



MiTek USA, Inc.

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

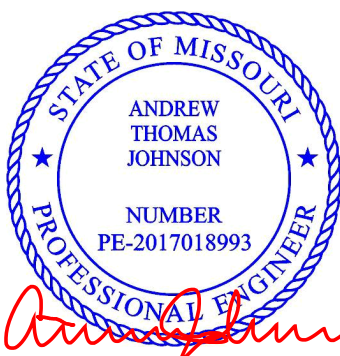
Re: 210411
Lot 108 H4

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

Pages or sheets covered by this seal: I45820283 thru I45820316

My license renewal date for the state of Missouri is December 31, 2021.

Missouri COA: Engineering 001193



April 26, 2021

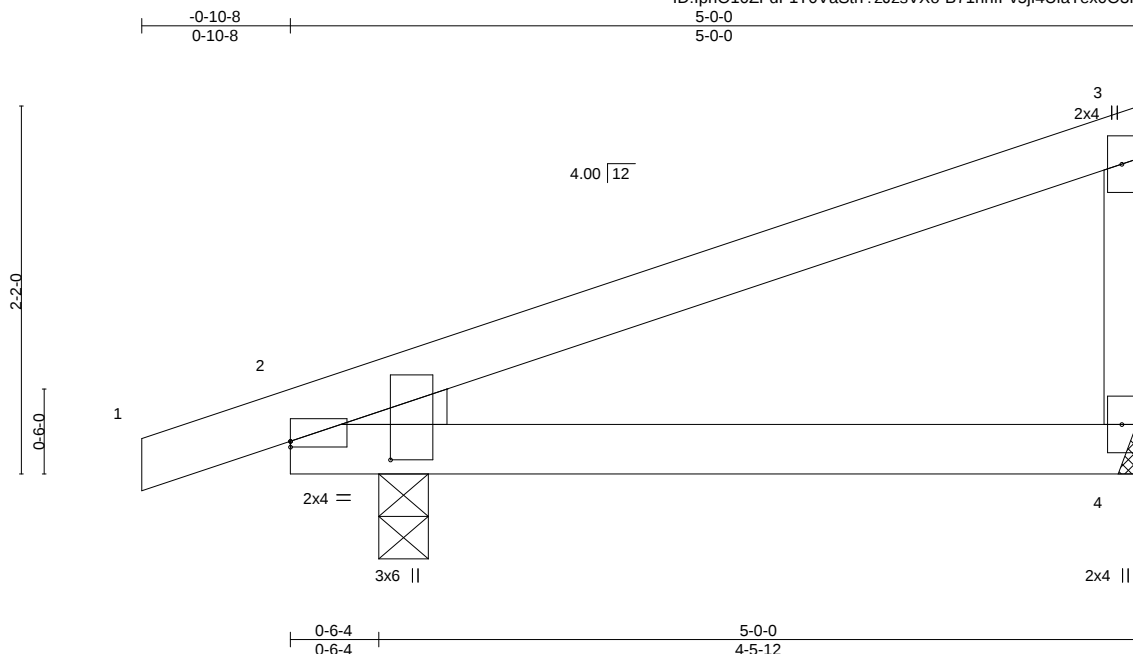
Johnson, Andrew ,Engineer

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 or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO 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.

Job 210411	Truss B1	Truss Type Monopitch	Qty 9	Ply 1	Lot 108 H4 Job Reference (optional)	I45820283
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:22:52 2021 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-B71hhfPv5jl4UiaTex0O3RnbCBMBX5LTiGak3zMv9H



Scale = 1:13.6

Plate Offsets (X,Y)--		[2:0-0-0,0-0-6], [2:0-1-5,0-7-1]									
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	0.39	Vert(LL)	-0.03	2-4	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.27	Vert(CT)	-0.06	2-4	>933	240	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.00	Horz(CT)	-0.00	4	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 15 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8
Max Horz 2=84(LC 7)
Max Uplift 4=45(LC 8), 2=81(LC 4)
Max Grav 4=206(LC 1), 2=293(LC 1)

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

NOTES-

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



April 26, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss C1	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820284
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:22:53 2021 Page 1

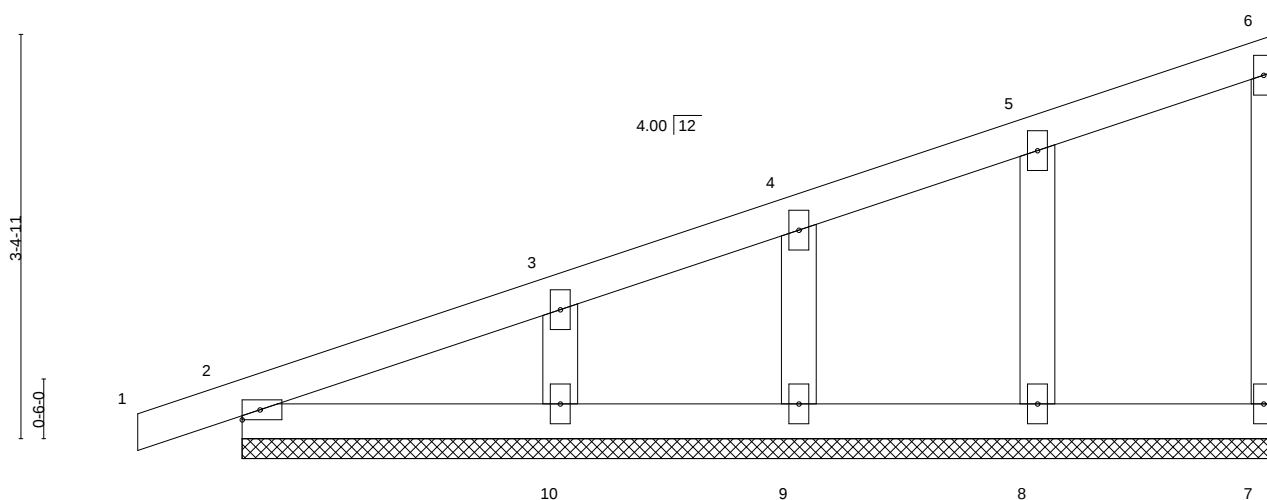
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8-8-0

8-8-0

-0-10-8
0-10-8

Scale = 1:19.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	-0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 29 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 8-8-0.

(lb) - Max Horz 2=138(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) 7, 2, 8, 9, 10

Max Grav All reactions 250 lb or less at joint(s) 7, 2, 8, 9, 10

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

NOTES-

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



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

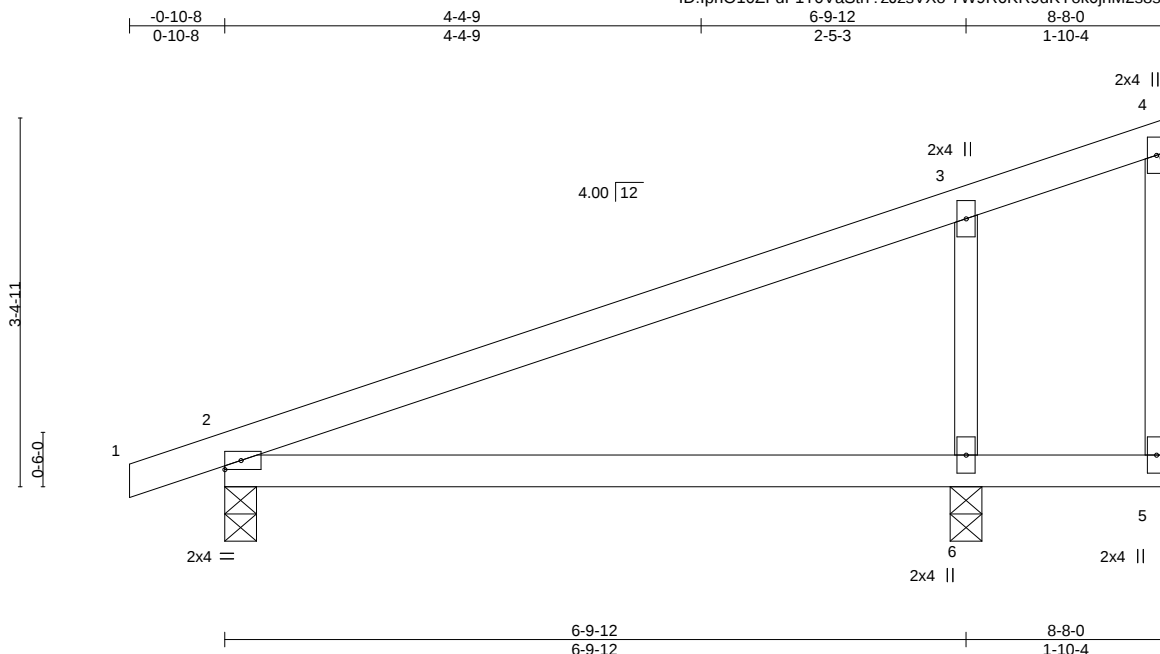


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss C2	Truss Type Monopitch	Qty 1	Ply 1	Lot 108 H4	I45820285
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:22:54 2021 Page 1
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Scale = 1:21.2

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 0.59	Vert(LL)	-0.06	2-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.12	2-6	>643	240		
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-P	Wind(LL)	0.00	6	****	240		
									Weight: 26 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-3-8, 6=0-3-8
Max Horz 2=138(LC 5)
Max Uplift 5=142(LC 1), 2=74(LC 4), 6=159(LC 8)
Max Grav 5=45(LC 8), 2=319(LC 1), 6=652(LC 1)

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

WEBS 3-6=-503/248

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 5=142, 6=159.
- 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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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



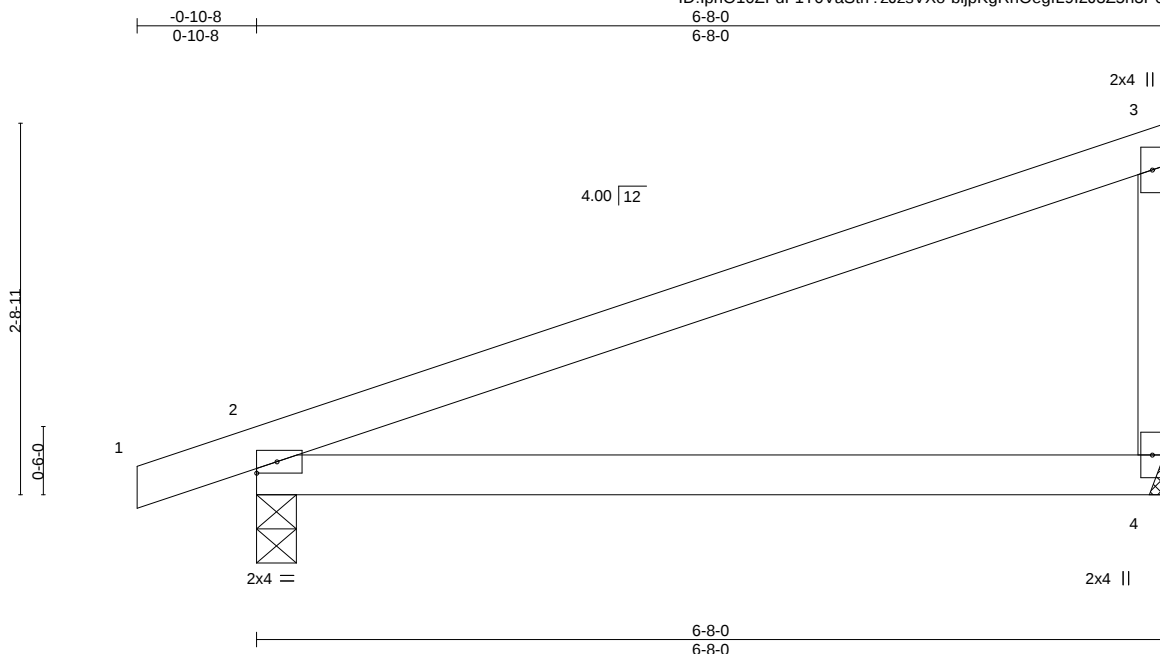
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss C3	Truss Type Monopitch	Qty 8	Ply 1	Lot 108 H4 Job Reference (optional)	I45820286
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:22:55 2021 Page 1

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Scale = 1:16.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.78	Vert(LL)	-0.10	2-4	>757	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.20	2-4	>379	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240		
									Weight: 19 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=108(LC 5)
Max Uplift 4=61(LC 8), 2=92(LC 4)
Max Grav 4=283(LC 1), 2=366(LC 1)

