



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
11/16/2020

RE: 400712
Lot 93 RR

MiTek USA, Inc.

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

Site Information:

Customer: Project Name: 400712
Lot/Block:
Address:
City:

Model:
Subdivision:
State:

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

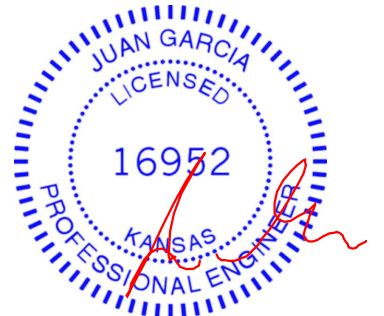
Design Code: IRC2018/TPI2014
Wind Code: N/A
Roof Load: 45.0 psf

Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 38 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I43493297	A1	11/4/2020	21	I43493317	G8	11/4/2020
2	I43493298	A2	11/4/2020	22	I43493318	J1	11/4/2020
3	I43493299	B1	11/4/2020	23	I43493319	J2	11/4/2020
4	I43493300	B2	11/4/2020	24	I43493320	J3	11/4/2020
5	I43493301	C1	11/4/2020	25	I43493321	J4	11/4/2020
6	I43493302	C2	11/4/2020	26	I43493322	J5	11/4/2020
7	I43493303	C3	11/4/2020	27	I43493323	R1	11/4/2020
8	I43493304	D1	11/4/2020	28	I43493324	R2	11/4/2020
9	I43493305	D2	11/4/2020	29	I43493325	V1	11/4/2020
10	I43493306	E1	11/4/2020	30	I43493326	V2	11/4/2020
11	I43493307	E2	11/4/2020	31	I43493327	V3	11/4/2020
12	I43493308	E3	11/4/2020	32	I43493328	V4	11/4/2020
13	I43493309	E4	11/4/2020	33	I43493329	V5	11/4/2020
14	I43493310	G1	11/4/2020	34	I43493330	V6	11/4/2020
15	I43493311	G2	11/4/2020	35	I43493331	V7	11/4/2020
16	I43493312	G3	11/4/2020	36	I43493332	V8	11/4/2020
17	I43493313	G4	11/4/2020	37	I43493333	V9	11/4/2020
18	I43493314	G5	11/4/2020	38	I43493334	V10	11/4/2020
19	I43493315	G6	11/4/2020				
20	I43493316	G7	11/4/2020				

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.

November 04, 2020



RE: 400712
Lot 93 RR

MiTek USA, Inc.

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

Site Information:

Customer: Project Name: 400712
Lot/Block:
Address:
City:

Model:
Subdivision:
State:

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

Design Code: IRC2018/TPI2014
Wind Code: N/A
Roof Load: 45.0 psf

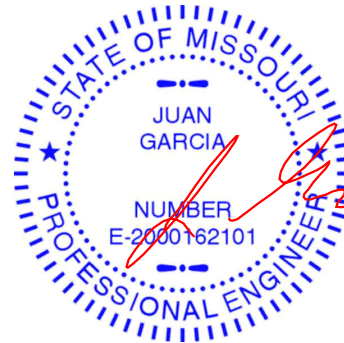
Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 38 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I43493297	A1	11/4/2020	21	I43493317	G8	11/4/2020
2	I43493298	A2	11/4/2020	22	I43493318	J1	11/4/2020
3	I43493299	B1	11/4/2020	23	I43493319	J2	11/4/2020
4	I43493300	B2	11/4/2020	24	I43493320	J3	11/4/2020
5	I43493301	C1	11/4/2020	25	I43493321	J4	11/4/2020
6	I43493302	C2	11/4/2020	26	I43493322	J5	11/4/2020
7	I43493303	C3	11/4/2020	27	I43493323	R1	11/4/2020
8	I43493304	D1	11/4/2020	28	I43493324	R2	11/4/2020
9	I43493305	D2	11/4/2020	29	I43493325	V1	11/4/2020
10	I43493306	E1	11/4/2020	30	I43493326	V2	11/4/2020
11	I43493307	E2	11/4/2020	31	I43493327	V3	11/4/2020
12	I43493308	E3	11/4/2020	32	I43493328	V4	11/4/2020
13	I43493309	E4	11/4/2020	33	I43493329	V5	11/4/2020
14	I43493310	G1	11/4/2020	34	I43493330	V6	11/4/2020
15	I43493311	G2	11/4/2020	35	I43493331	V7	11/4/2020
16	I43493312	G3	11/4/2020	36	I43493332	V8	11/4/2020
17	I43493313	G4	11/4/2020	37	I43493333	V9	11/4/2020
18	I43493314	G5	11/4/2020	38	I43493334	V10	11/4/2020
19	I43493315	G6	11/4/2020				
20	I43493316	G7	11/4/2020				

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.



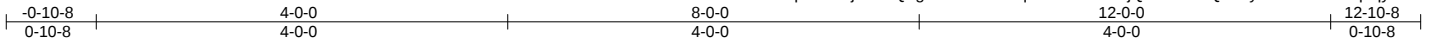
November 04, 2020

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	143493297
400712	A1	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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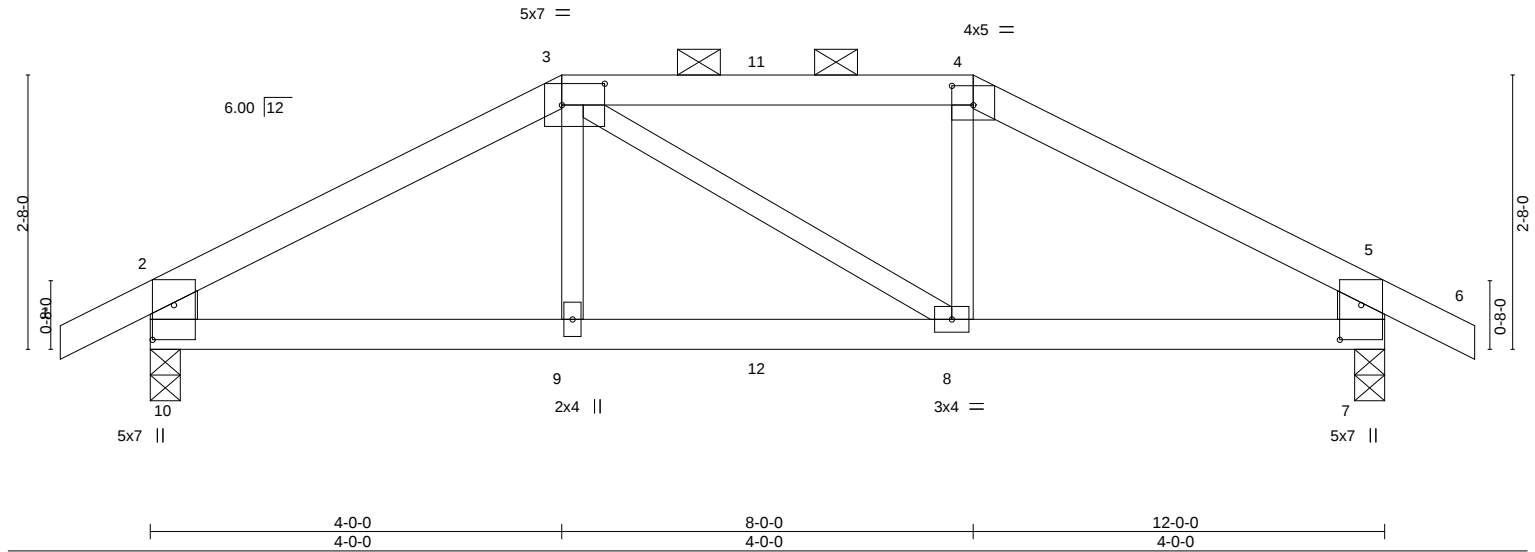


Plate Offsets (X,Y)--		[3:0-5-0,0-2-8], [4:0-2-8,0-2-4], [7:0-4-1,0-2-8], [10:0-4-1,0-2-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.71	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.67	Vert(LL) -0.07 8-9 >999 360
BCLL 0.0 *	Lumber DOL 1.15	WB 0.10	Vert(CT) -0.13 8-9 >999 240
BCDL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

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 10=0-3-8, 7=0-3-8
Max Horz 10=-50(LC 27)
Max Uplift 10=-201(LC 8), 7=-201(LC 9)
Max Grav 10=899(LC 1), 7=899(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1231/277, 3-4=-1024/269, 4-5=-1232/276, 2-10=-806/214, 5-7=-806/213
BOT CHORD 9-10=-219/1012, 8-9=-219/1023, 7-8=-196/1013
WEBS 3-9=0/271, 4-8=-5/279

NOTES-

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

LOAD CASE(S) Standard

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



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Continued on page 2

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR
400712	A1	Hip Girder	1	1	I43493297
Job Reference (optional)					

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

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493298
400712	A2	Common	4	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-G0CDVYnlg1JLaifQMhVyd_vJplZszwN0YmMIGyMaZd

Job Reference (optional)

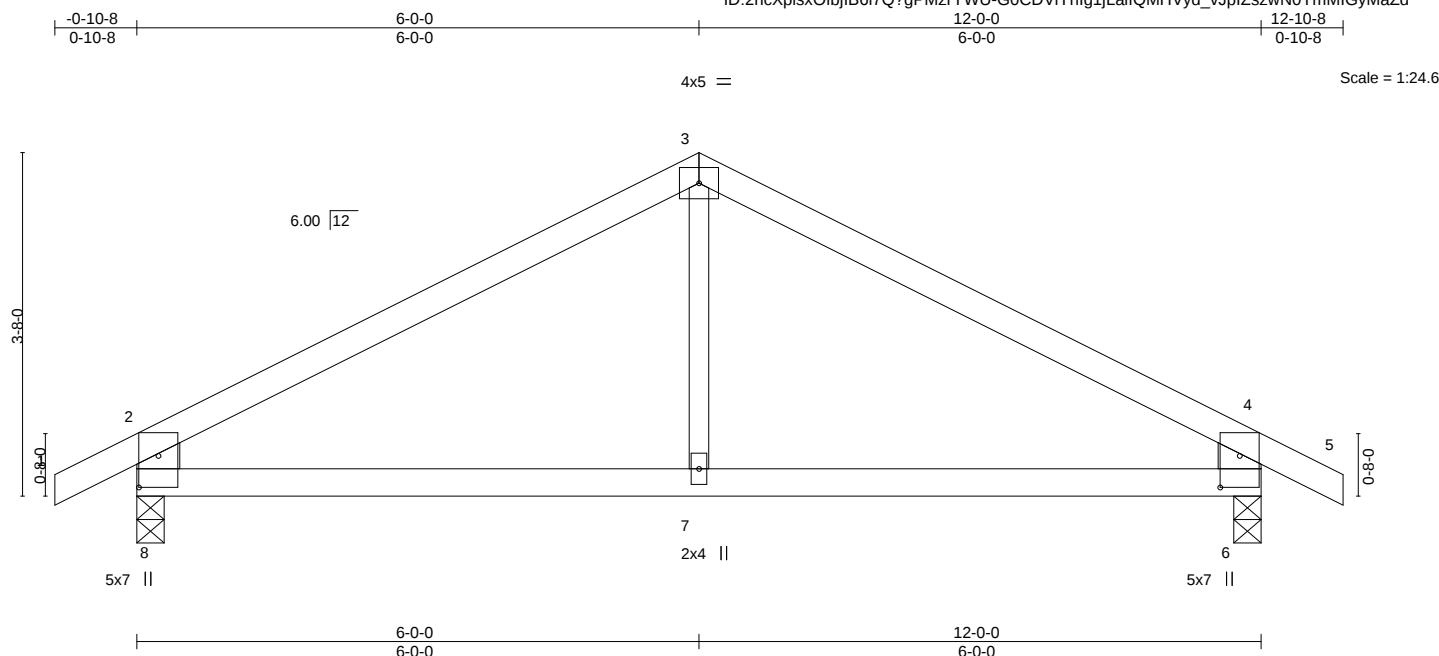


Plate Offsets (X,Y)-- [6:0-4-1,0-2-8], [8:0-4-1,0-2-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.02 7-8 >999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.05 7-8 >999	240	
BCLL	0.0 *	Rep Stress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

LUMBER-

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

BRACING-

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

REACTIONS.

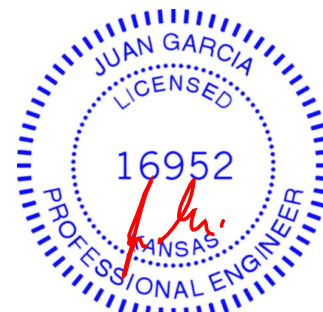
(size) 8=0-3-8, 6=0-3-8
 Max Horz 8=-62(LC 6)
 Max Uplift 8=-90(LC 8), 6=-90(LC 9)
 Max Grav 8=597(LC 1), 6=597(LC 1)

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

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

NOTES-

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



November 4, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493300
400712	B2	Monopitch	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

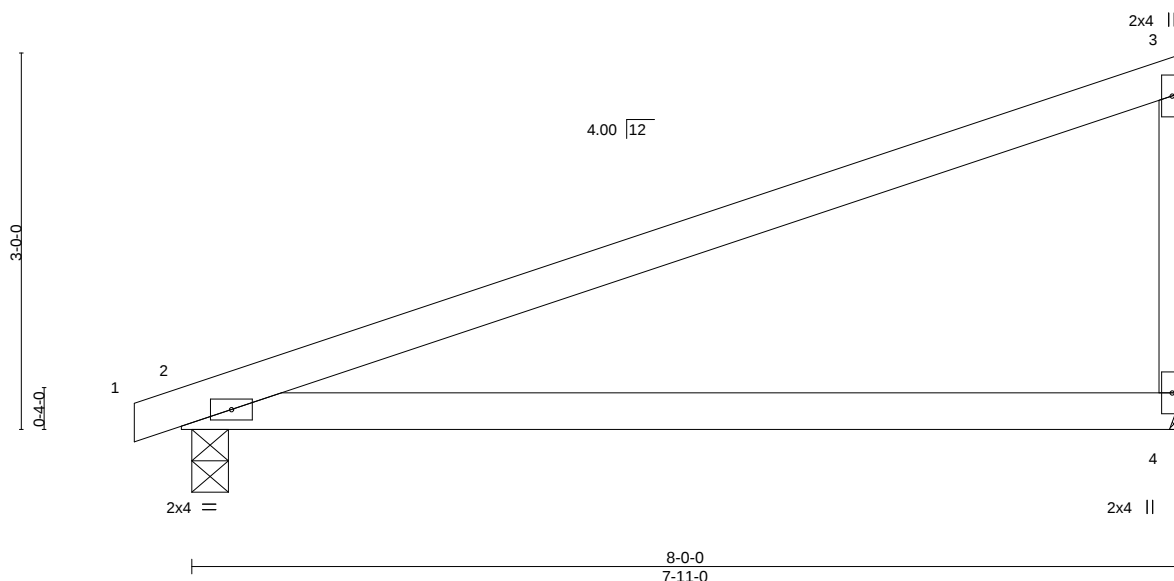
8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:39 2020 Page 1

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0-4-8
0-4-8

8-0-0
8-0-0

Scale = 1:18.4



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 0.77	Vert(LL)	-0.17	2-4	>553	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.34	2-4	>276	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: 21 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF 2100F 1.8E
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.

