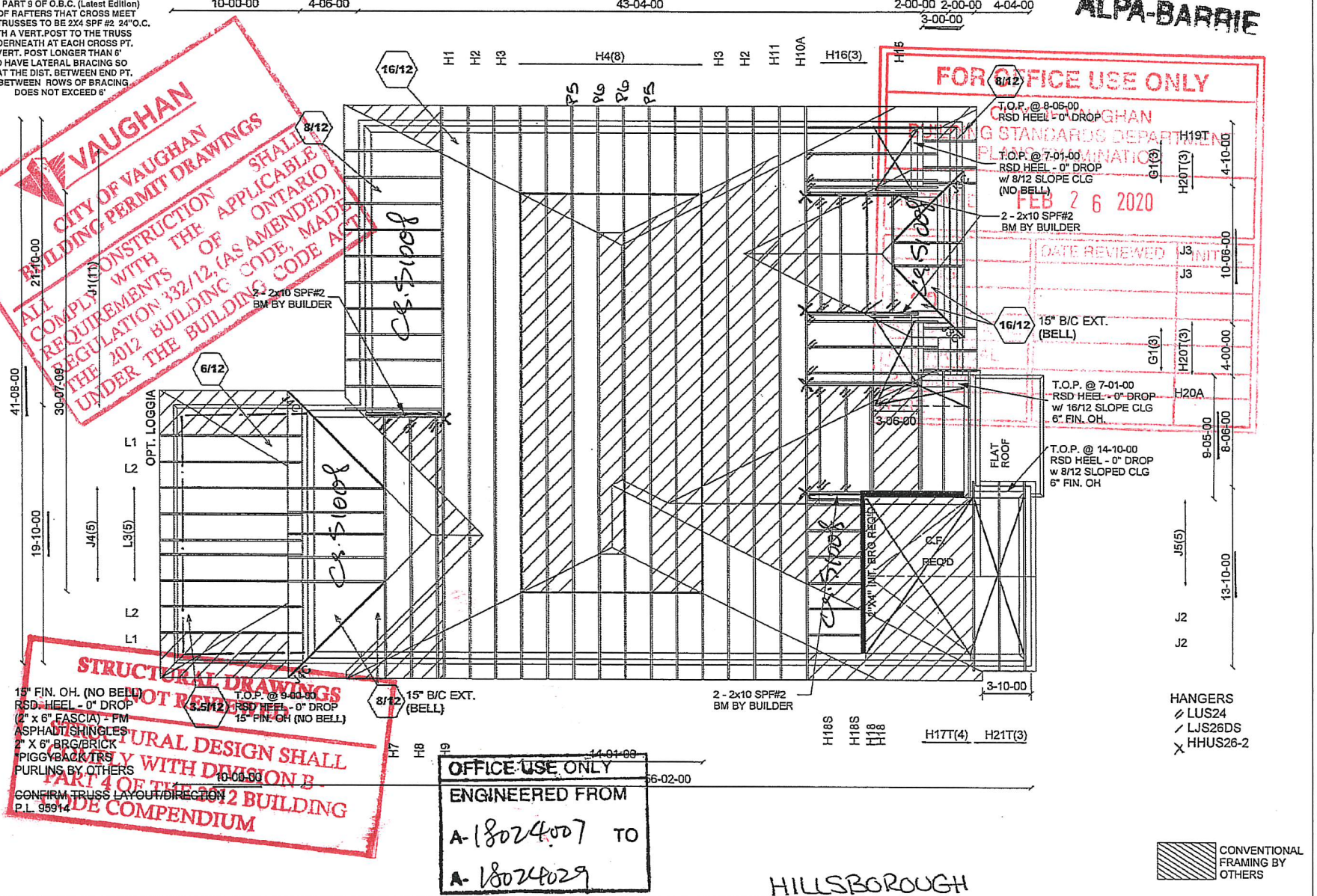
ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF #2 24"O.C. WITH A VERT.POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'

ALPA-BARRIE



15" FIN. OH. (NO BELL)
RSD. HEEL - 0" DROP
(2" x 6" FASCIA) - FM
ASPHALT SHINGLES
2" X 6" BRG/BRICK
"PIGGYBACK"TRS
PURLINS BY OTHERS
CONFIRM TRUSS LAYOUT/DIRECTION
P.L. 95914

HANGERS
◊ LUS24
/ LJS26DS
X HHUS26-2

CONVENTIONAL FRAMING BY OTHERS

CITY OF VAUGHAN
BUILDING PERMIT DRAWINGS
ALL CONSTRUCTION SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF ONTARIO REGULATION 332/12, (AS AMENDED), THE 2012 BUILDING CODE, MADE UNDER THE BUILDING CODE ACT

FOR OFFICE USE ONLY
CITY OF VAUGHAN
BUILDING STANDARDS DEPARTMENT
PLANS EXAMINATION
FEB 26 2020
DATE REVIEWED INITIALS

STRUCTURAL DRAWINGS
NOT REVIEWED
STRUCTURAL DESIGN SHALL COMPLY WITH DIVISION B - PART 4 OF THE 2012 BUILDING CODE COMPENDIUM

OFFICE USE ONLY
ENGINEERED FROM
A-18024007 TO
A-18024029

HILLSBOROUGH

STD OR OPT LOGGIA

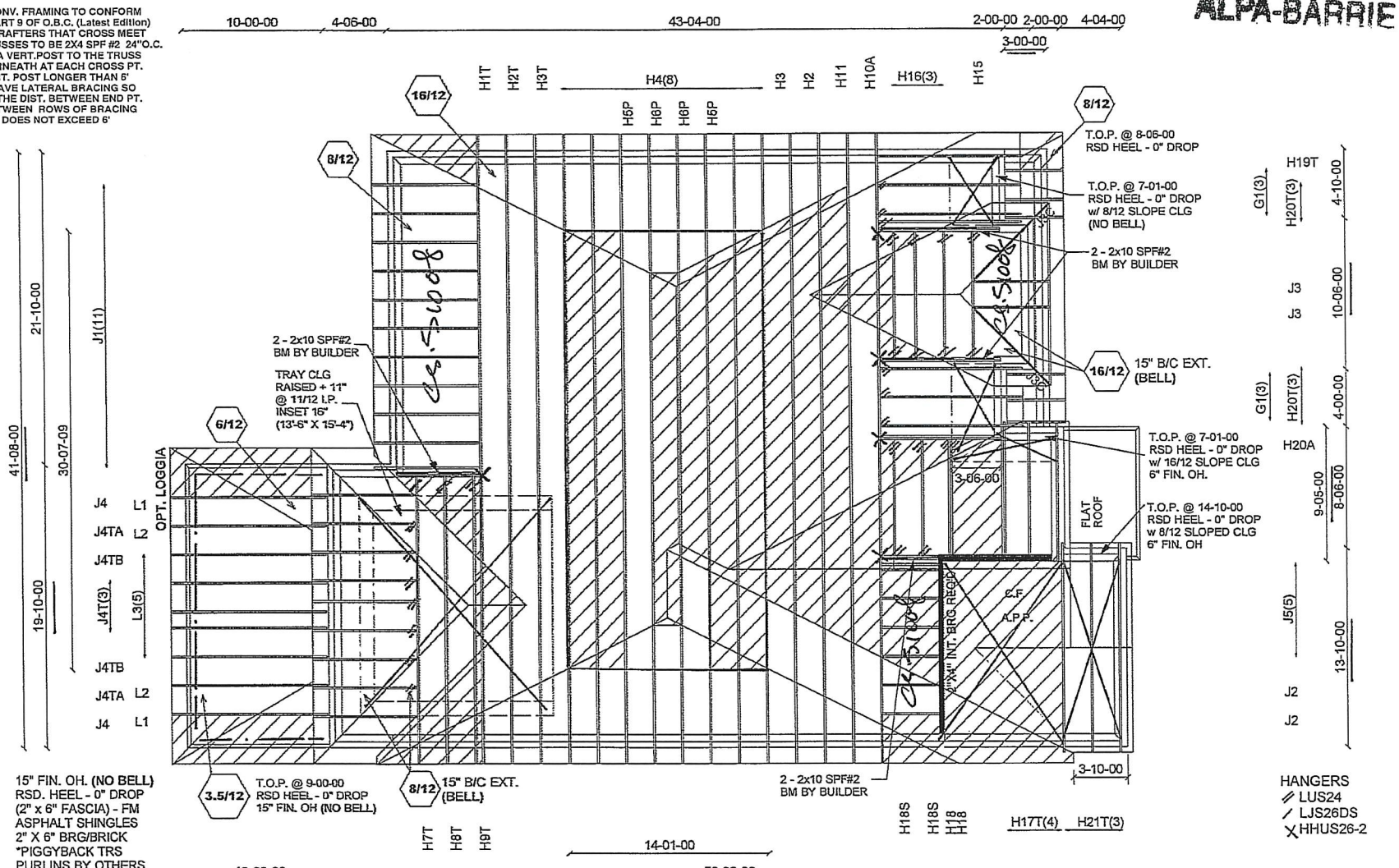
Job Track: 45147	Builder / Location: GOLD PARK HOMES / VAUGHAN	Model / Elevation: 5001 REV1 / A	
Layout ID: 292619			
Plan Log: 95914	Project: PINE VALLEY		
	Date: 7/18/2018 Designer: AMANDA		

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 UTLILZED FOR ANY OTHER PURPOSE.

A-18024006-GOLDPARK

ALPA-BARRIE

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF #2 24"O.C. WITH A VERT.POST TO THE TRUSS UNDERNEATH AT EACH CROSS PT. VERT. POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DIST. BETWEEN END PT. & BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'



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

~~CONFIRM TRUSS LAYOUT/DIRECTION~~
P.L. 95914

A-18024008 - A-18024012
A-18024016 - A-18024038

CONVENTIONAL FRAMING BY OTHERS

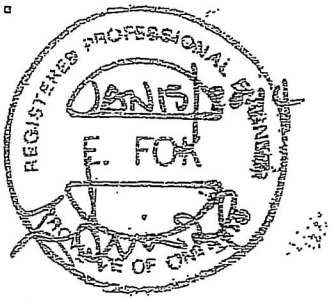
HILLSBOROUGH

Job Track: 45147	Builder / Location: GOLD PARK HOMES / VAUGHAN	Model / Elevation: 5001 REV1	/ A OPT TRAY OR OPT LOGGIA
Layout ID: 292620			
Plan Log: 95914	Project: PINE VALLEY		
	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 UTLILZED FOR ANY OTHER PURPOSE.

Stracon Engineering Inc.

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



RESPONSIBILITIES

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

SPECIFICATIONS

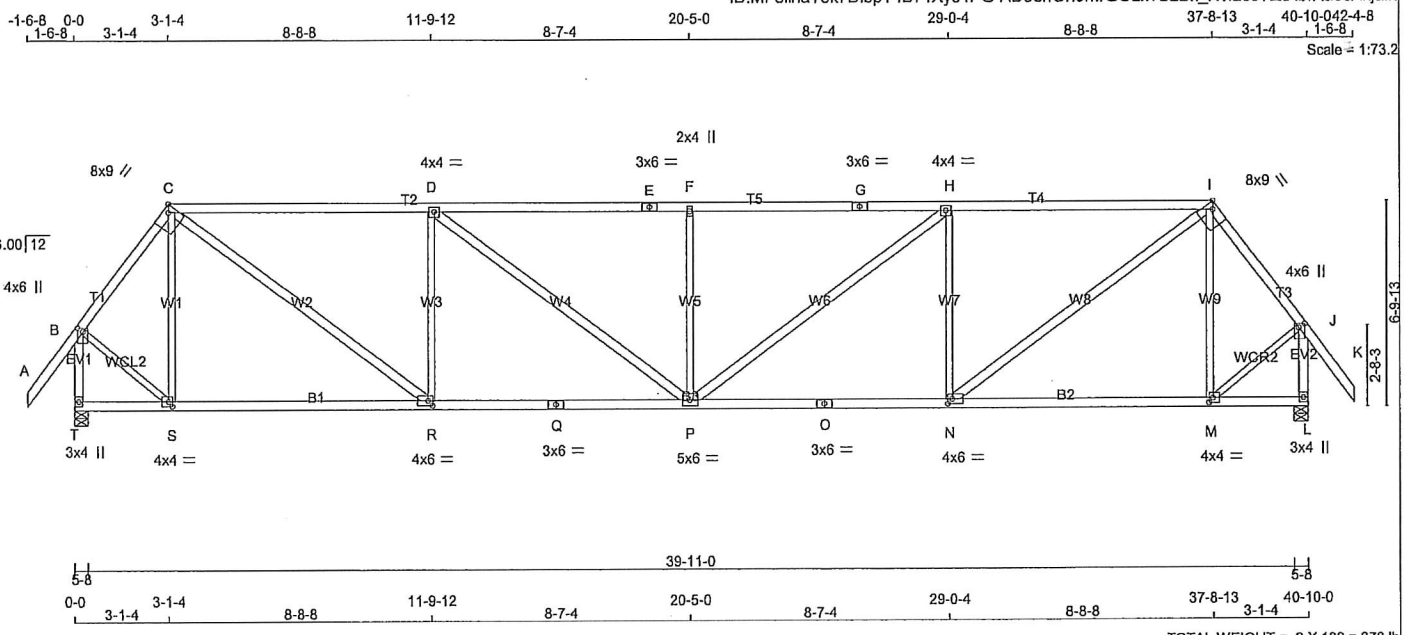
1. Trusses designed by Stracon Engineering Inc. conforms to the relevant section of the Ontario Building Code of Canada (Part 9 or Part 4) or to the Canadian code for farm buildings, whichever applies to the building type indicated on the drawings as well as to the procedures established by the truss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

January 15, 2014

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H2	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 13:18:35 2018 Page 1
ID:MF8IlrIaTok7DlbpT4B71Xys4PG-AD58hOh0mrGOLx?SLBk_Nvla8JvtztXbfRa6cXzjal2



TOTAL WEIGHT = 2 X 189 = 378 lb (M)

LUMBER
N. L. G. A. RULES

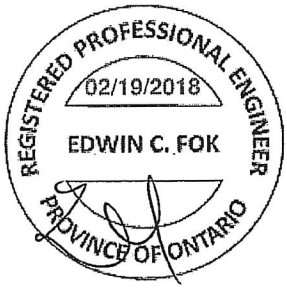
CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	2100F 1.8E	SPF
E - G	2x4	DRY	2100F 1.8E	SPF
G - I	2x4	DRY	2100F 1.8E	SPF
I - K	2x4	DRY	No.2	SPF
T - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
T - Q	2x4	DRY	No.2	SPF
Q - O	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	1.50	2.25
C	TTWW-h	MT20	8.0	9.0	Edge	2.75
D	TMWW-t	MT20	4.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMW+w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMWW-t	MT20	4.0	4.0		
I	TTWW-h	MT20	8.0	9.0	Edge	2.75
J	TMVW+p	MT20	4.0	6.0	1.50	2.25
L	BMV1+p	MT20	3.0	4.0		
M	BMWW-t	MT20	4.0	4.0	2.00	1.50
N	BMWW-t	MT20	4.0	6.0	2.00	1.75
O	BS-t	MT20	3.0	6.0		
P	BMWWW-t	MT20	5.0	6.0		
Q	BS-t	MT20	3.0	6.0		
R	BMWW-t	MT20	4.0	6.0	2.00	1.75
S	BMWW-t	MT20	4.0	4.0	2.00	1.50
T	BMV1+p	MT20	3.0	4.0		

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
T	2099	0	2099	0	0	5-8	3-5
L	2099	0	2099	0	0	5-8	3-5

UNFACTORED REACTIONS

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

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.92 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 52	-78.0	-78.0	0.15 (1)	10.00
B- C	-1503 / 0	-78.0	-78.0	0.17 (1)	5.19
C- D	-2645 / 0	-78.0	-78.0	0.84 (1)	4.25
D- E	-3157 / 0	-78.0	-78.0	0.92 (1)	3.92
E- F	-3157 / 0	-78.0	-78.0	0.92 (1)	3.92
F- G	-3157 / 0	-78.0	-78.0	0.92 (1)	3.92
G- H	-3157 / 0	-78.0	-78.0	0.92 (1)	3.92
H- I	-2645 / 0	-78.0	-78.0	0.84 (1)	4.25
I- J	-1503 / 0	-78.0	-78.0	0.17 (1)	5.19
J- K	0 / 52	-78.0	-78.0	0.15 (1)	10.00
T- B	-2098 / 0	0.0	0.0	0.30 (1)	5.84
L- J	-2098 / 0	0.0	0.0	0.30 (1)	5.84
T- S	0 / 0	-18.5	-18.5	0.21 (4)	10.00
S- R	0 / 887	-18.5	-18.5	0.37 (4)	10.00
R- Q	0 / 2645	-18.5	-18.5	0.58 (1)	10.00
Q- P	0 / 2645	-18.5	-18.5	0.58 (1)	10.00
P- O	0 / 2645	-18.5	-18.5	0.58 (1)	10.00
O- N	0 / 2645	-18.5	-18.5	0.58 (1)	10.00
N- M	0 / 887	-18.5	-18.5	0.37 (4)	10.00
M- L	0 / 0	-18.5	-18.5	0.21 (4)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
S- C	-505 / 0	0.39 (1)
C- R	0 / 2191	0.35 (1)
R- D	-1145 / 0	0.89 (1)
D- P	0 / 643	0.10 (1)
P- F	-620 / 0	0.48 (1)
P- H	0 / 643	0.10 (1)
N- H	-1145 / 0	0.89 (1)
N- I	0 / 2191	0.35 (1)
M- I	-505 / 0	0.39 (1)
B- S	0 / 1100	0.25 (1)
M- J	0 / 1100	0.25 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.34")

CSI: TC=0.92/1.00 (D-F:1) , BC=0.58/1.00 (P-R:1) , WB=0.89/1.00 (D-R:1) , SSI=0.32/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) 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 (J) (INPUT = 0.90)
JSI METAL= 0.91 (O) (INPUT = 1.00)

A-18024008

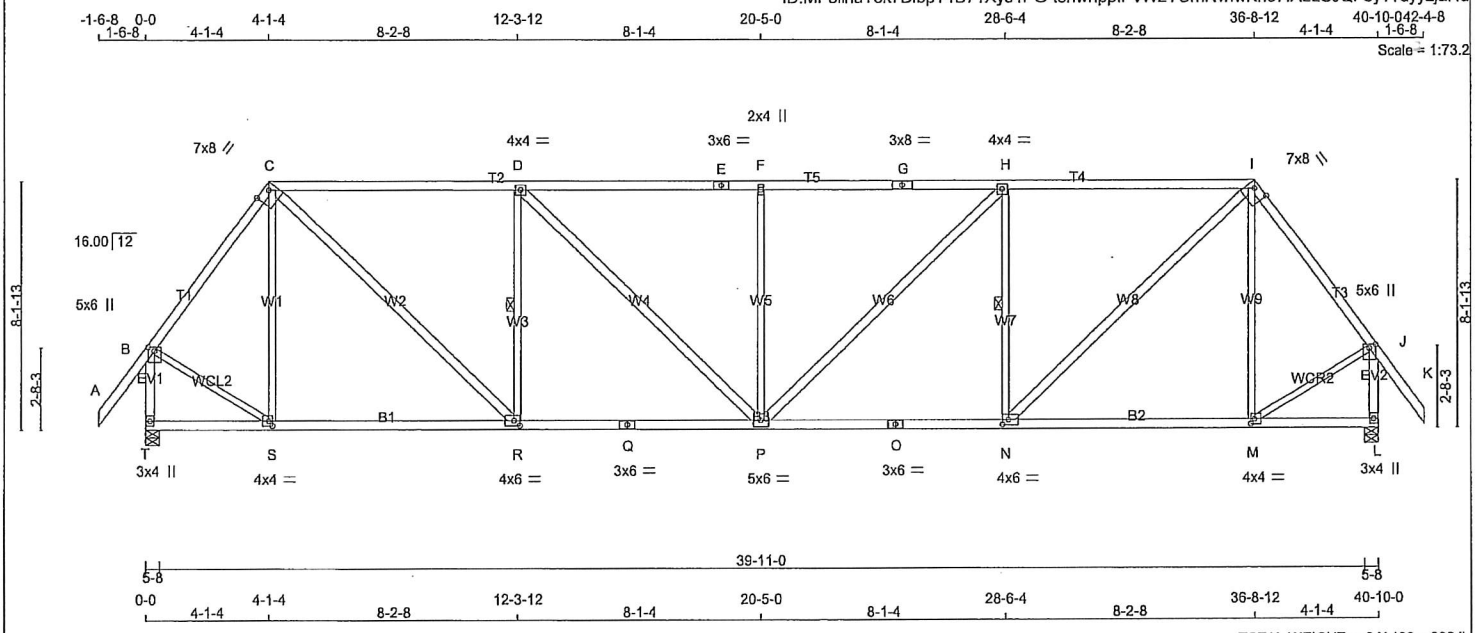
CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H3	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8IriaTok7DlbpT4B71Xys4PG-t8hwnppIPvWzYUmNwlwKn07IALLSJQF3y??dyyzjaHu



TOTAL WEIGHT = 2 X 199 = 399 lb

(M)

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in Inches)

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
T	2099	0	2099	0	0	5-8	3-5
L	2099	0	2099	0	0	5-8	3-5

UNFACTORED REACTIONS

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

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 52	-78.0	-78.0	0.15 (1)	10.00
B- C	-1587 / 0	-78.0	-78.0	0.31 (1)	4.95
C- D	-2238 / 0	-78.0	-78.0	0.89 (1)	4.06
D- E	-2614 / 0	-78.0	-78.0	0.95 (1)	3.78
E- F	-2614 / 0	-78.0	-78.0	0.95 (1)	3.78
F- G	-2614 / 0	-78.0	-78.0	0.95 (1)	3.78
G- H	-2614 / 0	-78.0	-78.0	0.95 (1)	3.78
H- I	-2238 / 0	-78.0	-78.0	0.89 (1)	4.06
I- J	-1587 / 0	-78.0	-78.0	0.31 (1)	4.95
J- K	0 / 52	-78.0	-78.0	0.15 (1)	10.00
T- B	-2079 / 0	0.0	0.0	0.30 (1)	5.87
L- J	-2079 / 0	0.0	0.0	0.30 (1)	5.87
T- S	0 / 0	-18.5	-18.5	0.18 (4)	10.00
S- R	0 / 942	-18.5	-18.5	0.34 (4)	10.00
R- Q	0 / 2238	-18.5	-18.5	0.50 (1)	10.00
Q- P	0 / 2238	-18.5	-18.5	0.50 (1)	10.00
P- O	0 / 2238	-18.5	-18.5	0.50 (1)	10.00
O- N	0 / 2238	-18.5	-18.5	0.50 (1)	10.00
N- M	0 / 942	-18.5	-18.5	0.34 (4)	10.00
M- L	0 / 0	-18.5	-18.5	0.18 (4)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
S- C	-386 / 0	0.50 (1)
C- R	0 / 1790	0.29 (1)
R- D	-1079 / 0	0.45 (1)
D- P	0 / 524	0.08 (1)
P- F	-583 / 0	0.75 (1)
P- H	0 / 524	0.08 (1)
N- H	-1079 / 0	0.45 (1)
N- I	0 / 1790	0.29 (1)
M- I	-386 / 0	0.50 (1)
B- S	0 / 1078	0.24 (1)
M- J	0 / 1078	0.24 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.28")

