



RE: 400417
Lot 52 H4

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.4

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

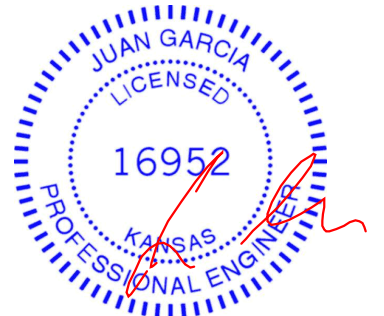
Floor Load: N/A psf

This package includes 54 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I42018132	A1	7/14/2020	27	I42018158	G6	7/14/2020
2	I42018133	A2	7/14/2020	28	I42018159	H1	7/14/2020
3	I42018134	B1	7/14/2020	29	I42018160	H2	7/14/2020
4	I42018135	B2	7/14/2020	30	I42018161	H3	7/14/2020
5	I42018136	B3	7/14/2020	31	I42018162	J1	7/14/2020
6	I42018137	B4	7/14/2020	32	I42018163	J2	7/14/2020
7	I42018138	C1	7/14/2020	33	I42018164	J3	7/14/2020
8	I42018139	C2	7/14/2020	34	I42018165	J4	7/14/2020
9	I42018140	C3	7/14/2020	35	I42018166	V1	7/14/2020
10	I42018141	C4	7/14/2020	36	I42018167	V2	7/14/2020
11	I42018142	C5A	7/14/2020	37	I42018168	V3	7/14/2020
12	I42018143	D6A	7/14/2020	38	I42018169	V4	7/14/2020
13	I42018144	D7	7/14/2020	39	I42018170	V5	7/14/2020
14	I42018145	D8	7/14/2020	40	I42018171	V6	7/14/2020
15	I42018146	D9	7/14/2020	41	I42018172	V7	7/14/2020
16	I42018147	D10	7/14/2020	42	I42018173	V8	7/14/2020
17	I42018148	D11	7/14/2020	43	I42018174	V9	7/14/2020
18	I42018149	D12	7/14/2020	44	I42018175	V10	7/14/2020
19	I42018150	E1	7/14/2020	45	I42018176	V11	7/14/2020
20	I42018151	E2	7/14/2020	46	I42018177	V12	7/14/2020
21	I42018152	E3	7/14/2020	47	I42018178	V13	7/14/2020
22	I42018153	G1	7/14/2020	48	I42018179	V14	7/14/2020
23	I42018154	G2	7/14/2020	49	I42018180	V15	7/14/2020
24	I42018155	G3	7/14/2020	50	I42018181	V16	7/14/2020
25	I42018156	G4	7/14/2020	51	I42018182	V17	7/14/2020
26	I42018157	G5	7/14/2020	52	I42018183	V18	7/14/2020

The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.
Truss Design Engineer's Name: Garcia, Juan
My license renewal date for the state of Kansas is April 30, 2022.
Kansas COA: E-943

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



RE: 400417 - Lot 52 H4

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Project Customer: Project Name:

Lot/Block:

Subdivision:

Address:

State:

City, County:

No.	Seal#	Truss Name	Date
53	I42018184	V19	7/14/2020
54	I42018185	V20	7/14/2020



RE: 400417
Lot 52 H4

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.4

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

Floor Load: N/A psf

This package includes 54 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I42018132	A1	7/14/2020	27	I42018158	G6	7/14/2020
2	I42018133	A2	7/14/2020	28	I42018159	H1	7/14/2020
3	I42018134	B1	7/14/2020	29	I42018160	H2	7/14/2020
4	I42018135	B2	7/14/2020	30	I42018161	H3	7/14/2020
5	I42018136	B3	7/14/2020	31	I42018162	J1	7/14/2020
6	I42018137	B4	7/14/2020	32	I42018163	J2	7/14/2020
7	I42018138	C1	7/14/2020	33	I42018164	J3	7/14/2020
8	I42018139	C2	7/14/2020	34	I42018165	J4	7/14/2020
9	I42018140	C3	7/14/2020	35	I42018166	V1	7/14/2020
10	I42018141	C4	7/14/2020	36	I42018167	V2	7/14/2020
11	I42018142	C5A	7/14/2020	37	I42018168	V3	7/14/2020
12	I42018143	D6A	7/14/2020	38	I42018169	V4	7/14/2020
13	I42018144	D7	7/14/2020	39	I42018170	V5	7/14/2020
14	I42018145	D8	7/14/2020	40	I42018171	V6	7/14/2020
15	I42018146	D9	7/14/2020	41	I42018172	V7	7/14/2020
16	I42018147	D10	7/14/2020	42	I42018173	V8	7/14/2020
17	I42018148	D11	7/14/2020	43	I42018174	V9	7/14/2020
18	I42018149	D12	7/14/2020	44	I42018175	V10	7/14/2020
19	I42018150	E1	7/14/2020	45	I42018176	V11	7/14/2020
20	I42018151	E2	7/14/2020	46	I42018177	V12	7/14/2020
21	I42018152	E3	7/14/2020	47	I42018178	V13	7/14/2020
22	I42018153	G1	7/14/2020	48	I42018179	V14	7/14/2020
23	I42018154	G2	7/14/2020	49	I42018180	V15	7/14/2020
24	I42018155	G3	7/14/2020	50	I42018181	V16	7/14/2020
25	I42018156	G4	7/14/2020	51	I42018182	V17	7/14/2020
26	I42018157	G5	7/14/2020	52	I42018183	V18	7/14/2020

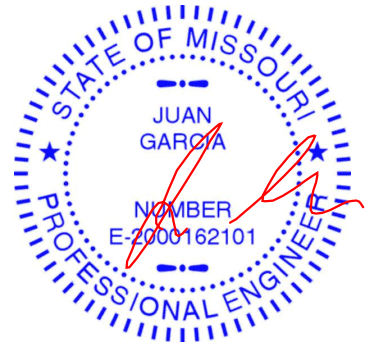
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Missouri is December 31, 2020.

Missouri COA: 001193

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek. Any project specific information included is for MiTek customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



RE: 400417 - Lot 52 H4

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Project Customer: Project Name:

Lot/Block:

Subdivision:

Address:

State:

City, County:

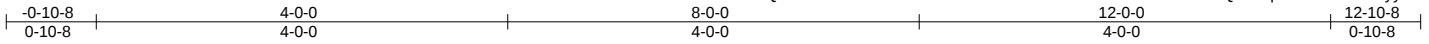
No.	Seal#	Truss Name	Date
53	I42018184	V19	7/14/2020
54	I42018185	V20	7/14/2020

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	142018132
400417	A1	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:26 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-Dtr3o?un09?MTfrHeAH02DQA58ql169eeWsRMeyyAIN



Scale = 1:22.4

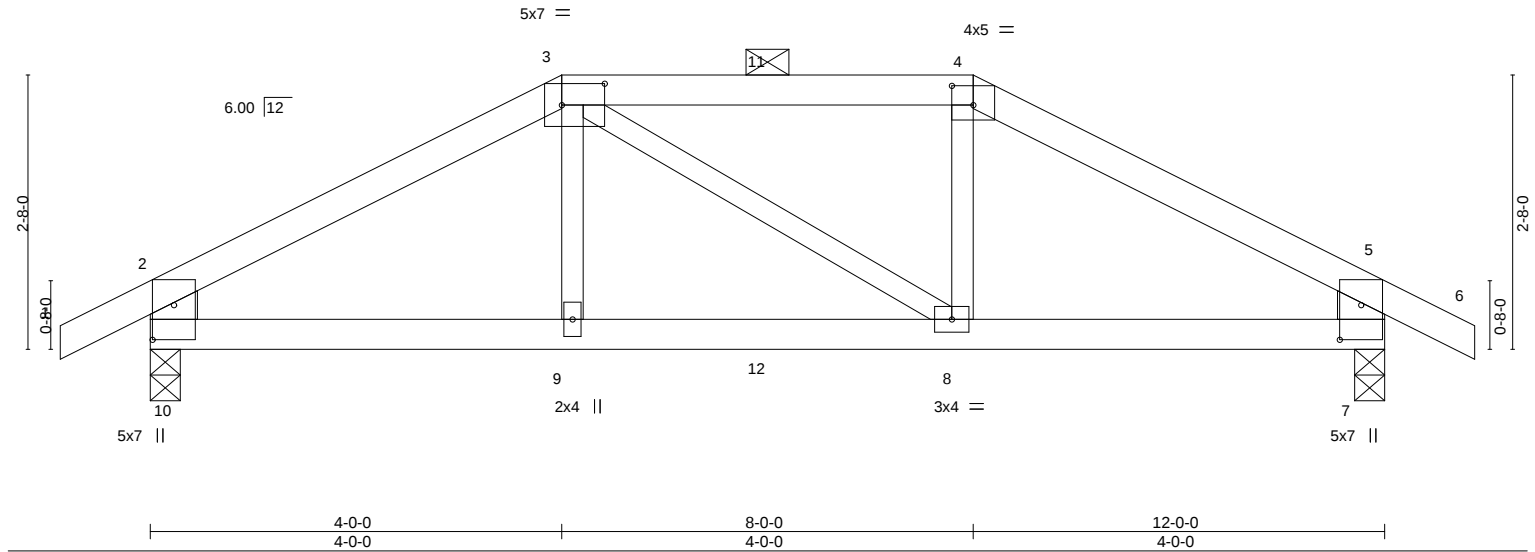


Plate Offsets (X,Y)--		[3:0-5-0,0-2-8], [4:0-2-8,0-2-4], [7:0-4-1,0-2-8], [10:0-4-1,0-2-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.71	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.67	Vert(LL) -0.07 8-9 >999 360
BCLL 0.0 *	Lumber DOL 1.15	WB 0.10	Vert(CT) -0.13 8-9 >999 240
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.02 7 n/a n/a
	Code IRC2018/TPI2014		Wind(LL) 0.06 8-9 >999 240
		PLATES MT20	
		GRIP 197/144	
		Weight: 39 lb FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-10,5-7: 2x6 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-3-4 oc purlins, except end verticals, and 2-0-0 oc purlins (5-0-4 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 10=0-3-8, 7=0-3-8
Max Horz 10=50(LC 28)
Max Uplift 10=-201(LC 8), 7=-201(LC 9)
Max Grav 10=899(LC 1), 7=899(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-1231/277, 3-4=-1024/269, 4-5=-1232/276, 2-10=-806/214, 5-7=-806/213
BOT CHORD 9-10=-219/1012, 8-9=-219/1023, 7-8=-196/1013
WEBS 3-9=0/271, 4-8=-5/279

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 201 lb uplift at joint 10 and 201 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 79 lb down and 74 lb up at 4-0-0, and 86 lb down and 74 lb up at 6-0-0, and 79 lb down and 74 lb up at 8-0-0 on top chord, and 220 lb down and 76 lb up at 4-0-0, and 31 lb down at 6-0-0, and 220 lb down and 76 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20



July 14,2020

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018132
400417	A1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:27 2020 Page 2
ID:wWQ0cVuS969af?GecLrtCNzdMNG-h3PR?LvQnT7D5pQUBtoFbQzLrYAXmZPhsAb_u4yyAlM

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 3=-46(F) 4=-46(F) 9=-220(F) 8=-220(F) 11=-46(F) 12=-25(F)

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018133
400417	A2	Common	4	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:28 2020 Page 1

ID:WWQ0cVuS969af?GecLrtCNzdMNG-9GzpChw2YmF4iz?glbJU7eVbCyc2V0yx5qLXQXyyAIL

Job Reference (optional)

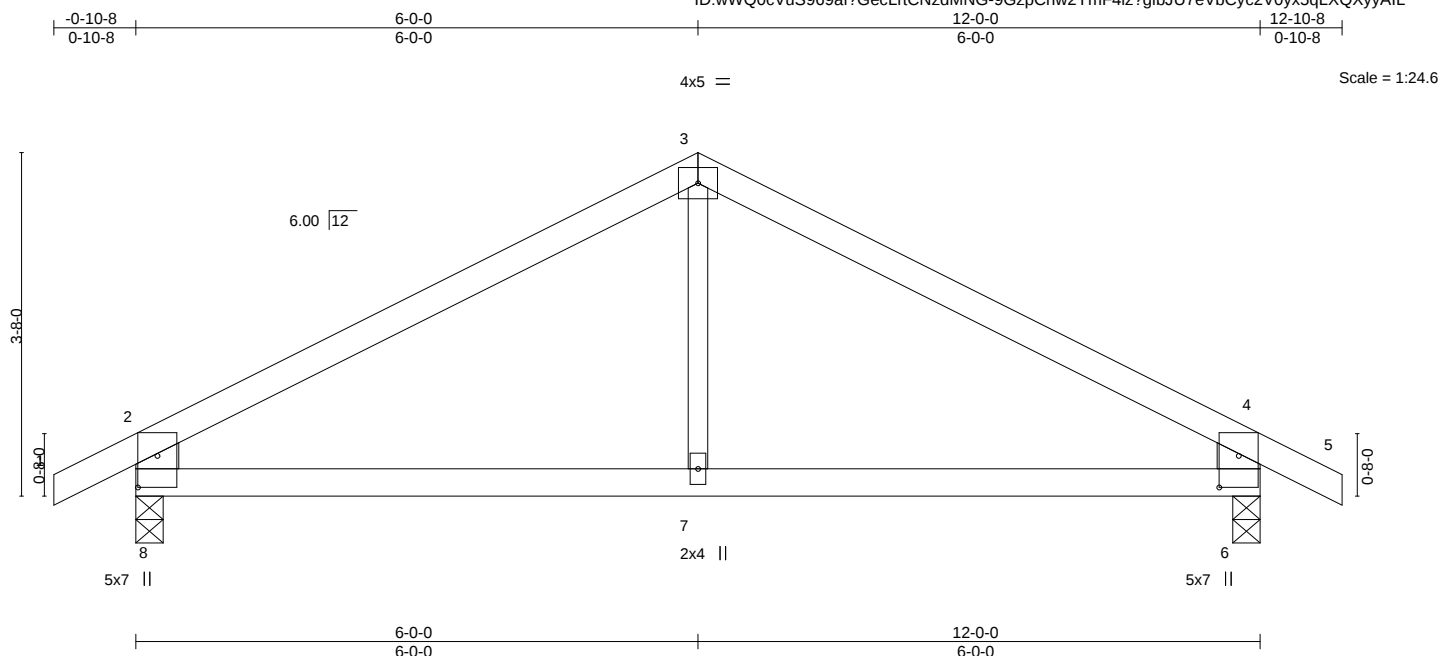


Plate Offsets (X,Y)-- [6:0-4-1,0-2-8], [8:0-4-1,0-2-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.02 7-8 >999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.05 7-8 >999	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01 6 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01 7-8 >999	240	Weight: 35 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x6 SPF No.2 *Except*
 3-7: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

REACTIONS.

(size) 8=0-3-8, 6=0-3-8
 Max Horz 8=62(LC 7)
 Max Uplift 8=-90(LC 8), 6=-90(LC 9)
 Max Grav 8=597(LC 1), 6=597(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-638/89, 3-4=-638/89, 2-8=-544/131, 4-6=-544/131
 BOT CHORD 7-8=-14/480, 6-7=-14/480

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 8 and 90 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018134
400417	B1	Roof Special Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber,
Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc.
Tue Jul 14 10:57:29 2020
Page 1
ID:wWQ0cVuS969af?GecLrtCNzdMNG-dSXCQ1wgl4NxK7asJlrgz2pvM0dESK4KU45zzyyAIK

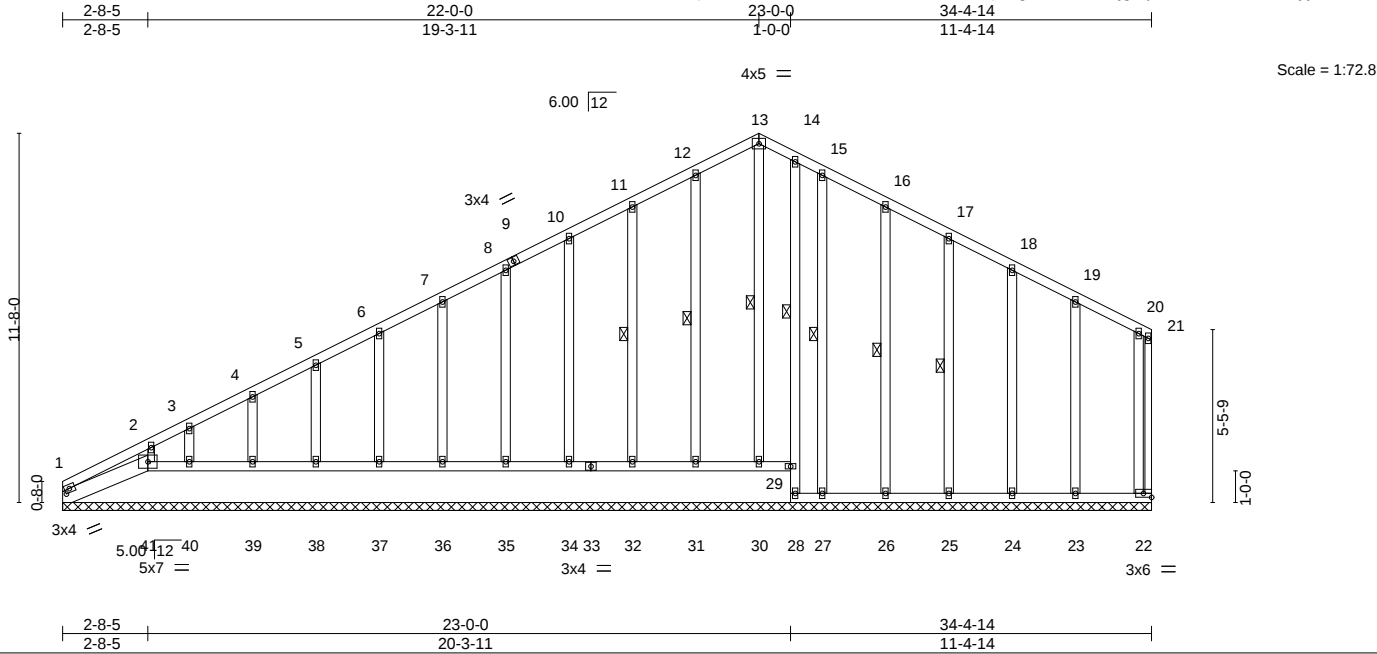
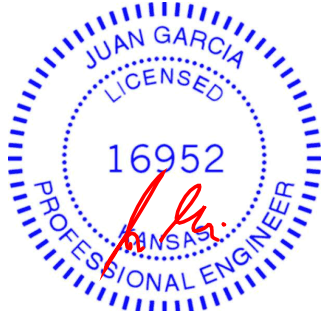


Plate Offsets (X,Y)--		[1:0-1-13,0-1-8], [22:Edge,0-1-8]								
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP		
TCLL 25.0		Plate Grip DOL 1.15		TC 0.23	Vert(LL) n/a -	n/a	999	MT20	197/144	
TCDL 10.0		Lumber DOL 1.15		BC 0.05	Vert(CT) n/a -	n/a	999			
BCLL 0.0 *		Rep Stress Incr YES		WB 0.13	Horz(CT) -0.01 22	n/a	n/a			
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S				Weight: 218 lb	FT = 10%	

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 1-41: 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 1-41.
WEBS 2x3 SPF No.2	1 Row at midpt 14-29
OTHERS 2x4 SPF No.2	1 Row at midpt 13-30, 12-31, 11-32, 15-27, 16-26, 17-25
REACTIONS.	
All bearings 34-4-14.	
(lb) - Max Horz 1=296(LC 5)	
Max Uplift All uplift 100 lb or less at joint(s) 22, 1, 41, 28, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 27, 26, 25, 24, 23, 29	
Max Grav All reactions 250 lb or less at joint(s) 22, 1, 41, 28, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 27, 26, 25, 24, 23, 29	
FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 1-2=-315/162	

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Bearing at joint(s) 29 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 22, 1, 41, 28, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 27, 26, 25, 24, 23, 29.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 41, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14,2020

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	
400417	B2	Roof Special	2	1		I42018135
Job Reference (optional)						

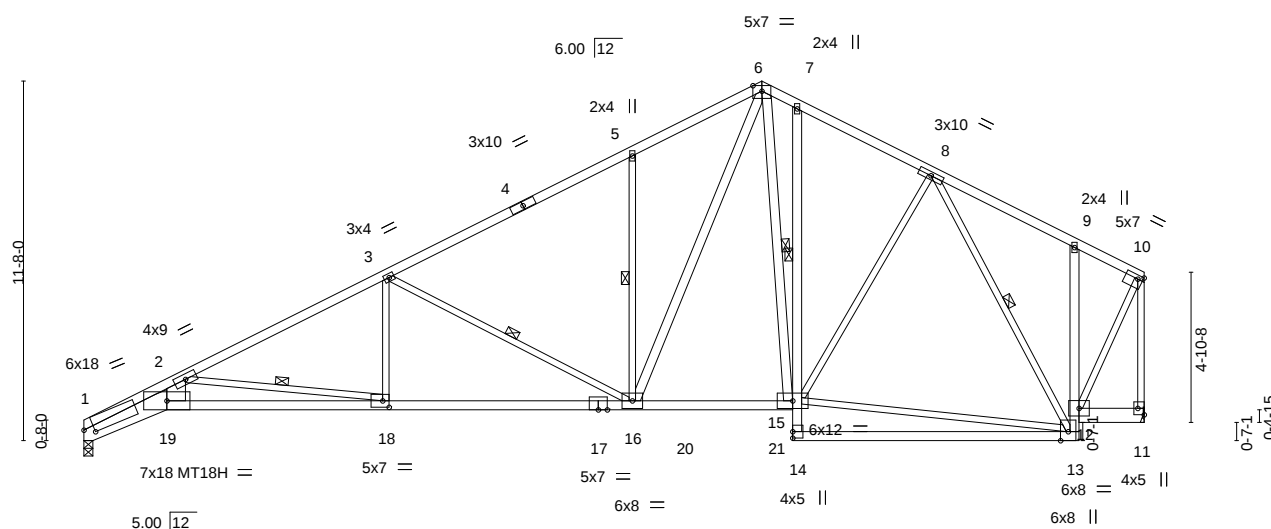
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:31 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-ZreyrjwqhdfZQkFQjtBIG7zZ9Vli9DNnoZC1syyAll

2-8-5	9-9-9	17-9-9	22-0-0	23-0-0	27-7-12	32-3-8	34-4-14
2-8-5	7-1-4	8-0-0	4-2-7	1-0-0	4-7-12	4-7-12	2-1-6

Scale = 1:74.8



2-8-5	9-9-9	17-9-9	22-0-0	23-0-0	32-3-8	34-4-14
2-8-5	7-1-4	8-0-0	4-2-7	1-0-0	9-3-8	2-1-6

Plate Offsets (X,Y)-- [1:0-3-15,0-2-5], [10:0-2-0,0-1-8], [11:Edge,0-2-8], [18:0-2-8,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.99	Vert(LL)	-0.41 18-19	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.73 18-19	>562	240	MT18H	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 1.00	Horz(CT)	0.33 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.31 18-19	>999	240	Weight: 187 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 1-19: 2x8 SP DSS, 17-19,9-13: 2x4 SPF 2100F 1.8E
 11-12: 2x6 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-19: 2x8 SP DSS, 6-16,6-15: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 7-5-7 oc bracing. Except:
 1 Row at midpt 7-15
 WEBS 1 Row at midpt 2-18, 3-16, 5-16, 6-15, 8-13

REACTIONS.