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

NOTES-

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



April 26, 2021

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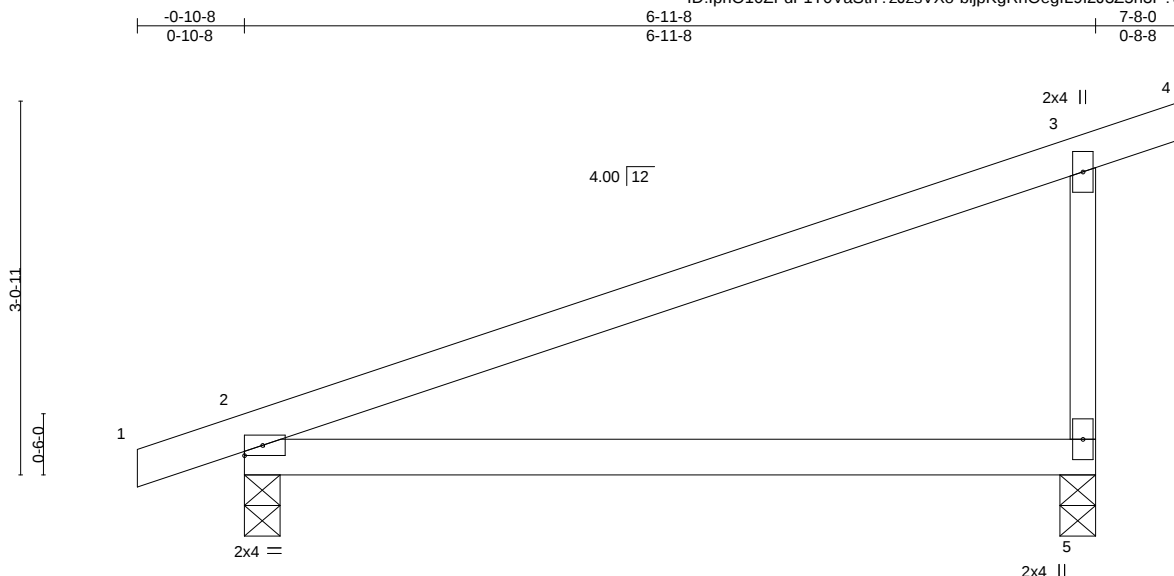
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss C4	Truss Type Monopitch	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820287
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:22:55 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-bijpKgRnOegfL9l2J3Z5h3P?SOqXOurn9gVqKOzMv9E



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 0.84	Vert(LL)	-0.12	2-5	>663	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.24	2-5	>331	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 20 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 2=0-3-8
Max Horz 2=124(LC 5)
Max Uplift 5=88(LC 8), 2=89(LC 4)
Max Grav 5=357(LC 1), 2=375(LC 1)

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

TOP CHORD 3-5=-290/128

NOTES-

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



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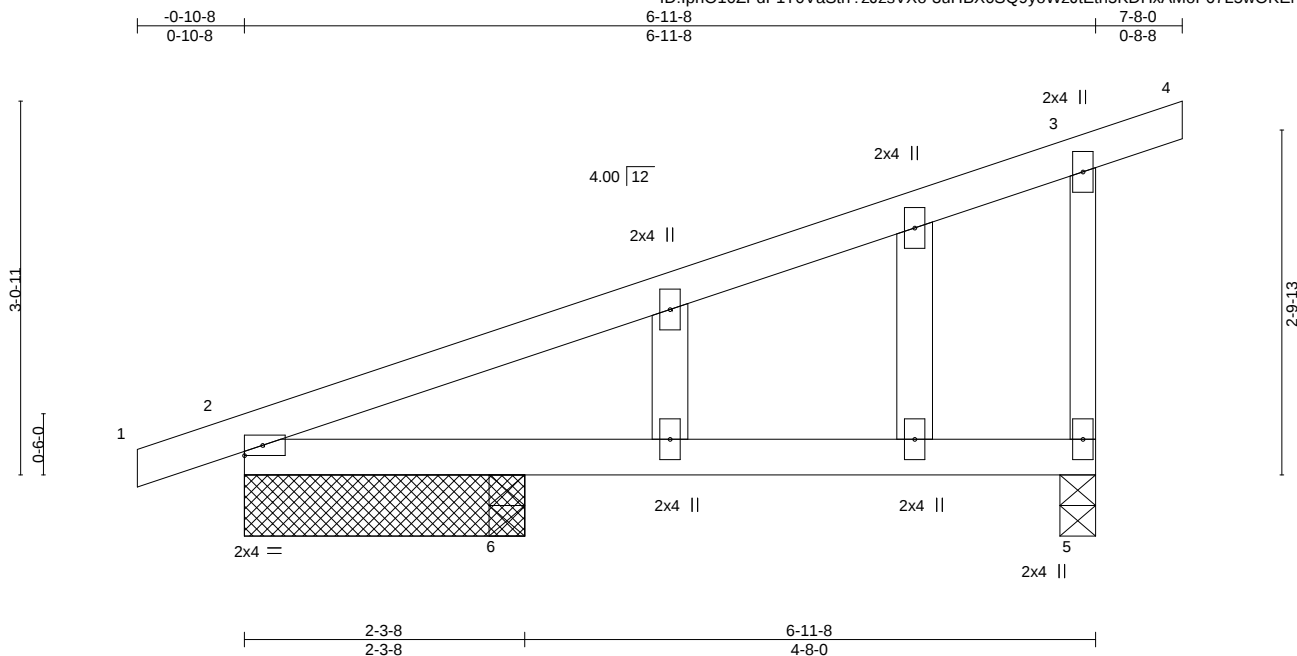
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss C5	Truss Type Monopitch Structural Gable	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820288
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:22:56 2021 Page 1

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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.89	Vert(LL)	-0.02	5-6	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.03	5-6	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	6	****	240	
								Weight: 23 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 2=2-3-8, 6=0-3-8
Max Horz 2=124(LC 5)
Max Uplift 5=107(LC 8), 2=124(LC 4)
Max Grav 5=334(LC 1), 2=304(LC 1), 6=194(LC 3)

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

TOP CHORD 3-5=-296/130

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable studs spaced at 2-0-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=107, 2=124.
- 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.



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss D1	Truss Type Common	Qty 5	Ply 1	Lot 108 H4 145820289
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:22:57 2021 Page 1

ID:lpnO10ZFdF1T0VaStr?zJzsVXo-X5raIMT2wFwNbTSQRUCZmUUToCURsl84d__xPGzMv9C

0-10-8 0-10-8	5-3-13 5-3-13	10-4-0 5-0-3	15-4-3 5-0-3	20-8-0 5-3-13	21-6-8 0-10-8
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Scale = 1:35.9

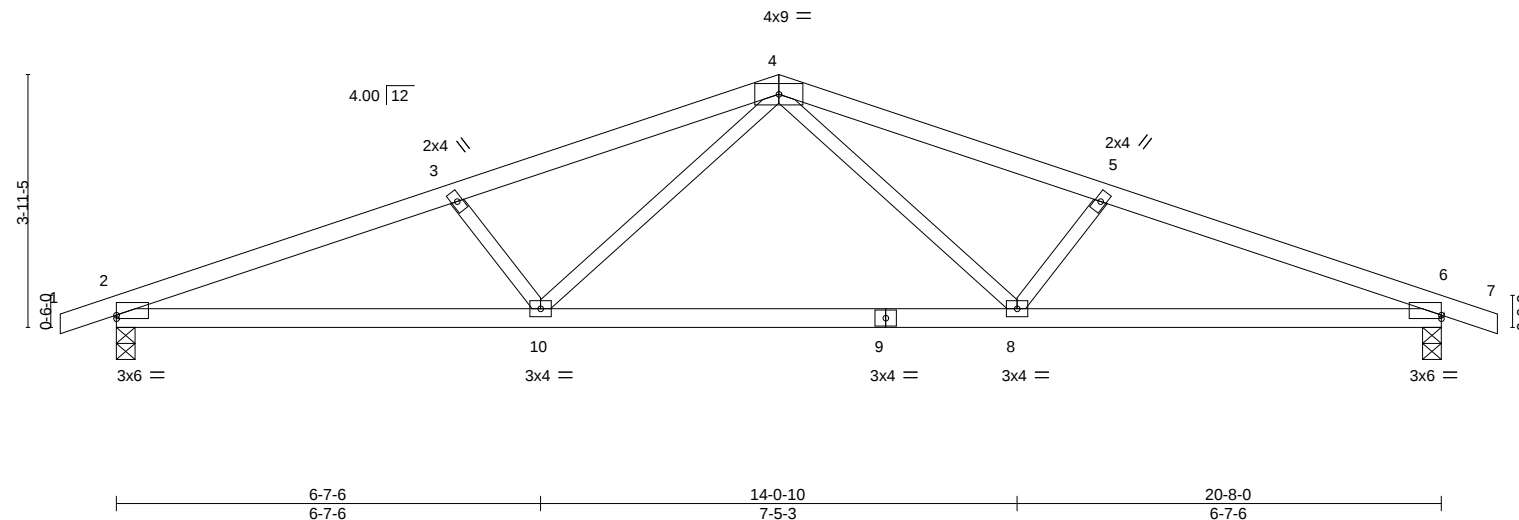


Plate Offsets (X,Y)-- [2:0-0-0,0-0-10], [6:Edge,0-0-10]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.10 8-10 >999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.22 8-10 >999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.05 6 n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07 8-10 >999	240	Weight: 62 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 3-8-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=66(LC 12)
Max Uplift 2=-178(LC 4), 6=-178(LC 5)
Max Grav 2=988(LC 1), 6=988(LC 1)

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

TOP CHORD 2-3=-2045/297, 3-4=-1836/268, 4-5=-1836/268, 5-6=-2045/297
BOT CHORD 2-10=-275/1859, 8-10=-118/1278, 6-8=-225/1859
WEBS 4-8=-84/598, 5-8=-327/179, 4-10=-83/598, 3-10=-327/179

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=178, 6=178.
- 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.



April 26, 2021

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

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

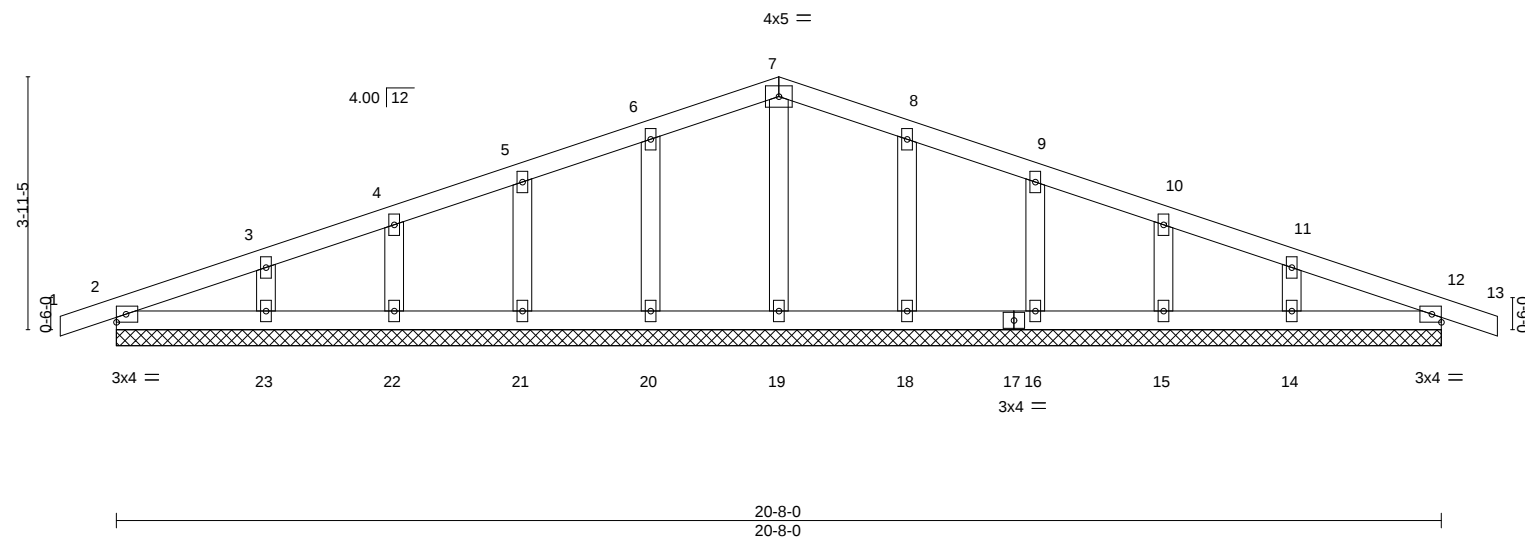
Job	Truss	Truss Type	Qty	Ply	Lot 108 H4	145820290
210411	D2	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:22:58 2021 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-?HPyyiUghZ2ECd1d_C7oli0j?byQbF6DsejUxjzMv9B

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

Scale = 1:35.9



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 0.05	Vert(LL)	-0.00 12	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00 12	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 70 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 20-8-0.
(lb) - Max Horz 2=66(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 23, 18, 16, 15, 14, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 19, 20, 21, 22, 23, 18, 16, 15, 14, 12

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 23, 18, 16, 15, 14, 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss E1	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820291
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Wheeler Lumber, Waverly, KS - 66871,

