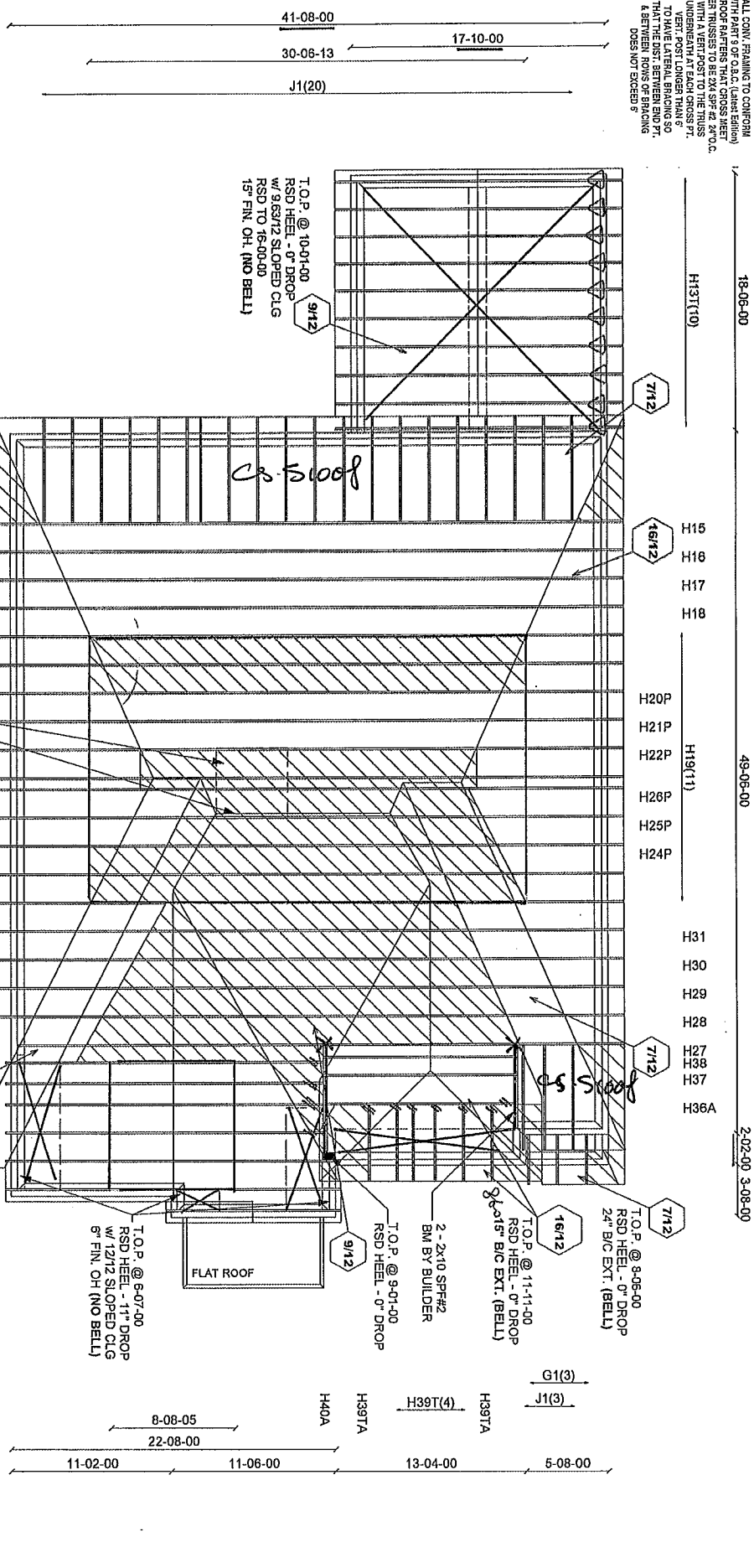


ALPHA-BARRIE

ALL CON. FRAMING TO CONFORM WITH PART 9 OF A.C. (LATEST EDITION) ROOF RAFTERS THAT CROSS JEEET WITH A VERT. POST TO THE TRUSS UNDERSTANDING THAT THE TRUSS VERT. POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 8'



15" FIN. OH. (NO BELL)
RSD HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" x 6" BRG/BRICK
PIGGYBACK TRS
PURLINS BY OTHERS

A-18023776
A-18023796 - A-18023822

CONVENTIONAL
FRAMING BY
OTHERS



Job Track	45147	Builder / Location	GOLD PARK HOMES / VAUGHAN	
Layout ID:	292651	Project:	PINE VALLEY	
Plan Log:	95914	Date:	1/19/2018	Designer: AMANDA
Model / Elevation:		5004 REV1 / A OR OPT 5 BED		

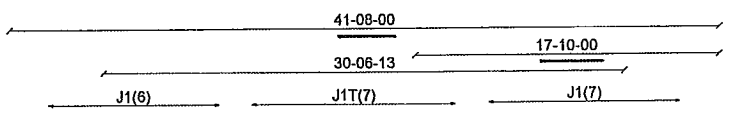
BEADYHOUT

22 OF LOGGIA (CAT)

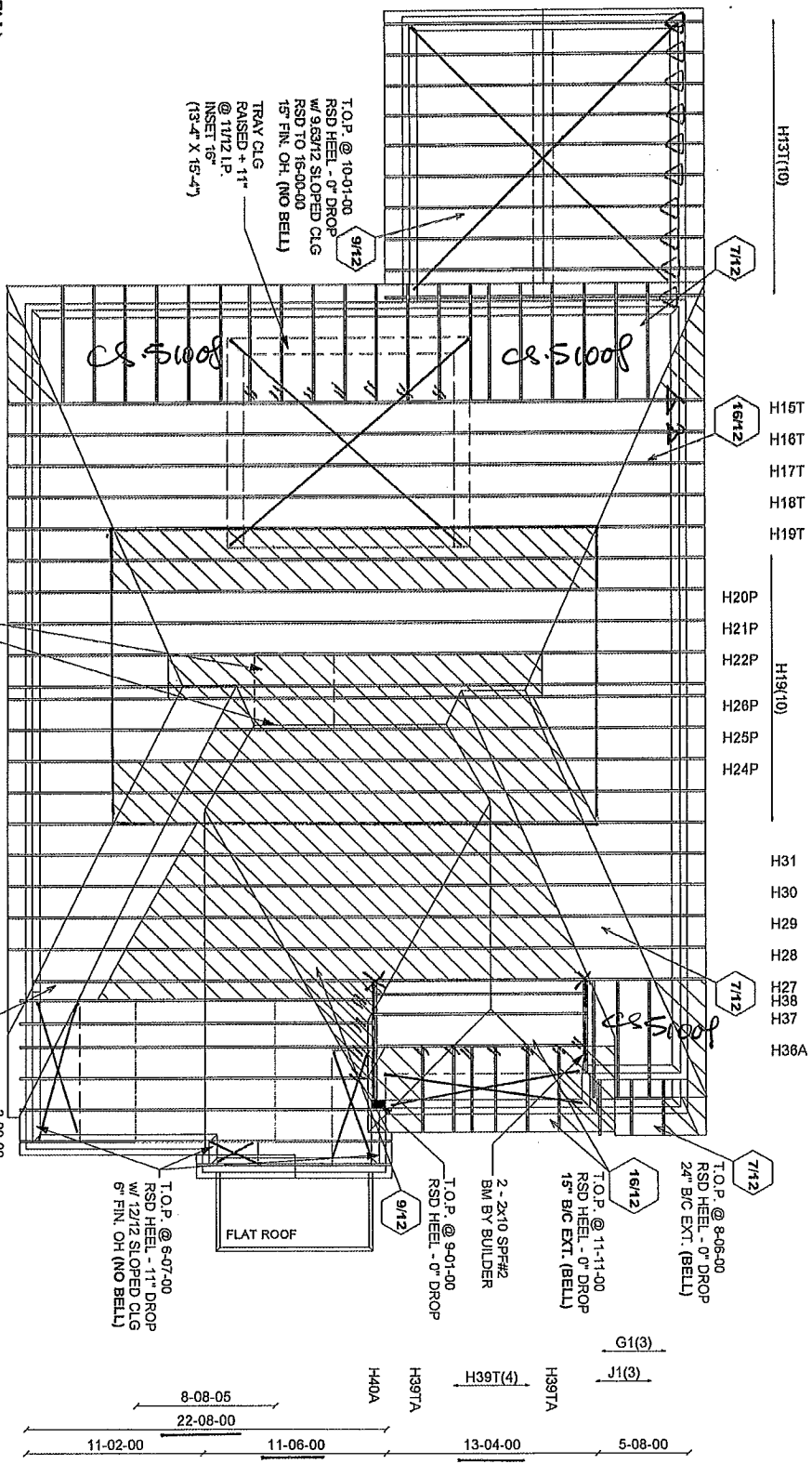
THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPHA ROOF TRUSSES INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPHA ROOF TRUSSES INC. AND WILL BE RETRACTED BY ALPHA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER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

ALPHA-BARRIE

ALL CONV. FRAMING TO CONFORM WITH A.C.I. 308.1 (LATEST EDITION) WITH 2" MIN. THICKNESS. OVER TRUSSES TO BE 2X8 SFR #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 POST DOES NOT EXCEED 5' & BEYOND ROW OF BRACING DOES NOT EXCEED 5'



15" FIN. OH. (NO BELL)
RSD. HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" x 6" BRG/BRICK
PIGgyBACK TRS
PURLINS BY OTHERS



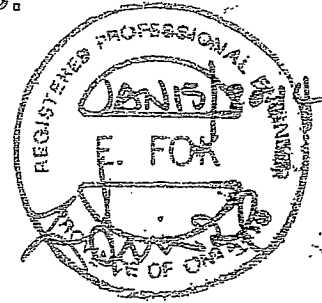
A-18023776
A-18023800 - A-18023828



Job Track:	45147	Builder / Location:	GOLD PARK HOMES / VAUGHAN			Model / Elevation:	5004 REV1	02 OPT LOGGIA (PLAN)
Layout ID:	292652	THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALFA ROOF TRUSSES INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALFA ROOF TRUSSES INC. AND WILL BE RETRACTED BY ALFA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.						
Plan Log:	95914	Project:	PINE VALLEY	Date:	1/19/2018	Designer:	AMANDA	
ALFA ROOF TRUSSES INC. IF UTILIZED FOR ANY OTHER PURPOSE.								

Stracon Engineering Inc.

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



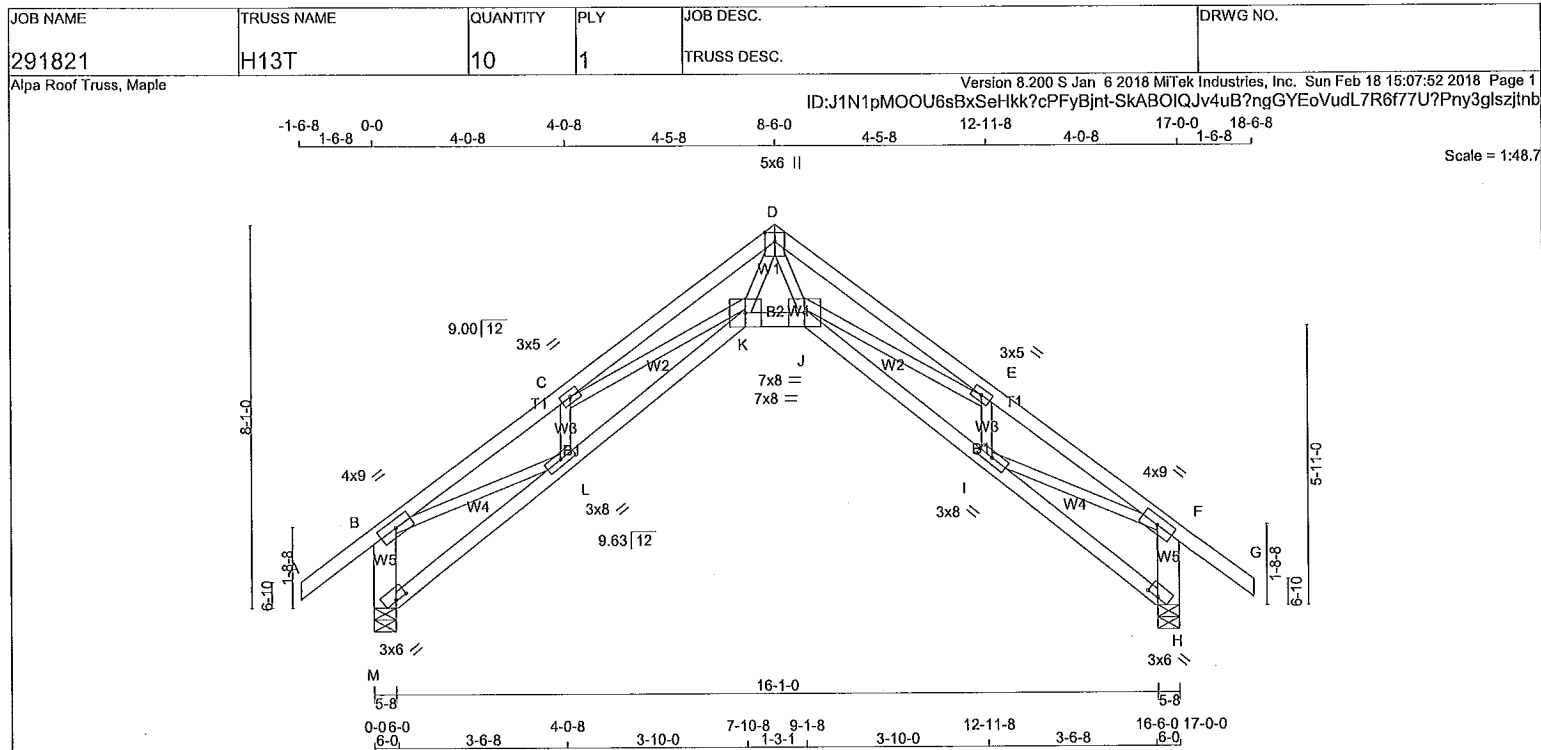
RESPONSIBILITIES

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

SPECIFICATIONS

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

January 15, 2014



LUMBER				DESCR.	
CHORDS	SIZE	LUMBER			
A - D	2x4	DRY	No.2	SPF	
D - B	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	BMVW-I	MT20	3.0	8.0	1.50	3.75
J	BBVW-I	MT20	7.0	8.0		
K	BBVW-I	MT20	7.0	8.0		
L	BMVW-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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
M	947	0	947	0	5-8
H	947	0	947	0	5-8

ALLOW FOR 0.7" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED 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		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO	FROM TO	FR-TO	FROM TO
A-B	0 / 38	D-J	0 / 1834
B-C	-2160 / 0	J-E	0 / 883
C-D	-3158 / 0	I-E	-636 / 0
D-E	-3158 / 0	K-D	0 / 1834
E-F	-2160 / 0	C-K	0 / 883
F-G	0 / 38	L-C	-636 / 0
M-B	-908 / 0	I-F	0 / 1859
H-F	-908 / 0	B-L	0 / 1859
M-L	0 / 4		
L-K	0 / 2170		
K-J	0 / 1915		
J-I	0 / 2170		
I-H	0 / 4		

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

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

ALLOWABLE DEFL.(LL) = $L/360$ (0.57")
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.

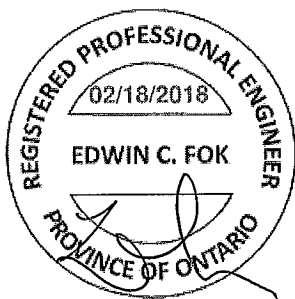
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

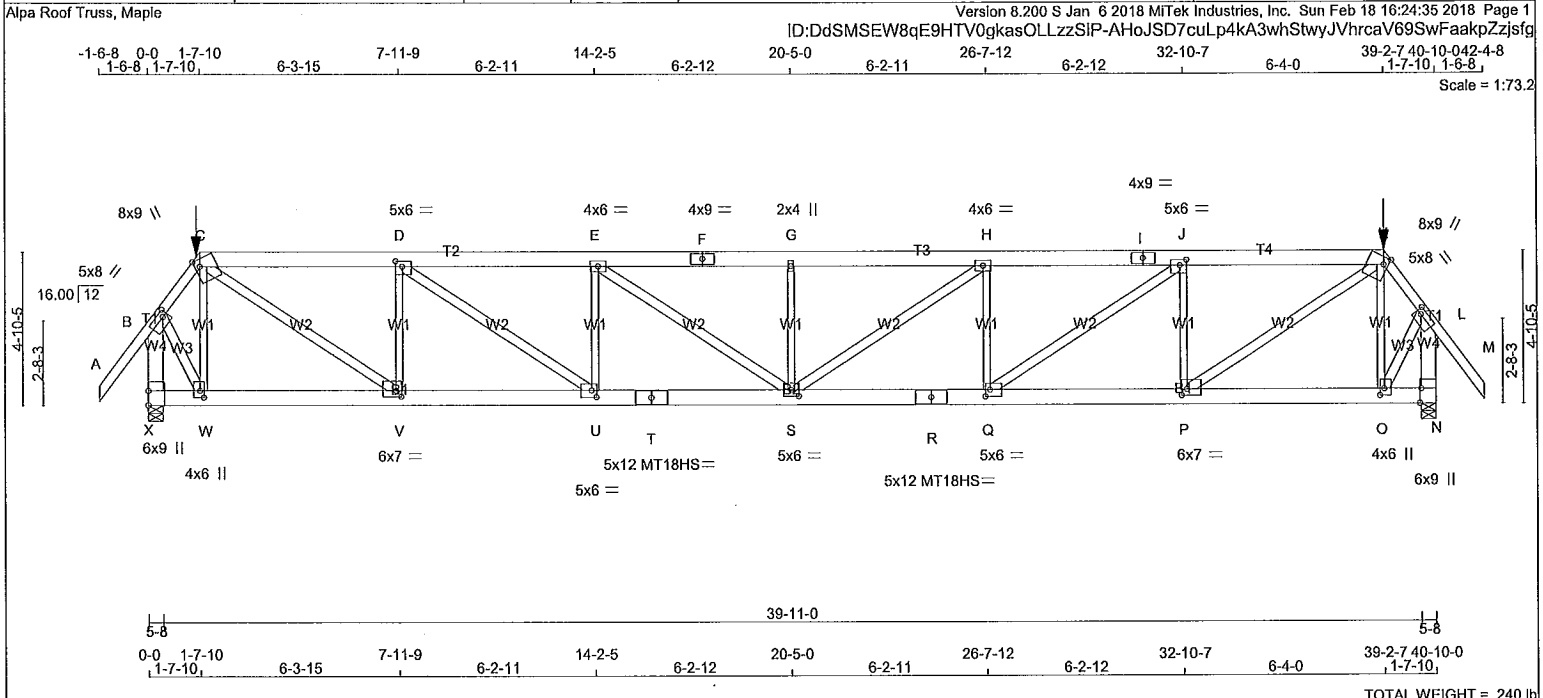
PLATE ROTATION TOL. = 5.0 Deg.

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

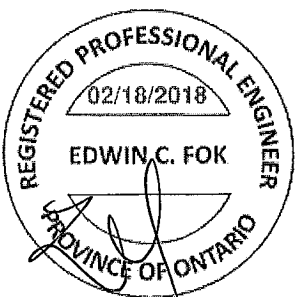
A-18023776



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H15	1	1	TRUSS DESC.	



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS					DESIGN CRITERIA								
A - C	2x4	DRY	No.2	SPF	FACTORED	MAXIMUM FACTORED	INPUT	REQRD		SPECIFIED LOADS:								
C - F	2x6	DRY	1650F 1.5E	SPF	GROSS REACTION	GROSS REACTION	BRG	BRG		TOP CH. LL = 21.0 PSF								
F - I	2x6	DRY	1650F 1.5E	SPF	VERT	DOWN	UPLIFT	IN-SX	IN-SX	DL = 6.0 PSF								
I - K	2x4	DRY	1650F 1.5E	SPF	X	3977 0	3977 0	5-8	5-8	BOT CH. LL = 0.0 PSF								
K - M	2x4	DRY	No.2	SPF	N	3977 0	3977 0	5-8	5-8	DL = 7.4 PSF								
M - L	2x6	DRY	No.2	SPF	UNFACTORED REACTIONS					TOTAL LOAD = 34.4 PSF								
L - N	2x6	DRY	No.2	SPF	1ST LCASE	MAX./MIN. COMPONENT REACTIONS				SPACING = 24.0 IN. C/C								
N - L	2x6	DRY	1650F 1.5E	SPF	JT COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL							
X - T	2x6	DRY	1650F 1.5E	SPF	X	2833 1741 / 0	0 / 0	0 / 0	0 / 0	1092 / 0	0 / 0							
T - R	2x6	DRY	1650F 1.5E	SPF	N	2833 1741 / 0	0 / 0	0 / 0	0 / 0	1092 / 0	0 / 0							
R - N	2x6	DRY	1650F 1.5E	SPF	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) X, N					LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM								
ALL WEBS	2x4	DRY	No.2	SPF	BEARING SIZE FACTOR = 1.15 AT JNT(S) X, N (BASED ON SUPPORT DEPTH = 1-8)					GIRDER TYPE: CPrimeHip								
EXCEPT					BRACING					SIDE SETBACK = 1-7-10								
W - C	2x3	DRY	No.2	SPF	TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.09 FT.					END SETBACK = 5-10-8								
V - D	2x3	DRY	No.2	SPF	MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.					END WALL WIDTH = 0-0								
U - E	2x3	DRY	No.2	SPF	ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.					CORNER FRAMING TYPE: CONVENTIONAL								
S - G	2x3	DRY	No.2	SPF	LOADING					END JACK TYPE: CONVENTIONAL								
Q - H	2x3	DRY	No.2	SPF	TOTAL LOAD CASES: (4)					APPLIED TO FRONT SIDE								
P - J	2x3	DRY	No.2	SPF						- ADDTL LOADS BASED ON 55 % OF GSL.								
O - K	2x3	DRY	No.2	SPF						THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015								
DRY: SEASONED LUMBER.										THIS DESIGN COMPLIES WITH:								
										- PART 9 OF OBC 2012, OBC 2018								
										- CSA 086-09, CSA 086-14								
										- TPIC 2011, TPIC 2014								
										DESIGN ASSUMPTIONS								
										- OVERHANG NOT TO BE ALTERED OR CUT OFF.								
										(55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD								
										ALLOWABLE DEFL.(LL)= L/360 (1.36")								
										CALCULATED VERT. DEFL.(LL) = L/ 999 (0.43")								
										ALLOWABLE DEFL.(TL)= L/360 (1.36")								
										CALCULATED VERT. DEFL.(TL) = L/ 576 (0.85")								
										CSI: TC=0.55/1.00 (H-J:1), BC=0.75/1.00 (S-U:1),								
										WB=0.94/1.00 (K-P:1), SSI=0.38/1.00 (J-K:1)								
										DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00								
										COMP=1.00 SHEAR=1.00 TENS=1.00								
										COMPANION LIVE LOAD FACTOR = 1.00								
										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								
										MT18HS 511 354 2455 1382 3004 2010								
										PLATE PLACEMENT TOL. = 0.250 inches								
										PLATE ROTATION TOL. = 5.0 Deg.								
										A-18023796								
										CONTINUED ON PAGE 2								



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H15	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 16:24:36 2018 Page 2
ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-eTMhgZ8EffxxMKe6F9P9UW1sa0vkrch4TEKIL7zjsff

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
S	BMWWW-t	MT20	5.0	6.0	2.25	3.00
T	BS-t	MT18HS	5.0	12.0		
U	BMWW-t	MT20	5.0	6.0	2.50	1.75
V	BMWW-t	MT20	6.0	7.0	2.25	2.00
W	BMWW-t	MT20	4.0	6.0	2.50	1.50
X	BMV1-t	MT20	6.0	9.0	5.50	

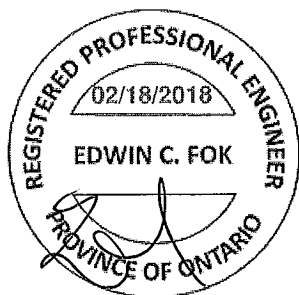
Edge - INDICATES REFERENCE CORNER OF PLATE
TOUCHES EDGE OF CHORD.

HANGERS NOTES

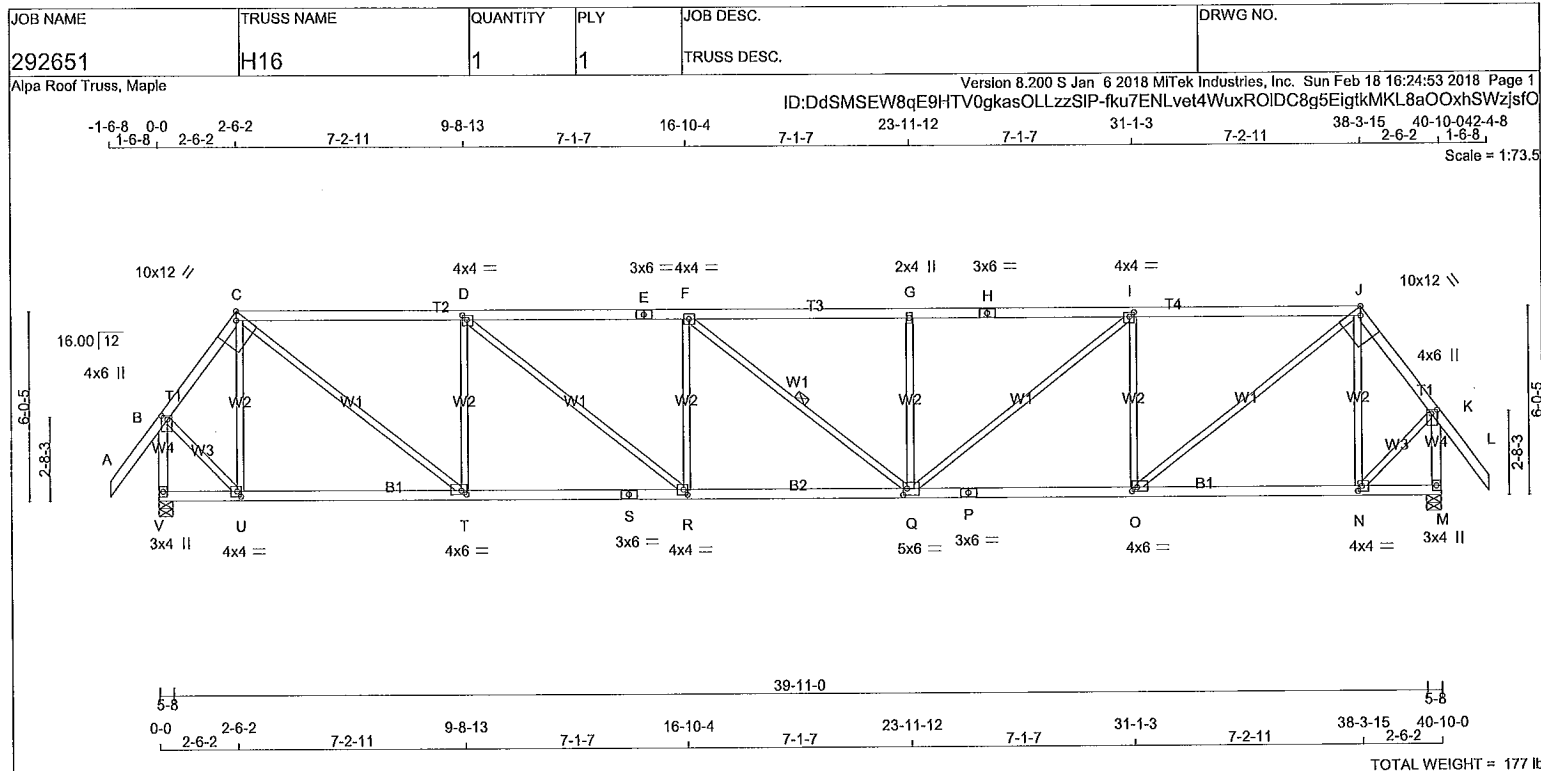
- 1) SPECIAL HANGER(S) OR CONNECTION(S)
REQUIRED TO SUPPORT CONCENTRATED
LOAD(S) 93.0 lbs FACTORED DOWN AT 39-2-7,
AND 93.0 lbs FACTORED DOWN AT 1-7-10 ON
TOP CHORD. DESIGN FOR UNSPECIFIED
CONNECTION(S) IS DELEGATED TO THE
BUILDING DESIGNER.

