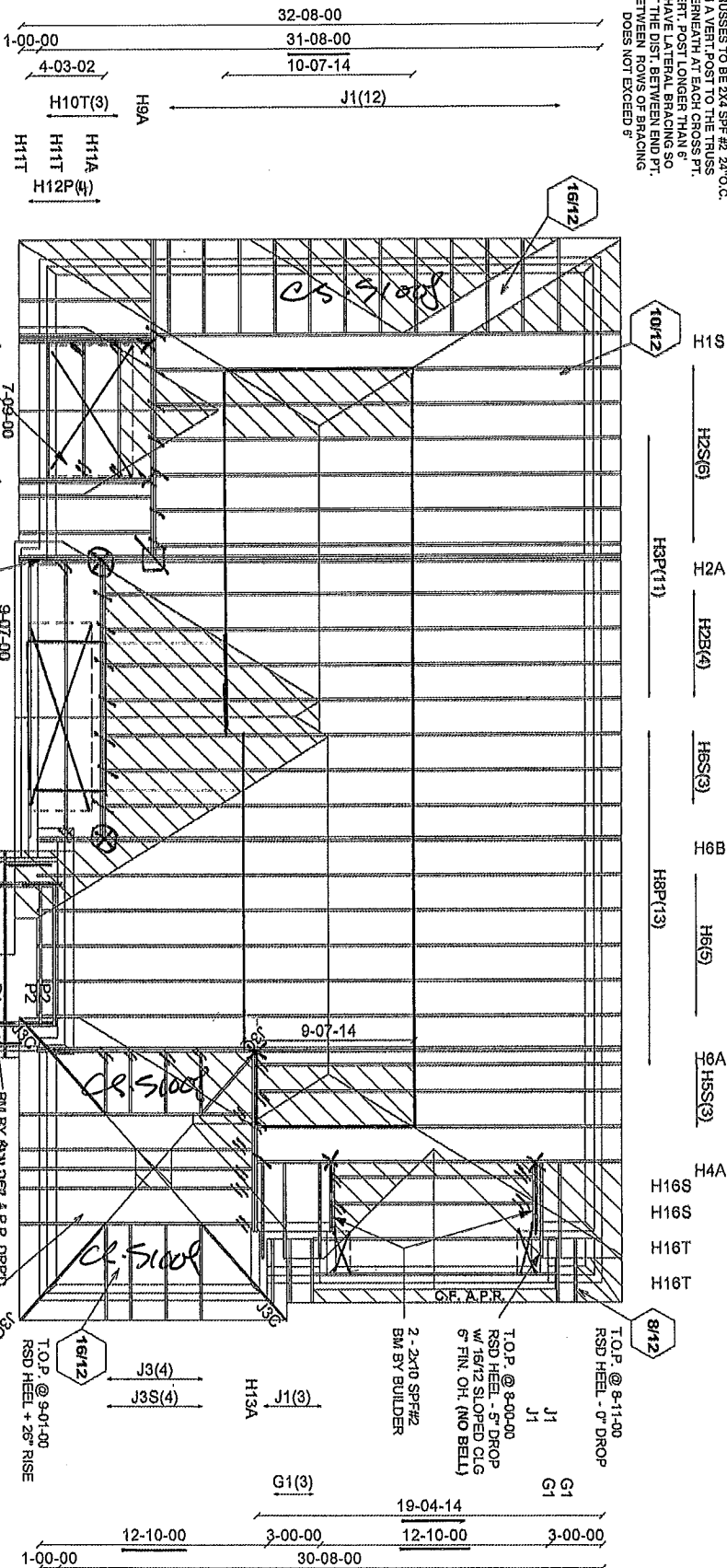


ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (LATEST EDITION) ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2x4 SP#42, 24" O.C. WITH A VENT POST TO THE TRUSS UNDER POST LONGER THAN 8' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 8'



15' B/C EXT.
BELL CURVE BY OTHERS
RSD HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" x 6" BRG/BRICK
*PIGGYBACK TRS
PURLINS BY OTHERS
CONFIRM TRUSS LAYOUT/DIRECTION
JAN/16/18

4-03-00 8-10-00 3-05-00 16-06-00 8-08-11 27-10-00 1-05-00 8-02-00 1-05-00 (DEPT BEAM LOCATION) 14-11-00

T.O.P. @ 9-01-00
RSD HEEL + 30" RISE
6" FIN. OH. (NO BELL)
w/ 8/12 VAULT CLG (4'-4" X 7'-6")

T.O.P. @ 9-01-00
RSD HEEL + 18" RISE
6" FIN. OH. (NO BELL)
w/ 8/12 VAULT CLG (3'-0" X 10'-6")

BM BY S&B/DEPT. A.P.P. DRP'D
TOP OF BEAM @ 11-01-00
PORTICO OUTER WALLS
DRP'D AS REQ'D
w/ 6" FIN. OH. (NO BELL)

OFFICE USE ONLY
ENGINEERED FROM
A-18023328 TO
A-18023326 3

LLAC

✓ LUS24
X HHUS26-2
/ USS26DS
⊗ H4US26-2
⊗ H4US28-2

CONVENTIONAL
FRAMING BY
OTHERS

ALPA-BARRIE



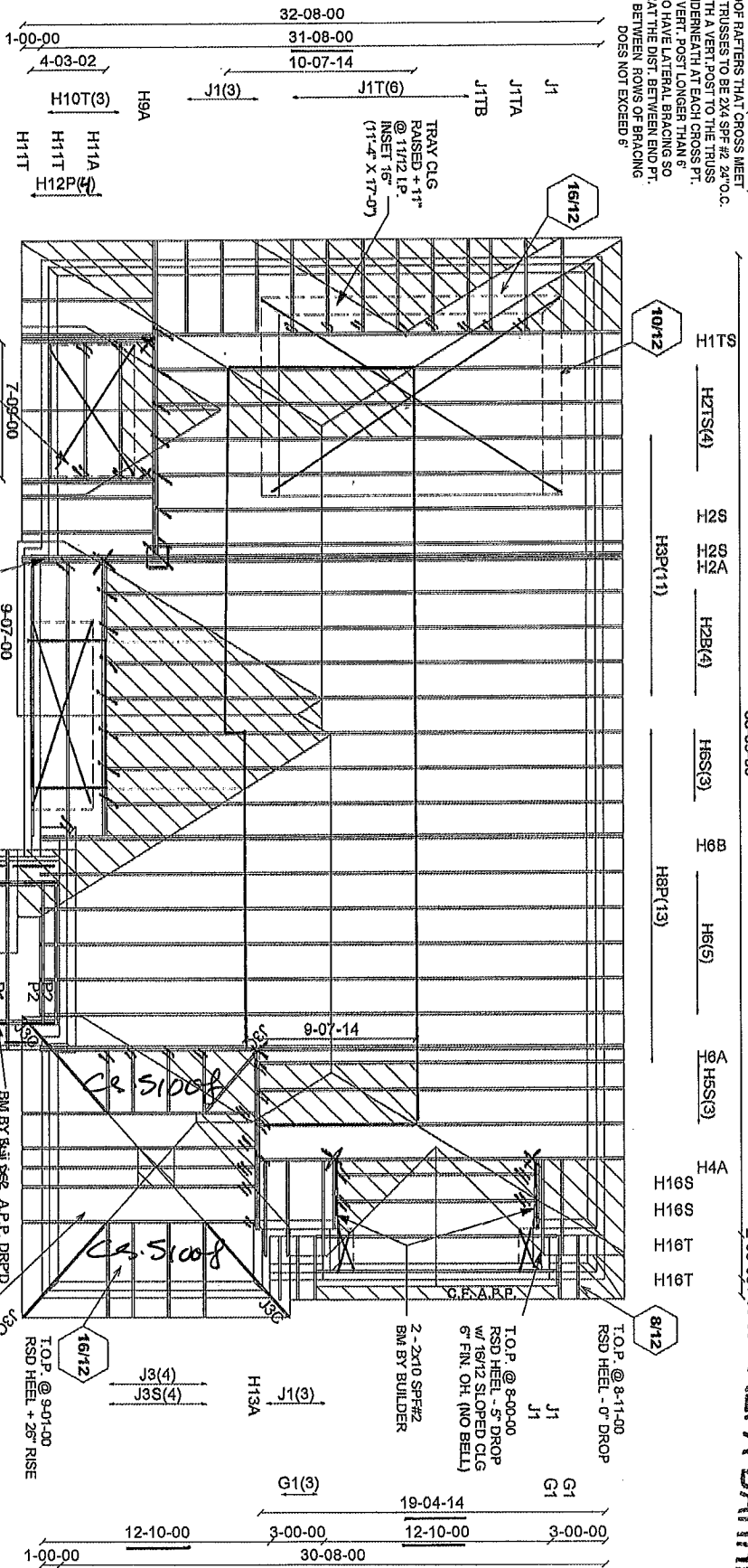
Job Track: 45147
Layout ID: 291809
Plan Log: 95233

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

Model / Elevation: 4006 / 1A

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

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



15' B/C EXT.
BELL CURVE BY OTHERS
RSD. HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" x 6" BRG/BRICK
PIG/BACK TRS
PURLINS BY OTHERS

CONFORM TRUSS LAYOUT/DIRECTION
JAN/16/18

OFFICE USE ONLY
ENGINEERED FROM
A-18023239 TO
A-18023268

CONVENTIONAL
FRAMING BY
OTHERS



Job Track: 45147
Layout ID: 292587
Plan Log: 95914

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

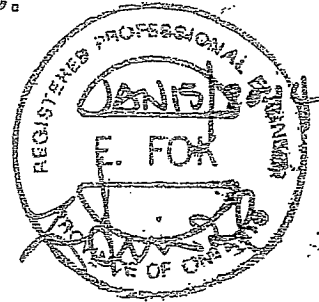
Model / Elevation:
4006 REV1
These drawings constitute the property of ALPA ROOF TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

1/A OPT TRAY

ALPA-BARRIE

Stracon Engineering Inc.

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



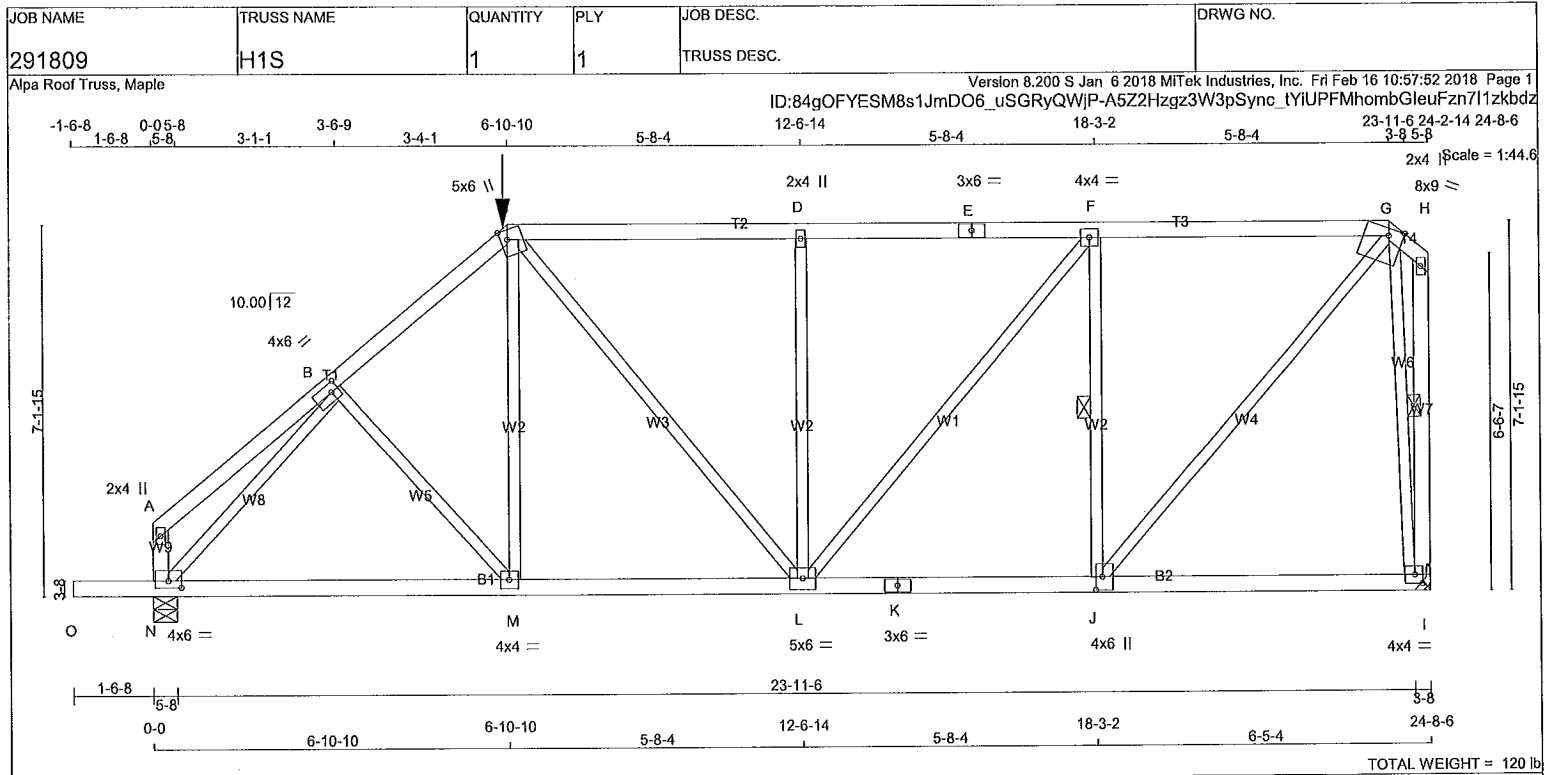
RESPONSIBILITIES

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

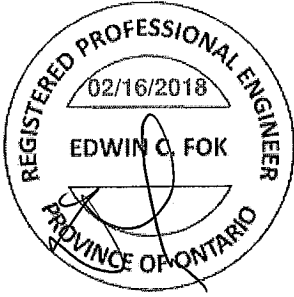
SPECIFICATIONS

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

January 15, 2014



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x4 DRY No.2 SPF C - E 2x4 DRY No.2 SPF E - G 2x4 DRY No.2 SPF G - H 2x4 DRY No.2 SPF N - A 2x4 DRY No.2 SPF I - H 2x4 DRY No.2 SPF O - K 2x4 DRY No.2 SPF K - I 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT 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 SNOW DOWN HORZ UPLIFT IN-SX IN-SX N 1835 0 1835 0 0 5-8 1-15 I 1774 0 1774 0 0 HANGER BY OTHERS MIN. SEAT SIZE: 1-15 UNFACTORED REACTIONS 1ST LCASE MAX/MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL N 1310 792 / 0 0 / 0 0 / 0 0 / 0 518 / 0 0 / 0 I 1264 774 / 0 0 / 0 0 / 0 0 / 0 490 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) N BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.21 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE laterally RESTRAINED. 1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-J, G-I. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (4) <table> <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>MAX. UNBRACED LENGTH (LC)</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. UNBRACED LENGTH (LC)</th><th></th></tr> <tr> <td>FR-TO</td><td></td><td>FROM TO</td><td></td><td>FR-TO</td><td></td><td></td><td></td></tr> <tr> <td>A-B</td><td>0 / 17</td><td>-78.0 -78.0</td><td>0.14 (1)</td><td>10.00</td><td>B-M</td><td>0 / 65</td><td>0.02 (4)</td></tr> <tr> <td>B-C</td><td>-1778 / 0</td><td>-78.0 -78.0</td><td>0.20 (1)</td><td>4.80</td><td>M-C</td><td>0 / 180</td><td>0.07 (4)</td></tr> <tr> <td>C-D</td><td>-1672 / 0</td><td>-114.5 -114.5</td><td>0.65 (1)</td><td>4.22</td><td>C-L</td><td>0 / 502</td><td>0.12 (1)</td></tr> <tr> <td>D-E</td><td>-1672 / 0</td><td>-114.5 -114.5</td><td>0.66 (1)</td><td>4.21</td><td>L-D</td><td>-707 / 0</td><td>0.64 (1)</td></tr> <tr> <td>E-F</td><td>-1672 / 0</td><td>-114.5 -114.5</td><td>0.66 (1)</td><td>4.21</td><td>L-F</td><td>0 / 578</td><td>0.14 (1)</td></tr> <tr> <td>F-G</td><td>-1303 / 0</td><td>-114.5 -114.5</td><td>0.62 (1)</td><td>4.71</td><td>J-F</td><td>-1156 / 0</td><td>0.39 (1)</td></tr> <tr> <td>G-H</td><td>0 / 0</td><td>-114.5 -114.5</td><td>0.01 (1)</td><td>10.00</td><td>J-G</td><td>0 / 1755</td><td>0.43 (1)</td></tr> <tr> <td>N-A</td><td>-106 / 0</td><td>0.0 0.0</td><td>0.01 (1)</td><td>7.81</td><td>N-B</td><td>-1991 / 0</td><td>0.90 (1)</td></tr> <tr> <td>I-H</td><td>-43 / 0</td><td>0.0 0.0</td><td>0.04 (1)</td><td>7.81</td><td>G-I</td><td>-1670 / 0</td><td>0.55 (1)</td></tr> <tr> <td>O-N</td><td>0 / 0</td><td>-96.5 -96.5</td><td>0.17 (1)</td><td>10.00</td><td></td><td></td><td></td></tr> <tr> <td>N-M</td><td>0 / 1305</td><td>-27.2 -27.2</td><td>0.46 (4)</td><td>10.00</td><td></td><td></td><td></td></tr> <tr> <td>M-L</td><td>0 / 1351</td><td>-27.2 -27.2</td><td>0.47 (4)</td><td>10.00</td><td></td><td></td><td></td></tr> <tr> <td>L-K</td><td>0 / 1303</td><td>-27.2 -27.2</td><td>0.43 (4)</td><td>10.00</td><td></td><td></td><td></td></tr> <tr> <td>K-J</td><td>0 / 1303</td><td>-27.2 -27.2</td><td>0.43 (4)</td><td>10.00</td><td></td><td></td><td></td></tr> <tr> <td>J-I</td><td>0 / 182</td><td>-27.2 -27.2</td><td>0.31 (4)</td><td>10.00</td><td></td><td></td><td></td></tr> </table>				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 / 17	-78.0 -78.0	0.14 (1)	10.00	B-M	0 / 65	0.02 (4)	B-C	-1778 / 0	-78.0 -78.0	0.20 (1)	4.80	M-C	0 / 180	0.07 (4)	C-D	-1672 / 0	-114.5 -114.5	0.65 (1)	4.22	C-L	0 / 502	0.12 (1)	D-E	-1672 / 0	-114.5 -114.5	0.66 (1)	4.21	L-D	-707 / 0	0.64 (1)	E-F	-1672 / 0	-114.5 -114.5	0.66 (1)	4.21	L-F	0 / 578	0.14 (1)	F-G	-1303 / 0	-114.5 -114.5	0.62 (1)	4.71	J-F	-1156 / 0	0.39 (1)	G-H	0 / 0	-114.5 -114.5	0.01 (1)	10.00	J-G	0 / 1755	0.43 (1)	N-A	-106 / 0	0.0 0.0	0.01 (1)	7.81	N-B	-1991 / 0	0.90 (1)	I-H	-43 / 0	0.0 0.0	0.04 (1)	7.81	G-I	-1670 / 0	0.55 (1)	O-N	0 / 0	-96.5 -96.5	0.17 (1)	10.00				N-M	0 / 1305	-27.2 -27.2	0.46 (4)	10.00				M-L	0 / 1351	-27.2 -27.2	0.47 (4)	10.00				L-K	0 / 1303	-27.2 -27.2	0.43 (4)	10.00				K-J	0 / 1303	-27.2 -27.2	0.43 (4)	10.00				J-I	0 / 182	-27.2 -27.2	0.31 (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 GIRDER TYPE: CPrimeHlp LEFT SETBACK = 6-10-10 RIGHT SETBACK = 0-0 END SETBACK = 3-10-8 END WALL WIDTH = 0-0 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: CONVENTIONAL APPLIED TO FRONT SIDE - ADD'L LOADS BASED ON 55 % OF GSL. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, OBC 2018 - CSA 086-09, CSA 086-14 - TPIC 2011, TPIC 2014 (55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.82") CALCULATED VERT. DEFL.(LL) = L/999 (0.06") ALLOWABLE DEFL.(TL)= L/360 (0.82") CALCULATED VERT. DEFL.(TL) = L/999 (0.14") 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=0.66/1.00 (D-F:1), BC=0.47/1.00 (L-M:4), WB=0.90/1.00 (B-N:1), SSI=0.33/1.00 (F-G:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS= 1.00 COMPANION LIVE LOAD FACTOR = 1.00 AUTOSOLVE LEFT HEEL ONLY TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 788 1987 1656 A-18023238			
CHORDS				WEBS																																																																																																																																																							
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)																																																																																																																																																					
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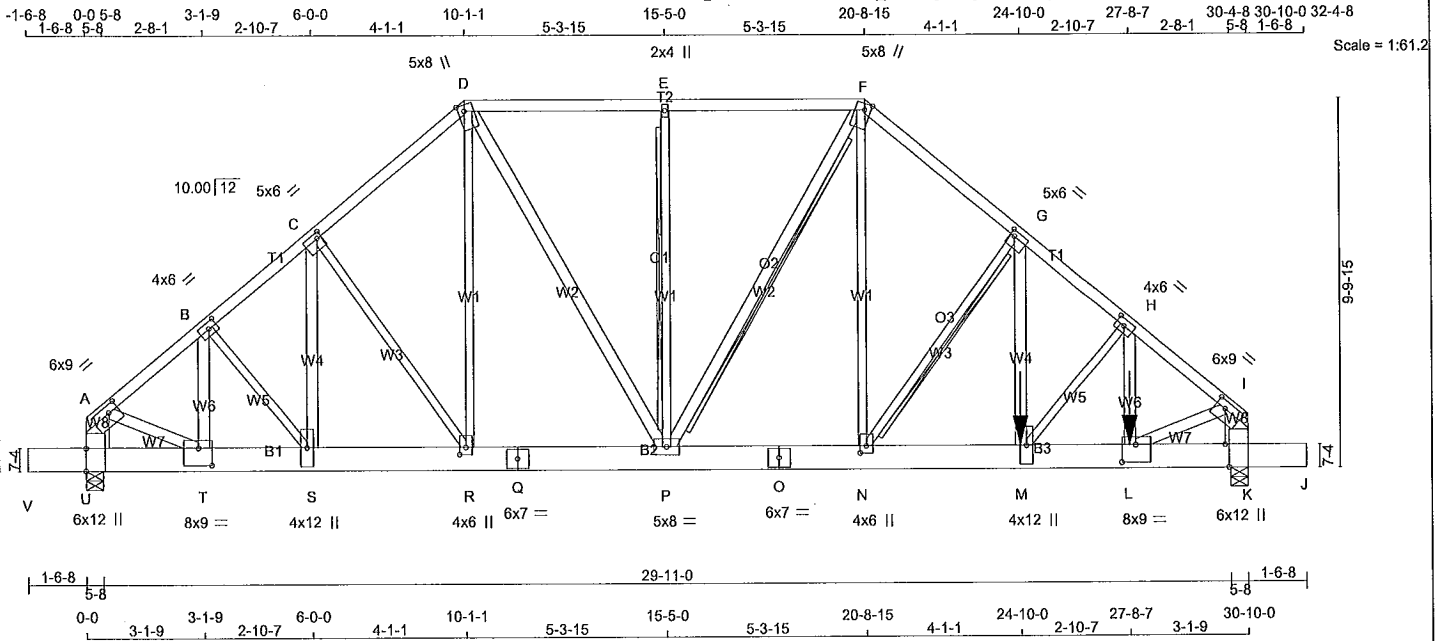


