

Job Track: 45147  
Layout ID: 292623  
Plan Log: 95914

Builder / Location: **GOLD PINE**  
Project: **PINE**  
Date: 1/18/2011

ARK HOW  
/ALLEY

S / VAUGHAN

THESE DRAWINGS CO  
REDISTRIBUTED IN AN  
ALPA ROOF TRUSSES

Model / Elevation:  
5002 REV1

ALPA ROOF TRUSSES INC. SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN THE MAIN ROOF TRUSSES FOR ALPA ROOF TRUSSES INC. IF UTILIZED FOR ANY OTHER PURPOSE, THE USER ASSUMES ALL LIABILITY.

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DISTRIBUTED IN ANY FORM OR  
BY ANY MEANS, WITHOUT THE  
WRITTEN PERMISSION OF THE  
PUBLISHERS.



CONVENTIONAL  
FRAMING BY  
OTHERS

15' B/C EXT.  
HEEL CURVE BY OTHERS  
SSD, HEEL - 0" DROP  
2" X 6" FASCIA - FM  
ASPHALT SHINGLES  
2" X 6" BRG/BRICK  
PIGGYBACK TTS  
PURLINS BY OTHERS

not

|                 |                                                |
|-----------------|------------------------------------------------|
| OFFICE USE ONLY | ENGINEERED FROM<br>A-18023829 TO<br>A-18023809 |
|-----------------|------------------------------------------------|

ROSENBERG

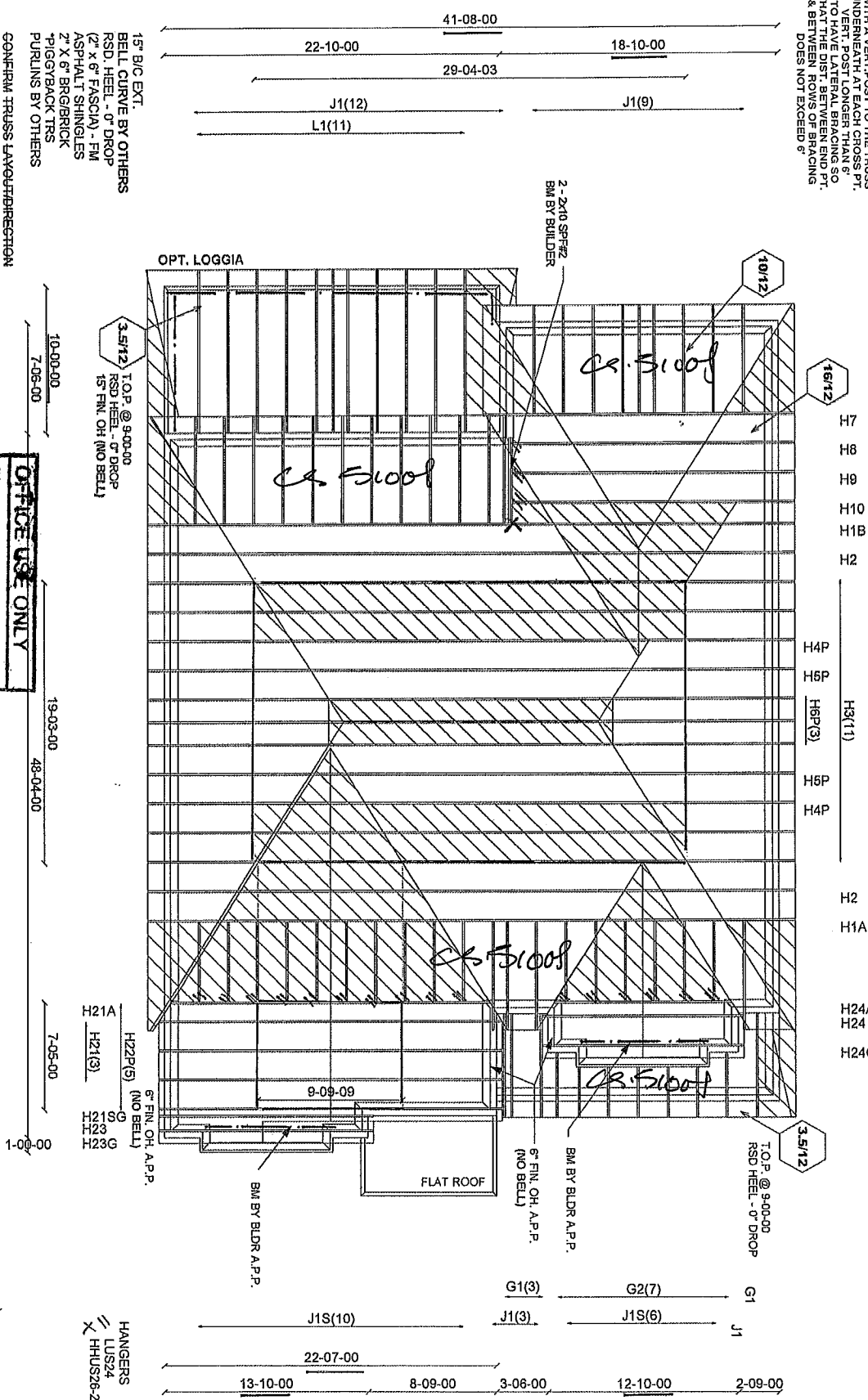
STD OR OPT 2ND FLR (SEED) OR

ALL CONT. 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'

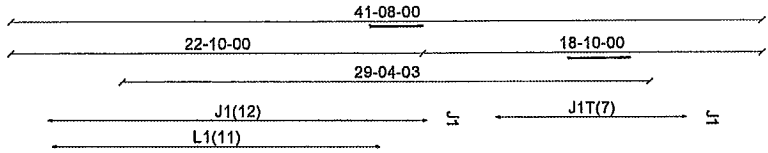
47-04-00

2-08-00 4-04-00 9

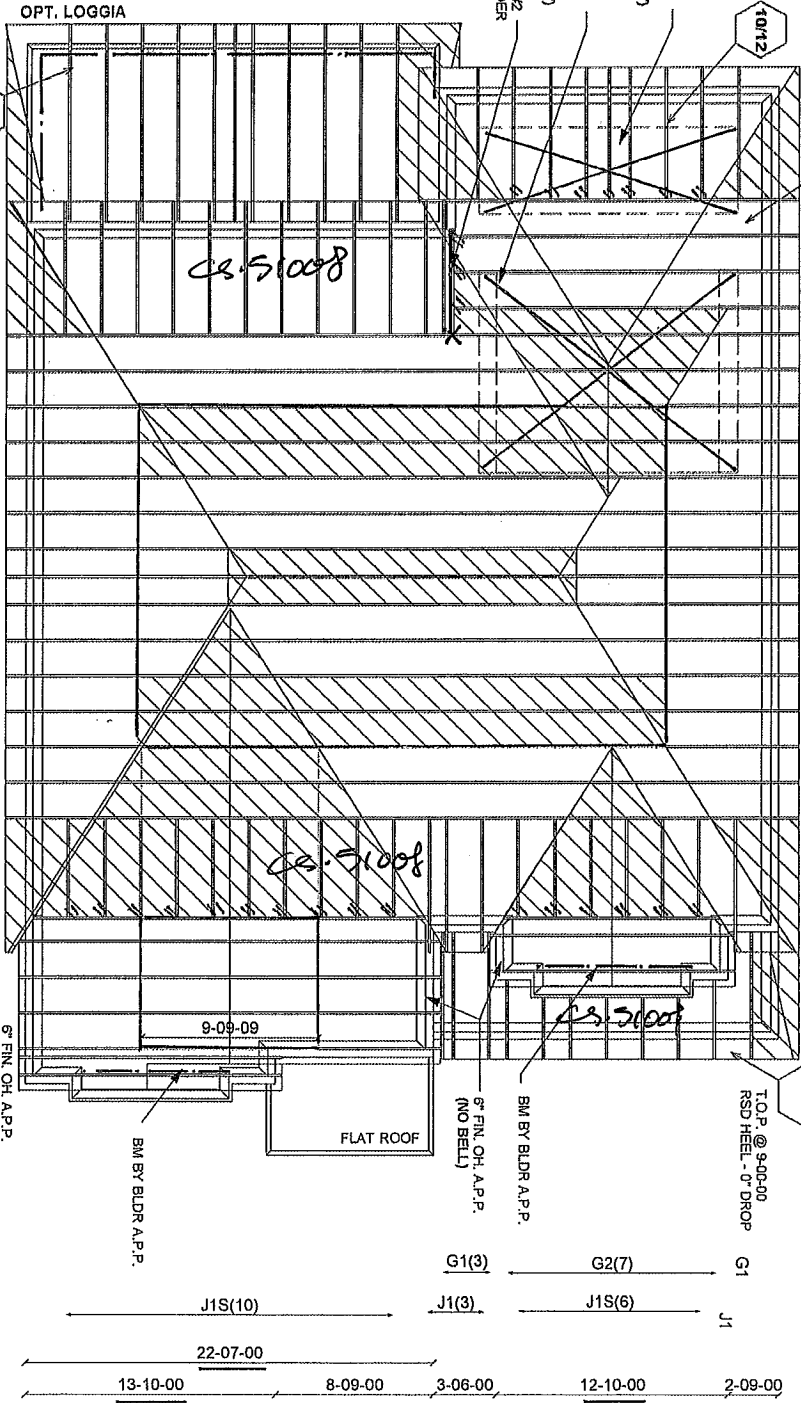
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ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF #2 24" O.C. WITH A VERT. POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. TO THE POST LONGER THAN 6' TO BE 4" X 6" OR 6" X 6" 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  
PURCH BY OTHERS  
GENERAL TRUSS LAYOUT DIRECTION  
P.L. 95914



47-04-00  
2-08-00 4-04-00  
6-00-00  
1-00-00

ALPHA-BARRIE

A-18023827, A-18023831 - A-18023835  
A-18023837, A-18023840 - A-18023856

ROSEVIEW

CONVENTIONAL  
FRAMING BY  
OTHERS



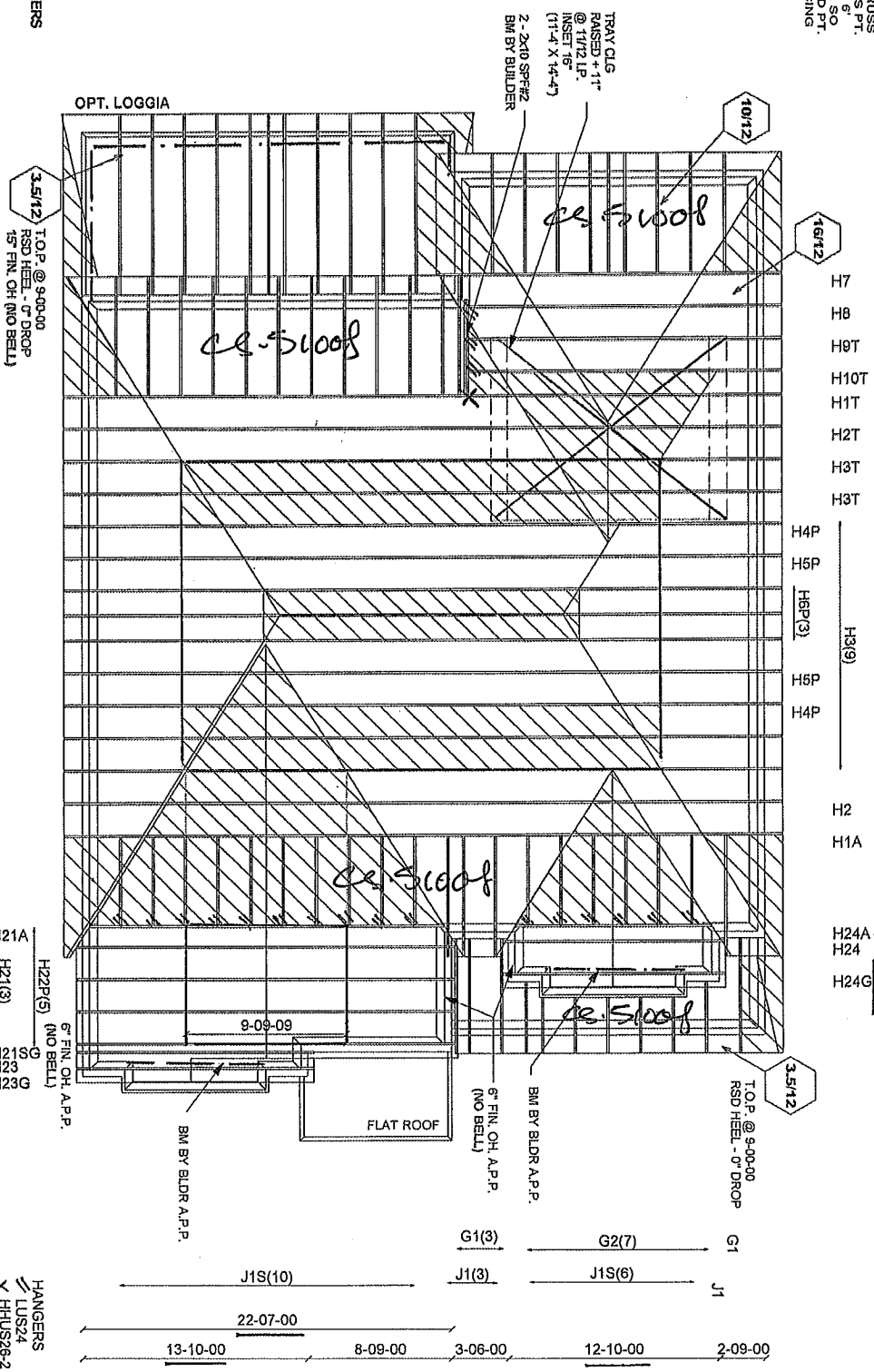
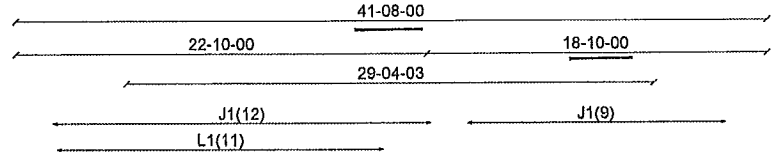
Job Track: 45147  
Layout ID: 292624  
Plan Log: 95914

Builder / Location: GOLD PARK HOMES / VAUGHAN  
Project: PINE VALLEY  
Date: 1/18/2018  
Designer: AMANDA

Model / Elevation: 5002 REV1 / A OPT CLGS  
OR OPT LOGGIA  
THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPHA ROOF TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPHA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPHA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (LATEST EDITION) ROOF RALTERS THAT CROSS MEET OVER TRUSSES TO BE 2X4 SP#2, 24" O.C. UNDER THE JOISTS. TRUSSES UNDERNETH JOISTS TO BE 2X4 SP#2, 24" O.C. VERT. POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

ALPA-BARRIE



15' B/C EXT.  
BELL CURVE BY OTHERS  
RSD. HEEL - 0" DROP  
(2" x 6" FASCIA) - FM  
ASPHALT SHINGLES  
2" x 6" BRG/BRCK  
P/IGY/BACK TRS  
PURLINS BY OTHERS  
CONFIRM TRUSS LAYOUT/DIRECTION  
P.L. 95914

A-18023827, A-18023831-A-18023837  
A-18023840-A-18023852  
A-18023854-A-18023857

ROSEVIEW

CONVENTIONAL FRAMING BY OTHERS



|                                                                                                                                                                                                                                                                                                                  |        |                    |                           |                   |           |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------|---------------------------|-------------------|-----------|------------------|
| Job Track                                                                                                                                                                                                                                                                                                        | 45147  | Builder / Location | GOLD PARK HOMES / VAUGHAN | Model / Elevation | 5002 REV1 | 1 A OPT TRAY MST |
| Layout ID:                                                                                                                                                                                                                                                                                                       | 292625 | Project:           | PINE VALLEY               |                   |           |                  |
| Plan Log:                                                                                                                                                                                                                                                                                                        | 95914  | Date:              | 1/18/2018                 | Designer:         | AMANDA    |                  |
| THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALPA ROOF TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY ALPA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALPA ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE. |        |                    |                           |                   |           |                  |

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2X8 SPF #2, 24 O.C. WITH 1/2" MIN. GAPS BETWEEN TRUSSES. UNDERLATH AT EACH CROSS PT. TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

47-04-00

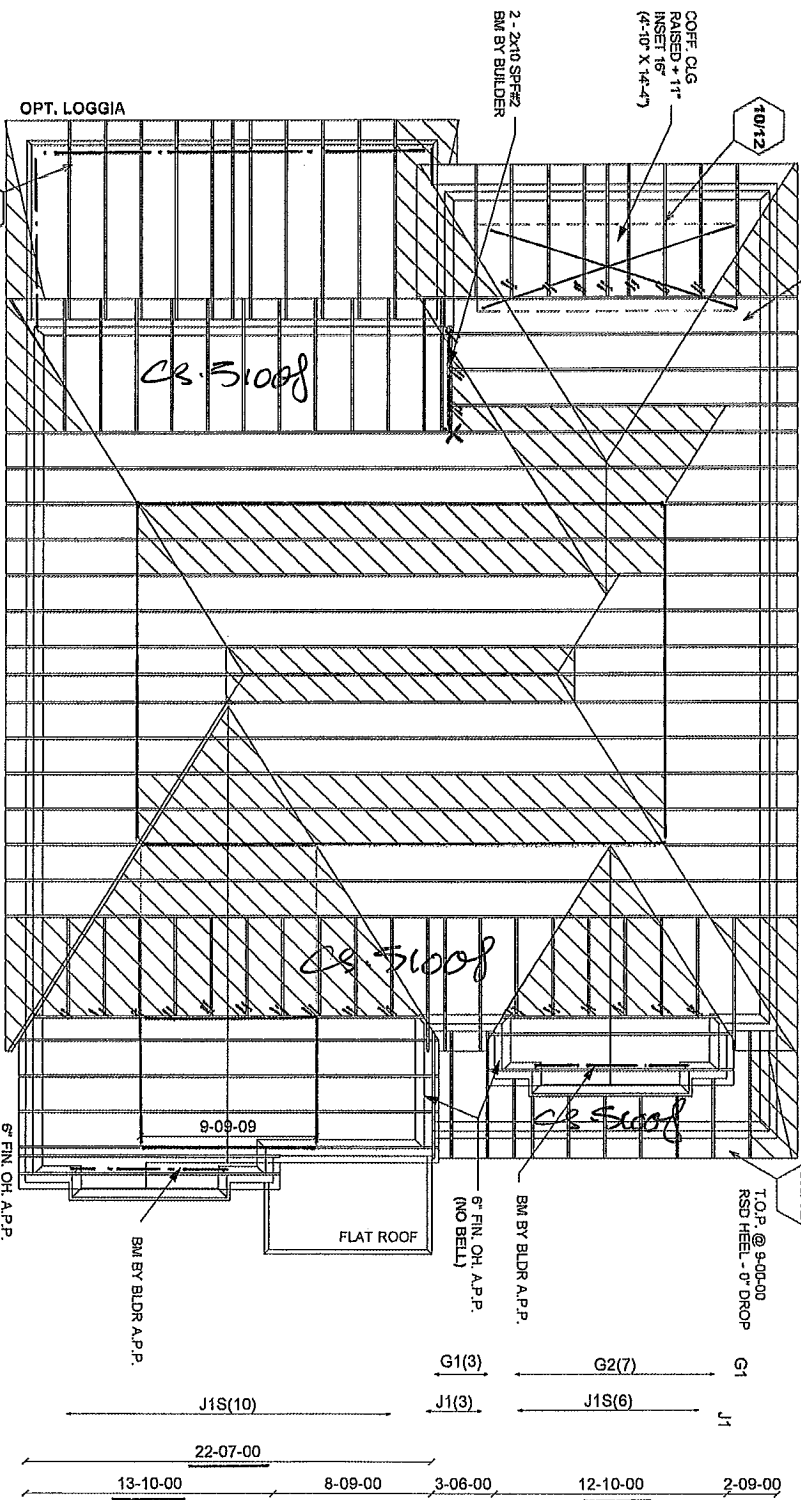
2-08-00 4-04-00 6-00-00 1-00-00

ALPA-BARRIE

H7T  
H8  
H9  
H10  
H1B  
H2  
H3  
H4P  
H5P  
H6P(3)  
H3(9)  
H5P  
H4P  
H2  
H1A

H24A  
H24  
H24G

41-08-00  
22-10-00  
18-10-00  
29-04-03  
J1(12)  
J1  
J1T(7)  
J1  
L1(11)



15" B/C EXT.  
BELL CURVE BY OTHERS  
RSD, HEEL - 0" DROP  
(2" X 6" FASCIA) - FM  
ASPHALT SHINGLES  
2" X 6" BRICK  
PIGBACK TRS  
PURLINS BY OTHERS  
CONFORM TRUSS LAYOUT DIRECTION  
P.L. 95914

A-18023829  
A-18023837  
A-18023843  
A-18023853  
A-18023856

ROSEVIEW

CONVENTIONAL  
FRAMING BY  
OTHERS



Job Track: 45147  
Layout ID: 292626  
Plan Log: 95914

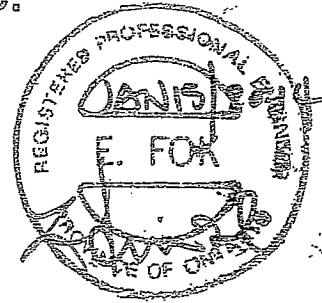
Butler / Location: GOLD PARK HOMES / VAUGHAN  
Project: PINE VALLEY  
Date: 1/18/2018  
Designer: AMANDA

Model / Elevation: 5002 REV1 / A OPT TRAY SIT  
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# **Stracon Engineering Inc.**

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



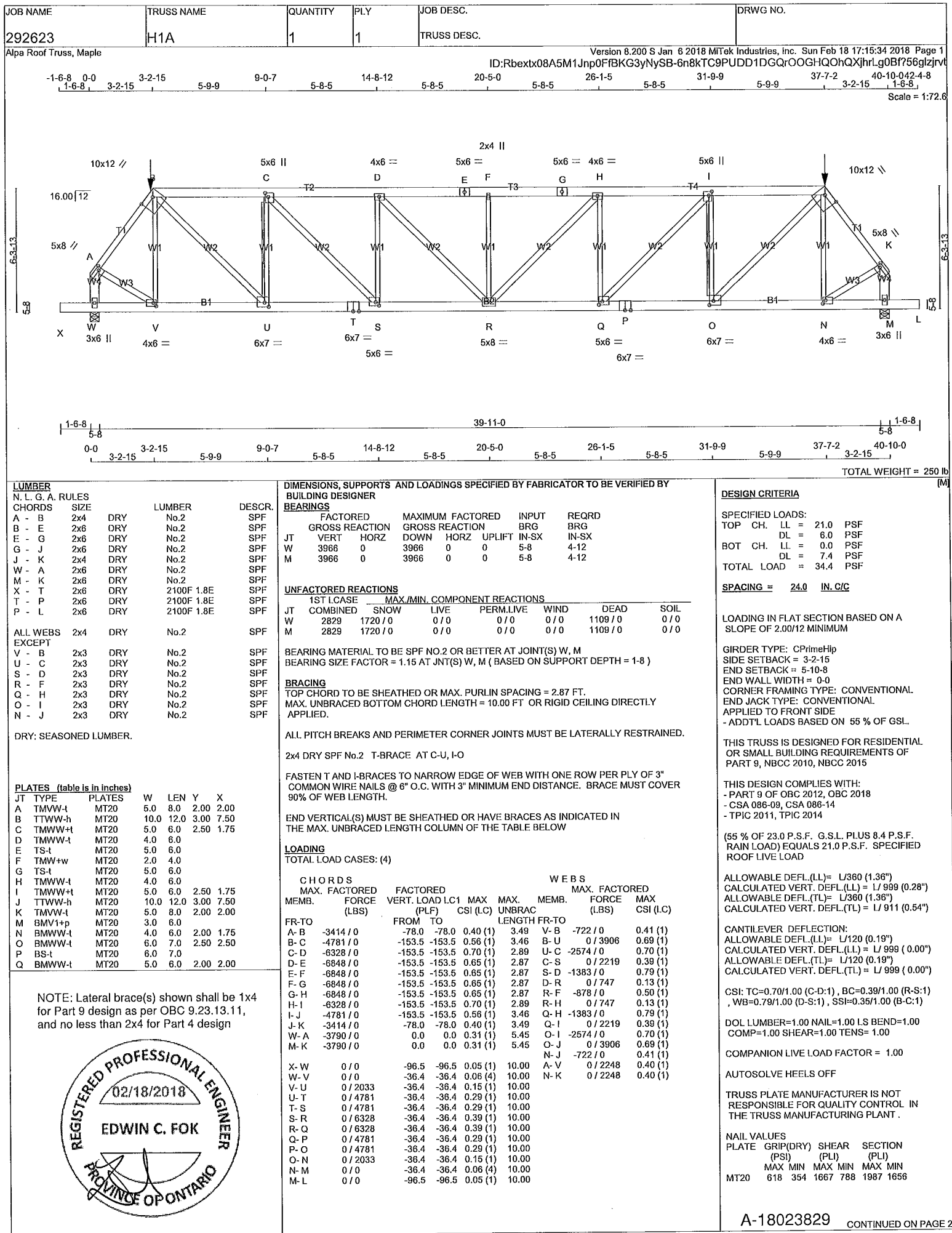
## RESPONSIBILITIES

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. |
| 292623   | H1A        | 1        | 1   | TRUSS DESC. |          |

| PLATES (table is in inches) |        |        |     |     |      |      |
|-----------------------------|--------|--------|-----|-----|------|------|
| JT                          | TYPE   | PLATES | W   | LEN | Y    | X    |
| R                           | BMWW-1 | MT20   | 5.0 | 8.0 |      |      |
| S                           | BMWW-1 | MT20   | 5.0 | 6.0 | 2.00 | 2.00 |
| T                           | BS-1   | MT20   | 6.0 | 7.0 |      |      |
| U                           | BMWW-1 | MT20   | 6.0 | 7.0 | 2.50 | 2.50 |
| V                           | BMWW-1 | MT20   | 4.0 | 6.0 | 2.00 | 1.75 |
| W                           | BMV1+p | MT20   | 3.0 | 6.0 |      |      |

| FACTORED CONCENTRATED LOADS (LBS) |        |      |      |      |       |      |       |
|-----------------------------------|--------|------|------|------|-------|------|-------|
| JT                                | LOC.   | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
| B                                 | 3-2-15 | -184 | -184 | —    | FRONT | VERT | TOTAL |
| J                                 | 37-7-2 | -184 | -184 | —    | FRONT | VERT | TOTAL |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

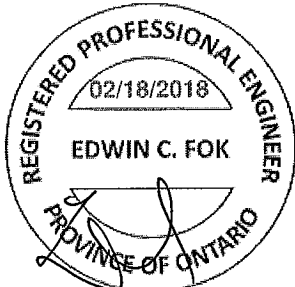
JSI GRIP= 0.83 (N) (INPUT = 0.90 )

JSI METAL= 0.72 (T) (INPUT = 1.00 )