CSI: TC=0.95/1.00 (D-F:1) , BC=0.50/1.00 (P-R:1) , WB=0.75/1.00 (F-P:1) , SSI=0.30/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) 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 (R) (INPUT = 0.90)
JSI METAL= 0.78 (O) (INPUT = 1.00)

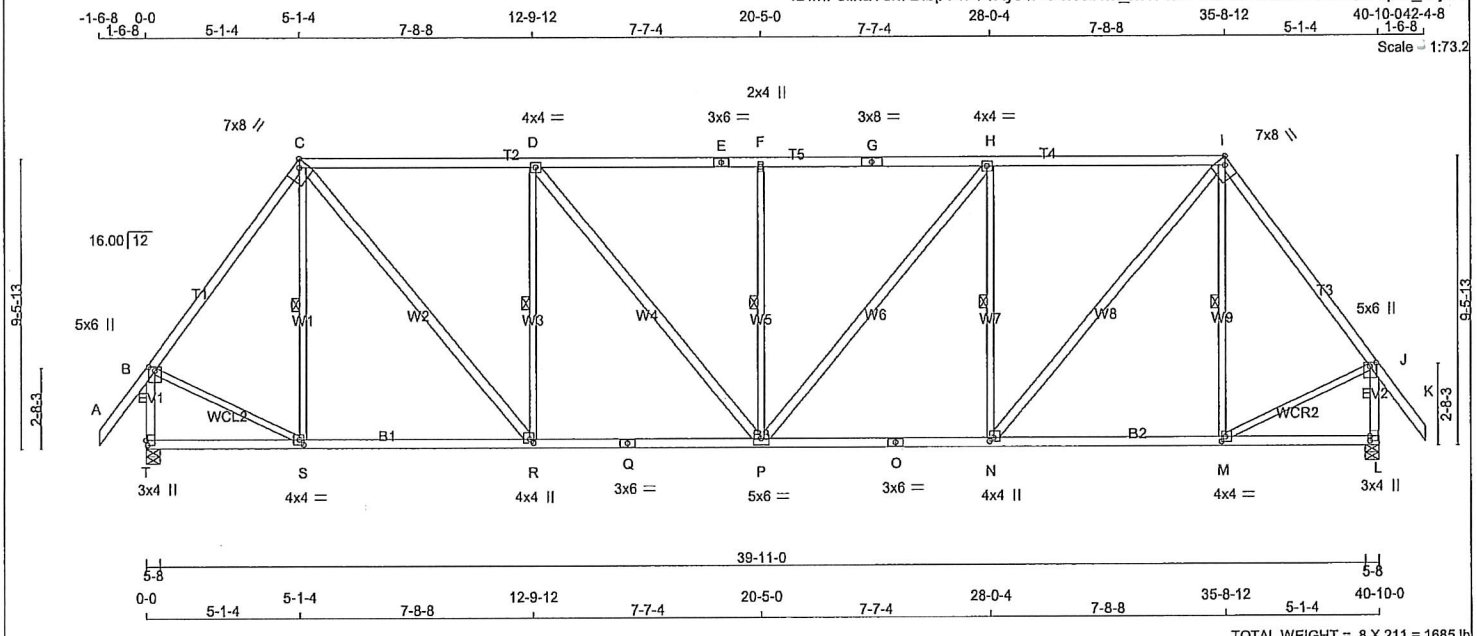
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H4	8	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 8 X 211 = 1685 lb

[M][F]

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
I - K	2x4	DRY	No.2	SPF
T - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
T - Q	2x4	DRY	No.2	SPF
Q - O	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
C - R	2x4	DRY	No.2	SPF
D - P	2x4	DRY	No.2	SPF
P - H	2x4	DRY	No.2	SPF
N - I	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is In Inches)

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
T	2214	0	2214	0	0	5-8	3-11
L	2214	0	2214	0	0	5-8	3-11

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
T	1586	927 / 0	0 / 0	0 / 0	0 / 0	659 / 0	0 / 0
L	1586	927 / 0	0 / 0	0 / 0	0 / 0	659 / 0	0 / 0

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

BRACING
FOR SECTION C-I, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.75 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/ 2 LENGTH OF C-S, D-R, F-P, H-N, I-M.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAG LENGTH
A- B	0 / 52	-78.0	-78.0	0.15 (1)	10.00
B- C	-1739 / 0	-78.0	-78.0	0.37 (1)	4.75
C- D	-2087 / 0	-85.5	-85.5	0.74 (1)	2.00
D- E	-2392 / 0	-85.5	-85.5	0.74 (1)	2.00
E- F	-2392 / 0	-85.5	-85.5	0.74 (1)	2.00
F- G	-2392 / 0	-85.5	-85.5	0.74 (1)	2.00
G- H	-2392 / 0	-85.5	-85.5	0.74 (1)	2.00
H- I	-2087 / 0	-85.5	-85.5	0.74 (1)	2.00
I- J	-1739 / 0	-78.0	-78.0	0.37 (1)	4.75
J- K	0 / 52	-78.0	-78.0	0.15 (1)	10.00
T- B	-2180 / 0	0.0	0.0	0.31 (1)	5.75
L- J	-2180 / 0	0.0	0.0	0.31 (1)	5.75
T- S	0 / 0	-18.5	-18.5	0.18 (4)	10.00
S- R	0 / 1035	-18.5	-18.5	0.33 (4)	10.00
R- Q	0 / 2087	-18.5	-18.5	0.46 (1)	10.00
Q- P	0 / 2087	-18.5	-18.5	0.46 (1)	10.00
P- O	0 / 2087	-18.5	-18.5	0.46 (1)	10.00
O- N	0 / 2087	-18.5	-18.5	0.46 (1)	10.00
N- M	0 / 1035	-18.5	-18.5	0.33 (4)	10.00
M- L	0 / 0	-18.5	-18.5	0.18 (4)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
S- C	-326 / 0	0.19 (1)
C- R	0 / 1633	0.26 (1)
R- D	-1104 / 0	0.66 (1)
D- P	0 / 478	0.08 (1)
P- F	-599 / 0	0.36 (1)
P- H	0 / 478	0.08 (1)
N- H	-1104 / 0	0.66 (1)
N- I	0 / 1633	0.26 (1)
M- I	-326 / 0	0.19 (1)
B- S	0 / 1135	0.26 (1)
M- J	0 / 1135	0.26 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CSI: TC=0.74/1.00 (H-I:1) , BC=0.46/1.00 (P-R:1) , WB=0.66/1.00 (H-N:1) , SSI=0.31/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (N) (INPUT = 0.90)
JSI METAL= 0.71 (O) (INPUT = 1.00)

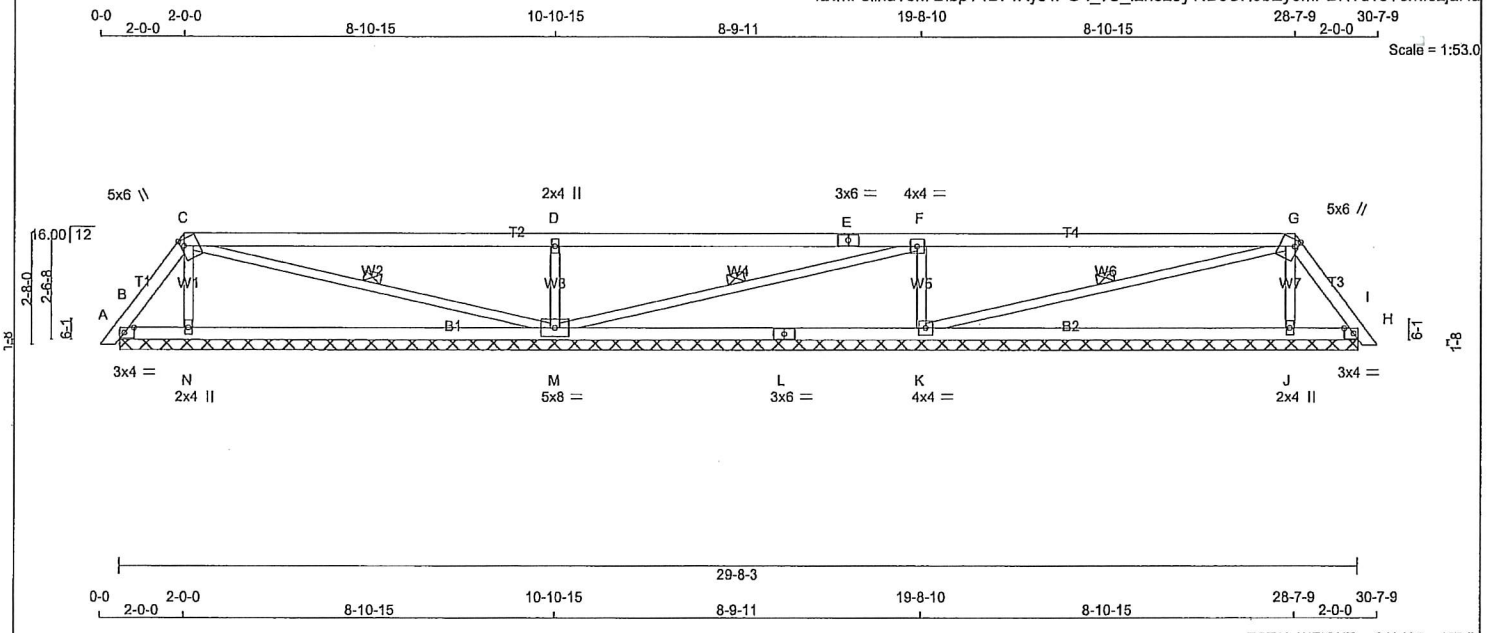
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H5P	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 100 = 199 lb

[M]

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in Inches)

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

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



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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
B	112	0	112	0	-18	29-8-3 (13-8-15-14	
N	414	0	414	0	0	29-8-3 (13-8-15-14	
M	940	0	940	0	0	29-8-3 (13-8-15-14	
K	924	0	924	0	0	29-8-3 (13-8-15-14	
J	405	0	405	0	0	29-8-3 (13-8-15-14	
H	124	0	124	0	-15	29-8-3 (13-8-15-14	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

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

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	72	85 / 0	0 / 0	0 / 0	0 / 0	0 / -13	0 / 0
N	303	139 / 0	0 / 0	0 / 0	0 / 0	164 / 0	0 / 0
M	669	417 / 0	0 / 0	0 / 0	0 / 0	252 / 0	0 / 0
K	658	408 / 0	0 / 0	0 / 0	0 / 0	249 / 0	0 / 0
J	297	134 / 0	0 / 0	0 / 0	0 / 0	163 / 0	0 / 0
H	81	92 / 0	0 / 0	0 / 0	0 / 0	0 / -11	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 FROM	TO	MAX (PLF) CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	N- C	-258 / 0	0.04 (1)
B- C	-87 / 0	-78.0	-78.0	0.03 (1)	6.25	C- M	-37 / 0	0.02 (1)
C- D	-1 / 0	-78.0	-78.0	0.55 (1)	10.00	M- D	-759 / 0	0.12 (1)
D- E	-2 / 0	-78.0	-78.0	0.55 (1)	10.00	M- F	-24 / 0	0.01 (1)
E- F	-2 / 0	-78.0	-78.0	0.55 (1)	10.00	K- F	-753 / 0	0.12 (1)
F- G	-25 / 0	-78.0	-78.0	0.55 (1)	6.25	K- G	-21 / 0	0.01 (1)
G- H	-102 / 0	-78.0	-78.0	0.03 (1)	6.25	J- G	-250 / 0	0.04 (1)
H- I	0 / 10	-78.0	-78.0	0.01 (1)	10.00			
B- N	0 / 49	-18.5	-18.5	0.24 (4)	10.00			
N- M	0 / 37	-18.5	-18.5	0.29 (4)	10.00			
M- L	0 / 25	-18.5	-18.5	0.29 (4)	10.00			
L- K	0 / 25	-18.5	-18.5	0.29 (4)	10.00			
K- J	0 / 46	-18.5	-18.5	0.29 (4)	10.00			
J- H	0 / 58	-18.5	-18.5	0.24 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.82 (K) (INPUT = 0.90)
JSI METAL= 0.35 (E) (INPUT = 1.00)

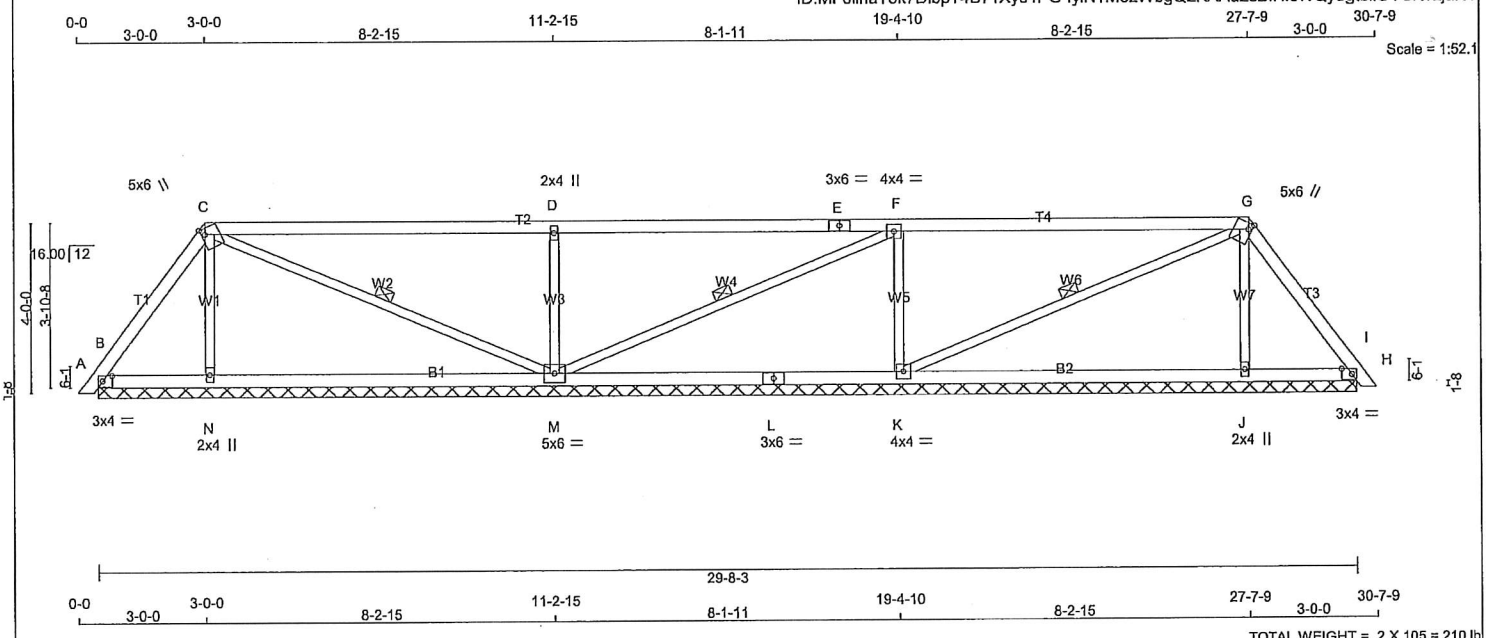
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H6P	2	1	TRUSS DESC.	

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TOTAL WEIGHT = 2 X 105 = 210 lb

[M]

LUMBER

N. L. G. A. RULES

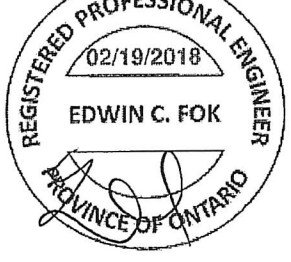
CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
E - G	2x4	DRY	No.2	SPF
G - I	2x4	DRY	No.2	SPF
B - L	2x4	DRY	No.2	SPF
L - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

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	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TTWW+m	MT20	5.0	6.0	1.75	1.00
H	TMB1-I	MT20	3.0	4.0	1.50	2.75
J	BMW1+w	MT20	2.0	4.0		
K	BMWW1-t	MT20	4.0	4.0		
L	BS-t	MT20	3.0	6.0		
M	BMWWW1-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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
B	199	0	199	0	0	29-8-3 (13-8-12)	3-3
N	377	0	377	0	0	29-8-3 (13-8-12)	3-3
M	908	0	908	0	0	29-8-3 (13-8-12)	3-3
K	845	0	845	0	0	29-8-3 (13-8-12)	3-3
J	366	0	366	0	0	29-8-3 (13-8-12)	3-3
H	225	0	225	0	0	29-8-3 (13-8-12)	3-3

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	137	110 / 0	0 / 0	0 / 0	0 / 0	27 / 0	0 / 0
N	274	135 / 0	0 / 0	0 / 0	0 / 0	140 / 0	0 / 0
M	645	406 / 0	0 / 0	0 / 0	0 / 0	239 / 0	0 / 0
K	601	372 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0
J	267	129 / 0	0 / 0	0 / 0	0 / 0	138 / 0	0 / 0
H	155	124 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	N- C	-250 / 0	0.06 (1)
B- C	-97 / 0	-78.0	-78.0	0.09 (1)	6.25	C- M	-70 / 0	0.04 (1)
C- D	0 / 15	-78.0	-78.0	0.72 (1)	10.00	M- D	-702 / 0	0.16 (1)
D- E	0 / 15	-78.0	-78.0	0.72 (1)	10.00	M- F	-59 / 0	0.03 (1)
E- F	0 / 15	-78.0	-78.0	0.72 (1)	10.00	K- F	-678 / 0	0.16 (1)
F- G	-39 / 0	-78.0	-78.0	0.72 (1)	6.25	K- G	-31 / 0	0.02 (1)
G- H	-129 / 0	-78.0	-78.0	0.09 (1)	6.25	J- G	-239 / 0	0.06 (1)
H- I	0 / 10	-78.0	-78.0	0.01 (1)	10.00			
B- N	0 / 56	-18.5	-18.5	0.19 (4)	10.00			
N- M	0 / 49	-18.5	-18.5	0.25 (4)	10.00			
M- L	0 / 39	-18.5	-18.5	0.25 (4)	10.00			
L- K	0 / 39	-18.5	-18.5	0.25 (4)	10.00			
K- J	0 / 68	-18.5	-18.5	0.25 (4)	10.00			
J- H	0 / 75	-18.5	-18.5	0.19 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.72/1.00 (F-G:1) , BC=0.25/1.00 (J-K:4) , WB=0.16/1.00 (D-M:1) , SSI=0.30/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (E) (INPUT = 0.90)
JSI METAL= 0.43 (E) (INPUT = 1.00)

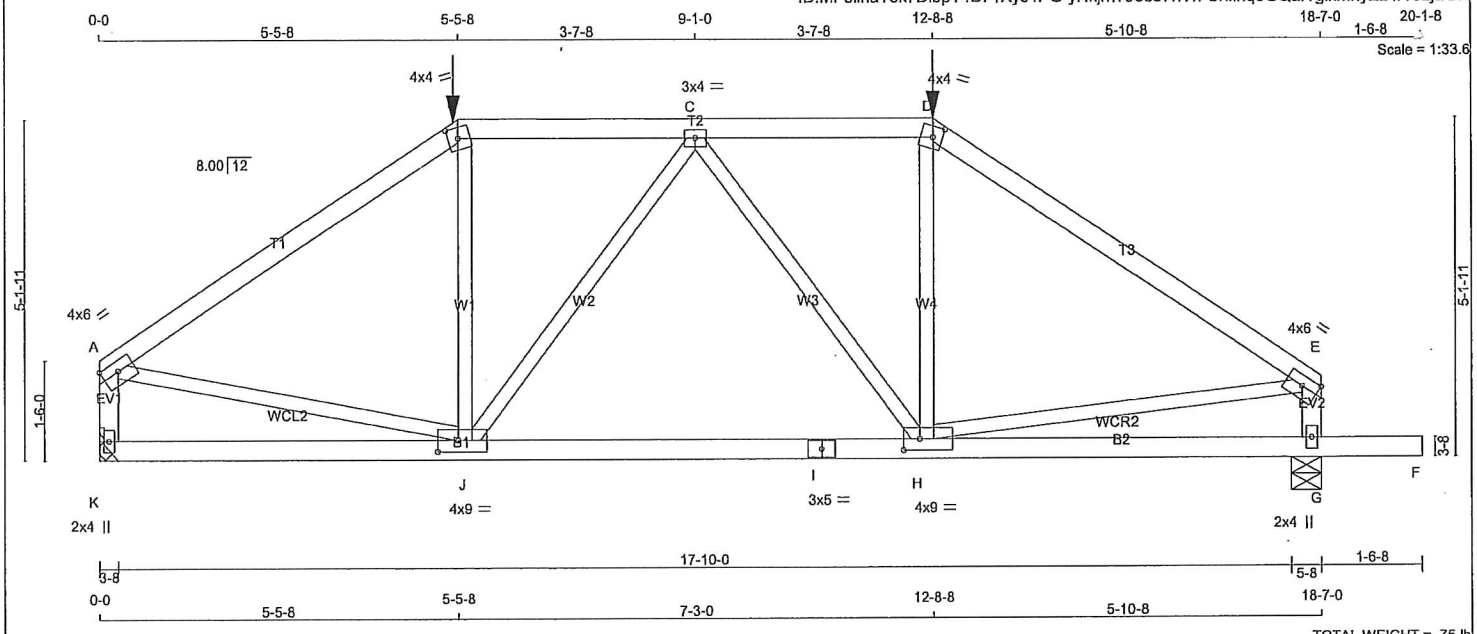
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H7	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8IiriaTok7DlbpT4B71Xys4PG-yNkjm?00se7nYrPbnlinq5GQafTglkMnyZDwT9zjaGK



TOTAL WEIGHT = 75 lb [M]

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
G - E	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
I - F	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	1.75	Edge
B	TTW-m	MT20	4.0	4.0	2.00	1.75
C	TMWW-t	MT20	3.0	4.0		
D	TTW-m	MT20	4.0	4.0	2.00	1.75
E	TMVW-t	MT20	4.0	6.0	1.75	Edge
G	BMV1+p	MT20	2.0	4.0		
H	BMWWW-t	MT20	4.0	9.0	2.00	3.00
I	BS-t	MT20	3.0	5.0		
J	BMWWW-t	MT20	4.0	9.0	2.00	3.75
K	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) 334.0 lbs FACTORED DOWN AT 12-8-8, AND 310.3 lbs FACTORED DOWN AT 5-5-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
K	1668	0	1668	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-15	
G	1799	0	1799	0	0	5-8	2-11

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	1191	716 / 0	0 / 0	0 / 0	0 / 0	475 / 0	0 / 0
G	1285	771 / 0	0 / 0	0 / 0	0 / 0	514 / 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 = 3.98 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	-1883 / 0	-78.0	-78.0	0.59 (1)	4.21	J- B	0 / 304	0.09 (4)
B- C	-1575 / 0	-153.5	-153.5	0.40 (1)	4.72	J- C	-470 / 0	0.30 (1)
C- D	-1641 / 0	-153.5	-153.5	0.40 (1)	4.64	C- H	-356 / 0	0.23 (1)
D- E	-1962 / 0	-78.0	-78.0	0.72 (1)	3.98	H- D	0 / 308	0.10 (4)
K- A	-1588 / 0	0.0	0.0	0.18 (1)	6.51	A- J	0 / 1599	0.40 (1)
G- E	-1564 / 0	0.0	0.0	0.17 (1)	6.55	H- E	0 / 1649	0.41 (1)
K- J	0 / 0	-36.4	-36.4	0.36 (4)	10.00			
J- I	0 / 1848	-36.4	-36.4	0.57 (4)	10.00			
I- H	0 / 1848	-36.4	-36.4	0.57 (4)	10.00			
H- G	0 / 0	-36.4	-36.4	0.39 (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	5-5-8	-310	-310	—	FRONT	VERT	TOTAL
D	12-8-8	-334	-334	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.62")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.62")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.13")