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

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



A-18023796(2)



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	DRY	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	1650F 1.5E	SPF
E - H	2x4	DRY	1650F 1.5E	SPF
H - J	2x4	DRY	1650F 1.5E	SPF
J - L	2x4	DRY	No.2	SPF
V - B	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
V - S	2x4	DRY	No.2	SPF
S - P	2x4	DRY	No.2	SPF
P - M	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

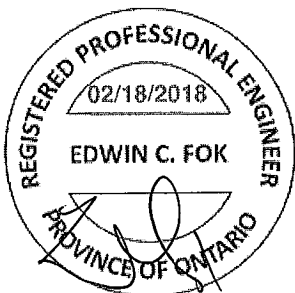
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	1.50	2.25
C	TTWW-h	MT20	10.0	12.0	Edge	2.75
D	TMVW-t	MT20	4.0	4.0	1.75	1.75
E	TS-t	MT20	3.0	6.0		
F	TMVW-t	MT20	4.0	4.0		
G	TMVW-w	MT20	2.0	4.0		
H	TS-t	MT20	3.0	6.0		
I	TMVW-t	MT20	4.0	4.0	1.75	1.75
J	TTWW-h	MT20	10.0	12.0	Edge	2.75
K	TMVW+p	MT20	4.0	6.0	1.50	2.25
M	BMV1+p	MT20	3.0	4.0		
N, R, U						
N	BMVW-t	MT20	4.0	4.0	2.00	1.50
O	BMVW-t	MT20	4.0	6.0	1.50	2.00
P	BS-t	MT20	3.0	6.0		
Q	BMVW-t	MT20	5.0	6.0	2.50	1.50
S	BS-t	MT20	3.0	6.0		
T	BMVW-t	MT20	4.0	6.0	1.50	2.00
V	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	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
V	2099	0	2099	0	5-8	3-5
M	2099	0	2099	0	5-8	3-5

UNFACTORED REACTIONS

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

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

BRACING

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

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

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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	U-C	-621 / 0 0.35 (1)	
B-C	-1414 / 0	-78.0	-78.0 0.11 (1)	5.38	C-T	0 / 2292 0.52 (1)	
C-D	-2630 / 0	-78.0	-78.0 0.67 (1)	4.14	T-D	-1285 / 0 0.73 (1)	
D-E	-3463 / 0	-78.0	-78.0 0.78 (1)	3.64	D-R	0 / 1070 0.24 (1)	
E-F	-3463 / 0	-78.0	-78.0 0.78 (1)	3.64	R-F	-539 / 0 0.31 (1)	
F-G	-3463 / 0	-78.0	-78.0 0.61 (1)	3.86	F-Q	0 / 0 0.00 (1)	
G-H	-3463 / 0	-78.0	-78.0 0.78 (1)	3.64	Q-G	-539 / 0 0.31 (1)	
H-I	-3463 / 0	-78.0	-78.0 0.78 (1)	3.64	Q-I	0 / 1069 0.24 (1)	
I-J	-2630 / 0	-78.0	-78.0 0.67 (1)	4.14	O-I	-1285 / 0 0.73 (1)	
J-K	-1414 / 0	-78.0	-78.0 0.11 (1)	5.38	O-J	0 / 2292 0.52 (1)	
K-L	0 / 52	-78.0	-78.0 0.15 (1)	10.00	N-J	-621 / 0 0.35 (1)	
V-B	-2102 / 0	0.0	0.0 0.30 (1)	5.84	B-U	0 / 1118 0.25 (1)	
M-K	-2102 / 0	0.0	0.0 0.30 (1)	5.84	N-K	0 / 1118 0.25 (1)	
V-U	0 / 0	-18.5	-18.5 0.15 (4)	10.00			
U-T	0 / 829	-18.5	-18.5 0.27 (4)	10.00			
T-S	0 / 2630	-18.5	-18.5 0.52 (1)	10.00			
S-R	0 / 2630	-18.5	-18.5 0.52 (1)	10.00			
R-Q	0 / 3463	-18.5	-18.5 0.65 (1)	10.00			
Q-P	0 / 2630	-18.5	-18.5 0.52 (1)	10.00			
P-O	0 / 2630	-18.5	-18.5 0.52 (1)	10.00			
O-N	0 / 829	-18.5	-18.5 0.27 (4)	10.00			
N-M	0 / 0	-18.5	-18.5 0.15 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (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=0.78/1.00 (G-I:1), BC=0.65/1.00 (Q-R:1), WB=0.73/1.00 (D-T:1), SSI=0.26/1.00 (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

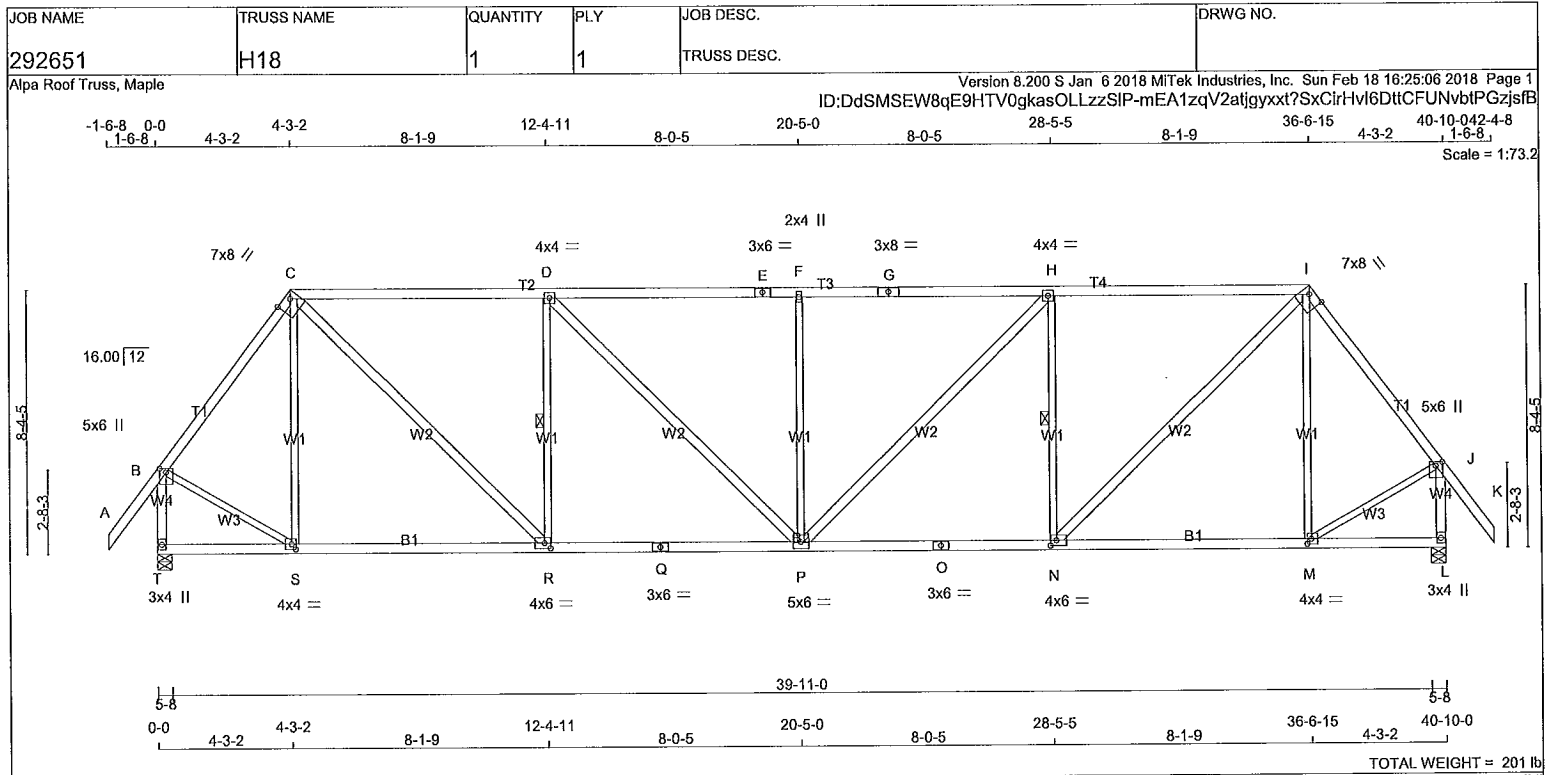
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
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= 0.81 (P) (INPUT = 1.00)



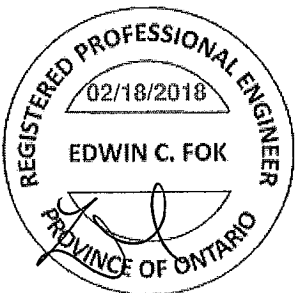
LUMBER				DESCR.	
N. L. G. A. RULES					
CHORDS	SIZE	DRY	LUMBER		
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	1650F 1.5E	SPF	
E - G	2x4	DRY	1650F 1.5E	SPF	
G - I	2x4	DRY	1650F 1.5E	SPF	
I - K	2x4	DRY	No.2	SPF	
T - B	2x4	DRY	No.2	SPF	
L - J	2x4	DRY	No.2	SPF	
T - Q	2x4	DRY	No.2	SPF	
Q - O	2x4	DRY	No.2	SPF	
O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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	1.50	2.50
C	TTWW-h	MT20	7.0	8.0	2.00	5.25
D	TMVW-t	MT20	4.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMVW+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	8.0		
H	TMVW-t	MT20	4.0	4.0		
I	TTWW-h	MT20	7.0	8.0	2.00	5.25
J	TMVW+p	MT20	5.0	6.0	1.50	2.50
L	BMV1+p	MT20	3.0	4.0		
M	BMVW-t	MT20	4.0	4.0	2.00	1.50
N	BMVW-t	MT20	4.0	6.0	2.00	2.25
O	BS-t	MT20	3.0	6.0		
P	BMVWW-t	MT20	5.0	6.0		
Q	BS-t	MT20	3.0	6.0		
R	BMVW-t	MT20	4.0	6.0	2.00	2.25
S	BMVW-t	MT20	4.0	4.0	2.00	1.50
T	BMV1+p	MT20	3.0	4.0		

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



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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQD	
JT	VERT	GROSS REACTION	HORZ	GROSS REACTION	HORZ	BRG	IN-SX	BRG	IN-SX
T	2099	0	2099	0	0	5-8	3-5	5-8	3-5
L	2099	0	2099	0	0	5-8	3-5	5-8	3-5

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
T	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
L	1494	927 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.86 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
FR-TO					FR-TO		
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	S-C	-371 / 0	0.51 (1)
B-C	-1596 / 0	-78.0	-78.0 0.34 (1)	4.91	C-R	0 / 1740	0.28 (1)
C-D	-2186 / 0	-78.0	-78.0 0.86 (1)	4.14	R-D	-1069 / 0	0.47 (1)
D-E	-2546 / 0	-78.0	-78.0 0.91 (1)	3.86	D-P	0 / 510	0.08 (1)
E-F	-2546 / 0	-78.0	-78.0 0.91 (1)	3.86	P-F	-578 / 0	0.80 (1)
F-G	-2546 / 0	-78.0	-78.0 0.91 (1)	3.86	P-H	0 / 510	0.08 (1)
G-H	-2546 / 0	-78.0	-78.0 0.91 (1)	3.86	H-N	-1069 / 0	0.47 (1)
H-I	-2186 / 0	-78.0	-78.0 0.86 (1)	4.14	N-I	0 / 1740	0.28 (1)
I-J	-1596 / 0	-78.0	-78.0 0.34 (1)	4.91	M-I	-371 / 0	0.51 (1)
J-K	0 / 52	-78.0	-78.0 0.15 (1)	10.00	B-S	0 / 1076	0.24 (1)
T-B	-2076 / 0	0.0	0.0 0.30 (1)	5.87	M-J	0 / 1076	0.24 (1)
L-J	-2076 / 0	0.0	0.0 0.30 (1)	5.87			
T-S	0 / 0	-18.5	-18.5 0.18 (4)	10.00			
S-R	0 / 947	-18.5	-18.5 0.34 (4)	10.00			
R-Q	0 / 2186	-18.5	-18.5 0.49 (1)	10.00			
Q-P	0 / 2186	-18.5	-18.5 0.49 (1)	10.00			
P-O	0 / 2186	-18.5	-18.5 0.49 (1)	10.00			
O-N	0 / 2186	-18.5	-18.5 0.49 (1)	10.00			
N-M	0 / 947	-18.5	-18.5 0.34 (4)	10.00			
M-L	0 / 0	-18.5	-18.5 0.18 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")
ALLOWABLE DEFL.(TL) = L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/999 (0.27")

CSI: TC=0.91/1.00 (F-H:1), BC=0.49/1.00 (N-P:1), WB=0.80/1.00 (F-P:1), SSI=0.30/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

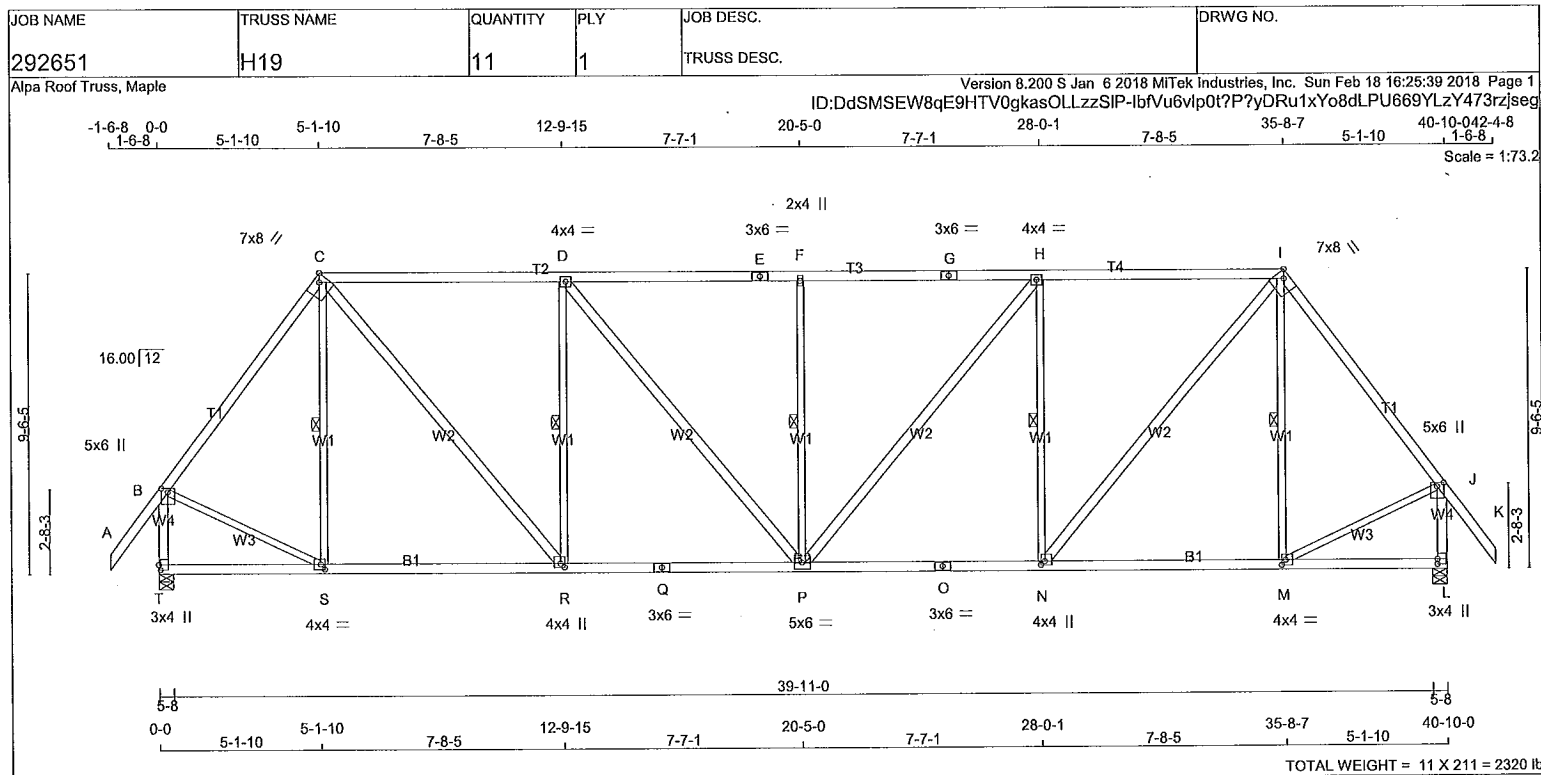
NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
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 (R) (INPUT = 0.90)
JSI METAL= 0.76 (O) (INPUT = 1.00)



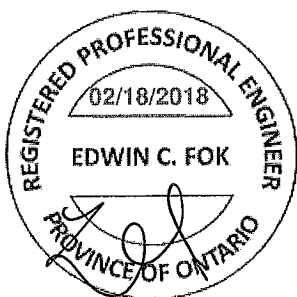
LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	1650F 1.5E	SPF
E - G	2x4	DRY	1650F 1.5E	SPF
G - I	2x4	DRY	1650F 1.5E	SPF
I - K	2x4	DRY	No.2	SPF
T - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
T - Q	2x4	DRY	No.2	SPF
Q - O	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2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

DRY: SEASONED LUMBER.

PLATES (table in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	1.50	2.50
C	TTWW-h	MT20	7.0	8.0	Edge	2.75
D	TMVW-l	MT20	4.0	4.0		
E	TS-l	MT20	3.0	6.0		
F	TMVW+w	MT20	2.0	4.0		
G	TS-l	MT20	3.0	6.0		
H	TMVW-l	MT20	4.0	4.0		
I	TTWW-h	MT20	7.0	8.0	Edge	2.75
J	TMVW+p	MT20	5.0	6.0	1.50	2.50
L	BMV1+p	MT20	3.0	4.0	2.00	
M	BMVW-l	MT20	4.0	4.0	2.00	1.50
N	BMVW+l	MT20	4.0	4.0	1.50	1.50
O	BS-l	MT20	3.0	6.0		
P	BMVWW-l	MT20	5.0	6.0		
Q	BS-l	MT20	3.0	6.0		
R	BMVWW+l	MT20	4.0	4.0	1.50	1.50
S	BMVW-l	MT20	4.0	4.0	2.00	1.50
T	BMV1+p	MT20	3.0	4.0	2.00	0.50

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



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
T	2214	0	0	5-8
L	2214	0	0	5-8

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	SOIL
T	1585	927 / 0	0 / 0	0 / 0	0 / 0	659 / 0
L	1585	927 / 0	0 / 0	0 / 0	0 / 0	659 / 0

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

BRACING

FOR SECTION C-I, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.75 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-S, D-R, F-P, H-N, I-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 FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 52	-78.0 -78.0	0.15 (1)	10.00	S-C	-323 / 0	0.19 (1)
B-C	-1740 / 0	-78.0 -78.0	0.38 (1)	4.75	C-R	0 / 1625	0.26 (1)
C-D	-2078 / 0	-85.5 -85.5	0.57 (1)	2.00	R-D	-1102 / 0	0.66 (1)
D-E	-2381 / 0	-85.5 -85.5	0.55 (1)	2.00	D-P	0 / 476	0.08 (1)
E-F	-2381 / 0	-85.5 -85.5	0.55 (1)	2.00	P-F	-598 / 0	0.36 (1)
F-G	-2381 / 0	-85.5 -85.5	0.55 (1)	2.00	P-H	0 / 476	0.08 (1)
G-H	-2381 / 0	-85.5 -85.5	0.55 (1)	2.00	N-H	-1102 / 0	0.66 (1)
H-I	-2078 / 0	-85.5 -85.5	0.57 (1)	2.00	N-I	0 / 1625	0.26 (1)
I-J	-1740 / 0	-78.0 -78.0	0.38 (1)	4.75	M-I	-323 / 0	0.19 (1)
J-K	0 / 52	-78.0 -78.0	0.15 (1)	10.00	B-S	0 / 1134	0.26 (1)
T-B	-2180 / 0	0.0 0.0	0.31 (1)	5.75	M-J	0 / 1134	0.26 (1)
L-J	-2180 / 0	0.0 0.0	0.31 (1)	5.75			
T-S	0 / 0	-18.5 -18.5	0.18 (4)	10.00			
S-R	0 / 1035	-18.5 -18.5	0.33 (4)	10.00			
R-Q	0 / 2079	-18.5 -18.5	0.46 (1)	10.00			
Q-P	0 / 2079	-18.5 -18.5	0.46 (1)	10.00			
P-O	0 / 2079	-18.5 -18.5	0.46 (1)	10.00			
O-N	0 / 2079	-18.5 -18.5	0.46 (1)	10.00			
N-M	0 / 1035	-18.5 -18.5	0.33 (4)	10.00			
M-L	0 / 0	-18.5 -18.5	0.18 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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) = $L/360$ (1.36")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.11")
ALLOWABLE DEFL.(TL) = $L/360$ (1.36")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.24")

CSI: TC=0.57/1.00 (H-I:1), BC=0.46/1.00 (P-R:1), WB=0.66/1.00 (D-R:1), SSI=0.31/1.00 (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

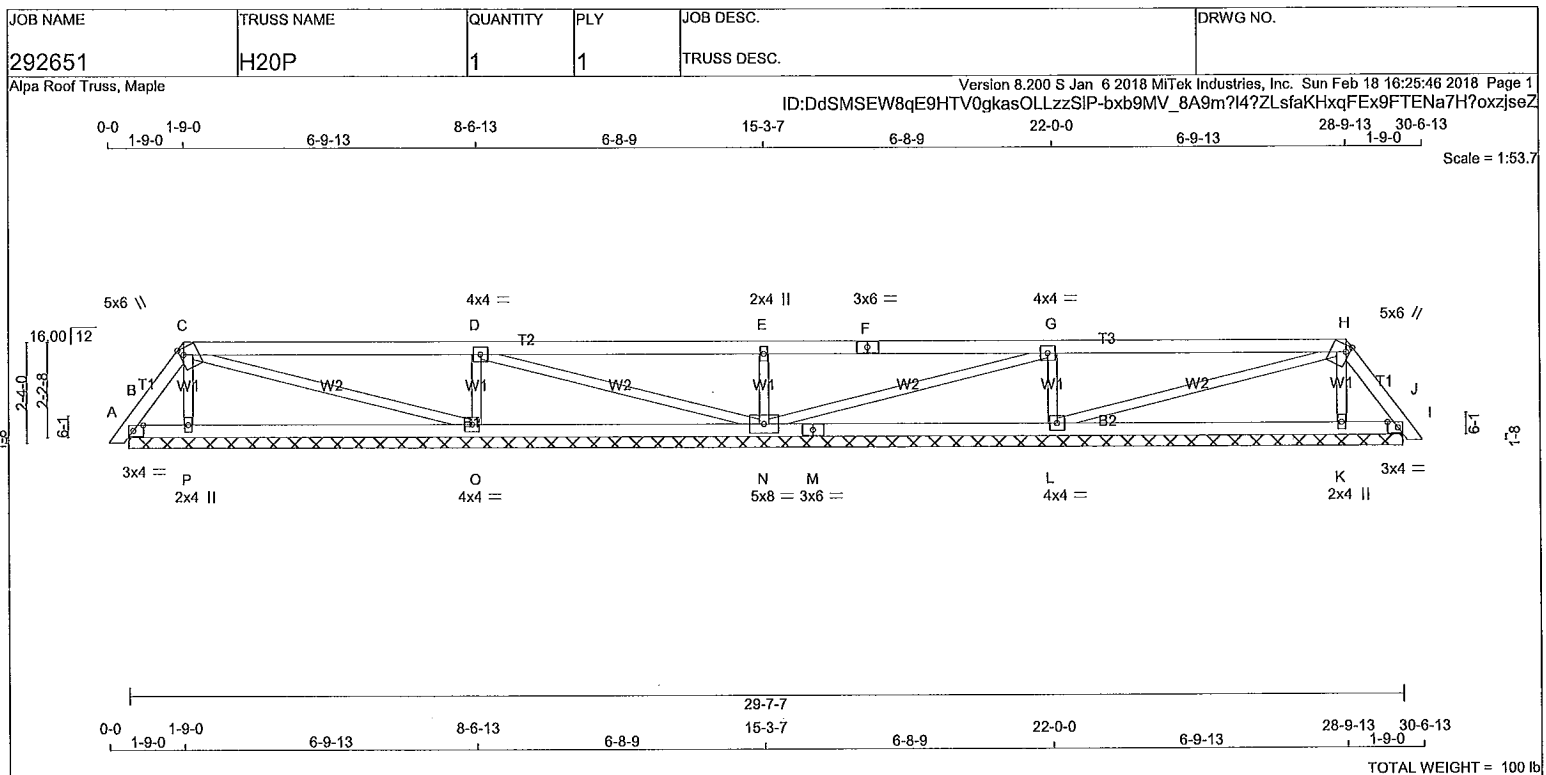
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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 (N) (INPUT = 0.90)
JSI METAL= 0.71 (O) (INPUT = 1.00)



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2 SPF
C - F	2x4	DRY	No.2 SPF
F - H	2x4	DRY	No.2 SPF
H - J	2x4	DRY	No.2 SPF
B - M	2x4	DRY	No.2 SPF
M - I	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	TTWW-t	MT20	4.0	4.0		
E	TTWW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TTWW-t	MT20	4.0	4.0		
H	TTWW+m	MT20	5.0	6.0	1.75	1.00
I	TMB1-I	MT20	3.0	4.0	1.50	2.75
K	BMW1+w	MT20	2.0	4.0		
L	BMWW1-I	MT20	4.0	4.0		
M	BS-t	MT20	3.0	6.0		
N	BMWW1-I	MT20	5.0	8.0		
O	BMWW1-I	MT20	4.0	4.0		
P	BMW1+w	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
B	115	0	115	0	29-7-7 (13-7-169-12)	
P	301	0	301	0	29-7-7 (13-7-169-12)	
O	728	0	728	0	29-7-7 (13-7-169-12)	
N	624	0	624	0	29-7-7 (13-7-169-12)	
L	728	0	728	0	29-7-7 (13-7-169-12)	
K	301	0	301	0	29-7-7 (13-7-169-12)	
I	115	0	115	0	29-7-7 (13-7-169-12)	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN COMPONENT REACTIONS				WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE				
B	76	77 / 0	0 / 0	0 / 0	0 / 0	0 / -1	0 / 0	
P	221	101 / 0	0 / 0	0 / 0	0 / 0	120 / 0	0 / 0	
O	518	323 / 0	0 / 0	0 / 0	0 / 0	194 / 0	0 / 0	
N	445	270 / 0	0 / 0	0 / 0	0 / 0	175 / 0	0 / 0	
L	518	323 / 0	0 / 0	0 / 0	0 / 0	194 / 0	0 / 0	
K	221	101 / 0	0 / 0	0 / 0	0 / 0	120 / 0	0 / 0	
I	76	77 / 0	0 / 0	0 / 0	0 / 0	0 / -1	0 / 0	

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM TO			FR-TO				
A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	P-C	-188 / 0	0.03 (1)	
B-C	-80 / 0	-78.0	-78.0	0.02 (1)	6.25	C-O	-20 / 0	0.02 (1)	
C-D	-15 / 0	-78.0	-78.0	0.52 (1)	6.25	O-D	-595 / 0	0.09 (1)	
D-E	0 / 17	-78.0	-78.0	0.53 (1)	10.00	D-N	-34 / 0	0.03 (1)	
E-F	0 / 17	-78.0	-78.0	0.53 (1)	10.00	N-E	-483 / 0	0.07 (1)	
F-G	0 / 17	-78.0	-78.0	0.53 (1)	10.00	N-G	-34 / 0	0.03 (1)	
G-H	-15 / 0	-78.0	-78.0	0.52 (1)	6.25	L-G	-595 / 0	0.09 (1)	
H-I	-80 / 0	-78.0	-78.0	0.02 (1)	6.25	L-H	-20 / 0	0.02 (1)	
I-J	0 / 10	-78.0	-78.0	0.01 (1)	10.00	K-H	-188 / 0	0.03 (1)	
B-P	0 / 45	-18.5	-18.5	0.14 (4)	10.00				
P-O	0 / 35	-18.5	-18.5	0.17 (4)	10.00				
O-N	0 / 15	-18.5	-18.5	0.17 (4)	10.00				
N-M	0 / 15	-18.5	-18.5	0.17 (4)	10.00				
M-L	0 / 15	-18.5	-18.5	0.17 (4)	10.00				
L-K	0 / 35	-18.5	-18.5	0.17 (4)	10.00				
K-I	0 / 45	-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

CSI: TC=0.53/1.00 (E-G:1), BC=0.17/1.00 (O-P:4), WB=0.09/1.00 (G-L:1), SSI=0.25/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

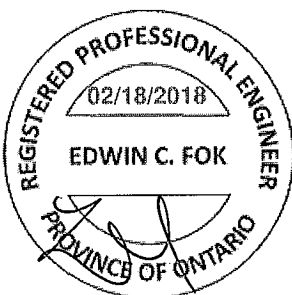
PLATE	GRIP (DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