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H2A	1	3	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Fri Feb 16 11:08:50 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRyQWJP-vhJoOydihzSO343X3L099Vuf1LuRxLkYLAWOuzkbTh



TOTAL WEIGHT = 3 X 216 = 648 lb

LUMBER	N. L. G. A. RULES	SIZE	LUMBER	DESCR.
CHORDS				
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
U - A	2x8	DRY	No.2	SPF
K - I	2x8	DRY	No.2	SPF
V - Q	2x8	DRY	No.2	SPF
Q - O	2x8	DRY	No.2	SPF
O - J	2x8	DRY	No.2	SPF

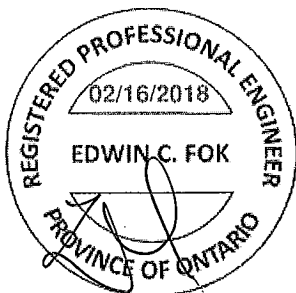
ALL WEBS	2x4	DRY	No.2	SPF
EXCEPT				
B - S	2x3	DRY	No.2	SPF
C - R	2x3	DRY	No.2	SPF
R - D	2x3	DRY	No.2	SPF
P - E	2x3	DRY	No.2	SPF
N - F	2x3	DRY	No.2	SPF
N - G	2x3	DRY	No.2	SPF
M - H	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 3 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122\"X3\") SPIRAL NAILS		
A - D 1	12	TOP
D - F 1	12	TOP
F - I 1	12	TOP
U - A 2	12	TOP
K - I 2	12	TOP
BOTTOM CHORDS : (0.122\"X3\") SPIRAL NAILS		
V - Q 2	12	TOP
Q - O 2	12	TOP
O - J 3	5	SIDE(1190.3)
WEBS : (0.122\"X3\") SPIRAL NAILS		
2x3 1	6	SIDE(761.7)
G - M 2	4	SIDE(738.2)
H - L 2	4	
2x4 1	6	

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



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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
U	3625	0	3625	0
K	13249	0	13249	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT COMBINED	SNOW LIVE PERM.LIVE WIND DEAD SOIL
U	2553 1734 / 0 0 / 0 0 / 0 820 / 0 0 / 0
K	9255 6717 / 0 0 / 0 0 / 0 2539 / 0 0 / 0

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

BRACING

FOR SECTION D-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.09 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x6 DRY SPF No.2 T-BRACE AT E-P, F-P, G-N

FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3\"/>

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	MAX. FACTORED	WEBS	MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD LC1 (PLF)	MAX CS1 (LC)	MEMB.	FORCE (LBS)	
FR-TO		FROM	TO	FR-TO		
A-B	-3773 / 0	-78.0	-78.0 0.06 (1)	5.69	T-B	-887 / 0
B-C	-4184 / 0	-78.0	-78.0 0.07 (1)	5.46	B-S	0 / 509
C-D	-4230 / 0	-78.0	-78.0 0.09 (1)	5.43	S-C	-343 / 0
D-E	-4529 / 0	-85.5	-85.5 0.17 (1)	2.00	C-R	-26 / 4
E-F	-4529 / 0	-85.5	-85.5 0.17 (1)	2.00	R-D	0 / 125
F-G	-7038 / 0	-78.0	-78.0 0.15 (1)	4.39	D-P	0 / 2628
G-H	-12027 / 0	-78.0	-78.0 0.24 (1)	3.39	P-E	-525 / 0
H-I	-13902 / 0	-78.0	-78.0 0.33 (1)	3.09	P-F	-1858 / 0
U-A	-3392 / 0	0.0	0.0 0.06 (1)	7.81	N-F	0 / 5796
K-I	-12206 / 0	0.0	0.0 0.20 (1)	6.01	N-G	-6724 / 0
V-U	0 / 0	-96.5	-96.5 0.02 (1)	10.00	M-G	0 / 8355
U-T	0 / 0	-18.5	-18.5 0.03 (1)	10.00	L-H	-2224 / 0
T-S	0 / 2905	-18.5	-18.5 0.12 (1)	10.00	L-H	0 / 2740
S-R	0 / 3225	-18.5	-18.5 0.12 (1)	10.00	A-T	0 / 3030
R-Q	0 / 3229	-18.5	-18.5 0.13 (1)	10.00	L-I	0 / 11127
Q-P	0 / 3229	-18.5	-18.5 0.13 (1)	10.00		
P-O	0 / 5449	-18.5	-18.5 0.20 (1)	10.00		
O-N	0 / 5449	-18.5	-18.5 0.20 (1)	10.00		
N-M	0 / 9266	-18.5	-18.5 0.44 (1)	10.00		
M-L	0 / 10667	-18.5	-18.5 0.51 (1)	10.00		
L-K	0 / 0	-346.1	-346.1 0.17 (1)	10.00		
K-J	0 / 0	-96.5	-96.5 0.02 (1)	10.00		

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

LOADING IN FLAT SECTION BASED ON 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.

GIRDER TYPE: CStdGirder
START DISTANCE = 27-8-6
START SPAN CARRIED = 15-7-0
END DISTANCE = 30-10-0
END SPAN CARRIED = 15-7-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03\")
CALCULATED VERT. DEFL.(LL) = L/999 (0.10\")
ALLOWABLE DEFL.(TL)= L/360 (1.03\")
CALCULATED VERT. DEFL.(TL) = L/999 (0.17\")

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

CSI: TC=0.33/1.00 (H-I:1), BC=0.51/1.00 (L-M:1),
WB=0.72/1.00 (G-N:1), SSI=0.16/1.00 (K-L: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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H2A	1	3	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Fri Feb 16 11:08:50 2018 Page 2
ID:84qOFYESM8s1JmDO6 uSGRyQWJP-vhJoOydi6hzSO343X3L099Vuf1LuRxlkYLAWOuZkbTh

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

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
A	TMVW-t	MT20	6.0	9.0	2.25	3.25
B	TMVW-t	MT20	4.0	6.0	2.00	2.75
C	TMVW-t	MT20	5.0	6.0	1.75	1.50
D	TTWW+m	MT20	5.0	8.0	2.00	2.00
E	TMW+w	MT20	2.0	4.0		
F	TTWW+m	MT20	5.0	8.0	2.00	2.00
G	TMVW-t	MT20	5.0	6.0	1.75	1.50
H	TMVW-t	MT20	4.0	6.0	2.00	2.75
I	TMVW-t	MT20	6.0	9.0	2.25	3.25
K	BMV1+t	MT20	6.0	12.0	Edge	1.25
L	BMVW-t	MT20	8.0	9.0	5.50	4.25
M	BMVW-t	MT20	4.0	12.0		
N	BMVW-t	MT20	4.0	6.0	2.25	2.00
O	BS-t	MT20	6.0	7.0		
P	BMVW-t	MT20	5.0	8.0		
Q	BS-t	MT20	6.0	7.0		
R	BMVW-t	MT20	4.0	6.0	2.25	2.00
S	BMVW-t	MT20	4.0	12.0		
T	BMVW-t	MT20	8.0	9.0	5.50	4.25
U	BMV1+t	MT20	6.0	12.0	Edge	

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 6752.7 lbs. FACTORED DOWN AT 24-9-14, AND 5743.6 lbs. FACTORED DOWN AT 27-8-6 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
L	27-8-6	-5744	-5744	---	FRONT	VERT	TOTAL
M	24-9-14	-6753	-6753	---	FRONT	VERT	TOTAL

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)
MT20	618	354	1667
	788	1987	1656

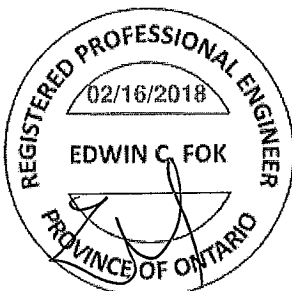
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

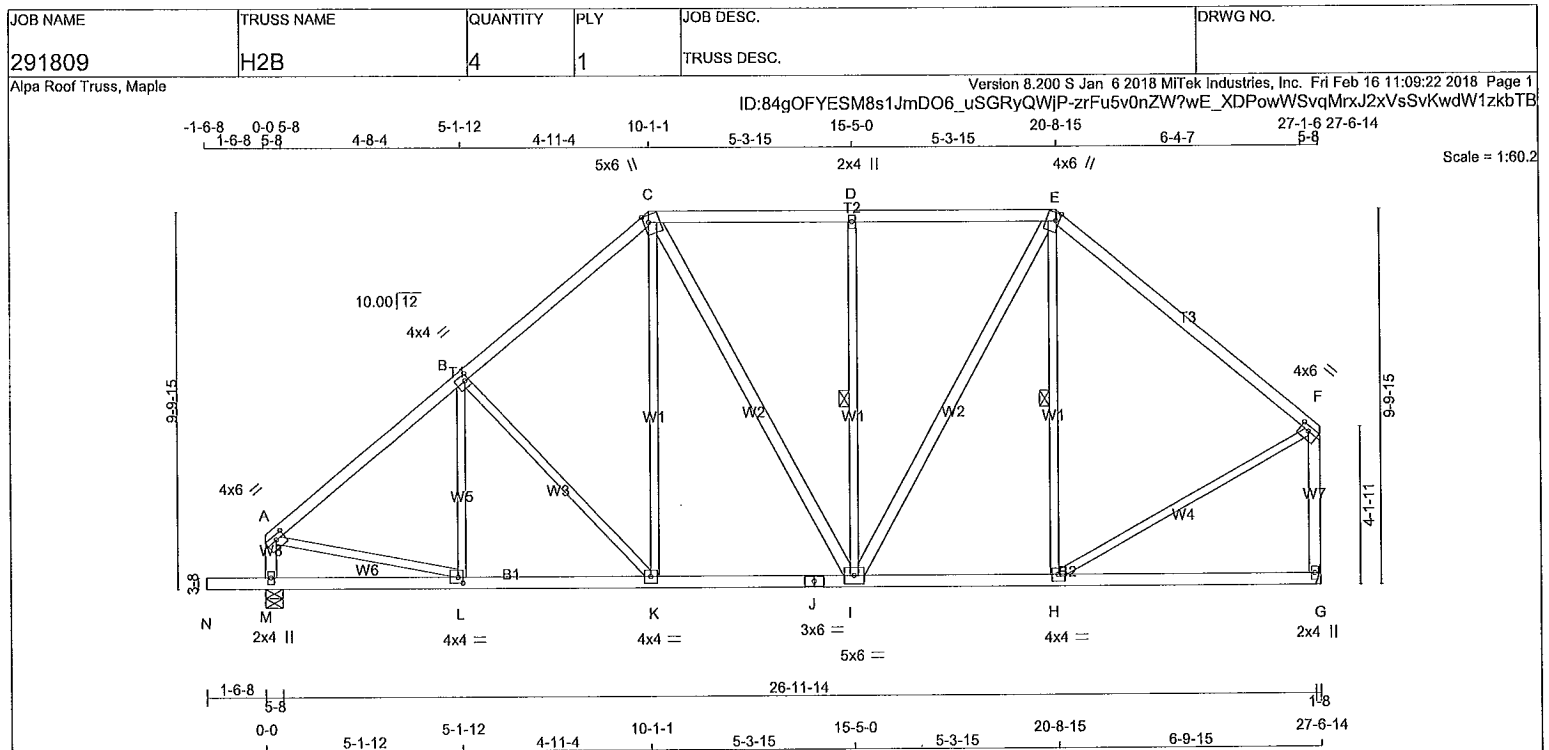
JSI GRIP = 0.90 (T) (INPUT = 0.90)

JSI METAL = 0.78 (A) (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-18023239(2)



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 - F	2x4	DRY	2100F 1.8E	SPF
M - A	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
N - J	2x4	DRY	No.2	SPF
J - G	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
C - I	2x4	DRY	No.2	SPF
I - E	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	REQRD
		GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
M	1514	0	1514	0	0
G	1375	0	1375	0	0

MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	1082	643 / 0	0 / 0	0 / 0	0 / 0	439 / 0	0 / 0
G	984	579 / 0	0 / 0	0 / 0	0 / 0	405 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.16 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-I, E-H.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO	FR-TO
A-B	-1429 / 0	-78.0 -78.0 0.29 (1)	5.16
B-C	-1248 / 0	-78.0 -78.0 0.28 (1)	5.45
C-D	-1027 / 0	-85.5 -85.5 0.32 (1)	2.00
D-E	-1027 / 0	-85.5 -85.5 0.32 (1)	2.00
E-F	-994 / 0	-78.0 -78.0 0.32 (1)	6.25
M-A	-1325 / 0	0.0 0.0 0.14 (1)	7.03
G-F	-1323 / 0	0.0 0.0 0.38 (1)	7.03
N-M	0 / 0	-96.5 -96.5 0.16 (1)	10.00
M-L	0 / 0	-18.5 -18.5 0.11 (4)	10.00
L-K	0 / 1121	-18.5 -18.5 0.24 (1)	10.00
K-J	0 / 936	-18.5 -18.5 0.21 (1)	10.00
J-I	0 / 936	-18.5 -18.5 0.21 (1)	10.00
I-H	0 / 760	-18.5 -18.5 0.27 (4)	10.00
H-G	0 / 0	-18.5 -18.5 0.19 (4)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.92")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.92")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

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=0.38/1.00 (F-G:1), BC=0.27/1.00 (H-I:4), WB=0.36/1.00 (D-I:1), SS=0.22/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

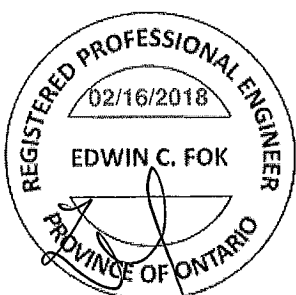
PLATE PLACEMENT TOL. = 0.250 Inches

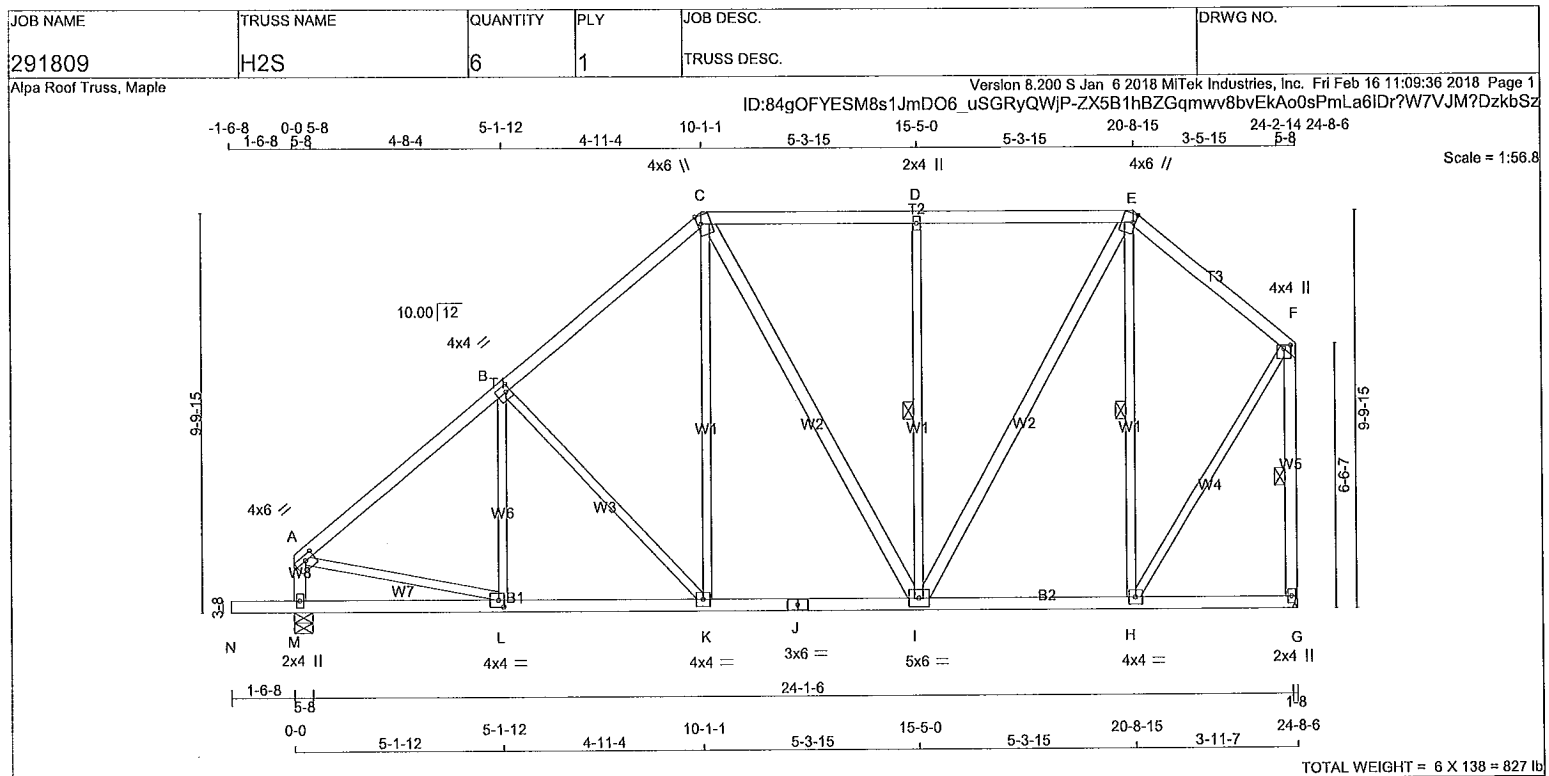
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (H) (INPUT = 0.90)
JSI METAL= 0.42 (L) (INPUT = 1.00)

A-18023240

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

DRY: SEASONED LUMBER.

