

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (latest Edition) ROOF RALTERS THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPC #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 Track:	45147
Layout ID:	291805
Plan Log:	95233

Builder / Location: GOLD PARK HOMES / VAUGHAN

Project: PINE VALLEY

Date: 1/17/2018	Designer: AMANDA
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THESE DRAWINGS INSTITUTE 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.

EDGE R2C0K	GE OPT LOG IN
Model / Elevator:	
4005	/ B OR OPT 5 BDRM

ALL CONV. FRAMING TO CONFORM WITH PART 9 OF O.B.C. (Latest Edition) ROOF RATTERS THAT CROSS MEET OVER TRUSSES TO BE 2x4 SPT #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'



4005 REV1

/B OPT TRAY LOGICA

OR OPT 56027 OR OPT

Job Track	45147
Layout ID:	292585
Plan Log:	95914

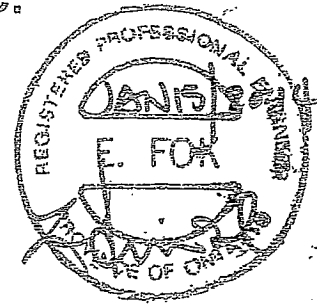
Barrier / Location	
GOLD P	
Project	PINE
Date:	1/17/2011

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

THESE DRAWINGS CONSTITUTE THE PROPERTY OF ALFA 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 ALFA ROOF TRUSSES INC AND WILL BE RETRACTED BY ALFA 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-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.

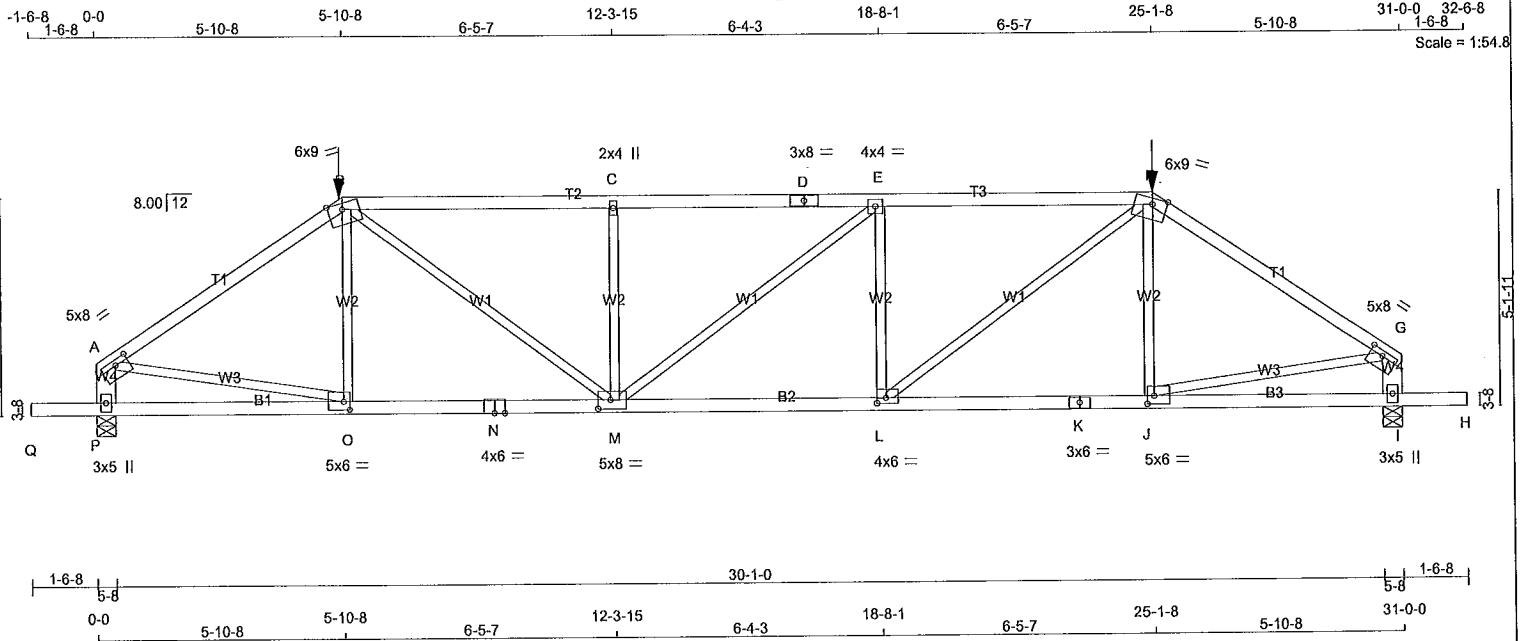
January 15, 2014

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292570	H1	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:84gOFYESM8s1JmDO6_uSGRyQWjP-C2Aty3pdWEvgEuD9uiGwu15gTqA91bKrrBOYhBzky3V



TOTAL WEIGHT = 123 lb

LUMBER	SIZE	DESCR.
N. L. G. A. RULES		
CHORDS		
A - B	2x4 DRY	SPF
B - D	2x4 DRY	SPF
D - F	2x4 DRY	SPF
F - G	2x4 DRY	SPF
P - A	2x6 DRY	SPF
I - G	2x6 DRY	SPF
Q - N	2x4 DRY	SPF
N - K	2x4 DRY	SPF
K - H	2x4 DRY	SPF
ALL WEBS EXCEPT	2x3 DRY	SPF
DRY: SEASONED LUMBER.		

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE PLATES				
A TMVW-t MT20	5.0	8.0	1.50	3.75
B TTWW-m MT20	6.0	9.0	1.75	4.00
C TMW-w MT20	2.0	4.0		
D TS-t MT20	3.0	8.0		
E TMWW-t MT20	4.0	4.0		
F TTWW-m MT20	6.0	9.0	1.75	4.00
G TMVW-t MT20	5.0	8.0	1.50	3.75
I BMV1+p MT20	3.0	5.0		
J BMWW-t MT20	5.0	6.0	2.25	1.75
K BS-t MT20	3.0	6.0		
L BMWW-t MT20	4.0	6.0	1.50	2.50
M BMWWW-t MT20	5.0	8.0	2.50	3.50
N BS-t MT20	4.0	6.0		
O BMWW-t MT20	5.0	6.0	2.25	1.75
P BMV1+p MT20	3.0	5.0		

HANGERS NOTES

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

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
P	2983	0	5-8	3-15
I	2983	0	5-8	3-15

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT COMBINED	SNOW	PERM.LIVE		
P	2129	1287 / 0	0 / 0	842 / 0
I	2129	1287 / 0	0 / 0	842 / 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 = 2.98 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	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO									
A-B	-3695 / 0	-78.0	-78.0	0.74 (1)	3.56	O-B	-211 / 102	0.09 (1)	
B-C	-4787 / 0	-153.5	-153.5	0.97 (1)	2.99	B-M	0 / 2150	0.53 (1)	
C-D	-4787 / 0	-153.5	-153.5	0.96 (1)	2.98	M-C	-1064 / 0	0.43 (1)	
D-E	-4787 / 0	-153.5	-153.5	0.96 (1)	2.98	M-E	-1 / 0	0.00 (1)	
E-F	-4787 / 0	-153.5	-153.5	0.97 (1)	2.98	L-E	-1064 / 0	0.43 (1)	
F-G	-3695 / 0	-78.0	-78.0	0.74 (1)	3.56	L-F	0 / 2151	0.53 (1)	
P-A	-2747 / 0	0.0	0.0	0.20 (1)	6.26	J-F	-212 / 103	0.09 (1)	
I-G	-2747 / 0	0.0	0.0	0.20 (1)	6.26	A-O	0 / 3105	0.77 (1)	
						J-G	0 / 3105	0.77 (1)	
Q-P	0 / 0	-96.5	-96.5	0.17 (1)	10.00				
P-O	0 / 0	-36.4	-36.4	0.36 (4)	10.00				
O-N	0 / 3066	-36.4	-36.4	0.74 (1)	10.00				
N-M	0 / 3066	-36.4	-36.4	0.74 (1)	10.00				
M-L	0 / 4788	-36.4	-36.4	0.99 (1)	10.00				
L-K	0 / 3066	-36.4	-36.4	0.74 (1)	10.00				
K-J	0 / 3066	-36.4	-36.4	0.74 (1)	10.00				
J-I	0 / 0	-36.4	-36.4	0.36 (4)	10.00				
I-H	0 / 0	-96.5	-96.5	0.17 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE
JT	5-10-8	-334	-334	---	FRONT	VERT	TOTAL
F	25-1-8	-334	-334	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHlp
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.

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/999 (0.20")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/872 (0.43")

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=0.97/1.00 (E-F:1), BC=0.99/1.00 (L-M:1), WB=0.77/1.00 (A-O:1), SS=0.50/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

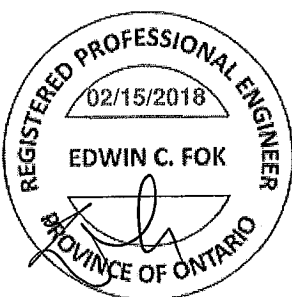
AUTOSOLVE HEELS OFF

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

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

A-18023083

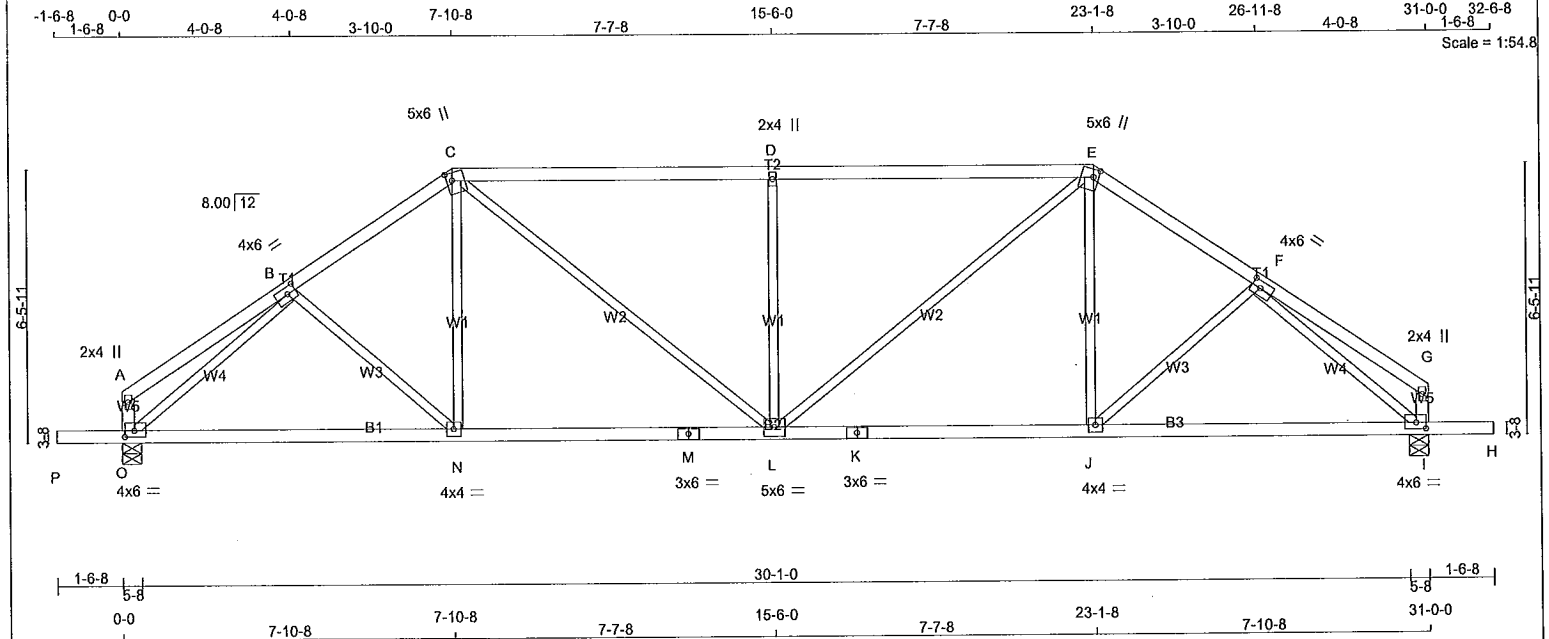
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292570	H2	1	1	TRUSS DESC.	

Alpha Roof Truss, Maple

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ID:84gOFYESM8s1JmDO6_uSGRyQWJP-VO5XQS0tNogazFVpguZgWuxzfiA8tSnbQQHzky3O



TOTAL WEIGHT = 126 lb (M/F)

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

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	6.0	2.00	2.50	
C	TTWW+m	MT20	5.0	6.0	2.25	1.50	
D	TMW+w	MT20	2.0	4.0			
E	TTWW+m	MT20	5.0	6.0	2.25	1.50	
F	TMWW-t	MT20	4.0	6.0	2.00	2.50	
G	TMV+p	MT20	2.0	4.0			
I	BMVW1-t	MT20	4.0	6.0	1.75	2.75	
J	BMWW-t	MT20	4.0	4.0			
K	BS-t	MT20	3.0	6.0			
L	BMWW-t	MT20	5.0	6.0			
M	BS-t	MT20	3.0	6.0			
N	BMWW-t	MT20	4.0	4.0			
O	BMVW1-t	MT20	4.0	6.0	1.75	2.75	

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQ'D BRG
JT	VERT	DOWN	IN-SX	IN-SX
O	1644	0	5-8	1-12
I	1644	0	5-8	1-12

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN, COMPONENT REACTIONS	FACTORED	MAXIMUM FACTORED	INPUT	REQ'D
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
O	1172	715/0	0/0	0/0	457/0
I	1172	715/0	0/0	0/0	457/0

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	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED VERT. LOAD LC1 (LC)	MAX. UNBRACED LENGTH (FR-TO)	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED VERT. LOAD LC1 (LC)	MAX. UNBRACED 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	-1753/0	-78.0	-78.0	0.17 (1)	4.90	N-C	0/188	0.06 (4)			
C-D	-1973/0	-78.0	-78.0	0.70 (1)	3.96	C-L	0/681	0.15 (1)			
D-E	-1973/0	-78.0	-78.0	0.70 (1)	3.96	L-D	-732/0	0.50 (1)			
E-F	-1753/0	-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-E	0/188	0.06 (4)			
O-A	-121/0	0.0	0.0	0.01 (1)	7.81	J-F	-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	-96.5	-96.5	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	-96.5	-96.5	0.16 (1)	10.00						

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.17")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL)= L/999 (0.01")
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), WB=0.89/1.00 (F-I:1), SSI=0.29/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

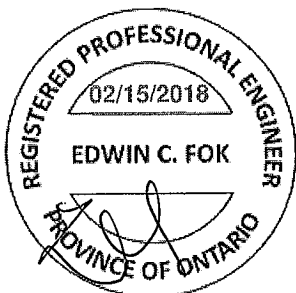
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

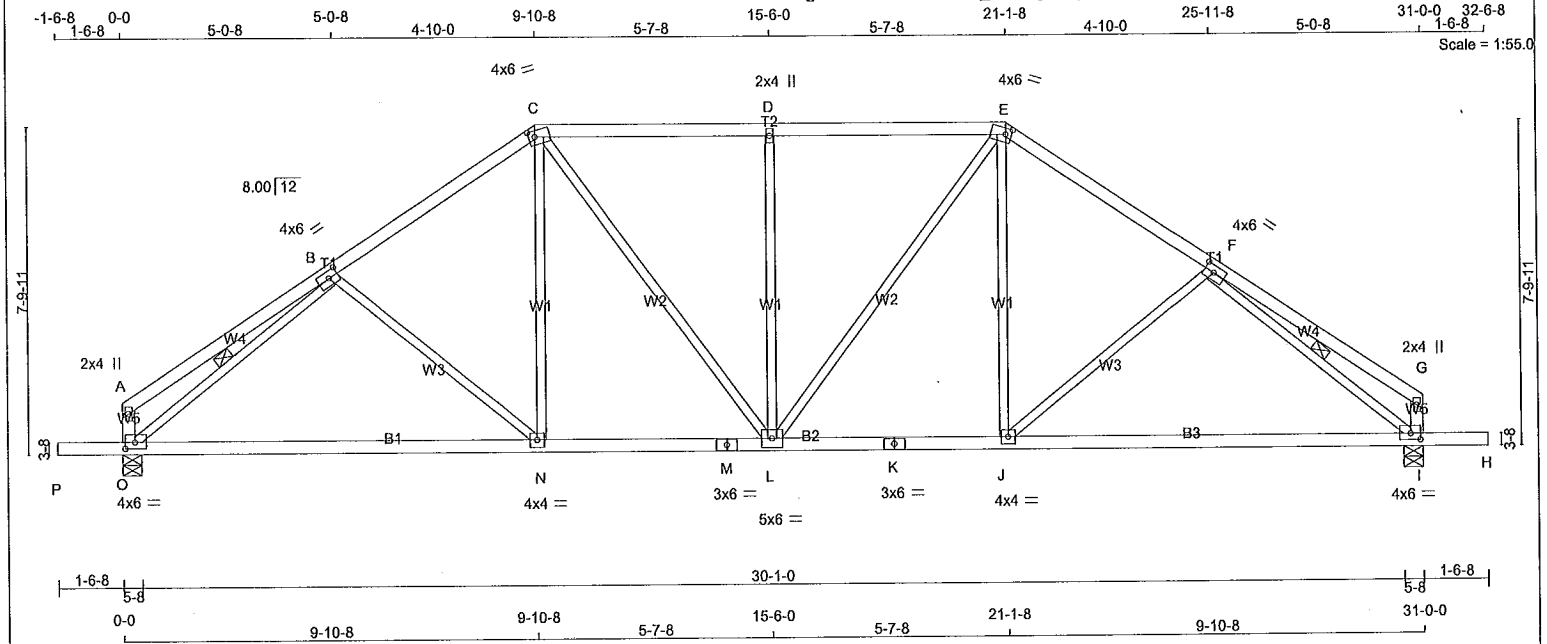
PLATE ROTATION TOL. = 5.0 Deg.

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

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



A-18023084

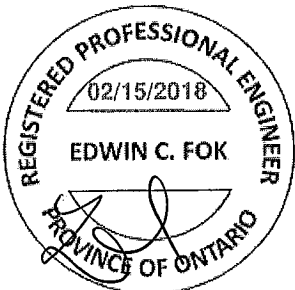


LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
E - G	2x4	DRY	No.2	SPF
O - A	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
P - M	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
K - H	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMV+p	MT20	2.0	4.0	
B	TMVW-t	MT20	4.0	6.0	2.00 2.75
C	TTWW-m	MT20	4.0	6.0	1.75 1.75
D	TMV+w	MT20	2.0	4.0	
E	TTWW-m	MT20	4.0	6.0	1.75 1.75
F	TMVW-t	MT20	4.0	6.0	2.00 2.75
G	TMV+p	MT20	2.0	4.0	
I	BMVW1-t	MT20	4.0	6.0	1.75 2.75
J	BMVW1-t	MT20	4.0	4.0	
K	BS-t	MT20	3.0	6.0	
L	BMVWVW-t	MT20	5.0	6.0	
M	BS-t	MT20	3.0	6.0	
N	BMVWV-t	MT20	4.0	4.0	
O	BMVW1-t	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	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
O	1644	0	1644	0	0	5-8	1-12
I	1644	0	1644	0	0	5-8	1-12

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1172	715 / 0	0 / 0	0 / 0	0 / 0	457 / 0	0 / 0
	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 = 4.88 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-O, F-I.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED (LBS)	FACTORED VERT. LOAD (PLF)	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0/24	-78.0	-78.0 0.30 (1)	10.00	B-N	-176/0	0.14 (1)
B-C	-1662/0	-78.0	-78.0 0.27 (1)	4.89	N-C	0/307	0.08 (4)
C-D	-1579/0	-78.0	-78.0 0.35 (1)	4.88	C-L	0/356	0.08 (1)
D-E	-1579/0	-78.0	-78.0 0.35 (1)	4.88	L-D	-536/0	0.61 (1)
E-F	-1662/0	-78.0	-78.0 0.27 (1)	4.89	L-E	0/356	0.08 (1)
F-G	0/24	-78.0	-78.0 0.30 (1)	10.00	J-E	0/307	0.08 (4)
O-A	-148/0	0.0	0.0 0.02 (1)	7.81	J-F	-176/0	0.14 (1)
I-G	-148/0	0.0	0.0 0.02 (1)	7.81	O-B	-1964/0	0.56 (1)
					F-I	-1964/0	0.56 (1)
P-O	0/0	-96.5	-96.5 0.16 (1)	10.00			
O-N	0/1496	-18.5	-18.5 0.54 (4)	10.00			
N-M	0/1365	-18.5	-18.5 0.54 (4)	10.00			
M-L	0/1365	-18.5	-18.5 0.54 (4)	10.00			
L-K	0/1365	-18.5	-18.5 0.54 (4)	10.00			
K-J	0/1365	-18.5	-18.5 0.54 (4)	10.00			
J-I	0/1496	-18.5	-18.5 0.54 (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, 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.(L)= L/360 (1.03")
CALCULATED VERT. DEFL.(L) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.31")

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=0.35/1.00 (C-D:1), BC=0.54/1.00 (J-L:4),
WB=0.61/1.00 (D-L:1), SSI=0.21/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

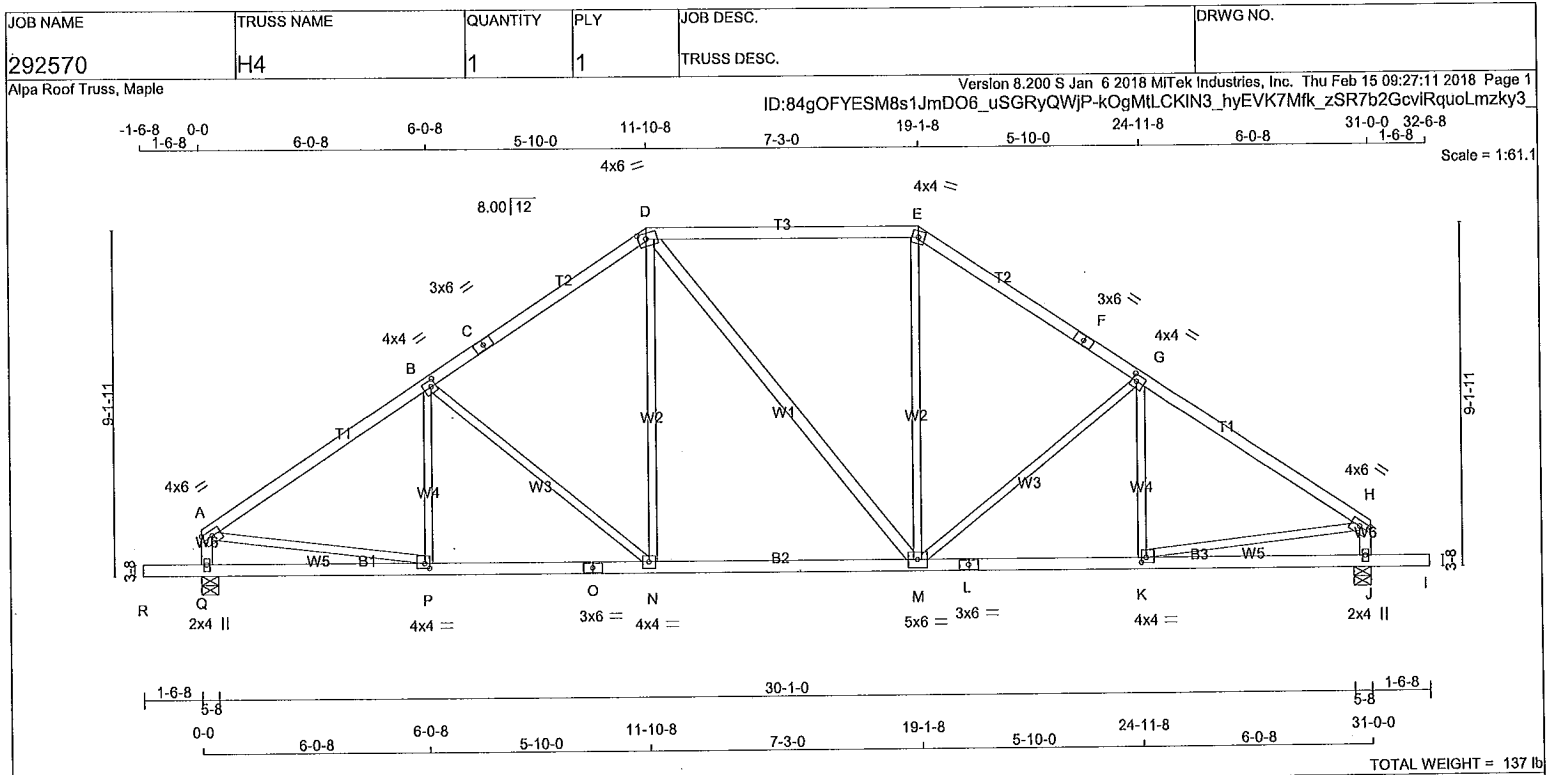
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (B) (INPUT = 0.90)
JSI METAL= 0.47 (F) (INPUT = 1.00)

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 - L	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.			

