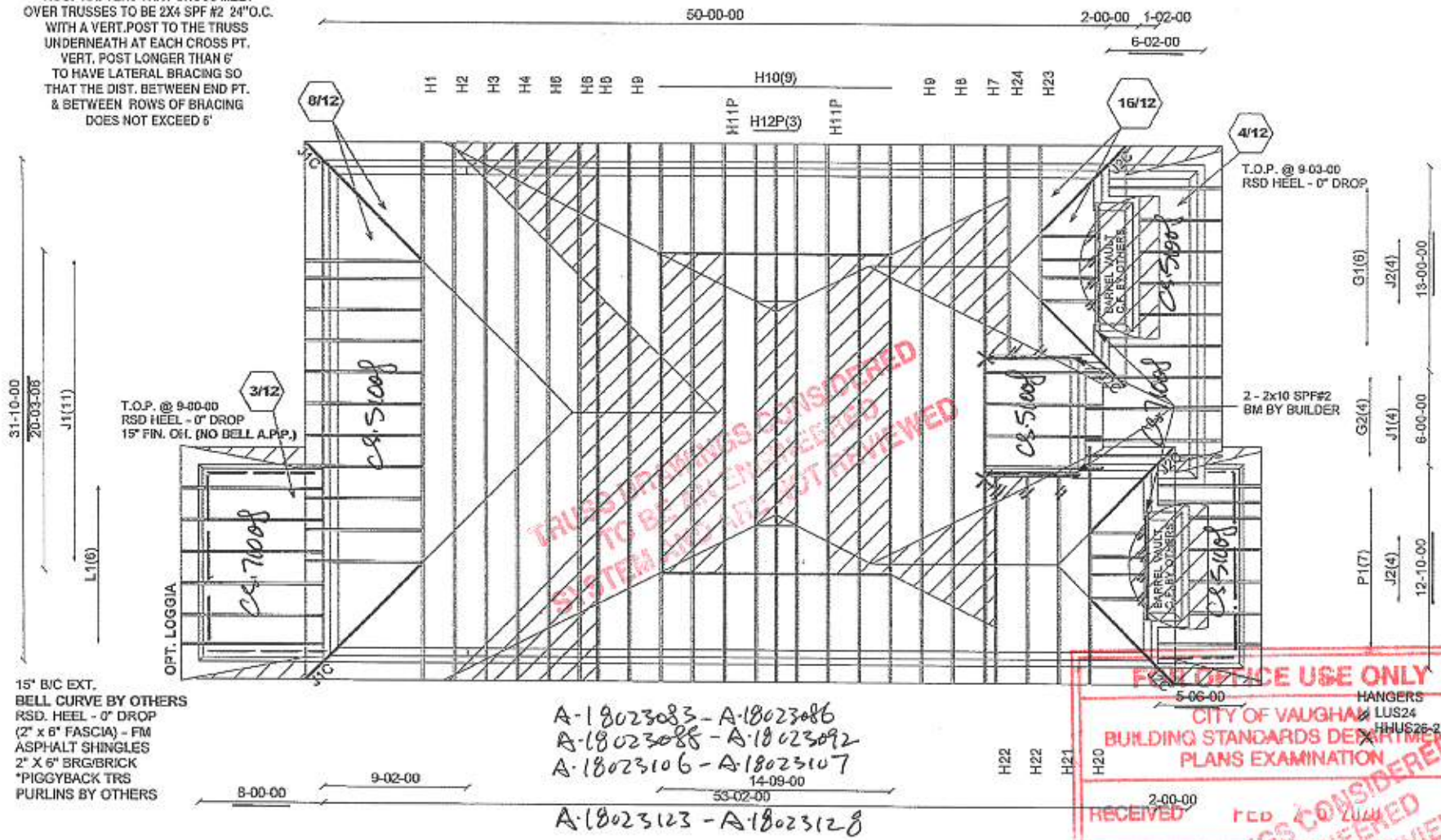


20-120002-64D-00-CM

ALPHA-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 5'



A-18023083 - A-18023086
A-18023088 - A-18023092
A-18023106 - A-18023107
A-18023123 - A-18023128

FOR OFFICE USE ONLY	
CITY OF VAUGHAN	
BUILDING STANDARDS DEPARTMENT	
PLANS EXAMINATION	
RECEIVED	DATE REVIEWED
ZONING	
CONVENTIONAL FRAMING BY OTHERS	
SID OR OPT LOGGIA	
MECHANICAL	
ELECTRICAL	
PLUMBING	
HVAC	
FIRE	
OTHER	



Job Track: 45147
Layout ID: 291800
Plan Log: 95233

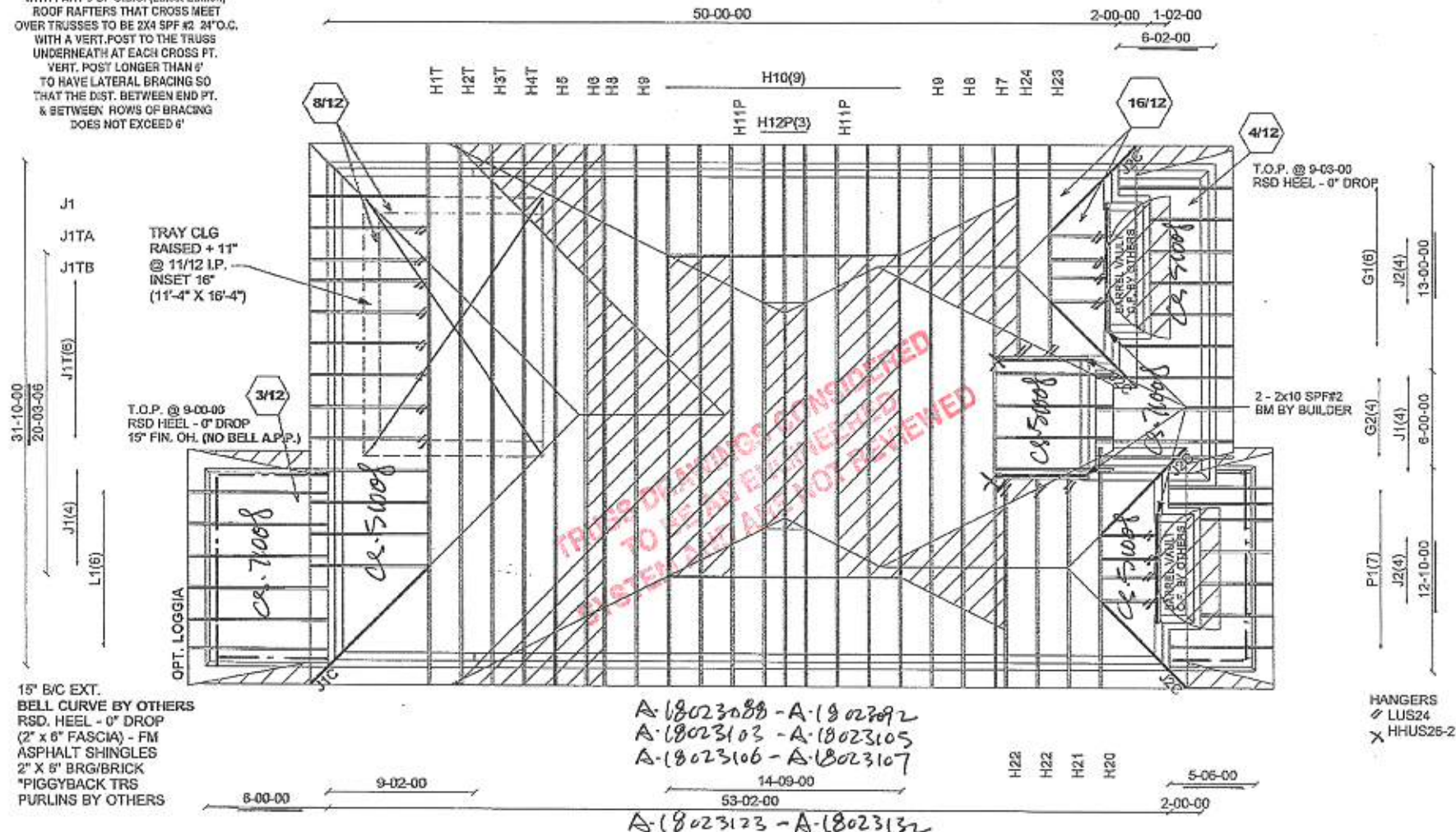
Builder / Location:
GOLD PARK HOMES / VAUGHAN
Project: **PINE VALLEY**
Date: 1/16/2018 Designer: AMANDA

VALLEYVIEW
Model / Elevation:
4002 / B

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

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'



Job Trac: 45147
Layout #: 292575
Plan Log: 95914

Builder / Location:
GOLD PARK HOMES / VAUGHAN
Project: **PINE VALLEY**
Date: 1/16/2018 Designer: AMANDA

Model / Elevation:
4002 REV1 / B OPT TRAY
02 OPT LOGGIA

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

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-D86-09.
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

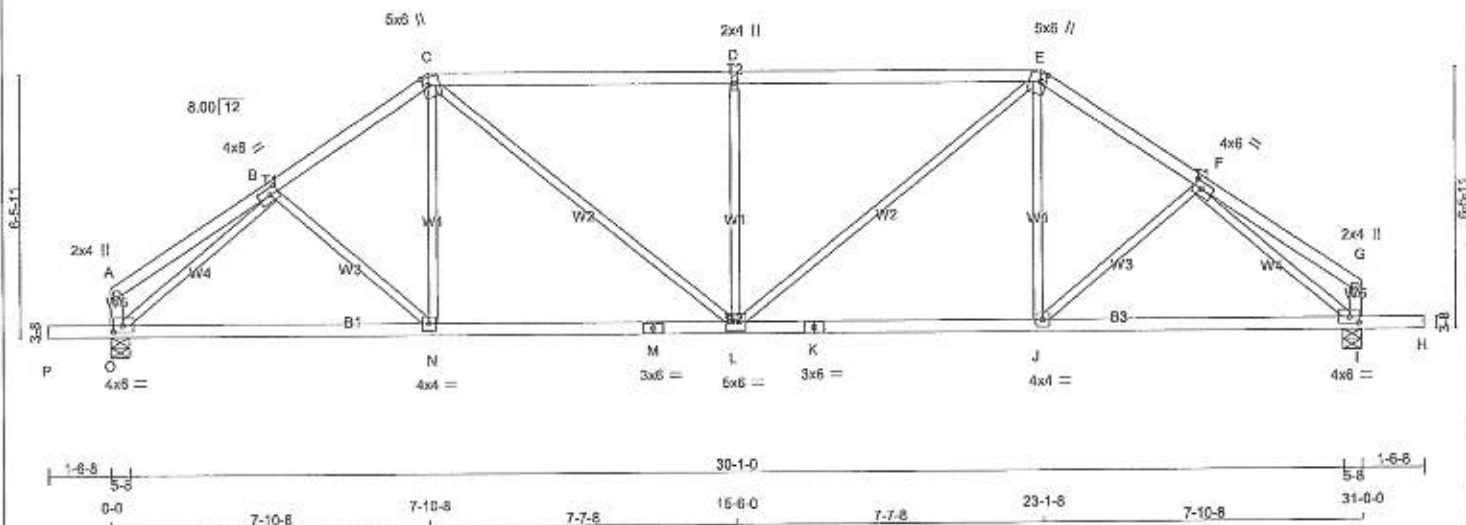
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292570	H2	1	1	TRUSS DESC.	

Alpha Roof Truss, Maple

Version 8.200 S Jan 6 2018 Mitak Industries, Inc. Thu Feb 15 09:26:45 2018 Page 1

ID:84gOFYESM8s1JmDO6_uSGRyQW/P-VO5XQSu0tNogazFVpguZgWuxzf/A8t5nbQQHzky3O

-1-8-8 0-0 4-0-8 4-0-8 3-10-0 7-10-8 7-7-8 15-6-0 7-7-8 23-1-8 3-10-0 25-1-8 1-0-8 1-6-8 31-0-0 32-6-5
Scale = 1:54.8



TOTAL WEIGHT = 125 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No. 2	SPF
C - E	2x4	DRY No. 2	SPF
E - G	2x4	DRY No. 2	SPF
G - A	2x4	DRY No. 2	SPF
I - G	2x4	DRY No. 2	SPF
P - M	2x4	DRY No. 2	SPF
M - K	2x4	DRY No. 2	SPF
K - 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	TMV+p	MT20	2.0	4.0		
B	TMVW-l	MT20	4.0	6.0	2.00	2.50
C	TMVW+m	MT20	5.0	6.0	2.25	1.50
D	TMVW-l	MT20	2.0	4.0		
E	TMVW+m	MT20	5.0	6.0	2.25	1.50
F	TMVW-l	MT20	4.0	6.0	2.00	2.50
G	TMV+p	MT20	2.0	4.0		
I	BMVW-l	MT20	4.0	6.0	1.75	2.75
J	BMVW-l	MT20	4.0	4.0		
K	BS-l	MT20	3.0	6.0		
L	BMVW-l	MT20	5.0	6.0		
M	BS-l	MT20	3.0	6.0		
N	BMVW-l	MT20	4.0	4.0		
O	BMVW-l	MT20	4.0	6.0	1.75	2.75

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	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD. BRG
JT	VERT	HORZ	DOWN	HORZ
O	1644	0	1644	0
I	1644	0	1644	0

UNFACTORED REACTIONS

1ST LCASE	MAX MIN	COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM. LIVE
O	1172	715 / 0	0 / 0	0 / 0
I	1172	715 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.96 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX. MEMB.	MAX. FORCE	MAX
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX. MEMB.	MAX. FORCE	MAX	
FR-TO		FROM	TO	LENGTH	FR-TO			
A-B	0 / 18	-78.0	-78.0	0.18 (1)	10.00	B-N	-35 / 39	0.02 (1)
B-C	-1763 / 0	-78.0	-78.0	0.17 (1)	4.90	N-C	0 / 188	0.06 (4)
C-D	-1873 / 0	-78.0	-78.0	0.70 (1)	3.96	C-L	0 / 681	0.15 (1)
D-E	-1873 / 0	-78.0	-78.0	0.70 (1)	3.96	L-D	-732 / 0	0.50 (1)
E-F	-1763 / 0	-78.0	-78.0	0.17 (1)	4.90	L-E	0 / 681	0.15 (1)
F-G	0 / 18	-78.0	-78.0	0.18 (1)	10.00	J-F	0 / 188	0.06 (4)
G-A	-121 / 0	0.0	0.0	0.01 (1)	7.81	O-B	-35 / 39	0.02 (1)
I-G	-121 / 0	0.0	0.0	0.01 (1)	7.81	O-B	-1970 / 0	0.89 (1)
P-O	0 / 0	-98.5	-98.5	0.16 (1)	10.00	F-I	-1970 / 0	0.89 (1)
O-N	0 / 1467	-18.5	-18.5	0.42 (4)	10.00			
N-M	0 / 1444	-18.5	-18.5	0.42 (4)	10.00			
M-L	0 / 1444	-18.5	-18.5	0.42 (4)	10.00			
L-K	0 / 1444	-18.5	-18.5	0.42 (4)	10.00			
K-J	0 / 1444	-18.5	-18.5	0.42 (4)	10.00			
J-I	0 / 1467	-18.5	-18.5	0.42 (4)	10.00			
I-H	0 / 0	-98.5	-98.5	0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 083-09, CSA 086-14
- TPIC 2011, TPC 2014

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.17")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/988 (0.01")
ALLOWABLE DEFL.(TL) = L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.70/1.00 (C-D:1), BC=0.42/1.00 (J-L:4), WS=0.89/1.00 (F-I:1), SS=0.29/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES	PLATE GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MY20	818	354	1667

PLATE PLACEMENT TOL. = 0.260 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (C) (INPUT = 0.90)
JSI METAL= 0.49 (F) (INPUT = 1.00)