(size) 1=0-3-8, 11=Mechanical
 Max Horz 1=282(LC 5)
 Max Uplift 1=-214(LC 8), 11=-152(LC 9)
 Max Grav 1=1597(LC 2), 11=1607(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-7025/1259, 2-3=-3114/454, 3-5=-2025/318, 5-6=-1988/457, 6-7=-1423/326,
 7-8=-1457/297, 8-9=-689/164, 9-10=-649/115, 10-11=-1464/147
 BOT CHORD 1-19=-1346/6417, 18-19=-1106/5064, 16-18=-485/2766, 15-16=-62/1245, 12-13=-54/1002,
 9-12=-263/154
 WEBS 2-19=-434/2565, 2-18=-2315/624, 3-18=0/563, 3-16=-1176/327, 5-16=-468/266,
 6-16=-357/1286, 6-15=-164/325, 13-15=-153/902, 8-15=-5/419, 8-13=-1069/134,
 10-12=-106/1274

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=214, 11=152.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

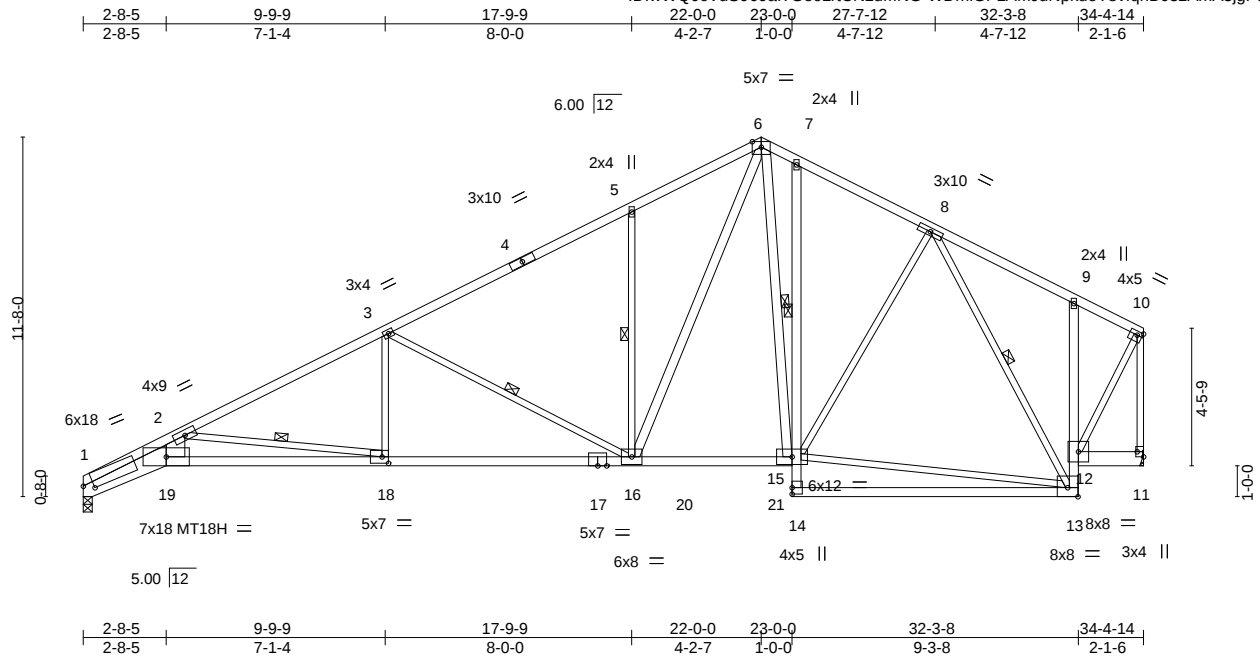


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	
400417	B3	Roof Special	2	1		I42018136
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:33 2020 Page 1
ID:wWQ0cVuS969af?GecLrtCNzdMNG-WDmiGPzAMJuNpkueY8vfhqDJ3zAmA3jgF62I6kyyAlG



Scale = 1:74.8

Plate Offsets (X,Y)-- [1:0-3-15,0-2-5], [10:0-2-0,0-1-8], [11:Edge,0-2-8], [18:0-2-8,0-2-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.41 18-19 >997 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.73 18-19 >561 240	MT18H	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.35 11 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.22 18-19 >999 240	Weight: 187 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
1-19: 2x8 SP DSS, 17-19,9-13: 2x4 SPF 2100F 1.8E
11-12: 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-19: 2x8 SP DSS, 6-16,6-15: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
1 Row at midpt 7-15
WEBS 1 Row at midpt 2-18, 3-16, 5-16, 6-15, 8-13

REACTIONS.

(size) 1=0-3-8, 11=Mechanical
Max Horz 1=225(LC 5)
Max Uplift 1=31(LC 8)
Max Grav 1=1597(LC 2), 11=1607(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-7149/346, 2-3=-3114/100, 3-5=-2025/95, 5-6=-1988/188, 6-7=-1422/138,
7-8=-1457/118, 8-9=-705/82, 9-10=-672/42, 10-11=-1390/7
BOT CHORD 1-19=-443/6558, 18-19=-380/5177, 16-18=-126/2824, 15-16=0/1259, 12-13=0/1014,
9-12=-255/90
WEBS 2-19=-98/2617, 2-18=-2371/255, 3-18=0/570, 3-16=-1209/135, 5-16=-468/161,
6-16=-149/1321, 6-15=-93/324, 13-15=-45/909, 8-15=0/416, 8-13=-1080/17,
10-12=0/1208

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

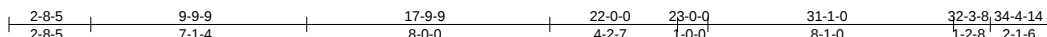
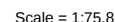
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:34 2020 Page 1

ID:wWO0cVuS969af?GecLrtCNzdMNG- OK5Tl p7c0DOuSq5rOuNvUoNWwyWzpTmoseBvyAIF



LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.43 21-22	>946	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.77 21-22	>533	240	MT18H	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.79 11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.22 21-22	>999	240	Weight: 196 lb	FT = 10%

BOT CHORD	2x4 SPF No.2 *Except*		4-10-4 oc bracing: 15-16.
	1-22: 2x8 SP DSS, 20-22,13-15: 2x4 SPF 2100F 1.8E		1 Row at midpt 7-18
	9-16: 2x6 SP DSS, 12-14: 2x3 SPF No.2	WEBS	1 Row at midpt 2-21, 3-19, 5-19, 6-18, 8-16
WEBS	2x3 SPF No.2 *Except*		
	2-22: 2x8 SP DSS, 6-19,6-18: 2x4 SPF No.2		

REACTIONS. (size) 1=0-3-8, 11=Mechanical
Max Horz 1=226(LC 5)
Max Uplift 1=-32(LC 8)
Max Grav 1=1598(LC 2), 11=1635(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-7153/345, 2-3=-3116/100, 3-5=-2027/95, 5-6=-1990/188, 6-7=-1402/137,
7-8=-1459/118, 8-9=-824/92, 9-10=-1400/24, 11-13=-1594/10, 10-13=-1441/15

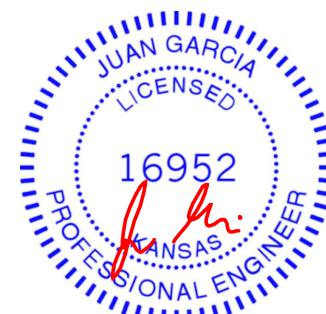
BOT CHORD 1-22=-440/6562, 21-22=-377/5181, 19-21=-125/2826, 18-19=0/1262, 15-16=0/936

WEBS 2-22=-97/2619, 2-21=-2372/254, 3-21=0/570, 3-19=-1210/135, 5-19=-467/161,
6-19=-148/1320, 6-18=-90/286, 16-18=-22/1029, 8-18=0/359, 8-16=-997/6,
10-15=0/1396



NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020



WARNING: Velly design parameters are listed on this and included with reference page MP147316v, 3/19/2020 before use. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for the individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCS1 Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018139
400417	C2	Roof Special	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

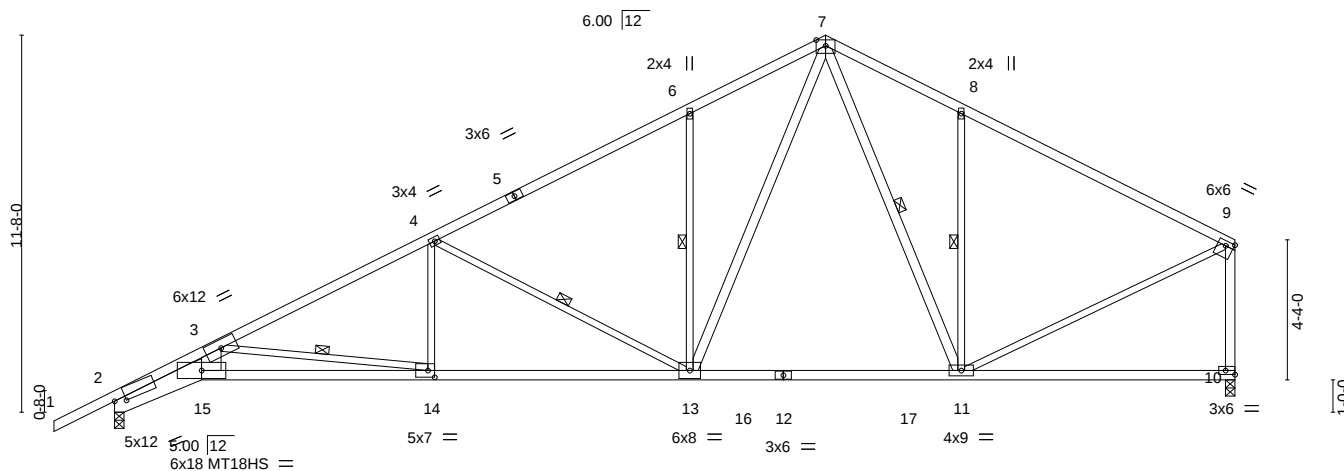
8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:36 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-woSruQ03fEGxgCcCDGTMSKruzAD7NRF6x3Hzi3yyAID

1-10-8	2-8-5	9-9-9	17-9-9	22-0-0	26-2-6	34-8-0
1-10-8	2-8-5	7-1-4	8-0-0	4-2-7	4-2-6	8-5-10

5x7 =

Scale = 1:71.3



2-8-5	9-9-9	15-6-12	28-2-12	34-4-8	34-8-0
2-8-5	7-1-4	5-9-3	12-8-0	6-1-12	0-3-8

Plate Offsets (X,Y)-- [2:0-4-3,0-1-5], [9:Edge,0-1-12], [10:Edge,0-1-8], [14:0-2-8,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.75	Vert(LL)	-0.38	14-15	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.67	14-15	>618	240	MT18HS
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.95	Horz(CT)	0.28	10	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.27	14-15	>999	240	
								Weight: 160 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
5-7: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-15: 2x8 SP DSS, 12-15: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
3-15: 2x8 SP DSS, 7-13, 7-11, 9-10: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-5-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-8-0 oc bracing.
WEBS 1 Row at midpt 3-14, 4-13, 6-13, 7-11, 8-11

REACTIONS.

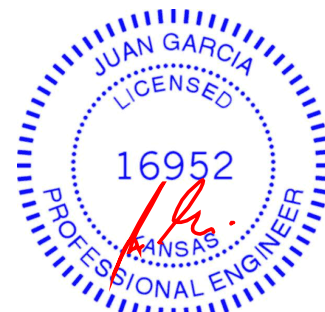
(size) 2=0-3-8, 10=0-3-8
Max Horz 2=286(LC 5)
Max Uplift 2=263(LC 8), 10=153(LC 9)
Max Grav 2=1737(LC 2), 10=1635(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-6926/1170, 3-4=-3138/449, 4-6=-2080/315, 6-7=-2042/453, 7-8=-1574/319, 8-9=-1586/233, 9-10=-1513/194
BOT CHORD 2-15=-1264/6306, 14-15=-1048/4981, 13-14=-489/2790, 11-13=-70/1270
WEBS 3-15=-389/2520, 3-14=-2207/563, 4-14=0/527, 4-13=-1153/328, 6-13=-463/264, 7-13=-344/1337, 7-11=-190/349, 8-11=-558/316, 9-11=-109/1423

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=263, 10=153.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	
400417	C3	Roof Special	1	1		I42018140

Wheeler Lumber,
Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc.
Tue Jul 14 10:57:37 2020
Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-O_?D5m1hQXOoHLBPn_b_XN0VaZG6vVF9j0WfVyyAIC

1-10-8
2-8-5
9-9-9
15-6-12
17-9-9
22-0-0
26-0-8
26-2-6
30-0-0
30-3-8

1-10-8
2-8-5
7-1-4
5-9-3
2-2-13
4-2-7
4-0-8
0-1-14
3-9-10
0-3-8

5x7 =

Scale = 1:74.7

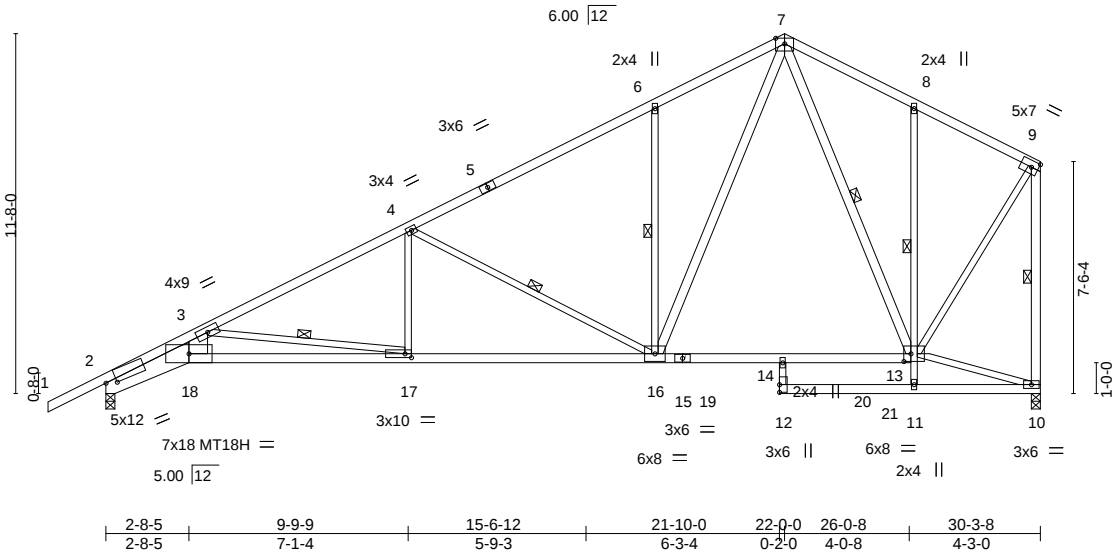


Plate Offsets (X,Y)--	[2:0-4-3,0-1-5], [13:0-2-12,0-3-0], [17:0-2-8,0-1-8]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl
TCLL 25.0	Plate Grip DOL	1.15	TC 0.96	Vert(LL)	-0.38 14	>956
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.64 17-18	>562
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.28 10	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.26 17-18	>999
					L/d	
					360	
					240	
					n/a	
					240	
					Weight: 161 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD	TOP CHORD
BOT CHORD	
WEBS	

REACTIONS.	(size) 2=0-3-8, 10=0-3-8
	Max Horz 2=367(LC 7)
	Max Uplift 2=-241(LC 8), 10=-166(LC 8)
	Max Grav 2=1550(LC 2), 10=1518(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-6119/1058, 3-4=-2656/390, 4-6=-1640/259, 6-7=-1602/400, 7-8=-827/224, 8-9=-811/174, 9-10=-1500/174
BOT CHORD	2-18=-1151/5616, 17-18=-962/4438, 16-17=-421/2379, 14-16=-103/890, 13-14=-92/911
WEBS	3-18=-341/2248, 3-17=-2075/544, 7-16=-333/1370, 7-13=-519/102, 4-17=0/501, 4-16=-1103/321, 6-16=-469/265, 11-13=0/332, 8-13=-331/197, 9-13=-96/1264

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=241, 10=166.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14,2020

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	
400417	C4	Roof Special	2	1		I42018141
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:39 2020 Page 1

ID: wWQ0cVuS969af?GecLrtCNzdMNG-KN7_WS2xy9eWXfLnuP034yTLaOEWanTyd1VdJOyyAlA

0-10-8	2-8-5	9-9-9	17-9-9	22-0-0	26-2-6	30-3-8
0-10-8	2-8-5	7-1-4	8-0-0	4-2-7	4-2-6	4-1-2

