

JOB INFORMATION

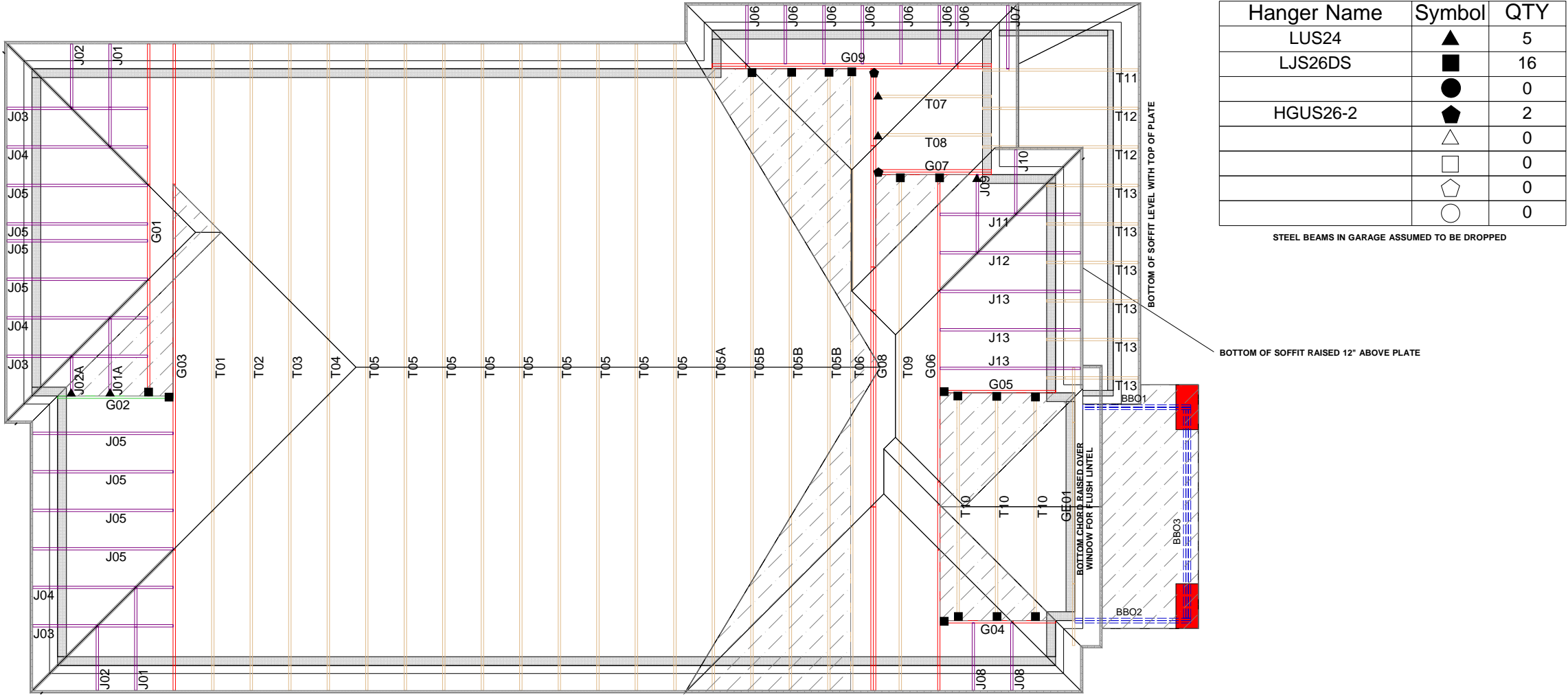
Customer	GREENPARK HOMES
Job #	23-00113R0
Address	ZADORRA ESTATES ROSE 3 EL 2 OSHAWA,ON
Model	ROSE 3 EL 2
Sales Rep	RALPH MIRIGELLO
Designer	BB
Date	5/31/2023
Path	S:\DESIGN\KLU\CUSTOMERS\GREENPARK\ZADORRA ESTATES\MODELS\ROSE 3\ROSE 3-2\T-ROSE

DESIGN INFORMATION

Code	NBCC 2015
Bldg	Residential - HSB (NBCC Part 9)
TC LL	23.3 lb/ft <sup>2</sup>
TC DL	6.0 lb/ft <sup>2</sup>
BC LL	0.0 lb/ft <sup>2</sup>
BC DL	7.3 lb/ft <sup>2</sup>
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

- Hangers and Fasteners to be installed as per manufacturer
- 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.



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.

ENGINEER  
TRUE COPY  
OF PERMIT  
Nov 22 2023

PER: *C. Morin*  
CHIEF BUILDING OFFICIAL

## Engineering Notes: Trusses



# MHP 23029

PLEASE READ ALL NOTES PRIOR TO INSTALLATION OF THE COMPONENT

### RESPONSIBILITIES

THE UNDERSIGNED ENGINEER IS ONLY RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THIS BUILDING COMPONENT FOR THE CONDITIONS AND LOADS SHOWN ON CALCULATION PAGE. THE STRUCTURAL INTEGRITY OF THE BUILDING AND THE VERIFICATION OF THE DIMENSIONS AND THE DESIGN LOADS USED ARE THE RESPONSIBILITY OF THE BUILDING DESIGNER. THE UNDERSIGNED ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF FAULTY OR INCORRECT INFORMATION, SPECIFICATION AND/OR DESIGNS FURNISHED TO THE ENGINEER.

IT IS THE RESPONSIBILITY OF KOTT Inc. 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.

### DESIGN INFORMATION

THIS DESIGN IS FOR AN INDIVIDUAL BUILDING COMPONENT AND HAS BEEN BASED ON INFORMATION PROVIDED BY KOTT DESIGN.

