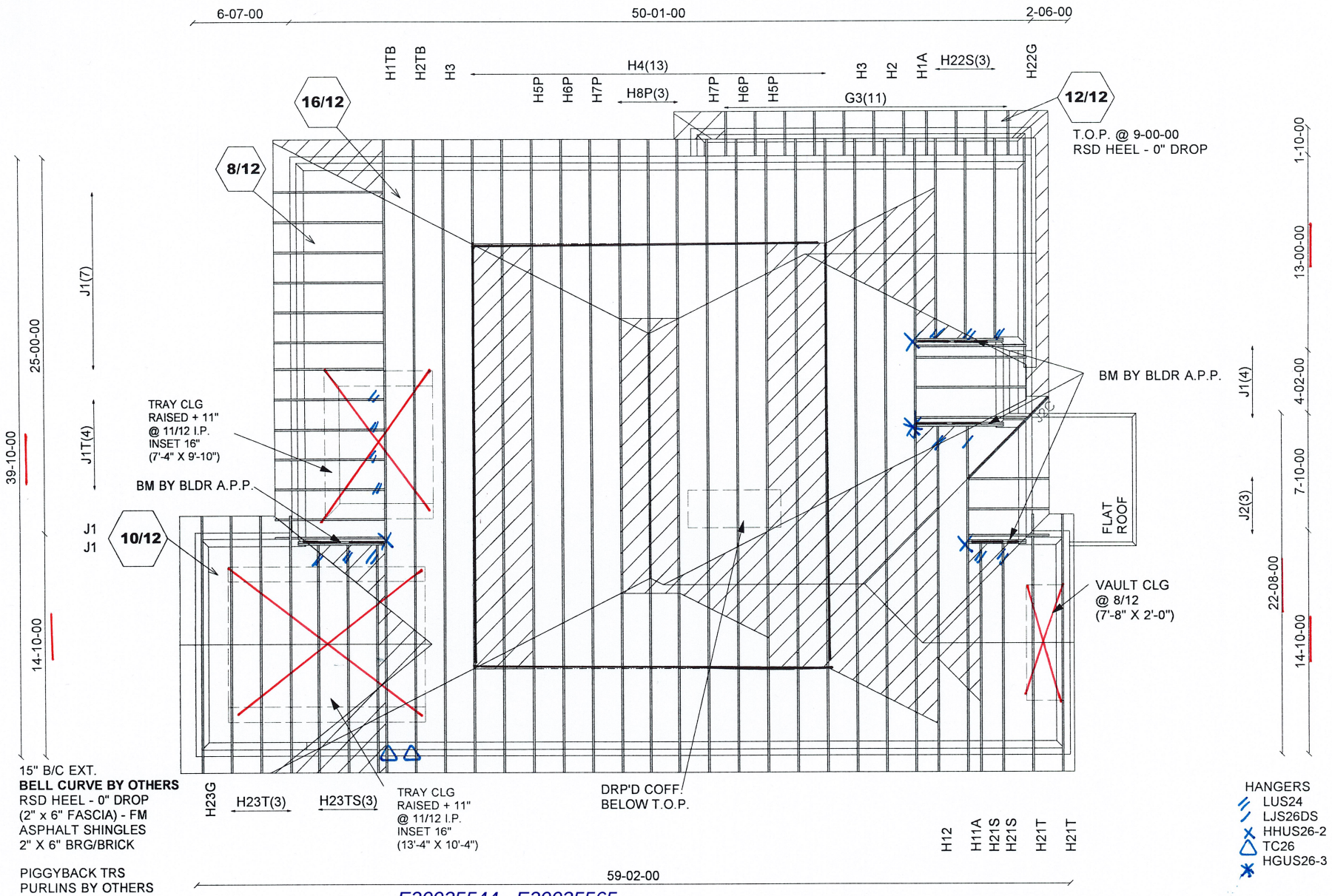

E20035544 - E20035565
E20035567

OAKGROVE

Job Track: 45147	Builder / Location: GOLD PARK HOMES / VAUGHAN	Model / Elevation: 5003 / B R.U. 5BED OPT TRAY	OPT 2ND FLR (SBD) W/SITTING CLG OR OPT LOGGIA (FLAT).
Layout ID: 318468	Project: PINE VALLEY		
Plan Log: 105728	Date: 2020-03-17 Designer: AMANDA		

EWP DESIGN INC.

(905) 832-2250 FAX (905) 832-0286

RESPONSIBILITIES AND SPECIFICATIONS

RESPONSIBILITIES

1. EWP DESIGN 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 each drawing meet or exceed the actual dead load imposed by the structure, the live load imposed by the intended use and the snow load imposed by local building code or authorities with jurisdictions.
3. All dimensions are to be verified by the owner, contractor, architect or other authorities with jurisdictions before truss fabrication.
4. EWP DESIGN INC. bears no responsibility for the erection of trusses. Persons erecting trusses are cautioned to seek professional advice regarding the temporary and permanent bracing for the system. Bracing shown on EWP DESIGN INC. drawing is specified for the truss as a component only and forms an integral part of the truss design.
5. It is the truss manufacturer's responsibility to ensure that trusses are manufactured in conformance with specifications of EWP DESIGN INC. as outlined below.

SPECIFICATIONS

1. Trusses designed by EWP DESIGN INC. conform 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, as indicated on the EWP DESIGN INC. drawings, and conform to the design procedures established by the Truss Plate Institute of Canada. Unit stresses used for truss designs are as per the edition of CSA-O86 shown on EWP DESIGN INC. drawings.
2. Lumber is to be the size, species and grade as specified on EWP DESIGN INC. drawings.
3. Moisture content of lumber shall not exceed 19% in service unless specified otherwise.
4. Metal connector plates shall be applied to both faces of truss at each joint and shall be positioned as specified.
5. Top chords of trusses are assumed to be continuously braced laterally by roof sheathing or by purlins at intervals not exceeding 12.5 times the thickness of top chord member.
6. Bottom chords shall be laterally braced at intervals not exceeding 3M (10') o.c., where rigid ceiling is not applied directly to the underside of chords.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	G3	11	1	TRUSS DESC. JT 45147	E20035544

Alpa Roof Truss, Maple

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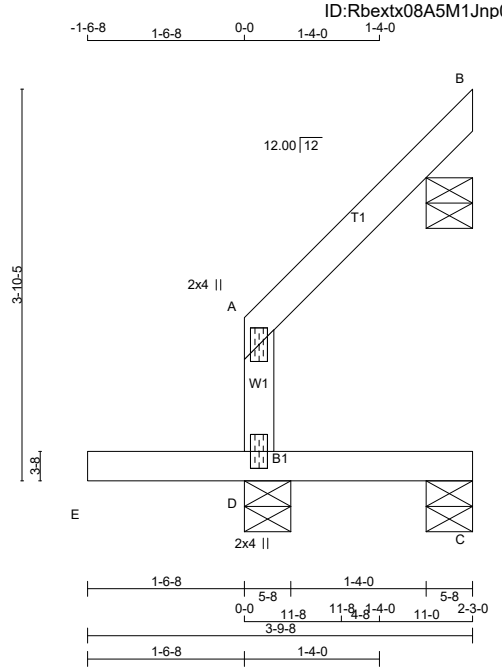

TOTAL WEIGHT = 11 X 10 = 106 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
D - A	2x4	DRY	No.2	SPF
E - C	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	
D	BMV1+p	MT20	2.0	4.0	

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
B	78	0	78	0	0	5-8	5-8
C	16	0	17	0	0	5-8	1-8
D	272	0	272	0	0	5-8	1-8

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): B

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	54	42 / 0	0 / 0	0 / 0	0 / 0	12 / 0	0 / 0
C	12	0 / 0	0 / 0	0 / 0	0 / 0	12 / 0	0 / 0
D	194	117 / 0	0 / 0	0 / 0	0 / 0	77 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 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.

LOADING

TOTAL LOAD CASES: (5)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX CSI (LC)	WEBS MAX. UNBRAC LENGTH	MEMB.	MAX. FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO		FR-TO			
A- B	-7 / 0	-78.0 -78.0	0.05 (1)	10.00			
D- A	-98 / 0	0.0 0.0	0.03 (1)	7.81			
E- D	0 / 0	-96.5 -96.5	0.16 (5)	10.00			
D- C	0 / 0	-18.5 -18.5	0.03 (4)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

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 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

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=0.05/1.00 (A-B:1) , BC=0.16/1.00 (D-E:5) , WB=0.00/1.00 (n/a:0) , SSI=0.12/1.00 (D-E:5)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.07 (A) (INPUT = 0.90)
JSI METAL= 0.05 (A) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H1A	1	1	TRUSS DESC. JT 45147	E20035545

Alpa Roof Truss, Maple

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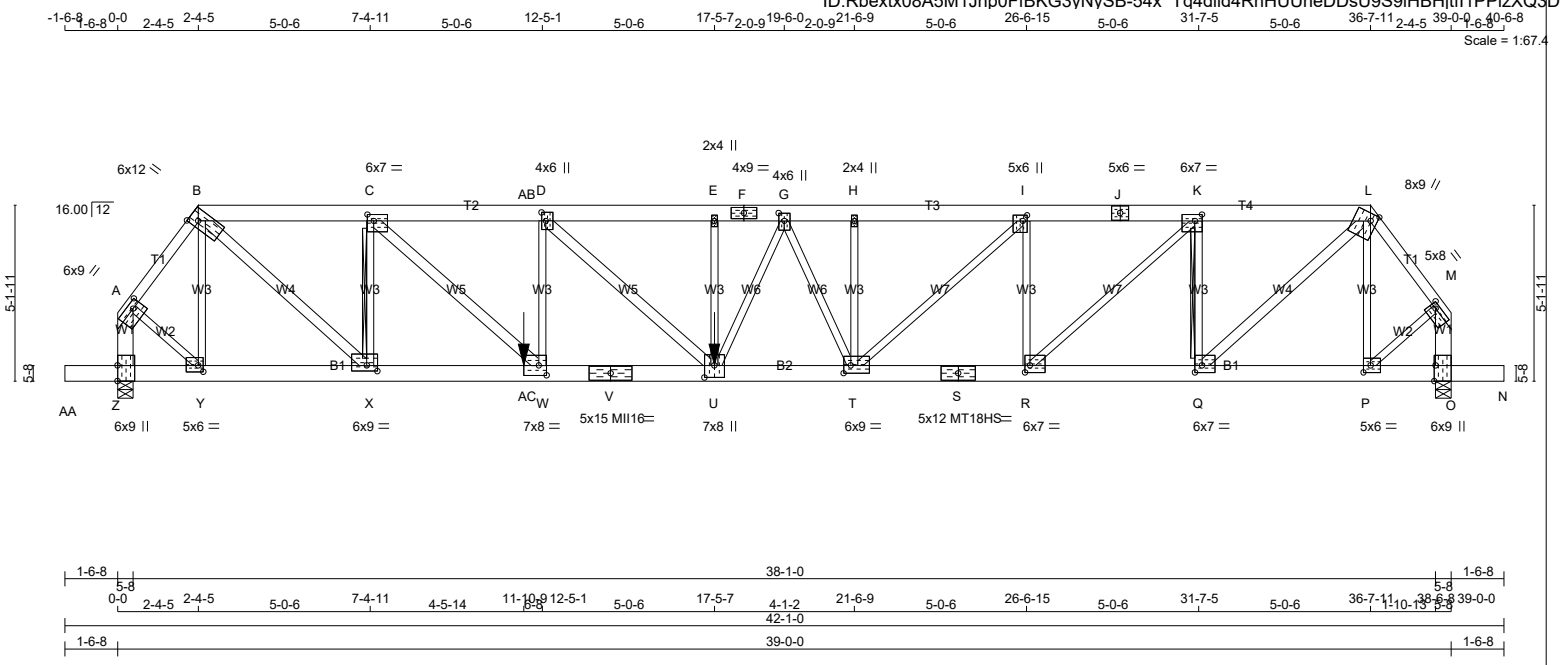

TOTAL WEIGHT = 231 lb

[M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	6.0	9.0	2.00	3.00
B	TTWW+h	MT20	6.0	12.0	3.25	2.25
C	TMWW-t	MT20	6.0	7.0	2.25	2.25
D	TMWW+t	MT20	4.0	6.0	3.00	1.50
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	4.0	9.0		
G	TMWW+t	MT20	4.0	6.0	2.75	2.00
H	TMW+w	MT20	2.0	4.0		
I	TMWW+t	MT20	5.0	6.0	2.00	1.50
J	TS-t	MT20	5.0	6.0		
K	TMWW-t	MT20	6.0	7.0	2.25	2.50
L	TTWW+m	MT20	8.0	9.0	2.50	2.25
M	TMVW-t	MT20	5.0	8.0	1.50	2.00
O	BMV1+t	MT20	6.0	9.0	Edge	0.50
P	BMWW-t	MT20	5.0	6.0	2.50	2.50
Q	BMWW-t	MT20	6.0	7.0	2.50	2.50
R	BMWW-t	MT20	6.0	7.0	2.50	1.75
S	BS-t	MT18HS	5.0	12.0		
T	BMWWW-t	MT20	6.0	9.0	2.75	2.50
U	BMWWW+t	MT20	7.0	8.0	4.25	3.50

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
Z	4555	0	4555	0	0	5-8	5-8
O	3693	0	3693	0	0	5-8	5-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Z	3207	2187 / 0	0 / 0	0 / 0	0 / 0	1020 / 0	0 / 0
O	2606	1743 / 0	0 / 0	0 / 0	0 / 0	863 / 0	0 / 0

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

BEARING SIZE FACTOR = 1.15 AT JNT(S) Z, O (BASED ON SUPPORT DEPTH = 1-8)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.63 FT.

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

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

2x4 DRY SPF No.2 T-BRACE AT C-X, K-Q

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 FROM (PLF)	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	-3691 / 0	-78.0	-78.0	0.28 (1)	3.43
B- C	-6429 / 0	-78.0	-78.0	0.23 (1)	3.85
C-AB	-10070 / 0	-78.0	-78.0	0.40 (1)	3.04
AB- D	-10070 / 0	-156.0	-156.0	0.40 (1)	3.04
D- E	-11511 / 0	-156.0	-156.0	0.64 (1)	2.63
E- F	-11511 / 0	-78.0	-78.0	0.41 (1)	2.84
F- G	-11511 / 0	-78.0	-78.0	0.41 (1)	2.84
G- H	-10061 / 0	-78.0	-78.0	0.32 (1)	3.09
H- I	-10061 / 0	-78.0	-78.0	0.42 (1)	3.02
I- J	-7819 / 0	-78.0	-78.0	0.29 (1)	3.50
J- K	-7819 / 0	-78.0	-78.0	0.29 (1)	3.50
K- L	-5079 / 0	-78.0	-78.0	0.18 (1)	4.29
L- M	-2953 / 0	-78.0	-78.0	0.21 (1)	3.87
Z- A	-4414 / 0	0.0	0.0	0.36 (1)	5.07
O- M	-3549 / 0	0.0	0.0	0.29 (1)	5.62
AA- Z	0 / 0	-96.5	-96.5	0.06 (1)	10.00
Z- Y	0 / 0	-18.5	-18.5	0.04 (1)	10.00
Y- X	0 / 2183	-18.5	-18.5	0.22 (1)	10.00
X-AC	0 / 6429	-18.5	-18.5	0.66 (1)	10.00
AC- W	0 / 6429	-112.0	-112.0	0.66 (1)	10.00
W- V	0 / 10070	-112.0	-112.0	0.97 (1)	10.00
V- U	0 / 10070	-112.0	-112.0	0.97 (1)	10.00
U- T	0 / 10807	-18.5	-18.5	0.95 (1)	10.00
T- S	0 / 7819	-18.5	-18.5	0.70 (1)	10.00
S- R	0 / 7819	-18.5	-18.5	0.70 (1)	10.00
R- Q	0 / 5079	-18.5	-18.5	0.45 (1)	10.00
Q- P	0 / 1747	-18.5	-18.5	0.18 (1)	10.00
P- O	0 / 0	-18.5	-18.5	0.03 (1)	10.00
O- N	0 / 0	-96.5	-96.5	0.06 (1)	10.00

WEBS MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
Y- B	-1266 / 0	0.45 (1)
B- X	0 / 5796	0.74 (1)
X- C	-3787 / 0	0.80 (1)
C- W	0 / 4974	0.88 (1)
W- D	-2006 / 0	0.71 (1)
D- U	0 / 1968	0.35 (1)
U- E	-478 / 0	0.17 (1)
U- G	0 / 1758	0.44 (1)
G- T	-1860 / 0	0.78 (1)
T- H	-300 / 0	0.11 (1)
T- I	0 / 3064	0.76 (1)
R- I	-2464 / 0	0.87 (1)
R- K	0 / 3743	0.93 (1)
Q- K	-2996 / 0	0.63 (1)
Q- L	0 / 4548	0.58 (1)
P- L	-990 / 0	0.35 (1)
A- Y	0 / 2600	0.64 (1)
P- M	0 / 2080	0.51 (1)

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CStdGirder
START DISTANCE = 11-10-9
START SPAN CARRIED = 5-10-8
END DISTANCE = 17-5-7
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (1.30")
CALCULATED VERT. DEFL.(LL) = L/ 933 (0.50")
ALLOWABLE DEFL.(TL)= L/360 (1.30")
CALCULATED VERT. DEFL.(TL) = L/ 527 (0.89")

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=0.64/1.00 (D-E:1) , BC=0.97/1.00 (U-W:1) , WB=0.93/1.00 (K-R:1) , SSI=0.68/1.00 (W-X:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

CONTINUED ON PAGE 2

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
V	BS-t	MII16	5.0	15.0		
W	BMWW-t	MT20	7.0	8.0	3.50	2.75
X	BMWW-t	MT20	6.0	9.0	2.00	3.75
Y	BMWW-t	MT20	5.0	6.0	2.25	1.75
Z	BMV1+t	MT20	6.0	9.0	Edge	

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

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
U	17-5-7	-2233	-2233	---	FRONT	VERT	TOTAL	---	C1
AC	11-10-9	-1000	-1000	---	FRONT	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

1) **C1:** A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873
MII16	438	302	2547	1256	4283	1816
MT18HS	586	403	2455	1382	3163	3004

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (I) (INPUT = 0.90)
JSI METAL= 0.94 (S) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H2	1	1	TRUSS DESC. JT 45147	E20035546