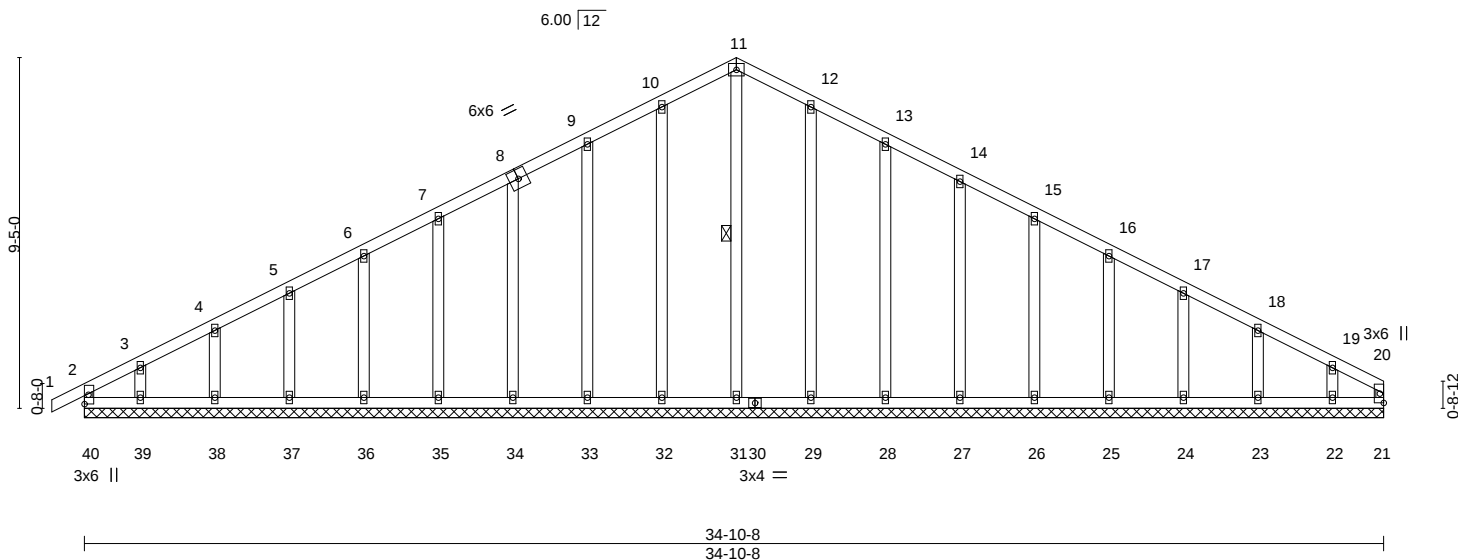
8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:01 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-Qs44akWYzURp34mCgKgVwKeDLp_noacgYcy8Y2zMv98

-0-10-8 17-6-0 34-10-8
0-10-8 17-6-0 17-4-8

4x5 =

Scale = 1:61.8



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 0.11	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.01	21	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 176 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 34-10-8.

(lb) - Max Horz 40=157(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 40, 21, 32, 33, 34, 35, 36, 37, 38, 29, 28, 27, 26, 25, 24, 23

except 39=111(LC 8), 22=108(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 40, 21, 31, 32, 33, 34, 35, 36, 37, 38, 39, 29, 28, 27, 26, 25, 24, 23, 22

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

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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 40, 21, 32, 33, 34, 35, 36, 37, 38, 29, 28, 27, 26, 25, 24, 23 except (jt=lb) 39=111, 22=108.
- 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.



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss E2	Truss Type Common	Qty 7	Ply 1	Lot 108 H4 I45820292
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Wheeler Lumber, Waverly, KS - 66871,

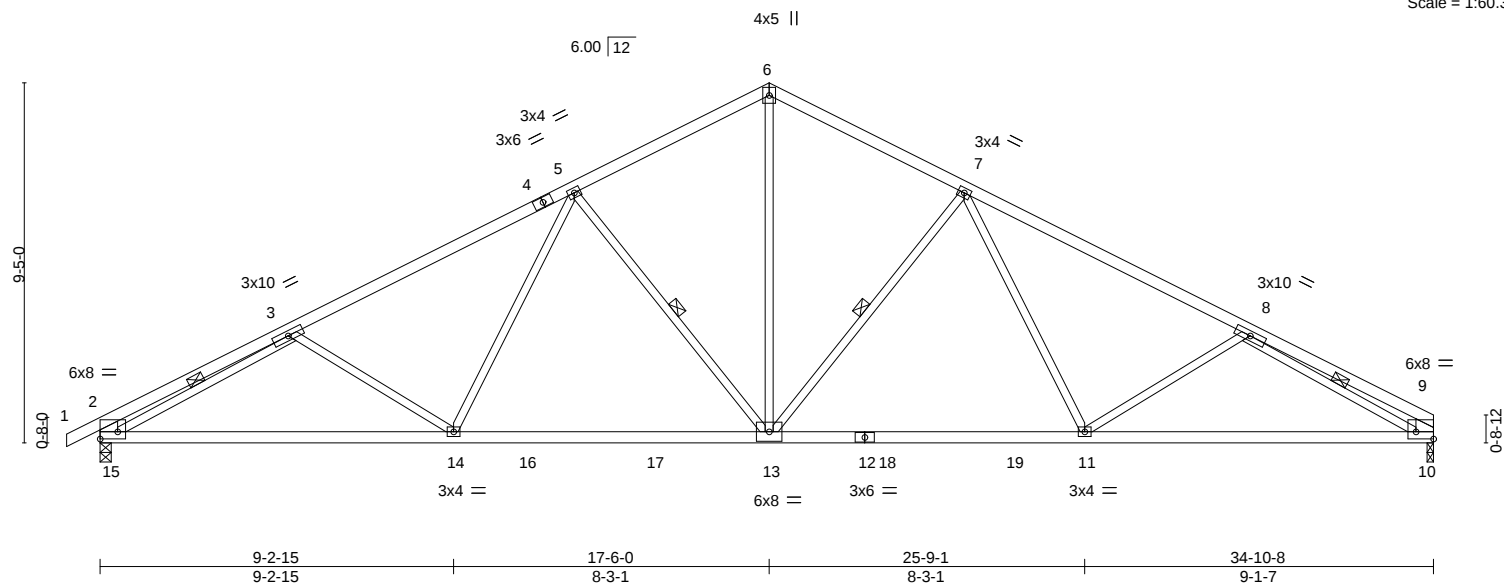
8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:02 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-u2eSo3XAkoZfhEKOD1CkTYBDKD5GXvDpmGhh4UzMv97

Job Reference (optional)

0-10-8 5-0-5 12-4-13 17-6-0 22-7-3 29-11-11 34-10-8
0-10-8 5-0-5 7-4-7 5-1-3 5-1-3 7-4-7 4-10-13

Scale = 1:60.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.25 11-13 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.41 11-13 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.12 10 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11 13-14 >999 240				
								Weight: 135 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-15,9-10: 2x6 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 5-13, 7-13, 3-15, 8-10

REACTIONS.

(size) 15=0-3-8, 10=0-2-0 (req. 0-2-9)
Max Horz 15=156(LC 8)
Max Uplift 15=-218(LC 8), 10=-192(LC 9)
Max Grav 15=1706(LC 2), 10=1641(LC 2)

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

TOP CHORD 2-3=-785/66, 3-5=-2579/307, 5-6=-1874/287, 6-7=-1873/288, 7-8=-2562/306, 8-9=-589/30, 2-15=-523/101, 9-10=-352/52
BOT CHORD 14-15=-427/2368, 13-14=-223/2016, 11-13=-101/2007, 10-11=-291/2331
WEBS 3-14=-297/235, 5-14=-15/499, 5-13=-692/263, 6-13=-167/1385, 7-13=-681/261, 7-11=-14/483, 8-11=-280/233, 3-15=-2007/321, 8-10=-2172/356

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.
- WARNING: Required bearing size at joint(s) 10 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) 15=218, 10=192.
- 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.



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss E3	Truss Type Common	Qty 1	Ply 1	Lot 108 H4 145820293
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Wheeler Lumber, Waverly, KS - 66871,

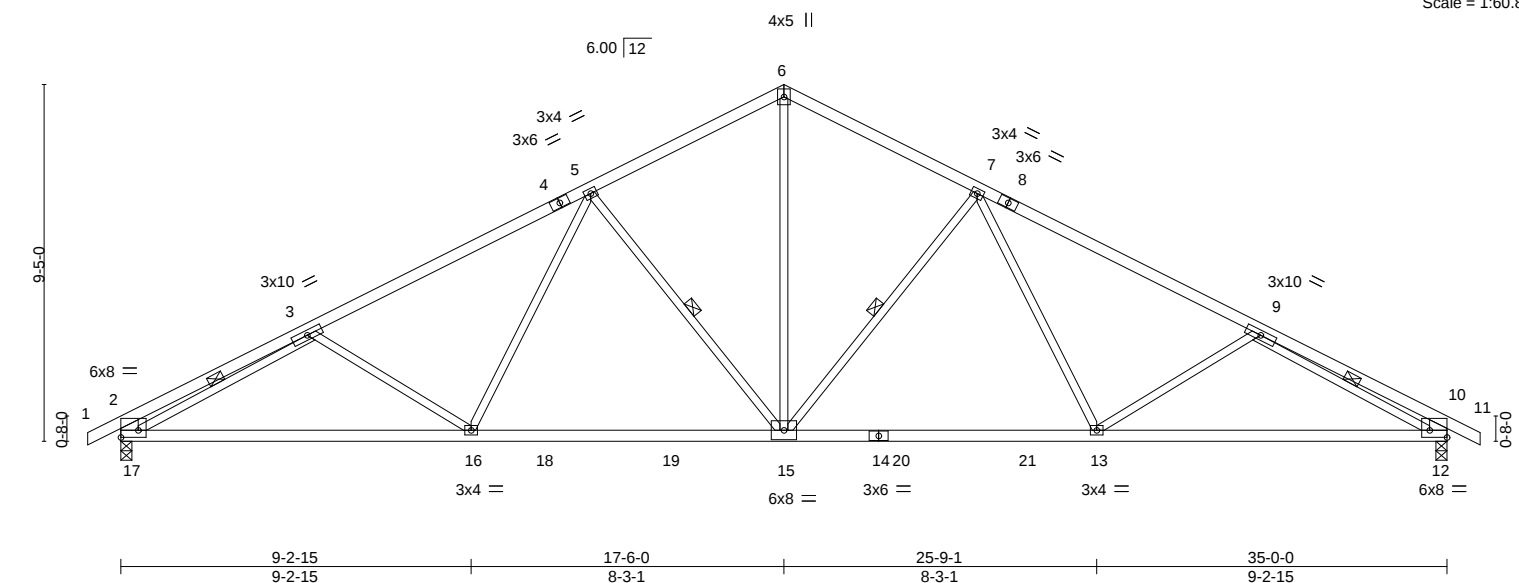
8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:03 2021 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-MECr?PYpV5hWJOvanljz?lko1cRTGNwy?wRFdwzMv96

Job Reference (optional)

0-10-8 5-0-5 12-4-13 17-6-0 22-7-3 29-11-11 35-0-0 35-10-8
0-10-8 5-0-5 7-4-7 5-1-3 5-1-3 7-4-7 5-0-5 0-10-8

Scale = 1:60.8



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 0.80	Vert(LL)	-0.25 13-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 1.00	Vert(CT)	-0.41 13-15	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.63	Horz(CT)	0.12 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.11 15-16	>999	240	Weight: 136 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-17,10-12: 2x6 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 7-15, 5-15, 3-17, 9-12

REACTIONS.

(size) 17=0-3-8, 12=0-3-8
Max Horz 17=146(LC 8)
Max Uplift 17=-219(LC 8), 12=-219(LC 9)
Max Grav 17=1711(LC 2), 12=1711(LC 2)

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

TOP CHORD 2-3=-787/67, 3-5=-2589/307, 5-6=-1884/288, 6-7=-1884/288, 7-9=-2589/308,
9-10=-787/66, 2-17=-524/101, 10-12=-524/101
BOT CHORD 16-17=-418/2378, 15-16=-213/2025, 13-15=-92/2025, 12-13=-272/2376
WEBS 6-15=-167/1395, 7-15=-692/263, 7-13=-15/499, 9-13=-297/235, 5-15=-692/263,
5-16=-14/499, 3-16=-297/235, 3-17=-2015/322, 9-12=-2015/322

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=219, 12=219.
- 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.