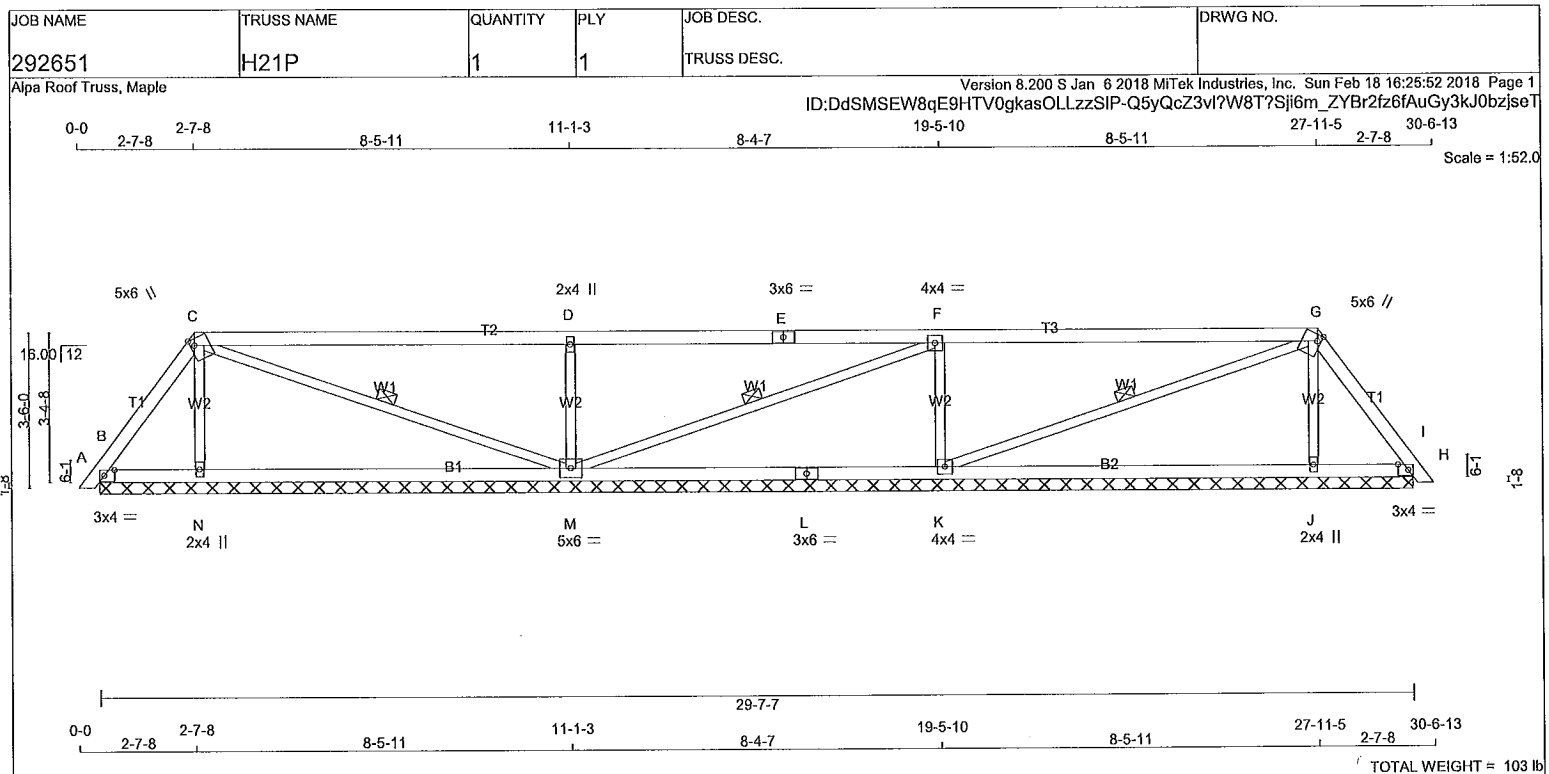
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (L) (INPUT = 0.90)
JSI METAL= 0.29 (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-18023801



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

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	1.50	2.75
C	TTWW+m	MT20	5.0	6.0	1.75	1.00
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TTWW+m	MT20	5.0	6.0	1.75	1.00
H	TMB1-I	MT20	3.0	4.0	1.50	2.75
J	BMW1+w	MT20	2.0	4.0		
K	BMWW1-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMWW1-t	MT20	5.0	6.0		
N	BMW1+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 IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
B	170	0	170	0	29-7-7 (13-7-15)	153-15
N	387	0	387	0	29-7-7 (13-7-15)	153-15
M	915	0	915	0	29-7-7 (13-7-15)	153-15
K	874	0	874	0	29-7-7 (13-7-15)	153-15
J	376	0	376	0	29-7-7 (13-7-15)	153-15
H	191	0	191	0	29-7-7 (13-7-15)	153-15

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN. COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
B	116	101/0	0/0	0/0	15/0	0/0
N	282	136/0	0/0	0/0	146/0	0/0
M	650	407/0	0/0	0/0	243/0	0/0
K	622	385/0	0/0	0/0	237/0	0/0
J	275	131/0	0/0	0/0	144/0	0/0
H	130	112/0	0/0	0/0	18/0	0/0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		WEBS		MEMB.	MAX. FACTORED	
	MAX. FACTORED	FACTORED	MAX. FACTORED	FACTORED		FORCE	MAX
	FORCE	VERT. LOAD LC1	CS1 (LC)	UNBRAC		(LBS)	CS1 (LC)
FR-TO		FROM TO		LENGTH FR-TO			
A-B	0/10	-78.0 -78.0	0.01 (1)	10.00	N-C	-254/0	0.05 (1)
B-C	-93/0	-78.0 -78.0	0.06 (1)	6.25	C-M	-57/0	0.03 (1)
C-D	0/9	-78.0 -78.0	0.63 (1)	10.00	M-D	-722/0	0.14 (1)
D-E	0/8	-78.0 -78.0	0.63 (1)	10.00	M-F	-45/0	0.02 (1)
E-F	0/8	-78.0 -78.0	0.63 (1)	10.00	K-F	-706/0	0.14 (1)
F-G	-34/0	-78.0 -78.0	0.63 (1)	6.25	K-G	-28/0	0.02 (1)
G-H	-119/0	-78.0 -78.0	0.06 (1)	6.25	J-G	-243/0	0.05 (1)
H-I	0/10	-78.0 -78.0	0.01 (1)	10.00			
B-N	0/54	-18.5 -18.5	0.20 (4)	10.00			
N-M	0/45	-18.5 -18.5	0.27 (4)	10.00			
M-L	0/34	-18.5 -18.5	0.27 (4)	10.00			
L-K	0/34	-18.5 -18.5	0.27 (4)	10.00			
K-J	0/60	-18.5 -18.5	0.27 (4)	10.00			
J-H	0/69	-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, 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=0.63/1.00 (F-G:1), BC=0.27/1.00 (J-K:4), WB=0.14/1.00 (D-M:1), SSI=0.31/1.00 (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.

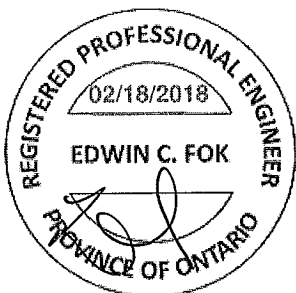
NAIL VALUES	GRIP(DRY)	SHEAR	SECTION
PLATE	(PSI)	(PLI)	(PLI)
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

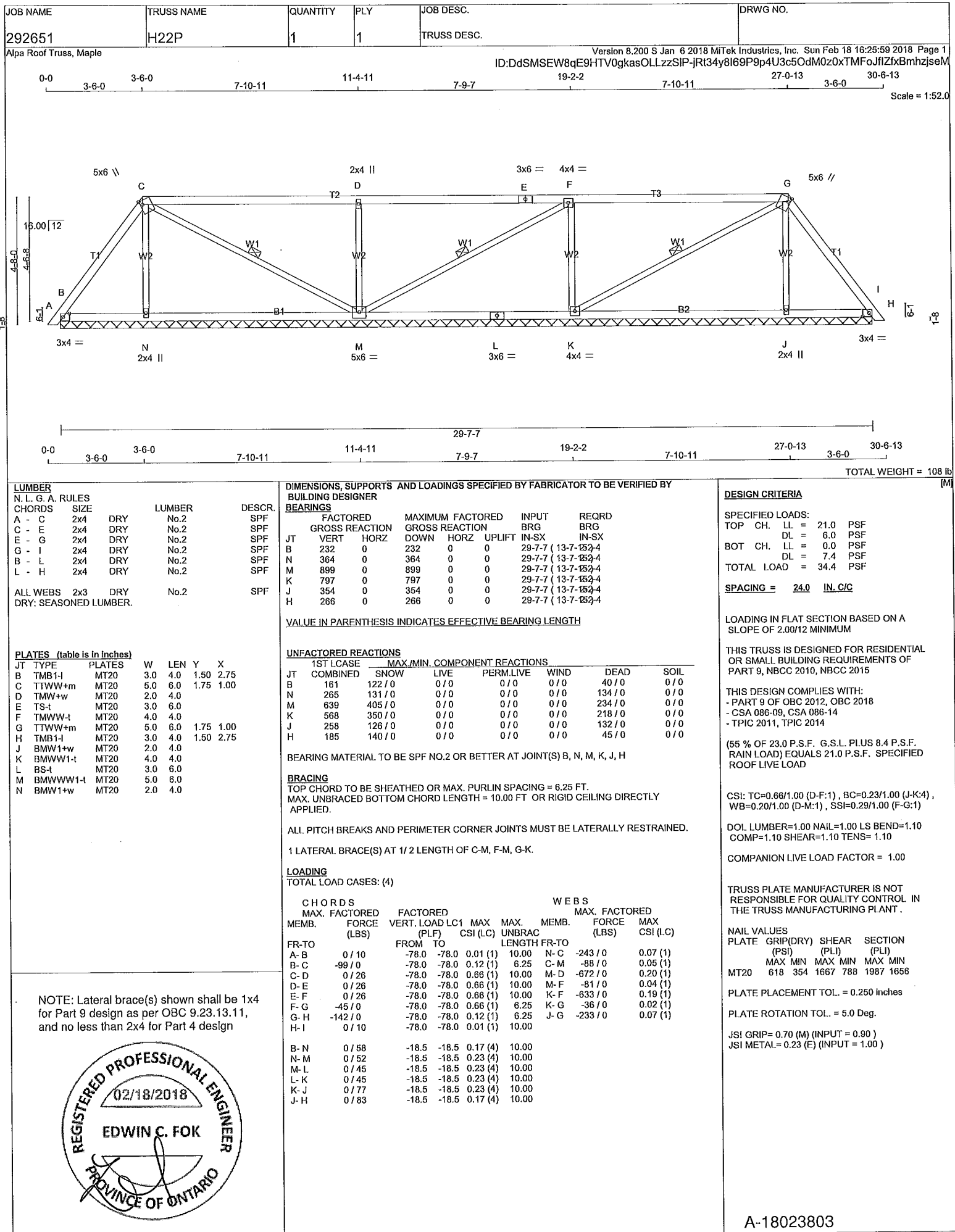
PLATE ROTATION TOL. = 5.0 Deg.

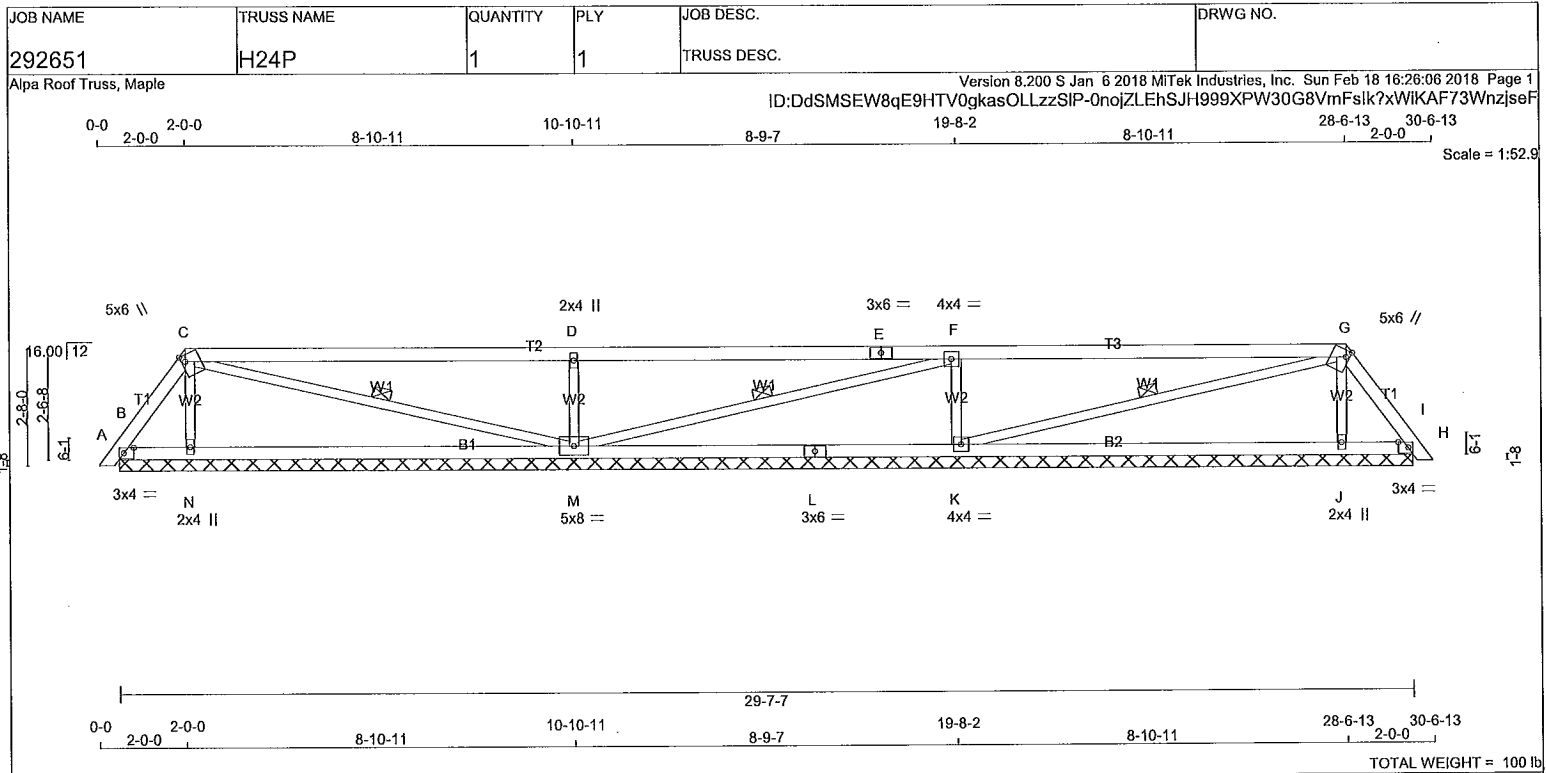
JSI GRIP= 0.89 (M) (INPUT = 0.90)
JSI METAL= 0.30 (E) (INPUT = 1.00)

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-18023802





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

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
B	112	0	112	0	-18	29-7-7 (13-7-159-12)
N	413	0	413	0	0	29-7-7 (13-7-159-12)
M	938	0	938	0	0	29-7-7 (13-7-159-12)
K	922	0	922	0	0	29-7-7 (13-7-159-12)
J	404	0	404	0	0	29-7-7 (13-7-159-12)
H	124	0	124	0	-15	29-7-7 (13-7-159-12)

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

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

UNFACTORED REACTIONS

JT	COMBINED	MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
		SNOW	LIVE			
B	73	85/0	0/0	0/0	0/-13	0/0
N	302	139/0	0/0	0/0	164/0	0/0
M	667	416/0	0/0	0/0	251/0	0/0
K	656	407/0	0/0	0/0	249/0	0/0
J	296	134/0	0/0	0/0	162/0	0/0
H	81	92/0	0/0	0/0	0/-11	0/0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LOA1 (LC)	MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO			FR-TO			
A-B	0/10	-78.0	-78.0	0.01 (1)	10.00	N-C	-258/0	0.04 (1)	
B-C	-87/0	-78.0	-78.0	0.03 (1)	6.25	C-M	-37/0	0.02 (1)	
C-D	-1/0	-78.0	-78.0	0.55 (1)	10.00	M-D	-758/0	0.12 (1)	
D-E	-2/0	-78.0	-78.0	0.55 (1)	10.00	M-F	-25/0	0.01 (1)	
E-F	-2/0	-78.0	-78.0	0.55 (1)	10.00	K-F	-751/0	0.12 (1)	
F-G	-25/0	-78.0	-78.0	0.55 (1)	6.25	K-G	-21/0	0.01 (1)	
G-H	-102/0	-78.0	-78.0	0.03 (1)	6.25	J-G	-249/0	0.04 (1)	
H-I	0/10	-78.0	-78.0	0.01 (1)	10.00				
B-N	0/49	-18.5	-18.5	0.24 (4)	10.00				
N-M	0/37	-18.5	-18.5	0.29 (4)	10.00				
M-L	0/25	-18.5	-18.5	0.29 (4)	10.00				
L-K	0/25	-18.5	-18.5	0.29 (4)	10.00				
K-J	0/46	-18.5	-18.5	0.29 (4)	10.00				
J-H	0/58	-18.5	-18.5	0.24 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

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

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

CSI: TC=0.55/1.00 (F-G:1), BC=0.29/1.00 (J-K:4), WB=0.12/1.00 (D-M:1), SSI=0.32/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

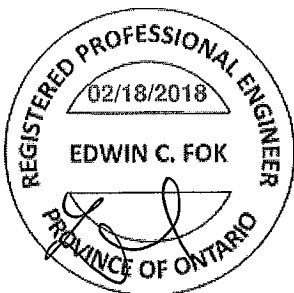
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

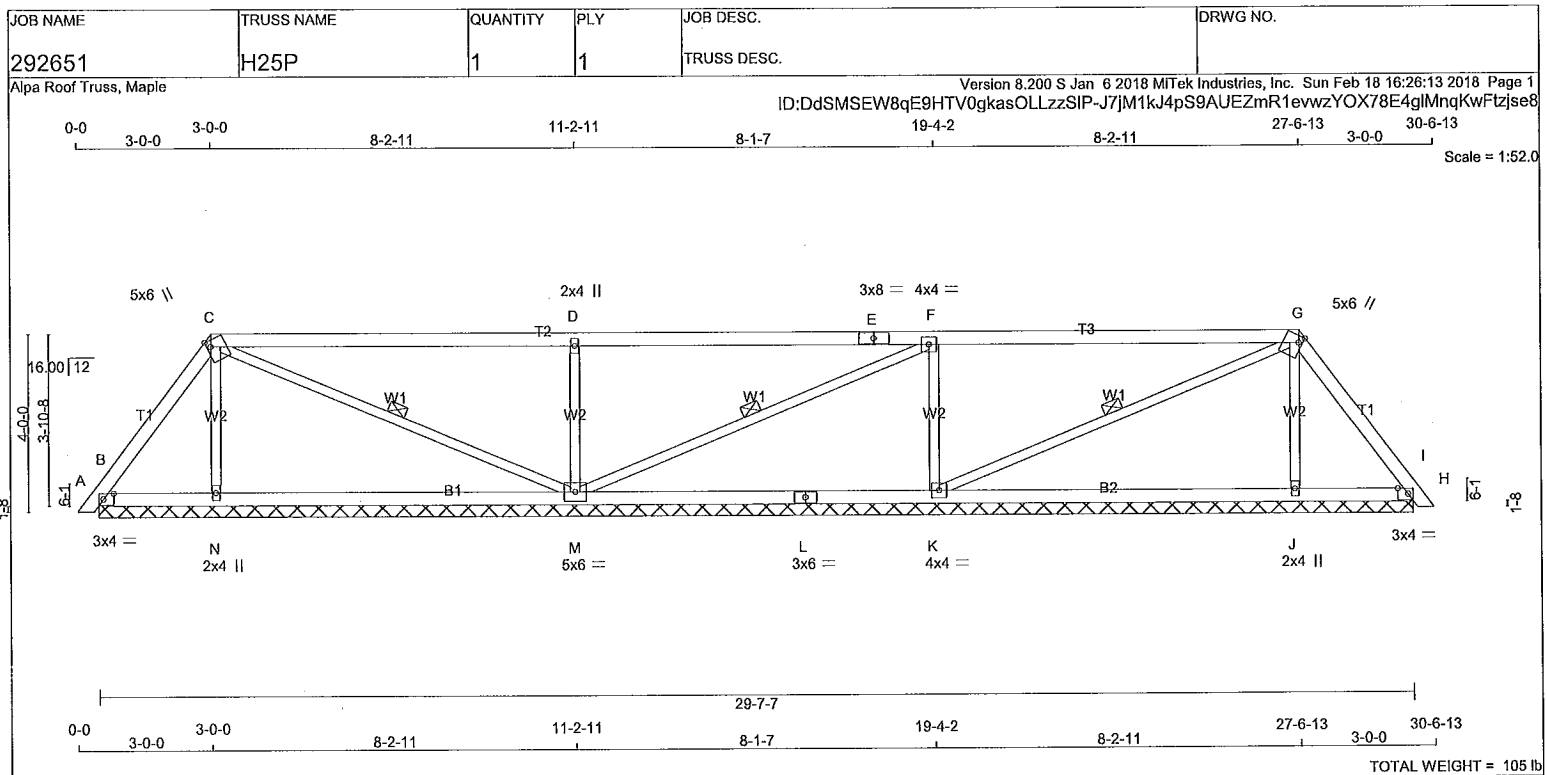
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (K) (INPUT = 0.90)
JSI METAL= 0.37 (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-18023804



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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	X
B	TMB1-I	MT20	3.0	4.0	1.50 2.75
C	TTWW+m	MT20	5.0	6.0	1.75 1.00
D	TMW+w	MT20	2.0	4.0	
E	TS-t	MT20	3.0	8.0	
F	TMWW-t	MT20	4.0	4.0	
G	TTWW+m	MT20	5.0	6.0	1.75 1.00
H	TMB1-I	MT20	3.0	4.0	1.50 2.75
J	BMW1+w	MT20	2.0	4.0	
K	BMWW1-t	MT20	4.0	4.0	
L	BS-t	MT20	3.0	6.0	
M	BMWW1-t	MT20	5.0	6.0	
N	BMW1+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		
B	199	0	199	0	29-7-7 (13-7-153-2	
N	376	0	376	0	29-7-7 (13-7-153-2	
M	906	0	906	0	29-7-7 (13-7-153-2	
K	842	0	842	0	29-7-7 (13-7-153-2	
J	365	0	365	0	29-7-7 (13-7-153-2	
H	225	0	225	0	29-7-7 (13-7-153-2	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST CASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM. LIVE			
B	137	110 / 0	0 / 0	0 / 0	0 / 0	27 / 0	0 / 0
N	274	134 / 0	0 / 0	0 / 0	0 / 0	139 / 0	0 / 0
M	643	405 / 0	0 / 0	0 / 0	0 / 0	239 / 0	0 / 0
K	600	371 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0
J	266	129 / 0	0 / 0	0 / 0	0 / 0	138 / 0	0 / 0
H	155	124 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	N-C	-250 / 0	0.06 (1)
B-C	-97 / 0	-78.0	-78.0 0.09 (1)	6.25	C-M	-70 / 0	0.04 (1)
C-D	0 / 16	-78.0	-78.0 0.71 (1)	10.00	M-D	-701 / 0	0.16 (1)
D-E	0 / 15	-78.0	-78.0 0.71 (1)	10.00	M-F	-59 / 0	0.03 (1)
E-F	0 / 15	-78.0	-78.0 0.71 (1)	10.00	K-F	-676 / 0	0.16 (1)
F-G	-39 / 0	-78.0	-78.0 0.71 (1)	6.25	K-G	-31 / 0	0.02 (1)
G-H	-129 / 0	-78.0	-78.0 0.09 (1)	6.25	J-G	-239 / 0	0.06 (1)
H-I	0 / 10	-78.0	-78.0 0.01 (1)	10.00			
B-N	0 / 56	-18.5	-18.5 0.19 (4)	10.00			
N-M	0 / 49	-18.5	-18.5 0.25 (4)	10.00			
M-L	0 / 39	-18.5	-18.5 0.25 (4)	10.00			
L-K	0 / 39	-18.5	-18.5 0.25 (4)	10.00			
K-J	0 / 68	-18.5	-18.5 0.25 (4)	10.00			
J-H	0 / 75	-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

CSI: TC=0.71/1.00 (F-G:1), BC=0.25/1.00 (J-K:4), WB=0.16/1.00 (D-M:1), SSI=0.30/1.00 (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.

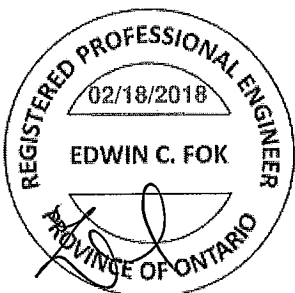
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

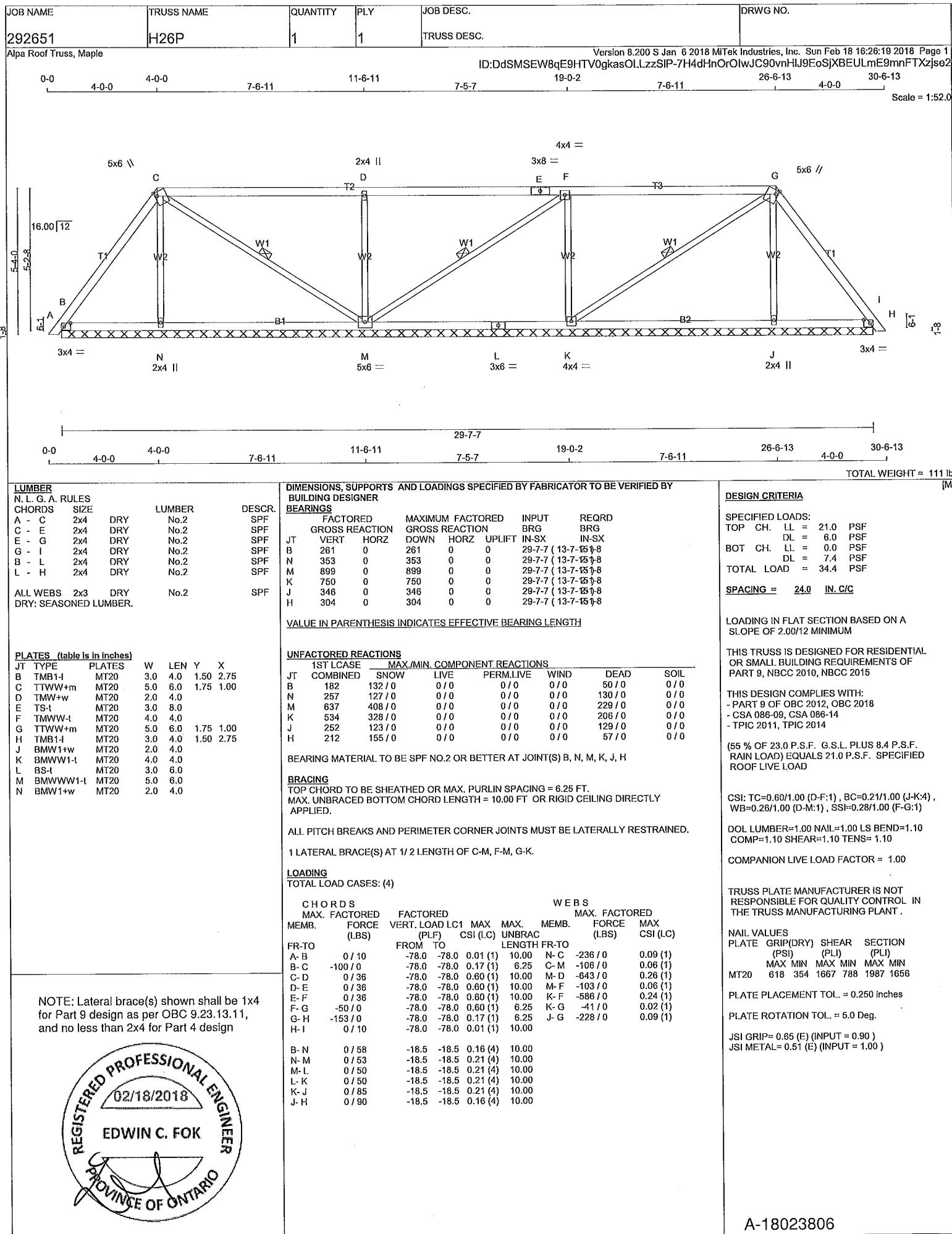
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (M) (INPUT = 0.90)
JSI METAL= 0.45 (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-18023805



A-18023807 CONTINUED ON PAGE 1

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H27	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 16:34:06 2018 Page 2
ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-y7oAIT2nQn3kwDgesdqbjeHFnSLORrzYwPRLyzjsW