A-18023084



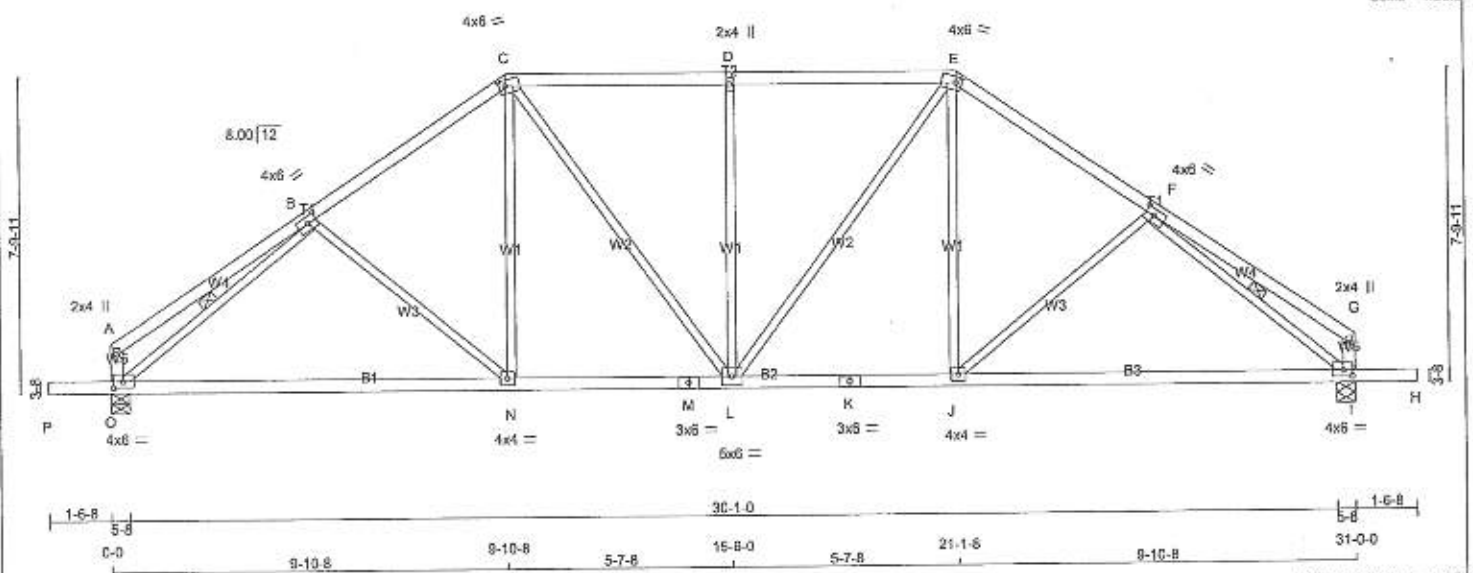
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292570	H3	1	1	TRUSS DESC.	

Alpha Roof Truss, Maple

Version 8.200 S Jan 6 2018 Mitek Industries, Inc. Thu Feb 15 09:27:03 2018 Page 1

ID:84gOFYESM8s1JmDO6 uSGRyQWJP-zsBKbC6Jdv37kkdzsSDnPJesvvp4Oy?WbayN3Ezky38

1-8-8 0-0 5-0-8 5-0-8 4-10-0 9-10-8 5-7-8 15-6-0 5-7-8 21-1-8 4-10-0 25-11-8 5-0-8 31-0-0 32-6-8 1-6-8
Scale = 1:55.0



TOTAL WEIGHT = 133 lb

[M]F

LUMBER	CHORDS	SIZE	DRY	LUMBER	DESCR.	SPF
N. I. G. A. RULES						
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		
K - M	2x4	DRY	No.2	SPF		
M - O	2x4	DRY	No.2	SPF		
O - P	2x4	DRY	No.2	SPF		
P - Q	2x4	DRY	No.2	SPF		
Q - R	2x4	DRY	No.2	SPF		
R - S	2x4	DRY	No.2	SPF		
S - T	2x4	DRY	No.2	SPF		
T - U	2x4	DRY	No.2	SPF		
U - V	2x4	DRY	No.2	SPF		
V - W	2x4	DRY	No.2	SPF		
W - X	2x4	DRY	No.2	SPF		
X - Y	2x4	DRY	No.2	SPF		
Y - Z	2x4	DRY	No.2	SPF		
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF		

DRY: SEASONED LUMBER.

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
O	1644	0	1644	0
I	1644	0	1644	0

UNFACTORED REACTIONS

1ST LC CASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERALIVE
O	1172	715 / 0	0 / 0	0 / 0
I	1172	715 / 0	0 / 0	0 / 0

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

DESIGN CRITERIA

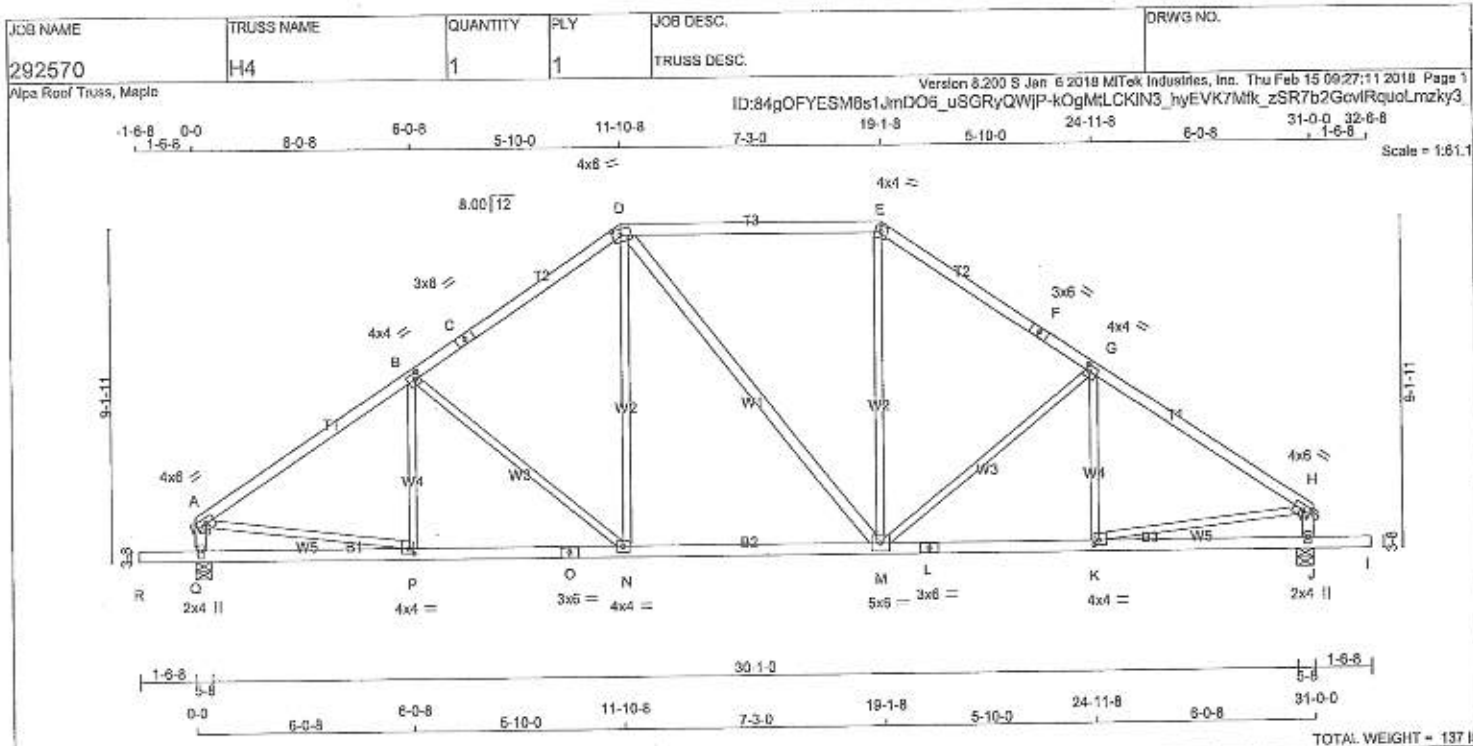
SPECIFIED LOADS:
TOP CH. LL = 21.0 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 34.4 PSF

SPACING = 24.0 IN. OC

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



A-18023085



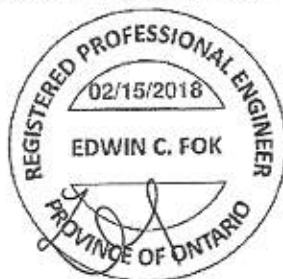
LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	2100F 1.8E	SPF	
E - F	2x4	DRY	No.2	SPF	
F - H	2x4	DRY	No.2	SPF	
Q - A	2x4	DRY	No.2	SPF	
J - H	2x4	DRY	No.2	SPF	
R - O	2x4	DRY	No.2	SPF	
O - I	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF	
ALL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

DRY, SEASONED LUMBER.

PLATES (table is in inches)							
JT	TYPE	PLATES	W	LEN	Y	X	
A	TMVW-1	MT20	4.0	6.0	1.75	Edge	
B	TMVW-1	MT20	4.0	4.0	2.00	1.50	
C	TS-1	MT20	3.0	6.0			
D	TTWV-m	MT20	4.0	6.0	1.75	2.50	
E	TTWV-m	MT20	4.0	4.0			
F	TS-1	MT20	3.0	6.0			
G	TMVW-1	MT20	4.0	4.0	2.00	1.50	
H	TMVW-1	MT20	4.0	6.0	1.75	Edge	
J	BMV1tp	MT20	2.0	4.0			
K	BMVW-1	MT20	4.0	4.0	1.50	1.50	
L	BS-1	MT20	3.0	6.0			
M	BMVW-1	MT20	5.0	6.0			
N	BMVW-1	MT20	4.0	4.0			
O	BS-1	MT20	3.0	6.0			
P	BMVW-1	MT20	4.0	4.0	1.50	1.50	
Q	BMV1+e	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

DEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD. BRG
JT	VERT	DOWN	IN-SX	IN-SX
Q	1844	0	0	2.7
J	1844	0	0	2.7

UNFACTORED REACTIONS

UNROUTED REACTIONS							
1ST CASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
Q	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0
J	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.52 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MEMB. LENGTH FR-TO	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO							
A-B	-1836 / 0	-78.0	-78.0	0.44 (1)	4.52	P-B	-115 / 45
B-C	-1528 / 0	-78.0	-78.0	0.40 (1)	4.59	B-N	-402 / 0
C-D	-1528 / 0	-78.0	-78.0	0.40 (1)	4.59	N-D	0 / 379
D-E	-1249 / 0	-78.0	-78.0	0.36 (1)	6.25	D-M	0 / 0
E-F	-1528 / 0	-78.0	-78.0	0.40 (1)	4.89	M-E	0 / 375
F-G	-1528 / 0	-78.0	-78.0	0.40 (1)	4.89	M-G	-401 / 0
G-H	-1836 / 0	-78.0	-78.0	0.44 (1)	4.52	K-G	-116 / 44
H-I	-1448 / 0	0.0	0.0	0.15 (1)	6.79	A-P	0 / 1070
J-I	-1448 / 0	0.0	0.0	0.15 (1)	6.79	K-H	0 / 1570
R-Q	0 / 0	-98.5	-98.5	0.16 (1)	10.00		
Q-P	0 / 0	-18.5	-18.5	0.14 (4)	10.00		
P-O	0 / 1853	-18.5	-18.5	0.34 (1)	10.00		
O-N	0 / 1553	-18.5	-18.5	0.34 (1)	10.00		
N-M	0 / 1248	-18.5	-18.5	0.29 (1)	10.00		
M-L	0 / 1553	-18.5	-18.5	0.34 (1)	10.00		
L-K	0 / 1553	-18.5	-18.5	0.34 (1)	10.00		
K-J	0 / 0	-18.5	-18.5	0.14 (4)	10.00		
J-I	0 / 0	-98.5	-98.5	0.16 (1)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL. (LL) = L/360 (1.03")
CALCULATED VERT. DEFL. (LL) = L/899 (0.06")
ALLOWABLE DEFL. (TL) = L/360 (1.03")
CALCULATED VERT. DEFL. (TL) = L/999 (0.15")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL. (LL) = L/120 (0.19")
CALCULATED VERT. DEFL. (LL) = L/899 (0.01")
ALLOWABLE DEFL. (TL) = L/120 (0.19")
CALCULATED VERT. DEFL. (TL) = L/999 (0.01")

CSI: TC=0.44/1.00 (A-B:1), BC=0.34/1.00 (K-M:1), WB=0.49/1.00 (B-N:1), SS=0.22/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES	PLATE GRIP (DRY)	SHEAR (PSI)	SECTION (PL)
	MAX	MIN	MAX
MT20	618	354	1657

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

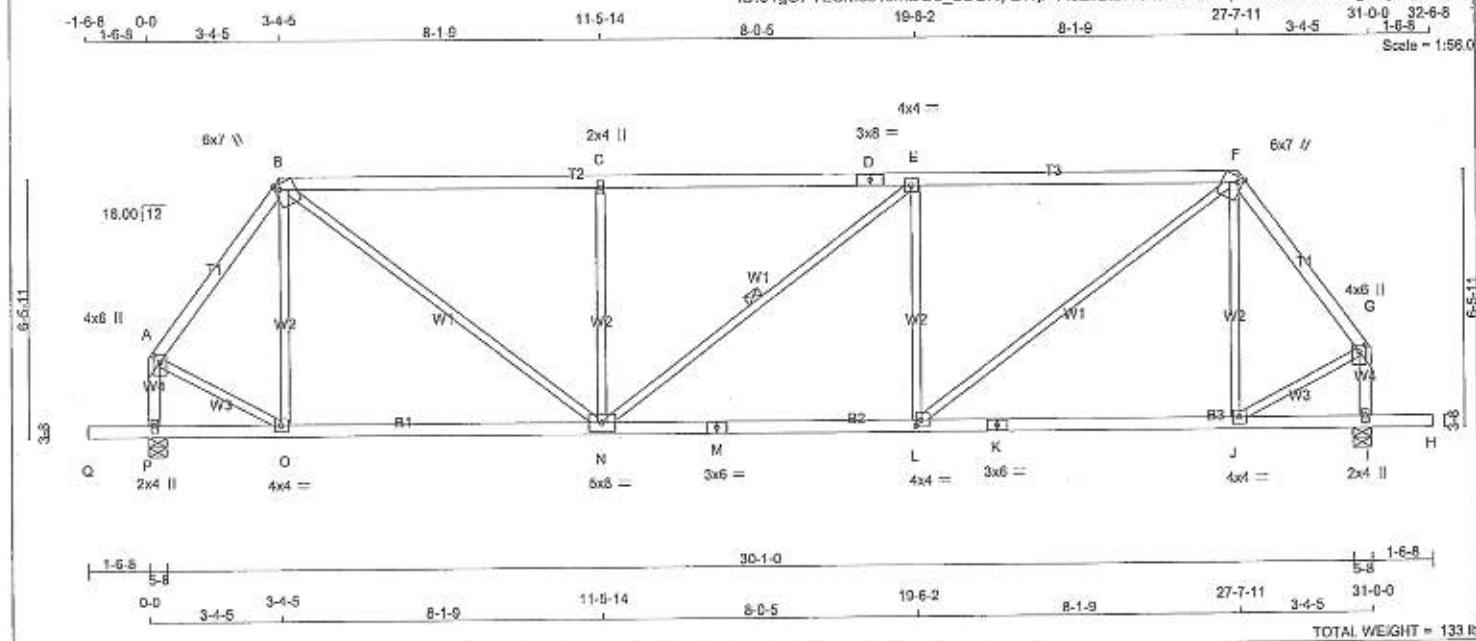
JSI GRIP= 0.89 (P) (INPUT = 0.90)
JSI METAL= 0.98 (P) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292570	H8	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:84gOFYESMBs1JmDO6_uSGRyQWJP-A8Zv2luW04aGtJMDzplFslD3b90GtKt9Py3aJdZky0p



TOTAL WEIGHT = 133 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2
B - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
F - G	2x4	DRY	No.2
P - A	2x4	DRY	No.2
I - G	2x4	DRY	No.2
Q - M	2x4	DRY	No.2
M - K	2x4	DRY	No.2
K - H	2x4	DRY	No.2

