



RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
10/02/2020

RE: 400570  
Lot 98 MN

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

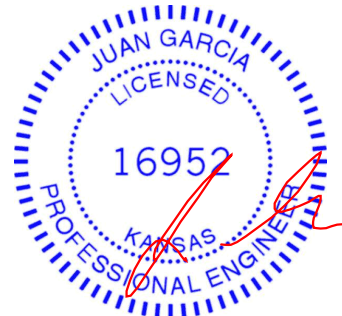
Floor Load: N/A psf

This package includes 55 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I42869860	A1	9/18/2020	27	I42869886	H2	9/18/2020
2	I42869861	A2	9/18/2020	28	I42869887	H3	9/18/2020
3	I42869862	A3	9/18/2020	29	I42869888	H4	9/18/2020
4	I42869863	A4	9/18/2020	30	I42869889	J1	9/18/2020
5	I42869864	B1	9/18/2020	31	I42869890	J2	9/18/2020
6	I42869865	B2	9/18/2020	32	I42869891	J3	9/18/2020
7	I42869866	B3	9/18/2020	33	I42869892	J4	9/18/2020
8	I42869867	B4	9/18/2020	34	I42869893	J5	9/18/2020
9	I42869868	C1	9/18/2020	35	I42869894	J6	9/18/2020
10	I42869869	C2	9/18/2020	36	I42869895	J7	9/18/2020
11	I42869870	C3	9/18/2020	37	I42869896	J8	9/18/2020
12	I42869871	D1	9/18/2020	38	I42869897	J9	9/18/2020
13	I42869872	D2	9/18/2020	39	I42869898	J10	9/18/2020
14	I42869873	E1	9/18/2020	40	I42869899	J11	9/18/2020
15	I42869874	E2	9/18/2020	41	I42869900	J12	9/18/2020
16	I42869875	E3	9/18/2020	42	I42869901	J13	9/18/2020
17	I42869876	E4	9/18/2020	43	I42869902	K1	9/18/2020
18	I42869877	E5	9/18/2020	44	I42869903	K2	9/18/2020
19	I42869878	E6	9/18/2020	45	I42869904	K3	9/18/2020
20	I42869879	E7	9/18/2020	46	I42869905	LAY1	9/18/2020
21	I42869880	E8	9/18/2020	47	I42869906	V1	9/18/2020
22	I42869881	E9	9/18/2020	48	I42869907	V2	9/18/2020
23	I42869882	E10	9/18/2020	49	I42869908	V3	9/18/2020
24	I42869883	G1	9/18/2020	50	I42869909	V4	9/18/2020
25	I42869884	G2	9/18/2020	51	I42869910	V5	9/18/2020
26	I42869885	H1	9/18/2020	52	I42869911	V6	9/18/2020

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.



September 18, 2020



RE: 400570 - Lot 98 MN

MiTek USA, Inc.  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017  
314-434-1200

**Site Information:**

Project Customer:      Project Name:  
Lot/Block:  
Address:  
City, County:

Subdivision:

State:

No.	Seal#	Truss Name	Date
53	I42869912	V7	9/18/2020
54	I42869913	V8	9/18/2020
55	I42869914	V9	9/18/2020



RE: 400570  
Lot 98 MN

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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

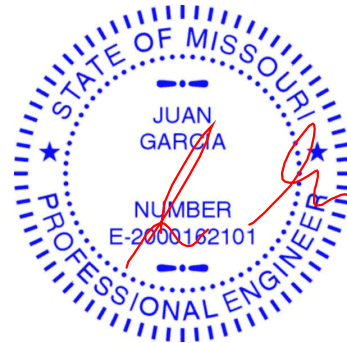
Floor Load: N/A psf

This package includes 55 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
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24	I42869883	G1	9/18/2020	50	I42869909	V4	9/18/2020
25	I42869884	G2	9/18/2020	51	I42869910	V5	9/18/2020
26	I42869885	H1	9/18/2020	52	I42869911	V6	9/18/2020

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: 400570 - Lot 98 MN

MiTek USA, Inc.  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017  
314-434-1200

**Site Information:**

Project Customer:      Project Name:  
Lot/Block:  
Address:  
City, County:

Subdivision:

State:

No.	Seal#	Truss Name	Date
53	I42869912	V7	9/18/2020
54	I42869913	V8	9/18/2020
55	I42869914	V9	9/18/2020

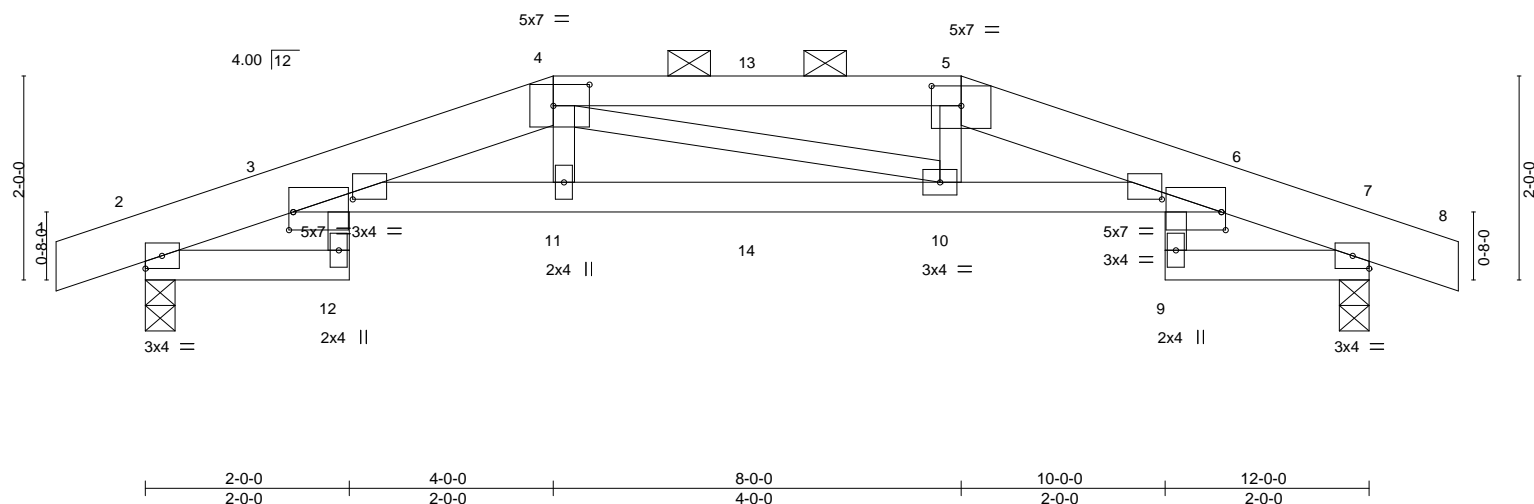
Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869860
400570	A1	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS 66871, Mitek

ID: VW78Vr4IUH8xb7XH?Gc5Xzd1qg-HpaUxNKoCLPQTGKfppzew6rUkK?6txH9vngY?4ycM0G

-0-10-8	2-0-0	4-0-0	8-0-0	10-0-0	12-0-0	12-10-8
0-10-8	2-0-0	2-0-0	4-0-0	2-0-0	2-0-0	0-10-8

Scale = 1:22.6



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 0.89	Vert(LL)	-0.14 10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.91	Vert(CT)	-0.25 10-11	>557	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.10	Horz(CT)	0.19 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.11 10-11	>999	240	Weight: 43 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x6 SPF No.2 \*Except\*  
4-5: 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
3-12,6-9: 2x3 SPF No.2  
WEBS 2x3 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-15 oc purlins, except  
2-0-0 oc purlins (3-2-3 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS.

(lb/size) 2=926/0-3-8, 7=926/0-3-8  
Max Horz 2=30(LC 33)  
Max Uplift 2=-198(LC 4), 7=-198(LC 5)

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

TOP CHORD 2-3=-424/102, 3-4=-2605/476, 4-13=-2651/481, 5-13=-2653/481, 5-6=-2700/477,  
6-7=-424/99  
BOT CHORD 3-11=-434/2525, 11-14=-433/2554, 10-14=-433/2554, 6-10=-426/2624  
WEBS 4-11=0/303, 5-10=0/284

#### 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) 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) 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 198 lb uplift at joint 2 and 198 lb uplift at joint 7.
- 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.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 84 lb down and 54 lb up at 4-0-0, and 84 lb down and 54 lb up at 6-0-0, and 84 lb down and 54 lb up at 8-0-0 on top chord, and 234 lb down and 70 lb up at 4-0-0, and 38 lb down at 6-0-0, and 234 lb down and 70 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) 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: 1-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 6-8=-70, 2-12=-20, 3-6=-20, 7-9=-20



September 18, 2020

Continued on page 2

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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/TPI 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 98 MN	I42869860
400570	A1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871, Mitek

8.410 s May 22 2020 MiTek Industries, Inc. Fri Sep 18 15:37:01 2020 Page 2

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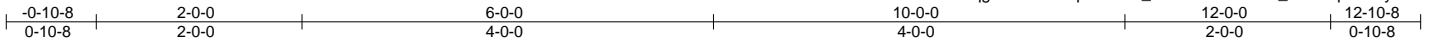
**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 4=-43(F) 5=-43(F) 11=-234(F) 10=-234(F) 13=-43(F) 14=-38(F)

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869861
400570	A2	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:39:39 2020 Page 1

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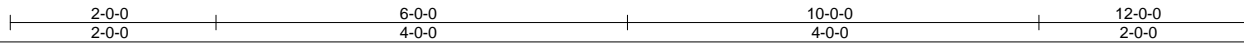
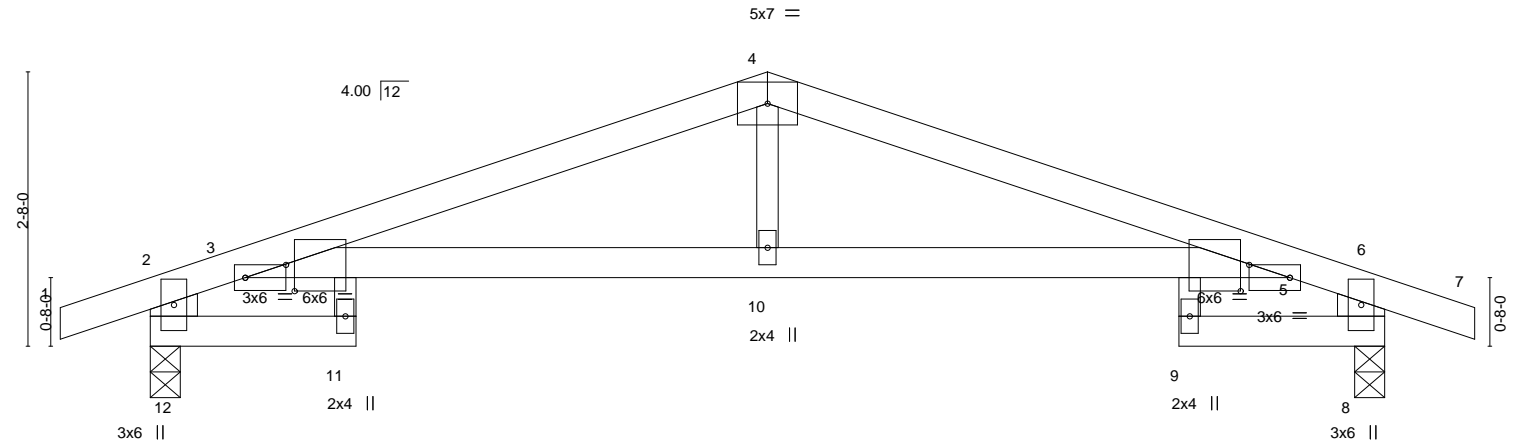


Plate Offsets (X,Y)--		[3:0-5-12,0-1-9], [3:0-4-12,0-1-8], [5:0-5-12,0-1-9], [5:0-4-12,0-1-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.13	9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.25	9	>562	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.22	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.11	11	>999	240	Weight: 35 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 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-9 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS.

(size) 12=0-3-8, 8=0-3-8  
 Max Horz 12=25(LC 8)  
 Max Uplift 12=112(LC 4), 8=112(LC 5)  
 Max Grav 12=617(LC 1), 8=617(LC 1)

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

TOP CHORD 3-4=-1116/103, 4-5=-1116/113, 2-12=-607/122, 6-8=-607/121  
 BOT CHORD 3-10=-51/1033, 5-10=-51/1033  
 WEBS 4-10=0/297

#### 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 (jt=lb) 12=112, 8=112.
- 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.



September 18,2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869862
400570	A3	Roof Special	1	1		

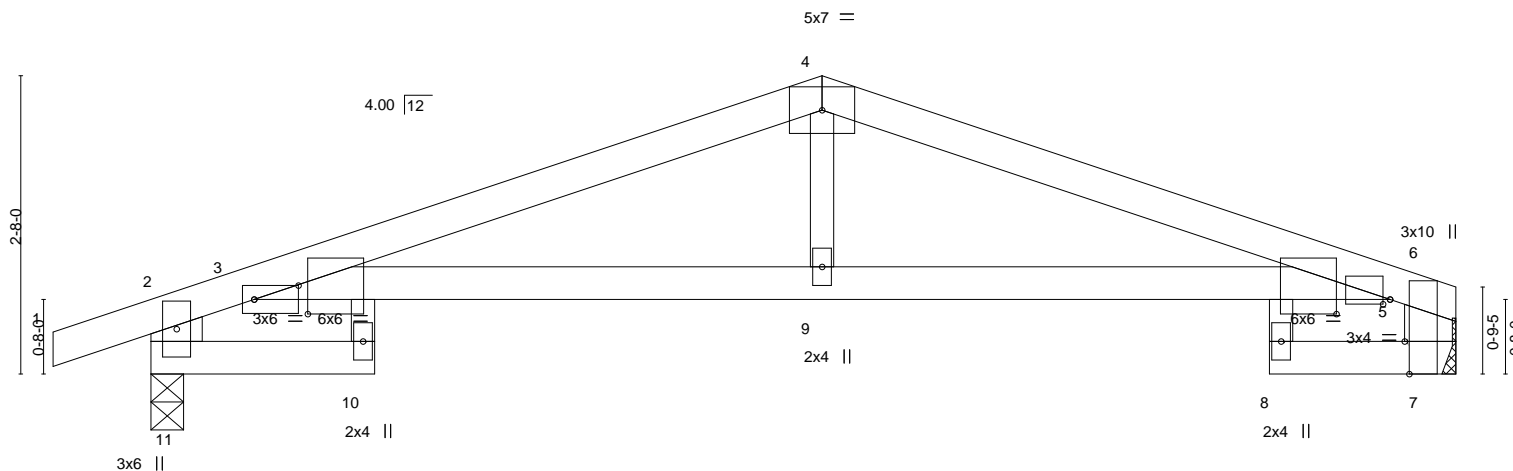
Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:39:40 2020 Page 1

ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg-XK8aFywJe7RHJF5Bp6PIR8KQNLjirYEZULUyKycRFH



Scale = 1:20.6



	2-0-0	6-0-0	10-0-0	11-8-0
	2-0-0	4-0-0	4-0-0	1-8-0

Plate Offsets (X,Y)-- [3:0-5-12,0-1-9], [3:0-4-12,0-1-8], [5:0-0-12,0-0-8], [5:0-5-12,0-1-9], [6:0-3-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.59	Vert(LL)	-0.13	10	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.24	10	>570	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.19	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.11	10	>999	240	Weight: 34 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-3-14 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS.

(size) 11=0-3-8, 7=Mechanical  
Max Horz 11=32(LC 12)  
Max Uplift 11=-111(LC 4), 7=-60(LC 5)  
Max Grav 11=605(LC 1), 7=521(LC 1)

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

TOP CHORD 3-4=-1061/115, 4-5=-1065/115, 2-11=-595/122, 6-7=-510/69  
BOT CHORD 3-9=-62/980, 5-9=-62/980  
WEBS 4-9=0/285

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.
- 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) 7 except (jt=lb) 11=111.
- 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.



September 18,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869863
400570	A4	Common	1	1		

Wheeler Lumber, Waverly, KS 66871

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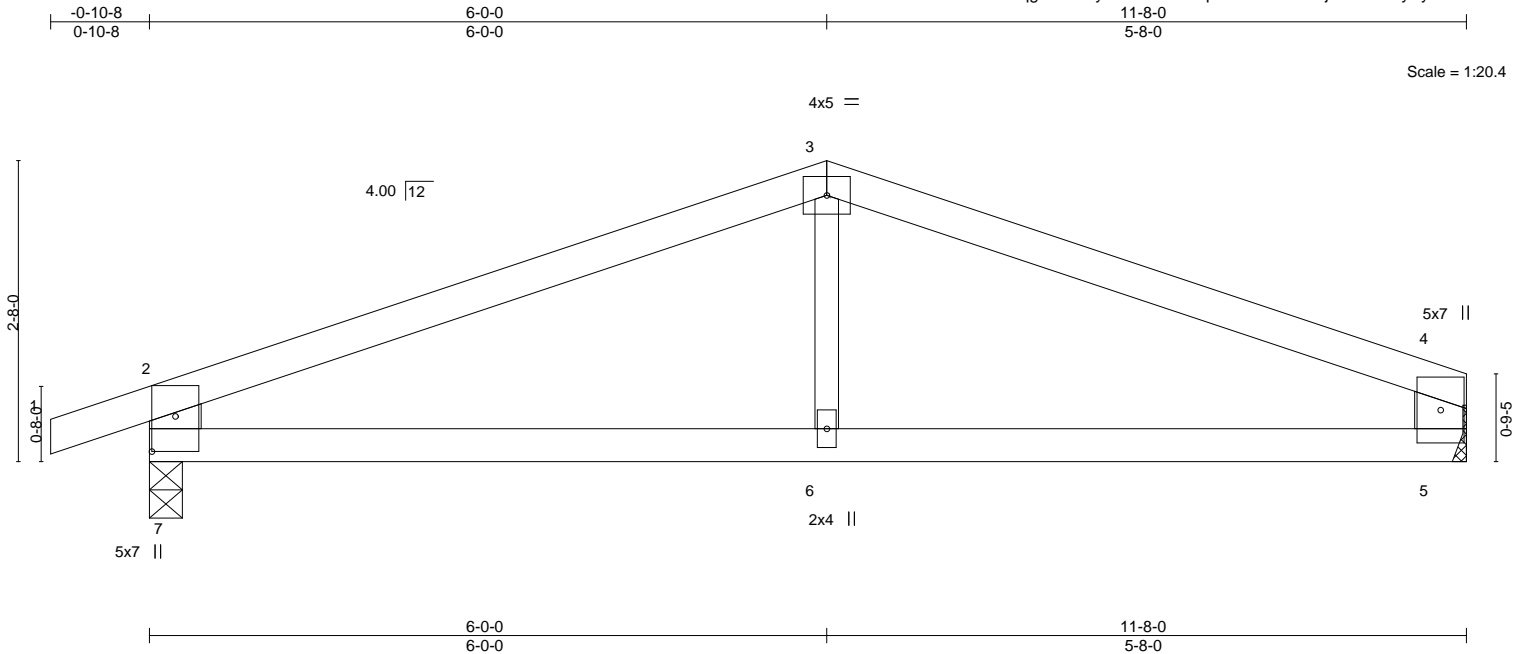


Plate Offsets (X,Y)-- [7:0-3-12,0-2-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.04 6-7 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.09 6-7 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01 5 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.03 6-7 >999 240	Weight: 31 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x6 SPF No.2 \*Except\*  
3-6: 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) 7=0-3-8, 5=Mechanical  
Max Horz 7=32(LC 12)  
Max Uplift 7=123(LC 4), 5=72(LC 5)  
Max Grav 7=585(LC 1), 5=501(LC 1)

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

TOP CHORD 2-3=-726/98, 3-4=-720/98, 2-7=-518/159, 4-5=-422/103  
BOT CHORD 6-7=-46/619, 5-6=-46/619

#### 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.
- 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) 5 except (jt=lb) 7=123.
- 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.



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869864
400570	B1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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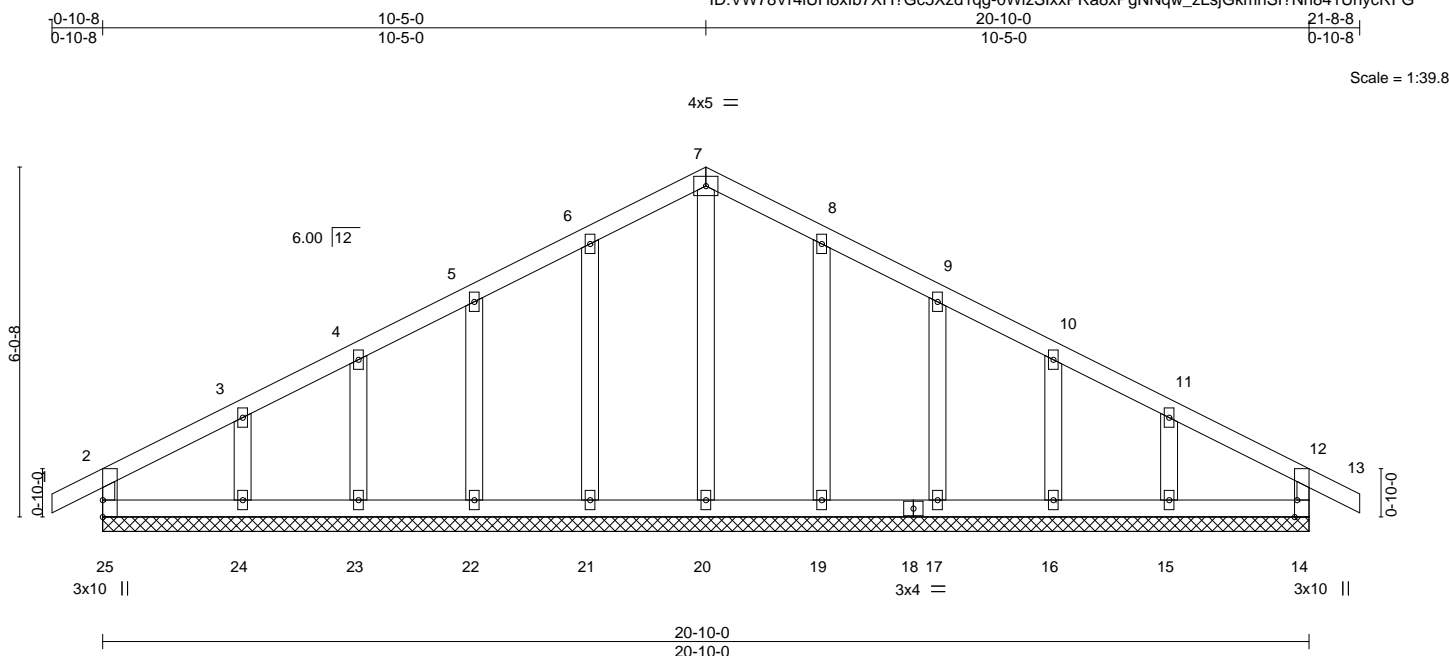


Plate Offsets (X,Y)-- [14:0-3-8,Edge]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	13	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	13	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 87 lb	FT = 10%

#### LUMBER-

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

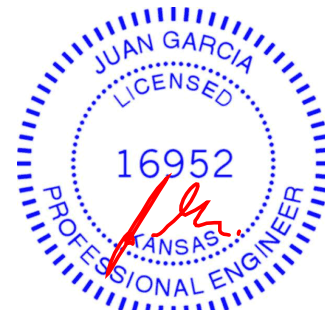
#### REACTIONS.

All bearings 20-10-0.  
(lb) - Max Horz 25=-95(LC 6)  
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; 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, 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.