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-t	MT20	5.0	8.0	2.00	2.00
C	TTWW+m	MT20	6.0	9.0	3.00	1.25
D	TMWW+t	MT20	4.0	6.0	2.25	1.50
E	TMWW+t	MT20	4.0	6.0	3.00	1.50
F	TS-t	MT20	4.0	6.0		
G	TMWW+t	MT20	4.0	6.0	3.00	1.50
H	TTWM+t	MT18HS	8.0	16.0		Edge
I	TMWW-t	MT20	4.0	4.0		
J	TMWW-t	MT20	4.0	6.0	2.00	2.75
K	TS-t	MT20	4.0	6.0		
L	TMWW-t	MT20	5.0	6.0	2.50	2.50
M	TTWW-h	MT20	10.0	12.0	Edge	4.50
N	TTWW+m	MT20	6.0	7.0	3.00	2.75
O	TMWW-t	MT20	5.0	8.0	2.00	4.75
P	BMV1+p	MT20	3.0	4.0		
Q	BMWW-t	MT20	5.0	8.0	2.00	3.25
R	BMWW+t	MT20	4.0	4.0	2.00	1.75
S	BMWW-t	MT20	5.0	6.0	2.25	2.00
T	BS-t	MT20	4.0	6.0		
U	BMWW-t	MT20	5.0	6.0	2.50	2.50
V	BMWW+t	MT20	5.0	8.0	4.25	2.25
W	BMWWWW-t	MT20	5.0	14.0	2.25	7.00
X	BS-t	MT20	6.0	7.0		
Y	BMWW+t	MT20	4.0	6.0	3.00	1.50
Z	BMWW+t	MT20	4.0	6.0	2.25	1.50
AA	BMWW-t	MT20	6.0	7.0	2.50	2.25
AB	BMWW+t	MT20	4.0	6.0	3.00	1.75
AC	BMV1+p	MT20	3.0	5.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 93.0 lbs FACTORED DOWN AT 1-7-10 ON TOP CHORD, AND 3659.3 lbs FACTORED DOWN AT 19-3-8, AND 1208.2 lbs FACTORED DOWN AT 5-11-6 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

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
MT18HS	511	354	2455 1382 3004 2010

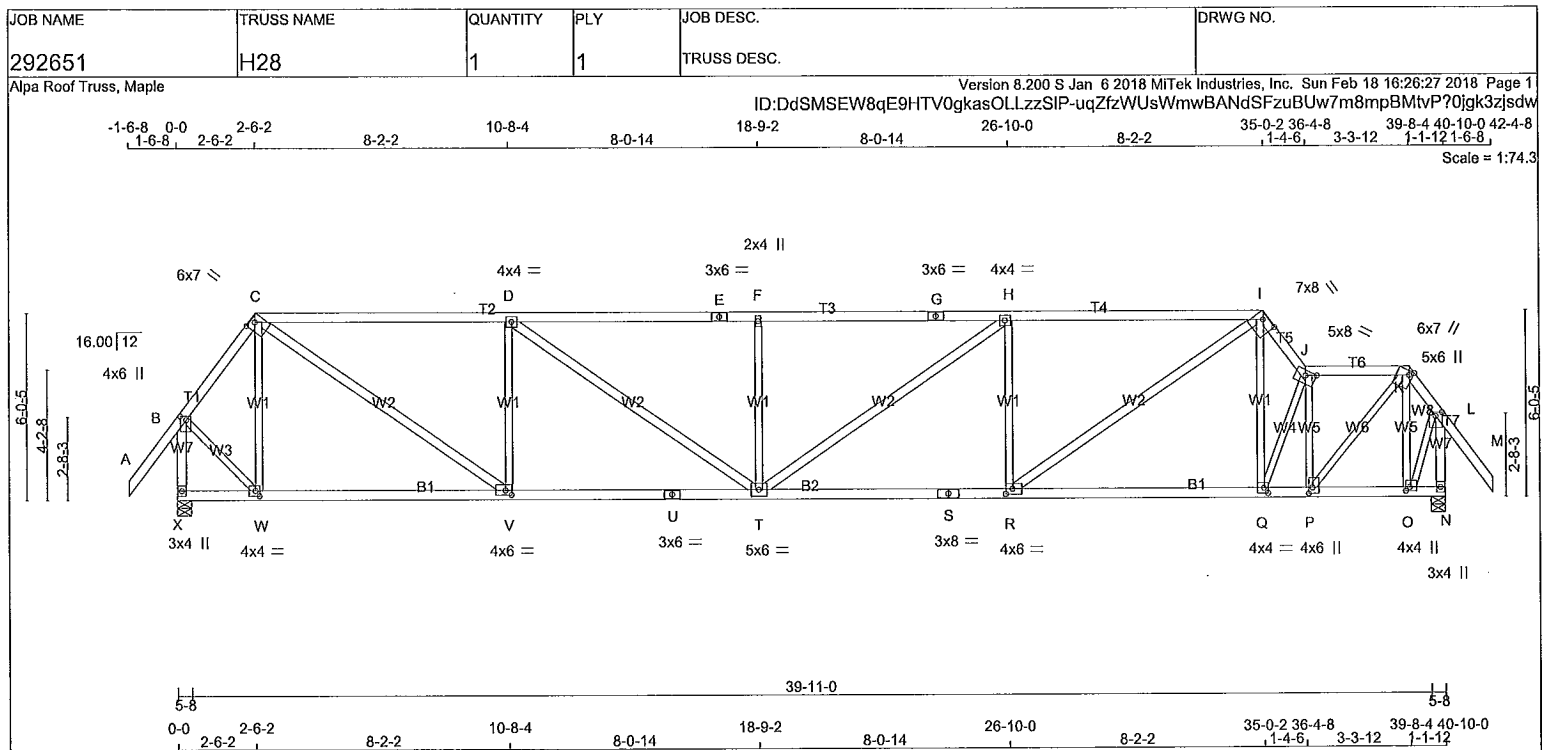
PLATE PLACEMENT TOL. = 0.250 inches

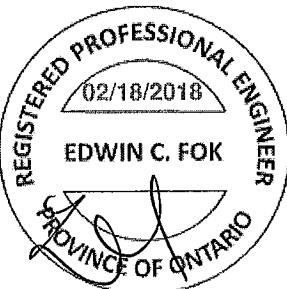
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (S) (INPUT = 0.90)
JSI METAL= 0.92 (T) (INPUT = 1.00)



A-18023807(2)



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	MAXIMUM FACTORED	INPUT	REQRD											
A - C	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG	BRG											
C - E	2x4	DRY	2100F 1.8E	SPF	JT VERT	DOWN	HORZ	UPLIFT	IN-SX										
E - G	2x4	DRY	2100F 1.8E	SPF	X	2096	0	2096	0	5-8	3-5								
G - I	2x4	DRY	2100F 1.8E	SPF	N	2102	0	2102	0	5-8	3-5								
I - J	2x4	DRY	No.2	SPF															
J - K	2x4	DRY	No.2	SPF															
K - M	2x4	DRY	No.2	SPF															
X - B	2x4	DRY	No.2	SPF															
N - L	2x4	DRY	No.2	SPF															
X - U	2x4	DRY	No.2	SPF															
U - S	2x4	DRY	No.2	SPF															
S - N	2x4	DRY	No.2	SPF															
ALL WEBS EXCEPT																			
C - V	2x4	DRY	No.2	SPF															
D - T	2x4	DRY	No.2	SPF															
T - H	2x4	DRY	No.2	SPF															
R - I	2x4	DRY	No.2	SPF															
DRY: SEASONED LUMBER.																			
PLATES (table is in inches)					CHORDS										WEBS				
JT TYPE	PLATES	W	LEN	Y	X	MAX. FACTORED	FACTORED	VERT. LOAD	LC1 MAX	MAX. MEMB.	MAX. FACTORED	FORCE	MAX						
B	TMVW+p	MT20	4.0	6.0	1.50 2.25	MEMB. FORCE (LBS)	VERT. LOAD (PLF)	CSI (LC)	UNBRAC	LENGTH FR-TO	MEMB. FORCE (LBS)	CSI (LC)							
C	TTWW+h	MT20	6.0	7.0	1.75 3.00														
D	TMVW-t	MT20	4.0	4.0															
E	TS-t	MT20	3.0	6.0															
F	TMVW+w	MT20	2.0	4.0															
G	TS-t	MT20	3.0	6.0															
H	TMVW-t	MT20	4.0	4.0															
I	TTWW-h	MT20	7.0	8.0	1.75 5.00														
J	TTWW-m	MT20	5.0	8.0	Edge														
K	TTWW+m	MT20	6.0	7.0	Edge 1.50														
L	TMVW+p	MT20	5.0	6.0	1.50 2.50														
N	BMV1+p	MT20	3.0	4.0															
O	BMVW+t	MT20	4.0	4.0	1.50 1.50														
P	BMVW+t	MT20	4.0	6.0	2.25 1.50														
Q	BMVW-t	MT20	4.0	4.0	2.00 1.50														
R	BMVW-t	MT20	4.0	6.0	2.00 2.50														
S	BS-t	MT20	3.0	8.0															
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design																			
					X-W	0/0	-18.5	-18.5	0.18 (4)	10.00									
					W-V	0/830	-18.5	-18.5	0.32 (4)	10.00									
					V-U	0/2816	-18.5	-18.5	0.58 (1)	10.00									
					U-T	0/2816	-18.5	-18.5	0.58 (1)	10.00									
					T-S	0/3258	-18.5	-18.5	0.66 (1)	10.00									
					S-R	0/3258	-18.5	-18.5	0.66 (1)	10.00									
					R-Q	0/1727	-18.5	-18.5	0.41 (4)	10.00									
					Q-P	0/1987	-18.5	-18.5	0.42 (1)	10.00									
					P-O	0/552	-18.5	-18.5	0.15 (1)	10.00									
					O-N	0/0	-18.5	-18.5	0.06 (4)	10.00									
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H28	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

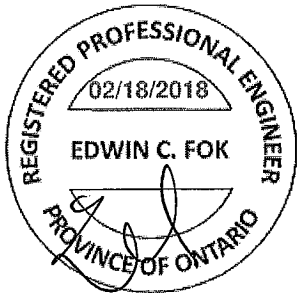
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 16:26:27 2018 Page 2
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PLATES (table is in inches)

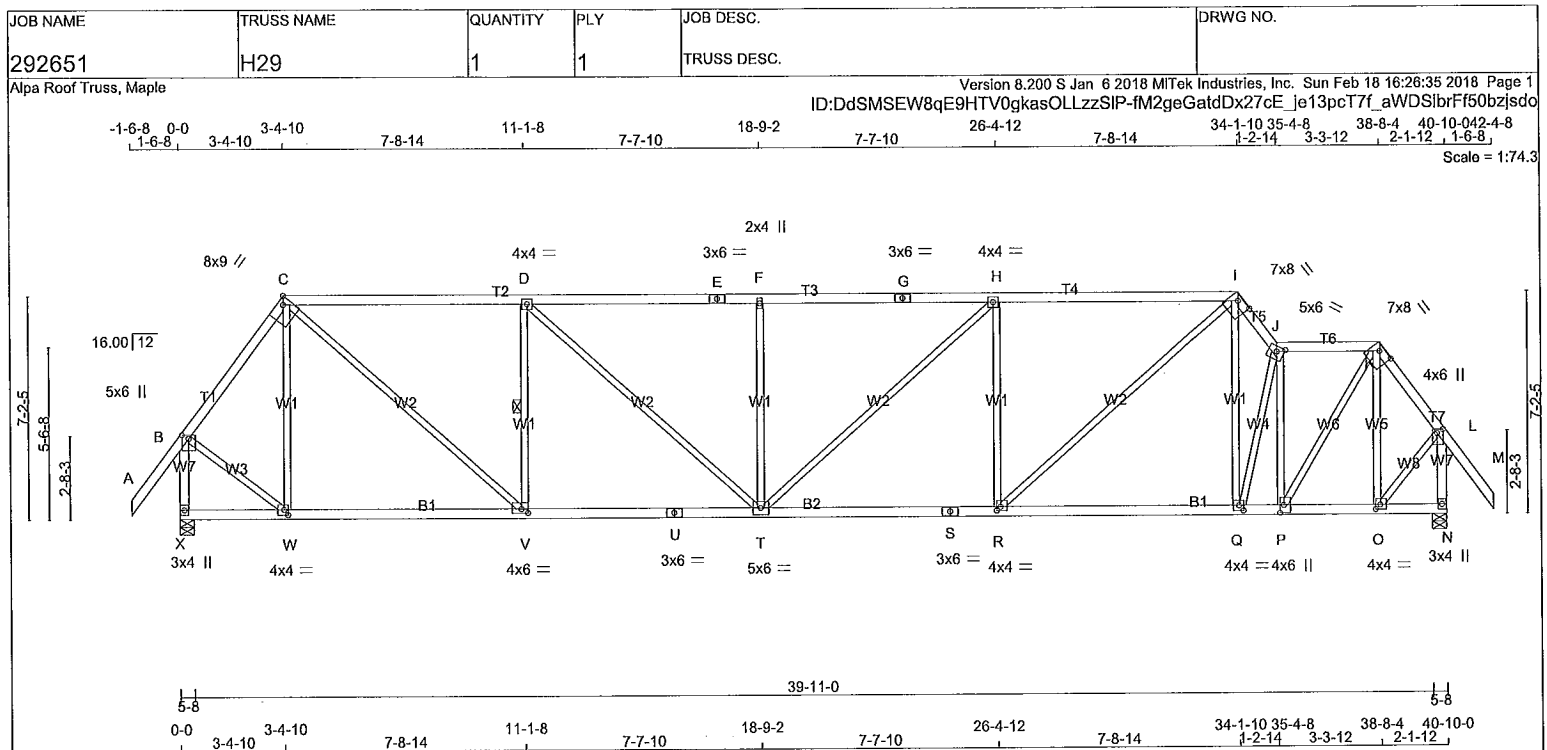
JT	TYPE	PLATES	W	LEN	Y	X
T	BMWWW-t	MT20	5.0	6.0		
U	BS-t	MT20	3.0	6.0		
V	BMWW-t	MT20	4.0	6.0	1.75	2.25
W	BMWW-t	MT20	4.0	4.0	2.00	1.50
X	BMV1+p	MT20	3.0	4.0		

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



A-180238086



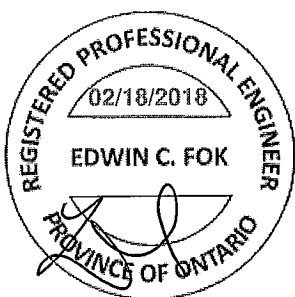
LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	1650F 1.5E	SPF
E - G	2x4	DRY	1650F 1.5E	SPF
G - I	2x4	DRY	1650F 1.5E	SPF
I - J	2x4	DRY	No.2	SPF
J - K	2x4	DRY	No.2	SPF
K - M	2x4	DRY	No.2	SPF
X - B	2x4	DRY	No.2	SPF
N - L	2x4	DRY	No.2	SPF
X - U	2x4	DRY	No.2	SPF
U - S	2x4	DRY	No.2	SPF
S - N	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	5.0	6.0 1.50 2.50
C	TTWW-h	MT20	8.0	9.0 Edge 2.75
D	TMWW-t	MT20	4.0	4.0
E	TS-t	MT20	3.0	6.0
F	TMW+w	MT20	2.0	4.0
G	TS-t	MT20	3.0	6.0
H	TMWW-t	MT20	4.0	4.0
I	TTWW-h	MT20	7.0	8.0 1.75 5.00
J	TTWW-m	MT20	5.0	6.0 2.00 2.75
K	TTWW-h	MT20	7.0	8.0 1.75 5.00
L	TMVW+p	MT20	4.0	6.0 1.50 2.25
N	BMV+p	MT20	3.0	4.0
O	BMWW-t	MT20	4.0	4.0 1.75 1.75
P	BMWW+t	MT20	4.0	6.0 3.00 1.50
Q	BMWW-t	MT20	4.0	4.0 2.00 1.75
R	BMWW-t	MT20	4.0	4.0 1.50 1.50
S	BS-t	MT20	3.0	6.0
T	BMWWWW-t	MT20	5.0	6.0
U	BS-t	MT20	3.0	6.0
V	BMWW-t	MT20	4.0	6.0 1.50 2.50
W	BMWW-t	MT20	4.0	4.0 2.00 1.50

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



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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
X	2096	0	2096	0	0	5-8	3-5	
N	2102	0	2102	0	0	5-8	3-5	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM. LIVE		WIND		DEAD		SOIL	
	VERT	HORZ	DOWN	UP	DOWN	UP	DOWN	UP	DOWN	UP	DOWN	UP	DOWN	UP
X	1492	925 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0	0 / 0	0 / 0
N	1496	928 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.75 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-V.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		MAX. FACTORED	
MEMB.	FORCE	VERT. LOAD	LC1 MAX	MAX. UNBRAC	MEMB.	FORCE	MAX
	(LBS)	(PLF)	CSI (LC)			(LBS)	CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	W-C	-476 / 0	0.43 (1)
B-C	-1527 / 0	-78.0	-78.0 0.20 (1)	5.13	C-V	0 / 1985	0.45 (1)
C-D	-2388 / 0	-78.0	-78.0 0.78 (1)	4.13	V-D	-1171 / 0	0.38 (1)
D-E	-2943 / 0	-78.0	-78.0 0.86 (1)	3.75	D-T	0 / 747	0.17 (1)
E-F	-2943 / 0	-78.0	-78.0 0.86 (1)	3.75	T-F	-550 / 0	0.50 (1)
F-G	-2943 / 0	-78.0	-78.0 0.86 (1)	3.76	T-H	0 / 278	0.06 (1)
G-H	-2943 / 0	-78.0	-78.0 0.86 (1)	3.76	R-H	-854 / 0	0.77 (1)
H-I	-2736 / 0	-78.0	-78.0 0.84 (1)	3.89	R-I	0 / 1510	0.34 (1)
I-J	-2656 / 0	-78.0	-78.0 0.09 (1)	4.20	Q-I	0 / 819	0.18 (1)
J-K	-1735 / 0	-78.0	-78.0 0.18 (1)	4.88	Q-J	-698 / 0	0.34 (1)
K-L	-1342 / 0	-78.0	-78.0 0.17 (1)	5.41	P-J	-1627 / 0	0.75 (1)
L-M	0 / 52	-78.0	-78.0 0.15 (1)	10.00	P-K	0 / 1860	0.42 (1)
X-B	-2085 / 0	0.0	0.0 0.30 (1)	5.86	O-K	-899 / 0	0.32 (1)
N-L	-2099 / 0	0.0	0.0 0.30 (1)	5.84	B-W	0 / 1089	0.25 (1)
					O-L	0 / 1104	0.25 (1)
X-W	0 / 0	-18.5	-18.5 0.16 (4)	10.00			
W-V	0 / 902	-18.5	-18.5 0.31 (4)	10.00			
V-U	0 / 2388	-18.5	-18.5 0.50 (1)	10.00			
U-T	0 / 2388	-18.5	-18.5 0.50 (1)	10.00			
T-S	0 / 2737	-18.5	-18.5 0.56 (1)	10.00			
S-R	0 / 2737	-18.5	-18.5 0.56 (1)	10.00			
R-Q	0 / 1606	-18.5	-18.5 0.38 (1)	10.00			
Q-P	0 / 1768	-18.5	-18.5 0.37 (1)	10.00			
P-O	0 / 758	-18.5	-18.5 0.18 (1)	10.00			
O-N	0 / 0	-18.5	-18.5 0.06 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-08, CSA 086-14
- TPIC 2011, TPIC 2014

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL)= L/999 (0.17")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/999 (0.36")

CSI: TC=0.86/1.00 (D-F:1), BC=0.56/1.00 (R-T:1), WB=0.77/1.00 (H-R:1), SSI=0.28/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

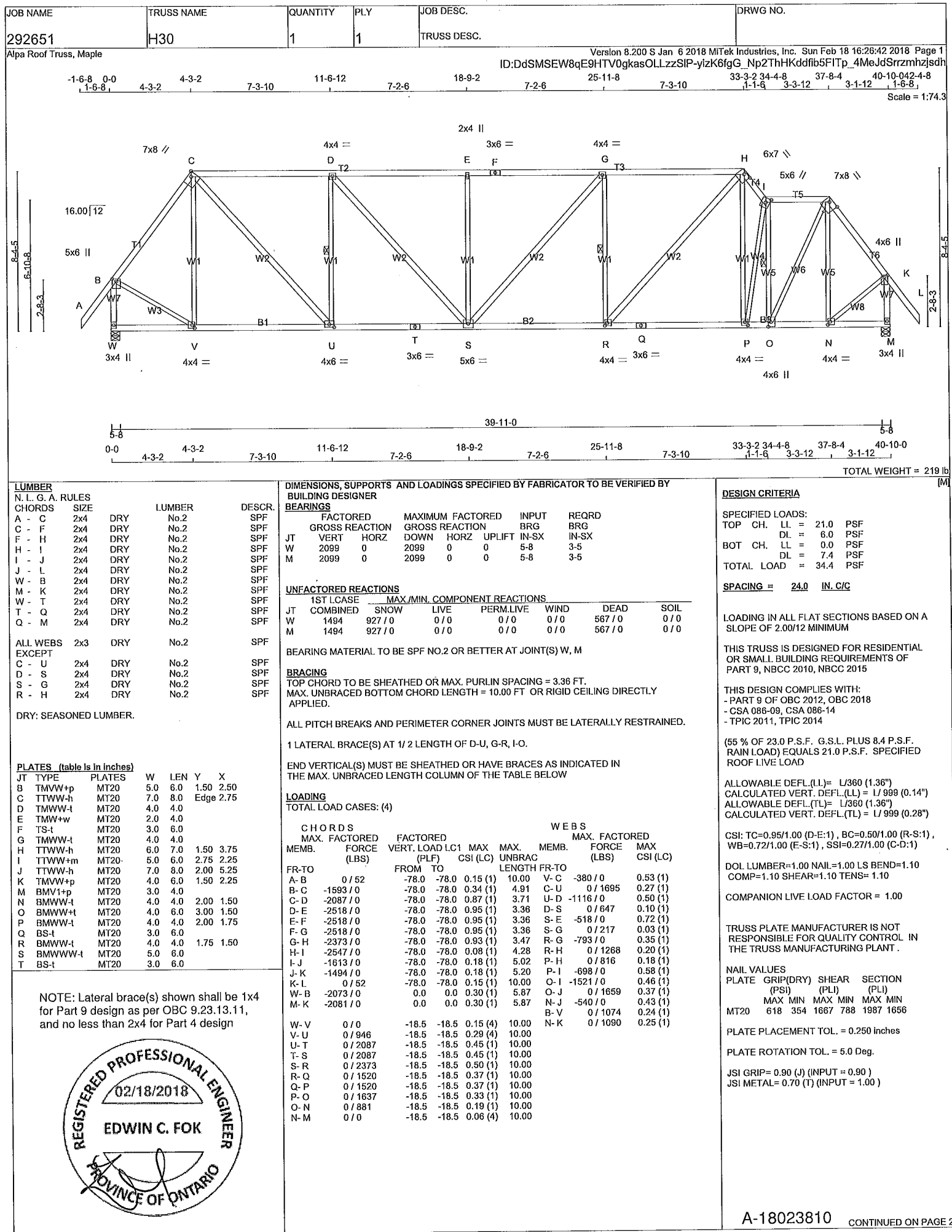
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

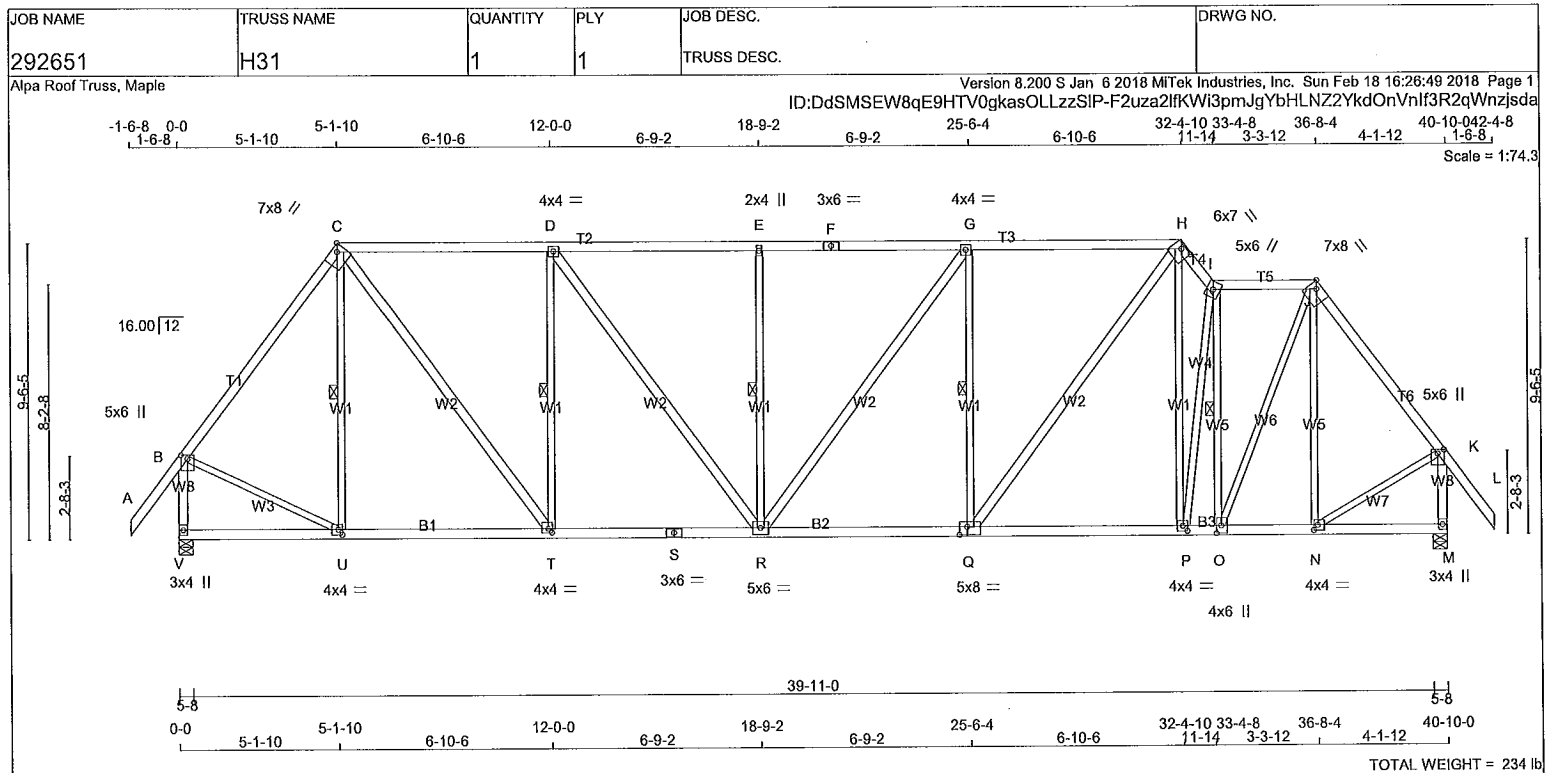
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1856

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.79 (U) (INPUT = 1.00)



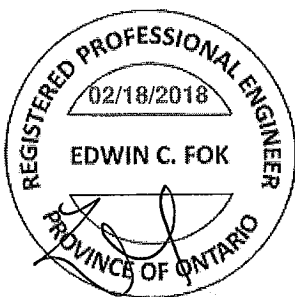


LUMBER				DESCR.	
N. L. G. A. RULES					
CHORDS	SIZE	LUMBER			
A - C	2x4	DRY	No.2	SPF	
C - F	2x4	DRY	No.2	SPF	
F - H	2x4	DRY	No.2	SPF	
H - I	2x4	DRY	No.2	SPF	
I - J	2x4	DRY	No.2	SPF	
J - L	2x4	DRY	No.2	SPF	
V - B	2x4	DRY	No.2	SPF	
M - K	2x4	DRY	No.2	SPF	
V - S	2x4	DRY	No.2	SPF	
S - Q	2x4	DRY	No.2	SPF	
Q - M	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
C - T	2x4	DRY	No.2	SPF	
D - R	2x4	DRY	No.2	SPF	
R - G	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+p	MT20	5.0	6.0	1.50 2.50
C	TTWW-h	MT20	7.0	8.0	Edge 2.75
D	TMWW-t	MT20	4.0	4.0	
E	TMW+w	MT20	2.0	4.0	
F	TS-t	MT20	3.0	6.0	
G	TMWW-t	MT20	4.0	4.0	
H	TTWW-h	MT20	6.0	7.0	1.50 3.75
I	TTWW+m	MT20	5.0	6.0	
J	TTWW-h	MT20	7.0	8.0	Edge 2.75
K	TMVW+p	MT20	5.0	6.0	1.50 2.50
M	BMV1+p	MT20	3.0	4.0	
N	BMWW-t	MT20	4.0	4.0	2.00 1.50
O	BMWW-h	MT20	4.0	6.0	3.00 1.75
P	BMWW-t	MT20	4.0	4.0	2.00 1.75
Q	BSWW-t	MT20	5.0	8.0	3.00 3.00
R	BMWWW-t	MT20	5.0	6.0	
S	BS-t	MT20	3.0	6.0	
T	BMWW-t	MT20	4.0	4.0	1.50 1.50

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



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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UP
V	2099	0	0	5-8
M	2099	0	0	5-8

