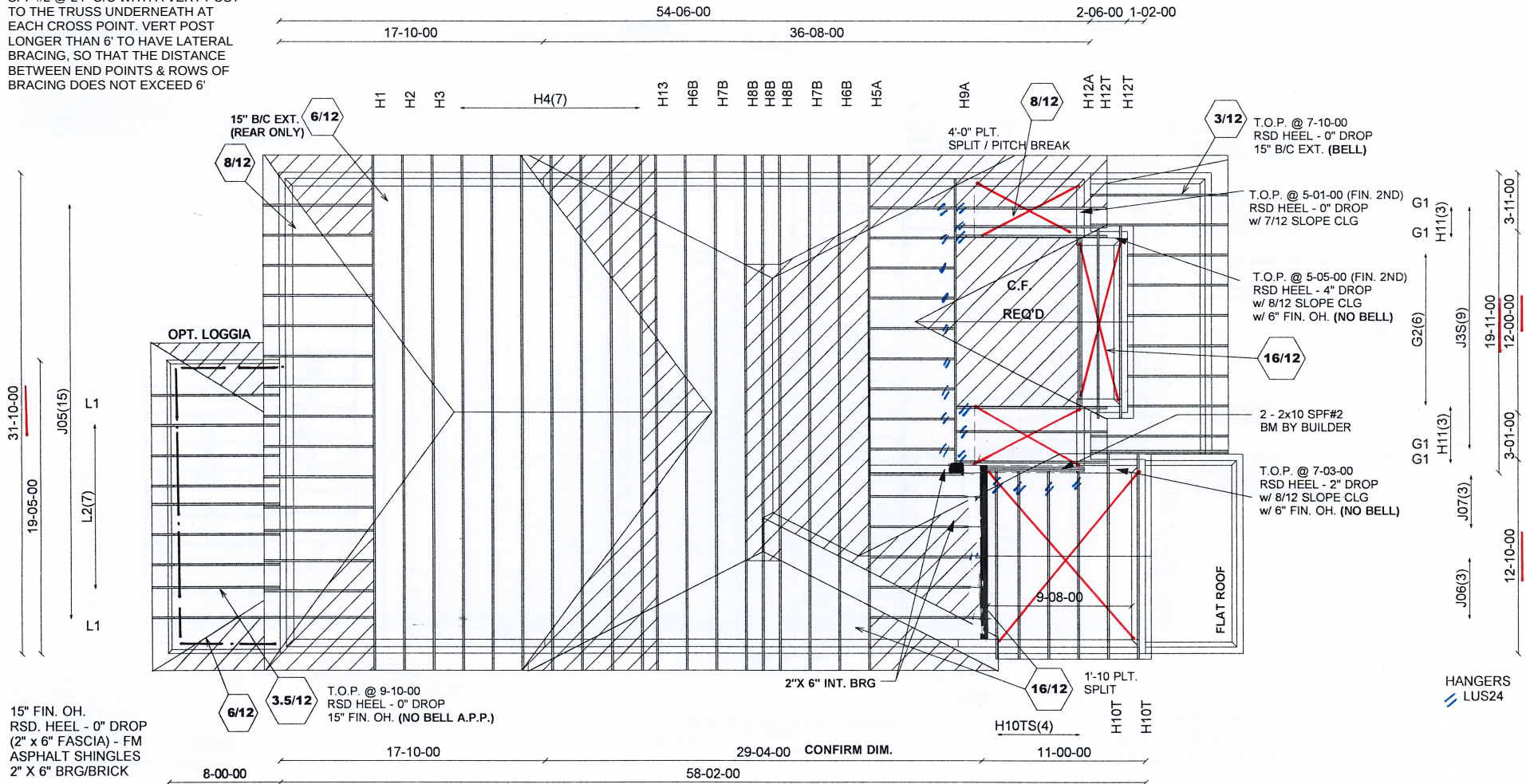


ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OBC LATEST EDITION. ROOF RAFTERS THAT CROSS OVER TRUSSES TO BE 2X4 SPF #2 @ 24" O/C WITH A VERT POST TO THE TRUSS UNDERNEATH AT EACH CROSS POINT. VERT POST LONGER THAN 6' TO HAVE LATERAL BRACING, SO THAT THE DISTANCE BETWEEN END POINTS & ROWS OF BRACING DOES NOT EXCEED 6'



E20035400 - E20035423

BROOKSIDE

CONVENTIONAL FRAMING BY OTHERS



Job Track: 45147
Layout ID: 318485
Plan Log: 105728

Builder / Location:
GOLD PARK HOMES / VAUGHAN
Project: **PINE VALLEY**
Date: 2020-03-17 Designer: AMANDA

Model / Elevation: 4003 REV2 / A
STD OR OPT. LOGGIA

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

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.

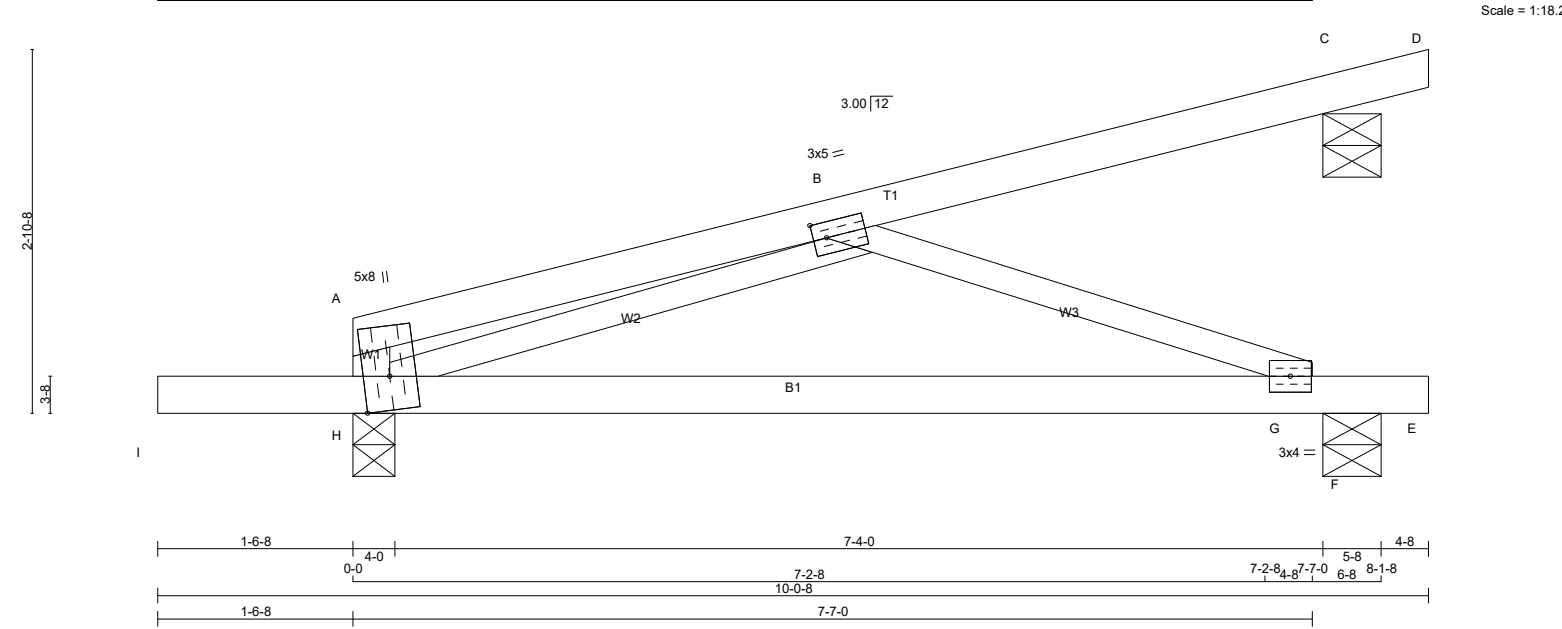
THESE DRAWINGS CONSTITUTE THE PROPERTY OF EWP DESIGN INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY THE ALPA LUMBER GROUP, AND WILL BE RETRACTED BY EWP DESIGN INC. IF UTILIZED FOR ANY OTHER PURPOSE.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	G1		1	TRUSS DESC. JT 45147	E20035400

Alpa Roof Truss, Maple

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ID:??oTPPHJwqVXP?L7M2YoomnyCODA-I95rD3eiVeUBi8HPNhX3o W66tGkUCzJyypDvzXSPY



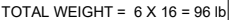
LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - D 2x4 DRY No.2 SPF H - A 2x4 DRY No.2 SPF I - E 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th></th><th colspan="2">FACTORED GROSS REACTION</th><th colspan="2">MAXIMUM FACTORED GROSS REACTION</th><th>INPUT BRG</th><th>REQRD BRG</th></tr><tr><th></th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>UPLIFT</th><th></th></tr><tr><td>JT</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>H</td><td>529</td><td>0</td><td>529</td><td>0</td><td>0</td><td>4-0</td></tr><tr><td>F</td><td>263</td><td>0</td><td>263</td><td>0</td><td>0</td><td>5-8</td></tr><tr><td>C</td><td>179</td><td>0</td><td>179</td><td>0</td><td>0</td><td>5-8</td></tr></table>							FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG		VERT	HORZ	DOWN	HORZ	UPLIFT		JT							H	529	0	529	0	0	4-0	F	263	0	263	0	0	5-8	C	179	0	179	0	0	5-8	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		
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG																																																	
	VERT	HORZ	DOWN	HORZ	UPLIFT																																																		
JT																																																							
H	529	0	529	0	0	4-0																																																	
F	263	0	263	0	0	5-8																																																	
C	179	0	179	0	0	5-8																																																	

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
A					
A	TMBMW1**n	MT20	5.0	8.0	Edge
B	TMWW-t	MT20	3.0	5.0	1.50 1.25
G	BMW-t	MT20	3.0	4.0	
H					

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

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



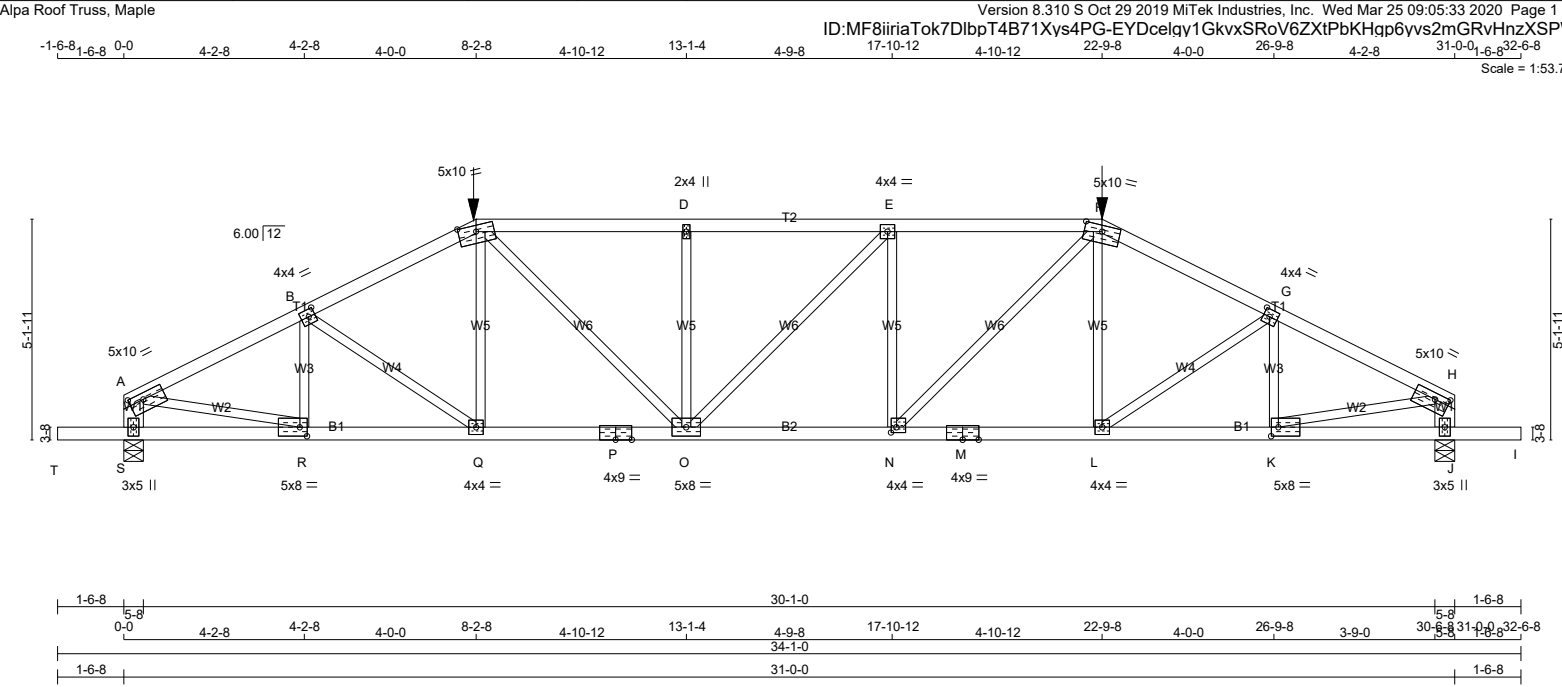
Scale = 1:14.0

DRY: SEASONED LUMBER.

A	TMBMV1+p	MT20	3.0	6.0
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JSI GRIP= 0.13 (A) (INPUT = 0.90)
JSI METAL= 0.04 (A) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	H1		1	TRUSS DESC. JT 45147	E20035402



LUMBER N. L. G. A. RULES CHORDS SIZE A - C 2x4 DRY No.2 C - F 2x4 DRY No.2 F - H 2x4 DRY No.2 S - A 2x6 DRY No.2 J - H 2x6 DRY No.2 T - P 2x4 DRY No.2 P - M 2x4 DRY No.2 M - I 2x4 DRY No.2 ALL WEBS 2x3 DRY No.2 EXCEPT DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION JT VERT 2099 S 2939 J 2939 MAXIMUM FACTORED GROSS REACTION DOWN 2939 HORZ 0 UPLIFT 0 INPUT BRG IN-SX 5-8 REQRD BRG IN-SX 3-13 3-13 UNFACTORED REACTIONS 1ST LCASE JT COMBINED 2099 S 1263 / 0 J 1263 / 0 MAX / MIN. COMPONENT REACTIONS LIVE 0 / 0 PERM. LIVE 0 / 0 WIND 0 / 0 DEAD 836 / 0 SOIL 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) S, J BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.94 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) FR-TO A-B -4273 / 0 B-C -4432 / 0 C-D -4935 / 0 D-E -4935 / 0 E-F -4938 / 0 F-G -4431 / 0 G-H -4273 / 0 S-A -2716 / 0 J-H -2716 / 0 FACTORED VERT. LOAD (PLF) -78.0 -78.0 -153.5 -153.5 -153.5 -78.0 -78.0 0.0 0.0 MAX. FACTORED CSI (LC) 0.50 (1) 0.50 (1) 0.67 (1) 0.67 (1) 0.68 (1) 0.50 (1) 0.50 (1) 0.19 (1) 0.19 (1) MAX. UNBRACED LENGTH 3.00 2.94 3.04 3.03 3.02 2.94 3.00 6.29 6.29 WEBS MEMB. MAX. FACTORED FORCE (LBS) FR-TO R-B -522 / 0 B-Q 0 / 141 Q-C 0 / 184 C-O 0 / 1384 O-D -801 / 0 D-E -3 / 0 E-F -802 / 0 F-G 0 / 1388 G-H 0 / 183 H-I 0 / 140 I-J -522 / 0 J-K 0 / 3890 K-L 0 / 3890 MAX. FACTORED CSI (LC) 0.10 (1) 0.03 (1) 0.07 (4) 0.34 (1) 0.32 (1) 0.00 (1) 0.32 (1) 0.34 (1) 0.07 (4) 0.03 (1) 0.10 (1) 0.96 (1) 0.96 (1) FACTORED CONCENTRATED LOADS (LBS) JT LOC. 8-2-8 C 467 F 467 MAX- 467 MAX+ --- FACE FRONT DIR. VERT TYPE TOTAL HEEL --- CONN. C1 DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 21.0 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 34.4 PSF SPACING = 24.0 IN. C/C LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM GIRDER TYPE: CPrimeHip SIDE SETBACK = 8-2-8 END SETBACK = 5-10-8 END WALL WIDTH = 0-0 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: CONVENTIONAL APPLIED TO FRONT SIDE - ADDTL LOADS BASED ON 55 % OF GSL. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2015 THIS DESIGN COMPLIES WITH: - PART 9 OF CBC2018 , 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 (1.03") CALCULATED VERT. DEFL.(LL)= L/ 999 (0.23") ALLOWABLE DEFL.(TL)= L/360 (1.03") CALCULATED VERT. DEFL.(TL)= L/ 817 (0.46") 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=0.68/1.00 (E-F:1) , BC=0.96/1.00 (N-O:1) , WB=0.96/1.00 (H-K:1) , SSI=0.38/1.00 (E-F:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00 COMPANION LIVE LOAD FACTOR = 1.00 AUTOSOLVE HEELS OFF TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. CONTINUED ON PAGE 2			
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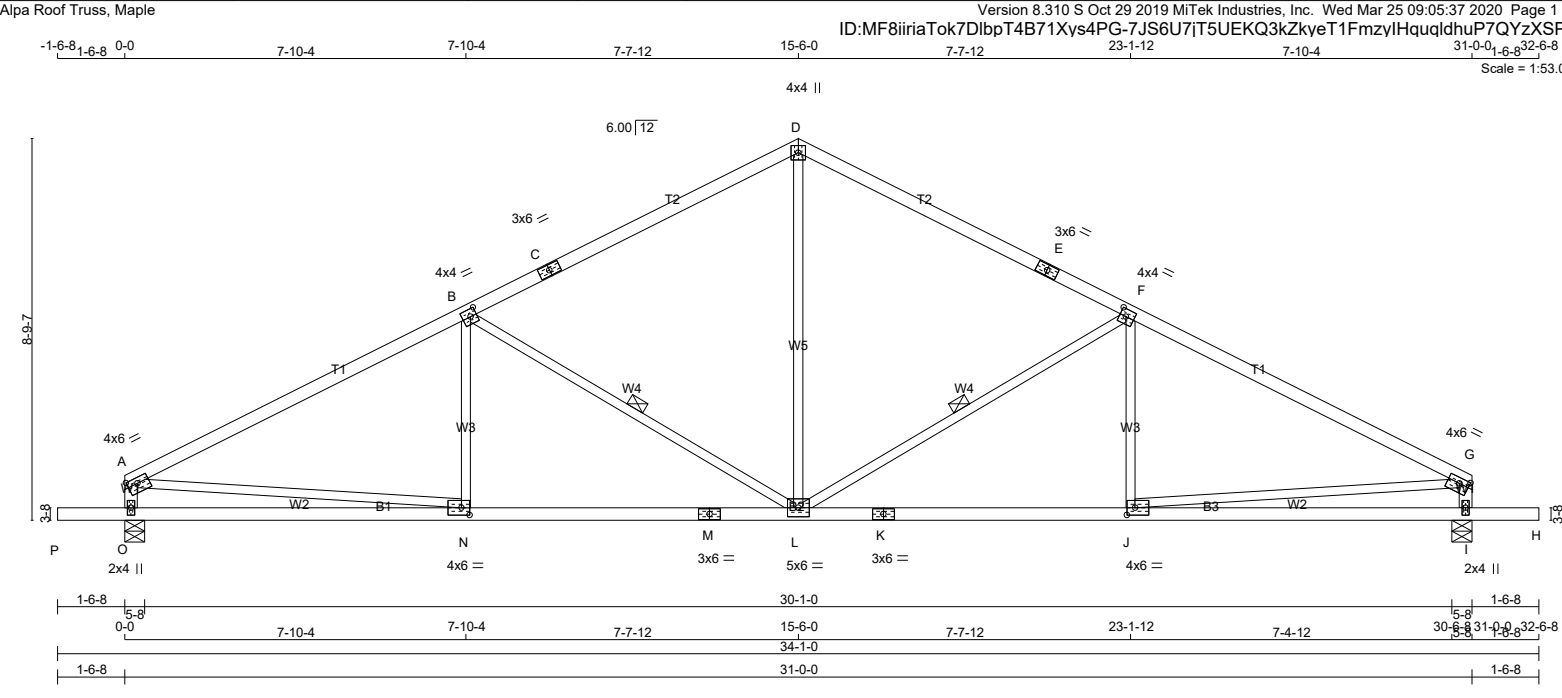
JSI GRIP= 0.89 (J) (INPUT = 0.90)
JSI METAL= 0.63 (N) (INPUT = 1.00)