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869865
400570	B2	Common	5	1		

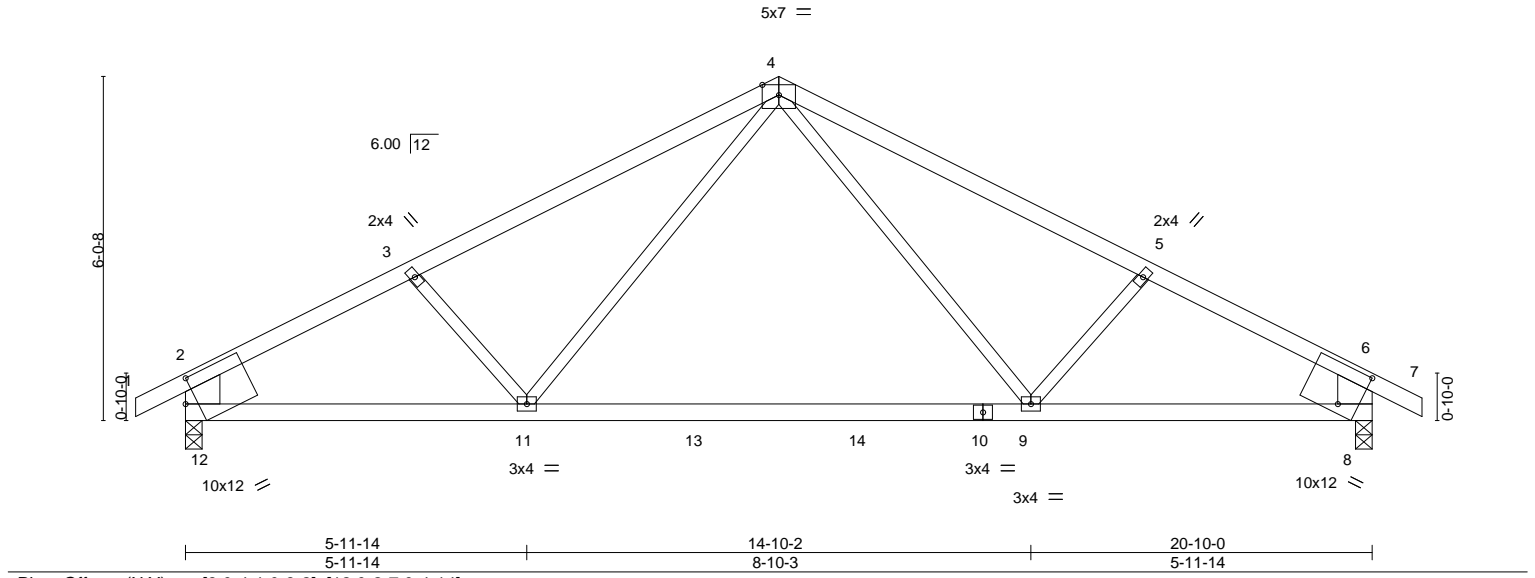
Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg-UiGLfexZAKi?YZFZwXRDWZPir8wJBk\_X0oqb1DycRFF

0-10-8	4-0-5	10-5-0	16-9-12	20-10-0	21-8-8
0-10-8	4-0-5	6-4-12	6-4-12	4-0-5	0-10-8

Scale = 1:40.4



LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	197/144
TCCL 10.0	Plate Grip DOL 1.15	BC 0.78	Vert(LL) -0.32 9-11 >752 360		
BCCL 0.0 *	Lumber DOL 1.15	WB 0.16	Vert(CT) -0.56 9-11 >435 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 8 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.10 9-11 >999 240	Weight: 72 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 3-10-5 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-12,6-8: 2x8 SP DSS	

<b>REACTIONS.</b>	(size) 12=0-3-8, 8=0-3-8
	Max Horz 12=-98(LC 6)
	Max Uplift 12=-139(LC 8), 8=-139(LC 9)
	Max Grav 12=1025(LC 2), 8=1025(LC 2)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1412/195, 3-4=-1285/186, 4-5=-1285/186, 5-6=-1412/196, 2-12=-926/157, 6-8=-926/157
BOT CHORD	11-12=-197/1169, 9-11=-39/845, 8-9=-121/1150
WEBS	4-9=-56/460, 4-11=-56/460

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - 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
  - 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 (it=lb) 12=139, 8=139.
  - 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.



September 18,2020

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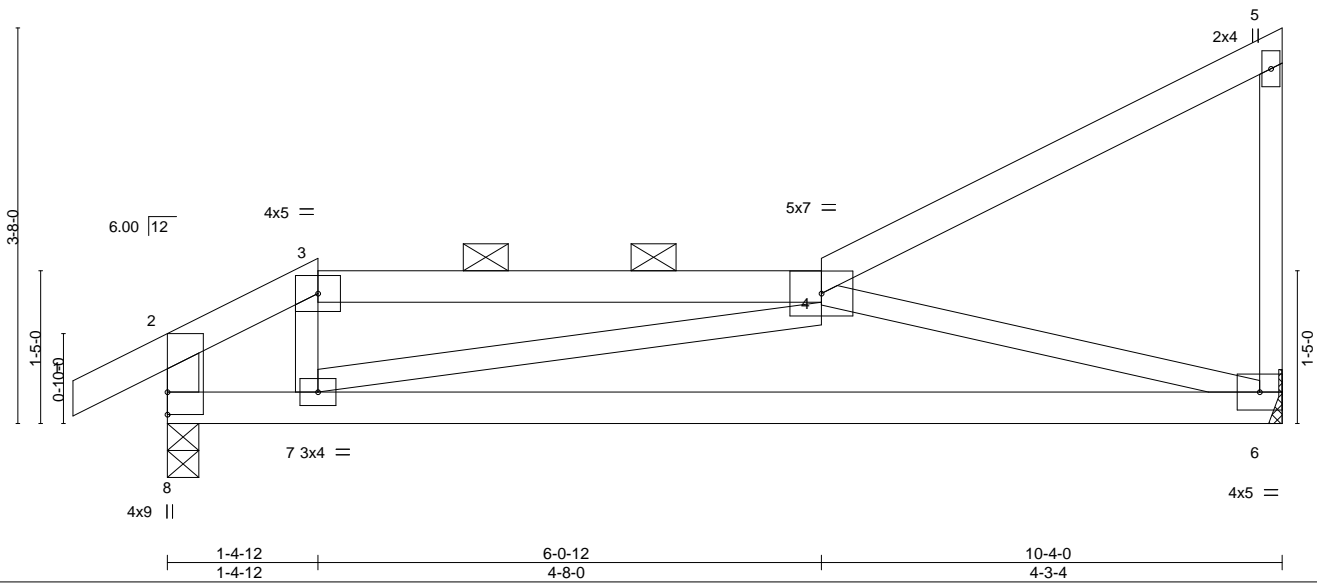
Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869866
400570	B3	Roof Special Girder	1	1	Job Reference (optional)	

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ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg-Q5N54KzpiMyjosOy2yUhb\_U95ye3fZpT6Jh56ycRFD



Scale = 1:21.4



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 0.41	Vert(LL)	-0.18	6-7	>662	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.38	6-7	>321	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.47	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03	6-7	>999	240	Weight: 37 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-8: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 6=Mechanical, 8=0-3-8  
Max Horz 8=145(LC 5)  
Max Uplift 6=-95(LC 8), 8=-99(LC 8)  
Max Grav 6=450(LC 1), 8=527(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-643/0, 3-4=-504/25, 2-8=-485/15  
BOT CHORD 7-8=-46/517, 6-7=-249/921  
WEBS 3-7=0/361, 4-7=-431/238, 4-6=-931/294

#### NOTES-

- 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
- 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.
- 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) 6, 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.
- 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) 64 lb down and 69 lb up at 1-4-12 on top chord, and 10 lb down and 3 lb up at 1-4-12 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

- 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, 6-8=-20  
Concentrated Loads (lb)  
Vert: 7=3(F)



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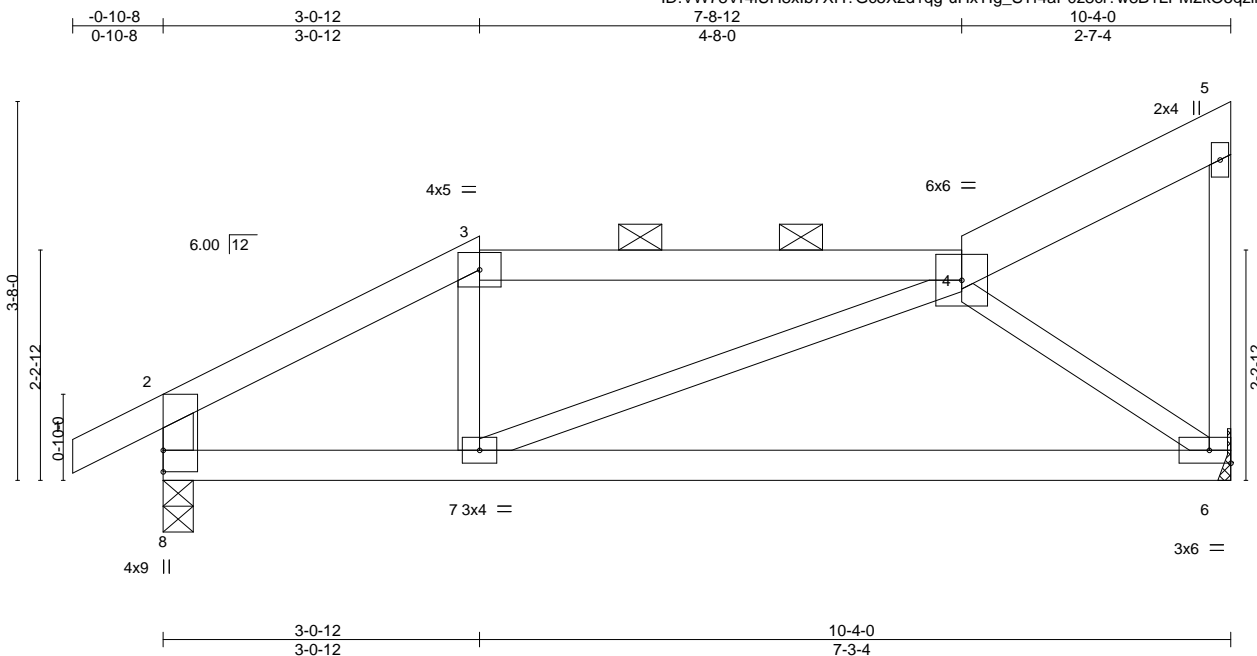
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869867
400570	B4	Roof Special	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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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 0.38	Vert(LL)	-0.10	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.20	6-7	>597	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	6-7	>999	240		
									Weight: 38 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
4-5: 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-8: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 6=Mechanical, 8=0-3-8  
Max Horz 8=141(LC 5)  
Max Uplift 6=-94(LC 8), 8=-99(LC 8)  
Max Grav 6=450(LC 1), 8=529(LC 1)

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

TOP CHORD 2-3=-619/77, 3-4=-492/95, 2-8=-475/94  
BOT CHORD 7-8=-77/493, 6-7=-102/433  
WEBS 4-6=-535/174

#### 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) 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.
- 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) 6, 8.
- 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.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



September 18, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869868
400570	C1	Monopitch	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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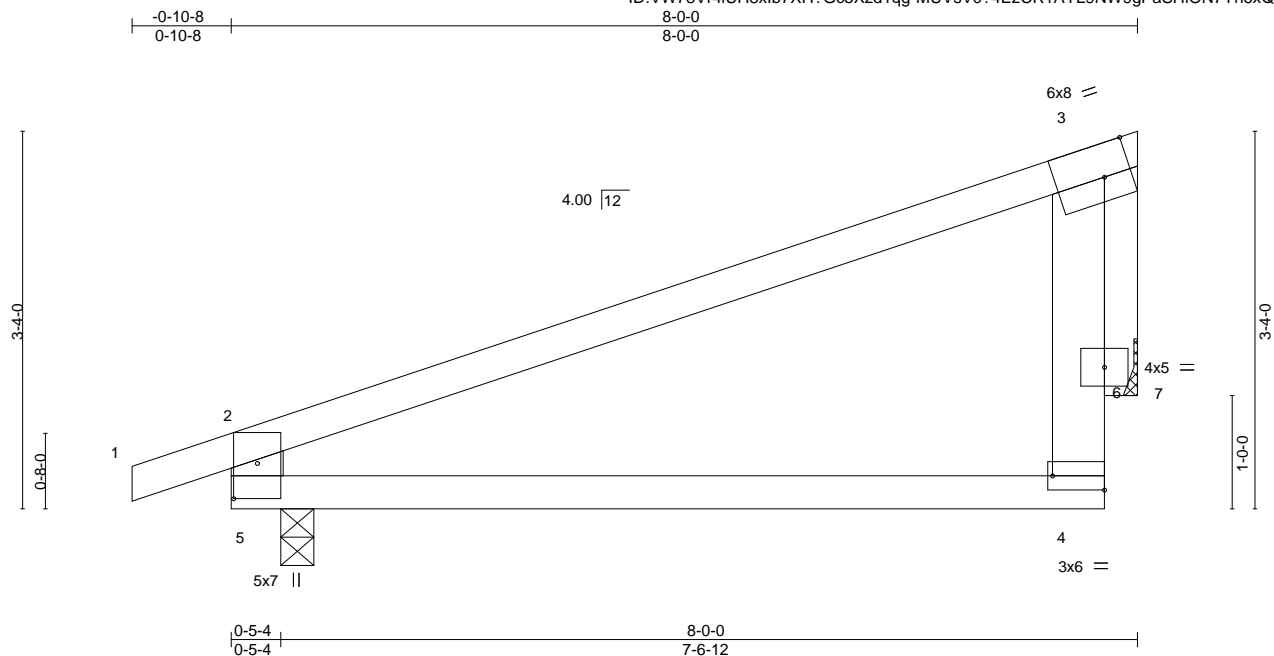


Plate Offsets (X,Y)--		[3:0-2-14,Edge], [4:Edge,0-1-8], [5:0-3-12,0-2-8]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.62
TCDL 10.0	Lumber DOL	1.15	BC 0.39
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) -0.05 4-5 >999 360
			Vert(CT) -0.11 4-5 >877 240
			Horz(CT) 0.01 7 n/a n/a
			Wind(LL) 0.03 4-5 >999 240
			<b>PLATES</b> <b>GRIP</b>
			MT20 197/144
			Weight: 27 lb FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x6 SPF No.2  
OTHERS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 5=0-3-8, 7=Mechanical  
Max Horz 5=99(LC 5)  
Max Uplift 5=94(LC 4), 7=76(LC 8)  
Max Grav 5=428(LC 1), 7=301(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-316/29, 2-5=-384/149

#### 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" tall by 2'-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, 7.
- 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.



September 18,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869869
400570	C2	Monopitch	3	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:39:46 2020 Page 1

ID:VW78Vr4IUH8xb7XH?Gc5Xzd1qg-MUVsV0?4EzCR1AYL9NW9gPaW2ISb7ac6xQooA\_ycRFB

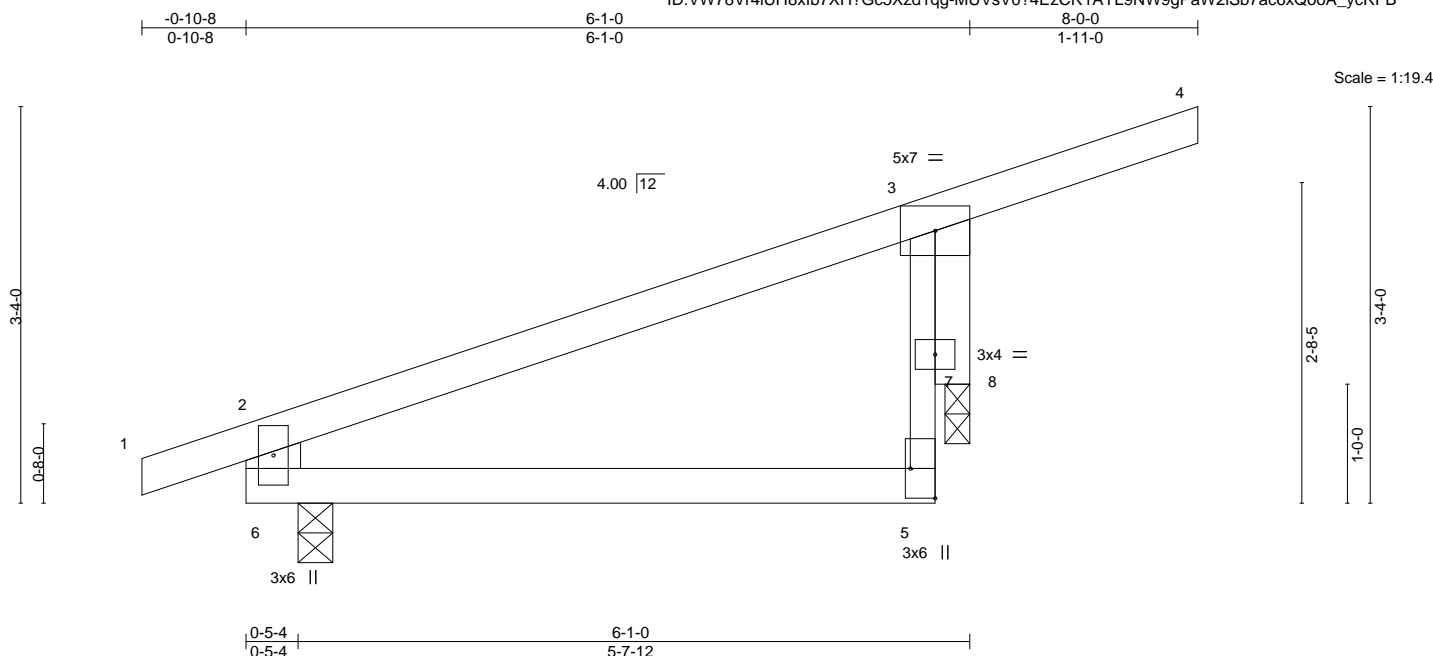


Plate Offsets (X,Y)-- [5:Edge,0-2-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.02 5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.05 5-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00 8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01 5-6	>999	240	Weight: 21 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x3 SPF No.2 \*Except\*  
 2-6: 2x6 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.

(size) 6=0-3-8, 8=0-2-8  
 Max Horz 6=114(LC 5)  
 Max Uplift 6=62(LC 4), 8=131(LC 8)  
 Max Grav 6=318(LC 1), 8=412(LC 1)

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

TOP CHORD 2-6=-277/107  
 WEBS 3-8=-264/104

#### 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) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=131.
- 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.



September 18, 2020

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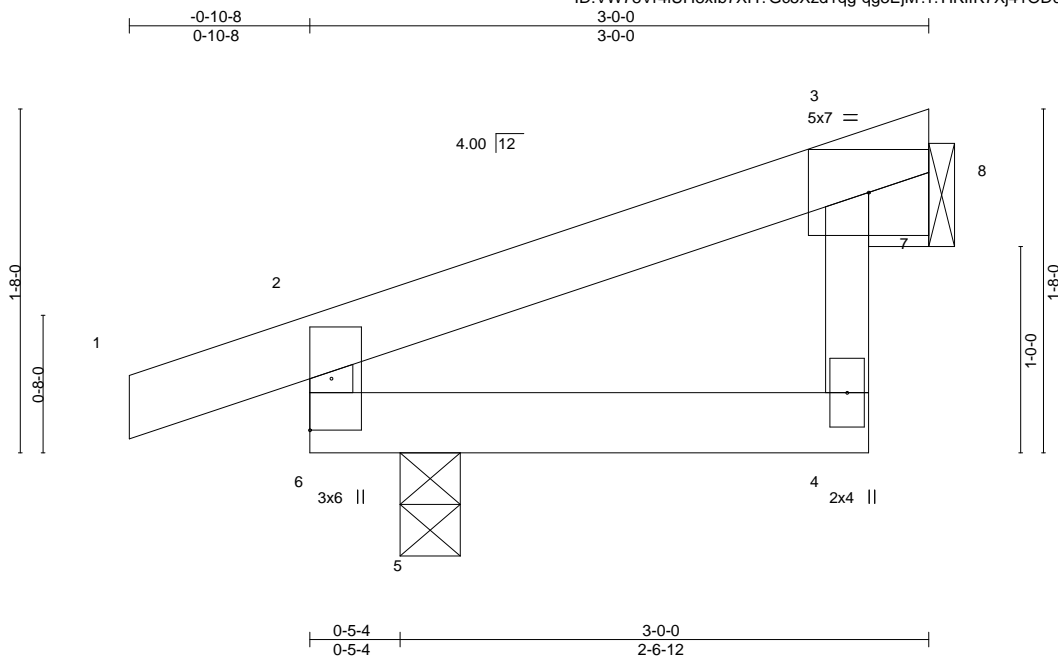
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869870
400570	C3	Monopitch	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:39:47 2020 Page 1  
ID:VW78Vr4IUH8xb7XH?Gc5Xzd1qg-qg3EjM?i?HKIfK7Xj41ODc6lF9ncs1VGA4XLiRycRFA



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 0.10	Vert(LL)	0.00	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	0.00	4-5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	-0.00	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	4-5	>999	240	
								Weight: 9 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

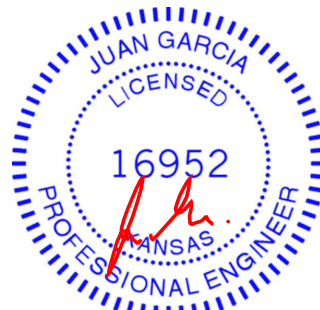
(size) 5=0-3-8, 8=Mechanical  
Max Horz 5=53(LC 5)  
Max Uplift 5=-87(LC 4), 8=-14(LC 8)  
Max Grav 5=248(LC 1), 8=45(LC 1)

#### FORCES.

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

#### NOTES-

- 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.
- 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) 5, 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.



September 18, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869871
400570	D1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:39:48 2020 Page 1  
ID:VW78Vr4lUH8xlb7XH?Gc5Xzd1qg-Isdcwh0KlaS9GUiH0YdmqfwlZ9LbT9POkHvEtycRF9

0-10-8 12-3-0 24-6-0 25-4-8  
0-10-8 12-3-0 12-3-0 0-10-8

Scale = 1:46.0

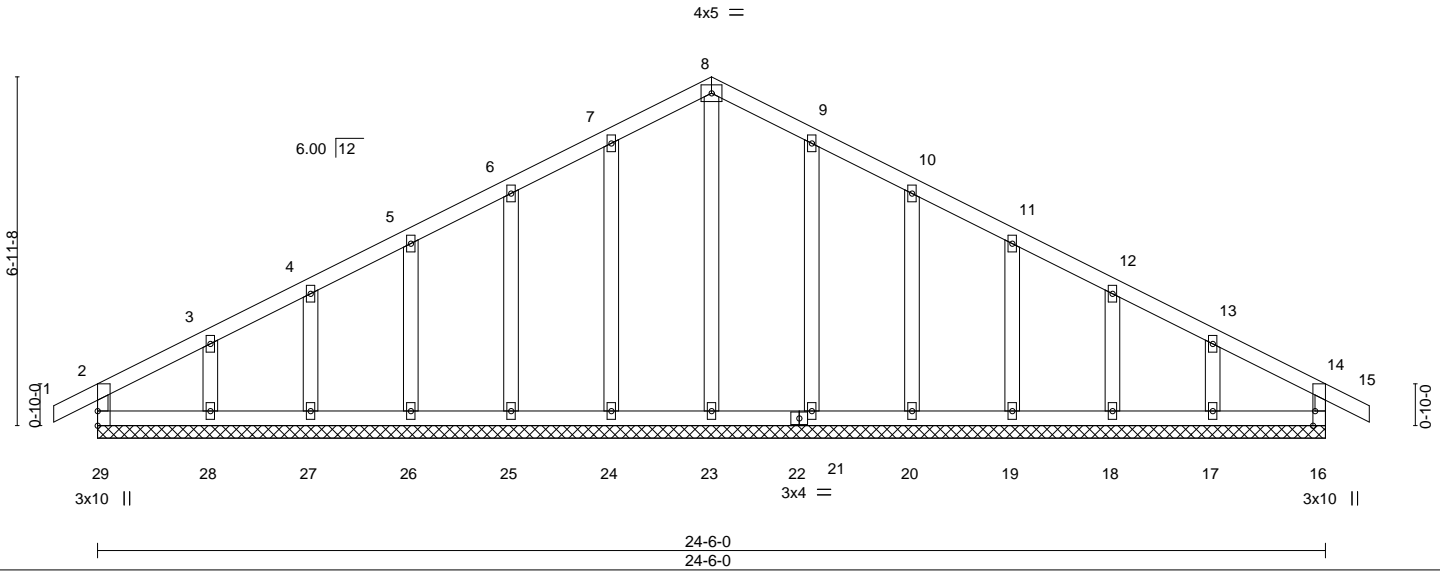


Plate Offsets (X,Y)-- [16:0-3-8,Edge]

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 0.08	Vert(LL)	-0.00	15	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	15	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 108 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 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 24-6-0.  
(lb) - Max Horz 29=106(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 29, 16, 24, 25, 26, 27, 28, 21, 20, 19, 18, 17  
Max Grav All reactions 250 lb or less at joint(s) 29, 16, 23, 24, 25, 26, 27, 28, 21, 20, 19, 18, 17

**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; 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
- 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) 29, 16, 24, 25, 26, 27, 28, 21, 20, 19, 18, 17.
- 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.



