



RE: 400148
Lot 84 MN

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

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.2

Wind Code: N/A

Wind Speed: 115 mph

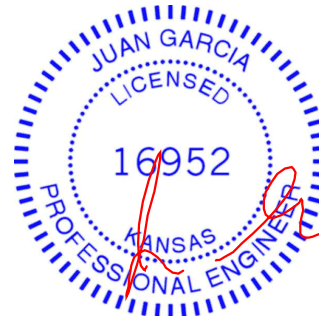
Roof Load: 45.0 psf

Floor Load: N/A psf

This package includes 36 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I40701746	a1	3/20/2020	27	I40701772	v5	3/20/2020
2	I40701747	a2	3/20/2020	28	I40701773	v6	3/20/2020
3	I40701748	a3	3/20/2020	29	I40701774	v7	3/20/2020
4	I40701749	a4	3/20/2020	30	I40701775	v8	3/20/2020
5	I40701750	a5	3/20/2020	31	I40701776	v9	3/20/2020
6	I40701751	a6	3/20/2020	32	I40701777	v10	3/20/2020
7	I40701752	a7	3/20/2020	33	I40701778	v11	3/20/2020
8	I40701753	a8	3/20/2020	34	I40701779	v12	3/20/2020
9	I40701754	a9	3/20/2020	35	I40701780	v13	3/20/2020
10	I40701755	a10	3/20/2020	36	I40701781	v14	3/20/2020
11	I40701756	a11	3/20/2020				
12	I40701757	a12	3/20/2020				
13	I40701758	a13	3/20/2020				
14	I40701759	b1	3/20/2020				
15	I40701760	b2	3/20/2020				
16	I40701761	b3	3/20/2020				
17	I40701762	b4	3/20/2020				
18	I40701763	c1	3/20/2020				
19	I40701764	c2	3/20/2020				
20	I40701765	c3	3/20/2020				
21	I40701766	d1	3/20/2020				
22	I40701767	d2	3/20/2020				
23	I40701768	v1	3/20/2020				
24	I40701769	v2	3/20/2020				
25	I40701770	v3	3/20/2020				
26	I40701771	v4	3/20/2020				

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, 2020.
Kansas COA: E-943



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



RE: 400148
Lot 84 MN

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

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.2

Wind Code: N/A

Wind Speed: 115 mph

Roof Load: 45.0 psf

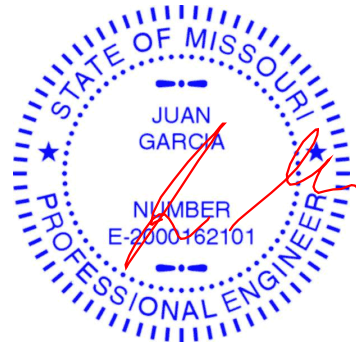
Floor Load: N/A psf

This package includes 36 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I40701746	a1	3/20/2020	27	I40701772	v5	3/20/2020
2	I40701747	a2	3/20/2020	28	I40701773	v6	3/20/2020
3	I40701748	a3	3/20/2020	29	I40701774	v7	3/20/2020
4	I40701749	a4	3/20/2020	30	I40701775	v8	3/20/2020
5	I40701750	a5	3/20/2020	31	I40701776	v9	3/20/2020
6	I40701751	a6	3/20/2020	32	I40701777	v10	3/20/2020
7	I40701752	a7	3/20/2020	33	I40701778	v11	3/20/2020
8	I40701753	a8	3/20/2020	34	I40701779	v12	3/20/2020
9	I40701754	a9	3/20/2020	35	I40701780	v13	3/20/2020
10	I40701755	a10	3/20/2020	36	I40701781	v14	3/20/2020
11	I40701756	a11	3/20/2020				
12	I40701757	a12	3/20/2020				
13	I40701758	a13	3/20/2020				
14	I40701759	b1	3/20/2020				
15	I40701760	b2	3/20/2020				
16	I40701761	b3	3/20/2020				
17	I40701762	b4	3/20/2020				
18	I40701763	c1	3/20/2020				
19	I40701764	c2	3/20/2020				
20	I40701765	c3	3/20/2020				
21	I40701766	d1	3/20/2020				
22	I40701767	d2	3/20/2020				
23	I40701768	v1	3/20/2020				
24	I40701769	v2	3/20/2020				
25	I40701770	v3	3/20/2020				
26	I40701771	v4	3/20/2020				

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.



March 20, 2020

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701746
400148	A1	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:vnPzSgkeTkCad6C?5h?ZN6zZ5mk-qGtlubgmLopYlviWebJ9HauZPomGRoSWXuVIOFzZ2qV

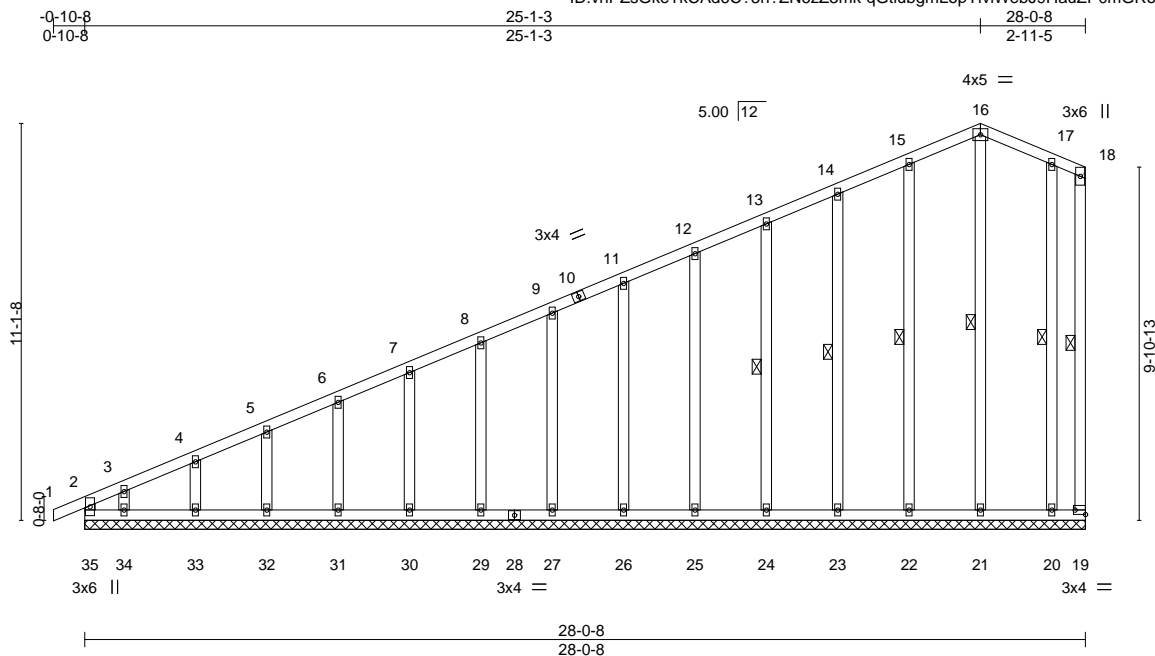


Plate Offsets (X,Y)-- [19:Edge,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.00	1	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	-0.01	19	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						
								Weight: 173 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

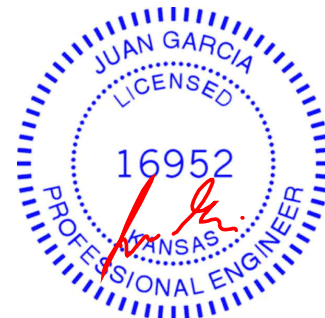
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 18-19, 16-21, 15-22, 14-23, 13-24, 17-20

REACTIONS. All bearings 28-0-8.
(lb) - Max Horz 35=426(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 35, 19, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 20 except 34=196(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 19, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 20 except 35=292(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-387/40, 3-4=-332/37, 4-5=-310/34, 5-6=-285/31, 6-7=-261/29

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 35, 19, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 20 except (jt=lb) 34=196.
- 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.



March 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701747
400148	A2	Common	1	1		

Wheeler Lumber, Waverly, KS 66871

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ID:vnPZsGkeTkCA6C?5h?ZN6zZ5mk-?N1vCMpfbBC?Zb5dnP0kEurNDSOOwBp836gOH6zZ2qK

0-10-8 5-6-8 13-0-6 18-11-7 25-1-3 28-4-0
0-10-8 5-6-8 7-5-15 5-11-1 6-1-12 3-2-13

5x7 =

Scale = 1:65.8

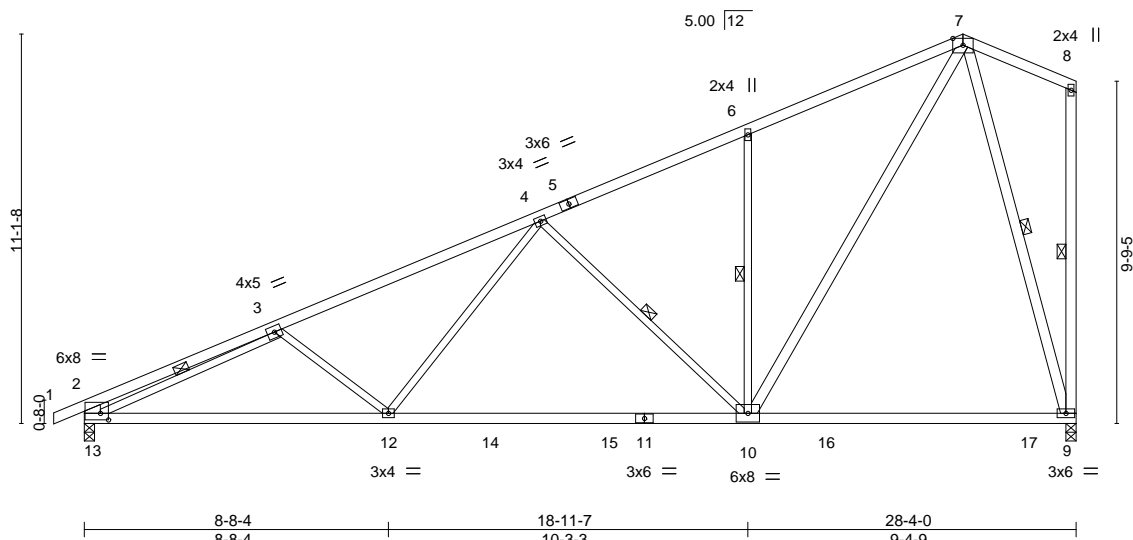


Plate Offsets (X,Y)--		[2:0-2-12,0-1-2], [2:0-2-12,0-2-4]									
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.28 9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.44 10-12	>763	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.05 9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.09 10-12	>999	240	Weight: 132 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-8-11 oc bracing.
WEBS 1 Row at midpt 4-10, 6-10, 3-13, 8-9, 7-9

REACTIONS.

(size) 13=0-3-8, 9=0-3-8
Max Horz 13=403(LC 8)
Max Uplift 13=183(LC 8), 9=258(LC 8)
Max Grav 13=1398(LC 2), 9=1390(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-745/102, 3-4=-2263/253, 4-6=-1256/143, 6-7=-1259/256, 2-13=-490/121
BOT CHORD 12-13=-644/2197, 10-12=-436/1637, 9-10=-82/337
WEBS 3-12=-333/239, 4-12=-36/630, 4-10=-768/271, 6-10=-428/221, 7-10=-324/1536, 3-13=-1750/232, 7-9=-1188/308

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 exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 13=183, 9=258.
- 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.



March 20,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701748
400148	A3	Roof Special	4	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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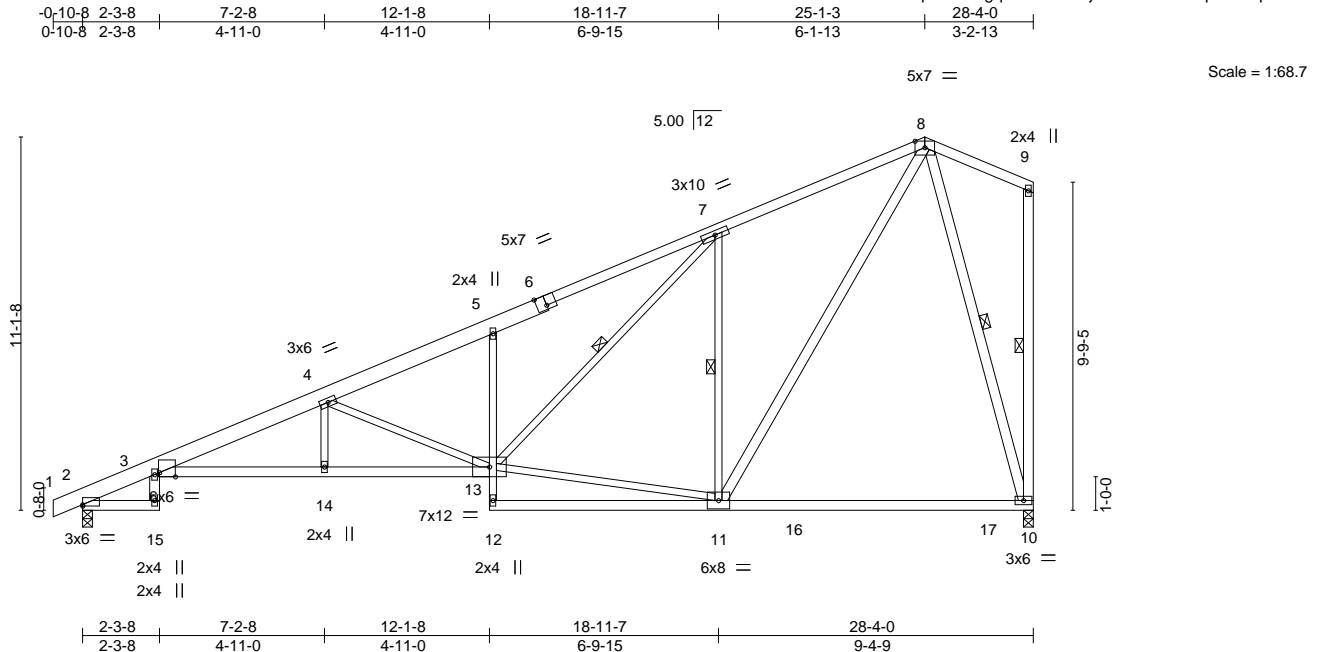


Plate Offsets (X,Y)-- [2:0-0-0,0-0-8], [3:0-5-10,Edge], [6:0-3-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.37 3-14 >911 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.65 3-14 >519 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.38 10 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.34 3-14 >976 240	Weight: 155 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-6: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x4 SPF 2100F 1.8E, 5-12: 2x3 SPF No.2
10-12: 2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except*
3-15,8-11,9-10,8-10: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
Max Horz 2=415(LC 8)
Max Uplift 2=182(LC 8), 10=258(LC 8)
Max Grav 2=1369(LC 2), 10=1370(LC 2)

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

TOP CHORD 2-3=-725/0, 3-4=-3444/550, 4-5=-2344/356, 5-7=-2329/468, 7-8=-1232/264
BOT CHORD 3-14=-875/3314, 13-14=-874/3312, 5-13=-339/201, 10-11=-83/328
WEBS 4-13=-1350/357, 11-13=-227/994, 7-13=-443/1482, 7-11=-1136/443, 8-11=-335/1498,
8-10=-1153/309

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 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=182, 10=258.
- 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.



