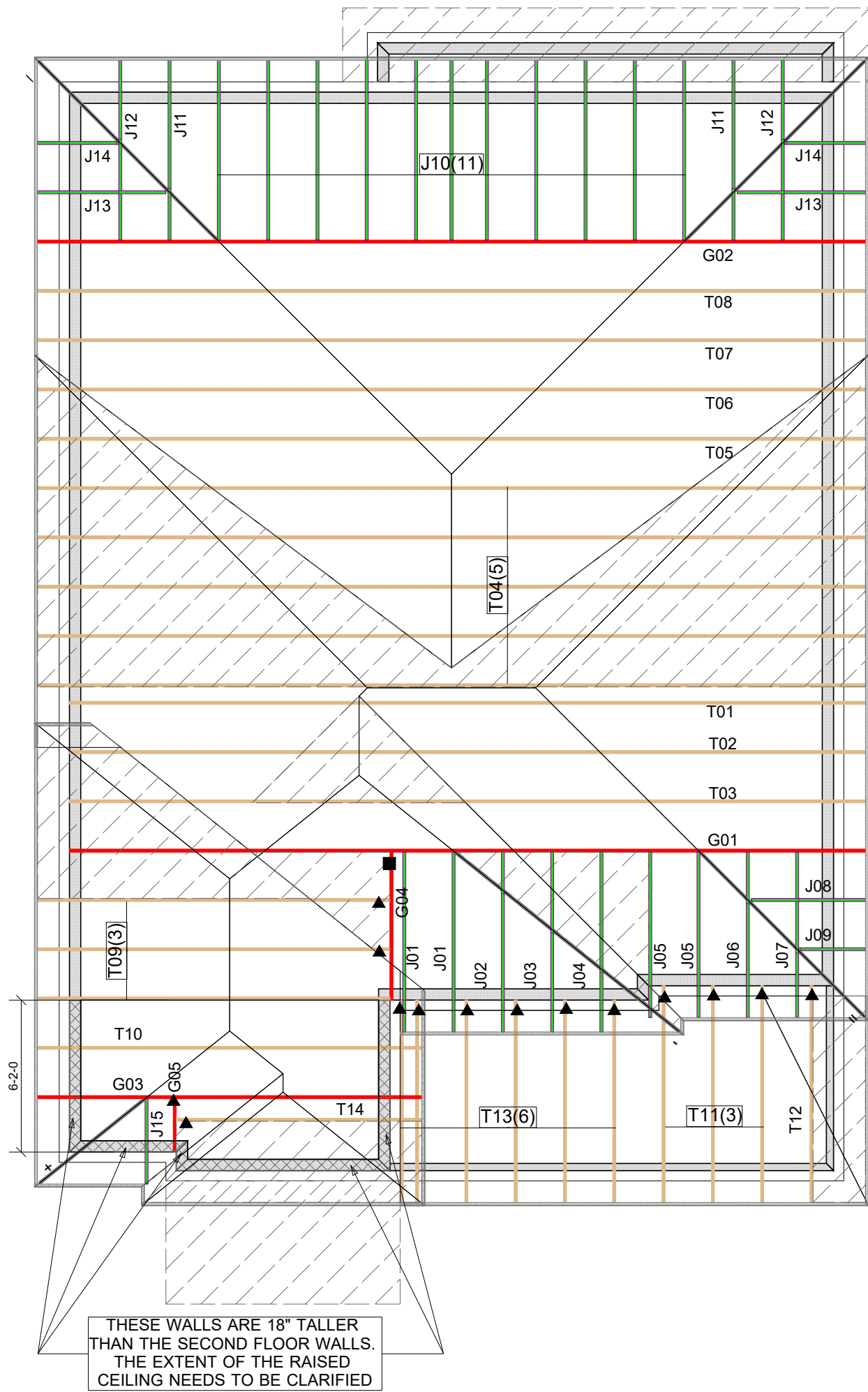




Hanger Name	Symbol	QTY
LUS24	▲	14
LJS26DS	■	1



CONVENTIONAL
FRAMING BY OTHERS

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OF THE OBC. ROOF RAFTERS THAT CROSS OVER TRUSSES TO BE MIN. 2x4 SPF @ 24" C/C WITH A 2x4 VERTICAL POST TO THE TRUSS BELOW. VERTICAL POSTS TO BE LATERALLY BRACED SO THAT UNBRACED LENGTH DOES NOT EXCEED 6'. DESIGN OF CONVENTIONAL FRAMING IS THE RESPONSIBILITY OF THE PROJECT ENGINEER.

JOB INFORMATION

Customer	ROUNDEL HOMES INC
Job #	21-00079R0
Address	PINETREE 1 RICHMOND HILL,ON
Model	38-01 ELEV 1
Sales Rep	RALPH MIRIGELLO
Designer	KR
Date	3/10/2021
Path	C:\MITEK\CA\JOBS\GREENPARK GROUP\ROUNDEL HOMES INC\T-PT38-01-1\

DESIGN INFORMATION

Code	NBCC 2015
Bldg	Residential - HSB (NBCC Part 9)
TC LL	25.6 lb/ft²
TC DL	3.0 lb/ft²
BC LL	0.0 lb/ft²
BC DL	7.3 lb/ft²
Deflection	LL=L/360 TL=L/360
Spacing	24" O/C unless otherwise noted
Complies With	OBC 2012 (2019 Amendment) CSA O86-14 and TPIC 2014

IMPORTANT INFORMATION

Refer to truss drawings in the Truss Engineering Package for ply-to-ply attachment notes

For site-framed valleys: top chords of all roof trusses must be laterally supported using 2x4 continuous bracing @24 O/C - all bracing must be anchored at ends as per TPIC Installation Guidelines

Read all notes on this page in addition to those shown on the KOTT Truss Engineering package

Field erection, handling and bracing are not the responsibility of KOTT, or KOTT Engineering

Unless noted otherwise, hurricane ties are to be installed at the bearings of all trusses > 40 ft clear span, and any girder or beam supporting trusses with a clear span >40 ft. See hanger legend for type.

Unless noted otherwise, for Part 9 bldgs, all trusses are to be anchored to the top of supporting walls as follows: trusses with a clear span <40 ft use 3-1/4" nails @ each bearing, trusses with a clear span >40 ft use 3-1/4" nails @ each bearing in addition to the appropriate hurricane tie.

KOTT Inc.
14 Anderson Blvd.
Uxbridge, ON
905.642.4400

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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

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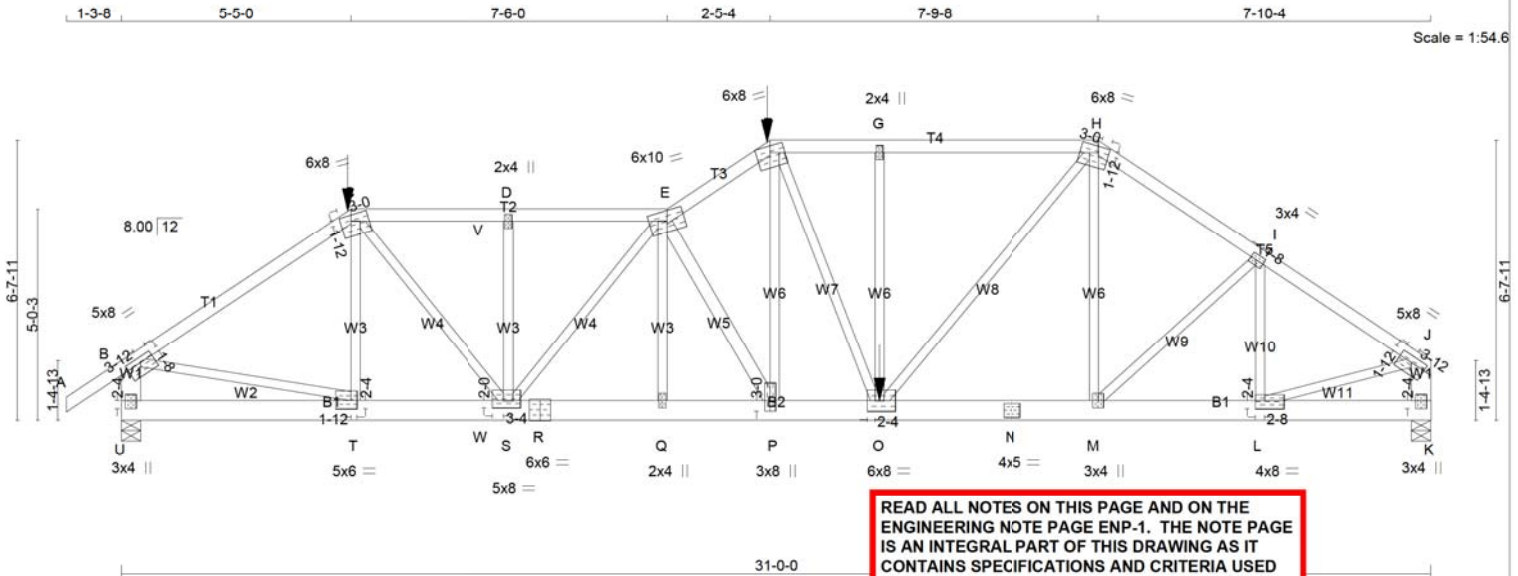
2020/04/22

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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	G01	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:45:42 2021 Page 1
ID:QiBSWjWmAcysC3PcXOLowezcojV-PEFk6NOMRHshOYm12jwRcMTPQVapb yRJ47azz1qaN



TOTAL WEIGHT = 165 lb
[M]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - F	2x4	DRY	No.2
F - H	2x4	DRY	No.2
H - J	2x4	DRY	No.2
U - B	2x6	DRY	No.2
K - J	2x6	DRY	No.2
U - R	2x6	DRY	No.2
R - N	2x6	DRY	No.2
N - K	2x6	DRY	No.2
ALL WEBS EXCEPT E - P	2x3	DRY	No.2
	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMVW-t	MT20	5.0	8.0	1.50	3.75
C TTWW-m	MT20	6.0	8.0	1.75	3.00
D TMW+w	MT20	2.0	4.0		
E TTWWW-m	MT20	6.0	10.0		
F TTWW-m	MT20	6.0	8.0	Edge	
G TMW+w	MT20	2.0	4.0		
H TTWW-m	MT20	6.0	8.0	1.75	3.00
I TMWW-t	MT20	3.0	4.0	1.50	1.50
J TMVW-t	MT20	5.0	8.0	1.75	3.75
K BMV1+p	MT20	3.0	4.0	2.25	1.50
L BMWW-t	MT20	4.0	8.0	2.25	2.50
M BMWW-t	MT20	3.0	4.0		
N BS-t	MT20	4.0	5.0		
O BMWWW-t	MT20	6.0	8.0	3.00	2.25
P BMWW-t	MT20	3.0	8.0	3.00	1.50
Q BMW+w	MT20	2.0	4.0		
R BS-t	MT20	6.0	6.0		
S BMWWW-t	MT20	5.0	8.0	2.00	3.25
T BMWW-t	MT20	5.0	6.0	2.25	1.75
U BMV1+p	MT20	3.0	4.0	2.25	1.50

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

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
U	3106	0	5-8	4-10
K	2774	0	5-8	3-8

UNFACTORED REACTIONS

	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
U	2175	1550 / 0	0 / 0	0 / 0	0 / 0	625 / 0	0 / 0
K	1941	1393 / 0	0 / 0	0 / 0	0 / 0	548 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.68 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.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX FACTORED CSI (LC)
FR-TO		FROM TO			FR-TO		
A- B	0 / 32	-84.3 -84.3	0.12 (1)	10.00	T- C	-393 / 35	0.14 (1)
B- C	-3798 / 0	-84.3 -84.3	0.99 (1)	2.75	C- S	0 / 2234	0.55 (1)
C- V	-4554 / 0	-146.6 -146.6	0.59 (1)	2.74	S- D	-448 / 0	0.16 (1)
V- D	-4554 / 0	-84.3 -84.3	0.59 (1)	2.74	S- E	-1502 / 0	0.88 (1)
D- E	-4554 / 0	-84.3 -84.3	0.57 (1)	2.76	Q- E	0 / 116	0.04 (4)
E- F	-5250 / 0	-84.3 -84.3	0.46 (1)	2.68	E- P	-2346 / 0	0.77 (1)
F- G	-4418 / 0	-158.8 -158.8	0.56 (1)	2.75	P- F	0 / 2123	0.53 (1)
G- H	-4419 / 0	-84.3 -84.3	0.71 (1)	2.75	F- O	0 / 39	0.01 (1)
H- I	-3625 / 0	-84.3 -84.3	0.44 (1)	3.30	O- G	-500 / 0	0.35 (1)
I- J	-3372 / 0	-84.3 -84.3	0.42 (1)	3.45	O- H	0 / 2225	0.55 (1)
U- B	-3027 / 0	0.0 0.0	0.22 (1)	6.01	M- H	-21 / 58	0.02 (4)
K- J	-2716 / 0	0.0 0.0	0.19 (1)	6.29	M- I	0 / 237	0.06 (1)
					L- I	-690 / 0	0.17 (1)
U- T	0 / 0	-31.7 -31.7	0.11 (4)	10.00	B- T	0 / 3207	0.79 (1)
T- W	0 / 3147	-31.7 -31.7	0.45 (1)	10.00	L- J	0 / 2907	0.72 (1)
W- S	0 / 3147	-34.4 -34.4	0.45 (1)	10.00			
S- R	0 / 5500	-34.4 -34.4	0.82 (1)	10.00			
R- Q	0 / 5500	-34.4 -34.4	0.82 (1)	10.00			
Q- P	0 / 5498	-34.4 -34.4	0.81 (1)	10.00			
P- O	0 / 4404	-34.4 -34.4	0.64 (1)	10.00			
O- N	0 / 2994	-18.2 -18.2	0.44 (1)	10.00			
N- M	0 / 2994	-18.2 -18.2	0.44 (1)	10.00			
M- L	0 / 2822	-18.2 -18.2	0.43 (1)	10.00			
L- K	0 / 0	-18.2 -18.2	0.07 (1)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	5-5-0	-298	-298	---	FRONT	VERT	TOTAL	---	C1
F	15-4-4	-44	-49	---	FRONT	VERT	DEAD	---	C1
F	15-4-4	-452	-452	---	FRONT	VERT	SNOW	---	C1
O	17-11-4	-286	-321	---	FRONT	VERT	DEAD	---	C1
O	17-11-4	-855	-855	---	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 = 5-5-0
RIGHT SETBACK = 7-10-4
END SETBACK = 5-5-0
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 8-6-0 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, 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

ALLOWABLE DEFL.(LL) = L/360 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.24")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/901 (0.41")

CSI: TC=0.99/1.00 (B-C:1), BC=0.82/1.00 (Q-S:1)
WB=0.88/1.00 (E-S:1), SSI=0.24/1.00 (C-D:1)

DOL LUMBER - 100 NAIL - 100 LBS BEND 1.00
COMP=1.00 SHEAR=1.00 TENS=1.00

CONTINUED ON PAGE 2

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June 28, 2021

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	G01	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:45:43 2021 Page 2
 ID: QiBSwjWmAcysC3PcXOLowezcOjV-tRp7JiPOCa_Y0iKDcRRg8a9e8qroY2E5fzqg7Pz1qaM

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= 0.90 (L) (INPUT = 0.90)
 JSI METAL= 0.84 (R) (INPUT = 1.00)



June 28, 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
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CITY OF RICHMOND HILL
BUILDING DIVISION

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Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:45:50 2021 Page 1
ID: QIRSwiWmAcvsC3PcXQI owezcQiV-Ankmpn6I jn7kt7MnNZWP3.lw2xwnfidhCb7G70YsVz1qaE



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IN THE DESIGN OF THIS COMPONENT.**

Per: joshua.nabua



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	G02	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:45:50 2021 Page 2
 ID:QiBSwjWmAcysC3PcXOLoweZcOjV-Ankmn6UnZktZMnNZWP3Jw2xwpldhCb7GZ0YsVz1qaF

MT18HS 586 403 2455 1382 3163 3004

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (S) (INPUT = 0.90)

JSI METAL= 0.79 (Q) (INPUT = 1.00)



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ID:QIBSwiWmAcvysC3PcXQLowezcOiV-x5129ZY8adi4iqisfAkAJB?g4Rt54B0fVTs49z1ga9



Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	G03	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:45:56 2021 Page 2
 ID:QiBSwjWmAcysC3PcXOLowezcOjV-?x5129ZY8adi4iqsfAkAJB?q4Rt54B0fVTs49z1qa9

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 (F) (INPUT = 0.90)
 JSI METAL= 0.26 (F) (INPUT = 1.00)



June 28, 2021

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CITY OF RICHMOND HILL
 BUILDING DIVISION