September 18, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869872
400570	D2	Common	7	1		

Wheeler Lumber, Waverly, KS 66871

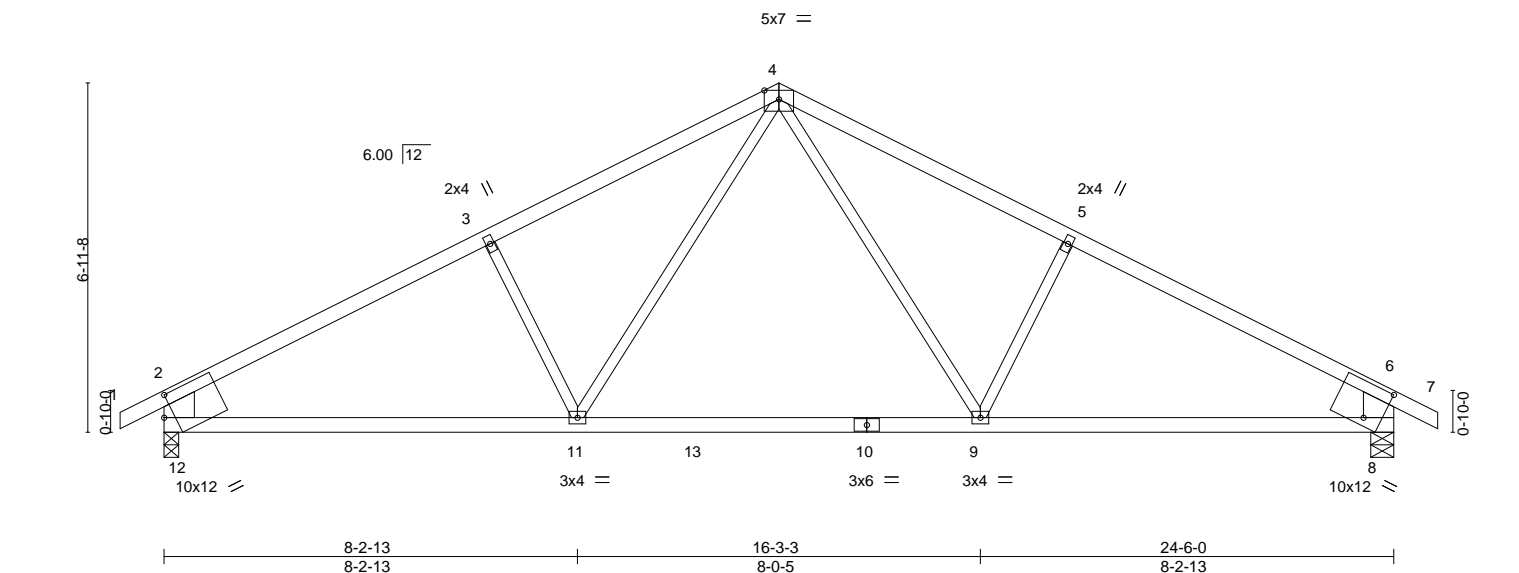
8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:39:49 2020 Page 1

ID:VW78Vr4lUH8xlb7XH?Gc5Xzd1qg-n3B\_711yWua0udHvrV3sl1Bw?zJsKu9YdO0SnJycRF8

Job Reference (optional)

0-10-8 6-5-15 12-3-0 18-0-1 24-6-0 25-4-8  
0-10-8 6-5-15 5-9-1 5-9-1 6-5-15 0-10-8

Scale = 1:45.9



Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869873
400570	E1	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4lUH8xlb7XH?Gc5Xzd1qg-FFIMLN2aHCisWns6ODb5rFk8HNgw39Gis2m0JlycRF7

Job Reference (optional)

0-10-8 7-6-4 14-3-0 20-11-12 28-2-14  
0-10-8 7-6-4 6-8-12 6-8-12 7-3-2

Scale = 1:55.8

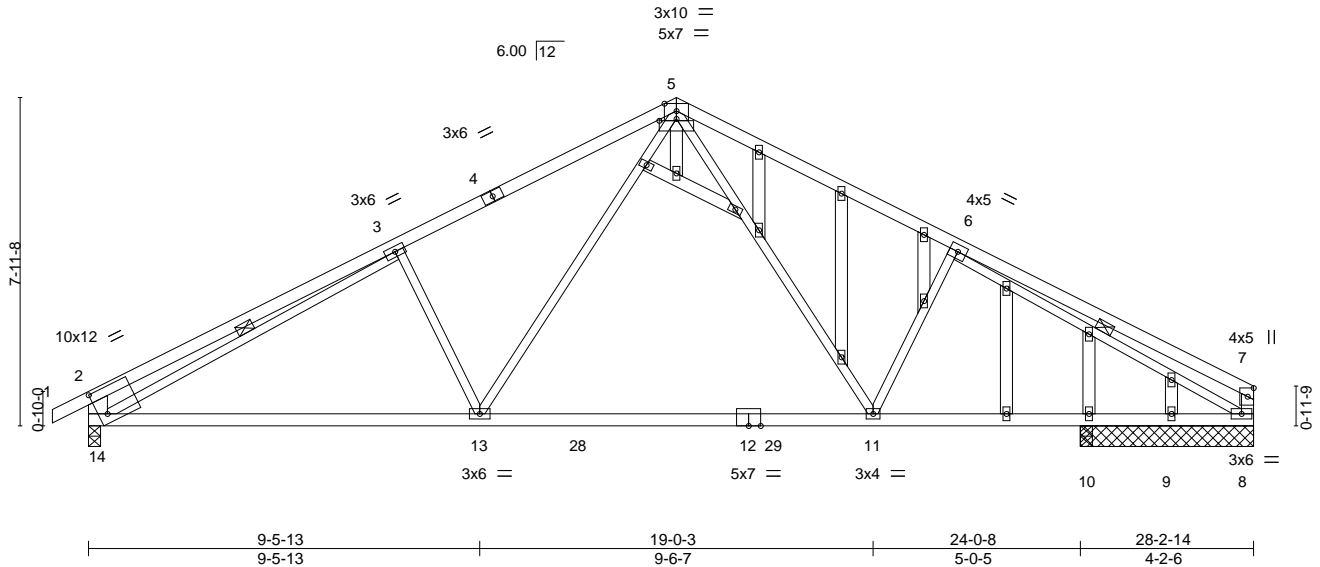


Plate Offsets (X,Y)-- [2:0-2-8,0-7-5], [5:0-5-0,0-0-8]

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 0.62	Vert(LL)	-0.30 11-13	>962	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.49 11-13	>592	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.97	Horz(CT)	0.06 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 11-13	>999	240	Weight: 127 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
12-14: 2x4 SPF 2100F 1.8E  
WEBS 2x3 SPF No.2 \*Except\*  
2-14: 2x6 SPF No.2, 7-8,26-27: 2x4 SPF No.2  
OTHERS 2x4 SPF No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-6-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 3-14, 6-8

**REACTIONS.** All bearings 4-2-6 except (jt=length) 14=0-3-8.  
(lb) - Max Horz 14=128(LC 5)  
Max Uplift All uplift 100 lb or less at joint(s) 9 except 14=187(LC 8), 8=202(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 10, 10, 9 except 14=1370(LC 2), 8=1226(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-803/258, 3-5=-1871/308, 5-6=-1794/327, 6-7=-480/193, 2-14=-644/232, 7-8=-395/165  
BOT CHORD 13-14=-260/1710, 11-13=-73/1180, 10-11=-180/1633, 9-10=-180/1633, 8-9=-180/1633  
WEBS 3-13=-407/266, 5-13=-138/799, 5-11=-171/673, 6-11=-399/269, 3-14=-1260/67, 6-8=-1535/92

#### 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 14=187, 8=202.
- 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.



September 18,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869874
400570	E2	Common	1	1		

Wheeler Lumber, Waverly, KS 66871

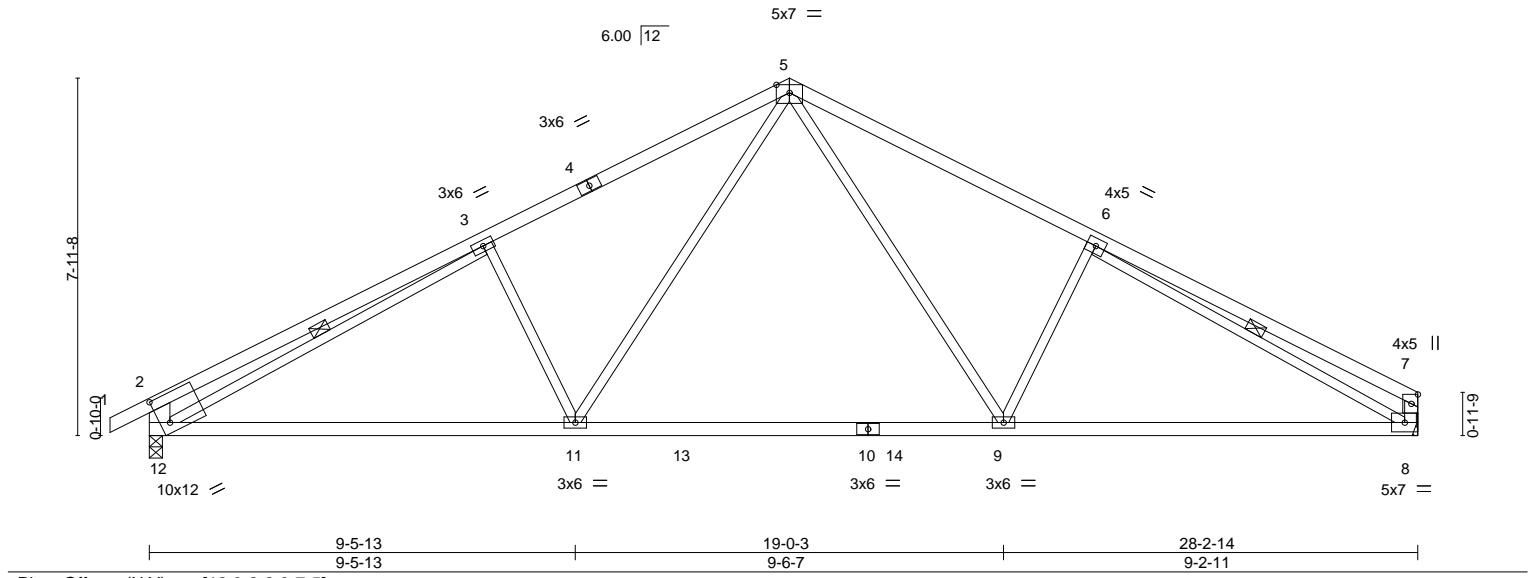
8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:39:52 2020 Page 1

ID:VW78Vr4IUH8xb7XH?Gc5Xzd1qg-Bes7m33rppya50UWedZwgpUmAlbX3k?JMF6NeycRF5

Job Reference (optional)

0-10-8 7-6-4 14-3-0 20-11-12 28-2-14  
0-10-8 7-6-4 6-8-12 6-8-12 7-3-2

Scale = 1:51.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.31	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.47				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.07				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07				

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-5-15 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	2x3 SPF No.2 *Except*	WEBS	1 Row at midpt
	2-12: 2x6 SPF No.2, 7-8: 2x4 SPF No.2		3-12, 6-8

REACTIONS.	
(size)	12=0-3-8, 8=Mechanical
Max Horz	12=128(LC 5)
Max Uplift	12=181(LC 8), 8=154(LC 9)
Max Grav	12=1389(LC 2), 8=1323(LC 2)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-807/254, 3-5=-1901/298, 5-6=-1890/298, 6-7=-534/142, 2-12=-646/230, 7-8=-415/143
BOT CHORD	11-12=-252/1736, 9-11=-60/1219, 8-9=-154/1719
WEBS	3-11=-405/267, 5-11=-145/777, 5-9=-145/759, 6-9=-398/267, 3-12=-1282/63, 6-8=-1537/116

- 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.
  - 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) except (jt=lb) 12=181, 8=154.
  - 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.



September 18, 2020

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Chesterfield, MO 63017

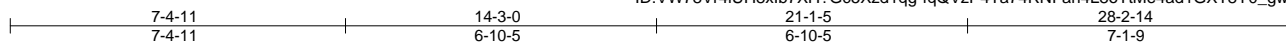


Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869875
400570	E3	Common	6	1		

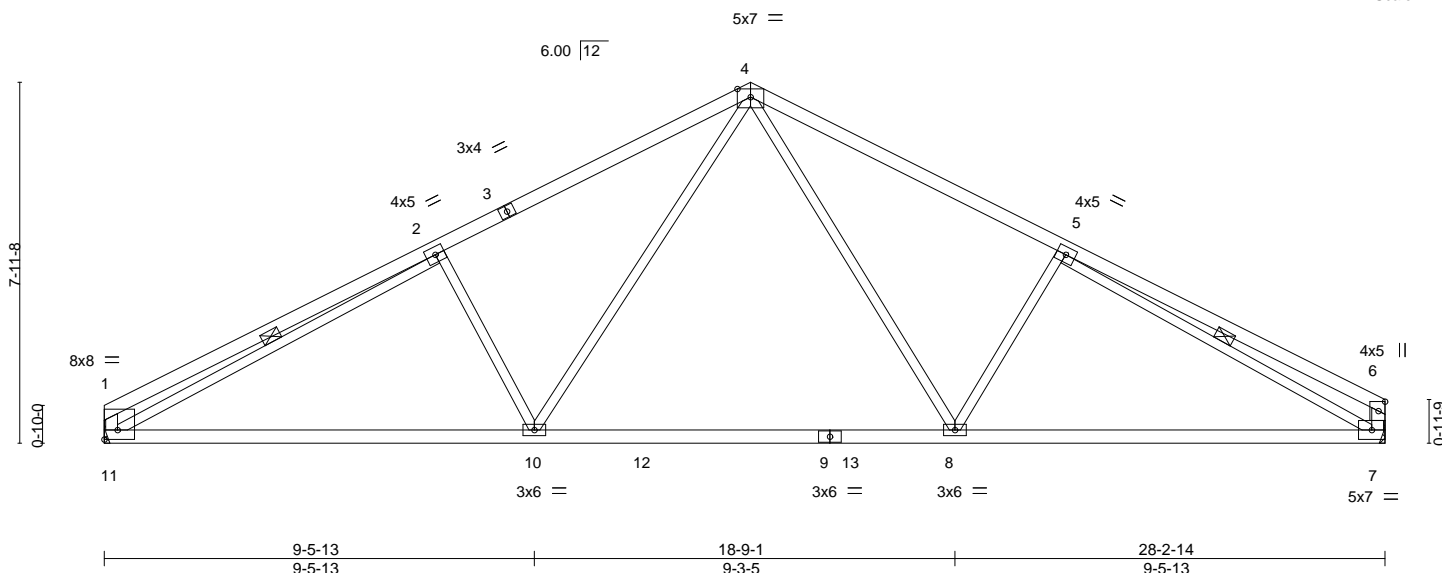
Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4IUH8xlb7XH?Gc5Xzd1qg-fqQVzP4Ta74RNFah4L8oTiMe4ad1GXT8Y0\_gw4ycRF4



Scale = 1:50.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.28 8-10 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.42 8-10 >794 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.07 7 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05 8-10 >999 240				
								Weight: 104 lb		FT = 10%	

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
1-11,6-7: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 11=Mechanical, 7=Mechanical  
Max Horz 11=101(LC 7)  
Max Uplift 11=-15(LC 8), 7=-14(LC 9)  
Max Grav 11=1327(LC 2), 7=1327(LC 2)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-683/67, 2-4=-1922/91, 4-5=-1873/84, 5-6=-547/58, 1-11=-474/71, 6-7=-406/65  
BOT CHORD 10-11=-52/1803, 8-10=0/1240, 7-8=0/1720  
WEBS 2-10=-428/171, 4-10=-41/785, 4-8=-32/733, 5-8=-396/168, 2-11=-1442/0, 5-7=-1537/0

#### 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.



September 18,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	142869876
400570	E4	Roof Special	1	1	Job Reference (optional)	

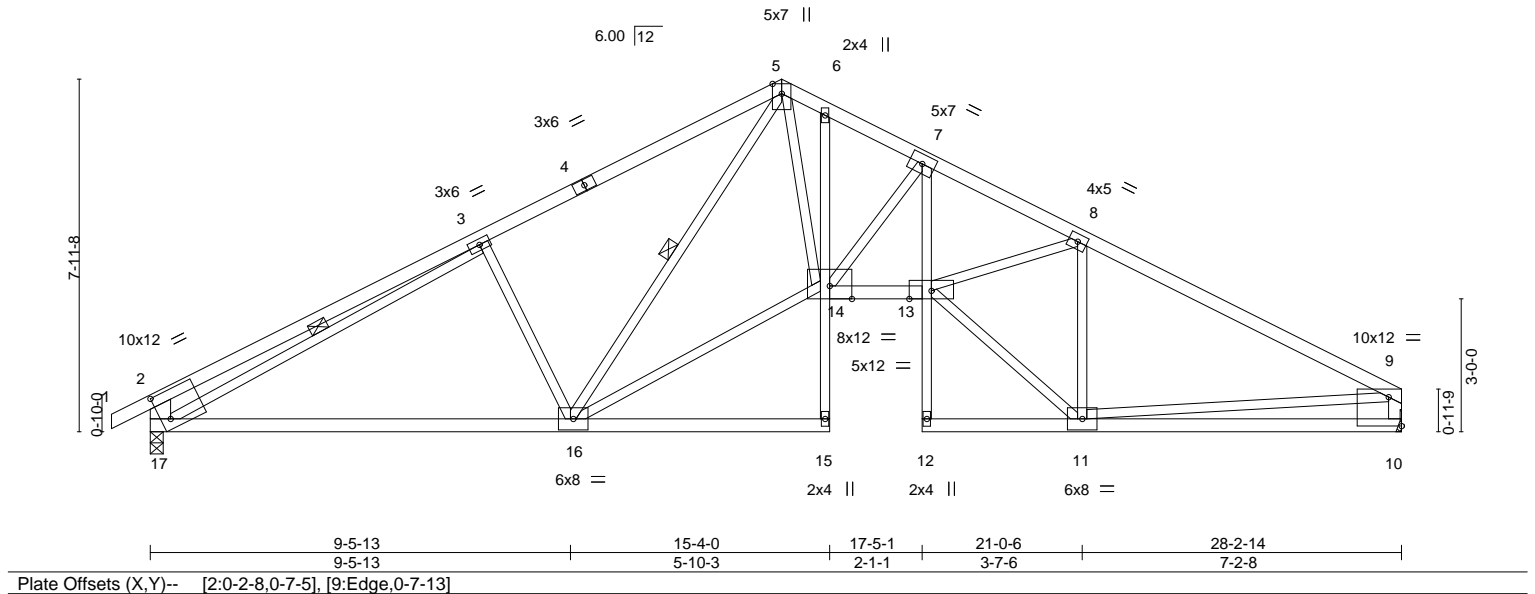
Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg-70\_tBI55LQCl\_P9td2f1?5vnn\_1s?0fngkDSXycRF3

0-10-8	7-6-4	14-3-0	15-4-0	17-5-1	21-0-6	28-2-14
0-10-8	7-6-4	6-8-12	1-1-0	2-1-1	3-7-6	7-2-8

Scale = 1:52.0



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 0.78	Vert(LL)	-0.21 16-17	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.44 16-17	>766	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.75	Horz(CT)	0.23 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08 12	>999	240	Weight: 125 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
6-15,7-12: 2x3 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-17: 2x6 SPF No.2, 9-10: 2x4 SPF No.2

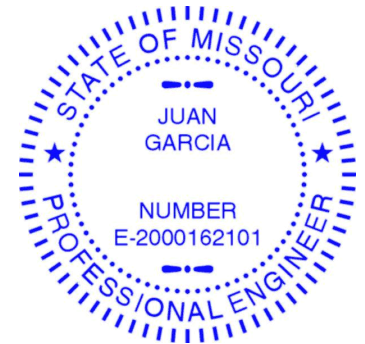
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-16, 3-17

**REACTIONS.** (size) 10=Mechanical, 17=0-3-8  
Max Horz 17=109(LC 7)  
Max Uplift 10=-14(LC 9), 17=-26(LC 8)  
Max Grav 10=1252(LC 1), 17=1333(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-815/125, 3-5=-1754/91, 5-6=-2225/22, 6-7=-2349/24, 7-8=-3229/0, 8-9=-1917/34,  
2-17=-648/115, 9-10=-1177/53  
BOT CHORD 16-17=-47/1633, 13-14=0/2816, 7-13=0/1204, 10-11=-34/364  
WEBS 3-16=-401/165, 5-16=-476/0, 14-16=0/1912, 5-14=0/1734, 7-14=-1223/22, 11-13=0/2137,  
8-13=0/1251, 8-11=-1438/48, 3-17=-1169/0, 9-11=0/1262

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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); 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.
- 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) 10, 17.
- 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.



