

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 KOTT DESIGN. 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 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.



CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

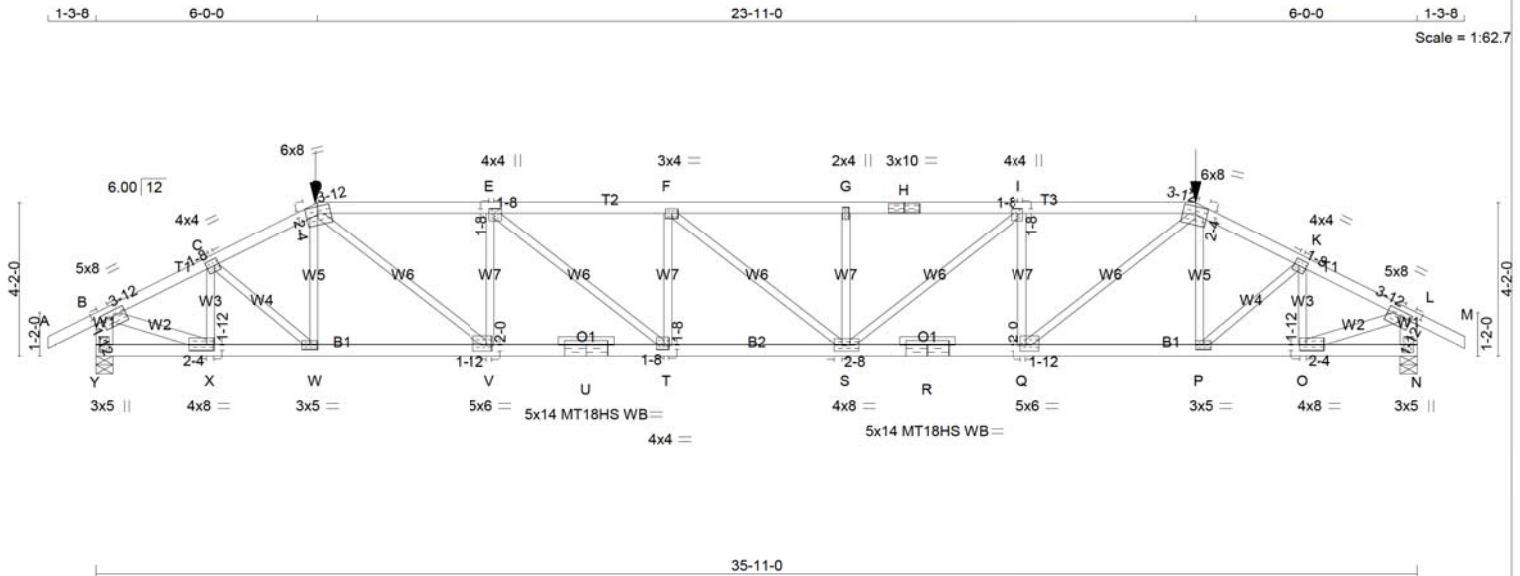
2020/04/22

RECEIVED

Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	G01	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Oct 6 10:05:24 2021 Page 1
ID:00ecOcRpwjiNxnJJkSMRzbfa-GnSTpZQZqlrkQ8kecymlGKGnpUGFe7Fm79H tyWazP



TOTAL WEIGHT = 149 lb
[M]

LUMBER				
N. L. G. A.	RULES			
CHORDS	SIZE		LUMBER	DESCR
A - D	2x4	DRY	No.2	SPF
D - H	2x4	DRY	2100F 1.8E	SPF
H - J	2x4	DRY	2100F 1.8E	SPF
J - M	2x4	DRY	No.2	SPF
Y - B	2x6	DRY	No.2	SPF
N - L	2x6	DRY	No.2	SPF
U - U	2x4	DRY	2100F 1.8E	SPF
Y - R	2x4	DRY	2100F 1.8E	SPF
R - N	2x4	DRY	2100F 1.8E	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
B - X	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMWw-t	MT20	5.0	8.0	1.75 3.75
C	TMWw-t	MT20	4.0	4.0	2.00 1.50
D	TTWw-m	MT20	6.0	8.0	2.25 3.75
E	TMWw+t	MT20	4.0	4.0	1.50 1.50
F	TMWw-t	MT20	3.0	4.0	
G	TMWw+w	MT20	2.0	4.0	
H	TS-t	MT20	3.0	10.0	
I	TMWw+t	MT20	4.0	4.0	1.50 1.50
J	TTWw-m	MT20	6.0	8.0	2.25 3.75
K	TMWw-t	MT20	4.0	4.0	2.00 1.50
L	TMWw-t	MT20	5.0	8.0	1.75 3.75
N	BMV1+p	MT20	3.0	5.0	
O	BMWw-t	MT20	4.0	8.0	1.75 2.25
P	BMWw-t	MT20	3.0	5.0	
Q	BMWw-t	MT20	5.0	6.0	2.00 1.75
R	BS-t	MT18HS	5.0	14.0	
S	BMWwWw-t	MT20	4.0	8.0	2.00 2.50
T	BMWw-t	MT20	4.0	4.0	1.50 1.50
U	BS-t	MT18HS	5.0	14.0	
V	BMWw-t	MT20	5.0	6.0	2.00 1.75
W	BMWw-t	MT20	3.0	5.0	
X	BMWw-t	MT20	4.0	8.0	1.75 2.25



October 06, 2021

**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.**

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
Y	3517	0	3517	0	0	5-8	3-13
N	3517	0	3517	0	0	5-8	3-13

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Y	2461	1760 / 0	0 / 0	0 / 0	0 / 0	701 / 0	0 / 0
N	2461	1760 / 0	0 / 0	0 / 0	0 / 0	701 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.44 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY
APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

C H O R D S					W E B S				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE	MAX	
	(LBS)	(PLF)	CSI (LC)		UNBRAC		(LBS)	CSI (LC)	
FR-TO		FROM	TO		LENGTH	FR-TO			
A-B	0 / 26	-84.3	-84.3	0.12 (1)	10.00	X-C	-1094 / 0	0.20 (1)	
B-C	-4631 / 0	-84.3	-84.3	0.42 (1)	2.92	C-W	0 / 771	0.19 (1)	
C-D	-5304 / 0	-84.3	-84.3	0.48 (1)	2.65	W-D	-331 / 38	0.09 (1)	
D-E	-7070 / 0	-158.9	-158.9	0.71 (1)	2.76	D-V	0 / 3011	0.75 (1)	
E-F	-8211 / 0	-158.9	-158.9	0.84 (1)	2.44	V-E	-1747 / 0	0.48 (1)	
F-G	-8208 / 0	-158.9	-158.9	0.75 (1)	2.57	E-T	0 / 1463	0.36 (1)	
G-H	-8208 / 0	-158.9	-158.9	0.84 (1)	2.44	T-F	-750 / 0	0.21 (1)	
H-I	-8208 / 0	-158.9	-158.9	0.84 (1)	2.44	F-S	-5 / 0	0.00 (1)	
I-J	-7071 / 0	-158.9	-158.9	0.71 (1)	2.76	S-G	-748 / 0	0.21 (1)	
J-K	-5304 / 0	-84.3	-84.3	0.48 (1)	2.65	S-I	0 / 1458	0.36 (1)	
K-L	-4631 / 0	-84.3	-84.3	0.42 (1)	2.92	I-L	-1746 / 0	0.48 (1)	
L-M	0 / 26	-84.3	-84.3	0.12 (1)	10.00	Q-J	0 / 3013	0.75 (1)	
Y-B	-3450 / 0	0.0	0.0	0.24 (1)	5.68	P-J	-331 / 38	0.09 (1)	
N-L	-3450 / 0	0.0	0.0	0.24 (1)	5.68	P-K	0 / 771	0.19 (1)	
						O-K	-1094 / 0	0.20 (1)	
Y-X	0 / 0	-34.4	-34.4	0.06 (4)	10.00	B-X	0 / 4303	0.76 (1)	
X-W	0 / 4148	-34.4	-34.4	0.40 (1)	10.00	O-L	0 / 4303	0.76 (1)	
W-V	0 / 4741	-34.4	-34.4	0.45 (1)	10.00				
V-U	0 / 7070	-34.4	-34.4	0.65 (1)	10.00				
U-T	0 / 7070	-34.4	-34.4	0.65 (1)	10.00				
T-S	0 / 8211	-34.4	-34.4	0.75 (1)	10.00				
S-R	0 / 7071	-34.4	-34.4	0.66 (1)	10.00				
R-Q	0 / 7071	-34.4	-34.4	0.66 (1)	10.00				
Q-P	0 / 4741	-34.4	-34.4	0.45 (1)	10.00				
P-O	0 / 4148	-34.4	-34.4	0.40 (1)	10.00				
O-N	0 / 0	-34.4	-34.4	0.06 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
D	6-0-0	-379	-379	---	FRONT	VERT	TOTAL	---	C1
J	29-11-0	-379	-379	---	FRONT	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL	=	25.6	PSF
		DL	=	3.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.3	PSF
TOTAL		LOAD	=	35.9	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A
SLOPE OF 6.00/12

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 6-0-0
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.

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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.20")
CALCULATED VERT. DEFL.(LL) = L/ 882 (0.49")
ALLOWABLE DEFL.(TL)= L/360 (1.20")
CALCULATED VERT. DEFL.(TL) = L/ 508 (0.85")

CSI: TC=0.84/1.00 (G-I:1) , BC=0.75/1.00 (S-T:1) ,
WB=0.76/1.00 (L-O:1) , SSI=0.38/1.00 (I-J:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)

	(PL)	(PL)	(PL)			
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	650	371	1747	788	1987	1873

CITY OF RICHMOND HILL
BUILDING DIVISION
CONTINUED ON PAGE 2

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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	G01	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Oct 6 10:05:24 2021 Page 2
 ID:OOecOcRpwjJiNxnJJkKSMRzbfba-GnSTpZQZglrkQ8kecYmIGKGnpUGFe7Fm79H_tyWAZP

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
Y	BMV1+p	MT20	3.0	5.0		

WB - INDICATES BLOCKING REQUIRED

MT18HS 586 403 2455 1382 3163 3004

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (L) (INPUT = 0.90)

JSI METAL= 1.00 (R) (INPUT = 1.00)



October 06, 2021

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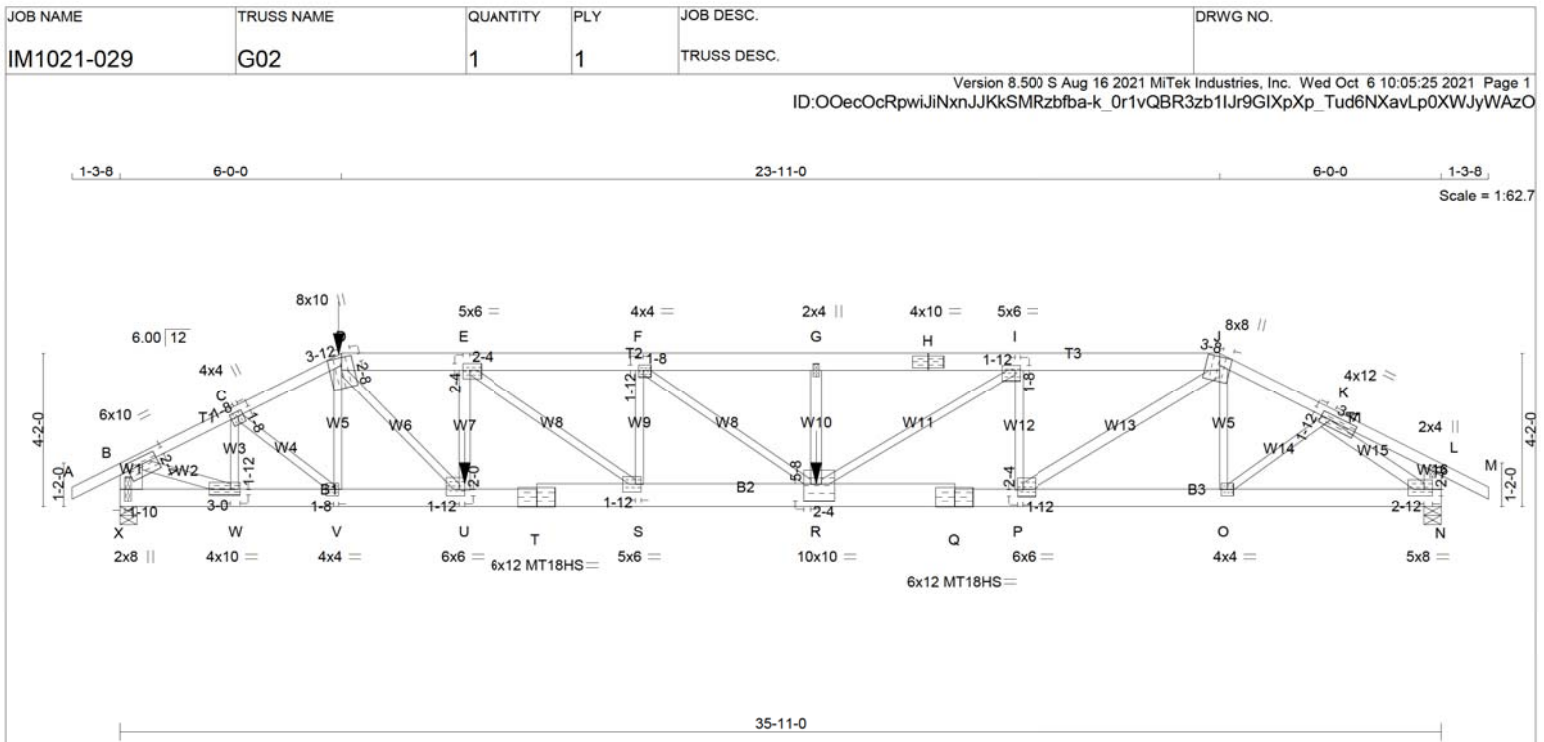
CITY OF RICHMOND HILL
 BUILDING DIVISION

09/22/2022



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Per: joshua.nabua



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
A - D	2x4	DRY	No.2	SPF
D - H	2x6	DRY	2100F 1.8E	SPF
H - J	2x6	DRY	2100F 1.8E	SPF
J - M	2x4	DRY	No.2	SPF
X - B	2x8	DRY	No.2	SPF
N - L	2x6	DRY	No.2	SPF
X - T	2x6	DRY	2100F 1.8E	SPF
T - Q	2x8	DRY	1950F 1.7E	SPF
Q - N	2x6	DRY	2100F 1.8E	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
U - E	2x4	DRY	No.2	SPF
R - G	2x4	DRY	No.2	SPF
P - J	2x4	DRY	No.2	SPF
B - W	2x4	DRY	No.2	SPF
K - N	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	6.0	10.0	2.25	5.00
C	TMVW-t	MT20	4.0	4.0	1.50	1.50
D	TTWW+m	MT20	8.0	10.0	2.50	3.75
E	TMVW-t	MT20	5.0	6.0	2.25	2.25
F	TMVW-t	MT20	4.0	4.0	1.75	1.50
G	TMVW-t	MT20	2.0	4.0		
H	TS-t	MT20	4.0	10.0		
I	TMVW-t	MT20	5.0	6.0	1.50	1.75
J	TTWW+m	MT20	8.0	8.0	Edge	3.50
K	TMVW-t	MT20	4.0	12.0	1.75	3.25
L	TMVW-t	MT20	2.0	4.0		
N	BMVW1-t	MT20	5.0	8.0	2.00	2.75
O	BMVW-t	MT20	4.0	4.0		
P	BMVW-t	MT20	6.0	6.0	2.25	1.75
Q	BS-t	MT18HS	6.0	12.0		
R	BMVW-t	MT20	10.0	10.0	5.50	2.25
S	BMVW-t	MT20	5.0	6.0	2.50	1.75
T	BS-t	MT18HS	6.0	12.0		
U	BMVW-t	MT20	6.0	6.0	2.00	1.75

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	GROSS REACTION	HORZ	GROSS REACTION	HORZ	BRG	IN-SX	BRG	IN-SX
X	4251	0	4251	0	0	5-8	4-10		
N	3534	0	3534	0	0	5-8	3-13		

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
X	2976	2124 / 0	0 / 0	0 / 0	0 / 0	852 / 0	0 / 0
N	2472	1780 / 0	0 / 0	0 / 0	0 / 0	692 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.01 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	CS (LC)	MEMB.	FORCE (LBS)	CS (LC)	CS (LC)
FR-TO		FROM TO		FR-TO			
A-B	0 / 26	-84.3 -84.3	0.12 (1)	10.00	W-C	-1397 / 0	0.24 (1)
B-C	-5787 / 0	-84.3 -84.3	0.59 (1)	2.40	C-V	0 / 1159	0.29 (1)
C-D	-6763 / 0	-84.3 -84.3	0.72 (1)	2.01	V-D	-463 / 0	0.12 (1)
D-E	-8557 / 0	-158.9 -158.9	0.24 (1)	3.63	D-U	0 / 3717	0.92 (1)
E-F	-10637 / 0	-84.3 -84.3	0.34 (1)	3.22	U-E	-2138 / 0	0.37 (1)
F-G	-11708 / 0	-84.3 -84.3	0.43 (1)	2.99	E-S	0 / 2611	0.85 (1)
G-H	-11708 / 0	-84.3 -84.3	0.45 (1)	2.98	S-F	-1259 / 0	0.29 (1)
H-I	-11708 / 0	-84.3 -84.3	0.45 (1)	2.98	F-R	0 / 1345	0.33 (1)
I-J	-8863 / 0	-84.3 -84.3	0.28 (1)	3.55	R-G	-338 / 0	0.06 (1)
J-K	-5542 / 0	-84.3 -84.3	0.53 (1)	2.53	R-I	0 / 3411	0.84 (1)
K-L	0 / 6	-84.3 -84.3	0.11 (1)	10.00	P-I	-2493 / 0	0.61 (1)
L-M	0 / 26	-84.3 -84.3	0.12 (1)	10.00	P-J	0 / 4689	0.83 (1)
X-B	-4115 / 0	0.0 0.0	0.22 (1)	5.94	O-J	-458 / 0	0.12 (1)
N-L	-227 / 0	0.0 0.0	0.02 (1)	7.81	Q-K	0 / 864	0.21 (1)
X-W	0 / 0	-34.4 -34.4	0.10 (1)	10.00	B-W	0 / 5340	0.94 (1)
W-V	0 / 5181	-34.4 -34.4	0.37 (1)	10.00	K-N	-5388 / 0	0.95 (1)
V-U	0 / 6084	-34.4 -34.4	0.36 (1)	10.00			
U-T	0 / 8557	-18.3 -18.3	0.53 (1)	10.00			
T-S	0 / 8557	-18.3 -18.3	0.53 (1)	10.00			
S-R	0 / 10637	-18.2 -18.2	0.65 (1)	10.00			
R-Q	0 / 8861	-18.3 -18.3	0.59 (1)	10.00			
Q-P	0 / 8861	-18.2 -18.2	0.59 (1)	10.00			
P-O	0 / 4986	-18.2 -18.2	0.30 (1)	10.00			
O-N	0 / 4297	-18.2 -18.2	0.26 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
D	6-0-0	-379	-379	---	FRONT	VERT	TOTAL	---	C1
R	18-11-0	-601	-673	---	FRONT	VERT	DEAD	---	C1
U	18-11-0	-1793	-1793	---	FRONT	VERT	SNOW	---	C1
R	9-4-0	-176	-197	---	FRONT	VERT	DEAD	---	C1
U	9-4-0	-527	-527	---	FRONT	VERT	SNOW	---	C1

CONNECTION REQUIREMENTS

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

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 = 25.6 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.3 PSF
TOTAL LOAD = 35.9 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 6-0-0
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 9-4-0 OF SPAN
MEASURED FROM THE LEFT.