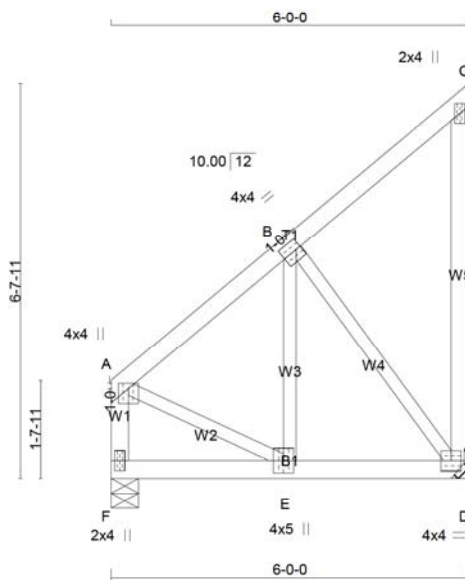
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Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:46:02 2021 Page 1
ID: QiBSwiWmAcysC3PcXOLowez:OiV-q5SIICdJkQNSodHtDwH8PaR5fUOMVmRu1QwBlpz1ga3



Scale = 1:38.8

TOTAL WEIGHT = 33 lb

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

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	4.0	1.00	2.00
B	TMWW-t	MT20	4.0	4.0	2.00	1.00
C	TMV+p	MT20	2.0	4.0		
D	BMVW1-t	MT20	4.0	4.0		
E	BMWW+t	MT20	4.0	5.0		
F	BMV1+p	MT20	2.0	4.0		

FACTORED		MAXIMUM FACTORED			INPUT	REQRD	
GROSS REACTION		GROSS REACTION			BRG	BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
F	1142	0	1142	0	0	5-8	1-8
D	1142	0	1142	0	0	MECHANICAL	

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

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	800	570 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0
D	800	570 / 0	0 / 0	0 / 0	0 / 0	229 / 0	0 / 0

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

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)

C H O R D S					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)		
FR-TO		FROM TO		LENGTH	FR-TO				
F-A	-800 / 0	0.0	0.0	0.09 (1)	7.81	A-E	0 / 603 0.15 (1)		
A-B	-702 / 0	-84.3	-84.3	0.14 (1)	6.25	E-B	0 / 853 0.21 (1)		
B-C	-18 / 0	-84.3	-84.3	0.13 (1)	6.25	B-D	-894 / 0 0.34 (1)		
D-C	-98 / 0	0.0	0.0	0.09 (1)	7.81				
F-E	0 / 0	-296.4	-296.4	0.46 (1)	10.00				
E-D	0 / 553	-296.4	-296.4	0.56 (1)	10.00				

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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 13-0-0
END DISTANCE = 6-0-0
END SPAN CARRIED = 13-0-0
END WALL WIDTH = 1-12
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 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 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.14/1.00 (A-B:1), BC=0.56/1.00 (D-E:1), WB=0.34/1.00 (B-D:1), SSI=0.47/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

CONTINUED ON PAGE 2

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June 28, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	G04	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:46:02 2021 Page 2
 ID: QiBSwjWmAcysC3PcXOLoweZzOjV-q5SIIcdJkQNsodHtDwH8PaR5fUOMVmRu1QwBlpz1qa3

JSI GRIP= 0.78 (B) (INPUT = 0.90)
 JSI METAL= 0.25 (E) (INPUT = 1.00)



June 28, 2021

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CITY OF RICHMOND HILL
 BUILDING DIVISION

09/22/2022



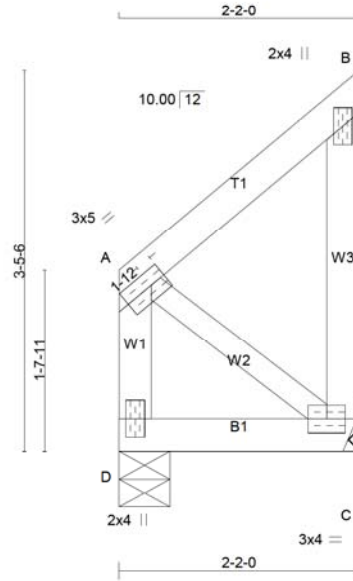
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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	G05	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:46:08 2021 Page 1

ID:QiBSwJWmAcysC3PcXOLoweZcOjV-eFqZZFi3JG8?WY11ZBOYfrh88vWBvZENPMNVUTz1qZz



Scale = 1:20.9

TOTAL WEIGHT = 12 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
D - A	2x4 DRY	No.2	SPF
A - B	2x4 DRY	No.2	SPF
C - B	2x4 DRY	No.2	SPF
D - C	2x4 DRY	No.2	SPF
ALL WEBS	2x3 DRY	No.2	SPF
DRY: SEASONED LUMBER.			

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	5.0	1.50	1.75
B	TMV+p	MT20	2.0	4.0		
C	BMVW1-t	MT20	3.0	4.0		
D	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
D	350	0	350	0
C	350	0	350	0

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	COMBINED	245	178 / 0	0 / 0	0 / 0	0 / 0	67 / 0	0 / 0
C	COMBINED	245	178 / 0	0 / 0	0 / 0	0 / 0	67 / 0	0 / 0

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

BRACING

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

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED HORIZ. LOAD (LC)	MAX. FACTORED UNBRACED LENGTH (FT)	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. FACTORED HORIZ. LOAD (LC)
FR-TO						FR-TO			
D-A	-91 / 0	0.0	0.0	0.01 (1)	7.81	A-C	0 / 0	0.00 (1)	
A-B	0 / 0	-84.3	-84.3	0.07 (1)	10.00				
C-B	-91 / 0	0.0	0.0	0.02 (1)	7.81				
D-C	0 / 0	-239.0	-239.0	0.21 (1)	10.00				

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

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

CSI: TC=0.07/1.00 (A-B:1), BC=0.21/1.00 (C-D:1),
 WB=0.00/1.00 (A-C:1), SSI=0.22/1.00 (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)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788	1987 1873



June 28, 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

CONTINUED ON PAGE 2

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	G05	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:46:08 2021 Page 2
 ID:QiBSwjWmAcysC3PcXOLowezcOjV-eFqZZFi3JG8?WY11ZBOYfrh88vWBvZEnPMNVUTz1qZz

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.09 (C) (INPUT = 0.90)

JSI METAL= 0.05 (B) (INPUT = 1.00)



June 28, 2021

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CITY OF RICHMOND HILL
 BUILDING DIVISION

09/22/2022

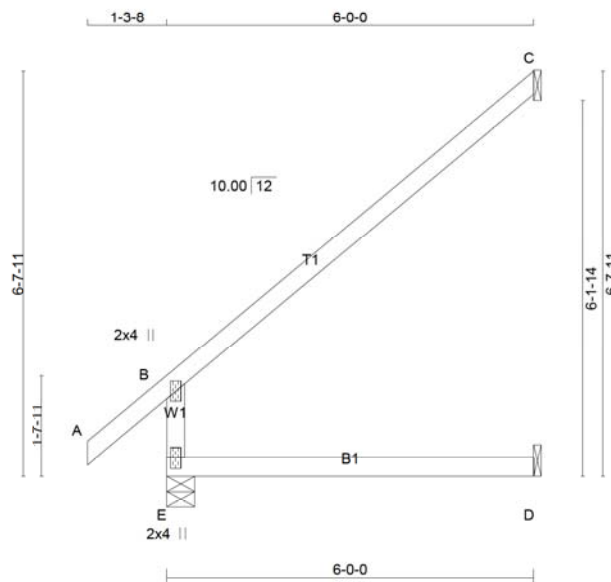


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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	J01	2	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:46:14 2021 Page 1
ID:QiBSwJWmAcysC3PcXOLowezcOjV-TOBrqJnqv6u9ETCAwRVyv6x2hKaiJGjfolqpi6z1qZt



Scale = 1:37.8

TOTAL WEIGHT = 2 X 19 = 39 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	496	0	496	0	0	5-8	1-8
C	190	0	190	0	0	1-8	1-8
D	46	0	52	0	0	1-8	1-8

SEE MITTEK 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	344	263 / 0	0 / 0	0 / 0	0 / 0	0 / 0	81 / 0	0 / 0
C	129	115 / 0	0 / 0	0 / 0	0 / 0	0 / 0	14 / 0	0 / 0
D	37	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	37 / 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.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. CSI (LC)	UNBRAC LENGTH	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO							FR-TO			
E-B		-433 / 0	0.0	0.0	0.12 (4)	7.81				
A-B		0 / 37	-84.3	-84.3	0.12 (1)	10.00				
B-C		-40 / 0	-84.3	-84.3	0.52 (1)	6.25				
E-D		0 / 0	-18.2	-18.2	0.14 (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) = $L/999$ (0.04")

CSI: TC=0.52/1.00 (B-C:1), BC=0.14/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	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= 0.30 (B) (INPUT = 0.90)

JSI METAL= 0.23 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

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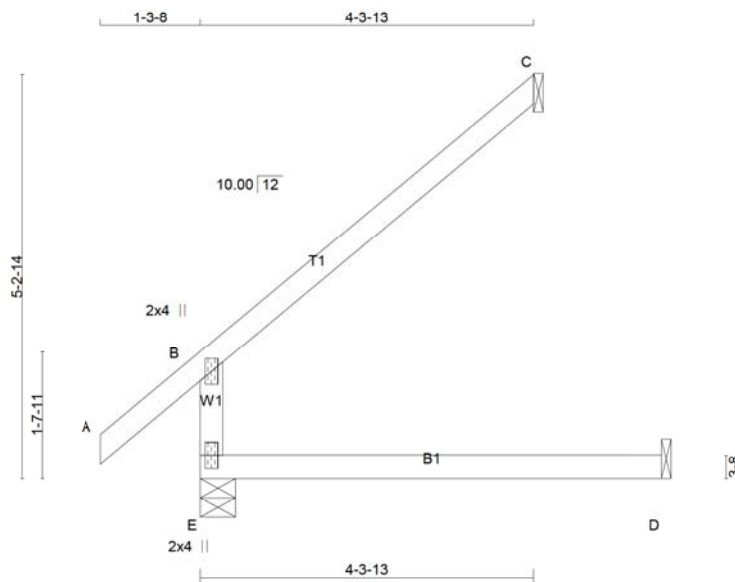


June 28, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	J02	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:46:20 2021 Page 1
ID: QiBSwjWmAcysC3PcXOLowezcOjV-IYY64MrbVyelyOfKicM8NB84ld5j_CYAEH8vmz1qZn



Scale = 1:29.9

TOTAL WEIGHT = 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**

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ
JT	407	0	407	0
E	137	0	137	0
C	46	0	52	0
D				

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX / MIN	COMPONENT REACTIONS	WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM. LIVE		
E	284	209 / 0	0 / 0	0 / 0	75 / 0	0 / 0
C	93	83 / 0	0 / 0	0 / 0	10 / 0	0 / 0
D	37	0 / 0	0 / 0	0 / 0	37 / 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)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO								
E-B		-344 / 0	0.0	0.0	0.12 (4)	7.81		
A-B		0 / 37	-84.3	-84.3	0.12 (1)	10.00		
B-C		-29 / 0	-84.3	-84.3	0.27 (1)	6.25		
E-D		0 / 0	-18.2	-18.2	0.14 (4)	10.00		

DESIGN CRITERIA**SPECIFIED LOADS:**

TOP CH.	LL	PSF
DL	25.6	PSF
BOT CH.	LL	PSF
DL	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 (0.04")

CSI: TC=0.27/1.00 (B-C:1), BC=0.14/1.00 (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)
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

09/22/2022
KOTT
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Per: joshua.nabua



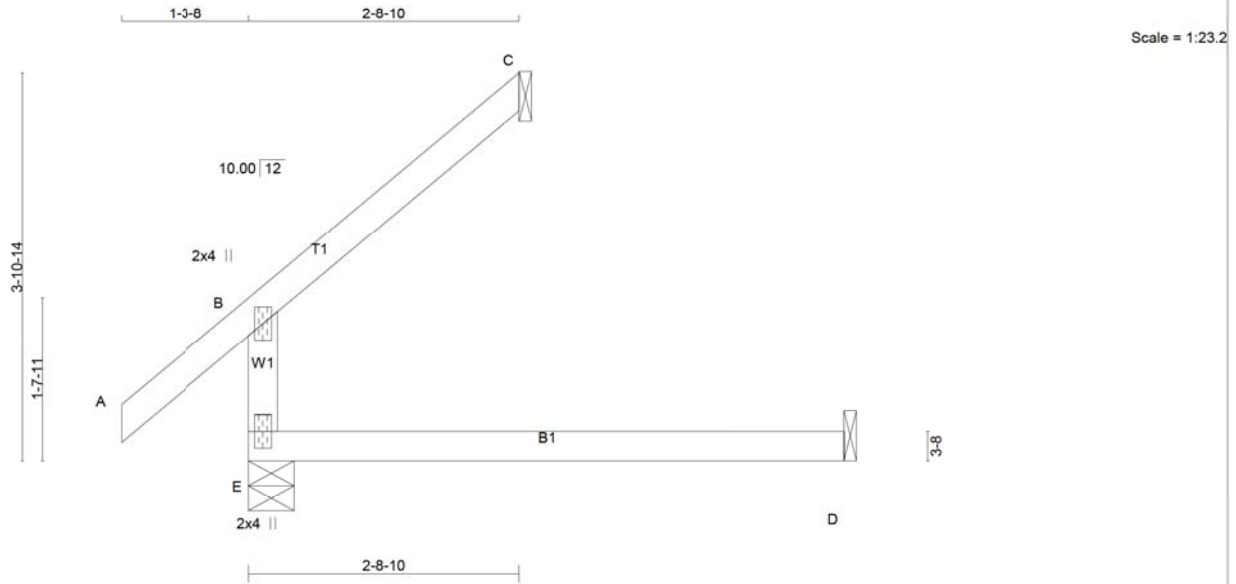
June 28, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	J03	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:46:25 2021 Page 1

ID:QiBSWjWmAcysC3PcXOLowezcOjV-fWL?74vkJUHb39YI3FBXrRu1AmKGOFRHKV?vb_z1qZi



TOTAL WEIGHT = 14 lb

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**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQRD BRG IN-SX
	VERT	HORZ	DOWN	HORZ		
E	323	0	323	0	5-8	1-8
C	86	0	86	0	1-8	1-8
D	46	0	52	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				WIND DEAD	SOIL
		SNOW	LIVE	PERM. LIVE	IN-SX		
E	227	158 / 0	0 / 0	0 / 0	0 / 0	69 / 0	0 / 0
C	59	52 / 0	0 / 0	0 / 0	0 / 0	6 / 0	0 / 0
D	37	0 / 0	0 / 0	0 / 0	0 / 0	37 / 0	0 / 0

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

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)

MEMB.	CHORDS		FACTORED		MAX. UNBRACED LENGTH	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH			MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
FR-TO						FR-TO		
E-B	-260 / 0	0.0	0.0	0.12 (4)	7.81			
A-B	0 / 37	-84.3	-84.3	0.12 (1)	10.00			
B-C	-18 / 0	-84.3	-84.3	0.10 (1)	6.25			
E-D	0 / 0	-18.2	-18.2	0.14 (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 (0.04")

CSI: TC=0.12/1.00 (B-E:4), BC=0.14/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.09/1.00 (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= 0.18 (B) (INPUT = 0.90)

JSI METAL= 0.14 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

KOTT

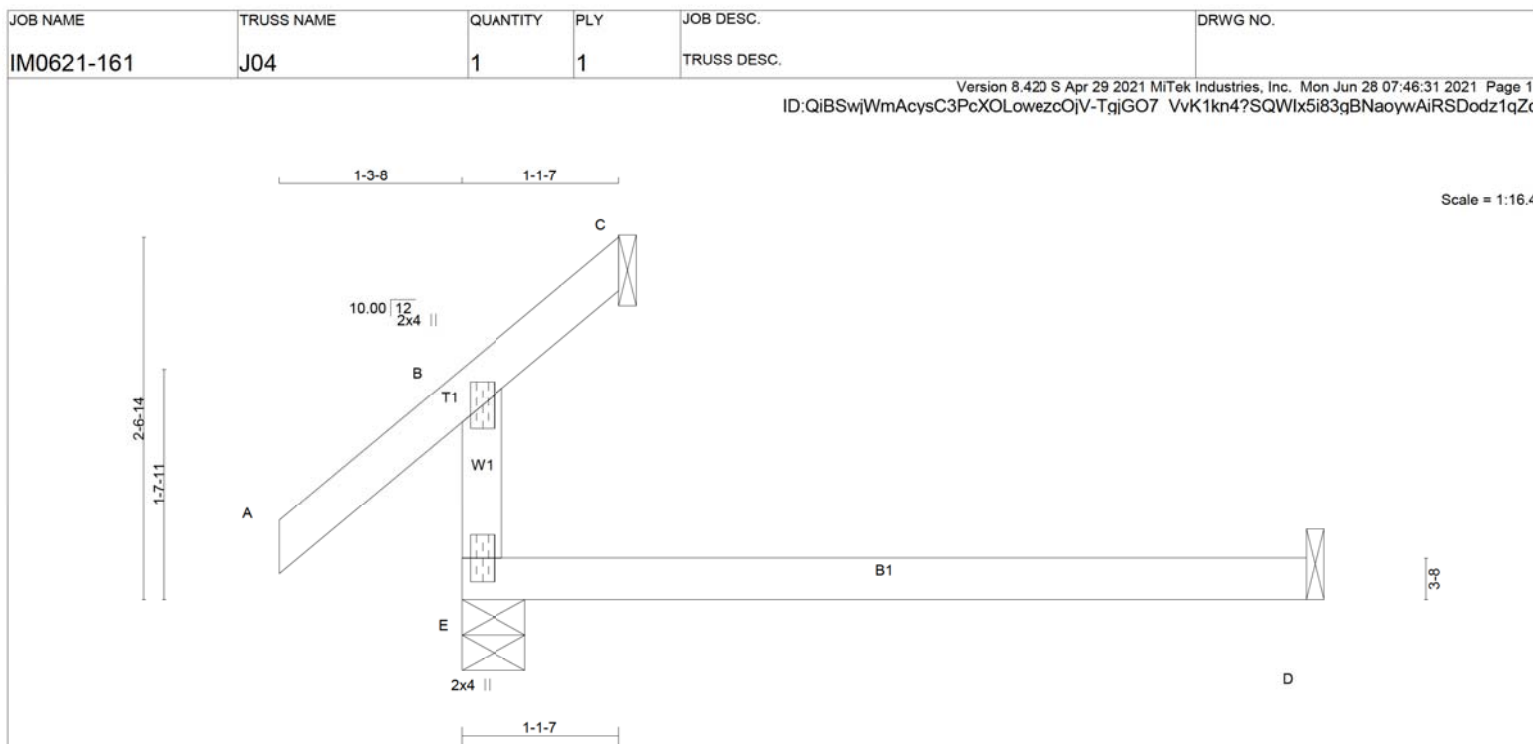
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Per: joshua.nabua