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	6.0	7.0	Edge	1.50
C	TMVW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	8.0		
E	TMVW-t	MT20	4.0	4.0		
F	TTWW+m	MT20	6.0	7.0	Edge	1.50
G	TMVW+p	MT20	4.0	6.0	2.00	2.00
I	BMV1+p	MT20	2.0	4.0		
J	BMVW-t	MT20	4.0	4.0		
K	BS-t	MT20	3.0	6.0		
L	BMVW-t	MT20	4.0	4.0	1.75	1.50
M	BS-t	MT20	3.0	6.0		
N	BMVW-t	MT20	5.0	8.0		
O	BMVW-t	MT20	4.0	4.0		
P	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				FACTORED				MAXIMUM FACTORED				INPUT				REQ'D			
				GROSS REACTION				GROSS REACTION				BRG				IN-SX			
JT	VERT	HORZ		JT	VERT	HORZ		JT	VERT	HORZ	UP/LIFT	JT	VERT	HORZ	UP/LIFT	JT	VERT	HORZ	UP/LIFT
P	1644	0		P	1644	0		P	1644	0	0	P	1644	0	0	P	1644	0	0
I	1644	0		I	1644	0		I	1644	0	0	I	1644	0	0	I	1644	0	0

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0
I	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.67 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-N.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED				MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	CSI (LC)	MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	CSI (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	-1255 / 0	-78.0	-78.0 0.16 (1)	5.54	D-B	-219 / 2	0.15 (1)
B-C	-1844 / 0	-78.0	-78.0 0.96 (1)	3.89	B-N	0 / 1378	0.31 (1)
C-D	-1844 / 0	-78.0	-78.0 0.96 (1)	3.87	N-C	-880 / 0	0.46 (1)
D-E	-1844 / 0	-78.0	-78.0 0.96 (1)	3.87	N-E	-1 / 0	0.00 (1)
E-F	-1845 / 0	-78.0	-78.0 1.00 (1)	3.87	E-G	-680 / 0	0.46 (1)
F-G	-1256 / 0	-78.0	-78.0 0.16 (1)	5.54	L-F	0 / 1379	0.31 (1)
P-A	-1407 / 0	0.0	0.0 0.17 (1)	6.72	J-F	-219 / 2	0.15 (1)
I-G	-1486 / 0	0.0	0.0 0.17 (1)	6.72	A-O	0 / 825	0.19 (1)
					J-G	0 / 825	0.19 (1)
Q-P	0 / 0	-95.5	-95.5 0.16 (1)	10.00			
P-O	0 / 0	-18.5	-18.5 0.18 (4)	10.00			
O-N	0 / 745	-18.5	-18.5 0.31 (4)	10.00			
N-M	0 / 1845	-18.5	-18.5 0.43 (1)	10.00			
M-L	0 / 1845	-18.5	-18.5 0.43 (1)	10.00			
L-K	0 / 744	-18.5	-18.5 0.31 (4)	10.00			
K-J	0 / 744	-18.5	-18.5 0.31 (4)	10.00			
J-I	0 / 0	-18.5	-18.5 0.18 (4)	10.00			
I-H	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.08")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.19")

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")

CSK TC=1.00/1.00 (E-F-1), RC=0.43/1.00 (L-N-1), W9=0.46/1.00 (E-L-1), SSI=0.30/1.00 (E-F-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

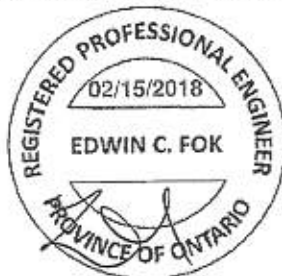
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1687
			788
			1987
			1656

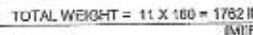
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 6.0 Deg.

JSI GRIP= 0.50 (L) (INPUT = 0.50)
JSI METAL= 0.54 (M) (INPUT = 1.00)

A-18023088





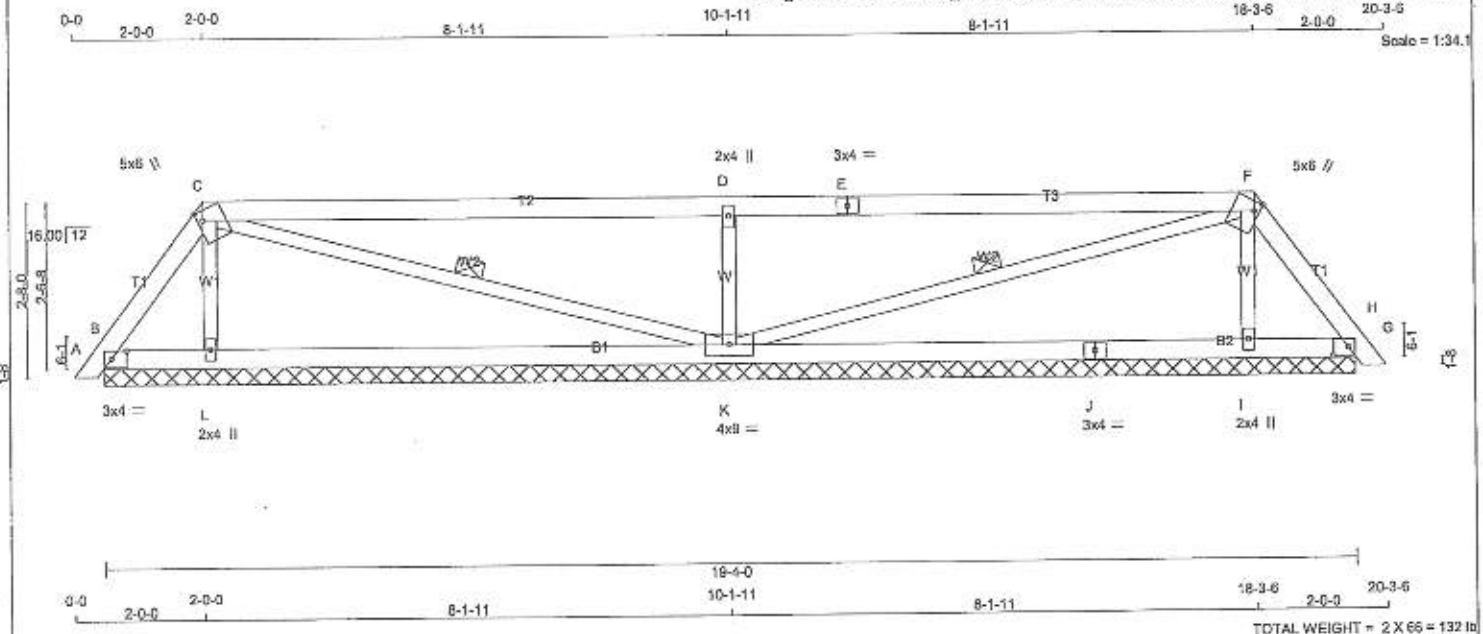
CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292570	H11P	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:84gOFYESM8s1JmDO6_uSGRyQWJP-q_LiibSNBNCnKO0i3gUA2/77yold6MKw_6C4LYzky05



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

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE				
B TMB1-I	MT20	3.0	4.0	1.50 2.75
C TTWW+M	MT20	6.0	6.0	1.75 1.00
D TTWW+M	MT20	2.0	4.0	
F TS-I	MT20	3.0	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
I BMW1+M	MT20	2.0	4.0	
J BS-I	MT20	3.0	4.0	
K BMW1+M	MT20	4.0	9.0	
L BMW1+M	MT20	2.0	4.0	

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
JT	GROSS REACTION	GROSS REACTION	BRG	BRG
	VERT	DOWN	UP	IN-SX
B	139	0	139	19-4-0 (4-0-0)-11-14
L	344	0	344	19-4-0 (4-0-0)-11-14
K	953	0	953	19-4-0 (4-0-0)-11-14
I	344	0	344	19-4-0 (4-0-0)-11-14
G	139	0	139	19-4-0 (4-0-0)-11-14

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM. LIVE
B	93	93 / 0	0 / 0	0 / 0
L	253	113 / 0	0 / 0	0 / 0
K	677	429 / 0	0 / 0	0 / 0
I	253	113 / 0	0 / 0	0 / 0
G	93	93 / 0	0 / 0	0 / 0

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	W E B S	MAX. FACTORED	MAX
MEMB.	FORCE (LBS)	VERT. LOAD LC1 (PLF)	CS1 (LC)	MEMB.	FORCE (LBS)
FR-TO				FR-TO	
A-B	0 / 10	-78.0	-78.0 0.01 (1)	L-C	-210 / 0
B-C	-104 / 0	-78.0	-78.0 0.08 (1)	C-K	-8 / 0
C-D	-41 / 0	-78.0	-78.0 0.88 (1)	K-D	-793 / 0
D-E	-43 / 0	-78.0	-78.0 0.88 (1)	K-F	-8 / 0
E-F	-43 / 0	-78.0	-78.0 0.88 (1)	I-F	-210 / 0
F-G	-104 / 0	-78.0	-78.0 0.03 (1)		
G-H	0 / 10	-78.0	-78.0 0.01 (1)		
B-L	0 / 60	-18.5	-18.5 0.19 (4)		
L-K	0 / 50	-18.5	-18.5 0.28 (4)		
K-J	0 / 50	-18.5	-18.5 0.26 (4)		
J-I	0 / 50	-18.5	-18.5 0.28 (4)		
I-G	0 / 60	-18.5	-18.5 0.19 (4)		

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



DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OSC 2018
- CSA 086-08, 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=0.58/1.00 (D-F:1), BC=0.28/1.00 (K-L:4), WB=0.13/1.00 (D-K:1), SSI=0.31/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

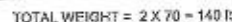
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 818 354 1667 788 1987 1958

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.64 (C) (INPUT = 0.80)
JSI METAL= 0.26 (E) (INPUT = 1.00)

A-18023091



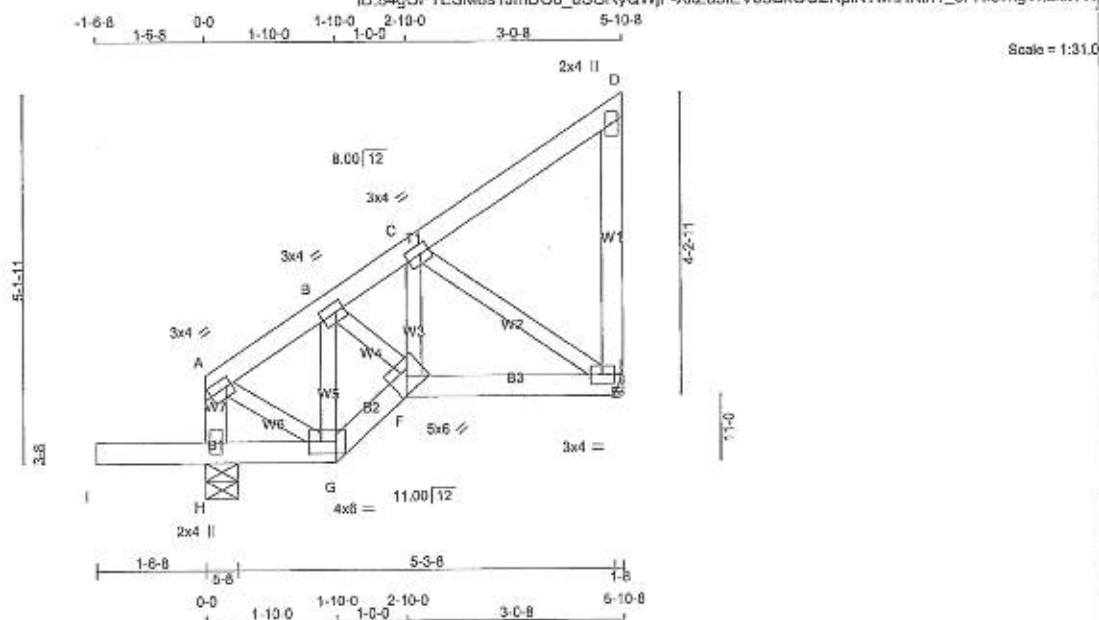
CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC. LENGTH	MEMB.	FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0/10	-78.0	-78.0 0.01 (1)	10.30	K-C	-203/0	0.05 (1)
B-C	-104/0	-78.0	-78.0 0.09 (1)	8.25	C-J	-46/0	0.06 (1)
C-D	-13/0	-78.0	-78.0 0.68 (1)	8.25	J-D	-695/0	0.16 (1)
D-E	-13/0	-78.0	-78.0 0.68 (1)	8.25	E-H	-46/0	0.06 (1)
E-F	-104/0	-78.0	-78.0 0.09 (1)	8.25	H-E	-203/0	0.05 (1)
F-G	0/10	-78.0	-78.0 0.01 (1)	10.00			
R-K	0/80	-18.5	-18.5 0.14 (4)	10.00			
K-J	0/54	-18.5	-18.5 0.21 (4)	10.00			
J-I	0/54	-18.5	-18.5 0.21 (4)	10.00			
I-H	0/54	-18.5	-18.5 0.21 (4)	10.00			
H-F	0/80	-18.5	-18.5 0.14 (4)	10.00			

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292571	J1T	5	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:54gOFYESM8s1JmDO6_uSGRyQWJP-XkZu9IEV098KOUZNPIN?whlIKIn4_6FIIfsvngVnzKxTW



TOTAL WEIGHT = 5 X 30 = 150 lb

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

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
A	TMVW-1	MT20	3.0	4.0	1.50	1.00
B	TMVW-1	MT20	3.0	4.0	1.50	1.50
C	TMVW-1	MT20	3.0	4.0	1.50	1.50
D	TMVW-1	MT20	2.0	4.0		
E	BMVW-1	MT20	3.0	4.0		
F	BRVW-1	MT20	5.0	6.0		
G	BRVW-1	MT20	4.0	8.0	2.00	4.50
H	BMV1-p	MT20	2.0	4.0		

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
H	452	0	452	0
E	264	0	264	0

UNFACTORED REACTIONS	1ST CASE	MAX/MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
H	322	197 / 0	0 / 0
E	188	115 / 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.