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=0.72/1.00 (D-E:1) , BC=0.57/1.00 (H-J:4) , WB=0.41/1.00 (E-H:1) , SSI=0.29/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

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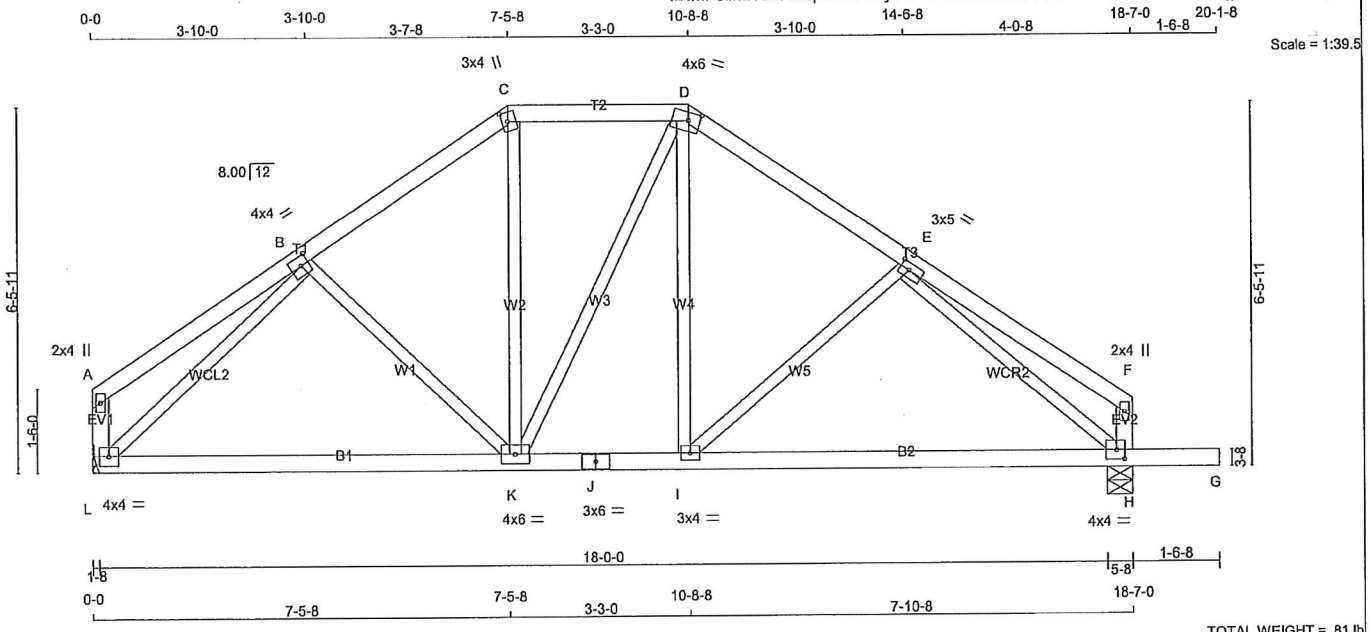
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H8	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iIriaTok7DlbpT4B71Xys4PG-863RUeOvFMMlcDYJvXEHvwRtlC5Ejp7Qxe5Px6zjaEZ



TOTAL WEIGHT = 81 lb

[M][F]

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
L - A	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
J - G	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table Is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	4.0	4.0	2.00	1.75
C	TTW+m	MT20	3.0	4.0	2.00	1.25
D	TTWW-m	MT20	4.0	6.0	1.75	2.50
E	TMWW-t	MT20	3.0	5.0	1.50	2.00
F	TMV+p	MT20	2.0	4.0		
H	BMVW1-t	MT20	4.0	4.0	2.00	1.75
I	BMWW-t	MT20	3.0	4.0		
J	BS-t	MT20	3.0	6.0		
K	BMWWW-t	MT20	4.0	6.0		
L	BMVW1-t	MT20	4.0	4.0		

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
L	896	0	896	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	
H	1045	0	1045	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
L	639	390 / 0	0 / 0	0 / 0	0 / 0	249 / 0	0 / 0
H	745	455 / 0	0 / 0	0 / 0	0 / 0	290 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
A-B	0 / 18	-78.0	-78.0	0.17 (1)	10.00
B-C	-812 / 0	-78.0	-78.0	0.14 (1)	6.25
C-D	-663 / 0	-78.0	-78.0	0.11 (1)	6.25
D-E	-827 / 0	-78.0	-78.0	0.15 (1)	6.25
E-F	0 / 19	-78.0	-78.0	0.19 (1)	10.00
L-A	-112 / 0	0.0	0.0	0.01 (1)	7.81
H-F	-118 / 0	0.0	0.0	0.01 (1)	7.81
L-K	0 / 737	-18.5	-18.5	0.28 (4)	10.00
K-J	0 / 675	-18.5	-18.5	0.30 (4)	10.00
J-I	0 / 675	-18.5	-18.5	0.30 (4)	10.00
I-H	0 / 799	-18.5	-18.5	0.31 (4)	10.00
H-G	0 / 0	-96.5	-96.5	0.16 (1)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
B-K	-107 / 6	0.05 (1)
K-C	0 / 203	0.05 (1)
K-D	-27 / 0	0.02 (1)
I-D	0 / 228	0.05 (1)
I-E	-169 / 0	0.08 (1)
L-B	-1034 / 0	0.45 (1)
E-H	-1072 / 0	0.49 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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 (0.62")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.62")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.13")

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=0.19/1.00 (E-F:1) , BC=0.31/1.00 (H-I:4) , WB=0.49/1.00 (E-H:1) , SSI=0.12/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

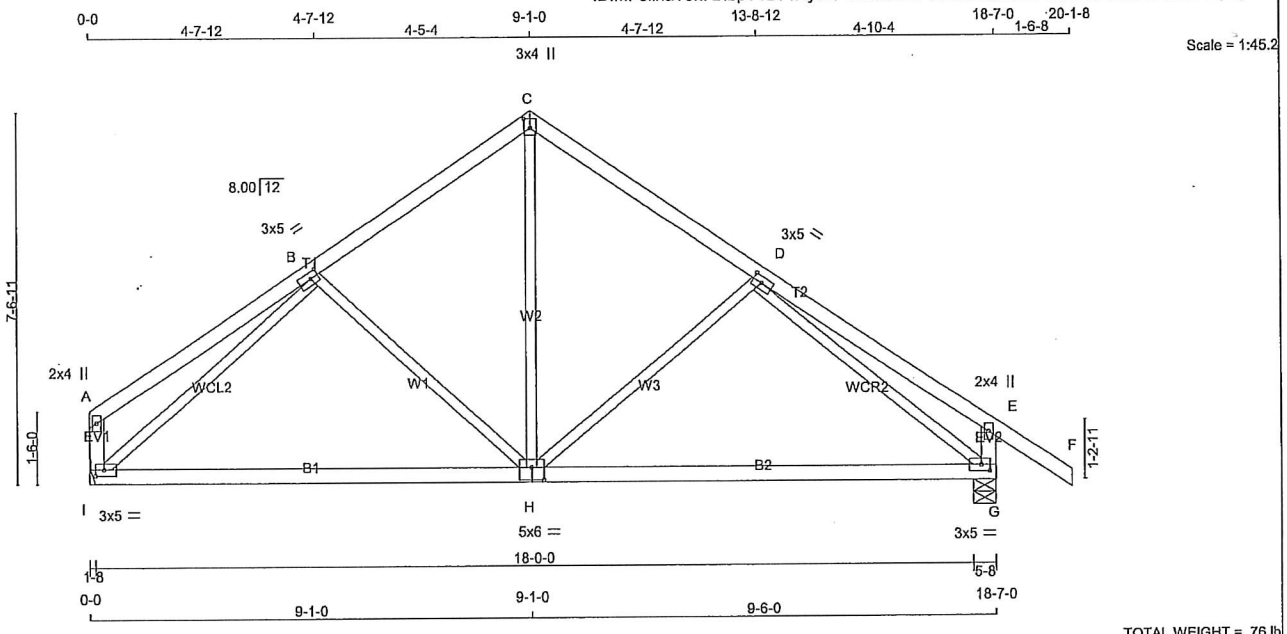
JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.44 (J) (INPUT = 1.00)

A-18024014

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H9	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iirIaTok7DlbpT4B71Xys4PG-KEEboPWofkIBQvuQ2KxssFOk1en0olZ2TrFUqzzjaEO



TOTAL WEIGHT = 76 lb

[M][F]

LUMBER
N. L. G. A. RULES

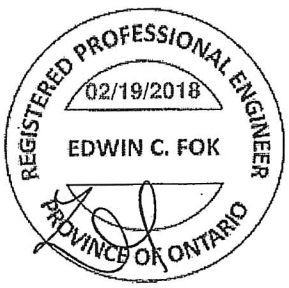
CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - F	2x4	DRY	No.2	SPF
I - A	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	3.0	5.0	1.50	2.00
C	TTW+p	MT20	3.0	4.0	2.25	1.50
D	TMWW-t	MT20	3.0	5.0	1.50	2.25
E	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	3.0	5.0	1.50	2.00
H	BSWWW-t	MT20	5.0	6.0	3.00	3.00
I	BMVW1-t	MT20	3.0	5.0	1.50	2.00

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
I	896	0	896	0	0	IN-SX	IN-SX
						HANGER BY OTHERS	
						MIN. SEAT SIZE: 1-8	
G	1023	0	1023	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	639	390 / 0	0 / 0	0 / 0	0 / 0	249 / 0	0 / 0
G	727	458 / 0	0 / 0	0 / 0	0 / 0	268 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 23	-78.0	-78.0	0.26 (1)	10.00
B- C	-714 / 0	-78.0	-78.0	0.20 (1)	6.25
C- D	-715 / 0	-78.0	-78.0	0.22 (1)	6.25
D- E	0 / 24	-78.0	-78.0	0.29 (1)	10.00
E- F	0 / 35	-78.0	-78.0	0.15 (1)	10.00
I- A	-135 / 0	0.0	0.0	0.01 (1)	7.81
G- E	-268 / 0	0.0	0.0	0.03 (1)	7.81
I- H	0 / 730	-18.5	-18.5	0.51 (4)	10.00
H- G	0 / 779	-18.5	-18.5	0.55 (4)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
B- H	-211 / 0	0.14 (1)
H- C	0 / 489	0.11 (1)
H- D	-267 / 0	0.19 (1)
I- B	-996 / 0	0.65 (1)
D- G	-1025 / 0	0.70 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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 (0.62")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.62")
CALCULATED VERT. DEFL.(TL) = L/ 572 (0.39")

CSI: TC=0.29/1.00 (D-E:1) , BC=0.55/1.00 (G-H:4) , WB=0.70/1.00 (D-G:1) , SSI=0.15/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

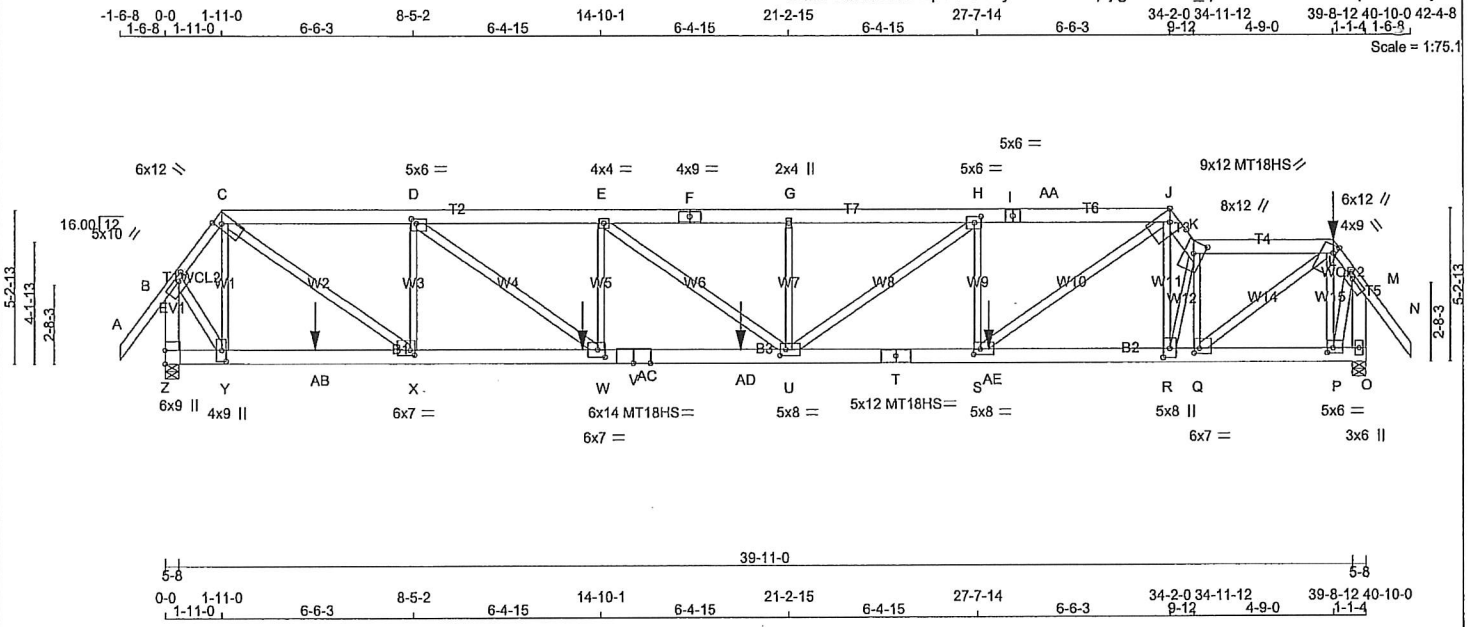
JSI GRIP= 0.88 (I) (INPUT = 0.90)
JSI METAL= 0.28 (D) (INPUT = 1.00)

A-18024015

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H10A	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

ID:MF8iirlaTok7DlbpT4B71Xys4PG-BxRq1jtgcE8WfiU_qAI7hFvneFWxPGRpDc?uSfzja2J



TOTAL WEIGHT = 248 lb

[M]

LUMBER

N. L. G. A. RULES

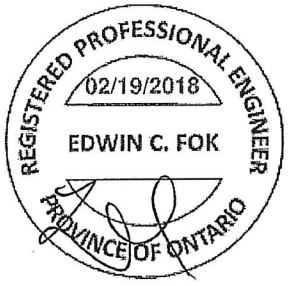
CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - F	2x6	DRY	1650F 1.5E	SPF
F - I	2x6	DRY	1650F 1.5E	SPF
I - J	2x6	DRY	1650F 1.5E	SPF
J - K	2x6	DRY	No.2	SPF
K - L	2x6	DRY	No.2	SPF
L - N	2x4	DRY	No.2	SPF
Z - B	2x6	DRY	No.2	SPF
O - M	2x6	DRY	No.2	SPF
Z - V	2x6	DRY	2100F 1.8E	SPF
V - T	2x6	DRY	2100F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

DRY: SEASONED LUMBER.

PLATES (table Is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	10.0	1.75	3.50
C	TTWW+h	MT20	6.0	12.0	3.25	2.00
D	TMWW-t	MT20	5.0	6.0	2.00	2.00
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	4.0	9.0		
G	TMW+w	MT20	2.0	4.0		
H	TMWW-t	MT20	5.0	6.0	2.50	2.75
I	TS-t	MT20	5.0	6.0		
J	TTWW+h	MT18HS	9.0	12.0	Edge	4.50
K	TTWW+m	MT20	8.0	12.0	5.00	4.00
L	TTWW+m	MT20	6.0	12.0	3.00	1.25
M	TMVW-t	MT20	4.0	9.0	1.50	2.50
O	BMV1+p	MT20	3.0	6.0		

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
Z	4529	0	4529	0	0	5-8	5-8
O	3950	0	3950	0	0	5-8	5-0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Z	3227	1984 / 0	0 / 0	0 / 0	0 / 0	1242 / 0	0 / 0
O	2814	1732 / 0	0 / 0	0 / 0	0 / 0	1081 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.92 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 52	-78.0	-78.0	0.17 (1)	10.00	Y- C	-985 / 0	0.36 (1)
B- C	-3269 / 0	-78.0	-78.0	0.31 (1)	3.57	C- X	0 / 5632	0.72 (1)
C- D	-6454 / 0	-78.0	-78.0	0.31 (1)	3.79	X- D	-2682 / 0	0.98 (1)
D- E	-9312 / 0	-78.0	-78.0	0.44 (1)	3.13	D- W	0 / 3564	0.46 (1)
E- F	-9691 / 0	-78.0	-78.0	0.46 (1)	3.06	W- E	-772 / 0	0.28 (1)
F- G	-9691 / 0	-78.0	-78.0	0.46 (1)	3.06	E- U	0 / 473	0.06 (1)
G- H	-9691 / 0	-78.0	-78.0	0.49 (1)	3.03	U- G	-469 / 0	0.17 (1)
H-AA	-7983 / 0	-78.0	-78.0	0.45 (1)	3.33	U- H	0 / 2134	0.27 (1)
AA- I	-7983 / 0	-114.5	-114.5	0.45 (1)	3.33	S- H	-1865 / 0	0.68 (1)
I- J	-7983 / 0	-114.5	-114.5	0.45 (1)	3.33	S- J	0 / 4003	0.51 (1)
J- K	-7765 / 0	-114.5	-114.5	0.30 (1)	2.92	R- J	0 / 3404	0.84 (1)
K- L	-5297 / 0	-114.5	-114.5	0.40 (1)	3.42	R- K	-3026 / 0	0.73 (1)
L- M	-1923 / 0	-78.0	-78.0	0.21 (1)	4.61	Q- K	-3676 / 0	0.89 (1)
M- N	0 / 52	-78.0	-78.0	0.17 (1)	10.00	Q- L	0 / 5274	0.93 (1)
Z- B	-4957 / 0	0.0	0.0	0.50 (1)	4.79	P- L	-1981 / 0	0.48 (1)
O- M	-4216 / 0	0.0	0.0	0.42 (1)	5.19	B- Y	0 / 2864	0.51 (1)
						P- M	0 / 2704	0.48 (1)
Z- Y	0 / 0	-18.5	-18.5	0.36 (1)	10.00			
Y-AB	0 / 1910	-18.5	-18.5	0.53 (1)	10.00			
AB- X	0 / 1910	-18.5	-18.5	0.53 (1)	10.00			
X-AC	0 / 6454	-18.5	-18.5	0.51 (1)	10.00			
AC- W	0 / 6454	-18.5	-18.5	0.51 (1)	10.00			
W- V	0 / 9312	-18.5	-18.5	0.93 (1)	10.00			
V-AD	0 / 9312	-18.5	-18.5	0.93 (1)	10.00			
AD- U	0 / 9312	-18.5	-18.5	0.93 (1)	10.00			
U- T	0 / 7980	-18.5	-18.5	0.59 (1)	10.00			
T- S	0 / 7980	-18.5	-18.5	0.59 (1)	10.00			
S-AE	0 / 4734	-18.5	-18.5	0.34 (1)	10.00			
AE- R	0 / 4734	-27.2	-27.2	0.34 (1)	10.00			
R- Q	0 / 5402	-27.2	-27.2	0.42 (1)	10.00			
Q- P	0 / 1165	-27.2	-27.2	0.20 (1)	10.00			
P- O	0 / 0	-27.2	-27.2	0.11 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
L	39-8-13	-41	-41	—	FRONT	VERT	TOTAL
AB	5-1-6	-1032	-1032	—	FRONT	VERT	TOTAL
AC	14-2-8	-1032	-1032	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 1-11-0
RIGHT SETBACK = 1-1-4
END SETBACK = 4-4-0
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 12-10-0 OF SPAN MEASURED FROM THE RIGHT.

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.47")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/ 528 (0.93")

CSI: TC=0.50/1.00 (B-Z:1) , BC=0.93/1.00 (U-W:1) , WB=0.98/1.00 (D-X:1) , SSI=0.66/1.00 (W-X:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

A-18024016

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H10A	1	1	TRUSS DESC.	