September 18, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869877
400570	E5	Roof Special	1	1		

Wheeler Lumber, Waverly, KS 66871

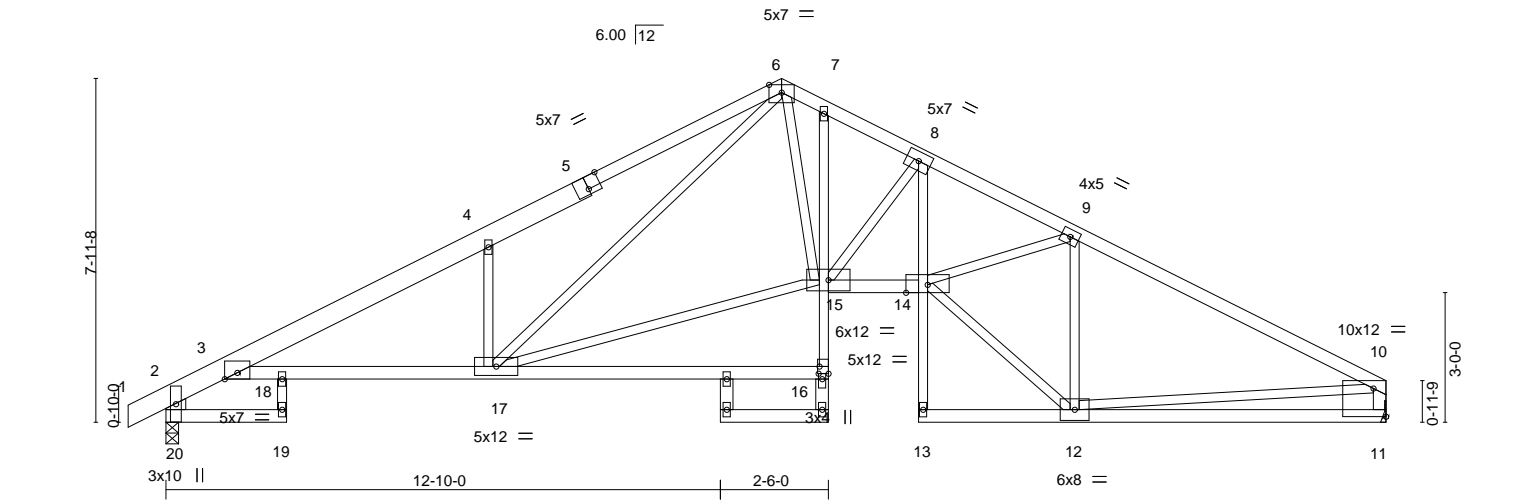
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ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg-bCYFO56j6kK9cYk3BmAGYIRyZONskTCR?KTn\_zycRF2

Job Reference (optional)

0-10-8	2-9-8	7-5-9	14-3-0	15-4-0	17-5-1	21-0-6	28-2-14
0-10-8	2-9-8	4-8-1	6-9-7	1-1-0	2-1-1	3-7-6	7-2-8

Scale = 1:53.3



	2-9-8	7-5-9	14-3-0	15-4-0	17-5-1	21-0-6	28-2-14
	2-9-8	4-8-1	6-9-7	1-1-0	2-1-1	3-7-6	7-2-8

Plate Offsets (X,Y)-- [5:0-3-8,Edge], [10:Edge,0-7-13], [16:Edge,0-2-8], [16:0-1-8,0-1-0]

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 0.78	Vert(LL)	-0.22	14-15	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.41	16-17	>809		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.73	Horz(CT)	0.36	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.12	17-18	>999	Weight: 139 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2 \*Except\*  
1-5: 2x6 SP 2400F 2.0E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
3-16: 2x4 SPF 2100F 1.8E, 7-16,8-13: 2x3 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-20: 2x6 SPF No.2, 10-11,21-23,16-22: 2x4 SPF No.2

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

**REACTIONS.** (size) 20=0-3-8, 11=Mechanical  
Max Horz 20=109(LC 5)  
Max Uplift 20=-26(LC 8), 11=-14(LC 9)  
Max Grav 20=1333(LC 1), 11=1252(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-473/55, 3-4=-2563/58, 4-6=-2643/171, 6-7=-2269/29, 7-8=-2348/25, 8-9=-3229/0, 9-10=-1917/34, 2-20=-1346/49, 10-11=-1177/53  
BOT CHORD 3-18=-58/2289, 17-18=-58/2289, 14-15=0/2815, 8-14=0/1209, 11-12=-34/364  
WEBS 4-17=-715/196, 6-17=-168/790, 6-15=0/1407, 8-15=-1217/21, 12-14=0/2138, 9-14=0/1250, 9-12=-1438/47, 10-12=0/1262, 15-17=0/1795

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - 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); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - All plates are 2x4 MT20 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.
  - 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) 20, 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.



September 18,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869878
400570	E6	Roof Special	1	1	Job Reference (optional)	

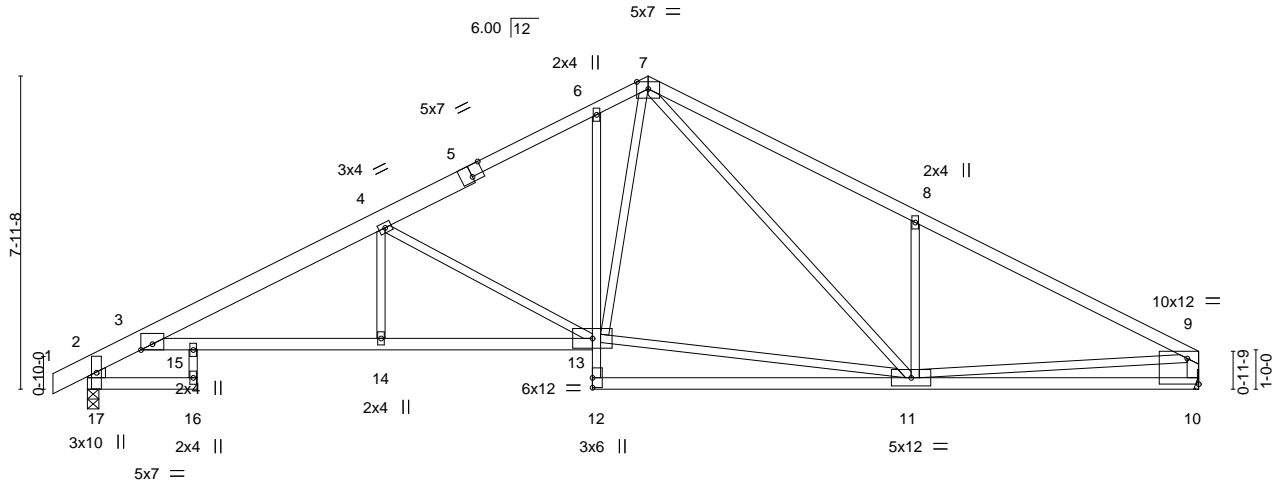
Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4IUH8xb7XH?Gc5Xzd1qg-3P6dcR6L2S0EiJGITHv4W\_9ZnliTsuaE\_DKWPycRF1

0-10-8	2-9-8	7-5-9	12-10-0	14-3-0	21-0-7	28-2-14
0-10-8	2-9-8	4-8-1	5-4-8	1-5-0	6-9-7	7-2-7

Scale = 1:58.6



2-9-8	7-5-9	12-10-0	21-0-7	28-2-14
2-9-8	4-8-1	5-4-8	8-2-7	7-2-7

Plate Offsets (X,Y)-- [5:0-3-8,Edge], [9:Edge,0-7-13]

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 0.64	Vert(LL)	-0.18 14-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.34 14-15	>994	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.96	Horz(CT)	0.22 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10 14-15	>999	240	Weight: 128 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
1-5: 2x6 SP 2400F 2.0E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
3-13: 2x4 SPF 2100F 1.8E, 6-12: 2x3 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
2-17: 2x6 SPF No.2, 9-10: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 17=0-3-8, 10=Mechanical  
Max Horz 17=109(LC 5)  
Max Uplift 17=-26(LC 8), 10=-14(LC 9)  
Max Grav 17=1333(LC 1), 10=1252(LC 1)

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

TOP CHORD 2-3=-474/56, 3-4=-2569/52, 4-6=-1747/57, 6-7=-1569/95, 7-8=-1941/145, 8-9=-1946/34,  
2-17=-1347/50, 9-10=-1183/50  
BOT CHORD 3-15=-49/2295, 14-15=-49/2295, 13-14=-49/2295, 10-11=-32/326  
WEBS 4-14=0/311, 4-13=-991/111, 11-13=0/1175, 7-13=-53/798, 7-11=-125/632,  
8-11=-530/182, 9-11=0/1332

#### 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.
- 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) 17, 10.
- 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.



September 18, 2020

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Chesterfield, MO 63017

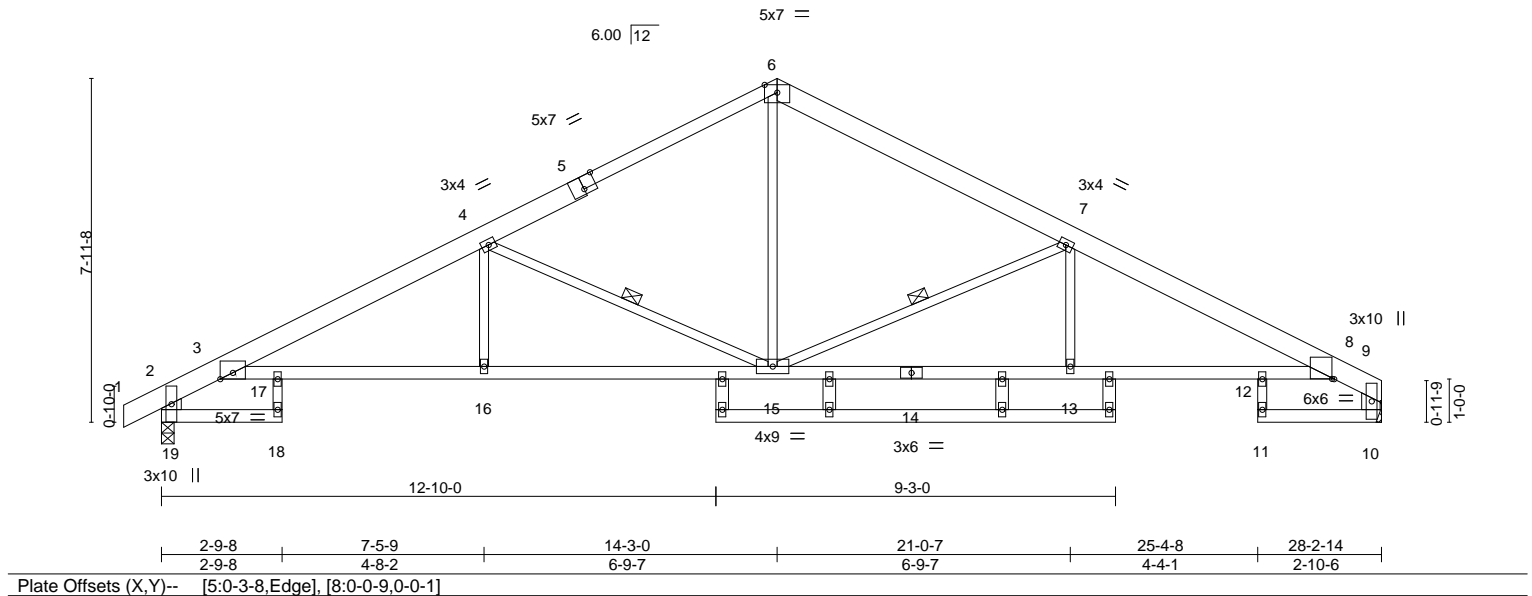
Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869879
400570	E7	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:39:57 2020 Page 1  
ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg-Ybg0pm7zeLbtrsuSJBdKdjXLCB51CQhkTeyt3rycRF0

0-10-8	2-9-8	7-5-9	14-3-0	21-0-7	25-4-8	28-2-14
0-10-8	2-9-8	4-8-2	6-9-7	6-9-7	4-4-1	2-10-6

Scale = 1:53.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.18 16-17 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.35 16-17 >949 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.35 10 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11 16-17 >999 240				
								Weight: 144 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SP 2400F 2.0E *Except* 5-6: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-5-14 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2 *Except* 3-14,8-14: 2x4 SPF 2100F 1.8E	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
WEBS	2x3 SPF No.2 *Except* 2-19,9-10: 2x6 SPF No.2, 20-22,21-23,24-25,26-27: 2x4 SPF No.2	WEBS	10-0-0 oc bracing: 13-15 1 Row at midpt 4-15, 7-15

REACTIONS.	
(size)	19=0-3-8, 10=Mechanical
Max Horz	19=108(LC 5)
Max Uplift	19=-27(LC 8), 10=-14(LC 9)
Max Grav	19=1329(LC 1), 10=1249(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-472/57, 3-4=-2564/64, 4-6=-1643/48, 6-7=-1616/60, 7-8=-2512/30, 8-9=-438/11, 2-19=-1342/49, 9-10=-1254/34
BOT CHORD	3-17=-63/2292, 16-17=-63/2292, 15-16=-63/2292, 13-15=0/2231, 12-13=0/2231, 8-12=0/2231
WEBS	4-16=0/308, 4-15=-1053/145, 6-15=0/986, 7-15=-997/115, 7-13=0/306

- 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
  - All plates are 2x4 MT20 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.
  - 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) 19, 10.
  - 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.



September 18, 2020

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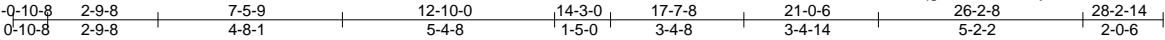


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869880
400570	E8	Roof Special	1	1		
Job Reference (optional)						

Wheeler Lumber,
Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc.
Fri Sep 18 09:39:58 2020
Page 1
ID:VW78Vr4IUH8xlb7XH?Gc5Xzd1qg-0nEO068bPfjkT0TesukzAx3YBbU3xbthHiRblycRF?



Scale = 1:58.3

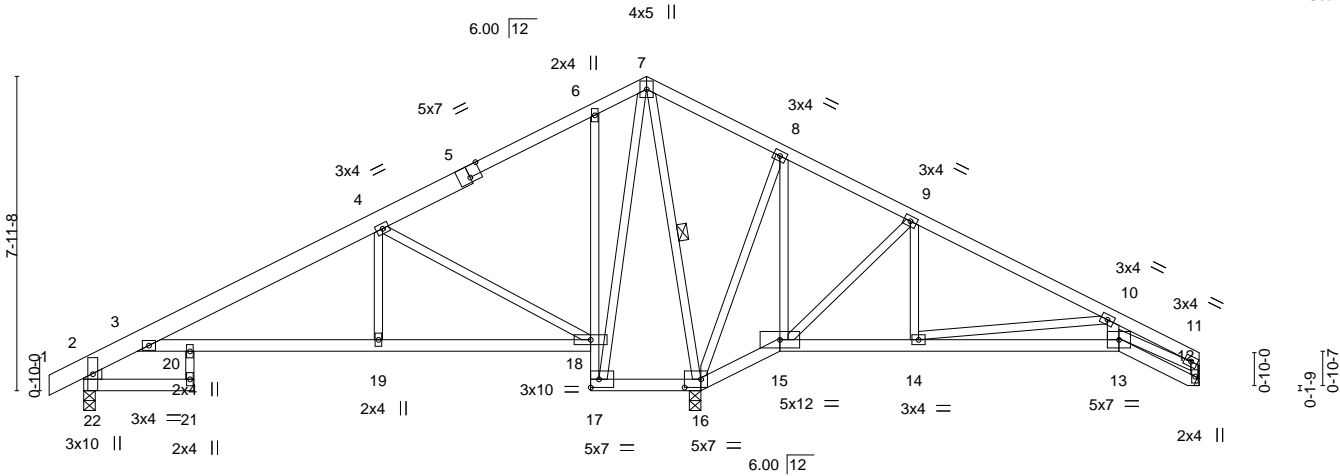


Plate Offsets (X,Y)--	[5:0-3-8,Edge], [16:0-5-0,0-2-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.09	19-20	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.40	Vert(CT)	-0.18	19-20	>999	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.07	12	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10	19-20	>999	240	
								Weight: 127 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2 *Except* 1-5: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-8-8 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 6-17: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 5-7-2 oc bracing.
WEBS 2x3 SPF No.2 *Except* 10-13: 2x4 SPF No.2, 2-22: 2x6 SPF No.2	WEBS 1 Row at midpt 7-16

<b>REACTIONS.</b>	(size) 12=Mechanical, 22=0-3-8, 16=0-3-8
	Max Horz 22=128(LC 8)
	Max Uplift 12=-136(LC 9), 22=-108(LC 8), 16=-162(LC 8)
	Max Grav 12=383(LC 22), 22=584(LC 21), 16=1763(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	3-4=-640/145, 4-6=0/313, 6-7=0/282, 7-8=0/617, 8-9=-4/480, 9-10=-293/289, 10-11=-1031/403, 11-12=-366/140, 2-22=-575/140
BOT CHORD	3-20=-166/549, 19-20=-166/549, 18-19=-166/549, 17-18=-656/231, 16-17=-307/83, 15-16=-457/132, 13-14=-352/867
WEBS	4-19=0/267, 4-18=-780/250, 7-17=-206/659, 7-16=-1128/138, 8-16=-463/179, 8-15=-76/286, 9-15=-517/152, 9-14=0/269, 10-14=-677/241, 11-13=-337/872

- 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.
  - 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) except (jt=lb) 12=136, 22=108, 16=162.
  - 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.



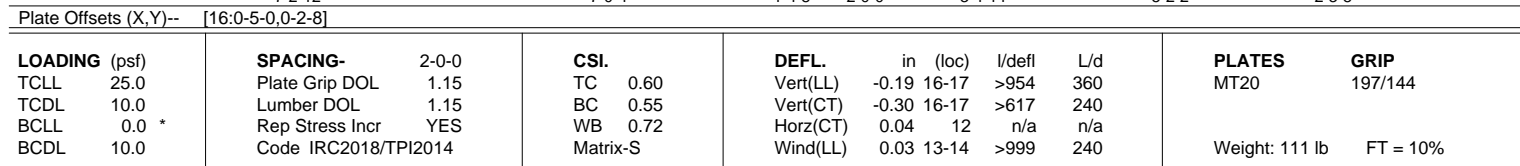
September 18,2020

Wheeler Lumber, Waverly, KS 66871 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:39:59 2020 Page 1

ID:VW78Vr4lUH8xlb7XH?Gc5Xzd1qg-U\_nmES9EAzrb5A2qQcFCi8cgl?o?gHN1wxR\_7kycRF\_

-0-10-8	7-5-9	14-3-0	17-7-8	21-0-6	26-2-8	28-6-0	29-4-8
0-10-8	7-5-9	6-9-7	3-4-8	3-4-14	5-2-2	2-3-8	0-10-8

Scale = 1:52.8




**REACTIONS.** (size) 12=0-3-8, 18=0-3-8, 16=0-3-8  
 Max Horz 18=122(LC 7)  
 Max Uplift 12=-108(LC 9), 18=-155(LC 8), 16=-131(LC 9)  
 Max Grav 12=421(LC 22), 18=631(LC 21), 16=1884(LC 2)

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

**TOP CHORD** 2-3=-661/191, 3-5=-671/366, 5-6=0/643, 6-8=0/524, 9-10=-961/246, 10-12=-399/112,  
2-18=-567/195

**BOT CHORD** 17-18=-186/491, 16-17=-350/174, 15-16=-538/147, 13-14=-193/801

**WEBS** 3-17=-544/310, 5-17=-279/1038, 5-16=-1148/93, 6-16=-410/128, 8-15=-542/146,  
8-14=0/296, 9-14=-711/223, 9-13=0/263, 10-13=-191/813

The seal of the State of Missouri is located in the bottom right corner. It is a circular emblem with a blue border containing the words "STATE OF MISSOURI" in white capital letters. Inside the circle, there is a smaller blue circle with the name "JUAN GARCIA" in white capital letters. The seal is partially cut off by the right edge of the page.

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) 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) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=108, 18=155, 16=131.
- 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.



September 18, 2020



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869882
400570	E10	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4IUH8xlb7XH?Gc5Xzd1qg-jRikYj2C2Vqj7xRlyw6KNSHMim7loh?r4iVZrCycRF6

-0-10-8 14-3-0 15-7-8 21-0-6 26-2-8 28-6-0 29-4-8  
0-10-8 14-3-0 1-4-8 5-4-14 5-2-2 2-3-8 0-10-8

Scale = 1:53.8

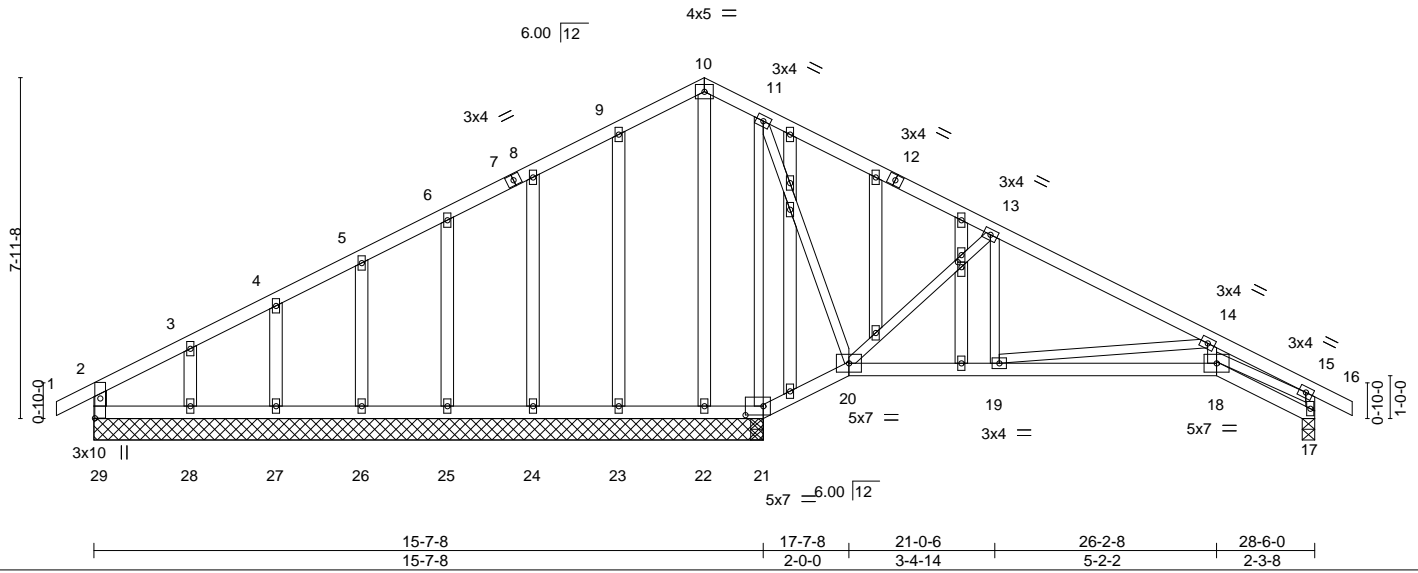


Plate Offsets (X,Y)-- [21:0-5-0,0-2-8], [29:0-5-9,0-1-8], [37:0-1-6,0-1-0]

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 0.39	Vert(LL)	-0.04 18-19	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.09 18-19	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.68	Horz(CT)	0.04 17	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03 18-19	>999	240	Weight: 146 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-9-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
WEBS 2x3 SPF No.2 *Except*	10-0-0 oc bracing: 19-20,18-19,17-18.
2-29: 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	

**REACTIONS.** All bearings 15-7-8 except (jt=length) 17=0-3-8.  
(lb) - Max Horz 29=122(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 17, 23, 24, 25, 26, 27 except 29=224(LC 22), 21=265(LC 9), 28=115(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 29, 23, 24, 25, 26, 27 except 17=451(LC 1), 21=802(LC 22), 21=799(LC 1), 22=325(LC 1), 28=334(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-136/431, 3-4=-74/392, 4-5=-33/402, 5-6=0/400, 6-8=0/400, 8-9=0/403, 9-10=0/387, 10-11=0/341, 11-13=0/359, 13-14=-271/95, 14-15=-1041/163, 15-17=-434/91  
BOT CHORD 28-29=-331/195, 27-28=-331/195, 26-27=-331/195, 25-26=-331/195, 24-25=-331/195, 23-24=-331/195, 22-23=-331/195, 21-22=-331/195, 20-21=-396/228, 18-19=-120/865  
WEBS 11-21=-565/179, 11-20=0/278, 13-20=-595/183, 13-19=0/279, 14-19=-688/188, 14-18=0/265, 15-18=-116/869, 10-22=-314/0

#### 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) 17 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) 17, 23, 24, 25, 26, 27 except (jt=lb) 29=224, 21=265, 28=115.
- 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.