June 28, 2021

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TOTAL WEIGHT = 12 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	253	0	253	0	0	5-8	1-8
C	22	0	42	0	0	1-8	1-8
D	46	0	53	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	COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
E	174	139 / 0	0 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0
C	20	0 / -10	0 / 0	0 / 0	0 / 0	0 / 0	30 / 0	0 / 0
D	37	0 / -1	0 / 0	0 / 0	0 / 0	0 / 0	38 / 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)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRAC LENGTH FR-TO	MAX. FACTORED CSI (LC)
FR-TO				FR-TO			
E-B	-189 / 21	0.0	0.0 0.11 (4)	7.81			
A-B	0 / 37	-84.3	-84.3 0.12 (1)	10.00			
B-C	-16 / 24	-84.3	-84.3 0.09 (4)	6.25			
E-D	0 / 0	-18.2	-18.2 0.14 (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) = $L/999$ (0.04")

CSI: TC=0.12/1.00 (A-B:1), BC=0.14/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.08/1.00 (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 (PSI)	SECTION (PLI)
MT20	650	371	1747
			788
			1987
			1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.13 (B) (INPUT = 0.90)

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

CITY OF RICHMOND HILL
 BUILDING DIVISION

09/22/2022

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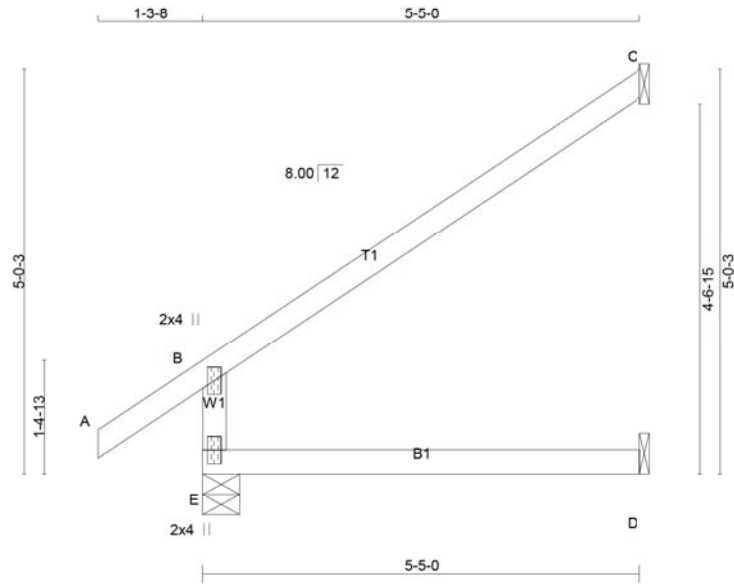


June 28, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	J05	2	1	TRUSS DESC.	

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ID: QiBSWjWmAcysC3PcXOLowezc0jV-lq4XfA3GUAouV7TbmPLKyO0NbRVCGP24NvX0Hz1qZW



Scale = 1:28.5

TOTAL WEIGHT = 2 X 17 = 33 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.

SPF
SPF
SPF**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	458	0	458	0	5-8	1-8
C	171	0	171	0	1-8	1-8
D	42	0	47	0	1-8	1-8

SEE MITTEK 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	318	243 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0
C	116	104 / 0	0 / 0	0 / 0	0 / 0	12 / 0	0 / 0
D	33	0 / 0	0 / 0	0 / 0	0 / 0	33 / 0	0 / 0

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

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LOAD MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO		FR-TO			
E-B	-401 / 0	0.0	0.0	0.10 (4)	7.81			
A-B	0 / 32	-84.3	-84.3	0.11 (1)	10.00			
B-C	-32 / 0	-84.3	-84.3	0.42 (1)	6.25			
E-D	0 / 0	-18.2	-18.2	0.11 (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 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.42/1.00 (B-C:1), BC=0.11/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	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= 0.25 (B) (INPUT = 0.90)

JSI METAL= 0.20 (B) (INPUT = 1.00)

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BUILDING DIVISION

09/22/2022
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Per: joshua.nabua



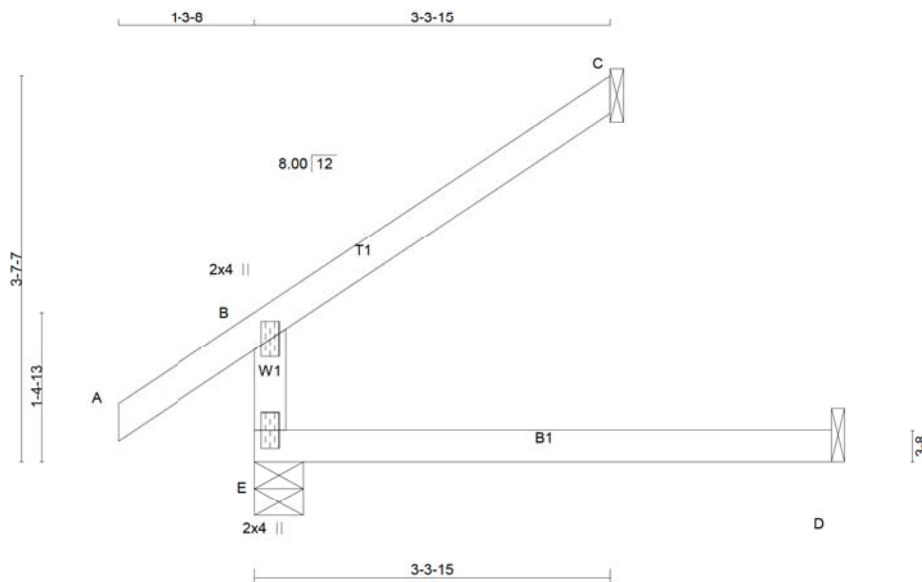
June 28, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	J06	1	1	TRUSS DESC.	

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ID: QiBSwjWmAcysC3PcXOLowezcOjV-7zRovD7040Y1Dwwl71WlaDe5z0UvcOuxSJMrdx1qZQ



Scale = 1:21.6

TOTAL WEIGHT = 14 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	REQRD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
E	348	0	348	0	0	5-8	1-8
C	105	0	105	0	0	1-8	1-8
D	42	0	47	0	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	243	177 / 0	0 / 0	0 / 0	0 / 0	66 / 0	0 / 0
C	71	64 / 0	0 / 0	0 / 0	0 / 0	8 / 0	0 / 0
D	33	0 / 0	0 / 0	0 / 0	0 / 0	33 / 0	0 / 0

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

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)

MEMB.	CHORDS		WEBS			
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO				
E-B	-291 / 0	0.0 0.0 0.10 (4)	7.81			
A-B	0 / 32	-84.3 -84.3 0.11 (1)	10.00			
B-C	-19 / 0	-84.3 -84.3 0.16 (1)	6.25			
E-D	0 / 0	-18.2 -18.2 0.11 (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 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.16/1.00 (B-C:1), BC=0.11/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.11/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(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= 0.18 (B) (INPUT = 0.90)

JSI METAL= 0.15 (B) (INPUT = 1.00)

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Per: joshua.nabua

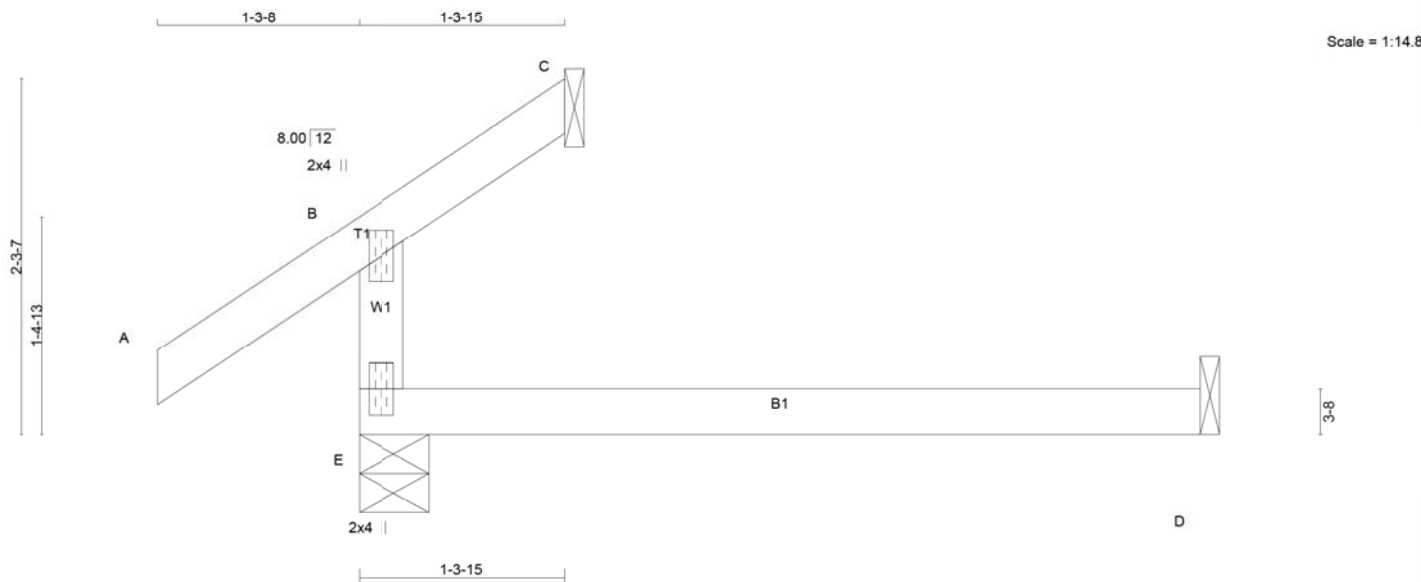


June 28, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	J07	1	1	TRUSS DESC.	

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ID:QiBSwjWmAcysC3PcXOLowezcOjV-TxEhyxvB9vYAKJhojva6wHHLzQ1C_He8gca3cv8z1qZL



TOTAL WEIGHT = 11 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	255	0	255	0	0	5-8	1-8
C	30	0	30	0	0	1-8	1-8
D	41	0	48	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	177	137 / 0	0 / 0	0 / 0	0 / 0	40 / 0	0 / 0
C	24	2 / 0	0 / 0	0 / 0	0 / 0	22 / 0	0 / 0
D	33	0 / -1	0 / 0	0 / 0	0 / 0	34 / 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)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED HORIZ. LOAD (PLF)	MAX. FACTORED UNBRACED LENGTH (FT)	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. FACTORED HORIZ. LOAD (PLF)
FR-TO							FR-TO			
E-B		-197 / 7	0.0	0.0	0.09 (4)	7.81				
A-B		0 / 32	-84.3	-84.3	0.11 (1)	10.00				
B-C		-14 / 14	-84.3	-84.3	0.07 (4)	6.25				
E-D		0 / 0	-18.2	-18.2	0.12 (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 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.03")

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

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

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022
KOTT
RECEIVED

Per: joshua.nabua



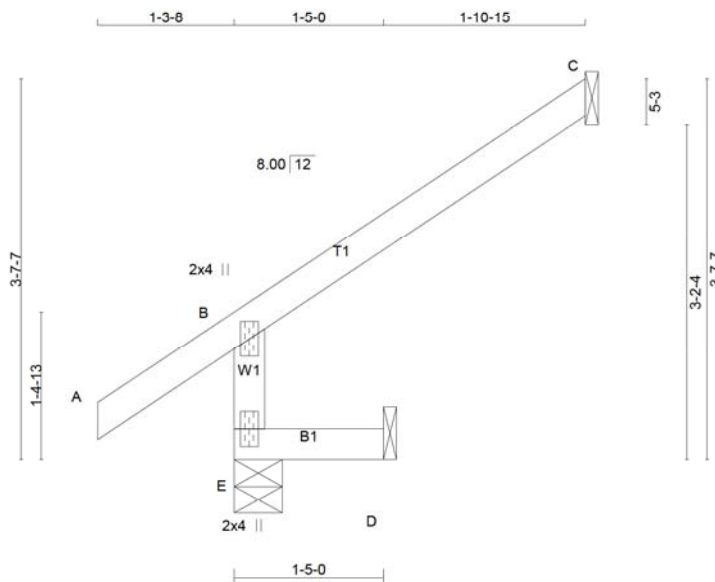
June 28, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	J08	1	1	TRUSS DESC.	

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ID: QiBSWjWmAcysC3PcXOLowezcQjV-I5byD GwUOXt1cGtGrDKWYb CSG4hMdY WWx6oz1qZF



Scale = 1:21.9

TOTAL WEIGHT = 9 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	305	0	305	0	5-8	1-8
C	105	0	105	0	1-8	1-8
D	12	0	13	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				DEAD	SOIL
		SNOW	LIVE	PERM.LIVE	WIND		
E	208	177 / 0	0 / 0	0 / 0	0 / 0	32 / 0	0 / 0
C	71	64 / 0	0 / 0	0 / 0	0 / 0	8 / 0	0 / 0
D	10	0 / 0	0 / 0	0 / 0	0 / 0	10 / 0	0 / 0

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

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: (5)

MEMB.	CHORDS		FACTORED		MAX. FACTORED FORCE (LBS)	W E B S	MAX. FACTORED FORCE (LBS)
	MAX. FACTORED FORCE (LBS)	VERT. LOAD LC1	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)			
FR-TO							
E-B	-291 / 0	0.0	0.0	0.00 (4)	7.81		
A-B	0 / 32	-84.3	-84.3	0.11 (1)	10.00		
B-C	-19 / 0	-84.3	-84.3	0.16 (1)	6.25		
E-D	0 / 0	-18.2	-18.2	0.01 (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=0.16/1.00 (B-C:1), BC=0.01/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.11/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(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 = 0.18 (B) (INPUT = 0.90)

JSI METAL = 0.15 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION09/22/2022
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Per: joshua.nabua



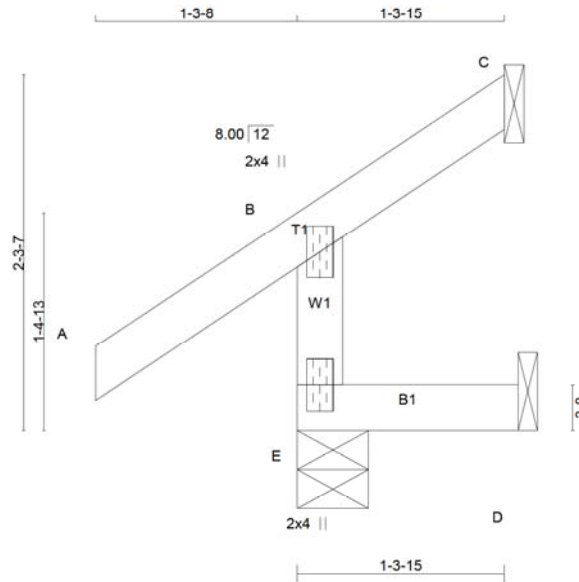
June 28, 2021

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.
IM0621-161	J09	1	1	TRUSS DESC.	

