



MiTek USA, Inc.

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

Re: B220036
Lot 76 H3

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: I50414024 thru I50414070

My license renewal date for the state of Missouri is December 31, 2023.

Missouri COA: Engineering 001193



February 24, 2022

Sevier, Scott ,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.

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:12 Page: 1
ID: m0KIbrV6Mlhk51uHai_4ziDVw-RfC?PsB70Hg3NSgPqnL8w3uITXBgKwCDoi7J42JC?16/13/2022

The diagram illustrates a roof truss system with various members and connections. Key components include:

- Members:** Labeled with numbers 1 through 28. Members 1-16 are on the left side, 17-22 are on the top chord, 23-28 are on the bottom chord.
- Connections:** Labeled with letters A through Z. Connections A through F are on the left side, G through L are on the top chord, and M through Z are on the bottom chord.
- Dimensions:**
 - Horizontal dimensions: 2-0-0, 8-5-12, 15-0-12, 16-11-0, 18-11-0, 22-11-0, 26-11-0.
 - Vertical dimensions: 2-8-0, 2-6-5, 1-8-0, 1-6-5, 0-1-11, 0-10-5, 0-1-11, 0-8-0.
- Notes:**
 - "NAILED" is written above members 1-16, 17-22, and 23-28.
 - "Special" is written below member 15.
 - "6x12" is written above member 1.
 - "6x8" is written above member 3.
 - "6x6" is written above member 6.
 - "4x4" is written above member 7.
 - "5x6" is written above member 8.
 - "3x4" is written below member 12.
 - "3x4" is written below member 13.
 - "3x4" is written below member 14.
 - "3x4" is written below member 15.
 - "3x4" is written below member 16.
 - "3x4" is written below member 17.
 - "3x4" is written below member 18.
 - "3x4" is written below member 19.
 - "3x4" is written below member 20.
 - "3x4" is written below member 21.
 - "3x4" is written below member 22.
 - "3x4" is written below member 23.
 - "3x4" is written below member 24.
 - "3x4" is written below member 25.
 - "3x4" is written below member 26.
 - "3x4" is written below member 27.
 - "3x4" is written below member 28.

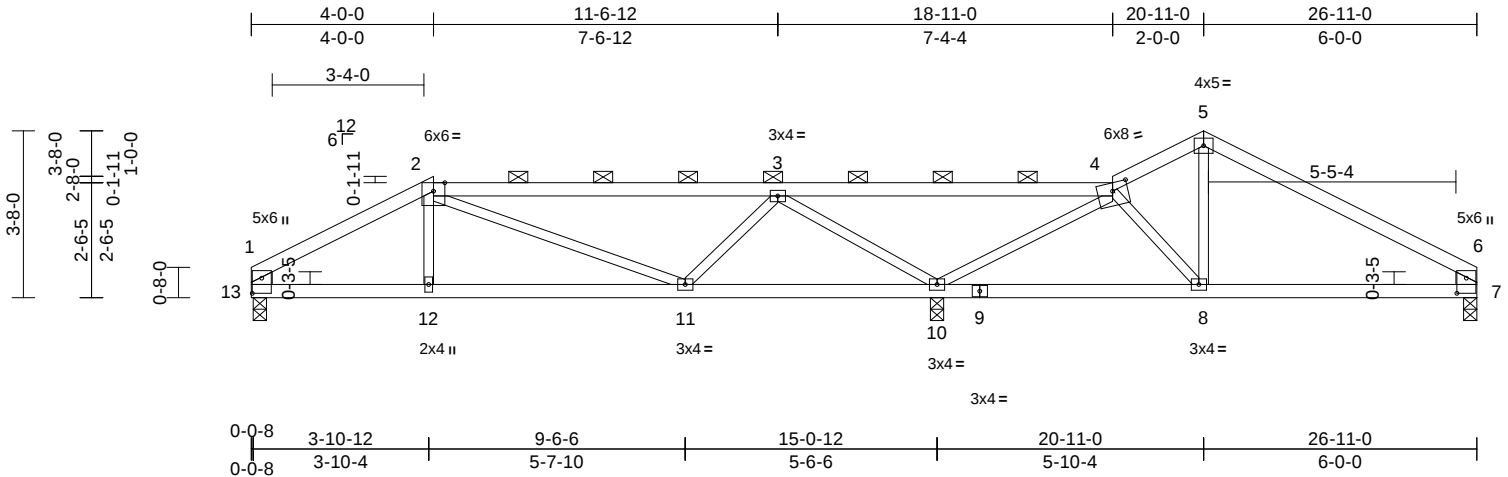
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.13	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.24	14-15	>735	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.11	14-15	>999	240	Weight: 91 lb	FT = 10%

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	RELEASE FOR CONSTRUCTION
B220036	A2	Roof Special	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						150414025
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 11:04:15 Page: 1
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06/13/2023



Scale = 1:50.6

Plate Offsets (X, Y): [1:0-4-0,0-2-8], [4:0-4-0,0-2-3], [6:0-4-0,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.05	11-12	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.11	11-12	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	11-12	>999	240	Weight: 85 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 13-1,7-6:2x6 SPF No.2

BRACING

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

REACTIONS

(lb/size) 7=378/0-3-8, 10=1449/0-3-8, 13=554/0-3-8
Max Horiz 13=55 (LC 5)
Max Uplift 7=-84 (LC 9), 10=-225 (LC 8), 13=-109 (LC 8)
Max Grav 7=382 (LC 22), 10=1449 (LC 1), 13=554 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-804/164, 2-3=-564/148, 3-4=-107/810, 4-5=-321/136, 5-6=-382/102, 1-13=-469/118, 6-7=-335/121
BOT CHORD 12-13=-144/666, 11-12=-147/665, 10-11=-165/411, 8-10=-72/159, 7-8=-26/260
WEBS 2-12=0/156, 2-11=-117/35, 3-11=0/345, 3-10=-1437/361, 4-10=-1094/190, 5-8=-2/93, 4-8=0/207

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 109 lb uplift at joint 13, 225 lb uplift at joint 10 and 84 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24,2022

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

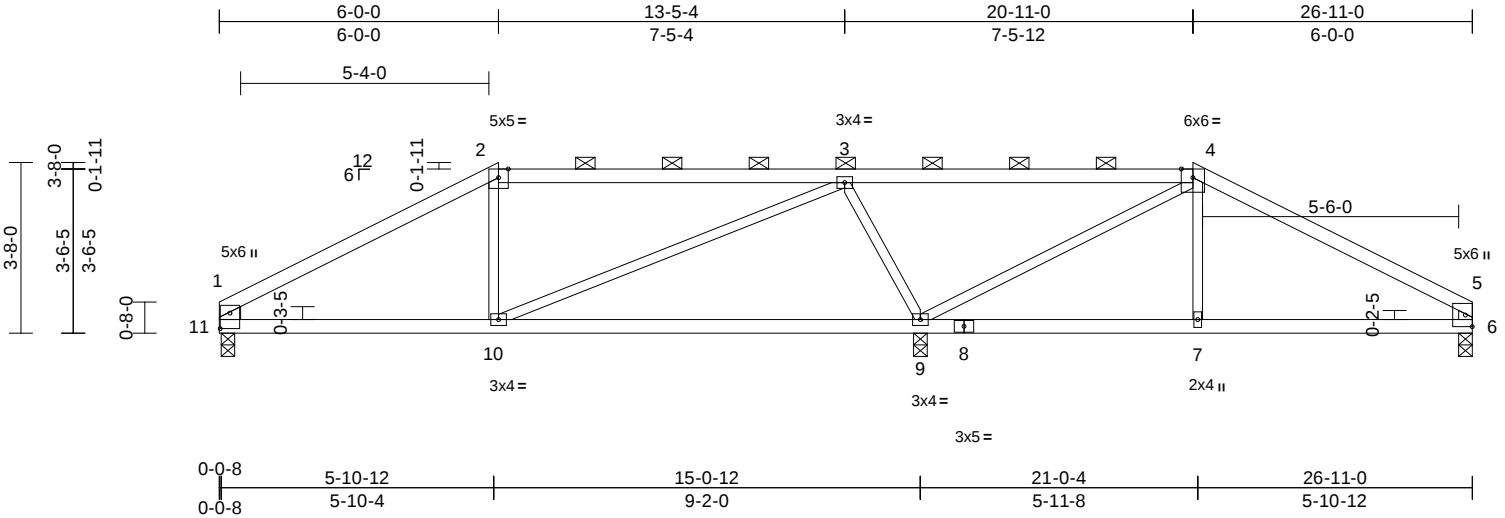
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	Job Reference (optional)
B220036	A3	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 11:04:15 Page: 1
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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414026
LEE'S SUMMIT, MISSOURI

06/13/2023



Scale = 1:49.5									
Plate Offsets (X, Y): [1:0-4-0,0-2-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.15 9-10	>999	360
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.32 9-10	>562	240
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.01 6	n/a	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03 9-10	>999	240
							PLATES	GRIP	
							MT20	197/144	
							Weight: 84 lb	FT = 10%	

LUMBER
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 11-1:2x6 SPF No.2, 6-5:2x4 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.

REACTIONS (lb/size) 6=401/0-3-8, 9=1420/0-3-8, 11=568/0-3-8
Max Horiz 11=55 (LC 4)
Max Uplift 6=100 (LC 9), 9=187 (LC 5), 11=92 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-768/104, 2-3=-611/140, 3-4=-39/439, 4-5=-424/134, 1-11=-510/122, 5-6=-346/137
BOT CHORD 10-11=-67/605, 9-10=-84/26, 7-9=-55/300, 6-7=-53/303
WEBS 2-10=-115/103, 3-10=-8/649, 3-9=-970/285, 4-9=-810/101, 4-7=0/215

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 92 lb uplift at joint 11, 187 lb uplift at joint 9 and 100 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24, 2022

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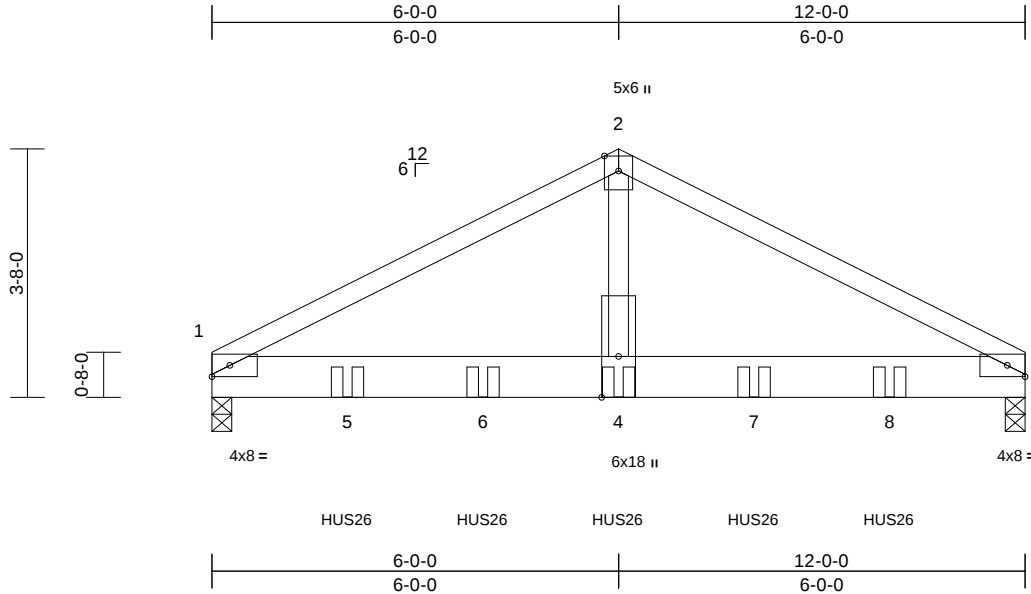
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 150414027 LEE'S SUMMIT, MISSOURI
B220036	A4	Common Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:16 Page: 1

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06/13/2023



Scale = 1:34

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.08	1-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.14	1-4	>986	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05	1-4	>999	240	Weight: 111 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x8 SP DSS
 WEBS 2x4 SPF No.2

BRACING

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

REACTIONS (lb/size) 1=4982/0-3-8, (req. 0-4-5),
 3=4982/0-3-8, (req. 0-4-5)
 Max Horiz 1=56 (LC 27)
 Max Uplift 1=-533 (LC 8), 3=-533 (LC 9)
 Max Grav 1=5516 (LC 15), 3=5516 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-7793/755, 2-3=-7793/754
 BOT CHORD 1-4=-613/6806, 3-4=-613/6806
 WEBS 2-4=-574/7070

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 0-6-0 oc.
 Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-8-0 oc.
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- WARNING: Required bearing size at joint(s) 1, 3 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 533 lb uplift at joint 1 and 533 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 10-0-0 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-2=-70, 2-3=-70, 1-3=-20
 Concentrated Loads (lb)
 Vert: 4=-1782 (F), 5=-1782 (F), 6=-1782 (F), 7=-1782 (F), 8=-1782 (F)



February 24, 2022

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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



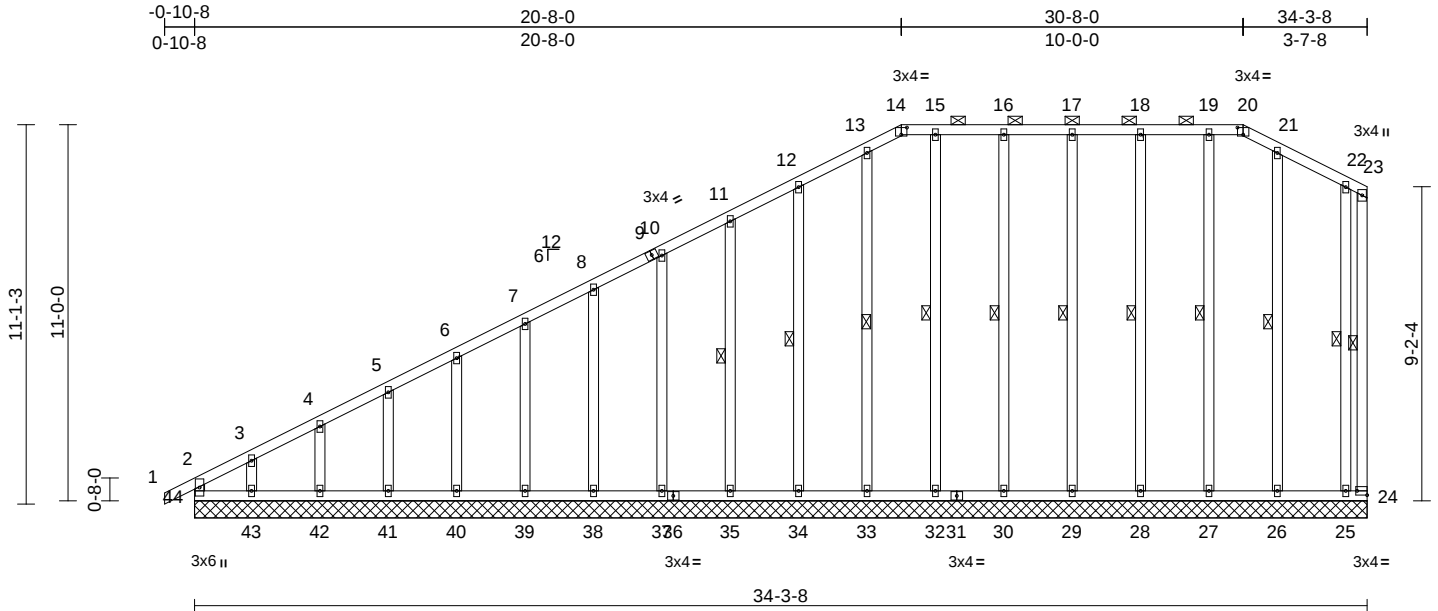
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B1	Piggyback Base Supported Gable	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 11:00:16 Page: 1
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06/13/2023



Scale = 1:67.4

Plate Offsets (X, Y): [14:0-2-0,0-2-8], [20:0-2-0,0-2-8], [24:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.01	24	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
										Weight: 236 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 14-20.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 23-24, 11-35, 12-34, 13-33, 15-32, 16-30, 17-29, 18-28, 19-27, 21-26, 22-25

REACTIONS (lb/size) 24=1/34-3-8, 25=122/34-3-8, 26=191/34-3-8, 27=179/34-3-8, 28=179/34-3-8, 29=180/34-3-8, 30=179/34-3-8, 32=181/34-3-8, 33=180/34-3-8, 34=179/34-3-8, 35=180/34-3-8, 37=180/34-3-8, 38=180/34-3-8, 39=180/34-3-8, 40=180/34-3-8, 41=178/34-3-8, 42=188/34-3-8, 43=141/34-3-8, 44=151/34-3-8

Max Horiz 44=403 (LC 5)

Max Uplift 24=96 (LC 7), 25=151 (LC 4), 26=72 (LC 9), 27=38 (LC 5), 28=41 (LC 4), 29=34 (LC 5), 30=43 (LC 4), 32=48 (LC 5), 33=32 (LC 5), 34=63 (LC 8), 35=53 (LC 8), 37=54 (LC 8), 38=54 (LC 8), 39=54 (LC 8), 40=53 (LC 8), 41=59 (LC 8), 42=34 (LC 8), 43=161 (LC 8), 44=27 (LC 4)

Max Grav 24=61 (LC 4), 25=257 (LC 7), 26=191 (LC 22), 27=179 (LC 1), 28=182 (LC 21), 29=180 (LC 1), 30=182 (LC 22), 32=181 (LC 21), 33=180 (LC 21), 34=179 (LC 1), 35=180 (LC 21), 37=180 (LC 1), 38=180 (LC 1), 39=180 (LC 21), 40=180 (LC 1), 41=178 (LC 21), 42=188 (LC 1), 43=145 (LC 15), 44=266 (LC 16)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-44=-221/31, 1-2=0/32, 2-3=-367/83, 3-4=-311/79, 4-5=-288/80, 5-6=-259/80, 6-7=-237/81, 7-8=-223/93, 8-10=-208/107, 10-11=-193/120, 11-12=-178/133, 12-13=-167/150, 13-14=-134/142, 14-15=-125/139, 15-16=-125/139, 16-17=-125/139, 17-18=-125/139, 18-19=-125/139, 19-20=-125/139, 20-21=-130/139, 21-22=-163/144, 22-23=-202/156, 23-24=-201/154

BOT CHORD 43-44=-129/98, 42-43=-129/98, 41-42=-129/98, 40-41=-129/98, 39-40=-129/98, 38-39=-129/98, 37-38=-129/98, 35-37=-129/98, 34-35=-129/98, 33-34=-129/98, 32-33=-129/98, 30-32=-129/98, 29-30=-129/98, 28-29=-129/98, 27-28=-129/98, 26-27=-129/98, 25-26=-129/98, 24-25=-129/98

WEBS 3-43=-109/133, 4-42=-146/68, 5-41=-139/80, 6-40=-140/77, 7-39=-140/78, 8-38=-140/78, 10-37=-140/78, 11-35=-140/77, 12-34=-139/87, 13-33=-140/56, 15-32=-141/72, 16-30=-142/67, 17-29=-140/58, 18-28=-142/65, 19-27=-140/64, 21-26=-150/92, 22-25=-89/122

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are 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.



February 24, 2022

Continued on page 2

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

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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 76 H3	RELEASE FOR CONSTRUCTION
B220036	B1	Piggyback Base Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 150414028 LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:16 Page: 2
ID:vvDK1IM?eqam1cgOSb?XKOyMG8G-RfC?PsB70Hq3NSgPqnL8w3uITXhGKWrcDor7J423C?

- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 44, 96 lb uplift at joint 24, 161 lb uplift at joint 43, 34 lb uplift at joint 42, 59 lb uplift at joint 41, 53 lb uplift at joint 40, 54 lb uplift at joint 39, 54 lb uplift at joint 38, 54 lb uplift at joint 37, 53 lb uplift at joint 35, 63 lb uplift at joint 34, 32 lb uplift at joint 33, 48 lb uplift at joint 32, 43 lb uplift at joint 30, 34 lb uplift at joint 29, 41 lb uplift at joint 28, 38 lb uplift at joint 27, 72 lb uplift at joint 26 and 151 lb uplift at joint 25.
- 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.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

06/13/2023

 **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



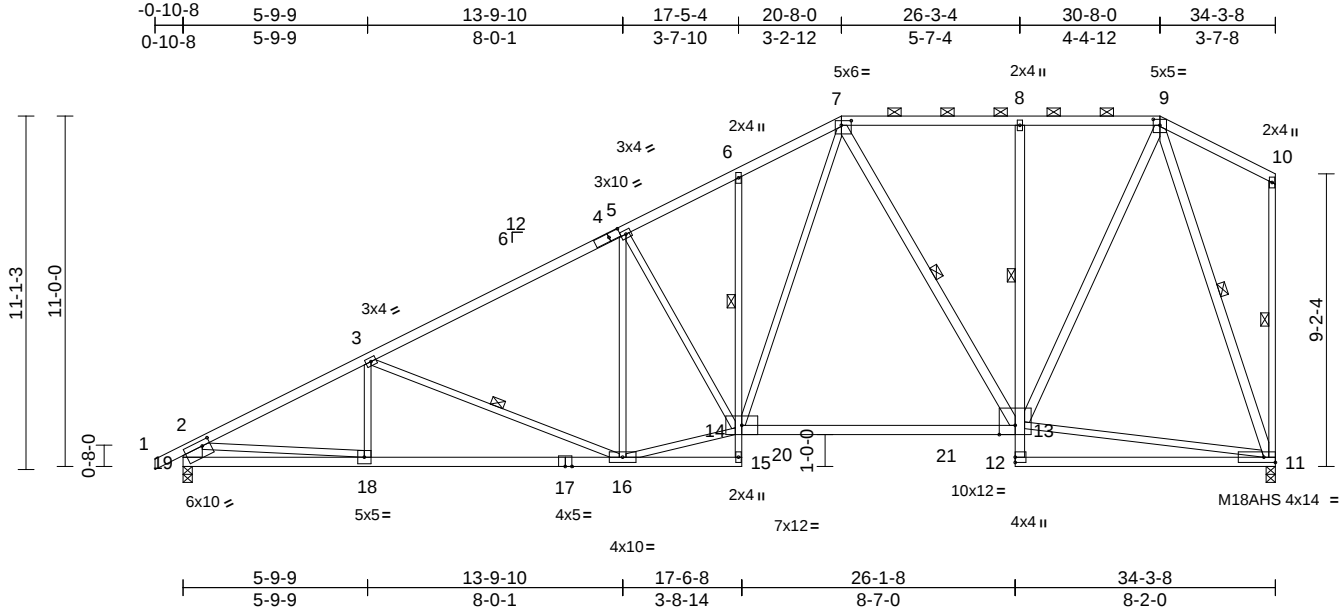
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B2	Piggyback Base	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:17
ID:55VBcJJZ15XZ?IDZahw313yMG71-RFC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDot3423C4f

06/13/2023



Scale = 1:72.3

Plate Offsets (X, Y): [4:0-4-5,0-1-8], [7:0-3-12,0-1-12], [9:0-2-8,0-2-4], [19:0-3-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.32	13-14	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.56	13-14	>731	240	M18AHS 142/136
BCLL	0.0*	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.09	11	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	16-18	>999	240	Weight: 189 lb FT = 10%

LUMBER	
TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 15-6:2x3 SPF No.2, 14-13:2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except* 13-7,13-9,11-9:2x4 SPF No.2, 19-2:2x8 SP DSS
BRACING	
TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-4-8 max.): 7-9.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
1 Row at midpt	6-14, 8-13
WEBS	1 Row at midpt 7-13, 10-11, 9-11, 3-16
REACTIONS	
(lb/size)	11=1523/0-3-8, 19=1609/0-3-8
Max Horiz	19=388 (LC 8)
Max Uplift	11=150 (LC 8), 19=208 (LC 8)
Max Grav	11=1614 (LC 2), 19=1665 (LC 2)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/37, 2-3=-2707/303, 3-5=-2184/251, 5-6=-2000/302, 6-7=-1944/357, 7-8=-1053/161, 8-9=-1045/161, 9-10=-49/63, 10-11=-115/63, 2-19=-1575/232
BOT CHORD	18-19=-422/470, 16-18=-586/2360, 15-16=-170/0, 14-15=0/21, 6-14=-116/81, 13-14=-222/1350, 12-13=0/173, 8-13=-399/168, 11-12=-21/42
WEBS	7-14=-266/1169, 7-13=-602/206, 11-13=-55/481, 9-13=-153/1369, 9-11=-1528/186, 2-18=-165/1903, 3-18=-41/173, 3-16=-548/216, 5-16=-148/98, 14-16=-341/2056, 5-14=-328/159

- 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) exterior zone; cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 150 lb uplift at joint 11 and 208 lb uplift at joint 19.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24, 2022

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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

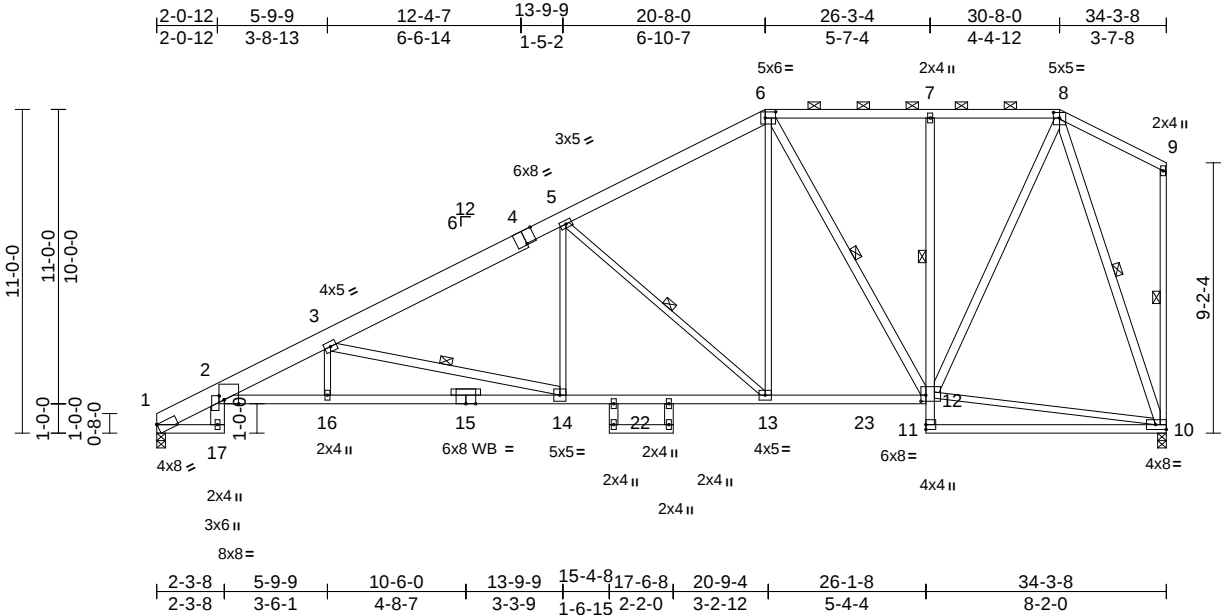
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	RELEASE FOR CONSTRUCTION
B220036	B3	Piggyback Base	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						150414030
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:18 Page: 1

ID: P9bQ_JsVwYntCqaJ60GNRFyMEST-RfC?PsB70Hq3NSgPqnL8w3uITXb3KWrcD6wJ42JC?

06/13/2023



Scale = 1:78.3	Plate Offsets (X, Y): [1:Edge,0-0-1], [2:0-5-14,Edge], [2:0-1-10,0-2-2], [4:0-4-0,Edge], [6:0-4-4,0-2-8], [8:0-2-8,0-2-4], [10:Edge,0-2-0], [12:0-2-0,0-2-8]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.29	14-16	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.54	14-16	>763	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.29	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.22	14-16	>999	240	Weight: 213 lb	FT = 10%

LUMBER
TOP CHORD 2x4 SPF No.2 *Except* 4-6:2x6 SPF No.2, 4-1:2x8 SP DSS
BOT CHORD 2x4 SPF No.2 *Except* 2-15,11-10,15-12:2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 17-2:2x6 SPF No.2, 14-3,12-6,12-8,10-8:2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-2 oc purlins, except end verticals, and 2-0-0 oc purlins (5-5-3 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 8-2-7 oc bracing. Except:

1 Row at midpt 7-12
WEBS 1 Row at midpt 3-14, 5-13, 6-12, 9-10, 8-10

REACTIONS (lb/size) 1=1532/0-3-8, 10=1532/0-3-8
Max Horiz 1=395 (LC 8)
Max Uplift 1=-182 (LC 8), 10=-152 (LC 8)
Max Grav 1=1614 (LC 2), 10=1624 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-874/0, 2-3=-3960/577, 3-5=-2620/327, 5-6=-1675/233, 6-7=-1046/165, 7-8=-1039/165, 8-9=-48/64, 9-10=-114/63
BOT CHORD 1-17=0/0, 2-16=-913/3817, 14-16=-908/3812, 13-14=-459/2244, 12-13=-215/1416, 11-12=0/173, 7-12=-387/165, 10-11=0/137
WEBS 2-17=-1/68, 3-16=-36/162, 3-14=-1619/464, 5-13=-1120/327, 6-13=-139/1014, 6-12=-747/183, 10-12=-87/363, 8-12=-158/1362, 8-10=-1523/190, 5-14=-23/715

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) exterior zone; cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 182 lb uplift at joint 1 and 152 lb uplift at joint 10.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

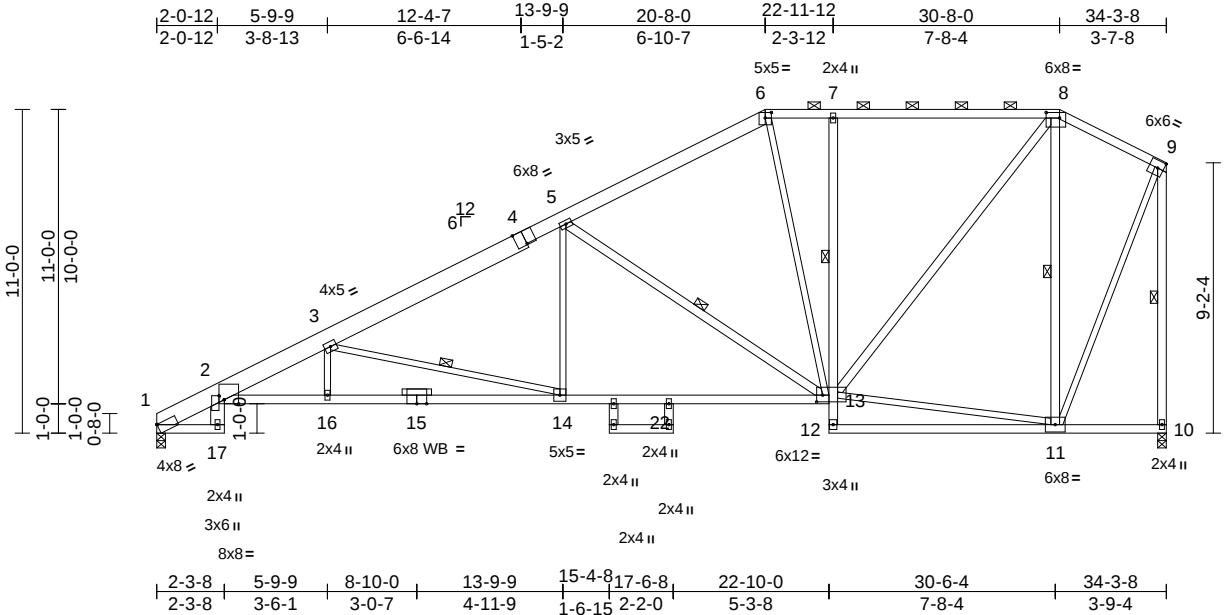
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	RELEASE FOR CONSTRUCTION
B220036	B4	Piggyback Base	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						150414031
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:18 Page: 1

ID:ZXMXNjboYzc_sTdIWVBSxyMENU-RfC?PsB70Hq3NSgPqnL8w3uITXb6KWrCD6rJ4L3C7r

06/13/2023



Scale = 1:78.3	Plate Offsets (X, Y): [1:Edge,0-0-1], [2:0-5-14,Edge], [2:0-1-10,0-2-2], [4:0-4-0,Edge], [6:0-2-8,0-2-4], [8:0-5-8,0-2-4], [13:0-2-8,0-2-12]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.32	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.59	13-14	>695	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.29	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.22	14-16	>999	240	Weight: 215 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-6:2x6 SPF No.2, 4-1:2x8 SP DSS

BOT CHORD 2x4 SPF No.2 *Except* 2-15,13-12:2x4 SPF 2100F 1.8E

WEBS 2x3 SPF No.2 *Except* 17-2:2x6 SPF No.2, 13-5,13-8,11-8,10-9:2x4 SPF No.2

OTHERS 2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-2-10 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-0 max.): 6-8.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:

1 Row at midpt 7-13

WEBS 1 Row at midpt 3-14, 5-13, 8-11, 9-10

REACTIONS (lb/size) 1=1530/0-3-8, 10=1530/0-3-8

Max Horiz 1=395 (LC 8)

Max Uplift 1=-182 (LC 8), 10=-152 (LC 8)

Max Grav 1=1600 (LC 2), 10=1595 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-867/0, 2-3=-3875/574, 3-5=-2607/321, 5-6=-1424/191, 6-7=-1277/217, 7-8=-1279/219, 8-9=-598/80, 9-10=-1569/158

BOT CHORD 1-17=0/0, 2-16=-908/3735, 14-16=-904/3729, 13-14=-455/2237, 12-13=0/142, 7-13=-486/213, 11-12=-16/13, 10-11=-1/3

WEBS 2-17=-1/68, 3-16=-52/133, 3-14=-1541/464, 5-13=-1276/331, 6-13=-46/432, 11-13=-41/499, 8-13=-217/1274, 8-11=-1113/213, 9-11=-131/1342, 5-14=-3/774

- 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) exterior zone; cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 182 lb uplift at joint 1 and 152 lb uplift at joint 10.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24, 2022

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MiTek

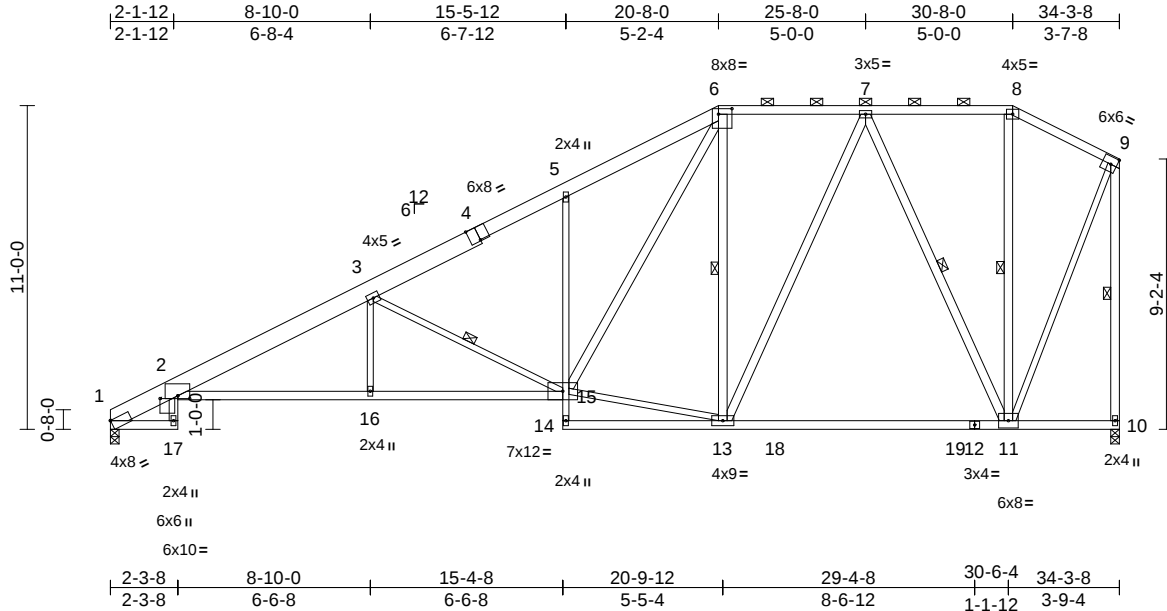
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B5	Piggyback Base	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:18
 ID: Lm7JlFfFOMKD4rjhw43yMEKi-RfC?PsB70Hq3NSgPqnL8w3uITXbGK?VrCDoi7J42JC4H Page: 1

06/13/2023



Scale = 1:78.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.34	11-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.58	2-16	>704	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.85	Horz(CT)	0.34	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.27	2-16	>999	240	Weight: 214 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-6:2x6 SPF No.2, 4-1:2x8 SP DSS
 BOT CHORD 2x4 SPF 2100F 1.8E *Except* 1-17:2x4 SPF No.2, 5-14:2x3 SPF No.2
 WEBS 2x4 SPF No.2 *Except* 3-16,15-3,13-15,11-9:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-0-3 max.): 6-8.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 3-15, 6-13, 7-11, 8-11, 9-10

REACTIONS (lb/size) 1=1530/0-3-8, 10=1530/0-3-8
 Max Horiz 1=395 (LC 8)
 Max Uplift 1=-182 (LC 8), 10=-152 (LC 8)
 Max Grav 1=1595 (LC 2), 10=1642 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-859/0, 2-3=-3354/451, 3-5=-2324/317, 5-6=-2231/440, 6-7=-1276/228, 7-8=-530/83, 8-9=-633/78, 9-10=-1659/150
 BOT CHORD 1-17=0/0, 2-16=-727/3144, 15-16=-725/3141, 14-15=0/58, 5-15=-302/209, 13-14=-28/39, 11-13=-128/972, 10-11=-2/3
 WEBS 2-17=0/69, 3-16=0/253, 3-15=-1356/381, 13-15=-166/1294, 6-15=-417/1396, 6-13=-633/269, 7-13=-146/744, 7-11=-1081/208, 8-11=-97/106, 9-11=-114/1406

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) exterior zone; cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 182 lb uplift at joint 1 and 152 lb uplift at joint 10.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24, 2022

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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



