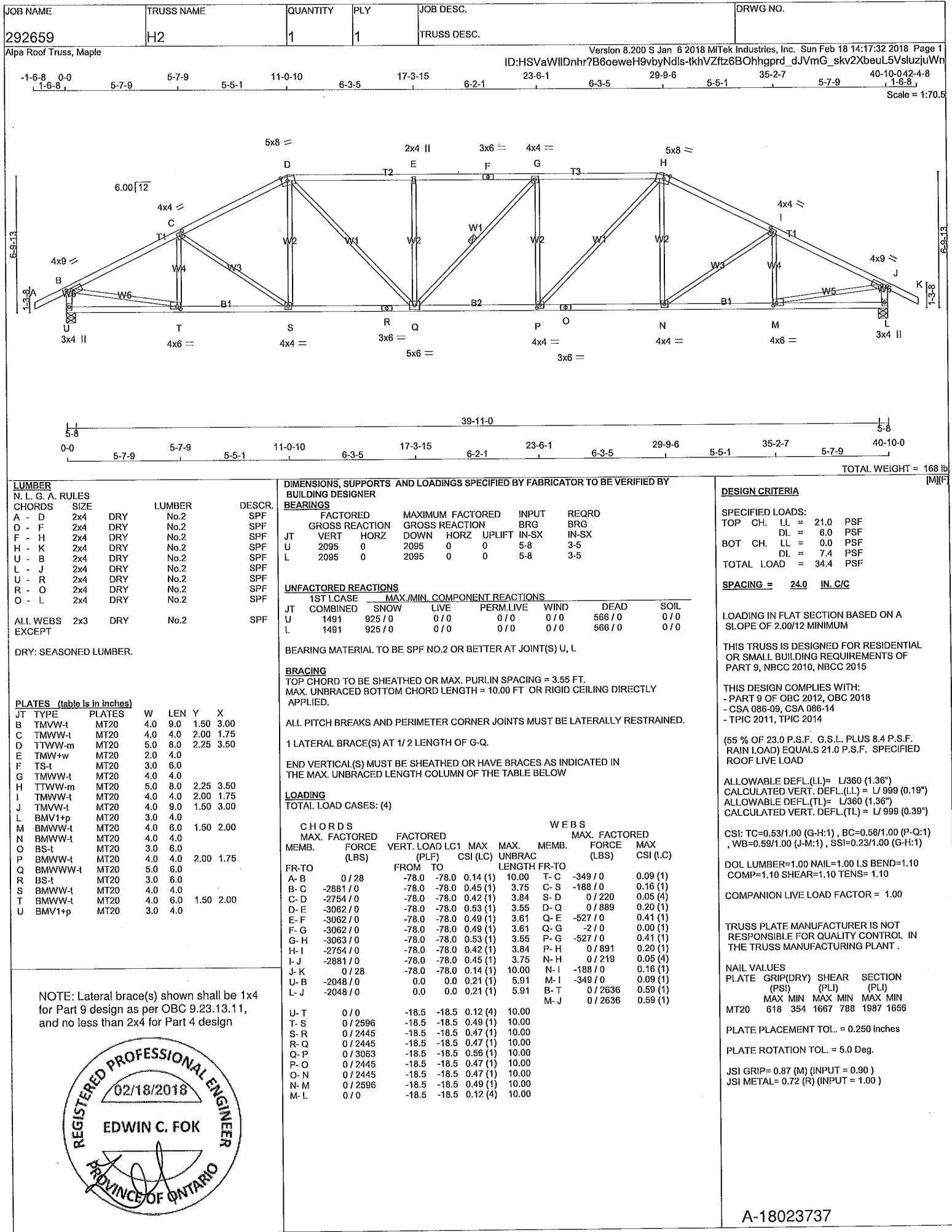
RESPONSIBILITIES

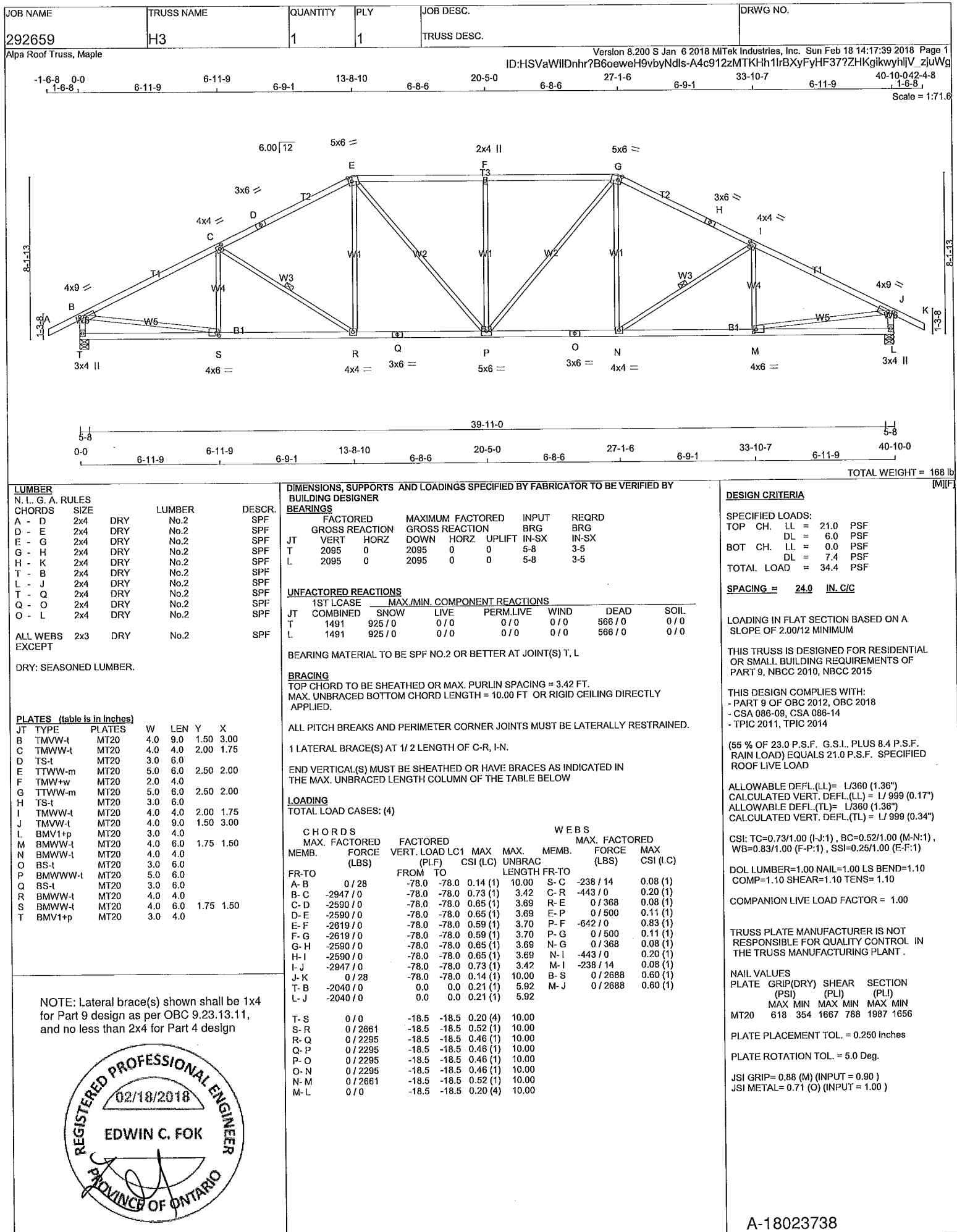
1. Stracon Engineering Inc. is responsible for the design of trusses as individual components.
2. It is the responsibility of others to ascertain that the design loads utilized on this drawing meet or exceed the actual dead load imposed by the structure and the live load imposed by the local building 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





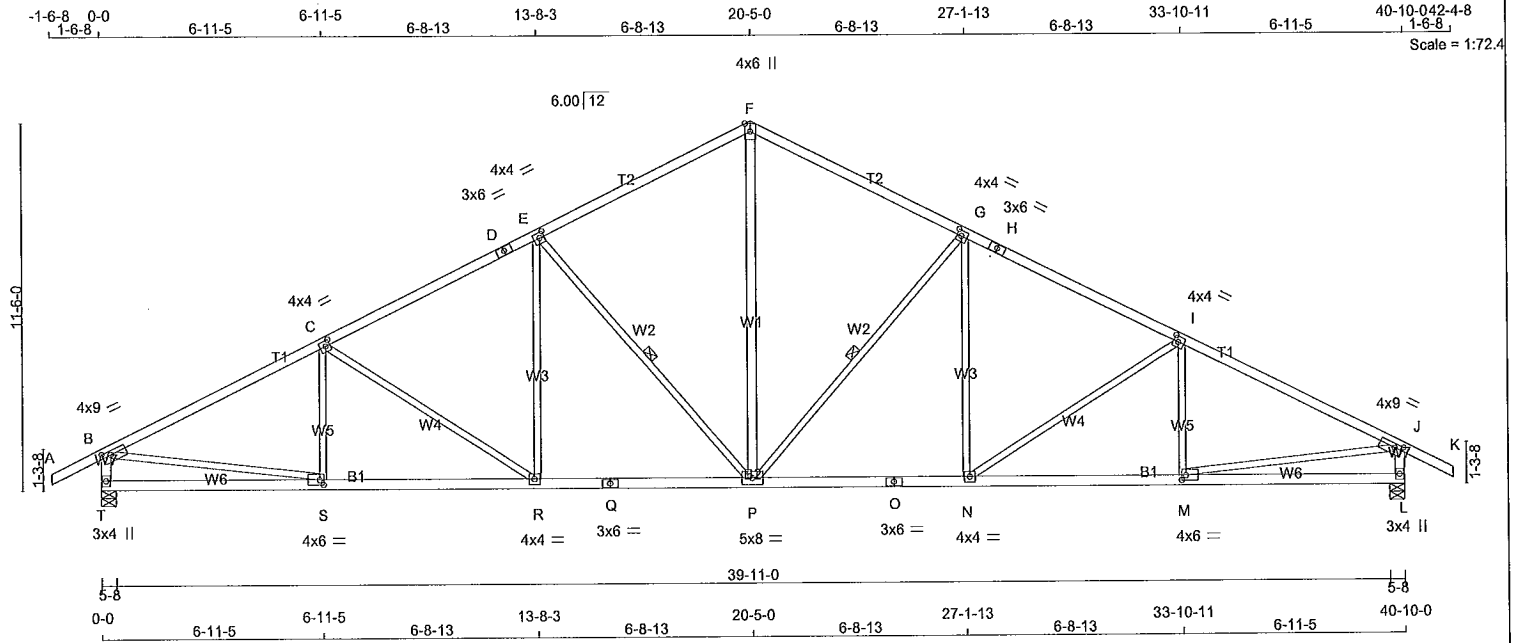
Scale = 1:74.6



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

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:18:28 2018 Page 1
ID:HSVaWIIIDnhr7B6oeweh9vbyNdls-EV3gJpZ5wOSIPH5cvkdRmabV?J0rfvj7Dp3pfzjuVv



TOTAL WEIGHT = 5 X 176 = 880 lb

[M]F

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

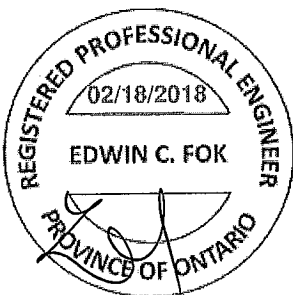
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	9.0	1.50	3.00
C, E, G, I						
C	TMVW-t	MT20	4.0	4.0	2.00	1.75
D	TS-t	MT20	3.0	6.0		
F	TTW+p	MT20	4.0	6.0	Edge	
H	TS-t	MT20	3.0	6.0		
J	TMVW-t	MT20	4.0	9.0	1.50	3.00
L	BMV1+p	MT20	3.0	4.0		
M	BMVW-t	MT20	4.0	6.0	1.75	1.50
N	BMVW-t	MT20	4.0	4.0		
O	BS-t	MT20	3.0	6.0		
P	BMVW-t	MT20	5.0	8.0		
Q	BS-t	MT20	3.0	6.0		
R	BMVW-t	MT20	4.0	4.0		
S	BMVW-t	MT20	4.0	6.0	1.75	1.50
T	BMV1+p	MT20	3.0	4.0		

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

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



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
T	2095	0	2095	0
L	2095	0	2095	0

UNFACTORED REACTIONS

	1ST LCASE	MAX / MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
T	1491	925 / 0	0 / 0	0 / 0	0 / 0	566 / 0	0 / 0
L	1491	925 / 0	0 / 0	0 / 0	0 / 0	566 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.49 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