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ID:QIBSwjWmAcysC3PcXOLowezcOjV-7FzET1Kh4EhdIXj0c6Kkmpr0OtJA546RNSzFKSz1qZ9



Scale = 1:14.8

TOTAL WEIGHT = 7 lb

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**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	243	0	243	0	5-8	1-8
C	9	0	9	0	1-8	1-8
D	0	0	13	0	1-8	1-8

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

PROVIDE ANCHORAGE AT BEARING JOINT C FOR 150 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT D FOR 150 LBS. FACTORED UPLIFT**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	167	140 / 0	0 / 0	0 / 0	0 / 0	27 / 0	0 / 0
C	6	5 / -27	0 / 0	0 / 0	0 / 0	1 / 0	0 / 0
D	0	0 / -9	0 / 0	0 / 0	0 / 0	9 / 0	0 / 0

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

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: (5)

CHORDS		FACTORED				WEBS		
MEMB.	MAX. FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM	TO			FR-TO		
E-B	-218 / 0	0.0	0.0	0.03 (5)	7.81			
A-B	0 / 32	-84.3	-84.3	0.11 (1)	10.00			
B-C	-26 / 0	-84.3	-84.3	0.08 (1)	6.25			
E-D	0 / 0	-18.2	-18.2	0.03 (5)	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:5),
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)	(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= 0.13 (B) (INPUT = 0.90)

JSI METAL= 0.11 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

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Per: joshua.nabua



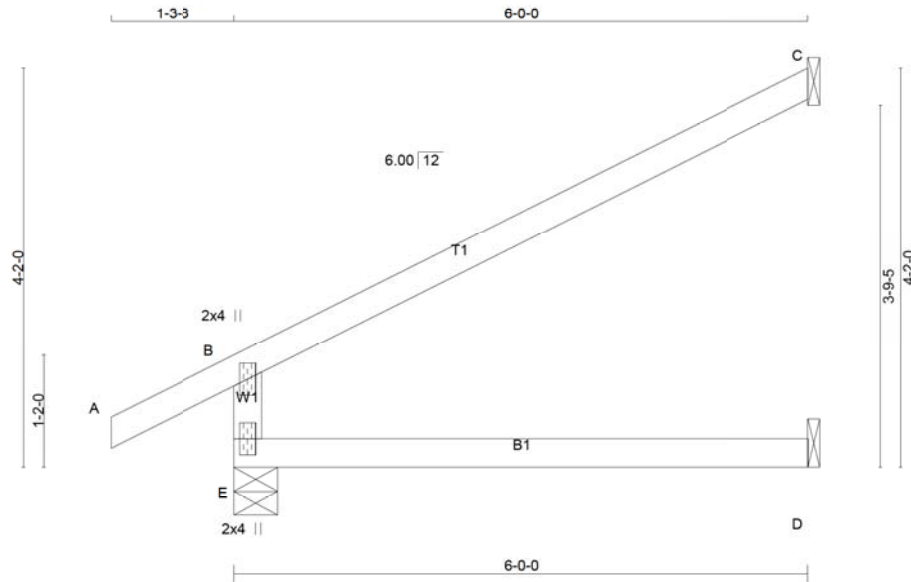
June 28, 2021

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.
IM0621-161	J10	11	1	TRUSS DESC.	

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ID: QiBSwJWmAcysC3PcXOLowezcOjV-yPKV5PSf4RmTSAAMQ8745xalKwVobJIOQZX6z1qZ3



Scale: 1/2"=1'

TOTAL WEIGHT = 11 X 17 = 188 lb

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.

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	UPLIFT	IN-SX	IN-SX
E	495	0	495	0	0	5-8	1-8
C	190	0	190	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	MAX /MIN	COMPONENT REACTIONS	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	COMBINED	343	261 / 0	0 / 0	0 / 0	0 / 0	0 / 0	82 / 0	0 / 0
C	129	115 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	14 / 0	0 / 0
D	36	0 / 0	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

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)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	MAX. UNBRACED LENGTH	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
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

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

09/22/2022

KOTT

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Per: joshua.nabua

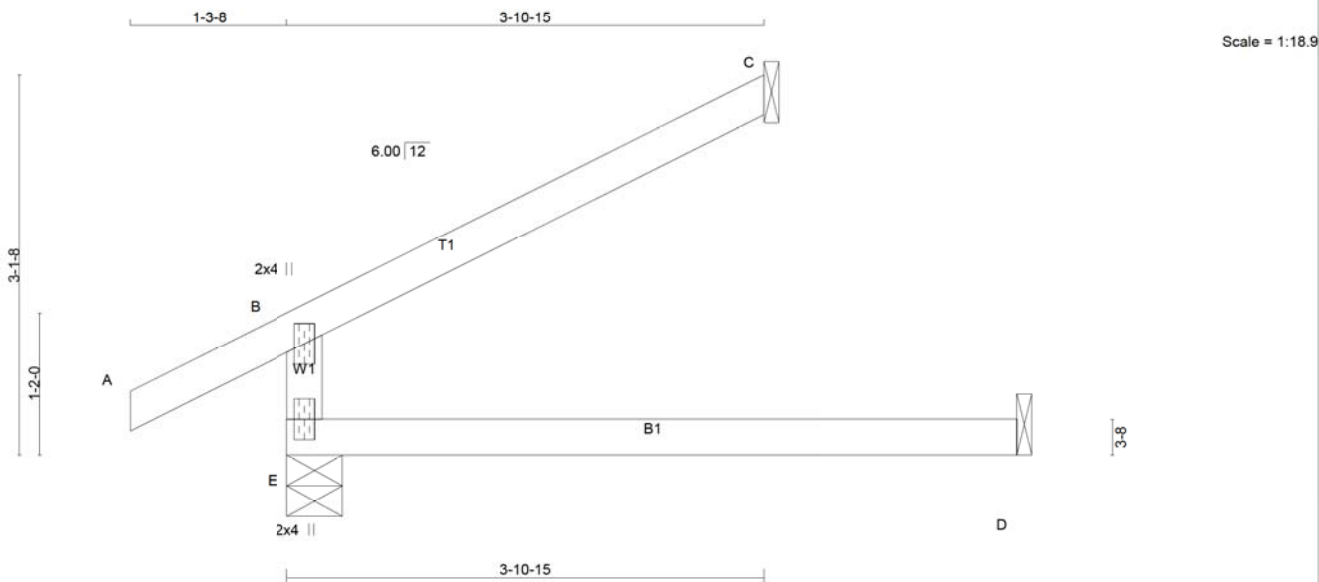


June 28, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	J11	2	1	TRUSS DESC.	

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ID: QiBSwJWmAcysC3PcXOLowezcOjV-mZhm?8UDFwCwBNekJdXYFL2jiNKvV4C7Jtuklz1qYz



TOTAL WEIGHT = 2 X 14 = 29 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

DESCR. SPF
SPF
SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

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

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	MAX /MIN	LIVE	PERM. LIVE	WIND	DEAD	SOIL
E	269	194 / 0	0 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0
C	84	75 / 0	0 / 0	0 / 0	0 / 0	0 / 0	9 / 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 = 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 LC1	MAX CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
FR-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.(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	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= 0.18 (B) (INPUT = 0.90)
JSI METAL= 0.13 (B) (INPUT = 1.00)



June 28, 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
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09/22/2022
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Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:47:18 2021 Page 1
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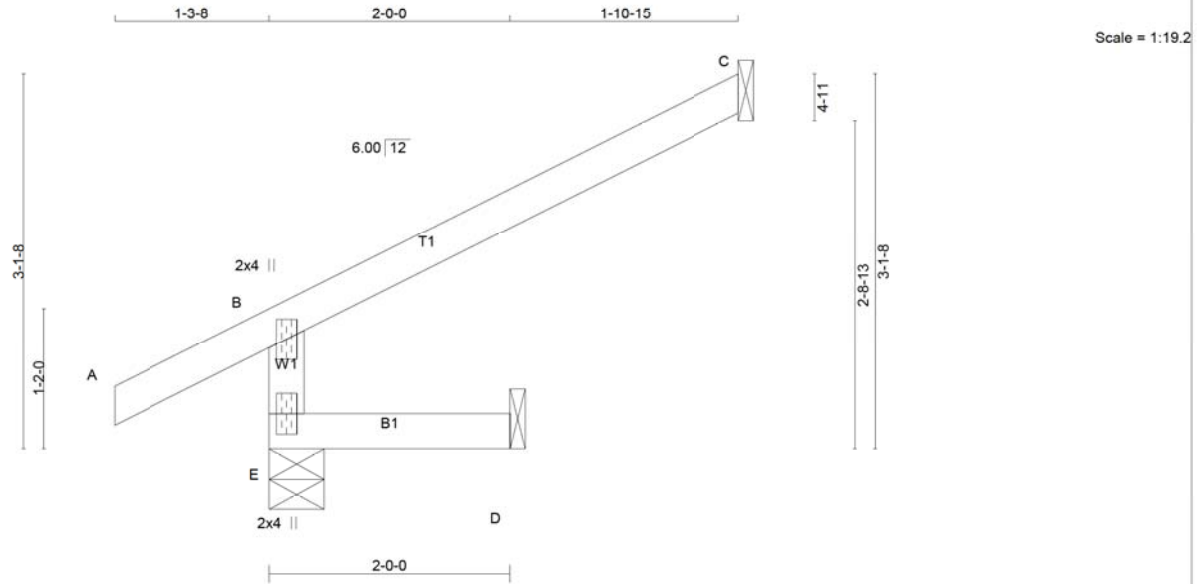


**READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE
IS AN INTEGRAL PART OF THIS DRAWING AS IT
CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT.**

Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	J13	2	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:47:24 2021 Page 1
ID:QIBSwjWmAcysC3PcXOLowezcOjV-QsPIWFdkQciDeDZe08IMktq5hYV jx2zuBnW93z1qYn



TOTAL WEIGHT = 2 X 10 = 20 lb

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	340	0	340	0	5-8	1-8
C	124	0	124	0	1-8	1-8
D	16	0	18	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				WIND DEAD	SOIL
		SNOW	LIVE	PERM. LIVE	UPLIFT		
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)

MEMB.	CHORDS		VERT. LOAD LC1	MAX. CS1 (LC)	MAX. UNBRACED LENGTH	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED (PLF)					MAX. FACTORED FORCE (LBS)	MAX. CS1 (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 (PSI)	SECTION (PLI)
MT20	650	371	1747
		788	1987

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



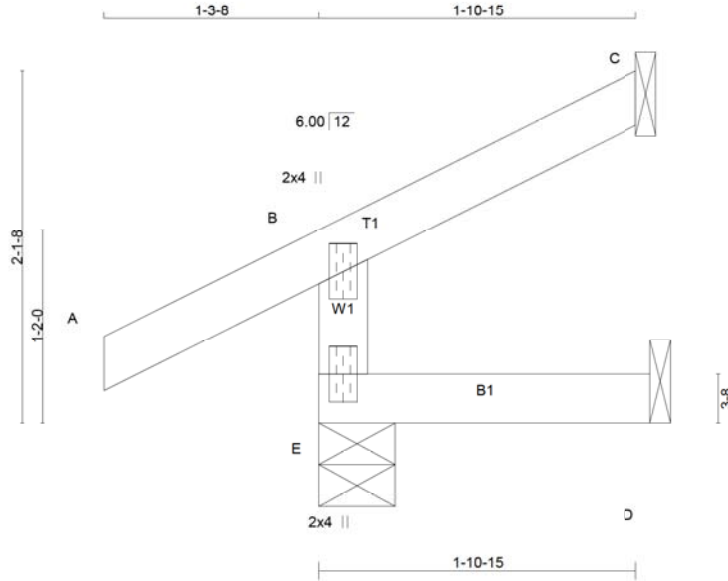
June 28, 2021

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.
IM0621-161	J14	2	1	TRUSS DESC.	

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ID: QiBSwjWmAcysC3PcXOLowezcOjV-BPuKB_jmX4j4bSAAUQuE3ZAUNmEsbY18kRjxRbz1qYf



Scale = 1:13.9

TOTAL WEIGHT = 2 X 7 = 15 lb

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX / MIN. COMPONENT REACTIONS				WIND DEAD	SOIL
		SNOW	LIVE	PERM. LIVE	IN-SX		
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		FACTORED		MAX. CSI (LC)	UNBRACED LENGTH	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	VERT. LOAD (PLF)	MAX. CSI (LC)				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

RECEIVED

Per: joshua.nabua



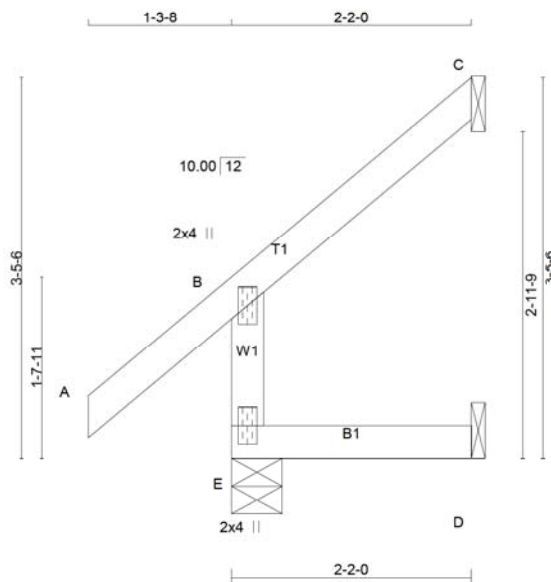
June 28, 2021

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	J15	1	1	TRUSS DESC.	

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ID: QiBSwJWmAcysC3PcXOLowezcOjV-UlpzfNp9uDb5xCWpWtr1yhWbdQkjmAL0wpBhz1qYY



Scale = 1:20.9

TOTAL WEIGHT = 9 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.

SPF
SPF
SPF**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	252	0	252	0	5-8	1-8
C	69	0	69	0	1-8	1-8
D	18	0	20	0	1-8	1-8

SEE MITTEK 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	173	140 / 0	0 / 0	0 / 0	0 / 0	34 / 0	0 / 0
C	47	42 / 0	0 / 0	0 / 0	0 / 0	5 / 0	0 / 0
D	14	0 / 0	0 / 0	0 / 0	0 / 0	14 / 0	0 / 0

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

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: (5)

MEMB.	CHORDS		FACTORED		MAX. CSI (LC)	UNBRACED LENGTH	MEMB.	WEBS	
	MAX. FACTORED FORCE (LBS)	VERT. LOAD	VERT. LOAD	MAX. CSI (LC)				MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO							FR-TO		
E-B	-230 / 0	0.0	0.0	0.01 (4)	7.81				
A-B	0 / 37	-84.3	-84.3	0.12 (1)	10.00				
B-C	-14 / 0	-84.3	-84.3	0.07 (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=0.12/1.00 (A-B:1), BC=0.02/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.07/1.00 (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)	(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= 0.16 (B) (INPUT = 0.90)

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

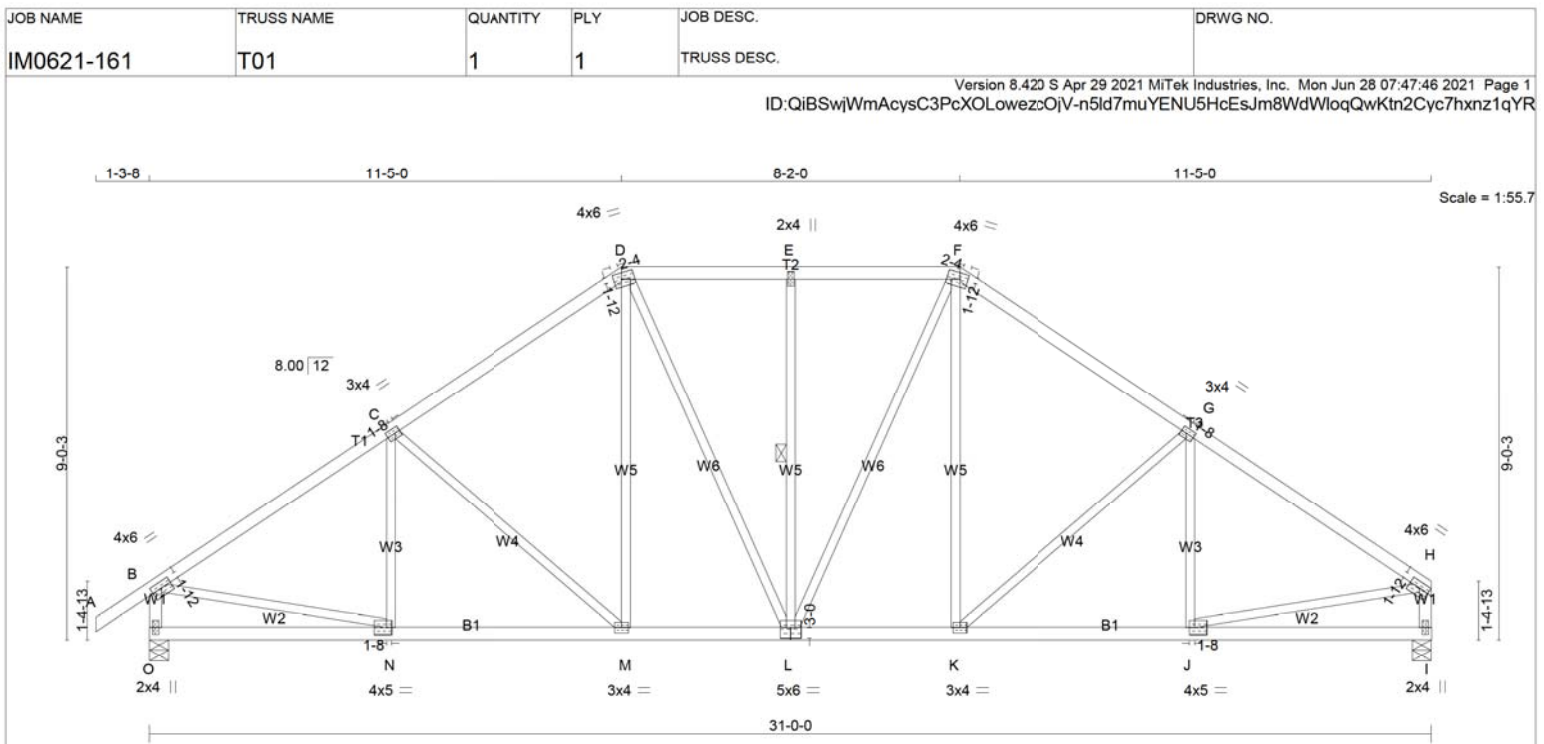
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Per: joshua.nabua