UNFACTORED REACTIONS

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

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.78 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-U, D-T, E-R, G-Q, I-O.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	FACTORED MAX LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH	MAX. FACTORED CSI (LC)
FR-TO				FR-TO			
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	U-C	-302 / 0	0.18 (1)
B-C	-1630 / 0	-78.0	-78.0 0.55 (1)	4.69	C-T	0 / 1479	0.24 (1)
C-D	-1855 / 0	-78.0	-78.0 0.71 (1)	4.10	T-D	-1061 / 0	0.64 (1)
D-E	-2197 / 0	-78.0	-78.0 0.76 (1)	3.78	D-R	0 / 578	0.09 (1)
E-F	-2197 / 0	-78.0	-78.0 0.76 (1)	3.78	R-E	-486 / 0	0.29 (1)
F-G	-2197 / 0	-78.0	-78.0 0.76 (1)	3.78	R-G	0 / 193	0.03 (1)
G-H	-2091 / 0	-78.0	-78.0 0.75 (1)	3.87	Q-G	-749 / 0	0.45 (1)
H-I	-2418 / 0	-78.0	-78.0 0.07 (1)	4.39	Q-H	0 / 1073	0.17 (1)
I-J	-1507 / 0	-78.0	-78.0 0.18 (1)	5.16	P-H	0 / 815	0.18 (1)
J-K	-1582 / 0	-78.0	-78.0 0.32 (1)	4.95	P-I	-658 / 0	0.89 (1)
K-L	0 / 52	-78.0	-78.0 0.15 (1)	10.00	O-I	-1449 / 0	0.62 (1)
V-B	-2063 / 0	0.0	0.0 0.30 (1)	5.89	O-J	0 / 1504	0.34 (1)
M-K	-2070 / 0	0.0	0.0 0.30 (1)	5.88	N-J	-414 / 0	0.54 (1)
					B-U	0 / 1063	0.24 (1)
V-U	0 / 0	-18.5	-18.5 0.16 (4)	10.00	N-K	0 / 1073	0.24 (1)
U-T	0 / 970	-18.5	-18.5 0.25 (4)	10.00			
T-S	0 / 1856	-18.5	-18.5 0.40 (1)	10.00			
S-R	0 / 1856	-18.5	-18.5 0.40 (1)	10.00			
R-Q	0 / 2083	-18.5	-18.5 0.44 (1)	10.00			
Q-P	0 / 1443	-18.5	-18.5 0.35 (1)	10.00			
P-O	0 / 1526	-18.5	-18.5 0.35 (4)	10.00			
O-N	0 / 939	-18.5	-18.5 0.21 (1)	10.00			
N-M	0 / 0	-18.5	-18.5 0.09 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, 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 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL)= L/999 (0.27")

CSI: TC=0.76/1.00 (E-G:1), BC=0.44/1.00 (Q-R:1), WB=0.89/1.00 (I-P:1), SSI=0.25/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

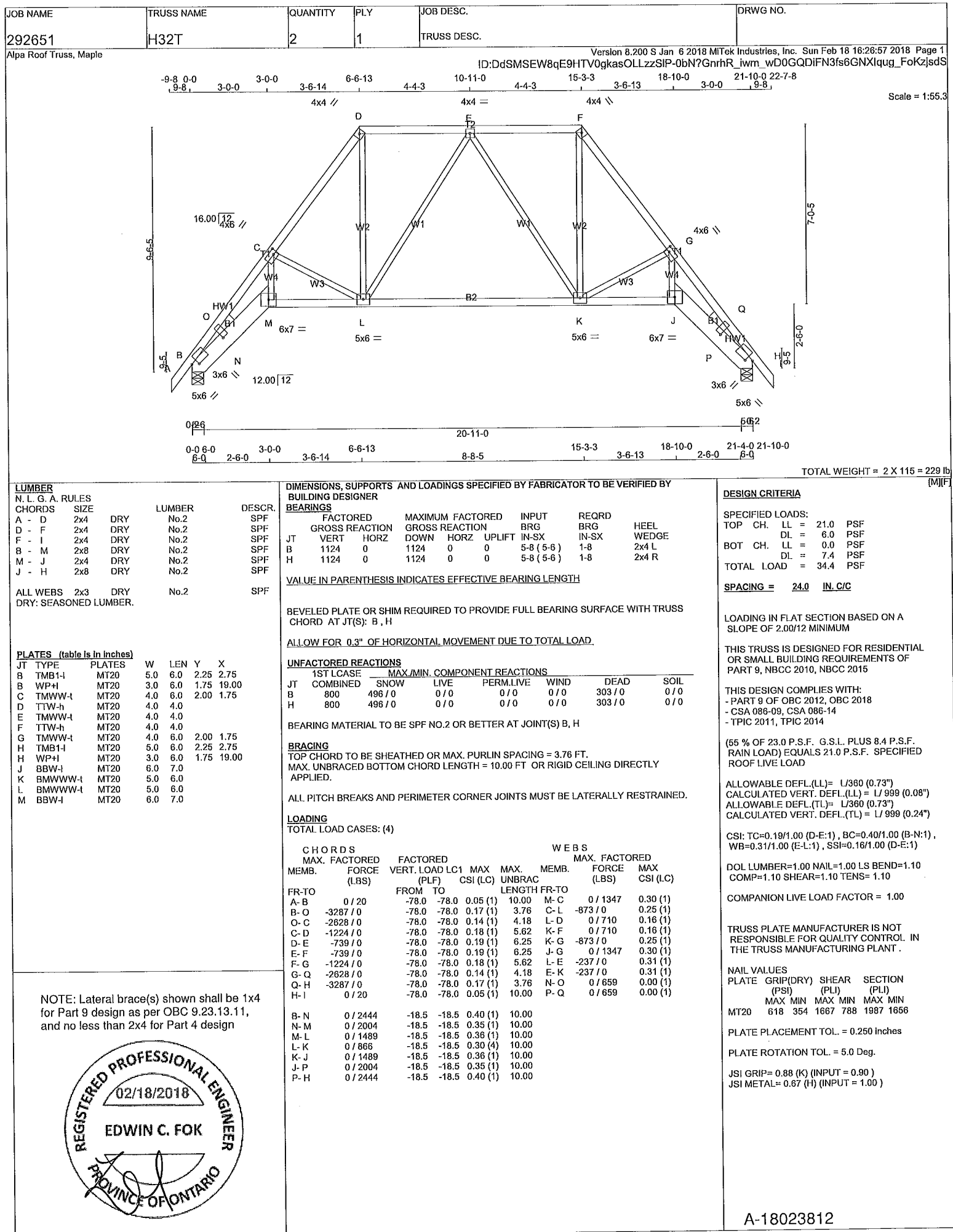
NAIL VALUES

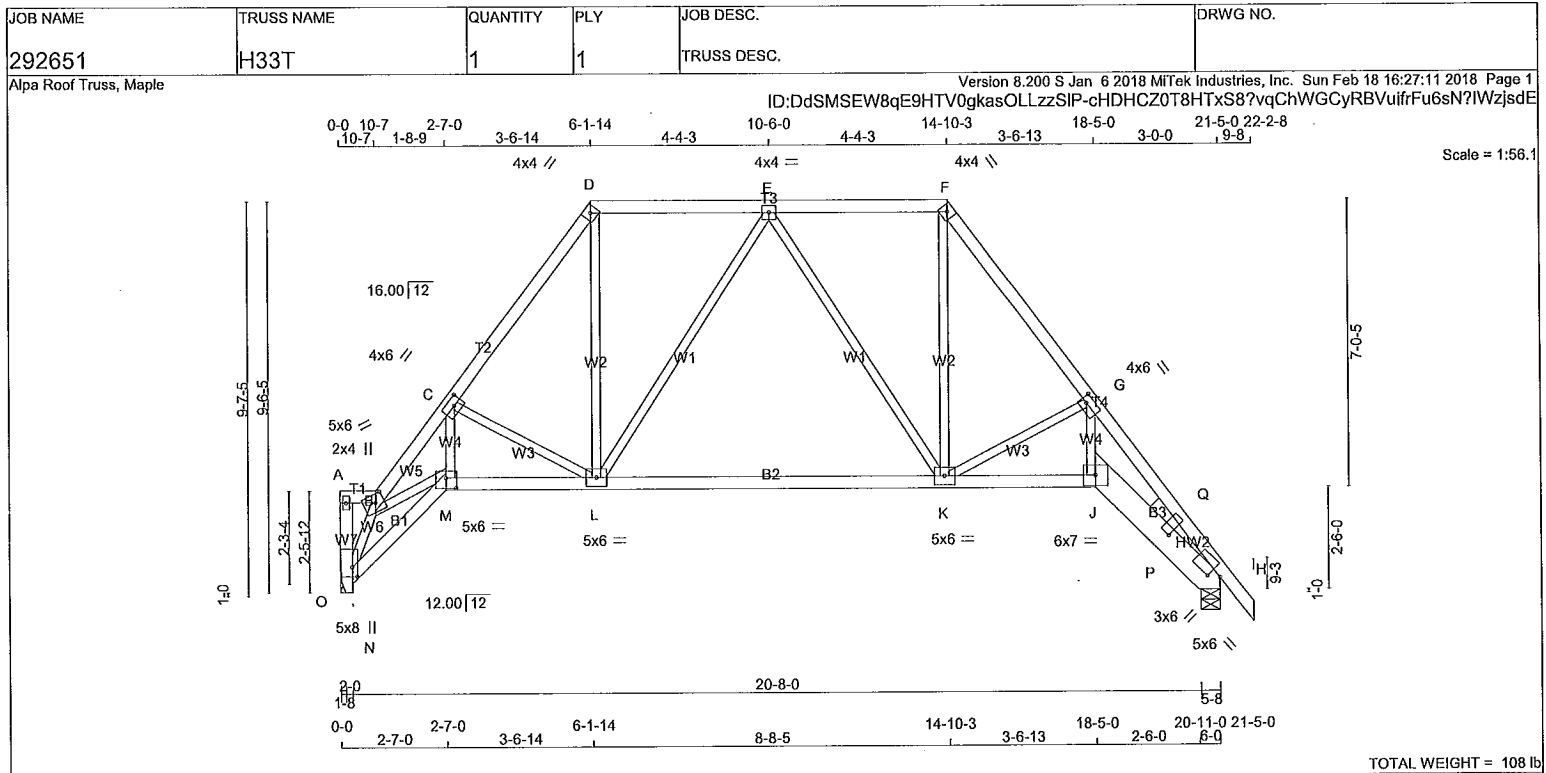
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667
	788	1987	1655

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (I) (INPUT = 0.90)
JSI METAL= 0.61 (S) (INPUT = 1.00)





LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.		
O - A	2x4	DRY	No.2	SPF	
A - B	2x4	DRY	No.2	SPF	
B - D	2x4	DRY	No.2	SPF	
D - F	2x4	DRY	No.2	SPF	
F - I	2x4	DRY	No.2	SPF	
N - M	2x4	DRY	No.2	SPF	
M - J	2x4	DRY	No.2	SPF	
J - H	2x8	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	TMV+p	MT20	2.0	4.0	
B	TTWW-m	MT20	5.0	6.0	2.50 2.50
C	TMWW-t	MT20	4.0	6.0	2.00 2.50
D	TTW-h	MT20	4.0	4.0	
E	TMWW-t	MT20	4.0	4.0	
F	TTW-h	MT20	4.0	4.0	
G	TMWW-t	MT20	4.0	6.0	2.00 1.75
H	TMB1-t	MT20	5.0	6.0	2.25 3.00
I	WP-t	MT20	3.0	6.0	1.50 19.25
J	BBW-t	MT20	6.0	7.0	
K	BMWW-t	MT20	5.0	6.0	
L	BMWW-t	MT20	5.0	6.0	
M	BBW-t	MT20	5.0	6.0	3.00 3.00
N	BVMW+p	MT20	5.0	8.0	2.75 1.50

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG		HEEL WEDGE	
JT	VERT	SNOW	DOWN	SNOW	DOWN	IN-SX	UP	IN-SX	UP		
O	1033	0	1033	0	0	5-8	1-8	5-8	1-8	2x4 R	
H	1104	0	1104	0	0	5-8	1-8	5-8	1-8	2x4 R	

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

JT	1ST LCASE	MAX	MIN	PERM	LIVE	WIND	DEAD	SOIL
O	737	450 / 0	0 / 0	0 / 0	0 / 0	0 / 0	287 / 0	0 / 0
H	786	488 / 0	0 / 0	0 / 0	0 / 0	0 / 0	298 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.77 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	FORCE (LBS)	MAX. FACTORED (LBS)	MAX. FACTORED (LC)
FR-TO		FROM	TO	FR-TO			
O-N	-1033 / 0	0.0	0.0 0.10 (1)	N-B	-1744 / 0	0.27 (1)	
N-A	-34 / 0	0.0	0.0 0.00 (1)	B-M	0 / 662	0.15 (1)	
A-B	0 / 0	-78.0	-78.0 0.01 (1)	M-C	0 / 835	0.19 (1)	
B-C	-2106 / 0	-78.0	-78.0 0.13 (1)	C-L	-651 / 0	0.19 (1)	
C-D	-1164 / 0	-78.0	-78.0 0.15 (1)	L-D	0 / 668	0.15 (1)	
D-E	-695 / 0	-78.0	-78.0 0.24 (1)	K-F	0 / 686	0.15 (1)	
E-F	-721 / 0	-78.0	-78.0 0.25 (1)	K-G	-863 / 0	0.25 (1)	
F-G	-1194 / 0	-78.0	-78.0 0.19 (1)	J-G	0 / 1326	0.30 (1)	
G-Q	-2579 / 0	-78.0	-78.0 0.15 (1)	L-E	-261 / 0	0.35 (1)	
Q-H	-3220 / 0	-78.0	-78.0 0.19 (1)	E-K	-213 / 0	0.28 (1)	
H-I	0 / 20	-78.0	-78.0 0.05 (1)	P-Q	0 / 637	0.00 (1)	

N-M	0 / 914	-18.5	-18.5 0.17 (1)	10.00
M-L	0 / 1252	-18.5	-18.5 0.33 (4)	10.00
L-K	0 / 835	-18.5	-18.5 0.29 (4)	10.00
K-J	0 / 1462	-18.5	-18.5 0.36 (1)	10.00
J-P	0 / 1970	-18.5	-18.5 0.35 (1)	10.00
P-H	0 / 2394	-18.5	-18.5 0.39 (1)	10.00

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.71")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
CALCULATED VERT. DEFL.(TL) = L/999 (0.21")

CSI: TC=0.25/1.00 (E-F:1), BC=0.39/1.00 (H-P:1), WB=0.35/1.00 (E-L:1), SS=0.16/1.00 (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.

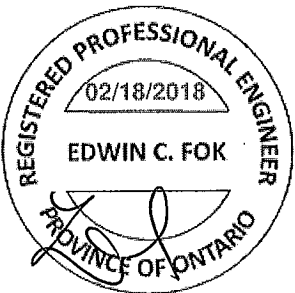
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (N) (INPUT = 0.90)
JSI METAL= 0.66 (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-18023814

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H34P	6	1	TRUSS DESC.	

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 16:27:17 2018 Page 1
 ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-RRaZSd5DK7D5A3S3BTnwWTCsnw0q3eCmVoqJVAzjsd8

Alpa Roof Truss, Maple

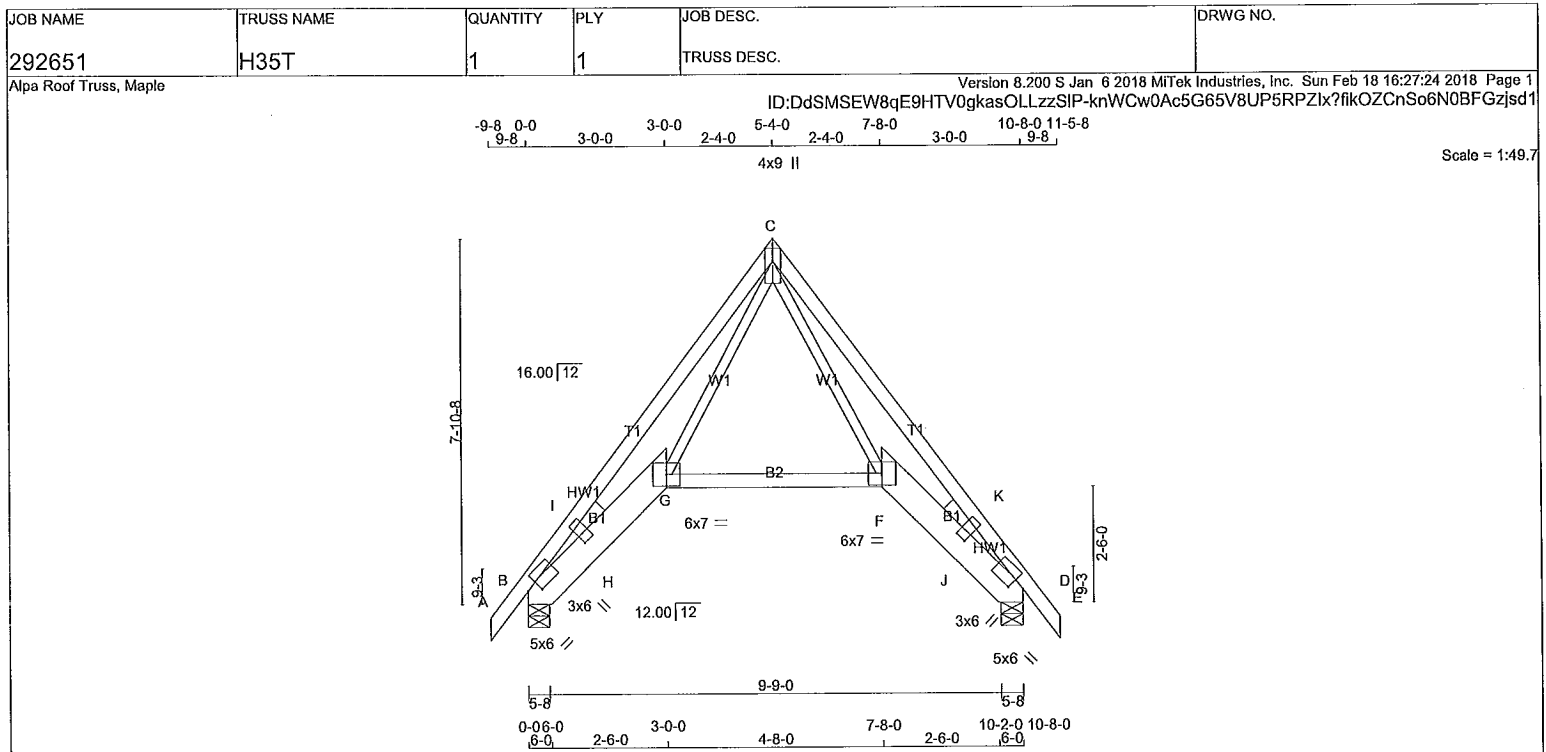
Scale = 1:37.1

TOTAL WEIGHT = 6 X 29 = 176 lb

LUMBER N. L. G. A. RULES <table style="width:100%; font-size: x-small;"> <tr> <th>CHORDS</th> <th>SIZE</th> <th>LUMBER</th> <th>DESCR.</th> </tr> <tr> <td>A - C</td> <td>2x4</td> <td>DRY No.2</td> <td>SPF</td> </tr> <tr> <td>C - E</td> <td>2x4</td> <td>DRY No.2</td> <td>SPF</td> </tr> <tr> <td>B - D</td> <td>2x4</td> <td>DRY No.2</td> <td>SPF</td> </tr> <tr> <td>ALL WEBS</td> <td>2x3</td> <td>DRY No.2</td> <td>SPF</td> </tr> </table> DRY: SEASONED LUMBER. PLATES (table is in inches) <table style="width:100%; font-size: x-small;"> <tr> <th>JT</th> <th>TYPE</th> <th>PLATES</th> <th>W</th> <th>LEN</th> <th>Y</th> <th>X</th> </tr> <tr> <td>B</td> <td>TMB1-I</td> <td>MT20</td> <td>3.0</td> <td>4.0</td> <td>1.50</td> <td>2.75</td> </tr> <tr> <td>C</td> <td>TTW+p</td> <td>MT20</td> <td>3.0</td> <td>5.0</td> <td>2.00</td> <td>Edge</td> </tr> <tr> <td>D</td> <td>TMB1-I</td> <td>MT20</td> <td>3.0</td> <td>4.0</td> <td>1.50</td> <td>2.75</td> </tr> <tr> <td>F</td> <td>BMW1+w</td> <td>MT20</td> <td>2.0</td> <td>4.0</td> <td></td> <td></td> </tr> </table> Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.	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	JT	TYPE	PLATES	W	LEN	Y	X	B	TMB1-I	MT20	3.0	4.0	1.50	2.75	C	TTW+p	MT20	3.0	5.0	2.00	Edge	D	TMB1-I	MT20	3.0	4.0	1.50	2.75	F	BMW1+w	MT20	2.0	4.0			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table style="width:100%; font-size: x-small;"> <tr> <th></th> <th>FACTORED GROSS REACTION</th> <th>MAXIMUM FACTORED GROSS REACTION</th> <th>INPUT BRG</th> <th>REQRD BRG</th> </tr> <tr> <th>JT</th> <th>VERT</th> <th>HORZ</th> <th>DOWN</th> <th>HORZ</th> </tr> <tr> <td>B</td> <td>288</td> <td>0</td> <td>288</td> <td>0</td> </tr> <tr> <td>D</td> <td>288</td> <td>0</td> <td>288</td> <td>0</td> </tr> <tr> <td>F</td> <td>226</td> <td>0</td> <td>226</td> <td>0</td> </tr> </table> UNFACTORED REACTIONS <table style="width:100%; font-size: x-small;"> <tr> <th>JT</th> <th>1ST LCASE</th> <th>MAX./MIN. SNOW</th> <th>LIVE</th> <th>PERM.LIVE</th> <th>WIND</th> <th>DEAD</th> <th>SOIL</th> </tr> <tr> <td>B</td> <td>202</td> <td>141 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>62 / 0</td> <td>0 / 0</td> </tr> <tr> <td>D</td> <td>202</td> <td>141 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>62 / 0</td> <td>0 / 0</td> </tr> <tr> <td>F</td> <td>166</td> <td>73 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>93 / 0</td> <td>0 / 0</td> </tr> </table> 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) <table style="width:100%; font-size: x-small;"> <tr> <th colspan="4">CHORDS</th> <th colspan="4">WEBS</th> </tr> <tr> <th>MEMB.</th> <th>MAX. FACTORED FORCE (LBS)</th> <th>FACTORED VERT. LOAD (PLF)</th> <th>LC1 MAX CSI (LC)</th> <th>MEMB.</th> <th>MAX. FACTORED FORCE (LBS)</th> <th>MAX CSI (LC)</th> <th></th> </tr> <tr> <td>FR-TO</td> <td></td> <td>FROM</td> <td>TO</td> <td>FR-TO</td> <td></td> <td>LENGTH</td> <td>FR-TO</td> </tr> <tr> <td>A-B</td> <td>0 / 10</td> <td>-78.0</td> <td>-78.0</td> <td>0.01 (1)</td> <td>10.00</td> <td>F-C</td> <td>-136 / 0</td> </tr> <tr> <td>B-C</td> <td>-103 / 0</td> <td>-78.0</td> <td>-78.0</td> <td>0.20 (1)</td> <td>6.25</td> <td></td> <td></td> </tr> <tr> <td>C-D</td> <td>-103 / 0</td> <td>-78.0</td> <td>-78.0</td> <td>0.20 (1)</td> <td>6.25</td> <td></td> <td></td> </tr> <tr> <td>D-E</td> <td>0 / 10</td> <td>-78.0</td> <td>-78.0</td> <td>0.01 (1)</td> <td>10.00</td> <td></td> <td></td> </tr> <tr> <td>B-F</td> <td>0 / 61</td> <td>-18.5</td> <td>-18.5</td> <td>0.08 (4)</td> <td>10.00</td> <td></td> <td></td> </tr> <tr> <td>F-D</td> <td>0 / 61</td> <td>-18.5</td> <td>-18.5</td> <td>0.08 (4)</td> <td>10.00</td> <td></td> <td></td> </tr> </table>		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	JT	VERT	HORZ	DOWN	HORZ	B	288	0	288	0	D	288	0	288	0	F	226	0	226	0	JT	1ST LCASE	MAX./MIN. SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	B	202	141 / 0	0 / 0	0 / 0	0 / 0	62 / 0	0 / 0	D	202	141 / 0	0 / 0	0 / 0	0 / 0	62 / 0	0 / 0	F	166	73 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0	CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)		FR-TO		FROM	TO	FR-TO		LENGTH	FR-TO	A-B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	F-C	-136 / 0	B-C	-103 / 0	-78.0	-78.0	0.20 (1)	6.25			C-D	-103 / 0	-78.0	-78.0	0.20 (1)	6.25			D-E	0 / 10	-78.0	-78.0	0.01 (1)	10.00			B-F	0 / 61	-18.5	-18.5	0.08 (4)	10.00			F-D	0 / 61	-18.5	-18.5	0.08 (4)	10.00			DESIGN CRITERIA SPECIFIED LOADS: <table style="width:100%; font-size: x-small;"> <tr> <td>TOP CH.</td> <td>LL = 21.0 PSF</td> </tr> <tr> <td></td> <td>DL = 6.0 PSF</td> </tr> <tr> <td>BOT CH.</td> <td>LL = 0.0 PSF</td> </tr> <tr> <td></td> <td>DL = 7.4 PSF</td> </tr> <tr> <td>TOTAL LOAD</td> <td>= 34.4 PSF</td> </tr> </table> SPACING = 24.0 IN./C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, OBC 2018 - CSA 086-09, CSA 086-14 - TPIC 2011, TPIC 2014 (55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD CSI: TC=0.20/1.00 (B-C:1), BC=0.08/1.00 (D-F:4), WB=0.06/1.00 (C-F:1), SSI=0.07/1.00 (B-C:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES <table style="width:100%; font-size: x-small;"> <tr> <th>PLATE</th> <th>GRIP(DRY)</th> <th>SHEAR (PSI)</th> <th>SECTION (PLI)</th> </tr> <tr> <td>MT20</td> <td>618</td> <td>354</td> <td>1667 788 1987 1656</td> </tr> </table> PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.34 (B) (INPUT = 0.80) JSI METAL= 0.13 (D) (INPUT = 1.00)	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	PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)	MT20	618	354	1667 788 1987 1656
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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

A-18023815



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 - G	2x8	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
F - D	2x8	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	5.0	6.0	2.25 3.00
B	WP+H	MT20	3.0	6.0	1.50 19.25
C	TTWW+P	MT20	4.0	9.0	3.25 Edge
D	TMB1-I	MT20	5.0	6.0	2.25 3.00
D	WP+H	MT20	3.0	6.0	1.50 19.25
F	BBW-I	MT20	6.0	7.0	
G	BBW-I	MT20	6.0	7.0	

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	HEEL WEDGE
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX
B	585	0	585	0	0	5-8
D	585	0	585	0	0	5-8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	416	262 / 0	0 / 0	0 / 0	0 / 0	154 / 0	0 / 0
D	416	262 / 0	0 / 0	0 / 0	0 / 0	154 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.83 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	0 / 20	-78.0 -78.0	0.05 (1)	10.00	G-C	0 / 696	0.16 (1)
B-I	-1132 / 0	-78.0 -78.0	0.13 (1)	5.83	C-F	0 / 696	0.16 (1)
I-C	-979 / 0	-78.0 -78.0	0.19 (1)	6.09	H-I	-24 / 59	0.00 (1)
C-K	-979 / 0	-78.0 -78.0	0.19 (1)	6.09	J-K	-24 / 59	0.00 (1)
K-D	-1132 / 0	-78.0 -78.0	0.13 (1)	5.83			
D-E	0 / 20	-78.0 -78.0	0.05 (1)	10.00			
B-H	0 / 770	-18.5 -18.5	0.10 (1)	10.00			
H-G	0 / 806	-18.5 -18.5	0.11 (1)	10.00			
G-F	0 / 273	-18.5 -18.5	0.14 (4)	10.00			
F-J	0 / 806	-18.5 -18.5	0.11 (1)	10.00			
J-D	0 / 770	-18.5 -18.5	0.10 (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) = $L/360$ (0.36")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.03")
ALLOWABLE DEFL.(TL) = $L/360$ (0.36")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.09")

CSI: TC=0.19/1.00 (C-I:1), BC=0.14/1.00 (F-G:4), WB=0.16/1.00 (C-G:1), SSI=0.09/1.00 (C-K: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.