Scale = 1:74.1

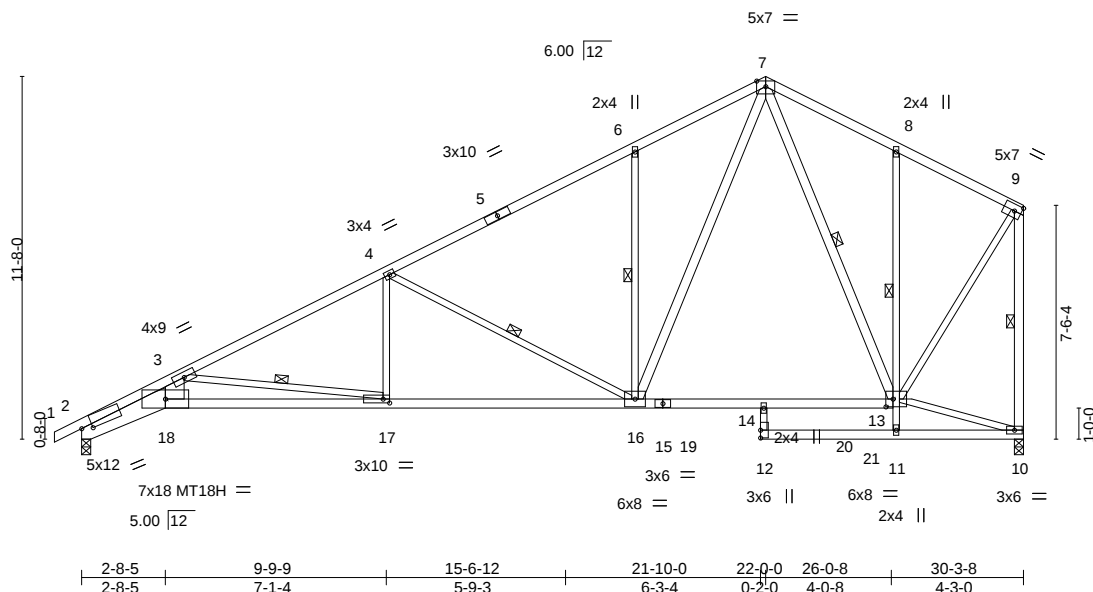


Plate Offsets (X,Y)--	[2:0-4-3,0-1-5], [13:0-2-12,0-3-0], [17:0-2-8,0-1-8]
-----------------------	--

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.92	Vert(LL)	-0.38	14	>956	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.65	17-18	>552	240	MT18H
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.92	Horz(CT)	0.29	10	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.26	17-18	>999	240	
								Weight: 160 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 2-18: 2x8 SP DSS, 15-18: 2x4 SPF 2100F 1.8E, 12-14: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 3-18: 2x8 SP DSS, 7-16,7-13,9-10: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-13 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 3-17, 4-16, 6-16, 7-13, 8-11, 9-10

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
 Max Horz 2=358(LC 7)
 Max Uplift 2=-216(LC 8), 10=-167(LC 8)
 Max Grav 2=1489(LC 2), 10=1521(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-6246/1127, 3-4=-2672/398, 4-6=-1645/261, 6-7=-1607/402, 7-8=-828/225, 8-9=-812/175, 9-10=-1503/175
 BOT CHORD 2-18=-1219/5742, 17-18=-1006/4520, 16-17=-428/2392, 14-16=-103/892, 13-14=-92/913
 WEBS 3-18=-380/2321, 3-17=-2144/582, 4-17=0/510, 4-16=-1113/327, 6-16=-469/265, 7-16=-336/1374, 7-13=-522/103, 11-13=0/332, 8-13=-331/197, 9-13=-96/1267

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=216, 10=167.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018142
400417	C5A	Roof Special	1	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:40 2020 Page 1

ID:wWQ0cVuS969af?GecLrCNzdMNG-oZhMko3ZjSmN8pw_S6XlcA?XwoatJEhishFAsqyyAI9

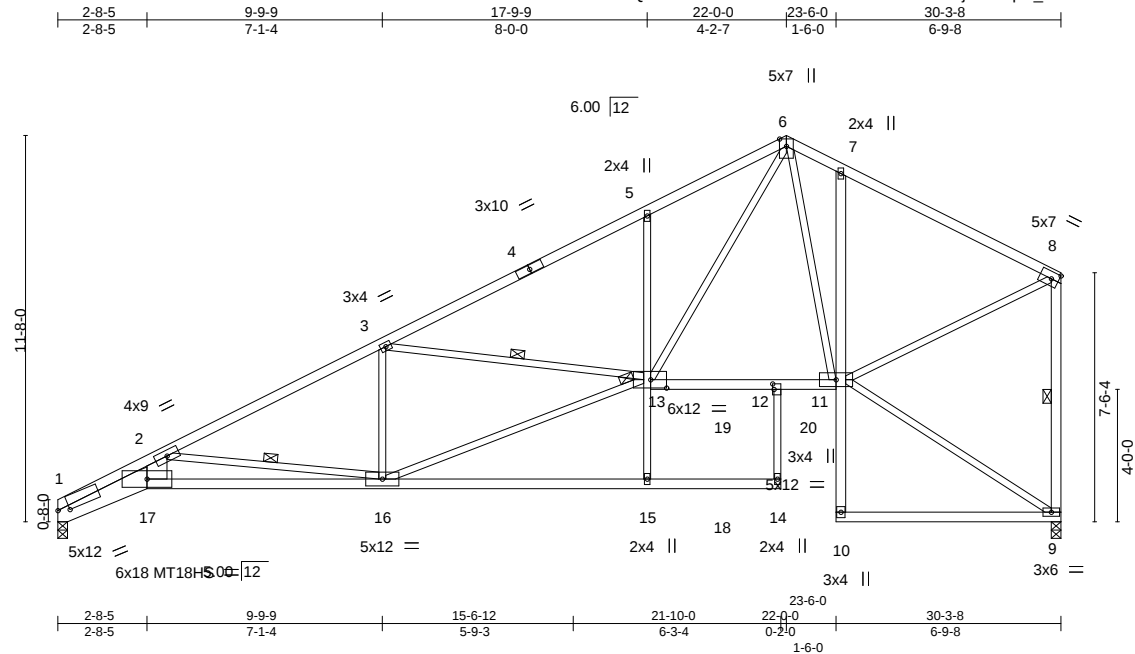


Plate Offsets (X,Y)-- [1:0-4-3,0-1-5], [12:0-2-0,0-0-8], [13:0-5-12,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.88	Vert(LL)	-0.38 16-17	>950	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.67 16-17	>540	240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.92	Horz(CT)	0.40 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.28 16-17	>999	240	Weight: 161 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
1-17: 2x8 SP DSS, 14-17: 2x4 SPF 2100F 1.8E, 12-14: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-17: 2x8 SP DSS, 8-9: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-10-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-10-6 oc bracing: 1-17
7-9-2 oc bracing: 16-17.
WEBS 1 Row at midpt 2-16, 3-13, 8-9
JOINTS 1 Brace at Jt(s): 13

REACTIONS. (size) 1=0-3-8, 9=0-3-8
Max Horz 1=354(LC 7)
Max Uplift 1=-193(LC 8), 9=-168(LC 8)
Max Grav 1=1426(LC 2), 9=1470(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-6244/1150, 2-3=-2682/399, 3-5=-2424/350, 5-6=-2381/484, 6-7=-1418/274, 7-8=-1418/228, 8-9=-1365/192
BOT CHORD 1-17=-1241/5751, 16-17=-1021/4531, 12-13=-140/1216, 11-12=-142/1247, 7-11=-446/260
WEBS 2-17=-394/2315, 2-16=-2146/597, 3-16=-391/183, 3-13=-386/213, 13-15=0/275, 5-13=-463/264, 6-13=-411/1795, 8-11=-125/1341, 13-16=-455/2513

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=193, 9=168.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



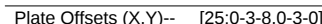
July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Scale = 1:70.9

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 13-22, 12-23, 11-24, 10-25, 14-21, 15-20, 16-19
OTHERS	2x4 SPF No.2		

REACTIONS. All bearings 30-0-0.
(lb) - Max Horz 33=358(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 33, 18, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 21, 20, 19
except 32=158(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 33, 18, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 21, 20, 19

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-331/109. 2-3=-282/102. 3-4=-259/104

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed on one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2'-0" oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33, 18, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 21, 20, 19 except (jt=lb) 32=158.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

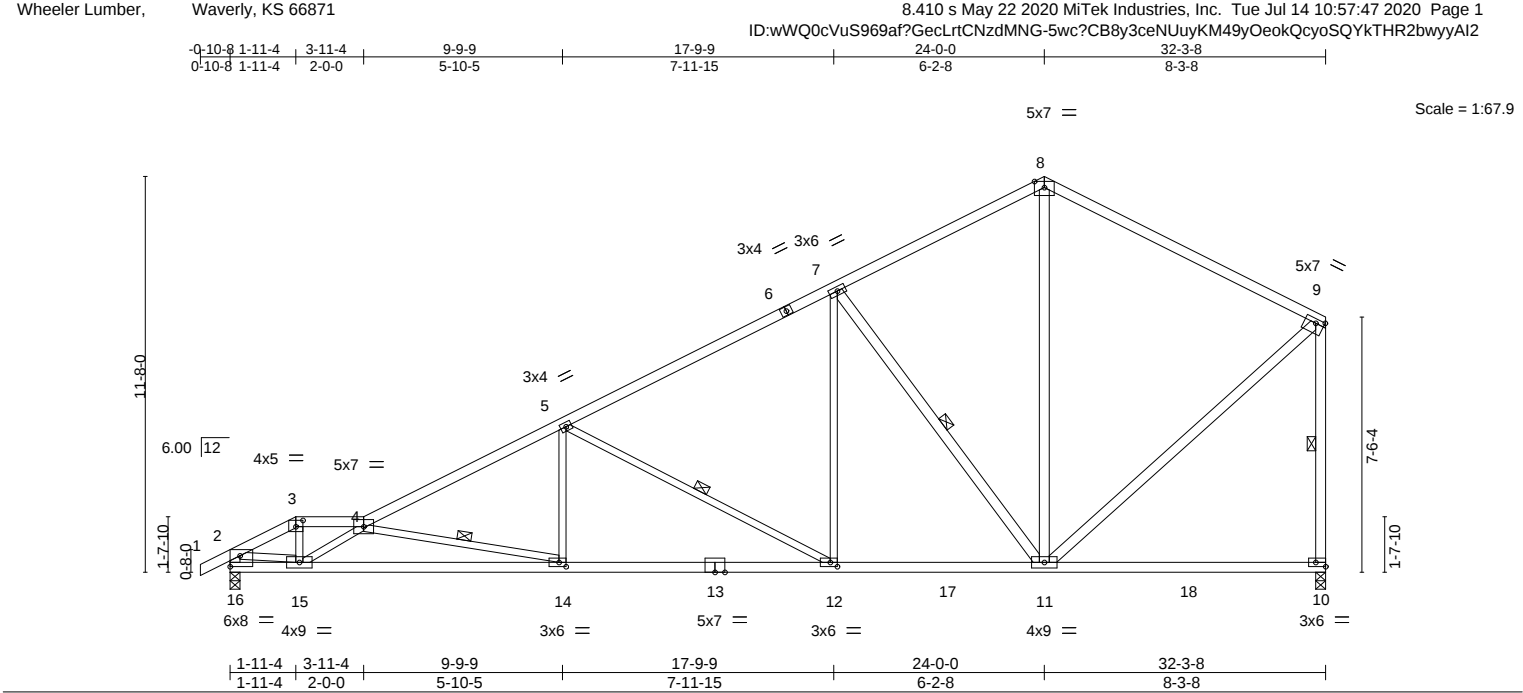


Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCS Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018144
400417	D7	Roof Special Girder	1	1	Job Reference (optional)	



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.86	Vert(LL)	-0.20 10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.89	Vert(CT)	-0.38 12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.85	Horz(CT)	0.08 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.13 14	>999	240	Weight: 149 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 8-9: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-1-2 max.): 3-4.
BOT CHORD 2x4 SPF No.2 *Except* 13-16: 2x4 SPF 2100F 1.8E	BOT CHORD Rigid ceiling directly applied or 8-7-1 oc bracing.
WEBS 2x3 SPF No.2 *Except* 7-11,8-11,9-11,2-16,9-10: 2x4 SPF No.2	WEBS 1 Row at midpt 4-14, 5-12, 7-11, 9-10

REACTIONS.	(size) 16=0-3-8, 10=0-3-8 Max Horz 16=364(LC 26) Max Uplift 16=-251(LC 8), 10=-182(LC 8) Max Grav 16=1562(LC 2), 10=1564(LC 2)
-------------------	---

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 2-3=-2226/287, 3-4=-2016/273, 4-5=-2836/399, 5-7=-1798/292, 7-8=-1041/243, 8-9=-1057/257, 2-16=-1521/224, 9-10=-1393/230	
BOT CHORD 15-16=-331/382, 14-15=-740/3672, 12-14=-464/2512, 11-12=-211/1541	
WEBS 3-15=-94/937, 4-15=-2025/371, 4-14=-1199/283, 5-14=0/568, 5-12=-1119/287, 7-12=-55/789, 7-11=-1114/322, 8-11=-89/534, 9-11=-118/1113, 2-15=-187/1682	

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=251, 10=182.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 56 lb down and 65 lb up at 1-11-4 on top chord, and 6 lb down and 3 lb up at 1-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard	
------------------------------	--

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

16023 Swingley Ridge Rd
Chesterfield, MO 63017

JUAN GARCIA
NUMBER E-2000162101
PROFESSIONAL ENGINEER

JUAN GARCIA
LICENSED 16952
PROFESSIONAL ENGINEER
KANSAS

July 14,2020

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018144
400417	D7	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:47 2020 Page 2
ID:wWQ0cVuS969af?GecLrtCNzdMNG-5wc?CB8y3ceNUuyKM49yOeokQcyoSQYkTHR2bwyyAI2

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-8=-70, 8-9=-70, 10-16=-20
Concentrated Loads (lb)
Vert: 15=2(F)

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

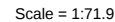


16023 Swingley Ridge Rd
Chesterfield, MO 63017

142018145

Job Reference (optional)

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:48 2020 Page 1
ID:wWO0cVuS969af?GeclRtCNzdMNG-Z6ANPX9bawnE62XWwoqBxsKxMQJKBr?thxBb8NvvA1



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.72	Vert(LL) -0.42 14-15 >910 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.81	Vert(CT) -0.76 14-15 >506 240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr YES	WB 0.84	Horz(CT) 0.31 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.30 14-15 >999 240	Weight: 166 lb	FT = 10%

TOP CHORD	2x4 SPF No.2 *Except* 1-3: 2x8 SP DSS, 8-9,4-7: 2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except* 2-14: 2x4 SPF 2100F 1.8E, 5-13: 2x3 SPF No.2
WEBS	2x3 SPF No.2 *Except* 2-17: 2x6 SPF No.2, 4-14,6-11,8-11,9-10,9-11: 2x4 SPF No.2

TOP CHORD	Structural wood sheathing directly applied or 3-5-6 oc purlins, except end verticals, and 2-0-0 oc purlins (2-8-14 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 4-14, 6-12, 6-11, 9-10

(size) 1=0-3-8, 10=0-3-8
 Max Horz 1=355(LC 5)
 Max Uplift 1=-212(LC 8), 10=-182(LC 8)
 Max Grav 1=1504(LC 2), 10=1566(LC 2)

TOP CHORD 1-2=-961/61, 2-3=-4013/687, 3-4=-4128/751, 4-5=-2786/424, 5-6=-2765/553,
6-8=-1035/237, 8-9=-1060/256, 9-10=-1396/229

BOT CHORD 2-16=-882/4093, 15-16=-999/5400, 14-15=-1008/5387, 5-14=-454/246, 11-12=-203/1516

WEBS 3-16=-46/603, 4-16=-1562/143, 4-14=-2999/596, 12-14=-178/1533, 6-14=-396/1712,
6-11=-1080/308, 8-11=-74/514, 9-11=-119/1114

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=212, 10=182.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 14, 2020



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCS Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:41 2020 Page 1

142018147

Job Reference (optional)

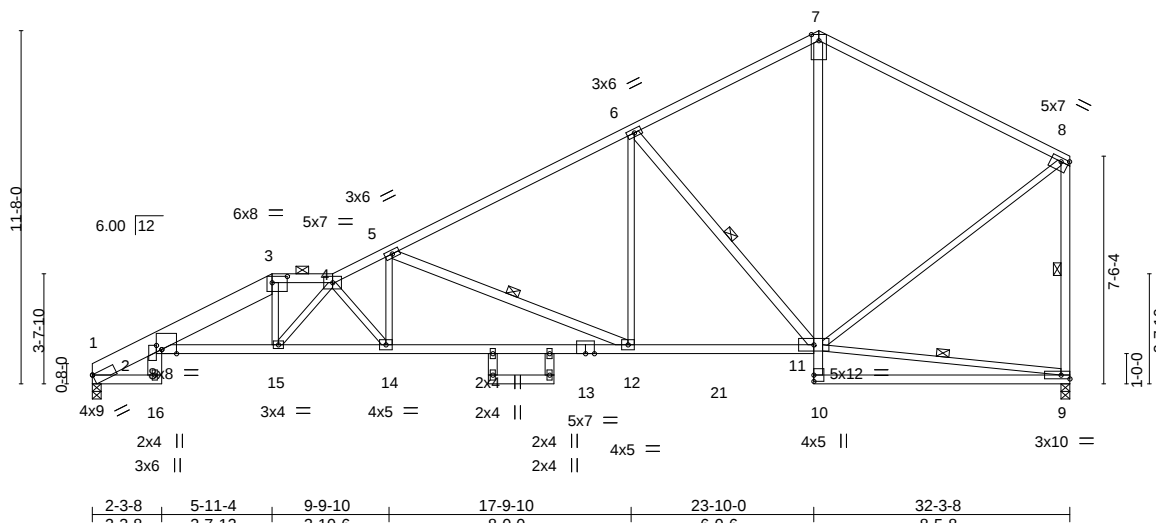
ID:wWO0cVuS969af?GecLrtCNzdMNG-HmEkx84CUmuEmzVA0q2X9NYk0Bzu2mIrl4L_iOHwvAl8

-0-10-8 2-3-8	5-11-4	7-11-4	9-9-10	17-9-10
0-10-8 2-3-8	3-7-12	2-0-0	1-10-6	8-0-0

24-0-0	32-0-0	32-3-8
6-2-7	8-0-0	0-3-8

6x10 M18SHS 11

Scale = 1:76.1



TOP CHORD	2x4 SPF No.2 *Except* 1-3: 2x8 SP DSS, 7-8: 2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF No.2 *Except* 2-13,11-13: 2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 2-16: 2x6 SPF No.2, 5-12,6-11,8-9,17-19,18-20: 2x4 SPF No.2

TOP CHORD	Structural wood sheathing directly applied or 2-3-5 oc purlins, except end verticals, and 2-0-0 oc purlins (2-11-13 max.): 3-4
BOT CHORD	Rigid ceiling directly applied or 9-4-12 oc bracing.
WEBS	1 Row at midpt 5-12, 6-11, 8-9, 9-11

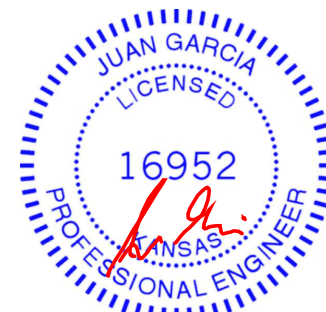
(size) 1=0-3-8, 9=0-3-8
 Max Horz 1=355(LC 5)
 Max Uplift 1=-212(LC 8), 9=-182(LC 8)
 Max Grav 1=1497(LC 2), 9=1506(LC 2)

TOP CHORD 1-2=-958/59, 2-3=-3391/539, 3-4=-3279/579, 4-5=-3539/554, 5-6=-2026/321,
6-7=-1104/250, 7-8=-1120/264, 8-9=-1361/227

BOT CHORD 2-15=-668/3247, 14-15=-697/3761, 12-14=-604/3222, 11-12=-237/1737, 7-11=-96/581

WEBS 3-15=-0/606, 4-15=-781/50, 4-14=-864/150, 5-14=-32/885, 5-12=-1620/396,
6-12=-56/931, 6-11=-1259/329, 8-11=-120/1115

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=212, 9=182.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 14, 2020



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018148
400417	D11	Roof Special	1	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:42 2020 Page 1

ID:wWQ0cVuS969af?GeclrtCNzdMNG-lyp68U4qF405074MZxanhb5vblKn84?J?kHwjyAl7

0-10-8 2-3-8 3-11-4 5-11-4 9-9-9 17-9-9 24-0-0 32-3-8
0-10-8 2-3-8 1-7-12 2-0-0 3-10-5 8-0-0 6-2-7 8-3-8

6x10 M18SHS ||

Scale = 1:76.1

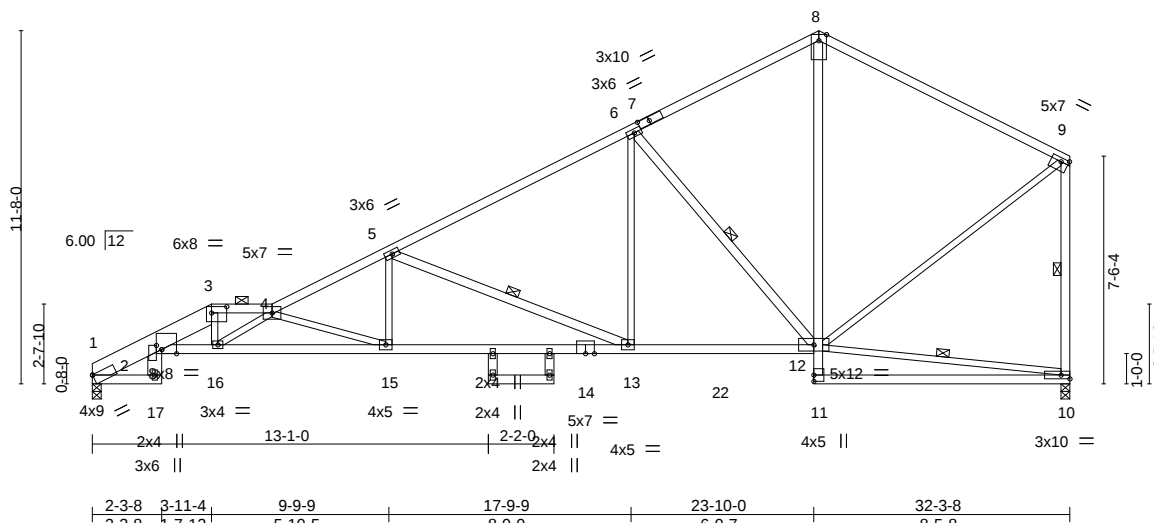


Plate Offsets (X,Y)--	[1:Edge,0-0-1], [2:0-1-10,0-2-2], [2:0-5-14,Edge], [3:0-6-0,0-2-8], [7:0-4-8,0-1-8], [9:0-3-0,0-1-8]
-----------------------	--

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.33 13-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.59 13-15	>648	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.93	Horz(CT)	0.28 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.24 15	>999	240	Weight: 162 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x8 SP DSS, 8-9: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
2-14,12-14: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-17: 2x6 SPF No.2, 5-13,6-12,9-10,18-20,19-21: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-11 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 7-9-15 oc bracing.
WEBS 1 Row at midpt 5-13, 6-12, 9-10, 10-12

REACTIONS.