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
Q	1644	0	1644	0	0	5-8	2-7		
J	1644	0	1644	0	0	5-8	2-7		

UNFACTORED REACTIONS

1ST LCASE		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		FACTORED		WEBS		MAX. FACTORED	
		MEMB.		FORCE				FORCE	
		(LBS)		VERT. LOAD LC1		MAX. UNBRAC		MAX. CSi (LC)	
				(PLF)		LENGTH FR-TO			
A-B	-1836 / 0	-78.0	-78.0	0.44 (1)	4.52	P-B	-115 / 45	0.05 (1)	
B-C	-1528 / 0	-78.0	-78.0	0.40 (1)	4.89	B-N	-402 / 0	0.49 (1)	
C-D	-1528 / 0	-78.0	-78.0	0.40 (1)	4.89	N-D	0 / 379	0.09 (1)	
D-E	-1249 / 0	-78.0	-78.0	0.36 (1)	6.25	D-M	0 / 0	0.00 (1)	
E-F	-1528 / 0	-78.0	-78.0	0.40 (1)	4.89	M-E	0 / 379	0.09 (1)	
F-G	-1528 / 0	-78.0	-78.0	0.40 (1)	4.89	M-G	-401 / 0	0.49 (1)	
G-H	-1835 / 0	-78.0	-78.0	0.44 (1)	4.52	K-G	-116 / 44	0.05 (1)	
Q-A	-1448 / 0	0.0	0.0	0.15 (1)	6.79	A-P	0 / 1570	0.35 (1)	
J-H	-1448 / 0	0.0	0.0	0.15 (1)	6.79	K-H	0 / 1570	0.35 (1)	
R-Q	0 / 0	-96.5	-96.5	0.16 (1)	10.00				
Q-P	0 / 0	-18.5	-18.5	0.14 (4)	10.00				
P-O	0 / 1553	-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	-96.5	-96.5	0.16 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C/C

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

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

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

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (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/999 (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), VB=0.49/1.00 (B-N:1), SSI=0.22/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

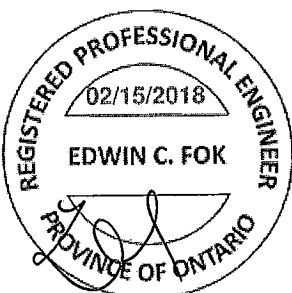
PLATE ROTATION TOL. = 5.0 Deg.

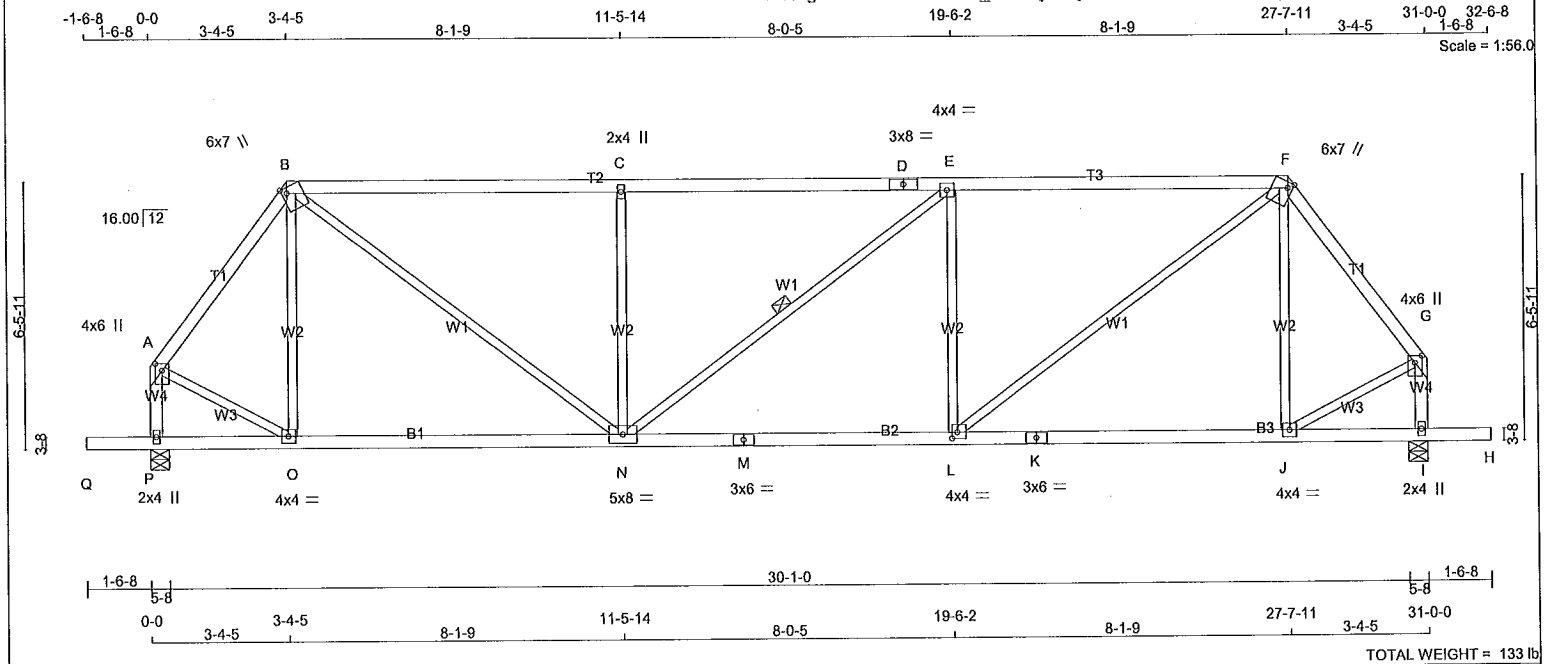
JSI GRIP= 0.89 (P) (INPUT = 0.90)
JSI METAL= 0.58 (P) (INPUT = 1.00)

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





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

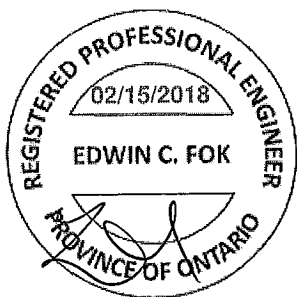
ALL WEBS 2x3 DRY
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
A	TMWV+p	MT20	4.0	6.0	2.00	2.00
B	TTWV+m	MT20	6.0	7.0	Edge	1.50
C	TMWV+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	8.0		
E	TMWVW-t	MT20	4.0	4.0		
F	TTWV+m	MT20	6.0	7.0	Edge	1.50
G	TMWV+p	MT20	4.0	6.0	2.00	2.00
I	BMV1+p	MT20	2.0	4.0		
J	BMWVW-t	MT20	4.0	4.0		
K	BS-t	MT20	3.0	6.0		
L	BMWVW-t	MT20	4.0	4.0	1.75	1.50
M	BS-t	MT20	3.0	6.0		
N	BMWVWVW-t	MT20	5.0	8.0		
O	BMWVW-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			MAXIMUM FACTORED			INPUT	REQD
GROSS REACTION			GROSS REACTION			BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
P	1644	0	1644	0	0	5-8	2-7
I	1644	0	1644	0	0	5-8	2-7

UNFACTORED REACTIONS

UNFACTORED REACTIONS		MAX./MIN. COMPONENT REACTIONS					
JT	1ST LCASE 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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LBS)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	-1256 / 0	-78.0	-78.0 0.19 (1)	5.54	O-B	-219 / 2	0.15 (1)
B-C	-1844 / 0	-78.0	-78.0 0.99 (1)	3.69	B-N	0 / 1378	0.31 (1)
C-D	-1844 / 0	-78.0	-78.0 0.99 (1)	3.67	N-C	-680 / 0	0.46 (1)
D-E	-1844 / 0	-78.0	-78.0 0.99 (1)	3.67	N-E	-1 / 0	0.00 (1)
E-F	-1845 / 0	-78.0	-78.0 1.00 (1)	3.67	L-E	-680 / 0	0.46 (1)
F-G	-1256 / 0	-78.0	-78.0 0.19 (1)	5.54	L-F	0 / 1379	0.31 (1)
P-A	-1487 / 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	-96.5	-96.5 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, 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/ 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")

CSI: TC=1.00/1.00 (E-F:1), BC=0.43/1.00 (L-N:1),
WB=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 .

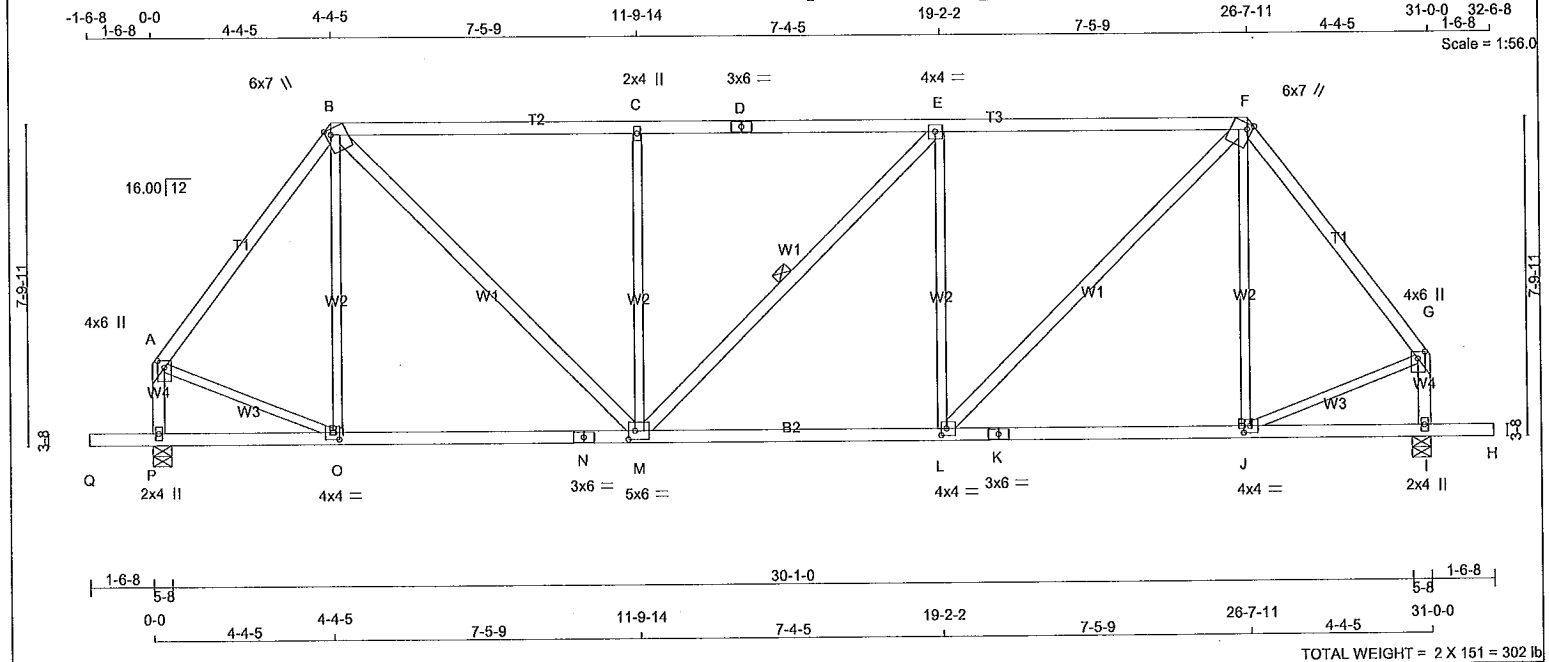
NAIL VALUES				
PLATE	GRIP(DRY)		SHEAR SECTION	
	(PSI)		(PLI)	
	MAX	MIN	MAX	MIN
MT20	618	354	1667	788
			1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (L) (INPUT = 0.90)
JSI METAL= 0.64 (M) (INPUT = 1.00)

A-18023088



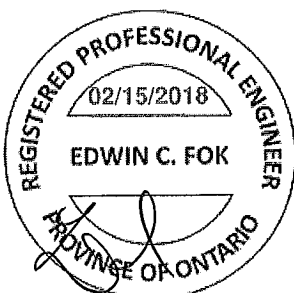
<u>LUMBER</u>				
N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - G	2x4	DRY	No.2	SPF
P - A	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
Q - N	2x4	DRY	No.2	SPF
N - K	2x4	DRY	No.2	SPF
K - H	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
B - M	2x4	DRY	No.2	SPF
M - E	2x4	DRY	No.2	SPF
L - F	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMWV+p	MT20	4.0	6.0	2.00 2.00
B	TTWV+m	MT20	6.0	7.0	Edge 1.50
C	TMWV+w	MT20	2.0	4.0	
D	TS-t	MT20	3.0	6.0	
E	TMWV-t	MT20	4.0	4.0	
F	TTWV+m	MT20	6.0	7.0	Edge 1.50
G	TMWV+p	MT20	4.0	6.0	2.00 2.00
I	BMV1+p	MT20	2.0	4.0	
J	BMWV-t	MT20	4.0	4.0	2.00 1.75
K	BS-t	MT20	3.0	6.0	
L	BMWV-t	MT20	4.0	4.0	2.00 1.50
M	BMWVWV-t	MT20	5.0	6.0	2.50 2.00
N	BS-t	MT20	3.0	6.0	
O	BMWV-t	MT20	4.0	4.0	2.00 1.75
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 GROSS REACTION			MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
P	1644	0	1644	0	0	5-8	2-7
I	1644	0	1644	0	0	5-8	2-7

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT 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 = 4.35 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY
APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEB S				
MAX. FACTORED		FACTORED		MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1 MAX	MAX.	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM TO		LENGTH	FR-TO			
A-B	-1277 / 0	-78.0	-78.0	0.33 (1)	5.35	O-B	-151 / 28	0.17 (1)
B-C	-1521 / 0	-78.0	-78.0	0.74 (1)	4.36	B-M	0 / 1077	0.17 (1)
C-D	-1521 / 0	-78.0	-78.0	0.74 (1)	4.35	M-C	-624 / 0	0.71 (1)
D-E	-1521 / 0	-78.0	-78.0	0.74 (1)	4.35	M-E	-1 / 0	0.00 (1)
E-F	-1522 / 0	-78.0	-78.0	0.75 (1)	4.35	L-E	-624 / 0	0.71 (1)
F-G	-1277 / 0	-78.0	-78.0	0.33 (1)	6.15	L-F	0 / 1078	0.17 (1)
P-A	-1469 / 0	0.0	0.0	0.17 (1)	5.75	J-F	-152 / 28	0.17 (1)
I-G	-1469 / 0	0.0	0.0	0.17 (1)	6.75	A-O	0 / 810	0.18 (1)
						J-G	0 / 810	0.18 (1)

Q-P	0/0	-98.5	-96.5	0.16 (1)	10.00
P-O	0/0	-18.5	-18.5	0.16 (4)	10.00
O-N	0/760	-18.5	-18.5	0.27 (4)	10.00
N-M	0/760	-18.5	-18.5	0.27 (4)	10.00
M-L	0/1522	-18.5	-18.5	0.38 (1)	10.00
L-K	0/760	-18.5	-18.5	0.27 (4)	10.00
K-J	0/760	-18.5	-18.5	0.27 (4)	10.00
J-I	0/0	-18.5	-18.5	0.16 (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, 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/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
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=0.75/1.00 (E-F:1), BC=0.36/1.00 (L-M:1),
WB=0.71/1.00 (E-L:1), SSI=0.27/1.00 (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.

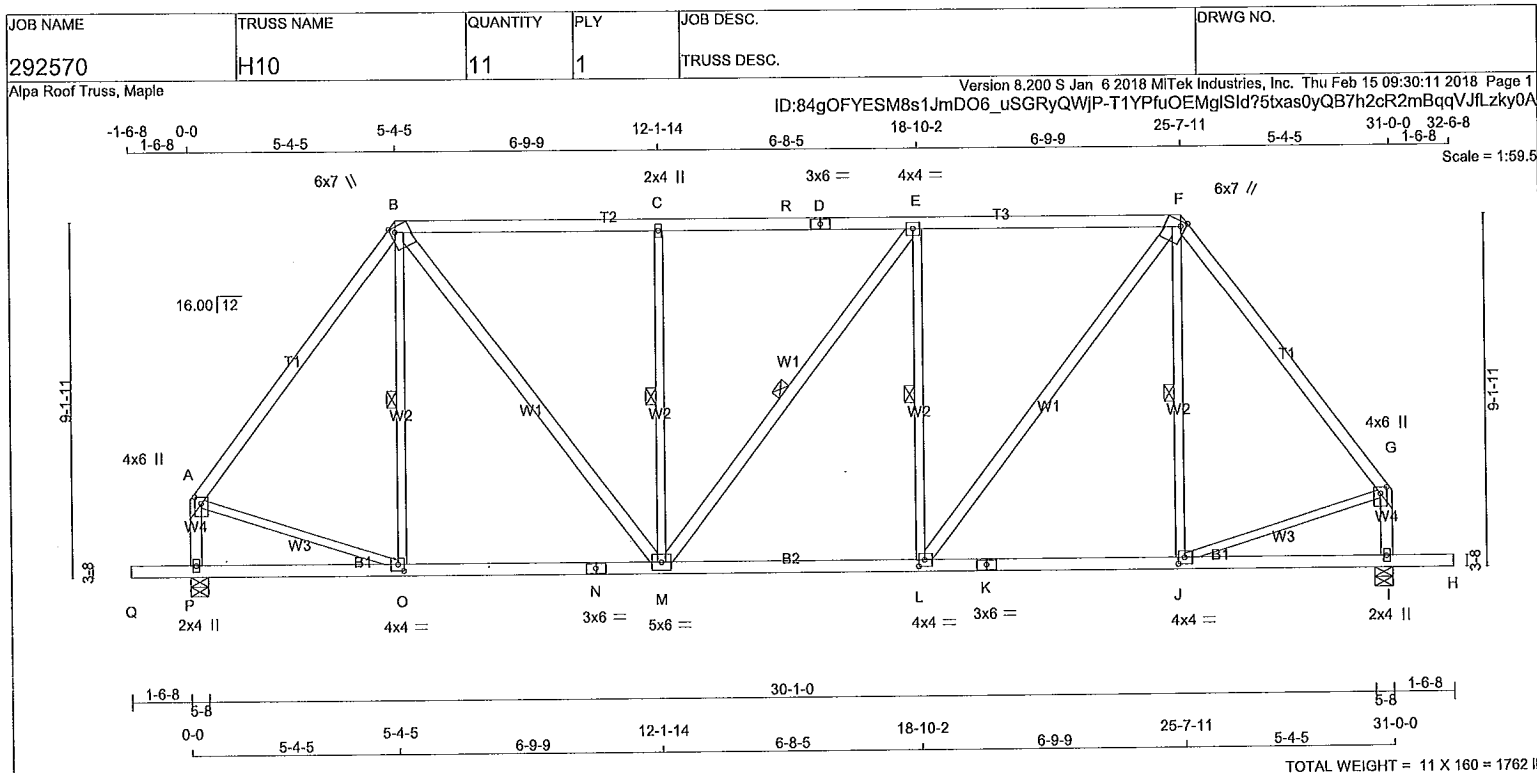
NAIL VALUES					
PLATE	GRIP(DRY)		SHEAR		SECTION
	(PSI)		(PLI)		(PLI)
	MAX	MIN	MAX	MIN	MAX MIN
MT20	618	354	1667	788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (A) (INPUT = 0.90)
JSI META= 0.44 (A) (INPUT = 1.00)

A-18023089 CONTINUED ON PAGE 2



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

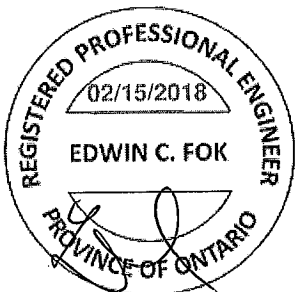
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	6.0	7.0	Edge	1.50
C	TMW+w	MT20	2.0	4.0		
D	TS-t	MT20	3.0	6.0		
E	TMWW-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, L, O						
K	BMWW-t	MT20	4.0	4.0	2.00	1.75
M	BS-t	MT20	3.0	6.0		
N	BMWWW-t	MT20	5.0	6.0		
P	BS-t	MT20	3.0	6.0		
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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UPLIFT
P	1720	0	1720	0
I	1720	0	1720	0

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1233	715 / 0	0 / 0	0 / 0	0 / 0	518 / 0	0 / 0
I	1233	715 / 0	0 / 0	0 / 0	0 / 0	518 / 0	0 / 0

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

BRACING

FOR SECTION B-F, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.22 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-O, C-M, E-M, E-L, F-J.