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
P	BMWW-t	MT20	5.0	6.0	2.00	2.25
Q	BMWW-t	MT20	6.0	7.0	2.00	2.25
R	BMWW+t	MT20	5.0	8.0	3.75	2.50
S	BMWW-t	MT20	5.0	8.0	2.25	2.75
T	BS-t	MT18HS	5.0	12.0		
U	BMWWW-t	MT20	5.0	8.0	2.50	2.25
V	BS-t	MT18HS	6.0	14.0		
W	BMWW-t	MT20	6.0	7.0	3.00	3.00
X	BMWW-t	MT20	6.0	7.0	2.00	1.75
Y	BMWW+t	MT20	4.0	9.0	4.50	1.75
Z	BMV1+t	MT20	6.0	9.0	5.50	

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

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 40.7 lbs FACTORED DOWN AT 39-8-13 ON TOP CHORD, AND 1032.3 lbs FACTORED DOWN AT 5-1-6, 1032.3 lbs FACTORED DOWN AT 14-2-8, AND 1209.0 lbs FACTORED DOWN AT 19-7-6, AND 427.8 lbs FACTORED DOWN AT 28-0-8 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



FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
AD	19-7-6	-1209	-1209	---	FRONT	VERT	TOTAL
AE	28-0-8	-428	-428	---	FRONT	VERT	TOTAL

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

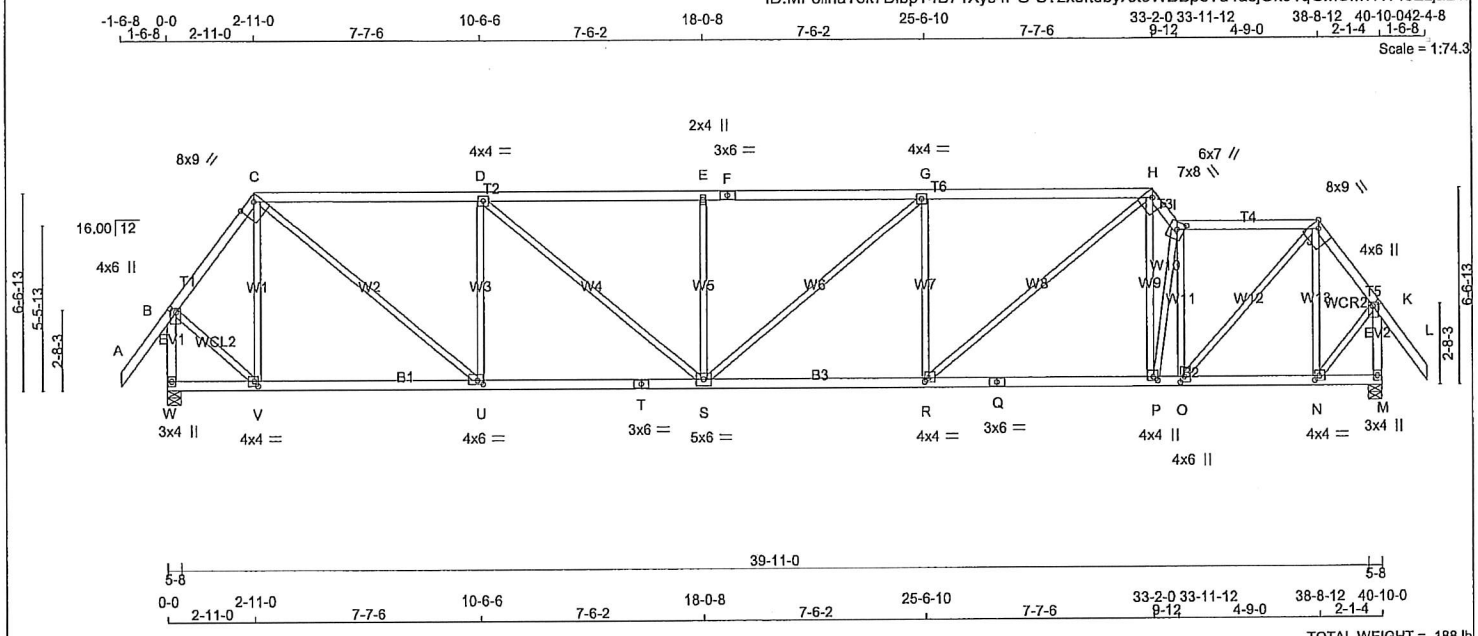
JSI GRIP= 0.89 (S) (INPUT = 0.90)
JSI METAL= 0.97 (X) (INPUT = 1.00)

A-18024016(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H11	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 13:22:59 2018 Page 1
ID:MF8IlrIaTok7DlbpT4B71Xys4PG-S?2x5ftdbyXx0WBBpeTu4aejOk01qGMSMWW4sEzjaDw



TOTAL WEIGHT = 188 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - F	2x4	DRY	1650F 1.5E	SPF
F - H	2x4	DRY	1650F 1.5E	SPF
H - I	2x4	DRY	No.2	SPF
I - J	2x4	DRY	No.2	SPF
J - L	2x4	DRY	No.2	SPF
W - B	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
W - T	2x4	DRY	No.2	SPF
T - 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
B	TMVW+p	MT20	4.0	6.0	1.50	2.25
C	TTWW-h	MT20	8.0	9.0	2.00	6.25
D	TMWW-t	MT20	4.0	4.0		
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW-t	MT20	4.0	4.0		
H	TTWW-h	MT20	7.0	8.0	1.75	5.00
I	TTWW+m	MT20	6.0	7.0	3.00	2.75
J	TTWW-h	MT20	8.0	9.0	Edge	2.75
K	TMVW+p	MT20	4.0	6.0	1.50	2.25
M	BMV1+p	MT20	3.0	4.0		
N	BMWW-t	MT20	4.0	4.0	1.75	1.75
O	BMWW+t	MT20	4.0	6.0	2.25	1.50
P	BMWW+t	MT20	4.0	4.0	1.50	1.75
Q	BS-t	MT20	3.0	6.0		
R	BMWW-t	MT20	4.0	4.0	1.50	1.50
S	BMWWW-t	MT20	5.0	6.0		
T	BS-t	MT20	3.0	6.0		
U	BMWW-t	MT20	4.0	6.0	1.50	2.25
V	BMWW-t	MT20	4.0	4.0	2.00	1.50
W	BMV1+p	MT20	3.0	4.0		

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



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

BEARINGS

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
W	1492	925 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
M	1496	928 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MEMB. FR-TO	FORCE (LBS)	FACTORED VERT. LOAD LC1 FROM (PLF)	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 52	-78.0	-78.0	0.15 (1)	10.00
B- C	-1473 / 0	-78.0	-78.0	0.15 (1)	5.26
C- D	-2535 / 0	-78.0	-78.0	0.77 (1)	4.06
D- E	-3212 / 0	-78.0	-78.0	0.87 (1)	3.64
E- F	-3212 / 0	-78.0	-78.0	0.86 (1)	3.65
F- G	-3212 / 0	-78.0	-78.0	0.86 (1)	3.65
G- H	-3078 / 0	-78.0	-78.0	0.85 (1)	3.72
H- I	-3307 / 0	-78.0	-78.0	0.12 (1)	3.80
I- J	-2133 / 0	-78.0	-78.0	0.39 (1)	4.25
J- K	-1336 / 0	-78.0	-78.0	0.17 (1)	5.41
K- L	0 / 52	-78.0	-78.0	0.15 (1)	10.00
W- B	-2093 / 0	0.0	0.0	0.30 (1)	5.85
M- K	-2103 / 0	0.0	0.0	0.30 (1)	5.84
W- V	0 / 0	-18.5	-18.5	0.16 (4)	10.00
V- U	0 / 868	-18.5	-18.5	0.29 (4)	10.00
U- T	0 / 2536	-18.5	-18.5	0.52 (1)	10.00
T- S	0 / 2536	-18.5	-18.5	0.52 (1)	10.00
S- R	0 / 3079	-18.5	-18.5	0.62 (1)	10.00
R- Q	0 / 1964	-18.5	-18.5	0.44 (1)	10.00
Q- P	0 / 1964	-18.5	-18.5	0.44 (1)	10.00
P- O	0 / 2165	-18.5	-18.5	0.43 (1)	10.00
O- N	0 / 754	-18.5	-18.5	0.19 (1)	10.00
N- M	0 / 0	-18.5	-18.5	0.08 (4)	10.00

WEBS

MEMB. FR-TO	FORCE (LBS)	MAX CSI (LC)
V- C	-545 / 0	0.39 (1)
C- U	0 / 2154	0.48 (1)
U- D	-1222 / 0	0.86 (1)
D- S	0 / 881	0.20 (1)
S- E	-541 / 0	0.38 (1)
S- G	0 / 173	0.04 (1)
R- G	-765 / 0	0.54 (1)
R- H	0 / 1440	0.32 (1)
P- H	0 / 1448	0.33 (1)
P- I	-1293 / 0	0.61 (1)
O- I	-1583 / 0	0.71 (1)
O- J	0 / 2058	0.46 (1)
N- J	-701 / 0	0.32 (1)
B- V	0 / 1101	0.25 (1)
N- K	0 / 1108	0.25 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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 (0.20")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.42")

CSI: TC=0.87/1.00 (D-E:1) , BC=0.62/1.00 (R-S:1) , WB=0.86/1.00 (D-U:1) , SSI=0.28/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.80 (T) (INPUT = 1.00)

A-18024017

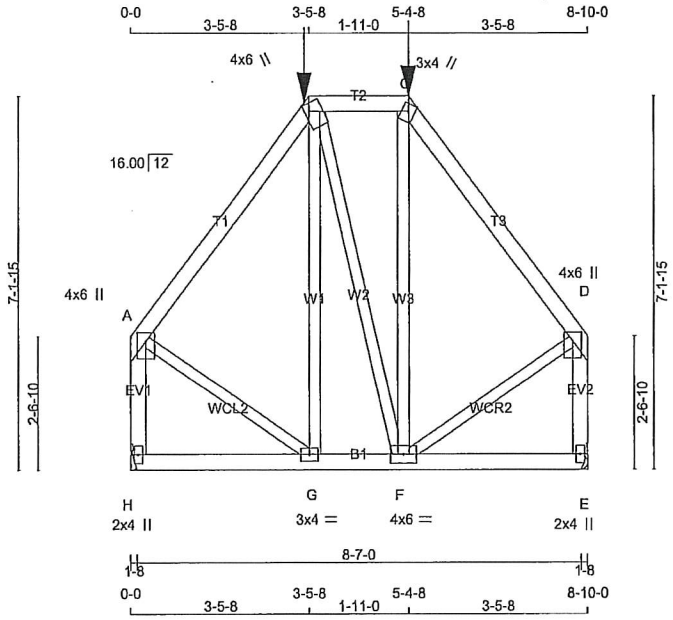
CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H15	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8liriaTok7DlbpT4B71Xys4PG-_iAYs0JeoCOBAeCtjQbZsSX2IlPqTr4qVt6J0OzjaC4



Scale = 1:42.6

TOTAL WEIGHT = 54 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
H - A	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
H - E	2x4	DRY	No.2	SPF
ALL WEBS 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	TTWW+m	MT20	4.0	6.0	1.75	1.00
C	TTW+m	MT20	3.0	4.0	Edge	
D	TMVW+p	MT20	4.0	6.0	2.00	2.00
E	BMV1+p	MT20	2.0	4.0		
F	BMWWW-t	MT20	4.0	6.0		
G	BMWW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		

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) 106.7 lbs FACTORED DOWN AT 5-4-8, AND 106.7 lbs FACTORED DOWN AT 3-5-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
H	606	0	606	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	
E	606	0	606	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX /MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	433	262 / 0	0 / 0	0 / 0	0 / 0	171 / 0	0 / 0
E	433	262 / 0	0 / 0	0 / 0	0 / 0	171 / 0	0 / 0

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 MAX (PLF) FROM	TO	CSI (LC)	WEBS MAX. MEMB. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO								
A- B	-369 / 0	-78.0	-78.0	0.18 (1)	6.25	G- B	-53 / 36	0.05 (1)
B- C	-219 / 0	-114.5	-114.5	0.08 (1)	6.25	B- F	-2 / 1	0.00 (1)
C- D	-369 / 0	-78.0	-78.0	0.18 (1)	6.25	F- C	-55 / 38	0.05 (1)
H- A	-565 / 0	0.0	0.0	0.08 (1)	7.81	A- G	0 / 257	0.06 (1)
E- D	-564 / 0	0.0	0.0	0.08 (1)	7.81	F- D	0 / 257	0.06 (1)
H- G	0 / 0	-27.2	-27.2	0.08 (4)	10.00			
G- F	0 / 219	-27.2	-27.2	0.09 (4)	10.00			
F- E	0 / 0	-27.2	-27.2	0.08 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	3-5-8	-107	-107	—	FRONT	VERT	TOTAL
C	5-4-8	-107	-107	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
SIDE SETBACK = 3-5-8
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.29")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.29")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.18/1.00 (A-B:1) , BC=0.09/1.00 (F-G:4) , WB=0.06/1.00 (A-G:1) , SSI=0.09/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.65 (C) (INPUT = 0.90)
JSI METAL= 0.15 (A) (INPUT = 1.00)

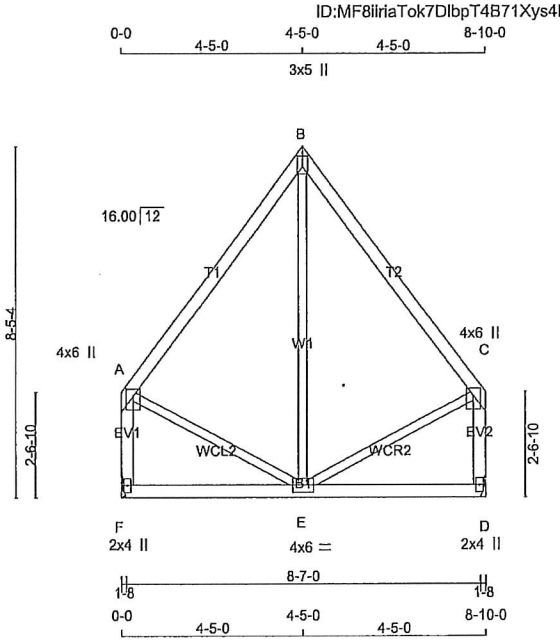
A-18024018

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H16	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iriaTok7DlbpT4B71Xys4PG-LgzRvjNmdl0UHQ4qWzAkZWEuqJ6r85rZe9p4ibzjaC?



TOTAL WEIGHT = 3 X 46 = 139 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	No.2	SPF
F - A	2x4	DRY	No.2	SPF
D - C	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
F	426	0	426	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	
D	426	0	426	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	304	185 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
D	304	185 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO								
A- B	-204 / 0	-78.0	-78.0	0.20 (1)	6.25	E- B	-19 / 63	0.02 (1)
B- C	-204 / 0	-78.0	-78.0	0.20 (1)	6.25	A- E	0 / 136	0.03 (1)
F- A	-395 / 0	0.0	0.0	0.05 (1)	7.81	E- C	0 / 136	0.03 (1)
D- C	-395 / 0	0.0	0.0	0.05 (1)	7.81			
F- E	0 / 0	-18.5	-18.5	0.10 (4)	10.00			
E- D	0 / 0	-18.5	-18.5	0.10 (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 (0.29")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.29")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.20/1.00 (A-B:1) , BC=0.10/1.00 (D-E:4) , WB=0.03/1.00 (C-E:1) , SSI=0.08/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

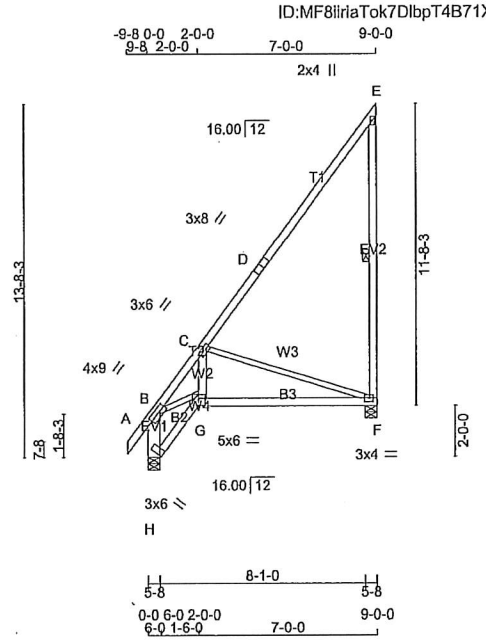
JSI GRIP= 0.23 (C) (INPUT = 0.90)
JSI METAL= 0.11 (A) (INPUT = 1.00)

A-18024019

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H17T	4	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8IiriaTok7DlbpT4B71Xys4PG-Qv0FuwaV4TdIHnk2NzzBcbNwtd9SaA8Hej2NCozjaAR



TOTAL WEIGHT = 4 X 55 = 221 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	2100F 1.8E	SPF
D - E	2x4	DRY	2100F 1.8E	SPF
F - E	2x4	DRY	No.2	SPF
H - B	2x6	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
G - C	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table Is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	9.0	2.00	3.00
C	TMWW-t	MT20	3.0	6.0	1.50	1.75
D	TS-t	MT20	3.0	8.0		
E	TMV+p	MT20	2.0	4.0		
F	BMVW1-t	MT20	3.0	4.0	1.50	1.75
G	BBWW-t	MT20	5.0	6.0	3.00	3.00
H	BVM1+t	MT20	3.0	6.0	Edge	

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
F	610	0	610	0	0	5-8	1-8
H	681	0	681	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	435	266 / 0	0 / 0	0 / 0	0 / 0	170 / 0	0 / 0
H	484	304 / 0	0 / 0	0 / 0	0 / 0	180 / 0	0 / 0

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

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

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 FROM	TO	MAX (PLF) CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 28	-78.0	-78.0	0.03 (1)	10.00
B- C	-1030 / 0	-109.6	-109.6	0.50 (1)	6.25
C- D	-57 / 0	-109.6	-109.6	0.49 (1)	6.25
D- E	-57 / 0	-109.6	-109.6	0.49 (1)	6.25
F- E	-304 / 0	0.0	0.0	0.22 (1)	6.25
H- B	-655 / 0	0.0	0.0	0.05 (1)	7.81
H- G	0 / 0	-26.0	-26.0	0.03 (4)	10.00
G- F	0 / 700	-26.0	-26.0	0.47 (4)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
G- C	0 / 398	0.07 (1)
C- F	-734 / 0	0.70 (1)
B- G	0 / 778	0.19 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 0-0
END SETBACK = 3-7-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.30")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.30")
CALCULATED VERT. DEFL.(TL) = L/ 657 (0.16")

CSI: TC=0.50/1.00 (B-C:1) , BC=0.47/1.00 (F-G:4) , WB=0.70/1.00 (C-F:1) , SSI=0.23/1.00 (C-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

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

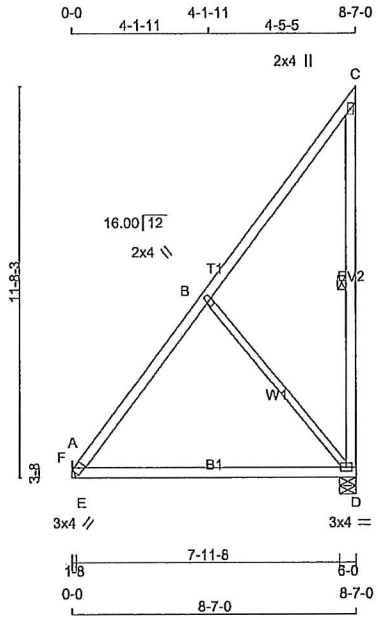
JSI GRIP= 0.87 (F) (INPUT = 0.90)
JSI METAL= 0.64 (D) (INPUT = 1.00)

A-18024020

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H18	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8liriaTok7DlbpT4B71Xys4PG-3loeYe8MEcQmosFu3dozUlHoKArNM272DtBpp8zja9j



TOTAL WEIGHT = 2 X 44 = 88 lb

[M]

LUMBER
N. L. G. A. RULES

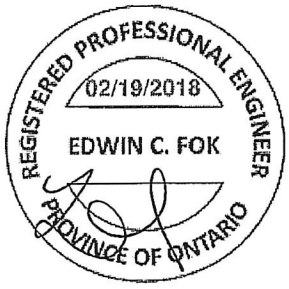
CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
D - C	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TBM1-h	MT20	3.0	4.0	1.50	1.75
B	TMW+w	MT20	2.0	4.0		
C	TMV+p	MT20	2.0	4.0		
D	BMVW1-t	MT20	3.0	4.0		

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
A	580	0	580	0	0	IN-SX	IN-SX
						HANGER BY OTHERS	
						MIN. SEAT SIZE: 1-8	
D	580	0	580	0	0	6-0	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
A	413	252 / 0	0 / 0	0 / 0	0 / 0	161 / 0	0 / 0
D	413	252 / 0	0 / 0	0 / 0	0 / 0	161 / 0	0 / 0

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

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

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- F	-738 / 0	-109.6	-109.6	0.38 (4)	6.25	B- D	-386 / 0	0.34 (1)
F- B	-332 / 0	-109.6	-109.6	0.43 (1)	6.25	E- F	0 / 583	0.00 (1)
B- C	-49 / 0	-109.6	-109.6	0.42 (1)	6.25			
D- C	-189 / 0	0.0	0.0	0.13 (1)	6.25			
A- E	0 / 254	-26.0	-26.0	0.30 (4)	10.00			
E- D	0 / 254	-26.0	-26.0	0.46 (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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 0-0
END SETBACK = 3-7-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.28")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/ 394 (0.26")

CSI: TC=0.43/1.00 (B-F:1) , BC=0.46/1.00 (D-E:4) , WB=0.34/1.00 (B-D:1) , SSI=0.59/1.00 (A-E:4)

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.48 (D) (INPUT = 0.90)
JSI METAL= 0.14 (A) (INPUT = 1.00)

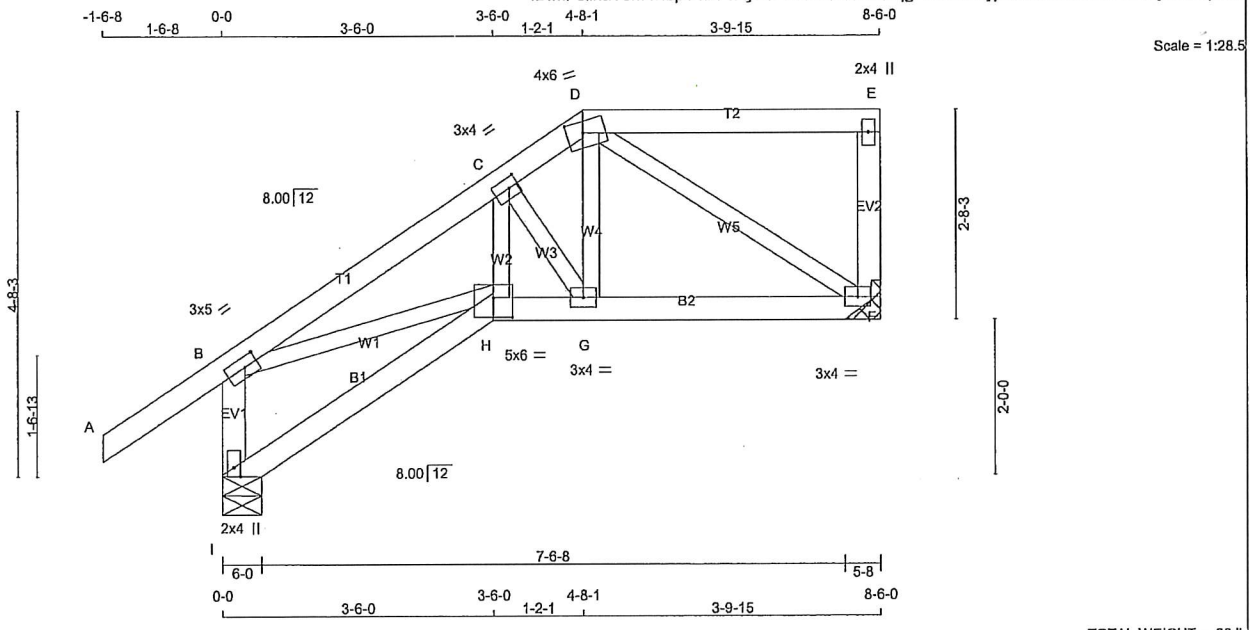
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H19T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 38 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
I - B	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
I - H	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

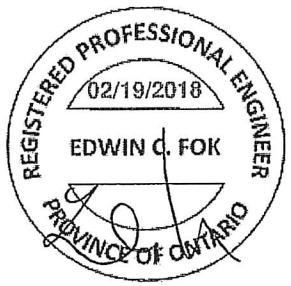
DRY: SEASONED LUMBER.