Alpa Roof Truss, Maple

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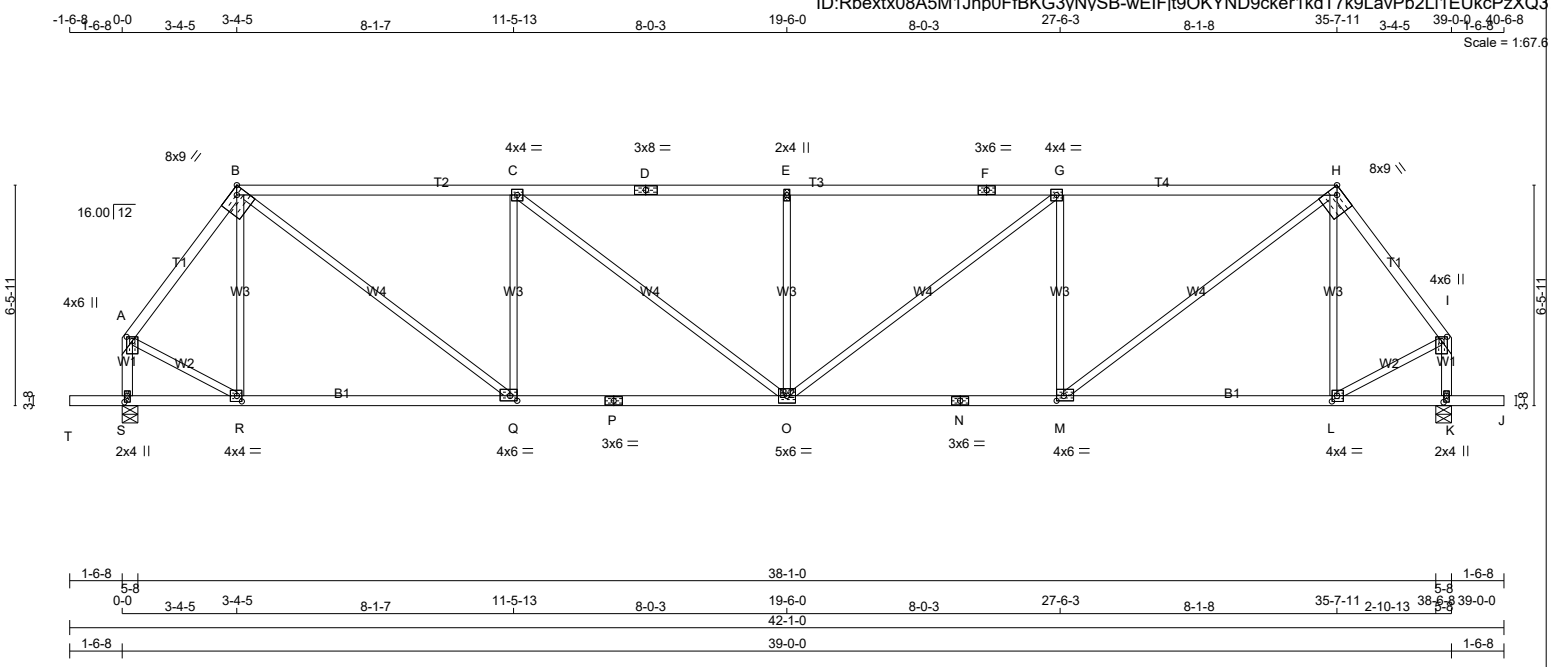

TOTAL WEIGHT = 164 lb [M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
S	2030	0	2030	0	0	5-8	3-0
K	2030	0	2030	0	0	5-8	3-0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
S	1447	883 / 0	0 / 0	0 / 0	0 / 0	564 / 0	0 / 0
K	1447	883 / 0	0 / 0	0 / 0	0 / 0	564 / 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 = 4.16 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.	FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO						FR-TO		
A- B	-1614 / 0	-78.0	-78.0	0.21 (1)	5.02	R- B	-318 / 0	0.22 (1)
B- C	-2566 / 0	-78.0	-78.0	0.68 (1)	4.48	B- Q	0 / 2018	0.45 (1)
C- D	-3036 / 0	-78.0	-78.0	0.74 (1)	4.16	Q- C	-1065 / 0	0.73 (1)
D- E	-3036 / 0	-78.0	-78.0	0.74 (1)	4.16	C- O	0 / 593	0.13 (1)
E- F	-3036 / 0	-78.0	-78.0	0.74 (1)	4.16	O- E	-578 / 0	0.39 (1)
F- G	-3036 / 0	-78.0	-78.0	0.74 (1)	4.16	O- G	0 / 593	0.13 (1)
G- H	-2566 / 0	-78.0	-78.0	0.68 (1)	4.48	M- G	-1065 / 0	0.73 (1)
H- I	-1614 / 0	-78.0	-78.0	0.21 (1)	5.02	M- H	0 / 2018	0.45 (1)
S- A	-1873 / 0	0.0	0.0	0.22 (1)	6.13	L- H	-318 / 0	0.22 (1)
K- I	-1873 / 0	0.0	0.0	0.22 (1)	6.13	A- R	0 / 1060	0.24 (1)
						L- I	0 / 1060	0.24 (1)
T- S	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
S- R	0 / 0	-18.5	-18.5	0.18 (4)	10.00			
R- Q	0 / 956	-18.5	-18.5	0.33 (4)	10.00			
Q- P	0 / 2566	-18.5	-18.5	0.54 (1)	10.00			
P- O	0 / 2566	-18.5	-18.5	0.54 (1)	10.00			
O- N	0 / 2566	-18.5	-18.5	0.54 (1)	10.00			
N- M	0 / 2566	-18.5	-18.5	0.54 (1)	10.00			
M- L	0 / 956	-18.5	-18.5	0.33 (4)	10.00			
L- K	0 / 0	-18.5	-18.5	0.18 (4)	10.00			
K- J	0 / 0	-96.5	-96.5	0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (1.30")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (1.30")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.33")

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=0.74/1.00 (E-G:1) , BC=0.54/1.00 (O-Q:1) , WB=0.73/1.00 (G-M:1) , SSI=0.30/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (Q) (INPUT = 0.90)
JSI METAL= 0.84 (P) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H3	2	1	TRUSS DESC. JT 45147	E20035547

Alpa Roof Truss, Maple

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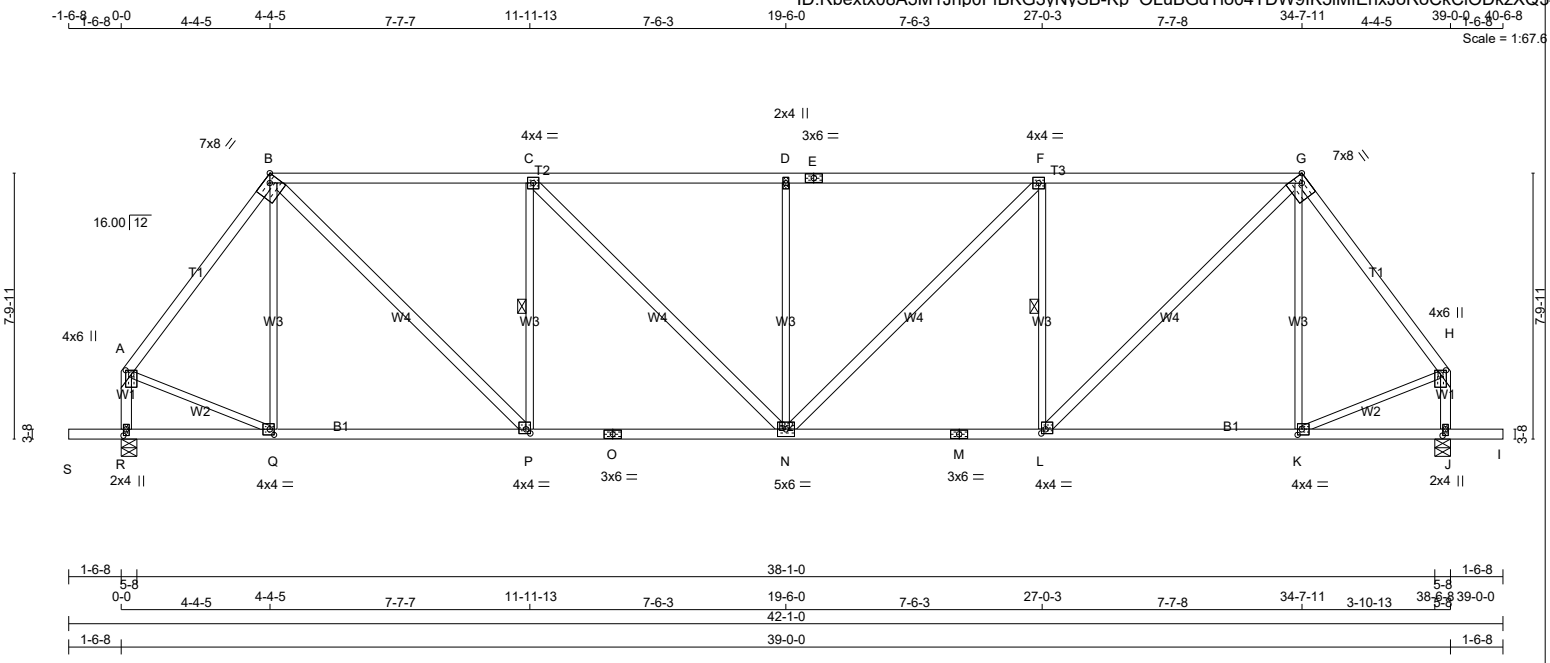

TOTAL WEIGHT = 2 X 187 = 374 lb [M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	1.50	2.00
B	TTWW-h	MT20	7.0	8.0	Edge	2.75
C	TMWW-t	MT20	4.0	4.0		
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TTWW-h	MT20	7.0	8.0	Edge	2.75
H	TMVW+p	MT20	4.0	6.0	1.50	2.00
J	BMV1+p	MT20	2.0	4.0	2.25	1.00
K	BMWW-t	MT20	4.0	4.0	2.00	1.50
L	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		
O	BS-t	MT20	3.0	6.0		
P	BMWW-t	MT20	4.0	4.0	1.50	1.50
Q	BMWW-t	MT20	4.0	4.0	2.00	1.50
R	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
R	2030	0	2030	0	0	5-8	3-0
J	2030	0	2030	0	0	5-8	3-0

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	1447	883 / 0	0 / 0	0 / 0	0 / 0	564 / 0	0 / 0
J	1447	883 / 0	0 / 0	0 / 0	0 / 0	564 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.09 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-P, F-L.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO						FR-TO		
A- B	-1657 / 0	-78.0	-78.0	0.37 (1)	4.82	Q- B	-232 / 0	0.26 (1)
B- C	-2152 / 0	-78.0	-78.0	0.72 (1)	4.36	B- P	0 / 1633	0.26 (1)
C- D	-2490 / 0	-78.0	-78.0	0.76 (1)	4.09	P- C	-999 / 0	0.38 (1)
D- E	-2490 / 0	-78.0	-78.0	0.76 (1)	4.09	C- N	0 / 478	0.08 (1)
E- F	-2490 / 0	-78.0	-78.0	0.76 (1)	4.09	N- D	-541 / 0	0.62 (1)
F- G	-2152 / 0	-78.0	-78.0	0.72 (1)	4.36	N- F	0 / 478	0.08 (1)
G- H	-1657 / 0	-78.0	-78.0	0.37 (1)	4.82	L- F	-999 / 0	0.38 (1)
R- A	-1855 / 0	0.0	0.0	0.21 (1)	6.15	L- G	0 / 1633	0.26 (1)
J- H	-1855 / 0	0.0	0.0	0.21 (1)	6.15	K- G	-232 / 0	0.26 (1)
						A- Q	0 / 1051	0.24 (1)
S- R	0 / 0	-96.5	-96.5	0.16 (1)	10.00	K- H	0 / 1051	0.24 (1)
R- Q	0 / 0	-18.5	-18.5	0.16 (4)	10.00			
Q- P	0 / 986	-18.5	-18.5	0.31 (4)	10.00			
P- O	0 / 2152	-18.5	-18.5	0.46 (1)	10.00			
O- N	0 / 2152	-18.5	-18.5	0.46 (1)	10.00			
N- M	0 / 2152	-18.5	-18.5	0.46 (1)	10.00			
M- L	0 / 2152	-18.5	-18.5	0.46 (1)	10.00			
L- K	0 / 986	-18.5	-18.5	0.31 (4)	10.00			
K- J	0 / 0	-18.5	-18.5	0.16 (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 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (1.30")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (1.30")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.25")

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

CSI: TC=0.76/1.00 (D-F:1) , BC=0.46/1.00 (L-N:1) , WB=0.62/1.00 (D-N:1) , SSI=0.28/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (A) (INPUT = 0.90)
JSI METAL= 0.69 (O) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H4	13	1	TRUSS DESC. JT 45147	E20035548

Alpa Roof Truss, Maple

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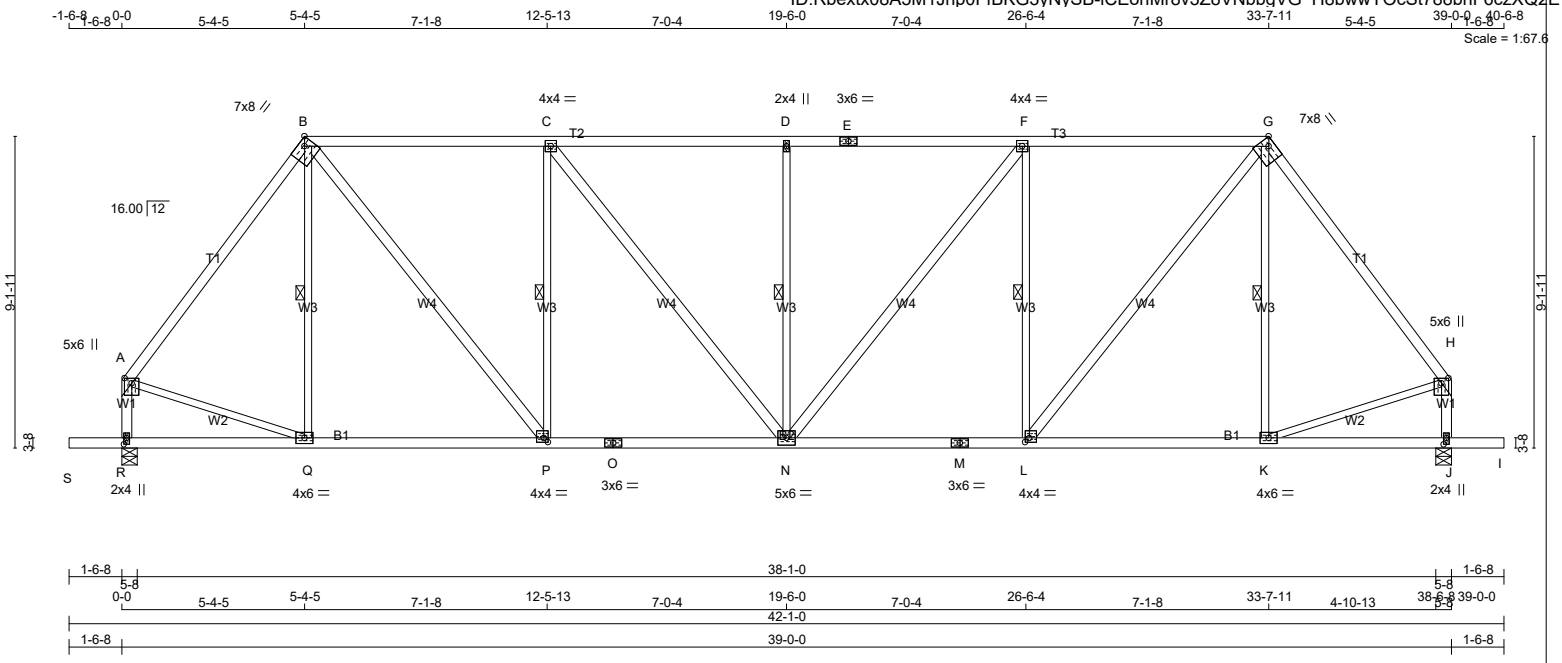

TOTAL WEIGHT = 13 X 199 = 2581 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - E	2x4	DRY	No.2	SPF
E - G	2x4	DRY	No.2	SPF
G - H	2x4	DRY	No.2	SPF
R - A	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
S - O	2x4	DRY	No.2	SPF
O - M	2x4	DRY	No.2	SPF
M - I	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
B - P	2x4	DRY	No.2	SPF
C - N	2x4	DRY	No.2	SPF
N - F	2x4	DRY	No.2	SPF
L - G	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	5.0	6.0	1.75	2.50
B	TTWW-h	MT20	7.0	8.0	Edge	2.75
C	TMWW-t	MT20	4.0	4.0		
D	TMW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMWW-t	MT20	4.0	4.0		
G	TTWW-h	MT20	7.0	8.0	Edge	2.75
H	TMVW+p	MT20	5.0	6.0	1.75	2.50
J	BMV1+p	MT20	2.0	4.0	2.25	1.00
K	BMWW-t	MT20	4.0	6.0		
L	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		
O	BS-t	MT20	3.0	6.0		
P	BMWW-t	MT20	4.0	4.0	1.50	1.50
Q	BMWW-t	MT20	4.0	6.0		
R	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
R	2136	0	2136	0	0	5-8	3-4
J	2136	0	2136	0	0	5-8	3-4

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	1532	883 / 0	0 / 0	0 / 0	0 / 0	649 / 0	0 / 0
J	1532	883 / 0	0 / 0	0 / 0	0 / 0	649 / 0	0 / 0

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

BRACING

FOR SECTION B-G, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.68 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS						WEBS		
MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	-1781 / 0	-78.0	-78.0	0.43 (1)	4.68	Q- B	-185 / 6	0.10 (1)
B- C	-1992 / 0	-85.5	-85.5	0.61 (1)	2.00	B- P	0 / 1479	0.24 (1)
C- D	-2261 / 0	-85.5	-85.5	0.61 (1)	2.00	P- C	-1018 / 0	0.55 (1)
D- E	-2261 / 0	-85.5	-85.5	0.61 (1)	2.00	C- N	0 / 433	0.07 (1)
E- F	-2261 / 0	-85.5	-85.5	0.61 (1)	2.00	N- D	-553 / 0	0.30 (1)
F- G	-1992 / 0	-85.5	-85.5	0.61 (1)	2.00	N- F	0 / 433	0.07 (1)
G- H	-1781 / 0	-78.0	-78.0	0.43 (1)	4.68	L- F	-1018 / 0	0.55 (1)
R- A	-1950 / 0	0.0	0.0	0.22 (1)	6.03	L- G	0 / 1479	0.24 (1)
J- H	-1950 / 0	0.0	0.0	0.22 (1)	6.03	K- G	-185 / 6	0.10 (1)
						A- Q	0 / 1109	0.25 (1)
S- R	0 / 0	-96.5	-96.5	0.16 (1)	10.00	K- H	0 / 1109	0.25 (1)
R- Q	0 / 0	-18.5	-18.5	0.17 (4)	10.00			
Q- P	0 / 1062	-18.5	-18.5	0.29 (4)	10.00			
P- O	0 / 1992	-18.5	-18.5	0.42 (1)	10.00			
O- N	0 / 1992	-18.5	-18.5	0.42 (1)	10.00			
N- M	0 / 1992	-18.5	-18.5	0.42 (1)	10.00			
M- L	0 / 1992	-18.5	-18.5	0.42 (1)	10.00			
L- K	0 / 1062	-18.5	-18.5	0.29 (4)	10.00			
K- J	0 / 0	-18.5	-18.5	0.17 (4)	10.00			
J- I	0 / 0	-96.5	-96.5	0.16 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (1.30")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.30")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.22")