June 28, 2021

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



TOTAL WEIGHT = 144 lb

[M/F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - F	2x4	DRY No.2	SPF
F - H	2x4	DRY No.2	SPF
O - B	2x4	DRY No.2	SPF
I - H	2x4	DRY No.2	SPF
O - L	2x4	DRY No.2	SPF
L - I	2x4	DRY No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	6.0	1.75	3.00
C	TMVW-t	MT20	3.0	4.0	1.50	1.50
D	TTWW-m	MT20	4.0	6.0	1.75	2.25
E	TMVW-t	MT20	2.0	4.0		
F	TTWW-m	MT20	4.0	6.0	1.75	2.25
G	TMVW-t	MT20	3.0	4.0	1.50	1.50
H	TMVW-t	MT20	4.0	6.0	1.75	Edge
I	BMV1+p	MT20	2.0	4.0		
J	BMVW-t	MT20	4.0	5.0	2.00	1.50
K	BMVW-t	MT20	3.0	4.0		
L	BSWWW-t	MT20	5.0	6.0	3.00	3.00
M	BMVW-t	MT20	3.0	4.0		
N	BMVW-t	MT20	4.0	5.0	2.00	1.50
O	BMV1+p	MT20	2.0	4.0		

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

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
O	1704	0	1704	0
I	1589	0	1589	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
O	1191	863 / 0	0 / 0	0 / 0	0 / 0	328 / 0	0 / 0
I	1112	793 / 0	0 / 0	0 / 0	0 / 0	319 / 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 = 4.47 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 E-L. DBS = 20-0-0. CBF = 52 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)

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 / 32	-84.3 -84.3	0.11 (1)	N-C	-180 / 51	0.07 (1)	
B-C	-1880 / 0	-84.3 -84.3	0.43 (1)	C-M	-362 / 0	0.41 (1)	
C-D	-1617 / 0	-84.3 -84.3	0.40 (1)	M-D	0 / 334	0.08 (1)	
D-E	-1430 / 0	-84.3 -84.3	0.19 (1)	D-L	0 / 257	0.06 (1)	
E-F	-1430 / 0	-84.3 -84.3	0.19 (1)	L-E	-413 / 0	0.22 (1)	
F-G	-1617 / 0	-84.3 -84.3	0.40 (1)	L-F	0 / 257	0.06 (1)	
G-H	-1880 / 0	-84.3 -84.3	0.43 (1)	K-F	0 / 334	0.08 (1)	
O-B	-1660 / 0	0.0 0.0	0.17 (1)	K-G	-362 / 0	0.41 (1)	
I-H	-1544 / 0	0.0 0.0	0.16 (1)	J-G	-180 / 51	0.07 (1)	
O-N	0 / 0	-18.2 -18.2	0.14 (4)	B-N	0 / 1618	0.36 (1)	
N-M	0 / 1590	-18.2 -18.2	0.32 (1)	J-H	0 / 1618	0.36 (1)	
M-L	0 / 1321	-18.2 -18.2	0.27 (1)				
L-K	0 / 1321	-18.2 -18.2	0.27 (1)				
K-J	0 / 1590	-18.2 -18.2	0.32 (1)				
J-I	0 / 0	-18.2 -18.2	0.14 (4)				

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

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) = $L/360$ (1.03")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.07")
 ALLOWABLE DEFL.(TL) = $L/360$ (1.03")
 CALCULATED VERT. DEFL.(TL) = $L/999$ (0.12")

CSI: TC=0.43/1.00 (G-H:1), BC=0.32/1.00 (J-K:1), WB=0.41/1.00 (G-K:1), SSI=0.20/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 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 (H) (INPUT = 0.90)

JSI METAL= 0.45 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION09/22/2022
KOTT
RECEIVED

Per: joshua.nabua

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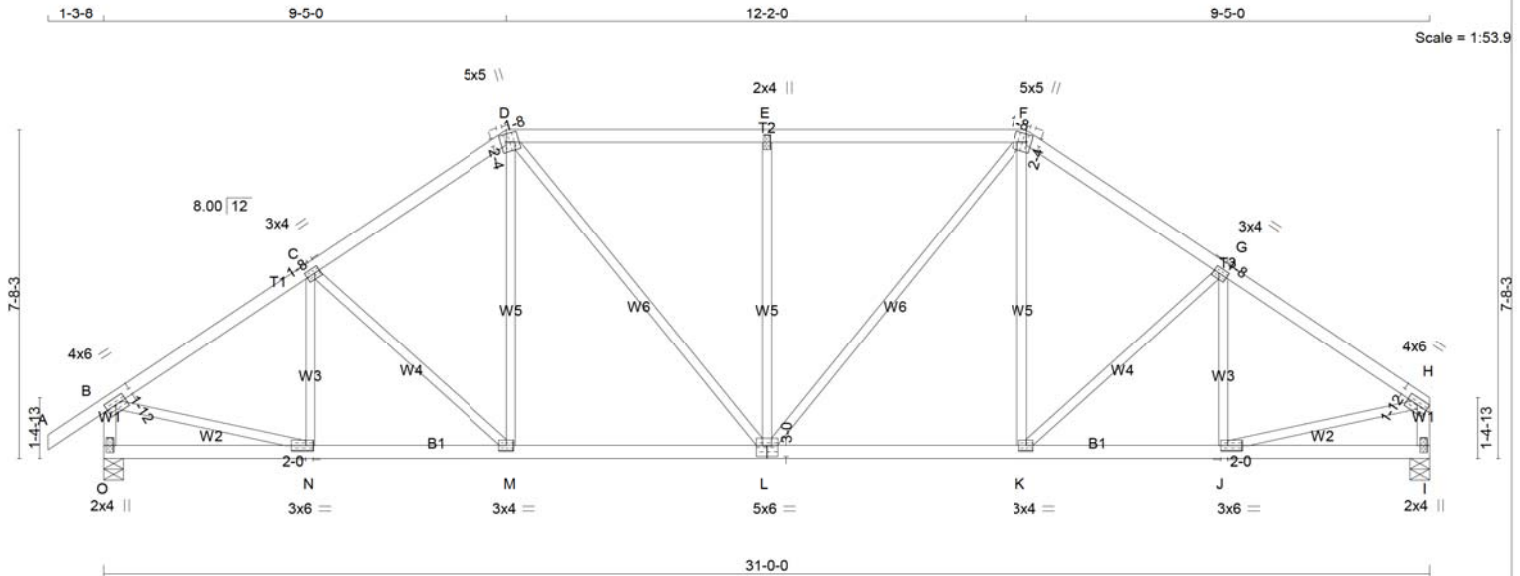


June 28, 2021

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	T02	1	1	TRUSS DESC.	

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ID: QiBSWjWmAcysC3PcXOLoweZCjV-4RgGb9zxbXM6chGCDkm9P_X?pEjR0uaEZCJZhtz1qYK



TOTAL WEIGHT = 135 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 - H	2x4	DRY	No.2
O - B	2x4	DRY	No.2
I - H	2x4	DRY	No.2
O - L	2x4	DRY	No.2
L - I	2x4	DRY	No.2

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	6.0	1.75	3.00
C	TMVW-t	MT20	3.0	4.0	1.50	1.50
D	TTWW+m	MT20	5.0	5.0	2.25	1.50
E	TMVW-t	MT20	2.0	4.0		
F	TTWW+m	MT20	5.0	5.0	2.25	1.50
G	TMVW-t	MT20	3.0	4.0	1.50	1.50
H	TMVW-t	MT20	4.0	6.0	1.75	Edge
I	BMV1+p	MT20	2.0	4.0		
J	BMVW-t	MT20	3.0	6.0	1.50	2.00
K	BMVW-t	MT20	3.0	4.0		
L	BSWWW-t	MT20	5.0	6.0	3.00	3.00
M	BMVW-t	MT20	3.0	4.0		
N	BMVW-t	MT20	3.0	6.0	1.50	2.00
O	BMV1+p	MT20	2.0	4.0		

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

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
O	1704	0	1704	0
I	1589	0	1589	0

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
O	1191	863 / 0	0 / 0	0 / 0	0 / 0	328 / 0	0 / 0
I	1112	793 / 0	0 / 0	0 / 0	0 / 0	319 / 0	0 / 0

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

BRACINGTOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.58 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 VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)	
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 32	-84.3	-84.3 0.11 (1)	10.00	N-C	-268 / 0	0.08 (1)
B-C	-1651 / 0	-84.3	-84.3 0.28 (1)	4.67	C-M	-193 / 0	0.14 (1)
C-D	-1733 / 0	-84.3	-84.3 0.28 (1)	4.80	M-D	0 / 246	0.06 (1)
D-E	-1717 / 0	-84.3	-84.3 0.45 (1)	4.58	D-L	0 / 465	0.10 (1)
E-F	-1717 / 0	-84.3	-84.3 0.45 (1)	4.58	L-E	-628 / 0	0.88 (1)
F-G	-1733 / 0	-84.3	-84.3 0.28 (1)	4.80	L-F	0 / 465	0.10 (1)
G-H	-1851 / 0	-84.3	-84.3 0.28 (1)	4.67	K-F	0 / 246	0.06 (1)
O-B	-1665 / 0	0.0	0.0 0.17 (1)	6.42	K-G	-193 / 0	0.14 (1)
I-H	-1549 / 0	0.0	0.0 0.16 (1)	6.61	J-G	-268 / 0	0.08 (1)
					B-N	0 / 1600	0.36 (1)
O-N	0 / 0	-18.2	-18.2 0.09 (4)	10.00	J-H	0 / 1600	0.36 (1)
N-M	0 / 1561	-18.2	-18.2 0.33 (1)	10.00			
M-L	0 / 1422	-18.2	-18.2 0.31 (1)	10.00			
L-K	0 / 1422	-18.2	-18.2 0.31 (1)	10.00			
K-J	0 / 1561	-18.2	-18.2 0.33 (1)	10.00			
J-I	0 / 0	-18.2	-18.2 0.09 (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 2.00/12 MINIMUM

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/999 (0.08")
ALLOWABLE DEFL.(TL) = L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/999 (0.16")CSI: TC=0.45/1.00 (D-E:1), BC=0.33/1.00 (M-N:1)
WB=0.68/1.00 (E-L:1), SSI=0.25/1.00 (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= 0.88 (H) (INPUT = 0.90)

JSI METAL= 0.48 (H) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

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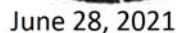
Per: joshua.nabua



June 28, 2021

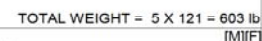
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Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:47:59 2021 Page 1
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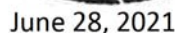
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Per: joshua.nabua

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:48:13 2021 Page 1
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Per: ioshua.nabua

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**CITY OF RICHMOND HILL
BUILDING DIVISION**

09/22/2022



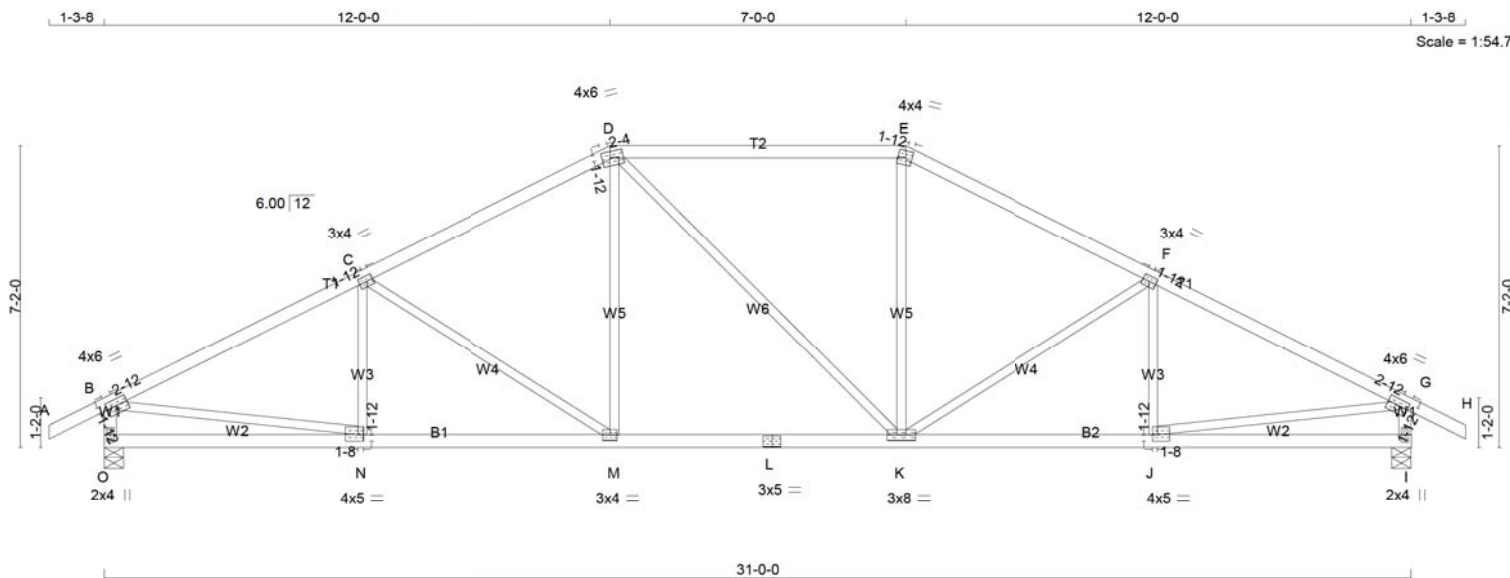
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Per: **ioshua.nabua**

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	T06	1	1	TRUSS DESC.	

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ID: QiBSWjWmAcysC3PcXOLoweZcQjV-neoTG0ItEpmGMqrOlVh9bD7Wjr8UCmvMU7pz1qXv



TOTAL WEIGHT = 124 lb

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

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - E	2x4	DRY	2100F 1.8E
E - H	2x4	DRY	No.2
O - B	2x4	DRY	No.2
I - G	2x4	DRY	No.2
O - L	2x4	DRY	No.2
L - I	2x4	DRY	No.2

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT DRY: SEASONED LUMBER.