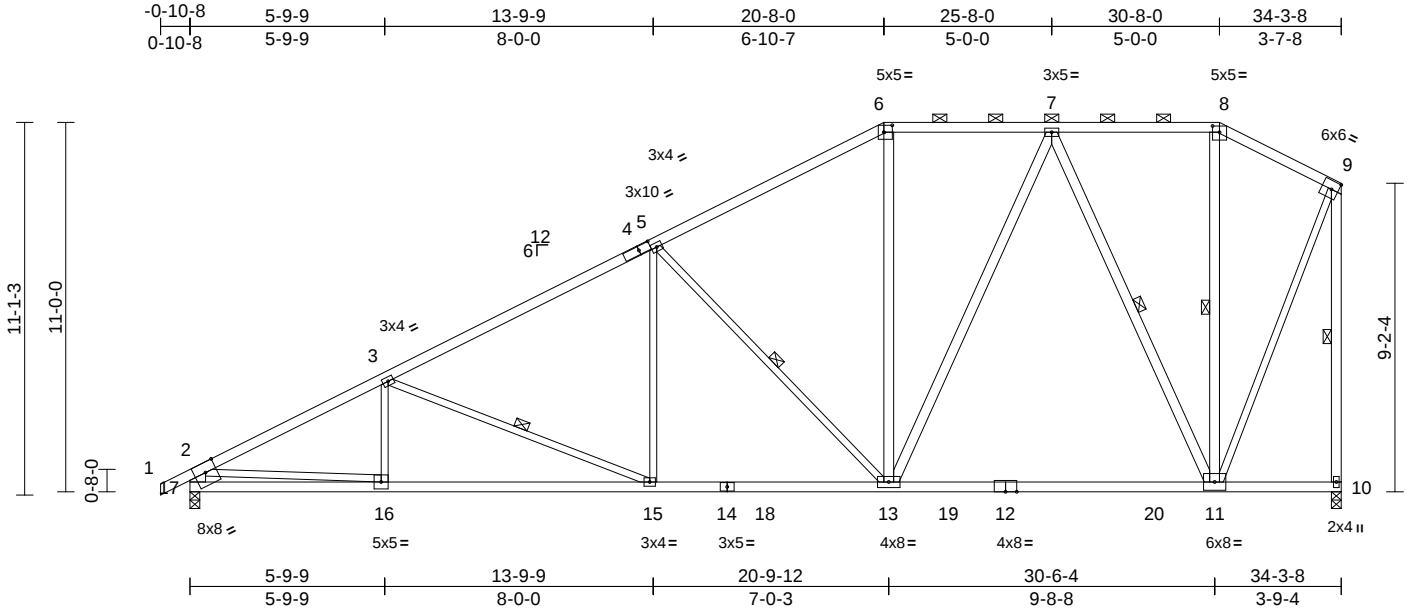
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B6	Piggyback Base	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:19 Page: 1
 ID:MTWT2EXZ?soXtzoihXMfTzyMEY2-RfC?PsB70Hq3NSgPqnL8w3uTXbCKWrCDon7d423C9f

06/13/2023



Scale = 1:68.6

Plate Offsets (X, Y): [4:0-4-4,0-1-8], [6:0-3-0,0-2-8], [8:0-2-8,0-2-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.31	11-13	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.51	11-13	>804	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.07	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.10	15-16	>999	240	Weight: 178 lb	FT = 10%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-0-0 max.): 6-8.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 3-15, 5-13, 7-11, 8-11, 9-10

REACTIONS	(lb/size) 10=1525/0-3-8, 17=1605/0-3-8
	Max Horiz 17=389 (LC 8)
	Max Uplift 10=-151 (LC 8), 17=-206 (LC 8)
	Max Grav 10=1659 (LC 2), 17=1684 (LC 2)

FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/35, 2-3=-2777/304, 3-5=-2240/256, 5-6=-1544/208, 6-7=-1293/229, 7-8=-536/82, 8-9=-640/78, 9-10=-1677/149, 2-17=-1592/231
BOT CHORD	16-17=-442/548, 15-16=-586/2420, 13-15=-394/1918, 11-13=-127/985, 10-11=-2/3
WEBS	3-16=-20/187, 3-15=-552/207, 5-15=0/492, 5-13=-909/295, 6-13=0/347, 7-13=-150/760, 7-11=-1098/206, 8-11=-97/109, 9-11=-113/1422, 2-16=-144/1881

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) exterior zone; cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 206 lb uplift at joint 17 and 151 lb uplift at joint 10.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24, 2022

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

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

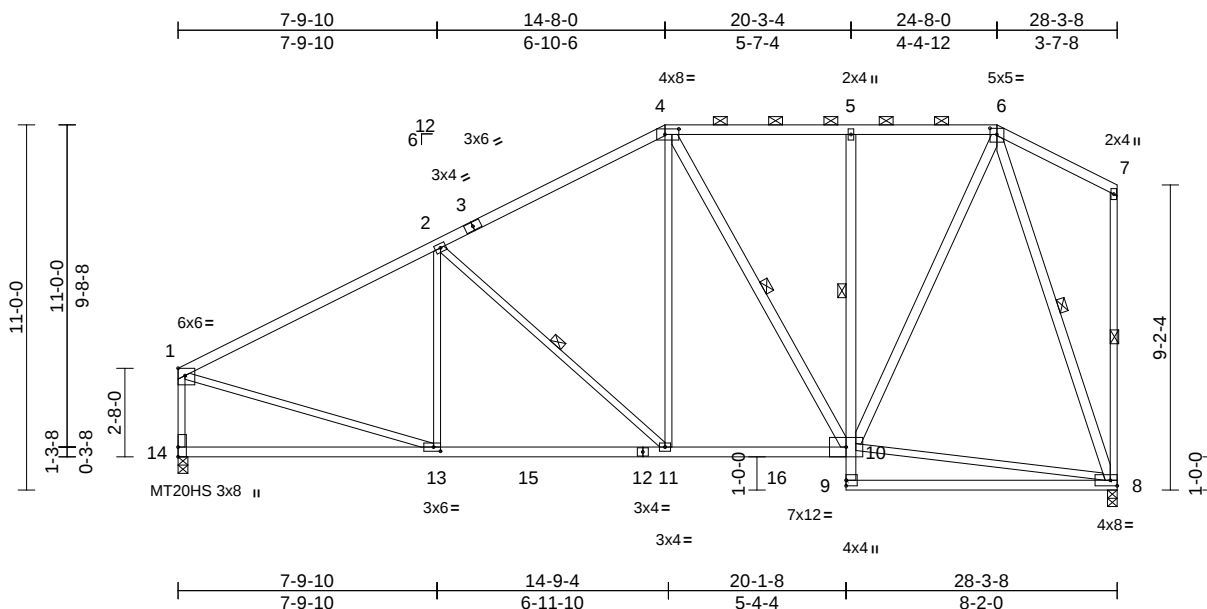
Wheeler Lumber, Waverly, KS - 66871.

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:19 Page: 1

ID: S46Op_E4vHBA9hhKUHToAdvMEZi-BfC?PsB70Hq3NSqPqnL8w3uITXhGKWrcDp7J4zJC?f=

Page: 1

06/13/2023



Scale = 1:69.4

Plate Offsets (X, Y): [1:Edge.0-2-11], [4:0-5-0.0-2-0], [6:0-2-8.0-2-4], [13:0-2-8.0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.16	8-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.33	8-9	>999	240	MT20HS	148/108
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	11-13	>999	240	Weight: 157 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 10-4,10-6,8-6:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing. Except:

1 Row at midpt 5-10

WEBS	1 Row at midpt	4-10, 7-8, 6-8, 2-11
------	----------------	----------------------

REACTIONS

(lb/size) 8=1264/0-3-8, 14=1264/0-3-8

Max Horiz 14=256 (LC 8)

Max Uplift 8=-114 (LC 5), 14=-127 (LC 8)

Max Grav 8=1341 (LC 2), 14=1348 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1542/159, 2-4=-1232/168,
4-5=-814/129, 5-6=-810/129, 6-7=-49/63,
7-8=-114/63. 1-14=-1229/166

BOT CHORD 13-14=-275/84, 11-13=-311/1302.

 $10-11=-152/1014, 9-10=0/173,$
$$5-10=-401/169, 8-9=0/131$$

WEBS 4-11=-69/554, 4-10=-423/132, 8-10=-80/280,

$$6-10=-130/1041, 6-8=-1212/175,$$
$$1-13=-38/1292, 2-11=-422/215,$$
$$2-13=-200/112$$

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDF=6.0psf; BCDF=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.

- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 14 and 114 lb uplift at joint 8.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24, 2022



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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

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Technical drawing of a roof truss structure. The drawing includes dimensions and material specifications for various components.

Dimensions:

- Overall height: 11-1-3
- Overall width: 10-0-0
- Section height: 2-8-0

Material Specifications (Top):

- 7-9-10
- 14-8-0
- 19-8-0
- 24-8-0
- 32-1-12
- 38-3-0
- 45-4-0
- 46-2-8

Material Specifications (Bottom):

- 7-9-10
- 14-9-4
- 24-6-12
- 32-0-0
- 32-0-8
- 38-3-0
- 45-4-0

Truss Components and Labels:

- Top Chords:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
- Bottom Chords:** 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25
- Vertical Members:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25
- Diagonal Members:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25
- Labels:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [3:0-3-0,Edge], [4:0-3-0,0-2-8], [8:0-3-0,Edge], [12:0-3-4,0-2-4], [20:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plaste Grip DOL	1.15	TC	0.97	Vert(LL)	-0.28	16-18	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.46	16-18	>841	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.03	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	18-20	>999	240	Weight: 208 lb	FT = 10%

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 7-14:2x3 SPF No.2, 14-12:2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 18-5,16-5,21-1:2x4 SPF No.2, 15-6:2x4 SPF 2100F 1.8E, 12-10:2x6 SPF No.2

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-6-7 max.): 4-6.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 13-14.

WEBS	1 Row at midpt	2-18, 5-16, 10-13
WEBS	2 Rows at 1/3 pts	6-15

REACTIONS	(lb/size)	15=2952/0-3-8, (req. 0-4-15), 21=1171/0-3-8
	Max Horiz	21=-229 (LC 4)
	Max Uplift	15=-375 (LC 9), 21=-163 (LC 8)
	Max Grav	15=3134 (LC 2), 21=1369 (LC 23)

Tension

TOP CHORD	1-2=-1558/203, 2-4=-1283/219, 4-5=-1057/239, 5-6=-534/158, 6-7=-114/1643, 7-9=-255/1647, 9-10=-151/778, 10-11=0/35, 1-21=-1241/203, 10-12=-22/117
BOT CHORD	20-21=-91/239, 18-20=-134/1316, 16-18=-7/873, 15-16=0/522, 14-15=-18/95, 7-15=-518/289, 13-14=-72/2, 12-13=-155/352
WEBS	2-18=-415/203, 4-18=0/237, 5-18=-65/540, 5-16=-851/182, 6-16=-46/1177, 6-15=-2785/188, 13-15=-557/202, 9-15=-898/248, 9-13=-80/423, 10-13=-953/357, 2-20=-220/119, 1-20=-90/1284

- 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) exterior zone, cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) WARNING: Required bearing size at joint(s) 15 greater than input bearing size.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 163 lb uplift at joint 21 and 375 lb uplift at joint 15.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.



February 24, 2022



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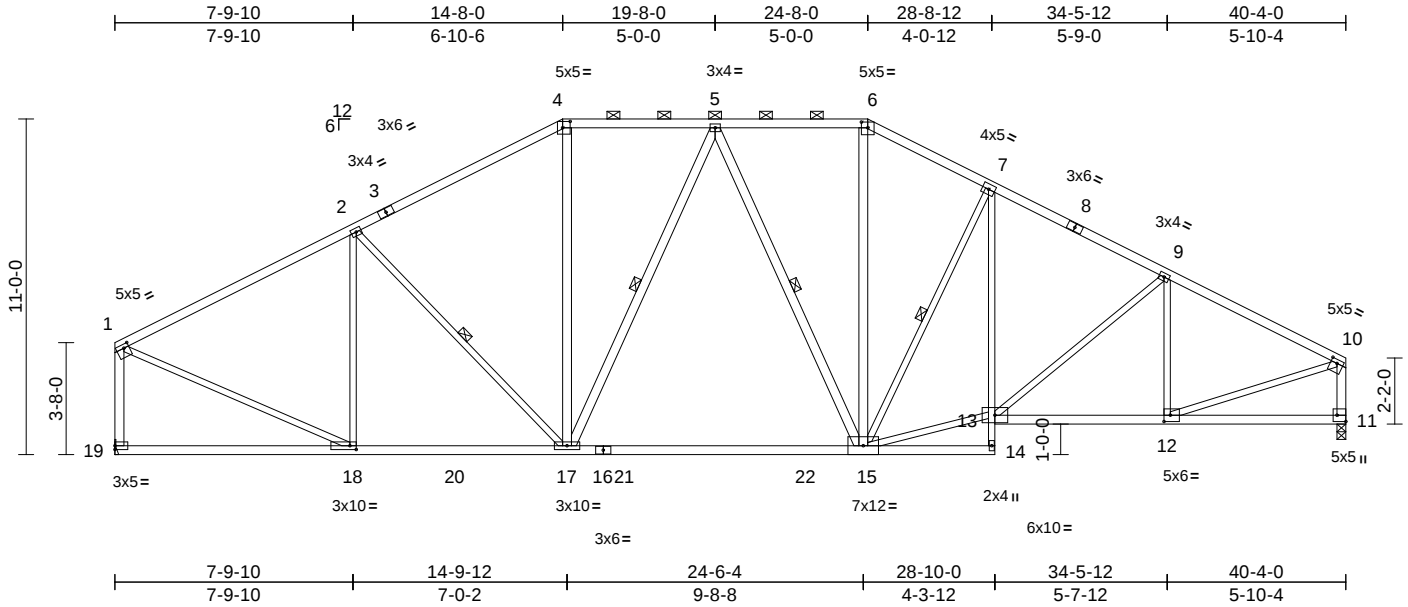
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	B9	Piggyback Base	5	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:10 Page: 1
ID:BB71FY?JxJoR6d3ZHzS0syME4L-RfC?PsB70Hq3NSgPqnL8w3uITXbGWRCDol73423C71

06/13/2023



Scale = 1:75.5

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [4:0-3-0,0-2-8], [6:0-2-8,0-2-4], [10:0-2-8,0-1-8], [11:Edge,0-3-8], [12:0-2-8,0-2-8], [18:0-2-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.34	15-17	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.57	15-17	>842	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.08	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	12-13	>999	240	Weight: 204 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 14-7:2x3 SPF No.2, 13-11:2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 17-4,17-5,15-5,15-6,11-10,19-1:2x4 SPF No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-6 max.): 4-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 14-15,13-14.
WEBS	1 Row at midpt 2-17, 5-17, 5-15, 7-15
REACTIONS	(lb/size) 11=1802/0-3-8, 19=1802/Mechanical Max Horiz 19=216 (LC 6) Max Uplift 11=184 (LC 9), 19=175 (LC 8) Max Grav 11=1907 (LC 2), 19=1936 (LC 2)

FORCES

TOP CHORD	(lb) - Maximum Compression/Maximum Tension 1-2=-2025/196, 2-4=-2034/238, 4-5=-1734/256, 5-6=-1760/269, 6-7=-2026/272, 7-9=-2399/270, 9-10=-2323/229, 10-11=-1816/211, 1-19=-1810/214
BOT CHORD	18-19=-160/192, 17-18=-166/1733, 15-17=-122/1817, 14-15=-24/49, 13-14=-14/14, 7-13=-55/533, 12-13=-166/2018, 11-12=-32/73
WEBS	1-18=-104/1833, 2-18=-551/135, 2-17=-109/184, 4-17=-26/564, 5-17=-411/158, 5-15=-334/155, 6-15=-44/646, 13-15=-54/2115, 7-15=-747/229, 9-13=-59/168, 9-12=-490/126, 10-12=-142/2053

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint 19 and 184 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24,2022

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	RELEASED FOR CONSTRUCTION
B220036	B10	Piggyback Base Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						150414037
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:10 Page: 1

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06/13/2023

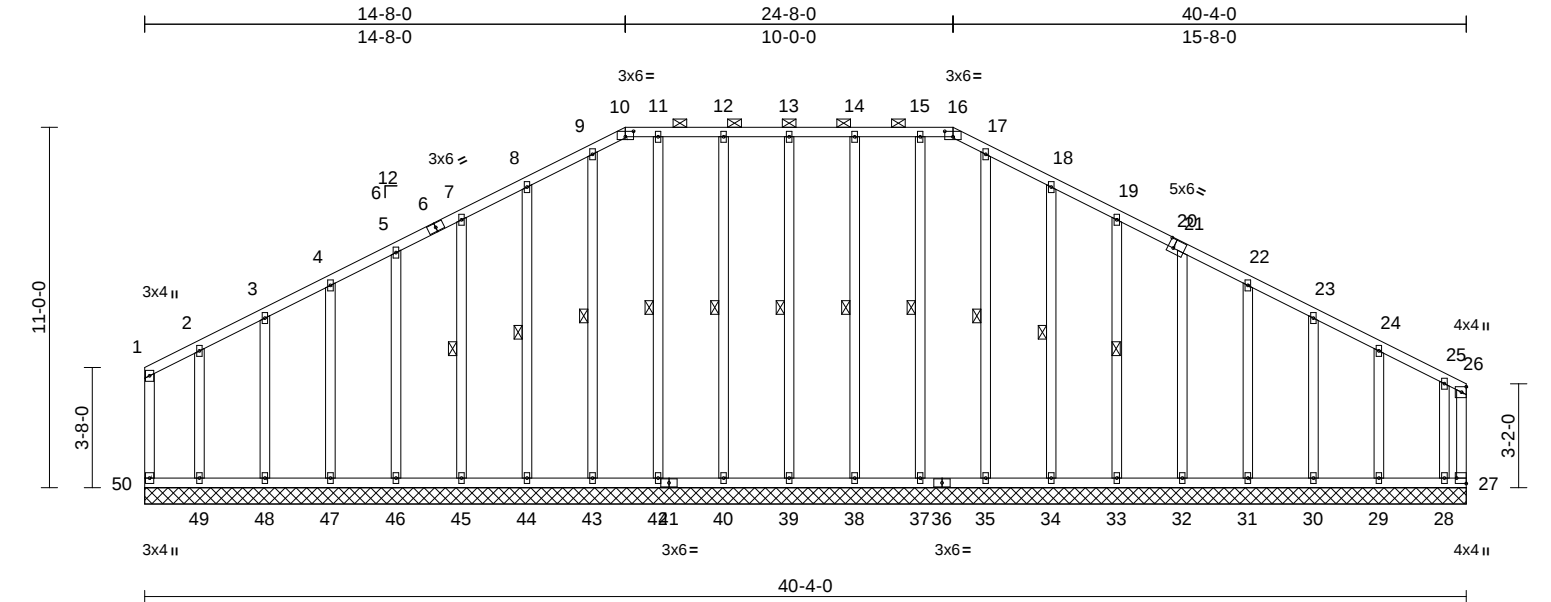


Plate Offsets (X, Y): [10:0-3-0,0-2-0], [16:0-3-0,0-2-0], [20:0-2-0,0-3-4], [27:Edge,0-3-8]									
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.01	27	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R					
					PLATES		GRIP		
					MT20		197/144		
					Weight: 277 lb		FT = 10%		