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

LOADING

TOTAL LOAD CASES: (4)

FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. (LC)	MAX. UNBRACED LENGTH	FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. (LC)
A-B	-1355 / 0	-78.0	-78.0	0.37 (1)	5.22	O-B	-112 / 36	0.06 (1)	
B-C	-1383 / 0	-85.5	-85.5	0.49 (1)	2.00	B-M	0 / 941	0.15 (1)	
C-R	-1383 / 0	-85.5	-85.5	0.45 (1)	2.00	M-C	-622 / 0	0.34 (1)	
R-D	-1383 / 0	-85.5	-85.5	0.45 (1)	2.00	M-E	-2 / 0	0.00 (1)	
D-E	-1383 / 0	-85.5	-85.5	0.45 (1)	2.00	L-E	-622 / 0	0.34 (1)	
E-F	-1384 / 0	-85.5	-85.5	0.49 (1)	2.00	L-F	0 / 944	0.15 (1)	
F-G	-1354 / 0	-78.0	-78.0	0.37 (1)	5.22	J-F	-113 / 36	0.06 (1)	
P-A	-1533 / 0	0.0	0.0	0.18 (1)	6.64	A-O	0 / 844	0.19 (1)	
I-G	-1533 / 0	0.0	0.0	0.18 (1)	6.64	J-G	0 / 843	0.19 (1)	

Q-P	0 / 0	-96.5	-96.5	0.16 (1)	10.00
P-O	0 / 0	-18.5	-18.5	0.16 (4)	10.00
O-N	0 / 808	-18.5	-18.5	0.25 (4)	10.00
N-M	0 / 808	-18.5	-18.5	0.25 (4)	10.00
M-L	0 / 1385	-18.5	-18.5	0.31 (1)	10.00
L-K	0 / 808	-18.5	-18.5	0.25 (4)	10.00
K-J	0 / 808	-18.5	-18.5	0.25 (4)	10.00
J-I	0 / 0	-18.5	-18.5	0.16 (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 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

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

CSI: TC=0.49/1.00 (E-F:1), BC=0.31/1.00 (L-M:1), WB=0.34/1.00 (E-L:1), SSI=0.27/1.00 (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 SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

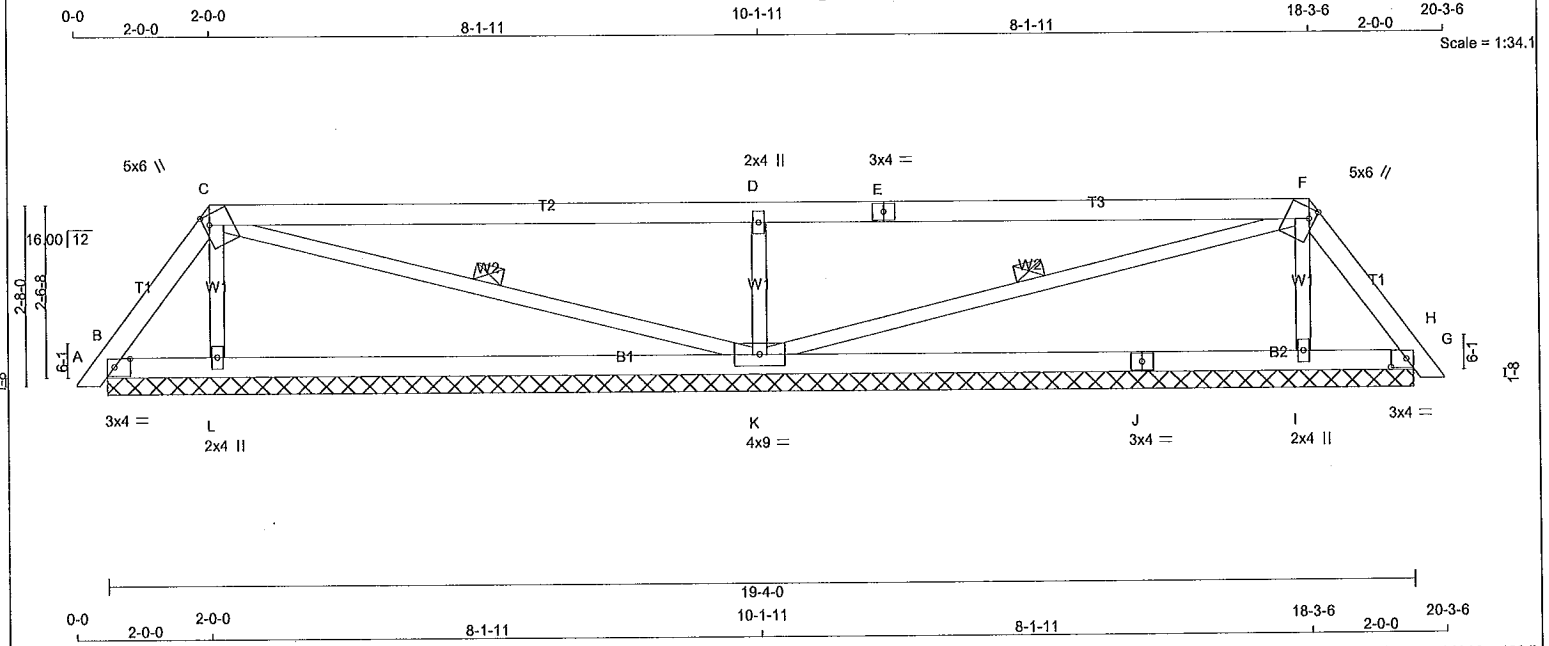
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)
JSI METAL= 0.47 (A) (INPUT = 1.00)

A-18023090

CONTINUED ON PAGE 2



<u>LUMBER</u>			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - E	2x4	DRY No.2	SPF
E - F	2x4	DRY No.2	SPF
F - H	2x4	DRY No.2	SPF
B - 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	PLATES			
B	TM81-l	MT20	3.0	4.0	1.50 2.75
C	TTWW+w	MT20	5.0	6.0	1.75 1.00
D	TMW+w	MT20	2.0	4.0	
E	TS-l	MT20	3.0	4.0	
F	TTWW+w	MT20	5.0	6.0	1.75 1.00
G	TM81-l	MT20	3.0	4.0	1.50 2.75
I	BMW1+w	MT20	2.0	4.0	
J	BS-l	MT20	3.0	4.0	
K	BMWVWV1-l	MT20	4.0	9.0	
L	BMW1+w	MT20	2.0	4.0	

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



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

BUILDING DESIGNER									
BEARINGS									
	FACTORED		MAXIMUM FACTORED			INPUT	REQRD		
	GROSS REACTION		GROSS REACTION			BRG	BRG		
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN- BX	IN- BX		
JT	139	0	139	0	0	19-4-0	(4-0-0)	-1-11-14	
L	344	0	344	0	0	19-4-0	(4-0-0)	-1-11-14	
K	953	0	953	0	0	19-4-0	(4-0-0)	-1-11-14	
I	344	0	344	0	0	19-4-0	(4-0-0)	-1-11-14	
G	139	0	139	0	0	19-4-0	(4-0-0)	-1-11-14	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	93	93 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
L	253	113 / 0	0 / 0	0 / 0	0 / 0	140 / 0	0 / 0
K	677	429 / 0	0 / 0	0 / 0	0 / 0	248 / 0	0 / 0
I	253	113 / 0	0 / 0	0 / 0	0 / 0	140 / 0	0 / 0
G	93	93 / 0	0 / 0	0 / 0	0 / 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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 10	-78.0	-78.0 0.01 (1)	10.00	L-C	-210 / 0	0.03 (1)
B-C	-104 / 0	-78.0	-78.0 0.03 (1)	6.25	C-K	-8 / 0	0.00 (1)
C-D	-41 / 0	-78.0	-78.0 0.88 (1)	6.25	K-D	-793 / 0	0.13 (1)
D-E	-43 / 0	-78.0	-78.0 0.88 (1)	6.25	K-F	-8 / 0	0.00 (1)
E-F	-43 / 0	-78.0	-78.0 0.88 (1)	6.25	I-F	-210 / 0	0.03 (1)
F-G	-104 / 0	-78.0	-78.0 0.03 (1)	6.25			
G-H	0 / 10	-78.0	-78.0 0.01 (1)	10.00			
B-L	0 / 80	-18.5	-18.5 0.19 (4)	10.00			
L-K	0 / 50	-18.5	-18.5 0.26 (4)	10.00			
K-J	0 / 50	-18.5	-18.5 0.26 (4)	10.00			
J-I	0 / 50	-18.5	-18.5 0.26 (4)	10.00			
I-G	0 / 80	-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=0.88/1.00 (D-F:1), BC=0.26/1.00 (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) (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= 0.64 (C) (INPUT = 0.90)
JSI METAL= 0.26 (E) (INPUT = 1.00)

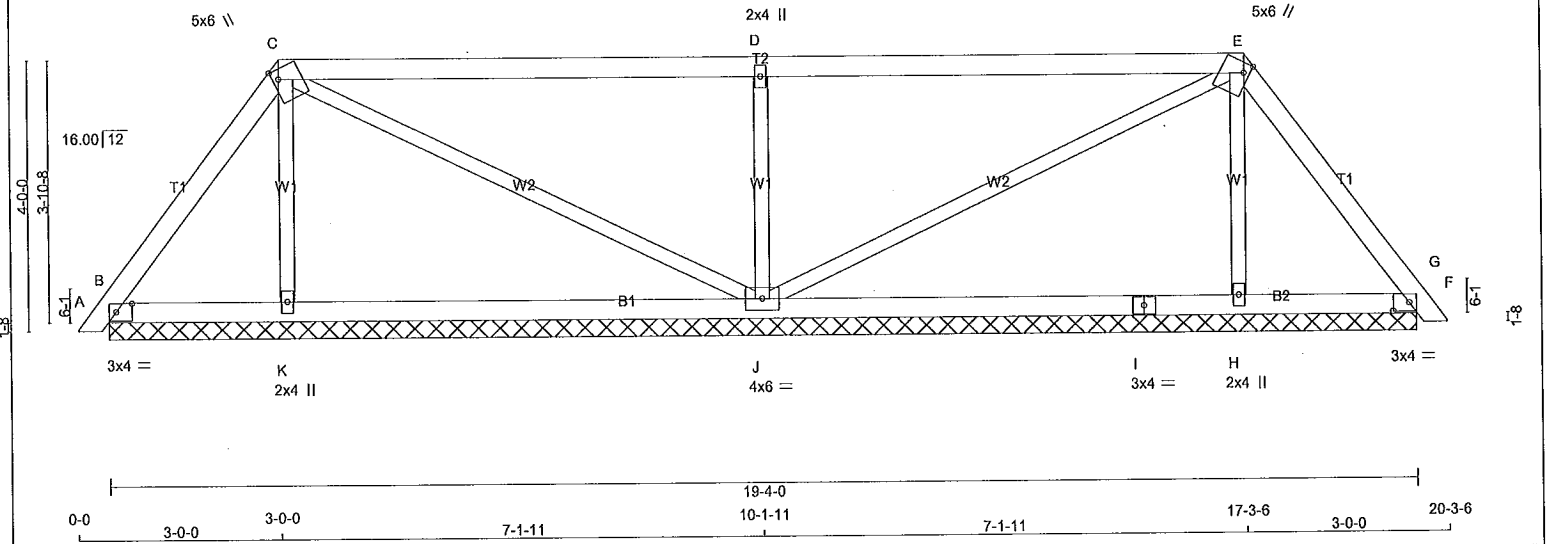
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292570	H12P	2	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 09:30:21 2018 Page 1
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0-0 3-0-0 3-0-0 7-1-11 10-1-11 7-1-11 17-3-6 3-0-0 20-3-6
Scale = 1:34.1



TOTAL WEIGHT = 2 X 70 = 140 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
B - I	2x4	DRY	No.2	SPF
I - 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	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	TTWW+m	MT20	5.0	6.0	1.75	1.00
F	TMB1-I	MT20	3.0	4.0	1.50	2.75
H	BMW1+w	MT20	2.0	4.0		
I	BS-t	MT20	3.0	4.0		
J	BMWW1-I	MT20	4.0	6.0		
K	BMW1+w	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
B	213	0	213	0	19-4-0 (4-0-0) 1-9-7	
K	310	0	310	0	19-4-0 (4-0-0) 1-9-7	
J	875	0	875	0	19-4-0 (4-0-0) 1-9-7	
H	310	0	310	0	19-4-0 (4-0-0) 1-9-7	
F	213	0	213	0	19-4-0 (4-0-0) 1-9-7	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND			
B	148	113 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0	
K	226	109 / 0	0 / 0	0 / 0	0 / 0	116 / 0	0 / 0	
J	620	396 / 0	0 / 0	0 / 0	0 / 0	224 / 0	0 / 0	
H	226	109 / 0	0 / 0	0 / 0	0 / 0	116 / 0	0 / 0	
F	148	113 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0	

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX (LC) UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX (LC) UNBRACED LENGTH	
FR-TO		FROM TO		FR-TO			
A-B	0 / 10	-78.0 -78.0	0.01 (1)	10.00	K-C	-203 / 0	0.05 (1)
B-C	-104 / 0	-78.0 -78.0	0.09 (1)	6.25	C-J	-46 / 0	0.06 (1)
C-D	-13 / 0	-78.0 -78.0	0.68 (1)	6.25	J-D	-895 / 0	0.16 (1)
D-E	-13 / 0	-78.0 -78.0	0.68 (1)	6.25	J-E	-48 / 0	0.06 (1)
E-F	-104 / 0	-78.0 -78.0	0.09 (1)	6.25	H-E	-203 / 0	0.05 (1)
F-G	0 / 10	-78.0 -78.0	0.01 (1)	10.00			
B-K	0 / 60	-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 / 60	-18.5 -18.5	0.14 (4)	10.00			

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

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

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

CSI: TC=0.68/1.00 (C-D:1), BC=0.21/1.00 (H-J:4), WB=0.16/1.00 (D-J:1), SSI=0.27/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

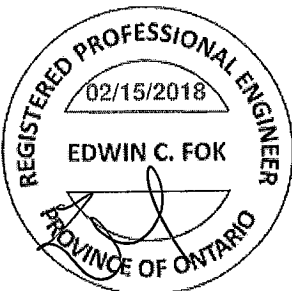
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.74 (J) (INPUT = 0.90)
JSI METAL= 0.15 (D) (INPUT = 1.00)



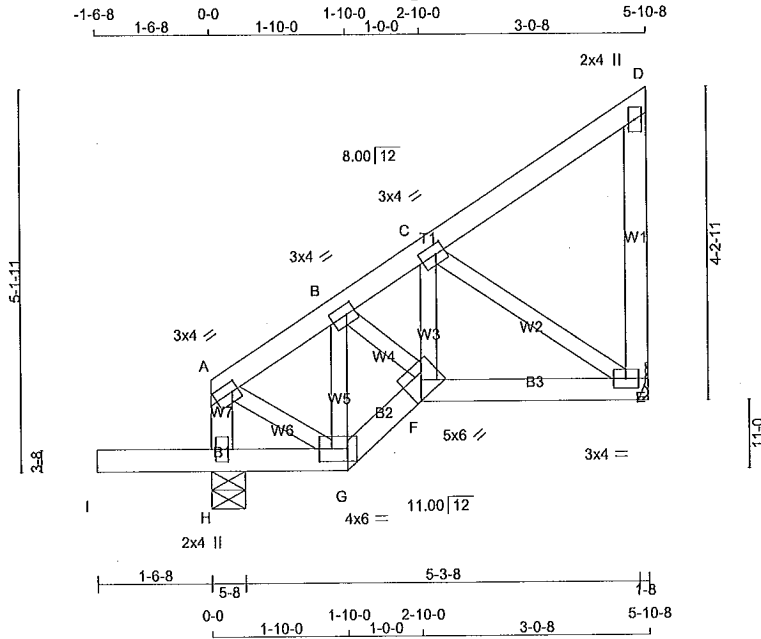
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292571	J1T	5	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:31.0

TOTAL WEIGHT = 5 X 30 = 150 lb

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

PLATES (table is in inches)

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

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

BEARINGS

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

UNFACTORED REACTIONS

1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	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	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. CSI (LC)	MAX. UNBRACED LENGTH	FR-TO	WEBS	MAX. FACTORED MEMB. 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

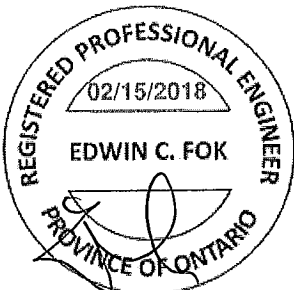
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	618 354	1667 788	1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

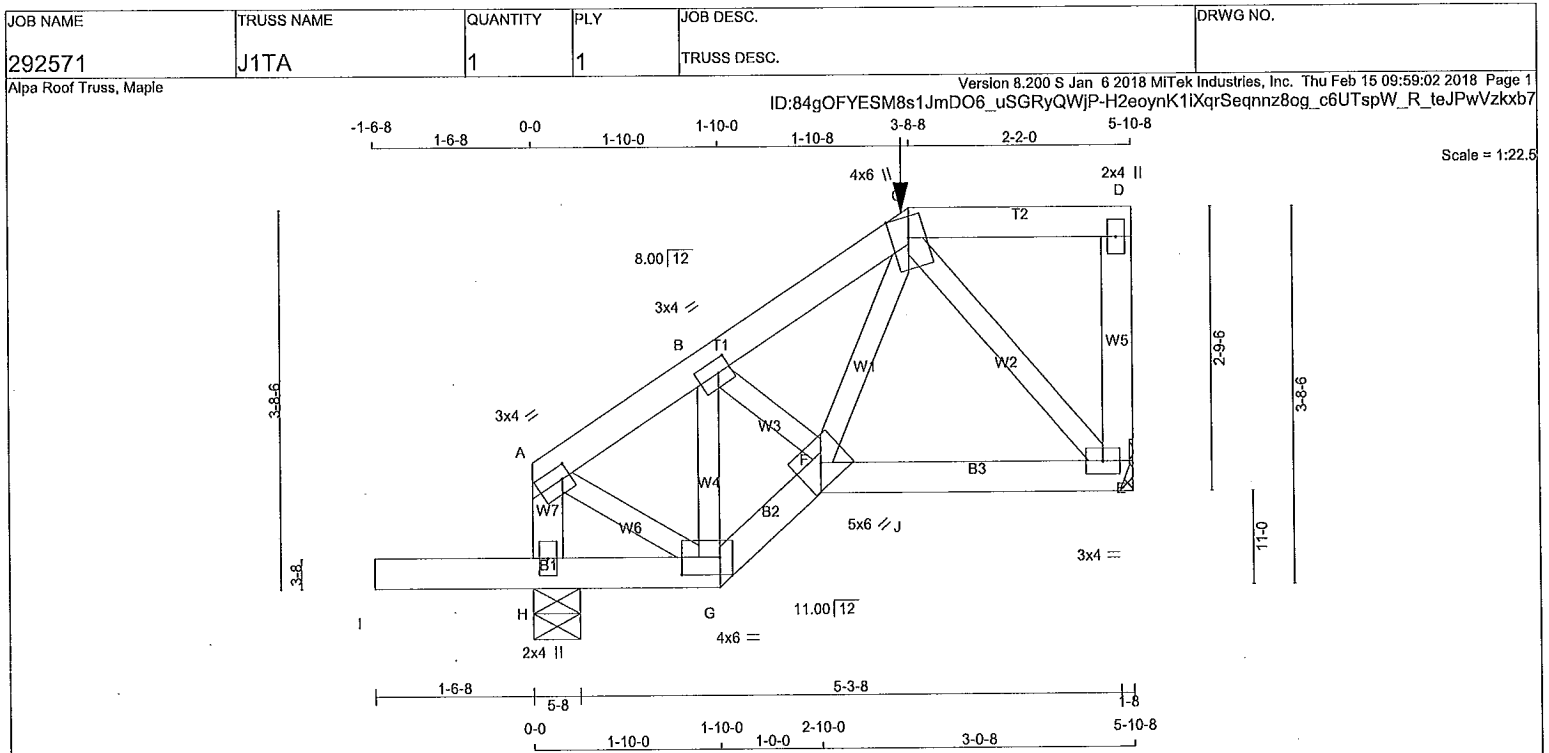
PLATE ROTATION TOL. = 5.0 Deg.

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

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



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
EXCEPT
DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A - TMVW-t	MT20	3.0	4.0	1.50	1.00		
B - TMVW-t	MT20	3.0	4.0	1.50	1.50		
C - 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	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
E	413	0	413	0
H	527	0	527	0

UNFACTORED REACTIONS	1ST LCASE	MAX/MIN. COMPONENT REACTIONS
JT	COMBINED	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

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)
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 / 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: CPrimeHip
LEFT SETBACK = 3-8-8
RIGHT SETBACK = 0-0
END SETBACK = 3-8-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'L LOADS BASED ON 55 % OF GSL.

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

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

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")

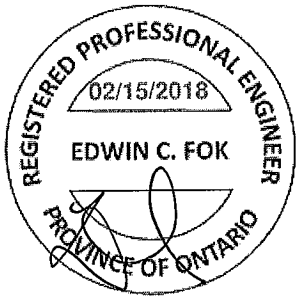
CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/617 (0.03")

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

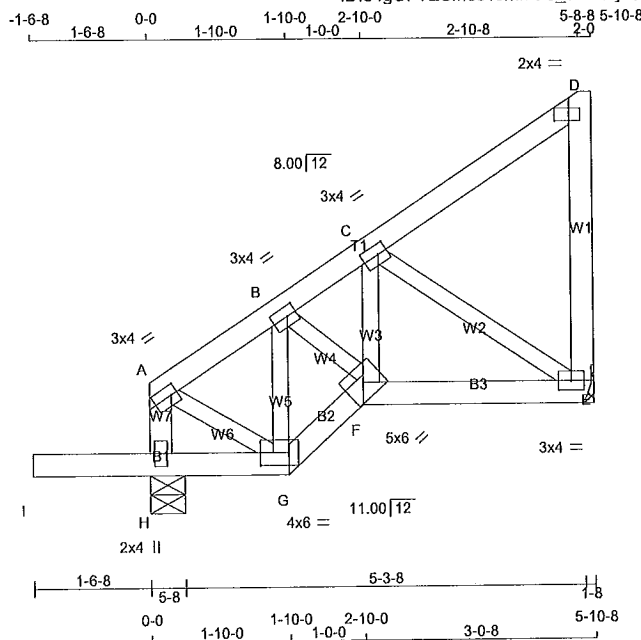
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.