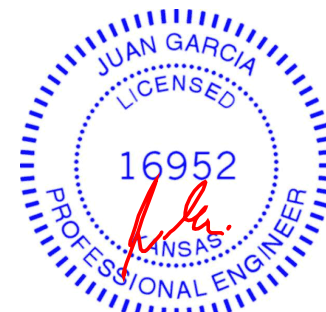
(size) 1=0-3-8, 10=0-3-8
Max Horz 1=355(LC 5)
Max Uplift 1=-212(LC 8), 10=-182(LC 8)
Max Grav 1=1498(LC 2), 10=1506(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-958/61, 2-3=-3997/661, 3-4=-4115/732, 4-5=-3611/561, 5-6=-2026/321,
6-8=-1105/250, 8-9=-1120/264, 9-10=-1362/227
BOT CHORD 2-16=-870/4084, 15-16=-1009/5205, 13-15=-601/3230, 12-13=-238/1742, 8-12=-97/582
WEBS 3-16=0/545, 4-16=-1345/181, 4-15=-2090/432, 5-15=-54/942, 5-13=-1628/392,
6-13=-55/928, 6-12=-1258/330, 9-12=-120/1118

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=212, 10=182.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



July 14,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018149
400417	D12	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:44 2020 Page 1
ID:WWQ0cVuS969af?GecLrtCNzdMNG-hLxtZ964mhGpdQDlhycFnOAGLP_rF3WHmJDO?byyAl5

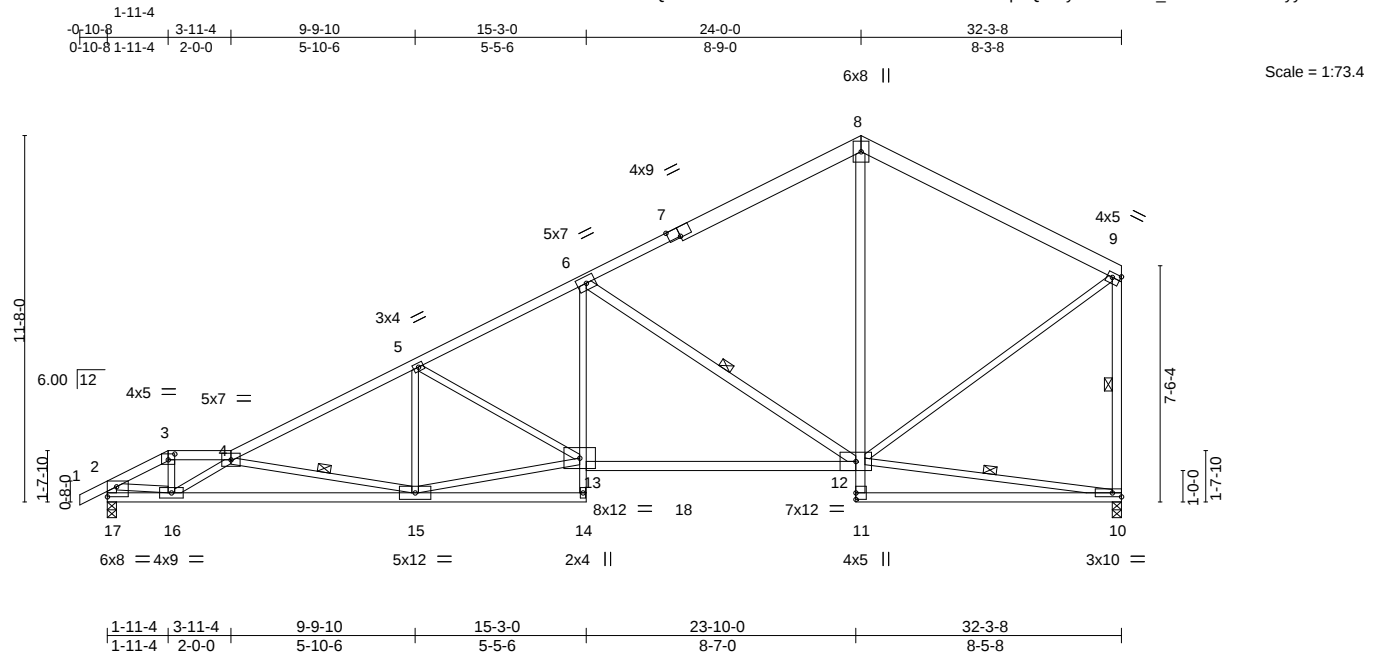


Plate Offsets (X,Y)--		[3:0-2-8,0-2-4], [7:0-4-8,Edge], [9:Edge,0-1-12], [17:Edge,0-3-13]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.66
TCDL 10.0	Lumber DOL	1.15	BC 0.65
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.87
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.29 12-13 >999 360
			Vert(CT) -0.55 12-13 >697 240
			Horz(CT) 0.11 10 n/a n/a
			Wind(LL) 0.13 15 >999 240
			PLATES GRIP
			MT20 197/144
			Weight: 163 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
7-8,8-9: 2x6 SPF No.2, 4-7: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
14-17,12-13: 2x4 SPF 2100F 1.8E, 6-14: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-12,2-17,9-10: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-2 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-15, 6-12, 10-12, 9-10

REACTIONS.

(size) 17=0-3-8, 10=0-3-8
Max Horz 17=360(LC 5)
Max Uplift 17=-252(LC 8), 10=-182(LC 8)
Max Grav 17=1561(LC 2), 10=1504(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-2239/280, 3-4=-2028/268, 4-5=-2800/390, 5-6=-2466/401, 6-8=-1157/226, 8-9=-1117/263, 2-17=-1532/220, 9-10=-1369/223
BOT CHORD 16-17=-331/377, 15-16=-750/3684, 6-13=-79/1022, 12-13=-348/2194, 8-12=-22/483
WEBS 3-16=-101/953, 4-16=-2025/391, 4-15=-1254/311, 13-15=-408/2545, 5-13=-373/118, 6-12=-1476/383, 9-12=-125/1153, 2-16=-178/1697

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=252, 10=182.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 56 lb down and 65 lb up at 1-11-4 on top chord, and 6 lb down and 3 lb up at 1-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



July 14,2020

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	
400417	D12	Roof Special Girder	1	1		I42018149
Job Reference (optional)						

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-8=-70, 8-9=-70, 14-17=-20, 12-13=-20, 10-11=-20

Concentrated Loads (lb)

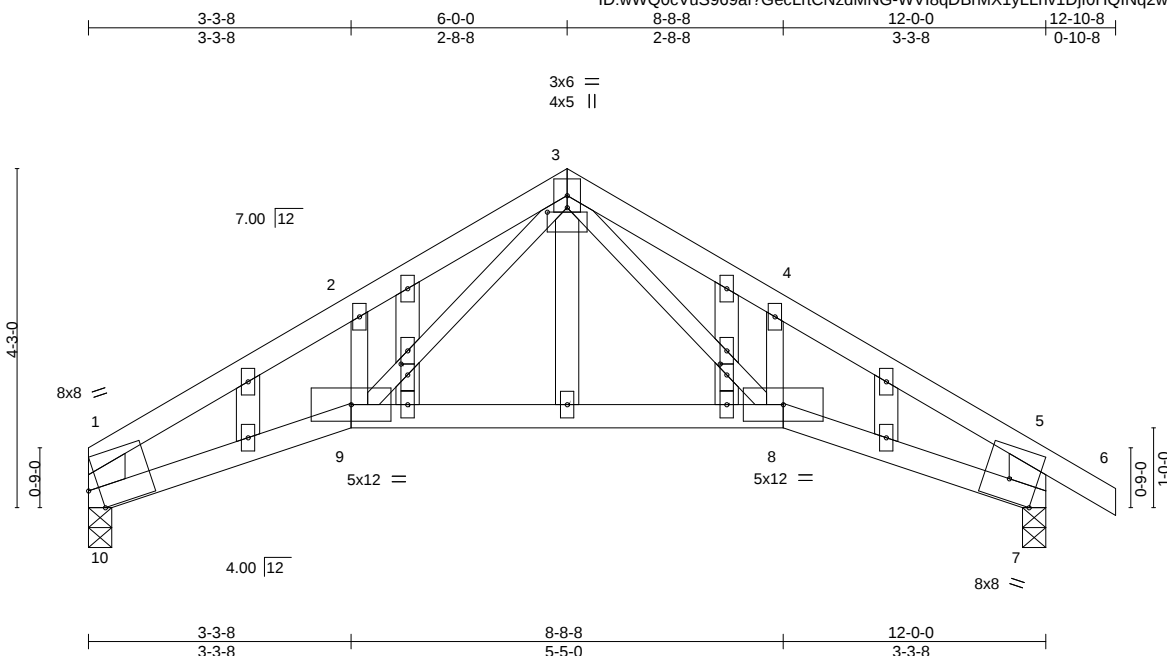
Vert: 16=2(B)

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018150
400417	E1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:50 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-WV18qDBrMX1yLLhv1DjF0HQINq2wfyPA9FgiCFyyAI?



Scale = 1:28.9

Plate Offsets (X,Y)-- [1:0-1-10,Edge], [3:0-3-0,0-0-11], [7:0-4-3,Edge], [12:0-1-10,0-1-0], [19:0-1-10,0-1-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.10 8-9 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.21 8-9 >662 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.10 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06 8-9 >999 240	Weight: 49 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-10,5-7: 2x6 SPF No.2
 OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-6-6 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 10=0-3-8, 7=0-3-8
 Max Horz 10=-121(LC 4)
 Max Uplift 10=-60(LC 8), 7=-86(LC 9)
 Max Grav 10=516(LC 1), 7=600(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-986/117, 2-3=-883/209, 3-4=-873/170, 4-5=-997/76, 1-10=-659/101, 5-7=-765/104
 BOT CHORD 9-10=-98/819, 8-9=-6/495, 7-8=-11/786
 WEBS 3-8=-117/400, 3-9=-141/445

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 10, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



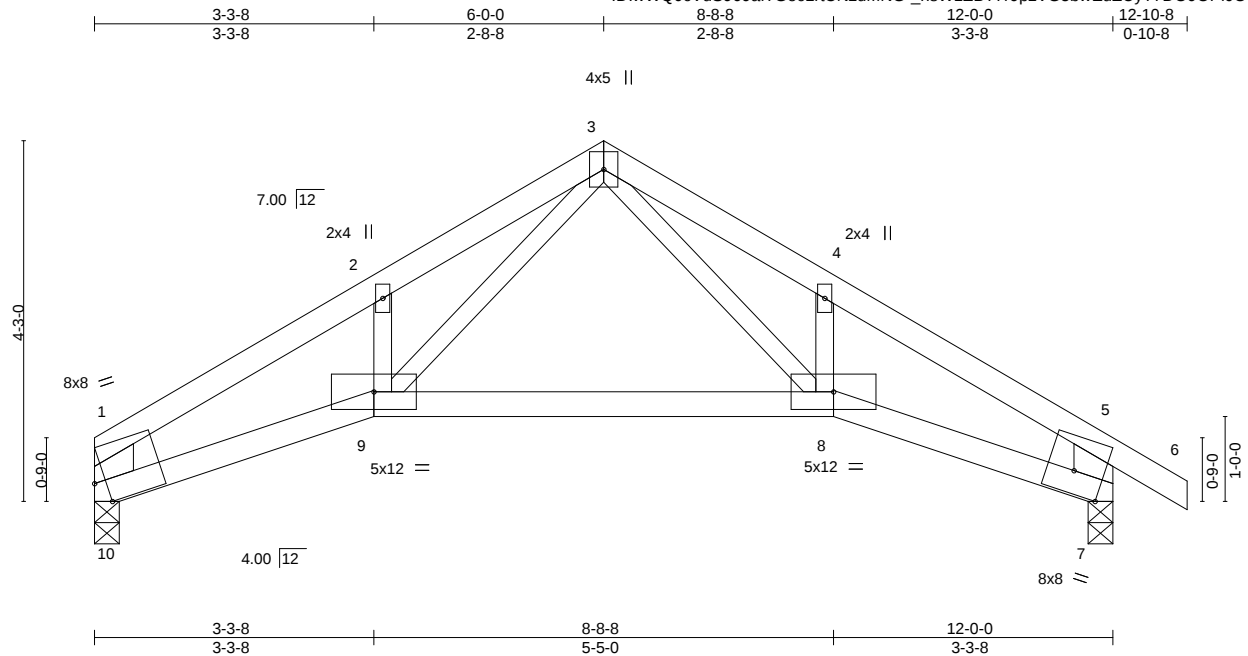
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018151
400417	E2	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:51 2020 Page 1

ID:WWQ0cVuS969af?GecLrtCNzdMNG-_hsW1ZBT7r9pzVG5bwEuZUyT7DO9OPfJOvPFkhyAI_



Scale = 1:27.1

Plate Offsets (X,Y)--		[1'-0-1'-10,Edge], [7'-0-4'-3,Edge]									
LOADING (psf)		SPACING-	2'-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.69		Vert(LL)	-0.10 8-9	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.61		Vert(CT)	-0.21 8-9	>662	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.14		Horz(CT)	0.10 7	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06 8-9	>999	240	Weight: 41 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-10,5-7: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 10=0-3-8, 7=0-3-8
Max Horz 10=-121(LC 4)
Max Uplift 10=-60(LC 8), 7=-86(LC 9)
Max Grav 10=516(LC 1), 7=600(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-986/117, 2-3=-883/209, 3-4=-873/170, 4-5=-997/76, 1-10=-659/101, 5-7=-765/104
BOT CHORD 9-10=-98/819, 8-9=-6/495, 7-8=-11/786
WEBS 3-8=-117/400, 3-9=-141/445

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 10, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

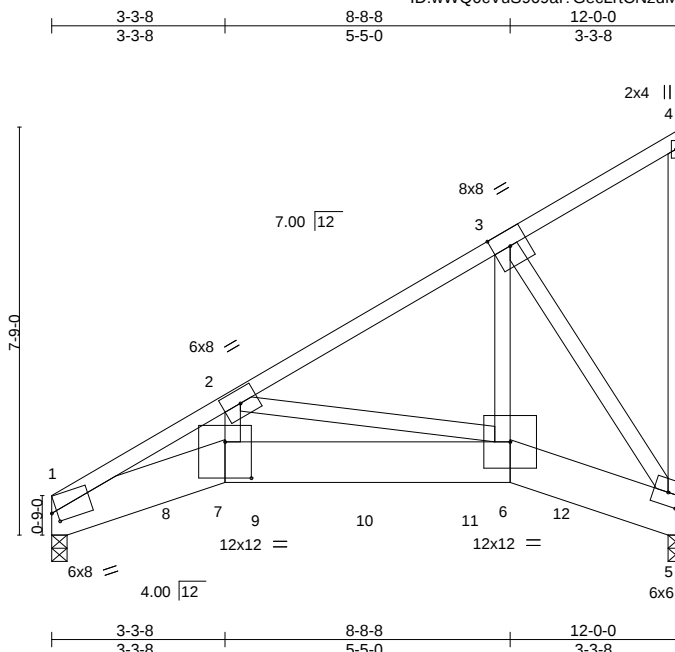


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018152
400417	E3	Monopitch Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:52 2020 Page 1
ID:wWQ0cVuS969af?GecLrtCNzdMNG-StPuFuC5u8HgbfrH9dl75iVahdjl7iUTcZ9pG8yyAHZ



Scale = 1:43.8

Plate Offsets (X,Y)--		[1:0-1-4,0-2-5], [5:0-2-11,0-3-0], [7:0-6-0,0-8-4]			
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.96	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(LL) -0.13 6-7 >999 360	
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.81	Vert(CT) -0.22 6-7 >639 240	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Horz(CT) 0.12 5 n/a n/a	
				Wind(LL) 0.03 7 >999 240	Weight: 182 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x10 SP DSS
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-3-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=0-3-8, 5=0-3-8
Max Horz 1=284(LC 24)
Max Grav 1=4430(LC 2), 5=4440(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-10443/0, 2-3=-3375/0
BOT CHORD 1-7=0/9157, 6-7=0/7977, 5-6=0/3619
WEBS 2-7=0/5165, 2-6=-5221/0, 3-6=0/6261, 3-5=-5794/0

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1587 lb down and 172 lb up at 2-0-0, 1587 lb down at 4-0-0, 1587 lb down at 6-0-0, and 1615 lb down at 8-0-0, and 1587 lb down and 172 lb up at 10-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 1-7=-20, 6-7=-20, 5-6=-20



July 14, 2020

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	
400417	E3	Monopitch Girder	1	2		I42018152
					Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:52 2020 Page 2
ID:wWQ0cVuS969af?GecLrtCNzdMNG-StPuFuC5u8HgbfrH9dl75iVahdjI7iUTcZ9pG8yyAHz

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 8=-1517(B) 9=-1517(B) 10=-1517(B) 11=-1517(B) 12=-1517(B)

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018153
400417	G1	Common Supported Gable	1	1		

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:53 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-w3zGSEDjfSPXCpUJLGMev2yl1CQsKecrDuMoayyAHy

0-10-8 10-4-0 20-8-0 21-6-8
0-10-8 10-4-0 10-4-0 0-10-8

4x5 =

Scale = 1:43.9

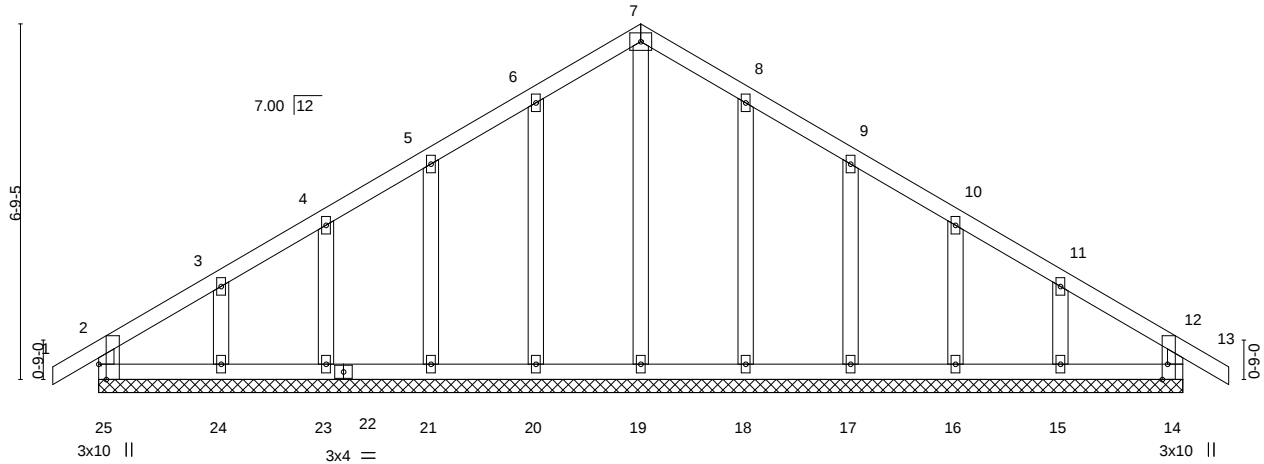


Plate Offsets (X,Y)--	[14:0-3-8,Edge], [25:0-3-8,Edge]
-----------------------	----------------------------------

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	13	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	13	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	14	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 91 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

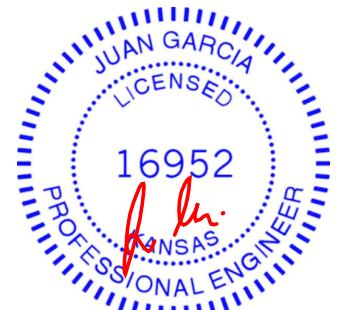
REACTIONS.