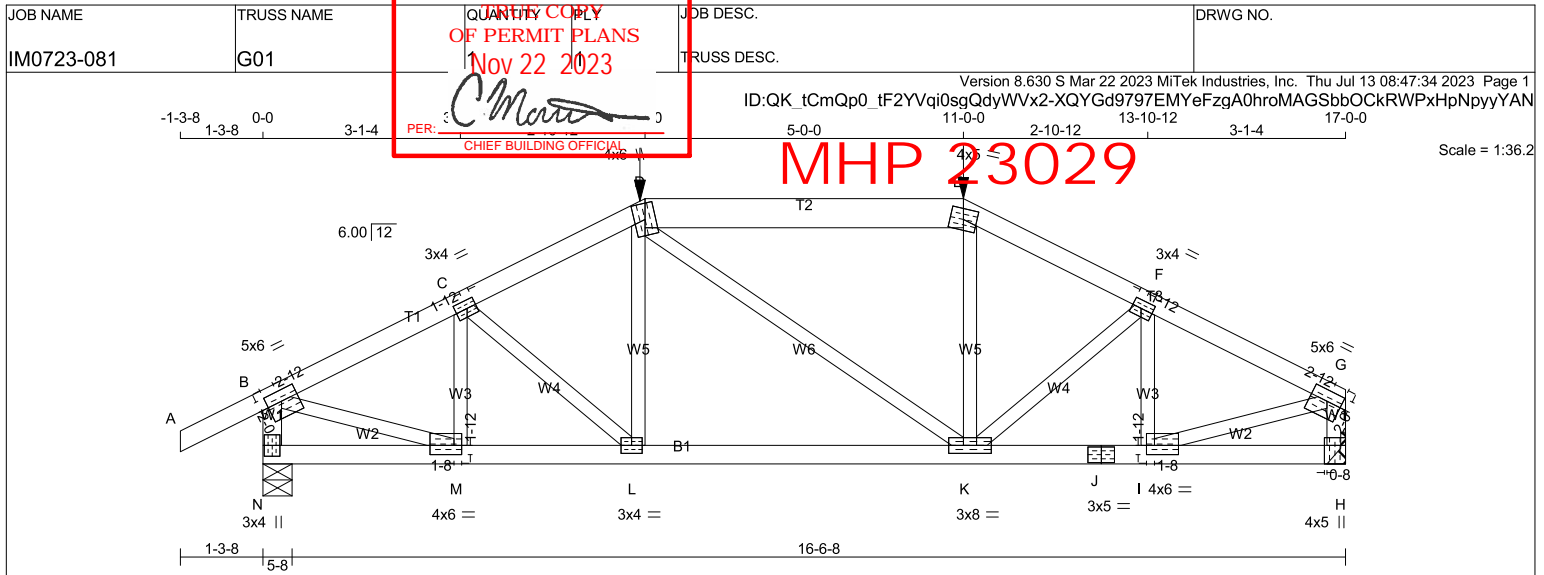
1. THE BUILDING USE AND OCCUPANCY TYPE IS AS INDICATED ON THE DRAWING.
2. GEOMETRY OF THE TRUSS AND DIMENSIONS INDICATED ON THE DRAWING ARE IDENTICAL TO THOSE OF THE INSTALLED TRUSS.
3. THE TRUSS LOADING INTENSITY AND DISTRIBUTION AS WELL AS LOAD TRANSFER MECHANISM IS THAT INDICATED ON THE DRAWING. NO 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 METERS (16 FT) WHICHEVER IS GREATER, UNLESS THE DRAWING INDICATES THAT THE SNOW DRIFTING HAS BEEN TAKEN INTO ACCOUNT.
4. 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.

### CODE

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, THE ONTARIO BUILDING CODE, TPIC AND CANADIAN STANDARDS ASSOCIATION GUIDELINES.

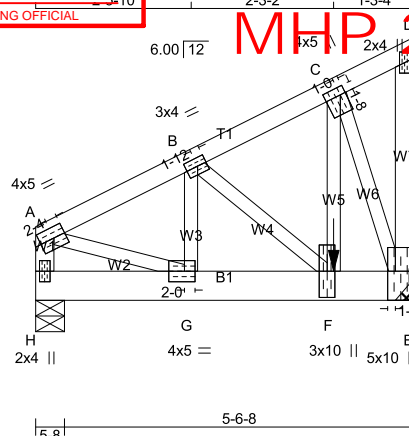
### HANDLING, INSTALLATION AND BRACING

1. 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.
2. THE COMPRESSION CHORDS ARE Laterally Braced by Continuous Rigid Diaphragm Sheathing or as Specified on the Drawing.
3. 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.
4. IT IS RECOMMENDED THAT A PROFESSIONAL ENGINEER'S ADVICE BE OBTAINED FOR THE BRACING OF TRUSSES SPANNING MORE THAN 12.37M (40'-7").



JOB NAME	TRUSS NAME	QUANTITY COPY	JOB DESC.	DRWG NO.
IM0723-081	G02	Nov 22 2023	TRUSS DESC.	

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:47:35 2023 Page 1  
 ID:QK\_tCmQp0\_tF2YVqI0sgQdyWVx2-?d5erV8ntYUPGPYskjC4LajWk?zOxCefda1MvGyyYAM  
 PER: *Chmora* CHIEF BUILDING OFFICIAL



Scale = 1:36.5

TOTAL WEIGHT = 33 lb

**LUMBER**

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
H - A	2x4 DRY	No.2	SPF
A - D	2x4 DRY	No.2	SPF
E - D	2x4 DRY	No.2	SPF
H - E	2x6 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	4.0	5.0	2.00	2.25
B	TMWW-t	MT20	3.0	4.0	1.50	1.75
C	TMWW-t	MT20	4.0	5.0	1.50	1.00
D	TMV+p	MT20	2.0	4.0		
E	BMVW1+t	MT20	5.0	10.0	Edge	1.50
F	BMVW1+t	MT20	3.0	10.0		
G	BMVW1+t	MT20	4.0	5.0	2.00	2.00
H	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	REQD BRG
JT	VERT	HORZ	DOWN	UPLIFT
H	1255	0	1255	0
E	2334	0	2334	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 3-8.

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. SNOW	MAX./MIN. LIVE	MAX./MIN. PERM. LIVE	WIND	DEAD	SOIL
H	877	635 / 0	0 / 0	0 / 0	0 / 0	242 / 0	0 / 0
E	1631	1180 / 0	0 / 0	0 / 0	0 / 0	451 / 0	0 / 0

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.33 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MAX UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)
FR-TO		FROM	TO		FR-TO		
H-A	-1210 / 0	0.0	0.0	0.13 (1)	A-G	0 / 1239	0.31 (1)
A-B	-1301 / 0	-238.9	-238.9	0.22 (1)	G-B	-114 / 55	0.02 (4)
B-C	-908 / 0	-238.9	-238.9	0.19 (1)	B-F	-513 / 0	0.10 (1)
C-D	-14 / 0	-119.4	-119.4	0.06 (1)	F-C	0 / 2030	0.50 (1)
E-D	-45 / 0	0.0	0.0	0.01 (1)	C-E	-2129 / 0	0.47 (1)
H-G	0 / 0	-36.5	-36.5	0.03 (4)			
G-F	0 / 1182	-36.5	-36.5	0.44 (1)			
F-E	0 / 799	-18.2	-18.2	0.39 (1)			

**SPECIFIED CONCENTRATED LOADS (LBS)**

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
F	4-8-12	-1476	-1476	---	FRONT	VERT	TOTAL	---	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	=	34.8	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.3	PSF
TOTAL LOAD	=	48.1	PSF

**SPACING = 24.0 IN. C/C**

GIRDER TYPE: CPrimeHip

SIDE SETBACK = 0-0

END SETBACK = 6-0-0

END WALL WIDTH = 0-0

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.  
 LOADS APPLIED TO FIRST 4-8-12 OF SPAN  
 MEASURED FROM THE LEFT.