PLATES (table Is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	2.00
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TTWW-m	MT20	4.0	6.0	1.75	2.50
E	TMV+p	MT20	2.0	4.0		
F	BMVW1-t	MT20	3.0	4.0		
G	BMWW-t	MT20	3.0	4.0		
H	BBWW-l	MT20	5.0	6.0	3.00	3.00
I	BMV1+p	MT20	2.0	4.0	Edge	

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
I	537	0	537	0	0	6-0	1-8
F	410	0	410	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	380	247 / 0	0 / 0	0 / 0	0 / 0	133 / 0	0 / 0
F	292	178 / 0	0 / 0	0 / 0	0 / 0	114 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
I-B	-504 / 0	0.0	0.0	0.06 (1)	7.81	B-H	0 / 590	0.13 (1)
A-B	0 / 35	-78.0	-78.0	0.15 (1)	10.00	H-C	0 / 165	0.04 (1)
B-C	-682 / 0	-78.0	-78.0	0.12 (1)	6.25	C-G	-363 / 0	0.06 (1)
C-D	-470 / 0	-78.0	-78.0	0.08 (1)	6.25	G-D	0 / 353	0.08 (1)
D-E	0 / 0	-78.0	-78.0	0.19 (1)	10.00	D-F	-437 / 0	0.13 (1)
F-E	-149 / 0	0.0	0.0	0.02 (1)	7.81			
I-H	0 / 0	-18.5	-18.5	0.07 (4)	10.00			
H-G	0 / 566	-18.5	-18.5	0.11 (1)	10.00			
G-F	0 / 372	-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

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 (0.28")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.19/1.00 (D-E:1) , BC=0.11/1.00 (G-H:1) , WB=0.13/1.00 (B-H:1) , SSI=0.12/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (D) (INPUT = 0.90)
JSI METAL= 0.25 (B) (INPUT = 1.00)

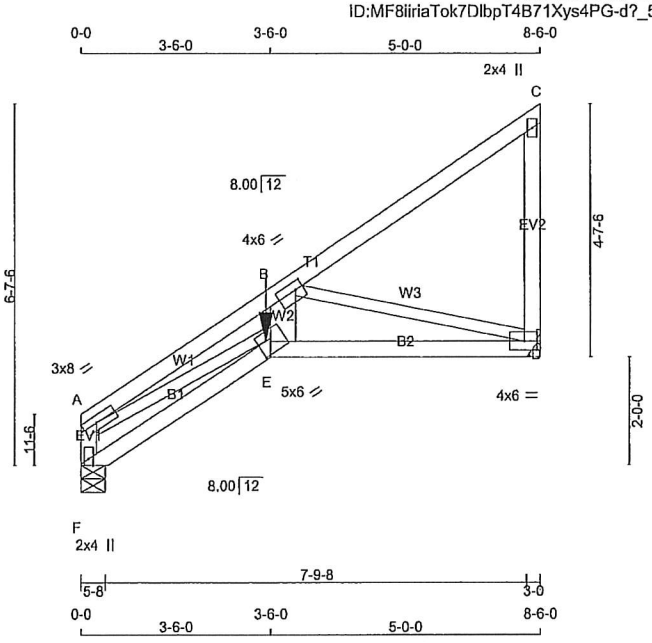
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H20A	1	2	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:40.8

TOTAL WEIGHT = 2 X 36 = 72 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
F - A	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
D - C	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
E - B	2x6	DRY	No.2	SPF

DRY: SEASONED LUMBER.

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

CHORDS	#ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"X3") SPIRAL NAILS			
F- A	1	12	TOP
A- C	1	12	TOP
C- D	1	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS			
F- E	1	12	SIDE(61.0)
E- D	1	12	SIDE(79.4)
WEBS : (0.122"X3") SPIRAL NAILS			
2x3	1	6	
E- B	2	5	SIDE(71.8)

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per 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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
F	984	0	984	0	0	5-8	1-8
D	1209	0	1209	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	SNOW	MAX./MIN. COMPONENT REACTIONS LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	702	428 / 0	0 / 0	0 / 0	0 / 0	273 / 0	0 / 0
D	862	526 / 0	0 / 0	0 / 0	0 / 0	336 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.82 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
F- A	-952 / 0	0.0	0.0	0.05 (1)	7.81	A- E	0 / 3271	0.40 (1)
A- B	-3646 / 0	-78.0	-78.0	0.14 (1)	4.82	E- B	0 / 2318	0.15 (1)
B- C	-6 / 1	-78.0	-78.0	0.15 (1)	10.00	B- D	-2634 / 0	0.49 (1)
D- C	-176 / 0	0.0	0.0	0.03 (1)	7.81			
F- E	0 / 0	-18.5	-18.5	0.04 (4)	10.00			
E- D	0 / 2566	-177.3	-177.3	0.64 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
E	3-6-0	-579	-579	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStdGirder
START DISTANCE = 3-7-8
START SPAN CARRIED = 8-7-0
END DISTANCE = 8-6-0
END SPAN CARRIED = 8-7-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

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

(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 (0.28")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/ 514 (0.20")

CSI: TC=0.15/1.00 (B-C:1) , BC=0.64/1.00 (D-E:1) , WB=0.49/1.00 (B-D:1) , SSI=0.19/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

A-18024024

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H20A	1	2	TRUSS DESC.	

PLATES (table Is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	8.0		Edge
B	TMVW-t	MT20	4.0	6.0	1.75	1.75
C	TMV+p	MT20	2.0	4.0		
D	BMVW1-t	MT20	4.0	6.0	2.00	2.75
E	BBWW-h	MT20	5.0	6.0	2.50	2.75
F	BMV1+p	MT20	2.0	4.0	Edge	

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

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 579.3 lbs FACTORED DOWN AT 3-6-0 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

JSI GRIP= 0.87 (B) (INPUT = 0.90)
JSI METAL= 0.51 (E) (INPUT = 1.00)

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

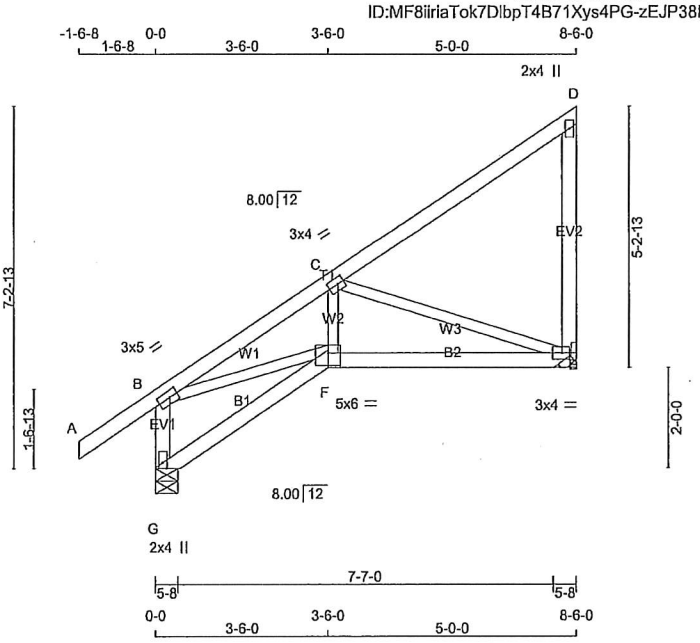
REGISTERED PROFESSIONAL ENGINEER
02/19/2018
EDWIN C. FOK
PROVINCE OF ONTARIO

A-18022024(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H20T	6	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:44.5

TOTAL WEIGHT = 6 X 39 = 234 lb

[M][F]

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table Is in Inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	2.00
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0	1.50	1.75
F	BBWW-l	MT20	5.0	6.0	3.00	3.00
G	BMV1+p	MT20	2.0	4.0	Edge	

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
G	537	0	537	0	0	5-8	1-8
E	410	0	410	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	380	247 / 0	0 / 0	0 / 0	0 / 0	133 / 0	0 / 0
E	292	178 / 0	0 / 0	0 / 0	0 / 0	114 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
G- B	-504 / 0	0.0	0.0	0.06 (1)	7.81	B- F	0 / 651	0.15 (1)
A- B	0 / 35	-78.0	-78.0	0.15 (1)	10.00	F- C	0 / 220	0.05 (1)
B- C	-738 / 0	-78.0	-78.0	0.18 (1)	6.25	C- E	-656 / 0	0.27 (1)
C- D	-19 / 0	-78.0	-78.0	0.21 (1)	6.25			
E- D	-156 / 0	0.0	0.0	0.07 (1)	7.81			
G- F	0 / 0	-18.5	-18.5	0.07 (4)	10.00			
F- E	0 / 622	-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 (0.28")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.21/1.00 (C-D:1) , BC=0.19/1.00 (E-F:4) , WB=0.27/1.00 (C-E:1) , SSI=0.15/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

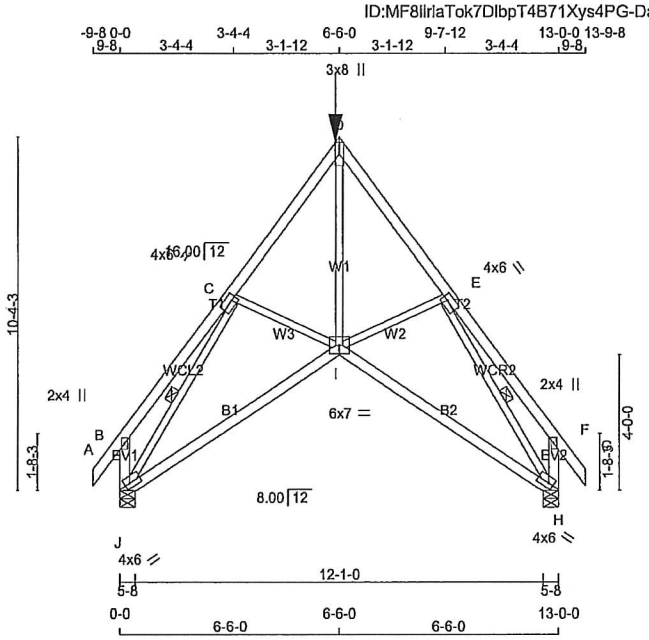
JSI GRIP= 0.78 (E) (INPUT = 0.90)
JSI METAL= 0.27 (B) (INPUT = 1.00)

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	H21T	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 3 X 70 = 210 lb [M]

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

DRY: SEASONED LUMBER.

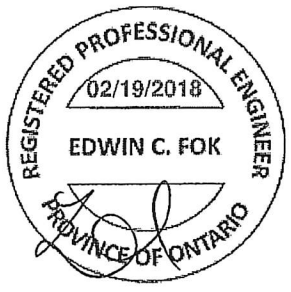
PLATES (table Is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	6.0	2.00	1.75
D	TTW+p	MT20	3.0	8.0	3.75	Edge
E	TMWW-t	MT20	4.0	6.0	2.00	1.75
F	TMV+p	MT20	2.0	4.0		
H	BMVW1-t	MT20	4.0	6.0	1.75	1.75
I	BBWWW-p	MT20	6.0	7.0		
J	BMVW1-t	MT20	4.0	6.0	1.75	1.75

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) 1373.1 lbs FACTORED DOWN AT 6-6-0 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

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
J	1588	0	1588	0	0	5-8	1-12
H	1588	0	1588	0	0	5-8	1-12

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	1148	610 / 0	0 / 0	0 / 0	0 / 0	538 / 0	0 / 0
H	1148	610 / 0	0 / 0	0 / 0	0 / 0	538 / 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 = 4.57 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 FROM (PLF)	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO						FR-TO		
A- B	0 / 28	-78.0	-78.0	0.05 (1)	10.00	I- D	0 / 1629	0.40 (1)
B- C	0 / 15	-78.0	-78.0	0.11 (1)	10.00	I- E	0 / 147	0.04 (4)
C- D	-2027 / 0	-78.0	-78.0	0.20 (1)	4.57	C- I	0 / 147	0.04 (4)
D- E	-2027 / 0	-78.0	-78.0	0.20 (1)	4.57	J- C	-2239 / 0	0.68 (1)
E- F	0 / 15	-78.0	-78.0	0.11 (1)	10.00	E- H	-2239 / 0	0.68 (1)
F- G	0 / 28	-78.0	-78.0	0.05 (1)	10.00			
J- B	-178 / 0	0.0	0.0	0.02 (1)	7.81			
H- F	-178 / 0	0.0	0.0	0.02 (1)	7.81			
J- I	0 / 1291	-49.7	-49.7	0.83 (4)	10.00			
I- H	0 / 1291	-49.7	-49.7	0.83 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
D	6-6-0	-1373	-1373	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

(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 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL) = L/ 479 (0.33")

CSI: TC=0.20/1.00 (D-E:1) , BC=0.83/1.00 (I-J:4) , WB=0.68/1.00 (E-H:1) , SSI=0.20/1.00 (I-J:4)

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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) 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 (C) (INPUT = 0.90)
JSI METAL= 0.56 (C) (INPUT = 1.00)

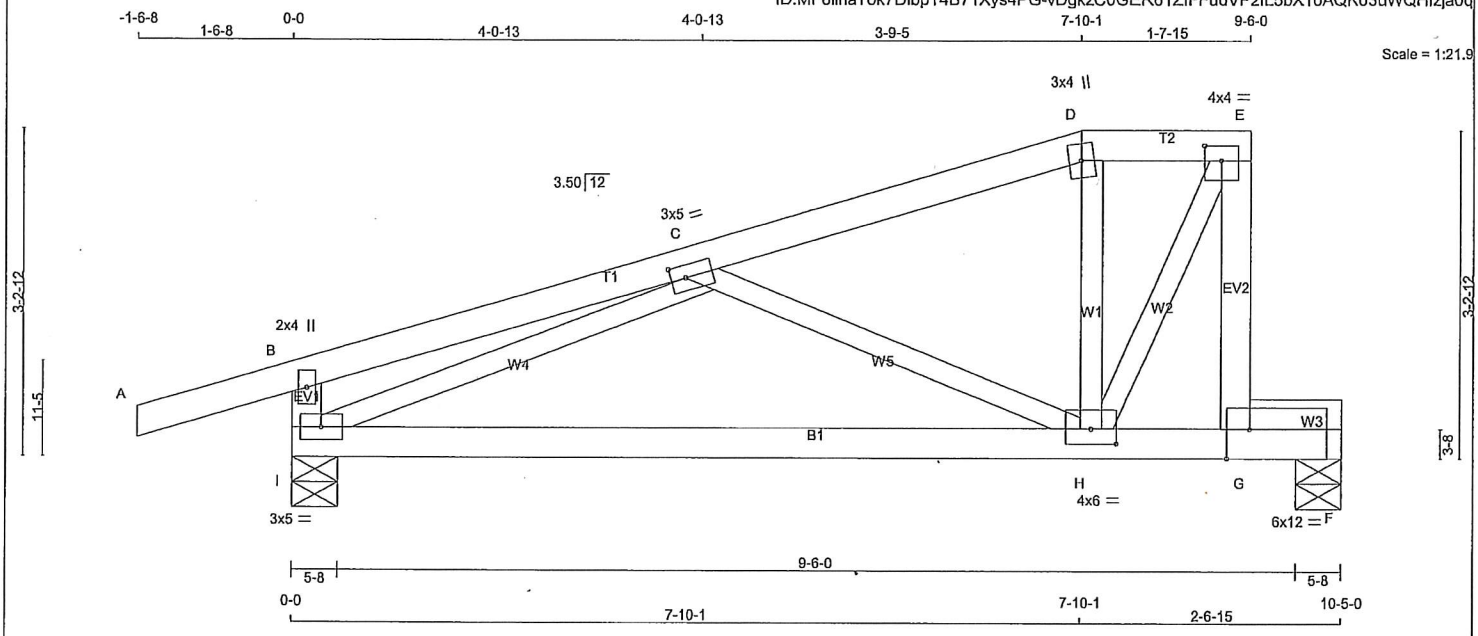
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	L2	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 41 = 82 lb

[M]

LUMBER

N. L. G. A. RULES

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

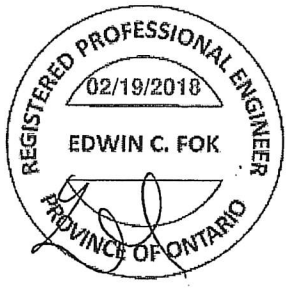
DRY: SEASONED LUMBER.

PLATES (table Is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	3.0	5.0	1.50	1.75
D	TTW+m	MT20	3.0	4.0		
E	TMVW-t	MT20	4.0	4.0	1.75	2.00
G	BMVW-t	MT20	6.0	12.0	Edge	2.75
H	BMWWW-t	MT20	4.0	6.0	1.75	3.00
I	BMVW1-t	MT20	3.0	5.0		

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
F	502	0	502	0	0	5-8	1-8
I	626	0	626	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	358	219 / 0	0 / 0	0 / 0	0 / 0	140 / 0	0 / 0
I	444	285 / 0	0 / 0	0 / 0	0 / 0	159 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO							FR-TO		
A- B	0 / 17	-78.0	-78.0	0.14 (1)	10.00		H- D	-72 / 11	0.01 (1)
B- C	0 / 9	-78.0	-78.0	0.18 (1)	10.00		H- E	0 / 787	0.18 (1)
C- D	-396 / 0	-78.0	-78.0	0.18 (1)	6.25		I- C	-783 / 0	0.26 (1)
D- E	-368 / 0	-78.0	-78.0	0.04 (1)	6.25		C- H	-377 / 0	0.13 (1)
G- E	-759 / 0	0.0	0.0	0.13 (1)	7.81				
I- B	-247 / 0	0.0	0.0	0.02 (1)	7.81				
I- H	0 / 713	-18.5	-18.5	0.36 (4)	10.00				
H- G	0 / 0	-18.5	-18.5	0.57 (1)	10.00				
G- F	0 / 0	-96.5	-96.5	0.24 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.35")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.35")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")

CSI: TC=0.18/1.00 (C-D:1) , BC=0.57/1.00 (G-H:1) , WB=0.26/1.00 (C-I:1) , SSI=0.29/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (H) (INPUT = 0.90)
JSI METAL= 0.24 (C) (INPUT = 1.00)

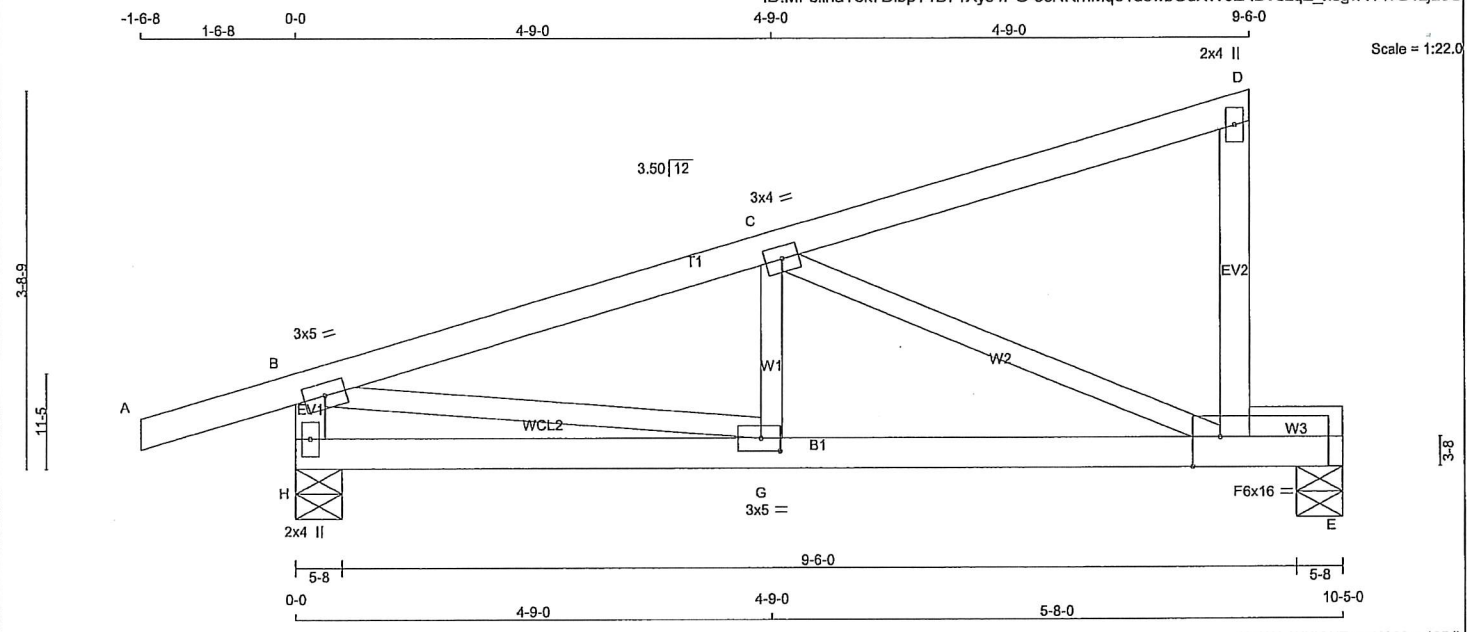
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292619	L3	5	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 5 X 39 = 195 lb [M][F]

LUMBER

N. L. G. A. RULES

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

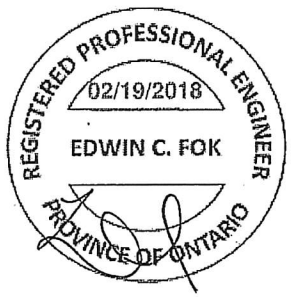
DRY: SEASONED LUMBER.

PLATES (table Is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0		
C	TMWW-t	MT20	3.0	4.0		
D	TMV+p	MT20	2.0	4.0		
F	BMVWW-t	MT20	6.0	16.0	Edge	3.25
G	BMWW-t	MT20	3.0	5.0	1.50	2.25
H	BMV1+p	MT20	2.0	4.0		

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
H	623	0	623	0	0	5-8	1-8
E	434	0	434	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	441	283 / 0	0 / 0	0 / 0	0 / 0	158 / 0	0 / 0
E	311	182 / 0	0 / 0	0 / 0	0 / 0	129 / 0	0 / 0

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

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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 17	-78.0	-78.0	0.14 (1)	10.00	G- C	0 / 127	0.04 (4)
B- C	-814 / 0	-78.0	-78.0	0.22 (1)	6.25	C- F	-862 / 0	0.36 (1)
C- D	-12 / 0	-78.0	-78.0	0.21 (1)	6.25	B- G	0 / 800	0.18 (1)
F- D	-143 / 0	0.0	0.0	0.03 (1)	7.81			
H- B	-605 / 0	0.0	0.0	0.06 (1)	7.81			
H- G	0 / 0	-18.5	-18.5	0.19 (4)	10.00			
G- F	0 / 793	-18.5	-18.5	0.66 (1)	10.00			
F- E	0 / 0	-18.5	-18.5	0.22 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.35")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.35")
CALCULATED VERT. DEFL.(TL) = L/ 608 (0.21")

CSI: TC=0.22/1.00 (B-C:1) , BC=0.66/1.00 (F-G:1) , WB=0.36/1.00 (C-F: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 .