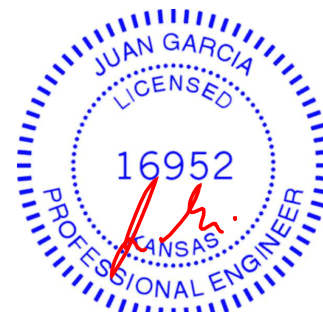
(size) 4=Mechanical, 2=0-3-8
Max Horz 2=121(LC 7)
Max Uplift 4=-74(LC 8), 2=-79(LC 4)
Max Grav 4=348(LC 1), 2=386(LC 1)

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

TOP CHORD 3-4=-270/121

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 74 lb uplift at joint 4 and 79 lb uplift at joint 2.
- 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.



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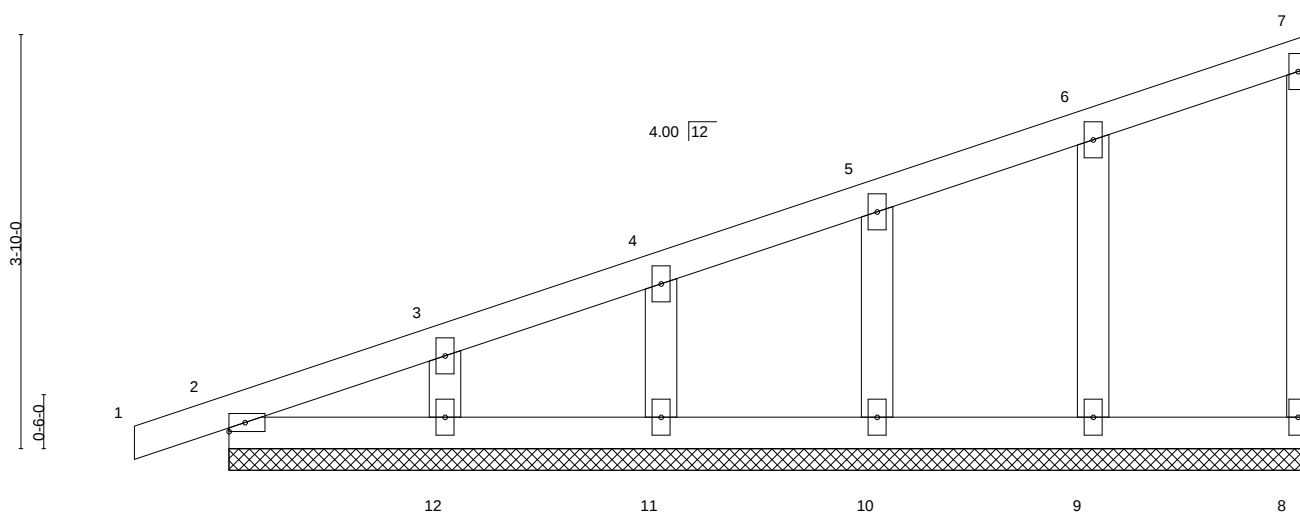
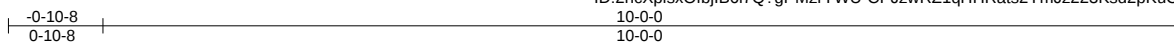
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493301
400712	C1	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:21.3

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	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 35 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 10-0-0.
(lb) - Max Horz 2=158(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 8, 2, 12, 11, 10, 9
Max Grav All reactions 250 lb or less at joint(s) 8, 2, 12, 11, 10, 9

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2, 12, 11, 10, 9.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 4, 2020

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

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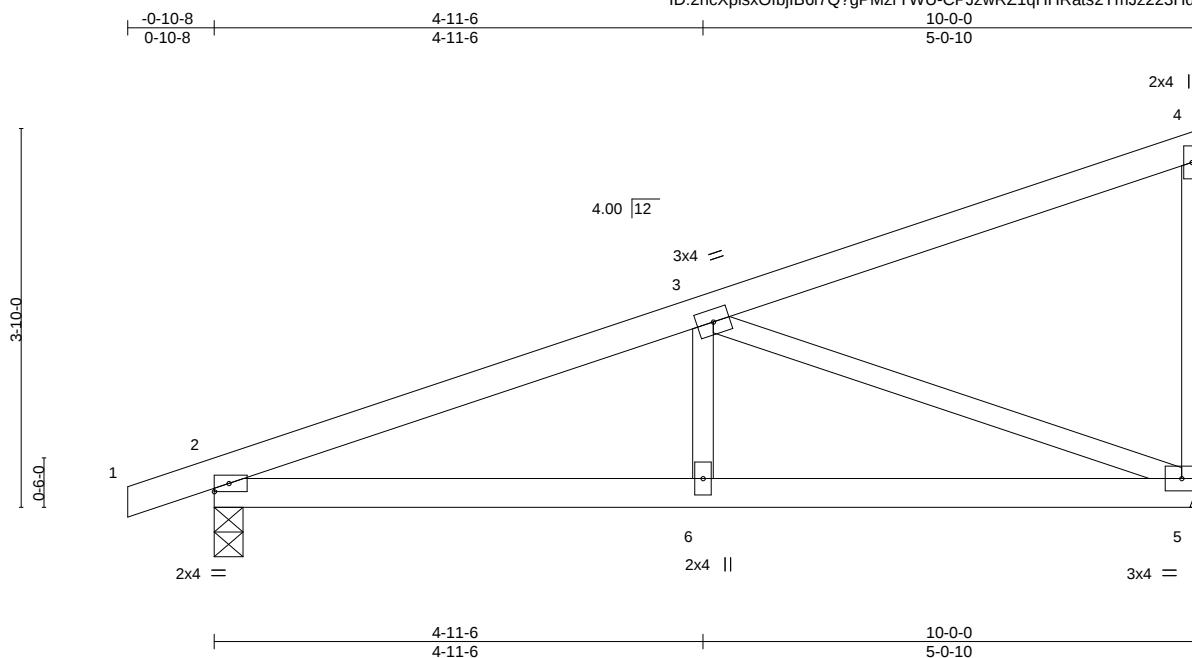
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493302
400712	C2	Monopitch	9	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:40 2020 Page 1

ID:2ncXplsxOfbjIB6l7Q?gPMzrYWU-CPJzwRZ1qHHRats2YmJz223Hdd_6KntgUsFTM9yMaZb



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 0.30	Vert(LL)	-0.02	2-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.04	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.01	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	2-6	>999	240	Weight: 33 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.

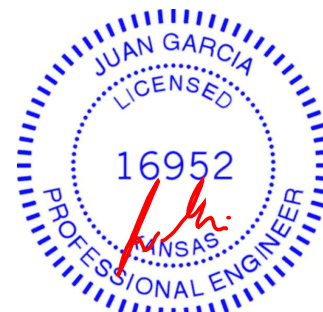
(size) 5=Mechanical, 2=0-3-8
Max Horz 2=158(LC 5)
Max Uplift 5=94(LC 8), 2=-115(LC 4)
Max Grav 5=435(LC 1), 2=514(LC 1)

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

TOP CHORD 2-3=-782/113
BOT CHORD 2-6=-134/682, 5-6=-134/682
WEBS 3-5=-714/178

NOTES-

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



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493303
400712	C3	Monopitch Structural Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:41 2020 Page 1
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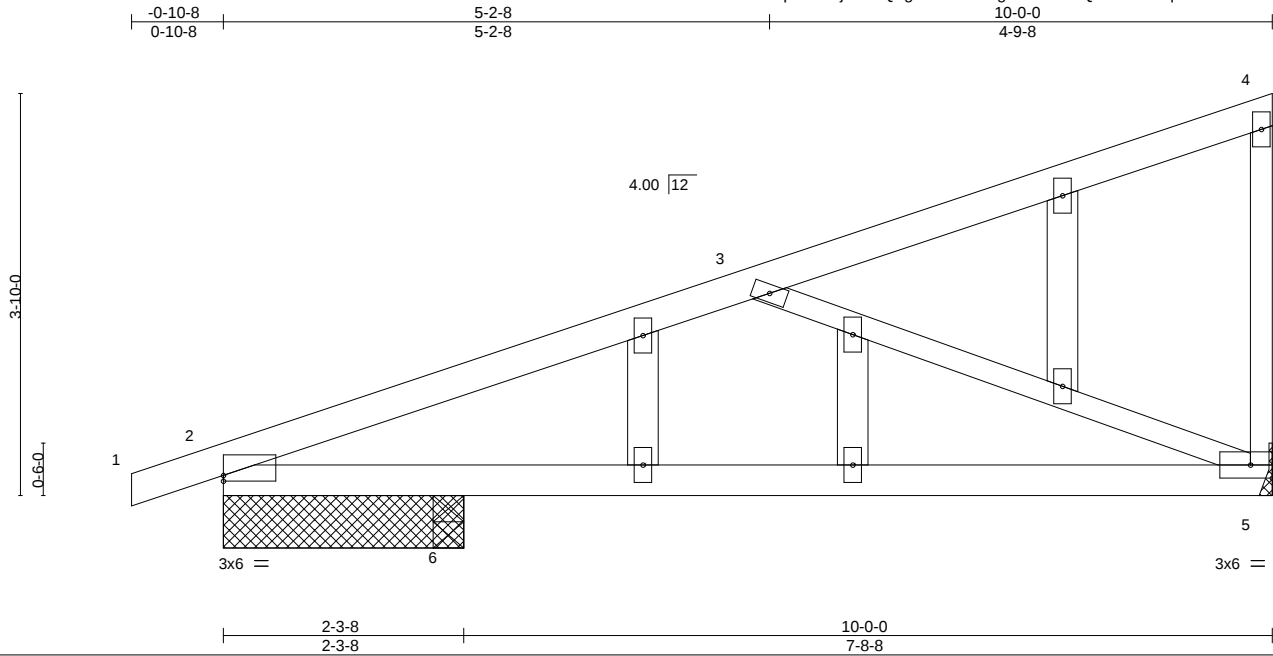


Plate Offsets (X,Y)-- [2:0-0-0,0-0-10]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.10	5-6	>935	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.20	5-6	>473	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	-0.01	5-6	>999	240	Weight: 36 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.

(size) 5=Mechanical, 2=2-3-8, 6=0-3-8
Max Horz 2=158(LC 5)
Max Uplift 5=112(LC 8), 2=172(LC 4)
Max Grav 5=398(LC 1), 2=349(LC 1), 6=346(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-619/203
BOT CHORD 2-6=-217/526, 5-6=-217/526
WEBS 3-5=-545/271

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable studs spaced at 2'-0-0 oc.
- 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) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=112, 2=172.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493304
400712	D1	Common Supported Gable	1	1		

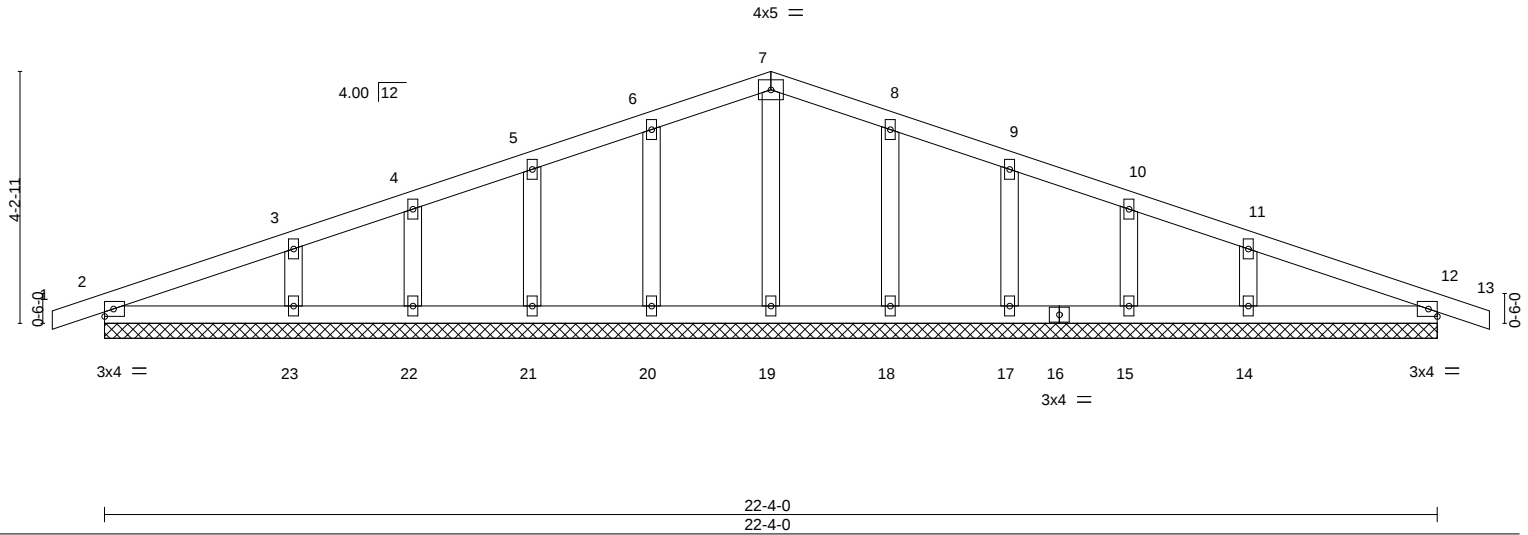
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:42 2020 Page 1

ID:2ncXplsXOfbjB6l7Q?gPMzrYWU-8oRkK6bHMvY9qB0QfBLR7T8gOQknoobzxAKaR2yMaZZ

0-10-8	11-2-0	22-4-0	23-2-8
0-10-8	11-2-0	11-2-0	0-10-8

Scale = 1:38.6



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 0.09	Vert(LL)	0.00	13	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	13	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 77 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 22-4-0.
(lb) - Max Horz 2=71(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 23, 18, 17, 15, 14, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 19, 20, 21, 22, 18, 17, 15, 12 except 23=275(LC 21),
14=275(LC 22)

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.
- 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) 2, 20, 21, 22, 23, 18, 17, 15, 14, 12.
- 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.



