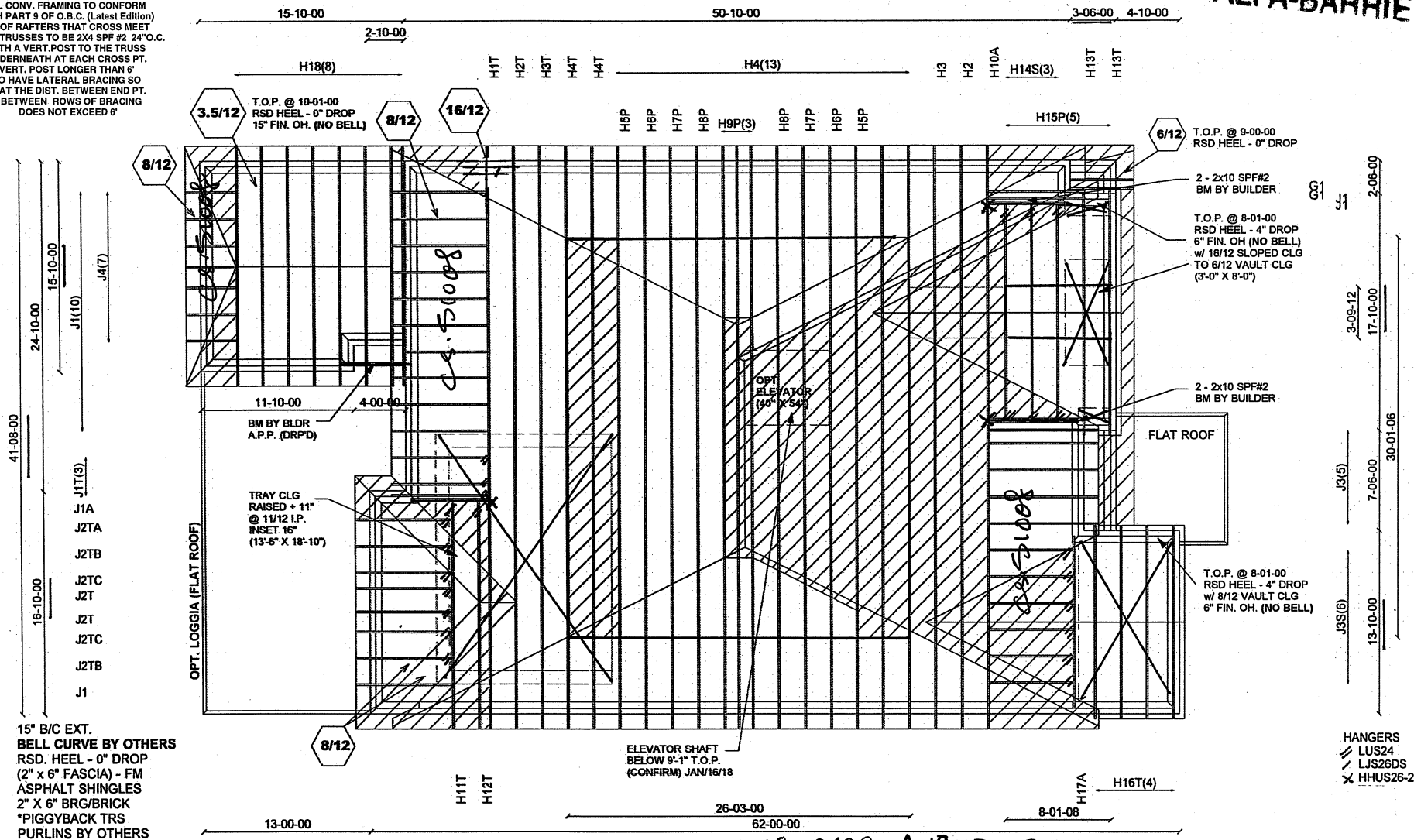


# ALPA-BARRIE

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



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 TRUSSES DIRECTION/LAYOUT P.L. 95914

HANGERS  
 // LUS24  
 // LJS26DS  
 X HHUS26-2

CONVENTIONAL FRAMING BY OTHERS

A-18023699 - A-18023725

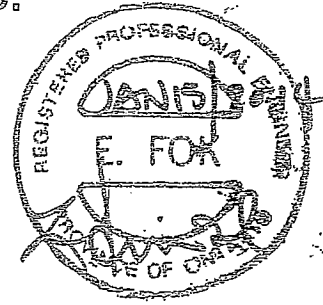
P.L. 99352, 101745, 105728

HIGHBOURNE KNIGHTSWOOD

|  |                   |                                               |                  |                                                                                                                                                                                                                                                                                                                   |
|--|-------------------|-----------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Job Track: 45147  | Builder / Location: GOLD PARK HOMES / VAUGHAN |                  | Model / Elevation: STD w/ OR OPT 2ND FLR (SEED) AND/OR 5005 REV1 / A OPT TRAY OPT ELEVATOR OR OPT LOGGIA                                                                                                                                                                                                          |
|  | Layout ID: 292656 | Project: PINE VALLEY                          |                  | THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA ROOF TRUSSES INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE. |
|  | Plan Log: 95914   | Date: 1/19/2018                               | Designer: AMANDA |                                                                                                                                                                                                                                                                                                                   |
|  |                   |                                               |                  |                                                                                                                                                                                                                                                                                                                   |

# Stracon Engineering Inc.

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



## RESPONSIBILITIES

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

## SPECIFICATIONS

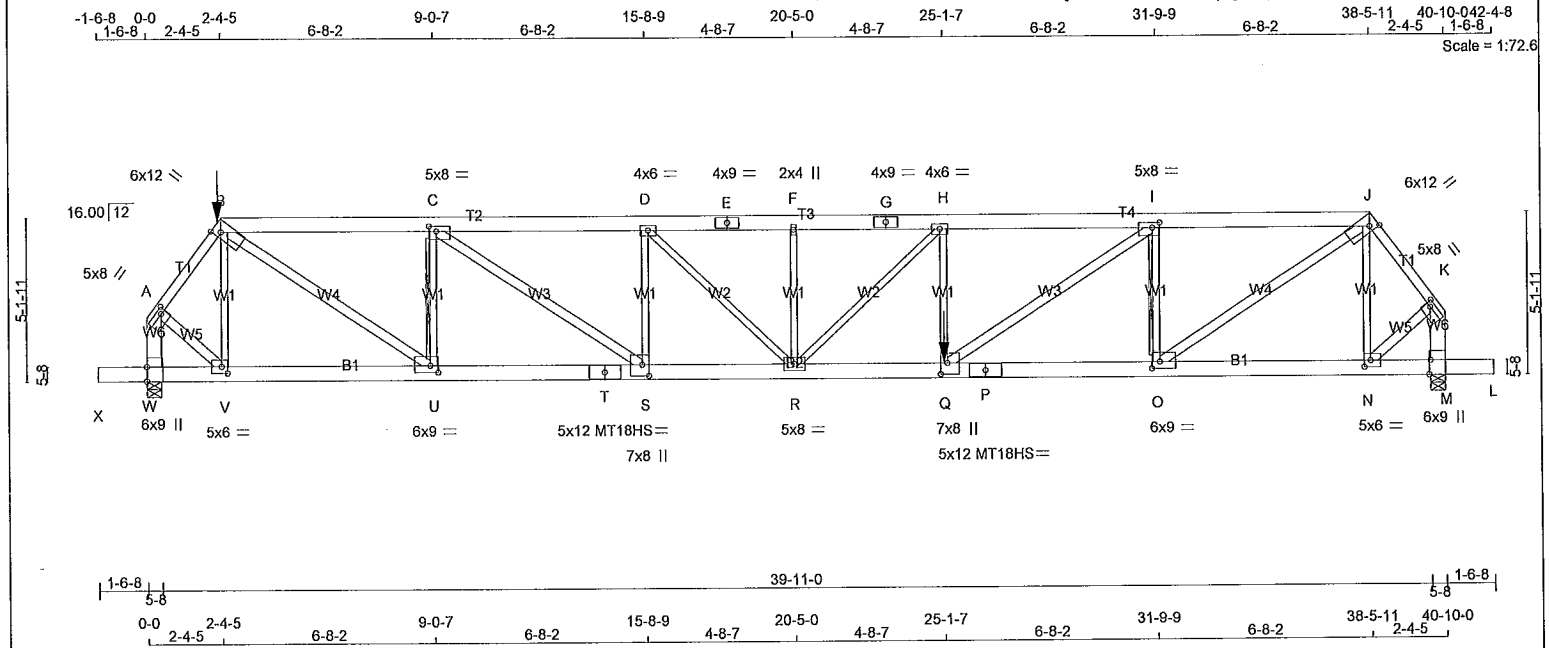
1. Trusses designed by Stracon Engineering Inc. conforms to the relevant section of the Ontario Building Code of Canada (Part 9 or Part 4) or to the Canadian code for farm buildings, whichever applies to the building type indicated on the drawings as well as to the procedures established by the truss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

January 15, 2014

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292655   | H1         | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 14:12:28 2018 Page 1  
ID:HSVaWIDnhr?B6oeH9vbyNds-nfJaliChin5qDyZQp8A0AfH\_qB76l?y8Rosm5VzjubX



TOTAL WEIGHT = 234 lb (M)

| LUMBER            |      |        |            |     |
|-------------------|------|--------|------------|-----|
| N. L. G. A. RULES |      |        |            |     |
| CHORDS            | SIZE | LUMBER | DESCR.     |     |
| A - B             | 2x4  | DRY    | No.2       | SPF |
| B - E             | 2x6  | DRY    | 1650F 1.5E | SPF |
| E - G             | 2x6  | DRY    | 1650F 1.5E | SPF |
| G - J             | 2x6  | DRY    | 1650F 1.5E | SPF |
| J - K             | 2x4  | DRY    | No.2       | SPF |
| W - A             | 2x6  | DRY    | No.2       | SPF |
| M - K             | 2x6  | DRY    | No.2       | SPF |
| X - T             | 2x6  | DRY    | 2100F 1.8E | SPF |
| T - P             | 2x6  | DRY    | 2100F 1.8E | SPF |
| P - L             | 2x6  | DRY    | 2100F 1.8E | SPF |
| ALL WEBS EXCEPT   | 2x3  | DRY    | No.2       | SPF |
| B - U             | 2x4  | DRY    | No.2       | SPF |
| C - S             | 2x4  | DRY    | No.2       | SPF |
| Q - I             | 2x4  | DRY    | No.2       | SPF |
| O - J             | 2x4  | DRY    | No.2       | SPF |
| A - V             | 2x4  | DRY    | No.2       | SPF |
| N - K             | 2x4  | DRY    | No.2       | SPF |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |                |
|-----------------------------|---------|--------|-----|----------------|
| JT                          | TYPE    | PLATES | W   | LEN Y X        |
| A                           | TMVW-I  | MT20   | 5.0 | 8.0 1.75 2.00  |
| B                           | TTVVW+h | MT20   | 6.0 | 12.0 3.25 2.00 |
| C                           | TMVW-I  | MT20   | 5.0 | 8.0 2.00 2.75  |
| D                           | TMVW-I  | MT20   | 4.0 | 6.0            |
| E                           | TS-I    | MT20   | 4.0 | 9.0            |
| F                           | TMW+w   | MT20   | 2.0 | 4.0            |
| G                           | TS-I    | MT20   | 4.0 | 9.0            |
| H                           | TMVW-I  | MT20   | 4.0 | 6.0            |
| I                           | TMVW-I  | MT20   | 5.0 | 8.0 2.00 2.75  |
| J                           | TTVVW+h | MT20   | 6.0 | 12.0 3.25 2.00 |
| K                           | TMVW-I  | MT20   | 5.0 | 8.0 1.75 2.00  |
| M                           | BMV1+I  | MT20   | 6.0 | 9.0 Edge 0.50  |
| N                           | BMVW-I  | MT20   | 5.0 | 6.0 2.50 2.25  |
| O                           | BMVW-I  | MT20   | 6.0 | 9.0 2.50 3.00  |
| P                           | BS-I    | MT18HS | 5.0 | 12.0           |
| Q                           | BMVW+I  | MT20   | 7.0 | 8.0 4.25 2.50  |
| R                           | BMVW+I  | MT20   | 5.0 | 8.0            |

| DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER                                                                        |                           |                           |                               |                                 |        |                           |               |           |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|-------------------------------|---------------------------------|--------|---------------------------|---------------|-----------|--|
| BEARINGS                                                                                                                                                             |                           |                           |                               |                                 |        |                           |               |           |  |
|                                                                                                                                                                      |                           | FACTORED GROSS REACTION   |                               | MAXIMUM FACTORED GROSS REACTION |        | INPUT BRG                 |               | REQRD BRG |  |
| JT                                                                                                                                                                   | VERT                      | HORZ                      | DOWN                          | HORZ                            | UPLIFT | IN-SX                     | IN-SX         |           |  |
| W                                                                                                                                                                    | 4381                      | 0                         | 4381                          | 0                               | 0      | 5-8                       | 5-8           |           |  |
| M                                                                                                                                                                    | 3937                      | 0                         | 3937                          | 0                               | 0      | 5-8                       | 4-11          |           |  |
| UNFACTORED REACTIONS                                                                                                                                                 |                           |                           |                               |                                 |        |                           |               |           |  |
|                                                                                                                                                                      |                           | 1ST LCASE                 | MAX./MIN. COMPONENT REACTIONS |                                 |        |                           |               |           |  |
| JT                                                                                                                                                                   | COMBINED                  | SNOW                      | LIVE                          | PERM.LIVE                       | WIND   | DEAD                      | SOIL          |           |  |
| W                                                                                                                                                                    | 3112                      | 1964 / 0                  | 0 / 0                         | 0 / 0                           | 0 / 0  | 1148 / 0                  | 0 / 0         |           |  |
| M                                                                                                                                                                    | 2787                      | 1813 / 0                  | 0 / 0                         | 0 / 0                           | 0 / 0  | 973 / 0                   | 0 / 0         |           |  |
| BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) W, M                                                                                                           |                           |                           |                               |                                 |        |                           |               |           |  |
| BEARING SIZE FACTOR = 1.15 AT JNT(S) W, M (BASED ON SUPPORT DEPTH = 1-8 )                                                                                            |                           |                           |                               |                                 |        |                           |               |           |  |
| BRACING                                                                                                                                                              |                           |                           |                               |                                 |        |                           |               |           |  |
| TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.84 FT.                                                                                                           |                           |                           |                               |                                 |        |                           |               |           |  |
| MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.                                                                                      |                           |                           |                               |                                 |        |                           |               |           |  |
| ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.                                                                                           |                           |                           |                               |                                 |        |                           |               |           |  |
| 2x4 DRY SPF No.2 T-BRACE AT C-U, I-O                                                                                                                                 |                           |                           |                               |                                 |        |                           |               |           |  |
| FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH. |                           |                           |                               |                                 |        |                           |               |           |  |
| END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW                                                   |                           |                           |                               |                                 |        |                           |               |           |  |
| LOADING                                                                                                                                                              |                           |                           |                               |                                 |        |                           |               |           |  |
| TOTAL LOAD CASES: (4)                                                                                                                                                |                           |                           |                               |                                 |        |                           |               |           |  |
| CHORDS                                                                                                                                                               |                           |                           |                               |                                 | WEBS   |                           |               |           |  |
| MEMB.                                                                                                                                                                | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. LC1 (LC)                 | MAX. UNBRACED LENGTH FR-TO      | MEMB.  | MAX. FACTORED FORCE (LBS) | MAX. LC1 (LC) |           |  |
| FR-TO                                                                                                                                                                |                           | FROM TO                   |                               |                                 | FR-TO  |                           |               |           |  |
| A-B                                                                                                                                                                  | -3568 / 0                 | -78.0 -78.0               | 0.27 (1)                      | 3.50                            | V-B    | -1050 / 0                 | 0.37 (1)      |           |  |
| B-C                                                                                                                                                                  | -6769 / 0                 | -153.5 -153.5             | 0.54 (1)                      | 3.46                            | B-U    | 0 / 5683                  | 1.00 (1)      |           |  |
| C-D                                                                                                                                                                  | -9437 / 0                 | -153.5 -153.5             | 0.71 (1)                      | 2.84                            | U-C    | -3039 / 0                 | 0.64 (1)      |           |  |
| D-E                                                                                                                                                                  | -10229 / 0                | -153.5 -153.5             | 0.50 (1)                      | 2.92                            | C-S    | 0 / 3258                  | 0.58 (1)      |           |  |
| E-F                                                                                                                                                                  | -10229 / 0                | -153.5 -153.5             | 0.50 (1)                      | 2.92                            | S-D    | -1648 / 0                 | 0.58 (1)      |           |  |
| F-G                                                                                                                                                                  | -10229 / 0                | -153.5 -153.5             | 0.48 (1)                      | 2.94                            | D-R    | 0 / 1119                  | 0.28 (1)      |           |  |
| G-H                                                                                                                                                                  | -10229 / 0                | -153.5 -153.5             | 0.48 (1)                      | 2.94                            | R-F    | -687 / 0                  | 0.24 (1)      |           |  |
| H-I                                                                                                                                                                  | -10172 / 0                | -78.0 -78.0               | 0.54 (1)                      | 2.94                            | F-H    | 0 / 173                   | 0.07 (4)      |           |  |
| I-J                                                                                                                                                                  | -6535 / 0                 | -78.0 -78.0               | 0.32 (1)                      | 3.76                            | Q-H    | -652 / 0                  | 0.23 (1)      |           |  |
| J-K                                                                                                                                                                  | -3189 / 0                 | -78.0 -78.0               | 0.23 (1)                      | 3.72                            | Q-I    | 0 / 4443                  | 0.79 (1)      |           |  |
| W-A                                                                                                                                                                  | -4270 / 0                 | 0.0 0.0                   | 0.34 (1)                      | 5.16                            | O-I    | -3134 / 0                 | 0.66 (1)      |           |  |
| M-K                                                                                                                                                                  | -3826 / 0                 | 0.0 0.0                   | 0.31 (1)                      | 5.42                            | O-J    | 0 / 5673                  | 1.00 (1)      |           |  |
|                                                                                                                                                                      |                           |                           |                               |                                 | N-J    | -1015 / 0                 | 0.36 (1)      |           |  |
| X-W                                                                                                                                                                  | 0 / 0                     | -96.5 -96.5               | 0.05 (1)                      | 10.00                           | A-V    | 0 / 2513                  | 0.44 (1)      |           |  |
| W-V                                                                                                                                                                  | 0 / 0                     | -36.4 -36.4               | 0.09 (4)                      | 10.00                           | N-K    | 0 / 2246                  | 0.40 (1)      |           |  |
| V-U                                                                                                                                                                  | 0 / 2114                  | -36.4 -36.4               | 0.19 (1)                      | 10.00                           |        |                           |               |           |  |
| U-T                                                                                                                                                                  | 0 / 6769                  | -36.4 -36.4               | 0.43 (1)                      | 10.00                           |        |                           |               |           |  |
| T-S                                                                                                                                                                  | 0 / 6769                  | -36.4 -36.4               | 0.43 (1)                      | 10.00                           |        |                           |               |           |  |
| S-R                                                                                                                                                                  | 0 / 9437                  | -36.4 -36.4               | 0.55 (1)                      | 10.00                           |        |                           |               |           |  |
| R-Q                                                                                                                                                                  | 0 / 10172                 | -36.4 -36.4               | 0.61 (1)                      | 10.00                           |        |                           |               |           |  |
| Q-P                                                                                                                                                                  | 0 / 6535                  | -18.5 -18.5               | 0.41 (1)                      | 10.00                           |        |                           |               |           |  |
| P-O                                                                                                                                                                  | 0 / 6535                  | -18.5 -18.5               | 0.41 (1)                      | 10.00                           |        |                           |               |           |  |
| O-N                                                                                                                                                                  | 0 / 1888                  | -18.5 -18.5               | 0.16 (1)                      | 10.00                           |        |                           |               |           |  |
| N-M                                                                                                                                                                  | 0 / 0                     | -18.5 -18.5               | 0.06 (1)                      | 10.00                           |        |                           |               |           |  |
| M-L                                                                                                                                                                  | 0 / 0                     | -96.5 -96.5               | 0.05 (1)                      | 10.00                           |        |                           |               |           |  |
| FACTORED CONCENTRATED LOADS (LBS)                                                                                                                                    |                           |                           |                               |                                 |        |                           |               |           |  |
| JT                                                                                                                                                                   | LOC.                      | LC1                       | MAX-                          | MAX+                            | FACE   | DIR.                      | TYPE          |           |  |
| B                                                                                                                                                                    | 2-4-5                     | -134                      | -134                          | ---                             | FRONT  | VERT                      | TOTAL         |           |  |
| O                                                                                                                                                                    | 25-1-8                    | -1778                     | -1778                         | ---                             | 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                                                                              |    |      |      |     |  |  |  |  |  |
| SIDE SETBACK = 2-4-5                                                                                |    |      |      |     |  |  |  |  |  |
| END SETBACK = 5-10-8                                                                                |    |      |      |     |  |  |  |  |  |
| END WALL WIDTH = 0-0                                                                                |    |      |      |     |  |  |  |  |  |
| CORNER FRAMING TYPE: CONVENTIONAL                                                                   |    |      |      |     |  |  |  |  |  |
| END JACK TYPE: CONVENTIONAL                                                                         |    |      |      |     |  |  |  |  |  |
| APPLIED TO FRONT SIDE                                                                               |    |      |      |     |  |  |  |  |  |
| - ADDTL LOADS BASED ON 55 % OF GSL.                                                                 |    |      |      |     |  |  |  |  |  |
| LOADS APPLIED TO FIRST 25-1-8 OF SPAN                                                               |    |      |      |     |  |  |  |  |  |
| MEASURED FROM THE LEFT.                                                                             |    |      |      |     |  |  |  |  |  |
| *** NON STANDARD GIRDER ***                                                                         |    |      |      |     |  |  |  |  |  |
| ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.                                                 |    |      |      |     |  |  |  |  |  |
| THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, 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 (1.36")                                                                  |    |      |      |     |  |  |  |  |  |
| CALCULATED VERT. DEFL.(LL)= L/ 999 (0.47")                                                          |    |      |      |     |  |  |  |  |  |
| ALLOWABLE DEFL.(TL)= L/360 (1.36")                                                                  |    |      |      |     |  |  |  |  |  |
| CALCULATED VERT. DEFL.(TL)= L/ 555 (0.88")                                                          |    |      |      |     |  |  |  |  |  |
| 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=0.71/1.00 (C-D:1), BC=0.61/1.00 (Q-R:1)                                                     |    |      |      |     |  |  |  |  |  |
| WB=1.00/1.00 (B-U:1), SS=0.41/1.00 (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                                                                   |    |      |      |     |  |  |  |  |  |
| AUTOSOLVE HEELS OFF                                                                                 |    |      |      |     |  |  |  |  |  |
| A-18023696                                                                                          |    |      |      |     |  |  |  |  |  |
| CONTINUED ON PAGE 2                                                                                 |    |      |      |     |  |  |  |  |  |



|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292655   | H1         | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN  | Y    | X    |
|----|---------|--------|-----|------|------|------|
| S  | BMWVW+I | MT20   | 7.0 | 8.0  | 4.25 | 2.50 |
| T  | BS-I    | MT18HS | 5.0 | 12.0 |      |      |
| U  | BMWVW-I | MT20   | 6.0 | 9.0  | 2.50 | 3.00 |
| V  | BMWVW-I | MT20   | 5.0 | 6.0  | 2.50 | 2.25 |
| W  | BMV1+I  | MT20   | 6.0 | 9.0  | Edge |      |

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) 134.1 lbs FACTORED DOWN AT 2-4-5  
ON TOP CHORD, AND 1777.8 lbs FACTORED  
DOWN AT 25-1-8 ON BOTTOM CHORD. DESIGN  
FOR UNSPECIFIED CONNECTION(S) IS  
DELEGATED TO THE BUILDING DESIGNER.

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

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

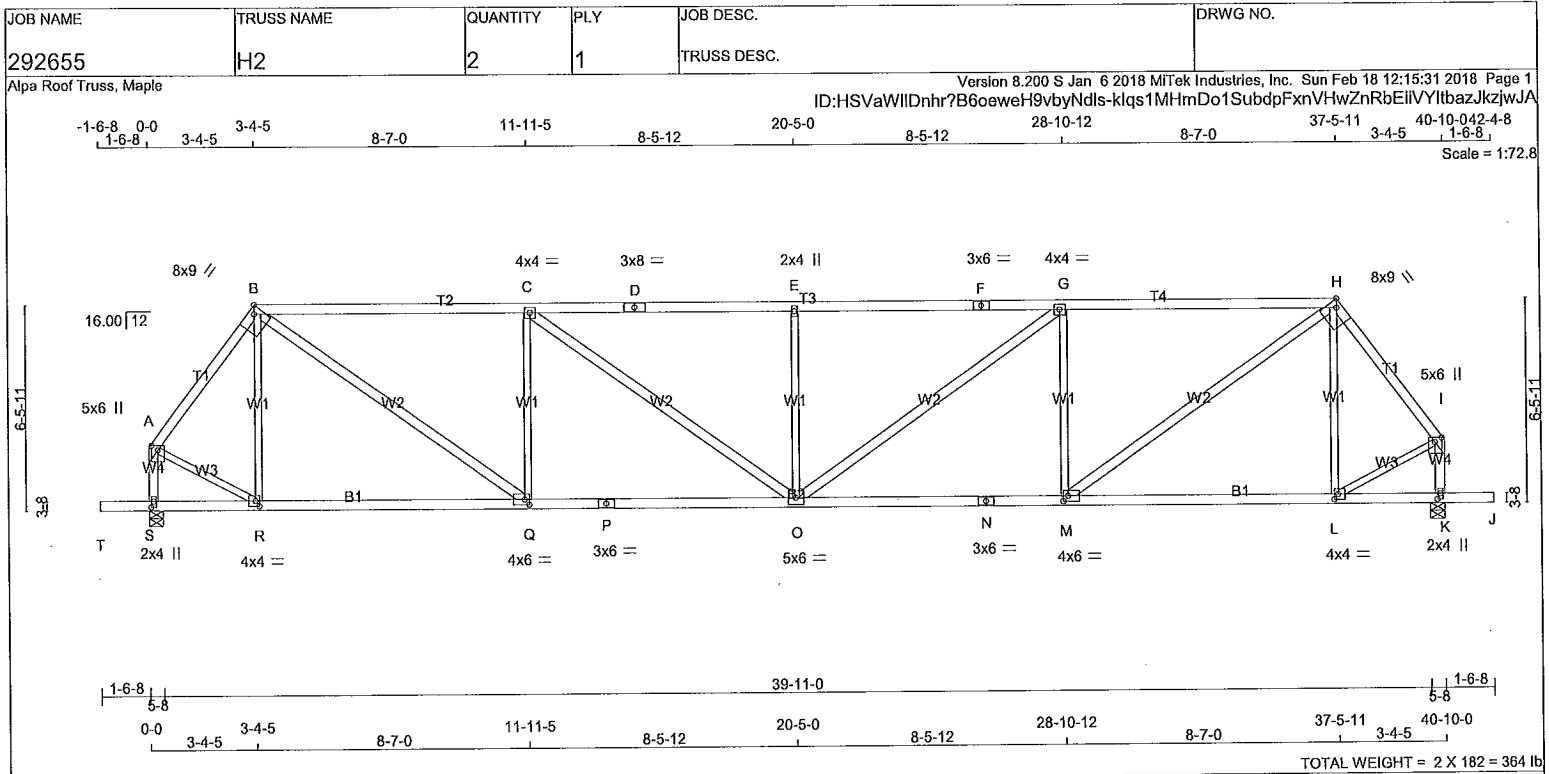
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (O) (INPUT = 0.90 )  
JSI METAL= 0.94 (Q) (INPUT = 1.00 )



A-1802369660



| LUMBER            |        |      |            |
|-------------------|--------|------|------------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER     |
| A - B             | 2x4    | DRY  | No.2       |
| B - D             | 2x4    | DRY  | 2100F 1.8E |
| D - F             | 2x4    | DRY  | 2100F 1.8E |
| F - H             | 2x4    | DRY  | 2100F 1.8E |
| H - I             | 2x4    | DRY  | No.2       |
| S - A             | 2x4    | DRY  | No.2       |
| K - I             | 2x4    | DRY  | No.2       |
| T - P             | 2x4    | DRY  | No.2       |
| P - N             | 2x4    | DRY  | No.2       |
| N - J             | 2x4    | DRY  | No.2       |
| ALL WEBS          | 2x3    | DRY  | No.2       |
| EXCEPT            |        |      |            |
| B - Q             | 2x4    | DRY  | No.2       |
| C - O             | 2x4    | DRY  | No.2       |
| O - G             | 2x4    | DRY  | No.2       |
| M - H             | 2x4    | DRY  | No.2       |

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| A  | TMVW+p | MT20   | 5.0 | 6.0 | 1.75 | 2.50 |
| B  | TTVW-h | MT20   | 8.0 | 9.0 | Edge | 2.75 |
| C  | TMVW-t | MT20   | 4.0 | 4.0 |      |      |
| D  | TS-t   | MT20   | 3.0 | 8.0 |      |      |
| E  | TMVW-w | MT20   | 2.0 | 4.0 |      |      |
| F  | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| G  | TMVW-t | MT20   | 4.0 | 4.0 |      |      |
| H  | TTVW-h | MT20   | 8.0 | 9.0 | Edge | 2.75 |
| I  | TMVW+p | MT20   | 5.0 | 6.0 | 1.75 | 2.50 |
| K  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| L  | BMVW-t | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| M  | BMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 1.75 |
| N  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| O  | BMVW-t | MT20   | 5.0 | 6.0 |      |      |
| P  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| Q  | BMVW-t | MT20   | 4.0 | 6.0 | 2.00 | 1.75 |
| R  | BMVW-t | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| S  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 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

#### 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    |
| S  | 2118                    | 0    | 2118                            | 0    | 5-8       | 3-3      |
| K  | 2118                    | 0    | 2118                            | 0    | 5-8       | 3-3      |

##### UNFACTORED REACTIONS

|    | 1ST LCASE: | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|----|------------|-------------------------------|-------|-----------|-------|---------|-------|
| JT | COMBINED   | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| S  | 1510       | 922 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 588 / 0 | 0 / 0 |
| K  | 1510       | 922 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 588 / 0 | 0 / 0 |