	CHORDS					WEBS				
	MAX. FACTORED	FACTORED				MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (LC)	MAX. UNBRACED		MEMB.	FORCE (LBS)	MAX. UNBRACED		
FR-TO		FROM	TO	LENGTH		FR-TO				
A-B	0 / 28	-78.0	-78.0	0.14 (1)	10.00	P-F	0 / 1380	0.22 (1)		
B-C	-2931 / 0	-78.0	-78.0	0.71 (1)	3.49	P-G	-825 / 0	0.64 (1)		
C-D	-2618 / 0	-78.0	-78.0	0.56 (1)	3.82	N-G	0 / 318	0.07 (4)		
D-E	-2618 / 0	-78.0	-78.0	0.56 (1)	3.82	N-I	-360 / 0	0.50 (1)		
E-F	-2039 / 0	-78.0	-78.0	0.53 (1)	4.22	M-I	-236 / 14	0.08 (1)		
F-G	-2039 / 0	-78.0	-78.0	0.53 (1)	4.22	E-P	-825 / 0	0.64 (1)		
G-H	-2618 / 0	-78.0	-78.0	0.56 (1)	3.82	R-E	0 / 318	0.07 (4)		
H-I	-2618 / 0	-78.0	-78.0	0.56 (1)	3.82	C-R	-360 / 0	0.50 (1)		
I-J	-2931 / 0	-78.0	-78.0	0.71 (1)	3.49	S-C	-236 / 14	0.08 (1)		
J-K	0 / 28	-78.0	-78.0	0.14 (1)	10.00	B-S	0 / 2668	0.60 (1)		
T-B	-2040 / 0	0.0	0.0	0.21 (1)	5.92	M-J	0 / 2668	0.60 (1)		
L-J	-2040 / 0	0.0	0.0	0.21 (1)	5.92					
T-S	0 / 0	-18.5	-18.5	0.20 (4)	10.00					
S-R	0 / 2641	-18.5	-18.5	0.52 (1)	10.00					
R-Q	0 / 2342	-18.5	-18.5	0.48 (1)	10.00					
Q-P	0 / 2342	-18.5	-18.5	0.48 (1)	10.00					
P-O	0 / 2342	-18.5	-18.5	0.48 (1)	10.00					
O-N	0 / 2342	-18.5	-18.5	0.48 (1)	10.00					
N-M	0 / 2641	-18.5	-18.5	0.52 (1)	10.00					
M-L	0 / 0	-18.5	-18.5	0.20 (4)	10.00					

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

A-18023741

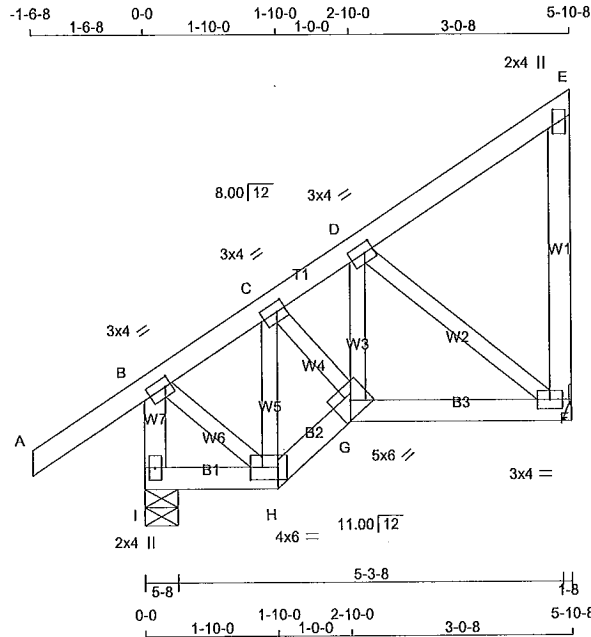
CONTINUED ON PAGE 2

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

Alpa Roof Truss, Maple

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ID:HSVaWIIDnhr?B6oewoH9vbyNdlS-CMupQ8yf9S0SiG5C3?8oCTJ59_zBW?q_toSQVUozju0P



Scale: 3/8"=1'

TOTAL WEIGHT = 3 X 32 = 97 lb

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

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-1	MT20	3.0	4.0	1.50	1.00	
C	TMVW-1	MT20	3.0	4.0	1.50	1.50	
D	TMVW-1	MT20	3.0	4.0	1.50	1.50	
E	TMV+p	MT20	2.0	4.0			
F	BMVW-1	MT20	3.0	4.0			
G	BBVW-h	MT20	5.0	6.0			
H	BBVW-1	MT20	4.0	6.0	2.00	4.50	
I	BMV1+p	MT20	2.0	4.0			

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

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

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	LC1 MAX	CS1 (LC)	UNBRAC LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
FR-TO								FR-TO			
I-B	-410 / 0	0.0	0.0	0.04 (1)	7.81			B-H	0 / 129	0.03 (1)	
A-B	0 / 35	-78.0	-78.0	0.15 (1)	10.00			H-C	-138 / 0	0.02 (1)	
B-C	-170 / 0	-78.0	-78.0	0.14 (1)	6.25			C-G	0 / 144	0.03 (1)	
C-D	-187 / 0	-78.0	-78.0	0.09 (1)	6.25			G-D	0 / 49	0.02 (4)	
D-E	-12 / 0	-78.0	-78.0	0.09 (1)	6.25			D-F	-238 / 0	0.06 (1)	
F-E	-93 / 0	0.0	0.0	0.03 (1)	7.81						
I-H	0 / 0	-18.5	-18.5	0.02 (4)	10.00						
H-G	0 / 138	-18.5	-18.5	0.03 (1)	10.00						
G-F	0 / 188	-18.5	-18.5	0.07 (4)	10.00						

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= 1/360 (0.20")
CALCULATED VERT. DEFL.(LL)= 1/999 (0.00")
ALLOWABLE DEFL.(TL)= 1/360 (0.20")
CALCULATED VERT. DEFL.(TL)= 1/999 (0.01")

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

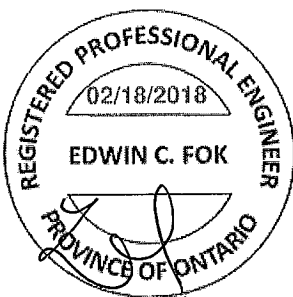
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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

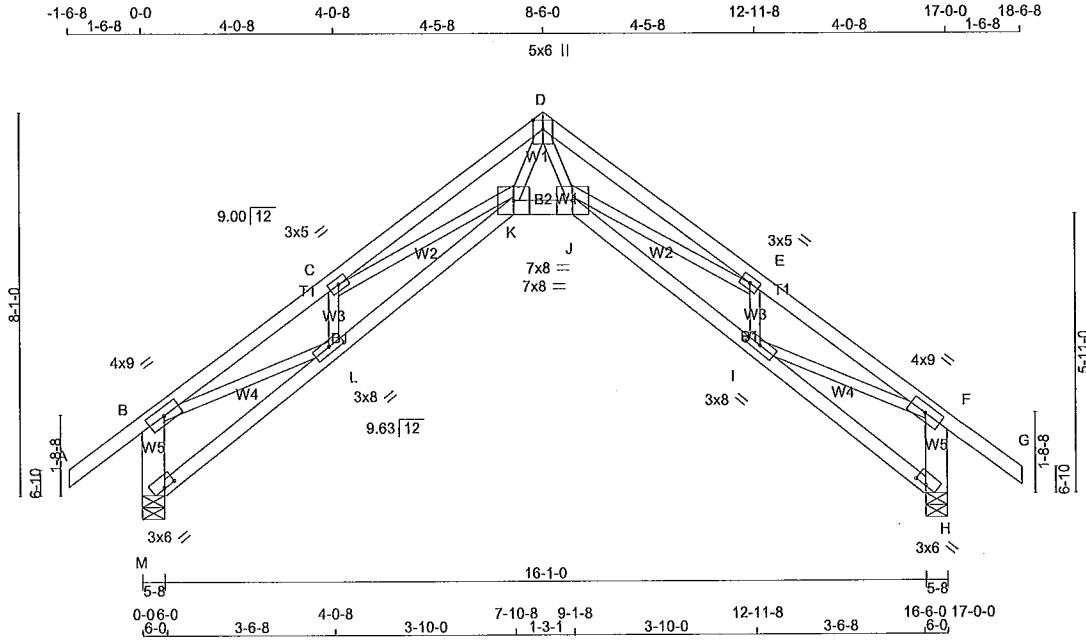


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291821	H13T	10	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:J1N1pMOOU6sBxSeHkk?cPFyBjnt-SkABOIQJv4uB?ngGYEoVudL7R6f7U7Pny3glszjtnb



TOTAL WEIGHT = 10 X 77 = 770 lb
(M)F

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	4.0	9.0		
C	TMVW-I	MT20	3.0	5.0		
D	TTWW+p	MT20	5.0	6.0	2.25	2.50
E	TMVW-I	MT20	3.0	5.0		
F	TMVW-I	MT20	4.0	9.0		
H	BVM1-I	MT20	3.0	6.0	0.25	3.00
I	BBWW-I	MT20	3.0	8.0	1.50	3.75
J	BBWW-I	MT20	7.0	8.0		
K	BBWW-I	MT20	7.0	8.0		
L	BBWW-I	MT20	3.0	8.0	1.50	3.75
M	BVM1-I	MT20	3.0	6.0	0.25	3.00

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	GROSS	REACTION	GROSS	REACTION	BRG	BRG	IN-SX	IN-SX
M	947	0	947	0	0	5-8	1-8		
H	947	0	947	0	0	5-8	1-8		

ALLOW FOR 0.7" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD.

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	673	425 / 0	0 / 0	0 / 0	0 / 0	247 / 0	0 / 0
H	673	425 / 0	0 / 0	0 / 0	0 / 0	247 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.69 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		MAX. FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)
FR-TO					FR-TO			FR-TO	
A-B	0 / 38	-78.0	-78.0 0.15 (1)	10.00	D-J	0 / 1834	0.41 (1)		
B-C	-2160 / 0	-78.0	-78.0 0.20 (1)	4.49	J-E	0 / 883	0.20 (1)		
C-D	-3158 / 0	-78.0	-78.0 0.36 (1)	3.69	I-E	-636 / 0	0.09 (1)		
D-E	-3158 / 0	-78.0	-78.0 0.36 (1)	3.69	K-D	0 / 1834	0.41 (1)		
E-F	-2160 / 0	-78.0	-78.0 0.20 (1)	4.49	C-K	0 / 883	0.20 (1)		
F-G	0 / 38	-78.0	-78.0 0.15 (1)	10.00	L-C	-636 / 0	0.09 (1)		
M-B	-908 / 0	0.0	0.0 0.07 (1)	7.81	I-F	0 / 1859	0.42 (1)		
H-F	-908 / 0	0.0	0.0 0.07 (1)	7.81	B-L	0 / 1859	0.42 (1)		
M-L	0 / 4	-18.5	-18.5 0.07 (4)	10.00					
L-K	0 / 2170	-18.5	-18.5 0.40 (1)	10.00					
K-J	0 / 1915	-18.5	-18.5 0.31 (1)	10.00					
J-I	0 / 2170	-18.5	-18.5 0.40 (1)	10.00					
I-H	0 / 4	-18.5	-18.5 0.07 (4)	10.00					

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



DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

(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

ALLOWABLE DEFL.(LL) = L/360 (0.57")
CALCULATED VERT. DEFL.(LL) = L/999 (0.20")
ALLOWABLE DEFL.(TL) = L/360 (0.57")
CALCULATED VERT. DEFL.(TL) = L/508 (0.40")

CSI: TC=0.36/1.00 (D-E:1), BC=0.40/1.00 (I-J:1), WB=0.42/1.00 (F-I:1), SSI=0.13/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