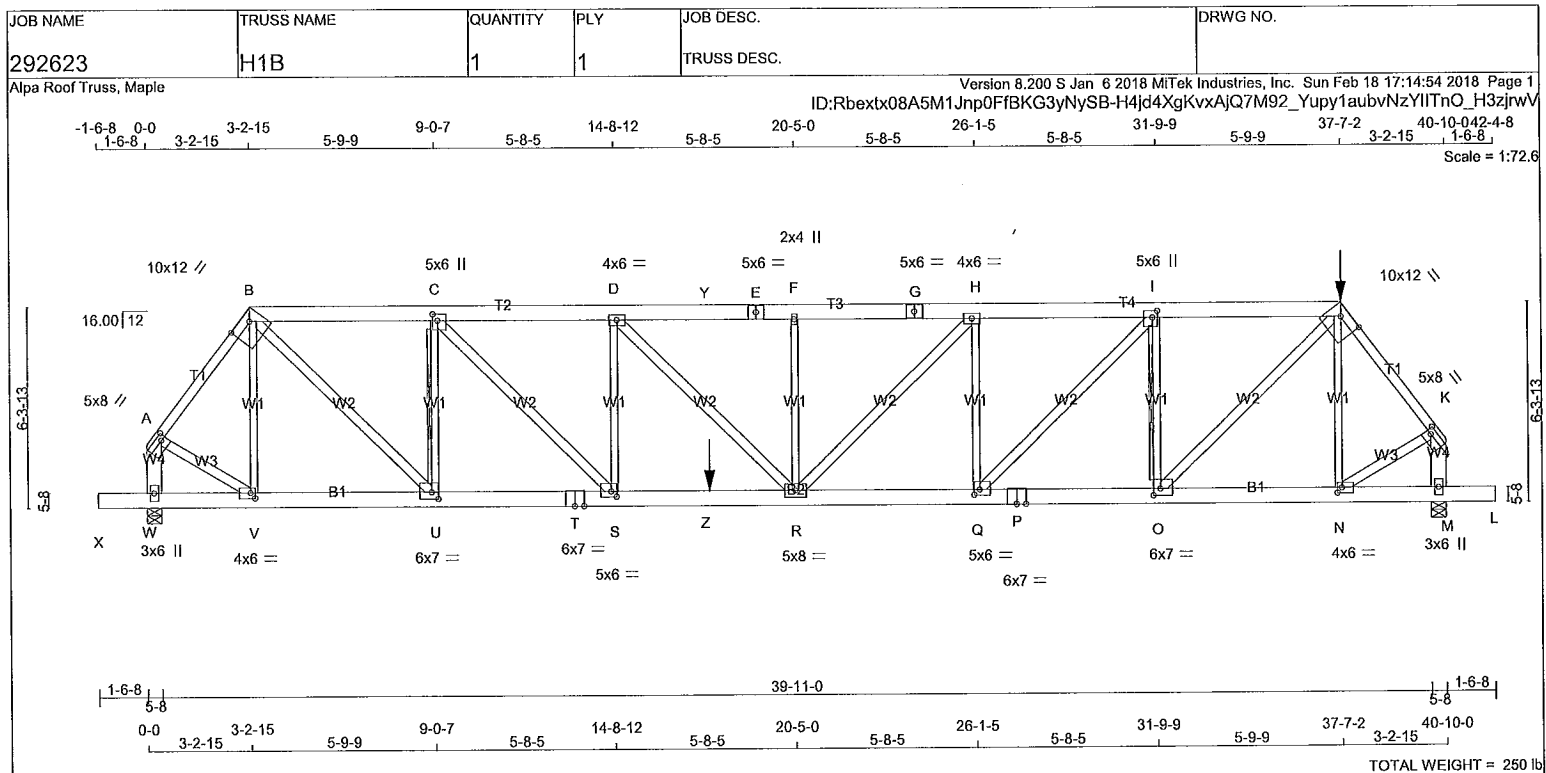
HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 184.5 lbs FACTORED DOWN AT 37-7-2, AND 184.5 lbs FACTORED DOWN AT 3-2-15 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



A-1823829(2)

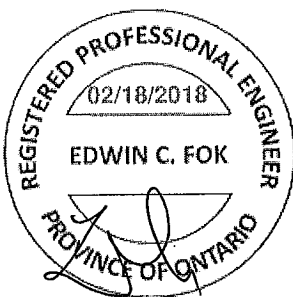


| LUMBER   |      |        |            | N. L. G. A. RULES |     |
|----------|------|--------|------------|-------------------|-----|
| CHORDS   | SIZE | LUMBER | DESCR.     |                   |     |
| A - B    | 2x4  | DRY    | No.2       | SPF               |     |
| B - E    | 2x6  | DRY    | No.2       | SPF               |     |
| E - G    | 2x6  | DRY    | No.2       | SPF               |     |
| G - J    | 2x6  | DRY    | No.2       | 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 |      |        |            | 2x4               | DRY |
| EXCEPT   |      |        |            | No.2              | SPF |
| V - B    | 2x3  | DRY    | No.2       | SPF               |     |
| U - C    | 2x3  | DRY    | No.2       | SPF               |     |
| S - D    | 2x3  | DRY    | No.2       | SPF               |     |
| R - F    | 2x3  | DRY    | No.2       | SPF               |     |
| Q - H    | 2x3  | DRY    | No.2       | SPF               |     |
| O - I    | 2x3  | DRY    | No.2       | SPF               |     |
| N - J    | 2x3  | DRY    | No.2       | SPF               |     |

DRY: SEASONED LUMBER.

| PLATES (table is in inches) |        |        |      |      |           |
|-----------------------------|--------|--------|------|------|-----------|
| JT                          | TYPE   | PLATES | W    | LEN  | Y X       |
| A                           | TMVW-t | MT20   | 5.0  | 8.0  | 2.00 2.00 |
| B                           | TTWW-h | MT20   | 10.0 | 12.0 | 3.00 7.50 |
| C                           | TMVW-t | MT20   | 5.0  | 6.0  | 2.50 1.75 |
| D                           | TMVW-t | MT20   | 4.0  | 6.0  |           |
| E                           | TS-t   | MT20   | 5.0  | 6.0  |           |
| F                           | TMVW-t | MT20   | 2.0  | 4.0  |           |
| G                           | TS-t   | MT20   | 5.0  | 6.0  |           |
| H                           | TMVW-t | MT20   | 4.0  | 6.0  |           |
| I                           | TMVW-t | MT20   | 5.0  | 6.0  | 2.50 1.75 |
| J                           | TTWW-h | MT20   | 10.0 | 12.0 | 3.00 7.50 |
| K                           | TMVW-t | MT20   | 5.0  | 8.0  | 2.00 2.00 |
| M                           | BMV1+p | MT20   | 3.0  | 6.0  |           |
| N                           | BMVW-t | MT20   | 4.0  | 6.0  | 2.00 1.75 |
| O                           | BMVW-t | MT20   | 6.0  | 7.0  | 2.50 2.50 |
| P                           | BS-t   | MT20   | 6.0  | 7.0  |           |
| Q                           | BMVW-t | MT20   | 5.0  | 6.0  | 2.00 2.00 |

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



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

##### BEARINGS

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQRD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|-----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | UPLIFT    | IN-SX | IN-SX     |  |
| W  | 3471                    | 0    | 3471                            | 0    | 0         | 5-8   | 3-8       |  |
| M  | 4158                    | 0    | 4158                            | 0    | 0         | 5-8   | 5-4       |  |

##### UNFACTORED REACTIONS

| JT | 1ST CASE COMBINED |      | MAX/MIN. SNOW |   | LIVE |   | PERM. LIVE |   | WIND |   | DEAD |   | SOIL |   |
|----|-------------------|------|---------------|---|------|---|------------|---|------|---|------|---|------|---|
|    | W                 | M    | W             | M | W    | M | W          | M | W    | M | W    | M | W    | M |
| W  | 2461              | 1577 | 0             | 0 | 0    | 0 | 0          | 0 | 0    | 0 | 884  | 0 | 0    | 0 |
| M  | 2956              | 1853 | 0             | 0 | 0    | 0 | 0          | 0 | 0    | 0 | 1103 | 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 = 2.64 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT 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. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO |                           |                           |          |
| A-B    | -2983 / 0                 | -78.0 -78.0               | 0.34 (1)                  | 3.76  | V-B                       | -650 / 0                  | 0.37 (1) |
| B-C    | -4468 / 0                 | -78.0 -78.0               | 0.33 (1)                  | 3.85  | B-U                       | 0 / 3825                  | 0.68 (1) |
| C-D    | -6685 / 0                 | -78.0 -78.0               | 0.53 (1)                  | 3.05  | U-C                       | -2774 / 0                 | 0.76 (1) |
| D-Y    | -7602 / 0                 | -78.0 -78.0               | 0.70 (1)                  | 2.69  | C-S                       | 0 / 3183                  | 0.56 (1) |
| Y-E    | -7602 / 0                 | -153.5 -153.5             | 0.70 (1)                  | 2.69  | S-D                       | -1407 / 0                 | 0.80 (1) |
| E-F    | -7602 / 0                 | -153.5 -153.5             | 0.70 (1)                  | 2.69  | D-R                       | 0 / 1317                  | 0.23 (1) |
| F-G    | -7602 / 0                 | -153.5 -153.5             | 0.74 (1)                  | 2.64  | R-F                       | -837 / 0                  | 0.48 (1) |
| G-H    | -7602 / 0                 | -153.5 -153.5             | 0.74 (1)                  | 2.64  | H-R                       | 0 / 1169                  | 0.21 (1) |
| H-I    | -6788 / 0                 | -153.5 -153.5             | 0.74 (1)                  | 2.75  | Q-H                       | -1697 / 0                 | 0.97 (1) |
| I-J    | -5083 / 0                 | -153.5 -153.5             | 0.58 (1)                  | 3.34  | Q-I                       | 0 / 2447                  | 0.43 (1) |
| J-K    | -3591 / 0                 | -78.0 -78.0               | 0.42 (1)                  | 3.39  | O-I                       | -2734 / 0                 | 0.75 (1) |
| W-A    | -3328 / 0                 | 0.0 0.0                   | 0.27 (1)                  | 5.77  | O-J                       | 0 / 4186                  | 0.74 (1) |
| M-K    | -3980 / 0                 | 0.0 0.0                   | 0.32 (1)                  | 5.33  | N-J                       | -780 / 0                  | 0.45 (1) |
| X-W    | 0 / 0                     | -96.5 -96.5               | 0.05 (1)                  | 10.00 | A-V                       | 0 / 1964                  | 0.35 (1) |
| W-V    | 0 / 0                     | -18.5 -18.5               | 0.05 (1)                  | 10.00 | N-K                       | 0 / 2365                  | 0.42 (1) |
| V-U    | 0 / 1776                  | -18.5 -18.5               | 0.14 (1)                  | 10.00 |                           |                           |          |
| U-T    | 0 / 4468                  | -18.5 -18.5               | 0.45 (1)                  | 10.00 |                           |                           |          |
| T-S    | 0 / 4468                  | -18.5 -18.5               | 0.45 (1)                  | 10.00 |                           |                           |          |
| S-Z    | 0 / 6685                  | -18.5 -18.5               | 0.91 (1)                  | 10.00 |                           |                           |          |
| Z-R    | 0 / 6685                  | -36.4 -36.4               | 0.91 (1)                  | 10.00 |                           |                           |          |
| R-Q    | 0 / 6788                  | -36.4 -36.4               | 0.57 (1)                  | 10.00 |                           |                           |          |
| Q-P    | 0 / 5083                  | -36.4 -36.4               | 0.34 (1)                  | 10.00 |                           |                           |          |
| P-O    | 0 / 5083                  | -36.4 -36.4               | 0.34 (1)                  | 10.00 |                           |                           |          |
| O-N    | 0 / 2139                  | -36.4 -36.4               | 0.15 (1)                  | 10.00 |                           |                           |          |
| N-M    | 0 / 0                     | -36.4 -36.4               | 0.06 (4)                  | 10.00 |                           |                           |          |
| M-L    | 0 / 0                     | -96.5 -96.5               | 0.05 (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 |           |     |

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp  
SIDE SETBACK = 3-2-15  
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 23-3-0 OF SPAN MEASURED FROM THE RIGHT.

\*\*\* 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 (0.37")  
ALLOWABLE DEFL.(TL) = L/360 (1.36")  
CALCULATED VERT. DEFL.(TL) = L/729 (0.67")

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=0.74/1.00 (H-I:1), BC=0.91/1.00 (R-S:1), WB=0.97/1.00 (H-Q:1), SSI=0.48/1.00 (R-S: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-18023830

CONTINUED ON PAGE 2

|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292623   | H1B        | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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**PLATES (table is in inches)**

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| R  | BMWWW-t | MT20   | 5.0 | 8.0 |      |      |
| S  | BMWW-t  | MT20   | 5.0 | 6.0 | 2.00 | 2.00 |
| T  | BS-t    | MT20   | 6.0 | 7.0 |      |      |
| U  | BMWW-t  | MT20   | 6.0 | 7.0 | 2.50 | 2.50 |
| V  | BMWW-t  | MT20   | 4.0 | 6.0 | 2.00 | 1.75 |
| W  | BMV1+p  | MT20   | 3.0 | 6.0 |      |      |

**FACTORED CONCENTRATED LOADS (LBS)**

| JT | LOC.   | LC1   | MAX-  | MAX+ | FACE  | DIR. | TYPE  |
|----|--------|-------|-------|------|-------|------|-------|
| J  | 37-7-2 | -184  | -184  | ---  | FRONT | VERT | TOTAL |
| Z  | 17-8-8 | -1280 | -1280 | ---  | FRONT | VERT | TOTAL |

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

**NAIL VALUES**

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

PLATE PLACEMENT TOL. = 0.250 inches

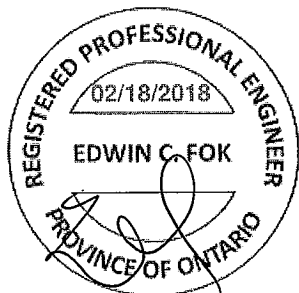
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (U) (INPUT = 0.90 )  
JSI METAL= 0.88 (T) (INPUT = 1.00 )

**HANGERS NOTES**

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 184.5 lbs FACTORED DOWN AT 37-7-2 ON TOP CHORD, AND 1279.7 lbs FACTORED DOWN AT 17-8-8 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



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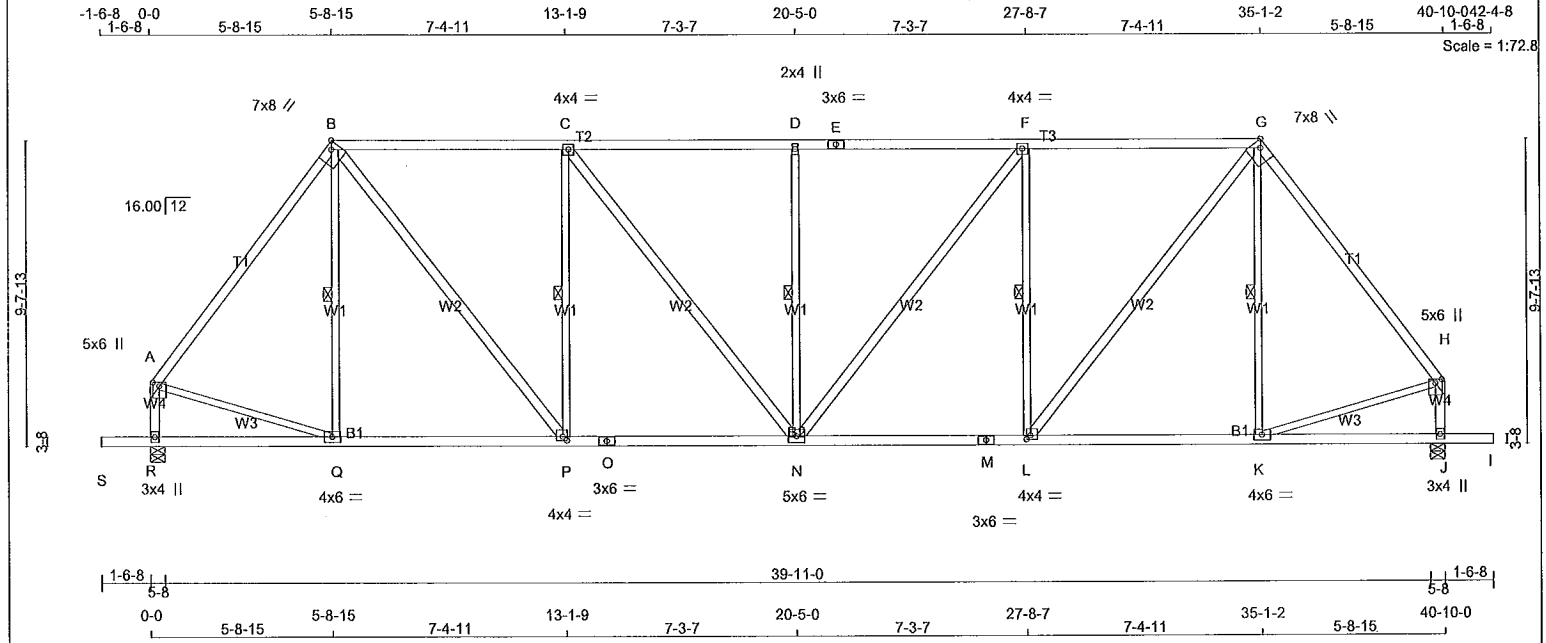


| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292623   | H3         | 11       | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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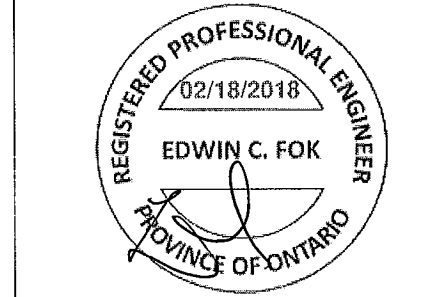
| LUMBER          | N. L. G. A. RULES | CHORDS | SIZE | LUMBER | DESCR. |
|-----------------|-------------------|--------|------|--------|--------|
| A - B           | 2x4               | DRY    | No.2 | SPF    |        |
| B - E           | 2x4               | DRY    | No.2 | SPF    |        |
| E - 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 EXCEPT | 2x3               | DRY    | No.2 | SPF    |        |
| 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 |      | FACTORED       |      | MAXIMUM FACTORED |      | INPUT |        | REQRD |       |
|----------|------|----------------|------|------------------|------|-------|--------|-------|-------|
| JT       | VERT | GROSS REACTION | HORZ | GROSS REACTION   | HORZ | DOWN  | UPLIFT | BRG   | IN-SX |
| R        | 2228 | 0              | 2228 | 0                | 0    | 5-8   | 3-9    |       |       |
| J        | 2228 | 0              | 2228 | 0                | 0    | 5-8   | 3-9    |       |       |

| UNFACTORED REACTIONS |          | 1ST LCASE |       | MAX/MIN. COMPONENT REACTIONS |       | WIND    |       | DEAD |  | SOIL |  |
|----------------------|----------|-----------|-------|------------------------------|-------|---------|-------|------|--|------|--|
| JT                   | COMBINED | SNOW      | LIVE  | PERM.LIVE                    | WIND  | DEAD    | SOIL  |      |  |      |  |
| R                    | 1598     | 922 / 0   | 0 / 0 | 0 / 0                        | 0 / 0 | 677 / 0 | 0 / 0 |      |  |      |  |
| J                    | 1598     | 922 / 0   | 0 / 0 | 0 / 0                        | 0 / 0 | 677 / 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 = 4.51 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.

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. UNBRACED LENGTH (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC) |          |
| FR-TO  |                           | FROM TO                   |                           | FR-TO |                           |                           |          |
| A-B    | -1879 / 0                 | -78.0 -78.0               | 0.53 (1)                  | 4.51  | Q-B                       | -174 / 16                 | 0.11 (1) |
| B-C    | -2068 / 0                 | -85.5 -85.5               | 0.67 (1)                  | 2.00  | B-P                       | 0 / 1524                  | 0.24 (1) |
| C-D    | -2343 / 0                 | -85.5 -85.5               | 0.67 (1)                  | 2.00  | P-C                       | -1057 / 0                 | 0.66 (1) |
| D-E    | -2343 / 0                 | -85.5 -85.5               | 0.67 (1)                  | 2.00  | C-N                       | 0 / 447                   | 0.07 (1) |
| E-F    | -2343 / 0                 | -85.5 -85.5               | 0.67 (1)                  | 2.00  | N-D                       | -574 / 0                  | 0.36 (1) |
| F-G    | -2068 / 0                 | -85.5 -85.5               | 0.67 (1)                  | 2.00  | N-F                       | 0 / 447                   | 0.07 (1) |
| G-H    | -1879 / 0                 | -78.0 -78.0               | 0.53 (1)                  | 4.51  | L-F                       | -1057 / 0                 | 0.66 (1) |
| R-A    | -2039 / 0                 | 0.0 0.0                   | 0.23 (1)                  | 5.92  | L-G                       | 0 / 1524                  | 0.24 (1) |
| J-H    | -2039 / 0                 | 0.0 0.0                   | 0.23 (1)                  | 5.92  | K-G                       | -174 / 16                 | 0.11 (1) |
|        |                           |                           |                           |       | A-Q                       | 0 / 1164                  | 0.26 (1) |
|        |                           |                           |                           |       | K-H                       | 0 / 1164                  | 0.26 (1) |
| S-R    | 0 / 0                     | -96.5 -96.5               | 0.16 (1)                  | 10.00 |                           |                           |          |
| R-Q    | 0 / 0                     | -18.5 -18.5               | 0.19 (4)                  | 10.00 |                           |                           |          |
| Q-P    | 0 / 1121                  | -18.5 -18.5               | 0.31 (4)                  | 10.00 |                           |                           |          |
| P-O    | 0 / 2068                  | -18.5 -18.5               | 0.44 (1)                  | 10.00 |                           |                           |          |
| O-N    | 0 / 2068                  | -18.5 -18.5               | 0.44 (1)                  | 10.00 |                           |                           |          |
| N-M    | 0 / 2068                  | -18.5 -18.5               | 0.44 (1)                  | 10.00 |                           |                           |          |
| M-L    | 0 / 2068                  | -18.5 -18.5               | 0.44 (1)                  | 10.00 |                           |                           |          |
| L-K    | 0 / 1121                  | -18.5 -18.5               | 0.31 (4)                  | 10.00 |                           |                           |          |
| K-J    | 0 / 0                     | -18.5 -18.5               | 0.19 (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 (0.24")

**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=0.67/1.00 (B-C:1), BC=0.44/1.00 (N-P:1), WB=0.66/1.00 (F-L: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 (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

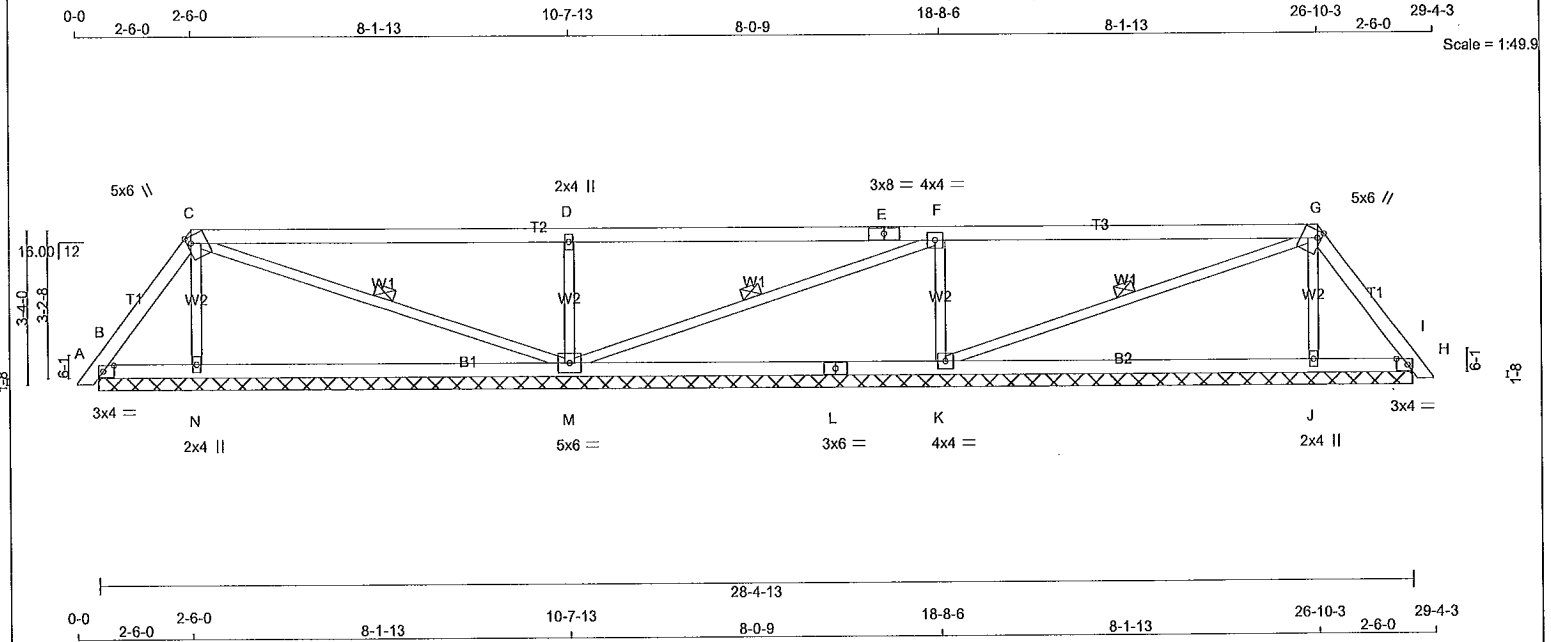
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (L) (INPUT = 0.90)  
JSI METAL= 0.63 (A) (INPUT = 1.00)

|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292623   | H4P        | 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. |                   |        |      |        |        |

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

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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG           | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|---------------------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |                     |           |
| B  | 162                     | 0    | 162                             | 0    | 28-4-13 (12-523-13) |           |
| N  | 371                     | 0    | 371                             | 0    | 28-4-13 (12-523-13) |           |
| M  | 878                     | 0    | 878                             | 0    | 28-4-13 (12-523-13) |           |
| K  | 841                     | 0    | 841                             | 0    | 28-4-13 (12-523-13) |           |
| J  | 361                     | 0    | 361                             | 0    | 28-4-13 (12-523-13) |           |
| H  | 181                     | 0    | 181                             | 0    | 28-4-13 (12-523-13) |           |

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

#### UNFACTORED REACTIONS

| JT | COMBINED | MAX/MIN. COMPONENT REACTIONS |       |       |            | WIND    | DEAD  | SOIL |
|----|----------|------------------------------|-------|-------|------------|---------|-------|------|
|    |          | 1ST LCASE                    | SNOW  | LIVE  | PERM. LIVE |         |       |      |
| B  | 110      | 97 / 0                       | 0 / 0 | 0 / 0 | 0 / 0      | 14 / 0  | 0 / 0 |      |
| N  | 271      | 131 / 0                      | 0 / 0 | 0 / 0 | 0 / 0      | 140 / 0 | 0 / 0 |      |
| M  | 624      | 391 / 0                      | 0 / 0 | 0 / 0 | 0 / 0      | 233 / 0 | 0 / 0 |      |
| K  | 598      | 371 / 0                      | 0 / 0 | 0 / 0 | 0 / 0      | 228 / 0 | 0 / 0 |      |
| J  | 264      | 125 / 0                      | 0 / 0 | 0 / 0 | 0 / 0      | 139 / 0 | 0 / 0 |      |
| H  | 123      | 107 / 0                      | 0 / 0 | 0 / 0 | 0 / 0      | 16 / 0  | 0 / 0 |      |

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

#### BRACING

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

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

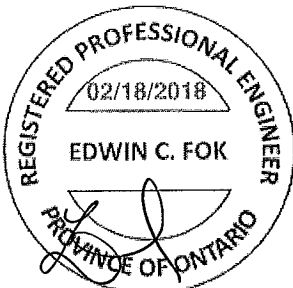
1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-M, F-M, G-K.