September 18,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869883
400570	G1	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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-0-10-8	2-3-8	6-7-0	10-10-8	13-2-0	14-0-8
0-10-8	2-3-8	4-3-8	4-3-8	2-3-8	0-10-8

Scale = 1:27.9

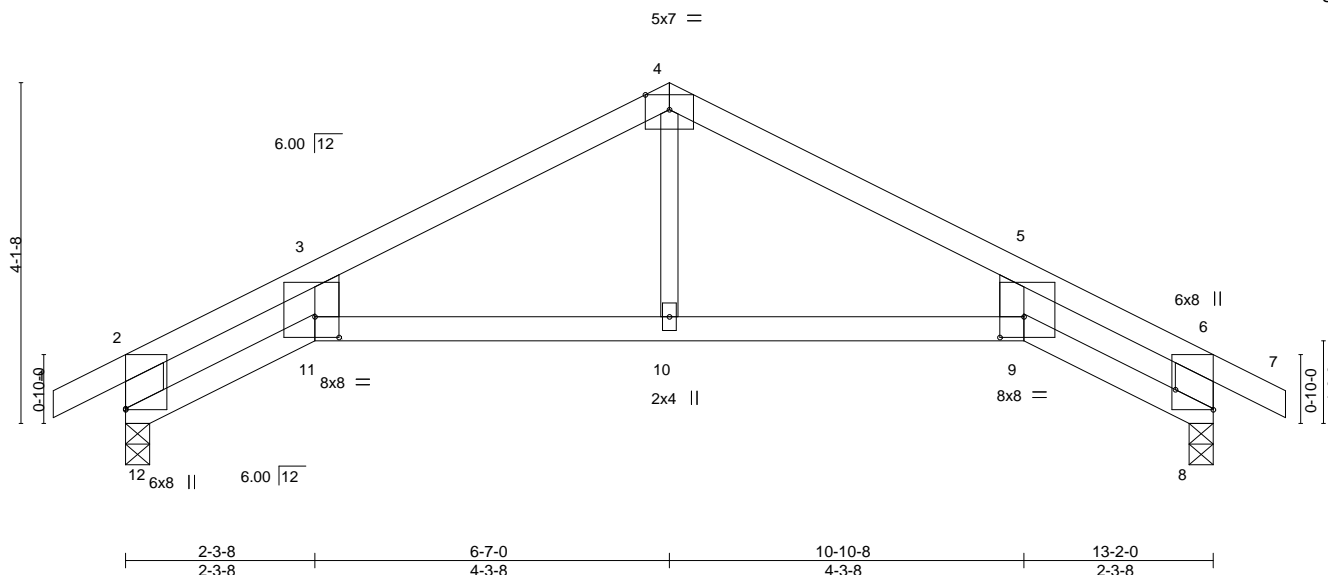


Plate Offsets (X,Y)--		[6:Edge,0-5-8], [9:0-3-8,0-3-0], [11:0-3-8,0-3-0]							
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	L/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.15 9-10	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.27 9-10	>571	240
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.27 8	n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.14 10-11	>999	240
						<b>PLATES</b>	<b>GRIP</b>		
						MT20	197/144		
						Weight: 40 lb	FT = 10%		

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x6 SPF No.2 \*Except\*  
 4-10: 2x3 SPF No.2, 5-9,3-11: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-4-14 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=73(LC 7)  
 Max Uplift 12=-95(LC 8), 8=-95(LC 9)  
 Max Grav 12=649(LC 1), 8=649(LC 1)

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

TOP CHORD 2-12=-833/86, 2-3=-1052/35, 3-4=-855/99, 4-5=-855/120, 5-6=-1052/70, 6-8=-833/60  
 BOT CHORD 11-12=-7/815, 10-11=-29/761, 9-10=-29/761, 8-9=-23/815  
 WEBS 4-10=0/295

#### 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) 12, 8 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) 12, 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.



September 18,2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

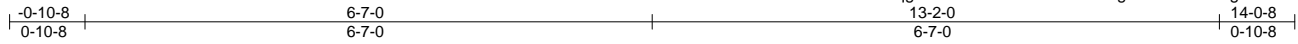


Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869884
400570	G2	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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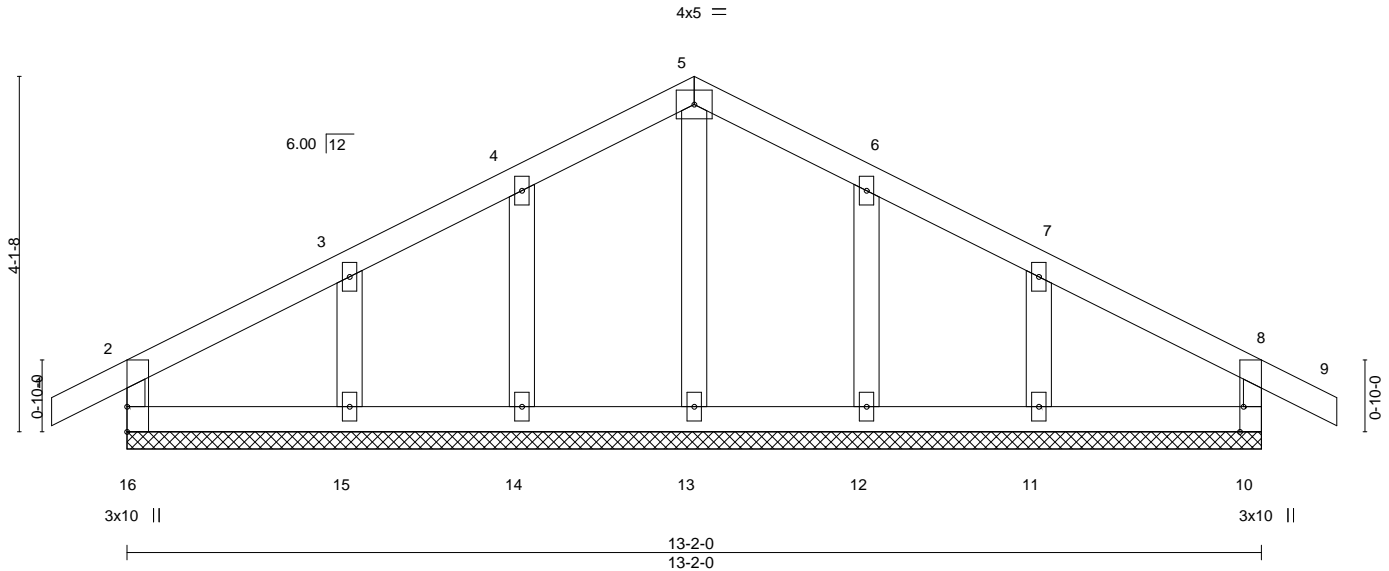


Plate Offsets (X,Y)--		[10:0-3-8,Edge]			
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL) -0.00 8 n/r 120	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) -0.00 8 n/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R		Weight: 48 lb	FT = 10%

#### LUMBER-

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

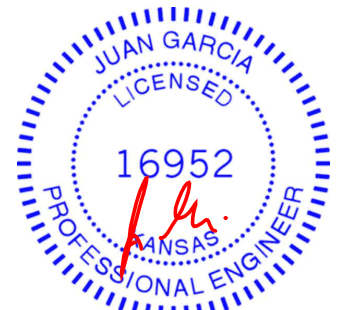
#### REACTIONS.

All bearings 13-2-0.  
(lb) - Max Horz 16=-70(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11  
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

**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; 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
- 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) 16, 10, 14, 15, 12, 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.



September 18,2020

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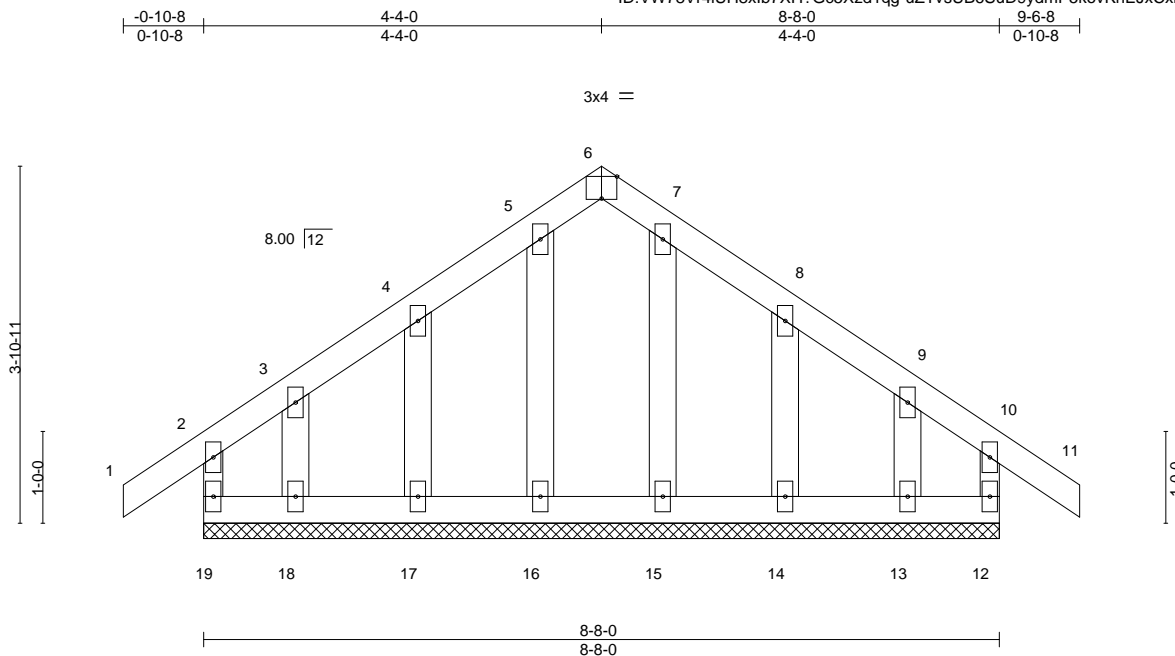


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869885
400570	H1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:02 2020 Page 1  
ID:VW78Vr4lUH8xlb7XH?Gc5Xzd1qg-uZTvsUB6SuD9ydmP5kovKnEJxCxitp6Tcvgej3ycREx



Scale = 1:25.1

Plate Offsets (X,Y)--		[6:0-2-0,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	L/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0		Plate Grip DOL	1.15	TC 0.07		Vert(LL)	-0.00 11	n/r	120	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.03		Vert(CT)	-0.00 11	n/r	120		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.02		Horz(CT)	-0.00 12	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R						Weight: 39 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 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 6-0-0 oc bracing.

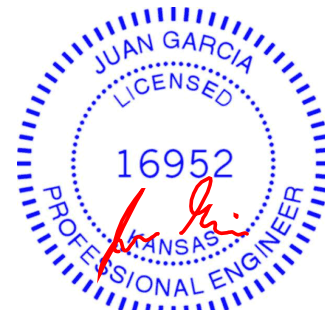
#### REACTIONS.

All bearings 8-8-0.  
(lb) - Max Horz 19=-119(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 19, 12, 18, 17, 14, 13  
Max Grav All reactions 250 lb or less at joint(s) 19, 12, 18, 17, 16, 15, 14, 13

**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 1-4-0 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) 19, 12, 18, 17, 14, 13.
- 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.



September 18,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

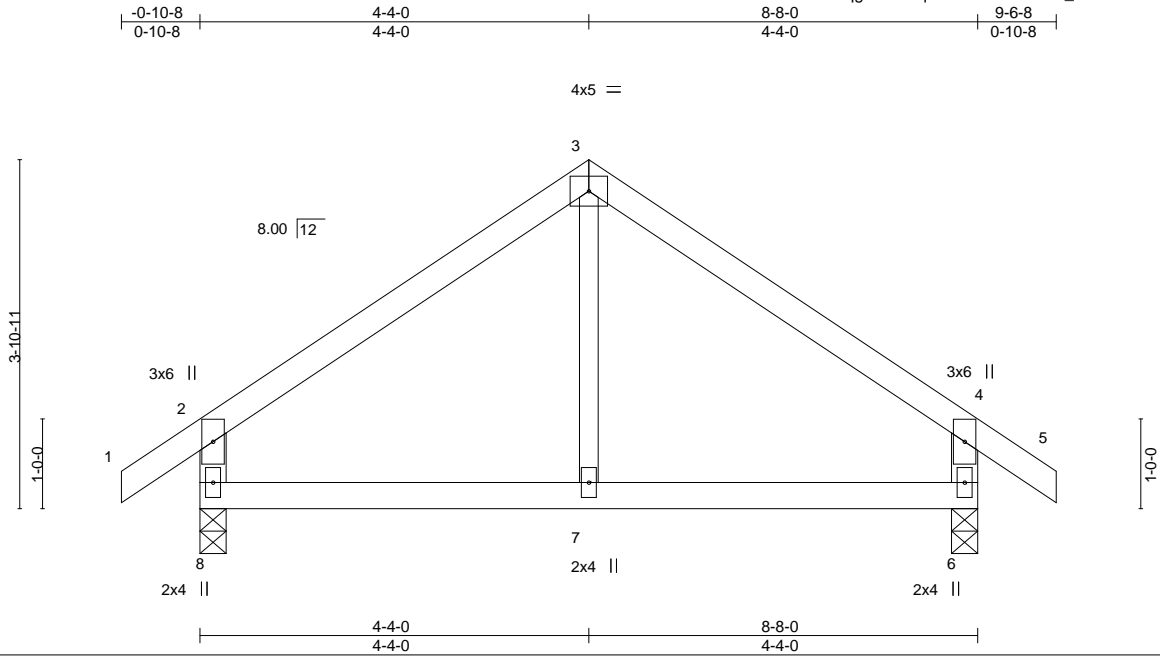
Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869886
400570	H2	Common	4	1		

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:03 2020 Page 1

ID:VW78Vr4IUH8xlb7XH?Gc5Xzd1qg-Ml1H4qCkDBL0anLcfRJ8t\_nRWcFAcGscrZQCFVycREw

Job Reference (optional)



Scale = 1:25.7

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 0.27	Vert(LL)	-0.01	7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.02	7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.01	7-8	>999	240		
									Weight: 29 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 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=120(LC 7)  
 Max Uplift 8=-64(LC 8), 6=-64(LC 9)  
 Max Grav 8=448(LC 1), 6=448(LC 1)

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

TOP CHORD 2-3=-363/73, 3-4=-363/73, 2-8=-394/98, 4-6=-394/98

#### 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) 8, 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.



September 18, 2020

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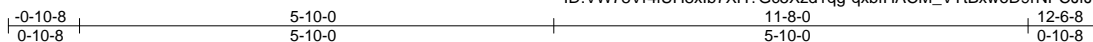
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869887
400570	H3	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

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Scale = 1:28.3

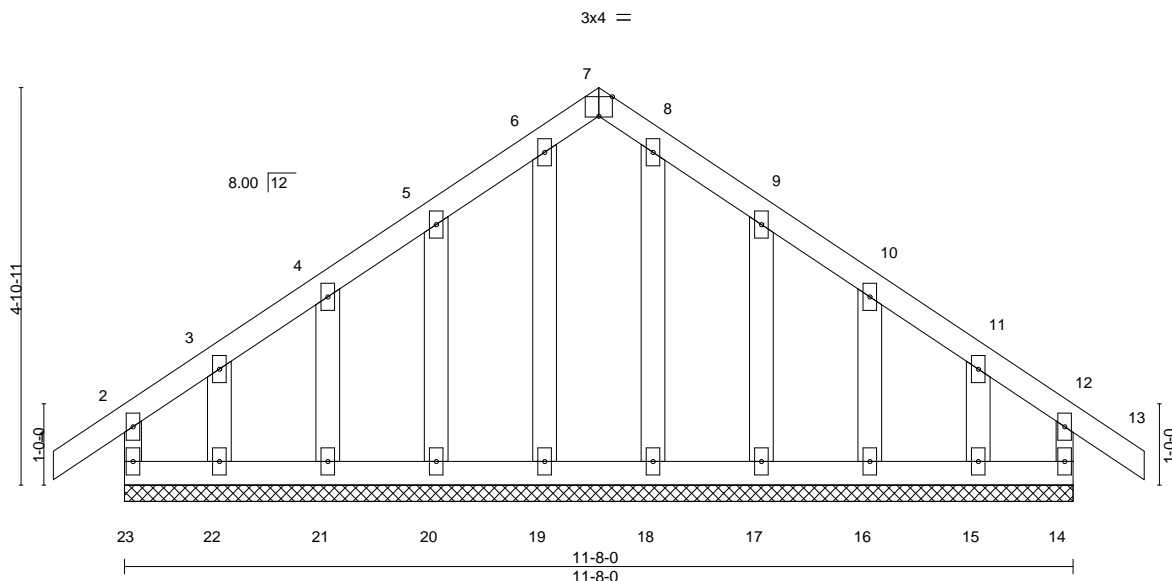


Plate Offsets (X,Y)-- [7:0-2-0,Edge]

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	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	13	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 56 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 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 6-0-0 oc bracing.

#### REACTIONS.

All bearings 11-8-0.  
(lb) - Max Horz 23=-145(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 23, 14, 22, 21, 20, 17, 16, 15  
Max Grav All reactions 250 lb or less at joint(s) 23, 14, 22, 21, 20, 19, 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 1-4-0 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) 23, 14, 22, 21, 20, 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.



September 18,2020

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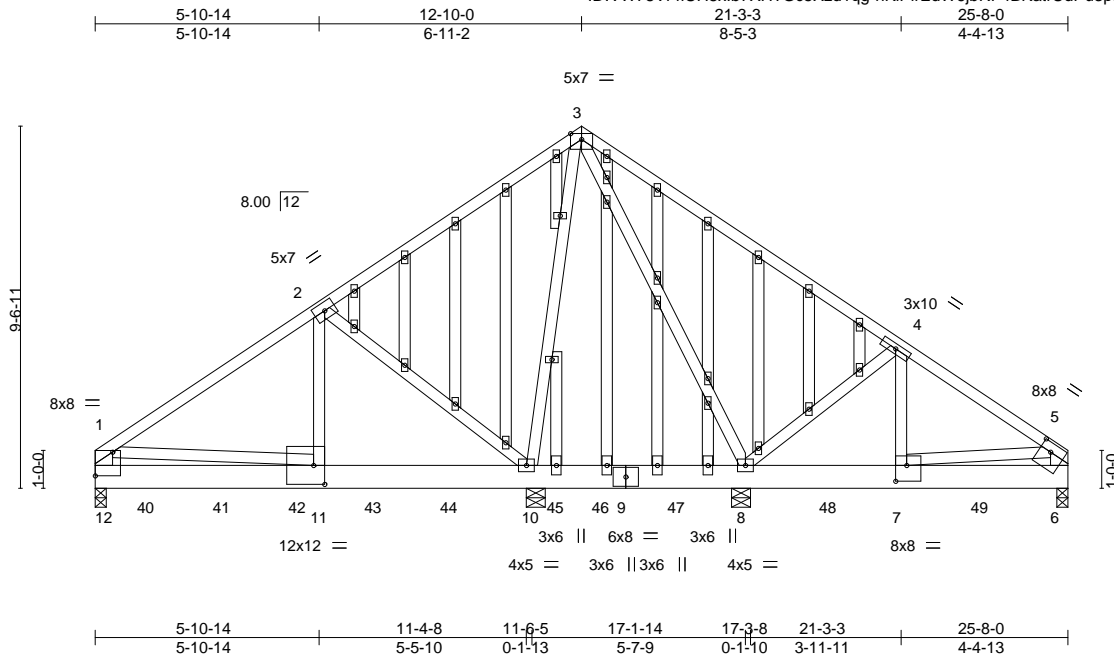
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869888
400570	H4	GABLE	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4lUH8xlb7XH?Gc5Xzd1qg-nKiPirEdW6jbRF4BKatrUdPu3pDAPtZ3XXessqycREt



Scale = 1:60.8

Plate Offsets (X,Y)-- [1:Edge,0-7-8], [5:0-3-8,0-2-12], [7:0-3-8,0-5-0], [11:0-3-8,0-6-0]											
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	0.57	Vert(LL)	-0.04 11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.07 11-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.01 6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02 11-12	>999	240	Weight: 458 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x8 SP DSS  
 WEBS 2x4 SPF No.2 \*Except\*  
 1-12,5-6: 2x6 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, Except: 6-0-0 oc bracing: 8-10.

#### REACTIONS.

All bearings 0-3-8 except (jt=length) 10=0-6-0, 8=0-6-0.  
 (lb) - Max Horz 12=-245(LC 25)  
 Max Uplift All uplift 100 lb or less at joint(s) except 12=-223(LC 8), 6=-176(LC 9), 10=-274(LC 8), 8=-262(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) except 12=3389(LC 23), 6=1962(LC 22), 10=7285(LC 2), 8=5267(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2652/121, 2-3=-76/933, 3-4=-35/994, 4-5=-1371/52, 1-12=-1646/107, 5-6=-892/36  
 BOT CHORD 11-12=-285/1526, 10-11=-205/2146, 8-10=-582/205, 7-8=-17/1135, 6-7=-7/554  
 WEBS 2-11=-47/3766, 2-10=-3623/332, 3-10=-1041/68, 3-8=-431/50, 4-8=-2368/315, 1-11=0/705, 5-7=-31/589, 4-7=-20/2235

#### 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 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 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.
- 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 studs spaced at 1-4-0 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 223 lb uplift at joint 12, 176 lb uplift at joint 6, 274 lb uplift at joint 10 and 262 lb uplift at joint 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.

Continued on page 2



September 18,2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 98 MN
400570	H4	GABLE	1	2	I42869888
					Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:06 2020 Page 2  
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NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1288 lb down and 174 lb up at 1-4-0, 1292 lb down and 34 lb up at 3-4-0, 1292 lb down and 34 lb up at 5-4-0, 1292 lb down and 34 lb up at 7-4-0, 1292 lb down and 34 lb up at 9-4-0, 1291 lb down and 34 lb up at 11-4-0, 1277 lb down and 34 lb up at 13-4-0, 1232 lb down and 34 lb up at 15-4-0, 1232 lb down and 34 lb up at 17-4-0, 1232 lb down and 34 lb up at 19-4-0, 1229 lb down and 34 lb up at 21-4-0, and 1229 lb down and 34 lb up at 23-4-0, and 372 lb down and 147 lb up at 25-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-70, 3-5=-70, 6-12=-20

Concentrated Loads (lb)

Vert: 6=-372(B) 7=-1229(B) 10=-1238(B) 8=-1232(B) 40=-1232(B) 41=-1238(B) 42=-1238(B) 43=-1238(B) 44=-1238(B) 46=-1238(B) 47=-1232(B) 48=-1232(B) 49=-1229(B)

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017





Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869890
400570	J2	Jack-Open	3	1		

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:10 2020 Page 1

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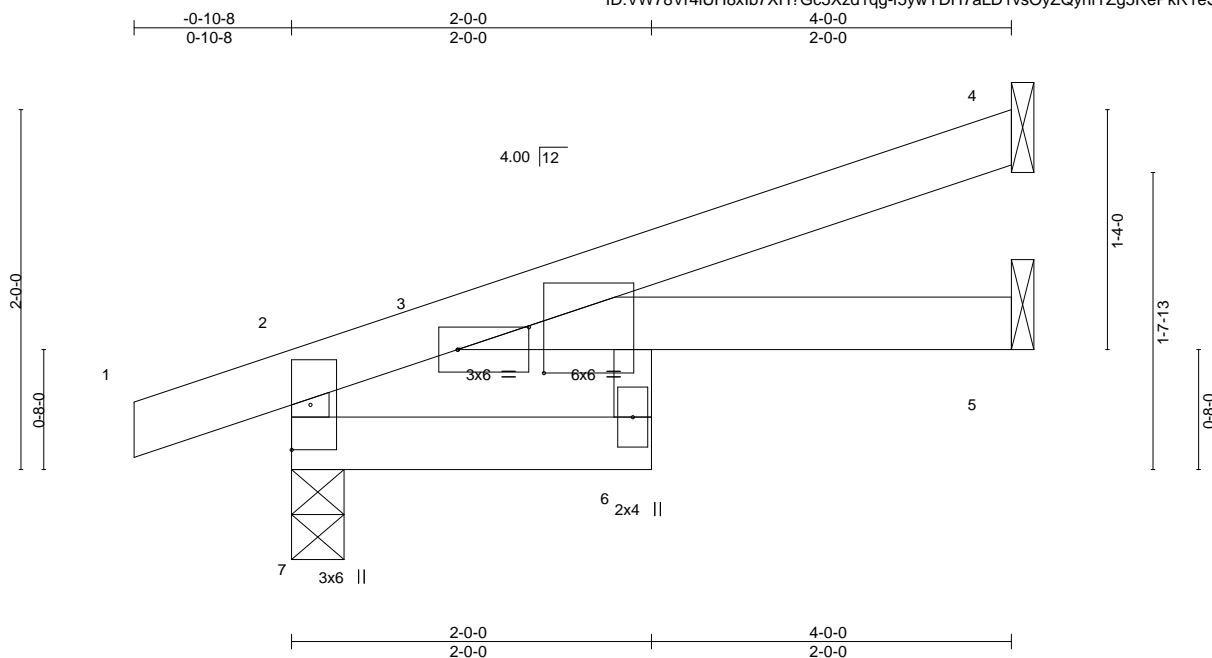


Plate Offsets (X,Y)-- [3:0-5-12,0-1-9], [3:0-4-12,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.02 6 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.05 6 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.02 5 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.03 6 >999 240	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'-0'-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6'-0'-0 oc bracing.