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (C) (INPUT = 0.90)
JSI METAL= 0.27 (B) (INPUT = 1.00)

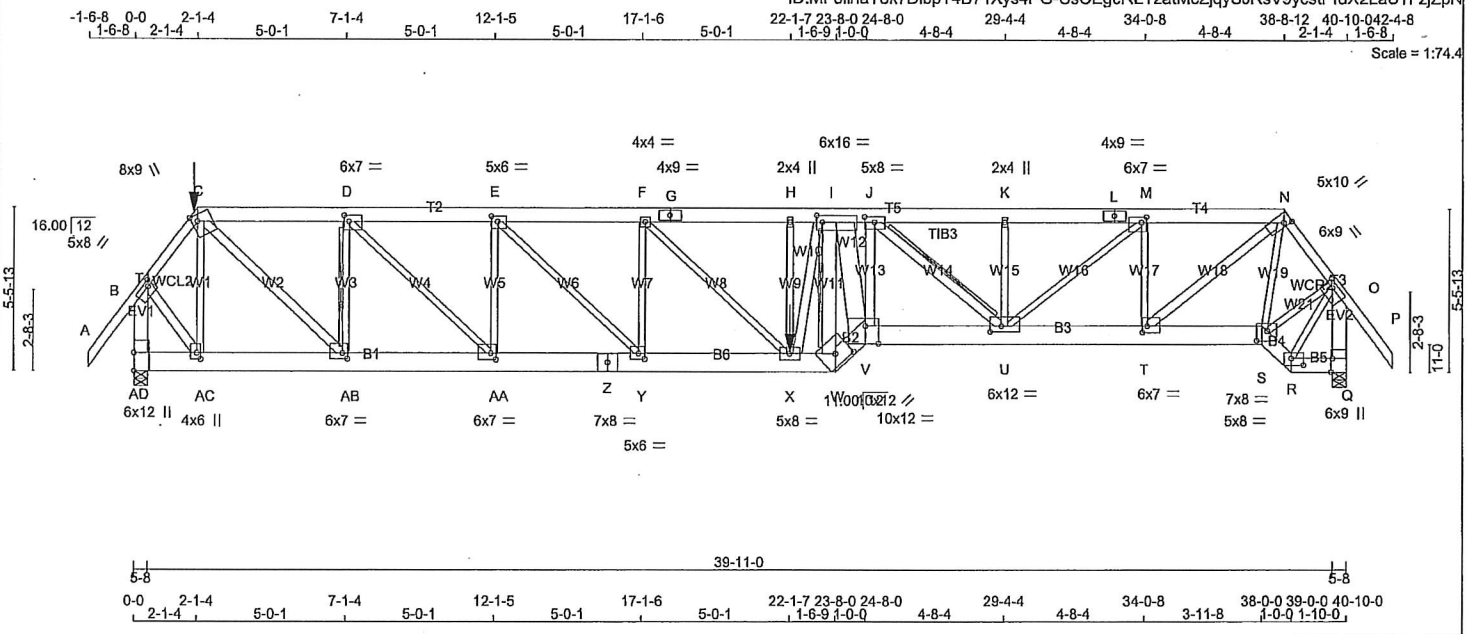
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	H1T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-CsCEgcRLTzatMcZjqySJRsV9ycstPfdX2LaU7FzjZpN



TOTAL WEIGHT = 288 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - G	2x6	DRY	1650F 1.5E	SPF
G - L	2x6	DRY	1650F 1.5E	SPF
L - N	2x6	DRY	1650F 1.5E	SPF
N - P	2x4	DRY	No.2	SPF
AD- B	2x6	DRY	No.2	SPF
Q - O	2x6	DRY	No.2	SPF
AD- Z	2x8	DRY	1950F 1.7E	SPF
Z - W	2x8	DRY	1950F 1.7E	SPF
W - V	2x8	DRY	1950F 1.7E	SPF
V - S	2x8	DRY	1950F 1.7E	SPF
S - R	2x6	DRY	No.2	SPF
R - Q	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
C - AB	2x4	DRY	No.2	SPF
X - I	2x4	DRY	No.2	SPF
W - I	2x6	DRY	No.2	SPF
I - V	2x8	DRY	No.2	SPF
V - J	2x4	DRY	No.2	SPF
J - U	2x4	DRY	No.2	SPF
T - N	2x4	DRY	No.2	SPF
B - AC	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (Table Is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	8.0	1.75	2.00
C	TTWW+m	MT20	8.0	9.0	2.50	2.25
D	TMWW-t	MT20	6.0	7.0	2.50	2.00
E	TMWW-t	MT20	5.0	6.0	2.25	2.50
F	TMWW-t	MT20	4.0	4.0		
G	TS-t	MT20	4.0	9.0		
H	TMW+w	MT20	2.0	4.0		
I	TMWWW-t	MT20	6.0	16.0	2.75	2.25
J	TMWW-t	MT20	5.0	8.0	2.25	4.00
K	TMW+w	MT20	2.0	4.0		
L	TS-t	MT20	4.0	9.0		
M	TMWW-t	MT20	6.0	7.0	2.25	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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
AD	4374	0	4374	0	0	5-8	5-8
Q	3617	0	3617	0	0	5-8	5-8

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
AD	3117	1913 / 0	0 / 0	0 / 0	0 / 0	1204 / 0	0 / 0
Q	2576	1588 / 0	0 / 0	0 / 0	0 / 0	989 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.90 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 D-AB, I-W, J-U

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

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD LC1 MAX (PLF) FROM	TO	CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 52		-78.0	-78.0	0.17 (1)	10.00
B- C	-3074 / 0		-78.0	-78.0	0.30 (1)	3.69
C- D	-5252 / 0		-153.5	-153.5	0.28 (1)	4.13
D- E	-7664 / 0		-153.5	-153.5	0.38 (1)	3.43
E- F	-9244 / 0		-153.5	-153.5	0.42 (1)	3.14
F- G	-9572 / 0		-153.5	-153.5	0.46 (1)	3.05
G- H	-9572 / 0		-153.5	-153.5	0.46 (1)	3.05
H- I	-9572 / 0		-78.0	-78.0	0.30 (1)	3.19
I- J	-10937 / 0		-78.0	-78.0	0.41 (1)	2.90
J- K	-8239 / 0		-78.0	-78.0	0.34 (1)	3.36
K- L	-8239 / 0		-78.0	-78.0	0.28 (1)	3.43
L- M	-8239 / 0		-78.0	-78.0	0.28 (1)	3.43
M- N	-5331 / 0		-78.0	-78.0	0.17 (1)	4.22
N- O	-3188 / 0		-78.0	-78.0	0.31 (1)	3.62
O- P	0 / 52		-78.0	-78.0	0.17 (1)	10.00
AD- B	-4451 / 0		0.0	0.0	0.42 (1)	5.05
Q- O	-3600 / 0		0.0	0.0	0.36 (1)	5.58
AD-AC	0 / 0		-36.4	-36.4	0.06 (1)	10.00
AC-AB	0 / 1786		-36.4	-36.4	0.15 (1)	10.00
AB-AA	0 / 5252		-36.4	-36.4	0.29 (1)	10.00
AA- Z	0 / 7664		-36.4	-36.4	0.40 (1)	10.00
Z- Y	0 / 7664		-36.4	-36.4	0.40 (1)	10.00
Y- X	0 / 9244		-36.4	-36.4	0.65 (1)	10.00
X- W	0 / 9341		-18.5	-18.5	0.66 (1)	10.00
W- V	0 / 12485		-18.5	-18.5	0.57 (1)	10.00
V- U	0 / 10856		-18.5	-18.5	0.59 (1)	10.00
U- T	0 / 5331		-18.5	-18.5	0.34 (1)	10.00
T- S	0 / 1748		-18.5	-18.5	0.09 (1)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
AC- C	-1465 / 0	0.56 (1)
C-AB	0 / 4873	0.86 (1)
AB- D	-3254 / 0	0.71 (1)
D-AA	0 / 3394	0.84 (1)
AA- E	-2287 / 0	0.88 (1)
E- Y	0 / 2224	0.55 (1)
Y- F	-1149 / 0	0.44 (1)
F- X	0 / 461	0.11 (1)
X- H	-437 / 0	0.17 (1)
X- I	0 / 904	0.16 (1)
W- I	-7487 / 0	0.86 (1)
I- V	0 / 6668	0.71 (1)
V- J	0 / 2257	0.40 (1)
J- U	-3500 / 0	0.76 (1)
U- K	-385 / 0	0.10 (1)
U- M	0 / 3837	0.95 (1)
T- M	-2903 / 0	0.78 (1)
T- N	0 / 4724	0.84 (1)
S- N	-766 / 0	0.22 (1)
B-AC	0 / 2530	0.45 (1)
R- O	0 / 21	0.01 (4)
S- O	0 / 2038	0.50 (1)

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 2-1-4
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 22-1-8 OF SPAN MEASURED FROM THE LEFT.

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.36")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.46")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/ 538 (0.91")

CSI: TC=0.46/1.00 (F-H:1) , BC=0.66/1.00 (W-X:1) , WB=0.95/1.00 (M-U:1) , SSI=0.36/1.00 (W-X:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

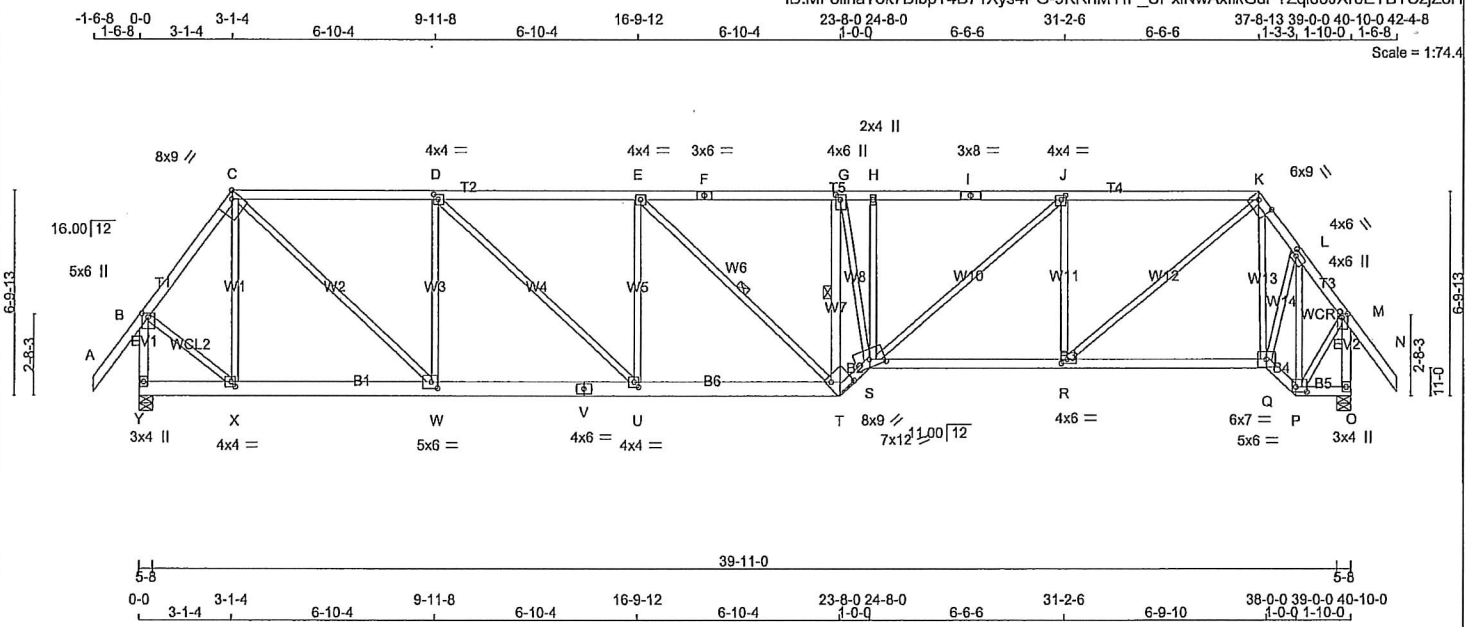
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	H2T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8ilriaTok7DlbpT4B71Xys4PG-9KRhMYIF_UPxlNwAxfikGdP?Zql8oJXr8EYBTCzjZoH



TOTAL WEIGHT = 212 lb [M]

LUMBER
N. L. G. A. RULES

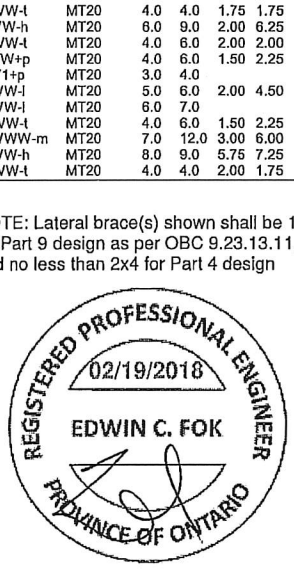
CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
I - K	2x4	DRY	No.2	SPF
K - N	2x4	DRY	No.2	SPF
Y - B	2x4	DRY	No.2	SPF
O - M	2x4	DRY	No.2	SPF
Y - V	2x6	DRY	No.2	SPF
V - T	2x6	DRY	No.2	SPF
T - S	2x4	DRY	No.2	SPF
S - Q	2x4	DRY	No.2	SPF
Q - P	2x4	DRY	No.2	SPF
P - O	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
T - G	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table Is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	1.50	2.50
C	TTWW-h	MT20	8.0	9.0	Edge	2.75
D	TMWW-t	MT20	4.0	4.0	2.00	1.75
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMWW+t	MT20	4.0	6.0	2.00	1.75
H	TMW+w	MT20	2.0	4.0		
I	TS-t	MT20	3.0	8.0		
J	TMWW-t	MT20	4.0	4.0	1.75	1.75
K	TTWW-h	MT20	6.0	9.0	2.00	6.25
L	TMWW-t	MT20	4.0	6.0	2.00	2.00
M	TMVW+p	MT20	4.0	6.0	1.50	2.25
O	BMV1+p	MT20	3.0	4.0		
P	BBWW-l	MT20	5.0	6.0	2.00	4.50
Q	BBWW-l	MT20	6.0	7.0		
R	BMWW-t	MT20	4.0	6.0	1.50	2.25
S	BBWWW-m	MT20	7.0	12.0	3.00	6.00
T	BBWW-h	MT20	8.0	9.0	5.75	7.25
U	BMWW-t	MT20	4.0	4.0	2.00	1.75

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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
Y	2096	0	2096	0	0	5-8	3-5
O	2102	0	2102	0	0	5-8	3-5

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Y	1492	925 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
O	1496	928 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.97 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-T, G-T.

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.	FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B		0 / 52	-78.0	-78.0	0.15 (1)	10.00
B- C		-1518 / 0	-78.0	-78.0	0.17 (1)	5.18
C- D		-2361 / 0	-78.0	-78.0	0.78 (1)	3.67
D- E		-3068 / 0	-78.0	-78.0	0.94 (1)	3.17
E- F		-3067 / 0	-78.0	-78.0	0.80 (1)	3.39
F- G		-3067 / 0	-78.0	-78.0	0.80 (1)	3.39
G- H		-3454 / 0	-78.0	-78.0	0.56 (1)	3.16
H- I		-3455 / 0	-78.0	-78.0	0.96 (1)	2.97
I- J		-3455 / 0	-78.0	-78.0	0.96 (1)	2.97
J- K		-2651 / 0	-78.0	-78.0	0.80 (1)	3.47
K- L		-1655 / 0	-78.0	-78.0	0.07 (1)	5.11
L- M		-1235 / 0	-78.0	-78.0	0.16 (1)	5.58
M- N		0 / 52	-78.0	-78.0	0.15 (1)	10.00
Y- B		-2093 / 0	0.0	0.0	0.28 (1)	5.85
O- M		-2085 / 0	0.0	0.0	0.30 (1)	5.86
Y- X		0 / 0	-18.5	-18.5	0.07 (4)	10.00
X- W		0 / 896	-18.5	-18.5	0.16 (1)	10.00
W- V		0 / 2362	-18.5	-18.5	0.32 (1)	10.00
V- U		0 / 2362	-18.5	-18.5	0.32 (1)	10.00
U- T		0 / 3068	-18.5	-18.5	0.42 (1)	10.00
T- S		0 / 4121	-18.5	-18.5	0.67 (1)	10.00
S- R		0 / 2652	-18.5	-18.5	0.55 (1)	10.00
R- Q		0 / 999	-18.5	-18.5	0.33 (4)	10.00
Q- P		0 / 913	-18.5	-18.5	0.15 (1)	10.00
P- O		0 / 0	-18.5	-18.5	0.02 (4)	10.00

WEBS MEMB.	FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
X- C		-498 / 0	0.36 (1)
C- W		0 / 2004	0.45 (1)
W- D		-1249 / 0	0.91 (1)
D- U		0 / 970	0.22 (1)
U- E		-523 / 0	0.38 (1)
E- T		-12 / 0	0.01 (4)
T- G		-2653 / 0	0.54 (1)
G- S		0 / 2178	0.49 (1)
S- H		-56 / 7	0.03 (1)
S- J		0 / 1057	0.24 (1)
R- J		-1270 / 0	0.68 (1)
R- K		0 / 2170	0.49 (1)
K- Q		-346 / 0	0.17 (1)
Q- L		0 / 1071	0.24 (1)
P- L		-1465 / 0	0.52 (1)
B- X		0 / 1098	0.25 (1)
P- M		0 / 1124	0.25 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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 (0.24")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.47")

CSI: TC=0.96/1.00 (H-J:1) , BC=0.67/1.00 (S-T:1) , WB=0.91/1.00 (D-W:1) , SSI=0.25/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) 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 (W) (INPUT = 0.90)
JSI METAL= 0.56 (V) (INPUT = 1.00)

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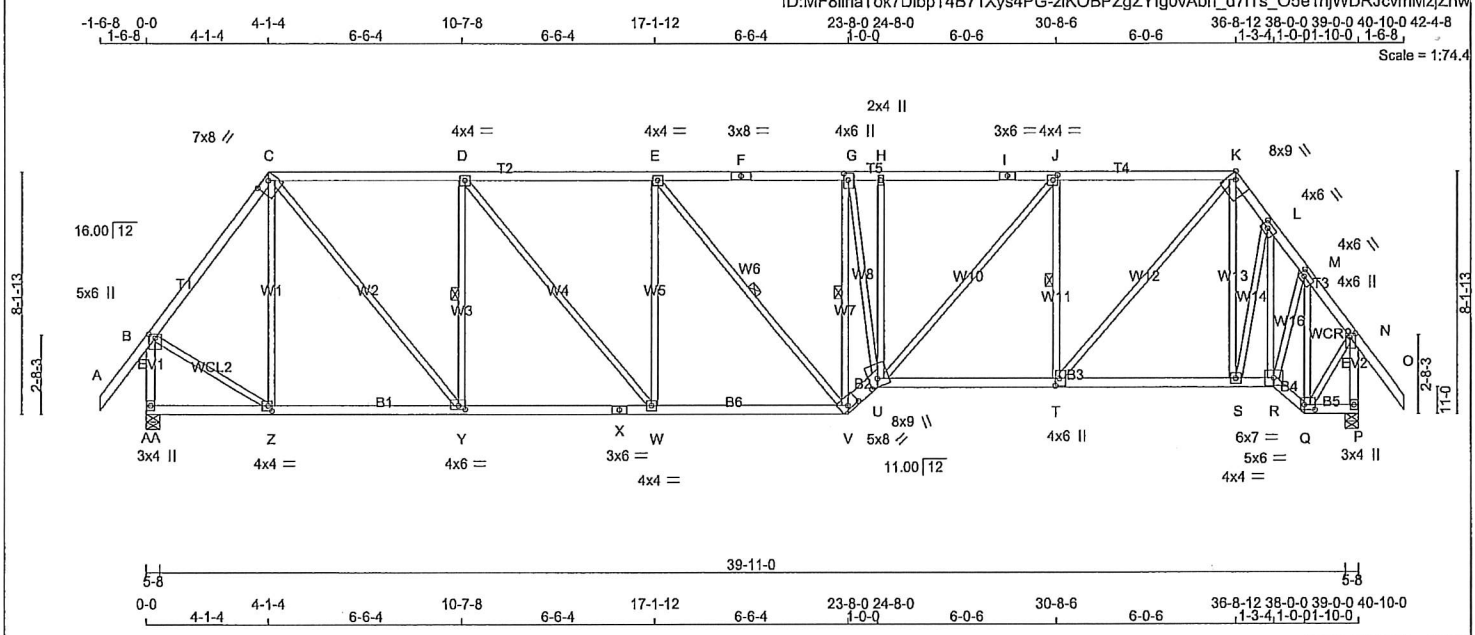
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	H3T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8IlrIaTok7DlbpT4B71Xys4PG-zIKOBPZgZYIg0vAbn_d7iTs_O5e1hjWDRJcvmMzjZnw



TOTAL WEIGHT = 219 lb [M]

LUMBER

N. L. G. A. RULES

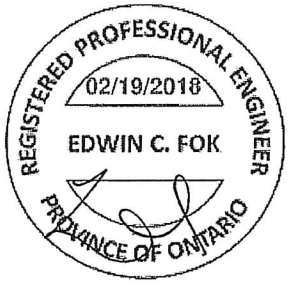
CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
I - K	2x4	DRY	No.2	SPF
K - O	2x4	DRY	No.2	SPF
AA- B	2x4	DRY	No.2	SPF
P - N	2x4	DRY	No.2	SPF
AA- X	2x4	DRY	No.2	SPF
X - V	2x4	DRY	No.2	SPF
V - U	2x6	DRY	No.2	SPF
U - R	2x4	DRY	No.2	SPF
R - Q	2x4	DRY	No.2	SPF
Q - P	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in Inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	5.0	6.0	1.50	2.50
C	TTWW-h	MT20	7.0	8.0	1.75	5.00
D	TMWW-t	MT20	4.0	4.0		
E	TMWW-t	MT20	4.0	4.0		
F	TS-t	MT20	3.0	8.0		
G	TMWW+t	MT20	4.0	6.0	2.75	1.75
H	TMW+w	MT20	2.0	4.0		
I	TS-t	MT20	3.0	6.0		
J	TMWW-t	MT20	4.0	4.0	2.00	1.75
K	TTWW-h	MT20	8.0	9.0	Edge	2.75
L	TMWW-t	MT20	4.0	6.0	2.00	2.50
M	TMWW-t	MT20	4.0	6.0	2.00	2.00
N	TMVW+p	MT20	4.0	6.0	1.50	2.25
P	BMV1+p	MT20	3.0	4.0		
Q	BBWW-l	MT20	5.0	6.0	2.00	4.50
R	BBWW-l	MT20	6.0	7.0		
S	BMWW-t	MT20	4.0	4.0		
T	BMWW+t	MT20	4.0	6.0	3.00	1.50
U	BBWWW+m	MT20	8.0	9.0	3.25	3.50
V	BBWW-h	MT20	5.0	8.0	1.50	4.50

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



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

BEARINGS

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
AA	1492	925 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0
P	1496	928 / 0	0 / 0	0 / 0	0 / 0	567 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.50 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-Y, E-V, G-V, J-T.