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
M	1370	0	1370	0	5-8	2-0
G	1241	0	1241	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			
M	979	583 / 0	0 / 0	0 / 0	0 / 0	396 / 0	0 / 0
G	889	518 / 0	0 / 0	0 / 0	0 / 0	371 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.44 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LBS)	MAX. MEMB. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS (LBS)
FR-TO		FROM	TO		FR-TO		
A-B	-1251 / 0	-78.0	-78.0 0.29 (1)	5.44	L-B	-105 / 33	0.05 (1)
B-C	-1049 / 0	-78.0	-78.0 0.27 (1)	5.82	B-K	-297 / 0	0.32 (1)
C-D	-795 / 0	-85.5	-85.5 0.32 (1)	2.00	K-C	0 / 312	0.07 (1)
D-E	-795 / 0	-85.5	-85.5 0.32 (1)	2.00	C-I	0 / 25	0.00 (1)
E-F	-584 / 0	-78.0	-78.0 0.16 (1)	6.25	I-D	-559 / 0	0.36 (1)
M-A	-1181 / 0	0.0	0.0 0.12 (1)	7.34	I-E	0 / 725	0.12 (1)
G-F	-1214 / 0	0.0	0.0 0.25 (1)	5.81	H-E	-587 / 0	0.38 (1)
					A-L	0 / 1005	0.23 (1)
					H-F	0 / 818	0.18 (1)
N-M	0 / 0	-96.5	-96.5 0.16 (1)	10.00			
M-L	0 / 0	-18.5	-18.5 0.11 (4)	10.00			
L-K	0 / 984	-18.5	-18.5 0.21 (1)	10.00			
K-J	0 / 783	-18.5	-18.5 0.18 (4)	10.00			
J-I	0 / 783	-18.5	-18.5 0.18 (4)	10.00			
I-H	0 / 441	-18.5	-18.5 0.15 (4)	10.00			
H-G	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 FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL) = $L/360$ (0.82")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.03")
ALLOWABLE DEFL.(TL) = $L/360$ (0.82")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.07")

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=0.32/1.00 (C-D:1), 8C=0.21/1.00 (K-L:1), WB=0.38/1.00 (E-H:1), SSI=0.22/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

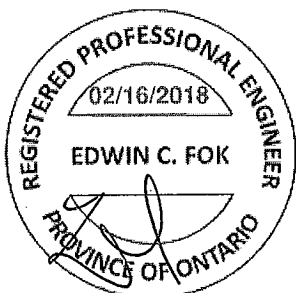
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

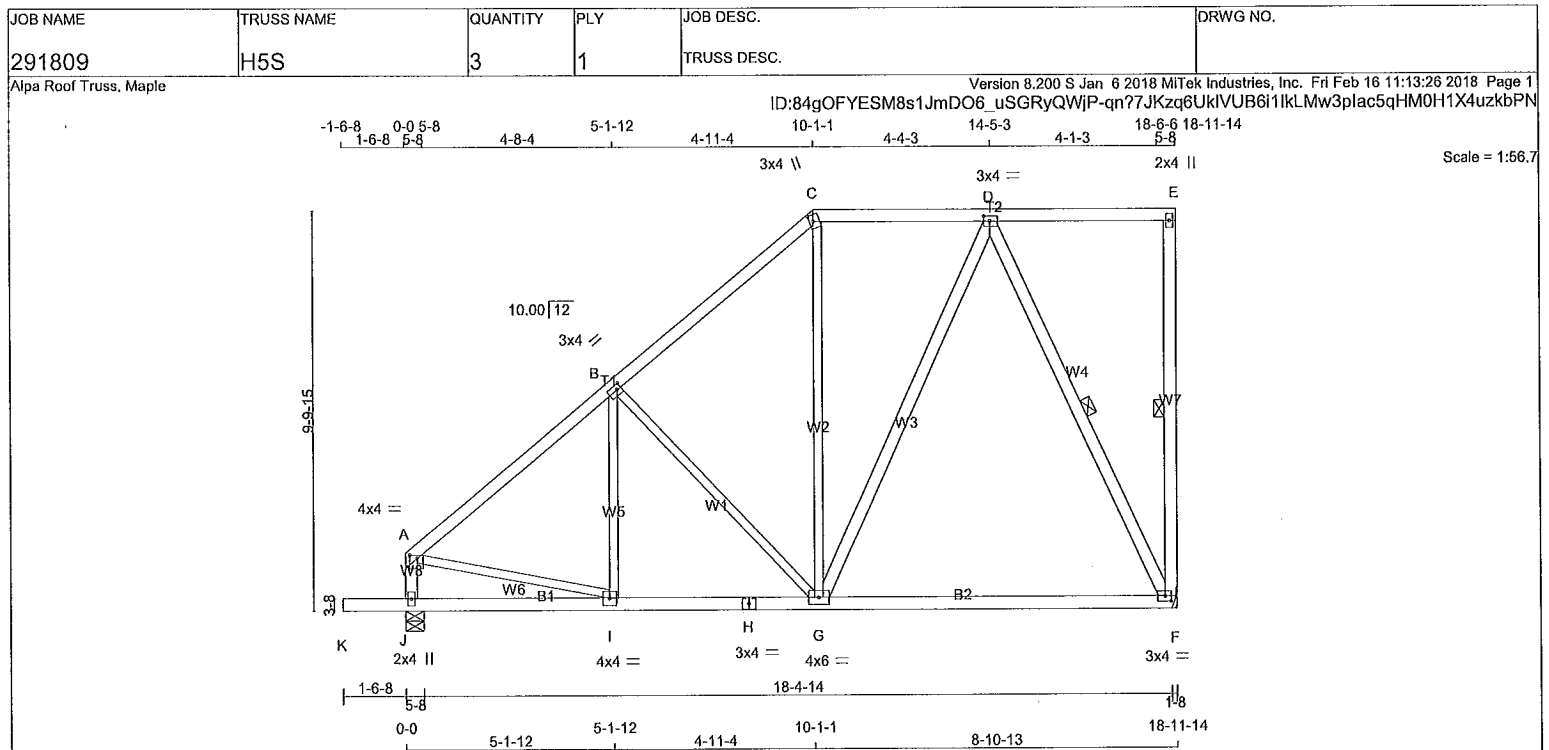
JSI GRIP= 0.90 (H) (INPUT = 0.90)
JSI METAL= 0.37 (L) (INPUT = 1.00)

A-18023241

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-18023242



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

DRY: SEASONED LUMBER.

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		
F	967	0	967	0	5-8	1-10
J	1080	0	1080	0	5-8	1-10

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
F	694	399 / 0	0 / 0	0 / 0	0 / 0	295 / 0	0 / 0
J	772	463 / 0	0 / 0	0 / 0	0 / 0	308 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.20 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		MAX. UNBRACED LENGTH	WEBS		MAX. UNBRACED LENGTH
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX. CSI (LC)		MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO		FR-TO			
A-B	-885 / 0	-78.0	-78.0	0.27 (1)	6.20	I-B	-72 / 29	0.04 (1)
B-C	-660 / 0	-78.0	-78.0	0.26 (1)	6.25	B-G	-323 / 0	0.34 (1)
C-D	-483 / 0	-85.5	-85.5	0.22 (1)	2.00	G-C	0 / 120	0.04 (4)
D-E	0 / 0	-85.5	-85.5	0.28 (1)	10.00	G-D	0 / 306	0.05 (1)
F-E	-149 / 0	0.0	0.0	0.07 (1)	6.25	D-F	-833 / 0	0.49 (1)
J-A	-888 / 0	0.0	0.0	0.09 (1)	7.81	A-I	0 / 718	0.16 (1)
K-J	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
J-I	0 / 0	-18.5	-18.5	0.12 (4)	10.00			
I-H	0 / 703	-18.5	-18.5	0.37 (4)	10.00			
H-G	0 / 703	-18.5	-18.5	0.37 (4)	10.00			
G-F	0 / 359	-18.5	-18.5	0.34 (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 PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.63")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.63")
CALCULATED VERT. DEFL.(TL)= L/999 (0.17")

CANTILEVER DEFLECTION:

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

CSI: TC=0.28/1.00 (D-E:1), BC=0.37/1.00 (G-I:4), WB=0.49/1.00 (D-F:1), SSI=0.19/1.00 (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

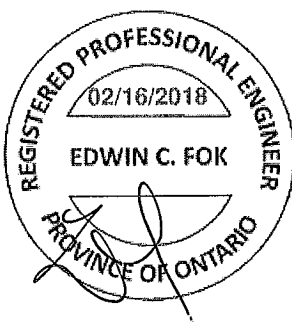
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 788	1987 1656

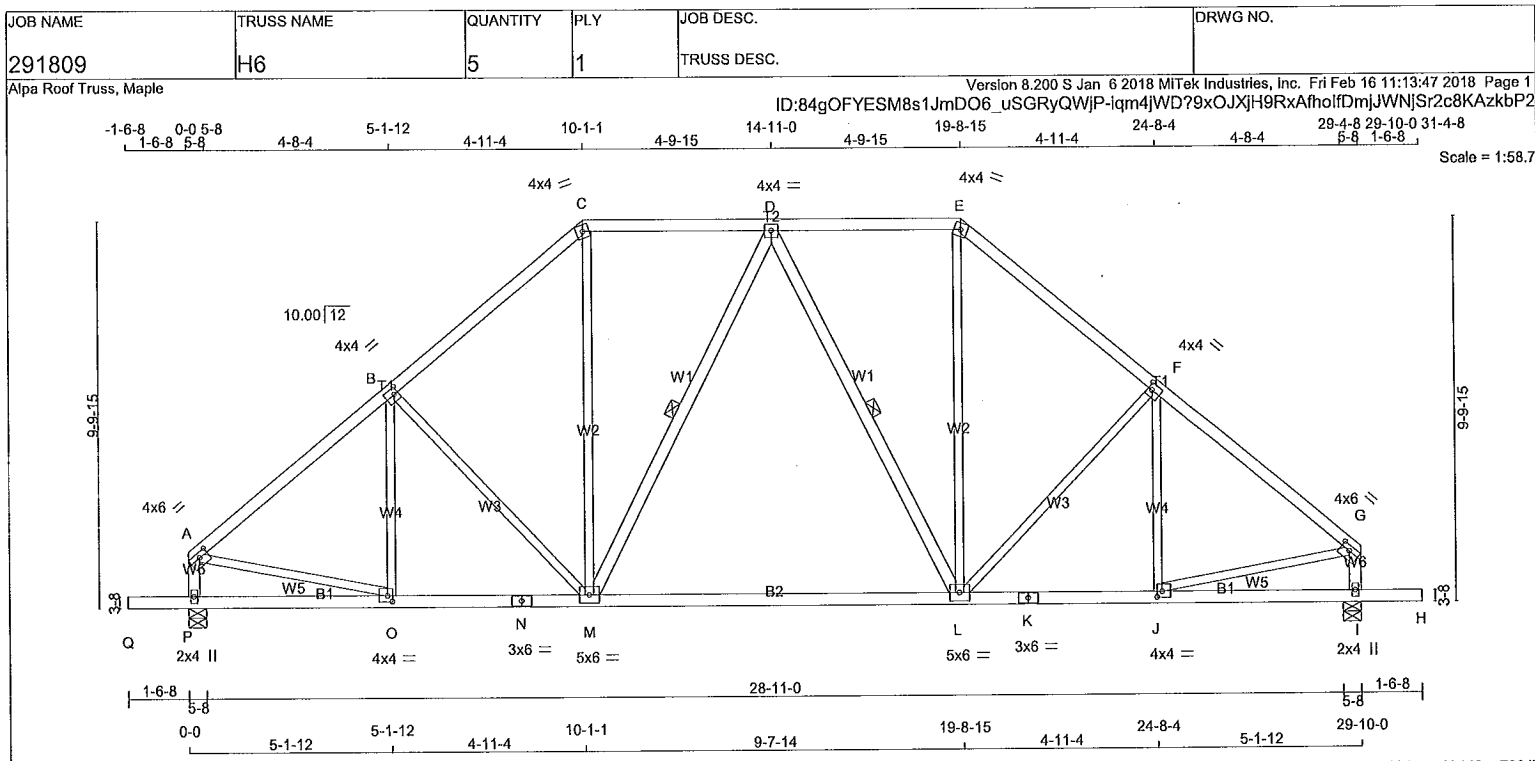
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (F) (INPUT = 0.90)
JSI METAL= 0.31 (F) (INPUT = 1.00)

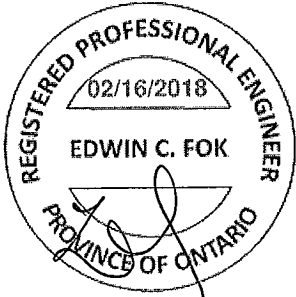
A-18023244



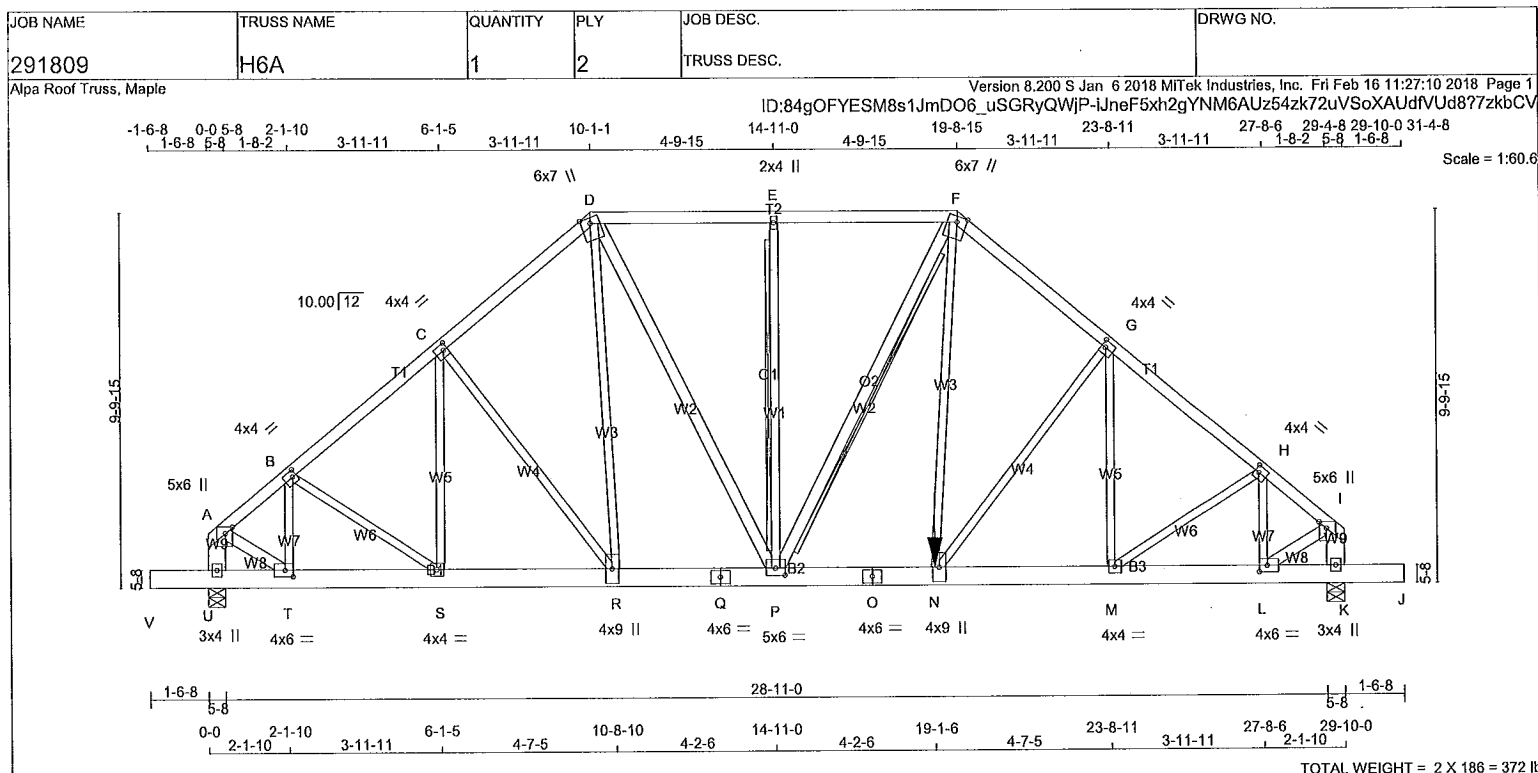


LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x4 DRY No.2 SPF C - E 2x4 DRY No.2 SPF E - G 2x4 DRY No.2 SPF P - A 2x4 DRY No.2 SPF I - G 2x4 DRY No.2 SPF Q - N 2x4 DRY No.2 SPF N - K 2x4 DRY No.2 SPF K - H 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT M - D 2x4 DRY No.2 SPF D - L 2x4 DRY No.2 SPF DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table> <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>UP</th></tr> <tr> <td>P</td><td>1624</td><td>0</td><td>1624</td><td>0</td></tr> <tr> <td>I</td><td>1624</td><td>0</td><td>1624</td><td>0</td></tr> </table> UNFACTORED REACTIONS <table> <tr> <th>1ST LCASE</th><th>MAX./MIN. COMPONENT REACTIONS</th><th></th><th></th><th></th><th></th><th></th><th></th></tr> <tr> <th>JT</th><th>COMBINED</th><th>SNOW</th><th>LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr> <tr> <td>P</td><td>1161</td><td>691/0</td><td>0/0</td><td>0/0</td><td>0/0</td><td>470/0</td><td>0/0</td></tr> <tr> <td>I</td><td>1161</td><td>691/0</td><td>0/0</td><td>0/0</td><td>0/0</td><td>470/0</td><td>0/0</td></tr> </table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) P, I BRACING FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT. FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.98 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED. 1 LATERAL BRACE(S) AT 1/2 LENGTH OF D-M, D-L. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (4) <table> <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>MAX. UNBRACED LENGTH (LC)</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. UNBRACED LENGTH (LC)</th><th></th></tr> <tr> <td>FR-TO</td><td></td><td>FROM TO</td><td></td><td>FR-TO</td><td></td><td></td><td></td></tr> <tr> <td>A-B</td><td>-1562/0</td><td>-78.0 -78.0</td><td>0.30 (1)</td><td>O-B</td><td>-178/0</td><td>0.09 (1)</td><td></td></tr> <tr> <td>B-C</td><td>-1410/0</td><td>-78.0 -78.0</td><td>0.29 (1)</td><td>B-M</td><td>-241/0</td><td>0.26 (1)</td><td></td></tr> <tr> <td>C-D</td><td>-1063/0</td><td>-85.5 -85.5</td><td>0.26 (1)</td><td>M-C</td><td>0/579</td><td>0.13 (1)</td><td></td></tr> <tr> <td>D-E</td><td>-1063/0</td><td>-85.5 -85.5</td><td>0.26 (1)</td><td>M-D</td><td>-280/0</td><td>0.17 (1)</td><td></td></tr> <tr> <td>E-F</td><td>-1410/0</td><td>-78.0 -78.0</td><td>0.29 (1)</td><td>D-L</td><td>-280/0</td><td>0.17 (1)</td><td></td></tr> <tr> <td>F-G</td><td>-1562/0</td><td>-78.0 -78.0</td><td>0.30 (1)</td><td>L-E</td><td>0/579</td><td>0.13 (1)</td><td></td></tr> <tr> <td>P-A</td><td>-1432/0</td><td>0.0 0.0</td><td>0.15 (1)</td><td>L-F</td><td>-241/0</td><td>0.26 (1)</td><td></td></tr> <tr> <td>I-G</td><td>-1432/0</td><td>0.0 0.0</td><td>0.15 (1)</td><td>J-F</td><td>-178/0</td><td>0.09 (1)</td><td></td></tr> <tr> <td>Q-P</td><td>0/0</td><td>-96.5 -96.5</td><td>0.16 (1)</td><td>A-O</td><td>0/1249</td><td>0.28 (1)</td><td></td></tr> <tr> <td>P-O</td><td>0/0</td><td>-18.5 -18.5</td><td>0.11 (4)</td><td>J-G</td><td>0/1249</td><td>0.28 (1)</td><td></td></tr> <tr> <td>O-N</td><td>0/1222</td><td>-18.5 -18.5</td><td>0.39 (4)</td><td></td><td></td><td></td><td></td></tr> <tr> <td>N-M</td><td>0/1222</td><td>-18.5 -18.5</td><td>0.39 (4)</td><td></td><td></td><td></td><td></td></tr> <tr> <td>M-L</td><td>0/1188</td><td>-18.5 -18.5</td><td>0.38 (4)</td><td></td><td></td><td></td><td></td></tr> <tr> <td>L-K</td><td>0/1222</td><td>-18.5 -18.5</td><td>0.39 (4)</td><td></td><td></td><td></td><td></td></tr> <tr> <td>K-J</td><td>0/1222</td><td>-18.5 -18.5</td><td>0.39 (4)</td><td></td><td></td><td></td><td></td></tr> <tr> <td>J-I</td><td>0/0</td><td>-18.5 -18.5</td><td>0.11 (4)</td><td></td><td></td><td></td><td></td></tr> <tr> <td>I-H</td><td>0/0</td><td>-96.5 -96.5</td><td>0.16 (1)</td><td></td><td></td><td></td><td></td></tr> </table>					FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	JT	VERT	HORZ	DOWN	UP	P	1624	0	1624	0	I	1624	0	1624	0	1ST LCASE	MAX./MIN. COMPONENT REACTIONS							JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	P	1161	691/0	0/0	0/0	0/0	470/0	0/0	I	1161	691/0	0/0	0/0	0/0	470/0	0/0	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	-1562/0	-78.0 -78.0	0.30 (1)	O-B	-178/0	0.09 (1)		B-C	-1410/0	-78.0 -78.0	0.29 (1)	B-M	-241/0	0.26 (1)		C-D	-1063/0	-85.5 -85.5	0.26 (1)	M-C	0/579	0.13 (1)		D-E	-1063/0	-85.5 -85.5	0.26 (1)	M-D	-280/0	0.17 (1)		E-F	-1410/0	-78.0 -78.0	0.29 (1)	D-L	-280/0	0.17 (1)		F-G	-1562/0	-78.0 -78.0	0.30 (1)	L-E	0/579	0.13 (1)		P-A	-1432/0	0.0 0.0	0.15 (1)	L-F	-241/0	0.26 (1)		I-G	-1432/0	0.0 0.0	0.15 (1)	J-F	-178/0	0.09 (1)		Q-P	0/0	-96.5 -96.5	0.16 (1)	A-O	0/1249	0.28 (1)		P-O	0/0	-18.5 -18.5	0.11 (4)	J-G	0/1249	0.28 (1)		O-N	0/1222	-18.5 -18.5	0.39 (4)					N-M	0/1222	-18.5 -18.5	0.39 (4)					M-L	0/1188	-18.5 -18.5	0.38 (4)					L-K	0/1222	-18.5 -18.5	0.39 (4)					K-J	0/1222	-18.5 -18.5	0.39 (4)					J-I	0/0	-18.5 -18.5	0.11 (4)					I-H	0/0	-96.5 -96.5	0.16 (1)					DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN. C/C LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 3.0 P.S.F. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, OBC 2018 - CSA 086-09, CSA 086-14 - TPIC 2011, TPIC 2014 (55% OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.99") CALCULATED VERT. DEFL.(LL)= L/999 (0.04") ALLOWABLE DEFL.(TL)= L/360 (0.99") CALCULATED VERT. DEFL.(TL)= L/999 (0.21") 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=0.30/1.00 (F-G:1), BC=0.39/1.00 (J-L:4), WB=0.28/1.00 (G-J:1), SSI=0.20/1.00 (C-D:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 788 1987 1656 PLATE PLACEMENT TOL. = 0.250 Inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.88 (O) (INPUT= 0.90) JSI METAL= 0.46 (O) (INPUT= 1.00)			
	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG																																																																																																																																																																																																																											
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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-18023245



LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
D - F	2x4	DRY	No.2	SPF	
F - I	2x4	DRY	No.2	SPF	
U - A	2x6	DRY	No.2	SPF	
K - I	2x6	DRY	No.2	SPF	
V - Q	2x6	DRY	No.2	SPF	
Q - O	2x6	DRY	No.2	SPF	
O - J	2x6	DRY	No.2	SPF	