All bearings 20-8-0.
(lb) - Max Horz 25=191(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 25, 14, 20, 21, 23, 18, 17, 16, 15 except 24=-103(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 25, 14, 19, 20, 21, 23, 24, 18, 17, 16, 15

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 14, 20, 21, 23, 18, 17, 16, 15 except (jt=lb) 24=103.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018154
400417	G2	Common	1	1		

Wheeler Lumber, Waverly, KS 66871

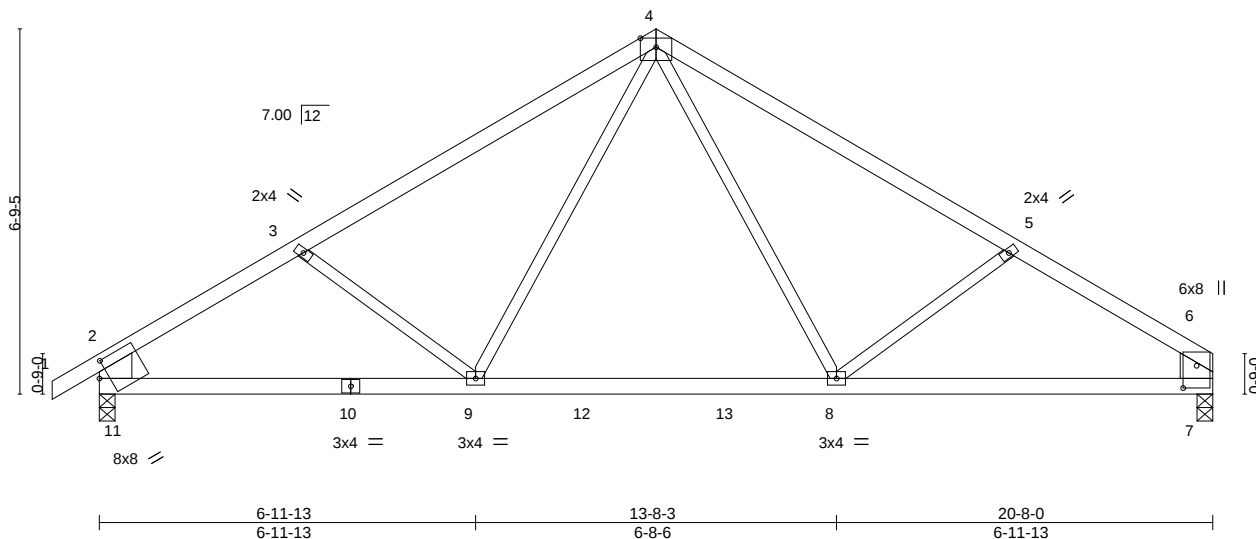
8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:54 2020 Page 1

ID:WVQ0cVuS969af?GecLrtCNzdMNG-OGXfgaELQmXOqz_gG2nbB7ayuRNFbmTm4tevK0yyAHx

0-10-8	3-9-7	10-4-0	16-10-9	20-8-0
0-10-8	3-9-7	6-6-9	6-6-9	3-9-7

5x7 =

Scale = 1:42.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.18	8-9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.29	8-9	>822		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.03	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09	8-9	>999	Weight: 73 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-6: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-11,6-7: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-3-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

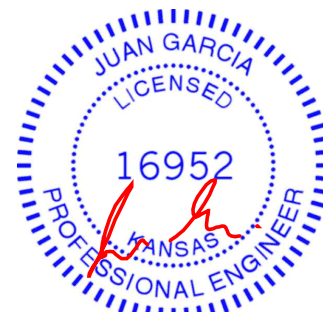
(size) 11=0-3-8, 7=0-3-8
Max Horz 11=188(LC 5)
Max Uplift 11=-134(LC 8), 7=-106(LC 9)
Max Grav 11=1066(LC 15), 7=987(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-1360/204, 3-4=-1182/163, 4-5=-1177/163, 5-6=-1368/207, 2-11=-942/166,
6-7=-842/134
BOT CHORD 9-11=-223/1188, 8-9=-29/818, 7-8=-146/1080
WEBS 4-8=-47/419, 5-8=-278/223, 4-9=-49/432

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=134, 7=106.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018155
400417	G3	Common	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:55 2020 Page 1

ID:WWQ0cVuS969af?GeclrtCNzdMNG-sS51twE_B3fFS7ZsqmlqjK73trJBKDDvIXNTsTyyAHw

0-10-8	3-9-9	10-4-0	16-10-6	20-4-14
0-10-8	3-9-9	6-6-6	6-6-7	3-6-8

5x7 =

Scale = 1:42.6

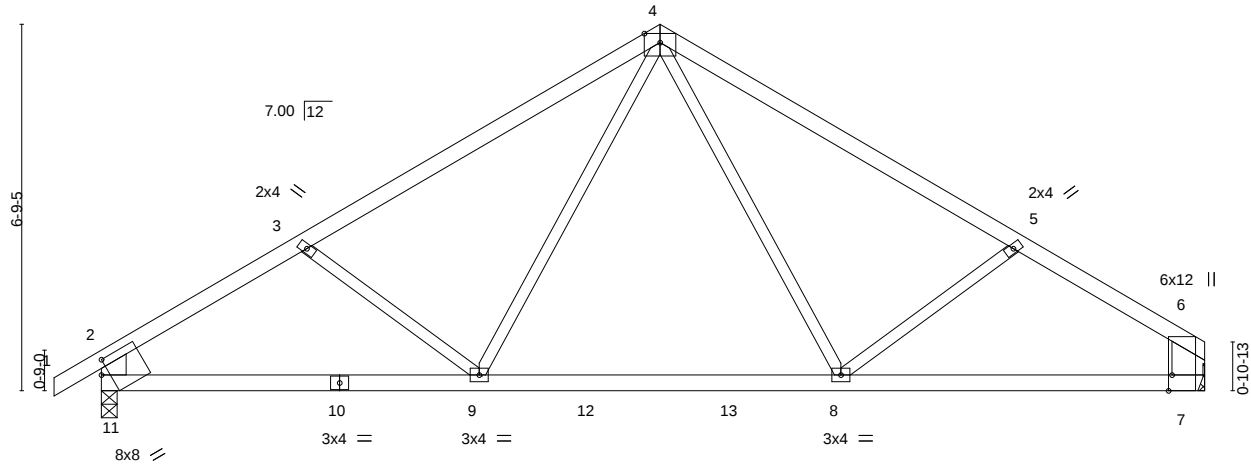


Plate Offsets (X,Y)--	[6:0-3-8,Edge], [11:0-1-11,0-2-15]
-----------------------	------------------------------------

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.96	Vert(LL)	-0.21	8-9	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.33	8-9	>715	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.03	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	8-9	>999	240	Weight: 72 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-11: 2x6 SP DSS, 6-7: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=0-3-8, 7=Mechanical
Max Horz 11=152(LC 5)
Max Uplift 11=-20(LC 8), 7=-7(LC 9)
Max Grav 11=1051(LC 13), 7=976(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-1366/62, 3-4=-1181/49, 4-5=-1131/48, 5-6=-1290/60, 2-11=-922/54, 6-7=-828/38
BOT CHORD 9-11=-77/1179, 8-9=0/794, 7-8=-31/997
WEBS 3-9=-269/143, 4-9=0/444, 4-8=0/357

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018156
400417	G4	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

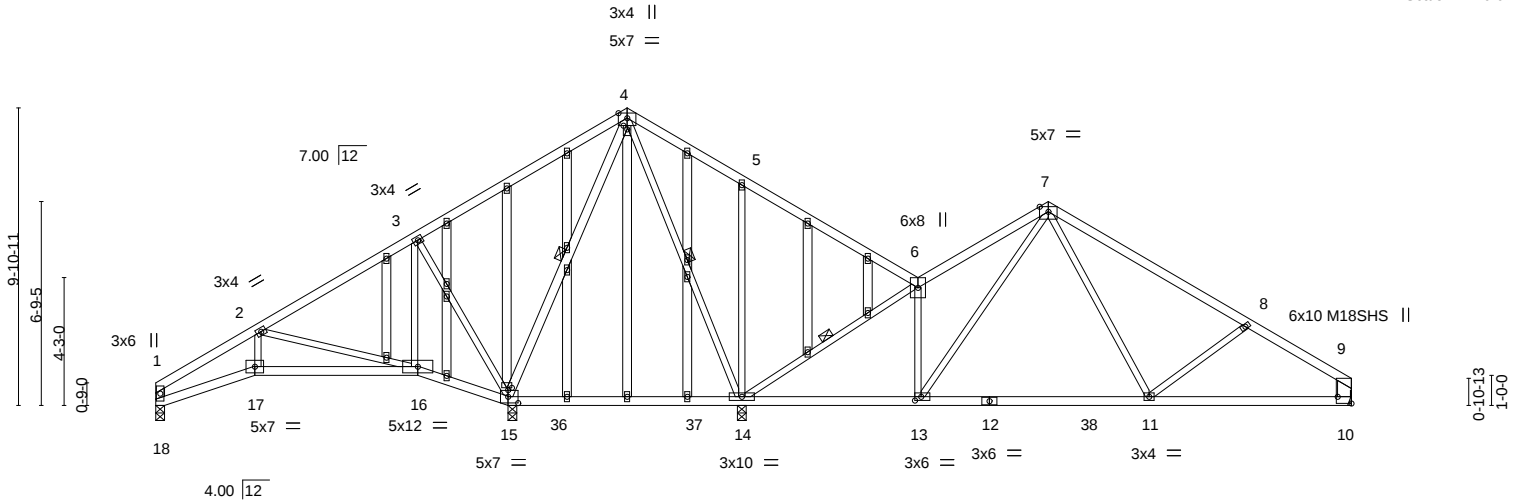
8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:57 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdmNG-prDnlcGEihvzhQjFyBLiolCTGeS4oxHCmrsaxLyyAHu

Job Reference (optional)

3-3-8	8-8-8	11-8-8	15-8-0	19-5-12	25-4-0	29-8-0	36-2-9	39-8-14
3-3-8	5-5-0	3-0-0	3-11-8	3-9-12	5-10-4	4-4-0	6-6-9	3-6-5

Scale = 1:76.6



3-3-8	8-8-8	11-8-8	11-10-4	19-5-12	25-4-0	33-0-3	39-8-14
3-3-8	5-5-0	3-0-0	0-1-12	7-7-8	5-10-4	7-8-3	6-8-11

Plate Offsets (X,Y)-- [4:0-1-8,0-1-8], [9:Edge,0-5-8], [13:0-2-8,0-1-8], [15:0-1-8,0-0-14], [15:0-4-0,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.71	Vert(LL)	-0.19 14-15	>480	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.30 11-13	>806	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.02 15	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 11-13	>999	240		
								Weight: 217 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
4-15,1-18: 2x4 SPF No.2, 9-10: 2x6 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 11-13,10-11.
WEBS 1 Row at midpt 4-15, 4-14, 6-14

REACTIONS. All bearings 0-3-8 except (jt=length) 10=Mechanical.
(lb) - Max Horz 18=260(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 18, 10 except 15=-253(LC 8), 14=-421(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 18 except 15=1345(LC 15), 14=2092(LC 16), 10=737(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-293/78, 2-3=-80/612, 3-4=-42/899, 4-5=0/933, 5-6=-145/1027, 7-8=-762/144,
8-9=-959/187, 9-10=-611/121
BOT CHORD 17-18=-283/362, 16-17=-263/320, 15-16=-511/167, 14-15=-553/236, 11-13=0/322,
10-11=-133/738
WEBS 2-17=-30/257, 2-16=-618/197, 3-15=-614/258, 4-15=-608/135, 4-14=-869/161,
5-14=-405/239, 6-14=-1050/216, 6-13=-18/701, 7-13=-537/109, 7-11=-32/483,
8-11=-282/220

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 10 except (jt=lb) 15=253, 14=421.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



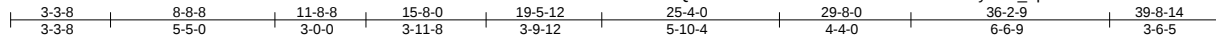
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	
400417	G5	Roof Special	2	1		I42018157

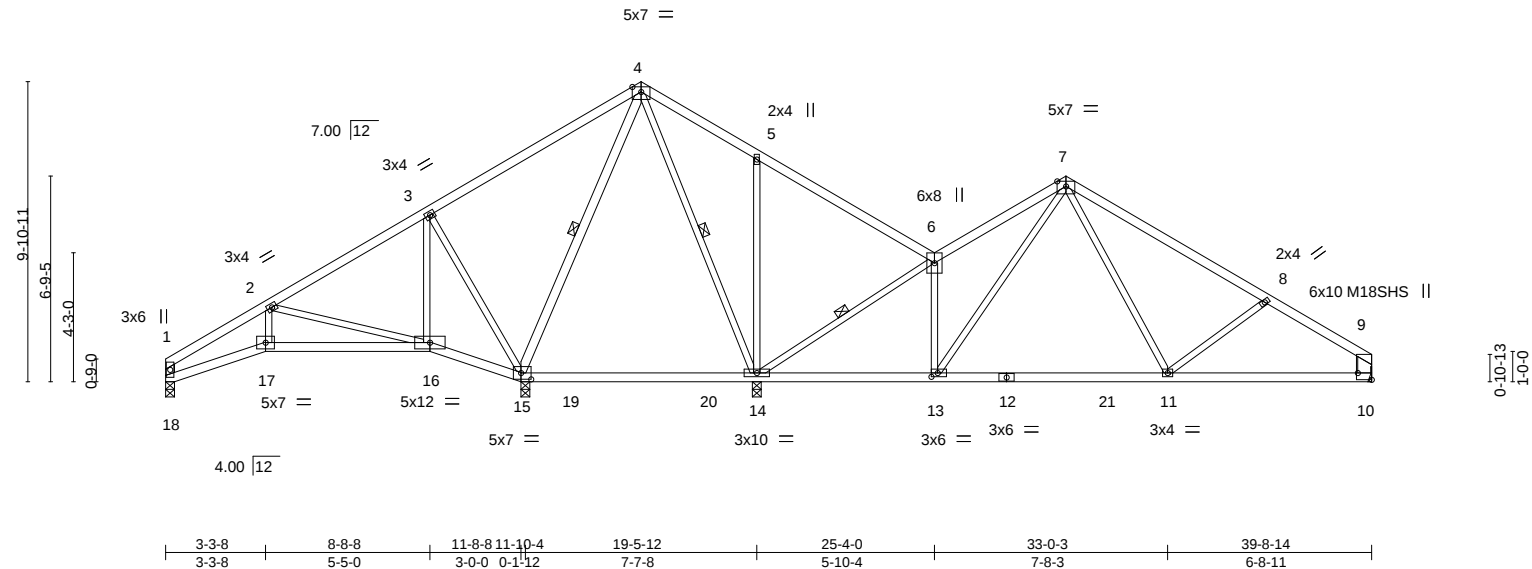
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:58 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-H1n9VyHsT_1pJaIRVusXLzle02nIXOXL?Uc7TnyyAHT



Scale = 1:75.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.71	Vert(LL)	-0.19 14-15	>479	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.30 11-13	>806	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.02 15	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 11-13	>999	240		
								Weight: 163 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
4-15,1-18: 2x4 SPF No.2, 9-10: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 11-13,10-11.
WEBS 1 Row at midpt 4-15, 4-14, 6-14

REACTIONS. All bearings 0-3-8 except (jt=length) 10=Mechanical.
(lb) - Max Horz 18=260(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 18, 10 except 15=-253(LC 8), 14=-421(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 18 except 15=1345(LC 15), 14=2093(LC 16), 10=737(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-293/78, 2-3=-80/612, 3-4=-42/899, 4-5=0/933, 5-6=-145/1027, 7-8=-762/144, 8-9=-959/187, 9-10=-611/121
BOT CHORD 17-18=-283/362, 16-17=-263/320, 15-16=-511/167, 14-15=-553/236, 11-13=0/322, 10-11=-133/738
WEBS 2-17=-30/257, 2-16=-618/197, 3-15=-614/258, 4-15=-608/135, 4-14=-869/161, 5-14=-405/239, 6-14=-1050/216, 6-13=-18/701, 7-13=-537/109, 7-11=-32/483, 8-11=-282/220

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 10 except (jt=lb) 15=253, 14=421.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

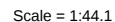
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:57:59 2020 Page 1

ID:wWO0cVuS969af?GecLrtCNzdMNG-IDLXijlUEI9qwktd3bNmuAIIOS42GuaVD8Lq?EwvAHs



TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 2-10

(size) 10=0-3-8, 6=Mechanical
 Max Horz 10=-237(LC 4)
 Max Uplift 10=-61(LC 9), 6=-27(LC 9)
 Max Grav 10=1062(LC 14), 6=1024(LC 14)

TOP CHORD 2-3=-1389/95, 3-4=-1196/77, 4-5=-1370/88, 5-6=-879/54
BOT CHORD 8-10=0/1144, 7-8=0/760, 6-7=-53/1060
WEBS 2-10=-1419/91, 2-8=-284/77, 3-8=0/690, 3-7=0/374

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCS1 Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

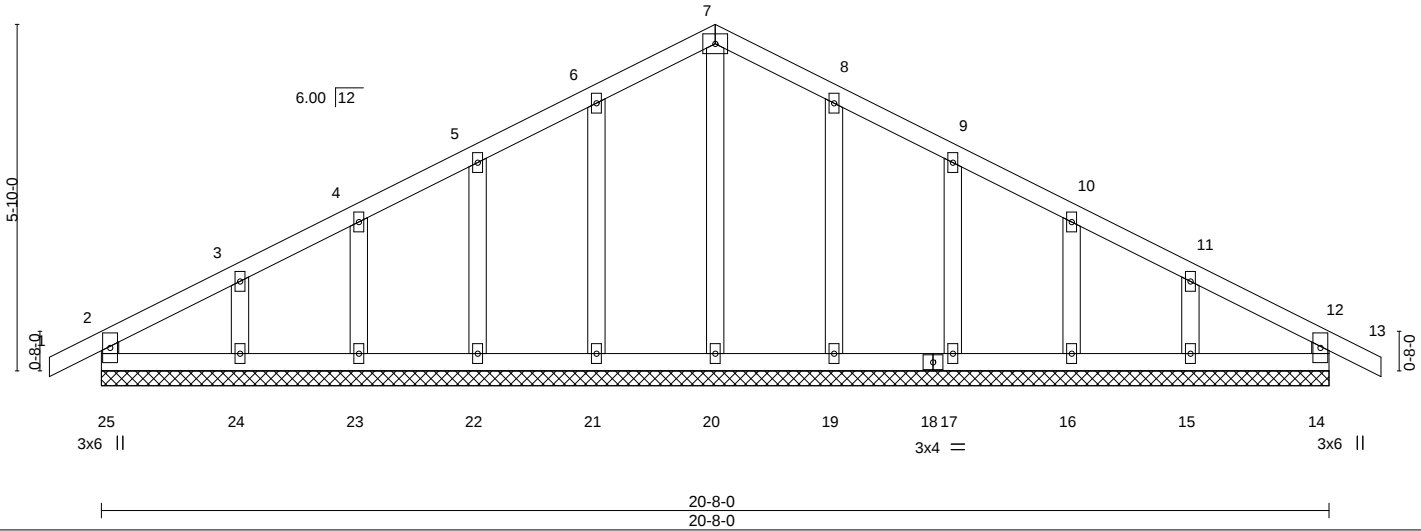
Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018159
400417	H1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber,
Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc.
Tue Jul 14 10:58:00 2020
Page 1
ID:wWQ0cVuS969af?GecLrtCNzdMNG-DQuwwel6?cHXYuSqdJu?QOq8YsbE?U?eSo5EYgyyAHR
20-8-0
10-4-0
21-6-8
0-10-8

-0-10-8
0-10-8
10-4-0
10-4-0
20-8-0
10-4-0
21-6-8
0-10-8

4x5 =
Scale = 1:38.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	13	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	13	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 84 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD 2x4 SPF No.2		TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2		BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2			
OTHERS 2x4 SPF No.2			

REACTIONS. All bearings 20-8-0.