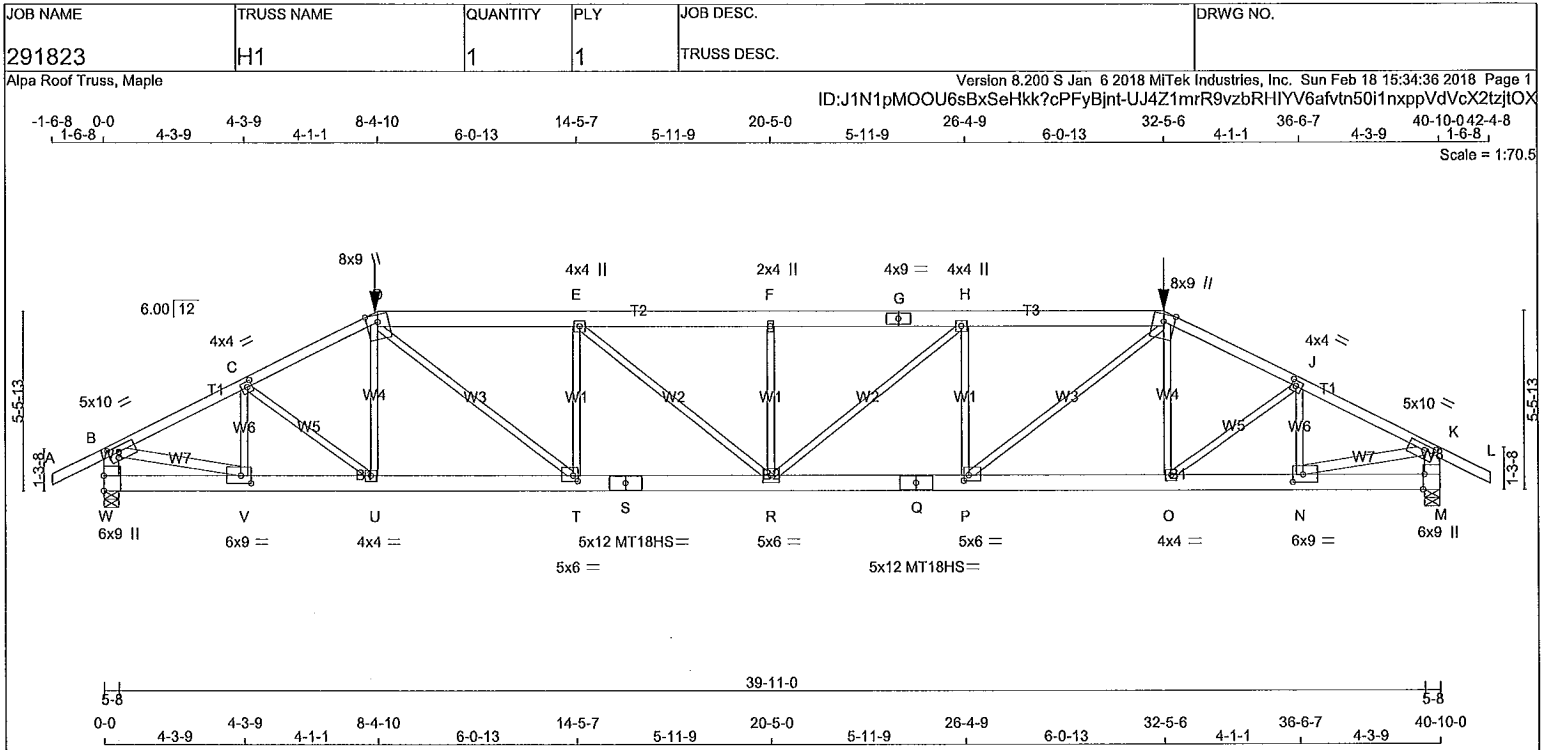
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.43 (K) (INPUT = 1.00)

A-18023776



LUMBER
N. L. G. A. RULES

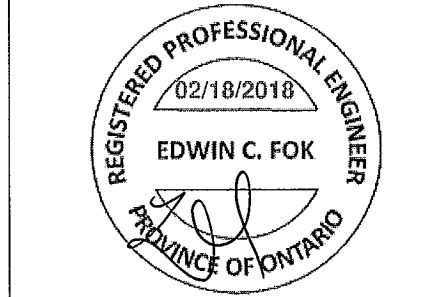
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - G	2x6	DRY No.2	SPF
G - I	2x6	DRY No.2	SPF
I - L	2x4	DRY No.2	SPF
W - B	2x6	DRY No.2	SPF
M - K	2x6	DRY No.2	SPF
W - S	2x6	DRY 1650F 1.5E	SPF
S - Q	2x6	DRY 1650F 1.5E	SPF
Q - M	2x6	DRY 1650F 1.5E	SPF
ALL WEBS	2x3	DRY No.2	SPF
EXCEPT			
B - V	2x4	DRY No.2	SPF
N - K	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	10.0	2.00	3.75
C	TMVW-t	MT20	4.0	4.0	2.00	1.75
D	TTVW+m	MT20	8.0	9.0	Edge	
E	TMVW-t	MT20	4.0	4.0		
F	TMVW-w	MT20	2.0	4.0		
G	TS-t	MT20	4.0	9.0		
H	TMVW-t	MT20	4.0	4.0		
I	TTVW+m	MT20	8.0	9.0	Edge	
J	TMVW-t	MT20	4.0	4.0	2.00	1.75
K	TMVW-t	MT20	5.0	10.0	2.00	3.75
M	BMV1-t	MT20	6.0	9.0	Edge	0.50
N	BMVW-t	MT20	6.0	9.0	2.75	3.75
O	BMVW-t	MT20	4.0	4.0		
P	BMVW-t	MT20	5.0	6.0	2.00	1.75
Q	BS-t	MT18HS	5.0	12.0		
R	BMVW-t	MT20	5.0	6.0		
S	BS-t	MT18HS	5.0	12.0		
T	BMVW-t	MT20	5.0	6.0	2.00	1.75
U	BMVW-t	MT20	4.0	4.0		
V	BMVW-t	MT20	6.0	9.0	2.75	3.75
W	BMV1-t	MT20	6.0	9.0	5.50	

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



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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
W	3846	0	3846	0	5-8	5-8
M	3846	0	3846	0	5-8	5-8

UNFACTORED REACTIONS							
1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS					
JT	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
W	2743	1670 / 0	0 / 0	0 / 0	1072 / 0	0 / 0	
M	2743	1670 / 0	0 / 0	0 / 0	1072 / 0	0 / 0	

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.19 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED (LC1)	MAX. UNBRAC (LC)	MEMB.	FORCE (LBS)	MAX. FACTORED (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 28	-78.0	-78.0	0.16 (1)	10.00	V-C	-972 / 0
B-C	-5459 / 0	-78.0	-78.0	0.72 (1)	2.44	C-U	0 / 625
C-D	-6022 / 0	-78.0	-78.0	0.80 (1)	2.19	U-D	-115 / 118
D-E	-7576 / 0	-153.5	-153.5	0.84 (1)	2.45	D-T	0 / 2841
E-F	-8201 / 0	-153.5	-153.5	0.91 (1)	2.25	T-E	-1607 / 0
F-G	-8201 / 0	-153.5	-153.5	0.91 (1)	2.25	E-R	0 / 818
G-H	-8201 / 0	-153.5	-153.5	0.91 (1)	2.25	R-F	-850 / 0
H-I	-7576 / 0	-153.5	-153.5	0.84 (1)	2.45	R-H	0 / 818
I-J	-6022 / 0	-78.0	-78.0	0.80 (1)	2.19	P-H	-1607 / 0
J-K	-5459 / 0	-78.0	-78.0	0.72 (1)	2.44	P-I	0 / 2841
K-L	0 / 28	-78.0	-78.0	0.16 (1)	10.00	O-I	-115 / 118
W-B	-3735 / 0	0.0	0.0	0.26 (1)	5.49	O-J	0 / 625
M-K	-3735 / 0	0.0	0.0	0.26 (1)	5.49	N-J	-972 / 0
						B-V	0 / 5001
						N-K	0 / 5001
W-V	0 / 0	-36.4	-36.4	0.09 (1)	10.00		
V-U	0 / 4895	-36.4	-36.4	0.47 (1)	10.00		
U-T	0 / 5393	-36.4	-36.4	0.50 (1)	10.00		
T-S	0 / 7575	-36.4	-36.4	0.69 (1)	10.00		
S-R	0 / 7575	-36.4	-36.4	0.89 (1)	10.00		
R-Q	0 / 7575	-36.4	-36.4	0.89 (1)	10.00		
Q-P	0 / 7575	-36.4	-36.4	0.69 (1)	10.00		
P-O	0 / 5393	-36.4	-36.4	0.50 (1)	10.00		
O-N	0 / 4895	-36.4	-36.4	0.47 (1)	10.00		
N-M	0 / 0	-36.4	-36.4	0.09 (1)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
D	8-4-10	-477	-477	---	FRONT	VERT	TOTAL
I	32-5-6	-477	-477	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
SIDE SETBACK = 8-4-10
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

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

CSI: TC=0.91/1.00 (F-H:1), BC=0.69/1.00 (P-R:1), WB=0.88/1.00 (K-N:1), SSI=0.36/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

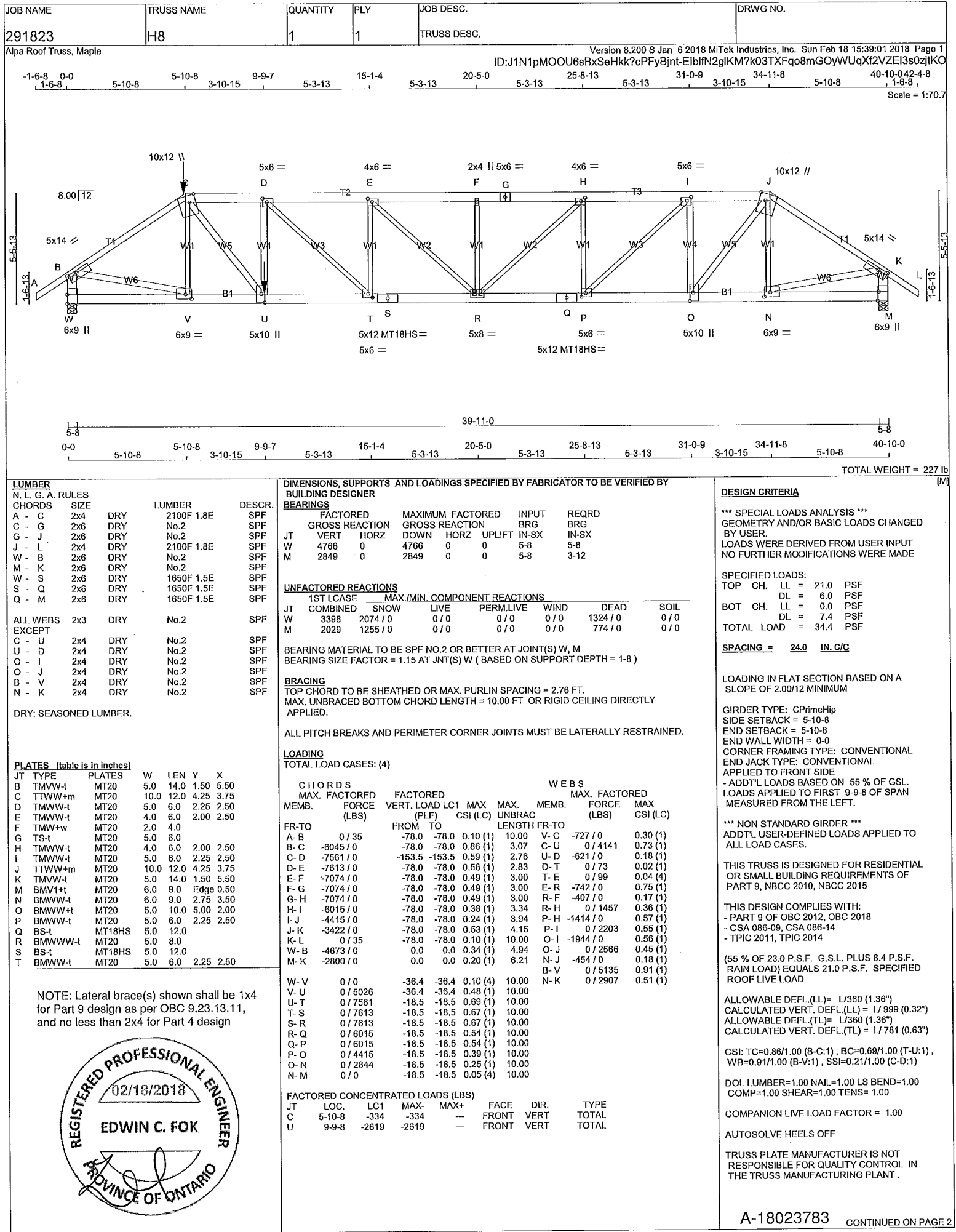
NAIL VALUES

PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)	(PLI)	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656
MT18HS	511	354	2455	1382	3004	2010

PLATE PLACEMENT TOL. = 0.260 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.91 (S) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291823	H8	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 15:39:01 2018 Page 2
ID:J1N1pMOOU6sBxSeHkk?cPFyBjnt-EIblfN2glKM7k03TXFqo8mGOyWUqXF2VZEI3s0zjtKQ

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
U	BMWW+H	MT20	5.0	10.0	5.00	2.00
V	BMWW-I	MT20	6.0	9.0	2.75	3.50
W	BMV1+H	MT20	6.0	9.0	5.50	

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, AND 2618.6 lbs FACTORED
DOWN AT 9-9-8 ON BOTTOM CHORD. DESIGN
FOR UNSPECIFIED CONNECTION(S) IS
DELEGATED TO THE BUILDING DESIGNER.