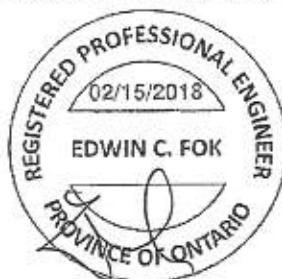
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	FACTORED MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED MAX. LC1 (LBS)	FACTORED MAX. LC2 (LBS)	WEBS	MEMB.	FACTORED MAX. FORCE (LBS)	FACTORED MAX. LC1 (LBS)
FR-TO			FROM	TO		FR-TO			
H-A	-223 / 0	0.0	0.0	0.02 (1)	7.81	A-G	0 / 154	0.03 (1)	
A-B	-165 / 0	-75.0	-75.0	0.04 (1)	6.25	G-B	-220 / 0	0.03 (1)	
B-C	-239 / 0	-75.0	-75.0	0.08 (1)	6.25	B-F	0 / 130	0.03 (1)	
C-D	-11 / 0	-75.0	-75.0	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	0.08 (1)	
I-H	0 / 0	-95.5	-95.5	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 (1)	10.00				

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



DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 088-C0, CSA 088-14
- TPIC 2011, TPIC 2014

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

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

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL)= L/388 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL)= L/569 (0.01")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/869 (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 LB BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

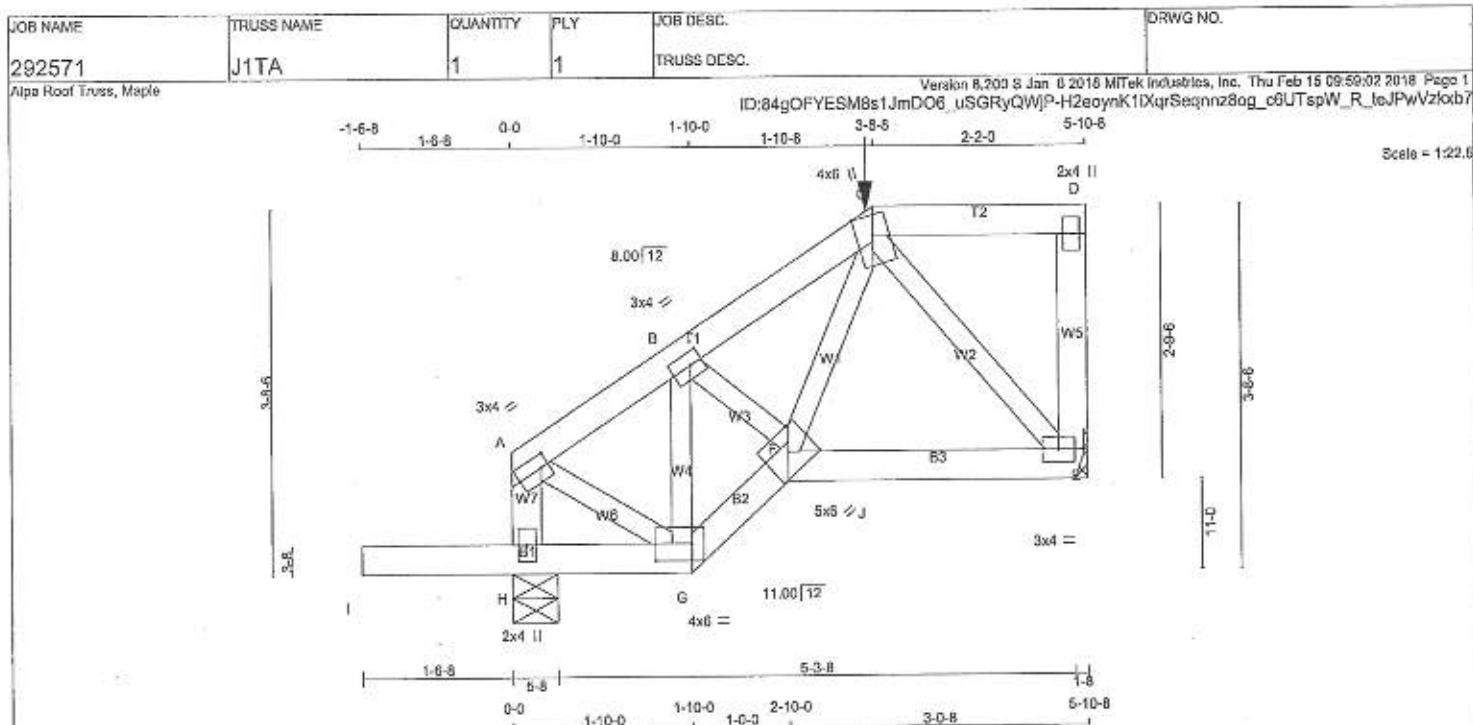
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1567 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (A) (INPUT = 0.50)
JSI METAL= 0.05 (E) (INPUT = 1.00)

A-18023103



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 2x3 DRY No.2 SPF

DRY: SPACED LUMBER.

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

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 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		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT REQD	
JT	VERT	DOWN	HORZ	DOWN	HORZ	BRG	BRG
E	413	0	0	413	0	0	0
H	527	0	0	527	0	0	0

UNFACTORED REACTIONS

JT	1ST CASE	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		FACTORED		WEBS		MAX. FACTORED	
MEMB.	MAX. FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FORCE (LBS)	MAX. CSI (LC)	MAX. CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
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 / 113	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	-86.5 -86.5	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: C-PrimeHlp
LEFT SETBACK = 3-8-8
RIGHT SETBACK = 0-0
END SETBACK = 3-8-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF G.S.L.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 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) = $L/989$ (0.00")
ALLOWABLE DEFL.(TL) = $L/360$ (0.20")
CALCULATED VERT. DEFL.(TL) = $L/888$ (0.01")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = $L/120$ (0.19")
CALCULATED VERT. DEFL.(LL) = $L/989$ (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), SB=0.13/1.00 (H-I-1)

DOE LUMBER=1.00 NAIL=1.00 LB 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.

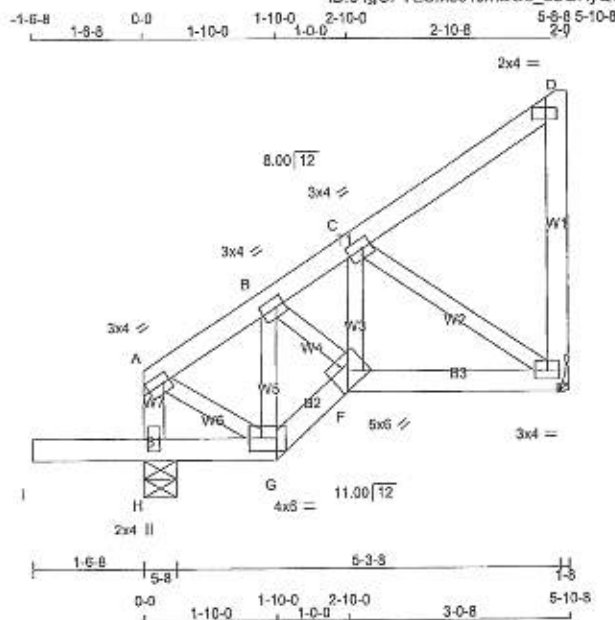


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292571	J1TB	1	1	TRUSS DESC.	

Alps Roof Truss, Maple

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Scale = 1:30.5

TOTAL WEIGHT = 30 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
E - D	2x4	DRY	No.2	SPF	
F - A	2x4	DRY	No.2	SPF	
G - G	2x4	DRY	No.2	SPF	
I - 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	TMWW-1	MT20	3.0	4.0	1.50	1.00
B	TMWW-1	MT20	3.0	4.0	1.50	1.50
C	TMWW-1	MT20	3.0	4.0	1.50	1.50
D	TVM-p	MT20	2.0	4.0	0.50	2.25
E	BMWW-1	MT20	3.0	4.0		
F	BBWW-h	MT20	5.0	6.0		
G	BBWW-1	MT20	4.0	6.0	2.00	4.50
H	BMV1p	MT20	2.0	4.0		

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
E	264	0	264	0
H	462	0	462	0

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN	COMPONENT REACTIONS	DEAD	SOIL
E	188	115 / 0	0 / 0	0 / 0	0 / 0
H	322	197 / 0	0 / 0	0 / 0	0 / 0

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

BRACING

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

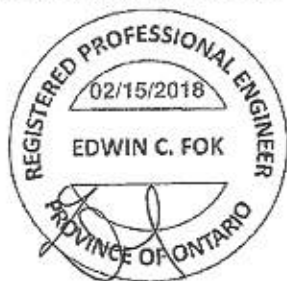
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FACTORED	MAX.
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE	MAX	CSI (LC)
FR-TO	FROM	TO	FROM	TO	LENGTH	FR-TO	FROM	TO	LENGTH
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	-258 / 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				

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



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	= 21.0	PSF
DL	= 8.0	PSF
BOT CH. LL	= 0.0	PSF
DL	= 7.4	PSF
TOTAL LOAD	= 34.4	PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2018
- CSA 989-09, 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) = 1/360 (0.20")
CALCULATED VERT. DEFL.(LL) = 1/899 (0.00")
ALLOWABLE DEFL.(TL) = 1/360 (0.20")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.01")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = 1/120 (0.19")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.02")
ALLOWABLE DEFL.(TL) = 1/120 (0.19")
CALCULATED VERT. DEFL.(TL) = 1/568 (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), SS=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

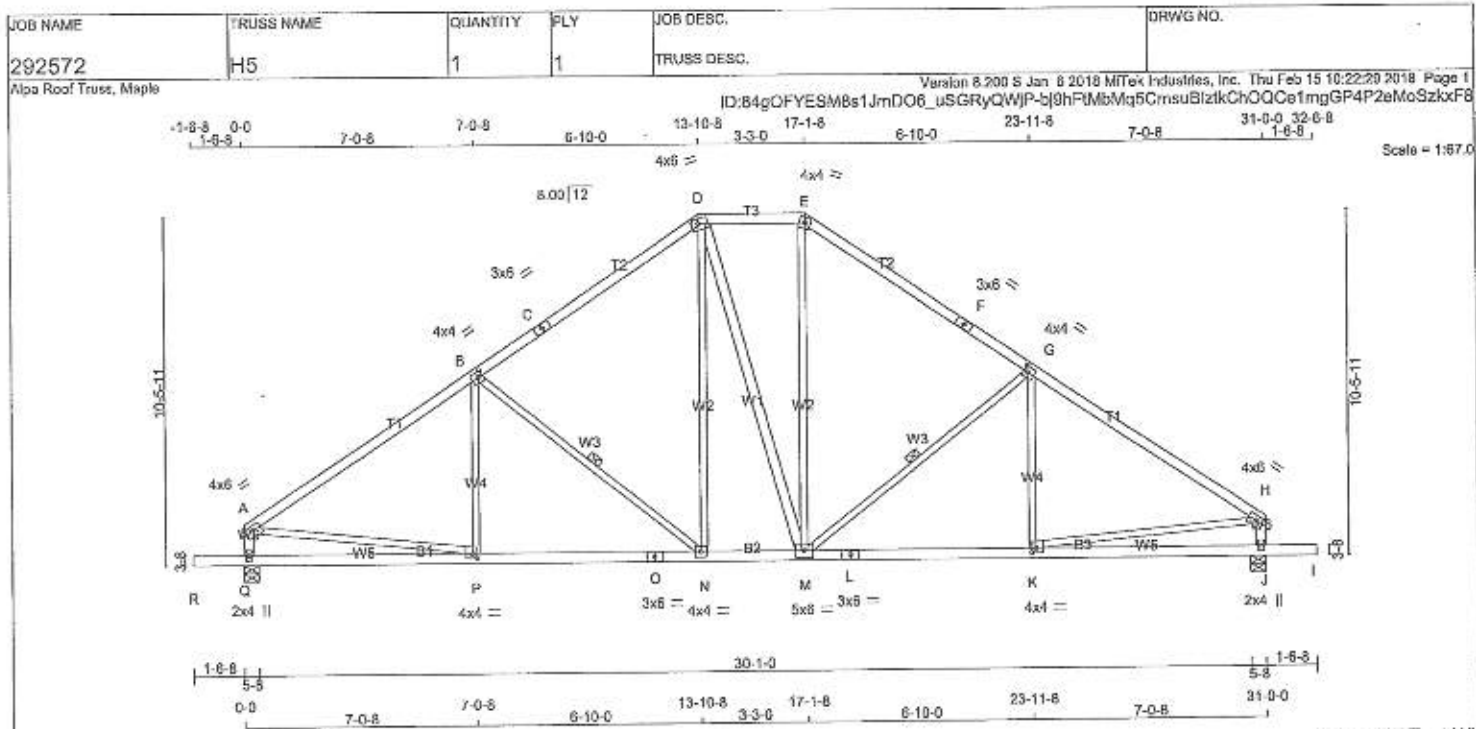
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX	MIN	MAX	MIN
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (A) (INPUT = 0.80)
JSI METAL= 0.88 (D) (INPUT = 1.00)

A-18023105



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMWW-1	MT20	4.0	6.0	1.75	Edge
B	TMWW-1	MT20	4.0	4.0	2.00	1.50
C	TS-1	MT20	3.0	6.0		
D	TTWW-m	MT20	4.0	6.0	1.75	2.50
E	TS-1	MT20	4.0	4.0		
F	TS-1	MT20	3.0	6.0		
G	TMWW-1	MT20	4.0	4.0	2.00	1.50
H	TMWW-1	MT20	4.0	6.0	1.75	Edge
I	BMV1+p	MT20	2.0	4.0		
K	BMWW-1	MT20	4.0	4.0	1.50	1.50
L	BS-1	MT20	3.0	6.0		
M	BMWW-1	MT20	5.0	6.0		
N	BMWW-1	MT20	4.0	4.0		
O	BS-1	MT20	3.0	6.0		
P	BMWW-1	MT20	4.0	4.0	1.50	1.50
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	FACTORED	MAXIMUM FACTORED	INPUT	RECD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORIZ	DOWN	UPLIFT
Q	1844	0	0	5-8
J	1844	0	0	5-8

UNFACTORED REACTIONS

1ST LCASE		MAXIMUM COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0
J	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.28 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF B-N, G-M.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO			FR-TO			
A-B	-1828 / 0	-78.0	-78.0	0.82 (1)	4.28	P-B	-50 / 92	0.03 (4)
B-C	-1383 / 0	-78.0	-78.0	0.56 (1)	4.83	B-N	-546 / 0	0.30 (1)
C-D	-1383 / 0	-78.0	-78.0	0.56 (1)	4.83	N-D	0 / 424	0.10 (1)
D-E	-1122 / 0	-78.0	-78.0	0.12 (1)	5.85	D-M	0 / 4	0.00 (1)
E-F	-1394 / 0	-78.0	-78.0	0.56 (1)	4.83	M-E	0 / 428	0.10 (1)
F-G	-1394 / 0	-75.0	-78.0	0.56 (1)	4.83	M-G	-544 / 0	0.30 (1)
G-H	-1828 / 0	-78.0	-78.0	0.82 (1)	4.28	K-G	-52 / 81	0.03 (4)
Q-A	-1443 / 0	0.0	0.0	0.15 (1)	6.81	A-P	0 / 1554	0.35 (1)
J-H	-1442 / 0	0.0	0.0	0.15 (1)	6.81	K-H	0 / 1554	0.35 (1)
R-Q	0 / 0	-96.5	-96.5	0.18 (1)	10.00			
Q-P	0 / 0	-18.5	-18.5	0.23 (4)	10.00			
P-O	0 / 1552	-18.5	-18.5	0.38 (4)	10.00			
O-N	0 / 1552	-18.5	-18.5	0.38 (4)	10.00			
N-M	0 / 1131	-18.5	-18.5	0.25 (1)	10.00			
M-L	0 / 1551	-18.5	-18.5	0.37 (4)	10.00			
L-K	0 / 1551	-18.5	-18.5	0.37 (4)	10.00			
K-J	0 / 0	-18.5	-18.5	0.23 (4)	10.00			
J-I	0 / 0	-96.5	-96.5	0.18 (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 9.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $\frac{1}{360}$ (1.03")
CALCULATED VERT. DEFL.(LL) = $\frac{1}{599}$ (0.07")
ALLOWABLE DEFL.(TL) = $\frac{1}{360}$ (1.03")
CALCULATED VERT. DEFL.(TL) = $\frac{1}{999}$ (0.15")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = $\frac{1}{120}$ (0.19")
CALCULATED VERT. DEFL.(LL) = $\frac{1}{999}$ (0.01")
ALLOWABLE DEFL.(TL) = $\frac{1}{120}$ (0.19")
CALCULATED VERT. DEFL.(TL) = $\frac{1}{999}$ (0.01")

CSI: TC=0.62/1.00 (A-B:1), BC=0.38/1.00 (N-P:4), WB=0.33/1.00 (A-P:1), SG=0.22/1.00 (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) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 789 1667 1656

PLATE PLACEMENT TOL = 0.250 inches

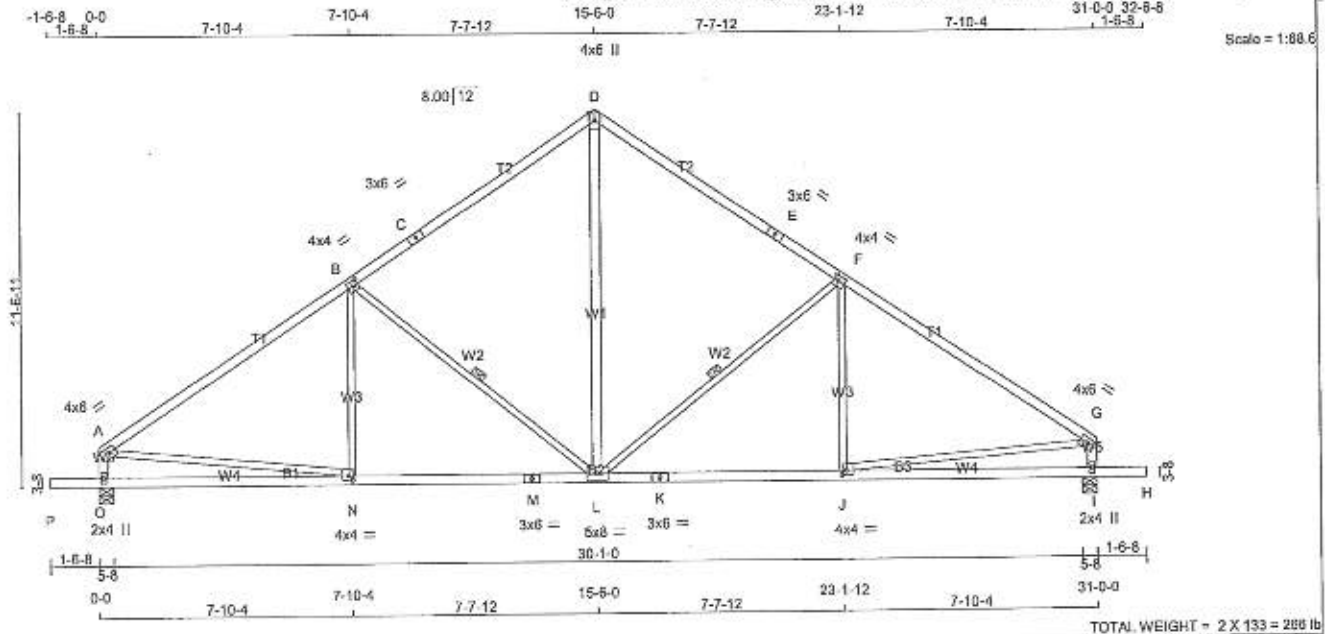
PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.87 (P) (INPUT = 0.80)
JSI METAL= 0.58 (P) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292572	H6	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 2 X 133 = 266 lb

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

DRY: SEASONED LUMBER.