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

Alpa 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	
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-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	TVM-p	MT20	2.0	4.0	0.50	2.25
E	BMVW-1	MT20	3.0	4.0		
F	BBVW-h	MT20	5.0	6.0		
G	BBVW-1	MT20	4.0	6.0	2.00	4.50
H	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

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

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	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.

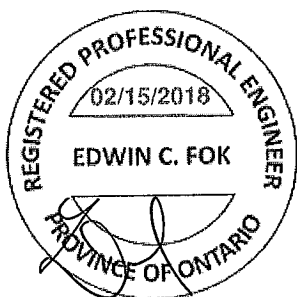
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX. FACTORED
MEMB.	FORCE (LBS)	(PLF)	CS (LC)	UNBRAC	LENGTH	FR-TO	MEMB.	FORCE (LBS)
FR-TO		FROM	TO					
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			

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



DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

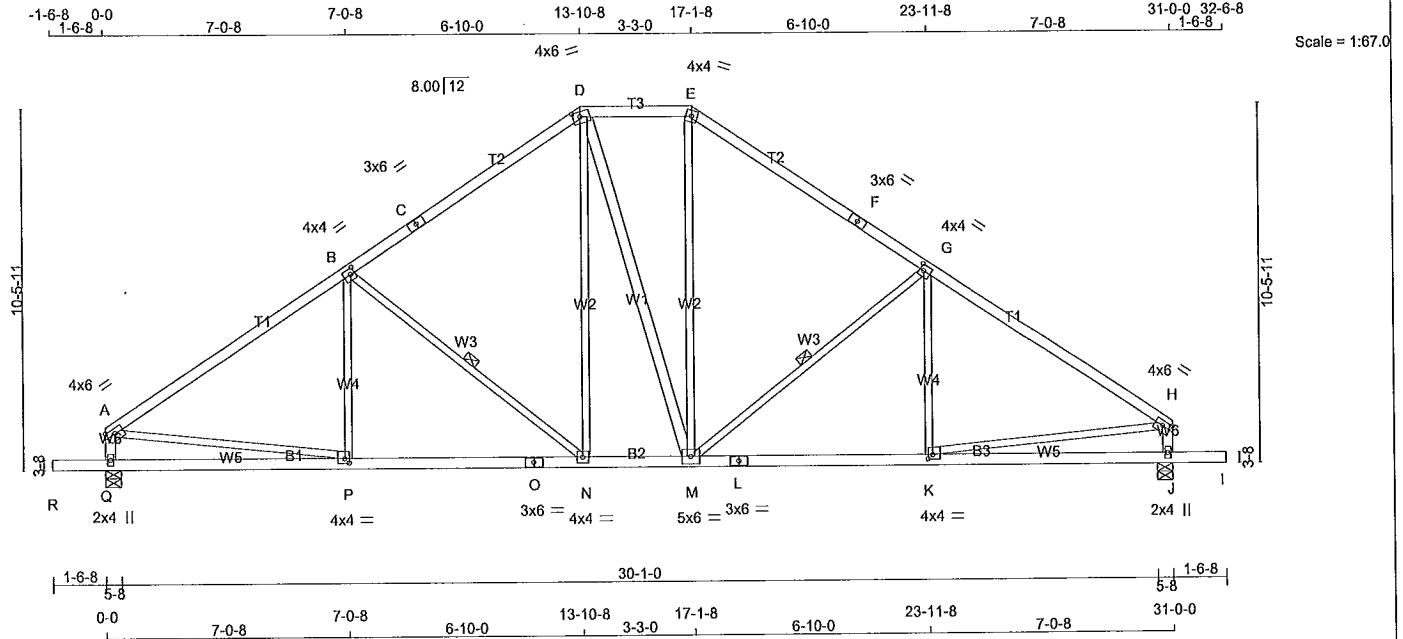
A-18023105

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292572	H5	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

ID:84gOFYESM8s1JmDO6_uSGRYQWjP-bj9hFtMbMq5CmsuBiztkChOQCe1mgGP4P2eMoSzkx9F8

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TOTAL WEIGHT = 144 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - D	2x4	DRY	No.2	SPF	
D - E	2x4	DRY	No.2	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 - L	2x4	DRY	No.2	SPF	
L - I	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
D - M	2x4	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	TMVW-t	MT20	4.0	4.0	2.00	1.50
C	TS-t	MT20	3.0	6.0		
D	TTWV-m	MT20	4.0	6.0	1.75	2.50
E	TTW-m	MT20	4.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TMVW-t	MT20	4.0	4.0	2.00	1.50
H	TMVW-t	MT20	4.0	6.0	1.75	Edge
J	BMV1+p	MT20	2.0	4.0		
K	BMVW-t	MT20	4.0	4.0	1.50	1.50
L	BS-t	MT20	3.0	6.0		
M	BMVWV-t	MT20	5.0	6.0		
N	BMVW-t	MT20	4.0	4.0		
O	BS-t	MT20	3.0	6.0		
P	BMVW-t	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.

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
Q	1644	0	1644	0
J	1644	0	1644	0

UNFACTORED REACTIONS

JT	1ST LCASE	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

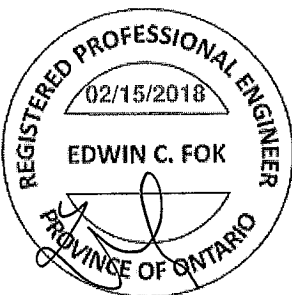
LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX. FACTORED VERT. LOAD (PLF)	CS1 (LC)	UNBRACED LENGTH FR-TO	WEBS	MAX. FACTORED MEMB. FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	CS1 (LC)
FR-TO							FR-TO			
A-B	-1829/0	-78.0	-78.0	0.62 (1)	4.28	P-B	-50/92	0.03 (4)		
B-C	-1393/0	-78.0	-78.0	0.56 (1)	4.83	B-N	-546/0	0.30 (1)		
C-D	-1393/0	-78.0	-78.0	0.56 (1)	4.83	N-D	0/424	0.10 (1)		
D-E	-1132/0	-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	-78.0	-78.0	0.56 (1)	4.83	M-G	-544/0	0.30 (1)		
G-H	-1828/0	-78.0	-78.0	0.62 (1)	4.28	K-G	-52/91	0.03 (4)		
Q-A	-1443/0	0.0	0.0	0.15 (1)	6.81	A-P	0/1564	0.35 (1)		
J-H	-1442/0	0.0	0.0	0.15 (1)	6.81	K-H	0/1564	0.35 (1)		

R-Q	0/0	-96.5	-96.5	0.16 (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	0.16 (1)	10.00

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



DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON 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/999 (0.07")
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/999 (0.01")
ALLOWABLE DEFL.(TL) = L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.62/1.00 (A-B:1), BC=0.38/1.00 (N-P:4), WB=0.35/1.00 (A-P:1), SSI=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.

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (P) (INPUT = 0.90)
JSI METAL= 0.58 (P) (INPUT = 1.00)

A-18023106

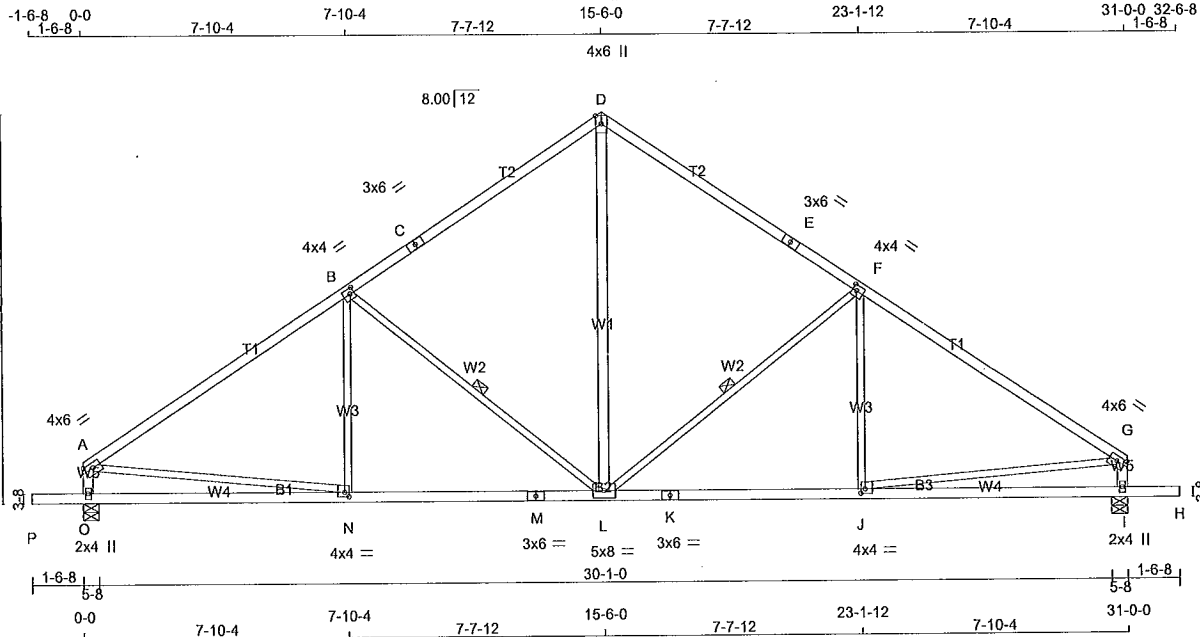
CONTINUED ON PAGE 2

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

Alpa Roof Truss, Maple

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ID:84gOFYESM8s1JmDO6 uSGRyQWjP-u44LjGS_iz_C5xwYcxWN_AAaZSOnPm60dqEYYzKxF1



TOTAL WEIGHT = 2 X 133 = 266 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - D	2x4	DRY	No.2	SPF	
D - 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 (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	6.0	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.

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

JT	1ST CASE	MAX/MIN. SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
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 PITCH 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

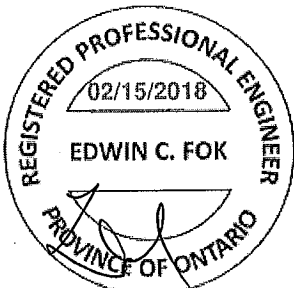
LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)
FR-TO					FR-TO			
A-B	-1809 / 0	-78.0	-78.0	0.81 (1)	L-D	0 / 938	0.15 (1)	
B-C	-1290 / 0	-78.0	-78.0	0.70 (1)	L-F	-642 / 0	0.44 (1)	
C-D	-1290 / 0	-78.0	-78.0	0.70 (1)	J-F	-17 / 114	0.04 (4)	
D-E	-1290 / 0	-78.0	-78.0	0.70 (1)	B-L	-642 / 0	0.44 (1)	
E-F	-1290 / 0	-78.0	-78.0	0.70 (1)	N-B	-17 / 114	0.04 (4)	
F-G	-1809 / 0	-78.0	-78.0	0.81 (1)	A-N	0 / 1549	0.35 (1)	
O-A	-1436 / 0	0.0	0.0	0.15 (1)	J-G	0 / 1549	0.35 (1)	
I-G	-1436 / 0	0.0	0.0	0.15 (1)				

P-O	0 / 0	-96.5	-96.5	0.16 (1)	10.00
O-N	0 / 0	-18.5	-18.5	0.27 (4)	10.00
N-M	0 / 1539	-18.5	-18.5	0.42 (4)	10.00
M-L	0 / 1539	-18.5	-18.5	0.42 (4)	10.00
L-K	0 / 1539	-18.5	-18.5	0.42 (4)	10.00
K-J	0 / 1539	-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	-96.5	-96.5	0.16 (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, 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/999 (0.07")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.16")

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (J) (INPUT = 0.90)
JSI METAL= 0.58 (J) (INPUT = 1.00)

A-18023107

Alpa Roof Truss, Maple

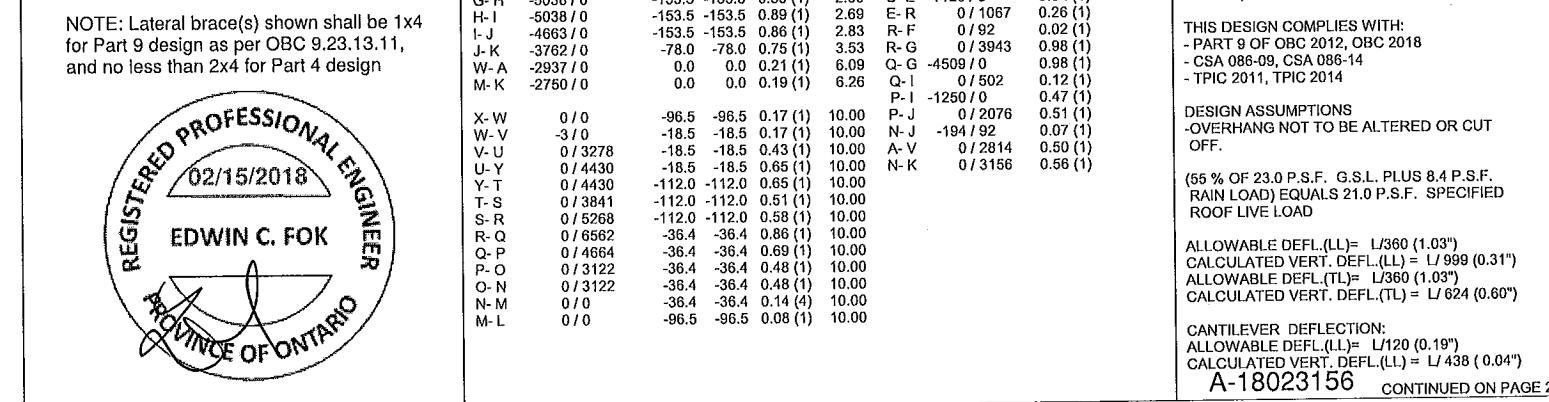
Version 8.200 S Jan 6 2018 MlTek Industries, Inc. Thu Feb 15 13:24:01 2018 Page 1

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1-6-8 0-0 1-11-1 1-2-11 5-10-8 9-8-12 13-7-1 14-7-1 19-10-4 25-1-8 30-6-8 31-0-0 32-6-8

1-6-8 1-11-1 1-0-0 2-11-7 3-10-4 3-10-4 1-0-0 5-3-4 5-3-4 5-5-0 5-8-1-6-8

Scale = 1:55.8



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292584	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
U	BBWW-I	MT20	10.0	12.0	Edge	
V	BBWW-m	MT20	7.0	8.0	Edge	2.75
W	BMV1+p	MT20	3.0	5.0		

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 25-1-8 ON TOP CHORD, AND 423.2 lbs FACTORED DOWN AT 3-9-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
J	25-1-8	-334	-334	---	FRONT	VERT	TOTAL
Y	3-9-4	-423	-423	---	FRONT	VERT	TOTAL

ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/225 (0.08")

CSI: TC=0.89/1.00 (G-I:1) , BC=0.86/1.00 (Q-R:1) ,
WB=0.98/1.00 (G-Q:1) , SSI=0.42/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

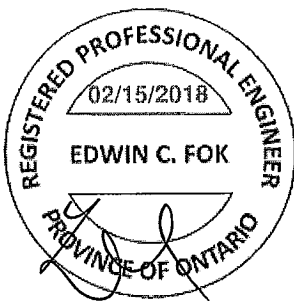
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (Q) (INPUT = 0.90)
JSI METAL= 0.92 (D) (INPUT = 1.00)

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

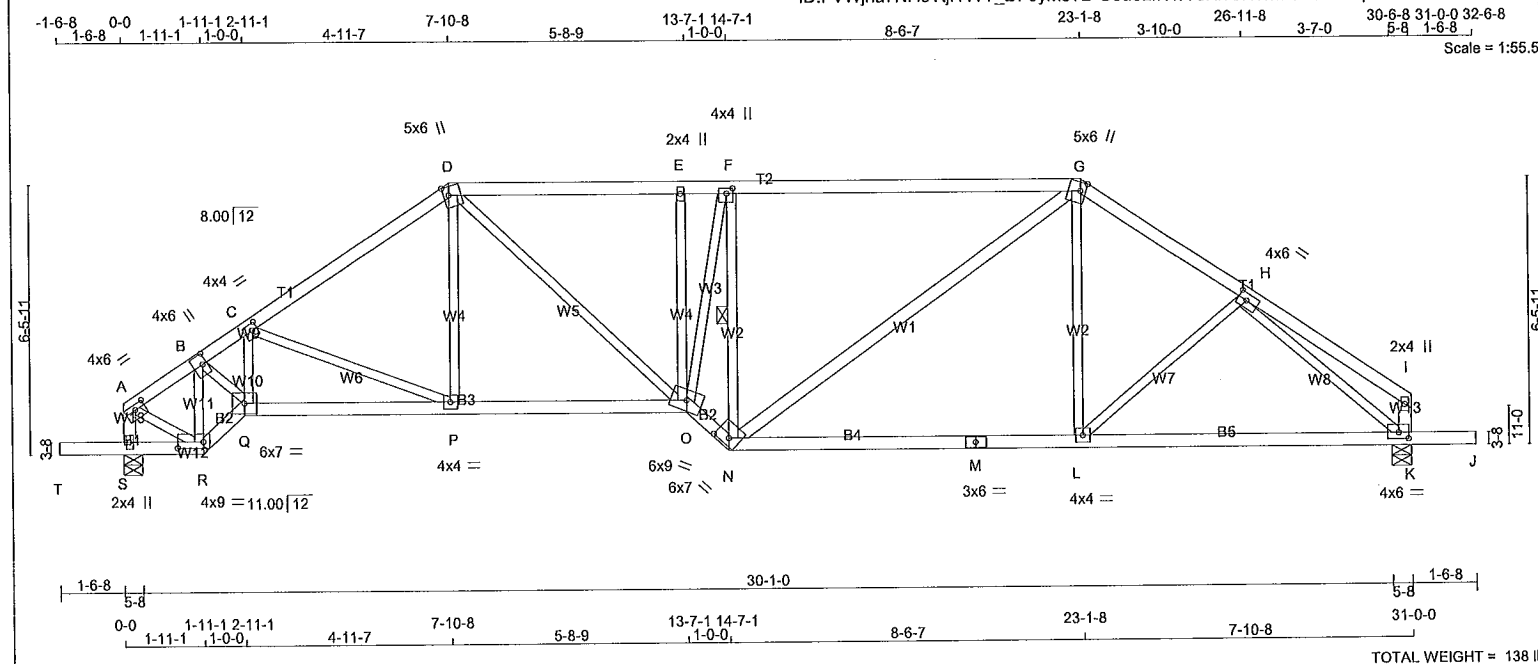


A-18023156(2)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292584	H2T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

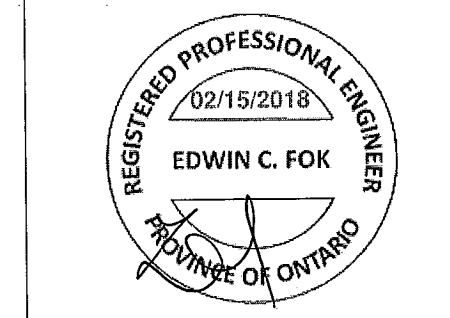
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 13:24:11 2018 Page 1
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LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
G - I	2x4	DRY	No.2	SPF
S - A	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
T - R	2x4	DRY	No.2	SPF
R - Q	2x4	DRY	No.2	SPF
Q - O	2x4	DRY	No.2	SPF
O - N	2x4	DRY	No.2	SPF
N - M	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT N - G	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	1.50 3.00
B	TMVW-t	MT20	4.0	6.0	3.00 1.25
C	TMVW-t	MT20	4.0	4.0	2.00 1.50
D	TTVW+m	MT20	5.0	6.0	2.50 1.50
E	TMVW-t	MT20	2.0	4.0	
F	TMVW-t	MT20	4.0	4.0	1.50 1.75
G	TTVW+m	MT20	5.0	6.0	2.50 1.50
H	TMVW-t	MT20	4.0	6.0	2.00 2.50
I	TMV-p	MT20	2.0	4.0	
K	BMVW-t	MT20	4.0	6.0	1.75 2.75
L	BMVW-t	MT20	4.0	4.0	
M	BS-t	MT20	3.0	6.0	
N	BBVW-h	MT20	6.0	7.0	2.00 4.00
O	BBVWV-m	MT20	6.0	9.0	
P	BMVW-t	MT20	4.0	4.0	
Q	BBVW-t	MT20	6.0	7.0	
R	BBVW-t	MT20	4.0	9.0	1.75 7.25
S	BMV-t	MT20	2.0	4.0	

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



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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	GROSS REACTION	DOWN	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
S	1648	0	1648	0	0	5-8	2-7		
K	1640	0	1640	0	0	5-8	1-12		

UNFACTORED REACTIONS							
JT	COMBINED	1ST LCASE	MAX./MIN.	SNOW	LIVE	PERM.LIVE	WIND
S	1175	717 / 0	0 / 0	0 / 0	0 / 0	0 / 0	458 / 0
K	1169	714 / 0	0 / 0	0 / 0	0 / 0	0 / 0	456 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.67 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 F-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			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	-1432 / 0	-78.0 -78.0	0.10 (1)	5.37	R-B	-1582 / 0	0.25 (1)
B-C	-2418 / 0	-78.0 -78.0	0.22 (1)	4.23	B-Q	0 / 1443	0.32 (1)
C-D	-2021 / 0	-78.0 -78.0	0.28 (1)	4.52	Q-C	0 / 54	0.02 (4)
D-E	-2202 / 0	-78.0 -78.0	0.39 (1)	4.23	C-P	-459 / 0	0.22 (1)
E-F	-2203 / 0	-78.0 -78.0	0.67 (1)	3.67	P-D	0 / 275	0.06 (4)
F-G	-1969 / 0	-78.0 -78.0	0.82 (1)	3.74	D-O	0 / 721	0.16 (1)
G-H	-1752 / 0	-78.0 -78.0	0.17 (1)	4.90	O-E	0 / 65	0.01 (1)
H-I	0 / 18	-78.0 -78.0	0.18 (1)	10.00	O-F	0 / 1307	0.29 (1)
S-A	-1422 / 0	0.0 0.0	0.14 (1)	6.84	N-F	-2075 / 0	0.56 (1)
K-I	-121 / 0	0.0 0.0	0.01 (1)	7.81	N-G	0 / 646	0.10 (1)
					L-G	0 / 205	0.06 (4)
T-S	0 / 0	-96.5 -96.5	0.16 (1)	10.00	L-H	-35 / 39	0.02 (1)
S-R	0 / 0	-18.5 -18.5	0.12 (1)	10.00	A-R	0 / 1296	0.29 (1)
R-Q	0 / 1493	-18.5 -18.5	0.24 (1)	10.00	H-K	-1970 / 0	0.89 (1)
Q-P	0 / 2080	-18.5 -18.5	0.42 (1)	10.00			
P-O	0 / 1669	-18.5 -18.5	0.35 (1)	10.00			
O-N	0 / 2623	-18.5 -18.5	0.42 (1)	10.00			
N-M	0 / 1444	-18.5 -18.5	0.50 (4)	10.00			
M-L	0 / 1444	-18.5 -18.5	0.50 (4)	10.00			
L-K	0 / 1467	-18.5 -18.5	0.49 (4)	10.00			
K-J	0 / 0	-96.5 -96.5	0.16 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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 (0.13")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.28")