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JSI GRIP= 0.87 (N) (INPUT = 0.90)
JSI METAL= 0.70 (M) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	H4		1	TRUSS DESC. JT 45147	E20035405



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

PLATES (table is in inches)			
JT	TYPE	PLATES	W LEN Y X
A	TMVW-t	MT20	4.0 6.0 1.50 2.75
B	TMWW-t	MT20	4.0 4.0 2.00 1.75
C	TS-t	MT20	3.0 6.0
D	TTW+p	MT20	4.0 4.0
E	TS-t	MT20	3.0 6.0
F	TMVW-t	MT20	4.0 4.0 2.00 1.75
G	TMVW-t	MT20	4.0 6.0 1.50 2.75
I	BMV1+p	MT20	2.0 4.0
J	BMWW-t	MT20	4.0 6.0 2.00 2.25
K	BS-t	MT20	3.0 6.0
L	BMWWW-t	MT20	5.0 6.0
M	BS-t	MT20	3.0 6.0
N	BMWW-t	MT20	4.0 6.0 2.00 2.25
O	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	UPLIFT	IN-SX
O	1644	0	1644	0	5-8
I	1644	0	1644	0	5-8

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

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

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

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	FR-TO
FR-TO		FROM	TO	FR-TO			
A-B	-2233 / 0	-78.0	-78.0 0.83 (1)	L-D	0 / 929	0.21 (1)	
B-C	-1572 / 0	-78.0	-78.0 0.70 (1)	L-F	-760 / 0	0.42 (1)	
C-D	-1572 / 0	-78.0	-78.0 0.70 (1)	J-F	-30 / 109	0.04 (4)	
D-E	-1572 / 0	-78.0	-78.0 0.70 (1)	B-L	-760 / 0	0.42 (1)	
E-F	-1572 / 0	-78.0	-78.0 0.70 (1)	N-B	-30 / 109	0.04 (4)	
F-G	-2233 / 0	-78.0	-78.0 0.83 (1)	A-N	0 / 2035	0.46 (1)	
O-A	-1435 / 0	0.0	0.0 0.14 (1)	J-G	0 / 2035	0.46 (1)	
I-G	-1435 / 0	0.0	0.0 0.14 (1)				
P-O	0 / 0	-96.5	-96.5 0.16 (1)				
O-N	0 / 0	-18.5	-18.5 0.26 (4)				
N-M	0 / 2026	-18.5	-18.5 0.46 (1)				
M-L	0 / 2026	-18.5	-18.5 0.46 (1)				
L-K	0 / 2026	-18.5	-18.5 0.46 (1)				
K-J	0 / 2026	-18.5	-18.5 0.46 (1)				
J-I	0 / 0	-18.5	-18.5 0.26 (4)				
I-H	0 / 0	-96.5	-96.5 0.16 (1)				

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.22")

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

CSI: TC=0.83/1.00 (F-G:1) , BC=0.46/1.00 (J-L:1) , WB=0.46/1.00 (G-J:1) , SSI=0.26/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

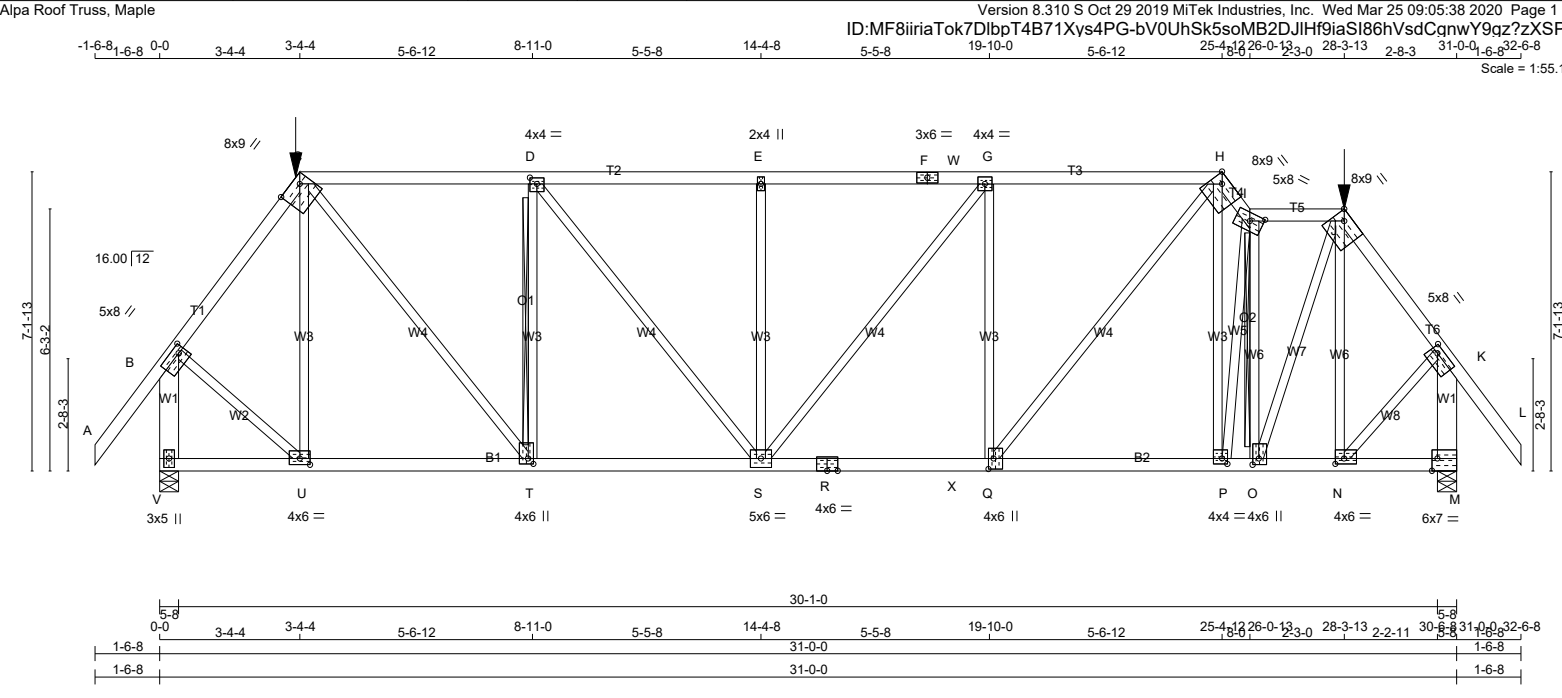
NAIL VALUES			
PLATE GRIP(DRY) SHEAR	SECTION (PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

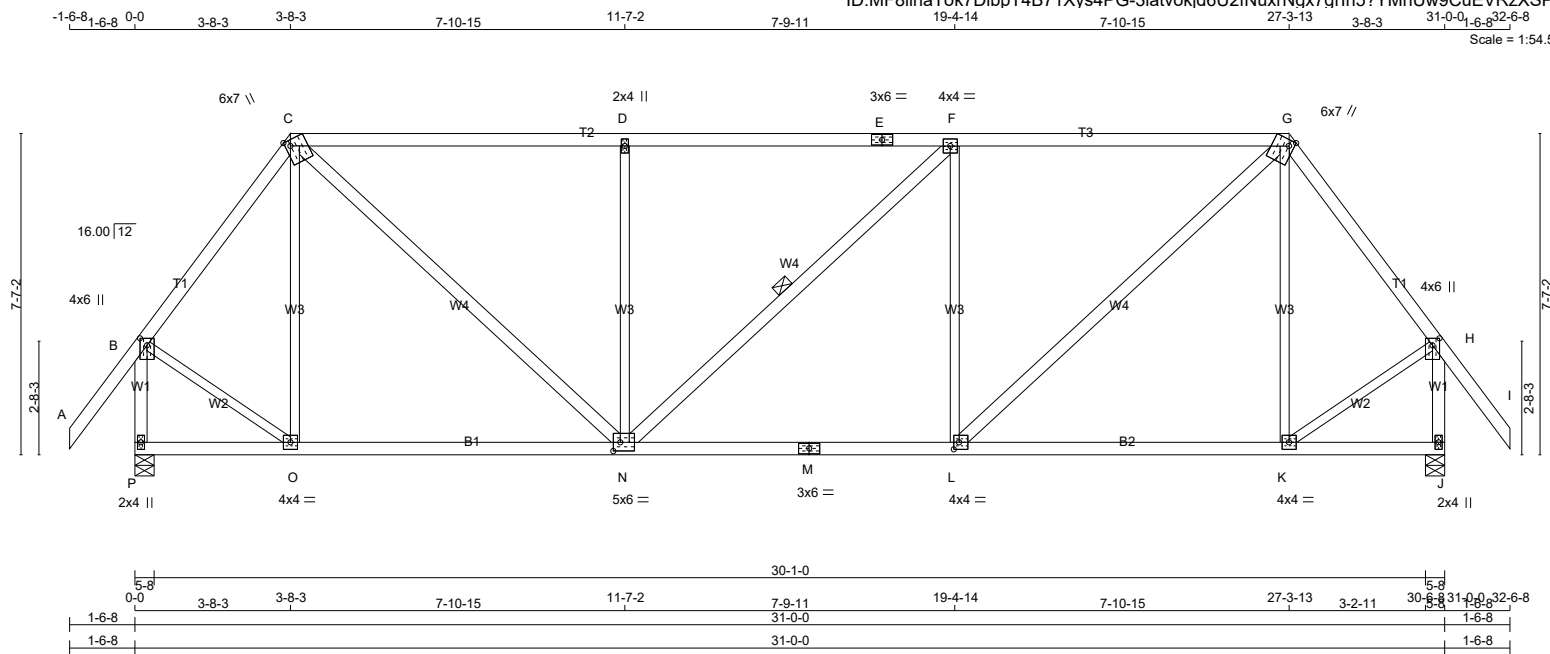
JSI GRIP= 0.85 (N) (INPUT = 0.90)
JSI METAL= 0.62 (M) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	H5A		1	TRUSS DESC. JT 45147	E20035406



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x4 DRY No.2 SPF C - F 2x4 DRY 1650F 1.5E SPF F - H 2x4 DRY 1650F 1.5E SPF H - I 2x4 DRY No.2 SPF I - J 2x4 DRY No.2 SPF J - L 2x4 DRY No.2 SPF V - B 2x6 DRY No.2 SPF M - K 2x6 DRY No.2 SPF V - R 2x4 DRY No.2 SPF R - M 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQ'D JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX V 3060 0 3060 0 0 5-8 4-7 M 3419 0 3419 0 0 5-8 5-8 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL V 2180 1339 / 0 0 / 0 0 / 0 841 / 0 0 / 0 M 2437 1492 / 0 0 / 0 0 / 0 945 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) V, M BEARING SIZE FACTOR = 1.15 AT JNT(S) M (BASED ON SUPPORT DEPTH = 1-8) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.27 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. 2x4 DRY SPF No.2 T-BRACE AT D-T, I-O FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (4) CHORDS MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD (PLF) MAX. CSI (LC) WEB S. MAX. FACTORED FORCE (LBS) MAX. CSI (LC) MEMB. FR-TO FROM TO MEMB. FR-TO FROM TO A-B 0 / 52 -78.0 -78.0 0.17 (1) 10.00 U-C -732 / 0 0.66 (1) B-C -2304 / 0 -78.0 -78.0 0.29 (1) 4.25 C-T 0 / 2470 0.61 (1) C-D -2924 / 0 -149.4 -149.4 0.75 (1) 3.63 T-D -1706 / 0 0.63 (1) D-E -3557 / 0 -149.4 -149.4 0.80 (1) 3.27 D-S 0 / 1016 0.25 (1) E-F -3557 / 0 -149.4 -149.4 0.70 (1) 3.48 S-E -770 / 0 0.70 (1) F-W -3557 / 0 -149.4 -149.4 0.70 (1) 3.48 S-G 0 / 156 0.04 (1) W-G -3557 / 0 -115.7 -115.7 0.70 (1) 3.48 Q-G -883 / 0 0.80 (1) G-H -3459 / 0 -115.7 -115.7 0.69 (1) 3.53 Q-H 0 / 1854 0.46 (1) H-I -3842 / 0 -115.7 -115.7 0.19 (1) 3.44 P-H 0 / 1318 0.33 (1) I-J -2322 / 0 -115.7 -115.7 0.18 (1) 4.30 P-I -651 / 0 0.43 (1) J-K -2439 / 0 -78.0 -78.0 0.21 (1) 4.21 O-I -2595 / 0 0.76 (1) K-L 0 / 52 -78.0 -78.0 0.17 (1) 10.00 O-J 0 / 2607 0.65 (1) V-B -3021 / 0 0.0 0.0 0.32 (1) 6.01 N-J -948 / 0 0.61 (1) M-K -3387 / 0 0.0 0.0 0.36 (1) 5.73 B-U 0 / 1648 0.41 (1) N-K 0 / 1878 0.46 (1) V-U 0 / 0 -35.5 -35.5 0.19 (4) 10.00 U-T 0 / 1362 -35.5 -35.5 0.38 (4) 10.00 T-S 0 / 2924 -35.5 -35.5 0.65 (1) 10.00 S-R 0 / 3460 -35.5 -35.5 0.98 (1) 10.00 R-X 0 / 3460 -35.5 -35.5 0.98 (1) 10.00 X-Q 0 / 3460 -122.4 -122.4 0.98 (1) 10.00 Q-P 0 / 2287 -122.4 -122.4 0.78 (1) 10.00 P-O 0 / 2368 -122.4 -122.4 0.77 (1) 10.00 O-N 0 / 1434 -122.4 -122.4 0.39 (1) 10.00 N-M 0 / 0 -45.7 -45.7 0.13 (1) 10.00 FACTORED CONCENTRATED LOADS (LBS) JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE HEEL CONN. C 3-4-4 -182 -182 --- FRONT VERT TOTAL --- C1 J 28-3-13 -222 -222 --- FRONT VERT TOTAL --- C1				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 LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 2.00/12 MINIMUM GIRDER TYPE: CPrimeHip LEFT SETBACK = 3-4-4 RIGHT SETBACK = 2-8-3 END SETBACK = 5-8-0 END WALL WIDTH = 0-0 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: CONVENTIONAL APPLIED TO FRONT SIDE - ADDTL LOADS BASED ON 55 % OF GSL. LOADS APPLIED TO FIRST 19-0-0 OF SPAN MEASURED FROM THE LEFT. GIRDER TYPE: CPrimeHip LEFT SETBACK = 3-4-4 RIGHT SETBACK = 2-8-3 END SETBACK = 7-10-8 END WALL WIDTH = 0-0 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: PARTIAL APPLIED TO FRONT SIDE - ADDTL LOADS BASED ON 55 % OF GSL. LOADS APPLIED TO FIRST 12-0-0 OF SPAN MEASURED FROM THE RIGHT. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF CBC 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 (1.03") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.18") ALLOWABLE DEFL.(TL)= L/360 (1.03") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.37") CSI: TC=0.80/1.00 (D-E:1), BC=0.98/1.00 (Q-S:1), WB=0.80/1.00 (G-Q:1), SSI=0.43/1.00 (C-D: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 .			
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TOTAL WEIGHT = 2 X 153 = 306 lb

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

J	T	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	6.0	7.0	Edge	1.50
D	TMVW+w	MT20	2.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TMVWV-t	MT20	4.0	4.0		
G	TTWW+m	MT20	6.0	7.0	Edge	1.50
H	TMVW+p	MT20	4.0	6.0	2.00	2.00
J	BMV1+p	MT20	2.0	4.0		
K	BMVWV-t	MT20	4.0	4.0		
L	BMVWV-t	MT20	4.0	4.0	2.00	1.50
M	BS-t	MT20	3.0	6.0		
N	BMVWVW-t	MT20	5.0	6.0	2.50	2.00
O	BMVWV-t	MT20	4.0	4.0		
P	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

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
P	1625	0	1625	0	0	5-8	2-6
J	1625	0	1625	0	0	5-8	2-6

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1156	720 / 0	0 / 0	0 / 0	0 / 0	435 / 0	0 / 0
J	1156	720 / 0	0 / 0	0 / 0	0 / 0	435 / 0	0 / 0

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 52	-78.0	-78.0	0.15 (1)	10.00	O-C	-290 / 0 0.30 (1)
B-C	-1148 / 0	-78.0	-78.0	0.22 (1)	5.69	C-N	0 / 1198 0.19 (1)
C-D	-1563 / 0	-78.0	-78.0	0.87 (1)	4.11	N-D	-663 / 0 0.70 (1)
D-E	-1563 / 0	-78.0	-78.0	0.86 (1)	4.09	N-F	-1 / 0 0.00 (0)
E-F	-1563 / 0	-78.0	-78.0	0.86 (1)	4.09	L-F	-663 / 0 0.70 (1)
F-G	-1564 / 0	-78.0	-78.0	0.87 (1)	4.09	L-G	0 / 1199 0.19 (1)
G-H	-1148 / 0	-78.0	-78.0	0.22 (1)	5.69	K-G	-290 / 0 0.31 (1)
H-I	0 / 52	-78.0	-78.0	0.15 (1)	10.00	B-O	0 / 800 0.18 (1)
P-B	-1609 / 0	0.0	0.0	0.23 (1)	6.52	K-H	0 / 800 0.18 (1)
J-H	-1609 / 0	0.0	0.0	0.23 (1)	6.52		

P-O	0 / 0	-18.5	-18.5	0.17 (4)	10.00
O-N	0 / 680	-18.5	-18.5	0.29 (4)	10.00
N-M	0 / 1564	-18.5	-18.5	0.38 (1)	10.00
M-L	0 / 1564	-18.5	-18.5	0.38 (1)	10.00
L-K	0 / 680	-18.5	-18.5	0.29 (4)	10.00
K-J	0 / 0	-18.5	-18.5	0.17 (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

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.87/1.00 (F-G:1), BC=0.38/1.00 (L-N:1), WB=0.70/1.00 (F-L:1), SSI=0.29/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

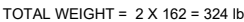
NAIL VALUES						
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (B) (INPUT = 0.90)
JSI METAL= 0.56 (M) (INPUT = 1.00)

Scale = 1:54.5



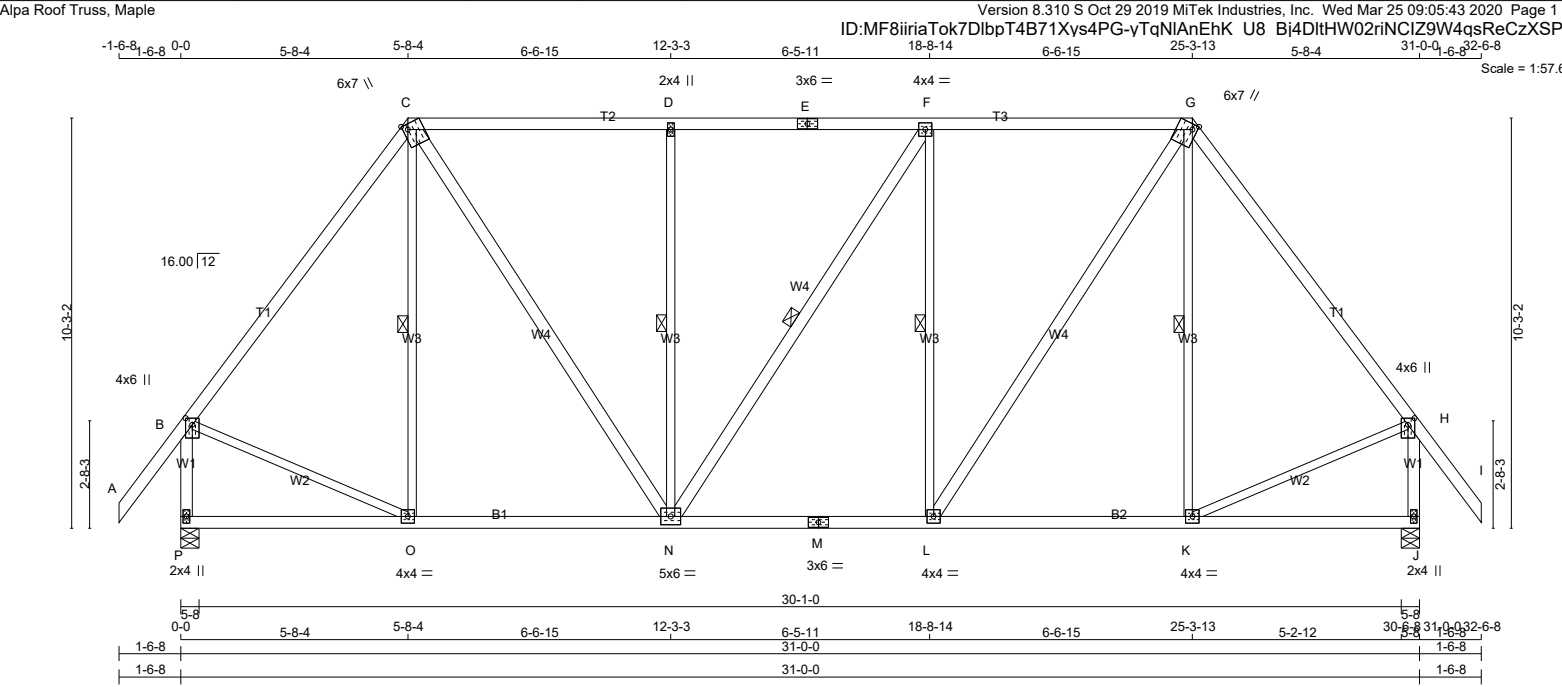
DRY: SEASONED LUMBER.