*** 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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL (LL) = L/360 (1.20")
CALCULATED VERT. DEFL (LL) = L/904 (0.48")
ALLOWABLE DEFL (TL) = L/360 (1.20")
CALCULATED VERT. DEFL (TL) = L/523 (0.82")

CSI: TC=0.72/1.00 (C-D-1) , BC=0.65/1.00 (R-S-1) , WB=0.95/1.00 (K-N-1) , SSI=0.19/1.00 (G-I-1)

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

CITY OF RICHMOND HILL
BUILDING DIVISION
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	G02	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Oct 6 10:05:25 2021 Page 2
ID:OOecOcRpwjJiNxnJJkKsMRzbfba-k_0r1vQBR3zb1Jr9GIxpXp_Tud6NXavLp0XWJyWAZO

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
V	BMWW-t	MT20	4.0	4.0	2.00	1.50
W	BMWW-t	MT20	4.0	10.0	1.75	3.00
X	BMV1+p	MT20	2.0	8.0	4.00	1.50

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

CONNECTION REQUIREMENTS

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE LEFT HEEL ONLY

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (N) (INPUT = 0.90)
JSI METAL= 0.97 (Q) (INPUT = 1.00)



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CITY OF RICHMOND HILL
BUILDING DIVISION

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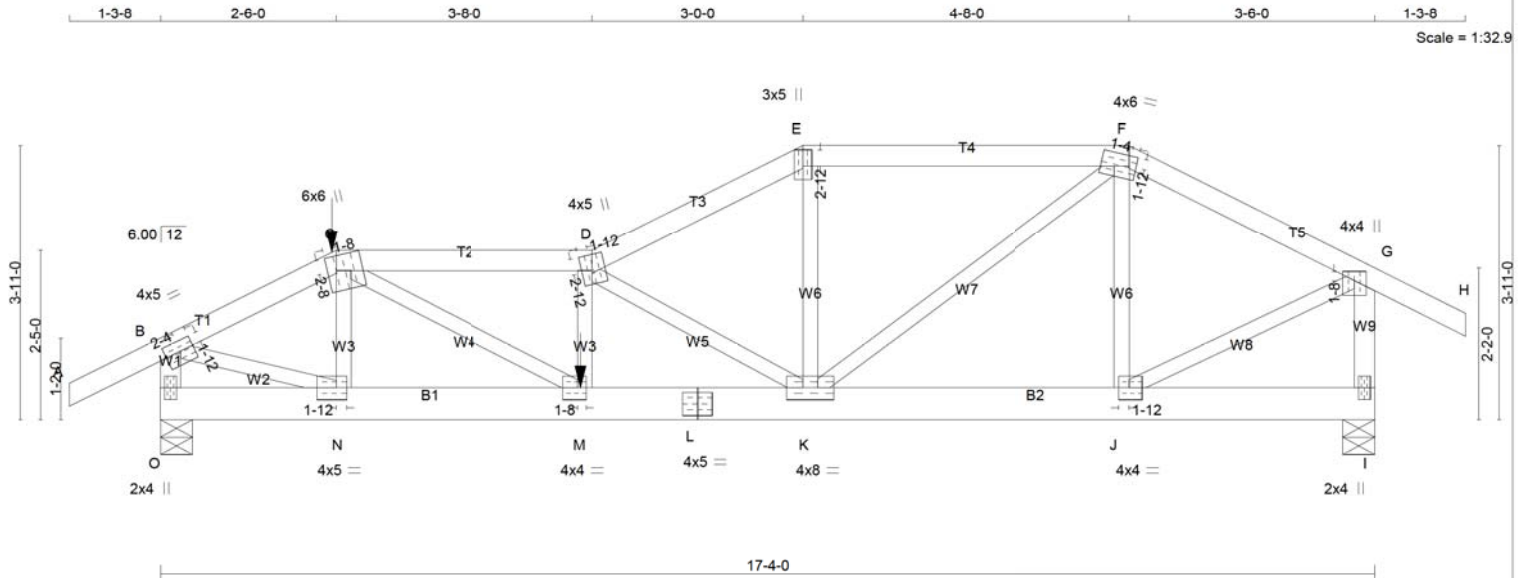


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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	G03	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Oct 6 10:05:26 2021 Page 1
ID:00ecOcRpwjiNxnJJKkSMRzbfa-CAaDEFrPCM5SfSu1jzpmMIMEMI1n67O3aTm53myWAZN



TOTAL WEIGHT = 81 lb

LUMBER

N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR
C - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
E - F	2x4	DRY	No.2	SPF
F - H	2x4	DRY	No.2	SPF
O - B	2x4	DRY	No.2	SPF
I - G	2x4	DRY	No.2	SPF
O - L	2x6	DRY	No.2	SPF
L - I	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	MTWW-t	MT20	4.0	5.0	1.75	2.25
C	TTWW+m	MT20	6.0	6.0	Edge	4.50
D	TTWW+m	MT20	4.0	5.0	2.75	1.75
E	TTW+p	MT20	3.0	5.0	2.75	1.50
F	TTWW-m	MT20	4.0	6.0	1.75	1.25
G	MTWW+p	MT20	4.0	4.0	1.50	2.00
I	BMV1+p	MT20	2.0	4.0		
J	BMWW-t	MT20	4.0	4.0	2.00	1.75
K	BMWWWW-t	MT20	4.0	8.0		
L	BS-t	MT20	4.0	5.0		
M	BMWW-t	MT20	4.0	4.0	2.00	1.50
N	BMWW-t	MT20	4.0	5.0	2.00	1.75
O	BMV1+p	MT20	2.0	4.0		

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



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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
O	1266	0	1266	0	0	5-8	1-8
I	1133	0	1133	0	0	5-8	1-8

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
O	884	648 / 0	0 / 0	0 / 0	0 / 0	236 / 0	0 / 0
I	790	578 / 0	0 / 0	0 / 0	0 / 0	212 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.14 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY
APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

C H O R D S					W E B S				
MEMB.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (LBS)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	FACTORED FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM (PLT)			FR-TO				
A-B	0 / 26	-84.3	-84.3	0.12 (1)	10.00	N-C	-255 / 0	0.04 (1)	
B-C	-1452 / 0	-84.3	-84.3	0.13 (1)	5.27	C-M	0 / 1233	0.31 (1)	
C-D	-2355 / 0	-85.1	-85.1	0.30 (1)	4.14	M-D	-312 / 0	0.05 (1)	
D-E	-1531 / 0	-84.3	-84.3	0.18 (1)	5.10	D-K	-1197 / 0	0.31 (1)	
E-F	-1380 / 0	-84.3	-84.3	0.39 (1)	5.00	K-E	0 / 362	0.09 (1)	
F-G	-949 / 0	-84.3	-84.3	0.21 (1)	6.07	K-F	0 / 686	0.17 (1)	
G-H	0 / 26	-84.3	-84.3	0.12 (1)	10.00	J-F	-338 / 0	0.08 (1)	
O-B	-1258 / 0	0.0	0.0	0.14 (1)	7.13	B-N	0 / 1353	0.33 (1)	
I-G	-1105 / 0	0.0	0.0	0.14 (1)	7.50	J-G	0 / 945	0.23 (1)	
O-N	0 / 0	-18.4	-18.4	0.03 (1)	10.00				
N-M	0 / 1284	-18.4	-18.4	0.29 (1)	10.00				
M-L	0 / 2371	-18.2	-18.2	0.43 (1)	10.00				
L-K	0 / 2371	-18.2	-18.2	0.43 (1)	10.00				
K-J	0 / 838	-18.2	-18.2	0.13 (1)	10.00				
J-I	0 / 0	-18.2	-18.2	0.03 (4)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	2-6-0	-35	-35	---	FRONT	VERT	TOTAL	---	C1
M	6-0-0	-89	-99	---	FRONT	VERT	DEAD	---	C1
M	6-0-0	-266	-266	---	FRONT	VERT	SNOW	---	C1

CONNECTION REQUIREMENTS

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

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 =	25.6	PSF
		DL =	3.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.3	PSF
TOTAL LOAD		=	35.9	PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-6-0
RIGHT SETBACK = 3-6-0
END SETBACK = 2-6-0
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 6-0-0 OF SPAN
MEASURED FROM THE LEFT.

*** NON STANDARD GIRDER ***
ADD'TL 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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.58")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.58")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")

CSI: TC=0.39/1.00 (E-F:1), BC=0.43/1.00 (K-M:1), WB=0.33/1.00 (B-N: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

BUILDING DIVISION CONTINUED ON PAGE 2

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	G03	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Oct 6 10:05:26 2021 Page 2
ID:00ecOcRpwjiNxnJJKkSMRzbfa-CAaDEFrPCM5SfSu1jzpmMIMEMl1n67O3aTm53myWAZN

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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



October 06, 2021

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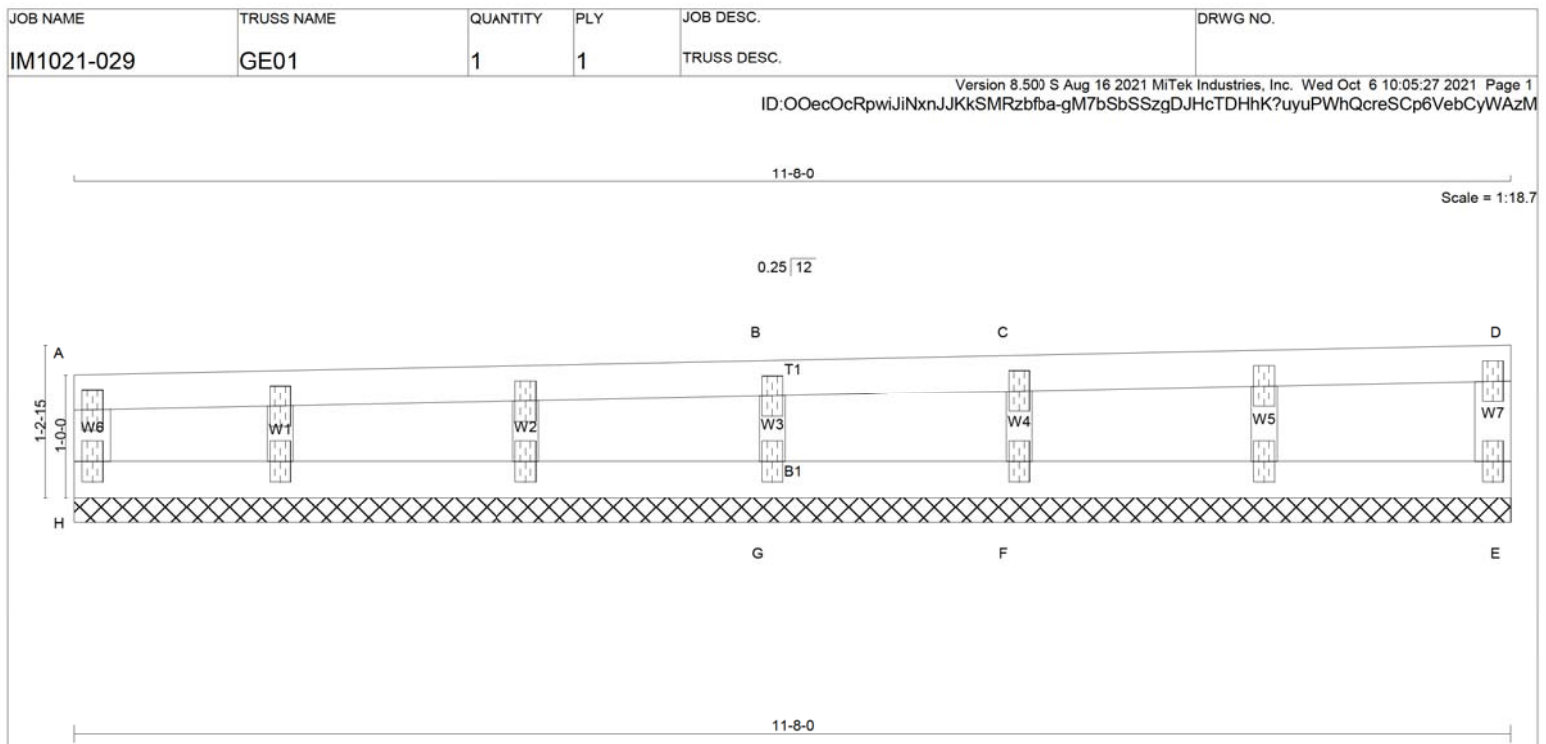
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TOTAL WEIGHT = 30 lb

[M][R]

LUMBER

N. L. G. A. RULES

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

ALL 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
A	TMV+p	MT20	2.0	4.0		
B	TMW+w	MT20	2.0	4.0		
C	TMW+w	MT20	2.0	4.0		
D	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		
F	BMV1+w	MT20	2.0	4.0		
G	BMV1+w	MT20	2.0	4.0		
H	BMV1+p	MT20	2.0	4.0		
I, J, K, L, M, N						
I	NP+w	MT20	2.0	4.0		

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

PROVIDE ADEQUATE DRAINAGE TO PREVENT PONDING

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 = 6.25 FT.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS					WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX (LC)	
FR-TO		FROM TO			FR-TO			
H-A	-288 / 0	0.0	0.0	0.37 (1)	7.81	G-B	-484 / 0	0.09 (1)
A-B	-270 / 0	-101.8	-101.8	0.43 (1)	6.25	F-C	-186 / 0	0.03 (1)
B-C	-270 / 0	-101.8	-101.8	0.42 (1)	6.25			
C-D	-267 / 0	-101.8	-101.8	0.33 (1)	6.25			
E-D	-228 / 0	0.0	0.0	0.32 (1)	7.81			
H-G	0 / 270	-18.2	-18.2	0.18 (4)	10.00			
G-F	0 / 268	-18.2	-18.2	0.18 (4)	10.00			
F-E	0 / 268	-18.2	-18.2	0.20 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	10.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	42.9	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 OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.43/1.00 (A-B:1), BC=0.20/1.00 (E-F:1), WB=0.09/1.00 (B-G:1), SSI=0.31/1.00 (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

FLAT ROOF FACTOR = 0.75

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.44 (A) (INPUT = 0.90)

JSI METAL= 0.33 (A) (INPUT = 1.00)



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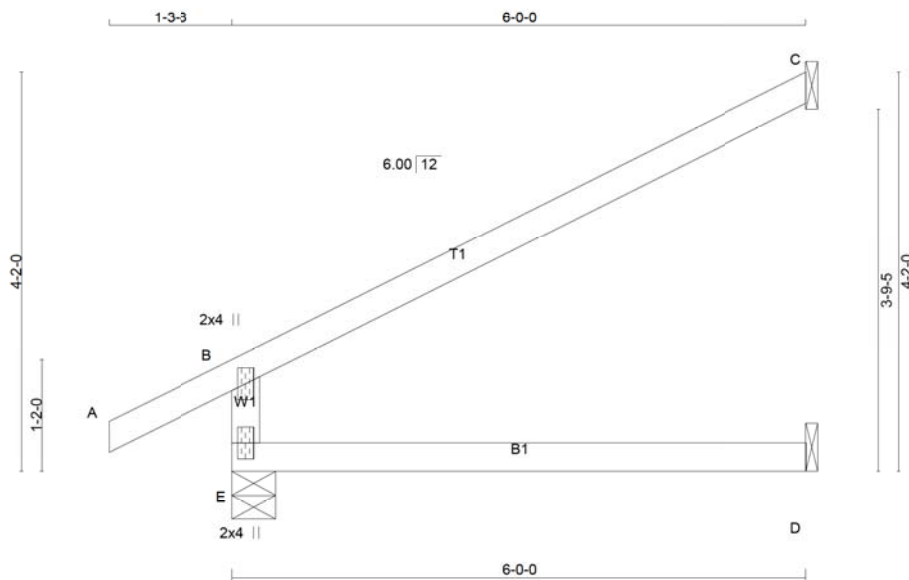
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	J01	15	1	TRUSS DESC.	