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/839 (0.02")

CSI: TC=0.82/1.00 (F-G:1), BC=0.50/1.00 (L-N:4), WB=0.89/1.00 (H-K:1), SSI=0.31/1.00 (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 SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

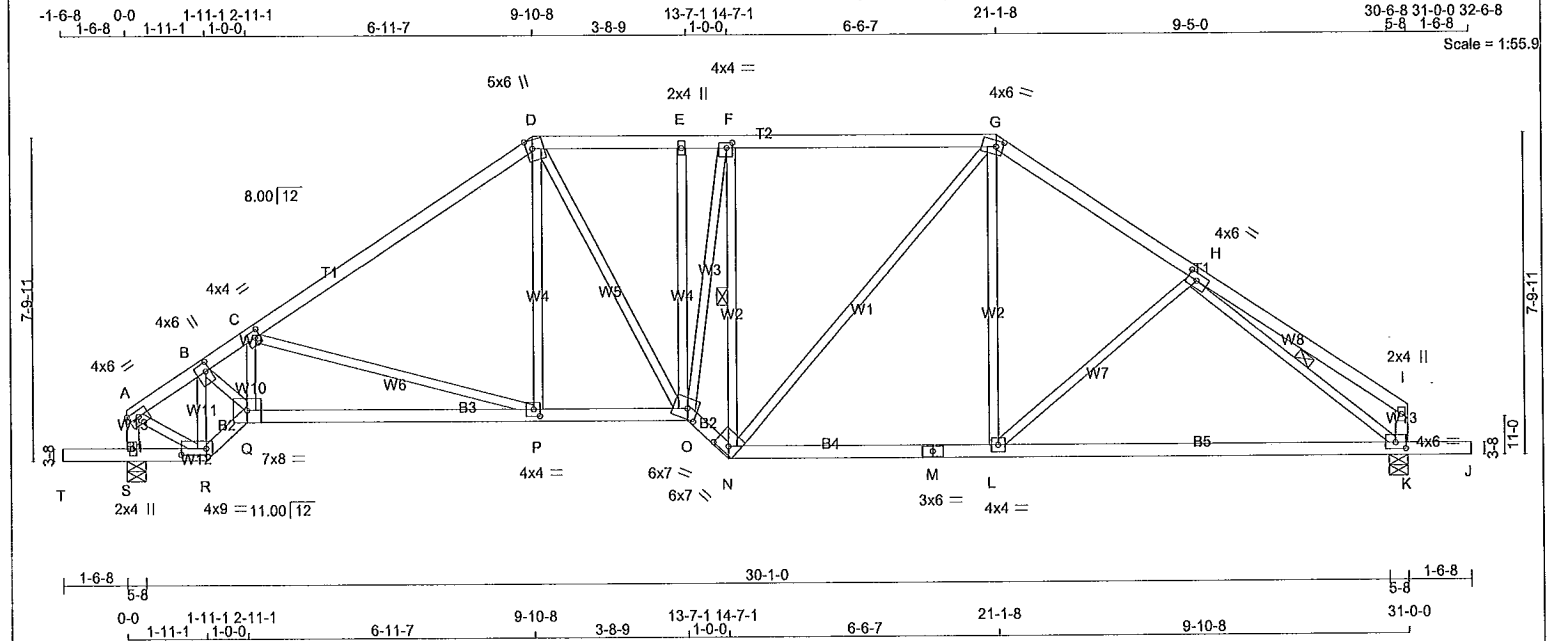
JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.48 (H) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292584	H3T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 144 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - G	2x4	DRY	No.2
G - I	2x4	DRY	No.2
S - A	2x4	DRY	No.2
K - I	2x4	DRY	No.2
T - R	2x4	DRY	No.2
R - Q	2x4	DRY	No.2
Q - O	2x4	DRY	No.2
O - N	2x4	DRY	No.2
N - M	2x4	DRY	No.2
M - J	2x4	DRY	No.2
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	TMVW-t	MT20	4.0	6.0 2.50 1.25
C	TMVW-t	MT20	4.0	4.0 2.00 1.50
D	TTVW+m	MT20	5.0	6.0 Edge 1.75
E	TMVW-t	MT20	2.0	4.0
F	TMVW-t	MT20	4.0	4.0 1.50 1.75
G	TTVW-m	MT20	4.0	6.0 1.75 2.00
H	TMVW-t	MT20	4.0	6.0 2.00 2.75
I	TMVW-t	MT20	2.0	4.0
K	BMVW-t	MT20	4.0	6.0 1.75 3.00
L	BMVW-t	MT20	4.0	4.0
M	BS-t	MT20	3.0	6.0
N	BBVW-h	MT20	6.0	7.0 2.00 4.00
O	BBVW-m	MT20	6.0	7.0 3.00 3.00
P	BMVW-t	MT20	4.0	4.0 2.00 1.75
Q	BBVW-t	MT20	7.0	8.0
R	BBVW-t	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		REQRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
S	1648	0	1648	0	0	5-8	2-7		
K	1640	0	1640	0	0	5-8	1-12		

UNFACTORED REACTIONS		1ST LCASE		MAX/MIN. COMPONENT REACTIONS	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
S	1175	717 / 0	0 / 0	0 / 0	0 / 0
K	1169	714 / 0	0 / 0	0 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.95 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-N, H-K.

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	-1421 / 0	-78.0	-78.0 0.14 (1)	5.34	R-B	-1558 / 0	0.24 (1)
B-C	-2423 / 0	-78.0	-78.0 0.44 (1)	3.95	B-Q	0 / 1608	0.36 (1)
C-D	-1884 / 0	-78.0	-78.0 0.55 (1)	4.36	Q-C	-106 / 45	0.02 (1)
D-E	-1731 / 0	-78.0	-78.0 0.18 (1)	4.90	C-P	-695 / 0	0.72 (1)
E-F	-1732 / 0	-78.0	-78.0 0.38 (1)	4.63	P-D	0 / 306	0.07 (4)
F-G	-1583 / 0	-78.0	-78.0 0.42 (1)	4.78	D-O	0 / 408	0.09 (1)
G-H	-1656 / 0	-78.0	-78.0 0.27 (1)	4.90	O-E	0 / 84	0.02 (1)
H-I	0 / 24	-78.0	-78.0 0.30 (1)	10.00	O-F	0 / 1036	0.23 (1)
S-A	-1422 / 0	0.0	0.0 0.14 (1)	6.84	N-F	-1637 / 0	0.63 (1)
K-I	-153 / 0	0.0	0.0 0.02 (1)	7.81	N-G	0 / 339	0.08 (1)
					L-G	0 / 307	0.08 (4)
T-S	0 / 0	-96.5	-96.5 0.16 (1)	10.00	L-H	-181 / 0	0.14 (1)
S-R	0 / 0	-18.5	-18.5 0.12 (1)	10.00	A-R	0 / 1276	0.29 (1)
R-Q	0 / 1470	-18.5	-18.5 0.24 (1)	10.00	H-K	-1955 / 0	0.58 (1)
Q-P	0 / 2192	-18.5	-18.5 0.46 (1)	10.00			
P-O	0 / 1529	-18.5	-18.5 0.36 (1)	10.00			
O-N	0 / 2117	-18.5	-18.5 0.34 (1)	10.00			
N-M	0 / 1360	-18.5	-18.5 0.54 (4)	10.00			
M-L	0 / 1360	-18.5	-18.5 0.54 (4)	10.00			
L-K	0 / 1493	-18.5	-18.5 0.54 (4)	10.00			
K-J	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

ALLOWABLE DEFL.(LL)= 1/360 (1.03")
CALCULATED VERT. DEFL.(LL) = 1/999 (0.11")
ALLOWABLE DEFL.(TL)= 1/360 (1.03")
CALCULATED VERT. DEFL.(TL) = 1/999 (0.33")

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) = 1/776 (0.02")

CSI: TC=0.55/1.00 (C-D:1) , BC=0.54/1.00 (L-N:4) , WB=0.72/1.00 (C-P:1) , SSI=0.27/1.00 (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

AUTOSOLVE LEFT HEEL ONLY

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

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

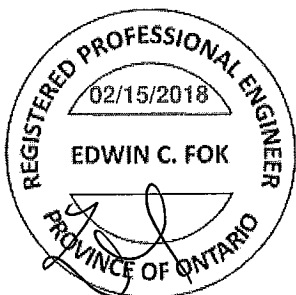
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)
JSI METAL= 0.56 (M) (INPUT = 1.00)

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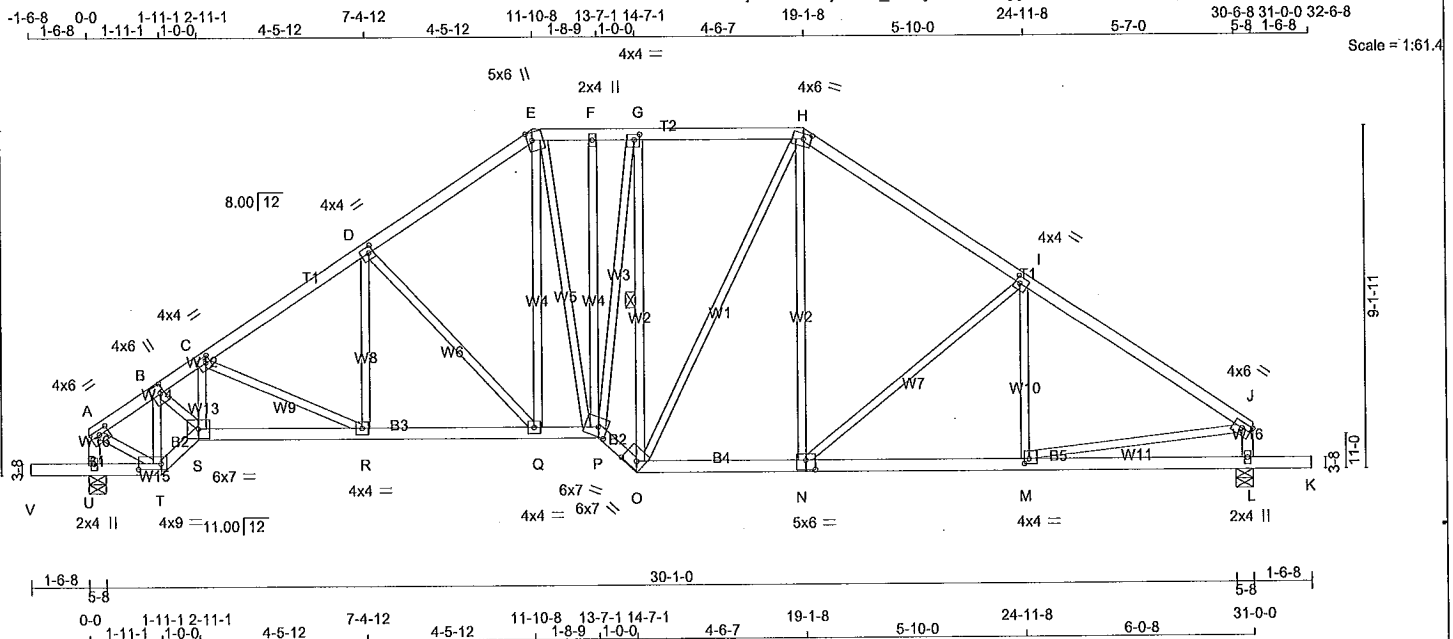


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292584	H4T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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TOTAL WEIGHT = 163 lb

LUMBER	CHORDS	SIZE	LUMBER	DESCR.
N. L. G. A. RULES				
A - E	2x4	DRY	No.2	SPF
E - H	2x4	DRY	No.2	SPF
H - J	2x4	DRY	No.2	SPF
U - A	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
V - T	2x4	DRY	No.2	SPF
T - S	2x4	DRY	No.2	SPF
S - P	2x4	DRY	No.2	SPF
P - O	2x4	DRY	No.2	SPF
O - N	2x4	DRY	No.2	SPF
N - K	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-I	MT20	4.0	6.0	1.50	3.00
B	TMVW-I	MT20	4.0	6.0	3.00	1.25
C, D, I						
C	TMVW-I	MT20	4.0	4.0	2.00	1.50
E	TTVW-m	MT20	5.0	6.0	2.50	1.50
F	TMVW-I	MT20	2.0	4.0		
G	TMVW-I	MT20	4.0	4.0	1.75	1.75
H	TTVW-m	MT20	4.0	6.0	1.75	2.50
J	TMVW-I	MT20	4.0	6.0	1.75	Edge
L	BMV1+p	MT20	2.0	4.0		
M	BMVW-I	MT20	4.0	4.0	1.50	1.50
N	BSVW-I	MT20	5.0	6.0	3.00	3.00
O	BSVW-I	MT20	6.0	7.0	2.25	4.50
P	BSVW-m	MT20	6.0	7.0	3.00	2.75
Q	BMVW-I	MT20	4.0	4.0		
R	BMVW-I	MT20	4.0	4.0		
S	BSVW-I	MT20	6.0	7.0		
T	BSVW-I	MT20	4.0	9.0	1.75	7.25
U	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	HORZ	DOWN	HORZ
U	1648	0	1648	0
L	1640	0	1640	0

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN	COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
U	1175	717 / 0	0 / 0	0 / 0	0 / 0	458 / 0	0 / 0
L	1169	714 / 0	0 / 0	0 / 0	0 / 0	456 / 0	0 / 0

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

BRACING

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

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF G-O.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LBS)	MAX. MEMB. UNBRACED LENGTH FR-TO	MAX. FACTORED FORCE (LBS)	MAX. MEMB. UNBRACED LENGTH FR-TO	MAX. FACTORED FORCE (LBS)
FR-TO							
A-B	-1437 / 0	-78.0	-78.0 0.08 (1)	5.38	T-B	-1593 / 0	0.25 (1)
B-C	-2416 / 0	-78.0	-78.0 0.12 (1)	4.35	B-S	0 / 1361	0.31 (1)
C-D	-2070 / 0	-78.0	-78.0 0.24 (1)	4.52	S-C	0 / 82	0.02 (4)
D-E	-1671 / 0	-78.0	-78.0 0.22 (1)	4.94	C-R	-334 / 0	0.13 (1)
E-F	-1426 / 0	-78.0	-78.0 0.12 (1)	5.36	R-D	0 / 220	0.05 (4)
F-G	-1426 / 0	-78.0	-78.0 0.18 (1)	5.28	D-Q	-532 / 0	0.44 (1)
G-H	-1322 / 0	-78.0	-78.0 0.19 (1)	5.44	Q-E	0 / 435	0.10 (1)
H-I	-1513 / 0	-78.0	-78.0 0.40 (1)	4.91	E-P	0 / 230	0.05 (1)
I-J	-1834 / 0	-78.0	-78.0 0.44 (1)	4.52	P-F	0 / 141	0.03 (1)
U-A	-1422 / 0	0.0	0.0 0.14 (1)	6.84	F-G	0 / 875	0.20 (1)
L-J	-1447 / 0	0.0	0.0 0.15 (1)	6.79	O-G	-1309 / 0	0.71 (1)
					O-H	0 / 190	0.04 (1)
V-U	0 / 0	-96.5	-96.5 0.16 (1)	10.00	N-H	0 / 343	0.08 (1)
U-T	0 / 0	-18.5	-18.5 0.12 (1)	10.00	N-I	-415 / 0	0.50 (1)
T-S	0 / 1504	-18.5	-18.5 0.24 (1)	10.00	M-I	-99 / 63	0.04 (1)
S-R	0 / 2038	-18.5	-18.5 0.37 (1)	10.00	A-T	0 / 1306	0.29 (1)
R-Q	0 / 1734	-18.5	-18.5 0.32 (1)	10.00	M-J	0 / 1568	0.35 (1)
Q-P	0 / 1377	-18.5	-18.5 0.25 (1)	10.00			
P-O	0 / 1773	-18.5	-18.5 0.29 (1)	10.00			
O-N	0 / 1235	-18.5	-18.5 0.26 (1)	10.00			
N-M	0 / 1551	-18.5	-18.5 0.34 (1)	10.00			
M-L	0 / 0	-18.5	-18.5 0.18 (4)	10.00			
L-K	0 / 0	-96.5	-96.5 0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.18")

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=0.44/1.00 (I-J:1), BC=0.37/1.00 (R-S:1), WB=0.71/1.00 (G-O:1), SSI=0.19/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

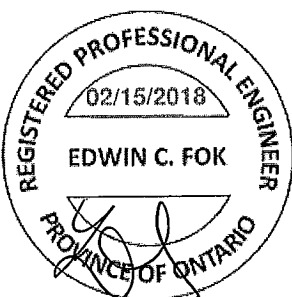
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (M) (INPUT = 0.90)
JSI METAL= 0.58 (M) (INPUT = 1.00)

A-18023159

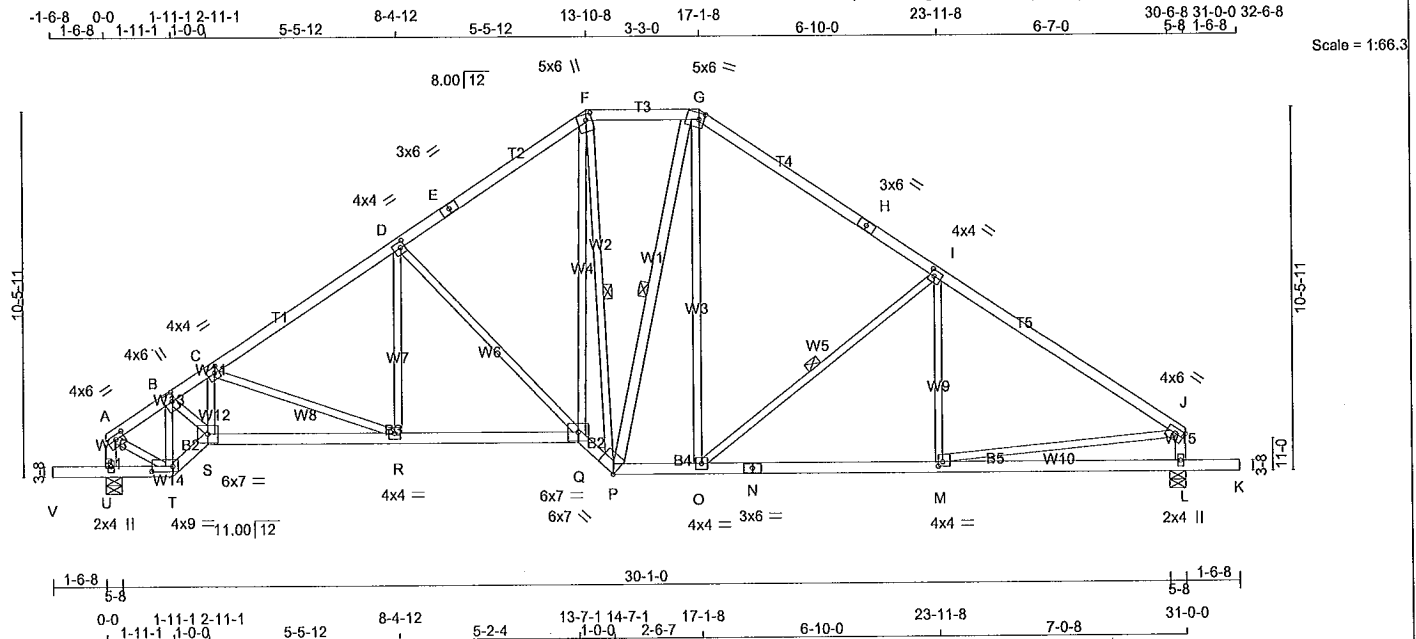
CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292584	H5T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

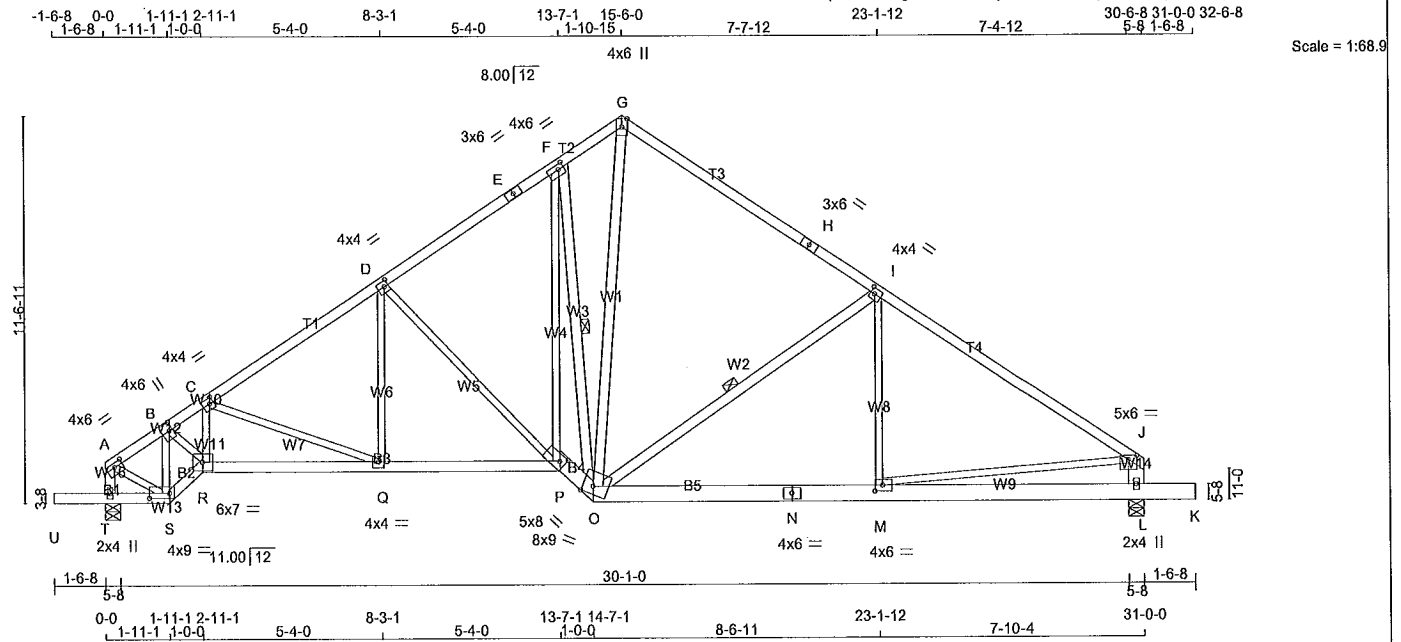
Version 8.200 S Jan 6 2018 MiTek Industries, Inc. Thu Feb 15 13:25:01 2018 Page 1
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
292584	H6T	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