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss E4	Truss Type Roof Special	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820294
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Wheeler Lumber, Waverly, KS - 66871,

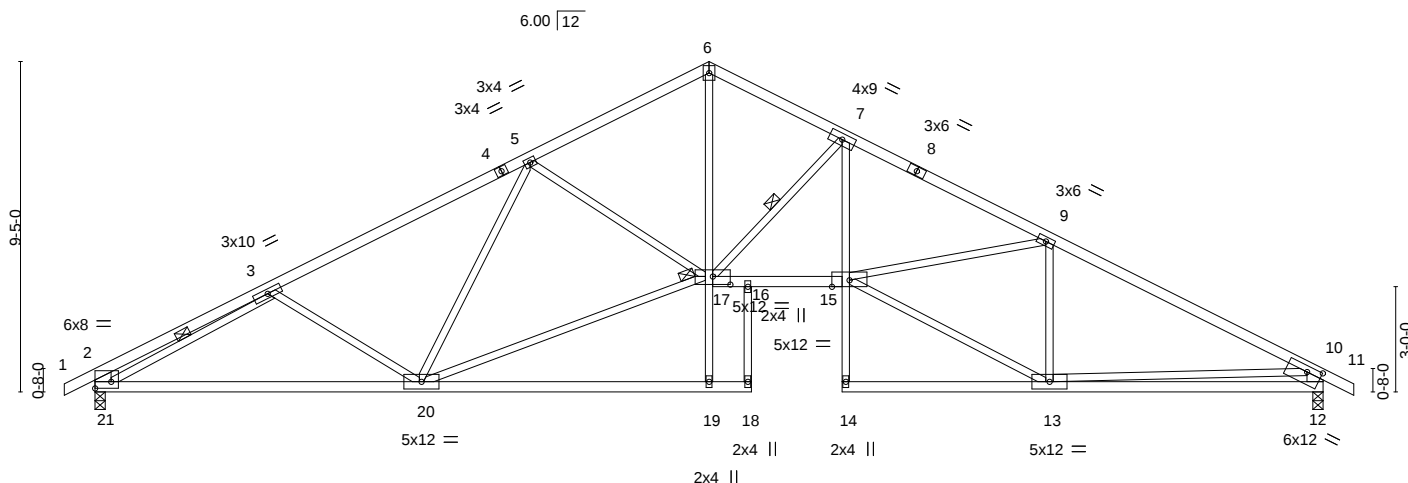
8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:04 2021 Page 1

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0-10-8 5-0-5 12-4-13 17-6-0 18-8-8 21-3-8 27-2-7 35-0-0 35-10-8
0-10-8 5-0-5 7-4-7 5-1-3 1-2-8 2-7-0 5-10-15 7-9-9 0-10-8

4x5 ||

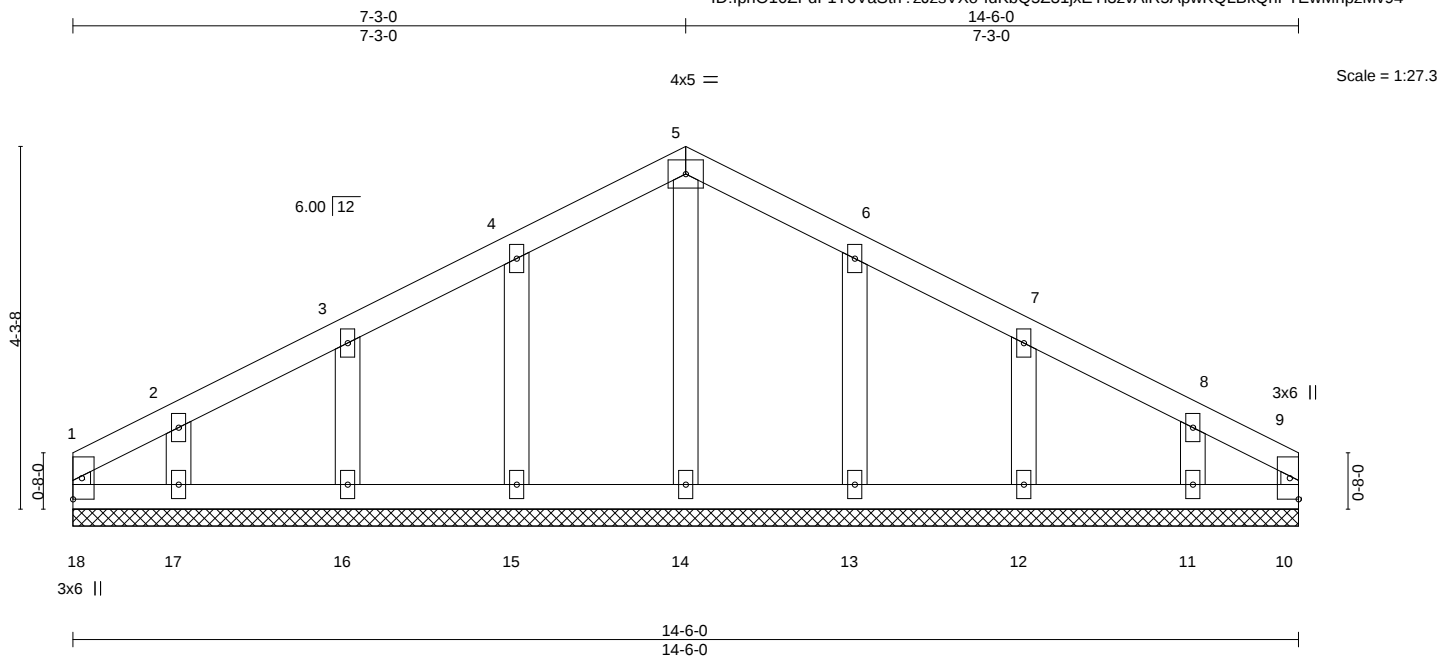
Scale = 1:65.7



Job 210411	Truss G1	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820295
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:05 2021 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-ldKbQ5Z31xEYi3zvAIR5ApwKQLBkQnFTEwMhpzMv94



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 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	10	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 52 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 14-6-0.
(lb) - Max Horz 18=-62(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 18, 10, 15, 16, 17, 13, 12, 11
Max Grav All reactions 250 lb or less at joint(s) 18, 10, 14, 15, 16, 17, 13, 12, 11

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 10, 15, 16, 17, 13, 12, 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 26, 2021

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

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



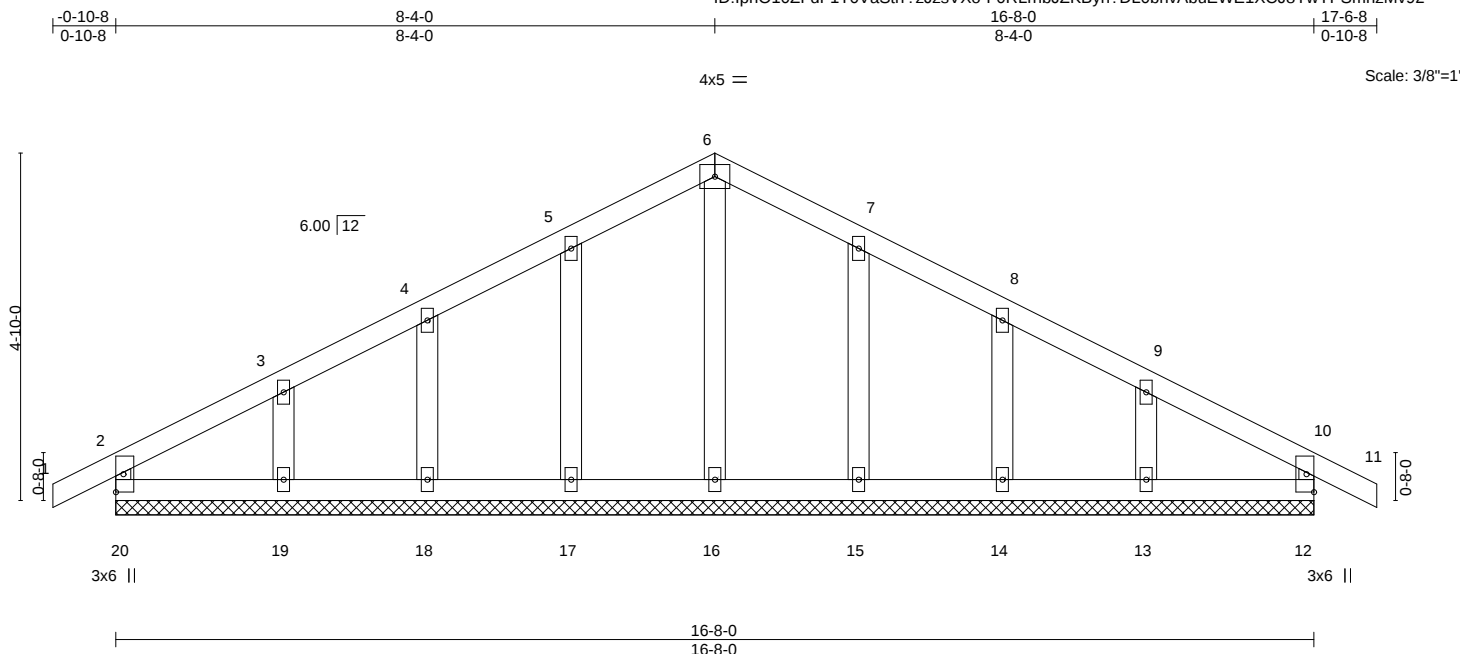
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss G2	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820296
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:07 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-F0RLmbJZKByn?DL0bnvAbuEWE1XCJ8YwYPSmhzMv92



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	11	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	11	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 64 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 16-8-0.

(lb) - Max Horz 20=-75(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13

Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 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) 20, 12, 17, 18, 19, 15, 14, 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss G3	Truss Type COMMON	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820297
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:08 2021 Page 1
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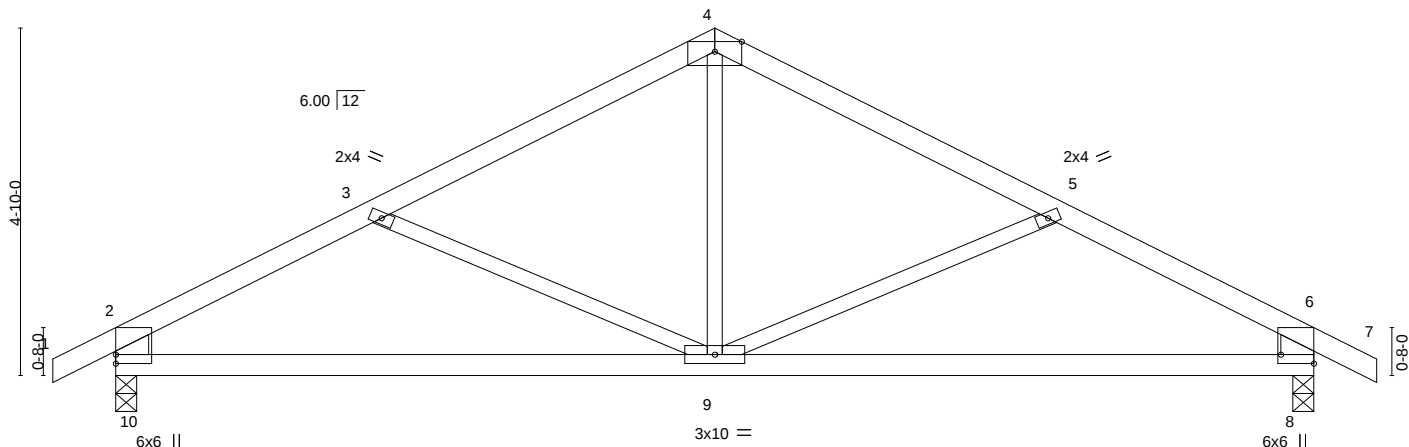
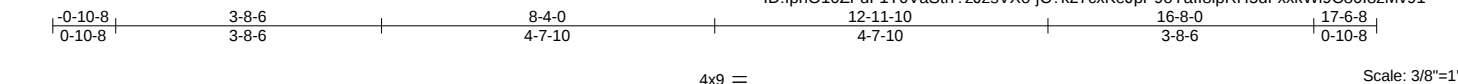


Plate Offsets (X,Y)--	[8:Edge,0-5-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.59	Vert(LL)	-0.09	8-9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.18	8-9	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.02	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04	9	>999	Weight: 56 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-10,6-8: 2x6 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 10=0-3-8, 8=0-3-8
Max Horz 10=77(LC 7)
Max Uplift 10=-116(LC 8), 8=-116(LC 9)
Max Grav 10=807(LC 1), 8=807(LC 1)

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

TOP CHORD 2-3=-1065/176, 3-4=-820/109, 4-5=-820/109, 5-6=-1065/176, 2-10=-721/155, 6-8=-721/155
BOT CHORD 9-10=-165/869, 8-9=-100/869
WEBS 4-9=0/381

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=116, 8=116.
- 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.



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss G4	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Lot 108 H4	I45820298
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:10 2021 Page 1

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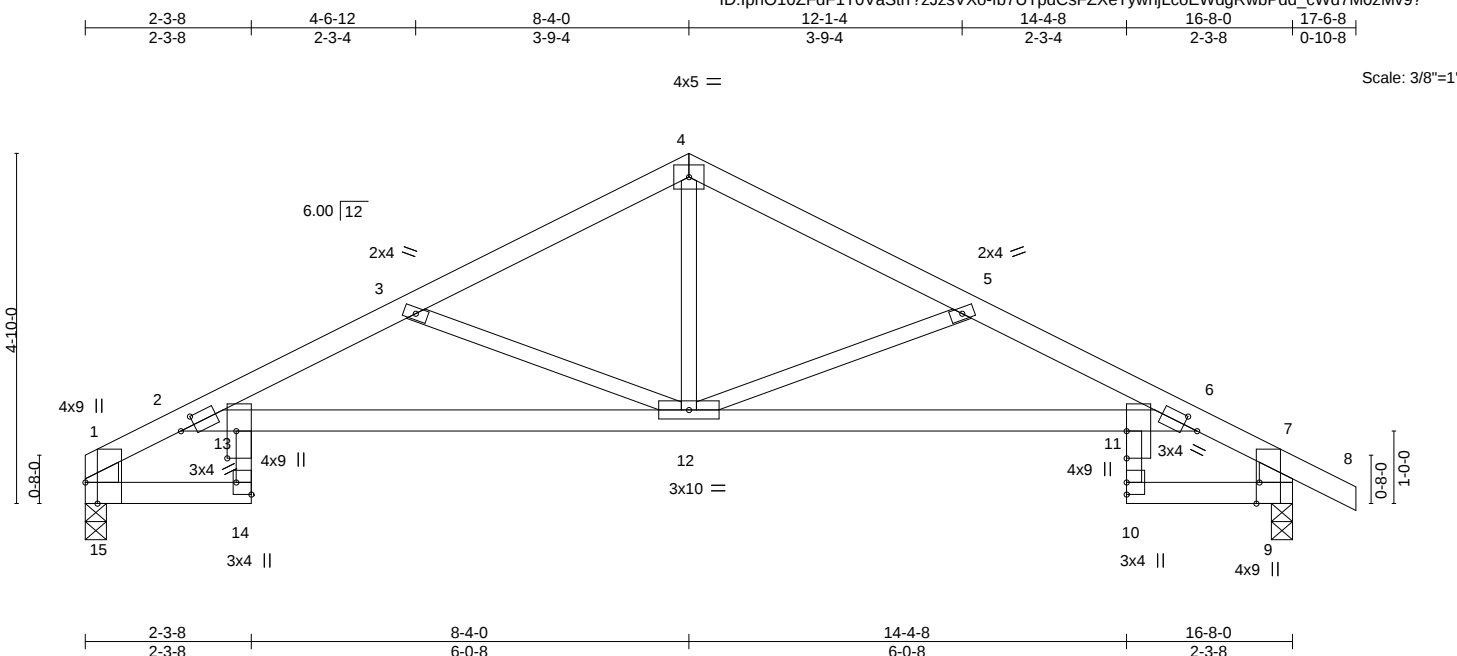