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ID:OOecOcRpwJiNxnJKkSMRzbfa-8Zh_fxT4k_LAvI2PrOrERARXx5nra56L1mFB7eyWAZL



TOTAL WEIGHT = 15 X 17 = 256 lb
[M]

LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

DESCR.
SPF
SPF
SPF**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER****BEARINGS**

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
E	495	0	495	0
C	190	0	190	0
D	45	0	45	0

SEE MITTEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	343	261 / 0	0 / 0	0 / 0	0 / 0	82 / 0	0 / 0
C	129	115 / 0	0 / 0	0 / 0	0 / 0	14 / 0	0 / 0
D	36	0 / 0	0 / 0	0 / 0	0 / 0	36 / 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 FITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1	MAX CS1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
FR-TO						FR-TO		
E-B	-430 / 0	0.0	0.0	0.13 (4)	7.81			
A-B	0 / 26	-84.3	-84.3	0.11 (1)	10.00			
B-C	-28 / 0	-84.3	-84.3	0.52 (1)	6.25			
E-D	0 / 0	-18.2	-18.2	0.13 (4)	10.00			

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
DL	=	3.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.3	PSF	
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 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=0.52/1.00 (B-C:1), BC=0.13/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.22/1.00 (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 (PSI)	SECTION (PLI)
MT20	650	371	1747
		788	1987
			1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (B) (INPUT = 0.90)

JSI METAL= 0.18 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

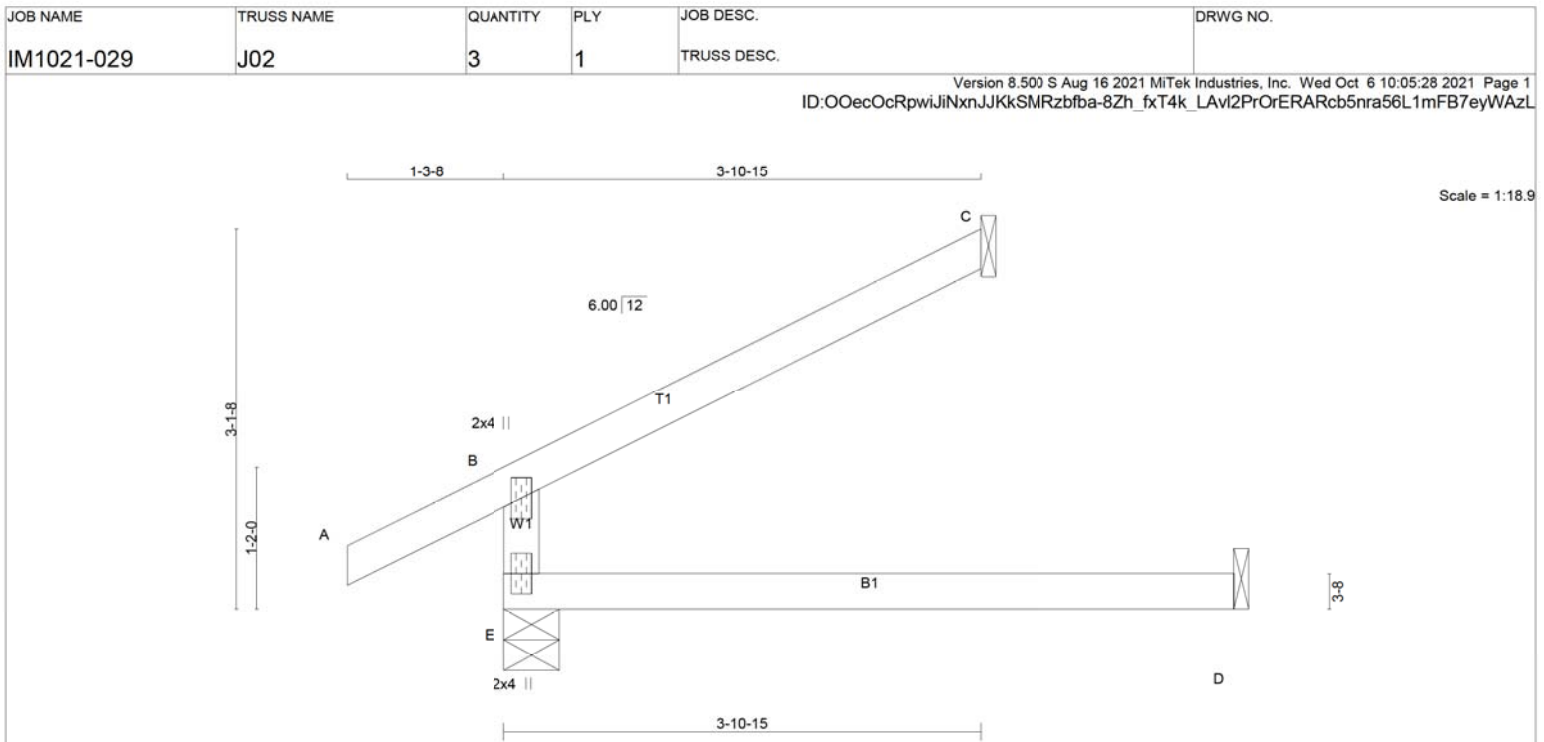
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TOTAL WEIGHT = 3 X 14 = 43 lb [M]

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

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		

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
E	385	0	385	0	0	5-8	1-8
C	124	0	124	0	0	1-8	1-8
D	45	0	51	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
E	269	194 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0
C	84	75 / 0	0 / 0	0 / 0	0 / 0	9 / 0	0 / 0
D	36	0 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0

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

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 FITCH 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. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO	FR-TO			
E-B	-320 / 0	0.0	0.0 0.13 (4)	7.81			
A-B	0 / 26	-84.3	-84.3 0.11 (1)	10.00			
B-C	-18 / 0	-84.3	-84.3 0.22 (1)	6.25			
E-D	0 / 0	-18.2	-18.2 0.13 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 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=0.22/1.00 (B-C:1), BC=0.13/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), 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

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
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.18 (B) (INPUT = 0.90)

JSI METAL= 0.13 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

KOTT

RECEIVED

Per: joshua.nabua



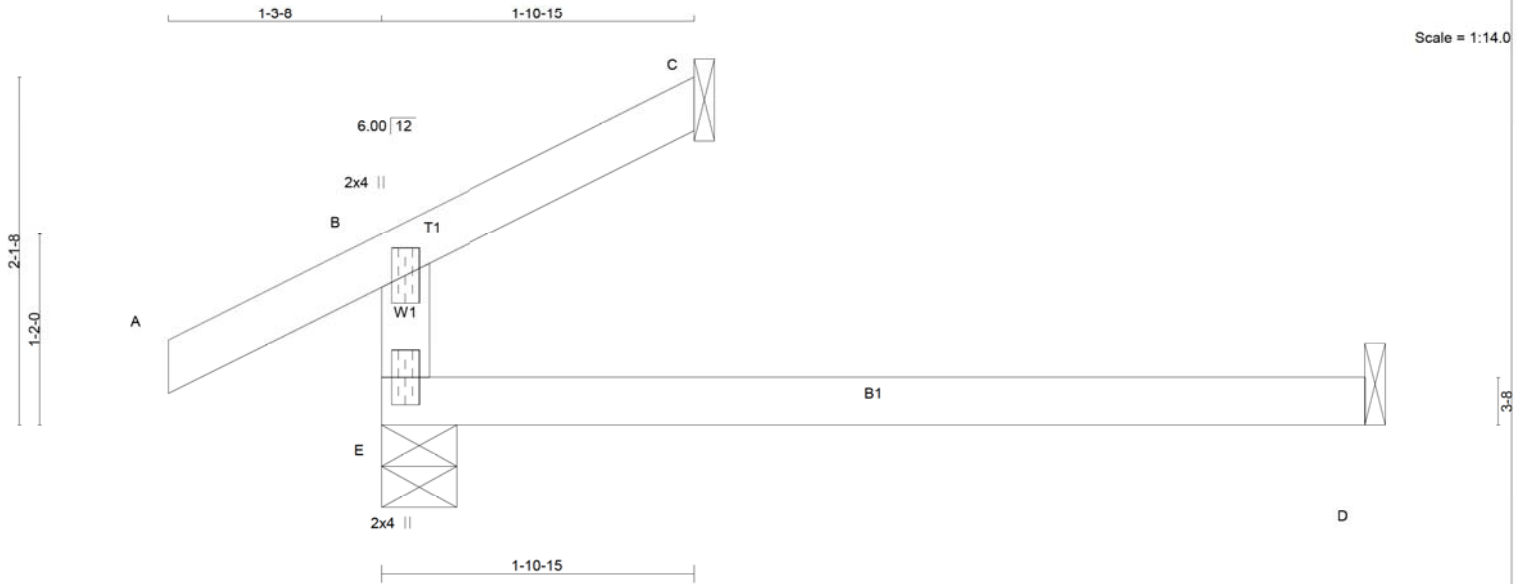
October 06, 2021

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.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	J03	3	1	TRUSS DESC.	

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ID:OOecOcRpwjiNxnJJKkSMRzbfa-clFMtHTIVHT1WvdcO6MTzn ofV74JYMGVQ If5yWAZK



TOTAL WEIGHT = 3 X 12 = 36 lb

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

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG IN-SX	BRG IN-SX
E	279	0	0	279	0	0	0	5-8	1-8
C	61	0	0	61	0	0	0	1-8	1-8
D	45	0	0	51	0	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	SNOW	MAX /MIN	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	197	130 / 0	0 / 0	0 / 0	0 / 0	0 / 0	67 / 0	0 / 0
C	41	37 / 0	0 / 0	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0
D	36	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0

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

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 FITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		W E B S		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
E-B	-214 / 0	0.0	0.0	0.13 (4)	7.81		
A-B	0 / 26	-84.3	-84.3	0.11 (1)	10.00		
B-C	-9 / 0	-84.3	-84.3	0.05 (1)	10.00		
E-D	0 / 0	-18.2	-18.2	0.13 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 25.6 PSF
 DL = 3.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.3 PSF
 TOTAL LOAD = 35.9 PSF

SPACING = 24.0 IN. C/C

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

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

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

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 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=0.13/1.00 (B-E:4), BC=0.13/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.09/1.00 (D-E:4)

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= 0.12 (B) (INPUT = 0.90)
 JSI METAL = 0.09 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
 BUILDING DIVISION

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 Per: joshua.nabua

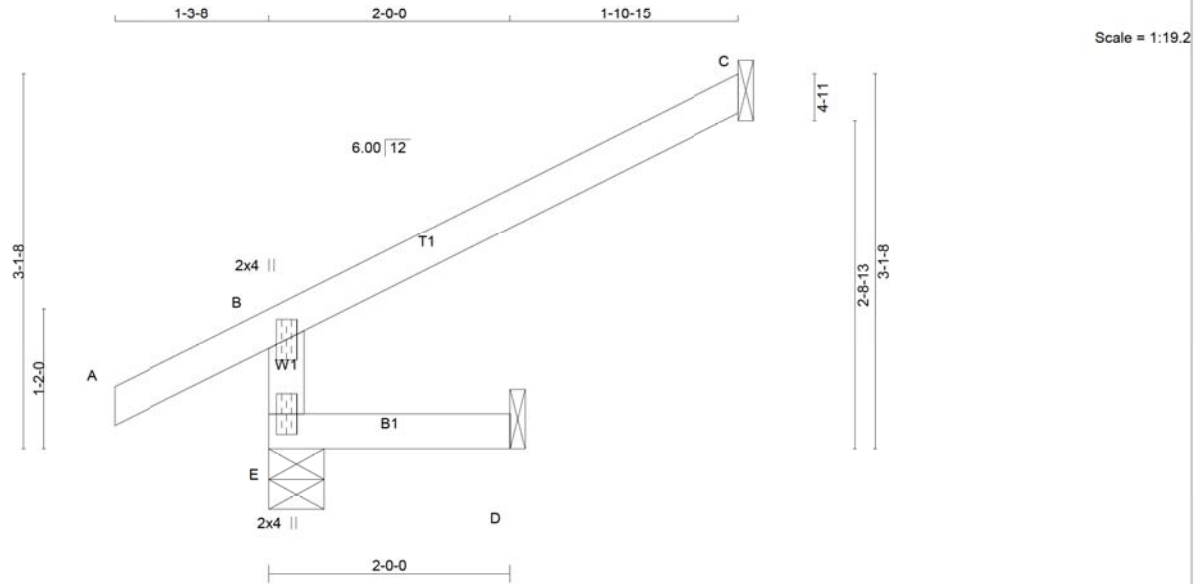


October 06, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	J04	3	1	TRUSS DESC.	

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ID:0OecOcrPwjiNxnJJKkSMRzbfba-clFMtHTIVHT1WvdcO6MTzN_nLV9wJYMVGQ_lf5yWAZK



Scale = 1:19.2

TOTAL WEIGHT = 3 X 10 = 30 lb [M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	DRY	LUMBER	DESCR.
E - B	2x4	DRY	No.2	SPF
A - C	2x4	DRY	No.2	SPF
E - D	2x4	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		
E	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	IN-SX	IN-SX
E	340	0	340	0	0	5-8	1-8
C	124	0	124	0	0	1-8	1-8
D	16	0	18	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX / MIN. COMPONENT REACTIONS						
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
E	233	194 / 0	0 / 0	0 / 0	0 / 0	39 / 0	0 / 0	
C	84	75 / 0	0 / 0	0 / 0	0 / 0	9 / 0	0 / 0	
D	13	0 / 0	0 / 0	0 / 0	0 / 0	13 / 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 FITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (5)

CHORDS				WEBS			
MEMB.	MAX. FACTORED (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED (LBS)	MAX CSI (LC)
FR-TO		FROM	TO	FR-TO			
E-B	-320 / 0	0.0	0.0	0.01 (4)	7.81		
A-B	0 / 26	-84.3	-84.3	0.11 (1)	10.00		
B-C	-18 / 0	-84.3	-84.3	0.22 (1)	6.25		
E-D	0 / 0	-18.2	-18.2	0.02 (4)	10.00		

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.22/1.00 (B-C:1), BC=0.02/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), 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

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= 0.18 (B) (INPUT = 0.90)

JSI METAL= 0.13 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

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Per: joshua.nabua

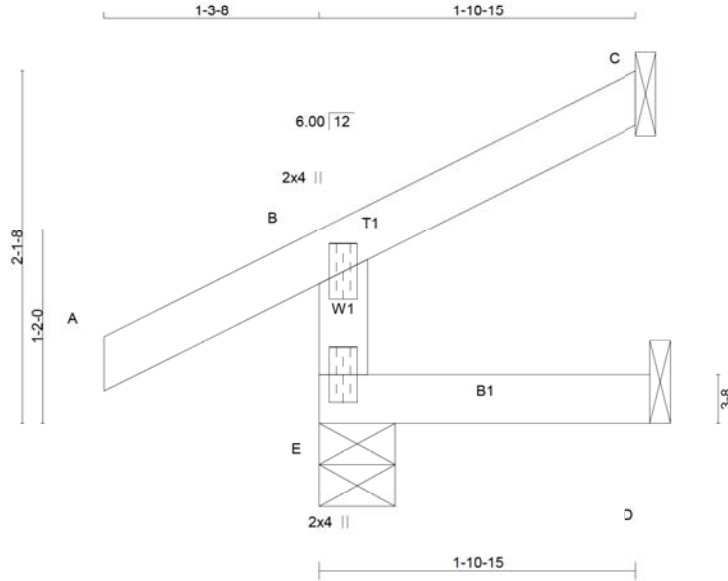


October 06, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	J05	3	1	TRUSS DESC.	

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ID:OOecOcRpwjJiXnJJKkSMRzbfba-4xpk4cUKGbbt83BoypIwWbW ovU92?ceV4klCXyWAZJ



TOTAL WEIGHT = 3 X 7 = 22 lb [M]

LUMBER

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

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		

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	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	235	0	235	0	5-8	1-8
C	61	0	61	0	1-8	1-8
D	16	0	18	0	1-8	1-8

SEE MITTEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX /MIN. COMPONENT REACTIONS		PERM. LIVE	WIND	DEAD	SOIL
		SNOW	LIVE				
E	162	130 / 0	0 / 0	0 / 0	0 / 0	31 / 0	0 / 0
C	41	37 / 0	0 / 0	0 / 0	0 / 0	4 / 0	0 / 0
D	13	0 / 0	0 / 0	0 / 0	0 / 0	13 / 0	0 / 0

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

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 FITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (5)

MEMB.	CHORDS		VERT. LOAD (PLF)	MAX LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED						MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO									
E-B	-214 / 0	0.0	0.0	0.01 (4)	7.81				
A-B	0 / 26	-84.3	-84.3	0.11 (1)	10.00				
B-C	-9 / 0	-84.3	-84.3	0.05 (1)	10.00				
E-D	0 / 0	-18.2	-18.2	0.02 (4)	10.00				

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	35.9	PSF

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.11/1.00 (A-B:1), BC=0.02/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.08/1.00 (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= 0.12 (B) (INPUT = 0.90)

JSI METAL= 0.09 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

KOTT

RECEIVED

Per: joshua.nabua

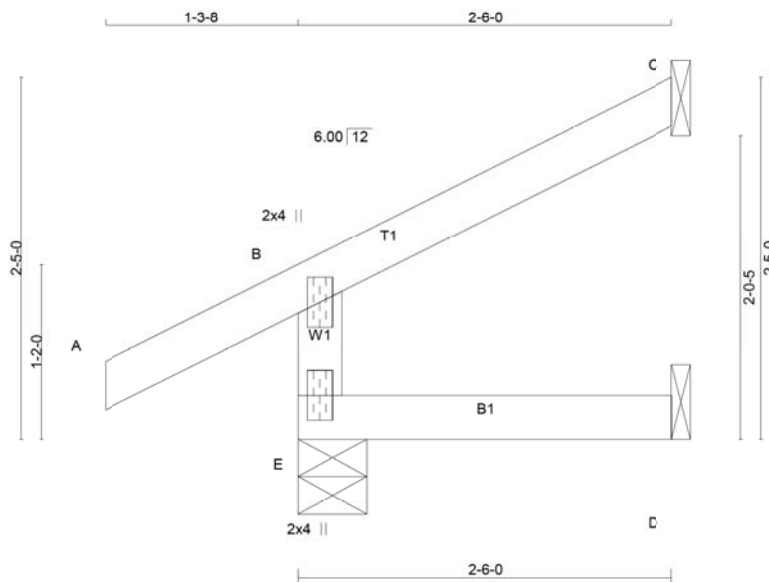


October 06, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	J06	2	1	TRUSS DESC.	