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
O	1703	0	1703	0
I	1703	0	1703	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
O	1190	863 / 0	0 / 0	0 / 0	0 / 0	327 / 0	0 / 0
I	1190	863 / 0	0 / 0	0 / 0	0 / 0	327 / 0	0 / 0

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

BRACINGTOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.03 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	LENGTH	FR-TO			
A-B	0 / 26	-84.3 -84.3	0.11 (1)	10.00	N-C	-179 / 53	0.05 (1)
B-C	-2316 / 0	-84.3 -84.3	0.50 (1)	4.03	C-M	-464 / 0	0.46 (1)
C-D	-1936 / 0	-84.3 -84.3	0.45 (1)	4.38	M-D	0 / 372	0.08 (1)
D-E	-1712 / 0	-84.3 -84.3	0.37 (1)	5.61	D-K	0 / 0	0.00 (1)
E-F	-1936 / 0	-84.3 -84.3	0.45 (1)	4.38	K-E	0 / 373	0.08 (1)
F-G	-2315 / 0	-84.3 -84.3	0.50 (1)	4.03	K-F	-463 / 0	0.46 (1)
G-H	0 / 26	-84.3 -84.3	0.11 (1)	10.00	J-F	-180 / 52	0.05 (1)
O-B	-1655 / 0	0.0 0.0	0.17 (1)	6.45	B-N	0 / 2115	0.48 (1)
I-G	-1655 / 0	0.0 0.0	0.17 (1)	6.45	J-G	0 / 2115	0.48 (1)
O-N	0 / 0	-18.2 -18.2	0.15 (4)	10.00			
N-M	0 / 2095	-18.2 -18.2	0.42 (1)	10.00			
M-L	0 / 1712	-18.2 -18.2	0.36 (1)	10.00			
L-K	0 / 1712	-18.2 -18.2	0.36 (1)	10.00			
K-J	0 / 2094	-18.2 -18.2	0.42 (1)	10.00			
J-I	0 / 0	-18.2 -18.2	0.14 (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 2.00/12 MINIMUM

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.20")CSI: TC=0.50/1.00 (B-C:1), BC=0.42/1.00 (J-K:1),
WB=0.48/1.00 (B-N:1), SSI=0.23/1.00 (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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.59 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION09/22/2022
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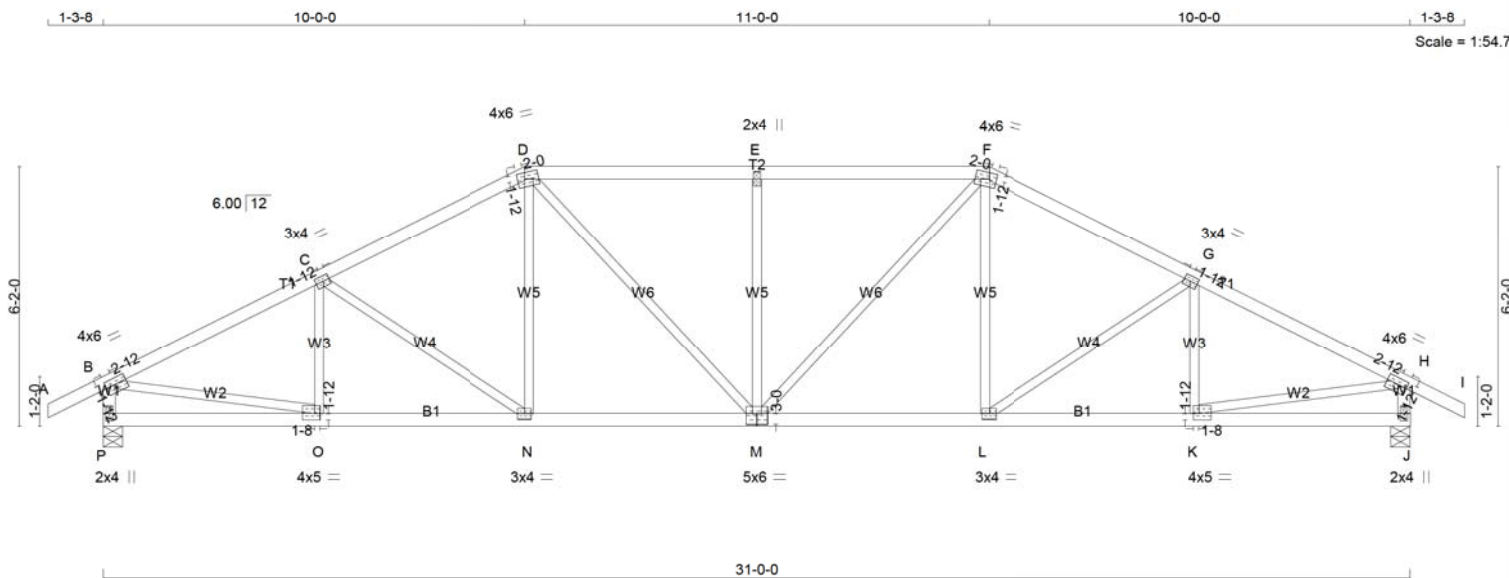
Per: joshua.nabua

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June 28, 2021

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:48:26 2021 Page 1
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TOTAL WEIGHT = 127 lb

DRY: SEASONED LUMBER

C H O R D S					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 CSI (LC)	MAX UNBRAC LENGTH	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	O-C	-257 / 12	0.06 (1)	
B-C	-2265 / 0	-84.3	-84.3	0.34 (1)	4.24	C-N	-269 / 0	0.17 (1)	
C-D	-2080 / 0	-84.3	-84.3	0.32 (1)	4.42	N-D	0 / 263	0.06 (1)	
D-E	-2147 / 0	-84.3	-84.3	0.39 (1)	4.27	D-M	0 / 443	0.10 (1)	
E-F	-2147 / 0	-84.3	-84.3	0.39 (1)	4.27	M-E	-567 / 0	0.34 (1)	
F-G	-2080 / 0	-84.3	-84.3	0.32 (1)	4.42	M-F	0 / 443	0.10 (1)	
G-H	-2285 / 0	-84.3	-84.3	0.34 (1)	4.24	L-F	0 / 263	0.06 (1)	
H-I	0 / 26	-84.3	-84.3	0.11 (1)	10.00	L-G	-269 / 0	0.17 (1)	
P-B	-1660 / 0	0.0	0.0	0.17 (1)	6.44	K-G	-257 / 12	0.06 (1)	
J-H	-1660 / 0	0.0	0.0	0.17 (1)	6.44	B-O	0 / 2091	0.47 (1)	
						K-H	0 / 2091	0.47 (1)	
P-O	0 / 0	-18.2	-18.2	0.10 (4)	10.00				
O-N	0 / 2062	-18.2	-18.2	0.40 (1)	10.00				
N-M	0 / 1844	-18.2	-18.2	0.37 (1)	10.00				
M-L	0 / 1844	-18.2	-18.2	0.37 (1)	10.00				
L-K	0 / 2062	-18.2	-18.2	0.40 (1)	10.00				
K-J	0 / 0	-18.2	-18.2	0.10 (4)	10.00				

CITY OF RICHMOND

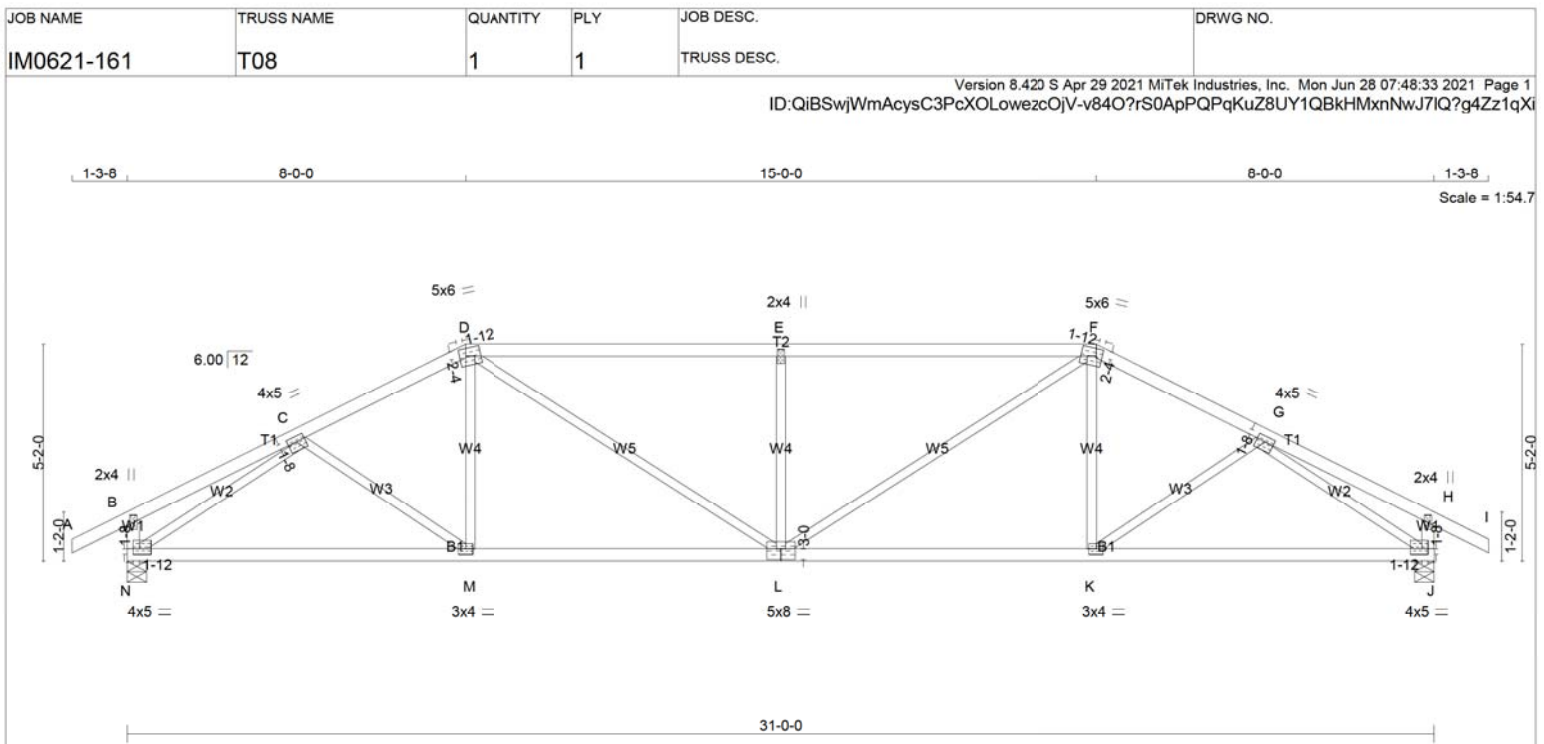
CITY OF RICHMOND
BUILDING DIVISION

Per: joshua.nabua



June 28, 2021

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TOTAL WEIGHT = 118 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
N - B	2x4	DRY	No.2
J - H	2x4	DRY	No.2
N - L	2x4	DRY	No.2
L - J	2x4	DRY	No.2

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMWW-t	MT20	4.0	5.0	1.50	2.50
D	TTWW-m	MT20	5.0	6.0	2.25	1.75
E	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	2.25	1.75
G	TMWW-t	MT20	4.0	5.0	1.50	2.50
H	TMV+p	MT20	2.0	4.0		
J	BMVW1-t	MT20	4.0	5.0	1.50	1.75
K	BMWW-t	MT20	3.0	4.0		
L	BSWWW-t	MT20	5.0	8.0	3.00	4.00
M	BMWW-t	MT20	3.0	4.0		
N	BMVW1-t	MT20	4.0	5.0	1.50	1.75

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
N	1703	0	1703	0
J	1703	0	1703	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	1190	863 / 0	0 / 0	0 / 0	0 / 0	327 / 0	0 / 0
J	1190	863 / 0	0 / 0	0 / 0	0 / 0	327 / 0	0 / 0

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

BRACINGTOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.36 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-M	0 / 73	0.03 (4)
B-C	0 / 15	-84.3 -84.3	0.19 (1)	10.00	M-D	0 / 169	0.05 (4)
C-D	-2210 / 0	-84.3 -84.3	0.21 (1)	4.43	D-L	0 / 808	0.18 (1)
D-E	-2643 / 0	-84.3 -84.3	0.79 (1)	3.36	L-E	-778 / 0	0.31 (1)
E-F	-2643 / 0	-84.3 -84.3	0.79 (1)	3.36	L-F	0 / 808	0.18 (1)
F-G	-2210 / 0	-84.3 -84.3	0.21 (1)	4.43	K-F	0 / 169	0.05 (4)
G-H	0 / 15	-84.3 -84.3	0.19 (1)	10.00	K-G	0 / 73	0.03 (4)
H-I	0 / 26	-84.3 -84.3	0.11 (1)	10.00	N-C	-2401 / 0	0.95 (1)
N-B	-250 / 0	0.0 0.0	0.03 (1)	7.81	G-J	-2401 / 0	0.95 (1)
J-H	-250 / 0	0.0 0.0	0.03 (1)	7.81			
N-M	0 / 1955	-18.2 -18.2	0.48 (1)	10.00			
M-L	0 / 1965	-18.2 -18.2	0.49 (1)	10.00			
L-K	0 / 1965	-18.2 -18.2	0.49 (1)	10.00			
K-J	0 / 1955	-18.2 -18.2	0.48 (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 2.00/12 MINIMUM

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF 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 (1.03")
CALCULATED VERT. DEFL.(LL)= L/999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL)= L/999 (0.28")CSI: TC=0.79/1.00 (E-F:1), BC=0.49/1.00 (K-L:1),
WB=0.95/1.00 (G-J:1), SS=0.31/1.00 (E-F:1)DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (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= 0.68 (C) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION09/22/2022
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Per: joshua.nabua



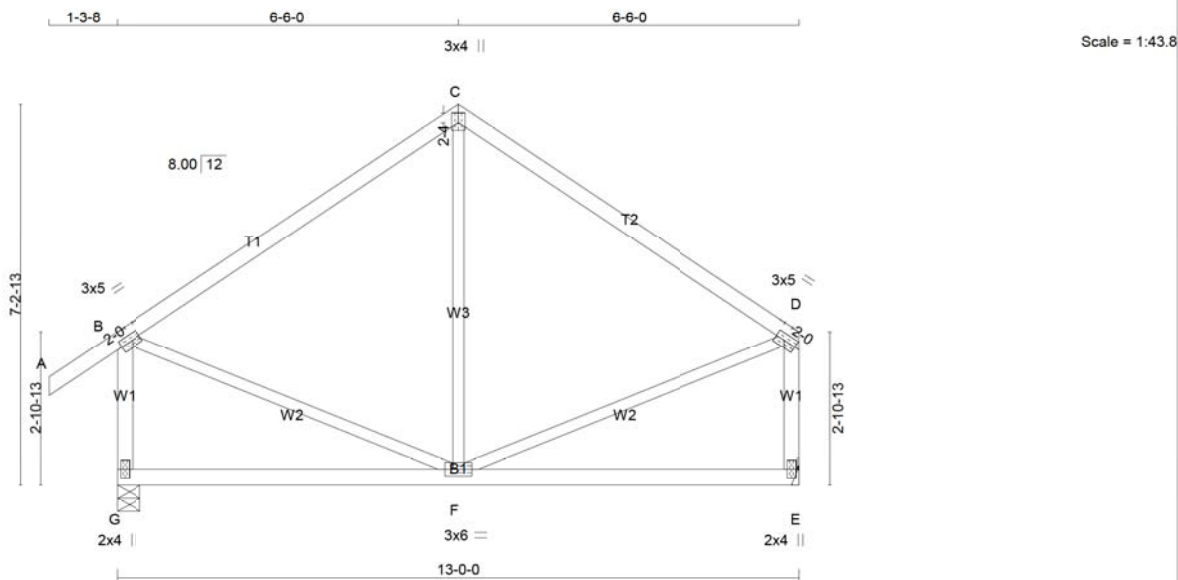
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	T09	3	1	TRUSS DESC.	

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ID:QiBSwJWmAcysC3PcXOLowezcOjV-jISfFuXnmf9a7lo2wObYHhRuTn2Jnq278MS_IDz1qXc

TOTAL WEIGHT = 3 X 57 = 170 lb
[M][F]**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY 2100F 1.8E	SPF
C - D	2x4	DRY 2100F 1.8E	SPF
G - B	2x4	DRY No.2	SPF
E - D	2x4	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
B	TMVW-t	MT20	3.0	5.0	1.50	2.00
C	TTW+p	MT20	3.0	4.0	2.25	1.50
D	TMVW-t	MT20	3.0	5.0	1.50	2.00
E	BMV1+p	MT20	3.0	4.0		
F	BMVWW-t	MT20	3.0	6.0		
G	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	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
G	782	0	0	5-8
E	666	0	0	1-8 MECHANICAL

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	WIND	DEAD	SOIL
G	545	403 / 0	0 / 0	0 / 0	142 / 0	0 / 0
E	466	333 / 0	0 / 0	0 / 0	134 / 0	0 / 0

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

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)	LC1 MAX. CS1 (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 32	-84.3 -84.3	0.07 (1)	10.00	F-C	-112 / 83	0.10 (1)
B-C	-393 / 0	-84.3 -84.3	0.30 (1)	6.25	B-F	0 / 351	0.08 (1)
C-D	-393 / 0	-84.3 -84.3	0.30 (1)	6.25	F-D	0 / 351	0.08 (1)
G-B	-737 / 0	0.0 0.0	0.11 (1)	7.81			
E-D	-621 / 0	0.0 0.0	0.10 (1)	7.81			
G-F	0 / 0	-18.2 -18.2	0.22 (4)	10.00			
F-E	0 / 0	-18.2 -18.2	0.22 (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 (0.43")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.30/1.00 (B-C:1), BC=0.22/1.00 (F-G:4), WB=0.10/1.00 (C-F: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= 0.64 (D) (INPUT = 0.90)
JSI METAL= 0.17 (D) (INPUT = 1.00)