NAIL VALUES

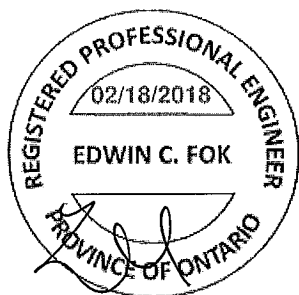
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667
MT18HS	511	354	2455

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

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

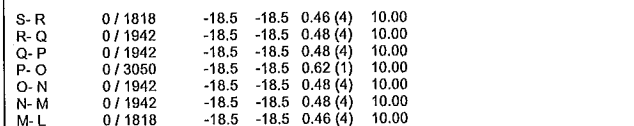
NOTE: Lateral brace(s) shown shall be 1x4
for Part 9 design as per OBC 9.23.13.11,
and no less than 2x4 for Part 4 design



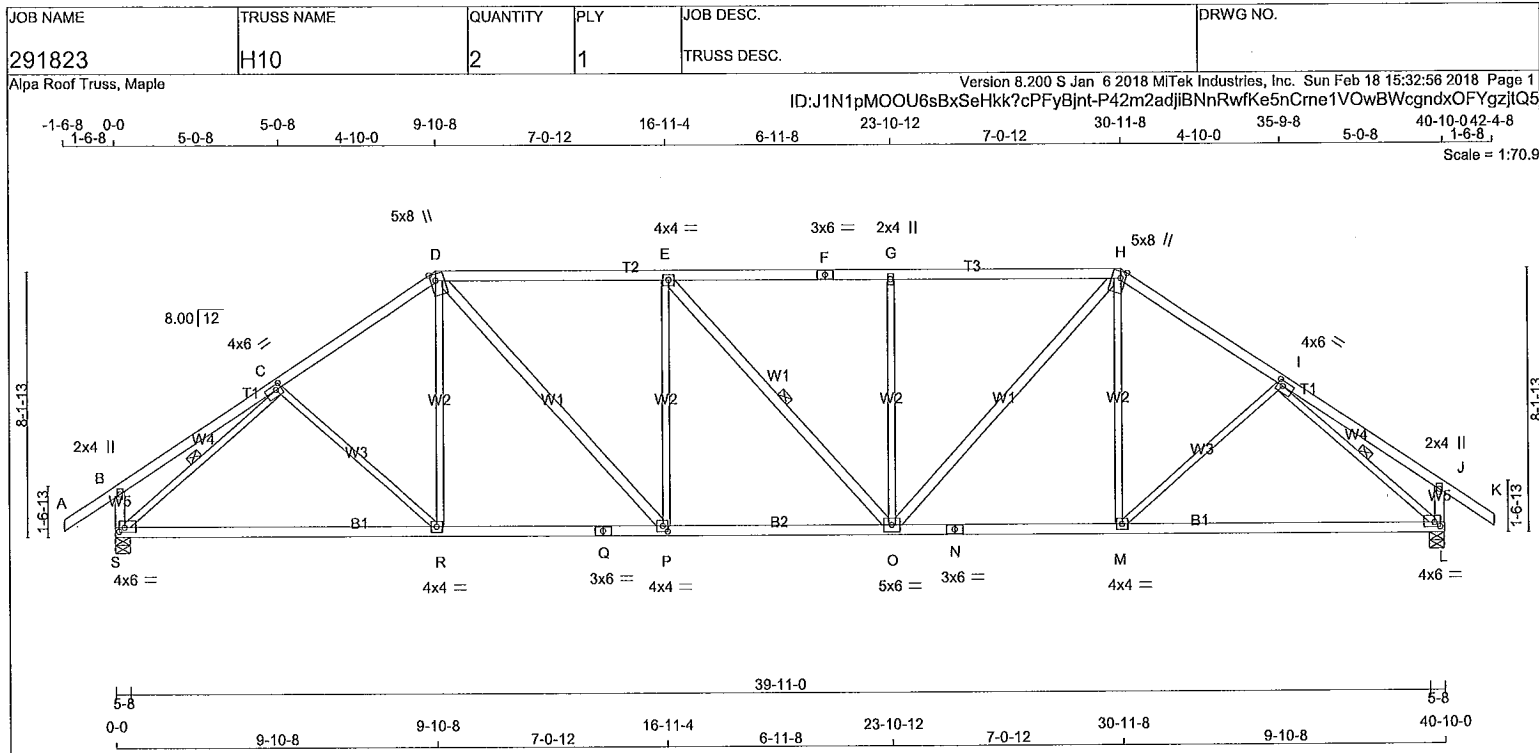
A-18023783(2)



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



JSI GRIP= 0.88 (O) (INPUT = 0.90)
JSI METAL= 0.64 (I) (INPUT = 1.00)



TOTAL WEIGHT = 2 X 185 = 370 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
S	2096	0	2096	0	5-8	2-4
L	2096	0	2096	0	5-8	2-4

UNFACTORED REACTIONS

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

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.53 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO				FR-TO			
A-B	0 / 35	-78.0	-78.0 0.15 (1)	10.00	C-R	0 / 65	0.02 (4)
B-C	0 / 24	-78.0	-78.0 0.29 (1)	10.00	R-D	0 / 187	0.06 (4)
C-D	-2309 / 0	-78.0	-78.0 0.43 (1)	4.11	D-P	0 / 952	0.15 (1)
D-E	-2538 / 0	-78.0	-78.0 0.83 (1)	3.53	P-E	-594 / 0	0.76 (1)
E-F	-2537 / 0	-78.0	-78.0 0.82 (1)	3.53	E-O	-2 / 0	0.00 (1)
F-G	-2537 / 0	-78.0	-78.0 0.82 (1)	3.53	O-G	-594 / 0	0.76 (1)
G-H	-2537 / 0	-78.0	-78.0 0.82 (1)	3.54	O-H	0 / 951	0.15 (1)
H-I	-2309 / 0	-78.0	-78.0 0.43 (1)	4.11	M-I	0 / 188	0.06 (4)
I-J	0 / 24	-78.0	-78.0 0.29 (1)	10.00	M-L	0 / 65	0.02 (4)
J-K	0 / 35	-78.0	-78.0 0.15 (1)	10.00	S-C	-2577 / 0	0.78 (1)
S-B	-275 / 0	0.0	0.0 0.03 (1)	7.81	I-L	-2578 / 0	0.78 (1)
L-J	-275 / 0	0.0	0.0 0.03 (1)	7.81			
S-R	0 / 1897	-18.5	-18.5 0.57 (4)	10.00			
R-Q	0 / 1901	-18.5	-18.5 0.58 (4)	10.00			
Q-P	0 / 1901	-18.5	-18.5 0.58 (4)	10.00			
P-O	0 / 2538	-18.5	-18.5 0.49 (1)	10.00			
O-N	0 / 1901	-18.5	-18.5 0.58 (4)	10.00			
N-M	0 / 1901	-18.5	-18.5 0.58 (4)	10.00			
M-L	0 / 1897	-18.5	-18.5 0.57 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.36")

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

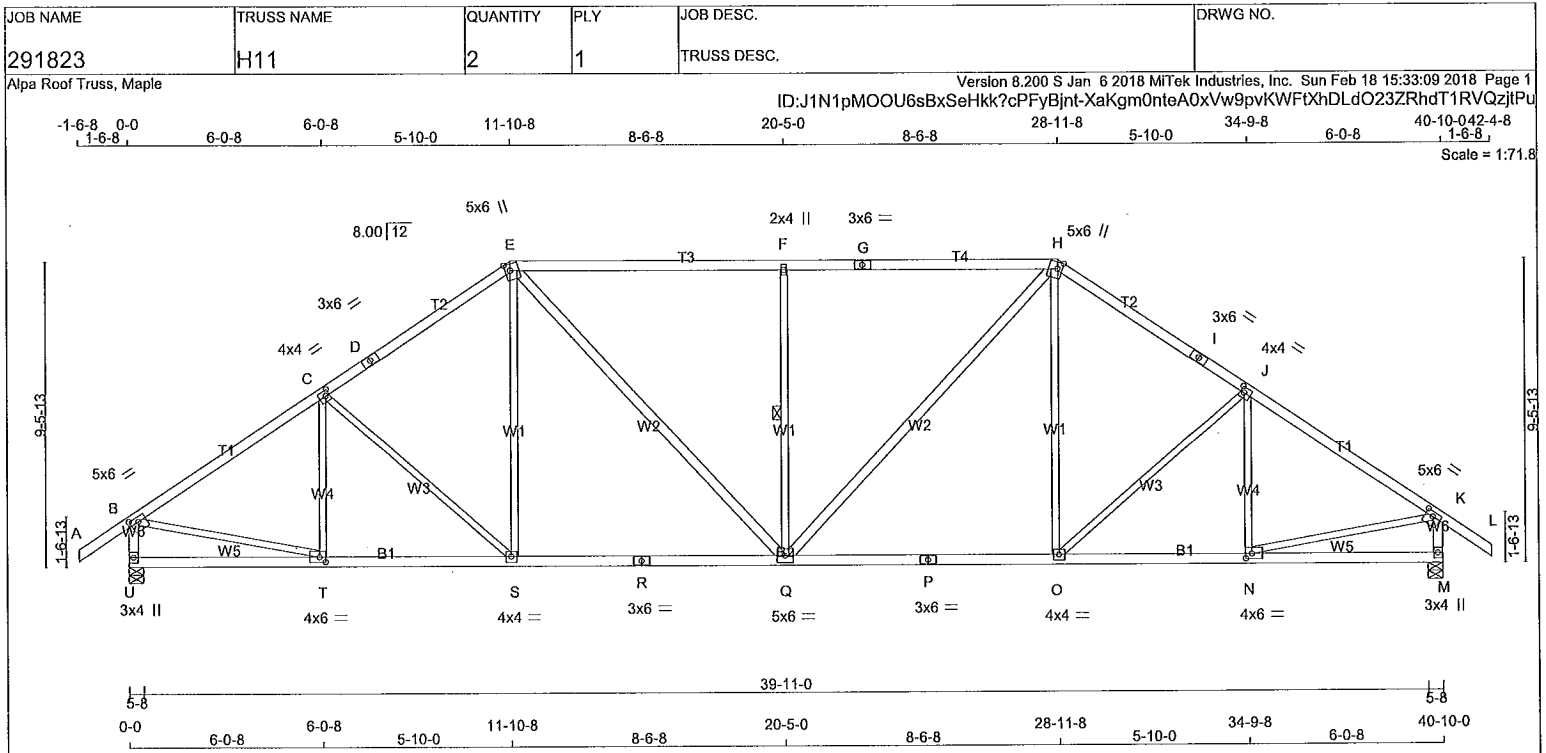
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

A-18023785

CONTINUED ON PAGE 2



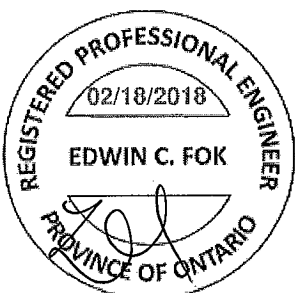
TOTAL WEIGHT = 2 X 185 = 370 lb [M][F]

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

DRY: SEASONED LUMBER.

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

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



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

FACTORED		MAXIMUM FACTORED		INPUT		REQD	
GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
U	2096	0	2096	0	0	5-8	3-5
M	2096	0	2096	0	0	5-8	3-5

UNFACTORED REACTIONS

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

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.21 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

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

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CSI: TC=0.96/1.00 (E-F:1), BC=0.46/1.00 (Q-S:4), WB=0.49/1.00 (F-Q:1), SSI=0.32/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

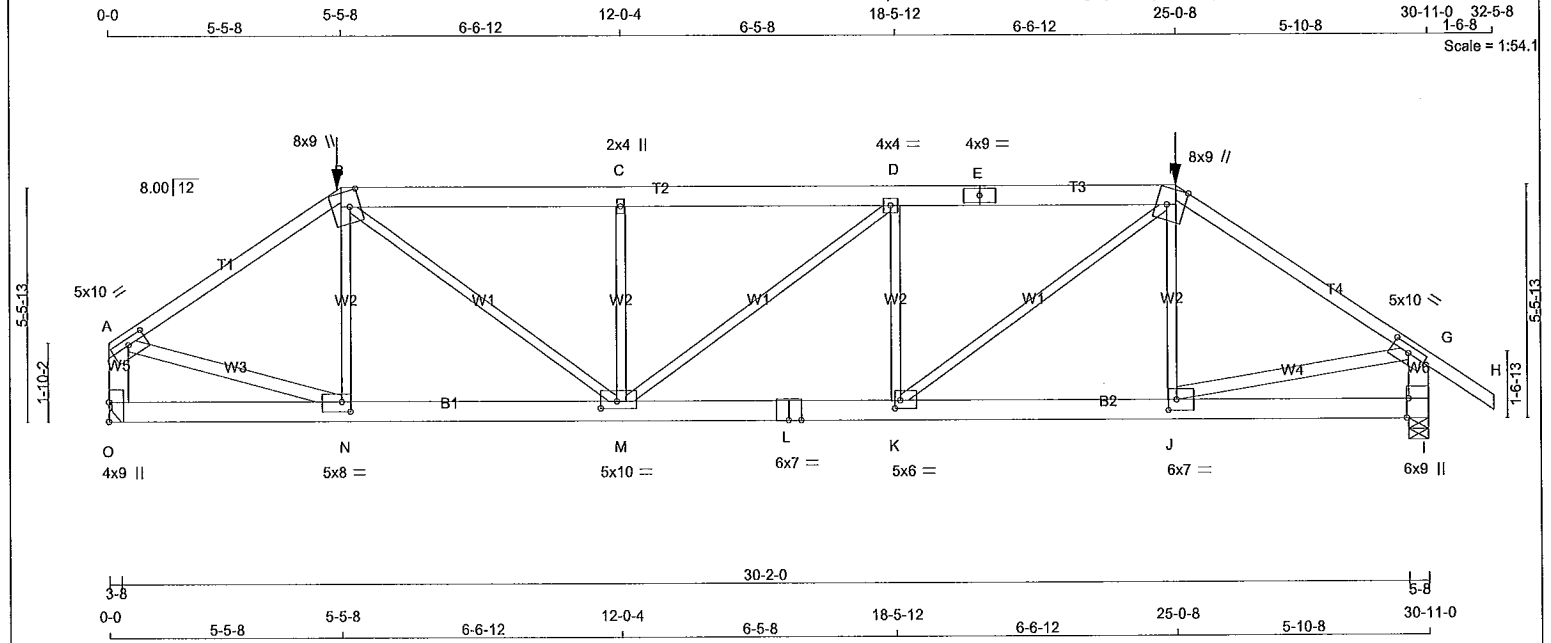
PLATE ROTATION TOL. = 5.0 Deg.