LUMBER		Max Grav		WEBS	
TOP CHORD	2x4 SPF No.2	27=668 (LC 4), 28=632 (LC 7),		2-49=-163/118, 3-48=-142/73, 4-47=-140/79,	
BOT CHORD	2x4 SPF No.2	29=188 (LC 1), 30=178 (LC 1),		5-46=-140/78, 7-45=-140/76, 8-44=-139/95,	
WEBS	2x4 SPF No.2	31=180 (LC 1), 32=180 (LC 22),		9-43=-140/0, 11-42=-141/16, 12-40=-142/68,	
OTHERS	2x4 SPF No.2	33=180 (LC 22), 34=179 (LC 1),		13-39=-140/56, 14-38=-142/69,	
BRACING		35=180 (LC 22), 37=181 (LC 22),		15-37=-141/20, 17-35=-140/7,	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 10-16.	38=182 (LC 21), 39=180 (LC 1),		18-34=-139/94, 19-33=-140/76,	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	40=182 (LC 22), 42=181 (LC 21),		21-32=-140/78, 22-31=-140/79,	
WEBS	1 Row at midpt	43=180 (LC 21), 44=179 (LC 1),		23-30=-139/75, 24-29=-147/91,	
		45=180 (LC 21), 46=180 (LC 1),		25-28=-244/273	
		47=179 (LC 21), 48=183 (LC 1),			
		49=283 (LC 15), 50=180 (LC 7)			
REACTIONS (lb/size)		FORCES		NOTES	
		(lb) - Maximum Compression/Maximum Tension		1) Unbalanced roof live loads have been considered for this design.	
		TOP CHORD	1-50=-92/87, 1-2=-92/104, 2-3=-47/106,	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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60	
			3-4=-34/135, 4-5=-33/161, 5-7=-33/187,	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.	
			7-8=-36/212, 8-9=-41/243, 9-10=-41/247,	4) Provide adequate drainage to prevent water ponding.	
			10-11=-35/248, 11-12=-35/248,	5) All plates are 2x4 MT20 unless otherwise indicated.	
			12-13=-35/248, 13-14=-35/248,		
			14-15=-35/248, 15-16=-35/248,		
			16-17=-41/249, 17-18=-46/261,		
			18-19=-45/229, 19-21=-51/204,		
			21-22=-62/178, 22-23=-74/153,		
			23-24=-84/126, 24-25=-105/102,		
			25-26=-216/179, 26-27=-299/254		
		BOT CHORD	49-50=-139/141, 48-49=-139/141,		
			47-48=-139/141, 46-47=-139/141,		
			45-46=-139/141, 44-45=-139/141,		
			43-44=-139/141, 42-43=-139/141,		
			40-42=-139/141, 39-40=-139/141,		
			38-39=-139/141, 37-38=-139/141,		
			35-37=-139/141, 34-35=-139/141,		
			33-34=-139/141, 32-33=-139/141,		
			31-32=-139/141, 30-31=-139/141,		
			29-30=-139/141, 28-29=-139/141,		
			27-28=-139/141		
Max Horiz	50=-226 (LC 4)				
Max Uplift	27=-598 (LC 7), 28=-642 (LC 4),				
	29=-57 (LC 9), 30=-53 (LC 9),				
	31=-54 (LC 9), 32=-54 (LC 9),				
	33=-52 (LC 9), 34=-70 (LC 9),				
	38=-45 (LC 5), 39=-32 (LC 4),				
	40=-44 (LC 5), 44=-71 (LC 8),				
	45=-52 (LC 8), 46=-54 (LC 8),				
	47=-57 (LC 8), 48=-42 (LC 8),				
	49=-187 (LC 5), 50=-164 (LC 4)				



February 24,2022

Continued on page 2

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	
B220036	B10	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414037
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:10 Page: 2

ID: NSLiY0rk9WUf_Q6FDGq9mDyMDzV-RfC?PsB70Hq3NSgPqnL8w3ulTXb6KWrcD6HJ42JC?r

06/13/2023

- 6) Gable requires continuous bottom chord bearing.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 50, 598 lb uplift at joint 27, 187 lb uplift at joint 49, 42 lb uplift at joint 48, 57 lb uplift at joint 47, 54 lb uplift at joint 46, 52 lb uplift at joint 45, 71 lb uplift at joint 44, 44 lb uplift at joint 40, 32 lb uplift at joint 39, 45 lb uplift at joint 38, 70 lb uplift at joint 34, 52 lb uplift at joint 33, 54 lb uplift at joint 32, 54 lb uplift at joint 31, 53 lb uplift at joint 30, 57 lb uplift at joint 29 and 642 lb uplift at joint 28.
- 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.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

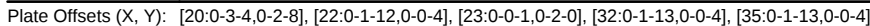
LOAD CASE(S) Standard**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

16023 Swingley Ridge Rd
Chesterfield, MO 63017

16023 Swingley Ridge Rd
Chesterfield, MO 63017



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	D2	Common	1	1	Job Reference (optional)

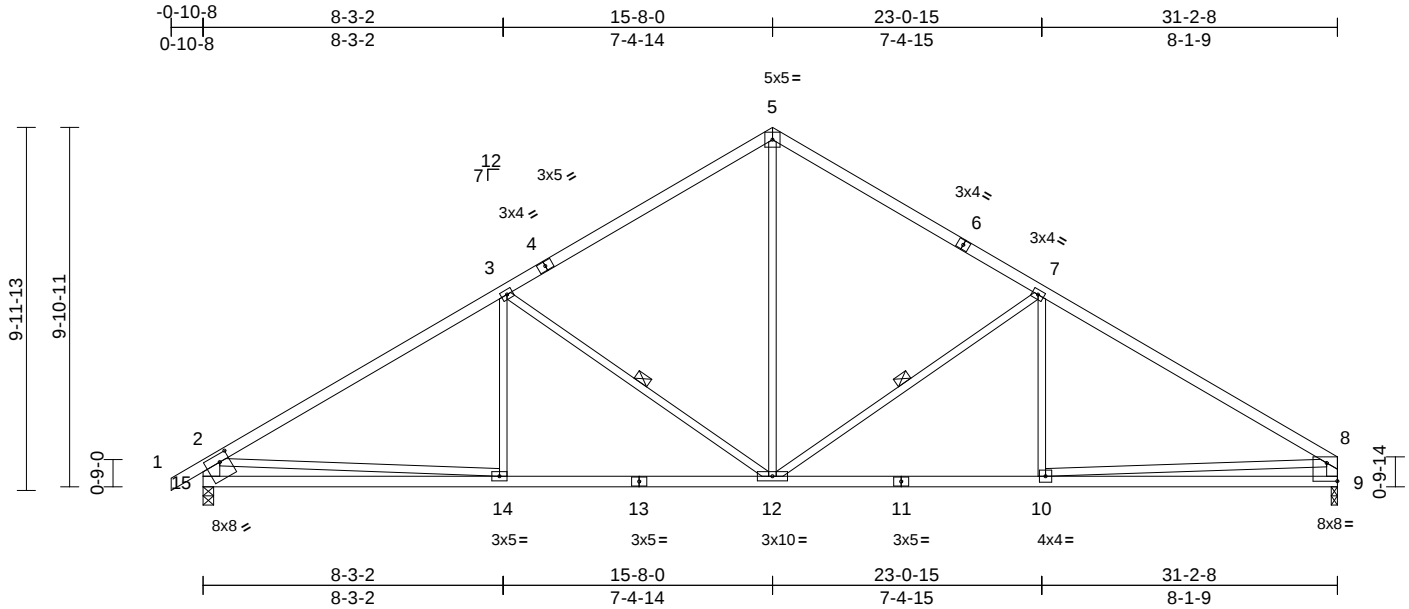
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414040
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 11:04:12 Page: 1

ID: XexTqRas5GLxdEDUfejzVJyMGbh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDo17s4Z3C71

06/13/2023



Scale = 1:63.4

Plate Offsets (X, Y): [9:Edge,0-6-0], [15:0-3-4,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.10	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.22	14-15	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.06	9	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	10-12	>999	240	Weight: 122 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 4-1,6-8:2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except* 15-2:2x6 SPF No.2, 9-8:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-6-11 oc bracing.

WEBS 1 Row at midpt 7-12, 3-12

REACTIONS (lb/size) 9=1386/0-2-0, (req. 0-2-3), 15=1466/0-3-8

Max Horiz 15=268 (LC 5)

Max Uplift 9=-165 (LC 9), 15=-191 (LC 8)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/39, 2-3=-2056/246, 3-5=-1467/261, 5-7=-1469/261, 7-8=-2048/244, 2-15=-1388/236, 8-9=-1307/208

BOT CHORD 14-15=-371/887, 12-14=-247/1654, 10-12=-113/1660, 9-10=-121/495

WEBS 5-12=-101/878, 7-12=-678/266, 7-10=0/269, 3-12=-671/262, 3-14=0/279, 2-14=0/925, 8-10=-50/1168

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- WARNING: Required bearing size at joint(s) 9 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 15 and 165 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 24, 2022

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

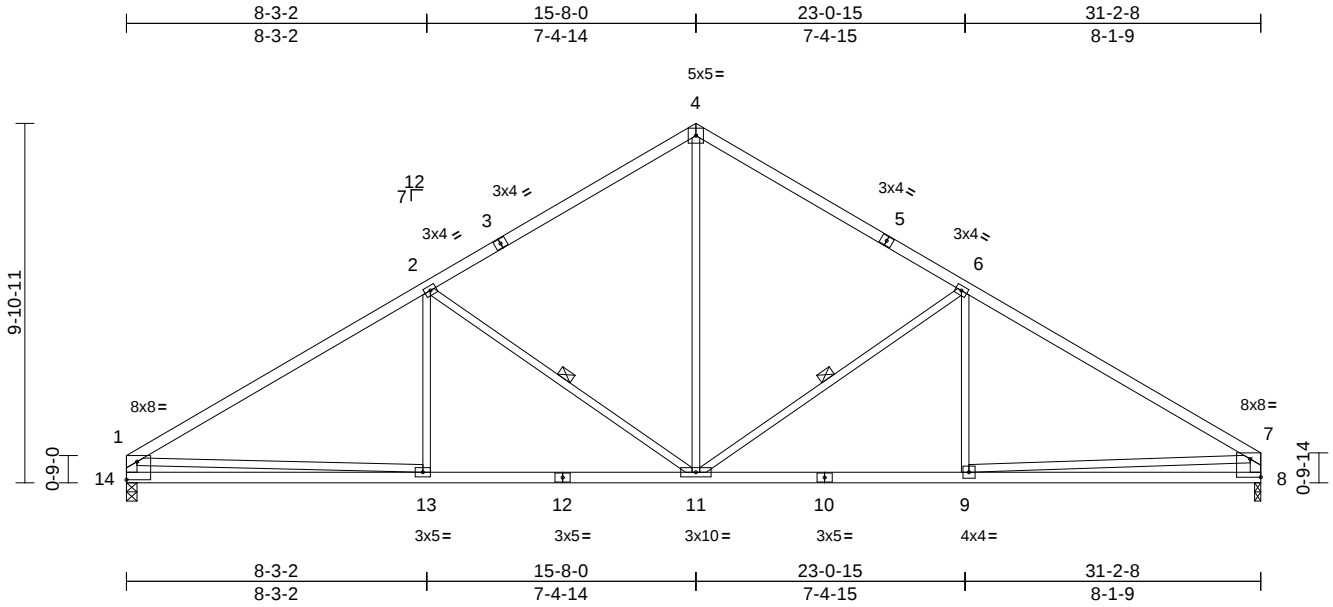
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 150414041 LEE'S SUMMIT, MISSOURI
B220036	D3	Common	9	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:12 Page: 1

ID:nqp7V1gVqDCCzI5Ugy8EV_yMGM4-RfC?PsB70Hq3NSgPqnL8w3uITXbkKWrcD0rJ42JC?

06/13/2023



Scale = 1:63.4

Plate Offsets (X, Y): [1:Edge,0-6-0], [7:Edge,0-6-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.11	13-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.24	13-14	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.06	11-13	>999	240	Weight: 121 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 3-4,5-4:2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 14-1:2x4 SPF 2100F 1.8E, 8-7:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-10-7 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 6-11, 2-11

REACTIONS (lb/size) 8=1391/0-2-0, (req. 0-2-3), 14=1391/0-3-8

Max Horiz 14=257 (LC 5)

Max Uplift 8=-165 (LC 9), 14=-166 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-2081/247, 2-4=-1479/262, 4-6=-1479/262, 6-7=-2058/244, 1-14=-1311/211, 7-8=-1312/208

BOT CHORD 13-14=-271/742, 11-13=-255/1685, 9-11=-113/1668, 8-9=-121/495

WEBS 4-11=-105/896, 6-11=-678/266, 6-9=0/268, 2-11=-698/270, 2-13=0/282, 1-13=-33/1099, 7-9=-51/1176

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) The Fabrication Tolerance at joint 1 = 6%, joint 1 = 6%
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) WARNING: Required bearing size at joint(s) 8 greater than input bearing size.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 166 lb uplift at joint 14 and 165 lb uplift at joint 8.
- 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.

LOAD CASE(S) Standard



February 24, 2022

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

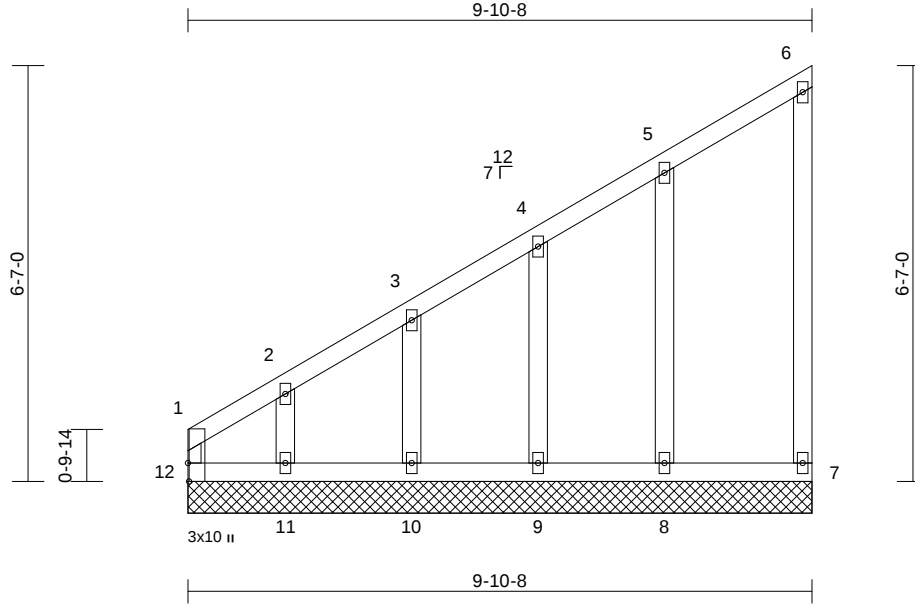
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	Job Reference (optional)
B220036	D4	Monopitch Supported Gable	1	1		

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:22 Page: 1
ID:g86VT07Ktu_pXb?ouwq81_yMGLU-RIC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoh7d423Cpf

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414042
LEE'S SUMMIT, MISSOURI

06/13/2023



Scale = 1:36.5

Plate Offsets (X, Y): [12:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	7	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 45 lb FT = 10%											

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 6-7:2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING

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

REACTIONS

(lb/size)	7=83/9-10-8, 8=209/9-10-8, 9=172/9-10-8, 10=184/9-10-8, 11=170/9-10-8, 12=47/9-10-8
Max Horiz	12=245 (LC 7)
Max Uplift	7=-40 (LC 5), 8=-68 (LC 8), 9=-63 (LC 8), 10=-47 (LC 8), 11=-149 (LC 8), 12=-92 (LC 6)
Max Grav	7=100 (LC 15), 8=211 (LC 15), 9=180 (LC 15), 10=184 (LC 1), 11=225 (LC 15), 12=191 (LC 5)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-12=-137/71, 1-2=-225/147, 2-3=-174/113, 3-4=-151/95, 4-5=-139/92, 5-6=-109/74, 6-7=-73/33
BOT CHORD	11-12=-88/68, 10-11=-88/68, 9-10=-88/68, 8-9=-88/68, 7-8=-88/68
WEBS	2-11=-159/123, 3-10=-145/79, 4-9=-137/90, 5-8=-176/74

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) exterior 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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 92 lb uplift at joint 12, 40 lb uplift at joint 7, 149 lb uplift at joint 11, 47 lb uplift at joint 10, 63 lb uplift at joint 9 and 68 lb uplift at joint 8.
- 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.

LOAD CASE(S) Standard



February 24, 2022

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



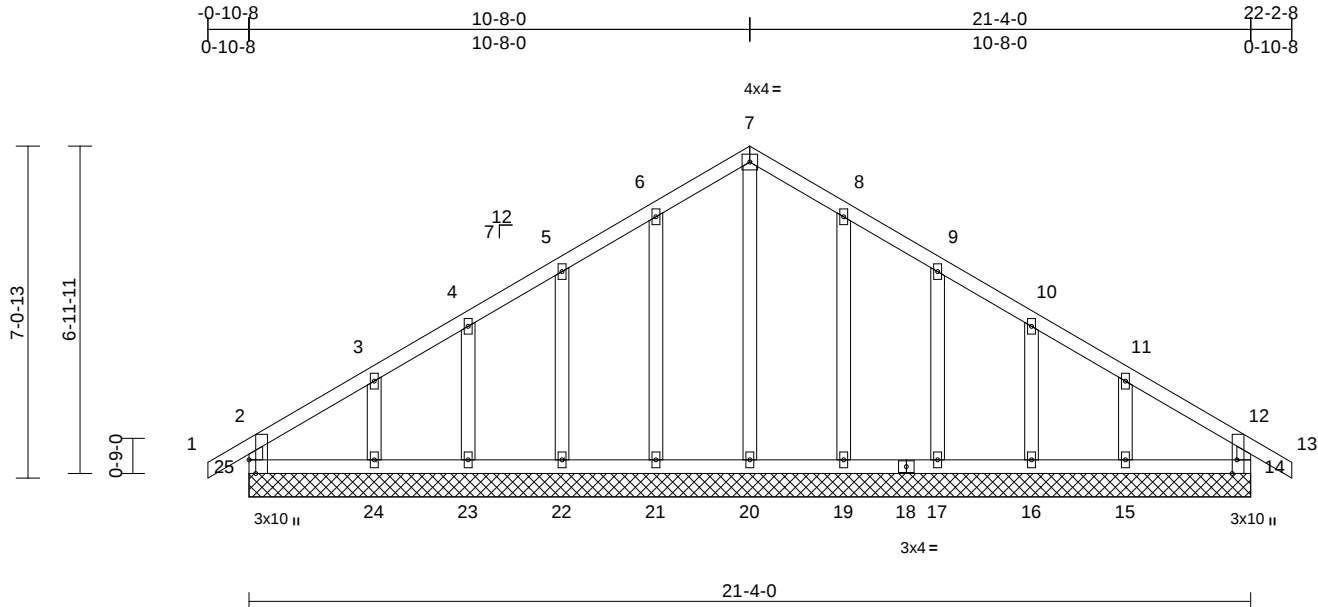
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 150414043 LEE'S SUMMIT, MISSOURI
B220036	E1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:13 Page: 1
ID:jo51kuJFwPWvqIXn7CaamyMGT_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrdOn7d423Cpf

06/13/2023



Scale = 1:49.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	14	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
										Weight: 95 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size)	14=195/21-4-0, 15=209/21-4-0, 16=172/21-4-0, 17=181/21-4-0, 19=187/21-4-0, 20=150/21-4-0, 21=187/21-4-0, 22=181/21-4-0, 23=172/21-4-0, 24=209/21-4-0, 25=195/21-4-0
Max Horiz	25=196 (LC 7)
Max Uplift	14=-25 (LC 8), 15=-102 (LC 9), 16=-48 (LC 9), 17=-66 (LC 9), 19=-59 (LC 9), 21=-60 (LC 8), 22=-67 (LC 8), 23=-46 (LC 8), 24=-109 (LC 8), 25=-42 (LC 4)
Max Grav	14=195 (LC 1), 15=237 (LC 16), 16=172 (LC 1), 17=187 (LC 16), 19=192 (LC 16), 20=189 (LC 18), 21=193 (LC 15), 22=188 (LC 15), 23=172 (LC 1), 24=247 (LC 15), 25=201 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	12-14=-172/39, 7-8=-66/184, 8-9=-55/143, 9-10=-67/111, 10-11=-79/80, 11-12=-104/69, 12-13=0/36, 1-2=0/36, 2-3=-138/113, 3-4=-110/102, 4-5=-99/133, 5-6=-87/165, 6-7=-77/193, 2-25=-172/53
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BOT CHORD	24-25=-73/97, 23-24=-73/97, 22-23=-73/97, 21-22=-73/97, 20-21=-73/97, 19-20=-73/97, 17-19=-73/97, 16-17=-73/97, 15-16=-73/97, 14-15=-73/97
WEBS	7-20=-149/1, 8-19=-152/84, 9-17=-146/90, 10-16=-135/75, 11-15=-177/117, 6-21=-153/84, 5-22=-145/90, 4-23=-135/74, 3-24=-183/121

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 14, 42 lb uplift at joint 25, 59 lb uplift at joint 19, 66 lb uplift at joint 17, 48 lb uplift at joint 16, 102 lb uplift at joint 15, 60 lb uplift at joint 21, 67 lb uplift at joint 22, 46 lb uplift at joint 23 and 109 lb uplift at joint 24.