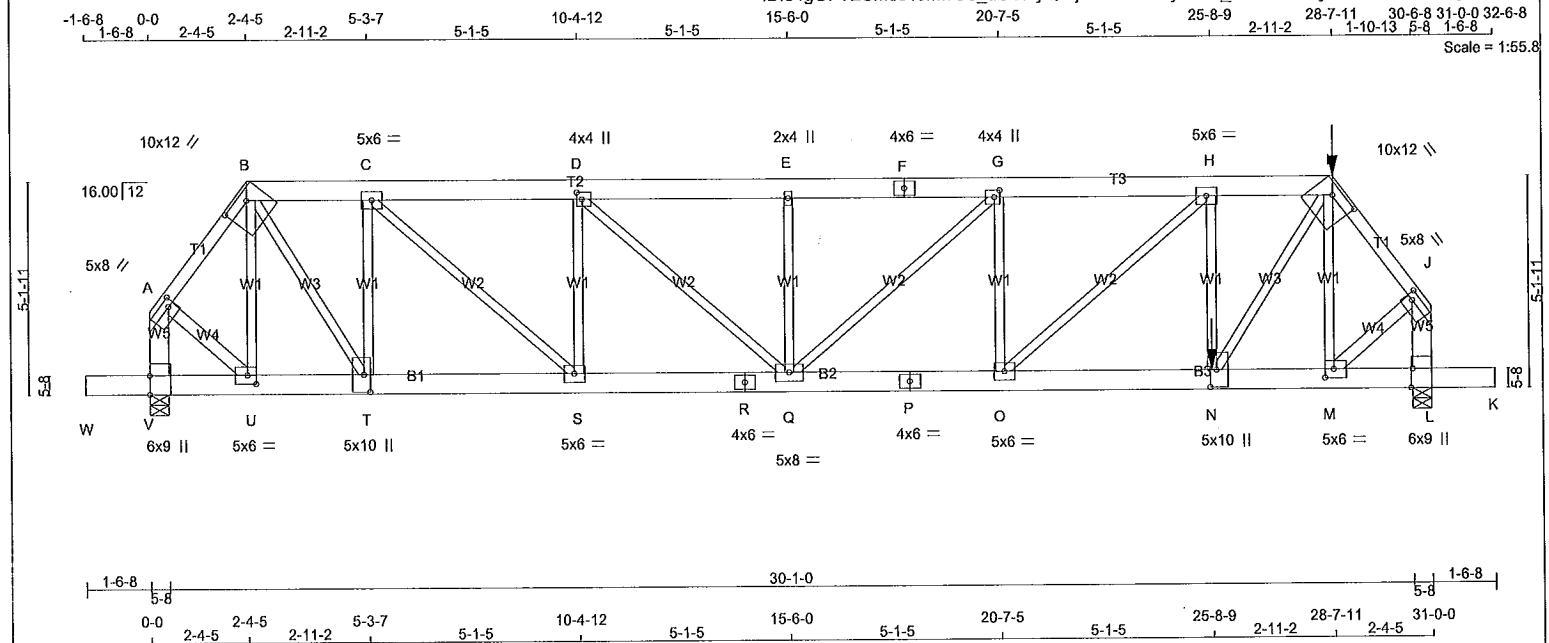
Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 13:25:19 2018 Page 1
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291805	H7D-Cond1	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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ID:84gOFYESM8s1JmDO6_uSGRyQWJP-DORv7xyo7Cc_ACVC46zcmYvd47vi0DMMyr4czkuE1



LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF	
B - F	2x6	DRY	No.2	SPF	
F - I	2x6	DRY	No.2	SPF	
I - J	2x4	DRY	No.2	SPF	
V - A	2x6	DRY	No.2	SPF	
L - J	2x6	DRY	No.2	SPF	
W - R	2x6	DRY	No.2	SPF	
R - P	2x6	DRY	No.2	SPF	
P - K	2x6	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	
A - U	2x4	DRY	No.2	SPF	
M - J	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	5.0	8.0	2.00	2.00
B	TTWW-h	MT20	10.0	12.0	2.50	7.00
C	TMVW-t	MT20	5.0	6.0		
D	TMVW-h	MT20	4.0	4.0	2.00	1.50
E	TMVW-w	MT20	2.0	4.0		
F	TS-t	MT20	4.0	6.0		
G	TMVW-h	MT20	4.0	4.0	2.00	1.50
H	TMVW-t	MT20	5.0	6.0		
I	TTWW-h	MT20	10.0	12.0	2.50	7.00
J	TMVW-t	MT20	5.0	8.0	2.00	2.00
L	BMV1-t	MT20	6.0	9.0	Edge	0.50
M	BMVW-t	MT20	5.0	6.0	2.50	2.50
N	BMVW-h	MT20	5.0	10.0	5.00	1.75
O	BMVW-t	MT20	5.0	6.0		
P	BS-t	MT20	4.0	6.0		
Q	BMVW-t	MT20	5.0	8.0		
R	BS-t	MT20	4.0	6.0		
S	BMVW-t	MT20	5.0	6.0		
T	BMVW-h	MT20	5.0	10.0	5.00	1.75
U	BMVW-t	MT20	5.0	6.0	2.50	2.50
V	BMV1-t	MT20	6.0	9.0	Edge	

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
V	2119	0	2119	0
L	4139	0	4139	0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
V	1503	962 / 0	0 / 0	0 / 0	0 / 0	541 / 0	0 / 0
L	2914	1987 / 0	0 / 0	0 / 0	0 / 0	926 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.62 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)	LC1 MAX. (LBS)	MAX. UNBRACED LENGTH FR-TO	WEBS	MAX. FACTORED FORCE (LBS)	MAX. (LBS)
FR-TO								
A-B	-1612 / 0	-78.0	-78.0	0.12 (1)	5.08	U-B	-492 / 0	0.17 (1)
B-C	-1959 / 0	-78.0	-78.0	0.10 (1)	5.65	B-T	0 / 1892	0.47 (1)
C-D	-3293 / 0	-78.0	-78.0	0.18 (1)	4.52	T-C	-1556 / 0	0.55 (1)
D-E	-4067 / 0	-78.0	-78.0	0.23 (1)	4.11	C-S	0 / 1810	0.45 (1)
E-F	-4067 / 0	-78.0	-78.0	0.24 (1)	4.10	S-D	-1123 / 0	0.40 (1)
F-G	-4067 / 0	-78.0	-78.0	0.24 (1)	4.10	D-Q	0 / 1050	0.26 (1)
G-H	-4339 / 0	-78.0	-78.0	0.27 (1)	3.95	Q-E	-383 / 0	0.14 (1)
H-I	-3978 / 0	-153.5	-153.5	0.22 (1)	4.13	Q-G	-370 / 0	0.32 (1)
I-J	-3357 / 0	-78.0	-78.0	0.25 (1)	3.62	O-G	-188 / 0	0.07 (1)
V-A	-1979 / 0	0.0	0.0	0.16 (1)	7.13	O-H	0 / 491	0.12 (1)
L-J	-4023 / 0	0.0	0.0	0.32 (1)	5.30	N-H	-719 / 0	0.25 (1)
						N-I	0 / 3745	0.93 (1)
W-V	0 / 0	-96.5	-96.5	0.08 (1)	10.00	M-I	-945 / 0	0.33 (1)
V-U	0 / 0	-18.5	-18.5	0.06 (1)	10.00	A-U	0 / 1135	0.20 (1)
U-T	0 / 955	-18.5	-18.5	0.18 (1)	10.00	M-J	0 / 2365	0.42 (1)
T-S	0 / 1959	-18.5	-18.5	0.29 (1)	10.00			
S-R	0 / 3293	-18.5	-18.5	0.48 (1)	10.00			
R-Q	0 / 3293	-18.5	-18.5	0.48 (1)	10.00			
Q-P	0 / 4339	-18.5	-18.5	0.61 (1)	10.00			
P-O	0 / 4339	-18.5	-18.5	0.61 (1)	10.00			
O-N	0 / 3978	-18.5	-18.5	0.64 (1)	10.00			
N-M	0 / 1990	-36.4	-36.4	0.40 (1)	10.00			
M-L	0 / 0	-36.4	-36.4	0.14 (1)	10.00			
L-K	0 / 0	-96.5	-96.5	0.08 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
I	28-7-11	-134	-134	---	FRONT	VERT	TOTAL
N	25-8-8	-2521	-2521	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 2-4-5
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 5-4-0 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, 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/999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.28")

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

CSI: TC=0.32/1.00 (J-L:1), BC=0.64/1.00 (N-O:1),
WB=0.93/1.00 (I-N:1), SS=0.16/1.00 (G-H:1)

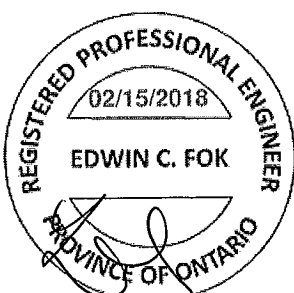
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291805	H20A	1	1	TRUSS DESC.	

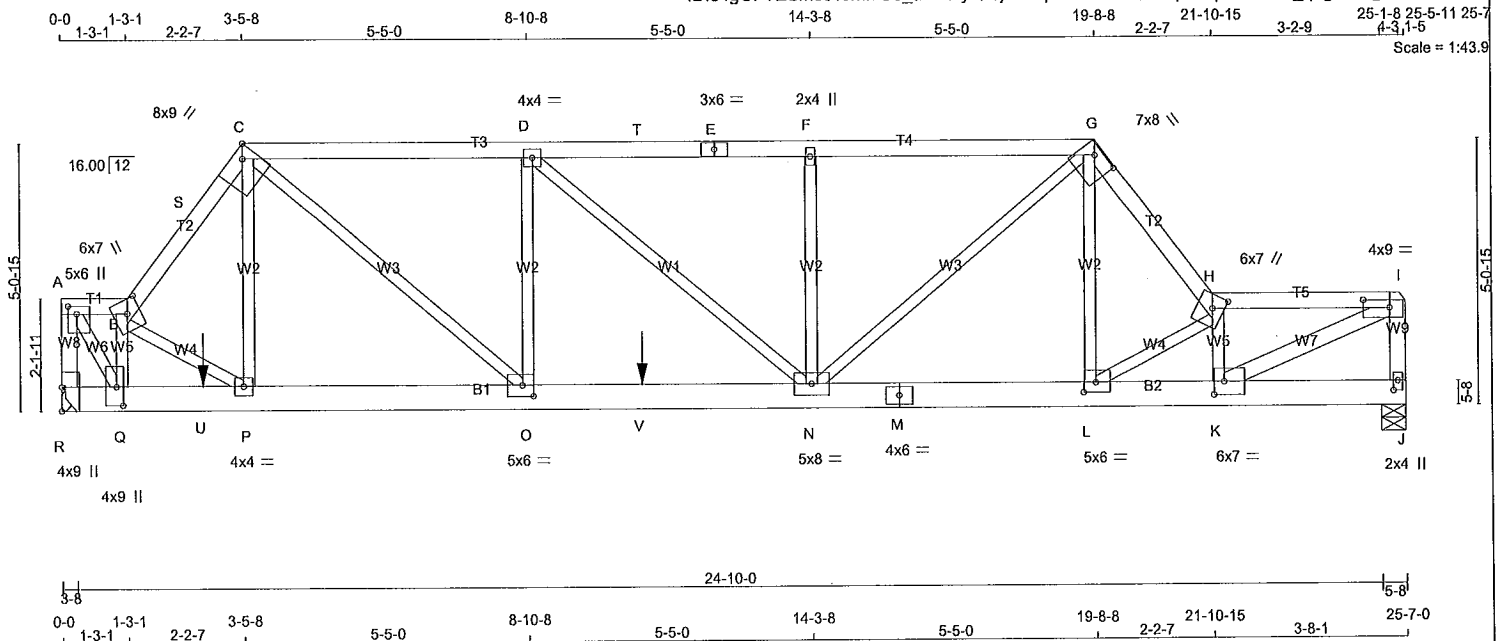
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25-1-8 25-5-11 25-7-11

Scale = 1:43.9



TOTAL WEIGHT = 125 lb

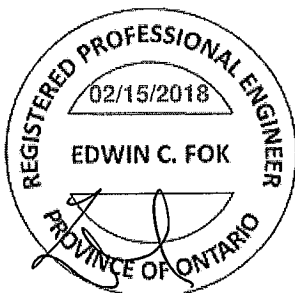
LUMBER	N. L. G. A. RULES.	CHORDS	SIZE	LUMBER	DESCR.
R - A	2x4	DRY	No.2	SPF	
A - B	2x4	DRY	No.2	SPF	
B - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
E - G	2x4	DRY	No.2	SPF	
G - H	2x4	DRY	No.2	SPF	
H - I	2x4	DRY	No.2	SPF	
J - I	2x4	DRY	No.2	SPF	
R - M	2x6	DRY	No.2	SPF	
M - J	2x6	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					
K - I	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	5.0	6.0	1.75	2.00	
B	TTWW+m	MT20	6.0	7.0	3.25	3.00	
C	TTWW-h	MT20	8.0	9.0	Edge	2.75	
D	TMVW-l	MT20	4.0	4.0			
E	TS-l	MT20	3.0	6.0			
F	TMVW+w	MT20	2.0	4.0			
G	TTWW-h	MT20	7.0	8.0	1.75	5.00	
H	TTWW+m	MT20	6.0	7.0	3.00	2.50	
I	TMVW-l	MT20	4.0	9.0	1.75	6.00	
J	BMV1+p	MT20	2.0	4.0	2.25	1.00	
K	BMVW-l	MT20	6.0	7.0	3.00	2.25	
L	BMVW-l	MT20	5.0	6.0	2.25	2.75	
M	BS-l	MT20	4.0	6.0			
N	BMVWW-l	MT20	5.0	8.0			
O	BMVW-l	MT20	5.0	6.0	2.50	2.50	
P	BMVW-l	MT20	4.0	4.0			
Q	BMVW+l	MT20	4.0	9.0	4.25	1.50	
R	BMV1+l	MT20	4.0	9.0	5.50		

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
R	2684	0	0	2684	0	0	0	HANGER BY OTHERS	MIN. SEAT SIZE: 3-8
J	2133	0	0	2133	0	0	0	5-8	3-7

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	1905	1212 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	693 / 0	0 / 0
J	1517	944 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	573 / 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 = 2.81 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
MEMB.	FORCE	(LBS)	(PLF)	CSI (LC)	UNBRAC	LENGTH	FR-TO	FORCE	MAX
FR-TO	FROM	TO	FROM	TO	FROM	TO	FR-TO	FROM	TO
R-A	-2485 / 0	0.0	0.0	0.30 (1)	5.37	A-Q	0 / 2983	0.74 (1)	
A-B	-1630 / 0	-78.0	-78.0	0.06 (1)	5.13	Q-B	-2494 / 0	0.40 (1)	
B-S	-2880 / 0	-78.0	-78.0	0.21 (1)	3.91	B-P	-55 / 0	0.01 (1)	
S-C	-2880 / 0	-147.0	-147.0	0.21 (1)	3.91	P-C	0 / 518	0.13 (1)	
C-D	-3270 / 0	-147.0	-147.0	0.88 (1)	2.83	C-O	0 / 2008	0.50 (1)	
D-T	-3304 / 0	-147.0	-147.0	0.88 (1)	2.81	O-D	-818 / 0	0.30 (1)	
T-E	-3304 / 0	-78.0	-78.0	0.88 (1)	2.81	D-N	0 / 60	0.02 (4)	
E-F	-3304 / 0	-78.0	-78.0	0.88 (1)	2.81	N-F	-553 / 0	0.20 (1)	
F-G	-3304 / 0	-114.5	-114.5	0.74 (1)	3.09	N-G	0 / 1504	0.37 (1)	
G-H	-3552 / 0	-114.5	-114.5	0.29 (1)	3.48	L-G	0 / 1446	0.36 (1)	
H-I	-3698 / 0	-114.5	-114.5	0.51 (1)	3.14	L-H	-2102 / 0	0.41 (1)	
J-I	-1991 / 0	0.0	0.0	0.25 (1)	5.93	K-H	-1975 / 0	0.32 (1)	
						K-I	0 / 4126	0.73 (1)	
R-Q	0 / 0	-63.7	-63.7	0.14 (1)	10.00				
Q-U	0 / 1780	-63.7	-63.7	0.47 (1)	10.00				
U-P	0 / 1780	-27.3	-27.3	0.47 (1)	10.00				
P-O	0 / 1748	-27.3	-27.3	0.40 (1)	10.00				
O-V	0 / 3271	-27.3	-27.3	0.83 (1)	10.00				
V-N	0 / 3271	-63.7	-63.7	0.83 (1)	10.00				
N-M	0 / 2163	-27.2	-27.2	0.44 (1)	10.00				
M-L	0 / 2163	-27.2	-27.2	0.44 (1)	10.00				
L-K	0 / 3818	-27.2	-27.2	0.74 (1)	10.00				
K-J	0 / 0	-27.2	-27.2	0.24 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
U	2-8-4	-460	-460	—	FRONT	VERT	TOTAL
V	11-0-12	-460	-460	—	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: CStdGirder

START DISTANCE = 0-0
START SPAN CARRIED = 3-10-8
END DISTANCE = 2-8-4
END SPAN CARRIED = 3-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder

START DISTANCE = 11-0-12
START SPAN CARRIED = 3-10-8
END DISTANCE = 14-0-0
END SPAN CARRIED = 3-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CPrimeHip

SIDE SETBACK = 0-0
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 11-7-0 OF SPAN MEASURED FROM THE RIGHT.

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

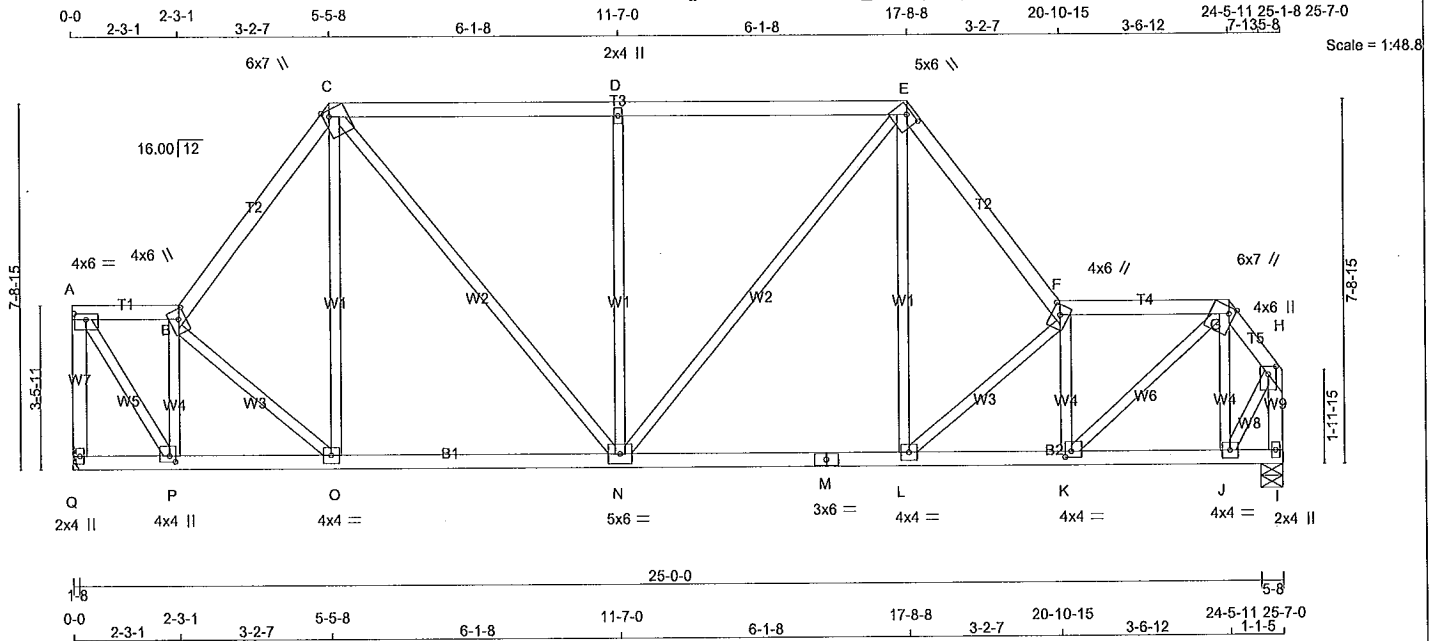
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010, NBCC 2015

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 (0.85")
CALCULATED VERT. DEFL.(LL) = L/999 (0.17")
ALLOWABLE DEFL.(TL) = L/360 (0.85")
CALCULATED VERT. DEFL.(TL) = L/955 (0.32")

CAUTION: CONTINUED ON PAGE 2



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

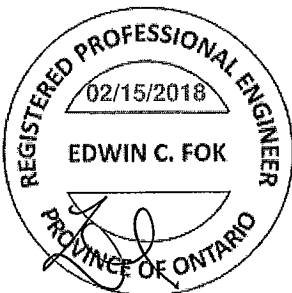
ALL WEBS EXCEPT	2x3	DRY
--------------------	-----	-----

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMVW-t	MT20	4.0	6.0	1.50 3.00
B	TTVW+m	MT20	4.0	6.0	2.50 1.75
C	TTVW+m	MT20	6.0	7.0	Edge 1.50
D	TMW+w	MT20	2.0	4.0	
E	TTVW-h	MT20	5.0	6.0	1.25 3.00
F	TTVW+m	MT20	4.0	6.0	2.50 2.00
G	TTVW+m	MT20	6.0	7.0	Edge 1.50
H	TMVW+p	MT20	4.0	6.0	2.00 2.00
I	BMV1+p	MT20	2.0	4.0	
J, L, O					
K	BMWW-t	MT20	4.0	4.0	
J	K BMWW-t	MT20	4.0	4.0	1.50 1.50
M	BS-t	MT20	3.0	6.0	
N	BMWWW-t	MT20	5.0	6.0	
P	BMWW-t	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							
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
Q	1234	0	1234	0	0	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	
I	1234	0	1234	0	0	5-8	1-13