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

CSI: TC=0.61/1.00 (B-C:1) , BC=0.42/1.00 (N-P:1) , WB=0.55/1.00 (F-L:1) , SSI=0.29/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.85 (H) (INPUT = 0.90)
JSI METAL= 0.61 (O) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H5P	2	1	TRUSS DESC. JT 45147	E20035549

Alpa Roof Truss, Maple

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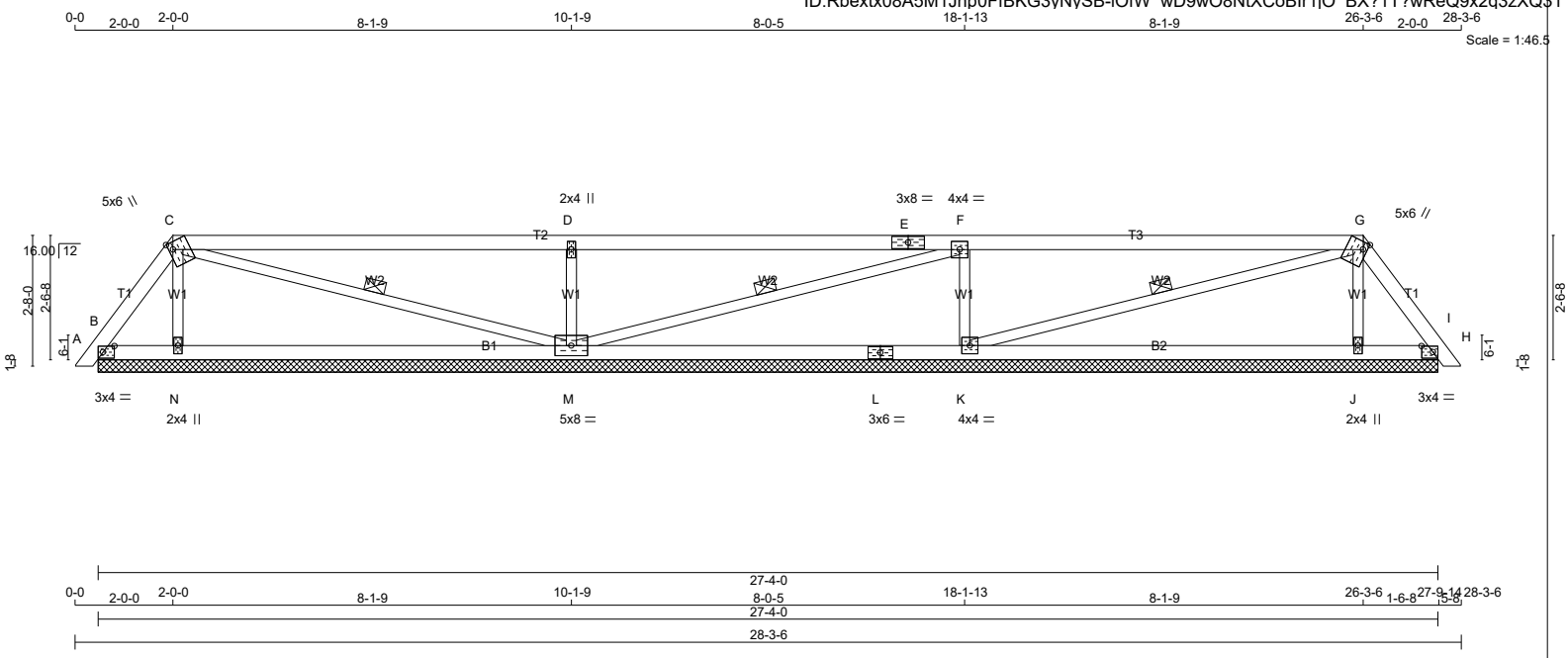

TOTAL WEIGHT = 2 X 93 = 185 lb

[M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
B	119	0	119	0	-6	27-4-0 (11-4-8)	2-15
N	374	0	374	0	0	27-4-0 (11-4-8)	2-15
M	860	0	860	0	0	27-4-0 (11-4-8)	2-15
K	842	0	842	0	0	27-4-0 (11-4-8)	2-15
J	365	0	365	0	0	27-4-0 (11-4-8)	2-15
H	132	0	132	0	-4	27-4-0 (11-4-8)	2-15

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 150 LBS FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT H FOR 150 LBS FACTORED UPLIFT

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	79	83 / 0	0 / 0	0 / 0	0 / 0	0 / -4	0 / 0
N	273	127 / 0	0 / 0	0 / 0	0 / 0	146 / 0	0 / 0
M	612	382 / 0	0 / 0	0 / 0	0 / 0	230 / 0	0 / 0
K	599	372 / 0	0 / 0	0 / 0	0 / 0	227 / 0	0 / 0
J	268	123 / 0	0 / 0	0 / 0	0 / 0	145 / 0	0 / 0
H	87	90 / 0	0 / 0	0 / 0	0 / 0	0 / -3	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	N- C	-237 / 0	0.04 (1)
B- C	-82 / 0	-78.0	-78.0	0.03 (1)	6.25	C- M	-38 / 0	0.02 (1)
C- D	0 / 1	-78.0	-78.0	0.69 (1)	10.00	M- D	-692 / 0	0.11 (1)
D- E	0 / 0	-78.0	-78.0	0.69 (1)	10.00	M- F	-26 / 0	0.01 (1)
E- F	0 / 0	-78.0	-78.0	0.69 (1)	10.00	K- F	-685 / 0	0.11 (1)
F- G	-23 / 0	-78.0	-78.0	0.69 (1)	6.25	K- G	-22 / 0	0.01 (1)
G- H	-98 / 0	-78.0	-78.0	0.03 (1)	6.25	J- G	-228 / 0	0.04 (1)
H- I	0 / 10	-78.0	-78.0	0.01 (1)	10.00			
B- N	0 / 47	-18.5	-18.5	0.20 (4)	10.00			
N- M	0 / 36	-18.5	-18.5	0.24 (4)	10.00			
M- L	0 / 24	-18.5	-18.5	0.24 (4)	10.00			
L- K	0 / 24	-18.5	-18.5	0.24 (4)	10.00			
K- J	0 / 45	-18.5	-18.5	0.24 (4)	10.00			
J- H	0 / 56	-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

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 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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=0.69/1.00 (F-G:1) , BC=0.24/1.00 (J-K:4) , WB=0.11/1.00 (D-M:1) , SSI=0.30/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (K) (INPUT = 0.90)
JSI METAL= 0.54 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H6P	2	1	TRUSS DESC. JT 45147	E20035550

Alpa Roof Truss, Maple

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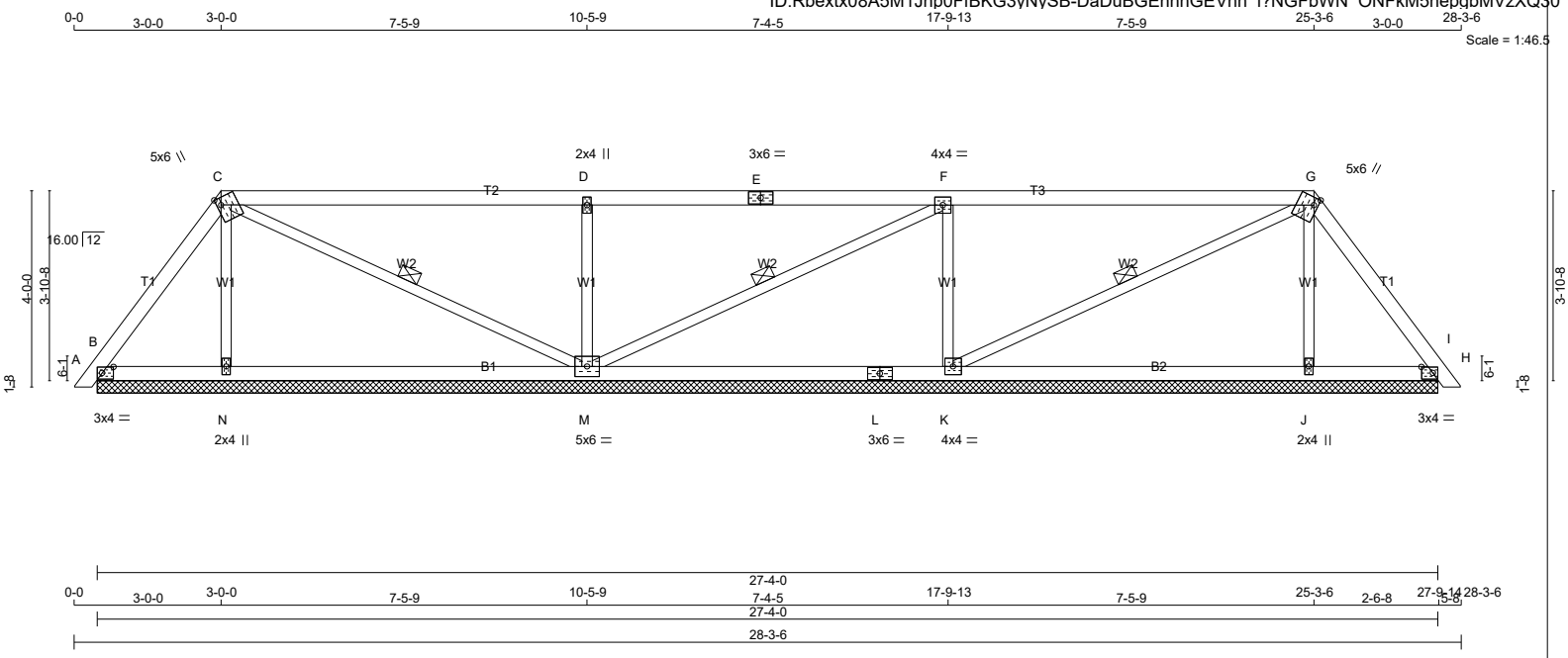

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
B	200	0	200	0	0	27-4-0 (11-4-8)	0-10
N	341	0	341	0	0	27-4-0 (11-4-8)	0-10
M	833	0	833	0	0	27-4-0 (11-4-8)	0-10
K	759	0	759	0	0	27-4-0 (11-4-8)	0-10
J	331	0	331	0	0	27-4-0 (11-4-8)	0-10
H	227	0	227	0	0	27-4-0 (11-4-8)	0-10

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	138	108 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0
N	248	122 / 0	0 / 0	0 / 0	0 / 0	126 / 0	0 / 0
M	592	373 / 0	0 / 0	0 / 0	0 / 0	218 / 0	0 / 0
K	541	334 / 0	0 / 0	0 / 0	0 / 0	207 / 0	0 / 0
J	242	117 / 0	0 / 0	0 / 0	0 / 0	124 / 0	0 / 0
H	157	122 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	N- C	-227 / 0	0.05 (1)
B- C	-91 / 0	-78.0	-78.0	0.08 (1)	6.25	C- M	-71 / 0	0.03 (1)
C- D	0 / 19	-78.0	-78.0	0.59 (1)	10.00	M- D	-635 / 0	0.15 (1)
D- E	0 / 18	-78.0	-78.0	0.59 (1)	10.00	M- F	-63 / 0	0.03 (1)
E- F	0 / 18	-78.0	-78.0	0.59 (1)	10.00	K- F	-607 / 0	0.14 (1)
F- G	-38 / 0	-78.0	-78.0	0.59 (1)	6.25	K- G	-30 / 0	0.01 (1)
G- H	-125 / 0	-78.0	-78.0	0.09 (1)	6.25	J- G	-218 / 0	0.05 (1)
H- I	0 / 10	-78.0	-78.0	0.01 (1)	10.00			
B- N	0 / 53	-18.5	-18.5	0.15 (4)	10.00			
N- M	0 / 46	-18.5	-18.5	0.21 (4)	10.00			
M- L	0 / 39	-18.5	-18.5	0.21 (4)	10.00			
L- K	0 / 39	-18.5	-18.5	0.21 (4)	10.00			
K- J	0 / 66	-18.5	-18.5	0.21 (4)	10.00			
J- H	0 / 73	-18.5	-18.5	0.15 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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=0.59/1.00 (D-F:1) , BC=0.21/1.00 (J-K:4) , WB=0.15/1.00 (D-M:1) , SSI=0.27/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.75 (M) (INPUT = 0.90)
JSI METAL= 0.27 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H7P	2	1	TRUSS DESC. JT 45147	E20035551

Alpa Roof Truss, Maple

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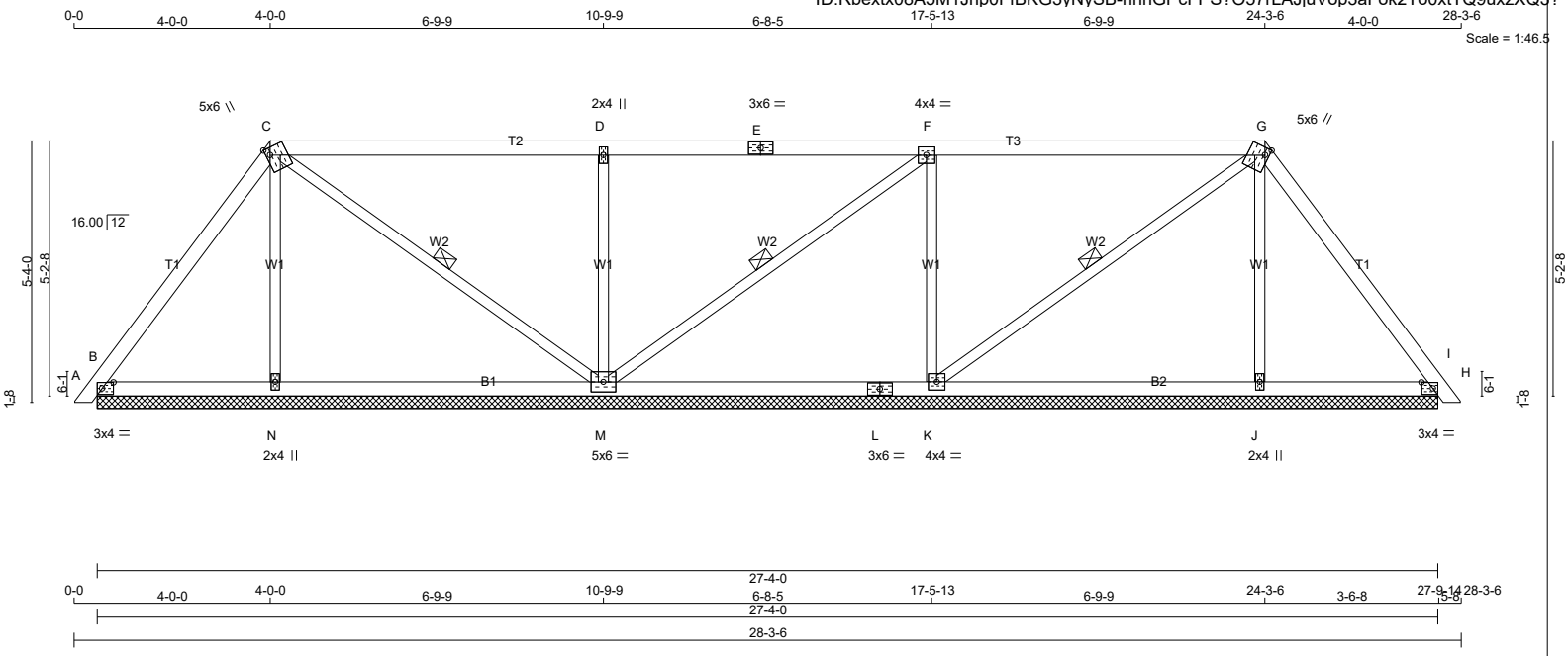

TOTAL WEIGHT = 2 X 104 = 208 lb

[M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
B	258	0	258	0	0	27-4-0 (11-4-8)	11-3
N	321	0	321	0	0	27-4-0 (11-4-8)	11-3
M	831	0	831	0	0	27-4-0 (11-4-8)	11-3
K	665	0	665	0	0	27-4-0 (11-4-8)	11-3
J	315	0	315	0	0	27-4-0 (11-4-8)	11-3
H	303	0	303	0	0	27-4-0 (11-4-8)	11-3

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	180	129 / 0	0 / 0	0 / 0	0 / 0	52 / 0	0 / 0
N	234	115 / 0	0 / 0	0 / 0	0 / 0	119 / 0	0 / 0
M	589	379 / 0	0 / 0	0 / 0	0 / 0	209 / 0	0 / 0
K	474	290 / 0	0 / 0	0 / 0	0 / 0	184 / 0	0 / 0
J	230	112 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
H	211	153 / 0	0 / 0	0 / 0	0 / 0	59 / 0	0 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	N- C	-213 / 0	0.09 (1)
B- C	-92 / 0	-78.0	-78.0	0.17 (1)	6.25	C- M	-107 / 0	0.05 (1)
C- D	0 / 38	-78.0	-78.0	0.49 (1)	10.00	M- D	-578 / 0	0.23 (1)
D- E	0 / 38	-78.0	-78.0	0.49 (1)	10.00	M- F	-107 / 0	0.05 (1)
E- F	0 / 38	-78.0	-78.0	0.49 (1)	10.00	K- F	-514 / 0	0.21 (1)
F- G	-48 / 0	-78.0	-78.0	0.48 (1)	6.25	K- G	-41 / 0	0.02 (1)
G- H	-147 / 0	-78.0	-78.0	0.17 (1)	6.25	J- G	-207 / 0	0.08 (1)
H- I	0 / 10	-78.0	-78.0	0.01 (1)	10.00			
B- N	0 / 54	-18.5	-18.5	0.13 (4)	10.00			
N- M	0 / 49	-18.5	-18.5	0.17 (4)	10.00			
M- L	0 / 48	-18.5	-18.5	0.17 (4)	10.00			
L- K	0 / 48	-18.5	-18.5	0.17 (4)	10.00			
K- J	0 / 82	-18.5	-18.5	0.17 (4)	10.00			
J- H	0 / 86	-18.5	-18.5	0.13 (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 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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=0.49/1.00 (D-F:1) , BC=0.17/1.00 (J-K:4) , WB=0.23/1.00 (D-M:1) , SSI=0.25/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.62 (C) (INPUT = 0.90)
JSI METAL= 0.23 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H8P	3	1	TRUSS DESC. JT 45147	E20035552