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

##### BRACING

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

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

##### LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS           |                  | FACTORED |           | MAX. UNBRACED LENGTH | WEBS                   |           | MAX. FACTORED | MAX. FACTORED |
|-------|------------------|------------------|----------|-----------|----------------------|------------------------|-----------|---------------|---------------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1      | MAX. (LC) |                      | MEMB. MAX. FORCE (LBS) | MAX. (LC) |               |               |
| FR-TO |                  | FROM             | TO       |           |                      | FR-TO                  |           |               |               |
| A-B   | -1697 / 0        | -78.0            | -78.0    | 0.21 (1)  | 4.92                 | R-B                    | -336 / 0  | 0.23 (1)      | 0.23 (1)      |
| B-C   | -2805 / 0        | -78.0            | -78.0    | 0.83 (1)  | 4.19                 | B-Q                    | 0 / 2213  | 0.36 (1)      | 0.36 (1)      |
| C-D   | -3330 / 0        | -78.0            | -78.0    | 0.91 (1)  | 3.86                 | Q-C                    | -1126 / 0 | 0.77 (1)      | 0.77 (1)      |
| D-E   | -3330 / 0        | -78.0            | -78.0    | 0.91 (1)  | 3.86                 | C-O                    | 0 / 649   | 0.10 (1)      | 0.10 (1)      |
| E-F   | -3330 / 0        | -78.0            | -78.0    | 0.91 (1)  | 3.86                 | O-E                    | -611 / 0  | 0.42 (1)      | 0.42 (1)      |
| F-G   | -3330 / 0        | -78.0            | -78.0    | 0.91 (1)  | 3.86                 | G-G                    | 0 / 649   | 0.10 (1)      | 0.10 (1)      |
| G-H   | -2805 / 0        | -78.0            | -78.0    | 0.83 (1)  | 4.19                 | M-G                    | -1126 / 0 | 0.77 (1)      | 0.77 (1)      |
| H-I   | -1697 / 0        | -78.0            | -78.0    | 0.21 (1)  | 4.92                 | M-H                    | 0 / 2213  | 0.36 (1)      | 0.36 (1)      |
| S-A   | -1963 / 0        | 0.0              | 0.0      | 0.23 (1)  | 6.01                 | L-H                    | -336 / 0  | 0.23 (1)      | 0.23 (1)      |
| K-I   | -1963 / 0        | 0.0              | 0.0      | 0.23 (1)  | 6.01                 | A-R                    | 0 / 1115  | 0.25 (1)      | 0.25 (1)      |
|       |                  |                  |          |           |                      | L-I                    | 0 / 1115  | 0.25 (1)      | 0.25 (1)      |
| T-S   | 0 / 0            | -96.5            | -96.5    | 0.16 (1)  | 10.00                |                        |           |               |               |
| S-R   | 0 / 0            | -18.5            | -18.5    | 0.20 (4)  | 10.00                |                        |           |               |               |
| R-Q   | 0 / 1005         | -18.5            | -18.5    | 0.37 (4)  | 10.00                |                        |           |               |               |
| Q-P   | 0 / 2806         | -18.5            | -18.5    | 0.60 (1)  | 10.00                |                        |           |               |               |
| P-O   | 0 / 2806         | -18.5            | -18.5    | 0.60 (1)  | 10.00                |                        |           |               |               |
| O-N   | 0 / 2806         | -18.5            | -18.5    | 0.60 (1)  | 10.00                |                        |           |               |               |
| N-M   | 0 / 2806         | -18.5            | -18.5    | 0.60 (1)  | 10.00                |                        |           |               |               |
| M-L   | 0 / 1005         | -18.5            | -18.5    | 0.37 (4)  | 10.00                |                        |           |               |               |
| L-K   | 0 / 0            | -18.5            | -18.5    | 0.20 (4)  | 10.00                |                        |           |               |               |
| K-J   | 0 / 0            | -96.5            | -96.5    | 0.16 (1)  | 10.00                |                        |           |               |               |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

(65 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/380 (1.36")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.17")  
ALLOWABLE DEFL.(TL)= L/360 (1.36")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.36")

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=0.91/1.00 (E-G:1), BC=0.60/1.00 (O-Q:1), WB=0.77/1.00 (C-Q:1), SSI=0.32/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

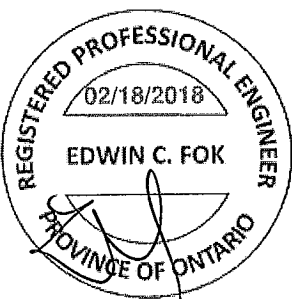
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

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

A-18023697

CONTINUED ON PAGE 2

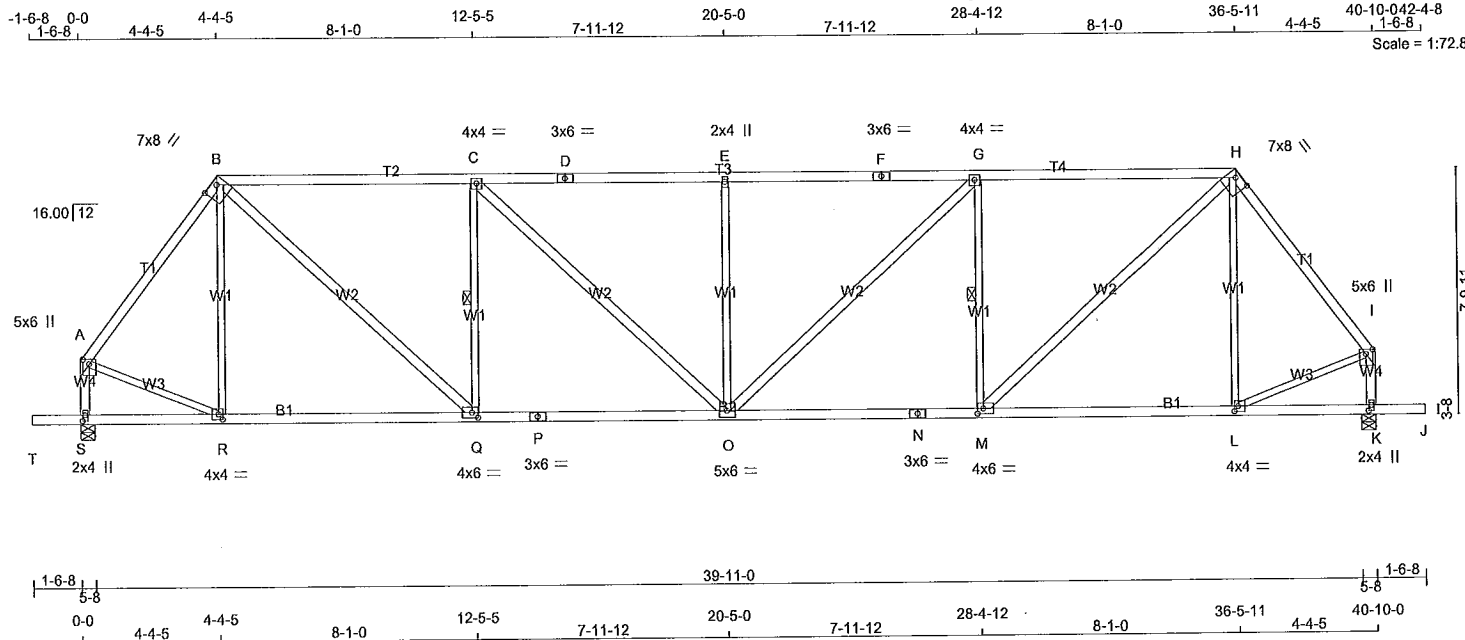


| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292655   | H3         | 2        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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ID:HSVaWIIDnhr?B6oeueH9vbyNdls-881QEBWJWYyChg9fQ88B58OC6f5KOZGFTIQ0?azjwls



TOTAL WEIGHT = 2 X 193 = 385 lb

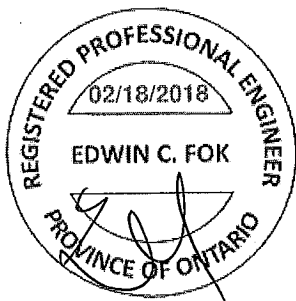
| LUMBER   |      |        |            | N. L. G. A. RULES |      |        |        |
|----------|------|--------|------------|-------------------|------|--------|--------|
| CHORDS   | SIZE | LUMBER | DESCR.     | CHORDS            | SIZE | LUMBER | DESCR. |
| A - B    | 2x4  | DRY    | No.2      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

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| A  | TMVW+p  | MT20   | 5.0 | 6.0 | 1.75 | 2.50 |
| B  | TTWW-h  | MT20   | 7.0 | 8.0 | 1.75 | 5.00 |
| C  | TMWW-t  | MT20   | 4.0 | 4.0 |      |      |
| D  | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| E  | TMW-w   | MT20   | 2.0 | 4.0 |      |      |
| F  | TS-t    | MT20   | 3.0 | 6.0 |      |      |
| G  | TMWW-t  | MT20   | 4.0 | 4.0 |      |      |
| H  | TTWW-h  | MT20   | 7.0 | 8.0 | 1.75 | 5.00 |
| I  | TMVW+p  | MT20   | 5.0 | 6.0 | 1.75 | 2.50 |
| K  | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| L  | BMWW-t  | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| M  | BMWW-t  | MT20   | 4.0 | 6.0 | 2.00 | 2.25 |
| N  | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| O  | BMWWW-t | MT20   | 5.0 | 6.0 |      |      |
| P  | BS-t    | MT20   | 3.0 | 6.0 |      |      |
| Q  | BMWW-t  | MT20   | 4.0 | 6.0 | 2.00 | 2.25 |
| R  | BMWW-t  | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| S  | BMV1+p  | MT20   | 2.0 | 4.0 | 2.25 | 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



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

##### BEARINGS

|    | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| JT | 2118                    | 0    | 2118                            | 0    | 0         | 5-8   | 3-3       |  |
| S  | 2118                    | 0    | 2118                            | 0    | 0         | 5-8   | 3-3       |  |
| K  | 2118                    | 0    | 2118                            | 0    | 0         | 5-8   | 3-3       |  |

##### UNFACTORED REACTIONS

|    | 1ST LCASE COMBINED |         | MAX./MIN. LIVE |       | PERM. LIVE |         | WIND  |  | DEAD |  | SOIL |  |
|----|--------------------|---------|----------------|-------|------------|---------|-------|--|------|--|------|--|
|    | SNOW               | LIVE    | PERM. LIVE     | WIND  | DEAD       | SOIL    |       |  |      |  |      |  |
| JT | 1510               | 922 / 0 | 0 / 0          | 0 / 0 | 0 / 0      | 588 / 0 | 0 / 0 |  |      |  |      |  |
| S  | 1510               | 922 / 0 | 0 / 0          | 0 / 0 | 0 / 0      | 588 / 0 | 0 / 0 |  |      |  |      |  |
| K  | 1510               | 922 / 0 | 0 / 0          | 0 / 0 | 0 / 0      | 588 / 0 | 0 / 0 |  |      |  |      |  |

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

##### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.76 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-Q, G-M.

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

##### LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS           |                  | FACTORED       |                | MAX. FACTORED        |                   | WEBS           |                      | MAX. FACTORED     |                |
|-------|------------------|------------------|----------------|----------------|----------------------|-------------------|----------------|----------------------|-------------------|----------------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | MAX. LC1 (PLF) | MAX. LC1 (PLF) | MAX. UNBRACED LENGTH | MEMB. FORCE (LBS) | MAX. LC1 (PLF) | MAX. UNBRACED LENGTH | MEMB. FORCE (LBS) | MAX. LC1 (PLF) |
| FR-TO |                  |                  |                |                |                      |                   |                |                      |                   |                |
| A-B   | -1746 / 0        | -78.0            | -78.0          | 0.38 (1)       | 4.71                 | R-B               | -245 / 0       | 0.28 (1)             |                   |                |
| B-C   | -2350 / 0        | -78.0            | -78.0          | 0.87 (1)       | 4.03                 | B-Q               | 0 / 1787       | 0.29 (1)             |                   |                |
| C-D   | -2732 / 0        | -78.0            | -78.0          | 0.93 (1)       | 3.76                 | Q-C               | -1061 / 0      | 0.41 (1)             |                   |                |
| D-E   | -2732 / 0        | -78.0            | -78.0          | 0.93 (1)       | 3.76                 | C-O               | 0 / 524        | 0.08 (1)             |                   |                |
| E-F   | -2732 / 0        | -78.0            | -78.0          | 0.93 (1)       | 3.76                 | O-E               | -574 / 0       | 0.65 (1)             |                   |                |
| F-G   | -2732 / 0        | -78.0            | -78.0          | 0.93 (1)       | 3.76                 | O-G               | 0 / 524        | 0.08 (1)             |                   |                |
| G-H   | -2350 / 0        | -78.0            | -78.0          | 0.87 (1)       | 4.03                 | M-G               | -1061 / 0      | 0.41 (1)             |                   |                |
| H-I   | -1746 / 0        | -78.0            | -78.0          | 0.38 (1)       | 4.71                 | M-H               | 0 / 1787       | 0.29 (1)             |                   |                |
| S-A   | -1946 / 0        | 0.0              | 0.0            | 0.22 (1)       | 6.03                 | L-H               | -245 / 0       | 0.28 (1)             |                   |                |
| K-I   | -1946 / 0        | 0.0              | 0.0            | 0.22 (1)       | 6.03                 | A-R               | 0 / 1107       | 0.25 (1)             |                   |                |
|       |                  |                  |                |                |                      | L-I               | 0 / 1107       | 0.25 (1)             |                   |                |
| T-S   | 0 / 0            | -96.5            | -96.5          | 0.16 (1)       | 10.00                |                   |                |                      |                   |                |
| S-R   | 0 / 0            | -18.5            | -18.5          | 0.18 (4)       | 10.00                |                   |                |                      |                   |                |
| R-Q   | 0 / 1038         | -18.5            | -18.5          | 0.34 (4)       | 10.00                |                   |                |                      |                   |                |
| Q-P   | 0 / 2351         | -18.5            | -18.5          | 0.51 (1)       | 10.00                |                   |                |                      |                   |                |
| P-O   | 0 / 2351         | -18.5            | -18.5          | 0.51 (1)       | 10.00                |                   |                |                      |                   |                |
| O-N   | 0 / 2351         | -18.5            | -18.5          | 0.51 (1)       | 10.00                |                   |                |                      |                   |                |
| N-M   | 0 / 2351         | -18.5            | -18.5          | 0.51 (1)       | 10.00                |                   |                |                      |                   |                |
| M-L   | 0 / 1038         | -18.5            | -18.5          | 0.34 (4)       | 10.00                |                   |                |                      |                   |                |
| L-K   | 0 / 0            | -18.5            | -18.5          | 0.18 (4)       | 10.00                |                   |                |                      |                   |                |
| K-J   | 0 / 0            | -96.5            | -96.5          | 0.16 (1)       | 10.00                |                   |                |                      |                   |                |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.14")  
ALLOWABLE DEFL.(TL)= L/360 (1.36")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.29")

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=0.93/1.00 (C-E:1), BC=0.51/1.00 (O-Q:1), WB=0.65/1.00 (E-O:1), SSI=0.30/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

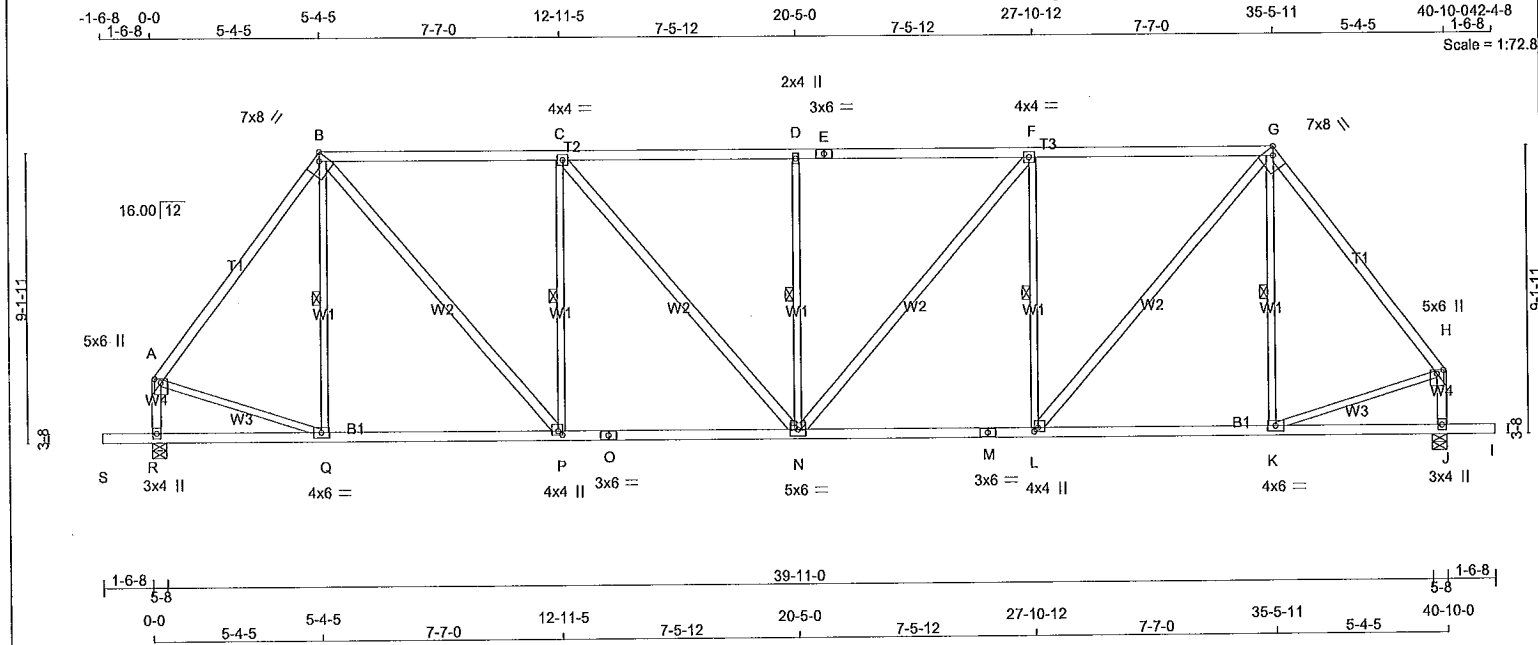
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)  
JSI METAL= 0.70 (N) (INPUT = 1.00)

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CONTINUED ON PAGE 2



TOTAL WEIGHT = 15 X 204 = 3061 lb

**LUMBER**

| CHORDS | SIZE | LUMBER   | DESCR. |
|--------|------|----------|--------|
| A - B  | 2x4  | DRY No.2 | SPF    |
| B - E  | 2x4  | DRY No.2 | SPF    |
| E - G  | 2x4  | DRY No.2 | SPF    |
| G - H  | 2x4  | DRY No.2 | SPF    |
| R - A  | 2x4  | DRY No.2 | SPF    |
| J - H  | 2x4  | DRY No.2 | SPF    |
| S - O  | 2x4  | DRY No.2 | SPF    |
| O - M  | 2x4  | DRY No.2 | SPF    |
| M - I  | 2x4  | DRY No.2 | SPF    |

**ALL WEBS** 2x3 DRY No.2 SPF

**EXCEPT**

|       |     |          |     |
|-------|-----|----------|-----|
| B - P | 2x4 | DRY No.2 | SPF |
| C - N | 2x4 | DRY No.2 | SPF |
| N - F | 2x4 | DRY No.2 | SPF |
| L - G | 2x4 | DRY No.2 | SPF |

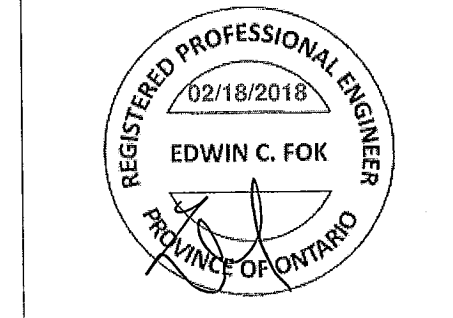
DRY: SEASONED LUMBER.

**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   | 7.0 | 8.0 | Edge | 2.75 |
| C  | TMVW-t | MT20   | 4.0 | 4.0 |      |      |
| D  | TMVW+w | MT20   | 2.0 | 4.0 |      |      |
| E  | TS-t   | MT20   | 3.0 | 6.0 |      |      |
| F  | TMVW-t | MT20   | 4.0 | 4.0 |      |      |
| G  | TTWW-h | MT20   | 7.0 | 8.0 | Edge | 2.75 |
| H  | TMVW+p | MT20   | 5.0 | 6.0 | 1.50 | 2.50 |
| J  | BMV1+p | MT20   | 3.0 | 4.0 |      |      |
| K  | BMVW-t | MT20   | 4.0 | 6.0 |      |      |
| L  | BMVW+t | MT20   | 4.0 | 4.0 | 1.50 | 1.50 |
| M  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| N  | BMVW-t | MT20   | 5.0 | 6.0 |      |      |
| O  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| P  | BMVW-t | MT20   | 4.0 | 4.0 | 1.50 | 1.50 |
| Q  | BMVW-t | MT20   | 4.0 | 6.0 |      |      |
| R  | BMV1+p | MT20   | 3.0 | 4.0 |      |      |

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

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



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

**BEARINGS**

| JT | VERT | HORZ | DOWN | HORZ | UPLIFT | IN-SX | BRG | IN-SX |
|----|------|------|------|------|--------|-------|-----|-------|
| R  | 2231 | 0    | 2231 | 0    | 0      | 5-8   | 3-9 | 3-9   |
| J  | 2231 | 0    | 2231 | 0    | 0      | 5-8   | 3-9 | 3-9   |

| UNFACTORED REACTIONS |           |                               |       |           |       |         |       |
|----------------------|-----------|-------------------------------|-------|-----------|-------|---------|-------|
|                      | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
| JT                   | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| R                    | 1601      | 922 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 679 / 0 | 0 / 0 |
| J                    | 1601      | 922 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 679 / 0 | 0 / 0 |

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

**BRACING**  
FOR SECTION B-G, MAX. PURLIN SPACING = 2.00 FT.  
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.57 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                                | WEBS  |                           |                                |          |
|--------|---------------------------|---------------------------|--------------------------------|-------|---------------------------|--------------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD (LC1) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED VERT. LOAD (LC1) |          |
| FR-TO  |                           | FROM                      | TO                             | FR-TO |                           | FROM                           | TO       |
| A-B    | -1879 / 0                 | -78.0                     | -78.0 0.44 (1)                 | 4.57  | Q-B                       | -198 / 3                       | 0.11 (1) |
| B-C    | -2176 / 0                 | -85.5                     | -85.5 0.73 (1)                 | 2.00  | B-P                       | 0 / 1618                       | 0.26 (1) |
| C-D    | -2482 / 0                 | -85.5                     | -85.5 0.72 (1)                 | 2.00  | P-C                       | -1084 / 0                      | 0.59 (1) |
| D-E    | -2482 / 0                 | -85.5                     | -85.5 0.72 (1)                 | 2.00  | C-N                       | 0 / 474                        | 0.08 (1) |
| E-F    | -2482 / 0                 | -85.5                     | -85.5 0.72 (1)                 | 2.00  | N-D                       | -589 / 0                       | 0.32 (1) |
| F-G    | -2176 / 0                 | -85.5                     | -85.5 0.73 (1)                 | 2.00  | N-F                       | 0 / 474                        | 0.08 (1) |
| G-H    | -1879 / 0                 | -78.0                     | -78.0 0.44 (1)                 | 4.57  | L-F                       | -1084 / 0                      | 0.59 (1) |
| R-A    | -2046 / 0                 | 0.0                       | 0.0 0.24 (1)                   | 5.91  | L-G                       | 0 / 1618                       | 0.26 (1) |
| J-H    | -2046 / 0                 | 0.0                       | 0.0 0.24 (1)                   | 5.91  | K-G                       | -198 / 3                       | 0.11 (1) |
|        |                           |                           |                                |       | A-Q                       | 0 / 1170                       | 0.26 (1) |
|        |                           |                           |                                |       | K-H                       | 0 / 1170                       | 0.26 (1) |
| S-R    | 0 / 0                     | -96.5                     | -96.5 0.16 (1)                 | 10.00 |                           |                                |          |
| R-Q    | 0 / 0                     | -18.5                     | -18.5 0.18 (4)                 | 10.00 |                           |                                |          |
| Q-P    | 0 / 1120                  | -18.5                     | -18.5 0.33 (4)                 | 10.00 |                           |                                |          |
| P-O    | 0 / 2176                  | -18.5                     | -18.5 0.47 (1)                 | 10.00 |                           |                                |          |
| O-N    | 0 / 2176                  | -18.5                     | -18.5 0.47 (1)                 | 10.00 |                           |                                |          |
| N-M    | 0 / 2176                  | -18.5                     | -18.5 0.47 (1)                 | 10.00 |                           |                                |          |
| M-L    | 0 / 2176                  | -18.5                     | -18.5 0.47 (1)                 | 10.00 |                           |                                |          |
| L-K    | 0 / 1120                  | -18.5                     | -18.5 0.33 (4)                 | 10.00 |                           |                                |          |
| K-J    | 0 / 0                     | -18.5                     | -18.5 0.18 (4)                 | 10.00 |                           |                                |          |
| J-I    | 0 / 0                     | -96.5                     | -96.5 0.16 (1)                 | 10.00 |                           |                                |          |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.11")  
ALLOWABLE DEFL.(TL)= L/360 (1.36")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.25")

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=0.73/1.00 (B-C:1), BC=0.47/1.00 (N-P:1), WB=0.59/1.00 (C-P:1), SSI=0.31/1.00 (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 (PSI) | SECTION (PLI)      |
|-------|-----------|-------------|--------------------|
| MT20  | 618       | 354         | 1667 788 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (P) (INPUT = 0.90)  
JSI METAL= 0.62 (H) (INPUT = 1.00)

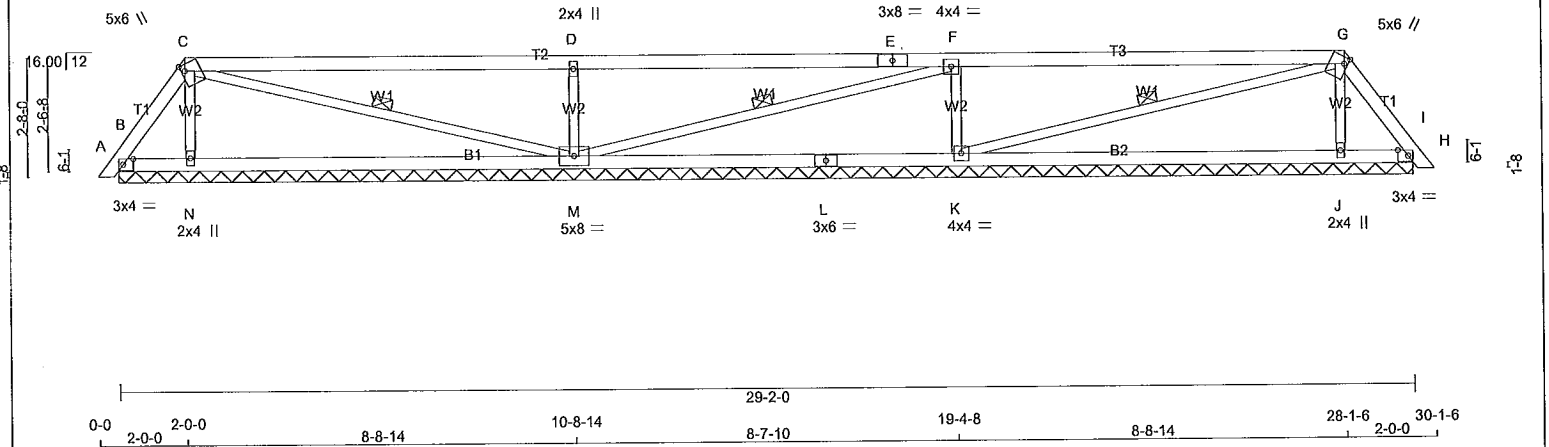
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|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292655   | H5P        | 2        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 98 = 196 lb

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

| PLATES (table is in inches) | W    | LEN | Y   | X         |
|-----------------------------|------|-----|-----|-----------|
| JT TYPE                     |      |     |     |           |
| B TMB1-I                    | MT20 | 3.0 | 4.0 | 1.50 2.75 |
| C TTVW+m                    | MT20 | 5.0 | 6.0 | 1.75 1.00 |
| D TMW+w                     | MT20 | 2.0 | 4.0 |           |
| E TS-t                      | MT20 | 3.0 | 8.0 |           |
| F TMWW-t                    | MT20 | 4.0 | 4.0 |           |
| G TTVW+m                    | MT20 | 5.0 | 6.0 | 1.75 1.00 |
| H TMB1-I                    | MT20 | 3.0 | 4.0 | 1.50 2.75 |
| J BMW1+w                    | MT20 | 2.0 | 4.0 |           |
| K BMWW1-t                   | MT20 | 4.0 | 4.0 |           |
| L BS-t                      | MT20 | 3.0 | 6.0 |           |
| M BMWWW1-t                  | MT20 | 5.0 | 8.0 |           |
| N BMW1+w                    | MT20 | 2.0 | 4.0 |           |

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

| BEARINGS | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----------|-------------------------|---------------------------------|-----------|-----------|
| JT       | VERT                    | HORZ                            | DOWN      | HORZ      |
| B        | 113                     | 0                               | 113       | 0         |
| N        | 405                     | 0                               | 405       | 0         |
| M        | 922                     | 0                               | 922       | 0         |
| K        | 906                     | 0                               | 906       | 0         |
| J        | 396                     | 0                               | 396       | 0         |
| H        | 126                     | 0                               | 126       | 0         |

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

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

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | WIND  | DEAD    | SOIL  |
|----|-----------|-------------------------------|-------|---------|-------|
| B  | 74        | 85 / 0                        | 0 / 0 | 0 / -11 | 0 / 0 |
| N  | 286       | 136 / 0                       | 0 / 0 | 160 / 0 | 0 / 0 |
| M  | 656       | 409 / 0                       | 0 / 0 | 247 / 0 | 0 / 0 |
| K  | 645       | 400 / 0                       | 0 / 0 | 244 / 0 | 0 / 0 |
| J  | 290       | 132 / 0                       | 0 / 0 | 159 / 0 | 0 / 0 |
| H  | 83        | 91 / 0                        | 0 / 0 | 0 / -9  | 0 / 0 |

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

#### BRACING

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

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

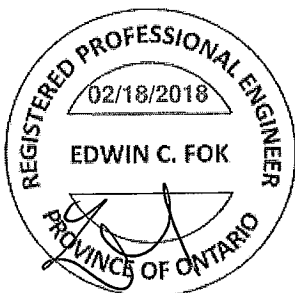
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-M, F-M, G-K.