PLATES (All in inches)	JT TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	8.0	1.75	Edge
B	TMVW-t	MT20	4.0	4.0	2.00	1.50
C	TS-t	MT20	3.0	6.0		
D	TTW*+p	MT20	4.0	6.0	Edge	
E	TS-t	MT20	3.0	6.0		
F	TMVW-t	MT20	4.0	4.0	2.00	1.50
G	TMVW-t	MT20	4.0	6.0	1.75	Edge
I	BMV1+p	MT20	2.0	4.0		
J	BMVW-t	MT20	4.0	4.0	1.50	1.50
K	BS-t	MT20	3.0	6.0		
L	BMVW-t	MT20	5.0	8.0		
M	BS-t	MT20	3.0	6.0		
N	BMVW-t	MT20	4.0	4.0	1.50	1.50
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	FACTORED GROSS REACTION	MAXIMUM FACTORED CROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
O	1644	0	1644	0
I	1644	0	1644	0

UNFACTORED REACTIONS	1ST CASE	MAX. MIN. COMPONENT REACTIONS	LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	COMBINED						
O	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0
I	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.00 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-L, B-L

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

LOADING	TOTAL LOAD CASES: (4)	CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PL)	MAX. CS (L/C)	MAX. UNBRACED LENGTH (FT)	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS (L/C)
FR-TO					FROM	TO		FR-TO			
A-B	-1809 / 0	-78.0	-78.0	0.81 (1)	4.00	L-D	0 / 938	0.15 (1)			
B-C	-1290 / 0	-78.0	-78.0	0.70 (1)	4.89	L-F	-642 / 0	0.44 (1)			
C-D	-1290 / 0	-78.0	-78.0	0.70 (1)	4.89	J-F	-17 / 114	0.04 (4)			
D-E	-1290 / 0	-78.0	-78.0	0.70 (1)	4.89	B-L	-642 / 0	0.44 (1)			
E-F	-1290 / 0	-78.0	-78.0	0.70 (1)	4.89	N-R	-17 / 114	0.04 (4)			
F-G	-1809 / 0	-78.0	-78.0	0.81 (1)	4.00	A-N	0 / 1548	0.35 (1)			
G-A	-1436 / 0	0.0	0.0	0.15 (1)	6.81	J-G	0 / 1548	0.35 (1)			
H-G	-1436 / 0	0.0	0.0	0.15 (1)	6.81						
P-O	0 / 0	-98.5	-98.5	0.16 (1)	10.00						
C-N	0 / 0	-18.0	-18.0	0.27 (4)	10.00						
N-M	0 / 1839	-18.5	-18.5	0.42 (4)	10.00						
M-L	0 / 1839	-18.5	-18.5	0.42 (4)	10.00						
L-K	0 / 1839	-18.5	-18.5	0.42 (4)	10.00						
K-J	0 / 1839	-18.5	-18.5	0.42 (4)	10.00						
J-I	0 / 0	-18.5	-18.5	0.27 (4)	10.00						
I-H	0 / 0	-98.5	-98.5	0.16 (1)	10.00						

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, ORC 2018
- CSA 088-08, CSA 086-14
- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/899 (0.07")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/899 (0.15")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/899 (0.01")
ALLOWABLE DEFL.(TL) = L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/899 (0.01")

CSI: TC=0.81/1.00 (A-B-1), BC=0.42/1.00 (J-L-4), WB=0.44/1.00 (B-L-1), SI=0.25/1.00 (F-G-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
	(PS)	(PL)	(PL)	
	MAX	MIN	MAX	MIN
MT20	618	354	1867	1867

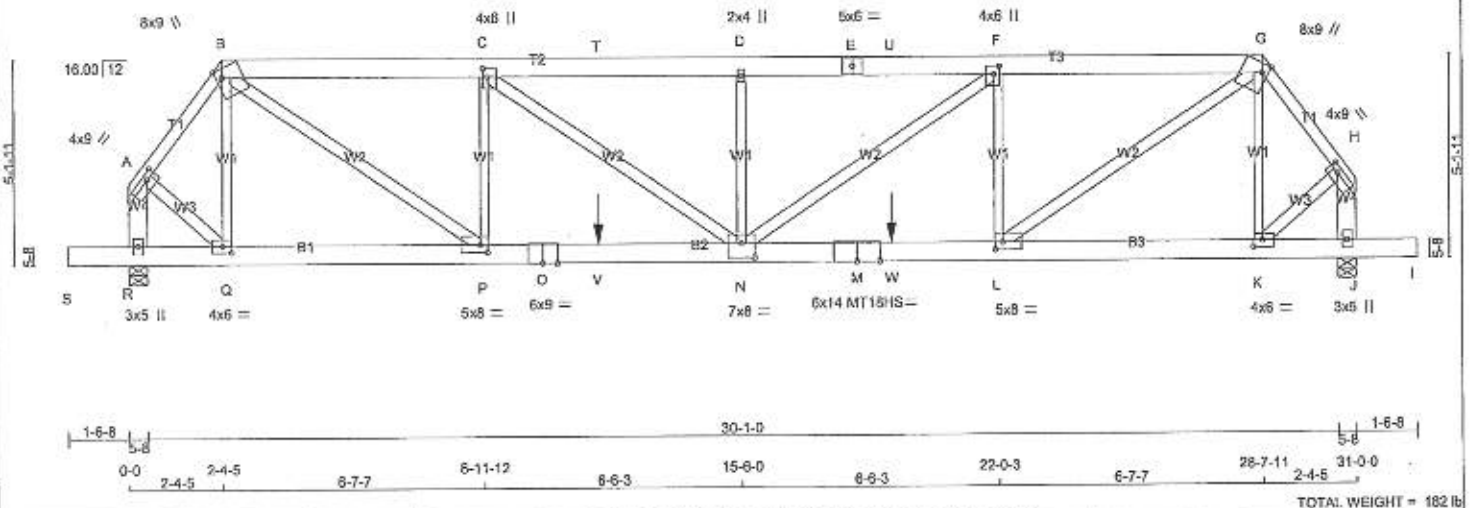
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.93 (J) (INPUT = 0.90)
JSI METAL= 0.58 (J) (INPUT = 1.00)

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LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF	
B - E	2x8	DRY	No.2	SPF	
E - G	2x6	DRY	No.2	SPF	
G - H	2x4	DRY	No.2	SPF	
R - A	2x6	DRY	No.2	SPF	
S - H	2x6	DRY	No.2	SPF	
J - O	2x6	DRY	2100F 1.8E	SPF	
O - M	2x6	DRY	2100F 1.8E	SPF	
M - I	2x6	DRY	2100F 1.8E	SPF	
ALL WEBS EXCEPT	2x4	DRY	No.2	SPF	
Q - B	2x3	DRY	No.2	SPF	
P - C	2x3	DRY	No.2	SPF	
N - D	2x3	DRY	No.2	SPF	
L - F	2x3	DRY	No.2	SPF	
K - G	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
A	TMVW-I	MT20	4.0	8.0	1.50	3.00
B	TTWW-I	MT20	8.0	8.0	2.75	1.75
C	TMVW-I	MT20	4.0	8.0	2.50	1.50
D	TMVW-I	MT20	2.0	4.0	1.50	3.00
E	TS-I	MT20	5.0	6.0		
F	TMVW-I	MT20	4.0	8.0	2.50	1.50
G	TTWW-I	MT20	8.0	8.0	2.75	1.75
H	TMVW-I	MT20	4.0	8.0	1.50	3.00
J	BMV-I	MT20	3.0	5.0		
K	BMVW-I	MT20	4.0	6.0	2.00	2.75
L	BMVW-I	MT20	5.0	8.0	2.25	2.25
M	RS-I	MT18HS	6.0	14.0		
N	BMVW-I	MT20	7.0	8.0	4.25	4.00
O	RS-I	MT20	6.0	9.0		
P	BMVW-I	MT20	5.0	8.0	2.25	2.25
Q	BMVW-I	MT20	4.0	6.0	2.00	2.75
R	BMV-I	MT20	3.0	5.0		

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



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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	UPLIFT	N-SX
R	3020	0	0	5-8
J	2982	0	0	5-8

UNFACTORED REACTIONS

1ST LC CASE	MAX/MIN COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE
R	2135	1408 / 0	0 / 0
J	2095	1376 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.02 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	WEBS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX
MEMB.	FORCE (LBS)	FORCE (LBS)	PLF	CSI (LC)	UNBRACED LENGTH	MEMB.	FORCE (LBS)	FORCE (LBS)	PLF	CSI (LC)	MAX
FR-TO		FROM TO				FR-TO		FROM TO			
A-B	-2336 / 0	-75.0 -78.0	0.15 (1)	4.33	Q-B	-502 / 0	0.32 (1)				
B-C	-4883 / 0	-75.0 -78.0	0.47 (1)	3.57	B-P	0 / 4264	0.75 (1)				
C-T	-6283 / 0	-75.0 -78.0	0.62 (1)	3.02	P-C	-1553 / 0	0.58 (1)				
T-D	-6283 / 0	-154.5 -154.5	0.62 (1)	3.02	C-N	0 / 1749	0.31 (1)				
D-E	-6283 / 0	-154.5 -154.5	0.62 (1)	3.02	N-D	-821 / 0	0.33 (1)				
E-U	-6283 / 0	-154.5 -154.5	0.62 (1)	3.02	N-F	0 / 1932	0.34 (1)				
U-F	-6283 / 0	-75.0 -78.0	0.62 (1)	3.02	L-F	-1771 / 0	0.63 (1)				
F-G	-4715 / 0	-75.0 -78.0	0.48 (1)	3.62	L-G	0 / 4103	0.72 (1)				
G-H	-2309 / 0	-75.0 -78.0	0.16 (1)	4.35	K-Q	-817 / 0	0.29 (1)				
R-A	-2827 / 0	0.0 0.0	0.23 (1)	6.19	A-Q	0 / 1645	0.29 (1)				
J-H	-2786 / 0	0.0 0.0	0.23 (1)	6.21	K-H	0 / 1828	0.29 (1)				
S-R	0 / 0	-98.5 -98.5	0.05 (1)	10.00							
R-Q	0 / 0	-18.5 -18.5	0.02 (1)	10.00							
Q-P	0 / 1380	-18.5 -18.5	0.28 (1)	10.00							
P-O	0 / 4863	-18.5 -18.5	0.77 (1)	10.00							
O-V	0 / 4863	-18.5 -18.5	0.77 (1)	10.00							
V-N	0 / 4863	-37.3 -37.3	0.61 (1)	10.00							
N-M	0 / 4715	-37.3 -37.3	0.61 (1)	10.00							
M-W	0 / 4715	-37.3 -37.3	0.61 (1)	10.00							
W-L	0 / 4715	-18.5 -18.5	0.61 (1)	10.00							
L-K	0 / 1365	-18.5 -18.5	0.21 (1)	10.00							
K-J	0 / 0	-18.5 -18.5	0.03 (1)	10.00							
J-I	0 / 0	-98.5 -98.5	0.05 (1)	10.00							

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX	MAX+	FACE	DIR.	TYPE
V	11-10-8	-1144	-1144	-	FRONT	VERT	TOTAL
W	19-3-8	-844	-844	-	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

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2015
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

(55 % OF 23.0 P.S.F. G.S.I. PLUS 3.4 P.S.F. RAIN LOAD) EQUALS 21.0 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = 1/360 (1.03")
CALCULATED VERT. DEFL.(LL) = 1/989 (0.26")
ALLOWABLE DEFL.(TL) = 1/360 (1.03")
CALCULATED VERT. DEFL.(TL) = 1/797 (0.47")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = 1/120 (0.19")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.00")
ALLOWABLE DEFL.(TL) = 1/120 (0.19")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.00")

CSI: TC=0.82/1.00 (C-D:1), EC=0.77/1.00 (N-P:1), WB=0.75/1.00 (B-P:1), SSI=0.45/1.00 (N-P:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1987 798 1987 1566
MT18HS 511 354 2455 1382 3004 2010

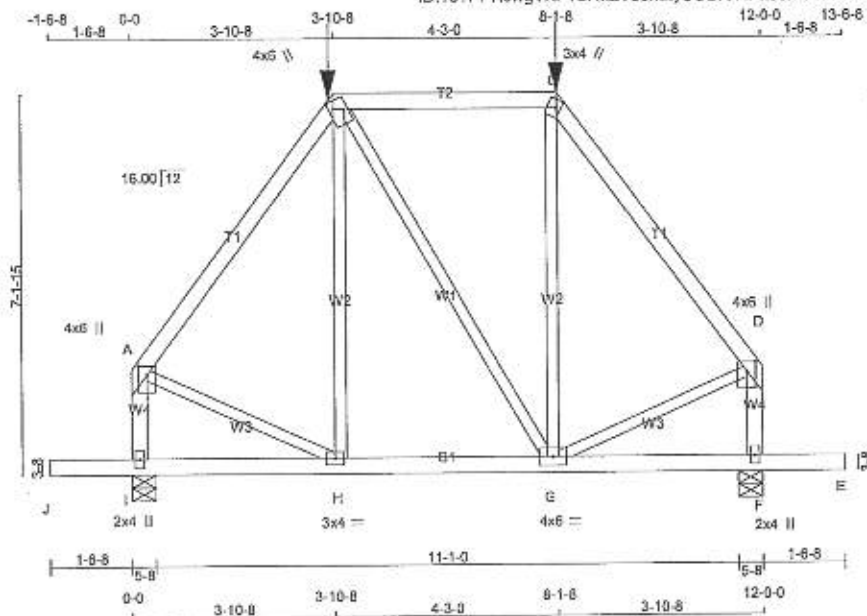
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291800	H20	1	1	TRUSS DESC.	

