

All work shall conform to the Ontario Building Code O. Reg. 332/12 as amended
For conventional framing roof/ceilings framing shall conform to OBC 9.23

CITY OF BRAMPTON
BUILDING DIVISION
REVIEWED
DEC 10 2018
BY
MARK DERKSEN

TR GREENPARK - MINNISALE HOMES - MILLWOOD 2 ELE 2

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TW0918-068

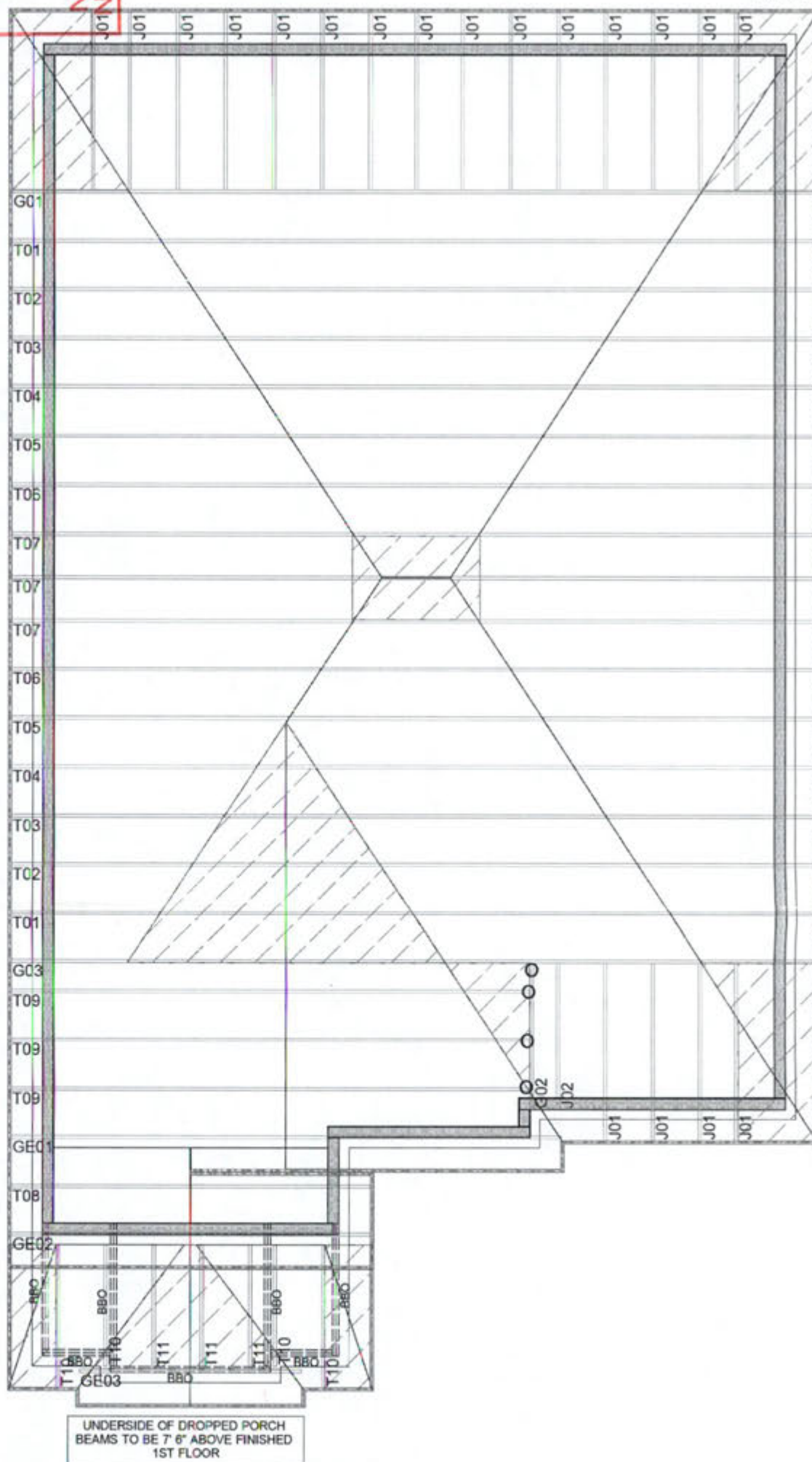


Layout based on plans provided by
JARDIN DESIGN GROUP INC
Dated April 26/18

This certification is for the engineering review of structural components shown on this drawing and is limited to the components supplied by KOTT for the loads and conditions shown on the calculation page of each component. The placement of these components on this layout is shown for reference only. Roof trusses must be installed according to manufacturer's guidelines at 24" C/C unless noted otherwise. Conventional framing shown on the layout must be designed and approved by the project engineer. Temporary and permanent bracing is to conform to BCSI guidelines.



September 14, 2018



ROOF TRUSS LAYOUT

LET 32



CONVENTIONAL
FRAMING BY OTHERS

HANGER LEGEND

X - LUS24
- HGUS26

O - LJS26DS
% - HGUS26-2

DESIGN CRITERIA
SPECIFIED LOADS
TOP CH. LL = 31.3 psf
DL = 3.0 psf
BOT CH. LL = 0.0 psf
DL = 7.0 psf
TOTAL LOAD = 41.3 psf

SPACING @ 24" CENTERS,
THIS TRUSS SYSTEM IS DESIGN FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH PART 9 OF OBC 2012,
BCBC 2012, ABC 2012, CSA 086-09, TPIC 2011

ALLOWABLE DEFLECTION OF EACH COMPONENT = L/300

Model:	MILLWOOD 2 EL 2
Customer:	GREENPARK
Project:	MINNISALE HOMES
Location:	BRAMPTON
Drawn By:	DM
Date:	6/22/2018

SIZE AND LOCATION OF CONVENTIONAL FRAMING IS APPROXIMATE. ALL AREAS
MAY NOT BE SHOWN. REFER TO ARCHITECTURAL PLANS FOR DETAILS.

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OF THE O.B.C RAFTER THAT
CROSS MEET OVER TRUSSES TO BE 2X4 SPF @ 24" O/C WITH 2X4 VERT POST TO THE
TRUSS BELOW EA CROSS PT. VERT POS. THAN 6" TO HAVE A LATERAL BRACING SO THAT
THE DISTANCE BETEN PT & VERT ROWS OF BRACING DOES NOT EXCEED 6'

Lot 32

ENGINEERING NOTE PAGE (ENP-1)**PLEASE READ PRIOR TO INSTALLATION****RESPONSIBILITIES**

THIS DESIGN IS FOR AN INDIVIDUAL BUILDING COMPONENT AND HAS BEEN BASED ON INFORMATION PROVIDED BY THE DESIGN OFFICE OF KOTT LUMBER. THE UNDERSIGNED ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF FAULTY OR INCORRECT INFORMATION, SPECIFICATION AND/OR DESIGNS FURNISHED TO THE ENGINEER. THE UNDERSIGNED ENGINEER IS ONLY RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THIS BUILDING COMPONENT FOR THE CONDITIONS AND LOADS SHOWN ON THIS DRAWING. THE STRUCTURAL INTEGRITY OF THE BUILDING AND THE VERIFICATION OF THE DIMENSIONS AND THE DESIGN LOADS USED ARE THE RESPONSIBILITY OF THE BUILDING DESIGNER.

TRUSSES ARE DESIGNED IN CONFORMANCE WITH THE RELEVANT SECTIONS OF THE NATIONAL BUILDING CODE OF CANADA OR THE CANADIAN CODE FOR FARM BUILDINGS, WHICHEVER APPLIES TO THE BUILDING TYPE INDICATED ON THE DRAWING

IT IS THE RESPONSIBILITY OF KOTT LUMBER TO ENSURE THAT TRUSSES ARE MANUFACTURED IN CONFORMANCE WITH THESE DESIGNS AND WITH THE SPECIFICATIONS OUTLINED BELOW. THE UNDERSIGNED ENGINEER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

USE AND OCCUPANCY

- The building is of the type indicated on the drawing

LOADING

- The truss loading intensity and distribution as well as load transfer mechanism is that indicated on the drawing
- No buildings, trees, parapets or other projections higher than the roof for which the trusses are used are located within a distance less than ten (10) times the difference in height, or five metres (16 ft) whichever is greater, unless the drawing indicates that the snow drifting has been taken into account

HANDLING, INSTALLATION AND BRACING

- The trusses must be handled and installed by a qualified professional as per the supplied document titled *Information for Truss Installers* and the BCSI-B1 and BCSI-B3 Summary Sheets
- The compression chords are laterally braced by continuous rigid diaphragm sheathing or as specified on the drawing
- Temporary and permanent bracing must be installed as indicated on the truss drawing and according to the BCSI-B1 and BCSI-B3 Summary Sheets. Bracing for the lateral stability of the truss is to be provided by the building designer
- It is recommended that a Professional Engineer's advice be obtained for the bracing of trusses spanning more than 12.37m (40'-7")

SUPPORTS

- The trusses are to be supported at the bearing points indicated and anchored to the supports where considered necessary by the designer of the overall structure
- Bearing sizes shown are the minimum required to prevent crushing of the truss members and do not necessarily take into account stability of the overall building structure
- Elevation of bearings must be carefully checked and shimmed to alignment for solid bearings
- Adequate wood truss bearing is the responsibility of the building designer.

DIMENSIONS

- Geometry of the truss and dimensions indicated on the drawing are identical to those of the installed truss.

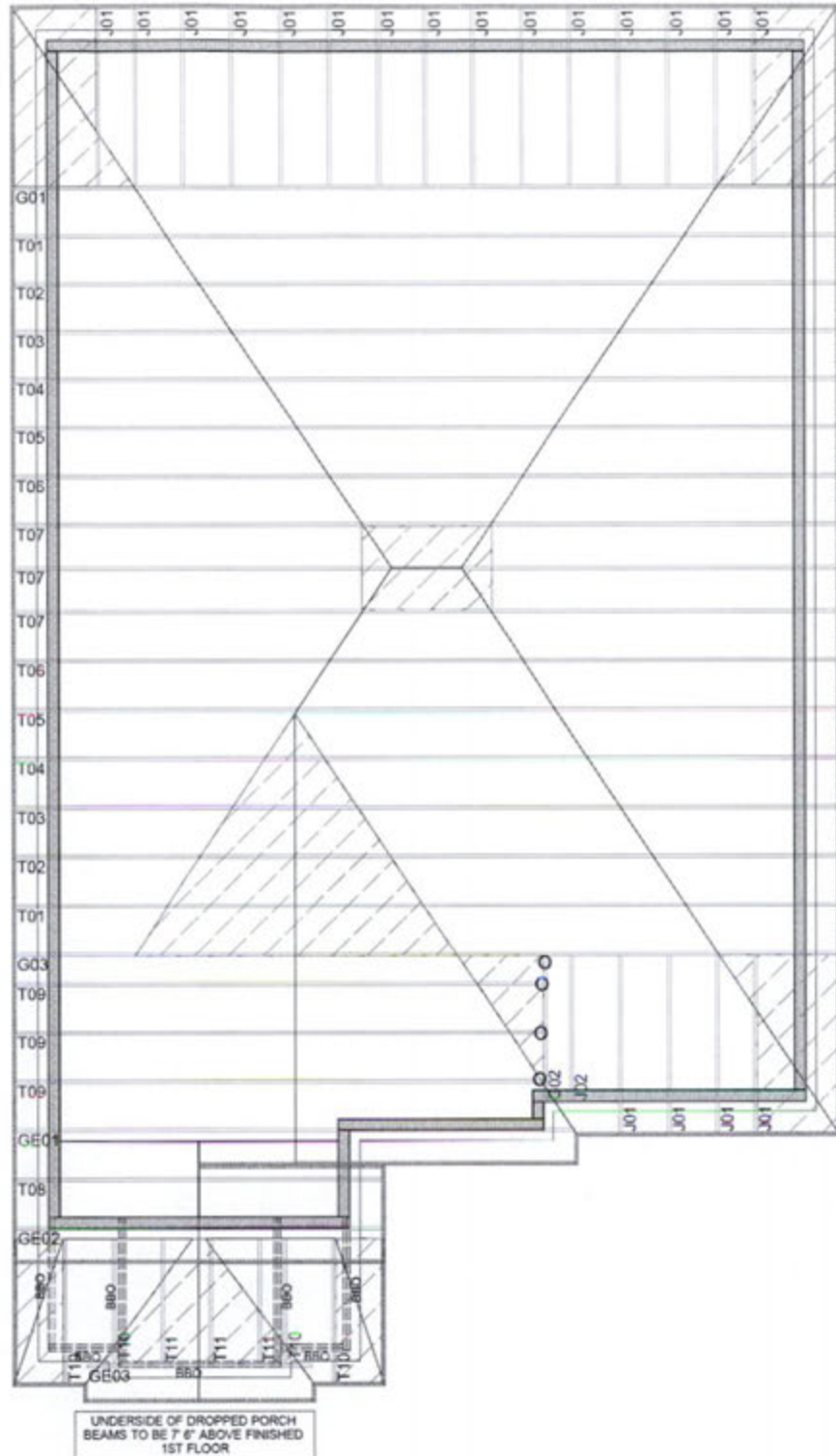


Layout based on plans provided by
JARDIN DESIGN GROUP INC
Dated April 26/18

This certification is for the engineering review of structural components shown on this drawing and is limited to the components supplied by KOTT for the loads and conditions shown on the calculation page of each component. The placement of these components on this layout is shown for reference only. Roof trusses must be installed according to manufacturer's guidelines at 24" C/C unless noted otherwise. Conventional framing shown on the layout must be designed and approved by the project engineer. Temporary and permanent bracing is to conform to BCSI guidelines.