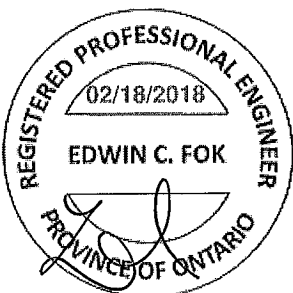
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

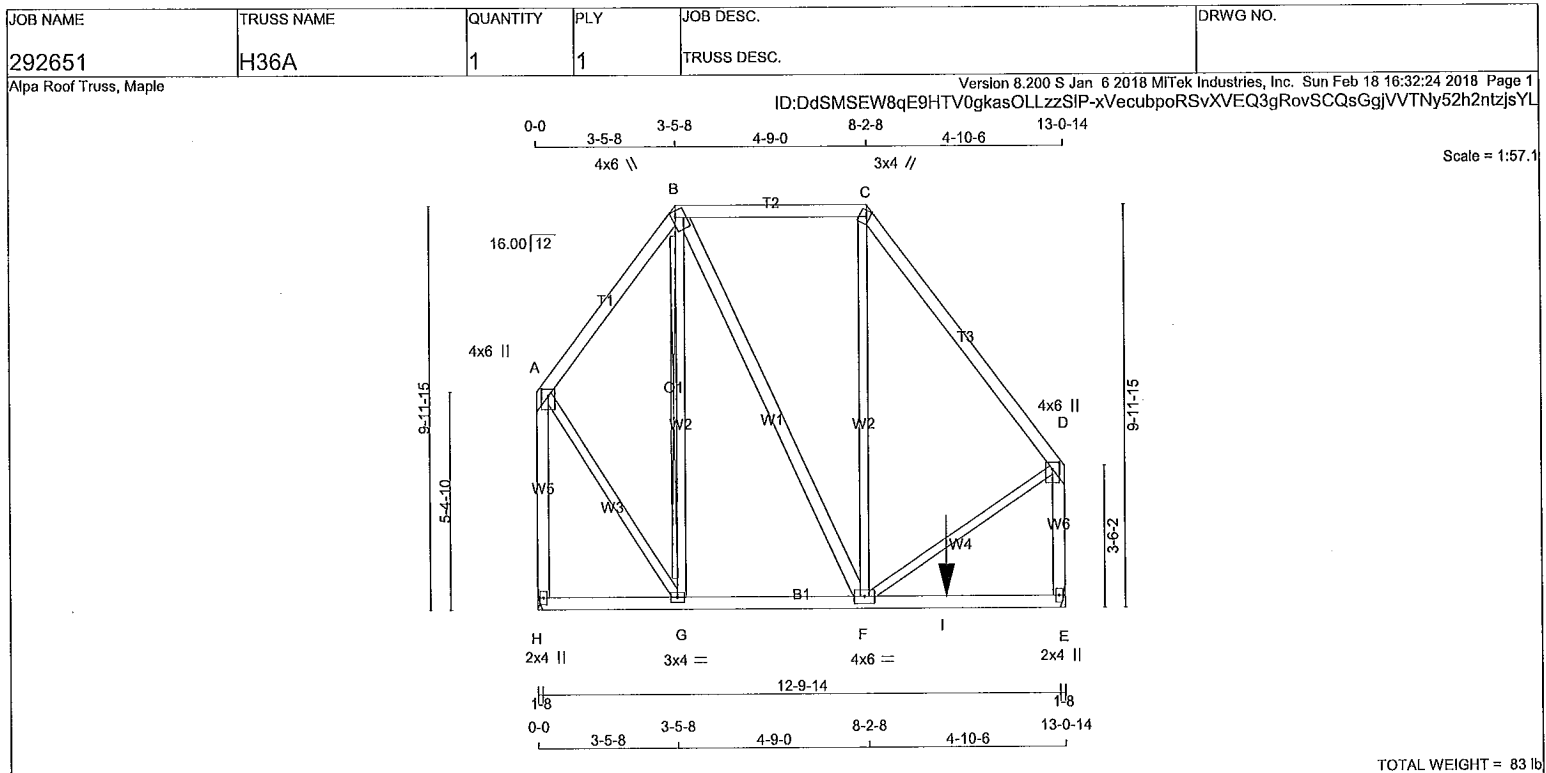
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.36 (G) (INPUT = 0.90)
JSI METAL= 0.28 (D) (INPUT = 1.00)

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



A-18023816



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

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
B - F	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 256.7 lbs FACTORED DOWN AT 10-1-12 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
H	969	0	969	0	0	
E	1008	0	1008	0	0	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE	WIND			
H	691	422 / 0	0 / 0	0 / 0	0 / 0	269 / 0	0 / 0
E	719	439 / 0	0 / 0	0 / 0	0 / 0	280 / 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.

2x4 DRY SPF No.2 T-BRACE AT B-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)

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. UNBRACED LENGTH (LC)		MEMB.	WEBS MAX. FACTORED FORCE (LBS)		MAX. UNBRACED LENGTH (LC)
	FR-TO	FROM	TO	FROM	TO	FR-TO		FR-TO	FROM	TO
A-B	-451 / 0	-78.0	-78.0	0.18 (1)	6.25	G-B	-140 / 0	0.11 (1)		
B-C	-355 / 0	-78.0	-78.0	0.34 (1)	6.25	B-F	0 / 202	0.04 (1)		
C-D	-592 / 0	-78.0	-78.0	0.39 (1)	6.25	F-C	0 / 108	0.04 (4)		
H-A	-873 / 0	0.0	0.0	0.50 (1)	7.81	A-G	0 / 463	0.11 (1)		
E-D	-887 / 0	0.0	0.0	0.20 (1)	7.81	F-D	0 / 418	0.10 (1)		

H-G	0 / 0	-63.7	-63.7	0.11 (1)	10.00
G-F	0 / 267	-63.7	-63.7	0.41 (1)	10.00
F-I	0 / 0	-63.7	-63.7	0.41 (1)	10.00
I-E	0 / 0	-18.5	-18.5	0.41 (1)	10.00

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
I	10-1-12	-257	-257	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 3-10-8
END DISTANCE = 10-1-12
END SPAN CARRIED = 3-10-8
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

(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 (0.44")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL) = L/360 (0.44")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.50/1.00 (A-H:1), BC=0.41/1.00 (F-G:1), WB=0.11/1.00 (A-G:1), SSI=0.27/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

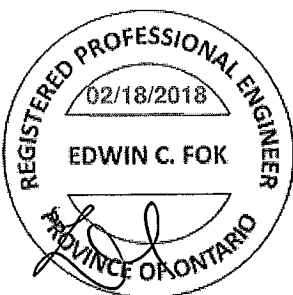
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

A-18023817

CONTINUED ON PAGE 2

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

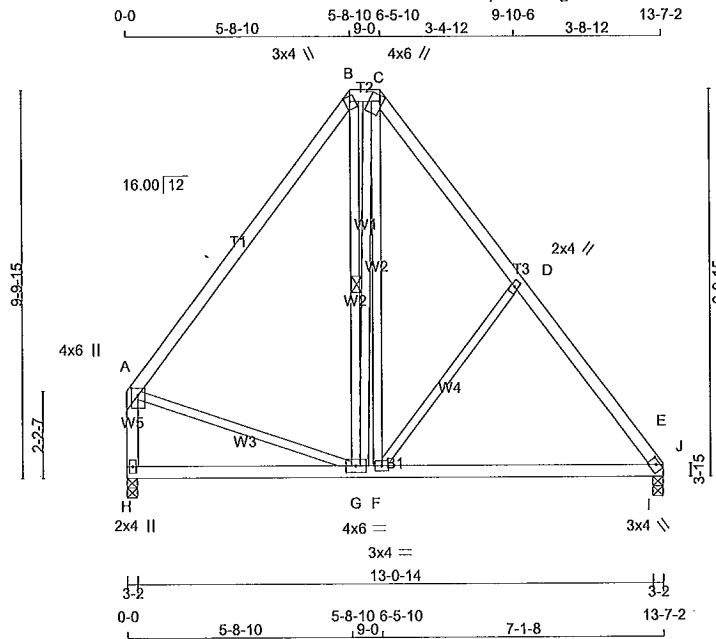


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H37	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 16:28:23 2018 Page 1

ID:DdSMSEW8qE9HTV0gkasOLLzzSIP-V8aVJBudBPYj4CVI2KzOBOxidVWBXSJUg3ppqLzsc6



Scale = 1:58.4

TOTAL WEIGHT = 75 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTW+m	MT20	3.0	4.0	Edge	
C	TTWW+m	MT20	4.0	6.0	1.75	1.00
D	TMW+w	MT20	2.0	4.0		
E	TBM1-h	MT20	3.0	4.0	1.00	2.00
F	BMWW-t	MT20	3.0	4.0		
G	BMWWW-t	MT20	4.0	6.0		
H	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
E	656	0	656	0
H	656	0	656	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	SOIL
JT	COMBINED	SNOW
E	467	285 / 0
H	467	285 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 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-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	MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	LC1 MAX	UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO							FR-TO			
A-B	-399 / 0	-78.0	-78.0	0.33 (1)	6.25	G-B	0 / 77	0.03 (4)		
B-C	-239 / 0	-78.0	-78.0	0.01 (1)	6.25	G-C	-55 / 0	0.04 (1)		
C-D	-431 / 0	-78.0	-78.0	0.13 (1)	6.25	F-C	0 / 248	0.06 (1)		
D-J	-584 / 0	-78.0	-78.0	0.14 (1)	6.25	F-D	-223 / 0	0.14 (1)		
J-E	-699 / 0	-78.0	-78.0	0.09 (4)	6.25	A-G	0 / 250	0.06 (1)		
H-A	-617 / 0	0.0	0.0	0.08 (1)	7.81	I-J	0 / 182	0.00 (1)		
H-G	0 / 0	-18.5	-18.5	0.18 (4)	10.00					
G-F	0 / 243	-18.5	-18.5	0.21 (4)	10.00					
F-I	0 / 375	-18.5	-18.5	0.22 (4)	10.00					
I-E	0 / 375	-18.5	-18.5	0.09 (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

ALLOWABLE DEFL.(LL) = L/360 (0.45")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.33/1.00 (A-B:1), BC=0.22/1.00 (F-I:4), WB=0.14/1.00 (D-F:1), SSI=0.18/1.00 (E-J:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

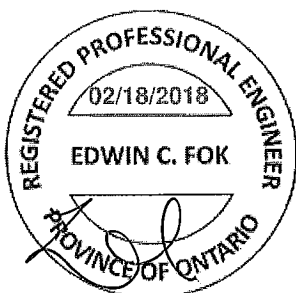
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

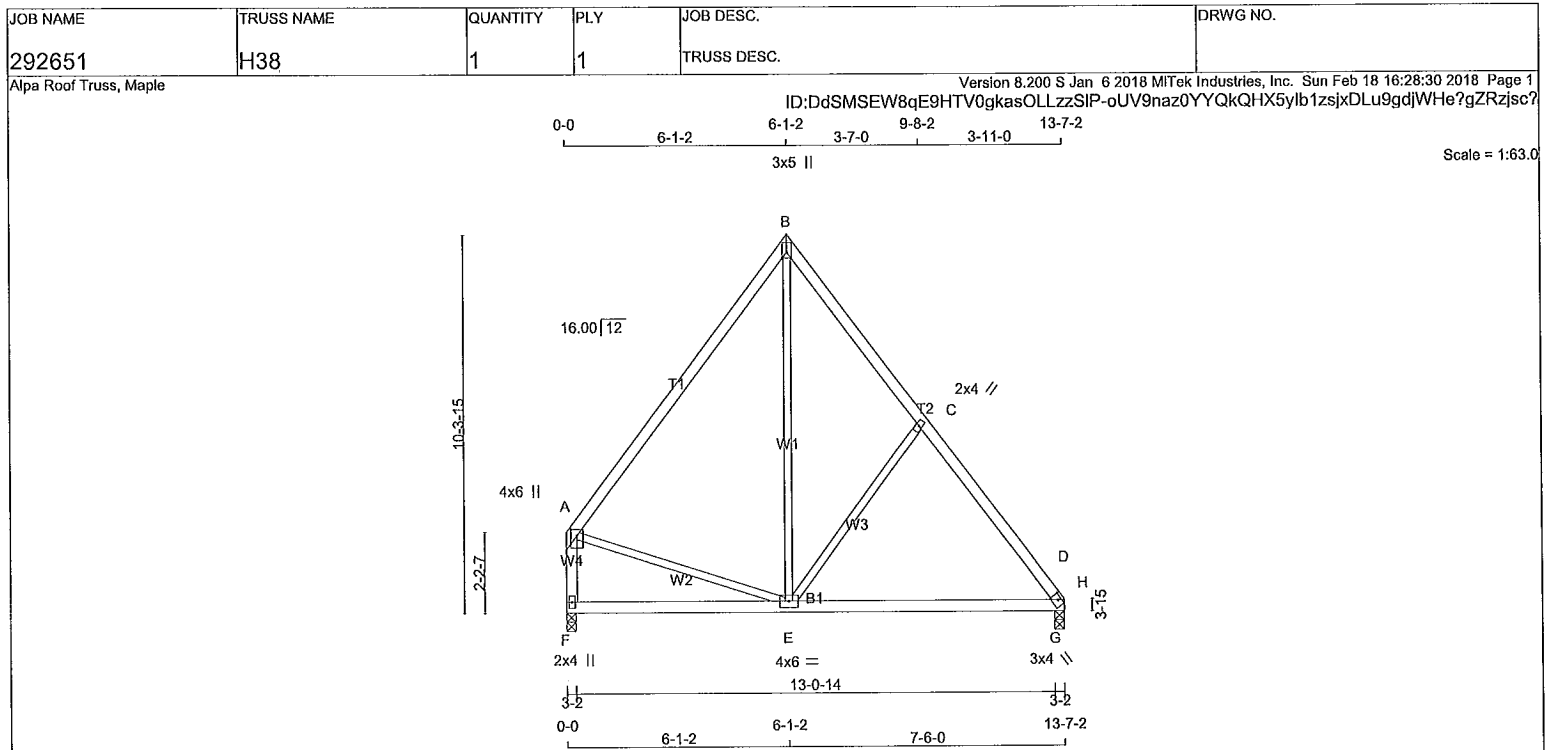
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.56 (E) (INPUT = 0.90)
JSI METAL= 0.20 (E) (INPUT = 1.00)

A-18023818





TOTAL WEIGHT = 61 lb
(M)(F)

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTW+p	MT20	3.0	5.0	2.00	Edge
C	TMW+w	MT20	2.0	4.0		
D	TBM1-h	MT20	3.0	4.0	1.00	2.00
E	BMVWW-t	MT20	4.0	6.0		
F	BMV1+p	MT20	2.0	4.0		

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
D	656	0	656	0	3-2	1-8
F	656	0	656	0	3-2	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX /MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND			
D	467	285 / 0	0 / 0	0 / 0	182 / 0	0 / 0	0 / 0
F	467	285 / 0	0 / 0	0 / 0	182 / 0	0 / 0	0 / 0

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

MEMB.	CHORDS MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD LC1 (PLF)		MAX. UNBRACED LENGTH	WEBS MAX. FACTORED FORCE (LBS)		MAX. CSI (LC)
	FR-TO	FROM TO	FR-TO	FROM TO		FR-TO	FROM TO	
A-B	-387 / 0	-78.0	-78.0	0.25 (1)	6.25	E-B	0 / 275	0.06 (4)
B-C	-417 / 0	-78.0	-78.0	0.15 (1)	6.25	E-C	-232 / 0	0.16 (1)
C-H	-576 / 0	-78.0	-78.0	0.15 (1)	6.25	A-E	0 / 242	0.05 (1)
H-D	-679 / 0	-78.0	-78.0	0.09 (4)	6.25	G-H	-9 / 177	0.00 (1)
F-A	-617 / 0	0.0	0.0	0.08 (1)	7.81			
F-E	0 / 0	-18.5	-18.5	0.23 (4)	10.00			
E-G	0 / 370	-18.5	-18.5	0.26 (4)	10.00			
G-D	0 / 370	-18.5	-18.5	0.09 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.45")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL)= L/999 (0.09")

CSI: TC=0.25/1.00 (A-B:1), BC=0.26/1.00 (E-G:4), WB=0.16/1.00 (C-E:1), SSI=0.18/1.00 (D-H: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.

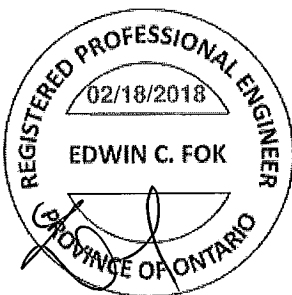
NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

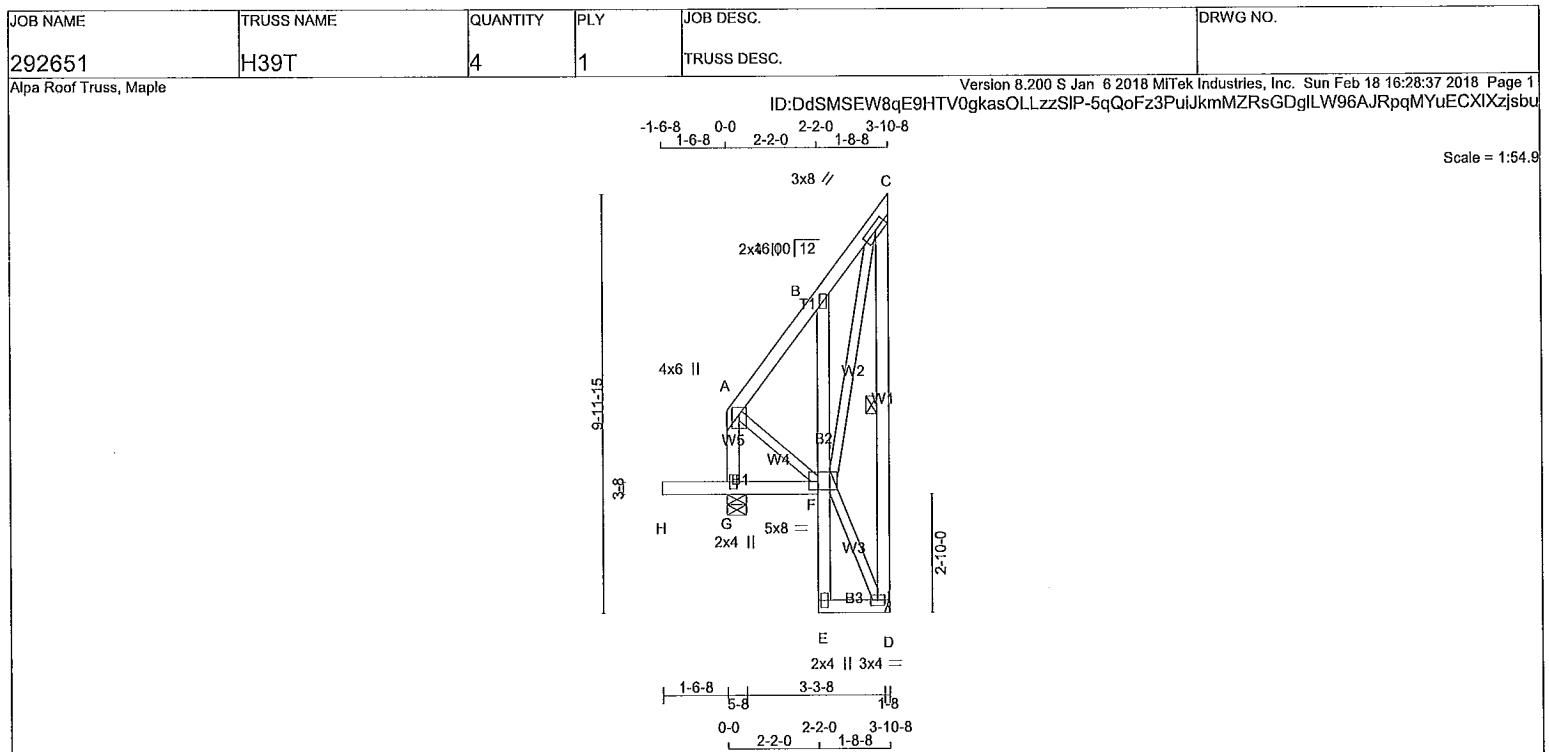
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.56 (D) (INPUT = 0.90)
JSI METAL= 0.20 (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-18023819



TOTAL WEIGHT = 4 X 44 = 176 lb

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

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TMV+p	MT20	2.0	4.0		
C	TMVW-I	MT20	3.0	8.0	1.50	3.75
D	BMVW1-I	MT20	3.0	4.0		
E	BMV+p	MT20	2.0	4.0		
F	BVMWWW-I	MT20	5.0	8.0	2.25	2.50
G	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
G	336	0	336	0	5-8	1-8
D	187	0	187	0	HANGER BY OTHERS	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
G	239	146 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0
D	133	81 / 0	0 / 0	0 / 0	0 / 0	52 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (5)

MEMB.	CHORDS		FACTORED		MAX. UNBRACED LENGTH FR-TO	WEBS		MAX. UNBRACED LENGTH FR-TO
	MAX. FACTORED FORCE (LBS)	VERT. LOAD LC1 (PLF)	MAX. FACTORED FORCE (LBS)	VERT. LOAD LC1 (PLF)		MAX. FACTORED FORCE (LBS)	VERT. LOAD LC1 (PLF)	
G-A	-166 / 0	0.0	0.0	0.02 (1)	7.81	A-F	0 / 56	0.01 (1)
A-B	-66 / 0	-76.0	-76.0	0.05 (1)	6.25	F-D	-6 / 0	0.00 (1)
B-C	-81 / 0	-76.0	-76.0	0.04 (1)	6.25	F-C	0 / 177	0.04 (1)
D-C	-167 / 0	0.0	0.0	0.08 (1)	6.25			
H-G	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
G-F	0 / 0	-18.5	-18.5	0.03 (4)	10.00			
E-F	0 / 16	0.0	0.0	0.01 (1)	10.00			
F-B	-174 / 0	0.0	0.0	0.02 (1)	7.81			
E-D	0 / 3	-18.5	-18.5	0.01 (4)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

CSI: TC=0.08/1.00 (C-D:1), BC=0.16/1.00 (G-H:1), WB=0.04/1.00 (C-F:1), SSI=0.12/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

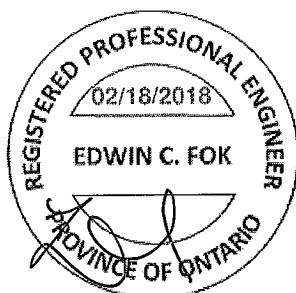
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION
 (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

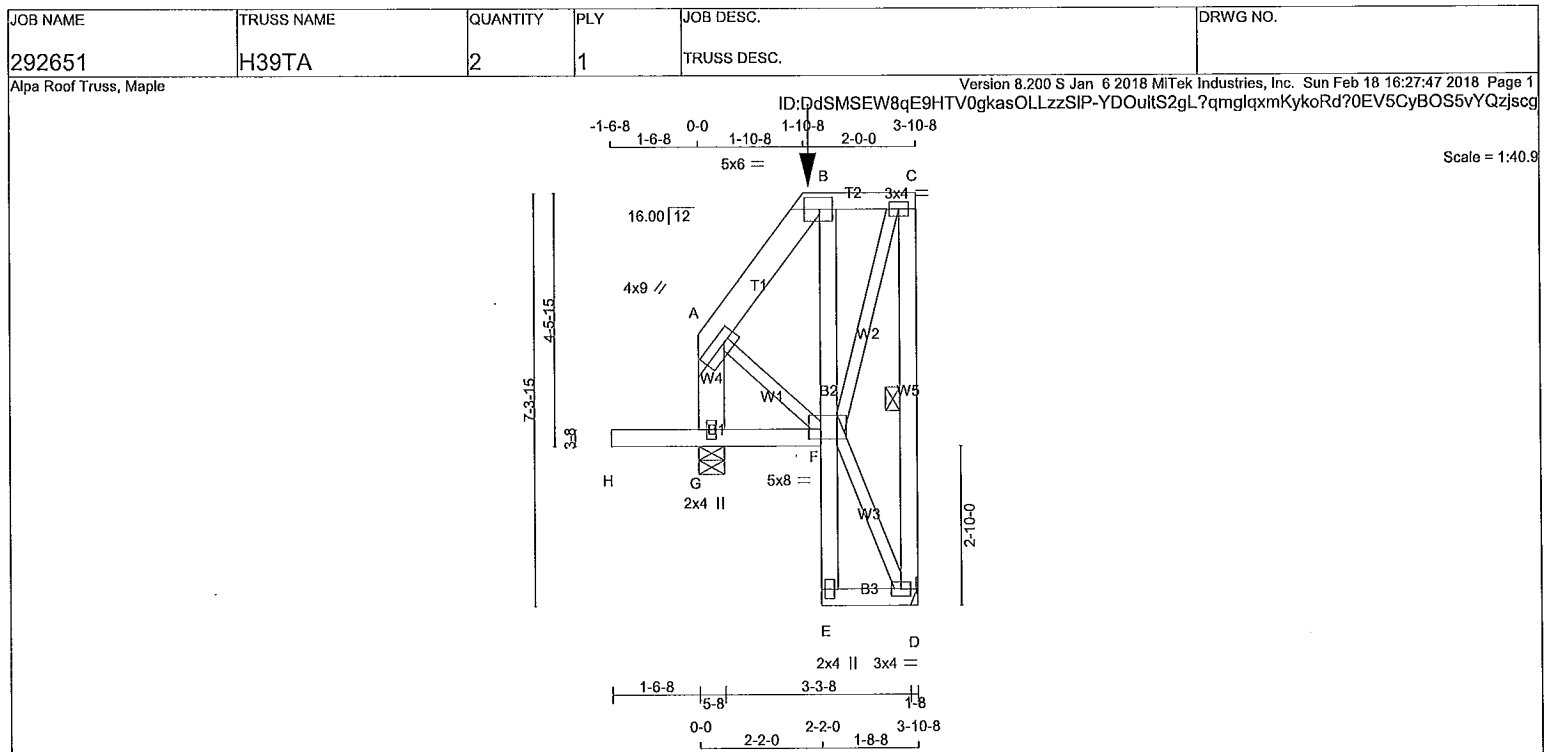
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.25 (F) (INPUT = 0.90)
 JSI METAL= 0.08 (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-18023820



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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

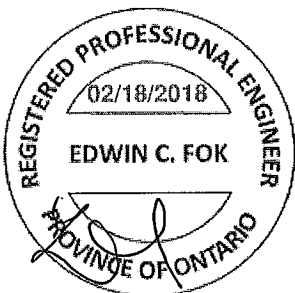
PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-I	MT20	4.0	9.0	2.00	3.00
B	TMTV-I	MT20	5.0	6.0	2.50	2.75
C	TMVW-I	MT20	3.0	4.0		
D	BMVW-I	MT20	3.0	4.0		
E	BMV+p	MT20	2.0	4.0		
F	BVMWW-I	MT20	5.0	8.0	2.00	2.50
G	BMV1+p	MT20	2.0	4.0		

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 51.3 lbs FACTORED DOWN AT 2-3-12 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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



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

BEARINGS

	FACTORED		MAXIMUM FACTORED		INPUT	REQD
	GROSS REACTION	GROSS REACTION	DOWN	HORIZ	BRG	BRG
JT	VERT	HORIZ	DOWN	HORIZ	IN-SX	IN-SX
D	258	0	258	0	0	HANGER BY OTHERS
G	375	0	375	0	0	MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

	1ST LCASE		MAX./MIN. COMPONENT REACTIONS				DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND			
D	183	114 / 0	0 / 0	0 / 0	0 / 0	70 / 0	0 / 0	0 / 0
G	267	161 / 0	0 / 0	0 / 0	0 / 0	106 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (5)

MEMB.	CHORDS		WEBS			
	MAX. FACTORED	FACTORED	MAX. FACTORED	MAX. FACTORED	MAX. FACTORED	MAX. FACTORED
	FORCE	VERT. LOAD	FORCE	FORCE	FORCE	FORCE
	(LBS)	(PLF)	(LBS)	(LBS)	(LBS)	(LBS)
FR-TO		FROM TO	LENGTH	FR-TO		
A-B	-92 / 0	-78.0 -78.0	0.04 (1)	6.25	F-D	-4 / 0
B-C	-58 / 0	-101.5 -101.5	0.05 (1)	6.25	F-C	0 / 167
D-C	-235 / 0	0.0 0.0	0.06 (1)	6.25	A-F	0 / 70
G-A	-198 / 0	0.0 0.0	0.02 (1)	7.81		
H-G	0 / 0	-96.5 -96.5	0.17 (1)	10.00		
G-F	0 / 0	-24.1 -24.1	0.04 (4)	10.00		
E-F	0 / 21	0.0 0.0	0.01 (1)	10.00		
F-B	-151 / 0	0.0 0.0	0.01 (1)	7.81		
E-D	0 / 2	-24.1 -24.1	0.02 (4)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE
B	2-3-12	-51	-51	-	FRONT	VERT	TOTAL

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C

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

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 2-3-12

RIGHT SETBACK = 0-0

END SETBACK = 3-2-8

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, OBC 2018

- CSA 086-09, CSA 086-14

- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL) = L/360 (0.19")

CALCULATED VERT. DEFL.(LL) = L/999 (0.00")

ALLOWABLE DEFL.(TL) = L/360 (0.19")

CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CANTILEVER DEFLECTION:

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

CALCULATED VERT. DEFL.(LL) = L/999 (0.01")

ALLOWABLE DEFL.(TL) = L/120 (0.19")

CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.06/1.00 (C-D:1), BC=0.17/1.00 (G-H:1)

, VB=0.04/1.00 (C-F:1), SSI=0.13/1.00 (G-H:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00

COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

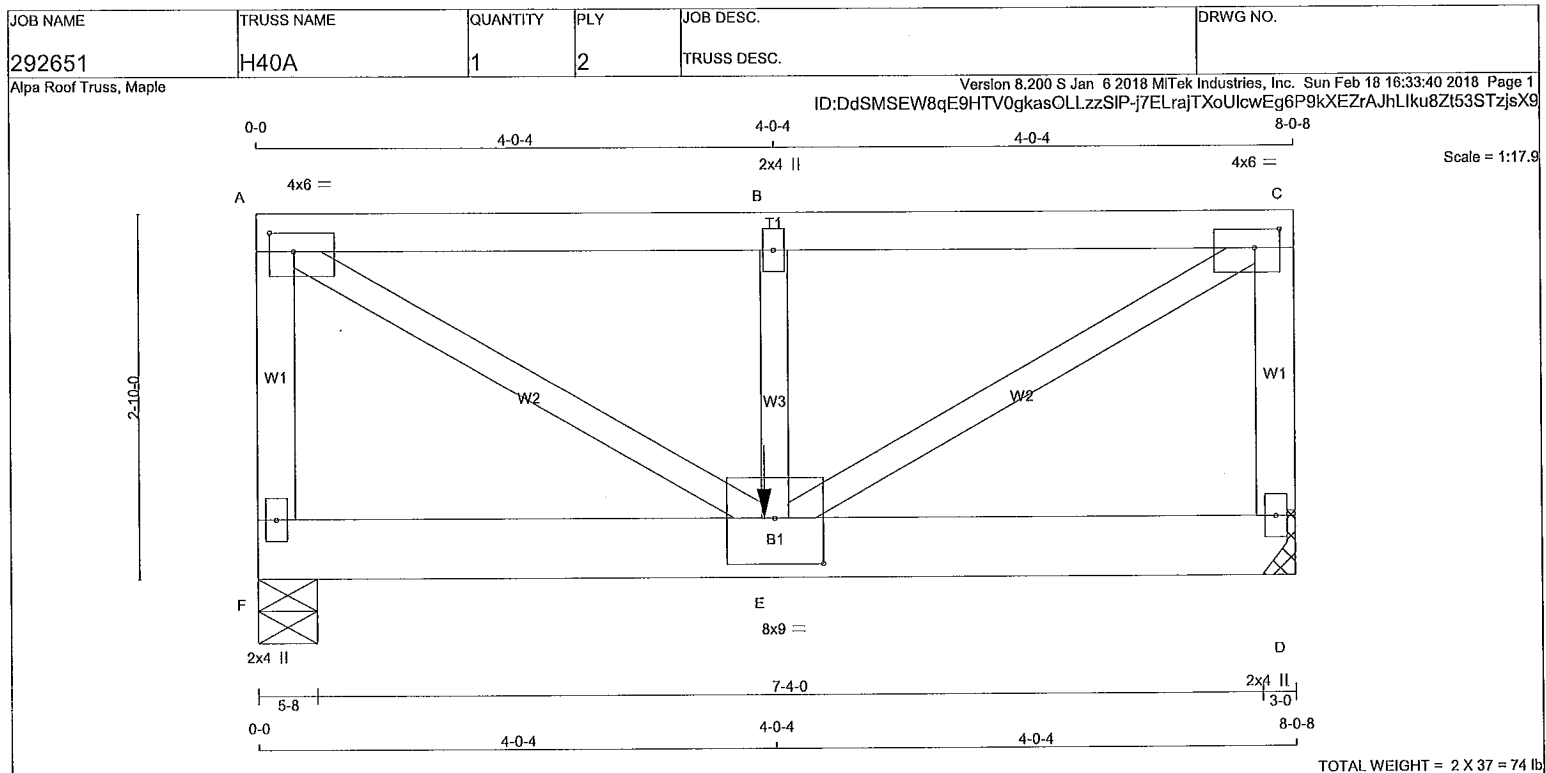
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

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

A-18023821

CONTINUED ON PAGE 2



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

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
F-A	1 12	TOP
A-C	1 8	SIDE(139.8)
C-D	1 12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
F-D	2 9	SIDE(248.7)
WEBS : (0.122"x3") SPIRAL NAILS		
B-E	1 6	SIDE(133.3)
2x3	1 6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

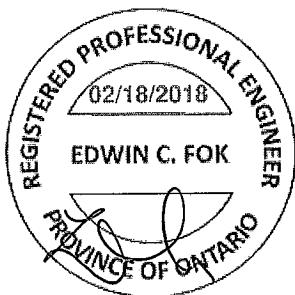
TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.75	2.25
B	TMW+w	MT20	2.0	4.0		

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



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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
F	3144	0	3144	0	0
D	3647	0	3647	0	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT	REACTIONS	WIND	DEAD	SOIL
F	2242	1368 / 0	0 / 0	0 / 0	0 / 0	873 / 0	0 / 0
D	2601	1587 / 0	0 / 0	0 / 0	0 / 0	1013 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.34 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
F-A	-2254 / 0	A-E	0 / 4180
A-B	-3566 / 0	E-B	-1042 / 0
B-C	-3566 / 0	E-C	0 / 4180
D-C	-2816 / 0		
F-E	0 / 0		
E-D	0 / 0		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
E	3-11-4	-1008	-1008	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 3-11-3
START SPAN CARRIED = 13-7-2
END DISTANCE = 8-0-8
END SPAN CARRIED = 13-7-2
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF TOP CHORD.
- ADDTL. LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 3-2-8
END DISTANCE = 3-11-4
END SPAN CARRIED = 3-2-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL. LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 21-5-0
END DISTANCE = 8-0-8
END SPAN CARRIED = 21-5-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL. LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.27")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292651	H40A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 16:33:40 2018 Page 2
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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
C	TMVW-t	MT20	4.0	6.0	1.75	2.25
D	BMV1+p	MT20	2.0	4.0		
E	BMWWW-t	MT20	8.0	9.0	4.25	4.50
F	BMV1+p	MT20	2.0	4.0		

HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 1008.5 lbs FACTORED DOWN AT 3-11-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

CSI: TC=0.49/1.00 (B-C:1) , BC=0.28/1.00 (E-F:1) ,
WB=0.52/1.00 (A-E:1) , SSI=0.39/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

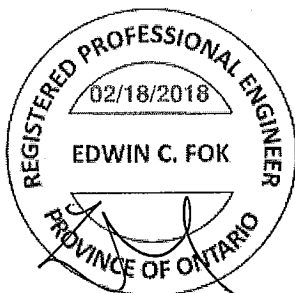
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

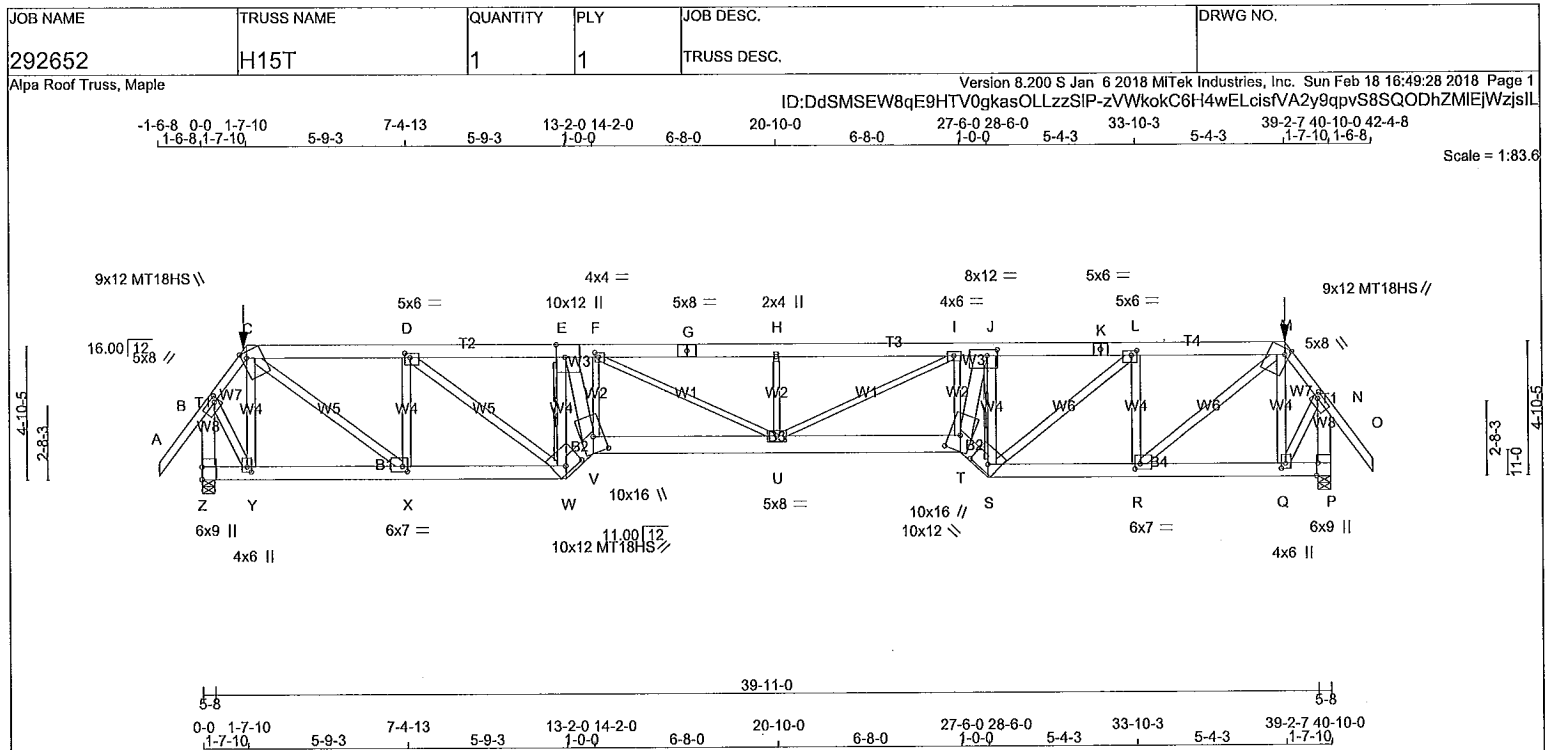
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (A) (INPUT = 0.90)
JSI METAL= 0.45 (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

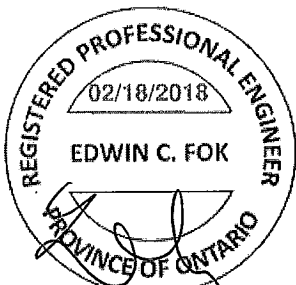


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LUMBER N. L. G. A. RULES CHORDS SIZE A - C 2x4 DRY No.2 SPF C - G 2x6 DRY 1650F 1.5E SPF G - K 2x6 DRY 1650F 1.5E SPF K - M 2x6 DRY 1650F 1.5E SPF M - O 2x4 DRY No.2 SPF Z - B 2x6 DRY No.2 SPF P - N 2x6 DRY No.2 SPF Z - W 2x6 DRY 1650F 1.5E SPF W - V 2x8 DRY 1950F 1.7E SPF V - T 2x8 DRY 1950F 1.7E SPF T - S 2x8 DRY 1950F 1.7E SPF S - P 2x6 DRY 1650F 1.5E SPF ALL WEBS EXCEPT C - X 2x4 DRY No.2 SPF D - W 2x4 DRY No.2 SPF E - V 2x6 DRY 1650F 1.5E SPF V - F 2x3 DRY No.2 SPF T - I 2x3 DRY No.2 SPF T - J 2x6 DRY 1650F 1.5E SPF S - L 2x4 DRY No.2 SPF R - M 2x4 DRY No.2 SPF B - Y 2x4 DRY No.2 SPF Q - N 2x4 DRY No.2 SPF U - I 2x3 DRY No.2 SPF F - U 2x3 DRY No.2 SPF U - H 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQD JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX Z 3984 0 3984 0 0 5-8 5-8 P 3985 0 3985 0 0 5-8 5-8 ALLOW FOR 0.4" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD. UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL Z 2838 1745 / 0 0 / 0 0 / 0 1094 / 0 0 / 0 P 2839 1745 / 0 0 / 0 0 / 0 1094 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) Z, P BEARING SIZE FACTOR = 1.15 AT JNT(S) Z, P (BASED ON SUPPORT DEPTH = 1-8) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.64 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. 2x4 DRY SPF No.2 T-BRACE AT E-W, J-S 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 MEMB. FORCE (LBS) FACTORED VERT. LOAD (PLF) MAX. CSF (LC) WEBS MAX. FACTORED MEMB. FORCE (LBS) MAX. CSF (LC) FR-TO FROM TO LENGTH FR-TO A-B 0 / 52 -78.0 -78.0 0.17 (1) 10.00 Y-C -1571 / 0 0.25 (1) B-C -2503 / 0 -78.0 -78.0 0.25 (1) 4.09 C-X 0 / 5092 0.90 (1) C-D -5465 / 0 -153.5 -153.5 0.39 (1) 3.94 X-D -2988 / 0 0.48 (1) D-E -8067 / 0 -153.5 -153.5 0.51 (1) 3.22 D-W 0 / 3249 0.57 (1) E-F -10696 / 0 -153.5 -153.5 0.37 (1) 2.97 W-E -9139 / 0 0.92 (1) F-G -11664 / 0 -78.0 -78.0 0.69 (1) 2.64 E-V 0 / 9096 0.74 (1) G-H -11664 / 0 -78.0 -78.0 0.69 (1) 2.64 V-F -736 / 0 0.16 (1) H-I -11664 / 0 -78.0 -78.0 0.68 (1) 2.65 T-I -942 / 0 0.20 (1) I-J -10384 / 0 -153.5 -153.5 0.33 (1) 3.05 T-J 0 / 9022 0.74 (1) J-K -7774 / 0 -153.5 -153.5 0.45 (1) 3.34 S-J -8989 / 0 0.91 (1) K-L -7774 / 0 -153.5 -153.5 0.45 (1) 3.34 S-L 0 / 3294 0.58 (1) L-M -5209 / 0 -153.5 -153.5 0.34 (1) 4.07 R-L -3041 / 0 0.48 (1) M-N -2498 / 0 -78.0 -78.0 0.25 (1) 4.10 R-M 0 / 4914 0.87 (1) N-O 0 / 52 -78.0 -78.0 0.17 (1) 10.00 Q-M -1581 / 0 0.25 (1) Z-B -4044 / 0 0.0 0.0 0.41 (1) 5.29 B-Y 0 / 2340 0.41 (1) P-N -4037 / 0 0.0 0.0 0.41 (1) 5.29 Q-N 0 / 2336 0.41 (1) Z-Y 0 / 0 -36.4 -36.4 0.08 (1) 10.00 U-I 0 / 1410 0.35 (1) Y-X 0 / 1415 -36.4 -36.4 0.20 (1) 10.00 F-U 0 / 1065 0.26 (1) X-W 0 / 5486 -36.4 -36.4 0.52 (1) 10.00 U-H -568 / 0 0.12 (1) W-V 0 / 10718 -36.4 -36.4 0.49 (1) 10.00 V-U 0 / 10719 -112.0 -112.0 0.65 (1) 10.00 U-T 0 / 10413 -112.0 -112.0 0.63 (1) 10.00 T-S 0 / 10320 -36.4 -36.4 0.47 (1) 10.00 S-R 0 / 5210 -36.4 -36.4 0.49 (1) 10.00 R-Q 0 / 1412 -36.4 -36.4 0.19 (1) 10.00 Q-P 0 / 0 -36.4 -36.4 0.08 (1) 10.00			DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN. C/C LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM GIRDER TYPE: CPrimeHip SIDE SETBACK = 1-7-10 END SETBACK = 5-10-8 END WALL WIDTH = 0-0 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: CONVENTIONAL APPLIED TO FRONT SIDE - ADDTL. LOADS BASED ON 55 % OF GSL. LOADS APPLIED TO FIRST 14-2-0 OF SPAN MEASURED FROM THE LEFT. GIRDER TYPE: CStdGirder START DISTANCE = 14-2-0 START SPAN CARRIED = 5-10-8 END DISTANCE = 27-6-0 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. GIRDER TYPE: CPrimeHip SIDE SETBACK = 1-7-10 END SETBACK = 5-10-8 END WALL WIDTH = 0-0 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: CONVENTIONAL APPLIED TO FRONT SIDE - ADDTL. LOADS BASED ON 55 % OF GSL. LOADS APPLIED TO FIRST 13-4-0 OF SPAN MEASURED FROM THE RIGHT. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, OBC 2018 - CSA 086-09, CSA 086-14 - TPIC 2011, TPIC 2014 DESIGN ASSUMPTIONS - OVERHANG NOT TO BE ALTERED OR CUT OFF. (55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL) = L/360 (1.36") CALCULATED VERT. DEFL.(LL) = L/724 (0.68") ALLOWABLE DEFL.(TL) = L/360 (1.36") CALCULATED VERT. DEFL.(TL) = L/368 (1.33") CSI: TC=0.69/1.00 (F-H:1), BC=0.65/1.00 (U-V:1), WB=0.92/1.00 (E-W:1), SSI=0.36/1.00 (C-D:1) A-18023823 CONTINUE ON PAGE 2		
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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



PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
J	TMWW-t	MT20	8.0	12.0	2.75	4.25
K	TS-t	MT20	5.0	6.0		
L	TMWW-t	MT20	5.0	6.0	2.00	2.25
M	TTWW+m	MT18HS	9.0	12.0	Edge	2.00
N	TMWW-t	MT20	5.0	8.0	2.00	2.00
P	BMV1-t	MT20	6.0	9.0	Edge	0.50
Q	BMWW-t	MT20	4.0	6.0	2.25	1.75
R	BMWW-t	MT20	6.0	7.0	2.25	2.25
S	BBWW-h	MT20	10.0	12.0	3.25	7.50
T	BBWW+m	MT20	10.0	16.0	6.75	4.75
U	BMWWW-t	MT20	5.0	8.0		
V	BBWW-m	MT20	10.0	16.0	4.50	7.00
W	BBWW-h	MT18HS	10.0	12.0	2.75	7.00
X	BMWW-t	MT20	6.0	7.0	2.25	2.00
Y	BMWW-t	MT20	4.0	6.0	2.25	1.75
Z	BMV1-t	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) 93.0 lbs FACTORED DOWN AT 1-7-10, AND 93.0 lbs FACTORED DOWN AT 39-2-7 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
C	1-7-10	-93	-93	---	FRONT	VERT	TOTAL
M	39-2-7	-93	-93	---	FRONT	VERT	TOTAL

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

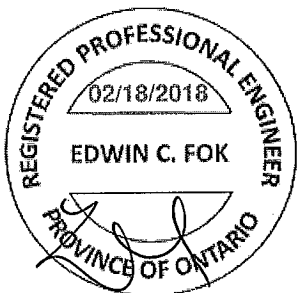
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT18HS	511	354	2455
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

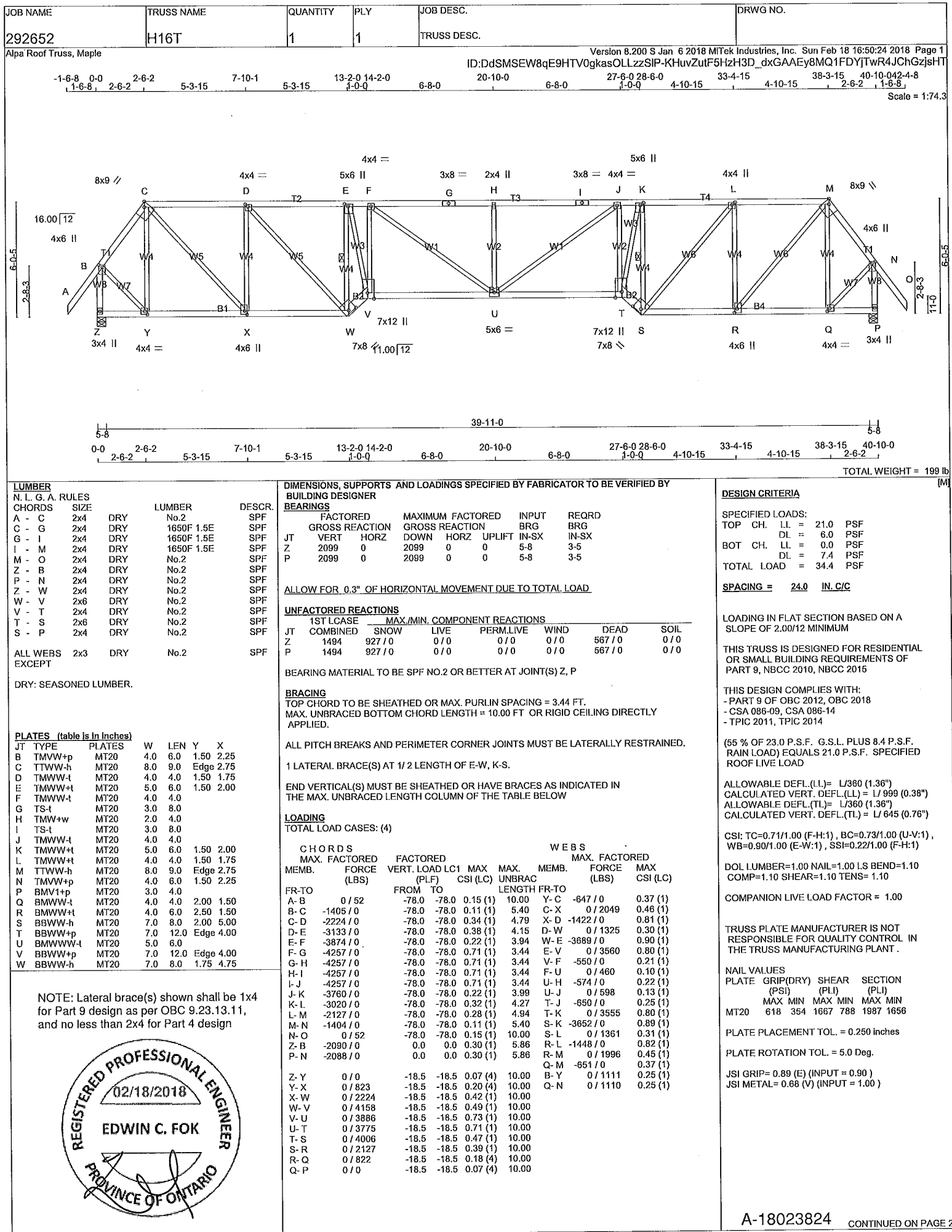
PLATE ROTATION TOL. = 5.0 Deg.

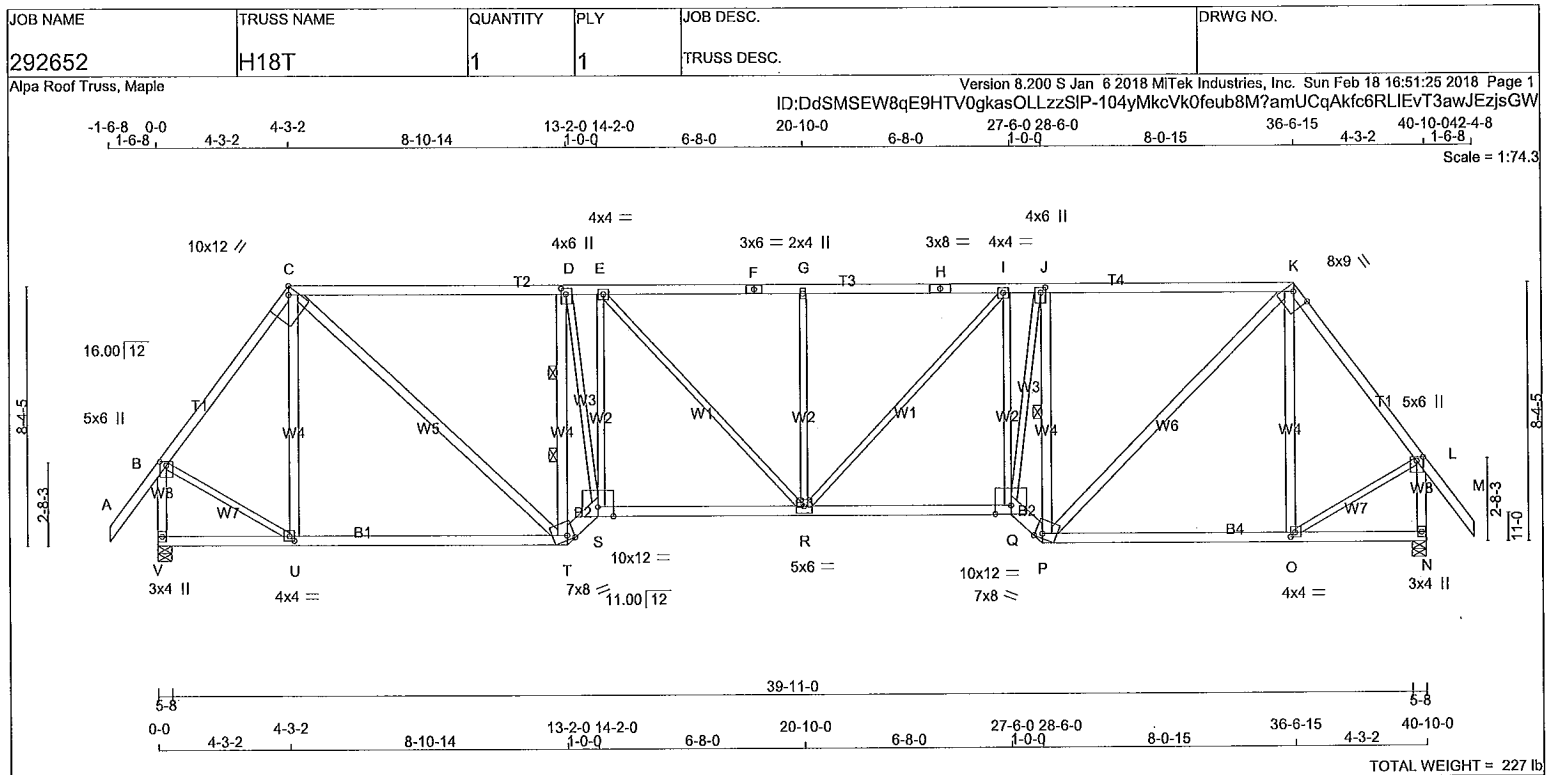
JSI GRIP= 0.90 (C) (INPUT = 0.90)
JSI METAL= 1.00 (E) (INPUT = 1.00)

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



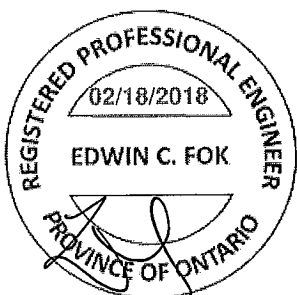
A-18023828(2)