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493305
400712	D2	Common	5	1		

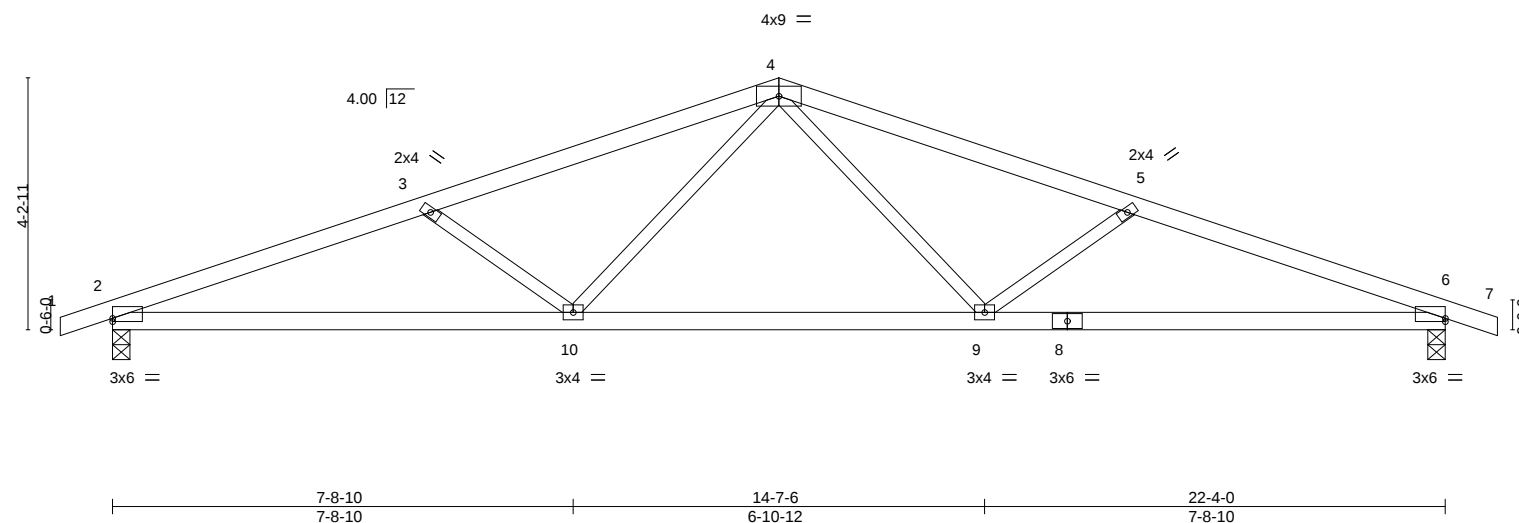
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:43 2020 Page 1

ID:2ncXplsXOfbjB6l7Q?gPMzrYWU-c_?6YSbv7Cg0RLbdDvsgfghlEqw4XDT6AqU7zUyMaZY

0-10-8	5-3-15	11-2-0	17-0-1	22-4-0	23-2-8
0-10-8	5-3-15	5-10-1	5-10-1	5-3-15	0-10-8

Scale = 1:38.6



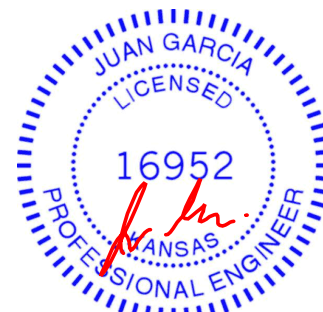
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.47	Vert(LL)	-0.12	9-10	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.25	6-9	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.07	6	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	9-10	>999	240	

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-7-2 oc purlins.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=71(LC 8)
Max Uplift 2=189(LC 4), 6=189(LC 5)
Max Grav 2=1063(LC 1), 6=1063(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2232/355, 3-4=-1909/259, 4-5=-1909/260, 5-6=-2232/355
BOT CHORD 2-10=-333/2049, 9-10=-127/1406, 6-9=-280/2049
WEBS 4-9=-59/541, 5-9=-418/221, 4-10=-58/541, 3-10=-418/221

- 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) 2=189, 6=189.
 - 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.



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493306
400712	E1	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:44 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-4AZUlocYuWot3VApncOvCuEtaEGgGguGPUDhVwyMaZX

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

4x5 ||

Scale = 1:32.5

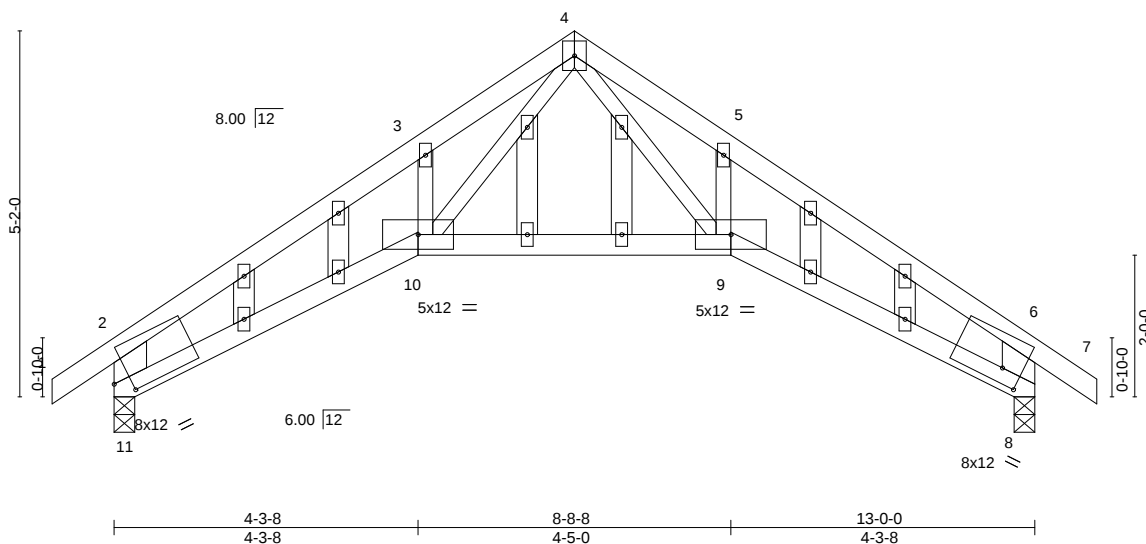


Plate Offsets (X,Y)-- [8:0-3-5,0-2-7], [11:0-2-13,0-2-7]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.16 9-10 >968 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.29 9-10 >511 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.27 8 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08 9-10 >999 240	Weight: 55 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-11,6-8: 2x6 SP DSS
 OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-11 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=0-3-8, 8=0-3-8
 Max Horz 11=154(LC 7)
 Max Uplift 11=-88(LC 8), 8=-88(LC 9)
 Max Grav 11=642(LC 1), 8=642(LC 1)

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

TOP CHORD 2-3=-1287/152, 3-4=-1079/272, 4-5=-1069/195, 5-6=-1287/84, 2-11=-1009/165, 6-8=-1009/102
 BOT CHORD 10-11=-127/1104, 9-10=0/624, 8-9=-11/1029
 WEBS 4-9=-180/520, 4-10=-219/592

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 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.
- Bearing at joint(s) 11, 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) 11, 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.



November 4, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	
400712	E2	Roof Special	5	1		I43493307
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:44 2020 Page 1

ID:2ncXplsXOfbjIB6I7Q?gPMZrYWU-4AZUlocYuWot3VApncOvCuEufECqGgkGPUDhVwyMaZX



4x5 ||

Scale = 1:29.1

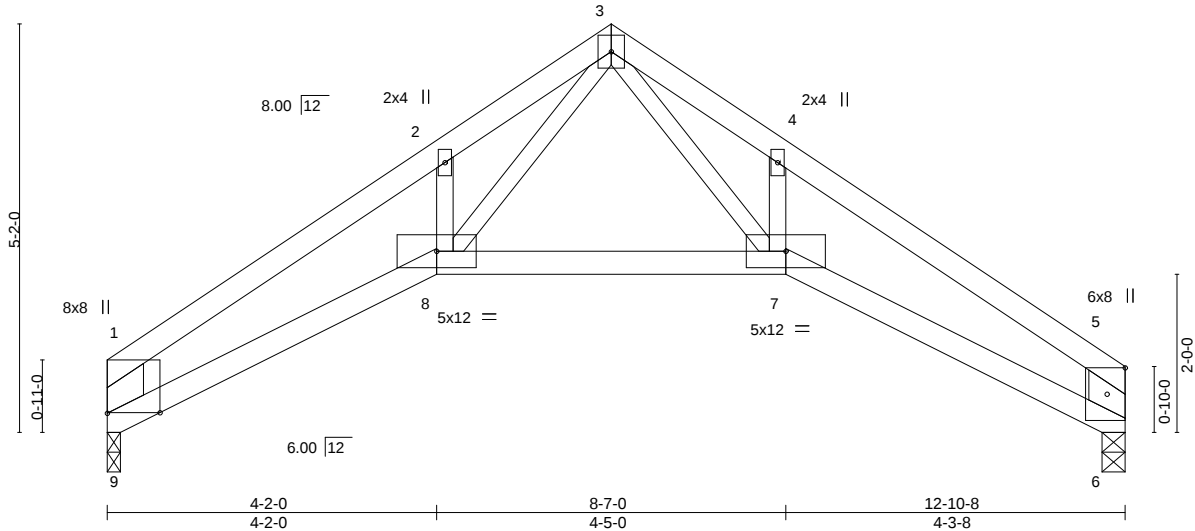


Plate Offsets (X,Y)--		[1:0-0-1,Edge]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.62		Vert(LL)	-0.24 7-8	>610	360
TCDL 10.0		Lumber DOL	1.15	BC 0.85		Vert(CT)	-0.45 7-8	>331	240
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.18		Horz(CT)	0.40 6	n/a	n/a
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.14 7-8	>999	240
								PLATES	GRIP
								MT20	197/144
								Weight: 44 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-9,5-6: 2x6 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 9=0-2-0, 6=0-3-8
Max Horz 9=-135(LC 4)
Max Uplift 9=-61(LC 8), 6=-62(LC 9)
Max Grav 9=559(LC 1), 6=559(LC 1)

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

TOP CHORD 1-2=-1235/160, 2-3=-1049/277, 3-4=-1082/227, 4-5=-1263/97, 1-9=-874/141, 5-6=-889/100
BOT CHORD 8-9=-143/1032, 7-8=-1/594, 6-7=-38/1012
WEBS 3-8=-218/570, 3-7=-197/548

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) 9, 6 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 at joint(s) 9.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 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.



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493308
400712	E3	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:46 2020 Page 1

ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-1ZhEAUeoP72bloJCu1QNHJJLb25hkafZsoinapyMaZV

0-10-8 10-0-0 20-0-0 20-10-8
0-10-8 10-0-0 10-0-0 0-10-8

3x4 =

Scale = 1:46.9

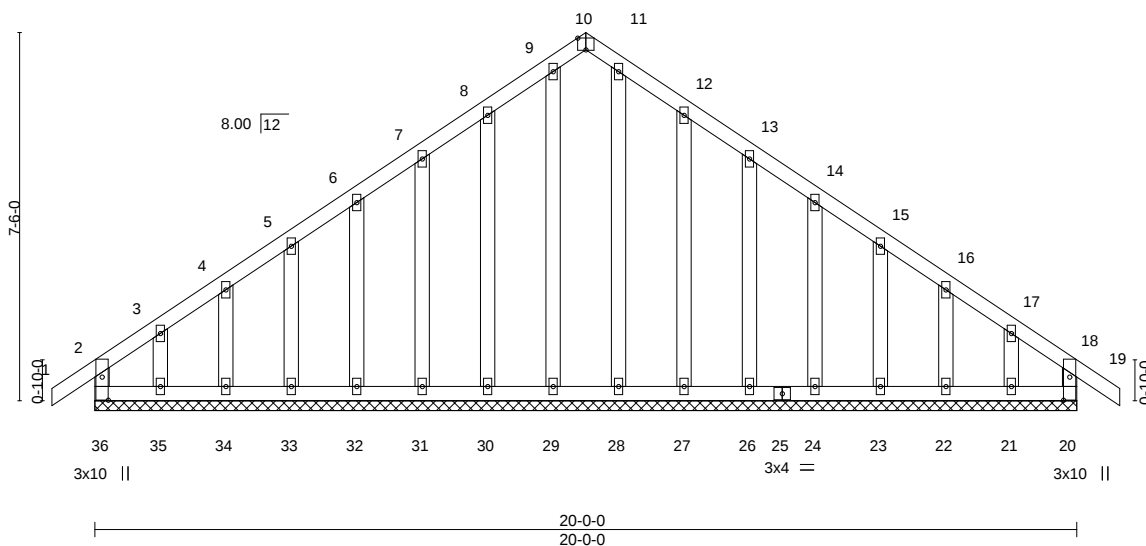


Plate Offsets (X,Y)--										[10:0-2-0,Edge], [20:0-5-10,0-1-8], [36:0-5-10,0-1-8]											
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP			
TCLL	25.0	Plate Grip DOL		1.15		TC 0.08		Vert(LL)		-0.00		19		n/r		120		MT20		197/144	
TCDL	10.0	Lumber DOL		1.15		BC 0.06		Vert(CT)		-0.00		19		n/r		120					
BCLL	0.0 *	Rep Stress Incr		YES		WB 0.09		Horz(CT)		0.00		20		n/a		n/a					
BCDL	10.0	Code IRC2018/TPI2014				Matrix-R												Weight: 115 lb		FT = 10%	

LUMBER-

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

BRACING-

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

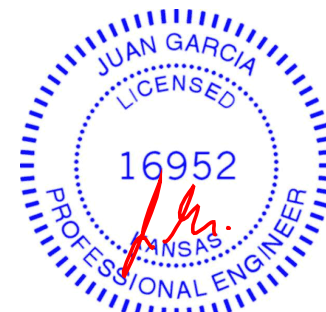
REACTIONS.

All bearings 20-0-0.
(lb) - Max Horz 36=-213(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 36, 20, 34, 33, 32, 31, 30, 27, 26, 24, 23, 22 except 35=-133(LC 8), 21=-120(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 36, 20, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 24, 23, 22, 21

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) 36, 20, 34, 33, 32, 31, 30, 27, 26, 24, 23, 22 except (jt=lb) 35=133, 21=120.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	
400712	E4	COMMON GIRDER	1	3		I43493309
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-VIEdOqfQARASwyuOSlxcqWsQJRMYTvqi5SSL6FyMaZU

0-10-8	5-9-13	10-0-0	14-2-2	20-0-0
0-10-8	5-9-13	4-2-2	4-2-3	5-9-14

5x7 ||

Scale = 1:45.9

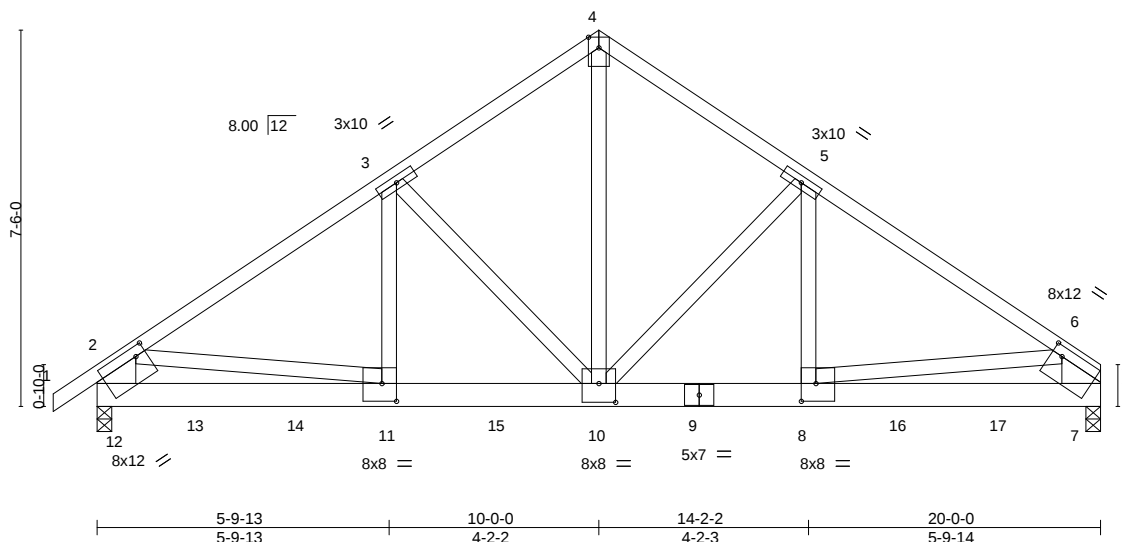


Plate Offsets (X,Y)-- [6:0-2-8,0-2-4], [8:0-3-8,0-4-4], [10:0-4-0,0-4-8], [11:0-3-8,0-4-4], [12:0-2-8,0-2-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.07 10-11 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.13 10-11 >999 240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.02 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04 10-11 >999 240	Weight: 362 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-6: 2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except*
2-12,6-7: 2x10 SP DSS

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 (req. 0-4-3), 12=0-3-8 (req. 0-4-4)
Max Horz 12=208(LC 26)
Max Uplift 7=401(LC 9), 12=281(LC 8)
Max Grav 7=7989(LC 1), 12=8075(LC 1)

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

TOP CHORD 2-3=-9669/321, 3-4=-7079/323, 4-5=-7097/323, 5-6=-9688/369, 2-12=-6264/280, 6-7=-6182/268
BOT CHORD 11-12=-253/2865, 10-11=-276/7932, 8-10=-232/7959, 7-8=-219/2759
WEBS 4-10=-268/7463, 5-10=-3109/283, 5-8=-102/3457, 3-10=-3021/217, 3-11=-34/3313, 2-11=-86/5119, 6-8=-63/5275

NOTES-

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-4-0 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; 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.
- WARNING: Required bearing size at joint(s) 7, 12 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=401, 12=281.
- 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.