September 14, 2018



ROOF TRUSS LAYOUT



**CONVENTIONAL
FRAMING** BY OTHERS

HANGER LEGEND

X - LUS24
- HGUS26

O - LJS26DS
% - HGUS26-2

DESIGN CRITERIA
SPECIFIED LOADS
TOP CH. LL = 31.3 psf
CL = 2.0 psf
BOT CH. LL = 0.0 psf
CL = 7.0 psf
TOTAL LOAD = 41.3 psf

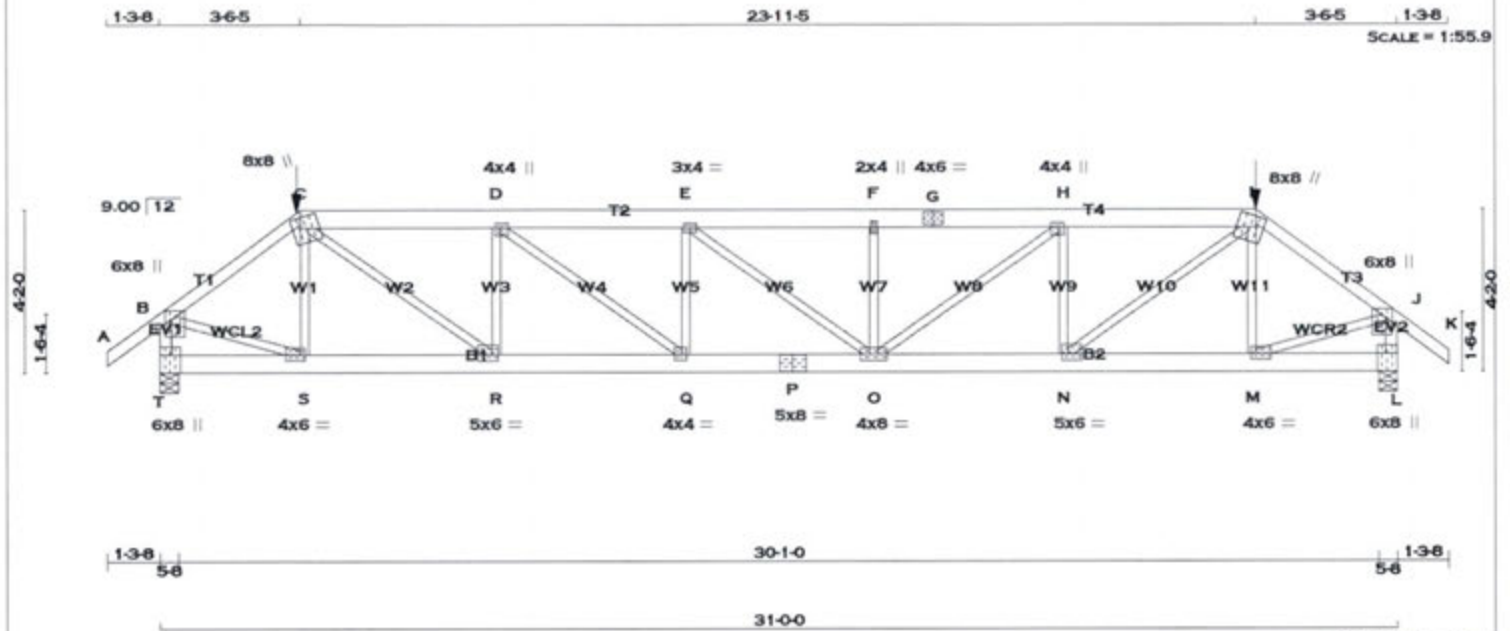
SPACINGS @ 24" CENTERS
THIS TRUSS SYSTEM IS DESIGN FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBC 2010

THIS DESIGN COMPLIES WITH PART 9 OF CBC 2012,
BOBC 2012, ABC 2012, CSA 985-08, TIRC 2011
ALLOWABLE DEFLECTION OF EACH COMPONENT = L/360

Model:	MILLWOOD 2 EL 2
Customer:	GREENPARK
Project:	MINNISALE HOMES
Location:	BRAMPTON
Drawn By:	DM
Date:	6/22/2018

SIZE AND LOCATION OF CONVENTIONAL FRAMING IS APPROXIMATE. ALL AREAS MAY NOT BE SHOWN. REFER TO ARCHITECTURAL PLANS FOR DETAILS.

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OF THE O.B.C RAFTER THAT CROSS MEET OVER TRUSSES TO BE 2X4 SPF @ 24" O/C WITH 2X4 VERT POST TO THE TRUSS BELOW EA CROSS PT. VERT POS. THAN 6" TO HAVE A LATERAL BRACING SO THAT THE DISTANCE BETEN PT & VERT ROWS OF BRACING DOES NOT EXCEED 6'



LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR.

A - C	2x4	DRY	No.2	SPF
C - G	2x6	DRY	No.2	SPF
G - I	2x6	DRY	No.2	SPF
I - K	2x4	DRY	No.2	SPF
T - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
T - P	2x6	DRY	No.2	SPF
P - L	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	6.0	8.0	2.75 2.00
C	TTWW+m	MT20	8.0	8.0	4.00 3.25
D	TMWW+t	MT20	4.0	4.0	1.50 1.50
E	TMWW-t	MT20	3.0	4.0	
F	TMWW+w	MT20	2.0	4.0	
G	TS-t	MT20	4.0	6.0	
H	TMWW-t	MT20	4.0	4.0	1.50 1.50
I	TTWW+m	MT20	8.0	8.0	4.00 3.25
J	TMVW+p	MT20	6.0	8.0	2.75 2.00
L	BMV1+t	MT20	6.0	8.0	Edge 2.50
M	BMWW-t	MT20	4.0	6.0	1.75 1.50
N	BMWW-t	MT20	5.0	6.0	2.00 1.75
O	BMWW-t	MT20	4.0	8.0	
P	BS-t	MT20	5.0	8.0	
Q	BMWW-t	MT20	4.0	4.0	1.75 1.50
R	BMWW-t	MT20	5.0	6.0	2.00 1.75
S	BMWW-t	MT20	4.0	6.0	1.75 1.50
T	BMV1+t	MT20	6.0	8.0	5.50

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REORD BRG
JT	VERT	DOWN	UP	IN-SX
T	2542	0	0	5-5
L	2542	0	0	5-5

UNFACTORED REACTIONS

1ST LCASE	MAX. MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
T	1993	1403 / 0	0 / 0	0 / 0	0 / 0	590 / 0	0 / 0
L	1993	1403 / 0	0 / 0	0 / 0	0 / 0	590 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.31 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.	FORCE (LBS)	VERT. LOAD	FACTORED (PLF)	MEMB.	FORCE (LBS)	MAX. FACTORED (LBS)	MAX. (LC)
FR-TO				FR-TO			
A-B	0 / 32	-77.4	-77.4 0.12 (1)	10.00	S-C	-569 / 0	0.14 (1)
B-C	-3039 / 0	-77.4	-77.4 0.34 (1)	3.69	C-R	0 / 2892	0.72 (1)
C-D	-4716 / 0	-145.9	-145.9 0.39 (1)	3.67	R-D	-1825 / 0	0.40 (1)
D-E	-5783 / 0	-145.9	-145.9 0.43 (1)	3.31	D-Q	0 / 1354	0.34 (1)
E-F	-5774 / 0	-145.9	-145.9 0.41 (1)	3.34	Q-E	-674 / 0	0.16 (1)
F-G	-5774 / 0	-145.9	-145.9 0.43 (1)	3.31	E-O	-12 / 0	0.01 (1)
G-H	-5774 / 0	-145.9	-145.9 0.43 (1)	3.31	O-F	-669 / 0	0.16 (1)
H-I	-4718 / 0	-145.9	-145.9 0.39 (1)	3.67	O-H	0 / 1340	0.33 (1)
I-J	-3039 / 0	-77.4	-77.4 0.34 (1)	3.69	N-H	-1621 / 0	0.40 (1)
J-K	0 / 32	-77.4	-77.4 0.12 (1)	10.00	N-I	0 / 2895	0.72 (1)
T-B	-2801 / 0	0.0	0.0 0.32 (1)	5.08	M-I	-571 / 0	0.14 (1)
L-J	-2801 / 0	0.0	0.0 0.32 (1)	5.08	B-S	0 / 2550	0.63 (1)
T-S	0 / 0	-33.0	-33.0 0.07 (4)	10.00	M-J	0 / 2550	0.63 (1)
S-R	0 / 2423	-33.0	-33.0 0.37 (1)	10.00			
R-Q	0 / 4716	-33.0	-33.0 0.69 (1)	10.00			
Q-P	0 / 5783	-33.0	-33.0 0.84 (1)	10.00			
P-O	0 / 5783	-33.0	-33.0 0.84 (1)	10.00			
O-N	0 / 4718	-33.0	-33.0 0.70 (1)	10.00			
N-M	0 / 2423	-33.0	-33.0 0.37 (1)	10.00			
M-L	0 / 0	-33.0	-33.0 0.07 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE
C	3-6-5	-205	-205	---	FRONT	VERT	TOTAL
I	27-5-11	-205	-205	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 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 = 3-6-5
END SETBACK = 0-0-0
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.25")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/842 (0.44")

CSI: TC=0.43/1.00 (F-H:1), BC=0.84/1.00 (O-Q:1), WB=0.72/1.00 (I-N:1), SS=0.27/1.00 (H-I:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (Q) (INPUT = 0.90)
JSI METAL= 0.95 (P) (INPUT = 1.00)



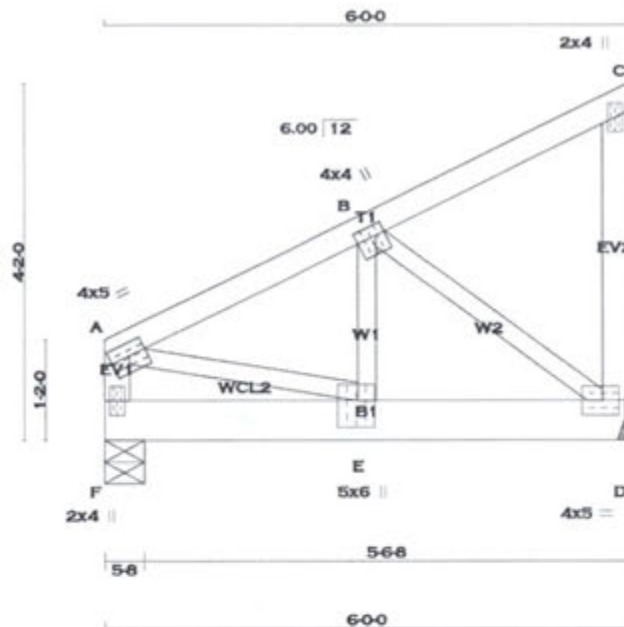
September 14, 2018

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC TRUSS DESC.	DWG NO.	Page 4 of 24 TW0918-068
TW0918-068	G01	1	1	TR - GREENPARK - MINNISALE HOMES - MILLWOOD 2 ELE 2		

Kott, Ottawa, Ontario, TW

Version 6.210 5 Mar 12 2018 M/Tek Industries, Inc. Fri Sep 14 09:30:07 2018 Page 2
ID:GvG8oeB5QNkqs?axtV7B3Fz4ISM-JyOslU72gt_k8TAx_sEPx4HlqCOpJqiNHJTZCydmeU

HANGERS NOTES 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 204.6 lbs FACTORED DOWN AT 27-5-11, AND 204.6 lbs FACTORED DOWN AT 3-6-5 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.	 READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.	
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SCALE = 1:25.5

TOTAL WEIGHT = 29 lb [M]

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	DRY	LUMBER	DESCR.
A - C	2x4	DRY	No.2		SPF	
D - C	2x4	DRY	No.2		SPF	
F - A	2x4	DRY	No.2		SPF	
F - D	2x6	DRY	No.2		SPF	
ALL WEBS	2x3	DRY	No.2		SPF	
EXCEPT						
DRY: SEASONED LUMBER.						

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-1	MT20	4.0	5.0	1.75	2.25
B	TMVW-1	MT20	4.0	4.0	1.50	1.25
C	TMVW-1	MT20	2.0	4.0		
D	BMVW-1	MT20	4.0	5.0	2.00	2.25
E	BMVW-1	MT20	5.0	6.0	3.75	2.25
F	BMVW-1	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	DOWN	UP	IN-SX
D	1550	0	0	MECHANICAL
F	1550	0	0	5.8

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT D TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

JT	1ST LCASE	MAX MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
D	1088	761 / 0	0 / 0
F	1088	761 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.49 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)

MEMB.	CHORDS	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
FR-TO	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MCMB. FORCE (LBS)	MAX. FACTORED
A-B	-1323 / 0	-77.4	-77.4 0.12 (1)	5.49	0 / 1227
B-C	-9 / 0	-77.4	-77.4 0.05 (1)	10.00	0 / 1495
D-C	-96 / 0	0.0	0.0 0.02 (1)	7.81	0 / 1230
F-A	-999 / 0	0.0	0.0 0.11 (1)	7.79	
F-E	0 / 0	-439.4	-439.4 0.25 (1)	10.00	
E-D	0 / 1191	-439.4	-439.4 0.41 (1)	10.00	

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
ROT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	33.3	PSF

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStdGirder

START DISTANCE = 0-0

START SPAN CARRIED = 20-3-0

END DISTANCE = 6-0-0

END SPAN CARRIED = 20-3-0

END WALL WIDTH = 5-8

APPLIED TO FRONT SIDE OF BOTTOM CHORD.

- ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086 09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL. (LL) = $L/360$ (0.20")
 CALCULATED VERT. DEFL. (LL) = $L/999$ (0.02")
 ALLOWABLE DEFL. (TL) = $L/360$ (0.20")
 CALCULATED VERT. DEFL. (TL) = $L/999$ (0.03")

CSI: TC=0.12/1.00 (A-B:1), BC=0.41/1.00 (D-E:1), WB=0.36/1.00 (B-D:1), SSI=0.51/1.00 (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 = 0.50

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

NAIL VALUES

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

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg

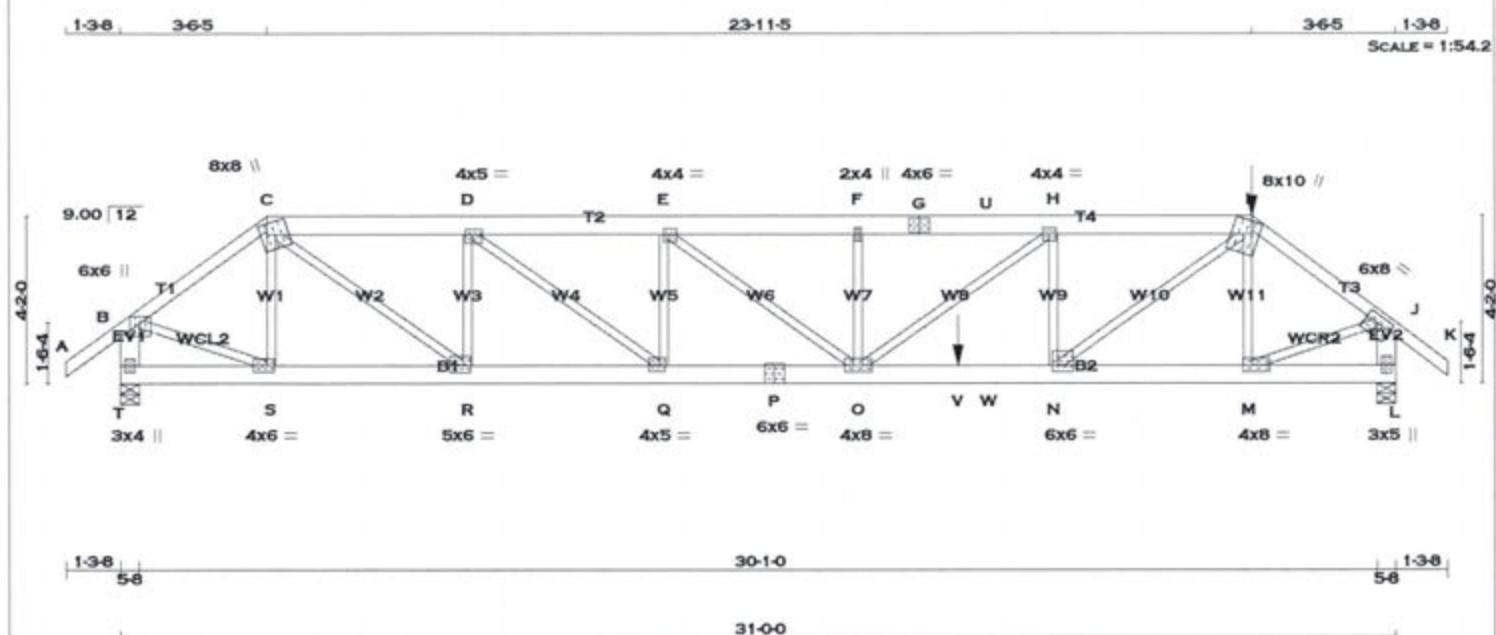
JSI GRIP= 0.89 (B) (INPUT = 0.90)
 JSI METAL= 0.41 (B) (INPUT = 1.00)



September 14, 2018



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



LUMBER

N.L.G.A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2 SPF
C - G	2x6	DRY	No.2 SPF
G - I	2x6	DRY	No.2 SPF
I - K	2x4	DRY	No.2 SPF
T - B	2x6	DRY	No.2 SPF
L - J	2x6	DRY	No.2 SPF
T - P	2x6	DRY	No.2 SPF
P - L	2x6	DRY	2100F 1.8E SPF
ALL WEBS EXCEPT	2x3	DRY	No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW+p	MT20	6.0	6.0	2.25	2.75
C	TTWW+m	MT20	6.0	6.0	4.00	3.75
D	TMWW+L	MT20	4.0	5.0	1.50	2.00
E	TMWW+L	MT20	4.0	4.0	1.75	1.50
F	TMWW+L	MT20	2.0	4.0		
G	TS-L	MT20	4.0	6.0		
H	TMWW+L	MT20	4.0	4.0		
I	TTWW+m	MT20	6.0	10.0	4.50	3.50
J	TMWW+L	MT20	6.0	6.0	2.25	3.50
L	BMV1+p	MT20	3.0	5.0		
M	BMWW+L	MT20	4.0	6.0	2.00	2.75
N	BMWW+L	MT20	6.0	6.0	2.00	1.50
O	BMWW+L	MT20	4.0	6.0		
P	BS-L	MT20	6.0	6.0		
Q	BMWW+L	MT20	4.0	5.0	1.75	1.75
R	BMWW+L	MT20	5.0	6.0	2.25	2.00
S	BMWW+L	MT20	4.0	6.0	2.00	2.00
T	BMV1+p	MT20	3.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MI TEK MT20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

HANGERS NOTES

1)

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	DOWN	UPLIFT	IN-SX
T	2256	0	0	5-8
L	3251	0	0	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX	MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
T	1581	1121 / 0	0 / 0
L	2260	1603 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.17 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 32	-77.4 -77.4	0.12 (1)	S-C	-486 / 0	0.12 (1)	
B-C	-2369 / 0	-77.4 -77.4	0.28 (1)	C-R	0 / 2655	0.66 (1)	
C-D	-3992 / 0	-77.4 -77.4	0.24 (1)	R-D	-1515 / 0	0.37 (1)	
D-E	-5393 / 0	-77.4 -77.4	0.29 (1)	D-Q	0 / 1777	0.44 (1)	
E-F	-6397 / 0	-77.4 -77.4	0.41 (1)	Q-E	-1161 / 0	0.29 (1)	
F-G	-6397 / 0	-77.4 -77.4	0.43 (1)	E-O	0 / 1275	0.32 (1)	
G-U	-6397 / 0	-77.4 -77.4	0.43 (1)	O-F	-333 / 0	0.08 (1)	
U-H	-6397 / 0	-145.9 -145.9	0.43 (1)	F-H	0 / 810	0.20 (1)	
H-I	-5759 / 0	-145.9 -145.9	0.49 (1)	H-N	-1234 / 0	0.30 (1)	
I-J	-3487 / 0	-77.4 -77.4	0.39 (1)	N-I	0 / 3764	0.93 (1)	
J-K	0 / 32	-77.4 -77.4	0.12 (1)	M-I	-841 / 0	0.21 (1)	
T-B	-2237 / 0	0.0 0.0	0.16 (1)	B-S	0 / 1988	0.49 (1)	
L-J	-3178 / 0	0.0 0.0	0.23 (1)	M-J	0 / 2926	0.72 (1)	
T-S	0 / 0	-17.5 -17.5	0.04 (4)				
S-R	0 / 1888	-17.5 -17.5	0.28 (1)				
R-Q	0 / 3992	-17.5 -17.5	0.82 (1)				
Q-P	0 / 5393	-17.5 -17.5	0.80 (1)				
P-O	0 / 5393	-17.5 -17.5	0.80 (1)				
O-V	0 / 5758	-17.5 -17.5	0.88 (1)				
V-W	0 / 5758	-17.5 -17.5	0.88 (1)				
W-N	0 / 5758	-33.0 -33.0	0.88 (1)				
N-M	0 / 2775	-33.0 -33.0	0.34 (1)				
M-L	0 / 0	-33.0 -33.0	0.03 (1)				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX	MAX	FACE	DIR	TYPE
I	27-5-11	-205	-205	---	FRONT	VERT	TOTAL
V	20-3-12	-1550	-1550	---	FRONT	VERT	TOTAL

DESIGN CRITERIA

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

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
SIDE SETBACK	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
END WALL WIDTH	DL	=	7.0	PSF
TOTAL LOAD		=	33.3	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 = 3-6-5
END SETBACK = 6-0-0
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL
LOADS APPLIED TO FIRST 10-0-0 OF SPAN MEASURED FROM THE RIGHT.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2010

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.28")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/756 (0.49")

CS1: TC=0.49/1.00 (H-I:1), BC=0.88/1.00 (N-O:1), WB=0.93/1.00 (I-N:1), SB=0.58/1.00 (N-O: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 = 0.50

AUTOSOLVE HEELS OFF

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



HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 204.6 lbs FACTORED DOWN AT 27-5-11 ON TOP CHORD, AND 1550.3 lbs FACTORED DOWN AT 20-3-12 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	618	354	1667	822	2284

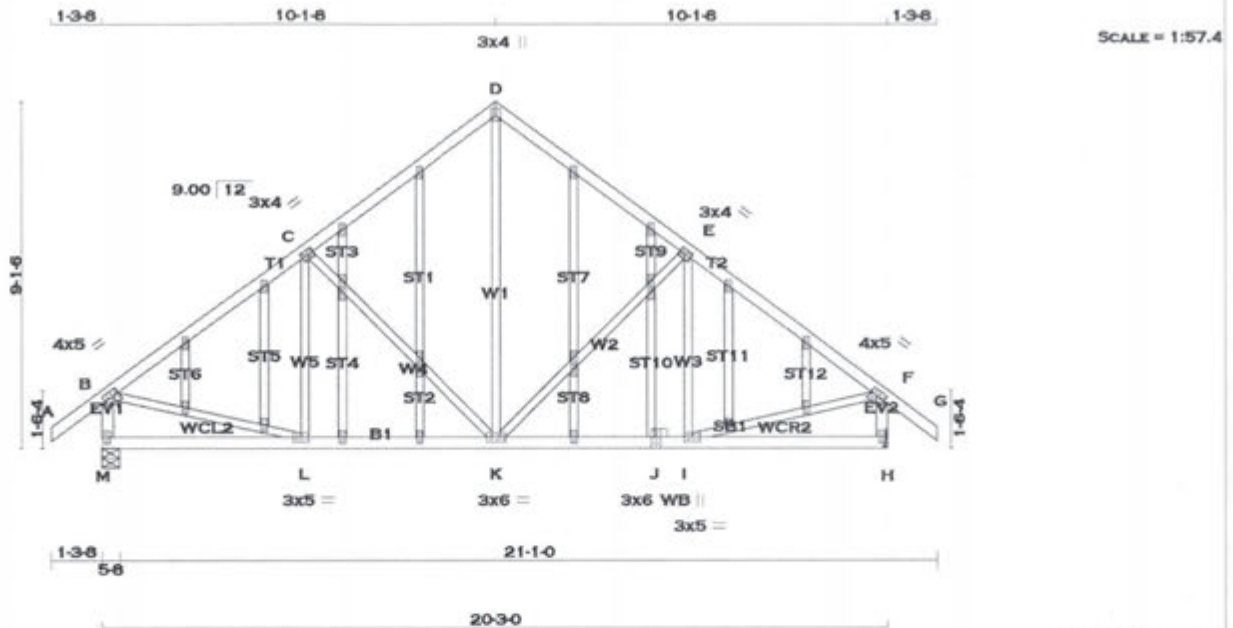
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (R) (INPUT = 0.90)
JSI METAL= 0.75 (N) (INPUT = 1.00)



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



TOTAL WEIGHT = 122 lb
(M/F)

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - G	2x4	DRY	No.2
M - B	2x4	DRY	No.2
H - F	2x4	DRY	No.2
M - J	2x4	DRY	No.2
J - H	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			
ALL GABLE WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			
GABLE STUDS SPACED AT	2'-0" O.C.		

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-1	MT20	4.0	5.0	1.75 2.00
C	TMVW-1	MT20	3.0	4.0	1.50 1.50
D	TTW+p	MT20	3.0	4.0	2.25 1.50
E	TMVW-1	MT20	3.0	4.0	1.50 1.50
F	TMVW-1	MT20	4.0	5.0	1.75 2.00
H	BMV1+p	MT20	2.0	4.0	
I	BMVW-1	MT20	3.0	5.0	
J					
J	BSW-H	MT20	3.0	6.0	
K	BMVW-1	MT20	3.0	6.0	
L	BMVW-1	MT20	3.0	5.0	
M	BMV1+p	MT20	2.0	4.0	
N, Q, Z, AB					
N	NP+rw	MT20	2.0	4.0	1.50 1.00
N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF					
N	NP+rw	MT20	2.0	4.0	

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

WB - INDICATES BLOCKING REQUIRED

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

BEARINGS		FACTORED	MAXIMUM FACTORED	INPUT	REQD
		GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
M	1067	0	1067	0	0
H	1067	0	1067	0	0

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT H TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	747	536 / 0	0 / 0	0 / 0	0 / 0	211 / 0	0 / 0
H	747	536 / 0	0 / 0	0 / 0	0 / 0	211 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.04 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	FACTORED		MEMB.	MAX. FACTORED	FACTORED	
	FORCE (LBS)	VERT. LOAD	LC1 MAX		FORCE (LBS)	MAX	
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 32	-77.4	-77.4 0.11 (1)	10.00	K-D	0 / 548	0.12 (1)
B-C	-953 / 0	-77.4	-77.4 0.26 (1)	6.04	K-E	-325 / 0	0.31 (1)
C-D	-725 / 0	-77.4	-77.4 0.26 (1)	6.25	I-E	-83 / 60	0.04 (1)
D-E	-725 / 0	-77.4	-77.4 0.26 (1)	6.25	C-K	-325 / 0	0.31 (1)
E-F	-953 / 0	-77.4	-77.4 0.27 (1)	6.04	L-C	-83 / 60	0.04 (1)
F-G	0 / 32	-77.4	-77.4 0.11 (1)	10.00	B-L	0 / 805	0.18 (1)
M-B	-1030 / 0	0.0	0.0 0.11 (1)	7.74	I-F	0 / 805	0.18 (1)
H-F	-1030 / 0	0.0	0.0 0.11 (1)	7.74			
M-L	0 / 0	-17.5	-17.5 0.11 (4)	10.00			
L-K	0 / 784	-17.5	-17.5 0.18 (1)	10.00			
K-J	0 / 784	-17.5	-17.5 0.18 (1)	10.00			
J-I	0 / 784	-17.5	-17.5 0.18 (1)	10.00			
I-H	0 / 0	-17.5	-17.5 0.11 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	33.3	PSF