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.

LOAD CASE(S) Standard



February 24, 2022

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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



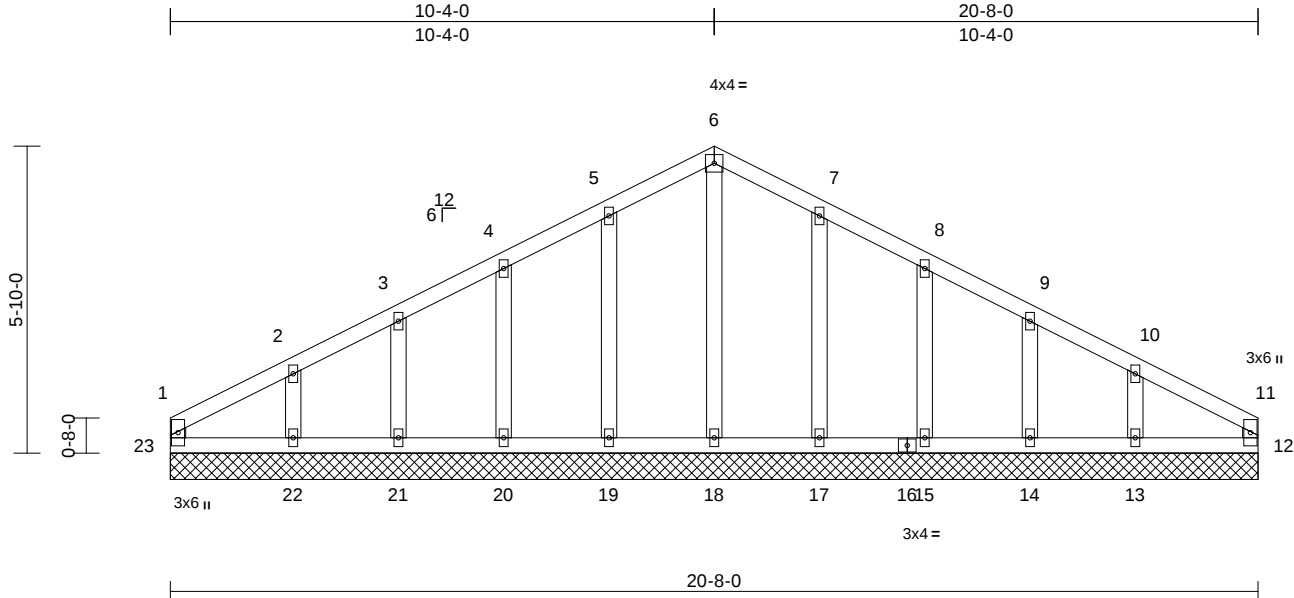
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	RELEASE FOR CONSTRUCTION
B220036	F1	Common Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						150414044
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:13 Page: 1

ID:wO7KqXWHsxyTHalBOAysYyMGXu-RIC?PsB70Hq3NSgPqnL8w3uITXlGKWrCba7J423C?06/13/2023



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 82 lb	FT = 10%

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

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

REACTIONS (lb/size)
12=97/20-8-0, 13=208/20-8-0,
14=172/20-8-0, 15=180/20-8-0,
17=187/20-8-0, 18=144/20-8-0,
19=187/20-8-0, 20=180/20-8-0,
21=172/20-8-0, 22=208/20-8-0,
23=97/20-8-0
Max Horiz 23=82 (LC 4)
Max Uplift 12=-10 (LC 8), 13=-85 (LC 9),
14=-45 (LC 9), 15=-57 (LC 9),
17=-55 (LC 9), 19=-55 (LC 8),
20=-57 (LC 8), 21=-44 (LC 8),
22=-90 (LC 8), 23=-22 (LC 9)
Max Grav 12=97 (LC 1), 13=211 (LC 22),
14=172 (LC 1), 15=180 (LC 1),
17=190 (LC 22), 18=159 (LC 18),
19=190 (LC 21), 20=180 (LC 1),
21=172 (LC 1), 22=211 (LC 21),
23=100 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-79/32, 1-2=-97/50, 2-3=-72/75,
3-4=-61/101, 4-5=-58/127, 5-6=-61/152,
6-7=-61/144, 7-8=-58/109, 8-9=-58/82,
9-10=-61/57, 10-11=-82/31, 11-12=-79/21
BOT CHORD 22-23=-20/58, 21-22=-20/58, 20-21=-20/58,
19-20=-20/58, 18-19=-20/58, 17-18=-20/58,
15-17=-20/58, 14-15=-20/58, 13-14=-20/58,
12-13=-20/58

WEBS
6-18=-119/0, 5-19=-150/79, 4-20=-140/80,
3-21=-135/71, 2-22=-161/102, 7-17=-150/79,
8-15=-140/80, 9-14=-135/72, 10-13=-161/99

- 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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 23, 10 lb uplift at joint 12, 55 lb uplift at joint 19, 57 lb uplift at joint 20, 44 lb uplift at joint 21, 90 lb uplift at joint 22, 55 lb uplift at joint 17, 57 lb uplift at joint 15, 45 lb uplift at joint 14 and 85 lb uplift at joint 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.

LOAD CASE(S) Standard



February 24, 2022

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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

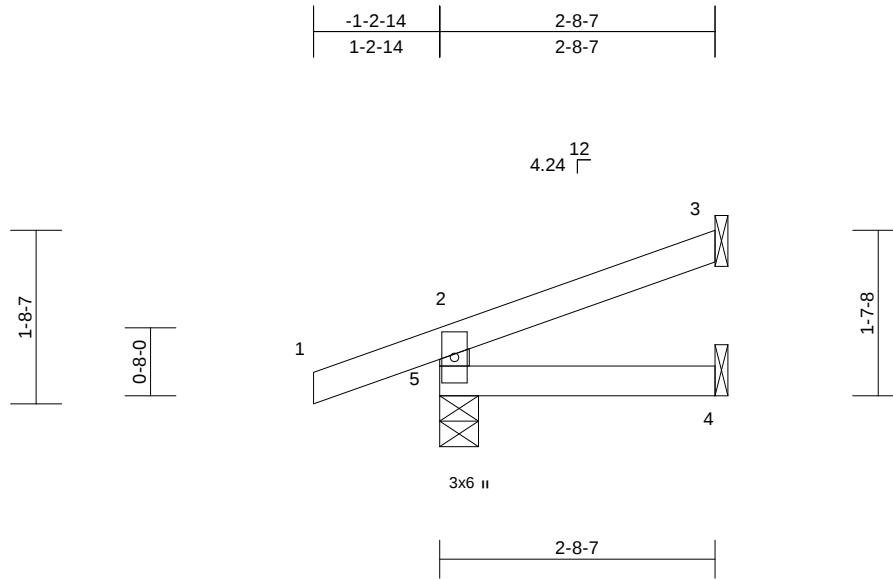
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	J1	Diagonal Hip Girder	3	1	Job Reference (optional)

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414045
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:23 Page: 1
ID:2Nuat0ZbzU62SQxfmsXEvfziDVy-RfC?PsB70Hq3NSgPqnL8w3ulTXbGK1VrCDoi7J42JC57

06/13/2023



Scale = 1:22.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 8 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF 2400F 2.0E

BRACING

TOP CHORD Structural wood sheathing directly applied or
2-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (lb/size) 3=65/ Mechanical, 4=20/
Mechanical, 5=236/0-4-9
Max Horiz 5=56 (LC 4)
Max Uplift 3=-34 (LC 8), 5=-82 (LC 4)
Max Grav 3=65 (LC 1), 4=44 (LC 3), 5=236
(LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 2-5=-206/100, 1-2=0/32, 2-3=-38/16
BOT CHORD 4-5=0/0

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) exterior 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
3-06-00 tall by 2-00-00 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 82 lb uplift at joint
5 and 34 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 24, 2022

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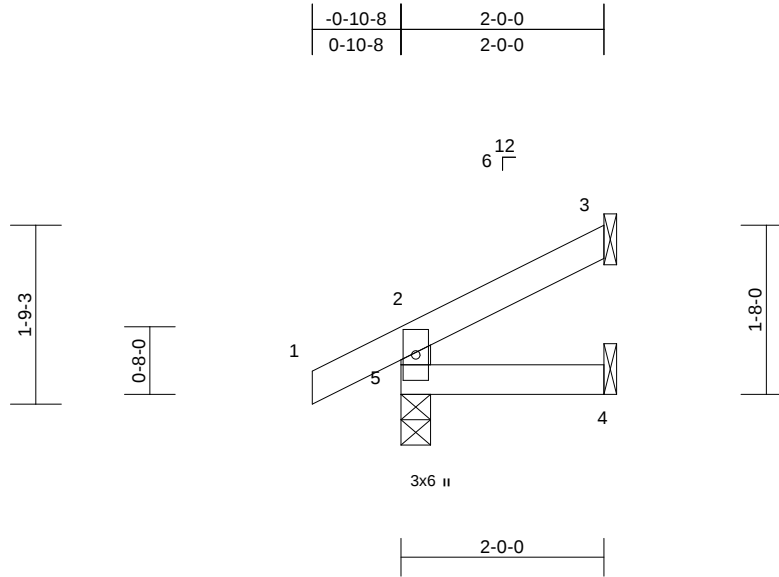
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	RELEASE FOR CONSTRUCTION
B220036	J2	Jack-Open	12	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						150414046
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:13 Page: 1
ID:WZSy5MaDkoEu3aWrKZ3TSszDVx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWCD0rJ423C?r

06/13/2023



Scale = 1:22.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 6 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 3=48/ Mechanical, 4=15/
Mechanical, 5=174/0-3-8
Max Horiz 5=49 (LC 8)
Max Uplift 3=-32 (LC 8), 5=-26 (LC 8)
Max Grav 3=48 (LC 1), 4=33 (LC 3), 5=174 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-153/45, 1-2=0/32, 2-3=-39/16
BOT CHORD 4-5=0/0

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) exterior 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 3-06-00 tall by 2-00-00 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 26 lb uplift at joint 5 and 32 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 24, 2022

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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

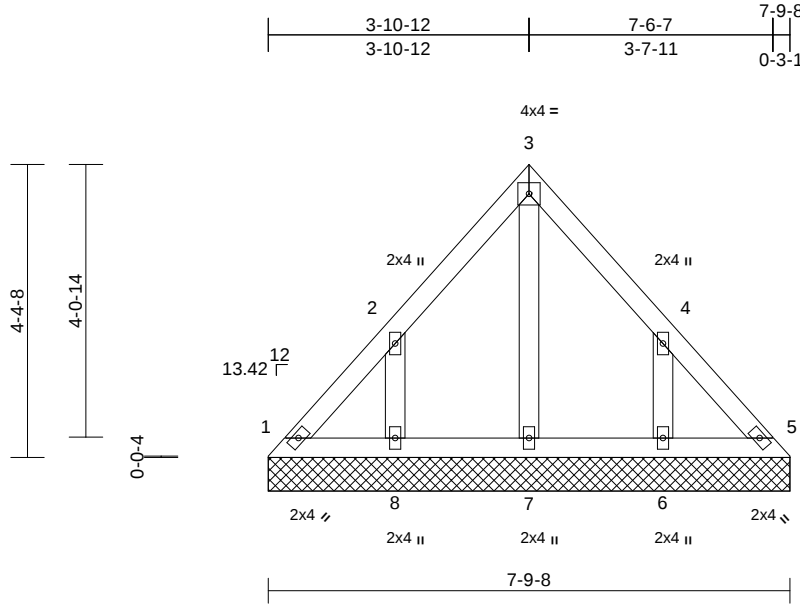
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	LAY1	Lay-In Gable	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 11:04:14 Page: 1

ID:WZSy5MaDkoEu3aWrKZ3TSszDVx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWwCD0rJ4L3C?r

06/13/2023



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	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
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

(lb/size)	1=71/7-9-8, 5=71/7-9-8, 6=198/7-9-8, 7=108/7-9-8, 8=198/7-9-8
Max Horiz	1=108 (LC 5)
Max Uplift	1=-27 (LC 4), 5=-10 (LC 5), 6=-154 (LC 9), 8=-154 (LC 8)
Max Grav	1=99 (LC 17), 5=91 (LC 18), 6=228 (LC 16), 7=122 (LC 18), 8=229 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-121/92, 2-3=-101/79, 3-4=-92/64, 4-5=-106/69
BOT CHORD	1-8=-45/94, 7-8=-45/94, 6-7=-45/94, 5-6=-45/94
WEBS	3-7=-82/0, 2-8=-189/178, 4-6=-189/178

NOTES

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

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1, 10 lb uplift at joint 5, 154 lb uplift at joint 8 and 154 lb uplift at joint 6.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



February 24, 2022

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



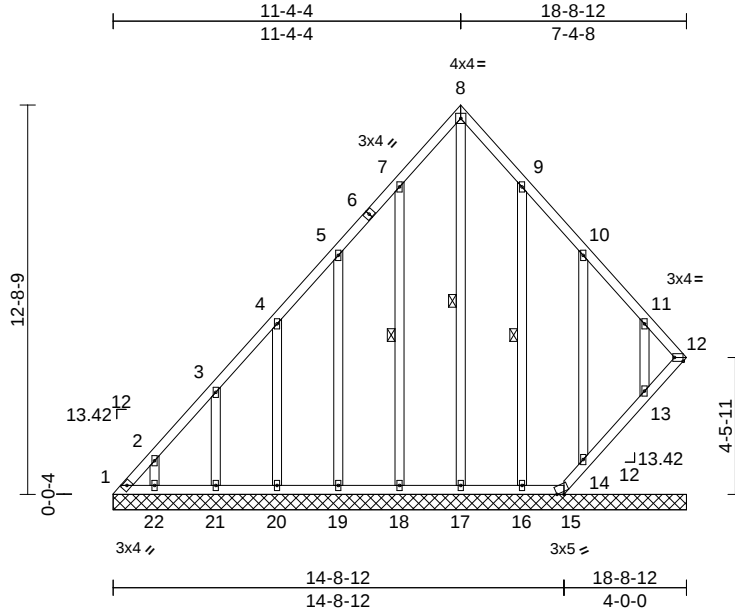
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	LAY2	Lay-In Gable	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:14 Page: 1
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06/13/2023



Scale = 1:75.2

Plate Offsets (X, Y): [12:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.01	12	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
Weight: 122 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.
WEBS 1 Row at midpt 8-17, 7-18, 9-16

REACTIONS (lb/size)
1=52/18-8-12, 12=86/18-8-12, 13=162/18-8-12, 14=179/18-8-12, 15=21/18-8-12, 16=181/18-8-12, 17=117/18-8-12, 18=185/18-8-12, 19=180/18-8-12, 20=179/18-8-12, 21=185/18-8-12, 22=156/18-8-12
Max Horiz 1=318 (LC 8)
Max Uplift 1=-186 (LC 6), 12=-199 (LC 7), 13=-119 (LC 9), 14=-130 (LC 9), 15=-214 (LC 9), 16=-133 (LC 9), 18=-132 (LC 8), 19=-140 (LC 8), 20=-134 (LC 8), 21=-139 (LC 8), 22=-117 (LC 8)
Max Grav 1=394 (LC 8), 12=381 (LC 9), 13=187 (LC 16), 14=200 (LC 16), 15=129 (LC 7), 16=213 (LC 16), 17=221 (LC 9), 18=217 (LC 15), 19=207 (LC 15), 20=207 (LC 15), 21=214 (LC 15), 22=180 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-534/280, 2-3=-425/240, 3-4=-285/185, 4-5=-164/133, 5-7=-136/115, 7-8=-107/183, 8-9=-92/167, 9-10=-117/98, 10-11=-147/110, 11-12=-249/153

BOT CHORD 1-22=-101/182, 21-22=-101/182, 20-21=-101/182, 19-20=-101/182, 18-19=-101/182, 17-18=-101/182, 16-17=-101/182, 15-16=-101/182, 14-15=-157/293, 13-14=-166/282, 12-13=-164/277
WEBS 8-17=-197/7, 7-18=-177/156, 5-19=-167/164, 4-20=-167/157, 3-21=-173/165, 2-22=-143/133, 9-16=-175/154, 10-14=-171/168, 11-13=-148/139

- 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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 199 lb uplift at joint 12, 186 lb uplift at joint 1, 214 lb uplift at joint 15, 132 lb uplift at joint 18, 140 lb uplift at joint 19, 134 lb uplift at joint 20, 139 lb uplift at joint 21, 117 lb uplift at joint 22, 133 lb uplift at joint 16, 130 lb uplift at joint 14 and 119 lb uplift at joint 13.

- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12, 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.