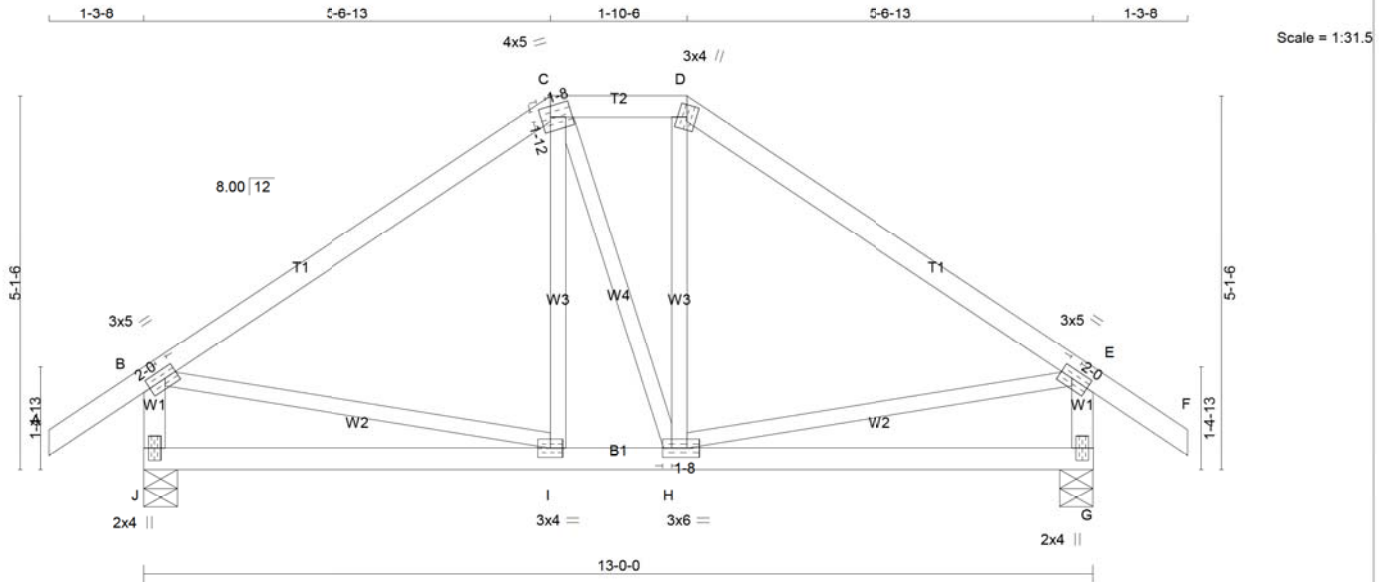
June 28, 2021

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 DIVISION09/22/2022
KOTT
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	T10	1	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:48:45 2021 Page 1
ID:QiBSWjWmAcysC3PcXOLowezcOjV-YSpwWxcYLVwjsqFCGfiMWyhwMC6jBYUuWHvJVsz1qXW



TOTAL WEIGHT = 58 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
J - B	2x4	DRY	No.2
G - E	2x4	DRY	No.2
J - G	2x4	DRY	No.2

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	2.00
C	TTWW-m	MT20	4.0	5.0	1.75	1.50
D	TTWW-m	MT20	3.0	4.0		
E	TMVW-t	MT20	3.0	5.0	1.50	2.00
G	BMV1+p	MT20	2.0	4.0		
H	BMVWW-t	MT20	3.0	6.0	1.50	1.50
I	BMVW-t	MT20	3.0	4.0		
J	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
J	782	0	782	0
G	782	0	782	0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX/MIN. SNOW	MAX/MIN. LIVE	MAX/MIN. PERM. LIVE	MAX/MIN. WIND	MAX/MIN. DEAD	MAX/MIN. SOIL
J	545	403 / 0	0 / 0	0 / 0	0 / 0	142 / 0	0 / 0
G	545	403 / 0	0 / 0	0 / 0	0 / 0	142 / 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)

C H O R D S					W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO	CSI (LC)		FR-TO			
A-B	0 / 32	-84.3 -84.3	0.11 (1)	10.00	I-C	-12 / 57	0.02 (4)	
B-C	-544 / 0	-84.3 -84.3	0.34 (1)	6.25	C-H	0 / 3	0.00 (4)	
C-D	-452 / 0	-84.3 -84.3	0.04 (1)	6.25	H-D	-10 / 59	0.02 (4)	
D-E	-544 / 0	-84.3 -84.3	0.34 (1)	6.25	B-I	0 / 460	0.10 (1)	
E-F	0 / 32	-84.3 -84.3	0.11 (1)	10.00	H-E	0 / 460	0.10 (1)	
J-B	-739 / 0	0.0 0.0	0.08 (1)	7.81				
G-E	-738 / 0	0.0 0.0	0.08 (1)	7.81				
J-I	0 / 0	-18.2 -18.2	0.12 (4)	10.00				
I-H	0 / 451	-18.2 -18.2	0.16 (4)	10.00				
H-G	0 / 0	-18.2 -18.2	0.12 (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 2.00/12 MINIMUM

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 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 (0.43")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.43")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.34/1.00 (D-E:1), BC=0.16/1.00 (H-I:4),
WB=0.10/1.00 (E-H:1), SSI=0.15/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.78 (H) (INPUT = 0.90)

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

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

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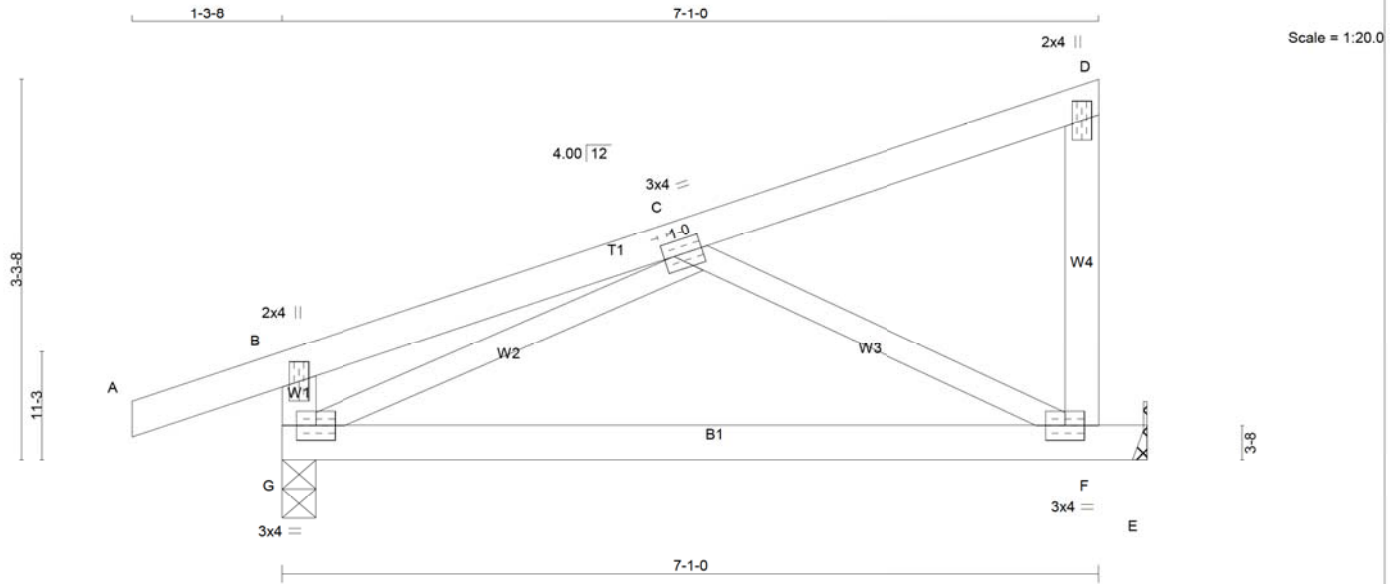


June 28, 2021

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	T11	3	1	TRUSS DESC.	

Version 8.420 S Apr 29 2021 MiTek Industries, Inc. Mon Jun 28 07:48:55 2021 Page 1
ID:QiBSwjWmAcysC3PcXOLowezcOjV-FNPicMjq_aAJ2C07sluiw36fYEUPX4sMprKrsHz1qXM



TOTAL WEIGHT = 3 X 28 = 85 lb [M][F]

LUMBER

N. L. G. A. RULES
CHORDS SIZE
A - D 2x4 DRY
F - D 2x4 DRY
G - B 2x4 DRY
G - E 2x4 DRY

LUMBER
No.2
No.2
No.2
No.2

DESCR.
SPF
SPF
SPF
SPF

ALL WEBS 2x3 DRY
EXCEPT

DRY: SEASONED LUMBER.

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
E	350	0	0	0
G	496	0	0	0

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX /MIN. SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
E	246	171 / 0	0 / 0	0 / 0	0 / 0	75 / 0	0 / 0
G	345	260 / 0	0 / 0	0 / 0	0 / 0	85 / 0	0 / 0

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

BRACING

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

ALL 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 LC1 MAX. (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX. (LC)	
FR-TO				FR-TO			
A-B	0 / 18	-84.3	-84.3 0.11 (1)	10.00	C-F	-404 / 0	0.11 (1)
B-C	0 / 11	-84.3	-84.3 0.17 (1)	10.00	G-C	-407 / 0	0.11 (1)
C-D	-11 / 0	-84.3	-84.3 0.13 (1)	6.25			
F-D	-118 / 0	0.0	0.0 0.02 (1)	7.81			
G-B	-225 / 0	0.0	0.0 0.02 (1)	7.81			
G-F	0 / 362	-18.2	-18.2 0.33 (1)	10.00			
F-E	0 / 0	-18.2	-18.2 0.20 (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

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

ALLOWABLE DEFL.(LL)= L/360 (0.25")
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.25")
CALCULATED VERT. DEFL.(TL) = L/389 (0.23")

CSI: TC=0.17/1.00 (B-C:1), BC=0.33/1.00 (F-G:1), WB=0.11/1.00 (C-F:1), SSI=0.27/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.60 (C) (INPUT = 0.90)
JSI METAL = 0.14 (C) (INPUT = 1.00)

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
C	TMW-t	MT20	3.0	4.0	1.50	1.00
D	TMV+p	MT20	2.0	4.0		
F	BMVW-t	MT20	3.0	4.0		
G	BMVW1-t	MT20	3.0	4.0		



June 28, 2021

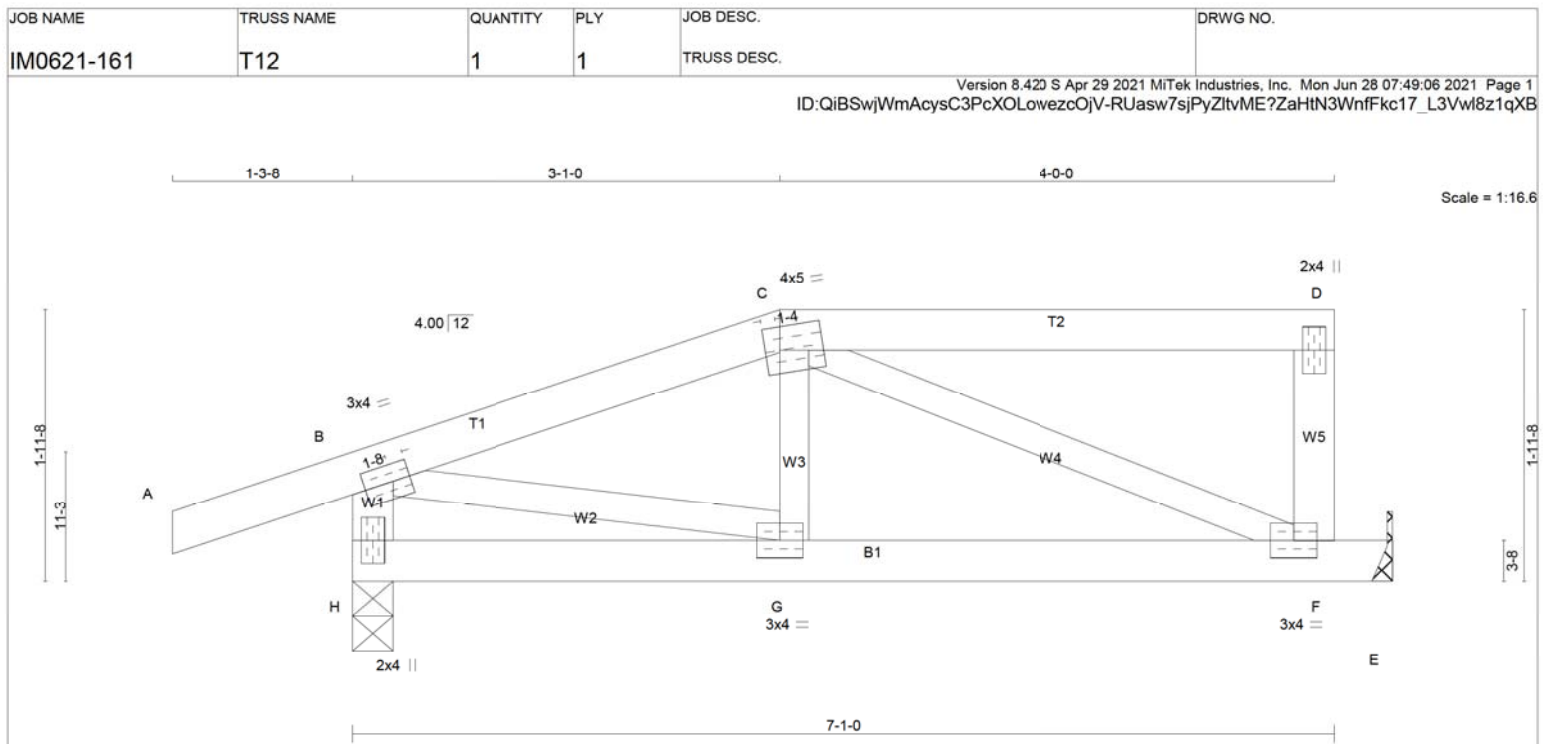
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CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

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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
F - D	2x4 DRY	No.2	SPF
H - B	2x4 DRY	No.2	SPF
H - E	2x4 DRY	No.2	SPF
ALL WEBS EXCEPT	2x3 DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	4.0	1.50	1.50
C	TTWW-m	MT20	4.0	5.0	2.00	1.25
D	TMV+p	MT20	2.0	4.0		
F	BMVW-t	MT20	3.0	4.0		
G	BMVW-t	MT20	3.0	4.0		
H	BMV1+p	MT20	2.0	4.0		

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
H	497	0	497	0
E	384	0	384	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-12.

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE
H	346	260 / 0	0 / 0
E	269	192 / 0	0 / 0

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

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. FACTORED HORIZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED HORIZ. LOAD (LC)	
FR-TO				FR-TO			
A-B	0 / 18	-84.3	-84.3 0.11 (1)	G-C	0 / 78	0.03 (4)	
B-C	-480 / 0	-84.3	-84.3 0.14 (1)	C-F	-496 / 0	0.14 (1)	
C-D	0 / 0	-84.3	-84.3 0.23 (1)	B-G	0 / 464	0.10 (1)	
F-D	-169 / 0	0.0	0.0 0.02 (1)				
H-B	-485 / 0	0.0	0.0 0.05 (1)				
H-G	0 / 0	-18.2	-18.2 0.08 (4)				
G-F	0 / 458	-18.2	-18.2 0.28 (1)				
F-E	0 / 0	-102.5	-102.5 0.21 (1)				

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

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 (0.25")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.25")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")CSI: TC=0.23/1.00 (C-D:1), BC=0.28/1.00 (F-G:1)
WB=0.14/1.00 (C-F:1), SS=0.30/1.00 (E-F:1)DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.19 (B) (INPUT = 1.00)

CITY OF RICHMOND HILL
BUILDING DIVISION

09/22/2022

KOTT

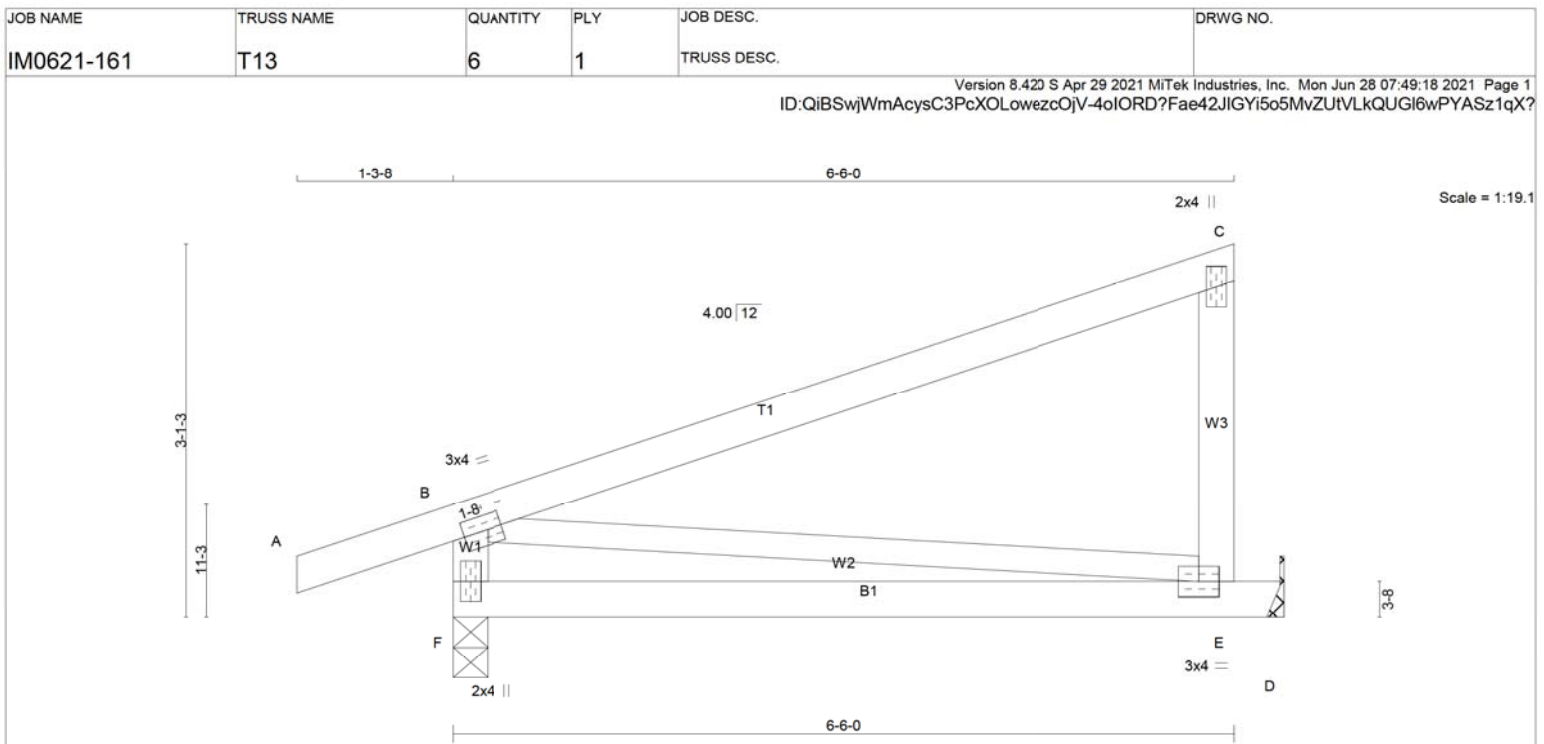
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June 28, 2021

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**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	DRY	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
E - C	2x4	DRY	No.2	SPF
F - B	2x4	DRY	No.2	SPF
F - D	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-t	MT20	3.0	4.0	1.50	1.50
C	TMV+p	MT20	2.0	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**

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	DOWN	IN-SX	IN-SX
F	466	0	3-8	1-8
D	320	0	MECHANICAL	

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D. MINIMUM BEARING LENGTH AT JOINT D = 1-12.