SPACING = 24.0 IN. C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.68")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.02")
ALLOWABLE DEFL.(TL) = $L/360$ (0.68")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.05")

CSI: TC=0.27/1.00 (B-C-1), BC=0.18/1.00 (K-L-1), WB=0.31/1.00 (C-K-1), SSI=0.15/1.00 (B-C-1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

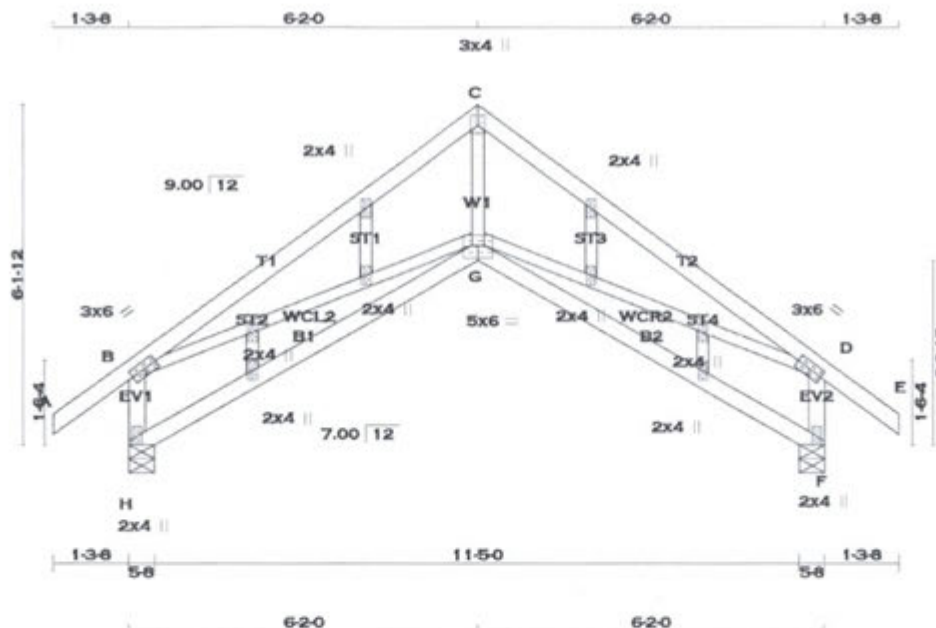
JSI GRIP= 0.88 (K) (INPUT = 0.90)
JSI METAL= 0.34 (F) (INPUT = 1.00)



September 14, 2018



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SCALE = 1:39.5

TOTAL WEIGHT = 57 lb [MIF]

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

ALL GABLE WEBS
 2x3 DRY No.2
 DRY: SEASONED LUMBER

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-1	MT20	3.0	6.0	1.50	2.75
C	TTW+p	MT20	3.0	4.0	2.25	1.50
D	TMVW-1	MT20	3.0	6.0	1.50	2.75
F	BMV1+p	MT20	2.0	4.0	Edge	
G	BRWW+p	MT20	5.0	6.0	2.75	3.00
H	BMV1+p	MT20	2.0	4.0	Edge	
I, J, K, L, M, N, O, P						
I	NP+w	MT20	2.0	4.0		

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MI20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	DOWN	IN-SX	IN-SX
H	692	0	5-8	1-8
F	692	0	5-8	1-8

UNFACTORED REACTIONS

WIND PROFILES - WIND TUNNEL							
1ST LCASE	MAX/MIN COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM LIVE	WIND	DEAD	SOIL
H	483	351 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0
F	483	351 / 0	0 / 0	0 / 0	0 / 0	132 / 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 = 5.93 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD LC1 (PLF)	MAX. FACTORED VERT. LOAD LC2 (PLF)	MAX. FACTORED VERT. LOAD LC3 (PLF)	MAX. FACTORED VERT. LOAD LC4 (PLF)	MAX. FACTORED VERT. LOAD LC5 (PLF)	MAX. FACTORED VERT. LOAD LC6 (PLF)	MAX. FACTORED VERT. LOAD LC7 (PLF)	MAX. FACTORED VERT. LOAD LC8 (PLF)	MAX. FACTORED VERT. LOAD LC9 (PLF)	MAX. FACTORED VERT. LOAD LC10 (PLF)
FR-TO												
A-B	0 / 32	-77.4	-77.4	0.11 (1)	10.00	G-C	0 / 621	0.14 (1)				
B-C	-915 / 0	-77.4	-77.4	0.40 (1)	5.93	B-G	0 / 775	0.17 (1)				
C-D	-915 / 0	-77.4	-77.4	0.40 (1)	5.93	G-D	0 / 775	0.17 (1)				
D-E	0 / 32	-77.4	-77.4	0.11 (1)	10.00							
H-B	-638 / 0	0.0	0.0	0.07 (1)	7.81							
F-D	-638 / 0	0.0	0.0	0.07 (1)	7.81							
H-G	0 / 0	-17.5	-17.5	0.20 (4)	10.00							
G-F	0 / 0	-17.5	-17.5	0.20 (4)	10.00							

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN. C/C

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL. (LL) = $L/360$ (0.41")
 CALCULATED VERT. DEFL. (LL) = $L/999$ (0.04")
 ALLOWABLE DEFL. (TL) = $L/360$ (0.41")
 CALCULATED VERT. DEFL. (TL) = $L/999$ (0.11")

CSI: TC=0.40/1.00 (C-D-1), BC=0.20/1.00 (F-G-4), WB=0.17/1.00 (B-G-1), SSI=0.15/1.00 (C-D-1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES	PLATE GRIP(DRY) SHEAR (PSI)	SECTION (PLI)	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667	822	2264 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

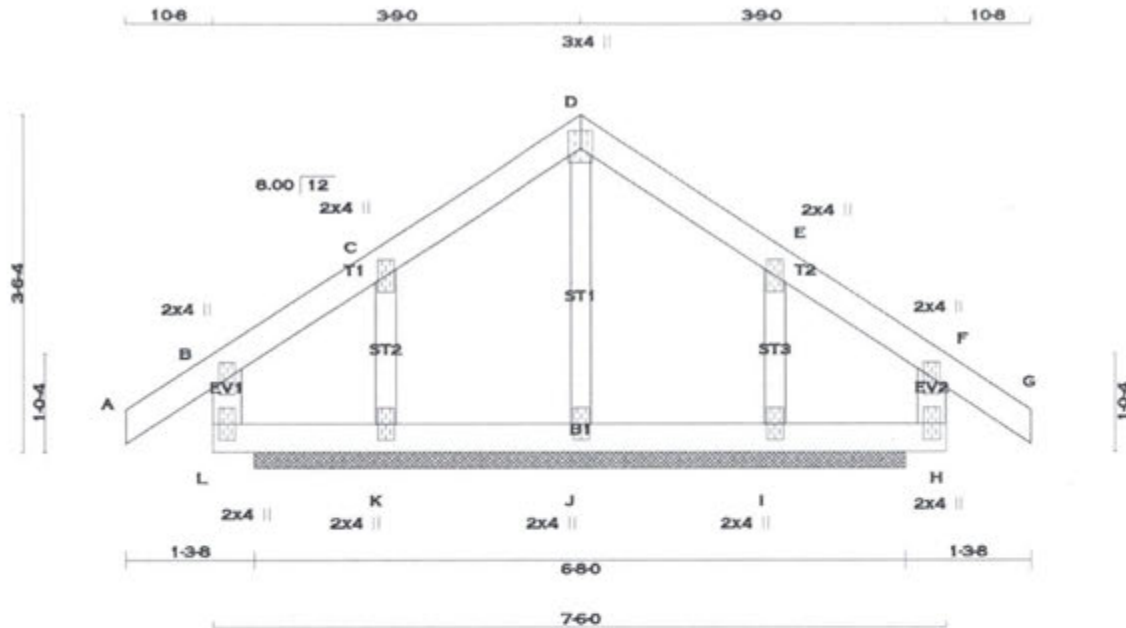
JSI GRIP= 0.89 (C) (INPUT = 0.90)
 JSI METAL= 0.28 (D) (INPUT = 1.00)



September 14, 2018



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



SCALE = 1:22.8

TOTAL WEIGHT = 28 lb

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

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

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMV+p	MT20	2.0	4.0		
C TMW+w	MT20	2.0	4.0		
D TTW+p	MT20	3.0	4.0	2.25	1.50
E TMW+w	MT20	2.0	4.0		
F TMV+p	MT20	2.0	4.0		
H BMV+p	MT20	2.0	4.0		
I, J, K					
I BMW1+w	MT20	2.0	4.0		
L BMV+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS
 THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
 THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

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

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

LOADING
 TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	FR-TO
L-B	-25 / 7	0.0	0.0 0.06 (1)	J-D	-295 / 0	7.81	0.06 (1)
A-B	0 / 21	-77.4	-77.4 0.05 (1)	K-C	-192 / 0	10.00	0.03 (1)
B-C	0 / 158	-77.4	-77.4 0.09 (1)	I-E	-192 / 0	10.00	0.03 (1)
C-D	0 / 139	-77.4	-77.4 0.09 (1)				
D-E	0 / 139	-77.4	-77.4 0.09 (1)				
E-F	0 / 158	-77.4	-77.4 0.09 (1)				
F-G	0 / 21	-77.4	-77.4 0.05 (1)				
H-F	-25 / 7	0.0	0.0 0.06 (1)				
L-K	-114 / 0	-17.5	-17.5 0.05 (1)				
K-J	-123 / 0	-17.5	-17.5 0.04 (1)				
J-I	-123 / 0	-17.5	-17.5 0.04 (1)				
I-H	-114 / 0	-17.5	-17.5 0.05 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 23.3 PSF
 DL = 3.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.0 PSF
 TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.09/1.00 (B-C-1), BC=0.05/1.00 (H-I-1), WB=0.06/1.00 (D-J-1), SS=0.09/1.00 (B-L-1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

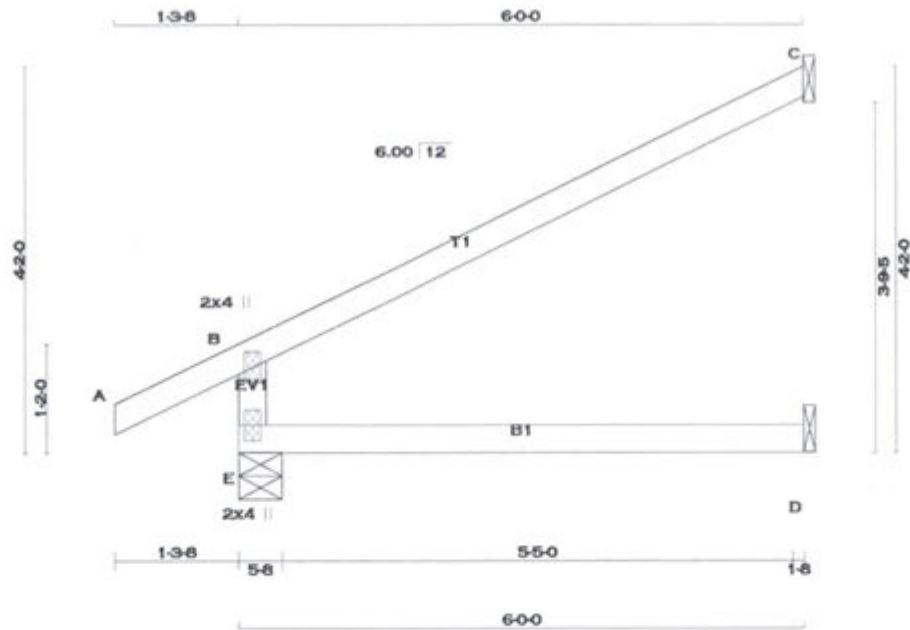
JSI GRIP= 0.20 (D) (INPUT = 0.90)
 JSI METAL= 0.07 (L) (INPUT = 1.00)



September 14, 2018



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SCALE = 1:23.6

TOTAL WEIGHT = 20 X 17 = 342 lb [M]

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

SPF
SPF
SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	457	0	457	0	5-8	1-8
C	174	0	174	0	1-8	1-8
D	43	0	49	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	318	238 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
C	118	105 / 0	0 / 0	0 / 0	0 / 0	14 / 0	0 / 0
D	35	0 / 0	0 / 0	0 / 0	0 / 0	35 / 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)

MEMB.	CHORDS		FACTORED		MAX. FACTORED	MEMB.	WEBS		MAX. FACTORED
	FORCE (LBS)	VERT. LOAD (PLF)	VERT. LOAD (PLF)	CS1 (LC)			FORCE (LBS)	CS1 (LC)	
FR-TO						FR-TO			
E-B	-385 / 0	0.0	0.0	0.13 (4)	7.81				
A-B	0 / 23	-77.4	-77.4	0.10 (1)	10.00				
B-C	-26 / 0	-77.4	-77.4	0.47 (1)	6.25				
E-D	0 / 0	-17.5	-17.5	0.13 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	33.3	PSF

SPACING = 24.0 IN. C/C

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

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

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.20")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.00")
ALLOWABLE DEFL.(TL) = $L/360$ (0.20")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.03")

CSI: TC=0.47/1.00 (B-C:1), BC=0.13/1.00 (D-E:4)
WB=0.00/1.00 (n/a:0), SS=0.20/1.00 (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 = 0.50

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX	MIN	MAX MIN
MT20	618	354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