Plate Offsets (X,Y)--	[1:0-3-8,Edge], [2:0-2-7,0-1-8], [6:0-2-7,0-1-8], [9:0-3-8,Edge], [11:0-4-8,0-0-0], [13:0-4-8,0-1-8], [14:Edge,0-2-8]	
LOADING (psf)	SPACING-	CSI.
TCLL 25.0	2-0-0	TC 0.58
TCDL 10.0	Plate Grip DOL 1.15	BC 0.59
BCLL 0.0 *	Lumber DOL 1.15	WB 0.25
BCDL 10.0	Rep Stress Incr YES	Matrix-S
	Code IRC2018/TPI2014	
		DEFL.
		in (loc) l/defl L/d
		Vert(LL) -0.16 12-13 >999 360
		Vert(CT) -0.32 12-13 >606 240
		Horz(CT) 0.29 9 n/a n/a
		Wind(LL) 0.12 12-13 >999 240
		PLATES
		MT20
		GRIP
		197/144
		Weight: 55 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
 BOT CHORD 2x4 SPF No.2 *Except*
 13-14,10-11: 2x3 SPF No.2, 2-6: 2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except*
 1-15,7-9: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 11-12

REACTIONS.

(size) 15=0-3-8, 9=0-3-8
 Max Horz 15=-81(LC 4)
 Max Uplift 15=-90(LC 8), 9=-116(LC 9)
 Max Grav 15=727(LC 1), 9=809(LC 1)

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

TOP CHORD 1-2=-528/91, 2-3=-1569/235, 3-4=-1095/114, 4-5=-1095/128, 5-6=-1560/193,
 6-7=-524/87, 1-15=-770/120, 7-9=-856/135
 BOT CHORD 2-13=-162/1224, 12-13=-214/1438, 11-12=-106/1425, 6-11=-81/1220
 WEBS 4-12=-25/697, 3-12=-565/213, 5-12=-552/191

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) 15 except (jt=lb) 9=116.
- 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.



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

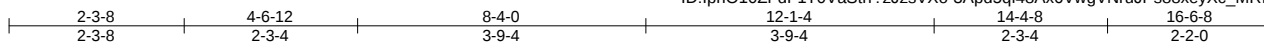


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 210411	Truss G5	Truss Type ROOF SPECIAL	Qty 4	Ply 1	Lot 108 H4	I45820299
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:13 2021 Page 1
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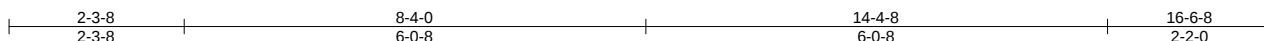
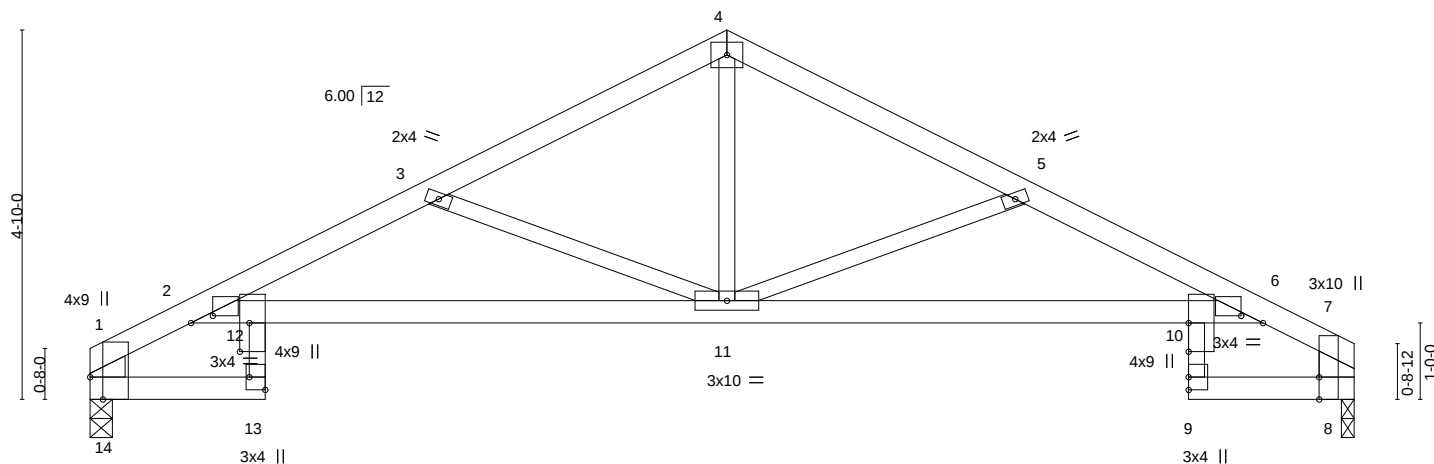


Plate Offsets (X,Y)--		[1:0-3-8,Edge], [2:0-3-7,0-1-2], [6:0-3-7,0-1-2], [7:0-3-8,Edge], [10:0-4-8,0-0-0], [12:0-4-8,0-1-8], [13:Edge,0-2-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.58	Vert(LL)	-0.15	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.57	Vert(CT)	-0.32	11-12	>612	240		
BCLL	0.0 *	Rep Stress Incr YES		WB	0.25	Horz(CT)	0.28	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.13	11-12	>999	240	Weight: 54 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
12-13,9-10: 2x3 SPF No.2, 2-6: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
1-14,7-8: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-11-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 10-11

REACTIONS. (size) 14=0-3-8, 8=0-2-0
Max Horz 14=72(LC 7)
Max Uplift 14=89(LC 8), 8=88(LC 9)
Max Grav 14=724(LC 1), 8=724(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-525/80, 2-3=-1560/240, 3-4=-1086/117, 4-5=-1085/131, 5-6=-1542/205,
6-7=-495/74, 1-14=-767/122, 7-8=-763/110
BOT CHORD 2-12=-173/1217, 11-12=-229/1429, 10-11=-141/1405, 6-10=-110/1223
WEBS 4-11=-28/687, 3-11=-564/215, 5-11=-538/197

- 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) 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 at joint(s) 8.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 8.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 26, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



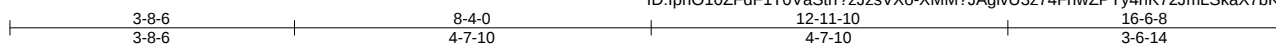
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss G6	Truss Type COMMON	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820300
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:14 2021 Page 1

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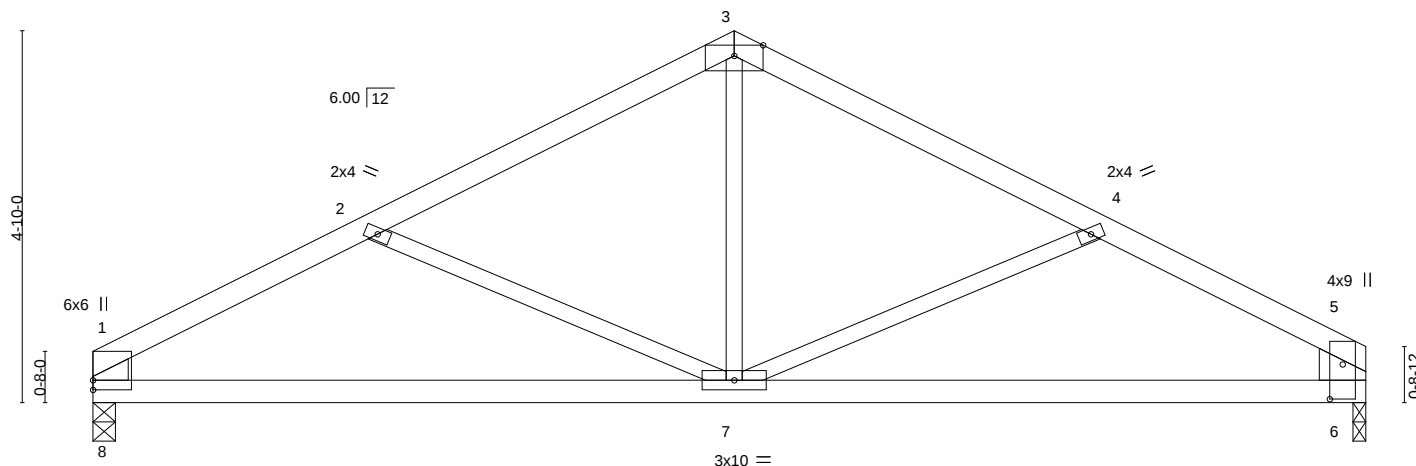


Plate Offsets (X,Y)--	[5:0-5-7,0-2-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.09	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.19	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05	7	>999	240	Weight: 54 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-8: 2x6 SP DSS, 5-6: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-9-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=0-3-8, 6=0-2-0
Max Horz 8=73(LC 5)
Max Uplift 8=-89(LC 8), 6=-88(LC 9)
Max Grav 8=720(LC 1), 6=720(LC 1)

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

TOP CHORD 1-2=-1067/179, 2-3=-805/107, 3-4=-803/109, 4-5=-1027/171, 1-8=-626/127, 5-6=-627/124
BOT CHORD 7-8=-179/880, 6-7=-119/835
WEBS 2-7=-268/182, 3-7=0/366

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



April 26, 2021

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

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss H1	Truss Type Roof Special	Qty 2	Ply 1	Lot 108 H4 Job Reference (optional)	I45820301
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:15 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-0YwNWWWhKgnCplEquUGwnVHEQ_Sbb4oujmnL1EzMv8w

0-10-8	5-0-5	12-4-13	17-6-0	18-10-8	21-4-8
0-10-8	5-0-5	7-4-7	5-1-3	1-4-8	2-6-0

Scale = 1:58.9

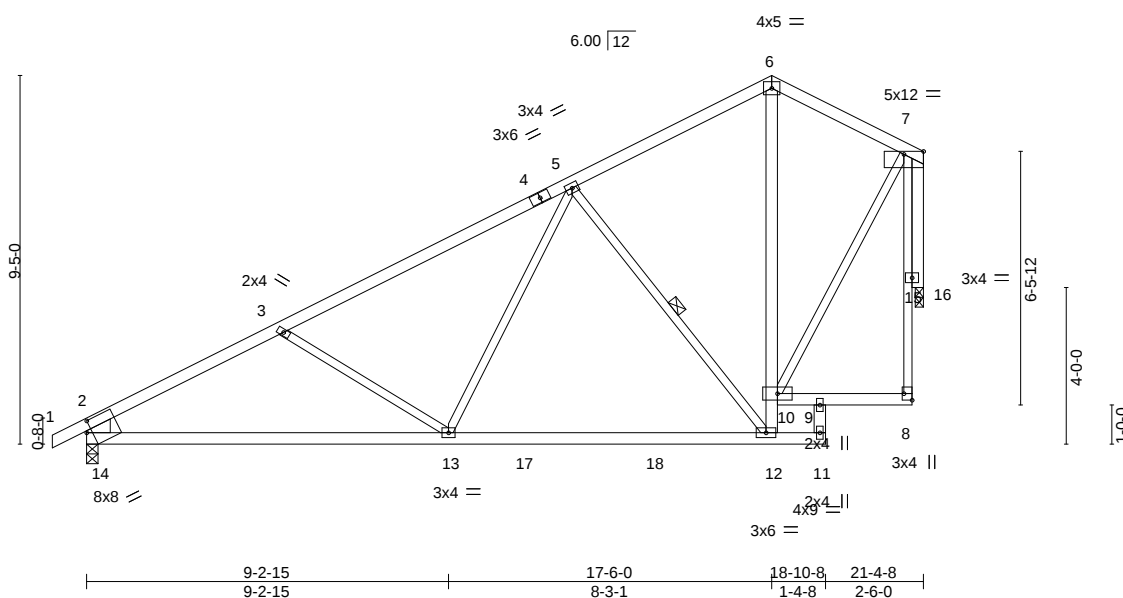


Plate Offsets (X,Y)--		[8:Edge,0-2-8], [14:0-1-10,0-3-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.23 12-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.38 12-13	>671	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.27 16	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06 12-13	>999	240	Weight: 97 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 9-11: 2x4 SPF No.2, 6-12: 2x4 SPF 2100F 1.8E, 2-14: 2x8 SP DSS
 OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 5-12

REACTIONS.