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291823	H14	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 15:37:18 2018 Page 1
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TOTAL WEIGHT = 159 lb

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

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	10.0	1.75	5.00
B	TTWW+M	MT20	8.0	9.0	4.50	3.00
C	TMW+W	MT20	2.0	4.0		
D	TMWV-t	MT20	4.0	4.0		
E	TS-t	MT20	4.0	9.0		
F	TTWW+M	MT20	8.0	9.0	Edge	5.00
G	TMVW-t	MT20	5.0	10.0	2.00	5.00
I	BMV1-t	MT20	6.0	9.0	Edge	0.50
J	BMWV-t	MT20	6.0	7.0	3.00	2.25
K	BMWV-t	MT20	5.0	6.0	2.25	1.50
L	BS-t	MT20	6.0	7.0		
N	BMWVW-t	MT20	5.0	10.0	2.00	4.50
M	BMWV-t	MT20	5.0	8.0	2.75	2.50
O	BMV1-t	MT20	4.0	9.0	5.50	

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

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
O	3761	0	3761	0	0	5-8	5-8
I	3912	0	3912	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	2686	1614 / 0	0 / 0	0 / 0	0 / 0	1072 / 0	0 / 0
I	2791	1691 / 0	0 / 0	0 / 0	0 / 0	1100 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.32 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)	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)
FR-TO			FROM	TO		UNBRAC LENGTH	FR-TO		
A-B	-4420 / 0	-105.2	-105.2	0.88 (1)	3.09	N-B	-683 / 0	0.28 (1)	
B-C	-6046 / 0	-215.1	-215.1	0.93 (1)	2.47	B-M	0 / 2996	0.74 (1)	
C-D	-6046 / 0	-215.1	-215.1	0.97 (1)	2.36	M-C	-1537 / 0	0.62 (1)	
D-E	-6133 / 0	-215.1	-215.1	0.98 (1)	2.32	M-D	-113 / 0	0.16 (1)	
E-F	-6133 / 0	-215.1	-215.1	0.98 (1)	2.32	K-D	-1493 / 0	0.61 (1)	
F-G	-4679 / 0	-105.2	-105.2	0.82 (1)	3.36	K-F	0 / 2831	0.70 (1)	
G-H	0 / 47	-105.2	-105.2	0.14 (1)	10.00	J-F	-486 / 0	0.20 (1)	
O-A	-3681 / 0	0.0	0.0	0.28 (1)	5.52	A-N	0 / 3808	0.67 (1)	
I-G	-3822 / 0	0.0	0.0	0.28 (1)	5.43	J-G	0 / 3975	0.70 (1)	
O-N	0 / 0	-37.8	-37.8	0.17 (4)	10.00				
N-M	0 / 3672	-37.8	-37.8	0.58 (1)	10.00				
M-L	0 / 6135	-37.8	-37.8	0.92 (1)	10.00				
L-K	0 / 6135	-37.8	-37.8	0.92 (1)	10.00				
K-J	0 / 3892	-37.8	-37.8	0.61 (1)	10.00				
J-I	0 / 0	-37.8	-37.8	0.18 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	5-5-8	-448	-448	—	FRONT	VERT	TOTAL
F	25-0-8	-482	-482	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 5-5-8
RIGHT SETBACK = 5-10-8
END SETBACK = 6-2-2
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 80 % OF GSL.

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

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

DESIGN ASSUMPTIONS
- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.20")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/907 (0.41")

CS1: TC=0.98/1.00 (D-F:1), BC=0.92/1.00 (K-M:1), WB=0.74/1.00 (B-M:1), SSI=0.57/1.00 (D-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

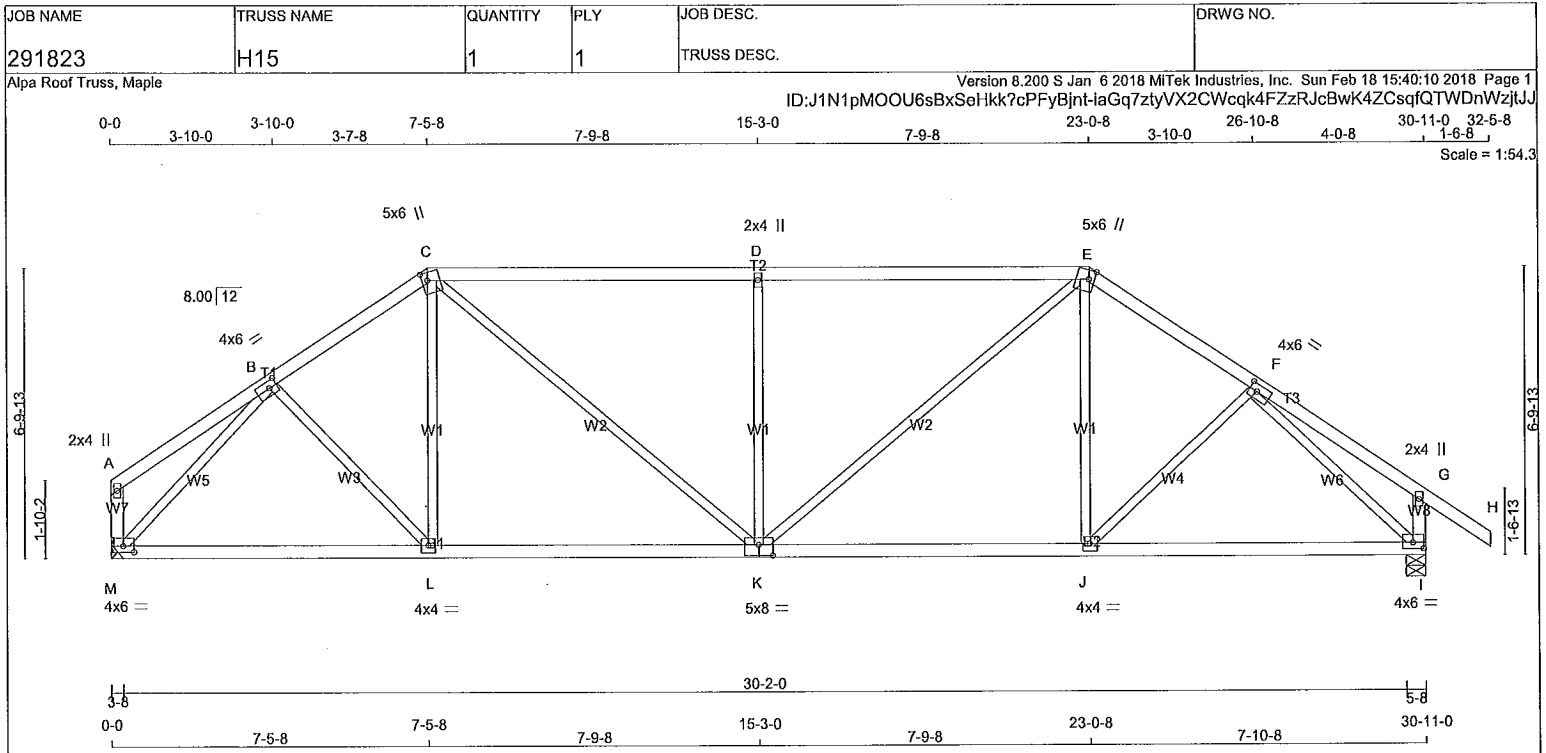
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

A-18023788

CONTINUED ON PAGE 2



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	4.0	6.0	2.00	2.25
C	TTWW+m	MT20	5.0	6.0	2.25	1.50
D	TMW+w	MT20	2.0	4.0		
E	TTWW+m	MT20	5.0	6.0	2.50	1.50
F	TMWW-t	MT20	4.0	6.0	2.00	2.25
G	TMV+p	MT20	2.0	4.0		
I	BMVW1-t	MT20	4.0	6.0	1.75	3.00
J	BMWW-t	MT20	4.0	4.0		
K	BSWWW-t	MT20	5.0	8.0	3.00	4.00
L	BMWW-t	MT20	4.0	4.0		
M	BMVW1-t	MT20	4.0	6.0	1.75	3.00

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		
M	1491	0	1491	0	0	0
I	1618	0	1618	0	5-8	1-12

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	1063	649 / 0	0 / 0	0 / 0	0 / 0	414 / 0	0 / 0
I	1151	717 / 0	0 / 0	0 / 0	0 / 0	434 / 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 = 4.31 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MAX UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)
FR-TO					FR-TO		
A-B	0 / 17	-78.0	-78.0 0.16 (1)	10.00	B-L	0 / 122	0.03 (4)
B-C	-1602 / 0	-78.0	-78.0 0.20 (1)	5.02	L-C	0 / 128	0.04 (4)
C-D	-1854 / 0	-78.0	-78.0 0.83 (1)	4.31	C-K	0 / 700	0.16 (1)
D-E	-1854 / 0	-78.0	-78.0 0.83 (1)	4.31	K-D	-749 / 0	0.59 (1)
E-F	-1660 / 0	-78.0	-78.0 0.23 (1)	4.93	K-E	0 / 636	0.14 (1)
F-G	0 / 18	-78.0	-78.0 0.18 (1)	10.00	J-E	0 / 157	0.05 (4)
G-H	0 / 35	-78.0	-78.0 0.15 (1)	10.00	J-F	0 / 66	0.02 (4)
M-A	-114 / 0	0.0	0.0 0.01 (1)	7.81	M-B	-1808 / 0	0.87 (1)
I-G	-246 / 0	0.0	0.0 0.03 (1)	7.81	F-I	-1874 / 0	0.93 (1)
M-L	0 / 1231	-18.5	-18.5 0.42 (4)	10.00			
L-K	0 / 1317	-18.5	-18.5 0.44 (4)	10.00			
K-J	0 / 1366	-18.5	-18.5 0.46 (4)	10.00			
J-I	0 / 1336	-18.5	-18.5 0.45 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, OBC 2018
- CSA 088-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.19")

CSI: TC=0.83/1.00 (C-D:1), BC=0.46/1.00 (J-K:4),
WB=0.93/1.00 (F-I:1), SSI=0.29/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

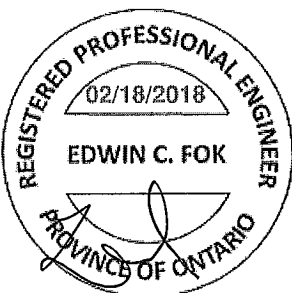
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