LOAD CASE(S) Standard



February 24, 2022

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

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



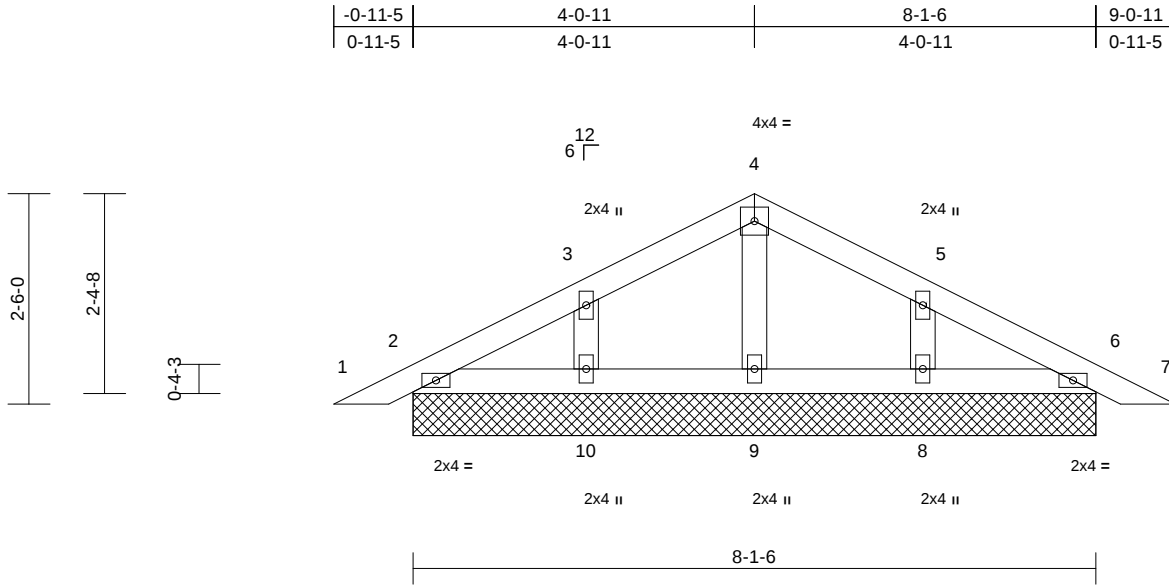
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	RELEASE FOR CONSTRUCTION
B220036	P1	Piggyback	2	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						150414049
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:14 Page: 1
ID:hC8n44pz_c6wnQi?LwXpNqyMGXV-RfC?PsB70Hq3NSgPqnL8w3uITXbCKWwCD0rJ423C?r

06/13/2023



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	6	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
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

(lb/size) 2=127/8-1-6, 6=127/8-1-6,
8=214/8-1-6, 9=134/8-1-6,
10=214/8-1-6
Max Horiz 2=41 (LC 8)
Max Uplift 2=-17 (LC 8), 6=-25 (LC 9), 8=-67 (LC 9), 10=-67 (LC 8)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-51/41, 3-4=-50/56,
4-5=-50/49, 5-6=-40/30, 6-7=0/17
BOT CHORD 2-10=-2/37, 9-10=-2/37, 6-8=-2/37
WEBS 4-9=-98/2, 3-10=-167/95, 5-8=-167/95

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 2, 25 lb uplift at joint 6, 67 lb uplift at joint 10 and 67 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



February 24, 2022

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

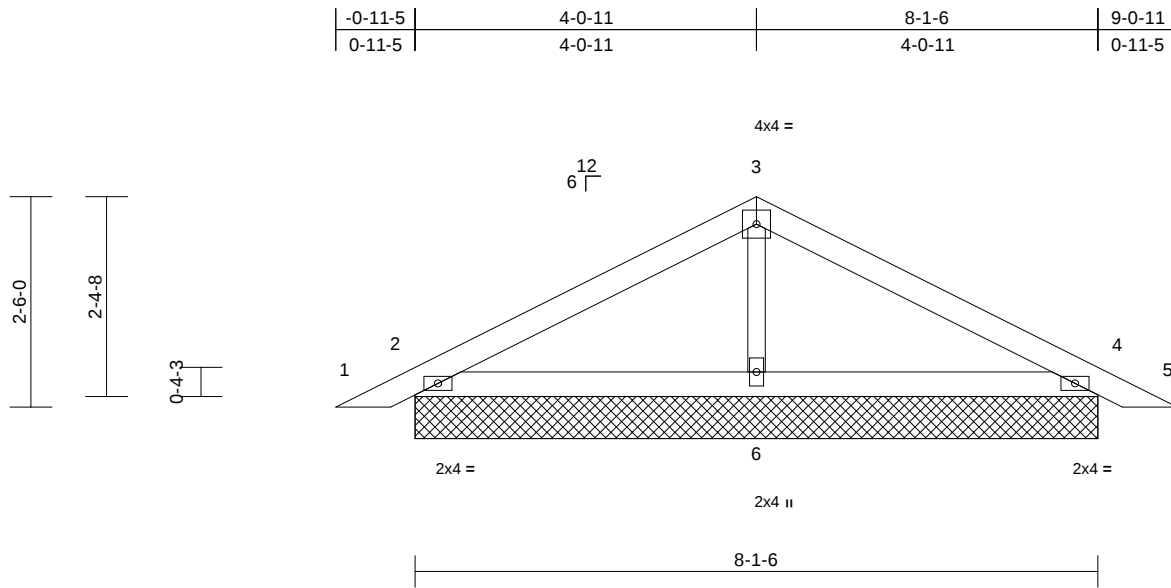
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 150414050 LEE'S SUMMIT, MISSOURI
B220036	P2	Piggyback	19	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:14 Page: 1

ID:WMV2L7ukZSs3VLA9iBdDc5yMGXP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDm7J42JC?

06/13/2023



Scale = 1:27.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							
										Weight: 23 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
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	(lb/size)	2=237/8-1-6, 4=237/8-1-6, 6=343/8-1-6
	Max Horiz	2=-41 (LC 13)
	Max Uplift	2=-60 (LC 8), 4=-67 (LC 9), 6=-1 (LC 8)

FORCES	(lb) - Maximum Compression/Maximum Tension
---------------	--

TOP CHORD	1-2=0/17, 2-3=-93/55, 3-4=-93/39, 4-5=0/17
BOT CHORD	2-6=0/45, 4-6=0/45
WEBS	3-6=-241/62

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 2, 67 lb uplift at joint 4 and 1 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

February 24, 2022

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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 2060116023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V1	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:14 Page: 1

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RELEASE FOR CONSTRUCTION

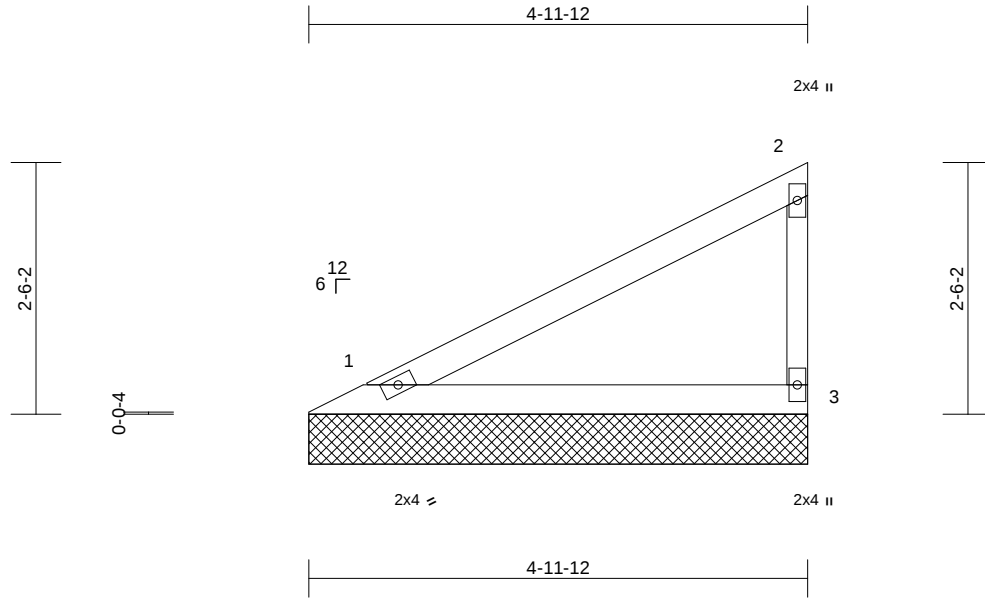
AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

150414051

LEE'S SUMMIT, MISSOURI

06/13/2023



Scale = 1:23

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 13 lb FT = 10%

LUMBER

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

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.

LOAD CASE(S) Standard

BRACING

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

REACTIONS (lb/size) 1=193/4-11-12, 3=193/4-11-12
Max Horiz 1=89 (LC 7)
Max Uplift 1=-25 (LC 8), 3=-47 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-82/54, 2-3=-150/73
BOT CHORD 1-3=-31/23

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 47 lb uplift at joint 3.



February 24, 2022

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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

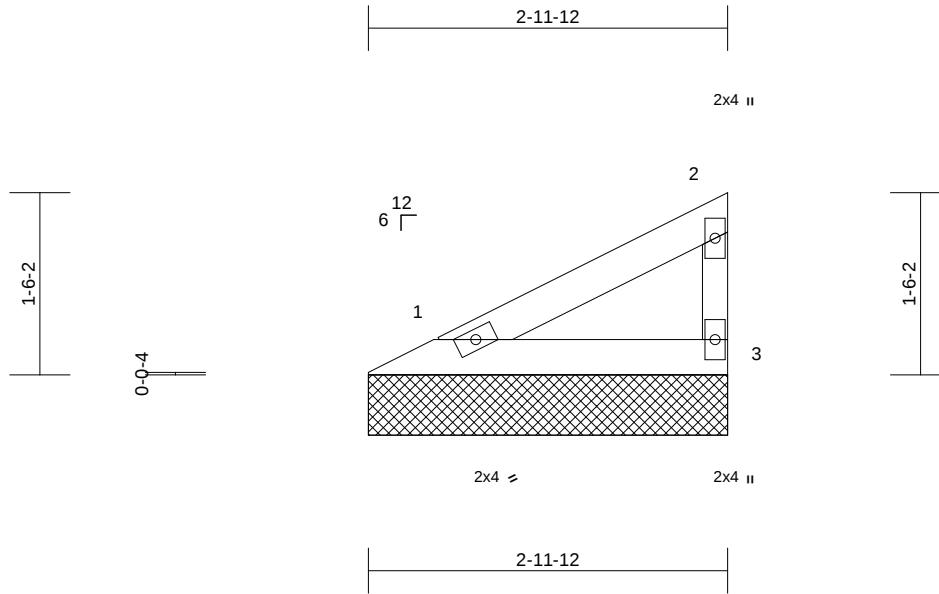
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V2	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:15 Page: 1
ID:UfEnf?q5bDRB5DATkUaMjEyMGa3-RfC?PsB70Hq3NSgPqnL8w3ulTXbCKWwCDnHJ423C?r

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414052
LEE'S SUMMIT, MISSOURI

06/13/2023



Scale = 1:19.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb FT = 10%

LUMBER

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

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.

LOAD CASE(S) Standard

BRACING

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

REACTIONS (lb/size) 1=103/2-11-12, 3=103/2-11-12
Max Horiz 1=48 (LC 5)
Max Uplift 1=-13 (LC 8), 3=-25 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-44/29, 2-3=-80/39
BOT CHORD 1-3=-16/12

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1 and 25 lb uplift at joint 3.



February 24, 2022

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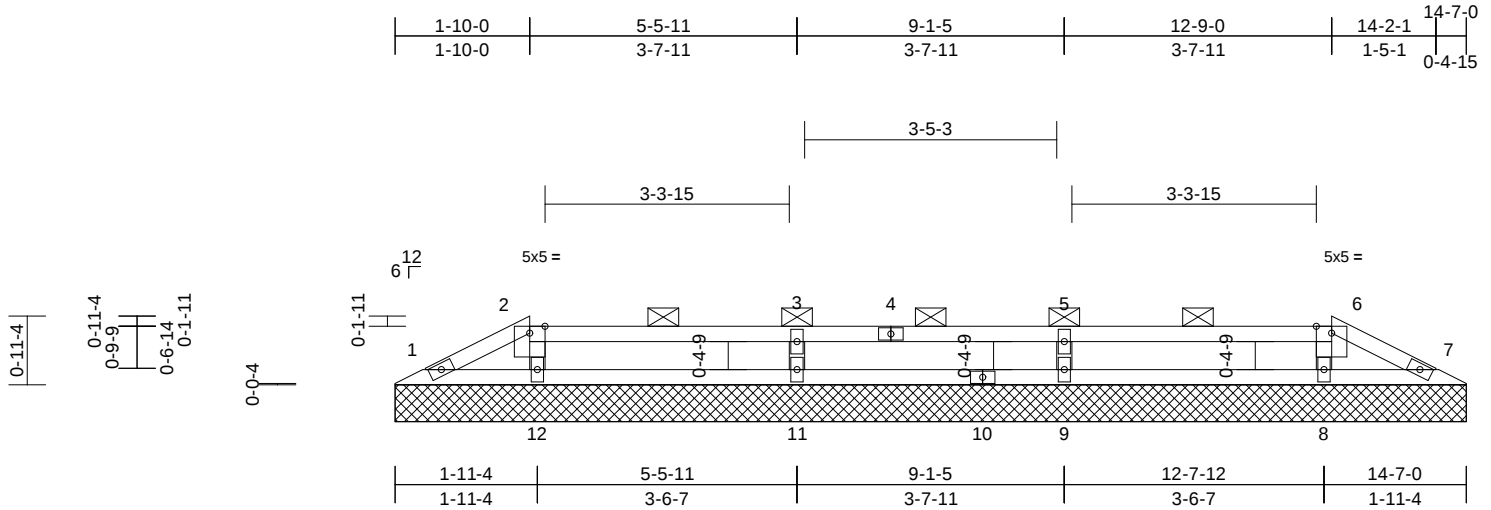
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V3	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:15 Page: 1
 ID: P69Syc1YDZNGWUrh277SYGziDnc-Rfc?PsB70Hq3NSgPqnL8w3uITXbGKWrCb0f75420C4

06/13/2023



Scale = 1:31.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	7	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 25 lb FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(lb/size)	1=43/14-7-0, 7=43/14-7-0, 8=232/14-7-0, 9=343/14-7-0, 11=343/14-7-0, 12=232/14-7-0
Max Horiz	1=12 (LC 8)
Max Uplift	1=-14 (LC 8), 7=-16 (LC 9), 8=-24 (LC 4), 9=-67 (LC 5), 11=-67 (LC 4), 12=-26 (LC 5)
Max Grav	1=44 (LC 21), 7=44 (LC 22), 8=232 (LC 1), 9=344 (LC 21), 11=344 (LC 22), 12=232 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-36/14, 2-3=-1/14, 3-5=-1/13, 5-6=-1/14, 6-7=-36/11
BOT CHORD	1-12=-7/26, 11-12=-2/12, 9-11=-2/12, 8-9=-2/12, 7-8=-5/26
WEBS	3-11=-270/111, 5-9=-270/111, 2-12=-174/63, 6-8=-174/61

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1, 16 lb uplift at joint 7, 67 lb uplift at joint 11, 67 lb uplift at joint 9, 26 lb uplift at joint 12 and 24 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24, 2022

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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

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



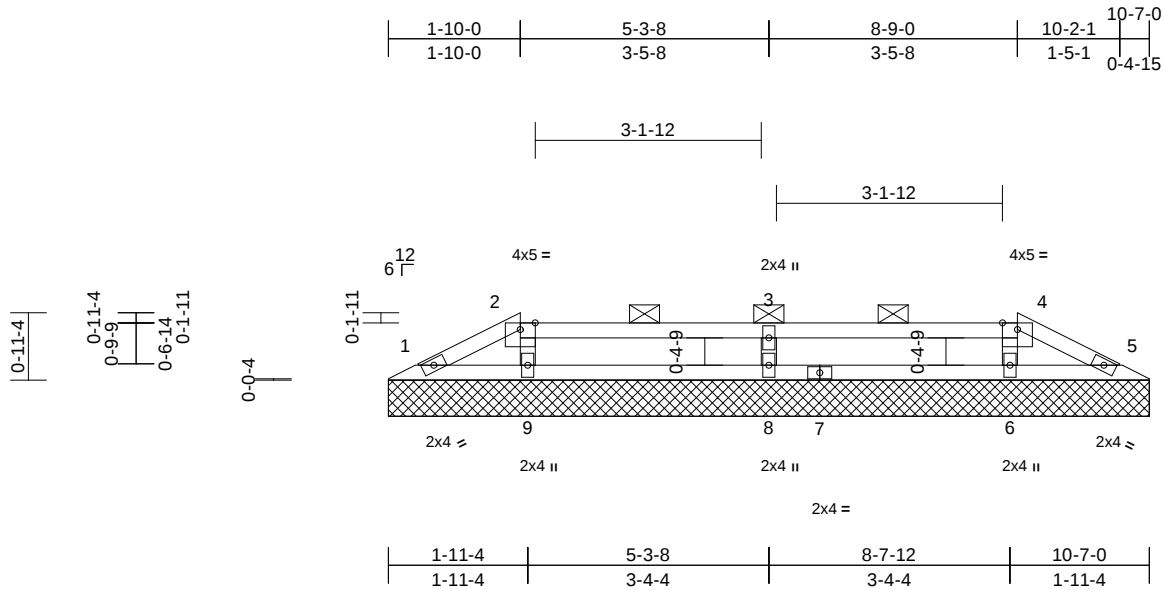
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V4	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 11:04:15 Page: 1
ID:lb6CDR1YVyyS6C?iNJ2nrzIDIS-RFC?PsB70Hq3NSgPqnL8w3uITXbGKwTCDoi7J4zJC3

06/13/2023



Scale = 1:32

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	5	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 18 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(lb/size)	1=47/10-7-0, 5=47/10-7-0, 6=215/10-7-0, 8=351/10-7-0, 9=215/10-7-0
Max Horiz	1=-12 (LC 13)
Max Uplift	1=-14 (LC 8), 5=-16 (LC 9), 6=-20 (LC 4), 8=-73 (LC 4), 9=-22 (LC 5)
Max Grav	1=48 (LC 21), 5=48 (LC 22), 6=215 (LC 1), 8=352 (LC 21), 9=215 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-35/14, 2-3=-1/14, 3-4=-1/14, 4-5=-35/10
BOT CHORD	1-9=-6/23, 8-9=-2/12, 6-8=-2/12, 5-6=-4/23
WEBS	3-8=-281/116, 2-9=-160/57, 4-6=-160/55

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 1, 16 lb uplift at joint 5, 73 lb uplift at joint 8, 22 lb uplift at joint 9 and 20 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24, 2022

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



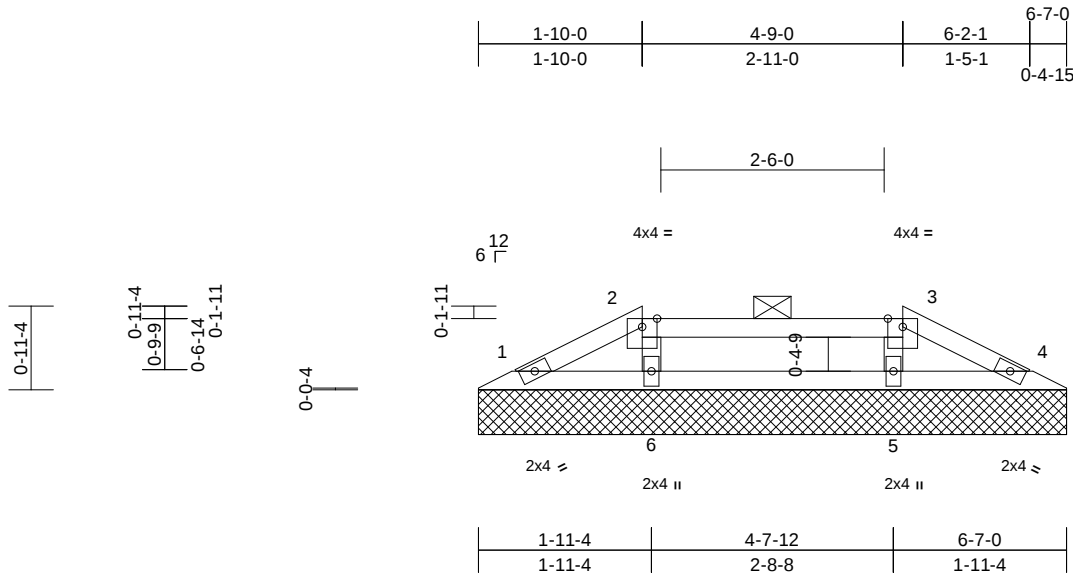
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V5	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:25 Page: 1
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06/13/2023



Scale = 1:25.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							
										Weight: 11 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(lb/size)	1=66/6-7-0, 4=66/6-7-0, 5=192/6-7-0, 6=192/6-7-0
Max Horiz	1=-12 (LC 13)
Max Uplift	1=-16 (LC 8), 4=-18 (LC 9), 5=-18 (LC 4), 6=-20 (LC 5)
Max Grav	1=66 (LC 21), 4=66 (LC 22), 5=192 (LC 1), 6=192 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
--	--

TOP CHORD	1-2=-37/14, 2-3=0/14, 3-4=-37/11
BOT CHORD	1-6=-4/19, 5-6=-5/12, 4-5=-2/18
WEBS	2-6=-145/50, 3-5=-145/48

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 1, 18 lb uplift at joint 4, 20 lb uplift at joint 6 and 18 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