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

P-O	0 / 0	-18.5	-18.5	0.16 (4)	10.00
O-N	0 / 701	-18.5	-18.5	0.25 (4)	10.00
N-M	0 / 1326	-18.5	-18.5	0.32 (1)	10.00
M-L	0 / 1326	-18.5	-18.5	0.32 (1)	10.00
L-K	0 / 701	-18.5	-18.5	0.26 (4)	10.00
K-J	0 / 0	-18.5	-18.5	0.16 (4)	10.00

JSI GRIP= 0.89 (B) (INPUT = 0.90)
JSI METAL= 0.48 (M) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	H8B		1	TRUSS DESC. JT 45147	E20035409



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
P - B	2x4	DRY No.2	SPF
J - H	2x4	DRY No.2	SPF
P - M	2x4	DRY No.2	SPF
M - J	2x4	DRY No.2	SPF
ALL WEBS EXCEPT	2x3	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
B	TMVW+p	MT20	4.0	6.0	2.00	2.00
C	TTWW+m	MT20	6.0	7.0	Edge	1.50
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	6.0	7.0	Edge	1.50
H	TMVW+p	MT20	4.0	6.0	2.00	2.00
J	BMV1+p	MT20	2.0	4.0		
K, L, O						
K	BMWW-t	MT20	4.0	4.0		
M	BS-t	MT20	3.0	6.0		
N	BMWWW-t	MT20	5.0	6.0		
P	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG			
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
JT							
P	1625	0	1625	0	0	5-8	2-6
J	1625	0	1625	0	0	5-8	2-6

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1156	720 / 0	0 / 0	0 / 0	0 / 0	435 / 0	0 / 0
J	1156	720 / 0	0 / 0	0 / 0	0 / 0	435 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.19 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-O, D-N, F-N, F-L, G-K.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD LC1 (LC)	MAX. FACTORED VERT. LOAD LC1 (LC)	
FR-TO		FROM	TO	FR-TO		FROM	TO	
A-B	0 / 52	-78.0	-78.0	0.15 (1)	10.00	O-C	-153 / 31	0.11 (1)
B-C	-1187 / 0	-78.0	-78.0	0.61 (1)	5.19	C-N	0 / 800	0.13 (1)
C-D	-1149 / 0	-78.0	-78.0	0.51 (1)	5.23	N-D	-549 / 0	0.40 (1)
D-E	-1150 / 0	-78.0	-78.0	0.52 (1)	5.21	N-F	-2 / 0	0.00 (1)
E-F	-1150 / 0	-78.0	-78.0	0.52 (1)	5.21	L-F	-550 / 0	0.40 (1)
F-G	-1150 / 0	-78.0	-78.0	0.52 (1)	5.21	L-G	0 / 803	0.13 (1)
G-H	-1186 / 0	-78.0	-78.0	0.61 (1)	5.19	K-G	-154 / 31	0.11 (1)
H-I	0 / 52	-78.0	-78.0	0.15 (1)	10.00	B-O	0 / 763	0.17 (1)
P-B	-1583 / 0	0.0	0.0	0.23 (1)	6.56	K-H	0 / 762	0.17 (1)
J-H	-1583 / 0	0.0	0.0	0.23 (1)	6.56			
P-O	0 / 0	-18.5	-18.5	0.16 (4)	10.00			
O-N	0 / 707	-18.5	-18.5	0.23 (4)	10.00			
N-M	0 / 1151	-18.5	-18.5	0.27 (1)	10.00			
M-L	0 / 1151	-18.5	-18.5	0.27 (1)	10.00			
L-K	0 / 707	-18.5	-18.5	0.23 (4)	10.00			
K-J	0 / 0	-18.5	-18.5	0.16 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN./C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 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 (1.03")

CALCULATED VERT. DEFL.(LL) = L/999 (0.04")

ALLOWABLE DEFL.(TL)= L/360 (1.03")

CALCULATED VERT. DEFL.(TL) = L/999 (0.10")

CSI: TC=0.61/1.00 (B-C:1), BC=0.27/1.00 (L-N:1), WB=0.40/1.00 (F-L:1), SSI=0.24/1.00 (F-G:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

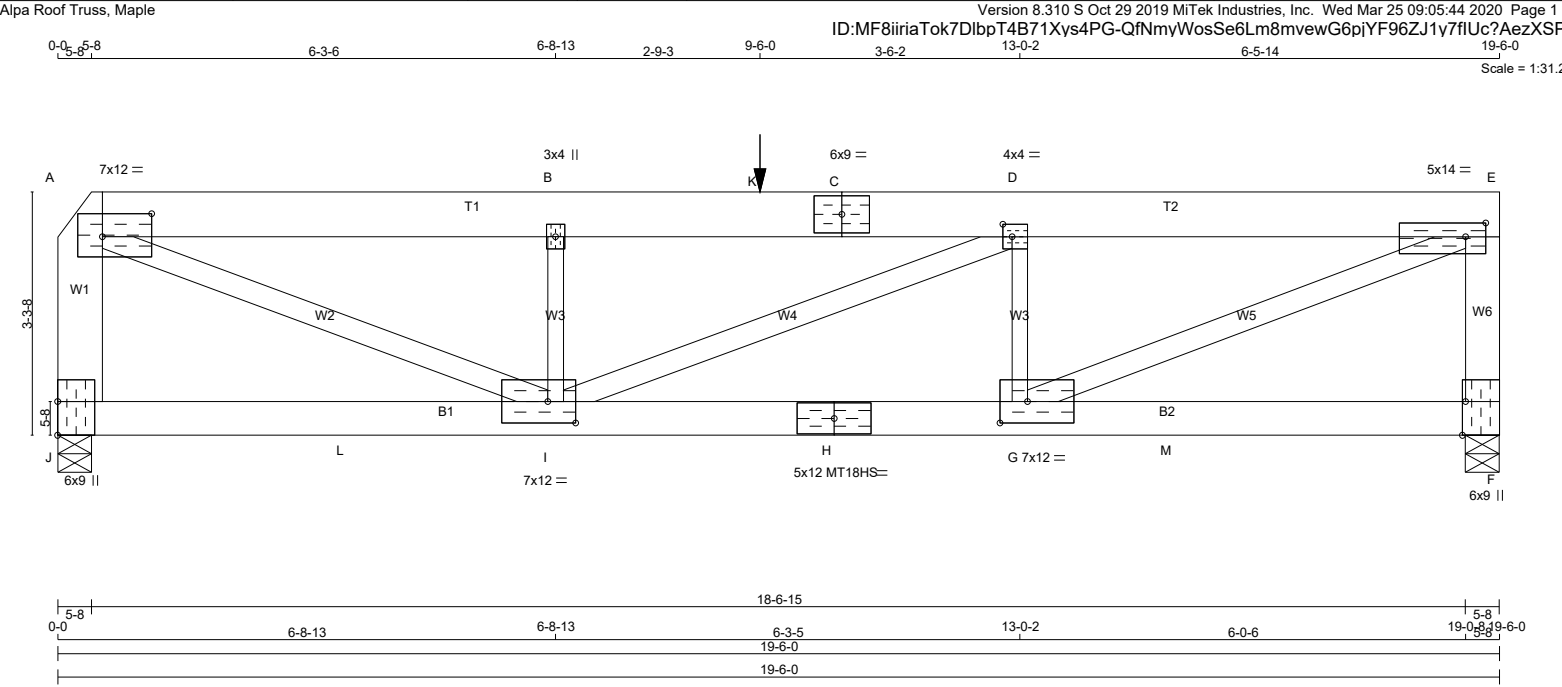
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (B) (INPUT = 0.90)

JSI METAL= 0.46 (B) (INPUT = 1.00)

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	H9A		1	TRUSS DESC. JT 45147	E20035410



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - C 2x8 DRY 1950F 1.7E SPF C - E 2x8 DRY 1950F 1.7E SPF F - E 2x6 DRY No.2 SPF J - A 2x8 DRY No.2 SPF J - H 2x6 DRY 1650F 1.5E SPF H - F 2x6 DRY 1650F 1.5E SPF ALL WEBS 2x4 DRY 2100F 1.8E SPF EXCEPT I - B 2x3 DRY No.2 SPF G - D 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><td></td><td></td><td></td><td>FACTORED</td><td></td><td>MAXIMUM FACTORED</td><td></td><td>INPUT</td><td></td><td>REQRD</td><td></td><td></td></tr><tr><td></td><td></td><td></td><td>GROSS REACTION</td><td></td><td>GROSS REACTION</td><td></td><td>BRG</td><td></td><td>BRG</td><td></td><td></td></tr><tr><td>JT</td><td></td><td>VERT</td><td>HORZ</td><td></td><td>DOWN</td><td>HORZ</td><td>UPLIFT</td><td>IN-SX</td><td>IN-SX</td><td></td><td></td></tr><tr><td>F</td><td></td><td>4497</td><td>0</td><td></td><td>4497</td><td>0</td><td>0</td><td>5-8</td><td>5-8</td><td></td><td></td></tr><tr><td>J</td><td></td><td>4478</td><td>0</td><td></td><td>4478</td><td>0</td><td>0</td><td>5-8</td><td>5-8</td><td></td><td></td></tr></table> UNFACTORED REACTIONS <table><tr><td></td><td></td><td>1ST LCASE</td><td colspan="8">MAX./MIN. COMPONENT REACTIONS</td></tr><tr><td>JT</td><td></td><td>COMBINED</td><td>SNOW</td><td>LIVE</td><td>PERM.LIVE</td><td>WIND</td><td>DEAD</td><td>SOIL</td><td></td><td></td><td></td></tr><tr><td>F</td><td></td><td>3197</td><td>2003 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>1194 / 0</td><td>0 / 0</td><td></td><td></td><td></td></tr><tr><td>J</td><td></td><td>3183</td><td>1997 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>1186 / 0</td><td>0 / 0</td><td></td><td></td><td></td></tr></table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, J BEARING SIZE FACTOR = 1.15 AT JNT(S) F, J (BASED ON SUPPORT DEPTH = 1-8) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.86 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) <table><tr><td colspan="4">C H O R D S</td><td colspan="4">W E B S</td></tr><tr><td>MEMB.</td><td>MAX. FACTORED FORCE (LBS)</td><td>FACTORED VERT. LOAD (PLF)</td><td>MAX. FACTORED VERT. LOAD (PLF)</td><td>MAX. UNBRACED LENGTH (FT)</td><td>MEMB.</td><td>MAX. FACTORED FORCE (LBS)</td><td>MAX. FACTORED VERT. LOAD (PLF)</td></tr><tr><td>FR-TO</td><td></td><td>FROM</td><td>TO</td><td></td><td>FR-TO</td><td></td><td></td></tr><tr><td>A- B</td><td>-7553 / 0</td><td>-206.3</td><td>-206.3</td><td>0.30 (1)</td><td>4.14</td><td>A- I</td><td>0 / 8162 0.67 (1)</td></tr><tr><td>B- K</td><td>-7553 / 0</td><td>-206.3</td><td>-206.3</td><td>0.51 (1)</td><td>3.86</td><td>I- B</td><td>-2011 / 0 0.37 (1)</td></tr><tr><td>K- C</td><td>-7553 / 0</td><td>-206.3</td><td>-206.3</td><td>0.51 (1)</td><td>3.86</td><td>I- D</td><td>0 / 205 0.02 (1)</td></tr><tr><td>C- D</td><td>-7553 / 0</td><td>-206.3</td><td>-206.3</td><td>0.51 (1)</td><td>3.86</td><td>G- D</td><td>-1919 / 0 0.35 (1)</td></tr><tr><td>D- E</td><td>-7366 / 0</td><td>-206.3</td><td>-206.3</td><td>0.27 (1)</td><td>4.22</td><td>G- E</td><td>0 / 8004 0.66 (1)</td></tr><tr><td>F- E</td><td>-3685 / 0</td><td>0.0</td><td>0.0</td><td>0.35 (1)</td><td>5.52</td><td></td><td></td></tr><tr><td>J- A</td><td>-3663 / 0</td><td>0.0</td><td>0.0</td><td>0.34 (1)</td><td>6.23</td><td></td><td></td></tr><tr><td>J- L</td><td>0 / 0</td><td>-296.1</td><td>-296.1</td><td>0.57 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>L- I</td><td>0 / 0</td><td>-137.4</td><td>-137.4</td><td>0.57 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>I- H</td><td>0 / 7366</td><td>-137.4</td><td>-137.4</td><td>0.92 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>H- G</td><td>0 / 7366</td><td>-137.4</td><td>-137.4</td><td>0.92 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>G- M</td><td>0 / 0</td><td>-137.4</td><td>-137.4</td><td>0.57 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>M- F</td><td>0 / 0</td><td>-296.1</td><td>-296.1</td><td>0.57 (1)</td><td>10.00</td><td></td><td></td></tr></table> FACTORED CONCENTRATED LOADS (LBS) <table><tr><td>JT</td><td>LOC.</td><td>LC1</td><td>MAX-</td><td>MAX+</td><td>FACE</td><td>DIR.</td><td>TYPE</td><td>HEEL</td><td>CONN.</td></tr><tr><td>K</td><td>9-6-0</td><td>-188</td><td>-210</td><td>---</td><td>FRONT</td><td>VERT</td><td>DEAD</td><td>---</td><td>C1</td></tr><tr><td>K</td><td>9-6-0</td><td>-759</td><td>-759</td><td>---</td><td>FRONT</td><td>VERT</td><td>SNOW</td><td>---</td><td>C1</td></tr></table>													FACTORED		MAXIMUM FACTORED		INPUT		REQRD						GROSS REACTION		GROSS REACTION		BRG		BRG			JT		VERT	HORZ		DOWN	HORZ	UPLIFT	IN-SX	IN-SX			F		4497	0		4497	0	0	5-8	5-8			J		4478	0		4478	0	0	5-8	5-8					1ST LCASE	MAX./MIN. COMPONENT REACTIONS								JT		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL				F		3197	2003 / 0	0 / 0	0 / 0	0 / 0	1194 / 0	0 / 0				J		3183	1997 / 0	0 / 0	0 / 0	0 / 0	1186 / 0	0 / 0				C H O R D S				W E B S				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	FR-TO		FROM	TO		FR-TO			A- B	-7553 / 0	-206.3	-206.3	0.30 (1)	4.14	A- I	0 / 8162 0.67 (1)	B- K	-7553 / 0	-206.3	-206.3	0.51 (1)	3.86	I- B	-2011 / 0 0.37 (1)	K- C	-7553 / 0	-206.3	-206.3	0.51 (1)	3.86	I- D	0 / 205 0.02 (1)	C- D	-7553 / 0	-206.3	-206.3	0.51 (1)	3.86	G- D	-1919 / 0 0.35 (1)	D- E	-7366 / 0	-206.3	-206.3	0.27 (1)	4.22	G- E	0 / 8004 0.66 (1)	F- E	-3685 / 0	0.0	0.0	0.35 (1)	5.52			J- A	-3663 / 0	0.0	0.0	0.34 (1)	6.23			J- L	0 / 0	-296.1	-296.1	0.57 (1)	10.00			L- I	0 / 0	-137.4	-137.4	0.57 (1)	10.00			I- H	0 / 7366	-137.4	-137.4	0.92 (1)	10.00			H- G	0 / 7366	-137.4	-137.4	0.92 (1)	10.00			G- M	0 / 0	-137.4	-137.4	0.57 (1)	10.00			M- F	0 / 0	-296.1	-296.1	0.57 (1)	10.00			JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.	K	9-6-0	-188	-210	---	FRONT	VERT	DEAD	---	C1	K	9-6-0	-759	-759	---	FRONT	VERT	SNOW	---	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: CStdGirder START DISTANCE = 0-0 START SPAN CARRIED = 5-8-0 END DISTANCE = 19-6-0 END SPAN CARRIED = 5-8-0 END WALL WIDTH = 0-0 APPLIED TO BACK SIDE OF BOTTOM CHORD. - ADDTL LOADS BASED ON 55 % OF GSL. GIRDER TYPE: CPrimeHip SIDE SETBACK = 0-0 END SETBACK = 8-7-0 END WALL WIDTH = 0-0 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: CONVENTIONAL APPLIED TO FRONT SIDE - ADDTL LOADS BASED ON 55 % OF GSL. GIRDER TYPE: CStdGirder START DISTANCE = 0-0 START SPAN CARRIED = 8-7-0 END DISTANCE = 3-11-4 END SPAN CARRIED = 8-7-0 END WALL WIDTH = 0-0 APPLIED TO FRONT SIDE OF BOTTOM CHORD. - ADDTL LOADS BASED ON 55 % OF GSL. GIRDER TYPE: CStdGirder START DISTANCE = 15-1-0 START SPAN CARRIED = 8-7-0 END DISTANCE = 19-6-0 END SPAN CARRIED = 8-7-0 END WALL WIDTH = 0-0 APPLIED TO FRONT SIDE OF BOTTOM CHORD. - ADDTL LOADS BASED ON 55 % OF GSL. *** NON STANDARD GIRDER *** ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF BCBC 2018 , ABC 2019 - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014				
			FACTORED		MAXIMUM FACTORED		INPUT		REQRD																																																																																																																																																																																																																																																																																			
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F		4497	0		4497	0	0	5-8	5-8																																																																																																																																																																																																																																																																																			
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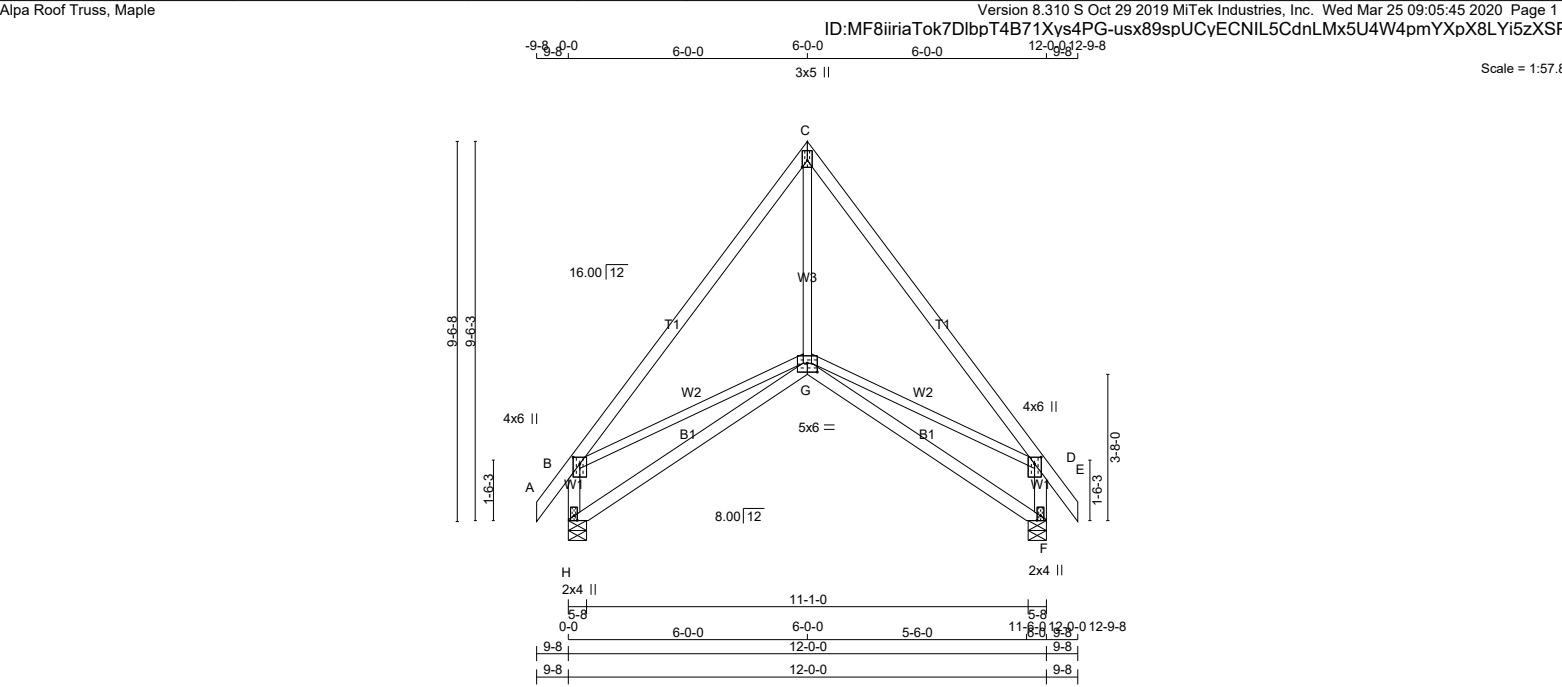
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	H10T		1	TRUSS DESC. JT 45147	E20035411



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

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
DRY: SEASONED LUMBER.				