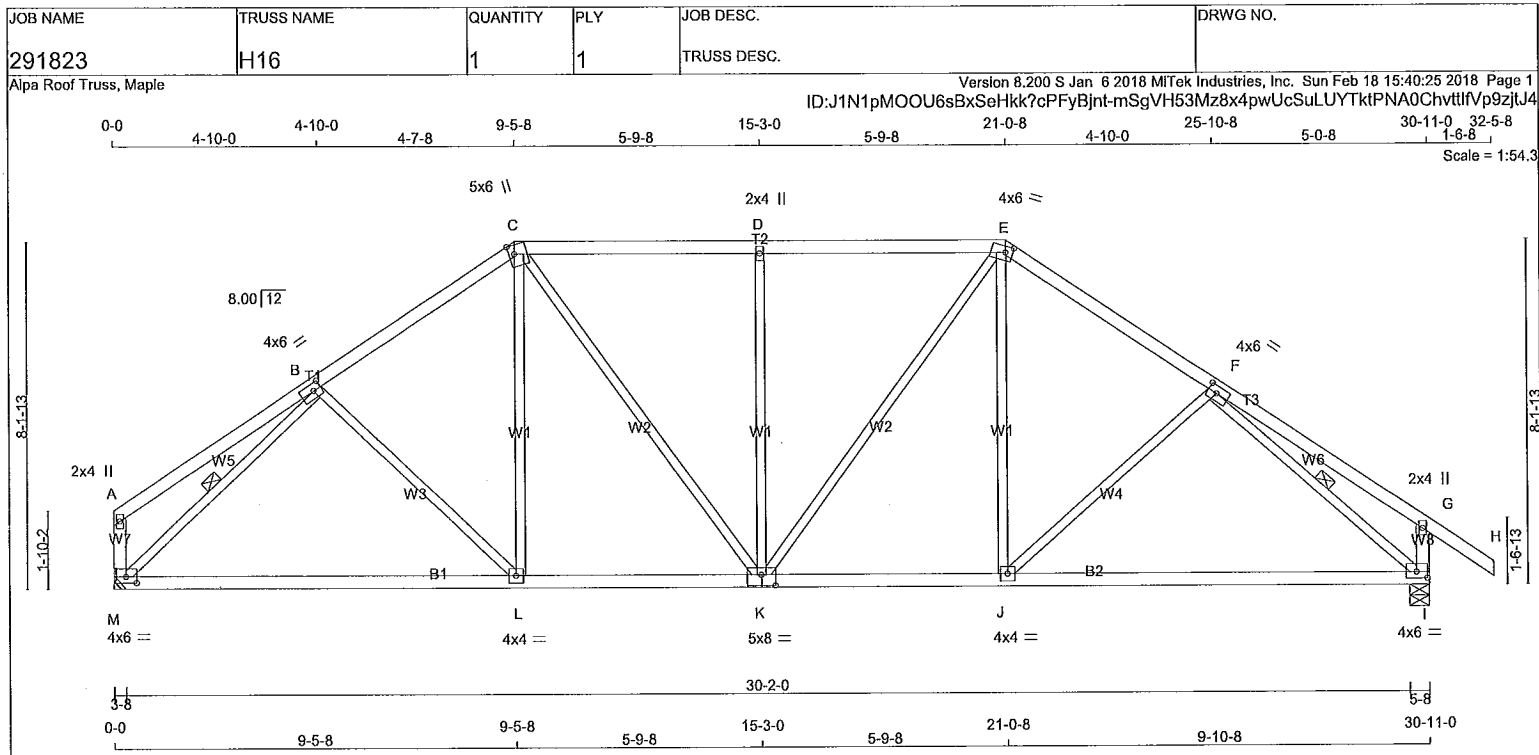
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (I) (INPUT = 0.90)
JSI METAL= 0.46 (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



A-18023789



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

A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
E - H	2x4	DRY	No.2	SPF
M - A	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	4.0	6.0	2.00	2.25
C	TTWW+m	MT20	5.0	6.0	2.50	1.50
D	TMW+w	MT20	2.0	4.0		
E	TTWW-m	MT20	4.0	6.0	1.75	2.00
F	TMWW-t	MT20	4.0	6.0	2.00	2.50
G	TMV+p	MT20	2.0	4.0		
I	BMVW1-t	MT20	4.0	6.0	1.75	3.00
J	BMWW-t	MT20	4.0	4.0		
K	BSWWW-t	MT20	5.0	8.0	3.00	4.00
L	BMWW-t	MT20	4.0	4.0		
M	BMVW1-t	MT20	4.0	6.0	1.75	3.00

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
M	1491	0	1491	0
I	1618	0	1618	0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. SNOW	MAX/MIN. LIVE	MAX/MIN. PERM. LIVE	WIND	DEAD	SOIL
M	1063	649 / 0	0 / 0	0 / 0	0 / 0	414 / 0	0 / 0
I	1151	717 / 0	0 / 0	0 / 0	0 / 0	434 / 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 = 4.94 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 B-M, F-I.

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

LOADING
TOTAL LOAD CASES: (4)

FR-TO	CHORDS			WEBS		
	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)
A-B	0 / 24	-78.0	-78.0	0.28 (1)	10.00	0.03 (1)
B-C	-1547 / 0	-78.0	-78.0	0.25 (1)	5.05	0.08 (4)
C-D	-1506 / 0	-78.0	-78.0	0.37 (1)	4.94	0.09 (1)
D-E	-1506 / 0	-78.0	-78.0	0.37 (1)	4.94	0.71 (1)
E-F	-1585 / 0	-78.0	-78.0	0.27 (1)	4.98	0.08 (1)
F-G	0 / 25	-78.0	-78.0	0.30 (1)	10.00	0.07 (4)
G-H	0 / 35	-78.0	-78.0	0.15 (1)	10.00	0.10 (1)
H-A	-141 / 0	0.0	0.0	0.02 (1)	7.81	0.54 (1)
I-G	-274 / 0	0.0	0.0	0.03 (1)	7.81	0.57 (1)
M-L	0 / 1291	-18.5	-18.5	0.49 (4)	10.00	
L-K	0 / 1268	-18.5	-18.5	0.49 (4)	10.00	
K-J	0 / 1300	-18.5	-18.5	0.53 (4)	10.00	
J-I	0 / 1379	-18.5	-18.5	0.52 (4)	10.00	

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.31")

CSI: TC=0.37/1.00 (D-E:1), BC=0.53/1.00 (J-K:4), WB=0.71/1.00 (D-K:1), SSI=0.22/1.00 (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.

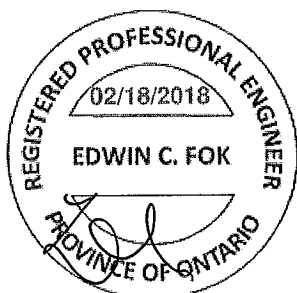
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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



A-18023790

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292654	H1T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MTek Industries, Inc. Sun Feb 18 15:55:25 2018 Page 2
ID: J1N1pMOOU6sBxSeHkk?cPFyBjnt-Qc3kAryu0fKNnEHbAwUY0G0Z4Ajz4gOLqJg8O zjt50

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
Q	BMWW-t	MT20	4.0	4.0	2.25	2.00
R	BBWW+h	MT20	10.0	16.0	5.25	Edge
S	BBWW-l	MT20	10.0	12.0	5.25	6.00
T	BMWWWW-t	MT20	5.0	8.0		
U	BBWW-l	MT20	10.0	12.0	Edge	5.50
V	BBWW+h	MT20	10.0	16.0	5.25	Edge
W	BMWW-l	MT20	4.0	4.0	2.25	2.00
X	BMWW-l	MT20	8.0	9.0		
Y	BMV1+p	MT20	3.0	5.0	2.75	1.50

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 476.7 lbs FACTORED DOWN AT 8-4-10, AND 476.7 lbs FACTORED DOWN AT 32-5-6 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
D	8-4-10	-477	-477	---	FRONT	VERT	TOTAL
K	32-5-6	-477	-477	---	FRONT	VERT	TOTAL

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

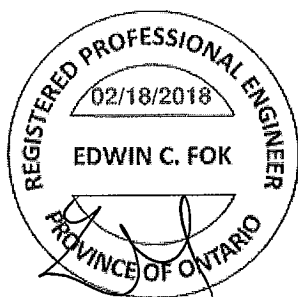
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

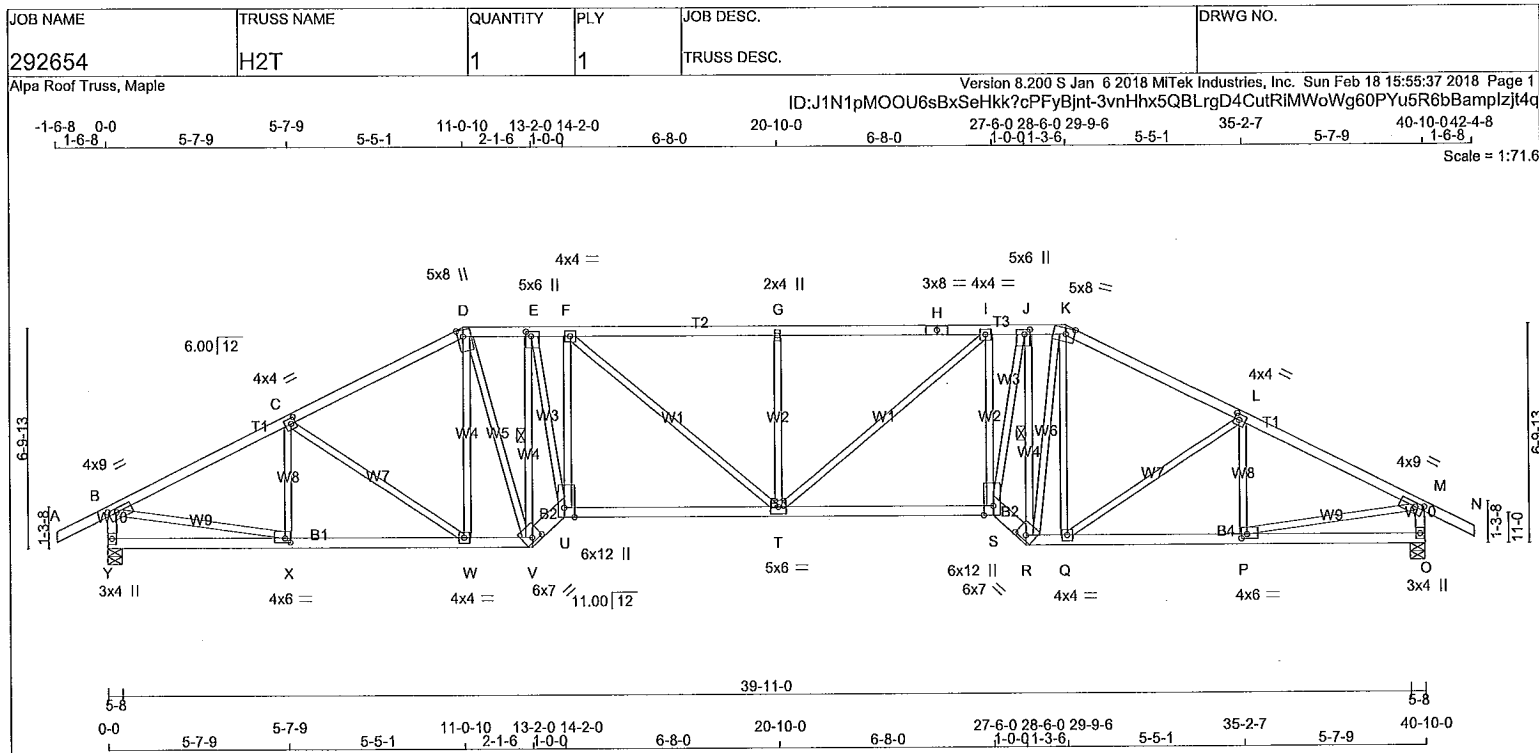
JSI GRIP = 0.90 (U) (INPUT = 0.90)

JSI METAL = 0.99 (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-180237916m



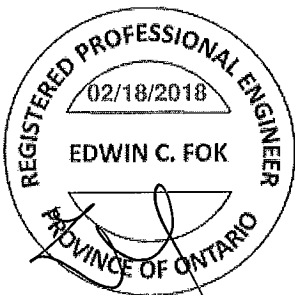
LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	A - D	2x4	DRY	No.2
D - H	2x4	DRY	No.2	D - H	2x4	DRY	No.2
H - K	2x4	DRY	No.2	H - K	2x4	DRY	No.2
K - N	2x4	DRY	No.2	K - N	2x4	DRY	No.2
Y - B	2x4	DRY	No.2	Y - B	2x4	DRY	No.2
O - M	2x4	DRY	No.2	O - M	2x4	DRY	No.2
Y - V	2x4	DRY	No.2	Y - V	2x4	DRY	No.2
V - U	2x6	DRY	No.2	V - U	2x6	DRY	No.2
U - S	2x4	DRY	No.2	U - S	2x4	DRY	No.2
S - R	2x6	DRY	No.2	S - R	2x6	DRY	No.2
R - O	2x4	DRY	No.2	R - O	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	9.0	1.50	3.00
C	TMVW-t	MT20	4.0	4.0	2.00	1.75
D	TTWW+m	MT20	5.0	8.0	2.50	2.00
E	TMVW-t	MT20	5.0	6.0	1.75	2.00
F	TMVW-t	MT20	4.0	4.0		
G	TMVW-w	MT20	2.0	4.0		
H	TS-t	MT20	3.0	8.0		
I	TMVW-t	MT20	4.0	4.0		
J	TMVW-t	MT20	5.0	6.0	1.75	2.00
K	TTWW-m	MT20	5.0	8.0	2.25	3.25
L	TMVW-t	MT20	4.0	4.0	2.00	1.75
M	TMVW-t	MT20	4.0	9.0	1.50	3.00
O	BMV1+p	MT20	3.0	4.0		
P	BMVW-t	MT20	4.0	6.0	1.50	2.00
Q	BMVW-t	MT20	4.0	4.0		
R	BBVW-h	MT20	6.0	7.0	1.75	3.75
S	BBVW+p	MT20	6.0	12.0	Edge	3.50
T	BMVWV-t	MT20	5.0	6.0		
U	BBVW+p	MT20	6.0	12.0	Edge	3.75
V	BBVW-h	MT20	6.0	7.0	1.50	3.50
W	BMVW-t	MT20	4.0	4.0		
X	BMVW-t	MT20	4.0	6.0	1.50	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

FACTORED		MAXIMUM FACTORED		INPUT		REQD	
JT	VERT	GROSS REACTION	BRG	JT	VERT	GROSS REACTION	BRG
Y	2095	0	2095	0	0	0	0
O	2095	0	2095	0	0	0	0