(size) 14=0-3-8, 16=0-2-8
 Max Horz 14=213(LC 5)
 Max Uplift 14=-17(LC 8), 16=-50(LC 8)
 Max Grav 14=1067(LC 13), 16=990(LC 13)

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

TOP CHORD 2-3=-1514/58, 3-5=-1256/19, 5-6=-497/50, 6-7=-489/59, 2-14=-928/64
 BOT CHORD 13-14=-180/1311, 12-13=-67/845
 WEBS 3-13=-341/154, 5-13=0/542, 5-12=-753/131, 10-12=-17/904, 7-10=-34/772, 7-16=-993/51

NOTES-

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



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

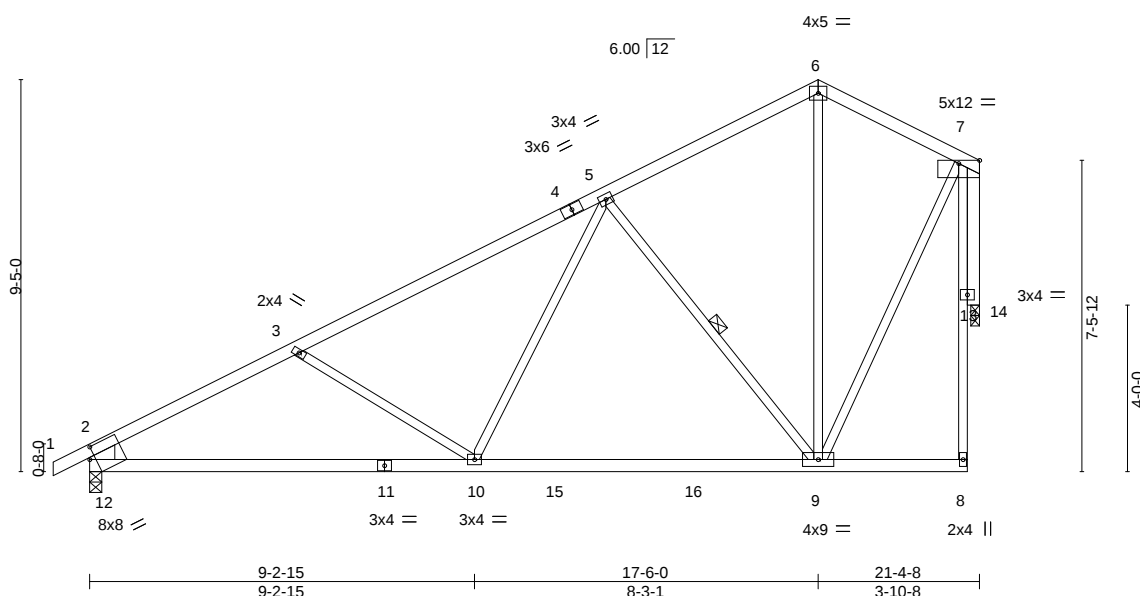
Job 210411	Truss H2	Truss Type Roof Special	Qty 3	Ply 1	Lot 108 H4 Job Reference (optional)	I45820302
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:16 2021 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-UkUlsiyR5KgMOP42_S01VmbIsxxpHit?R4RZgzMv8v

0-10-8 5-0-5 12-4-13 17-6-0 21-4-8
0-10-8 5-0-5 7-4-7 5-1-3 3-10-8

Scale = 1:55.3



Job 210411	Truss H3	Truss Type Roof Special	Qty 3	Ply 1	Lot 108 H4 Job Reference (optional)	I45820303
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:17 2021 Page 1

ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-yx27xCibCPSX_Y_GchzFaiJn8GJSYgY0D5q_56zMv8u

0-10-8	5-9-10	9-10-0	17-6-0	21-4-8
0-10-8	5-9-10	4-0-6	7-8-0	3-10-8

Scale = 1:55.3

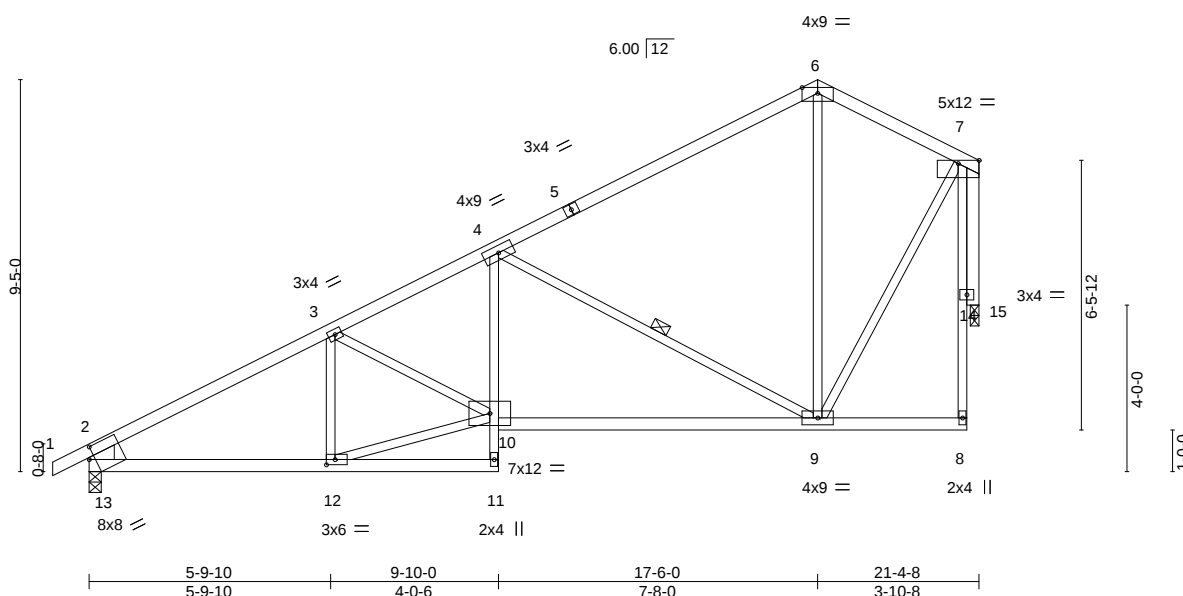


Plate Offsets (X,Y)-- [12:0-2-8,0-1-8], [13:0-1-10,0-3-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.82	Vert(LL)	-0.12	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.57	Vert(CT)	-0.28	9-10	>912	240		
BCLL	0.0 *	Rep Stress Incr YES		WB	0.75	Horz(CT)	0.15	15	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06	11	>999	240	Weight: 95 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-11: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13: 2x8 SP DSS
OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 11-12.
WEBS 1 Row at midpt 4-9

REACTIONS.

(size) 13=0-3-8, 15=0-2-8
Max Horz 13=267(LC 8)
Max Uplift 13=-140(LC 8), 15=-173(LC 8)
Max Grav 13=1028(LC 1), 15=915(LC 1)

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

TOP CHORD 2-3=-1409/159, 3-4=-1438/243, 4-6=-568/85, 6-7=-454/123, 2-13=-936/175
BOT CHORD 12-13=-325/1149, 4-10=-35/441, 9-10=-330/1299
WEBS 3-12=-292/148, 10-12=-299/1168, 4-9=-1033/336, 7-9=-148/724, 7-15=-918/174

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=6.0psf; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 15.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=140, 15=173.
- 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.



April 26, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

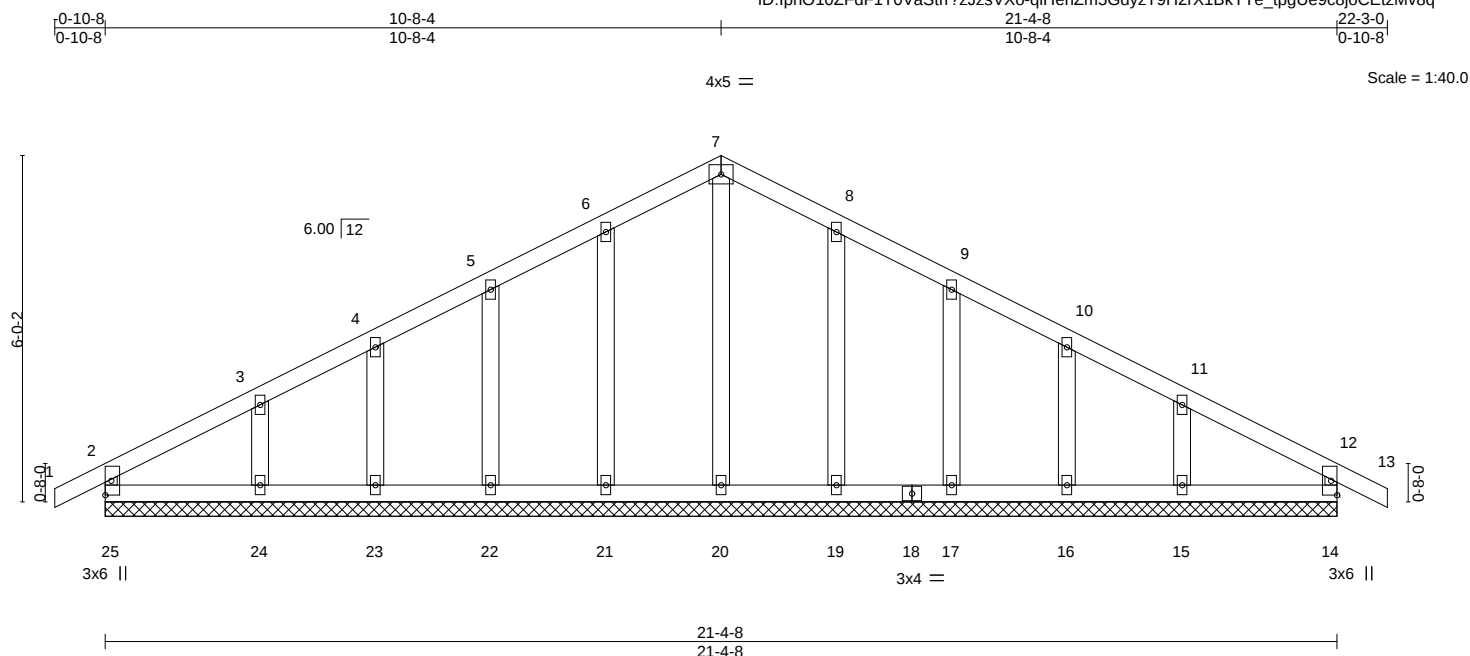


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss H5	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820305
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:21 2021 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-qIHenZm5GdyzT9H2rX1BkYTe_tpgUe9c8joCEtZMv8q



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	12	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	12	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	14	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 88 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 21-4-8.
(lb) - Max Horz 25=90(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 25, 14, 21, 22, 23, 24, 19, 17, 16, 15
Max Grav All reactions 250 lb or less at joint(s) 25, 14, 20, 21, 22, 23, 24, 19, 17, 16, 15

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

NOTES-

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



April 26, 2021

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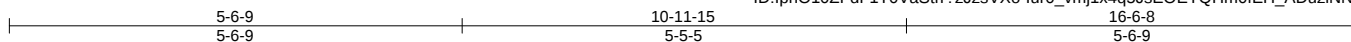
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss R1	Truss Type Flat Girder	Qty 1	Ply 2	Lot 108 H4 Job Reference (optional)	I45820306
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:22 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-lur0_vmj1x4q5JsEOEYQHm0fEH_ADuzlNNXlnKzMv8p



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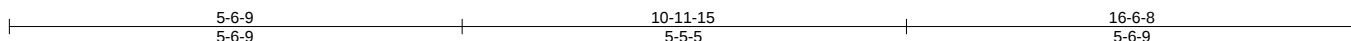
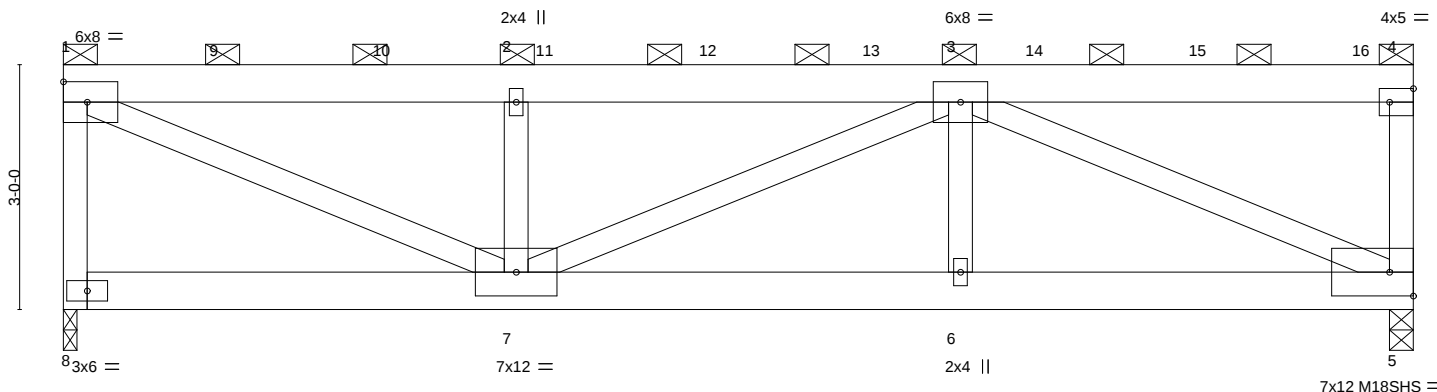