Alpa Roof Truss, Maple

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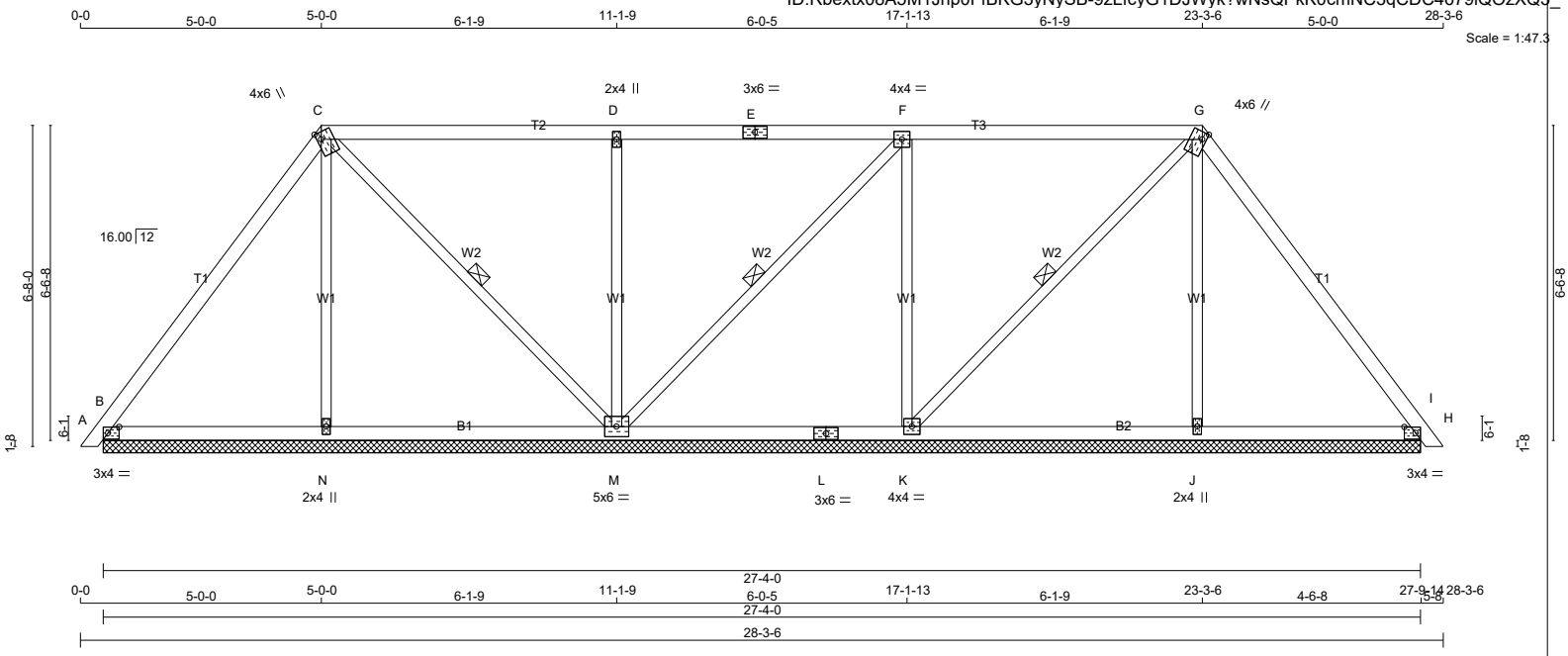

TOTAL WEIGHT = 3 X 111 = 332 lb

[M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
B	306	0	306	0	0	27-4-0 (12-4-0)	11-10
N	308	0	308	0	0	27-4-0 (12-4-0)	11-10
M	834	0	834	0	0	27-4-0 (12-4-0)	11-10
K	572	0	572	0	0	27-4-0 (12-4-0)	11-10
J	307	0	307	0	0	27-4-0 (12-4-0)	11-10
H	365	0	365	0	0	27-4-0 (12-4-0)	11-10

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	215	148 / 0	0 / 0	0 / 0	0 / 0	67 / 0	0 / 0
N	225	107 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
M	590	389 / 0	0 / 0	0 / 0	0 / 0	201 / 0	0 / 0
K	408	248 / 0	0 / 0	0 / 0	0 / 0	160 / 0	0 / 0
J	224	106 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0
H	256	179 / 0	0 / 0	0 / 0	0 / 0	76 / 0	0 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 10	-78.0	-78.0	0.01 (1)	10.00	N- C	-199 / 0	0.14 (1)
B- C	-87 / 0	-78.0	-78.0	0.27 (1)	6.25	C- M	-139 / 0	0.07 (1)
C- D	0 / 50	-78.0	-78.0	0.40 (1)	10.00	M- D	-521 / 0	0.36 (1)
D- E	0 / 49	-78.0	-78.0	0.40 (1)	10.00	M- F	-142 / 0	0.07 (1)
E- F	0 / 49	-78.0	-78.0	0.40 (1)	10.00	K- F	-418 / 0	0.29 (1)
F- G	-49 / 0	-78.0	-78.0	0.39 (1)	6.25	K- G	-59 / 0	0.03 (1)
G- H	-160 / 0	-78.0	-78.0	0.28 (1)	6.25	J- G	-198 / 0	0.14 (1)
H- I	0 / 10	-78.0	-78.0	0.01 (1)	10.00			
B- N	0 / 52	-18.5	-18.5	0.13 (4)	10.00			
N- M	0 / 48	-18.5	-18.5	0.14 (4)	10.00			
M- L	0 / 50	-18.5	-18.5	0.14 (4)	10.00			
L- K	0 / 50	-18.5	-18.5	0.14 (4)	10.00			
K- J	0 / 91	-18.5	-18.5	0.14 (4)	10.00			
J- H	0 / 94	-18.5	-18.5	0.13 (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 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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=0.40/1.00 (D-F:1) , BC=0.14/1.00 (J-K:4) , WB=0.36/1.00 (D-M:1) , SSI=0.22/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.62 (G) (INPUT = 0.90)
JSI METAL= 0.19 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H11A	1	1	TRUSS DESC. JT 45147	E20035553

Alpa Roof Truss, Maple

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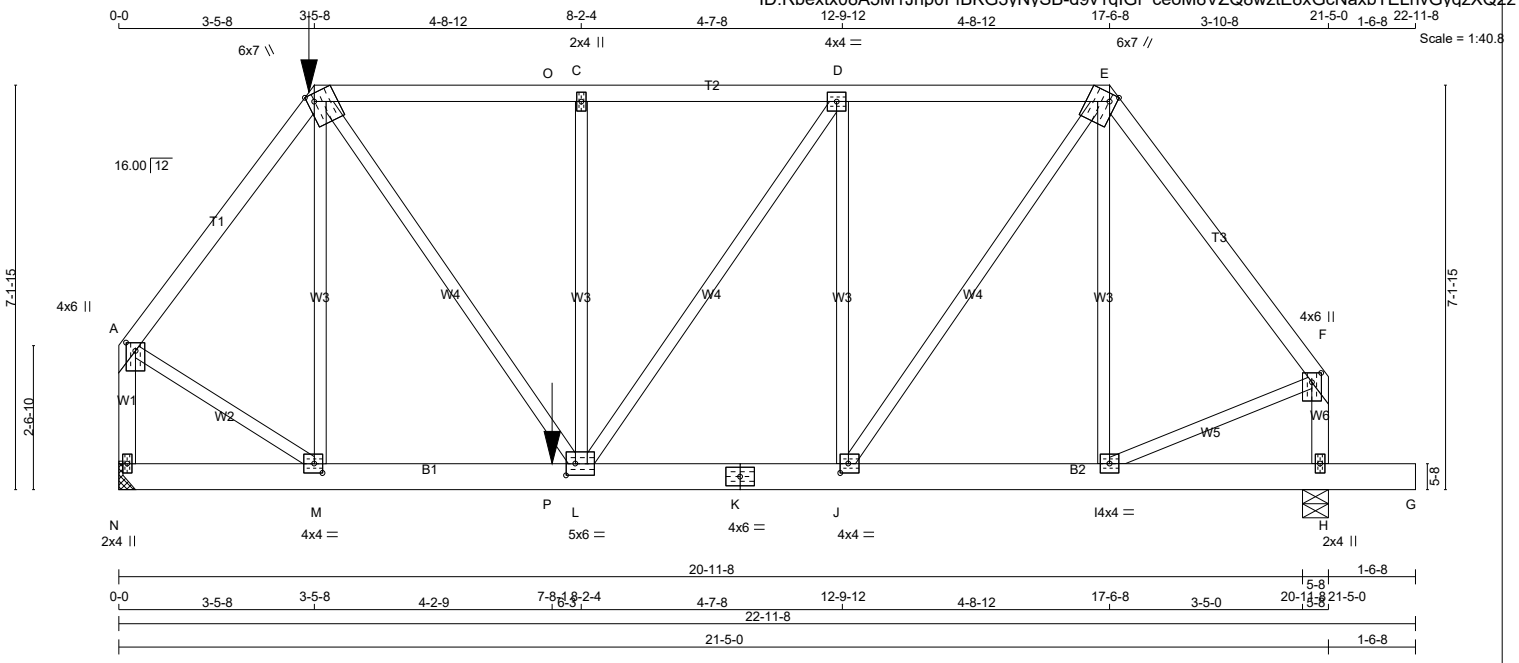

TOTAL WEIGHT = 122 lb [M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	1.75	2.00
B	TTWW+m	MT20	6.0	7.0	Edge	1.50
C	TMW+w	MT20	2.0	4.0		
D	TMWW-t	MT20	4.0	4.0		
E	TTWW+m	MT20	6.0	7.0	Edge	1.50
F	TMVW+p	MT20	4.0	6.0	2.00	2.00
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-t	MT20	4.0	4.0		
J	BMWW-t	MT20	4.0	4.0	2.00	1.75
K	BS-t	MT20	4.0	6.0		
L	BMWWW-t	MT20	5.0	6.0	2.50	2.00
M	BMWW-t	MT20	4.0	4.0	2.00	1.75
N	BMV1+p	MT20	2.0	4.0		

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
N	1772	0	1772	0	0	MECHANICAL	
H	1519	0	1519	0	0	5-8	2-4

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT N. MINIMUM BEARING LENGTH AT JOINT N = 2-4.

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	1255	812 / 0	0 / 0	0 / 0	0 / 0	443 / 0	0 / 0
H	1078	686 / 0	0 / 0	0 / 0	0 / 0	392 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.88 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.

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO						FR-TO		
A- B	-1413 / 0	-78.0	-78.0	0.23 (1)	5.22	M- B	-254 / 0	0.22 (1)
B- O	-1474 / 0	-114.5	-114.5	0.39 (1)	4.88	B- L	0 / 1107	0.27 (1)
O- C	-1474 / 0	-78.0	-78.0	0.39 (1)	4.88	L- C	-472 / 0	0.40 (1)
C- D	-1474 / 0	-78.0	-78.0	0.36 (1)	4.93	L- D	0 / 428	0.11 (1)
D- E	-1233 / 0	-78.0	-78.0	0.27 (1)	5.43	J- D	-728 / 0	0.62 (1)
E- F	-1158 / 0	-78.0	-78.0	0.27 (1)	5.58	J- E	0 / 948	0.23 (1)
N- A	-1761 / 0	0.0	0.0	0.25 (1)	6.24	I- E	-161 / 8	0.14 (1)
H- F	-1345 / 0	0.0	0.0	0.16 (1)	6.95	A- M	0 / 975	0.24 (1)
						I- F	0 / 740	0.18 (1)
N- M	0 / 0	-27.2	-27.2	0.10 (1)	10.00			
M- P	0 / 838	-27.2	-27.2	0.30 (1)	10.00			
P- L	0 / 838	-18.5	-18.5	0.30 (1)	10.00			
L- K	0 / 1233	-18.5	-18.5	0.24 (1)	10.00			
K- J	0 / 1233	-18.5	-18.5	0.24 (1)	10.00			
J- I	0 / 688	-18.5	-18.5	0.12 (1)	10.00			
I- H	0 / 0	-18.5	-18.5	0.04 (4)	10.00			
H- G	0 / 0	-96.5	-96.5	0.08 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
B	3-5-8	-107	-107	---	FRONT	VERT	TOTAL	---	C1
P	7-8-1	-749	-749	---	FRONT	VERT	TOTAL	---	C1

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
LEFT SETBACK = 3-5-8
RIGHT SETBACK = 3-10-8
END SETBACK = 3-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 7-8-1 OF SPAN MEASURED FROM THE LEFT.

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (0.71")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

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=0.39/1.00 (B-C:1) , BC=0.30/1.00 (L-M:1) , WB=0.62/1.00 (D-J:1) , SSI=0.48/1.00 (L-M: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

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H12	1	1	TRUSS DESC. JT 45147	E20035554

Alpa Roof Truss, Maple

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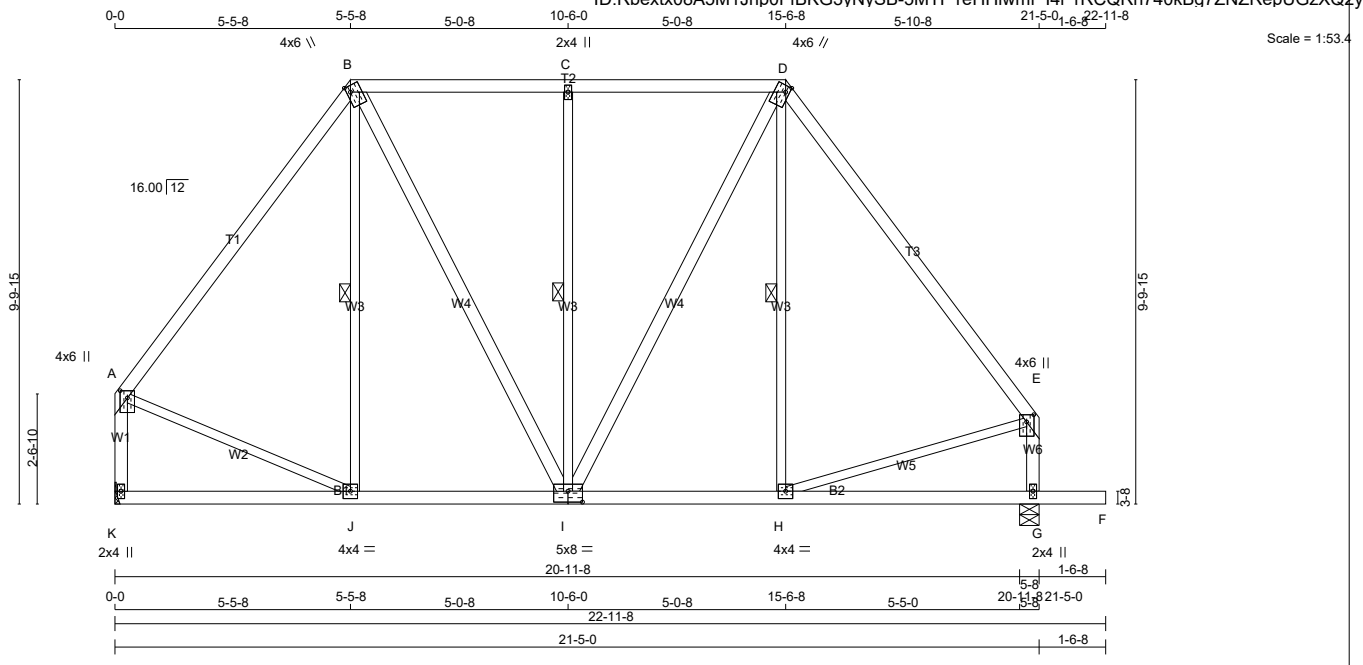

TOTAL WEIGHT = 120 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	1650F 1.5E	SPF
K - A	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
I - F	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
B - I	2x4	DRY	No.2	SPF
I - D	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTWW+m	MT20	4.0	6.0	1.75	1.00
C	TMW+w	MT20	2.0	4.0		
D	TTWW+m	MT20	4.0	6.0	1.75	1.00
E	TMVW+p	MT20	4.0	6.0	2.00	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMWW-t	MT20	4.0	4.0		
I	BSWWW-l	MT20	5.0	8.0	3.00	4.00
J	BMWW-t	MT20	4.0	4.0		
K	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
K	1033	0	1033	0	0	MECHANICAL	
G	1182	0	1182	0	0	5-8	1-12

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT K. MINIMUM BEARING LENGTH AT JOINT K = 1-8.