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                | WEBS  |                           |               |          |
|--------|---------------------------|---------------------------|----------------|-------|---------------------------|---------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. CSI (LC)  | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |          |
| FR-TO  |                           | FROM TO                   |                | FR-TO |                           |               |          |
| A-B    | 0 / 10                    | -78.0                     | -78.0 0.01 (1) | 10.00 | N-C                       | -243 / 0      | 0.05 (1) |
| B-C    | -90 / 0                   | -78.0                     | -78.0 0.05 (1) | 6.25  | C-M                       | -53 / 0       | 0.03 (1) |
| C-D    | 0 / 8                     | -78.0                     | -78.0 0.70 (1) | 10.00 | M-D                       | -694 / 0      | 0.13 (1) |
| D-E    | 0 / 7                     | -78.0                     | -78.0 0.70 (1) | 10.00 | M-F                       | -41 / 0       | 0.02 (1) |
| E-F    | 0 / 7                     | -78.0                     | -78.0 0.70 (1) | 10.00 | K-F                       | -680 / 0      | 0.13 (1) |
| F-G    | -31 / 0                   | -78.0                     | -78.0 0.70 (1) | 6.25  | K-G                       | -27 / 0       | 0.01 (1) |
| G-H    | -113 / 0                  | -78.0                     | -78.0 0.05 (1) | 6.25  | J-G                       | -233 / 0      | 0.04 (1) |
| H-I    | 0 / 10                    | -78.0                     | -78.0 0.01 (1) | 10.00 |                           |               |          |
| B-N    | 0 / 52                    | -18.5                     | -18.5 0.19 (4) | 10.00 |                           |               |          |
| N-M    | 0 / 43                    | -18.5                     | -18.5 0.25 (4) | 10.00 |                           |               |          |
| M-L    | 0 / 32                    | -18.5                     | -18.5 0.25 (4) | 10.00 |                           |               |          |
| L-K    | 0 / 32                    | -18.5                     | -18.5 0.25 (4) | 10.00 |                           |               |          |
| K-J    | 0 / 57                    | -18.5                     | -18.5 0.25 (4) | 10.00 |                           |               |          |
| J-H    | 0 / 65                    | -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



#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.70/1.00 (F-G:1), BC=0.25/1.00 (J-K:4), WB=0.13/1.00 (D-M:1), SSI=0.30/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

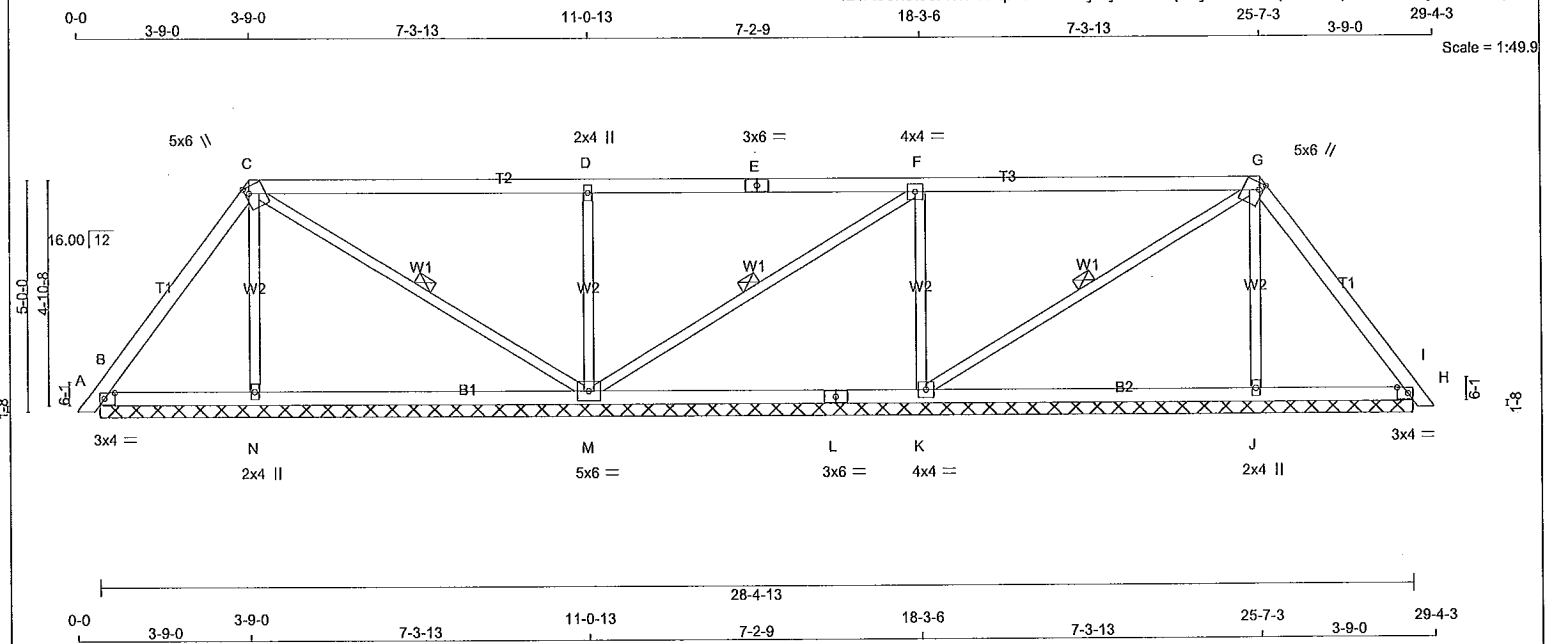
JSI GRIP= 0.90 (M) (INPUT = 0.90 )  
JSI METAL= 0.52 (E) (INPUT = 1.00 )

A-18023833

|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292623   | H5P        | 2        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 106 = 211 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    |        |
| 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       |      | MAXIMUM FACTORED |        | INPUT             |       | REQD |  |
|----------|------|----------------|------|------------------|--------|-------------------|-------|------|--|
|          |      | GROSS REACTION |      | GROSS REACTION   |        | BRG               |       | BRG  |  |
| JT       | VERT | HORZ           | DOWN | HORZ             | UPLIFT | IN-SX             | IN-SX |      |  |
| B        | 246  | 0              | 246  | 0                | 0      | 28-4-13 (12-520-9 |       |      |  |
| N        | 341  | 0              | 341  | 0                | 0      | 28-4-13 (12-520-9 |       |      |  |
| M        | 862  | 0              | 862  | 0                | 0      | 28-4-13 (12-520-9 |       |      |  |
| K        | 728  | 0              | 728  | 0                | 0      | 28-4-13 (12-520-9 |       |      |  |
| J        | 333  | 0              | 333  | 0                | 0      | 28-4-13 (12-520-9 |       |      |  |
| H        | 285  | 0              | 285  | 0                | 0      | 28-4-13 (12-520-9 |       |      |  |

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | SNOW    | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|---------|-------|-----------|-------|---------|-------|
| B  | 171       | 125 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 46 / 0  | 0 / 0 |
| N  | 248       | 122 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 126 / 0 | 0 / 0 |
| M  | 611       | 390 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 221 / 0 | 0 / 0 |
| K  | 519       | 319 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 200 / 0 | 0 / 0 |
| J  | 243       | 118 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 124 / 0 | 0 / 0 |
| H  | 199       | 147 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 52 / 0  | 0 / 0 |

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

#### BRACING

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

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                            | WEBS  |                           |                            |  |
|--------|---------------------------|---------------------------|----------------------------|-------|---------------------------|----------------------------|--|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. UNBRACED LENGTH (LC1) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (LC1) |  |
| FR-TO  |                           | FROM TO                   |                            | FR-TO |                           |                            |  |
| A-B    | 0 / 10                    | -78.0 -78.0               | 0.01 (1)                   | N-C   | -228 / 0                  | 0.08 (1)                   |  |
| B-C    | -96 / 0                   | -78.0 -78.0               | 0.14 (1)                   | C-M   | -98 / 0                   | 0.05 (1)                   |  |
| C-D    | 0 / 33                    | -78.0 -78.0               | 0.57 (1)                   | M-D   | -623 / 0                  | 0.22 (1)                   |  |
| D-E    | 0 / 32                    | -78.0 -78.0               | 0.57 (1)                   | M-F   | -94 / 0                   | 0.05 (1)                   |  |
| E-F    | 0 / 32                    | -78.0 -78.0               | 0.57 (1)                   | K-F   | -572 / 0                  | 0.20 (1)                   |  |
| F-G    | -47 / 0                   | -78.0 -78.0               | 0.56 (1)                   | K-G   | -38 / 0                   | 0.02 (1)                   |  |
| G-H    | -145 / 0                  | -78.0 -78.0               | 0.14 (1)                   | J-G   | -220 / 0                  | 0.08 (1)                   |  |
| H-I    | 0 / 10                    | -78.0 -78.0               | 0.01 (1)                   |       |                           |                            |  |
| B-N    | 0 / 66                    | -18.5 -18.5               | 0.15 (4)                   |       |                           |                            |  |
| N-M    | 0 / 51                    | -18.5 -18.5               | 0.20 (4)                   |       |                           |                            |  |
| M-L    | 0 / 47                    | -18.5 -18.5               | 0.20 (4)                   |       |                           |                            |  |
| L-K    | 0 / 47                    | -18.5 -18.5               | 0.20 (4)                   |       |                           |                            |  |
| K-J    | 0 / 80                    | -18.5 -18.5               | 0.20 (4)                   |       |                           |                            |  |
| J-H    | 0 / 85                    | -18.5 -18.5               | 0.15 (4)                   |       |                           |                            |  |

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

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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=0.57/1.00 (D-F:1), BC=0.20/1.00 (J-K:4), WB=0.22/1.00 (D-M:1), SSI=0.27/1.00 (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) |
|-------------|-----------------|-------------|---------------|
| MT20        | 618             | 354         | 1667          |
|             |                 |             | 788           |
|             |                 |             | 1987          |
|             |                 |             | 1656          |

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (C) (INPUT = 0.90 )  
JSI METAL= 0.26 (E) (INPUT = 1.00 )

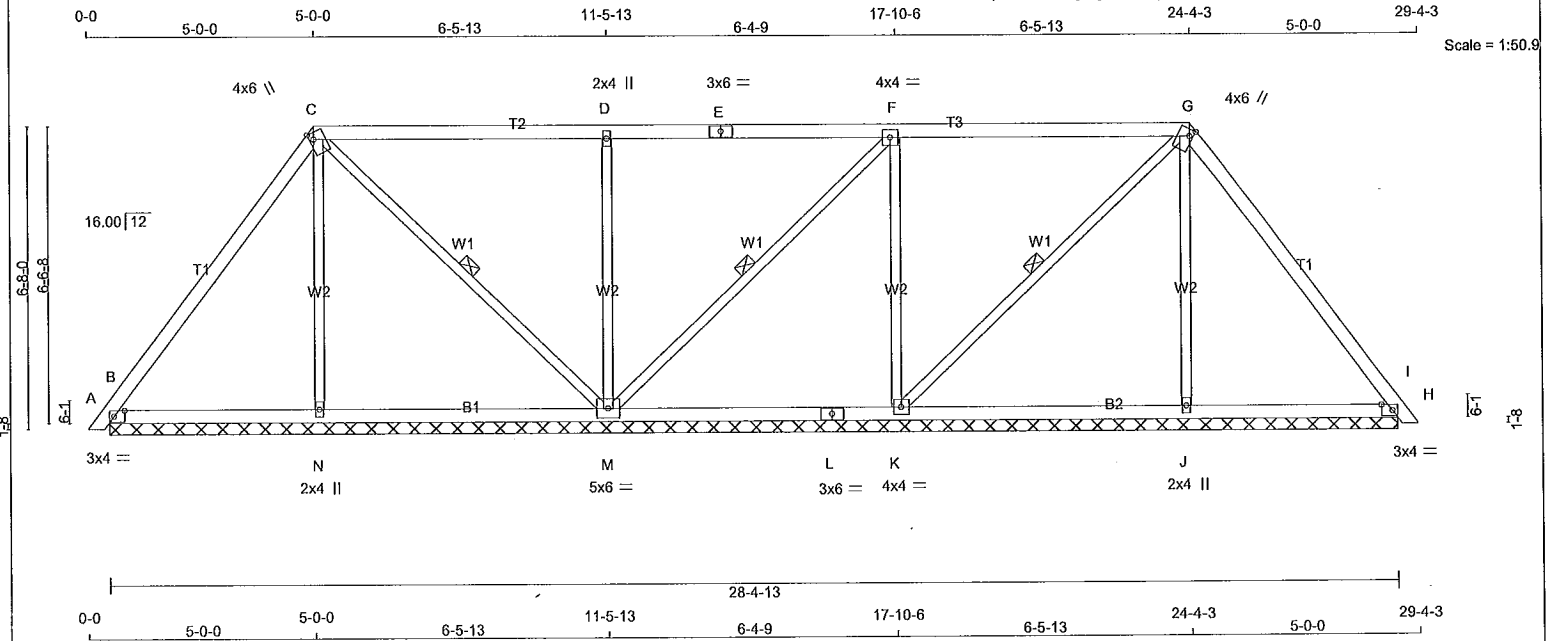
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| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292623   | H6P        | 3        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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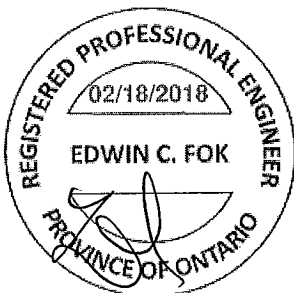


TOTAL WEIGHT = 3 X 114 = 341 lb

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

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

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



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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG           | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|---------------------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |                     |           |
| B  | 308                     | 0    | 308                             | 0    | 28-4-13 (12-5/8)-10 |           |
| N  | 322                     | 0    | 322                             | 0    | 28-4-13 (12-5/8)-10 |           |
| M  | 867                     | 0    | 867                             | 0    | 28-4-13 (12-5/8)-10 |           |
| K  | 610                     | 0    | 610                             | 0    | 28-4-13 (12-5/8)-10 |           |
| J  | 320                     | 0    | 320                             | 0    | 28-4-13 (12-5/8)-10 |           |
| H  | 367                     | 0    | 367                             | 0    | 28-4-13 (12-5/8)-10 |           |

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN. COMPONENT REACTIONS |       |           |       |         |       |
|----|-----------|------------------------------|-------|-----------|-------|---------|-------|
|    | COMBINED  | SNOW                         | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| B  | 217       | 150 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 67 / 0  | 0 / 0 |
| N  | 235       | 113 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 123 / 0 | 0 / 0 |
| M  | 613       | 402 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 210 / 0 | 0 / 0 |
| K  | 435       | 264 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 171 / 0 | 0 / 0 |
| J  | 234       | 111 / 0                      | 0 / 0 | 0 / 0     | 0 / 0 | 122 / 0 | 0 / 0 |
| H  | 258       | 181 / 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)

| MEMB. | CHORDS                    |                  | FACTORED     |               | WEBS                      |                    |
|-------|---------------------------|------------------|--------------|---------------|---------------------------|--------------------|
|       | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | LC1 MAX (LC) | UNBRAC LENGTH | MAX. FACTORED FORCE (LBS) | MAX. FACTORED (LC) |
| FR-TO |                           | FROM             | TO           |               | FR-TO                     |                    |
| A-B   | 0/10                      | -78.0            | -78.0        | 0.01 (1)      | N-C                       | -209/0             |
| B-C   | -92/0                     | -78.0            | -78.0        | 0.27 (1)      | C-M                       | -139/0             |
| C-D   | 0/50                      | -78.0            | -78.0        | 0.45 (1)      | M-D                       | -551/0             |
| D-E   | 0/50                      | -78.0            | -78.0        | 0.45 (1)      | M-F                       | -143/0             |
| E-F   | 0/50                      | -78.0            | -78.0        | 0.45 (1)      | K-F                       | -461/0             |
| F-G   | -51/0                     | -78.0            | -78.0        | 0.44 (1)      | K-G                       | -58/0              |
| G-H   | -165/0                    | -78.0            | -78.0        | 0.28 (1)      | J-G                       | -207/0             |
| H-I   | 0/10                      | -78.0            | -78.0        | 0.01 (1)      |                           |                    |
| B-N   | 0/54                      | -18.5            | -18.5        | 0.14 (4)      |                           |                    |
| N-M   | 0/50                      | -18.5            | -18.5        | 0.15 (4)      |                           |                    |
| M-L   | 0/52                      | -18.5            | -18.5        | 0.15 (4)      |                           |                    |
| L-K   | 0/52                      | -18.5            | -18.5        | 0.15 (4)      |                           |                    |
| K-J   | 0/94                      | -18.5            | -18.5        | 0.15 (4)      |                           |                    |
| J-H   | 0/97                      | -18.5            | -18.5        | 0.14 (4)      |                           |                    |

#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2012, OBC 2018  
- CSA 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=0.45/1.00 (D-F:1), BC=0.15/1.00 (J-K:4), WB=0.39/1.00 (D-M:1), SSI=0.24/1.00 (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.

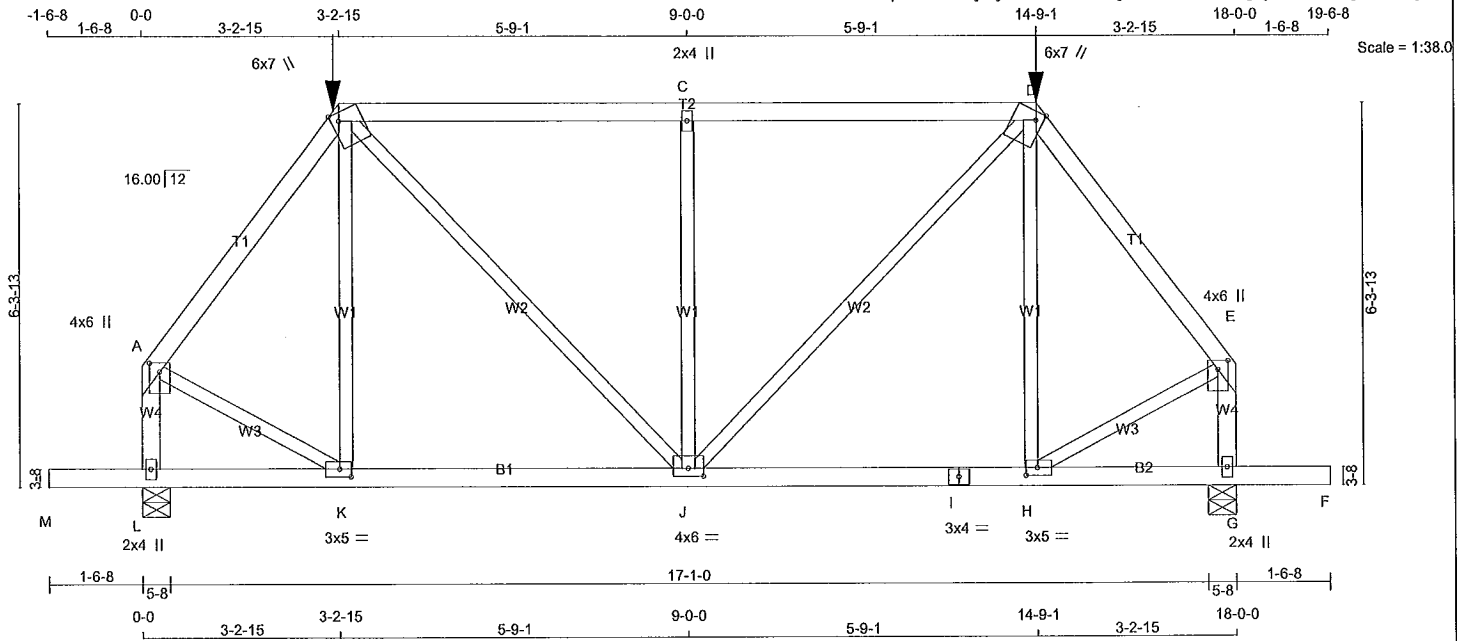
JSI GRIP= 0.64 (G) (INPUT = 0.90)  
JSI METAL= 0.17 (H) (INPUT = 1.00)

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| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292623   | H7         | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 86 lb

| 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 - E  | 2x4               | DRY    | No.2       | SPF    |        |
| L - A  | 2x4               | DRY    | No.2       | SPF    |        |
| G - E  | 2x4               | DRY    | No.2       | SPF    |        |
| M - I  | 2x4               | DRY    | No.2       | SPF    |        |
| I - F  | 2x4               | DRY    | No.2       | SPF    |        |

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| A  | TMVW+p | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| B  | TTWW+m | MT20   | 6.0 | 7.0 | Edge | 1.50 |
| C  | TMVW+w | MT20   | 2.0 | 4.0 |      |      |
| D  | TTWW+m | MT20   | 6.0 | 7.0 | Edge | 1.50 |
| E  | TMVW+p | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| G  | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| H  | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |
| I  | BS-t   | MT20   | 3.0 | 4.0 |      |      |
| J  | BMVW-t | MT20   | 4.0 | 6.0 | 1.50 | 3.00 |
| K  | BMVW-t | MT20   | 3.0 | 5.0 | 1.50 | 2.25 |
| L  | 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) 184.5 lbs FACTORED DOWN AT 14-9-1, AND 184.5 lbs FACTORED DOWN AT 3-2-15 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 | REQD BRG |
|----|-------------------------|---------------------------------|-----------|----------|
| JT | VERT                    | HORZ                            | DOWN      | HORZ     |
| L  | 1798                    | 0                               | 1798      | 0        |
| G  | 1798                    | 0                               | 1798      | 0        |

##### UNFACTORED REACTIONS

|    | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|----|-----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| L  | 1283      | 776 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 507 / 0 | 0 / 0 |
| G  | 1283      | 776 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 507 / 0 | 0 / 0 |

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

##### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.35 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                        | WEBS  |                           |                        |          |
|--------|---------------------------|---------------------------|------------------------|-------|---------------------------|------------------------|----------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX. FACTORED CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) |          |
| FR-TO  |                           | FROM TO                   |                        | FR-TO |                           |                        |          |
| A-B    | -1364 / 0                 | -78.0 -78.0               | 0.20 (1)               | 5.33  | K-B                       | -204 / 51              | 0.13 (1) |
| B-C    | -1426 / 0                 | -153.5 -153.5             | 0.85 (1)               | 4.35  | B-J                       | 0 / 891                | 0.22 (1) |
| C-D    | -1426 / 0                 | -153.5 -153.5             | 0.85 (1)               | 4.35  | J-C                       | -1073 / 0              | 0.70 (1) |
| D-E    | -1364 / 0                 | -78.0 -78.0               | 0.20 (1)               | 5.33  | J-D                       | 0 / 891                | 0.22 (1) |
| L-A    | -1612 / 0                 | 0.0 0.0                   | 0.20 (1)               | 6.47  | H-D                       | -204 / 51              | 0.13 (1) |
| G-E    | -1612 / 0                 | 0.0 0.0                   | 0.20 (1)               | 6.47  | A-K                       | 0 / 901                | 0.22 (1) |
|        |                           |                           |                        |       | H-E                       | 0 / 901                | 0.22 (1) |
| M-L    | 0 / 0                     | -96.5 -96.5               | 0.17 (1)               | 10.00 |                           |                        |          |
| L-K    | 0 / 0                     | -36.4 -36.4               | 0.20 (4)               | 10.00 |                           |                        |          |
| K-J    | 0 / 809                   | -36.4 -36.4               | 0.35 (4)               | 10.00 |                           |                        |          |
| J-I    | 0 / 809                   | -36.4 -36.4               | 0.35 (4)               | 10.00 |                           |                        |          |
| I-H    | 0 / 809                   | -36.4 -36.4               | 0.35 (4)               | 10.00 |                           |                        |          |
| H-G    | 0 / 0                     | -36.4 -36.4               | 0.20 (4)               | 10.00 |                           |                        |          |
| G-F    | 0 / 0                     | -96.5 -96.5               | 0.17 (1)               | 10.00 |                           |                        |          |

##### FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.   | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
|----|--------|------|------|------|-------|------|-------|
| B  | 3-2-15 | -184 | -184 | ---  | FRONT | VERT | TOTAL |
| D  | 14-9-1 | -184 | -184 | ---  | 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

SIDE SETBACK = 3-2-15

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 (0.60")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")  
ALLOWABLE DEFL.(TL)= L/360 (0.60")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.07")

CANTILEVER DEFLECTION:

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

CSI: TC=0.85/1.00 (C-D:1), BC=0.35/1.00 (H-J:4), WB=0.70/1.00 (C-J:1), SI=0.47/1.00 (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

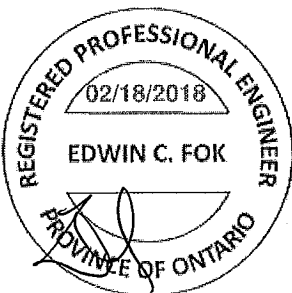
| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|---------|
|       | (PSI)     | (PLI) | (PLI)   |
| MT20  | 618       | 354   | 1667    |
|       | 788       | 1987  | 1656    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

A-18023836

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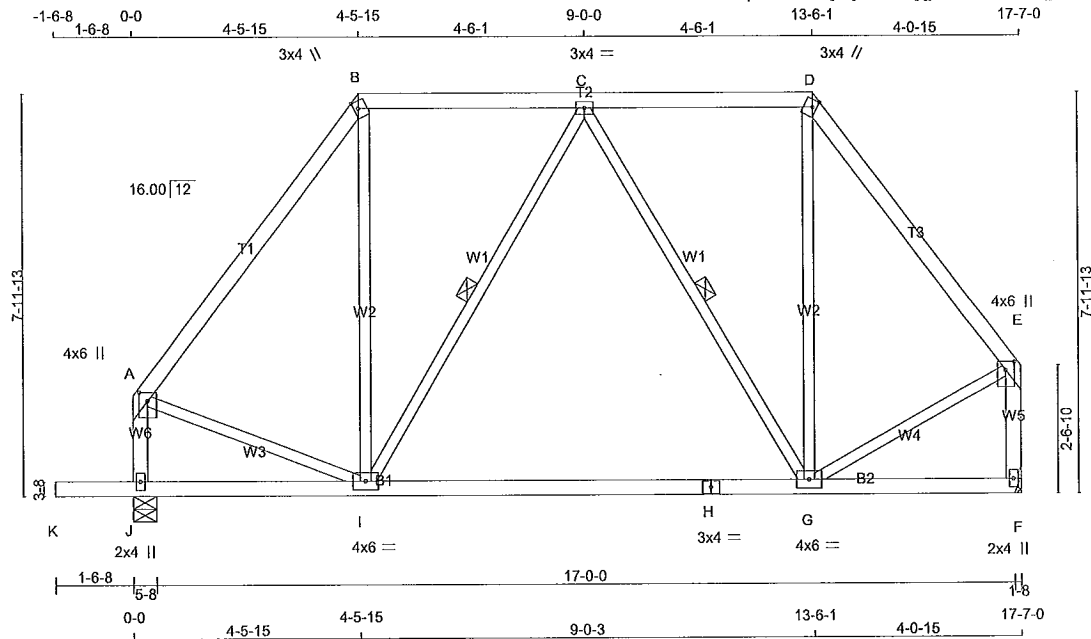


| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292623   | H8         | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 17:06:58 2018 Page 1.

ID:Rbextx08A5M1Jnp0FFBKG3yNySB-DVygAmvI?hCFJzzg90?GWaJMKJcpRTIE?j5oZfzjs1x



TOTAL WEIGHT = 87 lb

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

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| A  | TMVW+p | MT20   | 4.0 | 6.0 | 2.00 | 2.00 |
| B  | TTW+m  | MT20   | 3.0 | 4.0 | 1.75 | 1.00 |
| C  | TMWW-t | MT20   | 3.0 | 4.0 |      |      |
| D  | TTW+m  | MT20   | 3.0 | 4.0 | 1.75 | 1.00 |
| E  | TMVW+p | MT20   | 4.0 | 6.0 | 2.00 | 2.00 |
| F  | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| G  | BMWW-t | MT20   | 4.0 | 6.0 |      |      |
| H  | BS-t   | MT20   | 3.0 | 4.0 |      |      |
| I  | BMWW-t | MT20   | 4.0 | 6.0 |      |      |
| J  | 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 |
|----|----------------|------------------|-------|-------|
|    | GROSS REACTION | GROSS REACTION   | BRG   | BRG   |
| JT | VERT           | HORZ             | DOWN  | HORZ  |
| J  | 997            | 0                | 997   | 0     |
| F  | 848            | 0                | 848   | 0     |

##### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN. COMPONENT REACTIONS | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|------------------------------|-------|-------|-----------|-------|---------|-------|
| J  | 711       | 434 / 0                      | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 277 / 0 | 0 / 0 |
| F  | 605       | 369 / 0                      | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 236 / 0 | 0 / 0 |

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

##### 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-I, C-G.

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                  |                                    | WEBS  |                           |                                    |                                    |
|--------|---------------------------|------------------|------------------------------------|-------|---------------------------|------------------------------------|------------------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | VERT. LOAD (PLF) | MAX. FACTORED VERT. LOAD LC1 (LBS) | MEMB. | MAX. FACTORED FORCE (LBS) | MAX. FACTORED VERT. LOAD LC1 (LBS) | MAX. FACTORED VERT. LOAD LC1 (LBS) |
| FR-TO  |                           |                  |                                    | FR-TO |                           |                                    |                                    |
| A-B    | -645 / 0                  | -78.0            | -78.0 0.21 (1)                     | I-B   | 0 / 205                   | 0.05 (4)                           |                                    |
| B-C    | -387 / 0                  | -78.0            | -78.0 0.20 (1)                     | I-C   | -223 / 0                  | 0.12 (1)                           |                                    |
| C-D    | -364 / 0                  | -78.0            | -78.0 0.20 (1)                     | C-G   | -270 / 0                  | 0.15 (1)                           |                                    |
| D-E    | -606 / 0                  | -78.0            | -78.0 0.17 (1)                     | G-D   | 0 / 191                   | 0.05 (4)                           |                                    |
| J-A    | -827 / 0                  | 0.0              | 0.0 0.10 (1)                       | A-I   | 0 / 408                   | 0.09 (1)                           |                                    |
| F-E    | -833 / 0                  | 0.0              | 0.0 0.11 (1)                       | G-E   | 0 / 407                   | 0.09 (1)                           |                                    |
| K-J    | 0 / 0                     | -96.5            | -96.5 0.16 (1)                     |       |                           |                                    |                                    |
| J-I    | 0 / 0                     | -18.5            | -18.5 0.24 (4)                     |       |                           |                                    |                                    |
| I-H    | 0 / 499                   | -18.5            | -18.5 0.28 (4)                     |       |                           |                                    |                                    |
| H-G    | 0 / 499                   | -18.5            | -18.5 0.28 (4)                     |       |                           |                                    |                                    |
| G-F    | 0 / 0                     | -18.5            | -18.5 0.23 (4)                     |       |                           |                                    |                                    |

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

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.59")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.59")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

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=0.21/1.00 (A-B:1), BC=0.28/1.00 (G-I:4), WB=0.15/1.00 (C-G:1), SSI=0.17/1.00 (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.