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ID:OOecOcRpwJiNxnJKkSMRzbfba-4xpk4cUKGbbt83BoypWbW_ovU02?ceV4klCXyWAZJ



TOTAL WEIGHT = 2 X 9 = 17 lb [M]

LUMBER

N. L. G. A. RULES

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	271	0	271	0	5-8	1-8
C	79	0	79	0	1-8	1-8
D	20	0	22	0	1-8	1-8

SEE MITEK STANDARD DETAIL MSD2015-H 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	187	149 / 0	0 / 0	0 / 0	0 / 0	38 / 0	0 / 0	
C	54	48 / 0	0 / 0	0 / 0	0 / 0	6 / 0	0 / 0	
D	16	0 / 0	0 / 0	0 / 0	0 / 0	16 / 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 FITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (7)

MEMB.	CHORDS		FACTORED		MAX. UNBRACED LENGTH	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	VERT. LOAD (PLF)	CS (LC)			MAX. FACTORED FORCE (LBS)	MAX. CS (LC)
FR-TO						FR-TO		
E-B	-246 / 0	0.0	0.0	0.02 (4)	7.81			
A-B	0 / 26	-84.3	-84.3	0.11 (1)	10.00			
B-C	-12 / 0	-84.3	-84.3	0.09 (6)	6.25			
E-D	0 / 0	-18.2	-18.2	0.03 (4)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.11/1.00 (A-B:1), BC=0.03/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.09/1.00 (B-C:6)

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 (B) (INPUT = 0.90)

JSI METAL = 0.10 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

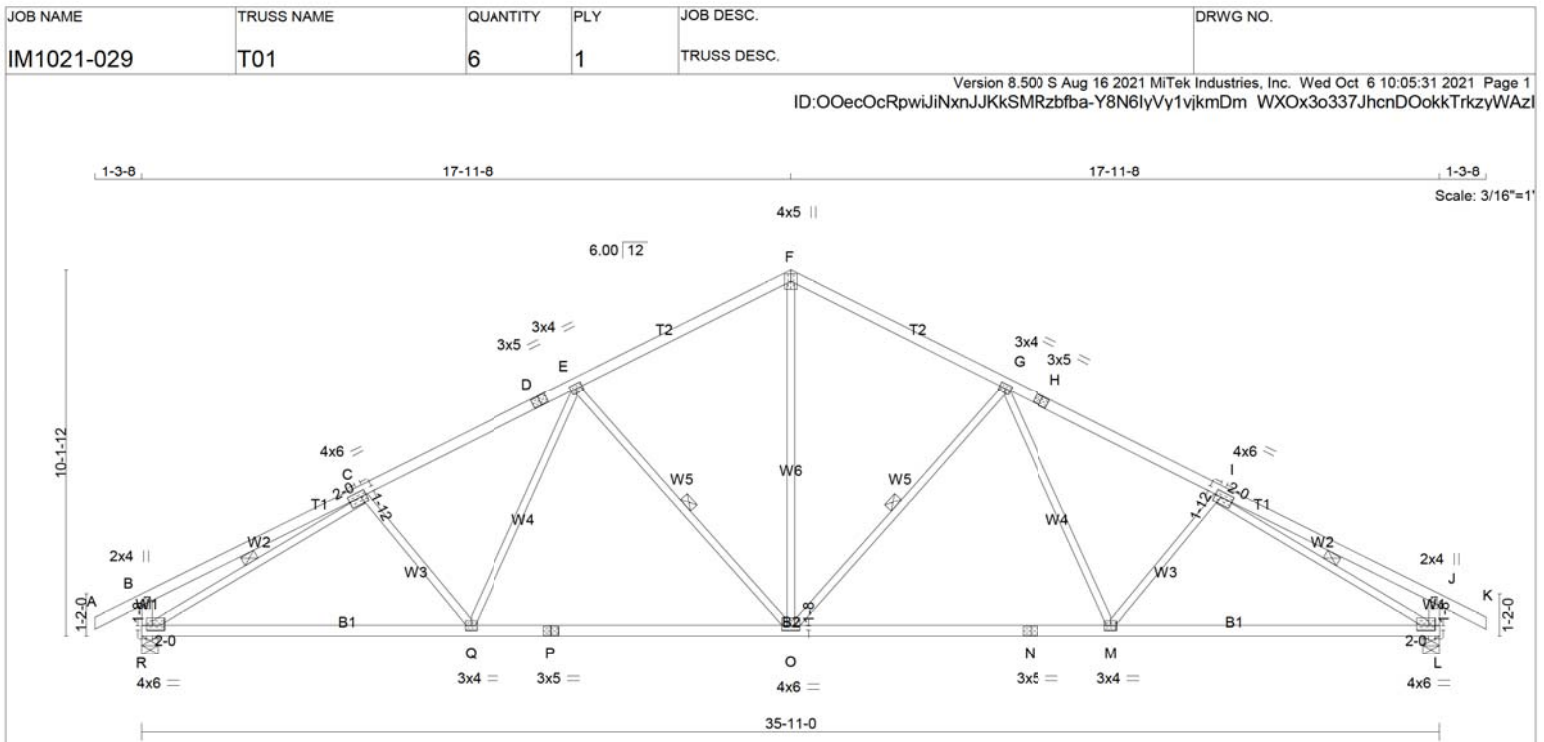
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October 06, 2021

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LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	DESCR.
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
F - H	2x4	DRY	No.2
H - K	2x4	DRY	No.2
R - B	2x4	DRY	No.2
L - J	2x4	DRY	No.2
R - P	2x4	DRY	No.2
P - N	2x4	DRY	No.2
N - L	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

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	6.0 1.75 2.00
D	TS-t	MT20	3.0	5.0
E	TMWW-t	MT20	3.0	4.0
F	TTW+p	MT20	4.0	5.0
G	TMWW-t	MT20	3.0	4.0
H	TS-t	MT20	3.0	5.0
I	TMWW-t	MT20	4.0	6.0 1.75 2.00
J	TMV+p	MT20	2.0	4.0
L	BMVW1-t	MT20	4.0	6.0 1.50 2.00
M	BMWW-t	MT20	3.0	4.0
N	BS-t	MT20	3.0	5.0
O	BMVWW-t	MT20	4.0	6.0 1.50 3.00
P	BS-t	MT20	3.0	5.0
Q	BMVWW-t	MT20	3.0	4.0
R	BMVW1-t	MT20	4.0	6.0 1.50 2.00

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

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	BRG	BRG
R	1955	0	1955	0	0	5-8	2-2	2-2	2-2
L	1955	0	1955	0	0	5-8	2-2	2-2	2-2

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS		PERM. LIVE		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	JT	COMBINED	SNOW	LIVE
R	1366	988 / 0	0 / 0	0 / 0	0 / 0	378 / 0	0 / 0	R	1366	988 / 0	0 / 0
L	1366	988 / 0	0 / 0	0 / 0	0 / 0	378 / 0	0 / 0	L	1366	988 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.92 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF G-O, E-O. DBS = 20-0-0. CBF = 94 LBS.
1 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF C-R, I-L. DBS = 10-0-0. CBF = 181 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER BRACE). FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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)

C H O R D S		W E B S	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	0 / 26	O-F	0 / 1291
B-C	0 / 21	O-G	-749 / 0
C-D	-2594 / 0	G-M	0 / 359
D-E	-2594 / 0	M-I	-187 / 37
E-F	-1913 / 0	E-O	-749 / 0
F-G	-1913 / 0	Q-E	0 / 359
G-H	-2594 / 0	C-Q	-187 / 37
H-I	-2594 / 0	R-C	-2897 / 0
I-J	0 / 21	I-L	-2897 / 0
J-K	0 / 26		
R-B	-322 / 0		
L-J	-322 / 0		
R-Q	0 / 2437		
Q-P	0 / 2180		
P-O	0 / 2180		
O-N	0 / 2180		
N-M	0 / 2180		
M-L	0 / 2437		



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DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.3 PSF
TOTAL LOAD = 35.9 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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.20")
CALCULATED VERT. DEFL.(LL)= L/999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (1.20")
CALCULATED VERT. DEFL.(TL)= L/999 (0.32")

CSI: TC=0.46/1.00 (C-E:1), BC=0.58/1.00 (Q-R:1), WB=0.99/1.00 (I-L:1), SSI=0.21/1.00 (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= 0.87 (L) (INPUT = 0.90)
JSI METAL= 0.68 (I) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

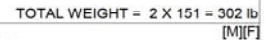
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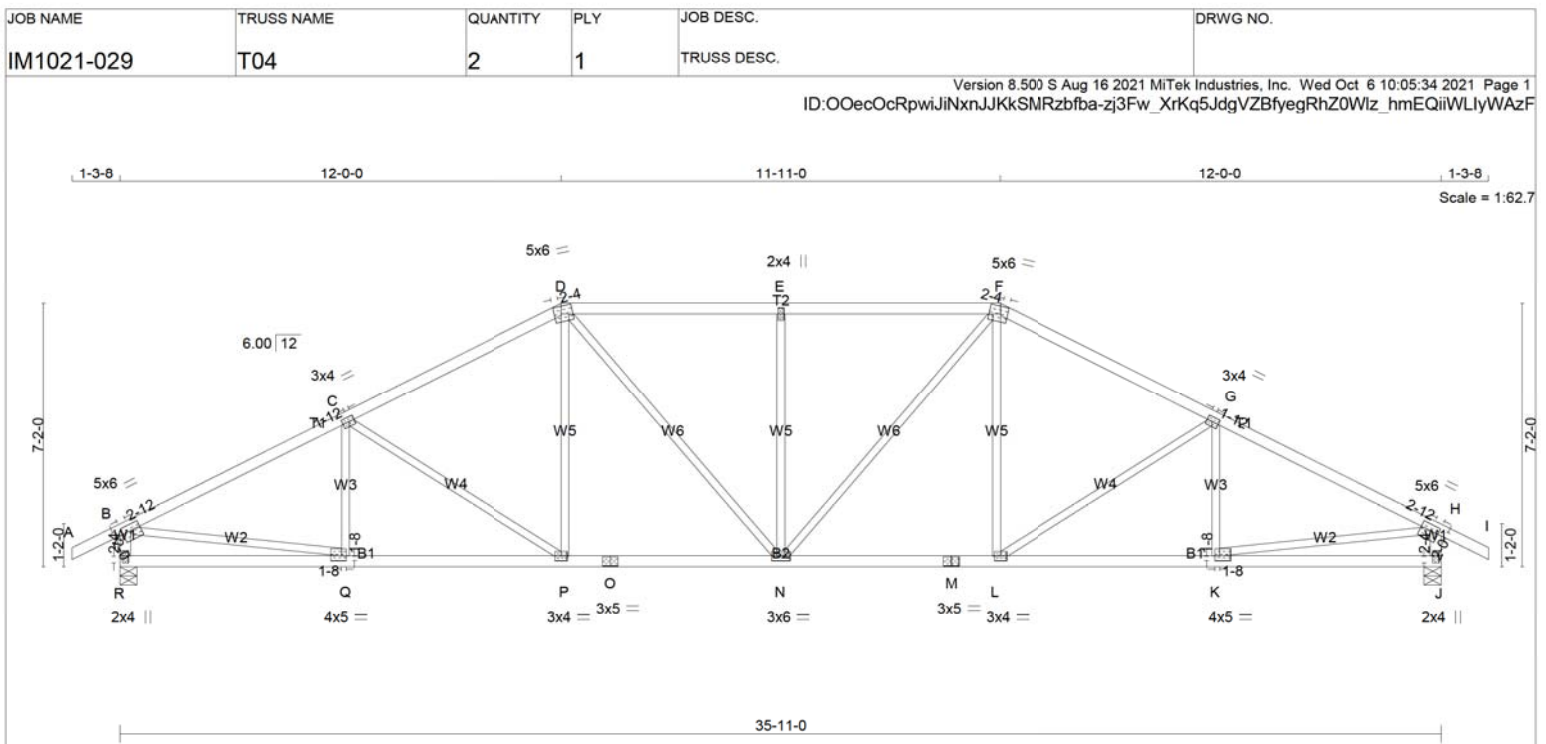
Per: joshua.nabua

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TOTAL WEIGHT = 2 X 147 = 294 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
F - I	2x4	DRY	No.2
R - B	2x4	DRY	No.2
J - H	2x4	DRY	No.2
R - O	2x4	DRY	No.2
O - M	2x4	DRY	No.2
M - J	2x4	DRY	No.2

ALL WEBS	2x3	DRY	No.2	SPF
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EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	6.0	2.00	2.75
C	TMVW-t	MT20	3.0	4.0	1.50	1.75
D	TTWW-m	MT20	5.0	6.0	2.50	2.25
E	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	2.50	2.25
G	TMVW-t	MT20	3.0	4.0	1.50	1.75
H	TMVW-t	MT20	5.0	6.0	2.00	2.75
J	BMV1+p	MT20	2.0	4.0	2.25	1.00
K	BMVW-t	MT20	4.0	5.0	1.50	1.50
L	BMVW-t	MT20	3.0	4.0		
M	BS-t	MT20	3.0	5.0		
N	BMVW-t	MT20	3.0	6.0		
O	BS-t	MT20	3.0	5.0		
P	BMVW-t	MT20	3.0	4.0		
Q	BMVW-t	MT20	4.0	5.0	1.50	1.50
R	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
R	1955	0	5-8	2-14
J	1955	0	5-8	2-14

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	1366	988 / 0	0 / 0	0 / 0	0 / 0	378 / 0	0 / 0
J	1366	988 / 0	0 / 0	0 / 0	0 / 0	378 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.70 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 26	-84.3 -84.3	0.11 (1)	10.00	Q-C	-234 / 40	0.06 (1)
B-C	-2754 / 0	-84.3 -84.3	0.54 (1)	3.70	C-P	-407 / 0	0.40 (1)
C-D	-2427 / 0	-84.3 -84.3	0.49 (1)	3.96	P-D	0 / 334	0.08 (1)
D-E	-2462 / 0	-84.3 -84.3	0.48 (1)	3.92	D-N	0 / 475	0.11 (1)
E-F	-2462 / 0	-84.3 -84.3	0.48 (1)	3.92	N-E	-615 / 0	0.55 (1)
F-G	-2427 / 0	-84.3 -84.3	0.49 (1)	3.96	N-F	0 / 475	0.11 (1)
G-H	-2754 / 0	-84.3 -84.3	0.54 (1)	3.70	L-F	0 / 334	0.08 (1)
H-I	0 / 26	-84.3 -84.3	0.11 (1)	10.00	L-G	-407 / 0	0.40 (1)
R-B	-1906 / 0	0.0 0.0	0.19 (1)	6.09	K-G	-234 / 40	0.06 (1)
J-H	-1906 / 0	0.0 0.0	0.19 (1)	6.09	B-Q	0 / 2511	0.57 (1)
					K-H	0 / 2511	0.57 (1)
R-Q	0 / 0	-18.2 -18.2	0.15 (4)	10.00			
Q-P	0 / 2487	-18.2 -18.2	0.47 (1)	10.00			
P-O	0 / 2151	-18.2 -18.2	0.42 (1)	10.00			
O-N	0 / 2151	-18.2 -18.2	0.42 (1)	10.00			
N-M	0 / 2151	-18.2 -18.2	0.42 (1)	10.00			
M-L	0 / 2151	-18.2 -18.2	0.42 (1)	10.00			
L-K	0 / 2487	-18.2 -18.2	0.47 (1)	10.00			
K-J	0 / 0	-18.2 -18.2	0.15 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
DL	=	3.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.3	PSF	
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.16")
ALLOWABLE DEFL.(TL) = L/360 (1.20")
CALCULATED VERT. DEFL.(TL) = L/999 (0.28")

CSI: TC=0.54/1.00 (G-H:1) , BC=0.47/1.00 (K-L:1) ,
WB=0.57/1.00 (H-K:1) , SSI=0.24/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (N) (INPUT = 0.90)

JSI METAL= 0.71 (K) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

KOTT

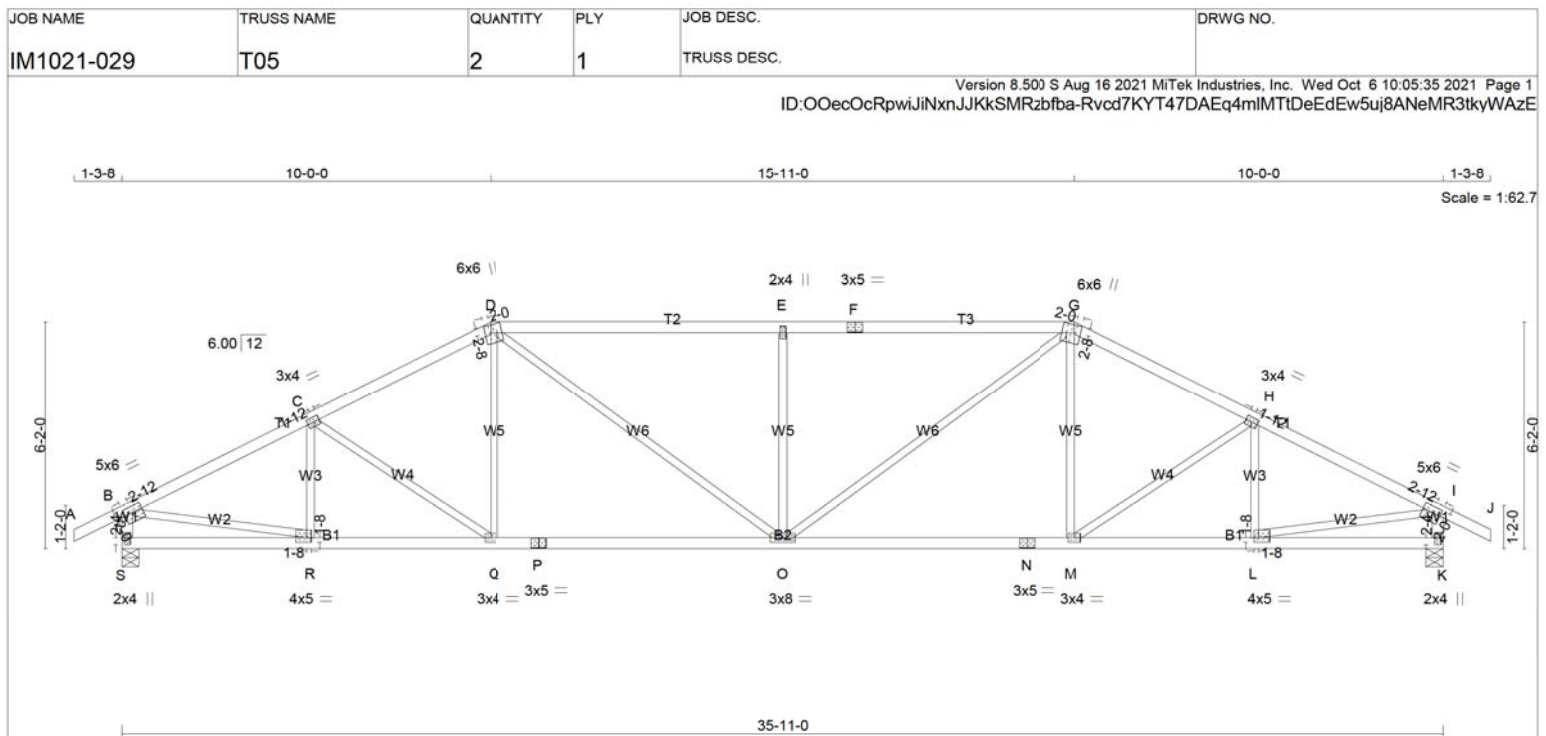
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**LUMBER**