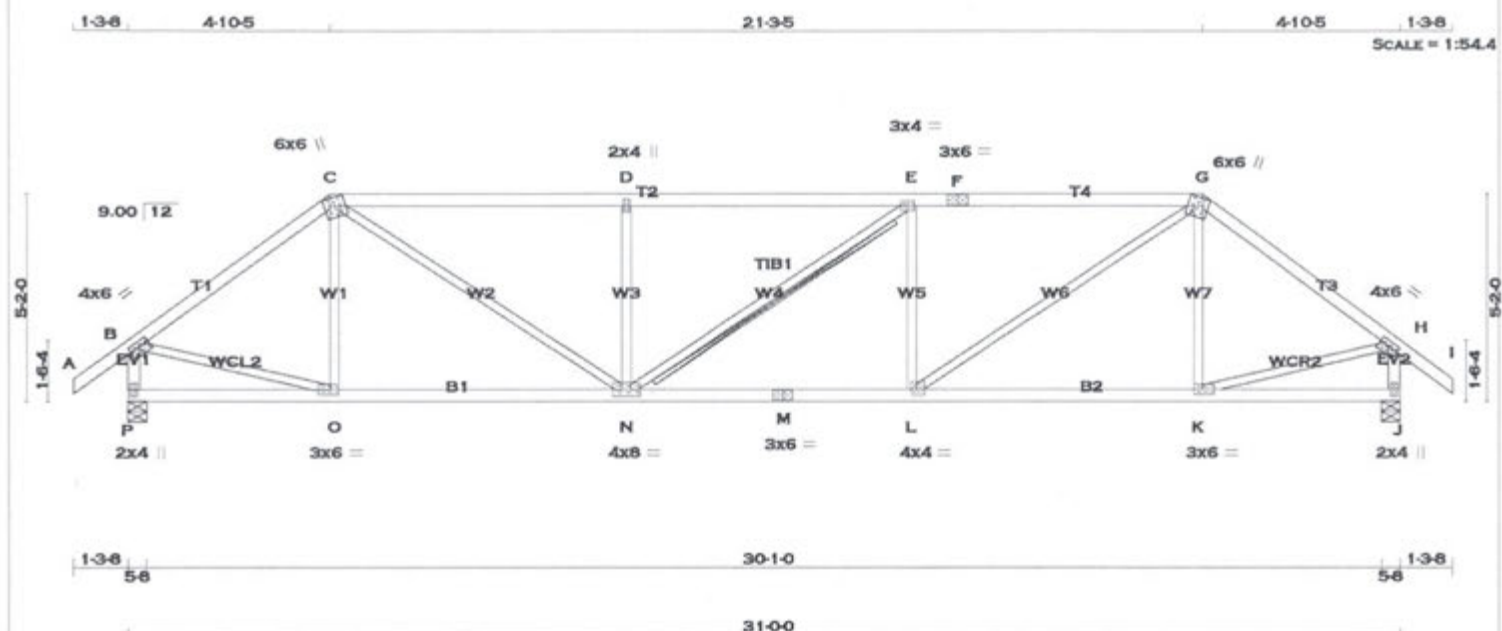
JSI GRIP= 0.23 (B) (INPUT = 0.90)
JSI METAL= 0.09 (B) (INPUT = 1.00)



September 14, 2018



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TOTAL WEIGHT = 2 X 123 = 246 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR	
A - C	2x4	DRY	No.2	SPF
C - F	2x4	DRY	No.2	SPF
F - 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: 2x3 DRY
EXCEPT
DRY: SEASONED LUMBER

PLATES (table is in inches)					
JT TYPE	PLATES	W	LEN	Y	X
B	TMMW-t	MT20	4.0	6.0	1.50 2.75
C	TMMW+m	MT20	6.0	6.0	Edge 4.25
D	TMMW+w	MT20	2.0	4.0	
E	TMMW-t	MT20	3.0	4.0	
F	TS-t	MT20	3.0	6.0	
G	TMMW+m	MT20	6.0	6.0	Edge 4.25
H	TMMW-t	MT20	4.0	6.0	1.50 2.75
J	BMV1+p	MT20	2.0	4.0	
K	BMWW-t	MT20	3.0	6.0	1.50 2.50
L	BMWW-t	MT20	4.0	4.0	1.75 1.50
M	BS-t	MT20	3.0	6.0	
N	BMWWW-t	MT20	4.0	8.0	
O	BMWW-t	MT20	3.0	6.0	1.50 2.50
P	BMV1+o	MT20	2.0	4.0	

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TFF-LOK TL20 PLATES IS ALLOWED.

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

BUILDING BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
P	1577	0	1577	0	0	5-8	2-11
J	1577	0	1577	0	0	5-8	2-11

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
P	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0
J	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 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 = 3.72 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 E-N

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LOAD LC1 (C)	MAX. UNBRAC (C)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSl (C)
FR-TO		FROM TO			FR-TO		
A-B	0/32	-77.4	-77.4	0.11 (1)	10.00	O-C	-184/39 0.07 (1)
B-C	-1577/0	-77.4	-77.4	0.39 (1)	4.82	C-N	0/1272 0.29 (1)
C-D	-2306/0	-77.4	-77.4	0.79 (1)	3.72	N-D	-594/0 0.23 (1)
D-E	-2306/0	-77.4	-77.4	0.78 (1)	3.72	N-E	0/0 0.00 (1)
E-F	-2307/0	-77.4	-77.4	0.78 (1)	3.72	L-E	-593/0 0.23 (1)
F-G	-2307/0	-77.4	-77.4	0.78 (1)	3.72	L-G	0/1272 0.29 (1)
G-H	-1577/0	-77.4	-77.4	0.39 (1)	4.83	K-G	-185/39 0.07 (1)
H-I	0/32	-77.4	-77.4	0.11 (1)	10.00	B-O	0/1295 0.29 (1)
P-B	-1546/0	0.0	0.0	0.16 (1)	6.62	K-H	0/1295 0.29 (1)
J-H	-1546/0	0.0	0.0	0.16 (1)	6.62		
P-O	0/0	-17.5	-17.5	0.15 (4)	10.00		
O-N	0/1255	-17.5	-17.5	0.29 (1)	10.00		
N-M	0/2307	-17.5	-17.5	0.46 (1)	10.00		
M-L	0/2307	-17.5	-17.5	0.46 (1)	10.00		
L-K	0/1255	-17.5	-17.5	0.29 (1)	10.00		
K-J	0/0	-17.5	-17.5	0.15 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	33.3	PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (1.03")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.12")
ALLOWABLE DEFL.(TL)= $L/360$ (1.03")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.24")

CSI: TC=0.79/1.00 (C-D:1), BC=0.46/1.00 (L-N:1)
WB=0.29/1.00 (B-O:1), SSI=0.26/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1659

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg

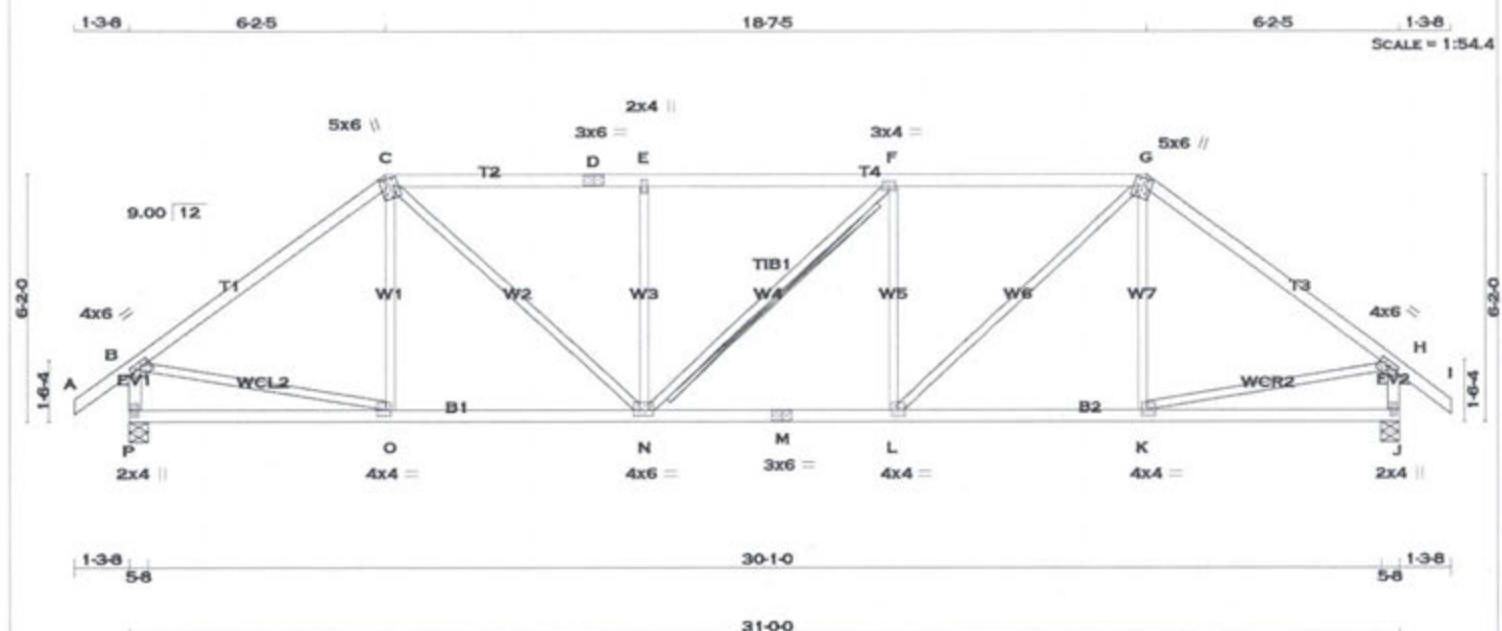
JSI GRIP= 0.88 (O) (INPUT = 0.90)
JSI METAL= 0.68 (M) (INPUT = 1.00)



September 14, 2018



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ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE
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CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT.



TOTAL WEIGHT = 2 X 129 = 257 lb

LUMBER		RULES			
N. L. G. A.	CHORDS	SIZE		LUMBER	DESCR
A - C	2x4	DRY	No.2		SPF
C - D	2x4	DRY	No.2		SPF
D - 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 2x3 DRY No.2 SPF
EXCEPT
DRY: SEASONED LUMBER

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMMV-t	MT20	4.0	6.0	1.50 2.75
C	TTWW+m	MT20	5.0	6.0	2.00 1.50
D	TS-t	MT20	3.0	6.0	
E	TMM+w	MT20	2.0	4.0	
F	TMMW-t	MT20	3.0	4.0	
G	TTWW+m	MT20	5.0	6.0	2.00 1.50
H	TMMV-t	MT20	4.0	6.0	1.50 2.75
J	BMV1+p	MT20	2.0	4.0	
K	BMWW-t	MT20	4.0	4.0	1.75 1.50
L	BMWW-t	MT20	4.0	4.0	2.00 1.75
M	BS-t	MT20	3.0	6.0	
N	BMWWW-t	MT20	4.0	6.0	1.75 2.00
O	BMWW-t	MT20	4.0	4.0	1.75 1.50
P	BMV1+o	MT20	2.0	4.0	

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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		1577	0	1577	0	0	5-6	2-11
P		1577	0	1577	0	0	5-6	2-11
J		1577	0	1577	0	0	5-6	2-11

UNFACTORED REACTIONS

1ST LCASE		MAX. MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
P	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0
J	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 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 = 4.30 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 F-N

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (L/C)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	LC1 MAX CSI (L/C)
FR-TO		FROM	TO		FR-TO		
A-B	0/32	-77.4	-77.4 0.11 (1)	10.00	O-C	-114/66	0.07 (1)
B-C	-1576/0	-77.4	-77.4 0.68 (1)	4.46	C-N	0/907	0.20 (1)
C-D	-1919/0	-77.4	-77.4 0.52 (1)	4.32	N-E	-517/0	0.31 (1)
D-E	-1919/0	-77.4	-77.4 0.52 (1)	4.32	N-F	-2/0	0.00 (1)
E-F	-1919/0	-77.4	-77.4 0.52 (1)	4.30	L-F	-518/0	0.31 (1)
F-G	-1920/0	-77.4	-77.4 0.53 (1)	4.30	L-G	0/910	0.20 (1)
G-H	-1576/0	-77.4	-77.4 0.68 (1)	4.46	K-G	-115/66	0.07 (1)
H-I	0/32	-77.4	-77.4 0.11 (1)	10.00	B-O	0/1282	0.29 (1)
P-B	-1533/0	0.0	0.0 0.16 (1)	6.64	K-H	0/1281	0.29 (1)
J-H	-1533/0	0.0	0.0 0.16 (1)	6.65			
P-O	0/0	-17.5	-17.5 0.17 (4)	10.00			
O-N	0/1257	-17.5	-17.5 0.30 (1)	10.00			
N-M	0/1920	-17.5	-17.5 0.37 (1)	10.00			
M-L	0/1920	-17.5	-17.5 0.37 (1)	10.00			
L-K	0/1257	-17.5	-17.5 0.29 (1)	10.00			
K-J	0/0	-17.5	-17.5 0.16 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

SPECIFIED LOADS:			
TOP CH.	LL	=	23.3 PSF
	DL	=	3.0 PSF
BOT CH.	LL	=	0.0 PSF
	DL	=	7.0 PSF
TOTAL LOAD		=	33.3 PSF

SPACING = 24.0 IN. C/C

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

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (1.03")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.09")
ALLOWABLE DEFL.(TL)= $L/360$ (1.03")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.17")

CSI: TC=0.68/1.00 (B-C:1), BC=0.37/1.00 (L-N:1)
WB=0.31/1.00 (F-L:1), SSI=0.22/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1655