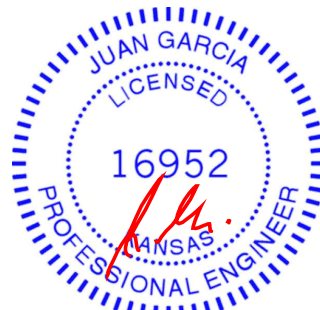
#### REACTIONS.

(size) 7=0-3-8, 4=Mechanical, 5=Mechanical  
Max Horz 7=63(LC 4)  
Max Uplift 7=-56(LC 4), 4=-46(LC 8)  
Max Grav 7=263(LC 1), 4=113(LC 1), 5=75(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 56 lb uplift at joint 7 and 46 lb uplift at joint 4.
- 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.



September 18, 2020

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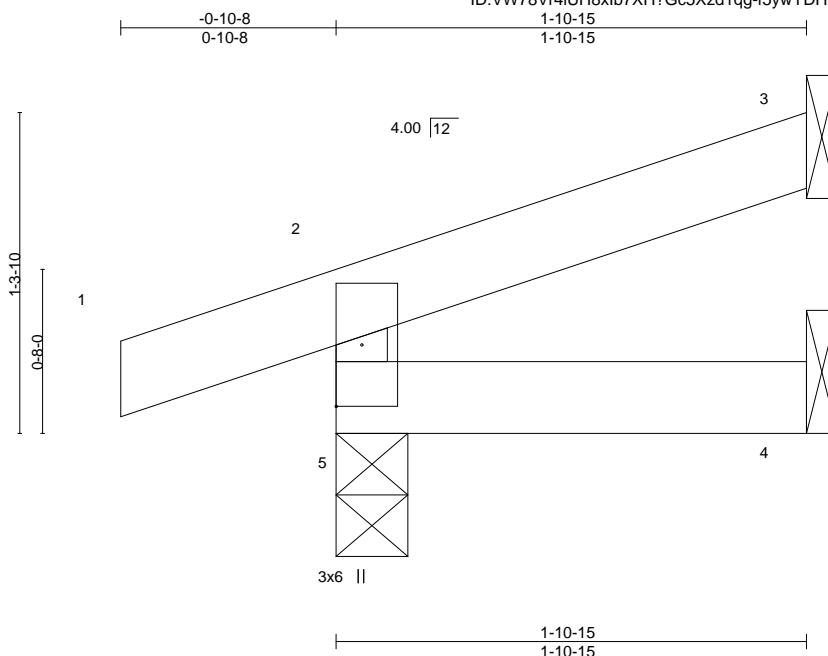
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869891
400570	J3	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:10 2020 Page 1

ID:VW78Vr4IUH8xb7XH?Gc5Xzd1qg-f5ywYDH7aLD1vsOyZQynfTZizRgkkRNeS9c3?bycREp



Scale = 1:9.4

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 0.06	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	4-5	>999	240		
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-R	Wind(LL)	0.00	5	>999	240	Weight: 6 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

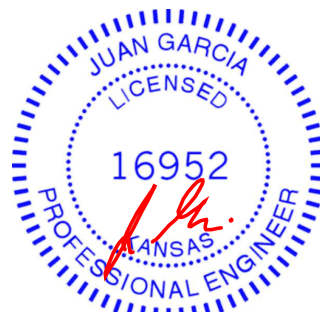
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=35(LC 4)  
Max Uplift 5=57(LC 4), 3=26(LC 8)  
Max Grav 5=168(LC 1), 3=46(LC 1), 4=33(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 57 lb uplift at joint 5 and 26 lb uplift at joint 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.



September 18, 2020

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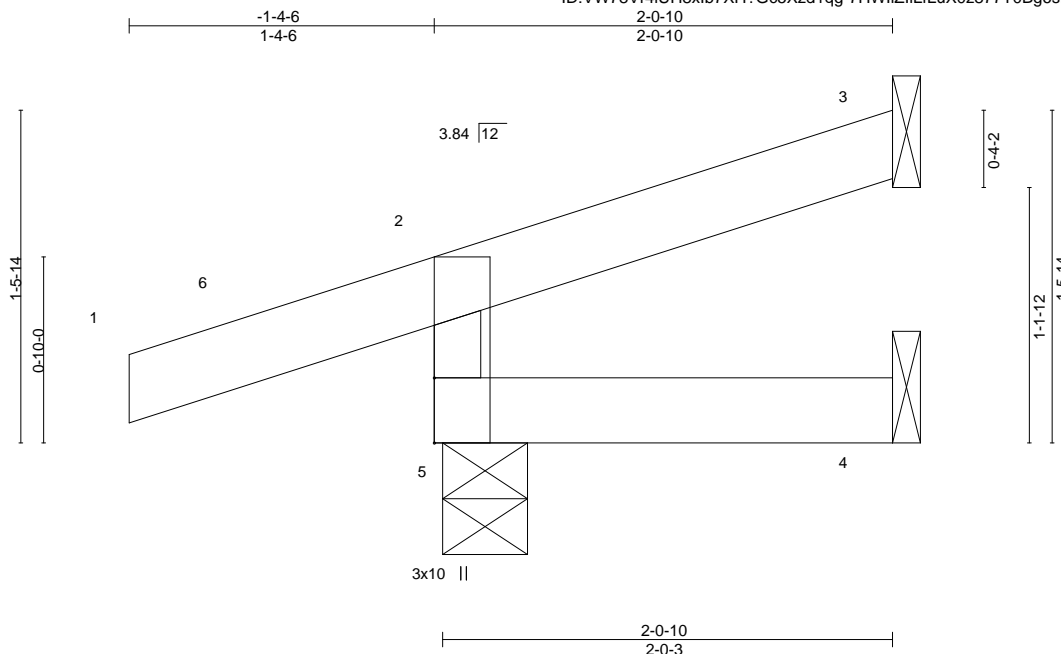


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869892
400570	J4	Jack-Open Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:11 2020 Page 1  
ID:VW78Vr4IUH8xlb7XH?Gc5Xzd1qg-7HWIILfLuX0z877T0Bg6slq0?TudohpMdX1ycReo



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	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	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	5	>999	240	Weight: 7 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 2-0-10 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=49(LC 7)  
Max Uplift 5=100(LC 6), 3=24(LC 12)  
Max Grav 5=93(LC 1), 3=17(LC 1), 4=27(LC 3)

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

#### NOTES-

- 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.
- 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 5 and 24 lb uplift at joint 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 16 lb down and 6 lb up at -1-4-6, and 16 lb down and 6 lb up at -1-4-6 on top 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).

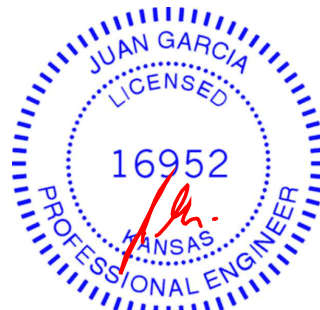
#### LOAD CASE(S) Standard

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

Vert: 1=-24(F=12, B=12)

Trapezoidal Loads (plf)

Vert: 1=-0(F=35, B=35)-to-6=-20(F=25, B=25), 6=0(F=35, B=35)-to-2=-16(F=27, B=27), 2=-16(F=27, B=27)-to-3=-49(F=10, B=10), 5=-4(F=8, B=8)-to-4=-14(F=3, B=3)



September 18, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869894
400570	J6	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:13 2020 Page 1  
ID:VW78Vr4IUH8Xlb7XH?Gc5Xzd1qg-4ge3AFJ0tGccmJ6XFYVUG5B1eebrxn7587rkwcycREm

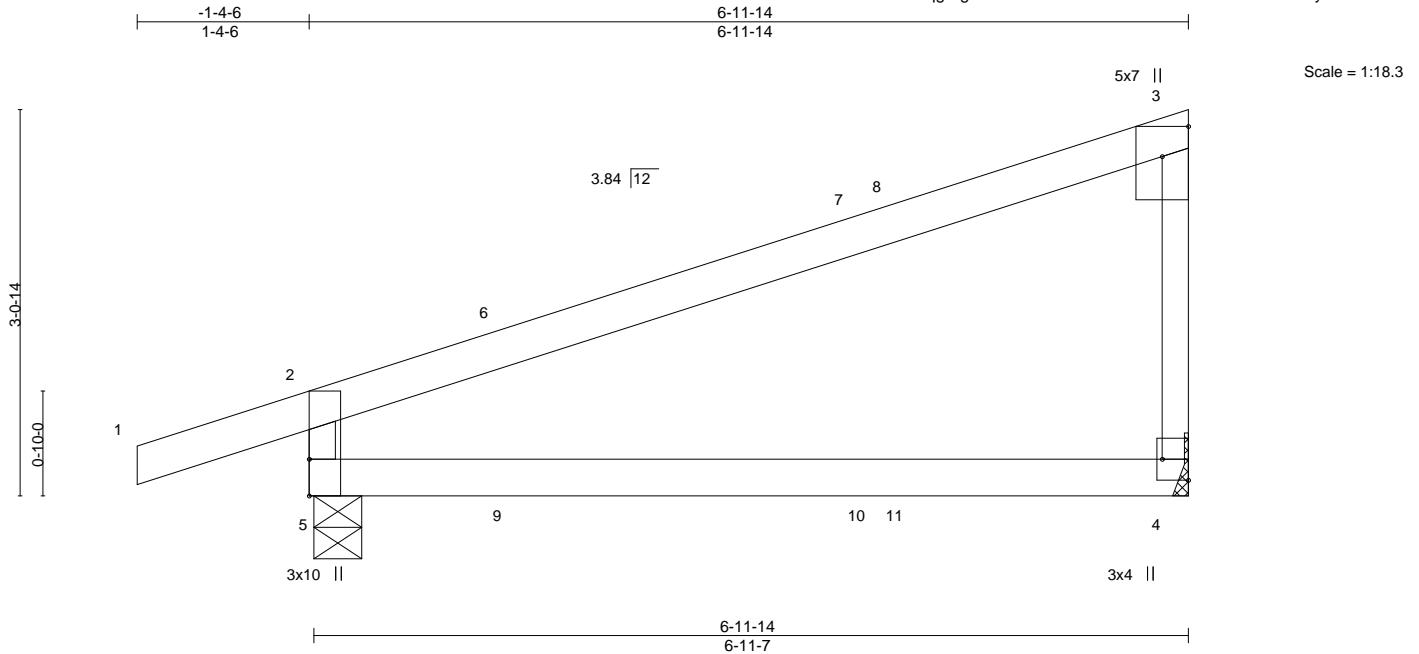


Plate Offsets (X,Y)--		[3:Edge,0-2-8], [4:Edge,0-2-8]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.74
TCDL 10.0	Lumber DOL	1.15	BC 0.45
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) -0.09 4-5 >915 360
			Vert(CT) -0.19 4-5 >437 240
			Horz(CT) -0.00 4 n/a n/a
			Wind(LL) 0.04 4-5 >999 240
			<b>PLATES</b>
			MT20
			<b>GRIP</b>
			197/144
			Weight: 20 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 6-0-0 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=128(LC 5)  
Max Uplift 5=129(LC 4), 4=82(LC 8)  
Max Grav 5=421(LC 1), 4=304(LC 1)

#### FORCES.

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

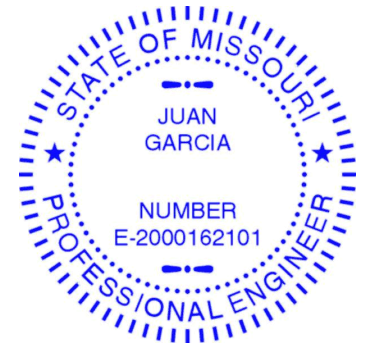
TOP CHORD 2-5=-368/174

#### NOTES-

- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 129 lb uplift at joint 5 and 82 lb uplift at joint 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 72 lb down and 22 lb up at 1-7-12, 64 lb down and 16 lb up at 1-10-6, and 78 lb down and 57 lb up at 4-5-10, and 98 lb down and 71 lb up at 4-9-4 on top chord, and 3 lb down and 2 lb up at 1-7-12, 4 lb down and 7 lb up at 1-10-6, and 13 lb down at 4-5-10, and 20 lb down at 4-9-4 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

- 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: 8=-4(B) 9=4(F=2, B=2) 10=-2(F) 11=-10(B)



September 18, 2020

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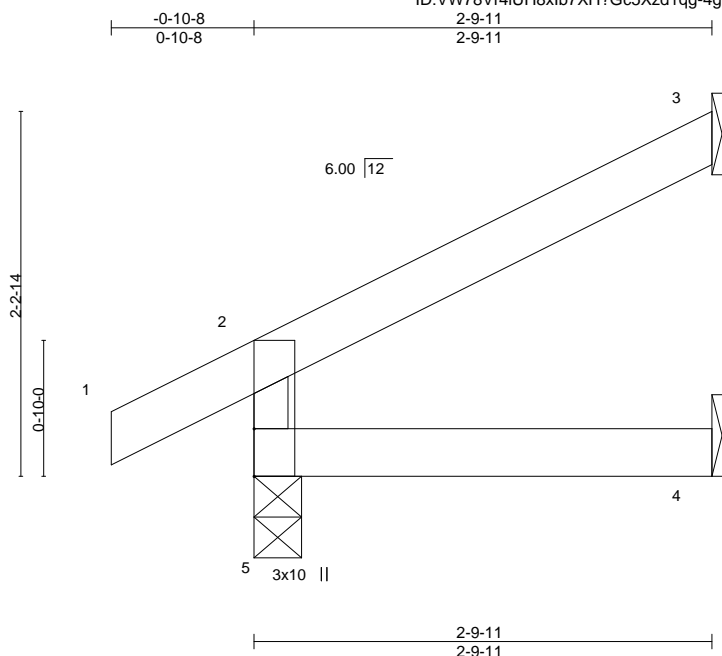
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869895
400570	J7	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg-4ge3AFJ0tGccmJ6XFYVUG5BBrehtxn7587rkwcycREm



Scale = 1:14.1

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 0.09	Vert(LL)	-0.00	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01	4-5	>999	240	197/144
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-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 2x3 SPF No.2

#### BRACING-

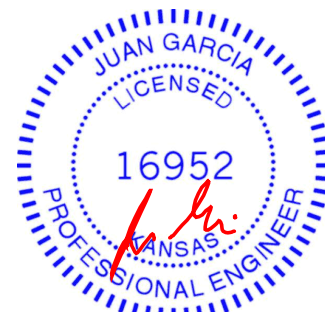
TOP CHORD Structural wood sheathing directly applied or 2-9-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=63(LC 8)  
Max Uplift 5=22(LC 8), 3=-50(LC 8)  
Max Grav 5=200(LC 1), 3=78(LC 1), 4=50(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 22 lb uplift at joint 5 and 50 lb uplift at joint 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.



September 18, 2020

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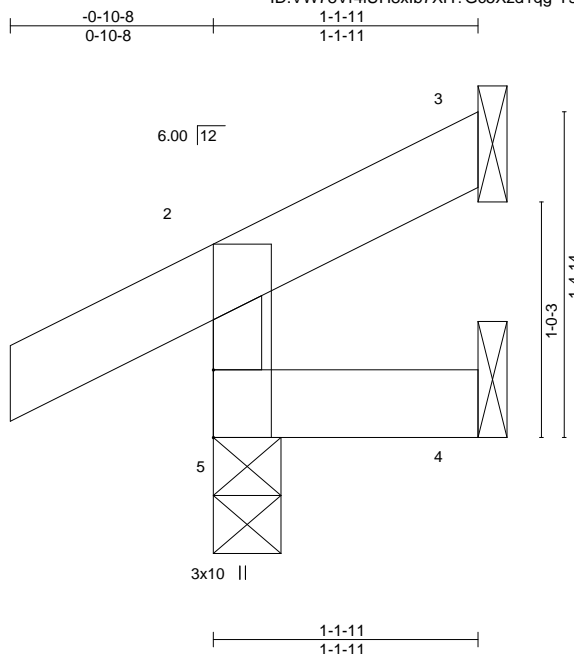
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869896
400570	J8	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:14 2020 Page 1

ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg-YsBRNaKeeakTOThjoF0jpJkMx21tgENENnaH8MycREl



Scale = 1:9.9

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 0.07	Vert(LL)	-0.00	5	>999	360	MT20
BCLL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	5	>999	240	197/144
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-R	Wind(LL)	0.00	5	>999	240	
								Weight: 4 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

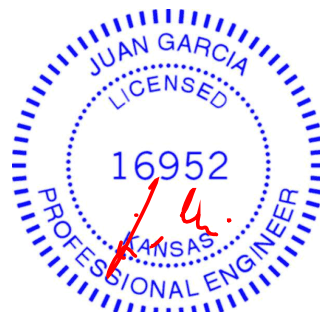
TOP CHORD Structural wood sheathing directly applied or 1-1-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=35(LC 5)  
Max Uplift 5=22(LC 8), 3=-16(LC 8), 4=-2(LC 5)  
Max Grav 5=147(LC 1), 3=9(LC 15), 4=19(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 22 lb uplift at joint 5, 16 lb uplift at joint 3 and 2 lb uplift at joint 4.
- 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.



September 18, 2020

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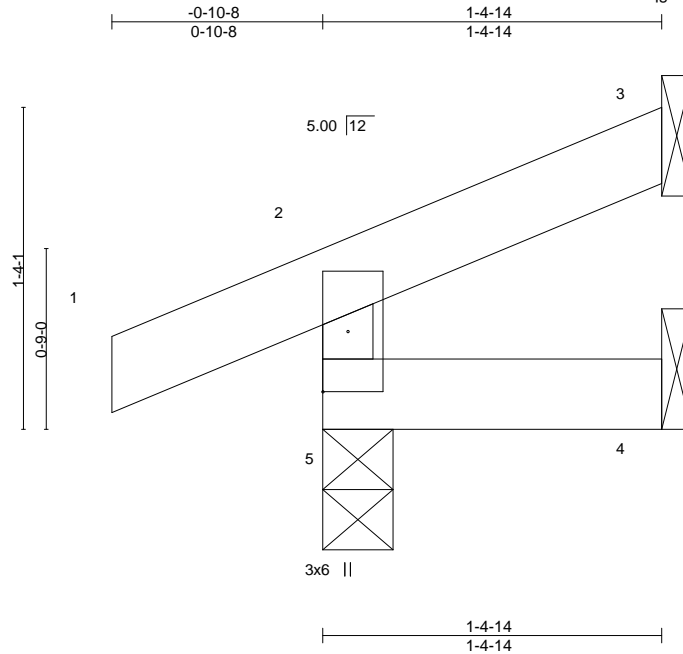


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869897
400570	J9	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:14 2020 Page 1  
ID:VW78Vr4lUH8xlb7XH?Gc5Xzd1qg-YsBRNaKeeakTOThjoF0jpJkMy21sgENENnaH8MycREI



Scale = 1:9.6

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 0.06	Vert(LL)	-0.00	5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	5	>999	240	197/144
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-R	Wind(LL)	0.00	5	>999	240	
								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 1-4-14 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=34(LC 5)  
Max Uplift 5=34(LC 4), 3=19(LC 8)  
Max Grav 5=153(LC 1), 3=23(LC 1), 4=24(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 34 lb uplift at joint 5 and 19 lb uplift at joint 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.



September 18, 2020

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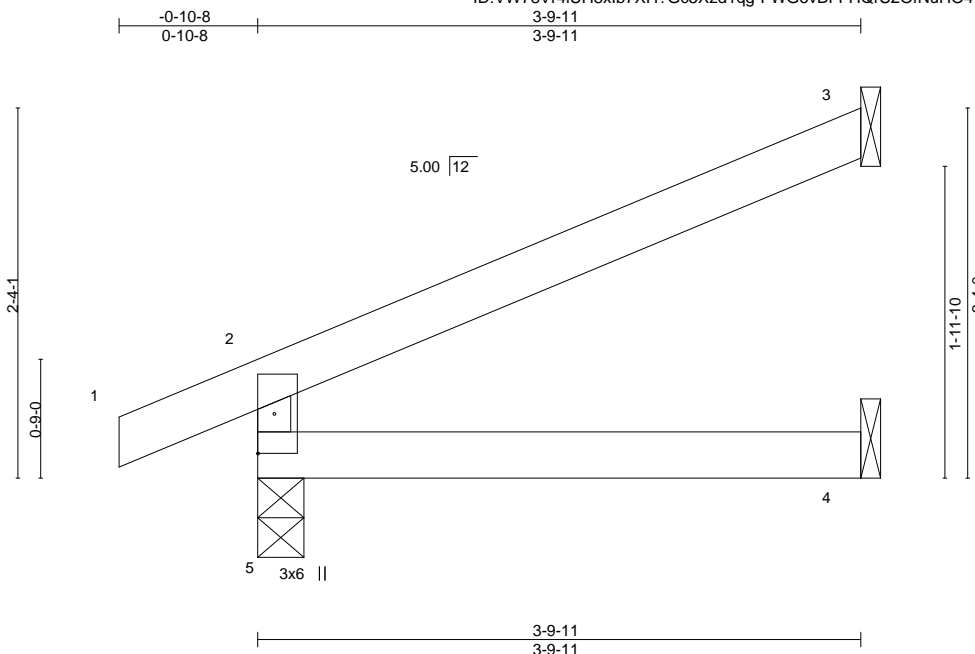
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869898
400570	J10	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:07 2020 Page 1

ID:VW78Vr4lUH8xlb7XH?Gc5Xzd1qg-FWGovBFFHQRs2OfNuHO41qx9kDdZY4eCmBOPOGycREs



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 0.19	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	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: 10 lb	FT = 10%

#### LUMBER-

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

#### BRACING-

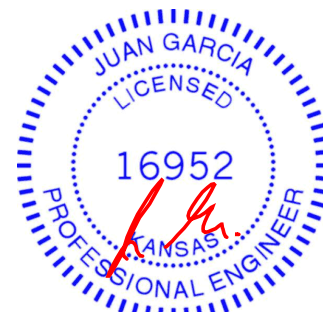
TOP CHORD Structural wood sheathing directly applied or 3-9-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
Max Horz 5=69(LC 8)  
Max Uplift 5=34(LC 8), 3=60(LC 8)  
Max Grav 5=242(LC 1), 3=113(LC 1), 4=69(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 34 lb uplift at joint 5 and 60 lb uplift at joint 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.