March 20,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701749
400148	A4	Roof Special	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:33:47 2020 Page 1
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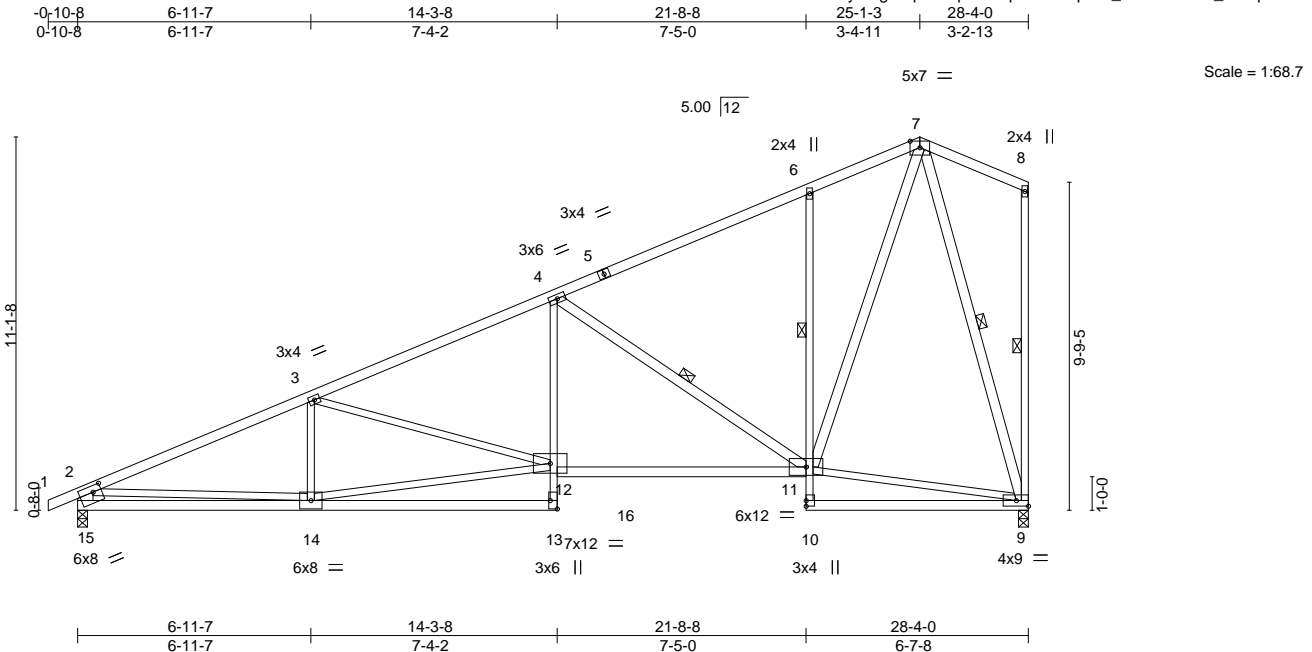


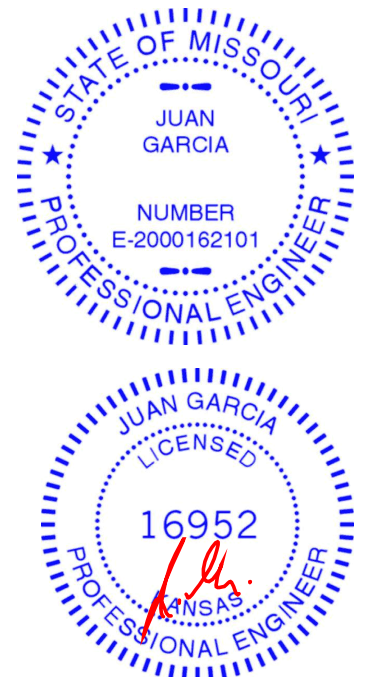
Plate Offsets (X,Y)--		[13:Edge,0-2-8], [15:0-3-0,0-2-4], [15:0-2-9,0-1-1]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.16 11-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.68	Vert(CT)	-0.36 11-12	>935	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.74	Horz(CT)	0.09 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10 11-12	>999	240	Weight: 147 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-3-4 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 4-13,6-10: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 1 Row at midpt 6-11
WEBS 2x3 SPF No.2 *Except* 4-11,7-11,7-9: 2x4 SPF No.2, 2-15: 2x6 SPF No.2	WEBS 1 Row at midpt 4-11, 8-9, 7-9

REACTIONS. (size) 15=0-3-8, 9=0-3-8
Max Horz 15=402(LC 8)
Max Uplift 15=-184(LC 8), 9=-257(LC 8)
Max Grav 15=1339(LC 1), 9=1258(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2324/271, 3-4=-2024/303, 4-6=-945/134, 6-7=-898/235, 2-15=-1270/219
BOT CHORD 14-15=-534/754, 4-12=-42/583, 11-12=-485/1796, 6-11=-434/226
WEBS 3-14=-269/188, 12-14=-553/2013, 3-12=-292/94, 4-11=-1243/350, 7-11=-359/1369,
2-14=-40/1307, 9-11=-69/325, 7-9=-1188/292

- 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 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) 15=184, 9=257.
 - 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.



March 20,2020

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701750
400148	A5	Roof Special	2	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:33:48 2020 Page 1
ID:vnPZsGkeTkCad6C75h?ZN6zZ5mk-QyJ2rOrY26aZQ3pCSXZRrXTrIfO8j_5al3u2uRzZ2qH

0-10-8	3-3-8	9-4-4	16-6-11	21-8-8	25-1-3	28-4-0
0-10-8	3-3-8	6-0-12	7-2-8	5-1-13	3-4-11	3-2-13

5x7 =

Scale = 1:65.5

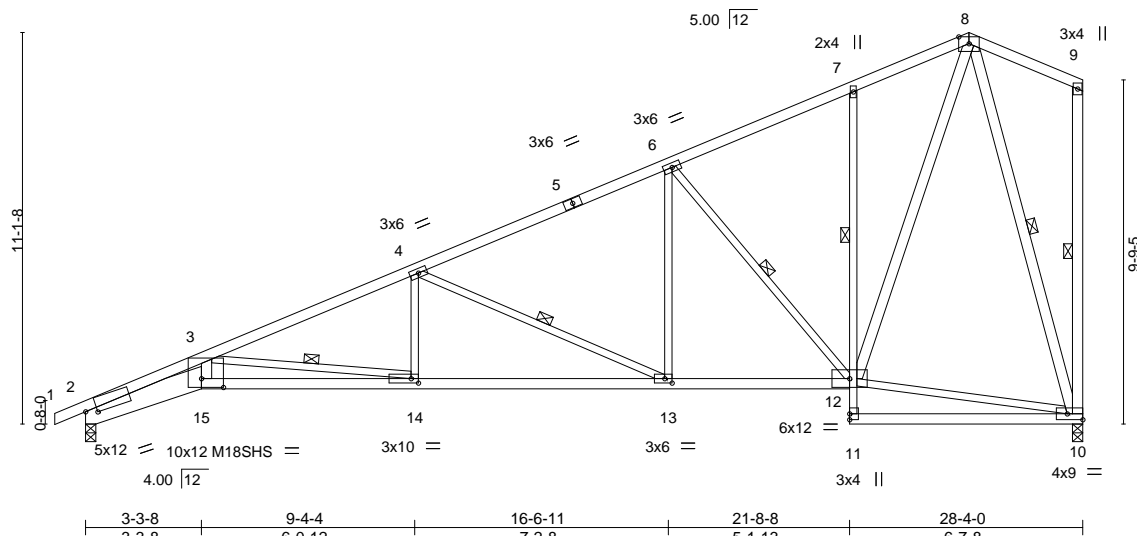


Plate Offsets (X,Y)-- [2:0-3-15,0-1-6], [10:Edge,0-2-0], [13:0-2-8,0-1-8], [14:0-2-8,0-1-8], [15:0-7-8,0-3-0]

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 0.93	Vert(LL)	-0.34 14-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.79	Vert(CT)	-0.62 14-15	>541	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.77	Horz(CT)	0.27 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.30 14-15	>999	240	Weight: 148 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-15: 2x8 SP DSS, 12-15: 2x4 SPF 2100F 1.8E, 7-11: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-15,8-12,9-10,8-10: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-0-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-5-15 oc bracing. Except:
1 Row at midpt 7-12
WEBS 1 Row at midpt 3-14, 4-13, 6-12, 9-10, 8-10

REACTIONS.

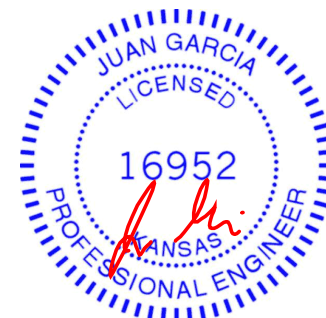
(size) 2=0-3-8, 10=0-3-8
Max Horz 2=414(LC 7)
Max Uplift 2=215(LC 8), 10=225(LC 8)
Max Grav 2=1335(LC 1), 10=1261(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5641/1101, 3-4=-2773/465, 4-6=-1637/285, 6-7=-890/210, 7-8=-855/282
BOT CHORD 2-15=-1206/5179, 14-15=-1095/4639, 13-14=-524/2527, 12-13=-233/1417, 7-12=-289/152
WEBS 3-15=-296/1592, 3-14=-2131/576, 4-14=0/469, 4-13=-1218/319, 6-13=-46/626, 6-12=-1045/272, 8-12=-320/1306, 10-12=-157/284, 8-10=-1184/204

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=215, 10=225.
- 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.



March 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701751
400148	A6	Roof Special	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:vnPZsGkeTkCAd6C?5h?ZN6zZ5mk-MLqoF4toajqHgMzbaycvwyY9tT4kBuctCNN9yJzZ2qF

1-10-8	3-3-8	9-4-4	16-6-11	21-8-8	25-1-3	28-4-0
1-10-8	3-3-8	6-0-12	7-2-8	5-1-13	3-4-11	3-2-13

5x7 =

Scale = 1:65.6

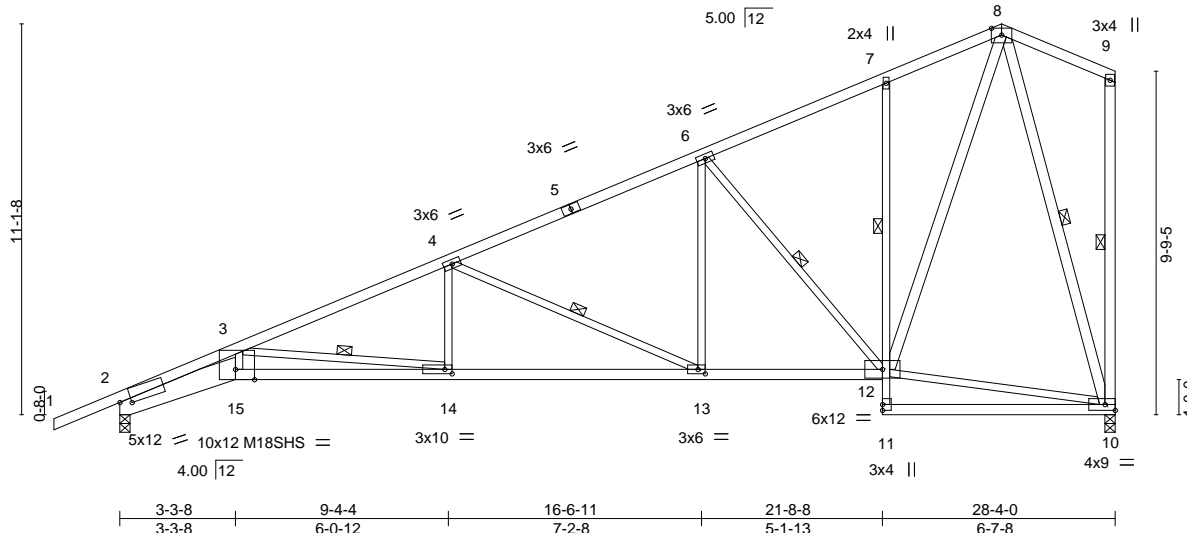


Plate Offsets (X, Y)-- [2:0-3-15,0-1-6], [13:0-2-8,0-1-8], [14:0-2-8,0-1-8], [15:0-6-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.99	Vert(LL)	-0.33	14-15	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.61	14-15	>547	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.77	Horz(CT)	0.27	10	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.29	14-15	>999		
								Weight: 149 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 2-15: 2x8 SP DSS, 12-15: 2x4 SPF 2100F 1.8E, 7-11: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 8-12,9-10,8-10: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-1-12 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 7-7-5 oc bracing. Except:
 1 Row at midpt 7-12
 WEBS 1 Row at midpt 3-14, 4-13, 6-12, 9-10, 8-10

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
 Max Horz 2=423(LC 7)
 Max Uplift 2=240(LC 8), 10=223(LC 8)
 Max Grav 2=1408(LC 1), 10=1257(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-5455/1042, 3-4=-2751/457, 4-6=-1629/282, 6-7=-887/209, 7-8=-852/281
 BOT CHORD 2-15=-1148/4993, 14-15=-1062/4568, 13-14=-516/2506, 12-13=-231/1410, 7-12=-290/152
 WEBS 3-15=-265/1494, 3-14=-2079/550, 4-14=0/465, 4-13=-1202/313, 6-13=-44/620,
 6-12=-1038/270, 8-12=-318/1301, 10-12=-157/283, 8-10=-1180/203

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=240, 10=223.
- 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.



March 20,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701752
400148	A7	Roof Special	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

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ID:vnPZsGkeTkCad6C?5h?ZN6zZ5mk-qXOATQtQL1y8HWYn8g78T95NOtMqw160R17iVmzZ2qE

1-10-8	3-3-8	9-4-3	16-6-10	25-1-3	33-7-13	39-10-4	47-0-0	47-10-8
1-10-8	3-3-8	6-0-11	7-2-7	8-6-9	8-6-9	6-2-7	7-1-12	0-10-8

Scale = 1:82.6

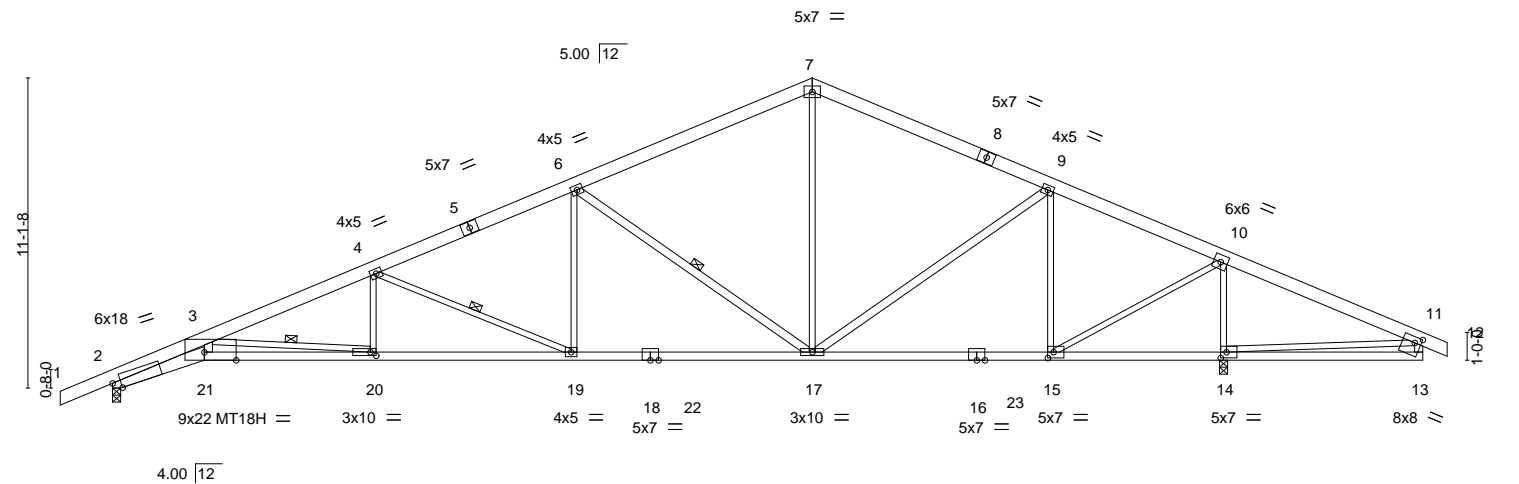


Plate Offsets (X,Y)--	[2:0-3-9,Edge], [13:0-2-12,0-2-8], [13:0-1-10,0-0-11], [14:0-2-8,0-2-8], [15:0-2-8,0-2-8], [20:0-2-8,0-1-8], [21:1-1-11,Edge]
-----------------------	---

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 0.81	Vert(LL)	-0.51 20-21	>940	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.98	Vert(CT)	-0.89 20-21	>536	240	MT18H	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.94	Horz(CT)	0.38 14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.37 20-21	>999	240		
								Weight: 221 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-5: 2x6 SPF 1650F 1.4E
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
2-21: 2x6 SPF 1650F 1.4E
WEBS 2x3 SPF No.2 *Except*
3-21,6-17,9-17,11-13: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 3-20, 4-19, 6-17

REACTIONS.