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg

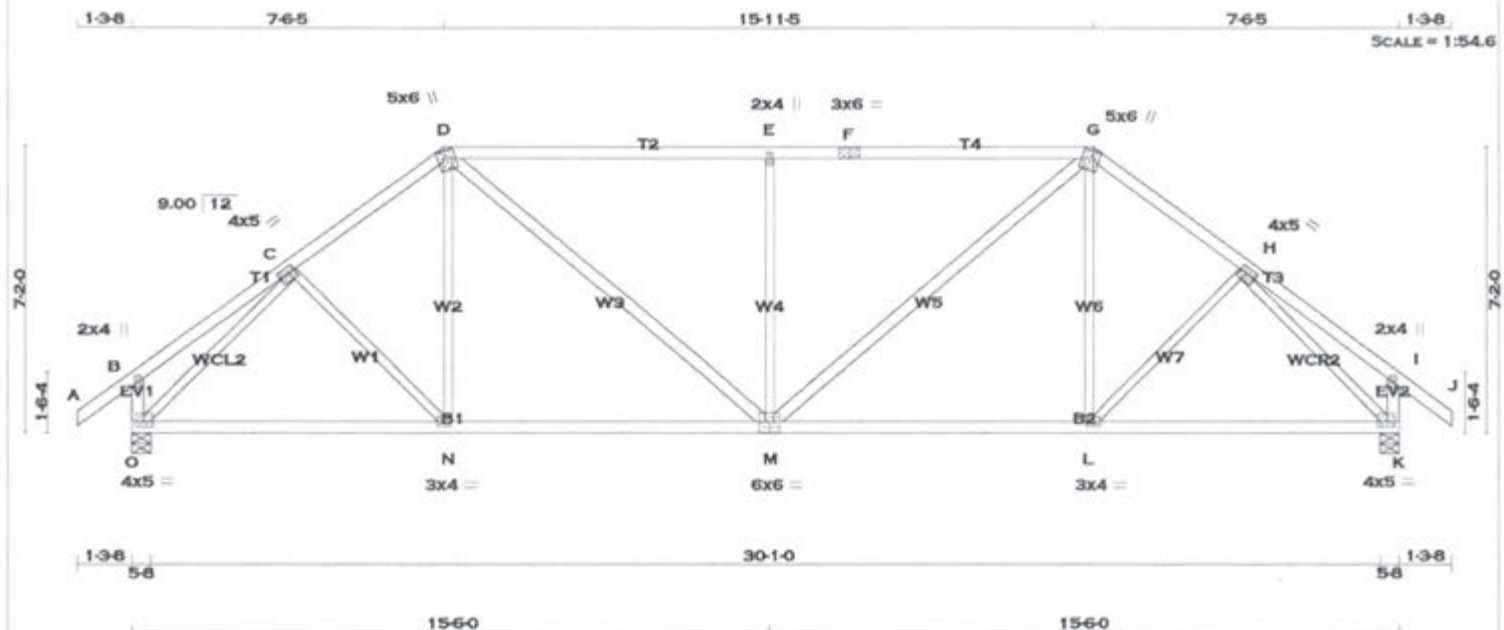
JSI GRIP= 0.89 (G) (INPUT = 0.90)
JSI METAL= 0.56 (M) (INPUT = 1.00)



September 14, 2018



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CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT.



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	5.0	1.75	2.00
D	TTWW+m	MT20	5.0	6.0	2.25	1.75
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	3.0	6.0		
G	TTWW+m	MT20	5.0	6.0	2.25	1.75
H	TMWW-t	MT20	4.0	5.0	1.75	2.00
I	TMV+p	MT20	2.0	4.0		
K	BMVW1-t	MT20	4.0	5.0	1.75	2.25
L	BMWW-t	MT20	3.0	4.0		
M	BSWWW-t	MT20	6.0	6.0	3.25	3.00
N	BMWW-t	MT20	3.0	4.0		
O	BMVW1-t	MT20	4.0	5.0	1.75	2.25

A SIZE FOR SIZE SUBSTITUTION OF MITIK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	IN-SX
O	1577	0	1577	0	0	5.8	1-13	1-13	1-13
K	1577	0	1577	0	0	5.8	1-13	1-13	1-13

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0
K	1104	786 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		MAX. FACTORED		WEBS		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT.	LC1 MAX (PLF)	CS1 (LC)	UNBRAC	MEMB.	FORCE (LBS)	MAX	CS1 (LC)
FR-TO					LENGTH	FR-TO			
A-B	0 / 32	-77.4	-77.4	0.11 (1)	10.00	C-N	0 / 56	0.02 (4)	
B-C	0 / 19	-77.4	-77.4	0.10 (1)	10.00	N-D	0 / 136	0.05 (4)	
C-D	-1568 / 0	-77.4	-77.4	0.20 (1)	5.07	D-M	0 / 687	0.11 (1)	
D-E	-1759 / 0	-77.4	-77.4	0.68 (1)	5.03	M-E	-766 / 0	0.69 (1)	
E-F	-1760 / 0	-77.4	-77.4	0.68 (1)	4.34	M-G	0 / 687	0.11 (1)	
F-G	-1760 / 0	-77.4	-77.4	0.68 (1)	4.34	L-G	0 / 136	0.05 (4)	
G-H	-1568 / 0	-77.4	-77.4	0.20 (1)	5.07	L-H	0 / 56	0.02 (4)	
H-I	0 / 19	-77.4	-77.4	0.16 (1)	10.00	O-C	-1786 / 0	0.87 (1)	
I-J	0 / 32	-77.4	-77.4	0.11 (1)	10.00	H-K	-1786 / 0	0.87 (1)	
O-B	-220 / 0	0.0	0.0	0.02 (1)	7.81				
K-I	-220 / 0	0.0	0.0	0.02 (1)	7.81				
O-N	0 / 1220	-17.5	-17.5	0.34 (4)	10.00				
N-M	0 / 1239	-17.5	-17.5	0.35 (4)	10.00				
M-L	0 / 1239	-17.5	-17.5	0.35 (4)	10.00				
L-K	0 / 1220	-17.5	-17.5	0.34 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH	LL	=	23.3	PSF
DL	=	3.0	PSF	
ROT CH	LL	=	0.0	PSF
DL	=	7.0	PSF	
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (1.03")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.07")
ALLOWABLE DEFL.(TL) = $L/360$ (1.03")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.14")

CS1: TC=0.68/1.00 (E-G 1), RC=0.35/1.00 (L-M 4), WB=0.87/1.00 (H-K 1), SS1=0.30/1.00 (D-E 1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

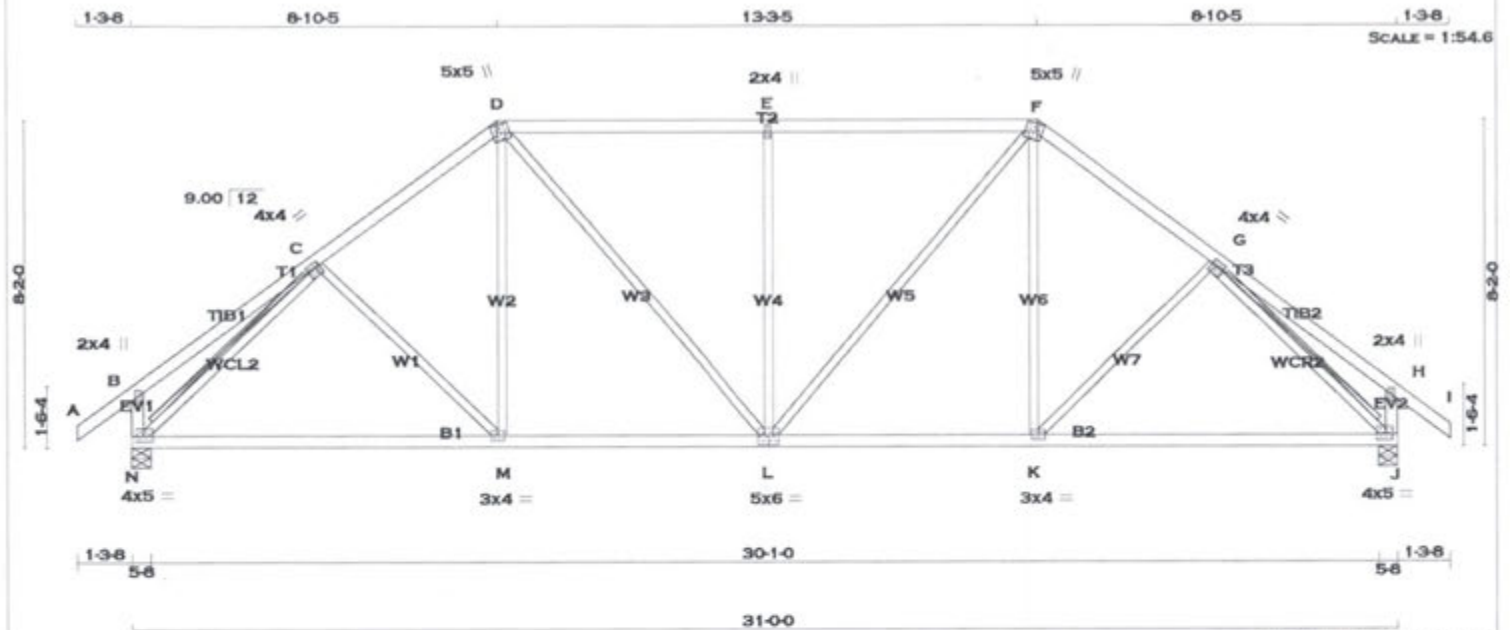
JSI GRIP= 0.89 (H) (INPUT = 0.90)
JSI METAL= 0.53 (H) (INPUT = 1.00)



September 14, 2018



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR.

A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
N - B	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
N - L	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER

PLATES (Table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	4.0	1.50	1.50
D	TTWW+m	MT20	5.0	5.0	2.25	1.50
E	TMV+w	MT20	2.0	4.0		
F	TTWW+m	MT20	5.0	5.0	2.25	1.50
G	TMWW-t	MT20	4.0	4.0	1.50	1.50
H	TMV+p	MT20	2.0	4.0		
J	BMVW-t	MT20	4.0	5.0	1.75	2.25
K	BMWW-t	MT20	3.0	4.0		
L	BSWWW-t	MT20	5.0	6.0	3.00	3.00
M	BMWW-t	MT20	3.0	4.0		
N	BMVW-t	MT20	4.0	5.0	1.75	2.25

A SIZE FOR SIZE SUBSTITUTION OF MITEX MI20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
N	1577 0	1577 0	5-8	1-12
J	1577 0	1577 0	5-8	1-12

UNFACTORED REACTIONS

JT	1ST LCASE	MAX. MIN. COMPONENT REACTIONS	DEAD	SOIL
N	1104	786 / 0	0 / 0	318 / 0
J	1104	786 / 0	0 / 0	318 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.79 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT C-N, G-J

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)

MEMB	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MEMB	WEBS MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO		FROM	TO	CSI (LC)	UNBRAC LENGTH	FR-TO	
A-B	0 / 32	-77.4	-77.4	0.11 (1)	10.00	C-M	-71 / 38
B-C	0 / 23	-77.4	-77.4	0.24 (1)	10.00	M-D	0 / 216
C-D	-1525 / 0	-77.4	-77.4	0.22 (1)	5.12	D-L	0 / 466
D-E	-1502 / 0	-77.4	-77.4	0.48 (1)	4.79	L-E	-630 / 0
E-F	-1502 / 0	-77.4	-77.4	0.48 (1)	4.79	L-F	0 / 466
F-G	-1525 / 0	-77.4	-77.4	0.22 (1)	5.12	K-F	0 / 216
G-H	0 / 23	-77.4	-77.4	0.24 (1)	10.00	K-G	-71 / 38
H-I	0 / 32	-77.4	-77.4	0.11 (1)	10.00	N-C	-1785 / 0
N-B	-238 / 0	0.0	0.0	0.02 (1)	7.81	G-J	-1785 / 0
J-H	-238 / 0	0.0	0.0	0.02 (1)	7.81		
N-M	0 / 1249	-17.5	-17.5	0.40 (4)	10.00		
M-L	0 / 1202	-17.5	-17.5	0.40 (4)	10.00		
L-K	0 / 1202	-17.5	-17.5	0.40 (4)	10.00		
K-J	0 / 1249	-17.5	-17.5	0.40 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3	PSF
	DL = 3.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.0	PGF
TOTAL LOAD	= 33.3	PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.20")

CSI: TC=0.48/1.00 (D-E-1), BC=0.40/1.00 (K-L-4), WB=0.82/1.00 (E-L-1), SS=0.25/1.00 (D-E-1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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	MAX MIN
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg

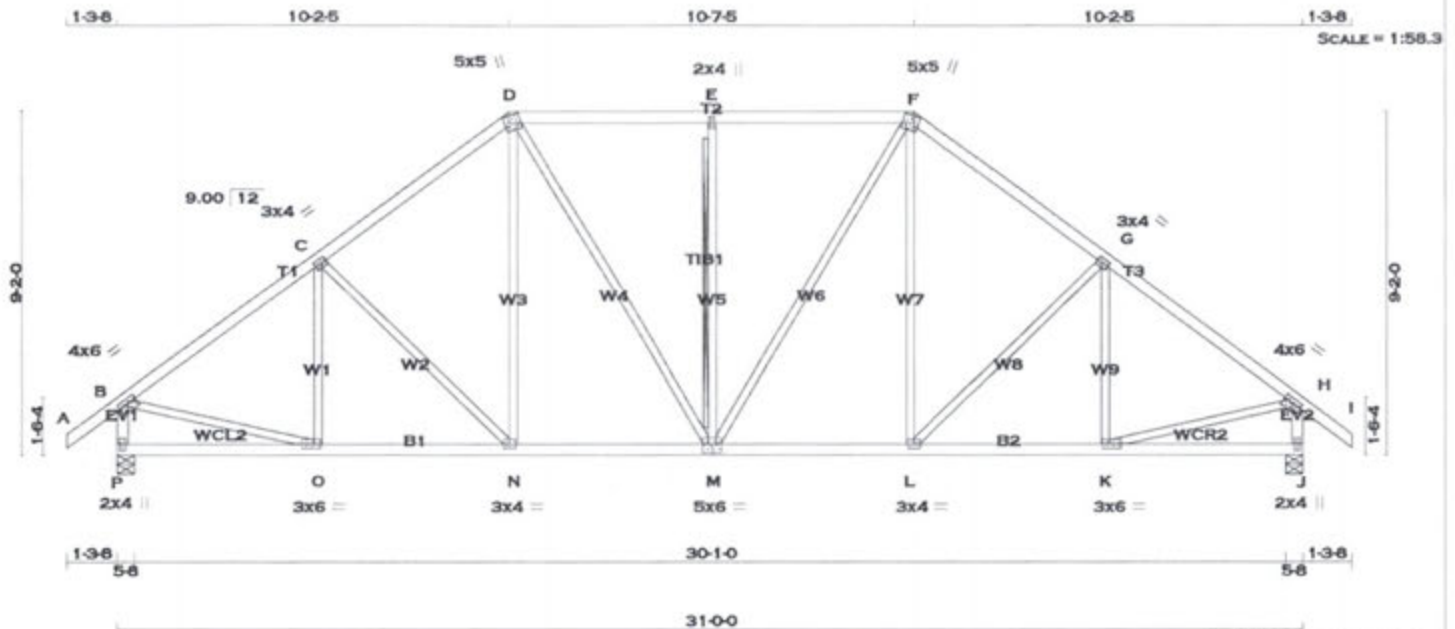
JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.66 (C) (INPUT = 1.00)