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	737	450 / 0	0 / 0	0 / 0	0 / 0	287 / 0	0 / 0
G	843	514 / 0	0 / 0	0 / 0	0 / 0	328 / 0	0 / 0

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

BRACING

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

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	-754 / 0	-78.0	-78.0	0.32 (1)	6.25
B- C	-604 / 0	-78.0	-78.0	0.25 (1)	6.25
C- D	-604 / 0	-78.0	-78.0	0.25 (1)	6.25
D- E	-790 / 0	-78.0	-78.0	0.31 (1)	6.25
K- A	-993 / 0	0.0	0.0	0.14 (1)	7.81
G- E	-989 / 0	0.0	0.0	0.11 (1)	7.81
K- J	0 / 0	-18.5	-18.5	0.15 (4)	10.00
J- I	0 / 450	-18.5	-18.5	0.19 (4)	10.00
I- H	0 / 472	-18.5	-18.5	0.21 (4)	10.00
H- G	0 / 0	-18.5	-18.5	0.16 (4)	10.00
G- F	0 / 0	-96.5	-96.5	0.16 (1)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
J- B	-54 / 66	0.04 (1)
B- I	0 / 330	0.05 (1)
I- C	-476 / 0	0.31 (1)
I- D	0 / 283	0.05 (1)
H- D	0 / 91	0.03 (4)
A- J	0 / 483	0.11 (1)
H- E	0 / 489	0.11 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (0.71")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.71")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

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=0.32/1.00 (A-B:1) , BC=0.21/1.00 (H-I:4) , WB=0.31/1.00 (C-I:1) , SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.74 (H) (INPUT = 0.90)
JSI METAL= 0.30 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H21S	2	1	TRUSS DESC. JT 45147	E20035555

Alpa Roof Truss, Maple

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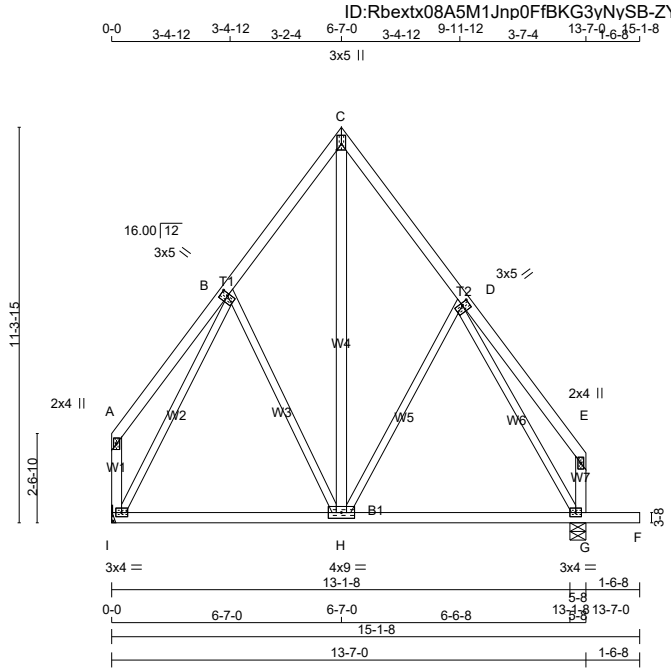

TOTAL WEIGHT = 2 X 83 = 166 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
I - A	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF
I - F	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
H - C	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	TMWW+t	MT20	3.0	5.0	2.25	0.75
C	TTW+p	MT20	3.0	5.0	2.00	Edge
D	TMWW+t	MT20	3.0	5.0	2.25	0.75
E	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	3.0	4.0		
H	BMWWW-t	MT20	4.0	9.0		
I	BMVW1-t	MT20	3.0	4.0		

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
I	655	0	655	0	0	MECHANICAL	
G	804	0	804	0	0	5-8	1-8

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT I. MINIMUM BEARING LENGTH AT JOINT I = 1-8.

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	467	285 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0
G	573	350 / 0	0 / 0	0 / 0	0 / 0	223 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS						WEBS		
MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 24	-78.0	-78.0	0.14 (1)	10.00	B- H	-96 / 0	0.10 (1)
B- C	-377 / 0	-78.0	-78.0	0.10 (1)	6.25	H- C	0 / 357	0.06 (1)
C- D	-379 / 0	-78.0	-78.0	0.12 (1)	6.25	H- D	-135 / 0	0.14 (1)
D- E	0 / 26	-78.0	-78.0	0.16 (1)	10.00	I- B	-575 / 0	0.58 (1)
I- A	-95 / 0	0.0	0.0	0.01 (1)	7.81	D- G	-576 / 0	0.55 (1)
G- E	-101 / 0	0.0	0.0	0.01 (1)	7.81			
I- H	0 / 257	-18.5	-18.5	0.27 (4)	10.00			
H- G	0 / 280	-18.5	-18.5	0.27 (4)	10.00			
G- F	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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (0.45")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

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

CSI: TC=0.16/1.00 (D-E:1) , BC=0.27/1.00 (G-H:4) , WB=0.58/1.00 (B-I:1) , SSI=0.12/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.76 (B) (INPUT = 0.90)
JSI METAL= 0.37 (D) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H21T	2	1	TRUSS DESC. JT 45147	E20035556

Alpa Roof Truss, Maple

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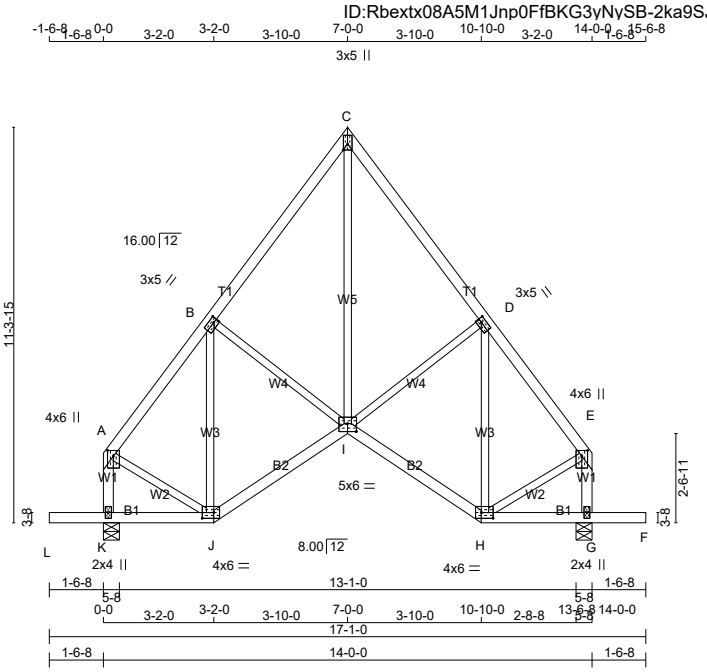

TOTAL WEIGHT = 2 X 81 = 162 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
K - A	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
J - I	2x4	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

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	TMWW-t	MT20	3.0	5.0	1.50	1.50
C	TTW+p	MT20	3.0	5.0	2.00	Edge
D	TMWW-t	MT20	3.0	5.0	1.50	1.50
E	TMVW+p	MT20	4.0	6.0	2.00	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BBWW-l	MT20	4.0	6.0	2.00	4.00
I	BBWWW-p	MT20	5.0	6.0	2.75	3.00
J	BBWW-l	MT20	4.0	6.0	2.00	4.00
K	BMV1+p	MT20	2.0	4.0		

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
K	824	0	824	0	0	5-8	1-8
G	824	0	824	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	587	359 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0
G	587	359 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO						FR-TO		
A- B	-482 / 0	-78.0	-78.0	0.13 (1)	6.25	I- C	0 / 508	0.11 (1)
B- C	-496 / 0	-78.0	-78.0	0.14 (1)	6.25	I- D	-25 / 0	0.01 (1)
C- D	-496 / 0	-78.0	-78.0	0.14 (1)	6.25	H- D	-293 / 0	0.17 (1)
D- E	-482 / 0	-78.0	-78.0	0.13 (1)	6.25	B- I	-25 / 0	0.01 (1)
K- A	-646 / 0	0.0	0.0	0.07 (1)	7.81	J- B	-293 / 0	0.17 (1)
G- E	-646 / 0	0.0	0.0	0.07 (1)	7.81	A- J	0 / 345	0.08 (1)
						H- E	0 / 345	0.08 (1)
L- K	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
K- J	0 / 0	-18.5	-18.5	0.05 (4)	10.00			
J- I	0 / 364	-18.5	-18.5	0.11 (4)	10.00			
I- H	0 / 364	-18.5	-18.5	0.11 (4)	10.00			
H- G	0 / 0	-18.5	-18.5	0.05 (4)	10.00			
G- F	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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (0.47")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

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

CSI: TC=0.14/1.00 (B-C:1) , BC=0.16/1.00 (F-G:1) , WB=0.17/1.00 (D-H:1) , SSI=0.12/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.74 (C) (INPUT = 0.90)
JSI METAL= 0.18 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H22G	1	1	TRUSS DESC. JT 45147	E20035557

Alpa Roof Truss, Maple

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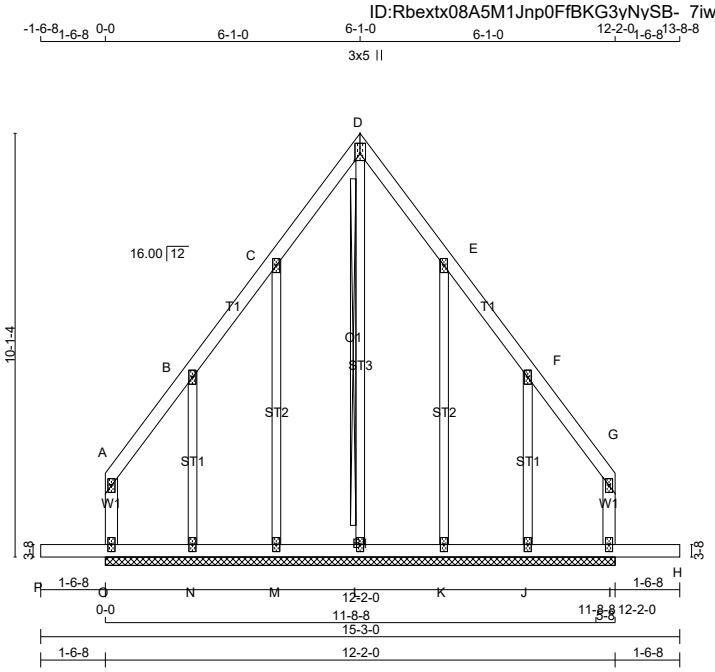

TOTAL WEIGHT = 70 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
O - A	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
P - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B, C, E, F						
B	TMW+w	MT20	2.0	4.0		
D	TTW+p	MT20	3.0	5.0	2.00	Edge
G	TMV+p	MT20	2.0	4.0		
I	BMV1+p	MT20	2.0	4.0		
J, K, L, M, N						
J	BMW1+w	MT20	2.0	4.0		
O	BMV1+p	MT20	2.0	4.0		

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

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

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

2x4 DRY SPF No.2 T-BRACE AT D-L

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
O- A	-66 / 0	0.0	0.0	0.05 (1)	7.81	L- D	-200 / 0	0.15 (1)
A- B	0 / 14	-78.0	-78.0	0.04 (1)	10.00	M- C	-161 / 0	0.16 (1)
B- C	0 / 22	-78.0	-78.0	0.04 (1)	10.00	N- B	-147 / 0	0.05 (1)
C- D	0 / 23	-78.0	-78.0	0.04 (1)	10.00	K- E	-161 / 0	0.16 (1)
D- E	0 / 23	-78.0	-78.0	0.04 (1)	10.00	J- F	-147 / 0	0.05 (1)
E- F	0 / 22	-78.0	-78.0	0.04 (1)	10.00			
F- G	0 / 14	-78.0	-78.0	0.04 (1)	10.00			
I- G	-66 / 0	0.0	0.0	0.05 (1)	7.81			
P- O	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
O- N	-8 / 0	-18.5	-18.5	0.11 (1)	10.00			
N- M	-12 / 0	-18.5	-18.5	0.02 (1)	6.25			
M- L	-15 / 0	-18.5	-18.5	0.02 (4)	6.25			
L- K	-15 / 0	-18.5	-18.5	0.02 (4)	6.25			
K- J	-12 / 0	-18.5	-18.5	0.02 (1)	6.25			
J- I	-8 / 0	-18.5	-18.5	0.11 (1)	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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

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

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

CSI: TC=0.05/1.00 (G-I:1) , BC=0.16/1.00 (H-I:1) , WB=0.16/1.00 (E-K:1) , SSI=0.12/1.00 (O-P:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.19 (D) (INPUT = 0.90)
JSI METAL= 0.08 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H22S	3	1	TRUSS DESC. JT 45147	E20035558

Alpa Roof Truss, Maple

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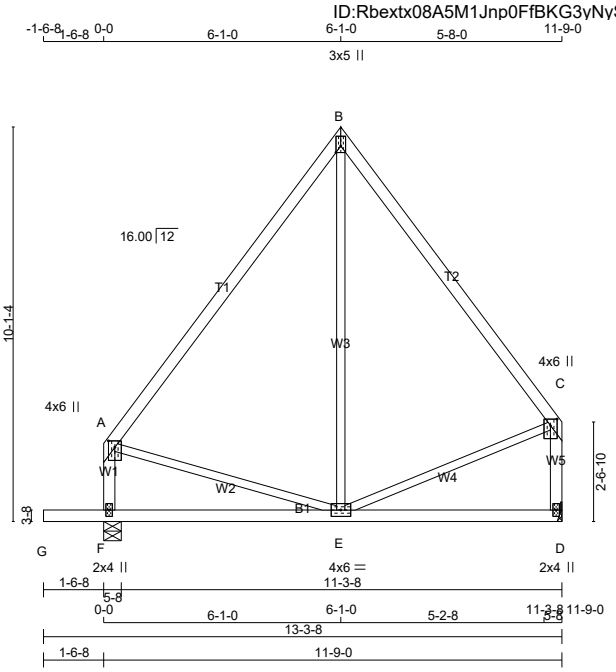

TOTAL WEIGHT = 3 X 60 = 179 lb

[M][F]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
D	567	0	567	0	0	MECHANICAL	
F	715	0	715	0	0	5-8	1-8

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D. MINIMUM BEARING LENGTH AT JOINT D = 1-8.

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	404	247 / 0	0 / 0	0 / 0	0 / 0	157 / 0	0 / 0
F	510	311 / 0	0 / 0	0 / 0	0 / 0	199 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

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

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

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

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/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=0.32/1.00 (B-C:1) , BC=0.18/1.00 (E-F:4) , WB=0.04/1.00 (C-E:1) , SSI=0.12/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.30 (E) (INPUT = 0.90)
JSI METAL= 0.15 (A) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H23G	1	1	TRUSS DESC. JT 45147	E20035559

Alpa Roof Truss, Maple

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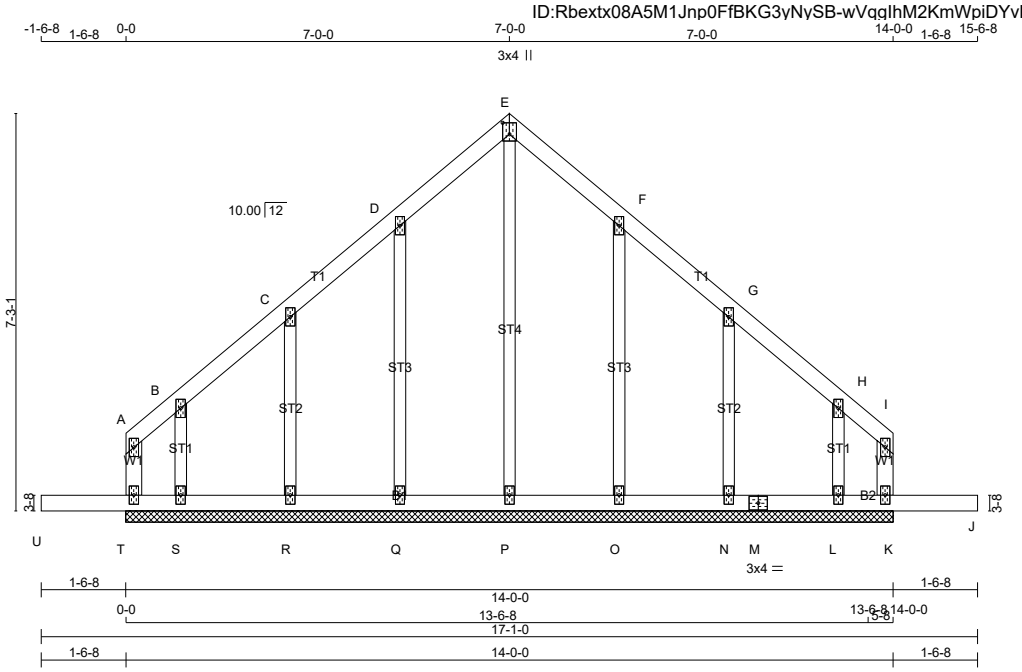

TOTAL WEIGHT = 65 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
T - A	2x4	DRY	No.2	SPF
A - E	2x4	DRY	No.2	SPF
E - I	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
U - M	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B, C, D, F, G, H						
B	TMW+w	MT20	2.0	4.0		
E	TTW+p	MT20	3.0	4.0	2.50	1.50
I	TMV+p	MT20	2.0	4.0		
K	BMV1+p	MT20	2.0	4.0		
L, N, O, P, Q, R, S						
L	BMW1+w	MT20	2.0	4.0		
M	BS-t	MT20	3.0	4.0		
T	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
T- A	-23 / 0	0.0	0.0	0.04 (1)	7.81	P- E	-201 / 0	0.18 (1)
A- B	0 / 17	-78.0	-78.0	0.03 (1)	10.00	Q- D	-159 / 0	0.08 (1)
B- C	0 / 26	-78.0	-78.0	0.04 (1)	10.00	R- C	-157 / 0	0.04 (1)
C- D	0 / 29	-78.0	-78.0	0.04 (1)	10.00	S- B	-106 / 0	0.02 (1)
D- E	0 / 31	-78.0	-78.0	0.04 (1)	10.00	O- F	-159 / 0	0.08 (1)
E- F	0 / 31	-78.0	-78.0	0.04 (1)	10.00	N- G	-157 / 0	0.04 (1)
F- G	0 / 29	-78.0	-78.0	0.04 (1)	10.00	L- H	-106 / 0	0.02 (1)
G- H	0 / 26	-78.0	-78.0	0.04 (1)	10.00			
H- I	0 / 17	-78.0	-78.0	0.03 (1)	10.00			
K- I	-23 / 0	0.0	0.0	0.04 (1)	7.81			
U- T	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
T- S	-12 / 0	-18.5	-18.5	0.12 (1)	6.25			
S- R	-18 / 0	-18.5	-18.5	0.02 (4)	6.25			
R- Q	-22 / 0	-18.5	-18.5	0.02 (4)	6.25			
Q- P	-25 / 0	-18.5	-18.5	0.02 (4)	6.25			
P- O	-25 / 0	-18.5	-18.5	0.02 (4)	6.25			
O- N	-22 / 0	-18.5	-18.5	0.02 (4)	6.25			
N- M	-18 / 0	-18.5	-18.5	0.02 (4)	6.25			
M- L	-18 / 0	-18.5	-18.5	0.02 (4)	6.25			
L- K	-12 / 0	-18.5	-18.5	0.12 (1)	6.25			
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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

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

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

CSI: TC=0.04/1.00 (E-F:1) , BC=0.16/1.00 (J-K:1) , WB=0.18/1.00 (E-P:1) , SSI=0.12/1.00 (T-U:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.26 (E) (INPUT = 0.90)
JSI METAL= 0.08 (D) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H23T	3	1	TRUSS DESC. JT 45147	E20035560