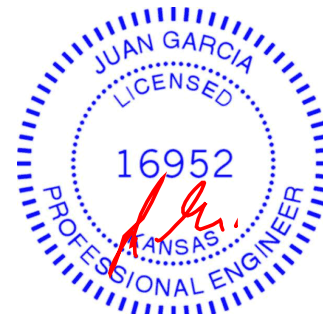
(size) 2=0-3-8, 14=0-3-8 (req. 0-4-3)
Max Horz 2=225(LC 8)
Max Uplift 2=-307(LC 8), 14=-327(LC 9)
Max Grav 2=1924(LC 2), 14=2669(LC 2)

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

TOP CHORD 2-3=-7667/1263, 3-4=-4474/671, 4-6=-3166/486, 6-7=-1916/319, 7-9=-1915/346, 9-10=-1495/220, 10-11=-231/801
BOT CHORD 2-21=-1327/6992, 20-21=-1193/6175, 19-20=-712/4154, 17-19=-412/2843, 15-17=-72/1313, 14-15=-641/245
WEBS 3-21=-339/2256, 3-20=-2035/484, 4-20=0/492, 4-19=-1433/328, 6-19=-35/883, 6-17=-1440/368, 7-17=-80/916, 9-17=-50/474, 9-15=-929/175, 10-15=-168/2234, 10-14=-2346/382, 11-14=-766/289

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 14 greater than input bearing size.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=307, 14=327.
- 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.



March 20,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

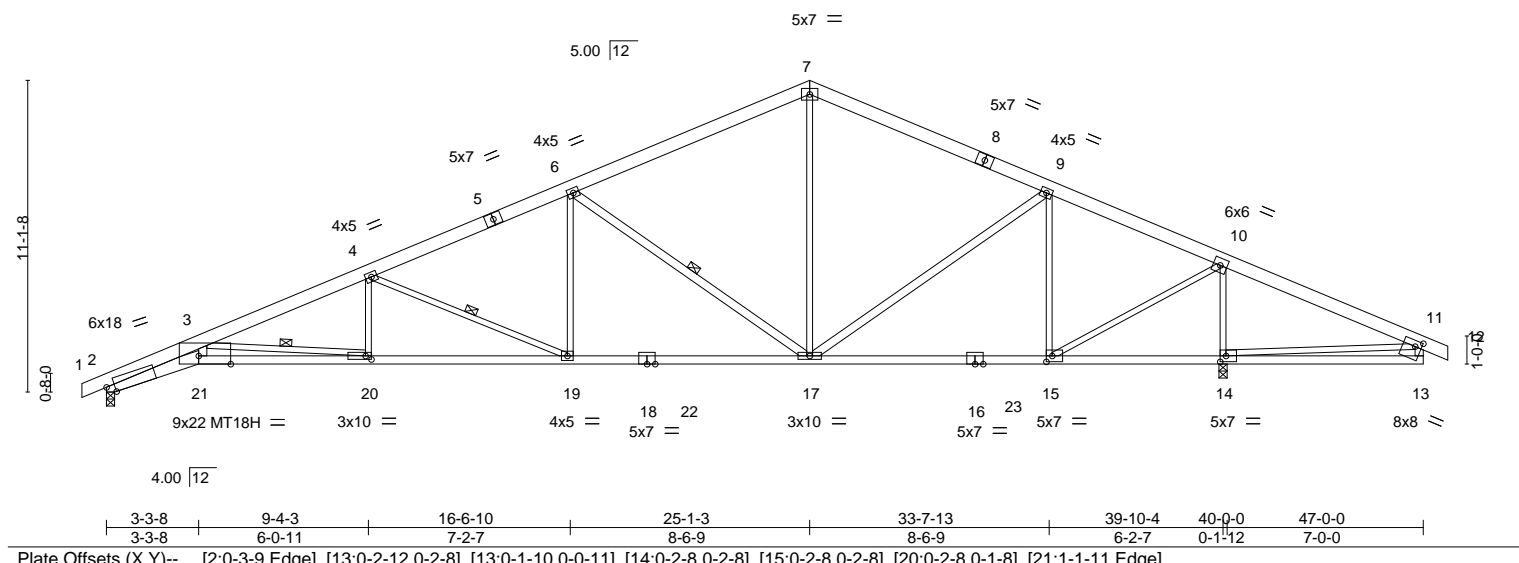
Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701753
400148	A8	Roof Special	2	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:33:52 2020 Page 1
ID:vnPZsGkeTkCAAd6C?5h?ZN6zZ5mk-ljyZglu26K5?vg7zhNeN0NdYwHirfIM9ghsF1CzZ2qD

0-10-8 3-3-8 9-4-3 16-6-10 25-1-3 33-7-13 39-10-4 47-0-0 47-10-8
0-10-8 3-3-8 6-0-11 7-2-7 8-6-9 8-6-9 6-2-7 7-1-12 0-10-8

Scale = 1:82.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.51 20-21 >925 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.90 20-21 >529 240	MT18H		197/144	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.38 14 n/a n/a	Weight: 219 lb FT = 10%			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.38 20-21 >999 240				

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2 *Except* 1-5: 2x6 SPF 1650F 1.4E	TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 2-21: 2x6 SPF 1650F 1.4E	BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 3-21,6-17,9-17,11-13: 2x4 SPF No.2	WEBS	1 Row at midpt 3-20, 4-19, 6-17

REACTIONS.	
(size) 2=0-3-8, 14=0-3-8 (req. 0-4-3)	
Max Horz 2=210(LC 8)	
Max Uplift 2=-283(LC 8), 14=-327(LC 9)	
Max Grav 2=1864(LC 2), 14=2671(LC 2)	

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-7780/1314, 3-4=-4498/682, 4-6=-3175/490, 6-7=-1920/321, 7-9=-1919/348, 9-10=-1497/221, 10-11=-231/801
BOT CHORD	2-21=-1381/7104, 20-21=-1238/6272, 19-20=-723/4177, 17-19=-415/2851, 15-17=-73/1315, 14-15=-641/245
WEBS	3-21=-359/2300, 3-20=-2109/518, 4-20=0/501, 4-19=-1448/336, 6-19=-38/889, 6-17=-1446/371, 7-17=-81/918, 9-17=-51/475, 9-15=-931/175, 10-15=-169/2237, 10-14=-2348/382, 11-14=-766/289

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) All plates are MT20 plates unless otherwise indicated.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 6) WARNING: Required bearing size at joint(s) 14 greater than input bearing size.
 - 7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=283, 14=327.
 - 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.



March 20,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701754
400148	A9	Roof Special	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:vnPZsGkeTkCAD6C?5h?ZN6zZ5mk-F64J5RwJeyLj8_HMpogr5ojrc4Ok7fSS7?LM54zZ2qB

0-10-8	3-3-8	9-4-4	16-6-11	24-2-8	25-1-3	33-7-12	40-0-0
0-10-8	3-3-8	6-0-12	7-2-8	7-7-13	0-10-11	8-6-8	6-4-4

Scale = 1:74.6

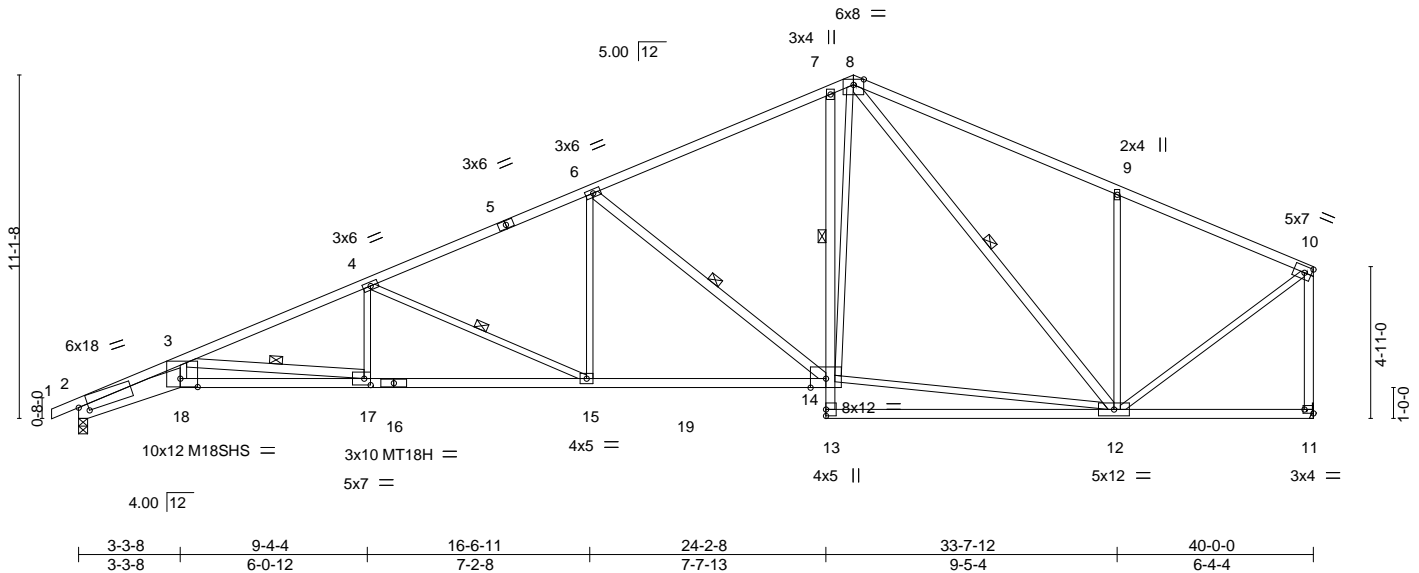


Plate Offsets (X,Y)--		[2:0-3-11,0-2-5], [11:Edge,0-1-8], [17:0-2-8,0-2-8], [18:0-6-12,0-3-4]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 1.00	Vert(LL)	-0.51 17-18	>926	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.90 17-18	>528	240	MT18H	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.41 11	n/a	n/a	M18SHS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.38 17-18	>999	240	Weight: 194 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
2-18: 2x8 SP DSS, 16-18: 2x4 SPF 2400F 2.0E
14-16: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
3-17,6-14,8-12,10-11: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
1 Row at midpt 7-14
WEBS 1 Row at midpt 3-17, 4-15, 6-14, 8-12

REACTIONS.

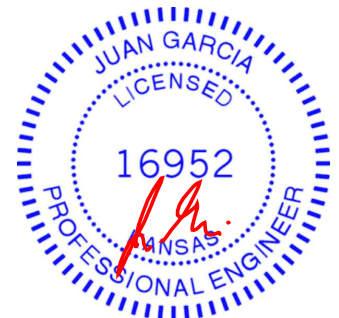
(size) 2=0-3-8, 11=Mechanical
Max Horz 2=207(LC 12)
Max Uplift 2=283(LC 8), 11=184(LC 9)
Max Grav 2=1921(LC 2), 11=1857(LC 2)

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

TOP CHORD 2-3=-8546/1410, 3-4=-4555/665, 4-6=-3290/476, 6-7=-2132/342, 7-8=-1983/431,
8-9=-1646/314, 9-10=-1603/205, 10-11=-1778/207
BOT CHORD 2-18=-1477/7872, 17-18=-1359/7168, 15-17=-692/4187, 14-15=-397/2963, 7-14=-383/232
WEBS 3-18=-372/2445, 3-17=-3005/672, 4-17=-1/596, 4-15=-1344/324, 6-15=-34/874,
6-14=-1382/328, 12-14=-110/1576, 8-14=-358/1540, 8-12=-616/90, 9-12=-597/310,
10-12=-152/1763

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
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=283, 11=184.
- 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.



March 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

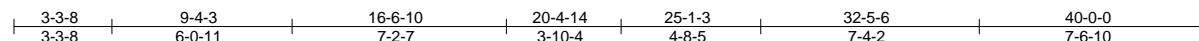
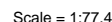
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:33:35 2020 Page 1

ID:vnPZsGkeTkCAd6C?5h?ZN6zZ5mk-ISQ76xhO66xPN3KiCJqOgnQcHQyNA5wflYFswzhzZ2gU



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 0.95		Vert(LL) -0.50	17-18	>957	360	MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.96		Vert(CT) -0.88	17-18	>542	240	M18SHS	197/144
BCLL 0.0 *		Rep Stress Incr YES		WB 0.83		Horz(CT) 0.39	11	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.37	17-18	>999	240	Weight: 194 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF 2100F 1.8E *Except*
	5-8: 2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	2-18: 2x8 SP DSS, 15-18: 2x4 SPF 2400F 2.0E, 7-14: 2x3 SPF No.2
WEBS	2-3 SPF No.2 *Except*
	3-17-18-15-8-13-9-13-10-11: 2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 1-11-1 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 1 Row at midpt 7-15
WEBS	1 Row at midpt 3-17, 4-16, 6-15, 8-13, 9-13, 9-12

REACTIONS.

(size) 2=0-3-8, 11=Mechanical
Max Horz 2=207(LC 12)
Max Uplift 2=-283(LC 8), 11=-184(LC 9)
Max Grav 2=1909(LC 2), 11=1885(LC 2)

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

TOP CHORD	2-3=-8456/1403, 3-4=-4537/668, 4-6=-3224/473, 6-7=-2586/425, 7-8=-2570/498, 8-9=-1875/336, 9-10=-1616/206, 10-11=-1807/209
BOT CHORD	2-18=-1470/7787, 17-18=-1351/7092, 16-17=-697/4174, 15-16=-389/2895, 7-15=-270/134, 12-13=-161/1446
WEBS	3-18=-373/2413, 3-17=-2941/659, 4-17=0/615, 4-16=-1404/338, 6-16=-61/788, 6-15=-1046/253, 13-15=-91/1605, 8-15=-375/1651, 8-13=-356/142, 9-13=-49/384, 9-12=-854/197, 10-12=-157/1791

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=283, 11=184.
- 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.