September 18, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

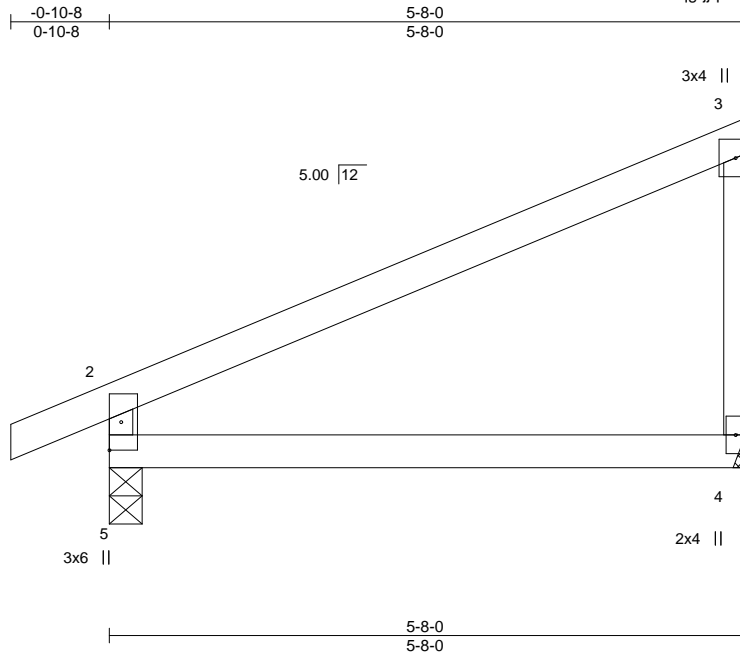


Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869899
400570	J11	Jack-Closed	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:08 2020 Page 1

ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg-jjqA7XGt2kzJgYEZS?vJa2UGzdxiHXuL?r7zxjycREr



Scale = 1:20.5

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 0.42	Vert(LL)	-0.04	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.08	4-5	>830	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02	4-5	>999	240	
									Weight: 17 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 5-8-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=0-3-8, 4=Mechanical  
Max Horz 5=127(LC 5)  
Max Uplift 5=-56(LC 8), 4=-58(LC 8)  
Max Grav 5=320(LC 1), 4=239(LC 1)

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

TOP CHORD 2-5=-279/98

#### 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 56 lb uplift at joint 5 and 58 lb uplift at joint 4.
- 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.



September 18, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869900
400570	J12	Jack-Closed Supported Gable	2	1	Job Reference (optional)	

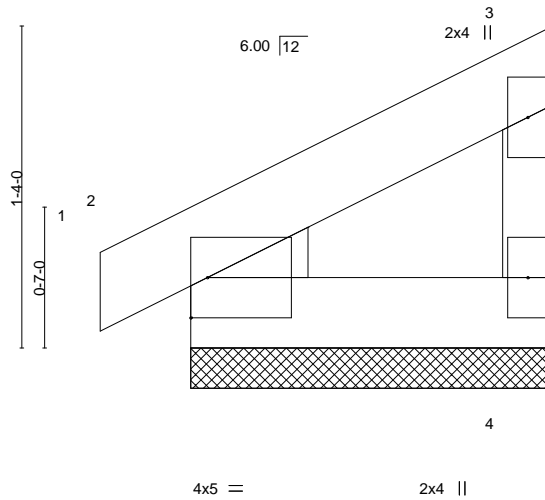
Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:09 2020 Page 1

ID:VW78Vr4IUH8xb7XH?Gc5Xd1qg-BvOYKtGVp15Alpm0iQY6F0Xo1Kd?\_7VDVtWT9ycREq

-0-4-8 1-6-0  
0-4-8 1-6-0

Scale = 1:9.5



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 0.03	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	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  
WEDGE  
Left: 2x3 SPF No.2

#### BRACING-

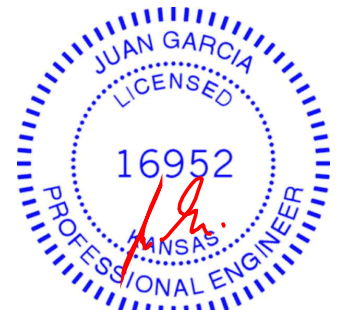
TOP CHORD Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=1-6-0, 2=1-6-0  
Max Horz 2=39(LC 5)  
Max Uplift 4=18(LC 8), 2=14(LC 8)  
Max Grav 4=59(LC 1), 2=93(LC 1)

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

#### NOTES-

- 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.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 4 and 14 lb uplift at joint 2.
- 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.



September 18, 2020

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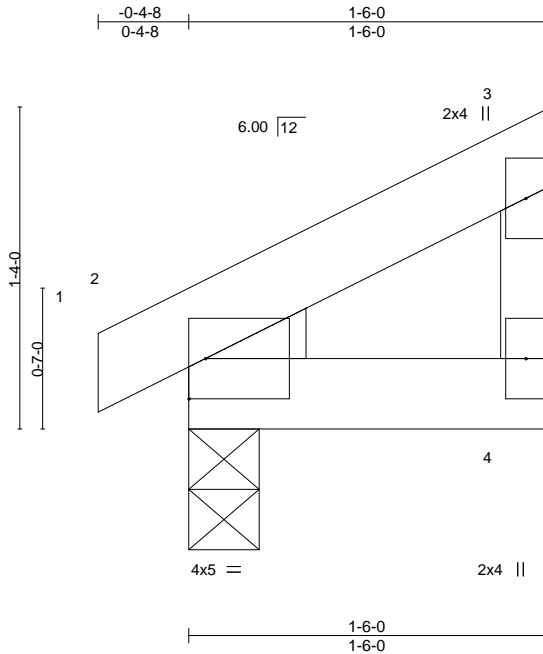
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869901
400570	J13	Jack-Closed	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4IUH8xlb7XH?Gc5Xzd1qg-BvOYKtGVp15Alipm0iQY6F0Xq1KT?\_7VDVtWT9ycREq



Scale = 1:9.5

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 0.02	Vert(LL)	-0.00	2	>999	360	MT20	197/144
BCLL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 5 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 SPF No.2  
WEDGE  
Left: 2x3 SPF No.2

#### BRACING-

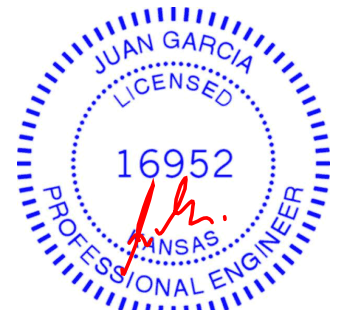
TOP CHORD Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8  
Max Horz 2=39(LC 5)  
Max Uplift 4=17(LC 8), 2=15(LC 8)  
Max Grav 4=57(LC 1), 2=94(LC 1)

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

#### NOTES-

- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 4 and 15 lb uplift at joint 2.
- 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.



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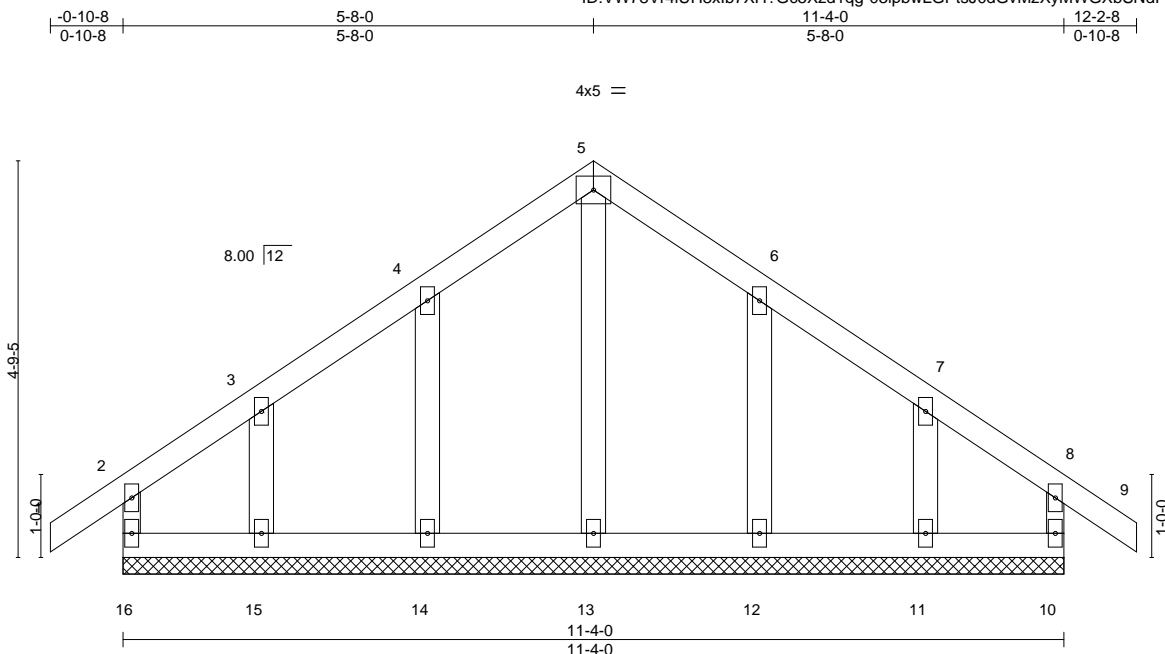
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869902
400570	K1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4IUH8xlb7XH?Gc5Xzd1qg-03lpbwLGPtsJ0dGvMzXyMWGXbSNdPhtNcRKqgpycREk



Scale = 1:27.8

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	9	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	9	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 47 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x3 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 6-0-0 oc bracing.

#### REACTIONS.

All bearings 11-4-0.  
(lb) - Max Horz 16=142(LC 7)  
Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11  
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

**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; 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
- 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) 16, 10, 14, 15, 12, 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.



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869903
400570	K2	Common	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4IUH8Xlb7XH?Gc5Xzd1qg-UfJBoGMu9B\_Adnr6wg2BukpdCrgF87IXq53ODFycREj



4x5 =

Scale = 1:30.3

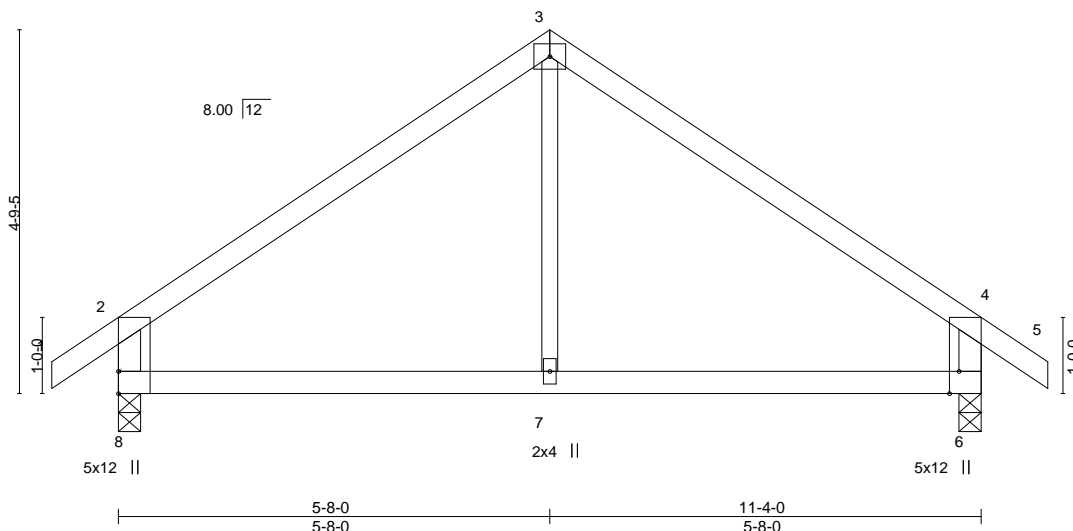


Plate Offsets (X,Y)--		[6:0-3-8,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0		Plate Grip DOL	1.15	TC 0.40		Vert(LL)	-0.02 7-8	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.21		Vert(CT)	-0.05 7-8	>999	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.07		Horz(CT)	0.01 6	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL)	-0.02 7-8	>999	240	Weight: 36 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 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=144(LC 7)  
 Max Uplift 8=78(LC 8), 6=78(LC 9)  
 Max Grav 8=568(LC 1), 6=568(LC 1)

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

TOP CHORD 2-3=-513/95, 3-4=-513/95, 2-8=-508/122, 4-6=-508/122  
 BOT CHORD 7-8=0/336, 6-7=0/336

#### 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) 8, 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.



September 18, 2020

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

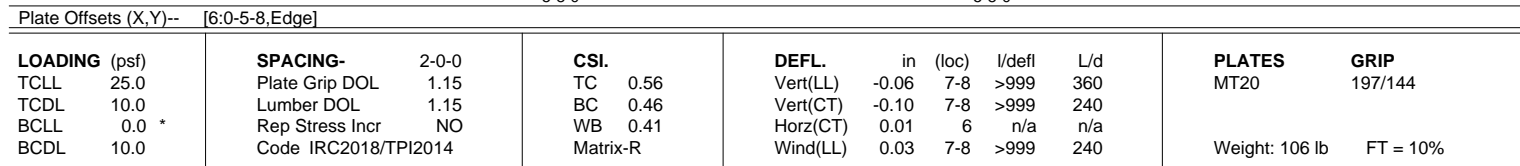
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:16 2020 Page 1  
ID:VW78Vr4IUH8xlb7XH?Gc5Xzd1qg-UfJBoGMu9B\_Adnr6wg2Bukpbgrcl82PXq53ODFycREJ  
-0-10-8 5-8-0 11-4-0 12-2-8  
0-10-8 5-8-0 5-8-0 0-10-8  
4x5 || Scale = 1:30.3



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

**REACTIONS.** (size) 8=0-3-8, 6=0-3-8  
 Max Horz 8=-144(LC 27)  
 Max Uplift 8=-157(LC 8), 6=-157(LC 9)  
 Max Grav 8=4410(LC 2), 6=4410(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-3297/158, 3-4=-3297/158, 2-8=-2060/174, 4-6=-2060/174  
**BOT CHORD** 7-8=-45/2635, 6-7=-45/2635  
**WEBS** 3-7=-41/3372

**NOTES-**

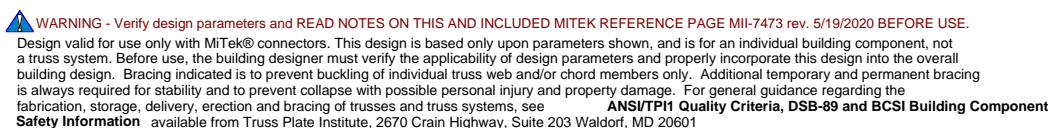
- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) 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.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) 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
- 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=157, 6=157.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1313 lb down and 29 lb up at 0-8-0, 1307 lb down and 35 lb up at 2-8-0, 1307 lb down and 35 lb up at 4-8-0, 1307 lb down and 35 lb up at 6-8-0, and 1307 lb down and 35 lb up at 8-8-0, and 1313 lb down and 29 lb up at 10-8-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



September 18, 2020

Continued on page 2



Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869904
400570	K3	Common Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:17 2020 Page 2  
ID:VW78Vr4IUH8xb7XH?Gc5Xzd1qg-yRta0cNWwV61FxQIUOaQRxMmQFyXtVfg3lpXlhycREi

**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, 6-8=-20  
Concentrated Loads (lb)  
Vert: 9=-1243(B) 10=-1238(B) 11=-1238(B) 12=-1238(B) 13=-1238(B) 14=-1243(B)

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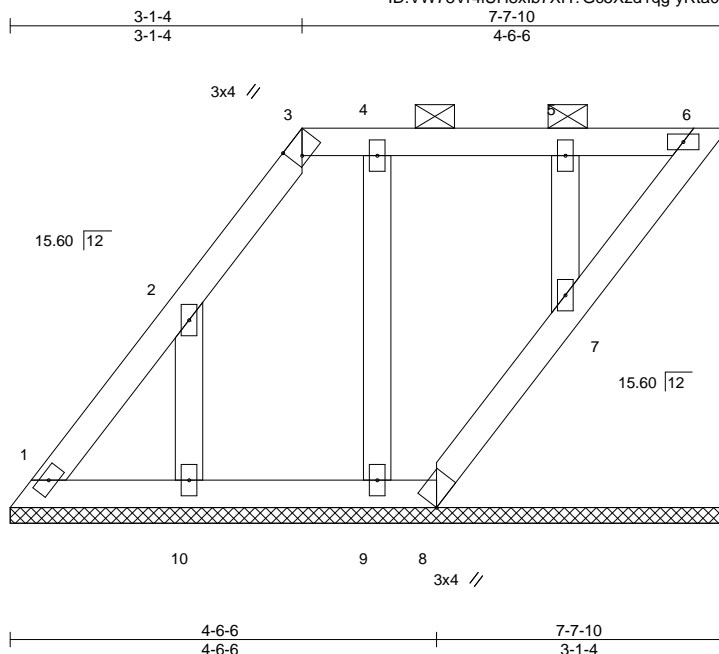
16023 Swingley Ridge Rd  
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Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869905
400570	LAY1	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4IUH8xb7XH?Gc5Xzd1qg-yRta0cNWwV61FxQIUOaQRxMuYF3Mtdbg3lpxlhycREi



Scale = 1:24.5

Plate Offsets (X,Y)--		[3:0-1-4,Edge]							
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.04		Vert(LL)	n/a	-	n/a
TCDL 10.0		Lumber DOL	1.15	BC 0.02		Vert(CT)	n/a	-	n/a
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.03		Horz(CT)	-0.00	6	n/a
BCDL 10.0		Code IRC2018/TPI2014		Matrix-P					
						<b>PLATES</b>	<b>GRIP</b>		
						MT20	197/144		
						Weight: 29 lb		FT = 10%	

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except 2'-0-0 oc purlins (6'-0-0 max.): 3-6.  
BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

#### REACTIONS.

All bearings 7-7-10.  
(lb) - Max Horz 1=153(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 8, 9, 7 except 10=149(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 1, 6, 8, 10, 9, 7

#### 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; 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
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, 6, 8, 9, 7 except (jt=lb) 10=149.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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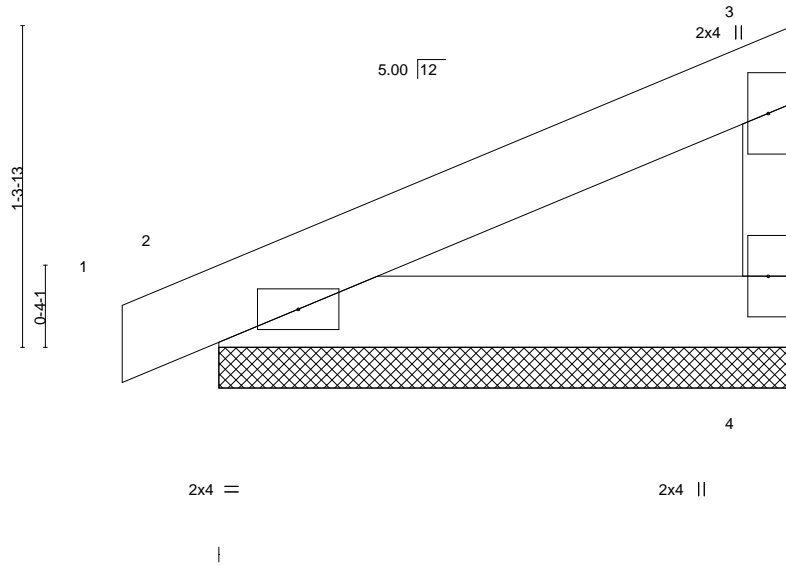
Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869906
400570	V1	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:18 2020 Page 1  
ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg-QeRyDyN8hoEut5?U155fz9u2hfPfc2MqlPYUH8ycREh



Scale = 1:9.4



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 0.08	Vert(LL)	-0.00	1	n/r	120	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	0.00	1	n/r	120	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 7 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 1-10-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 4=2-4-4, 2=2-4-4  
Max Horz 2=45(LC 5)  
Max Uplift 4=22(LC 8), 2=-25(LC 8)  
Max Grav 4=99(LC 1), 2=131(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) 4, 2.
- 6) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- 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.



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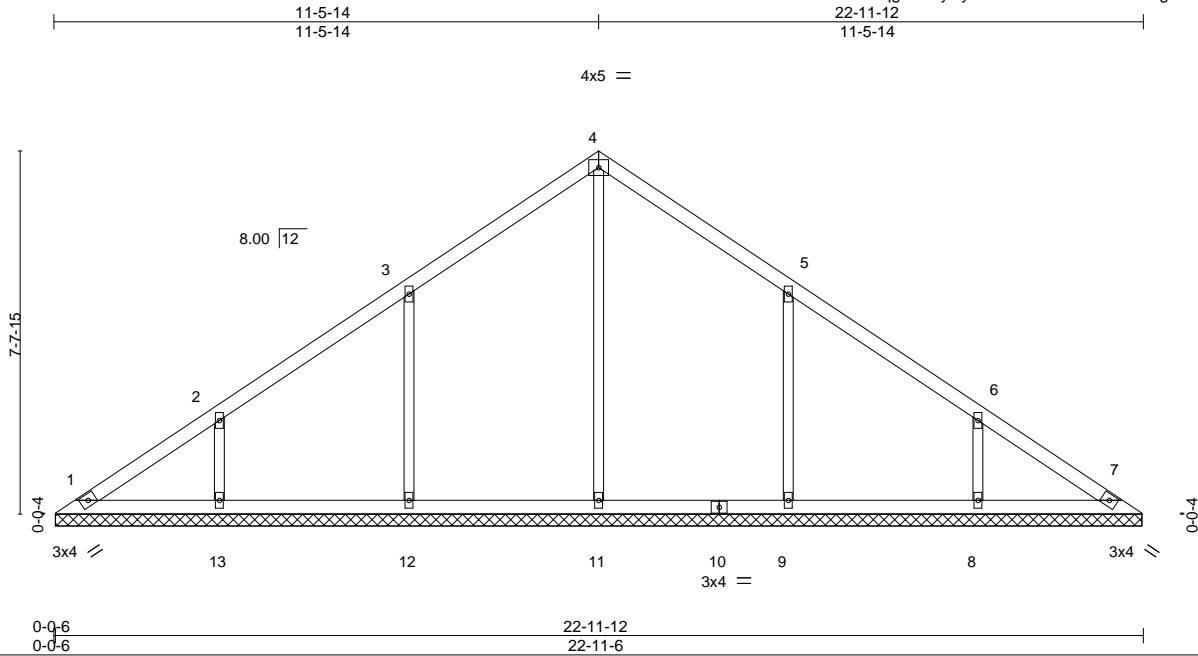
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869907
400570	V2	Valley	1	1		

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:18 2020 Page 1

ID:VW78Vr4lUH8xlb7XH?Gc5Xzd1qg-QeRyDyN8hoEut5?U155fz9u0xfNgc?PqIPYUH8ycREh



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	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 72 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.

All bearings 22-11-0.  
(lb) - Max Horz 1=192(LC 4)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 12=155(LC 8), 13=132(LC 8), 9=154(LC 9), 8=133(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 11=400(LC 18), 12=489(LC 15), 13=412(LC 15), 9=488(LC 16), 8=412(LC 16)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-12=319/204, 2-13=275/174, 5-9=319/204, 6-8=276/174

#### 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 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 12=155, 13=132, 9=154, 8=133.
- 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.