Alpa Roof Truss, Maple

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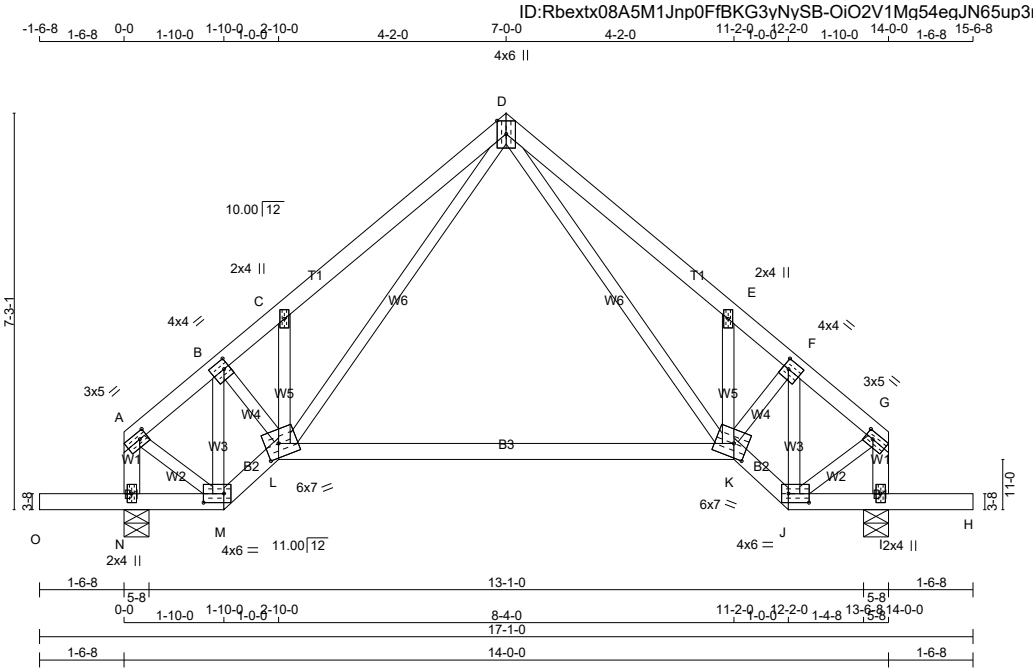

TOTAL WEIGHT = 3 X 69 = 206 lb

[M][F]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	5.0	1.50	1.75
B	TMWW-t	MT20	4.0	4.0	2.00	1.25
C	TMW+w	MT20	2.0	4.0		
D	TTWW+p	MT20	4.0	6.0	Edge	
E	TMW+w	MT20	2.0	4.0		
F	TMWW-t	MT20	4.0	4.0	2.00	1.25
G	TMVW-t	MT20	3.0	5.0	1.50	1.75
I	BMV1+p	MT20	2.0	4.0		
J	BBWW-l	MT20	4.0	6.0	2.00	4.50
K	BBWWW-m	MT20	6.0	7.0	3.00	3.00
L	BBWWW-m	MT20	6.0	7.0	3.00	3.00
M	BBWW-l	MT20	4.0	6.0	2.00	4.50
N	BMV1+p	MT20	2.0	4.0		

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
N	824	0	824	0	0	5-8	1-8
I	824	0	824	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	587	359 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0
I	587	359 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	-486 / 0	-78.0	-78.0	0.04 (1)	6.25
B- C	-724 / 0	-78.0	-78.0	0.12 (1)	6.25
C- D	-809 / 0	-78.0	-78.0	0.17 (1)	6.25
D- E	-809 / 0	-78.0	-78.0	0.17 (1)	6.25
E- F	-724 / 0	-78.0	-78.0	0.12 (1)	6.25
F- G	-486 / 0	-78.0	-78.0	0.04 (1)	6.25
N- A	-596 / 0	0.0	0.0	0.06 (1)	7.81
I- G	-596 / 0	0.0	0.0	0.06 (1)	7.81
O- N	0 / 0	-96.5	-96.5	0.16 (1)	10.00
N- M	0 / 0	-18.5	-18.5	0.12 (1)	10.00
M- L	0 / 473	-18.5	-18.5	0.08 (1)	10.00
L- K	0 / 349	-18.5	-18.5	0.41 (4)	10.00
K- J	0 / 473	-18.5	-18.5	0.08 (1)	10.00
J- I	0 / 0	-18.5	-18.5	0.12 (1)	10.00
I- H	0 / 0	-96.5	-96.5	0.16 (1)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
D- K	0 / 453	0.10 (1)
K- E	-336 / 0	0.06 (1)
K- F	0 / 452	0.10 (1)
J- F	-572 / 0	0.10 (1)
L- D	0 / 453	0.10 (1)
L- C	-336 / 0	0.06 (1)
B- L	0 / 452	0.10 (1)
M- B	-572 / 0	0.10 (1)
A- M	0 / 430	0.10 (1)
J- G	0 / 430	0.10 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (0.47")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/ 682 (0.25")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 974 (0.02")

CSI: TC=0.17/1.00 (C-D:1) , BC=0.41/1.00 (K-L:4) , WB=0.10/1.00 (D-L:1) , SSI=0.12/1.00 (N-O:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (A) (INPUT = 0.90)
JSI METAL= 0.18 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	H23TS	3	1	TRUSS DESC. JT 45147	E20035561

Alpa Roof Truss, Maple

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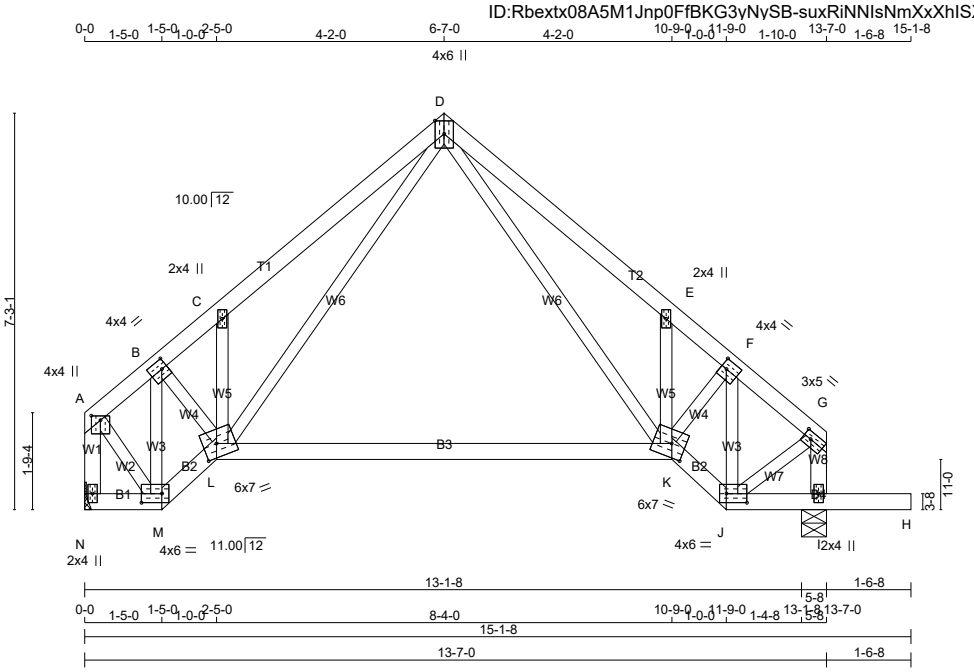

TOTAL WEIGHT = 3 X 66 = 199 lb

[M][F]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	4.0	1.00	2.00
B	TMWW-t	MT20	4.0	4.0	2.00	1.25
C	TMW+w	MT20	2.0	4.0		
D	TTWW+p	MT20	4.0	6.0	Edge	
E	TMW+w	MT20	2.0	4.0		
F	TMWW-t	MT20	4.0	4.0	2.00	1.25
G	TMVW-t	MT20	3.0	5.0	1.50	1.75
I	BMV1+p	MT20	2.0	4.0		
J	BBWW-l	MT20	4.0	6.0	2.00	4.50
K	BBWWW-m	MT20	6.0	7.0	3.00	3.00
L	BBWWW-m	MT20	6.0	7.0	3.00	3.00
M	BBWW-l	MT20	4.0	6.0	2.00	4.50
N	BMV1+p	MT20	2.0	4.0		

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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

BEARINGS

	FACTORED GROSS REACTION		FACTORED MAXIMUM GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
N	647	0	647	0	0	MECHANICAL	
I	812	0	812	0	0	5-8	1-8

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT N. MINIMUM BEARING LENGTH AT JOINT N = 1-8.

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	461	281 / 0	0 / 0	0 / 0	0 / 0	180 / 0	0 / 0
I	579	354 / 0	0 / 0	0 / 0	0 / 0	226 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS						WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)		MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM	TO			FR-TO			
A- B	-414 / 0	-78.0	-78.0	0.04 (1)	6.25	M- B	-551 / 0	0.09 (1)	
B- C	-648 / 0	-78.0	-78.0	0.12 (1)	6.25	B- L	0 / 469	0.11 (1)	
C- D	-743 / 0	-78.0	-78.0	0.16 (1)	6.25	L- C	-353 / 0	0.06 (1)	
D- E	-792 / 0	-78.0	-78.0	0.17 (1)	6.25	L- D	0 / 388	0.09 (1)	
E- F	-707 / 0	-78.0	-78.0	0.12 (1)	6.25	D- K	0 / 454	0.10 (1)	
F- G	-476 / 0	-78.0	-78.0	0.04 (1)	6.25	K- E	-336 / 0	0.06 (1)	
N- A	-634 / 0	0.0	0.0	0.07 (1)	7.81	K- F	0 / 442	0.10 (1)	
I- G	-584 / 0	0.0	0.0	0.06 (1)	7.81	J- F	-560 / 0	0.10 (1)	
						A- M	0 / 438	0.10 (1)	
N- M	0 / 0	-18.5	-18.5	0.01 (4)	10.00	J- G	0 / 421	0.09 (1)	
M- L	0 / 391	-18.5	-18.5	0.07 (1)	10.00				
L- K	0 / 336	-18.5	-18.5	0.40 (4)	10.00				
K- J	0 / 462	-18.5	-18.5	0.08 (1)	10.00				
J- I	0 / 0	-18.5	-18.5	0.12 (1)	10.00				
I- H	0 / 0	-96.5	-96.5	0.16 (1)	10.00				

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 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (0.45")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.45")
CALCULATED VERT. DEFL.(TL) = L/ 670 (0.24")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 940 (0.02")

CSI: TC=0.17/1.00 (D-E:1) , BC=0.40/1.00 (K-L:4) , WB=0.11/1.00 (B-L:1) , SSI=0.12/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (G) (INPUT = 0.90)
JSI METAL= 0.19 (C) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	J1	17	1	TRUSS DESC. JT 45147	E20035562

Alpa Roof Truss, Maple

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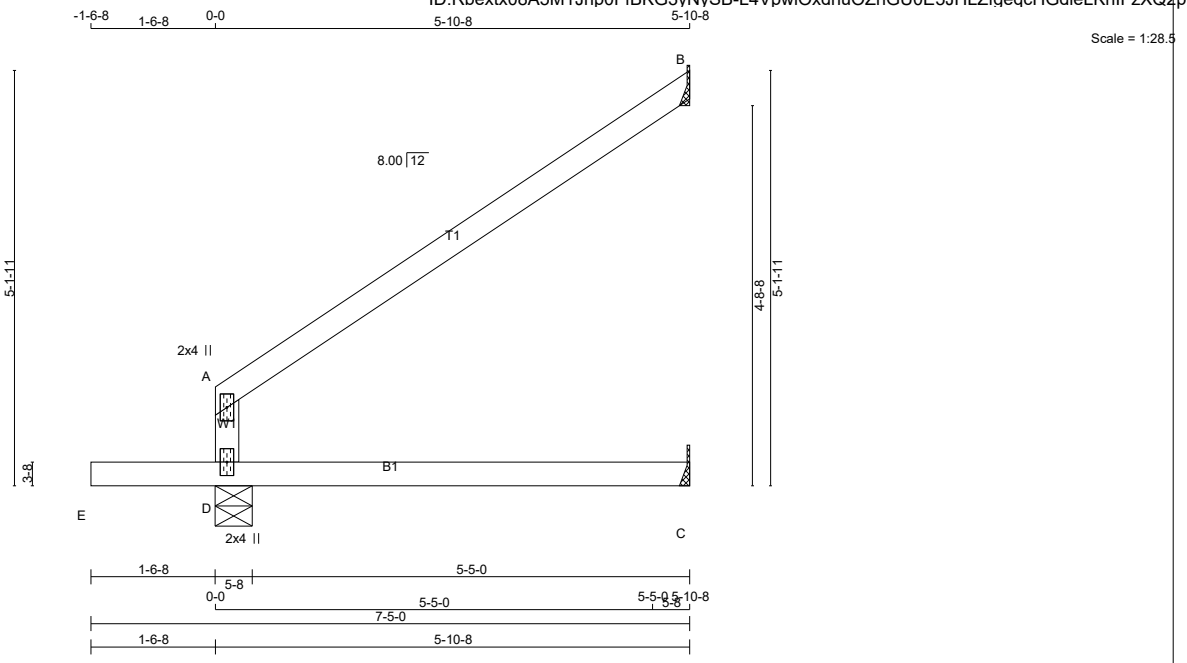

TOTAL WEIGHT = 17 X 18 = 299 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
D - A	2x4	DRY	No.2	SPF
A - B	2x4	DRY	No.2	SPF
E - C	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	
D	BMV1+p	MT20	2.0	4.0	

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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	BRG	BRG
D	487	0	487	0	0	5-8	1-8
B	188	0	188	0	0	MECHANICAL	
C	41	0	46	0	0	MECHANICAL	

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT B, C. MINIMUM BEARING LENGTH AT JOINT B = 1-8, JOINT C = 1-8.

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): B

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	348	210 / 0	0 / 0	0 / 0	0 / 0	137 / 0	0 / 0
B	130	101 / 0	0 / 0	0 / 0	0 / 0	29 / 0	0 / 0
C	33	0 / 0	0 / 0	0 / 0	0 / 0	33 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
D- A	-270 / 0	0.0	0.0	0.33 (1)	7.81			
A- B	-23 / 0	-78.0	-78.0	0.33 (1)	6.25			
E- D	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
D- C	0 / 0	-18.5	-18.5	0.19 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

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=0.33/1.00 (A-D:1) , BC=0.19/1.00 (C-D:4) , WB=0.00/1.00 (n/a:0) , SSI=0.18/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (A) (INPUT = 0.90)
JSI METAL= 0.14 (A) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318466	J2	3	1	TRUSS DESC. JT 45147	E20035563

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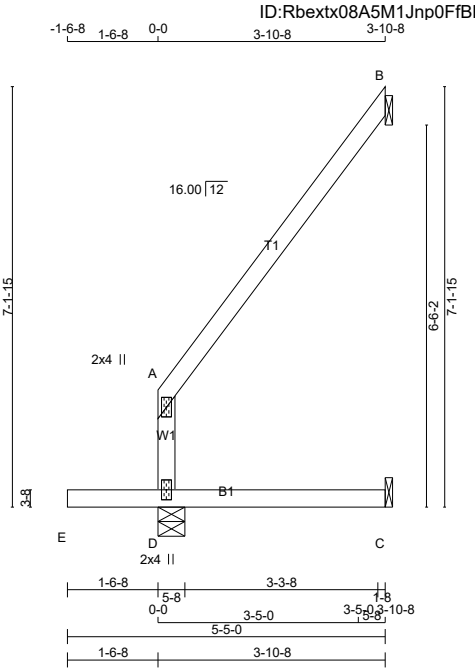

TOTAL WEIGHT = 3 X 16 = 47 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
D - A	2x4	DRY	No.2	SPF
A - B	2x4	DRY	No.2	SPF
E - C	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		
D	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
D	366	0	366	0	0	5-8	1-8
B	129	0	129	0	0	1-8	1-8
C	27	0	30	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) B , C

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	261	158 / 0	0 / 0	0 / 0	0 / 0	104 / 0	0 / 0
B	90	70 / 0	0 / 0	0 / 0	0 / 0	20 / 0	0 / 0
C	22	0 / 0	0 / 0	0 / 0	0 / 0	22 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (7)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 FROM	TO	MAX (PLF) CSI (LC)	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX UNBRAC LENGTH	MAX CSI (LC)
D- A	-173 / 0	0.0	0.0	0.11 (1)			7.81	
A- B	-17 / 0	-78.0	-78.0	0.15 (1)			6.25	
E- D	0 / 0	-96.5	-96.5	0.18 (7)			10.00	
D- C	0 / 0	-18.5	-18.5	0.08 (4)			10.00	

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

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 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

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=0.15/1.00 (A-B:1) , BC=0.18/1.00 (D-E:7) , WB=0.00/1.00 (n/a:0) , SSI=0.14/1.00 (D-E:7)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.15 (A) (INPUT = 0.90)
JSI METAL= 0.08 (A) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318467	H1TB	1	1	TRUSS DESC. JT 45147	E20035564

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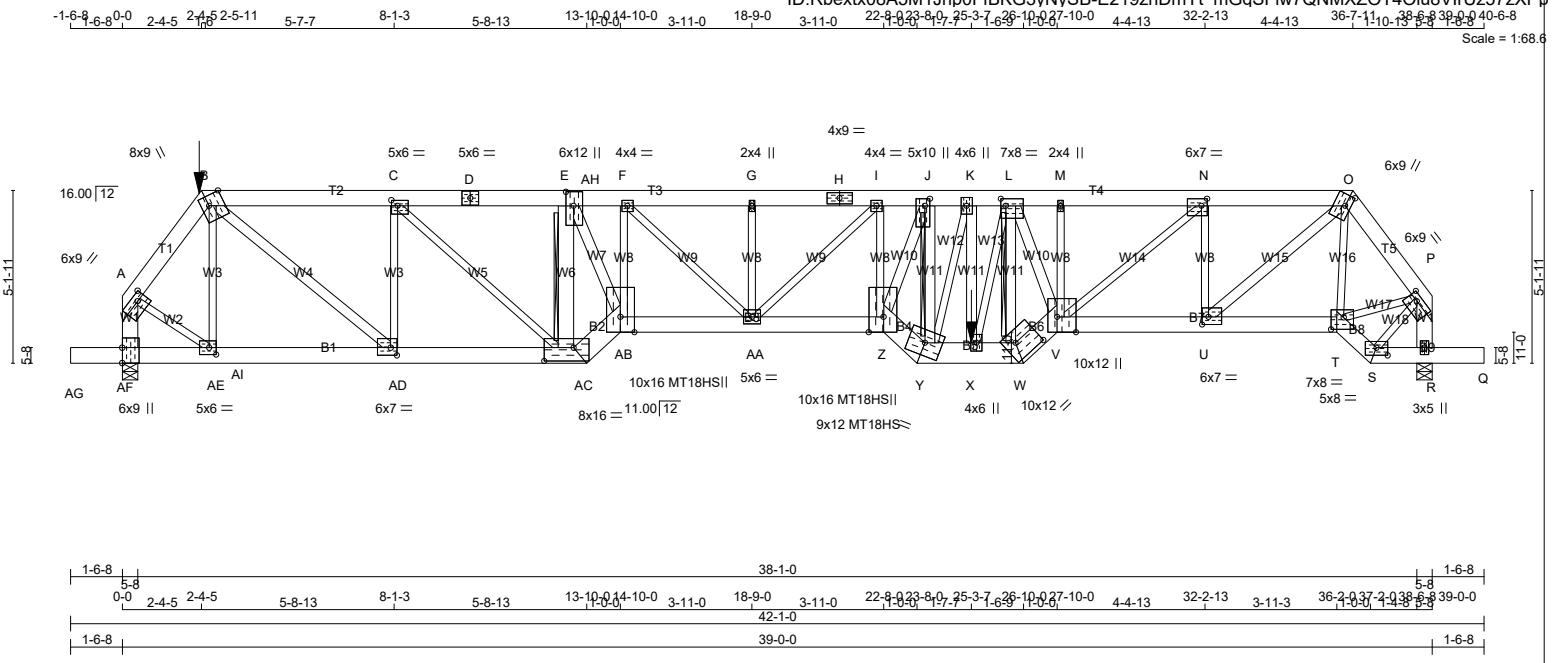