\*\*\* NON STANDARD GIRDER \*\*\*

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 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=0.22/0.97 (A-B:1) , BC=0.44/0.97 (F-G:1) , WB=0.50/0.97 (C-F:1) , SSI=0.26/1.00 (A-B: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
MT20	650	371	1747
		788	1987
			1873

CONTINUED ON PAGE 2



JULY 13, 2023


READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. 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 COPY	JOB DESC.	DRWG NO.
IM0723-081	G02	OF PERMIT PLANS Nov 22 2023	TRUSS DESC.	

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:47:35 2023 Page 2

ID:QK tCmQp0 tF2YVqi0sgQdyWVx2-?d5erV8ntYUPGPYskjC4LajWk?zOxCefda1MvGyyYAM

PER:   
CHIEF BUILDING OFFICIAL

MHP 23029

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.47 (F) (INPUT = 1.00 )



JULY 13, 2023

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



TRUTH COPY  
 OF PERMIT PLANS  
 Nov 22 2023  
 C. Morris  
 13-4  
 CHIEF BUILDING OFFICIAL

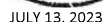
WB - INDICATES BLOCKING REQUIRED

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

**TOTAL LOAD CASES: (4)**

SPECIFIED CONCENTRATED LOADS (LBS)									
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
I	25-0-0	-367	-367	---	FRONT	VERT	TOTAL	---	C1
P	17-0-12	-1631	-1631	---	FRONT	VERT	TOTAL	---	C1

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



CONTINUED ON PAGE 2



JOB NAME	TRUSS NAME	QUANTITY COPY	JOB DESC.	DRWG NO.
IM0723-081	G03	OF PERMIT PLANS	TRUSS DESC.	

Nov 22 2023

PER:

CHIEF BUILDING OFFICIAL

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:47:36 2023 Page 2  
ID:QK tCmQp0 tF2YVqi0sgQdyWVx2-Tpf02r9PerdGtZ72HRjJunFeWPFTgYzpsEmvRiyyYAL

MHP 23029

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	
MT18HS 586 403	2455 1382	3163 3004	

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (R) (INPUT = 0.90 )

JSI METAL= 0.99 (Q) (INPUT = 1.00 )



JULY 13, 2023

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



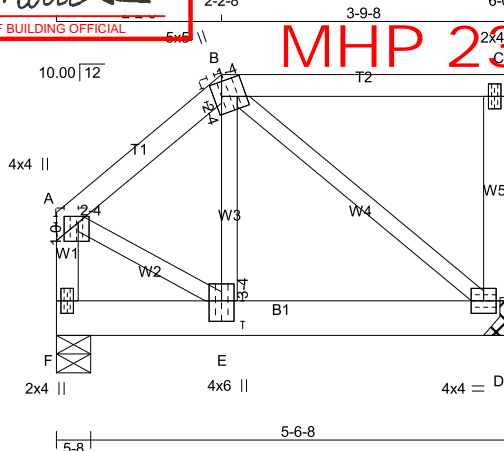
JOB NAME	TRUSS NAME	QUANTITY COPY	JOB DESC.	DRWG NO.
IM0723-081	G04	OF PERMIT PLANS	TRUSS DESC.	

ENG-IM0723-081-KT  
 Nov 22 2023  
 PER: *Chmora*  
 CHIEF BUILDING OFFICIAL

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:47:36 2023 Page 1

ID:QK\_tCmQp0\_tF2YVqi0sgQdyWVx2-Tpf02r9PerdGtZ72HRjJunFfsPjmgH1psEmvRiyyYAL

Scale = 1:30.8



TOTAL WEIGHT = 30 lb

**LUMBER**

N. L. G. A. RULES

CHORDS SIZE

A - B 2x4 DRY No.2

B - C 2x4 DRY No.2

D - C 2x4 DRY No.2

F - A 2x4 DRY No.2

F - D 2x6 DRY No.2

ALL WEBS 2x3 DRY No.2

EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	4.0	1.00	2.25
B	TTWW+m	MT20	5.0	5.0	2.25	1.25
C	TMV+p	MT20	2.0	4.0		
D	BMVW1-t	MT20	4.0	4.0		
E	BMVW1-t	MT20	4.0	6.0	3.25	2.00
F	BMV1+p	MT20	2.0	4.0		

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

	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
D	1428	0	1428	0
F	1428	0	1428	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D. MINIMUM BEARING LENGTH AT JOINT D = 1-9.

**UNFACTORED REACTIONS**

JT	1ST CASE	MAX./MIN.	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE
D	998	722 / 0	0 / 0
F	998	722 / 0	0 / 0

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.07 FT.  
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH
FR-TO				FR-TO		
A-B	-986 / 0	-119.4 -119.4	0.12 (1)	E-B	0 / 916	0.23 (1)
B-C	0 / 0	-119.4 -119.4	0.32 (1)	B-D	-1011 / 0	0.37 (1)
D-C	-226 / 0	0.0 0.0	0.04 (1)	A-E	0 / 852	0.21 (1)
F-A	-1166 / 0	0.0 0.0	0.13 (1)			
F-E	0 / 0	-356.7 -356.7	0.25 (1)			
E-D	0 / 785	-356.7 -356.7	0.43 (1)			

**DESIGN CRITERIA****SPECIFIED LOADS:**

TOP CH.	LL	=	34.8	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	6.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD	=	48.1	PSF	

**SPACING = 24.0 IN. C/C**

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

GIRDER TYPE: CStd Girder

START DISTANCE = 0-0

START SPAN CARRIED = 11-10-0

END DISTANCE = 6-0-0

END SPAN CARRIED = 11-10-0

END WALL WIDTH = 0-0

APPLIED TO FRONT SIDE OF BOTTOM CHORD.