Plate Offsets (X,Y)--		[4:Edge,0-2-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.10 6-7 >999	360	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.18 6-7 >999	240	M18SHS	197/144	
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.04 5 n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07 6-7 >999	240	Weight: 175 lb	FT = 10%	

LUMBER-

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

BRACING-

TOP CHORD 2-0-0 oc purlins (4-8-15 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8 (req. 0-3-9), 8=0-2-0 (req. 0-3-0)
Max Horz 8=-77(LC 4)
Max Uplift 5=-280(LC 5), 8=-448(LC 4)
Max Grav 5=4508(LC 2), 8=3827(LC 1)

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

TOP CHORD 1-8=-3709/464, 1-2=-6263/650, 2-3=-6263/650, 4-5=-1508/96
BOT CHORD 6-7=-470/6319, 5-6=-470/6319
WEBS 1-7=-690/6717, 2-7=-2798/468, 3-7=-486/0, 3-5=-6770/490

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- WARNING: Required bearing size at joint(s) 5, 8 greater than input bearing size.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=280, 8=448.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 845 lb down and 177 lb up at 1-11-8, 845 lb down and 177 lb up at 3-11-8, 845 lb down and 177 lb up at 5-11-8, 913 lb down and 53 lb up at 7-11-8, 913 lb down and 53 lb up at 9-11-8, 913 lb down and 53 lb up at 11-11-8, and 929 lb down and 54 lb up at 13-11-8, and 945 lb down and 53 lb up at 15-11-8 on top chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2

LOAD CASE(S) Standard

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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April 26, 2021



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 108 H4
210411	R1	Flat Girder	1	2	I45820306
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:22 2021 Page 2
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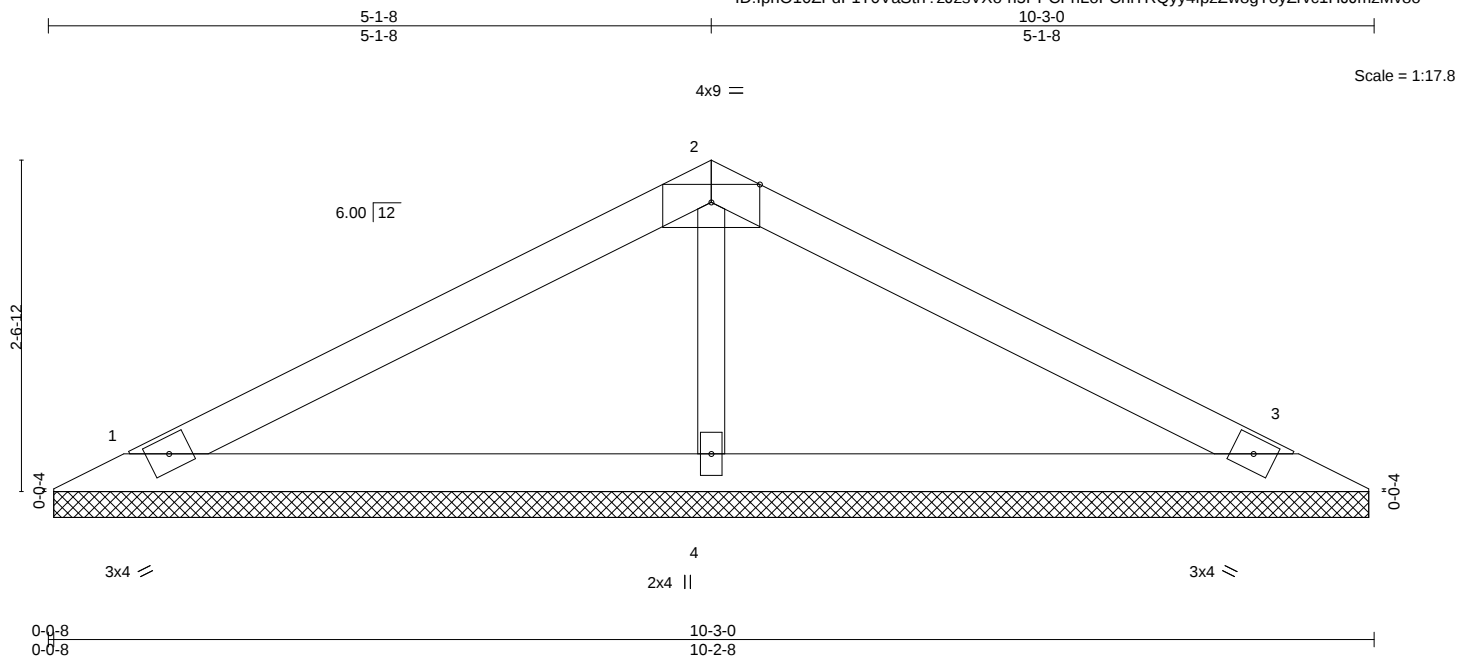
LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-4=-70, 5-8=-20
 - Concentrated Loads (lb)
 - Vert: 9=-845 10=-845 11=-845 12=-845 13=-845 14=-845 15=-845 16=-865

Job 210411	Truss V1	Truss Type Valley	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820307
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:23 2021 Page 1
ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-n5PPCFnLoFChiTRQyy4fpzZw8gT8yZrc1HJJmzMv8o



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 0.28	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 25 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=10'-2", 3=10'-2", 4=10'-2"
Max Horz 1=40(LC 8)
Max Uplift 1=39(LC 8), 3=46(LC 9), 4=24(LC 8)
Max Grav 1=191(LC 21), 3=191(LC 22), 4=429(LC 1)

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

WEBS 2-4=-293/77

NOTES-

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



April 26, 2021

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

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



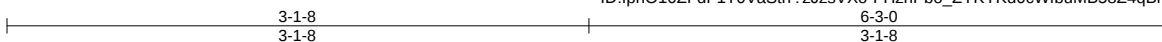
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss V2	Truss Type Valley	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820308
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Wheeler Lumber, Waverly, KS - 66871,

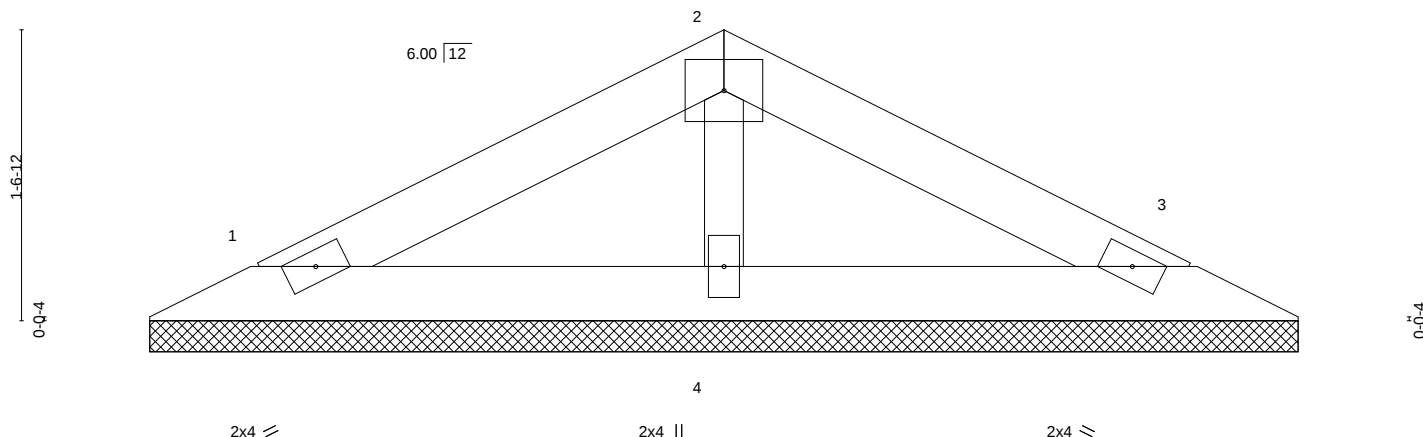
8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:24 2021 Page 1

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4x5 =

Scale = 1:12.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 14 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-2-0, 3=6-2-0, 4=6-2-0
Max Horz 1=-22(LC 13)
Max Uplift 1=-27(LC 8), 3=-31(LC 9), 4=-3(LC 8)
Max Grav 1=117(LC 1), 3=117(LC 1), 4=215(LC 1)

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

NOTES-

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



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



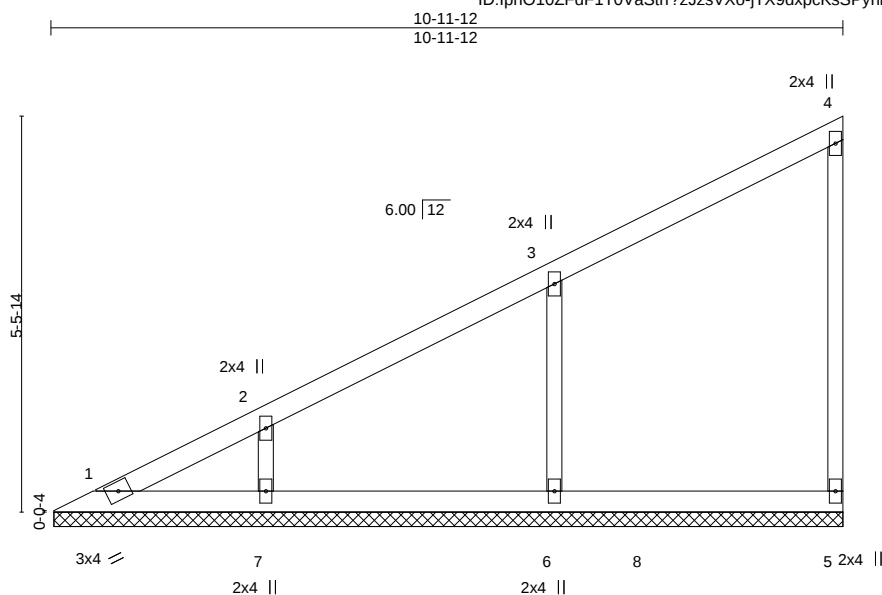
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss V3	Truss Type Valley	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820309
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:25 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-jTX9dpcKsSPynbp4N67vOeHQU88QRtC3LmPNezMv8m



Scale: 3/8"=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 0.23	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 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 10-11-4.

(lb) - Max Horz 1=213(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) 5, 7 except 6=121(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=433(LC 2), 7=314(LC 2)

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

WEBS 3-6=-314/166

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

2) Gable requires continuous bottom chord bearing.

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7 except (jt=lb) 6=121.

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.



April 26, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



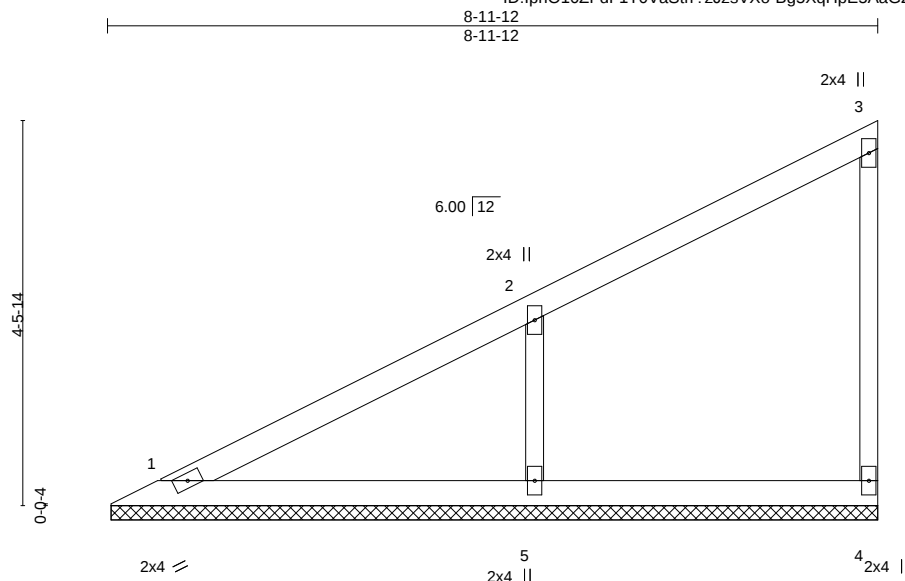
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss V4	Truss Type Valley	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820310
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:26 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-Bg5XqHpE5AaGZwA?d4dMRcBRPuUF9uNLI?Vzw5zMv8l



Scale = 1:26.9

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 0.28	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 26 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-11-4, 4=8-11-4, 5=8-11-4
Max Horz 1=172(LC 5)
Max Uplift 4=-27(LC 5), 5=-139(LC 8)
Max Grav 1=152(LC 16), 4=126(LC 1), 5=464(LC 1)

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

WEBS 2-5=-361/201

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=139.
- 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.