TOTAL WEIGHT = 269 lb [M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	6.0	9.0	2.25	3.00
B	TTWW+m	MT20	8.0	9.0	Edge	5.25
C	TMWW-t	MT20	5.0	6.0	2.00	2.25
D	TS-t	MT20	5.0	6.0		
E	TMWW+t	MT20	6.0	12.0	5.00	2.75
F	TMWW-t	MT20	4.0	4.0		
G	TMW+w	MT20	2.0	4.0		
H	TS-t	MT20	4.0	9.0		
I	TMWW-t	MT20	4.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
AF	3942	0	3942	0	0	5-8	5-8
R	3477	0	3477	0	0	5-8	5-8

ALLOW FOR 0.4" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
AF	2805	1744 / 0	0 / 0	0 / 0	0 / 0	1061 / 0	0 / 0
R	2466	1575 / 0	0 / 0	0 / 0	0 / 0	891 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.67 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT E-AC, J-Y, L-W

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 FROM (PLF)	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	-3334 / 0	-78.0	-78.0	0.10 (1)	4.57
B- C	-5452 / 0	-153.5	-153.5	0.35 (1)	3.99
C- D	-7509 / 0	-153.5	-153.5	0.43 (1)	3.41
D- E	-7509 / 0	-153.5	-153.5	0.43 (1)	3.41
E-AH	-9773 / 0	-153.5	-153.5	0.44 (1)	3.00
AH- F	-9773 / 0	-78.0	-78.0	0.44 (1)	3.00
F- G	-10333 / 0	-78.0	-78.0	0.50 (1)	2.88
G- H	-10333 / 0	-78.0	-78.0	0.49 (1)	2.89
H- I	-10333 / 0	-78.0	-78.0	0.49 (1)	2.89
I- J	-10335 / 0	-78.0	-78.0	0.63 (1)	2.67
J- K	-7989 / 0	-78.0	-78.0	0.51 (1)	3.16
K- L	-7747 / 0	-78.0	-78.0	0.42 (1)	3.33
L- M	-8355 / 0	-78.0	-78.0	0.43 (1)	3.22
M- N	-8342 / 0	-78.0	-78.0	0.42 (1)	3.26
N- O	-5409 / 0	-78.0	-78.0	0.18 (1)	4.18
O- P	-3555 / 0	-78.0	-78.0	0.11 (1)	4.44
AF- A	-3791 / 0	0.0	0.0	0.29 (1)	5.45
R- P	-3246 / 0	0.0	0.0	0.25 (1)	5.84
AG-AF	0 / 0	-96.5	-96.5	0.08 (1)	10.00
AF-AI	0 / 0	-36.4	-36.4	0.10 (4)	10.00
AI-AE	0 / 0	-36.4	-36.4	0.10 (4)	10.00
AE-AD	0 / 1962	-36.4	-36.4	0.35 (1)	10.00
AD-AC	0 / 5452	-36.4	-36.4	0.79 (1)	10.00
AC-AB	0 / 8941	-112.0	-112.0	0.41 (1)	10.00
AB-AA	0 / 9786	-112.0	-112.0	0.90 (1)	10.00
AA- Z	0 / 10346	-112.0	-112.0	0.94 (1)	10.00
Z- Y	0 / 9953	-112.0	-112.0	0.46 (1)	10.00
Y- X	0 / 7747	-112.0	-112.0	0.66 (1)	10.00
X- W	0 / 7436	-18.5	-18.5	0.65 (1)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
AE- B	-819 / 0	0.29 (1)
B-AD	0 / 4541	0.80 (1)
AD- C	-2713 / 0	0.96 (1)
C-AC	0 / 2694	0.67 (1)
AC- E	-7366 / 0	0.80 (1)
E-AB	0 / 7255	0.93 (1)
AB- F	-379 / 0	0.09 (1)
F-AA	0 / 773	0.19 (1)
AA- G	-539 / 0	0.13 (1)
AA- I	-14 / 87	0.03 (4)
Z- I	-289 / 0	0.07 (1)
Z- J	0 / 7673	0.98 (1)
Y- J	-6168 / 0	0.94 (1)
Y- K	0 / 778	0.19 (1)
X- K	-1778 / 0	0.42 (1)
X- L	0 / 1268	0.31 (1)
W- L	-5096 / 0	0.78 (1)
L- V	0 / 3439	0.44 (1)
V- M	0 / 466	0.12 (1)
V- N	0 / 3821	0.95 (1)
U- N	-2952 / 0	0.74 (1)
U- O	0 / 4395	0.78 (1)
T- O	-280 / 0	0.07 (1)
A-AE	0 / 2249	0.56 (1)
S- P	-30 / 3	0.01 (1)
T- P	0 / 2181	0.54 (1)

DESIGN CRITERIA

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

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 2-4-5
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 13-10-0 OF SPAN MEASURED FROM THE LEFT.

GIRDER TYPE: CStdGirder
START DISTANCE = 13-10-0
START SPAN CARRIED = 5-10-8
END DISTANCE = 25-3-7
END SPAN CARRIED = 5-10-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (1.30")
CALCULATED VERT. DEFL.(LL) = L/ 755 (0.62")
ALLOWABLE DEFL.(TL)= L/360 (1.30")
CALCULATED VERT. DEFL.(TL) = L/ 398 (1.18")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 320 (0.06")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 169 (0.11")

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318467	H1TB	1	1	TRUSS DESC. JT 45147	E20035564(2)

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
J	TMWW+t	MT20	5.0	10.0	2.50	1.75
K	TMWW+t	MT20	4.0	6.0		
L	TMWWW-t	MT20	7.0	8.0	2.50	1.75
M	TMW+w	MT20	2.0	4.0		
N	TMWW-t	MT20	6.0	7.0	2.50	2.00
O	TTWW+m	MT20	6.0	9.0	4.00	2.00
P	TMVWW-t	MT20	6.0	9.0	2.00	3.25
R	BMV1+p	MT20	3.0	5.0		
S	BBW-l	MT20	5.0	8.0	2.75	4.00
T	BBWW-l	MT20	7.0	8.0	4.25	4.50
U	BMWW-t	MT20	6.0	7.0	2.75	2.25
V	BBWWW+p	MT20	10.0	12.0	Edge	6.75
W	BBW-h	MT20	10.0	12.0	6.00	8.00
X	BMWW+t	MT20	4.0	6.0		
Y	BBWW-m	MT18HS	9.0	12.0		
Z	BBWW+p	MT18HS	10.0	16.0	Edge	5.25
AA	BMWWW-t	MT20	5.0	6.0		
AB	BBWW+p	MT18HS	10.0	16.0	Edge	
AC	BBWW-l	MT20	8.0	16.0	4.75	10.50
AD	BMWW-t	MT20	6.0	7.0	2.75	2.25
AE	BMWW-t	MT20	5.0	6.0	2.50	2.50
AF	BMV1+t	MT20	6.0	9.0	Edge	

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	WEBS MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
W- V	0 / 9313	-18.5	-18.5	0.43 (1)	10.00			
V- U	0 / 5410	-18.5	-18.5	0.73 (1)	10.00			
U- T	0 / 2106	-18.5	-18.5	0.30 (1)	10.00			
T- S	-31 / 3	-18.5	-18.5	0.00 (4)	6.25			
S- R	0 / 0	-18.5	-18.5	0.08 (1)	10.00			
R- Q	0 / 0	-96.5	-96.5	0.08 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
B	2-5-11	-134	-134	---	FRONT	VERT	TOTAL	---	C1
X	25-3-7	-1034	-1034	---	FRONT	VERT	TOTAL	---	C1

CSI: TC=0.63/1.00 (I-J:1) , BC=0.94/1.00 (Z-AA:1) , WB=0.98/1.00 (J-Z:1) , SSI=0.64/1.00 (J-K:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873
MT18HS	586	403	2455	1382	3163	3004

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (E) (INPUT = 0.90)
JSI METAL= 0.98 (AC) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318467	H2TB	1	1	TRUSS DESC. JT 45147	E20035565

Alpa Roof Truss, Maple

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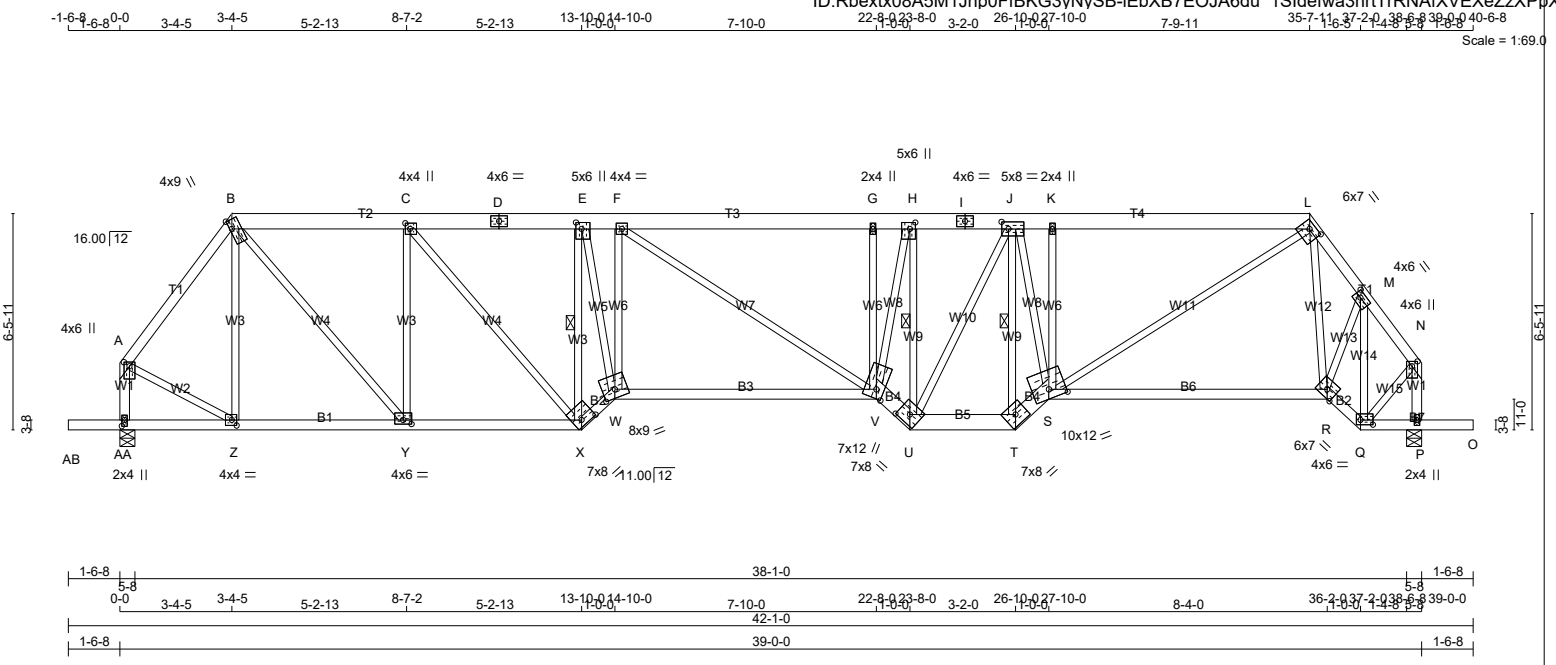

TOTAL WEIGHT = 223 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - D	2x6	DRY	No.2	SPF
D - I	2x6	DRY	No.2	SPF
I - L	2x6	DRY	No.2	SPF
L - N	2x4	DRY	No.2	SPF
AA- A	2x4	DRY	No.2	SPF
P - N	2x4	DRY	No.2	SPF
AB- X	2x4	DRY	No.2	SPF
X - W	2x4	DRY	No.2	SPF
W - V	2x4	DRY	No.2	SPF
V - U	2x6	DRY	No.2	SPF
U - T	2x6	DRY	No.2	SPF
T - S	2x6	DRY	No.2	SPF
S - R	2x4	DRY	No.2	SPF
R - Q	2x4	DRY	No.2	SPF
Q - O	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	1.50	2.00
B	TTWW+m	MT20	4.0	9.0	3.25	0.75
C	TMWW+t	MT20	4.0	4.0	2.00	1.75
D	TS-t	MT20	4.0	6.0		
E	TMWW+t	MT20	5.0	6.0	2.25	2.00
F	TMWW-t	MT20	4.0	4.0		
G	TMW+w	MT20	2.0	4.0		
H	TMWW+t	MT20	5.0	6.0	2.25	2.00
I	TS-t	MT20	4.0	6.0		
J	TMWWW-t	MT20	5.0	8.0	2.50	2.50
K	TMW+w	MT20	2.0	4.0		
L	TTWW-h	MT20	6.0	7.0	2.00	4.00
M	TMWW-t	MT20	4.0	6.0	1.75	2.25
N	TMVW+p	MT20	4.0	6.0	1.75	2.00
P	BMV1+p	MT20	2.0	4.0		
Q	BBWW-l	MT20	4.0	6.0	1.75	4.50
R	BBWW-h	MT20	6.0	7.0	Edge	
S	BBWWW-m	MT20	10.0	12.0	3.25	6.00

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
AA	2027	0	2027	0	0	5-8	3-0
P	2033	0	2033	0	0	5-8	3-0

ALLOW FOR 0.3" OF HORIZONTAL MOVEMENT DUE TO TOTAL LOAD

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
AA	1445	882 / 0	0 / 0	0 / 0	0 / 0	563 / 0	0 / 0
P	1449	885 / 0	0 / 0	0 / 0	0 / 0	565 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.22 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 E-X, H-U, J-T.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	-1600 / 0	-78.0	-78.0	0.21 (1)	5.04
B- C	-2104 / 0	-78.0	-78.0	0.17 (1)	5.44
C- D	-2790 / 0	-78.0	-78.0	0.19 (1)	4.85
D- E	-2790 / 0	-78.0	-78.0	0.19 (1)	4.85
E- F	-3371 / 0	-78.0	-78.0	0.20 (1)	4.48
F- G	-3531 / 0	-78.0	-78.0	0.40 (1)	4.22
G- H	-3520 / 0	-78.0	-78.0	0.19 (1)	4.42
H- I	-2916 / 0	-78.0	-78.0	0.28 (1)	4.66
I- J	-2916 / 0	-78.0	-78.0	0.28 (1)	4.66
J- K	-2978 / 0	-78.0	-78.0	0.28 (1)	4.61
K- L	-2984 / 0	-78.0	-78.0	0.39 (1)	4.50
L- M	-1813 / 0	-78.0	-78.0	0.07 (1)	4.93
M- N	-1319 / 0	-78.0	-78.0	0.05 (1)	5.59
AA- A	-1857 / 0	0.0	0.0	0.21 (1)	6.15
P- N	-1805 / 0	0.0	0.0	0.21 (1)	6.23
AB-AA	0 / 0	-96.5	-96.5	0.16 (1)	10.00
AA- Z	0 / 0	-18.5	-18.5	0.08 (4)	10.00
Z- Y	0 / 953	-18.5	-18.5	0.22 (1)	10.00
Y- X	0 / 2104	-18.5	-18.5	0.40 (1)	10.00
X- W	0 / 3835	-18.5	-18.5	0.62 (1)	10.00
W- V	0 / 3379	-18.5	-18.5	0.74 (1)	10.00
V- U	0 / 3808	-18.5	-18.5	0.45 (1)	10.00
U- T	0 / 2690	-18.5	-18.5	0.33 (1)	10.00
T- S	0 / 3522	-18.5	-18.5	0.42 (1)	10.00
S- R	0 / 1095	-18.5	-18.5	0.48 (4)	10.00
R- Q	0 / 1025	-18.5	-18.5	0.17 (1)	10.00
Q- P	0 / 0	-18.5	-18.5	0.16 (1)	10.00
P- O	0 / 0	-96.5	-96.5	0.16 (1)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
Z- B	-356 / 0	0.23 (1)
B- Y	0 / 1765	0.40 (1)
Y- C	-1243 / 0	0.79 (1)
C- X	0 / 1051	0.24 (1)
X- E	-3328 / 0	0.87 (1)
E- W	0 / 3056	0.69 (1)
W- F	-358 / 0	0.16 (1)
F- V	0 / 182	0.04 (1)
V- G	-509 / 0	0.22 (1)
V- H	0 / 3093	0.70 (1)
U- H	-2910 / 0	0.73 (1)
U- J	0 / 495	0.11 (1)
T- J	-2281 / 0	0.57 (1)
J- S	0 / 1545	0.35 (1)
S- K	-330 / 0	0.14 (1)
S- L	0 / 2256	0.51 (1)
L- R	-111 / 15	0.05 (1)
R- M	0 / 941	0.21 (1)
Q- M	-1413 / 0	0.38 (1)
A- Z	0 / 1057	0.24 (1)
Q- N	0 / 1047	0.24 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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 (1.30")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.30")
ALLOWABLE DEFL.(TL)= L/360 (1.30")
CALCULATED VERT. DEFL.(TL) = L/ 632 (0.74")

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/ 691 (0.03")

CSI: TC=0.40/1.00 (F-G:1) , BC=0.74/1.00 (V-W:1) , WB=0.87/1.00 (E-X:1) , SSI=0.20/1.00 (K-L:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (P) (INPUT = 0.90)
JSI METAL= 0.59 (A) (INPUT = 1.00)

CONTINUED ON PAGE 2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318467	H2TB	1	1	TRUSS DESC. JT 45147	E20035565(2)

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
T	BBW-h	MT20	7.0	8.0		
U	BBWW-h	MT20	7.0	8.0	3.25	4.00
V	BBWWW+m	MT20	7.0	12.0	3.25	2.75
W	BBWW-m	MT20	8.0	9.0	3.00	4.50
X	BBWW-h	MT20	7.0	8.0	2.00	5.00
Y	BMWW-t	MT20	4.0	6.0	1.50	3.00
Z	BMWW-t	MT20	4.0	4.0	2.00	1.75
AA	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318467	J1T	4	1	TRUSS DESC. JT 45147	E20035567

Alpa Roof Truss, Maple

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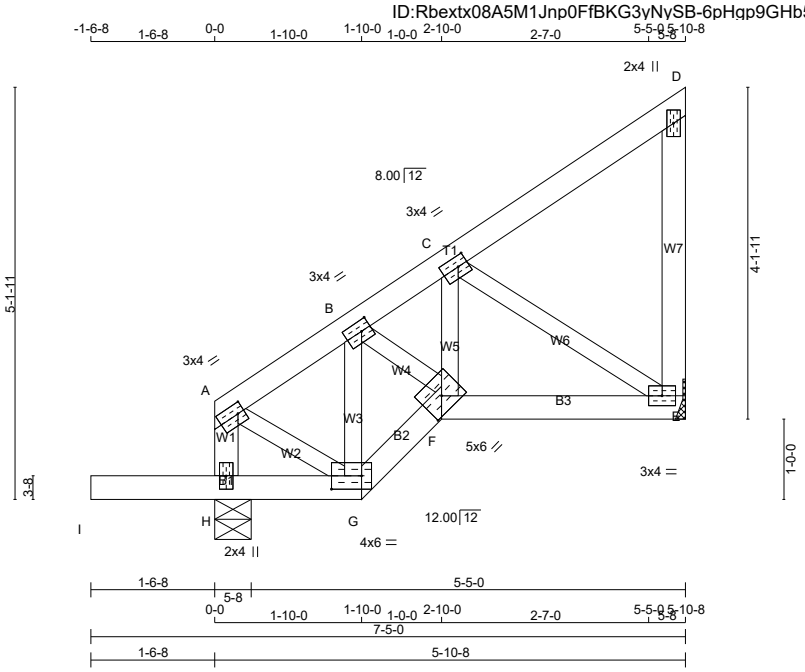


TOTAL WEIGHT = 4 X 30 = 120 lb

[M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0	1.50	1.00
B	TMWW-t	MT20	3.0	4.0	1.50	1.50
C	TMWW-t	MT20	3.0	4.0	1.50	1.50
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BBWW-h	MT20	5.0	6.0	2.25	3.00
G	BBWW-l	MT20	4.0	6.0	2.00	4.50
H	BMV1+p	MT20	2.0	4.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

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
H	452	0	452	0	0	5-8	1-8
E	264	0	264	0	0	MECHANICAL	

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-8.