March 20, 2020



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701756
400148	A11	Roof Special	1	1		
Job Reference (optional)						

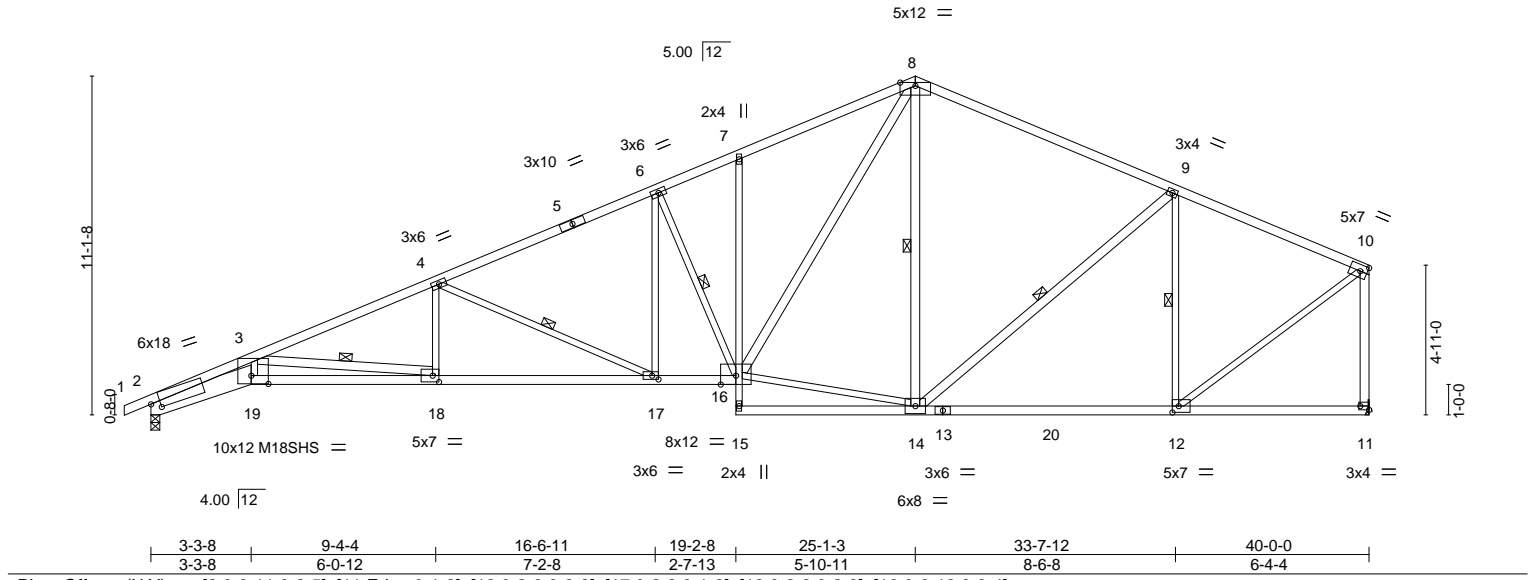
Wheeler Lumber, Waverly, KS 66871

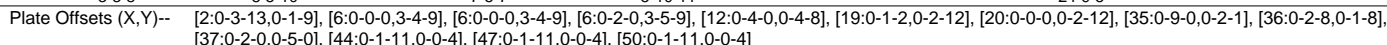
8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:33:37 2020 Page 1

ID:vnPZsGkeTkCAd6C?5h?ZN6zZ5mk-ErYuXdeejC7cNU5JjtsvCWynEbrezZyDskz?ZzZ2qS

0-10-8 3-3-8 9-4-4 16-6-11 19-2-8 25-1-3 33-7-12 40-0-0
0-10-8 3-3-8 6-0-12 7-2-8 2-7-13 5-10-11 8-6-8 6-4-4

Scale = 1:75.7



Scale = 1:85.6

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-11-12 oc purlins except end verticals.
BOT CHORD	2x4 SPF No.2 *Except* 2-37: 2x6 SPF No.2, 6-34: 2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 2-37,36-37 3-3-4 oc bracing: 34-35.
WEBS	2x3 SPF No.2 *Except* 7-35,7-33: 2x4 SPF No.2, 19-20: 2x6 SPF No.2	WEBS	1 Row at midpt 3-36, 4-35, 7-35, 8-32, 9-31, 10-30
OTHERS	2x4 SPF No.2		

REACTIONS. All bearings 30-8-0 except (jt=length) 2=0-3-8.
 (lb) - Max Horz 2=194(LC 12)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 32, 31, 30, 29, 27, 26, 25, 24,
 23, 22 except 34=527(LC 8), 20=310(LC 21), 21=100(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 33, 20, 32, 31, 30, 29, 27, 26,
 25, 24, 23, 22 except 2=482(LC 1), 34=2092(LC 1), 21=413(LC 1)

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

TOP CHORD 2-3=-1464/211, 3-4=-174/362, 4-6=-289/1329, 6-7=-160/1303, 7-8=0/624, 8-9=0/589, 9-10=0/588, 10-11=-20/589, 11-12=-41/588, 12-13=-62/587, 13-14=-82/585, 14-15=-103/586, 15-16=-124/586, 16-17=-144/589, 17-18=-161/570, 18-19=-205/637, 19-20=-94/298

BOT CHORD 2-37=-359/1317, 36-37=-338/1167, 34-35=-2043/558, 6-35=-472/242, 32-33=-527/193, 31-32=-527/193, 30-31=-527/193, 29-30=-527/193, 27-29=-526/193, 26-27=-526/193, 25-26=-526/193, 24-25=-526/193, 23-24=-526/193, 22-23=-526/193, 21-22=-526/193, 20-21=-526/193

WEBS 3-37=-26/514, 3-36=-1331/423, 4-36=0/438, 4-35=-1124/292, 33-35=-498/194, 7-35=-1222/285, 18-21=-313/119

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable studs spaced at 2'-0" oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.

Continued on page 2



March 20.2020

 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701757
400148	A12	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:33:42 2020 Page 2
ID:vnPZsGkeTkAd6C?5h?ZN6zZ5mk-boMnaLmnTGqQi8M26HT1cGDuuFNjJEihM8RjgnzZ2qN

- NOTES-**
- 9) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 32, 31, 30, 29, 27, 26, 25, 24, 23, 22 except (jt=lb) 34=527, 20=310, 21=100.
 - 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.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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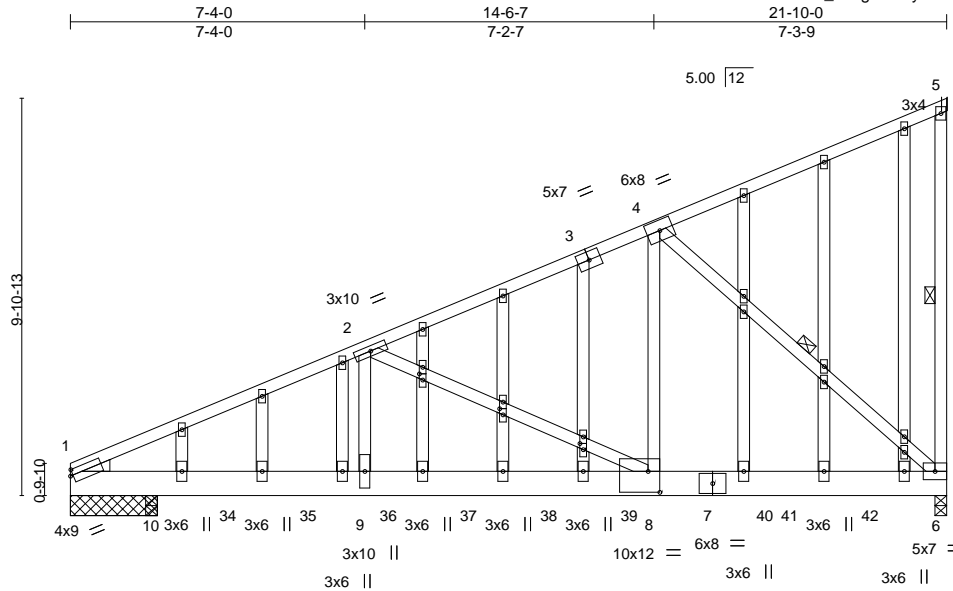
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701758
400148	A13	GABLE	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:33:43 2020 Page 1

ID:vnPZsGkeTkCA6C75h?ZN6zZ5mk-3_v9ngnPEZyHKlxFg_G8Tm_XflI2firboBHDDzZ2qM



Job	Truss	Truss Type	Qty	Ply	Lot 84 MN
400148	A13	GABLE	1	2	I40701758
					Job Reference (optional)

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:33:44 2020 Page 2
ID:vnPZsGkeTkCAAd6C?5h?ZN6zZ5mk-XBTX?0o1?t48yRWRDhVVhhI9H24Xn6y_qSwqlfzZ2qL

- NOTES-**
- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 912 lb down and 119 lb up at 1-11-4, 914 lb down and 23 lb up at 3-11-4, 914 lb down and 23 lb up at 5-11-4, 914 lb down and 23 lb up at 7-11-4, 914 lb down and 23 lb up at 9-11-4, 914 lb down and 23 lb up at 11-11-4, 912 lb down and 23 lb up at 13-11-4, 899 lb down and 23 lb up at 15-11-4, and 911 lb down and 23 lb up at 17-11-4, and 914 lb down and 23 lb up at 19-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 13) Studding applied to ply: 1(Front)

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-5=-70, 1-6=-20
- Concentrated Loads (lb)
- Vert: 7=-878(F) 10=-876(F) 34=-878(F) 35=-878(F) 36=-878(F) 37=-878(F) 38=-878(F) 39=-878(F) 41=-878(F) 42=-878(F)

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

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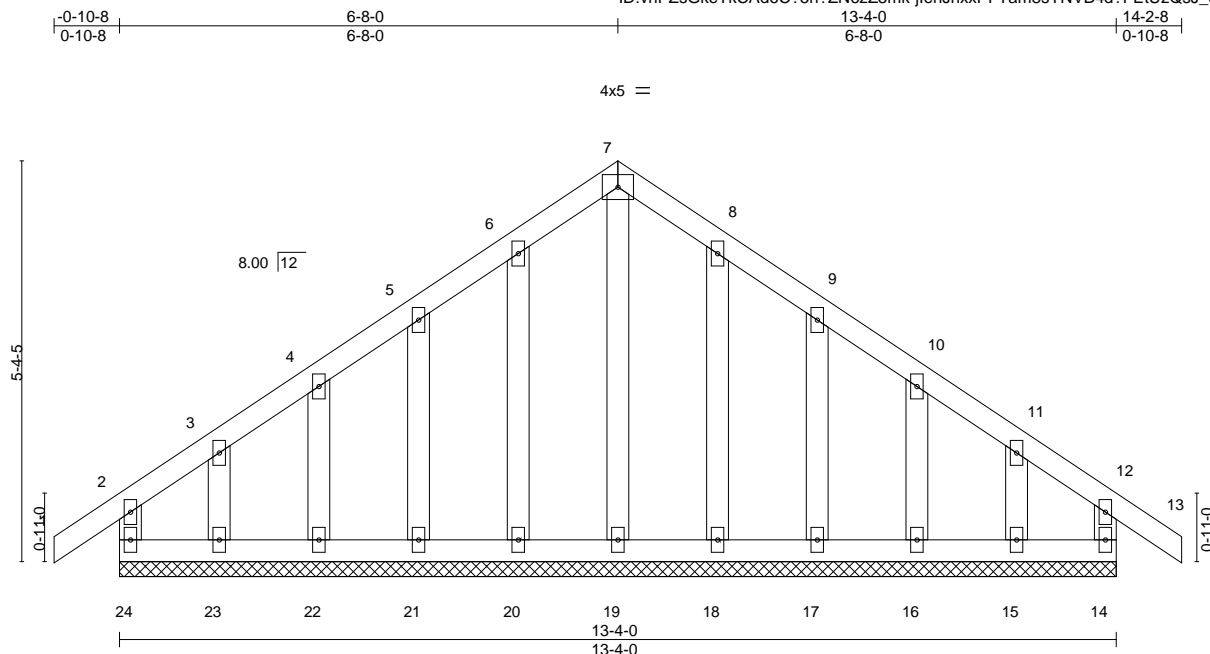
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701759
400148	B1	GABLE	1	1		

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:33:55 2020 Page 1

ID:vnPZsGkeTkCA6C75h?ZN6zZ5mk-jlehJnxxPFTam8sYNVB4d?FetUzQsJ_cMf5veXzZ2qA



Scale = 1:30.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	13	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	13	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 66 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 13-4-0.
(lb) - Max Horz 24=158(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 20, 21, 22, 23, 18, 17, 16, 15
Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 17, 16, 15

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 14, 20, 21, 22, 23, 18, 17, 16, 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 20,2020

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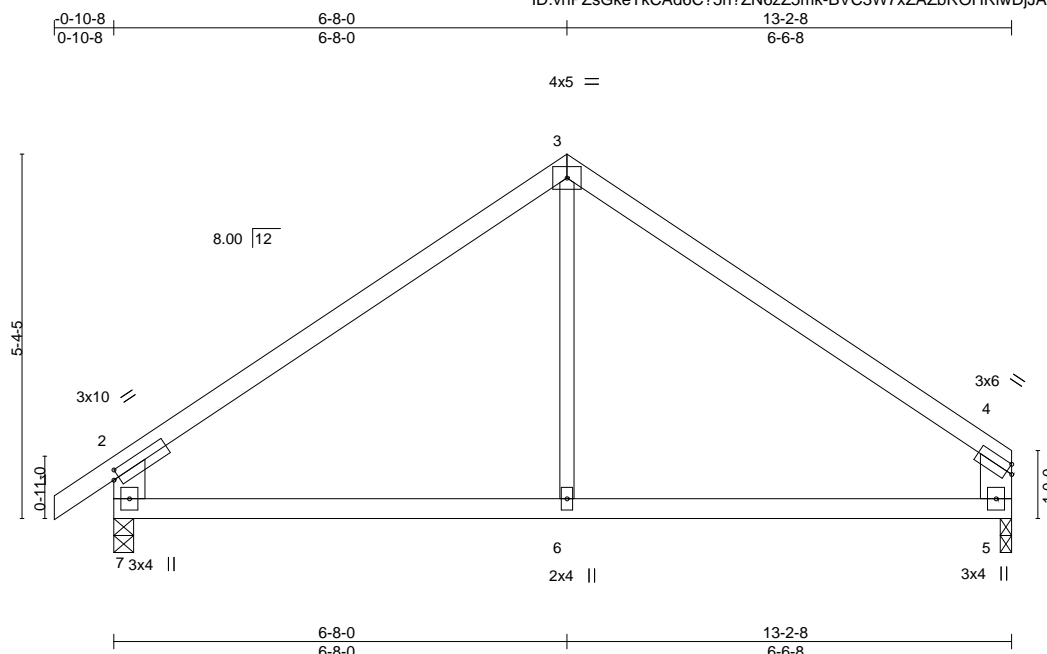
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701760
400148	B2	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:33:56 2020 Page 1

ID:vnPZsGkeTkCAAd6C?5h?ZN6zZ5mk-BVC3W7xZAZbROHRIwDjJADolEuFfblmlaJqTAzzZ2q9



Scale = 1:33.9

Plate Offsets (X,Y)--	[2:0-1-0,0-1-8]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.04	6-7	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.09	6-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.01	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	6-7	>999	Weight: 41 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x6 SPF No.2 *Except*
 3-6: 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 7=0-3-8, 5=0-2-0
 Max Horz 7=155(LC 5)
 Max Uplift 7=-89(LC 8), 5=-62(LC 9)
 Max Grav 7=654(LC 1), 5=570(LC 1)

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

TOP CHORD 2-3=-611/108, 3-4=-603/108, 2-7=-590/141, 4-5=-497/111
 BOT CHORD 6-7=-11/393, 5-6=-11/393
 WEBS 3-6=0/260

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 at joint(s) 5.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 20,2020

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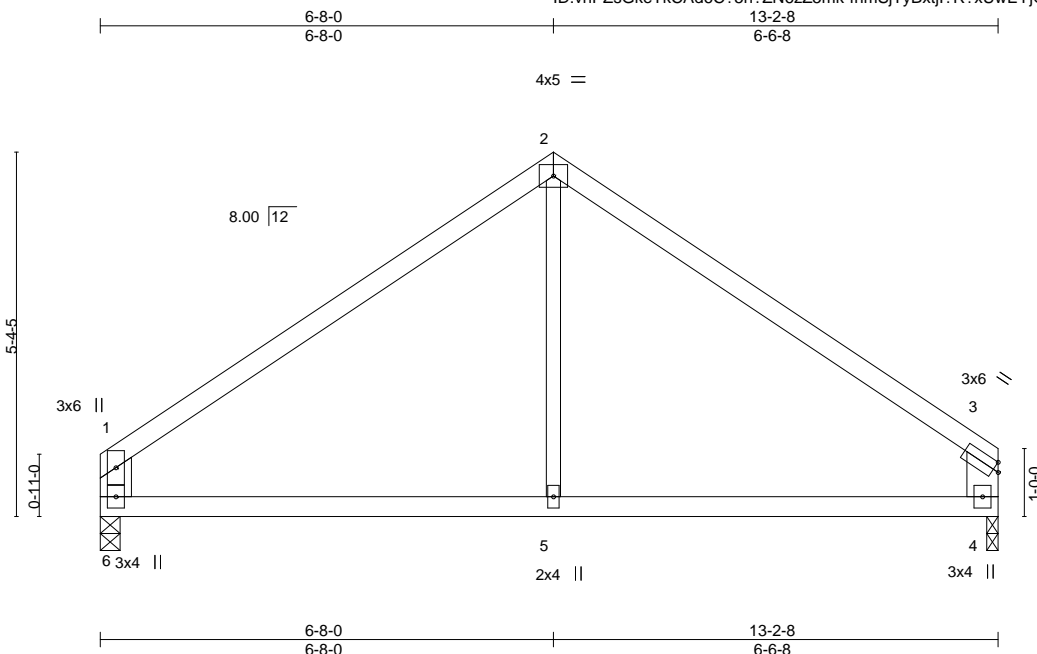
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701761
400148	B3	Common	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:vnPZsGkeTkAd6C?5h?ZN6zZ5mk-fhmSjTyBxtjl?R?xUwEYjQLSNlalcK2vpza0iPzZ2q8



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 0.58	Vert(LL)	-0.04	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.09	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	5-6	>999	240		
									Weight: 40 lb	FT = 10%

LUMBER-

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

BRACING-

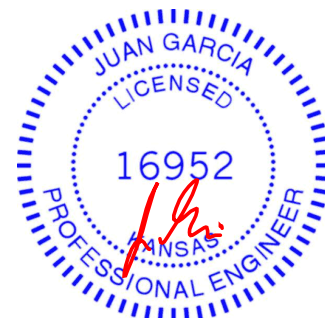
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 4=0-2-0
 Max Horz 6=142(LC 5)
 Max Uplift 6=63(LC 8), 4=62(LC 9)
 Max Grav 6=574(LC 1), 4=574(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-606/106, 2-3=-604/107, 1-6=-499/112, 3-4=-497/110
 BOT CHORD 5-6=-10/395, 4-5=-10/395
 WEBS 2-5=0/254

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 at joint(s) 4.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.