- ADD'L 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, NBC-2019AE
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 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=0.32/0.97 (B-C:1), BC=0.43/0.97 (D-E:1),  
 WB=0.37/0.97 (B-D:1), SSI=0.50/1.00 (D-E: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
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (A) (INPUT = 0.90 )  
 JSI METAL= 0.35 (E) (INPUT = 1.00 )



JULY 13, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. 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 COPY OF PERMIT PLANS Nov 22 2023	JOB DESC.	DRWG NO.
IM0723-081	G05			

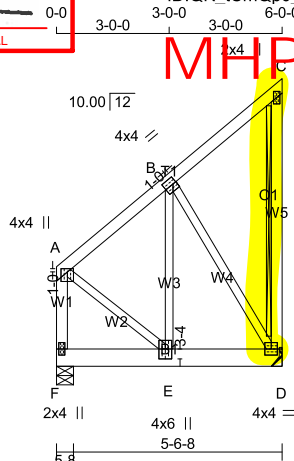
Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:47:37 2023 Page 1

PER:

CHIEF BUILDING OFFICIAL

ID:QK\_tCmQp0\_tF2YVqi0sgQdyWVx2-x?DOFBA2P9I7VjiFr8FYQ?osXphMP5yy5uWT\_8yyYAK

Scale = 1:61.2



TOTAL WEIGHT = 40 lb

**LUMBER**

N. L. G. A. RULES

CHORDS SIZE

F - A 2x4 DRY No.2

A - C 2x4 DRY No.2

D - C 2x4 DRY No.2

F - D 2x6 DRY No.2

ALL WEBS 2x3 DRY

DRY: SEASONED LUMBER.

LUMBER

No.2

No.2

No.2

No.2

DESCR.

SPF

SPF

SPF

SPF

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

	FACTORED	MAXIMUM FACTORED	INPUT	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
F	1428	0	1428	0
D	1428	0	0	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D. MINIMUM BEARING LENGTH AT JOINT D = 1-9.

**UNFACTORED REACTIONS**

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
F	998	722 / 0	0 / 0	0 / 0	0 / 0	276 / 0	0 / 0	
D	998	722 / 0	0 / 0	0 / 0	0 / 0	276 / 0	0 / 0	

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

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

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

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

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

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

**LOADING**

TOTAL LOAD CASES: (4)

MEMB.	C H O R D S		W E B S	
	MAX. FACTORED	FACTORED	MAX. FACTORED	FACTORED
	FORCE (LBS)	VERT. LOAD LC1 (PLF)	FORCE (LBS)	FORCE (LBS)
FR-TO		FROM TO	FR-TO	
F-A	-988 / 0	0.0 0.0 0.14 (1)	7.74	A-E 0 / 672
A-B	-676 / 0	-119.4 -119.4 0.20 (1)	6.25	E-B 0 / 859
B-C	-27 / 0	-119.4 -119.4 0.19 (1)	6.25	B-D -1007 / 0
D-C	-137 / 0	0.0 0.0 0.04 (1)	7.81	
F-E	0 / 0	-356.7 -356.7 0.21 (1)	10.00	
E-D	0 / 540	-356.7 -356.7 0.28 (1)	10.00	

**DESIGN CRITERIA**

SPECIFIED LOADS:

TOP CH. LL = 34.8 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.3 PSF

TOTAL LOAD = 48.1 PSF

**SPACING = 24.0 IN. C/C**

GIRDER TYPE: CStdGirder

START DISTANCE = 0-0

START SPAN CARRIED = 11-10-0

END DISTANCE = 6-0-0

END SPAN CARRIED = 11-10-0

END WALL WIDTH = 0-0

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, NBC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, NBC-2019AE

- PART 9 OF OBC 2012 (2019 AMENDMENT)

- CSA 086-14

- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")  
ALLOWABLE DEFL.(TL)= L/360 (0.20")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")CSI: TC=0.20/0.97 (A-B:1) , BC=0.28/0.97 (D-E:1) ,  
WB=0.51/0.97 (B-D:1) , SSI=0.42/1.00 (D-E: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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (B) (INPUT = 0.90 )

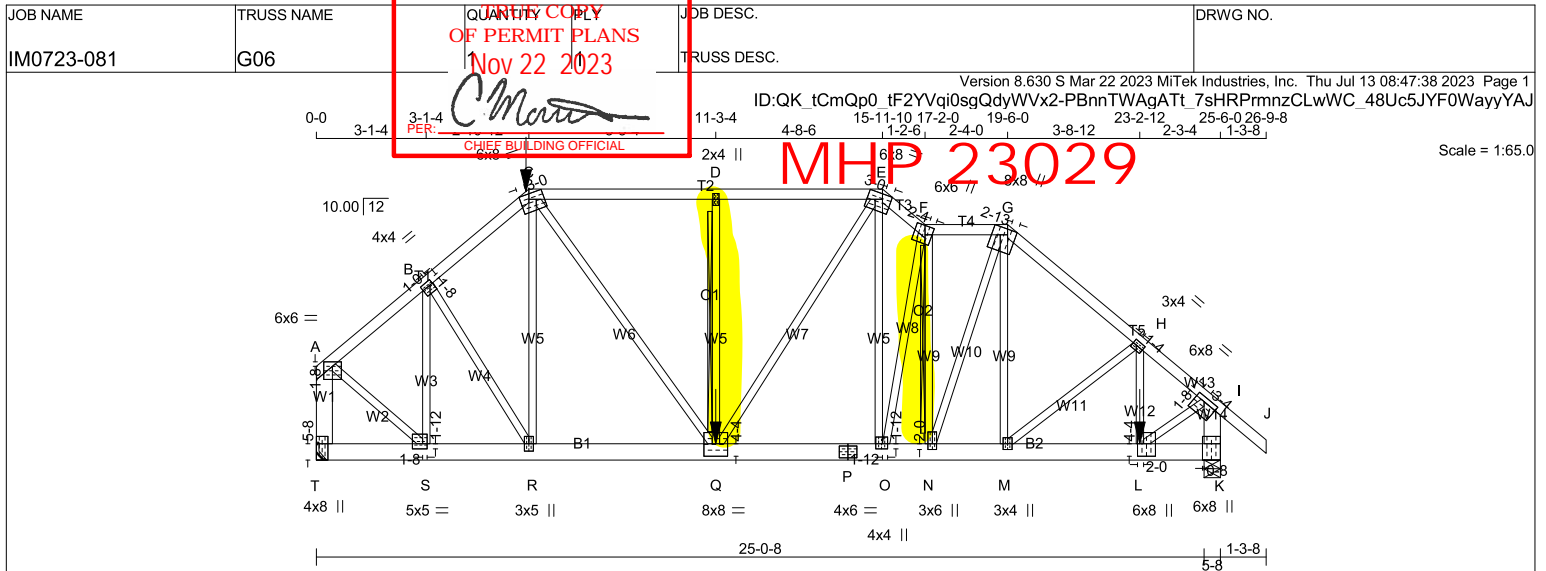
JSI METAL= 0.26 (E) (INPUT = 1.00 )