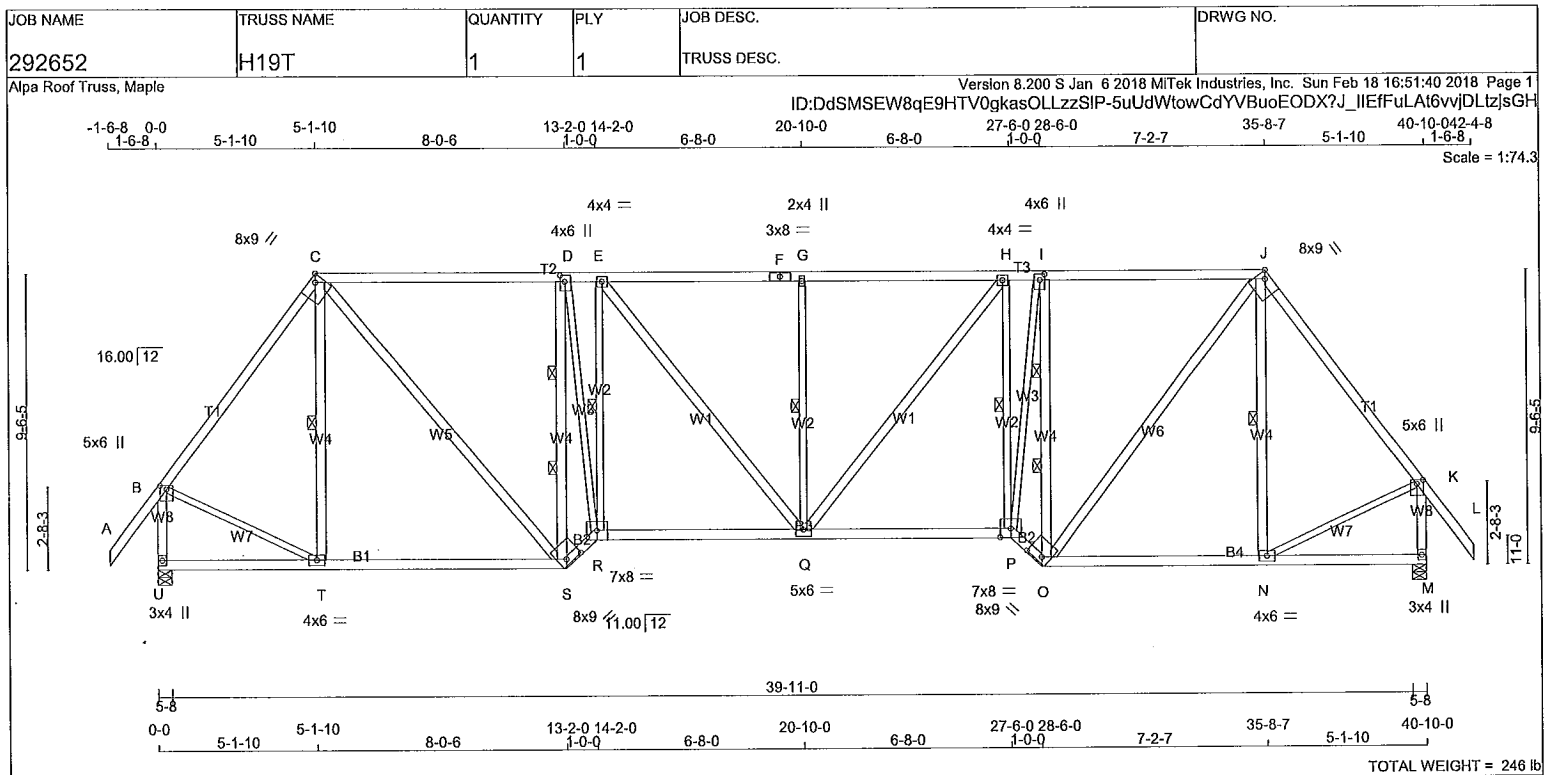




LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x4 DRY No.2 SPF C - F 2x4 DRY 2100F 1.8E SPF F - H 2x4 DRY 2100F 1.8E SPF H - K 2x4 DRY 2100F 1.8E SPF K - M 2x4 DRY No.2 SPF V - B 2x4 DRY No.2 SPF N - L 2x4 DRY No.2 SPF V - T 2x4 DRY No.2 SPF T - S 2x6 DRY No.2 SPF S - Q 2x4 DRY No.2 SPF Q - P 2x6 DRY No.2 SPF P - N 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT U - C 2x4 DRY No.2 SPF C - T 2x4 DRY No.2 SPF T - D 2x4 DRY No.2 SPF P - J 2x4 DRY No.2 SPF P - K 2x4 DRY No.2 SPF O - K 2x4 DRY No.2 SPF DRY: SEASONED LUMBER.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED MAXIMUM FACTORED INPUT REQD GROSS REACTION GROSS REACTION BRG BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX V 2099 0 2099 0 0 5-8 3-5 N 2099 0 2099 0 0 5-8 3-5 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL V 1494 927 / 0 0 / 0 0 / 0 567 / 0 0 / 0 N 1494 927 / 0 0 / 0 0 / 0 567 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) V, N BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.03 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. 2 LATERAL BRACE(S) AT 1/3 LENGTH OF D-T. 1 LATERAL BRACE(S) AT 1/2 LENGTH OF J-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 MAX. FACTORED MEMB. FORCE VERT. LOAD LC1 MAX. MAX. MEMB. FORCE MAX. (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC) FR-TO FROM TO A-B 0 / 52 -78.0 -78.0 0.15 (1) 10.00 U-C -343 / 0 0.34 (1) B-C -1810 / 0 -78.0 -78.0 0.35 (1) 4.90 C-T 0 / 1784 0.29 (1) C-D -2286 / 0 -78.0 -78.0 0.92 (1) 4.27 T-D -3231 / 0 0.55 (1) D-E -2598 / 0 -78.0 -78.0 0.68 (1) 4.03 D-S 0 / 2160 0.49 (1) E-F -2874 / 0 -78.0 -78.0 0.45 (1) 4.54 S-E -12 / 76 0.02 (1) F-G -2874 / 0 -78.0 -78.0 0.45 (1) 4.54 E-R 0 / 409 0.09 (1) G-H -2874 / 0 -78.0 -78.0 0.45 (1) 4.54 R-G -596 / 0 0.59 (1) H-I -2874 / 0 -78.0 -78.0 0.45 (1) 4.54 R-I 0 / 519 0.12 (1) I-J -2519 / 0 -78.0 -78.0 0.52 (1) 4.49 Q-I -274 / 0 0.27 (1) J-K -2198 / 0 -78.0 -78.0 0.65 (1) 4.75 Q-J 0 / 2356 0.53 (1) K-L -1606 / 0 -78.0 -78.0 0.34 (1) 4.90 P-J -3110 / 0 0.99 (1) L-M 0 / 52 -78.0 -78.0 0.15 (1) 10.00 P-K 0 / 1748 0.28 (1) V-B -2088 / 0 0.0 0.0 0.30 (1) 5.86 O-K -357 / 0 0.35 (1) N-L -2083 / 0 0.0 0.0 0.30 (1) 5.87 B-U 0 / 1083 0.24 (1) O-L 0 / 1080 0.24 (1) V-U 0 / 0 -18.5 -18.5 0.31 (4) 10.00 U-T 0 / 955 -18.5 -18.5 0.40 (4) 10.00 T-S 0 / 3150 -18.5 -18.5 0.37 (1) 10.00 S-R 0 / 2597 -18.5 -18.5 0.54 (1) 10.00 R-Q 0 / 2523 -18.5 -18.5 0.53 (1) 10.00 Q-P 0 / 2905 -18.5 -18.5 0.34 (1) 10.00 P-O 0 / 951 -18.5 -18.5 0.35 (4) 10.00 O-N 0 / 0 -18.5 -18.5 0.25 (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.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL) = L/360 (1.36") CALCULATED VERT. DEFL.(LL) = L/999 (0.21") ALLOWABLE DEFL.(TL) = L/360 (1.36") CALCULATED VERT. DEFL.(TL) = L/999 (0.44") CSI: TC=0.92/1.00 (C-D:1), BC=0.54/1.00 (R-S:1), WB=0.99/1.00 (J-P:1), SSI=0.52/1.00 (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 (P.SI) (P.LI) (P.LI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 788 1987 1656 PLATE PLACEMENT TOL. = 0.250 Inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.90 (K) (INPUT = 0.90) JSI METAL= 0.56 (T) (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





LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - F	2x4	DRY	1650F 1.5E	SPF	
F - J	2x4	DRY	1650F 1.5E	SPF	
J - L	2x4	DRY	No.2	SPF	
U - B	2x4	DRY	No.2	SPF	
M - K	2x4	DRY	No.2	SPF	
U - S	2x4	DRY	No.2	SPF	
S - R	2x4	DRY	No.2	SPF	
R - P	2x4	DRY	No.2	SPF	
P - O	2x4	DRY	No.2	SPF	
O - M	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x4	DRY	No.2	SPF	
D - R	2x3	DRY	No.2	SPF	
R - E	2x3	DRY	No.2	SPF	
Q - G	2x3	DRY	No.2	SPF	
P - H	2x3	DRY	No.2	SPF	
P - I	2x3	DRY	No.2	SPF	
B - T	2x3	DRY	No.2	SPF	
N - K	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	1.50	2.50
C	TTWW-h	MT20	8.0	9.0	Edge	2.75
D	TMWW-h	MT20	4.0	6.0	2.50	1.75
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	8.0		
G	TMW+w	MT20	2.0	4.0		
H	TMWW-t	MT20	4.0	4.0		
I	TMWW-h	MT20	4.0	6.0	2.25	1.75
J	TTWW-h	MT20	8.0	9.0	Edge	2.75
K	TMVW+p	MT20	5.0	6.0	1.50	2.50
M	BMV1+p	MT20	3.0	4.0		
N	BMWW-t	MT20	4.0	6.0		
O	BBWW-h	MT20	8.0	9.0	2.00	6.00
P	BBWW-t	MT20	7.0	8.0	3.25	4.00
Q	BMWWW-t	MT20	5.0	6.0		

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	UP	IN-SX
U	2099	0	0	5-8
M	2099	0	0	5-8

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE
U	1494	927 / 0	0 / 0	0 / 0
M	1494	927 / 0	0 / 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 = 3.93 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-T, E-R, G-Q, H-P, J-N.

2 LATERAL BRACE(S) AT 1/3 LENGTH OF D-S, I-O.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	T-C	-273 / 5	0.12 (1)
B-C	-1640 / 0	-78.0	-78.0 0.55 (1)	4.68	C-S	0 / 1507	0.24 (1)
C-D	-1969 / 0	-78.0	-78.0 0.90 (1)	4.14	S-D	-2892 / 0	0.61 (1)
D-E	-2215 / 0	-78.0	-78.0 0.71 (1)	3.93	D-R	0 / 1995	0.45 (1)
E-F	-2470 / 0	-78.0	-78.0 0.55 (1)	4.37	R-E	-87 / 0	0.04 (1)
F-G	-2470 / 0	-78.0	-78.0 0.55 (1)	4.37	E-Q	0 / 411	0.07 (1)
G-H	-2470 / 0	-78.0	-78.0 0.55 (1)	4.37	Q-G	-591 / 0	0.28 (1)
H-I	-2148 / 0	-78.0	-78.0 0.52 (1)	4.46	Q-H	0 / 513	0.08 (1)
I-J	-1893 / 0	-78.0	-78.0 0.62 (1)	4.69	P-H	-397 / 0	0.19 (1)
J-K	-1637 / 0	-78.0	-78.0 0.55 (1)	4.69	P-I	0 / 2179	0.49 (1)
K-L	0 / 52	-78.0	-78.0 0.15 (1)	10.00	O-I	-2801 / 0	0.59 (1)
U-B	-2071 / 0	0.0	0.0 0.30 (1)	5.88	O-J	0 / 1489	0.24 (1)
M-K	-2067 / 0	0.0	0.0 0.30 (1)	5.88	N-J	-284 / 0	0.12 (1)
					B-T	0 / 1068	0.24 (1)
					N-K	0 / 1066	0.24 (1)
U-T	0 / 0	-18.5	-18.5 0.26 (4)	10.00			
T-S	0 / 975	-18.5	-18.5 0.36 (4)	10.00			
S-R	0 / 2710	-18.5	-18.5 0.44 (1)	10.00			
R-Q	0 / 2216	-18.5	-18.5 0.48 (1)	10.00			
Q-P	0 / 2153	-18.5	-18.5 0.47 (1)	10.00			
P-O	0 / 2509	-18.5	-18.5 0.41 (1)	10.00			
O-N	0 / 973	-18.5	-18.5 0.31 (4)	10.00			
N-M	0 / 0	-18.5	-18.5 0.22 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = $L/360$ (1.36")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.19")
ALLOWABLE DEFL.(TL) = $L/360$ (1.36")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.41")

CSI: TC=0.90/1.00 (C-D:1), BC=0.48/1.00 (Q-R:1), WB=0.61/1.00 (D-S:1), SS=0.41/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

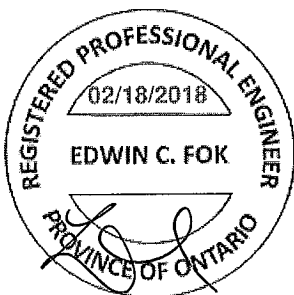
PLATE PLACEMENT TOL. = 0.250 inches

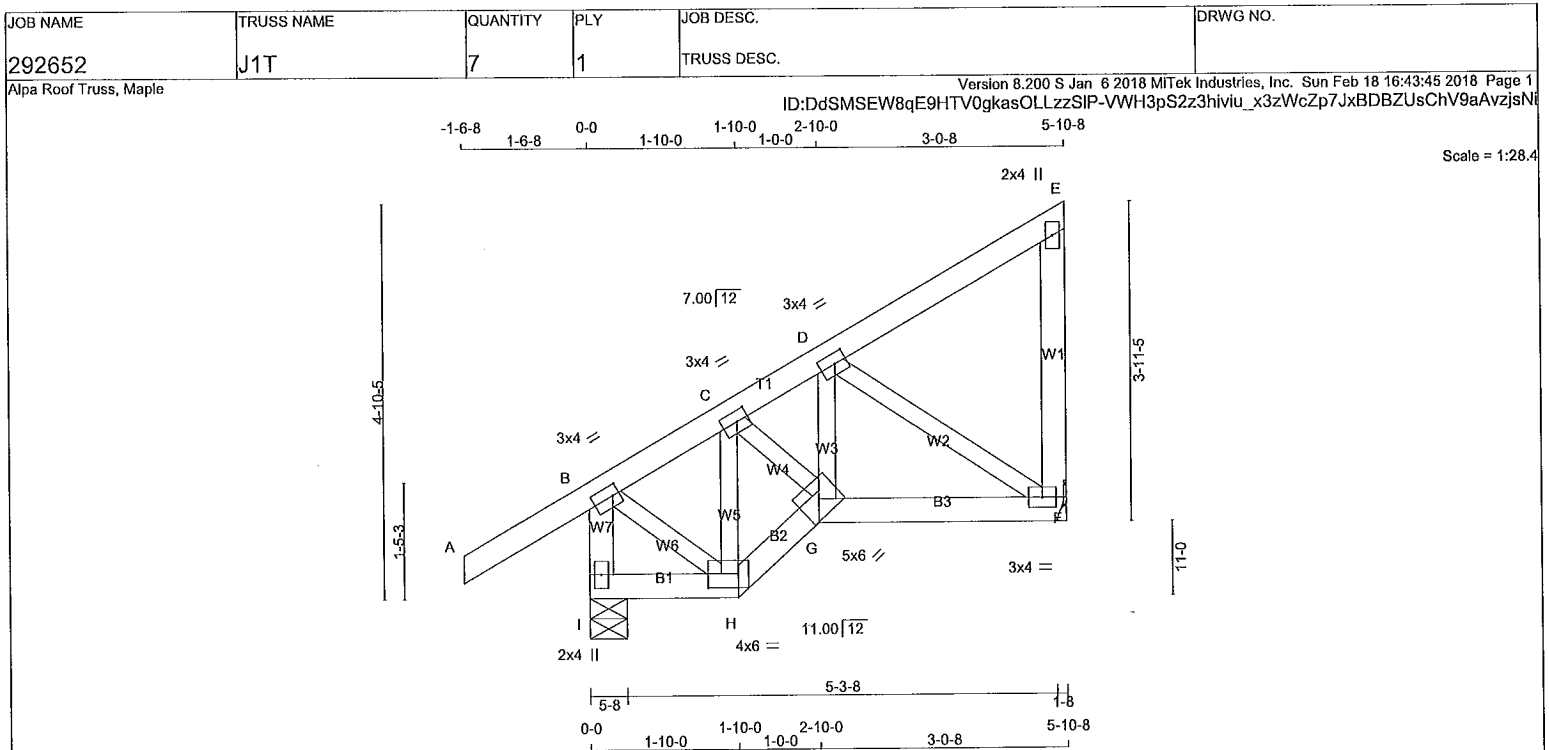
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (S) (INPUT = 0.90)
JSI METAL= 0.58 (B) (INPUT = 1.00)

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CONTINUED ON PAGE 2





TOTAL WEIGHT = 7 X 30 = 210 lb

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

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B TMVW-I	MT20	3.0	4.0	1.50 1.00
C TMWW-I	MT20	3.0	4.0	1.50 1.75
D TMWW-I	MT20	3.0	4.0	1.50 1.75
E TMV+p	MT20	2.0	4.0	
F BMVW-I	MT20	3.0	4.0	
G BBWW-h	MT20	5.0	6.0	
H BBWW-I	MT20	4.0	6.0	2.00 4.50
I BMV1+p	MT20	2.0	4.0	

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

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

HANGER BY OTHERS
MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. SNOW	MAX./MIN. LIVE	MAX./MIN. PERM. LIVE	WIND	DEAD	SOIL
I	301	200 / 0	0 / 0	0 / 0	0 / 0	101 / 0	0 / 0
F	190	114 / 0	0 / 0	0 / 0	0 / 0	76 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 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.		WEBS	
FR-TO	MAX. FACTORED FORCE (LBS)	FR-TO	MAX. FACTORED FORCE (LBS)	FR-TO	MAX. FACTORED FORCE (LBS)
I-B	-410 / 0	I-B	-410 / 0	I-B	-410 / 0
A-B	0 / 32	A-B	0 / 32	A-B	0 / 32
B-C	-178 / 0	B-C	-178 / 0	B-C	-178 / 0
C-D	-226 / 0	C-D	-226 / 0	C-D	-226 / 0
D-E	-10 / 0	D-E	-10 / 0	D-E	-10 / 0
F-E	-94 / 0	F-E	-94 / 0	F-E	-94 / 0
I-H	0 / 0	I-H	0 / 0	I-H	0 / 0
H-G	0 / 155	H-G	0 / 155	H-G	0 / 155
G-F	0 / 224	G-F	0 / 224	G-F	0 / 224

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. G/C

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

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

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

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

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

CSI: TC=0.14/1.00 (A-B:1), BC=0.07/1.00 (F-G:4), WB=0.06/1.00 (D-F:1), SSI=0.09/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

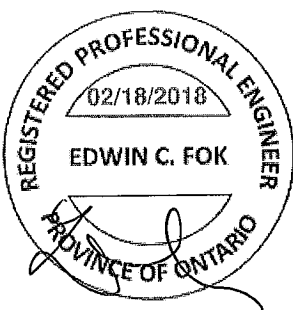
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

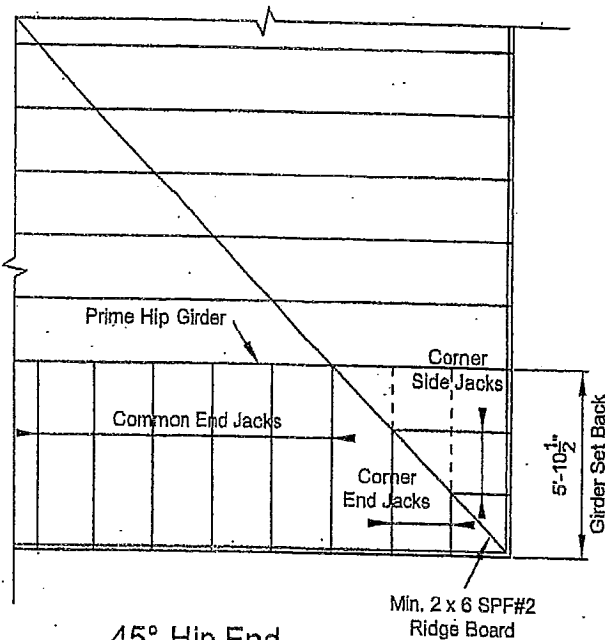
JSI GRIP= 0.48 (B) (INPUT = 0.90)
JSI METAL= 0.10 (B) (INPUT = 1.00)

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



A-18023828

STRACON ENGINEERING INC.



45° Hip End

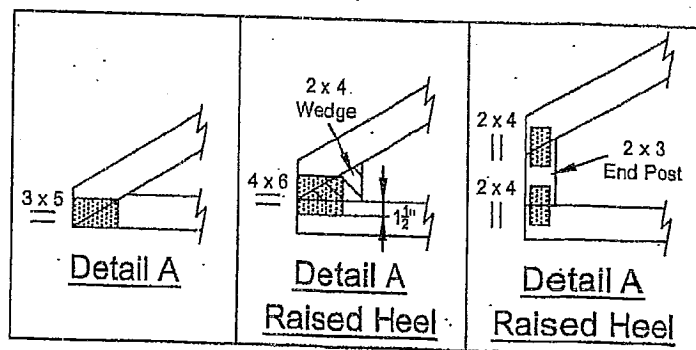
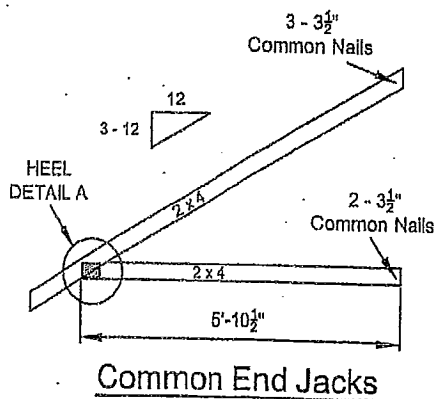
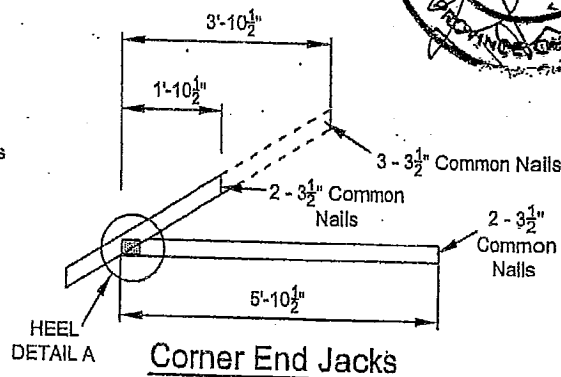
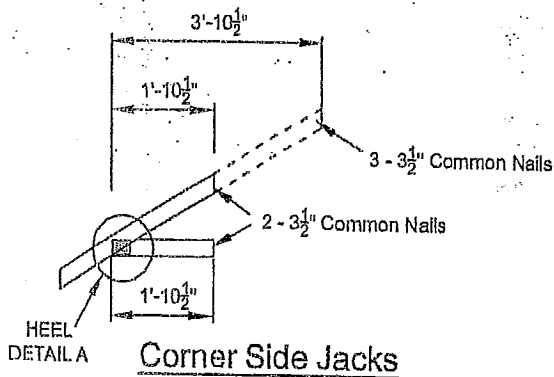
LUMBER SPECIFICATION

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

DESIGN LOAD

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

TOTAL LOAD : 50.5 P.S.F



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

CS-51008

HHUS – Double Shear Joist Hangers



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

Material: 14 gauge

Finish: G90 galvanized

Design:

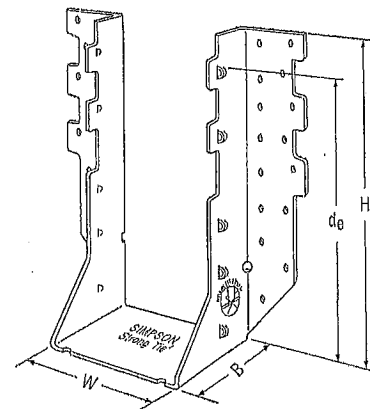
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

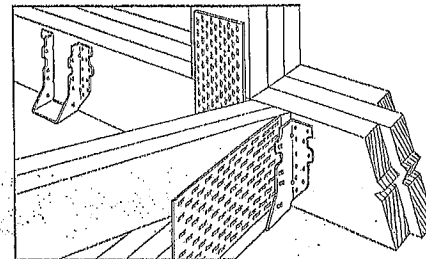
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

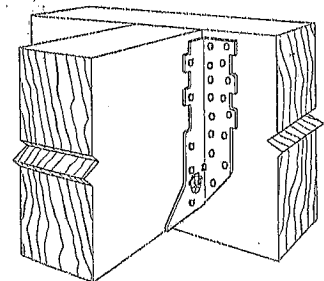
- See current catalogue for options



HHUS410



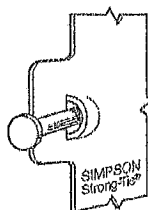
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



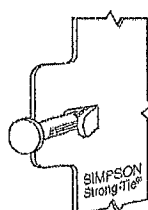
Typical HHUS Installation

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₀ ¹	Face	Joist	D-Fir-L		S-P-F	
								Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
HHUS28-2	14	3 9/16	5 13/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 9/16	7 1/2	3	6 3/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 9/16	9 3/32	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 1 1/16	9	3	7 15/16	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	4 6 1/16	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 3/8	5 13/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 3/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 3/8	9	3	8	(30) 16d	(10) 16d	4745	9855	4310	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS7.25/10	14	7 1/4	9	3 9/16	7 29/32	(30) 16d	(10) 16d	4745	10770	4310	7650

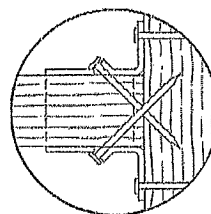
1. d₀ is the distance from the seat of the hanger to the highest joist nail.



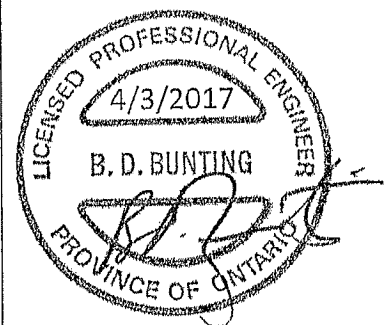
Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECHHUS17-3/17, exp. 6/19

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TC – Truss Connectors



The TC truss connector is an ideal connector for scissor trusses and can allow horizontal movement up to 1 1/4". 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

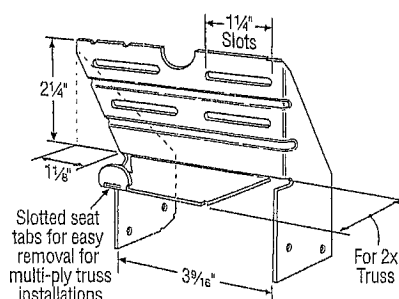
Design: Factored resistances are in accordance with CSA 086-14

Installation:

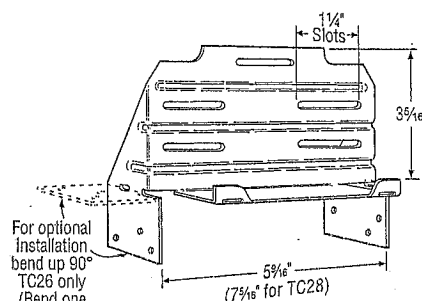
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1 1/2" = 0.148" dia. x 1 1/2" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow room under the nail head for movement of the truss with respect to the wall.

Optional TC Installation:

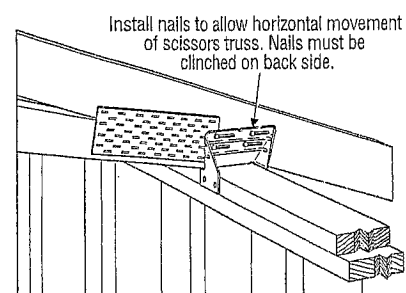
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



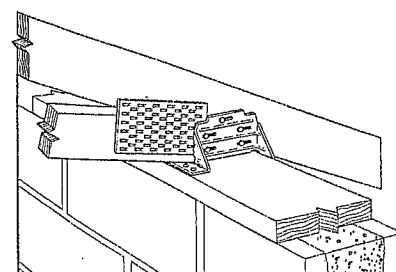
TC24
U.S. Patent 4,932,173



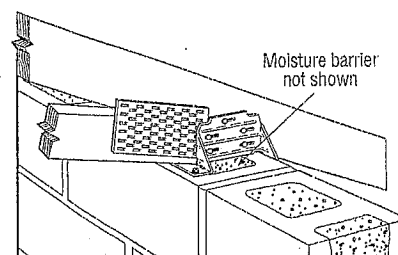
TC26
(TC28 Similar)



Typical TC24 Installation



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



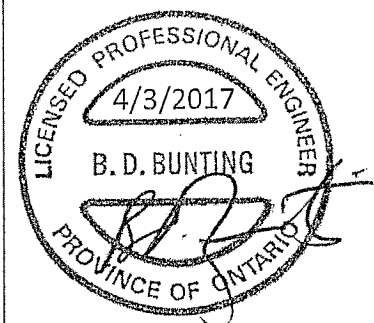
Optional TC26 Installation for Grouted Concrete Block using Titen Screws

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

Optional TC Installation Table

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K ₀ =1.15)	Uplift (K ₀ =1.15)
TC26	(5) 10d	(6) 10d x 1 1/2"	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) – 3/8" x 2 1/4" 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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LUS – Double Shear Joist Hangers

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

Material: 18 gauge

Finish: G90 galvanized

Design:

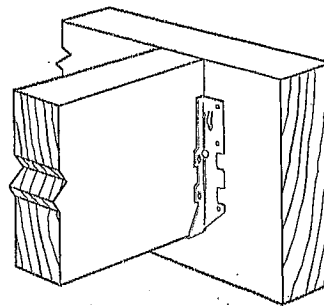
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

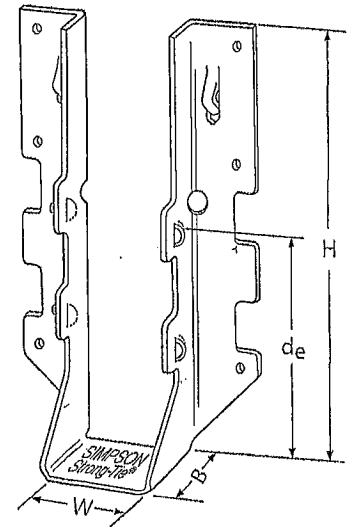
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire,
10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



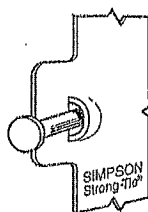
Typical LUS
Installation



LUS28

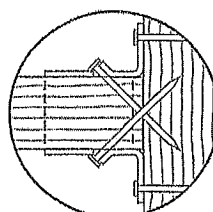
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁	Face	Joist	D.Flr-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1½	3½	1¼	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3½	3½	2	1 15/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1½	4¾	1¾	3%	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3½	4¾	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4¾	4¾	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1½	6%	1¾	3%	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4¾	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1½	7 15/16	1¾	3%	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4¾	8 3/8	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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

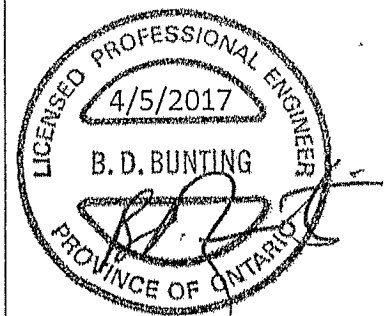


Double Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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