ALL WEBS	EXCEPT	SIZE	DRY	No.2	SPF
A - T	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF	
D - P	2x4	DRY	No.2	SPF	
P - F	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - D 1	12	TOP
D - F 1	12	TOP
F - I 1	12	TOP
U - A 2	12	TOP
K - I 2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
V - Q 2	12	TOP
Q - O 2	12	TOP
O - J 2	12	SIDE(165.4)
WEBS : (0.122"x3") SPIRAL NAILS		
N - F 1	6	SIDE(91.9)
2x3 1	6	
2x4 1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQRD
	VERT	HORZ	DOWN	HORZ
JT	3200	0	3200	0
U	4672	0	4672	0
K				

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	2257	1513 / 0	0 / 0	0 / 0	0 / 0	745 / 0	0 / 0
U	3286	2259 / 0	0 / 0	0 / 0	0 / 0	1026 / 0	0 / 0
K							

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

BRACING

FOR SECTION D-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.07 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT E-P
2x6 DRY SPF No.2 T-BRACE AT F-P

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	FACTORED	MAX	MAX.	WEBS	MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (L)	UNBRAC	MEMB.	FORCE (LBS)	
FR-TO					FR-TO		
A-B	-2877 / 0	-78.0	-78.0	0.07 (1)	5.36	T-B	-1075 / 0
B-C	-3586 / 0	-78.0	-78.0	0.16 (1)	4.84	B-S	0 / 659
C-D	-3580 / 0	-78.0	-78.0	0.16 (1)	4.85	S-C	-297 / 0
D-E	-3700 / 0	-85.5	-85.5	0.24 (1)	2.00	C-R	-59 / 0
E-F	-3700 / 0	-85.5	-85.5	0.24 (1)	2.00	D-R	0 / 124
F-G	-5270 / 0	-78.0	-78.0	0.21 (1)	4.09	P-E	-475 / 0
G-H	-5353 / 0	-78.0	-78.0	0.20 (1)	4.07	N-F	0 / 4287
H-I	-4294 / 0	-78.0	-78.0	0.10 (1)	4.54	N-G	-150 / 0
U-A	-2954 / 0	0.0	0.0	0.11 (1)	7.81	M-G	-170 / 46
K-I	-4372 / 0	0.0	0.0	0.16 (1)	6.87	M-H	0 / 982
						L-H	-1490 / 0
V-U	0 / 0	-96.5	-96.5	0.04 (1)	10.00	A-T	0 / 2457
U-T	0 / 0	-18.5	-18.5	0.04 (1)	10.00	L-I	0 / 3659
T-S	0 / 2224	-18.5	-18.5	0.17 (1)	10.00	D-P	0 / 2120
S-R	0 / 2763	-18.5	-18.5	0.20 (1)	10.00	P-F	-1356 / 0
R-Q	0 / 2734	-18.5	-18.5	0.24 (1)	10.00		
Q-P	0 / 2734	-18.5	-18.5	0.24 (1)	10.00		
P-O	0 / 4319	-18.5	-18.5	0.36 (1)	10.00		
O-N	0 / 4319	-18.5	-18.5	0.36 (1)	10.00		
N-M	0 / 4117	-63.7	-63.7	0.36 (1)	10.00		
M-L	0 / 3312	-63.7	-63.7	0.26 (1)	10.00		
L-K	0 / 0	-63.7	-63.7	0.04 (1)	10.00		
K-J	0 / 0	-96.5	-96.5	0.04 (1)	10.00		

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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.

GIRDER TYPE: CSldGirder
START DISTANCE = 19-1-6
START SPAN CARRIED = 3-10-8
END DISTANCE = 29-10-0
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

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 (0.99")
CALCULATED VERT. DEFL.(LL) = L/999 (0.09")
ALLOWABLE DEFL.(TL) = L/360 (0.99")
CALCULATED VERT. DEFL.(TL) = L/999 (0.15")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/627 (0.03")

CSI: TC=0.24/1.00 (D-E:1), BC=0.36/1.00 (M-N:1),
WB=0.53/1.00 (F-N:1), SS=0.11/1.00 (D-E:1)

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

A-18023246

CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H6A	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Fri Feb 16 11:27:10 2018 Page 2					
ID:84gOFYESM8s1JmDO6 uSGRyQWjP-lJneF5xh2gYNM6AUz54zk72uVSoXAUdIVUd877zkbCV					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	5.0	6.0	2.00	2.25
B, C, G, H						
B	TMWW-t	MT20	4.0	4.0	2.00	1.25
D	TTWW+m	MT20	6.0	7.0	Edge	
E	TMW+w	MT20	2.0	4.0		
F	TTWW+m	MT20	6.0	7.0	Edge	
I	TMVW+p	MT20	5.0	6.0	2.00	2.25
K	BMV1+p	MT20	3.0	4.0		
L	BMWW-t	MT20	4.0	6.0	2.00	2.50
M	BMWW-t	MT20	4.0	4.0		
N	BMWW+t	MT20	4.0	9.0		
O	BS-t	MT20	4.0	6.0		
P	BMWWW-t	MT20	5.0	6.0	2.25	3.00
Q	BS-t	MT20	4.0	6.0		
R	BMWW+t	MT20	4.0	9.0		
S	BMWW-t	MT20	4.0	4.0		
T	BMWW-t	MT20	4.0	6.0	2.00	2.50
U	BMV1+p	MT20	3.0	4.0		

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

HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 4138.6 lbs FACTORED DOWN AT 19-1-6 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
N	19-1-6	-4139	-4139	—	FRONT	VERT	TOTAL

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

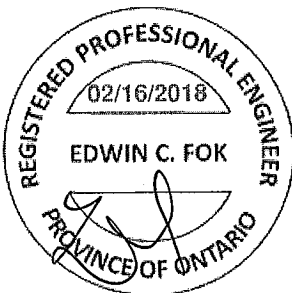
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (P) (INPUT = 0.90)

JSI METAL= 0.59 (R) (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-18023246(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H6B	1	2	TRUSS DESC.	
Alpa Roof Truss, Maple					
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Fri Feb 16 11:25:44 2018 Page 2					
ID:84gOFYESM8s1JmDO6 uSGRyQWIP-Dmb7ChvJEja2vcyx1YoF7VC8nQH0U47i6ob 6zkbDr					

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-l	MT20	5.0	8.0	1.75	3.25
B	TMWW-l	MT20	4.0	6.0	1.75	2.00
C	TMWW-l	MT20	4.0	4.0	2.00	1.00
D	TTWW+m	MT20	5.0	6.0	2.25	1.50
E	TMW+w	MT20	2.0	4.0		
F	TTWW+m	MT20	5.0	6.0	2.25	1.50
G	TMWW-l	MT20	4.0	4.0	2.00	1.00
H	TMWW-l	MT20	4.0	6.0	1.75	2.00
I	TMVW-l	MT20	5.0	8.0	1.75	3.25
K	BMV1+t	MT20	6.0	9.0	Edge	0.50
L	BMWW+t	MT20	5.0	10.0	4.25	1.50
M	BMWW-l	MT20	4.0	6.0		
N	BMWW-l	MT20	4.0	4.0		
O	BS-l	MT20	4.0	6.0		
P	BMWWW-l	MT20	5.0	6.0		
Q	BS-l	MT20	4.0	6.0		
R	BMWW-l	MT20	4.0	4.0		
S	BMWW-l	MT20	4.0	6.0		
T	BMWW+t	MT20	5.0	10.0	4.25	1.50
U	BMV1+t	MT20	6.0	9.0	Edge	

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 5743.6 lbs FACTORED DOWN AT 27-8-6 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
L	27-8-6	-5744	-5744	---	FRONT	VERT	TOTAL

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

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

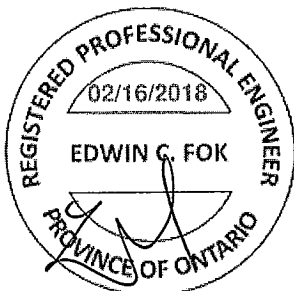
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

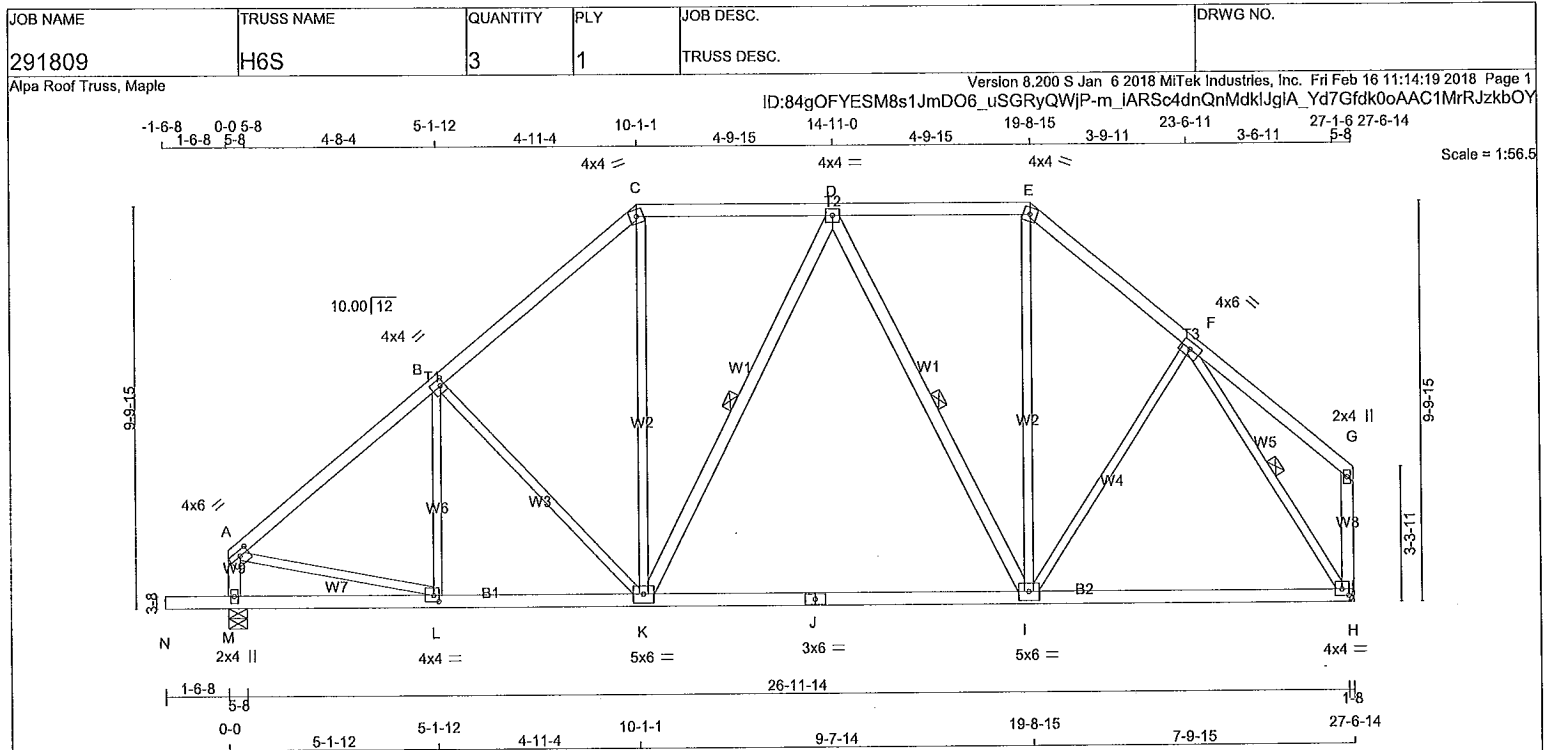
JSI GRIP= 0.89 (H) (INPUT = 0.90)

JSI METAL= 0.94 (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-1802324767



LUMBER

N. L. G. A. RULES

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

SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-1	MT20	4.0	6.0	1.50	2.75
B	TMVW-1	MT20	4.0	4.0	2.00	1.25
C	TTW-m	MT20	4.0	4.0		
D	TMVW-1	MT20	4.0	4.0		
E	TTW-m	MT20	4.0	4.0		
F	TMVW-1	MT20	4.0	6.0		
G	TMV+p	MT20	2.0	4.0		
H	BMVW-1	MT20	4.0	4.0	1.75	2.00
I	BMVW-1	MT20	5.0	6.0		
J	BS-1	MT20	3.0	6.0		
K	BMVW-1	MT20	5.0	6.0		
L	BMVW-1	MT20	4.0	4.0	1.75	1.50
M	BMV+1	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	REQD BRG
	VERT	HORZ	DOWN	HORZ		
M	1512	0	1512	0	5-8	2-4
H	1369	0	1369	0	0	0

HANGER BY OTHERS
MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	1081	643 / 0	0 / 0	0 / 0	0 / 0	437 / 0	0 / 0
H	980	579 / 0	0 / 0	0 / 0	0 / 0	401 / 0	0 / 0

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

BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.17 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-K, D-I, F-H.

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED UNBRACED LENGTH (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO
A-B	-1423 / 0	-78.0 -78.0 0.29 (1)	5.17	L-B -152 / 1 0.08 (1)
B-C	-1253 / 0	-78.0 -78.0 0.28 (1)	5.44	B-K -262 / 0 0.28 (1)
C-D	-942 / 0	-85.5 -85.5 0.26 (1)	2.00	K-C 0 / 479 0.11 (1)
D-E	-836 / 0	-85.5 -85.5 0.26 (1)	2.00	K-D -161 / 0 0.10 (1)
E-F	-1108 / 0	-78.0 -78.0 0.16 (1)	5.85	D-I -401 / 0 0.24 (1)
F-G	0 / 22	-78.0 -78.0 0.19 (1)	10.00	I-E 0 / 420 0.09 (1)
M-A	-1320 / 0	0.0 0.0 0.14 (1)	7.03	I-F 0 / 146 0.04 (4)
H-G	-119 / 0	0.0 0.0 0.02 (1)	7.81	A-L 0 / 1141 0.26 (1)
				F-H -1412 / 0 0.50 (1)
N-M	0 / 0	-96.5 -96.5 0.16 (1)	10.00	
M-L	0 / 0	-18.5 -18.5 0.11 (4)	10.00	
L-K	0 / 1116	-18.5 -18.5 0.35 (4)	10.00	
K-J	0 / 1014	-18.5 -18.5 0.45 (4)	10.00	
J-I	0 / 1014	-18.5 -18.5 0.45 (4)	10.00	
I-H	0 / 753	-18.5 -18.5 0.42 (4)	10.00	

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.92")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.92")
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

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

CSI: TC=0.29/1.00 (A-B:1), BC=0.45/1.00 (I-K:4), WB=0.50/1.00 (F-H:1), SSI=0.20/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

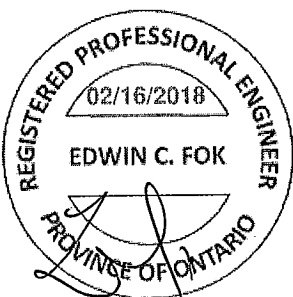
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (H) (INPUT = 0.90)
JSI METAL= 0.56 (J) (INPUT = 1.00)

A-18023248



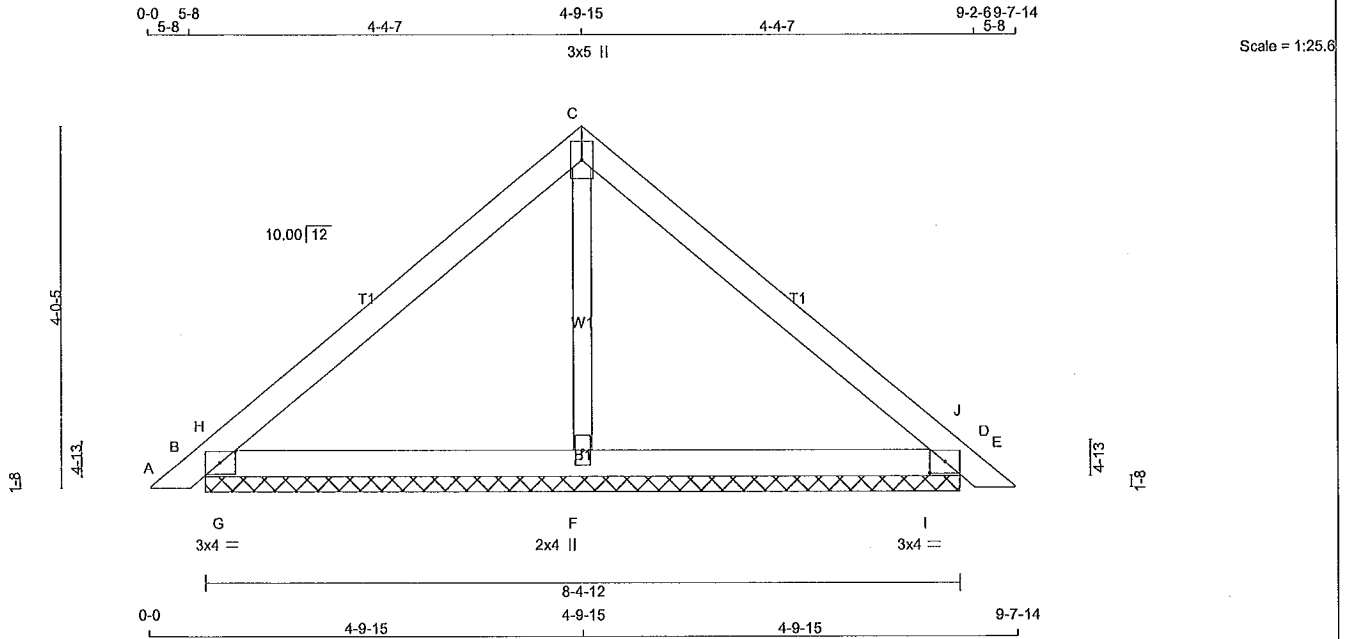
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H8P	13	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Fri Feb 16 11:14:25 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRyQWJP-b83RhVhqCdAw4YBSfwsaEptBm4IIQdD2azp9fzkbOS



TOTAL WEIGHT = 13 X 26 = 344 lb

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	1.50 2.00
C	TTW+p	MT20	3.0	5.0	
D	TMB1-I	MT20	3.0	4.0	1.50 2.00
F	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	IN-SX	IN-SX
B	317	0	317	0	8-4-12	9-13
D	317	0	317	0	8-4-12	9-13
F	258	0	258	0	8-4-12	9-13

UNFACTORED REACTIONS

JT	1ST LCASE		MAX / MIN. COMPONENT REACTIONS				DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND			
B	223	150 / 0	0 / 0	0 / 0	0 / 0	73 / 0	0 / 0	0 / 0
D	223	150 / 0	0 / 0	0 / 0	0 / 0	73 / 0	0 / 0	0 / 0
F	187	96 / 0	0 / 0	0 / 0	0 / 0	91 / 0	0 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				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 / 12	-78.0 -78.0	0.02 (1)	10.00	F-C	-85 / 0	0.02 (1)
B-H	-30 / 42	-78.0 -78.0	0.10 (1)	6.25	G-H	-435 / 0	0.00 (1)
H-C	-158 / 0	-78.0 -78.0	0.16 (1)	6.25	I-J	-434 / 0	0.00 (1)
C-J	-158 / 0	-78.0 -78.0	0.16 (1)	6.25			
J-D	-30 / 42	-78.0 -78.0	0.10 (1)	6.25			
D-E	0 / 12	-78.0 -78.0	0.02 (1)	10.00			
B-G	0 / 113	-18.5 -18.5	0.16 (1)	10.00			
G-F	0 / 113	-18.5 -18.5	0.16 (1)	10.00			
F-I	0 / 113	-18.5 -18.5	0.16 (1)	10.00			
I-D	0 / 113	-18.5 -18.5	0.16 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.16/1.00 (C-H:1), BC=0.16/1.00 (B-G:1), WB=0.02/1.00 (C-F:1), SSI=0.33/1.00 (B-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.