February 24, 2022

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

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

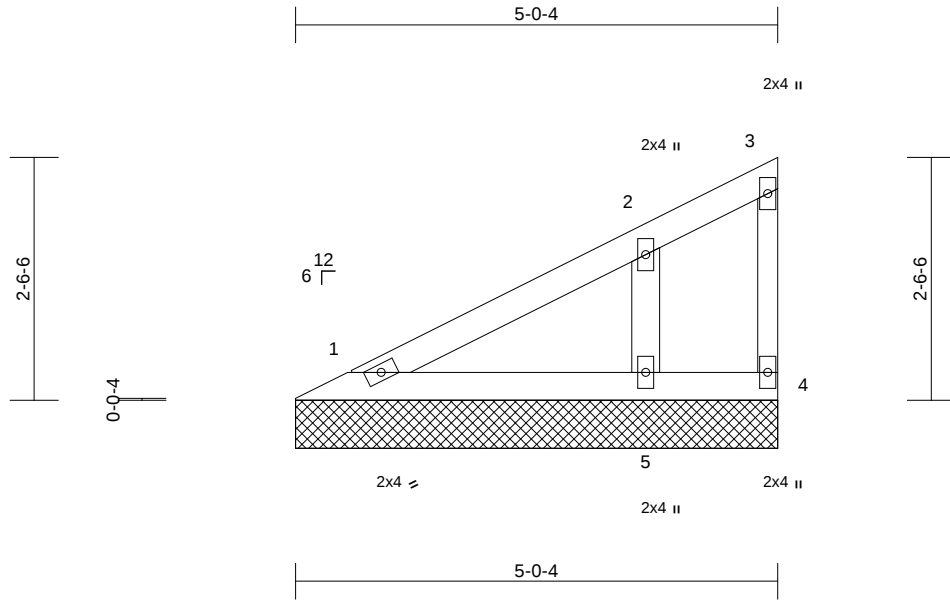
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V6	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:26 Page: 1
ID:UfEnf?q5bDRB5DATkUaMjEyMGa3-RfC?PsB70Hq3NSgPqnL8w3uITXbCKWwCDn?J423C?r

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414056
LEE'S SUMMIT, MISSOURI

06/13/2023



Scale = 1:24

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	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
OTHERS	2x4 SPF No.2

BRACING

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

REACTIONS (lb/size)	1=112/5-0-4, 4=-4/5-0-4, 5=282/5-0-4
Max Horiz	1=90 (LC 7)
Max Uplift	4=-17 (LC 7), 5=-84 (LC 8)
Max Grav	1=112 (LC 1), 4=12 (LC 8), 5=282 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-68/57, 2-3=-59/25, 3-4=-12/15
BOT CHORD	1-5=-31/23, 4-5=-31/23
WEBS	2-5=-219/122

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 4 and 84 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 24, 2022

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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



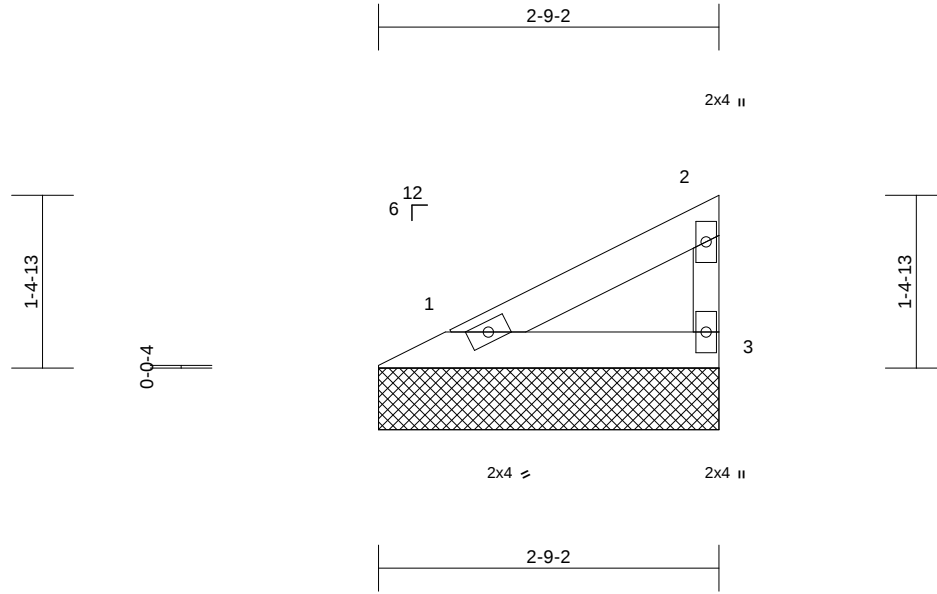
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V7	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:26 Page: 1
ID: UfEnf?q5bDRB5DATkUaMjEyMGa3-RfC?PsB70Hq3NSgPqnL8w3ulTXbCKWrCDn?J423C?r

06/13/2023



Scale = 1:18.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb FT = 10%

LUMBER

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

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.

LOAD CASE(S) Standard

BRACING

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

REACTIONS (lb/size) 1=93/2-9-2, 3=93/2-9-2
Max Horiz 1=43 (LC 5)
Max Uplift 1=-12 (LC 8), 3=-23 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-40/26, 2-3=-72/35
BOT CHORD 1-3=-15/11

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 23 lb uplift at joint 3.



February 24, 2022

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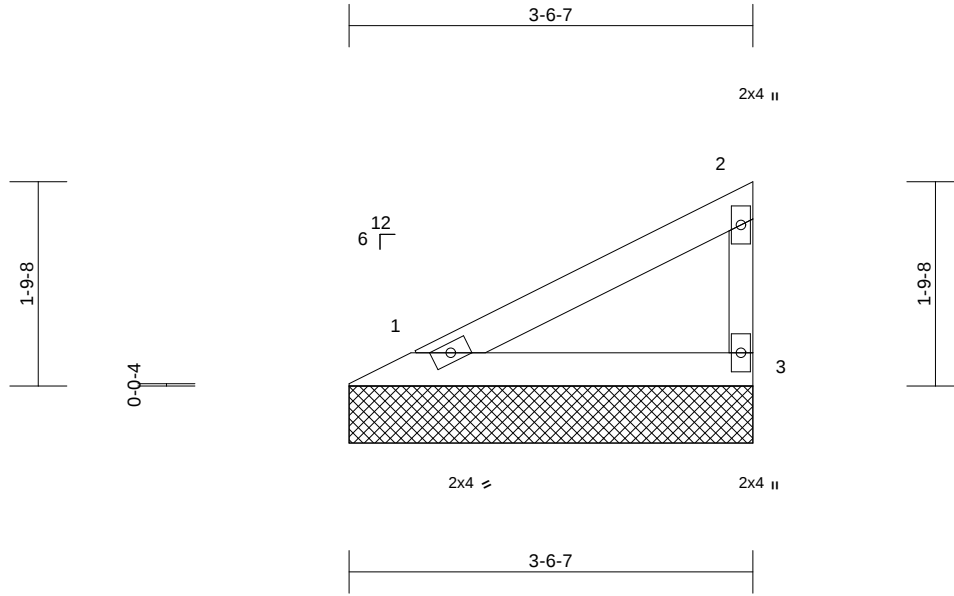
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 150414058 LEE'S SUMMIT, MISSOURI
B220036	V8	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 11:04:16 Page: 1
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06/13/2023



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-6-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=128/3-6-7, 3=128/3-6-7
Max Horiz 1=59 (LC 5)
Max Uplift 1=-16 (LC 8), 3=-31 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-54/36, 2-3=-100/48
BOT CHORD 1-3=-20/15

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 1 and 31 lb uplift at joint 3.



February 24, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

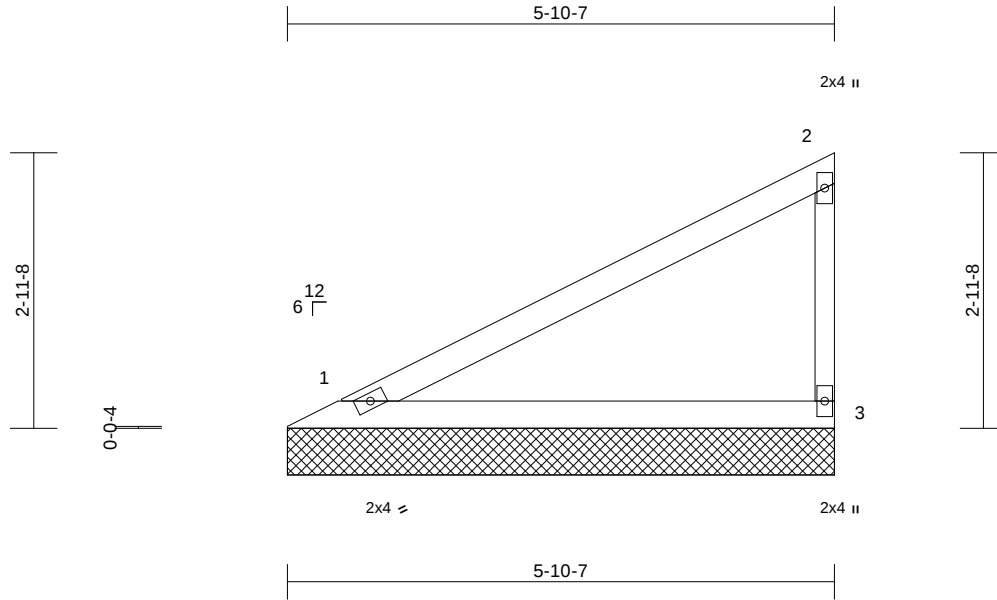
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V9	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:26 Page: 1
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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414059
LEE'S SUMMIT, MISSOURI

06/13/2023



Scale = 1:24.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb FT = 10%

LUMBER

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

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.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=233/5-10-7, 3=233/5-10-7
Max Horiz 1=108 (LC 5)
Max Uplift 1=-30 (LC 8), 3=-57 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-99/65, 2-3=-181/88
BOT CHORD 1-3=-37/28

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1 and 57 lb uplift at joint 3.



February 24, 2022

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

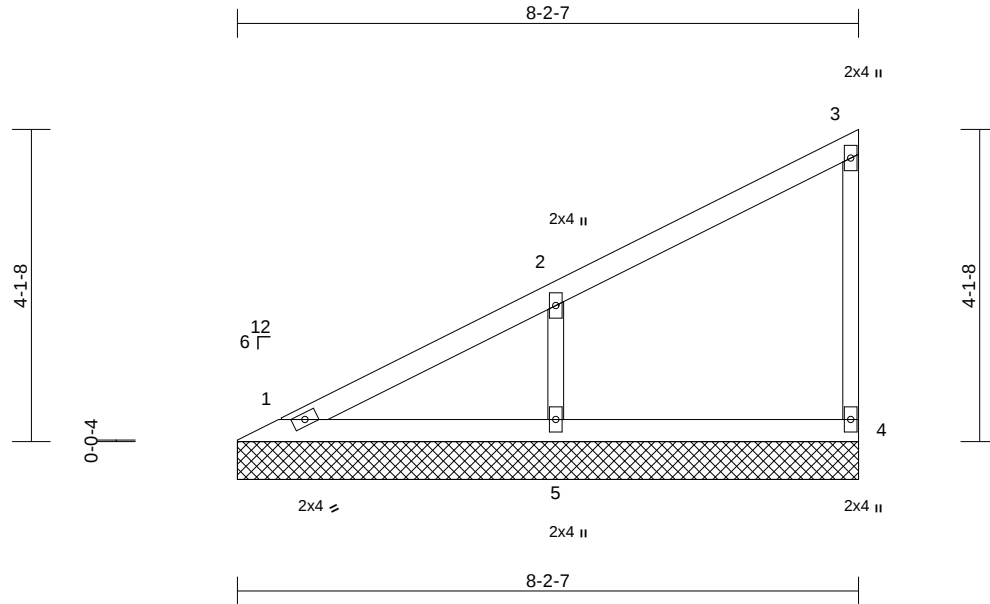
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V10	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:16 Page: 1

ID:0SgPSfqTqwJKU3bHBm37B1yMGa4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDwJ42JC?

06/13/2023



Scale = 1:30.4

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

LUMBER

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

BRACING

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

REACTIONS (lb/size)	1=119/8-2-7, 4=135/8-2-7, 5=423/8-2-7
Max Horiz	1=157 (LC 5)
Max Uplift	4=-26 (LC 5), 5=-127 (LC 8)
Max Grav	1=125 (LC 16), 4=135 (LC 1), 5=423 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-127/74, 2-3=-115/44, 3-4=-105/44
BOT CHORD	1-5=-53/41, 4-5=-53/41
WEBS	2-5=-329/183

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 4 and 127 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 24, 2022

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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 2060116023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V11	Valley	1	1	Job Reference (optional)

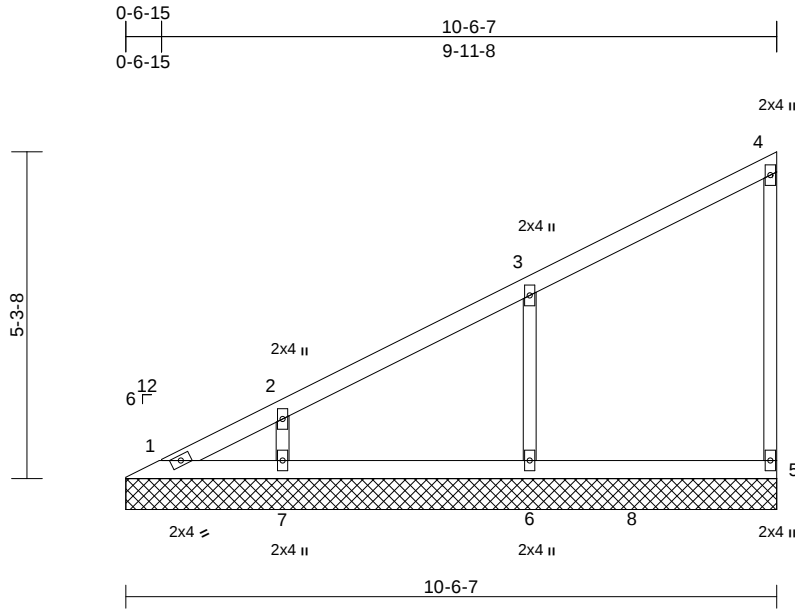
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414061
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:26 Page: 1

ID:0SgPSfqTqwJKU3bHBm37B1yMGa4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDm7J42JC?

06/13/2023



Scale = 1:37.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 31 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size)	1=46/10-6-7, 5=140/10-6-7,
	6=405/10-6-7, 7=296/10-6-7
	Max Horiz 1=205 (LC 5)
	Max Uplift 5=-32 (LC 5), 6=-121 (LC 8), 7=-89 (LC 8)
Max Grav	1=93 (LC 16), 5=174 (LC 15),
	6=430 (LC 2), 7=300 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension	
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TOP CHORD	1-2=-178/52, 2-3=-144/71, 3-4=-127/53, 4-5=-108/44
BOT CHORD	1-7=-69/54, 6-7=-69/54, 5-6=-69/54
WEBS	3-6=-315/167, 2-7=-230/131

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 5, 121 lb uplift at joint 6 and 89 lb uplift at joint 7.
- 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.

LOAD CASE(S) Standard

February 24, 2022

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 2060116023 Swingley Ridge Rd
Chesterfield, MO 63017

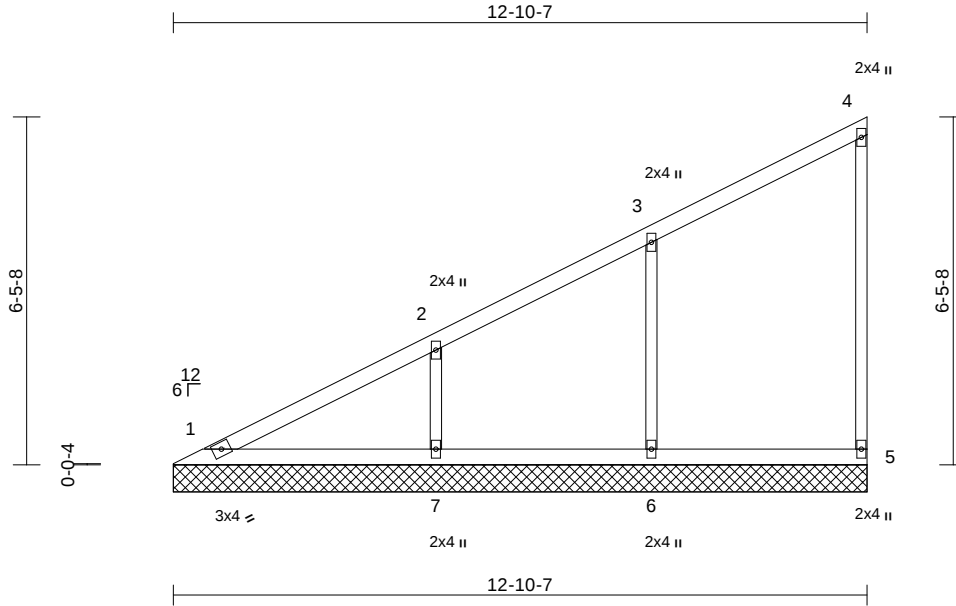
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V12	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:17 Page: 1
ID:0SgPSfqTqwJKU3bHBm37B1yMGa4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDwJ42JC?

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414062
LEE'S SUMMIT, MISSOURI

06/13/2023



Scale = 1:42.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	5	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 40 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size)	1=156/12-10-7, 5=145/12-10-7, 6=376/12-10-7, 7=419/12-10-7
Max Horiz	1=254 (LC 5)
Max Uplift	5=-37 (LC 5), 6=-113 (LC 8), 7=-126 (LC 8)
Max Grav	1=203 (LC 16), 5=186 (LC 15), 6=423 (LC 2), 7=425 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-210/84, 2-3=-163/71, 3-4=-138/65, 4-5=-112/47
BOT CHORD	1-7=-86/66, 6-7=-86/66, 5-6=-86/66
WEBS	3-6=-296/152, 2-7=-316/176

NOTES

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 5, 113 lb uplift at joint 6 and 126 lb uplift at joint 7.
- 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.

LOAD CASE(S) Standard



February 24, 2022

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:27 Page: 1
ID:0SgPSfqTqwJKU3bHBm37B1yMGa4-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCD07J4ZJC?

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.47	Vent(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vent(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 49 lb	FT = 10%

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

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.

(lb/size)	1=79/15-2-7, 6=142/15-2-7, 7=393/15-2-7, 8=359/15-2-7, 9=333/15-2-7
Max Horiz	1=302 (LC 5)
Max Uplift	6=-42 (LC 5), 7=-118 (LC 8), 8=-108 (LC 8), 9=-101 (LC 8)
Max Grav	1=146 (LC 16), 6=182 (LC 15), 7=473 (LC 2), 8=383 (LC 2), 9=340 (LC 2)

(Ib) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-262/70, 2-3=-216/78, 3-4=-180/80,
4-5=-149/77, 5-6=-110/47

BOT CHORD 1-9=-103/79, 8-9=-103/79, 7-8=-103/79,
6-7=-103/79

WEBS 4-7=-306/150, 3-8=-279/161, 2-9=-256/141

- 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) exterior zone;
cantilever left and right exposed ; end vertical left
and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss
only. For studs exposed to wind (normal to the face),
see Standard Industry Gable End Details as applicable,
or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 6, 118 lb uplift at joint 7, 108 lb uplift at joint 8 and 101 lb uplift at joint 9.
- 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.

LOAD CASE(S) Standard



February 24, 2022



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



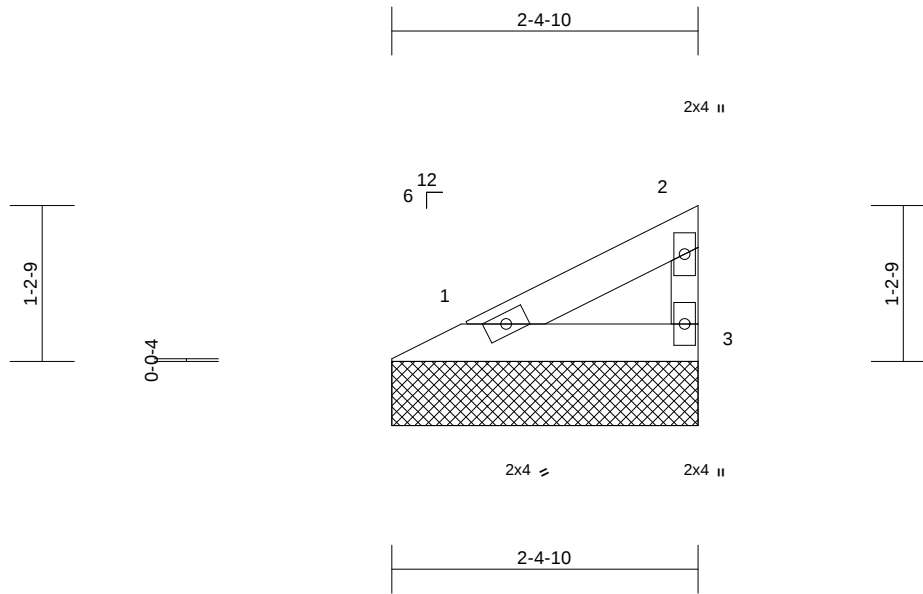
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V14	Valley	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:17 Page: 1
ID:0SgPSfqTqwJKU3bHBm37B1yMGa4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDm7J42JC?