March 20,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701762
400148	B4	Common Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:vnPZsGkeTkCA6C?5h?ZN6zZ5mk-7tJqxpzpiAr9dba72elnFetajhtn3YU22dJaFszZ2q7

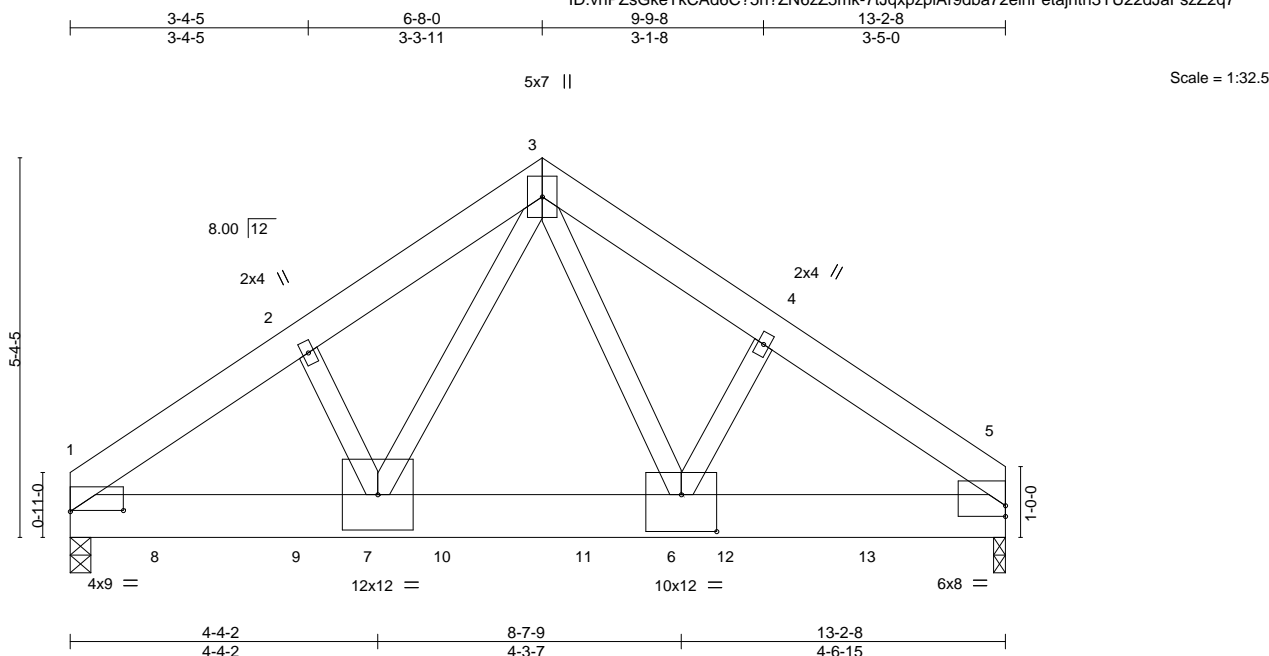


Plate Offsets (X,Y)-- [1:0-9-0,0-0-3], [5:0-0-0,0-1-13], [6:0-6-0,0-6-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.05 6-7 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.09 6-7 >999 240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.52	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: 173 lb	FT = 10%

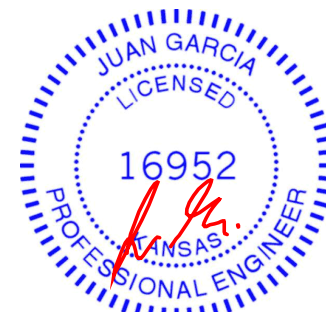
LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 1=0-3-8 (req. 0-4-15), 5=0-2-0 (req. 0-4-9)
Max Horz 1=-125(LC 25)
Max Uplift 1=-681(LC 8), 5=-626(LC 9)
Max Grav 1=6282(LC 2), 5=5800(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-7438/813, 2-3=-7202/851, 3-4=-7010/823, 4-5=-7226/789
BOT CHORD 1-7=-661/5751, 6-7=-420/4242, 5-6=-571/5564
WEBS 2-7=-178/711, 3-7=-491/4021, 3-6=-498/4207, 4-6=-176/719

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - 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) 1, 5 greater than input bearing size.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=681, 5=626.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1837 lb down and 204 lb up at 1-4-0, 1837 lb down and 204 lb up at 3-4-0, 1837 lb down and 204 lb up at 5-4-0, 1837 lb down and 204 lb up at 7-4-0, and 1865 lb down and 204 lb up at 9-4-0, and 1865 lb down and 204 lb up at 11-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



March 20,2020

Continued on page 2

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701762
400148	B4	Common Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:33:58 2020 Page 2
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 1-5=-20
Concentrated Loads (lb)
Vert: 8=-1766(B) 9=-1766(B) 10=-1766(B) 11=-1766(B) 12=-1766(B) 13=-1766(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701763
400148	C1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

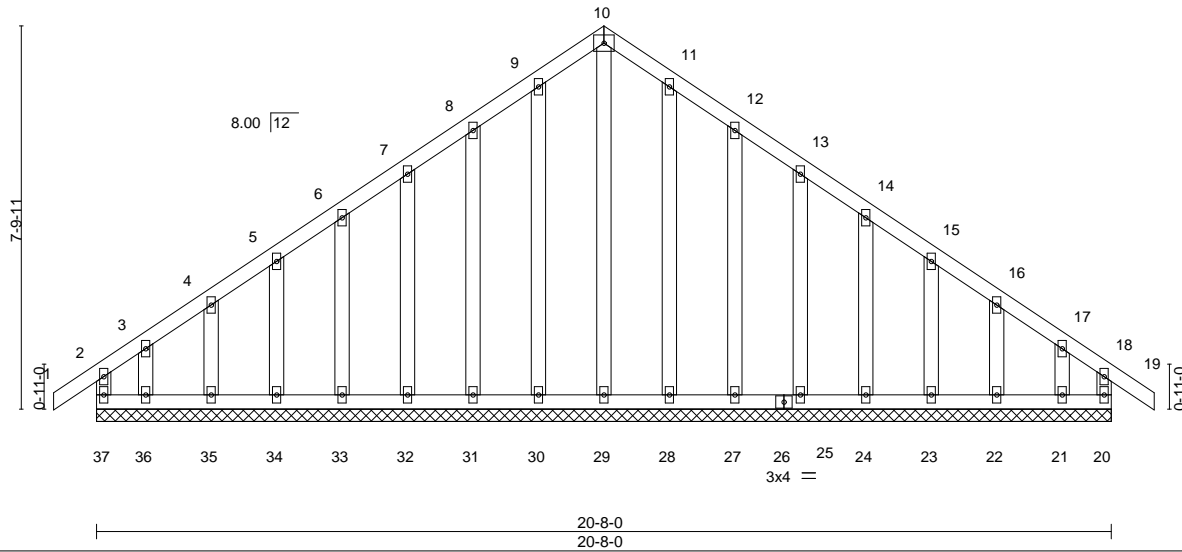
8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:00 2020 Page 1

ID:vnPZsGkeTkCad6C?5h?ZN6zZ5mk-3GRaMU_4Eo5ssvkW93nFK3z5aVfEXYSLVxogJkzZ2q5

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

4x5 =

Scale = 1:46.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	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 0.17	Horz(CT)	0.00	20	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R							
									Weight: 123 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 20-8-0.
(lb) - Max Horz 37=-222(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 20, 30, 31, 32, 33, 34, 35, 28, 27, 25, 24, 23, 22 except 37=-145(LC 4), 36=-153(LC 8), 21=-133(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 37, 20, 29, 30, 31, 32, 33, 34, 35, 36, 28, 27, 25, 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) 20, 30, 31, 32, 33, 34, 35, 28, 27, 25, 24, 23, 22 except (jt=lb) 37=145, 36=153, 21=133.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 20,2020

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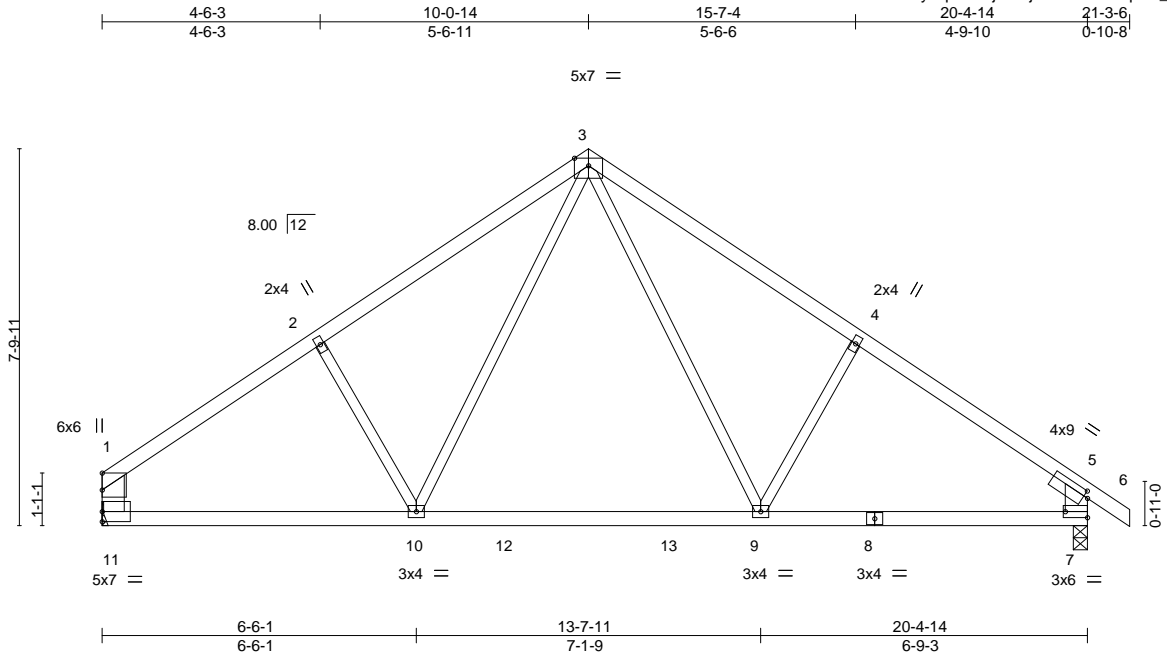
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701764
400148	C2	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:vnPZsGkeTkCA6C?5h?ZN6zZ5mk-XS?yZq?i?5DjU3JjmUtGV4GvqmG_FukbYErAzZ2q4



Scale: 1/4"=1'

Plate Offsets (X,Y)-- [5:0-1-1,0-1-8], [7:Edge,0-1-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.85	Vert(LL)	-0.28 9-10	>867	360
TCDL 10.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.45 9-10	>533	240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(CT)	0.03 7	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.12 9-10	>999	240
				PLATES	GRIP		
				MT20	197/144		
				Weight: 75 lb	FT = 10%		

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-11: 2x6 SPF No.2, 5-7: 2x6 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-1 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=Mechanical, 7=0-3-8
 Max Horz 11=-220(LC 4)
 Max Uplift 11=-99(LC 8), 7=-126(LC 9)
 Max Grav 11=979(LC 15), 7=1055(LC 16)

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

TOP CHORD 1-2=-1171/149, 2-3=-1036/204, 3-4=-1098/212, 4-5=-1222/155, 1-11=-825/126, 5-7=-930/160
 BOT CHORD 10-11=-145/1003, 9-10=0/722, 7-9=-45/909
 WEBS 3-10=-105/424, 3-9=-115/505

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 7=126.
- 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.



March 20,2020

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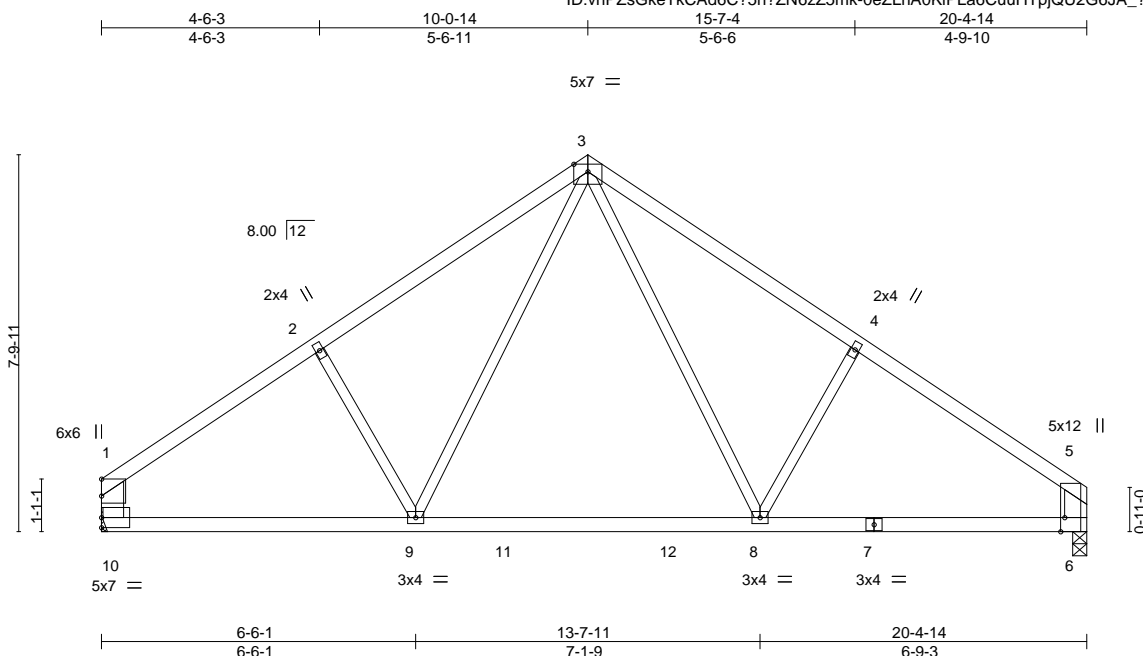
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701765
400148	C3	Common	9	1		

Wheeler Lumber, Waverly, KS 66871

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ID:vnPZsGkeTkCAAd6C?5h?ZN6zZ5mk-0eZLnA0KIPLa6CuuHTpjQU2G6JA_?S9ezFHnOdZ22q3



Scale: 1/4"=1'

Plate Offsets (X,Y)--		[5:0-1-13,0-2-12], [5:0-3-8,Edge], [6:0-0-0,0-2-12]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.78	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.81	Vert(LL) -0.31 8-9 >784 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Vert(CT) -0.50 8-9 >482 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.03 6 n/a n/a
			Wind(LL) 0.10 8-9 >999 240
			PLATES MT20
			GRIP 197/144
			Weight: 74 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-10: 2x6 SPF No.2, 5-6: 2x6 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-3 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

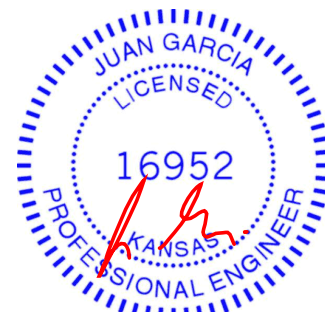
(size) 10=Mechanical, 6=0-3-8
 Max Horz 10=-165(LC 4)
 Max Uplift 10=-3(LC 8), 6=-4(LC 9)
 Max Grav 10=982(LC 13), 6=983(LC 14)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-1179/37, 2-3=-1042/86, 3-4=-1101/89, 4-5=-1224/38, 1-10=-828/36, 5-6=-840/39
 BOT CHORD 9-10=-41/972, 8-9=0/700, 6-8=0/912
 WEBS 3-9=-42/419, 3-8=-43/490, 4-8=-256/143

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) 10, 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.