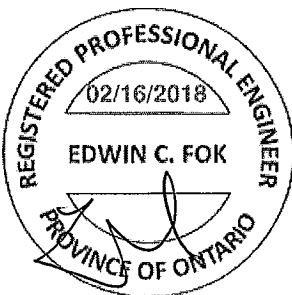
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90)
JSI METAL= 0.07 (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



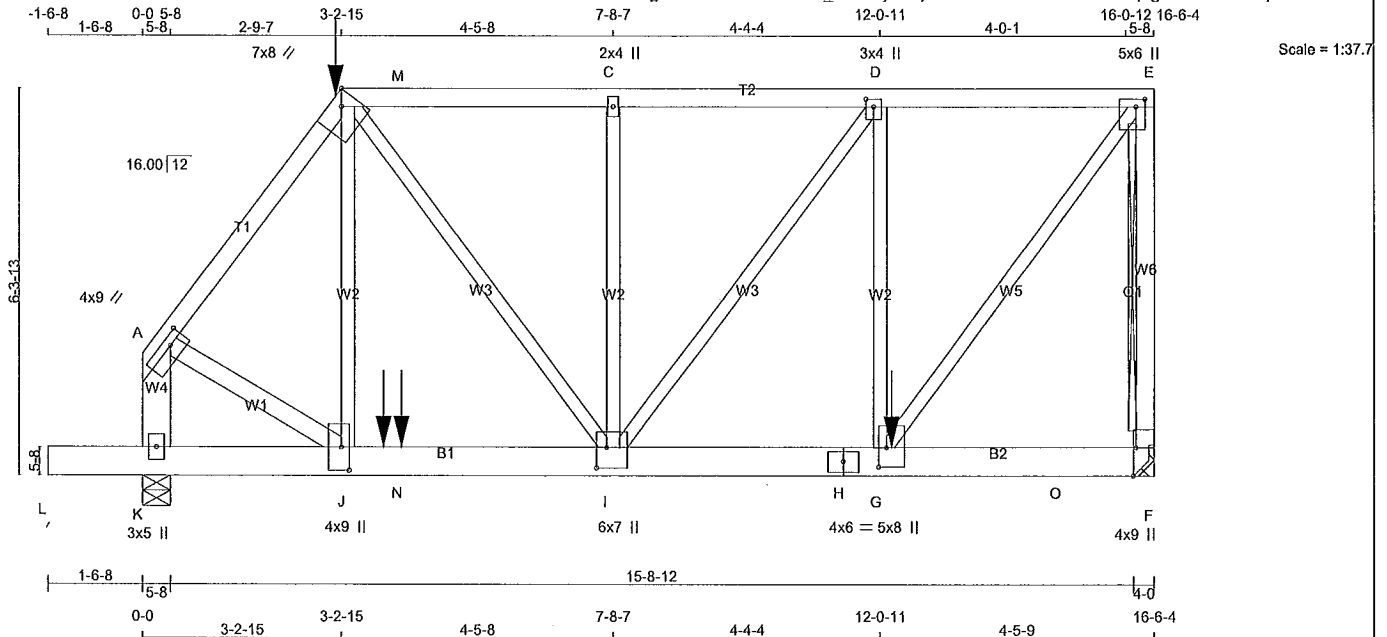
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H9A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Fri Feb 16 11:03:42 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRyQWJP-wRIMkevVe399RkXtUQongCk9tI9MGdIPJQZdakzbYV



TOTAL WEIGHT = 2 X 98 = 195 lb

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

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

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - B 1	12	SIDE(61.0)
B - E 1	12	SIDE(37.8)
E - F 1	12	TOP
K - A 2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
L - H 2	9	SIDE(273.6)
H - F 2	9	SIDE(282.7)
WEBS : (0.122"x3") SPIRAL NAILS		
J - B 1	6	SIDE(10.4)
D - G 1	6	SIDE(152.0)
2x3 1	6	
2x4 1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	DOWN	HORZ	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX
F	6609	0	0	6609	0	0	HANGER BY OTHERS		
K	5848	0	0	5848	0	0	MIN. SEAT SIZE: 4-0	3-12	

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN	COMPONENT	REACTIONS	DEAD	SOIL
F	4691	2984 / 0	0 / 0	0 / 0	0 / 0	1707 / 0
K	4133	2727 / 0	0 / 0	0 / 0	0 / 0	1406 / 0

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

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.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-5446 / 0	-78.0 -78.0	0.22 (1)	J-B	0 / 1751	0.22 (1)	
B-M	-4822 / 0	-153.5 -153.5	0.23 (1)	B-I	0 / 2561	0.32 (1)	
M-C	-4822 / 0	-78.0 -78.0	0.23 (1)	I-C	-297 / 0	0.09 (1)	
C-D	-4821 / 0	-78.0 -78.0	0.26 (1)	I-D	0 / 1536	0.19 (1)	
D-E	-3913 / 0	-153.5 -153.5	0.29 (1)	G-D	-1822 / 0	0.56 (1)	
F-E	-5509 / 0	0.0 0.0	0.75 (1)	G-E	0 / 6518	0.81 (1)	
K-A	-5977 / 0	0.0 0.0	0.24 (1)	A-J	0 / 3565	0.32 (1)	
L-K	0 / 0	-96.5 -96.5	0.04 (1)				
K-J	0 / 0	-36.4 -36.4	0.42 (1)				
J-N	0 / 3275	-36.4 -36.4	0.73 (1)				
N-I	0 / 3275	-565.8 -565.8	0.73 (1)				
I-H	0 / 3913	-565.8 -565.8	0.67 (1)				
H-G	0 / 3913	-565.8 -565.8	0.67 (1)				
G-O	0 / 0	-583.7 -583.7	0.38 (1)				
O-F	0 / 0	-583.8 -583.8	0.38 (1)				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	3-2-15	-184	-184	---	FRONT	VERT	TOTAL
G	12-3-0	-708	-708	---	FRONT	VERT	TOTAL
N	3-11-4	-1820	-1820	---	FRONT	VERT	TOTAL
N	4-2-12	-708	-708	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 3-2-15
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 4-2-12 OF SPAN MEASURED FROM THE RIGHT.

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 3-2-15
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 4-2-12 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder
START DISTANCE = 3-11-4
START SPAN CARRIED = 24-8-5
END DISTANCE = 14-11-12
END SPAN CARRIED = 24-8-5
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADD'L LOADS BASED ON 55 % OF GSL.

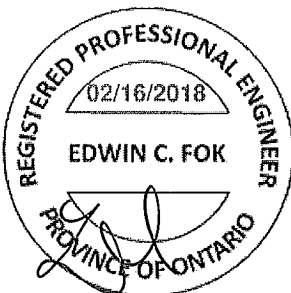
GIRDER TYPE: CStdGirder
START DISTANCE = 14-11-12
START SPAN CARRIED = 24-8-6
END DISTANCE = 16-6-4
END SPAN CARRIED = 24-8-6
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

A-18023250

CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H9A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Fri Feb 16 11:03:42 2018 Page 2
ID:84gOFYESM8s1JmDO6 uSGRyQWJP-wRIMkeyVe399RkXIUCqngCk9tt9MGdIPiQZdakzkbYV

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	9.0	1.50	3.00
B	TTWW-h	MT20	7.0	8.0	Edge	2.75
C	TMW+w	MT20	2.0	4.0		
D	TMWW+t	MT20	3.0	4.0	1.50	1.50
E	TMVW+p	MT20	5.0	6.0	1.50	1.75
F	BMV1+t	MT20	4.0	9.0	Edge	0.50
G	BMWW+t	MT20	5.0	8.0	3.75	1.50
H	BS-t	MT20	4.0	6.0		
I	BMWWW+t	MT20	6.0	7.0	4.00	2.00
J	BMWW+t	MT20	4.0	9.0	4.50	1.50
K	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) 184.5 lbs FACTORED DOWN AT 3-2-15 ON TOP CHORD, AND 1819.5 lbs FACTORED DOWN AT 3-11-4, AND 708.2 lbs FACTORED DOWN AT 4-2-12, AND 708.2 lbs FACTORED DOWN AT 12-3-0 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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 (0.55")
CALCULATED VERT. DEFL.(LL) = L/999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.55")
CALCULATED VERT. DEFL.(TL) = L/999 (0.14")

CANTILEVER DEFLECTION:

ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.75/1.00 (E-F:1), BC=0.73/1.00 (I-J:1),
WB=0.81/1.00 (E-G:1), SSI=0.94/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE 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

PLATE PLACEMENT TOL. = 0.250 inches

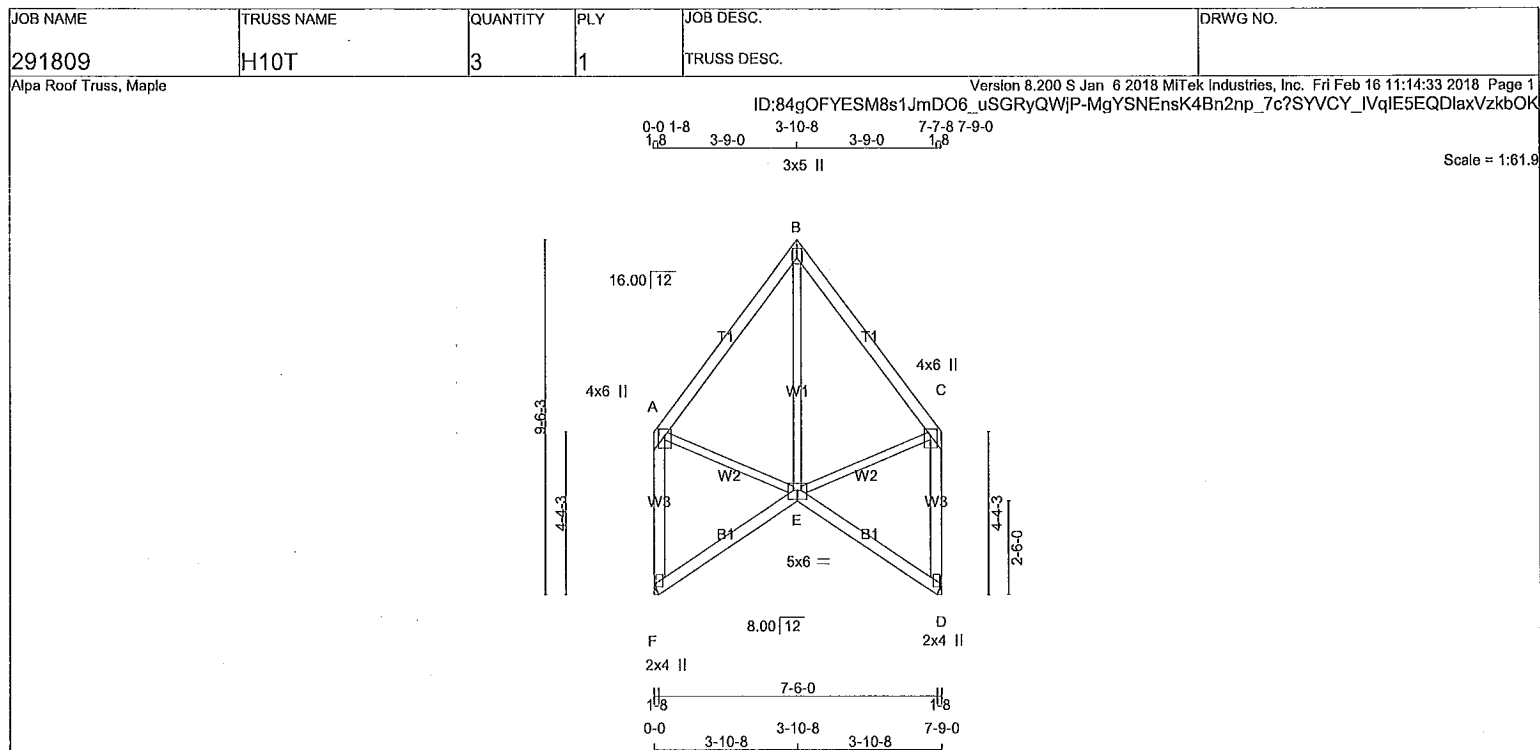
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (J) (INPUT = 0.90)
JSI METAL= 0.74 (J) (INPUT = 1.00)

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



A-18023250(2)



TOTAL WEIGHT = 3 X 47 = 140 lb
(M/F)

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

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	TTW+p	MT20	3.0	5.0	2.00	Edge
C	TMVW+p	MT20	4.0	6.0	2.00	2.00
D	BMV1+p	MT20	2.0	4.0		
E	BBWW+p	MT20	5.0	6.0	2.75	3.00
F	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
F	374	0	374	0	0	HANGER BY OTHERS
D	374	0	374	0	0	MIN. SEAT SIZE: 1-8 HANGER BY OTHERS MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST CASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
F	267	163 / 0	0 / 0	0 / 0	0 / 0	104 / 0	0 / 0
D	267	163 / 0	0 / 0	0 / 0	0 / 0	104 / 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.

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS		FACTORED		WEBS		FACTORED	
	MAX.	FORCE	VERT.	LOAD LC1	MAX.	MEMB.	MAX.	FORCE
		(LBS)		(PLF)				(LBS)
FR-TO			FROM	TO			FROM	TO
A-B	-183	/ 0	-78.0	-78.0	0.15 (1)	6.25	E-B	-9 / 49
B-C	-183	/ 0	-78.0	-78.0	0.15 (1)	6.25	A-E	0 / 117
F-A	-338	/ 0	0.0	0.0	0.11 (1)	7.81	E-C	0 / 117
D-C	-338	/ 0	0.0	0.0	0.11 (1)	7.81		
F-E	0 / 0		-18.5	-18.5	0.08 (4)	10.00		
E-D	0 / 0		-18.5	-18.5	0.08 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 088-09, CSA 088-14
- 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 (0.26")
CALCULATED VERT. DEFL.(LL)= L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.26")
CALCULATED VERT. DEFL.(TL)= L/999 (0.01")

CSI: TC=0.15/1.00 (A-B:1), BC=0.08/1.00 (E-F:4), WB=0.03/1.00 (A-E:1), SS=0.07/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.22 (D) (INPUT = 0.90)
JSI METAL= 0.17 (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

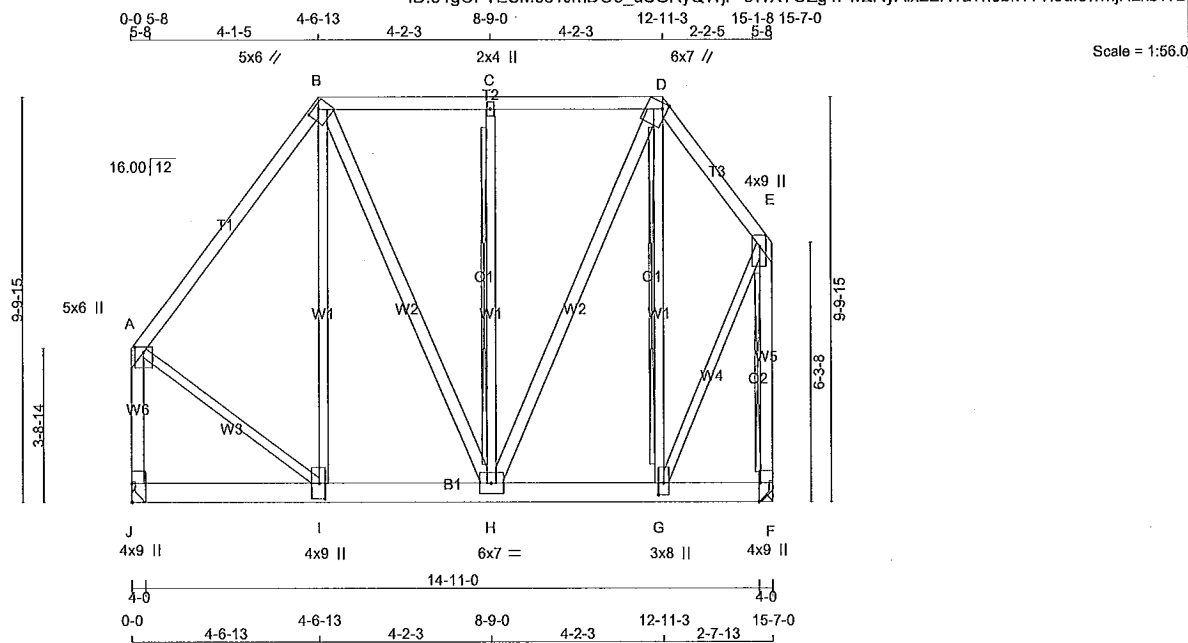


A-18023251

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H11A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Fri Feb 16 11:06:08 2018 Page 1
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TOTAL WEIGHT = 2 X 116 = 233 lb

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

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

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - B	12	TOP
B - D	12	TOP
D - E	12	TOP
J - A	12	TOP
F - E	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
J - F	8	SIDE(308.4)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	
2x4	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
J	5585	0	5585	0
F	5592	0	5592	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL
J	3984 2418 / 0 0 / 0 0 / 0 1566 / 0 0 / 0
F	3990 2418 / 0 0 / 0 0 / 0 1572 / 0 0 / 0

BRACING

FOR SECTION B-D, MAX. PURLIN SPACING = 2.00 FT. FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.86 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.

2x4 DRY SPF No.2 T-BRACE AT C-H, D-G, E-F

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. LC1 (LC)	MAX. UNBRAC LENGTH	WEBS	MAX. FACTORED MEMB. FORCE (LBS)	MAX. LC1 (LC)
FR-TO		FROM TO			FR-TO		
A-B	-3426 / 0	-78.0 -78.0	0.28 (1)	4.86	I-B	0 / 1707	0.21 (1)
B-C	-2373 / 0	-85.5 -85.5	0.14 (1)	2.00	B-H	0 / 760	0.07 (1)
C-D	-2373 / 0	-85.5 -85.5	0.14 (1)	2.00	H-C	-376 / 0	0.18 (1)
D-E	-2358 / 0	-78.0 -78.0	0.07 (1)	5.79	H-D	0 / 2405	0.21 (1)
J-A	-4357 / 0	0.0 0.0	0.50 (1)	5.70	G-D	-575 / 0	0.28 (1)
F-E	-4961 / 0	0.0 0.0	0.72 (1)	7.81	A-I	0 / 2495	0.31 (1)
					G-E	0 / 3278	0.41 (1)
J-I	0 / 0	-635.2 -635.2	0.44 (1)	10.00			
I-H	0 / 2064	-635.2 -635.2	0.57 (1)	10.00			
H-G	0 / 1396	-635.2 -635.2	0.38 (1)	10.00			
G-F	0 / 0	-635.2 -635.2	0.25 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 27-6-14
END DISTANCE = 15-7-0
END SPAN CARRIED = 27-6-14
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.52")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.52")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.72/1.00 (E-F:1), BC=0.57/1.00 (H-I:1), WB=0.41/1.00 (E-G:1), SSI=0.58/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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.



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H11A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Fri Feb 16 11:06:08 2018 Page 2

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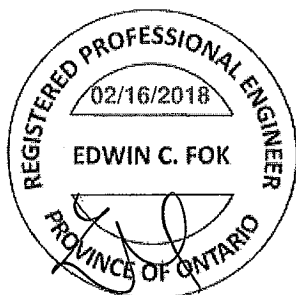
PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	5.0	6.0	1.50	2.50
B	TTWW-h	MT20	5.0	6.0	1.25	3.00
C	TMW+w	MT20	2.0	4.0		
D	TTWW+m	MT20	6.0	7.0	Edge	1.50
E	TMVW+p	MT20	4.0	9.0	3.25	1.75
F	BMV1+t	MT20	4.0	9.0	Edge	0.50
G	BMWW+t	MT20	3.0	8.0	3.50	1.50
H	BMWWW-t	MT20	6.0	7.0		
I	BMWW+t	MT20	4.0	9.0	4.50	1.75
J	BMV1+t	MT20	4.0	9.0	5.50	

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

JSI GRIP= 0.88 (A) (INPUT = 0.90)
JSI METAL= 0.54 (A) (INPUT = 1.00)

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



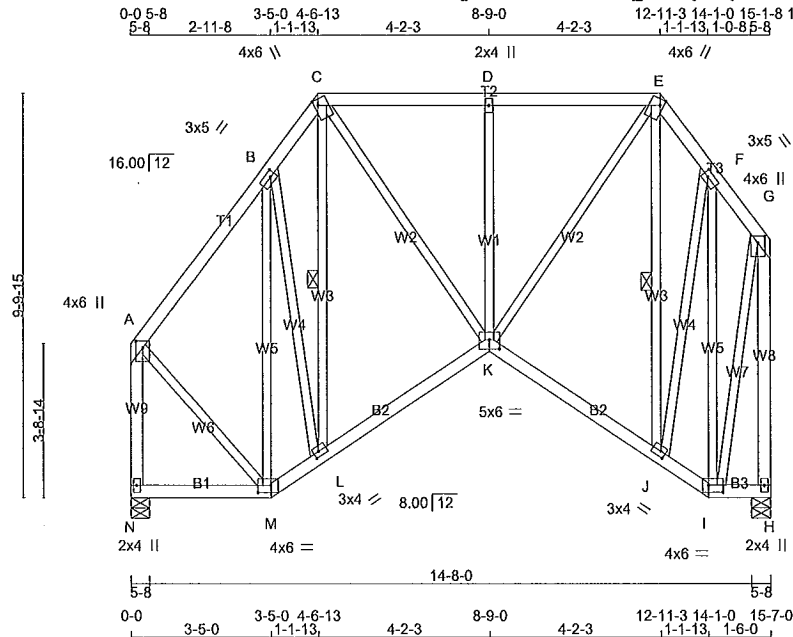
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H11T	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Fri Feb 16 11:04:42 2018 Page 1

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Scale = 1:56.2

TOTAL WEIGHT = 2 X 117 = 235 lb (M)F

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

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00	
B	TMWW-t	MT20	3.0	5.0	1.50	1.50	
C	TTWW+m	MT20	4.0	6.0	1.75	1.00	
D	TMW+w	MT20	2.0	4.0			
E	TTWW+m	MT20	4.0	6.0	1.75	1.00	
F	TMWW-t	MT20	3.0	5.0	1.50	1.50	
G	TMVW+p	MT20	4.0	6.0	2.00	2.00	
H	BMV1+p	MT20	2.0	4.0			
I	BBWW-l	MT20	4.0	6.0	2.00	4.25	
J	BMWW-t	MT20	3.0	4.0	1.50	1.50	
K	BBWWW-p	MT20	5.0	6.0	2.75	3.00	
L	BMWW-t	MT20	3.0	4.0	1.50	1.50	
M	BBWW-l	MT20	4.0	6.0	2.00	4.00	
N	BMV1+p	MT20	2.0	4.0			

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UP
N	779	0	779	0
H	787	0	787	0

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE
N	558	327 / 0	0 / 0
H	564	327 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD LC1 (PLF)	MEMB.	FORCE (LBS)
FR-TO		FROM TO	FR-TO	
A-B	-440 / 0	-78.0 -78.0 0.11 (1)	M-B	-430 / 0
B-C	-572 / 0	-78.0 -78.0 0.10 (1)	B-L	0 / 105
C-D	-543 / 0	-85.5 -85.5 0.18 (1)	L-C	-44 / 0
D-E	-543 / 0	-85.5 -85.5 0.18 (1)	C-K	0 / 427
E-F	-347 / 0	-78.0 -78.0 0.02 (1)	K-D	-428 / 0
F-G	-222 / 0	-78.0 -78.0 0.02 (1)	K-E	0 / 590
N-A	-748 / 0	0.0 0.0 0.18 (1)	J-E	-389 / 0
H-G	-773 / 0	0.0 0.0 0.67 (1)	J-F	0 / 411
			I-F	-620 / 0
N-M	0 / 0	-18.5 -18.5 0.06 (4)	A-M	0 / 386
M-L	0 / 345	-18.5 -18.5 0.10 (4)	I-G	0 / 562
L-K	0 / 354	-18.5 -18.5 0.10 (4)		
K-J	0 / 241	-18.5 -18.5 0.10 (4)		
J-I	0 / 163	-18.5 -18.5 0.08 (4)		
I-H	0 / 0	-18.5 -18.5 0.01 (4)		