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS | MEMB.    | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. CS (LC) | W E B S | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CS (LC) |
|--------|----------|---------------------------|---------------------------|--------------|---------|-------|---------------------------|--------------|
| FR-TO  |          |                           |                           |              |         |       |                           |              |
| A-B    | 0 / 10   | -78.0                     | -78.0                     | 0.01 (1)     | 10.00   | N-C   | -254 / 0                  | 0.04 (1)     |
| B-C    | -86 / 0  | -78.0                     | -78.0                     | 0.03 (1)     | 6.25    | C-M   | -37 / 0                   | 0.02 (1)     |
| C-D    | 0 / 0    | -78.0                     | -78.0                     | 0.53 (1)     | 10.00   | M-D   | -745 / 0                  | 0.12 (1)     |
| D-E    | -1 / 0   | -78.0                     | -78.0                     | 0.53 (1)     | 10.00   | M-F   | -25 / 0                   | 0.01 (1)     |
| E-F    | -1 / 0   | -78.0                     | -78.0                     | 0.53 (1)     | 10.00   | K-F   | -738 / 0                  | 0.12 (1)     |
| F-G    | -25 / 0  | -78.0                     | -78.0                     | 0.53 (1)     | 6.25    | K-G   | -21 / 0                   | 0.01 (1)     |
| G-H    | -101 / 0 | -78.0                     | -78.0                     | 0.03 (1)     | 6.25    | J-G   | -245 / 0                  | 0.04 (1)     |
| H-I    | 0 / 10   | -78.0                     | -78.0                     | 0.01 (1)     | 10.00   |       |                           |              |
| B-N    | 0 / 49   | -18.5                     | -18.5                     | 0.23 (4)     | 10.00   |       |                           |              |
| N-M    | 0 / 37   | -18.5                     | -18.5                     | 0.28 (4)     | 10.00   |       |                           |              |
| M-L    | 0 / 25   | -18.5                     | -18.5                     | 0.28 (4)     | 10.00   |       |                           |              |
| L-K    | 0 / 25   | -18.5                     | -18.5                     | 0.28 (4)     | 10.00   |       |                           |              |
| K-J    | 0 / 46   | -18.5                     | -18.5                     | 0.28 (4)     | 10.00   |       |                           |              |
| J-H    | 0 / 58   | -18.5                     | -18.5                     | 0.23 (4)     | 10.00   |       |                           |              |

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



#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.53/1.00 (F-G:1), BC=0.28/1.00 (J-K:4), WB=0.12/1.00 (D-M:1), SSI=0.32/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

##### NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (K) (INPUT = 0.80)  
JSI METAL= 0.51 (E) (INPUT = 1.00)

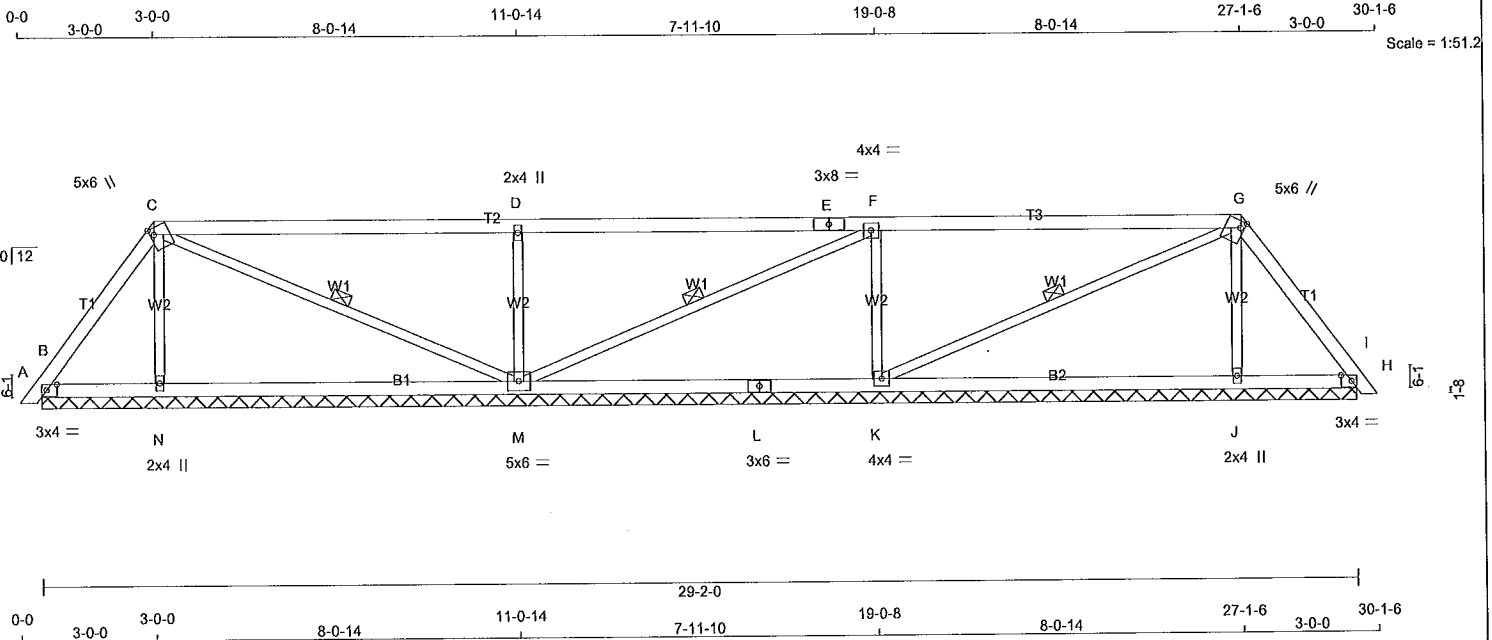
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|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292655   | H6P        | 2        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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

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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG           | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|---------------------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |                     |           |
| B  | 199                     | 0    | 199                             | 0    | 29-2-0 (13-2-8)2-10 |           |
| N  | 369                     | 0    | 369                             | 0    | 29-2-0 (13-2-8)2-10 |           |
| M  | 891                     | 0    | 891                             | 0    | 29-2-0 (13-2-8)2-10 |           |
| K  | 826                     | 0    | 826                             | 0    | 29-2-0 (13-2-8)2-10 |           |
| J  | 358                     | 0    | 358                             | 0    | 29-2-0 (13-2-8)2-10 |           |
| H  | 226                     | 0    | 226                             | 0    | 29-2-0 (13-2-8)2-10 |           |

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       | WIND    | DEAD  | SOIL  |
|----|-----------|-------------------------------|-------|-----------|-------|---------|-------|-------|
|    |           | SNOW                          | LIVE  | PERM.LIVE |       |         |       |       |
| B  | 137       | 110 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 28 / 0  | 0 / 0 | 0 / 0 |
| N  | 269       | 132 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 137 / 0 | 0 / 0 | 0 / 0 |
| M  | 633       | 399 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 235 / 0 | 0 / 0 | 0 / 0 |
| K  | 588       | 364 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 225 / 0 | 0 / 0 | 0 / 0 |
| J  | 261       | 126 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 135 / 0 | 0 / 0 | 0 / 0 |
| H  | 156       | 124 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 32 / 0  | 0 / 0 | 0 / 0 |

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

#### BRACING

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

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

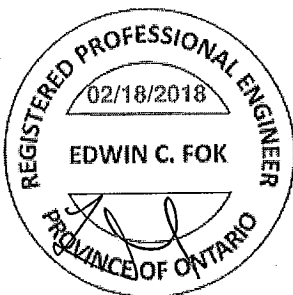
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-M, F-M, G-K.

#### LOADING

TOTAL LOAD CASES: (4)

| FR-TO | CHORDS           |                  | FACTORED |          | MAX. MEMB. | WEBS             |               | MAX. MEMB. |
|-------|------------------|------------------|----------|----------|------------|------------------|---------------|------------|
|       | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX  | CS1 (LC) |            | MAX. FORCE (LBS) | MAX. CS1 (LC) |            |
| A-B   | 0 / 10           | -78.0            | -78.0    | 0.01 (1) | 10.00      | N-C              | -245 / 0      | 0.06 (1)   |
| B-C   | -96 / 0          | -78.0            | -78.0    | 0.09 (1) | 6.25       | C-M              | -70 / 0       | 0.04 (1)   |
| C-D   | 0 / 16           | -78.0            | -78.0    | 0.09 (1) | 10.00      | M-D              | -688 / 0      | 0.16 (1)   |
| D-E   | 0 / 16           | -78.0            | -78.0    | 0.09 (1) | 10.00      | M-F              | -60 / 0       | 0.03 (1)   |
| E-F   | 0 / 16           | -78.0            | -78.0    | 0.09 (1) | 10.00      | K-F              | -663 / 0      | 0.16 (1)   |
| F-G   | -39 / 0          | -78.0            | -78.0    | 0.09 (1) | 6.25       | K-G              | -31 / 0       | 0.02 (1)   |
| G-H   | -128 / 0         | -78.0            | -78.0    | 0.09 (1) | 6.25       | J-G              | -235 / 0      | 0.05 (1)   |
| H-I   | 0 / 10           | -78.0            | -78.0    | 0.01 (1) | 10.00      |                  |               |            |
| B-N   | 0 / 56           | -18.5            | -18.5    | 0.18 (4) | 10.00      |                  |               |            |
| N-M   | 0 / 48           | -18.5            | -18.5    | 0.24 (4) | 10.00      |                  |               |            |
| M-L   | 0 / 39           | -18.5            | -18.5    | 0.24 (4) | 10.00      |                  |               |            |
| L-K   | 0 / 39           | -18.5            | -18.5    | 0.24 (4) | 10.00      |                  |               |            |
| K-J   | 0 / 68           | -18.5            | -18.5    | 0.24 (4) | 10.00      |                  |               |            |
| J-H   | 0 / 74           | -18.5            | -18.5    | 0.18 (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.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.69/1.00 (F-G:1), BC=0.24/1.00 (J-K:4), WB=0.16/1.00 (D-M:1), SSI=0.29/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

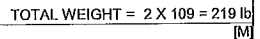
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (M) (INPUT = 0.90)  
JSI METAL= 0.60 (E) (INPUT = 1.00)

A-18023701

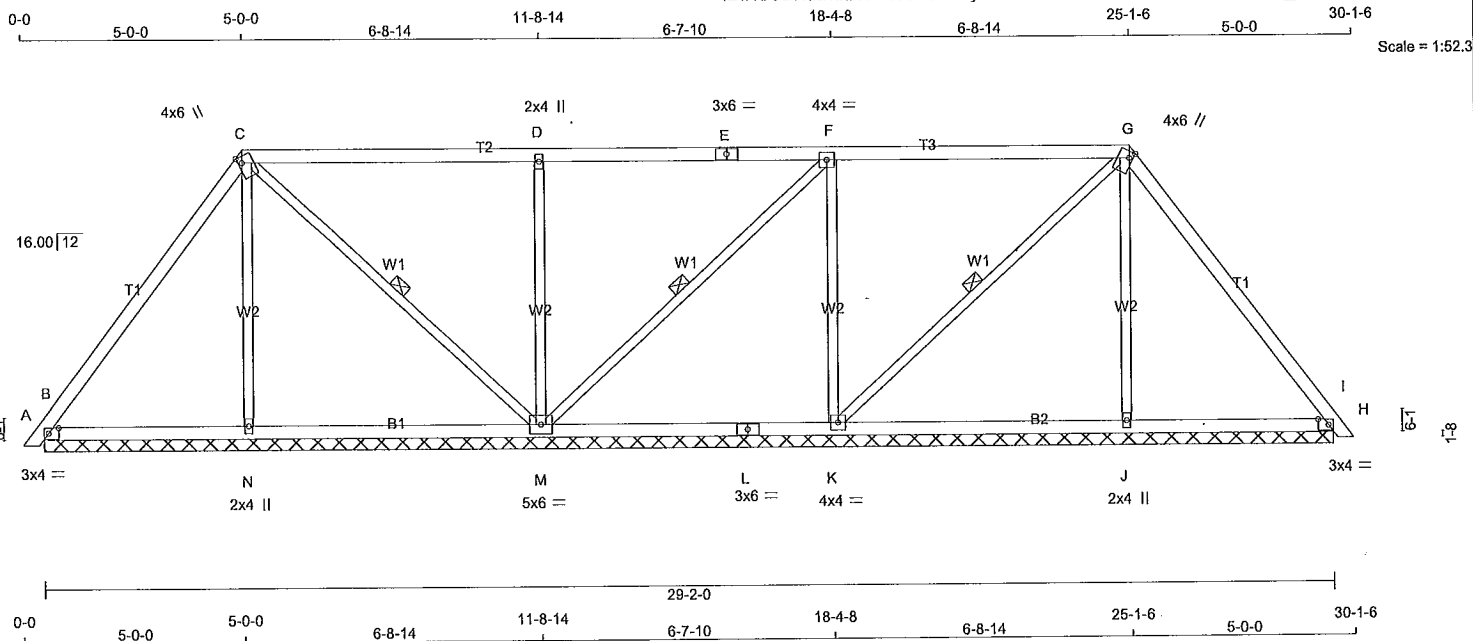
A-18023702

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292655   | H8P        | 2        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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

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

| BEARINGS |     | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG IN-SX    |  | REQD BRG IN-SX |  |
|----------|-----|-------------------------|------|---------------------------------|------|--------------------|--|----------------|--|
| JT       |     | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT             |  |                |  |
| B        | 310 | 0                       | 310  | 0                               | 0    | 29-2-0 (13-2-8)2-0 |  |                |  |
| N        | 332 | 0                       | 332  | 0                               | 0    | 29-2-0 (13-2-8)2-0 |  |                |  |
| M        | 890 | 0                       | 890  | 0                               | 0    | 29-2-0 (13-2-8)2-0 |  |                |  |
| K        | 638 | 0                       | 638  | 0                               | 0    | 29-2-0 (13-2-8)2-0 |  |                |  |
| J        | 330 | 0                       | 330  | 0                               | 0    | 29-2-0 (13-2-8)2-0 |  |                |  |
| H        | 369 | 0                       | 369  | 0                               | 0    | 29-2-0 (13-2-8)2-0 |  |                |  |

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

#### UNFACTORED REACTIONS

| 1ST LC CASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |  |  |
|-------------|----------|-------------------------------|-------|-----------|-------|---------|-------|--|--|
| JT          | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |  |  |
| B           | 218      | 151 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 67 / 0  | 0 / 0 |  |  |
| N           | 242      | 117 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 126 / 0 | 0 / 0 |  |  |
| M           | 629      | 412 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 217 / 0 | 0 / 0 |  |  |
| K           | 455      | 277 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 178 / 0 | 0 / 0 |  |  |
| J           | 241      | 115 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 125 / 0 | 0 / 0 |  |  |
| H           | 259      | 183 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 76 / 0  | 0 / 0 |  |  |

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

#### BRACING

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

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           | FACTORED         |                | WEBS  |                           | FACTORED     |          |
|--------|---------------------------|------------------|----------------|-------|---------------------------|--------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | MAX. CS (LC)   | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CS (LC) |          |
| FR-TO  |                           | FROM             | TO             | FR-TO |                           |              |          |
| A-B    | 0 / 10                    | -78.0            | -78.0 0.01 (1) | 10.00 | N-C                       | -216 / 0     | 0.15 (1) |
| B-C    | -95 / 0                   | -78.0            | -78.0 0.27 (1) | 6.25  | C-M                       | -139 / 0     | 0.08 (1) |
| C-D    | 0 / 51                    | -78.0            | -78.0 0.48 (1) | 10.00 | M-D                       | -573 / 0     | 0.40 (1) |
| D-E    | 0 / 50                    | -78.0            | -78.0 0.48 (1) | 10.00 | M-F                       | -143 / 0     | 0.08 (1) |
| E-F    | 0 / 50                    | -78.0            | -78.0 0.48 (1) | 10.00 | K-F                       | -475 / 0     | 0.33 (1) |
| F-G    | -53 / 0                   | -78.0            | -78.0 0.48 (1) | 6.25  | K-G                       | -57 / 0      | 0.03 (1) |
| G-H    | -168 / 0                  | -78.0            | -78.0 0.28 (1) | 6.25  | J-G                       | -214 / 0     | 0.15 (1) |
| H-I    | 0 / 10                    | -78.0            | -78.0 0.01 (1) | 10.00 |                           |              |          |
| B-N    | 0 / 56                    | -18.5            | -18.5 0.14 (4) | 10.00 |                           |              |          |
| N-M    | 0 / 52                    | -18.5            | -18.5 0.17 (4) | 10.00 |                           |              |          |
| M-L    | 0 / 53                    | -18.5            | -18.5 0.17 (4) | 10.00 |                           |              |          |
| L-K    | 0 / 53                    | -18.5            | -18.5 0.17 (4) | 10.00 |                           |              |          |
| K-J    | 0 / 85                    | -18.5            | -18.5 0.17 (4) | 10.00 |                           |              |          |
| J-H    | 0 / 99                    | -18.5            | -18.5 0.15 (4) | 10.00 |                           |              |          |

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

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.48/1.00 (D-F:1), BC=0.17/1.00 (J-K:4), WB=0.40/1.00 (D-M:1), SSI=0.25/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

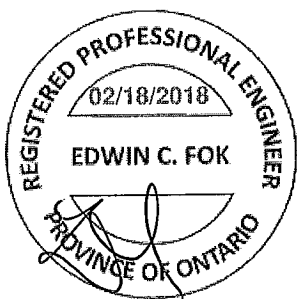
| NAIL VALUES | PLATE GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) |
|-------------|-----------------|-------------|---------------|
|             | MAX MIN         | MAX MIN     | MAX MIN       |
| MT20        | 618 354         | 1667 788    | 1987 1656     |

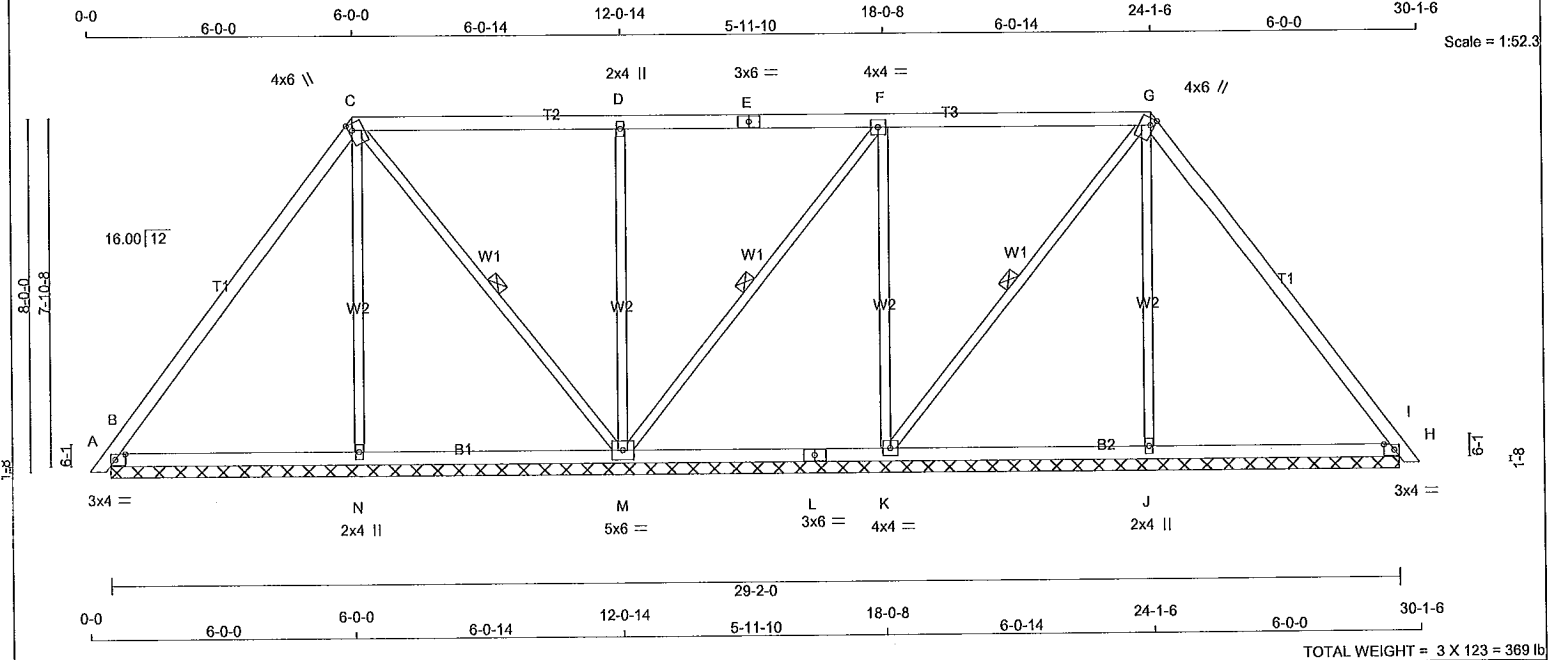
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (G) (INPUT = 0.90)  
JSI METAL= 0.17 (H) (INPUT = 1.00)

A-18023703

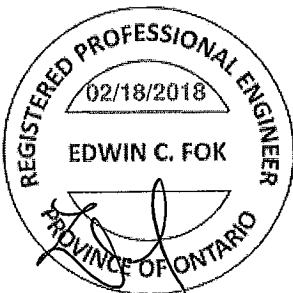




| LUMBER                |       | LUMBER |      | DESCR. |
|-----------------------|-------|--------|------|--------|
| N. L. G. A.           | RULES |        |      |        |
| CHORDS                | SIZE  |        |      |        |
| A - C                 | 2x4   | DRY    | No.2 | SPF    |
| C -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

| PLATES (table is in inches) |           |        |     |               |
|-----------------------------|-----------|--------|-----|---------------|
| JT                          | TYPE      | PLATES | W   | LEN Y X       |
| B                           | TMB1-I    | MT20   | 3.0 | 4.0 1.50 2.75 |
| C                           | TTWW+m    | MT20   | 4.0 | 6.0 1.75 1.00 |
| D                           | TMW+w     | MT20   | 2.0 | 4.0           |
| E                           | TS-I      | MT20   | 3.0 | 6.0           |
| F                           | TMWW-I    | MT20   | 4.0 | 4.0           |
| G                           | TTWW+m    | MT20   | 4.0 | 6.0 1.75 1.00 |
| H                           | TMB1-I    | MT20   | 3.0 | 4.0 1.50 2.75 |
| J                           | BMW1+w    | MT20   | 2.0 | 4.0           |
| K                           | BMWV1-I   | MT20   | 4.0 | 4.0           |
| L                           | BS-I      | MT20   | 3.0 | 6.0           |
| M                           | BMWVWW1-I | MT20   | 5.0 | 6.0           |
| N                           | BMW1+w    | MT20   | 2.0 | 4.0           |

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



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

|    | BEARINGS |          | FACTORED |          | MAXIMUM FACTORED |        | INPUT       | REQD |
|----|----------|----------|----------|----------|------------------|--------|-------------|------|
|    | GROSS    | REACTION | GROSS    | REACTION | UPLIFT           | BRG    | BRG         |      |
|    | VERT     | HORZ     | DOWN     | HORZ     |                  | IN-SX  | IN-SX       |      |
| JT |          |          |          |          |                  |        |             |      |
| B  | 356      | 0        | 356      | 0        | 0                | 29-2-0 | (13-2-84)-1 |      |
| N  | 325      | 0        | 325      | 0        | 0                | 29-2-0 | (13-2-84)-1 |      |
| M  | 883      | 0        | 883      | 0        | 0                | 29-2-0 | (13-2-84)-1 |      |
| K  | 555      | 0        | 555      | 0        | 0                | 29-2-0 | (13-2-84)-1 |      |
| J  | 325      | 0        | 325      | 0        | 0                | 29-2-0 | (13-2-84)-1 |      |
| H  | 424      | 0        | 424      | 0        | 0                | 29-2-0 | (13-2-84)-1 |      |

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

### UNFACTORED REACTIONS

| 1ST LCASE |          | MAX/MIN COMPONENT REACTIONS |      |           |      |       |      |
|-----------|----------|-----------------------------|------|-----------|------|-------|------|
| JT        | COMBINED | SNOW                        | LIVE | PERM.LIVE | WIND | DEAD  | SOIL |
| B         | 251      | 170/0                       | 0/0  | 0/0       | 0/0  | 81/0  | 0/0  |
| N         | 238      | 110/0                       | 0/0  | 0/0       | 0/0  | 128/0 | 0/0  |
| M         | 623      | 417/0                       | 0/0  | 0/0       | 0/0  | 206/0 | 0/0  |
| K         | 396      | 241/0                       | 0/0  | 0/0       | 0/0  | 156/0 | 0/0  |
| J         | 238      | 110/0                       | 0/0  | 0/0       | 0/0  | 128/0 | 0/0  |
| H         | 298      | 206/0                       | 0/0  | 0/0       | 0/0  | 91/0  | 0/0  |

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

## BRACING

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

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

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

## LOADING

LOADING  
TOTAL LOAD CASES: (4)

| CHORDS        |          |            |           |             | WEB S         |             |               |          |  |
|---------------|----------|------------|-----------|-------------|---------------|-------------|---------------|----------|--|
| MAX. FACTORED |          | FACTORED   |           | MAX. UNBRAC | MAX. FACTORED |             | MAX. CSI (LC) |          |  |
| MEMB.         | (LBS)    | VERT. LOAD | LC1 (PLF) |             | MEMB.         | FORCE (LBS) |               |          |  |
| FR-TO         |          | FROM       | TO        | LENGTH      | FR-TO         |             |               |          |  |
| A-B           | 0 / 10   | -78.0      | -78.0     | 0.01 (1)    | 10.00         | N-C         | -205 / 0      | 0.24 (1) |  |
| B-C           | -90 / 0  | -78.0      | -78.0     | 0.41 (1)    | 6.25          | C-M         | -165 / 0      | 0.11 (1) |  |
| C-D           | 0 / 53   | -78.0      | -78.0     | 0.39 (1)    | 10.00         | M-D         | -516 / 0      | 0.60 (1) |  |
| D-E           | 0 / 53   | -78.0      | -78.0     | 0.39 (1)    | 10.00         | M-F         | -166 / 0      | 0.11 (1) |  |
| E-F           | 0 / 53   | -78.0      | -78.0     | 0.39 (1)    | 10.00         | K-F         | -385 / 0      | 0.45 (1) |  |
| F-G           | -50 / 0  | -78.0      | -78.0     | 0.39 (1)    | 6.25          | K-G         | -79 / 0       | 0.05 (1) |  |
| G-H           | -174 / 0 | -78.0      | -78.0     | 0.42 (1)    | 6.25          | J-G         | -204 / 0      | 0.24 (1) |  |
| H-I           | 0 / 10   | -78.0      | -78.0     | 0.01 (1)    | 10.00         |             |               |          |  |
|               |          |            |           |             |               |             |               |          |  |
| B-N           | 0 / 53   | -18.5      | -18.5     | 0.15 (4)    | 10.00         |             |               |          |  |
| N-M           | 0 / 50   | -18.5      | -18.5     | 0.15 (4)    | 10.00         |             |               |          |  |
| M-L           | 0 / 50   | -18.5      | -18.5     | 0.13 (4)    | 10.00         |             |               |          |  |
| L-K           | 0 / 50   | -18.5      | -18.5     | 0.13 (4)    | 10.00         |             |               |          |  |
| K-J           | 0 / 100  | -18.5      | -18.5     | 0.16 (4)    | 10.00         |             |               |          |  |
| J-H           | 0 / 103  | -18.5      | -18.5     | 0.16 (4)    | 10.00         |             |               |          |  |

## DESIGN CRITERIA

**SPECIFIED LOADS:**

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.42/1.00 (G-H:1), BC=0.16/1.00 (H-J:4),  
WB=0.60/1.00 (D-M:1), SSI=0.22/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

| NAIL VALUES |            |     |       |     |           |
|-------------|------------|-----|-------|-----|-----------|
|             | GRIP (DRY) |     | SHEAR |     | SECTION   |
|             | (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= 0.64 (G) (INPUT = 0.90 )  
JSI METAL= 0.19 (H) (INPUT = 1.00 )

A-18023704

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292655   | H10A       | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 12:27:53 2018 Page 2  
ID:HSVavWlIDnhr?B6oeweH9vbyNdis-?2fNm3GBUnWAvdMPIm5VLOIf4IRDZ1nWV1JELjzw7a

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN  | Y    | X    |
|----|--------|--------|-----|------|------|------|
| O  | BMWV-1 | MT20   | 5.0 | 6.0  | 2.50 | 2.25 |
| P  | BMWV-1 | MT20   | 6.0 | 7.0  | 2.00 | 2.25 |
| Q  | BS-1   | MT20   | 6.0 | 7.0  |      |      |
| R  | BMWV-1 | MT20   | 5.0 | 6.0  | 2.25 | 2.25 |
| S  | BMWV-1 | MT20   | 8.0 | 9.0  | 4.00 | 3.00 |
| T  | BS-1   | MT18HS | 5.0 | 12.0 |      |      |
| U  | BMWV-1 | MT20   | 2.0 | 4.0  |      |      |
| V  | BMWV-1 | MT20   | 7.0 | 8.0  | 2.00 | 1.75 |
| W  | BMWV-1 | MT20   | 4.0 | 9.0  | 3.00 | 1.50 |
| X  | BMWV-1 | MT20   | 5.0 | 8.0  | 4.25 | 2.00 |
| Y  | 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) 134.1 lbs FACTORED DOWN AT 2-4-5, AND 199.7 lbs FACTORED DOWN AT 37-11-11 ON TOP CHORD, AND 1176.1 lbs FACTORED DOWN AT 2-10-14, AND 1376.2 lbs FACTORED DOWN AT 19-2-10 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |             |                  |          | WEBS       |       |             |              |
|--------|-------------|------------------|----------|------------|-------|-------------|--------------|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 (LC) | MAX UNBRAC | MEMB. | FORCE (LBS) | MAX CSI (LC) |
| FR-TO  |             | FROM             | TO       | LENGTH     | FR-TO |             |              |
| N-M    | 0/0         | -96.5            | -96.5    | 0.06 (1)   | 10.00 |             |              |

#### FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.     | LC1   | MAX-  | MAX+ | FACE  | DIR. | TYPE  |
|----|----------|-------|-------|------|-------|------|-------|
| B  | 2-4-5    | -134  | -134  | ---  | FRONT | VERT | TOTAL |
| K  | 37-11-11 | -200  | -200  | ---  | FRONT | VERT | TOTAL |
| S  | 19-2-10  | -1376 | -1376 | ---  | FRONT | VERT | TOTAL |
| AB | 2-10-14  | -1176 | -1176 | ---  | FRONT | VERT | TOTAL |

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

CSI: TC=0.60/1.00 (H-J:1), BC=0.80/1.00 (R-S:1),  
WB=0.92/1.00 (K-P:1), SSI=0.78/1.00 (W-X:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

#### NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

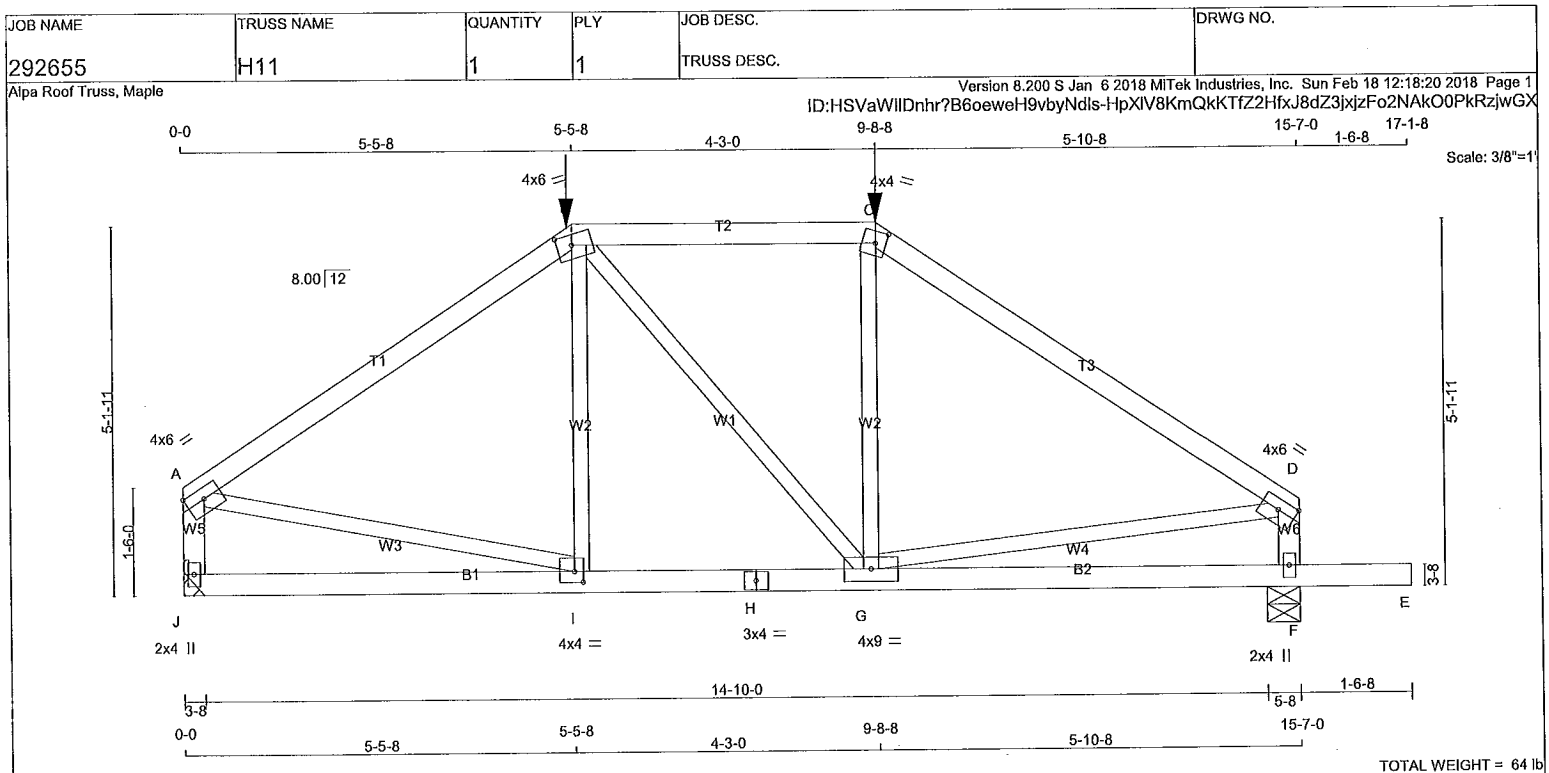
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (L) (INPUT = 0.90 )  
JSI METAL= 0.98 (Q) (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-18023705(2)



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

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

| PLATES (table is in inches) | JT TYPE | PLATES | W   | LEN | Y    | X    |
|-----------------------------|---------|--------|-----|-----|------|------|
| A                           | TMVW-t  | MT20   | 4.0 | 6.0 | 1.75 | Edge |
| B                           | TTWW-m  | MT20   | 4.0 | 6.0 | 1.75 | 2.50 |
| C                           | TTW-m   | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| D                           | TMVW-t  | MT20   | 4.0 | 6.0 | 1.75 | Edge |
| F                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| G                           | BMVWW-t | MT20   | 4.0 | 9.0 |      |      |
| H                           | BS-t    | MT20   | 3.0 | 4.0 |      |      |
| I                           | BMVW-t  | MT20   | 4.0 | 4.0 | 1.75 | 1.50 |
| J                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

#### HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 334.0 lbs FACTORED DOWN AT 9-8-8, AND 310.3 lbs FACTORED DOWN AT 5-5-8 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 |
|----|-------------------------|---------------------------------|-----------|-----------|
|    | VERT                    | HORZ                            | DOWN      | UP        |
| JT |                         |                                 |           |           |
| J  | 1384                    | 0                               | 1384      | 0         |
| F  | 1513                    | 0                               | 1513      | 0         |

##### UNFACTORED REACTIONS

|    | 1ST LCASE | MAX/MIN. COMPONENT REACTIONS | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|------------------------------|-------|-------|-----------|-------|---------|-------|
| JT | COMBINED  |                              |       |       |           |       |         |       |
| J  | 988       | 592 / 0                      | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 396 / 0 | 0 / 0 |
| F  | 1081      | 646 / 0                      | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 435 / 0 | 0 / 0 |

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

##### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.47 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 FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LC) | MAX. UNBRACED LENGTH | WEBS  | MAX. FACTORED FORCE (LBS) | MAX. FACTORED FORCE (LBS) |
|--------|---------------------------|------------------|--------------|----------------------|-------|---------------------------|---------------------------|
| FR-TO  |                           |                  |              |                      | FR-TO |                           |                           |
| A-B    | -1479 / 0                 | -78.0            | -78.0        | 0.54 (1)             | 4.69  | I-B                       | -78 / 106                 |
| B-C    | -1271 / 0                 | -153.5           | -153.5       | 0.57 (1)             | 4.81  | B-G                       | 0 / 68                    |
| C-D    | -1531 / 0                 | -78.0            | -78.0        | 0.65 (1)             | 4.47  | G-C                       | -38 / 134                 |
| J-A    | -1297 / 0                 | 0.0              | 0.0          | 0.15 (1)             | 7.05  | A-I                       | 0 / 1257                  |
| F-D    | -1271 / 0                 | 0.0              | 0.0          | 0.14 (1)             | 7.11  | G-D                       | 0 / 1287                  |
| J-I    | 0 / 0                     | -36.4            | -36.4        | 0.26 (4)             | 10.00 |                           |                           |
| I-H    | 0 / 1228                  | -36.4            | -36.4        | 0.41 (4)             | 10.00 |                           |                           |
| H-G    | 0 / 1228                  | -36.4            | -36.4        | 0.41 (4)             | 10.00 |                           |                           |
| G-F    | 0 / 0                     | -36.4            | -36.4        | 0.30 (4)             | 10.00 |                           |                           |
| F-E    | 0 / 0                     | -96.5            | -96.5        | 0.17 (1)             | 10.00 |                           |                           |

##### FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.  | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
|----|-------|------|------|------|-------|------|-------|
| B  | 5-5-8 | -310 | -310 | ---  | FRONT | VERT | TOTAL |
| C  | 9-8-8 | -334 | -334 | ---  | FRONT | VERT | TOTAL |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.52")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.52")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.10")

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

CSI: TC=0.65/1.00 (C-D:1), BC=0.41/1.00 (G-I:4), WB=0.32/1.00 (D-G:1), SSI=0.28/1.00 (B-C:1)

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

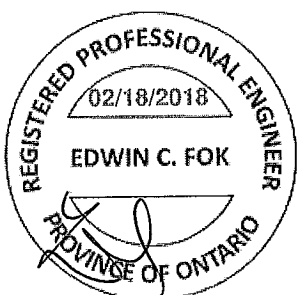
COMPANION LIVE LOAD FACTOR = 1.00

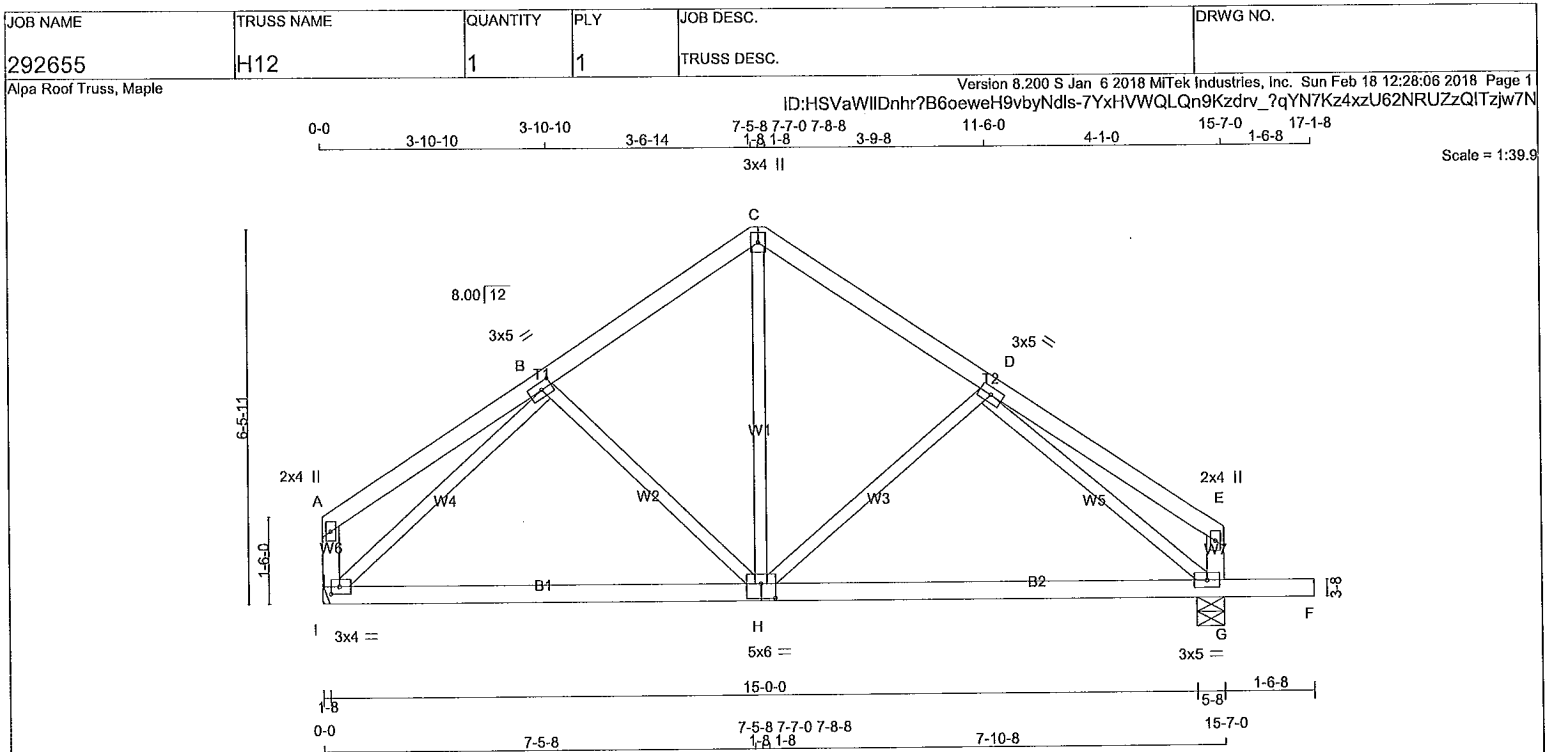
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

A-18023706

CONTINUED ON PAGE 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    |
| I - A             | 2x4    | DRY  | No.2   | SPF    |
| G - E             | 2x4    | DRY  | No.2   | SPF    |
| I - H             | 2x4    | DRY  | No.2   | SPF    |
| H - F             | 2x4    | DRY  | No.2   | SPF    |

ALL WEBS 2x3 DRY  
 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 | 5.0 | 1.50 | 2.25 |
| C  | TTW+p   | MT20   | 3.0 | 4.0 |      |      |
| D  | TMVW-t  | MT20   | 3.0 | 5.0 |      |      |
| E  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| G  | BMVW1-t | MT20   | 3.0 | 5.0 |      |      |
| H  | BSVW1-t | MT20   | 5.0 | 6.0 | 3.00 | 3.00 |
| I  | BMVW1-t | MT20   | 3.0 | 4.0 | 1.50 | 1.75 |

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

| BEARINGS |  | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----------|--|-------------------------|---------------------------------|-----------|-----------|
| JT       |  | VERT                    | HORZ                            | DOWN      | UP        |
| I        |  | 752                     | 0                               | 752       | 0         |
| G        |  | 900                     | 0                               | 900       | 0         |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX. SNOW | MIN. LIVE | PERM. LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|-----------|-----------|------------|-------|---------|-------|
| I  | 536       | 327 / 0   | 0 / 0     | 0 / 0      | 0 / 0 | 209 / 0 | 0 / 0 |
| G  | 642       | 392 / 0   | 0 / 0     | 0 / 0      | 0 / 0 | 250 / 0 | 0 / 0 |

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

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           | WEBS  |                           |
|--------|---------------------------|-------|---------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | MEMB. | MAX. FACTORED FORCE (LBS) |
| FR-TO  |                           | FR-TO |                           |
| A-B    | 0 / 19                    | H-C   | 0 / 389                   |
| B-C    | -583 / 0                  | I-B   | -812 / 0                  |
| C-D    | -584 / 0                  | B-H   | -155 / 0                  |
| D-E    | 0 / 20                    | H-D   | -208 / 0                  |
| I-A    | -113 / 0                  | D-G   | -839 / 0                  |
| G-E    | -119 / 0                  |       |                           |
| I-H    | 0 / 580                   |       |                           |
| H-G    | 0 / 625                   |       |                           |
| G-F    | 0 / 0                     |       |                           |

#### 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 (0.52")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.02")  
 ALLOWABLE DEFL.(TL)= L/360 (0.52")  
 CALCULATED VERT. DEFL.(TL) = L/937 (0.20")

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=0.20/1.00 (D-E:1), BC=0.40/1.00 (G-H:4), WB=0.39/1.00 (D-G:1), SSI=0.13/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

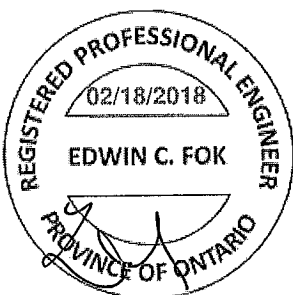
NAIL VALUES  
 PLATE GRIP(DRY) 'SHEAR SECTION  
 (PSI) (PLI) (PLI)  
 MAX MIN MAX MIN MAX MIN  
 MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90 )  
 JSI METAL= 0.23 (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



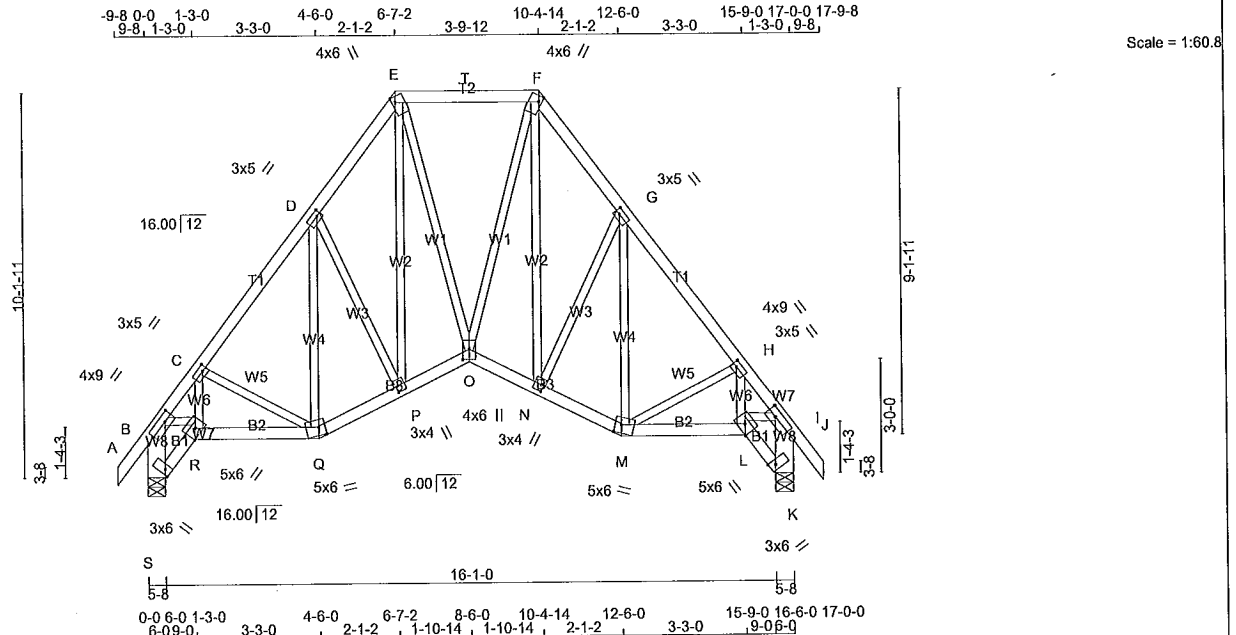
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Alpa Roof Truss, Maple

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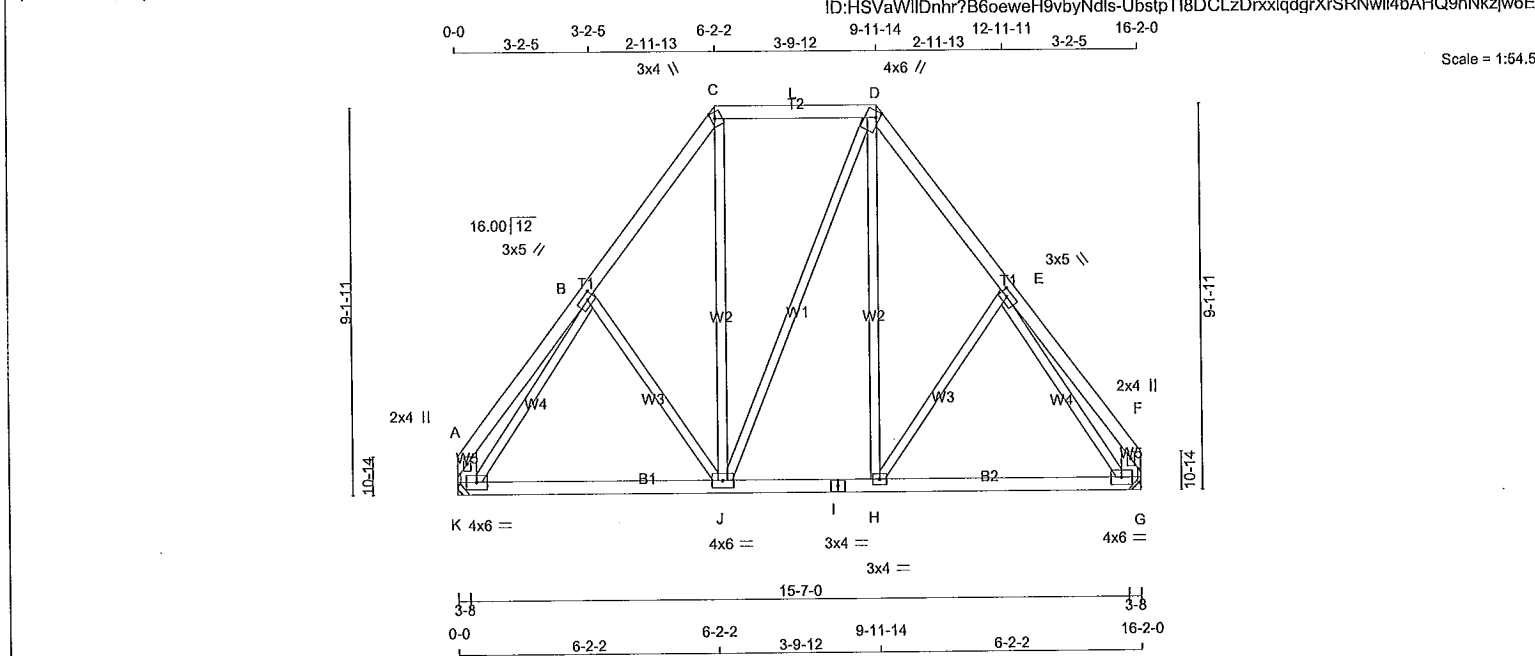


| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292655   | H14S       | 3        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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ID:HSVaWIIDnhr?B6oeweH9vbyNdls-UbstpT18DCLzDrxxlqdgRrSRNwll4bAHQ9nNkzjw6E



TOTAL WEIGHT = 3 X 88 = 264 lb

| LUMBER                      |         |        |        |     | DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER |      |                                                                                  |      |           |       |                     |              |                       |  | DESIGN CRITERIA                                                                                                                                                           |  |                                                                        |  |  |  |
|-----------------------------|---------|--------|--------|-----|-----------------------------------------------------------------------------------------------|------|----------------------------------------------------------------------------------|------|-----------|-------|---------------------|--------------|-----------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------|--|--|--|
| N. L. G. A. RULES           |         |        |        |     | BEARINGS                                                                                      |      |                                                                                  |      |           |       |                     |              |                       |  | SPECIFIED LOADS:                                                                                                                                                          |  |                                                                        |  |  |  |
| CHORDS                      | SIZE    | LUMBER | DESCR. |     | FACTORED GROSS REACTION                                                                       |      | MAXIMUM FACTORED GROSS REACTION                                                  |      | INPUT BRG |       | REQRD BRG           |              | TOP CH. LL = 21.0 PSF |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| A - C                       | 2x4     | DRY    | No.2   | SPF | VERT                                                                                          | HORZ | DOWN                                                                             | HORZ | UPLIFT    | IN-SX | IN-SX               | DL = 6.0 PSF |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| C - D                       | 2x4     | DRY    | No.2   | SPF | JT                                                                                            | 794  | 0                                                                                | 794  | 0         | 0     | HANGER BY OTHERS    |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| D - F                       | 2x4     | DRY    | No.2   | SPF | K                                                                                             |      |                                                                                  |      |           |       | MIN. SEAT SIZE: 1-8 |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| K - A                       | 2x6     | DRY    | No.2   | SPF | G                                                                                             | 794  | 0                                                                                | 794  | 0         | 0     | HANGER BY OTHERS    |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| G - F                       | 2x6     | DRY    | No.2   | SPF |                                                                                               |      |                                                                                  |      |           |       | MIN. SEAT SIZE: 1-8 |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| K - I                       | 2x4     | DRY    | No.2   | SPF |                                                                                               |      |                                                                                  |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| I - G                       | 2x4     | DRY    | No.2   | SPF |                                                                                               |      |                                                                                  |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| ALL WEBS 2x3 DRY No.2 SPF   |         |        |        |     | UNFACTORED REACTIONS                                                                          |      |                                                                                  |      |           |       |                     |              |                       |  | 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. |  |                                                                        |  |  |  |
| EXCEPT                      |         |        |        |     | 1ST LCASE MAX/MIN. COMPONENT REACTIONS                                                        |      |                                                                                  |      |           |       |                     |              |                       |  | THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015                                                                     |  |                                                                        |  |  |  |
| DRY: SEASONED LUMBER.       |         |        |        |     | JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL                                                |      |                                                                                  |      |           |       |                     |              |                       |  | THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, OBC 2018 - CSA 086-09, CSA 086-14 - TPIC 2011, TPIC 2014                                                                 |  |                                                                        |  |  |  |
|                             |         |        |        |     | K 567 339 / 0 0 / 0 0 / 0 0 / 0 228 / 0 0 / 0                                                 |      |                                                                                  |      |           |       |                     |              |                       |  | (55 % OF 23.0 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD                                                                        |  |                                                                        |  |  |  |
|                             |         |        |        |     | G 567 339 / 0 0 / 0 0 / 0 0 / 0 228 / 0 0 / 0                                                 |      |                                                                                  |      |           |       |                     |              |                       |  | ALLOWABLE DEFL.(LL)= L/360 (0.54") CALCULATED VERT. DEFL.(LL)= L/ 999 (0.01") ALLOWABLE DEFL.(TL)= L/360 (0.54") CALCULATED VERT. DEFL.(TL)= L/ 999 (0.06")               |  |                                                                        |  |  |  |
| PLATES (table is in inches) |         |        |        |     | BRACING                                                                                       |      |                                                                                  |      |           |       |                     |              |                       |  | CSI: TC=0.21/1.00 (C-D:1) , BC=0.19/1.00 (G-H:4) , WB=0.38/1.00 (B-K:1) , SSI=0.13/1.00 (C-D:1)                                                                           |  |                                                                        |  |  |  |
| JT                          | TYPE    | PLATES | W      | LEN | Y                                                                                             | X    | FOR SECTION C-D, MAX. PURLIN SPACING = 2.00 FT.                                  |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  | DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 |  |  |  |
| A                           | TMV+p   | MT20   | 2.0    | 4.0 |                                                                                               |      | FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.   |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  | COMPANION LIVE LOAD FACTOR = 1.00                                      |  |  |  |
| B                           | TMWW-t  | MT20   | 3.0    | 5.0 | 1.50                                                                                          | 2.00 | MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  | AUTOSOLVE HEELS OFF                                                    |  |  |  |
| C                           | TTW+m   | MT20   | 3.0    | 4.0 | 1.75                                                                                          | 1.00 | ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.       |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  | TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN     |  |  |  |
| D                           | TTWW+m  | MT20   | 4.0    | 6.0 | 1.75                                                                                          | 1.00 | LOADING                                                                          |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| E                           | TMWW-t  | MT20   | 3.0    | 5.0 | 1.50                                                                                          | 2.00 | TOTAL LOAD CASES: (4)                                                            |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| F                           | TMV+p   | MT20   | 2.0    | 4.0 |                                                                                               |      | CHORDS                                                                           |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| G                           | BMVVW-t | MT20   | 4.0    | 6.0 |                                                                                               |      | MEMB. MAX. FACTORED FORCE (LBS)                                                  |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| H                           | BMWW-t  | MT20   | 3.0    | 4.0 |                                                                                               |      | FACTORED VERT. LOAD LC1 MAX UNBRAC                                               |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| I                           | BS-t    | MT20   | 3.0    | 4.0 |                                                                                               |      | FR-TO 0 / 22 -78.0 -78.0 0.12 (1) 10.00                                          |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| J                           | BMWWW-t | MT20   | 4.0    | 6.0 |                                                                                               |      | B-C -613 / 0 -78.0 -78.0 0.09 (1) 6.25                                           |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
| K                           | BMVVW-t | MT20   | 4.0    | 6.0 |                                                                                               |      | C-L -355 / 0 -85.5 -85.5 0.21 (1) 2.00                                           |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
|                             |         |        |        |     |                                                                                               |      | L-D -355 / 0 -85.5 -85.5 0.21 (1) 2.00                                           |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
|                             |         |        |        |     |                                                                                               |      | D-E -612 / 0 -78.0 -78.0 0.09 (1) 6.25                                           |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
|                             |         |        |        |     |                                                                                               |      | E-F 0 / 22 -78.0 -78.0 0.12 (1) 10.00                                            |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
|                             |         |        |        |     |                                                                                               |      | K-A -91 / 0 0.0 0.0 0.01 (1) 7.81                                                |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
|                             |         |        |        |     |                                                                                               |      | G-F -91 / 0 0.0 0.0 0.01 (1) 7.81                                                |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
|                             |         |        |        |     |                                                                                               |      | K-J 0 / 435 -18.5 -18.5 0.19 (4) 10.00                                           |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
|                             |         |        |        |     |                                                                                               |      | J-I 0 / 355 -18.5 -18.5 0.17 (4) 10.00                                           |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
|                             |         |        |        |     |                                                                                               |      | I-H 0 / 355 -18.5 -18.5 0.17 (4) 10.00                                           |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |
|                             |         |        |        |     |                                                                                               |      | H-G 0 / 435 -18.5 -18.5 0.19 (4) 10.00                                           |      |           |       |                     |              |                       |  |                                                                                                                                                                           |  |                                                                        |  |  |  |

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

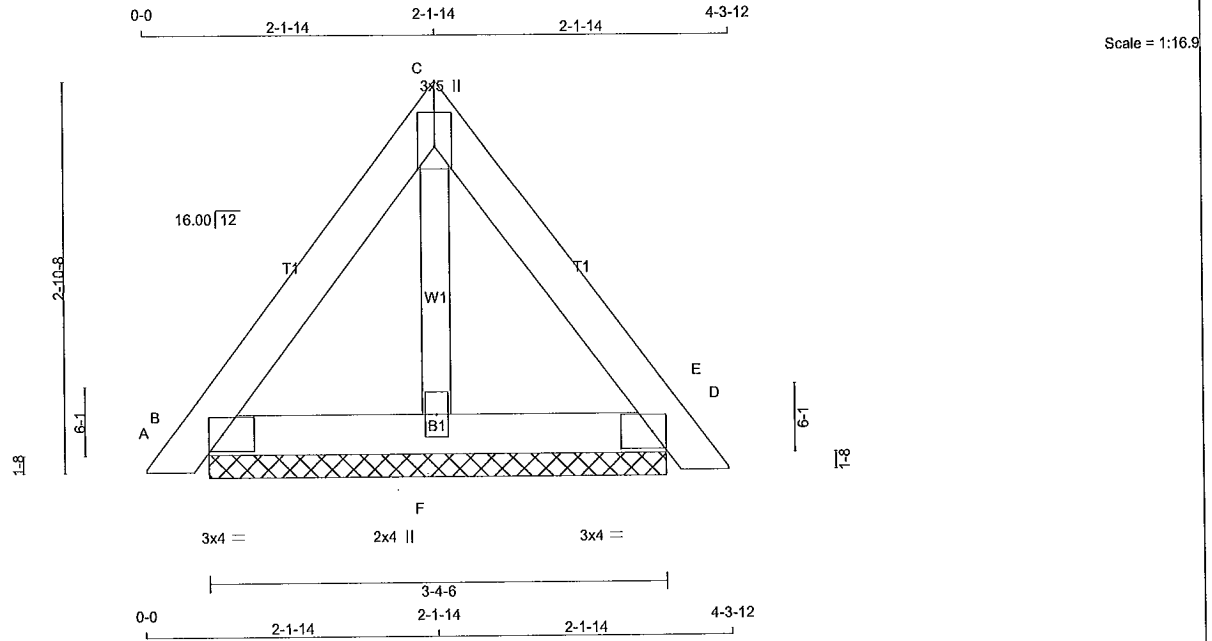
A-18023709

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292655   | H15P       | 5        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 5 X 14 = 68 lb

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

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

|    | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |           |           |
| JT |                         |      |                                 |      |           |           |
| B  | 141                     | 0    | 141                             | 0    | 3-4-6     | 1-8       |
| D  | 141                     | 0    | 141                             | 0    | 3-4-6     | 1-8       |
| F  | 97                      | 0    | 97                              | 0    | 3-4-6     | 1-8       |

#### UNFACTORED REACTIONS

|    | 1ST LOASE | MAX/MIN. COMPONENT REACTIONS |      |      |           | DEAD | SOIL |
|----|-----------|------------------------------|------|------|-----------|------|------|
|    |           | COMBINED                     | SNOW | LIVE | PERM.LIVE |      |      |
| JT |           |                              |      |      |           |      |      |
| B  | 99        | 70/0                         | 0/0  | 0/0  | 0/0       | 29/0 | 0/0  |
| D  | 99        | 70/0                         | 0/0  | 0/0  | 0/0       | 29/0 | 0/0  |
| F  | 71        | 31/0                         | 0/0  | 0/0  | 0/0       | 40/0 | 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) | LC1   | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC)    |
| FR-TO  |                           | FROM                      | TO    |                      | FR-TO |                           |                  |
| A-B    | 0 / 10                    | -78.0                     | -78.0 | 0.01 (1)             | 10.00 | F-C                       | -58 / 0 0.01 (1) |
| B-C    | -45 / 0                   | -78.0                     | -78.0 | 0.04 (1)             | 6.25  |                           |                  |
| C-D    | -45 / 0                   | -78.0                     | -78.0 | 0.04 (1)             | 6.25  |                           |                  |
| D-E    | 0 / 10                    | -78.0                     | -78.0 | 0.01 (1)             | 10.00 |                           |                  |
| B-F    | 0 / 26                    | -18.5                     | -18.5 | 0.02 (4)             | 10.00 |                           |                  |
| F-D    | 0 / 26                    | -18.5                     | -18.5 | 0.02 (4)             | 10.00 |                           |                  |

#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

CSI: TC=0.04/1.00 (B-C:1), BC=0.02/1.00 (B-F:4), WB=0.01/1.00 (C-F:1), SSI=0.03/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

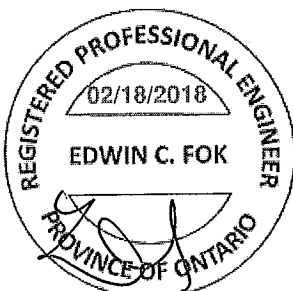
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (B) (INPUT = 0.80)  
JSI METAL= 0.06 (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

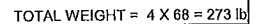


A-18023710

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 12:29:44 2018 Page 1  
ID:HSVaWIIIDnhr?B6oeweH9vbyNdls-FOSK31bpLuVQjhlJaaXL0OlaSRM3JGs1oibkojw5r

Scale:  $3/16"=1'$



DRY: SEASONED LUMBER.