(lb) - Max Horz 25=89(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 25, 14, 21, 22, 23, 24, 19, 17, 16, 15

Max Grav All reactions 250 lb or less at joint(s) 25, 14, 20, 21, 22, 23, 24, 19, 17, 16, 15

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 14, 21, 22, 23, 24, 19, 17, 16, 15.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14,2020

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018160
400417	H2	Common	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:01 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-hcSI8zJlmvPOA210B0PEzbN86Fp_kwBohSqN46yyAHq

0-10-8	4-0-1	10-4-0	16-7-14	20-8-0	21-6-8
0-10-8	4-0-1	6-3-14	6-3-14	4-0-1	0-10-8

5x7 =

Scale = 1:38.9

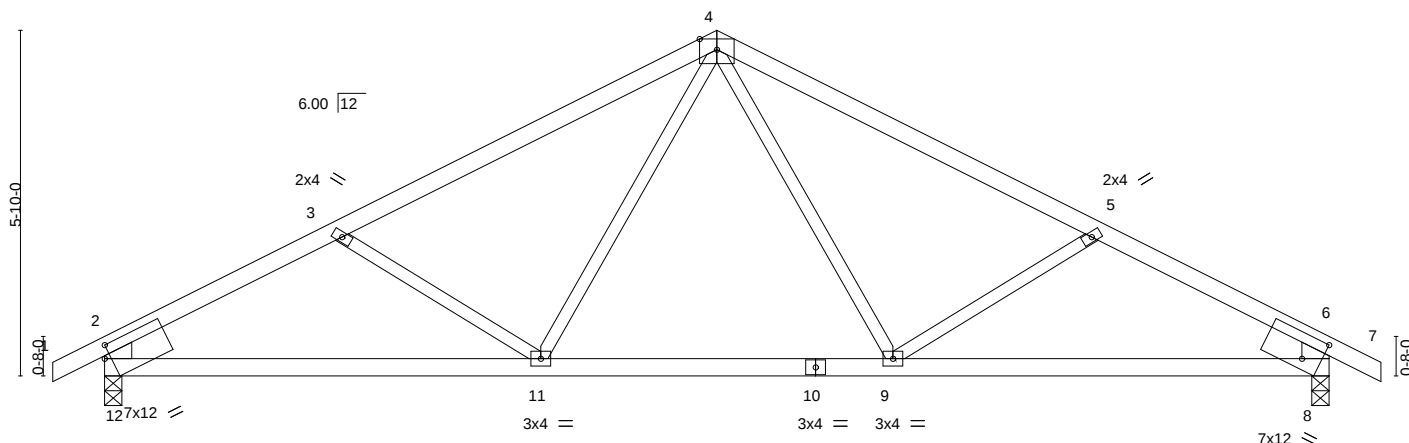


Plate Offsets (X,Y)--	[8:0-3-11,0-4-15], [12:0-1-4,0-2-8]
-----------------------	-------------------------------------

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.79	Vert(LL)	-0.13	9-11	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.20	9-11	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.04	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	9-11	>999	240	
								Weight: 70 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-12,6-8: 2x6 SP 2400F 2.0E

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 12=0-3-8, 8=0-3-8
Max Horz 12=90(LC 7)
Max Uplift 12=-138(LC 8), 8=-138(LC 9)
Max Grav 12=987(LC 1), 8=987(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-1435/231, 3-4=-1193/157, 4-5=-1193/157, 5-6=-1435/231, 2-12=-896/173,
6-8=-896/173
BOT CHORD 11-12=-233/1195, 9-11=-36/847, 8-9=-150/1195
WEBS 4-9=-35/316, 5-9=-303/216, 4-11=-35/316, 3-11=-303/215

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 12=138, 8=138.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	
400417	H3	GABLE	1	2		I42018161

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:02 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-9o0gLJKNXDXFnBbCkxTVpwHbf6tTDwvx6aLcZyyAHp

16-7-14 20-6-8
6-3-14 3-10-10

Scale = 1:43.5

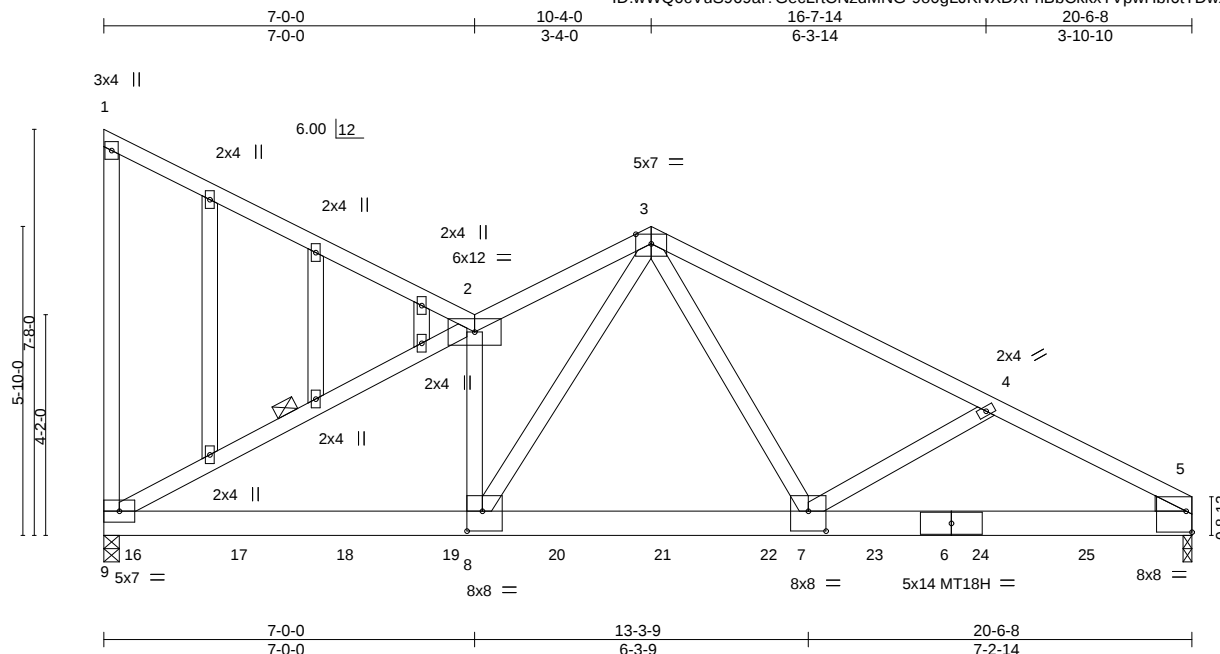


Plate Offsets (X,Y)-- [5:Edge,0-4-12], [7:0-4-0,0-4-8], [8:0-3-8,0-4-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.16 5-7 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.28 5-7 >876 240	MT18H	244/190
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.04 5 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08 8-9 >999 240	Weight: 237 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-9

REACTIONS.

(size) 9=0-3-8 (req. 0-4-2), 5=0-2-0 (req. 0-3-11)
Max Horz 9=-300(LC 6)
Max Uplift 9=-506(LC 9), 5=-352(LC 9)
Max Grav 9=5262(LC 2), 5=4735(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6937/776, 3-4=-7013/621, 4-5=-7026/682
BOT CHORD 8-9=-496/6170, 7-8=-294/4479, 5-7=-543/6028
WEBS 2-9=-6989/812, 2-8=-314/271, 3-8=-386/3237, 3-7=-178/3582, 4-7=-264/474

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- WARNING: Required bearing size at joint(s) 9, 5 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=506, 5=352.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and Contr to the standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4
400417	H3	GABLE	1	2	I42018161
					Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:02 2020 Page 2
ID:wWQ0cVuS969af?GecLrtCNzdMNG-9o0gLJKNXDXFnBbCkxTVpwHbf6tTDwxv6aLcZyyAHp

NOTES-

- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 933 lb down and 41 lb up at 0-7-4, 928 lb down and 47 lb up at 2-7-4, 928 lb down and 47 lb up at 4-7-4, 654 lb down and 118 lb up at 6-7-4, 654 lb down and 118 lb up at 8-7-4, 654 lb down and 118 lb up at 10-7-4, 918 lb down and 27 lb up at 12-7-4, 918 lb down and 27 lb up at 14-7-4, and 918 lb down and 27 lb up at 16-7-4, and 918 lb down and 27 lb up at 18-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- Studding applied to ply: 1(Front)

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-9=-20
 - Concentrated Loads (lb)
 - Vert: 16=-885(F) 17=-880(F) 18=-880(F) 19=-623(F) 20=-623(F) 21=-623(F) 22=-872(F) 23=-872(F) 24=-872(F) 25=-872(F)

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

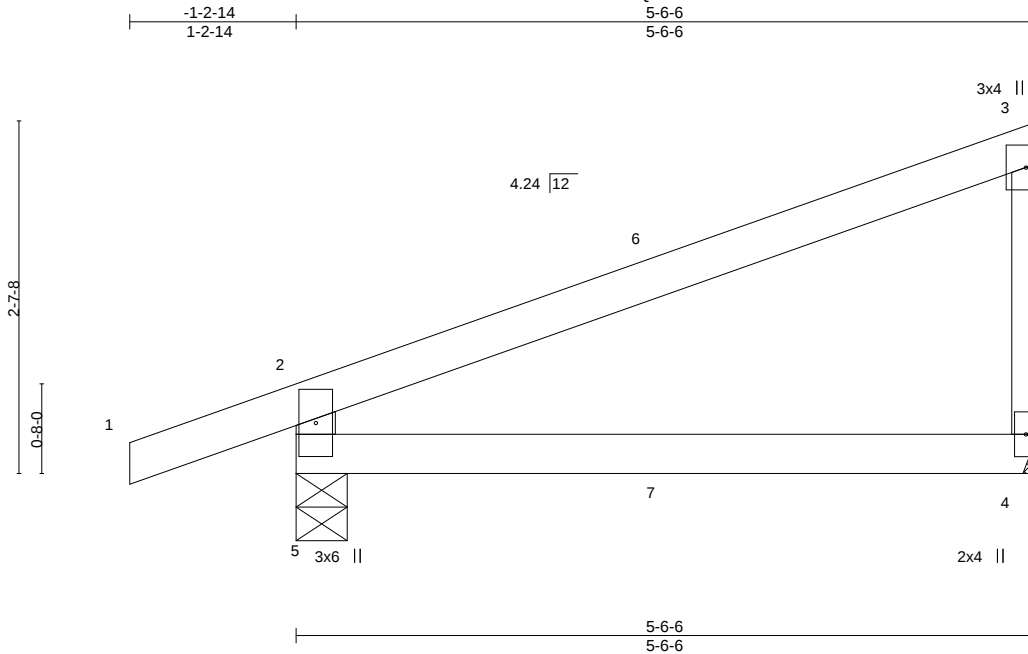


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018162
400417	J1	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:03 2020 Page 1
ID:wWQ0cVuS969af?GecLrtCNzdMNG-d?a2ZfL?IXf6PLAPIRSi20SaX3aXCsp48mJu9?yyAHO



Scale = 1:17.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.07	4-5	>967	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240		
									Weight: 16 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
3-4: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-9, 4=Mechanical
Max Horz 5=111(LC 5)
Max Uplift 5=-101(LC 4), 4=-50(LC 8)
Max Grav 5=346(LC 1), 4=224(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-5=-306/140

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=101.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 36 lb up at 2-9-8, and 69 lb down and 36 lb up at 2-9-8 on top chord, and 3 lb down and 1 lb up at 2-9-8, and 3 lb down and 1 lb up at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 7=2(F=1, B=1)



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



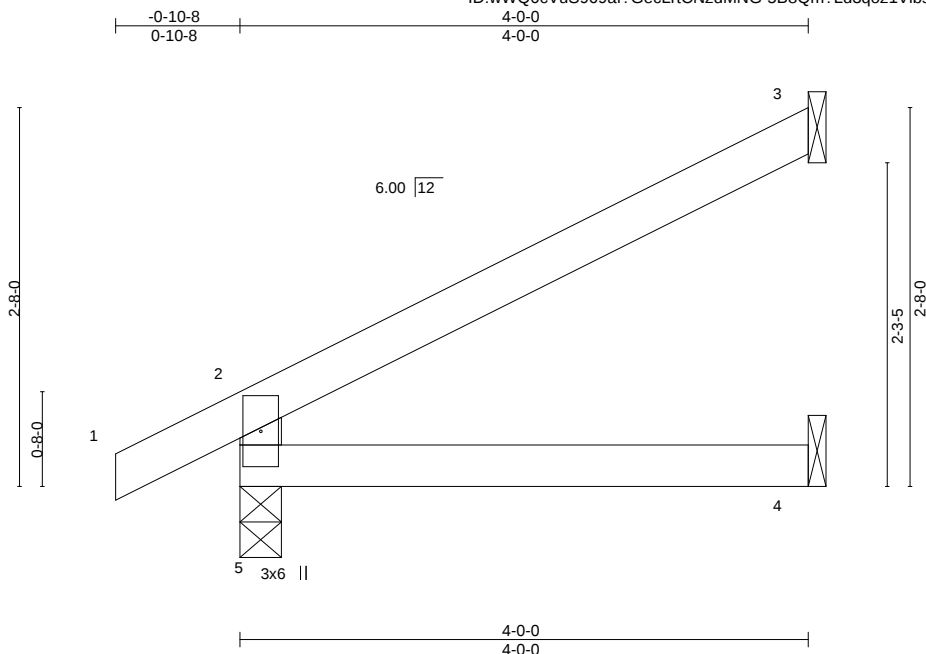
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018163
400417	J2	Jack-Open	3	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:04 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-5B8Qm?Ld3qoz1Vlbs9zxbE?oSTyhxJ3ENQ3RhRyyAHn



Scale = 1:16.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=89(LC 8)
Max Uplift 5=-30(LC 8), 3=-66(LC 8)
Max Grav 5=252(LC 1), 3=116(LC 1), 4=71(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

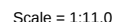
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

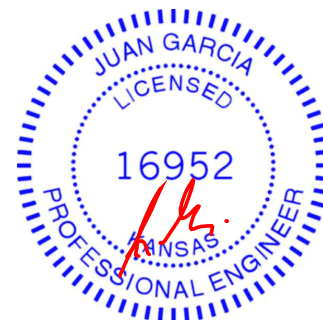
8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:04 2020 Page 1
ID:wWO0cVuS969af?GecLrtCNzdMNG-5B8Om?Ld3aoz1Vlbs9zxbE?qXTzKxJ3ENO3RhRvvAH



TOP CHORD	Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020



Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCS Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.

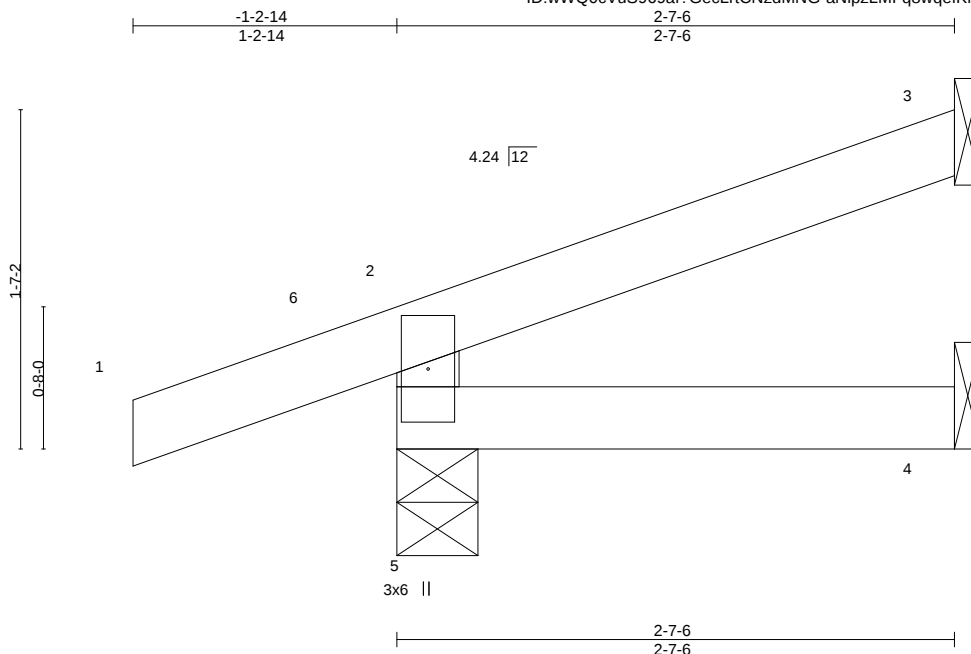


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018165
400417	J4	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:05 2020 Page 1
ID:wWQ0cVuS969af?GecLrtCNzdMNG-aNipzLMFq8wqefKnQsUA7RX??tIPgmJNc4o?DuyyAHm



Scale = 1:10.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 8 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=67(LC 12)
Max Uplift 5=-112(LC 6), 3=-43(LC 12), 4=-2(LC 19)
Max Grav 5=86(LC 1), 3=29(LC 1), 4=32(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=112.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 8 lb up at -1-2-14, and 18 lb down and 8 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Concentrated Loads (lb)

Vert: 1=-26(F=-13, B=-13)

Trapezoidal Loads (plf)

Vert: 1=0(F=35, B=35)-to-6=-18(F=26, B=26), 6=0(F=35, B=35)-to-2=-6(F=32, B=32), 2=-6(F=32, B=32)-to-3=-49(F=10, B=10), 5=-2(F=9, B=9)-to-4=-14(F=3, B=3)



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018166
400417	V1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

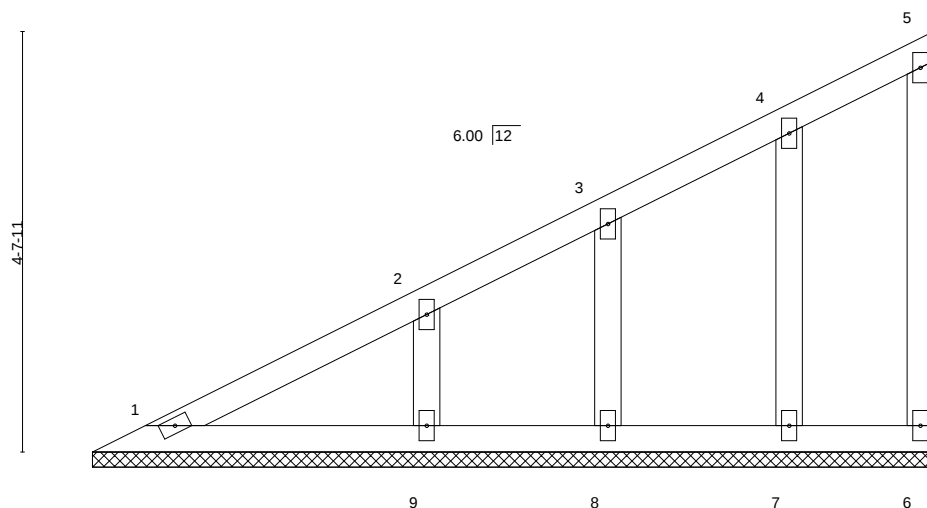
8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:06 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-2aGBBhNtbS2hGpv_za?Pg4ANGeEPD3XqkYIYKyyAHl

9-3-6

9-3-6

Scale = 1:25.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 34 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 9-3-6.
(lb) - Max Horz 1=177(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 6, 9, 8, 7
Max Grav All reactions 250 lb or less at joint(s) 1, 6, 8, 7 except 9=283(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 9, 8, 7.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