UNFACTORED REACTIONS

1ST CASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	880	537 / 0	0 / 0	0 / 0	0 / 0	343 / 0	0 / 0
I	880	537 / 0	0 / 0	0 / 0	0 / 0	343 / 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 = 5.18 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY
APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
Q-A	-1206 / 0	0.0	0.0	0.23 (1)	7.29	A-P	0 / 1370
A-B	-767 / 0	-78.0	-78.0	0.07 (1)	6.25	P-B	-1109 / 0
B-C	-1199 / 0	-78.0	-78.0	0.17 (1)	5.66	B-O	-116 / 0
C-D	-1105 / 0	-78.0	-78.0	0.54 (1)	5.22	O-C	0 / 182
D-E	-1105 / 0	-78.0	-78.0	0.54 (1)	5.22	C-N	0 / 601
E-F	-1508 / 0	-78.0	-78.0	0.18 (1)	5.18	N-D	-576 / 0
F-G	-1467 / 0	-78.0	-78.0	0.20 (1)	5.19	N-E	0 / 299
G-H	-762 / 0	-78.0	-78.0	0.02 (1)	6.25	L-E	0 / 862
I-H	-1252 / 0	0.0	0.0	0.14 (1)	7.19	L-F	-815 / 0
						K-F	-910 / 0
Q-P	0 / 0	-18.5	-18.5	0.03 (1)	10.00	K-G	0 / 1398
P-O	0 / 804	-18.5	-18.5	0.19 (1)	10.00	J-G	-505 / 0
O-N	0 / 722	-18.5	-18.5	0.22 (4)	10.00	J-H	0 / 742
N-M	0 / 914	-18.5	-18.5	0.24 (4)	10.00		
M-L	0 / 914	-18.5	-18.5	0.24 (4)	10.00		
L-K	0 / 1497	-18.5	-18.5	0.29 (1)	10.00		
K-J	0 / 431	-18.5	-18.5	0.12 (1)	10.00		
J-I	0 / 0	-18.5	-18.5	0.05 (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 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

(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 (0.85")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.85")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.12")

CSI: TC=0.54/1.00 (C-D:1), BC=0.29/1.00 (K-L:1),
WB=0.64/1.00 (D-N:1), SSI=0.23/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

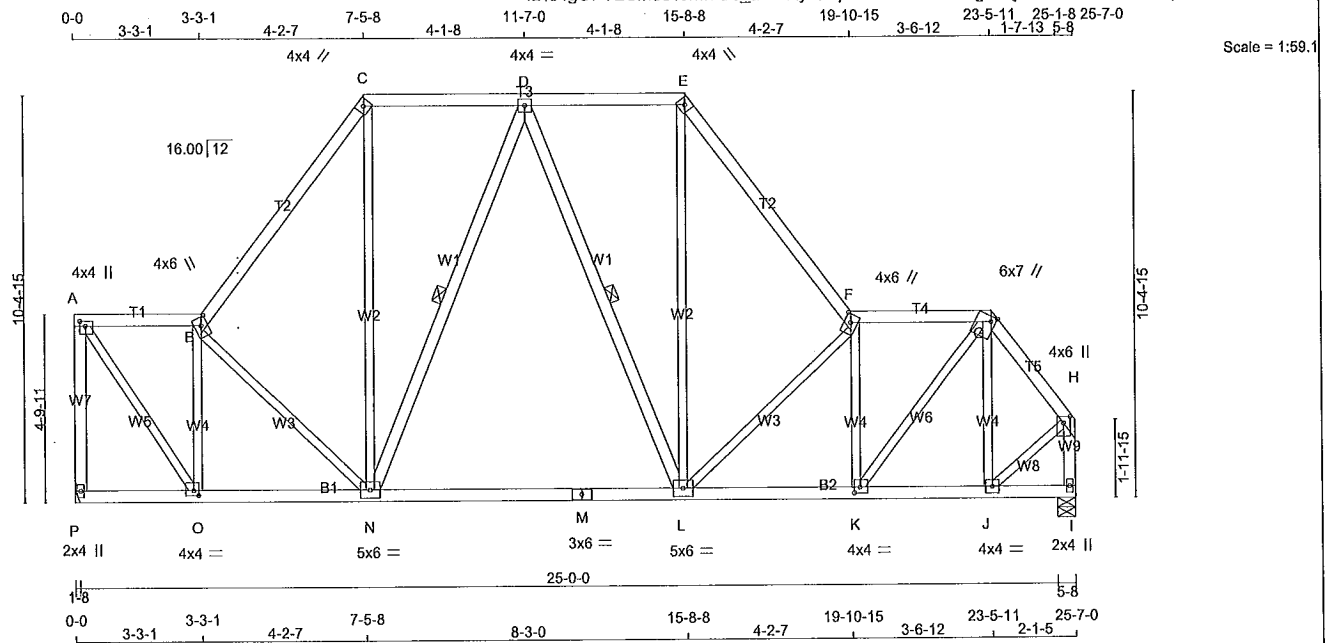
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (A) (INPUT = 0.90)
JSI METAL= 0.47 (F) (INPUT = 1.00)

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TOTAL WEIGHT = 145 lb

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

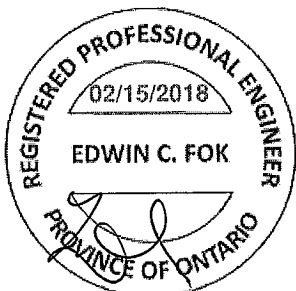
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
N - D	2x4	DRY	No.2	SPF
D - L	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in Inches)					
JT	TYPE	PLATES	W	LEN	Y X
A	TMWW+p	MT20	4.0	4.0	1.50 1.75
B	TTWW+m	MT20	4.0	6.0	2.50 2.00
C	TTW-h	MT20	4.0	4.0	
D	TMWW-t	MT20	4.0	4.0	
E	TTW-h	MT20	4.0	4.0	
F	TTWW+m	MT20	4.0	6.0	2.50 2.00
G	TTWW+m	MT20	6.0	7.0	Edge 1.50
H	TMWW+p	MT20	4.0	6.0	2.00 2.00
I	BMV1+p	MT20	2.0	4.0	
J	BMWW-t	MT20	4.0	4.0	
K	BMWW-t	MT20	4.0	4.0	1.75 1.75
L	BMWWWW-t	MT20	5.0	6.0	
M	BS-t	MT20	3.0	6.0	
N	BMWWWW-t	MT20	5.0	6.0	
O	BMWW-t	MT20	4.0	4.0	1.50 1.50
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	REQRD
JT	GROSS REACTION		GROSS REACTION		UPLIFT	BRG	BRG			
	VERT	HORZ	GROSS	HORZ		IN-SX	IN-SX			
P	1234	0	1234	0	0	HANGER BY OTHERS				
						MIN. SEAT SIZE: 1-8				
I	1234	0	1234	0	0	5-8	1-13			

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	880	537 / 0	0 / 0	0 / 0	0 / 0	343 / 0	0 / 0
I	880	537 / 0	0 / 0	0 / 0	0 / 0	343 / 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 = 5.44 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY
APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LOC 1 MAX CSI (L)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (L)		
FR-TO		FROM TO			FR-TO				
P-A	-1203 / 0	0.0	0.0	0.46 (1)	7.29	A-O	0 / 1326		
A-B	-759 / 0	-78.0	-78.0	0.15 (1)	6.25	O-B	-1039 / 0		
B-C	-1089 / 0	-78.0	-78.0	0.29 (1)	5.73	B-N	-187 / 0		
C-D	-659 / 0	-78.0	-78.0	0.21 (1)	6.25	N-C	0 / 575		
D-E	-752 / 0	-78.0	-78.0	0.22 (1)	6.25	N-D	-329 / 0		
E-F	-1242 / 0	-78.0	-78.0	0.30 (1)	5.44	D-L	-77 / 8		
F-G	-1198 / 0	-78.0	-78.0	0.19 (1)	5.62	L-E	0 / 697		
G-H	-926 / 0	-78.0	-78.0	0.07 (1)	6.25	L-F	-679 / 0		
H-H	-1226 / 0	0.0	0.0	0.14 (1)	7.24	K-F	-808 / 0		
						K-G	0 / 1071		
P-O	0 / 0	-18.5	-18.5	0.05 (4)	10.00	J-G	-323 / 0		
O-N	0 / 783	-18.5	-18.5	0.27 (4)	10.00	J-H	0 / 679		
N-M	0 / 781	-18.5	-18.5	0.27 (4)	10.00				
M-L	0 / 781	-18.5	-18.5	0.27 (4)	10.00				
L-K	0 / 1217	-18.5	-18.5	0.31 (4)	10.00				
K-J	0 / 542	-18.5	-18.5	0.13 (1)	10.00				
J-I	0 / 0	-18.5	-18.5	0.05 (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

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

(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 (0.85")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.85")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.15")

CSI: TC=0.46/1.00 (A-P:1), BC=0.31/1.00 (K-L:4),
WB=0.45/1.00 (F-L: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)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	788	1987	1656

PLATE PLACEMENT TOL. = 0.250 inches

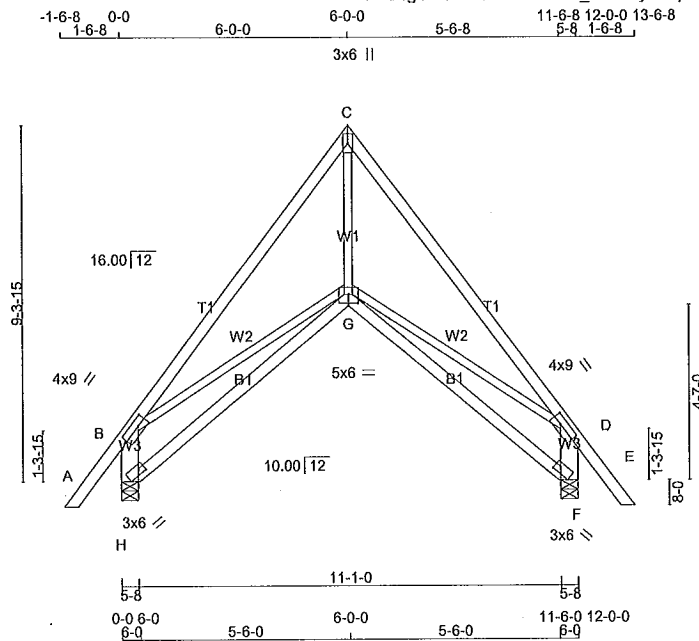
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (A) (INPUT = 0.90)
JSI METAL= 0.39 (F) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291805	H23T	4	1	TRUSS DESC.	

Alpa Roof Truss, Maple

Version 8.200 S Jan 6 2018 MITek Industries, Inc. Thu Feb 15 13:42:28 2018 Page 1
ID:84gOFYESM8s1JmDO6_uSGRyQWjP-m8gpala8aWrhorhJ7TfY01r3yVlpZ4FDaLloRTzkuJf



TOTAL WEIGHT = 4 X 65 = 268 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	2100F 1.8E	SPF	
C - E	2x4	DRY	2100F 1.8E	SPF	
H - B	2x6	DRY	No.2	SPF	
F - D	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	

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	4.0	9.0	2.00	3.00
C	TTW+p	MT20	3.0	6.0		
D	TMVW-I	MT20	4.0	9.0	2.00	3.00
F	BVM1-I	MT20	3.0	6.0	0.25	3.00
G	BBWWV-p	MT20	5.0	6.0	2.75	3.00
H	BVM1-I	MT20	3.0	6.0	0.25	3.00

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

BUILDING DESIGNER							
<u>BEARINGS</u>							
	FACTORED		MAXIMUM FACTORED		INPUT	REQRD	
	GROSS REACTION		GROSS REACTION		BRG	BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
H	686	0	686	0	0	5-8	1-8
F	686	0	686	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX. MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
H	487	310 / 0	0 / 0	0 / 0	0 / 0	0 / 0	177 / 0	0 / 0
F	487	310 / 0	0 / 0	0 / 0	0 / 0	0 / 0	177 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX. CS1 (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX CS1 (LC)	
FR-TO		FROM	TO			FR-TO			
A-B	0 / 43	-78.0	-78.0	0.07 (1)	10.00	G-C	0 / 606	0.14 (1)	
B-C	-671 / 0	-78.0	-78.0	0.25 (1)	6.25	B-G	0 / 473	0.11 (1)	
C-D	-671 / 0	-78.0	-78.0	0.25 (1)	6.25	G-D	0 / 473	0.11 (1)	
D-E	0 / 43	-78.0	-78.0	0.07 (1)	10.00				
H-B	-631 / 0	0.0	0.0	0.04 (1)	7.81				
F-D	-631 / 0	0.0	0.0	0.04 (1)	7.81				
H-G	0 / 0	-18.5	-18.5	0.20 (4)	10.00				
G-F	0 / 0	-18.5	-18.5	0.20 (4)	10.00				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

ALLOWABLE DEFL.(LL) = $L/360$ (0.40")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.02")
ALLOWABLE DEFL.(TL) = $L/360$ (0.40")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.10")

CSI: TC=0.25/1.00 (C-D:1), BC=0.20/1.00 (F-G:4), WB=0.14/1.00 (C-G:1), SSI=0.11/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.45 (G) (INPUT = 0.90)
JSI METAL= 0.16 (B) (INPUT = 1.00)

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



A-18023166

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291805	H24	1	1	TRUSS DESC.	

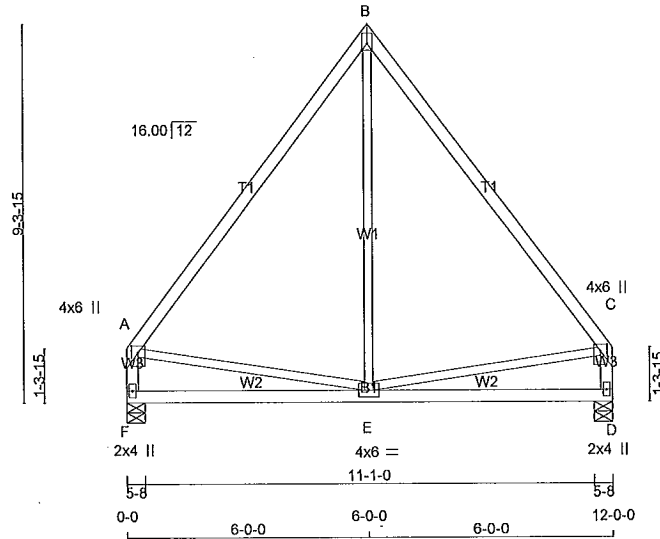
Alpa Roof Truss, Maple

ID:84gOFYESM8s1JmDO6_uSGRyQWJP-nGnwRI?HzACZSCdJ5QgXvVWHy_OpyQnwbrmtUI?uzkuA3

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0-0 6-0-0 6-0-0 5-6-8 11-6-8 12-0-0
3x5 II

Scale = 1:56.9



TOTAL WEIGHT = 56 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTW+p	MT20	3.0	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	BMVWW-t	MT20	4.0	8.0		
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	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
F	850	0	850	0
D	850	0	850	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. SNOW	MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
F	COMBINED	370 / 0	0 / 0	0 / 0	0 / 0	236 / 0	0 / 0
D	COMBINED	370 / 0	0 / 0	0 / 0	0 / 0	236 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. LC2 (LC)	UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)
FR-TO			FROM	TO			FR-TO			
A-B	-528 / 0	-78.0	-78.0	0.38 (1)	6.25	E-B	0 / 377	0.09 (4)		
B-C	-528 / 0	-78.0	-78.0	0.38 (1)	6.25	A-E	0 / 320	0.08 (1)		
F-A	-706 / 0	0.0	0.0	0.08 (1)	7.81	E-C	0 / 320	0.08 (1)		
D-C	-706 / 0	0.0	0.0	0.08 (1)	7.81					
F-E	0 / 0	-63.7	-63.7	0.42 (1)	10.00					
E-D	0 / 0	-63.7	-63.7	0.42 (1)	10.00					

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.40")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL) = L/360 (0.40")
CALCULATED VERT. DEFL.(TL) = L/999 (0.10")

CSI: TC=0.38/1.00 (B-C:1), BC=0.42/1.00 (D-E:1), WB=0.09/1.00 (B-E:4), SS=0.20/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.58 (B) (INPUT = 0.90)
JSI METAL= 0.22 (C) (INPUT = 1.00)

A-18022067

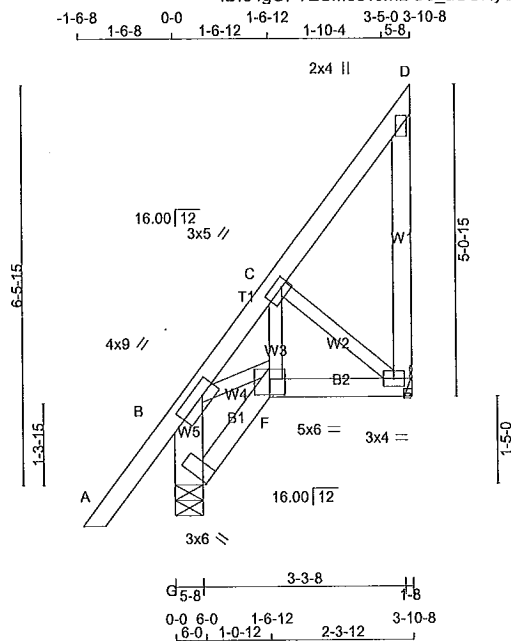


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291805	J3T	3	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:37.4

TOTAL WEIGHT = 3 X 27 = 81 lb [M]

LUMBER					
N. L. G. A. RULES					
CHORDS	SIZE		LUMBER		DESCR.
G - B	2x6	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.					

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
G	314	0		314	0	0	5-8	1-8	
E	168	0		168	0	0	HANGER BY OTHERS		MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	221	150 / 0	0 / 0	0 / 0	0 / 0	71 / 0	0 / 0
E	120	71 / -10	0 / 0	0 / 0	0 / 0	49 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (6)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	FORCE (LBS)	MAX. UNBRACED LENGTH FR-TO	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO	FR-TO			
G-B	-299 / 0	0.0	0.0 0.02 (1)	B-F	-5 / 100	7.81	0.02 (1)
A-B	0 / 43	-78.0	-78.0 0.11 (1)	F-C	0 / 70	10.00	0.02 (4)
B-C	-184 / 0	-78.0	-78.0 0.10 (1)	C-E	-115 / 7	6.25	0.02 (1)
C-D	-7 / 4	-78.0	-78.0 0.05 (1)			10.00	
E-D	-77 / 0	0.0	0.0 0.03 (1)			7.81	
G-F	0 / 0	-18.5	-18.5 0.01 (4)			10.00	
F-E	-6 / 90	-18.5	-18.5 0.04 (4)			10.00	

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

CSI: TC=0.11/1.00 (A-B:1), BC=0.04/1.00 (E-F:4), WB=0.02/1.00 (B-F:1), SSI=0.05/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

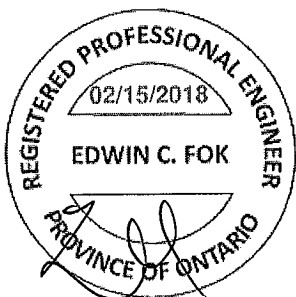
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 788 1987 1656

PLATE PLACEMENT TOL. = 0.250 Inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.15 (E) (INPUT = 0.90)
JSI METAL= 0.05 (B) (INPUT = 1.00)

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

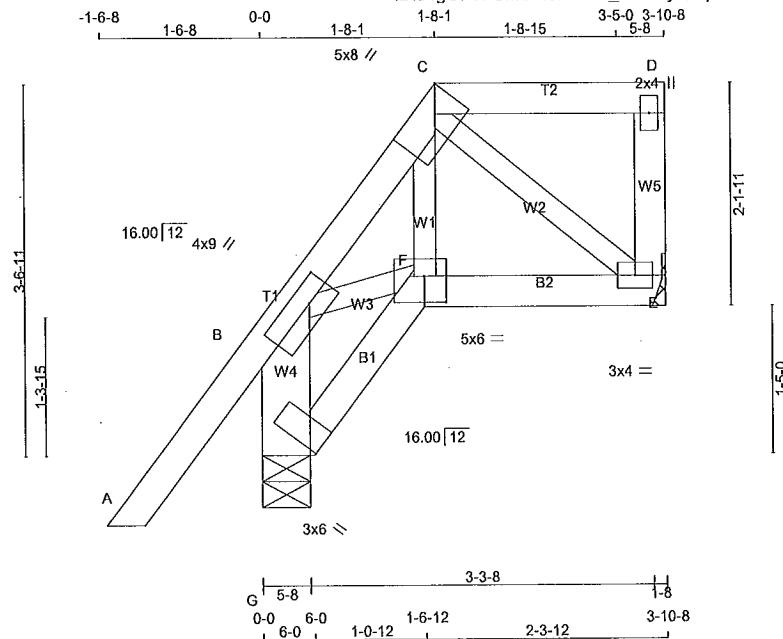


A-18023168

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291805	J3TA	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:22.1

TOTAL WEIGHT = 22 lb

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-1	MT20	4.0	9.0	2.00	3.00
C	TTWW-h	MT20	5.0	8.0	Edge	2.75
D	TMV+p	MT20	2.0	4.0		
E	BMVW-1	MT20	3.0	4.0		
F	BBWW-1	MT20	5.0	6.0	3.00	2.50
G	BVM1+H	MT20	3.0	6.0	Edge	

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

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT		REQRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
E	168	0	168	0	0	HANGER BY OTHERS	MIN. SEAT SIZE: 1-8		
G	314	0	314	0	0	5-8	1-8		

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	120	71 / -10	0 / 0	0 / 0	0 / 0	49 / 0	0 / 0
G	221	150 / 0	0 / 0	0 / 0	0 / 0	71 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (5)

CHORDS		MAX. FACTORED		FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT.	LC1	MAX	MAX.	MEMB.	FORCE (LBS)	MAX	MAX
FR-TO		FROM	TO	CSI (LC)	UNBRAC	FR-TO		CSI (LC)	UNBRAC
A-B	0 / 43	-78.0	-78.0	0.11 (1)	10.00	F-C	0 / 64	0.02 (4)	10.00
B-C	-171 / 0	-78.0	-78.0	0.10 (1)	6.25	C-E	-98 / 0	0.02 (1)	10.00
C-D	0 / 0	-78.0	-78.0	0.06 (1)	10.00	B-F	0 / 84	0.02 (1)	10.00
E-D	-86 / 0	0.0	0.0	0.01 (1)	7.81				
G-B	-299 / 0	0.0	0.0	0.02 (1)	7.81				
G-F	0 / 0	-18.5	-18.5	0.01 (4)	10.00				
F-E	0 / 76	-18.5	-18.5	0.04 (4)	10.00				

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

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

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

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

CSI: TC=0.11/1.00 (A-B:1), BC=0.04/1.00 (E-F:4), WB=0.02/1.00 (B-F:1), SSI=0.07/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

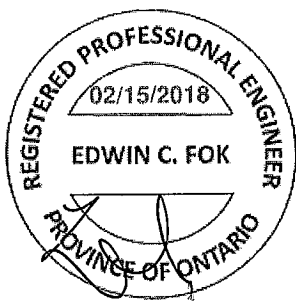
NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)	(PLI)
	MAX	MIN	MAX	MIN
MT20	618	354	1667	788
	1987	1656		

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.13 (E) (INPUT = 0.90)
JSI METAL= 0.05 (B) (INPUT = 1.00)

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



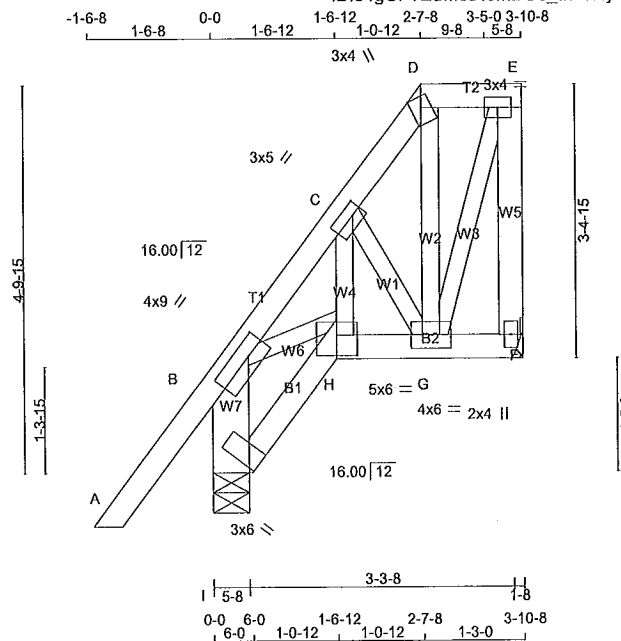
A-18023169

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
291805	J3TB	1	1	TRUSS DESC.	