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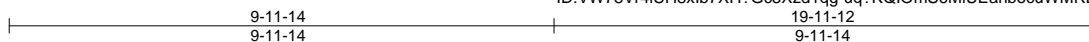


Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869908
400570	V3	Valley	1	1		
Job Reference (optional)						

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ID:VW78Vr4lUH8xlb7XH?Gc5Xzd1qg-uq?KQlOmS6MIUEahbocuWMBa3iwLTjzW3l2paycREg



4x5 =

Scale = 1:42.2

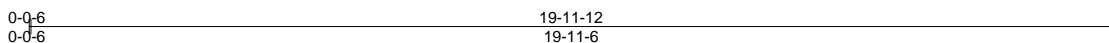
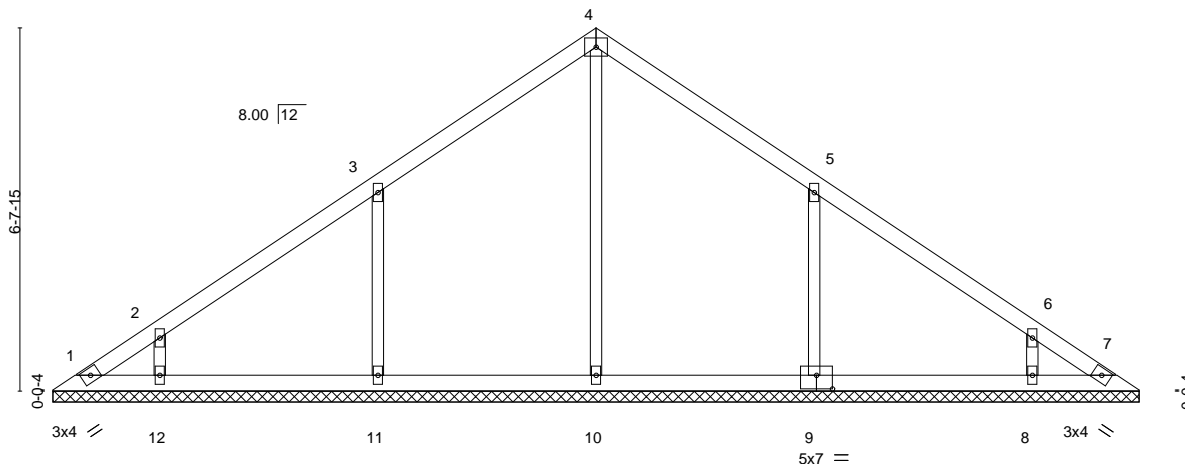


Plate Offsets (X,Y)-- [9:0-3-8,0-3-0]

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 0.20	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 61 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.

All bearings 19-11-0.  
(lb) - Max Horz 1=-166(LC 4)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-158(LC 8), 12=-111(LC 8), 9=-160(LC 9), 8=-112(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=385(LC 18), 11=499(LC 15), 12=347(LC 15), 9=502(LC 16), 8=345(LC 16)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-11=-325/208, 5-9=-327/209

#### 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 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 11=158, 12=111, 9=160, 8=112.
- 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.



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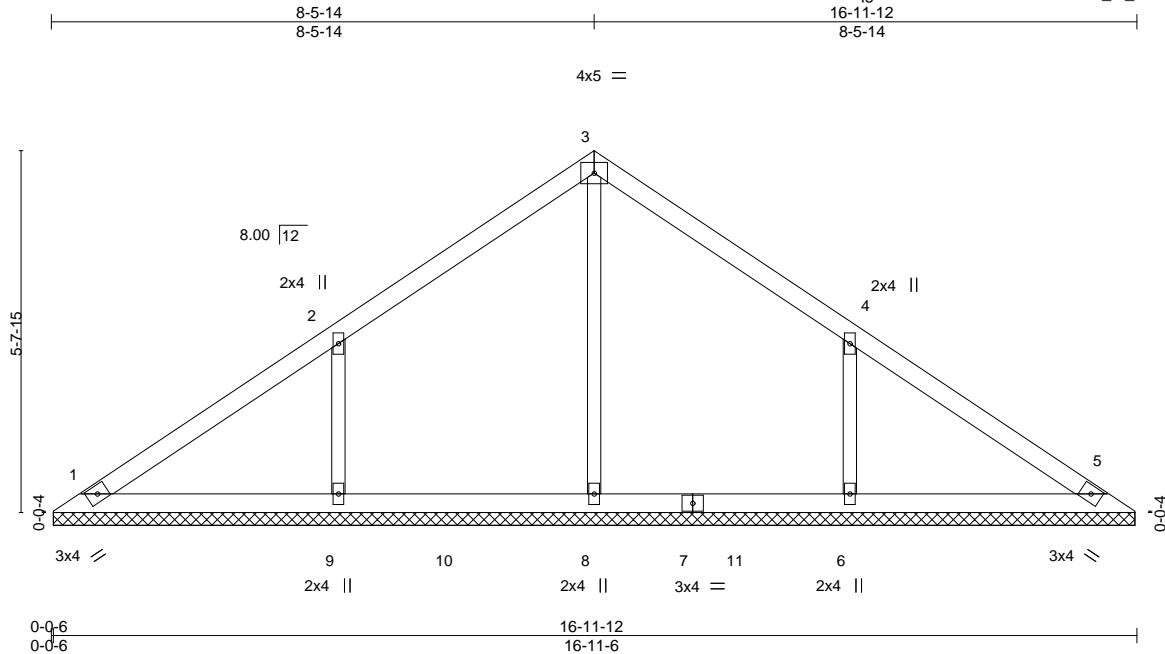
16023 Swingley Ridge Rd  
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Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869909
400570	V4	Valley	1	1		

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ID:VW78Vr4lUH8xlb7XH?Gc5Xzd1qg-M0ZieePPDQUc6O9t9W773a\_M\_T2Q4ws7lj1bM0ycREf



Scale = 1:36.0

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 0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 49 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.

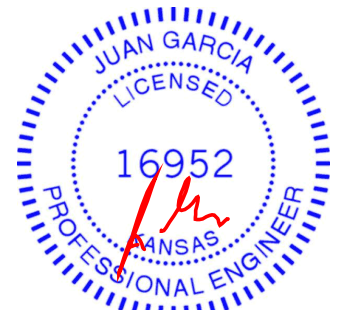
All bearings 16-11-0.  
(lb) - Max Horz 1=-139(LC 4)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-172(LC 8), 6=-171(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=353(LC 15), 9=521(LC 15), 6=521(LC 16)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-9=-347/218, 4-6=-347/217

#### 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=172, 6=171.
- 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.



September 18, 2020

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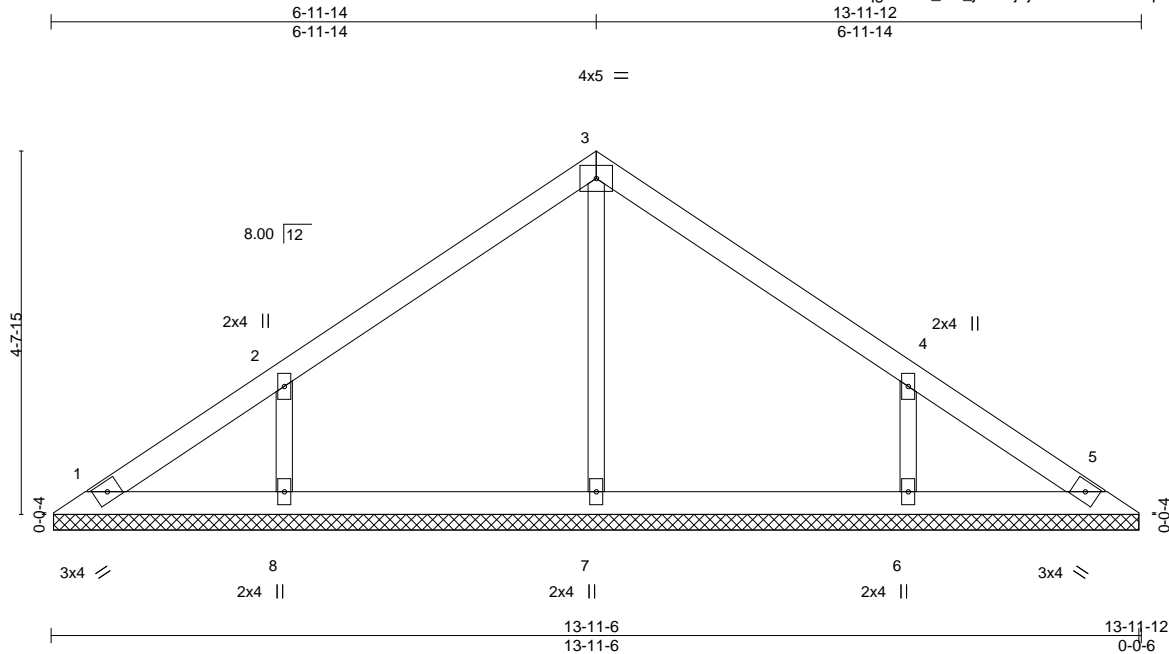
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869910
400570	V5	Valley	1	1		

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:21 2020 Page 1

ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg-rD64r\_Q1\_jcTkYj3jDeMbnWYVsP6pOfG\_Nn9uSycREe



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 0.17	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 0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 39 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.

All bearings 13-11-0.  
(lb) - Max Horz 1=113(LC 5)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=144(LC 8), 6=-143(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=282(LC 1), 8=363(LC 15), 6=363(LC 16)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-290/185, 4-6=-290/185

#### 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 except (jt=lb) 8=144, 6=143.
- 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.



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

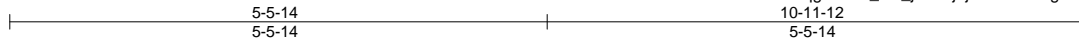
Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869911
400570	V6	Valley	1	1		

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:21 2020 Page 1

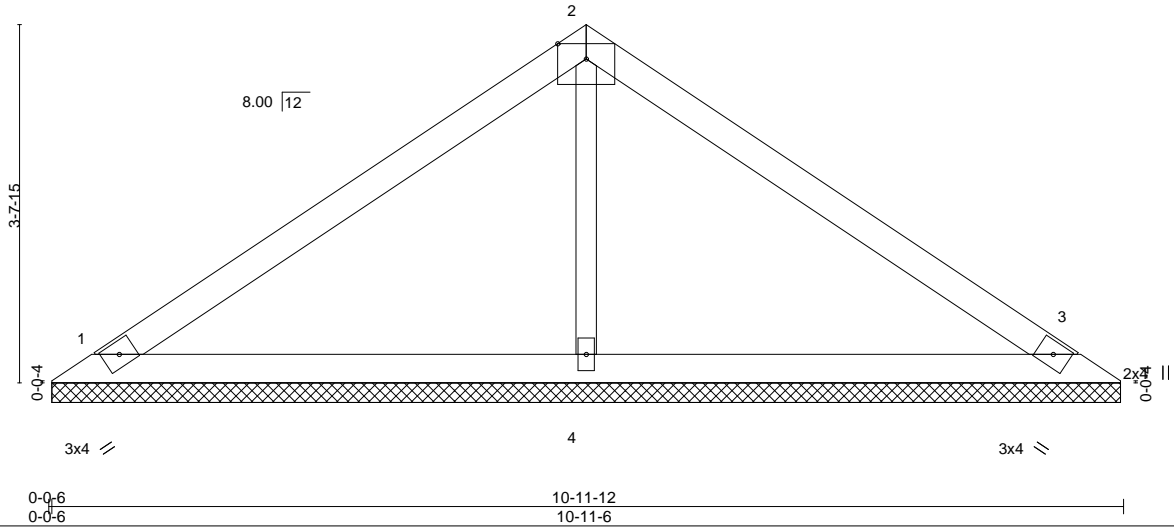
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Job Reference (optional)



5x7 =

Scale = 1:23.5



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 0.35	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 29 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=10-11-0, 3=10-11-0, 4=10-11-0  
Max Horz 1=-87(LC 4)  
Max Uplift 1=-44(LC 8), 3=-55(LC 9), 4=-17(LC 8)  
Max Grav 1=232(LC 1), 3=232(LC 1), 4=438(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-4=-285/73

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- 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.



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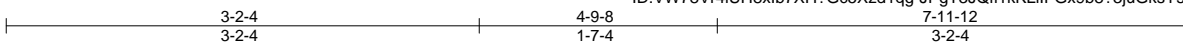
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869912
400570	V7	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:VW78Vr4lUH8xb7XH?Gc5Xzd1qg~JPgT3JQfl1kKLiIFGx9b8?3juGksYs1PD0WiQvycRED



Scale = 1:15.5

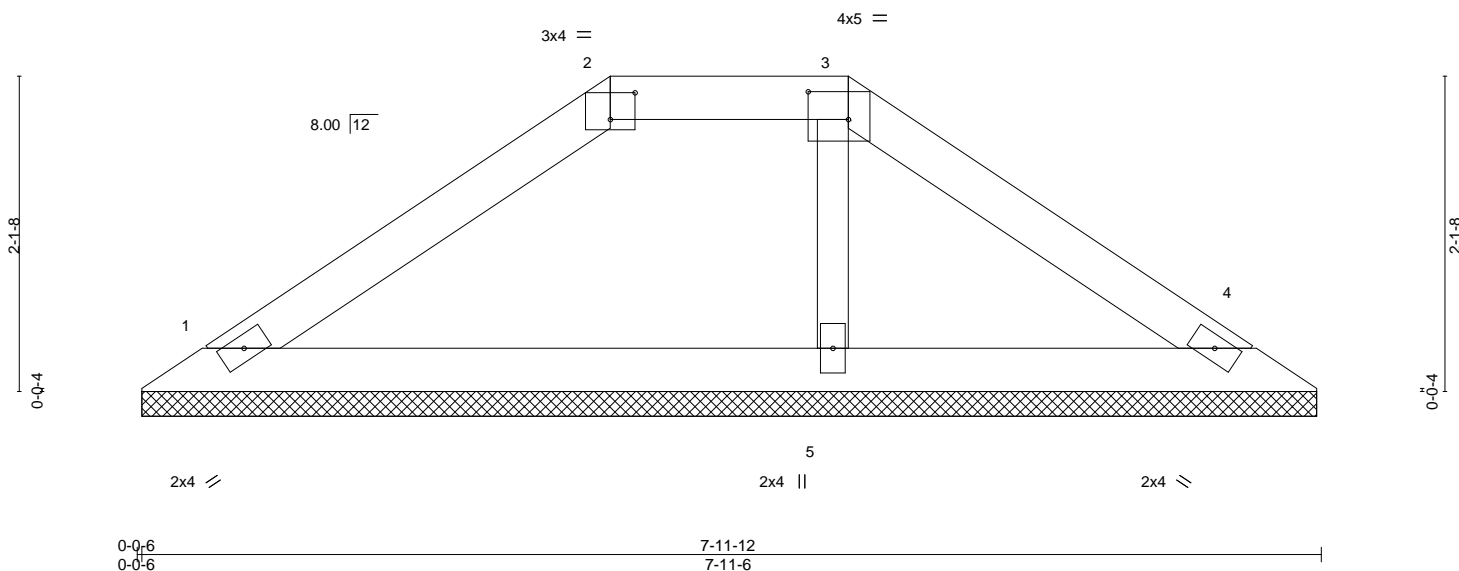


Plate Offsets (X,Y)--		[2:0-2-0,0-2-3], [3:0-3-4,0-2-4]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13
TCDL 10.0	Lumber DOL	1.15	BC 0.13
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 4 n/a n/a
			<b>PLATES</b>
			MT20
			<b>GRIP</b>
			197/144
			Weight: 20 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, except 2-0-0 oc purlins (6-0-0 max.): 2-3.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=7-11-0, 4=7-11-0, 5=7-11-0  
Max Horz 1=-48(LC 6)  
Max Uplift 1=-66(LC 8), 4=-62(LC 8)  
Max Grav 1=277(LC 1), 4=258(LC 1), 5=183(LC 3)

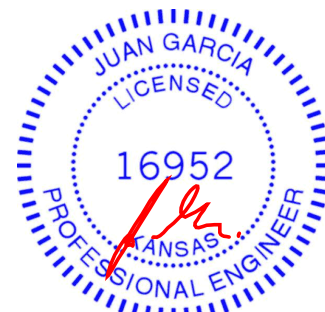
#### FORCES.

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

TOP CHORD 1-2=-308/91, 3-4=-307/108

#### 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.
- 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.
- 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.



September 18,2020

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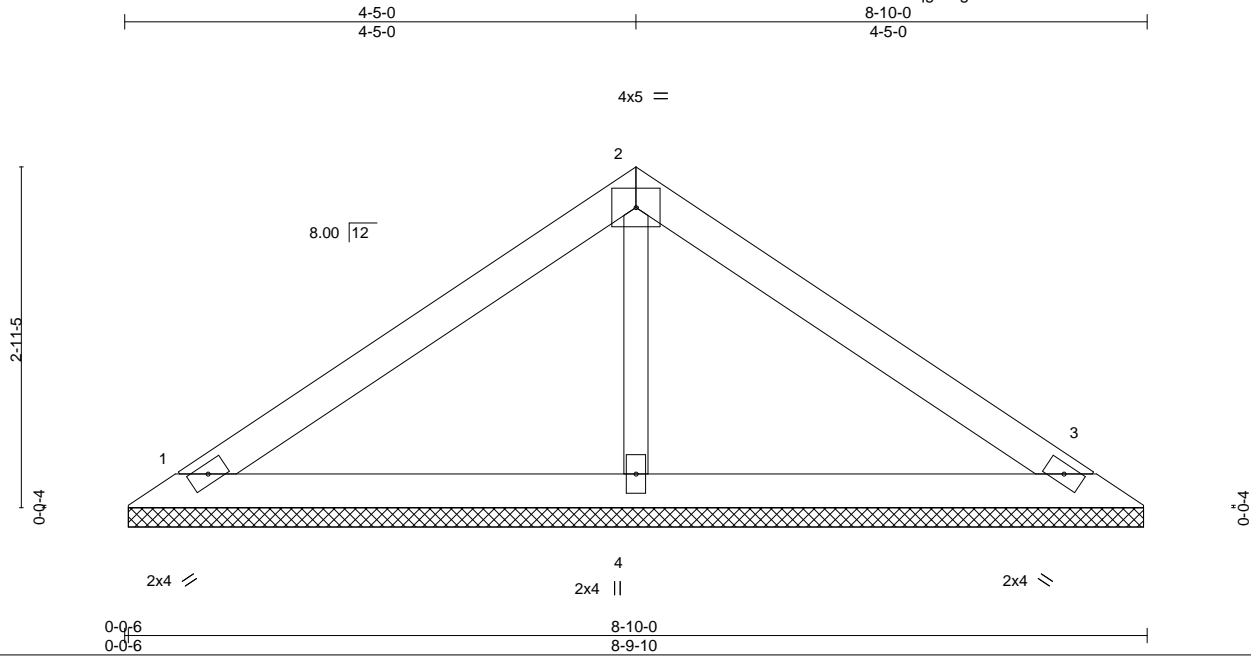
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869913
400570	V8	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:22 2020 Page 1  
ID:VW78Vr4IUH8xb7XH?Gc5Xzd1qg-JPgT3JQf1kKLiFGx9b8?3hNGkrYsbPD0WiQvycREd



Scale = 1:19.9

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 0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 23 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=8-9-4, 3=8-9-4, 4=8-9-4  
Max Horz 1=-69(LC 6)  
Max Uplift 1=-44(LC 8), 3=-53(LC 9)  
Max Grav 1=199(LC 1), 3=199(LC 1), 4=310(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.



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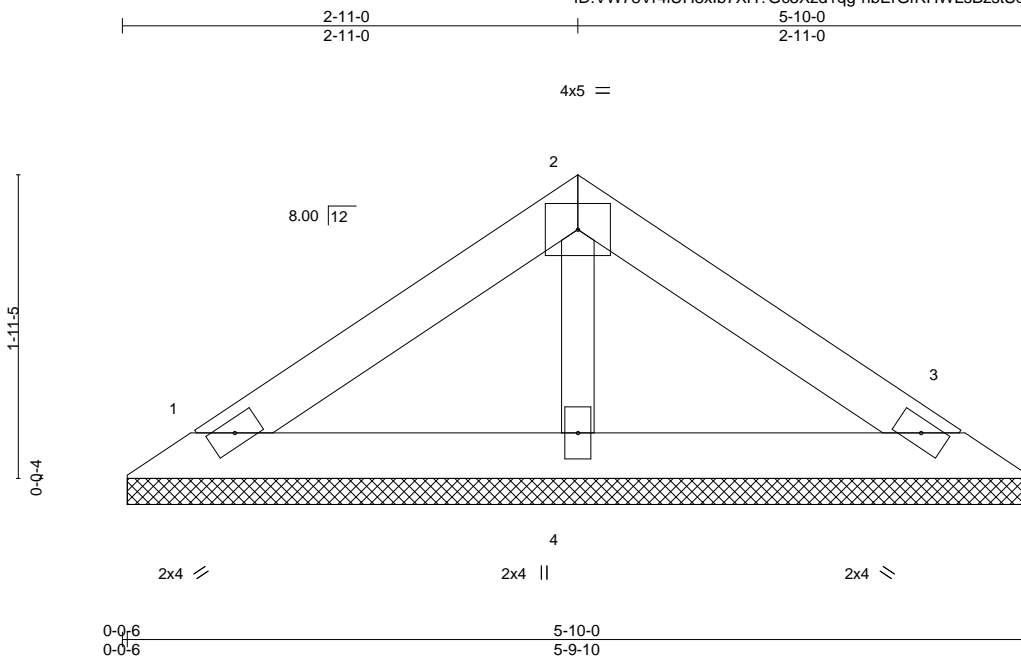
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 98 MN	I42869914
400570	V9	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.420 s Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 09:40:23 2020 Page 1

ID:VW78Vr4IUH8xlb7XH?Gc5Xzd1qg-nbErGfRHWLsBzstSqegqgCcv3g6LHJDZRGfYlYcREc



Scale = 1:14.8

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 0.10	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 0.02	Horz(CT)	0.00	3	n/a	n/a		
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 5-10-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=5-9-4, 3=5-9-4, 4=5-9-4  
Max Horz 1=-42(LC 4)  
Max Uplift 1=-27(LC 8), 3=-33(LC 9)  
Max Grav 1=123(LC 1), 3=123(LC 1), 4=192(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.



September 18, 2020

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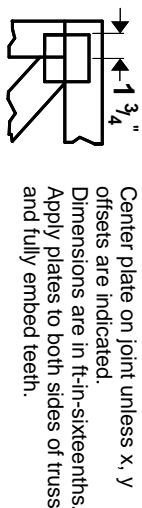
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Chesterfield, MO 63017

# Symbols

## PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

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

## PLATE SIZE

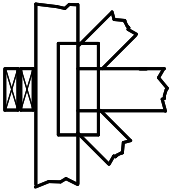
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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.

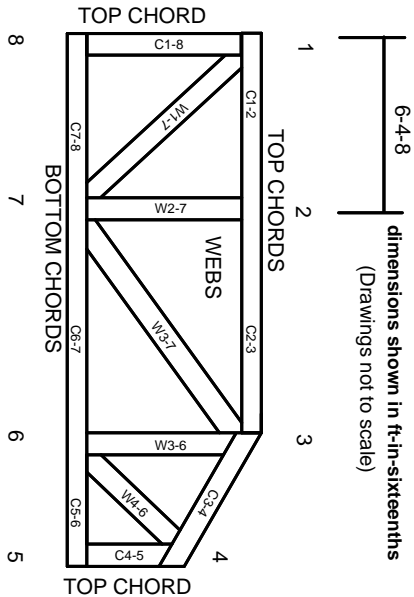
## BEARING



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

# Numbering System



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 section 6.3 These truss designs rely on lumber values established by others.

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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.