September 14, 2018



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TOTAL WEIGHT = 2 X 147 = 295 lb
[M][F]

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMWV-I	MT20	4.0	6.0	1.50 2.75
C	TMWV-I	MT20	3.0	4.0	1.50 1.50
D	TTWV+m	MT20	5.0	5.0	2.25 1.50
E	TMWV+w	MT20	2.0	4.0	
F	TTWV+m	MT20	5.0	5.0	2.25 1.50
G	TMWV-I	MT20	3.0	4.0	1.50 1.50
H	TMWV-I	MT20	4.0	6.0	1.50 2.75
J	BMV1+p	MT20	2.0	4.0	
K	BMWV-I	MT20	3.0	6.0	1.50 2.25
L	BMWV-I	MT20	3.0	4.0	
M	BSWVWV-I	MT20	5.0	6.0	3.00 3.00
N	BMWV-I	MT20	3.0	4.0	
O	BMWV-I	MT20	3.0	6.0	1.50 2.25
P	BMV1+p	MT20	2.0	4.0	

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
P	1577	0	1577	0	0	5-8	2-11
J	1577	0	1577	0	0	5-8	2-11

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1104	786/0	0/0	0/0	0/0	318/0	0/0
J	1104	786/0	0/0	0/0	0/0	318/0	0/0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.93 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 E-M

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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A-B	0/32	-77.4	-77.4	0.11 (1)	10.00	O-C	-202/25 0.09 (1)
B-C	-1602/0	-77.4	-77.4	0.30 (1)	4.93	C-N	-235/0 0.24 (1)
C-D	-1453/0	-77.4	-77.4	0.29 (1)	5.13	N-D	0/256 0.06 (1)
D-E	-1317/0	-77.4	-77.4	0.30 (1)	5.30	D-M	0/344 0.08 (1)
E-F	-1317/0	-77.4	-77.4	0.30 (1)	5.30	M-E	-499/0 0.31 (1)
F-G	-1453/0	-77.4	-77.4	0.29 (1)	5.13	M-F	0/344 0.08 (1)
G-H	-1602/0	-77.4	-77.4	0.30 (1)	4.93	L-F	0/256 0.06 (1)
H-I	0/32	-77.4	-77.4	0.11 (1)	10.00	L-G	-235/0 0.24 (1)
P-B	-1538/0	0.0	0.0	0.16 (1)	6.64	K-G	-202/25 0.09 (1)
J-H	-1538/0	0.0	0.0	0.16 (1)	6.64	B-O	0/1337 0.30 (1)
						K-H	0/1337 0.30 (1)
P-O	0/0	-17.5	-17.5	0.11 (4)	10.00		
O-N	0/1304	-17.5	-17.5	0.26 (1)	10.00		
N-M	0/1141	-17.5	-17.5	0.23 (1)	10.00		
M-L	0/1141	-17.5	-17.5	0.23 (1)	10.00		
L-K	0/1304	-17.5	-17.5	0.26 (1)	10.00		
K-J	0/0	-17.5	-17.5	0.11 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
	DL =	3.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	33.3	PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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) = $L/999$ (0.10")

CSI: TC=0.30/1.00 (G-H:1), BC=0.28/1.00 (K-L:1)
WB=0.31/1.00 (E-M:1), SSI=0.20/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (K) (INPUT = 0.90)
JSI METAL= 0.45 (B) (INPUT = 1.00)



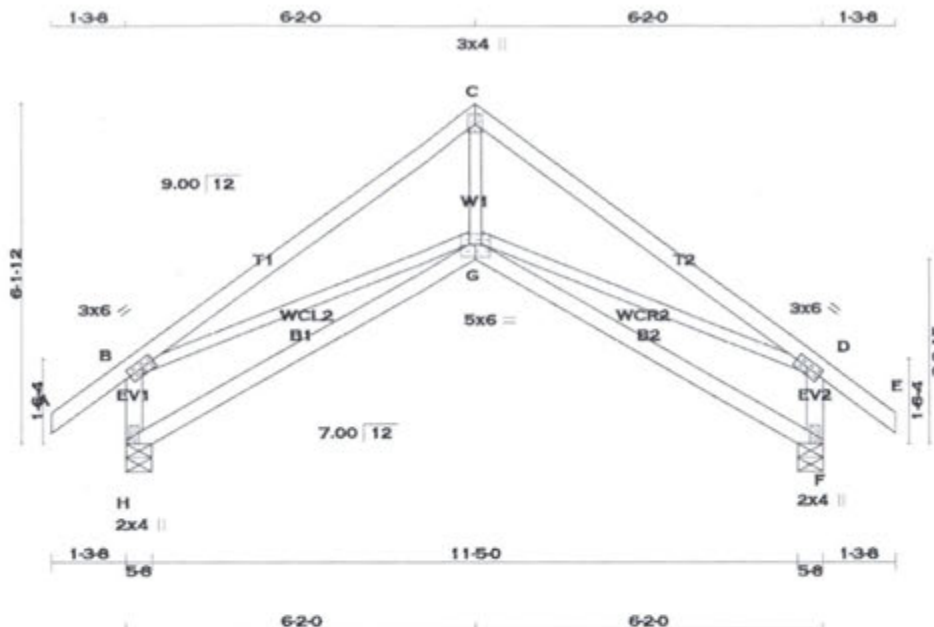
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IS AN INTEGRAL PART OF THIS DRAWING AS IT
CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT.



CONTINUED ON PAGE 2



SCALE = 1:39.5

TOTAL WEIGHT = 53 lb [M/F]

LUMBER

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

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMVW-t	MT20	3.0	6.0	1.50	2.75
C TTW+p	MT20	3.0	4.0	2.25	1.50
D TMVW-t	MT20	3.0	6.0	1.50	2.75
F BMV1+p	MT20	2.0	4.0	Edge	
G BBWWW-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.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MI20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
H	692	0	692	0
F	692	0	692	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
H	483	351 / 0	0 / 0	0 / 0	0 / 0	132 / 0	0 / 0	
F	483	351 / 0	0 / 0	0 / 0	0 / 0	132 / 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 = 5.93 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CS (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 32	-77.4	-77.4 0.11 (1)	10.00	G-C	0 / 621	0.14 (1)
B-C	-915 / 0	-77.4	-77.4 0.40 (1)	5.93	B-G	0 / 775	0.17 (1)
C-D	-915 / 0	-77.4	-77.4 0.40 (1)	5.93	G-D	0 / 775	0.17 (1)
D-E	0 / 32	-77.4	-77.4 0.11 (1)	10.00			
H-B	-638 / 0	0.0	0.0 0.07 (1)	7.81			
F-D	-638 / 0	0.0	0.0 0.07 (1)	7.81			
H-G	0 / 0	-17.5	-17.5 0.20 (4)	10.00			
G-F	0 / 0	-17.5	-17.5 0.20 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
DL =	3.0	PSF	
BOT CH.	LL =	0.0	PSF
DL =	7.0	PSF	
TOTAL LOAD =	33.3	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.41")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.04")
ALLOWABLE DEFL.(TL) = $L/360$ (0.41")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.11")

CSI: TC=0.40/1.00 (C-D:1), BC=0.20/1.00 (F-G:4), WB=0.17/1.00 (B-G:1), SSI=0.15/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES					
PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)			
MAX MIN	MAX MIN	MAX MIN			
MT20	616 354	1667 622	2264	1656	

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

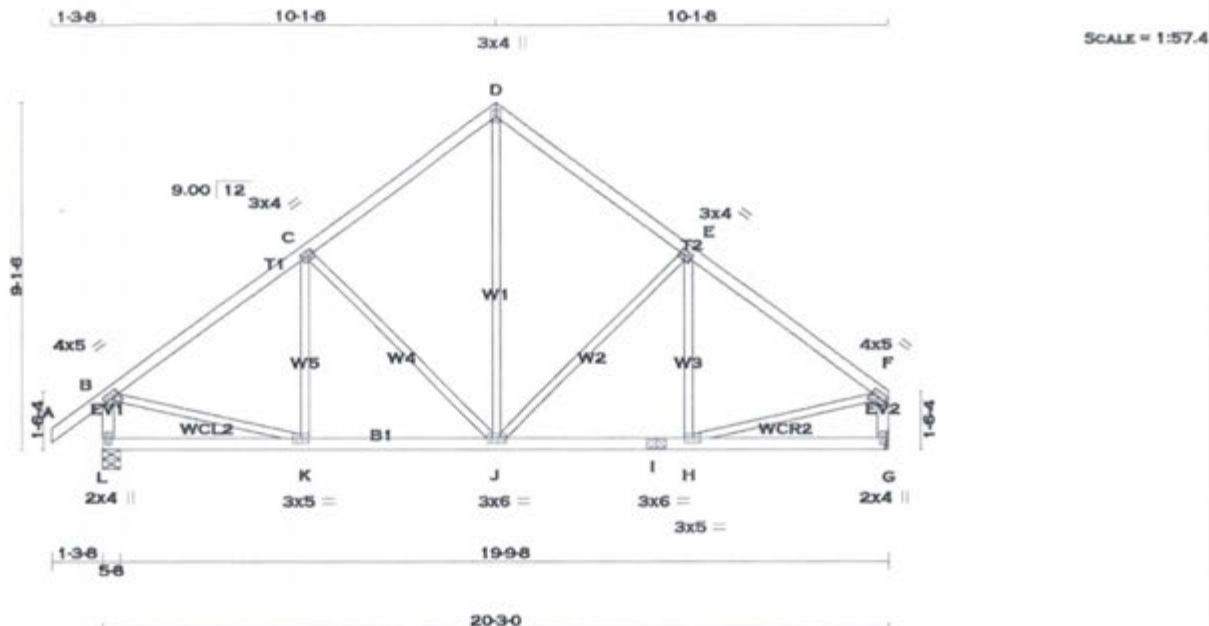
JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.28 (D) (INPUT = 1.00)



September 14, 2018



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMVW-1	MT20	4.0	5.0	1.75	2.00
C TMVW-1	MT20	3.0	4.0	1.50	1.50
D TTW+p	MT20	3.0	4.0	2.25	1.50
E TMVW-1	MT20	3.0	4.0	1.50	1.50
F TMVW-1	MT20	4.0	5.0	1.75	Edge
G BMV1+p	MT20	2.0	4.0		
H BMVW-1	MT20	3.0	5.0		
I BS-1	MT20	3.0	6.0		
J BMVW-1	MT20	3.0	6.0		
K BMVW-1	MT20	3.0	5.0		
L BMV1+p	MT20	2.0	4.0		

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MI20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	UP
L	1067	0	1067	0
G	960	0	960	0

A SUITABLE MECHANICAL CONNECTION IS REQUIRED AT JOINT G TO RESIST THE MAX FACTORED REACTIONS.

UNFACTORED REACTIONS

1ST LCASE	MAX	MIN	COMPONENT REACTION
JT	COMBINED	SNOW	LIVE
L	747	536 / 0	0 / 0
G	674	472 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.04 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED	FACTORED	VERT. LOAD LC1	MAX	CSH (LC)	UNBRAC	MEMB.	MAX. FACTORED	FORCE	MAX	CSH (LC)
FR-TO											
A-B	0 / 32	-77.4	-77.4	0.11 (1)	10.00	J-D	0 / 548	0.12 (1)			
B-C	-953 / 0	-77.4	-77.4	0.27 (1)	6.04	J-E	-325 / 0	0.31 (1)			
C-D	-725 / 0	-77.4	-77.4	0.26 (1)	6.25	H-E	-83 / 60	0.04 (1)			
D-E	-725 / 0	-77.4	-77.4	0.26 (1)	6.25	C-J	-325 / 0	0.31 (1)			
E-F	-963 / 0	-77.4	-77.4	0.27 (1)	6.04	K-C	-83 / 60	0.04 (1)			
L-B	-1030 / 0	0.0	0.0	0.11 (1)	7.74	B-K	0 / 805	0.18 (1)			
G-F	-923 / 0	0.0	0.0	0.10 (1)	7.81	H-F	0 / 805	0.18 (1)			
L-K	0 / 0	-17.5	-17.5	0.11 (4)	10.00						
K-J	0 / 784	-17.5	-17.5	0.18 (1)	10.00						
J-I	0 / 784	-17.5	-17.5	0.18 (1)	10.00						
I-H	0 / 784	-17.5	-17.5	0.18 (1)	10.00						
H-G	0 / 0	-17.5	-17.5	0.11 (4)	10.00						

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	33.3	PSF

SPACING = 24.0 IN C/C

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPO 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.67")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.02")
ALLOWABLE DEFL.(TL) = $L/360$ (0.67")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.05")

CSI: TC=0.27/1.00 (B-C-1), BC=0.18/1.00 (H-J-1), WB=0.31/1.00 (E-J-1), SSI=0.15/1.00 (B-C-1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