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Y	1491	925 / 0	0 / 0	0 / 0	0 / 0	566 / 0	0 / 0
O	1491	925 / 0	0 / 0	0 / 0	0 / 0	566 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.21 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-V, J-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		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	CSI (LC)	MEMB.	FORCE (LBS)	MAX. FACTORED	CSI (LC)
FR-TO		FROM	TO	FR-TO			
A-B	0 / 28	-78.0	-78.0 0.14 (1)	10.00	X-C	-346 / 0	0.09 (1)
B-C	-2882 / 0	-78.0	-78.0 0.45 (1)	3.74	C-W	-191 / 0	0.16 (1)
C-D	-2752 / 0	-78.0	-78.0 0.42 (1)	3.84	W-D	0 / 101	0.03 (4)
D-E	-2731 / 0	-78.0	-78.0 0.12 (1)	4.13	D-V	0 / 928	0.21 (1)
E-F	-3317 / 0	-78.0	-78.0 0.25 (1)	3.67	V-E	-3318 / 0	0.98 (1)
F-G	-3657 / 0	-78.0	-78.0 0.63 (1)	3.21	E-U	0 / 3319	0.75 (1)
G-H	-3657 / 0	-78.0	-78.0 0.63 (1)	3.21	U-F	-632 / 0	0.34 (1)
H-I	-3657 / 0	-78.0	-78.0 0.63 (1)	3.21	F-T	0 / 431	0.10 (1)
I-J	-3221 / 0	-78.0	-78.0 0.26 (1)	3.70	T-G	-572 / 0	0.31 (1)
J-K	-2612 / 0	-78.0	-78.0 0.20 (1)	4.13	T-I	0 / 552	0.12 (1)
K-L	-2755 / 0	-78.0	-78.0 0.42 (1)	3.84	S-I	-853 / 0	0.46 (1)
L-M	-2881 / 0	-78.0	-78.0 0.45 (1)	3.74	S-J	0 / 3365	0.76 (1)
M-N	0 / 28	-78.0	-78.0 0.14 (1)	10.00	R-J	-3051 / 0	0.90 (1)
Y-B	-2049 / 0	0.0	0.0 0.21 (1)	5.91	R-K	0 / 862	0.19 (1)
O-M	-2048 / 0	0.0	0.0 0.21 (1)	5.91	Q-K	0 / 76	0.03 (4)
					Q-L	-187 / 0	0.16 (1)
					P-L	-350 / 0	0.09 (1)
Y-X	0 / 0	-18.5	-18.5 0.12 (4)	10.00	B-X	0 / 2636	0.59 (1)
X-W	0 / 2597	-18.5	-18.5 0.48 (1)	10.00	P-M	0 / 2636	0.59 (1)
W-V	0 / 2443	-18.5	-18.5 0.45 (1)	10.00			
V-U	0 / 3763	-18.5	-18.5 0.45 (1)	10.00			
U-T	0 / 3329	-18.5	-18.5 0.65 (1)	10.00			
T-S	0 / 3237	-18.5	-18.5 0.63 (1)	10.00			
S-R	0 / 3475	-18.5	-18.5 0.41 (1)	10.00			
R-Q	0 / 2446	-18.5	-18.5 0.47 (1)	10.00			
Q-P	0 / 2596	-18.5	-18.5 0.49 (1)	10.00			
P-O	0 / 0	-18.5	-18.5 0.12 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.34")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/708 (0.69")

CSI: TC=0.63/1.00 (F-G:1), BC=0.65/1.00 (T-U:1), WB=0.98/1.00 (E-V:1), SSI=0.22/1.00 (F-G:1)

DOI 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

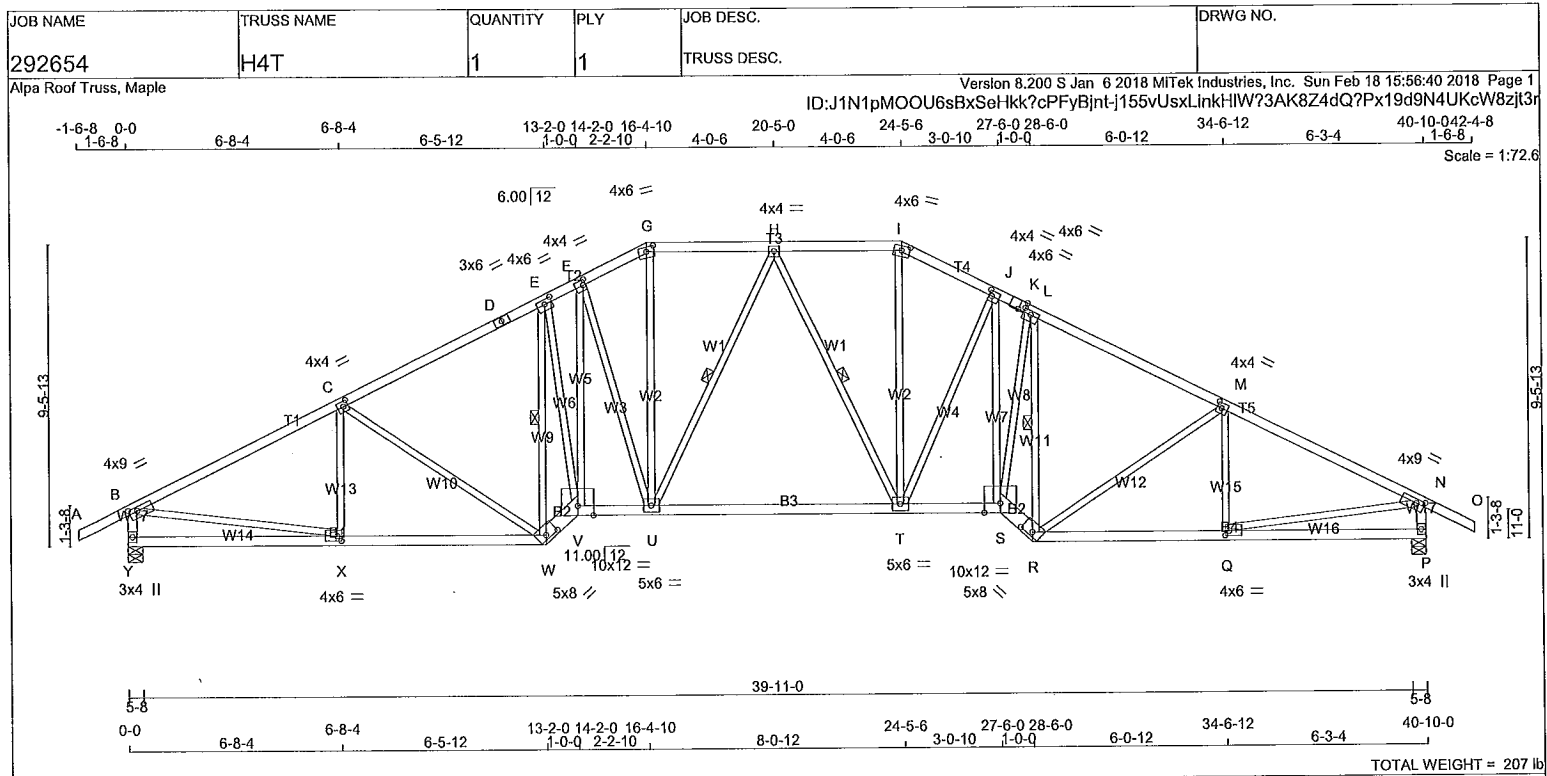
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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 (U) (INPUT = 0.90)
JSI METAL= 0.67 (V) (INPUT = 1.00)



LUMBER				DESCR.	
N. L. G. A. RULES	SIZE	DRY	LUMBER	SPF	
CHORDS					
A - D	2x4	DRY	No.2	SPF	
D - G	2x4	DRY	No.2	SPF	
G - I	2x4	DRY	No.2	SPF	
I - K	2x4	DRY	No.2	SPF	
K - O	2x4	DRY	No.2	SPF	
Y - B	2x4	DRY	No.2	SPF	
P - N	2x4	DRY	No.2	SPF	
Y - W	2x4	DRY	No.2	SPF	
W - V	2x6	DRY	No.2	SPF	
V - S	2x4	DRY	No.2	SPF	
S - R	2x6	DRY	No.2	SPF	
R - P	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	4.0	9.0	1.50	3.00
C	TMVW-I	MT20	4.0	4.0	2.00	1.75
D	TS-I	MT20	3.0	6.0		
E	TMVW-I	MT20	4.0	6.0	1.75	3.00
F	TMVW-I	MT20	4.0	4.0	2.00	1.00
G	TTW-m	MT20	4.0	6.0	1.75	3.00
H	TMVW-I	MT20	4.0	4.0		
I	TTW-m	MT20	4.0	6.0	1.75	3.00
J	TMVW-I	MT20	4.0	4.0	2.00	1.25
K	TS-I	MT20	4.0	6.0	Edge	2.25
L	TMVW-I	MT20	4.0	6.0	1.50	3.00
M	TMVW-I	MT20	4.0	4.0	2.00	1.75
N	TMVW-I	MT20	4.0	9.0	1.50	3.00
P	BMV-I+p	MT20	3.0	4.0		
Q	BMVW-I	MT20	4.0	6.0	1.75	1.50
R	BBVW-h	MT20	5.0	8.0	1.50	4.50
S	BBVW-I	MT20	10.0	12.0	Edge	
T	BMVWVW-I	MT20	5.0	6.0		
U	BMVWVW-I	MT20	5.0	6.0		
V	BBVW-I	MT20	10.0	12.0	Edge	
W	BBVW-h	MT20	5.0	8.0	1.50	4.50

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

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
Y	2095	0	2095	0	0	5-8	3-5
P	2095	0	2095	0	0	5-8	3-5

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Y	1491	925 / 0	0 / 0	0 / 0	0 / 0	566 / 0	0 / 0
P	1491	925 / 0	0 / 0	0 / 0	0 / 0	566 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.54 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-W, H-U, H-T, L-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		FACTORED		FACTORED		WEBS	
MEMB.	FORCE (LBS)	VERT. (PLF)	LC1 MAX (LC)	MAX. UNBRACED	MEMB.	FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 28	-78.0	-78.0 0.14 (1)	10.00	X-C	-278 / 3	0.09 (1)
B-C	-2934 / 0	-78.0	-78.0 0.65 (1)	3.54	C-W	-328 / 0	0.40 (1)
C-D	-2663 / 0	-78.0	-78.0 0.56 (1)	3.77	W-E	-1922 / 0	0.74 (1)
D-E	-2663 / 0	-78.0	-78.0 0.56 (1)	3.77	E-V	0 / 1299	0.29 (1)
E-F	-2993 / 0	-78.0	-78.0 0.30 (1)	3.78	V-F	0 / 989	0.22 (1)
F-G	-2604 / 0	-78.0	-78.0 0.19 (1)	4.14	F-U	-738 / 0	0.85 (1)
G-H	-2351 / 0	-78.0	-78.0 0.21 (1)	4.31	U-G	0 / 933	0.21 (1)
H-I	-2350 / 0	-78.0	-78.0 0.21 (1)	4.31	U-H	-203 / 0	0.12 (1)
I-J	-2615 / 0	-78.0	-78.0 0.19 (1)	4.14	H-T	-207 / 0	0.12 (1)
J-K	-3033 / 0	-78.0	-78.0 0.26 (1)	3.81	T-I	0 / 927	0.21 (1)
K-L	-3033 / 0	-78.0	-78.0 0.26 (1)	3.81	T-J	-761 / 0	0.82 (1)
L-M	-2721 / 0	-78.0	-78.0 0.48 (1)	3.81	S-J	0 / 817	0.18 (1)
M-N	-2916 / 0	-78.0	-78.0 0.56 (1)	3.63	S-L	0 / 1485	0.33 (1)
N-O	0 / 28	-78.0	-78.0 0.14 (1)	10.00	R-L	-1968 / 0	0.68 (1)
Y-B	-2044 / 0	0.0	0.0 0.21 (1)	5.91	R-M	-246 / 0	0.25 (1)
P-N	-2047 / 0	0.0	0.0 0.21 (1)	5.91	Q-M	-314 / 0	0.09 (1)
					B-X	0 / 2674	0.60 (1)
Y-X	0 / 0	-18.5	-18.5 0.21 (4)	10.00	Q-N	0 / 2660	0.60 (1)
X-W	0 / 2646	-18.5	-18.5 0.53 (1)	10.00			
W-V	0 / 3245	-18.5	-18.5 0.38 (1)	10.00			
V-U	0 / 2557	-18.5	-18.5 0.53 (1)	10.00			
U-T	0 / 2439	-18.5	-18.5 0.52 (1)	10.00			
T-S	0 / 2646	-18.5	-18.5 0.53 (1)	10.00			
S-R	0 / 3248	-18.5	-18.5 0.39 (1)	10.00			
R-Q	0 / 2628	-18.5	-18.5 0.51 (1)	10.00			
Q-P	0 / 0	-18.5	-18.5 0.18 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = $L/360$ (1.36")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.22")
ALLOWABLE DEFL.(TL) = $L/360$ (1.36")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.46")

CSI: TC=0.65/1.00 (B-C:1), BC=0.53/1.00 (U-V:1), WB=0.85/1.00 (F-U: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.