JSI GRIP= 0.85 (E) (INPUT = 0.90 )  
JSI METAL= 0.27 (J) (INPUT = 1.00 )

A-18023711

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292655   | H17A       | 1        | 1   | TRUSS DESC. |          |

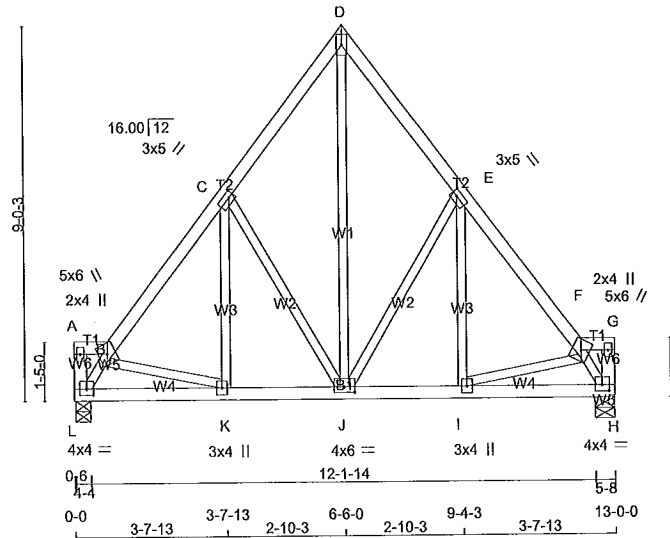
Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 12:30:26 2018 Page 1

ID:HSVaWIDnhr7B6oeWeH9vbyNdis-1UPDtO6ASooTm8YpBPKO2f7xyNINVOJ1hLtgDMzjw5B

0-0 9-10 3-7-13 2-10-3 6-6-0 2-10-3 9-4-3 12-2-6 13-0-0  
 9-10 2-10-3 2-10-3 9-10  
 3x6 II

Scale = 1:55.4



TOTAL WEIGHT = 70 lb

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

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

##### BEARINGS

|    | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| JT | VERT                    | HORZ                            | DOWN      | HORZ      |
| L  | 1391                    | 0                               | 1391      | 0         |
| H  | 1391                    | 0                               | 1391      | 0         |

##### UNFACTORED REACTIONS

| JT | COMBINED | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
|----|----------|---------|-------|-----------|-------|---------|-------|
| L  | 992      | 605 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 387 / 0 | 0 / 0 |
| H  | 992      | 605 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 387 / 0 | 0 / 0 |

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

##### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.51 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                  |                 | WEBS                 |       |                           |           |
|--------|---------------------------|------------------|-----------------|----------------------|-------|---------------------------|-----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LBS)   | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX (LBS) |
| FR-TO  |                           | FROM             | TO              |                      | FR-TO |                           |           |
| L-A    | -31 / 0                   | 0.0              | 0.0 0.00 (1)    | 7.81                 | L-B   | -1436 / 0                 | 0.22 (1)  |
| A-B    | 0 / 0                     | -78.0            | -78.0 0.01 (1)  | 10.00                | B-K   | -62 / 0                   | 0.01 (1)  |
| B-C    | -1305 / 0                 | -78.0            | -78.0 0.12 (1)  | 5.51                 | K-C   | 0 / 537                   | 0.13 (1)  |
| C-D    | -901 / 0                  | -78.0            | -78.0 0.11 (1)  | 6.25                 | C-J   | -529 / 0                  | 0.29 (1)  |
| D-E    | -901 / 0                  | -78.0            | -78.0 0.11 (1)  | 6.25                 | J-D   | 0 / 1235                  | 0.31 (1)  |
| E-F    | -1305 / 0                 | -78.0            | -78.0 0.12 (1)  | 5.51                 | J-E   | -529 / 0                  | 0.29 (1)  |
| F-G    | 0 / 0                     | -78.0            | -78.0 0.01 (1)  | 10.00                | E-I   | 0 / 537                   | 0.13 (1)  |
| H-G    | -31 / 0                   | 0.0              | 0.0 0.00 (1)    | 7.81                 | I-F   | -62 / 0                   | 0.01 (1)  |
|        |                           |                  |                 |                      | F-H   | -1436 / 0                 | 0.22 (1)  |
| L-K    | 0 / 857                   | -136.1           | -136.1 0.39 (1) | 10.00                |       |                           |           |
| K-J    | 0 / 800                   | -136.1           | -136.1 0.36 (1) | 10.00                |       |                           |           |
| J-I    | 0 / 800                   | -136.1           | -136.1 0.36 (1) | 10.00                |       |                           |           |
| I-H    | 0 / 857                   | -136.1           | -136.1 0.39 (1) | 10.00                |       |                           |           |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CSld Girder  
 START DISTANCE = 0-0  
 START SPAN CARRIED = 6-10-8  
 END DISTANCE = 13-0-0  
 END SPAN CARRIED = 6-10-8  
 END WALL WIDTH = 0-0  
 APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
 - 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 (0.43")  
 CALCULATED VERT. DEFL.(LL) = L/999 (0.03")  
 ALLOWABLE DEFL.(TL) = L/360 (0.43")  
 CALCULATED VERT. DEFL.(TL) = L/999 (0.06")

CSI: TC=0.12/1.00 (E-F:1), BC=0.39/1.00 (K-L:1), WB=0.31/1.00 (D-J:1), SSI=0.25/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (L) (INPUT = 0.90)  
 JSI METAL= 0.48 (B) (INPUT = 1.00)

A-18023712

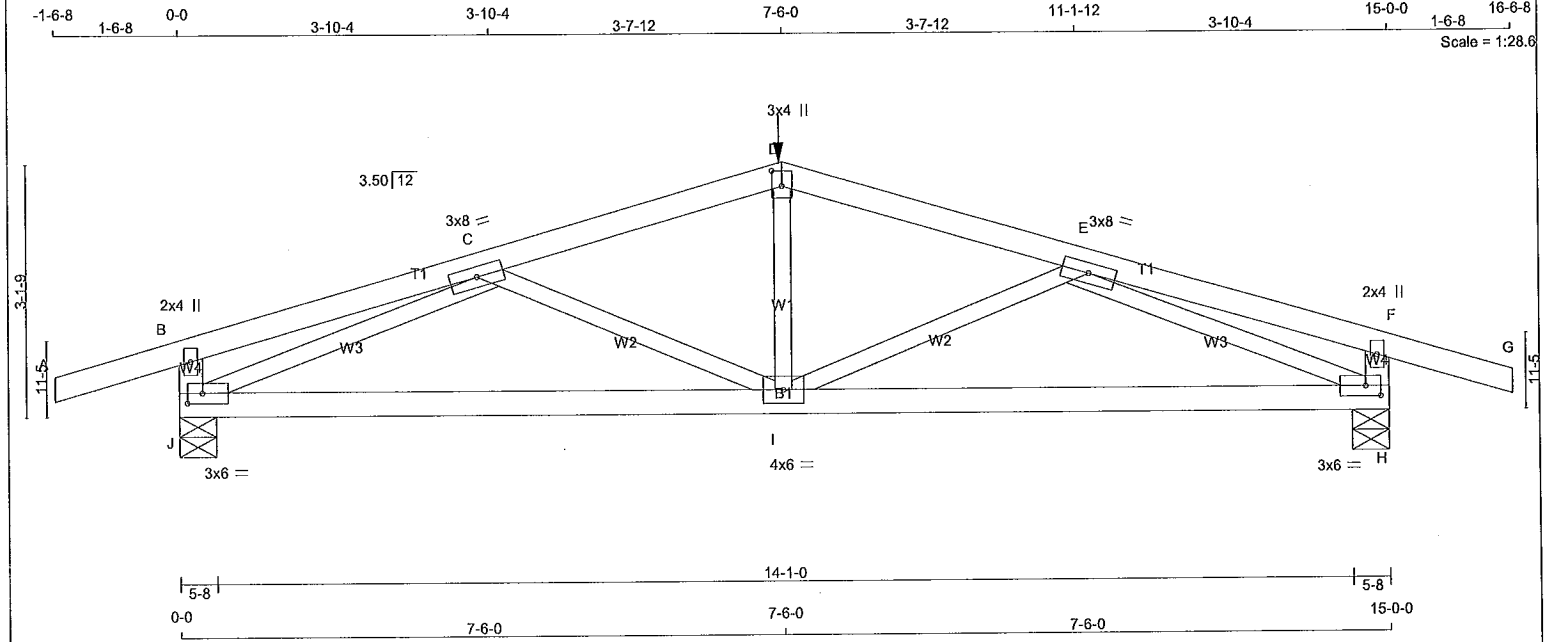
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292655   | H18-Cond1  | 8        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 12:31:03 2018 Page 1  
ID:HSVaWIIDnhr?B6oeweH9vbyNdls-Rb8Ce1ZNk9SDiqtwrgV32S9EfIMf44rUBbLH0jzw4c



TOTAL WEIGHT = 8 X 55 = 437 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    |        |
| J - B    | 2x4               | DRY    | No.2 | SPF    |        |
| H - F    | 2x4               | DRY    | No.2 | SPF    |        |
| J - H    | 2x4               | DRY    | No.2 | SPF    |        |
| ALL WEBS | 2x3               | DRY    | No.2 | SPF    |        |
| EXCEPT   |                   |        |      |        |        |

DRY: SEASONED LUMBER.

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

#### HANGERS NOTES

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

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

##### BEARINGS

|    | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| JT | VERT                    | HORZ                            | UPLIFT    | IN-SX     |
| J  | 941                     | 0                               | 941       | 0         |
| H  | 941                     | 0                               | 941       | 0         |

##### UNFACTORED REACTIONS

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

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

##### BRACING

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

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

##### LOADING

TOTAL LOAD CASES: (4)

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

##### FACTORED CONCENTRATED LOADS (LBS)

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

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

GIRDER TYPE: CPrimeHip  
SIDE SETBACK = 7-6-0  
END SETBACK = 2-4-2  
END WALL WIDTH = 0-0  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- 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 (0.50")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")  
ALLOWABLE DEFL.(TL)= L/360 (0.50")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

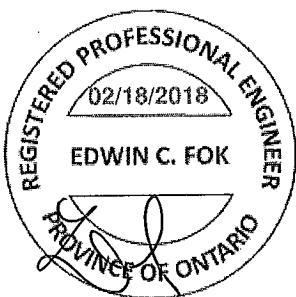
| NAIL VALUES | PLATE GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) |
|-------------|-----------------|-------------|---------------|
|             | MAX MIN         | MAX MIN     | MAX MIN       |
| MT20        | 618 354         | 1667 788    | 1987 1656     |

PLATE PLACEMENT TOL. = 0.250 inches

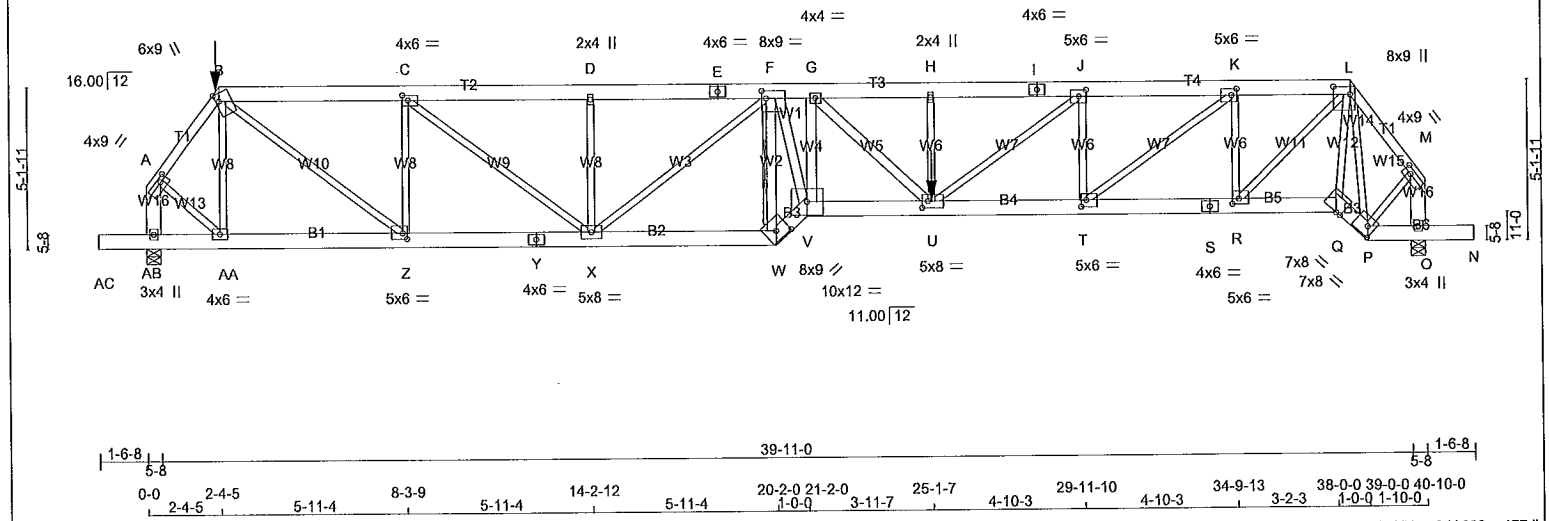
PLATE ROTATION TOL. = 5.0 Deg.

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

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



A-18023713



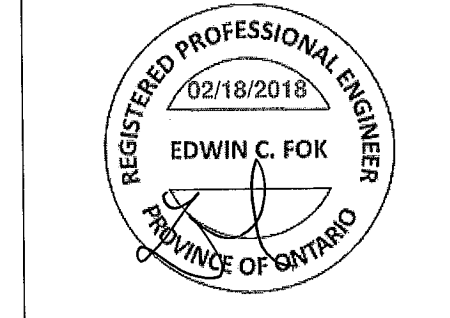
| LUMBER            |        |      |        |
|-------------------|--------|------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |
| A - B             | 2x4    | DRY  | No.2   |
| B - E             | 2x6    | DRY  | No.2   |
| E - I             | 2x6    | DRY  | No.2   |
| I - L             | 2x6    | DRY  | No.2   |
| L - M             | 2x4    | DRY  | No.2   |
| AB - A            | 2x6    | DRY  | No.2   |
| O - M             | 2x6    | DRY  | No.2   |
| AC - Y            | 2x6    | DRY  | No.2   |
| Y - W             | 2x6    | DRY  | No.2   |
| W - V             | 2x6    | DRY  | No.2   |
| V - S             | 2x6    | DRY  | No.2   |
| S - Q             | 2x6    | DRY  | No.2   |
| Q - P             | 2x6    | DRY  | No.2   |
| P - N             | 2x6    | DRY  | No.2   |
| ALL WEBS          | 2x3    | DRY  | No.2   |
| EXCEPT            |        |      |        |
| W - F             | 2x4    | DRY  | No.2   |
| F - V             | 2x4    | DRY  | No.2   |
| V - G             | 2x4    | DRY  | No.2   |
| G - U             | 2x4    | DRY  | No.2   |

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                   | SIDE(61.0)  |
| L-M                                      | 12                   | TOP         |
| B-E                                      | 2                    | SIDE(37.8)  |
| E-I                                      | 2                    | SIDE(37.8)  |
| I-L                                      | 2                    | TOP         |
| AB-A                                     | 2                    | TOP         |
| O-M                                      | 2                    | TOP         |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |             |
| AC-Y                                     | 2                    | SIDE(10.0)  |
| Y-W                                      | 2                    | SIDE(10.0)  |
| W-V                                      | 2                    | SIDE(7.4)   |
| V-S                                      | 2                    | SIDE(146.6) |
| S-Q                                      | 2                    | 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 | REQD BRG |
|----------|------|-------------------------|---------------------------------|-----------|----------|
| JT       | VERT | HORZ                    | DOWN                            | HORZ      | UPLIFT   |
| AB       | 4395 | 0                       | 4395                            | 0         | 5-8      |
| O        | 3964 | 0                       | 3964                            | 0         | 5-8      |

| UNFACTORED REACTIONS |          | 1ST LCASE | MAX/MIN. COMPONENT REACTIONS | SNOW     | LIVE  | PERM.LIVE | WIND  | DEAD     | SOIL  |
|----------------------|----------|-----------|------------------------------|----------|-------|-----------|-------|----------|-------|
| JT                   | COMBINED | AB        | 3122                         | 1972 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 1150 / 0 | 0 / 0 |
| O                    | COMBINED | 2806      | 1827 / 0                     | 0 / 0    | 0 / 0 | 0 / 0     | 0 / 0 | 978 / 0  | 0 / 0 |

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.08 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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 | MAX      |
|--------|-------------|----------------|----------|--------------|--------|-------|-------------|---------------|----------|
| MEMB.  | FORCE (LBS) | VERT. LOAD LC1 | (PLF)    | CSI (LC)     | UNBRAC | MEMB. | FORCE (LBS) | MAX           | CSI (LC) |
| FR-TO  |             | FROM TO        |          | LENGTH FR-TO |        | FR-TO |             |               |          |
| A-B    | -3575 / 0   | -78.0          | -78.0    | 0.09 (1)     | 4.91   | AA-B  | -1069 / 0   | 0.19 (1)      |          |
| B-C    | -6336 / 0   | -153.5         | -153.5   | 0.26 (1)     | 4.52   | B-Z   | 0 / 5369    | 0.66 (1)      |          |
| C-D    | -9007 / 0   | -153.5         | -153.5   | 0.35 (1)     | 3.83   | Z-C   | -3122 / 0   | 0.55 (1)      |          |
| D-E    | -9007 / 0   | -153.5         | -153.5   | 0.32 (1)     | 3.85   | C-X   | 0 / 3402    | 0.42 (1)      |          |
| E-F    | -9007 / 0   | -153.5         | -153.5   | 0.32 (1)     | 3.85   | X-D   | -849 / 0    | 0.15 (1)      |          |
| F-G    | -12865 / 0  | -153.5         | -153.5   | 0.50 (1)     | 3.08   | X-F   | -1807 / 0   | 0.95 (1)      |          |
| G-H    | -12865 / 0  | -78.0          | -78.0    | 0.51 (1)     | 3.11   | W-F   | -9081 / 0   | 0.82 (1)      |          |
| H-I    | -12865 / 0  | -78.0          | -78.0    | 0.39 (1)     | 3.27   | F-V   | 0 / 9313    | 0.82 (1)      |          |
| I-J    | -12865 / 0  | -78.0          | -78.0    | 0.39 (1)     | 3.27   | V-G   | 0 / 795     | 0.07 (1)      |          |
| J-K    | -9458 / 0   | -78.0          | -78.0    | 0.23 (1)     | 3.86   | G-U   | -215 / 0    | 0.04 (4)      |          |
| K-L    | -5637 / 0   | -78.0          | -78.0    | 0.09 (1)     | 4.92   | U-H   | -480 / 0    | 0.06 (1)      |          |
| L-M    | -2836 / 0   | -78.0          | -78.0    | 0.07 (1)     | 5.40   | U-J   | 0 / 4091    | 0.51 (1)      |          |
| AB-A   | -4278 / 0   | 0.0            | 0.0      | 0.17 (1)     | 6.92   | T-J   | -2681 / 0   | 0.36 (1)      |          |
| O-M    | -3736 / 0   | 0.0            | 0.0      | 0.15 (1)     | 7.29   | T-K   | 0 / 4835    | 0.60 (1)      |          |
|        |             |                |          |              |        | R-K   | -3323 / 0   | 0.41 (1)      |          |
| AC-AB  | 0 / 0       | -96.5          | -96.5    | 0.04 (1)     | 10.00  | Q-L   | 0 / 1974    | 0.24 (1)      |          |
| AB-AA  | 0 / 0       | -36.4          | -36.4    | 0.07 (4)     | 10.00  | L-P   | -3333 / 0   | 0.55 (1)      |          |
| AA-Z   | 0 / 2118    | -36.4          | -36.4    | 0.21 (1)     | 10.00  | A-AA  | 0 / 2518    | 0.31 (1)      |          |
| Z-Y    | 0 / 6336    | -36.4          | -36.4    | 0.48 (1)     | 10.00  | P-M   | 0 / 2185    | 0.27 (1)      |          |
| Y-X    | 0 / 6336    | -36.4          | -36.4    | 0.48 (1)     | 10.00  | R-L   | 0 / 4749    | 0.59 (1)      |          |
| X-W    | 0 / 10413   | -36.4          | -36.4    | 0.75 (1)     | 10.00  |       |             |               |          |
| W-V    | 0 / 13738   | -36.4          | -36.4    | 0.89 (1)     | 10.00  |       |             |               |          |
| V-U    | 0 / 12835   | -112.0         | -112.0   | 0.95 (1)     | 10.00  |       |             |               |          |
| U-T    | 0 / 9456    | -18.5          | -18.5    | 0.68 (1)     | 10.00  |       |             |               |          |
| T-S    | 0 / 5637    | -18.5          | -18.5    | 0.40 (1)     | 10.00  |       |             |               |          |
| S-R    | 0 / 5637    | -18.5          | -18.5    | 0.40 (1)     | 10.00  |       |             |               |          |
| R-Q    | 0 / 2325    | -18.5          | -18.5    | 0.17 (1)     | 10.00  |       |             |               |          |
| Q-P    | 0 / 2815    | -18.5          | -18.5    | 0.18 (1)     | 10.00  |       |             |               |          |
| P-O    | -1 / 0      | -18.5          | -18.5    | 0.04 (1)     | 10.00  |       |             |               |          |
| O-N    | 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 A SLOPE OF 2.00/12 MINIMUM

GIRDER TYPE: CPrimeHlp  
SIDE SETBACK = 2-4-5  
END SETBACK = 5-10-8  
END WALL WIDTH = 0-0  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADDTL. LOADS BASED ON 55 % OF GSL.  
LOADS APPLIED TO FIRST 21-2-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder  
START DISTANCE = 21-2-0  
START SPAN CARRIED = 5-10-8  
END DISTANCE = 25-1-8  
END SPAN CARRIED = 5-10-8  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL. LOADS BASED ON 55 % OF GSL.

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.36")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.40")  
ALLOWABLE DEFL.(TL) = L/360 (1.36")  
CALCULATED VERT. DEFL.(TL) = L/657 (0.75")

CANTILEVER DEFLECTION:  
ALLOWABLE DEFL.(LL) = L/120 (0.19")  
CALCULATED VERT. DEFL.(LL) = L/494 (0.04")

|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292656   | H1T        | 1        | 2   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 13:35:44 2018 Page 2  
ID:HSVaWIIIDnhr?B6oewehH9vbyNdlS-JE8NB5XnlbQYpF4qlFdArtOOAlqlvDCKdvz8jGzjvZz

Q-P 2 12  
P-N 2 12  
WEBS: (0.122"x3") SPIRAL NAILS  
2x3 1 6  
H-U 1 5  
2x4 1 6

TOP  
TOP

| FACTORED CONCENTRATED LOADS (LBS) |        |       |       |      |  | FACE  | DIR. | TYPE  |
|-----------------------------------|--------|-------|-------|------|--|-------|------|-------|
| JT                                | LOC.   | LC1   | MAX-  | MAX+ |  | FRONT | VERT | TOTAL |
| B                                 | 2-4-5  | -134  | -134  | ---  |  | FRONT | VERT | TOTAL |
| SIDE(335LB)                       | 25-1-8 | -1808 | -1808 | ---  |  | FRONT | VERT | TOTAL |

SIDE(335LB)

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

#### PLATES (table is in inches)

| JT | TYPE     | PLATES | W    | LEN  | Y    | X    |
|----|----------|--------|------|------|------|------|
| A  | TMWW-t   | MT20   | 4.0  | 9.0  | 1.50 | 3.00 |
| B  | TTWW+m   | MT20   | 6.0  | 9.0  | 3.00 | 1.25 |
| C  | TMWW-t   | MT20   | 4.0  | 6.0  | 2.00 | 2.25 |
| D  | TMW+w    | MT20   | 2.0  | 4.0  |      |      |
| E  | TS-t     | MT20   | 4.0  | 6.0  |      |      |
| F  | TMWWWW-t | MT20   | 8.0  | 9.0  | 3.00 | 1.75 |
| G  | TMWW-t   | MT20   | 4.0  | 4.0  |      |      |
| H  | TMW+w    | MT20   | 2.0  | 4.0  |      |      |
| I  | TS-t     | MT20   | 4.0  | 6.0  |      |      |
| J  | TMWW-t   | MT20   | 5.0  | 6.0  | 2.50 | 2.75 |
| K  | TMWW-t   | MT20   | 5.0  | 6.0  | 2.50 | 2.00 |
| L  | TTWWW+p  | MT20   | 8.0  | 9.0  | 3.00 | 6.25 |
| M  | TMWW-t   | MT20   | 4.0  | 9.0  | 1.75 | 3.00 |
| O  | BMV1+p   | MT20   | 3.0  | 4.0  |      |      |
| P  | BBWW-h   | MT20   | 7.0  | 8.0  | 3.50 | 2.75 |
| Q  | BBW-h    | MT20   | 7.0  | 8.0  |      | 2.00 |
| R  | BMWW-t   | MT20   | 5.0  | 6.0  | 2.00 | 2.50 |
| S  | BS-t     | MT20   | 4.0  | 6.0  |      |      |
| T  | BMWW-t   | MT20   | 5.0  | 6.0  | 2.50 | 2.00 |
| U  | BMWWWW-t | MT20   | 5.0  | 8.0  | 2.50 | 2.25 |
| V  | BBWW-t   | MT20   | 10.0 | 12.0 |      |      |
| W  | BBW-h    | MT20   | 8.0  | 9.0  | 3.50 | 4.75 |
| X  | BMWWWW-t | MT20   | 5.0  | 8.0  |      |      |
| Y  | BS-t     | MT20   | 4.0  | 6.0  |      |      |
| Z  | BMWW-t   | MT20   | 5.0  | 6.0  | 2.25 | 1.75 |
| AA | BMWW-t   | MT20   | 4.0  | 6.0  |      |      |
| AB | BMV1+p   | MT20   | 3.0  | 4.0  |      |      |

#### HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 134.1 lbs FACTORED DOWN AT 2-4-5 ON TOP CHORD, AND 1808.0 lbs FACTORED DOWN AT 25-1-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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



ALLOWABLE DEFL.(TL)= L/120 (0.19")  
CALCULATED VERT. DEFL.(TL) = L/266 (0.07")  
CSI: TC=0.51/1.00 (G-H:1), BC=0.95/1.00 (U-V:1), WB=0.95/1.00 (F-X:1), SSI=0.28/1.00 (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 HEELS OFF  
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.  
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656  
PLATE PLACEMENT TOL. = 0.250 inches  
PLATE ROTATION TOL. = 5.0 Deg.  
JSI GRIP= 0.90 (X) (INPUT = 0.90 )  
JSI METAL= 0.90 (F) (INPUT = 1.00 )

A-18023714(2)





|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292656   | H2T        | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

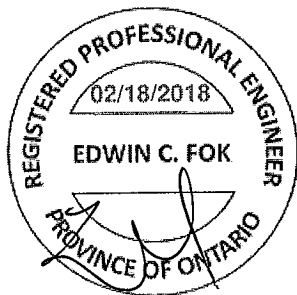
ID:HSVaWIIDnhr?B6oeweH9vbyNdls-gTTthocobZMBQRdl3 t0KkWJ2HcNL2AzzhKlJV\_ziv7d

PLATES (table is in inches)