Alps Roof Truss, Maple

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Scale = 1:41.3

TOTAL WEIGHT = 65 lb

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

ALL WEBS 2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.30	
B	TTWW+m	MT20	4.0	6.0	1.75	1.00	
C	TTW+m	MT20	3.0	4.0	1.75	1.00	
D	TMVW+p	MT20	4.0	6.0	2.00	2.00	
F	BMV1+p	MT20	2.0	4.0			
G	BMVWW+p	MT20	4.0	6.0			
H	BMVWW-l	MT20	3.0	4.0			
I	BMV1+p	MT20	2.0	4.0			

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 119.6 lbs FACTORED DOWN AT 8'-1.8, AND 119.6 lbs FACTORED DOWN AT 3'-10.8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
I	977	0	977	0	0	5-8	1-8
F	977	0	977	0	0	5-8	1-8

UNFACTORED REACTIONS

1ST CASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
I	697	423 / 0	0 / 0	0 / 0	0 / 0	274 / 0	0 / 0
F	697	423 / 0	0 / 0	0 / 0	0 / 0	274 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX FACTORED CSI (LC)	
FR-TO		FROM	TO	FR-TO				
A-B	-607/0	-78.0	-78.0	0.24 (1)	6.25	H-B	-27/77	0.03 (4)
B-C	-361/0	-114.5	-114.5	0.38 (1)	6.25	B-G	0/0	0.00 (1)
C-D	-607/0	-78.0	-78.0	0.24 (1)	6.25	G-C	-27/78	0.03 (4)
I-A	-784/0	0.0	0.0	0.10 (1)	7.81	A-H	0/390	0.10 (1)
F-D	-784/0	0.0	0.0	0.10 (1)	7.81	G-D	0/390	0.10 (1)
J-I	0/0	-96.5	-96.5	0.17 (1)	10.00			
I-H	0/0	-27.2	-27.2	0.11 (4)	10.00			
H-G	0/361	-27.2	-27.2	0.15 (4)	10.00			
G-F	0/0	-27.2	-27.2	0.11 (4)	10.00			
F-E	0/0	-96.5	-96.5	0.17 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE
B	3'-10.8	-120	-120	---	FRONT	VERT	TOTAL
C	8'-1.8	-120	-120	---	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/G

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

GIRDER TYPE: CPrimeHlp
SIDE SETBACK = 3'-10.8
END SETBACK = 3'-10.8
END WALL WIDTH = 0.0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL. LOADS BASED ON 55 % OF GSL

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

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

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

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

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

CSI: TC=0.39/1.00 (B-C:1), BC=0.17/1.00 (E-F:1), WB=0.10/1.00 (A-H:1), SSI=0.21/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 L8 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 GRP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1967 1658

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

A-18023124

CONTINUED ON PAGE 2

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



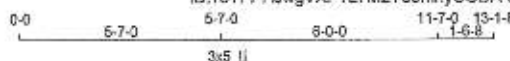
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291800	H22	2	1	TRUSS DESC.	

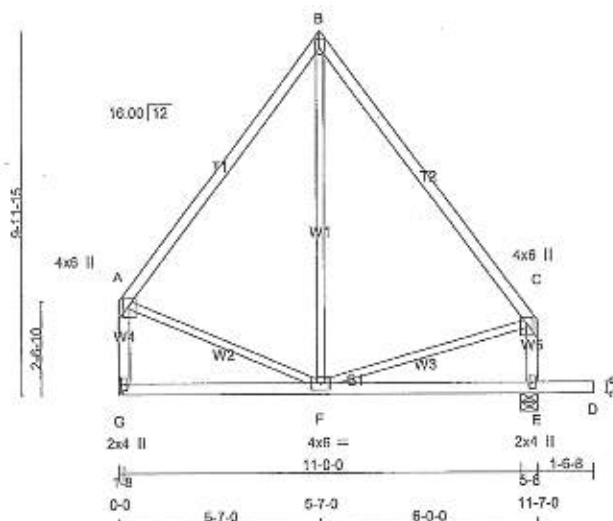
Alpa Roof Truss, Maple

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Scale = 1:61.1



TOTAL WEIGHT = 2 X 69 = 138 lb

LUMBER

N. L. G. A. RULES

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

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
E	BMV1+p	MT20	2.0	4.0		
F	BMVWW-1	MT20	4.0	6.0		
G	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REGRD BRG
	VERT	HCRZ	DOWN	HCRZ		
G	888	0	559	0	0	0
E	707	0	707	0	0	0

UNFACTORED REACTIONS

JT	1ST LCASE		MAX MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
G	398	243 / 0	0 / 0	0 / 0	0 / 0	155 / 0	0 / 0
E	504	308 / 0	0 / 0	0 / 0	0 / 0	197 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (K)	LC1	MAX. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FT)
FR-TO		FROM	TO		FR-TO		
A-B	-293 / 0	-78.0	-78.0	0.31 (1)	6.25	F-B	0 / 101
B-C	-293 / 0	-78.0	-78.0	0.24 (1)	6.25	A-F	0 / 189
G-A	-520 / 0	0.0	0.0	0.07 (1)	7.81	F-C	0 / 182
E-C	-516 / 0	0.0	0.0	0.06 (1)	7.81		
G-F	0 / 0	-18.5	-18.5	0.18 (4)	10.00		
F-E	0 / 0	-18.5	-18.5	0.18 (4)	10.00		
E-D	0 / 0	-98.5	-98.5	0.18 (1)	10.00		

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



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 21.0	PSF
DL = 8.0	PSF	
BOT CH.	LL = 0.0	PSF
DL = 7.4	PSF	
TOTAL LOAD	= 34.4	PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, OBC 2015
- CSA 086-09, CSA 086-14
- TPIC 2011, TPIC 2014

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

ALLOWABLE DEFL. (LL) = $L/360$ (0.39")
CALCULATED VERT. DEFL. (LL) = $L/999$ (0.00")
ALLOWABLE DEFL. (TL) = $L/360$ (0.39")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.03")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL. (LL) = $L/240$ (0.19")
CALCULATED VERT. DEFL. (LL) = $L/999$ (0.01")
ALLOWABLE DEFL. (TL) = $L/240$ (0.19")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.01")

CSI: TO=0.31/1.00 (A-B-1), BC=0.18/1.00 (F-G-4), WB=0.04/1.00 (A-F-1), SS=0.12/1.00 (D-E-1)

DOI LUMBER=1.00 NAIL=1.00 LB BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

PLATE	GRIP(DRY)	SHEAR	SECTION
(FBI)	(PL)	(PL)	(PL)
MAX	MIN	MAX	MIN
MT20	618	354	1687

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.31 (F) (INPUT = 0.90)
JSI METAL= 0.15 (C) (INPUT = 1.00)

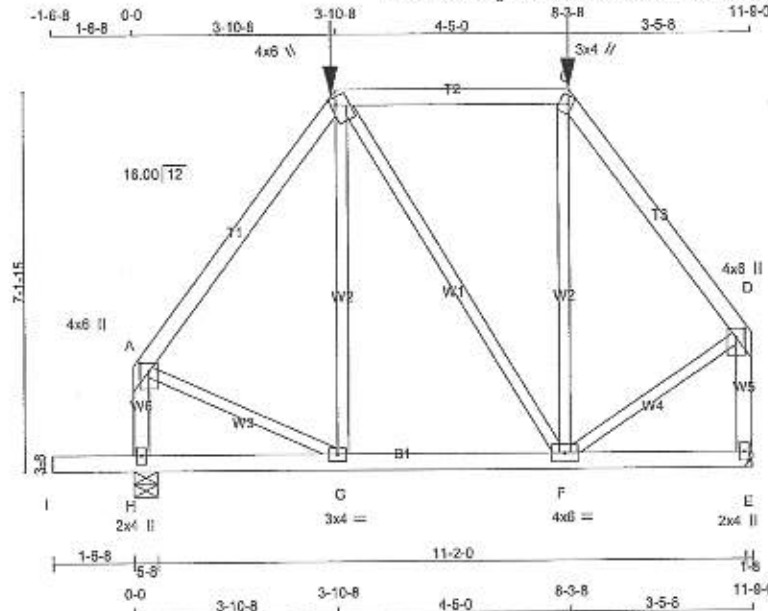
A-18023126

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291800	H23	1	1	TRUSS DESC.	

Alpine Roof Truss, Maple

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ID:7cTPPHJwVXP7L7M2YoomnyCODA-A4GWWbx7qlm1my5a5YTUSjHoPhd56PdH9H_zkwJd



Scale = 1/4" = 1'-0"

TOTAL WEIGHT = 63 LB

LUMBER

N, L, G, A, RULES

CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2
B - C	2x4	DRY	No.2
C - D	2x4	DRY	No.2
H - A	2x4	DRY	No.2
E - D	2x4	DRY	No.2
I - E	2x4	DRY	No.2

ALL WEBS 2x3 DRY No.2
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 106.7 lbs FACTORED DOWN AT 8'-3-8, AND 119.6 lbs FACTORED DOWN AT 3'-10-8 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
E	816	0	816	0
H	856	0	856	0

UNFACTORED REACTIONS

JT	1ST CASE COMBINED	MAX/MIN. SNOW	MAX/MIN. LIVE	MAX/MIN. PERM. LIVE	WIND	DEAD	SOIL
E	582	353 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0
H	682	413 / 0	0 / 0	0 / 0	0 / 0	269 / 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.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (LBS)	MAX. FACTORED HORIZ. LOAD (LBS)	MAX. FACTORED UNBRACED LENGTH (FT)	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED HORIZ. LOAD (LBS)
FR-TO						FR-TO			
A-B	-587 / 0	-78.0	-78.0	0.24 (1)	6.25	G-B	-18 / 84	0.03 (4)	
B-C	-328 / 0	-114.5	-114.5	0.42 (1)	6.25	B-F	-41 / 0	0.06 (1)	
C-D	-552 / 0	-78.0	-78.0	0.19 (1)	6.25	F-C	-51 / 85	0.05 (1)	
H-A	-784 / 0	0.0	0.0	0.10 (1)	7.81	A-G	0 / 375	0.09 (1)	
E-D	-778 / 0	0.0	0.0	0.11 (1)	7.81	F-D	0 / 385	0.10 (1)	
I-H	0 / 0	96.5	96.5	0.17 (1)	10.00				
H-G	0 / 0	-27.2	-27.2	0.11 (4)	10.00				
G-F	0 / 360	-27.2	-27.2	0.15 (4)	10.00				
F-E	0 / 0	-27.2	-27.2	0.10 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
B	3'-10-8	-120	-120	---	FRONT	VERT	TOTAL
C	8'-3-8	-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: CPrimeHip
LEFT SETBACK = 3'-10-8
RIGHT 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
- ADOT'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) = 1/360 (0.39")
CALCULATED VERT. DEFL. (LL) = 1/999 (0.00")
ALLOWABLE DEFL. (TL) = 1/360 (0.39")
CALCULATED VERT. DEFL. (TL) = 1/999 (0.01")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL. (LL) = 1/120 (0.18")
CALCULATED VERT. DEFL. (LL) = 1/999 (0.01")
ALLOWABLE DEFL. (TL) = 1/120 (0.18")
CALCULATED VERT. DEFL. (TL) = 1/999 (0.01")

CSI: TC=0.42/1.00 (B-C-1), BC=0.17/1.00 (B-C-1), WB=0.10/1.00 (D-F-1), SB=0.22/1.00 (B-C-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PS) (PL) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1658

A-18023127 CONTINUED ON PAGE 2

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

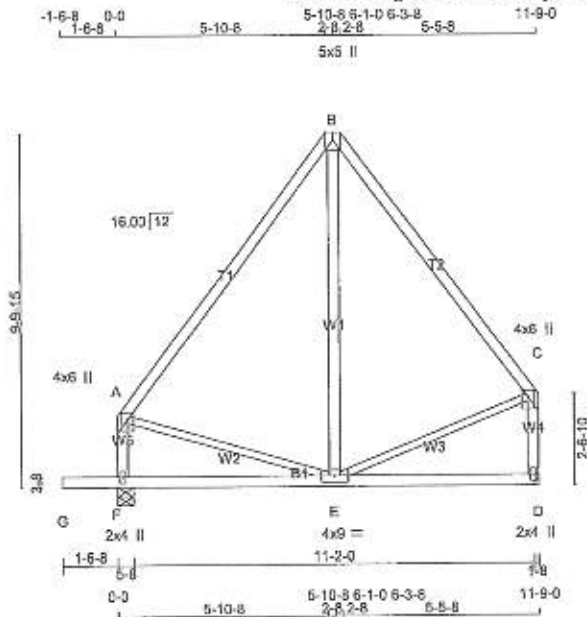


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291800	H24	1	1	TRUSS DESC.	

Alpine Roof Truss, Maple

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ID: 2oTPPHJwgVXP?L7MZYoomnyCODA-qO72Rh4nIWpxCthFo5lh1?_9F7v7V3l9UBoHtkwUR



Scale = 1/8" = 1'-0"

TOTAL WEIGHT = 62 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMW+p	MT20	4.0	6.0	2.00	2.00	
B	TMW+p	MT20	5.0	6.0	2.50	Edge	
C	TMW+p	MT20	4.0	6.0	2.00	2.00	
D	BMV1+p	MT20	2.0	4.0			
E	BMVW-1	MT20	4.0	9.0			
F	BMV1+p	MT20	2.0	4.0			

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	DOWN	IN-SX	IN-SX
D	567	0	5-8	1-6
F	715	0	5-8	1-6

UNFACTORED REACTIONS	1ST CASE	MAX/MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
D	404	247 / 0	0 / 0
F	610	311 / 0	0 / 0

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS					WEB				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO				FR-TO			
A-B	-293 / 0	-78.0	-78.0	0.25 (1)	6.25	A-E	0 / 185	0.04 (1)	
B-C	-298 / 0	-78.0	-78.0	0.32 (1)	6.25	E-C	0 / 192	0.04 (1)	
F-A	-523 / 0	0.0	0.0	0.06 (1)	7.81	E-B	0 / 103	0.03 (4)	
D-C	-528 / 0	0.0	0.0	0.07 (1)	7.81				
G-F	0 / 0	-96.5	-96.5	0.16 (1)	10.00				
F-E	0 / 0	-18.5	-18.5	0.18 (4)	10.00				
E-D	0 / 0	-18.5	-18.5	0.18 (4)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. G/G

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

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

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

ALLOWABLE DEFL.(LL) = 1/360 (0.39")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.00")
ALLOWABLE DEFL.(TL) = 1/360 (0.39")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.03")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL) = 1/120 (0.19")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.01")
ALLOWABLE DEFL.(TL) = 1/120 (0.19")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.01")

CSI: TC=0.32/1.00 (B-C-1), BC=0.18/1.00 (D-E-4), WB=0.04/1.00 (C-E-1), SS=0.12/1.00 (F-G-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 789 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

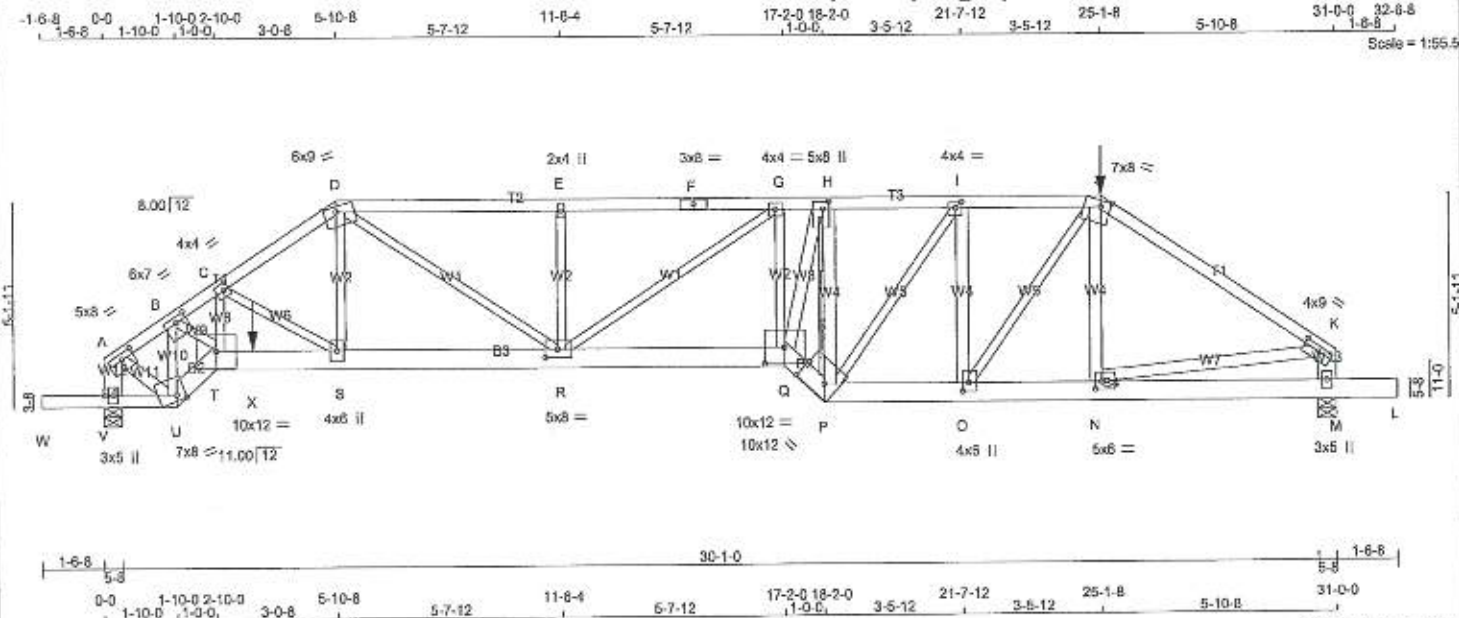
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.31 (C) (INPUT = 0.90)
JSI METAL= 0.15 (A) (INPUT = 1.00)