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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	0 / 52	-78.0	-78.0	0.15 (1)	10.00
B- C	-1580 / 0	-78.0	-78.0	0.31 (1)	4.96
C- D	-2016 / 0	-78.0	-78.0	0.64 (1)	4.08
D- E	-2529 / 0	-78.0	-78.0	0.72 (1)	3.65
E- F	-2544 / 0	-78.0	-78.0	0.61 (1)	3.81
F- G	-2544 / 0	-78.0	-78.0	0.61 (1)	3.81
G- H	-2807 / 0	-78.0	-78.0	0.47 (1)	3.63
H- I	-2807 / 0	-78.0	-78.0	0.69 (1)	3.50
I- J	-2807 / 0	-78.0	-78.0	0.69 (1)	3.50
J- K	-2205 / 0	-78.0	-78.0	0.81 (1)	3.96
K- L	-1772 / 0	-78.0	-78.0	0.05 (1)	4.99
L- M	-1645 / 0	-78.0	-78.0	0.06 (1)	5.13
M- N	-1235 / 0	-78.0	-78.0	0.16 (1)	5.58
N- O	0 / 52	-78.0	-78.0	0.15 (1)	10.00
AA- B	-2071 / 0	0.0	0.0	0.30 (1)	5.87
P- N	-2085 / 0	0.0	0.0	0.30 (1)	5.86
AA- Z	0 / 0	-18.5	-18.5	0.13 (4)	10.00
Z- Y	0 / 937	-18.5	-18.5	0.23 (4)	10.00
Y- X	0 / 2016	-18.5	-18.5	0.42 (1)	10.00
X- W	0 / 2016	-18.5	-18.5	0.42 (1)	10.00
W- V	0 / 2529	-18.5	-18.5	0.50 (1)	10.00
V- U	0 / 3485	-18.5	-18.5	0.41 (1)	10.00
U- T	0 / 2205	-18.5	-18.5	0.44 (1)	10.00
T- S	0 / 1046	-18.5	-18.5	0.27 (4)	10.00
S- R	0 / 999	-18.5	-18.5	0.22 (1)	10.00
R- Q	0 / 914	-18.5	-18.5	0.15 (1)	10.00
Q- P	0 / 0	-18.5	-18.5	0.02 (4)	10.00

WEBS

MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
Z- C	-402 / 0	0.52 (1)
C- Y	0 / 1683	0.38 (1)
Y- D	-1175 / 0	0.49 (1)
D- W	0 / 804	0.18 (1)
W- E	-516 / 0	0.66 (1)
E- V	-1 / 22	0.00 (1)
V- G	-2281 / 0	0.96 (1)
G- U	0 / 1802	0.41 (1)
U- H	-31 / 12	0.03 (1)
U- J	0 / 912	0.21 (1)
T- J	-1228 / 0	0.41 (1)
T- K	0 / 1760	0.40 (1)
S- K	-139 / 0	0.13 (1)
S- L	0 / 223	0.05 (1)
R- L	-429 / 0	0.21 (1)
R- M	0 / 1098	0.25 (1)
Q- M	-1466 / 0	0.52 (1)
B- Z	0 / 1074	0.24 (1)
Q- N	0 / 1125	0.25 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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 (0.20")
ALLOWABLE DEFL.(TL)= L/360 (1.36")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.39")

CSI: TC=0.72/1.00 (D-E:1) , BC=0.50/1.00 (V-W:1) , WB=0.96/1.00 (G-V:1) , SSI=0.24/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) 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 (Y) (INPUT = 0.90)
JSI METAL= 0.60 (X) (INPUT = 1.00)

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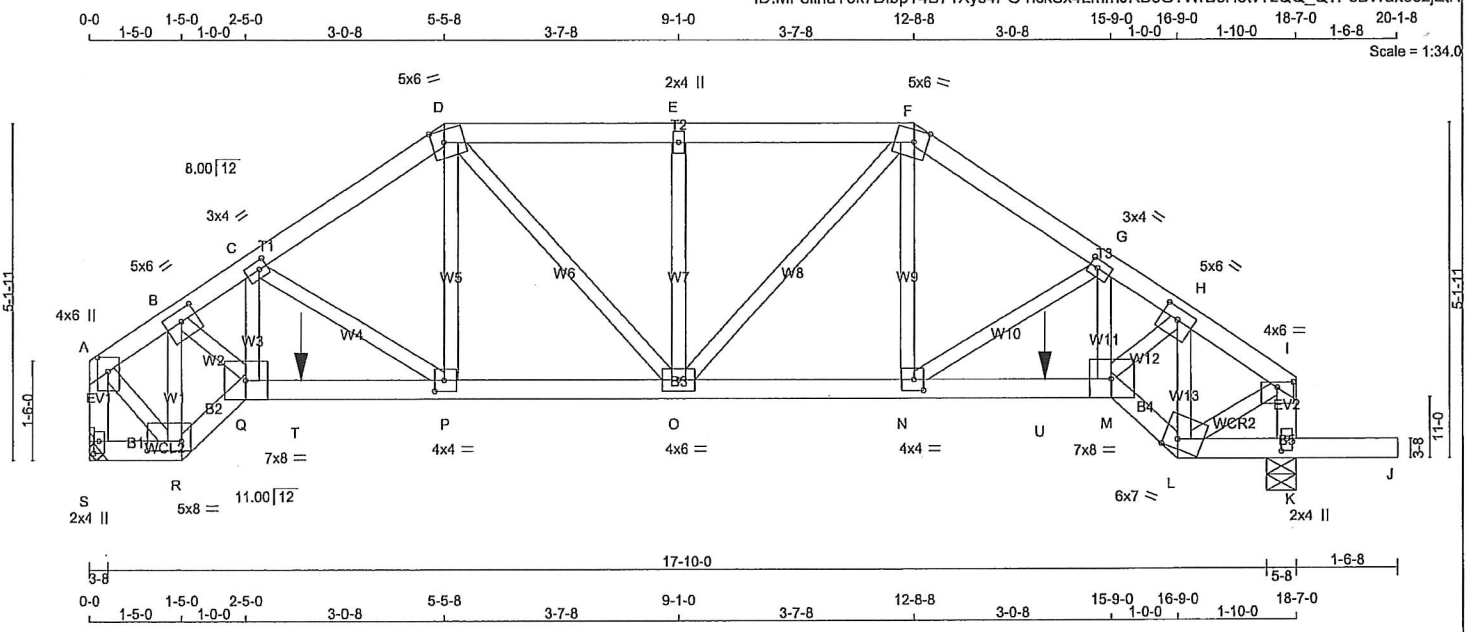
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	H7T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 83 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
S - A	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
S - R	2x4	DRY	No.2	SPF
R - Q	2x4	DRY	No.2	SPF
Q - M	2x4	DRY	No.2	SPF
M - L	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

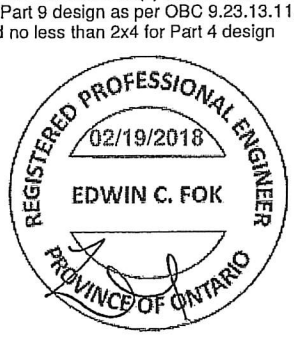
DRY: SEASONED LUMBER.

PLATES (table Is in Inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.50	2.00
B	TMWW-t	MT20	5.0	6.0	2.00	3.00
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TTWW-m	MT20	5.0	6.0	2.25	2.25
E	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	Edge	2.50
G	TMWW-t	MT20	3.0	4.0	1.50	1.50
H	TMWW-t	MT20	5.0	6.0	2.00	3.00
I	TMVW-p	MT20	4.0	6.0	1.00	3.00
K	BMV1+p	MT20	2.0	4.0	2.25	1.00
L	BBWW-m	MT20	6.0	7.0	1.75	2.50
M	BBWW-I	MT20	7.0	8.0		
N	BMWW-t	MT20	4.0	4.0	2.00	1.75
O	BMWWW-t	MT20	4.0	6.0		
P	BMWW-t	MT20	4.0	4.0	2.00	1.75
Q	BBWW-I	MT20	7.0	8.0		
R	BBWW-I	MT20	5.0	8.0	1.75	6.25
S	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
S	1879	0	1879	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 2-10	
K	1980	0	1980	0	0	5-8	2-15

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
S	1332	858 / 0	0 / 0	0 / 0	0 / 0	474 / 0	0 / 0
K	1404	899 / 0	0 / 0	0 / 0	0 / 0	505 / 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 = 3.85 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	-1461 / 0	-78.0	-78.0	0.11 (1)	5.28
B- C	-2740 / 0	-78.0	-78.0	0.18 (1)	4.01
C- D	-2408 / 0	-78.0	-78.0	0.19 (1)	4.24
D- E	-2343 / 0	-78.0	-78.0	0.24 (1)	4.22
E- F	-2343 / 0	-78.0	-78.0	0.24 (1)	4.22
F- G	-2486 / 0	-78.0	-78.0	0.20 (1)	4.17
G- H	-3025 / 0	-78.0	-78.0	0.17 (1)	3.85
H- I	-1756 / 0	-78.0	-78.0	0.12 (1)	4.90
S- A	-1866 / 0	0.0	0.0	0.21 (1)	6.09
K- I	-1752 / 0	0.0	0.0	0.20 (1)	6.26
S- R	0 / 0	-18.5	-18.5	0.01 (4)	10.00
R- Q	0 / 1486	-18.5	-18.5	0.27 (1)	10.00
Q- T	0 / 2302	-18.5	-18.5	0.85 (1)	10.00
T- P	0 / 2302	-112.0	-112.0	0.85 (1)	10.00
P- O	0 / 2015	-112.0	-112.0	0.65 (1)	10.00
O- N	0 / 2084	-112.0	-112.0	0.68 (1)	10.00
N- U	0 / 2519	-112.0	-112.0	0.91 (1)	10.00
U- M	0 / 2519	-18.5	-18.5	0.91 (1)	10.00
M- L	0 / 1831	-18.5	-18.5	0.33 (1)	10.00
L- K	0 / 0	-18.5	-18.5	0.17 (1)	10.00
K- J	0 / 0	-96.5	-96.5	0.17 (1)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
R- B	-1960 / 0	0.33 (1)
B- Q	0 / 1726	0.43 (1)
Q- C	0 / 160	0.04 (1)
C- P	-365 / 0	0.09 (1)
P- D	0 / 758	0.19 (1)
D- O	0 / 483	0.12 (1)
O- E	-322 / 0	0.09 (1)
O- F	0 / 382	0.09 (1)
N- F	0 / 875	0.22 (1)
N- G	-544 / 0	0.14 (1)
M- G	0 / 384	0.10 (1)
M- H	0 / 1690	0.42 (1)
L- H	-1970 / 0	0.33 (1)
A- R	0 / 1543	0.38 (1)
L- I	0 / 1608	0.40 (1)

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
T	3-3-4	-423	-423	—	FRONT	VERT	TOTAL
U	14-8-12	-423	-423	—	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 3-3-4
START SPAN CARRIED = 5-10-8
END DISTANCE = 14-8-12
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.62")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.62")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.15")

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=0.24/1.00 (E-F:1) , BC=0.91/1.00 (M-N:1) , WB=0.43/1.00 (B-Q:1) , SSI=0.31/1.00 (M-N: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

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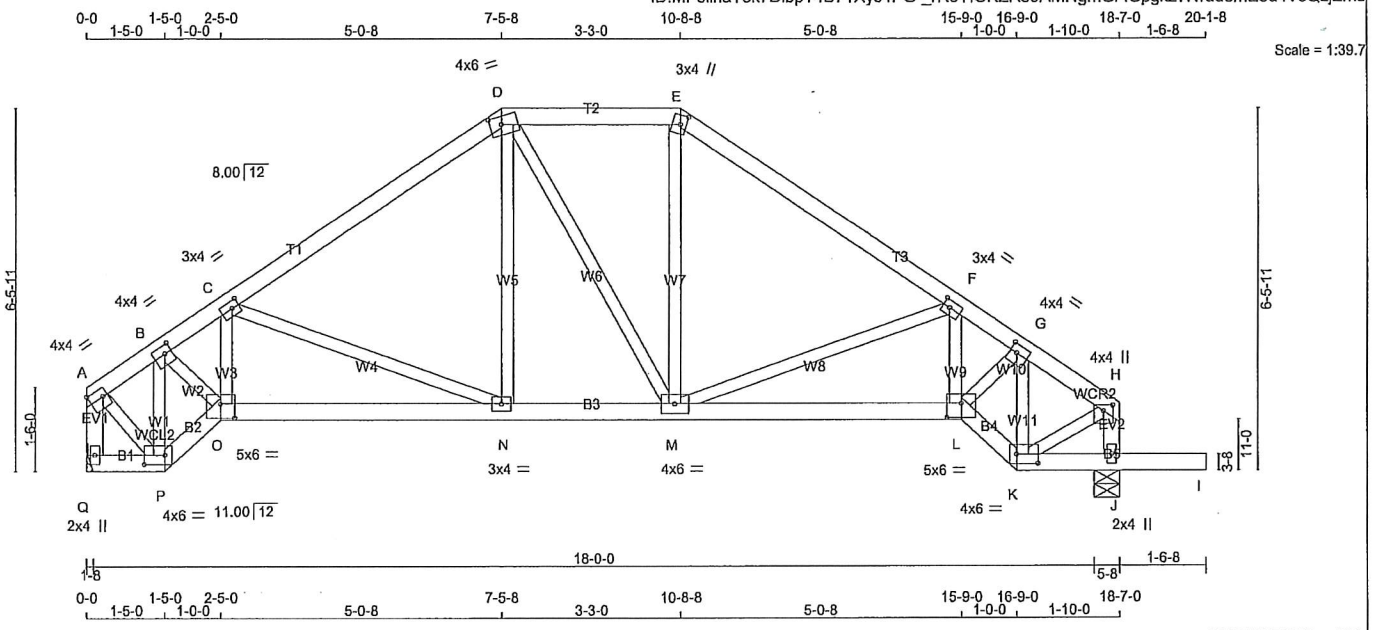
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	H8T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 83 lb [M][F]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	4.0	1.75	Edge
B	TMWW-t	MT20	4.0	4.0	1.75	1.50
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TTWW-m	MT20	4.0	6.0	1.75	2.50
E	TTW+m	MT20	3.0	4.0	2.00	1.25
F	TMWW-t	MT20	3.0	4.0	1.50	1.50
G	TMWW-t	MT20	4.0	4.0	1.75	1.50
H	TMVW+p	MT20	4.0	4.0	1.25	2.00
J	BMV1+p	MT20	2.0	4.0		
K	BBWW-I	MT20	4.0	6.0	2.00	4.50
L	BBWW-I	MT20	5.0	6.0	3.00	3.00
M	BMWWW-t	MT20	4.0	6.0		
N	BMWW-t	MT20	3.0	4.0		
O	BBWW-I	MT20	5.0	6.0	3.00	3.00
P	BBWW-I	MT20	4.0	6.0	2.00	4.50
Q	BMV1+p	MT20	2.0	4.0		

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
Q	890	0	890	0	0	IN-SX	IN-SX
						HANGER BY OTHERS	
						MIN. SEAT SIZE: 1-8	
J	1051	0	1051	0	0	5-8	1-9

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	635	387 / 0	0 / 0	0 / 0	0 / 0	247 / 0	0 / 0
J	750	457 / 0	0 / 0	0 / 0	0 / 0	292 / 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 = 5.39 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 MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	-660 / 0	-78.0	-78.0	0.07 (1)		6.25
B- C	-1210 / 0	-78.0	-78.0	0.20 (1)		5.60
C- D	-930 / 0	-78.0	-78.0	0.23 (1)		6.15
D- E	-770 / 0	-78.0	-78.0	0.11 (1)		6.25
E- F	-940 / 0	-78.0	-78.0	0.23 (1)		6.12
F- G	-1338 / 0	-78.0	-78.0	0.20 (1)		5.39
G- H	-783 / 0	-78.0	-78.0	0.07 (1)		6.25
Q- A	-877 / 0	0.0	0.0	0.09 (1)		7.81
J- H	-823 / 0	0.0	0.0	0.08 (1)		7.81
Q- P	0 / 0	-18.5	-18.5	0.01 (4)		10.00
P- O	0 / 660	-18.5	-18.5	0.11 (1)		10.00
O- N	0 / 1100	-18.5	-18.5	0.24 (1)		10.00
N- M	0 / 761	-18.5	-18.5	0.17 (1)		10.00
M- L	0 / 1194	-18.5	-18.5	0.25 (1)		10.00
L- K	0 / 808	-18.5	-18.5	0.13 (1)		10.00
K- J	0 / 0	-18.5	-18.5	0.12 (1)		10.00
J- I	0 / 0	-96.5	-96.5	0.16 (1)		10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
P- B	-858 / 0	0.13 (1)
B- O	0 / 863	0.19 (1)
O- C	-111 / 14	0.02 (1)
C- N	-369 / 0	0.18 (1)
N- D	0 / 208	0.05 (1)
D- M	0 / 18	0.00 (1)
M- E	0 / 229	0.05 (1)
M- F	-460 / 0	0.23 (1)
L- F	-1 / 54	0.02 (4)
L- G	0 / 849	0.19 (1)
K- G	-891 / 0	0.14 (1)
A- P	0 / 685	0.15 (1)
K- H	0 / 711	0.16 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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 (0.62")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.62")
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=0.23/1.00 (E-F:1) , BC=0.25/1.00 (L-M:1) , WB=0.23/1.00 (F-M:1) , SSI=0.15/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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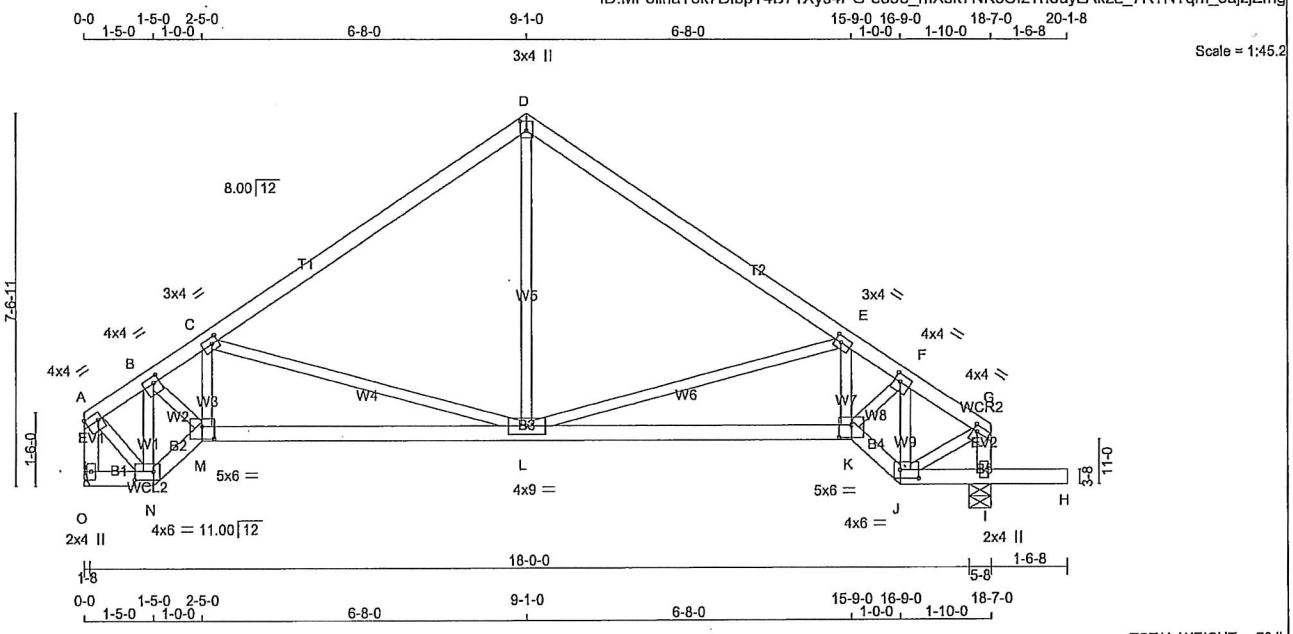
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	H9T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8IirIaTok7DlbpT4B71Xys4PG-e89e_mXsk7NKcClzTn3uyLAkzL_7R?N?qm_8ajzjZmg



TOTAL WEIGHT = 78 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
O - A	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
O - 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-t	MT20	4.0	4.0	1.75	Edge
B	TMWW-t	MT20	4.0	4.0	1.50	1.50
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TTW+p	MT20	3.0	4.0	2.25	1.50
E	TMWW-t	MT20	3.0	4.0	1.50	1.50
F	TMWW-t	MT20	4.0	4.0	1.75	1.50
G	TMVW-t	MT20	4.0	4.0	1.50	1.00
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	BMWWW-t	MT20	4.0	9.0		
M	BBWW-I	MT20	5.0	6.0	3.00	3.00
N	BBWW-I	MT20	4.0	6.0	2.00	4.50
O	BMV1+p	MT20	2.0	4.0		

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

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
						IN-SX	IN-SX
O	890	0	890	0	0	HANGER BY OTHERS	
						MIN. SEAT SIZE: 1-8	
I	1051	0	1051	0	0	5-8	1-9

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	635	387 / 0	0 / 0	0 / 0	0 / 0	247 / 0	0 / 0
I	750	457 / 0	0 / 0	0 / 0	0 / 0	292 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.14 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. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	-653 / 0	-78.0	-78.0	0.10 (1)	6.25
B- C	-1213 / 0	-78.0	-78.0	0.37 (1)	5.35
C- D	-829 / 0	-78.0	-78.0	0.42 (1)	6.11
D- E	-828 / 0	-78.0	-78.0	0.42 (1)	6.12
E- F	-1344 / 0	-78.0	-78.0	0.37 (1)	5.14
F- G	-774 / 0	-78.0	-78.0	0.10 (1)	6.25
O- A	-877 / 0	0.0	0.0	0.09 (1)	7.81
I- G	-823 / 0	0.0	0.0	0.08 (1)	7.81
O- N	0 / 0	-18.5	-18.5	0.01 (4)	10.00
N- M	0 / 638	-18.5	-18.5	0.11 (1)	10.00
M- L	0 / 1184	-18.5	-18.5	0.34 (4)	10.00
L- K	0 / 1278	-18.5	-18.5	0.35 (4)	10.00
K- J	0 / 789	-18.5	-18.5	0.13 (1)	10.00
J- I	0 / 0	-18.5	-18.5	0.12 (1)	10.00
I- H	0 / 0	-96.5	-96.5	0.16 (1)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
N- B	-828 / 0	0.13 (1)
B- M	0 / 997	0.22 (1)
M- C	-217 / 0	0.03 (1)
C- L	-541 / 0	0.48 (1)
L- D	0 / 479	0.11 (1)
L- E	-639 / 0	0.57 (1)
K- E	-102 / 38	0.02 (1)
K- F	0 / 981	0.22 (1)
J- F	-870 / 0	0.14 (1)
A- N	0 / 661	0.15 (1)
J- G	0 / 694	0.16 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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 (0.62")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.62")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

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

CSI: TC=0.42/1.00 (C-D:1) , BC=0.35/1.00 (K-L:4) , WB=0.57/1.00 (E-L:1) , SSI=0.26/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (G) (INPUT = 0.90)
JSI METAL= 0.30 (G) (INPUT = 1.00)

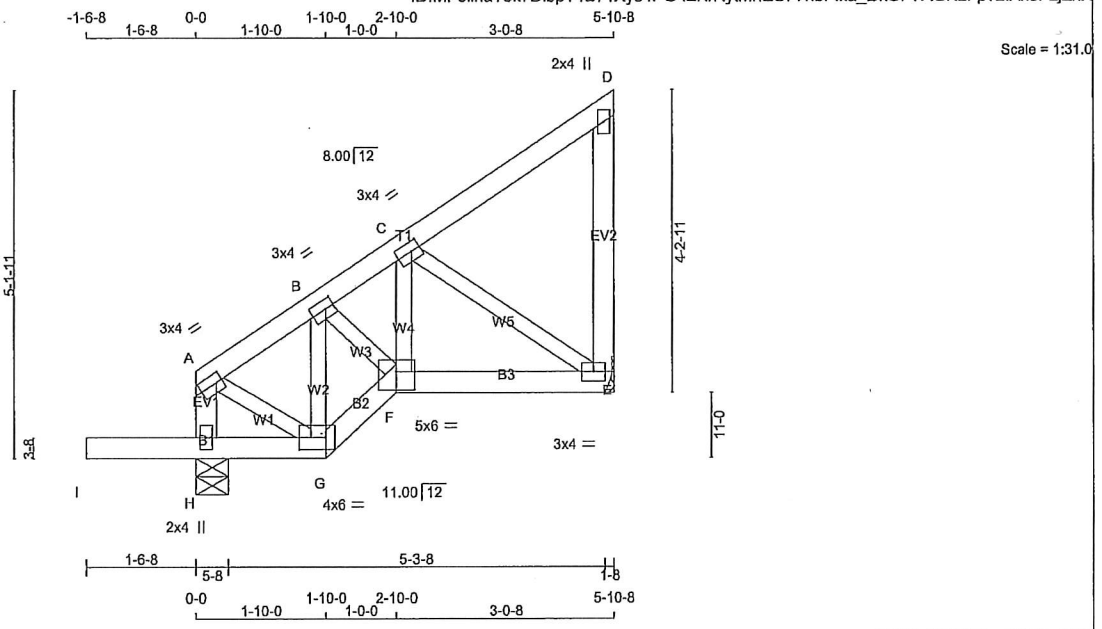
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	J4T	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:MF8iIrIaTok7DlbpT4B71Xys4PG-IZKrRytMhES7WlbPIka_DkOP7AGK2FpvBiAk8PzjZnX