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

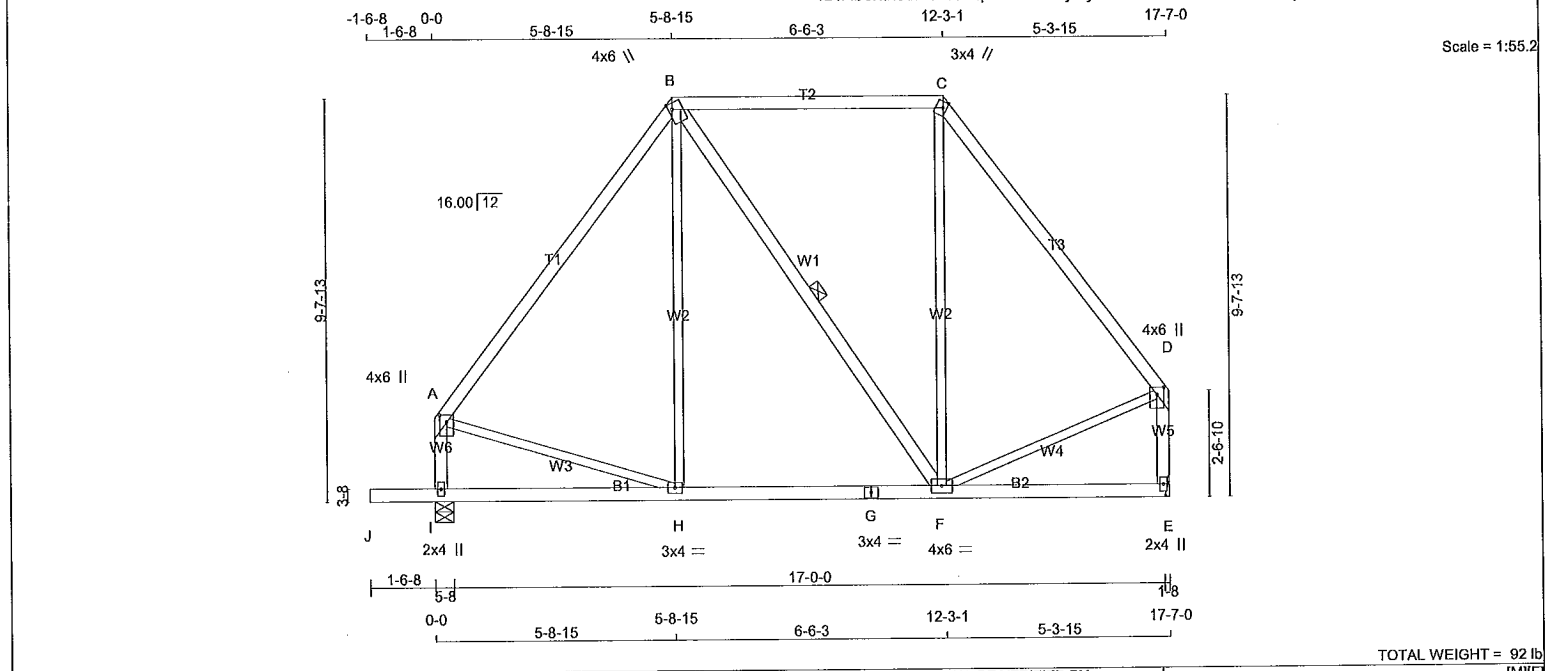
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (I) (INPUT = 0.90)  
JSI METAL= 0.24 (A) (INPUT = 1.00)

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TOTAL WEIGHT = 92 lb

|                                                                 |     |     |      |     |                                                                                                                         |                                 |           |           |                  |                                                                                                    |                  |         |                                                                                                                    |                               |
|-----------------------------------------------------------------|-----|-----|------|-----|-------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------|-----------|------------------|----------------------------------------------------------------------------------------------------|------------------|---------|--------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>LUMBER</b><br>N. L. G. A. RULES<br>CHORDS SIZE LUMBER DESCR. |     |     |      |     | <b>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</b><br><b>BEARINGS</b> |                                 |           |           |                  | <b>DESIGN CRITERIA</b>                                                                             |                  |         |                                                                                                                    |                               |
| A - B                                                           | 2x4 | DRY | No.2 | SPF | FACTORED GROSS REACTION                                                                                                 | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG | SPECIFIED LOADS: |                                                                                                    |                  |         |                                                                                                                    |                               |
| B - C                                                           | 2x4 | DRY | No.2 | SPF | VERT                                                                                                                    | HORZ                            | DOWN      | HORZ      | UPLIFT           | IN-SX                                                                                              | IN-SX            | TOP CH. | LL = 21.0 PSF                                                                                                      |                               |
| C - D                                                           | 2x4 | DRY | No.2 | SPF | I                                                                                                                       | 997                             | 0         | 997       | 0                | 0                                                                                                  | 5-8              | 1-8     | DL = 6.0 PSF                                                                                                       |                               |
| I - A                                                           | 2x4 | DRY | No.2 | SPF | E                                                                                                                       | 848                             | 0         | 848       | 0                | 0                                                                                                  | HANGER BY OTHERS |         | ROT CH.                                                                                                            | LL = 0.0 PSF                  |
| E - D                                                           | 2x4 | DRY | No.2 | SPF |                                                                                                                         |                                 |           |           |                  |                                                                                                    |                  |         |                                                                                                                    | DL = 7.4 PSF                  |
| J - G                                                           | 2x4 | DRY | No.2 | SPF |                                                                                                                         |                                 |           |           |                  |                                                                                                    |                  |         |                                                                                                                    | TOTAL LOAD = 34.4 PSF         |
| G - E                                                           | 2x4 | DRY | No.2 | SPF |                                                                                                                         |                                 |           |           |                  |                                                                                                    |                  |         |                                                                                                                    | <b>SPACING = 24.0 IN. C/C</b> |
| ALL WEBS 2x3 DRY No.2 SPF                                       |     |     |      |     | <b>UNFACTORED REACTIONS</b>                                                                                             |                                 |           |           |                  |                                                                                                    |                  |         |                                                                                                                    |                               |
| EXCEPT                                                          |     |     |      |     | 1ST LCASE MAX./MIN. COMPONENT REACTIONS                                                                                 |                                 |           |           |                  |                                                                                                    |                  |         |                                                                                                                    |                               |
| B - F                                                           | 2x4 | DRY | No.2 | SPF | JT                                                                                                                      | COMBINED                        | SNOW      | LIVE      | PERM.LIVE        | WIND                                                                                               | DEAD             | SOIL    | LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM                                                        |                               |
|                                                                 |     |     |      |     | I                                                                                                                       | 711                             | 434 / 0   | 0 / 0     | 0 / 0            | 0 / 0                                                                                              | 277 / 0          | 0 / 0   | THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015              |                               |
| DRY: SEASONED LUMBER.                                           |     |     |      |     | E                                                                                                                       | 605                             | 369 / 0   | 0 / 0     | 0 / 0            | 0 / 0                                                                                              | 236 / 0          | 0 / 0   | THIS DESIGN COMPLIES WITH:<br>- PART 9 OF OBC 2012, OBC 2018<br>- CSA 086-09, CSA 086-14<br>- TPIC 2011, TPIC 2014 |                               |
|                                                                 |     |     |      |     | BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) I                                                                 |                                 |           |           |                  | (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 |                  |         |                                                                                                                    |                               |
|                                                                 |     |     |      |     | <b>BRACING</b>                                                                                                          |                                 |           |           |                  | ALLOWABLE DEFL.(LL)= L/360 (0.59")                                                                 |                  |         |                                                                                                                    |                               |
|                                                                 |     |     |      |     | TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.                                                              |                                 |           |           |                  | CALCULATED VERT. DEFL.(LL) = L/999 (0.01")                                                         |                  |         |                                                                                                                    |                               |
|                                                                 |     |     |      |     | MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.                                        |                                 |           |           |                  | ALLOWABLE DEFL.(TL)= L/360 (0.59")                                                                 |                  |         |                                                                                                                    |                               |
|                                                                 |     |     |      |     | ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.                                              |                                 |           |           |                  | CALCULATED VERT. DEFL.(TL) = L/999 (0.03")                                                         |                  |         |                                                                                                                    |                               |
|                                                                 |     |     |      |     | 1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-F.                                                                                |                                 |           |           |                  | CANTILEVER DEFLECTION:                                                                             |                  |         |                                                                                                                    |                               |
|                                                                 |     |     |      |     | END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW      |                                 |           |           |                  | ALLOWABLE DEFL.(LL)= L/120 (0.19")                                                                 |                  |         |                                                                                                                    |                               |
|                                                                 |     |     |      |     | <b>LOADING</b>                                                                                                          |                                 |           |           |                  | CALCULATED VERT. DEFL.(LL) = L/999 (0.01")                                                         |                  |         |                                                                                                                    |                               |
|                                                                 |     |     |      |     | TOTAL LOAD CASES: (4)                                                                                                   |                                 |           |           |                  | ALLOWABLE DEFL.(TL)= L/120 (0.19")                                                                 |                  |         |                                                                                                                    |                               |
|                                                                 |     |     |      |     |                                                                                                                         |                                 |           |           |                  | CALCULATED VERT. DEFL.(TL) = L/999 (0.01")                                                         |                  |         |                                                                                                                    |                               |
|                                                                 |     |     |      |     |                                                                                                                         |                                 |           |           |                  | CSI: TC=0.42/1.00 (B-C:1), BC=0.20/1.00 (F-H:4), WB=0.08/1.00 (A-H:1), SSI=0.20/1.00 (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= 0.83 (H) (INPUT = 0.90 )                                                                 |                  |         |                                                                                                                    |                               |
|                                                                 |     |     |      |     |                                                                                                                         |                                 |           |           |                  | JSI METAL= 0.24 (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

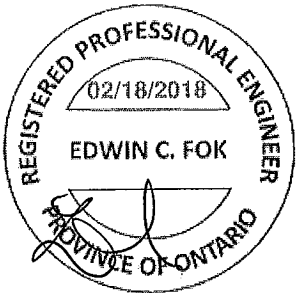
02/18/2018

EDWIN C. FOK

PROVINCE OF ONTARIO

A-18023838

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

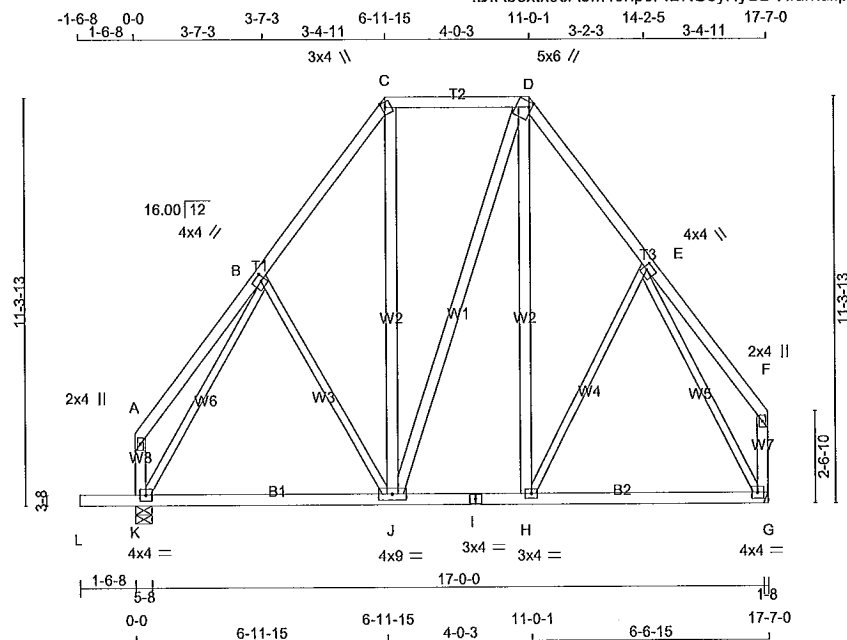


A-18023838

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292623   | H10        | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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Scale: 3/16"=1'

TOTAL WEIGHT = 117 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  |        |        |
| D - F           | 2x4 DRY           | No.2   | SPF  |        |        |
| K - A           | 2x4 DRY           | No.2   | SPF  |        |        |
| G - F           | 2x4 DRY           | No.2   | SPF  |        |        |
| L - I           | 2x4 DRY           | No.2   | SPF  |        |        |
| I - G           | 2x4 DRY           | No.2   | SPF  |        |        |
| ALL WEBS EXCEPT | 2x4 DRY           | No.2   | SPF  |        |        |
| B - J           | 2x3 DRY           | No.2   | SPF  |        |        |
| H - E           | 2x3 DRY           | No.2   | SPF  |        |        |
| K - B           | 2x3 DRY           | No.2   | SPF  |        |        |
| E - G           | 2x3 DRY           | No.2   | SPF  |        |        |

#### 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      |
| K  | 997                     | 0                               | 997       | 0         |
| G  | 848                     | 0                               | 848       | 0         |

##### UNFACTORED REACTIONS

|    | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |
|----|-----------|-------------------------------|-------|-----------|-------|---------|-------|
| JT | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| K  | 711       | 434 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 277 / 0 | 0 / 0 |
| G  | 605       | 369 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 236 / 0 | 0 / 0 |

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

##### 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     | MAX. FACTORED        |
|     | MEMB. FORCE (LBS) | MEMB. FORCE (LBS)    |
|     | VERT. LOAD (PLF)  | VERT. LOAD (PLF)     |
|     | FROM TO           | FROM TO              |
| A-B | 0 / 26            | -78.0 -78.0 0.15 (1) |
| B-C | -579 / 0          | -78.0 -78.0 0.12 (1) |
| C-D | -332 / 0          | -78.0 -78.0 0.16 (1) |
| D-E | -563 / 0          | -78.0 -78.0 0.11 (1) |
| E-F | 0 / 24            | -78.0 -78.0 0.14 (1) |
| K-A | -102 / 0          | 0.0 0.0 0.01 (1)     |
| G-F | -95 / 0           | 0.0 0.0 0.01 (1)     |
| L-K | 0 / 0             | -96.5 -96.5 0.16 (1) |
| K-J | 0 / 384           | -18.5 -18.5 0.23 (4) |
| J-I | 0 / 324           | -18.5 -18.5 0.21 (4) |
| I-H | 0 / 324           | -18.5 -18.5 0.21 (4) |
| H-G | 0 / 349           | -18.5 -18.5 0.21 (4) |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2012, OBC 2018  
- CSA 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 (0.59")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.59")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.08")

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

CSI: TC=0.16/1.00 (C-D:1), BC=0.23/1.00 (J-K:4), WB=0.79/1.00 (E-G:1), SSI=0.12/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

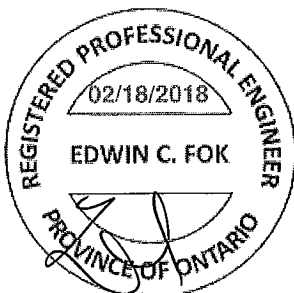
| PLATE | GRIP(DRY) | SHEAR | SECTION |
|-------|-----------|-------|---------|
|       | (PSI)     | (PLI) | (PLI)   |
| MT20  | 618       | 354   | 1667    |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (H) (INPUT = 0.90)  
JSI METAL= 0.31 (B) (INPUT = 1.00)

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



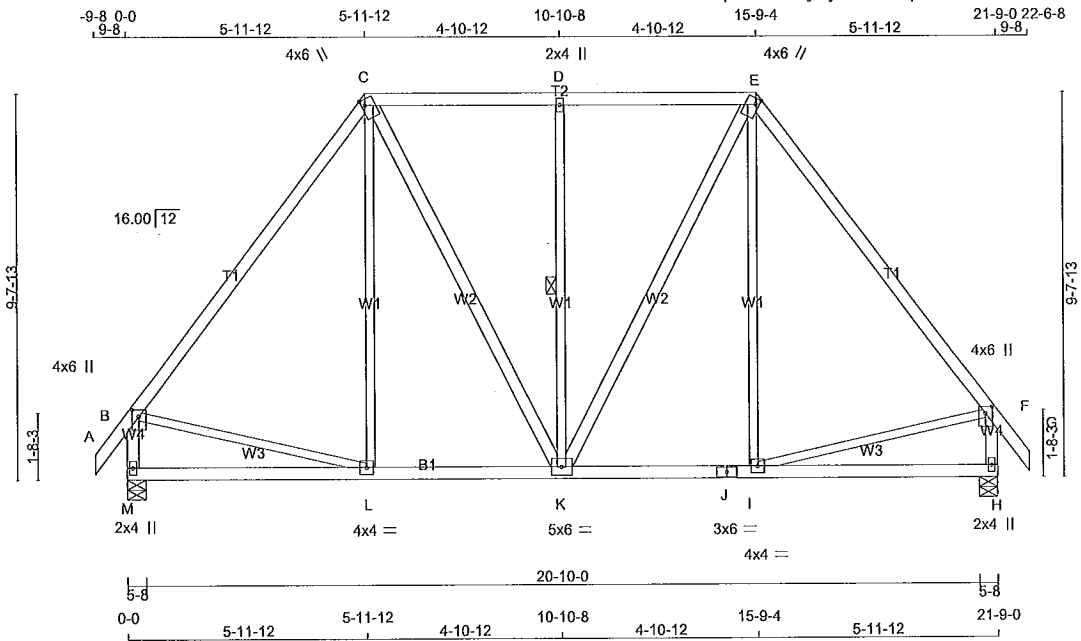
A-18023839

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292623   | H21        | 3        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0FfBKg3yNySB-uFQ2pBvF9N?rcK5NKATziNfXIDxYb3YWyuz1sbzjs?M



Scale = 1:57.7

TOTAL WEIGHT = 3 X 120 = 361 lb

(M)(F)

#### LUMBER

N. L. G. A. RULES

| CHORDS | SIZE | LUMBER | DESCR.     |
|--------|------|--------|------------|
| A - C  | 2x4  | DRY    | 2100F 1.8E |
| C - E  | 2x4  | DRY    | No.2       |
| E - G  | 2x4  | DRY    | 2100F 1.8E |
| M - B  | 2x4  | DRY    | No.2       |
| H - F  | 2x4  | DRY    | No.2       |
| M - J  | 2x4  | DRY    | No.2       |
| J - H  | 2x4  | DRY    | No.2       |

|          |     |     |      |     |
|----------|-----|-----|------|-----|
| ALL WEBS | 2x3 | DRY | No.2 | SPF |
| EXCEPT   |     |     |      |     |
| C - K    | 2x4 | DRY | No.2 | SPF |
| K - E    | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| B  | TMVW+p | MT20   | 4.0 | 6.0 | 2.00 | 2.00 |
| C  | TTWW+m | MT20   | 4.0 | 6.0 | 1.75 | 1.00 |
| D  | TMW+w  | MT20   | 2.0 | 4.0 |      |      |
| E  | TTWW+m | MT20   | 4.0 | 6.0 | 1.75 | 1.00 |
| F  | TMVW+p | MT20   | 4.0 | 6.0 | 2.00 | 2.00 |
| H  | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| I  | BMWW-t | MT20   | 4.0 | 4.0 |      |      |
| J  | BS-t   | MT20   | 3.0 | 6.0 |      |      |
| K  | BMWW-t | MT20   | 5.0 | 6.0 |      |      |
| L  | BMWW-t | MT20   | 4.0 | 4.0 |      |      |
| M  | 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 | REQD |
|----|----------------|------------------|-------|------|
|    | GROSS REACTION | GROSS REACTION   | BRG   | BRG  |
| JT | VERT           | HORZ             | DOWN  | HORZ |
| M  | 1157           | 0                | 1157  | 0    |
| H  | 1157           | 0                | 1157  | 0    |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. | COMPONENT REACTIONS |           |       |         |       |
|----|-----------|-----------|---------------------|-----------|-------|---------|-------|
|    | COMBINED  | SNOW      | LIVE                | PERM.LIVE | WIND  | DEAD    | SOIL  |
| M  | 826       | 495 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 332 / 0 | 0 / 0 |
| H  | 826       | 495 / 0   | 0 / 0               | 0 / 0     | 0 / 0 | 332 / 0 | 0 / 0 |

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

#### BRACING

FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.  
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

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

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

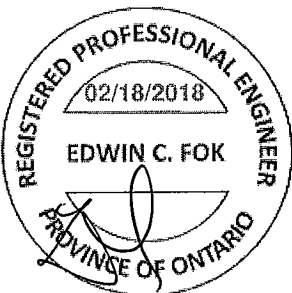
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

#### LOADING

TOTAL LOAD CASES: (4)

| MEMB. | CHORDS        |                      | WEBS          |          |
|-------|---------------|----------------------|---------------|----------|
|       | MAX. FACTORED | FACTORED             | MAX. FACTORED | FACTORED |
|       | FORCE         | VERT. LOAD LC1       | FORCE         | FORCE    |
|       | (LBS)         | (PLF)                | (LBS)         | (LBS)    |
| FR-TO |               | FROM TO              | FR-TO         |          |
| A-B   | 0 / 28        | -78.0 -78.0 0.03 (1) | L-C           | 0 / 88   |
| B-C   | -869 / 0      | -78.0 -78.0 0.25 (1) | C-K           | 0 / 324  |
| C-D   | -670 / 0      | -85.5 -85.5 0.26 (1) | K-D           | -506 / 0 |
| D-E   | -670 / 0      | -85.5 -85.5 0.26 (1) | K-E           | 0 / 324  |
| E-F   | -869 / 0      | -78.0 -78.0 0.25 (1) | I-E           | 0 / 88   |
| F-G   | 0 / 28        | -78.0 -78.0 0.03 (1) | B-L           | 0 / 531  |
| M-B   | -1111 / 0     | 0.0 0.0 0.12 (1)     | I-F           | 0 / 531  |
| H-F   | -1111 / 0     | 0.0 0.0 0.12 (1)     |               |          |
| M-L   | 0 / 0         | -18.5 -18.5 0.15 (4) |               |          |
| L-K   | 0 / 520       | -18.5 -18.5 0.21 (4) |               |          |
| K-J   | 0 / 520       | -18.5 -18.5 0.21 (4) |               |          |
| J-I   | 0 / 520       | -18.5 -18.5 0.21 (4) |               |          |
| I-H   | 0 / 0         | -18.5 -18.5 0.15 (4) |               |          |

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



#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.73")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
ALLOWABLE DEFL.(TL) = L/360 (0.73")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.26/1.00 (C-D:1), BC=0.21/1.00 (I-K:4), WB=0.31/1.00 (D-K:1), SSI=0.20/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

#### NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (L) (INPUT = 0.90)  
JSI METAL= 0.35 (F) (INPUT = 1.00)

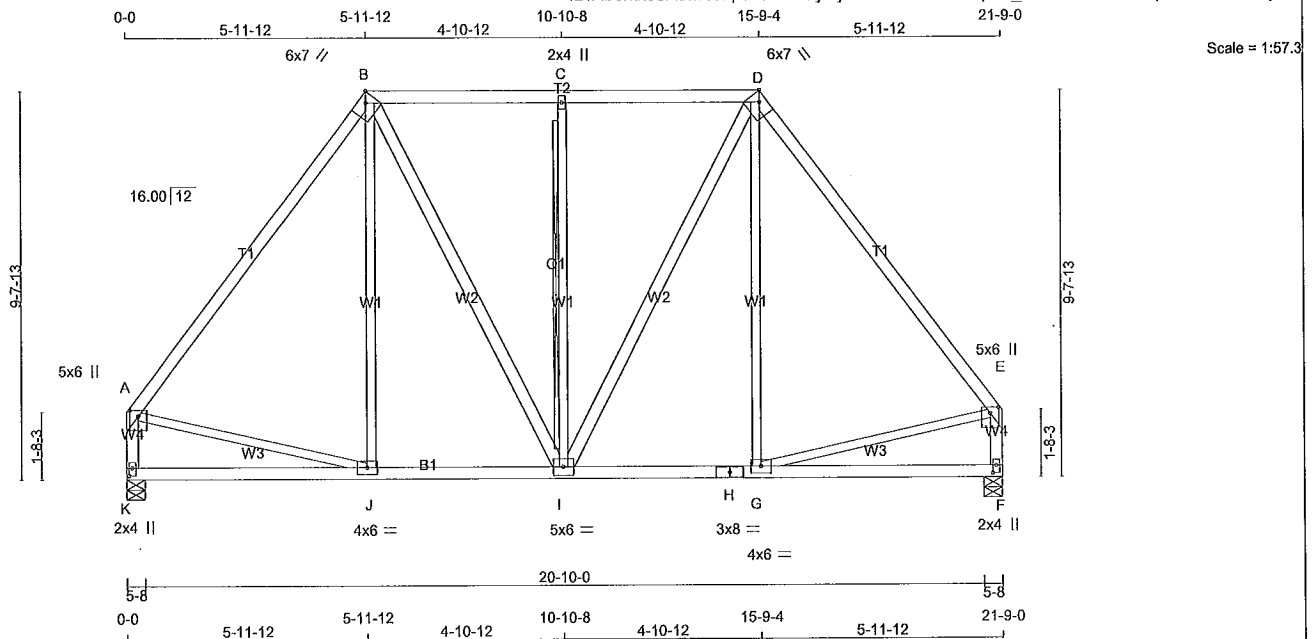
A-18023840

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292623   | H21A       | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 117 lb

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

| ALL WEBS |      |        |        |     |
|----------|------|--------|--------|-----|
| EXCEPT   | SIZE | LUMBER | DESCR. |     |
| B - I    | 2x4  | DRY    | No.2   | SPF |
| I - D    | 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   | 6.0 | 7.0 | Edge | 2.75 |
| C  | TMW+w  | MT20   | 2.0 | 4.0 |      |      |
| D  | TTWW-h | MT20   | 6.0 | 7.0 | Edge | 2.75 |
| E  | TMVW+p | MT20   | 5.0 | 6.0 | 1.75 | 2.50 |
| F  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| G  | BMWW-t | MT20   | 4.0 | 6.0 |      |      |
| H  | BS-t   | MT20   | 3.0 | 8.0 |      |      |
| I  | BMWW-t | MT20   | 5.0 | 6.0 |      |      |
| J  | BMWW-t | MT20   | 4.0 | 6.0 |      |      |
| K  | BMV1+p | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |

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

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

| BEARINGS |      | FACTORED |      | GROSS REACTION |        | INPUT |       | REQRD |  |
|----------|------|----------|------|----------------|--------|-------|-------|-------|--|
| JT       | VERT | HORZ     | DOWN | HORZ           | UPLIFT | IN-SX | IN-SX |       |  |
| K        | 2102 | 0        | 2102 | 0              | 0      | 5-8   | 3-5   |       |  |
| F        | 2102 | 0        | 2102 | 0              | 0      | 5-8   | 3-5   |       |  |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX/MIN | COMPONENT REACTIONS |       |       |         |       |  |  |
|----|-----------|---------|---------------------|-------|-------|---------|-------|--|--|
| K  | 1502      | 899 / 0 | 0 / 0               | 0 / 0 | 0 / 0 | 603 / 0 | 0 / 0 |  |  |
| F  | 1502      | 899 / 0 | 0 / 0               | 0 / 0 | 0 / 0 | 603 / 0 | 0 / 0 |  |  |

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

#### BRACING

FOR SECTION B-D, MAX. PURLIN SPACING = 2.00 FT.  
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.52 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-I

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                                | 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) | MAX. FACTORED VERT. LOAD (LC1) |
| FR-TO  |                           | FROM                      | TO                             | FR-TO |                           | FROM                           | TO                             |
| A-B    | -1716 / 0                 | -78.0                     | -78.0 0.51 (1)                 | 5.52  | J-B                       | 0 / 512                        | 0.13 (1)                       |
| B-C    | -1272 / 0                 | -85.5                     | -85.5 0.41 (1)                 | 2.00  | B-I                       | 0 / 517                        | 0.09 (1)                       |
| C-D    | -1272 / 0                 | -85.5                     | -85.5 0.41 (1)                 | 2.00  | I-C                       | -492 / 0                       | 0.36 (1)                       |
| D-E    | -1716 / 0                 | -78.0                     | -78.0 0.51 (1)                 | 5.52  | I-D                       | 0 / 517                        | 0.09 (1)                       |
| K-A    | -1827 / 0                 | 0.0                       | 0.0 0.22 (1)                   | 6.15  | G-D                       | 0 / 512                        | 0.13 (1)                       |
| F-E    | -1827 / 0                 | 0.0                       | 0.0 0.22 (1)                   | 6.15  | A-J                       | 0 / 1048                       | 0.26 (1)                       |
|        |                           |                           |                                |       | G-E                       | 0 / 1048                       | 0.26 (1)                       |
| K-J    | 0 / 0                     | -112.0                    | -112.0 0.59 (1)                | 10.00 |                           |                                |                                |
| J-I    | 0 / 1031                  | -112.0                    | -112.0 0.77 (1)                | 10.00 |                           |                                |                                |
| I-H    | 0 / 1031                  | -112.0                    | -112.0 0.77 (1)                | 10.00 |                           |                                |                                |
| H-G    | 0 / 1031                  | -112.0                    | -112.0 0.77 (1)                | 10.00 |                           |                                |                                |
| G-F    | 0 / 0                     | -112.0                    | -112.0 0.59 (1)                | 10.00 |                           |                                |                                |

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

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CslidGlrder

START DISTANCE = 0-0  
START SPAN CARRIED = 5-10-8  
END DISTANCE = 21-9-0  
END SPAN CARRIED = 5-10-8  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

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 (0.73")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.10")  
ALLOWABLE DEFL.(TL)= L/360 (0.73")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.24")