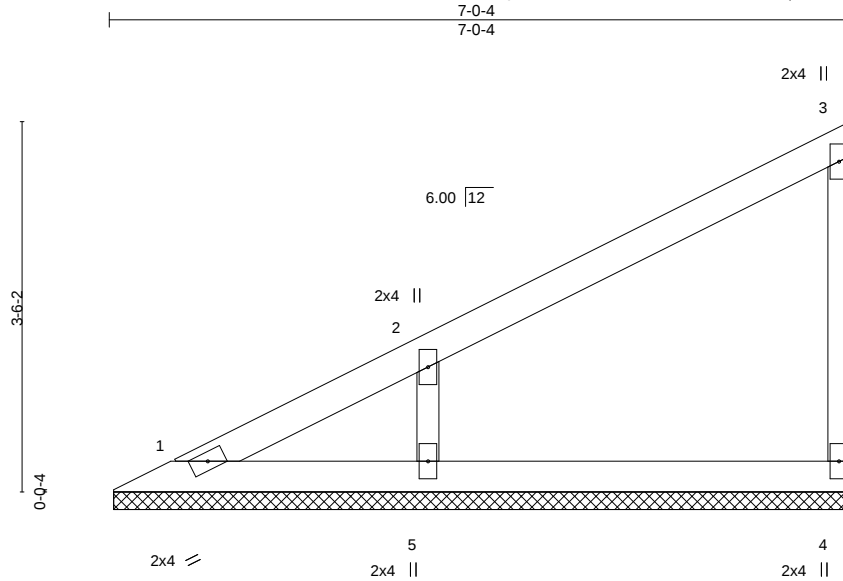
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018167
400417	V2	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:13 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-LwBqf4SGxbwhcuxKuYd2S7tLR50CXOVZRKkQVQyyAHe



Scale = 1:21.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 19 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=6-11-12, 4=6-11-12, 5=6-11-12
Max Horz 1=131(LC 5)
Max Uplift 4=27(LC 8), 5=-111(LC 8)
Max Grav 1=71(LC 16), 4=142(LC 1), 5=370(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

WEBS 2-5=-288/161

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=111.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018168
400417	V3	Valley	1	1	Job Reference (optional)	

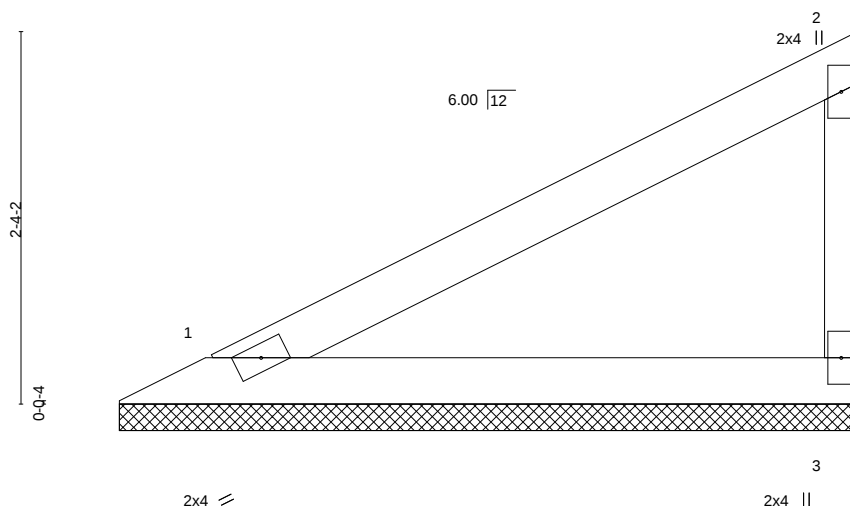
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:14 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-p6lCsQTuiv2YE1WWRF8H_LPUaVLZGrYig_Uz1syyAHd

4-8-4
4-8-4

Scale = 1:14.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 12 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

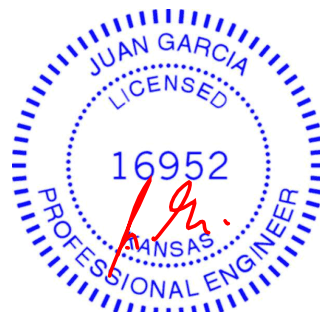
TOP CHORD Structural wood sheathing directly applied or 4-8-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-7-12, 3=4-7-12
Max Horz 1=83(LC 5)
Max Uplift 1=-23(LC 8), 3=-44(LC 8)
Max Grav 1=178(LC 1), 3=178(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

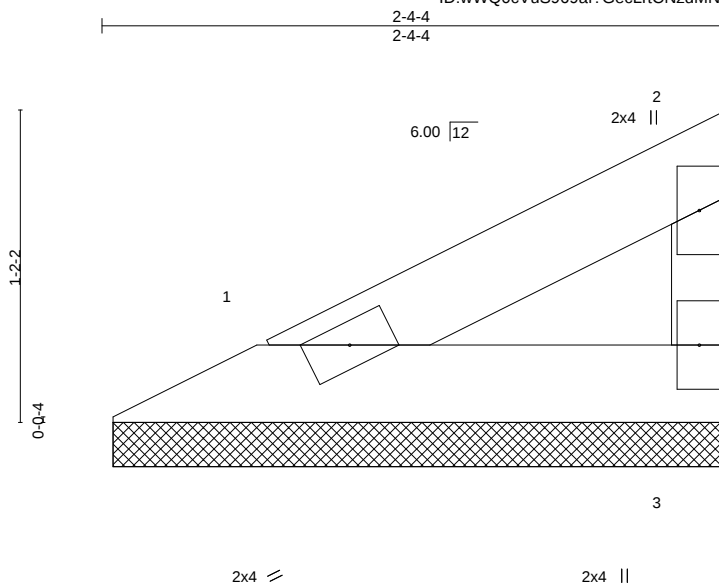


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400417	Truss V4	Truss Type Valley	Qty 1	Ply 1	Lot 52 H4 Job Reference (optional)	I42018169
---------------	-------------	----------------------	----------	----------	---------------------------------------	-----------

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:15 2020 Page 1
ID:wWQ0cVuS969af?GecLrtCNzdMNG-HIib4mUXTDAPrB5i?zfWXYyBvju?lorveDXalyAHc



Scale = 1:8.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 5 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-3-12, 3=2-3-12
Max Horz 1=34(LC 5)
Max Uplift 1=-9(LC 8), 3=-18(LC 8)
Max Grav 1=73(LC 1), 3=73(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



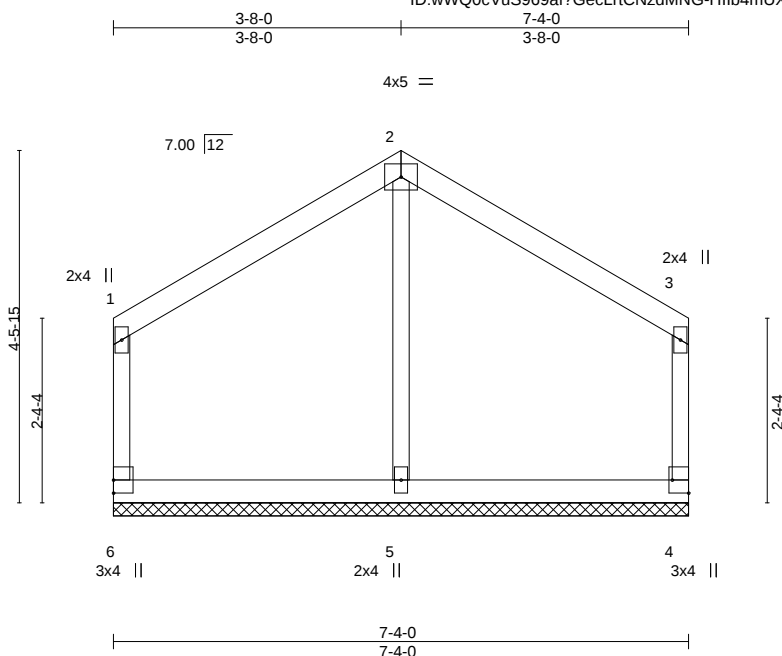
July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:29.4

Plate Offsets (X,Y)-- [3:0-0,0-0-0], [4:Edge,0-2-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 25 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD	2x4 SPF No.2	BOT CHORD	
WEBS	2x3 SPF No.2		
OTHERS	2x3 SPF No.2		

REACTIONS. (size) 6=7-4-0, 4=7-4-0, 5=7-4-0
 Max Horz 6=134(LC 5)
 Max Uplift 6=-48(LC 8), 4=-48(LC 9)
 Max Grav 6=154(LC 21), 4=154(LC 22), 5=334(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-252/34

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCS Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.

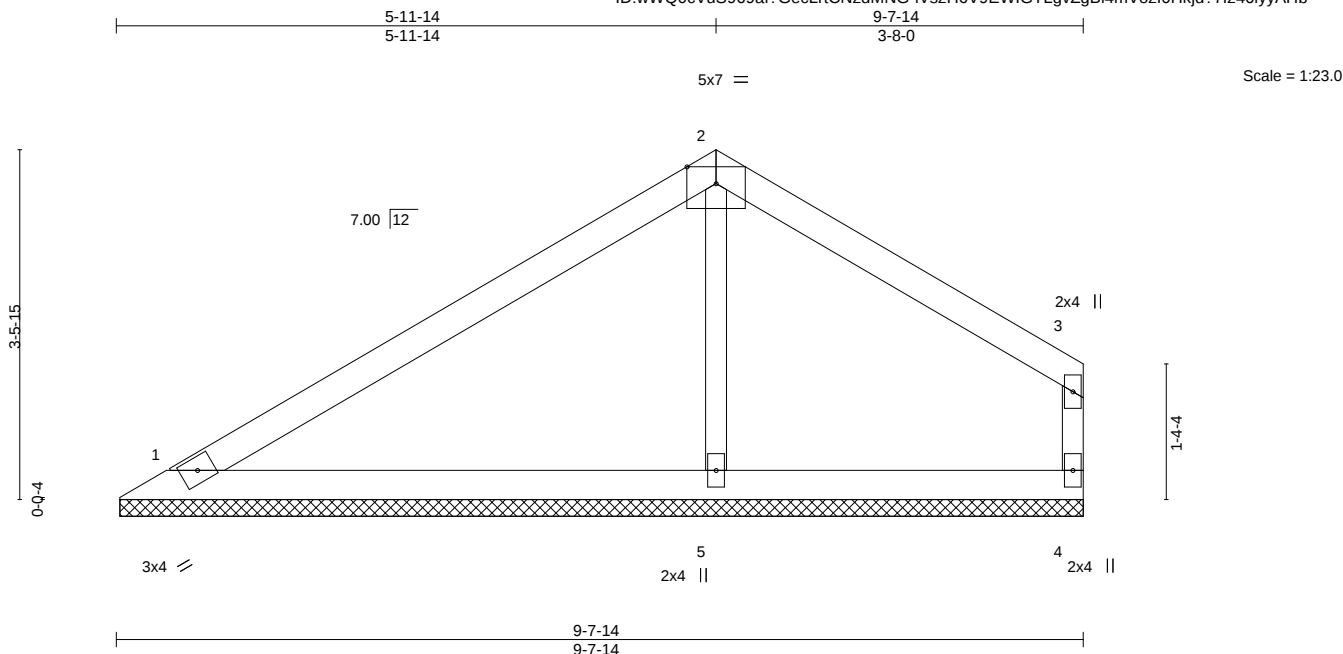


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	
400417	V6	Valley	1	1		I42018171
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:16 2020 Page 1
ID:WwQ0cVuS969af?GecLrtCNzdMNG-IVszH6V9EWIGTLgvZgBI4mVozl0Hkjd?7Iz46IyyAHb



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 26 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

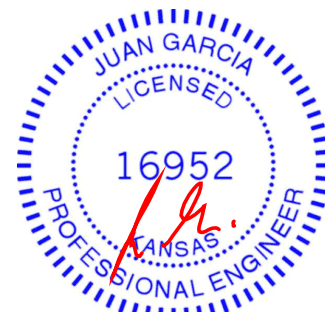
(size) 1=9-7-7, 4=9-7-7, 5=9-7-7
Max Horz 1=98(LC 5)
Max Uplift 1=-36(LC 8), 4=-60(LC 9), 5=-43(LC 8)
Max Grav 1=227(LC 1), 4=159(LC 22), 5=454(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

WEBS 2-5=-320/96

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



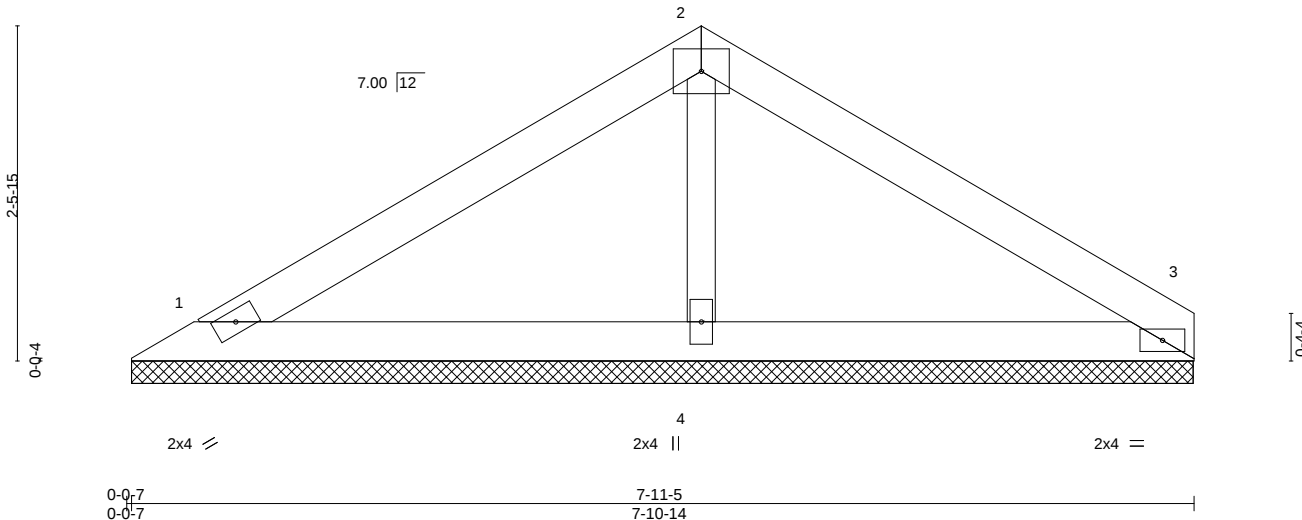
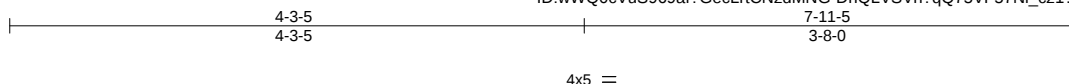
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018172
400417	V7	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:17 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdmNG-DhQLVSVn?qQ75VF57Ni_cz1?JiNuTBc8MyideByyAHa



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 21 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=7-10-12, 3=7-10-12, 4=7-10-12
Max Horz 1=-57(LC 4)
Max Uplift 1=-41(LC 8), 3=-48(LC 9)
Max Grav 1=182(LC 1), 3=179(LC 1), 4=304(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- Non Standard bearing condition. Review required.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



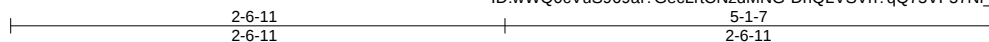
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018173
400417	V8	Valley	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

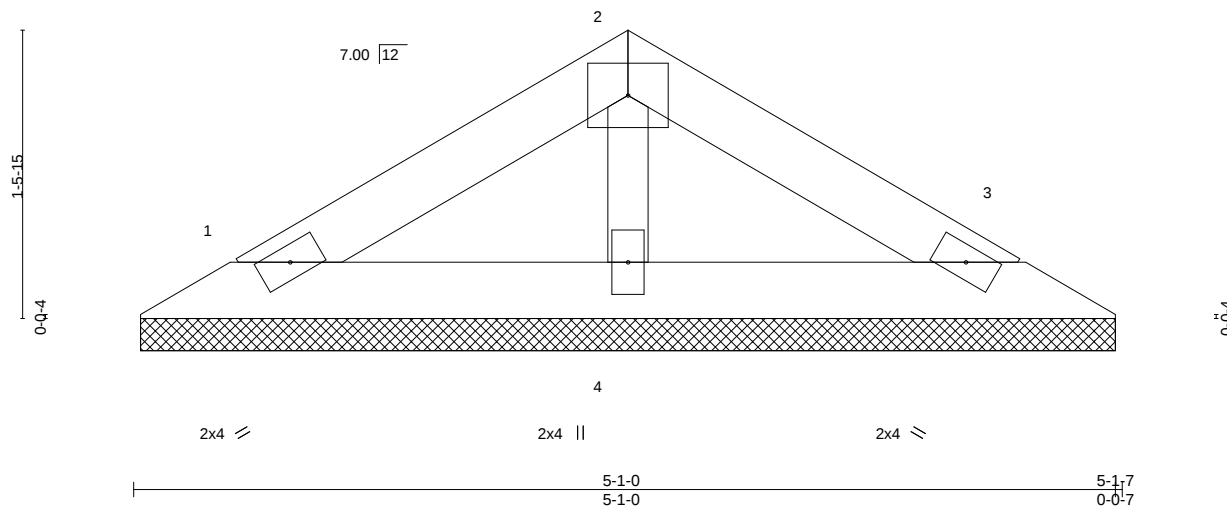
8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:17 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-DhQLVSVn?qQ75VF57Ni_cz12HiO9TBz8MyideByyAHa



4x5 =

Scale: 1"=1'



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 12 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-0-9, 3=5-0-9, 4=5-0-9
Max Horz 1=31(LC 5)
Max Uplift 1=-22(LC 8), 3=-26(LC 9)
Max Grav 1=98(LC 1), 3=98(LC 1), 4=166(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400417	Truss V9	Truss Type Valley	Qty 1	Ply 1	Lot 52 H4	I42018174
Job Reference (optional)						

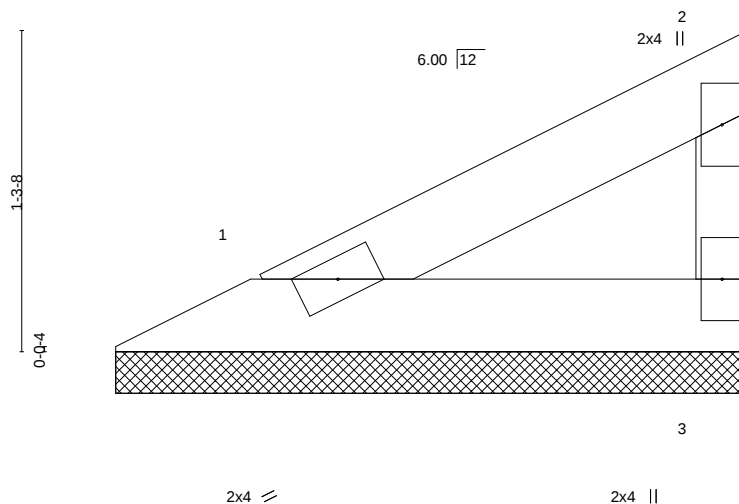
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:18 2020 Page 1

ID:wwQ0cVuS969af?GecLrtCNzdMNG-ht_jinWPm8Y_ifqHg5DD9BaEE6kTCeXlbcSBAdyyAHZ

2-6-15
2-6-15

Scale = 1:9.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 6 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-6-7, 3=2-6-7
Max Horz 1=39(LC 5)
Max Uplift 1=-11(LC 8), 3=-20(LC 8)
Max Grav 1=83(LC 1), 3=83(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



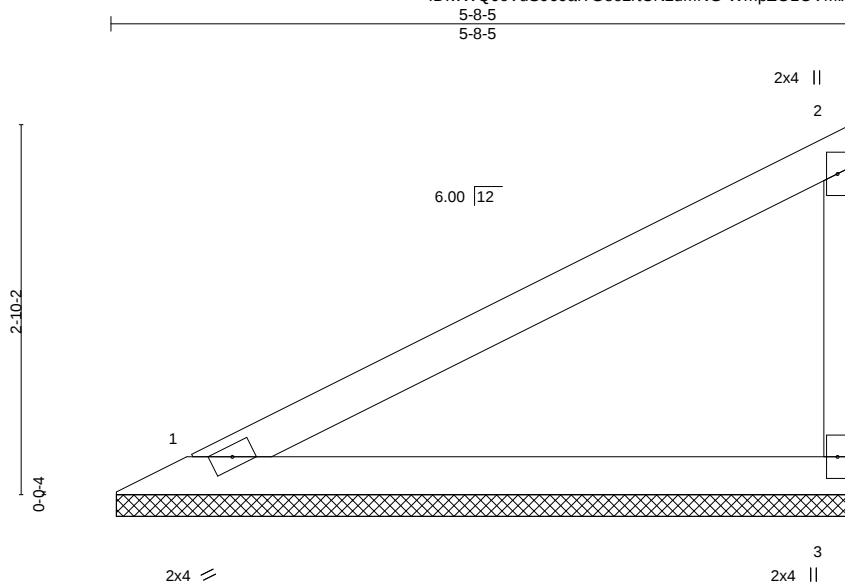
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018176
400417	V11	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:07 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-WmpZO1OVMIAYuzUAXHWeCsdFTgwM8pgg3OH6ImyyAHk