UNFACTORED REACTIONS

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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
H- A	-223 / 0	0.0	0.0	0.02 (1)	7.81	A- G	0 / 154	0.03 (1)
A- B	-165 / 0	-78.0	-78.0	0.04 (1)	6.25	G- B	-229 / 0	0.04 (1)
B- C	-252 / 0	-78.0	-78.0	0.08 (1)	6.25	B- F	0 / 141	0.03 (1)
C- D	-11 / 0	-78.0	-78.0	0.08 (1)	6.25	F- C	0 / 71	0.02 (4)
E- D	-95 / 0	0.0	0.0	0.02 (1)	7.81	C- E	-267 / 0	0.06 (1)
I- H	0 / 0	-96.5	-96.5	0.16 (1)	10.00			
H- G	-1 / 0	-18.5	-18.5	0.16 (1)	10.00			
G- F	0 / 179	-18.5	-18.5	0.03 (1)	10.00			
F- E	0 / 226	-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 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- 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/ 592 (0.03")

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

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.48 (A) (INPUT = 0.90)
JSI METAL= 0.08 (E) (INPUT = 1.00)

December 18, 2019

Re: Expiration Date for Technical Bulletins Extended to 4/1/2020

Please be advised that the expiration date of the Technical Bulletins listed below has been extended until April 1, 2020.

T-SPECCP17	T-SPECH17	T-SPECDSHGUS17R
T-SPECHGUS17-R	T-SPECHHUS17-R	T-SPECHUS17
T-SPECLF17	T-SPECLT17	T-SPECLU17
T-SPECCLUL17	T-SPECLUS17	T-SPECSUR17
T-SPECTBE17	T-SPECTC17	T-SPECTHGB17
T-SPECTHGBHV17	T-SPECTHGQ17	T-SPECTHGW17
T-SPECLSULSSU17	T-SPECHTHGQ17	T-SPECSTHGQ17

Should you have any questions or concerns regarding the above, please contact me at your convenience.

Sincerely,

Brent Bunting, P.Eng.
Simpson Strong-Tie Canada, Ltd.

TECHNICAL BULLETIN

LUS – Double Shear Joist Hangers

SIMPSON Strong-Tie®

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

Material: 18 gauge

Finish: G90 galvanized

Design:

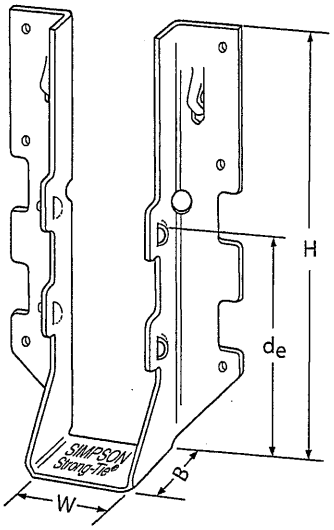
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

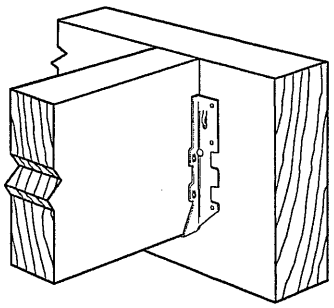
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified



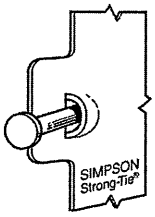
LUS28



Typical LUS Installation

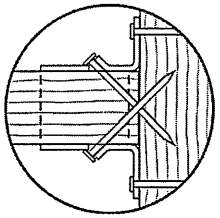
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
LUS24	18	1 9/16	3 1/8	1 3/4	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 13/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 9/16	4 3/4	1 3/4	3 5/8	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 7/8	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 5/8	4 3/16	2	3 1/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 9/16	6 5/8	1 3/4	3 3/4	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3 1/8	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4 5/8	6 1/4	2	3 1/4	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 9/16	7 13/16	1 3/4	3 7/8	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3 1/8	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4 5/8	8 3/16	2	5 1/4	(8) 16d	(6) 16d	2580	3345	2320	2375

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



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

U.S. Patent 5,603,580



Double Shear Nailing Top View.

LIMIT STATES DESIGN

(800) 999-5099
strongtie.com

TECHNICAL BULLETIN

HUS/LJS – Double Shear Joist Hangers

SIMPSON Strong-Tie®

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

Material: See table

Finish: G90 galvanized

Design:

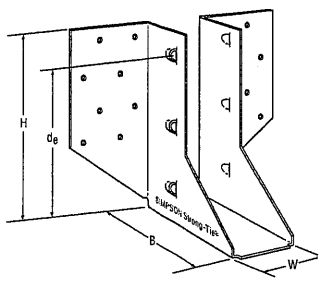
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

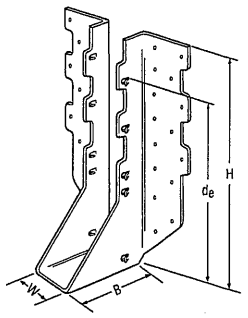
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

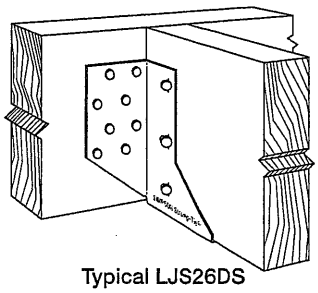
- See current catalogue for options



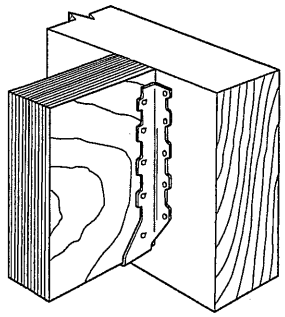
LJS26DS



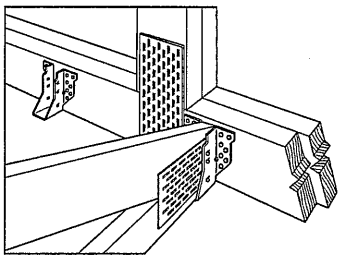
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS Installation



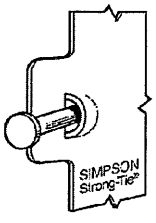
Typical HUS Installation



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

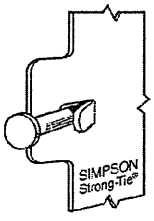
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
								lb.	lb.	lb.	lb.
LJS26DS	18	1 9/16	5	3½	4⅝	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1⅝	5⅜	3	3 15/16	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1⅝	7 3/32	3	6 3/32	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1⅝	9 3/32	3	7 31/32	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1 13/16	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

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

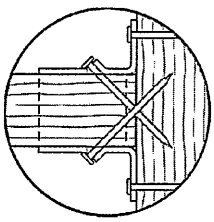


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

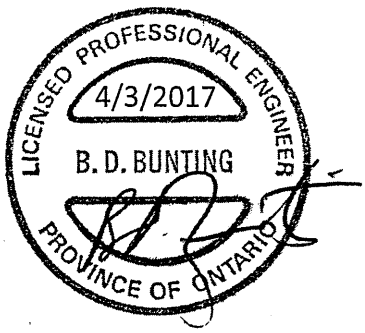
U.S. Patent 5,603,580



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



Double Shear Nailing Top View.



LIMIT STATES DESIGN

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

T-SPECHUS17 3/17 exp. 6/19

(800) 999-5099
strongtie.com

TECHNICAL BULLETIN

HHUS – Double Shear Joist Hangers

SIMPSON Strong-Tie®

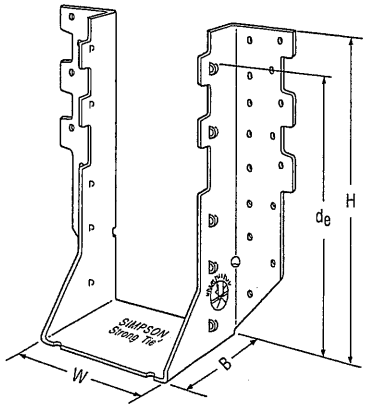
All HHUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

Material: 14 gauge

Finish: G90 galvanized

Design:

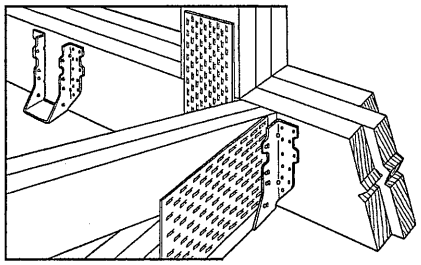
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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



HHUS410

Installation:

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



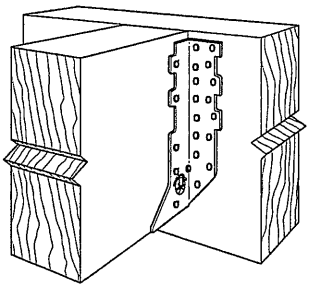
Typical HHUS Installation (Truss Designer to provide fastener quantity for connecting multiple members together)

Options:

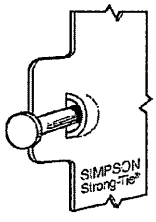
- See current catalogue for options

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

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

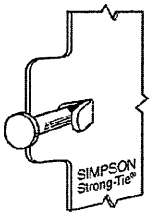


Typical HHUS Installation

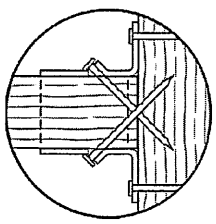


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 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

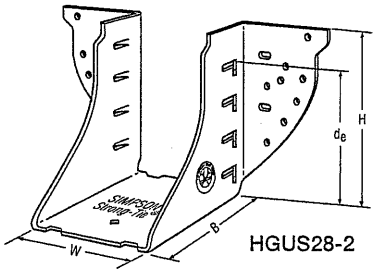
(800) 999-5099
strongtie.com

TECHNICAL BULLETIN

HGUS – Double Shear Joist Hangers

SIMPSON Strong-Tie®

All HGUS 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.



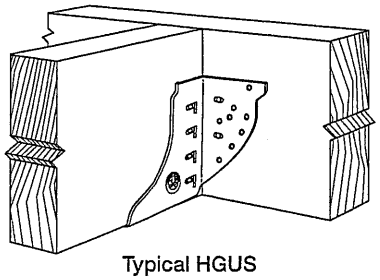
HGUS28-2

Material: 12 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.

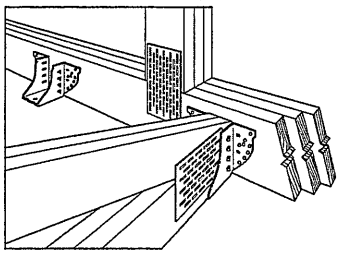

Typical HGUS Installation

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

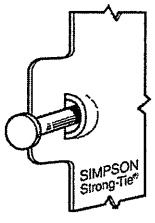
Options:

- See current catalogue for options


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

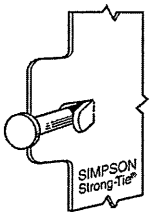
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
								D.Fir-L		S-P-F	
		W	H	B	d_e[1]	Face	Joist	Uplift (K_D=1.15)	Normal (K_D=1.00)	Uplift (K_D=1.15)	Normal (K_D=1.00)
HGUS26	12	1⅝	5⅜	5	4 5/32	(20) 16d	(8) 16d	2685	6625	2685	5700
HGUS26-2	12	3 5/16	5 7/16	4	4⅛	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-3	12	4 15/16	5½	4	4⅛	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-4	12	6 9/16	5 7/16	4	4⅛	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS28	12	1⅝	7⅛	5	6⅛	(36) 16d	(12) 16d	3310	7675	3100	6900
HGUS28-2	12	3 5/16	7 3/16	4	6⅛	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-3	12	4 15/16	7¼	4	6⅜	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-4	12	6 9/16	7 3/16	4	6⅛	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS210-2	12	3 5/16	9 3/16	4	8⅛	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS210-3	12	4 15/16	9¼	4	8⅜	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS210-4	12	6 9/16	9 3/16	4	8⅛	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS212-4	12	6 9/16	10⅝	4	10⅛	(56) 16d	(20) 16d	7640	14995	5425	10645
HGUS214-4	12	6 9/16	12⅝	4	11⅛	(66) 16d	(22) 16d	10130	16400	7195	11645

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

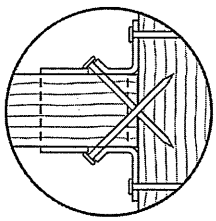


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



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


Double Shear Nailing Top View.

LIMIT STATES DESIGN

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

(800) 999-5099
strongtie.com

TC – Truss Connectors

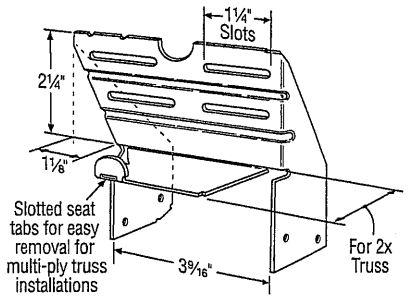
SIMPSON Strong-Tie®

The TC truss connector is an ideal connector for scissor trusses and can allow horizontal movement up to 1¼". The TC also attaches plated trusses to top plates or sill plates to resist uplift forces. Typically used on one or both ends of truss as determined by the building designer.

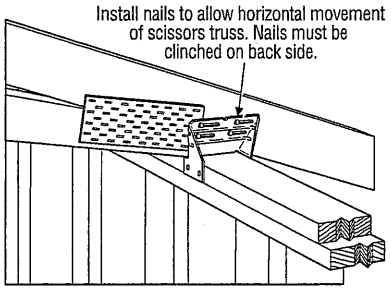
Material: 16 gauge

Finish: G90 galvanized

Design: Factored resistances are in accordance with CSA 086-14



TC24
U.S. Patent 4,932,173



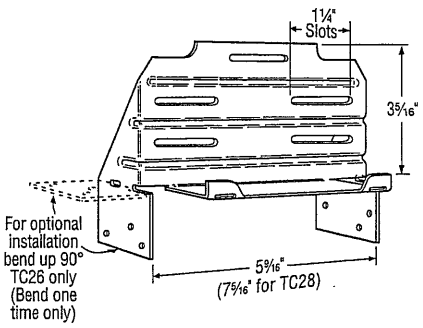
Typical TC24 Installation

Installation:

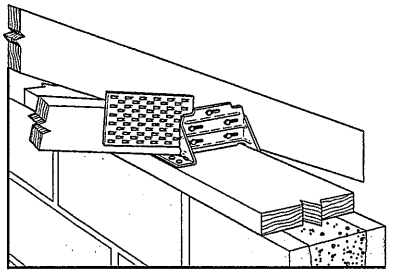
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½ = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss–allow room under the nail head for movement of the truss with respect to the wall.

Optional TC Installation:

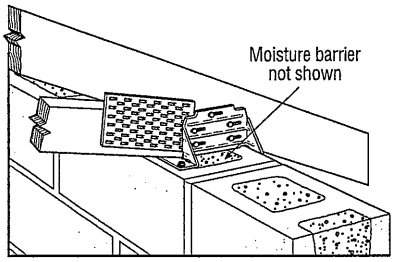
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



TC26
(TC28 Similiar)



Optional TC26 Installation for Grouted Concrete Block using a Wood Nailer
(8", 10", 12" Wall Installation Similar)



Optional TC26 Installation for Grouted Concrete Block using Titen Screws

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K_D=1.15)	Uplift (K_D=1.15)
			lb.	lb.
TC24	(4) 10d	(4) 10d	605	430
TC26	(5) 10d	(6) 10d	1015	720
TC28	(5) 10d	(6) 10d	1015	720

Optional TC Installation Table

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K_D=1.15)	Uplift (K_D=1.15)
			lb.	lb.
TC26	(5) 10d	(6) 10d x 1½"	810	660
	(5) 10d	(6) 10d	930	660

1. Factored resistances have been increased 15% for earthquake or wind loading; no further increase allowed; reduce where other loads govern.
2. Grout strength is 15 MPa minimum.
3. Optional TC26 installation with 10d nails requires minimum 3" top plate thickness.
4. TC26 fastened to grouted concrete block with (6) – ⅜" x 2¼" Titen screws has a factored uplift resistance of 275 lb.

LIMIT STATES DESIGN

(800) 999-5099
strongtie.com