CSI: TC=0.51/1.00 (D-E:1), BC=0.77/1.00 (G-I:1), WB=0.36/1.00 (C-I:1), SSI=0.35/1.00 (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

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

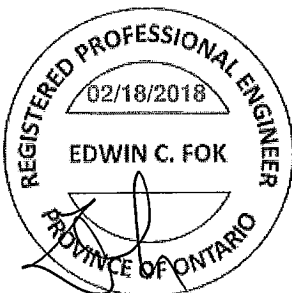
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

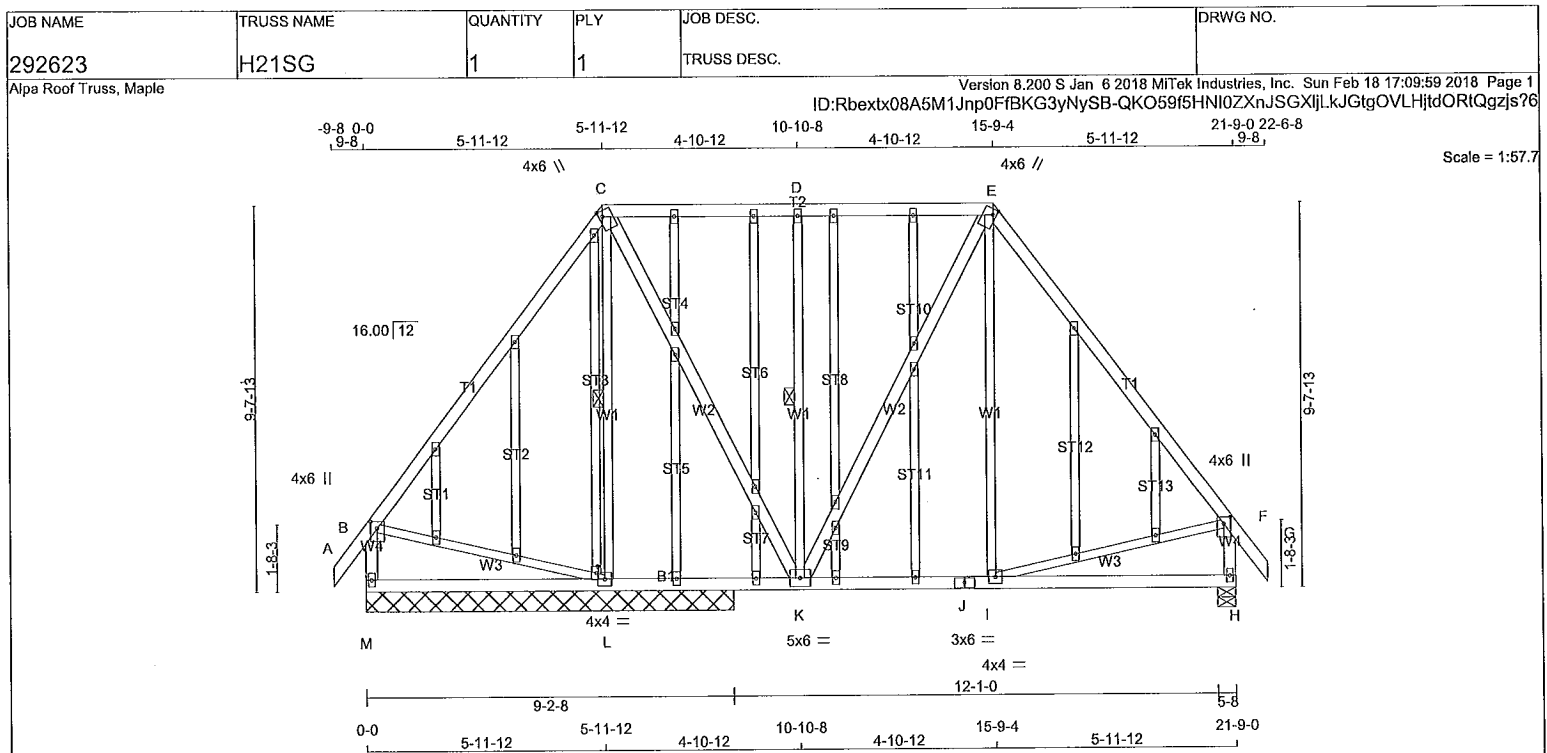
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

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CONTINUED ON PAGE 2





| LUMBER | N. L. G. A. RULES | CHORDS | SIZE       | LUMBER | DESCR. |
|--------|-------------------|--------|------------|--------|--------|
| A - C  | 2x4               | DRY    | 2100F 1.8E | SPF    |        |
| C - E  | 2x4               | DRY    | No.2       | SPF    |        |
| E - G  | 2x4               | DRY    | 2100F 1.8E | SPF    |        |
| M - B  | 2x4               | DRY    | No.2       | SPF    |        |
| H - F  | 2x4               | DRY    | No.2       | SPF    |        |
| M - J  | 2x4               | DRY    | No.2       | SPF    |        |
| J - H  | 2x4               | DRY    | No.2       | SPF    |        |

|          |     |     |      |     |
|----------|-----|-----|------|-----|
| ALL WEBS | 2x3 | DRY | No.2 | SPF |
| EXCEPT   |     |     |      |     |
| C - K    | 2x4 | DRY | No.2 | SPF |
| K - E    | 2x4 | DRY | No.2 | SPF |

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

GABLE STUDS SPACED AT 2'-0" OC.

#### PLATES (table is in inches)

| JT | TYPE                                                                               | PLATES | W   | LEN | Y    | X    |
|----|------------------------------------------------------------------------------------|--------|-----|-----|------|------|
| B  | TMVW+p                                                                             | MT20   | 4.0 | 6.0 | 2.00 | 2.00 |
| C  | TTWW+m                                                                             | MT20   | 4.0 | 6.0 | 1.75 | 1.00 |
| D  | TMW+w                                                                              | MT20   | 4.0 | 6.0 | 2.00 | 4.0  |
| E  | TTWW+m                                                                             | MT20   | 4.0 | 6.0 | 1.75 | 1.00 |
| F  | TMVW+p                                                                             | MT20   | 4.0 | 6.0 | 2.00 | 2.00 |
| H  | BMV1+p                                                                             | MT20   | 2.0 | 4.0 | 4.0  | 4.0  |
| I  | BMWW-t                                                                             | MT20   | 4.0 | 4.0 | 4.0  | 4.0  |
| J  | BS-t                                                                               | MT20   | 3.0 | 6.0 | 4.0  | 4.0  |
| K  | BMWWW-t                                                                            | MT20   | 5.0 | 6.0 | 4.0  | 4.0  |
| L  | BMWW1-t                                                                            | MT20   | 4.0 | 4.0 | 4.0  | 4.0  |
| M  | NP+w                                                                               | MT20   | 2.0 | 4.0 | 2.00 | 0.50 |
| N  | BMV1+p                                                                             | MT20   | 2.0 | 4.0 | 4.0  | 4.0  |
| N  | O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL |        |     |     |      |      |
| N  | NP+w                                                                               | MT20   | 2.0 | 4.0 | 4.0  | 4.0  |

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

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

| BEARINGS | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQD BRG |
|----------|-------------------------|---------------------------------|-----------|----------|
| JT       | VERT                    | HORZ                            | DOWN      | HORZ     |
| M        | 676                     | 0                               | 676       | 0        |
| L        | 667                     | 0                               | 667       | 0        |
| H        | 970                     | 0                               | 970       | 0        |

#### UNFACTORED REACTIONS

| 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | DEAD    | SOIL  |
|-----------|-------------------------------|---------|-------|
| JT        | COMBINED                      |         |       |
| M         | 478                           | 313 / 0 | 0 / 0 |
| L         | 483                           | 252 / 0 | 0 / 0 |
| H         | 691                           | 424 / 0 | 0 / 0 |

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

#### BRACING

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-L, D-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 | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX | MAX. MEMB. UNBRACED LENGTH FR-TO | WEBS  | MAX. FACTORED FORCE (LBS) | MAX. MEMB. UNBRACED LENGTH FR-TO |
|--------|---------------------------|---------------------------|---------|----------------------------------|-------|---------------------------|----------------------------------|
| A-B    | 0 / 28                    | -78.0                     | -78.0   | 0.03 (1)                         | 10.00 | L-C                       | -586 / 0                         |
| B-C    | -354 / 0                  | -78.0                     | -78.0   | 0.24 (1)                         | 6.25  | C-K                       | 0 / 534                          |
| C-D    | -453 / 0                  | -85.5                     | -85.5   | 0.26 (1)                         | 2.00  | K-D                       | -510 / 0                         |
| D-E    | -453 / 0                  | -85.5                     | -85.5   | 0.26 (1)                         | 2.00  | K-E                       | 0 / 114                          |
| E-F    | -669 / 0                  | -78.0                     | -78.0   | 0.25 (1)                         | 6.25  | I-E                       | 0 / 101                          |
| F-G    | 0 / 28                    | -78.0                     | -78.0   | 0.03 (1)                         | 10.00 | B-L                       | 0 / 216                          |
| M-B    | -632 / 0                  | 0.0                       | 0.0     | 0.07 (1)                         | 7.81  | I-F                       | 0 / 408                          |
| H-F    | -925 / 0                  | 0.0                       | 0.0     | 0.10 (1)                         | 7.81  |                           |                                  |
| M-L    | 0 / 0                     | -18.5                     | -18.5   | 0.16 (4)                         | 10.00 |                           |                                  |
| L-K    | 0 / 205                   | -18.5                     | -18.5   | 0.18 (4)                         | 10.00 |                           |                                  |
| K-J    | 0 / 400                   | -18.5                     | -18.5   | 0.19 (4)                         | 10.00 |                           |                                  |
| J-I    | 0 / 400                   | -18.5                     | -18.5   | 0.19 (4)                         | 10.00 |                           |                                  |
| I-H    | 0 / 0                     | -18.5                     | -18.5   | 0.15 (4)                         | 10.00 |                           |                                  |

#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.52")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.52")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.04")

CSI: TC=0.26/1.00 (C-D:1), BC=0.19/1.00 (I-K:4), WB=0.36/1.00 (C-L:1), SSI=0.20/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

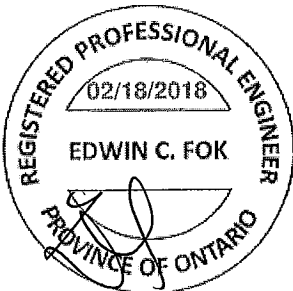
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (L) (INPUT = 0.90)  
JSI METAL= 0.28 (F) (INPUT = 1.00)

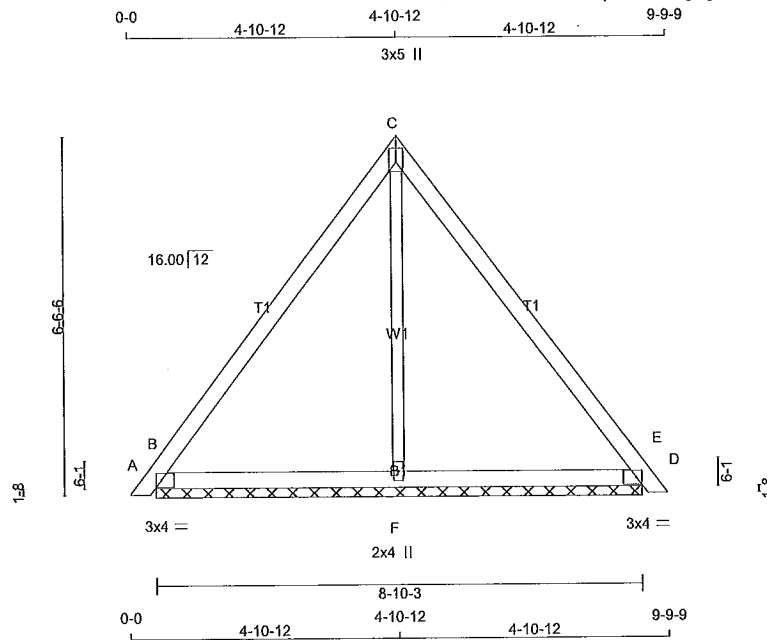
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| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292623   | H22P       | 5        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 5 X 33 = 165 lb

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

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

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

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

|    | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG |       | REQD BRG |  |
|----|-------------------------|------|---------------------------------|------|-----------|-------|----------|--|
|    | VERT                    | HORZ | DOWN                            | HORZ | IN-SX     | IN-SX |          |  |
| JT |                         |      |                                 |      |           |       |          |  |
| B  | 325                     | 0    | 325                             | 0    | 8-10-3    | 10-5  |          |  |
| D  | 325                     | 0    | 325                             | 0    | 8-10-3    | 10-5  |          |  |
| F  | 258                     | 0    | 258                             | 0    | 8-10-3    | 10-5  |          |  |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX /MIN. COMPONENT REACTIONS |       |           |       |         |       |
|----|-----------|-------------------------------|-------|-----------|-------|---------|-------|
|    | COMBINED  | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
| B  | 228       | 159 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 70 / 0  | 0 / 0 |
| D  | 228       | 159 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 70 / 0  | 0 / 0 |
| F  | 190       | 84 / 0                        | 0 / 0 | 0 / 0     | 0 / 0 | 106 / 0 | 0 / 0 |

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

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |              | WEBS                |       |                           |              |
|--------|---------------------------|---------------------------|--------------|---------------------|-------|---------------------------|--------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | MAX LC1 (LC) | MAX UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX LC1 (LC) |
| FR-TO  |                           | FROM TO                   |              |                     | FR-TO |                           |              |
| A-B    | 0 / 10                    | -78.0 -78.0               | 0.01 (1)     | 10.00               | F-C   | -156 / 0                  | 0.10 (1)     |
| B-C    | -117 / 0                  | -78.0 -78.0               | 0.26 (1)     | 6.25                |       |                           |              |
| C-D    | -117 / 0                  | -78.0 -78.0               | 0.26 (1)     | 6.25                |       |                           |              |
| D-E    | 0 / 10                    | -78.0 -78.0               | 0.01 (1)     | 10.00               |       |                           |              |
| B-F    | 0 / 69                    | -18.5 -18.5               | 0.11 (4)     | 10.00               |       |                           |              |
| F-D    | 0 / 69                    | -18.5 -18.5               | 0.11 (4)     | 10.00               |       |                           |              |

#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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=0.26/1.00 (B-C:1), BC=0.11/1.00 (B-F:4), WB=0.10/1.00 (C-F:1), SSI=0.08/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

#### NAIL VALUES

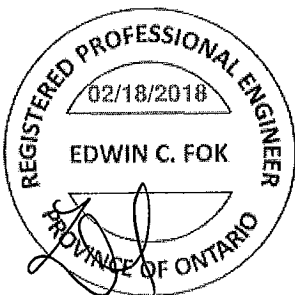
| PLATE   | GRIP(DRY) | SHEAR    | SECTION   |
|---------|-----------|----------|-----------|
| (PSI)   | (PLI)     | (PLI)    | (PLI)     |
| MAX MIN | MAX MIN   | MAX MIN  | MAX MIN   |
| MT20    | 618 354   | 1667 788 | 1987 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.38 (D) (INPUT = 0.90)  
JSI METAL= 0.15 (D) (INPUT = 1.00)

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



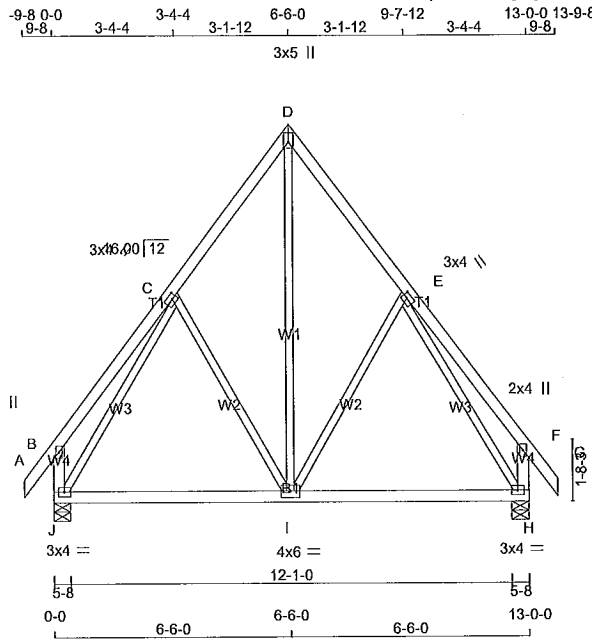
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|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292623   | H23        | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 74 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 | 4.0 | 1.50 | 1.50 |
| D TTW+p   | MT20   | 3.0 | 5.0 | 2.00 | Edge |
| E TMWW-t  | MT20   | 3.0 | 4.0 | 1.50 | 1.50 |
| F TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| H BMVW1-t | MT20   | 3.0 | 4.0 |      |      |
| I BMVWW-t | MT20   | 4.0 | 6.0 |      |      |
| J BMVW1-t | MT20   | 3.0 | 4.0 |      |      |

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

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

##### BEARINGS

|    | FACTORED       | MAXIMUM FACTORED | INPUT | REQRD |
|----|----------------|------------------|-------|-------|
|    | GROSS REACTION | GROSS REACTION   | BRG   | BRG   |
| JT | VERT           | HORZ             | DOWN  | HORZ  |
| J  | 698            | 0                | 698   | 0     |
| H  | 698            | 0                | 698   | 0     |

##### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
|----|-----------|-------------------------------|-------|-------|-----------|-------|---------|-------|
| J  | 496       | 311 / 0                       | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 185 / 0 | 0 / 0 |
| H  | 496       | 311 / 0                       | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 185 / 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 = 6.25 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

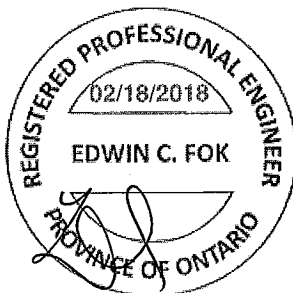
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS | MEMB.    | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1      | MAX   | MAX. UNBRACED LENGTH | WEBS     | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX. FACTORED CSI (LC) |
|--------|----------|---------------------------|---------------------------|----------|-------|----------------------|----------|----------|---------------------------|------------------------|
| FR-TO  |          |                           |                           |          |       |                      | FR-TO    |          |                           |                        |
| A-B    | 0 / 28   | -78.0                     | -78.0                     | 0.05 (1) | 10.00 | I-D                  | 0 / 368  | 0.08 (1) |                           |                        |
| B-C    | 0 / 24   | -78.0                     | -78.0                     | 0.13 (1) | 10.00 | I-E                  | -128 / 0 | 0.10 (1) |                           |                        |
| C-D    | -379 / 0 | -78.0                     | -78.0                     | 0.10 (1) | 6.25  | C-I                  | -128 / 0 | 0.10 (1) |                           |                        |
| D-E    | -379 / 0 | -78.0                     | -78.0                     | 0.10 (1) | 6.25  | J-C                  | -561 / 0 | 0.41 (1) |                           |                        |
| E-F    | 0 / 24   | -78.0                     | -78.0                     | 0.13 (1) | 10.00 | E-H                  | -561 / 0 | 0.41 (1) |                           |                        |
| F-G    | 0 / 28   | -78.0                     | -78.0                     | 0.05 (1) | 10.00 |                      |          |          |                           |                        |
| J-B    | -166 / 0 | 0.0                       | 0.0                       | 0.02 (1) | 7.81  |                      |          |          |                           |                        |
| H-F    | -166 / 0 | 0.0                       | 0.0                       | 0.02 (1) | 7.81  |                      |          |          |                           |                        |
| J-I    | 0 / 280  | -18.5                     | -18.5                     | 0.25 (4) | 10.00 |                      |          |          |                           |                        |
| I-H    | 0 / 280  | -18.5                     | -18.5                     | 0.25 (4) | 10.00 |                      |          |          |                           |                        |

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



#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.43")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.43")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.13/1.00 (B-C:1), BC=0.25/1.00 (H-I:4), WB=0.41/1.00 (C-J:1), SSI=0.10/1.00 (I-J:4)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (E) (INPUT = 0.80)  
JSI METAL= 0.23 (E) (INPUT = 1.00)

A-18023844

|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292623   | H23G       | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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9-8

0-0

6-0

2-6-0

2-0-0

4-6-0

2-0-0

6-6-0

2-0-0

8-6-0

2-0-0

10-6-0

2-0-0

12-6-0

13-0-0

13-9-8

6-0

9-8

3x5 II

Scale = 1:57.8

LUMBER

N. L. G. A. RULES

| CHORDS | SIZE | DRY | LUMBER | DESCR. |
|--------|------|-----|--------|--------|
| A - F  | 2x4  | DRY | No.2   | SPF    |
| F - K  | 2x4  | DRY | No.2   | SPF    |
| T - B  | 2x4  | DRY | No.2   | SPF    |
| L - J  | 2x4  | DRY | No.2   | SPF    |
| T - L  | 2x4  | DRY | No.2   | SPF    |

ALL WEBS 2x3 DRY No.2 SPF

ALL GABLE WEBS 2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

| JT                  | TYPE   | PLATES | W   | LEN | Y    | X    |
|---------------------|--------|--------|-----|-----|------|------|
| B                   | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| C, D, E, G, H, I    |        |        |     |     |      |      |
| C                   | TMW+w  | MT20   | 2.0 | 4.0 |      |      |
| F                   | TTW+p  | MT20   | 3.0 | 5.0 | 2.00 | Edge |
| J                   | TMV+p  | MT20   | 2.0 | 4.0 |      |      |
| L                   | BMV1+p | MT20   | 2.0 | 4.0 |      |      |
| M, N, O, P, Q, R, S |        |        |     |     |      |      |
| M                   | BMW1+w | MT20   | 2.0 | 4.0 |      |      |
| T                   | BMV1+p | MT20   | 2.0 | 4.0 |      |      |

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

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |                           | WEBS  |                           |                              |                        |
|--------|---------------------------|---------------------------|---------------------------|-------|---------------------------|------------------------------|------------------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED LC1 MAX CSI (LC) | MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED UNBRAC LENGTH FR-TO | MAX. FACTORED CSI (LC) |
| FR-TO  |                           | FROM                      | TO                        | FR-TO |                           |                              |                        |
| A-B    | 0 / 28                    | -78.0                     | -78.0 0.05 (1)            | 10.00 | P-F                       | -139 / 0                     | 0.10 (1)               |
| B-C    | -71 / 0                   | -78.0                     | -78.0 0.05 (1)            | 6.25  | Q-E                       | -156 / 0                     | 0.17 (1)               |
| C-D    | -26 / 0                   | -78.0                     | -78.0 0.04 (1)            | 6.25  | R-D                       | -153 / 0                     | 0.06 (1)               |
| D-E    | -22 / 0                   | -78.0                     | -78.0 0.04 (1)            | 6.25  | S-C                       | -39 / 0                      | 0.01 (1)               |
| E-F    | -17 / 0                   | -78.0                     | -78.0 0.04 (1)            | 6.25  | O-G                       | -156 / 0                     | 0.17 (1)               |
| F-G    | -17 / 0                   | -78.0                     | -78.0 0.04 (1)            | 6.25  | N-H                       | -153 / 0                     | 0.06 (1)               |
| G-H    | -22 / 0                   | -78.0                     | -78.0 0.04 (1)            | 6.25  | M-I                       | -39 / 0                      | 0.01 (1)               |
| H-I    | -26 / 0                   | -78.0                     | -78.0 0.04 (1)            | 6.25  |                           |                              |                        |
| I-J    | -71 / 0                   | -78.0                     | -78.0 0.05 (1)            | 6.25  |                           |                              |                        |
| J-K    | 0 / 28                    | -78.0                     | -78.0 0.05 (1)            | 10.00 |                           |                              |                        |
| T-B    | -160 / 0                  | 0.0                       | 0.0 0.03 (1)              | 7.81  |                           |                              |                        |
| L-J    | -160 / 0                  | 0.0                       | 0.0 0.03 (1)              | 7.81  |                           |                              |                        |
| T-S    | 0 / 20                    | -18.5                     | -18.5 0.03 (1)            | 10.00 |                           |                              |                        |
| S-R    | 0 / 17                    | -18.5                     | -18.5 0.02 (4)            | 10.00 |                           |                              |                        |
| R-Q    | 0 / 13                    | -18.5                     | -18.5 0.02 (4)            | 10.00 |                           |                              |                        |
| Q-P    | 0 / 11                    | -18.5                     | -18.5 0.02 (4)            | 10.00 |                           |                              |                        |
| P-O    | 0 / 11                    | -18.5                     | -18.5 0.02 (4)            | 10.00 |                           |                              |                        |
| O-N    | 0 / 13                    | -18.5                     | -18.5 0.02 (4)            | 10.00 |                           |                              |                        |
| N-M    | 0 / 17                    | -18.5                     | -18.5 0.02 (4)            | 10.00 |                           |                              |                        |
| M-L    | 0 / 20                    | -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

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

CSI: TC=0.05/1.00 (B-C:1) , BC=0.03/1.00 (S-T:1) , WB=0.17/1.00 (G-O:1) , SSI=0.04/1.00 (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= 0.16 (J) (INPUT = 0.90 )

JSI METAL= 0.08 (J) (INPUT = 1.00 )

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

REGISTERED PROFESSIONAL ENGINEER

02/18/2018

EDWIN C. FOK

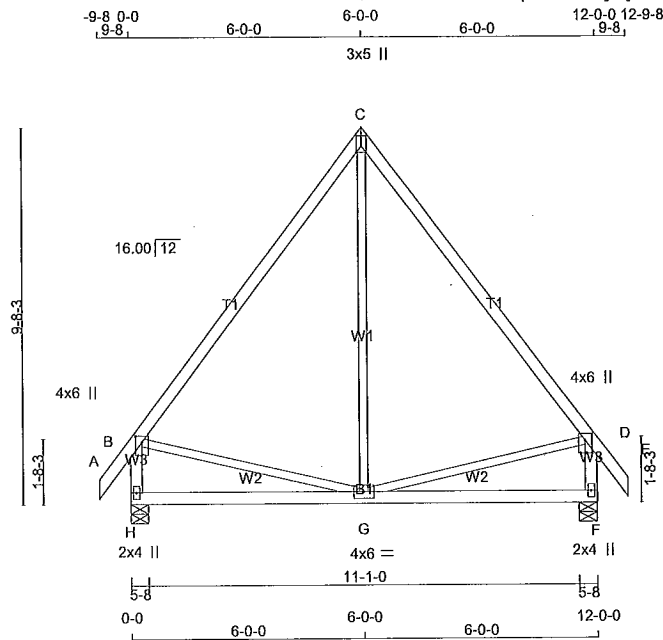
PROVINCE OF ONTARIO

A-18023845

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292623   | H24        | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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Scale = 1:59.3

TOTAL WEIGHT = 60 lb

| LUMBER            | CHORDS | SIZE | LUMBER     | DESCR. |
|-------------------|--------|------|------------|--------|
| N, L, G, A, RULES |        |      |            |        |
| A - C             | 2x4    | DRY  | 2100F 1.8E | SPF    |
| C - E             | 2x4    | DRY  | 2100F 1.8E | SPF    |
| H - B             | 2x4    | DRY  | No.2       | SPF    |
| F - D             | 2x4    | DRY  | No.2       | SPF    |
| H - F             | 2x4    | DRY  | No.2       | SPF    |

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

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

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

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

##### BEARINGS

|    | FACTORED       | MAXIMUM FACTORED | INPUT | REQRD |
|----|----------------|------------------|-------|-------|
|    | GROSS REACTION | GROSS REACTION   | BRG   | BRG   |
| JT | VERT           | HORZ             | DOWN  | HORZ  |
| H  | 650            | 0                | 650   | 0     |
| F  | 650            | 0                | 650   | 0     |

##### UNFACTORED REACTIONS

| JT | 1ST CASE | MAX/MIN. COMPONENT REACTIONS | SNOW  | LIVE  | PERM. LIVE | WIND  | DEAD    | SOIL  |
|----|----------|------------------------------|-------|-------|------------|-------|---------|-------|
| H  | 462      | 290 / 0                      | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 172 / 0 | 0 / 0 |
| F  | 462      | 290 / 0                      | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 172 / 0 | 0 / 0 |

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

##### BRACING

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

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS | MEMB.    | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1      | MAX   | CS1 (LC) | UNBRAC LENGTH | WEBS    | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX | CS1 (LC) |
|--------|----------|---------------------------|---------------------------|----------|-------|----------|---------------|---------|----------|---------------------------|-----|----------|
| FR-TO  |          |                           |                           |          |       |          |               | FR-TO   |          |                           |     |          |
| A-B    | 0 / 28   | -78.0                     | -78.0                     | 0.03 (1) | 10.00 | 6.25     | G-C           | 0 / 119 | 0.04 (4) |                           |     |          |
| B-C    | -326 / 0 | -78.0                     | -78.0                     | 0.24 (1) | 6.25  | 6.25     | B-G           | 0 / 200 | 0.04 (1) |                           |     |          |
| C-D    | -326 / 0 | -78.0                     | -78.0                     | 0.24 (1) | 6.25  | 6.25     | G-D           | 0 / 200 | 0.04 (1) |                           |     |          |
| D-E    | 0 / 28   | -78.0                     | -78.0                     | 0.03 (1) | 10.00 |          |               |         |          |                           |     |          |
| H-B    | -607 / 0 | 0.0                       | 0.0                       | 0.07 (1) | 7.81  |          |               |         |          |                           |     |          |
| F-D    | -607 / 0 | 0.0                       | 0.0                       | 0.07 (1) | 7.81  |          |               |         |          |                           |     |          |
| H-G    | 0 / 0    | -18.5                     | -18.5                     | 0.19 (4) | 10.00 |          |               |         |          |                           |     |          |
| G-F    | 0 / 0    | -18.5                     | -18.5                     | 0.19 (4) | 10.00 |          |               |         |          |                           |     |          |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")  
ALLOWABLE DEFL.(TL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