November 4, 2020

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR
400712	E4	COMMON GIRDER	1	3	I43493309
Job Reference (optional)					

NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1659 lb down and 39 lb up at 2-0-0, 1659 lb down and 39 lb up at 4-0-0, 1583 lb down and 39 lb up at 6-0-0, 1583 lb down and 39 lb up at 8-0-0, 1668 lb down and 39 lb up at 10-0-0, 1665 lb down and 39 lb up at 12-0-0, 1665 lb down and 39 lb up at 14-0-0, and 1665 lb down and 39 lb up at 16-0-0, and 1578 lb down and 219 lb up at 18-0-0 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: 1-2=-70, 2-4=-70, 4-6=-70, 7-12=-20
- Concentrated Loads (lb)
- Vert: 9=-1587(B) 10=-1583(B) 8=-1587(B) 11=-1583(B) 13=-1578(B) 14=-1578(B) 15=-1583(B) 16=-1587(B) 17=-1578(B)

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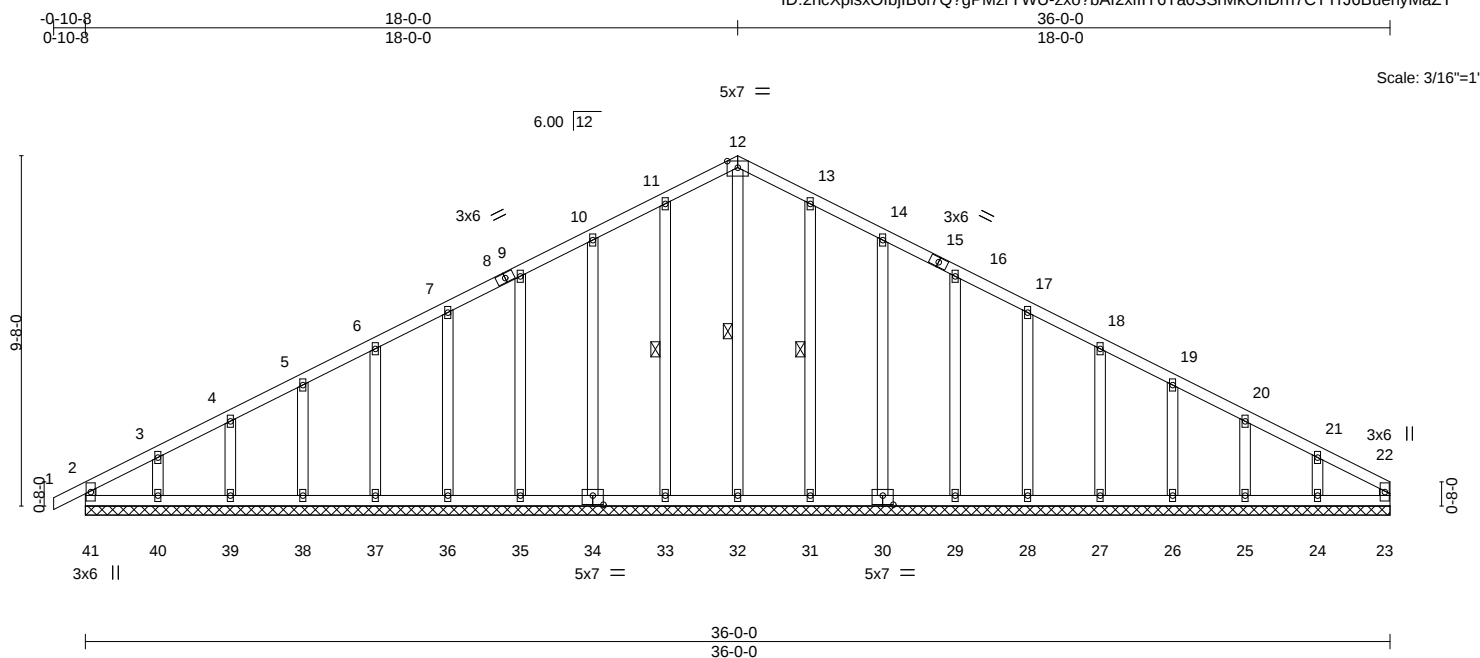


Plate Offsets (X,Y)-- [30:0-3-8,0-3-0], [34:0-3-8,0-3-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00 1 n/r 120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00 1 n/r 120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01 23 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R				Weight: 183 lb	FT = 10%

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

BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 12-32, 11-33, 13-31

REACTIONS. All bearings 36-0-0.
(lb) - Max Horz 41=161(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 41, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25
except 40=112(LC 8), 24=-103(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 41, 23, 32, 33, 34, 35, 36, 37, 38, 39, 40, 31, 30, 29, 28,
27, 26, 25, 24

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 11-12=-46/254

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; 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
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 41, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25 except (jt=lb) 40=112, 24=103.
- 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.



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493311
400712	G2	Roof Special	6	1		

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:50 2020 Page 1
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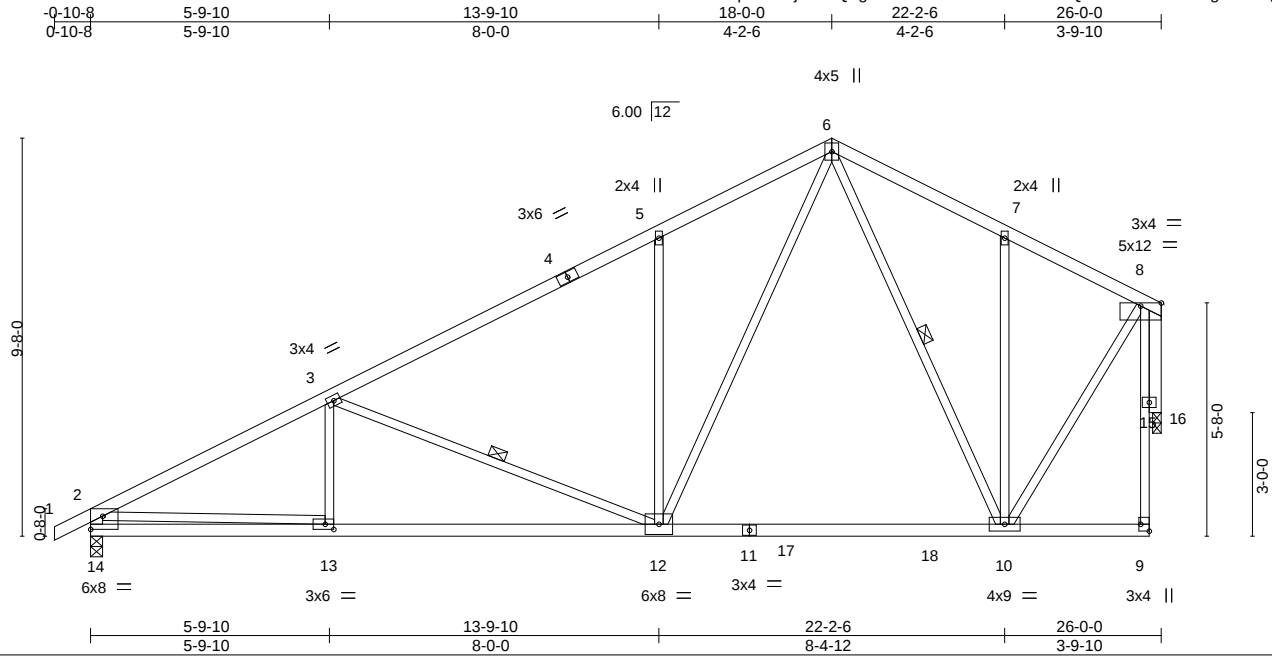


Plate Offsets (X,Y)-- [9:Edge,0-2-8], [13:0-2-8,0-1-8], [14:Edge,0-3-13]

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 0.68	Vert(LL)	-0.21 10-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.33 10-12	>923	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.73	Horz(CT)	0.18 16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 12-13	>999	240	Weight: 118 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14: 2x4 SPF No.2
OTHERS 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 9-3-13 oc bracing.
WEBS 1 Row at midpt 3-12, 6-10

REACTIONS. (size) 14=0-3-8, 16=0-2-8
Max Horz 14=243(LC 5)
Max Uplift 14=-178(LC 8), 16=-139(LC 8)
Max Grav 14=1273(LC 2), 16=1213(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2023/262, 3-5=-1401/193, 5-6=-1376/338, 6-7=-718/167, 7-8=-668/113, 2-14=-1178/205
BOT CHORD 13-14=-287/524, 12-13=-392/1763, 10-12=-59/727
WEBS 3-12=-647/234, 5-12=-497/274, 6-12=-283/1095, 6-10=-381/102, 7-10=-342/183, 2-13=-106/1277, 8-10=-99/1005, 8-16=-1219/140

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
- The Fabrication Tolerance at joint 2 = 2%
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 16 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 at joint(s) 16.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=178, 16=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.



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493313
400712	G4	Common	3	1		

Wheeler Lumber, Waverly, KS - 66871,

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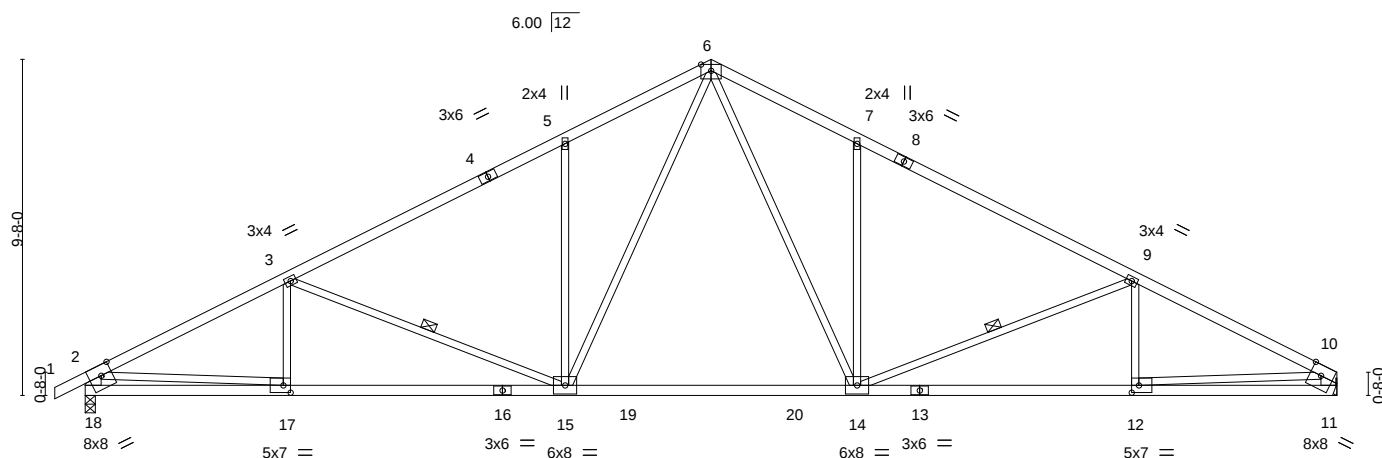
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Job Reference (optional)

0-10-8	5-9-10	13-9-10	18-0-0	22-2-6	30-2-6	36-0-0
0-10-8	5-9-10	8-0-0	4-2-6	4-2-6	8-0-0	5-9-10

5x7 =

Scale = 1:66.3



5-9-10	13-9-10	22-2-6	30-2-6	36-0-0
5-9-10	8-0-0	8-4-12	8-0-0	5-9-10

Plate Offsets (X,Y)-- [11:0-3-12,Edge], [12:0-2-8,0-2-8], [17:0-2-8,0-2-8], [18:0-3-12,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 0.92	Vert(LL)	-0.27	14-15	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.43	14-15	>994	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.08	11	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	15-17	>999	240	
								Weight: 144 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-18,10-11: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 9-14, 3-15

REACTIONS.

(size) 18=0-3-8, 11=Mechanical
Max Horz 18=123(LC 5)
Max Uplift 18=-31(LC 8), 11=-19(LC 9)
Max Grav 18=1744(LC 2), 11=1679(LC 2)

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

TOP CHORD 2-3=-2884/46, 3-5=-2375/55, 5-6=-2353/150, 6-7=-2353/150, 7-9=-2377/55,
9-10=-2890/47, 2-18=-1639/57, 10-11=-1572/45
BOT CHORD 17-18=-107/674, 15-17=-80/2566, 14-15=0/1618, 12-14=0/2530, 11-12=-15/514
WEBS 6-14=-117/1074, 7-14=-495/166, 9-14=-586/111, 6-15=-117/1073, 5-15=-500/166,
3-15=-572/109, 2-17=0/1927, 10-12=0/2024

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) 18, 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.



November 4,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493314
400712	G5	Roof Special	2	1		

Wheeler Lumber, Waverly, KS - 66871,

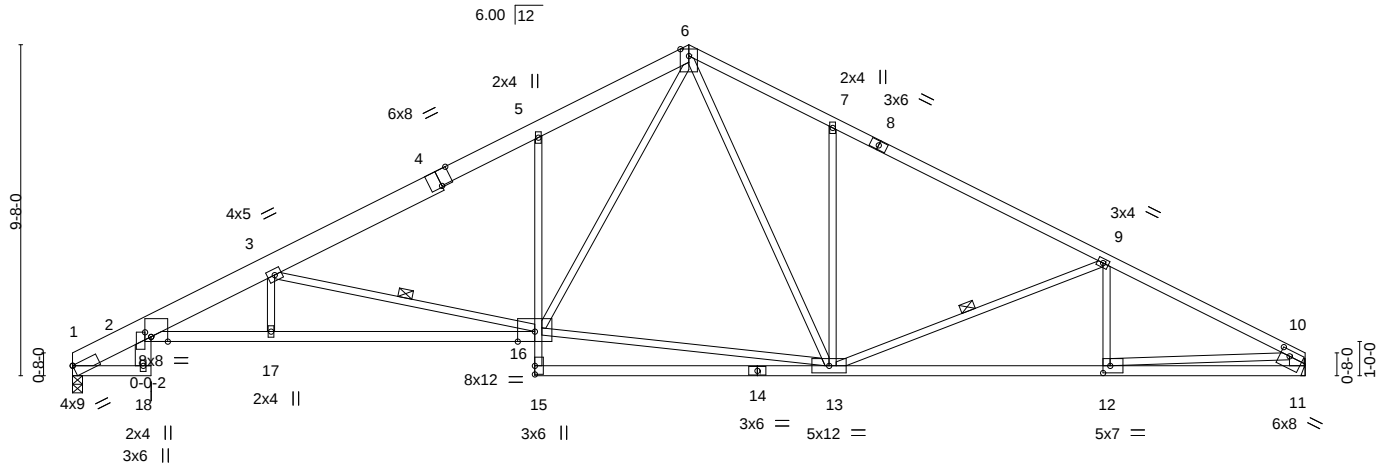
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ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-JvcuetjBmHwbetMYo?203n5LvsImtXQbTNvfKvyMaZO

-0-10-8	2-3-8	5-9-9	13-6-0	18-0-0	22-2-6	30-2-6	36-0-0
0-10-8	2-3-8	3-6-1	7-8-7	4-6-0	4-2-6	8-0-0	5-9-10

6x8 ||

Scale = 1:67.3



2-3-8	5-9-9	13-6-0	22-2-6	30-2-6	36-0-0
2-3-8	3-6-1	7-8-7	8-8-6	8-0-0	5-9-10

Plate Offsets (X,Y)-- [1:Edge,0-0-1], [2:0-5-14,Edge], [2:0-1-10,0-2-2], [4:0-4-0,Edge], [11:0-3-4,0-2-0], [12:0-2-8,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.91	Vert(LL)	-0.28 16-17	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.58 16-17	>743	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.99	Horz(CT)	0.31 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.15 16-17	>999	240	Weight: 172 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-6: 2x6 SPF No.2, 1-4: 2x8 SP DSS
BOT CHORD 2x4 SPF No.2 *Except*
2-16: 2x4 SPF 2100F 1.8E, 5-15: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-18,10-11: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 11=Mechanical
Max Horz 1=116(LC 5)
Max Uplift 1=-19(LC 8), 11=-19(LC 9)
Max Grav 1=1603(LC 1), 11=1603(LC 1)

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

TOP CHORD 1-2=-860/60, 2-3=-3967/81, 3-5=-2652/57, 5-6=-2598/151, 6-7=-2231/147,
7-9=-2270/53, 9-10=-2774/49, 10-11=-1537/46
BOT CHORD 2-17=-130/3819, 16-17=-126/3814, 5-16=-458/158, 12-13=-1/2417, 11-12=-13/447
WEBS 3-16=-1619/147, 13-16=0/1525, 6-16=-115/1348, 6-13=-124/834, 7-13=-478/164,
9-13=-581/115, 10-12=0/1977

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) 1, 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.