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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
S	1955	0	1955	0
K	1955	0	1955	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
S	1366	988 / 0	0 / 0	0 / 0	0 / 0	378 / 0	0 / 0
K	1366	988 / 0	0 / 0	0 / 0	0 / 0	378 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.92 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORZ. LOAD (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 26	-84.3	-84.3 0.11 (1)	10.00	R-C	-328 / 0	0.07 (1)
B-C	-2703 / 0	-84.3	-84.3 0.37 (1)	3.92	C-Q	-196 / 0	0.13 (1)
C-D	-2565 / 0	-84.3	-84.3 0.35 (1)	4.02	Q-D	0 / 239	0.05 (4)
D-E	-2938 / 0	-84.3	-84.3 0.96 (1)	2.92	D-O	0 / 820	0.18 (1)
E-F	-2938 / 0	-84.3	-84.3 0.96 (1)	2.92	O-E	-826 / 0	0.50 (1)
F-G	-2938 / 0	-84.3	-84.3 0.96 (1)	2.92	O-G	0 / 820	0.18 (1)
G-H	-2565 / 0	-84.3	-84.3 0.35 (1)	4.02	M-G	0 / 239	0.05 (4)
H-I	-2703 / 0	-84.3	-84.3 0.37 (1)	3.92	M-H	-196 / 0	0.13 (1)
I-J	0 / 26	-84.3	-84.3 0.11 (1)	10.00	L-H	-328 / 0	0.07 (1)
S-B	-1910 / 0	0.0	0.0 0.19 (1)	6.08	B-R	0 / 2470	0.56 (1)
K-I	-1910 / 0	0.0	0.0 0.19 (1)	6.08	L-I	0 / 2470	0.56 (1)
S-R	0 / 0	-18.2	-18.2 0.10 (4)	10.00			
R-Q	0 / 2436	-18.2	-18.2 0.49 (1)	10.00			
Q-P	0 / 2278	-18.2	-18.2 0.49 (1)	10.00			
P-O	0 / 2278	-18.2	-18.2 0.49 (1)	10.00			
O-N	0 / 2278	-18.2	-18.2 0.49 (1)	10.00			
N-M	0 / 2278	-18.2	-18.2 0.49 (1)	10.00			
M-L	0 / 2436	-18.2	-18.2 0.49 (1)	10.00			
L-K	0 / 0	-18.2	-18.2 0.10 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
DL	=	3.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.3	PSF	
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.18")
ALLOWABLE DEFL.(TL) = L/360 (1.20")
CALCULATED VERT. DEFL.(TL) = L/999 (0.34")

CSI: TC=0.96/1.00 (D-E:1), BC=0.49/1.00 (L-M:1),
WB=0.56/1.00 (I-L:1), SSI=0.32/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.70 (L) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

KOTT

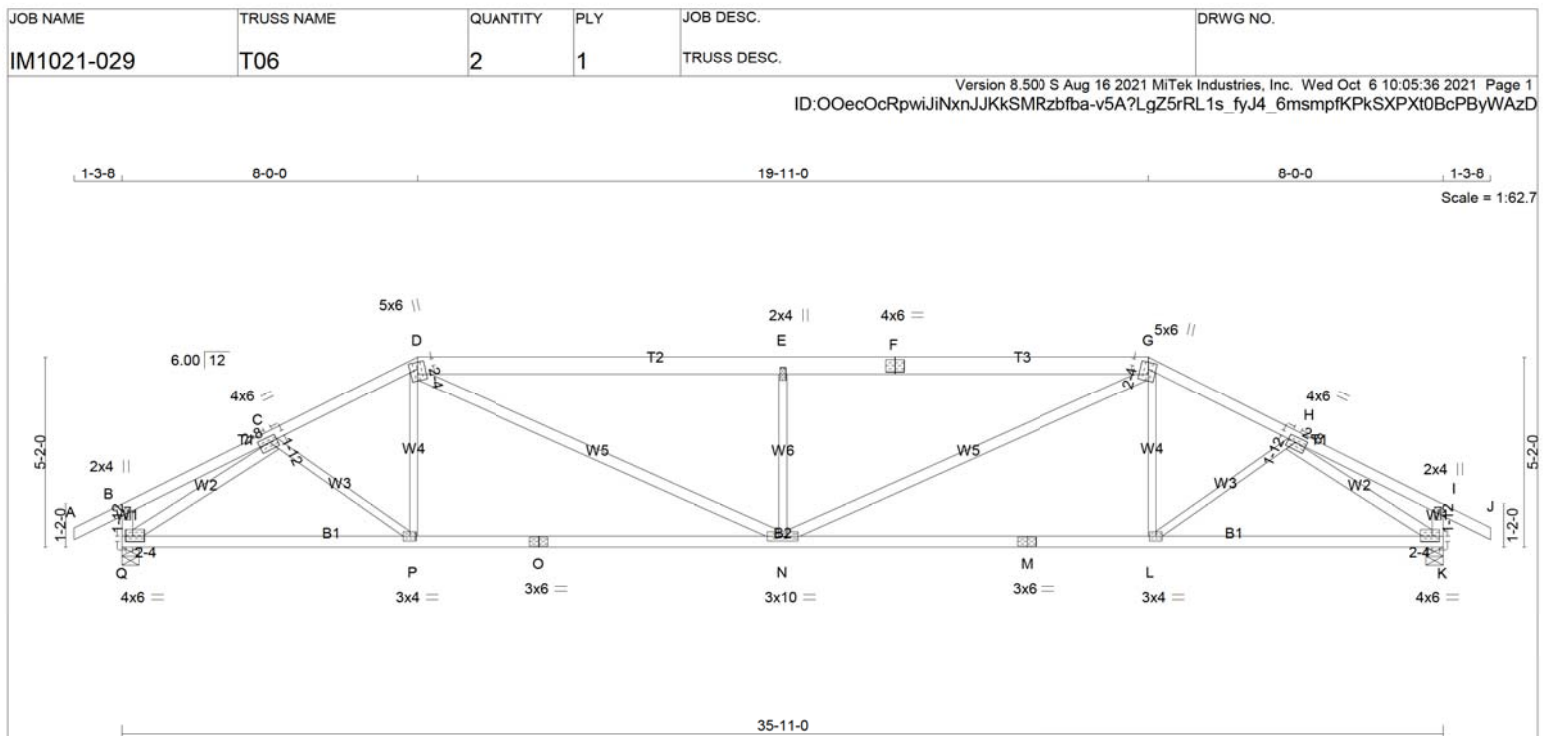
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**LUMBER****N. L. G. A. RULES**

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	4.0	6.0	1.75	2.50
D	TTWW-t	MT20	5.0	6.0	2.25	2.50
E	TMW+w	MT20	2.0	4.0		
F	TS-t	MT20	4.0	6.0		
G	TTWW+m	MT20	5.0	6.0	2.25	2.50
H	TMW-w	MT20	4.0	6.0	1.75	2.50
I	TMV+p	MT20	2.0	4.0		
K	BMVW1-t	MT20	4.0	6.0	1.75	2.25
L	BMVW-t	MT20	3.0	4.0		
M	BS-t	MT20	3.0	6.0		
N	BMVWW-t	MT20	3.0	10.0		
O	BS-t	MT20	3.0	6.0		
P	BMVW-t	MT20	3.0	4.0		
Q	BMVW1-t	MT20	4.0	6.0	1.75	2.25

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
Q	1955	0	5-8	2-2
K	1955	0	5-8	2-2

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1366	988 / 0	0 / 0	0 / 0	0 / 0	378 / 0	0 / 0
K	1366	988 / 0	0 / 0	0 / 0	0 / 0	378 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.39 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FORCE	FACTORED VERT. LOAD	MAX. FACTORED	MEMB.	FORCE	FACTORED VERT. LOAD	MAX. FACTORED
(LBS)	(PLF)	CS1 (LC)	UNBRAC LENGTH	(LBS)	(PLF)	CS1 (LC)	UNBRAC LENGTH
FR-TO		FROM TO		FR-TO		FROM TO	
A-B	0 / 26	-84.3 -84.3	0.11 (1)	10.00	C-P	0 / 109	0.03 (4)
B-C	0 / 15	-84.3 -84.3	0.19 (1)	10.00	P-D	0 / 143	0.05 (4)
C-D	-2692 / 0	-84.3 -84.3	0.30 (1)	3.97	D-N	0 / 1428	0.23 (1)
D-E	-3685 / 0	-84.3 -84.3	0.92 (1)	3.39	N-E	-1061 / 0	0.39 (1)
E-F	-3684 / 0	-84.3 -84.3	0.92 (1)	3.39	N-G	0 / 1428	0.23 (1)
F-G	-3684 / 0	-84.3 -84.3	0.92 (1)	3.39	L-G	0 / 143	0.05 (4)
G-H	-2692 / 0	-84.3 -84.3	0.30 (1)	3.97	L-H	0 / 109	0.03 (4)
H-I	0 / 15	-84.3 -84.3	0.19 (1)	10.00	Q-C	-2843 / 0	0.31 (1)
I-J	0 / 26	-84.3 -84.3	0.11 (1)	10.00	H-K	-2843 / 0	0.31 (1)
Q-B	-250 / 0	0.0	0.0	0.03 (1)	7.81		
K-I	-250 / 0	0.0	0.0	0.03 (1)	7.81		
Q-P	0 / 2314	-18.2 -18.2	0.56 (1)	10.00			
P-O	0 / 2399	-18.2 -18.2	0.58 (1)	10.00			
O-N	0 / 2399	-18.2 -18.2	0.58 (1)	10.00			
N-M	0 / 2399	-18.2 -18.2	0.58 (1)	10.00			
M-L	0 / 2399	-18.2 -18.2	0.58 (1)	10.00			
L-K	0 / 2314	-18.2 -18.2	0.56 (1)	10.00			

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
DL	=	3.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.3	PSF	
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.20")
CALCULATED VERT. DEFL.(LL)= L/999 (0.20")
ALLOWABLE DEFL.(TL)= L/360 (1.20")
CALCULATED VERT. DEFL.(TL)= L/999 (0.41")

CSI: TC=0.92/1.00 (D-E:1), BC=0.58/1.00 (L-N:1),
WB=0.81/1.00 (H-K:1), SSI=0.32/1.00 (E-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

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)	(PLI)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL = 0.85 (Q) (INPUT = 1.00)

CITY OF RICHMOND HILL

BUILDING DIVISION

09/22/2022

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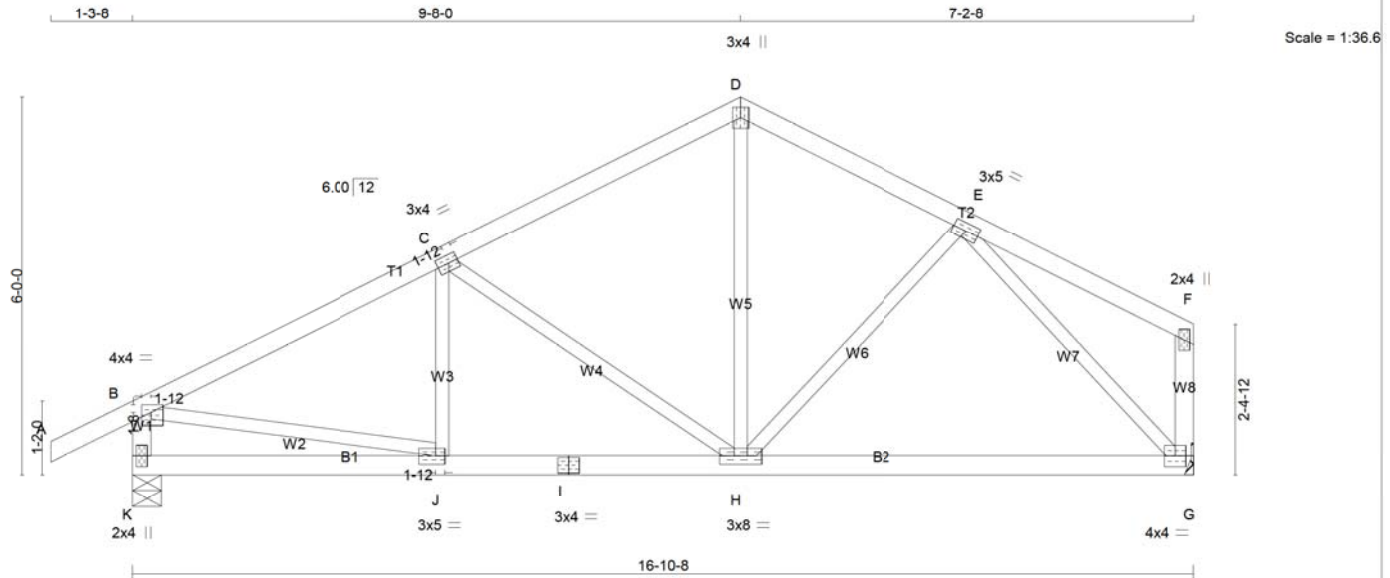


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IN THE DESIGN OF THIS COMPONENT.

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	T07	1	1	TRUSS DESC.	

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Oct 6 10:05:36 2021 Page 1
ID:OOecOcRpwjiNxnJJKkSMRzbfa-v5A?LgZ5rRL1s_fyJ4_6msmzvKUaSDUXt0BcPByWAZD



TOTAL WEIGHT = 69 lb

LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-p	MT20	4.0	4.0	1.50	1.75
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TTW+p	MT20	3.0	4.0		
E	TMWW-t	MT20	3.0	5.0		
F	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	4.0	4.0		
H	BMVWW-t	MT20	3.0	8.0		
I	BS-t	MT20	3.0	4.0		
J	BMVW-t	MT20	3.0	5.0	1.50	1.75
K	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	DOWN	IN-SX	IN-SX
K	979	0	5-8	1-8
G	865	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX /MIN.	COMPONENT REACTIONS				
K	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	683	501 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0
		432 / 0	0 / 0	0 / 0	0 / 0	174 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.77 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 26	-84.3	-84.3 0.11 (1)	10.00	J-C	-93 / 45	0.02 (1)
B-C	-1078 / 0	-84.3	-84.3 0.26 (1)	5.77	C-H	-417 / 0	0.24 (1)
C-D	-740 / 0	-84.3	-84.3 0.25 (1)	6.25	H-D	0 / 374	0.08 (1)
D-E	-733 / 0	-84.3	-84.3 0.14 (1)	6.25	H-E	0 / 52	0.02 (4)
E-F	0 / 15	-84.3	-84.3 0.17 (1)	10.00	B-J	0 / 998	0.22 (1)
K-B	-938 / 0	0.0	0.0 0.09 (1)	7.81	E-G	-945 / 0	0.42 (1)
G-F	-118 / 0	0.0	0.0 0.01 (1)	7.81			
K-J	0 / 0	-18.2	-18.2 0.10 (4)	10.00			
J-I	0 / 983	-18.2	-18.2 0.27 (1)	10.00			
I-H	0 / 983	-18.2	-18.2 0.27 (1)	10.00			
H-G	0 / 642	-18.2	-18.2 0.24 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
DL	=	3.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.3	PSF	
TOTAL LOAD	=	35.9	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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.56")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.56")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.26/1.00 (B-C:1), BC=0.27/1.00 (H-J:1), WB=0.42/1.00 (E-G:1), SSI=0.18/1.00 (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)	(PLI)
MAX MIN	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= 0.90 (J) (INPUT = 0.90)
JSI METAL= 0.34 (B) (INPUT = 1.00)



October 06, 2021

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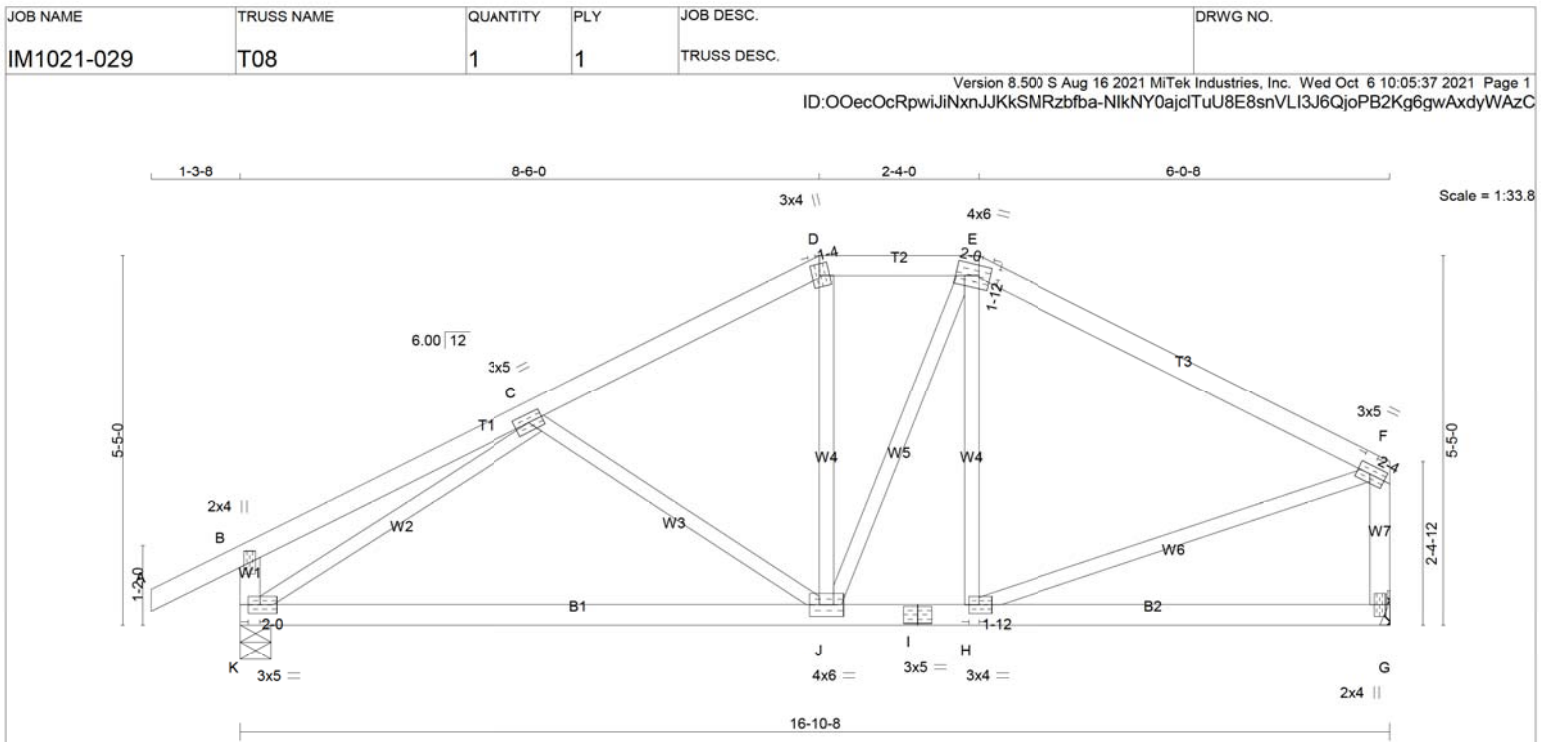
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**LUMBER**