CSI: TC=0.24/1.00 (C-D:1), BC=0.19/1.00 (F-G:4), WB=0.04/1.00 (B-G:1), SSI=0.11/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.36 (G) (INPUT = 0.90 )  
JSI METAL= 0.18 (B) (INPUT = 1.00 )

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

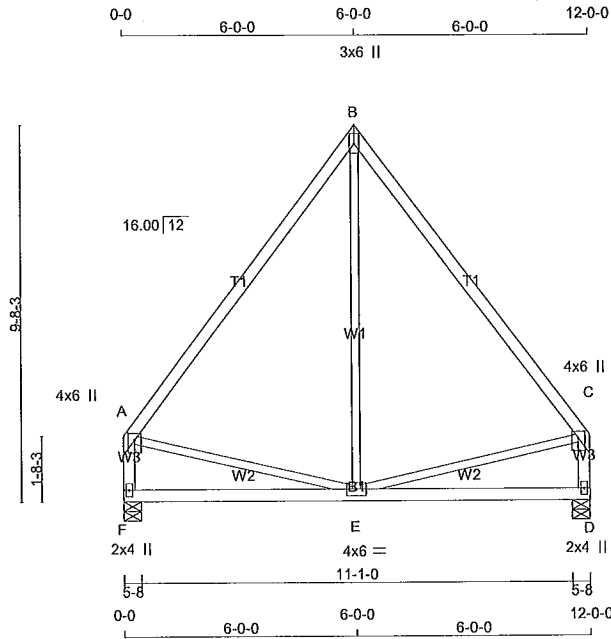


A-18023846

|          |            |          |     |             |          |
|----------|------------|----------|-----|-------------|----------|
| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292623   | H24A       | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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Scale = 1:59.3

TOTAL WEIGHT = 57 lb

| LUMBER | N. L. G. A. RULES | CHORDS | SIZE       | LUMBER | DESCR. |
|--------|-------------------|--------|------------|--------|--------|
| A - B  | 2x4               | DRY    | 2100F 1.8E | SPF    |        |
| B - C  | 2x4               | DRY    | 2100F 1.8E | SPF    |        |
| F - A  | 2x4               | DRY    | No.2       | SPF    |        |
| D - C  | 2x4               | DRY    | No.2       | SPF    |        |
| F - D  | 2x4               | DRY    | No.2       | SPF    |        |

ALL WEBS 2x3 DRY No.2 SPF  
EXCEPT

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W   | LEN | Y    | X    |
|----|---------|--------|-----|-----|------|------|
| A  | TMVW+p  | MT20   | 4.0 | 6.0 | 2.00 | 2.00 |
| B  | TTW+p   | MT20   | 3.0 | 6.0 |      |      |
| C  | TMVW+p  | MT20   | 4.0 | 6.0 | 2.00 | 2.00 |
| D  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| E  | BMWWW-t | MT20   | 4.0 | 6.0 |      |      |
| F  | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|------|-----------|-----------|
|    | VERT                    | HORZ | DOWN                            | HORZ |           |           |
| F  | 1140                    | 0    | 1140                            | 0    | 5-8       | 1-11      |
| D  | 1140                    | 0    | 1140                            | 0    | 5-8       | 1-11      |

#### UNFACTORED REACTIONS

| JT | 1ST CASE | MAX /MIN. COMPONENT REACTIONS | SNOW  | LIVE  | PERM. LIVE | WIND  | DEAD    | SOIL  |
|----|----------|-------------------------------|-------|-------|------------|-------|---------|-------|
| F  | 812      | 496 / 0                       | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 317 / 0 | 0 / 0 |
| D  | 812      | 496 / 0                       | 0 / 0 | 0 / 0 | 0 / 0      | 0 / 0 | 317 / 0 | 0 / 0 |

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

#### BRACING

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS        |          |  |            |        |          | WEBS          |       |         |          |  |
|---------------|----------|--|------------|--------|----------|---------------|-------|---------|----------|--|
| MAX. FACTORED |          |  | FACTORED   |        |          | MAX. FACTORED |       |         |          |  |
| MEMB.         | FORCE    |  | VERT. LOAD | LC1    | MAX      | MAX.          | MEMB. | FORCE   | MAX      |  |
|               | (LBS)    |  | (PLF)      |        | CSI (LC) | UNBRAC        |       | (LBS)   | CSI (LC) |  |
| FR-TO         |          |  | FROM       | TO     |          | LENGTH        | FR-TO |         |          |  |
| A-B           | -702 / 0 |  | -78.0      | -78.0  | 0.39 (1) | 6.25          | E-B   | 0 / 655 | 0.16 (1) |  |
| B-C           | -702 / 0 |  | -78.0      | -78.0  | 0.39 (1) | 6.25          | A-E   | 0 / 431 | 0.11 (1) |  |
| F-A           | -886 / 0 |  | 0.0        | 0.0    | 0.10 (1) | 7.81          | E-C   | 0 / 431 | 0.11 (1) |  |
| D-C           | -886 / 0 |  | 0.0        | 0.0    | 0.10 (1) | 7.81          |       |         |          |  |
|               |          |  |            |        |          |               |       |         |          |  |
| F-E           | 0 / 0    |  | -112.0     | -112.0 | 0.74 (1) | 10.00         |       |         |          |  |
| E-D           | 0 / 0    |  | -112.0     | -112.0 | 0.74 (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

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 5-10-8  
END DISTANCE = 12-0-0  
END SPAN CARRIED = 5-10-8  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")  
ALLOWABLE DEFL.(TL)= L/360 (0.40")  
CALCULATED VERT. DEFL.(TL) = L/846 (0.17")

CSI: TC=0.39/1.00 (B-C:1), BC=0.74/1.00 (E-F:1), WB=0.16/1.00 (B-E:1), SSI=0.36/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

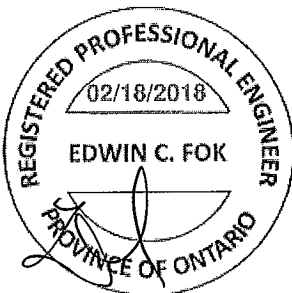
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.78 (E) (INPUT = 0.90 )  
JSI METAL= 0.28 (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



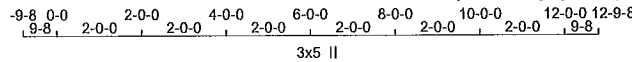
A-18023847

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292623   | H24G       | 1        | 1   | TRUSS DESC. |          |

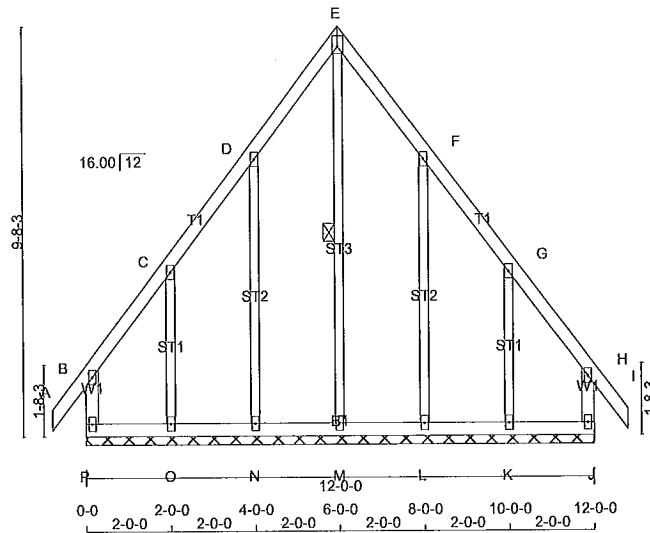
Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Sun Feb 18 17:11:30 2018 Page 1

ID:Rbextx08A5M1Jnp0fBKG3yNySB-FqOVGmCMYFTfymmx58u3XxauEMVUAUwGY2\_B6uzjrzh



Scale = 1:54.4



TOTAL WEIGHT = 67 lb

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

| PLATES (table is in inches) | JT TYPE | PLATES | W   | LEN | Y    | X    |
|-----------------------------|---------|--------|-----|-----|------|------|
| B                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| C, D, F, G                  |         |        |     |     |      |      |
| C                           | TMW+w   | MT20   | 2.0 | 4.0 |      |      |
| E                           | TTW+p   | MT20   | 3.0 | 5.0 | 2.00 | Edge |
| H                           | TMV+p   | MT20   | 2.0 | 4.0 |      |      |
| J                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| K, L, M, N, O               |         |        |     |     |      |      |
| K                           | BMW1+w  | MT20   | 2.0 | 4.0 |      |      |
| P                           | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

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

##### BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

##### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-M.

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS | MEMB.    | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1      | MAX   | MAX. UNBRACED LENGTH | WEBS  | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |
|--------|----------|---------------------------|---------------------------|----------|-------|----------------------|-------|----------|---------------------------|---------------|
|        |          |                           |                           |          |       |                      |       |          |                           |               |
| FR-TO  |          |                           | FROM                      | TO       |       |                      | FR-TO |          |                           |               |
| A-B    | 0 / 28   | -78.0                     | -78.0                     | 0.05 (1) | 10.00 |                      | M-E   | -119 / 0 | 0.07 (1)                  |               |
| B-C    | -43 / 0  | -78.0                     | -78.0                     | 0.03 (1) | 6.25  |                      | N-D   | -157 / 0 | 0.13 (1)                  |               |
| C-D    | -34 / 0  | -78.0                     | -78.0                     | 0.04 (1) | 6.25  |                      | O-C   | -144 / 0 | 0.04 (1)                  |               |
| D-E    | -30 / 0  | -78.0                     | -78.0                     | 0.04 (1) | 6.25  |                      | L-F   | -157 / 0 | 0.13 (1)                  |               |
| E-F    | -30 / 0  | -78.0                     | -78.0                     | 0.04 (1) | 6.25  |                      | K-G   | -144 / 0 | 0.04 (1)                  |               |
| F-G    | -34 / 0  | -78.0                     | -78.0                     | 0.04 (1) | 6.25  |                      |       |          |                           |               |
| G-H    | -43 / 0  | -78.0                     | -78.0                     | 0.03 (1) | 6.25  |                      |       |          |                           |               |
| H-I    | 0 / 28   | -78.0                     | -78.0                     | 0.05 (1) | 10.00 |                      |       |          |                           |               |
| P-B    | -178 / 0 | 0.0                       | 0.0                       | 0.03 (1) | 7.81  |                      |       |          |                           |               |
| J-H    | -178 / 0 | 0.0                       | 0.0                       | 0.03 (1) | 7.81  |                      |       |          |                           |               |
| P-O    | 0 / 26   | -18.5                     | -18.5                     | 0.02 (1) | 10.00 |                      |       |          |                           |               |
| O-N    | 0 / 21   | -18.5                     | -18.5                     | 0.02 (4) | 10.00 |                      |       |          |                           |               |
| N-M    | 0 / 18   | -18.5                     | -18.5                     | 0.02 (4) | 10.00 |                      |       |          |                           |               |
| M-L    | 0 / 18   | -18.5                     | -18.5                     | 0.02 (4) | 10.00 |                      |       |          |                           |               |
| L-K    | 0 / 21   | -18.5                     | -18.5                     | 0.02 (4) | 10.00 |                      |       |          |                           |               |
| K-J    | 0 / 26   | -18.5                     | -18.5                     | 0.02 (1) | 10.00 |                      |       |          |                           |               |

#### DESIGN CRITERIA

##### SPECIFIED LOADS:

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

##### SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

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

##### DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

CSI: TC=0.05/1.00 (A-B:1), BC=0.02/1.00 (O-P:1), WB=0.13/1.00 (D-N:1), SSI=0.04/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

##### NAIL VALUES

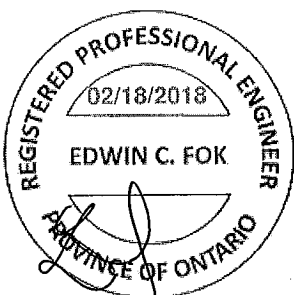
| PLATE GRIP(DRY) | SHEAR (PSI) | SECTION (PLI) |
|-----------------|-------------|---------------|
| MAX MIN         | MAX MIN     | MAX MIN       |
| MT20            | 618 354     | 1667 788      |
|                 | 1987        | 1656          |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.18 (H) (INPUT = 0.90 )  
JSI METAL= 0.10 (H) (INPUT = 1.00 )

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



A-18023848



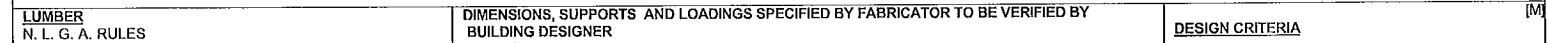
Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0fBKg3yNySB-WcGlgPJtZMZZZGWCoE??f?LnQav\_rgNOY5yGnMEz[eZ]

-1-6-8 0-0 1-10-03-2-15 9-2-7 15-2-0 16-2-0 21-6-14 26-10-9 32-2-3 40-10-042-4-8  
1-6-8, 1-10-0, 1-4-14, 5-11-9 1-0-0 5-4-14 5-3-10 5-3-10 5-4-14 3-2-15 1-6-8

Scale = 1/3.75



|                              |                                                                                                                                                                             |                                                                                                                                                      |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>DRY, SEASONED LUMBER.</p> | <p>FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.</p> | <p>END JACK TIES TO BE CONVENTIONAL<br/>APPLIED TO FRONT SIDE<br/>- ADDTL LOADS BASED ON .55 % OF GSL.<br/>LOADS APPLIED TO FIRST 23-3-0 OF SPAN</p> |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                 |      |           |        |        |          |      |     |           |          |
|---------------------------------------------------------------------------------------------------------------------------------|------|-----------|--------|--------|----------|------|-----|-----------|----------|
| NOTE: Lateral brace(s) shown shall be 1x4<br>for Part 9 design as per OBC 9.23.13.11,<br>and no less than 2x4 for Part 4 design | E-F  | -8048 / 0 | -78.0  | -78.0  | 0.83 (1) | 2.62 | W-D | -2732 / 0 | 0.81 (1) |
|                                                                                                                                 | F-AB | -7166 / 0 | -78.0  | -78.0  | 0.64 (1) | 2.81 | D-V | 0 / 3389  | 0.84 (1) |
|                                                                                                                                 | AB-G | -7166 / 0 | -153.5 | -153.5 | 0.64 (1) | 2.81 | V-E | 0 / 130   | 0.03 (1) |
|                                                                                                                                 | G-H  | -7166 / 0 | -153.5 | -153.5 | 0.64 (1) | 2.81 | V-F | 0 / 4390  | 0.57 (1) |
|                                                                                                                                 | H-I  | -7520 / 0 | -153.5 | -153.5 | 0.69 (1) | 2.70 | U-F | -4941 / 0 | 0.75 (1) |
|                                                                                                                                 | I-J  | -6593 / 0 | -153.5 | -153.5 | 0.66 (1) | 2.89 | U-H | -517 / 0  | 0.60 (1) |
|                                                                                                                                 | J-K  | -6593 / 0 | -153.5 | -153.5 | 0.66 (1) | 2.89 | T-H | -439 / 10 | 0.25 (1) |

[illegible]

|                                                                                   |            |          |     |             |          |
|-----------------------------------------------------------------------------------|------------|----------|-----|-------------|----------|
| JOB NAME                                                                          | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
| 292624                                                                            | H1T        | 1        | 1   | TRUSS DESC. |          |
| Alpa Roof Truss, Maple                                                            |            |          |     |             |          |
| Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 08:26:41 2018 Page 2 |            |          |     |             |          |
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#### PLATES (table is in inches)

| JT | TYPE    | PLATES | W    | LEN  | Y    | X    |
|----|---------|--------|------|------|------|------|
| M  | TMVW-l  | MT20   | 5.0  | 8.0  | 2.00 | 2.00 |
| O  | BMV1+p  | MT20   | 3.0  | 6.0  |      |      |
| P  | BMWW-l  | MT20   | 4.0  | 6.0  | 2.00 | 1.75 |
| Q  | BMWW+t  | MT20   | 5.0  | 8.0  | 3.75 | 1.50 |
| R  | BS-l    | MT20   | 5.0  | 6.0  |      |      |
| S  | BMWW+l  | MT20   | 4.0  | 8.0  | 2.25 | 1.50 |
| T  | BMWW-l  | MT20   | 4.0  | 6.0  |      |      |
| U  | BBWW-m  | MT20   | 7.0  | 12.0 | Edge | 8.00 |
| V  | BBWWW-m | MT20   | 10.0 | 12.0 | 4.25 | 5.00 |
| W  | BMWW-l  | MT20   | 6.0  | 7.0  | 2.75 | 2.25 |
| X  | BBWW-h  | MT20   | 8.0  | 9.0  | 3.75 | 4.50 |
| Y  | BBWW-l  | MT20   | 6.0  | 7.0  | 3.00 | 5.00 |
| Z  | BMV1+p  | MT20   | 3.0  | 5.0  |      |      |

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

#### HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 184.5 lbs FACTORED DOWN AT 37-7-2 ON TOP CHORD, AND 1279.7 lbs FACTORED DOWN AT 17-8-8 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 MAX | MAX. UNBRAC | MEMB. | FORCE (LBS) | MAX. CSI (LC) |
| FR-TO  |             | FROM TO          |         | LENGTH      | FR-TO |             |               |
| O-N    | 0/0         | -96.5            | -96.5   | 0.05 (1)    | 10.00 |             |               |

#### FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.   | LC1   | MAX-  | MAX+ | FACE  | DIR. | TYPE  |
|----|--------|-------|-------|------|-------|------|-------|
| L  | 37-7-2 | -184  | -184  | ---  | FRONT | VERT | TOTAL |
| AC | 17-8-8 | -1280 | -1280 | ---  | FRONT | VERT | TOTAL |

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

#### NAIL VALUES

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

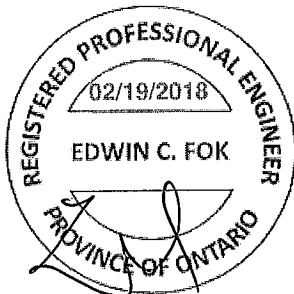
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90 )

JSI METAL= 1.00 (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



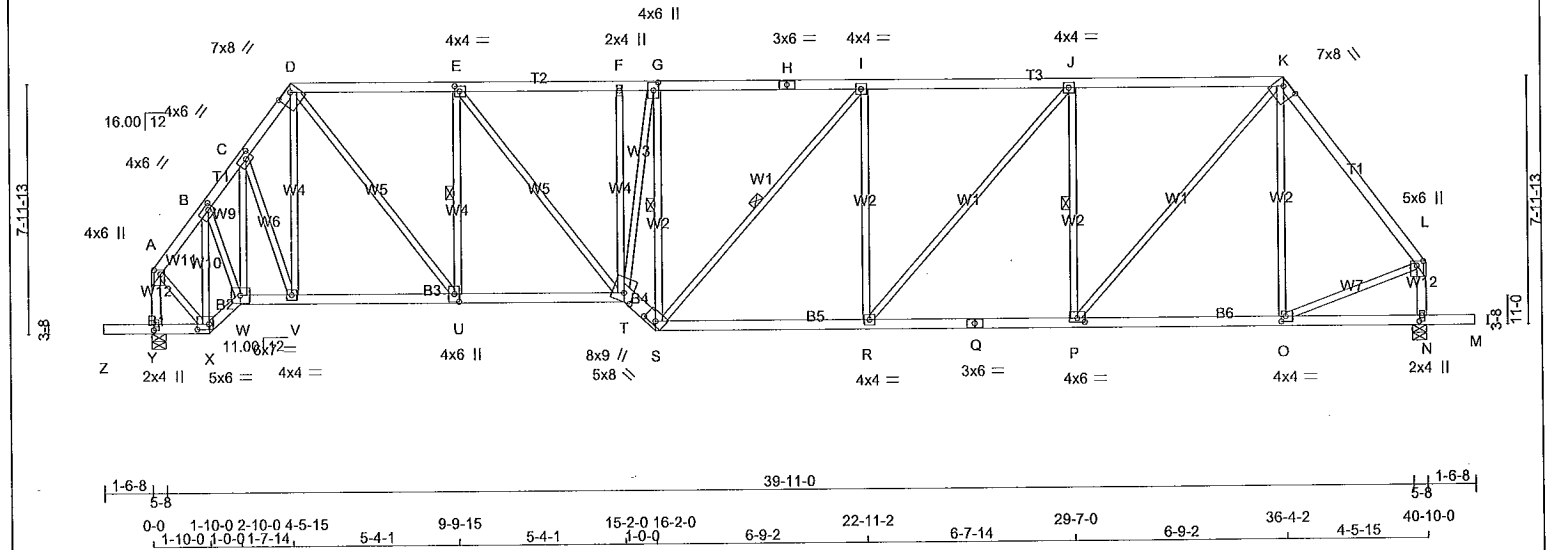
A-18023890(2)

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292624   | H2T        | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITEK Industries, Inc. Mon Feb 19 08:26:56 2018 Page 1  
ID:Rbextx08A5M1Jnp0FbKG3yNySB-2hEo1tvWoGalUjkHkbIPfjS9MMYmQduumS8dwzjeZT

1-6-8 0-0 1-10-0 2-10-0 4-5-15 5-4-1 9-9-15 5-4-1 15-2-0 16-2-0 22-11-2 6-7-14 29-7-0 6-9-2 36-4-2 4-5-15 40-10-0 4-8 1-6-8  
Scale = 1:74.0



TOTAL WEIGHT = 211 lb

| LUMBER          | N. L. G. A. RULES | CHORDS | SIZE | DRY | LUMBER | DESCR. |
|-----------------|-------------------|--------|------|-----|--------|--------|
| A - D           | 2x4               | DRY    | No.2 | SPF |        |        |
| D - H           | 2x4               | DRY    | No.2 | SPF |        |        |
| H - K           | 2x4               | DRY    | No.2 | SPF |        |        |
| K - L           | 2x4               | DRY    | No.2 | SPF |        |        |
| Y - A           | 2x4               | DRY    | No.2 | SPF |        |        |
| N - L           | 2x4               | DRY    | No.2 | SPF |        |        |
| Z - X           | 2x4               | DRY    | No.2 | SPF |        |        |
| X - W           | 2x4               | DRY    | No.2 | SPF |        |        |
| W - T           | 2x4               | DRY    | No.2 | SPF |        |        |
| T - S           | 2x6               | DRY    | No.2 | SPF |        |        |
| S - Q           | 2x4               | DRY    | No.2 | SPF |        |        |
| Q - M           | 2x4               | DRY    | No.2 | SPF |        |        |
| ALL WEBS EXCEPT | 2x3               | DRY    | No.2 | SPF |        |        |

DRY: SEASONED LUMBER.

#### PLATES (table is in inches)

| JT | TYPE   | PLATES | W   | LEN | Y    | X    |
|----|--------|--------|-----|-----|------|------|
| A  | TMVW+p | MT20   | 4.0 | 6.0 | 1.75 | 2.50 |
| B  | TMVW-l | MT20   | 4.0 | 6.0 | 1.75 | 2.00 |
| C  | TMVW-l | MT20   | 4.0 | 6.0 | 2.00 | 2.50 |
| D  | TMVW-h | MT20   | 7.0 | 8.0 | 1.75 | 5.00 |
| E  | TMVW-l | MT20   | 4.0 | 4.0 | 2.00 | 1.75 |
| F  | TMVW+u | MT20   | 2.0 | 4.0 |      |      |
| G  | TMVW+u | MT20   | 4.0 | 6.0 | 3.00 | 1.75 |
| H  | TS-l   | MT20   | 3.0 | 6.0 |      |      |
| I  | TMVW-l | MT20   | 4.0 | 4.0 |      |      |
| J  | TMVW-l | MT20   | 4.0 | 4.0 |      |      |
| K  | TMVW-h | MT20   | 7.0 | 8.0 | 1.75 | 5.00 |
| L  | TMVW+p | MT20   | 5.0 | 6.0 | 2.25 | 1.00 |
| N  | BMVW+p | MT20   | 2.0 | 4.0 | 2.25 | 1.00 |
| O  | BMVW-l | MT20   | 4.0 | 4.0 | 2.00 | 1.50 |
| P  | BMVW-l | MT20   | 4.0 | 6.0 | 1.50 | 3.00 |
| Q  | BS-l   | MT20   | 3.0 | 6.0 |      |      |
| R  | BMVW-l | MT20   | 4.0 | 4.0 |      |      |
| S  | BBVW-h | MT20   | 5.0 | 8.0 | 1.50 | 4.50 |
| T  | BBVW+u | MT20   | 8.0 | 9.0 | 3.25 | 3.50 |
| U  | BMVW+u | MT20   | 4.0 | 6.0 | 3.00 | 1.75 |
| V  | BMVW-l | MT20   | 4.0 | 4.0 |      |      |

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

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

##### BEARINGS

|    | FACTORED GROSS REACTION | MAXIMUM FACTORED GROSS REACTION | INPUT BRG | REQRD BRG |
|----|-------------------------|---------------------------------|-----------|-----------|
| JT | VERT                    | HORZ                            | UP/LIFT   | IN-SX     |
| Y  | 2121                    | 0                               | 2121      | 0         |
| N  | 2115                    | 0                               | 2115      | 0         |

##### UNFACTORED REACTIONS

| JT | 1ST LCASE | MAX./MIN. COMPONENT REACTIONS | SNOW  | LIVE  | PERM.LIVE | WIND    | DEAD  | SOIL  |
|----|-----------|-------------------------------|-------|-------|-----------|---------|-------|-------|
| Y  | 1512      | 923 / 0                       | 0 / 0 | 0 / 0 | 0 / 0     | 589 / 0 | 0 / 0 | 0 / 0 |
| N  | 1508      | 921 / 0                       | 0 / 0 | 0 / 0 | 0 / 0     | 588 / 0 | 0 / 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 = 3.52 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, G-S, I-S, J-P.