November 4,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493315
400712	G6	Roof Special	1	1		
Job Reference (optional)						

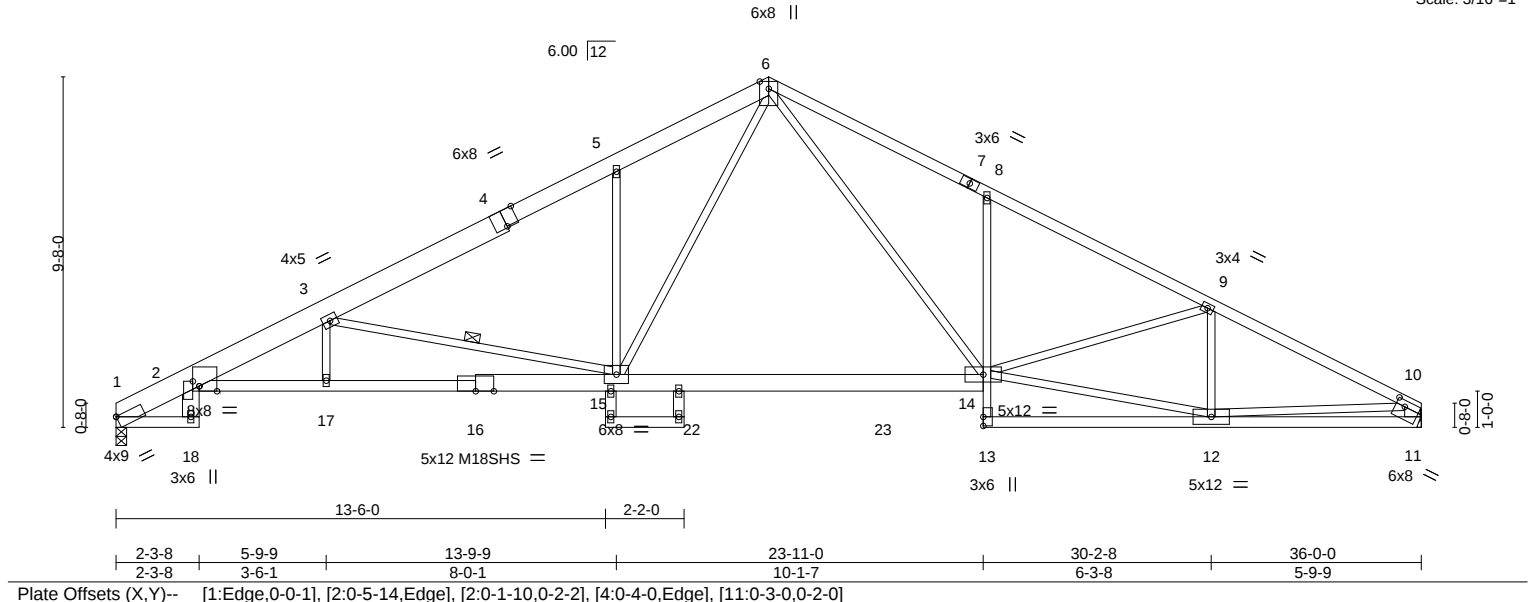
Wheeler Lumber, Waverly, KS - 66871,

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ID:2ncXplsXOfbjIB6i7Q?gPMzrYWU-o5AGsDkpXb2SG1xkMjZFc?eYdGbFc_aki1eCsLyMaZn

0-10-8	2-3-8	5-9-9	13-9-9	18-0-0	23-11-0	30-2-8	36-0-0
0-10-8	2-3-8	3-6-1	8-0-1	4-2-7	5-11-0	6-3-8	5-9-9

Scale: 3/16"=1'



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.40 14-15 >999	360	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.68 14-15 >626	240	M18SHS	197/144	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.33 11 n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.14 17 >999	240			
								Weight: 180 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 4-6: 2x6 SPF No.2, 1-4: 2x8 SP DSS	TOP CHORD	Structural wood sheathing directly applied or 2-9-12 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2 *Except* 2-16: 2x4 SPF 2100F 1.8E, 8-13: 2x3 SPF No.2, 14-16: 2x6 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS	2x3 SPF No.2 *Except* 2-18,10-11: 2x6 SPF No.2, 15-19,20-21: 2x4 SPF No.2	WEBS	2-2-0 oc bracing: 15-17. 1 Row at midpt 3-15

REACTIONS.	
(size)	1=0-3-8, 11=Mechanical
Max Horz	1=116(LC 5)
Max Uplift	1=-19(LC 8), 11=-19(LC 9)
Max Grav	1=1686(LC 2), 11=1688(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-2=-933/60, 2-3=-4112/96, 3-5=-2863/39, 5-6=-2813/133, 6-8=-2991/142, 8-9=-2973/44, 9-10=-2882/40, 10-11=-1584/47
BOT CHORD	2-17=-143/4048, 15-17=-140/4043, 14-15=0/1838, 8-14=-455/151, 11-12=-29/525
WEBS	3-15=-1608/179, 5-15=-460/157, 6-15=-82/1401, 6-14=-112/1343, 12-14=0/2484, 9-12=-458/74, 10-12=0/1996

- 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 MT20 plates unless otherwise indicated.
 - 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, 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) 1, 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.



November 4,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493316
400712	G7	Roof Special	3	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

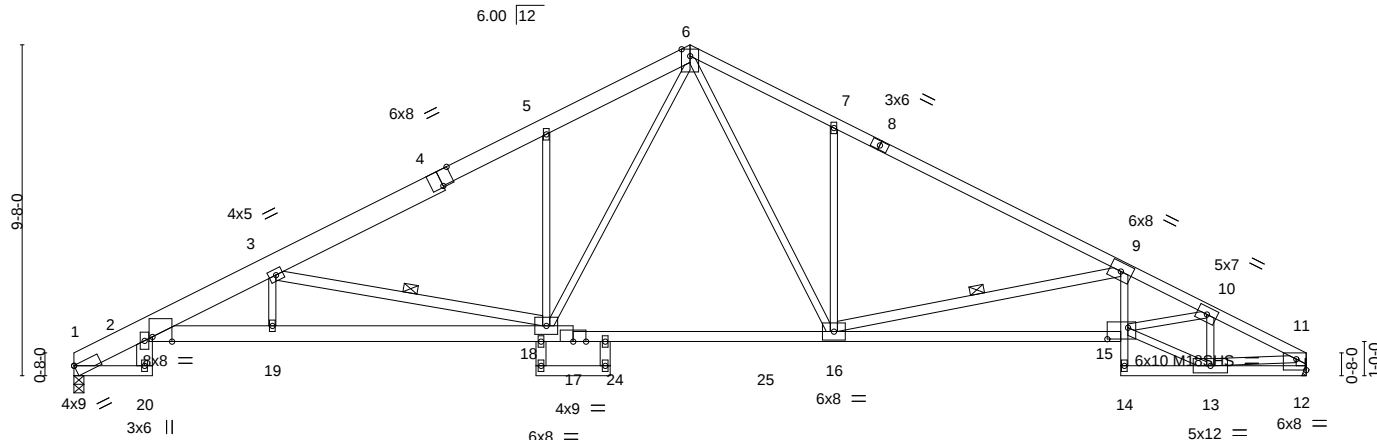
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ID:2ncXplsXOfbJlB6I7Q?gPMzrYWU-GIje3ZIRIuAJtBVvwQ4U9CBkg?HLTGtwhOmOnyMaZM

-0-10-8	2-3-8	5-9-9	13-9-9	18-0-0	22-2-7	30-7-0	33-2-7	36-0-0
0-10-8	2-3-8	3-6-1	8-0-1	4-2-7	4-2-7	8-4-9	2-7-6	2-9-10

6x8 ||

Scale = 1:67.3



2-3-8	5-9-9	13-9-9	22-2-7	30-7-0	33-2-7	36-0-0
2-3-8	3-6-1	8-0-1	8-4-13	8-4-9	2-7-6	2-9-10

Plate Offsets (X,Y)-- [1:Edge,0-0-1], [2:0-6-14,Edge], [4:0-4-0,Edge], [12:Edge,0-3-13], [15:0-7-4,0-4-0]

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 0.76	Vert(LL)	-0.35 16-18	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.63 15-16	>676	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.40 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.15 18-19	>999	240		
								Weight: 183 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
6-8: 2x4 SPF No.2, 1-4: 2x8 SP DSS, 8-11: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
2-17: 2x6 SPF 1650F 1.4E, 9-14: 2x3 SPF No.2
15-17: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-20: 2x6 SPF No.2, 3-18,9-16,11-12,18-21,22-23: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-18, 9-16

REACTIONS.

(size) 1=0-3-8, 12=Mechanical
Max Horz 1=115(LC 5)
Max Uplift 1=-19(LC 8), 12=-19(LC 9)
Max Grav 1=1685(LC 2), 12=1685(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-932/61, 2-3=-4358/97, 3-5=-2824/48, 5-6=-2783/140, 6-7=-2725/129,
7-9=-2770/34, 9-10=-4642/68, 10-11=-2625/25, 11-12=-1592/33
BOT CHORD 2-19=-142/4224, 18-19=-140/4227, 16-18=0/1849, 15-16=-30/4263, 9-15=0/912,
12-13=-18/451
WEBS 3-18=-1836/171, 5-18=-462/158, 6-18=-112/1324, 6-16=-108/1243, 7-16=-490/168,
9-16=-1946/155, 13-15=0/2436, 10-15=-24/1927, 10-13=-1327/22, 11-13=0/1860

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 12.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493317
400712	G8	Roof Special	1	1		
Job Reference (optional)						

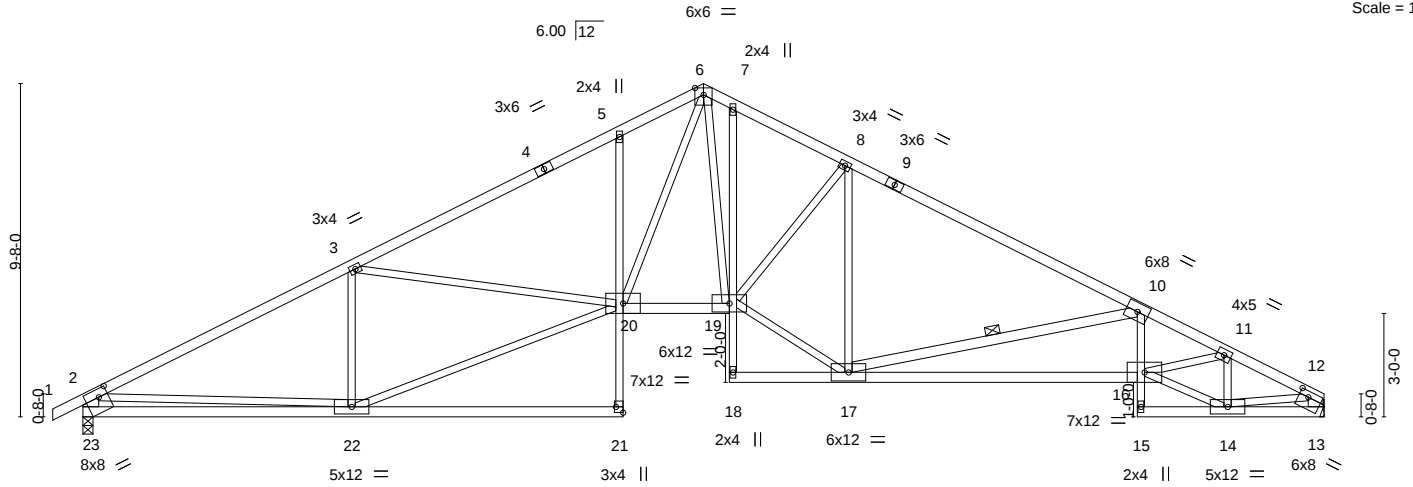
Wheeler Lumber, Waverly, KS - 66871,

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ID:2ncXplsXOfbJlB6l7Q?gPMzrYWU-kUHOGvm33CIAVL47U7bjhQjrB4NS4wo19L7JwEyMaZL

-0-10-8 7-9-9 15-8-0 18-0-0 18-9-0 22-2-8 30-7-0 33-2-7 36-0-0
0-10-8 7-9-9 7-10-8 2-4-0 0-9-0 3-5-8 8-4-9 2-7-7 2-9-9

Scale = 1:66.8



7-9-9 15-8-0 18-0-0 18-9-0 22-2-8 30-7-0 33-2-7 36-0-0
7-9-9 7-10-8 2-4-0 0-9-0 3-5-8 8-4-9 2-7-7 2-9-9

Plate Offsets (X,Y)-- [13:0-3-4,0-2-0], [21:Edge,0-2-8], [23:0-3-4,0-2-12]

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 0.97	Vert(LL)	-0.26	19-20	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.51	16-17	>830	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.88	Horz(CT)	0.29	13	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.17	5-20	>999	240	
								Weight: 166 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
5-21,7-18,10-15: 2x3 SPF No.2, 16-18: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
10-17: 2x4 SPF No.2, 2-23,12-13: 2x6 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
9-7-12 oc bracing: 22-23
6-0-0 oc bracing: 18-19,17-18.
WEBS 1 Row at midpt 10-17

REACTIONS.

(size) 23=0-3-8, 13=Mechanical
Max Horz 23=160(LC 8)
Max Uplift 23=-224(LC 8), 13=-199(LC 9)
Max Grav 23=1678(LC 1), 13=1598(LC 1)

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

TOP CHORD 2-3=-2729/328, 3-5=-3198/383, 5-6=-3131/498, 6-7=-2568/347, 7-8=-2760/348,
8-10=-2614/297, 10-11=-3944/497, 11-12=-2415/287, 2-23=-1604/264, 12-13=-1523/207
BOT CHORD 22-23=-364/893, 5-20=-415/238, 19-20=-101/2233, 16-17=-419/3632, 10-16=0/497,
13-14=-68/379
WEBS 3-22=-818/241, 20-22=-377/2472, 3-20=0/447, 6-20=-356/1416, 6-19=-158/988,
17-19=-114/2569, 8-19=-10/344, 8-17=-815/134, 10-17=-1450/368, 2-22=-8/1443,
12-14=-160/1746, 11-16=-179/1513, 14-16=-184/2128, 11-14=-1137/144

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; 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) 23=224, 13=199.
- 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.