06/13/2023



Scale = 1:17.9

Loading	(psf)	Spacing	2'-0"	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 6 lb FT = 10%

LUMBER

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

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.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 2'-5" oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

REACTIONS (lb/size) 1=76/2'-4"-10, 3=76/2'-4"-10
Max Horiz 1=35 (LC 7)
Max Uplift 1=-10 (LC 8), 3=-19 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-32/21, 2-3=-59/29
BOT CHORD 1-3=-12/9

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4'-0" oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1 and 19 lb uplift at joint 3.



February 24, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V15	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:17 Page: 1

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RELEASE FOR CONSTRUCTION

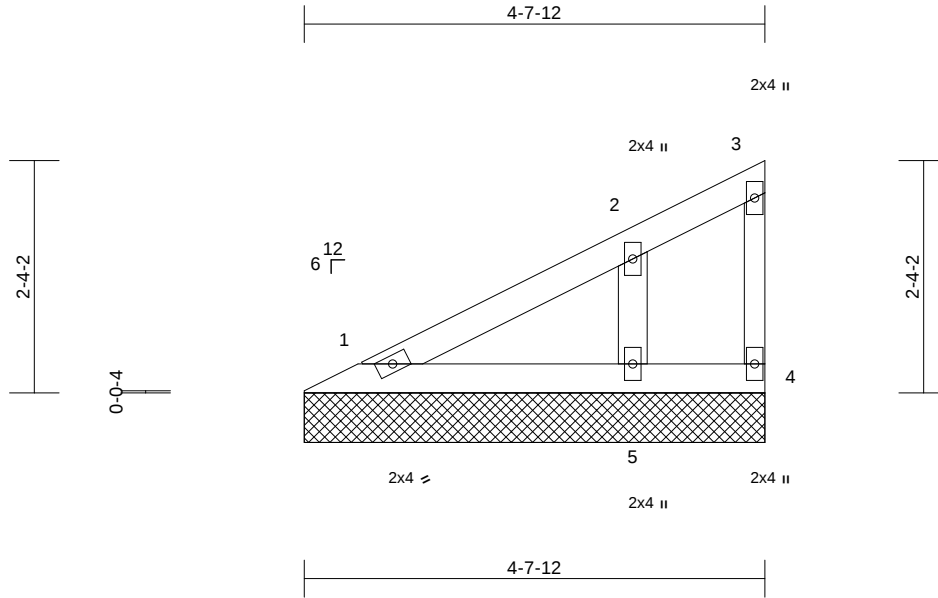
AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

150414065

LEE'S SUMMIT, MISSOURI

06/13/2023



Scale = 1:23.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	4	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
OTHERS	2x4 SPF No.2

BRACING

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

REACTIONS (lb/size)	1=100/4-7-12, 4=5/4-7-12, 5=250/4-7-12
Max Horiz	1=83 (LC 5)
Max Uplift	4=-13 (LC 7), 5=-75 (LC 8)
Max Grav	1=100 (LC 1), 4=11 (LC 4), 5=250 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-63/51, 2-3=-54/23, 3-4=-10/14
BOT CHORD	1-5=-28/21, 4-5=-28/21
WEBS	2-5=-194/108

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 4 and 75 lb uplift at joint 5.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 24, 2022

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

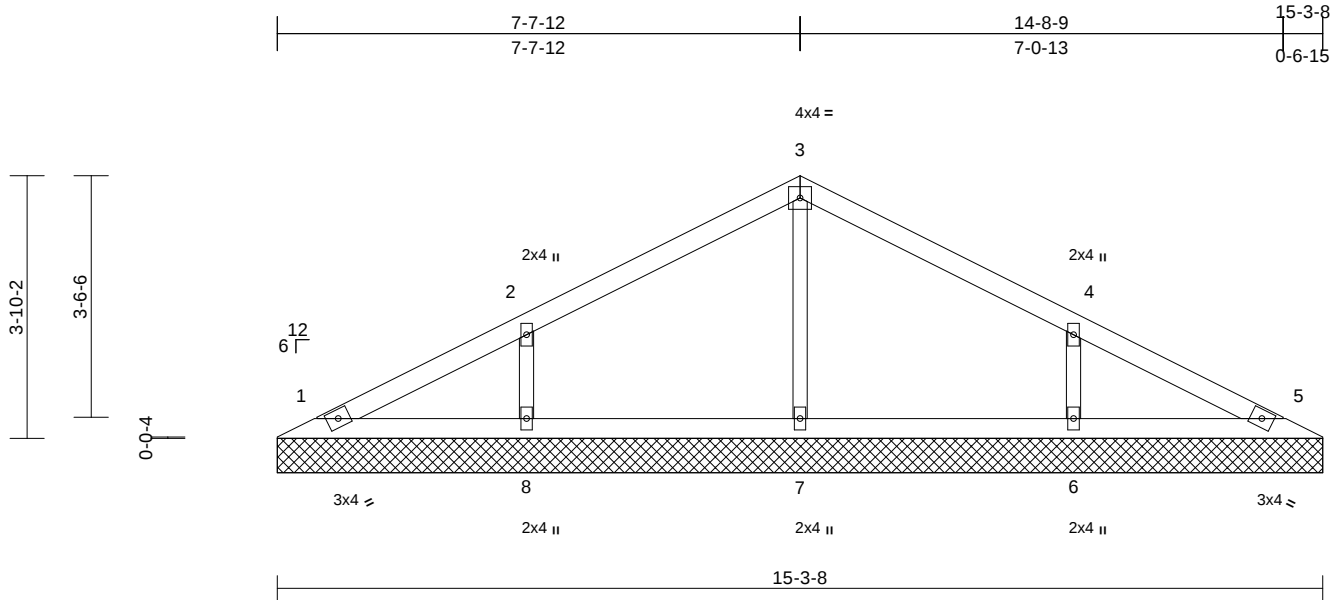
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V16	Valley	1	1	Job Reference (optional)

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414066
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 11:04:28
ID:UfEnf?q5bDRB5DATkUaMjEyMGa3-RfC?PsB70Hq3NSgPqnL8w3uITXbCKWrCDn7J423C2f

06/13/2023



Scale = 1:33.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 40 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(lb/size) 1=114/15-3-8, 5=114/15-3-8,
6=370/15-3-8, 7=302/15-3-8,
8=370/15-3-8
Max Horiz 1=62 (LC 12)
Max Uplift 1=-12 (LC 9), 5=-3 (LC 9), 6=-119 (LC 9), 8=-119 (LC 8)
Max Grav 1=114 (LC 1), 5=114 (LC 1), 6=378 (LC 22), 7=302 (LC 1), 8=378 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-87/48, 2-3=-106/91, 3-4=-106/75,
4-5=-68/38
BOT CHORD 1-8=0/54, 7-8=0/54, 6-7=0/54, 5-6=0/54
WEBS 3-7=-223/31, 2-8=-296/162, 4-6=-296/162

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 3 lb uplift at joint 5, 119 lb uplift at joint 8 and 119 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



February 24, 2022

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



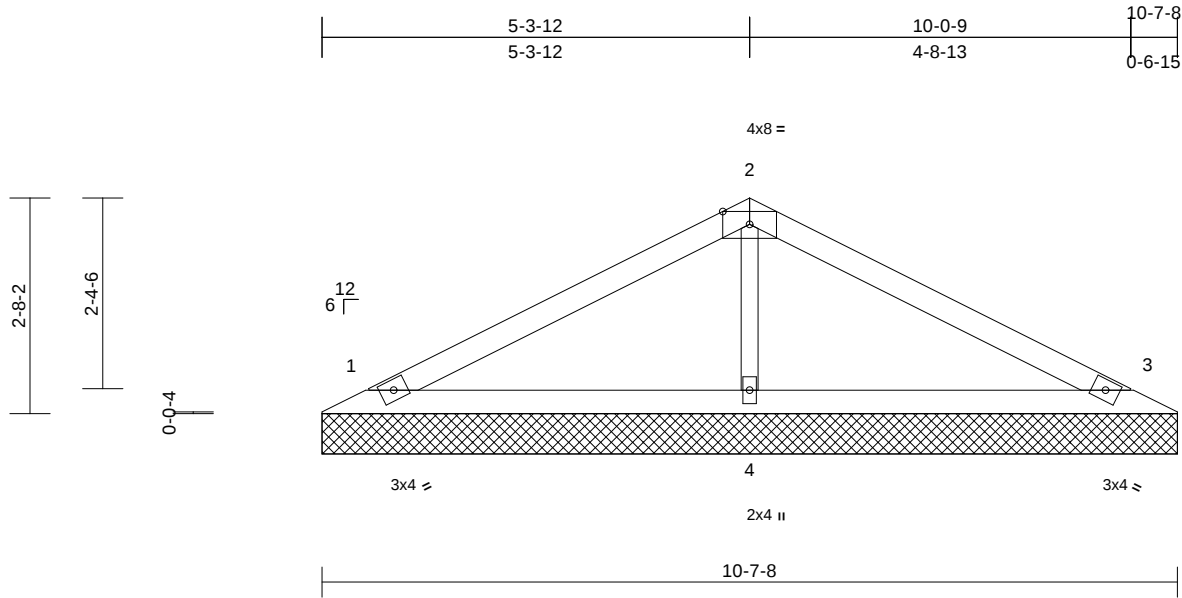
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V17	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:18 Page: 1
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06/13/2023



Scale = 1:28.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.31	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 26 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
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	(lb/size)	1=200/10-7-8, 3=200/10-7-8, 4=451/10-7-8
	Max Horiz	1=-42 (LC 13)
	Max Uplift	1=-41 (LC 8), 3=-48 (LC 9), 4=-25 (LC 8)
	Max Grav	1=200 (LC 21), 3=200 (LC 22), 4=451 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-122/61, 2-3=-122/44
BOT CHORD	1-4=-3/51, 3-4=-3/51
WEBS	2-4=-308/81

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) exterior 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 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 41 lb uplift at joint 1, 48 lb uplift at joint 3 and 25 lb uplift at joint 4.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S)

Standard



February 24, 2022

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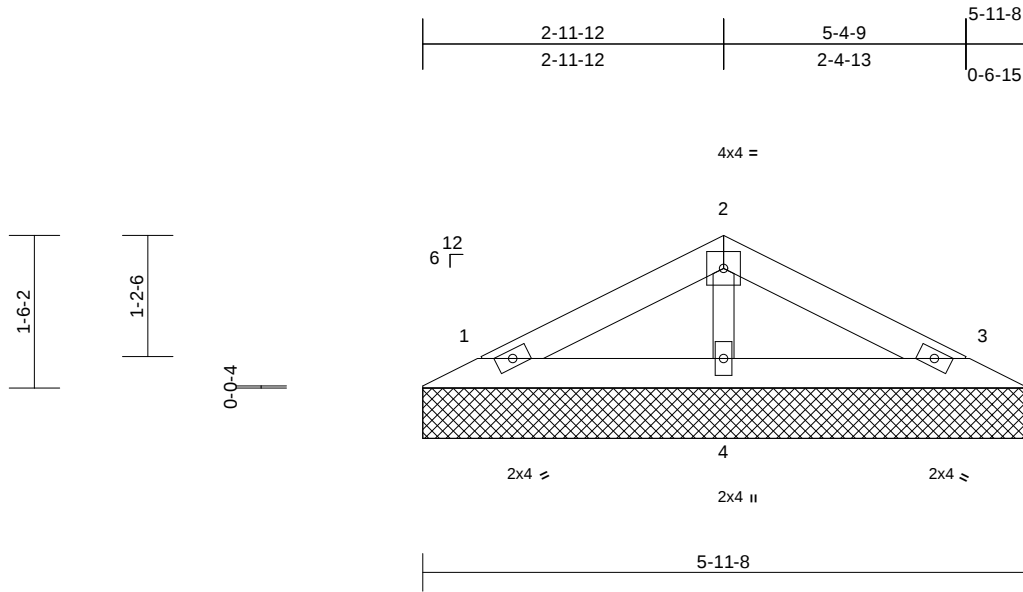
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3	AS NOTED FOR PLAN REVIEW
B220036	V18	Valley	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
						150414068
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 11:04:18 Page: 1
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06/13/2023



Scale = 1:22.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 14 lb FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 1=112/5-11-8, 3=112/5-11-8, 4=206/5-11-8
 Max Horiz 1=-21 (LC 13)
 Max Uplift 1=-26 (LC 8), 3=-30 (LC 9), 4=-3 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-54/30, 2-3=-54/21
 BOT CHORD 1-4=-1/24, 3-4=-1/24
 WEBS 2-4=-146/38

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1, 30 lb uplift at joint 3 and 3 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

February 24, 2022

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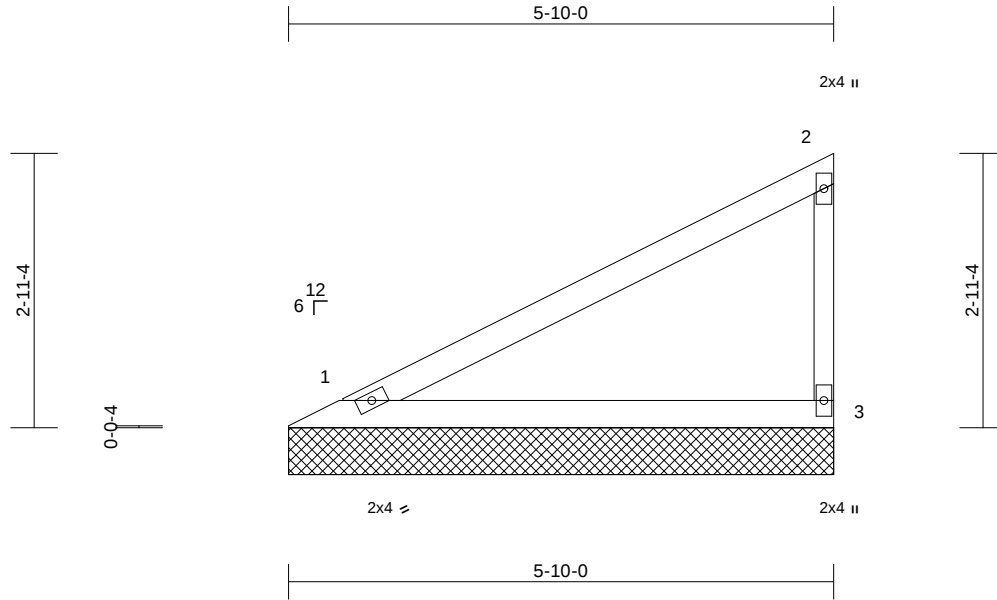
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 2060116023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V19	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Wed Feb 23 16:04:28 Page: 1
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06/13/2023



Scale = 1:24.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 15 lb FT = 10%

LUMBER

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

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.

LOAD CASE(S) Standard

BRACING

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

REACTIONS (lb/size) 1=231/5-10-0, 3=231/5-10-0
Max Horiz 1=107 (LC 7)
Max Uplift 1=-30 (LC 8), 3=-57 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-98/64, 2-3=-180/88
BOT CHORD 1-3=-37/28

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1 and 57 lb uplift at joint 3.



February 24, 2022

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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

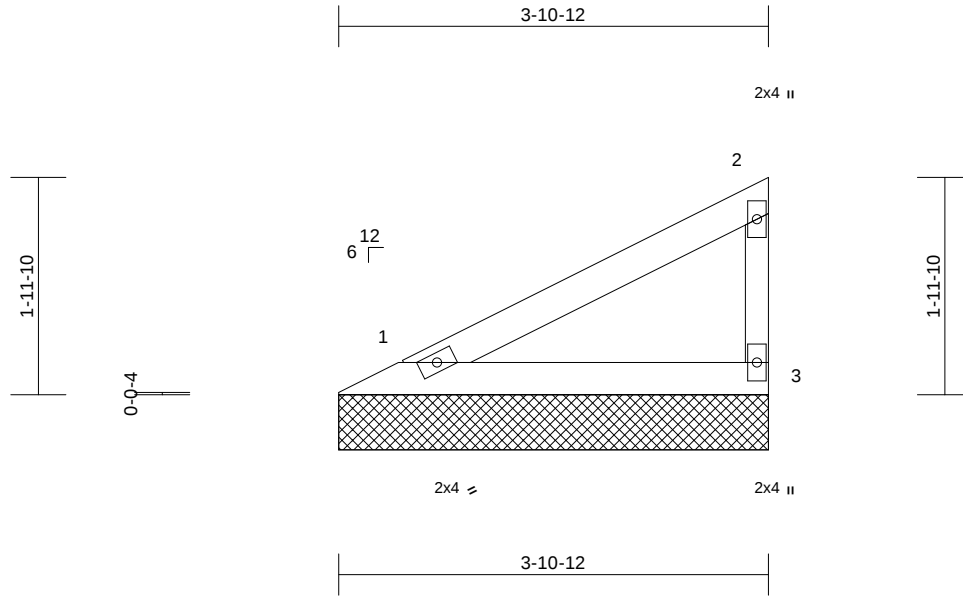
Job	Truss	Truss Type	Qty	Ply	Lot 76 H3
B220036	V20	Valley	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
150414070
LEE'S SUMMIT, MISSOURI

06/13/2023



Scale = 1:20.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 10 lb FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=144/3-10-12, 3=144/3-10-12
Max Horiz 1=67 (LC 5)
Max Uplift 1=-18 (LC 8), 3=-35 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-61/40, 2-3=-112/55
BOT CHORD 1-3=-23/17

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 4-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 and 35 lb uplift at joint 3.



February 24, 2022

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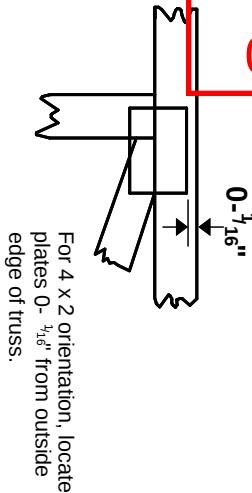
16023 Swingley Ridge Rd
Chesterfield, MO 63017

06/13/2023

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.



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

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

PLATE SIZE

4 X 4

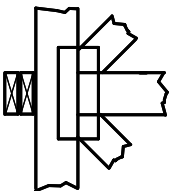
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



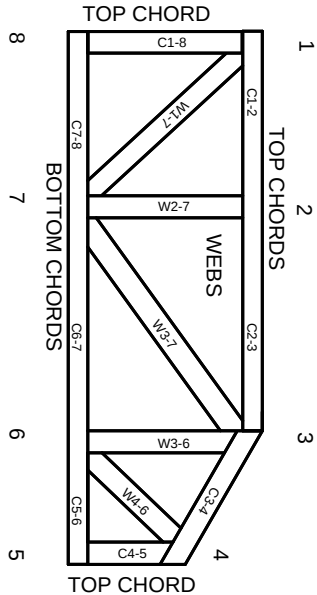
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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.