PLATES (table is in inches)					
JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	6.0	2.00 2.00
C	TTW+p	MT20	3.0	5.0	2.00 Edge
D	TMVW+p	MT20	4.0	6.0	2.00 2.00
F	BMV1+p	MT20	2.0	4.0	Edge
G	BBWW+p	MT20	5.0	6.0	2.75 3.00
H	BMV1+p	MT20	2.0	4.0	Edge

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

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT DOWN	REQRD BRG IN-SX
JT	VERT				
H	650	0	650	0	5-8 1-8
F	650	0	650	0	5-8 1-8

UNFACTORED REACTIONS							
1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	462	290 / 0	0 / 0	0 / 0	0 / 0	172 / 0	0 / 0
F	462	290 / 0	0 / 0	0 / 0	0 / 0	172 / 0	0 / 0

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

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

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

LOADING					TOTAL LOAD CASES: (4)				
C H O R D S					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX (LC)		
FR-TO		FROM	TO		FR-TO				
A- B	0 / 28	-78.0	-78.0 0.03 (1)	10.00	G- C	0 / 385	0.09 (1)		
B- C	-533 / 0	-78.0	-78.0 0.24 (1)	6.25	B- G	0 / 348	0.08 (1)		
C- D	-533 / 0	-78.0	-78.0 0.24 (1)	6.25	G- D	0 / 348	0.08 (1)		
D- E	0 / 28	-78.0	-78.0 0.03 (1)	10.00					
H- B	-594 / 0	0.0	0.0 0.07 (1)	7.81					
F- D	-594 / 0	0.0	0.0 0.07 (1)	7.81					
H- G	0 / 0	-18.5	-18.5 0.20 (4)	10.00					
G- F	0 / 0	-18.5	-18.5 0.20 (4)	10.00					

TOTAL WEIGHT = 2 X 61 = 121 lb

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 CBC 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 (0.40")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.40")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

CSI: TC=0.24/1.00 (B-C:1) , BC=0.20/1.00 (G-H:4) , WB=0.09/1.00 (C-G:1) , SSI=0.11/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

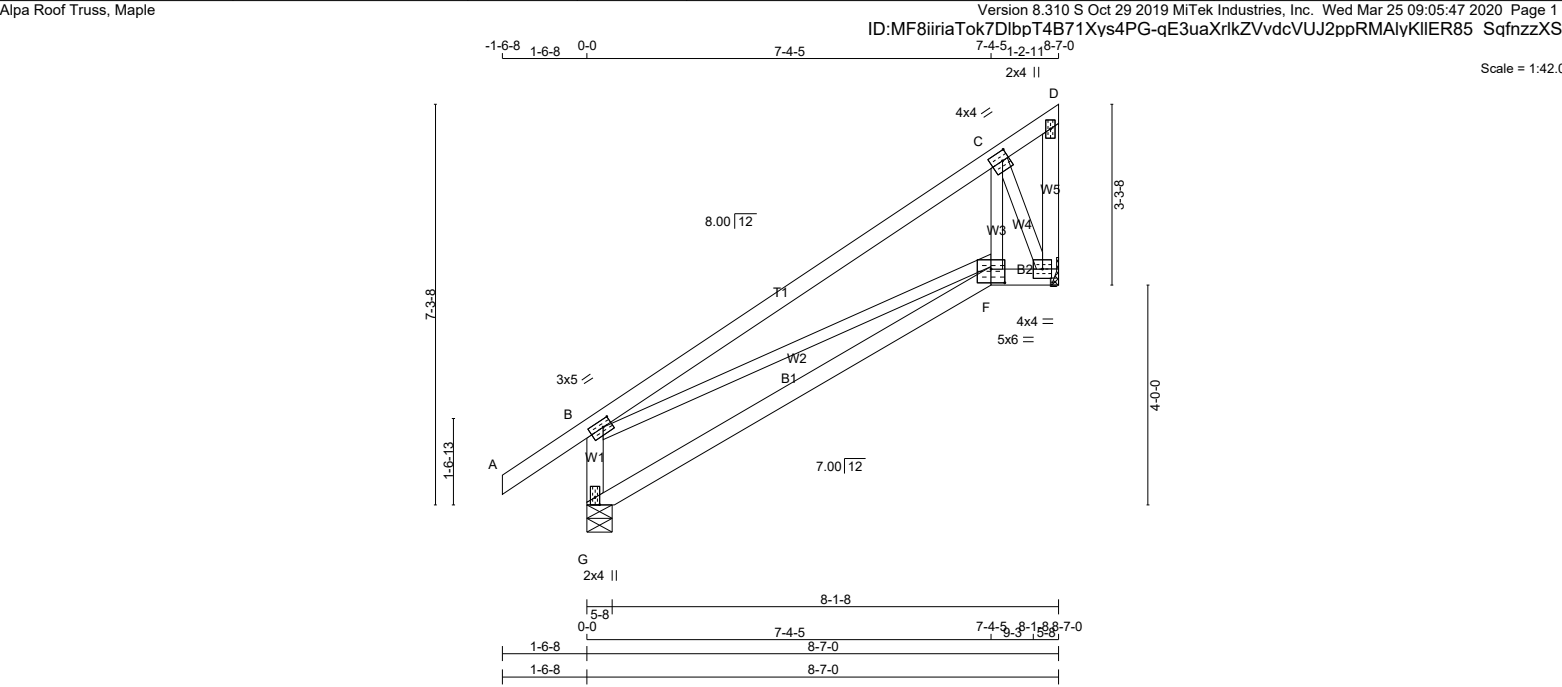
JSI GRIP= 0.73 (H) (INPUT = 0.90)
JSI METAL= 0.29 (F) (INPUT = 1.00)

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



JSI GRIP= 0.70 (E) (INPUT = 0.90)
JSI METAL= 0.28 (E) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	H11		1	TRUSS DESC. JT 45147	E20035413



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER							DESIGN CRITERIA				[M][F]	
N. L. G. A. RULES				BEARINGS							SPECIFIED LOADS:					
CHORDS	SIZE	LUMBER	DESCR.	FACTORED			MAXIMUM FACTORED		INPUT	REQRD		TOP	CH.	LL		
G - B	2x4	DRY	No.2	SPF			GROSS REACTION		DOWN	BRG		DL				
A - D	2x4	DRY	No.2	SPF			GROSS REACTION		DOWN	BRG		DL				
E - D	2x4	DRY	No.2	SPF			GROSS REACTION		DOWN	BRG		DL				
G - F	2x4	DRY	No.2	SPF			GROSS REACTION		DOWN	BRG		DL				
F - E	2x4	DRY	No.2	SPF			GROSS REACTION		DOWN	BRG		DL				
ALL WEBS 2x3 DRY: SEASONED LUMBER.				No.2			SPF		A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-8.		TOTAL LOAD = 34.4 PSF					
											SPACING = 24.0		IN. C/C			

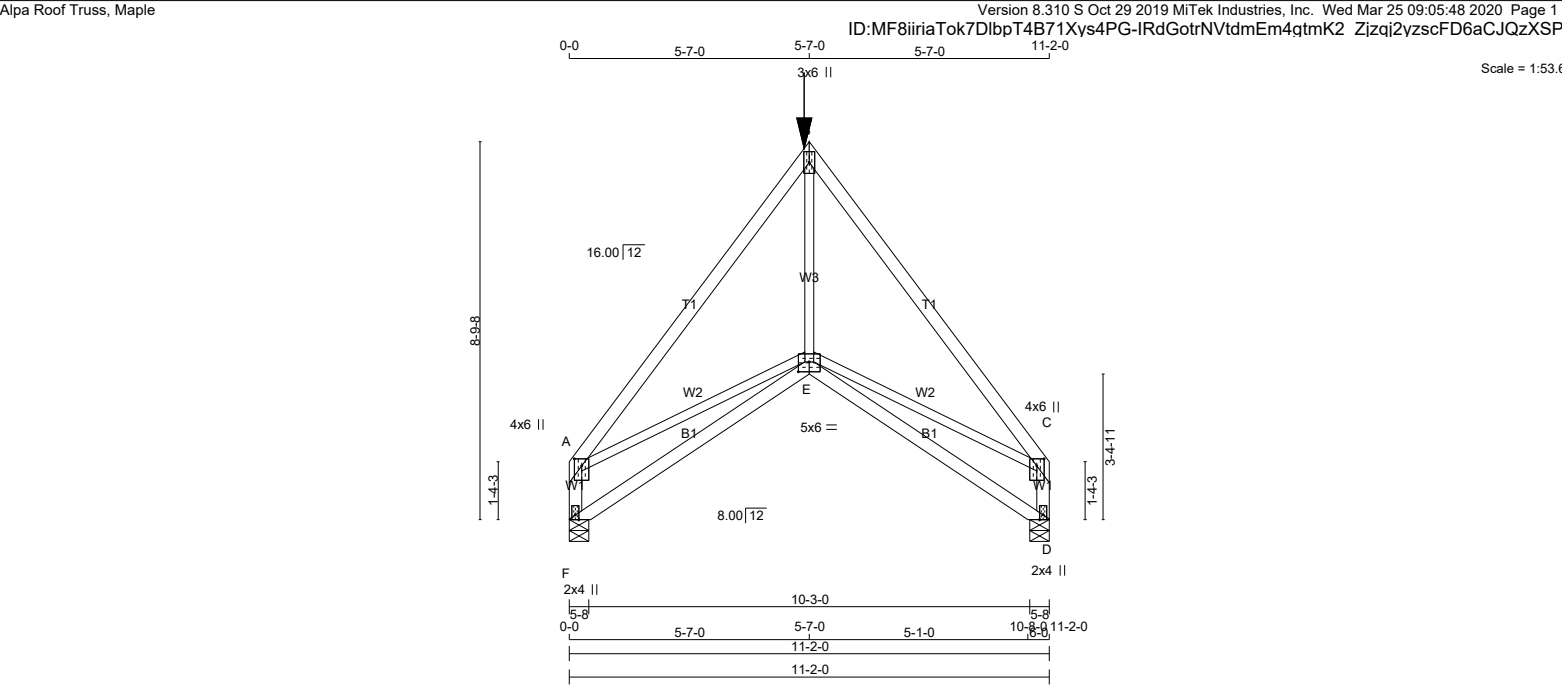
PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	2.00
C	TMWW-t	MT20	4.0	4.0	2.00	1.50
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	4.0	4.0		
F	BBWW-t	MT20	5.0	6.0	3.00	3.00
G	BMV1+p	MT20	2.0	4.0	Edge	

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

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	H12A		2	TRUSS DESC. JT 45147	E20035414



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

ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
-----------------	-----	-----	------	-----

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"X3") SPIRAL NAILS		
A- B	12	SIDE(61.0)
B- C	12	SIDE(61.0)
F- A	12	TOP
D- C	12	TOP
BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS		
F- E	12	SIDE(61.9)
E- D	12	SIDE(61.9)
WEBS : (0.122"X3") SPIRAL NAILS		
E- B	6	SIDE(123.8)
2x3	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

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
F	1840	0	1840	0	0
D	1840	0	1840	0	0

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
F	1303	847 / 0	0 / 0
D	1303	847 / 0	0 / 0

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

BRACING
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.73 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
 TOTAL LOAD CASES: (4)

CHORDS		MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX- MAX+	MAX. UNBRACED LENGTH	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO											
A- B	-2156 / 0		-78.0	-78.0	0.34 (1)	5.73		E- B	0 / 2073	0.26 (1)	
B- C	-2156 / 0		-78.0	-78.0	0.34 (1)	5.73		A- E	0 / 1414	0.17 (1)	
F- A	-1373 / 0		0.0	0.0	0.08 (1)	7.81		E- C	0 / 1414	0.17 (1)	
D- C	-1373 / 0		0.0	0.0	0.08 (1)	7.81					
F- E	0 / 0		-167.2	-167.2	0.49 (1)	10.00					
E- D	0 / 0		-167.2	-167.2	0.49 (1)	10.00					

FACTORED CONCENTRATED LOADS (LBS)		JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
B	5-7-0	-188	-210	---	FRONT	VERT	DEAD	---	C1		
B	5-7-0	-755	-755	---	FRONT	VERT	SNOW	---	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

GIRDER TYPE: CStdGirder
 START DISTANCE = 0-0
 START SPAN CARRIED = 8-2-0
 END DISTANCE = 11-2-0
 END SPAN CARRIED = 8-2-0
 END WALL WIDTH = 0-0
 APPLIED TO FRONT SIDE OF BOTTOM CHORD.
 - ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 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 (0.37")
 CALCULATED DEFL.(LL) = L/ 999 (0.13")
 ALLOWABLE DEFL.(TL)= L/360 (0.37")
 CALCULATED VERT. DEFL.(TL) = L/ 477 (0.28")

CSI: TC=0.34/1.00 (A-B:1) , BC=0.49/1.00 (E-F:1) , WB=0.26/1.00 (B-E:1) , SSI=0.17/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	H12A		2	TRUSS DESC. JT 45147	E20035414(2)

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	2.00	2.00
B	TTW+p	MT20	3.0	6.0		
C	TMVW+p	MT20	4.0	6.0	2.00	2.00
D	BMV1+p	MT20	2.0	4.0	Edge	
E	BBWWW-p	MT20	5.0	6.0	2.75	3.00
F	BMV1+p	MT20	2.0	4.0	Edge	

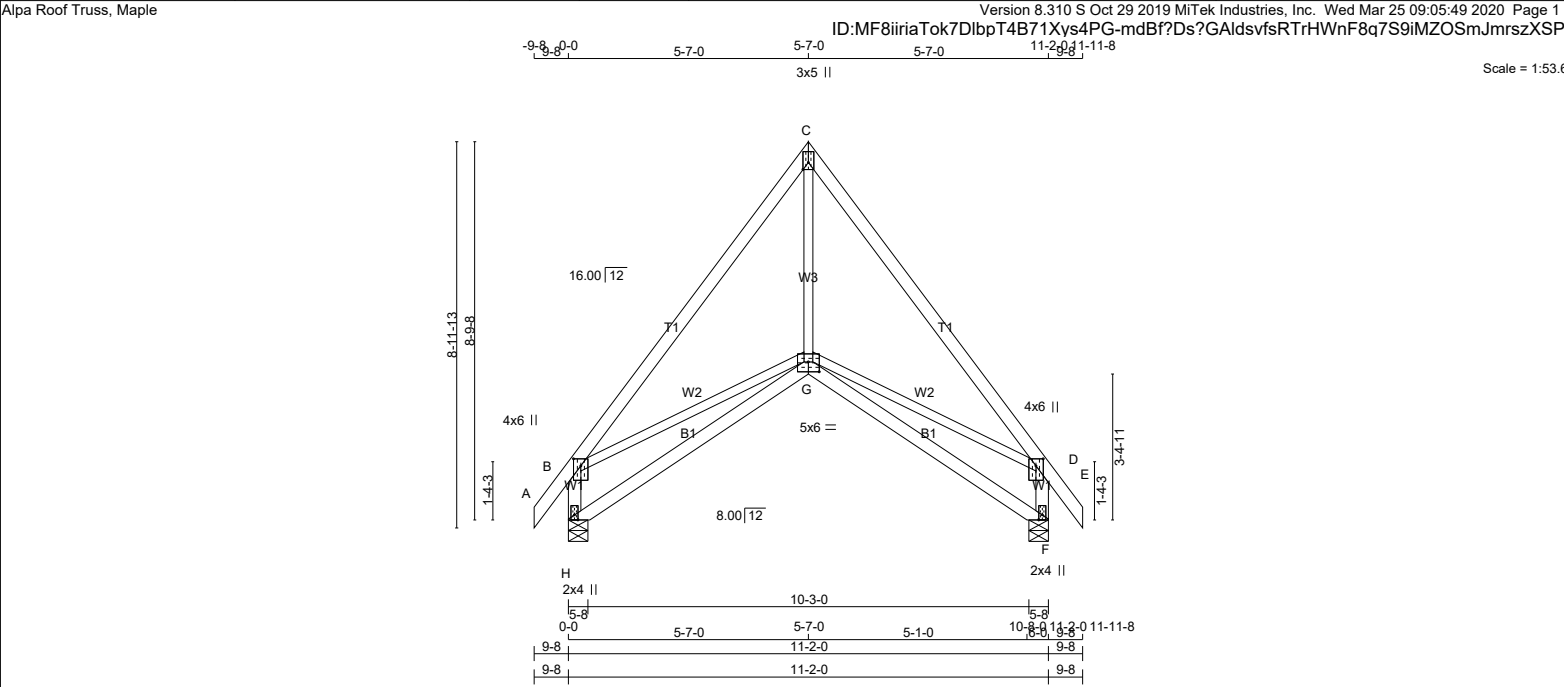
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

JSI GRIP= 0.84 (D) (INPUT = 0.90)
JSI METAL= 0.36 (C) (INPUT = 1.00)