DESIGN CRITERIA

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

SPACING = 24.0 IN./C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.52")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.52")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.67/1.00 (G-H:1), BC=0.10/1.00 (K-L:4), WB=0.78/1.00 (F-I:1), SSI=0.17/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

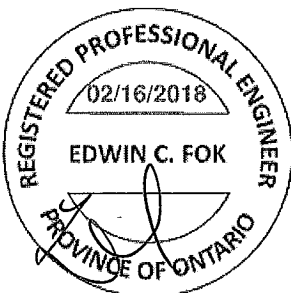
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

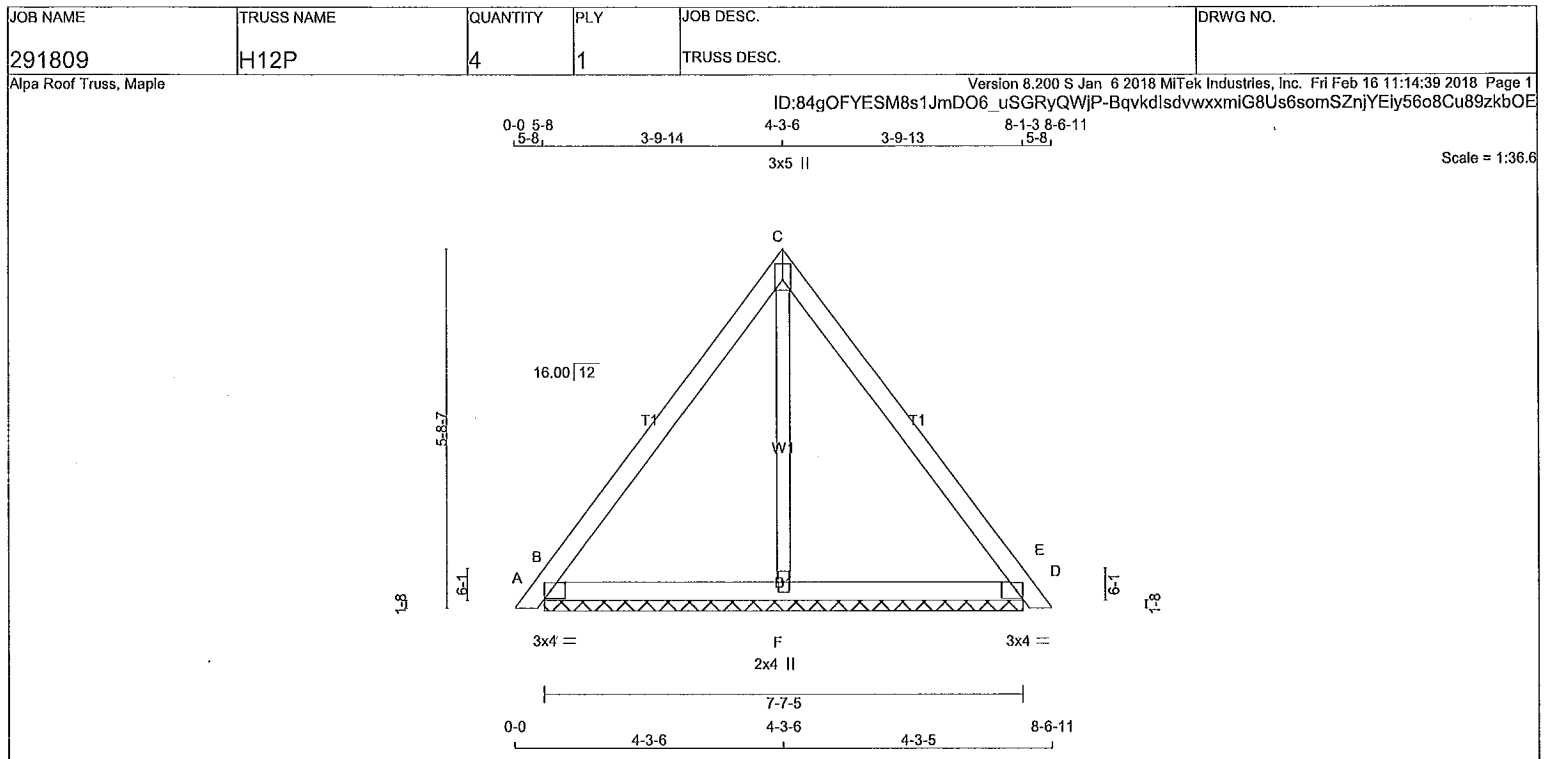
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.19 (G) (INPUT = 1.00)

A-18023253





TOTAL WEIGHT = 4 X 29 = 115 lb [M]

LUMBER

N. L. G. A. RULES

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

PLATES (table is in inches)

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

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
B	284	0	284	0
D	284	0	284	0
F	222	0	222	0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST CASE	MAX./MIN. SNOW	MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
B	199	138 / 0	0 / 0	0 / 0	0 / 0	61 / 0	0 / 0
D	199	138 / 0	0 / 0	0 / 0	0 / 0	61 / 0	0 / 0
F	163	72 / 0	0 / 0	0 / 0	0 / 0	91 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1	
FR-TO		FROM TO	LENGTH	FR-TO		LENGTH	
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	F-C	-134 / 0	0.06 (1)
B-C	-101 / 0	-78.0	-78.0 0.19 (1)	6.25			
C-D	-101 / 0	-78.0	-78.0 0.19 (1)	6.25			
D-E	0 / 10	-78.0	-78.0 0.01 (1)	10.00			
B-F	0 / 60	-18.5	-18.5 0.08 (4)	10.00			
F-D	0 / 60	-18.5	-18.5 0.08 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 086-09, CSA 088-14
- 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=0.19/1.00 (B-C:1), BC=0.08/1.00 (B-F:4), WB=0.06/1.00 (C-F:1), SSI=0.07/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

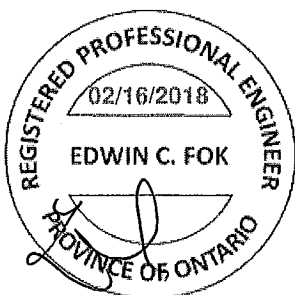
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

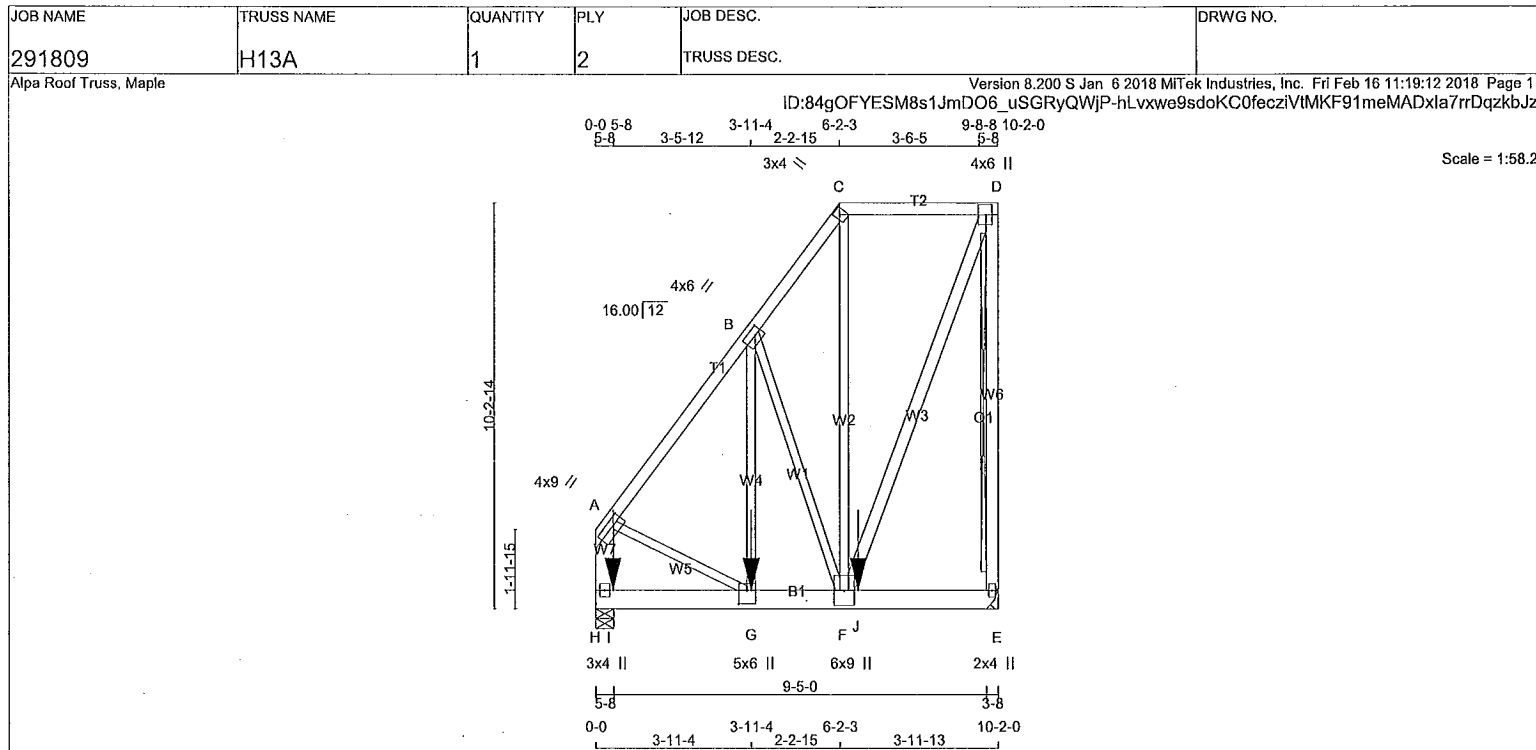
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (D) (INPUT = 0.90)
JSI METAL= 0.13 (D) (INPUT = 1.00)

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



A-18023254



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

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - C	12	TOP
C - D	12	TOP
D - E	12	TOP
H - A	6	SIDE(81.0)
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
H - E	8	SIDE(320.4)
WEBS : (0.122"x3") SPIRAL NAILS		
B - G	6	SIDE(307.2)
2x3	6	
2x4	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.

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per QBC 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	IN-SX	IN-SX	MIN. SEAT SIZE	3-1
E	4032	0	4032	0	0	0	5-8	2-5
H	4302	0	4302	0	0	0	5-8	2-5

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM.LIVE	WIND			
E	2875	1755 / 0	0 / 0	0 / 0	0 / 0	1120 / 0	0 / 0
H	3067	1872 / 0	0 / 0	0 / 0	0 / 0	1195 / 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 = 5.24 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x6 DRY SPF No.2 T-BRACE AT D-E

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)		WEBS MAX. FACTORED FORCE (LBS)		MAX. FACTORED CSI (LC)	
	FR-TO	TO	FROM	TO	FR-TO	TO	FR-TO	TO
A-B	-2965 / 0	-78.0	-78.0	0.15 (1)	5.24	G-B	0 / 2077	0.26 (1)
B-C	-2079 / 0	-78.0	-78.0	0.07 (1)	6.07	B-F	-1732 / 0	0.87 (1)
C-D	-1235 / 0	-78.0	-78.0	0.12 (1)	6.25	F-C	0 / 1426	0.18 (1)
E-D	-3281 / 0	0.0	0.0	0.50 (1)	7.81	F-D	0 / 3375	0.30 (1)
H-A	-3210 / 0	0.0	0.0	0.13 (1)	7.72	A-G	0 / 1916	0.24 (1)
H-I	0 / 0	-18.5	-18.5	0.23 (1)	10.00			
I-G	0 / 0	-249.6	-249.6	0.23 (1)	10.00			
G-F	0 / 1787	-659.4	-659.4	0.39 (1)	10.00			
F-J	0 / 0	-659.4	-659.4	0.27 (1)	10.00			
J-E	0 / 0	-473.5	-428.2	0.27 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
G	3-11-4	-1679	-1679	---	FRONT	VERT	TOTAL
I	5-4	-804	-804	---	FRONT	VERT	TOTAL
J	6-7-12	-804	-804	---	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 = 5-4
START SPAN CARRIED = 11-7-0
END DISTANCE = 6-7-12
END SPAN CARRIED = 11-7-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder

START DISTANCE = 6-7-12
START SPAN CARRIED = 3-10-8
END DISTANCE = 10-2-0
END SPAN CARRIED = 2-0-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder

START DISTANCE = 3-11-4
START SPAN CARRIED = 18-11-14
END DISTANCE = 10-2-0
END SPAN CARRIED = 18-11-14
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, 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 (0.34")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.34")
CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

A-18023255

CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H13A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Fri Feb 16 11:19:12 2018 Page 2
ID:84gOFYESM8s1JmDO6 uSGRyQWJP-hLvxe9sdoKC0feczIViMKF91meMADxla7rrDqzkbJz

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-l	MT20	4.0	9.0	1.75	3.00
B	TMWW-l	MT20	4.0	6.0	2.00	2.25
C	TTW+h	MT20	3.0	4.0	1.75	1.25
D	TMVW+p	MT20	4.0	6.0	3.00	1.75
E	BMV1+p	MT20	2.0	4.0		
F	BMWWW+l	MT20	6.0	9.0		
G	BMWW+l	MT20	5.0	6.0	4.00	2.50
H	BMV1+p	MT20	3.0	4.0		

HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 803.7 lbs FACTORED DOWN AT 5-4, AND 803.7 lbs FACTORED DOWN AT 6-7-12, AND 1678.9 lbs FACTORED DOWN AT 3-11-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

CSI: TC=0.50/1.00 (D-E:1) , BC=0.39/1.00 (F-G:1) ,
WB=0.87/1.00 (B-F:1) , SSI=0.62/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

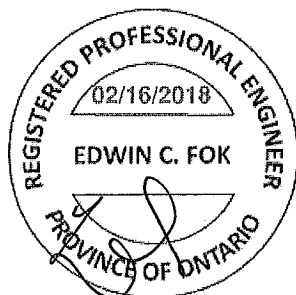
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
	MAX	MIN	MAX
MT20	618	354	1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (E) (INPUT = 0.90)
JSI METAL= 0.36 (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



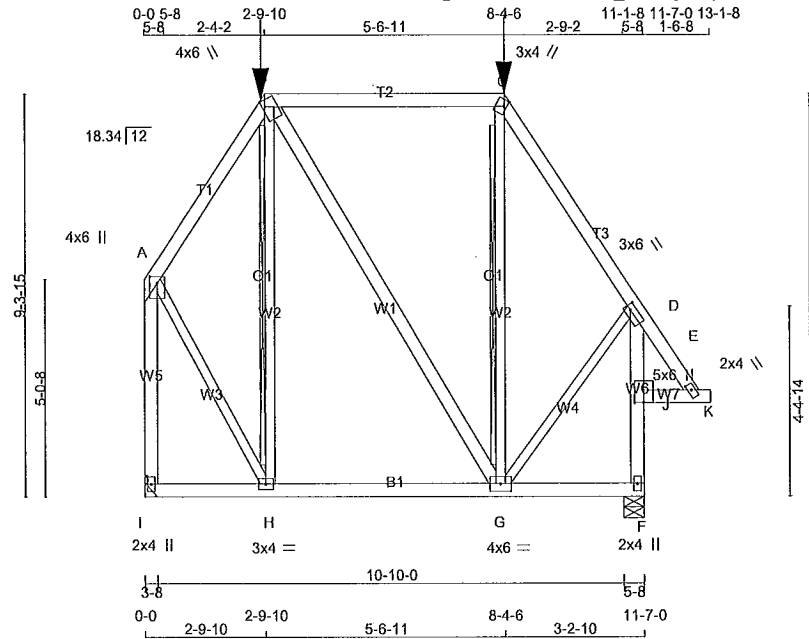
A-18023255(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H14A	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Fri Feb 16 11:16:32 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRYQWjP-NZESLxDVleAvp3Psb5eMtbmoH5Lh1nD4Nc6zkbMT



Scale = 1:53.4

TOTAL WEIGHT = 2 X 81 = 162 lb

LUMBER	CHORDS	SIZE	DRY	LUMBER	DESCR.
N. L. G. A. RULES					
A - B	2x4	DRY	No.2	SPF	
B - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
I - A	2x4	DRY	No.2	SPF	
F - D	2x4	DRY	No.2	SPF	
I - F	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
B - G	2x4	DRY	No.2	SPF	
J - K	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	1.75	2.00
B	TTWW+m	MT20	4.0	6.0	Edge	0.75
C	TTWW+m	MT20	3.0	4.0	Edge	0.75
D	TMVW-t	MT20	3.0	6.0	1.50	1.50
E	TWMH	MT20	2.0	4.0	1.00	1.75
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW-t	MT20	4.0	6.0		
H	BMVWW-t	MT20	3.0	4.0		
I	BMV1+p	MT20	2.0	4.0		
J	VMW-I	MT20	5.0	6.0	2.50	

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 99.3 lbs FACTORED DOWN AT 8-4-6, AND 86.5 lbs FACTORED DOWN AT 2-9-10 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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
I	803	0	803	0
F	898	0	898	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	LIVE	PERM. LIVE	WIND	DEAD	SOIL
I	573	347 / 0	0 / 0	0 / 0	0 / 0	225 / 0	0 / 0
F	638	399 / 0	0 / 0	0 / 0	0 / 0	240 / 0	0 / 0

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

BRACING

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

MAX. UNBRACED INTERIOR CHORD LENGTH = 10.00 FT

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

2x4 DRY SPF No.2 T-BRACE AT B-H, C-G

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	W E B S	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD LC1 (PLF)	MEMB.	FORCE (LBS)
FR-TO		FROM TO	FR-TO	
A-B	-394 / 0	-78.0 -78.0 0.12 (1)	H-B	-209 / 10
B-C	-228 / 0	-114.5 -114.5 0.67 (1)	B-G	0 / 31
C-D	-451 / 0	-78.0 -78.0 0.17 (1)	G-C	-155 / 33
D-E	0 / 24	-78.0 -78.0 0.16 (1)	A-H	0 / 402
I-A	-781 / 0	0.0 0.0 0.38 (1)	G-D	0 / 339
F-J	-866 / 0	0.0 0.0 0.17 (1)	J-E	0 / 28
J-D	-866 / 0	0.0 0.0 0.16 (1)	E-K	0 / 0
I-H	0 / 0	-27.2 -27.2 0.14 (4)		
H-G	0 / 211	-27.2 -27.2 0.17 (4)		
G-F	0 / 13	-27.2 -27.2 0.14 (4)		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	2-9-10	-86	-86	---	FRONT	VERT	TOTAL
C	8-4-6	-99	-99	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-9-10
RIGHT SETBACK = 3-2-10
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.39")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.67/1.00 (B-C:1), BC=0.17/1.00 (G-H:4), WB=0.14/1.00 (B-H:1), SSI=0.27/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

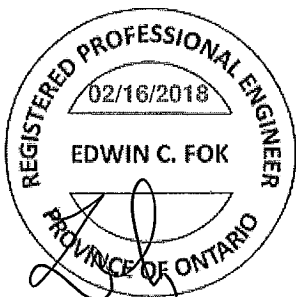
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.77 (H) (INPUT = 0.80)
JSI METAL= 0.18 (F) (INPUT = 1.00)

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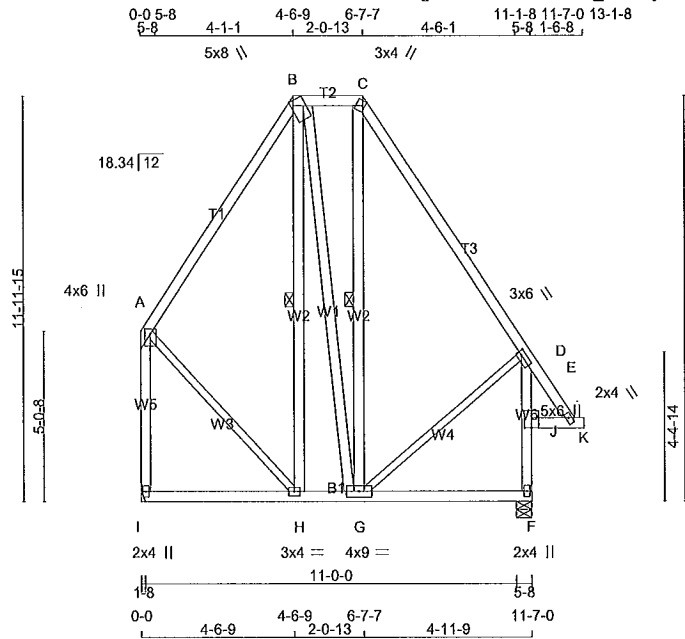


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H15	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Fri Feb 16 11:27:24 2018 Page 1

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Scale = 1:68.2

TOTAL WEIGHT = 3 X 100 = 299 lb

LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	DRY	LUMBER	DESCR.	SPF
A - B	2x4	DRY	No.2	SPF	
B - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
I - A	2x4	DRY	No.2	SPF	
F - D	2x4	DRY	No.2	SPF	
I - F	2x4	DRY	No.2	SPF	
ALL WEBS	2x4	DRY	No.2	SPF	
EXCEPT					
A - H	2x3	DRY	No.2	SPF	
G - D	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	1.75	2.00
B	TTWW+m	MT20	5.0	8.0	Edge	0.75
C	TTWW+m	MT20	3.0	4.0	Edge	0.75
D	TMVW-t	MT20	3.0	6.0	1.50	1.50
E	TWMH	MT20	2.0	4.0	1.00	1.75
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW-t	MT20	4.0	9.0		
H	BMVW-t	MT20	3.0	4.0		
I	BMV1+p	MT20	2.0	4.0		
J	VMW-i	MT20	5.0	6.0	2.50	

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

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

FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	JT	GROSS REACTION	JT	BRG	JT	BRG
	VERT		DOWN		IN-SX		IN-SX
I	554	0	554	0	0	HANGER BY OTHERS	
F	657	0	657	0	0	MIN. SEAT SIZE: 1-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	395	241 / 0	0 / 0	0 / 0	0 / 0	0 / 0	154 / 0	0 / 0
F	466	296 / 0	0 / 0	0 / 0	0 / 0	0 / 0	170 / 0	0 / 0

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

BRACING

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

MAX. UNBRACED INTERIOR CHORD LENGTH = 10.00 FT

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-H, 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				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	-247 / 0	-78.0 -78.0	0.21 (1)	6.25	H-B	-69 / 15	0.05 (1)
B-C	-137 / 0	-78.0 -78.0	0.04 (1)	6.25	B-G	0 / 18	0.00 (4)
C-D	-285 / 0	-78.0 -78.0	0.24 (1)	6.25	G-C	-23 / 36	0.02 (1)
D-E	-4 / 0	-78.0 -78.0	0.21 (1)	10.00	A-H	0 / 189	0.04 (1)
I-A	-517 / 0	0.0 0.0	0.25 (1)	7.81	G-D	0 / 128	0.03 (1)
F-J	-618 / 0	0.0 0.0	0.02 (1)	7.81	J-E	0 / 78	0.01 (1)
J-D	-618 / 0	0.0 0.0	0.02 (4)	7.81	E-K	0 / 0	0.00 (1)
I-H	0 / 0	-18.5 -18.5	0.08 (4)	10.00			
H-G	0 / 134	-18.5 -18.5	0.11 (4)	10.00			
G-F	0 / 36	-18.5 -18.5	0.10 (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 (0.39")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.25/1.00 (A-I:1) , BC=0.11/1.00 (G-H:4) , WB=0.05/1.00 (B-H:1) , SS=0.10/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

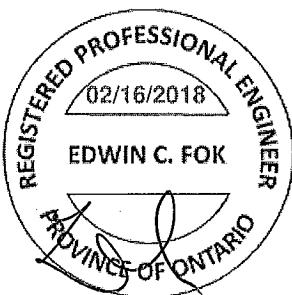
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.42 (D) (INPUT = 0.90)
JSI METAL= 0.13 (F) (INPUT = 1.00)

A-18023257



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H16S	2	1	TRUSS DESC.	