November 4,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493319
400712	J2	Jack-Open	3	1	Job Reference (optional)	

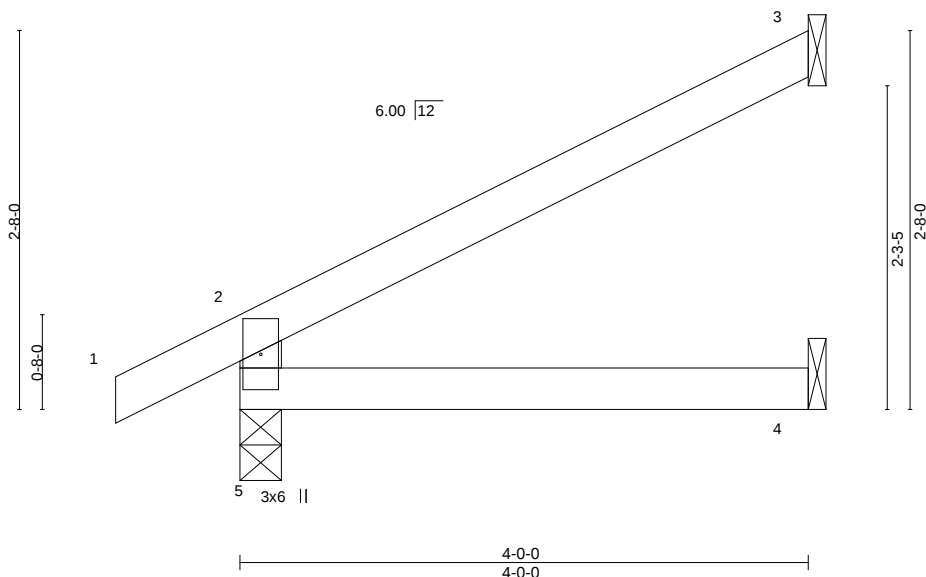
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:57 2020 Page 1

ID:2ncXplsXOfbjB6l7Q?gPMzrYWU-CgrOUFmhqWR17VfJ1r7yEdGCsTqEpaqAO?ttTgyMaZK

-0-10-8
0-10-8
4-0-0
4-0-0

Scale = 1:16.2



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

LUMBER-

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

BRACING-

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

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

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

NOTES-

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



November 4, 2020

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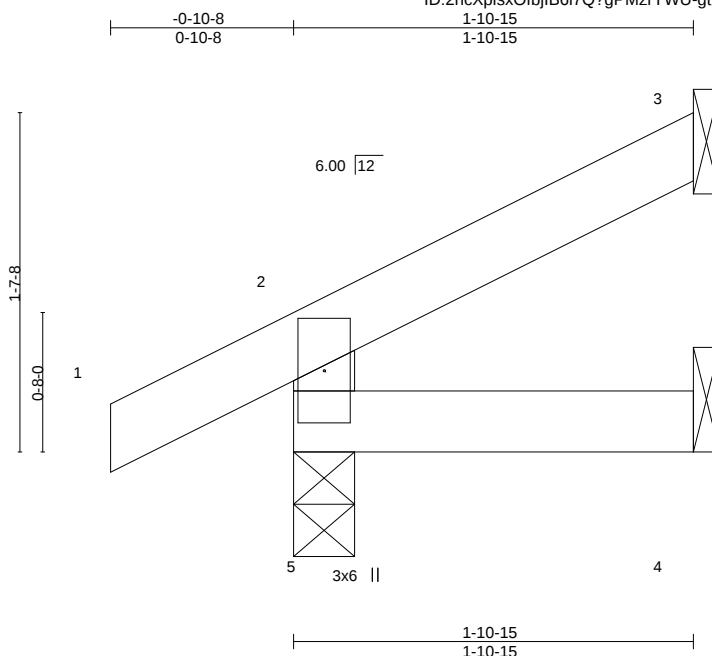


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493320
400712	J3	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:58 2020 Page 1
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-gtPnhbnKbpZukeEVbYeBmrpPhtB5Y14KdfcQ?6yMaZJ



Scale = 1:11.0

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 0.07	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	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 2x4 SPF No.2

BRACING-

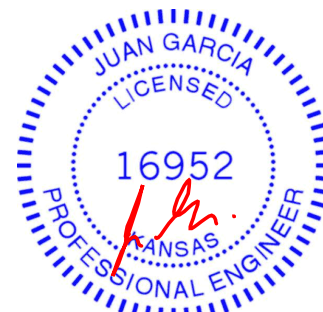
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=48(LC 8)
Max Uplift 5=-26(LC 8), 3=-30(LC 8)
Max Grav 5=171(LC 1), 3=44(LC 1), 4=31(LC 3)

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

NOTES-

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



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR
400712	J4	Jack-Closed Supported Gable	2	1	I43493321
Job Reference (optional)					

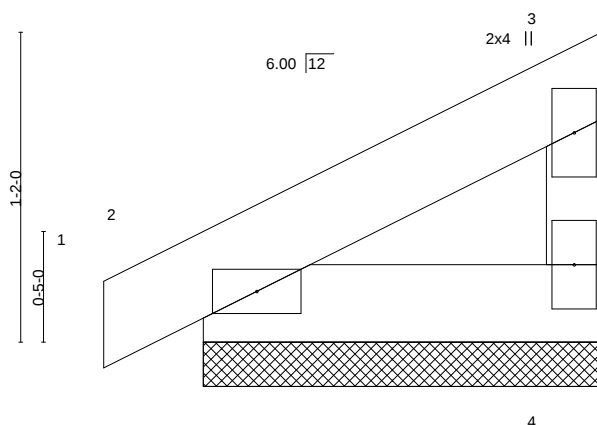
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:58 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-gtPnhbnKbpZukeEVbYeBmrpQntBAY14KdFcQ?6yMaZJ

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

Scale = 1:8.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	-0.00	1	n/r	120	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.02	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: 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 1-6-0 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=35(LC 5)
Max Uplift 4=-15(LC 8), 2=-17(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-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 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) 4, 2.
- 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.



November 4, 2020

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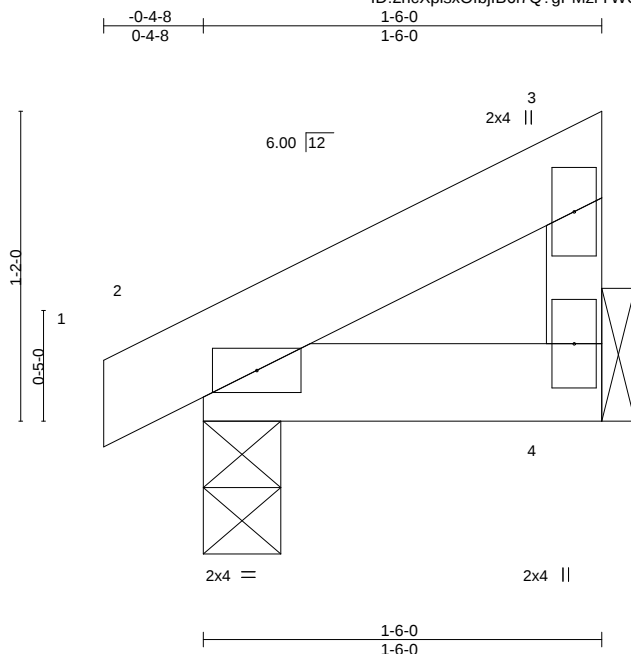
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR
400712	J5	Jack-Closed	2	1	
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:08:59 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-83z9vwoyL7hIMopi9G9QJ2Lb9HXQHUKTrJMZYyMaZl



Scale = 1:8.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.02	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	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

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=35(LC 5)
Max Uplift 4=-15(LC 8), 2=-17(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-

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 400712	Truss R1	Truss Type Common Girder	Qty 1	Ply 2	Lot 93 RR I43493323
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Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:00 2020 Page 1

ID:2ncXplsXOfbJlB617Q?gPMzrYWU-cFXX6Gpa6Rpb_yOujzgrGudQhoD0mOc4z5X3?yMaZH

-0-10-8	5-9-10	13-9-10	18-0-0	22-2-6	25-10-8	30-2-6	36-0-0
0-10-8	5-9-10	8-0-0	4-2-6	4-2-6	3-8-2	4-3-14	5-9-10

Scale = 1:63.0

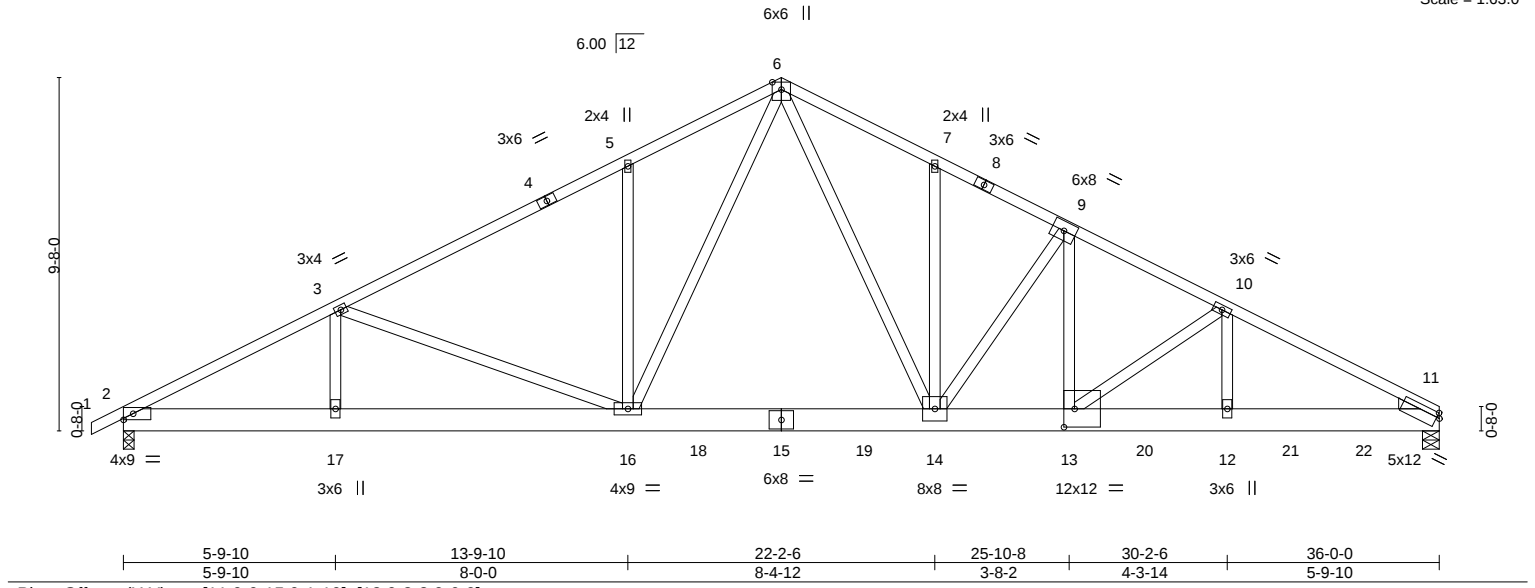


Plate Offsets (X,Y)--		[11:0-0-15,0-1-10], [13:0-3-8,0-6-0]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.63	Vert(LL) -0.19 13 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.36	Vert(CT) -0.34 13 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.72	Horz(CT) 0.07 11 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.12 13 >999 240	Weight: 459 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4,8-11: 2x4 SPF 2100F 1.8E
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-3-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 11=0-5-8
Max Horz 2=108(LC 24)
Max Uplift 2=193(LC 8), 11=594(LC 9)
Max Grav 2=3144(LC 2), 11=6326(LC 1)

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

TOP CHORD 2-3=-5931/375, 3-5=-5449/400, 5-6=-5412/494, 6-7=-7210/696, 7-9=-7209/630,
9-10=-10168/935, 10-11=-11530/1079
BOT CHORD 2-17=-372/5146, 16-17=-372/5146, 14-16=-248/4365, 13-14=-704/9043,
12-13=-886/10008, 11-12=-886/10008
WEBS 6-14=-548/4919, 7-14=-272/114, 10-13=-1422/224, 10-12=-146/1587, 6-16=-146/1101,
5-16=-472/166, 3-16=-637/228, 9-14=-4622/567, 9-13=-544/4883

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-2-0 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; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=193, 11=594.
- 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.
- Hangar(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4163 lb down and 450 lb up at 25-10-7, 539 lb down and 82 lb up at 27-11-4, 539 lb down and 82 lb up at 29-11-4, and 539 lb down and 82 lb up at 31-11-4, and 539 lb down and 82 lb up at 33-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of

Continued on page 2



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR
400712	R1	Common Girder	1	2	I43493323
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:00 2020 Page 2
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-cFXX6Gpa6Rpb_yOujzgfrGudQhoD0mOc4z5X3?yMaZH

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-6=-70, 6-11=-70, 2-11=-20

Concentrated Loads (lb)

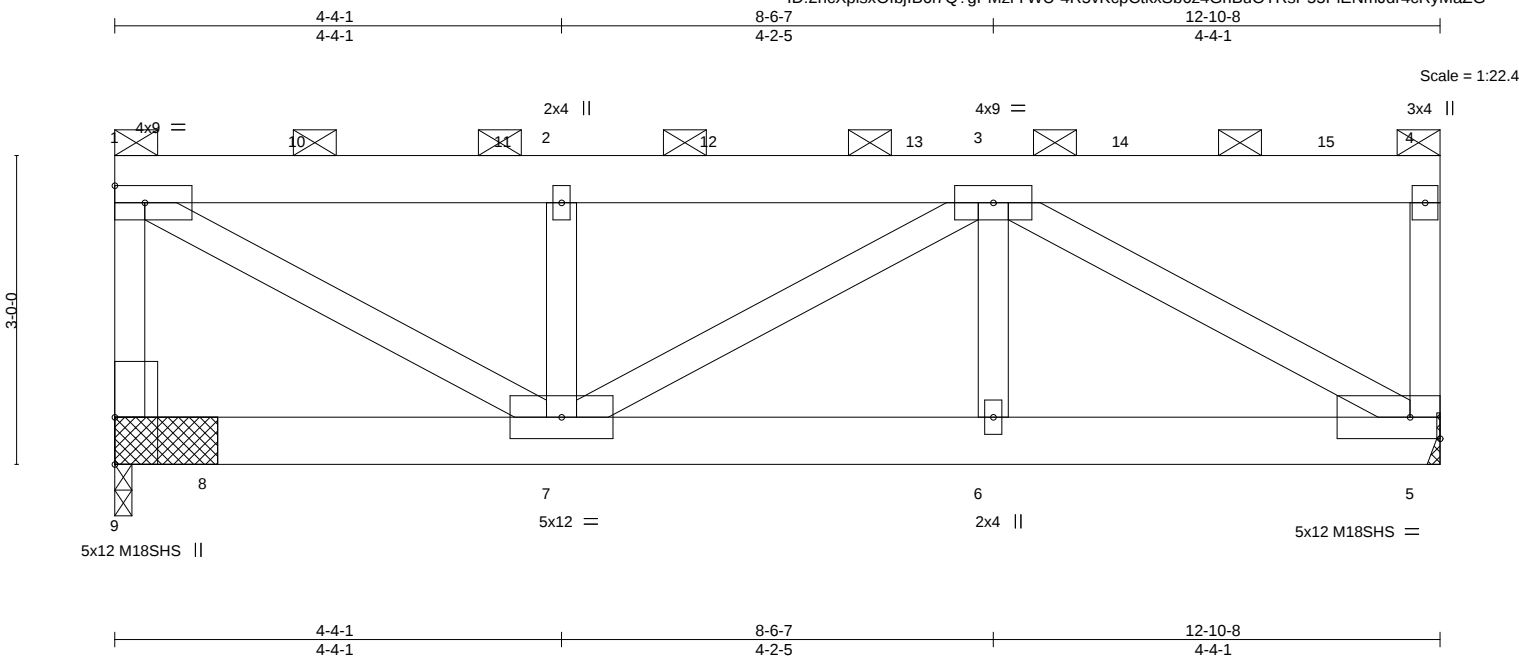
Vert: 13=-3956(F) 12=-539(F) 20=-539(F) 21=-539(F) 22=-539(F)