N. L. G. A. RULES

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

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	3.0	5.0		
D	TTW+m	MT20	3.0	4.0	2.00	1.25
E	TTWW-m	MT20	4.0	6.0	1.75	2.00
F	TMVW-t	MT20	3.0	5.0	1.50	2.25
G	BMV1+p	MT20	2.0	4.0		
H	BMWW-t	MT20	3.0	4.0	1.50	1.75
I	BS-t	MT20	3.0	5.0		
J	BMVWW-t	MT20	4.0	6.0		
K	BMVW1-t	MT20	3.0	5.0	1.50	2.00

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	UP	IN-SX
K	979	0	979	0
G	865	0	865	0

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX /MIN	COMPONENT REACTIONS				
K	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	683	501 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0
		432 / 0	0 / 0	0 / 0	0 / 0	174 / 0	0 / 0

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

BRACINGTOP 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 FITCH 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. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO				FR-TO			
A-B	0 / 26	-84.3	-84.3 0.11 (1)	10.00	C-J	-257 / 2	0.12 (1)
B-C	0 / 18	-84.3	-84.3 0.24 (1)	10.00	J-D	0 / 132	0.03 (4)
C-D	-838 / 0	-84.3	-84.3 0.19 (1)	6.25	J-E	0 / 176	0.04 (1)
D-E	-735 / 0	-84.3	-84.3 0.06 (1)	6.25	H-E	-179 / 0	0.08 (1)
E-F	-747 / 0	-84.3	-84.3 0.40 (1)	6.25	K-C	-1152 / 0	0.51 (1)
K-B	-253 / 0	0.0	0.0 0.03 (1)	7.81	H-F	0 / 706	0.16 (1)
G-F	-816 / 0	0.0	0.0 0.10 (1)	7.81			
K-J	0 / 944	-18.2	-18.2 0.36 (4)	10.00			
J-I	0 / 665	-18.2	-18.2 0.35 (4)	10.00			
I-H	0 / 665	-18.2	-18.2 0.35 (4)	10.00			
H-G	0 / 0	-18.2	-18.2 0.15 (4)	10.00			

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	=	25.6	PSF
DL	=	3.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.3	PSF	
TOTAL LOAD	=	35.9	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.56")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.56")
CALCULATED VERT. DEFL.(TL) = L/999 (0.16")

CSI: TC=0.40/1.00 (E-F:1), BC=0.36/1.00 (J-K:4), WB=0.51/1.00 (C-K:1), SSI=0.18/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (C) (INPUT = 0.90)

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

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

KOTT

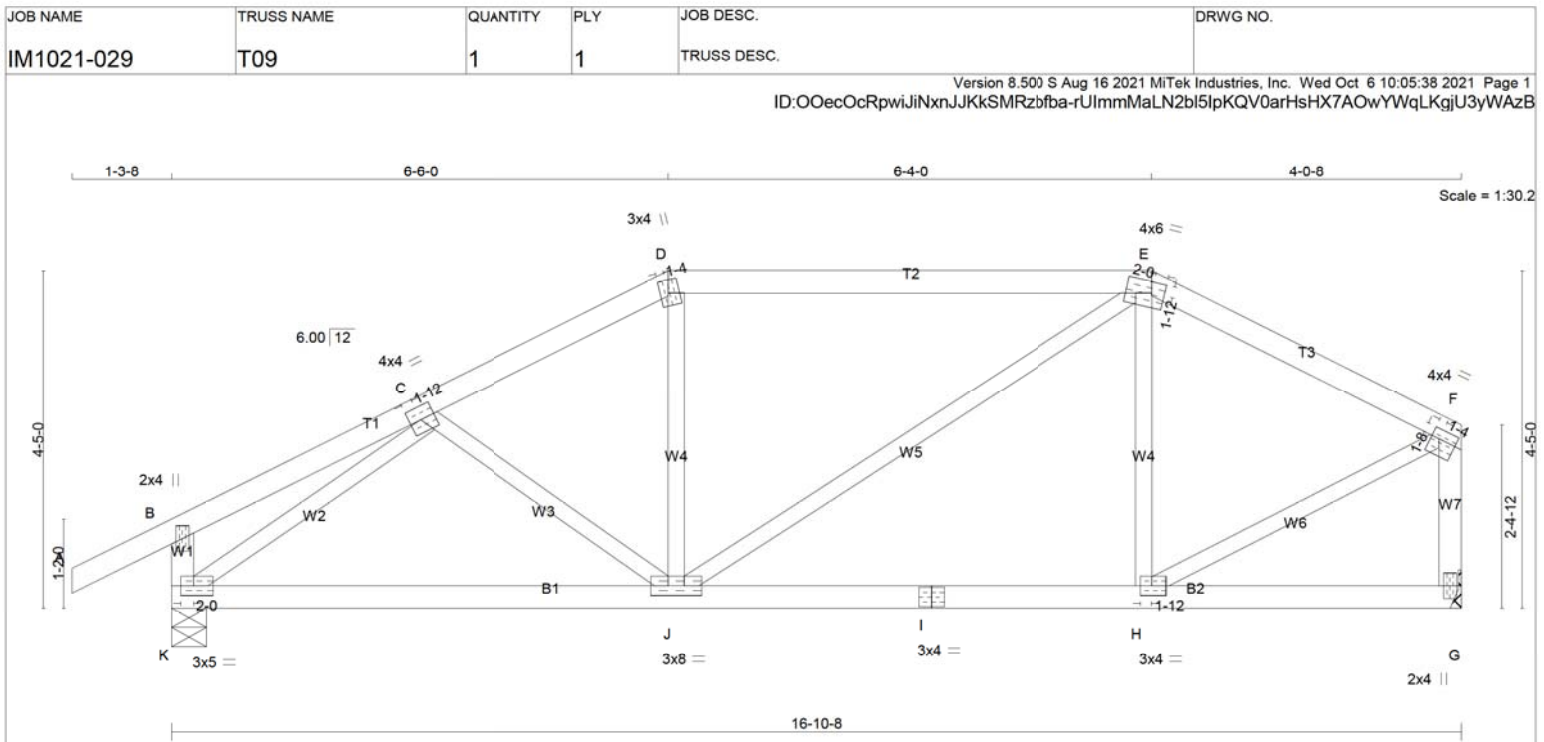
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LUMBER

N. L. G. A. RULES

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

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	2.00	1.75
D	TTW+m	MT20	3.0	4.0	2.00	1.25
E	TTWW-m	MT20	4.0	6.0	1.75	2.00
F	TMVW-t	MT20	4.0	4.0	1.50	1.25
G	BMV1+p	MT20	2.0	4.0		
H	BMWW-t	MT20	3.0	4.0	1.50	1.75
I	BS-t	MT20	3.0	4.0		
J	BMVWW-t	MT20	3.0	8.0		
K	BMVW1-t	MT20	3.0	5.0	1.50	2.00

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
K	979	0	979	0	5-8	1-8
G	865	0	865	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
K	683	501 / 0	0 / 0	0 / 0	0 / 0	182 / 0	0 / 0
G	606	432 / 0	0 / 0	0 / 0	0 / 0	174 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.97 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 26	-84.3	-84.3 0.11 (1)	10.00	C-J	-89 / 29	0.03 (1)
B-C	0 / 13	-84.3	-84.3 0.13 (1)	10.00	J-D	0 / 91	0.03 (4)
C-D	-969 / 0	-84.3	-84.3 0.11 (1)	6.21	J-E	0 / 238	0.05 (1)
D-E	-856 / 0	-84.3	-84.3 0.44 (1)	5.97	H-E	-236 / 11	0.07 (1)
E-F	-742 / 0	-84.3	-84.3 0.18 (1)	6.25	K-C	-1165 / 0	0.32 (1)
K-B	-224 / 0	0.0	0.0 0.02 (1)	7.81	H-F	0 / 742	0.17 (1)
G-F	-837 / 0	0.0	0.0 0.11 (1)	7.81			
K-J	0 / 926	-18.2	-18.2 0.25 (1)	10.00			
J-I	0 / 657	-18.2	-18.2 0.24 (4)	10.00			
I-H	0 / 657	-18.2	-18.2 0.24 (4)	10.00			
H-G	0 / 0	-18.2	-18.2 0.10 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.3 PSF
TOTAL LOAD = 35.9 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.56")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.56")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.44/1.00 (D-E:1), BC=0.25/1.00 (J-K:1), WB=0.32/1.00 (C-K:1), SSI=0.21/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (K) (INPUT = 0.90)
JSI METAL= 0.38 (C) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022
KOTT
RECEIVED

Per: joshua.nabua



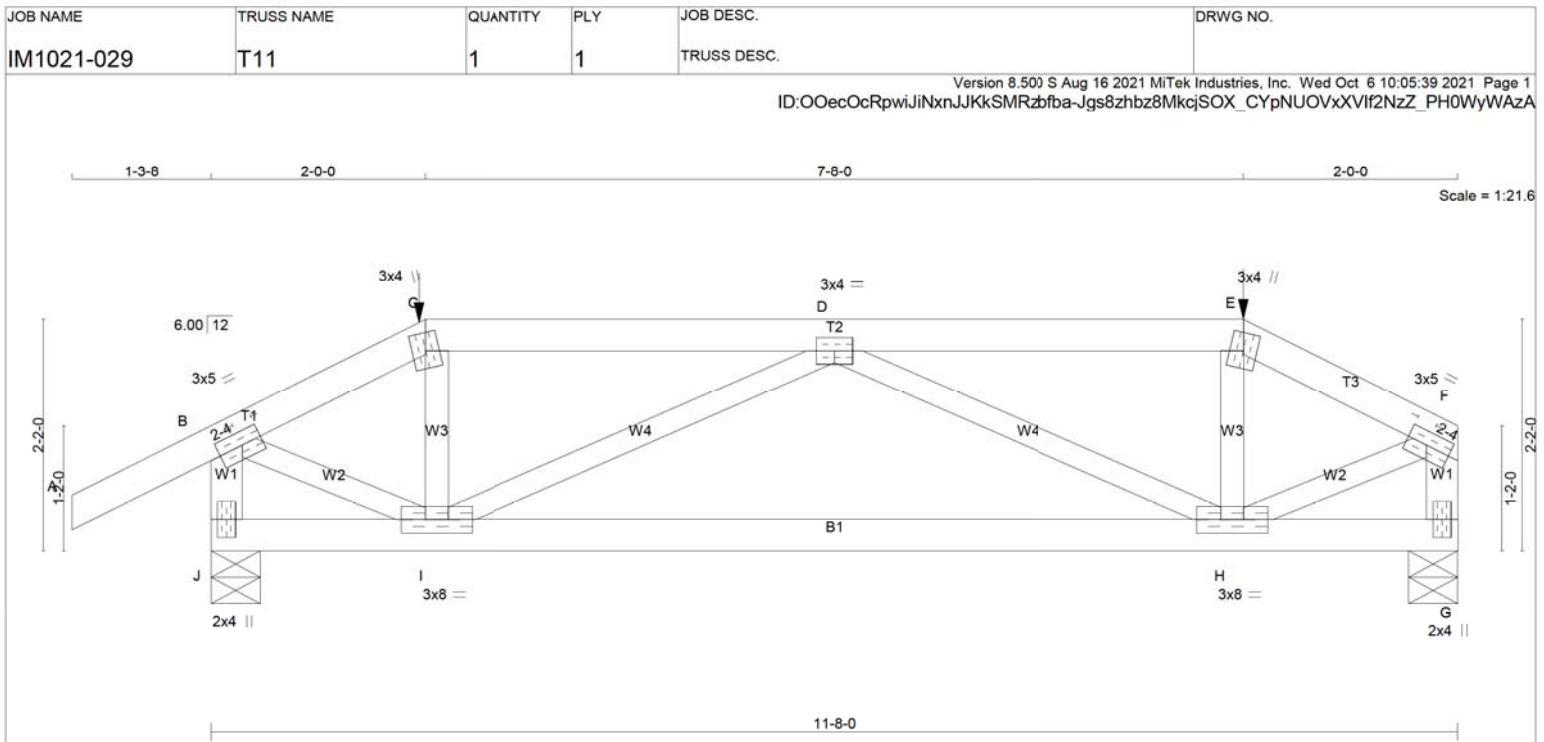
October 06, 2021

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.

Version 8.500 S Aug 16 2021 MiTek Industries, Inc. Wed Oct 6 10:05:39 2021 Page 1
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TOTAL WEIGHT = 43 lb

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

ALL WEBS	EXCEPT	SIZE	LUMBER	DESCR.
ALL WEBS	EXCEPT	2x3	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	2.25
C	TTW+m	MT20	3.0	4.0		
D	TMVW-t	MT20	3.0	4.0		
E	TTW+m	MT20	3.0	4.0		
F	TMVW-t	MT20	3.0	5.0	1.50	2.25
G	BMV1+p	MT20	2.0	4.0		
H	BMVWW-t	MT20	3.0	8.0		
I	BMVWW-t	MT20	3.0	8.0		
J	BMV1+p	MT20	2.0	4.0		

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	GROSS REACTION	VERT	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG	BRG
J	726	0	0	726	0	0	0	5-8	1-8
G	612	0	0	612	0	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
J	506	376 / 0	0 / 0	0 / 0	0 / 0	129 / 0	0 / 0
G	428	307 / 0	0 / 0	0 / 0	0 / 0	121 / 0	0 / 0

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

BRACING

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

ALL FITCH 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. VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. VERT. LOAD (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 26	-84.3	-84.3 0.12 (1)	I-C	0 / 75	0.03 (4)	
B-C	-662 / 0	-84.3	-84.3 0.07 (1)	I-D	-435 / 0	0.14 (1)	
C-D	-595 / 0	-84.3	-84.3 0.21 (1)	D-H	-435 / 0	0.14 (1)	
D-E	-595 / 0	-84.3	-84.3 0.21 (1)	H-E	0 / 75	0.03 (4)	
E-F	-662 / 0	-84.3	-84.3 0.07 (1)	B-I	0 / 638	0.16 (1)	
J-B	-737 / 0	0.0	0.0 0.08 (1)	H-F	0 / 638	0.16 (1)	
G-F	-623 / 0	0.0	0.0 0.07 (1)				
J-I	0 / 0	-18.2	-18.2 0.18 (4)				
I-H	0 / 984	-18.2	-18.2 0.27 (1)				
H-G	0 / 0	-18.2	-18.2 0.18 (4)				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	2-0-0	-14	-14	---	FRONT	VERT	TOTAL	---	C1
E	9-8-0	-14	-14	---	FRONT	VERT	TOTAL	---	C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.3 PSF
TOTAL LOAD = 35.9 PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 2-0-0
END SETBACK = 2-0-0
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.39")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.21/1.00 (D-E:1) , BC=0.27/1.00 (H-I:1) , WB=0.16/1.00 (F-H:1) , SSI=0.17/1.00 (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

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

CONTINUED ON PAGE 2



October 06, 2021

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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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	T11	1	1	TRUSS DESC.	

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 ID:OOecOcRpwJiNxnJJKkSMRzbfa-Jgs8zhbz8MkcjSOX_CYpNUOVxXVIf2NzZ_PH0WyWAZA

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (E) (INPUT = 0.90)

JSI METAL= 0.21 (B) (INPUT = 1.00)



October 06, 2021

READ ALL NOTES ON THIS PAGE AND ON THE
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 CONTAINS SPECIFICATIONS AND CRITERIA USED
 IN THE DESIGN OF THIS COMPONENT.