JULY 13, 2023

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





TOTAL WEIGHT = 156 lb

**LUMBER**

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	2100F 1.8E	SPF
E - F	2x4	DRY	No.2	SPF
F - G	2x4	DRY	No.2	SPF
G - J	2x4	DRY	No.2	SPF
T - A	2x6	DRY	No.2	SPF
K - I	2x6	DRY	No.2	SPF
T - P	2x6	DRY	No.2	SPF
P - K	2x6	DRY	No.2	SPF

ALL WEBS EXCEPT

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

JT TYPE	PLATES	W	LEN	Y	X
A	TMVW-p	MT20	6.0	6.0	1.50 3.00
B	TMWW-t	MT20	4.0	4.0	1.50 1.00
C	TTWW-m	MT20	6.0	8.0	Edge 3.00
D	TMW+w	MT20	2.0	4.0	
E	TTWW-m	MT20	6.0	8.0	Edge 3.00
F	TTWW+m	MT20	6.0	6.0	3.00 2.25
G	TTWW+m	MT20	8.0	8.0	Edge 2.75
H	TMWW-t	MT20	3.0	4.0	1.50 1.25
I	TMVW-t	MT20	6.0	8.0	1.50 3.25
K	BMV1+t	MT20	6.0	8.0	Edge 0.50
L	BMVW+t	MT20	6.0	8.0	4.25 2.00
M	BMVW+t	MT20	3.0	4.0	
N	BMVW+t	MT20	3.0	6.0	2.00 1.50
O	BMVW+t	MT20	4.0	4.0	1.75 1.75
P	BS-t	MT20	4.0	6.0	
Q	BMVWW-t	MT20	8.0	8.0	4.25 4.00
R	BMVW+t	MT20	3.0	5.0	
S	BMVW-t	MT20	5.0	5.0	1.75 1.50
T	BMV1+t	MT20	4.0	8.0	5.50

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

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	UPLIFT
T	3601	0	3601	0
K	4208	0	4208	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT T. MINIMUM BEARING LENGTH AT JOINT T = 3-8.

**UNFACTORED REACTIONS**

JT	1ST LCASE COMBINED	MAX./MIN. SNOW	MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
T	2519	1809 / 0	0 / 0	0 / 0	0 / 0	710 / 0	0 / 0
K	2938	2145 / 0	0 / 0	0 / 0	0 / 0	793 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) K  
BEARING SIZE FACTOR = 1.15 AT JNT(S) K (BASED ON SUPPORT DEPTH = 1-8)**BRACING**TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.29 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT D-Q, F-N

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

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

**LOADING**

TOTAL LOAD CASES: (4)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)		
FR-TO		FROM TO		FR-TO				
A-B	-2832 / 0	-119.4 -119.4	0.31 (1)	3.78	S-B	-1495 / 0	0.58 (1)	
B-C	-3450 / 0	-119.4 -119.4	0.36 (1)	3.40	B-R	0 / 804	0.20 (1)	
C-D	-3717 / 0	-225.2 -225.2	0.69 (1)	3.54	R-C	-492 / 12	0.50 (1)	
D-E	-3716 / 0	-119.4 -119.4	0.64 (1)	3.59	C-Q	0 / 1876	0.46 (1)	
E-F	-3945 / 0	-119.4 -119.4	0.22 (1)	3.33	Q-D	-1050 / 0	0.42 (1)	
F-G	-3198 / 0	-119.4 -119.4	0.25 (1)	3.63	Q-E	0 / 1282	0.32 (1)	
G-H	-3482 / 0	-119.4 -119.4	0.46 (1)	3.31	O-E	0 / 1192	0.29 (1)	
H-I	-3630 / 0	-119.4 -119.4	0.37 (1)	3.29	O-F	-1094 / 0	0.81 (1)	
I-J	0 / 53	-119.4 -119.4	0.18 (1)	10.00	N-F	-1661 / 0	0.51 (1)	
T-A	-3547 / 0	0.0	0.0	3.54	N-G	0 / 1609	0.40 (1)	
K-I	-4107 / 0	0.0	0.0	3.00 (1)	5.17	M-G	0 / 381	0.09 (1)
					M-H	-212 / 0	0.09 (1)	
T-S	0 / 0	-34.4 -34.4	0.04 (4)	10.00	L-H	-191 / 7	0.04 (1)	
S-R	0 / 2195	-34.4 -34.4	0.35 (1)	10.00	A-S	0 / 2699	0.67 (1)	
R-Q	0 / 2613	-34.4 -34.4	0.41 (1)	10.00	L-I	0 / 3197	0.79 (1)	
Q-P	0 / 3020	-18.2 -18.2	0.45 (1)	10.00				
P-O	0 / 3020	-18.2 -18.2	0.45 (1)	10.00				
O-N	0 / 3226	-18.2 -18.2	0.50 (1)	10.00				
N-M	0 / 2657	-18.2 -18.2	0.44 (1)	10.00				
M-L	0 / 2816	-18.2 -18.2	0.50 (1)	10.00				
L-K	0 / 0	-18.2 -18.2	0.13 (1)	10.00				

**SPECIFIED CONCENTRATED LOADS (LBS)**

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
C	6-0-0	-367	---	---	FRONT	VERT	TOTAL	---	C1
L	23-2-12	-998	---	---	FRONT	VERT	TOTAL	---	C1
Q	11-3-4	-998	---	---	FRONT	VERT	TOTAL	---	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 = 34.8 PSF  
DL = 6.0 PSF  
BOT CH. LL = 0.0 PSF  
DL = 7.3 PSF  
TOTAL LOAD = 48.1 PSF**SPACING = 24.0 IN./C**

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

GIRDER TYPE: CPrimeHip  
SIDE SETBACK = 6-0-0  
END SETBACK = 6-0-0  
END WALL WIDTH = 5-8  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADD'L LOADS BASED ON 55 % OF GSL.  
LOADS APPLIED TO FIRST 11-3-4 OF SPAN MEASURED FROM THE LEFT.\*\*\* NON STANDARD GIRDER \*\*\*  
ADD'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

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

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

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.85")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.12")  
ALLOWABLE DEFL.(TL) = L/360 (0.85")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.20")

CSI: TC=0.69/0.97 (C-D:1), BC=0.50/0.97 (N-O:1), WB=0.81/0.97 (F-O:1), SSI=0.59/1.00 (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.