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

##### LOADING

TOTAL LOAD CASES: (4)

| CHORDS | MEMB.     | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | FACTORED HORIZ. LOAD (PLF) | MAX. UNBRACED LENGTH (FT) | WEBS  | MEMB.     | MAX. FACTORED FORCE (LBS) | MAX. UNBRACED LENGTH (FT) |
|--------|-----------|---------------------------|---------------------------|----------------------------|---------------------------|-------|-----------|---------------------------|---------------------------|
| FR-TO  |           |                           |                           |                            |                           | FR-TO |           |                           |                           |
| A-B    | -1386 / 0 | -78.0                     | -78.0                     | 0.06 (1)                   | 5.49                      | X-B   | -1482 / 0 | 0.40 (1)                  |                           |
| B-C    | -1913 / 0 | -78.0                     | -78.0                     | 0.06 (1)                   | 4.84                      | B-W   | 0 / 1003  | 0.23 (1)                  |                           |
| C-D    | -1961 / 0 | -78.0                     | -78.0                     | 0.08 (1)                   | 4.77                      | W-C   | -191 / 0  | 0.07 (1)                  |                           |
| D-E    | -2200 / 0 | -78.0                     | -78.0                     | 0.47 (1)                   | 4.13                      | C-V   | 0 / 39    | 0.01 (4)                  |                           |
| E-F    | -2802 / 0 | -78.0                     | -78.0                     | 0.53 (1)                   | 3.67                      | V-D   | 0 / 56    | 0.02 (4)                  |                           |
| F-G    | -2801 / 0 | -78.0                     | -78.0                     | 0.45 (1)                   | 3.65                      | D-U   | 0 / 1672  | 0.38 (1)                  |                           |
| G-H    | -2556 / 0 | -78.0                     | -78.0                     | 0.62 (1)                   | 3.80                      | U-E   | -1234 / 0 | 0.39 (1)                  |                           |
| H-I    | -2556 / 0 | -78.0                     | -78.0                     | 0.62 (1)                   | 3.80                      | E-T   | 0 / 964   | 0.22 (1)                  |                           |
| I-J    | -2613 / 0 | -78.0                     | -78.0                     | 0.79 (1)                   | 3.52                      | T-F   | -21 / 10  | 0.02 (1)                  |                           |
| J-K    | -2137 / 0 | -78.0                     | -78.0                     | 0.71 (1)                   | 3.91                      | F-G   | 0 / 1689  | 0.38 (1)                  |                           |
| K-L    | -1744 / 0 | -78.0                     | -78.0                     | 0.41 (1)                   | 4.69                      | G-S   | -2160 / 0 | 0.87 (1)                  |                           |
| Y-A    | -1893 / 0 | 0.0                       | 0.0                       | 0.22 (1)                   | 6.10                      | S-I   | -86 / 0   | 0.06 (1)                  |                           |
| N-L    | -1938 / 0 | 0.0                       | 0.0                       | 0.22 (1)                   | 6.04                      | I-R   | -443 / 0  | 0.54 (1)                  |                           |
|        |           |                           |                           |                            |                           | R-J   | 0 / 727   | 0.16 (1)                  |                           |
| Z-Y    | 0 / 0     | -96.5                     | -96.5                     | 0.16 (1)                   | 10.00                     | J-P   | -1124 / 0 | 0.45 (1)                  |                           |
| Y-X    | 0 / 0     | -18.5                     | -18.5                     | 0.16 (1)                   | 10.00                     | P-K   | 0 / 1660  | 0.37 (1)                  |                           |
| X-W    | 0 / 1077  | -18.5                     | -18.5                     | 0.18 (1)                   | 10.00                     | O-K   | -245 / 0  | 0.30 (1)                  |                           |
| W-V    | 0 / 1148  | -18.5                     | -18.5                     | 0.23 (1)                   | 10.00                     | A-X   | 0 / 1100  | 0.25 (1)                  |                           |
| V-U    | 0 / 1161  | -18.5                     | -18.5                     | 0.25 (1)                   | 10.00                     | O-L   | 0 / 1103  | 0.25 (1)                  |                           |
| U-T    | 0 / 2201  | -18.5                     | -18.5                     | 0.42 (1)                   | 10.00                     |       |           |                           |                           |
| T-S    | 0 / 3427  | -18.5                     | -18.5                     | 0.41 (1)                   | 10.00                     |       |           |                           |                           |
| S-R    | 0 / 2613  | -18.5                     | -18.5                     | 0.52 (1)                   | 10.00                     |       |           |                           |                           |
| R-Q    | 0 / 2137  | -18.5                     | -18.5                     | 0.45 (1)                   | 10.00                     |       |           |                           |                           |
| Q-P    | 0 / 2137  | -18.5                     | -18.5                     | 0.45 (1)                   | 10.00                     |       |           |                           |                           |
| P-O    | 0 / 1038  | -18.5                     | -18.5                     | 0.25 (1)                   | 10.00                     |       |           |                           |                           |
| O-N    | 0 / 0     | -18.5                     | -18.5                     | 0.14 (4)                   | 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/360 (1.36")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.19")  
ALLOWABLE DEFL.(TL)= L/360 (1.36")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.37")

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=0.79/1.00 (I-J:1), BC=0.52/1.00 (R-S:1),  
WB=0.87/1.00 (G-S:1), SSI=0.25/1.00 (J-K:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

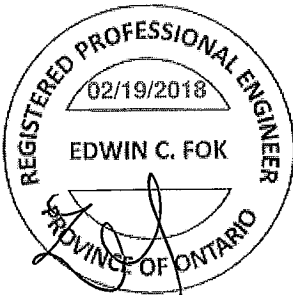
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

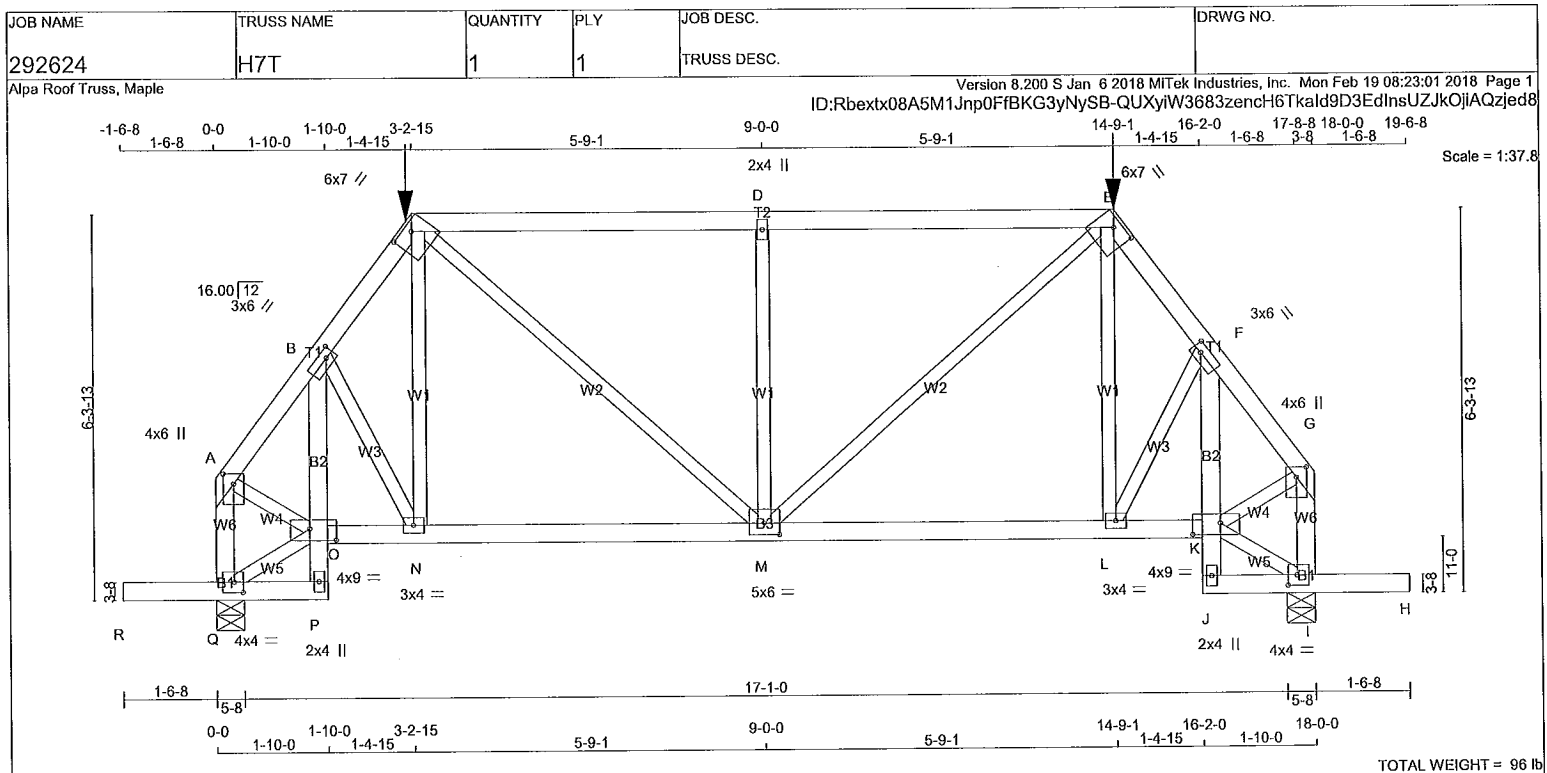
JSI GRIP= 0.90 (E) (INPUT = 0.90)  
JSI METAL= 0.69 (Q) (INPUT = 1.00)

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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 |
| Q - A                 | 2x4  | DRY    | No.2   | SPF |
| I - G                 | 2x4  | DRY    | No.2   | SPF |
| R - P                 | 2x4  | DRY    | No.2   | SPF |
| P - B                 | 2x4  | DRY    | No.2   | SPF |
| O - K                 | 2x4  | DRY    | No.2   | SPF |
| J - F                 | 2x4  | DRY    | No.2   | SPF |
| J - H                 | 2x4  | DRY    | No.2   | SPF |
| ALL WEBS EXCEPT       | 2x3  | DRY    | No.2   | SPF |
| DRY: SEASONED LUMBER. |      |        |        |     |

| PLATES (table is in inches) |         |        |     |               |
|-----------------------------|---------|--------|-----|---------------|
| JT                          | TYPE    | PLATES | W   | LEN Y X       |
| A                           | TMVW+p  | MT20   | 4.0 | 6.0 2.00 2.00 |
| B                           | TMVW-t  | MT20   | 3.0 | 6.0 1.50 1.75 |
| C                           | TTWW-h  | MT20   | 6.0 | 7.0 1.50 3.75 |
| D                           | TMVW-w  | MT20   | 2.0 | 4.0           |
| E                           | TTWW-h  | MT20   | 6.0 | 7.0 1.50 3.75 |
| F                           | TMVW-t  | MT20   | 3.0 | 6.0 1.50 1.75 |
| G                           | TMVW+p  | MT20   | 4.0 | 6.0 2.00 2.00 |
| I                           | BMVW1-t | MT20   | 4.0 | 4.0 2.00 1.75 |
| J                           | BMV+p   | MT20   | 2.0 | 4.0           |
| K                           | BVMWW-t | MT20   | 4.0 | 9.0 2.25 5.25 |
| L                           | BMVW-t  | MT20   | 3.0 | 4.0           |
| M                           | BMVWW-t | MT20   | 5.0 | 6.0 2.25 3.00 |
| N                           | BMVW-t  | MT20   | 3.0 | 4.0           |
| O                           | BVMWW-t | MT20   | 4.0 | 9.0 2.25 5.25 |
| P                           | BMV+p   | MT20   | 2.0 | 4.0           |
| Q                           | BMVW1-t | MT20   | 4.0 | 4.0 2.00 1.75 |

#### HANGERS NOTES

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



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

| BEARINGS |      | FACTORED       |      | MAXIMUM FACTORED |      | INPUT |        | REQRD |       |
|----------|------|----------------|------|------------------|------|-------|--------|-------|-------|
| JT       | VERT | GROSS REACTION | HORZ | GROSS REACTION   | HORZ | DOWN  | UPLIFT | BRG   | IN-SX |
| Q        | 1790 | 0              | 1790 | 0                | 0    | 5-8   | 1-14   | 1-14  |       |
| I        | 1790 | 0              | 1790 | 0                | 0    | 5-8   | 1-14   |       |       |

#### UNFACTORED REACTIONS

| 1ST CASE |          | MAX./MIN. COMPONENT REACTIONS |       |           |       |         |       |  |  |
|----------|----------|-------------------------------|-------|-----------|-------|---------|-------|--|--|
| JT       | COMBINED | SNOW                          | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |  |  |
| Q        | 1277     | 772 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 508 / 0 | 0 / 0 |  |  |
| I        | 1277     | 772 / 0                       | 0 / 0 | 0 / 0     | 0 / 0 | 508 / 0 | 0 / 0 |  |  |

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

#### BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.44 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT OR RIGID CEILING DIRECTLY APPLIED.

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |             | FACTORED         |                 | WEBS  |             | FACTORED         |          |
|--------|-------------|------------------|-----------------|-------|-------------|------------------|----------|
| MEMB.  | FORCE (LBS) | VERT. LOAD (PLF) | LC1 (LC)        | MEMB. | FORCE (LBS) | VERT. LOAD (PLF) | LC1 (LC) |
| FR-TO  |             | FROM             | TO              | FR-TO |             | FROM             | TO       |
| A-B    | -1432 / 0   | -78.0            | -78.0 0.06 (1)  | 5.38  | B-N         | 0 / 173          | 0.04 (1) |
| B-C    | -1817 / 0   | -78.0            | -78.0 0.06 (1)  | 5.13  | N-C         | 0 / 277          | 0.07 (4) |
| C-D    | -1640 / 0   | -78.0            | -78.0 0.56 (1)  | 4.44  | C-M         | 0 / 906          | 0.22 (1) |
| D-E    | -1640 / 0   | -78.0            | -78.0 0.56 (1)  | 4.44  | M-D         | -527 / 0         | 0.24 (1) |
| E-F    | -1617 / 0   | -78.0            | -78.0 0.06 (1)  | 5.13  | M-E         | 0 / 906          | 0.22 (1) |
| F-G    | -1432 / 0   | -78.0            | -78.0 0.06 (1)  | 5.38  | L-E         | 0 / 277          | 0.07 (4) |
| Q-A    | -1529 / 0   | 0.0              | 0.0 0.19 (1)    | 6.61  | L-F         | 0 / 173          | 0.04 (1) |
| I-G    | -1529 / 0   | 0.0              | 0.0 0.19 (1)    | 6.61  | Q-O         | -26 / 0          | 0.00 (1) |
|        |             |                  |                 |       | A-O         | 0 / 919          | 0.23 (1) |
|        |             |                  |                 |       | K-I         | -26 / 0          | 0.00 (1) |
|        |             |                  |                 |       | K-G         | 0 / 919          | 0.23 (1) |
| R-Q    | 0 / 0       | -96.5            | -96.5 0.17 (1)  | 10.00 |             |                  |          |
| Q-P    | 0 / 22      | -36.4            | -36.4 0.18 (1)  | 10.00 |             |                  |          |
| P-O    | -37 / 8     | 0.0              | 0.0 0.03 (1)    | 7.81  |             |                  |          |
| O-B    | -439 / 0    | 0.0              | 0.0 0.04 (1)    | 7.81  |             |                  |          |
| O-N    | 0 / 864     | -36.4            | -36.4 0.48 (1)  | 10.00 |             |                  |          |
| N-M    | 0 / 959     | -112.0           | -112.0 0.65 (1) | 10.00 |             |                  |          |
| M-L    | 0 / 959     | -112.0           | -112.0 0.65 (1) | 10.00 |             |                  |          |
| L-K    | 0 / 864     | -36.4            | -36.4 0.48 (1)  | 10.00 |             |                  |          |
| J-K    | -37 / 8     | 0.0              | 0.0 0.03 (1)    | 7.81  |             |                  |          |
| K-F    | -439 / 0    | 0.0              | 0.0 0.04 (1)    | 7.81  |             |                  |          |
| J-I    | 0 / 22      | -36.4            | -36.4 0.18 (1)  | 10.00 |             |                  |          |
| I-H    | 0 / 0       | -96.5            | -96.5 0.17 (1)  | 10.00 |             |                  |          |

#### FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC.   | LC1  | MAX. | MAX+ | FACE  | DIR. | TYPE  |
|----|--------|------|------|------|-------|------|-------|
| C  | 3-2-15 | -184 | -184 | —    | FRONT | VERT | TOTAL |
| E  | 14-9-1 | -184 | -184 | —    | 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  
SIDE SETBACK = 3-2-15  
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 3-2-15 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder  
START DISTANCE = 3-2-15  
START SPAN CARRIED = 5-10-8  
END DISTANCE = 14-9-1  
END SPAN CARRIED = 5-10-8  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip  
SIDE SETBACK = 3-2-15  
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 3-2-15 OF SPAN MEASURED FROM THE RIGHT.

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

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

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

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

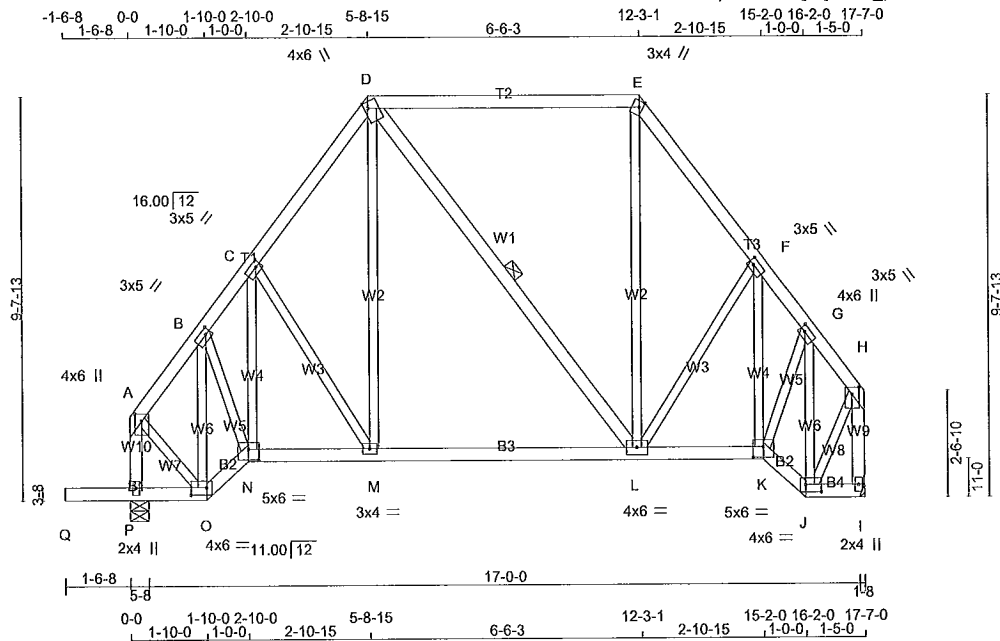
ALLOWABLE DEFL.(LL)= L/360 (0.60")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.06")  
ALLOWABLE DEFL.(TL)= L/360 (0.60")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.13")

CANTILEVER DEFLECTION:  
ALLOWABLE DEFL.(LL)= L/120 (0.19")  
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CONTINUED ON PAGE 2

Alpa Roof Truss, Maple

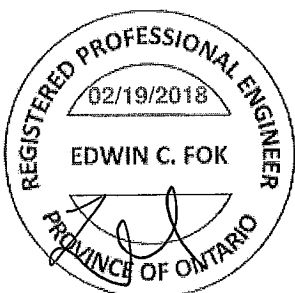
Scale = 1:55.2



TOTAL WEIGHT = 112 lb

DRY: SEASONED LUMBER.

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



| CHORDS |                           |                           |                  | WEBS               |       |                           |              |
|--------|---------------------------|---------------------------|------------------|--------------------|-------|---------------------------|--------------|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
| FR-TO  |                           | FROM TO                   |                  | FR-TO              |       |                           |              |
| A-B    | -537 / 0                  | -78.0                     | -78.0 0.03 (1)   | 6.25               | O-B   | -598 / 0                  | 0.16 (1)     |
| B-C    | -707 / 0                  | -78.0                     | -78.0 0.05 (1)   | 6.25               | B-N   | 0 / 382                   | 0.09 (1)     |
| C-D    | -662 / 0                  | -78.0                     | -78.0 0.08 (1)   | 6.25               | N-C   | -51 / 0                   | 0.02 (1)     |
| D-E    | -378 / 0                  | -78.0                     | -78.0 0.43 (1)   | 6.25               | C-M   | -106 / 0                  | 0.05 (1)     |
| E-F    | -646 / 0                  | -78.0                     | -78.0 0.08 (1)   | 6.25               | M-D   | 0 / 188                   | 0.05 (4)     |
| F-G    | -636 / 0                  | -78.0                     | -78.0 0.06 (1)   | 6.25               | D-L   | -17 / 0                   | 0.01 (1)     |
| G-H    | -457 / 0                  | -78.0                     | -78.0 0.02 (1)   | 6.25               | L-E   | 0 / 162                   | 0.04 (4)     |
| P-A    | -775 / 0                  | 0.0                       | 0.0 0.09 (1)     | 7.81               | L-F   | -58 / 0                   | 0.03 (1)     |
| I-H    | -829 / 0                  | 0.0                       | 0.0 0.11 (1)     | 7.81               | K-F   | -140 / 0                  | 0.05 (1)     |
|        |                           |                           |                  |                    | K-G   | 0 / 425                   | 0.10 (1)     |
| Q-P    | 0 / 0                     | -96.5                     | -96.5 0.16 (1)   | 10.00              | J-G   | -622 / 0                  | 0.17 (1)     |
| P-O    | 0 / 0                     | -18.5                     | -18.5 0.12 (1)   | 10.00              | A-O   | 0 / 428                   | 0.10 (1)     |
| O-N    | 0 / 418                   | -18.5                     | -18.5 0.07 (1)   | 10.00              | J-H   | 0 / 492                   | 0.11 (1)     |
| N-M    | 0 / 442                   | -18.5                     | -18.5 0.16 (4)   | 10.00              |       |                           |              |
| M-L    | 0 / 388                   | -18.5                     | -18.5 0.16 (4)   | 10.00              |       |                           |              |
| L-K    | 0 / 407                   | -18.5                     | -18.5 0.16 (4)   | 10.00              |       |                           |              |
| K-J    | 0 / 347                   |                           |                  |                    |       |                           |              |

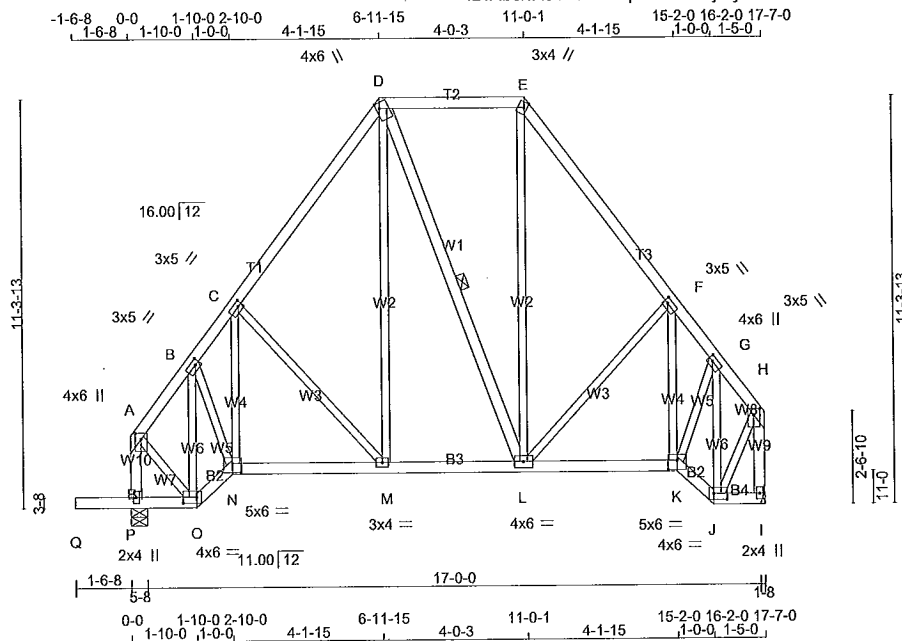
A-18023854

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292624   | H10T       | 1        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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ID:Rbextx08A5M1Jnp0FIBKG3yNySB-fldCkDb40HOYRD3NUGrNtDVVaz6cRyKecaeUBQzjecT



Scale: 3/16"=1'

TOTAL WEIGHT = 118 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

| JT         | TYPE    | PLATES | W   | LEN | Y    | X    |
|------------|---------|--------|-----|-----|------|------|
| A          | TMVW+p  | MT20   | 4.0 | 6.0 | 2.00 | 2.00 |
| B, C, F, G |         |        |     |     |      |      |
| B          | TMVW-t  | MT20   | 3.0 | 5.0 | 1.50 | 1.50 |
| D          | TTWV+m  | MT20   | 4.0 | 6.0 | 1.75 | 1.00 |
| E          | TTW+m   | MT20   | 3.0 | 4.0 | 1.75 | 1.00 |
| H          | TMVW+p  | MT20   | 4.0 | 6.0 | 2.00 | 2.00 |
| I          | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |
| J          | BBWW-I  | MT20   | 4.0 | 6.0 | 2.00 | 4.50 |
| K          | BBWW-I  | MT20   | 5.0 | 6.0 | 3.00 | 3.00 |
| L          | BMVWW-t | MT20   | 4.0 | 6.0 |      |      |
| M          | BMVWW-t | MT20   | 3.0 | 4.0 |      |      |
| N          | BBWW-I  | MT20   | 5.0 | 6.0 | 3.00 | 3.00 |
| O          | BBWW-I  | MT20   | 4.0 | 6.0 | 2.00 | 4.50 |
| P          | BMV1+p  | MT20   | 2.0 | 4.0 |      |      |

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

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

| BEARINGS | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |      | INPUT BRG | REQRD BRG |
|----------|-------------------------|------|---------------------------------|------|-----------|-----------|
|          | VERT                    | HORZ | DOWN                            | HORZ |           |           |
| JT       | 842                     | 0    | 842                             | 0    | 5-8       | 1-8       |
| I        |                         |      |                                 |      |           |           |
| P        | 1003                    | 0    | 1003                            | 0    | 5-8       | 1-8       |

#### UNFACTORED REACTIONS

| JT | 1ST LCASE COMBINED |         | MAX/MIN. COMPONENT REACTIONS |       | WIND  | DEAD    | SOIL  |
|----|--------------------|---------|------------------------------|-------|-------|---------|-------|
|    | SNOW               | LIVE    | PERM.LIVE                    | WIND  |       |         |       |
| I  | 600                | 366 / 0 | 0 / 0                        | 0 / 0 | 0 / 0 | 234 / 0 | 0 / 0 |
| P  | 715                | 437 / 0 | 0 / 0                        | 0 / 0 | 0 / 0 | 279 / 0 | 0 / 0 |

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

#### BRACING

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

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

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

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS |                           |                           |       |              | WEBS               |       |                           |              |  |
|--------|---------------------------|---------------------------|-------|--------------|--------------------|-------|---------------------------|--------------|--|
| MEMB.  | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LOC 1 | MAX CSI (LC) | MAX. UNBRAC LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |  |
| FR-TO  |                           | FROM                      | TO    |              |                    | FR-TO |                           |              |  |
| A-B    | -538 / 0                  | -78.0                     | -78.0 | 0.04 (1)     | 6.25               | O-B   | -592 / 0                  | 0.16 (1)     |  |
| B-C    | -675 / 0                  | -78.0                     | -78.0 | 0.13 (1)     | 6.25               | B-N   | 0 / 433                   | 0.10 (1)     |  |
| C-D    | -609 / 0                  | -78.0                     | -78.0 | 0.15 (1)     | 6.25               | N-C   | -82 / 11                  | 0.03 (1)     |  |
| D-E    | -346 / 0                  | -78.0                     | -78.0 | 0.16 (1)     | 6.25               | C-M   | -162 / 0                  | 0.11 (1)     |  |
| E-F    | -601 / 0                  | -78.0                     | -78.0 | 0.15 (1)     | 6.25               | M-D   | 0 / 197                   | 0.04 (4)     |  |
| F-G    | -603 / 0                  | -78.0                     | -78.0 | 0.13 (1)     | 6.25               | D-L   | -13 / 0                   | 0.01 (1)     |  |
| G-H    | -459 / 0                  | -78.0                     | -78.0 | 0.04 (1)     | 6.25               | L-E   | 0 / 179                   | 0.04 (4)     |  |
| P-A    | -775 / 0                  | 0.0                       | 0.0   | 0.09 (1)     | 7.81               | L-F   | -115 / 0                  | 0.08 (1)     |  |
| I-H    | -829 / 0                  | 0.0                       | 0.0   | 0.11 (1)     | 7.81               | K-F   | -172 / 0                  | 0.06 (1)     |  |
|        |                           |                           |       |              |                    | K-G   | 0 / 477                   | 0.11 (1)     |  |
| Q-P    | 0 / 0                     | -96.5                     | -96.5 | 0.16 (1)     | 10.00              | J-G   | -613 / 0                  | 0.17 (1)     |  |
| P-O    | 0 / 0                     | -18.5                     | -18.5 | 0.12 (1)     | 10.00              | A-O   | 0 / 423                   | 0.10 (1)     |  |
| O-N    | 0 / 413                   | -18.5                     | -18.5 | 0.07 (1)     | 10.00              | J-H   | 0 / 485                   | 0.11 (1)     |  |
| N-M    | 0 / 458                   | -18.5                     | -18.5 | 0.11 (1)     | 10.00              |       |                           |              |  |
| M-L    | 0 / 351                   | -18.5                     | -18.5 | 0.11 (4)     | 10.00              |       |                           |              |  |
| L-K    | 0 / 422                   | -18.5                     | -18.5 | 0.11 (4)     | 10.00              |       |                           |              |  |
| K-J    | 0 / 341                   | -18.5                     | -18.5 | 0.06 (1)     | 10.00              |       |                           |              |  |
| J-I    | 0 / 0                     | -18.5                     | -18.5 | 0.01 (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

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 (0.59")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.59")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.03")

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/723 (0.03")

CSI: TC=0.16/1.00 (D-E:1), BC=0.16/1.00 (P-Q:1)  
WB=0.17/1.00 (G-J:1), SSI=0.12/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

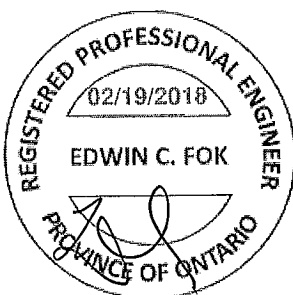
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (G) (INPUT= 0.90)  
JSI METAL= 0.22 (J) (INPUT= 1.00)