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



A-18023128



LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR
A - D	2x4	DRY	1650F 1.5E	SPF	
D - F	2x4	DRY	1650F 1.5E	SPF	
F - J	2x4	DRY	1650F 1.5E	SPF	
J - K	2x4	DRY	1650F 1.5E	SPF	
V - A	2x8	DRY	No.2	SPF	
M - K	2x8	DRY	No.2	SPF	
W - U	2x4	DRY	No.2	SPF	
U - T	2x8	DRY	No.2	SPF	
T - Q	2x8	DRY	1650F 1.5E	SPF	
Q - P	2x8	DRY	No.2	SPF	
P - L	2x6	DRY	1650F 1.5E	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
Q - H	2x4	DRY	No.2	SPF	
P - I	2x4	DRY	No.2	SPF	
O - I	2x4	DRY	No.2	SPF	
N - J	2x4	DRY	No.2	SPF	
A - U	2x4	DRY	No.2	SPF	
N - K	2x4	DRY	No.2	SPF	

DRY, SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMWW-I	MT20	5.0	8.0	1.75	3.75
B	TMWW-I	MT20	6.0	7.0	1.75	3.25
C	TMWW-I	MT20	4.0	4.0	2.00	1.50
D	TTWW-m	MT20	6.0	8.0	1.75	3.75
E	TMWW-w	MT20	2.0	4.0		
F	TS-I	MT20	3.0	8.0		
G	TMWW-I	MT20	4.0	4.0		
H	TMWW-I	MT20	5.0	8.0	2.25	1.75
I	TMWW-I	MT20	4.0	4.0	1.75	1.75
J	TTWW-m	MT20	7.0	8.0	2.00	3.00
K	TMWW-I	MT20	4.0	9.0	1.50	4.50
M	BMV1-p	MT20	3.0	5.0		
N	BMWW-I	MT20	5.0	6.0	2.25	2.00
O	BMWW-I	MT20	4.0	6.0	2.50	1.75
P	BMWW-I	MT20	10.0	12.0	3.75	8.00
Q	BMWW-I	MT20	10.0	12.0	4.75	8.00

NOTE: Lateral brace(s) shown shall be 1x4 for Part 9 design as per CBC 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		REQD	
JT	VERT	HCRZ	DOWN	HCRZ	UPLIFT	N-SX	BRG	IN-SX	BRG
V	3162	0	3162	0	0	5-8	4-8		
M	2892	0	2892	0	0	5-8	4-0		

UNFACTORED REACTIONS
 1ST LCASE MAX/MIN COMPONENT REACTIONS
 JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL
 V 2247 1412/0 0/0 0/0 0/0 835/0 0/0
 M 2135 1294/0 0/0 0/0 0/0 841/0 0/0

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

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.80 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 H-P

FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 8" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 80% 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		FACTORED		MAX. FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)	MAX. UNBRACED LENGTH	MEMB.	FORCE (LBS)
FR-TO		FROM	TO		FR-TO				
A-B	-3070/0	-78.0	-78.0	0.15 (1)	4.38	U-B	-3431/0	0.58 (1)	
B-C	-5474/0	-78.0	-78.0	0.24 (1)	3.31	B-T	0/3028	0.75 (1)	
C-D	-1728/0	-78.0	-78.0	0.24 (1)	3.38	T-C	0/580	0.14 (1)	
D-E	-5858/0	-78.0	-78.0	0.72 (1)	2.93	C-S	-730/0	0.18 (1)	
E-F	-5858/0	-78.0	-78.0	0.70 (1)	2.90	S-D	0/1037	0.26 (1)	
F-G	-5308/0	-78.0	-78.0	0.70 (1)	2.90	D-R	0/2302	0.57 (1)	
G-H	-6143/0	-153.5	-153.5	0.28 (1)	3.11	R-E	-496/0	0.13 (1)	
H-I	-4867/0	-153.5	-153.5	0.42 (1)	3.31	E-G	-349/0	0.29 (1)	
I-J	-4227/0	-153.5	-153.5	0.39 (1)	3.38	Q-G	-85/17	0.03 (1)	
J-K	-3752/0	-78.0	-78.0	0.75 (1)	3.53	Q-H	0/4965	0.89 (1)	
K-L	-2934/0	0.0	0.0	0.21 (1)	6.08	P-H	-5048/0	0.83 (1)	
M-K	-2747/0	0.0	0.0	0.19 (1)	6.28	P-I	0/1080	0.27 (1)	
						O-I	-1482/0	0.40 (1)	
W-V	0/0	-95.5	-95.5	0.17 (1)	10.00	O-J	0/1873	0.48 (1)	
V-U	-3/0	-18.5	-18.5	0.17 (1)	10.00	N-J	-207/78	0.06 (1)	
U-T	0/3260	-18.5	-18.5	0.43 (1)	10.00	A-U	0/2777	0.49 (1)	
T-X	0/4548	-18.5	-18.5	0.52 (1)	10.00	N-K	0/3156	0.56 (1)	
X-S	0/4548	-112.0	-112.0	0.52 (1)	10.00				
S-R	0/3854	-112.0	-112.0	0.48 (1)	10.00				
R-Q	0/6145	-112.0	-112.0	0.88 (1)	10.00				
Q-P	0/6391	-36.4	-36.4	0.83 (1)	10.00				
P-O	0/4227	-36.4	-36.4	0.38 (1)	10.00				
O-N	0/3120	-36.4	-36.4	0.29 (1)	10.00				
N-M	0/0	-36.4	-36.4	0.10 (4)	10.00				
M-L	0/0	-95.5	-95.5	0.06 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)		FACE		DIR.		TYPE	
JT	LOC.	LC1	MAX.	FRONT	VERT	TOTAL	TOTAL
J	25-1-8	-334	-334	FRONT	VERT		
X	3-9-4	-423	-423	FRONT	VERT		

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 = 8.0 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: CPrimeHib
 SIDE SETBACK = 5-10-8
 END SETBACK = 5-10-8
 END WALL WIDTH = 0-0
 END SPAN CARRIED = 5-10-8
 END SPAN CARRIED = 17-2-0
 END SPAN CARRIED = 5-10-8
 END WALL WIDTH = 0-0
 APPLIED TO FRONT SIDE OF BOTTOM CHORD.
 - ADDTL. LOADS BASED ON 55% OF GSL.

GIRDER TYPE: CPrimeHib
 SIDE SETBACK = 5-10-8
 END SETBACK = 5-10-8
 END WALL WIDTH = 0-0
 CORNER FRAMING TYPE: CONVENTIONAL
 END JACK TYPE: CONVENTIONAL
 APPLIED TO FRONT SIDE
 - ADDTL. LOADS BASED ON 55% OF GSL.
 LOADS APPLIED TO FIRST 13-10-0 OF SPAN MEASURED FROM THE RIGHT.

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

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

THIS DESIGN COMPLIES WITH:
 - PART 9 OF CBC 2012, OBC 2018
 - CSA 086-09, CSA 086-14
 - TPC 2011, TPC 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 (1.03")
 CALCULATED VERT. DEFL.(LL) = L/899 (0.31")
 ALLOWABLE DEFL.(TL) = L/360 (1.03")
 CALCULATED VERT. DEFL.(TL) = L/607 (0.61")

CANTILEVER DEFLECTION:
 ALLOWABLE DEFL.(LL) = L/120 (0.19")
 CALCULATED VERT. DEFL.(LL) = L/452 (0.04")
 A-18023129

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292575	H1T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
R	BMVWW-4	MT20	5.0	8.0	2.50	3.75
S	BMVWW-1	MT20	4.0	6.0		
T	BMVWW-4	MT20	10.0	12.0		
U	BMVWW-m	MT20	7.0	8.0	Edge	2.75
V	BMV1+p	MT20	3.0	5.0		

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

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 334.0 lbs FACTORED DOWN AT 25'-1" ON TOP CHORD, AND 423.2 lbs FACTORED DOWN AT 3'-9" ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

ALLOWABLE DEFL. (TL) = $L/120$ (0.19")
CALCULATED VERT. DEFL. (TL) = $L/233$ (0.08")

CSI: TC=0.75/1.00 (J-K:1), RC=0.83/1.00 (P-Q:1),
WB=0.88/1.00 (H-G:1), SS=0.28/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

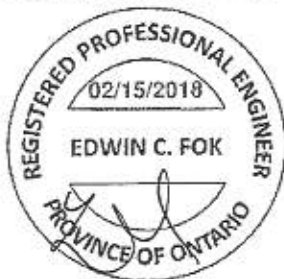
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1887 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (Q) (INPUT = 0.80)
JSI METAL= 0.95 (Q) (INPUT = 1.00)

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



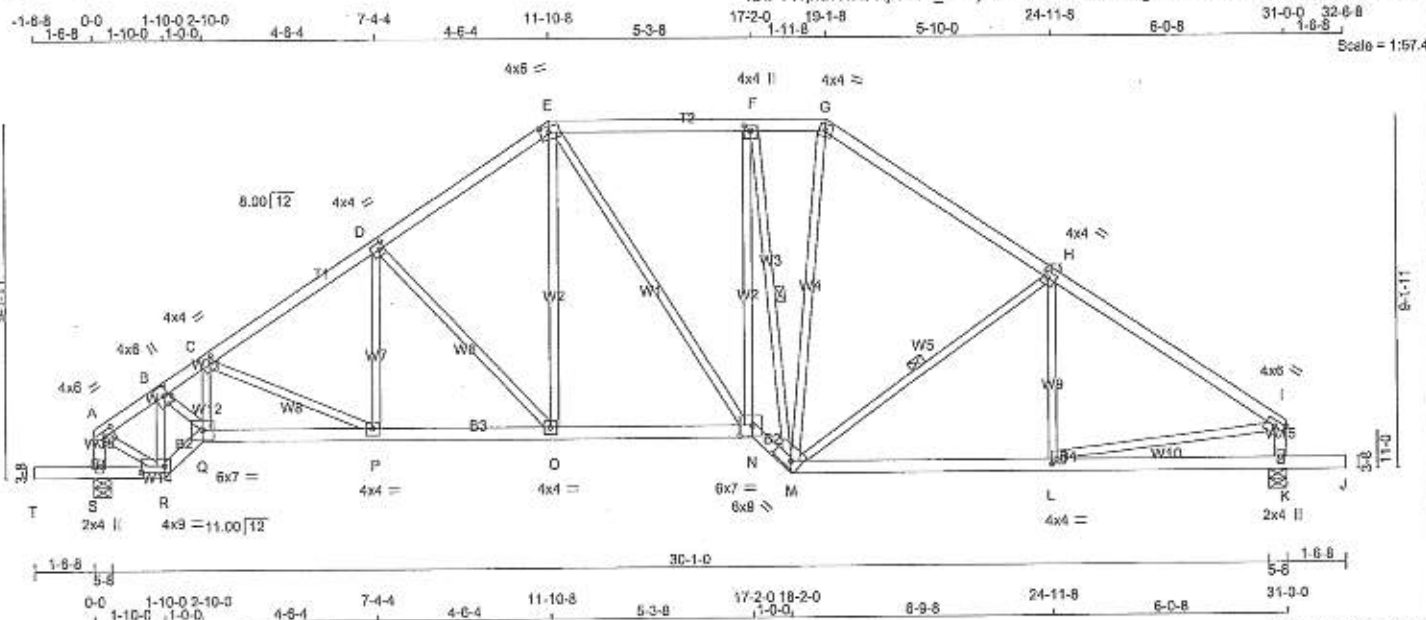
A-18023129(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292575	H4T	1	1	TRUSS DESC.	

Alpha Roof Truss, Maple

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ID:FWWJha7NH97j1f1vY_DF0yMsTB-nXXvVvQZiO0g2o2xnQarHRcfFus0labfhMUJzkv1b



TOTAL WEIGHT = 150 LBS

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - E	2x4	DRY	No.2	SPF	
E - G	2x4	DRY	No.2	SPF	
G - I	2x4	DRY	No.2	SPF	
S - A	2x4	DRY	No.2	SPF	
K - I	2x4	DRY	No.2	SPF	
T - R	2x4	DRY	No.2	SPF	
R - Q	2x4	DRY	No.2	SPF	
Q - N	2x4	DRY	No.2	SPF	
N - M	2x4	DRY	No.2	SPF	
M - J	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					

DRY: SEASONED LUMBER.