March 20,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701766
400148	D1	Common Supported Gable	1	1	Job Reference (optional)	

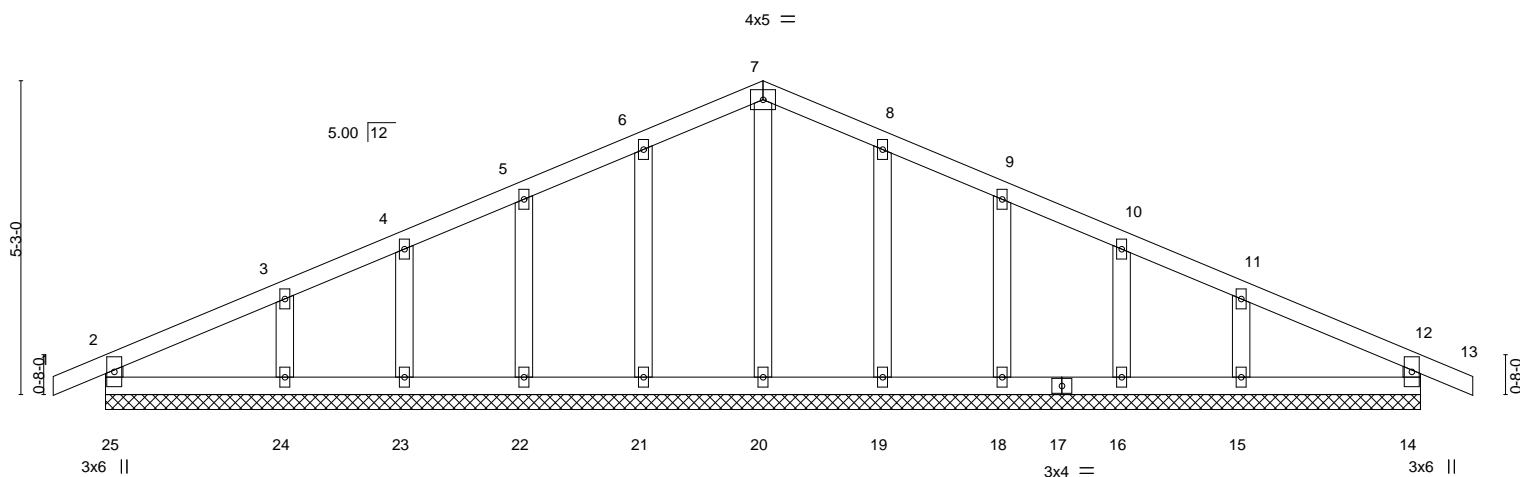
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:03 2020 Page 1

ID:vnPZsGkeTkCad6C?5h?ZN6zZ5mk-Ur7l_W1yWITRkMT5rBLyyhbcpiiAxx3nBv1Lw3zZ2q2

0-10-8 11-0-0 22-0-0 22-10-8
0-10-8 11-0-0 11-0-0 0-10-8

Scale = 1:38.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00 12 n/r 120	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00 12 n/r 120				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00 14 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							
								Weight: 84 lb FT = 10%			

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 22-0-0.
(lb) - Max Horz 25=73(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 25, 14, 21, 22, 23, 24, 19, 18, 16, 15
Max Grav All reactions 250 lb or less at joint(s) 25, 14, 20, 21, 22, 23, 24, 19, 18, 16, 15

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 14, 21, 22, 23, 24, 19, 18, 16, 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 20,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701767
400148	D2	Common	5	1		

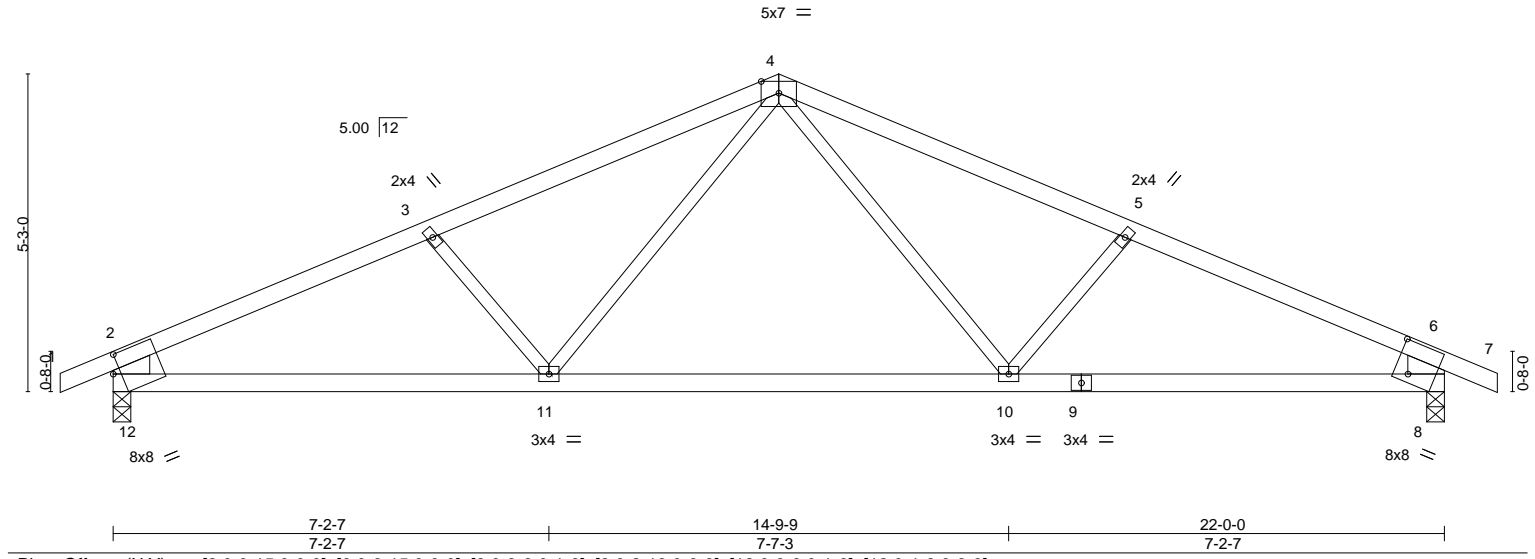
Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:04 2020 Page 1

ID:vnPZsGkeTkCA6C?5h?ZN6zZ5mk-y1h5Bs1aH0bILW2HOusBVv7ZO6tTTMjwQZmuSVzZ2q1

0-10-8	5-3-5	11-0-0	16-8-10	22-0-0	22-10-8
0-10-8	5-3-5	5-8-10	5-8-11	5-3-6	0-10-8

Scale = 1:38.1



LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.98	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.69	Vert(LL) -0.19 10-11 >999 360		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Vert(CT) -0.38 10-11 >681 240		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.05 8 n/a n/a		
			Wind(LL) 0.12 10-11 >999 240	Weight: 71 lb	FT = 10%

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-12,6-8: 2x8 SP DSS

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

REACTIONS. (size) 12=0-3-8, 8=0-3-8
 Max Horz 12=-71(LC 9)
 Max Uplift 12=-150(LC 8), 8=-150(LC 9)
 Max Grav 12=1045(LC 1), 8=1045(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1654/231, 3-4=-1441/205, 4-5=-1441/205, 5-6=-1654/231, 2-12=-953/183,
 6-8=-953/183
 BOT CHORD 11-12=-221/1430, 10-11=-62/1043, 8-10=-150/1430
 WEBS 4-10=-66/433, 5-10=-282/190, 4-11=-66/433, 3-11=-282/190

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 12=150, 8=150.
 - 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.



March 20,2020

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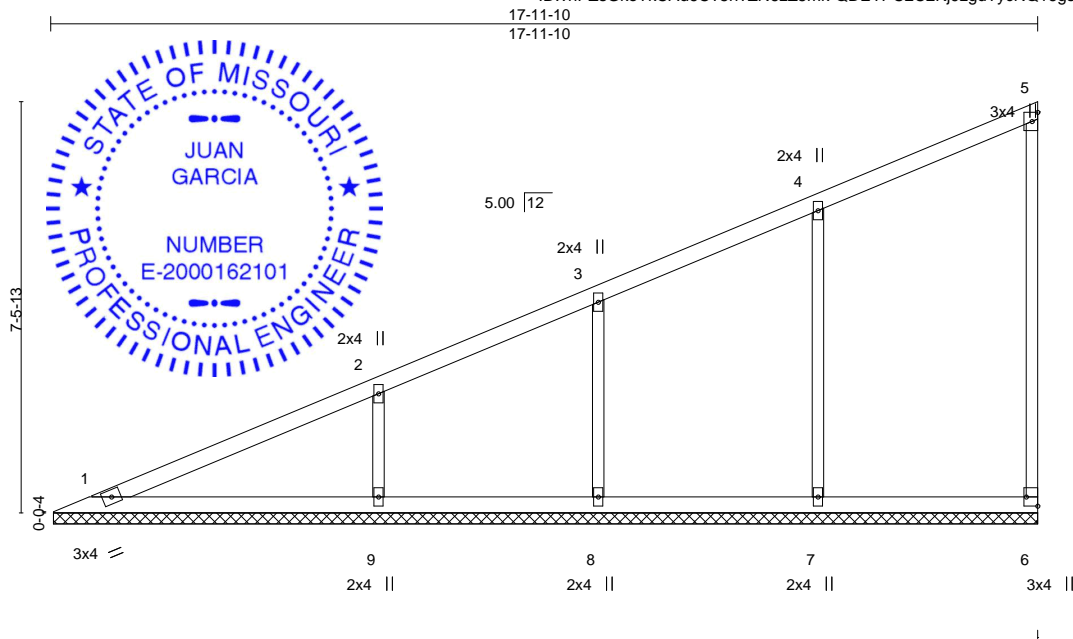
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701768
400148	V1	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:05 2020 Page 1

ID:vnPZsGkeTkCAAd6C?5h?ZN6zZ5mk-QDETPC2C2Kj9zgdTycNQ16gsKWKJCob4fDWR_yzZ2q0



Scale = 1:41.9

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.24	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 56 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

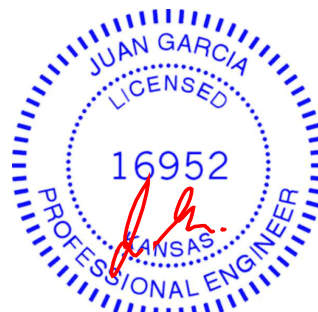
All bearings 17-11-0.
(lb) - Max Horz 1=312(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 6, 8 except 7=108(LC 8), 9=132(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 7=488(LC 2), 8=344(LC 2), 9=507(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-255/78
WEBS 4-7=-315/142, 2-9=-373/186

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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 8 except (jt=lb) 7=108, 9=132.
- 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.



March 20,2020

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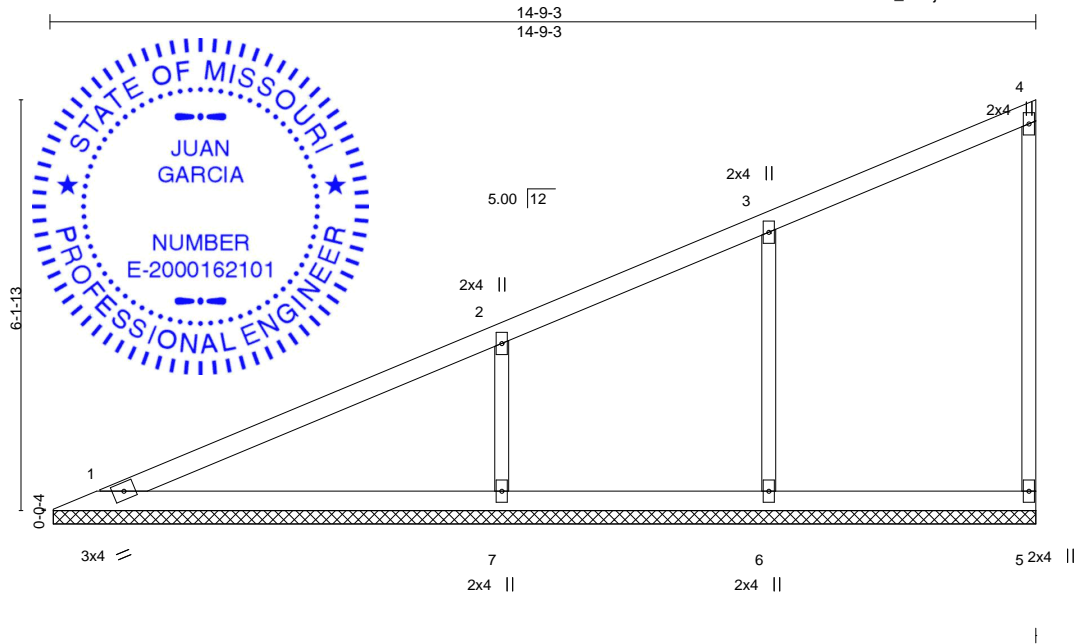
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701769
400148	V2	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:09 2020 Page 1

ID:vnPZsGkeTkCad6C?5h?ZN6zZ5mk-l?U_FZ5j6YebShwFBSSMCyrXQ7h38eUgarUf6jzZ2py



Scale = 1:34.5

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 0.27	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 44 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

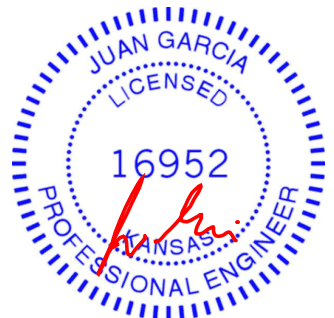
All bearings 14-8-10.
(lb) - Max Horz 1=254(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 7=146(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=370(LC 2), 7=561(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-259/123, 2-7=-412/208

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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 7=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.