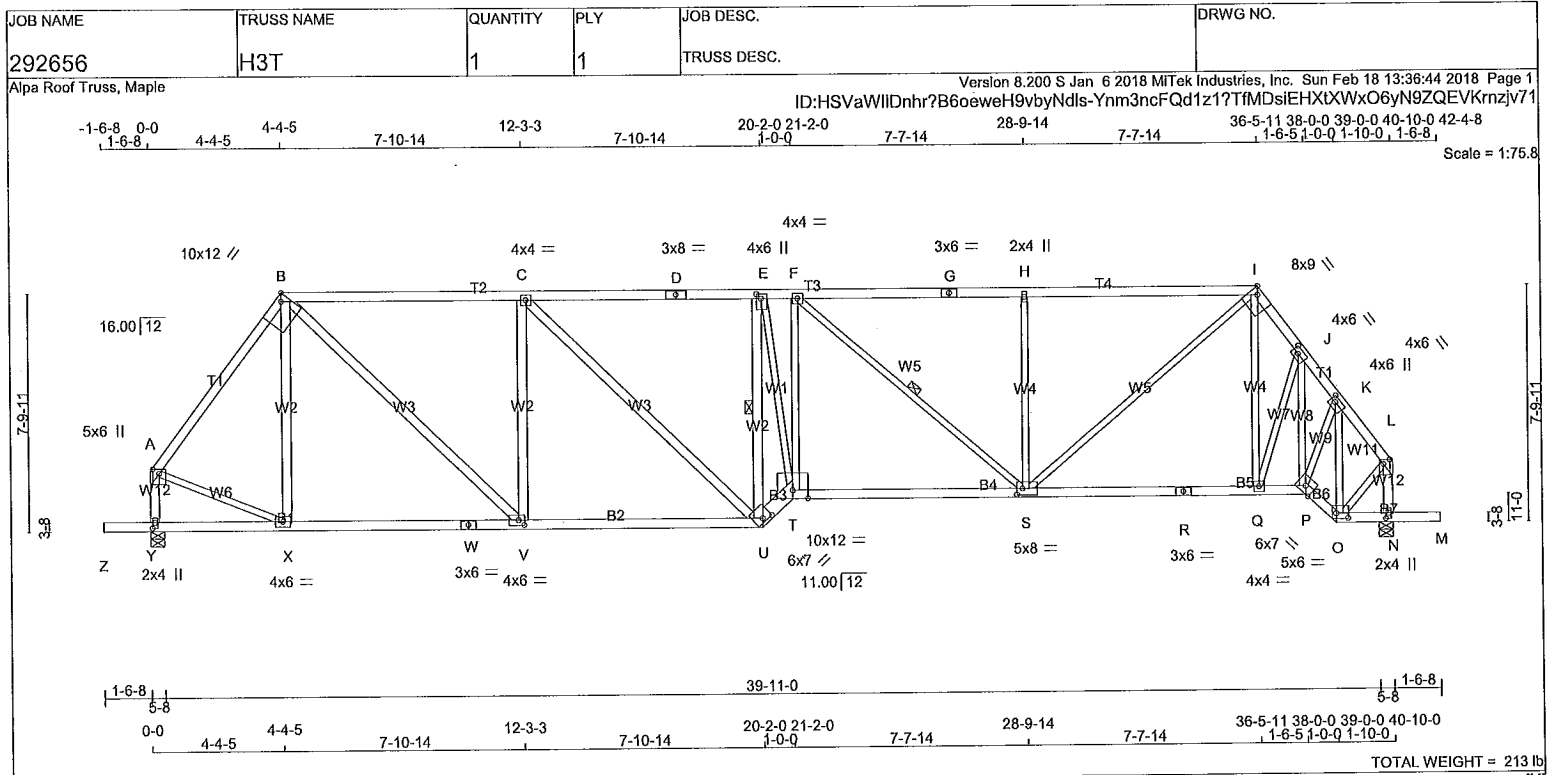
| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| S  | BBWW-h | MT20   | 6.0 | 9.0 | 1.50 | 5.50 |
| T  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| U  | BMWW-t | MT20   | 4.0 | 6.0 | 2.00 | 1.75 |
| V  | BMWW-t | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| W  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |

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

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



A-18023715(2)



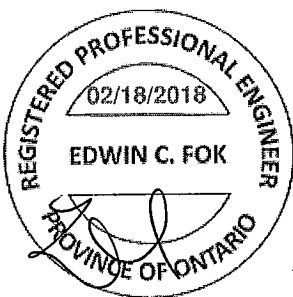
| LUMBER          | N. L. G. A. RULES | CHORDS | SIZE       | LUMBER | DESCR. |
|-----------------|-------------------|--------|------------|--------|--------|
| A - B           | 2x4               | DRY    | No.2       | SPF    |        |
| B - D           | 2x4               | DRY    | 1650F 1.5E | SPF    |        |
| D - G           | 2x4               | DRY    | 1650F 1.5E | SPF    |        |
| G - I           | 2x4               | DRY    | 1650F 1.5E | SPF    |        |
| I - L           | 2x4               | DRY    | No.2       | SPF    |        |
| Y - A           | 2x4               | DRY    | No.2       | SPF    |        |
| N - L           | 2x4               | DRY    | No.2       | SPF    |        |
| Z - W           | 2x4               | DRY    | No.2       | SPF    |        |
| W - U           | 2x4               | DRY    | No.2       | SPF    |        |
| U - T           | 2x6               | DRY    | No.2       | SPF    |        |
| T - R           | 2x4               | DRY    | No.2       | SPF    |        |
| R - P           | 2x4               | DRY    | No.2       | SPF    |        |
| P - O           | 2x4               | DRY    | No.2       | SPF    |        |
| O - M           | 2x4               | DRY    | No.2       | SPF    |        |
| ALL WEBS EXCEPT | 2x3               | DRY    | No.2       | SPF    |        |
| X - B           | 2x4               | DRY    | No.2       | SPF    |        |
| B - V           | 2x4               | DRY    | No.2       | SPF    |        |
| V - C           | 2x4               | DRY    | No.2       | SPF    |        |
| C - U           | 2x4               | DRY    | No.2       | SPF    |        |
| U - E           | 2x4               | DRY    | No.2       | SPF    |        |

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT TYPE    | PLATES | W    | LEN  | Y    | X    |
|------------|--------|------|------|------|------|
| A - TMVW+p | MT20   | 5.0  | 6.0  | 1.75 | 2.50 |
| B - TTWW-h | MT20   | 10.0 | 12.0 | Edge | 2.75 |
| C - TMVW-t | MT20   | 4.0  | 4.0  |      |      |
| D - TS-t   | MT20   | 3.0  | 8.0  |      |      |
| E - TMVW-h | MT20   | 4.0  | 6.0  | 1.75 | 1.75 |
| F - TMVW-t | MT20   | 4.0  | 4.0  |      |      |
| G - TS-t   | MT20   | 3.0  | 6.0  |      |      |
| H - TMVW-w | MT20   | 2.0  | 4.0  |      |      |
| I - TTWW-h | MT20   | 8.0  | 9.0  | Edge | 2.75 |
| J - TMVW-t | MT20   | 4.0  | 6.0  | 2.00 | 2.50 |
| K - TMVW-t | MT20   | 4.0  | 6.0  | 1.75 | 2.00 |
| L - TMVW+p | MT20   | 4.0  | 6.0  | 1.75 | 2.50 |
| N - BMV1+p | MT20   | 2.0  | 4.0  | 2.25 | 1.00 |
| O - BBWW-t | MT20   | 5.0  | 6.0  | 2.00 | 4.50 |

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



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

##### BEARINGS

|    | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
|    | VERT                    | HORZ                            | UPLIFT    | IN-SX     |
| JT | 2115                    | 0                               | 0         | 5-8       |
| Y  | 2121                    | 0                               | 0         | 5-8       |
| N  | 2121                    | 0                               | 0         | 5-8       |

##### UNFACTORED REACTIONS

|    | 1ST LCASE COMBINED | MAX./MIN. SNOW | MIN. LIVE | PERM. LIVE | WIND | DEAD  | SOIL |
|----|--------------------|----------------|-----------|------------|------|-------|------|
| JT | 1508               | 921/0          | 0/0       | 0/0        | 0/0  | 588/0 | 0/0  |
| Y  | 1512               | 923/0          | 0/0       | 0/0        | 0/0  | 589/0 | 0/0  |
| N  | 1512               | 923/0          | 0/0       | 0/0        | 0/0  | 589/0 | 0/0  |

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

##### BRACING

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

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

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

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS | MEMB.   | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LBS) | LC2 MAX (LBS) | MAX. UNBRACED LENGTH | WEBS    | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH |
|--------|---------|---------------------------|------------------|---------------|---------------|----------------------|---------|----------|---------------------------|----------------------|
| FR-TO  |         |                           |                  |               |               |                      | FR-TO   |          |                           |                      |
| A-B    | -1743/0 | -78.0                     | -78.0            | 0.38 (1)      | 4.72          | X-B                  | -249/0  | 0.20 (1) |                           |                      |
| B-C    | -2329/0 | -78.0                     | -78.0            | 0.84 (1)      | 4.06          | B-V                  | 0/1780  | 0.29 (1) |                           |                      |
| C-D    | -2738/0 | -78.0                     | -78.0            | 0.92 (1)      | 3.77          | V-C                  | -1080/0 | 0.88 (1) |                           |                      |
| D-E    | -2738/0 | -78.0                     | -78.0            | 0.92 (1)      | 3.77          | C-U                  | 0/560   | 0.09 (1) |                           |                      |
| E-F    | -3102/0 | -78.0                     | -78.0            | 0.42 (1)      | 4.01          | U-E                  | -2832/0 | 0.78 (1) |                           |                      |
| F-G    | -2610/0 | -78.0                     | -78.0            | 0.82 (1)      | 3.93          | E-T                  | 0/2388  | 0.54 (1) |                           |                      |
| G-H    | -2610/0 | -78.0                     | -78.0            | 0.82 (1)      | 3.93          | T-F                  | 0/274   | 0.06 (1) |                           |                      |
| H-I    | -2610/0 | -78.0                     | -78.0            | 0.83 (1)      | 3.93          | F-S                  | -648/0  | 0.47 (1) |                           |                      |
| I-J    | -1971/0 | -78.0                     | -78.0            | 0.07 (1)      | 4.76          | S-H                  | -684/0  | 0.55 (1) |                           |                      |
| J-K    | -1916/0 | -78.0                     | -78.0            | 0.06 (1)      | 4.83          | S-I                  | 0/1899  | 0.43 (1) |                           |                      |
| K-L    | -1386/0 | -78.0                     | -78.0            | 0.06 (1)      | 5.49          | Q-I                  | 0/81    | 0.03 (4) |                           |                      |
| Y-A    | -1940/0 | 0.0                       | 0.0              | 0.22 (1)      | 6.04          | Q-J                  | 0/60    | 0.02 (4) |                           |                      |
| N-L    | -1893/0 | 0.0                       | 0.0              | 0.22 (1)      | 6.10          | P-J                  | -211/0  | 0.08 (1) |                           |                      |
| Z-Y    | 0/0     | -96.5                     | -96.5            | 0.16 (1)      | 10.00         | P-K                  | 0/1000  | 0.23 (1) |                           |                      |
| Y-X    | 0/0     | -18.5                     | -18.5            | 0.15 (4)      | 10.00         | O-K                  | -1483/0 | 0.40 (1) |                           |                      |
| X-W    | 0/1036  | -18.5                     | -18.5            | 0.39 (4)      | 10.00         | A-X                  | 0/1105  | 0.25 (1) |                           |                      |
| W-V    | 0/1036  | -18.5                     | -18.5            | 0.39 (4)      | 10.00         | O-L                  | 0/1100  | 0.25 (1) |                           |                      |
| V-U    | 0/2329  | -18.5                     | -18.5            | 0.53 (1)      | 10.00         |                      |         |          |                           |                      |
| U-T    | 0/3758  | -18.5                     | -18.5            | 0.45 (1)      | 10.00         |                      |         |          |                           |                      |
| T-S    | 0/3098  | -18.5                     | -18.5            | 0.64 (1)      | 10.00         |                      |         |          |                           |                      |
| S-R    | 0/1167  | -18.5                     | -18.5            | 0.38 (4)      | 10.00         |                      |         |          |                           |                      |
| R-Q    | 0/1167  | -18.5                     | -18.5            | 0.38 (4)      | 10.00         |                      |         |          |                           |                      |
| Q-P    | 0/1147  | -18.5                     | -18.5            | 0.28 (1)      | 10.00         |                      |         |          |                           |                      |
| P-O    | 0/1077  | -18.5                     | -18.5            | 0.18 (1)      | 10.00         |                      |         |          |                           |                      |
| O-N    | 0/0     | -18.5                     | -18.5            | 0.16 (1)      | 10.00         |                      |         |          |                           |                      |
| N-M    | 0/0     | -96.5                     | -96.5            | 0.16 (1)      | 10.00         |                      |         |          |                           |                      |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

##### 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/380 (1.36")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.21")  
ALLOWABLE DEFL.(TL)= L/360 (1.36")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.46")

##### 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=0.92/1.00 (C-E:1), BC=0.64/1.00 (S-T:1), WB=0.88/1.00 (C-V:1), SSI=0.29/1.00 (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 (PSI) | SECTION (PLI) |
|-----------------|-------------|---------------|
| MT20            | 618         | 354           |
| MIN             | 354         | 1667          |
| MAX             | 1667        | 1667          |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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CONTINUED ON PAGE 2

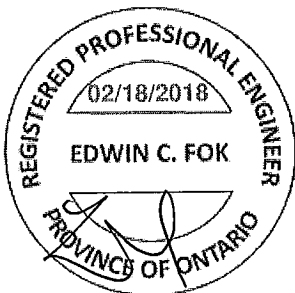
|                                                                                   |            |          |     |             |          |
|-----------------------------------------------------------------------------------|------------|----------|-----|-------------|----------|
| JOB NAME                                                                          | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292656                                                                            | H3T        | 1        | 1   | TRUSS DESC. |          |
| Alpa Roof Truss, Maple                                                            |            |          |     |             |          |
| Version 8.200 S Jan 6 2018 MITek Industries, Inc. Sun Feb 18 13:36:45 2018 Page 2 |            |          |     |             |          |
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**PLATES (table is in inches)**

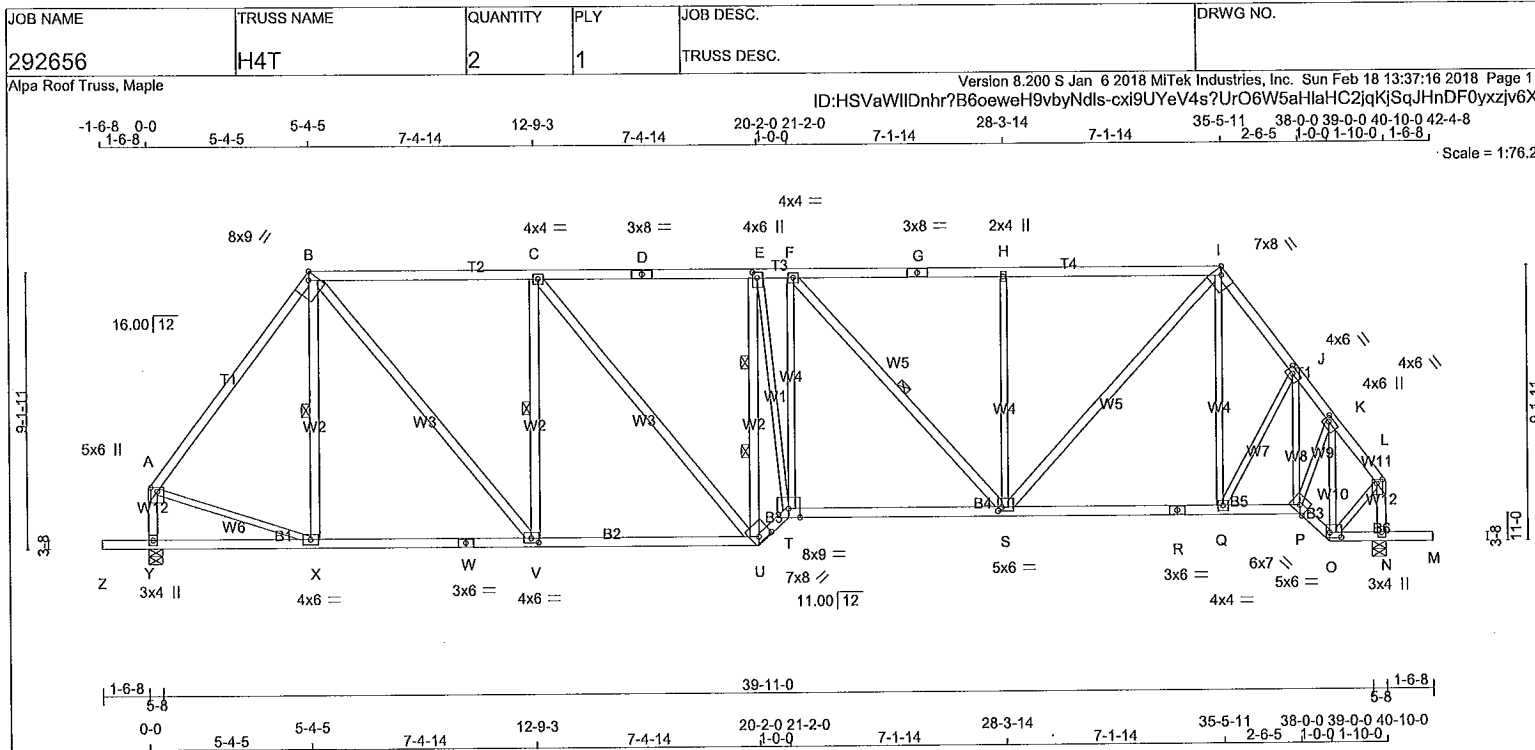
| JT | TYPE    | PLATES | W    | LEN  | Y    | X    |
|----|---------|--------|------|------|------|------|
| P  | BBWW-h  | MT20   | 6.0  | 7.0  | Edge |      |
| Q  | BMWW-I  | MT20   | 4.0  | 4.0  |      |      |
| R  | BS-I    | MT20   | 3.0  | 6.0  |      |      |
| S  | BMWWW-I | MT20   | 5.0  | 8.0  | 2.50 | 2.25 |
| T  | BBWW-I  | MT20   | 10.0 | 12.0 | 3.25 | 6.00 |
| U  | BBWW-h  | MT20   | 6.0  | 7.0  | 1.50 | 3.50 |
| V  | BMWW-I  | MT20   | 4.0  | 6.0  | 2.00 | 2.25 |
| W  | BS-I    | MT20   | 3.0  | 6.0  |      |      |
| X  | BMWW-I  | MT20   | 4.0  | 6.0  |      |      |
| Y  | BMV1+p  | MT20   | 2.0  | 4.0  | 2.25 | 1.00 |

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

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



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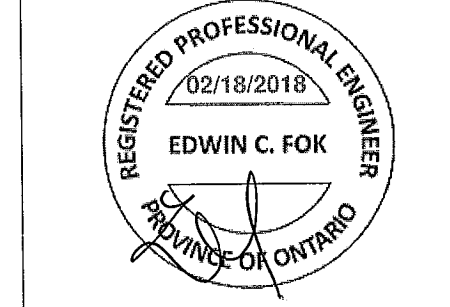


| LUMBER            |        |      |        | DESCR. |
|-------------------|--------|------|--------|--------|
| N. L. G. A. RULES | CHORDS | SIZE | LUMBER |        |
| A - B             | 2x4    | DRY  | No.2   | SPF    |
| B - D             | 2x4    | DRY  | No.2   | SPF    |
| D - G             | 2x4    | DRY  | No.2   | SPF    |
| G - I             | 2x4    | DRY  | No.2   | SPF    |
| I - L             | 2x4    | DRY  | No.2   | SPF    |
| Y - A             | 2x4    | DRY  | No.2   | SPF    |
| N - L             | 2x4    | DRY  | No.2   | SPF    |
| Z - W             | 2x4    | DRY  | No.2   | SPF    |
| W - U             | 2x4    | DRY  | No.2   | SPF    |
| U - T             | 2x4    | DRY  | No.2   | SPF    |
| T - R             | 2x4    | DRY  | No.2   | SPF    |
| R - P             | 2x4    | DRY  | No.2   | SPF    |
| P - O             | 2x4    | DRY  | No.2   | SPF    |
| O - M             | 2x4    | DRY  | No.2   | SPF    |
| ALL WEBS EXCEPT   |        |      |        | SPF    |
| X - B             | 2x4    | DRY  | No.2   | SPF    |
| B - V             | 2x4    | DRY  | No.2   | SPF    |
| V - C             | 2x4    | DRY  | No.2   | SPF    |
| C - U             | 2x4    | DRY  | No.2   | SPF    |
| U - E             | 2x4    | DRY  | No.2   | SPF    |
| F - S             | 2x4    | DRY  | No.2   | SPF    |
| S - I             | 2x4    | DRY  | No.2   | SPF    |

DRY: SEASONED LUMBER.

| 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   | 8.0 | 9.0 Edge 2.75 |
| C                           | CTWW-h | MT20   | 4.0 | 4.0           |
| D                           | TS-t   | MT20   | 3.0 | 8.0           |
| E                           | CTWW-h | MT20   | 4.0 | 6.0 2.25 1.75 |
| F                           | CTWW-h | MT20   | 4.0 | 4.0           |
| G                           | TS-t   | MT20   | 3.0 | 8.0           |
| H                           | TMW+w  | MT20   | 2.0 | 4.0           |
| I                           | TTWW-h | MT20   | 7.0 | 8.0 Edge 2.75 |
| J                           | CTWW-h | MT20   | 4.0 | 6.0 2.00 2.50 |
| K                           | CTWW-h | MT20   | 4.0 | 6.0 1.75 2.00 |
| L                           | TMVW+p | MT20   | 4.0 | 6.0 1.50 2.25 |

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



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

| BEARINGS |      | FACTORED       |      | MAXIMUM FACTORED |      | INPUT |       | REQ'D |       |
|----------|------|----------------|------|------------------|------|-------|-------|-------|-------|
| JT       | VERT | GROSS REACTION | HORZ | GROSS REACTION   | HORZ | BRG   | IN-SX | BRG   | IN-SX |
| Y        | 2228 | 0              | 2228 | 0                | 0    | 5-8   | 3-9   | 5-8   | 3-9   |
| N        | 2234 | 0              | 2234 | 0                | 0    | 5-8   | 3-9   | 5-8   | 3-9   |

| UNFACTORED REACTIONS |          | 1ST LCASE |       | MAX./MIN. COMPONENT REACTIONS |       | DEAD    |       | SOIL    |       |
|----------------------|----------|-----------|-------|-------------------------------|-------|---------|-------|---------|-------|
| JT                   | COMBINED | SNOW      | LIVE  | PERM.LIVE                     | WIND  | DEAD    | SOIL  | DEAD    | SOIL  |
| Y                    | 1599     | 921 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 678 / 0 | 0 / 0 | 678 / 0 | 0 / 0 |
| N                    | 1603     | 923 / 0   | 0 / 0 | 0 / 0                         | 0 / 0 | 680 / 0 | 0 / 0 | 680 / 0 | 0 / 0 |

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

**BRACING**  
FOR SECTION B-I, MAX. PURLIN SPACING = 2.00 FT.  
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.57 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-X, C-V, F-S.  
2 LATERAL BRACE(S) AT 1/3 LENGTH OF E-U.

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

### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |             | MAX. FACTORED    |                | FACTORED             |       | WEBS      |             | MAX. FACTORED        |       |
|--------|-------------|------------------|----------------|----------------------|-------|-----------|-------------|----------------------|-------|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX        | MAX. UNBRACED LENGTH | FR-TO | MEMB.     | FORCE (LBS) | MAX. UNBRACED LENGTH | FR-TO |
| FR-TO  |             |                  |                |                      |       | FR-TO     |             |                      |       |
| A-B    | -1877 / 0   | -78.0            | -78.0 0.44 (1) | 4.57                 | X-B   | -201 / 0  | 0.08 (1)    |                      |       |
| B-C    | -2157 / 0   | -85.5            | -85.5 0.70 (1) | 2.00                 | B-V   | 0 / 1614  | 0.26 (1)    |                      |       |
| C-D    | -2470 / 0   | -85.5            | -85.5 0.71 (1) | 2.00                 | V-C   | -1089 / 0 | 0.42 (1)    |                      |       |
| D-E    | -2470 / 0   | -85.5            | -85.5 0.71 (1) | 2.00                 | C-U   | 0 / 487   | 0.08 (1)    |                      |       |
| E-F    | -2739 / 0   | -85.5            | -85.5 0.43 (1) | 2.00                 | U-E   | -2590 / 0 | 0.51 (1)    |                      |       |
| F-G    | -2372 / 0   | -85.5            | -85.5 0.65 (1) | 2.00                 | E-T   | 0 / 2121  | 0.48 (1)    |                      |       |
| G-H    | -2372 / 0   | -85.5            | -85.5 0.65 (1) | 2.00                 | T-F   | 0 / 253   | 0.06 (1)    |                      |       |
| H-I    | -2371 / 0   | -85.5            | -85.5 0.68 (1) | 2.00                 | F-S   | -548 / 0  | 0.33 (1)    |                      |       |
| I-J    | -2083 / 0   | -78.0            | -78.0 0.11 (1) | 4.63                 | S-H   | -702 / 0  | 0.93 (1)    |                      |       |
| J-K    | -2021 / 0   | -78.0            | -78.0 0.06 (1) | 4.73                 | S-I   | 0 / 1692  | 0.27 (1)    |                      |       |
| K-L    | -1472 / 0   | -78.0            | -78.0 0.06 (1) | 5.36                 | Q-I   | 0 / 86    | 0.03 (4)    |                      |       |
| Y-A    | -2041 / 0   | 0.0              | 0.0 0.23 (1)   | 5.91                 | Q-J   | 0 / 26    | 0.01 (4)    |                      |       |
| N-L    | -2006 / 0   | 0.0              | 0.0 0.23 (1)   | 5.96                 | P-J   | -224 / 0  | 0.08 (1)    |                      |       |
|        |             |                  |                |                      | P-K   | 0 / 1089  | 0.25 (1)    |                      |       |
| Z-Y    | 0 / 0       | -96.5            | -96.5 0.16 (1) | 10.00                | O-K   | -1569 / 0 | 0.42 (1)    |                      |       |
| Y-X    | 0 / 0       | -18.5            | -18.5 0.16 (4) | 10.00                | A-X   | 0 / 1168  | 0.26 (1)    |                      |       |
| X-W    | 0 / 1118    | -18.5            | -18.5 0.37 (4) | 10.00                | O-L   | 0 / 1166  | 0.26 (1)    |                      |       |
| W-V    | 0 / 1118    | -18.5            | -18.5 0.37 (4) | 10.00                |       |           |             |                      |       |
| V-U    | 0 / 2157    | -18.5            | -18.5 0.48 (1) | 10.00                |       |           |             |                      |       |
| U-T    | 0 / 3387    | -18.5            | -18.5 0.55 (1) | 10.00                |       |           |             |                      |       |
| T-S    | 0 / 2736    | -18.5            | -18.5 0.57 (1) | 10.00                |       |           |             |                      |       |
| S-R    | 0 / 1235    | -18.5            | -18.5 0.37 (4) | 10.00                |       |           |             |                      |       |
| R-Q    | 0 / 1235    | -18.5            | -18.5 0.37 (4) | 10.00                |       |           |             |                      |       |
| Q-P    | 0 / 1226    | -18.5            | -18.5 0.27 (1) | 10.00                |       |           |             |                      |       |
| P-O    | 0 / 1141    | -18.5            | -18.5 0.19 (1) | 10.00                |       |           |             |                      |       |
| O-N    | 0 / 0       | -18.5            | -18.5 0.12 (1) | 10.00                |       |           |             |                      |       |
| N-M    | 0 / 0       | -96.5            | -96.5 0.16 (1) | 10.00                |       |           |             |                      |       |

### DESIGN CRITERIA

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

**SPACING = 24.0 IN. C/C**

**LOADING IN FLAT SECTION BASED ON**  
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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")  
ALLOWABLE VERT. DEFL.(LL)= L/999 (0.17")  
ALLOWABLE DEFL.(TL)= L/360 (1.36")  
ALLOWABLE VERT. DEFL.(TL)= L/999 (0.39")

**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=0.71/1.00 (C-E:1), BC=0.57/1.00 (S-T:1), WB=0.93/1.00 (H-S:1), SSI=0.30/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

|                                                                                   |            |          |     |             |          |
|-----------------------------------------------------------------------------------|------------|----------|-----|-------------|----------|
| JOB NAME                                                                          | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292656                                                                            | H4T        | 2        | 1   | TRUSS DESC. |          |
| Alpa Roof Truss, Maple                                                            |            |          |     |             |          |
| Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 13:37:16 2018 Page 2 |            |          |     |             |          |
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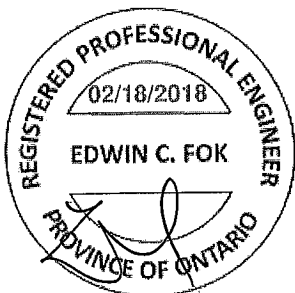
**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| N  | BMV1+p  | MT20   | 3.0 | 4.0 |      |      |
| O  | BBWW-l  | MT20   | 5.0 | 6.0 | 2.00 | 4.50 |
| P  | BBWW-h  | MT20   | 6.0 | 7.0 | Edge |      |
| Q  | BMWW-l  | MT20   | 4.0 | 4.0 |      |      |
| R  | BS-l    | MT20   | 3.0 | 6.0 |      |      |
| S  | BMWWW-l | MT20   | 5.0 | 6.0 | 1.50 | 1.50 |
| T  | BBWW-l  | MT20   | 8.0 | 9.0 | Edge |      |
| U  | BBWW-h  | MT20   | 7.0 | 8.0 | 2.00 | 5.00 |
| V  | BMWW-l  | MT20   | 4.0 | 6.0 | 1.75 | 3.00 |
| W  | BS-l    | MT20   | 3.0 | 6.0 |      |      |
| X  | BMWW-l  | MT20   | 4.0 | 6.0 |      |      |
| Y  | BMV1+p  | MT20   | 3.0 | 4.0 |      |      |

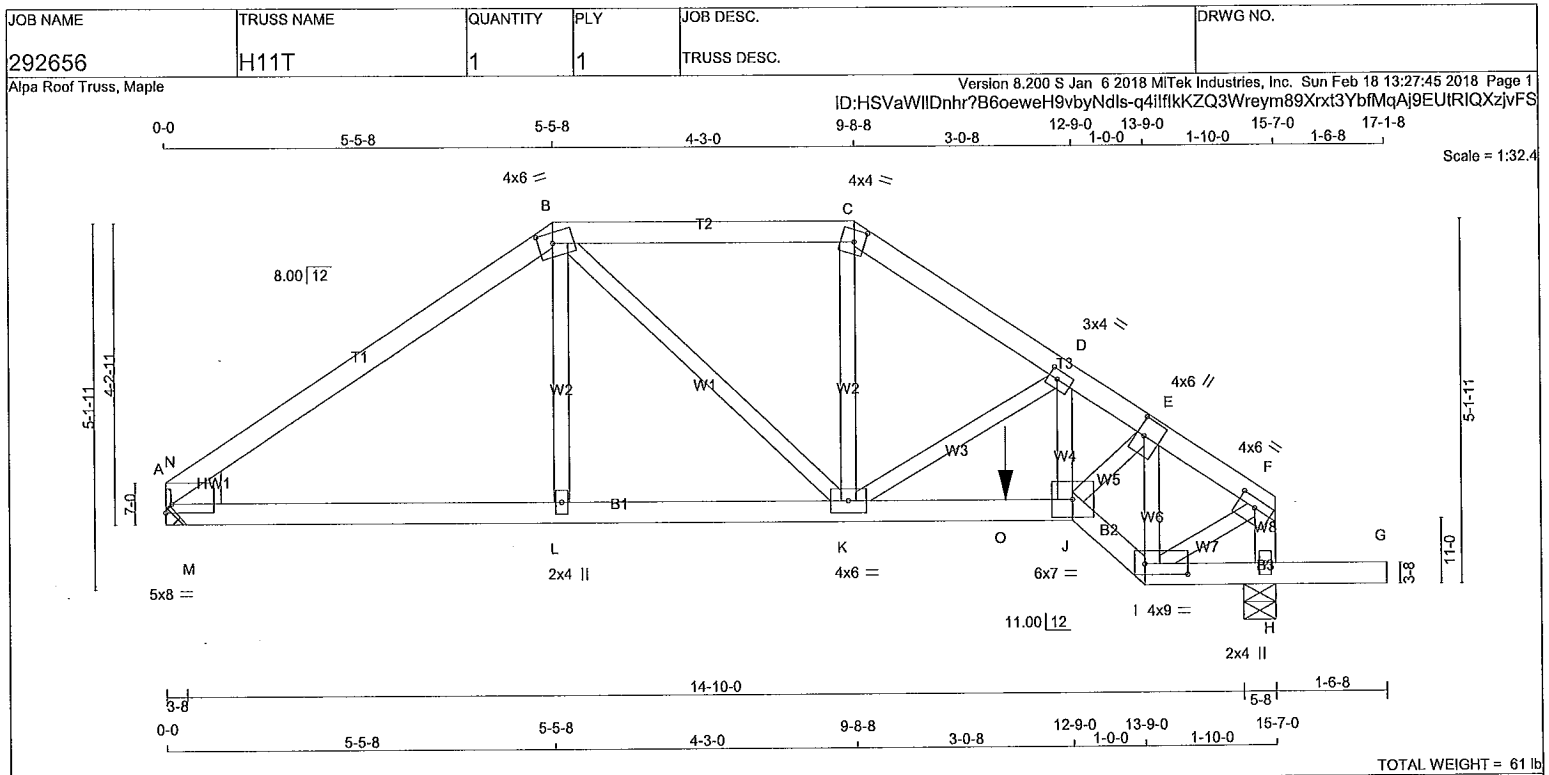
Edge - INDICATES REFERENCE CORNER OF PLATE  
TOUCHES EDGE OF CHORD.