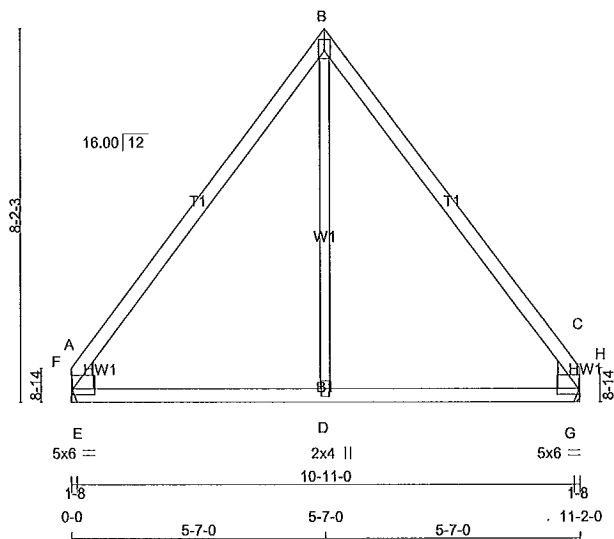
Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Fri Feb 16 11:27:41 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRyQWjP-HG9MlhJ8IBS_at2RI58EUgrBnyPowdnDdpeHbqzkbC0

0-0 5-8 2-4-3 2-9-11 2-9-5 5-7-0 2-9-5 8-4-5 2-4-3 10-8-8 11-2-0
5-8 5-8
3x5 II

Scale = 1:50.5



TOTAL WEIGHT = 2 X 43 = 86 lb

LUMBER	CHORDS	SIZE	DRY	LUMBER	DESCR.
N. L. G. A. RULES					
A - B	2x4	DRY	No.2	SPF	
B - C	2x4	DRY	No.2	SPF	
A - C	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	TMBH1-I	MT20	5.0	6.0	1.50	0.25	
B	TTW+p	MT20	3.0	5.0	2.00	Edge	
C	TMBH1-I	MT20	5.0	6.0	1.50	0.25	
D	BMW+w	MT20	2.0	4.0			

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	HEEL
JT	VERT	DOWN	HORZ	IN-SX	WEDGE
A	539	0	0	HANGER BY OTHERS	2x8 L
C	539	0	0	HANGER BY OTHERS	2x8 R

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
A	384	234 / 0	0 / 0	0 / 0	0 / 0	150 / 0	0 / 0
C	384	234 / 0	0 / 0	0 / 0	0 / 0	150 / 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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. MEMB. FORCE (LBS)	WEBS	MAX. FACTORED MEMB. FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-F	-140 / 183	-78.0	-78.0	0.27 (1)	6.25	D-B	0 / 209
F-B	-379 / 0	-78.0	-78.0	0.30 (1)	6.25	E-F	-790 / 0
B-H	-379 / 0	-78.0	-78.0	0.30 (1)	6.25	G-H	-790 / 0
H-C	-140 / 183	-78.0	-78.0	0.27 (1)	6.25		
A-E	0 / 212	-18.5	-18.5	0.23 (1)	10.00		
E-D	0 / 212	-18.5	-18.5	0.23 (1)	10.00		
D-G	0 / 212	-18.5	-18.5	0.23 (1)	10.00		
G-C	0 / 212	-18.5	-18.5	0.23 (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 (0.37")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.37")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.30/1.00 (B-H:1), BC=0.23/1.00 (D-G:1), WB=0.05/1.00 (B-D:4), SSI=0.62/1.00 (C-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.

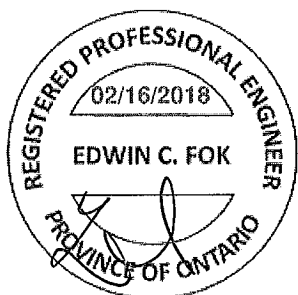
NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)	
	MAX	MIN	MAX	MIN
MT20	618	354	1667	788

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (C) (INPUT = 0.90)
JSI METAL= 0.23 (A) (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-18023258

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	H16T	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

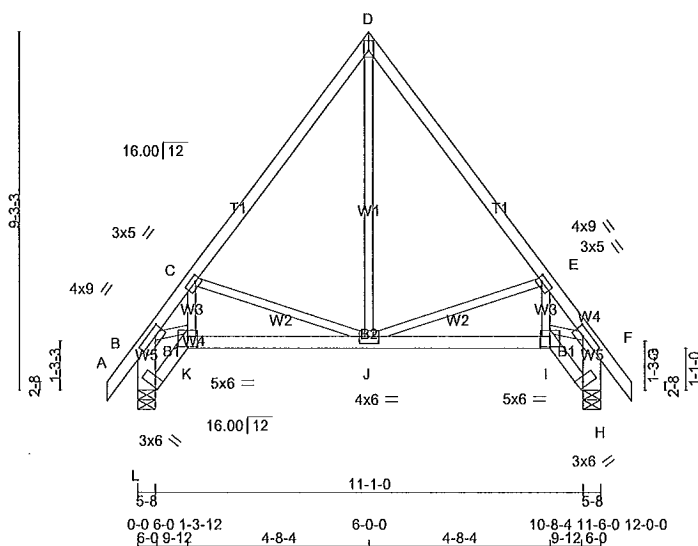
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Fri Feb 16 11:27:46 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRyQWjP-eEyFpONHaj5GgfwP4fkPBjY28z87bspym5L2G2zkbBx

-9-8 0-0 5-8 1-3-12
9-8 5-8 10-4 4-8-4 6-0-0 4-8-4 10-8-4 11-6-8 12-0-0 12-9-8
10-4,5-8 9-8

3x5 II

Scale = 1:59.6



TOTAL WEIGHT = 2 X 64 = 128 lb

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	4.0	9.0	2.00	3.00
C	TMVW-I	MT20	3.0	5.0	1.50	1.50
D	TMVW-I	MT20	3.0	5.0	2.00	Edge
E	TMVW-I	MT20	3.0	5.0	1.50	1.50
F	TMVW-I	MT20	4.0	9.0	2.00	3.00
H	BVM1-I	MT20	3.0	6.0	Edge	
I	BBWW-I	MT20	5.0	6.0	3.00	3.00
J	BBWW-I	MT20	4.0	6.0		
K	BBWW-I	MT20	5.0	6.0	3.00	3.00
L	BVM1-I	MT20	3.0	6.0	Edge	

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	UPLIFT	IN-SX
L	650	0	0	5-8
H	650	0	0	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	462	290 / 0	0 / 0	0 / 0	0 / 0	172 / 0	0 / 0
H	462	290 / 0	0 / 0	0 / 0	0 / 0	172 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	CS1 (LC)	UNBRAC	WEBS	MAX. FACTORED	FORCE	MAX	CS1 (LC)
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (LBS)	MAX	CS1 (LC)	UNBRAC	MEMB.	FORCE (LBS)	MAX	CS1 (LC)		
FR-TO		FROM	TO	LENGTH	FR-TO							
A-B	0 / 28	-78.0	-78.0	0.05 (1)	10.00	J-D	0 / 318	0.07 (1)				
B-C	-818 / 0	-78.0	-78.0	0.16 (1)	6.25	J-E	-322 / 0	0.13 (1)				
C-D	-407 / 0	-78.0	-78.0	0.20 (1)	6.25	I-E	0 / 157	0.04 (1)				
D-E	-407 / 0	-78.0	-78.0	0.20 (1)	6.25	C-J	-322 / 0	0.13 (1)				
E-F	-818 / 0	-78.0	-78.0	0.16 (1)	6.25	K-C	0 / 157	0.04 (1)				
F-G	0 / 28	-78.0	-78.0	0.05 (1)	10.00	B-K	0 / 551	0.12 (1)				
L-B	-637 / 0	0.0	0.0	0.04 (1)	7.81	I-F	0 / 551	0.12 (1)				
H-F	-637 / 0	0.0	0.0	0.04 (1)	7.81							
L-K	0 / 0	-18.5	-18.5	0.01 (4)	10.00							
K-J	0 / 531	-18.5	-18.5	0.16 (4)	10.00							
J-I	0 / 531	-18.5	-18.5	0.16 (4)	10.00							
I-H	0 / 0	-18.5	-18.5	0.01 (4)	10.00							

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

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.40")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.40")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.20/1.00 (D-E:1), BC=0.16/1.00 (I-J:4), WB=0.13/1.00 (E-J:1), SSI=0.10/1.00 (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

AUTOSOLVE HEELS OFF

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

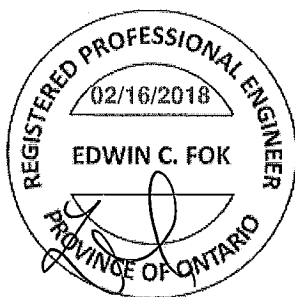
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.74 (K) (INPUT = 0.90)
JSI METAL= 0.20 (K) (INPUT = 1.00)

A-18023259

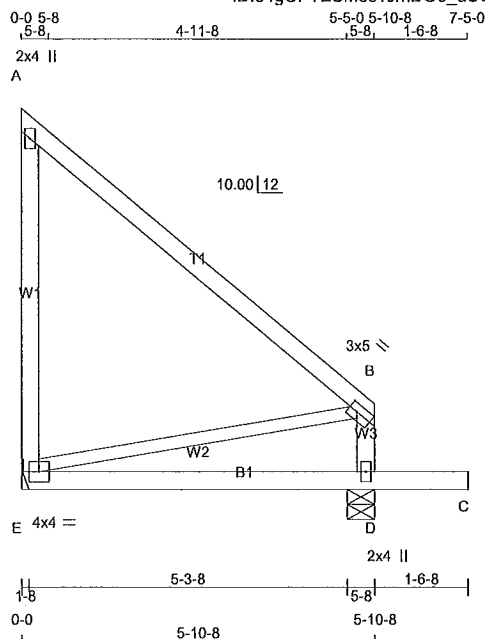


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	J2A	2	2	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Fri Feb 16 10:59:26 2018 Page 1

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Scale = 1:38.2

TOTAL WEIGHT = 4 X 29 = 118 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
E - A	2x4 DRY	No.2	SPF	
A - B	2x4 DRY	1650F 1.5E	SPF	
D - B	2x4 DRY	No.2	SPF	
E - C	2x4 DRY	2100F 1.8E	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		
E - A 1	12	TOP
A - B 1	12	TOP
D - B 1	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
E - C 1	12	SIDE(69.3)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3 1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF 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	TMV+p	MT20	2.0	4.0		
B	TMVW-l	MT20	3.0	5.0	1.50	1.75
D	BMV1+p	MT20	2.0	4.0		
E	BMVW-l	MT20	4.0	4.0		

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

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

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	DOWN	IN-SX	IN-SX
E	691	0	5-8	1-8
D	839	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE	
E	492	301 / 0	0 / 0	0 / 0	192 / 0
D	599	365 / 0	0 / 0	0 / 0	233 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX
FR-TO		FROM TO		FR-TO		FROM TO	
E - A	-229 / 0	0.0	0.0	E - B	0 / 0	0.0	(1)
A - B	0 / 0	-78.0	-78.0				
D - B	-229 / 0	0.0	0.0				
E - D	0 / 0	-157.2	-157.2				
D - C	0 / 0	-96.5	-96.5				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStdGirder

START DISTANCE = 0-0

START SPAN CARRIED = 7-9-0

END DISTANCE = 5-10-8

END SPAN CARRIED = 7-9-0

END WALL WIDTH = 0-0

APPLIED TO FRONT SIDE OF BOTTOM CHORD.

- ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, OBC 2018

- CSA 086-09, CSA 086-14

- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/840 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/379 (0.19")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.21/1.00 (A-B:1), BC=0.33/1.00 (D-E:1), WB=0.00/1.00 (B-E:1), SS=0.20/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

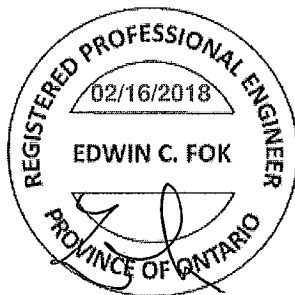
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.10 (B) (INPUT = 0.90)
JSI METAL= 0.06 (A) (INPUT = 1.00)

A-18023260 CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	P1	2	1	TRUSS DESC.	

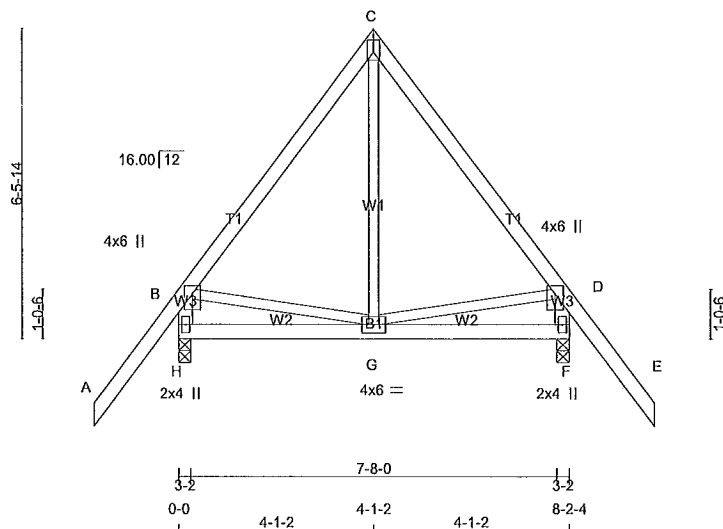
Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Fri Feb 16 11:28:01 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRyQWjP-i7MwyXZh2K_8_yaHTIVwlugH0Gncg29DwULlgzkbB

-1-9-6 0-05-8 3-7-10 4-1-2 3-7-10 7-8-12 8-2-4 9-11-10
1-9-6 5-8 3-7-10 4-1-2 3-7-10 5-8 1-9-6
3x5 II

Scale: 1/4"=1'



TOTAL WEIGHT = 2 X 45 = 90 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
H	543	0	543	0	3-2	1-8
F	543	0	543	0	3-2	1-8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	384	252 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0
F	384	252 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 59	-78.0 -78.0	0.20 (1)	G-C	0 / 87	0.03 (4)	
B-C	-230 / 0	-78.0 -78.0	0.17 (1)	B-G	0 / 140	0.03 (1)	
C-D	-230 / 0	-78.0 -78.0	0.17 (1)	G-D	0 / 140	0.03 (1)	
D-E	0 / 59	-78.0 -78.0	0.20 (1)				
H-B	-514 / 0	0.0 0.0	0.05 (1)				
F-D	-514 / 0	0.0 0.0	0.05 (1)				
H-G	0 / 0	-18.5 -18.5	0.09 (4)				
G-F	0 / 0	-18.5 -18.5	0.09 (4)				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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) = 1/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = 1/ 999 (0.01")

CSI: TC=0.20/1.00 (A-B:1) , BC=0.09/1.00 (F-G:4) , WB=0.03/1.00 (B-G:1) , SSI=0.07/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

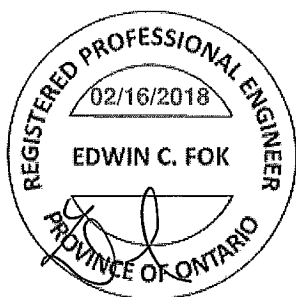
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.30 (D) (INPUT = 0.90)
JSI METAL = 0.15 (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-18023261

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291809	P2	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

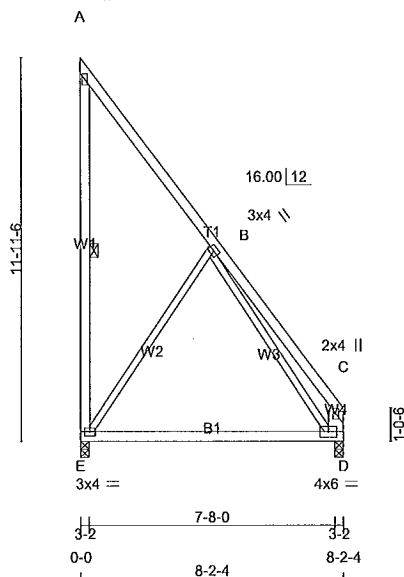
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Fri Feb 16 11:28:14 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRyQWjP-qdfqhzjr_Kd1y3njXE_KdiqcFeO9V14DR7XFQzkbBV

0-0 5-8 4-1-2 7-8-12 8-2-4
5-8 3-7-10 3-7-10 5-8

2x4 II

Scale = 1:71.8



TOTAL WEIGHT = 2 X 51 = 101 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMVW-t	MT20	3.0	4.0		
C	TMV+p	MT20	2.0	4.0		
D	BMVW1-t	MT20	4.0	6.0		
E	BMVW1-t	MT20	3.0	4.0		

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
E	395	0	395	0	3-2	1-8		
D	395	0	395	0	3-2	1-8		

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE				
E	282	172 / 0	0 / 0	0 / 0	0 / 0	110 / 0	0 / 0
D	282	172 / 0	0 / 0	0 / 0	0 / 0	110 / 0	0 / 0

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

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 A-E.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (PLF)	MAX. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FT)
FR-TO		FROM	TO		FR-TO		
E-A	-128 / 0	0.0	0.0	0.10 (1)	E-B	-236 / 0	0.24 (1)
A-B	-30 / 0	-78.0	-78.0	0.17 (1)	B-D	-249 / 0	0.23 (1)
B-C	0 / 33	-78.0	-78.0	0.23 (1)			
D-C	-112 / 0	0.0	0.0	0.01 (1)			
E-D	0 / 138	-18.5	-18.5	0.37 (4)			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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.(TL)= L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = L/485 (0.20")

CSI: TC=0.23/1.00 (B-C:1), BC=0.37/1.00 (D-E:4),
WB=0.24/1.00 (B-E:1), SSI=0.10/1.00 (D-E: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 LEFT HEEL ONLY

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

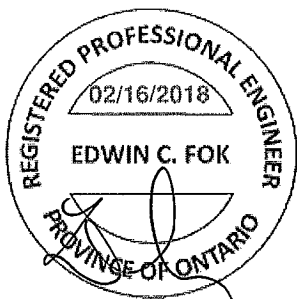
NAIL VALUES				
PLATE	GRIP(DRY)	SHEAR	SECTION	
	(PSI)	(PLI)	(PLI)	
MT20	618	354	1667	788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (B) (INPUT = 0.90)
JSI METAL = 0.12 (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



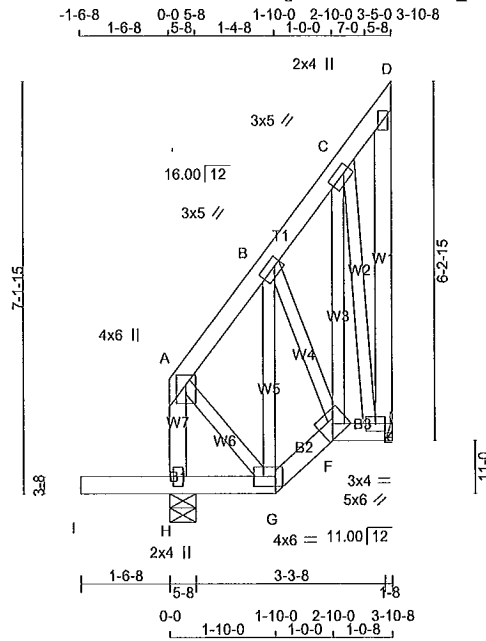
A-18023263

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292587	J1T	6	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Fri Feb 16 12:12:40 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRyQWjP-mWkhDZ_78SV0ftAvR39Nq7UvxbTPlzUFDxbpuzkaXr



Scale = 1:40.1

TOTAL WEIGHT = 6 X 37 = 223 lb

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

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TMVW-l	MT20	3.0	5.0	1.50	1.50
C	TMVW-t	MT20	3.0	5.0	1.50	1.50
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BBWW-h	MT20	5.0	6.0		
G	BBWW-l	MT20	4.0	6.0	2.00	4.50
H	BMV1+p	MT20	2.0	4.0		

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT	REQRD
JT	GROSS REACTION		GROSS REACTION			BRG	BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
H	365	0	365	0	0	5-8	1-8
E	157	0	157	0	0	HANGER BY OTHERS	
							MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX / MIN	COMPONENT REACTIONS			
H	260	169 / 0	0 / 0	0 / 0	0 / 0	101 / 0
E	112	68 / -13	0 / 0	0 / 0	0 / 0	44 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

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			
H-A	-137 / 0	0.0	0.0 0.02 (1)	A-G	-4 / 49	0.01 (1)	
A-B	-52 / 6	-78.0	-78.0 0.03 (1)	G-B	-100 / 0	0.03 (1)	
B-C	-49 / 0	-78.0	-78.0 0.03 (1)	B-F	-30 / 13	0.01 (1)	
C-D	-4 / 0	-78.0	-78.0 0.01 (1)	F-C	-2 / 79	0.02 (1)	
E-D	-24 / 0	0.0	0.0 0.02 (1)	C-E	-125 / 0	0.05 (1)	
I-H	0 / 0	-96.5	-96.5 0.16 (1)				10.00
H-G	0 / 0	-18.5	-18.5 0.16 (1)				10.00
G-F	-5 / 47	-18.5	-18.5 0.01 (1)				10.00
F-E	0 / 19	-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 = 8.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. C/C

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

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

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

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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/544 (0.03")

CSI: TC=0.03/1.00 (A-B:1), BC=0.16/1.00 (G-H:1), WB=0.05/1.00 (C-E:1), SSI=0.12/1.00 (H-I: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= 0.13 (E) (INPUT = 0.90)
JSI METAL= 0.04 (G) (INPUT = 1.00)

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



A-18023266

A-18023267 CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292587	J1TB	1	1	TRUSS DESC.	