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



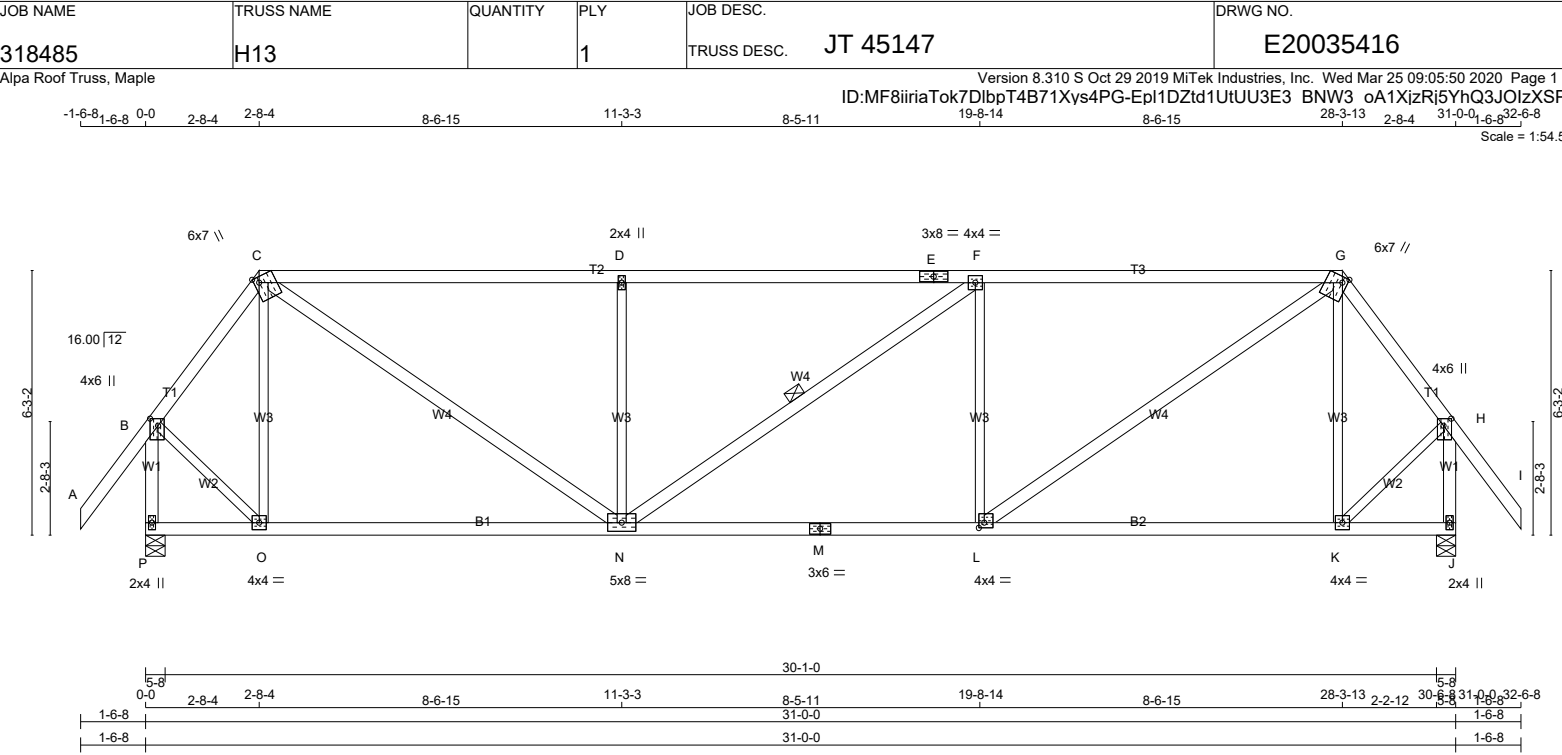
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	H12T		1	TRUSS DESC. JT 45147	E20035415



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER A - C 2x4 DRY No.2 C - E 2x4 DRY No.2 H - B 2x4 DRY No.2 F - D 2x4 DRY No.2 H - G 2x4 DRY No.2 G - F 2x4 DRY No.2 ALL WEBS 2x3 DRY No.2 EXCEPT DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION JT VERT HORZ H 609 0 F 609 0 MAXIMUM FACTORED GROSS REACTION DOWN HORZ UPLIFT H 609 0 0 F 609 0 0 INPUT BRG IN-SX H 5-8 1-8 F 5-8 1-8 REQRD BRG IN-SX H 1-8 F 1-8 UNFACTORED REACTIONS 1ST LCASE JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL H 433 273 / 0 0 / 0 0 / 0 0 / 0 161 / 0 0 / 0 F 433 273 / 0 0 / 0 0 / 0 0 / 0 161 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, F BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (4) C H O R D S MEMB. MAX. FACTORED FORCE (LBS) VERT. LOAD (PLF) LC1 MAX. MAX. UNBRAC LENGTH FR-TO A-B 0 / 28 -78.0 -78.0 0.05 (1) 10.00 B-C -503 / 0 -78.0 -78.0 0.32 (1) 6.25 C-D -503 / 0 -78.0 -78.0 0.32 (1) 6.25 D-E 0 / 28 -78.0 -78.0 0.05 (1) 10.00 H-B -558 / 0 0.0 0.0 0.06 (1) 7.81 F-D -558 / 0 0.0 0.0 0.06 (1) 7.81 H-G 0 / 0 -18.5 -18.5 0.17 (4) 10.00 G-F 0 / 0 -18.5 -18.5 0.17 (4) 10.00 W E B S MEMB. MAX. FACTORED FORCE (LBS) MAX. MAX. UNBRAC LENGTH FR-TO G-C 0 / 369 0.08 (1) B-G 0 / 329 0.07 (1) G-D 0 / 330 0.07 (1) CS I = 0.32 / 1.00 (B-C:1), BC = 0.17 / 1.00 (G-H:4), WB = 0.08 / 1.00 (C-G:1), SSI = 0.10 / 1.00 (B-C:1) DOL LUMBER = 1.00 NAIL = 1.00 LS BEND = 1.10 COMP = 1.10 SHEAR = 1.10 TENS = 1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP = 0.68 (F) (INPUT = 0.90) JSI METAL = 0.27 (H) (INPUT = 1.00)				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 CBC 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 (0.37") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01") ALLOWABLE DEFL.(TL)= L/360 (0.37") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07") CS I = 0.32 / 1.00 (B-C:1), BC = 0.17 / 1.00 (G-H:4), WB = 0.08 / 1.00 (C-G:1), SSI = 0.10 / 1.00 (B-C:1) DOL LUMBER = 1.00 NAIL = 1.00 LS BEND = 1.10 COMP = 1.10 SHEAR = 1.10 TENS = 1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP = 0.68 (F) (INPUT = 0.90) JSI METAL = 0.27 (H) (INPUT = 1.00)			
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LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
B	TMVW+p	MT20	4.0	6.0 2.00 2.25
C	TTWW+m	MT20	6.0	7.0 Edge 1.50
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	6.0	7.0 Edge 1.50
H	TMVW+p	MT20	4.0	6.0 2.00 2.25
J	BMV1+p	MT20	2.0	4.0
K	BMWW-t	MT20	4.0	4.0
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	8.0
O	BMWW-t	MT20	4.0	4.0
P	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	UP	IN-SX
P	1625	0	1625	0	5-8
J	1625	0	1625	0	5-8

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
P	1156	720 / 0	0 / 0
J	1156	720 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.33 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 52	-78.0	-78.0 0.15 (1)	10.00	O-C	-394 / 0	0.25 (1)
B-C	-1080 / 0	-78.0	-78.0 0.11 (1)	5.95	C-N	0 / 1544	0.25 (1)
C-D	-1906 / 0	-78.0	-78.0 0.87 (1)	4.33	N-D	-719 / 0	0.45 (1)
D-E	-1907 / 0	-78.0	-78.0 0.86 (1)	4.33	N-F	0 / 0	0.00 (1)
E-F	-1907 / 0	-78.0	-78.0 0.86 (1)	4.33	L-F	-719 / 0	0.45 (1)
F-G	-1907 / 0	-78.0	-78.0 0.87 (1)	4.33	L-G	0 / 1546	0.25 (1)
G-H	-1080 / 0	-78.0	-78.0 0.11 (1)	5.95	K-G	-394 / 0	0.25 (1)
H-I	0 / 52	-78.0	-78.0 0.15 (1)	10.00	B-O	0 / 832	0.19 (1)
P-B	-1631 / 0	0.0	0.0 0.24 (1)	6.48	K-H	0 / 832	0.19 (1)
J-H	-1631 / 0	0.0	0.0 0.24 (1)	6.48			
P-O	0 / 0	-18.5	-18.5 0.20 (4)	10.00			
O-N	0 / 636	-18.5	-18.5 0.33 (4)	10.00			
N-M	0 / 1907	-18.5	-18.5 0.45 (1)	10.00			
M-L	0 / 1907	-18.5	-18.5 0.45 (1)	10.00			
L-K	0 / 636	-18.5	-18.5 0.33 (4)	10.00			
K-J	0 / 0	-18.5	-18.5 0.20 (4)	10.00			

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.20")

CSI: TC=0.87/1.00 (F-G:1), BC=0.45/1.00 (L-N:1), WB=0.45/1.00 (F-L:1), SSI=0.31/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

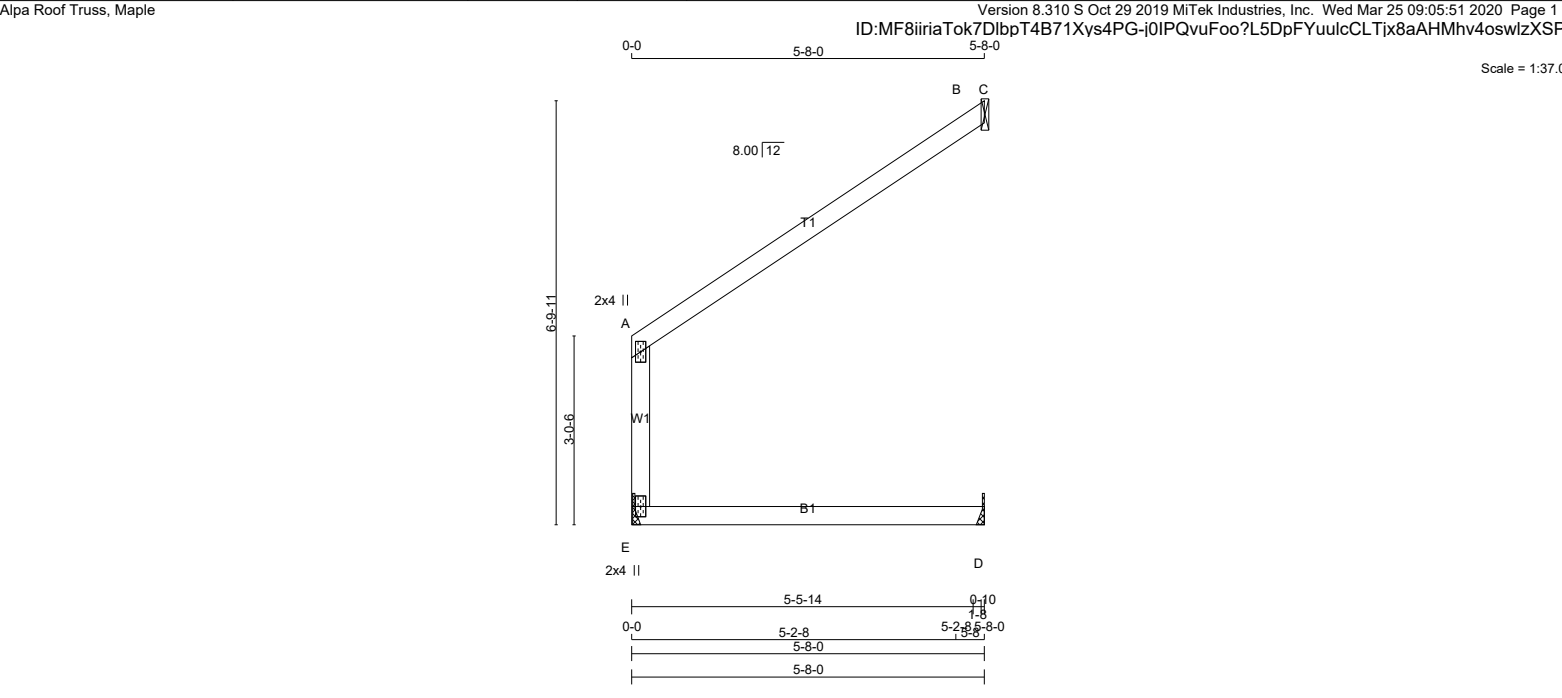
NAIL VALUES				
PLATE	GRIP(DRY)	SHEAR	SECTION	
(PSI)	(PLI)	(PLI)		
MAX MIN	MAX MIN	MAX MIN		
MT20	650	371	1747	788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

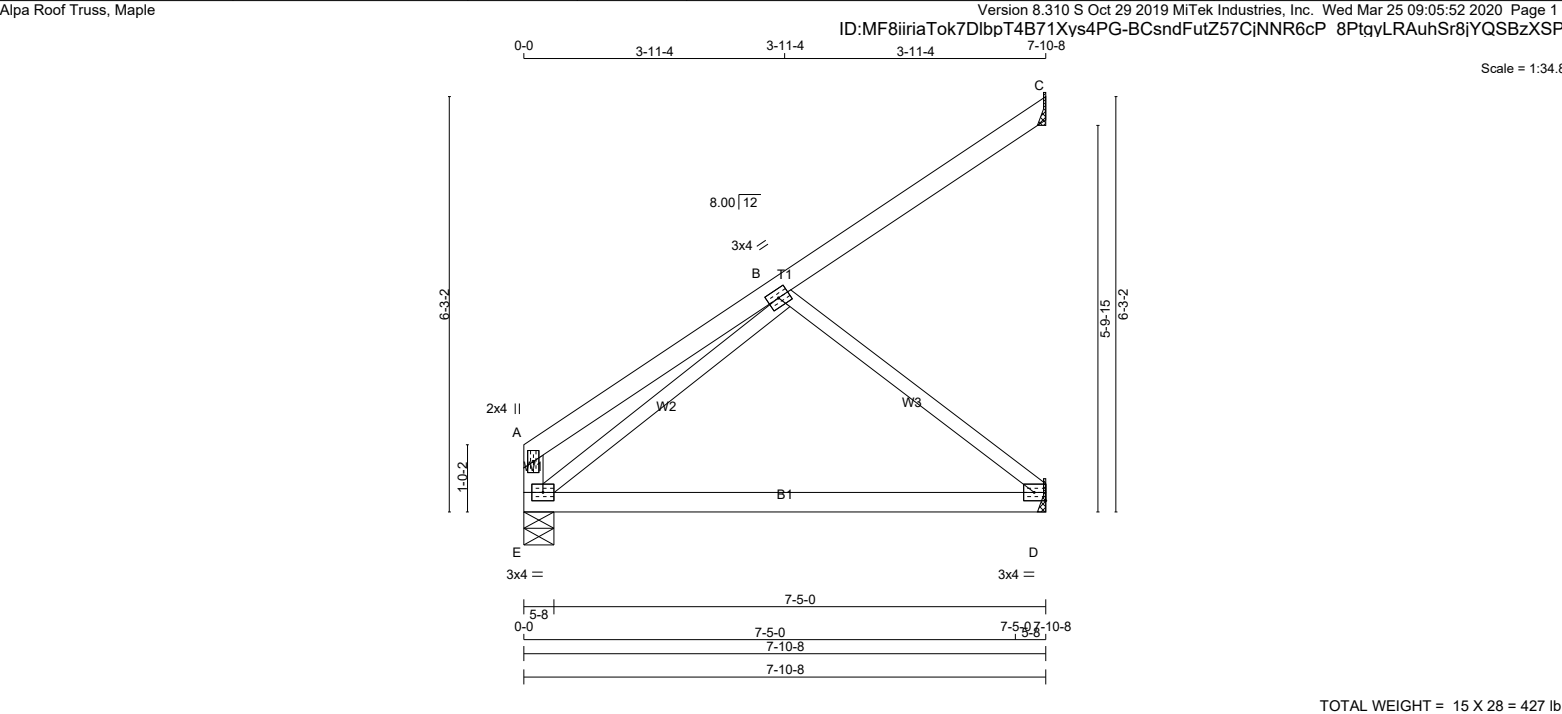
JSI GRIP= 0.85 (B) (INPUT = 0.90)
JSI METAL= 0.69 (M) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	J3S		1	TRUSS DESC. JT 45147	E20035417



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. E - A 2x4 DRY No.2 SPF A - C 2x4 DRY No.2 SPF E - D 2x4 DRY No.2 SPF DRY: SEASONED LUMBER.							DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th colspan="3">FACTORED GROSS REACTION</th><th colspan="3">MAXIMUM FACTORED GROSS REACTION</th><th colspan="2">INPUT BRG</th><th colspan="2">REQRD BRG</th></tr><tr><th>JT</th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>UPLIFT</th><th>IN-SX</th><th>IN-SX</th><th></th><th></th></tr><tr><td>E</td><td>269</td><td>0</td><td>269</td><td>0</td><td>0</td><td>MECHANICAL</td><td></td><td></td><td></td></tr><tr><td>D</td><td>66</td><td>0</td><td>66</td><td>0</td><td>0</td><td>MECHANICAL</td><td></td><td></td><td></td></tr><tr><td>B</td><td>205</td><td>0</td><td>205</td><td>0</td><td>0</td><td>1-8</td><td>1-8</td><td></td><td></td></tr></table> A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E, D. MINIMUM BEARING LENGTH AT JOINT E = 1-8, JOINT D = 1-8. SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) B UNFACTORED REACTIONS <table><tr><th>JT</th><th>1ST LCASE</th><th colspan="6">MAX./MIN. COMPONENT REACTIONS</th></tr><tr><th></th><th>COMBINED</th><th>SNOW</th><th>LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>E</td><td>192</td><td>117 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>75 / 0</td><td>0 / 0</td></tr><tr><td>D</td><td>51</td><td>9 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>42 / 0</td><td>0 / 0</td></tr><tr><td>B</td><td>143</td><td>107 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>36 / 0</td><td>0 / 0</td></tr></table> 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: (4) <table><tr><th colspan="4">CHORDS</th><th colspan="4">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>LC1 MAX. CSI (LC)</th><th>MAX. UNBRACED LENGTH</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. CSI (LC)</th></tr><tr><td>FR-TO</td><td></td><td>FROM</td><td>TO</td><td></td><td>FR-TO</td><td></td><td></td></tr><tr><td>E- A</td><td>-230 / 0</td><td>0.0</td><td>0.0</td><td>0.11 (1)</td><td>7.81</td><td></td><td></td></tr><tr><td>A- B</td><td>-8 / 0</td><td>-78.0</td><td>-78.0</td><td>0.36 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>B- C</td><td>0 / 0</td><td>-15.0</td><td>-15.0</td><td>0.00 (4)</td><td>10.00</td><td></td><td></td></tr><tr><td>E- D</td><td>0 / 0</td><td>-18.5</td><td>-18.5</td><td>0.17 (4)</td><td>10.00</td><td></td><td></td></tr></table>							FACTORED GROSS REACTION			MAXIMUM FACTORED GROSS REACTION			INPUT BRG		REQRD BRG		JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX			E	269	0	269	0	0	MECHANICAL				D	66	0	66	0	0	MECHANICAL				B	205	0	205	0	0	1-8	1-8			JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS							COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	E	192	117 / 0	0 / 0	0 / 0	0 / 0	75 / 0	0 / 0	D	51	9 / 0	0 / 0	0 / 0	0 / 0	42 / 0	0 / 0	B	143	107 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0	CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	FR-TO		FROM	TO		FR-TO			E- A	-230 / 0	0.0	0.0	0.11 (1)	7.81			A- B	-8 / 0	-78.0	-78.0	0.36 (1)	10.00			B- C	0 / 0	-15.0	-15.0	0.00 (4)	10.00			E- D	0 / 0	-18.5	-18.5	0.17 (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 (0.19") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03") ALLOWABLE DEFL.(TL)= L/360 (0.19") CALCULATED VERT. DEFL.(TL) = L/ 859 (0.08") CSI: TC=0.36/1.00 (A-B:1) , BC=0.17/1.00 (D-E:4) , WB=0.00/1.00 (n/a:0) , SSI=0.15/1.00 (A-B:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1987 1873 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.14 (A) (INPUT = 0.90) JSI METAL= 0.12 (A) (INPUT = 1.00)						
FACTORED GROSS REACTION			MAXIMUM FACTORED GROSS REACTION			INPUT BRG		REQRD BRG																																																																																																																																																														
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX																																																																																																																																																															
E	269	0	269	0	0	MECHANICAL																																																																																																																																																																
D	66	0	66	0	0	MECHANICAL																																																																																																																																																																
B	205	0	205	0	0	1-8	1-8																																																																																																																																																															
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D	51	9 / 0	0 / 0	0 / 0	0 / 0	42 / 0	0 / 0																																																																																																																																																															
B	143	107 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0																																																																																																																																																															
CHORDS				WEBS																																																																																																																																																																		
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)																																																																																																																																																															
FR-TO		FROM	TO		FR-TO																																																																																																																																																																	
E- A	-230 / 0	0.0	0.0	0.11 (1)	7.81																																																																																																																																																																	
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PLATES (table is in inches) <table><tr><th>JT</th><th>TYPE</th><th>PLATES</th><th>W</th><th>LEN</th><th>Y</th><th>X</th></tr><tr><td>A</td><td>TMV+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr><tr><td>E</td><td>BMV1+p</td><td>MT20</td><td>2.0</td><td>4.0</td><td></td><td></td></tr></table>							JT	TYPE	PLATES	W	LEN	Y	X	A	TMV+p	MT20	2.0	4.0			E	BMV1+p	MT20	2.0	4.0			TOTAL WEIGHT = 9 X 17 = 157 lb																																																																																																																																										
JT	TYPE	PLATES	W	LEN	Y	X																																																																																																																																																																
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LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2																																																																																																																																																																						

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	J05		1	TRUSS DESC. JT 45147	E20035418