PLATES		TYPE [table is in inches]				
JT	TYPE	PLATES	W	LEN	Y	X
A	TMWW-1	MT20	4.0	6.0	1.50	3.00
B	TMWW-1	MT20	4.0	6.0	3.00	1.25
C, D, H						
E	TMWW-1	MT20	4.0	4.0	2.00	1.50
C	TMWW-m	MT20	4.0	6.0	1.75	2.50
F	TMWW-1	MT20	4.0	4.0	1.50	2.00
G	TMWW-1	MT20	4.0	4.0		
I	TMWW-1	MT20	4.0	6.0	1.75	Edge
K	BMV1+p	MT20	2.0	4.0		
L	BMWW-1	MT20	4.0	4.0	1.50	1.50
M	BSWWW-h	MT20	6.0	9.0	2.00	6.00
N	BSWW-1	MT20	6.0	7.0	3.00	4.00
O	BSWW-1	MT20	4.0	4.0		
P	BSWW-1	MT20	4.0	4.0		
Q	BSWW-1	MT20	6.0	7.0		
R	BSWW-1	MT20	4.0	9.0	1.75	7.25
S	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	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	DOWN	UPLIFT	IN-SX
S	1848	0	0	5-8
K	1840	0	0	5-8

UNFACTORED REACTIONS	1ST LCASE	MAX MIN. COMPONENT REACTIONS
JT	COVINED	SNOW
S	1175	717 / 0
K	1169	714 / 0

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

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

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

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

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

LOADING					W E B S				
TOTAL LOAD CASES: (4)									
C H O R D S					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX CS1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)	
FR-TO		FROM TO				FR-TO			
A-B	-1410 / 0	-78.0	-78.0	0.09 (1)	5.43	R-B	-1588 / 0	0.25 (1)	
B-C	-2422 / 0	-78.0	-78.0	0.12 (1)	4.34	B-Q	0 / 1373	0.31 (1)	
C-D	-2074 / 0	-78.0	-78.0	0.24 (1)	4.51	Q-C	0 / 78	0.02 (4)	
D-E	-1876 / 0	-78.0	-78.0	0.22 (1)	4.93	C-P	-337 / 0	0.13 (1)	
E-F	-1460 / 0	-78.0	-78.0	0.31 (1)	5.09	P-D	0 / 209	0.05 (4)	
F-G	-1275 / 0	-78.0	-78.0	0.39 (1)	5.51	D-O	-327 / 0	0.44 (1)	
G-H	-1483 / 0	-78.0	-78.0	0.39 (1)	4.96	O-E	0 / 481	0.11 (1)	
H-I	-1837 / 0	-78.0	-78.0	0.44 (1)	4.52	E-N	0 / 142	0.03 (1)	
I-A	-1419 / 0	0.0	0.0	0.14 (1)	6.84	N-F	0 / 1263	0.28 (1)	
J-K	-1449 / 0	0.0	0.0	0.15 (1)	6.79	F-M	-1958 / 0	0.89 (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. GIG

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 S85-09, CSA S86-14
- 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) = $L/360$ (1.03")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.11")
ALLOWABLE DEFL.(TL) = $L/360$ (1.03")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.22")

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) = $L/889$ (0.32")

CSI: TC=0.44/1.00 (H-I), BC=0.38/1.00 (P-Q), WB=0.88/1.00 (F-M), SSI=0.19/1.00 (H-I)

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		SHEAR		SECTION	
PLATE	GRIP(DRY)	(PLI)		(PLI)	
	(PSI)	MAX	MIN	MAX	MIN
MT20	618	354	1567	733	1987 1656

PLATE PLACEMENT TOL = 0.250 inches

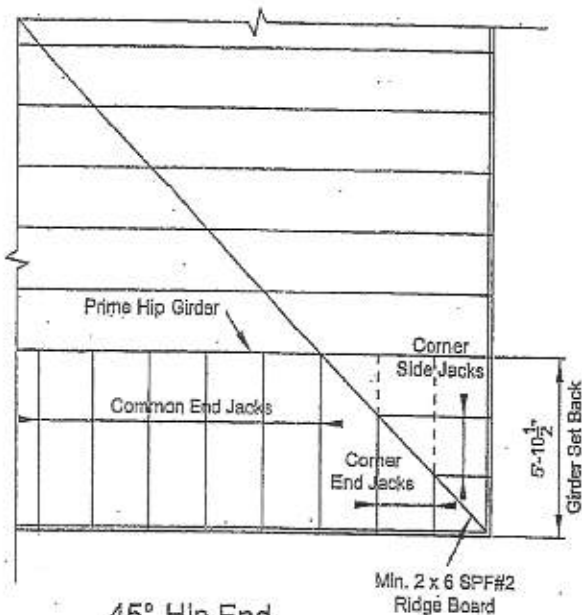
PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.88 (L) (INPUT = 0.90)
JSI METAL= 0.58 (L) (INPUT = 1.00)

A-18023132 CONTINUED ON PAGE 2



STRACON ENGINEERING INC.



45° Hip End

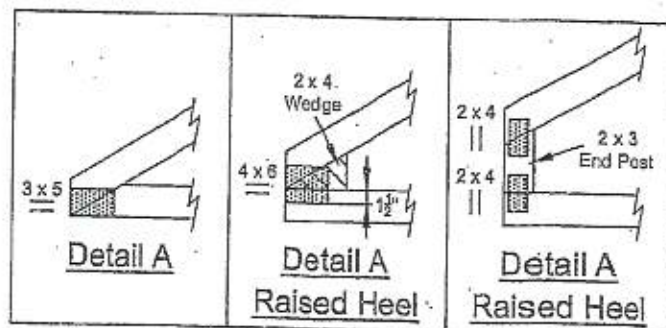
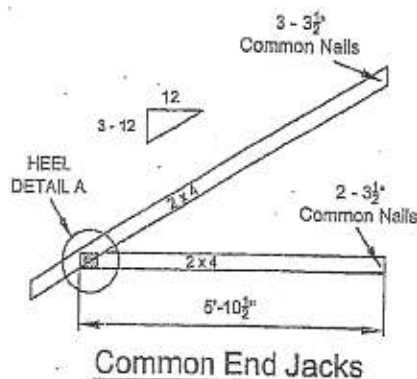
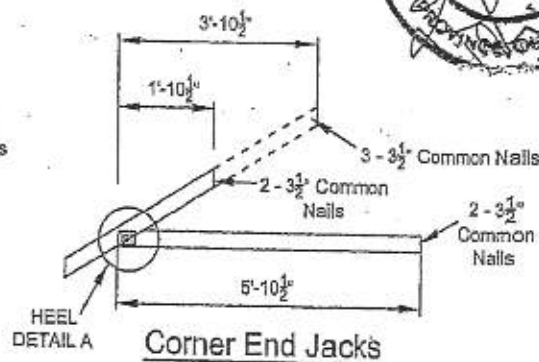
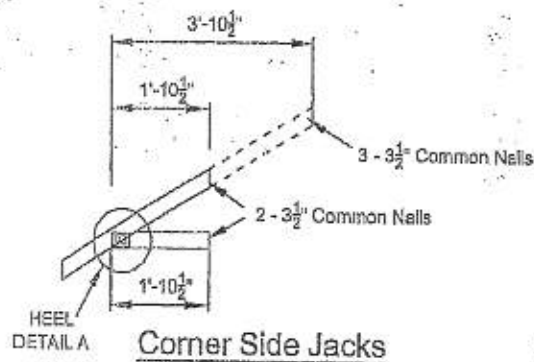
LUMBER SPECIFICATION

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

DESIGN LOAD

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

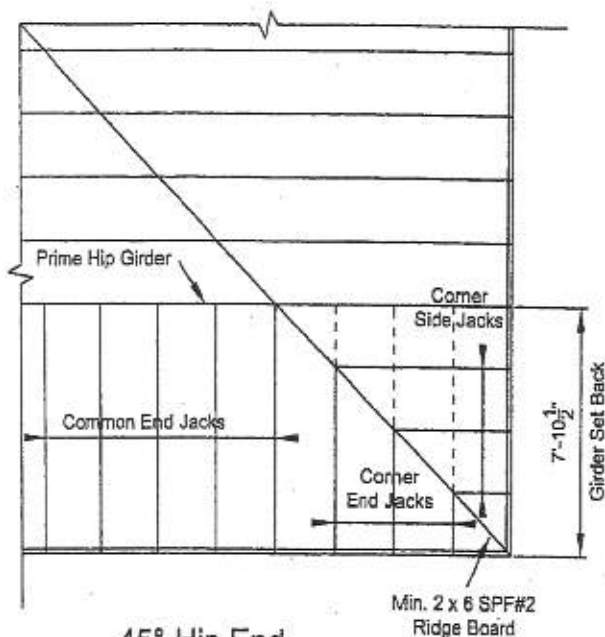
TOTAL LOAD : 50.5 P.S.F



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

CS-51008

STRACON ENGINEERING INC.



45° Hip End

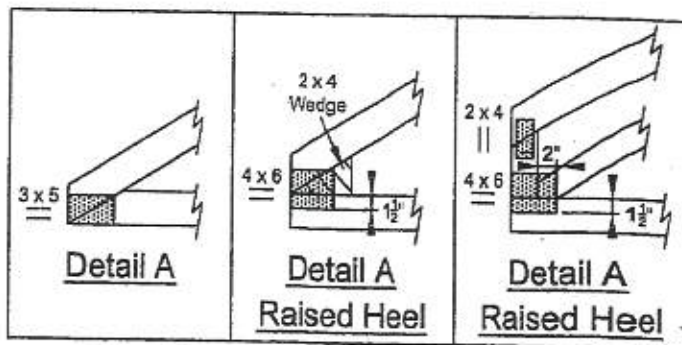
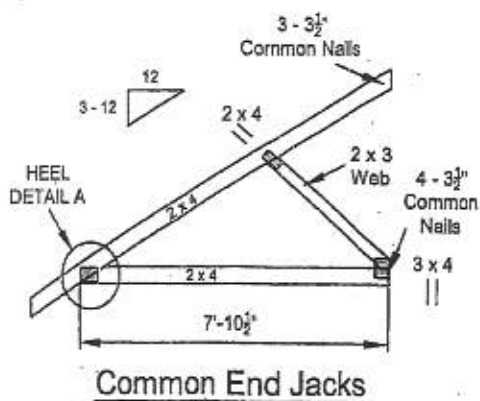
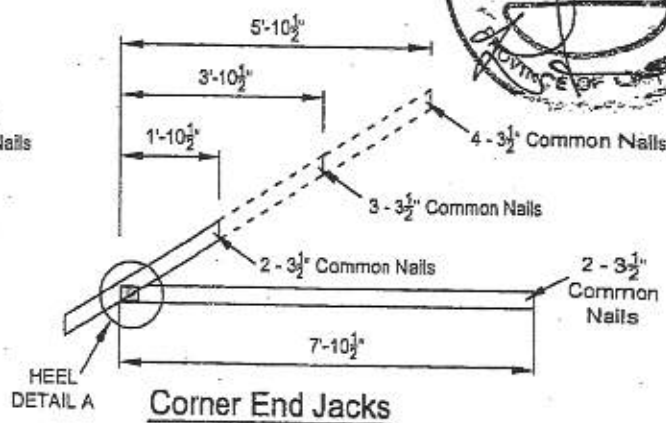
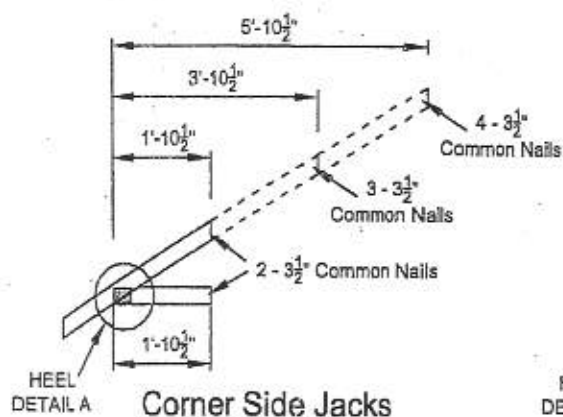
LUMBER SPECIFICATION

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 : 34.8 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 : 44.8 P.S.F.



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

CS-71008N

Material: 18 gauge

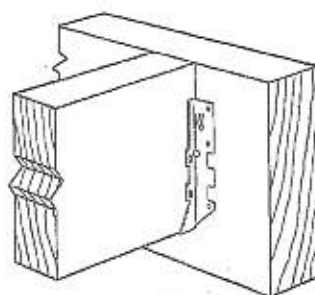
Finish: G90 galvanized

Design:

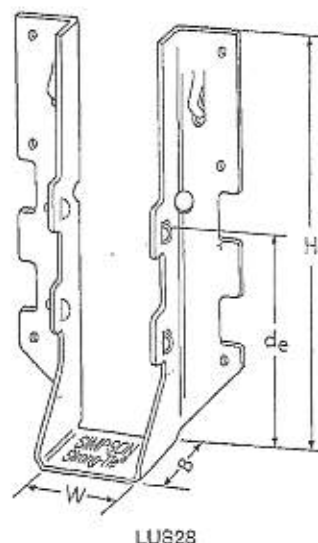
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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



Typical LUS Installation

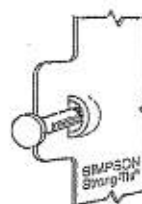


Options:

- These hangers cannot be modified

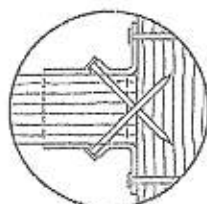
Model No.	Ga.	Dimensions (In.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g ¹	Pace	Joist	D.Fir-L		S-P-F	
								Uplift (K _E =1.15)	Normal (K _E =1.00)	Uplift (K _E =1.15)	Normal (K _E =1.00)
LUS24	18	1 1/8	3 1/2	1 1/4	1 1/8	(4) 10d	(2) 10d	710	1530	645	1155
LUS24-2	18	3 1/8	3 1/2	2	1 1/8	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 1/8	4 1/4	1 1/4	3/4	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 1/4	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 5/8	4 1/4	2	3/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 1/8	6 1/4	1 1/4	3/4	(5) 10d	(5) 10d	1420	2520	1290	1790
LUS28-2	18	3 1/8	7	2	4	(5) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4 5/8	6 1/4	2	3/4	(5) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 1/8	7 1/8	1 1/4	3/4	(5) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3 1/8	9	2	6	(5) 16d	(5) 16d	2560	4500	2320	3195
LUS210-3	18	4 5/8	8 1/4	2	5/4	(5) 16d	(5) 16d	2560	3345	2320	2375

1. d_0 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:
6,603,580



Double
Shear
Nailing
Top View

LIMIT
STATES
DESIGN

The technical information is current as of June 30, 2019, and should not be relied upon as of November 1, 2019. This information is updated periodically and should not be relied upon after June 30, 2019. Contact Simpson Strong-Tie for current information and for a warranty. To see all of our products, visit www.simpsonstrongtie.com.

J-SPECUS1743/17 6XP 6/19

(800) 999-5099
strongtie.com

HHUS – Double Shear Joist Hangers

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

Material: 14 gauge

Finish: G90 galvanized

Design:

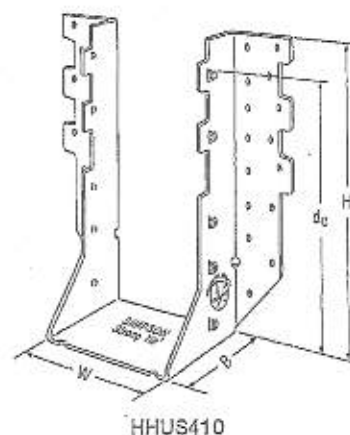
- Factored resistances are in accordance with CSA O85-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

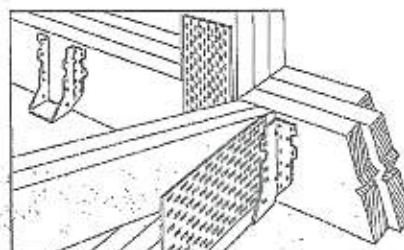
- Use all specified fasteners
- Nails: 16d = 0.132" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

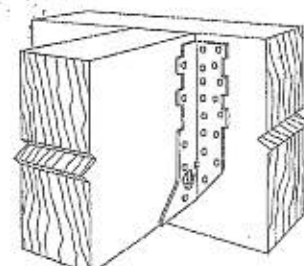
- See current catalogue for options



HHUS410

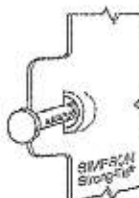


Typical HHUS Installation
(Truss Designer to provide
fastener quantity for connecting
multiple members together)

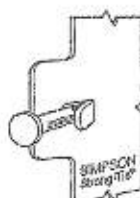
Typical HHUS
Installation

Model No.	Ga.	Dimensions (in.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁		Face	Joist	D.Fir-L		S-P-F	
									Uplift (K ₁ =1.15)	Normal (K ₂ =1.00)	Uplift (K ₁ =1.15)	Normal (K ₂ =1.00)
HHUS26-2	14	3 1/2	5 1/2	3	3 1/4		(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 1/2	7 1/2	3	6 1/2		(22) 16d	(8) 16d	3765	8945	2875	6345
HHUS210-2	14	3 1/2	9 1/2	3	8		(30) 16d	(10) 16d	4745	9660	4310	7000
HHUS210-3	14	4 1/2	9	3	7 1/4		(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS210-4	14	5 1/2	8 1/2	3	7 1/2		(30) 16d	(10) 16d	4745	10545	4310	7485
HHUS46	14	3 3/4	5 1/2	3	3 1/4		(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 3/4	7 1/2	3	6 1/2		(22) 16d	(8) 16d	3765	8945	2267	6345
HHUS410	14	3 3/4	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 1/2	7 1/2		(30) 16d	(10) 16d	4745	10770	4310	7660

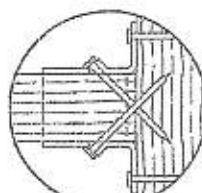
1. d₁ is the distance from the seat of the hanger to the highest joist nail.



Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,560



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



Double Shear Nailing Top View.



This technical bulletin is effective from June 30, 2015, and is subject to change without notice. For more information, visit www.simpsonstrongtie.com.
Contact Simpson Strong-Tie for more information and limited warranty details at www.simpsonstrongtie.com.

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1-SPEC-HHUS17-9/17-exp: 6/18

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