TOTAL WEIGHT = 3 X 30 = 90 lb

[M]

LUMBER

N. L. G. A. RULES

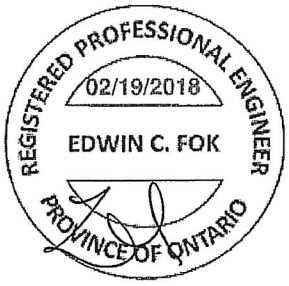
CHORDS	SIZE		LUMBER	DESCR.
H - A	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table Is In Inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0	1.50	1.00
B	TMWW-t	MT20	3.0	4.0	1.50	1.50
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BBWW-t	MT20	5.0	6.0	3.00	3.00
G	BBWW-t	MT20	4.0	6.0	2.00	4.50
H	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

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
H	452	0	452	0	0	5-8	1-8
E	264	0	264	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
H- A	-223 / 0	0.0	0.0	0.02 (1)	7.81	A- G	0 / 154	0.03 (1)
A- B	-165 / 0	-78.0	-78.0	0.04 (1)	6.25	G- B	-220 / 0	0.03 (1)
B- C	-239 / 0	-78.0	-78.0	0.08 (1)	6.25	B- F	0 / 130	0.03 (1)
C- D	-11 / 0	-78.0	-78.0	0.08 (1)	6.25	F- C	0 / 63	0.02 (4)
E- D	-95 / 0	0.0	0.0	0.03 (1)	7.81	C- E	-259 / 0	0.06 (1)
I- H	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
H- G	0 / 0	-18.5	-18.5	0.16 (1)	10.00			
G- F	0 / 173	-18.5	-18.5	0.03 (1)	10.00			
F- E	0 / 216	-18.5	-18.5	0.07 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 588 (0.03")

CSI: TC=0.08/1.00 (B-C:1) , BC=0.16/1.00 (G-H:1) , WB=0.06/1.00 (C-E:1) , SSI=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

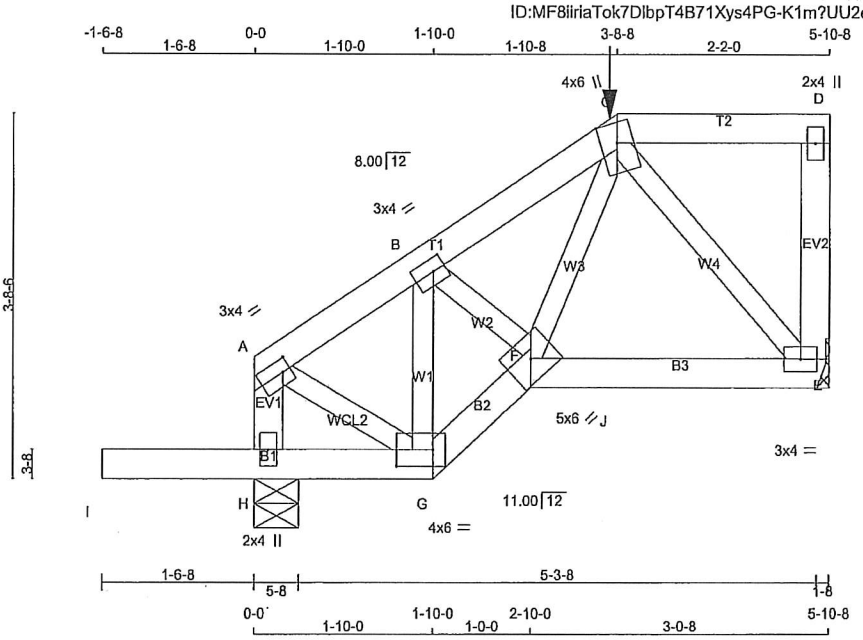
JSI GRIP= 0.50 (A) (INPUT = 0.90)
JSI METAL= 0.08 (E) (INPUT = 1.00)

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	J4TA	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 28 = 57 lb [M]

LUMBER
N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

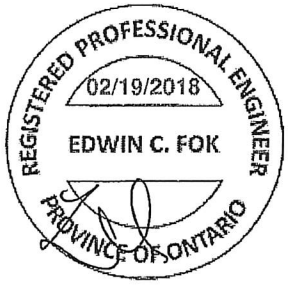
PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0	1.50	1.00
B	TMWW-t	MT20	3.0	4.0	1.50	1.50
C	TTWW+m	MT20	4.0	6.0	Edge	
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BBWW-h	MT20	5.0	6.0		
G	BBWW-l	MT20	4.0	6.0	2.00	4.50
H	BMV1+p	MT20	2.0	4.0		

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) 106.4 lbs FACTORED DOWN AT 3-8-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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



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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
E	413	0	413	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	
H	527	0	527	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	294	183 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0
H	377	225 / 0	0 / 0	0 / 0	0 / 0	152 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	-243 / 0	-78.0	-78.0	0.04 (1)	6.25	G- B	-302 / 0	0.05 (1)
B- C	-339 / 0	-78.0	-78.0	0.04 (1)	6.25	B- F	0 / 118	0.03 (1)
C- D	0 / 0	-111.3	-111.3	0.10 (1)	10.00	F- C	0 / 157	0.04 (1)
E- D	-121 / 0	0.0	0.0	0.02 (1)	7.81	C- E	-338 / 0	0.07 (1)
H- A	-292 / 0	0.0	0.0	0.03 (1)	7.81	A- G	0 / 231	0.06 (1)
I- H	0 / 0	-96.5	-96.5	0.17 (1)	10.00			
H- G	0 / 0	-26.4	-26.4	0.17 (1)	10.00			
G- F	0 / 261	-26.4	-26.4	0.05 (1)	10.00			
F- J	0 / 223	-26.4	-26.4	0.10 (4)	10.00			
J- E	0 / 223	-26.4	-26.4	0.10 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

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

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
LEFT SETBACK = 3-8-8
RIGHT SETBACK = 0-0
END SETBACK = 3-8-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

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

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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 617 (0.03")

CSI: TC=0.10/1.00 (C-D:1) , BC=0.17/1.00 (G-H:1) , WB=0.07/1.00 (C-E:1) , SSI=0.13/1.00 (H-I: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 .

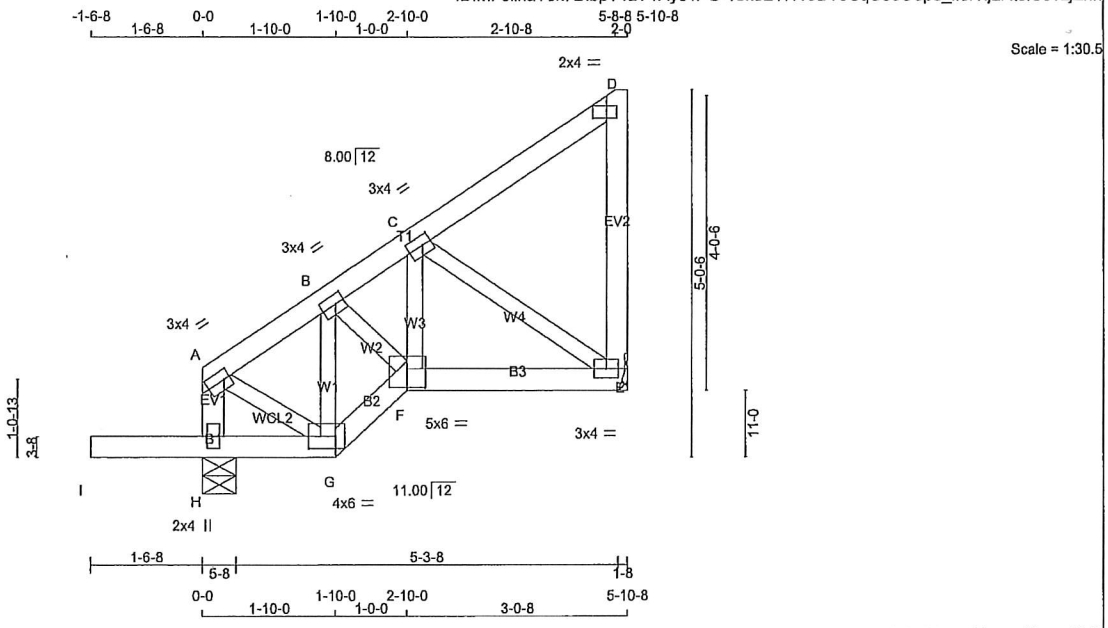
A-18024037

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292620	J4TB	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Mon Feb 19 13:53:06 2018 Page 1
ID:MF8IiriaTok7DlbpT4B71Xys4PG-1ek3LYl419BYJCqU9eOepd_if8r?ijLRt9lCo?zjZnh



TOTAL WEIGHT = 2 X 30 = 60 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
H - A	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0	1.50	1.00
B	TMWW-t	MT20	3.0	4.0	1.50	1.50
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TVM-p	MT20	2.0	4.0	0.50	2.25
E	BMVW1-t	MT20	3.0	4.0		
F	BBWW-I	MT20	5.0	6.0	3.00	3.00
G	BBWW-I	MT20	4.0	6.0	2.00	4.50
H	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

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
E	264	0	264	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	
H	452	0	452	0	0	5-8	1-8

UNFACTORED REACTIONS

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

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	-165 / 0	-78.0	-78.0	0.04 (1)	6.25	G- B	-220 / 0	0.03 (1)
B- C	-239 / 0	-78.0	-78.0	0.08 (1)	6.25	B- F	0 / 130	0.03 (1)
C- D	-11 / 0	-78.0	-78.0	0.08 (1)	6.25	F- C	0 / 63	0.02 (4)
E- D	-95 / 0	0.0	0.0	0.03 (1)	7.81	C- E	-259 / 0	0.06 (1)
H- A	-223 / 0	0.0	0.0	0.02 (1)	7.81	A- G	0 / 154	0.03 (1)
I- H	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
H- G	0 / 0	-18.5	-18.5	0.16 (1)	10.00			
G- F	0 / 173	-18.5	-18.5	0.03 (1)	10.00			
F- E	0 / 216	-18.5	-18.5	0.07 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 588 (0.03")

CSI: TC=0.08/1.00 (B-C:1) , BC=0.16/1.00 (G-H:1) , WB=0.06/1.00 (C-E:1) , SSI=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

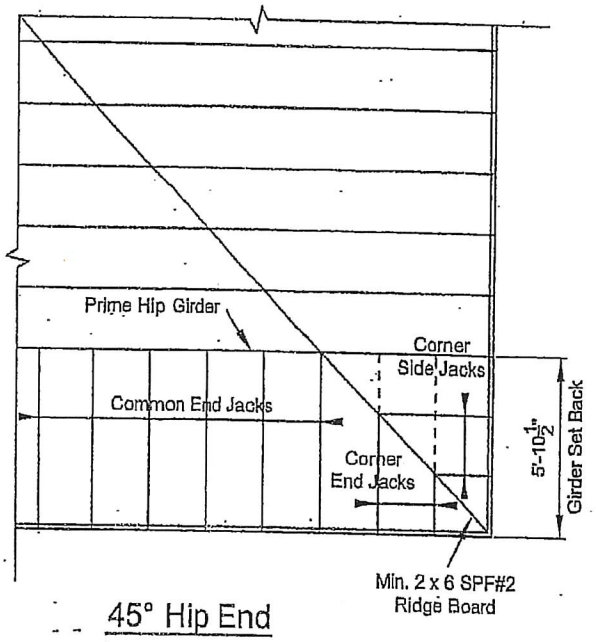
PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

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

A-18024038

STRACON ENGINEERING INC.



45° Hip End

LUMBER SPECIFICATION

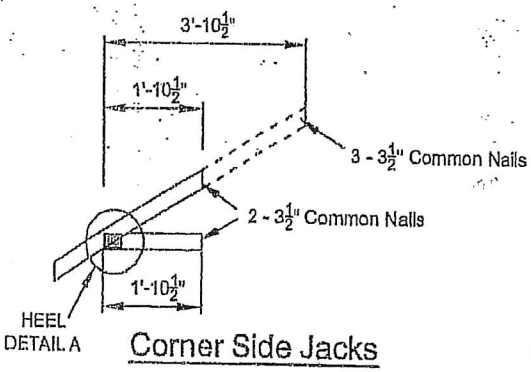
TOP CHORD	:	2 x 4 SPF#2
BOTTOM CHORD	:	2 x 4 SPF#2
WEBS	:	2 x 3 SPF#2

UNLESS OTHERWISE SHOWN

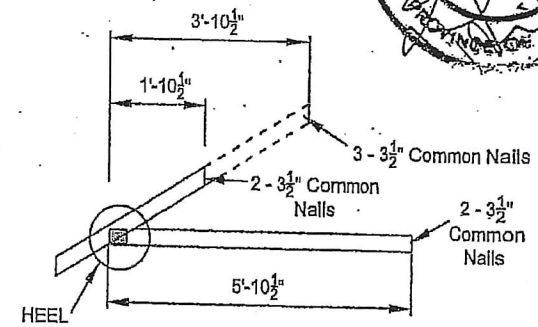
DESIGN LOAD

TOP CHORD SNOW LOAD	:	40.5 P.S.F.
TOP CHORD DEAD LOAD	:	3.0 P.S.F.
BOTTOM CHORD LIVE LOAD	:	0.0 P.S.F.
BOTTOM CHORD DEAD LOAD	:	7.0 P.S.F.
TOTAL LOAD	:	50.5 P.S.F

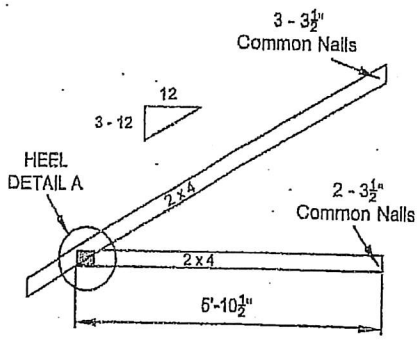




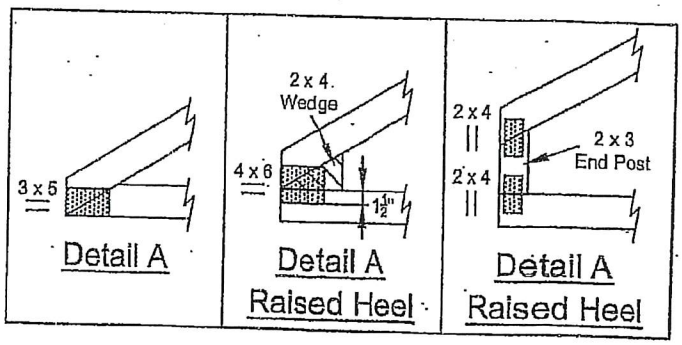
Corner Side Jacks



Corner End Jacks



Common End Jacks



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

CS-51008

TECHNICAL BULLETIN

HHUS – Double Shear Joist Hangers

SIMPSON Strong-Tie®

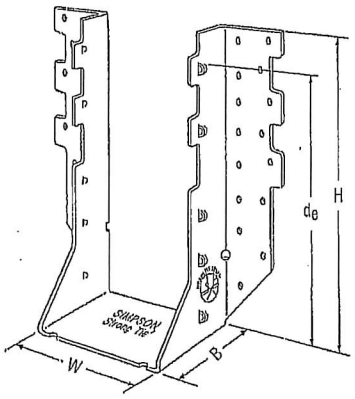
All HHUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

Material: 14 gauge

Finish: G90 galvanized

Design:

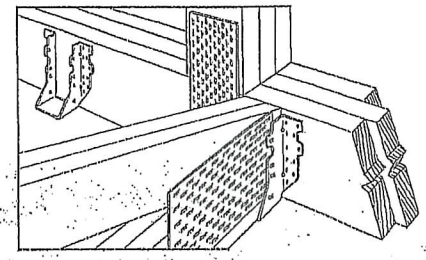
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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



HHUS410

Installation:

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

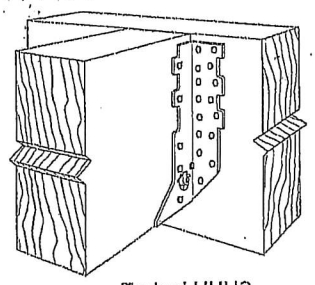

Typical HHUS Installation (Truss Designer to provide fastener quantity for connecting multiple members together)

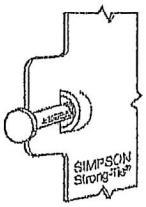
Options:

- See current catalogue for options

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
HHUS26-2	14	3 5/16	5 11/16	3	3 15/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 5/16	7 7/32	3	6 5/32	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 5/16	9 3/32	3	8	(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 1/16	9	3	7 15/16	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	6 1/8	8 29/32	3	7 27/32	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 5/8	5 13/32	3	3 15/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 5/8	7 1/8	3	6 1/8	(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 5/8	9	3	8	(30) 16d	(10) 16d	4745	9855	4310	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS7.25/10	14	7 1/4	9	3 5/16	7 29/32	(30) 16d	(10) 16d	4745	10770	4310	7650

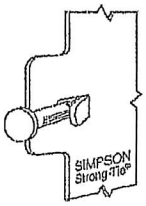
1. d_e is the distance from the seat of the hanger to the highest joist nail.


Typical HHUS Installation

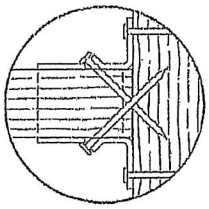


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 6,603,680



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

TECHNICAL BULLETIN

LUS – Double Shear Joist Hangers

SIMPSON Strong-Tie®

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

Material: 18 gauge

Finish: G90 galvanized

Design:

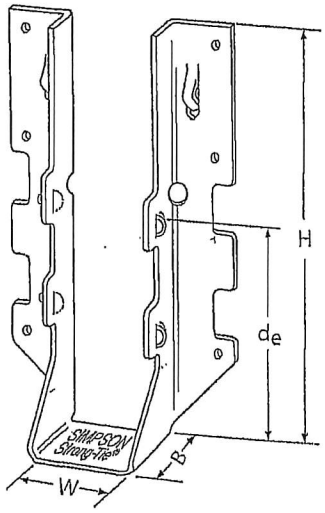
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

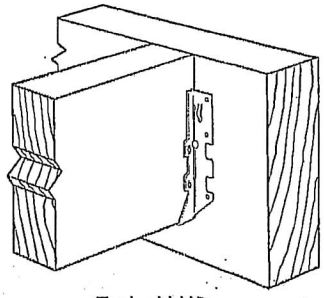
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified

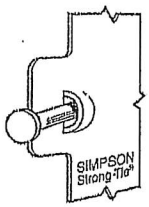


LUS28


Typical LUS Installation

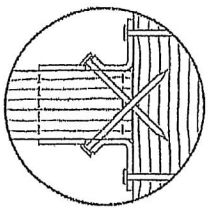
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
LUS24	18	1 9/16	3 1/8	1 3/4	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 15/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 9/16	4 3/4	1 3/4	3 5/8	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 7/8	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 5/8	4 9/16	2	3 1/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 9/16	6 5/8	1 3/4	3 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 5/8	6 1/4	2	3 1/4	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 9/16	7 13/16	1 3/4	3 7/8	(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 5/8	8 9/16	2	5 1/4	(8) 16d	(6) 16d	2580	3345	2320	2375

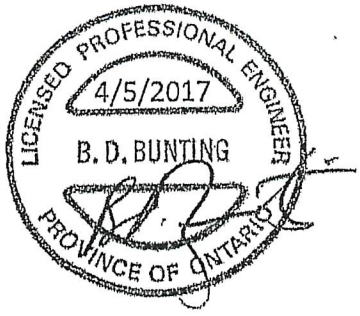
1. d_e is the distance from the seat of the hanger to the highest joist nail.



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

U.S. Patent 5,603,580


Double Shear Nailing Top View.



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

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T-SPECLUS17 3/17 exp. 6/19

(800) 999-5099
strongtie.com

HUS/LJS – Double Shear Joist Hangers

SIMPSON Strong-Tie®

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

Material: See table

Finish: G90 galvanized

Design:

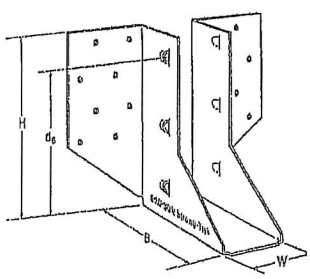
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

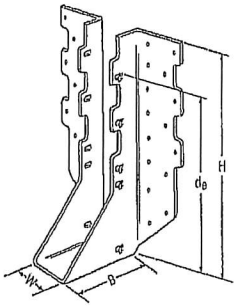
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

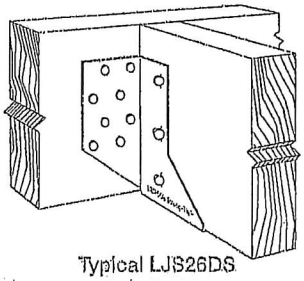
- See current catalogue for options



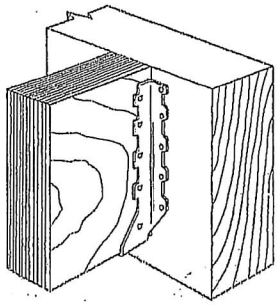
LJS26DS



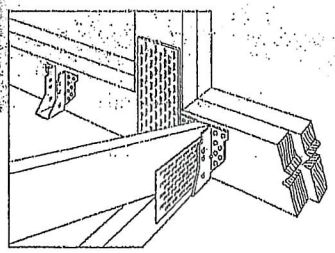
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS Installation



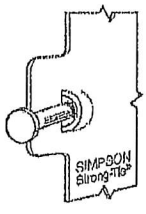
Typical HUS Installation



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

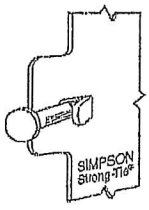
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
								lb.	lb.	lb.	lb.
LJS26DS	18	1 9/16	5	3½	4⅝	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅝	3	3 15/16	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅝	7 3/32	3	6 3/32	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅝	9 3/32	3	7 31/32	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1 13/16	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

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

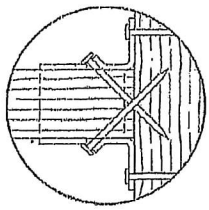


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

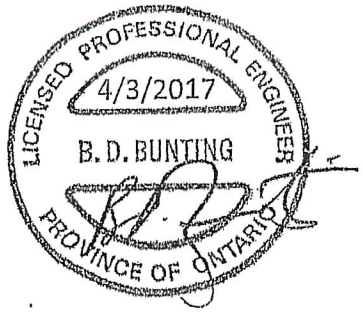
U.S. Patent 5,603,680



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



Double Shear Nailing Top View.



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