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	SPECIFIED LOADS:		
E - A	2x4	DRY	No.2	SPF	VERT	HORZ	DOWN	HORZ	TOP CH. LL = 21.0 PSF		
A - C	2x4	DRY	No.2	SPF	E	377	0	377	DL = 6.0 PSF		
E - D	2x4	DRY	No.2	SPF	C	122	0	122	BOT CH. LL = 0.0 PSF		
ALL WEBS	2x3	DRY	No.2	SPF	D	259	0	259	DL = 7.4 PSF		
DRY: SEASONED LUMBER.									TOTAL LOAD = 34.4 PSF		

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	4.0		
D	BMW1-t	MT20	3.0	4.0	1.50	Edge
E	BMVW1-t	MT20	3.0	4.0		

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

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	269	164 / 0	0 / 0	0 / 0	0 / 0	105 / 0	0 / 0
C	84	65 / 0	0 / 0	0 / 0	0 / 0	19 / 0	0 / 0
D	187	101 / 0	0 / 0	0 / 0	0 / 0	86 / 0	0 / 0

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
E-A	-111 / 0	0.0	0.0	0.01 (1)	E-B	-300 / 0	0.12 (1)
A-B	0 / 21	-78.0	-78.0	0.20 (1)	B-D	-296 / 0	0.14 (1)
B-C	-20 / 0	-78.0	-78.0	0.15 (1)			
E-D	0 / 229	-18.5	-18.5	0.34 (4)			

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

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

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.(TL)= L/360 (0.26")

CALCULATED VERT. DEFL.(TL) = L/ 563 (0.17")

CSI: TC=0.20/1.00 (A-B:1) , BC=0.34/1.00 (D-E:4) , WB=0.14/1.00 (B-D:1) , SSI=0.13/1.00 (B-C:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.38 (E) (INPUT = 0.90)

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

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TOTAL WEIGHT = $3 \times 28 = 85 \text{ lb}$

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
JT						
E	377	0	377	0	0	5-8
C	122	0	122	0	0	MECHANICAL
D	259	0	259	0	0	MECHANICAL

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.(TL)= L/360 (0.26")
CALCULATED VERT. DEFL.(TL) = L/ 563 (0.17")

CSI: TC=0.20/1.00 (A-B:1), BC=0.34/1.00 (D-E:4),
WB=0.14/1.00 (B-D:1), SSI=0.13/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.38 (E) (INPUT = 0.90)
JSI METAL= 0.08 (E) (INPUT = 1.00)

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWV-t	MT20	3.0	4.0		
D	BMW1-t	MT20	3.0	4.0	1.50	Edge
E	BMVW1-t	MT20	3.0	4.0		

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

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

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	269	164 / 0	0 / 0	0 / 0	0 / 0	105 / 0	0 / 0
C	84	65 / 0	0 / 0	0 / 0	0 / 0	19 / 0	0 / 0
D	187	101 / 0	0 / 0	0 / 0	0 / 0	86 / 0	0 / 0

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

BRACING

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

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED

LOADING

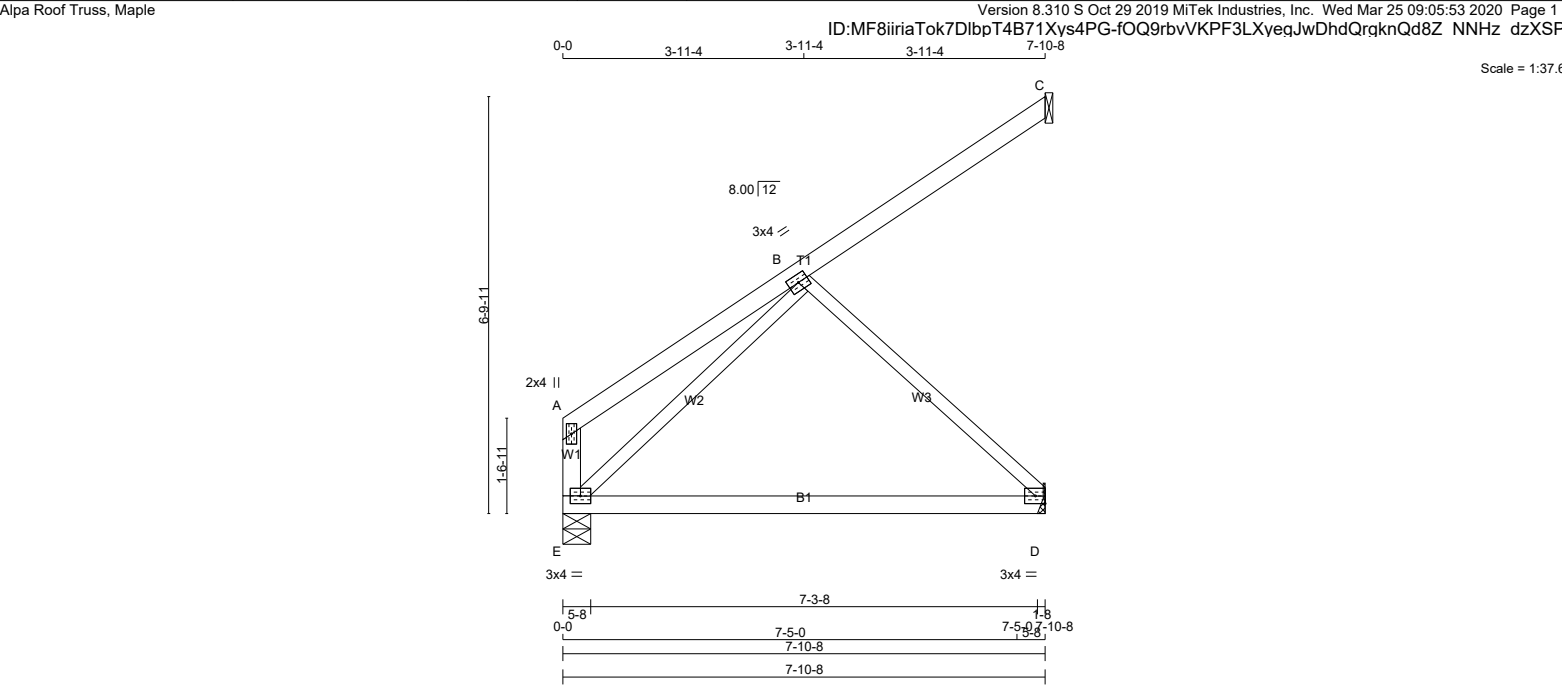
TOTAL LOAD CASES: (4)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX CSI (LC)		
FR-TO		FROM	TO	FR-TO					
E-A	-111 / 0	0.0	0.0	0.01 (1)	7.81	E-B	-300 / 0	0.12 (1)	
A-B	0 / 21	-78.0	-78.0	0.20 (1)	10.00	B-D	-296 / 0	0.14 (1)	
B-C	-20 / 0	-78.0	-78.0	0.15 (1)	6.25				
E-D	0 / 229	-18.5	-18.5	0.34 (4)	10.00				

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



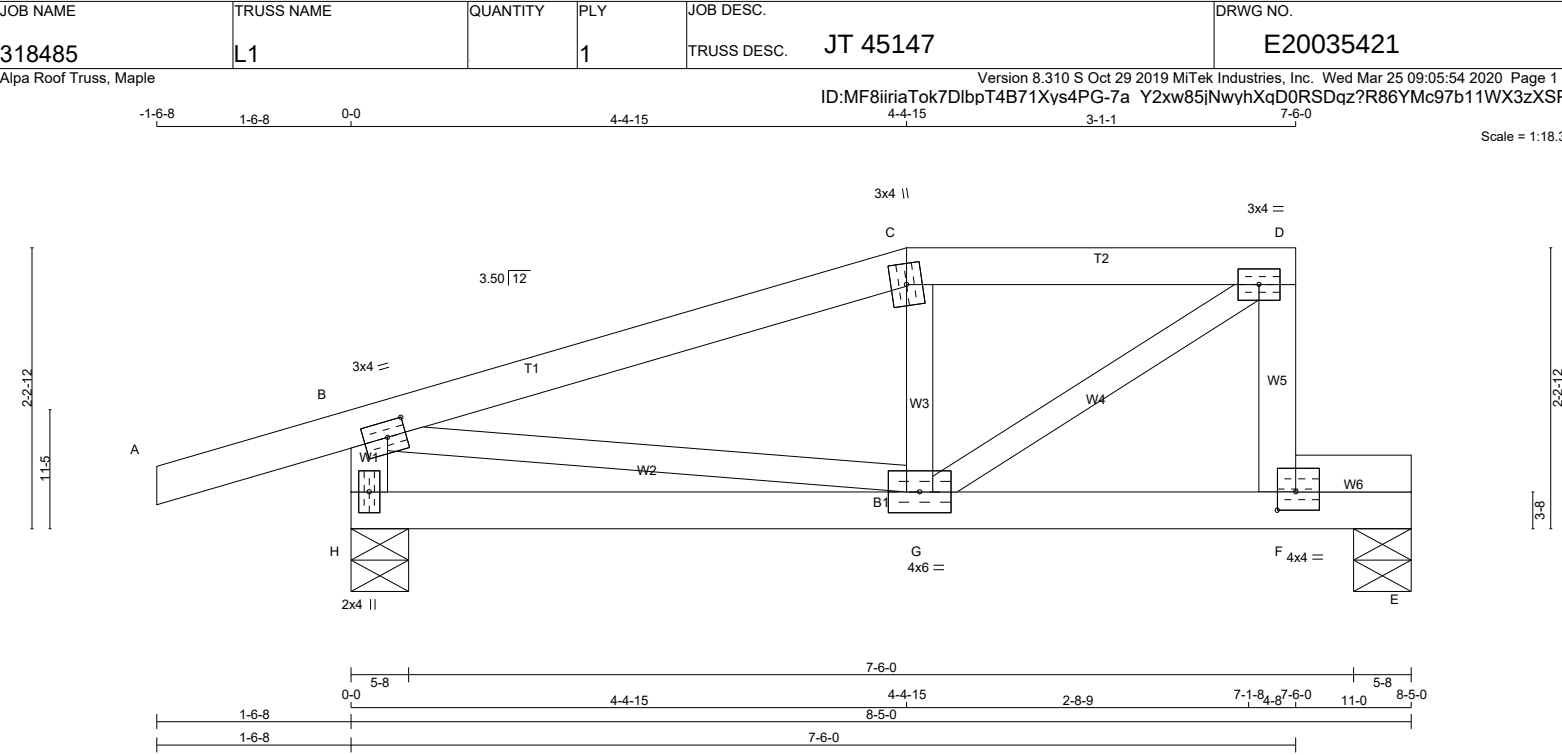
JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	J07		1	TRUSS DESC. JT 45147	E20035420



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES				BEARINGS				SPECIFIED LOADS:			
CHORDS	SIZE		LUMBER	DESCR.	FACTORED	MAXIMUM	FACTORED	INPUT	REQRD	TOP	CH.
E - A	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	GROSS REACTION	BRG	BRG	LL	LL
A - C	2x4	DRY	No.2	SPF	VERT	HORZ	DOWN	HORZ	UPLIFT	DL	DL
E - D	2x4	DRY	No.2	SPF	E	377	0	377	0	0	21.0
ALL WEBS 2x3 DRY No.2 SPF				A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D. MINIMUM BEARING LENGTH AT JOINT D = 1-8.				BOT CH. LL = 0.0 PSF			
DRY: SEASONED LUMBER.				SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C				DL = 6.0 PSF			
				UNFACTORED REACTIONS				TOTAL LOAD = 34.4 PSF			
				1ST LCASE				SPACING = 24.0 IN. C/C			
				MAX./MIN. COMPONENT REACTIONS				THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015			
				JT COMBINED				THIS DESIGN COMPLIES WITH:			
				E 269				- PART 9 OF BCBC 2018, ABC 2019			
				C 84				- PART 9 OF OBC 2012 (2019 AMENDMENT)			
				D 187				- 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.(TL)= L/360 (0.26")			
								CALCULATED VERT. DEFL.(TL) = L/ 561 (0.17")			
								CSI: TC=0.20/1.00 (A-B:1) , BC=0.34/1.00 (D-E:4) ,			
								WB=0.15/1.00 (B-D:1) , SSI=0.13/1.00 (B-C:1)			
								DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10			
								COMP=1.10 SHEAR=1.10 TENS= 1.10			
								COMPANION LIVE LOAD FACTOR = 1.00			
								TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.			
								NAIL VALUES			
								PLATE GRIP(DRY) SHEAR SECTION			
								(PSI) (PLI) (PLI)			
								MAX MIN MAX MIN MAX MIN			
								MT20 650 371 1747 788 1987 1873			
								PLATE PLACEMENT TOL. = 0.250 inches			
								PLATE ROTATION TOL. = 5.0 Deg.			
								JSI GRIP= 0.34 (E) (INPUT = 0.90)			
								JSI METAL= 0.07 (B) (INPUT = 1.00)			

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





LUMBER

N. L. G. A. RULES

CHORDS

SIZE

DRY

LUMBER

No.2

DESCR.

SPF

A - C

2x4

DRY

No.2

SPF

C - D

2x4

DRY

No.2

SPF

F - D

2x4

DRY

No.2

SPF

H - B

2x4

DRY

No.2

SPF

H - E

2x4

DRY

No.2

SPF

F - E

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE

PLATES

W

LEN

Y

X

B

TMVW-t

MT20

3.0

4.0

1.50

1.75

C

TTW+m

MT20

3.0

4.0

D

TMVW-t

MT20

3.0

4.0

F

BMVW-t

MT20

4.0

4.0

1.75

1.75

G

BMWWW-t

MT20

4.0

6.0

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

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

JT

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

H

525

0

525

0

0

5-8

1-8

E

338

0

338

0

0

5-8

1-8

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

H

372

241 / 0

0 / 0

0 / 0

0 / 0

131 / 0

0 / 0

E

243

140 / 0

0 / 0

0 / 0

0 / 0

102 / 0

0 / 0

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

BRACING

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

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MEMB.

MAX. FACTORED FORCE (LBS)

VERT. LOAD (PLF)

LC1

MAX. FACTORED FORCE (LBS)

MAX. FACTORED FORCE (LBS)

MAX. FACTORED FORCE (LBS)

FR-TO

FROM

TO

CS1 (LC)

UNBRAC

LENGTH

FR-TO

FROM

TO

CS1 (LC)

A-B

0 / 17

-78.0

-78.0

0.14 (1)

10.00

G-C

-155 / 0

0.02 (1)

B-C

-494 / 0

-78.0

-78.0

0.27 (1)

6.25

G-D

0 / 552

0.12 (1)

C-D

-458 / 0

-78.0

-78.0

0.13 (1)

6.25

B-G

0 / 479

0.11 (1)

F-D

-427 / 0

0.0

0.0

0.05 (1)

7.81

H-B

-500 / 0

0.0

0.0

0.05 (1)

7.81

H-G

0 / 0

-18.5

-18.5

0.12 (4)

10.00

G-F

0 / 0

-18.5

-18.5

0.41 (1)

10.00

F-E

0 / 0

-18.5

-18.5

0.17 (1)

10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP

CH.

LL

=

21.0

PSF

DL

=

6.0

PSF

BOT

CH.

LL

=

0.0

PSF

DL

=

7.4

PSF

TOTAL LOAD

=

34.4

PSF

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 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 (0.28")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")

ALLOWABLE DEFL.(TL)= L/360 (0.28")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

CSI: TC=0.27/1.00 (B-C:1) , BC=0.41/1.00 (F-G:1) , WB=0.12/1.00 (D-G:1) , SSI=0.13/1.00 (E-F:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI)

(PLI)

(PLI)

MAX MIN

MAX MIN

MAX MIN

MT20

650

371

1747

788

1987

1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (F) (INPUT = 0.90)

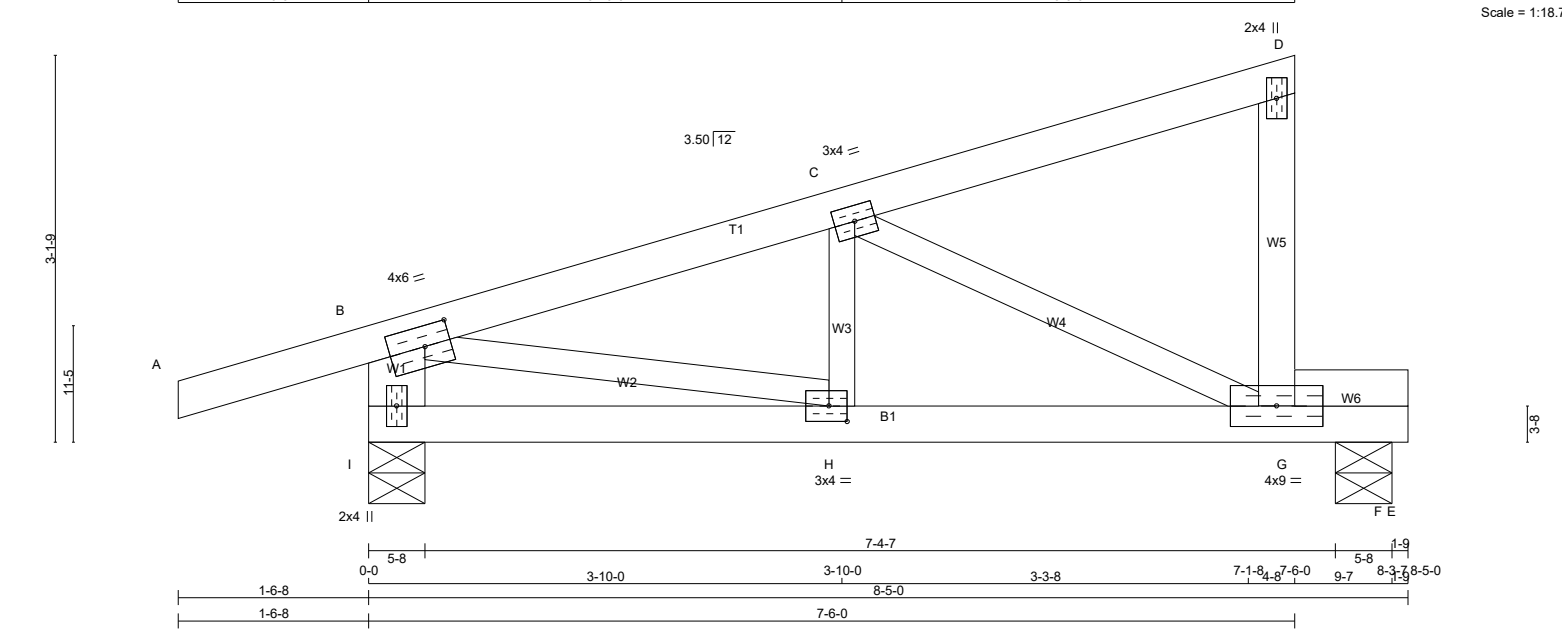
JSI METAL= 0.44 (F) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	L2		1	TRUSS DESC. JT 45147	E20035422

Alpa Roof Truss, Maple

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ID:MF8iiriaTok7DlbpT4B71Xys4PG-bnYwGGxms0Vnaq60nkyhm2VCEYRA52kHqhm43WzXSFA



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER								DESIGN CRITERIA				[M][F]
N. L. G. A. RULES		LUMBER	DESCR.	BEARINGS								SPECIFIED LOADS:				
CHORDS	SIZE			SPF	GROSS REACTION		MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	TOP CH.	LL	=				
A - D	2x4	DRY	No.2													
G - D	2x4	DRY	No.2													
I - B	2x6	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX				
I - E	2x4	DRY	No.2	SPF	I	520	0	520	0	0	5-8	1-8	BOT CH.	LL	= 6.0 PSF	
G - E	2x4	DRY	No.2	SPF	F	344	0	344	0	0	5-8	1-8		DL	= 7.4 PSF	
ALL WEBS 2x3 DRY: SEASONED LUMBER.				SPF									TOTAL LOAD	=	34.4 PSF	
				UNFACTORED REACTIONS								SPACING = 24.0 IN. C/C				

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	6.0	2.00	2.50
C	TMVW-t	MT20	3.0	4.0		
D	TMV+p	MT20	2.0	4.0		
G	BMVWVW-t	MT20	4.0	9.0		
H	BMVW-t	MT20	3.0	4.0	1.50	1.75
I	BMV1+p	MT20	2.0	4.0		