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493324
400712	R2	FLAT GIRDER	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:01 2020 Page 1

ID:2ncXplsXOfbJlB6l7Q?gPMzrYWU-4R5vKcpCtkxSb6z4GhBuOTRsP55PIENmJdr4cRyMaZG



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 0.30	Vert(LL)	-0.05	6-7	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.09	6-7	>999	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.67	Horz(CT)	0.02	5	n/a		n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03	6-7	>999		240
								Weight: 163 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SP DSS
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 9=(0-2-0 + bearing block) (req. 0-2-15), 5=Mechanical
Max Horz 9=-77(LC 4)
Max Uplift 9=-378(LC 4), 5=-430(LC 5)
Max Grav 9=3713(LC 2), 5=4198(LC 2)

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

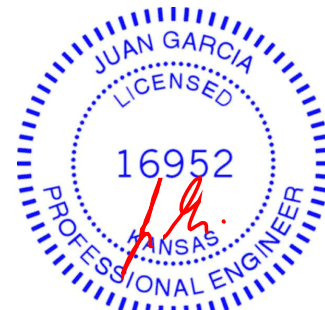
TOP CHORD 1-9=-3608/390, 1-2=-4787/489, 2-3=-4787/489, 4-5=-1234/150
BOT CHORD 6-7=-514/4839, 5-6=-514/4839
WEBS 1-7=-561/5455, 2-7=-2772/342, 3-5=-5514/569

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: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 2x6 SPF No.2 bearing block 12" long at jt. 9 attached to each face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners per block. Bearing is assumed to be SPF No.2.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 9=378, 5=430.
- 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) 1155 lb down and 142 lb up at 1-10-8, 1155 lb down and 142 lb up at 3-10-8, 1155 lb down and 142 lb up at 5-10-8, 1155 lb down and 142 lb up at 7-10-8, and 1155 lb down and 142 lb up at 9-10-8, and 1159 lb down and 142 lb up at 11-10-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S)

Standard



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR
400712	R2	FLAT GIRDER	1	2	I43493324
					Job Reference (optional)

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-70, 5-9=-20

Concentrated Loads (lb)

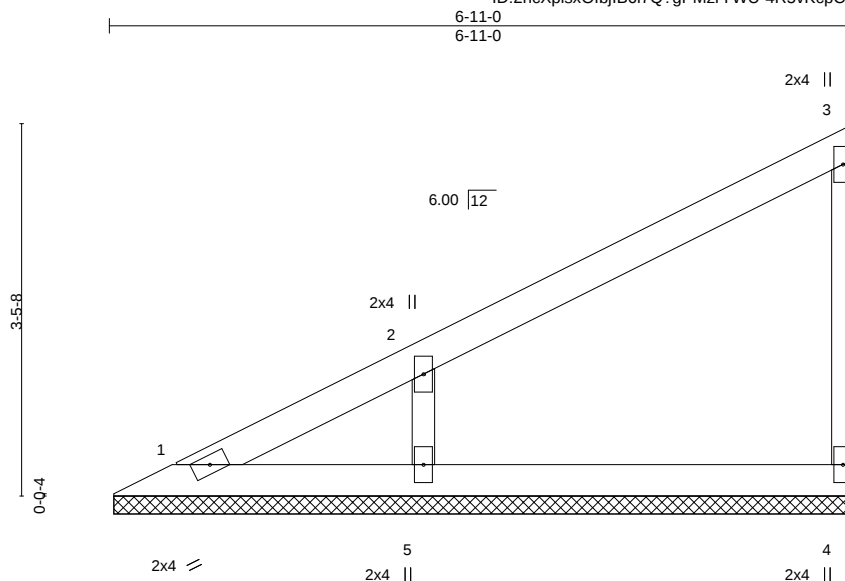
Vert: 10=-1061 11=-1061 12=-1061 13=-1061 14=-1061 15=-1066

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493325
400712	V1	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:01 2020 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-4R5vKcpCtkxSb6z4GhBuOTRu75CZIO1mJdr4cRyMaZG



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 0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 19 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

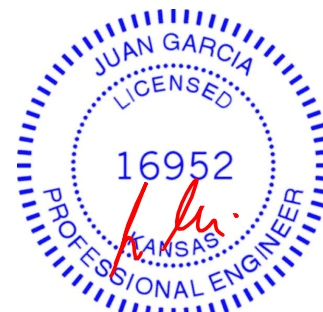
(size) 1=6-10-8, 4=6-10-8, 5=6-10-8
Max Horz 1=129(LC 5)
Max Uplift 4=-27(LC 8), 5=-110(LC 8)
Max Grav 1=66(LC 16), 4=142(LC 1), 5=368(LC 1)

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

WEBS 2-5=-286/159

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=110.
- 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.



November 4, 2020

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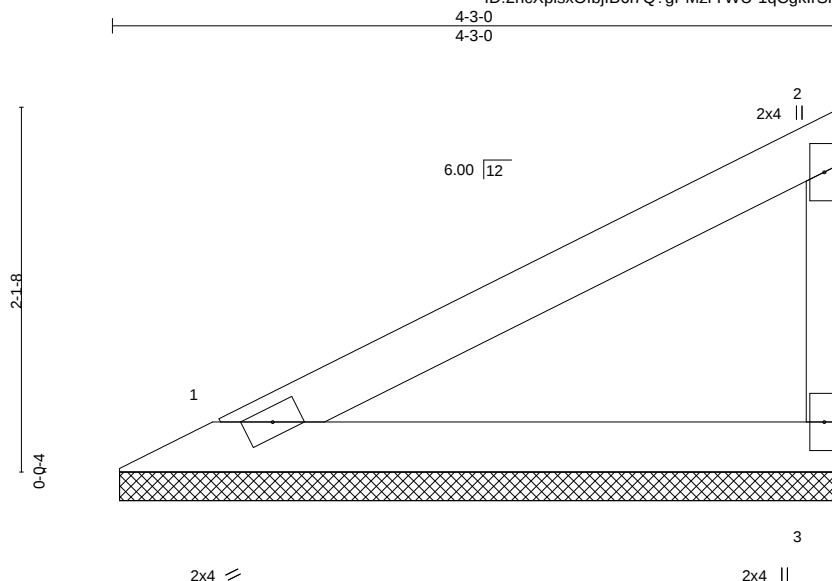
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493326
400712	V2	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:03 2020 Page 1

ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-1qCgkIrSPMBArQ7TO6DMTuWD0utiDIJ3mxKBgKyMaZE



Scale = 1:13.4

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 0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 11 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 4-3-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-2-8, 3=4-2-8
Max Horz 1=73(LC 5)
Max Uplift 1=-20(LC 8), 3=-39(LC 8)
Max Grav 1=158(LC 1), 3=158(LC 1)

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

NOTES-

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



November 4, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493327
400712	V3	Valley	1	1	Job Reference (optional)	

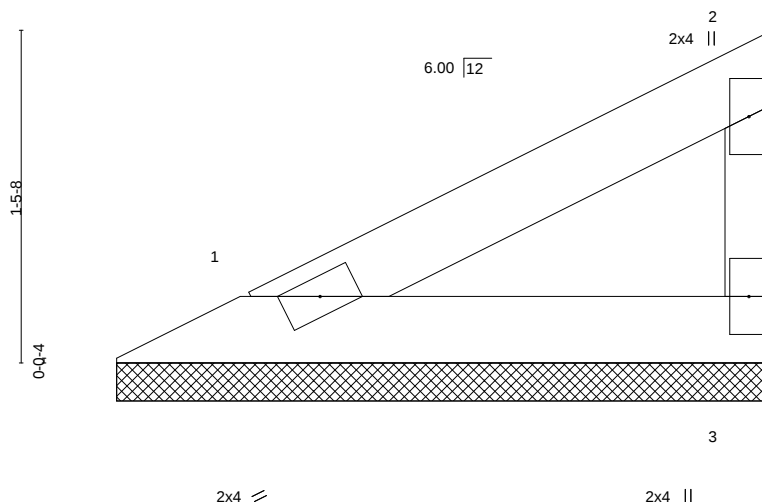
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:03 2020 Page 1

ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-1qCgkIrSPMBArQ7TO6DMTuWFHuWdIJ3mxKBgKyMaZE

2-11-0
2-11-0

Scale = 1:10.1



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 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 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 2-11-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-10-8, 3=2-10-8
Max Horz 1=46(LC 5)
Max Uplift 1=-13(LC 8), 3=-24(LC 8)
Max Grav 1=98(LC 1), 3=98(LC 1)

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

NOTES-

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



November 4, 2020

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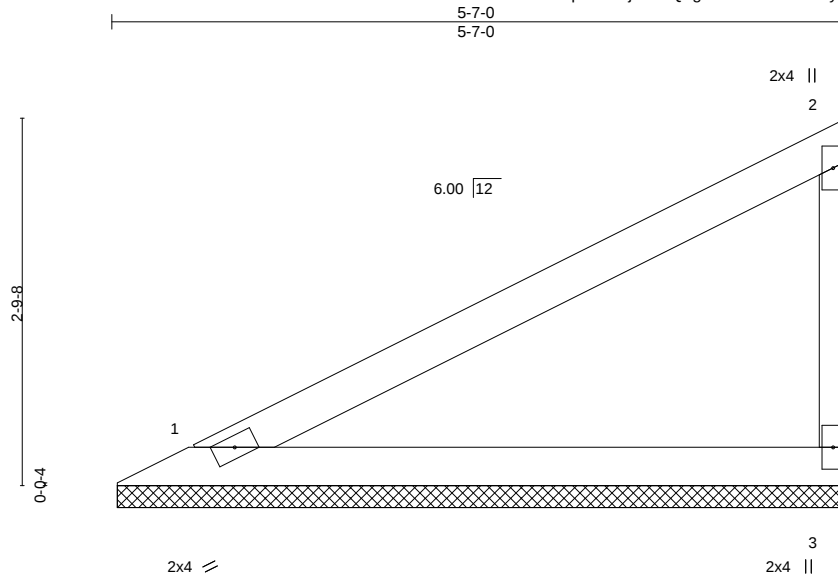


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493328
400712	V4	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:04 2020 Page 1
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Scale = 1:17.5

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 0.45	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 14 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 5-7-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-6-8, 3=5-6-8
Max Horz 1=101(LC 5)
Max Uplift 1=-28(LC 8), 3=-53(LC 8)
Max Grav 1=218(LC 1), 3=218(LC 1)

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

NOTES-

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



November 4, 2020

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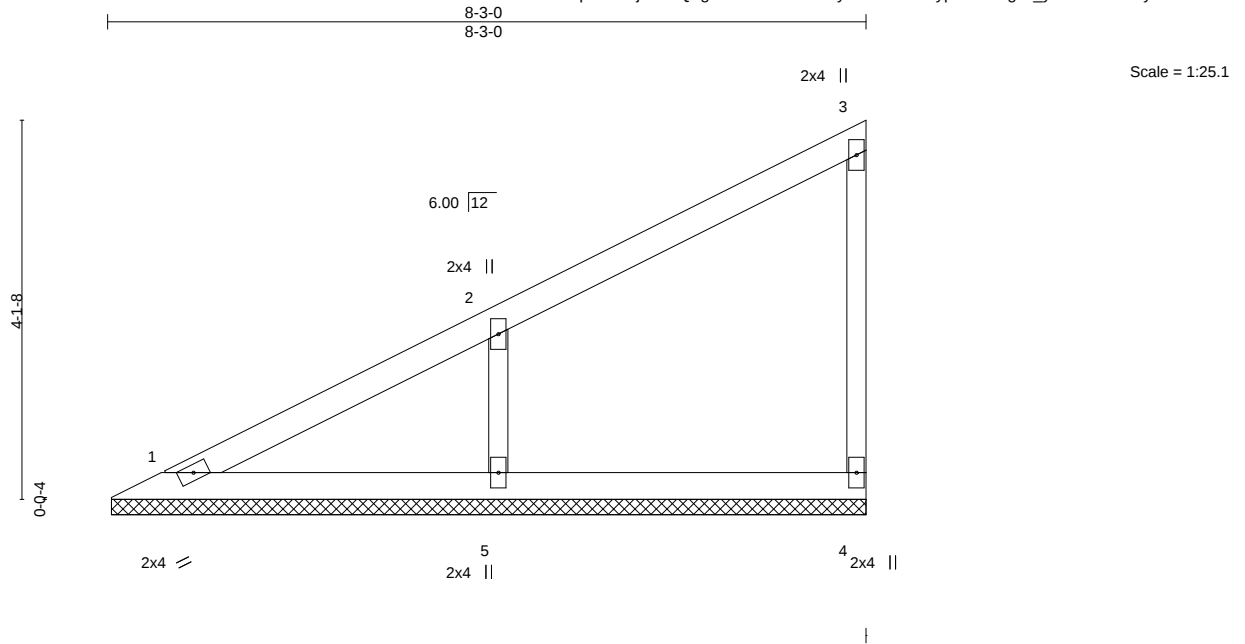


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	
400712	V5	Valley	1	1		I43493329
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:04 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-V0m2yes4AfJ1S2ifypIb063OglD_ykbC?b3kCmyMaZD



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 23 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-2-8, 4=8-2-8, 5=8-2-8
Max Horz 1=157(LC 5)
Max Uplift 4=-26(LC 5), 5=-127(LC 8)
Max Grav 1=125(LC 16), 4=135(LC 1), 5=423(LC 1)

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

WEBS 2-5=-329/183

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
- 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) 4 except (jt=lb) 5=127.
- 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.