UNFACTORED REACTIONS

JT	1ST LCASE	MAX /MIN.	COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
F	324	245 / 0	0 / 0	0 / 0	0 / 0	79 / 0	0 / 0
D	225	156 / 0	0 / 0	0 / 0	0 / 0	69 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 MAX CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 18	-84.3	-84.3 0.11 (1)	B-E	0 / 0	0.00 (1)	
B-C	0 / 0	-84.3	-84.3 0.61 (1)				
E-C	-274 / 0	0.0	0.0 0.04 (1)				
F-B	-387 / 0	0.0	0.0 0.04 (1)				
F-E	0 / 0	-18.2	-18.2 0.27 (4)				
E-D	0 / 0	-18.2	-18.2 0.18 (1)				

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, 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

ALLOWABLE DEFL.(LL)= L/360 (0.23")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.23")
CALCULATED VERT. DEFL.(TL) = L/481 (0.17")

CSI: TC=0.61/1.00 (B-C:1), BC=0.27/1.00 (E-F:4), WB=0.00/1.00 (B-E:1), SSI=0.25/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 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= 0.34 (B) (INPUT = 0.90)

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



June 28, 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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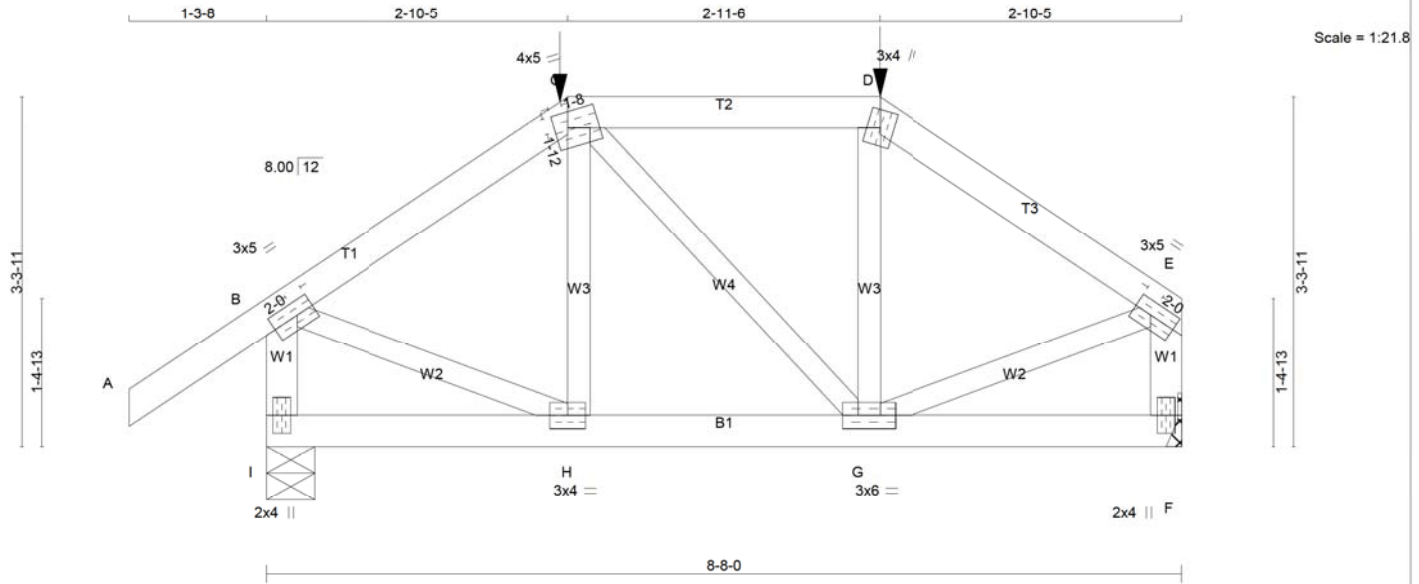
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Per: joshua.nabua

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0621-161	T14	1	1	TRUSS DESC.	

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ID:QiBSwJWmAcysC3PcXOLowezcOjV-N8D2vd5ewoy2fpJuc3Qk8OLnWKnXZepnjWbQvYz1qWwU



TOTAL WEIGHT = 37 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - D	2x4	DRY	No.2
D - E	2x4	DRY	No.2
I - B	2x4	DRY	No.2
F - E	2x4	DRY	No.2
I - F	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	TMVW-t	MT20	3.0	5.0	1.50	2.00
C	TTWW-m	MT20	4.0	5.0	1.75	1.50
D	TTW+m	MT20	3.0	4.0		
E	TMVW-t	MT20	3.0	5.0	1.50	2.00
F	BMV1+p	MT20	2.0	4.0		
G	BMVWW-t	MT20	3.0	6.0		
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	HORZ	DOWN	HORZ
I	557	0	557	0
F	441	0	441	0

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX /MIN	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE
I	386	296 / 0	0 / 0
F	308	225 / 0	0 / 0

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

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)	LC1 MAX. FACTORED CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX. CSI (LC)
FR-TO		FROM	TO		FR-TO		
A-B	0 / 32	-84.3	-84.3	0.12 (1)	10.00	H-C	-56 / 27 0.01 (1)
B-C	-349 / 0	-84.3	-84.3	0.13 (1)	6.25	C-G	0 / 0 0.00 (1)
C-D	-287 / 0	-74.6	-74.6	0.12 (1)	6.25	G-D	-56 / 28 0.01 (1)
D-E	-348 / 0	-84.3	-84.3	0.13 (1)	6.25	B-H	0 / 308 0.08 (1)
I-B	-536 / 0	0.0	0.0	0.06 (1)	7.81	G-E	0 / 308 0.08 (1)
F-E	-420 / 0	0.0	0.0	0.05 (1)	7.81		
I-H	0 / 0	-16.2	-16.2	0.03 (4)	10.00		
H-G	0 / 287	-16.2	-16.2	0.07 (1)	10.00		
G-F	0 / 0	-16.2	-16.2	0.03 (4)	10.00		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	2-10-5	-20	-20	---	FRONT	VERT	TOTAL	---	C1
D	5-9-11	-20	-20	---	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 = 2-10-5

END SETBACK = 2-0-0

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, 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 (0.29")

CALCULATED VERT. DEFL.(LL) = L/999 (0.00")

ALLOWABLE DEFL.(TL) = L/360 (0.29")

CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.13/1.00 (B-C:1), BC=0.07/1.00 (G-H:1)

, WB=0.08/1.00 (B-H:1), SSI=0.09/1.00 (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)

MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

CONTINUED ON PAGE 2



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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.
IM0621-161	T14	1	1	TRUSS DESC.	

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ID: QiBSwjWmAcysC3PcXOLoweZcOjV-N8D2vd5ewoy2fpJuc3Qk8OLnWKnXZepnjWbQvYz1qWu

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.54 (G) (INPUT = 0.90)

JSI METAL= 0.14 (B) (INPUT = 1.00)



June 28, 2021

READ ALL NOTES ON THIS PAGE AND ON THE
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Per: joshua.nabua

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

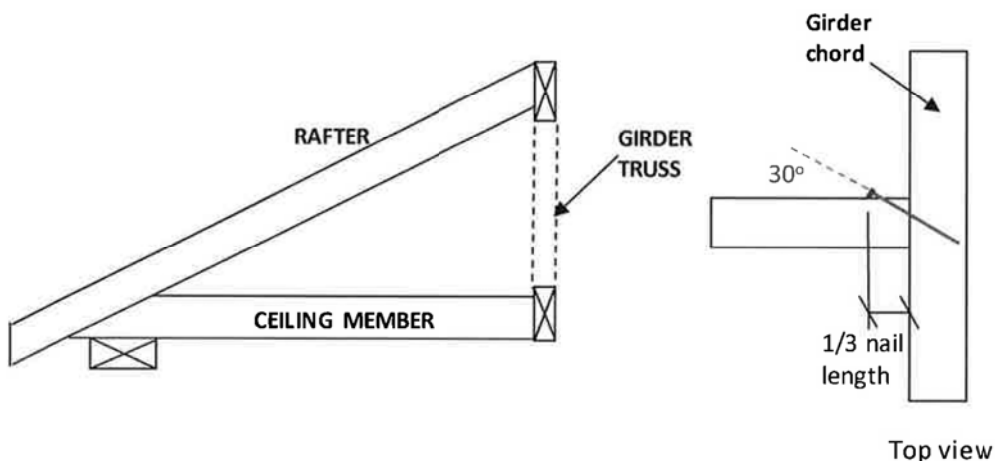


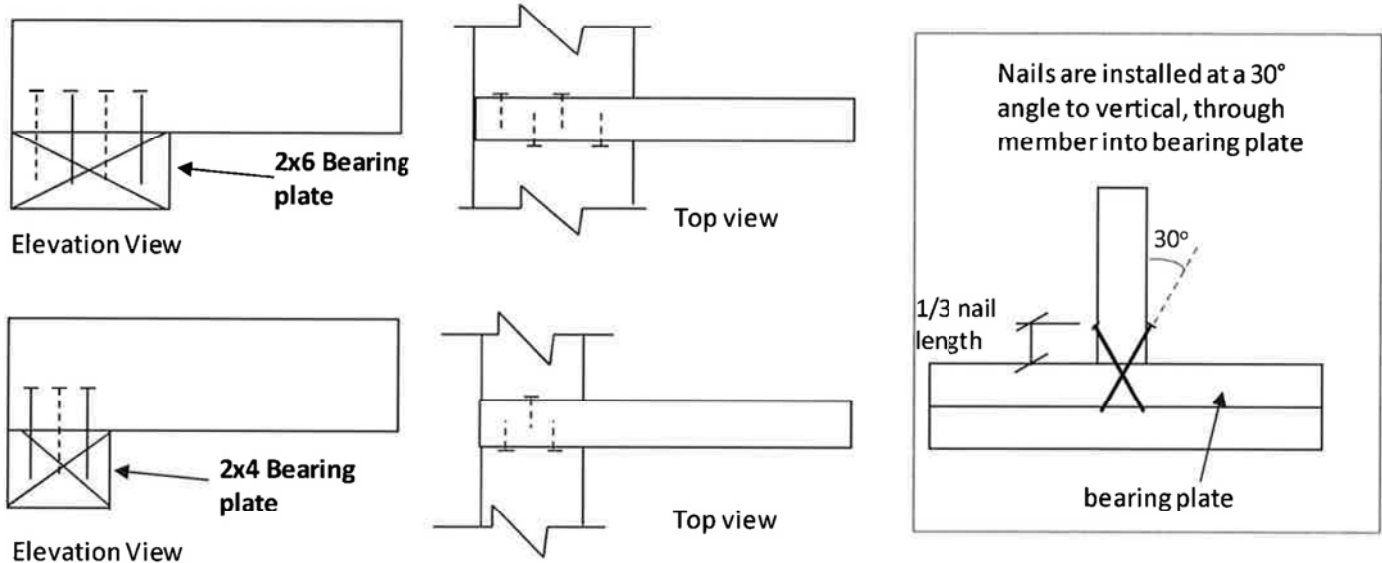
Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

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TOE-NAIL CAPACITY DETAILS

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



NOTES:

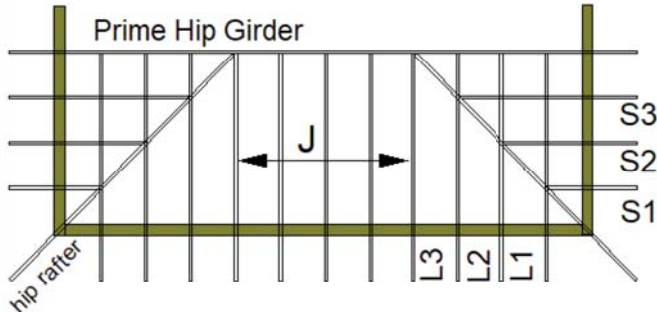
1. Rafter and ceiling members may be connected to top and bottom chords of girder truss by toe-nailing the members into the girder chords (see fig. 1), provided the factored vertical reactions of the supported members do not exceed the lateral resistance of the toe-nails. Mechanical connectors (hangers) 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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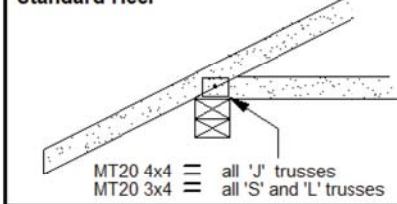


STANDARD HIP END FRAMING

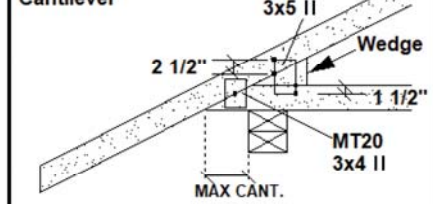
PLAN VIEW



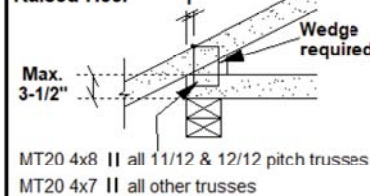
HEEL DETAIL 'A' Standard Heel



HEEL DETAIL 'C' Cantilever



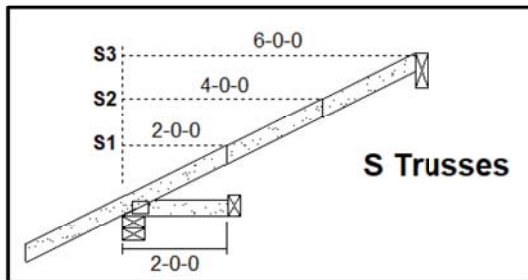
DETAIL 'B': Raised Heel



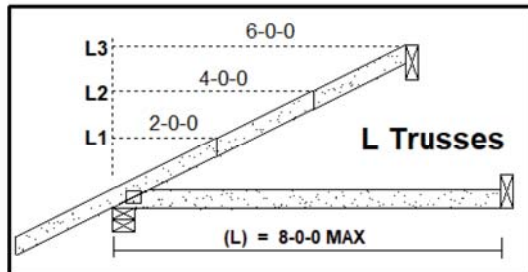
CANTILEVER DETAIL "C"

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

S Trusses



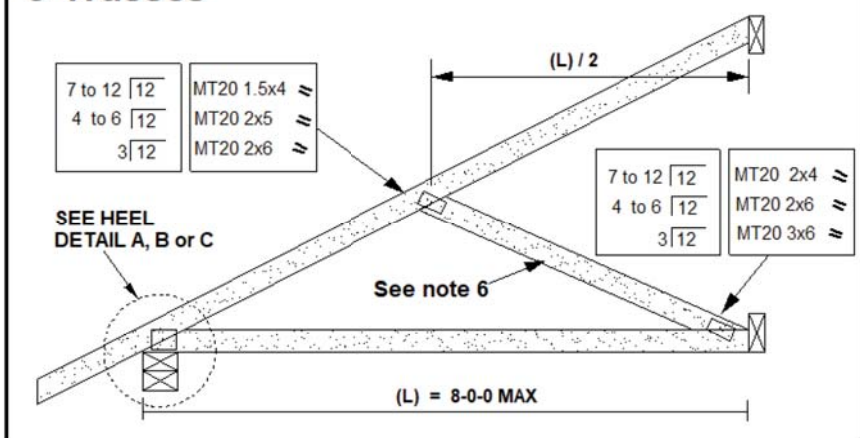
L Trusses



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

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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