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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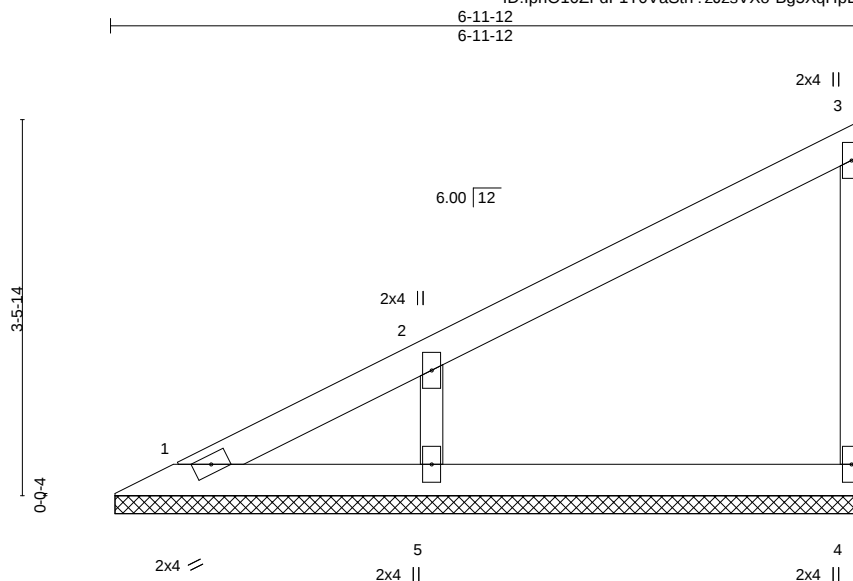
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss V5	Truss Type Valley	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820311
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:26 2021 Page 1

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Scale = 1:21.4

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

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-11-4, 4=6-11-4, 5=6-11-4
Max Horz 1=130(LC 5)
Max Uplift 4=-27(LC 8), 5=-111(LC 8)
Max Grav 1=69(LC 16), 4=142(LC 1), 5=369(LC 1)

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

WEBS 2-5=-287/160

NOTES-

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



April 26, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

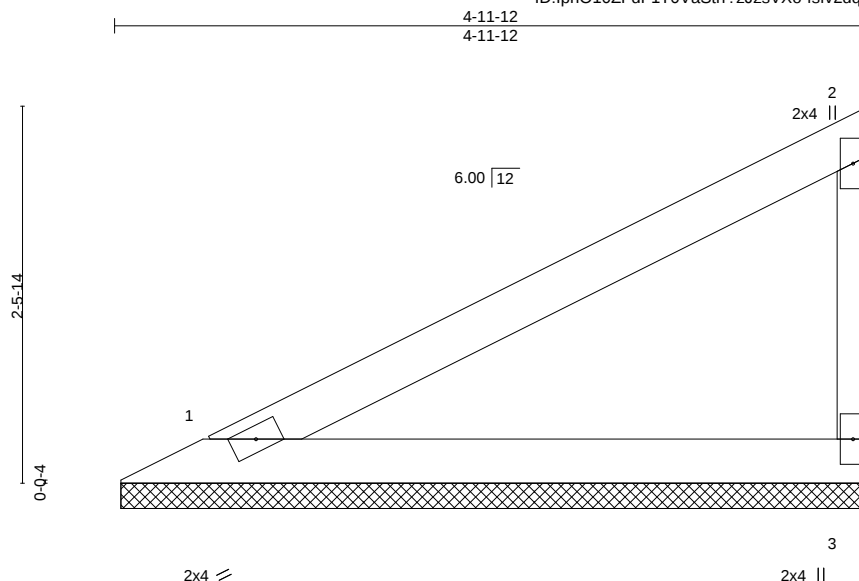


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss V6	Truss Type Valley	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820312
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:27 2021 Page 1
ID:lpnO10ZFdf1T0VaStrr?zJzsVXo-fsfv2dqsrTi6B4lBB08b_pjbBlqsuMmUWfWSXzMv8k



Scale = 1:15.2

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 0.34	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 0.00	Horz(CT)	-0.00	3	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 4-11-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-11-4, 3=4-11-4
Max Horz 1=89(LC 5)
Max Uplift 1=25(LC 8), 3=47(LC 8)
Max Grav 1=191(LC 1), 3=191(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.



April 26, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

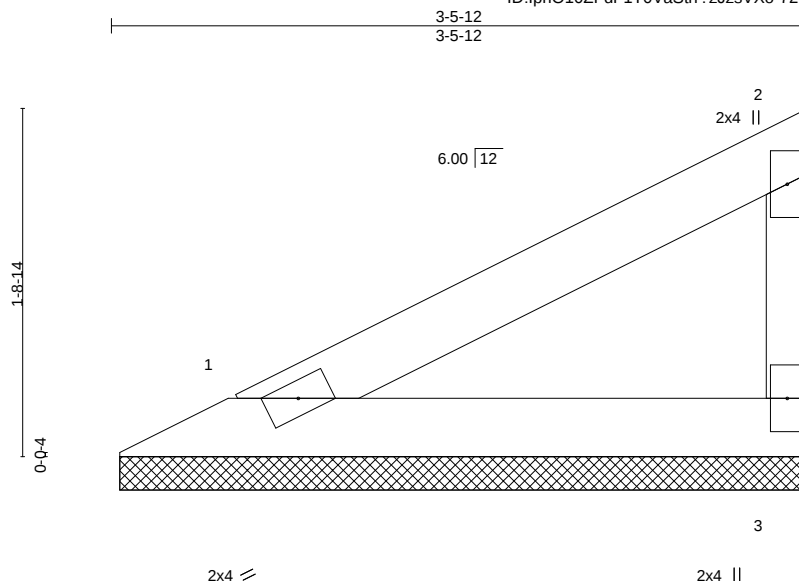


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss V7	Truss Type Valley	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820313
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:28 2021 Page 1
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Scale = 1:11.5

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 0.13	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 8 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-5-4, 3=3-5-4
Max Horz 1=57(LC 5)
Max Uplift 1=16(LC 8), 3=30(LC 8)
Max Grav 1=124(LC 1), 3=124(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.



April 26, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

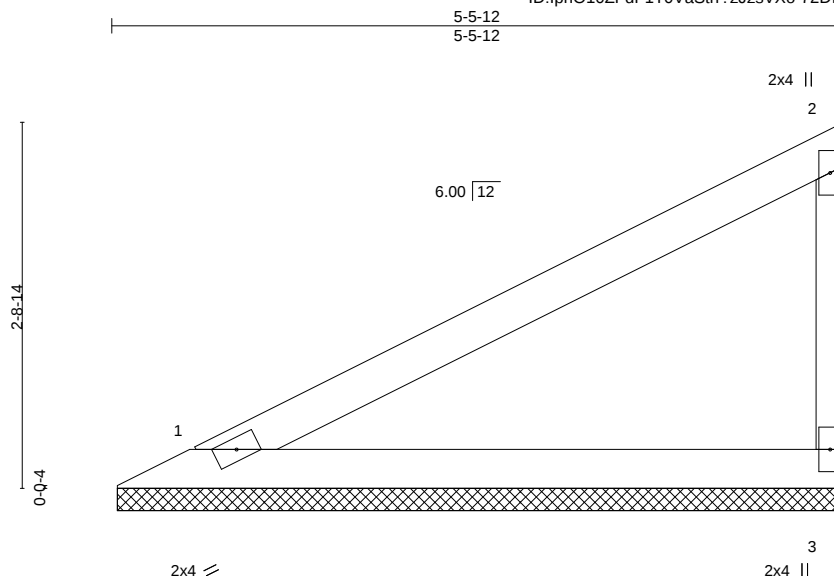


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss V8	Truss Type Valley	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820314
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:28 2021 Page 1
ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-72DIYFyrUcnqzpEKOIVfqW1GIUh9Jdp0eLJ_3_zzMv8j



Scale = 1:17.2

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 0.43	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 14 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-5-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-5-4, 3=5-5-4
Max Horz 1=99(LC 5)
Max Uplift 1=27(LC 8), 3=52(LC 8)
Max Grav 1=214(LC 1), 3=214(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.



April 26, 2021

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

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



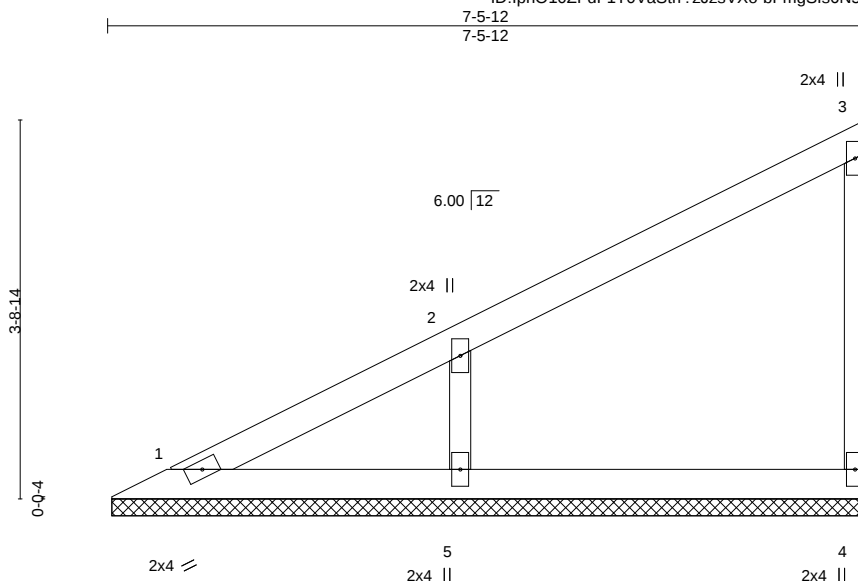
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210411	Truss V9	Truss Type Valley	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820315
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Apr 20 2021 MiTek Industries, Inc. Mon Apr 26 08:23:29 2021 Page 1

ID:lpnO10ZFdF1T0VaStrr?zJzsVXo-bFmgSIs6N5yqQOvaJCB33Epzu5XcMGQn_zkdWQzMv8i



Scale = 1:22.7

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 0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 21 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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=7-5-4, 4=7-5-4, 5=7-5-4
Max Horz 1=141(LC 5)
Max Uplift 4=-25(LC 8), 5=-116(LC 8)
Max Grav 1=93(LC 16), 4=140(LC 1), 5=386(LC 1)

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

WEBS 2-5=-300/168

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=1b) 5=116.
- 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.



April 26, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
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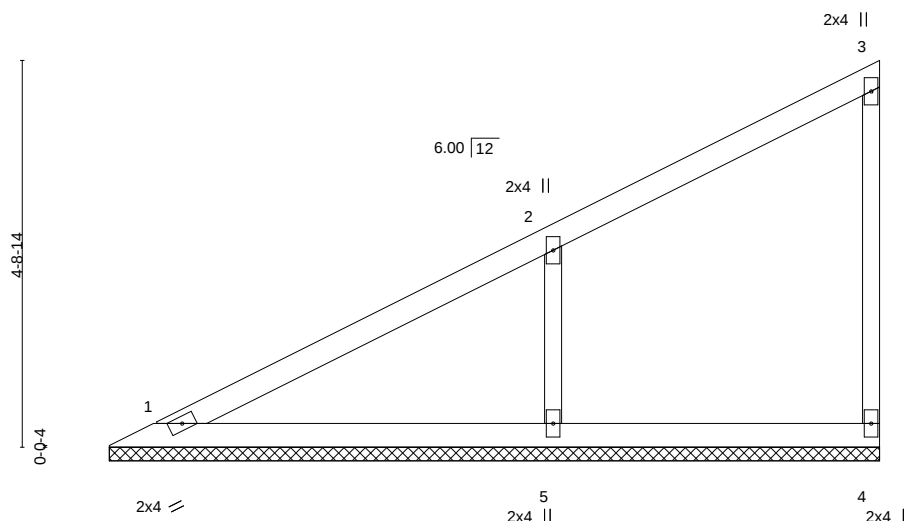
Job 210411	Truss V10	Truss Type Valley	Qty 1	Ply 1	Lot 108 H4 Job Reference (optional)	I45820316
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Wheeler Lumber, Waverly, KS - 66871,

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9-5-12
9-5-12



Scale = 1:28.2

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 0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 27 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=9-5-4, 4=9-5-4, 5=9-5-4
Max Horz 1=182(LC 5)
Max Uplift 4=-28(LC 5), 5=-148(LC 8)
Max Grav 1=174(LC 1), 4=121(LC 1), 5=492(LC 1)

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

WEBS 2-5=-373/198

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=148.
- 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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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

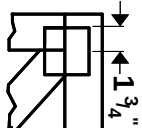
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



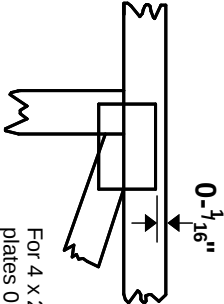
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " from outside edge of truss.

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

*** Plate location details available in MiTek 2012 software or upon request.**

PLATE SIZE

4 X 4

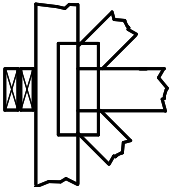
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



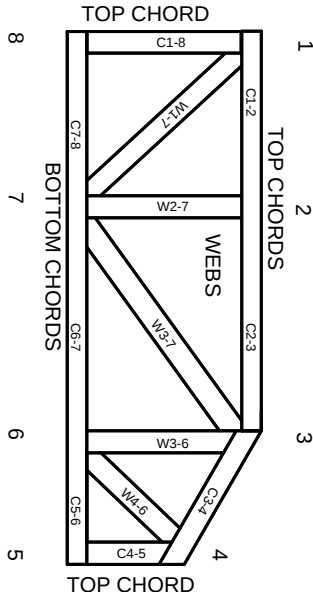
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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