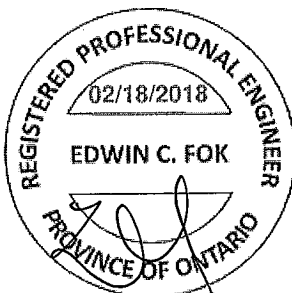
NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(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.

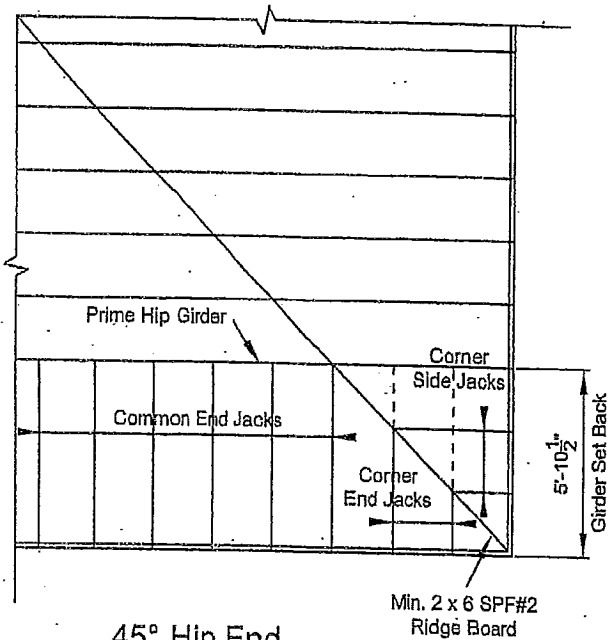
JSI GRIP= 0.89 (W) (INPUT = 0.90)
JSI METAL= 0.66 (X) (INPUT = 1.00)



A-18023794

CONTINUED ON PAGE 2

STRACON ENGINEERING INC.



45° Hip End

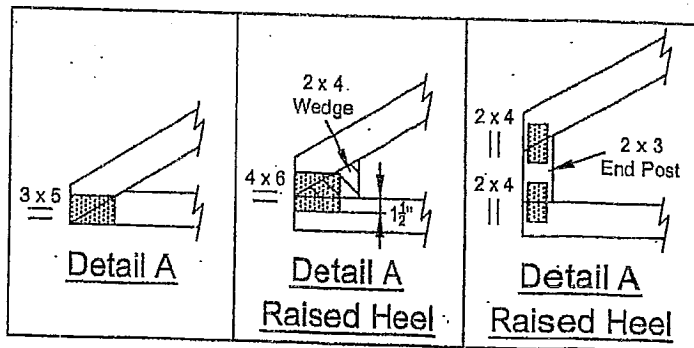
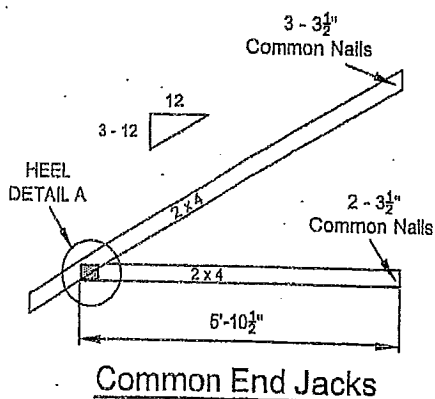
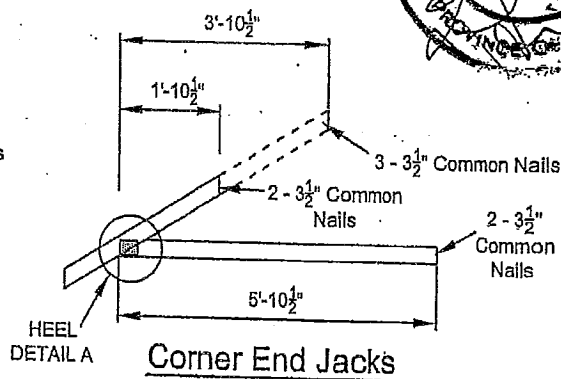
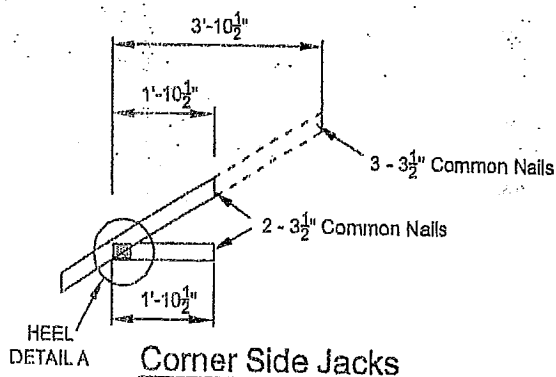
LUMBER SPECIFICATION

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

DESIGN LOAD

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

TOTAL LOAD : 50.5 P.S.F



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

CS-51008

HHUS – Double Shear Joist Hangers

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

Material: 14 gauge

Finish: G90 galvanized

Design:

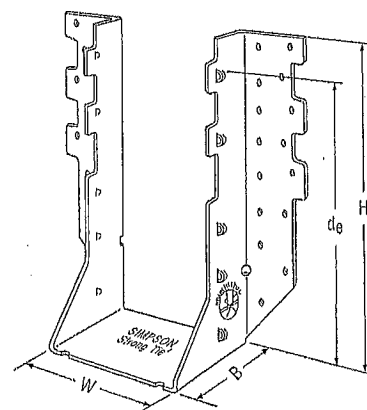
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

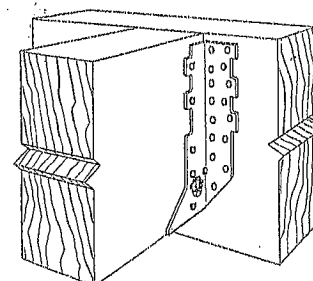
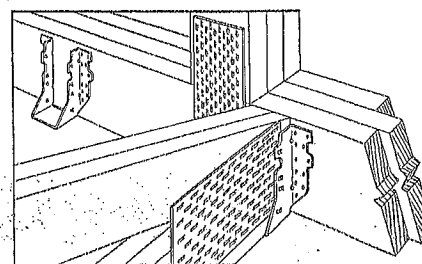
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options

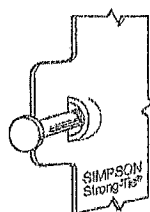


HHUS410



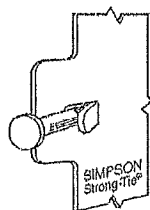
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	dg ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _u =1.15)	Normal (K _n =1.00)	Uplift (K _u =1.15)	Normal (K _n =1.00)
HHUS26-2	14	3 1/16	5 13/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 3/16	7 1/2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

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

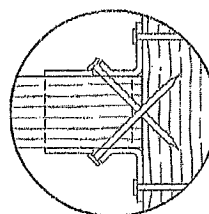


Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,680



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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

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T-SPECHUS17-3/17 exp. 6/19

(800) 999-5099
strongtie.com

TC – Truss Connectors



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

Material: 16 gauge

Finish: G90 galvanized

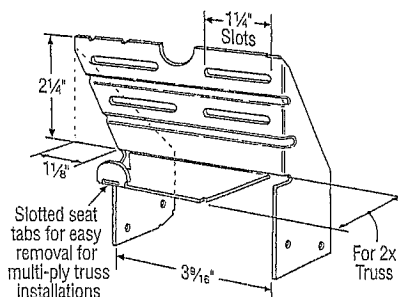
Design: Factored resistances are in accordance with CSA 086-14

Installation:

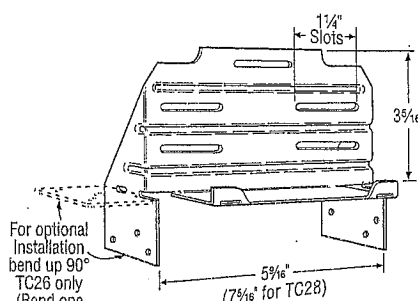
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½" = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow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

Optional TC Installation:

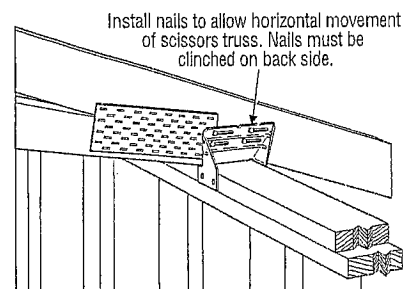
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



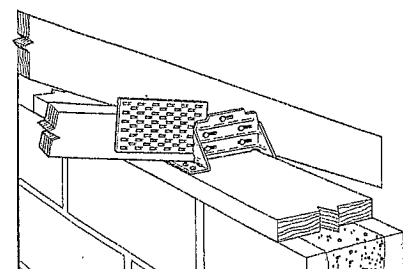
TC24
U.S. Patent 4,932,173



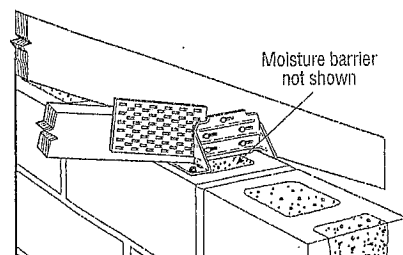
TC26
(TC28 Similar)



Typical TC24 Installation



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



Optional TC26 Installation for Grouted Concrete Block using Titen Screws

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

Optional TC Installation Table

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

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



LIMIT
STATES
DESIGN

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T-SPECTC17 3/17 exp. 6/19

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HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

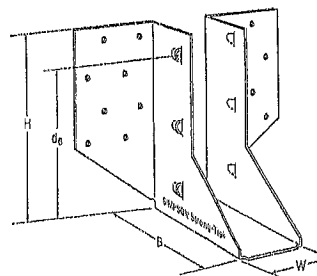
- Factored resistances are in accordance with CSA O86 -14,
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

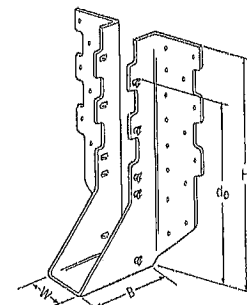
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

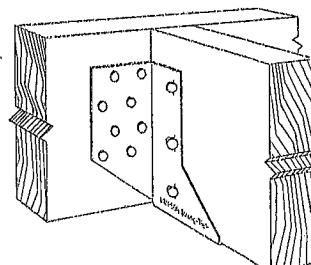
- See current catalogue for options



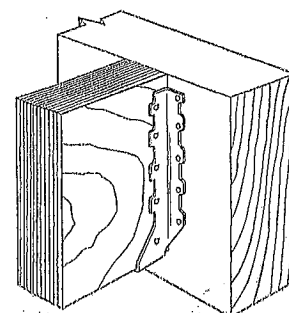
LJS26DS



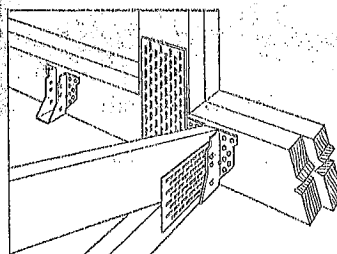
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



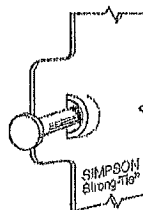
Typical HUS
Installation



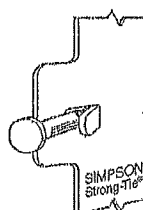
Typical HUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)

Model No.	Ga.	Dimensions (in.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₀ ¹	Face	Joist		D.Fir-L		S-P-F	
									Uplift (K _p =1.15) lb.	Normal (K _p =1.00) lb.	Uplift (K _p =1.15) lb.	Normal (K _p =1.00) lb.
LJS26DS	18	1½	5	3½	4½	(16) 16d	(6) 16d		2055	4265	1460	4115
HUS26	16	1½	5½	3	3½	(14) 16d	(6) 16d		2705	4940	2065	3875
HUS28	16	1½	7½	3	6½	(22) 16d	(8) 16d		3605	5365	2675	4345
HUS210	16	1½	9½	3	7¾	(30) 16d	(10) 16d		4505	5795	4010	4740
HUS1.81/10	16	1½	9	3	8	(30) 16d	(10) 16d		4505	6450	4010	5200

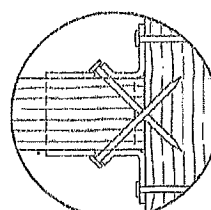
1. d₀ is the distance from the seat of the hanger to the highest joist nail.



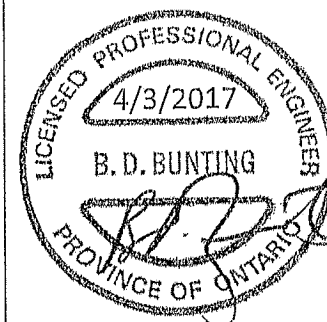
Dome Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,680



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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