Alpa Roof Truss, Maple

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Scale = 1:28.7

TOTAL WEIGHT = 29 lb

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
F	460	0	460	0	5-8	1-8
I	606	0	606	0	5-8	1-8

UNFACTORED REACTIONS

1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	328	198 / -10	0 / 0	0 / 0	0 / 0	130 / 0	0 / 0
F	429	277 / 0	0 / 0	0 / 0	0 / 0	153 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (6)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 43	-78.0	-78.0	0.12 (1)	10.00	H-C	0 / 172
B-C	-463 / 0	-199.8	-199.8	0.11 (1)	6.25	C-G	-265 / 0
C-D	-208 / 0	-199.8	-199.8	0.03 (1)	6.25	G-D	-50 / 16
D-E	-111 / 0	-199.8	-199.8	0.06 (1)	6.25	G-E	0 / 323
F-E	-424 / 0	0.0	0.0	0.08 (1)	7.81	B-H	0 / 276
I-B	-569 / 0	0.0	0.0	0.04 (1)	7.81		
I-H	0 / 0	-47.4	-47.4	0.04 (4)	10.00		
H-G	0 / 252	-47.4	-47.4	0.07 (1)	10.00		
G-F	0 / 0	-47.4	-47.4	0.02 (1)	10.00		

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

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

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

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

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

ALLOWABLE DEFL.(LL) = L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.12/1.00 (A-B:1), BC=0.07/1.00 (G-H:1), VB=0.08/1.00 (E-G:1), SS=0.11/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

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

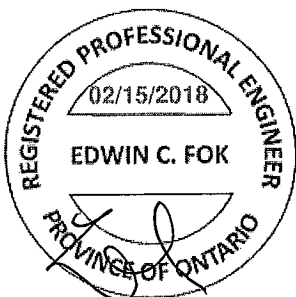
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

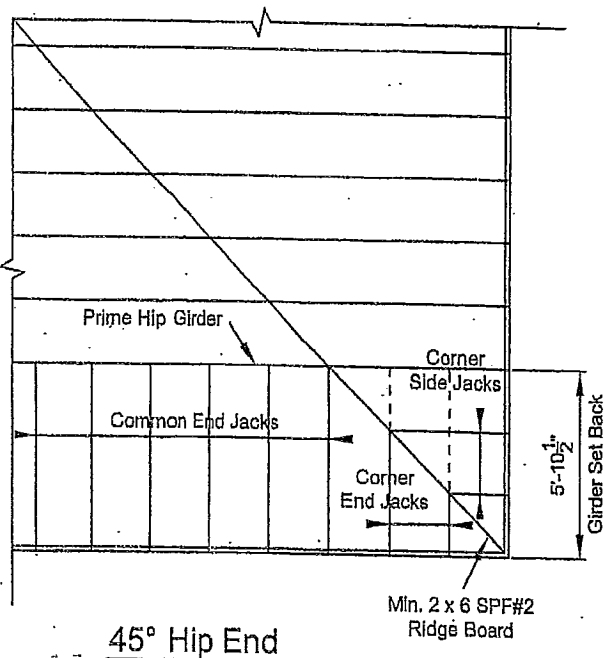
A-18023170

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



STRACON ENGINEERING INC.

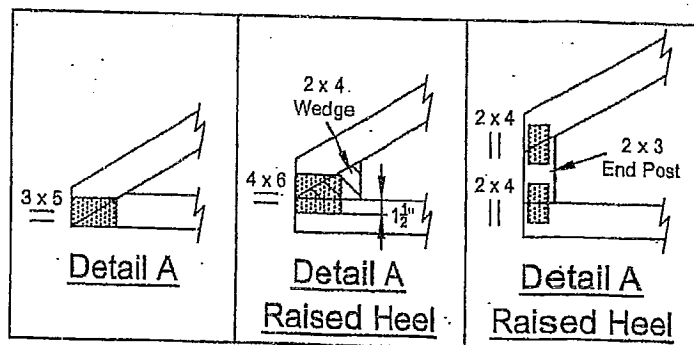
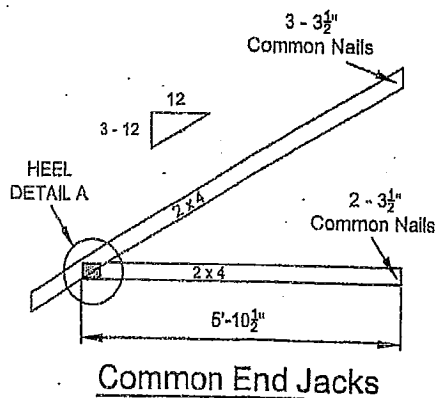
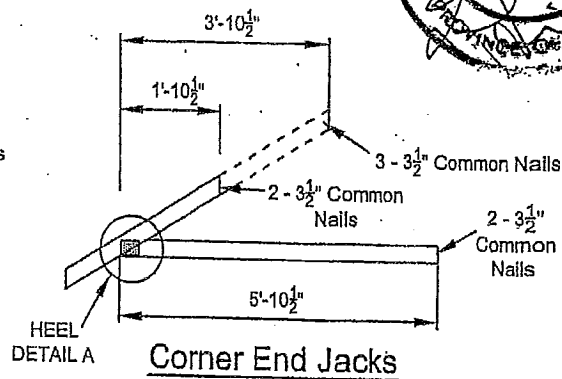
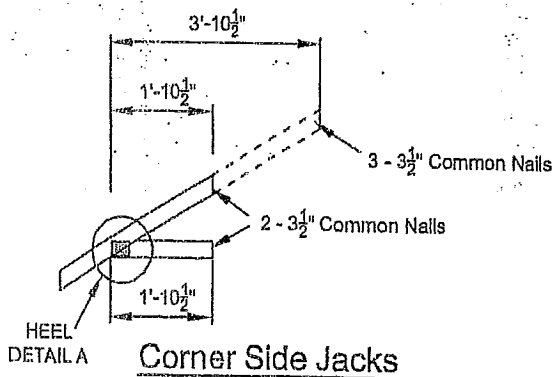


LUMBER SPECIFICATION

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

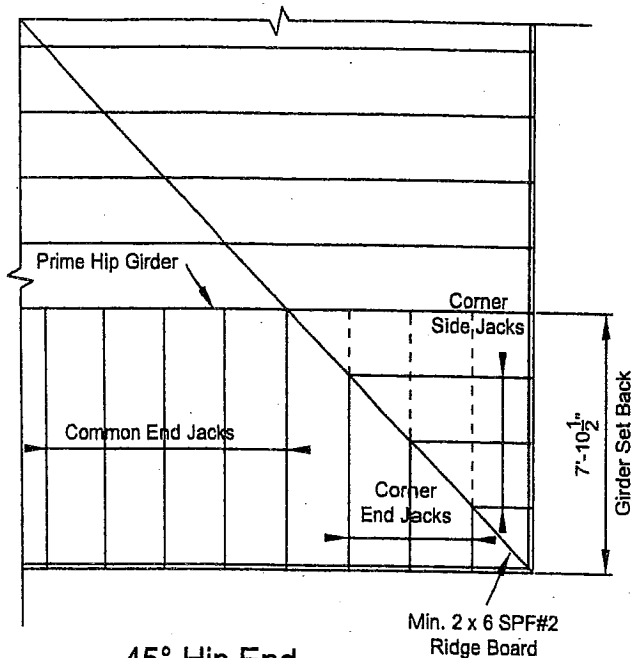
TOP CHORD SNOW LOAD : 40.5 P.S.F.
 TOP CHORD DEAD LOAD : 3.0 P.S.F.
 BOTTOM CHORD LIVE LOAD : 0.0 P.S.F.
 BOTTOM CHORD DEAD LOAD : 7.0 P.S.F.
 TOTAL LOAD : 50.5 P.S.F.



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

CS-51008

STRACON ENGINEERING INC.



45° Hip End

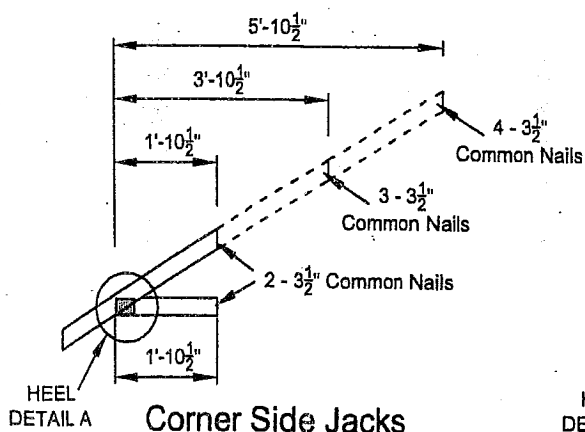
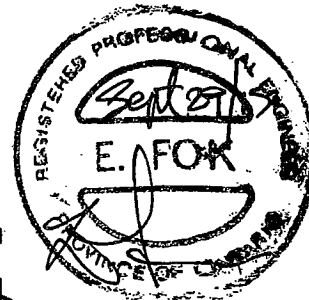
LUMBER SPECIFICATION

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

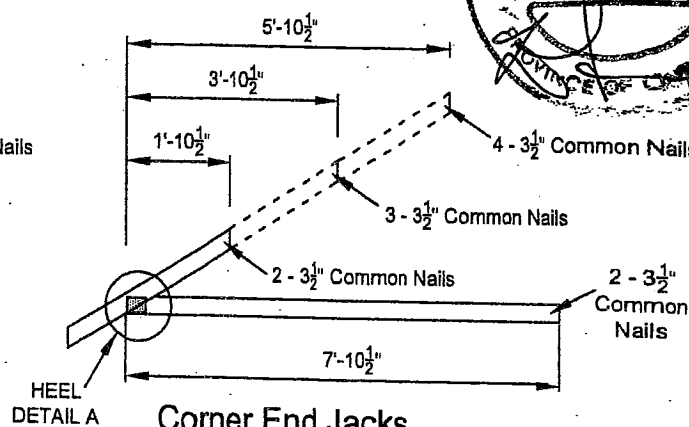
DESIGN LOAD

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.

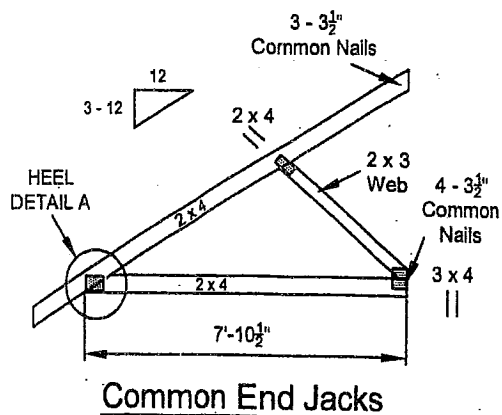
TOTAL LOAD : 44.8 P.S.F



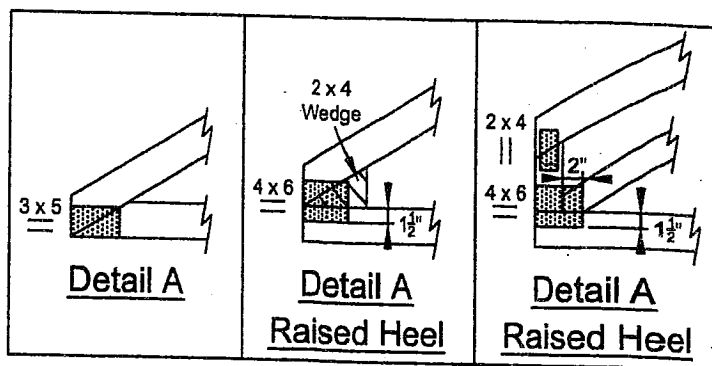
Corner Side Jacks



Corner End Jacks



Common End Jacks



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

CS-71008N

LUS – Double Shear Joist Hangers

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

Material: 18 gauge

Finish: G90 galvanized

Design:

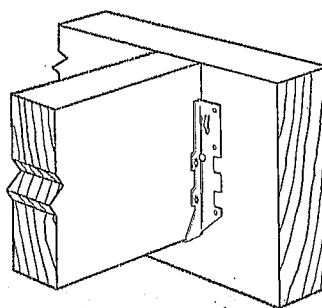
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

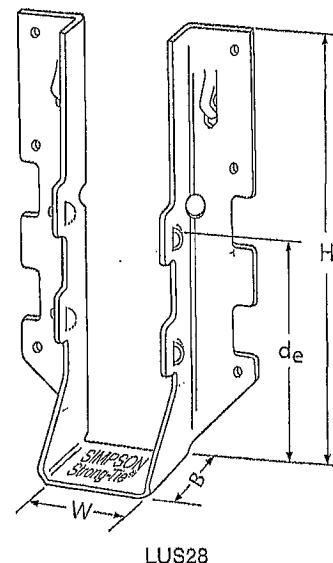
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire,
10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



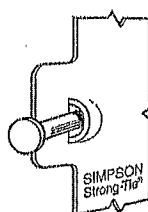
Typical LUS
Installation



LUS28

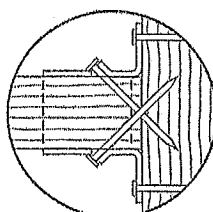
Model No.	Ga.	Dimensions (in.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist		D.Fir-L		S-P-F	
									Uplift (K _D =1.15)	Normal (K _D =1.00)	Uplift (K _D =1.15)	Normal (K _D =1.00)
LUS24	18	1½	3½	1½	1¾	(4) 10d	(2) 10d		710	1630	645	1155
LUS24-2	18	3½	3½	2	1¾	(4) 16d	(2) 16d		835	2020	590	1435
LUS26	18	1½	4½	1½	3½	(4) 10d	(4) 10d		1420	2170	1290	1630
LUS26-2	18	3½	4½	2	4	(4) 16d	(4) 16d		1720	2595	1545	1920
LUS26-3	18	4½	4½	2	3¼	(4) 16d	(4) 16d		1720	2595	1545	2340
LUS28	18	1½	6½	1½	3¾	(6) 10d	(6) 10d		1420	2520	1290	1790
LUS28-2	18	3½	7	2	4	(6) 16d	(4) 16d		1720	3325	1545	2575
LUS28-3	18	4½	6¼	2	3¼	(6) 16d	(4) 16d		1720	3325	1545	2375
LUS210	18	1½	7½	1½	3¾	(8) 10d	(4) 10d		1420	2785	1290	2210
LUS210-2	18	3½	9	2	6	(8) 16d	(6) 16d		2580	4500	2320	3195
LUS210-3	18	4½	8¾	2	5¼	(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.

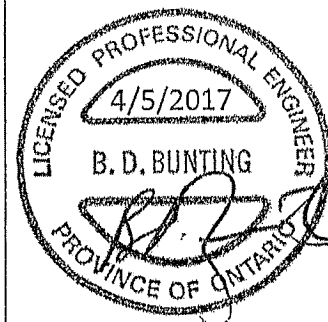


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent
5,603,580



Double Shear Nailing
Top View.



LIMIT
STATES
DESIGN

This technical bulletin is valid 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 (www.strongtie.com).

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

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HHUS – Double Shear Joist Hangers



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

Material: 14 gauge

Finish: G90 galvanized

Design:

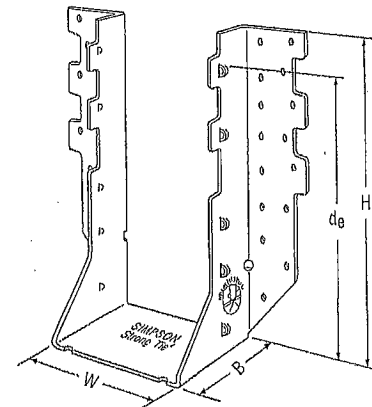
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

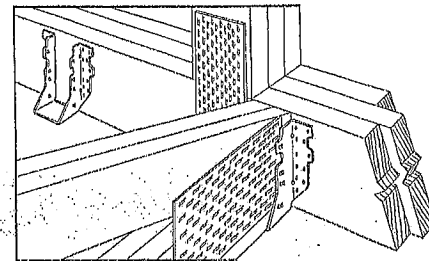
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

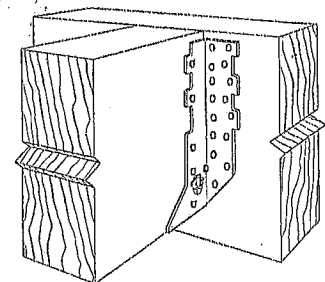
- See current catalogue for options



HHUS410



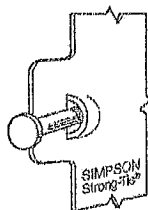
Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)



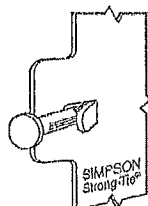
Typical HHUS Installation

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

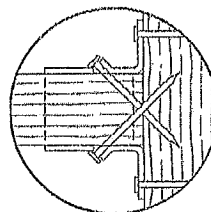
1. d_b is the distance from the seat of the hanger to the highest joist nail.



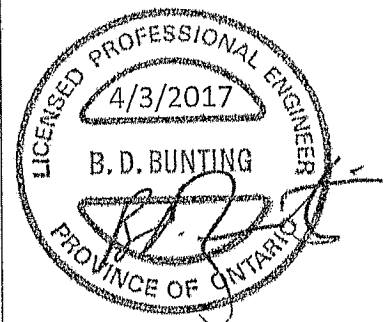
Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECHHUS17-3/17 exp. 6/19

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HUS/LJS – Double Shear Joist Hangers



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

Material: See table

Finish: G90 galvanized

Design:

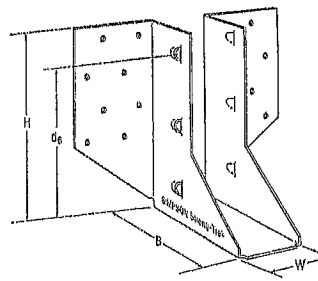
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

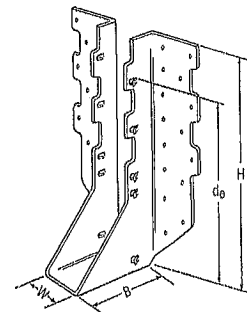
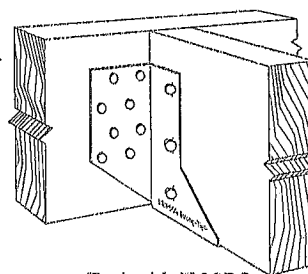
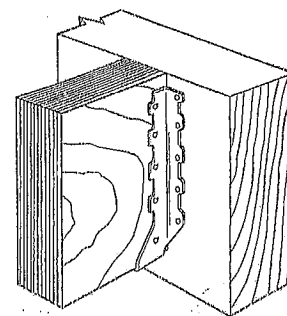
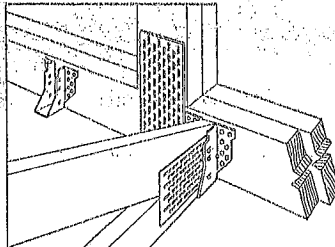
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options

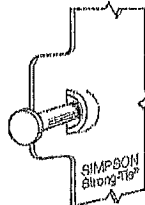


LJS26DS

HUS210
(HUS26, HUS28, similar)Typical LJS26DS
InstallationTypical HUS
InstallationTypical HUS Installation
(Truss Designer to provide fastener
quantity for connecting multiple
members together)

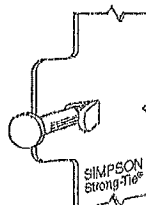
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _a ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LJS26DS	18	1 11/16	5	3 1/2	4 5/8	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1 1/8	5 1/8	3	3 1/4	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1 1/8	7 1/2	3	6 1/2	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	18	1 1/8	9 1/2	3	7 1/2	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1 1/8	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

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

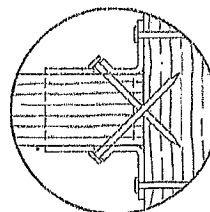


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

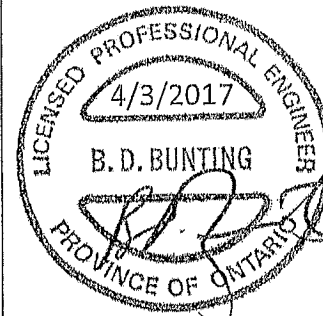
U.S. Patent
5,603,580



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



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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