March 20,2020

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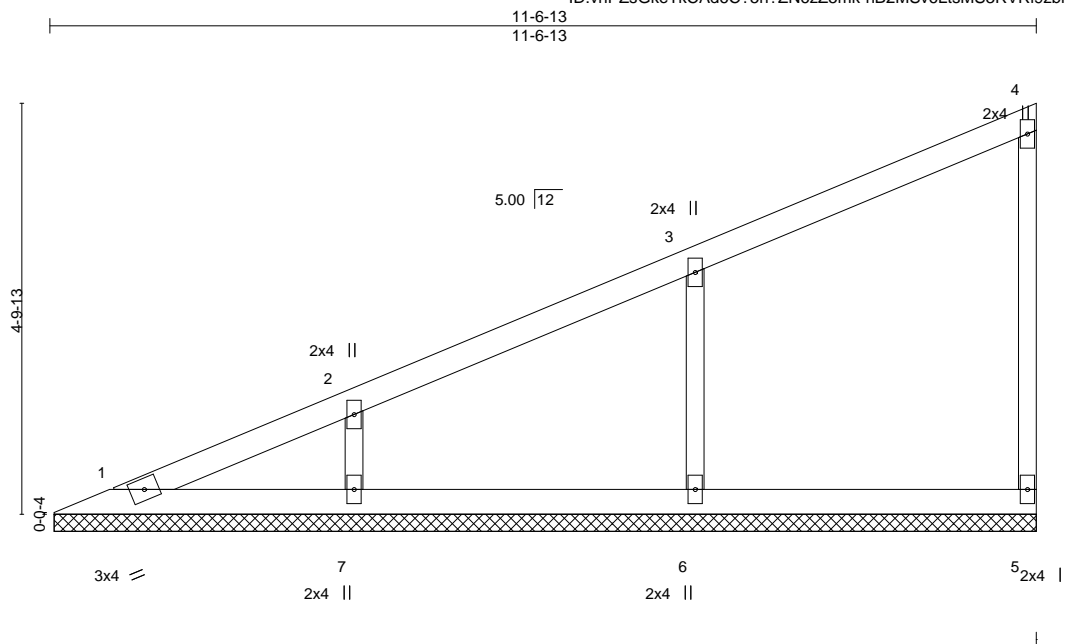
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701770
400148	V3	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:10 2020 Page 1

ID:vnPZsGkeTkCad6C?5h?ZN6zZ5mk-nB2MSv6LtsMS3RVRI9zbnAm9X3tt5JppVDCf9zZ2px



Scale = 1:27.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 33 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

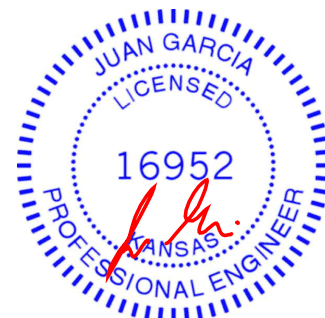
All bearings 11-6-3.
(lb) - Max Horz 1=195(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 5, 7 except 6=-106(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=399(LC 1), 7=331(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-311/153, 2-7=-254/131

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) 5, 7 except (jt=lb) 6=106.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 20,2020

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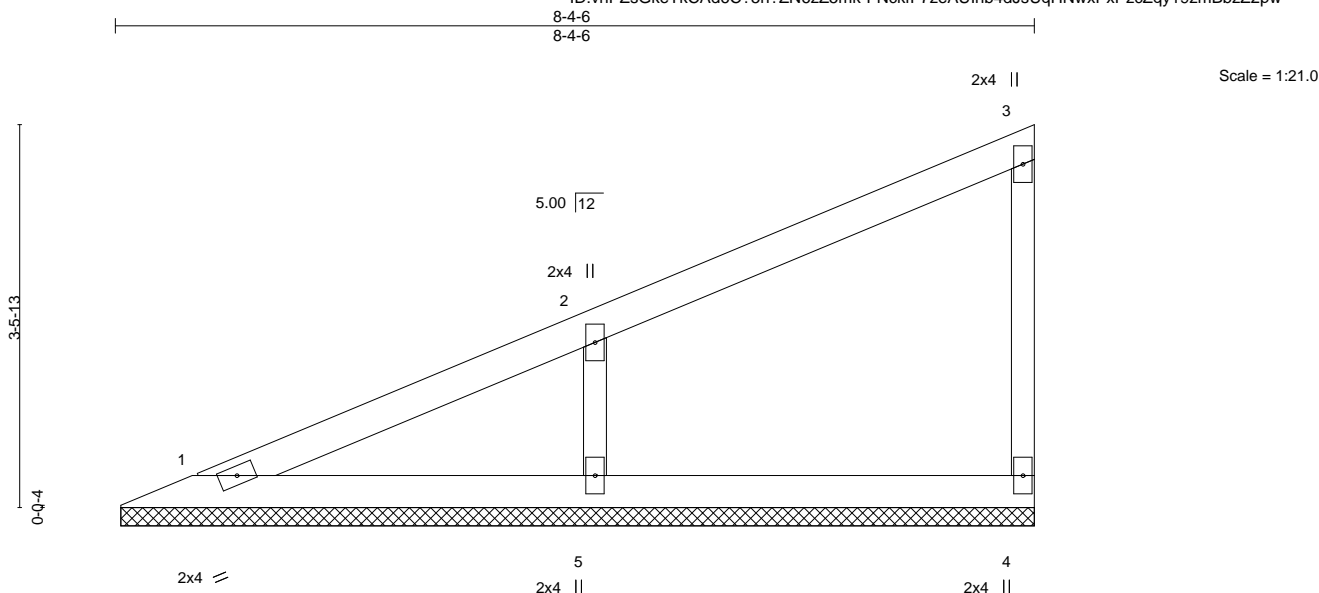
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701771
400148	V4	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:11 2020 Page 1

ID:vnPZsGkeTkCA6C?5h?ZN6zZ5mk-FNckfF7zeAUlhb4dJsUqHNwxPxPzcZqy19zmBbzZ2pw



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: 22 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=8-3-13, 4=8-3-13, 5=8-3-13
Max Horz 1=137(LC 5)
Max Uplift 4=-23(LC 8), 5=-112(LC 8)
Max Grav 1=119(LC 1), 4=135(LC 1), 5=422(LC 1)

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

WEBS 2-5=-328/169

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=112.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 20,2020

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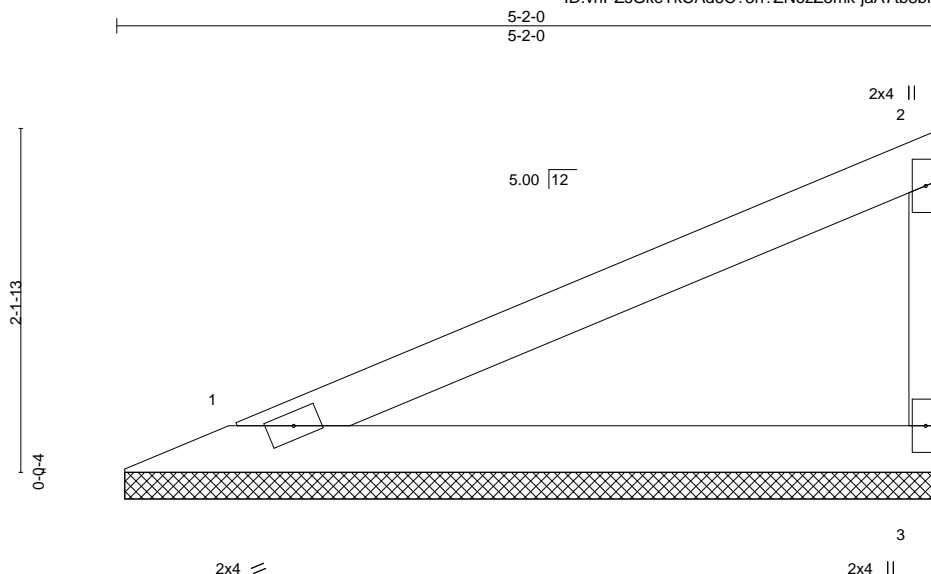


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701772
400148	V5	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:12 2020 Page 1
ID:vnPZsGkeTkCAAd6C?5h?ZN6zZ5mk-jaA7tb8bPTc9Jlfpsa?3qbS4GLk5L?06GoiJj2zZ2pv



Scale = 1:14.4

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 0.35	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	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: 13 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 5-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

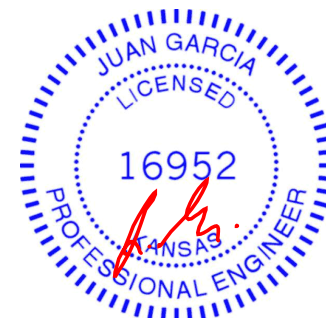
REACTIONS.

(size) 1=5-1-6, 3=5-1-6
Max Horz 1=79(LC 5)
Max Uplift 1=-28(LC 8), 3=-44(LC 8)
Max Grav 1=194(LC 1), 3=194(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.



March 20,2020

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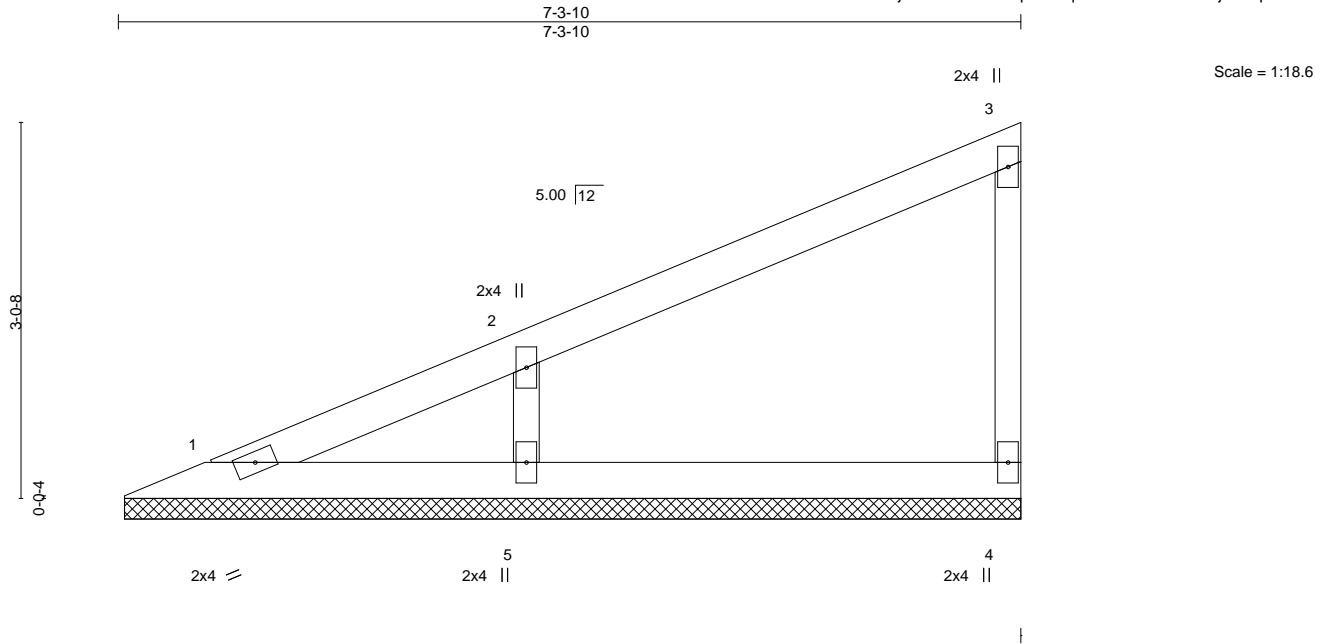


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701773
400148	V6	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:12 2020 Page 1
ID:vnPZsGkeTkCad6C?5h?ZN6zZ5mk-jaA7tb8bPTc9JlfpSa?3qbS7mLIUL?C6GoiJj2zZ2pv



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=7-3-0, 4=7-3-0, 5=7-3-0
Max Horz 1=118(LC 5)
Max Uplift 4=-26(LC 8), 5=-100(LC 8)
Max Grav 1=70(LC 16), 4=142(LC 1), 5=375(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-292/150

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, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 20,2020

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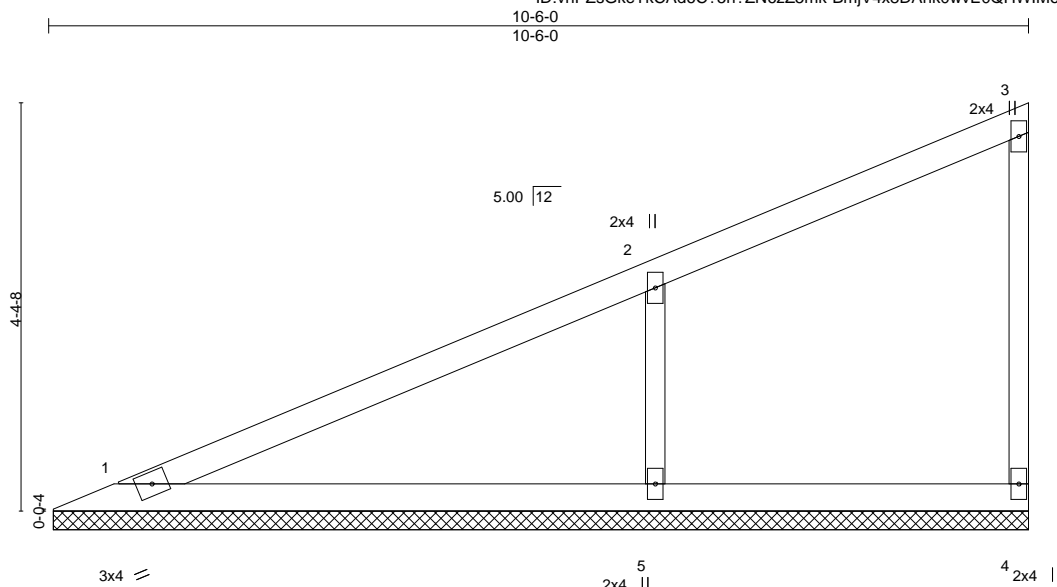
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701774
400148	V7	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:13 2020 Page 1

ID:vnPZsGkeTkCAAd6C75h?ZN6zZ5mk-BmjV4x8Dank0vvE0QHWIMo?E_k3o4RsFVSSsFUzZ2pu



Scale = 1:24.7

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 0.41	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 29 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=10-5-6, 4=10-5-6, 5=10-5-6
Max Horz 1=176(LC 5)
Max Uplift 1=-4(LC 8), 4=-23(LC 5), 5=-148(LC 8)
Max Grav 1=209(LC 1), 4=102(LC 1), 5=557(LC 1)

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

WEBS 2-5=-420/205

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) 1, 4 except (jt=lb) 5=148.
- 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.



March 20,2020

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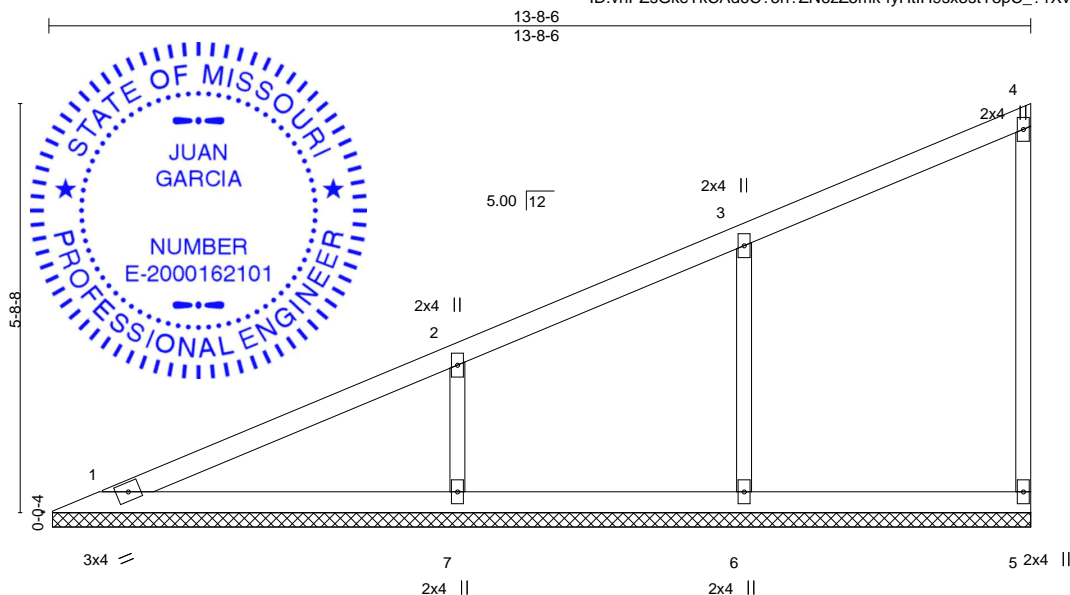


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701775
400148	V8	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:14 2020 Page 1
ID:vnPZsGkeTkCA6C?5h?ZN6zZ5mk-fyHtIH9sx5stY3pC_?1Xv0YRX8QjpuvPj6BQowzZ2pt



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)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	-0.00	5	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
WEBS 2x3 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

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

REACTIONS.