CONTINUED ON PAGE 2



JULY 13, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. 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 COPY	JOB DESC.	DRWG NO.
IM0723-081	G06	OF PERMIT PLANS	TRUSS DESC.	

Nov 22 2023

PER:

CHIEF BUILDING OFFICIAL

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:47:38 2023 Page 2

ID:QK tCmQp0 tF2YVqi0sgQdyWVx2-PBnnTWAgATt 7sHRPmnmzCLwWC 48Uc5JYF0WayyYAJ

MHP 23029

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.


JSI GRIP= 0.90 (A) (INPUT = 0.90 )  
 JSI METAL= 0.85 (L) (INPUT = 1.00 )

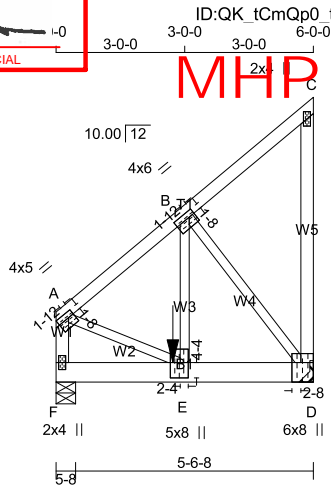


JULY 13, 2023

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



Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:47:39 2023 Page 1  
ID: QK\_tCmqp0\_tF2YVqi0SgQdyWVx2-uOL9sgB1xm?rk0sdzZH0VQtDcJotzPFYC?Z21yyYAl  
PER:  1-0 3-0-0 3-0-0 6-0-0  
CHIEF BUILDING OFFICIAL  
Scale = 1:53.7



MHP 23029

Scale = 1:53.7

TOTAL WEIGHT = 2 X 36 = 73 lb

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

## DESIGN CRITERIA

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

### UNFACTORED REACTIONS

SPECIFIED LOADS:

TOP	CH.	LL	=	34.8	PSF
		DL	=	6.0	PSF
BOT	CH.	LL	=	0.0	PSF
		DL	=	7.3	PSF
TOTAL LOAD				=	48.1 PSF

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

## BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.19 FT.  
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY  
APPLIED.

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

## LOADING

TOTAL LOAD CASES: (4)

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStdGirder  
START DISTANCE = 2-8-12  
START SPAN CARRIED = 25-6-0  
END DISTANCE = 6-0-0  
END SPAN CARRIED = 25-6-0  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADD'L LOADS BASED ON 55 % OF GSL.

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

GIRDER TYPE: CPrimeHip  
SIDE SETBACK = 0-0  
END SETBACK = 6-0-0  
END WALL WIDTH = 0-0  
CORNER FRAMING TYPE: CONVENTIONAL  
END JACK TYPE: CONVENTIONAL  
APPLIED TO FRONT SIDE  
- ADD'TL LOADS BASED ON 55 % OF GSL.  
LOADS APPLIED TO FIRST 2-8-12 OF SPAN  
MEASURED FROM THE LEFT.

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

**PLATES** (table is in inches)

F- E	0 / 0	-36.5	-36.5	0.02 (4)	10.00
E- D	0 / 2238	-811.3	-811.3	0.47 (1)	10.00

SPECIFIED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
E	2-8-12	-2519	-2519	---	FRONT	VERT	TOTAL	---	C1

## CONNECTION REQUIREMENTS

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

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

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

THIS DESIGN COMPLIES WITH:

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

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 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=0.18/0.97 (A-B:1) , BC=0.47/0.97 (D-E:1) ,  
WB=0.64/0.97 (B-D:1) , SSI=0.41/1.00 (D-E: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 .

CONTINUED ON PAGE 2



JULY 13, 2023

**READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTES: TRUSSES. 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 COPY	JOB DESC.	DRWG NO.
IM0723-081	G07	OF PERMIT PLANS	TRUSS DESC.	

Nov 22 2023

PER:

CHIEF BUILDING OFFICIAL

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:47:39 2023 Page 2  
ID:QK tCmQp0 tF2YVqi0sgQdyWVx2-uOL9gsBlxm?rk0sdzZH0VQtDjCJotzPFYC?Z21yyYAl

MHP 23029

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (B) (INPUT = 0.90 )  
JSI METAL= 0.44 (A) (INPUT = 1.00 )