JSI GRIP= 0.90 (P) (INPUT = 0.90 )  
JSI METAL= 0.62 (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-18023717(2)



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

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| A  | TMBH1-I | MT20   | 5.0 | 8.0 | 1.50 | Edge |
| B  | TTWW-m  | MT20   | 4.0 | 6.0 | 1.75 | 2.50 |
| C  | TTW-m   | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| D  | TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| E  | TMWW-t  | MT20   | 4.0 | 6.0 | 3.00 | 1.25 |
| F  | TMWW-t  | MT20   | 4.0 | 6.0 | 1.50 | 3.00 |
| H  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| I  | BBWW-I  | MT20   | 4.0 | 9.0 | 1.75 | 7.25 |
| J  | BBWW-I  | MT20   | 6.0 | 7.0 |      |      |
| K  | BMWW-I  | MT20   | 4.0 | 6.0 |      |      |
| L  | BMV+w   | MT20   | 2.0 | 4.0 |      |      |

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

#### HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 443.4 lbs FACTORED DOWN AT 11-9-12 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

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

##### BEARINGS

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQD BRG             | HEEL WEDGE |
|----|-------------------------|------|---------------------------------|------|-----------|----------------------|------------|
|    | VERT                    | HORZ | DOWN                            | HORZ | IN-SX     | IN-SX                |            |
| A  | 1537                    | 0    | 1537                            | 0    | 0         | HANGER BY OTHERS     | 2x6 L      |
| H  | 1662                    | 0    | 1662                            | 0    | 0         | MIN. SEAT SIZE: 1-11 |            |

##### UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED |         | MAX/MIN. COMPONENT REACTIONS |       | WIND  | DEAD    | SOIL  |
|----|--------------------|---------|------------------------------|-------|-------|---------|-------|
|    | SNOW               | LIVE    | PERM.LIVE                    | WIND  |       |         |       |
| A  | 1094               | 679 / 0 | 0 / 0                        | 0 / 0 | 0 / 0 | 415 / 0 | 0 / 0 |
| H  | 1179               | 754 / 0 | 0 / 0                        | 0 / 0 | 0 / 0 | 425 / 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 = 4.28 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                    |                           | WEBS                      |                          |
|-------|---------------------------|---------------------------|---------------------------|--------------------------|
|       | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC)   |
| FR-TO |                           |                           |                           |                          |
| A - N | -2248 / 0                 | -78.0 -78.0 0.22 (1)      | 4.31                      | L - B 0 / 559 0.14 (1)   |
| N - B | -1783 / 0                 | -78.0 -78.0 0.41 (1)      | 4.55                      | B - K 0 / 122 0.03 (1)   |
| B - C | -1576 / 0                 | -78.0 -78.0 0.31 (1)      | 4.86                      | K - C 0 / 774 0.19 (1)   |
| C - D | -1879 / 0                 | -78.0 -78.0 0.16 (1)      | 4.73                      | K - D -569 / 0 0.14 (1)  |
| D - E | -2445 / 0                 | -78.0 -78.0 0.12 (1)      | 4.28                      | J - D 0 / 414 0.10 (1)   |
| E - F | -1425 / 0                 | -78.0 -78.0 0.10 (1)      | 5.35                      | J - E 0 / 1366 0.34 (1)  |
| H - F | -1434 / 0                 | 0.0 0.0 0.16 (1)          | 6.77                      | I - E -1605 / 0 0.27 (1) |
|       |                           |                           |                           | I - F 0 / 1305 0.32 (1)  |
| A - M | 0 / 1472                  | -112.0 -112.0 0.38 (1)    | 10.00                     | M - N 0 / 488 0.00 (1)   |
| M - L | 0 / 1472                  | -112.0 -112.0 0.62 (1)    | 10.00                     |                          |
| L - K | 0 / 1487                  | -112.0 -112.0 0.62 (1)    | 10.00                     |                          |
| K - O | 0 / 2035                  | -112.0 -112.0 0.84 (1)    | 10.00                     |                          |
| O - J | 0 / 2035                  | -18.5 -18.5 0.84 (1)      | 10.00                     |                          |
| J - I | 0 / 1485                  | -18.5 -18.5 0.27 (1)      | 10.00                     |                          |
| I - H | 0 / 0                     | -18.5 -18.5 0.17 (1)      | 10.00                     |                          |
| H - G | 0 / 0                     | -96.5 -96.5 0.17 (1)      | 10.00                     |                          |

##### FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.    | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
|----|---------|------|------|------|-------|------|-------|
| O  | 11-9-12 | -443 | -443 | -    | 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: CSldGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 5-10-8  
END DISTANCE = 11-9-12  
END SPAN CARRIED = 5-10-8  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.52")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.07")  
ALLOWABLE DEFL.(TL)= L/360 (0.52")  
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")

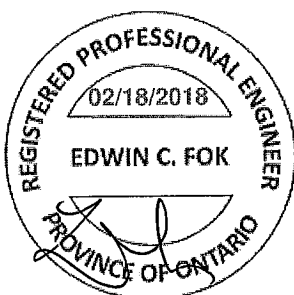
CSI: TC=0.41/1.00 (B-N:1), BC=0.84/1.00 (J-K:1),  
WB=0.34/1.00 (E-J:1), SSI=0.30/1.00 (J-K:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

A-18023718

CONTINUED ON PAGE 2



Alpa Roof Truss, Maple

A-18023719

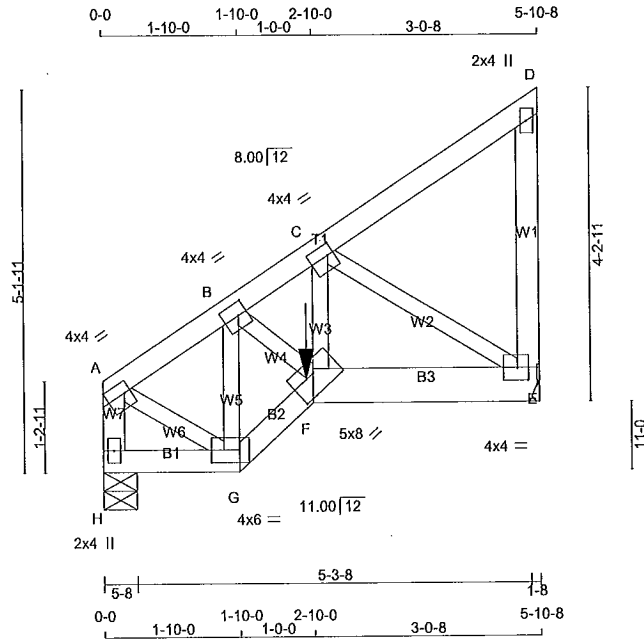
| CHORDS |                           |                           |                  | WEBS               |       |                           |              |          |
|--------|---------------------------|---------------------------|------------------|--------------------|-------|---------------------------|--------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |          |
| FR-TO  |                           | FROM TO                   |                  |                    | FR-TO |                           |              |          |
| A-L    | -428 / 0                  | -78.0                     | -78.0            | 0.26 (1)           | 6.25  | J-C                       | -393 / 0     | 0.20 (1) |
| L-B    | -692 / 0                  | -78.0                     | -78.0            | 0.57 (1)           | 6.18  | I-C                       | -88 / 19     | 0.01 (1) |
| B-C    | -894 / 0                  | -78.0                     | -78.0            | 0.23 (1)           | 6.25  | I-D                       | 0 / 709      | 0.16 (1) |
| C-D    | -1004 / 0                 | -78.0                     | -78.0            | 0.21 (1)           | 5.99  | H-D                       | -710 / 0     | 0.11 (1) |
| D-E    | -565 / 0                  | -78.0                     | -78.0            | 0.06 (1)           | 6.25  | J-B                       | 0 / 341      | 0.08 (1) |
|        |                           |                           |                  |                    |       | G-E                       | -657 / 0     | 0.07 (1) |
| K-K    | 0 / 560                   | -18.5                     | -18.5            | 0.41 (1)           | 10.00 | H-E                       | 0 / 530      | 0.12 (1) |
| A-J    | 0 / 560                   | -18.5                     | -18.5            | 0.41 (1)           | 10.00 | K-L                       | -587 / 15    | 0.00 (1) |
| J-I    | 0 / 927                   | -18.5                     | -18.5            | 0.39 (1)           | 10.00 |                           |              |          |
| I-H    | 0 / 573                   | -18.5                     | -18.5            | 0.10 (1)           | 10.00 |                           |              |          |
| H-G    | -1 / 0                    | -18.5                     | -18.5            | 0.14 (1)           | 10.00 |                           |              |          |
| G-F    | 0 / 0                     | -96.5                     | -96.5            | 0.19 (1)           | 10.00 |                           |              |          |



| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292656   | J1A        | 1        | 2   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 13:29:07 2018 Page 1  
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TOTAL WEIGHT = 2 X 30 = 60 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    |      |        |        |
| H - G  | 2x4 DRY No.2      | SPF    |      |        |        |
| G - F  | 2x4 DRY No.2      | SPF    |      |        |        |
| F - E  | 2x6 DRY No.2      | SPF    |      |        |        |

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

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

| CHORDS #ROWS                             | SURFACE SPACING (IN) | LOAD(PLF)   |
|------------------------------------------|----------------------|-------------|
| TOP CHORDS : (0.122"x3") SPIRAL NAILS    |                      |             |
| H-A 1                                    | 12                   | TOP         |
| A-D 1                                    | 12                   | TOP         |
| D-E 1                                    | 12                   | TOP         |
| BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS |                      |             |
| H-G 1                                    | 12                   | TOP         |
| G-F 1                                    | 12                   | SIDE(61.0)  |
| F-E 2                                    | 12                   | SIDE(163.8) |
| WEBS : (0.122"x3") SPIRAL NAILS          |                      |             |
| F-C 1                                    | 2                    | SIDE(236.5) |
| 2x3 1                                    | 6                    |             |

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

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

| BEARINGS |                | FACTORED |      | MAXIMUM FACTORED |      | INPUT            |       | REQ'D |       |
|----------|----------------|----------|------|------------------|------|------------------|-------|-------|-------|
| JT       | GROSS REACTION | FACTORED | DOWN | FACTORED         | DOWN | BRG              | IN-SX | BRG   | IN-SX |
| H        | 1336           | 0        | 1336 | 0                | 0    | 5-8              | 1-8   |       |       |
| E        | 1762           | 0        | 1762 | 0                | 0    | HANGER BY OTHERS |       |       |       |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN. | COMPONENT REACTIONS | WIND  | DEAD    | SOIL  |
|----|-----------|----------|---------------------|-------|---------|-------|
| H  | 952       | 581 / 0  | 0 / 0               | 0 / 0 | 371 / 0 | 0 / 0 |
| E  | 1256      | 767 / 0  | 0 / 0               | 0 / 0 | 489 / 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 = 5.92 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 |       | MAX. FACTORED |           | WEBS     |             | MAX. FACTORED |          |
|--------|-------------|---------------|------------|----------|-------|---------------|-----------|----------|-------------|---------------|----------|
| MEMB.  | FORCE (LBS) | VERT.         | LOAD (PLF) | LC1      | MAX   | CS1 (LC)      | UNBRAC    | MEMB.    | FORCE (LBS) | MAX           | CS1 (LC) |
| FR-TO  |             | FROM          | TO         |          |       |               | LENGTH    | FR-TO    |             |               |          |
| H-A    | -1319 / 0   | 0.0           | 0.0        | 0.07 (1) | 7.81  | A-G           | 0 / 1181  | 0.15 (1) |             |               |          |
| A-B    | -1298 / 0   | -78.0         | -78.0      | 0.05 (1) | 6.25  | G-B           | -1435 / 0 | 0.12 (1) |             |               |          |
| B-C    | -2233 / 0   | -78.0         | -78.0      | 0.06 (1) | 5.92  | B-F           | 0 / 1258  | 0.16 (1) |             |               |          |
| C-D    | -7 / 0      | -78.0         | -78.0      | 0.05 (1) | 10.00 | F-C           | 0 / 2139  | 0.26 (1) |             |               |          |
| E-D    | -101 / 0    | 0.0           | 0.0        | 0.01 (1) | 7.81  | C-E           | -2102 / 0 | 0.23 (1) |             |               |          |
| H-G    | 0 / 0       | -18.5         | -18.5      | 0.01 (4) | 10.00 |               |           |          |             |               |          |
| G-F    | 0 / 1373    | -18.5         | -18.5      | 0.12 (1) | 10.00 |               |           |          |             |               |          |
| F-E    | 0 / 1776    | -346.1        | -346.1     | 0.26 (1) | 10.00 |               |           |          |             |               |          |

#### FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.   | LC1   | MAX-  | MAX+ | FACE  | DIR. | TYPE  |
|----|--------|-------|-------|------|-------|------|-------|
| F  | 2-10-0 | -1534 | -1534 | -    | FRONT | VERT | TOTAL |

#### DESIGN CRITERIA

\*\*\* SPECIAL LOADS ANALYSIS \*\*\*  
GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.

LOADS WERE DERIVED FROM USER INPUT  
NO FURTHER MODIFICATIONS WERE MADE

#### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStdGirder  
START DISTANCE = 3-1-4  
START SPAN CARRIED = 15-7-0  
END DISTANCE = 5-10-8  
END SPAN CARRIED = 15-7-0  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.07/1.00 (A-H:1), BC=0.26/1.00 (E-F:1),  
WB=0.26/1.00 (C-F:1), SSI=0.17/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

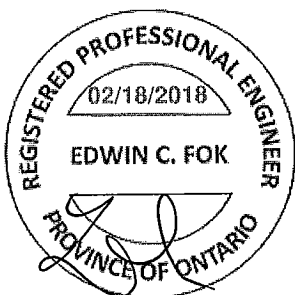
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

A-18023720

CONTINUED ON PAGE 2

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



|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292656   | J1A        | 1        | 2   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

**PLATES (table is in inches)**

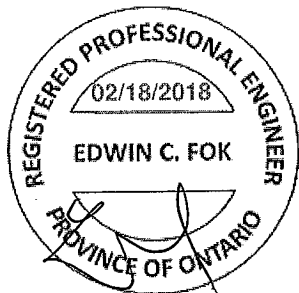
| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| A  | TMVW-t  | MT20   | 4.0 | 4.0 | 1.75 | Edge |
| B  | TMWW-t  | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| C  | TMWW-t  | MT20   | 4.0 | 4.0 | 1.75 | 1.00 |
| D  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| E  | BMVW1-t | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| F  | BBWW-h  | MT20   | 5.0 | 8.0 | 3.00 | 4.00 |
| G  | BBWW-l  | MT20   | 4.0 | 6.0 | 2.00 | 4.50 |
| H  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

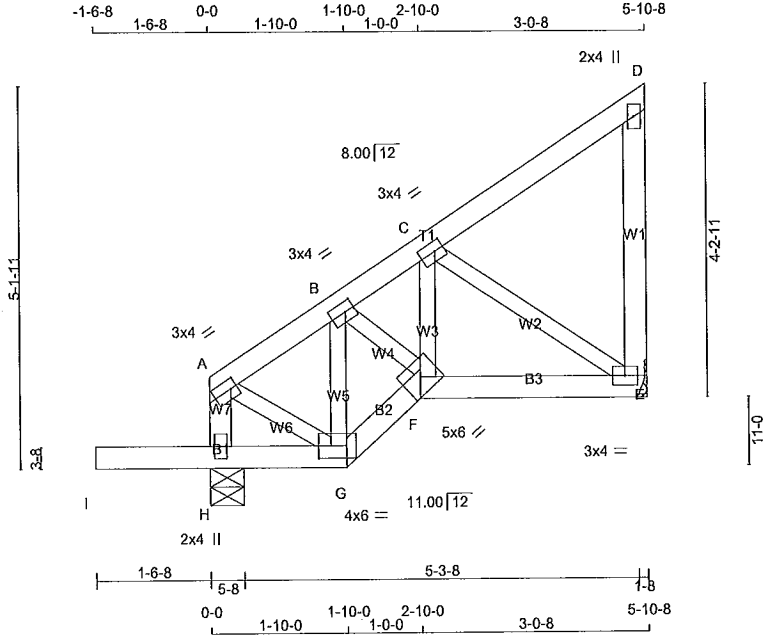
**HANGERS NOTES**  
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 1634.4 lbs FACTORED DOWN AT 2-10-0 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

JSI GRIP= 0.89 (C) (INPUT = 0.90 )  
JSI METAL= 0.40 (C) (INPUT = 1.00 )

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



A-18023720(2)



| 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-t | MT20   | 3.0 | 4.0 1.50 1.00 |
| B                           | TMVW-t | MT20   | 3.0 | 4.0 1.50 1.50 |
| C                           | TMVW-t | MT20   | 3.0 | 4.0 1.50 1.50 |
| D                           | TMV+p  | MT20   | 2.0 | 4.0           |
| E                           | BMVW-t | MT20   | 3.0 | 4.0           |
| F                           | BBVW-t | MT20   | 5.0 | 6.0           |
| G                           | BBVW-t | 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                                                                                      |                         |      |                                 |      |           |       |           |       |                                      |
| JT                                                                                            | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |       |                                      |
|                                                                                               | VERT                    | HORZ | DOWN                            | HORZ | IN-SX     | UP-SX | IN-SX     | UP-SX |                                      |
| H                                                                                             | 452                     | 0    | 452                             | 0    | 5-8       | 1-8   |           |       |                                      |
| E                                                                                             | 264                     | 0    | 264                             | 0    |           |       |           |       | HANGER BY OTHERS MIN. SEAT SIZE: 1-8 |

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

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

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

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

**LOADING**  
 TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                  | WEBS  |                           |                           |                  |
|--------|---------------------------|---------------------------|------------------|-------|---------------------------|---------------------------|------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) |
| FR-TO  |                           | FROM TO                   |                  | FR-TO |                           | FROM TO                   |                  |
| H-A    | -223 / 0                  | 0.0 0.0 0.02 (1)          | 7.81             | A-G   | 0 / 154                   | 0.03 (1)                  |                  |
| A-B    | -165 / 0                  | -78.0 -78.0 0.04 (1)      | 6.25             | G-B   | -220 / 0                  | 0.03 (1)                  |                  |
| B-C    | -239 / 0                  | -78.0 -78.0 0.08 (1)      | 6.25             | B-F   | 0 / 130                   | 0.03 (1)                  |                  |
| C-D    | -11 / 0                   | -78.0 -78.0 0.08 (1)      | 6.25             | F-C   | 0 / 63                    | 0.02 (4)                  |                  |
| E-D    | -95 / 0                   | 0.0 0.0 0.03 (1)          | 7.81             | C-E   | -259 / 0                  | 0.06 (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    | 0 / 173                   | -18.5 -18.5 0.03 (1)      | 10.00            |       |                           |                           |                  |
| F-E    | 0 / 216                   | -18.5 -18.5 0.07 (4)      | 10.00            |       |                           |                           |                  |

**DESIGN CRITERIA**

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

**SPACING = 24.0 IN. C/C**

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

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

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

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

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

**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/588 (0.03")

CSI: TC=0.08/1.00 (B-C:1), BC=0.16/1.00 (G-H:1), WB=0.06/1.00 (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**

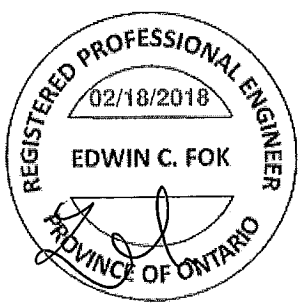
| PLATE | GRIP(DRY) (PSI) | SHEAR (PLI) | SECTION (PLI) |
|-------|-----------------|-------------|---------------|
|       | MAX MIN         | MAX MIN     | MAX MIN       |
| MT20  | 618 354         | 1667 788    | 1987 1656     |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (A) (INPUT = 0.90 )  
 JSI METAL= 0.08 (E) (INPUT = 1.00 )

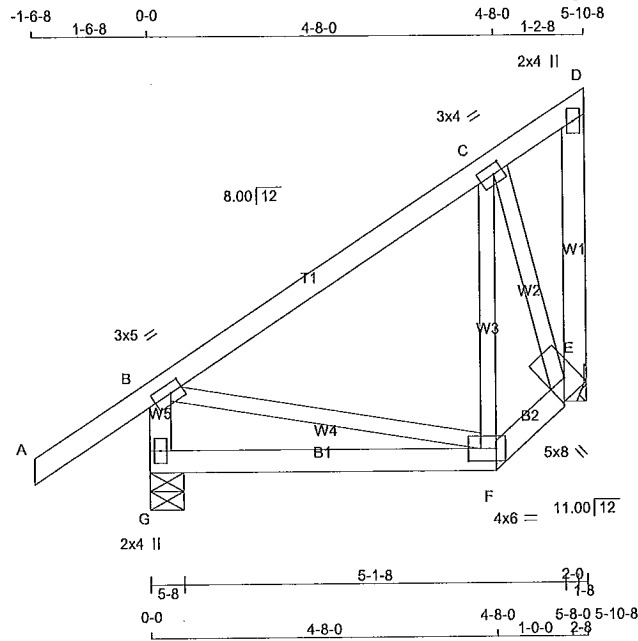
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292656   | J2T        | 2        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 13:38:02 2018 Page 1  
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Scale = 1:31.0

TOTAL WEIGHT = 2 X 32 = 63 lb

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

**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMVW-I  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| C  | TMVW-I  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| D  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| E  | BMVW1+I | MT20   | 5.0 | 8.0 | 2.75 | 2.75 |
| F  | BMVW-I  | MT20   | 4.0 | 6.0 | 2.00 | 4.50 |
| G  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

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

HANGER BY OTHERS  
MIN. SEAT SIZE: 1-8

**UNFACTORED REACTIONS**

| JT | 1ST CASE | MAX / MIN | COMPONENT REACTIONS | SNOW  | LIVE  | PERM. LIVE | WIND  | DEAD   | SOIL  |
|----|----------|-----------|---------------------|-------|-------|------------|-------|--------|-------|
| G  | 290      | 191 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 98 / 0 | 0 / 0 |
| E  | 202      | 123 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 79 / 0 | 0 / 0 |

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

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS |                  | FACTORED         |                | WEBS  |                  | FACTORED     |              |
|--------|------------------|------------------|----------------|-------|------------------|--------------|--------------|
| MEMB.  | MAX. FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LC)   | MEMB. | MAX. FORCE (LBS) | MAX. CS (LC) | MAX. CS (LC) |
| FR-TO  |                  | FROM             | TO             | FR-TO |                  |              |              |
| G-B    | -367 / 0         | 0.0              | 0.0 0.04 (1)   | 7.81  | B-F              | 0 / 115      | 0.03 (1)     |
| A-B    | 0 / 35           | -78.0            | -78.0 0.15 (1) | 10.00 | F-C              | -71 / 20     | 0.02 (1)     |
| B-C    | -117 / 0         | -78.0            | -78.0 0.22 (1) | 6.25  | C-E              | -261 / 0     | 0.06 (1)     |
| C-D    | -86 / 0          | -78.0            | -78.0 0.21 (1) | 6.25  |                  |              |              |
| E-D    | 0 / 68           | 0.0              | 0.0 0.01 (1)   | 10.00 |                  |              |              |
| G-F    | 0 / 0            | -18.5            | -18.5 0.12 (4) | 10.00 |                  |              |              |
| F-E    | 0 / 153          | -18.5            | -18.5 0.03 (1) | 10.00 |                  |              |              |

**DESIGN CRITERIA**

**SPECIFIED LOADS:**

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.22/1.00 (B-C:1), BC=0.12/1.00 (F-G:4), WB=0.06/1.00 (C-E:1), SSI=0.14/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

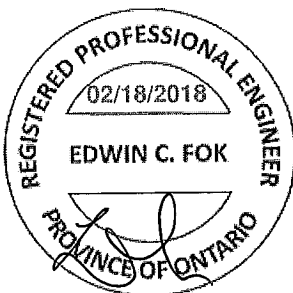
| PLATE   | GRIP(DRY) | SHEAR    | SECTION   |
|---------|-----------|----------|-----------|
|         | (PSI)     | (PLI)    | (PLI)     |
| MAX MIN | MAX MIN   | MAX MIN  | MAX MIN   |
| MT20    | 618 354   | 1667 788 | 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

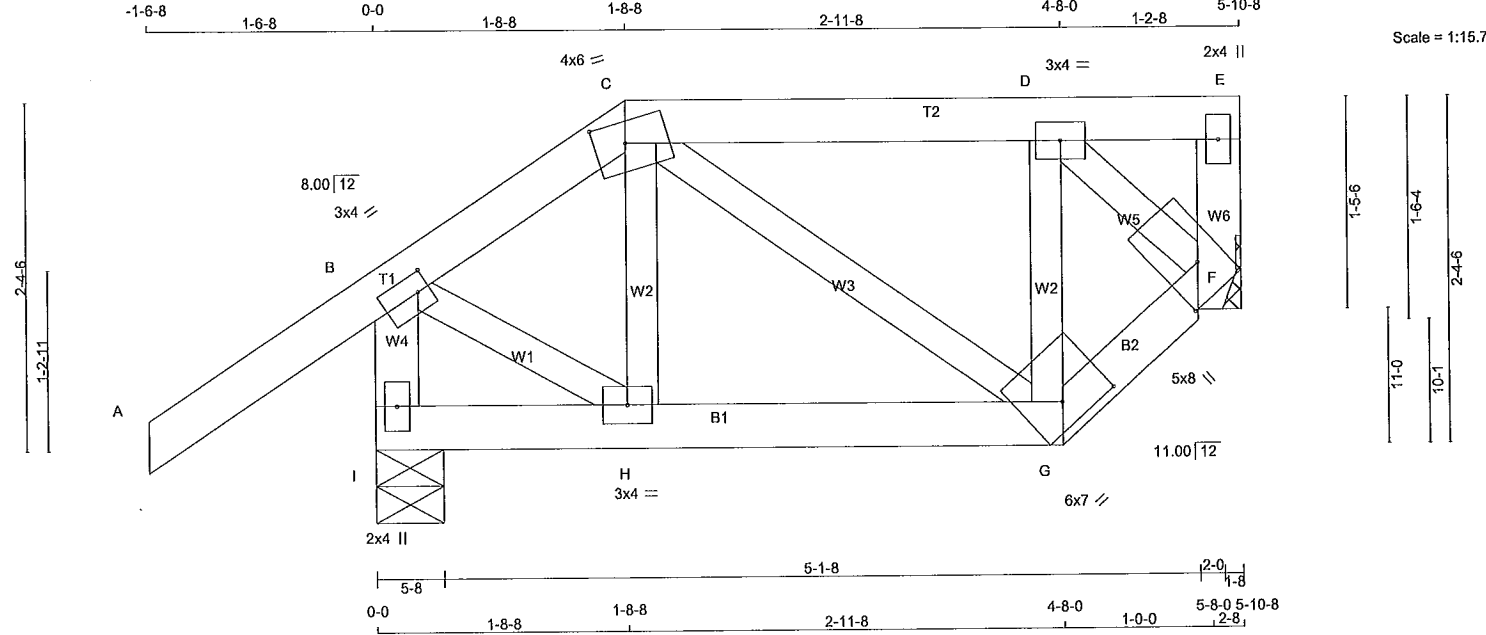
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (B) (INPUT = 0.90)  
JSI METAL= 0.10 (E) (INPUT = 1.00)

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



A-18023722



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

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |         |        |     |     |           |
|-----------------------------|---------|--------|-----|-----|-----------|
| JT                          | TYPE    | PLATES | W   | LEN | X         |
| B                           | TMVW-t  | MT20   | 3.0 | 4.0 | 1.50 1.00 |
| C                           | TTVW-m  | MT20   | 4.0 | 6.0 | 1.75 2.50 |
| D                           | TMVW-t  | MT20   | 3.0 | 4.0 |           |
| E                           | TMV+p   | MT20   | 2.0 | 4.0 |           |
| F                           | BMVW1-H | MT20   | 5.0 | 8.0 | 2.75 2.75 |
| G                           | BMVW-h  | MT20   | 6.0 | 7.0 | 2.00 4.00 |
| H                           | BMVW-t  | MT20   | 3.0 | 4.0 |           |
| I                           | BMV1+p  | MT20   | 2.0 | 4.0 |           |

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

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

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

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

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

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

**LOADING**  
TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                        | WEBS               |       |                           |                        |
|--------|---------------------------|---------------------------|------------------------|--------------------|-------|---------------------------|------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED LC1 (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) |
| FR-TO  |                           | FROM TO                   |                        |                    | FR-TO |                           |                        |
| A-B    | 0 / 35                    | -78.0 -78.0               | 0.15 (1)               | 10.00              | H-C   | -18 / 28                  | 0.01 (4)               |
| B-C    | -202 / 0                  | -78.0 -78.0               | 0.14 (1)               | 6.25               | C-G   | -11 / 22                  | 0.00 (1)               |
| C-D    | -156 / 0                  | -78.0 -78.0               | 0.07 (1)               | 6.25               | G-D   | -118 / 0                  | 0.02 (1)               |
| D-E    | 0 / 0                     | -78.0 -78.0               | 0.07 (1)               | 10.00              | B-H   | 0 / 156                   | 0.04 (1)               |
| F-E    | -10 / 0                   | 0.0 0.0                   | 0.00 (1)               | 7.81               | D-F   | -183 / 0                  | 0.03 (1)               |
| I-B    | -417 / 0                  | 0.0 0.0                   | 0.04 (1)               | 7.81               |       |                           |                        |
| I-H    | 0 / 0                     | -18.5 -18.5               | 0.03 (4)               | 10.00              |       |                           |                        |
| H-G    | 0 / 138                   | -18.5 -18.5               | 0.05 (4)               | 10.00              |       |                           |                        |
| G-F    | 0 / 206                   | -18.5 -18.5               | 0.04 (1)               | 10.00              |       |                           |                        |

### DESIGN CRITERIA

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

**SPACING = 24.0 IN. C/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.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.15/1.00 (A-B:1), BC=0.05/1.00 (G-H:4), WB=0.04/1.00 (B-H:1), SSI=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.