A-18023855

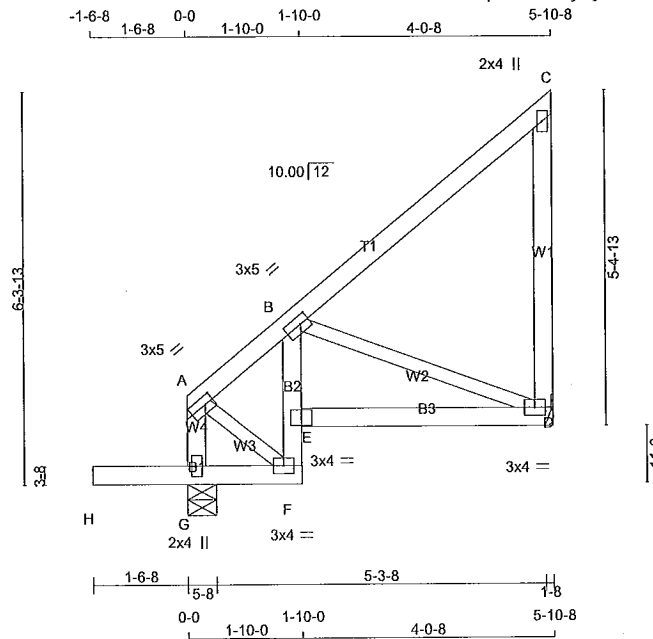


| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC.   | DRWG NO. |
|----------|------------|----------|-----|-------------|----------|
| 292624   | J1T        | 7        | 1   | TRUSS DESC. |          |

Alpa Roof Truss, Maple

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Scale = 1:37.1

TOTAL WEIGHT = 7 X 31 = 218 lb

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

| PLATES (table is in inches) | JT      | TYPE | PLATES | W   | LEN  | Y    | X |
|-----------------------------|---------|------|--------|-----|------|------|---|
| A                           | TMVW-t  | MT20 | 3.0    | 5.0 | 1.50 | 1.75 |   |
| B                           | TMVW-t  | MT20 | 3.0    | 5.0 | 1.50 | 1.75 |   |
| C                           | TMV+p   | MT20 | 2.0    | 4.0 |      |      |   |
| D                           | BMVW1-t | MT20 | 3.0    | 4.0 |      |      |   |
| E                           | BVM-I   | MT20 | 3.0    | 4.0 |      |      |   |
| F                           | BMVW-t  | MT20 | 3.0    | 4.0 |      |      |   |
| 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      |
| G        | 452                     | 0                               | 452       | 0         |
| D        | 264                     | 0                               | 264       | 0         |

#### UNFACTORED REACTIONS

| 1ST LCASE | MAX/MIN  | COMPONENT REACTIONS | SNOW  | LIVE  | PERM.LIVE | WIND  | DEAD    | SOIL  |
|-----------|----------|---------------------|-------|-------|-----------|-------|---------|-------|
| JT        | COMBINED |                     |       |       |           |       |         |       |
| G         | 322      | 197 / 0             | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 125 / 0 | 0 / 0 |
| D         | 188      | 115 / 0             | 0 / 0 | 0 / 0 | 0 / 0     | 0 / 0 | 73 / 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 = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

#### LOADING

TOTAL LOAD CASES: (4)

| CHORDS | MEMB.    | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) | LC1 MAX (LC) | MAX. UNBRACED LENGTH | WEBS  | MEMB.    | MAX. FACTORED FORCE (LBS) | MAX. CSI (LC) |
|--------|----------|---------------------------|---------------------------|--------------|----------------------|-------|----------|---------------------------|---------------|
| FR-TO  |          |                           |                           |              |                      | FR-TO |          |                           |               |
| G-A    | -278 / 0 | 0.0                       | 0.0                       | 0.09 (1)     | 7.81                 | B-D   | -232 / 0 | 0.07 (1)                  |               |
| A-B    | -157 / 0 | -78.0                     | -78.0                     | 0.04 (1)     | 6.25                 | A-F   | 0 / 226  | 0.05 (1)                  |               |
| B-C    | -35 / 0  | -78.0                     | -78.0                     | 0.16 (1)     | 6.25                 |       |          |                           |               |
| D-C    | -134 / 0 | 0.0                       | 0.0                       | 0.10 (1)     | 7.81                 |       |          |                           |               |
| H-G    | 0 / 0    | -96.5                     | -96.5                     | 0.16 (1)     | 10.00                |       |          |                           |               |
| G-F    | -61 / 0  | -18.5                     | -18.5                     | 0.06 (1)     | 6.25                 |       |          |                           |               |
| F-E    | -116 / 0 | 0.0                       | 0.0                       | 0.12 (1)     | 7.81                 |       |          |                           |               |
| E-B    | -87 / 16 | 0.0                       | 0.0                       | 0.12 (1)     | 7.81                 |       |          |                           |               |
| E-D    | 0 / 238  | -18.5                     | -18.5                     | 0.09 (1)     | 10.00                |       |          |                           |               |

#### DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CANTILEVER DEFLECTION:  
ALLOWABLE DEFL.(LL)= L/120 (0.19")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/120 (0.19")  
CALCULATED VERT. DEFL.(TL)= L/999 (0.02")

CSI: TC=0.16/1.00 (B-C:1), BC=0.16/1.00 (G-H:1), WB=0.07/1.00 (B-D:1), SSI=0.12/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

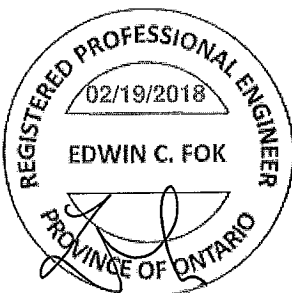
NAIL VALUES  
PLATE GRIP(DRY) SHEAR SECTION  
(PSI) (PLI) (PLI)  
MAX MIN MAX MIN MAX MIN  
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

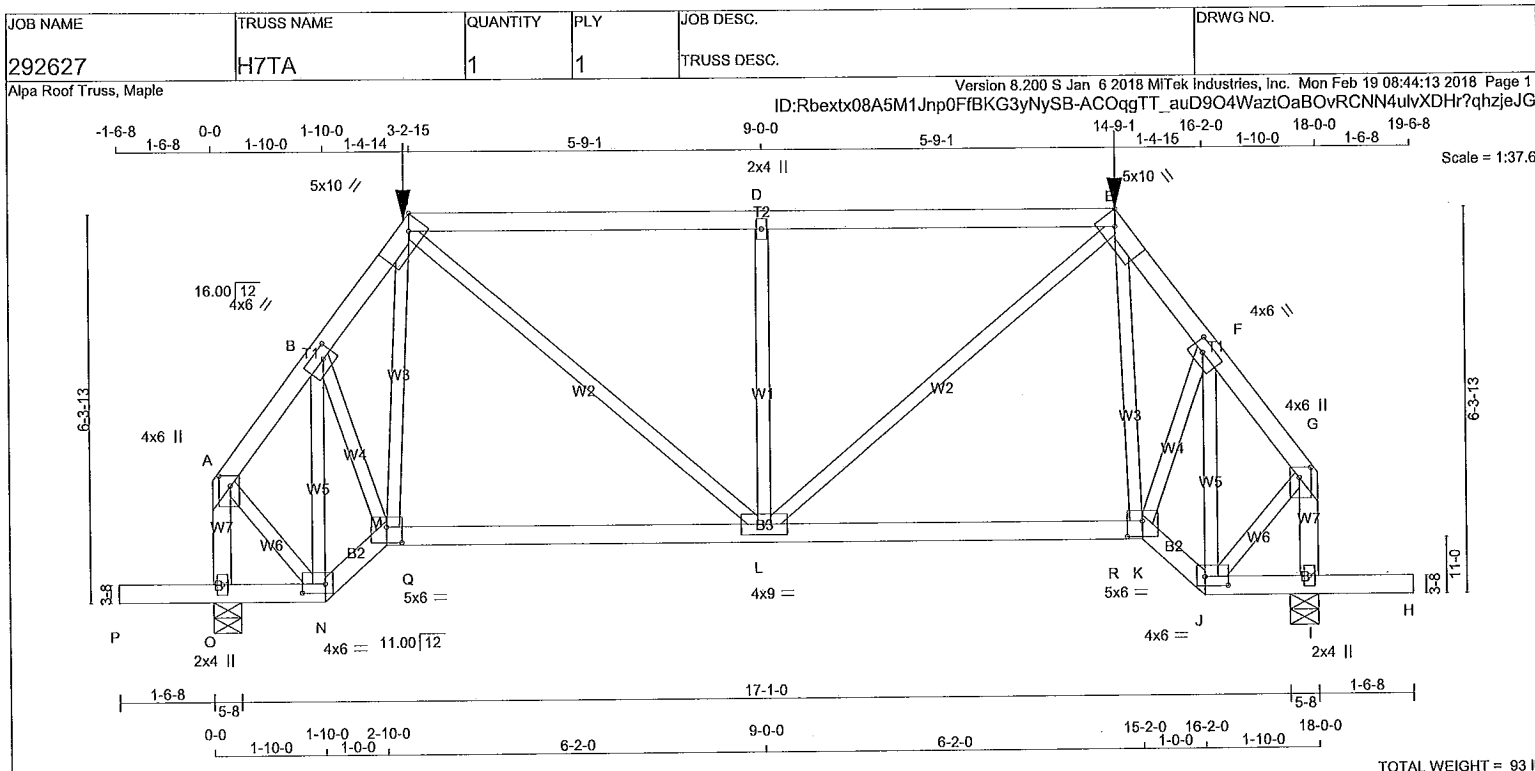
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.46 (A) (INPUT = 0.90)  
JSI METAL= 0.09 (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-18023856



**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    |
| O - A           | 2x4  | DRY No.2 | SPF    |
| I - G           | 2x4  | DRY No.2 | SPF    |
| P - N           | 2x4  | DRY No.2 | SPF    |
| N - M           | 2x4  | DRY No.2 | SPF    |
| M - K           | 2x4  | DRY No.2 | SPF    |
| K - J           | 2x4  | DRY No.2 | SPF    |
| J - H           | 2x4  | DRY No.2 | SPF    |
| ALL WEBS EXCEPT | 2x3  | DRY No.2 | SPF    |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE   | PLATES | W   | LEN  | Y    | X    |
|----|--------|--------|-----|------|------|------|
| A  | TMVW+p | MT20   | 4.0 | 6.0  | 2.00 | 2.25 |
| B  | TMVW-t | MT20   | 4.0 | 6.0  | 2.00 | 2.25 |
| C  | TTWW-h | MT20   | 5.0 | 10.0 | Edge | 2.75 |
| D  | TMVW-w | MT20   | 2.0 | 4.0  |      |      |
| E  | TTWW-h | MT20   | 5.0 | 10.0 | Edge | 2.75 |
| F  | TMVW-t | MT20   | 4.0 | 6.0  | 2.00 | 2.25 |
| G  | TMVW+p | MT20   | 4.0 | 6.0  | 2.00 | 2.25 |
| I  | BMV1+p | MT20   | 2.0 | 4.0  |      |      |
| J  | BBWW-t | MT20   | 4.0 | 6.0  | 1.75 | 4.50 |
| K  | BBWW-t | MT20   | 5.0 | 6.0  | 3.00 | 3.00 |
| L  | BMVW-t | MT20   | 4.0 | 9.0  |      |      |
| M  | BBWW-t | MT20   | 5.0 | 6.0  | 3.00 | 3.00 |
| N  | BBWW-t | MT20   | 4.0 | 6.0  | 1.75 | 4.50 |
| O  | BMV1+p | MT20   | 2.0 | 4.0  |      |      |

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

**HANGERS NOTES**  
1)

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

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

**BEARINGS**

| JT | FACTORED GROSS REACTION |      | MAXIMUM FACTORED GROSS REACTION |         | INPUT BRG | REQRD BRG |
|----|-------------------------|------|---------------------------------|---------|-----------|-----------|
|    | VERT                    | HORZ | DOWN                            | UP/LIFT |           |           |
| O  | 1797                    | 0    | 1797                            | 0       | 5-8       | 2-11      |
| I  | 1797                    | 0    | 1797                            | 0       | 5-8       | 2-11      |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE |         | MAX./MIN. COMPONENT REACTIONS |           | WIND  | DEAD    | SOIL  |
|----|-----------|---------|-------------------------------|-----------|-------|---------|-------|
|    | COMBINED  | SNOW    | LIVE                          | PERM.LIVE |       |         |       |
| O  | 1283      | 776 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 507 / 0 | 0 / 0 |
| I  | 1283      | 776 / 0 | 0 / 0                         | 0 / 0     | 0 / 0 | 507 / 0 | 0 / 0 |

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

**BRACING**  
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.39 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) | MAX. UNBRACED LENGTH | MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |          |  |
| FR-TO  |                           | FROM                      | TO               |                      | FR-TO |                           |              |          |  |
| A-B    | -1128 / 0                 | -78.0                     | -78.0            | 0.06 (1)             | 5.90  | N-B                       | -1187 / 0    | 0.34 (1) |  |
| B-C    | -1545 / 0                 | -78.0                     | -78.0            | 0.06 (1)             | 5.23  | B-M                       | 0 / 763      | 0.19 (1) |  |
| C-D    | -1682 / 0                 | -78.0                     | -78.0            | 0.06 (1)             | 4.39  | M-C                       | 0 / 132      | 0.04 (4) |  |
| D-E    | -1682 / 0                 | -78.0                     | -78.0            | 0.56 (1)             | 4.39  | C-L                       | 0 / 1040     | 0.26 (1) |  |
| E-F    | -1545 / 0                 | -78.0                     | -78.0            | 0.06 (1)             | 5.23  | L-D                       | -526 / 0     | 0.24 (1) |  |
| F-G    | -1128 / 0                 | -78.0                     | -78.0            | 0.06 (1)             | 5.90  | L-E                       | 0 / 1040     | 0.26 (1) |  |
| O-A    | -1553 / 0                 | 0.0                       | 0.0              | 0.19 (1)             | 6.57  | E-K                       | 0 / 132      | 0.04 (4) |  |
| I-G    | -1553 / 0                 | 0.0                       | 0.0              | 0.19 (1)             | 6.57  | K-F                       | 0 / 763      | 0.19 (1) |  |
|        |                           |                           |                  |                      |       | J-F                       | -1187 / 0    | 0.34 (1) |  |
| P-O    | 0 / 0                     | -96.5                     | -96.5            | 0.17 (1)             | 10.00 | A-N                       | 0 / 895      | 0.22 (1) |  |
| O-N    | 0 / 0                     | -36.4                     | -36.4            | 0.17 (1)             | 10.00 | J-G                       | 0 / 895      | 0.22 (1) |  |
| N-M    | 0 / 876                   | -36.4                     | -36.4            | 0.16 (1)             | 10.00 |                           |              |          |  |
| M-Q    | 0 / 901                   | -36.4                     | -36.4            | 0.93 (1)             | 10.00 |                           |              |          |  |
| Q-L    | 0 / 901                   | -112.0                    | -112.0           | 0.93 (1)             | 10.00 |                           |              |          |  |
| L-R    | 0 / 901                   | -112.0                    | -112.0           | 0.93 (1)             | 10.00 |                           |              |          |  |
| R-K    | 0 / 901                   | -36.4                     | -36.4            | 0.93 (1)             | 10.00 |                           |              |          |  |
| K-J    | 0 / 876                   | -36.4                     | -36.4            | 0.16 (1)             | 10.00 |                           |              |          |  |
| J-I    | 0 / 0                     | -36.4                     | -36.4            | 0.17 (1)             | 10.00 |                           |              |          |  |
| I-H    | 0 / 0                     | -96.5                     | -96.5            | 0.17 (1)             | 10.00 |                           |              |          |  |

**FACTORED CONCENTRATED LOADS (LBS)**

| JT | LOC.   | LC1  | MAX- | MAX+ | FACE  | DIR. | TYPE  |
|----|--------|------|------|------|-------|------|-------|
| C  | 3-2-15 | -184 | -184 |      | FRONT | VERT | TOTAL |
| E  | 14-9-1 | -184 | -184 |      | 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  
SIDE SETBACK = 3-2-15  
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 3-3-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder  
START DISTANCE = 3-2-15  
START SPAN CARRIED = 5-10-8  
END DISTANCE = 14-9-1  
END SPAN CARRIED = 5-10-8  
END WALL WIDTH = 0-0  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip  
SIDE SETBACK = 3-2-15  
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 3-3-0 OF SPAN MEASURED FROM THE RIGHT.

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

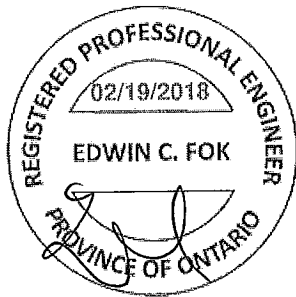
THIS DESIGN COMPLIES WITH:  
- PART 9 OF OBC 2012, OBC 2018  
- CSA 086-09, CSA 086-14  
- TPIC 2011, TPIC 2014

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.60")  
CALCULATED VERT. DEFL.(LL)= L/999 (0.11")  
ALLOWABLE DEFL.(TL)= L/360 (0.60")  
CALCULATED VERT. DEFL.(TL)= L/914 (0.24")

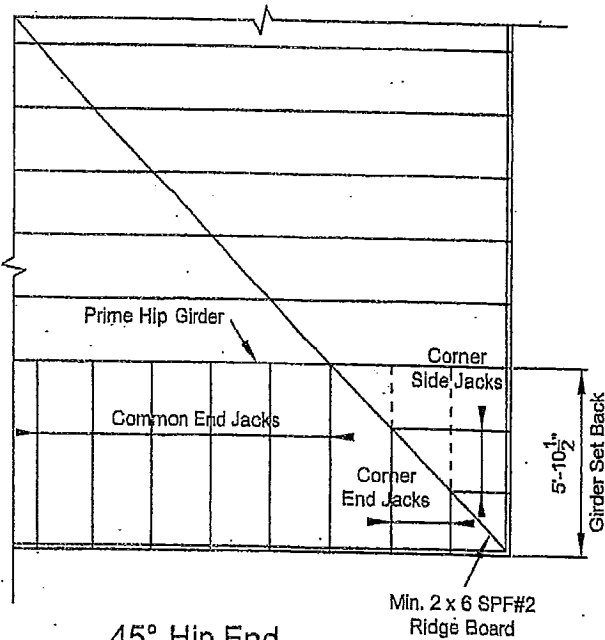
CANTILEVER DEFLECTION:  
ALLOWABLE DEFL.(LL)= L/120 (0.19")  
**A-18023857**







# STRACON ENGINEERING INC.



45° Hip End

## LUMBER SPECIFICATION

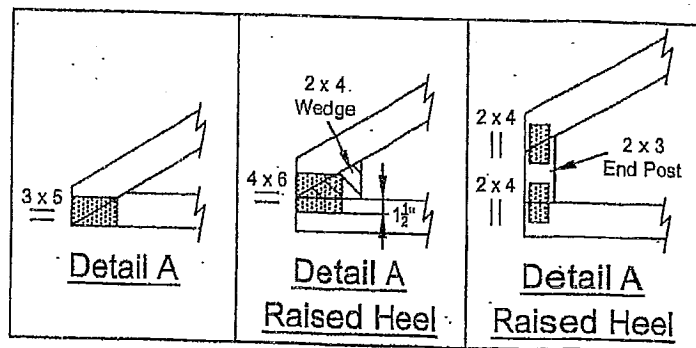
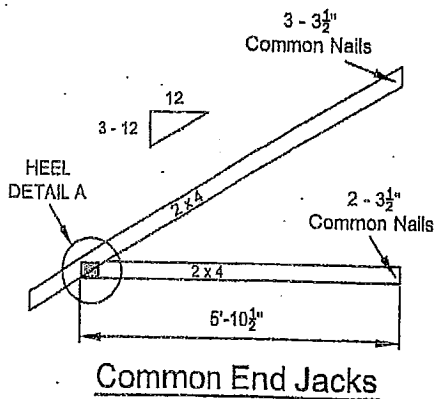
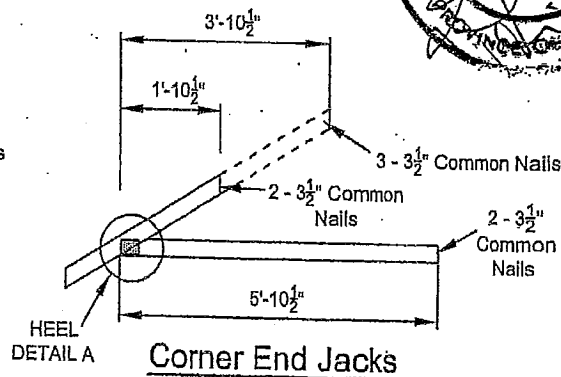
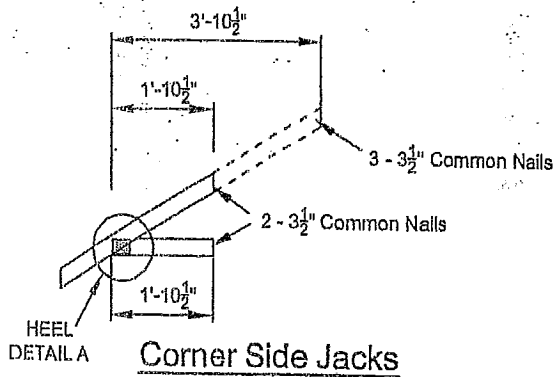
TOP CHORD : 2 x 4 SPF#2  
 BOTTOM CHORD : 2 x 4 SPF#2  
 WEBS : 2 x 3 SPF#2  
 UNLESS OTHERWISE SHOWN

## 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

# 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:

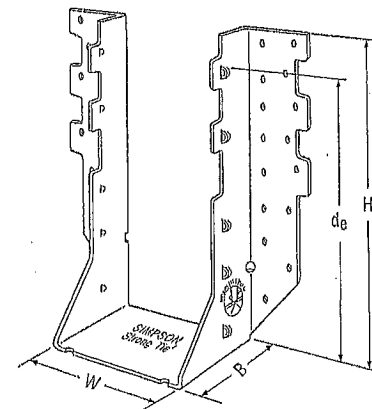
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

## Installation:

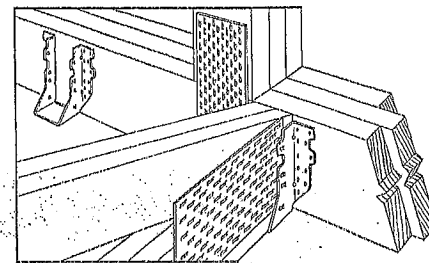
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

## Options:

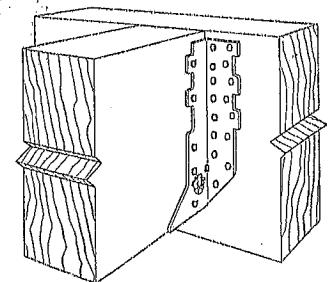
- See current catalogue for options



HHUS410



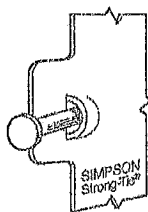
Typical HHUS Installation  
(Truss Designer to provide fastener quantity for connecting multiple members together)



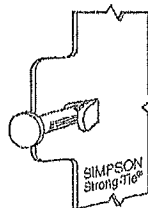
Typical HHUS Installation

| Model No.   | Ga. | Dimensions (in.) |         |        |                             | Fasteners |          | Factored Resistance (lb.)        |                                  |                                  |                                  |
|-------------|-----|------------------|---------|--------|-----------------------------|-----------|----------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|             |     | W                | H       | B      | d <sub>0</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) |
| HHUS26-2    | 14  | 3 1/8            | 5 1/8   | 3      | 3 15/16                     | (14) 16d  | (6) 16d  | 2850                             | 7335                             | 2065                             | 5205                             |
| HHUS28-2    | 14  | 3 5/8            | 7 1/2   | 3      | 6 5/32                      | (22) 16d  | (8) 16d  | 3765                             | 8940                             | 2675                             | 6345                             |
| HHUS210-2   | 14  | 3 1/8            | 9 1/2   | 3      | 8                           | (30) 16d  | (10) 16d | 4745                             | 9660                             | 4310                             | 7000                             |
| HHUS210-3   | 14  | 4 1/8            | 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 15/32 | 3      | 3 15/16                     | (14) 16d  | (6) 16d  | 2540                             | 7335                             | 2065                             | 5205                             |
| HHUS48      | 14  | 3 3/8            | 7 1/8   | 3      | 6 1/8                       | (22) 16d  | (8) 16d  | 3765                             | 8945                             | 2267                             | 6345                             |
| HHUS410     | 14  | 3 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 5/16 | 7 29/32                     | (30) 16d  | (10) 16d | 4745                             | 10770                            | 4310                             | 7650                             |

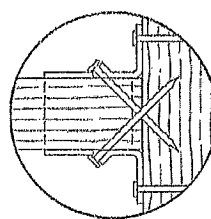
1. d<sub>0</sub> is the distance from the seat of the hanger to the highest joist nail.



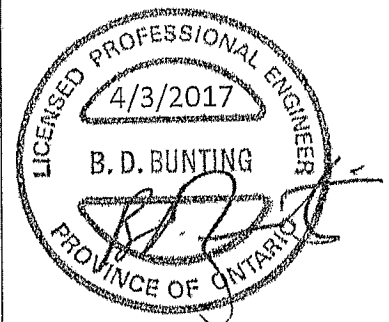
Double Shear Nailing prevents tabs breaking off (available on some models).  
U.S. Patent 5,603,680



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

# LUS – Double Shear Joist Hangers



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

**Material:** 18 gauge

**Finish:** G90 galvanized

## Design:

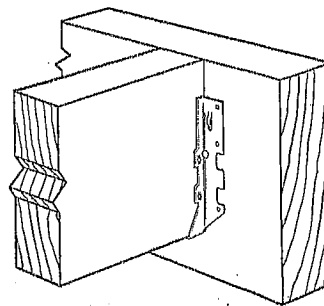
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

## Installation:

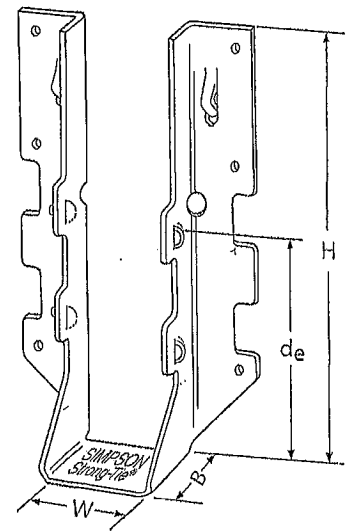
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

## Options:

- These hangers cannot be modified



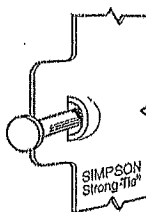
Typical LUS Installation



LUS28

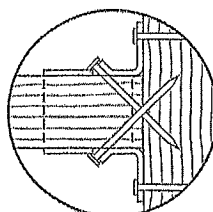
| Model No. | Ga. | Dimensions (in.) |       |       |                | Fasteners |         | Factored Resistance (lb.)        |                                  |                                  |                                  |
|-----------|-----|------------------|-------|-------|----------------|-----------|---------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|           |     | W                | H     | B     | d <sub>1</sub> | Face      | Joist   | D.Fir-L                          |                                  | S-P-F                            |                                  |
|           |     |                  |       |       |                |           |         | 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  | 1 1/8            | 3 1/8 | 1 1/4 | 1 1/8          | (4) 10d   | (2) 10d | 710                              | 1630                             | 645                              | 1155                             |
| LUS24-2   | 18  | 3 1/8            | 3 1/8 | 2     | 1 1/8          | (4) 16d   | (2) 16d | 835                              | 2020                             | 590                              | 1435                             |
| LUS26     | 18  | 1 1/8            | 4 1/4 | 1 1/4 | 3/8            | (4) 10d   | (4) 10d | 1420                             | 2170                             | 1290                             | 1630                             |
| LUS26-2   | 18  | 3 1/8            | 4 1/8 | 2     | 4              | (4) 16d   | (4) 16d | 1720                             | 2595                             | 1545                             | 1920                             |
| LUS26-3   | 18  | 4 1/8            | 4 1/8 | 2     | 3/4            | (4) 16d   | (4) 16d | 1720                             | 2595                             | 1545                             | 2340                             |
| LUS28     | 18  | 1 1/8            | 6 1/8 | 1 1/4 | 3/4            | (6) 10d   | (6) 10d | 1420                             | 2520                             | 1290                             | 1790                             |
| LUS28-2   | 18  | 3 1/8            | 7     | 2     | 4              | (6) 16d   | (4) 16d | 1720                             | 3325                             | 1545                             | 2575                             |
| LUS28-3   | 18  | 4 1/8            | 6 1/4 | 2     | 3/4            | (6) 16d   | (4) 16d | 1720                             | 3325                             | 1545                             | 2375                             |
| LUS210    | 18  | 1 1/8            | 7 1/8 | 1 1/4 | 3/8            | (8) 10d   | (4) 10d | 1420                             | 2785                             | 1290                             | 2210                             |
| LUS210-2  | 18  | 3 1/8            | 9     | 2     | 6              | (8) 16d   | (6) 16d | 2580                             | 4500                             | 2320                             | 3195                             |
| LUS210-3  | 18  | 4 1/8            | 8 1/8 | 2     | 5 1/4          | (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.



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

U.S. Patent 5,603,680



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 at [strongtie.com](http://strongtie.com).

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TSPEC/LUS17-3/17 exp. 6/19

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