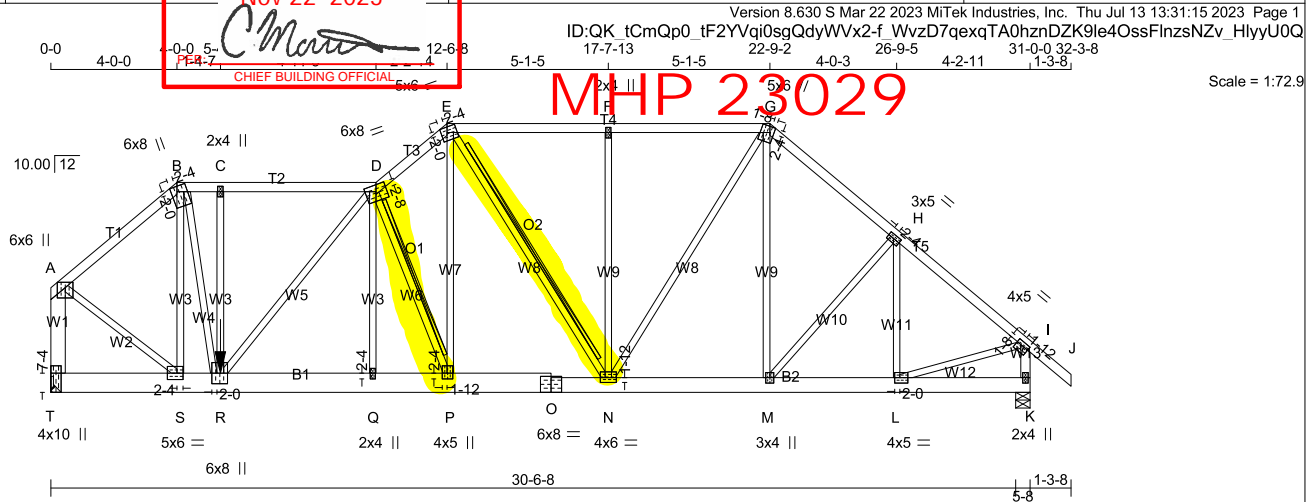


JULY 13, 2023

READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTES: TRUSSES. 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 COPY OF PERMIT PLANS Nov 22 2023	JOB DESC.	DRWG NO.
IM0723-081	G08		TRUSS DESC.	



TOTAL WEIGHT = 2 X 192 = 385 lb

**LUMBER**

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - D	2x4	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
E - G	2x4	DRY	No.2	SPF
G - J	2x4	DRY	No.2	SPF
T - A	2x6	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
T - O	2x8	DRY	No.2	SPF
O - K	2x6	DRY	No.2	SPF

ALL WEBS EXCEPT

2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - B 1	12	TOP
B - D 1	12	TOP
D - E 1	12	TOP
E - G 1	12	TOP
G - J 1	12	TOP
K - I 1	12	TOP
T - A 2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
T - O 2	12	SIDE(61.0)
O - K 2	12	TOP
WEBS : (0.122"x3") SPIRAL NAILS		
2x3 1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

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

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	IN-SX	IN-SX
T	6124	0	6124	0
K	3067	0	3067	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT T. MINIMUM BEARING LENGTH AT JOINT T = 4-0.

**UNFACTORED REACTIONS**

1ST LCASE	MAX./MIN.	COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
T	4280	3096 / 0	0 / 0	0 / 0	0 / 0	1183 / 0	0 / 0
K	2141	1563 / 0	0 / 0	0 / 0	0 / 0	577 / 0	0 / 0

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

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.04 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

2x4 DRY SPF No.2 T-BRACE AT D-P, E-N

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

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

**LOADING**

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
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	-4976 / 0	-119.4 -119.4	0.31 (1)	4.04	S-B	-551 / 0	0.18 (1)
B-C	-4576 / 0	-119.4 -119.4	0.21 (1)	4.26	B-R	0 / 3577	0.44 (1)
C-D	-4578 / 0	-119.4 -119.4	0.31 (1)	4.17	R-C	-458 / 0	0.15 (1)
D-E	-4804 / 0	-119.4 -119.4	0.13 (1)	4.27	R-D	-571 / 0	0.35 (1)
E-F	-3308 / 0	-119.4 -119.4	0.35 (1)	4.71	Q-D	0 / 226	0.03 (1)
F-G	-3308 / 0	-119.4 -119.4	0.35 (1)	4.71	D-P	-3494 / 0	0.70 (1)
G-H	-3139 / 0	-119.4 -119.4	0.23 (1)	4.97	P-E	0 / 3369	0.42 (1)
H-I	-3041 / 0	-119.4 -119.4	0.23 (1)	5.03	E-N	-798 / 0	0.39 (1)
I-J	0 / 53	-119.4 -119.4	0.09 (1)	10.00	N-F	-726 / 0	0.50 (1)
T-A	-6052 / 0	0.0 0.0	0.35 (1)	5.94	N-G	0 / 1746	0.22 (1)
K-I	-3016 / 0	0.0 0.0	0.17 (1)	6.56	M-G	0 / 87	0.02 (4)
					M-H	0 / 19	0.00 (1)
T-S	0 / 0	-140.2 -140.2	0.22 (1)	10.00	L-H	-644 / 0	0.12 (1)
S-R	0 / 3803	-140.2 -140.2	0.44 (1)	10.00	A-S	0 / 4623	0.57 (1)
R-Q	0 / 4934	-18.2 -18.2	0.50 (1)	10.00	L-I	0 / 2461	0.30 (1)
Q-P	0 / 4931	-18.2 -18.2	0.30 (1)	10.00			
P-O	0 / 3734	-18.3 -18.3	0.27 (1)	10.00			
O-N	0 / 3734	-18.2 -18.2	0.27 (1)	10.00			
N-M	0 / 2378	-18.2 -18.2	0.18 (1)	10.00			
M-L	0 / 2364	-18.2 -18.2	0.17 (1)	10.00			
L-K	0 / 0	-18.2 -18.2	0.03 (1)	10.00			

**SPECIFIED CONCENTRATED LOADS (LBS)**

JT	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
R	5-4-7	-2867	-2867	---	FRONT	VERT	TOTAL	---	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	=	34.8	PSF
DL	=	6.0	PSF
BOT CH. LL	=	0.0	PSF
DL	=	7.3	PSF
TOTAL LOAD	=	48.1	PSF

**SPACING = 24.0 IN./C**

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

GIRDER TYPE: CStdGirder  
START DISTANCE = 0-0  
START SPAN CARRIED = 6-0-0  
END DISTANCE = 5-4-7  
END SPAN CARRIED = 6-0-0  
END WALL WIDTH = 5-8  
APPLIED TO FRONT SIDE OF BOTTOM CHORD.  
- ADDTL LOADS BASED ON 55 % OF GSL.

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

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

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

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.03")  
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")  
ALLOWABLE DEFL.(TL) = L/360 (1.03")  
CALCULATED VERT. DEFL.(TL) = L/999 (0.18")

CSI: TC=0.35/0.97 (A-T:1), BC=0.50/0.97 (Q-R:1), WB=0.70/0.97 (D-P:1), SSI=0.46/1.00 (R-S: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
MT20	650	371	1747
		788	1987
			1873

CONTINUED ON PAGE 2



JULY 13, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. 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 COPY	JOB DESC.	DRWG NO.
IM0723-081	G08	OF PERMIT PLANS	TRUSS DESC.	