All bearings 13-7-13.
(lb) - Max Horz 1=234(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 7=124(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=405(LC 2), 7=474(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-283/136, 2-7=-351/178

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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 7=124.
- 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.



March 20,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	140701776
400148	V9	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:15 2020 Page 1

ID:vnPZsGkeTkCA6C?5h?ZN6zZ5mk-78rFVdAUiO_kACOOYiYmRD4akYmAYJgYymxzKNzZ2ps

16-10-13
16-10-13

Scale = 1:39.2

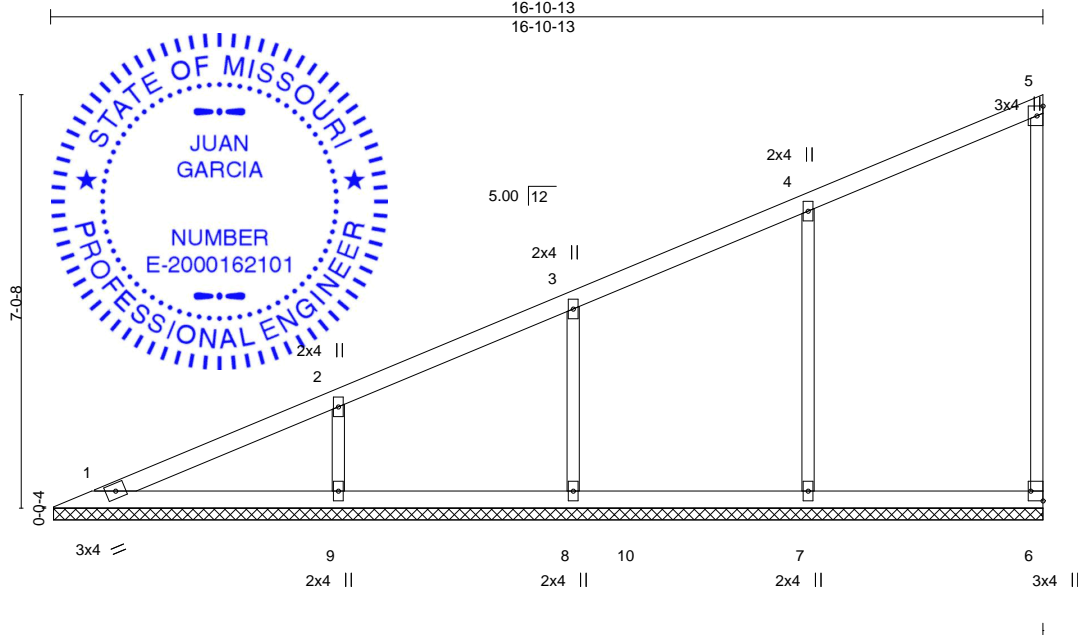


Plate Offsets (X,Y)-- [6:Edge,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 52 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

- All bearings 16-10-3.
(lb) - Max Horz 1=292(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 6, 8 except 7=106(LC 8), 9=112(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 7=479(LC 2), 8=359(LC 2), 9=429(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-7=-310/142, 3-8=-263/140, 2-9=-318/159

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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 8 except (jt=lb) 7=106, 9=112.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701777
400148	V10	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Mar 20 11:34:06 2020 Page 1

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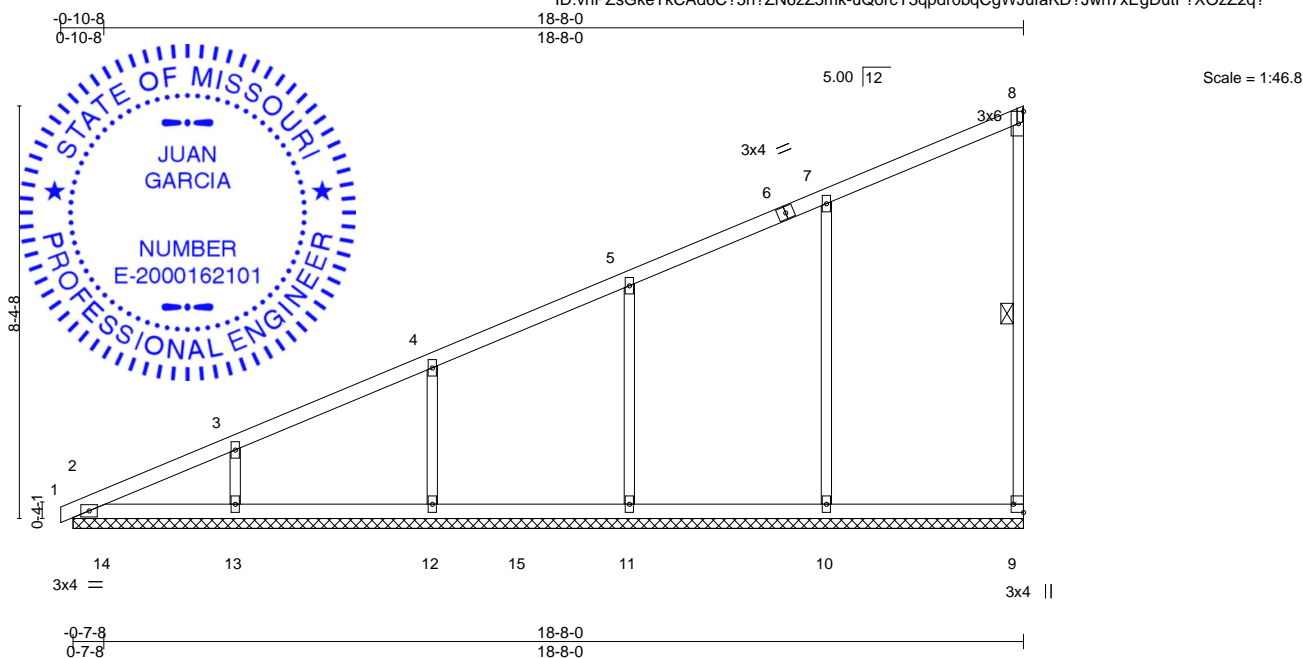


Plate Offsets (X,Y)-- [9:Edge,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.57	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.31	Horz(CT)	-0.00	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 64 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.
WEBS 1 Row at midpt 8-9

REACTIONS.

All bearings 19-3-8.
(lb) - Max Horz 2=352(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 9, 11, 12, 13 except 10=105(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 9, 2 except 10=473(LC 2), 11=417(LC 2), 12=379(LC 2), 13=372(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-297/52, 3-4=-251/53
WEBS 7-10=-308/133, 5-11=-273/146, 4-12=-283/144, 3-13=-276/142

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) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 11, 12, 13 except (jt=lb) 10=105.
- 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.



March 20,2020

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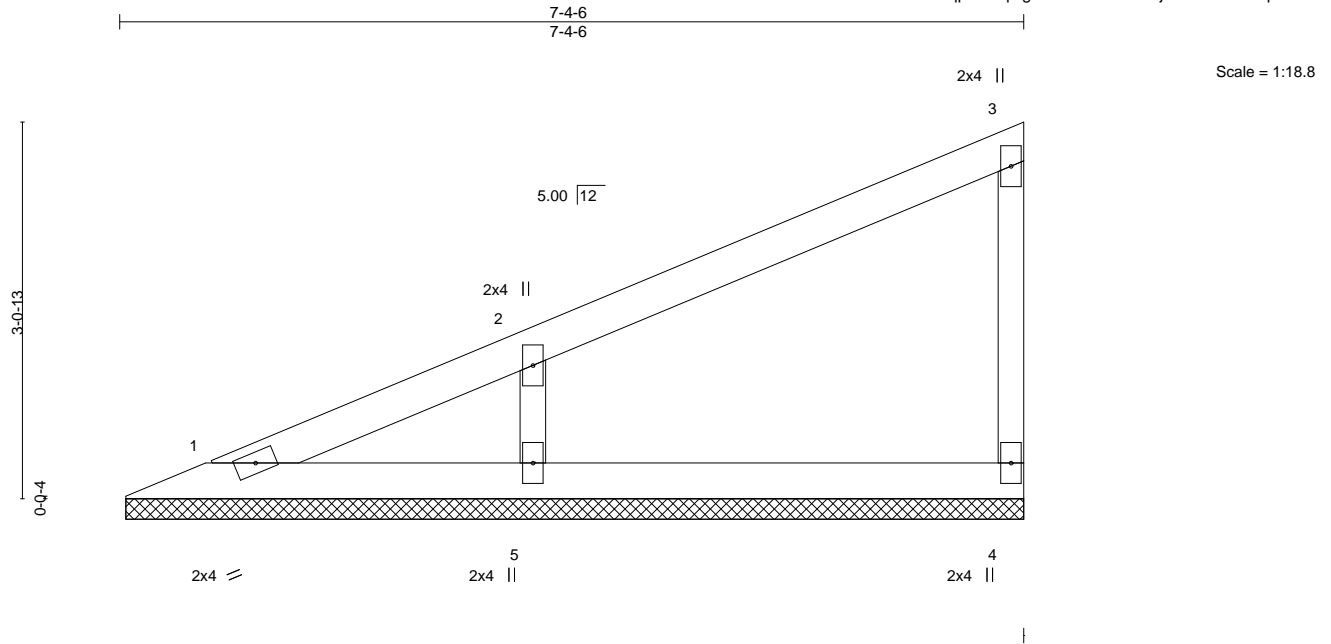
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701778
400148	V11	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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ID:vnPZsGkeTkCAd6C?5h?ZN6zZ5mk-uQorcY3qpdR0bqCgWJufaKD5Fwi4xIjDutF?XOzZ2q?



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=7-3-13, 4=7-3-13, 5=7-3-13
Max Horz 1=119(LC 5)
Max Uplift 4=26(LC 8), 5=100(LC 8)
Max Grav 1=73(LC 16), 4=141(LC 1), 5=378(LC 3)

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

WEBS 2-5=-294/151

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=100.
- 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.



March 20,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

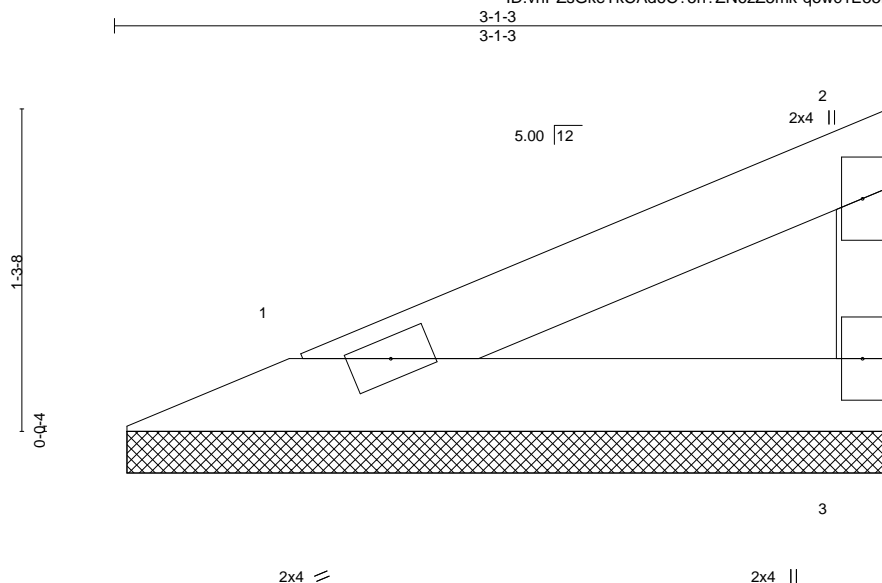
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Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701780
400148	V13	Valley	1	1	Job Reference (optional)	

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Scale = 1:9.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 7 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=3-0-10, 3=3-0-10
Max Horz 1=41(LC 5)
Max Uplift 1=-15(LC 8), 3=-23(LC 8)
Max Grav 1=101(LC 1), 3=101(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.



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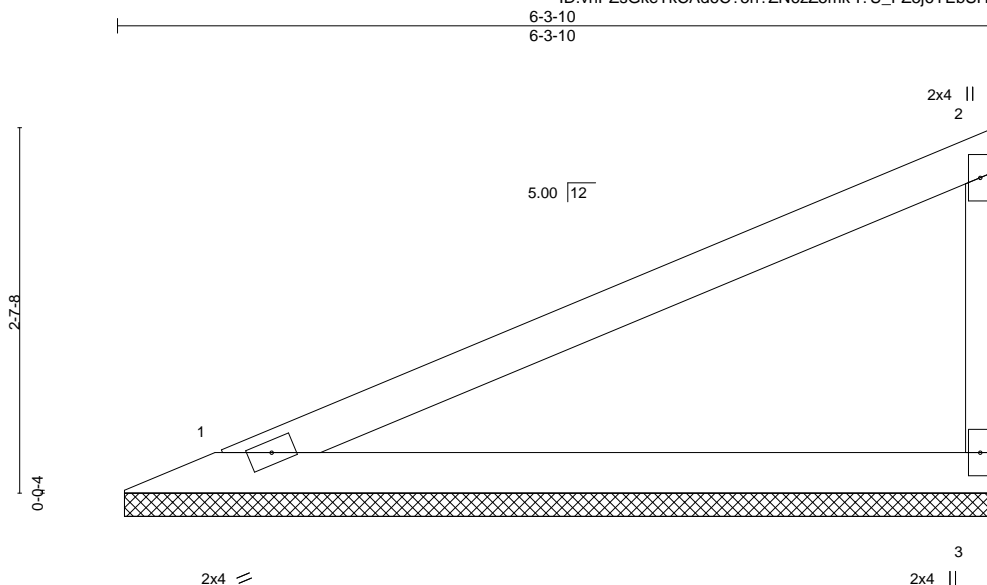
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Job	Truss	Truss Type	Qty	Ply	Lot 84 MN	I40701781
400148	V14	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871

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Scale = 1:16.5

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 0.58	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.31	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: 16 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 6-3-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=6-3-0, 3=6-3-0
Max Horz 1=100(LC 5)
Max Uplift 1=-36(LC 8), 3=-56(LC 8)
Max Grav 1=245(LC 1), 3=245(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.



March 20,2020

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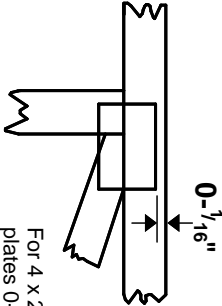
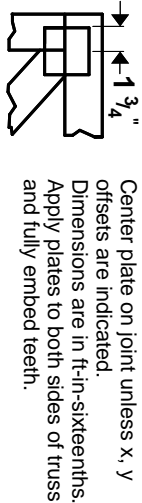
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



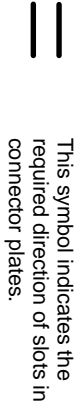
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Symbols

PLATE LOCATION AND ORIENTATION



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



* Plate location details available in **MiTek 20/20** software or upon request.

PLATE SIZE

4 X 4

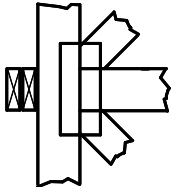
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

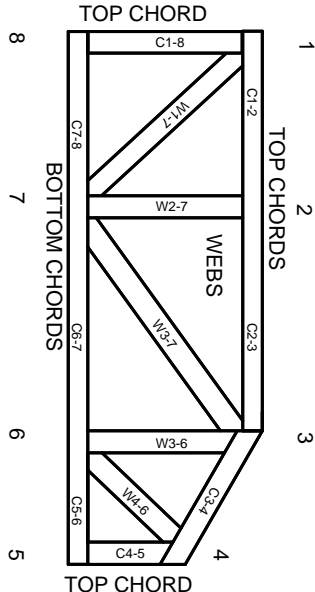
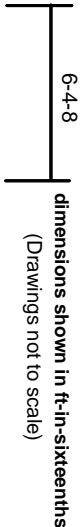


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015



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 ware 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.