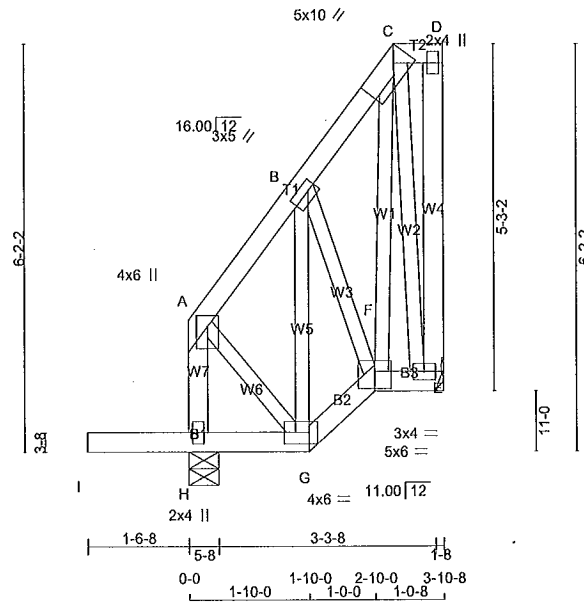
Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Fri Feb 16 12:12:52 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRyQWJP-PqTEkg7fJ80JKVotcyH_sMdXsmhHdkyF05rEECzkaXf

-1-6-8 0-0 5-8 1-10-0 3-1-11 3-5-0 3-10-8
1-6-8 5-8 1-4-8 1-3-11 3-5-6

Scale = 1:34.9



TOTAL WEIGHT = 36 lb

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVV+p	MT20	4.0	6.0	2.00	2.00
B	TMWW-l	MT20	3.0	5.0	1.50	1.50
C	TTWW-h	MT20	5.0	10.0	Edge	2.75
D	TMV+p	MT20	2.0	4.0		
E	BMVW-l	MT20	3.0	4.0		
F	BBWW-l	MT20	5.0	6.0	3.00	3.00
G	BBWW-l	MT20	4.0	6.0	2.00	4.50
H	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	IN-SX	IN-SX
JT	157	0	5-8	1-8
E	365	0	365	0
H	365	0	365	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. SNOW	MIN. COMPONENT LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	112	68 / -13	0 / 0	0 / 0	0 / 0	44 / 0	0 / 0
E	260	169 / 0	0 / 0	0 / 0	0 / 0	101 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (6)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 MAX (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	-52 / 6	-78.0	-78.0 0.03 (1)	6.25	G-B	-100 / 0	0.03 (1)
B-C	-51 / 0	-78.0	-78.0 0.03 (1)	6.25	B-F	-33 / 13	0.01 (1)
C-D	0 / 0	-78.0	-78.0 0.01 (1)	10.00	F-C	-2 / 82	0.02 (1)
E-D	-29 / 0	0.0	0.0 0.01 (1)	7.81	C-E	-121 / 0	0.05 (1)
H-A	-137 / 0	0.0	0.0 0.02 (1)	7.81	A-G	-4 / 49	0.01 (1)
I-H	0 / 0	-96.5	-96.5 0.16 (1)	10.00			
H-G	0 / 0	-18.5	-18.5 0.16 (1)	10.00			
G-F	-5 / 47	-18.5	-18.5 0.01 (1)	10.00			
F-E	0 / 18	-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

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

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

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

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

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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL)= L/544 (0.03")

CSI: TC=0.03/1.00 (A-B:1), BC=0.16/1.00 (G-H:1), WB=0.05/1.00 (C-E:1), SSI=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

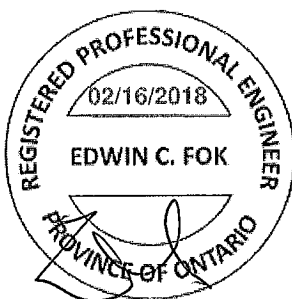
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

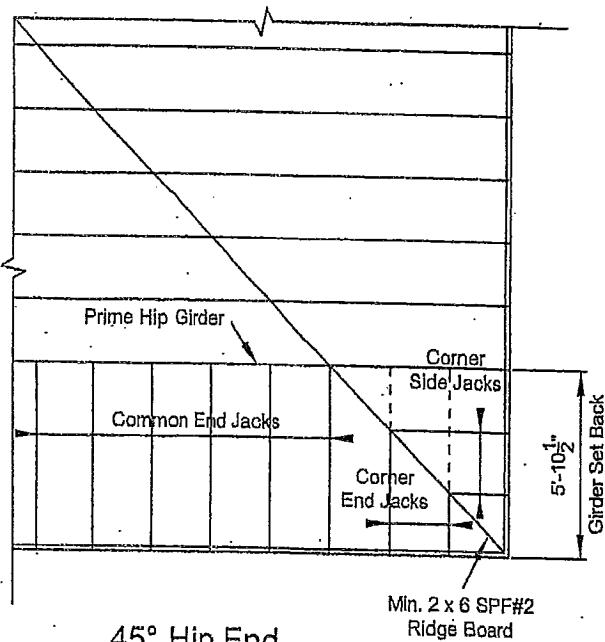
JSI GRIP= 0.12 (E) (INPUT = 0.90)
JSI METAL= 0.04 (G) (INPUT = 1.00)

A-18023268

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



STRACON ENGINEERING INC.



45° Hip End

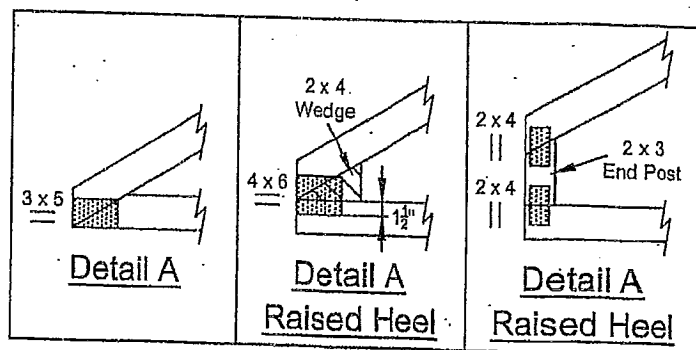
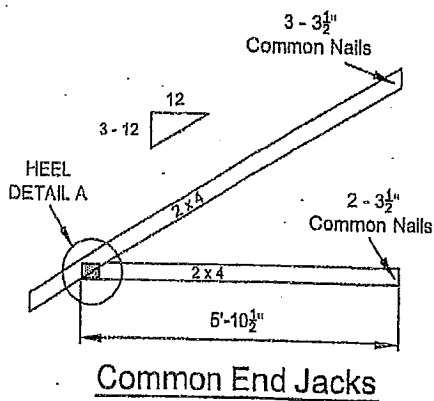
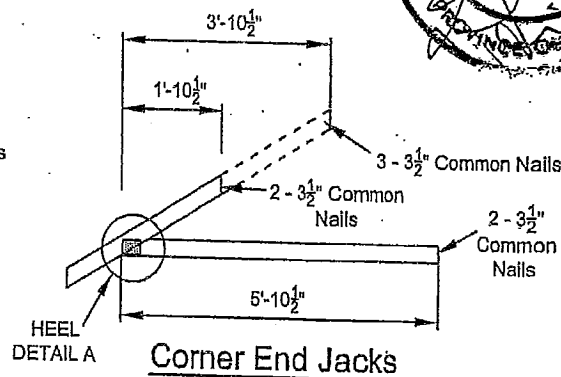
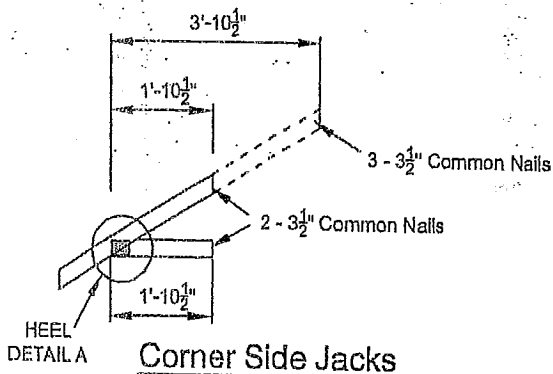
LUMBER SPECIFICATION

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

DESIGN LOAD

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

TOTAL LOAD : 50.5 P.S.F.



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

CS-51008

LUS – Double Shear Joist Hangers



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

Material: 18 gauge

Finish: G90 galvanized

Design:

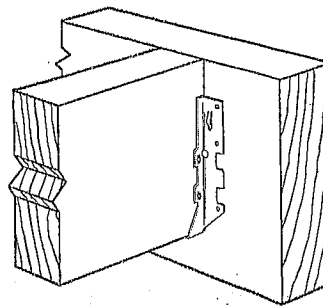
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

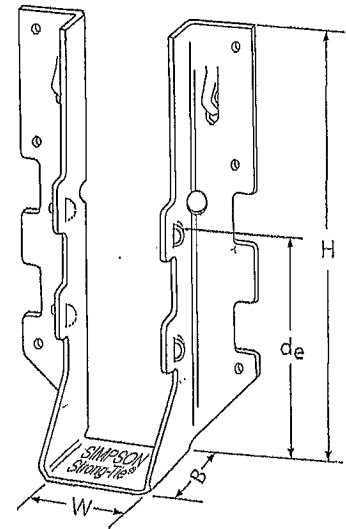
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire,
10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



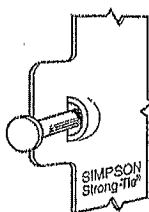
Typical LUS Installation



LUS28

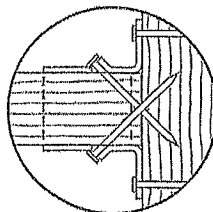
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _o ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1⅞	3⅞	1¾	1⅞	(4) 10d	(2) 10d	710	1830	645	1155
LUS24-2	18	3⅞	3⅞	2	1⅞	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1⅞	4⅞	1¾	3⅞	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3⅞	4⅞	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4⅞	4⅞	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1⅞	6⅞	1¾	3⅞	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3⅞	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4⅞	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1⅞	7⅞	1¾	3⅞	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3⅞	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4⅞	8⅞	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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

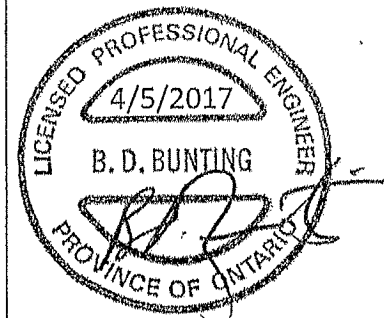


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2019, and reflects information available as of March 19, 2017.

This information is updated periodically and should not be relied upon after June 30, 2019.

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

(800) 999-5099
strongtie.com

HHUS – Double Shear Joist Hangers



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

Material: 14 gauge

Finish: G90 galvanized

Design:

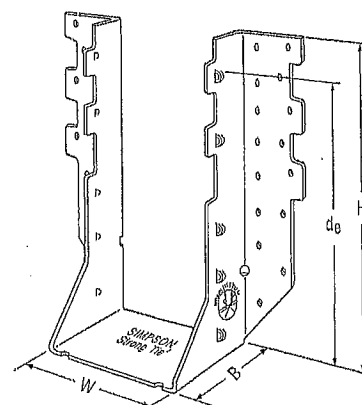
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

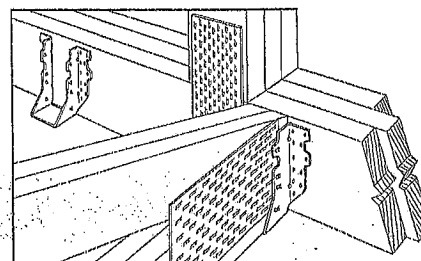
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

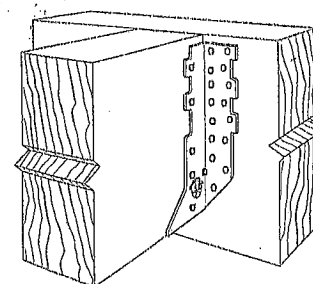
- See current catalogue for options



HHUS410



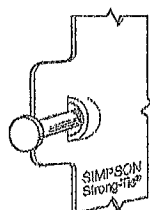
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

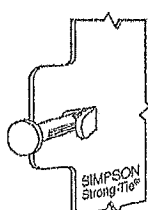
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g ¹	Face	Joist	D.Flr-L		S-P-F	
								Uplift (K _u =1.15)	Normal (K _n =1.00)	Uplift (K _u =1.15)	Normal (K _n =1.00)
HHUS26-2	14	3 1/8	5 1/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 3/8	7 1/2	3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

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

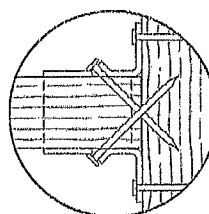


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

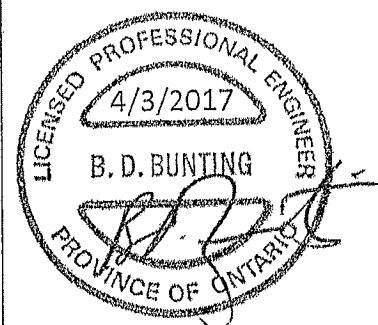
U.S. Patent
5,603,680



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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

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T-SPECHHUS17 3/17 exp. 6/19

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HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

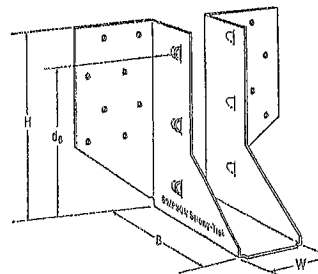
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

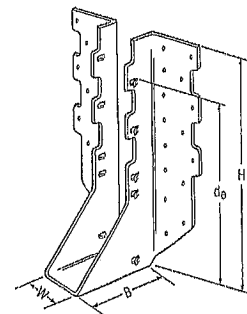
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

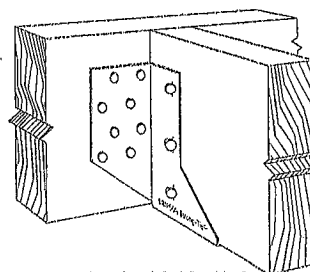
- See current catalogue for options



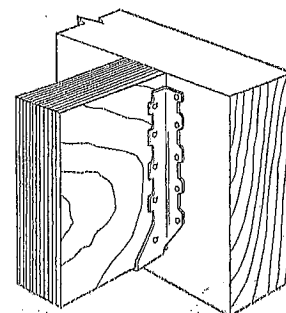
LJS26DS



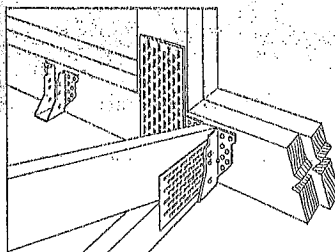
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



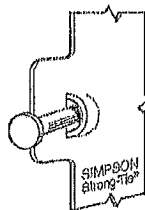
Typical HUS
Installation



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

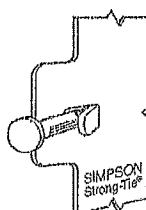
Model No.	Ga.	Dimensions (in.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist		D.Fir-L		S-P-F	
									Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
LJS26DS	18	1 1/16	5	3 1/2	4 5/8	(16) 16d	(6) 16d		2055	4265	1460	4115
HUS26	16	1 1/8	5 1/2	3	3 1 5/16	(14) 16d	(6) 16d		2705	4940	2065	3875
HUS28	16	1 1/8	7 1/2	3	6 5/8	(22) 16d	(8) 16d		3605	5365	2675	4345
HUS210	16	1 1/8	9 1/2	3	7 3/32	(30) 16d	(10) 16d		4505	5795	4010	4740
HUS1.81/10	16	1 1/8	9	3	8	(30) 16d	(10) 16d		4505	6450	4010	5200

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

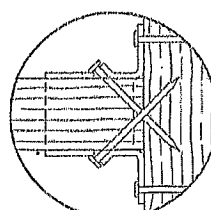


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

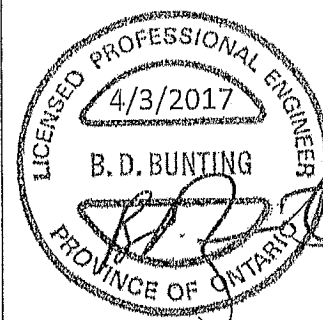
U.S. Patent
5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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

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T-SPEC-HUS17 3/17 exp. 6/19

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HGUS – Double Shear Joist Hangers

SIMPSON
Strong-Tie®

All HGUS 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: 12 gauge

Finish: G90 galvanized

Design:

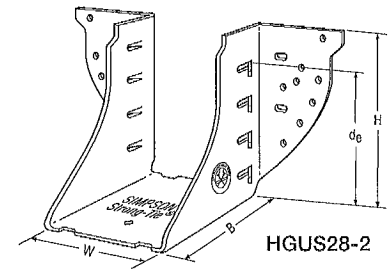
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%.
No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

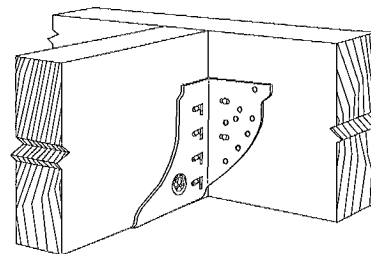
- Use all specified fasteners
- Nails: 16d = 0.162" dia x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

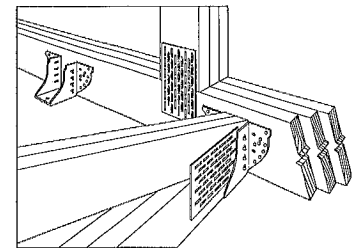
- See current catalogue for options



HGUS28-2



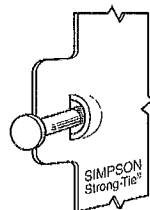
Typical HGUS
Installation



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

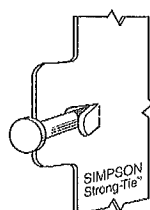
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _o ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
HGUS26	12	1½	5½	5	4 5/32	(20) 16d	(8) 16d	2685	6625	2685	5700
HGUS26-2	12	3 5/16	5 7/16	4	4 1/8	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-3	12	4 15/16	5 1/2	4	4 1/8	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-4	12	6 9/16	5 7/16	4	4 1/8	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS28	12	1½	7 1/8	5	6 1/8	(36) 16d	(12) 16d	3310	7675	3100	6900
HGUS28-2	12	3 5/16	7 3/16	4	6 1/8	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-3	12	4 15/16	7 1/4	4	6 3/8	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-4	12	6 9/16	7 3/16	4	6 3/8	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS210-2	12	3 5/16	9 3/16	4	8 1/8	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS210-3	12	4 15/16	9 1/4	4	8 3/8	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS210-4	12	6 9/16	9 3/16	4	8 1/8	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS212-4	12	6 9/16	10 3/8	4	10 1/8	(56) 16d	(20) 16d	7640	14995	5425	10645
HGUS214-4	12	6 9/16	12 3/8	4	11 1/8	(66) 16d	(22) 16d	10130	16400	7195	11645

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

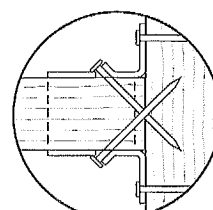


Dome Double
Shear Nailing
prevents tabs
breaking off
(available on
some models).

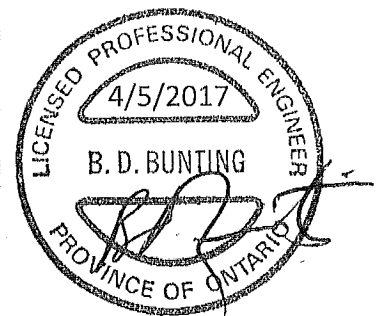
U.S. Patent
5,603,580



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



Double
Shear
Nailing
Top View.



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

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T-SPECHGUS17 3/17 exp. 8/19

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