Scale = 1:17.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.47	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 15 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-7-13, 3=5-7-13
Max Horz 1=103(LC 5)
Max Uplift 1=-29(LC 8), 3=-55(LC 8)
Max Grav 1=223(LC 1), 3=223(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

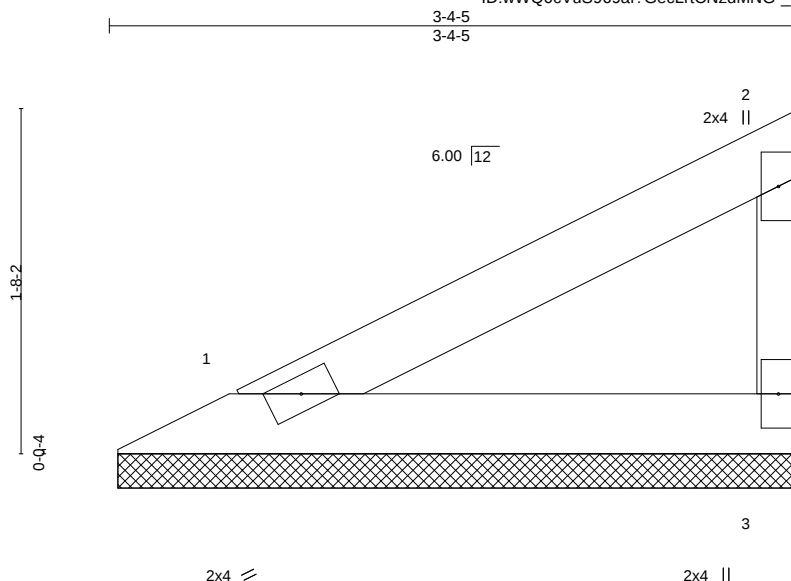


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018177
400417	V12	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:08 2020 Page 1
ID:wWQ0cVuS969af?GecLrtCNzdMNG-yNxcNP873IPV63M5_1t49W14Jbt73pl21fqCyyAHj



Scale = 1:11.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 8 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-4-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-3-13, 3=3-3-13
Max Horz 1=55(LC 5)
Max Uplift 1=-15(LC 8), 3=-29(LC 8)
Max Grav 1=118(LC 1), 3=118(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

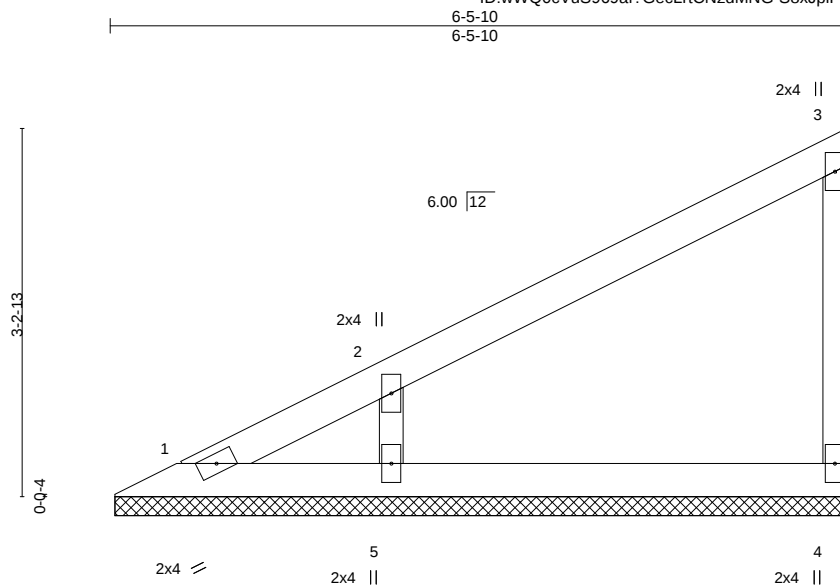
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018179
400417	V14	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:09 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-S8xJpiPmuNQG7GeYfiZ6IHigSufGcaYzWimCMfyyAHi



Scale = 1:20.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 17 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=6-5-2, 4=6-5-2, 5=6-5-2
Max Horz 1=120(LC 5)
Max Uplift 1=-1(LC 19), 4=-29(LC 8), 5=-108(LC 8)
Max Grav 1=47(LC 5), 4=143(LC 1), 5=360(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-280/156

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=108.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	
400417	V15	Valley	1	1		I42018180
Job Reference (optional)						

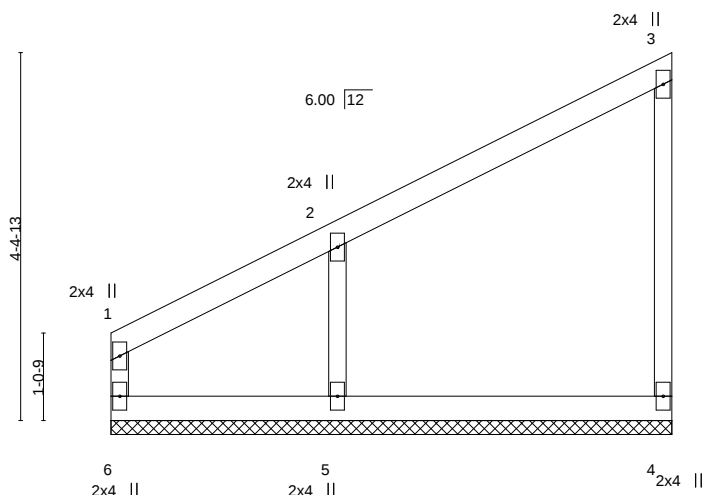
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:09 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-S8xJpiPmuNQG7GeYfiZ6IHigZUfLcaRzWimCMfyyAHi

6-8-8
6-8-8

Scale = 1:27.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 21 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=6-8-8, 4=6-8-8, 5=6-8-8
Max Horz 6=165(LC 5)
Max Uplift 4=-25(LC 5), 5=-142(LC 8)
Max Grav 6=118(LC 16), 4=146(LC 1), 5=365(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

WEBS 2-5=-284/168

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=142.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4
400417	V16	Valley	1	1	142018181
Job Reference (optional)					

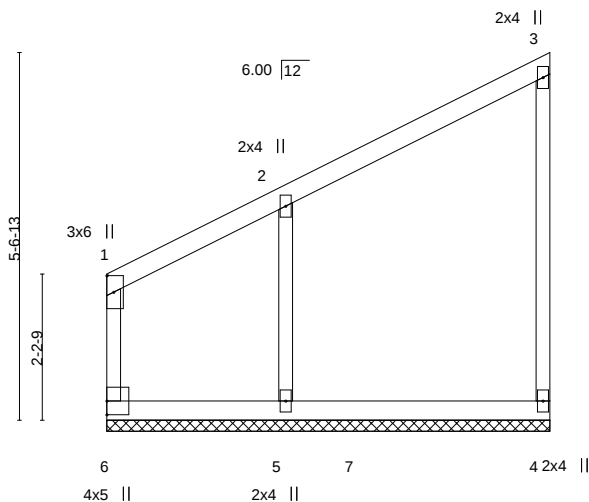
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:10 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdmMNG-wLV12QOfgY7IQDlCP4LqVFmluztL0F6IMWmu5yyAHh

6-8-8
6-8-8

Scale = 1:34.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 24 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=6-8-8, 4=6-8-8, 5=6-8-8
Max Horz 6=210(LC 5)
Max Uplift 6=-27(LC 4), 4=-30(LC 5), 5=-164(LC 8)
Max Grav 6=179(LC 16), 4=182(LC 15), 5=428(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

WEBS 2-5=-285/176

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 4 except (jt=lb) 5=164.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

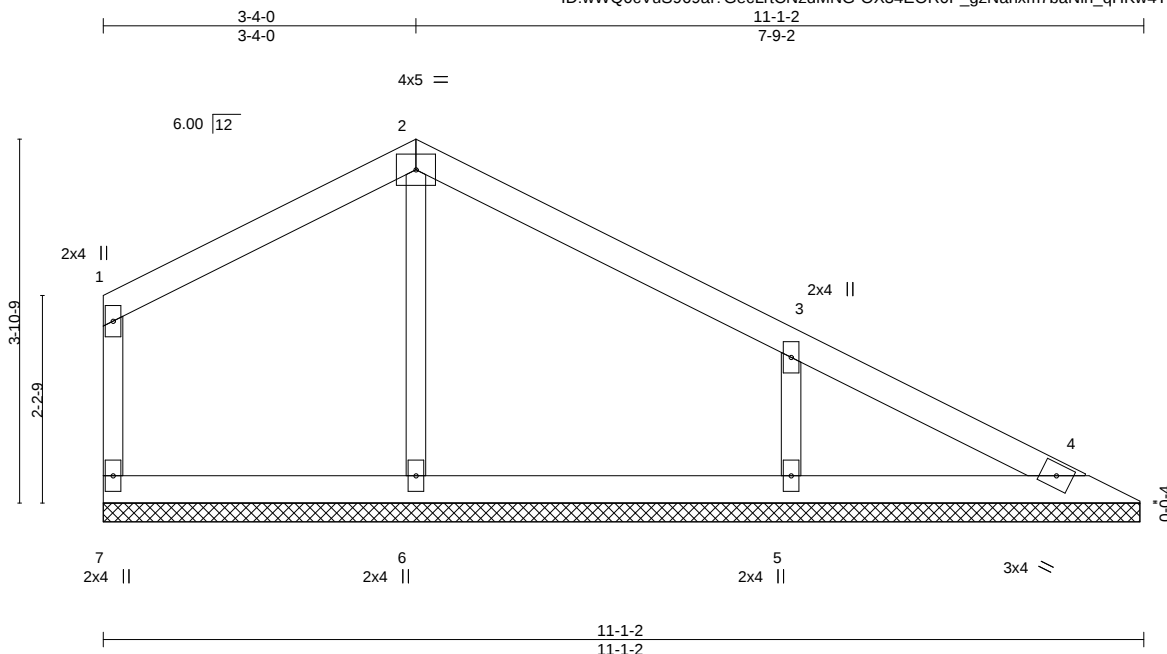


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018182
400417	V17	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:11 2020 Page 1
ID:wWQ0cVuS969af?GecLrtCNzdMNG-0X34EOR0P_gzNanxm7baNin_qHKw4TYG_0fJRXyyAHg



Scale = 1:24.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 31 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 11-0-10.
(lb) - Max Horz 7=-102(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 7 except 5=-120(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 7, 4 except 6=315(LC 1), 5=382(LC 22)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

WEBS 3-5=-298/164

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 5=120.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:11 2020 Page 1

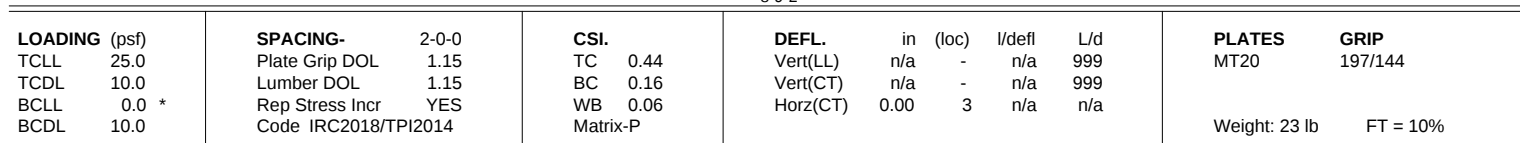
ID:wWQ0cVuS969af?GecLrtCNzdMNG-0X34EOR0P_gzNanxm7baNinxyHJq4UsG_0fJRxyyAHg

3-4-0 8-9-2

3-4-0 5-5-2

4x5 =

Scale = 1:18.4



REACTIONS. (size) 5=8-8-10, 3=8-8-10, 4=8-8-10
 Max Horz 5=-54(LC 6)
 Max Uplift 5=-49(LC 8), 3=-44(LC 9), 4=-14(LC 9)
 Max Grav 5=131(LC 1), 3=207(LC 1), 4=384(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4--281/76

- 
- A circular professional engineer seal for the State of Missouri. The outer ring contains the text "STATE OF MISSOURI" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. In the center, the name "JUAN GARCIA" is displayed above the number "E-2000162101". The seal is blue and white.



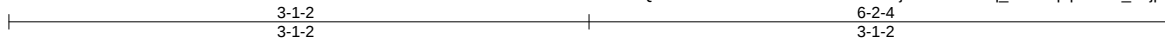
July 14, 2020

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018184
400417	V19	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

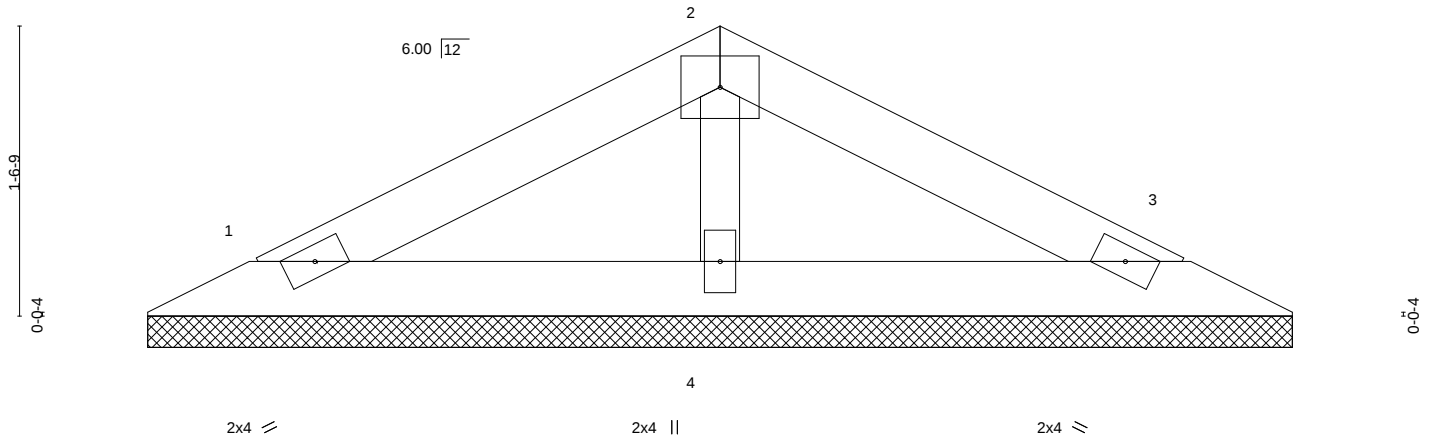
8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:12 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-sjdSRkSeAloq_kM7Kq6pwwKB_hhjpxdPDg?sz_yyAHf



4x5 =

Scale = 1:12.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							
								Weight: 14 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=6-1-4, 3=6-1-4, 4=6-1-4
Max Horz 1=-22(LC 9)
Max Uplift 1=-26(LC 8), 3=-30(LC 9), 4=-3(LC 8)
Max Grav 1=116(LC 1), 3=116(LC 1), 4=212(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



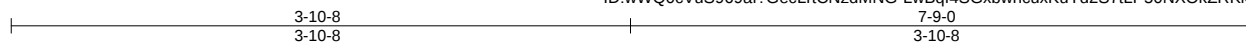
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 52 H4	I42018185
400417	V20	Valley	1	1	Job Reference (optional)	

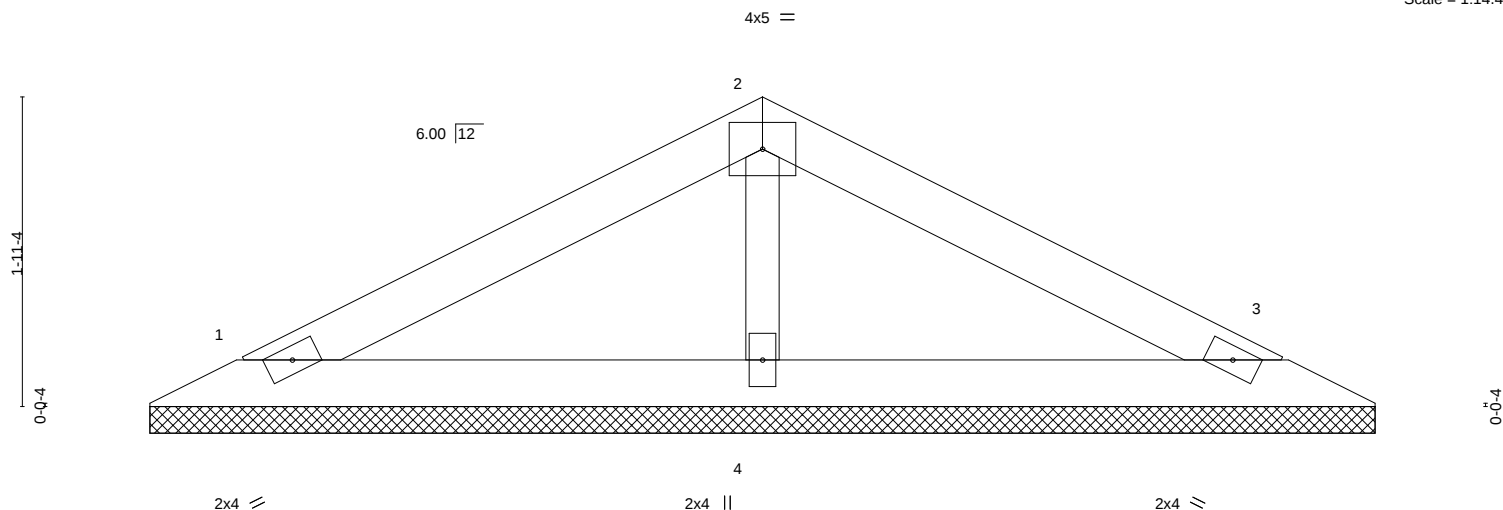
Wheeler Lumber, Waverly, KS 66871

8.410 s May 22 2020 MiTek Industries, Inc. Tue Jul 14 10:58:13 2020 Page 1

ID:wWQ0cVuS969af?GecLrtCNzdMNG-LwBqf4SGxbwhcuxKuYd2S7tLP50NXOkZRkKQVQyyAHe



Scale = 1:14.4



0-0-8 0-0-8		7-9-0 7-8-8			
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(LL) n/a - n/a 999	GRIP 197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Vert(CT) n/a - n/a 999	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Horz(CT) 0.00 3 n/a n/a	Weight: 18 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=7-8-0, 3=7-8-0, 4=7-8-0
Max Horz 1=29(LC 8)
Max Uplift 1=-35(LC 8), 3=-40(LC 9), 4=-4(LC 8)
Max Grav 1=153(LC 1), 3=153(LC 1), 4=279(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



July 14, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

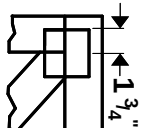
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



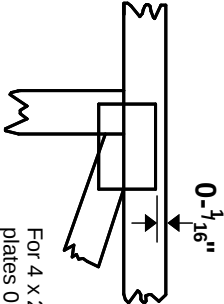
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless X, Y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

—
—
This symbol indicates the required direction of slots in connector plates.

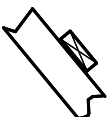
*** Plate location details available in MITek 20120 software or upon request.**

PLATE SIZE

4 X 4

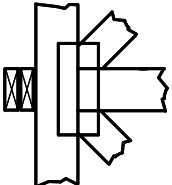
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



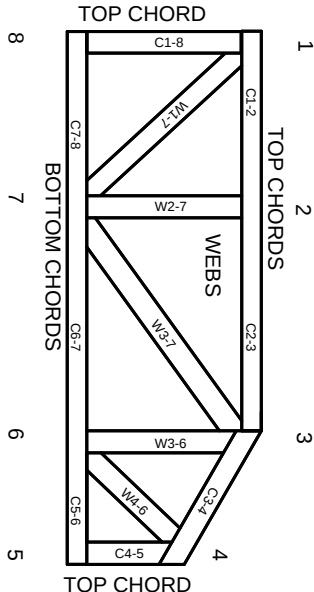
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

© 2012 MITek® All Rights Reserved



MITek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.