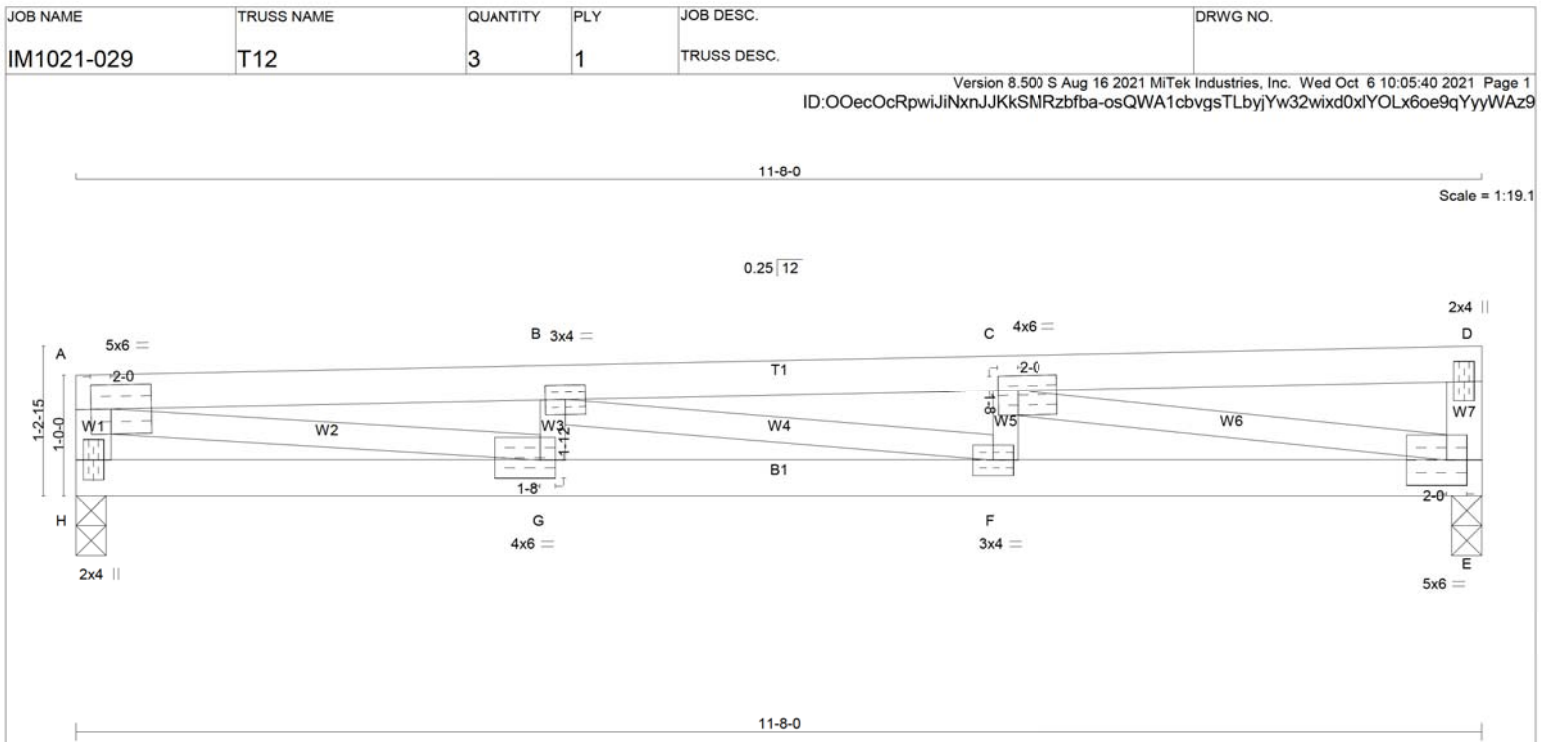
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Per: joshua.nabua



TOTAL WEIGHT = 3 X 37 = 112 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
H - A	2x4	DRY	No.2
A - D	2x4	DRY	No.2
E - D	2x4	DRY	No.2
H - 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
A	TMVW-t	MT20	5.0	6.0	2.50	2.00
B	TMVW-t	MT20	3.0	4.0		
C	TMVW-t	MT20	4.0	6.0	1.50	2.00
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	5.0	6.0	2.50	2.00
F	BMVW-t	MT20	3.0	4.0		
G	BMVW-t	MT20	4.0	6.0	1.75	1.50
H	BMV1+p	MT20	2.0	4.0		

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

PROVIDE ADEQUATE DRAINAGE TO PREVENT PONDING

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
H	700	0	700	0
E	700	0	700	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX / MIN	COMPONENT REACTIONS
H	500	298 / 0	0 / 0
E	500	298 / 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 = 3.56 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	LC2 MAX	UNBRACED LENGTH	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX
FR-TO							FR-TO			
H-A		-647 / 0	0.0	0.0	0.09 (1)	7.81	A-G		0 / 2340	0.70 (1)
A-B		-2303 / 0	-101.8	-101.8	0.45 (1)	3.56	G-B		-366 / 0	0.07 (1)
B-C		-2159 / 0	-101.8	-101.8	0.30 (1)	3.84	B-F		-145 / 0	0.05 (1)
C-D		0 / 0	-101.8	-101.8	0.29 (1)	10.00	F-C		0 / 97	0.04 (4)
E-D		-180 / 0	0.0	0.0	0.02 (1)	7.81	C-E		-2211 / 0	0.78 (1)
H-G		0 / 0	-18.2	-18.2	0.14 (1)	10.00				
G-F		0 / 2301	-18.2	-18.2	0.65 (1)	10.00				
F-E		0 / 2159	-18.2	-18.2	0.57 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	10.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	42.9	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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.39")
CALCULATED VERT. DEFL.(LL) = L/999 (0.12")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/593 (0.24")

CSI: TC=0.45/1.00 (A-B:1), BC=0.65/1.00 (F-G:1), WB=0.78/1.00 (C-E:1), SSI=0.23/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00
FLAT ROOF FACTOR = 0.75

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (A) (INPUT = 0.90)
JSI METAL= 0.73 (G) (INPUT = 1.00)



October 06, 2021

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.

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

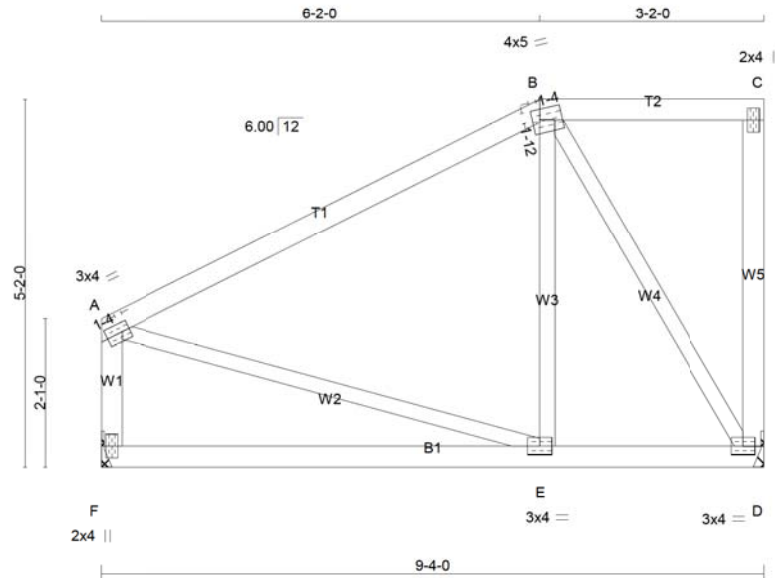


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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM1021-029	T13	1	1	TRUSS DESC.	

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Scale = 1:32.4

TOTAL WEIGHT = 42 lb

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	4.0	1.50	1.25
B	TTWW-m	MT20	4.0	5.0	1.75	1.25
C	TMV+p	MT20	2.0	4.0		
D	BMVW1-t	MT20	3.0	4.0		
E	BMVW-t	MT20	3.0	4.0		
F	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		REQRD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	IN-SX	BRG	IN-SX
D	478	0	478	0	0	MECHANICAL			
F	478	0	478	0	0	MECHANICAL			

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX /MIN	COMPONENT REACTIONS				
D	335	239 / 0	0 / 0	0 / 0	0 / 0	96 / 0	0 / 0
F	335	239 / 0	0 / 0	0 / 0	0 / 0	96 / 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 FITCH 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)	LOA CS1 (LC)	MAX. UNBRAC CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	-244 / 0	-84.3	-84.3	0.41 (1)	6.25	E-B	0 / 111 0.04 (4)
B-C	0 / 0	-84.3	-84.3	0.14 (1)	10.00	B-D	-402 / 0 0.22 (1)
D-C	-133 / 0	0.0	0.0	0.06 (1)	7.81	A-E	0 / 227 0.05 (1)
F-A	-431 / 0	0.0	0.0	0.05 (1)	7.81		
F-E	0 / 0	-18.2	-18.2	0.15 (4)	10.00		
E-D	0 / 219	-18.2	-18.2	0.17 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 25.6 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.3 PSF
TOTAL LOAD = 35.9 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.31")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.31")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.41/1.00 (A-B:1), BC=0.17/1.00 (D-E:4),
WB=0.22/1.00 (B-D:1), SSI=0.18/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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= 0.54 (A) (INPUT = 0.90)
JSI METAL= 0.12 (B) (INPUT = 1.00)

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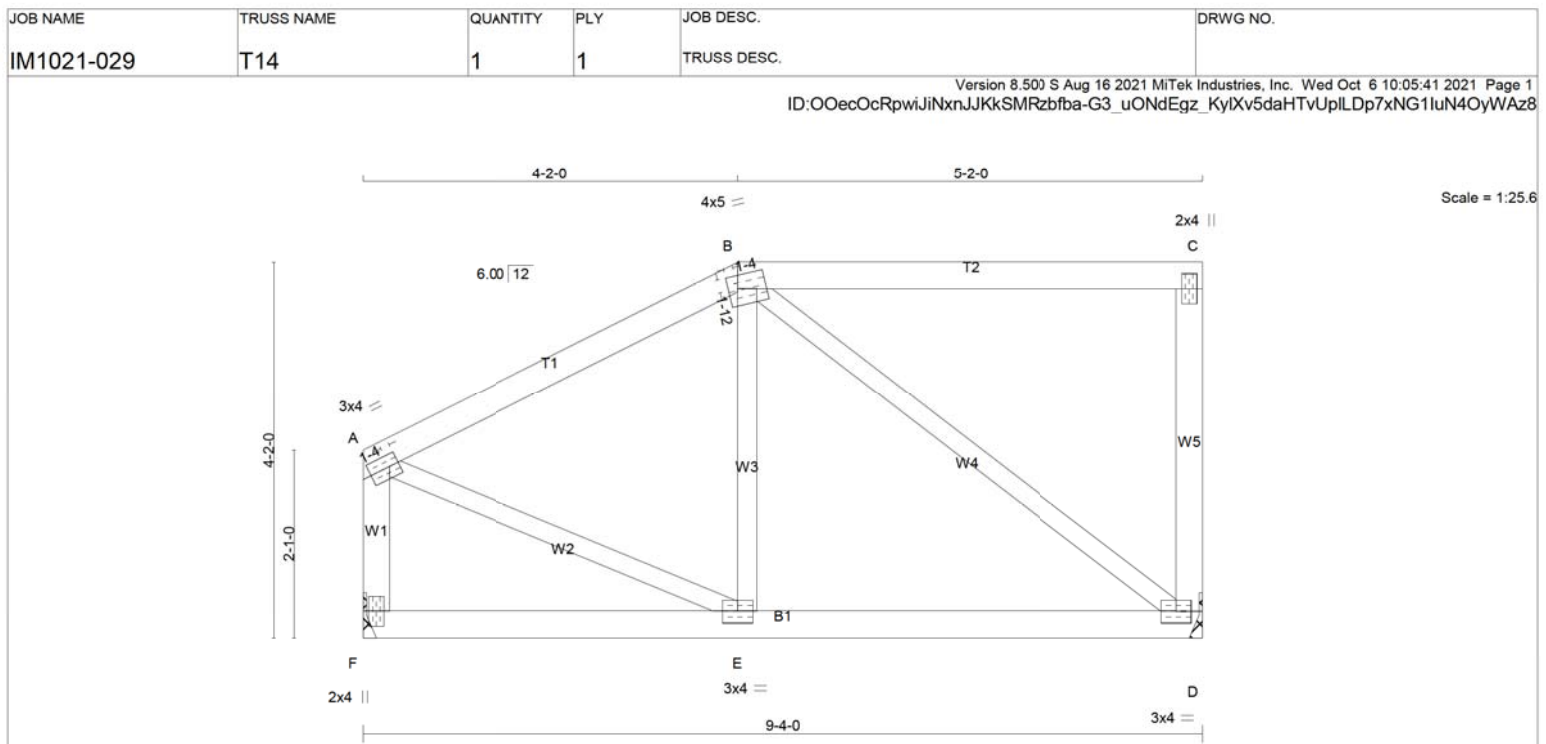
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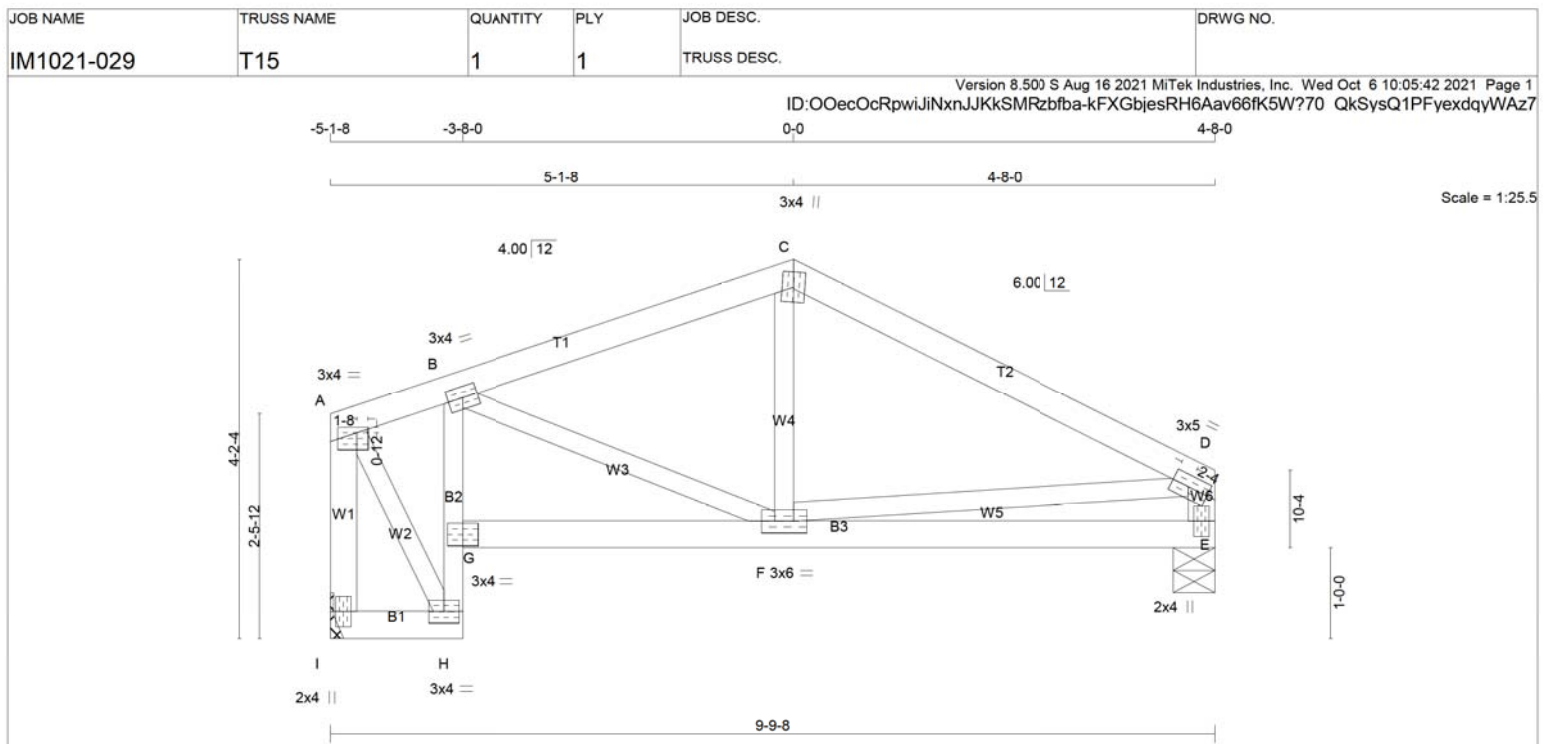
Per: joshua.nabua



October 06, 2021

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**LUMBER**

N. L. G. A. RULES

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

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-p	MT20	3.0	4.0	0.75	1.50
B	TMVW-t	MT20	3.0	4.0		
C	TTW+m	MT20	3.0	4.0		
D	TMVW-t	MT20	3.0	5.0	1.50	2.25
E	BMV1+p	MT20	2.0	4.0		
F	BMVWW-t	MT20	3.0	6.0		
G	BVM-I	MT20	3.0	4.0		
H	BMVW-t	MT20	3.0	4.0		
I	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	DOWN	UP	IN-SX
I	502	0	0	MECHANICAL
E	502	0	0	5-8 1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX /MIN.	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE PERM.LIVE WIND DEAD SOIL
I	351	251 / 0	0 / 0 0 / 0 101 / 0 0 / 0
E	351	251 / 0	0 / 0 0 / 0 101 / 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 = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MAX. FACTORED		FACTORED		MAX. FACTORED			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO	CSI (LC)	LENGTH	FR-TO		
A-B	-234 / 0	-84.3 -84.3	0.04 (4)	6.25	B-F	0 / 92	0.02 (1)
B-C	-461 / 0	-84.3 -84.3	0.21 (1)	6.25	F-C	0 / 72	0.02 (4)
C-D	-489 / 0	-84.3 -84.3	0.32 (1)	6.25	A-H	0 / 417	0.09 (1)
I-A	-489 / 0	0.0 0.0	0.06 (1)	7.81	F-D	0 / 440	0.10 (1)
E-D	-464 / 0	0.0 0.0	0.05 (1)	7.81			
I-H	0 / 0	-18.2 -18.2	0.01 (4)	10.00			
H-G	-342 / 0	0.0 0.0	0.59 (1)	7.81			
G-B	-320 / 0	0.0 0.0	0.59 (1)	7.81			
G-F	0 / 355	-18.2 -18.2	0.12 (4)	10.00			
F-E	0 / 0	-18.2 -18.2	0.10 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	25.6	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	35.9	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 31.3 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 25.6 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.33")
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.33")
CALCULATED VERT. DEFL.(TL)= L/999 (0.06")

CSI: TC=0.32/1.00 (C-D:1), BC=0.59/1.00 (B-G:1), WB=0.10/1.00 (D-F:1), SSI=0.24/1.00 (G-H:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	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= 0.81 (H) (INPUT = 0.90)
JSI METAL= 0.16 (D) (INPUT = 1.00)



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TOE-NAIL CAPACITY DETAILS

LATERAL AND WITHDRAWAL RESISTANCE OF BEARING ANCHORAGE BY TOE-NAILS

NAIL TYPE	Length (in)	Diameter (in)	LATERAL Resistance per nail (Lbs.)		WITHDRAWAL Resistance per nail (Lbs.)	
			SPF	D. FIR	SPF	D. FIR
COMMON WIRE	3.00	0.144	122	139	30	42
	3.25	0.144	127	144	32	45
	3.50	0.160	152	173	38	52
COMMON SPIRAL	3.00	0.122	96	108	26	36
	3.25	0.122	97	108	28	40
	3.50	0.152	142	161	36	50
3.25" Gun nail	3.25	0.120	94	105	28	39

Note: If using truss with D. Fir lumber and SPF bearing plate, use tabulated SPF values in table.