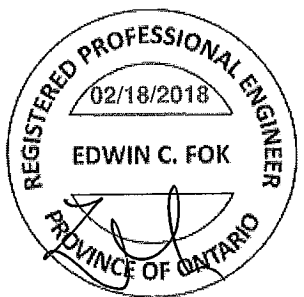
| NAIL VALUES |                 |             |               |
|-------------|-----------------|-------------|---------------|
| PLATE       | GRIP(DRY) (PSI) | SHEAR (PLI) | SECTION (PLI) |
| MT20        | 618             | 354         | 1667          |
|             | 788             | 1987      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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.51 (B) (INPUT = 0.90)  
JSI METAL= 0.12 (B) (INPUT = 1.00)

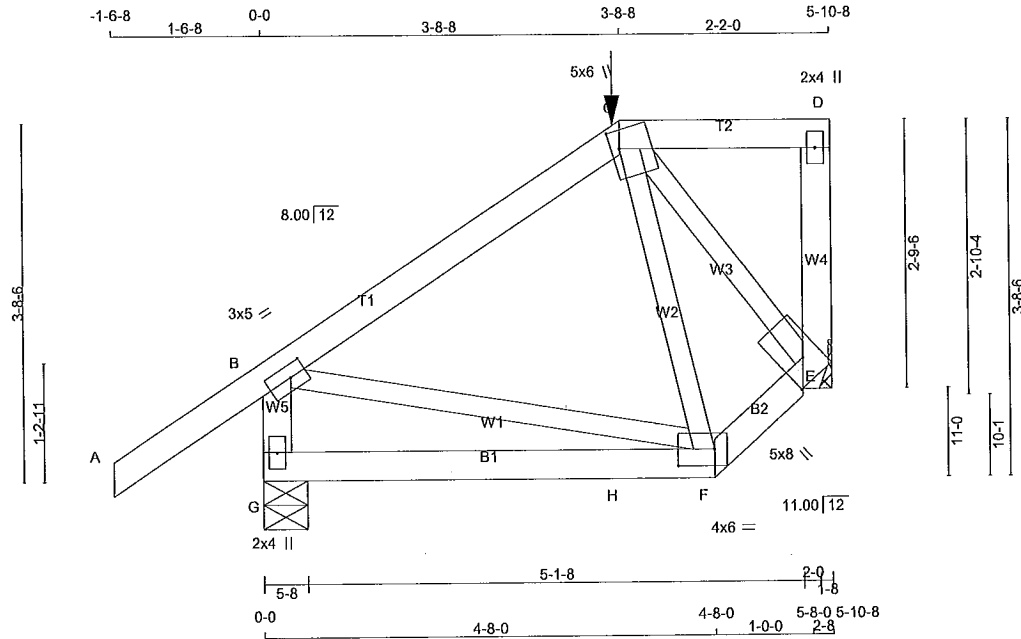
NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per OBC 9.23.13.11, and no less than 2x4 for Part 4 design



| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292656   | J2TB       | 2        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 29 = 58 lb

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

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMVW-I  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| C  | TTWW+m  | MT20   | 5.0 | 6.0 | 2.25 | 1.00 |
| D  | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| E  | BMVW1+H | MT20   | 5.0 | 8.0 | 2.75 | 2.75 |
| F  | BBWW-I  | MT20   | 4.0 | 6.0 | 2.00 | 4.50 |
| G  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

#### HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 106.4 lbs FACTORED DOWN AT 3-8-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

##### BEARINGS

|    | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQD BRG |
|----|-------------------------|---------------------------------|-----------|----------|
| JT | VERT                    | HORZ                            | UPLIFT    | IN-SX    |
| G  | 486                     | 0                               | 0         | 5-8      |
| E  | 433                     | 0                               | 0         | 1-8      |

HANGER BY OTHERS  
MIN. SEAT SIZE: 1-8

##### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | WIND  | DEAD    | SOIL  |
|----|-----------|-------------------------------|-------|---------|-------|
| G  | 345       | 220 / 0                       | 0 / 0 | 125 / 0 | 0 / 0 |
| E  | 308       | 191 / 0                       | 0 / 0 | 117 / 0 | 0 / 0 |

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

##### BRACING

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

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS        |             |                  |                  | WEBS               |       |             |              |
|---------------|-------------|------------------|------------------|--------------------|-------|-------------|--------------|
| MAX. FACTORED |             | FACTORED         |                  | MAX. FACTORED      |       |             |              |
| MEMB.         | FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | FORCE (LBS) | MAX CSI (LC) |
| FR-TO         |             | FROM TO          |                  |                    | FR-TO |             |              |
| A-B           | 0 / 35      | -78.0            | -78.0 0.16 (1)   | 10.00              | C-F   | -101 / 20   | 0.02 (1)     |
| B-C           | -215 / 0    | -78.0            | -78.0 0.20 (1)   | 6.25               | B-F   | 0 / 181     | 0.04 (1)     |
| C-D           | 0 / 0       | -111.3           | -111.3 0.10 (1)  | 10.00              | C-E   | -216 / 0    | 0.04 (1)     |
| E-D           | -121 / 0    | 0.0              | 0.0 0.02 (1)     | 7.81               |       |             |              |
| G-B           | -424 / 0    | 0.0              | 0.0 0.05 (1)     | 7.81               |       |             |              |
|               |             |                  |                  |                    |       |             |              |
| G-H           | 0 / 0       | -26.4            | -26.4 0.19 (4)   | 10.00              |       |             |              |
| H-F           | 0 / 0       | -26.4            | -26.4 0.19 (4)   | 10.00              |       |             |              |
| F-E           | 0 / 206     | -26.4            | -26.4 0.04 (1)   | 10.00              |       |             |              |

##### FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.  | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
|----|-------|------|------|------|-------|------|-------|
| C  | 3-8-8 | -106 | -106 | —    | FRONT | VERT | TOTAL |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

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

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 3-8-8

RIGHT SETBACK = 0-0

END SETBACK = 3-8-8

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- 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 (0.20")

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

ALLOWABLE DEFL.(TL) = L/360 (0.20")

CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.20/1.00 (B-C:1), BC=0.19/1.00 (F-G:4), WB=0.04/1.00 (C-E:1), SSI=0.10/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

##### NAIL VALUES

| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|---------|
| (PSI) | (PLI)     | (PLI) | (PLI)   |
| MAX   | MIN       | MAX   | MIN     |
| 618   | 354       | 1667  | 788     |

PLATE PLACEMENT TOL. = 0.250 inches

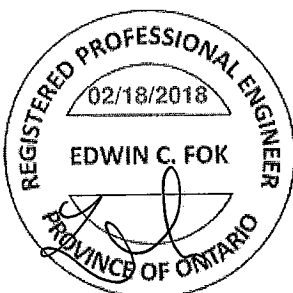
PLATE ROTATION TOL. = 5.0 Deg.

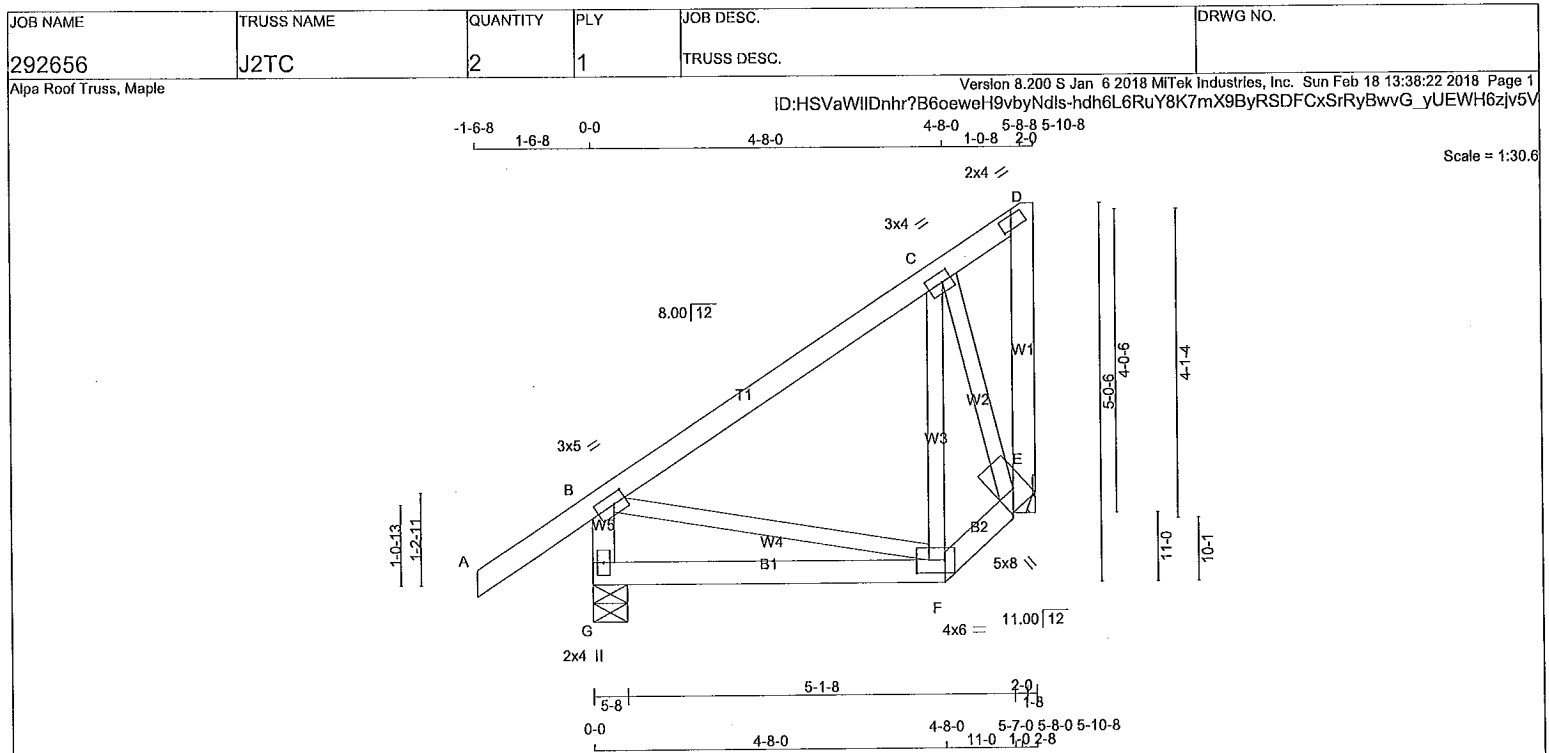
JSI GRIP= 0.39 (B) (INPUT = 0.90)

JSI METAL= 0.11 (B) (INPUT = 1.00)

A-18023724

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 - D             | 2x4    | DRY  | No.2   | SPF |        |
| E - B             | 2x4    | DRY  | No.2   | SPF |        |
| G - F             | 2x4    | DRY  | No.2   | SPF |        |
| F - E             | 2x4    | DRY  | No.2   | SPF |        |
| ALL WEBS EXCEPT   | 2x3    | DRY  | No.2   | SPF |        |

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| B  | TMVW-I  | MT20   | 3.0 | 5.0 | 1.50 | 2.00 |
| C  | TMVW-I  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| D  | TVM-I   | MT20   | 2.0 | 4.0 | 1.00 | 1.75 |
| E  | BMVW1+I | MT20   | 5.0 | 8.0 | 2.75 | 2.75 |
| F  | BBVW-I  | MT20   | 4.0 | 6.0 | 2.00 | 4.50 |
| G  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

| BEARINGS |                | FACTORED |      | MAXIMUM FACTORED |      | INPUT |        | REQRD |       |
|----------|----------------|----------|------|------------------|------|-------|--------|-------|-------|
| JT       | GROSS REACTION | VERT     | HORZ | GROSS REACTION   | DOWN | HORZ  | UPLIFT | BRG   | IN-SX |
| G        | 410            | 0        | 410  | 0                | 0    | 5-8   | 1-8    |       |       |
| E        | 283            | 0        | 283  | 0                | 0    |       |        |       |       |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX / MIN | COMPONENT REACTIONS |       |       |        |
|----|-----------|-----------|---------------------|-------|-------|--------|
| G  | 290       | 191 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 98 / 0 |
| E  | 202       | 123 / 0   | 0 / 0               | 0 / 0 | 0 / 0 | 79 / 0 |

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

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |             | FACTORED |          | MAX. FACTORED |       | WEBS  |             | MAX. FACTORED |     |
|--------|-------------|----------|----------|---------------|-------|-------|-------------|---------------|-----|
| MEMB.  | FORCE (LBS) | VERT.    | LOAD LC1 | MAX           | MAX.  | MEMB. | FORCE (LBS) | MAX           | MAX |
| FR-TO  |             | FROM     | TO       | LENGTH        | FR-TO |       |             |               |     |
| A-B    | 0 / 35      | -78.0    | -78.0    | 0.15 (1)      | 10.00 | F-C   | -71 / 20    | 0.02 (1)      |     |
| B-C    | -117 / 0    | -78.0    | -78.0    | 0.22 (1)      | 6.25  | C-E   | -261 / 0    | 0.06 (1)      |     |
| C-D    | -66 / 0     | -78.0    | -78.0    | 0.21 (1)      | 6.25  | B-F   | 0 / 115     | 0.03 (1)      |     |
| E-D    | 0 / 68      | 0.0      | 0.0      | 0.01 (1)      | 10.00 |       |             |               |     |
| G-B    | -367 / 0    | 0.0      | 0.0      | 0.04 (1)      | 7.81  |       |             |               |     |
| G-F    | 0 / 0       | -18.5    | -18.5    | 0.12 (4)      | 10.00 |       |             |               |     |
| F-E    | 0 / 153     | -18.5    | -18.5    | 0.03 (1)      | 10.00 |       |             |               |     |

#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.22/1.00 (B-C:1), BC=0.12/1.00 (F-G:4),  
WB=0.06/1.00 (C-E:1), SSI=0.14/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

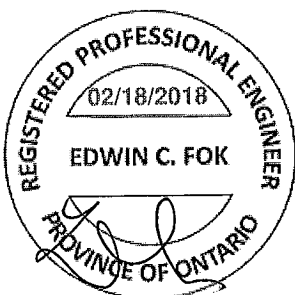
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

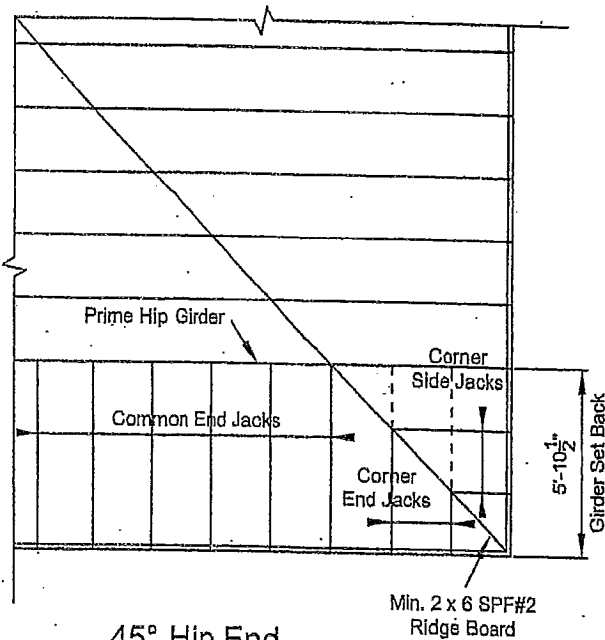
JSI GRIP= 0.33 (B) (INPUT = 0.90 )  
JSI METAL= 0.10 (E) (INPUT = 1.00 )

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



A-18023725

# STRACON ENGINEERING INC.



45° Hip End

## LUMBER SPECIFICATION

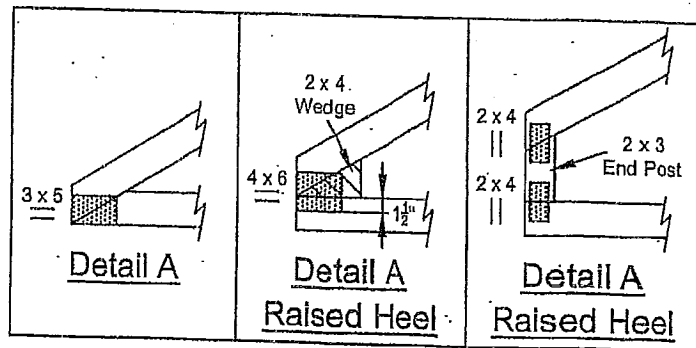
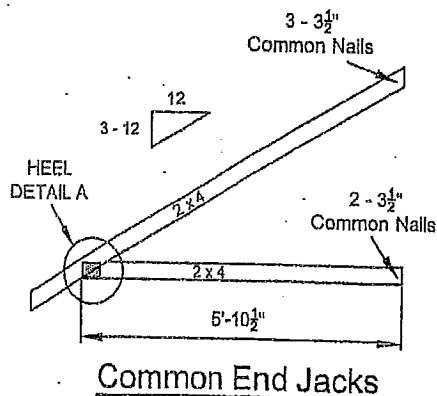
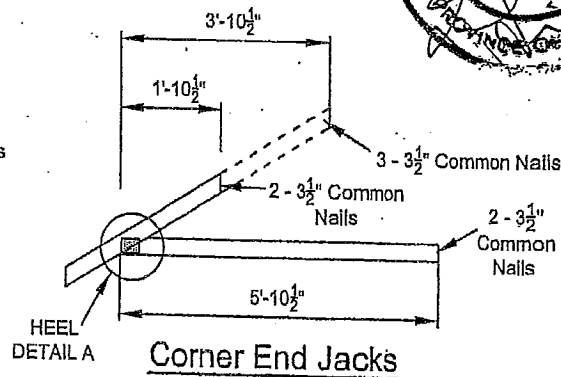
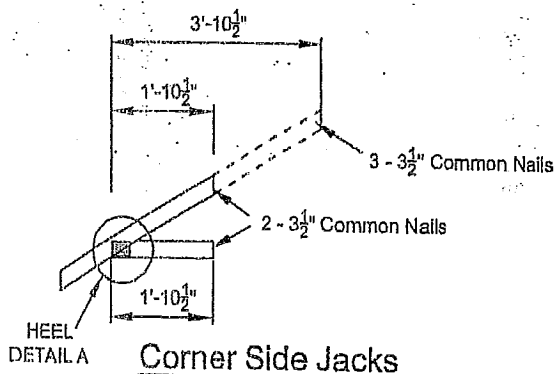
TOP CHORD : 2 x 4 SPF#2  
 BOTTOM CHORD : 2 x 4 SPF#2  
 WEBS : 2 x 3 SPF#2  
 UNLESS OTHERWISE SHOWN

## 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.

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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:

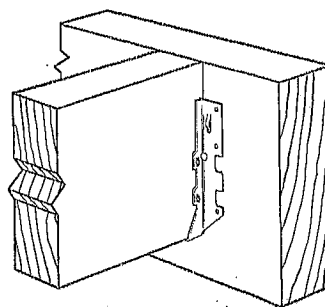
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

## Installation:

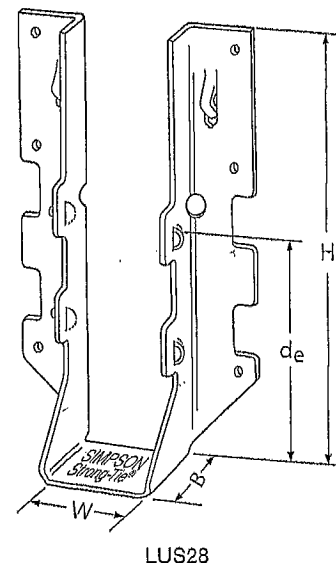
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

## Options:

- These hangers cannot be modified



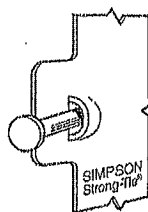
Typical LUS Installation



LUS28

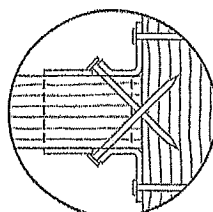
| Model No. | Ga. | Dimensions (in.) |         |    |                | Fasteners |         | Factored Resistance (lb.)        |                                  |                                  |                                  |
|-----------|-----|------------------|---------|----|----------------|-----------|---------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|           |     |                  |         |    |                |           |         | D.Fir-L                          |                                  | S-P-F                            |                                  |
|           |     | W                | H       | B  | d <sub>1</sub> | Face      | Joist   | Uplift<br>(K <sub>p</sub> =1.15) | Normal<br>(K <sub>p</sub> =1.00) | Uplift<br>(K <sub>p</sub> =1.15) | Normal<br>(K <sub>p</sub> =1.00) |
| LUS24     | 18  | 1½               | 3½      | 1¼ | 1 15/16        | (4) 10d   | (2) 10d | 710                              | 1630                             | 645                              | 1155                             |
| LUS24-2   | 18  | 3½               | 3½      | 2  | 1 15/16        | (4) 16d   | (2) 16d | 835                              | 2020                             | 590                              | 1435                             |
| LUS26     | 18  | 1½               | 4¾      | 1¼ | 3¾             | (4) 10d   | (4) 10d | 1420                             | 2170                             | 1290                             | 1630                             |
| LUS26-2   | 18  | 3½               | 4¾      | 2  | 4              | (4) 16d   | (4) 16d | 1720                             | 2595                             | 1545                             | 1920                             |
| LUS26-3   | 18  | 4¾               | 4¾      | 2  | 3¼             | (4) 16d   | (4) 16d | 1720                             | 2595                             | 1545                             | 2340                             |
| LUS28     | 18  | 1½               | 6½      | 1¼ | 3¾             | (6) 10d   | (6) 10d | 1420                             | 2520                             | 1290                             | 1790                             |
| LUS28-2   | 18  | 3½               | 7       | 2  | 4              | (6) 16d   | (4) 16d | 1720                             | 3325                             | 1545                             | 2575                             |
| LUS28-3   | 18  | 4¾               | 6¼      | 2  | 3¼             | (6) 16d   | (4) 16d | 1720                             | 3325                             | 1545                             | 2375                             |
| LUS210    | 18  | 1½               | 7 15/16 | 1¼ | 3¾             | (8) 10d   | (4) 10d | 1420                             | 2785                             | 1290                             | 2210                             |
| LUS210-2  | 18  | 3½               | 9       | 2  | 6              | (8) 16d   | (6) 16d | 2580                             | 4500                             | 2320                             | 3195                             |
| LUS210-3  | 18  | 4¾               | 8 9/16  | 2  | 5¼             | (8) 16d   | (6) 16d | 2580                             | 3345                             | 2320                             | 2375                             |

1. d<sub>1</sub> is the distance from the seat of the hanger to the highest joist nail.

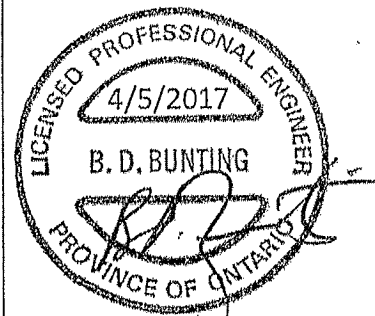


Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.



LIMIT  
STATES  
DESIGN

This technical bulletin is effective until June 30, 2019, and is not normal or 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 related literature at [strongtie.com](http://www.strongtie.com).

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TSPECLUS17/3/17 exp. 6/19

(800) 999-5099  
[strongtie.com](http://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:**

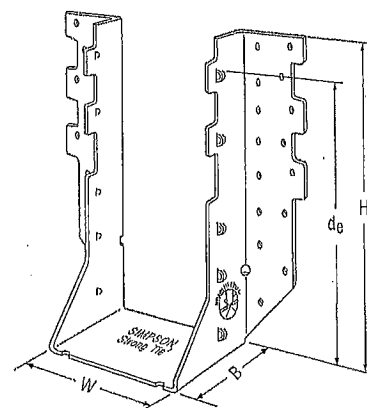
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

**Installation:**

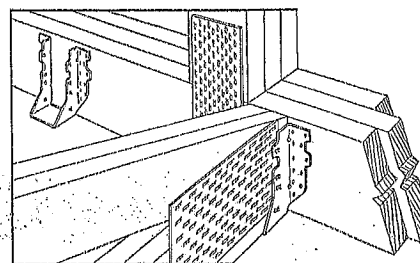
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

**Options:**

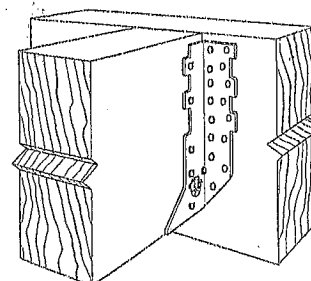
- See current catalogue for options



HHUS410



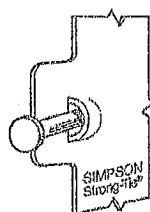
Typical HHUS Installation  
(Truss Designer to provide fastener quantity for connecting multiple members together)



Typical HHUS Installation

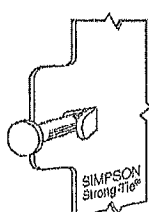
| Model No.   | Ga. | Dimensions (in.) |         |        |                             | Fasteners |          | Factored Resistance (lb.) |        |        |        |
|-------------|-----|------------------|---------|--------|-----------------------------|-----------|----------|---------------------------|--------|--------|--------|
|             |     | W                | H       | B      | d <sub>e</sub> <sup>1</sup> | Face      | Joist    | D.Fir-L                   |        | S-P-F  |        |
|             |     |                  |         |        |                             |           |          | Uplift                    | Normal | Uplift | Normal |
| HHUS26-2    | 14  | 3 1/16           | 5 13/16 | 3      | 3 15/16                     | (14) 16d  | (6) 16d  | 2850                      | 7335   | 2065   | 5205   |
| HHUS28-2    | 14  | 3 5/16           | 7 1/2   | 3      | 6 5/32                      | (22) 16d  | (8) 16d  | 3765                      | 8940   | 2675   | 6345   |
| HHUS210-2   | 14  | 3 5/16           | 9 3/2   | 3      | 8                           | (30) 16d  | (10) 16d | 4745                      | 9660   | 4310   | 7000   |
| HHUS210-3   | 14  | 4 11/16          | 9       | 3      | 7 15/16                     | (30) 16d  | (10) 16d | 4745                      | 10545  | 4310   | 7485   |
| HHUS210-4   | 14  | 6 1/8            | 8 29/32 | 3      | 7 27/32                     | (30) 16d  | (10) 16d | 4745                      | 10545  | 4310   | 7485   |
| HHUS46      | 14  | 3 3/8            | 5 13/32 | 3      | 3 15/16                     | (14) 16d  | (6) 16d  | 2540                      | 7335   | 2065   | 5205   |
| HHUS48      | 14  | 3 3/8            | 7 1/8   | 3      | 6 1/8                       | (22) 16d  | (8) 16d  | 3765                      | 8945   | 2267   | 6345   |
| HHUS410     | 14  | 3 3/8            | 9       | 3      | 8                           | (30) 16d  | (10) 16d | 4745                      | 9855   | 4310   | 7000   |
| HHUS5.50/10 | 14  | 5 1/2            | 9       | 3      | 8                           | (30) 16d  | (10) 16d | 4745                      | 10545  | 4310   | 7485   |
| HHUS7.25/10 | 14  | 7 1/4            | 9       | 3 3/16 | 7 29/32                     | (30) 16d  | (10) 16d | 4745                      | 10770  | 4310   | 7650   |

1. d<sub>e</sub> is the distance from the seat of the hanger to the highest joist nail.

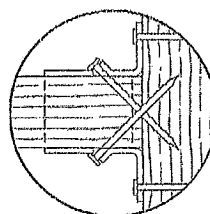


Double Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,680



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

(800) 999-5099  
strongtie.com

# HUS/LJS – Double Shear Joist Hangers



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

**Material:** See table

**Finish:** G90 galvanized

**Design:**

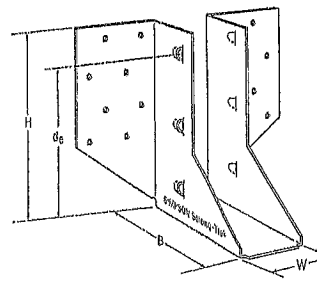
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

**Installation:**

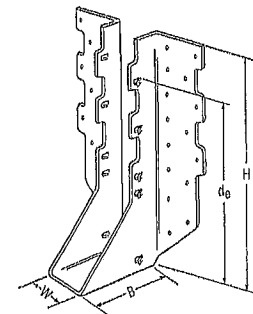
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

**Options:**

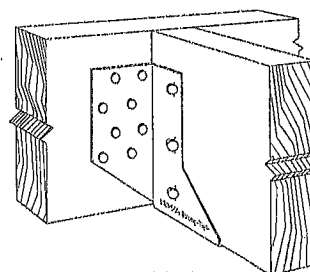
- See current catalogue for options



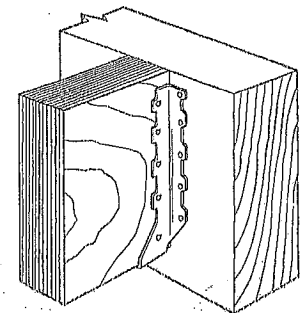
LJS26DS



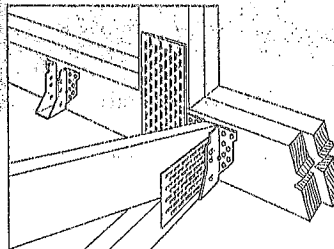
HUS210  
(HUS26, HUS28, similar)



Typical LJS26DS  
Installation



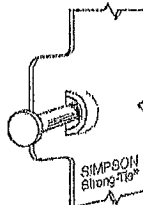
Typical HUS  
Installation



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

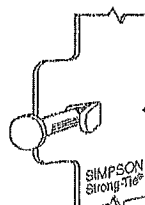
| Model No.  | Ga. | Dimensions (in.) |    |    |                             | Fasteners |          | Factored Resistance (lb.)        |                                  |                                  |                                  |
|------------|-----|------------------|----|----|-----------------------------|-----------|----------|-------------------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

1. d<sub>6</sub> is the distance from the seat of the hanger to the highest joist nail.

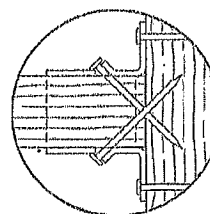


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

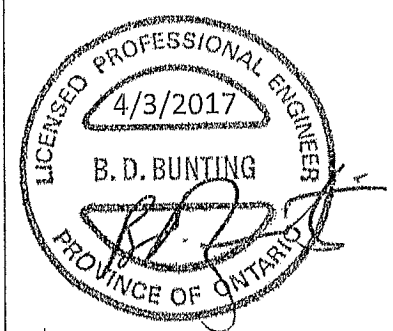
U.S. Patent  
5,803,680



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



Double Shear Nailing Top View.



LIMIT  
STATES  
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