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



CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CS1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 17	-78.0	-78.0 0.14 (1)	10.00	B-H	0 / 581	0.13 (1)
B-C	-588 / 0	-78.0	-78.0 0.13 (1)	6.25	H-C	0 / 98	0.03 (4)
C-D	-9 / 0	-78.0	-78.0 0.13 (1)	10.00	C-G	-636 / 0	0.17 (1)
G-D	-110 / 0	0.0	0.0 0.02 (1)	7.81			
I-B	-505 / 0	0.0	0.0 0.03 (1)	7.81			
I-H	0 / 0	-18.5	-18.5 0.11 (4)	10.00			
H-G	0 / 573	-18.5	-18.5 0.45 (1)	10.00			
G-F	0 / 0	-18.5	-18.5 0.15 (1)	10.00			
F-E	-1 / 0	-18.5	-18.5 0.00 (4)	10.00			

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF CBC 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 (0.28")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

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

CSI: TC=0.14/1.00 (A-B:1), BC=0.45/1.00 (G-H:1), WB=0.17/1.00 (C-G:1), SSI=0.14/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

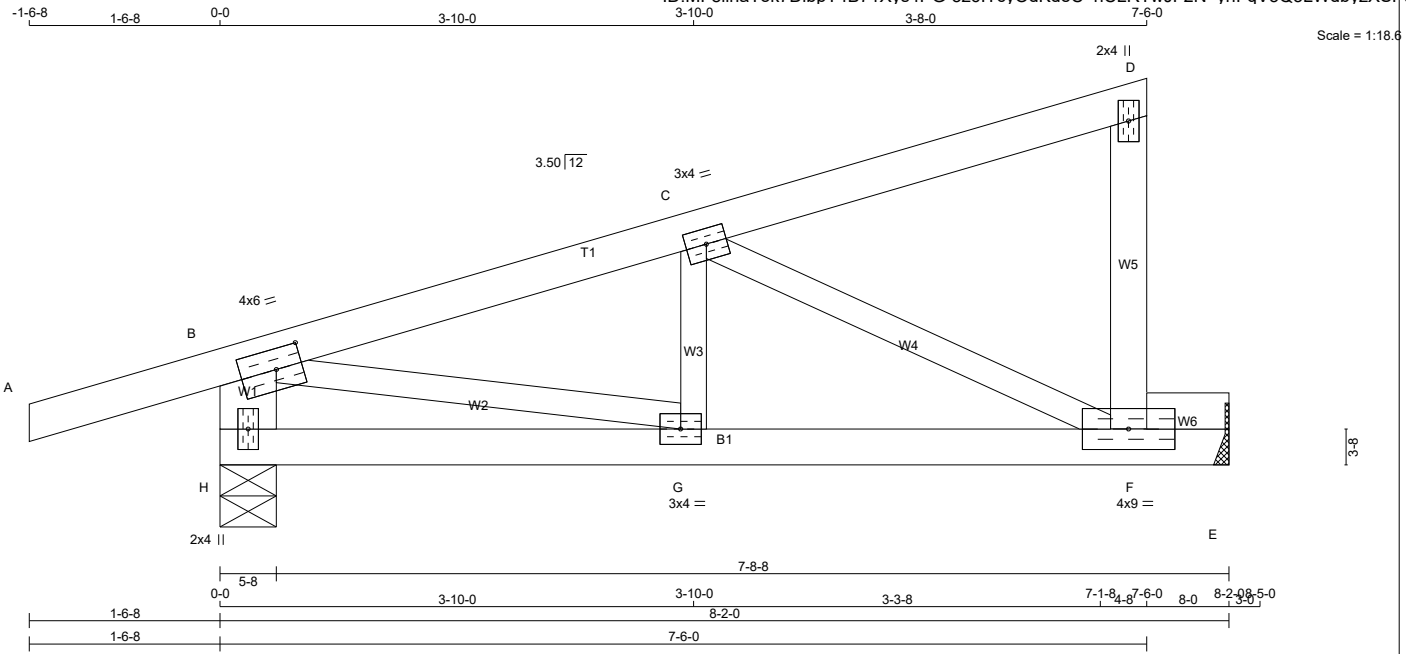
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	650	371	1747
788	1987	1873	
PLATE PLACEMENT TOL. = 0.250 inches			
PLATE ROTATION TOL. = 5.0 Deg.			
JSI GRIP= 0.78 (H) (INPUT = 0.90)			
JSI METAL= 0.20 (H) (INPUT = 1.00)			

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
318485	L2A		1	TRUSS DESC. JT 45147	E20035423

Alpa Roof Truss, Maple

Version 8.310 S Oct 29 2019 MiTek Industries, Inc. Wed Mar 25 09:05:56 2020 Page 1
ID:MF8iiriaTok7DlbpT4B71Xys4PG-3z6lTcyOdKdeC hCLRtWJF2N ynFqV3Q3LWdbyzXSP9



TOTAL WEIGHT = 4 X 32 = 126 lb

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - D	2x4	DRY	No.2
F - D	2x4	DRY	No.2
H - B	2x6	DRY	No.2
H - E	2x4	DRY	No.2
F - E	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	6.0	2.00	2.50
C	TMWW-t	MT20	3.0	4.0		
D	TMV+p	MT20	2.0	4.0		
F	BMVWW-t	MT20	4.0	9.0		
G	BMWW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
H	515	0	515	0	0
E	344	0	344	0	0

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	365	237 / 0	0 / 0	0 / 0	0 / 0	0 / 0	128 / 0	0 / 0
E	246	145 / 0	0 / 0	0 / 0	0 / 0	0 / 0	102 / 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 17	-78.0	-78.0 0.14 (1)	10.00	B-G	0 / 565	0.13 (1)
B-C	-572 / 0	-78.0	-78.0 0.13 (1)	6.25	G-C	0 / 93	0.03 (4)
C-D	-9 / 0	-78.0	-78.0 0.13 (1)	10.00	C-F	-618 / 0	0.16 (1)
F-D	-110 / 0	0.0	0.0 0.02 (1)	7.81			
H-B	-498 / 0	0.0	0.0 0.03 (1)	7.81			
H-G	0 / 0	-18.5	-18.5 0.11 (4)	10.00			
G-F	0 / 557	-18.5	-18.5 0.40 (1)	10.00			
F-E	0 / 0	-18.5	-18.5 0.13 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

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

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF CBC 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 (0.27")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.27")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.14/1.00 (A-B:1), BC=0.40/1.00 (F-G:1), WB=0.16/1.00 (C-F:1), SSI=0.14/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

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



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.



LUS – Double Shear Joist Hangers



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

Material: 18 gauge

Finish: G90 galvanized

Design:

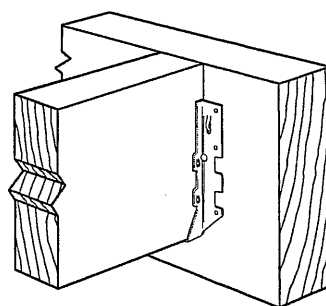
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

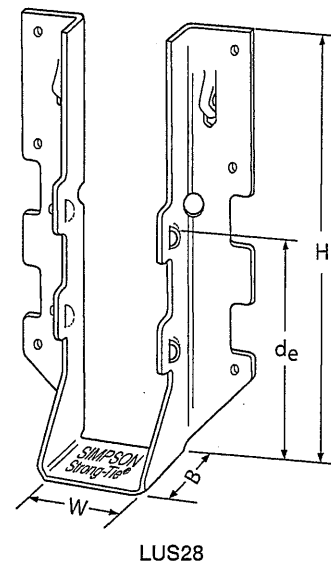
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3½" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified

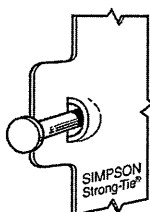


Typical LUS Installation



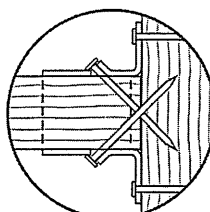
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift	Normal	Uplift	Normal
								(K _p =1.15)	(K _p =1.00)	(K _p =1.15)	(K _p =1.00)
LUS24	18	1⅞	3⅞	1¾	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3⅞	3⅞	2	1 13/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1⅞	4¾	1¾	3⅞	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3⅞	4⅞	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4⅞	4⅞	2	3¼	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1⅞	6⅞	1¾	3¾	(6) 10d	(6) 10d	1420	2520	1290	1790
LUS28-2	18	3⅞	7	2	4	(6) 16d	(4) 16d	1720	3325	1545	2575
LUS28-3	18	4⅞	6¼	2	3¼	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1⅞	7 13/16	1¾	3⅞	(8) 10d	(4) 10d	1420	2785	1290	2210
LUS210-2	18	3⅞	9	2	6	(8) 16d	(6) 16d	2580	4500	2320	3195
LUS210-3	18	4⅞	8¾	2	5¼	(8) 16d	(6) 16d	2580	3345	2320	2375

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

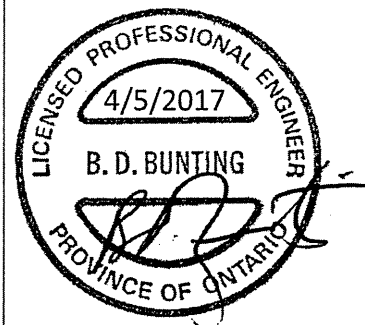


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing Top View.



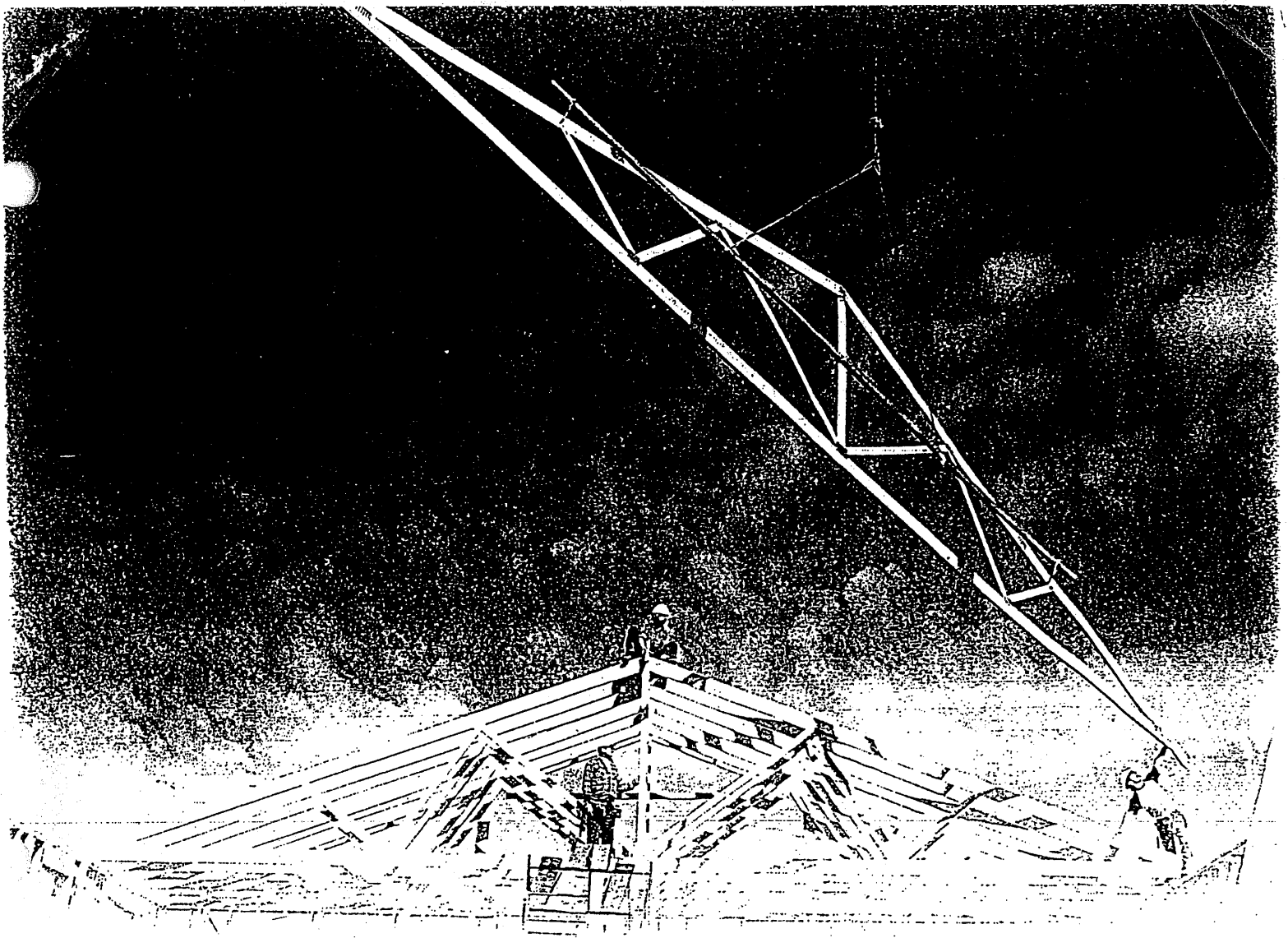
LIMIT STATES DESIGN

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

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T-SPECLUS17 3/17 exp. 6/19

(800) 999-5099
strongtie.com



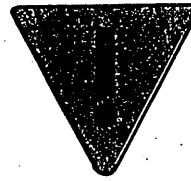
Wood Truss Installation

**A Guide to proper handling, erecting and bracing
metal plate connected wood trusses**

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2 Job Site Handling.....	5
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8 Stacking Materials.....	10
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Warning



General

Familiarity with the Construction Design Documents, the Truss Design Drawings, and Truss Placement Plans (if required by the Construction Design Documents) is required to properly erect, brace, and connect the trusses to the building system.

All of the care and quality involved in the design and manufacture of wood trusses can be jeopardized if the trusses are not properly handled, erected, and braced.

The consequences of improper handling, erecting, and bracing may be a collapse of the structure, which at best is a substantial loss of time and materials, and at worst is a loss of life. The majority of truss accidents occur during truss installation and not as a result of improper design or manufacture.

Prior to truss erection, the builder/erector shall meet with the erection crew for a safety and planning meeting, making sure each crew member understands his or her roles and responsibilities during the erection process.

Temporary Erection Bracing

Trusses are not marked in any way to identify the frequency, or location of temporary erection bracing.

All temporary bracing shall comply with the latest edition of *Commentary and Recommendations for Handling, Installing & Bracing Metal Plate Connected Wood Trusses* (HIB), published by the Truss Plate Institute, and/or as specified in the Construction Design Documents prepared by the building designer.

Permanent Truss Bracing

Permanent bracing for the roof or floor trusses is the responsibility of the building designer and should be shown on the Construction Design Documents. Permanent bracing locations for individual compression members of a wood truss are shown on the Truss Design Drawings, and shall be installed by the building or erection contractor. This bracing is needed for the proper performance of individual trusses within the roof or floor system. The design and connection of the bracing to the truss and then to the overall building system is the responsibility of the building designer, and is in addition to the permanent bracing plan, which is also specified by the building designer.

Special Design Requirements

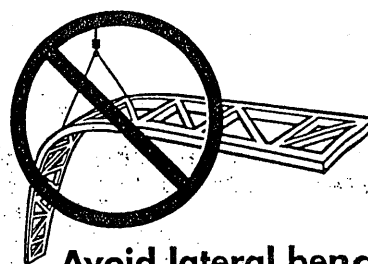
Special design requirements, such as wind bracing, portal bracing, seismic bracing, diaphragms, shear walls, or other load transfer elements and their connections to wood trusses must be considered separately by the building designer, who shall determine size, location, and method of connections for all bracing as needed to resist these forces.

1

Unloading & Lifting

Never handle trusses flat

Beginning with the unloading process, and throughout all phases of construction, care must be taken to avoid lateral bending of trusses, which can cause damage to the lumber and metal connector plates at the joints.

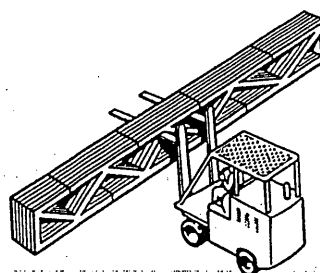
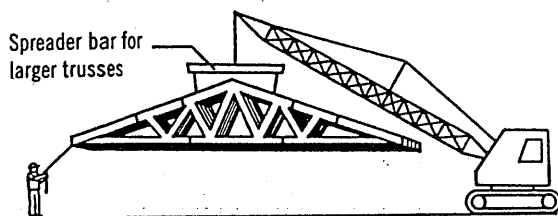


Avoid lateral bending

- Use special care in windy weather.
- If using a crane within 10 feet of an electric line, contact the local power company.
- If using a crane within 5 miles of an airport, contact the airport 30 days prior to erection to learn about any safety regulations that must be followed.

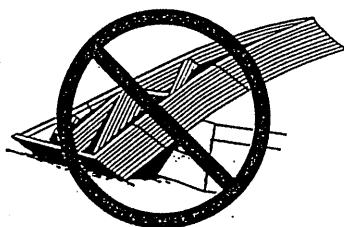
2

Job Site Handling



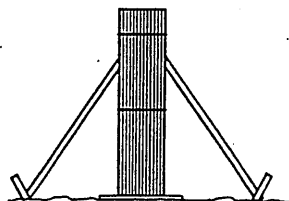
All trusses should be picked up at the top chords in a vertical position only

Proper banding and smooth ground allow for unloading of trusses without damage. This should be done as close to the building site as possible to minimize handling. Do not break banding until installation begins. Hand erection of trusses is allowed, provided excessive lateral bending is prevented.



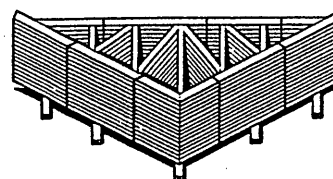
Do not store unbraced bundles upright

If trusses are stored vertically they shall be braced in a manner that will prevent tipping or topping. Generally cutting of the banding is done just prior to installation.



Do not store on uneven ground

If trusses are stored horizontally, blocking should be used on eight to ten foot centers, or as required, to minimize lateral bending and moisture gain.

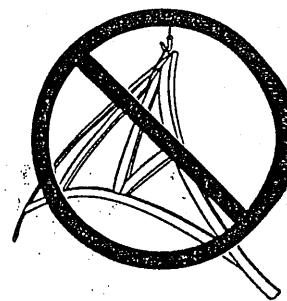


Care should be exercised when removing banding to avoid damaging trusses.

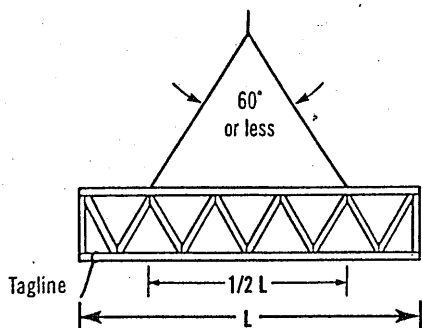
During long term storage, trusses shall be protected from the environment in a manner that provides for adequate ventilation of the trusses. If tarpaulins or other material is used, the ends shall be left open for ventilation. Plastic is not recommended, since it can trap moisture.

3 Hoisting

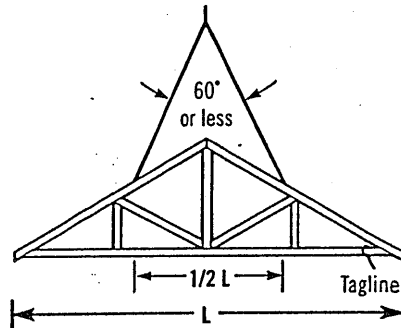
All trusses that are erected one at a time shall be held safely in position by the erection equipment until such time as all necessary bracing has been installed and the ends of the trusses are securely fastened to the building.