Nail type:	Common wire	Common spiral	Common wire	Common spiral	Gun Nail
Diameter (in.)	0.160	0.152	0.144	0.122	0.120
Length (in.)	3.50	3.50	3.00	3.00	3.25
LUMBER	MAXIMUM NUMBER OF TOE-NAILS				
2x4 SPF	2	2	3	3	3
2x6 SPF	4	4	4	5	5
2x4 D. FIR	2	2	2	2	2
2x6 D. FIR	3	3	3	4	4

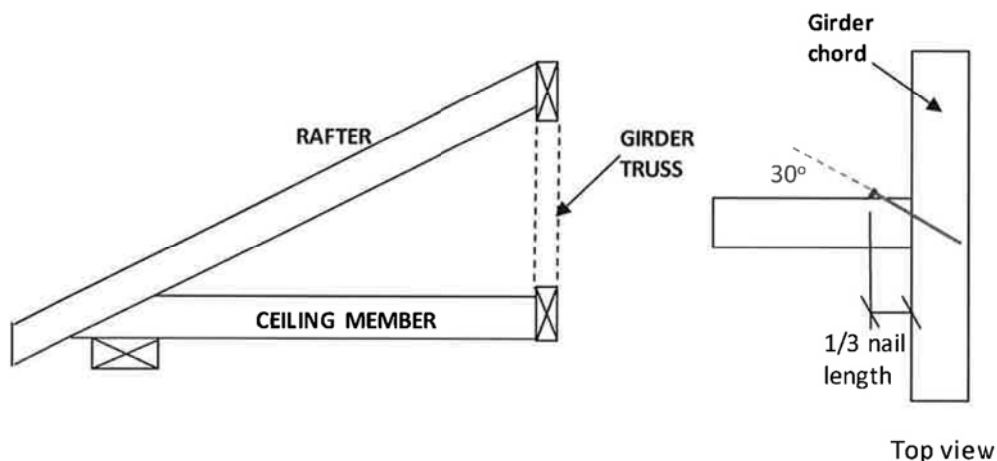


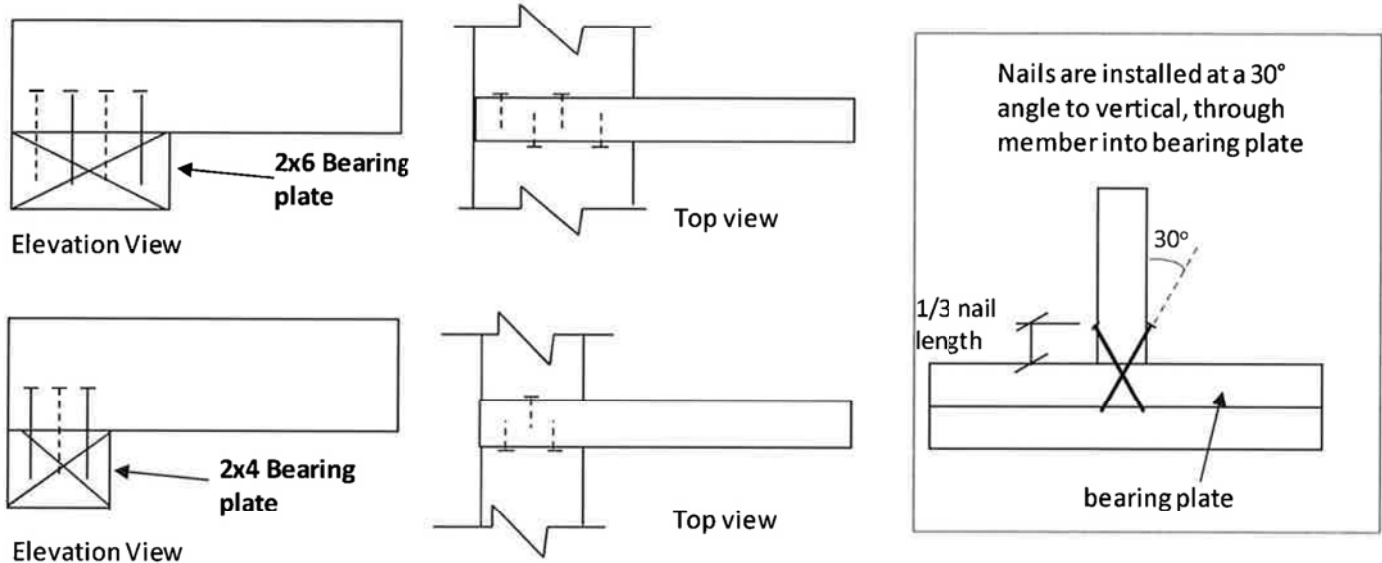
Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

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TOE-NAIL CAPACITY DETAILS

Figure 2: Toe-Nail Anchorage to Bearing Plate for Uplift



NOTES:

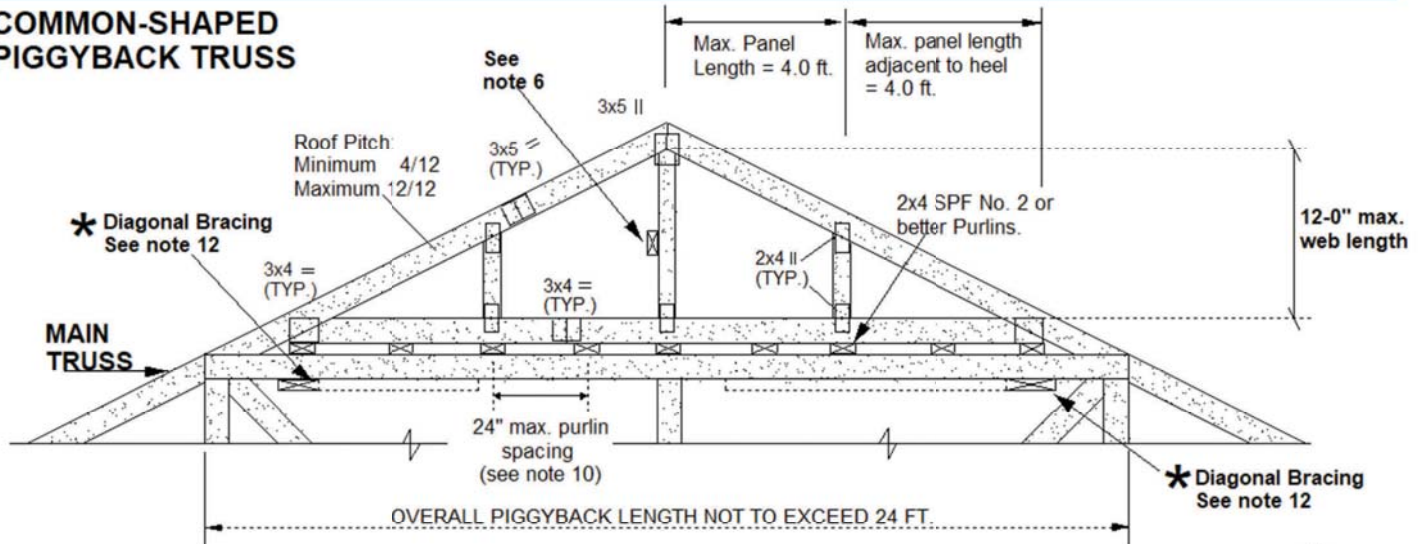
1. Rafter and ceiling members may be connected to top and bottom chords of girder truss by toe-nailing the members into the girder chords (see fig. 1), provided the factored vertical reactions of the supported members do not exceed the lateral resistance of the toe-nails. Mechanical connectors (hangers) are required if factored vertical reactions exceed the toe-nail capacity, or if the connection must resist horizontal loads (loads perpendicular to the face of girder or rafter).
2. Trusses, rafters or ceiling members may be anchored to the bearing plate with toe-nails (see fig. 2), provided that the factored uplift reactions due to **wind or earthquake loads** do not exceed the **withdrawal resistance of the toe-nails**. Mechanical anchors (tie-downs) are required for reactions that exceed the toe-nail withdrawal capacity. Toe-nail anchorage to bearing plates is **NOT** permitted if uplift reactions are generated from gravity loads (snow, floor live, dead).
3. Tabulated toe-nail resistances on page 1 are for **one** toe-nail. Multiply unit values by the number of nails used in the connection. Maximum number of nails in a connection shall not exceed the tabulated limits shown on page 1 for a given lumber size /species.
4. Nail values are based on specific gravity of $G = 0.42$ (SPF) and $G = 0.49$ (D. Fir).
5. 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.
6. For wind / earthquake loads, tabulated lateral resistances may be multiplied by 1.15 (K_D factor). No increases are permitted for tabulated withdrawal resistances.
7. Lumber must be dry ($< 19\%$ moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-19, Clause 12.9.

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STANDARD PIGGYBACK TRUSS

COMMON-SHAPED PIGGYBACK TRUSS

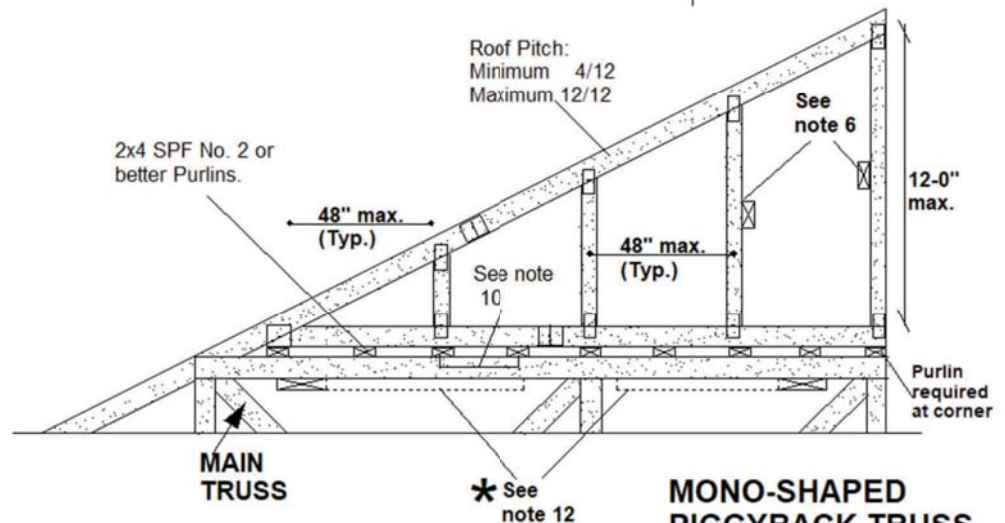


Specified Load Rating:

Top chord live:	60.0 PSF
Top chord dead:	6.0 PSF
Bottom chord live:	0.0 PSF
Bottom chord dead:	7.3 PSF

Truss spacing not to exceed 24 inches cc

The design requirements and limits shown on this page are applicable to both common shaped and mono-shaped piggybacks. Diagrams are for illustration purposes only.



MONO-SHAPED PIGGYBACK TRUSS

NOTES:

1. This detail is applicable only to projects conforming to **PART 9 NBCC2015** that do not require a wind analysis to be incorporated into the truss design. Piggyback length not to exceed 24 ft.
2. All piggyback truss lumber to be SPF or D. Fir species and No. 2 DRY (or better) grade.
3. Piggyback top chord size shall be 2x4. Vertical webs and bottom chord sizes shall be 2x3 or 2x4.
4. Splice joints shall not be located in the first panel adjacent to the heel joint or peak joint. Splices shall be located at 1/4 length of any permissible panel.
5. Maximum web length not to exceed 12.0 ft. Maximum panel lengths not to exceed 48 inches.
6. One continuous lateral brace required at 1/2 length of all vertical members longer than 6.0 ft. Scab brace or L-brace substitutions are permitted. Scab braces shall be limited to 10 ft. long webs or less. Scab and L-braces shall cover 90% of web length and connected as per MITEK detail MSD2015-K.
7. Piggyback truss must be installed directly on top of each main truss.
8. All plates shall be MiTek MT20, centered at each joint and pressed into both faces of truss.
9. **DO NOT** cantilever mono-shaped piggyback truss over the end of main truss. Piggyback length must match the length of the flat chord of the main truss.
10. Purlin spacing to be equal to main truss maximum unbraced top chord length (as shown on main truss engineering drawing), but not to exceed 24 inches c/c.
11. Purlin design and overall roof system bracing shall be specified by the building designer.
12. Diagonal bracing required. See **'BCSI CANADA -B2C: FIELD ASSEMBLY & OTHER SPECIAL CONDITIONS'**

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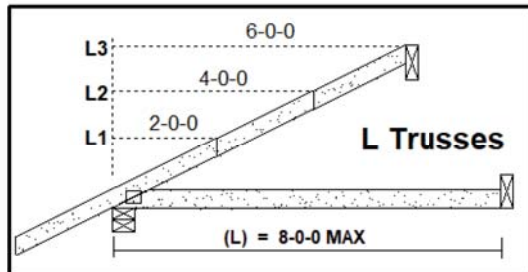
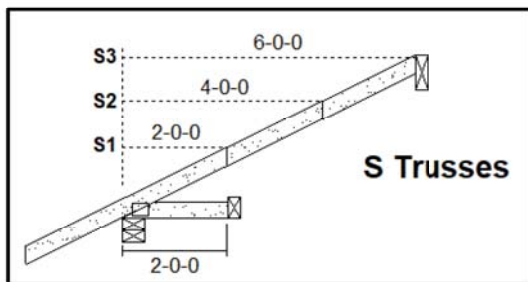
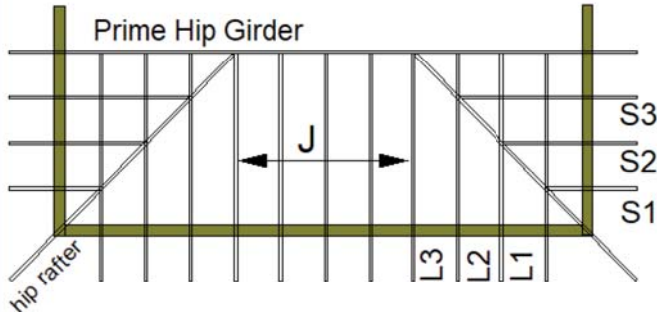
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STANDARD HIP END FRAMING

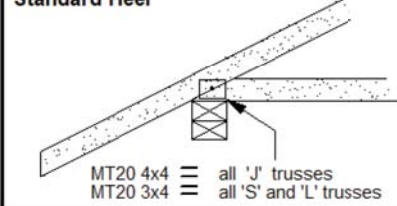
PLAN VIEW



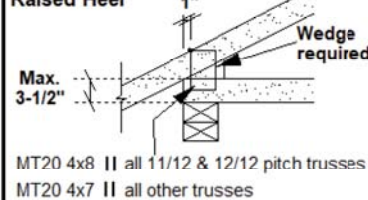
Specified Load Rating:

Top chord Live:	51.0 PSF or less
Top chord Dead:	6.0 PSF or less
Bottom chord Live:	0.0 PSF
Bottom chord Dead:	7.3 PSF or less

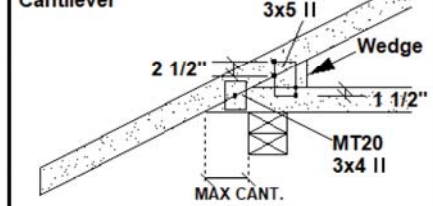
HEEL DETAIL 'A' Standard Heel



DETAIL 'B': Raised Heel



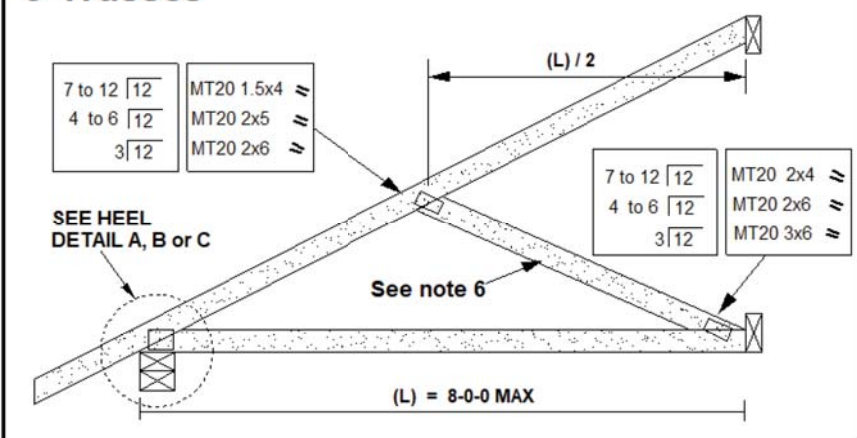
HEEL DETAIL 'C' Cantilever



CANTILEVER DETAIL "C"

SLOPE	MAX CANT.	WEDGE PLATE	WEDGE SIZE
3/12	17"	3 X 5	2 X 3
4/12	14"	3 X 5	2 X 3
5/12	12"	3 X 5	2 X 4
6/12	10"	3 X 5	2 X 4
7/12	9"	3 X 5	2 X 6
8/12	8.5"	3 X 5	2 X 6
9/12	8"	3 X 5	2 X 6
10/12	7.5"	3 X 5	2 X 6

J Trusses



NOTES:

1. This detail is valid only for projects conforming to **PART 9 NBCC 2015** that do not require a wind analysis to be incorporated into the design of the trusses.
2. Overhang length shall not exceed 24 inches.
3. All lumber shall be 2x4 SPF (or D-Fir) DRY No. 2 grade or better.
4. All plates specified are MITEK MT20, pressed into both faces of each truss. Heel plates of all trusses shall conform to heel details 'A', 'B' or 'C'.
5. Diagonal hip rafter design shall conform to section 9.23.14.6 of NBCC 2015.
6. For 6.0 ft. or less span, diagonal web on truss 'J' is optional. Girder design must reflect choice of partial jack ('J' with diagonal web) or open jack ('J' without diagonal web)
7. All truss-to-rafter and truss-to-truss connections shall be specified as per MITEK standard detail 'MSD2015-H: Toe-Nail Capacity Details'

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