November 4, 2020

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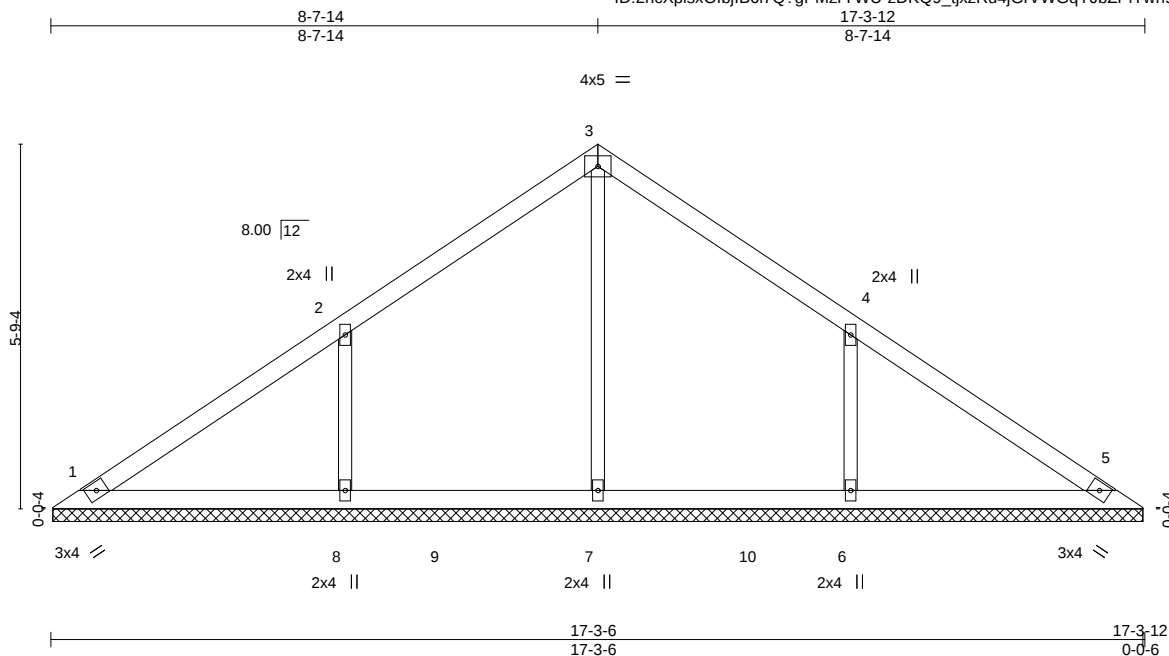


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493330
400712	V6	Valley	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:05 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-zDKQ9_tjxzRu4jGrVWGqYJbZPiYwh9mMEFplCyMaZC



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	n/a	-	n/a	999	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	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: 50 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.

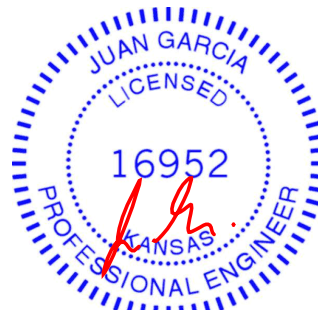
All bearings 17-3-0.
(lb) - Max Horz 1=142(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=176(LC 8), 6=175(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=350(LC 15), 8=535(LC 15), 6=535(LC 16)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-355/222, 4-6=-355/222

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) 8=176, 6=175.
- 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.



November 4, 2020

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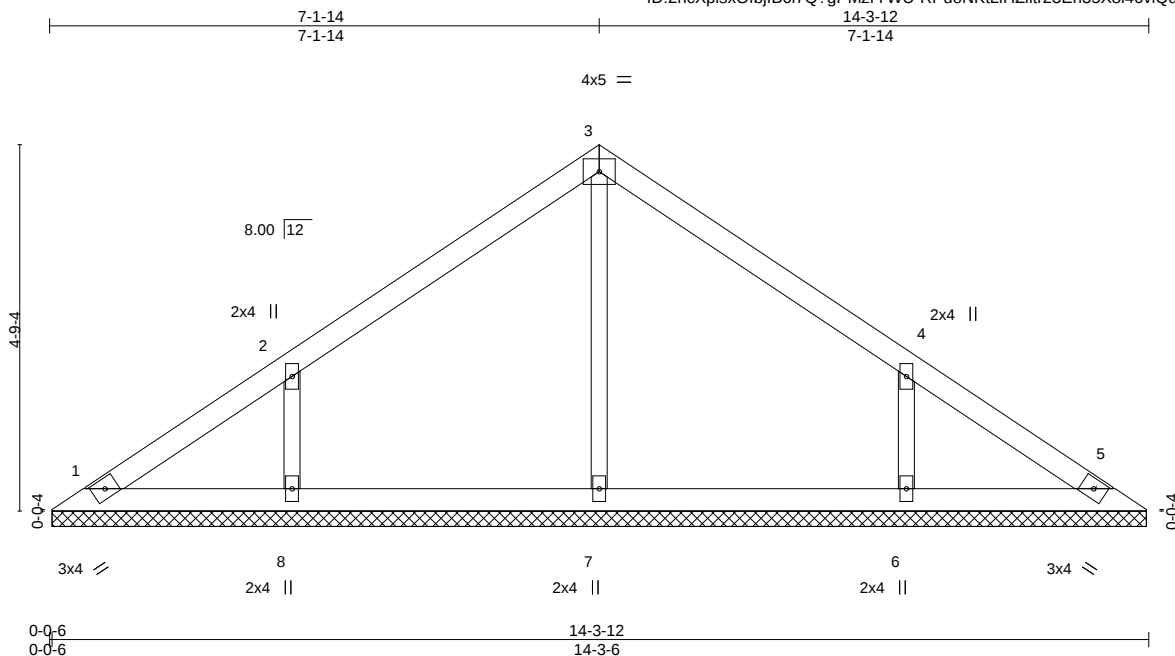


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493331
400712	V7	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:06 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-RPuoNKtLiHZlitr23En35X8l46vQdYVSvYrHeyMaZB



Scale = 1:30.0

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 0.17	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 0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 40 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 14-3-0.
(lb) - Max Horz 1=-116(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-146(LC 8), 6=-146(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=280(LC 1), 8=370(LC 15), 6=370(LC 16)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-294/187, 4-6=-294/187

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=146, 6=146.
- 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.



November 4, 2020

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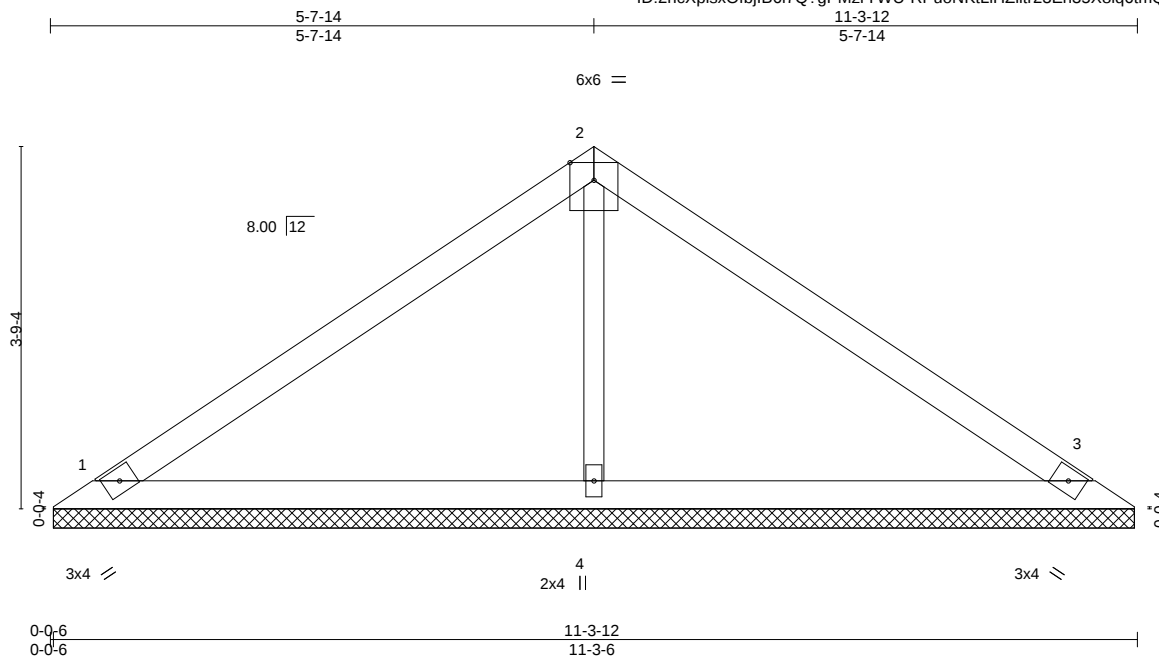


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493332
400712	V8	Valley	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:06 2020 Page 1
ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-RPuoNKtLIHZlitr23En35X8iq6tmQdcVSvYrHeyMaZB



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)	n/a	-	n/a	999	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.23	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: 30 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=11-3-0, 3=11-3-0, 4=11-3-0
Max Horz 1=-90(LC 4)
Max Uplift 1=-45(LC 8), 3=-57(LC 9), 4=-18(LC 8)
Max Grav 1=239(LC 1), 3=239(LC 1), 4=453(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-295/75

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.



November 4, 2020

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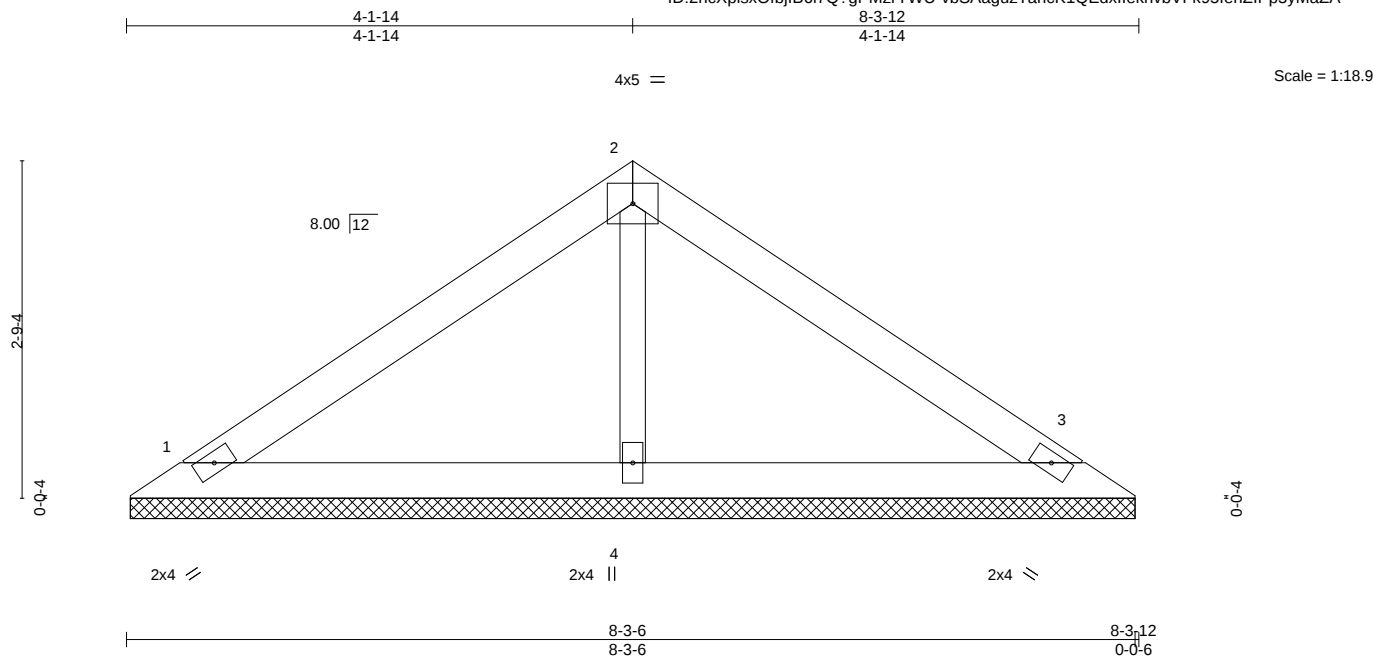


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493333
400712	V9	Valley	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:07 2020 Page 1
ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-vbSAaguzTahcK1QEdxllckhvbVFk95fehZlPp5yMaZA



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 0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 21 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-3-0, 3=8-3-0, 4=8-3-0
Max Horz 1=-64(LC 4)
Max Uplift 1=-41(LC 8), 3=-49(LC 9)
Max Grav 1=186(LC 1), 3=186(LC 1), 4=289(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.



November 4, 2020

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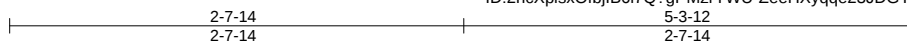


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 93 RR	I43493334
400712	V10	Valley	1	1	Job Reference (optional)	

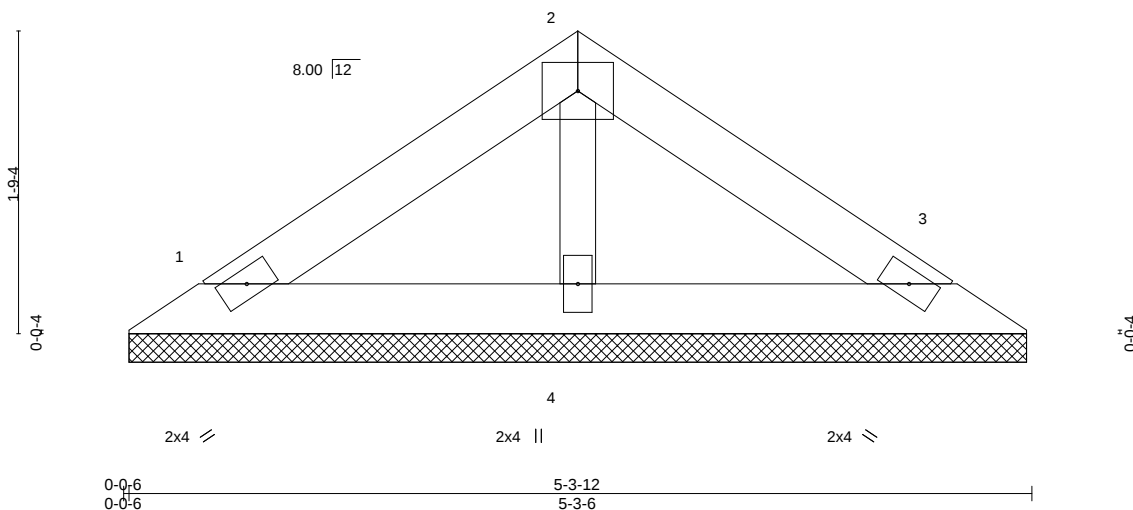
Wheeler Lumber, Waverly, KS - 66871,

8.420 s Oct 9 2020 MiTek Industries, Inc. Wed Nov 4 11:09:02 2020 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-ZeeHXyqqe23JDGYGqOi7xhz4XUzJUrkvXHae8tyMaZF



4x5 =

Scale = 1:13.5



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 0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 13 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 5-3-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-3-0, 3=5-3-0, 4=5-3-0
Max Horz 1=-38(LC 4)
Max Uplift 1=-24(LC 8), 3=-29(LC 9)
Max Grav 1=110(LC 1), 3=110(LC 1), 4=171(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.



November 4, 2020

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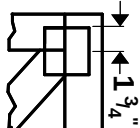
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



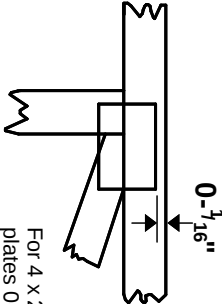
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

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

PLATE SIZE

4 X 4

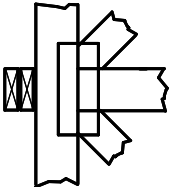
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



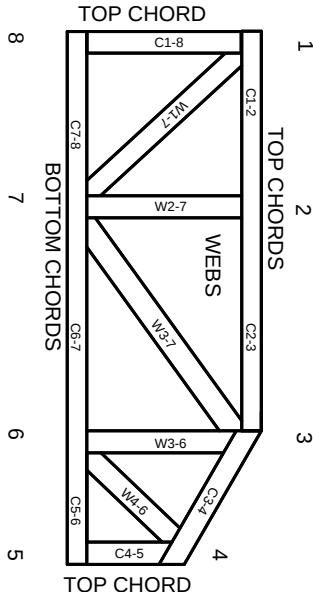
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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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.