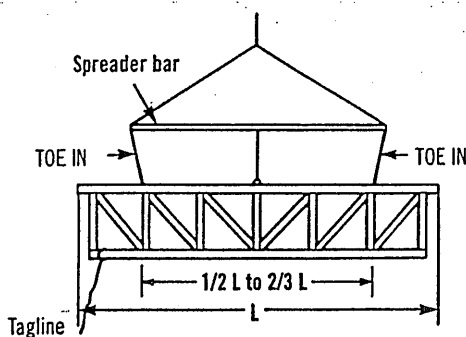
Avoid lateral bending



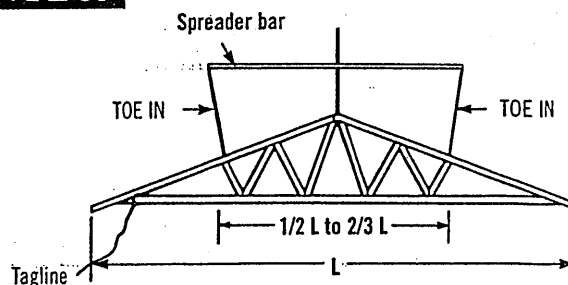
$L \leq 30'$



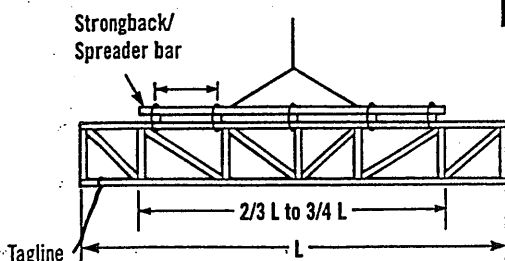
Truss sling is acceptable where these criteria are met.



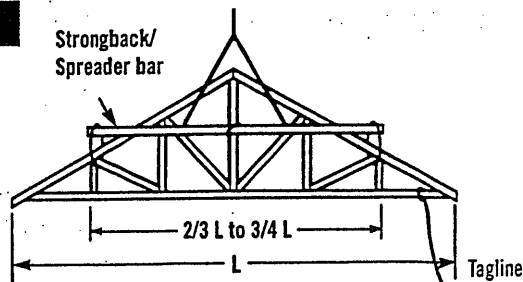
$30' < L \leq 60'$



Use spreader bar in all other cases. It should be noted that the lines from the ends of the spreader bar "TOE IN"; if these lines should "TOE OUT" the truss may fold in half.



$L > 60'$



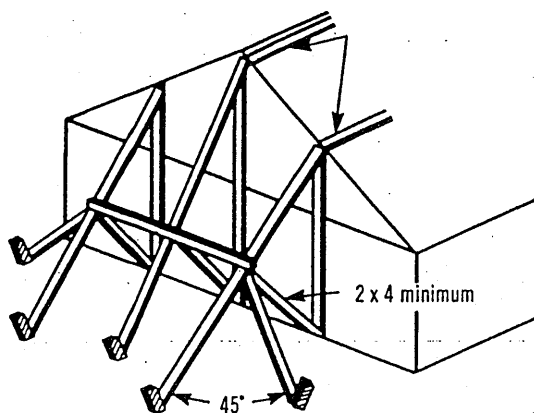
For lifting trusses with spans in excess of 60 feet, it is recommended that a strongback/spreader bar be used as illustrated. The strongback/spreader bar should be attached to the top chord and web members at intervals of approximately 10 feet. Further, the strongback/spreader bar should be at or above the mid-height of the truss to prevent overturning. The strongback/spreader bar can be of any material with sufficient strength to safely carry the weight of the truss and sufficient rigidity to adequately resist bending of the truss.

4 Beginning the Erection Process

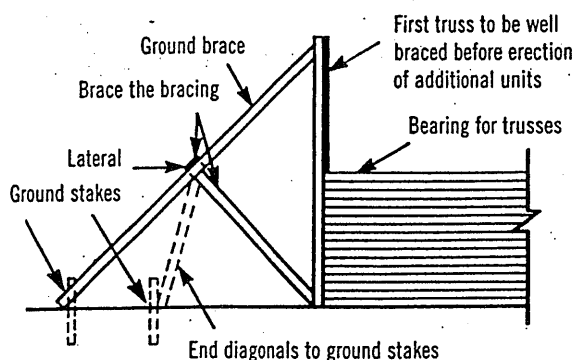
It is important for the builder or erection contractor to provide substantial bracing for the first truss erected. The two or more trusses making up the rest of the first set are tied to and rely upon the first truss for stability. Likewise, after this first set of trusses is adequately cross-braced, the remaining trusses installed rely upon this first set for stability. Thus, the performance of the truss bracing system depends to a great extent on how well the first group of trusses is braced.

Ground Brace - Exterior

One satisfactory method ties the first unit of trusses off to a series of braces that are attached to a stake driven into the ground and securely anchored. The ground brace itself should be supported as shown below or it is apt to buckle. Additional ground braces in the opposite direction, inside the building, are also recommended.

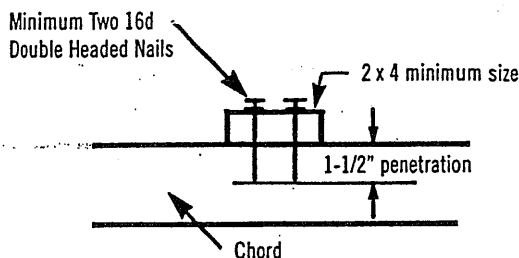
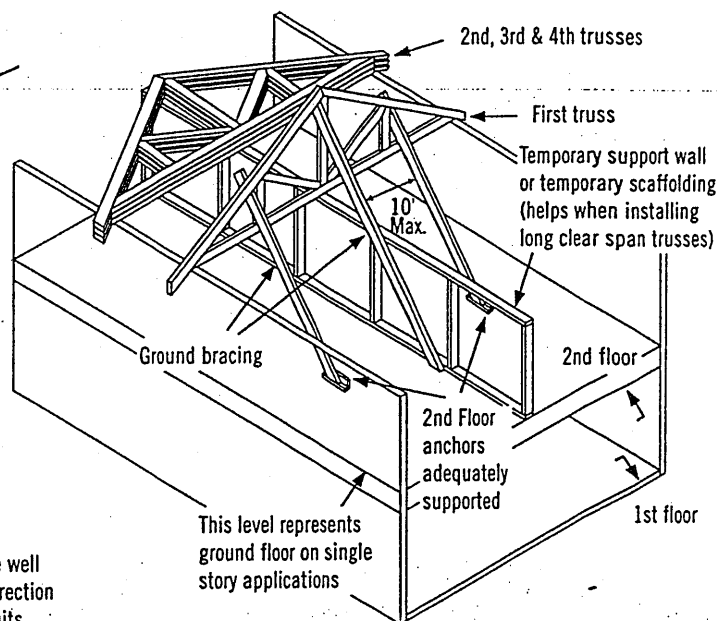


Note: Locate ground braces for first truss directly in line with all rows of top chord continuous lateral bracing (either temporary or permanent).



Ground Brace - Interior

Another satisfactory method where height of building or ground conditions prohibit bracing from the exterior is to tie the first truss rigidly in place from the interior at the floor level, provided the floor is substantially completed and capable of supporting the ground bracing forces. Securely fasten the first truss to the middle of the building. Brace the bracing similar to exterior ground bracing shown at left. Set trusses from the middle toward the end of the building. Properly cross-brace the first set of trusses before removing floor braces and setting remaining trusses.

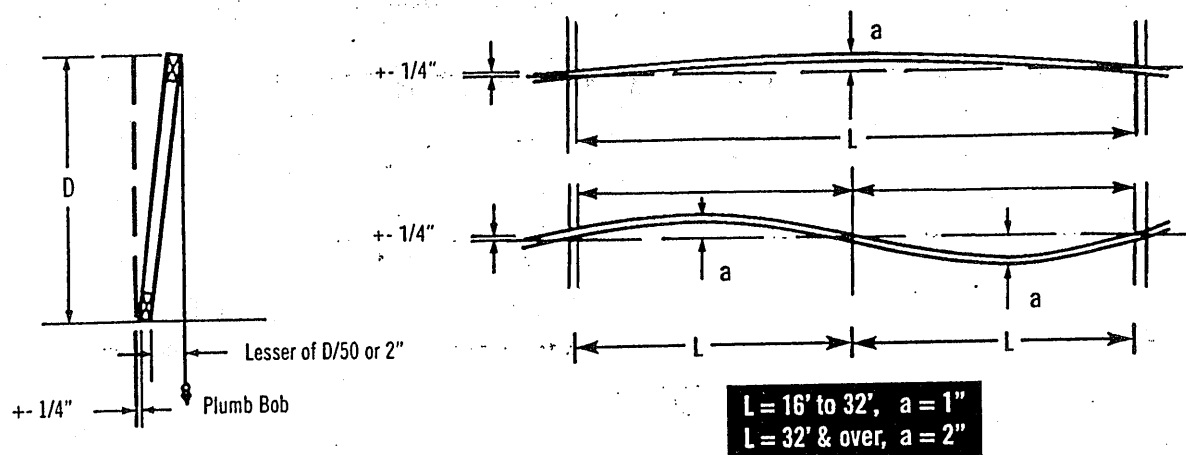


Inadequate size of bracing material or inadequate fastening is a major cause of erection dominoing.

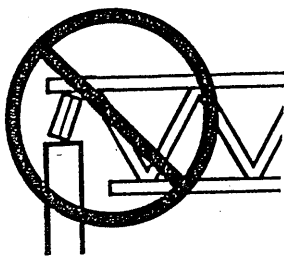
5 Erection Tolerance

Complying with erection tolerances is critical to achieving an acceptable roof or floor line, and to accomplishing effective bracing. Setting trusses within tolerance the first time will prevent the need for the hazardous practice of respacing or adjusting trusses when roof sheathing or roof purlins are installed. Trusses leaning or bowing can cause nails to miss the top chords when sheathing is applied, and create cumulative stresses on the bracing, which is a frequent cause of dominoing.

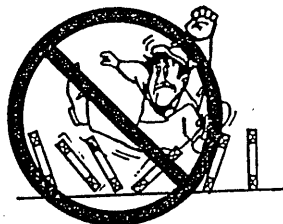
When sheathing, make sure nails are driven into the top chord of the trusses.



6 Bracing



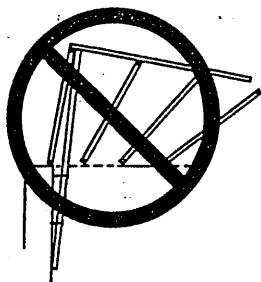
Do not install trusses on temporarily connected supports



Do not walk on unbraced trusses



Do not walk on trusses or gable ends lying flat

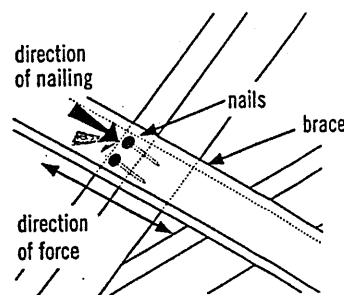


Nails in withdrawal (parallel to force)

All anchors, hangers, tie-downs, seats, bearing ledgers, etc., that are part of the supporting structure shall be accurately and properly placed and permanently attached before truss installation begins. No trusses shall ever be installed on anchors or ties that have temporary connections to the supporting structure.

Nailing scabs to the end of the building to brace the first truss is not recommended.

All nailing of bracing should be done so that nails are driven perpendicular to the direction of force, as shown at right.



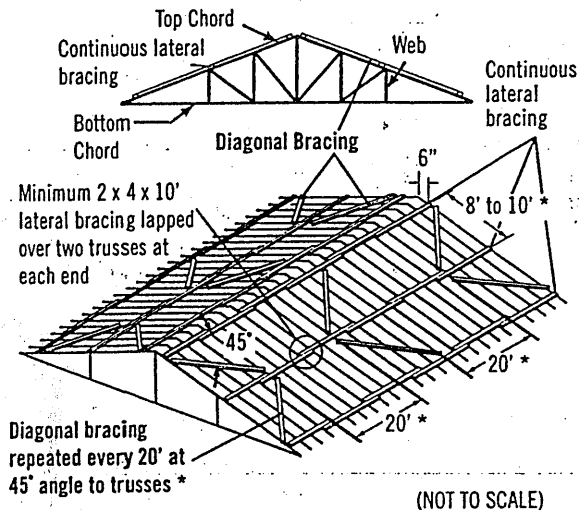
Well nailed (perpendicular to force)

7 Bracing Requirements for 3 Planes of Roof

Temporary erection bracing must be applied to three planes of the roof system to ensure stability: Plane 1) Top Chord (sheathing), Plane 2) Bottom Chord (ceiling plane), and Plane 3) Web Member plane or vertical plane perpendicular to trusses.

1) Top Chord Plane

Most important to the builder or erection contractor is bracing in the plane of the top chord. Truss top chords are susceptible to lateral buckling before they are braced or sheathed.

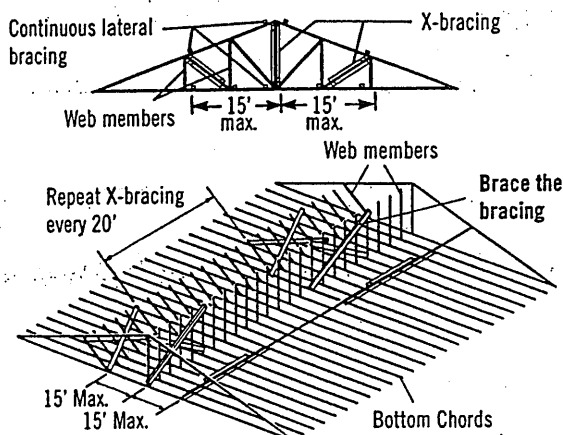


Exact spacing between trusses should be maintained as bracing is installed to avoid the hazardous practice of removing bracing to adjust spacing. This act of "adjusting spacing" can cause trusses to topple if connections are removed at the wrong time.

3) Web Member Plane

"X" bracing, as shown, is critical in preventing trusses from leaning or dominoing. Repeat as shown to create a succession of rigid units.

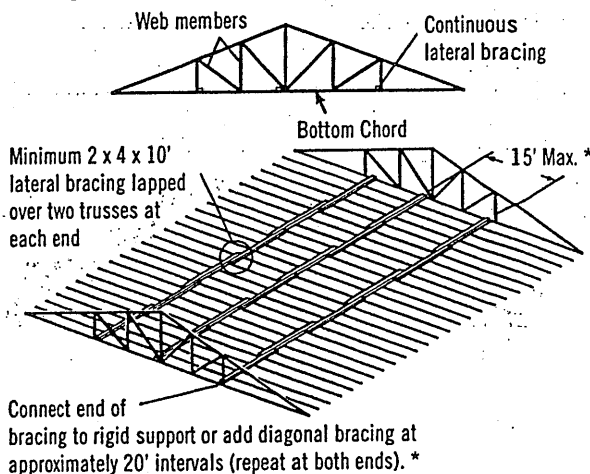
X-bracing should be installed on vertical web members wherever possible, at or near lateral bracing. Plywood or OSB may be substituted for X-bracing.



Note: Top chords and some web members are not shown, in order to make drawings more readable.

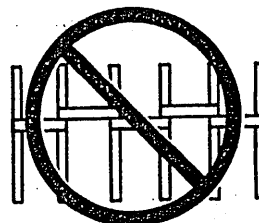
2) Bottom Chord Plane

In order to hold proper spacing on the bottom chord, temporary bracing is recommended on the top of the bottom chord.

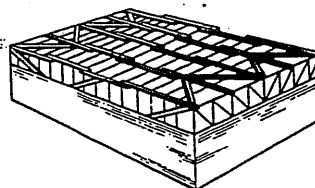


* Long spans, heavy loads or other spacing configurations may require closer spacing between lateral bracing and closer intervals between diagonals. Consult the building designer or HIB and DSB (Recommended Design Specification for Temporary Bracing of Metal-Plate Connected Wood Trusses) for details.

Diagonal or cross-bracing is very important!



Do not use short blocks to brace individual trusses without a specific bracing plan detailing their use

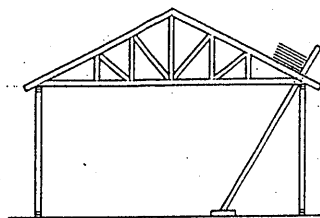
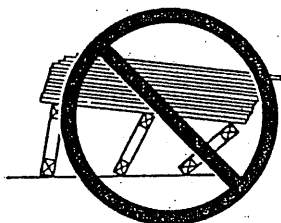


Bracing requirements using the same principles apply to parallel chord trusses

8 Stacking Materials

Do not proceed with building completion until all bracing is securely and properly in place

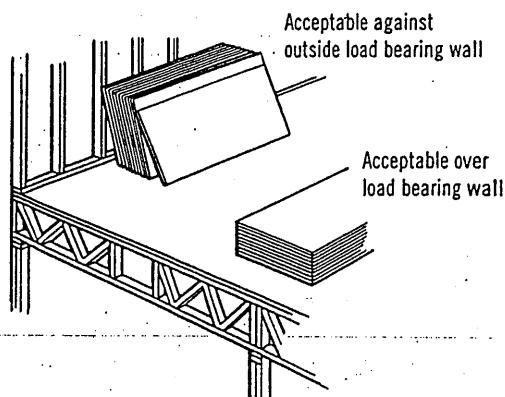
Never stack materials on unbraced or inadequately braced trusses



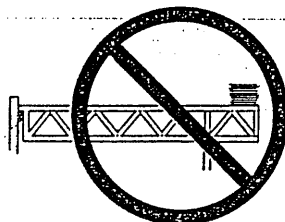
Platform must be rigidly braced

Proper distribution of construction materials is a must during construction.

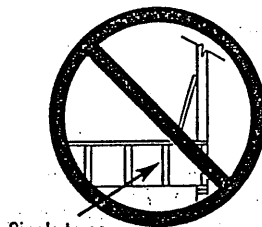
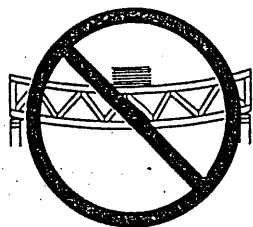
Never stack materials near a peak



Never stack materials on the cantilever of a truss

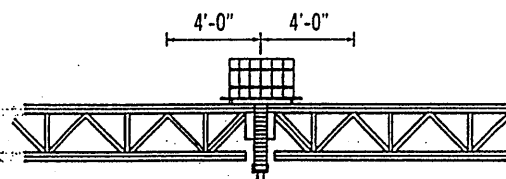


Always stack materials over two or more trusses.



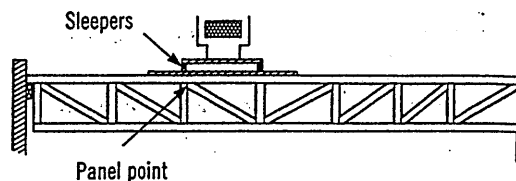
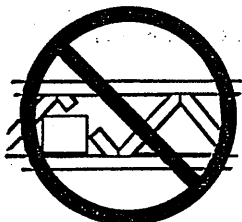
Single truss

Never overload small groups or single trusses. Position load over as many trusses as possible.



Roofing and mechanical contractors are cautioned to stack materials only along outside supporting members or directly over inside supporting members. Trusses are not designed for dynamic loads (i.e., moving vehicles). Extreme care should be taken when loading and stacking construction materials (rolled roofing, mechanical equipment, etc.) on the roof or floor system.

Never cut any structural member of a truss.



Sleepers

Panel point

Sleepers for mechanical equipment should be located at panel points (joints) or over main supporting members, and only on trusses that have been designed for such loads.

Caution Notes

Errors in building lines and/or dimensions, or errors by others shall be corrected by the contractor or responsible construction trade subcontractor or supplier before erection of trusses begins.

Cutting of nonstructural overhangs is considered a part of normal erection and shall be done by the builder or erection contractor.

Any field modification that involves the cutting, drilling, or relocation of any structural truss member or connector plate shall not be done without the approval of the truss manufacturer or a licensed design professional.

The methods and procedures outlined are intended to ensure that the overall construction techniques employed will put floor and roof trusses safely in place in a completed structure. These recommendations for bracing wood trusses originate from the collective experience of leading technical personnel in the wood truss industry, but must, due to the nature of responsibilities involved, be presented only as a guide for use by a qualified building designer, builder, or erection contractor. Thus, the Wood Truss Council of America expressly disclaims any responsibility for damages arising from the use, application, or reliance on the recommendations and information contained herein.

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THE CANADIAN WOOD TRUSS ASSOCIATION



L'ASSOCIATION CANADIENNE DES FABRICANTS DE FERMES DE BOIS

1400 Blair Place, Suite 210, Ottawa, ON K1J 9B8
Tel.: 613-747-5544 Fax: 613-747-6264



Wood Truss Council of America

One WTCA Center
6300 Enterprise Lane, Madison, WI 53719-1140
Tel.: 608-274-4849 Fax: 608-274-3329
wtca@woodtruss.com www.woodtruss.com