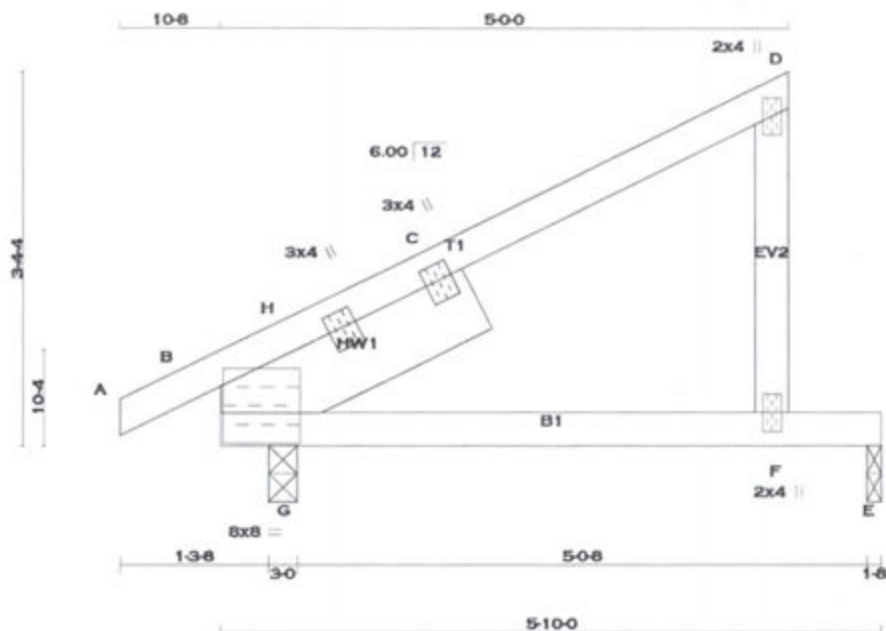
JSI GRIP= 0.88 (J) (INPUT = 0.90)
JSI METAL= 0.34 (B) (INPUT = 1.00)



September 14, 2018



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TOTAL WEIGHT = 4 X 23 = 93 b

LUMBER		N. L. G. A. RULES		CHORDS		SIZE		LUMBER		DESCR.	
A - D	2x4	DRY	No.2	SPF	SPF						
F - D	2x4	DRY	No.2	SPF	SPF						
B - E	2x4	DRY	No.2	SPF	SPF						
REINFORCING MEMBERS											
HW1	2x8	DRY	No.2	SPF	SPF						

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMR1-I	MT20	8.0	8.0	6.00	0.25
B	RT+I	MT20	3.0	4.0	1.75	12.75
B	RT+I	MT20	3.0	4.0	1.75	24.00
D	TMV+p	MT20	2.0	4.0		
F	BMV+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MI20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ		
B	345	0	345	0	3-0	1-8
E	217	0	217	0	1-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX/MIN SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
	VERT	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ
B	240		177 / 0		0 / 0		0 / 0		0 / 0		64 / 0		0 / 0	
E	153		100 / 0		0 / 0		0 / 0		0 / 0		54 / 0		0 / 0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, 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		MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		MAX. CS1 (LC)		MAX. UNBRACED LENGTH FR-TO		WEBS		MAX. FACTORED FORCE (LBS)		MAX. CS1 (LC)	
MEMB.	FR-TO	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MEMB.	FR-TO	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.
A-B	-3 / 0	-77.4	-77.4	0.04	(1)	10.00		G-H	-239 / 0	0.00	(1)				
B-H	-189 / 0	-77.4	-77.4	0.06	(1)	6.25		G-C	0 / 240	0.02	(1)				
H-C	-102 / 0	-77.4	-77.4	0.32	(1)	6.25									
C-D	-102 / 0	-77.4	-77.4	0.32	(1)	6.25									
F-D	-186 / 0	0.0	0.0	0.03	(1)	7.81									
B-G	0 / 154	-17.5	-17.5	0.13	(1)	10.00									
G-F	0 / 0	-17.5	-17.5	0.25	(1)	10.00									
F-E	0 / 0	-17.5	-17.5	0.24	(1)	10.00									

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/986 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/525 (0.13")

CS1: TC=0.32/1.00 (D-H:1), BC=0.25/1.00 (F-G:1)
WB=0.02/1.00 (C-G:1), SSI=0.18/1.00 (D-H:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE LEFT HEEL ONLY

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (B) (INPUT = 0.90)

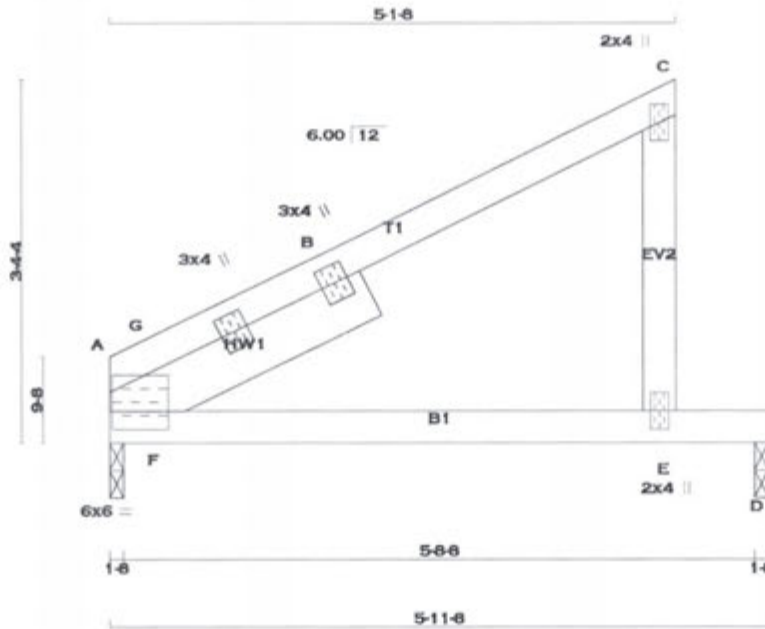
JSI METAL= 0.04 (D) (INPUT = 1.00)



September 14, 2018



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SCALE = 1:20.2

TOTAL WEIGHT = 3 X 21 = 64 lb [M/F]

LUMBER	CHORDS	SIZE	LUMBER	DESCR
N.L.G.A. RULES				
A - C	2x4	DRY	No.2	SPF
E - C	2x4	DRY	No.2	SPF
A - D	2x4	DRY	No.2	SPF
REINFORCING MEMBERS				
HW1	2x6	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMBMR1-I	MT20	6.0	6.0	2.00	0.25
A	RT+t	MT20	3.0	4.0		
A	RT+t	MT20	3.0	4.0		
C	TMV+p	MT20	2.0	4.0		
E	BMV+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
	VERT	HORZ	DOWN	HORZ
A	278	0	278	0
D	223	0	223	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX MIN	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE
A	195	136 / 0	0 / 0
D	158	103 / 0	0 / 0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX	WEBS	MAX. FACTORED FORCE (LBS)	MAX
MEMB.			CSI (LC)	UNBRACED LENGTH	MEMB.		CSI (LC)
FR-TO					FR-TO		
A-G	-192 / 0	-77.4	-77.4	0.08 (1)	F-G	-245 / 13	0.00 (1)
G-B	-111 / 0	-77.4	-77.4	0.34 (1)	F-B	0 / 246	0.03 (1)
B-C	-111 / 0	-77.4	-77.4	0.34 (1)			
E-C	-191 / 0	0.0	0.0	0.03 (1)			
A-F	0 / 176	-17.5	-17.5	0.13 (1)			
F-E	0 / 0	-17.5	-17.5	0.26 (1)			
E-D	0 / 0	-17.5	-17.5	0.24 (1)			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3 PSF
BOT CH.	LL = 0.0 PSF
	DL = 7.0 PSF
TOTAL LOAD	= 33.3 PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.20")
CALCULATED VERT. DEFL.(LL) = $L/941$ (0.08")
ALLOWABLE DEFL.(TL) = $L/360$ (0.20")
CALCULATED VERT. DEFL.(TL) = $L/497$ (0.14")

CSI: TC=0.34/1.00 (C-G-1), BC=0.26/1.00 (E-F-1)
WB=0.03/1.00 (B-F-1), SSI=0.17/1.00 (C-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 = 0.50

AUTOSOLVE LEFT HEEL ONLY

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.11 (C) (INPUT = 0.90)
JSI METAL= 0.04 (C) (INPUT = 1.00)



September 14, 2018



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

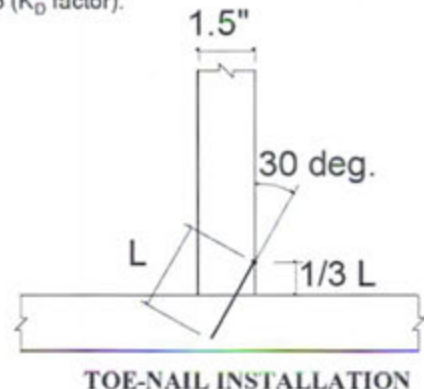
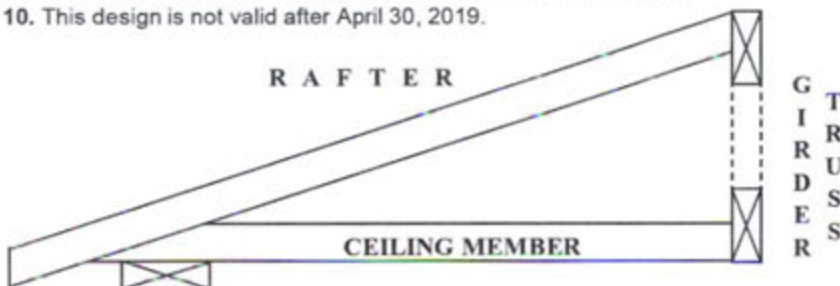
BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

B37579H1

NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL LATERAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	132	147
	3.25	0.144	132	147
	3.50	0.160	159	177

NOTES:

1. Rafter and ceiling members may be anchored to top and bottom chords of girder truss by toe-nailing rafter and ceiling members to girder chords provided the reaction does not exceed the lateral capacities in the table. Hangers (specified by others) are required for reactions higher than the maximum toe-nail capacity. Reactions are based on factored loads.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-09, section 10.9.4.1.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in tables below.
5. Nail values in table are based on the following relative lumber densities: $G = 0.42$ (SPF), $G = 0.49$ (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See next page for nailing on bearing plate).
7. For loads due to wind the nail lateral capacity in this table may be multiplied by 1.15 (K_D factor).
8. Lumber must be dry ($< 19\%$ moisture content) at the time of nail installation.
9. Nail values in this table comply with CSA O86-09, section 10.9.4
10. This design is not valid after April 30, 2019.



Nail type	Common wire	Common spiral	Common wire
Nail dia. (in)	0.160	0.152	0.144
	(3.5" nail)		(3" and 3.25" nail)
LUMBER SIZE	MAXIMUM NUMBER OF TOE-NAILS		
2X4 SPF	2	2	3
2X4 D. Fir	2	2	2
2X6 SPF	4	4	4
2X6 D. Fir	3	3	3



MiTek Canada Inc
100 Industrial Rd.
Bradford, Ontario L3Z 3G7

PEO
Certificate No. 10889485



April 26, 2017

BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

B37579H2

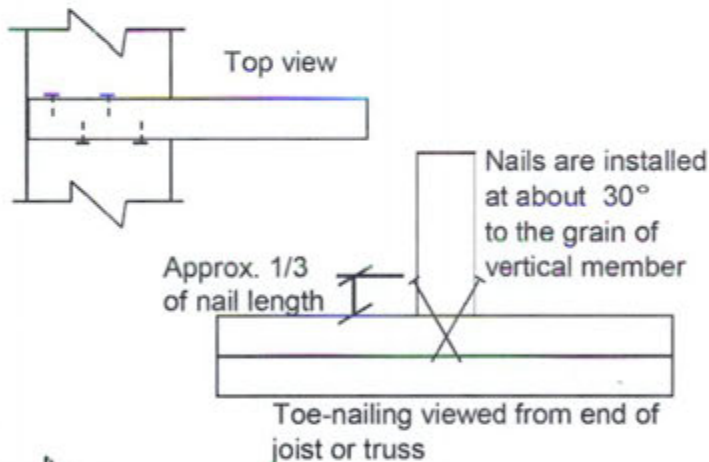
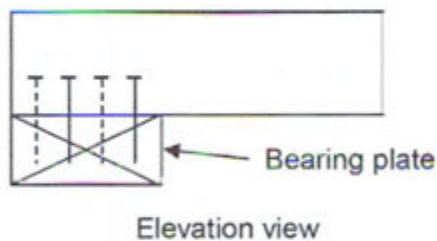
NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL WITHDRAWAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	30	42
	3.25	0.144	32	45
	3.50	0.160	38	52

Note: If using truss with D. Fir lumber and S-P-F bearing plate, use values in table for S-P-F.

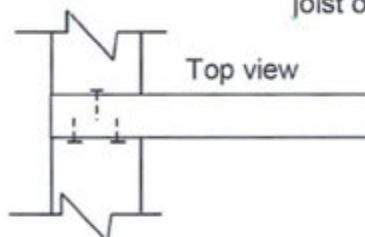
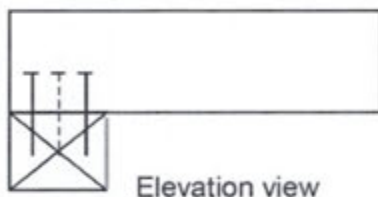
NOTES:

1. Truss chord, rafter, or ceiling members may be anchored to bearing plate by toe-nails, provided that the actual factored uplift force due to **wind or earthquake** load does not exceed the withdrawal capacities in the table. Hangers (specified by others) are required for uplift forces that are higher than the maximum toe-nail withdrawal capacity.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-09, section 10.9.5.2.
3. For 9-3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in table above.
5. Nail values in table are based on the following relative lumber densities: $G = 0.42$ (SPF), $G = 0.49$ (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See drawing on detail B37579H1).
7. Lumber must be dry (< 19% moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-09, section 10.9.5
9. This design is not valid after April 30, 2019

Toe-nailing on 2x6 Bearing Plate



Toe-nailing on 2x4 Bearing Plate



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Certificate No. 10889485



April 26, 2017