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 13:31:15 2023 Page 2  
ID:QK tCmQp0 tF2YVqi0sgQdyWVx2-f WvzD7qexqTA0hznDZK9le4OssFlnzsnZv HlyyU0Q

PER: *C. M. ...*  
CHIEF BUILDING OFFICIAL

# MHP 23029

## PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	6.0	6.0	Edge	
B	TTWW+m	MT20	6.0	8.0	2.00	2.25
C	TMW+w	MT20	2.0	4.0		
D	TTWWW-m	MT20	6.0	8.0	2.50	4.00
E	TTWW-m	MT20	5.0	6.0	2.00	2.25
F	TMW+w	MT20	2.0	4.0		
G	TTWW+m	MT20	5.0	6.0	2.25	1.50
H	TMWW-t	MT20	3.0	5.0	1.50	2.25
I	TMVW-t	MT20	4.0	5.0	1.50	1.75
K	BMV1+p	MT20	2.0	4.0		
L	BMWW-t	MT20	4.0	5.0	2.00	2.00
M	BMWW+t	MT20	3.0	4.0		
N	BMWWW-t	MT20	4.0	6.0	1.75	3.00
O	BS-t	MT20	6.0	8.0		
P	BMWW+t	MT20	4.0	5.0	2.25	1.75
Q	BMW+w	MT20	2.0	4.0	2.25	1.00
R	BMWWW+t	MT20	6.0	8.0	4.00	2.00
S	BMWW-t	MT20	5.0	6.0	2.50	2.25
T	BMV1+t	MT20	4.0	10.0	7.25	

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.47 (I) (INPUT = 1.00 )



JULY 13, 2023

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. 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 <b>IM0723-081</b>	TRUSS NAME <b>G09</b>	<div style="border: 2px solid red; padding: 5px; display: inline-block;"> <b>QUANTITY COPY</b>  <b>OF PERMIT PLANS</b>  <b>Nov 22 2023</b>    <b>CHIEF BUILDING OFFICIAL</b> </div>	JOB DESC. <b>TRUSS DESC.</b>	DRWG NO. Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:47:41 2023 Page 1 ID:QK_tCmQp0_tF2YVqi0sgQdyWVx2-qmTv5YDYTOFY_K004_JUbrzOUQzJLopY0WUg7vvyYAG
-------------------------------	--------------------------	---	---------------------------------	--

Scale = 1:29.5

MHP 23029



JOB NAME	TRUSS NAME	QUANTITY COPY	JOB DESC.	DRWG NO.
IM0723-081	G09	OF PERMIT PLANS	TRUSS DESC.	

Nov 22 2023

PER:

CHIEF BUILDING OFFICIAL

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:47:41 2023 Page 2

ID:QK tCmQp0 tF2YVqi0sgQdyWVx2-qmTv5YDYTOFY K004 JUbrzOUQzJLopY0WUg7vyyYAG

**PLATES (table is in inches)**

JT	TYPE	PLATES	W	LEN	Y	X
D	TMW+w	MT20	2.0	4.0		
E	TMWW-t	MT20	6.0	6.0	2.00	2.00
F	TTWW+m	MT20	8.0	8.0	Edge	2.75
G	TMVW-t	MT20	6.0	8.0	1.75	3.25
H	BMV1+t	MT20	6.0	10.0	Edge	0.50
I	BMWW+t	MT20	5.0	6.0	2.25	1.50
J	BMWW+t	MT20	6.0	8.0	3.75	1.75
K	BMWWW+t	MT20	8.0	10.0	5.50	2.00
L	BMWW+t	MT20	8.0	10.0	5.50	4.00
M	BMWW+t	MT20	6.0	10.0	5.50	1.75
N	BMV1+t	MT20	6.0	10.0	7.25	

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

MHP 23029

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (J) (INPUT = 0.90 )

JSI METAL= 0.89 (M) (INPUT = 1.00 )



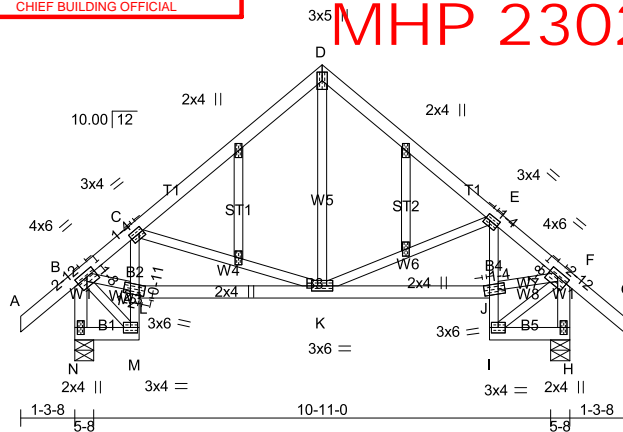
JULY 13, 2023

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



PER: C. Martin 3-1  
CHIEF BUILDING OFFICIAL

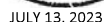
Scale = 1:55.1


$$[M][F]$$

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

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX CSI (LC)	MAX. UNBRAC FR-TO LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO						
A-B	0/53	-119.4	-119.4	0.16 (1)	10.00	C-K	-322/0	0.12 (1)
B-C	-994/0	-119.4	-119.4	0.22 (1)	5.96	K-D	0/397	0.09 (1)
C-D	-674/0	-119.4	-119.4	0.29 (1)	6.25	K-E	-302/0	0.10 (1)
D-E	-670/0	-119.4	-119.4	0.24 (1)	6.25	B-L	0/797	0.18 (1)
E-F	-981/0	-119.4	-119.4	0.18 (1)	6.05	J-F	0/763	0.17 (1)
F-G	0/53	-119.4	-119.4	0.16 (1)	10.00	B-M	0/18	0.00 (1)
N-B	-1029/0	0.0	0.0	0.11 (1)	7.64	I-F	0/16	0.00 (1)
H-F	-1024/0	0.0	0.0	0.11 (1)	7.66			
N-M	0/0	-23.2	-26.3	0.02 (4)	10.00			
M-L	0/16	0.0	0.0	0.04 (1)	10.00			
L-C	-108/19	0.0	0.0	0.03 (1)	7.81			
L-K	0/802	-26.3	-35.7	0.23 (4)	10.00			
K-J	0/772	-35.8	-27.1	0.23 (4)	10.00			
I-J	0/23	0.0	0.0	0.04 (1)	10.00			
J-E	-67/31	0.0	0.0	0.03 (4)	7.81			
I-H	0/0	-27.1	-23.2	0.02 (4)	10.00			

JSI GRIP= 0.89 (L) (INPUT = 0.90 )  
JSI METAL= 0.28 (F) (INPUT = 1.00 )



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

